

# Application

10359 - 2018 Transit System Modernization	
10647 - Route 6 corridor bus and stop modernization	
Regional Solicitation - Transit and TDM Projects	
Status:	Submitted
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# **Primary Contact**

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What Grant Programs are you most interested in?	Regional Solicit	ation - Transit a	nd TDM Pro	jects

# **Organization Information**

Name:	Metro Transit
Jurisdictional Agency (if different):	

Organization Type:	Metropolitan Council		
Organization Website:			
Address:	560 Sixth Avenue North		
*	Minneapolis	Minnesota	55411
	City	State/Province	Postal Code/Zip
County:	Hennepin		
Phone:*	651-602-1000		
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Fax:			
PeopleSoft Vendor Number	METROTRANSIT		

# **Project Information**

Project Name	Route 6 Corridor Bus and Stop Modernization
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 Route 6 Corridor Bus and Stop Modernization project will improve transit service by enhancing customers' experiences with modern amenities like enhanced shelters, real-time transit information and zero tailpipe-emission electric buses.

This project will modernize much of Route 6 connecting Stadium Village to southwest Minneapolis via University Avenue and Hennepin Avenue. Three buses will be upgraded to fully electric propulsion. Route 6 is a critical component of the existing transit network, averaging over 9,000 daily rides. It is one of Metro Transit's busiest bus routes.

Present transit facilities along the corridor do not meet their communities' needs; many locations consist of a sign on a pole without scheduling information. Narrow sidewalks and right-of-way restrict space for customer improvements like shelters. This project will widen sidewalks to provide dedicated transit boarding areas, near-level boarding and enhanced customer facilities. Bus stops will feature enhanced shelters with heat and light, pylons with real-time bus-tracking information, security features like phones and/or cameras and furnishings like benches, bicycle racks and trash bins.

The project will also convert three diesel articulated buses planned for the corridor to battery electric articulated buses. These buses will reduce transit's greenhouse gas emissions and other pollutants. This project includes only the cost difference of modernizing three vehicles in the planned fleet by purchasing electric instead of diesel buses; base bus cost is separately accounted for and funded. This application demonstrates only the utility of the electric increment (benefits from modernizing a

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

diesel fleet to electric).

This project's improvements complement separate efforts by the City of Minneapolis to renovate Hennepin Ave. between Lake St. and Douglas Ave. Both projects have independent utility, but both agencies will coordinate efforts to generate the best possible multimodal solution in the corridor.

Separately, Hennepin County plans to improve pedestrian and bicycle conditions along parts of University Avenue SE, 4th Street SE, Hennepin Avenue, and 1st Avenue. Both the bus stop modernization project and the bicycle/pedestrian projects have independent utility and individually accruable benefits - each could be implemented without the other. Both agencies are committed to coordinating project efforts in the corridor.

Which bus stops receive facilities improvements will be confirmed as project development progresses. The bus stops noted within this application identify general location and anticipated number of improved locations.

The project includes \$7.25 MM for construction and \$1.5 MM to purchase three electric buses in lieu of diesel buses for the planned fleet.

 (Limit 2,800 characters; approximately 400 words)

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

 Project Length (Miles)

 6.5

 to the nearest one-tenth of a mile

# **Project Funding**

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

If yes, please identify the source(s)

Federal Amount	\$7,000,000.00
Match Amount	\$1,750,000.00
Minimum of 20% of project total	
Project Total	\$8,750,000.00
Match Percentage	20.0%
Minimum of 20% Compute the match percentage by dividing the match amount by the project total	
Source of Match Funds	Metropolitan Council RTC, Motor Vehicle Sales Tax, or other Metropolitan Council-controlled non-federal funds
A minimum of 20% of the total project cost must come from non-federal sources; sources	additional match funds over the 20% minimum can come from other federal
Preferred Program Year	
Select one:	2022
Select 2020 or 2021 for TDM projects only. For all other applications, select 2022	or 2023.
Additional Program Years:	2021
Select all years that are feasible if funding in an earlier year becomes available.	

