

Application

Name:

10354 - 2018 Roadway Modernization						
10777 - 37th Ave NE Reconstruction						
Regional Solicitation - Roadways Including Multimodal E	Elements					
Status:	Submitted					
Submitted Date:	07/13/2018 3:13 PM					
Primary Contact						
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What Grant Programs are you most interested in?	Regional Solid	citation - Roadwa	ys Including	g Multimodal		
Organization Information						

MINNEAPOLIS, CITY OF

Jurisdictional Agency (if different): **Organization Type:** City **Organization Website:** http://www.ci.minneapolis.mn.us/ Address: **DEPT OF PUBLIC WORKS** 309 2ND AVE S #300 MINNEAPOLIS Minnesota 55401 City State/Province Postal Code/Zip County: Hennepin 612-673-3884 Phone:* Ext. Fax:

Project Information

PeopleSoft Vendor Number

Project Name 37th Avenue NE Reconstruction Project

Primary County where the Project is Located Hennepin

Cities or Townships where the Project is Located:

City of Minneapolis, City of Columbia Heights, City of Saint

Anthony Village

0000020971A2

Jurisdictional Agency (If Different than the Applicant): Mpls, Col. Heights, St. Anthony Vil, Henn Co

The proposed project, a joint effort between Minneapolis and Columbia Heights, will reconstruct 37th Avenue NE from Central Avenue to Stinson Boulevard as a complete street that keeps freight moving and creates a safe, welcoming environment for all users.

37th Avenue, an A Minor Arterial Augmenter, is a critical first/last mile connection to the CP Rail Intermodal Terminal, Universal Intermodal Yard. CBASE Depot, BNSF Northtown Yard, and other local industrial and commercial freight-generating businesses in the area (see Attachment 2). However, there are many aspects of the existing design that make it difficult for trucks to operate safely and reliably on the street. For example, the lack of designated left-turn lanes at busy intersections means trucks are often delayed by other vehicles waiting to turn left at these intersections. Additionally, the lack of sidewalks and bicycle facilities along the street means trucks often share the roadway with pedestrians and bicyclists. Lastly, the pavement along this section of 37th Avenue has exceeded its design life and requires frequent maintenance, which impacts the movement of freight along this route.

Brief Project Description (Include location, road name/functional class, type of improvement, etc.)

The existing design also has safety issues. The corridor had 110 reported crashes between 2011 and 2015. Six were either fatal or serious injury, and 40 percent were right-angle or left-turn crash types related to left-turn movements.

The main components of the project include:

Widening lanes to provide trucks more room to operate, while narrowing the entire roadway to make it easier for pedestrians to cross the corridor

Constructing a new sidewalk on the north side of

the street and closing a sidewalk gap on the south side

Constructing a new multiuse trail on the south side of the street for bicyclists

Reconstructing the street with new bituminous pavement to upgrade the roadway to 10-ton standards

Removing parking lanes, where necessary, to allow trucks to operate more reliably and reduce conflicts

Adding a variable message sign at Central Avenue to help trucks make informed decisions on routing

Adding designated left turn lanes at high volume intersections to reduce traffic delay

Working to maintain existing trees, where possible, on the south side of the roadway and planting new trees, where possible, in the boulevard on the north side of the roadway to provide shade and beauty for all users

Taken together, this package of improvements will substantially improve freight reliability and mobility in the corridor as well as improve safety for all users of 37th Avenue.

Reconstruct 37th Avenue NE from Stinson Boulevard to Central Avenue with bituminous surface, construct multiuse trail and sidewalk, restripe northbound and westbound approaches to the 37th Avenue NE /Stinson Boulevard intersection

(Limit 2,800 characters; approximately 400 words)

TIP Description <u>Guidance</u> (will be used in TIP if the project is selected for funding)

Project Length (Miles)

to the nearest one-tenth of a mile

1.1

Project Funding

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

If yes, please identify the source(s)

Federal Amount \$7,000,000.00

Match Amount \$1,830,000.00

Minimum of 20% of project total

Project Total \$8,830,000.00

Match Percentage 20.72%

Minimum of 20%

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

Source of Match Funds City of Minneapolis and City of Columbia Heights

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

Preferred Program Year

Select one: 2022

Select 2020 or 2021 for TDM projects only. For all other applications, select 2022 or 2023.

Additional Program Years:

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

Project Information-Roadways

County, City, or Lead Agency City of Minneapolis

Functional Class of Road A-Minor Arterial Augmentor

Road System MSAS

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

Road/Route No. 101

i.e., 53 for CSAH 53

Name of Road 37th Avenue NE

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55421

(Approximate) Begin Construction Date 04/01/2022
(Approximate) End Construction Date 11/30/2022

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

(Intersection or Address)

Central Avenue NE

(-----

To:

Stinson Boulevard NE

(Intersection or Address)

DO NOT INCLUDE LEGAL DESCRIPTION

Primary Types of Work

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):

Grade, agg- bit base, bit surf, curb and gutter, storm sewer, water supply, retaining walls, signals, striping, sidewalk, ped ramps, trail, signage

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 (2015), 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 goals, objectives, and strategies that relate to the project.

Goal: Transportation System Stewardship; Objective A. Efficiently preserve and maintain...; Strategy A2 ...identify cost-effective opportunities to incorporate improvements for safety, ...bicycle, and pedestrian facilities; pg 2.6

Goal: Safety and Security; Objective A. Reduce crashes and improve safety and security for all modes...; Strategies B1 ...incorporate safety and security... throughout processes, B6 ...provide and improve facilities for safe walking and bicycling...; pg. 2.7

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

Goal: Access to Destinations; Objectives A. Increase the availability for multimodal travel options..., C. Ensure access to freight terminals such as... intermodal rail yards, D. Increase... the share of trips taken using transit, bicycling, and walking, E. Improve multimodal travel options for people of all ages and abilities...; Strategies C1 ...systems that are multimodal and provide connections between modes, C2 ...provide a system of interconnected arterial roads, streets, bicycle facilities, and pedestrian facilities..., C15 ...focus investments on completing Priority Regional Bicycle Transportation Corridors..., C16 ...provide for [improved] bicycle and pedestrian... continuity between jurisdictions, C17 ...provide or encourage reliable, cost-effective, and accessible transportation choices..., pg. 2.8-2.10

Goal: Competitive Economy; Objectives A. Improve multimodal access to regional job concentrations..., B. Invest is a multimodal transportation system..., C. Support the region's economic competitiveness through the efficient movement of freight; Strategies D3 ...regional transit and bicycle systems that improve connections to jobs and

opportunity, ..., pg. 2.11

Goal: Healthy Environment; Objectives C. Increase the availability and attractiveness of transit, bicycling, and walking..., D. Provide a transportation system that promotes community cohesion and connectivity...; Strategies E3 ...implement a transportation system that considers the needs of all potential users..., E5 ...protect, enhance and mitigate impacts on the cultural and built environments...; pg. 2.12-13

Goal: Leveraging Transportation Investments to Guide Land Use; Objective B. Maintain adequate highway, riverfront, and rail-accessible land to meet existing and future demand for freight movement; Strategy F3 ...operate, maintain, and rebuild an adequate system of interconnected highways and local roads; pg. 2.14

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.

List the applicable documents and pages:

City of Minneapolis 2017 Capital Long-Range Improvement Committee (2018-2022 Capital Budget Requests), page 204 (Project PV127); City of Columbia Heights Draft 2040 Comprehensive Plan, Appendix A

4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of 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 Modernization and Spot Mobility: \$1,000,000 to \$7,000,000

Traffic Management Technologies (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 (ADA).

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

9.In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have, or be substantially working towards, completing a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA.

Yes

The applicant is a public agency that employs 50 or more people and has an adopted ADA transition plan that covers the public right of way/transportation.

Date plan adopted by governing body

The applicant is a public agency that employs 50 or more people and is currently working towards completing an ADA transition plan that covers the public rights of way/transportation.

The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public rights of way/transportation.

The applicant is a public agency that employs fewer than 50 people and is working towards completing an ADA self-evaluation that covers the public rights of way/transportation.

(TDM Applicants Only) The applicant is not a public agency subject to the self-evaluation requirements in Title II of the ADA.

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

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

11. The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.

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

12. 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

13. 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

14. 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.

11/01/2017 11

11/01/2018

Date process started

Date of anticipated plan completion/adoption

Date self-evaluation completed

Date process started

Date of anticipated plan completion/adoption

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 and Spot Mobility 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.

Roadway Expansion, Reconstruction/Modernization and Spot Mobility, and Bridge Rehabilitation/Replacement projects only:

7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT (Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process.

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

Requirements - Roadways Including Multimodal Elements

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES

Cost

Mobilization (approx. 5% of total cost)

\$800,000.00

Removals (approx. 5% of total cost)

\$780,000.00

Roadway (grading, borrow, etc.)	\$900,000.00
Roadway (aggregates and paving)	\$960,000.00
Subgrade Correction (muck)	\$500,000.00
Storm Sewer	\$1,080,000.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$800,000.00
Traffic Control	\$190,000.00
Striping	\$0.00
Signing	\$80,000.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$300,000.00
Bridge	\$0.00
Retaining Walls	\$300,000.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$380,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$0.00
Other Roadway Elements	\$550,000.00
Totals	\$7,620,000.00

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$300,000.00
Sidewalk Construction	\$190,000.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$180,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$30,000.00
Pedestrian-scale Lighting	\$500,000.00
Streetscaping	\$0.00
Wayfinding	\$10,000.00
Bicycle and Pedestrian Contingencies	\$0.00

Totals \$1,210,000.00

Specific Tra	ansit and	TDM EI	ements
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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

Subtotal \$0.00

Other Costs - Administration, Overhead,etc. \$0.00

Totals

Total Cost \$0.00

Construction Cost Total \$0.00

Transit Operating Cost Total \$0.00

Congestion on adjacent Parallel Routes:

Adjacent Parallel Corridor I-694

Adjacent Parallel Corridor Start and End Points:

Start Point: Central Avenue

End Point: Silver Lake Road

Free-Flow Travel Speed:

62

The Free-Flow Travel Speed is black number.

Peak Hour Travel Speed:

42

The Peak-Hour Travel Speed is red number.

Percentage Decrease in Travel Speed in Peak Hour Compared to

Free-Flow (calculation):

32.26%

Upload the "Level of Congestion" map:

1531413298843_1a_LvlOfCongestion_LvlOfCongestion-

ParallelRoute.pdf

Principal Arterial Intersection Conversion Study:

Proposed at-grade project that reduces delay at a High Priority Intersection:

(65 Points)

Proposed at-grade project that reduces delay at a Medium Priority

Intersection:

(55 Points)

Proposed at-grade project that reduces delay at a Low Priority

Intersection:

(45 Points)

Not listed as a priority in the study:

Yes

(0 Points)

Congestion Management and Safety Plan IV:

Proposed at-grade project that reduces delay at a CMSP opportunity area:

(65 Points)

Not listed as a CMSP priority location:

Yes

(0 Points)

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

Existing Employment within 1 Mile: 7205

Existing Manufacturing/Distribution-Related Employment within 1

Milo-

959

Existing Post-Secondary Students within 1 Mile: 0

Existing 1 ost occordary ottatents within 1 mile.

Upload Map 1531407081546_1b_RegionalEconomy.pdf

Please upload attachment in PDF form.

Measure C: Current Heavy Commercial Traffic

RESPONSE: Select one for your project, based on the Regional Truck Corridor Study:

Along Tier 1:

Along Tier 2:

Along Tier 3:

The project provides a direct and immediate connection (i.e., intersects) with either a Tier 1, Tier 2, or Tier 3 corridor:

Yes

None of the tiers:

Measure A: Current Daily Person Throughput

Location 37th Avenue between Hart Boulevard and Central Avenue

Current AADT Volume 12200

Existing Transit Routes on the Project 4, 10, 59, 118, 141

For New Roadways only, list transit routes that will likely be diverted to the new proposed roadway (if applicable).

Upload Transit Connections Map 1531407294687_2a_TransitConnections.pdf

Please upload attachment in PDF form.

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership 6257.0

Current Daily Person Throughput 22117.0

Measure B: 2040 Forecast ADT

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

If checked, METC Staff will provide Forecast (2040) ADT volume 14700

OR

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

Forecast (2040) ADT volume

Measure A: Connection to disadvantaged populations and projects benefits, impacts, and mitigation

Select one:

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

(up to 100% of maximum score)

Project located in Area of Concentrated Poverty:

(up to 80% of maximum score)

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

Yes

(up to 60% of maximum score)

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:

(up to 40% of maximum score)

1.(0 to 3 points) A successful project is one that has actively engaged low-income populations, people of color, children, persons with disabilities, and the elderly during the project's development with the intent to limit negative impacts on them and, at the same time, provide the most benefits.

