

# Introduction to the Regional Solicitation for Transportation Projects

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May 18, 2016

The Regional Solicitation for federal transportation project funding is part of the 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).

The online application can be accessed at: <http://www.metrocouncil.org/Transportation/Planning-2/Transportation-Funding/Regional-Solicitation/Regional-Solicitation.aspx>

## Federal Program Overview

As authorized by the most recent federal surface transportation funding act, Fixing America's Surface Transportation (FAST) Act, projects will be selected for funding as part of two federal programs: Surface Transportation Block Grant Program (STBGP) and the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. The Transportation Alternatives Program (TAP) was folded into STBGP in the FAST Act. It is assumed that federal funding will continue to be available in 2021, but there is no money set aside at the current time.

## Modal Categories and Application Categories

As depicted in on the following page, the applications are grouped into three primary modal categories:

1. Roadways Including Multimodal Elements
2. Transit and Travel Demand Management (TDM) Projects
3. Bicycle and Pedestrian Facilities

Each of these modal categories includes three to four application categories for a total of 10 categories. TAB will also consider unique federally eligible projects that do not fit one of the 10 application categories on their merits, if they are submitted. These unique projects, which are required to be federally eligible and generate regional benefit, cannot be included in the competitive process because they are not easily compared to other submitted projects. These projects should request funding directly from the TAB. While unique projects may be submitted at any time, if they are submitted during the formal solicitation process, TAB will consider them in the same time frame, if possible, so funding decisions can be coordinated.

Applicants for the Regional Solicitation will select the appropriate application category for their proposed project based on the mode requiring the largest percentage of cost. For instance, a roadway reconstruction project that includes a new sidewalk would apply under the Roadway Reconstruction/Modernization application category because the roadway improvements are the largest cost for the project. If an applicant submits a project in the incorrect application category, the application may be

disqualified. It is advised that applicants contact Metropolitan Council staff prior to submission if there are any questions about which application category is the most appropriate for their project.

*Figure 1: TAB-Approved Application Categories*

## Funding Availability, Minimums, and Maximums

A total of approximately \$180 million in federal funds is anticipated to be available in this solicitation for program years 2020 and 2021. Also, due to increased funding levels under the new federal FAST Act legislation, there is also a limited amount of money available for 2018 and 2019. As shown in Table 1, modal funding ranges have been established by TAB, based on historic levels, to give applicants an understanding of the general funding levels available by mode. TAB reserves the right to adjust these modal funding levels depending on the amount and quality of projects submitted. In addition, TAB approved allocating \$10 million to \$15 million to the Bridge Rehabilitation/Replacement application category, with this money coming out of funding for Roadways Including Multimodal Elements. Base-level 2020 and 2021 TDM funding for the TMOs and Metro Transit will be taken out of the Transit and TDM category. Additionally, there is \$1.2 million of TDM funding that is available for 2018 and 2019 for innovative projects.

**TABLE 1: 2020–2021 MODAL FUNDING LEVELS**

	Roadways Including Multimodal Elements	Transit and TDM Projects	Bicycle and Pedestrian Facilities	Total
<b>Modal Funding Levels</b>	Range of 48%-68% of Funds Range of \$86M-\$122M	Range of 22%-32% of Funds Range of \$40M-\$58M	Range of 10%-20% of Funds Range of \$18M-\$36M	100% \$180M

Within Roadways Including Multimodal Elements, at least one project will be funded from each of the five eligible functional classifications: A-Minor Arterial Augmentors, Connectors, Expanders, and Relievers, as well as non-freeway Principal Arterials.

Table 2 shows the minimum and maximum federal award for application categories that applicants can apply for as part of the Regional Solicitation. The values do not account for 20 percent local match minimum that applicants must contribute to the project.

**TABLE 2: 2016 REGIONAL SOLICITATION FUNDING AWARD MINIMUMS AND MAXIMUMS**

Modal Categories	2016 Regional Solicitation		
	Application Categories	Minimum Federal Award	Maximum Federal Award
<b>Roadways Including Multimodal Elements</b>	Roadway Expansion	\$1,000,000	\$7,000,000
	Roadway Reconstruction/ Modernization	\$1,000,000	\$7,000,000
	Roadway System Management	\$250,000	\$7,000,000
	Bridge Rehabilitation/ Replacement	\$1,000,000	\$7,000,000
<b>Bicycle and Pedestrian Facilities</b>	Multiuse Trails and Bicycle Facilities	\$250,000	\$5,500,000
	Pedestrian Facilities	\$250,000	\$1,000,000
	Safe Routes to School (Infrastructure Projects)	\$150,000	\$1,000,000
<b>Transit and TDM Projects</b>	Transit Expansion	\$500,000	\$7,000,000
	Travel Demand Management (TDM)	\$75,000	\$300,000
	Transit System Modernization	\$100,000	\$7,000,000

## Roadways Including Multimodal Elements

The following pages include definitions, examples, and scoring overviews of each of the application categories.

### Roadway Expansion

**Definition:** A roadway project that adds thru-lane capacity. Projects must be located on a non-freeway Principal Arterial or A-Minor Arterial functionally-classified roadway, consistent with the latest TAB approved functional classification map. However, A-Minor Connectors cannot be expanded with these federal funds per regional policy and must apply in the Reconstruction/Modernization application category.

#### Examples of Roadway Expansion Projects:

- New roadways
- Two-lane to four-lane expansions
- Two-lane to three-lane expansions
- Four-lane to six-lane expansions
- New interchanges with or without associated frontage roads
- Expanded interchanges with either new ramp movements or added thru lanes
- New bridges, overpasses and underpasses

#### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>175</b>	<b>17.5%</b>
Measure A - Average distance to nearest parallel roadways	80	
Measure B - Connection to Total Jobs and Manufacturing/Distribution Jobs	30	
Measure C - Current daily heavy commercial traffic	50	
Measure D - Freight project elements	15	
<b>2. Usage</b>	<b>175</b>	<b>17.5%</b>
Measure A - Current daily person throughput	110	
Measure B - Forecast 2040 average daily traffic volume	65	
<b>3. Equity and Housing Performance</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to disadvantaged populations and project's benefits, impacts, and mitigation	30	
Measure B - Housing Performance Score	70	
<b>4. Infrastructure Age</b>	<b>75</b>	<b>7.5%</b>
Measure A - Date of construction	75	
<b>5. Congestion Reduction/Air Quality</b>	<b>150</b>	<b>15%</b>
Measure A - Vehicle delay reduced	100	
Measure B - Kg of emissions reduced	50	
<b>6. Safety</b>	<b>150</b>	<b>15%</b>
Measure A - Crashes reduced	150	
<b>7. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit, bicycle, or pedestrian project elements and connections	100	
<b>8. Risk Assessment</b>	<b>75</b>	<b>7.5%</b>
Measure A - Risk Assessment Form	75	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>9. Cost Effectiveness</b>	<b>100</b>	
Measure A - Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

# Roadways Including Multimodal Elements

## Roadway Reconstruction/Modernization

**Definition:** A roadway project that does not add thru-lane capacity, but reconstructs or modernizes the facility. Routine maintenance including mill and overlay projects are not eligible. Projects must be located on a non-Freeway Principal Arterial or A-Minor Arterial functionally-classified roadway, consistent with the latest TAB approved functional classification map.

### Examples of Roadway Reconstruction/Modernization Projects:

- Intersection improvements
- Alternative intersections such as unsignalized or signalized reduced conflict intersections (one intersection or multiple intersections)
- Interchange reconstructions that do not involve new ramp movements or added thru lanes
- Turn lanes (not continuous)
- Four-lane to three-lane reconstructions
- Roundabouts
- Addition or replacement of traffic signals
- Shoulder improvements
- Strengthening a non-10-ton roadway
- Raised medians, frontage roads, access modifications, or other access management
- Roadway improvements with the addition of multimodal elements
- New alignments that replace an existing alignment and do not expand the number of lanes

### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>175</b>	<b>17.5%</b>
Measure A - Average distance to nearest parallel roadways	80	
Measure B - Connection to Total Jobs and Manufacturing/Distribution Jobs	30	
Measure C - Current daily heavy commercial traffic	50	
Measure D - Freight project elements	15	
<b>2. Usage</b>	<b>175</b>	<b>17.5%</b>
Measure A - Current daily person throughput	110	
Measure B - Forecast 2040 average daily traffic volume	65	
<b>3. Equity and Housing Performance</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to disadvantaged populations and project's benefits	30	
Measure B - Housing Performance Score	70	
<b>4. Infrastructure Age/Condition</b>	<b>150</b>	<b>15%</b>
Measure A - Date of construction	50	
Measure B - Geometric, structural, or infrastructure deficiencies	100	
<b>5. Congestion Reduction/Air Quality</b>	<b>75</b>	<b>7.5%</b>
Measure A - Vehicle delay reduced	45	
Measure B - Kg of emissions reduced	30	
<b>6. Safety</b>	<b>150</b>	<b>15%</b>
Measure A - Crashes reduced	150	
<b>7. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit, bicycle, or pedestrian project elements and connections	100	
<b>8. Risk Assessment</b>	<b>75</b>	<b>7.5%</b>
Measure A - Risk Assessment Form	75	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>9. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

# Roadways Including Multimodal Elements

## Roadway System Management

**Definition:** An Intelligent Transportation System (ITS) or similar projects that primarily benefit roadway users. Roadway System Management projects can include project elements along a continuous route (could be more than one roadway) or defined geographic area such as a downtown area. The system management project must make improvements to at least one A-Minor Arterial or non-Freeway Principal Arterial as part of the project. Projects that are more transit-focused must apply in the Transit System Modernization application category.

### Examples of Roadway System Management Projects:

- Traffic signal retiming projects
- Integrated corridor signal coordination
- Traffic signal control system upgrades
- New or replacement traffic management centers
- New or replacement fiber optic cables used for traffic control, etc.
- New or replacement closed-circuit television (CCTV) cameras
- New or replacement variable message signs and other traveler information improvements
- New or replacement detectors
- Incident management coordination

### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>125</b>	<b>12.5%</b>
Measure A - Average distance to nearest parallel roadways	55	
Measure B - Connection to Total Jobs and Manufacturing/Distribution Jobs	30	
Measure C - Current daily heavy commercial traffic	30	
Measure D - Freight project elements	10	
<b>2. Usage</b>	<b>125</b>	<b>12.5%</b>
Measure A - Current daily person throughput	85	
Measure B - Forecast 2040 average daily traffic volume	40	
<b>3. Equity and Housing Performance</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to disadvantaged populations and project's benefits	30	
Measure B - Housing Performance Score	70	
<b>4. Infrastructure Age</b>	<b>75</b>	<b>7.5%</b>
Measure A - Date of construction	75	
<b>5. Congestion Reduction/Air Quality</b>	<b>200</b>	<b>20%</b>
Measure A - Vehicle delay reduced	150	
Measure B - Kg of emissions reduced	50	
<b>6. Safety</b>	<b>200</b>	<b>20%</b>
Measure A - Crashes reduced	200	
<b>7. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit, bicycle, or pedestrian project elements and connections	100	
<b>8. Risk Assessment</b>	<b>75</b>	<b>7.5%</b>
Measure A- Risk Assessment Form	75	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>9. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

# Roadways Including Multimodal Elements

## Bridge Rehabilitation/Replacement

**Definition:** A bridge rehabilitation or replacement project located on a non-Freeway Principal Arterial or A-Minor Arterial functionally-classified roadway, consistent with the latest TAB-approved functional classification map. Bridge structures that have a separate span for each direction of travel can apply for both spans as part of one application.

The bridge must carry vehicular traffic, but may also include accommodations for other modes. Bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are not eligible for funding. Completely new bridges, interchanges, or overpasses should apply in the Roadway Expansion application category.

### Examples of Bridge Rehabilitation/Replacement Projects:

- Bridge rehabilitation of 20 or more feet with a sufficiency rating less than 80 and classified as structurally deficient or functionally obsolete.
- Bridge replacement of 20 or more feet with a sufficiency rating less than 50 and classified as structurally deficient or functionally obsolete.

### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>195</b>	<b>19.5%</b>
Measure A - Average distance to nearest parallel bridges	115	
Measure B - Connection to Total Jobs and Manufacturing/Distribution Jobs	30	
Measure C - Current daily heavy commercial traffic	35	
Measure D - Freight project elements	15	
<b>2. Usage</b>	<b>130</b>	<b>13%</b>
Measure A - Current daily person throughput	100	
Measure B - Forecast 2040 average daily traffic volume	30	
<b>3. Equity and Housing Performance</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to disadvantaged populations and project's benefits, impacts, and mitigation	30	
Measure B - Housing Performance Score	70	
<b>4. Infrastructure Condition</b>	<b>400</b>	<b>40%</b>
Measure A – Bridge Sufficiency Rating	300	
Measure B – Load-Posting	100	
<b>5. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit, bicycle, or pedestrian project elements and connections	100	
<b>6. Risk Assessment</b>	<b>75</b>	<b>7.5%</b>
Measure A - Risk Assessment Form	75	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

# Bicycle and Pedestrian Facilities

## Multiuse Trails and Bicycle Facilities

**Definition:** A project that benefits bicyclists (or bicyclists and other non-motorized users). All projects must have a transportation purpose (i.e., connecting people to destinations). A facility may serve both a transportation purpose and a recreational purpose. Multiuse trail bridges or underpasses should apply in this application category instead of the Pedestrian Facilities application category given the nature of the users and the higher maximum award amount.

### Examples of Multiuse Trail and Bicycle Facility Projects:

- Multiuse trails
- Trail bridges/underpasses
- On-street bike lanes
- Filling multiple gaps, improving multiple crossings, or making other similar improvements along a trail corridor

### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>200</b>	<b>20%</b>
Measure A - Identify location of project relative to Regional Bicycle Transportation Network	200	
<b>2. Potential Usage</b>	<b>200</b>	<b>20%</b>
Measure A - Existing population and employment within 1 mile	200	
<b>3. Equity and Housing Performance</b>	<b>120</b>	<b>12%</b>
Measure A - Connection to disadvantageded populations and project's benefits, impacts, and mitigation	50	
Measure B - Housing Performance Score	70	
<b>4. Deficiencies and Safety</b>	<b>250</b>	<b>25%</b>
Measure A – Gaps closed/barriers removed and/or continuity between jurisdictions improved by the project	100	
Measure B - Deficiencies corrected or safety problems addressed	150	
<b>5. Multimodal Facilities and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit or pedestrian elements of the project and connections	100	
<b>6. Risk Assessment/Public Engagement</b>	<b>130</b>	<b>13%</b>
Measure A - Risk Assessment Form	130	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	100	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

# Bicycle and Pedestrian Facilities

## Pedestrian Facilities (Sidewalks, Streetscaping, and ADA)

**Definition:** A project that primarily benefits pedestrians as opposed to multiple types of non-motorized users. Most non-motorized projects should apply in the Multiuse Trail and Bicycle Facilities application category. All projects must relate to surface transportation. 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. Multiuse trail bridges or underpasses should apply in the Multiuse Trail and Bicycle Facilities application category instead of this application category given the nature of the users and the higher maximum awards.

### **Examples of Pedestrian Facility Projects:**

- Sidewalks
- Streetscaping
- Americans with Disabilities Act (ADA) improvements
- Making similar improvements in a concentrated geographic area, such as sidewalk gap closure throughout a defined neighborhood or downtown area

### **Scoring:**

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>150</b>	<b>15%</b>
Measure A - Connection to Jobs and Educational Institutions	150	
<b>2. Potential Usage</b>	<b>150</b>	<b>15%</b>
Measure A - Existing population within 1/2 mile	150	
<b>3. Equity and Housing Performance</b>	<b>120</b>	<b>12%</b>
Measure A - Connection to disadvantageded populations and project's benefits, impacts, and mitigation	50	
Measure B - Housing Performance Score	70	
<b>4. Deficiencies and Safety</b>	<b>300</b>	<b>30%</b>
Measure A - Barriers overcome or gaps filled	120	
Measure B - Deficiencies corrected or safety problems addressed	180	
<b>5. Multimodal Facilities and Existing Connections</b>	<b>150</b>	<b>15%</b>
Measure A - Transit or bicycle elements of the project and connections	150	
<b>6. Risk Assessment</b>	<b>130</b>	<b>13%</b>
Measure A - Risk Assessment Form	130	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

## Bicycle and Pedestrian Facilities

### Safe Routes to School (Infrastructure Projects)

**Definition:** An infrastructure project that is within a two-mile radius and directly benefiting a primary, middle, or high school site.

**Examples of Safe Routes to School Infrastructure Projects:**

- Sidewalks benefiting people going to the school
- Multiuse trails benefiting people going to the school
- Improved crossings benefiting people going to the school
- Multiple improvements

#### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Relationship between Safe Routes to School Program Elements</b>	<b>250</b>	<b>25%</b>
Measure A - Describe how project addresses 5 Es* of SRTS program	250	
<b>2. Potential Usage</b>	<b>250</b>	<b>25%</b>
Measure A - Average share of student population that bikes or walks	170	
Measure B - Student population within school's walkshed	80	
<b>3. Equity and Housing Performance</b>	<b>120</b>	<b>12%</b>
Measure A - Connection to disadvantaged populations and project's benefits, impacts, and mitigation	50	
Measure B - Housing Performance Score	70	
<b>4. Deficiencies and Safety</b>	<b>250</b>	<b>25%</b>
Measure A - Barriers overcome or gaps filled	100	
Measure B - Deficiencies corrected or safety or security addressed	150	
<b>5. Public Engagement/Risk Assessment</b>	<b>130</b>	<b>13%</b>
Measure A - Public engagement process	45	
Measure B - Risk Assessment Form	85	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>6. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

\* The 5 Es of Safe Routes to School include Evaluation, Engineering, Education, Encouragement, and Enforcement.

# Transit and Travel Demand Management (TDM) Projects

## Transit Expansion

**Definition:** A transit project that provides new or expanded transit service/facilities. Routine facility maintenance and upkeep is not eligible. If a project has both transit expansion and transit system modernization elements, then the project should apply in the application category that requires the majority of the project costs.

### Examples of Transit Expansion Projects:

- Operating funds for new or expanded transit service
- Transit vehicles for new or expanded service
- Transit shelters, centers, stations, and platforms for new or expanded service along a route
- Park-and-ride facilities

### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to Jobs and Educational Institutions	50	
Measure B – Average number of weekday transit trips connected to the project	50	
<b>2. Usage</b>	<b>350</b>	<b>35%</b>
Measure A - New Annual Riders	350	
<b>3. Equity and Housing Performance</b>	<b>200</b>	<b>20%</b>
Measure A - Connection to disadvantageded populations and projects benefits	130	
Measure B - Housing Performance Score	70	
<b>4. Emissions Reduction</b>	<b>200</b>	<b>20%</b>
Measure A - Total emissions reduced	200	
<b>5. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Bicycle and pedestrian elements of the project and connections	100	
<b>6. Risk Assessment</b>	<b>50</b>	<b>5%</b>
Measure A - Risk Assessment Form	50	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total annual project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

# Transit and Travel Demand Management (TDM) Projects

## Transit System Modernization

**Definition:** A transit project that makes existing transit more attractive to existing and future riders by offering faster travel times between destinations, improving the customer experience, or reducing operating costs for the transit provider. The project must be able to reduce emissions through a reduction in single-occupant vehicle trips, vehicle-miles traveled, emissions from capital improvements, idling time, an increase in speeds, or other means. Routine facility maintenance and upkeep is not eligible. Projects associated with new or expanded service/facilities such as the purchase of new buses should apply in the Transit Expansion application category. If a project has both transit expansion and transit system modernization elements, then the project should apply in the application category that requires the majority of the project costs.

### Examples of Transit System Modernization Projects:

- Improved boarding areas, lighting, or safety and security equipment, real-time signage;
- Passenger waiting facilities, heated facilities or weather protection
- New transit maintenance and support facilities/garages or upgrades to existing facilities
- ITS measures that improve reliability and the customer experience
- Improved fare collection systems
- Multiple eligible improvements along a route

### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to Jobs and Educational Institutions	50	
Measure B – Average number of weekday transit trips connected to the project	50	
<b>2. Usage</b>	<b>300</b>	<b>30%</b>
Measure A - Total existing annual riders	300	
<b>3. Equity and Housing Performance</b>	<b>150</b>	<b>15%</b>
Measure A - Connection to disadvantageded populations and project’s benefits	80	
Measure B - Housing Performance Score	70	
<b>4. Emissions Reduction</b>	<b>100</b>	<b>10%</b>
Measure A – Description of emissions reduced	100	
<b>5. Service and Customer Improvements</b>	<b>150</b>	<b>15%</b>
Measure A - Percent reduction in passenger travel time	75	
Measure B - Percent reduction in operating & maintenance costs	38	
Measure C - Project improvements for transit users	37	
<b>6. Multimodal Facilities and Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Bicycle and pedestrian elements of the project and connections	100	
<b>7. Risk Assessment</b>	<b>100</b>	<b>10%</b>
Measure A - Risk Assessment Form	100	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>8. Cost Effectiveness</b>	100	
Measure A – Cost effectiveness (total annual project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

# Transit and Travel Demand Management (TDM) Projects

## Travel Demand Management (TDM)

**Definition:** An innovative project that reduces the congestion and emissions during the peak period. Similar to past Regional Solicitations, base-level TDM funding for the Transportation Management Organizations (TMOs) and Metro Transit will be not part of the competitive process.

### Examples of TDM Projects:

- Bikesharing
- Carsharing
- Telework strategies
- Carpooling
- Parking management
- Managed lane components

### Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>100</b>	<b>10%</b>
Measure A - Ability to capitalize on existing regional transportation facilities and resources	100	
<b>2. Usage</b>	<b>100</b>	<b>10%</b>
Measure A - Users	100	
<b>3. Equity and Housing Performance</b>	<b>150</b>	<b>15%</b>
Measure A - Connection to disadvantageded populations and project's benefits, impacts, and mitigation	80	
Measure B - Housing Performance Score	70	
<b>4. Congestion Reduction/Air Quality</b>	<b>400</b>	<b>40%</b>
Measure A - Congested roadways in project area	200	
Measure B - VMT reduced	200	
<b>5. Innovation</b>	<b>200</b>	<b>20%</b>
Measure A - Project innovations and geographic expansion	200	
<b>6. Risk Assessment</b>	<b>50</b>	<b>5%</b>
Measure A - Technical capacity of applicant's organization	25	
Measure B - Continuation of project after initial federal funds are expended	25	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

Project applicants can also “bundle” two or more projects together to meet the funding minimum. Bundled projects must fall into one of three types:

- Projects located along the same corridor (e.g., filling multiple trail gaps along a trail corridor)
- Systemwide improvements (e.g., retiming traffic signals on a continuous roadway or across a downtown area)
- Similar improvements within a defined neighborhood or downtown area (e.g., adding benches along the sidewalks in a downtown area)

Bundling of independent projects that can each meet the project minimum and are not related to one another as described above is not allowed. For eligible bundled projects, when doing scoring of multiple locations, an average will be used for geographically-based measures.