# **Project Information-Transit and TDM**

County, City, or Lead Agency	Metro Transit
Zip Code where Majority of Work is Being Performed	55404
Total Transit Stops	25
TERMINI:(Termini listed must be within 0.3 miles of an	y work)
From: (Intersection or Address)	Hennepin Ave. & W 36th St.
To: (Intersection or Address)	University Ave. SE & 27th Ave. SE
DO NOT INCLUDE LEGAL DESCRIPTION	
Or At: (Intersection or Address)	
Name of Park and Ride or Transit Station:	
e.g., MAPLE GROVE TRANSIT STATION	
(Approximate) Begin Construction Date	01/01/2022
(Approximate) End Construction Date	12/31/2022
Primary Types of Work	Enhanced bus stop construction and bus improvements
Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURI	B AND GUTTER,STORM SEWER,

SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, PARK AND RIDE, ETC.

# **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.

	From Table 2-1: Summary matrix of goals, objectives and associated strategies starting on page 2-6 of the 2040 Transportation Policy Plan
	Goal A - Transportation System Stewardship
	Objective- Operate the regional transportation system to efficiently and cost-effectively connect people and freight to destinations
	Goal B - Safety and Security B1 - Incorporate safety and security considerations
List the goals, objectives, strategies, and associated pages:	Goal C - Access to Destinations C1 - Multimodal, provide connections between modes; C2 - Interconnectivity, Complete Streets; C4 - Alternatives to SOV, focus on major activity concentrations; C11 - Expand and modernize transit service; C12 - Expand network of transitways, including bus rapid transit; C17 - Transportation choices
	Goal D - Competitive Economy D3 - Improve connections, business attraction/retention, D4 - Compete with peer metropolitan areas

Goal E - Healthy Environment Objectives - Reduce transportation-related air emissions, encourage healthy communities and active car-free lifestyles;

E1 - Regional transportation partners recognize the role of transportation choices in reducing emissions

and will support state and regional goals for reducing greenhouse gas and air pollutant emissions.

E2 - The Council and MnDOT will consider reductions in transportation-related emissions of air pollutants and greenhouse gases when prioritizing transportation investments.

E3 - Environmental/health benefits of SOV alternatives;

E5 - Protect/enhance/mitigate cultural and built environments;

E6 - Public engagement for all communities

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.

2040 Transportation Policy Plan Transitway expansion assumed to be funded within the increased revenue scenario (pages 6.58, 6.65)

Arterial Transitway Corridors Study, 2012 Page 38 through 41

Hennepin County 2030 Comprehensive Plan Update - "Integrate transit advantages and transit priority into traffic operations where appropriate" (pages 5-4)

Hennepin County 2030 Transportation Systems Plan - "Integrate transit advantages and transit priority into traffic operations where appropriate" (page 1-15); "Continue the cooperation with Metro Transit and other transit providers for inclusion of transit related roadway enhancements" (page 10-9)

City of Minneapolis Access Minneapolis (2009) -"Provide best possible transit service on a Primary Transit Network" (page 44)

City of Minneapolis Plan for Sustainable Growth (2009) Page 6-3 Protect and enhance air quality and reduce greenhouse gas emissions

Thrive MSP 2040 (2014)

Page 64 refers to fleet electrification

Page 134 refers to transit's contribution to greenhouse gases

List the applicable documents and pages:

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

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

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

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

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

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

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.

Transit Expansion: \$500,000 to \$7,000,000

Transit Modernization: \$100,000 to \$7,000,000

Travel Demand Management (TDM): \$75,000 to \$500,000

### 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 ado	oted by governing body
The applicant is a public agency that employs 50 or more people	Yes	06/01/2018	06/30/2019
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-evalu	uation 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 - Transit and TDM Projects**

### For Transit Expansion Projects Only

1. The project must provide a new or expanded transit facility or service(includes peak, off-peak, express, limited stop service on an existing route, or dial-a-ride).

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

2. The applicant must have the capital and operating funds necessary to implement the entire project and commit to continuing the service or facility project beyond the initial three-year funding period for transit operating funds.

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

#### Transit Expansion and Transit Modernization projects only:

3. The project is not eligible for either capital or operating funds if the corresponding capital or operating costs have been funded in a previous solicitation. However, Transit Modernization projects are eligible to apply in multiple solicitations if new project elements are being added with each application. Each transit application must show independent utility and the points awarded in the application should only account for the improvements listed in the application.

