

Application

10350 - 2018 Multiuse Trails and Bicycle Facilities
10866 - 36th St W Pedestrian and Bicycle Connection
Regional Solicitation - Bicycle and Pedestrian Facilities
Status:
Submitted Date:

Submitted 07/13/2018 9:43 AM

Primary Contact

Name:*	Mr. Salutation	Simon First Name	F Middle Name	Blenski Last Name
Title:	Transportation	Transportation Planner		
Department:	Public Works			
Email:	simon.blenski@minneapolismn.gov			
Address:	309 2nd Ave S			
	#301			
*	Minneapolis	Minneso	ta	55401
	City	State/Provinc	e	Postal Code/Zip
Phone:*	612-673-5012			
	Phone		Ext.	
Fax:				
What Grant Programs are you most interested in?	Regional Solic Elements	itation - Roadwa	ays Including	g Multimodal

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	36th St W Pedestrian and Bicycle Connection
Primary County where the Project is Located	Hennepin
Cities or Townships where the Project is Located:	Minneapolis
Jurisdictional Agency (If Different than the Applicant):	

The proposed 36th St W project will construct a new sidewalk and bicycle path on the south side of 36th St W between Richfield Rd and Dupont Ave. 36th St W is identified in the Minneapolis Pedestrian Master Plan and Minneapolis Bicycle Master Plan as a critical sidewalk and bikeway gap.

Due to its location, the 36th St W project has the potential to have a significant impact user safety and access in a high demand area for walking and bicycling. The project is located in the Uptown neighborhood, which is one of the densest areas of Minneapolis. The west end of the project corridor will connect directly to a Tier 2 bikeway at Bde Mka Ska, part of the Chain of Lakes regional trail system. The east end of the project will connect to existing bike lanes and sidewalk at Dupont Ave, which provides a 2 block connection to a commercial node and Tier 1 Bikeway at Bryant Ave. The project will also connect to existing bike lanes on Hennepin Ave, which connect directly to the Uptown commercial district.

The existing right-of-way and street do not include a sidewalk on the south side. In 2014, a striped onstreet pedestrian and bicycle facility was installed to temporarily address the need. The facility is separated from motor vehicle traffic by flexible plastic bollards. The proposed project will replace the current on-street facility by narrowing the street width and constructing a new concrete sidewalk and bituminous bicycle path separated by a concrete curb. The project provides the opportunity to fill a short, but significant gap in the pedestrian and bicycle networks.

In addition to improving 36th St W for pedestrians and bicyclists, the project also includes critical

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

improvements for transit users. There are three bus stops along the project corridor, serving multiple Metro Transit routes, including the high-frequency Route 6. Due to the lack of sidewalk, transit users currently wait within the street, which presents a safety issue for pedestrians and transit customers. The project will address this issue by narrowing the street and constructing a new sidewalk and bus stop waiting areas behind the curb.

Key advantages of the project include: permanent separation of pedestrians and bicyclists from moving motor vehicle traffic, improved bus stop areas, and pedestrian level lighting (none existing). The project will also upgrade the E Richfield Rd, Hennepin Ave S, and Dupont Ave S intersections with compliant ADA pedestrian ramps, countdown timers, APS push buttons, and high visibility durable pavement markings. ADA pedestrian ramps are also proposed to be included at up to seven non-signalized intersections along the project corridor.

(Limit 2,800 characters; approximately 400 words)

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

Project Length (Miles)

to the nearest one-tenth of a mile

36th St W from Richfield Rd to Dupont Ave S, Construction of Sidewalk and Bicycle Path

0.5

Project Funding

Are you applying for competitive funds from another source(s) to implement this project?	No
If yes, please identify the source(s)	
Federal Amount	\$1,978,316.48
Match Amount	\$494,579.12
Minimum of 20% of project total	
Project Total	\$2,472,895.60
Match Percentage	20.0%

 Minimum of 20%

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

 Source of Match Funds
 City of Minneapolis

 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
 2022

 Select one:
 2022

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

 Additional Program Years:
 2021

 Select all years that are feasible if funding in an earlier year becomes available.
 2021

Project Information

County, City, or Lead Agency	City of Minneapolis
Zip Code where Majority of Work is Being Performed	55408
(Approximate) Begin Construction Date	06/01/2020
(Approximate) End Construction Date	10/28/2022
Name of Trail/Ped Facility:	36th St W Sidewalk and Bicycle Path
(i.e., CEDAR LAKE TRAIL)	
TERMINI:(Termini listed must be within 0.3 miles of any wo	ork)
From: (Intersection or Address)	Richfield Rd
To: (Intersection or Address)	Dupont Ave S
DO NOT INCLUDE LEGAL DESCRIPTION; INCLUDE NAME OF ROADWAY IF MAJORITY OF FACILITY RUNS ADJACENT TO A SINGLE CORRIDOR	
Or At:	
Primary Types of Work	Grade, Stormsewer, Sidewalk, Signals, ADA Ped Ramps, APS, Lighting, Bike Path
Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.	
BRIDGE/CULVERT PROJECTS (IF APPLICABLE)	
Old Bridge/Culvert No.:	
New Bridge/Culvert No.:	
Structure is Over/Under (Bridge or culvert name):	

Requirements - All Projects

All Projects

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

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

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

The primary goals of this project are to:

Overcome physical barriers and eliminate system gaps (2040 TPP Page 7.6 and 7.157.16, 7.20)

Accommodate a broad range of cyclists and attract a wider range of users (2040 TPP Page 7.6 and 7.17, 7.23)

Connect to the regional bicycle network at Lake Calhoun and Bryant Ave S (2040 TPP Page 7.6)

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

Provide improved pedestrian facilities along a high frequency bus route, provide a facility that is compliant with ADA to accommodate all corridor users and provide infrastructure that will significantly improve the safety for pedestrian and bicycle users while maintaining and enhancing the pedestrian/bicycle environment. (2040 TPP 7.23)

The project will replace the existing onstreet facility to provide a pedestrian and bicycle facility that substantially improves the quality. (2040 TPP 7.23)

To the best of the City of Minneapolis' knowledge, the proposed project is consistent with Thrive MSP 2040, the 2040 Transportation Policy Plan, the 2040 Regional Parks Policy Plan, and the 2040 Water Resources Policy Plan

(Limit 2500 characters; approximately 750 words)

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.

The project is identified in both the Minneapolis Pedestrian Master Plan and Minneapolis Bicycle Master Plan. These plans are two of six components of Access Minneapolis, the city's plan to implement the transportation policies articulated in The Minneapolis Plan for Sustainable Growth. The Minneapolis Plan for Sustainable Growth is the City's longrange comprehensive plan and was approved by the Metropolitan Council on July 22, 2009.

In the Minneapolis Pedestrian Master Plan, the south side of 36th St W between Richfield Rd and Dupont Ave S is identified as a sidewalk gap in the pedestrian network. The plan specifically directs the City to investigate and prioritize options to fill sidewalk gaps at parks, schools, cemeteries and railroad crossings. The proposed project would succeed in filling the sidewalk gap along Lakewood Cemetery. Reference to the project can be found on page 27 of the plan and on page A13 in the plan's appendix. The full plan can be found here: www.minneapolismn.gov/pedestrian/projects/pedes trian_pedestrianmasterplan

In the Minneapolis Bicycle Master Plan, 36th St W is identified as a gap in the bikeway network. The plan identifies a new bikeway between Richfield Rd and Bryant Ave S. Reference to that project can be found on pages 153, 160, and 171 of the plan. The full plan can be found here: www.minneapolismn.gov/bicycles/projects/plan

Lastly, the Minneapolis Climate Action Plan establishes several related goals including increasing the number of walking and bicycle trips, the number of pedestrian and bicycle commuters, and constructing 30 miles of protected bikeways in Minneapolis by the year 2020. The W 36th St project, which meets the criteria for a protected bikeway, has the potential to attract a wider

List the applicable documents and pages:

demographic of bicyclists than a traditional onstreet bike lane because it is physically separated from motor vehicle traffic. Attracting a wider demographic of bicyclists can increase the number of bicycle trips and bicycle commuters in Minneapolis. The Minneapolis Climate Action Plan was adopted by the Minneapolis City Council on June 28, 2013 and provides a roadmap to guide Minneapolis towards our greenhouse gas emissions reduction targets. References to the bikeway, commuting, and trip goals and can be found on pages 26 and 27 of the plan. The full plan can be found here:

http://www.minneapolismn.gov/sustainability/climat e/

(Limit 2500 characters; approximately 750 words)

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

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

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

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

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

Multiuse Trails and Bicycle Facilities: \$250,000 to \$5,500,000 Pedestrian Facilities (Sidewalks, Streetscaping, and ADA): \$250,000 to \$1,000,000 Safe Routes to School: \$150,000 to \$1,000,000

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

8. The project must comply with the Americans with Disabilities Act (ADA).

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

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

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

Date plan adopted by governing body

The applicant is a public agency that employs 50 or more people	Yes	11/01/2017	11/01/2018
and is currently working towards completing an ADA transition plan that covers the public rights of way/transportation.		Date process started	Date of anticipated plan completion/adoption
The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public rights of way/transportation.		Date self-eva	luation completed
The applicant is a public agency that employs fewer than 50 people and is working towards completing an ADA self-evaluation that covers the public rights of way/transportation.		Date process started	Date of anticipated plan completion/adoption
(TDM Applicants Only) The applicant is not a public agency subject to the self-evaluation requirements in Title II of the ADA.			
10.The project must be accessible and open to the general public.			

