



Application

04774 - 2016 Roadway Modernization

05262 - Hennepin Avenue Reconstruction

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted

Submitted Date: 07/14/2016 3:05 PM

Primary Contact

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

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 Minnesota 55401
City State/Province Postal Code/Zip

County:

Hennepin

Phone:*

612-673-3884
Ext.

Fax:

PeopleSoft Vendor Number

0000020971A2

Project Information

Project Name

Hennepin Avenue Reconstruction

Primary County where the Project is Located

Hennepin

Jurisdictional Agency (If Different than the Applicant):

The project will reconstruct approximately 0.8 miles of Hennepin Ave in downtown Minneapolis from Washington Ave to 12th St. Transportation along Hennepin Ave is multi-modal, comprised of pedestrian, bicycle, transit and automobile traffic. On average, there are 11,000 daily pedestrians at each core intersection (4th St to 9th St), nearly 1,000 daily bicyclists, 8,100 transit riders, and 18,000 daily vehicles. Hennepin Ave is the heart of the entertainment district and also recognized by the City as a cultural district with multiple theaters, arts institutions, and entertainment venues.

Hennepin Ave will remain a two-way street and narrowed from a five-lane typical section to a four-lane typical section; resulting in approximately half the available right-of-way dedicated to pedestrian and bicycle space. The concept layout development undertook a comprehensive stakeholder, property owner and public engagement process to identify the key goals and build consensus on the street cross-section. (The City Council-adopted proposed concept is illustrated in Figure 1). The key goals are to provide an enhanced, safe and consistent pedestrian experience, a comfortable bikeway separate from motor vehicle traffic, efficient transit service with enhanced bus stops, and to maintain motor vehicle access to destinations along the corridor. In general, the pavement is in poor condition with considerable cracking, patching, and potholes. The PCI is as low as 23 in some areas. The project will consist of full depth removal and replacement of pavement, curb and gutter, sidewalk & driveways.

The project will provide pedestrian enhancements, including a wide, consistent sidewalk environment. Improvements will also include intersection and pedestrian level street lighting, streetscape

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

elements within the furnishing zone, curb extensions into cross-streets where feasible, ADA pedestrian ramps on all corners, colored conflict zone markings, high visibility durable continental crosswalk markings, and traffic signal system upgrades - including overhead indications, countdown timers, APS push buttons. Hennepin Ave is also an important bicycle corridor as identified in the City of Minneapolis Bicycle Master Plan. The proposed project will provide a one-way bikeway on each side of the street separate from motor vehicle traffic.

Hennepin is a high volume transit corridor with up to 60 buses an hour on some segments. The project will provide improved transit facilities through the installation of wider bus stop areas and streetscape improvements (locations to be evaluated during preliminary engineering).

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

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

Washington Ave S to 12th St S, Reconstruct

Project Length (Miles)

0.76

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

\$7,000,000.00

Match Amount

\$4,547,425.80

Minimum of 20% of project total

Project Total

\$11,547,426.00

Match Percentage

39.38%

Minimum of 20%

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

Source of Match Funds

City of Minneapolis, Municipal State Aid

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)	\$153,000.00
Removals (approx. 5% of total cost)	\$654,591.75
Roadway (grading, borrow, etc.)	\$153,845.00
Roadway (aggregates and paving)	\$1,644,612.02
Subgrade Correction (muck)	\$65,136.00
Storm Sewer	\$500,800.80
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$346,724.00
Traffic Control	\$453,000.00
Striping	\$156,000.00
Signing	\$30,000.00
Lighting	\$630,000.00
Turf - Erosion & Landscaping	\$686,418.52
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (do not include in cost effectiveness measure)	\$0.00
Traffic Signals	\$2,820,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$865,858.81
Other Roadway Elements	\$364,460.00
Totals	\$9,524,446.90

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES

Cost

Path/Trail Construction	\$349,320.00
Sidewalk Construction	\$508,130.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$131,621.60
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$220,000.00
Pedestrian-scale Lighting	\$630,000.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$183,907.16
Other Bicycle and Pedestrian Elements	\$0.00
Totals	\$2,022,978.76

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

Totals

Total Cost	\$11,547,425.80
Construction Cost Total	\$11,547,425.80
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.

The proposed project is consistent with the 2040 TPP and following objectives and strategies:

A. Transportation system stewardship. Efficiently preserve and maintain the regional transportation system. Strategies A1, A2 and A3. Pages 2.6, 2.17-2.19

B. Safety and Security. Reduce crashes and improve safety and security for all modes of passenger travel and freight transport. Strategies B1, B6. Pages 2.7, 2.20, 2.23

C. Access to Destinations. Increase the availability of multimodal travel options, increase transit ridership and share of trips taking using transit, walking and bicycling, and improve multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically under represented populations. Strategies C2, C4, C7, C8, C11, C15. Pages 2.8, 2.25, 2.28, 2.30-2.31, 2.34, 2.36

D. Competitive economy. Improve multimodal access to regional job concentrations identified in the MSP 2040, invest in a multimodal transportation system to attract and retain businesses and residents. Strategies D1, D3. Pages 2.11, 2.38-2.39

E. Healthy Environment. Reduce transportation related air emissions and increase the availability and attractiveness of transit, bicycling and walking to encourage healthy communities and active car-free lifestyles. Strategies E2, E3, E5, E6, E7. Pages 2.12, 2.43-2.47

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

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

City of Minneapolis Mayor's 2016 Recommended Capital Program. (Page G18)

Minneapolis Protected Bikeway Update to the Minneapolis Bicycle Master Plan (2015). (Page 9)

List the applicable documents and pages:

Metro Transit Arterial Transitway Corridors Study (2012) (Pages 38-41)

Minneapolis Pedestrian Master Plan (2009). (Pages 3, 4, 5)

Minneapolis Downtown Action Plan (2007). (Pages 14, 18, 23, 28, 32)

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 MnDOT's 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 Augmentor
Road System	MSAS 313
<i>TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET</i>	
Road/Route No.	
<i>i.e., 53 for CSAH 53</i>	
Name of Road	Hennepin Ave
<i>Example; 1st ST., MAIN AVE</i>	
Zip Code where Majority of Work is Being Performed	55401
(Approximate) Begin Construction Date	05/01/2020
(Approximate) End Construction Date	10/31/2021
TERMINI:(Termini listed must be within 0.3 miles of any work)	
From: (Intersection or Address)	Washington Avenue
To: (Intersection or Address)	12th Street
<i>DO NOT INCLUDE LEGAL DESCRIPTION</i>	
Or At	
Primary Types of Work	Agg Base, Bit Base, Bit Surf, Sidewalk, Curb and Gutter, Storm Sewer, Signals, Lighting, Bike Path, Ped Ramps, Landscape
<i>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.</i>	
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	0.651
Project Length	0.758
Average Distance	0.8588
Upload Map	1466623973069_Map_Area Definition.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:	170184
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	8580
Existing Students:	21300
Upload Map	1466626354567_Map_Regional Economy.pdf

Measure C: Current Heavy Commercial Traffic

Location:	Hennepin Avenue at 3rd Street
Current daily heavy commercial traffic volume:	1632
Date heavy commercial count taken:	Nov. 17, 2015

Measure D: Freight Elements

Approximately 3% of the daily vehicles using Hennepin Ave have 3 axles or more. Although the project does not implement freight specific elements, the proposed configuration will benefit freight traffic safety. One challenge for freight vehicles in the downtown is potential conflicts with pedestrian and bicycle traffic. The proposed project will shorten pedestrian crosswalks at many of the intersections. This improvement will reduce the amount of time pedestrians are in the intersections and reduce the potential for conflicts.

