Application

04774 - 2016 Roadway Modernization

05298 - 37th Avenue NE Reconstruction

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	07/15/2016 3:17 PM

Primary Contact

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	Salutation	First Name	Middle Name	Last Name
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	City	State/Province		Postal Code/Zip
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What Grant Programs are you most interested in?	Regional Solicitation - Bicycle and Pedestrian Facilities			

Organization Information

Name:	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 (City) / Minnesota (State/Province) / 55401 (Postal Code/Zip)
County:	Hennepin
Phone:*	612-673-3884 Ext.
Fax:	
PeopleSoft Vendor Number	0000020971A2

Project Information

Project Name	37th Avenue Reconstruction Project
Primary County where the Project is Located	Anoka, Hennepin
Jurisdictional Agency (If Different than the Applicant):	City of Minneapolis and City of Columbia Heights

Brief Project Description (Limit 2,800 characters; approximately 400 words) *Include location, road name/functional class, type of improvement, etc.*	This project will reconstruct and modernize 37th Avenue, an A-Minor Arterial Augmentor, from Stinson Boulevard to Central Avenue. 37th Avenue is located on the border of Minneapolis (to the south) and Columbia Heights (to the north). The project will narrow the existing 44-foot wide concrete roadway to 42 feet or less and resurface with bituminous pavement. The through lanes will be reduced from 12-feet wide to 11-feet wide, and designated left turn lanes will be added at Stinson Boulevard, Johnson Street, and Central Avenue. On-street bike lanes will be added and separated from the vehicle lanes by a striped buffer zone. Currently, there is only sidewalk on the south side of the roadway with a gap between Hollywood Lane and McKinley Street. The project will add a 6-foot sidewalk on the north side of the road and reconstruct the sidewalk and fill in the gap on the south side. The sidewalks will be separated from the roadway by grass boulevards. The existing trees on the south side of the roadway will be maintained, and trees will be planted in the boulevard on the north side.
TIP Description Guidance (will be used in TIP if the project is selected for funding)	37th Avenue from Stinson Boulevard to Central Avenue, reconstruction with bituminous surface, construct bike lanes and sidewalk
Project Length (Miles)	1.0

Project Funding

Are you applying for funds from another source(s) to implement this project?	No
If yes, please identify the source(s)	
Federal Amount	$6,948,644.00
Match Amount *Minimum of 20% of project total*	$1,737,161.00
Project Total	$8,685,805.00
Match Percentage *Minimum of 20%* *Compute the match percentage by dividing the match amount by the project total*	20.0%

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 sources

Preferred Program Year

Select one: 2020

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

Additional Program Years:

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

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$400,000.00
Removals (approx. 5% of total cost)	$670,400.00
Roadway (grading, borrow, etc.)	$1,160,000.00
Roadway (aggregates and paving)	$740,000.00
Subgrade Correction (muck)	$300,000.00
Storm Sewer	$1,025,000.00
Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$171,000.00
Traffic Control	$50,000.00
Striping	$22,405.00
Signing	$15,000.00
Lighting	$0.00
Turf - Erosion & Landscaping	$176,250.00
Bridge	$0.00
Retaining Walls	$672,000.00
Noise Wall (do not include in cost effectiveness measure)	$0.00
Traffic Signals	$350,000.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$1,200,000.00
Other Roadway Elements	$292,250.00
Totals	**$7,244,305.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	$0.00
Sidewalk Construction	$412,500.00
On-Street Bicycle Facility Construction	$732,000.00
Right-of-Way	$0.00
Pedestrian Curb Ramps (ADA)	$147,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$30,000.00
Pedestrian-scale Lighting	$0.00
Streetscaping	$0.00
Wayfinding	$5,000.00
Bicycle and Pedestrian Contingencies	$100,000.00
Other Bicycle and Pedestrian Elements	$15,000.00
Totals	**$1,441,500.00**

Specific Transit and TDM Elements

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

Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	$0.00

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

Totals

Total Cost	$8,685,805.00
Construction Cost Total	$8,685,805.00
Transit Operating Cost Total	$0.00

Requirements - All Projects

All Projects

1.The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan, the 2040 Regional Parks Policy Plan (2015), and the 2040 Water Resources Policy Plan (2015).

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

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

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

- 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; page 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...; page 2.7

- 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..., page 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,...; page 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...; page 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; page 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 2016 Capital Long-Range Improvement Committee, page 248; City of Columbia Heights 2030 Comprehensive Plan, Appendix B: CIP, page 264. City of Minneapolis Bicycle Master Plan, pages 4, 146, 154, 169.

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

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

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

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

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

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

7.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.
Roadway Expansion: *$1,000,000 to $7,000,000*
Roadway Reconstruction/ Modernization: *$1,000,000 to $7,000,000*
Roadway System Management *$250,000 to $7,000,000*
Bridges Rehabilitation/ Replacement: *$1,000,000 to $7,000,000*

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

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

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

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

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

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

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

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

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

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

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

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

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

Roadways Including Multimodal Elements

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

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

Roadway Expansion and Reconstruction/Modernization projects only:

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

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

Bridge Rehabilitation/Replacement projects only:

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

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

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

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

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

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

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

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

Requirements - Roadways Including Multimodal Elements

Project Information-Roadways

County, City, or Lead Agency	City of Minneapolis
Functional Class of Road	A-Minor Arterial Augmentor
Road System *TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET*	MSAS
Road/Route No. *i.e., 53 for CSAH 53*	272
Name of Road *Example; 1st ST., MAIN AVE*	37th Avenue NE
Zip Code where Majority of Work is Being Performed	55421
(Approximate) Begin Construction Date	04/01/2020
(Approximate) End Construction Date	11/30/2020

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

From: **(Intersection or Address)**	Stinson Boulevard NE
To: **(Intersection or Address)** *DO NOT INCLUDE LEGAL DESCRIPTION*	Central Avenue NE
Or At	
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.*	Reconstruct bit base, bit surface, curb and gutter, storm sewer, water supply, retaining walls, signals, sidewalk, ped ramps; add bike lanes, sidewalk

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:

New Bridge/Culvert No.:

Structure is Over/Under (Bridge or culvert name):

Expander/Augmentor/Connector/Non-Freeway Principal Arterial

Select one:	Augmentor
Area	4.697
Project Length	0.988
Average Distance	4.754
Upload Map	1468602933156_Roadway Area Definition Map.pdf

Reliever: Relieves a Principal Arterial that is a Freeway Facility

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

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

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

Non-Freeway Facility Volume/Capacity Table

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

9:00am - 10:00am	0
10:00am - 11:00am	0
11:00am - 12:00pm	0
12:00pm - 1:00pm	0
1:00pm - 2:00pm	0
2:00pm - 3:00pm	0
3:00pm - 4:00pm	0
4:00pm - 5:00pm	0
5:00pm - 6:00pm	0
6:00pm - 7:00pm	0
7:00pm - 8:00pm	0
8:00pm - 9:00pm	0
9:00pm - 10:00pm	0
10:00pm - 11:00pm	0
11:00pm - 12:00am	0

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

Existing Employment within 1 Mile:	7205
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	959
Existing Students:	0
Upload Map	1468602971265_Regional Economy Map.pdf

Measure C: Current Heavy Commercial Traffic

Location:	37th Avenue NE & Stinson Boulevard
Current daily heavy commercial traffic volume:	558
Date heavy commercial count taken:	6/2/16

Measure D: Freight Elements

Response (Limit 1,400 characters; approximately 200 words)	37th Avenue is a City of Minneapolis Truck Route that connects University Avenue to I-35W and provides access to the Canadian Pacific intermodal yard located at St. Anthony Parkway and 4th Street NE. There are currently no designated left turn lanes between Stinson Boulevard and Central Avenue. The project will add designated left turn lanes at Stinson Boulevard, Johnson Street, and Central Avenue, providing designated space for trucks and other vehicles to safely slow down and turn while minimizing conflicts with other vehicles in the corridor, including trucks.

Measure A: Current Daily Person Throughput

Location	37th Avenue between Hart Boulevard and Central Ave
Current AADT Volume	12200
Existing Transit Routes on the Project	4, 10, 59, 118, 141
For New Roadways only, list transit routes that will be moved to the new roadway	
Upload Transit Map	1468603065171_Transit Connections Map.pdf

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	15860.0

Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume	Yes
If checked, METC Staff will provide Forecast (2040) ADT volume	
OR	
Identify the approved county or city travel demand model to determine forecast (2040) ADT volume	
Forecast (2040) ADT volume	

Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):	
Project located in Area of Concentrated Poverty:	Yes
Projects census tracts are above the regional average for population in poverty or population of color:	
Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:	

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

The project will provide substantial investment and transportation system benefit in a community that includes an area of concentrated poverty and is above the regional average for population in poverty or population of color. The project area also includes senior housing.

The project will improve the multimodal transportation system for people of all ages, incomes, and abilities. Existing sidewalks are only located on the south side of 37th Avenue, with a gap between Hollywood Lane and McKinley Street. The project will create a continuous sidewalk on the south side of 37th Avenue, and add sidewalks to the north side of 37th Avenue, connecting into the existing, adjacent sidewalk system. On-street bike lanes will also be added and will be separated from the vehicle lanes by a striped buffer zone. The project will provide an east-west connection between two Regional Bicycle Transportation Network corridors. It will also provide 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 at Central Avenue and Columbia Boulevard. These multimodal improvements will benefit low-income individuals, children, and others that do not have a car in accessing jobs, recreation, and bus service in the corridor. The improvements will also upgrade the existing facilities.

The roadway improvements and new pavement will provide an improved runningway for transit, both for buses and Metro Mobility, improving the ride quality for customers. Bus stops are located on both sides of the street, and passengers will benefit from the addition of a sidewalk on the north side of 37th Avenue, which will also improve accessibility to transit.

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

Upload Map 1468603382875_Socio-Economic Conditions Map.pdf

Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)
Minneapolis/Columbia Heights	0.988
	1

Total Project Length

Total Project Length (Total Population) 1.0

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

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

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles) 0.988

Total Housing Score 0

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1961	1.0	1961.0	1961.0
	1	**1961**	**1961**

Average Construction Year

Weighted Year 1961

Total Segment Length (Miles)

Total Segment Length	1.0

Measure B: Geometric, Structural, or Infrastructure Improvements

Improving a non-10-ton roadway to a 10-ton roadway:	
Response (Limit 700 characters; approximately 100 words)	
Improved clear zones or sight lines:	
Response (Limit 700 characters; approximately 100 words)	
Improved roadway geometrics:	Yes
Response (Limit 700 characters; approximately 100 words)	The through lanes will be reduced from 12-feet wide to 11-feet wide, and designated left turn lanes will be added at Stinson Boulevard, Johnson Street, and Central Avenue.
Access management enhancements:	
Response (Limit 700 characters; approximately 100 words)	
Vertical/horizontal alignments improvements:	
Response (Limit 700 characters; approximately 100 words)	
Improved stormwater mitigation:	Yes
Response (Limit 700 characters; approximately 100 words)	The project is replacing storm sewer infrastructure and will add green space in the project corridor, improving stormwater management and increasing the area available for infiltration.
Signals/lighting upgrades:	Yes
Response (Limit 700 characters; approximately 100 words)	The signals at Stinson Boulevard, Johnson Street, and Central Avenue will be upgraded with ADA improvements.
Other Improvements	Yes

Response (Limit 700 characters; approximately 100 words)	On-street bike lanes will be added and separated from the vehicle lanes by a striped buffer zone. Currently, there is sidewalk on the south side of the roadway with a gap; the project will add a 6-foot sidewalk on the north side of the road and reconstruct and complete the sidewalk on the south side. The sidewalks will be separated from the roadway by grass boulevards. The existing trees on the south side of the roadway will be maintained, and trees will be planted in the boulevard on the north side. An existing (approximately 300 foot) sidewalk gap on the south side of the roadway will be eliminated as a part of the project.

Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project	Total Peak Hour Delay Per Vehicle With The Project	Total Peak Hour Delay Per Vehicle Reduced by Project	Volume (Vehicles per hour)	Total Peak Hour Delay Reduced by the Project:	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
0	0	0	0	0		1468603910500_Congestion_AQ Attachment.pdf
160.7	164.4	-3.7	6997	-25888.9		1468608688000_Synchro Reports.pdf

Total Delay

Total Peak Hour Delay Reduced	-25888.9

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

Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced Per Vehicle by the Project (Kilograms):	Volume (Vehicles Per Hour):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
0.01	0.009	0.001	6998.0	6.998
0	**0**		**6998**	**7**

Total

Total Emissions Reduced:	6.998
Upload Synchro Report	1468606296109_EMISSIONS.pdf

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

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

Total Parallel Roadways

Emissions Reduced on Parallel Roadways	0
Upload Synchro Report	

New Roadway Portion:

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

EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0.0

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

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	

Transit Projects Not Requiring Construction

If the applicant is completing a transit or TDM application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.
Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment

1)Project Scope (5 Percent of Points)

Meetings or contacts with stakeholders have occurred	Yes

100%

Stakeholders have been identified

40%

Stakeholders have not been identified or contacted

0%

2)Layout or Preliminary Plan (5 Percent of Points)

Layout or Preliminary Plan completed Yes

100%

Layout or Preliminary Plan started

50%

Layout or Preliminary Plan has not been started

0%

Anticipated date or date of completion 07/14/2016

3)Environmental Documentation (5 Percent of Points)

EIS

EA

PM Yes

Document Status:

Document approved (include copy of signed cover sheet)

100%

Document submitted to State Aid for review

75% date submitted

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

50%

Document not started Yes

0%

Anticipated date or date of completion/approval 04/01/2019

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

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

100%

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

80%

Historic/archaeological review under way; determination of adverse effect anticipated

40%

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

0%

Anticipated date or date of completion of historic/archeological review: 04/01/2019

Project is located on an identified historic bridge

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

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

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

100%

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

100%

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

80%

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

50%

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

30%

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

0%

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

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

100%

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

100%

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

75%

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

50%

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

25%

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

0%

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

0%

Anticipated date or date of acquisition

7)Railroad Involvement (25 Percent of Points)

No railroad involvement on project Yes

100%

Railroad Right-of-Way Agreement is executed (include signature page) 100%

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

60%

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

40%

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

0%

Anticipated date or date of executed Agreement

8)Interchange Approval (15 Percent of Points)*

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

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

100%

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

100%

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

0%

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

Construction plans completed/approved (include signed title sheet)

100%

Construction plans submitted to State Aid for review

75%

Construction plans in progress; at least 30% completion

50%

Construction plans have not been started Yes

0%

Anticipated date or date of completion 01/01/2020

10)Letting

Anticipated Letting Date 03/01/2020

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

Crash Modification Factor Used: 0.26

Rationale for Crash Modification Selected:

At the intersection with Central Avenue, 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. All three studies were rated at five stars.

At the intersection with Johnson Street, 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 three studies were rated at five stars.

At the intersection with Stinson Parkway, two CMFs were applied. A CMF of 0.26 was used to account for the addition of a dedicated eastbound left-turn lane, and a CMF of 0.15 was used to account for the addition of a dedicated westbound right-turn lane. A combined CMF of 0.37 was applied to all crash types. The left-turn CMF was consistent with ID 261, 263, and 265, and the right-turn CMFs were consistent with ID 285, 287, and 288. All studies were five star rated, except for 287 which was four star rated.

(Limit 1400 Characters; approximately 200 words)

Project Benefit ($) from B/C Ratio $2,112,590.00

Worksheet Attachment 1468604908625_Safety Attachment.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

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

The project area is currently served by Routes 4, 10, 59, 118, and 141. There are currently no bike lanes in the corridor, and sidewalks are only located on the south side of the street with an existing 300-foot gap between Hollywood Lane and McKinley Street.

The project will add sidewalks to the north side of 37th Avenue and fill the gap on the south side. On-street bike lanes will also be added and will be separated from the vehicle lanes by a striped buffer zone.

The new pedestrian facilities improve accessibility on the north side of 37th Avenue and provide connections to existing bus stops. The boulevards separating the pedestrians from the bikes and cars in some portions of the corridor will contribute to pedestrians' sense of safety.

The project will provide an east-west connection between two 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 bike lanes will also connect to the President's Bike Boulevard in Minneapolis at Polk Street and to the planned Stinson Boulevard Bikeway.

The pedestrian and bicycle improvements will allow for easier, safer, and more efficient non-motorized travel in the corridor.

The proposed project will improve ride quality on buses and provide more and safer options for transit customer first and last mile connections.

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	$8,685,805.00
Enter Amount of the Noise Walls:	$0.00
Total Project Cost subtract the amount of the noise walls:	$8,685,805.00
Points Awarded in Previous Criteria	
Cost Effectiveness	$0.00

Other Attachments

File Name	Description	File Size
37th Ave NE Boards_06-28(36x48) FINAL_2016-07-15(4).pdf	Project Layout and Cross Sections	26.6 MB
37TH-OPT02-INTERSECTION-001.pdf	Project Intersection Concepts	1.6 MB
CH City Council Resolution.pdf	Columbia Heights City Council Resolution	92 KB
Existing Conditions Photos.pdf	Existing Conditions Photos	2.4 MB
Mpls 2016 Regional Solication Application Letter Signed.pdf	City of Minneapolis Resolution	347 KB
Mpls Bikeway Map - NE Quadrant.pdf	Minneapolis Bikeway Map	492 KB
RBTN Map.pdf	Regional Bicycle Transportation Network Map	745 KB
Typical Section and Layout.pdf	Typical Section and Layout	4.3 MB

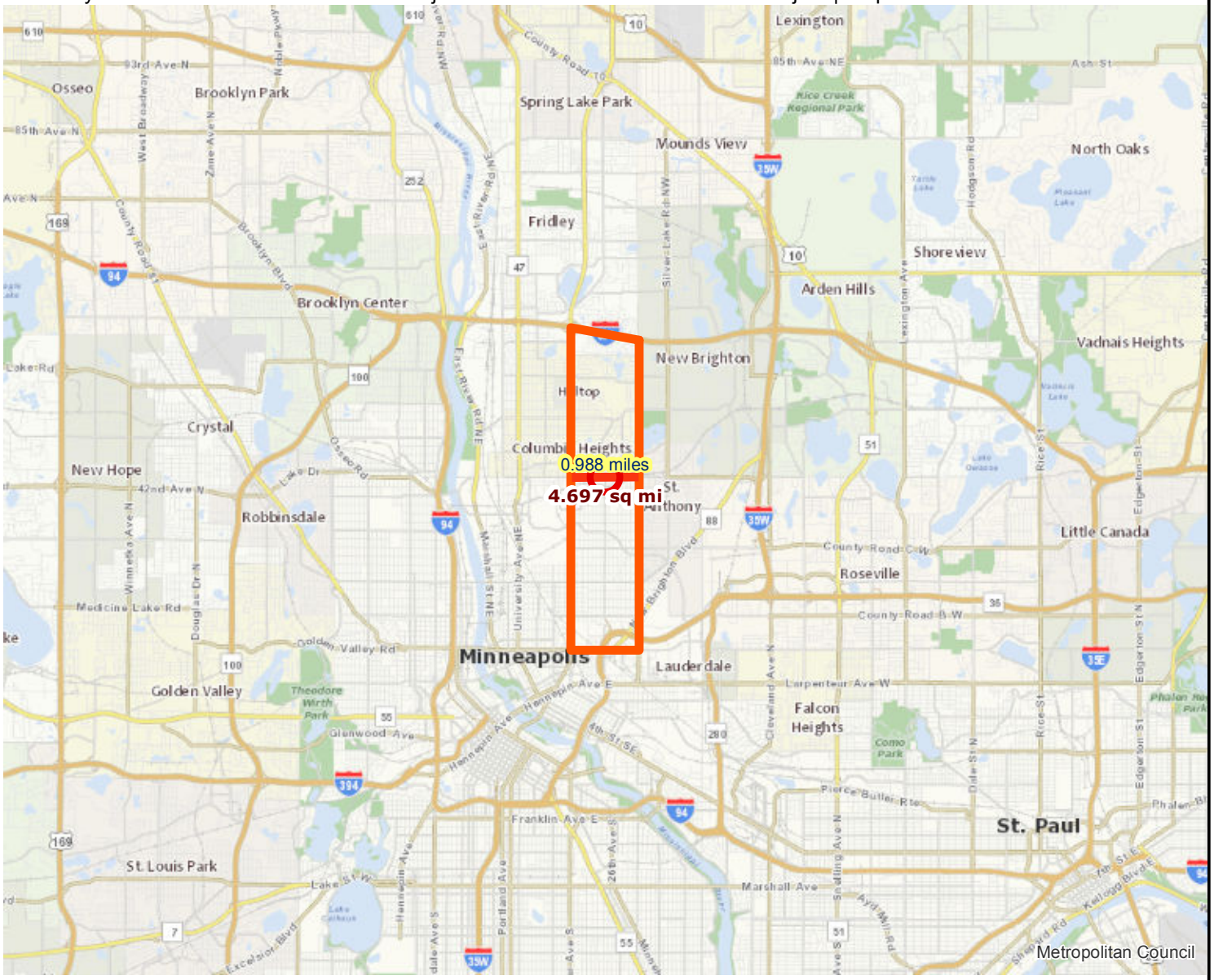
Roadway Area Definition

Roadway Reconstruction/Modernization Project: 37th Avenue Reconstruction Project | Map ID: 1467320650046

Results

Project Length: 0.988 miles

Project Area: 4.697 sq mi



Project Points Project Area

Project

0 1.25 2.5 5 7.5 10 Miles

Created: 6/30/2016

LandscapeRSA1

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

METROPOLITAN COUNCIL

Regional Economy

Roadway Reconstruction/Modernization Project: 37th Avenue Reconstruction Project | Map ID: 1467320650046

Results

WITHIN ONE MI of project:

Totals by City:

Columbia Heights
Population: 11802
Employment: 2762
Mfg and Dist Employment: 132

Minneapolis
Population: 10470
Employment: 2382
Mfg and Dist Employment: 565

St. Anthony
Population: 8023
Employment: 2061
Mfg and Dist Employment: 262

Postsecondary Students:
0

Project Points Project Area

Project

0 1.25 2.5 5 7.5 10 Miles

Created: 6/30/2016
LandscapeRSA5

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

METROPOLITAN COUNCIL

Transit Connections

Roadway Reconstruction/Modernization Project: 37th Avenue Reconstruction Project | Map ID: 1467320650046

Results

Transit with a Direct Connection to project:
4 10 59 118 141
*Central

**indicates Planned Alignments*

Project Points
Project
Project Area

Transitway
Blue / Green Line
Blue Line
Green Line
Northstar Line
Light Rail, Blue Line Extension
Light Rail, Green Line Extension