Describe how the project has encouraged or will engage the full cross-section of community in decision-making. Identify the communities to be engaged and where in the project development process engagement has occurred or will occur. Elements of quality engagement include: outreach to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in the community engagement related to transportation projects; residents or users identifying potential positive and negative elements of the project; and surveys, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.

Response:

Minneapolis and Columbia Heights engaged the community in June 2016 to introduce the project concepts to area residents and businesses and solicit feedback on design elements. The layout included with this application reflects input gathered. The cities will continue to engage a full cross-section of the community throughout the design process, consistent with City-adopted principles for community engagement. Project managers will strategically choose engagement methods that target populations traditionally not involved in engagement that use the corridor, such as communities of color, low-income populations, transit riders, renters, and persons with disabilities. Project managers will focus on strategies that meet these populations where they are instead of asking them to attend events at times and locations where they may not be comfortable or able to attend. Furthermore, the cities will seek input through established committees such as the Bicycle Advisory Committee and Pedestrian Advisory Committee in Minneapolis and their counterparts in Columbia Heights.

2.(0 to 7 points) Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to safety; public health; access to destinations; travel time; gap closure; leveraging of other beneficial projects and investments; and/or community cohesion. Note that this is not an exhaustive list.

The project will benefit people with low-incomes, of color, with disabilities, children, and the elderly in an area that is above the regional averages for populations in poverty and of color and where people rely more heavily on walking, biking, and transit. The project will create a continuous mixeduse trail on the south side of 37th Avenue and add sidewalks on the north, connecting into and closing gaps in the existing, adjacent sidewalk system. Curb extensions are proposed on many of the connecting north-south streets, which will reduce crosswalk lengths and increase visibility of pedestrians and cyclists in the corridor.

The mixed-use trail will provide a safe off-street alternative for bicyclists, reducing the potential for vehicle-bike collisions, and providing an east-west connection between two Regional Bicycle Transportation Network corridors and a close connection to the Minneapolis Grand Rounds Scenic Byway System through the Columbia Parkway Regional Trail, which currently terminates one block south of the project area. These multimodal improvements will benefit low-income individuals, children, and others that do not have a car in accessing jobs, recreation, and bus service. The project will also upgrade the existing facilities to ADA-compliant facilities, benefiting people with disabilities, pushing strollers, and pulling carts.

Response:

(Limit 2,800 characters; approximately 400 words)

3.(-3 to 0 points) Describe any negative externalities created by the project along with measures that will be taken to mitigate them. Negative externalities can result in a reduction in points, but mitigation of externalities can offset reductions.

Below is a list of negative impacts. Note that this is not an exhaustive list.

Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.

Increased noise.

Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.

Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.

Increased speed and/or cut-through traffic.

Removed or diminished safe bicycle access.

Inclusion of some other barrier to access to jobs and other destinations.

Displacement of residents and businesses.

Construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings. These tend to be temporary.

Other

Response:

Negative impacts will be limited to construction of the proposed project, which will be temporarily disruptive to the surrounding community and travelers in the corridor. Construction-phase impacts can be mitigated through staging and implementing multimodal best management practices.

(Limit 2,800 characters; approximately 400 words)

Upload Map

1531407515796_3a_Socio-EconomicConditions.pdf

Measure B: Affordable Housing

City	Segment Length (For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
St. Anthony	0.05	0.02	78.0	1.814
Minneapolis	1.05	0.49	100.0	48.837
Columbia Heights	1.05	0.49	97.0	47.372

Total Project Length

Affordable Housing Scoring

Total Project Length (Miles) or Population 2.15

Total Housing Score 98.023

Affordable Housing Scoring

Measure A: Year of Roadway Construction

Year of Original

Roadway Construction or Most Recent Segment Length Calculation Calculation 2

Reconstruction

1961 1.1 2157.1 1961.0

1 2157 1961

Total Project Length

Total Project Length (as entered in "Project Information" form) 1.1

Average Construction Year

Weighted Year 1961

Total Segment Length (Miles)

Total Segment Length 1.1

Measure B: Geometric, Structural, or Infrastructure Improvements

Improved roadway to better accommodate freight movements: Yes

Response:
(Limit 700 characters; approximately 100 words) Improved clear zones or sight lines:
Response:
(Limit 700 characters; approximately 100 words) Improved roadway geometrics:
Response:

The proposed design focuses on improving the reliability and mobility of freight movement by widening lane widths to provide trucks more room to operate, remove parking lanes where necessary, and adding a variable message sign at Central Avenue to navigate to the freeway system, identify the truck route, and provide information on freeway incidents to help trucks make informed routing decisions. Improvements also include adding a shoulder to reduce conflicts and allow trucks to operate more reliably, and adding designated left turn lanes at Stinson Boulevard, Johnson Street, and Central Avenue to reduce traffic delay and driver impatience.

Yes

The project will improve clear zones and sightlines by introducing designated turn lanes on 37th Avenue and updating striping. This provides more explicit guidance to drivers about safe and expected vehicle movements. The design removes on-street parking and provides continuous sidewalks and trails separated from the road by landscaped boulevards to provide safe separation of vehicles and other modes. Sightlines between through traffic and intersecting streets will be improved by removing parked cars and greater separation for pedestrians and bikes. Curb extensions at selected cross streets will provide shorter, safer, and more visible crosswalks for bikes and pedestrians.

Yes

The through lanes will be narrowed, and designated left turn lanes will be added at Stinson Boulevard, Johnson Street, and Central Avenue. The existing parking lane will be replaced with a four-foot wide shoulder. The shoulder pavement is anticipated to be concrete, creating an effective visual lane edge for drivers.

(Limit 700 characters; approximately 100 words)	
Access management enhancements:	Yes
Response: (Limit 700 characters; approximately 100 words)	The project proposes to remove on-street parking and add curb extensions at selected intersections. Driveway widths will be reviewed and narrowed where feasible.
Vertical/horizontal alignment improvements:	Yes
Response:	The proposed design improves the horizontal alignment through the introduction of designated turn lanes on 37th Avenue NE along with updated striping. The shoulder pavement is anticipated to be concrete, creating an effective visual lane edge for drivers. This approach provides more explicit guidance to drivers about safe and expected vehicle movements within the corridor.
(Limit 700 characters; approximately 100 words)	
Improved stormwater mitigation:	Yes
	The project is replacing storm sewer infrastructure and will reduce impervious pavement and add green space in the project corridor. This will reduce overall stormwater runoff while providing additional green space areas. In the new green space areas, stormwater management techniques such as infiltration swales and tree trenches will be considered.
Response:	considered.
	The project will evaluate if additional stormwater mitigation is appropriate to address localized flooding that may exist along the corridor. The City is currently reviewing new models to understand localized flooding issues and completing a inventory of all stormwater pipes. The project will comply with all applicable stormwater requirements.
(Limit 700 characters; approximately 100 words)	
Signals/lighting upgrades:	Yes

Response:

(Limit 700 characters; approximately 100 words)

Other Improvements

Response:

(Limit 700 characters; approximately 100 words)

All signals along the corridor have some level of deficiencies. First, the aging signal at Johnson Street will be fully replaced with accessible pedestrian signal (APS) push buttons built into the system. Also, the signal at Central Avenue does not have APS push buttons. New push buttons are included in the project scope. Also, where feasible, the signals will be equipped with new countdown timers. Furthermore, signal interconnect will be installed, making the cities? signal monitoring system faster, more reliable, and able to interface with the latest state of the art traffic management devices.

Yes

The north side of the project is lacking sidewalk and there is a sidewalk gap on the south side. The project will add sidewalk on the north side and a mixed-use trail on the south side, eliminating the existing gaps. The sidewalk and trail will be separated from the road with planted boulevards. The existing trees on the south side of the road will be maintained where possible, and additional trees will be planted, where feasible, in the boulevard on the north side and in open areas along the south boulevard. The northbound and westbound approaches to the 37th Avenue/Stinson Boulevard intersection will also be restriped to provide dedicated left turn lanes, mitigating traffic delay.

Measure A: Congestion Reduction/Air Quality

Total Peak Total Peak Total Peak Hour Delay Hour Delay Hour Delay Per Vehicle Per Vehicle Per Vehicle Volume Without The With The Reduced by (Vehicles per Project **Project** hour) **Project** (Seconds/Veh (Seconds/Veh icle) icle) icle)

Total Peak
Hour Delay
Reduced by
the Project:

EXPLANATIO

N of
methodology
used to
calculate
railroad
crossing
delay, if
applicable.

The applicant with the most peak hour vehicle delay reduced by the project improvement will receive the full points for the measure. Remaining projects will receive a 15314142082 proportionate 96_5a_PM share of the Peak 32088.0 points. For Build_PM example, if the Peak application Existing.pdf being scored reduced delay by 5,000 seconds and the top project reduced delay by 25,000 seconds, this applicant would receive (5,000/25,000) *50 points, or

10 points.

Vehicle Delay Reduced

Total Peak Hour Delay Reduced

78.4

72.8

5.6

5730

32088.0

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

Total (CO, NOX, and VOC) Total (CO, NOX, and VOC) Total (CO, NOX, and VOC) **Peak Hour Emissions Peak Hour Emissions Peak Hour Emissions with** without the Project Reduced by the Project the Project (Kilograms): (Kilograms): (Kilograms): 14.16 13.98 0.18 14 14 0

Total

0.18 **Total Emissions Reduced:**

1531414361625_5b_PM Peak Build_Peak **Upload Synchro Report**

Existing_EMISSIONS.pdf

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

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** without the Project (Kilograms):

Total (CO, NOX, and VOC) **Peak Hour Emissions with** the Project (Kilograms):

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

0

0 0

0

Total Parallel Roadway

Emissions Reduced on Parallel Roadways

Upload Synchro Report

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

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:

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):

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

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)	

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

At the Central Avenue intersection, an average CMF of 0.26 was applied to all crash types to account for the addition of a westbound left-turn lane, consistent with CMF ID 261, 263 and 265.

At the Johnson Street intersection, an average CMF of 0.45 was applied to all crash types to account for the addition of dedicated left-turn lanes in the eastbound and westbound directions, consistent with CMF ID 268, 269 and 271.

At the Stinson Boulevard intersection, an average CMF of 0.45 was applied to all crash types to account for the addition of dedicated left-turn lanes in the eastbound and westbound directions, consistent with CMF ID 268, 269 and 271.

All referenced studies were rated 5 stars.

Crash Modification Factor Used:

Rationale for Crash Modification Selected:

The above CMFs were selected based on the treatments at each analyzed intersection. In addition to the CMFs used at each intersection, a 100 percent crash reduction was assumed along the corridor as it relates to parked vehicles. One parked vehicle crash occurred along the corridor between 2013 and 2015 that resulted in property damage only. This benefit was included in addition to the CMFs described above when calculating the project benefit in dollars.

In 2006, a fatality occurred on 37th Avenue adjacent to Hayes Street. This fatality was due to a vehicle traveling at an unsafe speed and striking a parked vehicle. This crash scenario would be eliminated with the proposed cross section as it would remove on-street parking. Although this fatality is outside of the 2013 to 2015 range, if it were taken into account, the total benefit would increase from \$2,251,023 to \$7,861,575.

(Limit 1400 Characters; approximately 200 words)

Project Benefit (\$) from B/C Ratio

Worksheet Attachment

Please upload attachment in PDF form.

\$2,251,023.00

1531505774406_6a_COST_WORKSHEETS.pdf

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

The project will positively affect the multimodal system by adding improvements for bicyclists, pedestrians, and transit riders.

The proposed project will accommodate bicyclists with the addition of a continuous mixed-use trail. along the south side of the roadway, minimizing the potential for vehicular-bicycle conflict on the roadway. The project will provide an east-west connection between a Tier 1 (Stinson Boulevard) and Tier 2 (Central Avenue) Regional Bicycle Transportation Network corridors. It will also provide a close connection to the Minneapolis Grand Rounds Scenic Byway System at the Columbia Parkway Regional Trail, which currently terminates one block south of the project area at Central Avenue and Columbia Boulevard. The mixed-use trail will also connect to the President?s Bike Boulevard in Minneapolis at Polk Street and to the planned Stinson Boulevard Bikeway.

The project will add sidewalks to the north side of 37th Avenue, eliminate the existing sidewalk gap on the south side between Hollywood Lane and McKinley Street, and explore opportunities to provide curb extensions at intersections to reduce crosswalk lengths by up to 10 feet per intersection. All intersections will include new ADA-compliant pedestrian ramps. The boulevards and curb extensions separating pedestrians and bicyclists from the vehicular traffic is intended to enhance the sense of safety and improve the experience of pedestrians and bicyclists traveling along 37th Avenue.