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

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

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

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

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

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

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

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

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

Requirements - Bicycle and Pedestrian Facilities Projects

1.All projects must relate to surface transportation. As an example, for multiuse trail and bicycle facilities, surface transportation is defined as primarily serving a commuting purpose and/or that connect two destination points. A facility may serve both a transportation purpose and a recreational purpose; a facility that connects people to recreational destinations may be considered to have a transportation purpose.

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

Multiuse Trails on Active Railroad Right-of-Way:

2.All multiuse trail projects that are located within right-of-way occupied by an active railroad must attach an agreement with the railroad that this right-of-way will be used for trail purposes.

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

Check the box to indicate that the project is not in active railroad right-of-way.

Safe Routes to School projects only:

Upload Agreement PDF

3.All projects must be located within a two-mile radius of the associated primary, middle, or high school site.

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

4.All schools benefitting from the SRTS program must conduct after-implementation surveys. These include the student travel tally form and the parent survey available on the National Center for SRTS website. The school(s) must submit the after-evaluation data to the National Center for SRTS within a year of the project completion date. Additional guidance regarding evaluation can be found at the MnDOT SRTS website.

Check the box to indicate that the applicant understands this requirement and will submit data to the National Center for SRTS within one year of project completion.

Requirements - Bicycle and Pedestrian Facilities Projects

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$121,500.00
Removals (approx. 5% of total cost)	\$122,230.00
Roadway (grading, borrow, etc.)	\$2,025.15
Roadway (aggregates and paving)	\$189,119.60
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$30,250.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$202,975.00
Traffic Control	\$55,000.00
Striping	\$12,500.00
Signing	\$17,000.00
Lighting	\$112,500.00
Turf - Erosion & Landscaping	\$50,000.00
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$288,500.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$180,539.96
Other Roadway Elements	\$0.00

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$128,346.25
Sidewalk Construction	\$36,798.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$245,600.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$237,500.00
Pedestrian-scale Lighting	\$112,500.00
Streetscaping	\$6,000.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$142,011.64
Other Bicycle and Pedestrian Elements	\$180,000.00
Totals	\$1,088,755.89

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

Cost Per Platform hour (full loaded Cost)	\$0.00	
Subtotal	\$0.00	
Other Costs - Administration, Overhead,etc.	\$0.00	
Totals		
Total Cost	\$2,472,895.60	
Construction Cost Total	\$2,472,895.60	
Transit Onerating Cost Tatal	AA AA	
Transit Operating Cost Total	\$0.00	

Measure A: Project Location Relative to the RBTN

Select one:	
Tier 1, Priority RBTN Corridor	
Tier 1, RBTN Alignment	
Tier 2, RBTN Corridor	
Tier 2, RBTN Alignment	
Direct connection to an RBTN Tier 1 corridor or alignment	
Direct connection to an RBTN Tier 2 corridor or alignment	Yes
OR	
Project is not located on or directly connected to the RBTN but is part of a local system and identified within an adopted county, city or regional parks implementing agency plan.	
Upload Map	1528822667764_36thStW_rbtn.pdf
Please upload attachment in PDF form.	

Measure A: Population Summary

Existing Population Within One Mile (Integer Only)	49052
Existing Employment Within One Mile (Integer Only)	13244
Upload the "Population Summary" map	1528821154764_36thStW_popemploy.pdf
Please upload attachment in PDF form.	

Measure 2B: Snow and ice control

Maintenance plan or policy for snow-removal for year-round use: Yes

(50 Points)

Response: If yes, please include a link to and/or description of maintenance plan.

The City of Minneapolis currently maintains the existing interim 36th st W pedestrian and bikeway facility year round, including snow and ice control. The City will continue to maintain the proposed permanent 36th St W facility year round.

Upload Maintenance Plan (if no link is available)

Please upload attachment in PDF form.

1529163379906_36thStW_winter maintenance.pdf

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

Select one:

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

(up to 100% of maximum score)

Project located in Area of Concentrated Poverty:

(up to 80% of maximum score)

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

Yes

(up to 60% of maximum score)

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

(up to 40% of maximum score)

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

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

Response:

In 2013-2014, the City of Minneapolis engaged the 36th St W users, residents, neighborhood organizations, businesses, and institutions in advance of the installation of the interim facility. The City will continue to engage a full cross-section of the community throughout the design process, consistent with City-adopted principles for community engagement. Project staff will strategically choose engagement methods that target populations traditionally not involved in engagement that use the corridor, such as communities of color, low-income populations, transit riders, renters, and persons with disabilities. Project managers will focus on strategies that meet these populations where they are instead of asking them to attend events at times and locations where they may not be comfortable or able to attend.

(Limit 1,400 characters; approximately 200 words)

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

The 36th St W project facilitates a high demand connection between a direct connection to a Tier 2 bike corridor at Bde Mka Ska on the western terminus and a Tier 1 bike corridor at Bryant Ave S on the east (via an existing 2 block on-street bike lane and existing sidewalk connection between Dupont Ave and Bryant Ave). Fostering safe, convenient and efficient multi-modal solutions is a significant benefit to any community and especially so, in the lakes and Uptown area of Minneapolis where the population is highly dependent upon walking, bicycling, or transit.

A key objective of the bicycle path and sidewalk design is to provide a facility that is comfortable to users with a wide range of physical abilities including children and elderly. This cannot always be achieved with on-street bike and pedestrian facilities and is especially the case for high traffic volume corridors. The current on-street bicycle and pedestrian accommodations provide a temporary measure to address this need, however is not sufficient to meet the goal of accommodating all potential user demographics. The proposed project improves upon the success of the interim on-street facility, and is a valuable transportation connection alternative to an area that relies on this mode.

The project improves walkability and pedestrian safety, goals referenced in the Minneapolis Plan for Sustainable Growth, Pedestrian Master Plan and Climate Action Plan, among other documents. The proposed pedestrian and bicycle improvements, including ADA ramps, APS push buttons, pedestrian level lighting, high visibility durable pavement markings and boulevard separation from auto traffic will especially benefit elderly individuals, people with disabilities, children, and parents with strollers. Vail Place, a mental health support facility

Response:

is located, on the project corridor with many visitors arriving by walking or taking transit. The sidewalk, bicycle path, and bus stop improvements will enhance equitable access to bicycling and provide associated economic and health benefits, which is a goal of the 2040 Transportation Policy Plan. When pedestrian and bicycle trips replace car trips in a neighborhood, all residents realize benefits in improved air quality and reduced noise.

(Limit 2,800 characters; approximately 400 words)

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

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

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

Increased noise.

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

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

Increased speed and/or cut-through traffic.

Removed or diminished safe bicycle access.

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

Displacement of residents and businesses.

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

Other

Response:

Creating a safe connection to Bde Mka Ska and the Grand Rounds Regional Trail system, contributes to the 2040 Regional Parks Policy Plan goal of strengthening equitable usage of the Regional Parks system. No negative impacts are foreseen.