Applicants are encouraged to contact TAB Coordinator Elaine Koutsoukos ([Elaine.koutsoukos@metc.state.mn.us](mailto:Elaine.koutsoukos@metc.state.mn.us); 651-602-1717) if they have questions regarding project bundling.

## General Process and Rules

1. On May 15, 2015, TAB selected 51 transportation projects as part of the 2014 Regional Solicitation. An evaluation process took place in the summer and fall of 2015 to continue to improve all aspects of the Regional Solicitation including the scoring criteria. The following are the major changes that are implemented in the 2016 Regional Solicitation:
  - Added a new cost effectiveness criterion to all application categories.
  - Inserted the scoring guidance into each application to give applicants more information regarding how their project will be evaluated.
  - Approved allocating \$10 million to \$15 million to the Bridge Rehabilitation/Replacement application category, with this money coming out of funding for Roadways Including Multimodal Elements.
  - Guaranteed that at least one roadway project in each of the eligible roadway classifications (i.e., non-freeway Principal Arterials, A-Minor Augmentor, A-Minor Connector, A-Minor Expander, and A-Minor Reliever) will be funded.
  - Adjusted measures to make roadways/railroad grade-separation projects more competitive.
  - Consolidated and simplified the Multimodal criteria and measures.
  - Increased the funding federal minimum award amounts.
  - Added the MnDOT/Metropolitan Council Interchange Request process as part of the Risk Assessment scoring.
  - Focused the Transit Expansion usage measure on new transit riders and the Transit System Modernization usage measure on existing riders.
  - Included the ability for transit applicants to include letters from employers or educational institutions committing to provide last-mile shuttle service, resulting in the increased ability to earn points.

2. Project sponsors must incur the cost of the project prior to repayment. Costs become eligible for reimbursement only after a project has been approved by MnDOT State-Aid and the appropriate USDOT modal agency.
3. The construction cost of projects listed in the region's draft or adopted TIP is assumed to be fully funded. TAB will not consider projects already listed in the draft or adopted TIP, nor the reimbursement of advanced construction funds for those projects, for funding through the solicitation process.
4. Projects selected to receive federal funding through this solicitation will be programmed in the regional TIP in years 2020 and 2021, taking into consideration the applicant's request and the TAB's balancing of available funds. When the selected projects are programmed, the TAB may adjust the federal award and the non-federal match amount to account for anticipated inflation.
5. The fundable amount of a project is based on the original submittal. TAB must approve any significant change in the scope or cost of an approved project as described in the scope change process memo. <http://www.metrocouncil.org/Transportation/Planning-2/Transportation-Funding/Regional-Solicitation/Regional-Scope-Change-Policy.aspx>
6. **A project will be removed from the program if it does not meet its program year.** The program year aligns with the state fiscal year. For example, if the project is programmed for 2020 in the TIP, the project program year begins July 1, 2019, and ends June 30, 2020. Projects selected from this solicitation will be programmed in 2020 and 2021. The Regional Program Year Policy outlines the process to request a one-time program year extension. [http://www.metrocouncil.org/Transportation/Planning-2/Transportation-Funding/Regional-Solicitation/TAB-Regional-Program-Year-Policy-\(PDF-154-KB\).aspx](http://www.metrocouncil.org/Transportation/Planning-2/Transportation-Funding/Regional-Solicitation/TAB-Regional-Program-Year-Policy-(PDF-154-KB).aspx)
7. Applicants for transit projects should be aware of the schedule and associated time lag for receiving federal funds for transit vehicle and transit operating projects. Applicants are encouraged to contact Heather Johnson at the Metropolitan Council ([Heather.Johnson@metc.state.mn.us](mailto:Heather.Johnson@metc.state.mn.us) or 651-602-1764) for more details on selecting a preferred program year as part of the application given this time lag.
8. The announcement of funding availability is posted on the Metropolitan Council website and emailed to local stakeholders.
9. The applicant must show that the project meets all of the qualifying requirements of the appropriate application category to be eligible to be scored and ranked against other projects. Applicants whose projects are disqualified may appeal and participate in the review and determination of eligibility at the Technical Advisory Committee Funding & Programming (TAC F&P) Committee meeting.
10. A set of prioritizing criteria with a range of points assigned is provided for each application category. The applicant must respond directly to each prioritizing criterion in order for it to be scored and receive points. Projects are scored based on how well the response meets the requirements of the prioritizing criteria and, in some cases, how well the responses compare to those of other qualifying applications in the same project application category.
11. Members of the TAC Funding and Programming Committee or other designees will evaluate the applications and prepare a ranked list of projects by application category based on a total score of all the prioritizing criteria. The TAC will forward the ranked list of projects with funding options to TAB.

TAB may develop its own funding proposals. TAB will then recommend a list of projects to be included in the region's TIP to receive federal funds. TAB submits the Draft TIP to the Metropolitan Council for concurrence.

12. TAB may or may not choose to fund at least one project from each application category.
13. Projects involving new or expanded interchanges are funded conditional on the successful completion of the Metropolitan Council/MnDOT Highway Interchange Request procedures. In this solicitation, points are awarded as part of the Risk Assessment for applicable projects that have completed this interchange approval process. In the next Regional Solicitation, applicable interchange projects will need to go through the approval prior to submitting an application (i.e., it will become a qualifying requirement). Please contact Karen Scheffing at MnDOT ([Karen.Scheffing@state.mn.us](mailto:Karen.Scheffing@state.mn.us) or 651-234-7784) to determine if your project needs to go through the Metropolitan Council/MnDOT Highway Interchange Request Committee.
14. In the 2016 Regional Solicitation, TAB will only fund a roadway or bridge project on a roadway that is spaced at least 3.5 miles away from another funded project on the same roadway (only applies to two separate applications selected in the same solicitation).
15. In the 2016 Regional Solicitation, TAB will not fund more than one transit capital project in a transitway corridor (only applies to two separate applications selected in the same solicitation).
16. In the 2016 Regional Solicitation, the TAB will not fund more than one bicycle or pedestrian facility project in the same corridor (only applies to two separate applications selected in the same solicitation). For trails, a funded project may be on the same trail facility as another funded project as long as the two projects serve different users and destinations.

## Project Schedule

Table 3 shows the key milestones in the Regional Solicitation review, scoring, and selection process. All applications are due by 4:00 P.M. on July 15, 2016\*.

**TABLE 3: REGIONAL SOLICITATION SCHEDULE**

Date	Process
5/18/2016	Regional Solicitation Released. <b>Applicants can obtain on-line access at this time.</b>
7/8/2016	<b>Applicants must apply for on-line access by 4:00 P.M.</b>
7/15/2016	<b>Application deadline – 4:00 P.M.</b>
7/18/2016	Qualifying reviews begin.
8/10/2016	Qualifying review completed (staff notify applicants that do not qualify).
8/18/2016	TAC F&P Committee meeting: Qualifying appeals heard.
8/22/2016	Scoring committees begin evaluating all qualified applications.
10/7/2016	Scoring completed. Staff prepares results for TAC F&P Committee meeting (10/20/16).
10/20/2016	TAC F&P releases project scores.
10/20/2016	Scores distributed to applicants; appeal period begins.
10/31/2016	Scoring appeal deadline.
10/17/2016	TAC F&P Committee meeting: Scoring appeals reviewed, funding options developed.
12/15/2016	TAC F&P considers funding options presented by staff and votes to eliminate, modify or create options and forwards them to the TAC.
1/4/2017	TAC review of funding options and recommendation to TAB.
1/18/2017	TAB approval of funding recommendations and direct staff to include them into the draft 2018-2021 TIP.

*\*Subject to change based on TAB and Metropolitan Council approval.*

## Contacts

For general questions about the Regional Solicitation, please contact:

Elaine Koutsoukos, TAB Coordinator  
 Metropolitan Council  
 390 North Robert Street  
 St. Paul, MN 55101  
 (651) 602-1717  
[elaine.koutsoukos@metc.state.mn.us](mailto:elaine.koutsoukos@metc.state.mn.us)

## Technical Assistance Contacts

Table 4 provides contacts for technical assistance in providing necessary data in order to address various prioritizing criteria. Before contacting any technical expert below, please use existing local sources. Local experts in many cases are the appropriate contact for much of the data needed to respond to criteria. In some instances, it may take five or more workdays to provide the requested data. Please request data as soon as possible.

**TABLE 4. TECHNICAL ASSISTANCE CONTACTS**

Subject	Name	Organization	Email	Phone Number	
<b>General</b>	Elaine Koutsoukos	TAB	<a href="mailto:Elaine.koutsoukos@metc.state.mn.us">Elaine.koutsoukos@metc.state.mn.us</a>	(651) 602-1717	
	Joe Barbeau	Met Council	<a href="mailto:Joseph.barbeau@metc.state.mn.us">Joseph.barbeau@metc.state.mn.us</a>	(651) 602-1705	
<b>Traffic Volumes</b>	Freeways	MnDOT	<a href="mailto:Jose.fischer@state.mn.us">Jose.fischer@state.mn.us</a>	(651) 234-7875	
	State Roads	Mark Flinner	MnDOT	<a href="mailto:Mark.flinner@state.mn.us">Mark.flinner@state.mn.us</a>	(651) 366-3849
		Gene Hicks	MnDOT	<a href="mailto:Gene.hicks@state.mn.us">Gene.hicks@state.mn.us</a>	(651) 366-3856
	Heavy Commercial	Shannon Foss	MnDOT	<a href="mailto:shannon.foss@state.mn.us">shannon.foss@state.mn.us</a>	(651) 366-3878
		John Hackett		<a href="mailto:John.Hackett@state.mn.us">John.Hackett@state.mn.us</a>	(651) 366-3851
	2040 Projections	Mark Filipi	Met Council	<a href="mailto:Mark.Filipi@metc.state.mn.us">Mark.Filipi@metc.state.mn.us</a>	(651) 602-1725
Synchro	Kevin Schwartz	MnDOT	<a href="mailto:Kevin.schwartz@state.mn.us">Kevin.schwartz@state.mn.us</a>	(651) 234-7840	
	Pat Otto	MnDOT	<a href="mailto:Pat.otto@state.mn.us">Pat.otto@state.mn.us</a>	(651) 234-7837	
<b>Crashes</b>	Chad Erickson	MnDOT	<a href="mailto:Chad.erickson@state.mn.us">Chad.erickson@state.mn.us</a>	(651) 234-7806	
<b>Freeway Management</b>	Terry Haukom	MnDOT	<a href="mailto:Terry.haukom@state.mn.us">Terry.haukom@state.mn.us</a>	(651) 234-7980	

Subject	Name	Organization	Email	Phone Number
<b>Trunk Highway Traffic Signals</b>				
Signal Operations	Mike Fairbanks	MnDOT	<a href="mailto:Mike.Fairbanks@state.mn.us">Mike.Fairbanks@state.mn.us</a>	(651) 234-7819
Signal/Lighting Design	Michael Gerbensky	MnDOT	<a href="mailto:Michael.gerbensky@state.mn.us">Michael.gerbensky@state.mn.us</a>	(651) 234-7816
<b>State Aid Standards</b>	Colleen Brown	MnDOT	<a href="mailto:Colleen.brown@state.mn.us">Colleen.brown@state.mn.us</a>	(651) 234-7779
<b>Bikeway/Walkway Standards</b>	Gina Mitteco	MnDOT	<a href="mailto:Gina.mitteco@state.mn.us">Gina.mitteco@state.mn.us</a>	(651) 234-7878
<b>Interchange Approvals</b>	Karen Scheffing	MnDOT	<a href="mailto:Karen.scheffing@state.mn.us">Karen.scheffing@state.mn.us</a>	(651) 234-7784
<b>Safe Routes to School</b>	Dave Cowan	MnDOT	<a href="mailto:Dave.Cowan@state.mn.us">Dave.Cowan@state.mn.us</a>	(651) 366-4180
<b>Regional Bikeway Network</b>	Steve Elmer	Met Council	<a href="mailto:Steven.elmer@metc.state.mn.us">Steven.elmer@metc.state.mn.us</a>	(651) 602-1756
<b>Thrive MSP 2040 Centers</b>	Dan Marckel	Met Council	<a href="mailto:Dan.marckel@metc.state.mn.us">Dan.marckel@metc.state.mn.us</a>	(651) 602-1548
<b>Housing Performance Scores</b>	Jonathan Stanley	Met Council	<a href="mailto:Jonathan.stanley@metc.state.mn.us">Jonathan.stanley@metc.state.mn.us</a>	(651)-602-1051
<b>Equity Measures</b>	Heidi Schallberg	Met Council	<a href="mailto:Heidi.schallberg@metc.state.mn.us">Heidi.schallberg@metc.state.mn.us</a>	(651)602-1721
<b>Demographics by TAZ</b>	Mark Filipi	Met Council	<a href="mailto:Mark.Filipi@metc.state.mn.us">Mark.Filipi@metc.state.mn.us</a>	(651) 602-1725
<b>Transit Ridership</b>	Heidi Schallberg	Met Council	<a href="mailto:Heidi.schallberg@metc.state.mn.us">Heidi.schallberg@metc.state.mn.us</a>	(651) 602-1721
<b>Transit Funding Timeline</b>	Heather Johnson	Met Council	<a href="mailto:Heather.Johnson@metc.state.mn.us">Heather.Johnson@metc.state.mn.us</a>	(651) 602-1764
<b>Emissions Data</b>	Mark Filipi	Met Council	<a href="mailto:Mark.Filipi@metc.state.mn.us">Mark.Filipi@metc.state.mn.us</a>	(651) 602-1725

# Qualifying Requirements

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May 18, 2016

The applicant must show that the project meets all of the qualifying requirements to be eligible to be scored and ranked against other projects. All qualifying requirements must be met before completing an application. Applicants whose projects are disqualified may appeal and participate in the review and determination of eligibility at the Technical Advisory Committee (TAC) Funding & Programming Committee meeting.

By selecting each checkbox, the applicant confirms compliance with the following project requirements:

## All Projects

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

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

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

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

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

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

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.

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.

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 in Table 1.

**Table 1: 2016 Regional Solicitation Funding Award Minimums and Maximums**

Modal Categories	2016 Regional Solicitation		
	Application Categories	Minimum Federal Award	Maximum Federal Award
<b>Roadways Including Multimodal Elements</b>	Roadway Expansion	\$1,000,000	\$7,000,000
	Roadway Reconstruction/Modernization	\$1,000,000	\$7,000,000
	Roadway System Management	\$250,000	\$7,000,000
	Bridges Rehabilitation/Replacement	\$1,000,000	\$7,000,000
<b>Bicycle and Pedestrian Facilities</b>	Multiuse Trails and Bicycle Facilities	\$250,000	\$5,500,000
	Pedestrian Facilities (Sidewalks, Streetscaping, and ADA)	\$250,000	\$1,000,000
	Safe Routes to School	\$150,000	\$1,000,000
<b>Transit and TDM Projects</b>	Transit Expansion	\$500,000	\$7,000,000
	Travel Demand Management (TDM)	\$75,000	\$300,000
	Transit System Modernization	\$100,000	\$7,000,000

Check the box to indicate that the project meets this requirement

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

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

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

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

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

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

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

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

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

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

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

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

## Roadways Including Multimodal Elements

1. All roadway and bridge projects must be identified as a Principal Arterial (Non-Freeway facilities only) or A-Minor Arterial as shown on the latest TAB approved roadway functional classification map.  
 Check the box to indicate that the project meets this requirement.
  
2. **Roadway Expansion and Reconstruction/Modernization projects only:** The project must be designed to meet 10-ton load limit standards.  
 Check the box to indicate that the project meets this requirement.
  
3. **Bridge Rehabilitation/Replacement projects only:** Projects requiring a grade-separated crossing of a Principal Arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOT's "Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities" manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.  
 Check the box to indicate that the project meets this requirement.
  
4. **Bridge Rehabilitation/Replacement projects only:** The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.  
 Check the box to indicate that the project meets this requirement.
  
5. **Bridge Rehabilitation/Replacement projects only:** The length of the bridge must equal or exceed 20 feet.  
 Check the box to indicate that the project meets this requirement.
  
6. **Bridge Rehabilitation/Replacement projects only:** The bridge must have a sufficiency rating less than 80 for rehabilitation projects and less than 50 for replacement projects. Additionally, the bridge must also be classified as structurally deficient or functionally obsolete.  
 Check the box to indicate that the project meets this requirement.

Please note: In this 2016 solicitation, points will be awarded as part of the Risk Assessment for applicable projects that have completed this interchange approval process. In the next Regional Solicitation, applicable interchange projects will need to go through the approval prior to submitting an application (i.e., it will become a qualifying requirement). Please contact Karen Scheffing at MnDOT ([Karen.Scheffing@state.mn.us](mailto:Karen.Scheffing@state.mn.us) or 651-234-7784) to determine if your project needs to go through the Metropolitan Council/MnDOT Highway Interchange Request Committee.

## Bicycle and Pedestrian Facilities Projects Only

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.

2. **Multiuse Trails on Active Railroad Right-of-Way:** 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.

3. **Safe Routes to School projects only:** 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. **Safe Routes to School projects only:** 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.

## Transit and Travel Demand Management (TDM) Projects Only

1. **Transit Expansion projects only:** The project must provide a new or expanded transit facility or service (includes peak, off-peak, express, limited stop service, or dial-a-ride).

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

2. **Transit Expansion projects only:** 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.

3. **Transit Expansion projects only:** 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.

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

4. **Transit Expansion and Transit System Modernization projects only:** 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.

# Application: Regional Solicitation for Transportation Projects in 2020 and 2021

May 18, 2016

Complete and submit the following online application **by 4:00 PM on July 15, 2016.**

For questions contact (Elaine Koutsoukos) at (elaine.koutsoukos@metc.state.mn)

## I. GENERAL INFORMATION

1. APPLICANT:			
2. UNIT OF GOVERNMENT:		(Select from drop down list)	
3. PRIMARY COUNTY WHERE THE PROJECT IS LOCATED:		(Select from drop down list)	
4. JURISDICTIONAL AGENCY (IF DIFFERENT THAN THE APPLICANT):			
5. APPLICANT MAILING ADDRESS			
STREET:	CITY:	STATE:	ZIP CODE:
6. PROJECT CONTACT PERSON:		TITLE:	PHONE NO. ( ) E-MAIL ADDRESS:

## II. PROJECT INFORMATION

7. PROJECT NAME:	
8. APPLICATION CATEGORIES – Check only one project category in which you wish your project to be considered.	
<b>Roadways Including Multimodal Elements</b>	
<input type="checkbox"/> Roadway Expansion	<input type="checkbox"/> Roadway System Management
<input type="checkbox"/> Roadway Reconstruction/Modernization	<input type="checkbox"/> Bridge Rehabilitation/Reconstruction
<b>Bicycle and Pedestrian Facilities</b>	
<input type="checkbox"/> Multiuse Trails and Bicycle Facilities	<input type="checkbox"/> Safe Routes to School Infrastructure
<input type="checkbox"/> Pedestrian Facilities (Sidewalks, Streetscaping, and ADA)	
<b>Transit and Travel Demand Management (TDM) Projects</b>	
<input type="checkbox"/> Transit Expansion	<input type="checkbox"/> Transit System Modernization
<input type="checkbox"/> TDM	
9. BRIEF PROJECT DESCRIPTION (Include location, road name/functional class, type of improvement, etc. – limit to 400 words):	
10. TRANSPORTATION IMPROVEMENT PROGRAM (TIP) DESCRIPTION – will be used in TIP if the project is selected for funding ( <a href="#">Link</a> ):	
11. PROJECT LENGTH (to the nearest one-tenth of a mile):	

### III. PROJECT FUNDING

12. Are you applying for funds from another source(s) to implement this project? Yes  No

If yes, please identify the source(s):

12. FEDERAL AMOUNT: \$

13. MATCH AMOUNT: \$ (Minimum of 20% of the project total)

14. PROJECT TOTAL: \$

15. MATCH PERCENTAGE (Minimum of 20%):

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

16. SOURCE OF MATCH FUNDS (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):

17. PROGRAM YEARS (Check all years that are feasible):  2018 (TDM Only)  2019 (TDM Only)  2020  2021

18. ADDITIONAL PROGRAM YEARS (Check all years that are feasible if funding in an earlier year becomes available):

2017  2018  2019

## IV. REQUIRED ATTACHMENTS

### 19. MAPS:

- A map or concept drawing of the proposed improvements that clearly labels the beginning and end of the project, all roadways in the project area, roadway geometry, and any bicycle, pedestrian, and transit components upon completion of the project.
- A photograph or Google Street View screen capture (or similar) showing the existing conditions within the project area.
- **For Roadway Expansion, Roadway Reconstruction/Modernization, and Roadway System Management projects only:** The Synchro/Highway Capacity Manual emission reduction reports including the Timing Page Report that displays input and output information. *This report must be attached within the web-based application form for Measure 5A (Congestion Reduction/Air Quality).*
- **For Safe Routes to School Projects only:** The completed travel tally and parent survey results from the SRTS planning process. The travel tally form can be found on the Minnesota Department of Transportation (MnDOT) SRTS website: [http://www.saferoutesinfo.org/sites/default/files/resources/SRTS\\_Two\\_Day\\_Tally.pdf](http://www.saferoutesinfo.org/sites/default/files/resources/SRTS_Two_Day_Tally.pdf). *The travel tally and parent survey results must be attached within the web-based application form for Measure 2A (Usage).*
- All project information maps generated through the Metropolitan Council Make-A-Map web-based application completed at the beginning of the application process. Attachment/upload locations are placed throughout all appropriate web-based application forms.

### 20. COORDINATION

- The applicant must include a letter from the agency with jurisdiction over the facility (if different than the applicant) indicating that it is aware of and understands the project being submitted, and that it commits to operate and maintain the facility for its design life.
- If the applicant expects any other agency to provide part of the local match, the applicant must include a letter or resolution from the other agency agreeing to financially participate.
- **For Transit Expansion projects that include service expansion only:** Applicants must provide a letter of support for the project from the transit provider that will commit to providing the service or manage the contract for the service provider.

### 21. OTHER

- **For Transit and TDM Projects that include public/private joint-use parking facilities only:** The applicant must upload a plan for and make a commitment to the long-term management and enforcement of ensuring exclusive availability of parking to public transit users during commuting times. Federal rules require that parking spaces funded be available exclusively to transit users during the hours of transit service. In the plan, the applicant must indicate how commuter and transit parking will coexist with parking needs for joint use tenants. The entity charged with ensuring exclusive parking for transit commuters after the facility opens must be designated in the plan.
- **TDM Projects only:** Upload Project Budget (budget should include applicable costs, such as, salary, fringe benefits, overhead expenses, marketing, materials, etc.). If using a sub-vendor as part of the project, proper procurement procedures must be used after the project is awarded to select the vendor.