Planned Alignments
Arterial BRT
BRT, Orange Line

0 1.25 2.5 5 7.5 10 Miles

Created: 6/30/2016
LandscapeRSA3

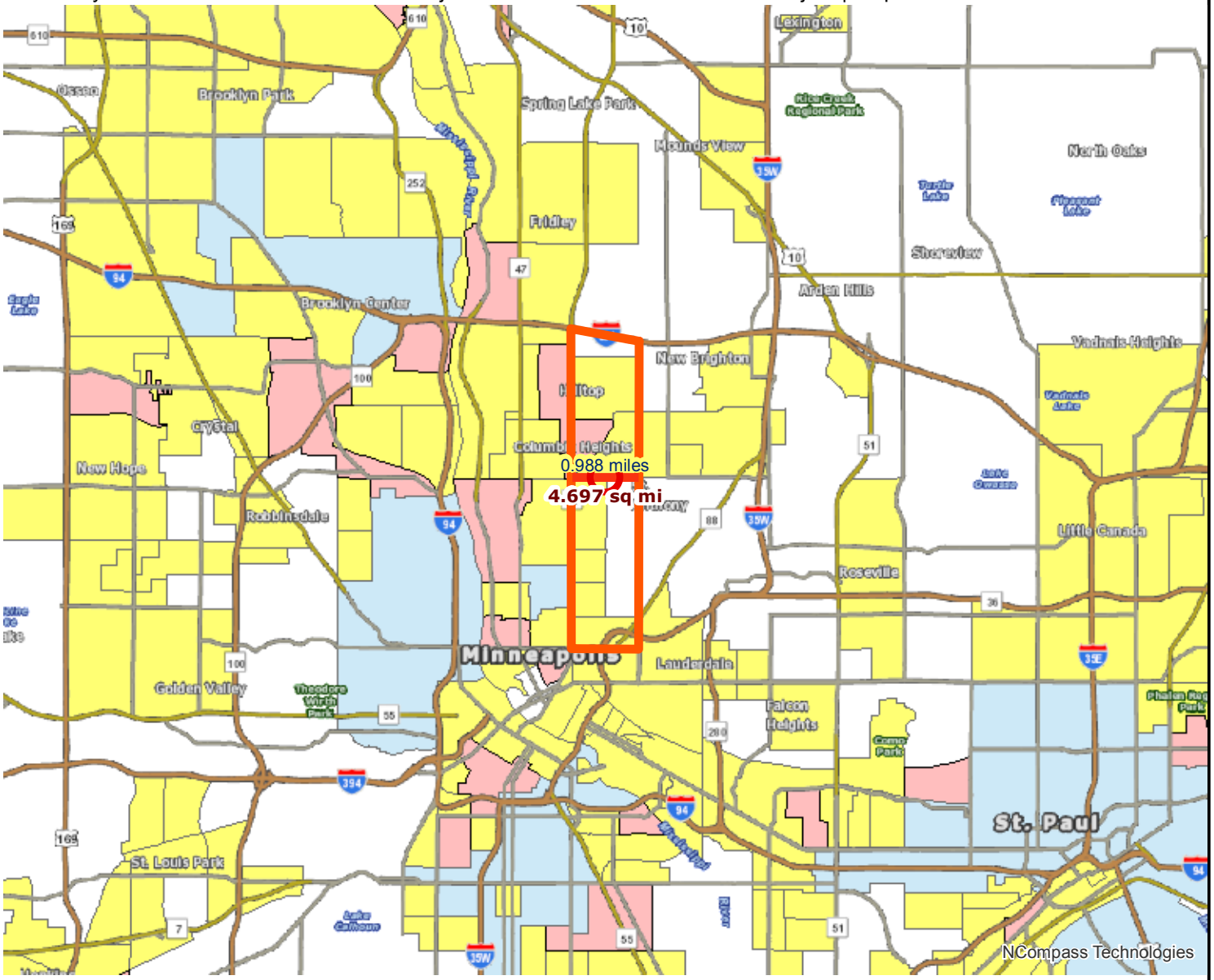
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: 37th Avenue Reconstruction Project | Map ID: 1467320650046

Results

Project census tracts are above the regional average for population in poverty or population of color:
(0 to 18 Points)



Project Points
Project
Project Area

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

0 1.25 2.5 5 7.5 10 Miles

Created: 6/30/2016
LandscapeRSA2

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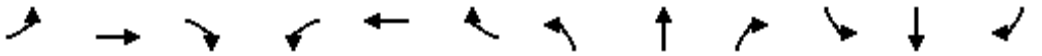
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

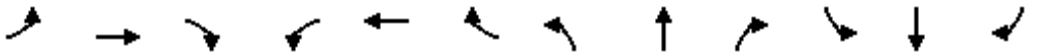
37th Avenue Reconstruction Project
City of Minneapolis

No Synchro or HCM analysis was completed for this project.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	370	76	91	549	64	303	25	125	44	31	12
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			5.0	5.0
Lane Util. Factor		0.95			0.95			0.95			1.00	1.00
Frt		0.97			0.99			0.96			1.00	0.85
Flt Protected		1.00			0.99			0.97			0.97	1.00
Satd. Flow (prot)		3350			3369			3189			1758	1538
Flt Permitted		0.95			0.83			0.76			0.65	1.00
Satd. Flow (perm)		3177			2828			2500			1181	1538
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	370	76	91	549	64	303	25	125	44	31	12
RTOR Reduction (vph)	0	24	0	0	13	0	0	64	0	0	0	8
Lane Group Flow (vph)	0	426	0	0	691	0	0	389	0	0	75	4
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)		14.7			14.7			12.0			12.0	12.0
Effective Green, g (s)		14.7			14.7			12.0			12.0	12.0
Actuated g/C Ratio		0.40			0.40			0.33			0.33	0.33
Clearance Time (s)		5.0			5.0			5.0			5.0	5.0
Vehicle Extension (s)		3.5			3.5			3.5			3.5	3.5
Lane Grp Cap (vph)		1272			1132			817			386	502
v/s Ratio Prot												
v/s Ratio Perm		0.13			c0.24			c0.16			0.06	0.00
v/c Ratio		0.33			0.61			0.48			0.19	0.01
Uniform Delay, d1		7.6			8.7			9.8			8.9	8.3
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		0.2			1.0			0.5			0.3	0.0
Delay (s)		7.8			9.8			10.4			9.2	8.3
Level of Service		A			A			B			A	A
Approach Delay (s)		7.8			9.8			10.4			9.1	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	36.7	Sum of lost time (s)	21.0
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	365	120	109	439	30	169	147	163	11	41	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	0.85		1.00	0.85	1.00	0.92			0.99	
Flt Protected		1.00	1.00		0.99	1.00	0.95	1.00			0.99	
Satd. Flow (prot)		1809	1538		1792	1538	1719	1667			1775	
Flt Permitted		1.00	1.00		0.85	1.00	0.79	1.00			0.79	
Satd. Flow (perm)		1807	1538		1533	1538	1430	1667			1415	
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)	2	365	120	109	439	30	169	147	163	11	41	4
RTOR Reduction (vph)	0	0	17	0	0	8	0	41	0	0	3	0
Lane Group Flow (vph)	0	367	103	0	548	22	169	269	0	0	53	0
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2		2	2		2	4			4		
Actuated Green, G (s)		76.1	76.1		76.1	76.1	22.9	22.9			22.9	
Effective Green, g (s)		76.1	76.1		76.1	76.1	22.9	22.9			22.9	
Actuated g/C Ratio		0.69	0.69		0.69	0.69	0.21	0.21			0.21	
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)		1250	1064		1060	1064	297	347			294	
v/s Ratio Prot								c0.16				
v/s Ratio Perm		0.20	0.07		c0.36	0.01	0.12				0.04	
v/c Ratio		0.29	0.10		0.52	0.02	0.57	0.77			0.18	
Uniform Delay, d1		6.6	5.6		8.1	5.3	39.1	41.1			35.8	
Progression Factor		0.52	0.35		1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2		0.1	0.0		1.8	0.0	2.5	10.3			0.3	
Delay (s)		3.5	2.0		9.9	5.3	41.6	51.4			36.1	
Level of Service		A	A		A	A	D	D			D	
Approach Delay (s)		3.1			9.7			48.0			36.1	
Approach LOS		A			A			D			D	

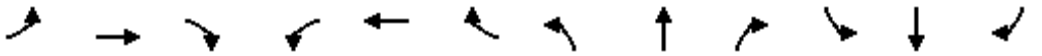
Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Volume (vph)	16	48	280	34	36	308	382	16	29	1306	29	25
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	6.0		5.5	5.5		
Lane Util. Factor		1.00	1.00			1.00	1.00		1.00	0.95		
Frt		1.00	0.98			1.00	0.85		1.00	0.99		
Flt Protected		0.95	1.00			0.99	1.00		0.95	1.00		
Satd. Flow (prot)		1719	1780			1800	1538		1719	3418		
Flt Permitted		0.55	1.00			0.55	1.00		0.27	1.00		
Satd. Flow (perm)		1003	1780			995	1538		491	3418		
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)	16	48	280	34	36	308	382	16	29	1306	29	25
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	64	314	0	0	344	398	0	29	1360	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	20.0			34.0	34.0		37.1	32.7		
Effective Green, g (s)		20.0	20.0			34.0	34.0		37.1	32.7		
Actuated g/C Ratio		0.18	0.18			0.31	0.31		0.34	0.30		
Clearance Time (s)		6.0	6.0			6.0	6.0		5.5	5.5		
Vehicle Extension (s)		4.0	4.0			4.0	4.0		3.0	4.0		
Lane Grp Cap (vph)		182	323			369	475		214	1016		
v/s Ratio Prot			0.18			0.07			0.01	0.40		
v/s Ratio Perm		0.06				c0.22	c0.26		0.04			
v/c Ratio		0.35	0.97			0.93	0.84		0.14	1.34		
Uniform Delay, d1		39.3	44.7			36.9	35.4		25.0	38.6		
Progression Factor		1.00	1.00			0.92	0.92		1.65	1.37		
Incremental Delay, d2		1.6	42.5			29.0	12.0		0.3	158.8		
Delay (s)		40.9	87.2			62.8	44.5		41.5	211.8		
Level of Service		D	F			E	D		D	F		
Approach Delay (s)			79.4			53.0				208.2		
Approach LOS			E			D				F		

Intersection Summary			
HCM 2000 Control Delay	131.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	29.5
Intersection Capacity Utilization	123.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

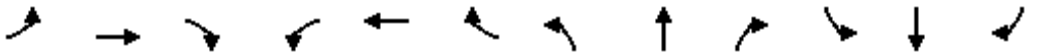
Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Volume (vph)	11	299	708	55	27	54	36	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	5.5		7.0		
Lane Util. Factor		1.00	0.95	1.00		1.00		
Frt		1.00	1.00	0.85		0.95		
Flt Protected		0.95	1.00	1.00		0.97		
Satd. Flow (prot)		1719	3438	1538		1672		
Flt Permitted		0.11	1.00	1.00		0.97		
Satd. Flow (perm)		197	3438	1538		1672		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	11	299	708	55	27	54	36	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	310	708	55	0	122	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Split	NA		
Protected Phases	1	1	6		7	7		
Permitted Phases	6	6		6				
Actuated Green, G (s)		45.3	36.8	36.8		10.8		
Effective Green, g (s)		45.3	36.8	36.8		10.8		
Actuated g/C Ratio		0.41	0.33	0.33		0.10		
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)		198	1150	514		164		
v/s Ratio Prot		c0.12	0.21			c0.07		
v/s Ratio Perm		c0.52		0.04				
v/c Ratio		1.57	0.62	0.11		0.74		
Uniform Delay, d1		27.2	30.7	25.3		48.3		
Progression Factor		1.00	1.00	1.00		1.00		
Incremental Delay, d2		277.6	2.5	0.4		16.6		
Delay (s)		304.8	33.1	25.7		64.9		
Level of Service		F	C	C		E		
Approach Delay (s)			111.2			64.9		
Approach LOS			F			E		