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

Another key component of the proposed project is the provision of a separated bikeway. Separating bicyclists from motor vehicle traffic will greatly reduce the conflict between freight vehicles and bicyclists mixing in the travel lanes. In addition, the project will continue to maintain local street access and access to driveways and service alleyways. Overhead signal indications will also be provided, which helps improve visibility along the corridor with larger vehicles.

Measure A: Current Daily Person Throughput

Location	Hennepin Avenue S - Washington Ave to 12th St
Current AADT Volume	18600
Existing Transit Routes on the Project	3, 4, 5, 6, 7, 9, 10, 11, 12, 14, 17, 18, 19, 20, 22, 25, 39, 59, 61, 94, 134, 141, 353, 365, 375, 452, 490, 493, 552, 553, 587, 588, 589, 643, 649, 663, 664, 667, 668, 670, 671, 672, 673, 674, 675, 677, 679, 690, 691, 692, 697, 698, 699, 721, 724, 742, 747, 755, 756, 758, 760, 761, 762, 763, 764, 765, 766, 767, 768, 772, 774, 776, 777, 780, 781, 782, 783, 785, 790, 793, 795, 850, 852, 854, 865, 901-METRO Blue Line, 902-METRO Green Line
<i>For New Roadways only, list transit routes that will be moved to the new roadway</i>	
Upload Transit Map	1466680312159_Map_Transit Connections.pdf

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	24180.0

Measure B: 2040 Forecast ADT

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

No

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

OR

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

City of Minneapolis Downtown CBD Growth Rate = 0.25% per year

Forecast (2040) ADT volume

19800

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:

The project is located within an area of concentrated poverty and within an area above the regional average of concentrated race/poverty. Improving non-motorized and transit access to jobs, services and destinations within this area is critical for these populations. The key goals of this project are to improve walking, biking, and transit access to key destinations, including job concentrations, distribution centers and educational institutions in downtown Minneapolis (see Regional Economy Map).

Hennepin Ave is a high volume transit corridor with both regional and local service routes. The proposed improvements to transit stops, including larger pedestrian waiting areas and accommodations for enhanced station design will provide benefits to all transit users. For low income households without access to an automobile and people who may not drive (i.e., children, elderly, people with disabilities), transit is an essential public service that connects people to opportunities such as jobs, education, and social services.

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

Hennepin is also a high volume pedestrian and bicycle corridor. The design prioritizes these modes of travel through the provision of a consistent pedestrian access route, efficient use of sidewalk space, street lighting, consistent furnishing zone, and a dedicated bikeway. These improvements will greatly increase the comfort and quality of walking and biking along Hennepin Ave. Persons that may have otherwise not traveled by bicycle in downtown Minneapolis will now have a comfortable north-south bicycle route along Hennepin. Improved bicycle and pedestrian access will better connect all people, especially people without access to a car, to destinations, services, and transit along Hennepin Ave.

The project will also improve the safety and comfort for children, the elderly and people with disabilities by improving all intersections to be ADA compliant. The project will also implement curb extensions on cross-street corners, where feasible, to shorten crosswalk distances and improve visibility of persons waiting on the corners. Traffic signal improvements will include countdown timers and APS to further improve pedestrian safety and access to key destinations and transit stops.

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

Upload Map

1466682321461_Map_Socio Economic.pdf

Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)
Minneapolis	0.76
	1

Total Project Length

Total Project Length (Total Population)	0.76
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Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

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

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	0.76
Total Housing Score	0

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1986	0.76	1509.36	1986.0
	1	1509	1986

Average Construction Year

Weighted Year 1986

Total Segment Length (Miles)

Total Segment Length 0.76

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:

Yes

The project will construct a new bikeway on both sides of the street separated from motor vehicle traffic. The sidewalk furnishing zone, which includes street light poles, signs, benches, trash receptacles will be located behind the bicycle space, approximately 7-9 feet from the face of curb.

Response (Limit 700 characters; approximately 100 words)

The clear zone will be significantly improved as all of these items are currently located 18-24 inches from the face of curb with only a 2 foot travel lane reaction. Curb extensions at intersection corners will significantly improve sight lines of pedestrians and improve distance to building corners which currently can obstruct motorist visibility.

Improved roadway geometrics:

Yes

Response (Limit 700 characters; approximately 100 words)

The proposed project will reconstruct the roadway, curbs and sidewalks. With the original construction of Hennepin in the early 1900's the street width varies by as much as 2-3 feet along each block. In addition, with left turn movements every other block due to one-way cross-streets, the existing travel lanes have a half lane shift across every intersection. Reconstruction of the curbs and sidewalks will allow a consistent street design and improved travel lane alignment.

Access management enhancements:

Yes

Response (Limit 700 characters; approximately 100 words)

The proposed project will prohibit the left turn movement at the Hennepin Ave/5th St intersection, which will improve mobility and safety. LRT operates along 5th St with a station between Hennepin Ave and 1st Ave N. Motorists making a left turn need to turn on the nearside lane of 5th St (LRT will be on the right). This situation can cause confusion with motorists frequently turning onto the tracks and also disrupts mobility of Hennepin.

Vertical/horizontal alignments improvements:

Response (Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

Response (Limit 700 characters; approximately 100 words)

Signals/lighting upgrades:

Yes

Response (Limit 700 characters; approximately 100 words)

The project will reconstruct all traffic signal systems and replace the street lighting along the corridor. The traffic signal systems will be rebuilt with overhead signal indications for all approaches (currently pedestal side mount on many corners), provide countdown pedestrian timers, APS push button stations, and video detection for left turn movements. The signals will include an actuated left turn arrow (existing is pre-timed) and pedestrian level street lighting will be provided along the length of the corridor in addition to the intersection street light.

Other Improvements

Yes

Response (Limit 700 characters; approximately 100 words)

The pavement on Hennepin Ave is deficient, with a Pavement Condition Index that is as low as 23 in places (in a range of 0 to 100, where 100 is best). The pavement is generally in poor condition with severe cracking, patching and potholes. The curb and gutter is showing medium to high levels of deterioration in locations. The project includes full replacement of the pavement section, curb and gutter, sidewalk, ADA Ramps and driveways.

The project also adds an improved bikeway, moving the bicycles from the existing on-street shared lane operation to a separated facility. Conflict lane markings and high-visibility durable pavement markings at intersections will be provided.

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
20.0	19.0	1.0	1713	1713.0		14685226516 40_Hennepin Delay & Emissions Analysis.pdf

Total Delay

Total Peak Hour Delay Reduced 1713.0

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

Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced Per Vehicle by the Project (Kilograms):	Volume (Vehicles Per Hour):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
2929.0	2929.0	0	1713.0	0
2929	2929		1713	0

Total

Total Emissions Reduced:	0
Upload Synchro Report	1468262070334_Hennepin Delay & Emissions Analysis.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

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

12/31/2018

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

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

100%

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

80%

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

Yes

40%

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

0%

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

12/31/2018

Project is located on an identified historic bridge

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

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

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

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

100%

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

100%

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

80%

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

50%

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

30%

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

0%

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

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

100%

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

100%

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

75%

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

50%

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

25%

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

0%

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

0%

Anticipated date or date of acquisition

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 12/31/2019

10) Letting

Anticipated Letting Date 04/30/2020

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

Crash Modification Factor Used: 0.56

Safety Improvements include:

Roadway Pavement Reconstruction. Reconstructed pavement will replace poor roadway surface with skid resistant pavement. CMF used is 0.589 for (left turn, head on, sideswipe and other crash types). 0.30 for rear end related crashes.

Rationale for Crash Modification Selected:

Replace pedestal mounted signal indications with overhead mast arm indications. CMF of 0.26 applied to right angle related crashes.