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

4. The applicant must affirm that they are able to implement a Federal Transit Administration (FTA) funded project in accordance with the grant application, Master Agreement, and all applicable laws and regulations, using sound management practices. Furthermore, the applicant must certify that they have the technical capacity to carry out the proposed project and manage FTA grants in accordance with the grant agreement, sub recipient grant agreement (if applicable), and with all applicable laws. The applicant must certify that they have adequate staffing levels, staff training and experience, documented procedures, ability to submit required reports correctly and on time, ability to maintain project equipment, and ability to comply with FTA and grantee requirements.

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

### **Travel Demand Management projects only:**

The applicant must be properly categorized as a subrecipient in accordance with 2CFR200.330.

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

The applicant must adhere to Subpart E Cost Principles of 2CFR200 under the proposed subaward.

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

### **Specific Roadway Elements**

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$0.00
Removals (approx. 5% of total cost)	\$0.00
Roadway (grading, borrow, etc.)	\$0.00
Roadway (aggregates and paving)	\$0.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$0.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$0.00
Traffic Control	\$0.00
Striping	\$0.00
Signing	\$0.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$0.00
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (not calculated in cost effectiveness measure)	\$0.00
Traffic Signals	\$0.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$0.00
Other Roadway Elements	\$0.00
Totals	\$0.00

# Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$0.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$0.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$0.00

Pedestrian-scale Lighting	\$0.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$0.00
Other Bicycle and Pedestrian Elements	\$0.00
Totals	\$0.00

# **Specific Transit and TDM Elements**

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	\$0.00
Stations, Stops, and Terminals	\$7,250,000.00
Support Facilities	\$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	\$0.00
Vehicles	\$1,500,000.00
Contingencies	\$0.00
Right-of-Way	\$0.00
Other Transit and TDM Elements	\$0.00
Totals	\$8,750,000.00

# **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	\$8,750,000.00
Construction Cost Total	\$8,750,000.00
Transit Operating Cost Total	\$0.00

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

Existing Employment within 1/4 (bus stop) or 1/2 mile (transitway station) buffer	168819
Post-Secondary Enrollment within 1/4 (bus stop) or 1/2 mile (transitway station) buffer	62031
Existing employment outside of the 1/4 or 1/2 mile buffer to be served by shuttle service (Letter of Commitment required)	
Upload the "Letter of Commitment"	
Please upload attachment in PDF form.	
Existing Post-Secondary Enrollment outside of the 1/4 or 1/2 mile buffer to be served by shuttle service (Letter of Commitment required)	
Upload the "Letter of Commitment"	
Please upload attachment in PDF form.	
Explanation of last-mile service, if necessary:	Route 6 service operates within a densely populated urban corridor. Bus stop improvements will be influenced, in part, by proximity to existing transit connections and major destinations. This minimizes problematic last-mile inadequacies and increases overall network efficiency. As a result, last-mile service will not be a component of the project.
(Limit 1,400 characters; approximately 200 words)	
Upload Map	1531326185359_Route6 - PopEmp map.pdf
Please upload attachment in PDF form.	

# Measure B: Transit Ridership

Select multiple routes

	2, 3, 4, 6, 7, 10, 11, 12, 14, 16, 17, 18, 21, 23, 25, 53, 59, 61,
Existing transit routes directly connected to the project	113, 114, 118, 121, 122, 141, 250, 252, 261, 263, 264, 270,
	272, 288, 490, 493, 552, 553, 587, 588, 589, 600, 612, 643,
	645, 652, 663, 664, 667, 668, 670, 671, 672, 673, 674, 677,
	679, 690, 691, 692, 695, 697, 698, 699, 742, 747, 756, 758,
	760, 761, 762, 763, 764, 765, 766, 767, 768, 772, 774, 776,
	777, 780, 781, 782, 783, 785, 789, 790, 793, 824, 825, 850,
	852, 854, 865, 902-METRO Green Line
Planned Transitways directly connected to the project (mode and alignment determined and identified in the 2040 TPP)	Central Avenue Arterial BRT, Nicollet Avenue Arterial BRT, Hennepin BRT, Lake Street BRT
Upload Map	1531326221953_Route6 - TransConn map.pdf

Please upload attachment in PDF form.

### Response

Met Council Staff Data Entry Only

Average number of weekday trips

3882.0

### Measure: Usage

**Existing Transit Routes on the Project** 

6

# 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.

The Hennepin Bus Lane Pilot gathered information from riders on Hennepin Avenue between Franklin and the Uptown Transit Center regarding existing service and potential corridor improvements.