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	370	76	91	549	64	303	25	125	44	31	12
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
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			1.00	1.00
Frt	1.00	0.97		1.00	0.98			0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.97			0.97	1.00
Satd. Flow (prot)	1719	1763		1719	1781			3189			1758	1538
Flt Permitted	0.43	1.00		0.26	1.00			0.76			0.65	1.00
Satd. Flow (perm)	783	1763		470	1781			2496			1169	1538
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	370	76	91	549	64	303	25	125	44	31	12
RTOR Reduction (vph)	0	12	0	0	6	0	0	68	0	0	0	9
Lane Group Flow (vph)	4	434	0	91	607	0	0	385	0	0	75	3
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases		8		7	4			6		5	2	
Permitted Phases	8			4			6			2		2
Actuated Green, G (s)	15.6	15.6		22.4	22.4			12.8			12.8	12.8
Effective Green, g (s)	15.6	15.6		22.4	22.4			12.8			12.8	12.8
Actuated g/C Ratio	0.35	0.35		0.50	0.50			0.28			0.28	0.28
Clearance Time (s)	5.0	5.0		5.5	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
Lane Grp Cap (vph)	270	608		268	882			706			331	435
v/s Ratio Prot		0.25		0.01	c0.34							
v/s Ratio Perm	0.01			0.16				c0.15			0.06	0.00
v/c Ratio	0.01	0.71		0.34	0.69			0.55			0.23	0.01
Uniform Delay, d1	9.7	12.9		7.4	8.7			13.7			12.4	11.6
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2	0.0	4.1		0.8	2.3			1.0			0.4	0.0
Delay (s)	9.8	17.0		8.1	11.1			14.7			12.8	11.6
Level of Service	A	B		A	B			B			B	B
Approach Delay (s)		16.9			10.7			14.7			12.7	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	45.2	Sum of lost time (s)	21.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	365	120	109	439	30	169	147	163	11	41	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	0.96		1.00	0.99		1.00	0.92			0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			0.99	
Satd. Flow (prot)	1719	1742		1719	1792		1719	1667			1775	
Flt Permitted	0.45	1.00		0.44	1.00		0.79	1.00			0.79	
Satd. Flow (perm)	818	1742		800	1792		1430	1667			1415	
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)	2	365	120	109	439	30	169	147	163	11	41	4
RTOR Reduction (vph)	0	8	0	0	2	0	0	41	0	0	3	0
Lane Group Flow (vph)	2	477	0	109	467	0	169	269	0	0	53	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)	76.1	76.1		76.1	76.1		22.9	22.9			22.9	
Effective Green, g (s)	76.1	76.1		76.1	76.1		22.9	22.9			22.9	
Actuated g/C Ratio	0.69	0.69		0.69	0.69		0.21	0.21			0.21	
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)	565	1205		553	1239		297	347			294	
v/s Ratio Prot		c0.27			0.26			c0.16				
v/s Ratio Perm	0.00			0.14			0.12				0.04	
v/c Ratio	0.00	0.40		0.20	0.38		0.57	0.77			0.18	
Uniform Delay, d1	5.2	7.2		6.0	7.1		39.1	41.1			35.8	
Progression Factor	0.65	0.50		1.00	1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.0	0.1		0.8	0.9		2.5	10.3			0.3	
Delay (s)	3.4	3.7		6.8	7.9		41.6	51.4			36.1	
Level of Service	A	A		A	A		D	D			D	
Approach Delay (s)		3.7			7.7			48.0			36.1	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Volume (vph)	16	48	280	34	36	308	382	16	29	1306	29	25
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	6.0		5.5	5.5		
Lane Util. Factor		1.00	1.00			1.00	1.00		1.00	0.95		
Frt		1.00	0.98			1.00	0.85		1.00	0.99		
Flt Protected		0.95	1.00			0.99	1.00		0.95	1.00		
Satd. Flow (prot)		1719	1780			1800	1538		1719	3418		
Flt Permitted		0.55	1.00			0.55	1.00		0.27	1.00		
Satd. Flow (perm)		1003	1780			995	1538		491	3418		
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)	16	48	280	34	36	308	382	16	29	1306	29	25
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	64	314	0	0	344	398	0	29	1360	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	20.0			34.0	34.0		37.1	32.7		
Effective Green, g (s)		20.0	20.0			34.0	34.0		37.1	32.7		
Actuated g/C Ratio		0.18	0.18			0.31	0.31		0.34	0.30		
Clearance Time (s)		6.0	6.0			6.0	6.0		5.5	5.5		
Vehicle Extension (s)		4.0	4.0			4.0	4.0		3.0	4.0		
Lane Grp Cap (vph)		182	323			369	475		214	1016		
v/s Ratio Prot			0.18			0.07			0.01	0.40		
v/s Ratio Perm		0.06				c0.22	c0.26		0.04			
v/c Ratio		0.35	0.97			0.93	0.84		0.14	1.34		
Uniform Delay, d1		39.3	44.7			36.9	35.4		25.0	38.6		
Progression Factor		1.00	1.00			0.94	0.94		1.65	1.37		
Incremental Delay, d2		1.6	42.5			29.6	12.3		0.3	158.8		
Delay (s)		40.9	87.2			64.1	45.5		41.5	211.8		
Level of Service		D	F			E	D		D	F		
Approach Delay (s)			79.4			54.1				208.2		
Approach LOS			E			D				F		

Intersection Summary			
HCM 2000 Control Delay	131.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	29.5
Intersection Capacity Utilization	123.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Volume (vph)	11	299	708	55	27	54	36	5
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		0.95		
Flt Protected		0.95	1.00	1.00		0.97		
Satd. Flow (prot)		1719	3438	1538		1672		
Flt Permitted		0.11	1.00	1.00		0.97		
Satd. Flow (perm)		197	3438	1538		1672		
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	11	299	708	55	27	54	36	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	310	708	55	0	122	0	0
Turn Type	pm+pt	pm+pt	NA	Perm	Split	NA		
Protected Phases	1	1	6		7	7		
Permitted Phases	6	6		6				
Actuated Green, G (s)		45.3	36.8	36.8		10.8		
Effective Green, g (s)		45.3	36.8	36.8		10.8		
Actuated g/C Ratio		0.41	0.33	0.33		0.10		
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)		198	1150	514		164		
v/s Ratio Prot		c0.12	0.21			c0.07		
v/s Ratio Perm		c0.52		0.04				
v/c Ratio		1.57	0.62	0.11		0.74		
Uniform Delay, d1		27.2	30.7	25.3		48.3		
Progression Factor		1.00	1.00	1.00		1.00		
Incremental Delay, d2		277.6	2.5	0.4		16.6		
Delay (s)		304.8	33.1	25.7		64.9		
Level of Service		F	C	C		E		
Approach Delay (s)			111.2			64.9		
Approach LOS			F			E		

Intersection Summary

1: Stinson Blvd & 37th Av NE

Direction	All
Volume (vph)	1694
Fuel Consumed (gal)	32
Fuel Economy (mpg)	17.0
CO Emissions (kg)	2.21
NOx Emissions (kg)	0.43
VOC Emissions (kg)	0.51

941: Johnson St NE & 37th Av NE

Direction	All
Volume (vph)	1600
Fuel Consumed (gal)	39
Fuel Economy (mpg)	17.4
CO Emissions (kg)	2.71
NOx Emissions (kg)	0.53
VOC Emissions (kg)	0.63

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

Direction	All
Volume (vph)	3704
Fuel Consumed (gal)	162
Fuel Economy (mpg)	7.3
CO Emissions (kg)	11.30
NOx Emissions (kg)	2.20
VOC Emissions (kg)	2.62

1: Stinson Blvd & 37th Av NE

Direction	All
Volume (vph)	1694
Fuel Consumed (gal)	31
Fuel Economy (mpg)	14.8
CO Emissions (kg)	2.14
NOx Emissions (kg)	0.42
VOC Emissions (kg)	0.50

941: Johnson St NE & 37th Av NE

Direction	All
Volume (vph)	1600
Fuel Consumed (gal)	39
Fuel Economy (mpg)	17.5
CO Emissions (kg)	2.71
NOx Emissions (kg)	0.53
VOC Emissions (kg)	0.63

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

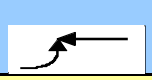
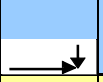
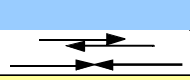
Direction	All
Volume (vph)	3704
Fuel Consumed (gal)	162
Fuel Economy (mpg)	7.3
CO Emissions (kg)	11.32
NOx Emissions (kg)	2.20
VOC Emissions (kg)	2.62

CALCULATION OF EMISSION REDUCTION (PM PEAK HOUR)							
	Cross Street	Existing Conditions		Build Conditions		Total Reduction	
		Total (kg)	Per Vehicle (kg)	Total (kg)	Per Vehicle (kg)	Total (kg)	Per Vehicle (kg)
CO	Central Aveue	11.30	0.003051	11.32	0.003056	0.02	0.000005
	Johnson Street	2.71	0.001694	2.71	0.001694	0.00	0.000000
	Stinson Boulevard	2.21	0.001305	2.14	0.001263	-0.07	-0.000042
	Total	16.22	0.006050	16.17	0.006013	-0.05	-0.000037
NO_X	Central Aveue	2.20	0.000594	2.20	0.000594	0.00	0.000000
	Johnson Street	0.53	0.000331	0.53	0.000331	0.00	0.000000
	Stinson Boulevard	0.43	0.000254	0.42	0.000248	-0.01	-0.000006
	Total	3.16	0.001179	3.15	0.001173	-0.01	-0.000006
VOC	Central Aveue	2.62	0.000707	2.62	0.000707	0.00	0.000000
	Johnson Street	2.20	0.001375	0.63	0.000394	-1.57	-0.000981
	Stinson Boulevard	0.51	0.000301	0.50	0.000295	-0.01	-0.000006
	Total	5.33	0.002383	3.75	0.001396	-1.58	-0.000987
Total Emissions		24.71	0.009612	23.07	0.008582	-1.64	-0.001030

B/C worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	37th Avenue	At the signalized intersection with Central Avenue			Minneapolis	1/1/2013	12/31/2015

Description of Proposed Work: Addition of westbound dedicated left-turn lane along 37th Avenue at Central Avenue

			Accident Diagram Codes 1	2	3	5	4, 7	8, 9	Pedestrian	6, 90, 98, 99 Other	Total
											
Study Period: Number of Crashes	Fatal	F	0	0	0	0	0	0	0	0	
	Personal Injury (PI)	A	0	0	0	0	0	0	0	0	
		B	0	0	0	0	1	0	0	0	1
		C	2	0	0	0	0	0	0	0	2
	Property Damage	PD	1	0	0	0	0	1	0	0	2
% Change in Crashes *Use FHWA cmfclearinghouse for Crash Reduction Factors	Fatal	F	-26%	-26%	-26%	-26%	-26%	-26%	-26%	-26%	
	PI	A	-26%	-26%	-26%	-26%	-26%	-26%	-26%	-26%	
		B	-26%	-26%	-26%	-26%	-26%	-26%	-26%	-26%	
		C	-26%	-26%	-26%	-26%	-26%	-26%	-26%	-26%	
	Property Damage	PD	-26%	-26%	-26%	-26%	-26%	-26%	-26%	-26%	
Change in Crashes = No. of crashes x % change in crashes	Fatal	F									
	PI	A									
		B					-0.26				-0.26
		C	-0.52								-0.52
	Property Damage	PD	-0.26					-0.26			-0.52

Year (Safety Improvement Construction): 2018

Project Cost (exclude Right of Way): $ 500,000

Right of Way Costs (optional):

Traffic Growth Factor: 1%

Capital Recovery

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

Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
F			$ 1,140,000	
A			$ 570,000	
B	-0.26	-0.09	$ 170,000	$ 14,747
C	-0.52	-0.17	$ 83,000	$ 14,400
PD	-0.52	-0.17	$ 7,600	$ 1,319
Total				$ 30,465

B/C= 0.90

Using present worth values,

B= $ 449,395

C= $ 500,000

See "Calculations" sheet for amortization.

Updated 12-10-2015

CRASH MODIFICATION FACTORS CLEARINGHOUSE

AVG -26%

CMF / CRF Details

CMF ID: 261

Provide a left-turn lane on one major-road approach

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes*, Harwood et al., 2002

Star Quality Rating: ★★★★★

Crash Modification Factor (CMF)

Value:	0.73
Adjusted Standard Error:	0.04
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)

Value:	27 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	4
Unadjusted Standard Error:	3

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 263

Provide a left-turn lane on one major-road approach

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes*, Harwood et al., 2002

Star Quality Rating: ★★★★★

Crash Modification Factor (CMF)

Value:	0.76
Adjusted Standard Error:	0.03
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)

Value:	24 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	3
Unadjusted Standard Error:	3

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 4600 to Maximum of 40300 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 100 to Maximum of 13700 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 265

Provide a left-turn lane on one major-road approach

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes*, Harwood et al., 2002

Star Quality Rating: ★★★★★

Crash Modification Factor (CMF)

Value:	0.71
Adjusted Standard Error:	0.05
Unadjusted Standard Error:	0.04

Crash Reduction Factor (CRF)

Value:	29 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	5
Unadjusted Standard Error:	4

Applicability

Crash Type:	All
Crash Severity:	Fatal,Serious Injury,Minor Injury
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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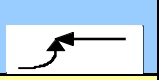
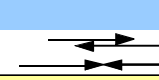
B/C worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	37th Avenue	At the signalized intersection with Johnson Street			Minneapolis	1/1/2013	12/31/2015

Description of Proposed Work: Addition of dedicated left-turn lanes along 37th Avenue at Johnson Street

Accident Diagram Codes			1	2	3	5	4, 7	8, 9	Pedestrian	6, 90, 98, 99 Other	Total
											
Study Period: Number of Crashes	Fatal	F	0	0	0	0	0	0	0	0	
	Personal Injury (PI)	A	0	0	0	0	0	0	0	0	
		B	1	0	0	0	0	0	0	0	1
		C	2	0	0	1	0	0	0	1	4
	Property Damage	PD	3	0	1	0	0	0	0	1	5
% Change in Crashes *Use FHWA cmfclearinghouse for Crash Reduction Factors	Fatal	F	-45%	-45%	-45%	-45%	-45%	-45%	-45%	-45%	
	PI	A	-45%	-45%	-45%	-45%	-45%	-45%	-45%	-45%	
		B	-45%	-45%	-45%	-45%	-45%	-45%	-45%	-45%	
		C	-45%	-45%	-45%	-45%	-45%	-45%	-45%	-45%	
	Property Damage	PD	-45%	-45%	-45%	-45%	-45%	-45%	-45%	-45%	
Change in Crashes = No. of crashes x % change in crashes	Fatal	F									
	PI	A									
		B	-0.45								-0.45
		C	-0.90			-0.45				-0.45	-1.80
	Property Damage	PD	-1.35		-0.45					-0.45	-2.25

		Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
Year (Safety Improvement Construction)	2018					
Project Cost (exclude Right of Way)	$ 500,000					
Right of Way Costs (optional)		F			$ 1,140,000	
Traffic Growth Factor	1%	A			$ 570,000	
Capital Recovery		B	-0.45	-0.15	$ 170,000	$ 25,523
1. Discount Rate	4.5%	C	-1.80	-0.60	$ 83,000	$ 49,846
2. Project Service Life (n)	20	PD	-2.25	-0.75	$ 7,600	$ 5,705
		Total				$ 81,074

B/C= 2.39

Using present worth values,

B= $ 1,195,934

C= $ 500,000

See "Calculations" sheet for amortization.