The roadway improvements and new pavement will provide improved travel for transit, including local buses and Metro Mobility through improved ride quality for customers. The project area is currently

Response:

served by Routes 10, 118, 141, 4, and 59, and bus stops are located on both sides of the street. Passengers will benefit from the addition of a sidewalk on the north side of 37th Avenue, which will also improve accessibility to transit. The proposed project will also provide more and safer options for transit customer first and last mile connections.

(Limit 2,800 characters; approximately 400 words)

Transit Projects Not Requiring Construction

If the applicant is completing a transit 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 - Construction Projects

1)Layout (30 Percent of Points)

Layout should include proposed geometrics and existing and proposed right-of-way boundaries.

Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

100%

Attach Layout

Please upload attachment in PDF form.

Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points.

Yes

50%

Attach Layout

1531415365937_8a_Project Layout-edited.pdf

Please upload attachment in PDF form.

Layout has not been started

0%

Anticipated date or date of completion

2) Review of Section 106 Historic Resources (20 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 Yes project is not located on an identified historic bridge

100%

There are historical/archeological properties present but determination of no historic properties affected is anticipated. 100% Historic/archeological property impacted; determination of no adverse effect anticipated 80% Historic/archeological property impacted; determination of adverse effect anticipated 40% Unsure if there are any historic/archaeological properties in the project area. 0% Project is located on an identified historic bridge 3)Right-of-Way (30 Percent of Points) Right-of-way, permanent or temporary easements either not Yes required or all have been acquired 100% Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete Right-of-way, permanent or temporary easements required, parcels identified 25% Right-of-way, permanent or temporary easements required, parcels not all identified 0% Anticipated date or date of acquisition 4)Railroad Involvement (20 Percent of Points) No railroad involvement on project or railroad Right-of-Way Yes agreement is executed (include signature page, if applicable) 100% **Signature Page** Please upload attachment in PDF form. Railroad Right-of-Way Agreement required; negotiations have begun 50% Railroad Right-of-Way Agreement required; negotiations have not begun. 0%

Measure A: Cost Effectiveness

Anticipated date or date of executed Agreement

Total Project Cost (entered in Project Cost Form): \$8,830,000.00

Enter Amount of the Noise Walls: \$0.00

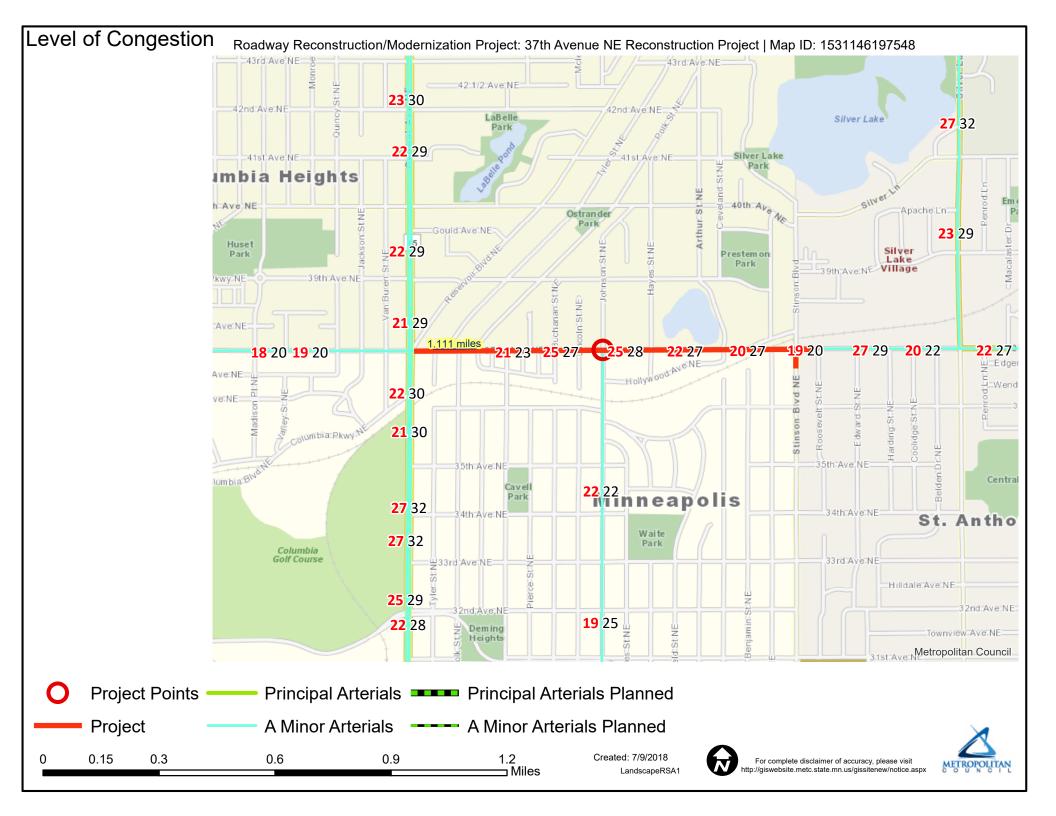
Total Project Cost subtract the amount of the noise walls: \$8,830,000.00

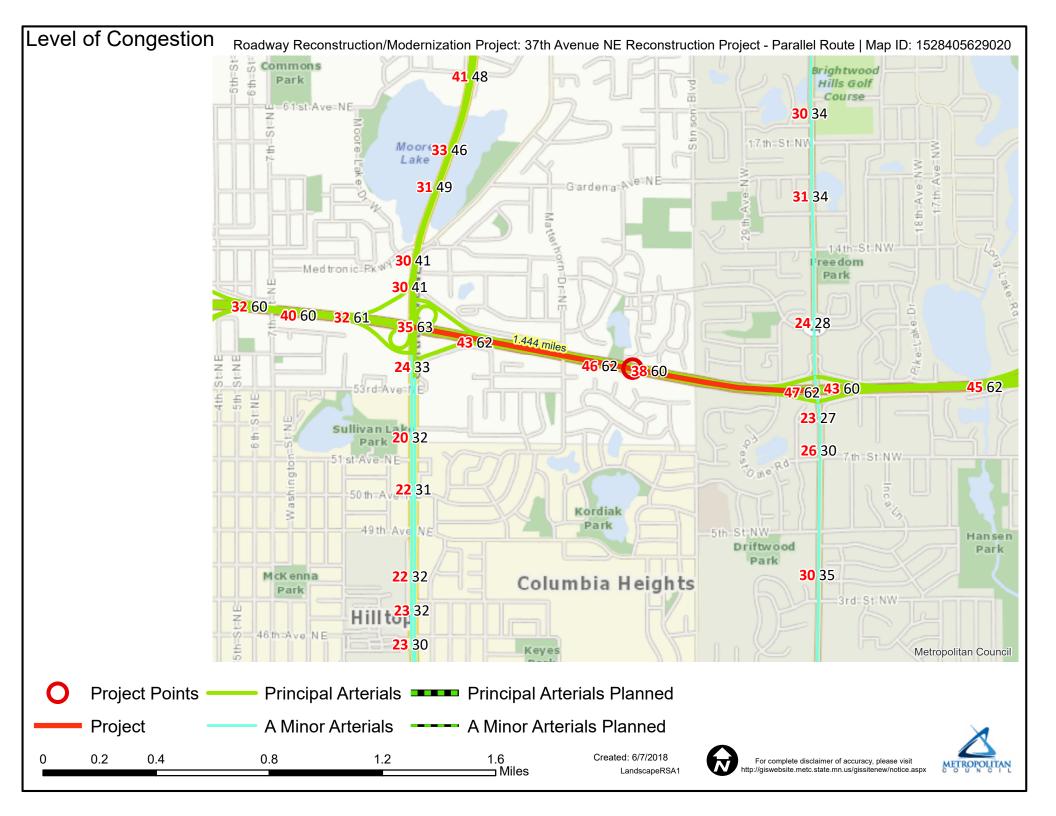
Points Awarded in Previous Criteria

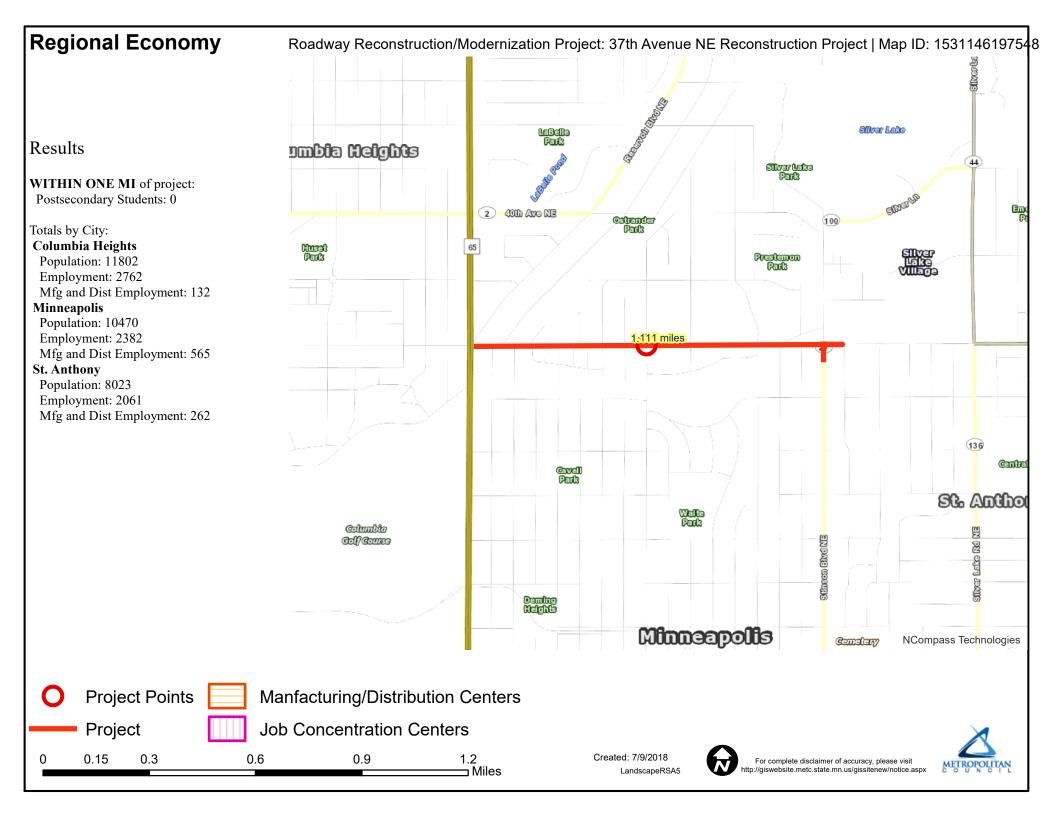
Cost Effectiveness \$0.00

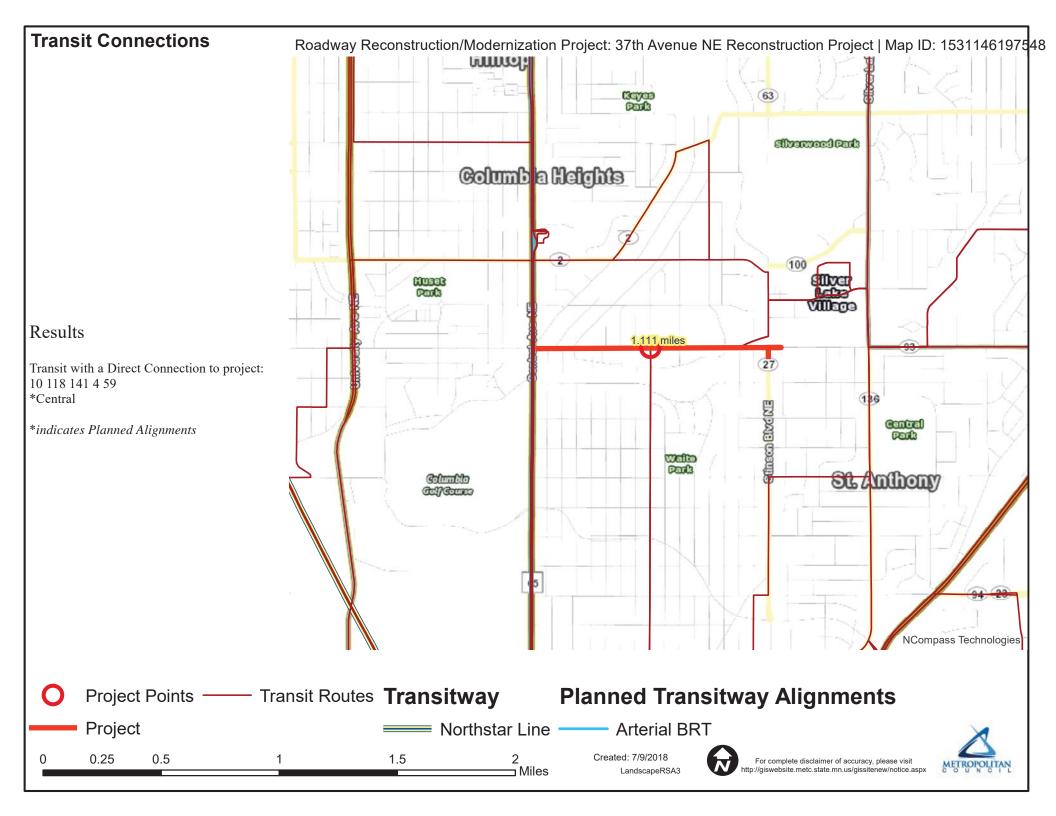
Other Attachments

File Name	Description	File Size
0a_GrantApplicationv6.pdf	Grant application, 1-page	1.4 MB
0b_Project Area Existing Conditions.pdf	Project area existing conditions	2.6 MB
0c_FreightFlowMap.pdf	Freight flow map	1.1 MB
0d_Existing and Proposed Cross Sections_Edited.pdf	Existing and proposed cross sections	1.9 MB
0e_MPLS_LetterSupport_Formatted.pdf	Minneapolis letter of support	547 KB
0f_CH_Support Resolution.pdf	Columbia Heights support resolution	66 KB
0f_CH_Support Resolution.pdf 0g_CH_Updated Letter of Support.pdf	Columbia Heights support resolution Columbia Heights letter of support	66 KB 58 KB
	5 11	