Future engagement for stop upgrades along the corridor will be outlined in a Public Engagement Plan led by Metro Transit's Outreach and Engagement Coordinator. Outreach and engagement will be organized around individual improved bus stop areas and contextual to the nearby communities. Engagement with transit riders, residents, small businesses, and key community stakeholders will be conducted at every improved bus stop area and location. This highly contextualized strategy, successfully used in the past, gathers input from historically underrepresented communities in transit decisions.

Ongoing outreach will also continue to be closely coordinated with a separate but complementary street reconstruction project effort on Hennepin Avenue from Lake to Douglas, led by the City of Minneapolis, as well as with other corridor projects.

(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.

### **Response:**

**Response:** 

Improved transit stops make it easier and more predictable for people with disabilities to board the bus. The improved transit stations not only remove physical hazards and unpredictability of the aging streetscape, but also provide a greater sense of safety by replacing old and unsightly structures. Although anyone may use the bus stops along the Route 6 corridor, the corridor serves communities in southeast and south Minneapolis where lowincome people, students, children, and people of color live. Improved bus stops incentivize transit use among those who have the option, and reductions in dwell time at each improved stop result in faster travel times for all riders. Transit customers will also directly benefit from larger shelters with heat and light, increasing comfort year-round while waiting for bus arrivals. Real-time transit information will also be readily available, increasing the predictability of service regardless of access to similar information on mobile devices.

Urban communities usually have higher air pollution levels than rural or suburban areas, and the Twin Cities is no exception. Diesel buses are large contributors to this problem, releasing a variety of pollutants like volatile organic compounds (VOC), total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM10/PM2.5) while operating (1), which are all known to harm human health (2). As Metro Transit attempts to serve low-income communities with frequent bus service, we inadvertently expose these people to higher levels of air pollutants than other parts of the metropolitan area (3). This has deep impacts on our community; a recent University of Minnesota study linked air pollution in neighborhoods inhabited primarily by people of color to an estimated 7,000 deaths each year from heart disease alone (3). The health of children, the elderly, and people with disabilities can also be

disproportionately affected by elevated air pollution levels. With zero tailpipe emissions, electric buses help solve this problem by paving the way for a bus fleet powered by clean, renewable energy.

Since the electric buses purchased will replace diesel buses purchased for Metro Transit's fleet, this project will positively impact low-income communities by eliminating tailpipe emissions (4). In addition, all electric buses are equipped with lifts and are ADA compliant, which provides further assistance to people with disabilities.

### (1)

https://www3.epa.gov/otaq/consumer/420f08026.pd f

(2) http://www.cdc.gov/air/particulate\_matter.html

## (3)

http://discover.umn.edu/news/sciencetechnology/st udy-finds-people-color-liveneighborhoods-more-airpollution-whites

(4) See attachment to this application, "Local Tailpipe Emissions Reduction Calculations"

(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

each bus stop, necessitating temporary bus stops so as not to disrupt transit service, and possible pedestrian detours. As part of community engagement, businesses and organizations that are nearby bus stops under construction will be involved in finding mitigations to impacts to their operations. Proactive outreach not only keeps nearby businesses and organizations productive, but also creates a channel of communication that can be used to solve issues if any unexpected complications arise.

The project will include temporary construction at

**Response:** 

Temporary easements are necessary for construction. Well-signed detours will be created so people biking and walking are still able to get around safely and with minor inconvenience.

Since electric buses will create no additional negative externalities on communities, no mitigation is required for this component of the project. Moreover, electric upgrades to existing diesel buses mitigate the externalities from those buses' diesel emissions.

(Limit 2,800 characters; approximately 400 words)

Measure B: Affordable Housing					
City	Number of Stops in City	Number of Stops/Total Number of Stops	Score	Housing Score Multiplied by Segment percent	
Minneapolis	25.0	1.0	100.0	100.0	
				100	
Total Transi Total Transit Stops	it Stops ₅	25	.0		
Affordable Housing Scoring					
Total Housing Sco	re	10	0.0		
Affordable Housing Scoring					

# Measure A: Description of emissions reduced

The Route 6 Bus & Stop Modernization project will reduce emissions in several ways:

By improving riders' access to transit service via non-motorized transportation:

The project includes bike parking at stations, which improves access to transit service by bicycle. Buses also include bike racks, to encourage customer to bring bikes on board for a multimodal trip.