Install unidirection cycle track adjacent to traffic lane has CMF of 0.41 applied to bicycle crashes

Install pedestrian countdown timers has CMF of 0.3 applied to pedestrian crashes

(Limit 1400 Characters; approximately 200 words)

Project Benefit (\$) from B/C Ratio \$19,812,938.00

Worksheet Attachment 1468238104129_HSIP_benefit-cost_HENNEPIN.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

There have been 31 pedestrian-related and bicycle-related crashes along Hennepin Ave between 2013-2015. The existing pedestrian curb ramps are non-compliant with current ADA standards, the pedestrian crosswalks are long (crossing 59' and 5 lanes on most approaches), bicyclists share the road with general traffic and the most of the transit stops lack sufficient space to accommodate the daily boardings.

Improving the quality of pedestrian, bicycle, and transit access is a key goal of the project. Maintaining motor vehicle operations, access and quality of mobility is also very important. The core intersections accommodate approximately 11,000 daily pedestrians (4th St to 9th St), 8,100 transit users, and nearly 1,000 daily bicyclists on a shared lane facility. The proposed project provides dedicated space for each mode and also improves integration between modes. Key improvements are:

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

Curb extensions will be provided on cross-street approaches where feasible. Preliminary engineering will finalize locations. The curb extension improve visibility and shorten crosswalks for pedestrians.

Hennepin Ave will be narrowed from a five-lane typical section to a four-lane typical section. This street narrowing provides an opportunity to establish a continuous pedestrian access route. With reallocation of sidewalk furnishings, the design will make efficient use of the sidewalk space. In addition, the crosswalks crossing Hennepin Ave will be shortened by by approximately 10 feet. The provision of a new bikeway will provide bicylists a dedicated space, separated from vehicle traffic, improving the mobility and safety of all users. This

design will provide a safe alternative for people who may not currently feel comfortable biking on a busy downtown street.

The City of Minneapolis has coordinated with Metro Transit to allow for enhanced bus stops to be integrated along Hennepin Ave at a later date. The bus stops will be designed to be compatible with future implementation of ABRT and will be comparable in design to the stations provided on the A-line. The bus stop design will be integrated with the proposed bikeway and sidewalk to provide dedicated customer waiting space larger than existing. Streetscape elements to be identified during the design process will be provided as appropriate along Hennepin Ave.

ADA compliant pedestrian ramps, APS push buttons, high visibility continental crosswalk markings, colored conflict zone markings, and countdown timers will be provided on all four corners of each project intersection. These measures will greatly enhance the interaction of pedestrians, bicyclists, vehicles and buses within the intersection.

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	\$11,547,425.80
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$11,547,426.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

Other Attachments

File Name	Description	File Size
2016 Regional Solicitation Application Letter Signed.pdf	Minneapolis City Council Project Support and Local Match Commitment	347 KB
Figure 1_Hennepin CBD Reconstruction Concept Layout.pdf	Hennepin Avenue Proposed Concept	3.1 MB

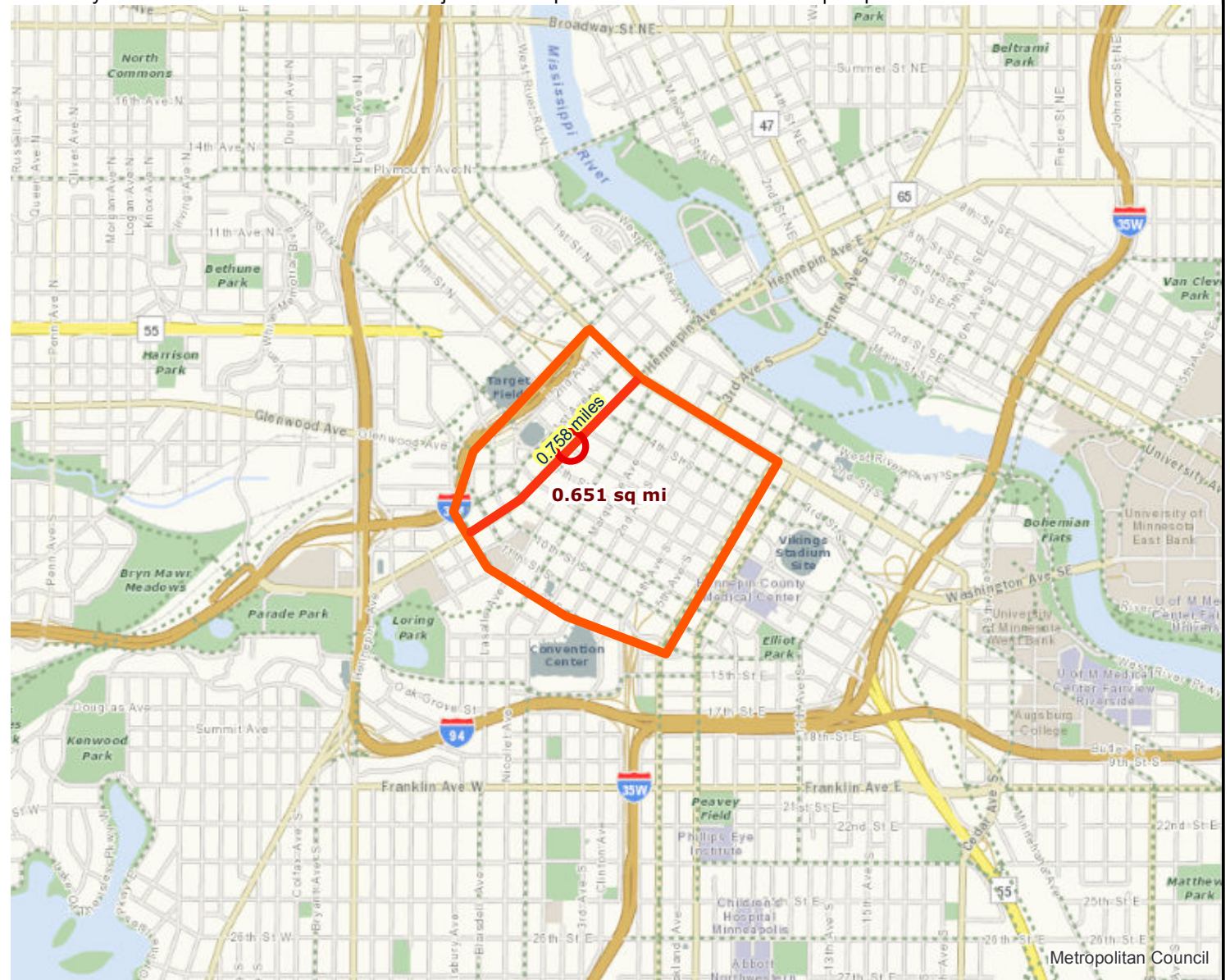
Roadway Area Definition

Roadway Reconstruction/Modernization Project: Hennepin Avenue Reconstruction | Map ID: 1466623547340

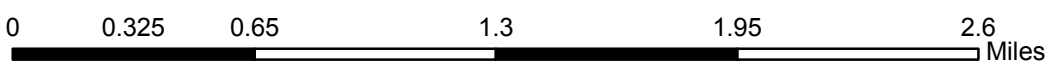
Results

Project Length: 0.758 miles

Project Area: 0.651 sq mi



- Project Points
- Project
- Project Area
- Principal Arterials
- A Minor Arterials Planned
- A Minor Arterials
- Principal Arterials Planned



Created: 6/22/2016
LandscapeRSA1



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



Regional Economy

Roadway Reconstruction/Modernization Project: Hennepin Avenue Reconstruction | Map ID: 146623547340

Results

WITHIN ONE MI of project:

Totals by City:

Minneapolis

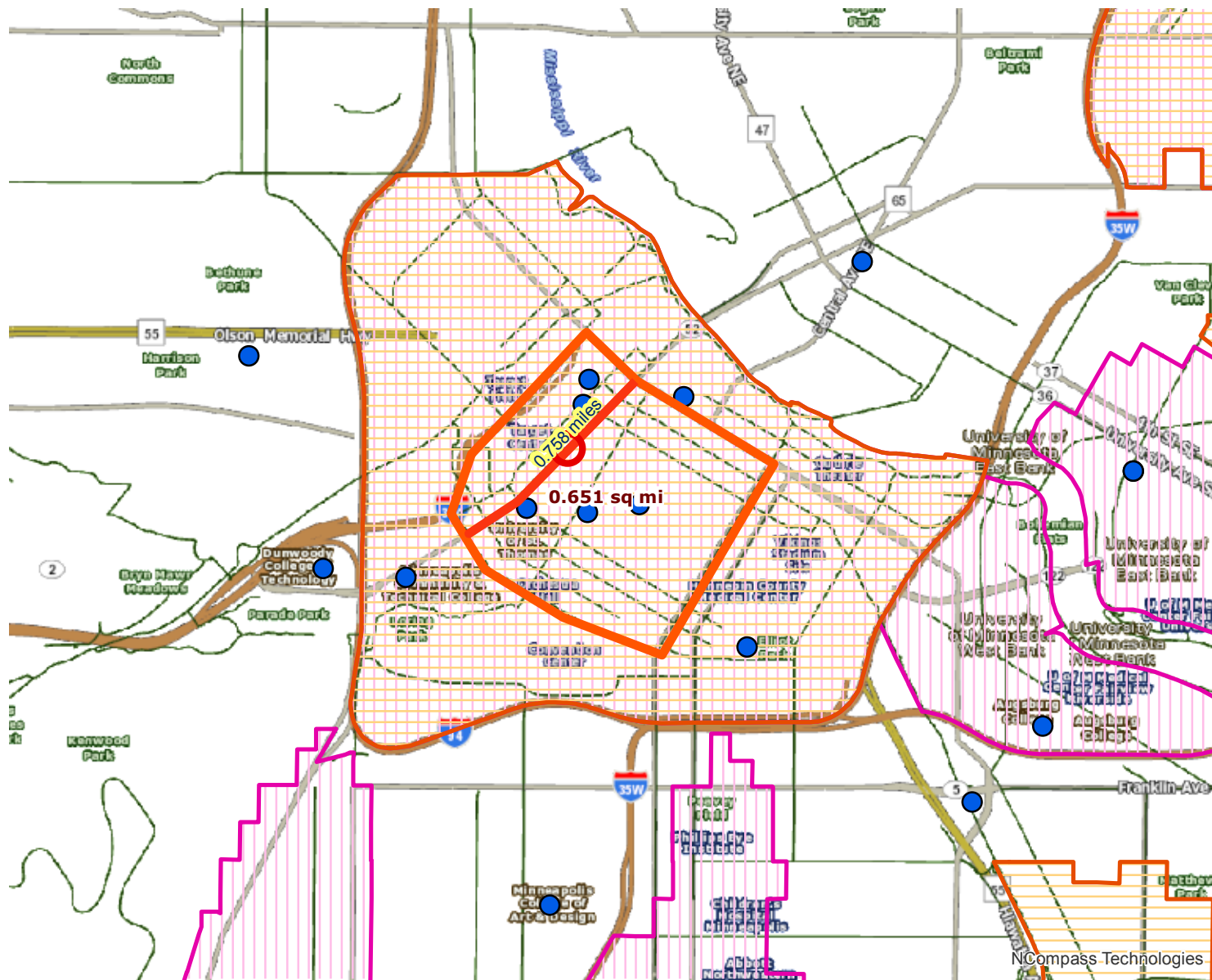
Population: 41238

Employment: 170184

Mfg and Dist Employment: 8580

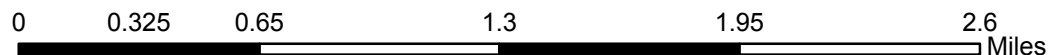
Postsecondary Students:

21300



NCompass Technologies

- Project Points
- Project Area
- Manufacturing/Distribution Centers
- Project
- PostSecondary Education Centers
- Job Concentration Centers



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LandscapeRSA5



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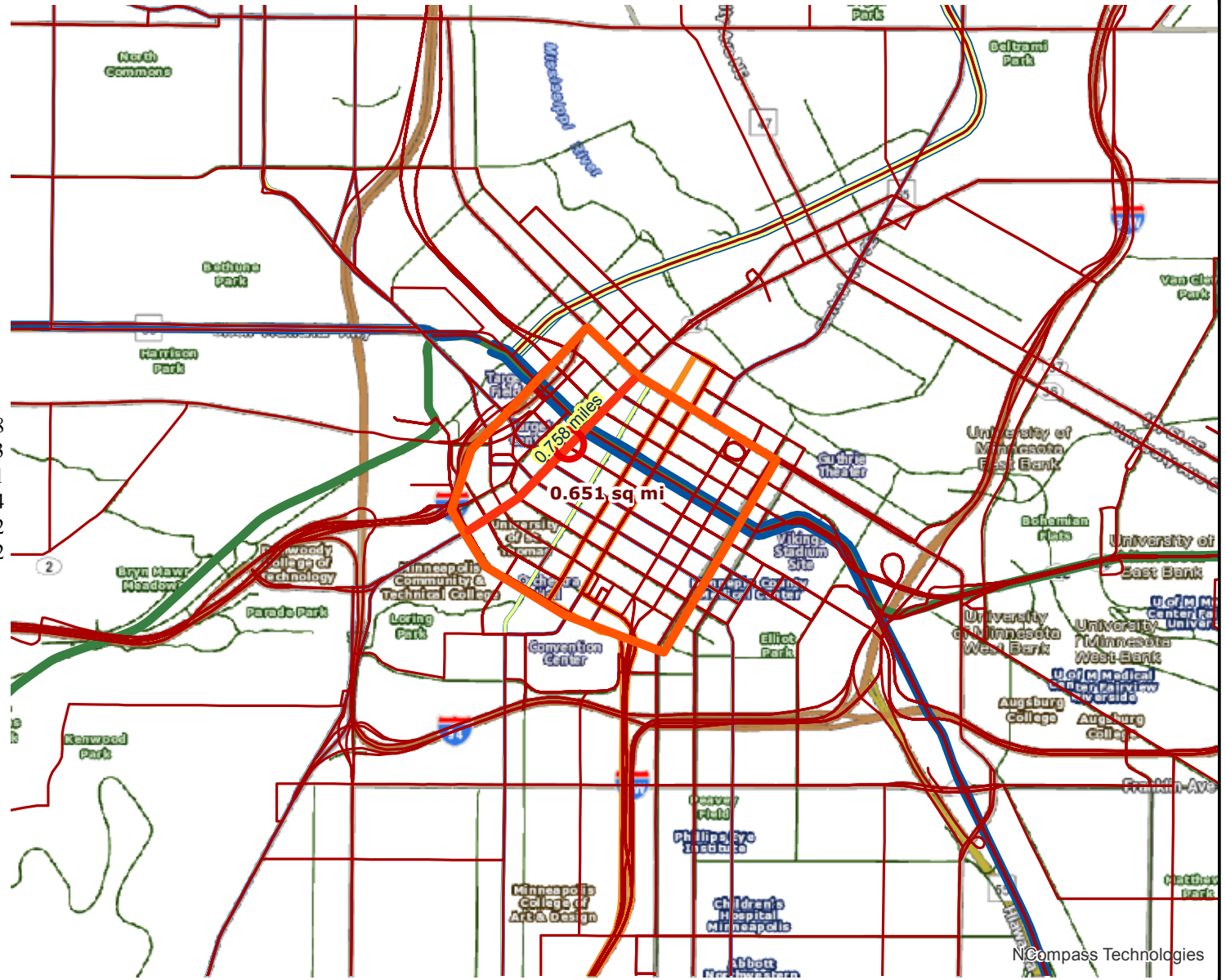
Results