Socio-Economic Conditions Roadway Reconstruction/Modernization Project: 37th Avenue NE Reconstruction Project | Map ID: 1531146197548 Results Siliver Lake ombia Heights 44 Project census tracts are above Silver Lake Park the regional average for population in poverty 2 400th ANG NE Ostrander Park 100 or population of color: Huset Park (0 to 18 Points) Prestemon 1.111 miles 136 මාග්ම Cavell Park St. Antho Colf Course Deming Heights Minneapolis NCompass Technologies Area of Concentrated Poverty **Project Points Project** Above reg'l avg conc of race/poverty Area of Concentrated Povertry > 50% residents of color 0.3 Created: 7/9/2018 0.15 0.6 0.9 For complete disclaimer of accuracy, please visit LandscapeRSA2 http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	£		7	1>		ሻ	ĵ∍		ሻ	1>	
Traffic Volume (vph)	4	319	67	87	445	46	245	19	114	38	20	9
Future Volume (vph)	4	319	67	87	445	46	245	19	114	38	20	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.5	5.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.97		1.00	0.99		1.00	0.87		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	1762		1719	1784		1719	1577		1719	1725	
Flt Permitted	0.48	1.00		0.31	1.00		0.74	1.00		0.67	1.00	
Satd. Flow (perm)	876	1762		557	1784		1336	1577		1216	1725	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	67	87	445	46	245	19	114	38	20	9
RTOR Reduction (vph)	0	11	0	0	5	0	0	79	0	0	6	0
Lane Group Flow (vph)	4	375	0	87	486	0	245	54	0	38	23	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)	17.8	17.8		26.1	26.1		16.0	16.0		16.0	16.0	
Effective Green, g (s)	17.8	17.8		26.1	26.1		16.0	16.0		16.0	16.0	
Actuated g/C Ratio	0.34	0.34		0.50	0.50		0.31	0.31		0.31	0.31	
Clearance Time (s)	5.0	5.0		5.5	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.0	3.5		3.5	3.5		3.5	3.5	
Lane Grp Cap (vph)	299	601		341	893		410	484		373	529	
v/s Ratio Prot		c0.21		0.01	c0.27			0.03			0.01	
v/s Ratio Perm	0.00			0.11			c0.18			0.03		
v/c Ratio	0.01	0.62		0.26	0.54		0.60	0.11		0.10	0.04	
Uniform Delay, d1	11.3	14.3		7.9	8.9		15.3	13.0		12.9	12.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	2.1		0.4	0.8		2.5	0.1		0.1	0.0	
Delay (s)	11.4	16.5		8.3	9.7		17.8	13.1		13.1	12.7	
Level of Service	В	В		Α	Α		В	В		В	В	
Approach Delay (s)		16.4			9.5			16.1			12.9	
Approach LOS		В			А			В			В	
Intersection Summary												
HCM 2000 Control Delay			13.3	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.65									
Actuated Cycle Length (s)	J		52.1	S	um of los	t time (s)			15.5			
Intersection Capacity Utiliza	ation		73.1%		CU Level		9		D			
Analysis Period (min)			15									

Analysis Period (min) c Critical Lane Group

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	f)		Ť	f)		7	f)			44	
Traffic Volume (vph)	5	239	66	102	417	28	205	160	93	14	63	4
Future Volume (vph)	5	239	66	102	417	28	205	160	93	14	63	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5		5.5	5.5		5.5	5.5			5.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Frt	1.00	0.97		1.00	0.99		1.00	0.94			0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1719	1751		1719	1792		1719	1710			1782	
Flt Permitted	0.46	1.00		0.57	1.00		0.70	1.00			0.92	
Satd. Flow (perm)	824	1751		1039	1792		1275	1710			1651	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	239	66	102	417	28	205	160	93	14	63	4
RTOR Reduction (vph)	0	17	0	0	4	0	0	47	0	0	3	0
Lane Group Flow (vph)	5	288	0	102	441	0	205	206	0	0	78	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)	25.6	25.6		25.6	25.6		13.4	13.4			13.4	
Effective Green, g (s)	25.6	25.6		25.6	25.6		13.4	13.4			13.4	
Actuated g/C Ratio	0.51	0.51		0.51	0.51		0.27	0.27			0.27	
Clearance Time (s)	5.5	5.5		5.5	5.5		5.5	5.5			5.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	421	896		531	917		341	458			442	
v/s Ratio Prot		0.16			c0.25			0.12				
v/s Ratio Perm	0.01			0.10			c0.16				0.05	
v/c Ratio	0.01	0.32		0.19	0.48		0.60	0.45			0.18	
Uniform Delay, d1	6.0	7.1		6.6	7.9		16.0	15.2			14.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	0.9		8.0	1.8		3.0	0.7			0.2	
Delay (s)	6.0	8.1		7.4	9.7		18.9	15.9			14.3	
Level of Service	Α	Α		Α	Α		В	В			В	
Approach Delay (s)		8.0			9.3			17.3			14.3	
Approach LOS		Α			Α			В			В	
Intersection Summary												
HCM 2000 Control Delay			11.9	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.52									
Actuated Cycle Length (s)	,		50.0	S	um of los	t time (s)			11.0			
Intersection Capacity Utiliza	ation		72.1%		CU Level)		С			
Analysis Period (min)			15									

c Critical Lane Group

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations			4		ሻ		Ž.		ሻ	∱ ∱		
Traffic Volume (vph)	91	13	105	36	78	156	376	10	32	1007	58	36
Future Volume (vph)	91	13	105	36	78	156	376	10	32	1007	58	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.0		5.5	6.0	6.0		5.5	5.5		
Lane Util. Factor			1.00		1.00	1.00	1.00		1.00	0.95		
Frt			0.98		1.00	1.00	0.85		1.00	0.99		
Flt Protected			0.98		0.95	1.00	1.00		0.95	1.00		
Satd. Flow (prot)			1737		1719	1810	1538		1719	3394		
Flt Permitted			0.79		0.47	1.00	1.00		0.30	1.00		
Satd. Flow (perm)			1403		857	1810	1538		546	3394		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	91	13	105	36	78	156	376	10	32	1007	58	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	245	0	78	156	386	0	32	1101	0	0
Turn Type	Perm	Perm	NA		pm+pt	NA	Perm		pm+pt	NA		
Protected Phases			4		3	8			5	2		
Permitted Phases	4	4			8		8		2			
Actuated Green, G (s)			20.0		36.4	36.4	36.4		43.5	40.5		
Effective Green, g (s)			20.0		36.4	36.4	36.4		43.5	40.5		
Actuated g/C Ratio			0.17		0.32	0.32	0.32		0.38	0.35		
Clearance Time (s)			6.0		5.5	6.0	6.0		5.5	5.5		
Vehicle Extension (s)			4.0		3.0	4.0	4.0		3.0	4.0		
Lane Grp Cap (vph)			244		352	572	486		237	1195		
v/s Ratio Prot					0.02	0.09			0.00	0.32		
v/s Ratio Perm			c0.17		0.05		c0.25		0.05			
v/c Ratio			1.00		0.22	0.27	0.79		0.14	0.92		
Uniform Delay, d1			47.5		29.7	29.4	35.9		23.0	35.7		
Progression Factor			1.00		1.00	1.00	1.00		1.00	1.00		
Incremental Delay, d2			58.7		0.3	0.4	9.2		0.3	12.9		
Delay (s)			106.2		30.0	29.8	45.1		23.3	48.6		
Level of Service			F		С	С	D		С	D		
Approach Delay (s)			106.2			39.3				47.9		
Approach LOS			F			D				D		
Intersection Summary												
HCM 2000 Control Delay			47.6	H	ICM 2000	Level of	Service		D			
HCM 2000 Volume to Capacit	ty ratio		0.93									
Actuated Cycle Length (s)			115.0	5	Sum of los	t time (s)			29.5			
Intersection Capacity Utilization	on		95.1%	10	CU Level	of Service	9		F			
Analysis Period (min)			15									

c Critical Lane Group

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Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	
Lane Configurations		ă	^	7		M			
Traffic Volume (vph)	1	139	685	40	7	35	12	4	
Future Volume (vph)	1	139	685	40	7	35	12	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.5	5.5	5.5		7.0			
Lane Util. Factor		1.00	0.95	1.00		1.00			
Frt		1.00	1.00	0.85		0.96			
Flt Protected		0.95	1.00	1.00		0.97			
Satd. Flow (prot)		1719	3438	1538		1681			
Flt Permitted		0.09	1.00	1.00		0.97			
Satd. Flow (perm)		166	3438	1538		1681			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1	139	685	40	7	35	12	4	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	140	685	40	0	58	0	0	
Turn Type	pm+pt	pm+pt	NA	Perm	Prot	Prot			
Protected Phases	1	1	6		7	7			
Permitted Phases	6	6		6					
Actuated Green, G (s)		49.7	43.6	43.6		8.0			
Effective Green, g (s)		49.7	43.6	43.6		8.0			
Actuated g/C Ratio		0.43	0.38	0.38		0.07			
Clearance Time (s)		5.5	5.5	5.5		7.0			
Vehicle Extension (s)		3.0	4.0	4.0		3.0			
Lane Grp Cap (vph)		154	1303	583		116			
v/s Ratio Prot		c0.05	c0.20			c0.03			
v/s Ratio Perm		c0.34		0.03					
v/c Ratio		0.91	0.53	0.07		0.50			
Uniform Delay, d1		26.1	27.7	22.8		51.6			
Progression Factor		1.00	1.00	1.00		1.00			
Incremental Delay, d2		46.1	1.5	0.2		3.4			
Delay (s)		72.3	29.2	23.0		54.9			
Level of Service		Е	С	С		D			
Approach Delay (s)			35.9			54.9			
Approach LOS			D			D			
Intersection Summary									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		€1 }			€ 1₽			4		7	f)	
Traffic Volume (vph)	4	319	67	87	445	46	245	19	114	38	20	9
Future Volume (vph)	4	319	67	87	445	46	245	19	114	38	20	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.5	5.0	
Lane Util. Factor		0.95			0.95			1.00		1.00	1.00	
Frt		0.97			0.99			0.96		1.00	0.95	
Flt Protected		1.00			0.99			0.97		0.95	1.00	
Satd. Flow (prot)		3348			3372			1681		1719	1725	
Flt Permitted		0.95			0.82			0.79		0.59	1.00	
Satd. Flow (perm)		3180			2801			1365		1072	1725	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	319	67	87	445	46	245	19	114	38	20	9
RTOR Reduction (vph)	0	21	0	0	9	0	0	19	0	0	5	0
Lane Group Flow (vph)	0	369	0	0	569	0	0	359	0	38	24	0
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		pm+pt	NA	
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8			4			6			2		
Actuated Green, G (s)		19.6			19.6			20.1		27.1	27.1	
Effective Green, g (s)		19.6			19.6			20.1		27.1	27.1	
Actuated g/C Ratio		0.35			0.35			0.35		0.48	0.48	
Clearance Time (s)		5.0			5.0			5.0		5.5	5.0	
Vehicle Extension (s)		3.5			3.5			3.5		3.0	3.5	
Lane Grp Cap (vph)		1099			968			483		529	824	
v/s Ratio Prot										c0.00	0.01	
v/s Ratio Perm		0.12			c0.20			c0.26		0.03		
v/c Ratio		0.34			0.59			0.74		0.07	0.03	
Uniform Delay, d1		13.7			15.2			16.0		9.3	7.8	
Progression Factor		1.00			1.00			1.00		1.00	1.00	
Incremental Delay, d2		0.2			1.0			6.3		0.1	0.0	
Delay (s)		13.9			16.2			22.3		9.4	7.9	
Level of Service		В			В			С		Α	Α	
Approach Delay (s)		13.9			16.2			22.3			8.7	
Approach LOS		В			В			С			Α	
Intersection Summary												
HCM 2000 Control Delay			16.9	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.75									
Actuated Cycle Length (s)			56.7		um of los				21.0			
Intersection Capacity Utiliza	ition		68.1%	IC	CU Level	of Service	;		С			
Analysis Period (min)			15									