(Limit 2,800 characters; approximately 400 words)

Upload Map

1528821589436_36thStW_socio-economic.pdf

Measure B: Affordable Housing

Segment Length

City	(For stand-alone projects, enter population from Regional Economy map) within each City/Township	Segment Length/Total Project Length	Score	Housing Score Multiplied by Segment percent
Minneapolis	0.53	1.0	100.0	100.0

Total Project Length

Total Project Length (as entered in the "Project Information" form) 0.5

Affordable Housing Scoring
Total Project Length (Miles) or Population 0.53
Total Housing Score 100.0

Affordable Housing Scoring

Measure A: Gaps, Barriers and Continuity/Connections

Check all that apply:

Gap improvements can be on or off the RBTN and may include the following: • Providing a missing link between existing or improved segments of a regional (i.e., RBTN) or local transportation network;

Improving bikeability to better serve all ability and experience levels by:
Providing a safer, more protected on-street facility;

•Improving crossings at busy intersections (signals, signage, pavement markings); OR

•Improving a bike route or providing a trail parallel to a highway or arterial roadway along a lower-volume neighborhood collector or local street. Barrier crossing improvements (on or off the RBTN) can include crossings (over or under) of rivers or streams, railroad corridors, freeways, or multi-lane highways, or enhanced routes to circumvent the barrier by channeling bicyclists to existing safe crossings or grade separations. (For new barrier crossing projects, data about the nearest parallel crossing (as described above) must be included in the application to be considered for the full allotment of points under this criterion).

Closes a transportation network gap and/or provides a facility that crosses or circumvents a physical barrier

Yes

Improves continuity and/or connections between jurisdictions (on or off the RBTN) (e.g., extending a specific bikeway facility treatment across jurisdictions to improve consistency and inherent bikeability)

Improves Continuity and/or Connections Between Jurisdictions Yes

36th St W is identified in the Minneapolis Pedestrian Master Plan and Minneapolis Bicycle Master Plan as a gap in the non-motorized network. This gap is a significant issue because there is a high demand for walking and bicycling on either end of the corridor. Recent bicycle and pedestrian counts show that on average, 530 pedestrians and 210 bicyclists travel along 36th St W daily. These recent numbers show a 30% increase in nonmotorized traffic since the interim on-street pedestrian and bicycle facility was installed in 2014.

The proposed permanent project has the ability to further improve pedestrian and bicycle access in the area and mitigate major barriers for pedestrians and bicycles:

For pedestrians the project reduces the crossing distance of a minor arterial that has an AADT of 12,100. To access bus stops on the south side of 36th St W, pedestrians must cross 51-foot wide roadway. The proposed project would narrow the roadway and reduce the crossing distance to approximately 32 feet. This walking environment will be safer for all pedestrians and transit users of 36th St W. In addition, the sidewalk will provide a continuous connection on the south side of 36th St W, which has no cross street access (borders Lakewood Cemetery) and is separated from bicycle and auto traffic.

The project will also improve transit access by providing permanent bus stop facilities at locations where transit uses must currently board and alight into the roadway, immediately adjacent to moving motor vehicle traffic. The proposed bus stops will be raised, physically separated from the roadway and motor vehicle traffic by a curb, and ADA

Response:

compliant.

For bicycles, the project also overcomes the barrier of a high volume roadway. Riding on a 36th St W, which has an ADT of 12,100, can be an uncomfortable experience for many bicyclists. The interim plastic bollard facility has helped increased ridership and the comfort of the cyclists. However, an off-street protected bicycle facility that is separated by a concrete curb will be more attractive to a greater number of bicyclists including children, elderly and recreational bicyclists that otherwise do not feel comfortable riding on the street. The 36th St W path and sidewalk will establish the needed connection to Bde Mka Ska with a bikeway design that is consistent with the quality of the Minneapolis Park Board Regional Trail system.

(Limit 2,800 characters; approximately 400 words)

Measure B: Project Improvements

The lack of a sidewalk on the south side of 36th St W and the need to accommodate all bicycle rider types on a high-volume roadway creates a clear safety problem for pedestrians, transit users, and bicyclists. Safety for each of these modes can be greatly improved by this project. An interim plastic bollard pedestrian and bicycle facility was implemented in 2014 to address this need. However, this design is not an adequate long-term solution. The proposed project will permanently replace the on-street facility with a separate sidewalk and two-way bicycle path, which will address the pedestrian and bicycle system gap, and improve the multi-modal safety of 36th St W.

The current configuration of 36th St W does not allow for pedestrians to easily or safely travel along the north side of the 36th St W. To access bus stops on the south side of the street, pedestrians must walk across a street with an ADT of 12,100 and if able, walk along a two-foot wide ledge and wait for their bus to arrive. This ledge is not ADA compliant and poses difficulties for many able bodied persons. Constructing an ADA compliant sidewalk will allow improved access and safer bus stop waiting areas. In addition, the location of the sidewalk and bicycle facility on the south side of the street (adjacent to Lakewood Cemetery) is advantageous to bicyclists and pedestrians since there are no non-signalized intersections or accesses to cross streets, thereby greatly reducing conflicts with motor vehicles.

Adding a permanent bicycle path to 36th St W can improve the safety of bicyclists. Currently, bicyclists operate on a two-way on-street facility separated only by bollards. This situation can be intimidating for many bicyclists. Bicyclist-motorist crash data from Minneapolis shows that streets with a

Response:

designated bicycle facility have lower crash rates than streets without these facilities. The 36th St W project also has the capability to attract more users because it is a more comfortable facility and will have a consistent trail design with the trail system at Bde Mka Ska. The protected bikeway design will provide the safest accommodation for recreation bicyclists, children, families, and elderly users. Building an off-street bikeway will attract new users, and will improve the safety of the 36th St W corridor.

The project will also implement pedestrian level and street lighting. Pedestrian street lighting currently does not exist along 36th St W. This improvement will greatly increase the visibility for night time users, improving the safety for bicyclists, pedestrians, and transit users crossing 36th St W. In addition, street lighting will deter crime, making it much more comfortable and safe facility to use.

(Limit 2,800 characters; approximately 400 words)

Measure A: Multimodal Elements

Response:

The project will greatly benefit the experience of all users on 36th St W. The narrowing of the roadway will right size 36th St W for auto traffic, while maximizing benefits to pedestrian, bicyclists and transit users. The new bicycle path and sidewalk will allow pedestrians and bicyclists to comfortably and safely travel along the south side of W 36th St and the narrower roadway will allow safer northsouth crossings. 36th St W serves Metro Transit Route 6, 23 and 114, which provide high frequency service along the corridor. The sidewalk will greatly improve the experience of transit users, as the existing two-foot ledge will be expanded to provide a sidewalk, which will include adequate space for ADA-compliant boarding and alighting for transit customers.

The project will also improve the Richfield Rd, Hennepin Ave, and Dupont Ave S traffic signals by providing ADA compliant pedestrian ramps, APS push buttons, countdown timers, and high visible crosswalk markings. ADA ramps will also be included at up to 7 non-signalized intersections to improve connections to the north side of 36th St W. Street and pedestrian level lighting will be provided along the length of the project. The signal and lighting elements will greatly improve the safety for bicyclists and pedestrians using the trail and crossing 36th St, and motorists traveling along the corridor.

(Limit 2,800 characters; approximately 400 words)

Transit Projects Not Requiring Construction

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

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment - Construction Projects

1)Layout (30 Percent of Points)

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

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

100%

Attach Layout

1531492468453_36thStW_LayoutandLetterofSupport.pdf

Please upload attachment in PDF form.

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

50%

Attach Layout

Please upload attachment in PDF form.

Layout has not been started

0%

Anticipated date or date of completion

2) Review of Section 106 Historic Resources (20 Percent of Points)

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

100%

There are historical/archeological properties present but determination of no historic properties affected is anticipated.