Updated 12-10-2015

CRASH MODIFICATION FACTORS CLEARINGHOUSE

AU 45%.

CMF / CRF Details

CMF ID: 268

Provide a left-turn lane on both major-road approaches

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes*, Harwood et al., 2002

Star Quality Rating: ★★★★★

Crash Modification Factor (CMF)

Value:	0.52
Adjusted Standard Error:	0.04
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)

Value:	48 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	4
Unadjusted Standard Error:	3

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Rural

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 32400 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 50 to Maximum of 11800 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 269

Provide a left-turn lane on both major-road approaches

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes*, Harwood et al., 2002

Star Quality Rating: ★★★★★

Crash Modification Factor (CMF)

Value:	0.53
Adjusted Standard Error:	0.04
Unadjusted Standard Error:	0.04

Crash Reduction Factor (CRF)

Value:	47 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	4
Unadjusted Standard Error:	4

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 271

Provide a left-turn lane on both major-road approaches

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes,* Harwood et al., 2002

Star Quality Rating: ★★★★★

Crash Modification Factor (CMF)

Value:	0.58
Adjusted Standard Error:	0.04
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)

Value:	42 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	4
Unadjusted Standard Error:	3

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 4600 to Maximum of 40300 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 100 to Maximum of 13700 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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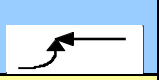
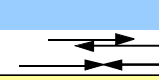
B/C worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	37th Avenue	At the signalized intersection with Stinson Avenue			Minneapolis	1/1/2013	12/31/2015

Description of Proposed Work: Addition of eastbound dedicated left-turn lane and westbound dedicated right-turn lane along 37th Avenue at Stinson Avenue

			Accident Diagram Codes 1	2	3	5	4, 7	8, 9	Pedestrian	6, 90, 98, 99 Other	Total
											
Study Period: Number of Crashes	Fatal	**F**	0	0	0	0	0	0	0	0	
	Personal Injury (PI)	**A**	0	0	0	0	0	0	0	0	
		B	0	0	0	0	0	0	0	0	
		C	1	0	0	2	0	0	0	0	**3**
	Property Damage	**PD**	0	0	0	0	1	0	0	0	**1**
% Change in Crashes *Use FHWA cmfclearinghouse for Crash Reduction Factors	Fatal	**F**	-37%	-37%	-37%	-37%	-37%	-37%	-37%	-37%	
	PI	**A**	-37%	-37%	-37%	-37%	-37%	-37%	-37%	-37%	
		B	-37%	-37%	-37%	-37%	-37%	-37%	-37%	-37%	
		C	-37%	-37%	-37%	-37%	-37%	-37%	-37%	-37%	
	Property Damage	**PD**	-37%	-37%	-37%	-37%	-37%	-37%	-37%	-37%	
Change in Crashes = No. of crashes **x** % change in crashes	Fatal	**F**									
	PI	**A**									
		B									
		C	**-0.37**			**-0.74**					**-1.11**
	Property Damage	**PD**					**-0.37**				**-0.37**

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

Project Cost (exclude Right of Way): **$ 500,000**

Right of Way Costs (optional):

Traffic Growth Factor: **1%**

Capital Recovery

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

Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
F			**$ 1,140,000**	
A			**$ 570,000**	
B			**$ 170,000**	
C	**-1.11**	**-0.37**	**$ 83,000**	**$ 30,738**
PD	**-0.37**	**-0.12**	**$ 7,600**	**$ 938**
Total				**$ 31,676**

B/C= 0.93

Using present worth values,

B= $ 467,261

C= $ 500,000

See "Calculations" sheet for amortization.

Updated 12-10-2015

CRASH MODIFICATION FACTORS CLEARINGHOUSE

37% OVERALL

AVG 26%

CMF / CRF Details

CMF ID: 261

Provide a left-turn lane on one major-road approach

Description:

Prior Condition: *No Prior Condition(s)*

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes,* Harwood et al., 2002

Star Quality Rating: ☆☆☆☆☆

Crash Modification Factor (CMF)

Value:	0.73
Adjusted Standard Error:	0.04
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)

Value:	27 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	4
Unadjusted Standard Error:	3

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 263

Provide a left-turn lane on one major-road approach

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes,* Harwood et al., 2002

Star Quality Rating: ☆☆☆☆☆

Crash Modification Factor (CMF)

Value:	0.76
Adjusted Standard Error:	0.03
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)

Value:	24 *(This value indicates a* ***decrease*** *in crashes)*
Adjusted Standard Error:	3
Unadjusted Standard Error:	3

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 4600 to Maximum of 40300 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 100 to Maximum of 13700 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 265

Provide a left-turn lane on one major-road approach

Description:

Prior Condition: *No Prior Condition(s)*

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes*, Harwood et al., 2002

Star Quality Rating: ★★★★★

Crash Modification Factor (CMF)

Value:	0.71
Adjusted Standard Error:	0.05
Unadjusted Standard Error:	0.04

Crash Reduction Factor (CRF)

Value:	29 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	5
Unadjusted Standard Error:	4

Applicability

Crash Type:	All
Crash Severity:	Fatal,Serious Injury,Minor Injury
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 288

Provide a right-turn lane on one major-road approach

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes*, Harwood et al., 2002

Star Quality Rating: ★★★★★

Crash Modification Factor (CMF)

Value:	0.91
Adjusted Standard Error:	0.04
Unadjusted Standard Error:	0.03

Crash Reduction Factor (CRF)

Value:	9 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	4
Unadjusted Standard Error:	3

Applicability

Crash Type:	All
Crash Severity:	Fatal,Serious Injury,Minor Injury
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	All

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 7200 to Maximum of 55100 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 550 to Maximum of 8400 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 285

Provide a right-turn lane on one major-road approach

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes,* Harwood et al., 2002

Star Quality Rating: ★★★★☆

Crash Modification Factor (CMF)

Value:	0.86
Adjusted Standard Error:	0.06
Unadjusted Standard Error:	0.05

Crash Reduction Factor (CRF)

Value:	14 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	6
Unadjusted Standard Error:	5

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	All

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 25 to Maximum of 26000 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
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Comments:	Countermeasure name changed to match HSM

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CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 287

Provide a right-turn lane on one major-road approach

Description:

Prior Condition: ***No Prior Condition(s)***

Category: Intersection geometry

Study: *Safety Effectiveness of Intersection Left- and Right-Turn Lanes*, Harwood et al., 2002

Star Quality Rating: ★★★★☆

Crash Modification Factor (CMF)

Value:	0.77
Adjusted Standard Error:	0.08
Unadjusted Standard Error:	0.07

Crash Reduction Factor (CRF)

Value:	23 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	8
Unadjusted Standard Error:	7

Applicability

Crash Type:	All
Crash Severity:	Fatal,Serious Injury,Minor Injury
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	All

Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 25 to Maximum of 26000 Average Daily Traffic (ADT)

Development Details

Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM

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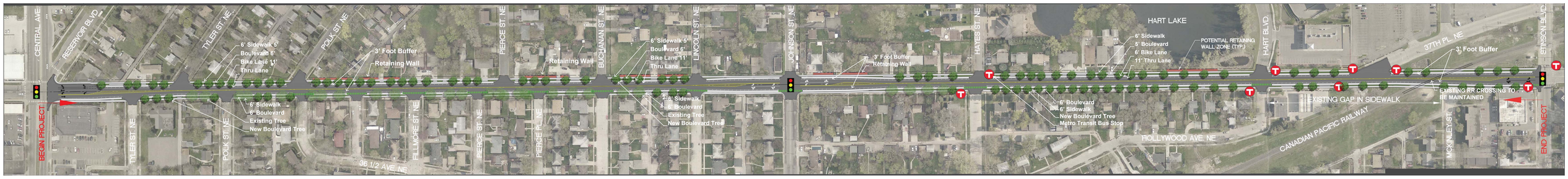

CONCEPT 2 - SIDEWALKS AND ON-STREET BIKE LANES WITH BUFFER

Kimley»Horn
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PHONE: 651-645-4197
WWW.KIMLEY-HORN.COM

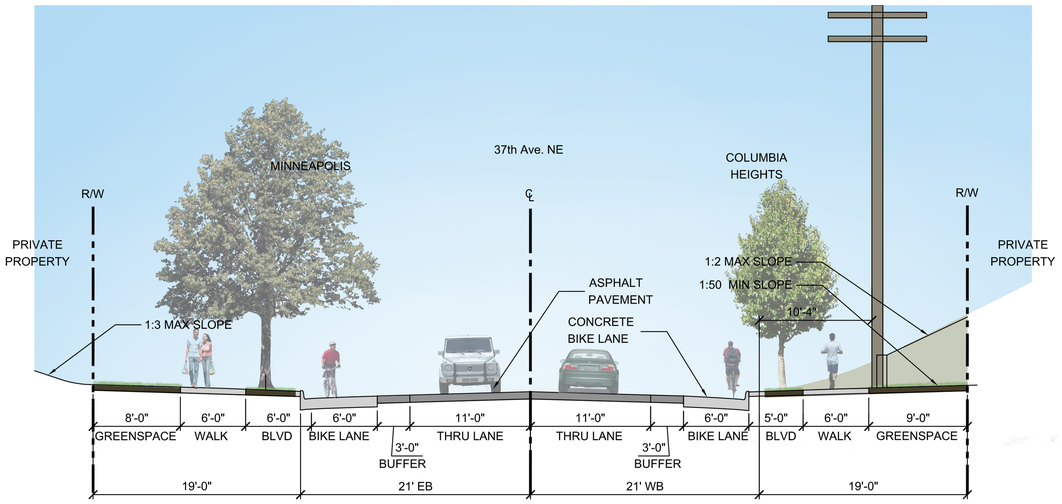
Minneapolis
City of Lakes

COLUMBIA HEIGHTS

37TH AVENUE NE RECONSTRUCTION PROJECT PLANNING

CONCEPT LAYOUT

JUNE 28, 2016 Open House
DRAFT - SUBJECT TO CHANGE



CONCEPT 2: On-Street Protected Bike Lanes with Sidewalks

0 2 4 8 16

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37TH AVENUE NE RECONSTRUCTION PROJECT PLANNING

TYPICAL SECTION CONCEPT

JUNE 28, 2016 Open House
DRAFT - SUBJECT TO CHANGE

CENTRAL AVE. INTERSECTION

CENTRAL AVE

7'
12'
5'
11'
10'
13'
6'
7'
5:1
100'
5:1
30:1

JOHNSON ST. INTERSECTION

7'
6'
3'
11'
11'
3'
6'
7'
100'
30:1
15:1
5:1

JOHNSON ST. NE

STINSON BLVD INTERSECTION

T
T
T
6'
5'
7'
3'
11'
11'
11'
3'
6'
5'
6'
100'
30:1
5:1

STINSON BLVD.