Analysis Period (min) c Critical Lane Group

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4		7	4î			44	
Traffic Volume (vph)	5	239	66	102	417	28	205	160	93	14	63	4
Future Volume (vph)	5	239	66	102	417	28	205	160	93	14	63	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5			5.5		5.5	5.5			5.5	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.97			0.99		1.00	0.94			0.99	
Flt Protected		1.00			0.99		0.95	1.00			0.99	
Satd. Flow (prot)		1756			1780		1719	1710			1782	
Flt Permitted		0.99			0.88		0.70	1.00			0.92	
Satd. Flow (perm)		1745			1575		1275	1710			1651	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	239	66	102	417	28	205	160	93	14	63	4
RTOR Reduction (vph)	0	14	0	0	3	0	0	37	0	0	3	0
Lane Group Flow (vph)	0	296	0	0	544	0	205	216	0	0	78	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Actuated Green, G (s)		34.7			34.7		14.3	14.3			14.3	
Effective Green, g (s)		34.7			34.7		14.3	14.3			14.3	
Actuated g/C Ratio		0.58			0.58		0.24	0.24			0.24	
Clearance Time (s)		5.5			5.5		5.5	5.5			5.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		1009			910		303	407			393	
v/s Ratio Prot								0.13				
v/s Ratio Perm		0.17			c0.35		c0.16				0.05	
v/c Ratio		0.29			0.60		0.68	0.53			0.20	
Uniform Delay, d1		6.4			8.2		20.7	19.9			18.3	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		0.7			2.9		5.9	1.2			0.2	
Delay (s)		7.2			11.0		26.6	21.2			18.5	
Level of Service		Α			В		С	С			В	
Approach Delay (s)		7.2			11.0			23.6			18.5	
Approach LOS		Α			В			С			В	
Intersection Summary												
HCM 2000 Control Delay			14.7	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.62									
Actuated Cycle Length (s)			60.0		um of los				11.0			
Intersection Capacity Utilizatio	n		77.9%	IC	CU Level	of Service	<i>)</i>		D			
Analysis Period (min)			15									

c Critical Lane Group

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Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations			4			ર્ન	Ž.		Ť	∱ }		
Traffic Volume (vph)	91	13	105	36	78	156	376	10	32	1007	58	36
Future Volume (vph)	91	13	105	36	78	156	376	10	32	1007	58	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			6.0			6.0	6.0		5.5	5.5		
Lane Util. Factor			1.00			1.00	1.00		1.00	0.95		
Frt			0.98			1.00	0.85		1.00	0.99		
Flt Protected			0.98			0.98	1.00		0.95	1.00		
Satd. Flow (prot)			1737			1780	1538		1719	3394		
Flt Permitted			0.76			0.73	1.00		0.31	1.00		
Satd. Flow (perm)			1342			1318	1538		562	3394		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	91	13	105	36	78	156	376	10	32	1007	58	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	245	0	0	234	386	0	32	1101	0	0
Turn Type	Perm	Perm	NA		pm+pt	NA	Perm		pm+pt	NA		
Protected Phases			4		3	8			5	2		
Permitted Phases	4	4			8		8		2			
Actuated Green, G (s)			18.0			28.8	28.8		41.7	38.7		
Effective Green, g (s)			18.0			28.8	28.8		41.7	38.7		
Actuated g/C Ratio			0.17			0.27	0.27		0.40	0.37		
Clearance Time (s)			6.0			6.0	6.0		5.5	5.5		
Vehicle Extension (s)			4.0			4.0	4.0		3.0	4.0		
Lane Grp Cap (vph)			230			384	421		256	1250		
v/s Ratio Prot						0.03			0.00	0.32		
v/s Ratio Perm			c0.18			0.14	c0.25		0.05			
v/c Ratio			1.07			0.61	0.92		0.12	0.88		
Uniform Delay, d1			43.5			33.2	36.9		19.8	31.0		
Progression Factor			1.00			1.00	1.00		1.00	1.00		
Incremental Delay, d2			77.7			3.2	24.8		0.2	9.1		
Delay (s)			121.2			36.4	61.7		20.0	40.1		
Level of Service			F			D	Е		В	D		
Approach Delay (s)			121.2			52.2				39.5		
Approach LOS			F			D				D		
Intersection Summary												
HCM 2000 Control Delay			46.8	H	ICM 2000	Level of	Service		D			
HCM 2000 Volume to Capac	city ratio		0.95									
Actuated Cycle Length (s)			105.0		Sum of los				29.5			
Intersection Capacity Utilization	tion		97.9%	[(CU Level	of Service)		F			
Analysis Period (min)			15									

Analysis Period (min) c Critical Lane Group

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Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2	
Lane Configurations		Ä	^	7		M			
Traffic Volume (vph)	1	139	685	40	7	35	12	4	
Future Volume (vph)	1	139	685	40	7	35	12	4	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.5	5.5	5.5		7.0			
Lane Util. Factor		1.00	0.95	1.00		1.00			
Frt		1.00	1.00	0.85		0.96			
Flt Protected		0.95	1.00	1.00		0.97			
Satd. Flow (prot)		1719	3438	1538		1681			
Flt Permitted		0.10	1.00	1.00		0.97			
Satd. Flow (perm)		176	3438	1538		1681			
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	1	139	685	40	7	35	12	4	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	
Lane Group Flow (vph)	0	140	685	40	0	58	0	0	
Turn Type	pm+pt	pm+pt	NA	Perm	Prot	Prot			
Protected Phases	1	1	6		7	7			
Permitted Phases	6	6		6					
Actuated Green, G (s)		46.7	41.2	41.2		8.0			
Effective Green, g (s)		46.7	41.2	41.2		8.0			
Actuated g/C Ratio		0.44	0.39	0.39		0.08			
Clearance Time (s)		5.5	5.5	5.5		7.0			
Vehicle Extension (s)		3.0	4.0	4.0		3.0			
Lane Grp Cap (vph)		159	1349	603		128			
v/s Ratio Prot		c0.05	0.20			c0.03			
v/s Ratio Perm		c0.35		0.03					
v/c Ratio		0.88	0.51	0.07		0.45			
Uniform Delay, d1		22.7	24.2	19.9		46.4			
Progression Factor		1.00	1.00	1.00		1.00			
Incremental Delay, d2		39.0	1.4	0.2		2.5			
Delay (s)		61.8	25.6	20.1		48.9			
Level of Service		Е	С	С		D			
Approach Delay (s)			31.2			48.9			
Approach LOS			С			D			
Intersection Summary									

1: Stinson Blvd & 37th Av NE

Direction	All	
Future Volume (vph)	1413	
Fuel Consumed (gal)	28	
Fuel Economy (mpg)	16.1	
CO Emissions (kg)	1.97	
NOx Emissions (kg)	0.38	
VOC Emissions (kg)	0.46	

941: Johnson St NE & 37th Av NE

Direction	All	
Future Volume (vph)	1396	
Fuel Consumed (gal)	32	
Fuel Economy (mpg)	17.9	
CO Emissions (kg)	2.23	
NOx Emissions (kg)	0.43	
VOC Emissions (kg)	0.52	

948: Central Av NE & 37th Av NE & Reservoir Blvd NE

Direction	All	
Future Volume (vph)	2921	
Fuel Consumed (gal)	80	
Fuel Economy (mpg)	11.9	
CO Emissions (kg)	5.60	
NOx Emissions (kg)	1.09	
VOC Emissions (kg)	1.30	

1: Stinson Blvd & 37th Av NE

Direction	All	
Future Volume (vph)	1413	
Fuel Consumed (gal)	29	
Fuel Economy (mpg)	15.7	
CO Emissions (kg)	2.02	
NOx Emissions (kg)	0.39	
VOC Emissions (kg)	0.47	

941: Johnson St NE & 37th Av NE

Direction	All	
Future Volume (vph)	1396	
Fuel Consumed (gal)	33	
Fuel Economy (mpg)	17.3	
CO Emissions (kg)	2.31	
NOx Emissions (kg)	0.45	
VOC Emissions (kg)	0.53	

948: Central Av NE & 37th Av NE & Reservoir Blvd NE

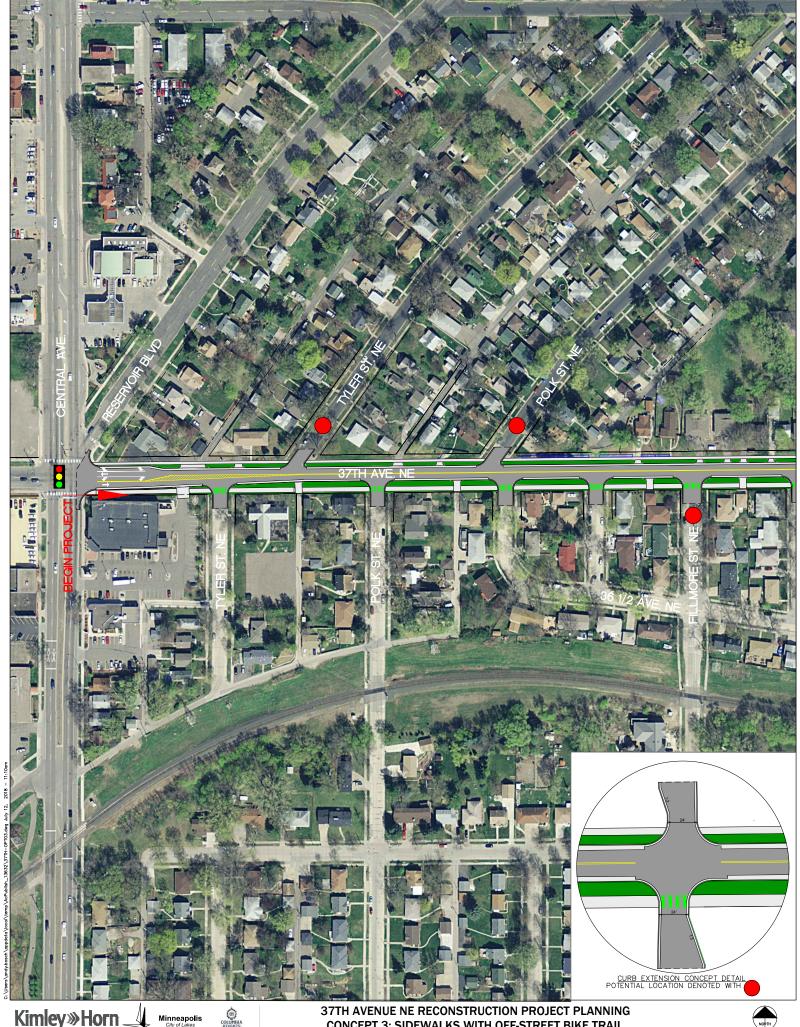
Direction	All	
Future Volume (vph)	2921	
Fuel Consumed (gal)	80	
Fuel Economy (mpg)	11.9	
CO Emissions (kg)	5.60	
NOx Emissions (kg)	1.09	
VOC Emissions (kg)	1.30	