By accommodating TOD walkable from stations:

The Route 6 has high ridership because it serves areas of Minneapolis that are densely developed and highly walkable transit-oriented neighborhoods. The Route 6 Corridor Bus and Stop Modernization project will bring visible, high-amenity branded stops with a variety of improvements, including enhanced shelters with heat and light to these transit-oriented neighborhoods. Many stops currently do not have shelters and offer little more information than a bus stop sign on a pole. These modernized stops will serve the many existing transit-oriented neighborhoods along the corridor, and inspire further transit-oriented development as visible upgrades show developers the permanence of the investment in high-quality transit service along the Route 6 corridor. Minneapolis has predominantly guided land use and zoning for midto high-density mixed-use along the corridor; the draft Minneapolis 2040 Comprehensive Plan calls for continued mixed-use development of varying intensities along the corridor, with its highest densities at major transit transfer locations.

**Response:** 

By reducing vehicle acceleration and deceleration cycles and idling time:

The Route 6 Bus & Stop Modernization project is anticipated to positively affect air quality through faster speeds and a reduction in the number of acceleration and deceleration cycles of transit vehicles. The construction of curb extensions and introduction of nearly-level boarding will reduce dwell periods.

By upgrading diesel buses to electric propulsion:

Finally, since this project will fund the cost differential to purchase electric buses instead of diesel buses planned for this corridor, this project will positively affect communities by eliminating tailpipe emissions. Compared to a diesel bus, an electric bus is anticipated to reduce criteria pollutants and emissions near the route by about 52 percent for CO2, 64 percent for CO, 41 percent for NOx, and 82 percent for VOC.

(Limit 2,800 characters; approximately 400 words)

Applicants are recommended to provide any data to support their argument.

Upload any data

Please upload attachment in PDF form.

### **Measure C: Improvements and Amenities**

Response

The Route 6 Bus & Stop Modernization project will make existing transit service in the corridor more attractive to users by constructing modernized bus stops with significantly improved amenities compared to existing bus stops. The project will also reduce travel times by reducing dwell time at each bus stop with curb extensions and near-level boarding.

Bus stop improvements will benefit customers in a variety of ways. Enhanced shelters will provide weather protection and feature on-demand heaters and integrated lighting, as well as a cement foundation, which increases protection from the elements and helps establish a sense of permanence compared to standard shelters. Shelter sizes will vary between 12' and 36' long, dependent upon site conditions and existing bus stop ridership. A pylon landmark, real-time signage, and printed panel with timetable, mapping, and connection information will provide detailed rider information in several formats to offer clear direction and increase customer confidence in trip status. This is a marked improvement over existing bus stops, many of which consist of only a sign on a pole. Other improved bus stop components, like benches, trash receptacles, and bike racks will be available for customer use. Security cameras and/or telephones will be deployed in the corridor to provide a layer of safety not possible at existing standard bus stops.

To accommodate the improved bus stop amenities, bus platforms will be constructed with curb bumpouts where feasible. Bumpouts extend from the existing roadway curb to the edge of a throughlane for the length of the platform. Bumpouts also improve travel times by eliminating the need for buses to merge in and out of traffic to access bus stops. The additional space they provide for clear and accessible boarding and alighting further

improves operations by allowing more customers to board a bus in less time than existing conditions. A targeted curb height of 9 inches instead of the standard 6 inches reduces the distance between the curb and the floor of the bus, easing vehicle access for passengers with low mobility and enabling faster boarding and alighting for all passengers.

Compared to diesel buses, electric buses are 21% quieter while idling at bus stops and 11% quieter while traveling (Altoona XD60 noise level study, 2016). These buses will provide a more enjoyable and healthy experience for all corridor stakeholders, including non-transit customers.

(Limit 5,600 characters; approximately 800 words)

Measure A: Roadway, Bicycle, and Pedestrian Improvements

This project will improve upon existing pedestrian and bicycle accommodations and connections to provide a better overall multimodal system. The project already serves densely populated and pedestrian-oriented urban corridors, with sidewalks throughout most of the project corridor.