Kimley»Horn

Minneapolis
City of Lakes

COLUMBIA HEIGHTS

37TH AVENUE NE RECONSTRUCTION PROJECT PLANNING

37TH AND CENTRAL AND STINSON INTERSECTION LAYOUTS

OPTION 2: SIDEWALKS AND ON-STREET BIKE LANES WITH BUFFER

JUNE 28, 2016 OPEN HOUSE

NORTH

0 10 20 40
HORIZONTAL
SCALE IN FEET

DRAFT SUBJECT TO CHANGE

CERTIFICATION

State of Minnesota
County of Anoka
City of Columbia Heights

I, the duly appointed, qualified City Clerk of Columbia Heights, Minnesota, and the keeper of the records thereof, do hereby certify that the attached is a true and correct copy of Resolution No. 2016-53, being a Resolution authorizing the City of Columbia Heights, supporting Federal Surface Transportation Program (STP) funding application submittal for 37th Avenue Improvements.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official City Seal of Columbia Heights this 14th day of June, 2016

Katie Bruno
City Clerk
City of Columbia Heights

Seal

RESOLUTION NO. 2016-53

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 13th day of June, 2016

Offered by: Nawrocki
Seconded by: Williams
Roll Call: All Ayes

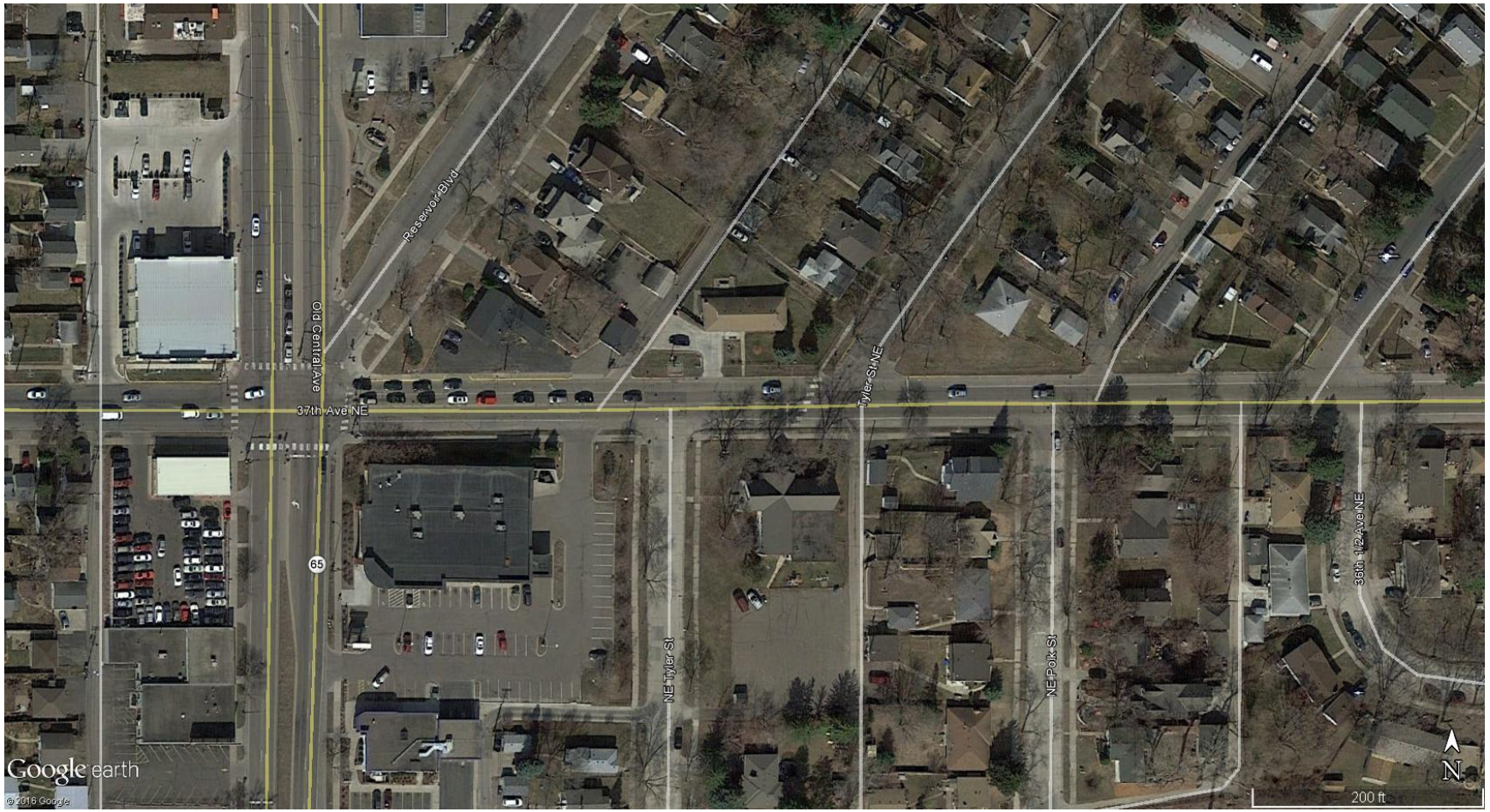
Gary L. Peterson, Mayor

Attest: Katie Bruno

Katie Bruno, City Clerk/Council Secretary

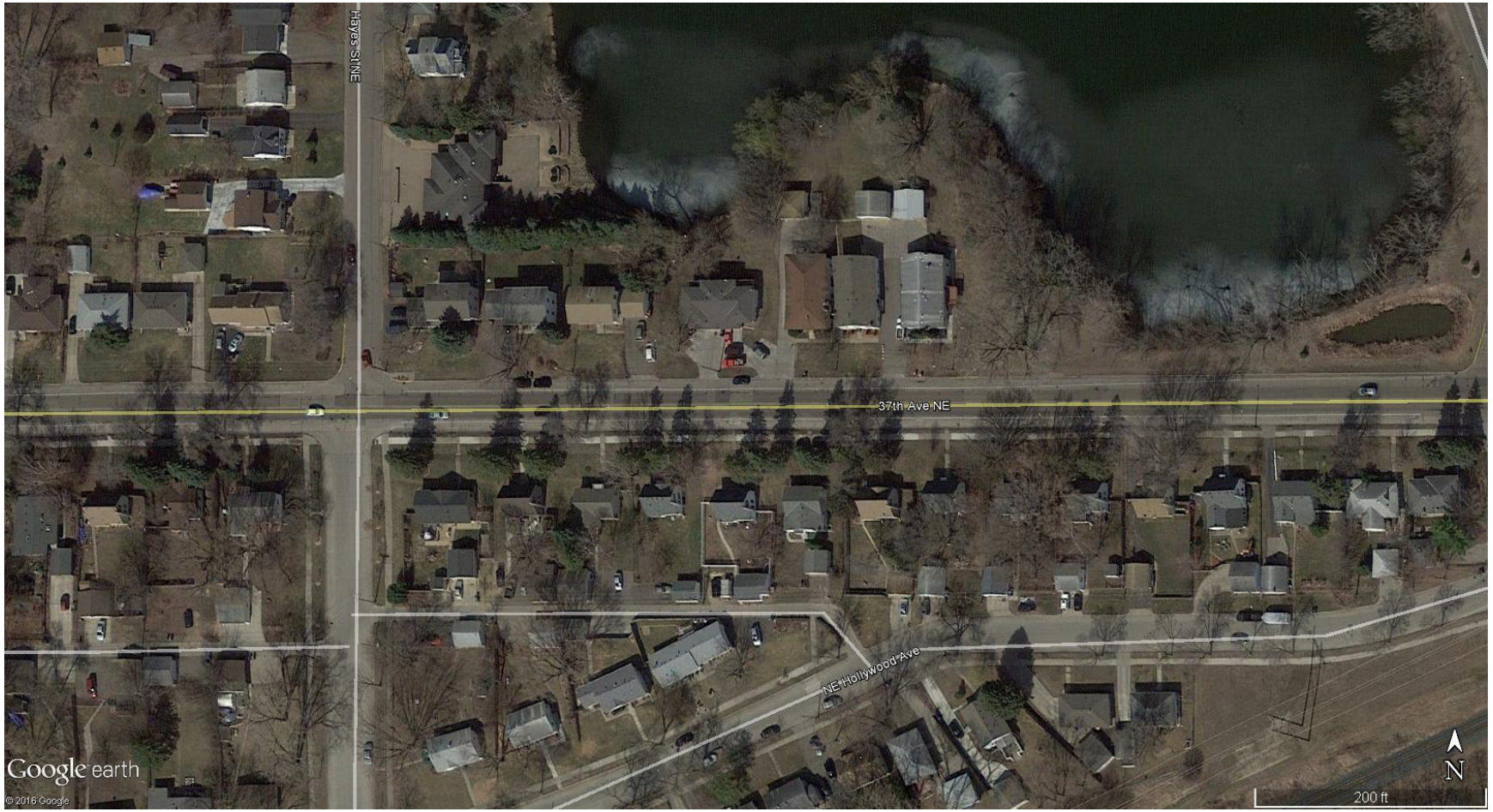
Existing Conditions Photos

Google Earth Plan View Photos – Full Corridor from West to East




37th Ave NE
Buchanan St NE
NE Taylor St
NE Fillmore St
Pierce St NE
NE Pierce Pl
36th 1/2 Ave NE
Google earth
© 2016 Google
N
200 ft

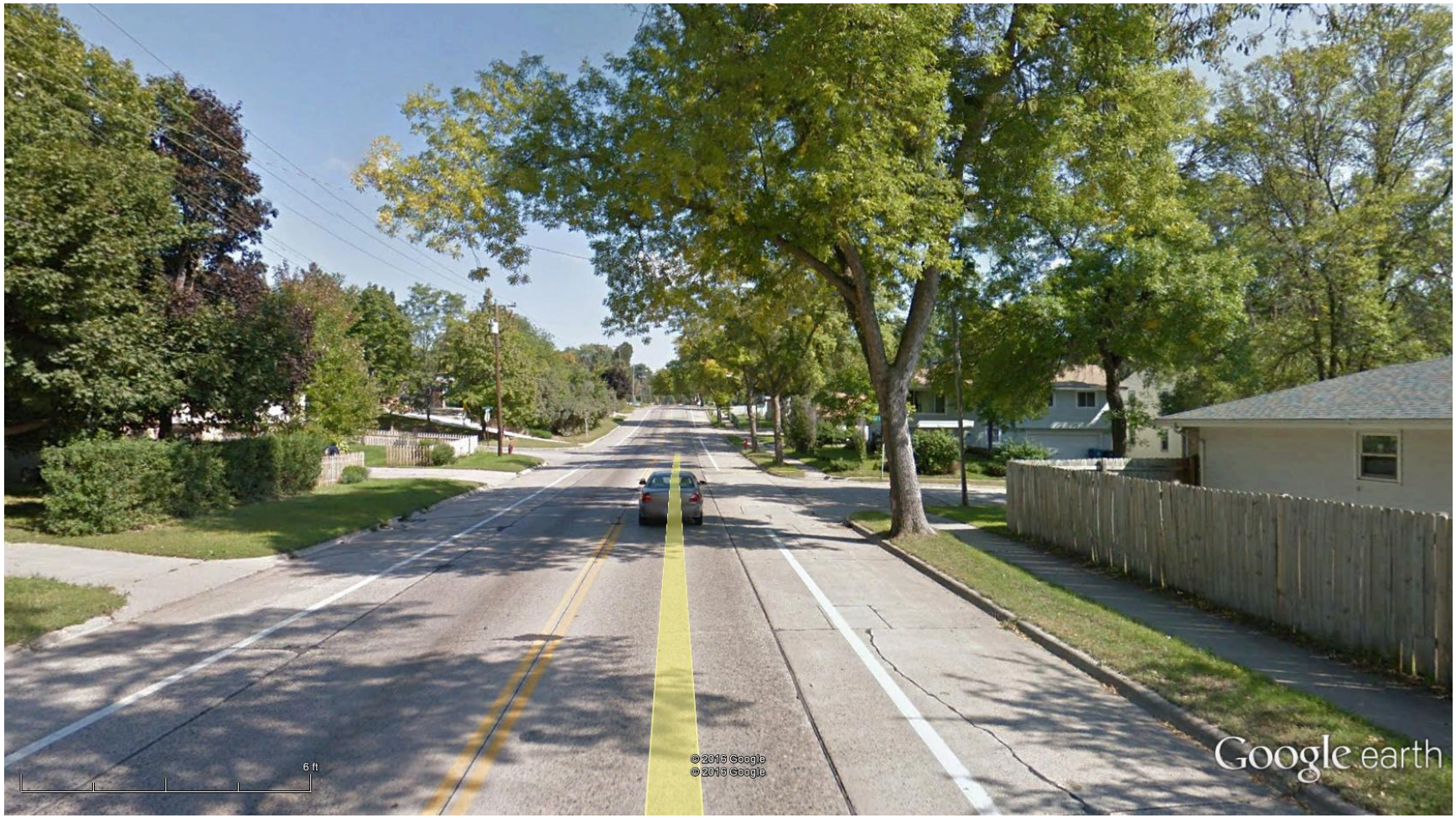

Buchanan St NE
NE Lincoln St
37th Ave NE
Johnson St NE
Google earth
© 2016 Google
N
200 ft