B/C worksheet		Control Section			Locat	tion			inning f. Pt.		Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends	
works	shee	t		37th Avenue	At the signalized i	ntersection	n with Centra	l Avenue					Minneapolis	1/1/2013	12/31/2015
			Descript Proposed		Addition of westbo	ion of westbound dedicated left-turn lane along 37th Avenue at Central Avenue									
Accid	lent Dia	agram Codes			2	3		5	4, 7		8, 9			6, 90, 98, 99	
		\		>->	→	_ 	<u> </u>	\			_		Pedestrian	Other	Total
	Fatal	F		0	0		0	0		0		0	0	0	
	ry (PI)	A		0	0		0	0		0		0	0	0	
Study Period:	Personal Injury (PI)	В		0	0		0	0		1		0	0	0	1
Number of Crashes		С		2	0		0	0		0		0	0	0	2
	Property Damage	PD		1	0		0	0		0		1	0	0	2
% Change	Fatal	F	-2	26%	-26%	SP.	26%	-26%	-2	6%		-26%	-26%	-26%	
in Crashes		A	-2	26%	-26%	7	26%	-26%	-2	6%		-26%	-26%	-26%	
*Use FHWA	PI	В	-2	26%	-26%	12	26%	-26%	-2	6%		-26%	-26%	-26%	
use for Crash	<u> </u>	C	-2	26%	-26%	-2	26%	-26%	-2	6%		-26%	-26%	-26%	
Reduction Factors	Property Damage	PD	-2	26%	-26%	-2	26%	-26%	-2	6%		-26%	-26%	-26%	
	Fatal	F													
		A													
Change in Crashes	PI	В							-0	.26					-0.26
= No. of		С	-0	0.52											-0.52
crashes X % change in crashes	Property Damage	PD	-0	0.26								-0.26			-0.52
Year (Safety	Improv	emen	t Construct	tion)	2020										
Project Cos	Project Cost (exclude Right of Way)		\$ 500,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost pe	er Crash		Annual Benefit		B/C=	0.90		
Right of Way Costs (optional)				F			\$ 1	,140,000			Using present	worth value	es,		
Traffic Growth Factor 1%			1%	A			\$	570,000			B=		449,395		
Capital Rec	overy					В	-0.26	-0.09		170,000	\$	14,747	C=	\$	500,000
1. Discour					4.5%	C	-0.52	-0.17		83,000	\$	14,400	See "Calculat	ions" sheet	for amortization.
2. Project	Servi	ce Lif	fe (n)		20	PD	-0.52	-0.17	\$	7,600	\$	1,319			
											\$	30,465			

B /			Control Section			Loca	tion			ginning ef. Pt.		Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
works	shee	t		37th Avenue	At the signalized i	ntersectio	n with Johnso	n Street					Minneapolis	1/1/2013	12/31/2015
			Descript Propose		Addition of dedica	ted left-tu	rn lanes along	g 37th Avenue	e at John	son Street					
Accid	lent Dia	agram Codes	1		2	3		5	4, 7		8, 9			6, 90, 98, 99	
	\			>->	→	_9	←			4	_		Pedestrian	Other	Total
	Fatal	F		0	0		0	0		0		0	0	0	
	y (PI)	A		0	0		0	0		0		0	0	0	
Study Period:	Personal Injury (PI)	В		1	0		0	0		0		0	0	0	1
Number of Crashes		С		2	0		0	1		0		0	0	1	4
	Property Damage	PD		3	0		1	0		0		0	0	1	5
% Change	Fatal	F	-4	45%	-45%	-	45%	-45%		45%		-45%	-45%	-45%	
in Crashes		A	-4	45%	-45%	-	45%	-45%		45%		-45%	-45%	-45%	
*Use FHWA	PI	В	-4	45%	-45%	-	45%	-45%		45%		-45%	-45%	-45%	
cmfclearinghouse for Crash		С	-4	45%	-45%		45%	-45%	-4	45%		-45%	-45%	-45%	
Reduction Factors	Property Damage	PD	-4	45%	-45%		45%	-45%	-4	45%		-45%	-45%	-45%	
	Fatal	F													
		A													
Change in Crashes	PI	В	-(0.45											-0.45
= No. of		C	-(0.90				-0.45						-0.45	-1.80
crashes X % change in crashes	Property Damage	PD	-1	1.35		-	0.45							-0.45	-2.25
Year (Safety	Improv	vemen	t Construc	tion)	2020								_		
Project Cost	t (exch	ıde Ri	ght of Way	y)	\$ 500,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost I	per Crash		Annual Benefit		B/C=	2.39
Right of Wa	y Cos	ts (op	tional)			F			\$	1,140,000			Using present	worth valu	es,
Traffic Growth Factor 1%			1%	A			\$	570,000			B=		1,195,934		
Capital Rec	overy					В	-0.45	-0.15	\$	170,000	\$	25,523	C=	\$	500,000
1. Discour	ıt Rat	e			4.5%	С	-1.80	-0.60		83,000	\$	49,846	See "Calcular	ions" sheet	for amortization
2. Project	Servi	ce Li	fe (n)		20	PD	-2.25	-0.75	\$	7,600	\$	5,705			
											\$	81,074			

B/C worksheet		Control Section	T.H. / Roadway		Loca	tion		Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends	
works	shee	t	37th Avenue		At the signalized	intersectio	n with Stinson	n Boulevard			Minneapolis	1/1/2013	12/31/2015
			Descript Proposed		Addition of eastbo	ound/westl	ound dedicat	ed left-turn la	nes along 37th Ave	enue at Stinson Boulevard			
Accid	ent Dia	gram Codes			2	3		5	4, 7	8, 9		6, 90, 98, 99	
	\	/	<u>_</u>	>->	→	1	←				Pedestrian	Other	Total
	Fatal	F		0	0		0	0	0	0	0	0	
	y (PI)	A		0	0		0	0	0	0	0	0	
Study Period:	Personal Injury (PI)	В		0	0		0	0	0	0	0	0	
Number of Crashes	Person	С		1	0		0	2	0	0	0	0	3
	Property Damage	PD		0	0		0	0	1	0	0	0	1
% Change	Fatal	F	-4	15%	-45%	-	45%	-45%	-45%	-45%	-45%	-45%	
in Crashes		A	-4	15%	-45%	-	45%	-45%	-45%	-45%	-45%	-45%	
*Use FHWA	PI	В	-4	15%	-45%	-	45%	-45%	-45%	-45%	-45%	-45%	
cmfclearingho use for Crash		С	-4	15%	-45%	-	45%	-45%	-45%	-45%	-45%	-45%	
Reduction Factors	Property Damage	PD	-4	15%	-45%		45%	-45%	-45%	-45%	-45%	-45%	
	Fatal	F											
		A											
Change in Crashes	PI	В											
= No. of		C	-0).45				-0.90					-1.35
crashes X % change in crashes	Property Damage	PD							-0.45				-0.45
Year (Safety l	Improv	ement	t Construct	tion)	2020						_		
Project Cost	Project Cost (exclude Right of Way) \$ 500,000			\$ 500,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit		B/C=	1.14	
Right of Way	Right of Way Costs (optional)			F			\$ 1,140,000		Using presen	t worth valu	es,		
Traffic Growth Factor 1%			A			\$ 570,000		B =		568,290			
Capital Reco	very					В			\$ 170,000		C=	\$	500,000
1. Discoun	t Rate	e			4.5%	C	-1.35	-0.45	\$ 83,000	\$ 37,384	See "Calcula	tions" sheet	for amortization.
2. Project	Servi	ce Lif	fe (n)		20	PD	-0.45	-0.15	\$ 7,600	\$ 1,141			
										\$ 38,525			

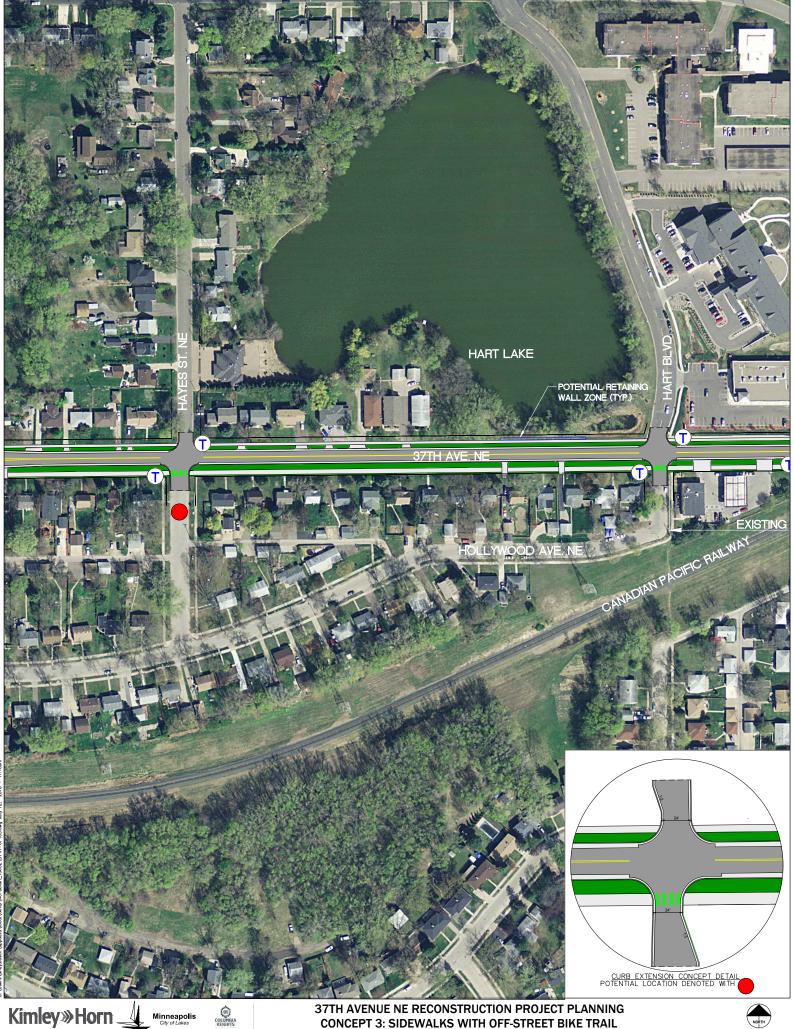
B /			Control Section			Loca	tion			eginning Ref. Pt.		Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
worksheet		t	37th Avenue		Corridor Between	Central a	nd Stinson						Minneapolis	1/1/2013	12/31/2015
			Descript Propose		Removal of On-St	reet Parki	ng								
Accid	lent Dia	agram Codes	1		2	3	. 1	5	4, 7	A	8, 9			6, 90, 98, 99	
	<u> </u>			>->		و_				\tau	_		Pedestrian	Other	Total
	Fatal	F		0	0		0	0		0		1	0	0	1
	ry (PI)	A		0	0		0	0		0		0	0	0	
Study Period:	Personal Injury (PI)	В		0	0		0	0		0		0	0	0	
Number of Crashes		C		0	0		0	0		0		0	0	0	
	Property Damage	PD		1	0		0	0		0		0	0	0	1
% Change	Fatal	F	(0%	0%		0%	0%		0%		-100%	0%	0%	
in Crashes		A	(0%	0%		0%	0%		0%		0%	0%	0%	
*Use FHWA	PI	В	(0%	0%		0%	0%		0%		0%	0%	0%	
use for Crash		C	(0%	0%		0%	0%		0%		0%	0%	0%	
Reduction Factors	Property Damage	PD	-1	00%	0%		0%	0%		0%		0%	0%	0%	
	Fatal	F										-1.00			-1.00
		A													
Change in Crashes	PI	В													
= No. of crashes X % change in crashes	Property Damage	C PD	-1	1.00											-1.00
Year (Safety	Improv	vemen	t Construct	tion)	2020										
Project Cost (exclude Right of Way) \$		\$ 500,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost	per Crash		Annual Benefit		B/C=	11.30			
Right of Wa	y Cos	ts (op	tional)			F	-1.00	-0.33	\$	1,140,000	\$	380,347	Using present	worth value	es,
Traffic Growth Factor 1%			1%	A			\$	570,000			B=		5,647,956		
Capital Rec	overy					В			\$	170,000			C=	\$	500,000
1. Discour					4.5%	С			\$	83,000			See "Calcular	ions" sheet	for amortization
2. Project	Servi	ce Li	fe (n)		20	PD	-1.00	-0.33	\$	7,600	\$	2,536	1		
						Total					\$	382,883			













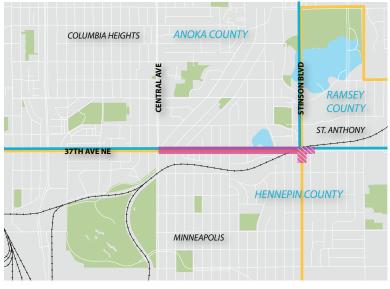




37th Avenue NE Reconstruction Project



Project map:



- Open Spaces
- City Boundaries
- County Boundaries

Applicant:

City of Minneapolis and City of Columbia Heights

Route:

37th Avenue NE from Central Avenue to Stinson Boulevard

Cities where project is located:

Minneapolis, Columbia Heights, and St. Anthony

Counties where project is located:

Hennepin and Anoka

Requested award amount:

\$7,000,000

Total TAB eligible project cost:

\$8,830,000

Project description:

The proposed project will reconstruct 37th Avenue NE from Central Avenue to Stinson Boulevard using a freight-focused complete streets design. 37th Avenue NE is a critical first/last mile connection to industrial and commercial freight-generating businesses in Minneapolis and Columbia Heights, but there are many aspects of the existing design that make it difficult for trucks to operate safely and reliably in the area. These safety issues are addressed directly by this project through the addition of left-turn lanes, new sidewalks, bicycle facilities, and the removal of on-street parking. The project will also restripe the northbound and westbound approaches to the 37th Avenue NE/Stinson Boulevard intersection to provide dedicated left-turn lanes.