100%

Historic/archeological property impacted; determination of no adverse effect anticipated

Yes

Yes

80%

Historic/archeological property impacted; determination of adverse effect anticipated

40%

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

0%

Project is located on an identified historic bridge

3)Right-of-Way (30 Percent of Points)

Right-of-way, permanent or temporary easements either not required or all have been acquired

100%

Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50%

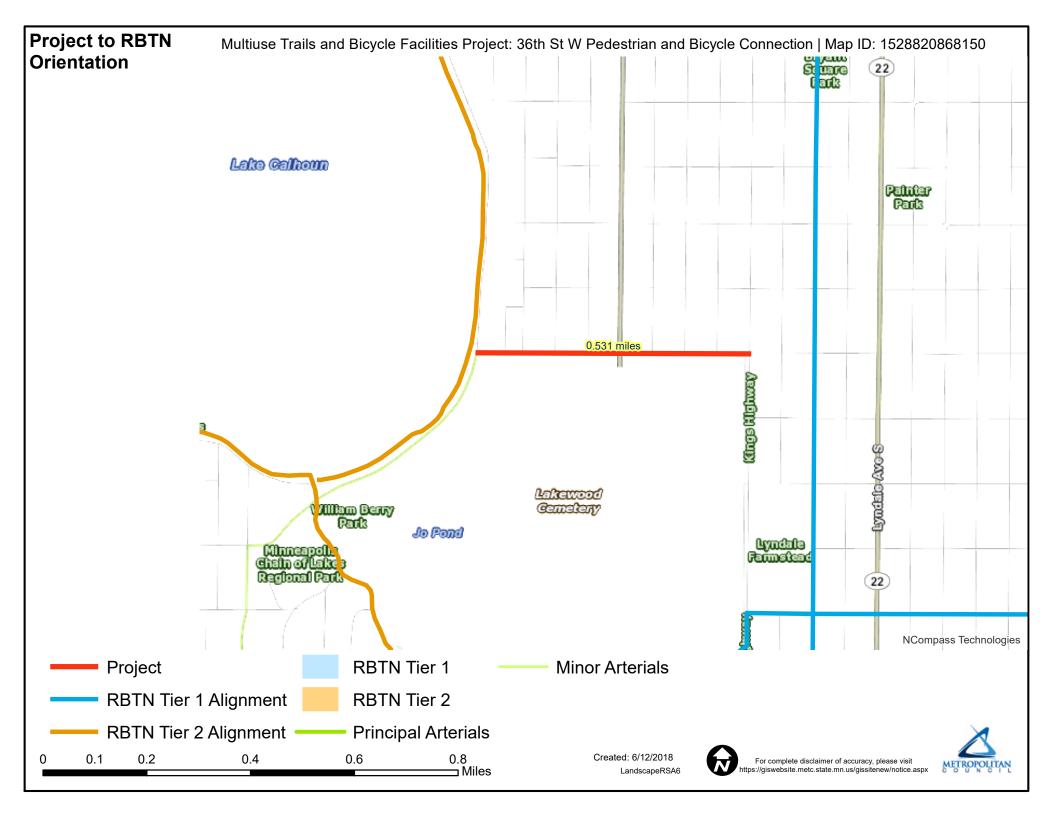
Right-of-way, permanent or temporary easements required, parcels identified
25%
Right-of-way, permanent or temporary easements required, parcels not all identified
0%
Anticipated date or date of acquisition
4)Railroad Involvement (20 Percent of Points)
No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable)
100%
Signature Page
Please upload attachment in PDF form.
Railroad Right-of-Way Agreement required; negotiations have begun
50%
Railroad Right-of-Way Agreement required; negotiations have not begun.
0%
Anticipated date or date of executed Agreement

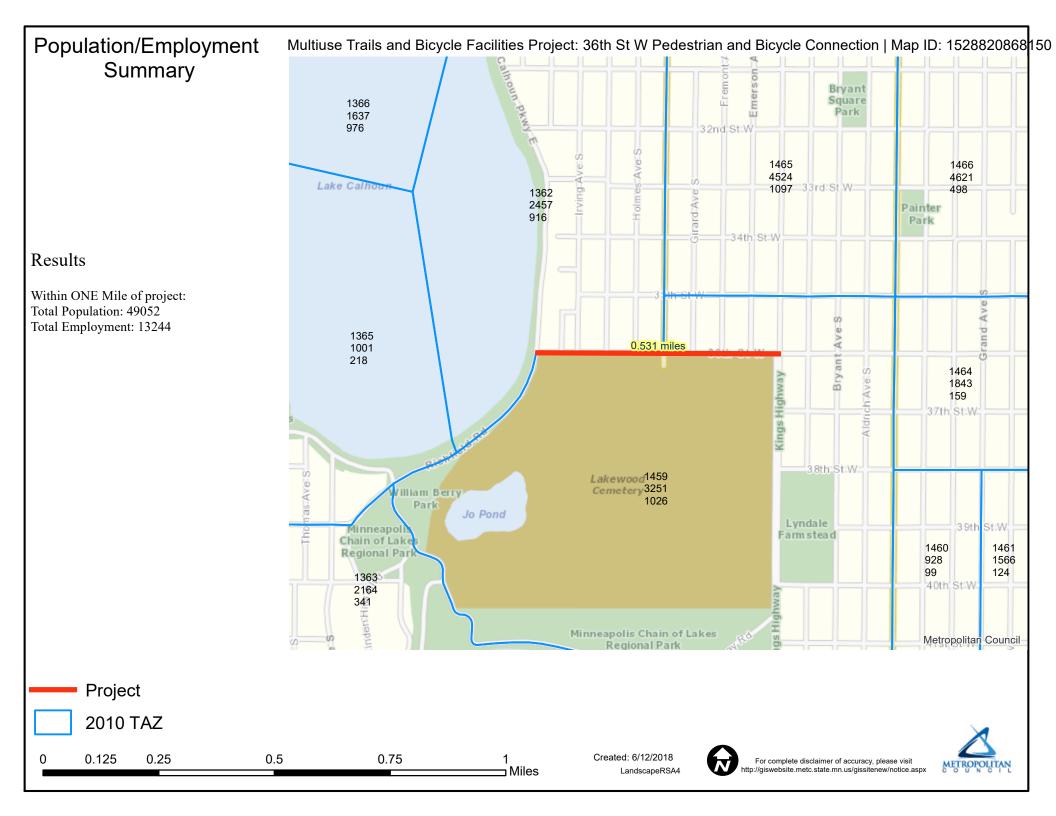
Measure A: Cost Effectiveness

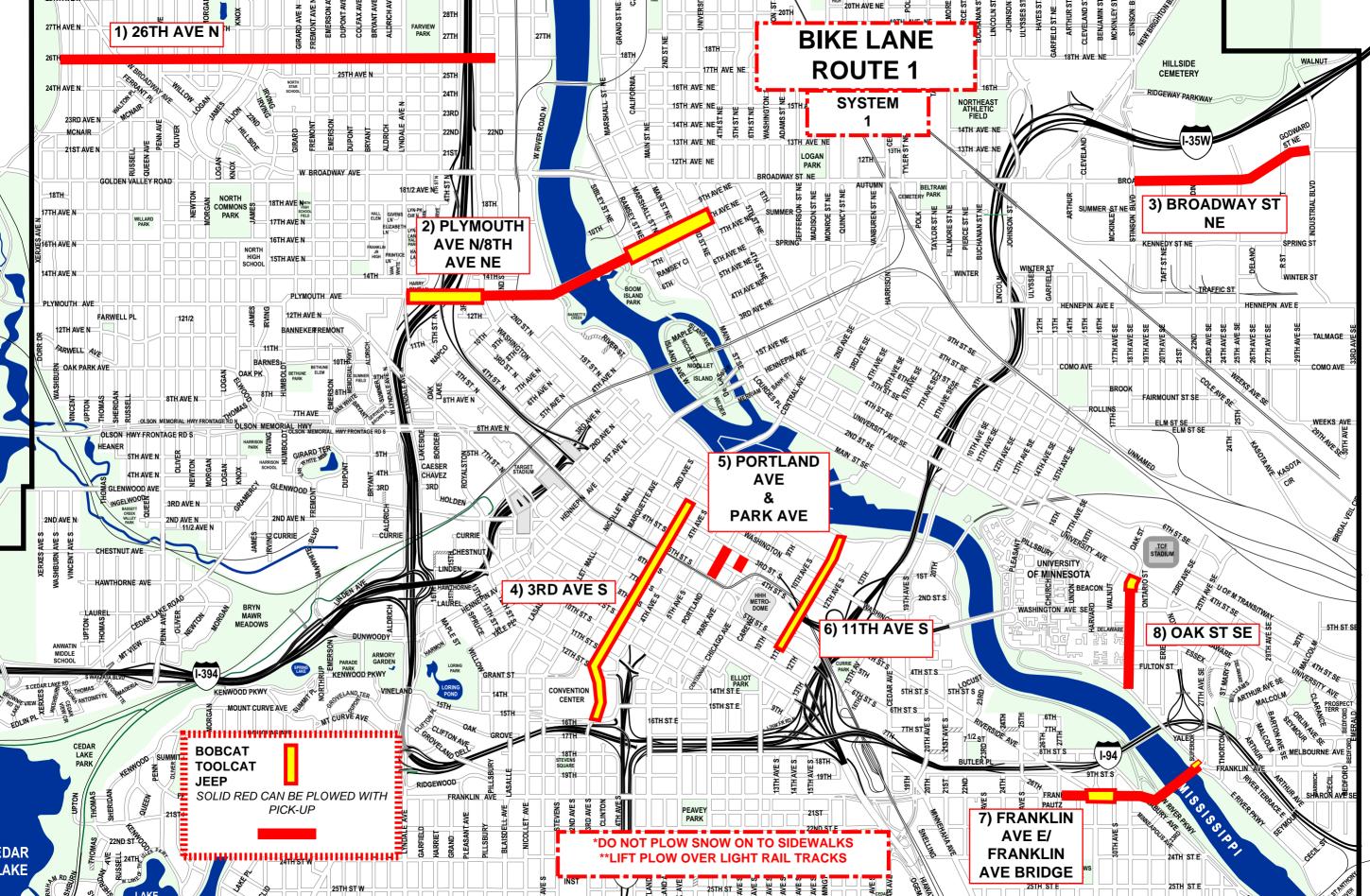
Total Project Cost (entered in Project Cost Form):	\$0.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$0.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