# Project Information Form – Bicycle and Pedestrian Facilities

(To be used to assign State Project Number after project is selected)

Please fill in the following information as it pertains to your proposed project. Items that do not apply to your project, please label N/A.

COUNTY, CITY, OR LEAD AGENCY \_\_\_\_\_

ZIP CODE WHERE MAJORITY OF WORK IS BEING PERFORMED \_\_\_\_\_

APPROXIMATE BEGIN CONSTRUCTION DATE (MO/YR) \_\_\_\_\_

APPROXIMATE END CONSTRUCTION DATE (MO/YR) \_\_\_\_\_

NAME OF TRAIL/PED FACILITY: \_\_\_\_\_ (i.e., CEDAR LAKE TRAIL)

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

From: \_\_\_\_\_

To: \_\_\_\_\_

(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 \_\_\_\_\_

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: \_\_\_\_\_

# Project Information Form – Roadways Including Multimodal Elements

(To be used to assign State Project Number after project is selected)

Please fill in the following information as it pertains to your proposed project. Items that do not apply to your project, please label N/A.

COUNTY, CITY, OR LEAD AGENCY \_\_\_\_\_

FUNCTIONAL CLASS OF ROAD \_\_\_\_\_

ROAD SYSTEM \_\_\_\_\_ (TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET)

ROAD/ROUTE NO. \_\_\_\_\_ (i.e., 53 FOR CSAH 53)

NAME OF ROAD \_\_\_\_\_ (Example; 1st ST., MAIN AVE)

ZIP CODE WHERE MAJORITY OF WORK IS BEING PERFORMED \_\_\_\_\_

APPROXIMATE BEGIN CONSTRUCTION DATE (MO/YR) \_\_\_\_\_

APPROXIMATE END CONSTRUCTION DATE (MO/YR) \_\_\_\_\_

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

From: \_\_\_\_\_

To: \_\_\_\_\_  
(DO NOT INCLUDE LEGAL DESCRIPTION)

OR At: \_\_\_\_\_

PRIMARY TYPES OF WORK \_\_\_\_\_

Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.

## BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

OLD BRIDGE/CULVERT NO.: \_\_\_\_\_

NEW BRIDGE/CULVERT NO.: \_\_\_\_\_

STRUCTURE IS OVER/UNDER: \_\_\_\_\_

# Project Information Form – Transit and TDM (for Park-and-Ride and Transit Station Projects Only)

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(To be used to assign State Project Number after project is selected)

Please fill in the following information as it pertains to your proposed project. Items that do not apply to your project, please label N/A.

COUNTY, CITY, OR LEAD AGENCY \_\_\_\_\_

ZIP CODE WHERE MAJORITY OF WORK IS BEING PERFORMED \_\_\_\_\_

APPROXIMATE BEGIN CONSTRUCTION DATE (MO/YR) \_\_\_\_\_

APPROXIMATE END CONSTRUCTION DATE (MO/YR) \_\_\_\_\_

NAME OF PARK AND RIDE OR TRANSIT STATION: \_\_\_\_\_  
(i.e., MAPLE GROVE TRANSIT STATION)

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

From: \_\_\_\_\_

To: \_\_\_\_\_  
(DO NOT INCLUDE LEGAL DESCRIPTION)

OR At: \_\_\_\_\_

PRIMARY TYPES OF WORK \_\_\_\_\_

Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, PARK AND RIDE, ETC.

## Estimate of TAB-Eligible Project Costs

Fill out the scoping sheet below and provide the estimate of TAB- eligible costs for the project. Applicants are not required to fill out each row of the cost estimate. The list of project elements is meant to provide a framework to think about the types of costs that may be incurred from the project. The total cost should match the total cost reported for the project on the first page of this application. Costs for specific elements are solely used to help applicants come up with a more accurate total cost; adjustments to these specific costs are expected as the project is more fully developed. Per TAB direction, the project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of bicycle/pedestrian projects, transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

Please use 2016 cost estimates for all project elements including transit vehicle and operating costs. The TAB may apply an inflation factor to awarded projects. If TAB includes an inflation factor, then all project elements will be inflated, unlike past years, when only certain project elements were inflated.

It is important that applicants accurately break out costs for the project's various multimodal elements. These costs will be used, in part, to help determine the score for the Multimodal Facilities scoring criterion. If no dollar amount is placed in the cost estimate form below, than it will be assumed that no multimodal elements are included with the project.

<b>TAB-ELIGIBLE CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>		
<b>Check all that apply</b>	<b>ITEM</b>	<b>COST</b>
<b>Specific Roadway Elements</b>		
<input type="checkbox"/>	<b>Mobilization (approx. 5% of total cost)</b>	\$
<input type="checkbox"/>	<b>Removals (approx. 5% of total cost)</b>	\$
<input type="checkbox"/>	<b>Roadway (grading, borrow, etc.)</b>	\$
<input type="checkbox"/>	<b>Roadway (aggregates and paving)</b>	\$
<input type="checkbox"/>	<b>Subgrade Correction (muck)</b>	\$
<input type="checkbox"/>	<b>Storm Sewer</b>	\$
<input type="checkbox"/>	<b>Ponds</b>	\$
<input type="checkbox"/>	<b>Concrete Items (curb &amp; gutter, sidewalks, median barriers)</b>	\$
<input type="checkbox"/>	<b>Traffic Control</b>	\$
<input type="checkbox"/>	<b>Striping</b>	\$
<input type="checkbox"/>	<b>Signing</b>	\$
<input type="checkbox"/>	<b>Lighting</b>	\$
<input type="checkbox"/>	<b>Turf - Erosion &amp; Landscaping</b>	\$
<input type="checkbox"/>	<b>Bridge</b>	\$
<input type="checkbox"/>	<b>Retaining Walls</b>	\$
<input type="checkbox"/>	<b>Noise Wall (do not include in cost effectiveness measure)</b>	\$

<input type="checkbox"/>	Traffic Signals	\$
<input type="checkbox"/>	Wetland Mitigation	\$
<input type="checkbox"/>	Other Natural and Cultural Resource Protection	\$
<input type="checkbox"/>	Railroad Crossing	\$
<input type="checkbox"/>	Roadway Contingencies	\$
<input type="checkbox"/>	Other Roadway Elements	\$
<b>Specific Bicycle and Pedestrian Elements</b>		
<input type="checkbox"/>	Path/Trail Construction	\$
<input type="checkbox"/>	Sidewalk Construction	\$
<input type="checkbox"/>	On-Street Bicycle Facility Construction	\$
<input type="checkbox"/>	Right-of-Way	\$
<input type="checkbox"/>	Pedestrian Curb Ramps (ADA)	\$
<input type="checkbox"/>	Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$
<input type="checkbox"/>	Pedestrian-Scale Lighting	\$
<input type="checkbox"/>	Streetscaping	\$
<input type="checkbox"/>	Wayfinding	\$
<input type="checkbox"/>	Bicycle and Pedestrian Contingencies	\$
<input type="checkbox"/>	Other Bicycle and Pedestrian Elements	\$
<b>Specific Transit and TDM Elements</b>		
<input type="checkbox"/>	Fixed Guideway Elements	\$
<input type="checkbox"/>	Stations, Stops, and Terminals	\$
<input type="checkbox"/>	Support Facilities	\$
<input type="checkbox"/>	Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	\$
<input type="checkbox"/>	Vehicles	\$
<input type="checkbox"/>	Contingencies	\$
<input type="checkbox"/>	Right-of-Way	\$
<input type="checkbox"/>	Other Transit and TDM Elements	\$
<b>TOTAL TAB-ELIGIBLE CONSTRUCTION COSTS</b>		\$
<b>Transit Operating Costs</b>		
<input type="checkbox"/>	Number of platform hours	
<input type="checkbox"/>	Cost per platform hour (fully loaded costs)	\$
	Subtotal - _____	\$
<input type="checkbox"/>	Other Costs – Administration, Overhead, etc.	\$
	<b>Total Transit Operating Costs</b>	\$
<input type="checkbox"/>	<b>TDM Operating Costs</b>	\$
<b>TOTAL TAB-ELIGIBLE TRANSIT AND TDM OPERATING COSTS</b>		\$
<b>TOTAL TAB-ELIGIBLE COSTS</b>		\$

# Risk Assessment

Please check those that apply and fill in anticipated completion dates for all projects, except for new/expanded transit service projects, transit vehicle purchases, or travel demand management (TDM) projects.

## 1) Project Scope (5 Percent of Points)

- 100%  Meetings or contacts with stakeholders have occurred  
40%  Stakeholders have been identified  
0%  Stakeholders have not been identified or contacted

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

- 100%  Layout or Preliminary Plan completed  
50%  Layout or Preliminary Plan started  
0%  Layout or Preliminary Plan has not been started

Anticipated date or date of completion: \_\_\_\_\_

## 3) Environmental Documentation (5 Percent of Points)

- EIS  EA  PM

Document Status:

- 100%  Document approved (include copy of signed cover sheet)  
75%  Document submitted to State Aid for review (date submitted: \_\_\_\_\_)  
50%  Document in progress; environmental impacts identified; review request letters sent  
0%  Document not started

Anticipated date or date of completion/approval: \_\_\_\_\_

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

- 100%  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  
80%  Historic/archeological review under way; determination of "no historic properties affected" or "no adverse effect" anticipated  
40%  Historic/archeological review under way; determination of "adverse effect" anticipated  
0%  Unsure if there are any historic/archaeological resources in the project area.

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

Project is located on an identified historic bridge:

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

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

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

- 100%  No Section 4f/6f resources located in or adjacent to the project
- 100%  Impact to 4(f) property. The project is an Independent Bikeway/Walkway project covered by the bikeway/walkway Negative Declaration statement. Letter of support received (potential option for bicycle and pedestrian facility applications only)
- 80%  Section 4f resources present within the project area, but no adverse effects
- 50%  Project impacts to Section 4f/6f resources likely – coordination/documentation has begun
- 30%  Project impacts to Section 4f/6f resources likely – coordination/documentation has not begun
- 0%  Unsure if there are any impacts to Section 4f/6f resources in the project area

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

- 100%  Right-of-way, permanent or temporary easements not required
- 100%  Right-of-way, permanent or temporary easements has/have been acquired
- 75%  Right-of-way, permanent or temporary easements required, offers made
- 50%  Right-of-way, permanent or temporary easements required, appraisals made
- 25%  Right-of-way, permanent or temporary easements required, parcels identified
- 0%  Right-of-way, permanent or temporary easements required, parcels not identified
- 0%  Right-of-way, permanent or temporary easements identification has not been completed

Anticipated date or date of acquisition \_\_\_\_\_

**7) Railroad Involvement (25 Percent of Points)**

- 100%  No railroad involvement on project
- 100%  Railroad Right-of-Way Agreement is executed (include signature page)
- 60%  Railroad Right-of-Way Agreement required; Agreement has been initiated
- 40%  Railroad Right-of-Way Agreement required; negotiations have begun
- 0%  Railroad Right-of-Way Agreement required; negotiations not begun

Anticipated date or date of executed Agreement \_\_\_\_\_

**8) Interchange Approval (15 Percent of Points)\***

- 100%  Project does not involve construction of a new/expanded interchange or new interchange ramps
- 100%  Interchange project has been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee
- 0%  Interchange project has not been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee

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

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

- 100%  Construction plans completed/approved (include signed title sheet)
- 75%  Construction plans submitted to State Aid for review
- 50%  Construction plans in progress; at least 30% completion
- 0%  Construction plans have not been started

Anticipated date or date of completion: \_\_\_\_\_

**10) Letting**

Anticipated Letting Date: \_\_\_\_\_

# Roadway Expansion – Prioritizing Criteria and Measures

May 18, 2016

Definition: A roadway project that adds thru-lane capacity. Projects must be located on a non-freeway Principal Arterial or A-Minor Arterial functionally-classified roadway, consistent with the latest TAB approved functional classification map. However, A-Minor Connectors cannot be expanded with these federal funds per regional policy and must apply in the Reconstruction/Modernization application category.

Examples of Roadway Expansion Projects:

- New roadways
- Two-lane to four-lane expansions
- Two-lane to three-lane expansions
- Four-lane to six-lane expansions
- New interchanges with or without associated frontage roads
- Expanded interchanges with either new ramp movements or added thru lanes
- New bridges, overpasses and underpasses

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>175</b>	<b>17.5%</b>
Measure A - Average distance to nearest parallel roadways	80	
Measure B - Connection to Total Jobs and Manufacturing/Distribution Jobs	30	
Measure C - Current daily heavy commercial traffic	50	
Measure D - Freight project elements	15	
<b>2. Usage</b>	<b>175</b>	<b>17.5%</b>
Measure A - Current daily person throughput	110	
Measure B - Forecast 2040 average daily traffic volume	65	
<b>3. Equity and Housing Performance</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to disadvantaged populations and project's benefits, impacts, and mitigation	30	
Measure B - Housing Performance Score	70	
<b>4. Infrastructure Age</b>	<b>75</b>	<b>7.5%</b>
Measure A - Date of construction	75	
<b>5. Congestion Reduction/Air Quality</b>	<b>150</b>	<b>15%</b>
Measure A - Vehicle delay reduced	100	
Measure B - Kg of emissions reduced	50	
<b>6. Safety</b>	<b>150</b>	<b>15%</b>
Measure A - Crashes reduced	150	
<b>7. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit, bicycle, or pedestrian project elements & connections	100	
<b>8. Risk Assessment</b>	<b>75</b>	<b>7.5%</b>
Measure A - Risk Assessment Form	75	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>9. Cost Effectiveness</b>	<b>100</b>	
Measure A - Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

**1. Role in the Regional Transportation System and Economy (175 Points)** – Tying regional policy (Thrive MSP2040) to the Regional Solicitation, this criterion measures the project’s ability to serve a transportation purpose within the regional transportation system and economy based on how well it fulfills its functional classification role, serves heavy commercial traffic, and connects to employment, students, and manufacturing/distribution-related employment.

- A. ***MEASURE***: Address how the project route fulfills its role in the regional transportation system as identified by its current functional classification. Respond as appropriate to one type of functional classification. (80 Points)

**For Expander, Augmentor, or Non-Freeway Principal Arterial Projects Only:**

- Reference the “Roadway Area Definition” map generated at the beginning of the application process. Report the total area and project length, as depicted on the “Roadway Area Definition” map, to calculate the average distance between the project and the closest parallel “A” Minor Arterials or Principal Arterials on both sides of the project.

Upload the “Roadway Area Definition” map used for this measure.

***RESPONSE (Calculation):***

**For Reliever Projects Only:**

For A-Minor Arterial Relievers, the measure will analyze the level of congestion on the parallel Principal Arterial to determine the importance of the Reliever. Identify the hours per day the current volume exceeds the design capacity on the Principal Arterial being relieved by the Reliever.

- If the Reliever is relieving a Principal Arterial that is a freeway facility, the applicant should obtain data from the current [MnDOT Metro Freeway Congestion Report](#).
- If the Reliever is relieving a Principal Arterial that is a non-freeway facility, the applicant should obtain intersection turning movement or hourly volume data (within the last three years) directly from the [MnDOT Metro Intersection Warrant Information website](#). If data is unavailable on the website, the applicant should collect or use their own intersection turning movement or hourly volume data (within the last three years) for the non-freeway facility. The volume used for the Principal Arterial being relieved should be located within the parallel length of the project. To calculate existing conditions, the applicant must obtain the hourly directional traffic volumes on a weekday, and the current lane configurations.

For the design capacity calculations, the applicant must use Metropolitan Council definition below:

### Design Capacity

The assumed maximum number of vehicles per lane which pass any given point in an hour on an average day during normal operating conditions. For the purposes of responding to criteria in this solicitation packet, the following capacities shall be used:

- Expressway through lane - 800 vehicles per hour;
- Arterial through lane - 600 vehicles per hour;
- Left-turn lane - 300 vehicles per hour;
- Right-turn lane - 200 vehicles per hour;
- Dedicated bike lane or joint use trail - 60 vehicles per hour.

### RESPONSE (Calculation):

#### SCORING GUIDANCE (80 Points)

Expanders, Augmentors, and Non-Freeway Principal Arterials: The applicant with the furthest average distance from the closest parallel A-Minor Arterials or Principal Arterials on both sides will receive the full points. The furthest average distance will be considered separately for Expanders, Augmentors, and Non-Freeway Principal Arterials.

Relievers: The applicant with the highest number of hours per day in which current capacity exceeds the design capacity on the Principal Arterial will receive the full points. Remaining Reliever projects will receive a proportionate share of the full points, calculated as described above.

Four projects (one each for Augmentor, Expander, Reliever, and Non-Freeway Principal Arterial) may receive the full points. Remaining projects will receive a proportionate share of the full points (awarded to the top score in the appropriate functional classification). For example, if the Expander being scored had a distance of 8 miles and the top Expander project had an average distance of 10 miles, this applicant would receive  $(8/10) * 80$  points or 64 points. Metropolitan Council staff will provide average distance data for all Augmentor, Expander, and Non-Freeway Principal Arterial projects to ensure consistency of methodology between applications.

- B. MEASURE: Reference the “Regional Economy” map generated at the beginning of the application process. Report the existing employment, manufacturing/distribution-related employment, and post-secondary students enrolled within one mile, as depicted on the “Regional Economy” map. (30 Points)

Upload the “Regional Economy” map used for this measure.

### RESPONSE (Data from the “Regional Economy” map):

- Existing Employment within 1 Mile: \_\_\_\_\_ (Maximum of 30 points)
- Existing Manufacturing/Distribution-Related Employment within 1 Mile: \_\_\_\_\_ (Maximum of 30 points)
- Existing Students: \_\_\_\_\_ (Maximum of 18 points)

**SCORING GUIDANCE (30 Points)**

All Census block groups that are included within or intersect the buffer area around the project will be included.

The applicant with the highest existing total employment will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 1,000 workers within one mile and the top project had 1,500 workers, this applicant would receive  $(1,000/1,500)*30$  points or 20 points.

The applicant with the highest existing manufacturing/distribution-related employment will receive the full points. Remaining projects will receive a proportionate share of the full points equal to the existing manufacturing/distribution-related employment within one mile of the project being scored divided by the project with the highest manufacturing/distribution-related employment within one mile multiplied by the maximum points available for the measure. For example, if the application being scored had 1,000 manufacturing/distribution-related workers within one mile and the top project had 1,500 manufacturing/distribution-related workers, this applicant would receive  $(1,000/1,500)*30$  points or 20 points.

The applicant with the highest number of students will receive 18 points. Remaining projects will receive a proportionate share of the 18 points. For example, if the application being scored had 1,000 students within one mile and the top project had 1,500 students, this applicant would receive  $(1,000/1,500)*18$  points or 12 points.

The scorer will assess if the applicant would score highest with the total employment part of the measure, the manufacturing/distribution employment part of the measure, or the education part of the measure and give the applicant the highest of the three scores out of a maximum of 30 points.

Note: Due to the use of multiple sub-measures, two applicants will receive the full 30 points.

- C. **MEASURE:** Provide the current daily heavy commercial traffic at one location along the A-Minor Arterial or Non-Freeway Principal Arterial's project length. It is required that an actual count is collected, or that available data from within the last three years is used (from the city, county or MnDOT). Heavy commercial traffic is defined as all trucks with at least two axles and six tires. (50 Points)
- For new roadways, using a traffic model, identify the estimated current daily heavy commercial traffic volume.

**RESPONSE:**

- Location: \_\_\_\_\_
- Current daily heavy commercial traffic volume: \_\_\_\_\_
- Date heavy commercial count taken: \_\_\_\_\_

## Roadway Expansion

### SCORING GUIDANCE (50 Points)

The applicant with the highest daily heavy commercial traffic at a location along the project length will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a heavy commercial volume of 750 vehicles and the top project had a heavy commercial volume of 1,000 vehicles, this applicant would receive  $(750/1,000)*50$  points, or 38 points.

- D. MEASURE: Discuss any freight elements that are included as part of the project and how they improve efficiency, security, or safety. (15 points)

Address how the proposed project safely integrates freight. Freight elements could be project elements such as upgrading a non-ten-ton roadway to a ten-ton roadway, adding paved shoulders, wider shoulders, acceleration lanes, or longer turning lanes added specifically to accommodate freight movements.

### SCORING GUIDANCE (15 Points)

The project with the most comprehensive freight elements included as part of the project will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion.

**2. Usage (175 Points)** – This criterion quantifies the project’s potential impact by measuring the current daily person throughput and future vehicular traffic that will be served by the project. These roadway users directly benefit from the project improvements on the A-Minor Arterial or Non-Freeway Principal Arterial.

A. ***MEASURE:*** The applicant must identify the location along the project length and provide the current AADT volume from the MnDOT 50-series maps and existing transit routes that travel on the road. Ridership data will be provided by the Metropolitan Council staff, if public transit is currently provided on the project length. Metropolitan Council staff will calculate the current daily person throughput at one location along the “A” Minor Arterial or Non-Freeway Principal Arterial project length using the current average annual daily traffic (AADT) volume and average annual ridership. (110 Points)

- Current Daily Person Throughput = (current average annual daily traffic volume x 1.30 vehicle occupancy) + average annual daily transit ridership (2015)
- For new roadways, identify the estimated existing daily traffic volume based on traffic modeling.

**RESPONSE:**

- Location: \_\_\_\_\_
- Current AADT volume: \_\_\_\_\_
- Existing Transit Routes on the Project: \_\_\_\_\_
- Transit routes that will likely be diverted to a new roadway: \_\_\_\_\_

**SCORING GUIDANCE (110 Points)**

The applicant with highest current daily person throughput will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points For example, if the application being scored had a daily person throughput of 1,000 vehicles and the top project had a daily person throughput of 1,500 vehicles, this applicant would receive  $(1,000/1,500)*110$  points or 73 points.

B. ***MEASURE:*** Provide the forecast (2040) average daily traffic volume at the same location along the “A” Minor Arterial or Non-Freeway Principal Arterial project length, as identified in the previous measure. The applicant may choose to use a county or city travel demand model based on the Metropolitan Council model to identify the forecast (2040) average daily traffic volume or have Metropolitan Council staff determine the forecast volume using the Metropolitan Council model and project location. Respond as appropriate to the use of one type of forecast model. (65 Points)

- For new roadways, identify the forecast daily traffic volume if this information is available. If not available, then identify the forecast volumes that will be relocated from any parallel roadway(s) to the new roadway.

## Roadway Expansion

RESPONSE:

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

OR

RESPONSE:

- Identify the approved county or city travel demand model to determine forecast (2040) ADT volume: \_\_\_\_\_
- Forecast (2040) ADT volume : \_\_\_\_\_

**SCORING GUIDANCE (65 Points)**

The applicant with the highest forecast (2040) ADT volume will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a daily forecast of 28,000 vehicles and the top project had a daily forecast of 32,000 vehicles, this applicant would receive  $(28,000/32,000) * 65$  points or 57 points.