Project benefits:

- Improves safety for all users of 37th Avenue NE
- Connects two employment centers and two Tier 2 truck corridors
- Provides substantial investment and transportation benefit in a community that includes senior housing and is above the regional average for population in poverty or population of color

Project area existing conditions:



37th Avenue NE looking west, just west of intersection with Stinson Boulevard

Prepared by:



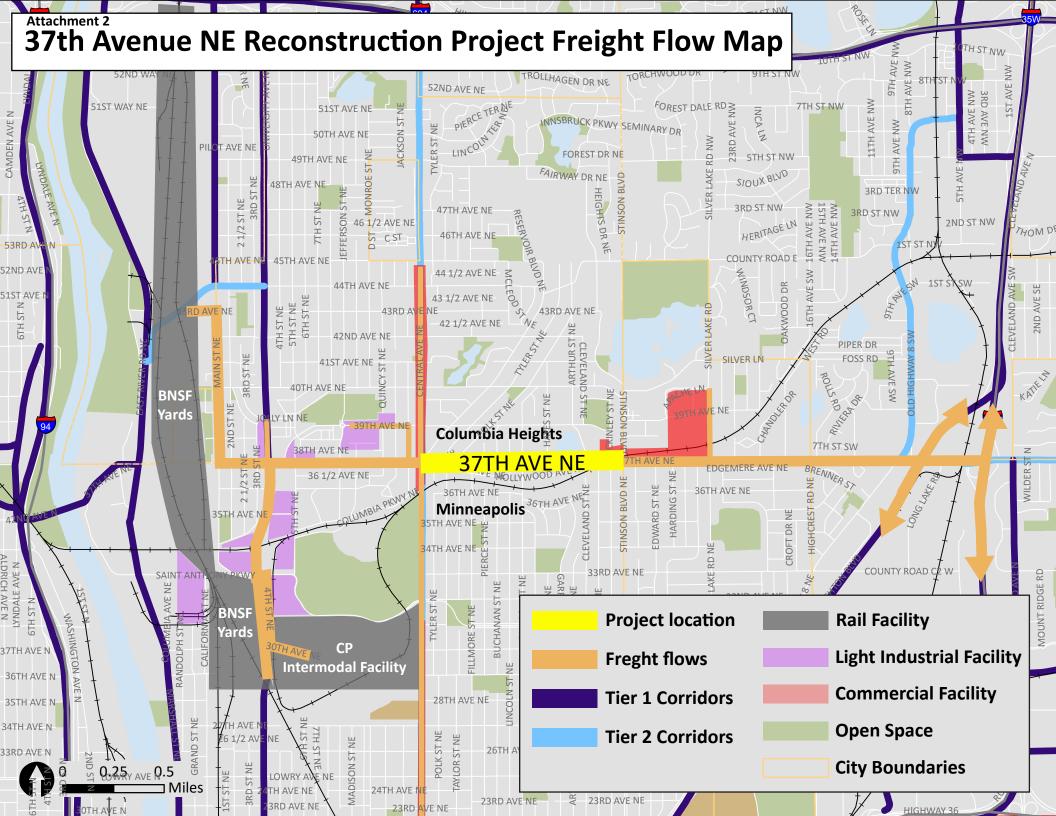


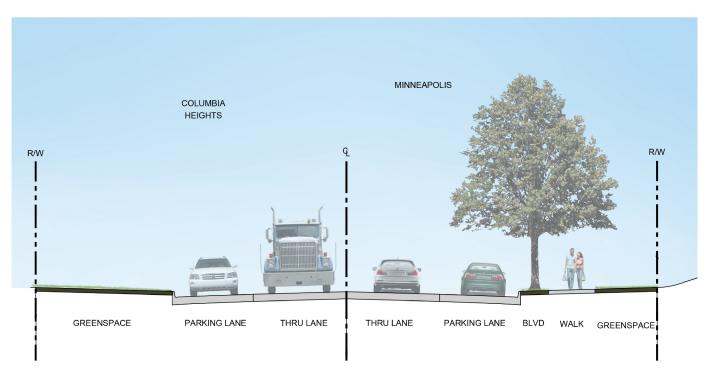
Project Area

Restriping Only

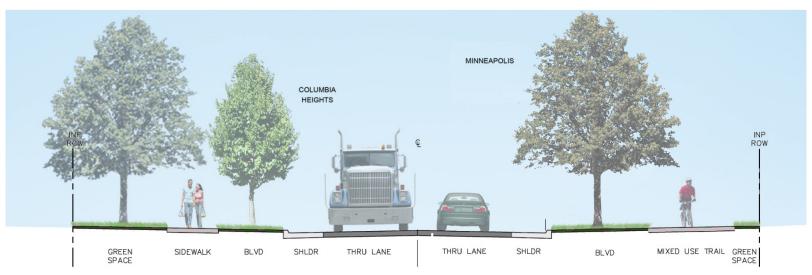


37th Avenue NE looking west, just west of intersection with Stinson Avenue





37TH AVE NE.
EXISTING TYPICAL SECTION



37TH AVE. NE PROPOSED TYPICAL SECTION



Public Works350 S. Fifth St. - Room 203
Minneapolis, MN 55415
TEL 612.673.2352

www.minneapolismn.gov

July 5, 2018

Ms. Elaine Koutsoukos Metropolitan Council 390 North Robert Street St. Paul, Minnesota 55101

RE: 2018 Regional Solicitation Applications

Dear Ms. Koutsoukos,

The City of Minneapolis Department of Public Works is submitting a series of applications for the 2018 Regional Solicitation for Federal Transportation Funds. The applications and the required matching funds have been authorized by the Minneapolis City Council as described in the Official Proceedings of the Council meeting on June 15, 2018.

The City is submitting applications for seven projects, as listed in the table below, and commits to operate and maintain these facilities through their design life.

Project Name	Regional Solicitation Category
Hennepin Avenue S - Douglas Avenue to Lake Street	Roadway Reconstruction/ Modernization
37th Avenue NE - Central Avenue to Stinson Boulevard	Roadway Reconstruction/ Modernization
Nicollet Avenue Bridge over Minnehaha Creek	Bridge Rehabilitation/ Replacement
Intelligent Transportation System Upgrades and Enhancements	Traffic Management Technologies
36th Street West Bicycle and Pedestrian Enhancements	Bicycle and Pedestrian Facilities
Lyndale Avenue N Pedestrian Safety Improvements	Pedestrian Facilities
Near North - Safe Routes to School	Safe Routes to School

The specific applications are described in the attached "Request for City Council Committee Action."

Thank you for the opportunity to submit these applications.

Sincerely,

Director of Public Works



Council Action No. 2018A-0448

City of Minneapolis

File No. 2018-00649

Committee: TPW, WM

Public Hearing: None

Passage: Jun 15, 2018

Publication: JUN 2 3 2018

RECO	ORD OF C	COUNCIL	VOTE	
COUNCIL MEMBER	AYE	NAY	ABSTAIN	ABSENT
Bender	×			
Jenkins	×			
Johnson	×			
Gordon	×			
Reich	×			
Fletcher	×			
Cunningham	×			
Ellison	×			
Warsame				×
Goodman	×			
Cano	×			
Schroeder	×			
Palmisano	×			

☑ APPROVED	□ VETOED
, >	15
N.	MAYOR
JUN	1 9 2018
,	DATE

MAYOR ACTION

Certified an official action of the City Council

Presented to Mayor: JUN 1 5 2018

Received from Mayor: JUN 2 0 2018

The Minneapolis City Council hereby:

- 1. Authorizes the submittal of a series of applications for federal transportation funds through the 2018 Metropolitan Council's Regional Solicitation Program, as further set forth in Legislative File No. 2018-00649.
- 2. Authorizes the commitment of local funds to provide the required local match for the federal funding.

Grant applications through the 2018 Metropolitan Council Regional Solicitation Program for federal transportation funds (RCA-2018-00568)

ORIGINATING DEPARTMENT

Public Works Department

To Committee(s)

#	Committee Name	Meeting Date
1	Transportation & Public Works Committee	Jun 5, 2018
2	Ways & Means Committee	Jun 12, 2018

LEAD STAFF: Liz Heyman, Transportation Planner,

Transportation Planning and Programming

Division

PRESENTED BY:

Liz Heyman, Transportation Planner, Transportation Planning and Programming

Division

Action Item(s)

#	File Type	Subcategory	Item Description
1	Action	Grant	Authorizing the submittal of a series of applications for federal transportation funds through the 2018 Metropolitan Council's Regional Solicitation Program.
2	Action	Grant	Authorizing the commitment of local funds to provide the required local match for the federal funding.

Previous Actions

None

Ward / Neighborhood / Address

#	Ward	Neighborhood	Address
1.	All Wards		

Background Analysis

The City will prepare a series of applications for the 2018 Regional Solicitation for Federal Transportation Funds in response to the current Metropolitan Council solicitation. This request includes a summary of the eligible project areas, a brief description of city projects, estimated costs, and the requested amounts. Each project requires a minimum local match for construction in addition to the costs for design, engineering, administration and any additional construction costs to fully fund the project. These applications will maximize the use of federal funding. The funding to be awarded is for projects to be constructed in 2022 and 2023.

Over the course of several months, Public Works identifies projects that meet the eligibility requirements for federal funding and closely evaluates which applications are submitted in a manner that is consistent with the equity-based approach used to select and prioritize as a part of the Capital Improvement Program (CIP). Additional consideration is given to identify which projects align with the criteria upon which the applications are scored, such as: role in the regional transportation system and economy, equity, affordable housing, asset condition, safety, connectivity, cost-benefit, operational benefits, number of users, multimodal elements, etc. Public Works also takes into account project readiness, cost, deliverability, and alignment with adopted plans, policies and initiatives (e.g., Access Minneapolis, 20 Year Street Funding Plan, Complete Streets Policy, Vision Zero, etc.).

The 2018 Regional Solicitation for federal transportation funding is part of Metropolitan Council's federally-required continuing, comprehensive, and cooperative transportation planning process for the Twin Cities Metropolitan Area. The funding program and related rules and requirements are established by the U.S. Department of Transportation (USDOT) and administered locally through collaboration with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Minnesota Department of Transportation (MnDOT).

Applications are grouped into three primary modal evaluation categories; each category includes several sub-categories as detailed below.

- 1. Roadways Including Multimodal Elements
 - Roadway Expansion
 - Roadway Reconstruction/Modernization and Spot Mobility
 - Traffic Management Technologies (Roadway System Management)
 - o Bridges Rehabilitation/Replacement
- 2. Transit and Travel Demand Management (TDM) Projects
 - o Transit Expansion
 - Transit System Modernization
 - o Travel Demand Management
- 3. Bicycle and Pedestrian Facilities
 - Multiuse Trails and Bicycle Facilities
 - o Pedestrian Facilities
 - o Safe Routes to School (Infrastructure Projects)

The City is recommending the submittal of up to seven applications, which are summarized below:

Project Name	Category	Requested Federal Amount	Minimum Local Match Required
Hennepin Avenue S - Douglas Avenue to Lake Street	Roadway Reconstruction/ Modernization	\$7,000,000	\$1,750,000
37th Avenue NE - Central Avenue to Stinson Boulevard	Roadway Reconstruction/ Modernization	\$7,000,000	\$1,750,000*
Nicollet Avenue Bridge over Minnehaha Creek	Bridge Rehabilitation/ Replacement	\$7,000,000	\$1,750,000
Intelligent Transportation System Upgrades and Enhancements	Traffic Management Technologies	\$3,000,000	\$750,000
36th Street West Bicycle and Pedestrian Enhancements	Bicycle and Pedestrian Facilities	\$2,000,000	\$500,000
Lyndale Avenue N Pedestrian Safety Improvements	Pedestrian Facilities	\$1,000,000	\$250,000
Near North - Safe Routes to School	Safe Routes to School	\$1,000,000	\$250,000
	Totals	\$27,000,000	\$6,750,000

^{*} Local expenditures on this project will be shared between Minneapolis and Columbia Heights, as the two cities share the right-of-way along this section of 37th Avenue NE.