Hayes St NE
37th Ave NE
NE Hollywood Ave
Google earth
© 2016 Google
N
200 ft


Hart Blvd
37th Pl NE
37th Ave NE
27
19
NE Stinson Pkwy
NE Holly Wood Ave
NE McKinley St
Google earth
© 2016 Google
200 ft
N

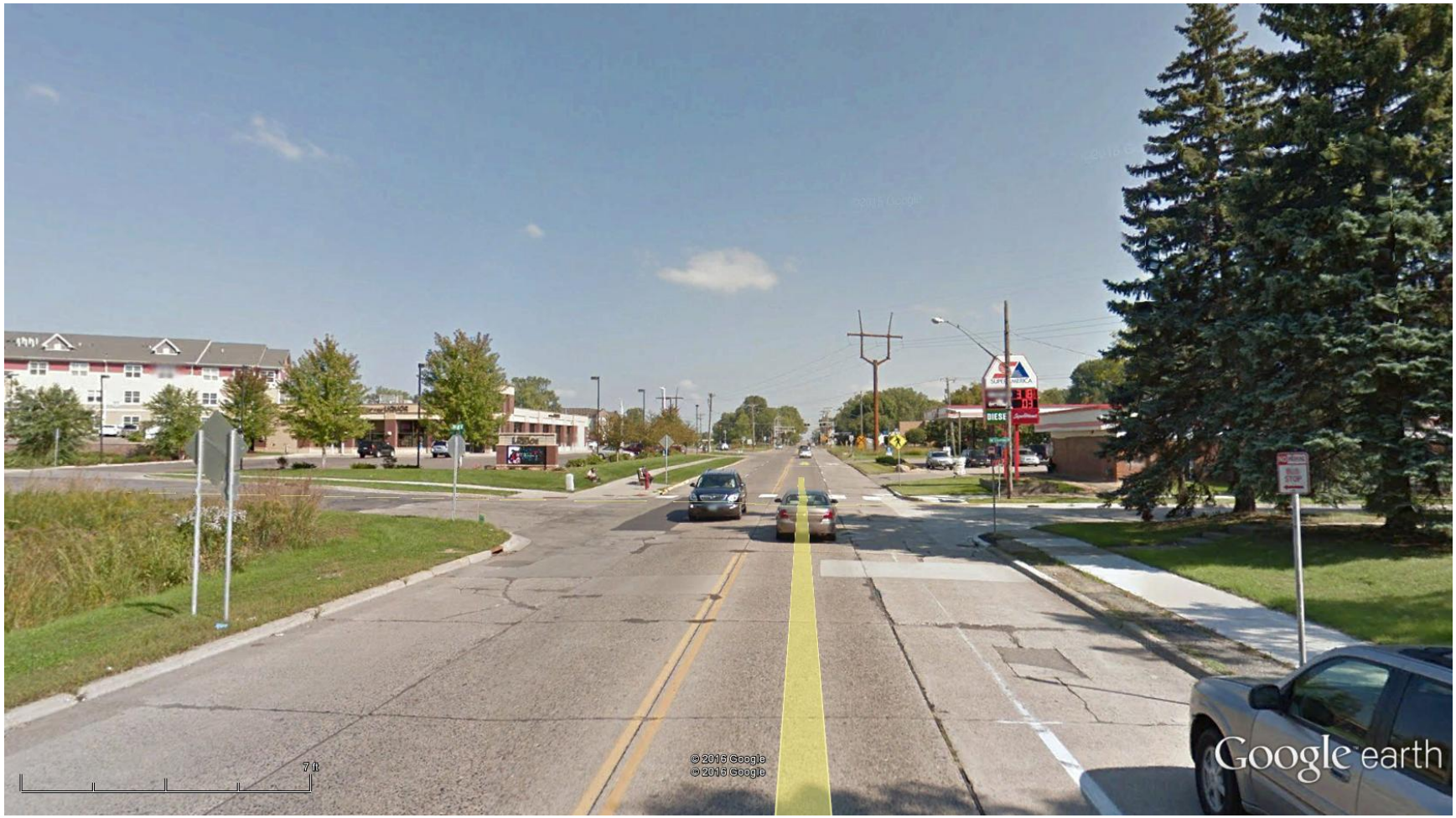
Google Earth Street View Photos

37th Avenue & Pierce Street (looking east)



37th Avenue & Hayes Street (looking west)

37th Avenue & Hart Boulevard (looking east)



Minneapolis
City of Lakes

Public Works
350 S. Fifth St. - Room 203
Minneapolis, MN 55415
TEL 612.673.2352
www.minneapolismn.gov

July 5, 2016

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

RE: 2016 Regional Solicitation Applications

Dear Ms. Koutsoukos,

The City of Minneapolis Department of Public Works is submitting a series of applications for the 2016 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 17, 2016. The relevant action is excerpted below:

> *The TRANSPORTATION & PUBLIC WORKS and WAYS & MEANS Committees submitted the following reports:*
> *The Minneapolis City Council hereby authorizes the submission of a series of applications for federal transportation funds through Metropolitan Council's 2016 Regional Solicitation Program and further authorizes the commitment of local funds to provide the required match for federal funding, as set forth in File No. 16-00737 on file in the Office of the City Clerk.*
> *On roll call, the result was:*
> *Ayes: Reich, Gordon, Frey, Yang, Warsame, Goodman, Glidden, Cano, Bender, Quincy, Palmisano, President Johnson (12)*
> *Noes: (0)*
> *Absent: A. Johnson (1)*
> *The report was adopted.*

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

Thank you for the opportunity to submit these applications.

Sincerely,

Lisa K. Cerney

Lisa Cerney, P.E.
Deputy Director of Public Works

City of Minneapolis
Request for Committee Action

To:	Transportation & Public Works
Date:	6/7/2016
Referral:	Ways & Means
From:	Public Works Department
Lead Staff:	Steven Hay, Transportation Planner, Transportation Planning and Programming
Presented by:	Steven Hay, Transportation Planner, Transportation Planning and Programming
File Type:	Action
Subcategory:	Grant

Subject:
Application for 2016 Met Council Regional Solicitation for Federal Transportation Funds

Description:
Authorizing the submission of a series of applications for federal transportation funds through Metropolitan Council's Regional Solicitation Program and the commitment of local funds to provide the required match for federal funding.

Previous Actions:
None.

Background/Analysis:
The City will prepare a series of applications for the 2016 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 2020 and 2021.

The 2016 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 with each category including several sub-categories as detailed below:

1. Roadways Including Multimodal Elements
   - Roadway Expansion
   - Roadway Reconstruction/Modernization
   - Roadway System Management
   - Bridges
2. Bicycle and Pedestrian Facilities
   - Multiuse Trails and Bicycle Facilities
   - Pedestrian Facilities
   - Safe Routes to School Infrastructure

3. Transit and Travel Demand Management (TDM) Projects
    - Transit Expansion
    - Travel Demand Management
    - Transit System Modernization

The City is recommending the submission of up to six applications, which are summarized below:

Project Name	Category	Requested Federal Amount	Minimum Local Match Required
Hennepin Avenue (Washington Avenue to 12th St S)	Roadways	$7,000,000	$1,750,000
37th Avenue NE (Central Avenue to Stinson Boulevard)	Roadways	$7,000,000	$1,750,000
Nicollet Avenue Bridge over Minnehaha Creek	Roadways	$7,000,000	$1,750,000
Prospect Park Trail	Bicycle & Pedestrian Facilities	$535,000	$855,000
Queen Avenue N Bike Boulevard	Bicycle & Pedestrian Facilities	$1,000,000	$250,000
36th Street West Pedestrian Enhancements	Bicycle & Pedestrian Facilities	$1,000,000	$565,000
Totals		$23,535,000	$6,920,000

Details of the proposed applications are described below:

Hennepin Avenue – Washington Avenue to 12th Street South

The proposed project is a complete reconstruction of Hennepin Avenue from Washington Avenue to 12th St S, a distance of approximately 0.75 miles. The proposed reconstruction project proposes to remove and replace the pavement surface, curb and gutter, signage, storm drains, driveway approaches, traffic signals, striping, sidewalks, and street trees.
Program Category: Roadways including Multimodal Elements

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 1.0 mile. This section of 37th Avenue NE is along the border between Minneapolis and Columbia Heights. 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, some sidewalks, as well as construction of a bicycle facility.
Program Category: Roadways including Multimodal Elements

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. 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. Although the bridge does not need to be replaced, 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: Roadways including Multimodal Elements

Prospect Park Trail – Franklin Avenue SE to 27th Avenue SE

The proposed project involves the construction of a multi-use trail between Franklin Avenue SE and 27th Avenue SE. The project involves grading, subgrade work, paving, lighting, signage, and striping.

Program Category: Bicycle and Pedestrian Facilities

Queen Avenue Bike Boulevard

The proposed project will construct bicycle boulevards on Queen Ave N (or parallel routes) from 44th Ave N to the Harrison neighborhood. The City will continue to coordinate with Hennepin County as a partner agency to evaluate the project and determine if the proposed project is suitable for submission.

Program Category: Bicycle and Pedestrian Facilities

36th Street W Pedestrian Enhancements

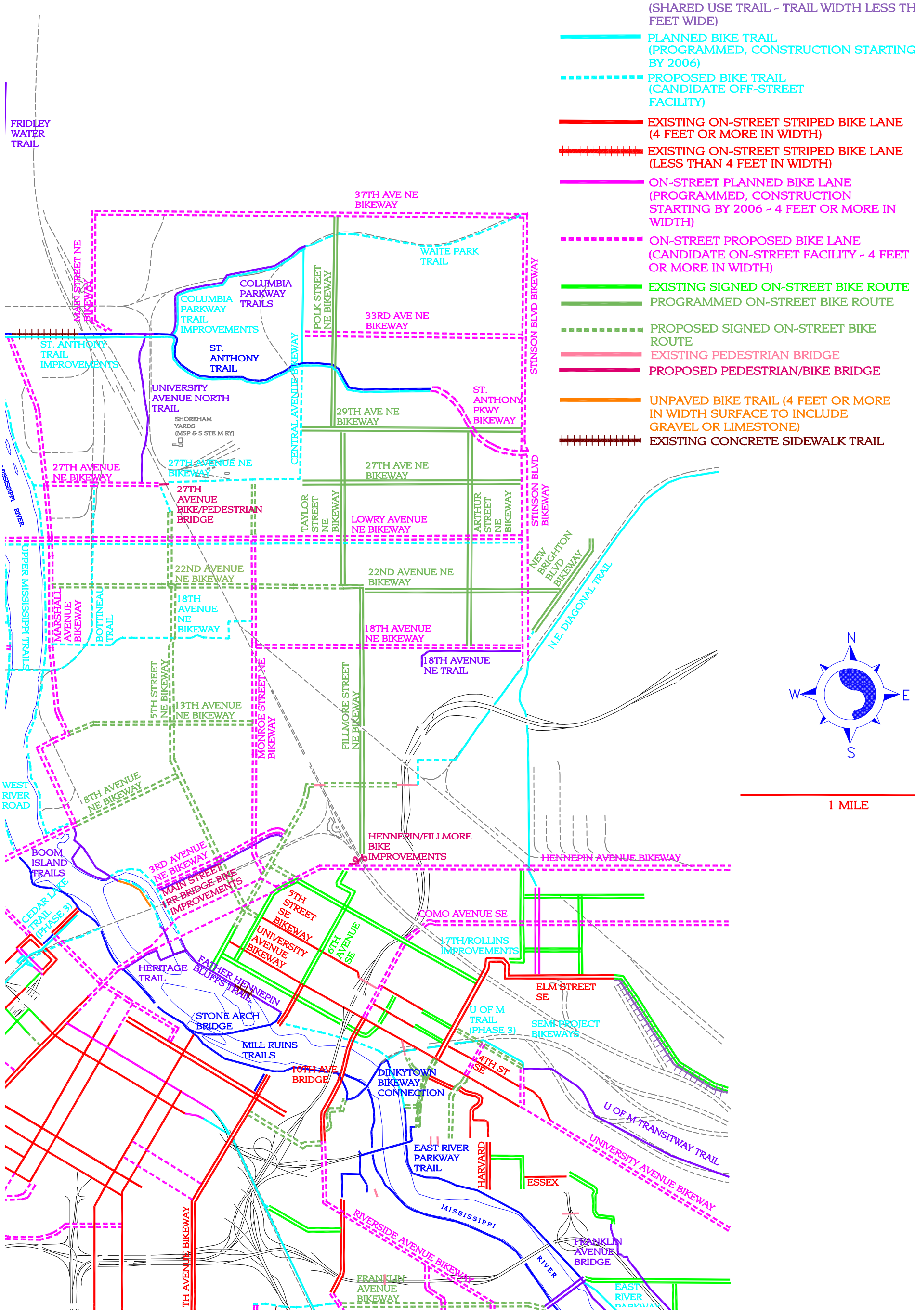
The proposed project involves sidewalk gap infill and construction of an off-street protected bikeway to replace the temporary bollard protected bikeway and pedestrian path between Richfield Rd and Dupont Ave S.