However, sidewalk space can be limited, resulting in conflicts between sidewalk thru-space and bus stop waiting areas. Bus stop design integrates considerations like pedestrian street crossings within the nearbyarea to maximize pedestrian safety and convenience to the extent possible. At stops with curb bumpouts, additional space will allow separation between the thru-sidewalk and passenger waiting area, improving pedestrian accessibility through and within the platform area.

All transit customers are pedestrians, and the additional space and amenities like enhanced shelters will improve the overall experience as pedestrians become transit customers while waiting for their ride. Multimodal transit-bicycle trips will be encouraged through the placement of bike loops at improved stops, and bike racks mounted on buses. Planned bus stop areas include direct connections to bicycle or multimodal facilities on University Avenue, Hennepin Avenue, the Loring Greenway, Franklin Avenue, and 26th and 28th Streets.

Travel efficiencies across all modes are expected due to the decreased dwell times made possible through the utilization of curb bumpouts and nearlevel boarding. Reduced dwell times and curb bumpouts are also expected to minimize unsafe and conflict point-inducing merge movements by cars and bicyclists around dwelling buses. The improvements in this project will be designed in

Response

coordination with other planned multimodal projects to best benefit all users.

In addition, studies have found that there is a point at which the harm that pollution causes to cyclists can outweigh the benefits from exercise. (Tainio M, de Nazelle AJ, Goetschi T, et al., 2016, Can air pollution negate the health benefits of cycling and walking?, Preventive Medicine, Vol:87, ISSN:0091-7435, Pages:233-236) The switch to electric buses will lower the amount of particulates in the air, making it safer for people to walk and bike alongside or to access Route 6.

(Limit 2,800 characters; approximately 400 words)

### **Transit Projects Not Requiring Construction**

If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.

Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

# Measure A: Risk Assessment - Construction Projects

### 1)Layout (30 Percent of Points)

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

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

100%

### Attach Layout

Please upload attachment in PDF form.

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

50%

**Attach Layout** 

1531327977687\_Route 6 corridor - concept layouts.pdf

Please upload attachment in PDF form.

Layout has not been started

0%

Anticipated date or date of completion	12/31/2020
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
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	Yes
0%	
Anticipated date or date of acquisition	12/31/2021
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 Yes begun. 0% Anticipated date or date of executed Agreement

# **Measure: Cost Effectiveness**

Total Annual Operating Cost:	\$87,908.00
Total Annual Capital Cost of Project	\$267,860.00
Total Annual Project Cost	\$355,768.00

For total annual operating cost, an annual maintenance cost of \$6,250 per enhanced bus stop was multiplied by the project's approximately 25 enhanced bus stop improvements to obtain an annual operating cost for the enhanced bus stop component of the project.

In addition, electric buses save about \$0.50 per mile compared to diesel buses. This difference is then multiplied by the annual mileage of three buses traveling the Route 6 corridor today (about 137,000 miles) to obtain an annual operating cost savings for the bus component of the project.

The sum of the annualized enhanced bus stop operating costs and the annualized electric bus operating savings represent the total annual operating costs identified for the project.

For total annual capital cost, \$6.15MM of funds are designated to transit station components with 70 years of useful life.

\$1.1MM of funds are designated transit shelter components with 20 years of useful life.

The remaining \$1.5MM of funds are designated to heavy duty transit buses with 12 years of useful life.

(Limit 1400 Characters; approximately 200 words)

**Points Awarded in Previous Criteria** 

**Cost Effectiveness** 

\$0.00

## **Other Attachments**

#### Assumption Used:

File Name	Description	File Size
2018 07 10 Route 6 Modernization Cover Letter.pdf	Cover Letter	306 KB
Existing conditions image - Hennepin + Franklin.pdf	Existing conditions image - Hennepin Ave & Franklin Ave (Northbound)	147 KB
Letter of support - City of Minneapolis.pdf	Letter of support - City of Minneapolis	343 KB
Letter of support - Hennepin County.pdf	Letter of support - Hennepin County	115 KB
Route6 - PopEmp map.pdf	Population/employment summary map	2.1 MB
Route6 - RegEcon map.pdf	Regional economy map	6.7 MB
Route6 - SocEcon map.pdf	Socio-economic conditions map	7.1 MB
Route6 - Summary Page.pdf	Project Summary Page	271 KB
Route6 - TransConn map.pdf	Transit connections map	4.1 MB

# Population/Employment Summary

Results

Within QTR Mile of project: Total Population: 71752 Total Employment: 78904 Postsecondary Students: 60018

Within HALF Mile of project: Total Population: 101326 Total Employment: 168819 Postsecondary Students: 62031

Within ONE Mile of project: Total Population: 157732 Total Employment: 211469

Project





# **Socio-Economic Conditions**

Transit System Modernization Project: Transit System Modernization Project: Route 6 Corridor | Map ID: 1531243710224

Results

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

**Project Points** 

2

Project

0.5





Station platform drawn to scale where indicated.