Details of the proposed applications are described below.

Hennepin Avenue S – Douglas Avenue to W Lake Street

The proposed project is a complete reconstruction of Hennepin Avenue South from Douglas Avenue to West Lake Street, a distance of approximately 1.3 miles. Hennepin Avenue has been identified as a future reconstruction candidate, driven primarily by pavement condition, multimodal connections, number of daily users, as well as an opportunity to better plan for Metro Transit's future E-Line Rapid Bus service. Hennepin Avenue serves an estimated 3,400 people walking, 280 people biking, 6,600 transit users, 400 buses, and 31,500 people driving per day. This segment is programmed in the City's Capital Improvement Program (CIP) for reconstruction in 2023. Hennepin Avenue South is identified as a Pedestrian Crash Concentration Corridor and High Injury Network in the *Minneapolis Pedestrian Crash Study* (2017). The prioritization of this project supports the City's commitment to Vision Zero to eliminate serious and fatal crashes within 10 years. The proposed project will reconstruct the pavement surface, curb and gutter, signage, storm drains,

driveway approaches, traffic signals, striping, lighting, street trees, sidewalks, ADA ramps, and implement shelters/platforms for the future Metro Transit E-Line. This is the last remaining segment of Hennepin Avenue under the City's jurisdiction to be reconstructed between 36th Street West and Washington Avenue South.

Program Category: Roadway Reconstruction/Modernization

37th Avenue NE - Central Avenue to Stinson Boulevard

The proposed project is a complete reconstruction of 37th Avenue NE from Central Avenue to Stinson Avenue, a distance of approximately 1 mile. This section of 37th Avenue NE is along the border between Minneapolis and Columbia Heights and is programmed in the City's Capital Improvement Program (CIP) for reconstruction in 2023. The application and proposed project will be done in collaboration with the City of Columbia Heights. The proposed project will reconstruct the pavement surface, curb and gutter, traffic signals, lighting, ADA ramps, some sidewalks, as well as construction of a bicycle facility.

Program Category: Roadway Reconstruction/Modernization

Nicollet Avenue Bridge over Minnehaha Creek

This project proposes the major repair and renovation of the Nicollet Avenue Bridge over Minnehaha Parkway and Minnehaha Creek and is programmed in the City's Capital Improvement Program (CIP) for reconstruction in 2022. The existing bridge is a 16-span open-spandrel concrete arch bridge, 818 feet long and 63 feet wide. The original bridge was built in 1923 and renovated in 1974. Numerous bridge components are significantly deteriorated, in poor condition and should be repaired or replaced in order to extend the useful life of the structure.

Program Category: Bridge Rehabilitation/Replacement

Intelligent Transportation System Upgrades & Enhancements

The purpose of the project is to upgrade the City's traffic management systems. Key features of the project include installing fiber optic cable to create a higher bandwidth and more reliable traffic communication network, deploying additional CCTV cameras, upgrading detection systems, and installing infrastructure for advancements in connected vehicle V2I technology in locations throughout the City. The City is collaborating with Hennepin County on the project.

Program Category: Traffic Management Technologies

36th Street W Bicycle and Pedestrian Enhancements

The proposed project involves ADA upgrades, sidewalk gap infill, transit accommodations, and construction of a protected bikeway to replace the interim bollard protected pedestrian and bicycle path between Richfield Road and Dupont Avenue S.

Program Category: Bicycle and Pedestrian Facilities

Lyndale Ave N Pedestrian Safety Improvements

The proposed project would include the implementation of pedestrian-related safety improvements at select intersection along Lyndale Avenue North between 18th Avenue North and 40th Avenue North. Lyndale Avenue North has been identified as part of the Pedestrian Crash Concentration Corridor and High Injury Network in the *Minneapolis Pedestrian Crash Study* (2017). The prioritization of this project supports the City's commitment to Vision Zero to eliminate serious and fatal crashes within 10 years. Intersection improvements may include signal upgrades, ADA-compliant curb ramps, bump outs, medians, signage, traffic control devices, and pavement markings at select locations.

Program Category: Pedestrian Facilities

Near North - Safe Routes to School

The proposed project would include pedestrian and bicycle-related improvements along 16th Avenue North between Penn Avenue North and Aldrich Avenue North, which connects North High School and Franklin Middle School. This portion of 16th Avenue North is identified in the Minneapolis Bicycle Master Plan as a future bicycle boulevard and has also been identified as a Pedestrian Crash Concentration Corridor in the *Minneapolis Pedestrian Crash Study* (2017). The prioritization of this project supports the City's commitment to Vision Zero to eliminate serious and fatal crashes within 10 years. Bicycle and pedestrian improvements may include ADA-compliant curb ramps, traffic circles, speed bumps, speed tables, bump outs, medians, signage, traffic control devices, and pavement markings at select locations.

Program Category: Safe Routes to School

The proposed projects were presented to the Pedestrian Advisory Committee on May 2nd, 2018, and to the Bicycle Advisory Committee on May 23rd, 2018.

FISCAL IMPACT STATEMENT

7/5/2018 RCA-2018-00568 - Grant applications through the 2018 Metropolitan Council Regional Solicitation Program for federal transportation ...

• No fiscal impact anticipated

Attachments

Regional Solicitation Map

RESOLUTION NO. 2018-37

A resolution of the City Council for the City of Columbia Heights, Minnesota, supporting Federal Surface Transportation Program (STP) funding application submittal for 37th Avenue Improvements

WHEREAS, the City Council of the City of Columbia Heights is the official governing body; and

WHEREAS, the centerline of 37th Avenue from Central Avenue to Stinson Boulevard represents the municipal boundary between the cities of Columbia Heights and Minneapolis; and

WHEREAS, the cities of Minneapolis and Columbia Heights jointly desire to reconstruct 37th Avenue from Central Avenue to Stinson Boulevard; and

WHEREAS, the improvements are intended to create a safe, efficient, pedestrian friendly, "green", multimodal compatible roadway; and

WHEREAS, the project is consistent with the City of Columbia Height's Comprehensive Pedestrian and Trail Plan; and

WHEREAS, the proposed pedestrian improvement on 37th Avenue will provide east- west connectivity of the local pedestrian system; and

WHEREAS, the City of Columbia Heights accepts responsibility for an amount equal to or greater than 20 percent (cost is shared with the City of Minneapolis) of the eligible project construction cost, together with the cost for design, administration, right-of-way, and peripheral project costs; and

WHEREAS, the City of Columbia Heights is committed to the operation and maintenance of the improvements under the City's jurisdiction for the design life of these improvements;

Now, therefore, in accordance with the foregoing, and all ordinances and regulations of the City of Columbia Heights, the City Council of Columbia Heights makes the following:

FINDINGS OF FACT

- 1. The Council adopts this Resolution in support of the request for Federal RSP funds for the 37th Avenue Improvements.
- 2. That a copy of this Resolution be provided to the Metropolitan Council Transportation Advisory Board and Technical Advisory Commission as part of the 37th Avenue Improvements application for Federal Funds under the Regional Solicitation Program (RSP).

ORDER OF COUNCIL

Passed this 11th day of June, 2018							
Offered by: Seconded by:							
Roll Call:	All Ayes	Donna K. Schmitt, Mayor					
Attest:	tieBurro						

Katie Bruno, City Clerk/Council Secretary



City of Columbia Heights | Public Works Department

637 38th Avenue NE, Columbia Heights, MN 55421
Phone: (763) 706-3700 • Email: publicworks@columbiaheightsmn.gov
www.columbiaheightsmn.gov

June 29, 2018

Elaine Koutsoukos, TAB Coordinator Metropolitan Council 390 North Robert Street St. Paul, MN 55101

Re: Support for Regional Solicitation Application

37th Avenue NE Reconstruction Project

From TH 65 (Central Avenue) to CSAH 27 (Stinson Boulevard)

Dear Ms. Koutsoukos:

The City of Columbia Heights is pleased to be partnering with the City of Minneapolis on the 37th Avenue NE Reconstruction Project Application for 2018 Regional Solicitation Program Funding. The project is recommended by the Minneapolis 2018 Capital Long-Range Improvement Committee and in the City of Columbia Heights Capital Improvement Plan. The proposed project will fully reconstruct 37th Avenue NE from Central Avenue to Stinson Boulevard. The complete street design of the proposed project will substantially improve the reliability and mobility in the corridor while providing a safe and comfortable space for all modes of travel.

37th Avenue NE is located on the border of Minneapolis (to the south) and Columbia Heights (to the north). Ownership of the roadway is split down the center line. The City of Columbia Heights looks forward to continuing to work with the City of Minneapolis to complete this important project and is committed to operate and maintain the facility for its design life. The City of Columbia Heights City Council has also passed a Resolution of Support for this application.

Sincerely,

CITYOF/COLUMBIA HEIGHTS

Kevin Hansen, P.E.

Public Works Director/City Engineer

HENNEPIN COUNTY

MINNESOTA

July 9, 2018

Elaine Koutsoukos, TAB Coordinator Metropolitan Council 390 North Robert Street St. Paul, MN 55101

Re: Support for Regional Solicitation Application

37th Avenue NE Reconstruction Project

From TH 65 (Central Avenue) to CSAH 27 (Stinson Boulevard)

Dear Ms. Koutsoukos,

Hennepin County has been notified that the Cities of Minneapolis and Columbia Heights are submitting an application for funding as part of the Regional Solicitation through the Metropolitan Council. The project is the 37th Avenue NE Reconstruction Project as recommended by the Minneapolis and Columbia Heights Capital Improvement Programs.

The project will reconstruct the existing 37th Avenue NE roadway that provides improvements to the existing pavement, sidewalk, traffic signals, ADA facilities, and drainage elements. The project will also provide a new multi-use trail to offer users with choices in transportation. Hennepin County supports this funding application and acknowledges that the project aligns with the Hennepin County 2013 Pedestrian Plan. At this time, Hennepin County has no funding programmed in its 2018-2022 Transportation Capital Improvement Program (CIP) for this project. Additionally, Hennepin County will operate and maintain the CSAH 27 (Stinson Boulevard) roadway facilities for the useful life of the improvements.

Hennepin County looks forward to working with the Cities of Minneapolis and Columbia Heights on this project, if the cities are successful in securing funding.

Sincerely,

Carla Stueve, P.E., P.T.O.E.

County Engineer

Hennepin County Transportation Project Delivery

cc: Chad Ellos, Transportation Planning Division Manger



erent of men



3301 Silver Lake Road, St. Anthony, Minnesota 55418-1699

Office: (612) 782-3301 • Fax: (612) 782-3302 • www.savmn.com

July 13, 2018

Ms. Hutchenson City of Minneapolis 350 S. 5th Street Minneapolis, MN 55415

Re: Letter of Support for Regional Solicitation Application

37th Avenue NE Reconstruction Project

Dear Ms. Hutcheson:

The City of St. Anthony Village supports the City of Minneapolis' and the City of Columbia Heights' federal funding application through the Regional Solicitation for the proposed 37th Avenue NE reconstruction project.

The City of St. Anthony Village supports the effort to reconstruct 37th Avenue NE, from Central Avenue to Stinson Boulevard as a complete street that keeps freight moving and creates a safe, welcoming environment for other users. Proposed improvements include reconstruction of the existing roadway, the addition of a multi-use trail, new sidewalks, replacement/upgrading of traffic signals, ADA elements, and other safety improvements.

Taken together, this package of improvements will substantially improve freight reliability and mobility in the corridor as well as improve first/last mile access to the many freight generating facilities in the area.

Additionally, we commit to operate and maintain the section 37th Ave NE, east of Stinson Blvd. NE, that is under our jurisdiction and will be improved by the striping changes proposed by this project. Please note, the City of St. Anthony Village does not support financial contribution by the City of St. Anthony Village for signal improvements at the intersection of 37th Ave NE and Stinson Blvd NE. The City has recently completed a Highway Safety Improvement Project (HSIP) at this location in 2017.

Thank you for making us aware of this application effort and the opportunity to provide support. We look forward to working with you on this project.

Sincerely,

Todd Humer

City Engineer

Sincerely,

Jáy Hartman

Director of Public Works

cc: Jay Hartman, Mark Casey, and Jeremy Gumke – City of St. Anthony Village Katie Koscielak and Justin Messner – WSB & Associates, Inc.