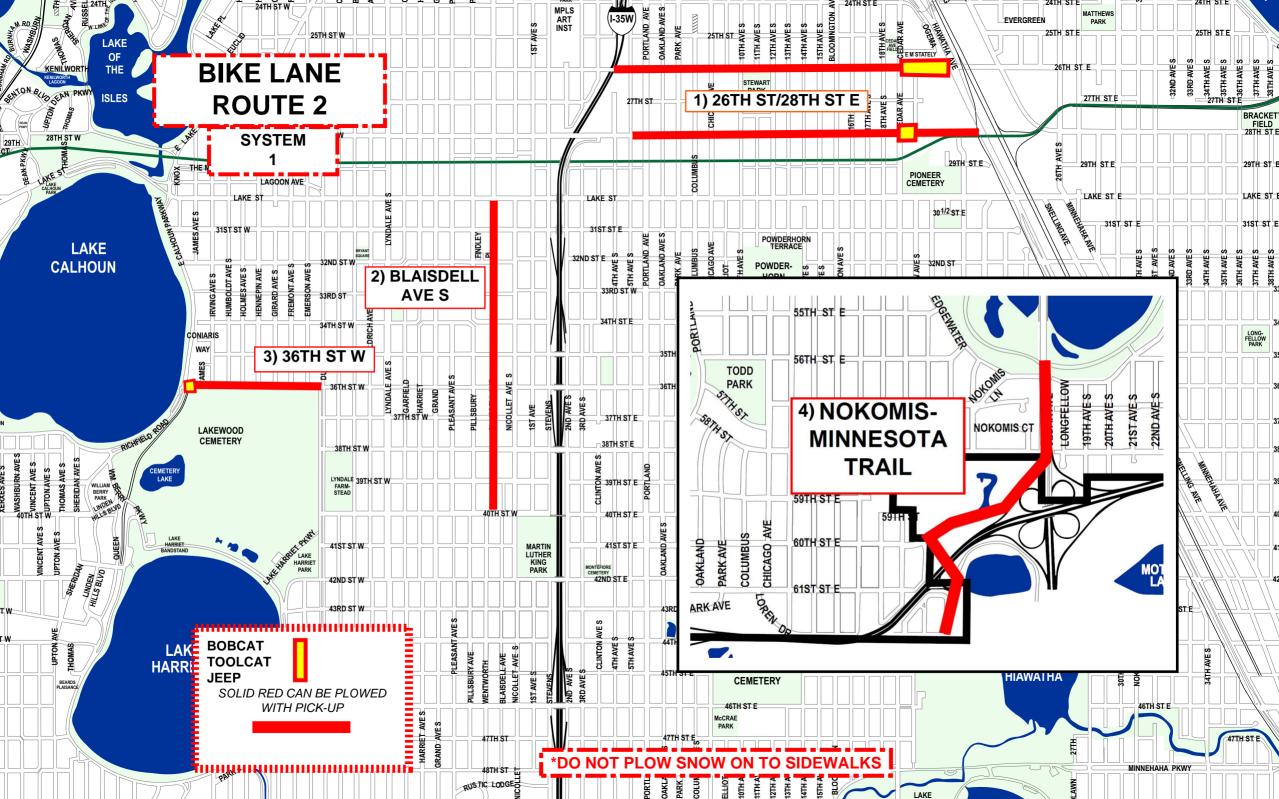
Other Attachments

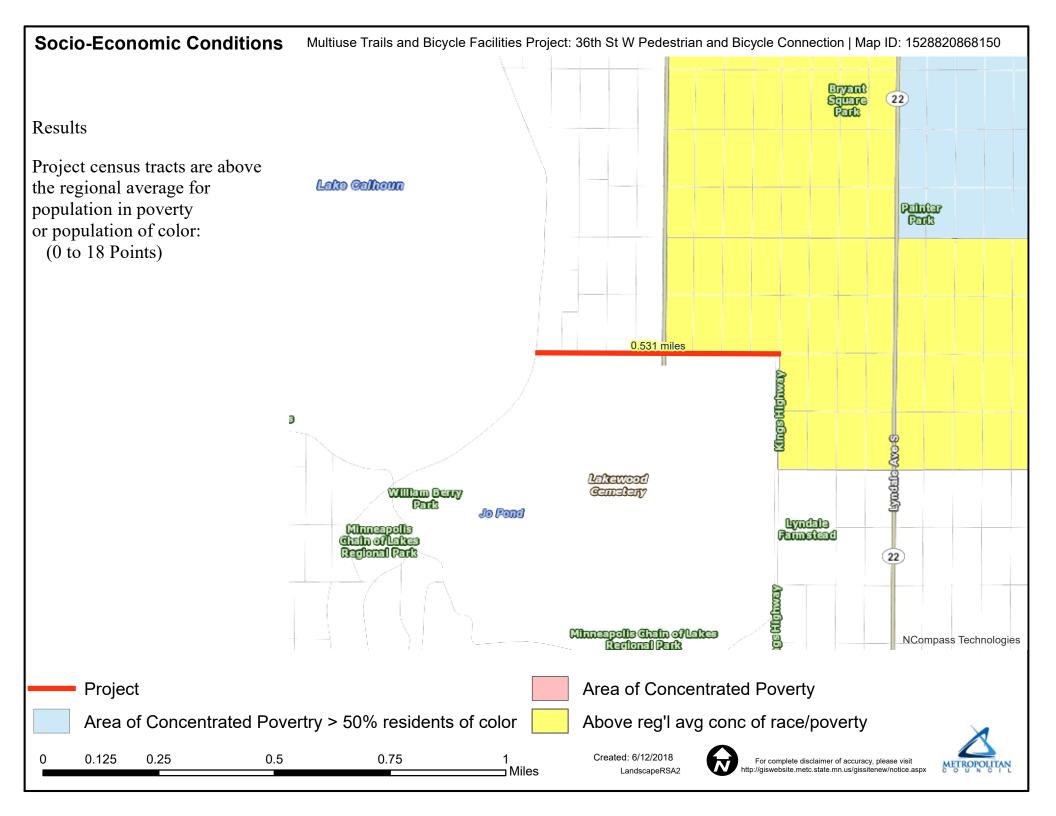
File Name	Description	File Size
36th St W_preinstallation photo.pdf	36th St W pre-installation project photo	144 KB
36thStW_onepager.pdf	36th St W project one-pager	752 KB
36thStW_typical section.pdf	36th St W project typical sections	90 KB