**3. Equity and Housing Performance (100 Points)** – This criterion addresses the project’s positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community’s efforts to promote affordable housing.

- A. **MEASURE:** Reference the “Socio-Econ” map generated at the beginning of the application process. Identify the project’s location from the list below, as depicted on the map. Describe the project’s positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations selected. (30 Points)

Upload the “Socio-Econ” map used for this measure.

RESPONSE (Select one, based on the “Socio-Econ” map):

- Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 30 Points)
- Project located in Area of Concentrated Poverty:  (0 to 24 Points)
- Project’s census tracts are above the regional average for population in poverty or population of color:  (0 to 18 Points)
- 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:  (0 to 12 Points)

RESPONSE (Limit 2,800 characters; approximately 400 words):

**SCORING GUIDANCE (30 Points)**

Based on the “Socio-Econ” map’s output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups. Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area defined above. Remaining projects will receive a share of the full points at the scorer’s discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 30 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 30 points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 10 points and the top project had 20 points, this applicant would receive  $(10/20)*30$  points or 15 points.

- B. **MEASURE:** Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project is located. The

## Roadway Expansion

score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project is in more than one jurisdiction, the points will be awarded based on a weighted average using the length of the project in each jurisdiction.

For stand-alone intersection, bridge, underpass, and interchange projects, a one-mile radius-buffer will be drawn around the project. If the radius-buffer enters more than one jurisdiction, the points will be awarded based on the proportionate population of the Census blocks in each jurisdiction that are all or partially located in the area within the one-mile radius-buffer.

If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

*RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):*

- City/Township: \_\_\_\_\_
- Length of Segment (Population from Regional Economy Map for stand alone projects) within City/Township:

SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a Housing Performance Score of 55 and the top project had a Housing Performance Score of 90, this applicant would receive  $(55/90)*70$  points or 43 points. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction. For stand-alone intersection, bridge, underpass, and interchange projects, a one-mile radius-buffer will be drawn around the project. If the radius-buffer enters more than one jurisdiction, the points will be awarded based on the proportionate population of the Census blocks in each jurisdiction that are all or partially located in the area within the one-mile radius-buffer.

If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale. If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

## Roadway Expansion

**4. Infrastructure Age (75 Points)** – This criterion will assess the age of the roadway facility being improved. Roadway improvement investments should focus on the higher needs of an aging facility, whereas improvements to a recently reconstructed roadway does not display an efficient use of funds.

A. MEASURE: Identify the year of the roadway's original construction or most recent reconstruction. If the reconstruction date is used for the roadway, a full reconstruction must have been completed during the indicated year. Routine maintenance, such as an overlay or sealcoating project does not constitute a reconstruction and should not be used to determine the infrastructure age.

- For new roadways, identify the average age of the parallel roadways from which traffic will be diverted to the new roadway.

RESPONSE:

- Year of original roadway construction or most recent reconstruction: \_\_\_\_\_
- Segment length: \_\_\_\_\_

**SCORING GUIDANCE (75 Points)**

The applicant with the oldest roadway will receive full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored was constructed 41 years ago and the oldest project was constructed 48 years ago, this applicant would receive  $(41/48) * 75$  points or 64 points.

Note: Because of the reporting of year of construction, it is possible for multiple projects to receive the full allotment of 75 points.

**5. Congestion Reduction/Air Quality (150 Points)** – This criterion measures the project’s ability to reduce intersection delay and emissions during peak hour conditions. In addition, it will address its ability to improve congested intersections operating at unacceptable levels of service during peak hour conditions. The project will also be measured based on its ability to reduce emissions.

- A. ***MEASURE:*** Conduct a capacity analysis at one or more of the intersections (or rail crossings) being improved by the roadway project using existing turning movement counts (collected within the last three years) in the a.m. or p.m. peak hour and Synchro or HCM software. The analysis must include build and no build conditions (with and without the project improvements). The applicant must show the current total peak hour delay at one or more intersections (or rail crossings) and the reduction in total peak hour intersection delay at these intersections (or rail crossings) in seconds, due to the project. If more than one intersection is examined, then the delay reduced by each intersection (or rail crossing) can be added together to determine the total delay reduced by the project. (100 Points)
- For new roadways, identify the key intersection(s) on any parallel roadway(s) that will experience reduced delay as a result of traffic diverting to the new roadway. If more than one intersection is examined, then the delay reduced by each intersection can be added together.
  - For roadway projects that include a railroad crossing, the applicant should conduct fieldwork during either the a.m. or p.m. peak hour to determine the total peak hour delay reduced by the project. Applicants can also add together intersection delay reduced and railroad delay reduced, if they both will be improved by the project.

The applicant should include the appropriate Synchro or HCM full reports (including the Timing Page Report) that support the improvement in total peak hour delay and should conduct the analysis using the following:

- Under the network settings, all defaults should be used for lanes, volumes, phases and simulation
- Use Synchro’s automatic optimization to determine cycle, offset and splits (for traffic signals)
- Project improvements assumed in the build condition should be reflected in the total project cost, such as additional through or turn lanes and protective left-turn phasing
- Roadway lengths for intersection approaches must be the same length for before and after scenarios

Total Peak Hour Delay Reduced (Seconds) = Total Peak Hour Delay/Vehicle x Vehicles Per Hour

RESPONSE (Calculation):

- Total Peak Hour Delay/Vehicle without the Project (Seconds/Vehicle): \_\_\_\_\_
- Total Peak Hour Delay/Vehicle with the Project (Seconds/Vehicle): \_\_\_\_\_
- Total Peak Hour Delay/Vehicle Reduced by the Project (Seconds/Vehicle): \_\_\_\_\_
- Volume (Vehicles Per Hour): \_\_\_\_\_
- Total Peak Hour Delay Reduced by the Project (Seconds): \_\_\_\_\_
- EXPLANATION of methodology used to calculate railroad crossing delay, if applicable (Limit 1,400 characters; approximately 200 words):

**SCORING GUIDANCE (100 Points)**

The applicant with the most peak hour vehicle delay reduced by the project improvement will receive the full points for the measure. Remaining projects will receive a proportionate share of the. For example, if the application being scored reduced delay by 5,000 seconds and the top project reduced delay by 25,000 seconds, this applicant would receive  $(5,000/25,000)*100$  points, or 20 points.

- B. MEASURE: Using the Synchro or HCM analysis completed in the previous measure, identify the total peak hour emissions reduction in kilograms (CO, NO<sub>x</sub>, VOC) due to the project. The applicant should include the appropriate Synchro or full HCM reports (including the Timing Page Report) that support the improvement in total peak hour emissions. If more than one intersection is examined, then the emissions reduced by each intersection can be added together to determine the total emissions reduced by the project. (50 Points)

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

- Total Peak Hour Emissions Reduced (Kilograms)= Total Peak Hour Emissions Reduced/Vehicle x Vehicles Per Hour

RESPONSE (Calculation):

- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions/Vehicle without the Project (Kilograms): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions/Vehicle with the Project (Kilograms): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced/Vehicle by the Project (Kilograms): \_\_\_\_\_
- Volume (Vehicles Per Hour): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): \_\_\_\_\_

If more than one intersection is examined, the response is a total of all emissions reduced.

### **Roadway projects that are constructing new roadway segments, but do not include railroad grade-separation elements:**

- For new roadways, identify the key intersection(s) on any parallel roadway(s) that will experience reduced emissions as a result of traffic diverting to the new roadway (using Synchro). If more than one intersection is examined, then the emissions reduced by each intersection can be added together.

However, new roadways will also generate new emissions compared to existing conditions as traffic diverts from the parallel roadways. The applicant needs to estimate four variables to determine the new emissions generated once the project is completed on any major intersections. Those variables include: speed, vehicle mile traveled, delay, and total vehicle stops. The applicant needs to detail any assumptions used for conditions after the project is built. The variables will be used in the exact same equation used Synchro required of the other project types.

The equation below should only be used to estimate the new emissions generated by new roadways.

#### **Parallel Roadways**

Enter data for Parallel Roadways.

- Total Peak Hour Emissions Reduced (Kilograms) = Total Peak Hour Emissions Reduced Per Vehicle x Vehicles Per Hour

#### RESPONSE (Data Input and Calculation):

- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Per Vehicle without the Project (Kilograms): \_\_\_\_\_ (Applicant inputs number)
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Per Vehicle with the Project (Kilograms): \_\_\_\_\_ (Applicant inputs number)
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced Per Vehicle by the Project (Kilograms): \_\_\_\_\_ (Online Calculation)
- Volume (Vehicles Per Hour): \_\_\_\_\_ (Applicant inputs number)
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): \_\_\_\_\_ (Online Calculation)

If more than one intersection is examined, the response is a total of all emissions reduced.

Emissions Reduced on Parallel Roadways \_\_\_\_\_ (Online Calculation)

**New Roadway Portion**

- Cruise speed in miles per hour with the project: \_\_\_\_\_ (Applicant inputs number)
- Vehicle miles traveled with the project: \_\_\_\_\_ (Applicant inputs number)
- Total delay in hours with the project: \_\_\_\_\_ (Applicant inputs number)
- Total stops in vehicles per hour with the project: \_\_\_\_\_ (Applicant inputs number)

*Speed = cruise speed in miles per hour*

*Total Travel = vehicle miles traveled*

*Total Delay = total delay in hours*

*Stops = total stops in vehicles per hour*

$K4 = 0.075283 - 0.0015892 * Speed + 0.000015066 * Speed^2$

$K2 = 0.7329$

$K5 = 0.0000061411 * Speed^2$

$F2 = Fuel\ consumption\ in\ gallons$

$CO = F2 * 0.0699\ kg/gallon$

$NO_x = F2 * 0.0136\ kg/gallon$

$VOC = F2 * 0.0162\ kg/gallon$

The applicant then needs to sum the reduction in emissions on parallel roadways and the new emissions generated by the new roadway to identify the net emission reduced or added by the project.

Equation Automatically Provides Emissions Reduced Online:

- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): \_\_\_\_\_ (This will be a negative number if there are excess emissions produced by the project after netting out the reduction in emissions on parallel roadways)

Total = Total Emissions Reduced on Parallel Roadway – (CO + NO<sub>x</sub> + VOC) (Online Calculation)

- EXPLANATION of methodology and assumptions used (Limit 1,400 characters; approximately 200 words):

### Roadway projects that include railroad grade-separation elements:

- For roadway projects that include a railroad crossing, the applicant needs to input four variables before and after the project to determine the change in emissions. Those variables include: speed, vehicle mile traveled, delay, and total vehicle stops. The applicant needs to conduct fieldwork during either the a.m. or p.m. peak hour to determine the existing conditions and then detail any assumptions used for conditions after the project is built. The variables will be used in the exact same equation used within the software program (i.e., Synchro) required of the other project types. Therefore, the approach to calculate the kilograms emissions reduced for railroad grade-separation projects will be comparable to intersection improvement projects.

### RESPONSE (Calculation):

- Cruise speed in miles per hour without the project: \_\_\_\_\_ (Applicant inputs number)
- Vehicle miles traveled without the project: \_\_\_\_\_ (Applicant inputs number)
- Total delay in hours without the project: \_\_\_\_\_ (Applicant inputs number)
- Total stops in vehicles per hour without the project: \_\_\_\_\_ (Applicant inputs number)
  
- Cruise speed in miles per hour with the project: \_\_\_\_\_ (Applicant inputs number)
- Vehicle miles traveled with the project: \_\_\_\_\_ (Applicant inputs number)
- Total delay in hours with the project: \_\_\_\_\_ (Applicant inputs number)
- Total stops in vehicles per hour with the project: \_\_\_\_\_ (Applicant inputs number)

*Speed = cruise speed in miles per hour*

*Total Travel = vehicle miles traveled*

*Total Delay = total delay in hours*

*Stops = total stops in vehicles per hour*

$$K1 = 0.075283 - 0.0015892 * Speed + 0.000015066 * Speed^2$$

$$K2 = 0.7329$$

$$K3 = 0.0000061411 * Speed^2$$

*F1 (or F2 – without the project) = Fuel consumption in gallons*

$$F1 = Total Travel * k1 + Total Delay * k2 + Stops * k3$$

$$F2 = Total Travel * k1 + Total Delay * k2 + Stops * k3$$

$$F3 = F1 - F2$$

$$CO = F3 * 0.0699 \text{ kg/gallon}$$

$$NO_x = F3 * 0.0136 \text{ kg/gallon}$$

$$VOC = F3 * 0.0162 \text{ kg/gallon}$$

## Roadway Expansion

Equation Automatically Provides Emissions Reduced:

- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):  
\_\_\_\_\_ (Online Calculation)
- EXPLANATION of methodology and assumptions used (Limit 1,400 characters; approximately 200 words):

### SCORING GUIDANCE (50 Points)

The applicant with the most kilograms reduced by the project improvement will receive the full points for the measure. Remaining projects will receive a proportionate share of the full. For example, if the application being scored reduced emissions by 3 kilograms and the top project reduced emissions by 5 kilograms, this applicant would receive  $(3/5) * 50$  points or 30 points.

**6. Safety (150 Points)** – This criterion addresses the project’s ability to correct deficiencies and improve the overall safety of an existing or future roadway facility. It will assess the project’s monetized safety benefits.

A. MEASURE: Respond as appropriate to one of the two project types below. (150 Points)

Calculate the reduction in the total number of crashes due to improvements on the A-Minor Arterial or Non-Freeway Principal Arterial made by the project. The applicant must base the estimate of crash reduction on the methodology consistent with the [Highway Safety Improvement Program \(HSIP\)](#). Applicants should focus on the crash analysis for reactive projects starting on page 7 through page 11, in addition to Appendix A, E, and F.

Crash data must be obtained for the project length using the MnDOT TIS system average for calendar years 2013 through 2015. Crash data should include all crash types and severity, including pedestrian and bicycle crashes.

Applicants should request crash data from MnDOT as early as possible. The applicant must then attach a listing of the crashes reduced and the HSIP Benefit/Cost (B/C) worksheet that identifies the resulting benefit associated with the project. As part of the response, please detail the crash modification factor(s) used from FHWA’s Crash Modification Factors Clearinghouse: <http://www.cmfclearinghouse.org/>.

1. For new roadways, identify the parallel roadway(s) from which traffic will be diverted to the new roadway.
2. Using the crash data for 2013-2015, calculate the existing crash rate for the parallel roadway(s) identified in Step 1.
3. Identify the daily traffic volume that will be relocated from the parallel roadway(s) to the new roadway.
4. Calculate the number of crashes on the parallel roadway(s) using the existing crash rate from Step 2 and the relocated traffic volume to determine the change in number of crashes due to the relocated traffic volume. For instance, if 5,000 vehicles are expected to relocate from the existing parallel roadway to the new roadway, calculate the number of crashes related to the 5,000 vehicles.
5. Identify the average crash rate for the new roadway using MnDOT’s average crash rates by roadway type. Using the average crash rate for the new roadway, calculate the number of crashes related to the relocated traffic (i.e., the 5,000 vehicles).
6. Calculate the crash reduction factor using the existing number of crashes on the existing parallel roadway (Step 4) compared to the estimated crashes calculated for the new roadway (Step 5), due to the relocated traffic volume (i.e., the 5,000 vehicles).
7. The calculated crash reduction factor should be used in the HSIP B/C worksheet.
8. Upload additional documentation materials into the “Other Attachments” Form in the online application.

RESPONSE (Calculation):

- Crash Modification Factors Used: \_\_\_\_\_
- Rationale for Crash Modifications Selected (Limit 1,400 characters; approximately 200 words): \_\_\_\_\_
- Project Benefit (\$) from B/C ratio: \_\_\_\_\_

**Roadway projects that include railroad grade-separation elements:**

Since the number of observed crashes at an existing at-grade railroad crossing is small compared to an intersection, this measure will assess crash risk exposure that exists in order to compare projects. As a proactive safety measure, railroad grade-separation projects eliminate the crash risk exposure.

- Crash Risk Exposure Eliminated = current average annual daily traffic volume x average number of daily trains at the at-grade crossing

RESPONSE (Calculation):

- Current AADT volume: \_\_\_\_\_
- Average daily trains: \_\_\_\_\_
- Crash Risk Exposure eliminated: \_\_\_\_\_

SCORING GUIDANCE (150 Points)

This measure will be considered separately for projects that do and do not include a railroad grade-separation project. As a result, two projects (one project without a railroad grade-separation project and one with a railroad grade-separation project) may receive the full points.

For projects that do not include a grade-separation project, the applicant with the highest dollar value of benefits will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had safety benefits of \$11,000,000 and the top project had safety benefits of \$16,000,000, this applicant would receive  $(11,000,000/16,000,000)*150$  points or 103 points.

For railroad grade-separation projects, the applicant with the highest crash risk exposure eliminated due to the project will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored reduced 11,000 exposures and the top project reduced 16,000 exposures this applicant would receive  $(11,000/16,000)*150$  points or 103 points.

**7. Multimodal Elements and Existing Connections (100 Points)** – This criterion measures how the project improves the travel experience, safety, and security for other modes of transportation and addresses the safe integration of these modes. The *Transportation Policy Plan* requires that explicit consideration of all users of the transportation system be considered in the planning and scoping phase of roadway projects.

- A. ***MEASURE:*** Discuss any bicycle, pedestrian, or transit elements that are included as part of the project and how they improve the travel experience, safety, and security for users of these modes. Applicants should make sure that new multimodal elements described in the response are accounted for as part of the cost estimate form earlier in the application.

Also, describe the existing bicycle, pedestrian, and transit connections. Furthermore, address how the proposed project safely integrates all modes of transportation (i.e., vehicles, bicyclists, transit, and pedestrians) and, if applicable, supports planned transitway stations. Applicants should note if there is no transit service in the project area and identify supporting studies or plans that address why a mode may not be incorporated in the project (e.g., a bicycle system plan that locates bikeway facilities on a lower-volume parallel route).

***RESPONSE (Limit 2, 800 characters; approximately 400 words):***

**SCORING GUIDANCE (100 Points)**

The project with the most comprehensive multimodal elements included as part of the project will receive the full points. The project score will be based on the quality of the improvements, as opposed to being based solely on the number of modes addressed.

Scorers should make sure that new multimodal elements described in the response are accounted for on the cost estimate form earlier in the application.

**8. Risk Assessment (75 Points)** – This criterion measures the number of risks associated with the project and the steps already completed in the project development process. These steps are outlined in the checklist in the required Risk Assessment.

- A. *MEASURE*: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.).

*RESPONSE (Complete Risk Assessment):*

**SCORING GUIDANCE (75 Points)**

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70)*75$  points or 43 points.

**9. Cost Effectiveness (100 Points)** – This criterion will assess the project’s cost effectiveness based on the total TAB-eligible project cost (not including noise walls) and total points awarded in the previous 8 criteria.

A. MEASURE: Calculate the cost effectiveness of the project. Metropolitan Council staff will divide the TAB-eligible project cost (not including noise walls) by the total number of points awarded in the previous criteria (1-8).

- Cost effectiveness = total TAB-eligible project cost (not including noise walls)/total number of points awarded in previous criteria (1-8)

RESPONSE (This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):

- Total Project Cost (entered in Project Cost Form): \_\_\_\_\_

**SCORING GUIDANCE (100 Points)**

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000) * 100$  points for 50 points.

**TOTAL: 1,100 POINTS**

# Roadway Reconstruction/Modernization – Prioritizing Criteria and Measures

May 18, 2016

Definition: A roadway project that does not add thru-lane capacity, but reconstructs or modernizes the facility. Routine maintenance including mill and overlay projects are not eligible. Projects must be located on a non-Freeway Principal Arterial or A-Minor Arterial functionally-classified roadway, consistent with the latest TAB approved functional classification map.

## Examples of Roadway Reconstruction/Modernization Projects:

- Intersection improvements or alternative intersections such as unsignalized or signalized reduced conflict intersections.
- Interchange reconstructions that do not involve new ramp movements or added thru lanes
- Turn lanes (not continuous)
- Four-lane to three-lane reconstructions
- Roundabouts
- Addition or replacement of traffic signals
- Shoulder improvements
- Strengthening a non-10-ton roadway
- Raised medians, frontage roads, access modifications, or other access management
- Roadway improvements that add multimodal elements
- New alignments that replace an existing alignment and do not expand the number of lanes

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>175</b>	<b>17.5%</b>
Measure A - Average distance to nearest parallel roadways	80	
Measure B - Connection to Total Jobs and Manufacturing/Distribution Jobs	30	
Measure C - Current daily heavy commercial traffic	50	
Measure D - Freight project elements	15	
<b>2. Usage</b>	<b>175</b>	<b>17.5%</b>
Measure A - Current daily person throughput	110	
Measure B - Forecast 2040 average daily traffic volume	65	
<b>3. Equity and Housing Performance</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to disadvantageded populations and project's benefits	30	
Measure B - Housing Performance Score	70	
<b>4. Infrastructure Age/Condition</b>	<b>150</b>	<b>15%</b>
Measure A - Date of construction	50	
Measure B - Geometric, structural, or infrastructure deficiencies	100	
<b>5. Congestion Reduction/Air Quality</b>	<b>75</b>	<b>7.5%</b>
Measure A - Vehicle delay reduced	45	
Measure B - Kg of emissions reduced	30	
<b>6. Safety</b>	<b>150</b>	<b>15%</b>
Measure A - Crashes reduced	150	
<b>7. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit, bicycle, or pedestrian project elements and connections	100	
<b>8. Risk Assessment</b>	<b>75</b>	<b>7.5%</b>
Measure A - Risk Assessment Form	75	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>9. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

## Roadway Reconstruction and Modernization

**1. Role in the Regional Transportation System and Economy (175 Points)** – Tying regional policy (Thrive MSP2040) to the Regional Solicitation, this criterion measures the project’s ability to serve a transportation purpose within the regional transportation system and economy based on how well it fulfills its functional classification role, serves heavy commercial traffic, and connects to employment, students, and manufacturing/distribution-related employment.

- A. ***MEASURE***: Address how the project route fulfills its role in the regional transportation system as identified by its current functional classification. Respond as appropriate to one type of functional classification. (80 Points)

**For Expander/Augmentor/Connector/Non-Freeway Principal Arterial Projects Only:**

- Reference the “Roadway Area Definition” map generated at the beginning of the application process. Report the total area and project length, as depicted on the “Roadway Area Definition” map, to calculate the average distance between the project and the closest parallel “A” Minor Arterials or Principal Arterials on both sides of the project.

Upload the “Roadway Area Definition” map used for this measure.

***RESPONSE (Calculation):***

**For Reliever Projects Only:**

For A-Minor Arterial Relievers, the measure will analyze the level of congestion on the parallel Principal Arterial to determine the importance of the Reliever. Identify the hours per day the current volume exceeds the design capacity on the Principal Arterial being relieved by the Reliever.