Not all features of a typical station are shown.



1

Information for Hennepin Avenue Reconstruction – January 3, 2018





Information for Hennepin Avenue Reconstruction – January 3, 2018



# What do stations look like?

- O Pylon markers help riders identify stations from a distance.
- Beal-time NexTrip displays provide bus information, and on-demand annunciators speak this information for people with low vision.
- Utility boxes near station areas house necessary communications and electrical equipment.
- Shelters provide weather protection and feature ondemand heaters and integrated lighting. Shelter sizes will vary based on customer demand (small shown here).

- G Ticket machines and fare card validators collect all payment before customers board the bus.
- Emergency telephones provide a direct connection to Metro Transit security. Stations also feature security cameras.
- G Stations feature trash and recycling containers.
- Platform edges are marked with a cast-iron textured warning strip to keep passengers safely away from the curb while the bus approaches. Many stations also feature raised curbs for easier boarding.

- Platform areas are distinguished by a dark gray concrete pattern.
- Some stations have sidewalk-level light fixtures to provide a safe, well-lit environment. Fixtures will match existing lights in the surrounding area.
- Benches at stations provide a place to sit.
- Stations have bike parking loops.



Information for Hennepin Avenue Reconstruction – January 3, 2018



July 13, 2018

Elaine Koutsoukos TAB Coordinator 390 N. Robert St. St. Paul, MN 55101

**RE:** Regional Solicitation Applications

Dear Ms. Koutsoukos:

Metro Transit is submitting a Transit Modernization application for Route 6 corridor bus & bus stop modernization. This project improves transit buses and facilities on the Route 6 corridor in southeast and south Minneapolis. The project includes the construction of enhanced bus stops with customer features like enhanced shelters and real-time information. With this project, Metro Transit will also upgrade three buses operating in the corridor to fully battery-electric articulated buses.

This letter corresponds to general solicitation requirements, required attachments:

- Metro Transit will have jurisdiction over the improvements in the project. Metro Transit commits to operate and maintain these improvements for their useful life.
- Metro Transit will provide the required minimum 20% local match through Metropolitan Council Regional Transit Capital, Motor Vehicle Sales Tax revenues or other eligible non-federal funds available to Metro Transit in the program year.

We look forward to developing the project. Please contact me with any questions or clarifications.

Sincerely,

Brian J. Lamb General Manager

CC: Charles Carlson, Director, BRT Projects Mary Gustafson, Grants Manager

# A service of the Metropolitan Council





Public Works 350 S. Fifth St. - Room 239 Minneapolis, MN 55415 TEL 612.673.3000

www.minneapolismn.gov

July 11, 2018

Re: Support for Metro Transit Regional Solicitation Application Route 6 Corridor Bus & Stop Modernization project

Dear Applicant Scorers:

The City of Minneapolis and Metro Transit have been working collaboratively since 2017 to develop a vision for multimodal improvements on Hennepin Avenue between Lake Street and Douglas Avenue. Both entities are seeking funds through the 2022-2023 Regional Solicitation to deliver the roadway modernization and transit aspects of this vision.

The roadway improvements in the City's project will be coordinated to complement a separate effort led by Metro Transit to improve bus stops along the Route 6 corridor, which includes this segment of Hennepin Avenue and has ridership levels of 6,600 per day. While the street reconstruction project and the bus stop modernization project have independent utility and benefits, and could be implemented without the other, both agencies are committed to coordinating project efforts to ensure the best possible multimodal solution in the corridor.

Past project collaborations of this nature between roadway jurisdictions and Metro Transit have led to better outcomes for each agency and the communities they serve, including lower cost, better-coordinated designs for each project, and coordinated construction timelines resulting in less disruption to businesses and residents. A key example of this collaboration is under construction this year, as Metro Transit, the City, and Hennepin County are partners in delivering Penn Avenue bus stop modernizations through joint C Line and Penn Avenue street construction in Minneapolis.