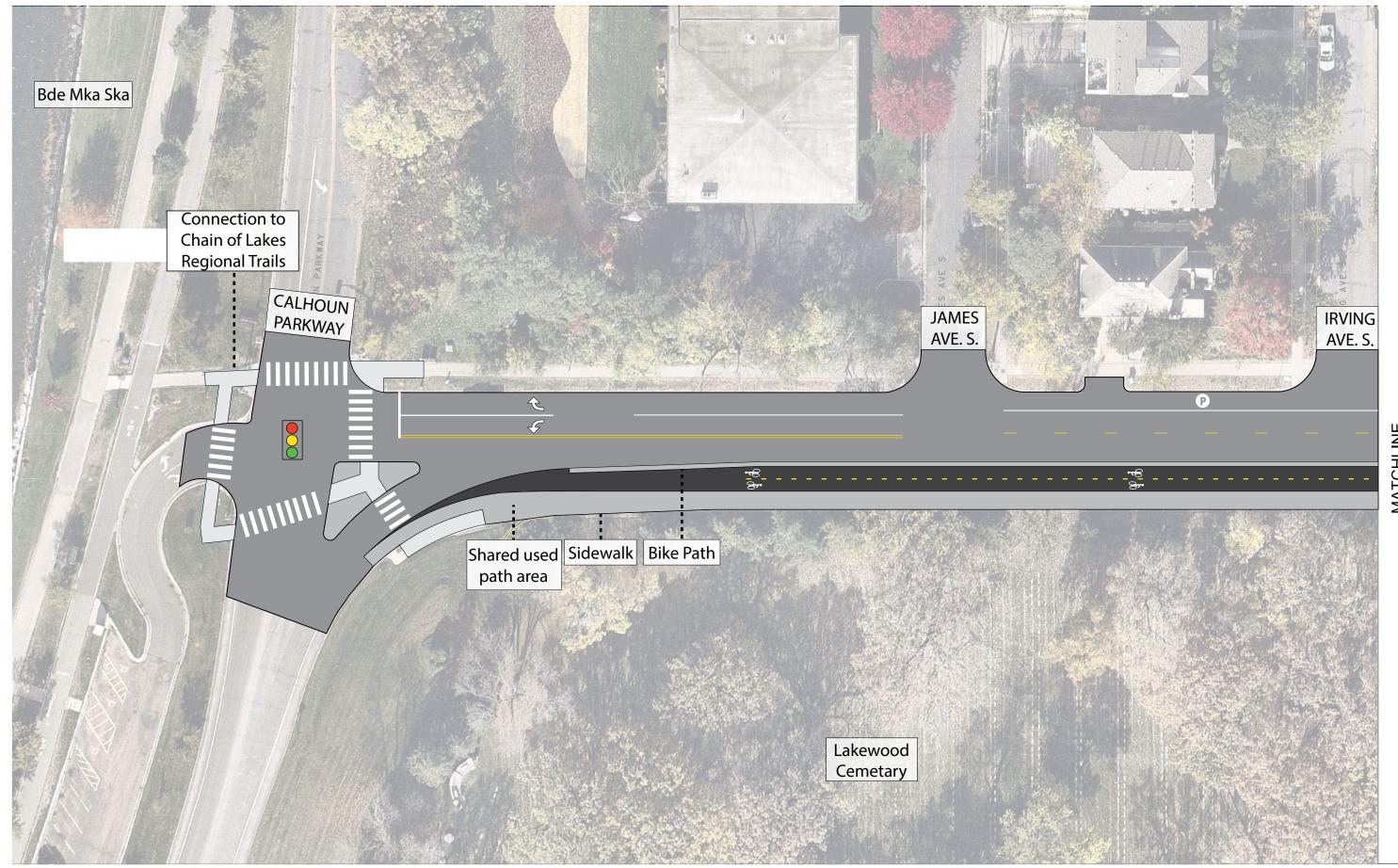




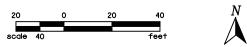




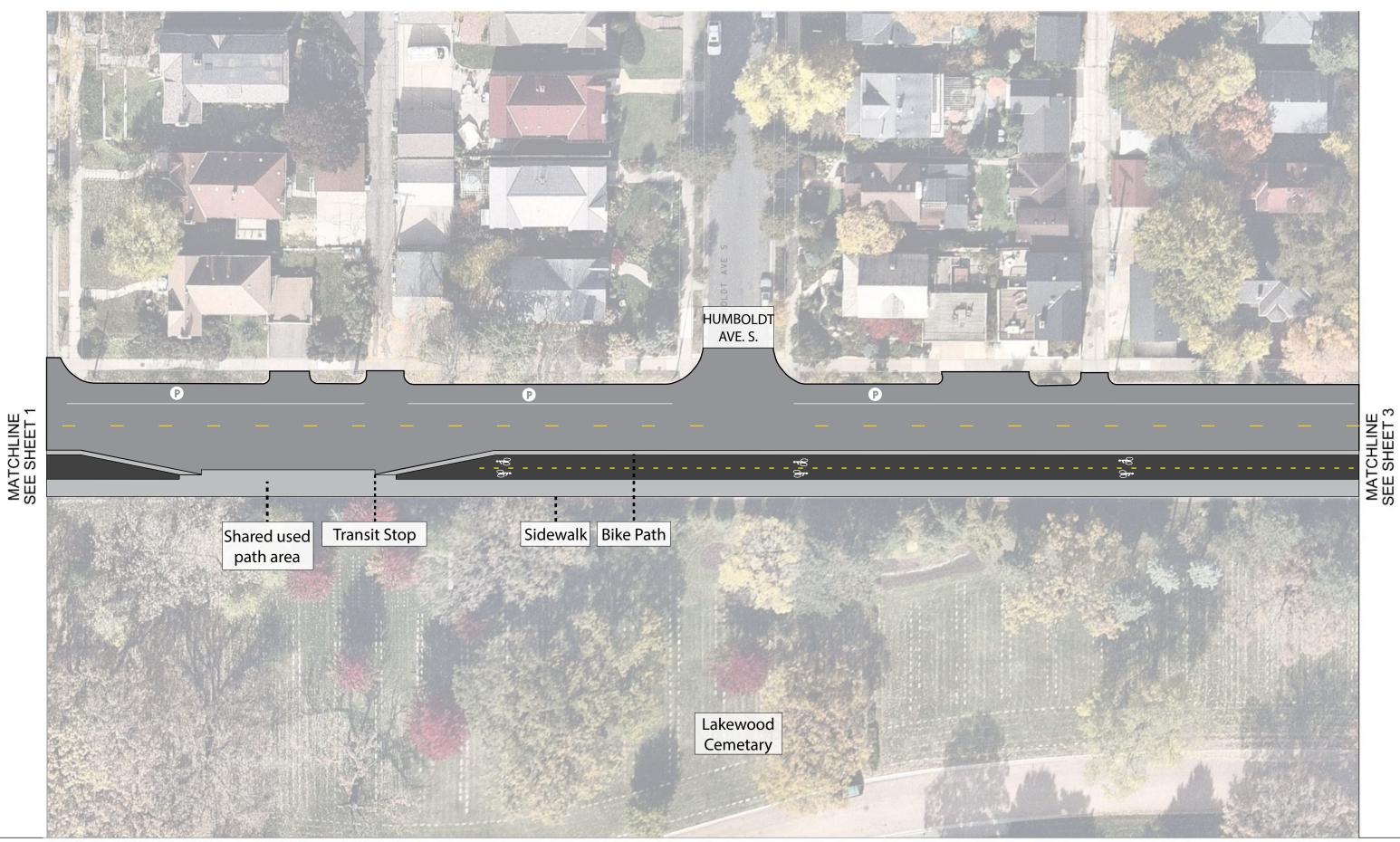






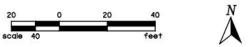


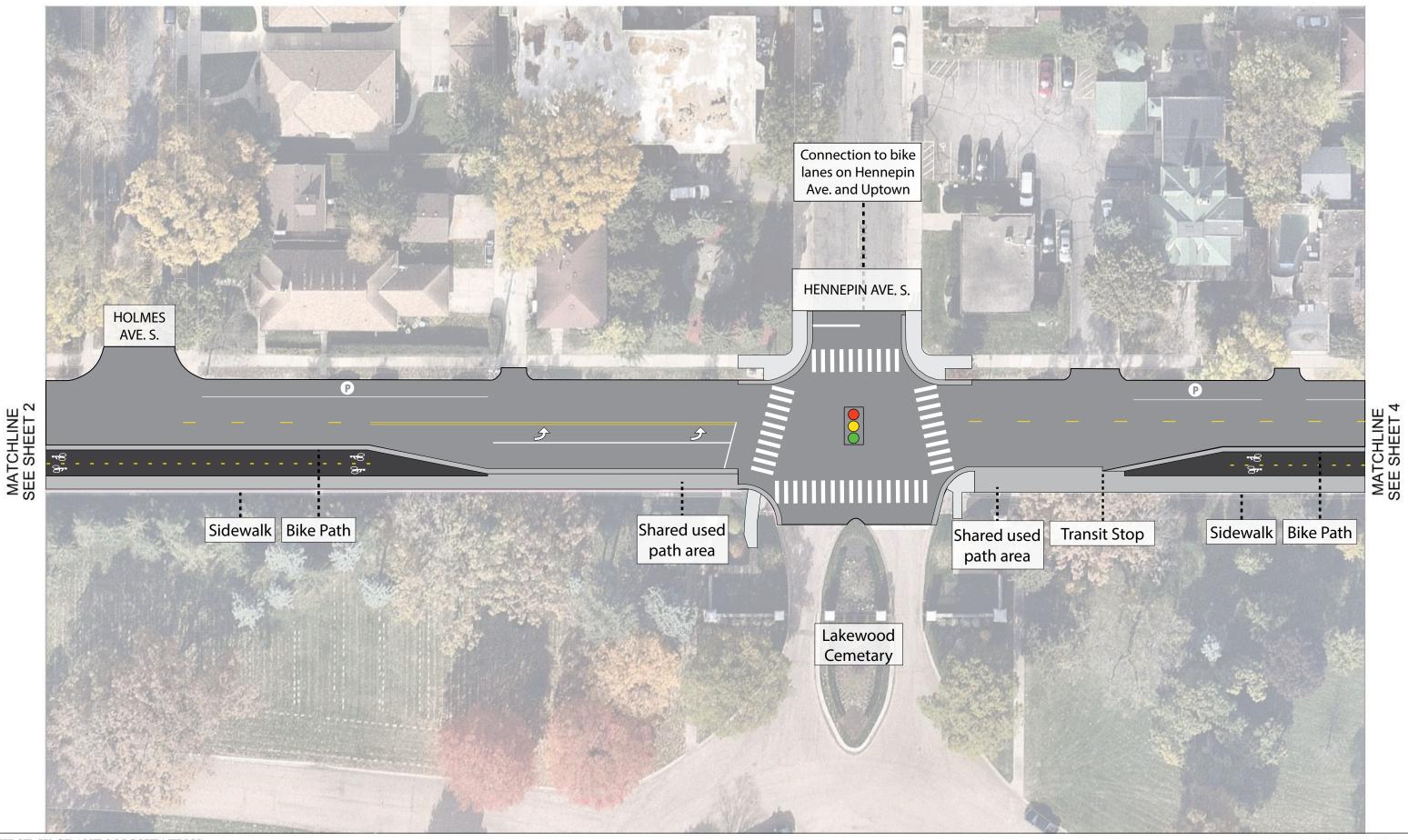
MATCHLINE SEE SHEET 2



36TH ST. W GRANT SOLICITATION

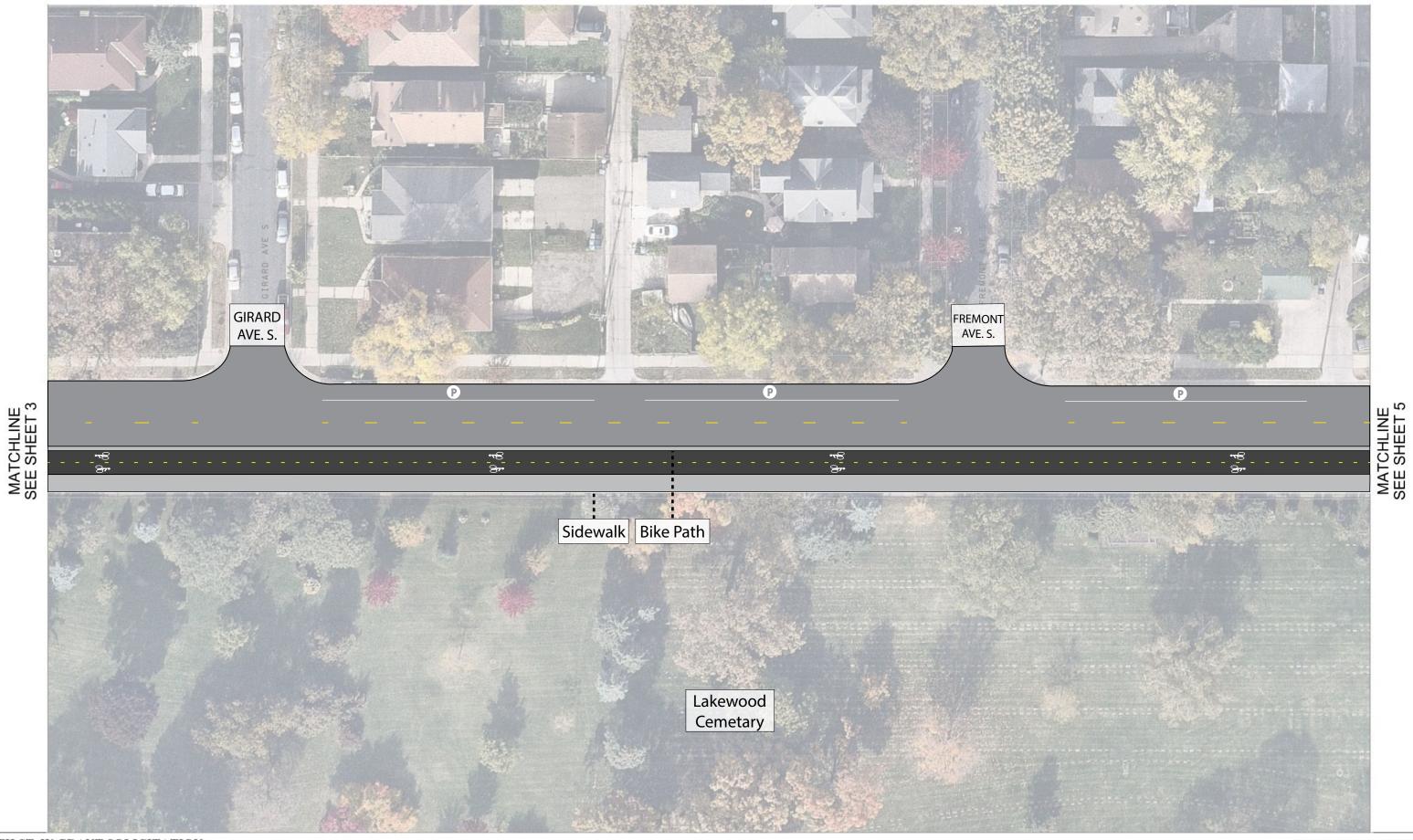






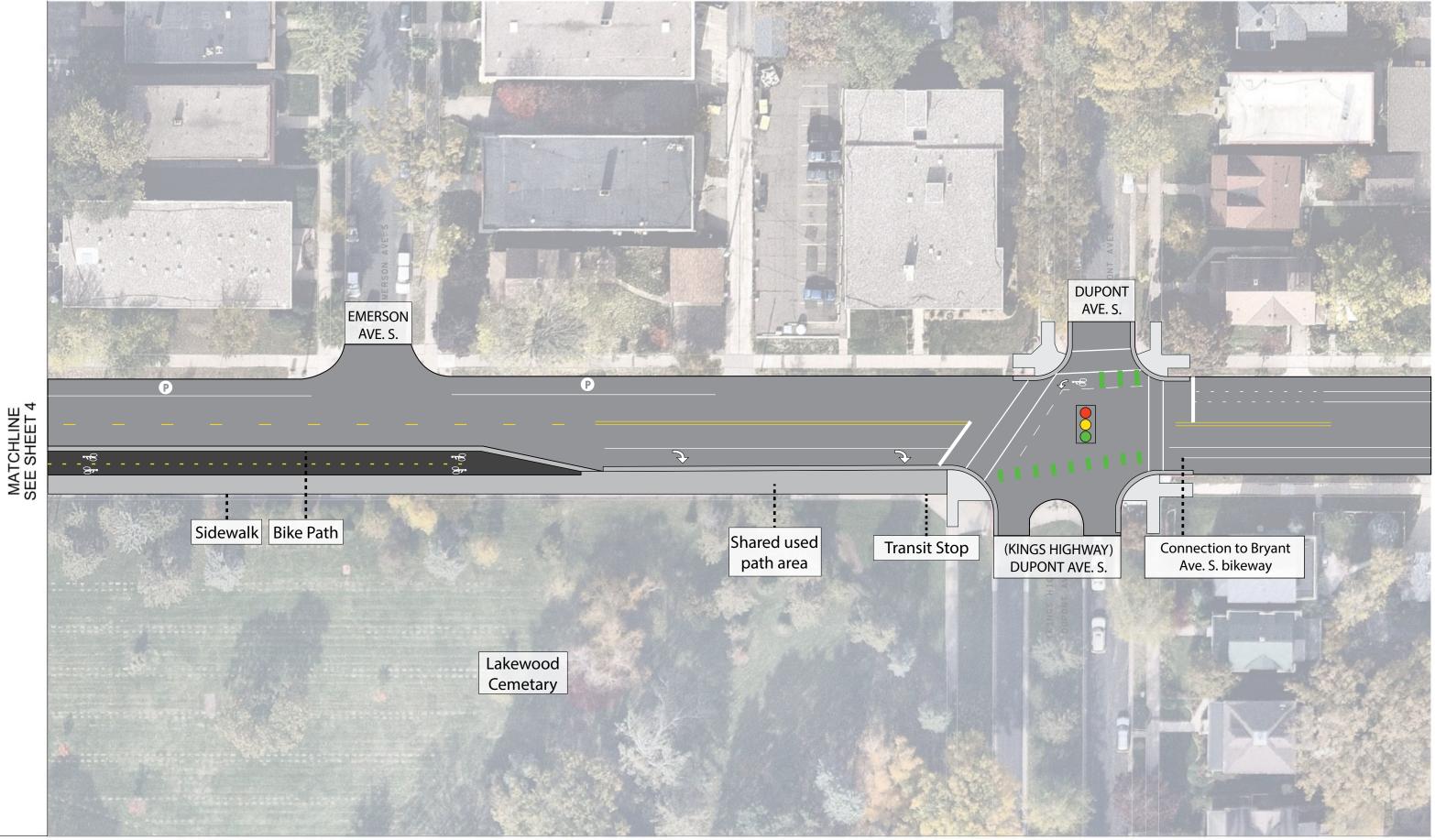


















Public Works 350 S. Fifth St. - Room 203 Minneapolis, MN 55415 TEL 612.673.2352

www.minneapolismn.gov

July 5, 2018

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

RE: 2018 Regional Solicitation Applications

Dear Ms. Koutsoukos,

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

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

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

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

Thank you for the opportunity to submit these applications.

Sincerely,

Robin heson

Director of Public Works



Council Action No. 2018A-0448	City of Minneapolis	File No. 2018-00649		
		UIN 2 2 201		

Committee: TPW, WM

Public Hearing: None

Passage: Jun 15, 2018

Publication: JUN 2 3 2018

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



Certified an official action of the City Council

Presented to Mayor: JUN 1 5 2018

Received from Mayor: JUN 2 0 2018

The Minneapolis City Council hereby:

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

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

ORIGINATING DEPARTMENT

Public Works Department

To Committee(s)

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

 LEAD STAFF:
 Liz Heyman, Transportation Planner,
 PRESENTED BY:
 Liz Heyman, Transportation Planner,

 Transportation Planning and Programming
 Transportation Planning and Programming
 Transportation Planning and Programming

 Division
 Division
 Division
 Division

Action Item(s)

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

Previous Actions

None

Ward / Neighborhood / Address

#	Ward	Neighborhood	Address
1.	All Wards		

Background Analysis

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

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

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