- If the Reliever is relieving a Principal Arterial that is a freeway facility, the applicant should obtain data from the current [MnDOT Metro Freeway Congestion Report](#).
- If the Reliever is relieving a Principal Arterial that is a non-freeway facility, the applicant should obtain intersection turning movement or hourly volume data (within the last three years) directly from the [MnDOT Metro Intersection Warrant Information website](#). If data is unavailable on the website, the applicant should collect or use their own intersection turning movement or hourly volume data (within the last three years) for the non-freeway facility. The volume used for the Principal Arterial being relieved should be located within the parallel length of the project. To calculate existing conditions, the applicant must obtain the hourly directional traffic volumes on a weekday, and the current lane configurations.

For the design capacity calculations, the applicant must use Metropolitan Council definition below:

## Roadway Reconstruction and Modernization

### Design Capacity

The assumed maximum number of vehicles per lane which pass any given point in an hour on an average day during normal operating conditions. For the purposes of responding to criteria in this solicitation packet, the following capacities shall be used:

- Expressway through lane - 800 vehicles per hour;
- Arterial through lane - 600 vehicles per hour;
- Left-turn lane - 300 vehicles per hour;
- Right-turn lane - 200 vehicles per hour;
- Dedicated bike lane or joint use trail - 60 vehicles per hour.

### RESPONSE (Calculation):

#### SCORING GUIDANCE (80 Points)

Expanders, Augmentors, Connectors, and Non-Freeway Principal Arterials: The applicant with the furthest average distance from the closest parallel A-Minor Arterials or Principal Arterials on both sides will receive the full points. The furthest average distance will be considered separately for Expanders, Augmentors, Connectors, and Non-Freeway Principal Arterials.

Relievers: The applicant with the highest number of hours per day in which current capacity exceeds the design capacity on the Principal Arterial will receive the full points. Remaining Reliever projects will receive a proportionate share of the full points, calculated as described above.

Five projects (one each for Augmentor, Connector, Expander, Reliever, and Non-Freeway Principal Arterial) may receive the full points. Remaining projects will receive a proportionate share of the full points (awarded to the top score in its functional classification). For example, if the Expander being scored had a distance of 8 miles and the top Expander project had an average distance of 10 miles, this applicant would receive  $(8/10)*80$  points or 64 points. Metropolitan Council staff will provide average distance data for all Augmentor, Expander, Connector and Non-Freeway Principal Arterial projects to ensure consistency of methodology between applications.

- B. MEASURE: Reference the "Regional Economy" map generated at the beginning of the application process. Report the existing employment and manufacturing/distribution-related employment, and post-secondary students enrolled within one mile, as depicted on the "Regional Economy" map. (30 Points)

Upload the "Regional Economy" map used for this measure.

### RESPONSE (Data from the "Regional Economy" map):

- Existing Employment within 1 Mile: \_\_\_\_\_ (Maximum of 30 points)
- Existing Manufacturing/Distribution-Related Employment within 1 Mile: \_\_\_\_\_ (Maximum of 30 points)
- Existing Students: \_\_\_\_\_ (Maximum of 18 points)

## Roadway Reconstruction and Modernization

### SCORING GUIDANCE (30 Points)

All Census block groups that are included within or intersect the buffer area around the project will be included.

The applicant with the highest existing total employment will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 1,000 workers within one mile and the top project had 1,500 workers, this applicant would receive  $(1,000/1,500)*30$  points or 20 points.

The applicant with the highest existing manufacturing/distribution-related employment will receive the full points. Remaining projects will receive a proportionate share of the full points equal to the existing manufacturing/distribution-related employment within one mile of the project being scored divided by the project with the highest manufacturing/distribution-related employment within one mile multiplied by the maximum points available for the measure (30). For example, if the application being scored had 1,000 manufacturing/distribution-related workers within one mile and the top project had 1,500 manufacturing/distribution-related workers, this applicant would receive  $(1,000/1,500)*30$  points or 20 points.

The applicant with the highest number of students will receive 18 points. Remaining projects will receive a proportionate share of the 18 points. For example, if the application being scored had 1,000 students within one mile and the top project had 1,500 students, this applicant would receive  $(1,000/1,500)*18$  points or 12 points.

The scorer will assess if the applicant would score highest with the total employment part of the measure, the manufacturing/distribution employment part of the measure, or the education part of the measure and give the applicant the highest of the three scores out of a maximum of 30 points.

Note: Due to the use of multiple sub-measures, two applicants will receive the full 30 points.

- C. MEASURE: Provide the current daily heavy commercial traffic at one location along the A-Minor Arterial or Non-Freeway Principal Arterial project length. It is required that an actual count is collected, or that available data from within the last three years is used (from the city, county or MnDOT). Heavy commercial traffic is defined as all trucks with at least two axles and six tires. (50 Points)

#### RESPONSE:

- Location: \_\_\_\_\_
- Current daily heavy commercial traffic volume: \_\_\_\_\_
- Date heavy commercial count taken: \_\_\_\_\_

## Roadway Reconstruction and Modernization

### SCORING GUIDANCE (50 Points)

The applicant with the highest daily heavy commercial traffic at a location along the project length will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a heavy commercial volume of 750 vehicles and the top project had a heavy commercial volume of 1,000 vehicles, this applicant would receive  $(750/1,000) * 50$  points, or 38 points.

- D. MEASURE: Discuss any freight elements that are included as part of the project and how they improve efficiency, security, or safety. (15 points)

Address how the proposed project safely integrates freight. Freight elements could be project elements such as upgrading a non-ten-ton roadway to a ten-ton roadway, adding paved shoulders, wider shoulders, acceleration lanes, or longer turning lanes added specifically to accommodate freight movements.

### SCORING GUIDANCE (15 Points)

The project with the most comprehensive freight elements included as part of the project will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion.

## Roadway Reconstruction and Modernization

**2. Usage (175 Points)** – This criterion quantifies the project’s potential impact by measuring the current daily person throughput and future vehicular traffic that will be served by the project. These roadway users directly benefit from the project improvements on the “A” Minor Arterial or Non-Freeway Principal Arterial.

A. MEASURE: The applicant must identify the location along the project length and provide the current AADT volume from the MnDOT 50-series maps and existing transit routes that travel on the road. Ridership data will be provided by the Metropolitan Council staff, if public transit is currently provided on the project length. Metropolitan Council staff will calculate the current daily person throughput at one location along the “A” Minor Arterial or Non-Freeway Principal Arterial project length using the current average annual daily traffic (AADT) volume and average annual ridership. (110 Points)

- Current Daily Person Throughput = (current average annual daily traffic volume x 1.30 vehicle occupancy) + average annual daily transit ridership (2015)

RESPONSE:

- Location: \_\_\_\_\_
- Current AADT volume: \_\_\_\_\_
- Existing Transit Routes on the Project: \_\_\_\_\_

SCORING GUIDANCE (110 Points)

The applicant with highest current daily person throughput will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a daily person throughput of 1,000 vehicles and the top project had a daily person throughput of 1,500 vehicles, this applicant would receive  $(1,000/1,500)*110$  points or 73 points.

B. MEASURE: Provide the forecast (2040) average daily traffic volume at the same location along the “A” Minor Arterial or Non-Freeway Principal Arterial project length, as identified in the previous measure. The applicant may choose to use a county or city travel demand model based on the Metropolitan Council model to identify the forecast (2040) average daily traffic volume or have Metropolitan Council staff determine the forecast volume using the Metropolitan Council model and project location. Respond as appropriate to the use of one type of forecast model. (65 Points)

RESPONSE:

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

OR

RESPONSE:

- Identify the approved county or city travel demand model to determine forecast (2040) ADT volume: \_\_\_\_\_
- Forecast (2040) ADT volume : \_\_\_\_\_

## Roadway Reconstruction and Modernization

### SCORING GUIDANCE (65 Points)

The applicant with the highest forecast (2040) ADT volume will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a daily forecast of 28,000 vehicles and the top project had a daily forecast of 32,000 vehicles, this applicant would receive  $(28,000/32,000)*65$  points or 57 points.

## Roadway Reconstruction and Modernization

### 3. Equity and Housing Performance (100 Points) – This criterion addresses the project’s positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community’s efforts to promote affordable housing.

- A. ***MEASURE:*** Reference the “Socio-Econ” map generated at the beginning of the application process. Identify the project’s location from the list below, as depicted on the map. Describe the project’s positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above. (30 Points)

Upload the “Socio-Econ” map used for this measure.

***RESPONSE (Select one, based on the “Socio-Econ” map):***

- Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 30 Points)
- Project located in Area of Concentrated Poverty:  (0 to 24 Points)
- Project’s census tracts are above the regional average for population in poverty or population of color:  (0 to 18 Points)
- 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:  (0 to 12 Points)

***RESPONSE (Limit 2,800 characters; approximately 400 words):***

#### **SCORING GUIDANCE (30 Points)**

Based on the “Socio-Econ” map’s output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups. Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area define above. Remaining projects will receive a share of the full points at the scorer’s discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 30 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 30 points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 10 points and the top project had 20 points, this applicant would receive  $(10/20)*30$  points or 15 points.

## Roadway Reconstruction and Modernization

- B. *MEASURE*: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project is located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project is in more than one jurisdiction, the points will be awarded based on a weighted average using the length of the project in each jurisdiction.

For stand-alone intersection, bridge, underpass, and interchange projects, a one-mile radius-buffer will be drawn around the project. If the radius-buffer enters more than one jurisdiction, the points will be awarded based on the proportionate population of the Census blocks in each jurisdiction that are all or partially located in the area within the one-mile radius-buffer.

If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

*RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):*

- City/Township: \_\_\_\_\_
- Length of Segment (Population for stand-alone projects from Regional Economy map) within City/Township: \_\_\_\_\_

### SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a Housing Performance Score of 55 and the top project had a Housing Performance Score of 90, this applicant would receive  $(55/90) * 70$  points or 43 points. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction. For stand-alone intersection, bridge, underpass, and interchange projects, a one-mile radius-buffer will be drawn around the project. If the radius-buffer enters more than one jurisdiction, the points will be awarded based on the proportionate population of the Census blocks in each jurisdiction that are all or partially located in the area within the one-mile radius-buffer.

If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale. If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

## Roadway Reconstruction and Modernization

**4. Infrastructure Age/Condition (150 Points)** – This criterion will assess the age of the roadway facility being improved. Roadway improvement investments should focus on the higher needs of an aging facility, whereas, improvements to a recently reconstructed roadway does not display an efficient use of funds.

- A. **MEASURE:** Identify the year of the roadway's original construction or most recent reconstruction. If the reconstruction date is used for the roadway, a full reconstruction must have been completed during the indicated year. Routine maintenance, such as an overlay or sealcoating project does not constitute a reconstruction and should not be used to determine the infrastructure age. (50 Points)

**RESPONSE:**

- Year of original roadway construction or most recent reconstruction: \_\_\_\_\_
- Location(s) used: \_\_\_\_\_

**SCORING GUIDANCE (50 Points)**

The applicant with the oldest roadway will receive full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored was constructed 41 years ago and the oldest project was constructed 48 years ago, this applicant would receive  $(41/48) * 50$  points or 43 points.

Note: Because of the reporting of year of construction, it is possible for multiple projects to receive the full allotment of 50 points.

- B. **MEASURE:** Select the geometric, structural, or infrastructure deficiencies listed below that will be improved as part of this project, as reflected in the project cost estimate. (100 Points)

**RESPONSE (Select all that apply. Please identify the proposed improvement):**

- Improving a non-10-ton roadway to a 10-ton roadway:  0-15 pts
  - **RESPONSE (Limit 700 characters; approximately 100 words):**
- Improved clear zones or sight lines:  0-10 pts
  - **RESPONSE (Limit 700 characters; approximately 100 words)**
- Improved roadway geometrics:  0-15 pts
  - **RESPONSE (Limit 700 characters; approximately 100 words)**
- Access management enhancements:  0-20 pts
  - **RESPONSE (Limit 700 characters; approximately 100 words)**
- Vertical/horizontal alignments improvements:  0-10 pts
  - **RESPONSE (Limit 700 characters; approximately 100 words)**
- Improved stormwater mitigation:  0-10 pts
  - **RESPONSE (Limit 700 characters; approximately 100 words)**
- Signals/lighting upgrades:  0-10 pts
  - **RESPONSE (Limit 700 characters; approximately 100 words)**
- **Other Improvements:**  0-10 pts
  - **RESPONSE (Limit 700 characters; approximately 100 words)**

## Roadway Reconstruction and Modernization

### SCORING GUIDANCE (100 Points)

Within each improvement sub-measure, the answer most responsive to the need will receive full (e.g., the top project that improves clear zones or sight lines will receive 10 points), with each remaining project receiving a share of the full points at the scorer's discretion. It is possible for more than one project to receive maximum points for a sub-measure.

The highest-scoring application for this measure will be adjusted to receive the full 100 points. Remaining projects will receive a proportionate share of the full points equal to the points for the project being scored divided by the points assigned to the highest-scoring project multiplied by the maximum points available for the measure (100). For example, if the application being scored had 25 points and the top project had 50 points, this applicant would receive  $(25/50)*100$  points or 50 points.

## Roadway Reconstruction and Modernization

**5. Congestion Reduction/Air Quality (75 Points)** – This criterion measures the project’s ability to reduce congestion. In addition, it will address its ability to improve congested intersections operating at unacceptable levels of service during peak hour conditions. The project will also be measured based on its ability to reduce emissions.

- A. ***MEASURE***: Conduct a capacity analysis at one or more of the intersections (or rail crossings) being improved by the roadway project using existing turning movement counts (collected within the last three years) in the a.m. or p.m. peak hour and the Synchro or HCM software. The applicant must show the current total peak hour delay at one or more intersections (or rail crossings) and the reduction in total peak hour intersection delay at these intersections (or rail crossings) in seconds due to the project. If more than one intersection (or rail crossing) is examined, then the delay reduced by each intersection can be added together to determine the total delay reduced by the project. (50 Points)
- For roadway projects that include a railroad crossing, the applicant should conduct fieldwork during either the a.m. or p.m. peak hour to determine the total peak hour delay reduced by the project. Applicants can also add together intersection delay reduced and railroad delay reduced, if they both will be improved by the project.

The applicant should include the appropriate Synchro or HCM full reports (including the Timing Page Report) that support the improvement in total peak hour delay and should conduct the analysis using the following:

- Under the network settings, all defaults should be used for lanes, volumes, phases and simulation
- Use Synchro’s automatic optimization to determine cycle, offset and splits (for traffic signals)
- Project improvements assumed in the build condition should be reflected in the total project cost, such as additional through or turn lanes and protective left-turn phasing
- Roadway lengths for intersection approaches must be the same length for before and after scenarios

Total Peak Hour Delay Reduced (Seconds) = Total Peak Hour Delay/Vehicle x Vehicles Per Hour

***RESPONSE (Calculation):***

- Total Peak Hour Delay/Vehicle without the Project (Seconds/Vehicle): \_\_\_\_\_
- Total Peak Hour Delay/Vehicle with the Project (Seconds/Vehicle): \_\_\_\_\_
- Total Peak Hour Delay/Vehicle Reduced by the Project (Seconds/Vehicle): \_\_\_\_\_
- Volume (Vehicles Per Hour): \_\_\_\_\_
- Total Peak Hour Delay Reduced by the Project (Seconds): \_\_\_\_\_
- ***EXPLANATION of methodology used to calculate railroad crossing delay, if applicable (Limit 1,400 characters; approximately 200 words):***

## Roadway Reconstruction and Modernization

### SCORING GUIDANCE (50 Points)

The applicant with the most peak hour vehicle delay reduced by the project improvement will receive the full points for the measure. Remaining projects will receive a proportionate share of the points. For example, if the application being scored reduced delay by 5,000 seconds and the top project reduced delay by 25,000 seconds, this applicant would receive  $(5,000/25,000)*50$  points, or 10 points.

- B. ***MEASURE:*** Using the Synchro or HCM analysis completed in the previous measure, identify the total peak hour emissions reduction in kilograms (CO, NO<sub>x</sub>, VOC) due to the project. The applicant should include the appropriate Synchro or full HCM reports (including the Timing Page Report) that support the improvement in total peak hour emissions. If more than one intersection is examined, then the emissions reduced by each intersection can be added together to determine the total emissions reduced by the project. (25 Points)

#### **Roadway projects that do not include railroad grade-separation elements:**

- Total Peak Hour Emissions Reduced (Kilograms)= Total Peak Hour Emissions Reduced/Vehicle x Vehicles Per Hour

#### ***RESPONSE (Calculation):***

- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions/Vehicle without the Project (Kilograms): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions/Vehicle with the Project (Kilograms): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced/Vehicle by the Project (Kilograms): \_\_\_\_\_
- Volume (Vehicles Per Hour): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): \_\_\_\_\_

If more than one intersection is examined, the response is a total of all emissions reduced.

#### **Roadway projects that include railroad grade-separation elements:**

- For roadway projects that include a railroad crossing, the applicant needs to input four variables before and after the project to determine the change in emissions. Those variables include: speed, vehicle mile traveled, delay, and total vehicle stops. The applicant needs to conduct fieldwork during either the a.m. or p.m. peak hour to determine the existing conditions and then detail any assumptions used for conditions after the project is built. The variables will be used in the exact same equation used within the software program (i.e., Synchro) required of the other project types. Therefore, the approach to calculate the kilograms emissions reduced for railroad grade-separation projects will be comparable to intersection improvement projects.

## Roadway Reconstruction and Modernization

### RESPONSE (Calculation):

- Cruise speed in miles per hour without the project: \_\_\_\_\_ (Applicant inputs number)
- Vehicle miles traveled without the project: \_\_\_\_\_ (Applicant inputs number)
- Total delay in hours without the project: \_\_\_\_\_ (Applicant inputs number)
- Total stops in vehicles per hour without the project: \_\_\_\_\_ (Applicant inputs number)
  
- Cruise speed in miles per hour with the project: \_\_\_\_\_ (Applicant inputs number)
- Vehicle miles traveled with the project: \_\_\_\_\_ (Applicant inputs number)
- Total delay in hours with the project: \_\_\_\_\_ (Applicant inputs number)
- Total stops in vehicles per hour with the project: \_\_\_\_\_ (Applicant inputs number)

*Speed = cruise speed in miles per hour*

*Total Travel = vehicle miles traveled*

*Total Delay = total delay in hours*

*Stops = total stops in vehicles per hour*

$$K1 = 0.075283 - 0.0015892 * Speed + 0.000015066 * Speed^2$$

$$K2 = 0.7329$$

$$K3 = 0.0000061411 * Speed^2$$

*F1 (or F2 – without the project) = Fuel consumption in gallons*

$$F1 = Total Travel * k1 + Total Delay * k2 + Stops * k3$$

$$F2 = Total Travel * k1 + Total Delay * k2 + Stops * k3$$

$$F3 = F1 - F2$$

$$CO = F3 * 0.0699 \text{ kg/gallon}$$

$$NO_x = F3 * 0.0136 \text{ kg/gallon}$$

$$VOC = F3 * 0.0162 \text{ kg/gallon}$$

Equation Automatically Provides Emissions Reduced:

- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):  
\_\_\_\_\_ (Online Calculation)
- EXPLANATION of methodology and assumptions used (Limit 1,400 characters; approximately 200 words):

## Roadway Reconstruction and Modernization

### SCORING GUIDANCE (30 Points)

The applicant with the most kilograms reduced by the project improvement will receive the full points for the measure. Remaining projects will receive a proportionate share of the full. For example, if the application being scored reduced emissions by 3 kilograms and the top project reduced emissions by 5 kilograms, this applicant would receive  $(3/5) * 30$  points or 18 points.

## Roadway Reconstruction and Modernization

**6. Safety (150 Points)** – This criterion addresses the project’s ability to correct deficiencies and improve the overall safety of a roadway facility. It will assess the project’s monetized safety benefits.

A. MEASURE: Respond as appropriate to one of the two project types below. (150 Points)

**Roadway projects that do not include railroad grade-separation elements:**

Calculate the reduction in the total number of crashes due to improvements on the A-Minor Arterial or Non-Freeway Principal Arterial made by the project. The applicant must base the estimate of crash reduction on the methodology consistent with the [Highway Safety Improvement Program \(HSIP\)](#). Applicants should focus on the crash analysis for reactive projects starting on page 7 through page 11, in addition to Appendix A, E, and F.

Crash data must be obtained for the project length using the MnDOT TIS system average for calendar years 2013 through 2015. Crash data should include all crash types and severity, including pedestrian and bicycle crashes.

Applicants should request crash data from MnDOT as early as possible. The applicant must then attach a listing of the crashes reduced and the HSIP Benefit/Cost (B/C) worksheet that identifies the resulting benefit associated with the project. As part of the response, please detail the crash modification factor(s) used from FHWA’s Crash Modification Factors Clearinghouse: <http://www.cmfclearinghouse.org/>.

RESPONSE (Calculation):

- Crash Modification Factors Used: \_\_\_\_\_
- Rationale for Crash Modifications Selected (Limit 1,400 characters; approximately 200 words): \_\_\_\_\_
- Project Benefit (\$) from B/C ratio: \_\_\_\_\_

**Roadway projects that include railroad grade-separation elements:**

Since the number of observed crashes at an existing at-grade railroad crossing is small compared to an intersection, this measure will assess crash risk exposure that exists in order to compare projects. As a proactive safety measure, railroad grade-separation projects eliminate the crash risk exposure.

- Crash Risk Exposure Eliminated = current average annual daily traffic volume x average number of daily trains at the at-grade crossing

RESPONSE (Calculation):

- Current AADT volume: \_\_\_\_\_
- Average daily trains: \_\_\_\_\_
- Crash Risk Exposure eliminated: \_\_\_\_\_

## Roadway Reconstruction and Modernization

### SCORING GUIDANCE (150 Points)

This measure will be considered separately for projects that do and do not include a railroad grade-separation project. As a result, two projects (one project without a railroad grade-separation project and one with a railroad grade-separation project) may receive the full points.

For projects that do not include a grade-separation project, the applicant with the highest dollar value of benefits will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had safety benefits of \$11,000,000 and the top project had safety benefits of \$16,000,000, this applicant would receive  $(11,000,000/16,000,000)*150$  points or 103 points.

For railroad grade-separation projects, the applicant with the highest crash risk exposure eliminated due to the project will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored reduced 11,000 exposures and the top project reduced 16,000, this applicant would receive  $(11,000 /16,000)*150$  points or 103 points.

## Roadway Reconstruction and Modernization

**7. Multimodal Elements and Existing Connections (100 Points)** - This criterion measures how the project improves the travel experience, safety, and security for other modes of transportation and addresses the safe integration of these modes. The *Transportation Policy Plan* requires that explicit consideration of all users of the transportation system be considered in the planning and scoping phase of roadway projects.