Program Category: Bicycle and Pedestrian Facilities

Financial Review:

No additional appropriation required, amount included in current budget.

CITY OF MINNEAPOLIS
BIKEWAYS MASTER PLAN
NORTHEAST QUADRANT
2001



EXISTING OFF-STREET PAVED BIKE TRAIL (BIKES AND PEDESTRIANS SEPARATED - BIKEWAY 4 FEET OR MORE PER DIRECTION)

EXISTING OFF-STREET PAVED BIKE TRAIL (SHARED USE TRAIL - TRAIL 8 FEET OR MORE IN WIDTH)

EXISTING OFF-STREET PAVED BIKE TRAIL (SEPARATED TRAIL - BIKEWAY WIDTH LESS THAN 4 FEET PER DIRECTION)

EXISTING OFF-STREET PAVED BIKE TRAIL (SHARED USE TRAIL - TRAIL WIDTH LESS THAN 8 FEET WIDE)

PLANNED BIKE TRAIL (PROGRAMMED, CONSTRUCTION STARTING BY 2006)

PROPOSED BIKE TRAIL (CANDIDATE OFF-STREET FACILITY)

EXISTING ON-STREET STRIPED BIKE LANE (4 FEET OR MORE IN WIDTH)

EXISTING ON-STREET STRIPED BIKE LANE (LESS THAN 4 FEET IN WIDTH)

ON-STREET PLANNED BIKE LANE (PROGRAMMED, CONSTRUCTION STARTING BY 2006 - 4 FEET OR MORE IN WIDTH)

ON-STREET PROPOSED BIKE LANE (CANDIDATE ON-STREET FACILITY - 4 FEET OR MORE IN WIDTH)

EXISTING SIGNED ON-STREET BIKE ROUTE

PROGRAMMED ON-STREET BIKE ROUTE

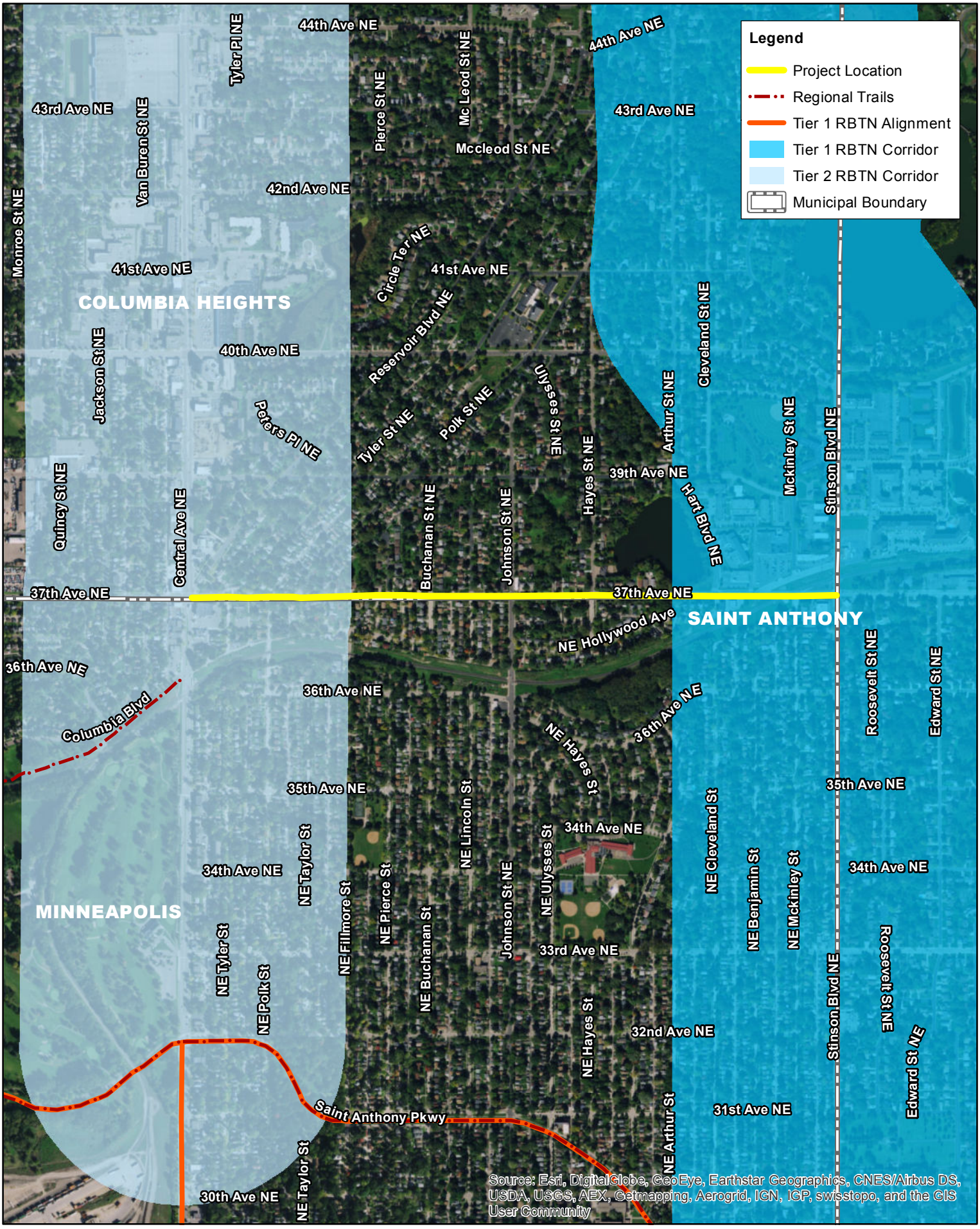
PROPOSED SIGNED ON-STREET BIKE ROUTE

EXISTING PEDESTRIAN BRIDGE

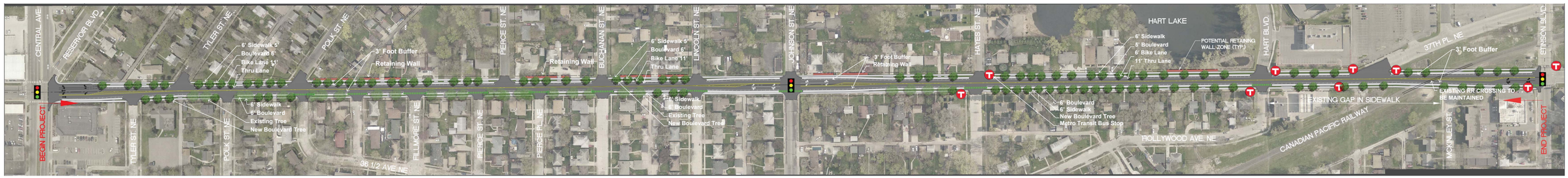
PROPOSED PEDESTRIAN/BIKE BRIDGE

UNPAVED BIKE TRAIL (4 FEET OR MORE IN WIDTH SURFACE TO INCLUDE GRAVEL OR LIMESTONE)

EXISTING CONCRETE SIDEWALK TRAIL



Regional Bicycle Transportation Network (RBTN)
37th Avenue Reconstruction Project



CONCEPT 2 - SIDEWALKS AND ON-STREET BIKE LANES WITH BUFFER

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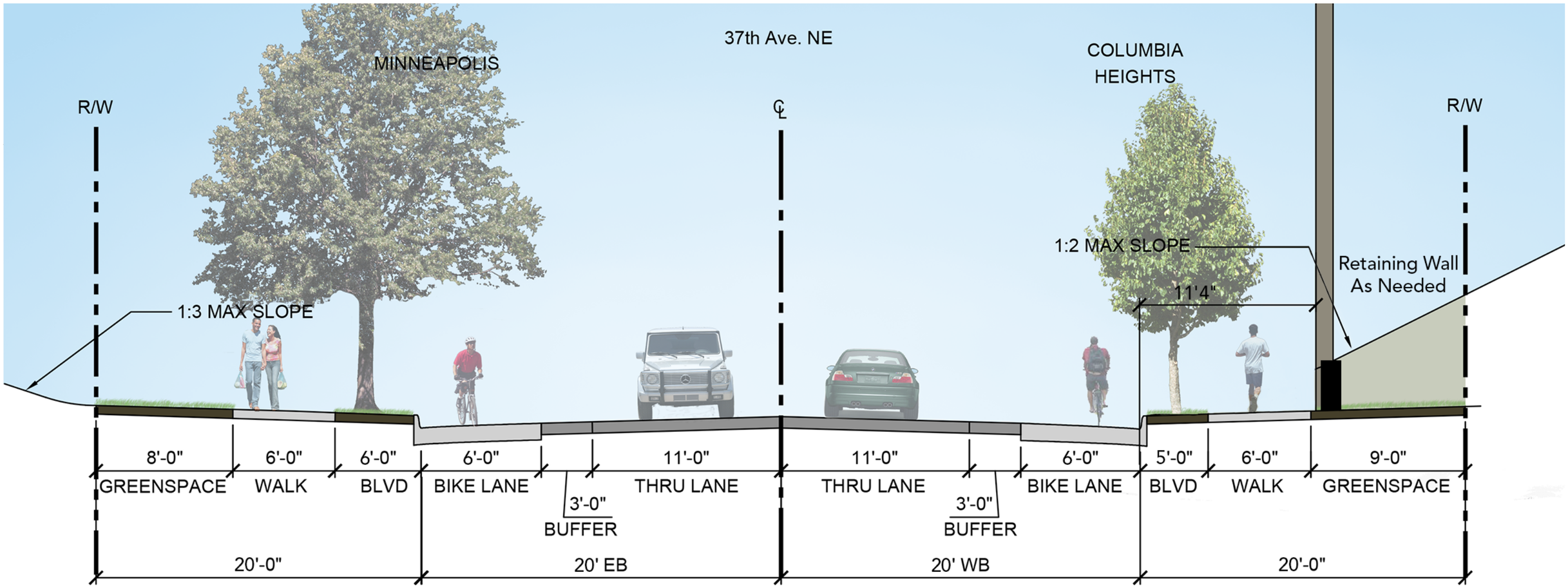
Minneapolis
City of Lakes

COLUMBIA HEIGHTS

37TH AVENUE NE RECONSTRUCTION PROJECT PLANNING

CONCEPT LAYOUT

JUNE 28, 2016 Open House
DRAFT - SUBJECT TO CHANGE



CONCEPT 2: On-Street Protected Bike Lanes with Sidewalks

0 2 4 8 16

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37TH AVENUE NE RECONSTRUCTION PROJECT PLANNING

TYPICAL SECTION CONCEPT

JUNE 28, 2016 Open House
DRAFT - SUBJECT TO CHANGE