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

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

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

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

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

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

Details of the proposed applications are described below.

Hennepin Avenue S – Douglas Avenue to W Lake Street

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

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

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

Program Category: Roadway Reconstruction/Modernization

37th Avenue NE - Central Avenue to Stinson Boulevard

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

Program Category: Roadway Reconstruction/Modernization

Nicollet Avenue Bridge over Minnehaha Creek

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

Program Category: Bridge Rehabilitation/Replacement

Intelligent Transportation System Upgrades & Enhancements

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

Program Category: Traffic Management Technologies

36th Street W Bicycle and Pedestrian Enhancements

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

Program Category: Bicycle and Pedestrian Facilities

Lyndale Ave N Pedestrian Safety Improvements

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

Program Category: Pedestrian Facilities

Near North - Safe Routes to School

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

Program Category: Safe Routes to School

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

FISCAL IMPACT STATEMENT

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

• No fiscal impact anticipated

Attachments

Regional Solicitation Map



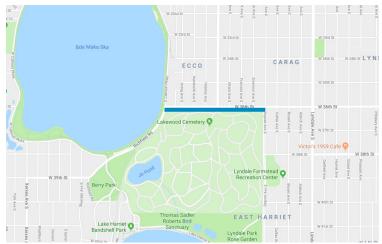


Project Background

The proposed project will construct a new sidewalk and bicycle path on the south side of 36th St W between Richfield Rd and Dupont Ave S. The corridor is identified in the Minneapolis Pedestrian and Bicycle plans as a critical sidewalk and bikeway gap. 36th St W provides a direct connection between the Uptown neighborhood of Minneapolis and Bde Mka Ska and the regional Chain of Lakes trails.