- A. ***MEASURE:*** Discuss any bicycle, pedestrian, or transit elements that are included as part of the project and how they improve the travel experience, safety, and security for users of these modes. Applicants should make sure that new multimodal elements described in the response are accounted for as part of the cost estimate form earlier in the application. (100 points)

Also, describe the existing bicycle, pedestrian, and transit connections. Furthermore, address how the proposed project safely integrates all modes of transportation (i.e., vehicles, bicyclists, transit, and pedestrians) and, if applicable, supports planned transitway stations. Applicants should note if there is no transit service in the project area and identify supporting studies or plans that address why a mode may not be incorporated in the project (e.g., a bicycle system plan that locates bikeway facilities on a lower-volume parallel route).

***RESPONSE (Limit 2,800 characters; approximately 400 words):***

### **SCORING GUIDANCE (100 Points)**

The project with the most comprehensive multimodal elements included as part of the project will receive the full points. The project score will be based on the quality of the improvements, as opposed to being based solely on the number of modes addressed.

Scorers should make sure that new multimodal elements described in the response are accounted for on the cost estimate form earlier in the application.

## Roadway Reconstruction and Modernization

**8. Risk Assessment (75 Points)** – This criterion measures the number of risks associated with the project and the steps already completed in the project development process. These steps are outlined in the checklist in the required Risk Assessment.

- A. *MEASURE*: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.).

*RESPONSE (Complete Risk Assessment):*

### SCORING GUIDANCE (75 Points)

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70)*75$  points or 43 points.

## Roadway Reconstruction and Modernization

**9. Cost Effectiveness (100 Points)** – This criterion will assess the project’s cost effectiveness based on the total TAB-eligible project cost (not including noise walls) and total points awarded in the previous 8 criteria.

A. MEASURE: *This measure will calculate the cost effectiveness of the project. Metropolitan Council staff will divide the TAB-eligible project cost (not including noise walls) by the total number of points awarded in the previous criteria (1-8).*

- Cost- effectiveness = total TAB-eligible project cost (not including noise walls)/total number of points awarded in previous criteria (1-8)

RESPONSE *(This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):*

- Total Project Cost (entered in Project Cost Form): \_\_\_\_\_

### SCORING GUIDANCE (100 Points)

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000) * 100$  points for 50 points.

**TOTAL: 1,100 POINTS**

# Roadway System Management – Prioritizing Criteria and Measures

May 18, 2016

Definition: An Intelligent Transportation System (ITS) or similar projects that primarily benefit roadway users. Roadway System Management projects can include project elements along a continuous route (could be more than one roadway) or defined geographic area such as a downtown area. The system management project must make improvements to at least one A-Minor Arterial or non-Freeway Principal Arterial as part of the project. Projects that are more transit-focused must apply in the Transit System Modernization application category.

## Examples of Roadway System Management Projects:

- Traffic signal retiming projects
- Integrated corridor signal coordination
- Traffic signal control system upgrades
- New/replacement traffic mgmt. centers
- New/replacement fiber optic cables used for traffic control, etc.
- New/replacement CCTV cameras
- New/replacement variable message signs & other info improvements
- New/replacement detectors
- Incident management coordination

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>125</b>	<b>12.5%</b>
Measure A - Average distance to nearest parallel roadways	55	
Measure B - Connection to Total Jobs and Manufacturing/Distribution Jobs	30	
Measure C - Current daily heavy commercial traffic	30	
Measure D - Freight project elements	10	
<b>2. Usage</b>	<b>125</b>	<b>12.5%</b>
Measure A - Current daily person throughput	85	
Measure B - Forecast 2040 average daily traffic volume	40	
<b>3. Equity and Housing Performance</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to disadvantageded populations and project's benefits	30	
Measure B - Housing Performance Score	70	
<b>4. Infrastructure Age</b>	<b>75</b>	<b>7.5%</b>
Measure A - Date of construction	75	
<b>5. Congestion Reduction/Air Quality</b>	<b>200</b>	<b>20%</b>
Measure A - Vehicle delay reduced	150	
Measure B - Kg of emissions reduced	50	
<b>6. Safety</b>	<b>200</b>	<b>20%</b>
Measure A - Crashes reduced	200	
<b>7. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit, bicycle, or pedestrian project elements and connections	100	
<b>8. Risk Assessment</b>	<b>75</b>	<b>7.5%</b>
Measure A- Risk Assessment Form	75	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>9. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

**1. Role in the Regional Transportation System and Economy (125 Points)** – Tying regional policy (Thrive MSP2040) to the Regional Solicitation, this criterion measures the project’s ability to serve a transportation purpose within the regional transportation system and economy based on how well it fulfills its functional classification role, serves heavy commercial traffic, and connects to employment, students, and manufacturing/distribution-related employment.

- A. **MEASURE:** Address how the project route fulfills its role in the regional transportation system. The project must be located on at least one Non-Freeway Principal Arterial or “A” Minor Arterial. (55Points)
- Reference the “Roadway Area Definition” map generated at the beginning of the application process. Report the total area and project length, as depicted on the “Roadway Area Definition” map, to calculate the average distance between the project and the closest parallel “A” Minor Arterials or Principal Arterials on both sides of the project.

Upload the “Roadway Area Definition” map used for this measure.

**RESPONSE (Calculation):**

**SCORING GUIDANCE (55 Points)**

The applicant with the furthest average distance from the closest parallel A-Minor Arterials or Principal Arterials on both sides will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the project being scored had a distance of 8 miles and the top project was had an average distance of 10 miles, this applicant would receive  $(8/10)*55$  points or 44 points. Metropolitan Council staff will provide average distance data for all projects to ensure consistency of methodology between applications.

**B. MEASURE:** Reference the “Regional Economy” map generated at the beginning of the application process. Report the employment and manufacturing/distribution-related employment, and post-secondary students enrolled within one mile, as depicted on the “Regional Economy” map. (30 Points)

Upload the “Regional Economy” map used for this measure.

**RESPONSE (Data from the “Regional Economy” map):**

- Existing Employment within 1 Mile: \_\_\_\_\_ (Maximum of 30 points)
- Existing Manufacturing/Distribution-Related Employment within 1 Mile: \_\_\_\_\_ (Maximum of 30 points)
- Existing Students: \_\_\_\_\_ (Maximum of 18 points)

**SCORING GUIDANCE (30 Points)**

All Census block groups that are included within or intersect the buffer area around the project will be included.

The applicant with the highest existing total employment will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 1,000 workers within one mile and the top project had 1,500 workers, this applicant would receive  $(1,000/1,500)*30$  points or 20 points.

The applicant with the highest existing manufacturing/distribution-related employment will receive the full points. Remaining projects will receive a proportionate share of the full points equal to the existing manufacturing/distribution-related employment within one mile of the project being scored divided by the project with the highest manufacturing/distribution-related employment within one mile multiplied by the maximum points available for the measure. For example, if the application being scored had 1,000 manufacturing/distribution-related workers within one mile and the top project had 1,500 manufacturing/distribution-related workers, this applicant would receive  $(1,000/1,500)*30$  points or 20 points.

The applicant with the highest number of students will receive 18 points. Remaining projects will receive a proportionate share of the 18 points. For example, if the application being scored had 1,000 students within one mile and the top project had 1,500 students, this applicant would receive  $(1,000/1,500)*18$  points or 12 points.

The scorer will assess if the applicant would score highest with the total employment part of the measure, the manufacturing/distribution employment part of the measure, or the education part of the measure and give the applicant the highest of the three scores out of a maximum of 30 points.

Note: Due to the use of multiple sub-measures, two applicants will receive the full 30 points.

*C. MEASURE:* Provide the current daily heavy commercial traffic at one location along the A- Minor Arterial or Non-Freeway Principal Arterial project length. It is required that an actual count is collected or available data from within the last three years is used (from the city, county or MnDOT). Heavy commercial traffic is defined as all trucks with at least two axles and six tires. (30 Points)

**RESPONSE:**

- Location: \_\_\_\_\_
- Current daily heavy commercial traffic volume: \_\_\_\_\_
- Date(s) heavy commercial count taken: \_\_\_\_\_

**SCORING GUIDANCE (30 Points)**

The applicant with the highest daily heavy commercial traffic at a location along the project length will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a heavy commercial volume of 750 vehicles and the top project had a heavy commercial volume of 1,000 vehicles, this applicant would receive  $(750/1,000)*30$  points, or 23 points.

## Roadway System Management

D. MEASURE: Discuss any freight elements that are included as part of the project and how they improve efficiency, security, or safety. (10 points)

Address how the proposed project safely integrates freight. Freight elements could be project elements such as upgrading a non-ten-ton roadway to a ten-ton roadway, adding paved shoulders, wider shoulders, acceleration lanes, or longer turning lanes added specifically to accommodate freight movements.

SCORING GUIDANCE (10 Points)

The project with the most comprehensive freight elements included as part of the project will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion.

## Roadway System Management

**2. Usage (125 Points)** – This criterion quantifies the project’s potential impact by measuring the current daily person throughput and future vehicular traffic that will be served by the project. These roadway users directly benefit from the project improvements.

A. **MEASURE:** Metropolitan Council staff will calculate the current daily person throughput at one location along the “A” Minor Arterial or Non-Freeway Principal Arterial project length using the current average annual daily traffic (AADT) volume and average annual ridership. The applicant must identify the location along the project length and provide the current AADT volume from the MnDOT 50-series maps and existing transit routes that travel on the road. Ridership data will be provided by the Metropolitan Council staff, if public transit is currently provided on the project length. (85 Points)

- Current Daily Person Throughput = (current average annual daily traffic volume x 1.30 vehicle occupancy) + average annual daily transit ridership (2015)

**RESPONSE:**

- Location: \_\_\_\_\_
- Current AADT volume: \_\_\_\_\_
- Existing Transit Routes on the Project: \_\_\_\_\_

**SCORING GUIDANCE (85 Points)**

The project with highest current daily person throughput will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a daily person throughput of 1,000 vehicles and the top project had a daily person throughput of 1,500 vehicles, this applicant would receive  $(1,000/1,500)*85$  points or 57 points.

B. **MEASURE:** Provide the forecast (2040) average daily traffic volume at the same location along the A-Minor Arterial or Non-Freeway Principal Arterial project length, as identified in the previous measure. The applicant may choose to use a county or city travel demand model based on the Metropolitan Council model to identify the forecast (2040) average daily traffic volume or have Metropolitan Council staff determine the forecast volume using the Metropolitan Council model and project location. Respond as appropriate to the use of one type of forecast model. (40 Points)

**RESPONSE:**

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

OR

**RESPONSE:**

- Approved county or city travel demand model to determine forecast (2040) ADT volume
- Forecast (2040) ADT volume : \_\_\_\_\_

**SCORING GUIDANCE (40 Points)**

The applicant with the highest forecast (2040) ADT volume will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a daily forecast of 28,000 vehicles and the top project had a daily forecast of 32,000 vehicles, this applicant would receive  $(28,000/32,000)*40$  points or 35 points.

**3. Equity and Housing Performance (100 Points)** – This criterion addresses the project’s positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community’s efforts to promote affordable housing.

- A. ***MEASURE:*** Reference the “Socio-Econ” map generated at the beginning of the application process. Identify the project’s location from the list below, as depicted on the map. Describe the project’s positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above. (30 Points)

Upload the “Socio-Econ” map used for this measure.

***RESPONSE (Select one, based on the “Socio-Econ” map):***

- Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 30 Points)
- Project located in Area of Concentrated Poverty:  (0 to 24 Points)
- Project’s census tracts are above the regional average for population in poverty or population of color:  (0 to 18 Points)
- 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:  (0 to 12 Points)

***RESPONSE (Limit 2,800 characters; approximately 400 words):***

**SCORING GUIDANCE (30 Points)**

Based on the “Socio-Econ” map’s output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups. Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area defined above. Remaining projects will receive a share of the full points at the scorer’s discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 30 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 30 points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 10 points and the top project had 20 points, this applicant would receive  $(10/20)*30$  points or 15 points.

## Roadway System Management

- B. *MEASURE*: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project is located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project is in more than one jurisdiction, the points will be awarded based on a weighted average using the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

*RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):*

- City/Township: \_\_\_\_\_
- Length of Segment within City/Township:

**SCORING GUIDANCE (70 Points)**

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a Housing Performance Score of 55 and the top project had a Housing Performance Score of 90, this applicant would receive  $(55/90) \times 70$  points or 43 points. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale.

If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

**4. Infrastructure Age (75 Points)** – This criterion will assess the age of the infrastructure elements being improved. Roadway system management investments should focus on improving and replacing existing equipment that is beyond its useful life.

- A. MEASURE: Identify the type(s) and age(s) of ITS, signal/control, and/or communication equipment that will be improved or replaced as part of this project, as reflected in the project cost estimate.

RESPONSE:

- Equipment to be improved: \_\_\_\_\_
- Date of equipment installation (year) : \_\_\_\_\_

SCORING GUIDANCE (75 Points)

All applicants replacing equipment past the total useful life, as listed below, will receive full points. Projects replacing more than one type or age of equipment should be scored based on the average remaining useful life. Remaining projects will receive a proportionate share of the full points equal to the total useful life minus the remaining useful life for the project being scored divided by the total useful life.

If there are no projects at or past the useful life of the equipment, the applicant with shortest remaining useful life will receive full points, and remaining projects will receive a proportionate share. For example, if the oldest project was installed 18 years ago (traffic signal) and the application being scored was installed 14 years ago, this applicant would receive  $(14/18) * 75$  points, or 58 points.

Equipment Useful Life Values

- ITS Equipment: 10 years
- Traffic Signals/Control Equipment: 20 years
- Communication Equipment: 10 years

**5. Congestion Reduction/Air Quality (200 Points)** – This criterion measures the project’s ability to reduce congestion. In addition, it will address its ability to improve congested intersections operating at unacceptable levels of service during peak hour conditions. The project will also be measured based on its ability to reduce emissions.

- A. ***MEASURE:*** Conduct a capacity analysis at one or more of the intersections being improved by the roadway project using existing turning movement counts (collected within the last three years) in the a.m. or p.m. peak hour and the Synchro or HCM software. The applicant must show the current total peak hour delay at one or more intersections and the reduction in total peak hour intersection delay at these intersections, in seconds, due to the project. If more than one intersection is examined, then the delay reduced by each intersection can be added together to determine the total delay reduced by the project. (150 Points)
- For roadway projects that include a railroad crossing, the applicant should conduct fieldwork during either the a.m. or p.m. peak hour to determine the total peak hour delay reduced by the project. Applicants can also add together intersection delay reduced and railroad delay reduced, if they both will be improved by the project.

The applicant should include the appropriate Synchro or HCM full reports (including the Timing Page Report) that support the improvement in total peak hour delay and should conduct the analysis using the following:

- Under the network settings, all defaults should be used for lanes, volumes, phases and simulation
- Use Synchro’s automatic optimization to determine cycle, offset and splits (for traffic signals)
- Project improvements assumed in the build condition should be reflected in the total project cost, such as additional through or turn lanes and protective left-turn phasing
- Roadway lengths for intersection approaches must be the same length for before and after scenarios

Total Peak Hour Delay Reduced (Seconds) = Total Peak Hour Delay/Vehicle x Vehicles Per Hour

***RESPONSE (Calculation):***

- Total Peak Hour Delay/Vehicle without the Project (Seconds/Vehicle): \_\_\_\_\_
- Total Peak Hour Delay/Vehicle with the Project (Seconds/Vehicle): \_\_\_\_\_
- Total Peak Hour Delay/Vehicle Reduced by the Project (Seconds/Vehicle): \_\_\_\_\_
- Volume (Vehicles Per Hour): \_\_\_\_\_
- Total Peak Hour Delay Reduced by the Project (Seconds): \_\_\_\_\_

**SCORING GUIDANCE (150 Points)**

The applicant with the most peak hour vehicle delay reduced by the project improvement will receive the full points for the measure. Remaining projects will receive a proportionate share of the points. For example, if the application being scored reduced delay by 5,000 seconds and the top project reduced delay by 25,000 seconds, this applicant would receive  $(5,000/25,000) * 150$  points, or 30 points.

B. MEASURE: Using the Synchro or HCM analysis completed in the previous measure, identify the total peak hour emissions reduction in kilograms (CO, NO<sub>x</sub>, VOC) due to the project. The applicant should include the appropriate Synchro or full HCM reports (including the Timing Page Report) that support the improvement in total peak hour emissions. If more than one intersection is examined, then the emissions reduced by each intersection can be added together to determine the total emissions reduced by the project. (50 Points)

- Total Peak Hour Emissions Reduced (Kilograms)= Total Peak Hour Emissions Reduced/Vehicle x Vehicles Per Hour

RESPONSE (Calculation):

- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions/Vehicle without the Project (Kilograms): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions/Vehicle with the Project (Kilograms): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced/Vehicle by the Project (Kilograms): \_\_\_\_\_
- Volume (Vehicles Per Hour): \_\_\_\_\_
- Total (CO, NO<sub>x</sub>, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):  
\_\_\_\_\_

**SCORING GUIDANCE (50 Points)**  
 The applicant with the most kilograms reduced by the project improvement will receive the full points for the measure. Remaining projects will receive a proportionate share of the full. For example, if the application being scored reduced emissions by 3 kilograms and the top project reduced emissions by 5 kilograms, this applicant would receive (3/5)\*50 points or 30 points.

**6. Safety (200 Points)** – This criterion addresses the project’s ability to correct deficiencies and improve the overall safety of an existing or future roadway facility. It will assess the project’s monetized safety benefits.

- A. MEASURE: Calculate the reduction in the total number of crashes due to improvements on the “A” Minor Arterial or Non-Freeway Principal Arterial made by the project. The applicant must base the estimate of crash reduction on the methodology consistent with the [Highway Safety Improvement Program \(HSIP\)](#). Applicants should focus on the crash analysis for reactive projects starting on page 7 through page 11, in addition to Appendix A, E, and F.

Crash data must be obtained for the project length using the MnDOT TIS system average for calendar years 2013 through 2015. Crash data should include all crash types and severity, including pedestrian and bicycle crashes.

Applicants should request crash data from MnDOT as early as possible. The applicant must then attach a listing of the crashes reduced and the HSIP Benefit/Cost (B/C) worksheet that identifies the resulting benefit associated with the project. As part of the response, please detail the crash modification factor(s) used from FHWA’s Crash Modification Factors Clearinghouse: <http://www.cmfclearinghouse.org/>.

RESPONSE (Calculation):

- Crash Modification Factors Used: \_\_\_\_\_
- Rationale for Crash Modifications Selected (Limit 1,400 characters; approximately 200 words): \_\_\_\_\_
- Project Benefit (\$) from B/C ratio : \_\_\_\_\_

SCORING GUIDANCE (200 Points)

The applicant with the highest dollar value of benefits will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had safety benefits of \$11,000,000 and the top project had safety benefits of \$16,000,000, this applicant would receive  $(11,000,000/16,000,000)*200$  points or 138 points.

**7. Multimodal Elements and Existing Connections (100 Points)** – This criterion measures how the project improves the travel experience, safety, and security for other modes of transportation, and addresses the safe integration of these modes. The *Transportation Policy Plan* requires that explicit consideration of all users of the transportation system be considered in the planning and scoping phase of roadway projects.

- A. ***MEASURE:*** Discuss any bicycle, pedestrian, or transit elements that are included as part of the project and how they improve the travel experience, safety, and security for users of these modes. Applicants should make sure that new multimodal elements described in the response are accounted for as part of the cost estimate form earlier in the application. (100 points)

Also, describe the existing bicycle, pedestrian, and transit connections. Furthermore, address how the proposed project safely integrates all modes of transportation (i.e., vehicles, bicyclists, transit, and pedestrians) and, if applicable, supports planned transitway stations. Applicants should note if there is no transit service in the project area and identify supporting studies or plans that address why a mode may not be incorporated in the project (e.g., a bicycle system plan that locates bikeway facilities on a lower-volume parallel route).

***RESPONSE (Limit 2, 800 characters; approximately 400 words) :***

**SCORING GUIDANCE (100 Points)**

The project with the most comprehensive multimodal elements included as part of the project will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion. The project score will be based on the quality of the improvements, as opposed to being based solely on the number of modes addressed.

Scorers should make sure that new multimodal elements described in the response are accounted for on the cost estimate form earlier in the application.

## Roadway System Management

**8. Risk Assessment (75 Points)** – This criterion measures the number of risks associated with the project and the steps already completed in the project development process. These steps are outlined in the checklist in the required Risk Assessment.

- A. *MEASURE*: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.).

*RESPONSE (Complete Risk Assessment):*

### SCORING GUIDANCE (75 Points)

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70) * 75$  points or 43 points.

**9. Cost Effectiveness (100 Points)** – This criterion will assess the project’s cost effectiveness based on the total TAB-eligible project cost (not including noise walls) and total points awarded in the previous 8 criteria.

A. MEASURE: Calculate the cost effectiveness of the project. Metropolitan Council staff will divide the TAB-eligible project cost (not including noise walls) by the total number of points awarded in the previous criteria (1-8).

- Cost effectiveness = total TAB-eligible project cost (not including noise walls)/total number of points awarded in previous criteria (1-8)

RESPONSE (This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):

- Total Project Cost (entered in Project Cost Form): \_\_\_\_\_

**SCORING GUIDANCE (100 Points)**

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000) * 100$  points for 50 points.

**TOTAL: 1,100 POINTS**

# Bridges – Prioritizing Criteria and Measures

May 18, 2016

**Definition:** A bridge rehabilitation or replacement project located on a non-Freeway Principal Arterial or A-Minor Arterial functionally-classified roadway, consistent with the latest TAB-approved functional classification map. Bridge structures that have a separate span for each direction of travel can apply for both spans as part of one application.

The bridge must carry vehicular traffic, but may also include accommodations for other modes. Bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are not eligible for funding. Completely new bridges, interchanges, or overpasses should apply in the Roadway Expansion application category.

## Examples of Bridge Rehabilitation/Replacement Projects:

- Bridge rehabilitation of 20 or more feet with a sufficiency rating less than 80 and classified as structurally deficient or functionally obsolete.
- Bridge replacement of 20 or more feet with a sufficiency rating less than 50 and classified as structurally deficient or functionally obsolete.

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>195</b>	<b>19.5%</b>
Measure A - Average distance to nearest parallel bridges	115	
Measure B - Connection to Total Jobs and Manufacturing/Distribution Jobs	30	
Measure C - Current daily heavy commercial traffic	35	
Measure D - Freight project elements	15	
<b>2. Usage</b>	<b>130</b>	<b>13%</b>
Measure A - Current daily person throughput	100	
Measure B - Forecast 2040 average daily traffic volume	30	
<b>3. Equity and Housing Performance</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to disadvantageded populations and project's benefits, impacts, and mitigation	30	
Measure B - Housing Performance Score	70	
<b>4. Infrastructure Condition</b>	<b>400</b>	<b>40%</b>
Measure A – Bridge Sufficiency Rating	300	
Measure B – Load-Posting	100	
<b>5. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit, bicycle, or pedestrian project elements and connections	100	
<b>6. Risk Assessment</b>	<b>75</b>	<b>7.5%</b>
Measure A - Risk Assessment Form	75	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

## Bridge Rehabilitation/Replacement

**1. Role in the Regional Transportation System and Economy (195 Points)** – Tying regional policy (Thrive MSP2040) to the Regional Solicitation, this criterion measures the project’s ability to serve a transportation purpose within the regional transportation system and economy based on how well it fulfills its functional classification role, serves heavy commercial traffic, and connects to employment, students, and manufacturing/distribution-related employment.