The City of Minneapolis strongly supports Metro Transit's efforts to improve and modernize transit along the Hennepin Ave corridor and looks forward to continued collaboration.

Sincerely,

Geniper Hager

Jeni Hager Director of Transportation Planning & Programming Department of Public Works City of Minneapolis

# HENNEPIN COUNTY MINNESOTA

July 11, 2018

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

Re: Support for Regional Solicitation Application Route 6 Corridor Bus and Bus Stop Modernization Project Along University Avenue SE, 4th Street SE, Hennepin Ave NE, 1st Avenue NE, and Hennepin Avenue

Dear Ms. Koutsoukos,

Hennepin County has been notified that Metro Transit is submitting an application for funding as part of the Regional Solicitation through the Metropolitan Council. The project is the Route 6 Corridor Bus and Bus Stop Modernization Project as identified by Metro Transit.

The project will make various improvements to boarding procedures, transit stops, and transit vehicles in an effort to offer better transit services and encourage high ridership. Hennepin County supports this funding application and acknowledges that improvements recommended for Route 6 will be coordinated with planned county projects, especially those being submitted for consideration in the 2018 Regional Solicitation, to avoid potential conflicts. At this time, Hennepin County has no funding programmed in its 2018-2022 Transportation Capital Improvement Program (CIP) for this project. Additionally, Hennepin County will operate and maintain the CSAH 36 (University Avenue SE), CSAH 37 (4th Street SE), and CSAH 52 (Hennepin Avenue/1st Avenue) roadway facilities for the useful life of improvements.

Hennepin County looks forward to working with Metro Transit on this project, if they are successful in securing funding.

Sincerely,

Carla Stueve, P.E., P.T.O.E. County Engineer Hennepin County Transportation Project Delivery

cc: Chad Ellos, Transportation Planning Division Manger



Hennepin County Transportation Planning 1600 Prairie Drive, Medina, MN 55340 612-596-0241 | hennepin.us

# Population/Employment Summary

Results

Within QTR Mile of project: Total Population: 71752 Total Employment: 78904 Postsecondary Students: 60018

Within HALF Mile of project: Total Population: 101326 Total Employment: 168819 Postsecondary Students: 62031

Within ONE Mile of project: Total Population: 157732 Total Employment: 211469

Project



# **Regional Economy**

Results

WITHIN ONE MI of project: Postsecondary Students: 67788

Total Population: 160713 Total Employment: 268736 Mfg and Dist Employment: 19382

Project

0.5



# **Socio-Economic Conditions**

Transit System Modernization Project: Transit System Modernization Project: Route 6 Corridor | Map ID: 1531243710224

Results

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

**Project Points** 

Project

0.5



# Route 6 Bus and Stop Modernization

The Route 6 Corridor Bus and Stop Modernization project will improve transit service by enhancing customers' experiences with modern amenities like enhanced shelters, real-time transit information and zero-emission electric buses.

This project will modernize much of Route 6 connecting Stadium Village to southwest Minneapolis via University Avenue and Hennepin Avenue. Three buses will be upgraded to fully electric propulsion. Route 6 is a critical component of the existing transit network, averaging over 9,000 daily rides. It is one of Metro Transit's busiest bus routes. Existing transit facilities along the corridor do not meet their communities' needs; many locations consist of a sign on a pole without any scheduling information. Narrow sidewalks and right-of-way restrict available space for customer improvements like shelters.

This project will expand sidewalk space with bus bumpouts for dedicated transit boarding areas, near-level boarding and enhanced facilities. Bus stops along the corridor will feature enhanced shelters with heat and light. Other improvements include real-time information, phones and/or cameras, benches, bicycle racks and trash receptacles.

The project will also convert three diesel articulated buses planned for the corridor to battery electric articulated buses. The incremental cost difference of purchasing electric buses in lieu of a diesel purchase is included in this project application; the base bus cost is accounted for separately.

The project requests \$7.25 MM for the construction of bus stop improvements throughout the Route 6 corridor and \$1.5 MM for the incremental cost difference of modernizing three vehicles in the planned fleet by purchasing electric buses in lieu of diesel buses.



Applicant: Metro Transit