The City of Minneapolis installed an interim pedestrian and bicycle facility in 2014 using striping and plastic bollards. Since installation, pedestrian and bicycle traffic has increased 30 percent on the street. The City aims to build upon this success and construct a permanent facility to further improve safety and access.

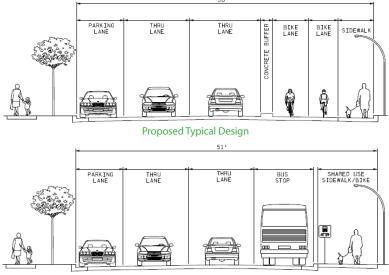
Project Area



Project Goals

- Provide a permanent sidewalk and bikeway separated from motor vehicle traffic
- Upgrade intersections to improve safety and access for pedestrians and bicyclists through signal, lighting, and curb ramp improvements.
- Upgrade bus stops to improve safety and access for transit customers.

Proposed Design



Proposed Design at Bus Stop Locations

Existing Conditions

Average Number of Daily Users



210 bicyclists



3 Metro Transit bus routes, including the hi-frequency Route 6



12,000 motor vehicles

Source: Minneapolis Bicycle & Pedestrian Counts (2017) and Minneapolis Public Works (2015-2017), Metro Transit

Existing Pedestrian and Bicycle Facility

The proposed project aims to improve the existing interim facility and provide a permanent sidewalk and bikeway.



Typical existing cross section with the pedestrian space and bikeway separated from motor vehicle traffic by striping and plastic bollards.



View approaching the intersection of Richfield Rd and the connection to the Bde Mka Ska and the regional Chain of Lakes Trails, a Tier 2 regional bikeway.



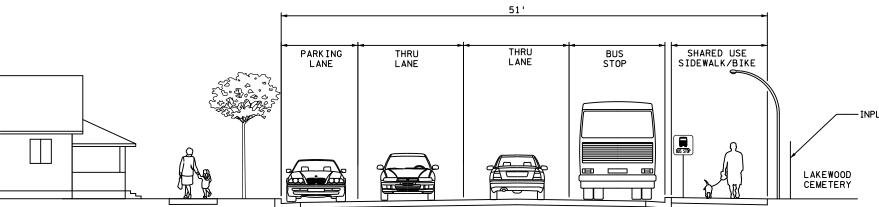


A bicyclist rides on the existing interim facility on 36th St W towards the connection to Bryant Ave S, a Tier 1 regional bikeway.

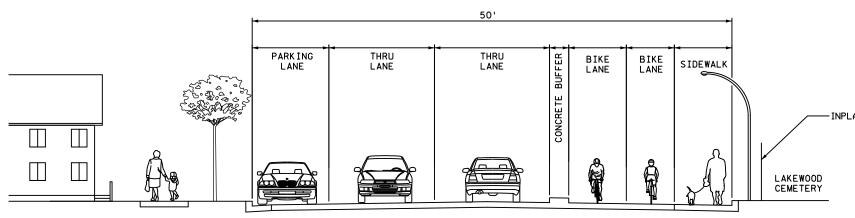
A transit customer waits for the Route 23. The interim facility includes bus stop waiting areas, but transit customers must still board from the roadway.

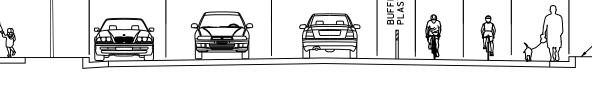




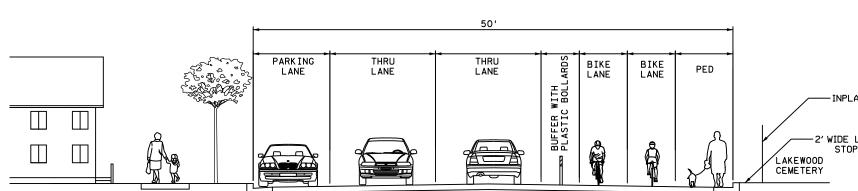


PROPOSED





EXISTING INTERIM FACILITY



-INPLACE FENCE

"WIDE LEDGE AND BUS STOP WAITING AREA

-INPLACE FENCE

-INPLACE FENCE



TYPICAL SECTIONS