- A. ***MEASURE***: Address how the project route fulfills its role in the regional transportation system. The project must be located on a Non-Freeway Principal Arterial or an A-Minor Arterial. (115 Points)
- Reference the “Roadway Area Definition” map generated at the beginning of the application process. Report the total area and project length, as depicted on the “Roadway Area Definition” map, to calculate the average distance between the project and the closest parallel “A” Minor Arterials or Principal Arterials on both sides of the project.

Upload the “Roadway Area Definition” map used for this measure.

### **SCORING GUIDANCE (115 Points)**

The applicant with the furthest average distance from the closest parallel A-Minor Arterial or Principal Arterial bridge on both sides will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the project being scored had a distance of 8 miles and the top project was had an average distance of 10 miles, this applicant would receive  $(8/10)*115$  points or 92 points. Metropolitan Council staff will provide average distance data for all projects to ensure consistency of methodology between applications.

- B. ***MEASURE***: Reference the “Regional Economy” map generated at the beginning of the application process. Report the existing population, employment and manufacturing/distribution-related employment, and post-secondary students enrolled within one mile, as depicted on the “Regional Economy” map. (30 Points)

Upload the “Regional Economy” map used for this measure.

### ***RESPONSE (Data from the “Regional Economy” map):***

- Existing Employment within 1 Mile: \_\_\_\_\_ (Maximum of 30 points)
- Existing Manufacturing/Distribution-Related Employment within 1 Mile: \_\_\_\_\_ (Maximum of 30 points)
- Existing Students: \_\_\_\_\_ (Maximum of 18 points)

SCORING GUIDANCE (30 Points)

All Census block groups that are included within or intersect the buffer area around the project will be included.

The applicant with the highest existing total employment will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 1,000 workers within one mile and the top project had 1,500 workers, this applicant would receive  $(1,000/1,500)*30$  points or 20 points.

The applicant with the highest existing manufacturing/distribution-related employment will receive the full points. Remaining projects will receive a proportionate share of the full points equal to the existing manufacturing/distribution-related employment within one mile of the project being scored divided by the project with the highest manufacturing/distribution-related employment within one mile multiplied by the maximum points available for the measure (20). For example, if the application being scored had 1,000 manufacturing/distribution-related workers within one mile and the top project had 1,500 manufacturing/distribution-related workers, this applicant would receive  $(1,000/1,500)*30$  points or 20 points.

The applicant with the highest number of students will receive 18 points. Remaining projects will receive a proportionate share of the 18 points. For example, if the application being scored had 1,000 students within one mile and the top project had 1,500 students, this applicant would receive  $(1,000/1,500)*18$  points or 12 points.

The scorer will assess if the applicant would score highest with the total employment part of the measure, the manufacturing/distribution employment part of the measure, or the education part of the measure and give the applicant the highest of the three scores out of a maximum of 30 points.

Note: Due to the use of multiple sub-measures, two applicants will receive the full 30 points.

- C. MEASURE: Provide the current daily heavy commercial traffic at one location on the A-Minor Arterial or Non-Freeway Principal Arterial project length. It is required that an actual daily count is collected or available data from within the last three years is used (from the city, county or MnDOT). Heavy commercial traffic is defined as all trucks with at least two axles and six tires. (35 Points)

RESPONSE:

- Location: \_\_\_\_\_
- Current daily heavy commercial traffic volume: \_\_\_\_\_
- Date heavy commercial count taken: \_\_\_\_\_

SCORING GUIDANCE (35 Points)

The applicant with the highest daily heavy commercial traffic at a location along the bridge will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a heavy commercial volume of 750 vehicles and the top project had a heavy commercial volume of 1,000 vehicles, this applicant would receive  $(750/1,000)*35$  points, or 26 points.

- D. MEASURE: Discuss any freight elements that are included as part of the project and how they improve efficiency, security, or safety. (15 points)

Address how the proposed project safely integrates freight. Freight elements could be project elements such as upgrading a non-ten-ton roadway to a ten-ton roadway, adding paved shoulders, wider shoulders, acceleration lanes, or longer turning lanes added specifically to accommodate freight movements.

**SCORING GUIDANCE (15 Points)**

The project with the most comprehensive freight elements included as part of the project will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion.

**2. Usage (130 Points)** – This criterion quantifies the project’s potential impact by measuring the current daily person throughput and future vehicular traffic that will be served by the project. These roadway users directly benefit from the project improvements on the “A” Minor Arterial or Non-Freeway Principal Arterial.

A. **MEASURE:** Metropolitan Council staff will calculate the current daily person throughput at one location on the “A” Minor Arterial or Non-Freeway Principal Arterial bridge using the current average annual daily traffic (AADT) volume and average annual ridership. The applicant must identify the location along the project length and provide the current AADT volume from the MnDOT 50-series maps and existing transit routes that travel on the road. Ridership data will be provided by the Metropolitan Council staff, if public transit is currently provided on the project length. (100 Points)

- Current Daily Person Throughput = (current average annual daily traffic volume x 1.30 vehicle occupancy) + average annual daily transit ridership (2015)

**RESPONSE:**

- Location: \_\_\_\_\_
- Current AADT volume: \_\_\_\_\_
- Existing Transit Routes on the Project: \_\_\_\_\_

**SCORING GUIDANCE (100Points)**

The applicant with highest current daily person throughput will receive the full points for the measure. Remaining projects will receive a proportionate share of the full. For example, if the application being scored had a daily person throughput of 1,000 vehicles and the top project had a daily person throughput of 1,500 vehicles, this applicant would receive  $(1,000/1,500)*100$  points or 67 points.

B. **MEASURE:** Provide the forecast (2040) average daily traffic volume at the same location on the “A” Minor Arterial or Non-Freeway Principal Arterial bridge, as identified in the previous measure. The applicant may choose to use a county or city travel demand model based on the Metropolitan Council model to identify the forecast (2040) average daily traffic volume or have Metropolitan Council staff determine the forecast volume using the Metropolitan Council model and project location. Respond as appropriate to the use of one type of forecast model. (30 Points)

**RESPONSE:**

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

OR

**RESPONSE:**

- Approved county or city travel demand model to determine forecast (2040) ADT volume
- Forecast (2040) ADT volume : \_\_\_\_\_

**SCORING GUIDANCE (30 Points)**

The applicant with the highest forecast (2040) ADT volume will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a daily forecast of 28,000 vehicles and the top project had a daily forecast of 32,000 vehicles, this applicant would receive  $(28,000/32,000)*30$  points or 26 points.

**3. Equity and Housing Performance (100 Points)** – This criterion addresses the project’s positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community’s efforts to promote affordable housing.

- A. ***MEASURE:*** Reference the “Socio-Econ” map generated at the beginning of the application process. Identify the project’s location from the list below, as depicted on the map. Describe the project’s positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above. (30 Points)

Upload the “Socio-Econ” map used for this measure.

***RESPONSE (Select one, based on the “Socio-Econ” map):***

- Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 30 Points)
- Project located in Area of Concentrated Poverty:  (0 to 24 Points)
- Project’s census tracts are above the regional average for population in poverty or population of color:  (0 to 18 Points)
- 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:  (0 to 12 Points)

***RESPONSE (Limit 2,800 characters; approximately 400 words):***

**SCORING GUIDANCE (30 Points)**

Based on the “Socio-Econ” map’s output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups. Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area defined above. Remaining projects will receive a share of the full points at the scorer’s discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 30 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 30 points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 10 points and the top project had 20 points, this applicant would receive  $(10/20)*30$  points or 15 points.

- B. MEASURE: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project is located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. A one-mile radius-buffer will be drawn around the project. If the radius-buffer enters more than one jurisdiction, the points will be awarded based on the proportionate population of the Census blocks in each jurisdiction that are all or partially located in the area within the one-mile radius-buffer. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):

- City/Township: \_\_\_\_\_
- Population from the Regional Economy map within City/Township:

SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had a Housing Performance Score of 55 and the top project had a Housing Performance Score of 90, this applicant would receive  $(55/90) \times 70$  points or 43 points. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. A one-mile radius-buffer will be drawn around the project. If the radius-buffer enters more than one jurisdiction, the points will be awarded based on the proportionate population of the Census blocks in each jurisdiction that are all or partially located in the area within the one-mile radius-buffer. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale.

If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

**4. Infrastructure Condition (400 Points)** – This criterion will assess the age and condition of the bridge facility being improved. Bridge improvement investments should focus on the higher needs of unsafe facilities. If there are two separate spans, then the applicant should take the average bridge sufficiency rating of the two spans.

- A. MEASURE: Identify the bridge sufficiency rating, from the most recent market structure inventory report. (300 Points)

RESPONSE:

- Bridge Sufficiency Rating: \_\_\_\_ (0 to 100)

**SCORING GUIDANCE (300 Points)**

The applicant with the lowest bridge sufficiency rating will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points equal to the rating for the project with the lowest bridge sufficiency rating divided by the project being scored multiplied by the maximum points available for the measure (300). For example, if the top project had a bridge sufficiency rating of 35 and the application being scored had a score of 55, this applicant would receive  $(35/55) \times 300$  points or 191 points.

- B. MEASURE: Identify whether the bridge is posted for load restrictions. (100 Points)

RESPONSE (Check box if the bridge is load-posted):

- Load-Posted:  (100 points)

**SCORING GUIDANCE (100 Points)**

Applicants will receive the points shown depending on whether the bridge is load-posted. The applicant can only score 0 or 100 points for this measure.

**5. Multimodal Elements and Connections (100 Points)** – This criterion measures how the project improves the travel experience, safety, and security for other modes of transportation and addresses the safe integration of these modes. The *Transportation Policy Plan* requires that explicit consideration of all users of the transportation system be considered in the planning and scoping phase of roadway projects.

- A. ***MEASURE***: Discuss any bicycle, pedestrian, or transit elements that are included as part of the project and how they improve the travel experience, safety, and security for users of these modes. Applicants should make sure that new multimodal elements described in the response are accounted for as part of the cost estimate form earlier in the application. (100 points)

Also, describe the existing bicycle, pedestrian, and transit connections. Furthermore, address how the proposed project safely integrates all modes of transportation (i.e., vehicles, bicyclists, transit, and pedestrians) and, if applicable, supports planned transitway stations. Applicants should note if there is no transit service in the project area and identify supporting studies or plans that address why a mode may not be incorporated in the project (e.g., a bicycle system plan that locates bikeway facilities on a lower-volume parallel route).

***RESPONSE (Limit 2,800 characters; approximately 400 words):***

**SCORING GUIDANCE (100 Points)**

The project with the most comprehensive multimodal elements included as part of the project will receive the full points. The project score will be based on the quality of the improvements, as opposed to being based solely on the number of modes addressed.

Scorers should make sure that new multimodal elements described in the response are accounted for on the cost estimate form earlier in the application.

**6. Risk Assessment (75 Points)** – This criterion measures the number of risks associated with the project and the steps already completed in the project development process. These steps are outlined in the checklist in the required Risk Assessment.

- A. MEASURE: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.).

RESPONSE (Complete Risk Assessment):

**SCORING GUIDANCE (75 Points)**

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70) * 75$  points or 43 points.

**7. Cost Effectiveness (100 Points)** – This criterion will assess the project’s cost effectiveness based on the TAB-eligible project cost (not including noise walls) and total points awarded in the previous six criteria.

A. ***MEASURE:*** Calculate the cost effectiveness of the project. Metropolitan Council staff will divide the TAB-eligible project cost (not including noise walls) by the total number of points awarded in the previous criteria (1 through 6).

- Cost Effectiveness = total TAB-eligible project cost (not including noise walls)/total number of points awarded in previous criteria (1 through 6)

***RESPONSE (Points Awarded and Cost Effectiveness will be Automatically Calculated):***

- Total Project Cost (entered in Project Cost Form): \_\_\_\_\_

**SCORING GUIDANCE (100 Points)**

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000) * 100$  points for 50 points.

**TOTAL: 1,100 POINTS**

# Transit Expansion – Prioritizing Criteria and Measures

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May 18, 2016

Definition: A transit project that provides new or expanded transit service/facilities. Routine facility maintenance and upkeep is not eligible. If a project has both transit expansion and transit system modernization elements, then the project should apply in the application category that requires the majority of the project costs.

Examples of Transit Expansion Projects:

- Operating funds for new or expanded transit service
- Transit vehicles for new or expanded service
- Transit shelters, centers, stations, and platforms for new or expanded service along a route
- Park-and-ride facilities

**Scoring:**

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to Jobs and Educational Institutions	50	
Measure B – Average number of weekday transit trips connected to the project	50	
<b>2. Usage</b>	<b>350</b>	<b>35%</b>
Measure A - New Annual Riders	350	
<b>3. Equity and Housing Performance</b>	<b>200</b>	<b>20%</b>
Measure A - Connection to disadvantageded populations and projects benefits	130	
Measure B - Housing Performance Score	70	
<b>4. Emissions Reduction</b>	<b>200</b>	<b>20%</b>
Measure A - Total emissions reduced	200	
<b>5. Multimodal Elements and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Bicycle and pedestrian elements of the project and connections	100	
<b>6. Risk Assessment</b>	<b>50</b>	<b>5%</b>
Measure A - Risk Assessment Form	50	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total annual project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

**1. Role in the Regional Transportation System and Economy (100 Points)** - This criterion measures the regional significance of the project, including the project's connections to jobs and post-secondary educational institutions (as defined in Thrive MSP 2040) and the project's ability to provide regional transit system connections (measured through the number of connecting, weekday transit trips).

- A. **MEASURE:** Reference the "Population/Employment" map generated at the beginning of the application process. Report the existing employment and educational institution enrollment within 1/4 mile of the project's bus stops or within 1/2 mile of the project's transitway stations. Existing employment will be measured by summing the employment located in the census blocks that intersect the 1/4-mile or 1/2-mile buffers. Enrollment at public and private post-secondary institutions will also be measured. Applications for projects that include "last mile" service provided by employers or educational institutions can get credit for the employment and enrollment, respectively, if a commitment letter is provided guaranteeing service for three years. (50 Points)

Upload the "Regional Economy" map used for this measure.

**RESPONSE (Data from the "Population/Employment" and map):**

- Existing Employment within ¼ or ½ mile buffer: \_\_\_\_\_
- Existing Post-Secondary Enrollment within ¼ or ½ mile buffer: \_\_\_\_\_
- Existing Employment outside of the ¼- or ½ mile buffer to be served by shuttle service (Letter of commitment required): \_\_\_\_\_
- Existing Post-Secondary Enrollment outside of the ¼- or ½ mile buffer to be served by shuttle service (Letter of commitment required): \_\_\_\_\_

**EXPLANATION of last-mile service, if necessary (Limit 1,400 characters; approximately 200 words):**

**SCORING GUIDANCE (50 Points)**

The applicant with the highest combined total employment and post-secondary education enrollment will receive the full points for this measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 1,000 workers/students within 1/4 mile and the top project had 1,500 workers/students, this applicant would receive  $(1,000/1,500)*50$  points or 33 points. Using the Metropolitan Council model, all Census blocks that are included within or intersect the buffer area around the project will be included in the analysis.

- B. **MEASURE:** Reference the "Transit Connectivity" map generated at the beginning of the application process. List the transit routes directly connected to the project to help determine the average weekday transit trips these connecting routes provide, as depicted on the "Transit Connectivity" map. Metropolitan Council staff will provide the average number of weekday trips for each connecting transit route. Connections to planned transitway stations should be separately cited. Any transitway connection is worth 15 points. (50 Points)

Upload the "Transit Connectivity" map used for this measure.

RESPONSE (Data from the "Transit Connectivity" map):

- Existing transit routes directly connected to the project: \_\_\_\_\_ (35 Points)
- Planned transitways directly connect to the project (mode and alignment determined and identified in the 2040 TPP): (15 Points)

**Note:** Transitways offer travel time advantages for transit vehicles, improve transit service reliability, and increase the convenience and attractiveness of transit service. Transitways are defined in the 2040 Transportation Policy Plan to include commuter rail, light rail, highway and arterial bus rapid transit. Eligible transitway projects are those that have a mode and alignment identified in the 2040 Transportation Policy Plan.

If the project includes construction of a park-and-ride facility, employment and eligible educational institutions only include those directly connected by the transit routes exiting the facility.

SCORING GUIDANCE (50 Points)

The applicant with route connections having the highest number of weekday trips will receive the full points (as shown above). Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had connecting ridership of 100 trips and the top project had 150 trips, this applicant would receive  $(100/150)*35$  points or 23 points.

Any project with a connection to a planned transitway station should be awarded 15 points.

After each of the above scores are tabulated the top total score will be adjusted to 50 with all other projects adjusted proportionately. For example, if the top application scored 28 points, it would be adjusted to 50. A project that scored 19 points would be awarded  $(19/28)*50$ , or 34 points.

**2. Usage (350 Points)** – This criterion quantifies the project’s impact by estimating the annual new transit ridership of the project.

- A. **MEASURE:** This measure will calculate the project’s new riders. Based on the service type, estimate and provide the new annual transit ridership that is produced by the new project in the third year of service. (350 points)

**For Park-and-Rides and Express Route Projects to Minneapolis and St. Paul Only:**

- Use the 2020 forecast from the park-and-ride demand estimation model in the 2030 Regional Park-and-Ride Plan (Appendix B) to develop a ridership estimate. The market will be defined using the prescribed site location criteria in the plan and demand estimates determined by the census block groups in the express bus route market area. If possible, the applicant should use the ridership figures provided for an existing or planned facility.

The 2030 Regional Park-and-Ride Plan forecasts 2020 demand to downtown Minneapolis and downtown St. Paul based off 2008 data. If the applicant wants to use more up-to-date data than 2008, then they must follow the methodology and equations from the Park-and-Ride Plan and clearly describe the methodology and assumptions used to estimate annual ridership.

Note: Any Express routes not going to these downtown areas should follow the peer route methodology described in the “For Urban and Suburban Local Routes and Suburb-to-Suburb Express Routes Only” section.

**For Transitways Projects Only:**

- Use most recent forecast data to estimate ridership for the third year of service. Forecast data for the transitway must derived from a study or plan that uses data approved by Metropolitan Council staff. This includes the most up-to-date estimates from plans that have been already adopted. Describe the methodology and assumptions used to estimate annual ridership.

Note: Transitways offer travel time advantages for transit vehicles, improve transit service reliability, and increase the convenience and attractiveness of transit service. Transitways are defined in the 2040 Transportation Policy Plan to include commuter rail, light rail, highway and arterial bus rapid transit. Eligible transitway projects are those that have a mode and alignment identified in the 2040 Transportation Policy Plan.

**For Urban and Suburban Local Routes and Suburb-to-Suburb Express Routes Only:**

- Use peer routes that are currently in service to develop a ridership estimate for the third year of service. Applicants must use the most recent annual ridership figures that are available. To select the peer routes, the applicant should identify routes in the same transit market area (as defined in the 2040 Transportation Policy Plan), or routes that serve locations with similar development patterns. Applicants must use the average passengers per service hour of at least three peer routes to apply a rate of ridership for the proposed service project. Additionally, describe how a peer route was selected in the response and any assumptions used.

RESPONSE (Cost effectiveness will be automatically calculated):

- Service Type: \_\_\_\_\_
- New Annual Ridership: \_\_\_\_\_
- Describe Methodology: How Park-and-Ride and Express Route Projections were calculated and which Urban and Suburban Local Route(s) were selected (Limit 2,800 characters; approximately 400 words): \_\_\_\_\_

SCORING GUIDANCE (350 Points)

The applicant with the highest new annual ridership will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had ridership of 1,000,000 riders and the top project had a ridership of 1,500,000 riders, this applicant would receive  $(1,000,000/1,500,000) * 350$  points or 233 points.

For urban and suburban local bus service and suburb-to-suburb express service, applicants should use peer routes from the same Transportation Policy Plan market area or peer routes that serve locations with similar development patterns. Points are scored based on sound methodology and clear relationship to the peer routes.

For all service types, 50 percent of points can be deducted if the applicant provides no methodology. If a methodology is provided, then points should only be deducted if the estimation methodology is not sound.

**3. Equity and Housing Performance (200 Points)** -- This criterion addresses the project's positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community's efforts to promote affordable housing.

- A. **MEASURE:** Reference the "Socio-Econ" map generated at the beginning of the application process. Identify the project's location from the list below, as depicted on the map. Describe the project's positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. A project's service must stop in one of the eligible areas to qualify as a direct connection. In addition, a direct connection is one that does not require a transfer. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above. (130 Points)

Upload the "Socio-Econ" map used for this measure.

RESPONSE (Select one, based on the "Socio-Econ" map):

- Project's service directly connects to Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 130 Points)
- Project's service directly connects to Area of Concentrated Poverty:  (0 to 104 Points)
- Project's service directly connects to census tracts that are above the regional average for population in poverty or population of color:  (0 to 52 Points)
- Project's service directly connects to 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:  (0 to 37 Points)

RESPONSE (Limit 2,800 characters; approximately 400 words):

**SCORING GUIDANCE (130 Points)**

Based on the "Socio-Econ" map's output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups. Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area defined above. Remaining projects will receive a share of the full points at the scorer's discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 130 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 130 points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 50 points and the top project had 100 points, this applicant would receive  $(50/100) * 130$  points or 65 points.

## Transit Expansion

- B. *MEASURE*: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project's stops are located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project includes express service with no reverse commute trips, the applicant should only report the number of stops and corresponding jurisdictions in which the inbound service originates. If the project has stops in more than one jurisdiction, the points will be awarded based on a weighted average using the length of the project in each jurisdiction. If a project's stops are located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

*RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):*

- City/Township: \_\_\_\_\_
- Number of Stops within City/Township:

### SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportionate share of the full points. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale.

If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

**4. Emissions Reduction (200 Points)** – This criterion measures the impact that the project’s implementation will have on air quality as measured by reductions in CO, NO<sub>x</sub>, CO<sub>2e</sub>, PM<sub>2.5</sub>, and VOC emissions. Applications for transit operating, vehicle or capital funds must calculate the benefit for the third year of service.