Transit with a Direct Connection to project:

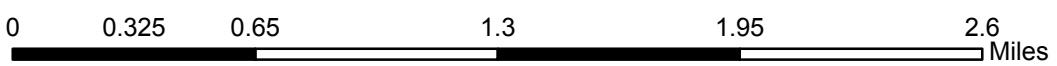
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- 18 19 20 22 25 39 59 61 94 134 141
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- 589 643 649 663 664 667 668 670 671 672 673
- 674 675 677 679 690 691 692 697 698 699 721
- 724 742 747 755 756 758 760 761 762 763 764
- 765 766 767 768 772 774 776 777 780 781 782
- 783 785 790 793 795 850 852 854 865 901 902

- *West Broadway
- *Central
- *Chicago-Fremont
- *Hennepin
- *Nicollet
- *C Line

*indicates Planned Alignments



	Project Points	Transitway		Northstar Line		Light Rail, Blue Line Extension
	Project		Blue / Green Line	Planned Alignments		Light Rail, Green Line Extension
	Project Area		Blue Line			Arterial BRT
	Transit Routes		Green Line			BRT, Orange Line



Created: 6/22/2016
LandscapeRSA3



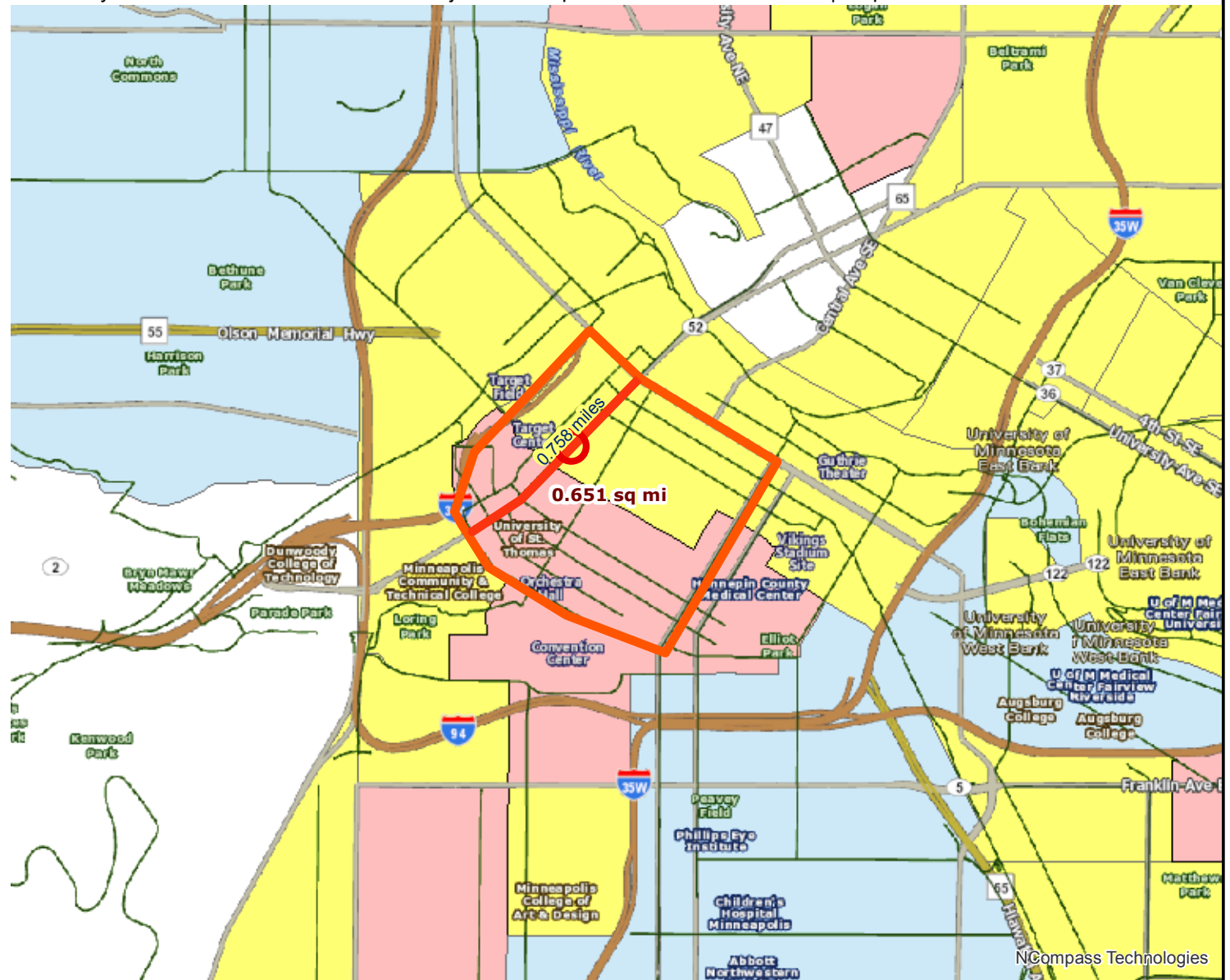
For complete disclaimer of accuracy, please visit <http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



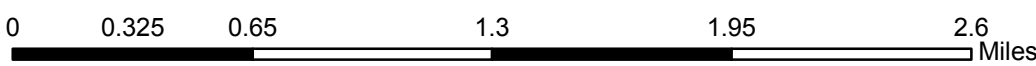
©Compass Technologies

Results

Project located IN
Area of Concentrated Poverty:
(0 to 24 Points)



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



Created: 6/22/2016
LandscapeRSA2



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



NCompass Technologies

653: Hennepin Av S & 5th St N/5th St S

Direction	All
Volume (vph)	1713
Total Delay / Veh (s/v)	20
Total Delay (hr)	9
Stops / Veh	0.54
Stops (#)	923
Average Speed (mph)	9
Total Travel Time (hr)	16
Distance Traveled (mi)	145
Fuel Consumed (gal)	17
Fuel Economy (mpg)	8.4
CO Emissions (kg)	1.20
NOx Emissions (kg)	0.23
VOC Emissions (kg)	0.28
Unserviced Vehicles (#)	0
Vehicles in dilemma zone (#)	0

653: Hennepin Av S & 5th St N/5th St S -Restrict Left Turn

Direction	All
Volume (vph)	1713
Total Delay / Veh (s/v)	19
Total Delay (hr)	9
Stops / Veh	0.54
Stops (#)	927
Average Speed (mph)	9
Total Travel Time (hr)	16
Distance Traveled (mi)	145
Fuel Consumed (gal)	17
Fuel Economy (mpg)	8.4
CO Emissions (kg)	1.20
NOx Emissions (kg)	0.23
VOC Emissions (kg)	0.28
Unserviced Vehicles (#)	0
Vehicles in dilemma zone (#)	0

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VOC Emissions (kg)	0.28
Unserviced Vehicles (#)	0
Vehicles in dilemma zone (#)	0

HSIP work sheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	Hennepin Ave	12th Street to Washington Avenue			City of Minneapolis	1/1/2013	12/31/2015
Description of Proposed Work		Reconstruct Roadway, Install Overhead Mast Arms, Off Street Protected Bike Lane, Countdown Timers and Leading Pedestrian Interval					

Accident Diagram Codes	1 Rear End	2 Sideswipe Same Direction	3 Left Turn Main Line	5 Right Angle	4,7 Ran off Road	8, 9 Head On/ Sideswipe - Opposite Direction	Pedestrian	Bike	6, 90, 99	Other	Total

Study Period: Number of Crashes	Fatal	F									
	Personal Injury (PI)	A					1	1			2
		B		2	1			6	2	2	13
		C	3	3	5	7		10	6	1	35
	Property Damage	PD	36	31	7	18	1	2	3	19	117

% Change in Crashes	Fatal	F									
	PI	A					70%	59%			
		B		41%	41%			70%	59%	41%	
		C	70%	41%	41%	74%		70%	59%	41%	
	Property Damage	PD	70%	41%	41%	74%	41%	70%	59%	41%	

**Use CMF Clearinghouse for Crash Reduction Factors*

Change in Crashes = No. of crashes X % change in crashes	Fatal	F									
	PI	A					0.70	0.59			1.29
		B		0.82	0.41			4.20	1.18	0.82	7.44
		C	2.09	1.23	2.06	5.18		7.00	3.54	0.41	21.51
	Property Damage	PD	25.06	12.74	2.88	13.32	0.41	1.40	1.77	7.81	65.38

Year (Safety Improvement Construction) **2020**

Project Cost (exclude Right of Way)	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
\$ 11,547,426	F			\$ 1,140,000	
Right of Way Costs (optional)	F			\$ 1,140,000	
Traffic Growth Factor	A	1.29	0.43	\$ 570,000	\$ (245,324)
Capital Recovery	B	7.44	2.48	\$ 170,000	\$ (421,702)
1. Discount Rate	C	21.51	7.18	\$ 83,000	\$ (595,571)
2. Project Service Life (n)	PD	65.38	21.81	\$ 7,600	\$ (165,791)
	Total			\$ (1,428,388)	

B/C= -1.72

Using present worth values,
B= \$ (19,812,938)
C= \$ 11,547,426

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Technology
 August 2015

Amortizing...

Year	Crash Benefits	Present Worth Benefits	Present Worth Costs
2020	\$ (1,428,388)	\$ (1,428,388)	\$ 11,547,426
2021	\$ (1,431,959)	\$ (1,370,295)	
2022	\$ (1,435,538)	\$ (1,314,566)	
2023	\$ (1,439,127)	\$ (1,261,102)	
2024	\$ (1,442,725)	\$ (1,209,814)	
2025	\$ (1,446,332)	\$ (1,160,611)	
2026	\$ (1,449,948)	\$ (1,113,409)	
2027	\$ (1,453,573)	\$ (1,068,127)	
2028	\$ (1,457,207)	\$ (1,024,686)	
2029	\$ (1,460,850)	\$ (983,012)	
2030	\$ (1,464,502)	\$ (943,033)	
2031	\$ (1,468,163)	\$ (904,680)	
2032	\$ (1,471,833)	\$ (867,887)	
2033	\$ (1,475,513)	\$ (832,590)	
2034	\$ (1,479,202)	\$ (798,729)	
2035	\$ (1,482,900)	\$ (766,245)	
2036	\$ (1,486,607)	\$ (735,082)	
2037	\$ (1,490,324)	\$ (705,186)	
2038	\$ (1,494,049)	\$ (676,506)	
2039	\$ (1,497,784)	\$ (648,993)	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	
0	\$ -	\$ -	

Totals = \$ (19,812,938) \$ 11,547,426
(B) **(C)**

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

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

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

▼ Countermeasure: Install cycle tracks, bike lanes, or on-street cycling

<input type="checkbox"/> Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.26	74	★★★★☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.27	73	★★★★☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.41	59	★★★★☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.41	59	★★★★☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.92	8	★★★☆☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.85	15	★★★☆☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.15	85	★★★★☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.12	88	★★★★☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.19	81	★★★★☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]
<input type="checkbox"/>	0.06	94	★★★★☆	Vehicle/bicycle	Serious injury, Minor injury	Urban	Nosal and Miranda-Moreno, 2012	This treatment involves the installation ... [read more]

▼ Countermeasure: Install pedestrian countdown timer

Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.3	70	★★★★☆	Vehicle/pedestrian	All	Not specified	Van Houten et al., 2012	The study did not adjust ... [read more]
<input type="checkbox"/>	0.45	55	★★★☆☆	Vehicle/pedestrian	All	Not specified	Van Houten et al., 2012	The study did not adjust ... [read more]
<input type="checkbox"/>	1.014	-1.4	★★★☆☆	Vehicle/pedestrian	All	Urban	A. Camden, R. Buliung, L. Rothman, C. Macarthur, and A. Howard, 2012	
<input type="checkbox"/>	0.838	16.2	★★★☆☆	Vehicle/pedestrian	Property damage only (PDO)	Urban	A. Camden, R. Buliung, L. Rothman, C. Macarthur, and A. Howard, 2012	
<input type="checkbox"/>	1.026	-2.6	★★★☆☆	Vehicle/pedestrian	Minor injury	Urban	A. Camden, R. Buliung, L. Rothman, C. Macarthur, and A. Howard, 2012	
<input type="checkbox"/>	0.984	1.6	★★★☆☆	Vehicle/pedestrian	Serious injury	Urban	A. Camden, R. Buliung, L. Rothman, C. Macarthur, and A. Howard, 2012	

▼ Countermeasure: Improve pavement friction (increase skid resistance)

<input type="checkbox"/> Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.799	20.1	★★★★★	All	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.667	33.3	★★★★★	All	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.819	18.1	★★★★★	All	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.797	20.3	★★★★★	All	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	1.271	-27.1	★★★★★	All	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.426	57.4	★★★★★	Wet road	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.372	62.8	★★★★★	Wet road	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.355	64.5	★★★★★	Wet road	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.217	78.3	★★★★★	Wet road	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.546	45.4	★★★★★	Wet road	All	All	Lyon and Persaud, 2008	
<input type="checkbox"/>	0.597	40.3	★★★★★	Wet road	All	All	Lyon and Persaud, 2008	

<input type="checkbox"/>	0.828	17.2	★★★★☆	Rear end	All	All	Lyon and Persaud, 2008
<input type="checkbox"/>	0.776	22.4	★★★★☆	Rear end	All	Rural	Lyon and Persaud, 2008
<input type="checkbox"/>	0.612	38.8	★★★★☆	Rear end	All	Urban	Lyon and Persaud, 2008
<input type="checkbox"/>	0.866	13.4	★★★★☆	Rear end	All	Urban	Lyon and Persaud, 2008
<input type="checkbox"/>	0.575	42.5	★★★★☆	Rear end, Wet road	All		Lyon and Persaud, 2008
<input type="checkbox"/>	0.59	41	★★★★☆	All	All	All	Lyon and Persaud, 2008
<input type="checkbox"/>	0.589	41.1	★★★★☆	All	All	All	Lyon and Persaud, 2008
<input type="checkbox"/>	0.361	63.9	★★★★☆	Wet road	All	All	Lyon and Persaud, 2008
<input type="checkbox"/>	0.304	69.6	★★★★☆	Rear end	All	All	Lyon and Persaud, 2008
<input type="checkbox"/>	0.943	5.7	★★★★☆	Rear end	All	All	Lyon and Persaud, 2008
<input type="checkbox"/>	0.504	49.6	★★★★☆	Rear end	All	All	Lyon and Persaud, 2008
<input type="checkbox"/>	0.221	77.9	★★★★☆	Rear end, Wet road	All	All	Lyon and Persaud, 2008
<input type="checkbox"/>	0.787	21.3	★★★★☆	Angle	All	All	Lyon and Persaud, 2008

▼ Countermeasure: Convert signal from pedestal-mounted to mast arm

<input type="checkbox"/> Compare	CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
<input type="checkbox"/>	0.51	49	★★★★☆	All	All		Rodegerdts et al., 2004	
<input type="checkbox"/>	0.71	29	★★★★☆	All	All		McGee et al., 2002	
<input type="checkbox"/>	0.56	44	★★★★☆	All	Fatal,Serious injury,Minor injury	All	Rodegerdts et al., 2004	
<input type="checkbox"/>	0.49	51	★★★★☆	All	Property damage only (PDO)	All	Rodegerdts et al., 2004	
<input type="checkbox"/>	0.59	41	★★★★☆	Rear end	All	All	Rodegerdts et al., 2004	
<input type="checkbox"/>	0.26	74	★★★★☆	Angle	All	All	Rodegerdts et al., 2004	
<input type="checkbox"/>	0.75	25	★★★★☆	All	All		McGee et al., 2002	
<input type="checkbox"/>	0.88	12	★★★★☆	Angle	All	All	Rodegerdts et al., 2004	
<input type="checkbox"/>	0.37	63	★★★★☆	Angle	All		McGee et al., 2002	

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 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 12 th St S)	Roadways	\$7,000,000	\$1,750,000
37 th 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
36 th 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.

Hennepin Avenue Concept

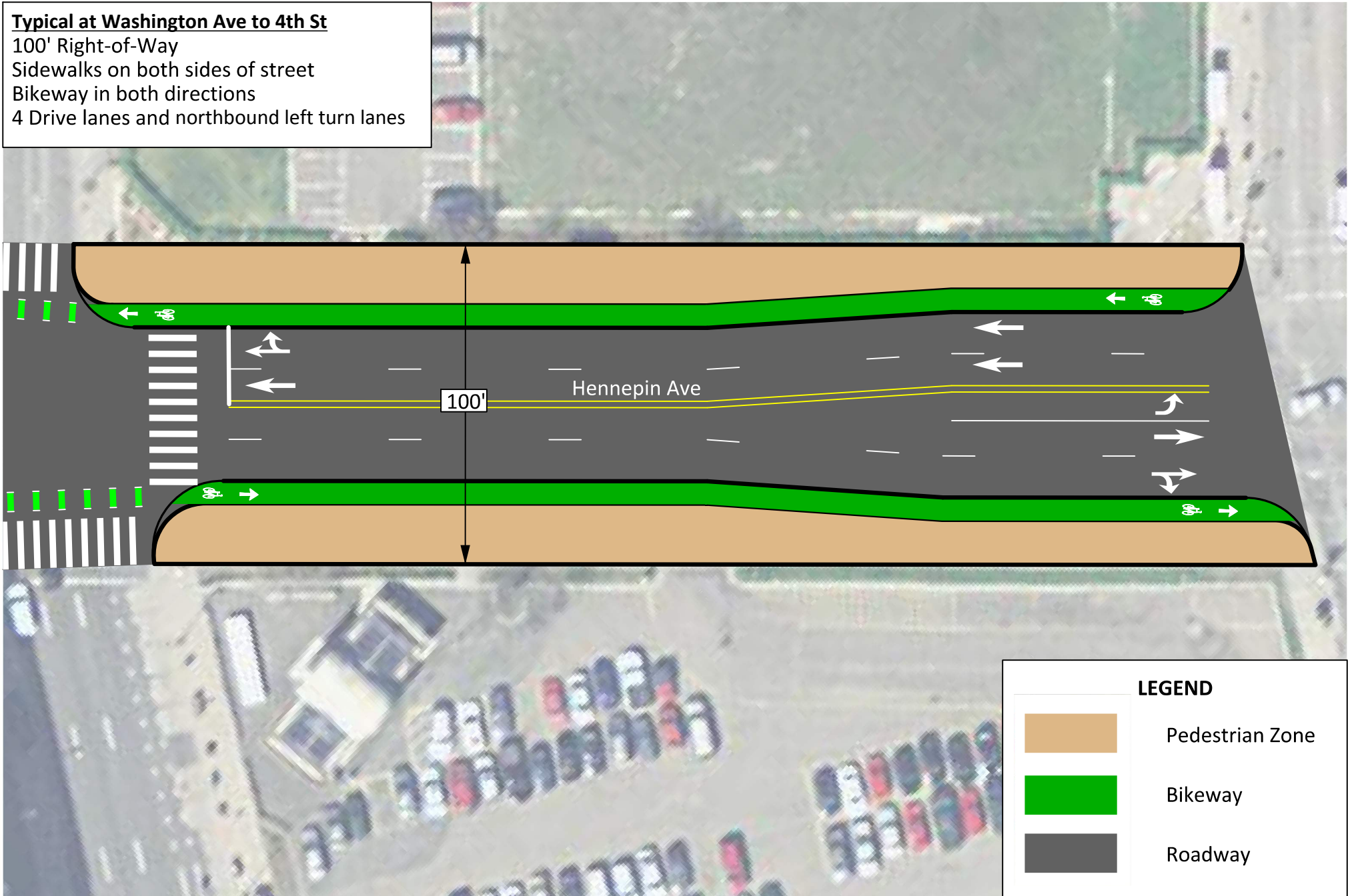
Typical at Washington Ave to 4th St

100' Right-of-Way

Sidewalks on both sides of street

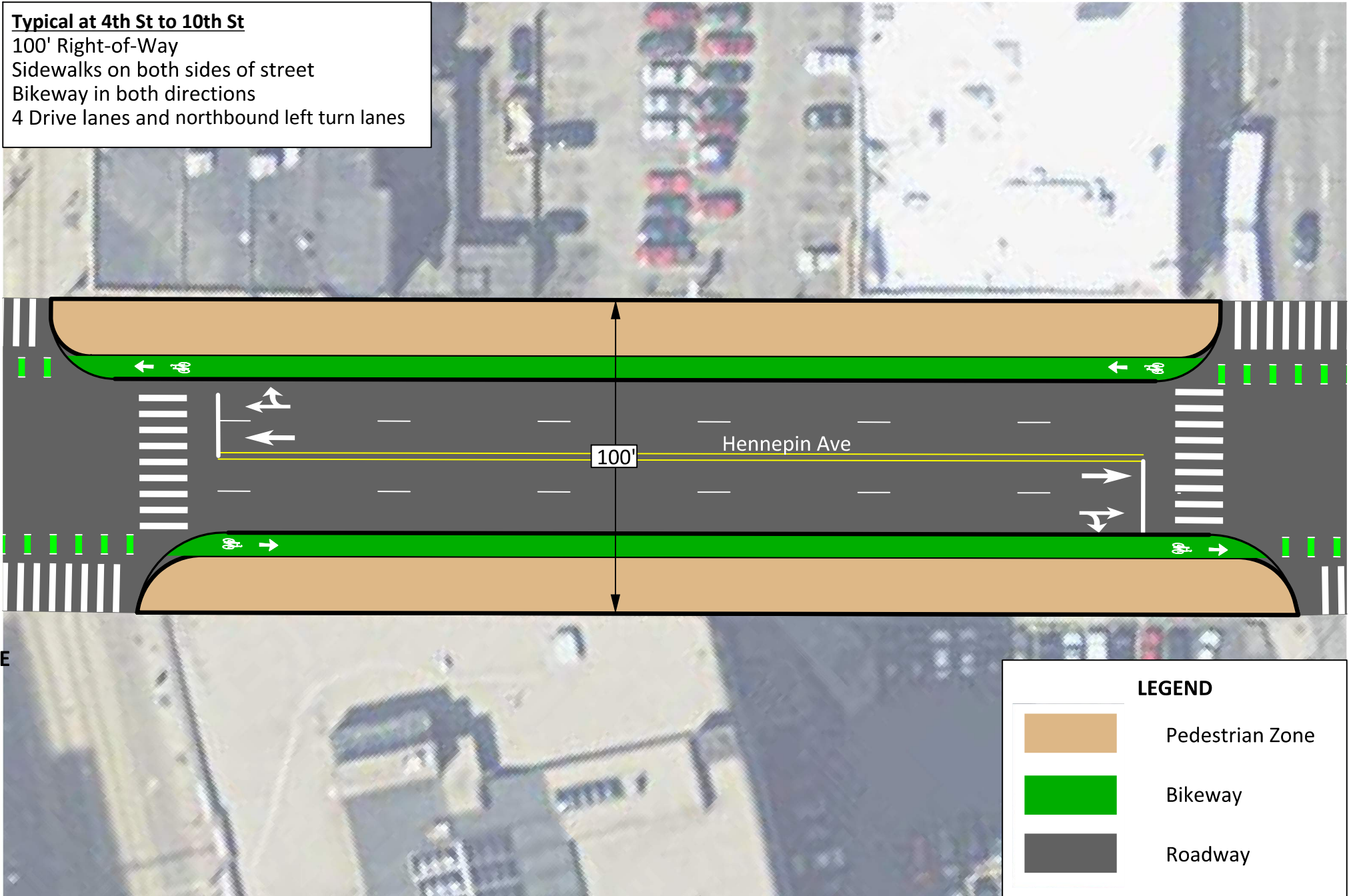
Bikeway in both directions

4 Drive lanes and northbound left turn lanes






Hennepin Avenue Concept

Typical at 4th St to 10th St
100' Right-of-Way
Sidewalks on both sides of street
Bikeway in both directions
4 Drive lanes and northbound left turn lanes



LEGEND

-  Pedestrian Zone
-  Bikeway
-  Roadway

Hennepin Avenue Concept

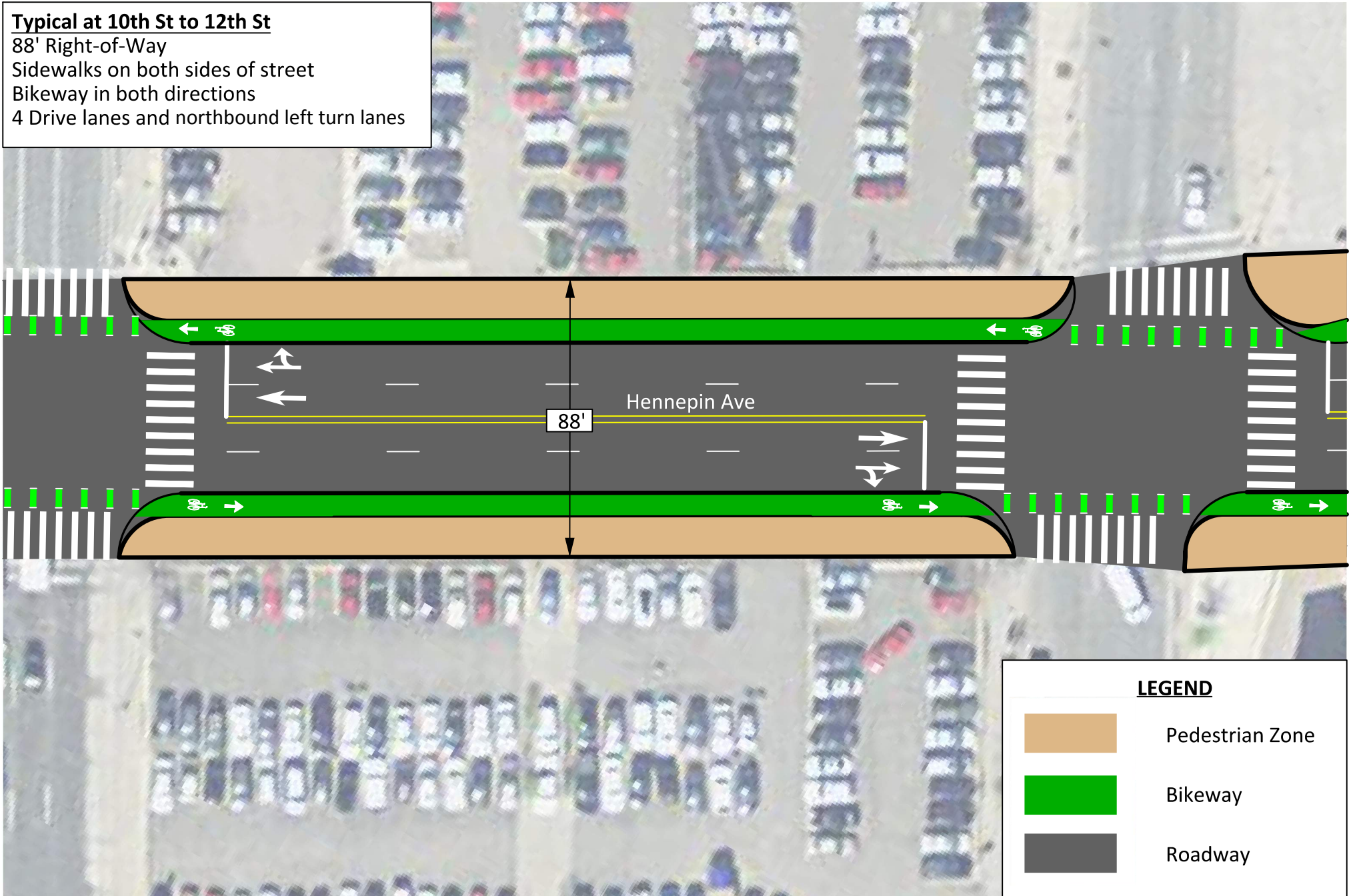
Typical at 10th St to 12th St

88' Right-of-Way

Sidewalks on both sides of street

Bikeway in both directions

4 Drive lanes and northbound left turn lanes

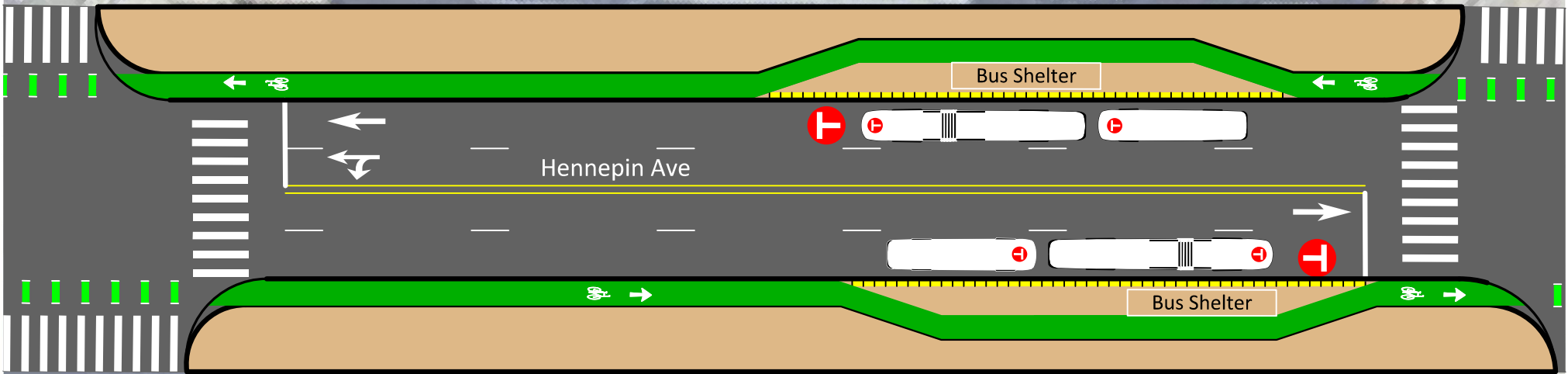


Hennepin Avenue Concept




Possible design at bus stops
Bus stop locations and design to be evaluated during final design



Possible bus stop concept
Source: National Association of City Transportation Officials



LEGEND

	Pedestrian Zone
	Bikeway
	Roadway

Hennepin Avenue Concept



Artist rendering; for illustrative purposes