- A. **MEASURE:** The applicant must show that the project will reduce CO, NO<sub>x</sub>, CO<sub>2e</sub>, PM<sub>2.5</sub>, and/or VOC due to the reduction in VMT. Calculate and provide the number of new daily transit riders and the distance from terminal to terminal in miles to calculate VMT reduction. The emissions factors will be automatically applied to the VMT reduction to calculate the total reduced emissions. (200 Points)

Daily VMT Reduction = New Daily Transit Riders multiplied by Distance from Terminal to Terminal

**Emissions Factors**

- CO reduced = VMT reduced \* 2.39
- NO<sub>x</sub> reduced = VMT reduced \* 0.16
- CO<sub>2e</sub> reduced = VMT reduced \* 366.60
- PM<sub>2.5</sub> reduced = VMT reduced \* 0.005
- VOCs reduced = VMT reduced \* 0.03

**RESPONSE (Total reduced emissions will automatically calculate):**

- New Daily Transit Riders: \_\_\_\_\_
- Distance from Terminal to Terminal (Miles) \_\_\_\_\_

**SCORING GUIDANCE (200 Points)**

The applicant with the greatest daily reduction in emissions due to VMT reduction will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored reduced emissions by 3 kilograms and the top project reduced emissions by 5 kilograms, this applicant would receive (3/5)\*200 points or 120 points.

**5. Multimodal Elements and Existing Connections (100 Points)** – This criterion measures how the project improves the travel experience, safety, and security for other modes of transportation, provides strong connections, and addresses the safe integration of these modes.

- A. MEASURE: Discuss any bicycle or pedestrian elements that are included as part of the total project and how they improve the travel experience, safety, and security for users of these modes. Also, describe the existing bicycle and pedestrian facilities and accommodations or bicycle and pedestrian connections. Furthermore, address how the proposed project safely integrates all modes of transportation (i.e., transit, vehicles, bicyclists, and pedestrians). Applicants should also identify supporting studies or plans that address why a mode may not be incorporated into the project.

RESPONSE (Limit 2,800 characters; approximately 400 words):

**SCORING GUIDANCE (100 Points)**

The project that results in the most comprehensive connectivity to non-motorized modes (via existing or added elements), as addressed in the required response will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion. Example improvements are listed below:

- Improves the safety and security of the pedestrian or bicyclist (e.g., pedestrian-scale lighting, removing obstructions to create safe gathering spaces, leading pedestrian signal phasing, traffic calming, bike facilities separated from pedestrians)
- Improves the quality of the travel experience (e.g., pavement improvements, public art, benches, wayfinding)
- Improves the pedestrian network near the transit stop/station
- Improves the bicycle network near the transit stop/station
- Uses roadway shoulders or MnPASS lanes for faster service
- Connects to transit stops accessible via bike
- Connects to transit stops with safe / comfortable areas for pedestrians to walk or wait

- 6. Risk Assessment (50 Points)** - This criterion measures the number of risks associated with the project and the steps already completed in the project development process. These steps are outlined in the checklist in the required Risk Assessment.

**Facility Projects:**

- A. *MEASURE*: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.)

*RESPONSE (Complete Risk Assessment):*

**SCORING GUIDANCE (50 Points)**

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70)*50$  points or 29 points.

**7. Cost Effectiveness (100 Points)** – This criterion will assess the project’s cost effectiveness based on the total annual TAB-eligible project cost and total points awarded.

- A. *MEASURE: This measures will calculate the cost effectiveness of the project.* Metropolitan Council staff will divide the total annual TAB-eligible project cost by the total number of points awarded in the previous criteria.

Estimate and provide the annualized capital cost of the project and the annual operating cost of the project; the sum of these cost components equals the total annual project cost.

The annualized project cost is derived from the Federal Transit Administration (FTA) guidelines on useful life.

Total annual project cost is the lump sum total project cost divided by the FTA “years of useful life” as listed here. As noted in the useful life table, operating costs should also be annualized. If the project has two or more components with differing years of useful life, annualize each component. If the project type is not listed in the document, use most similar project type or provide supporting documentation on useful life value used.

Applicants should include all operating and capital costs associated with implementing the entire project, even though the applicant may only be applying for part of these costs as part of the solicitation.

<u>Project Type</u>	<u>Years of Useful Life</u>
Operating funds	3
Passenger Automobile/Sedan/Minivan	4
Medium Duty Transit Buses	5
Heavy Duty Transit Buses	12
Over-the-Road Coach Buses	14
Park & Ride – Surface Lot	20
Park & Ride – Structured	50
Transit Center/Station/Platform	70
Transit Shelter	20
Light Rail Vehicles	25
Commuter Rail Vehicles	25
Land Purchase	100

RESPONSE (This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):

- Total Annual Operating Cost: \_\_\_\_\_
  - Total Annual Capital Cost of Project: \_\_\_\_\_
  - Total Annual Project Cost: \_\_\_\_\_
  - Assumptions Used (Limit 1,400 characters; approximately 200 words): \_\_\_\_\_
- 
- Cost effectiveness = total TAB-eligible annual project cost/total number of points awarded in previous criteria

SCORING GUIDANCE (100 Points)

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000) * 100$  points or 50 points.

**TOTAL: 1,100 POINTS**

# Transit System Modernization – Prioritizing Criteria and Measures

May 18, 2016

**Definition:** A transit project that makes existing transit more attractive to existing and future riders by offering faster travel times between destinations, improving the customer experience, or reducing operating costs for the transit provider. The project must be able to reduce emissions through a reduction in single-occupant vehicle trips, vehicle-miles traveled, emissions from capital improvements, idling time, an increase in speeds, or other means. Routine facility maintenance and upkeep is not eligible. Projects associated with new or expanded service/facilities such as the purchase of new buses should apply in the Transit Expansion application category. If a project has both transit expansion and transit system modernization elements, then the project should apply in the application category that requires the majority of the project costs.

## Examples of Transit System Modernization Projects:

- Improved boarding areas, lighting, or safety and security equipment, real-time signage;
- Passenger waiting facilities, heated facilities or weather protection
- New transit maintenance and support facilities/garages or upgrades to existing facilities
- ITS measures that improve reliability and the customer experience
- Improved fare collection systems
- Multiple eligible improvements along a route

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>100</b>	<b>10%</b>
Measure A - Connection to Jobs and Educational Institutions	50	
Measure B – Average number of weekday transit trips connected to the project	50	
<b>2. Usage</b>	<b>300</b>	<b>30%</b>
Measure A - Total existing annual riders	300	
<b>3. Equity and Housing Performance</b>	<b>150</b>	<b>15%</b>
Measure A - Connection to disadvantageded populations and project’s benefits	80	
Measure B - Housing Performance Score	70	
<b>4. Emissions Reduction</b>	<b>100</b>	<b>10%</b>
Measure A – Description of emissions reduced	100	
<b>5. Service and Customer Improvements</b>	<b>150</b>	<b>15%</b>
Measure A - Percent reduction in passenger travel time	75	
Measure B - Percent reduction in operating & maintenance costs	38	
Measure C - Project improvements for transit users	37	
<b>6. Multimodal Facilities and Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Bicycle and pedestrian elements of the project and connections	100	
<b>7. Risk Assessment</b>	<b>100</b>	<b>10%</b>
Measure A - Risk Assessment Form	100	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>8. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total annual project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

**1. Role in the Regional Transportation System and Economy (100 Points)** - This criterion measures the regional significance of the project, including the project's connections to jobs and post-secondary educational institutions (as defined in Thrive MSP 2040) and the project's ability to provide regional transit system connections (measured through the number of connecting, weekday transit trips).

- A. **MEASURE:** Reference the "Population/Employment" map generated at the beginning of the application process. Report the existing employment and educational institution enrollment within 1/4 mile of the project's bus stops or within 1/2 mile of the project's transitway stations. Existing employment will be measured by summing the employment located in the census block groups that intersect the 1/4-mile or 1/2-mile buffers. Enrollment at public and private post-secondary institutions will also be measured. Applications for projects that include "last mile" service provided by employers or educational institutions can get credit for the employment and enrollment, respectively, if a commitment letter is provided guaranteeing service for three years. (50 Points)

Upload the "Regional Economy" map used for this measure.

RESPONSE (Data from the "Population/Employment" map):

- Existing Employment within ¼ or ½ mile buffer: \_\_\_\_\_
- Existing Post-Secondary Enrollment within ¼ or ½ mile buffer: \_\_\_\_\_
- Existing Employment outside of the ¼- or ½ mile buffer to be served by shuttle service (Letter of commitment required): \_\_\_\_\_
- Existing Post-Secondary Enrollment outside of the ¼- or ½ mile buffer to be served by shuttle service (Letter of commitment required): \_\_\_\_\_
- EXPLANATION of last-mile service, if necessary (Limit 1,400 characters; approximately 200 words):

**SCORING GUIDANCE (50 Points)**

The applicant with the highest combined total employment and post-secondary education enrollment will receive the full 33 points for this measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 1,000 workers/students within 1/4 mile and the top project had 1,500 workers/students, this applicant would receive  $(1,000/1,500) * 50$  points or 33 points. Using the Metropolitan Council model, all Census block groups that are included within or intersect the buffer area around the project will be included in the analysis.

- B. **MEASURE:** Reference the "Transit Connectivity" map generated at the beginning of the application process. List the transit routes directly connected to the project to help determine the annual transit ridership of these connecting routes, as depicted on the "Transit Connectivity" map. Metropolitan Council staff will provide the average number of weekday trips for each connecting transit route. Connections to planned transitway stations should be separately cited. Any transitway connection is worth 15 points. (50 Points)

Upload the "Transit Connectivity" map used for this measure.

## Transit System Modernization

### RESPONSE (Data from the "Transit Connectivity" map):

- Existing transit routes directly connected to the project: \_\_\_\_\_ (35 Points).
- Planned transitways (mode and alignment determined and identified in the 2040 TPP), directly connect to the project: \_\_\_\_\_ (15 Points)

**Note:** Transitways offer travel time advantages for transit vehicles, improve transit service reliability, and increase the convenience and attractiveness of transit service. Transitways are defined in the 2040 Transportation Policy Plan to include commuter rail, light rail, highway and arterial bus rapid transit. Eligible transitway projects are those that have a mode and alignment identified in the 2040 Transportation Policy Plan.

If the project includes construction of a park-and-ride facility, employment and eligible educational institutions only include those directly connected by the transit routes exiting the facility.

### SCORING GUIDANCE (50 Points)

The applicant with route connections having the highest number of weekday trips will receive the full points (as shown above). Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had connecting ridership of 100 trips and the top project had 150 trips, this applicant would receive  $(100/150) * 35$  points or 23 points.

Any project with a connection to a planned transitway station should be awarded 15 points.

After each of the above scores are tabulated the top total score will be adjusted to 50 with all other projects adjusted proportionately. For example, if the top application scored 28 points, it would be adjusted to 50. A project that scored 19 points would be awarded  $(19/28) * 50$ , or 34 points.

## Transit System Modernization

- 2. Usage (300 points)** - This criterion quantifies the project's impact based on how many riders the improvement(s) will impact, i.e., existing riders.

MEASURE: This measure will display the existing riders that will benefit from the project. This would entail, for example, riders on a bus route with buses fitted for Wi-Fi or users boarding or alighting at a park-and-ride being improved. Ridership data will be provided by the Metropolitan Council staff.

RESPONSE:

- Existing Transit Routes on the Project: \_\_\_\_\_

### SCORING GUIDANCE (300 Points)

The applicant with the highest existing annual ridership will receive the full points. Remaining projects will receive a proportionate share of the full points equal to the existing ridership of the project being scored divided by the project with the highest existing ridership multiplied by the maximum points available for the measure (300). For example, if the application being scored had ridership of 1,000 riders and the top project had a ridership of 1,500 riders, this applicant would receive  $(1,000/1,500)*300$  points or 200 points.

### 3. Equity and Housing Performance (150 Points) -- This criterion addresses the project's positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community's efforts to promote affordable housing.

- A. **MEASURE:** Reference the "Socio-Econ" map generated at the beginning of the application process. Identify the project's location from the list below, as depicted on the map. Describe the project's positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. A project's service must stop in one of the eligible areas to qualify as a direct connection. In addition, a direct connection is one that does not require a transfer. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above. (80 Points)

Upload the "Socio-Econ" map used for this measure.

**RESPONSE (Select one, based on the "Socio-Econ" map):**

- Project's service directly connects to Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 80 Points)
- Project's service directly connects to Area of Concentrated Poverty:  (0 to 64 Points)
- Project's service directly connects to census tracts that are above the regional average for population in poverty or population of color:  (0 to 48 Points)
- Project's service directly connects to 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:  (0 to 32 Points)

**RESPONSE (Limit 2,800 characters; approximately 400 words):**

#### **SCORING GUIDANCE (80 Points)**

Based on the "Socio-Econ" map's output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups (200 words or less). Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area defined above. Remaining projects will receive a share of the full points at the scorer's discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 130 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 130 points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 50 points and the top project had 100 points, this applicant would receive  $(50/100) * 80$  points or 40 points.

## Transit System Modernization

- B. *MEASURE*: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project's stops are located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project includes express service with no reverse commute trips, the applicant should only report the number of stops and corresponding jurisdictions in which the inbound service originates. If the project has stops in more than one jurisdiction, the points will be awarded based on a weighted average using the length of the project in each jurisdiction. If a project's stops are located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

*RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):*

- City/Township: \_\_\_\_\_
- Number of Stops within City/Township:

### SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportionate share of the full points. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale.

If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

## Transit System Modernization

**4. Emissions Reduction (100 Points)** - This criterion measures the impact that the project's implementation will have on air quality as measured by reductions in CO, NO<sub>x</sub>, CO<sub>2e</sub>, PM<sub>2.5</sub>, and VOC emissions. Projects can include improvements to rolling stock, increases in travel speed, facility modernization, and systemwide upgrades that reduce congestion and improve energy efficiency.

- A. **MEASURE:** Describe how the project will reduce CO, NO<sub>x</sub>, CO<sub>2e</sub>, PM<sub>2.5</sub>, and/or VOC due to the reduction in SOV trips, reduction in VMT, and/or an increase of speeds. The applicant should also describe capital improvements that will reduce emissions and energy consumption.

Most projects will reduce CO, NO<sub>x</sub>, CO<sub>2e</sub>, PM<sub>2.5</sub>, and/or VOC due to the reduction in VMT that comes about from adding new daily transit riders (computed in the third year of service). As part of the response, applicants may want to indicate the daily emissions reductions by using the formula and emissions factors below.

Daily VMT Reduction = New Daily Transit Riders multiplied by Distance from Terminal to Terminal

### Emissions Factors

- CO reduced = VMT reduced \* 2.39
- NO<sub>x</sub> reduced = VMT reduced \* 0.16
- CO<sub>2e</sub> reduced = VMT reduced \* 366.60
- PM<sub>2.5</sub> reduced = VMT reduced \* 0.005
- VOCs reduced = VMT reduced \* 0.03

*RESPONSE: (Limit 2,100 characters; approximately 300 words)*

### SCORING GUIDANCE (100 Points)

The applicant should describe improvements to rolling stock, increases in travel speed, facility improvements, and systemwide upgrades that will reduce congestion and/or improve energy efficiency. The application will be scored based on the improvements that are being made. Projects will receive a share of the full points at the scorer's discretion. (200 words or less).

**5. Service and Customer Improvements (150 Points)** - Measures under this criterion assess how the overall quality of transit service is improved, and how the regional transit system will operate more efficiently as a result of this project. An improvement that makes transit more attractive to future and existing riders is offering faster travel times between destinations. Additionally, the modernization of a transit facility should present a savings in operating costs for the transit provider. Projects can also offer improvements to facilities that offer a better customer experience, and attract riders to transit facilities.

- A. **MEASURE:** Provide the existing and proposed travel times to calculate the percent reduction in transit passenger travel time due to the project. The applicant should provide the existing passenger travel time from the project site to the transit route's terminal. If the project benefits multiple routes, the applicant can take an average of the passenger travel times. Applicants must also provide the proposed travel time from the project site to the terminal. The percent reduction in travel time that will result from the project's implementation will be calculated automatically. (75 Points)

*RESPONSE (Percent reduction will be automatically calculated)*

- Current Passenger Travel Time (Minutes): \_\_\_\_\_
- Proposed Passenger Travel Time (Minutes): \_\_\_\_\_

**SCORING GUIDANCE (75 Points)**

The applicant with the greatest reduction in travel time will receive the full points. Remaining projects will receive a proportionate share of the full points.

- B. **MEASURE:** Identify the current annual transit operating costs and proposed annual transit operating costs that will result from this project. Operating and maintenance costs are external to the project, and do not include costs associated with the construction or procurement of facilities, vehicles, or equipment. The percent reduction in operating and maintenance costs will be calculated automatically. The applicant should also provide its methodology for calculating cost change. (38 Points)

*RESPONSE (Percent reduction will be automatically calculated):*

- Current Annual Transit Operating Costs: \_\_\_\_\_
- Proposed Annual Transit Operating Costs: \_\_\_\_\_
- Description of how the proposed cost change was determined (Limit 2,800 characters; approximately 400 words):

**SCORING GUIDANCE (38 Points)**

The applicant with the greatest reduction in operating and maintenance costs will receive the full points. Remaining projects will receive a proportionate share of the full points.

## Transit System Modernization

- C. MEASURE: Discuss how the project will improve transit service to the users. Proposed improvements and amenities can include, but are not limited to the following (37 Points):
- Improved boarding area
  - Improved passenger waiting facilities
  - Real-time signage
  - Heated facilities or weather protection
  - Safety and security equipment
  - Improved lighting
  - ITS measures that improve reliability and the customer experience
  - Transit advantages

RESPONSE (Limit 2,800 characters; approximately 400 words):

### SCORING GUIDANCE (37 Points)

The applicant should describe improvements included in the project that will make transit service more attractive and improve the user experience. The project will be scored based on the quality of the responses. Projects will receive a share of the full points at the scorer's discretion.

### 6. Multimodal Elements and Existing Connections (100 Points) – This criterion measures how the project improves the travel experience, safety, and security for other modes of transportation, provides strong connections, and addresses the safe integration of these modes.

- A. **MEASURE:** Discuss any bicycle or pedestrian elements that are included as part of the total project and how they improve the travel experience, safety, and security for users of these modes. Also, describe the existing bicycle, and pedestrian facilities and accommodations or bicycle and pedestrian connections. Furthermore, address how the proposed project safely integrates all modes of transportation (i.e., transit, vehicles, bicyclists, and pedestrians). Applicants should also identify supporting studies or plans that address why a mode may not be incorporated into the project.

*RESPONSE (Limit 2,800 characters; approximately 400 words):*

#### SCORING GUIDANCE (100 Points)

The project that results in the most comprehensive connectivity to non-motorized modes (via existing or added elements), as addressed in the required response (400 words or less), will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion. Example improvements are listed below:

- Improves the safety and security of the pedestrian or bicyclist (e.g., pedestrian-scale lighting, removing obstructions to create safe gathering spaces, leading pedestrian signal phasing, traffic calming, bike facilities separated from pedestrians)
- Improves the quality of the travel experience (e.g., pavement improvements, public art, benches, wayfinding)
- Improves the pedestrian network near the transit stop/station
- Improves the bicycle network near the transit stop/station
- Uses roadway shoulders or MnPASS lanes for faster service
- Connects to transit stops accessible via bike
- Connects to transit tops with safe / comfortable areas for pedestrians to walk or wait

**7. Risk Assessment (100 Points)** –This criterion measures the number of risks associated with the project and the steps already completed in the project development process. These steps are outlined in the required Risk Assessment.

- A. MEASURE: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.)

RESPONSE (Complete Risk Assessment):

**SCORING GUIDANCE (100 Points)**

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70)*100$  points or 57 points.

**8. Cost Effectiveness (100 Points)** – This criterion will assess the project’s cost effectiveness based on the total annual TAB-eligible project cost and total points awarded.

- A. *MEASURE: This measure will calculate the cost effectiveness of the project. Metropolitan Council staff will divide the total annual TAB-eligible project cost by the total number of points awarded in the previous criteria.*

Estimate and provide the annualized capital cost of the project and the annual operating cost of the project; the sum of these cost components equals the total annual project cost.

The annualized project cost is derived from the Federal Transit Administration (FTA) guidelines on useful life.

Total annual project cost is the lump sum total project cost divided by the FTA “years of useful life” as listed here. As noted in the useful life table, operating costs should also be annualized. If the project has two or more components with differing years of useful life, annualize each component. If the project type is not listed in the document, use most similar project type or provide supporting documentation on useful life value used.

Applicants should include all operating and capital costs associated with implementing the entire project, even though the applicant may only be applying for part of these costs as part of the solicitation.

<u>Project Type</u>	<u>Years of Useful Life</u>
Operating funds	3
Passenger Automobile/Sedan/Minivan	4
Medium Duty Transit Buses	5
Heavy Duty Transit Buses	12
Over-the-Road Coach Buses	14
Park & Ride – Surface Lot	20
Park & Ride – Structured	50
Transit Center/Station/Platform	70
Transit Shelter	20
Light Rail Vehicles	25
Commuter Rail Vehicles	25
Land Purchase	100

## Transit System Modernization

RESPONSE (This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):

- Total Annual Operating Cost: \_\_\_\_\_
- Total Annual Capital Cost of Project: \_\_\_\_\_
- Total Annual Project Cost: \_\_\_\_\_
- Assumptions Used (Limit 1,400 characters; approximately 200 words): \_\_\_\_\_
- Cost effectiveness = total TAB-eligible annual project cost/total number of points awarded in previous criteria

### SCORING GUIDANCE (100 Points)

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000) * 100$  points or 50 points.

**TOTAL: 1,100 POINTS**

# Travel Demand Management (TDM) – Prioritizing Criteria and Measures

May 18, 2016

Definition: An innovative project that reduces the congestion and emissions during the peak period. Similar to past Regional Solicitations, base-level TDM funding for the Transportation Management Organizations (TMOs) and Metro Transit will be not part of the competitive process.

## Examples of TDM Projects:

- Bikesharing
- Carsharing
- Telework strategies
- Carpooling
- Parking management
- Managed lane components

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>100</b>	<b>10%</b>
Measure A - Ability to capitalize on existing regional transportation facilities and resources	100	
<b>2. Usage</b>	<b>100</b>	<b>10%</b>
Measure A - Users	100	
<b>3. Equity and Housing Performance</b>	<b>150</b>	<b>15%</b>
Measure A - Connection to disadvantageded populations and project's benefits, impacts, and mitigation	80	
Measure B - Housing Performance Score	70	
<b>4. Congestion Reduction/Air Quality</b>	<b>400</b>	<b>40%</b>
Measure A - Congested roadways in project area	200	
Measure B - VMT reduced	200	
<b>5. Innovation</b>	<b>200</b>	<b>20%</b>
Measure A - Project innovations and geographic expansion	200	
<b>6. Risk Assessment</b>	<b>50</b>	<b>5%</b>
Measure A - Technical capacity of applicant's organization	25	
Measure B - Continuation of project after initial federal funds are expended	25	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	<b>100</b>	
<b>Total</b>	<b>1,100</b>	

## Travel Demand Management

**1. Role in the Regional Transportation System and Economy (100 Points)** - This criterion measures the existing regional transportation resources that can be capitalized on as part this project.

- A. MEASURE: Identify the existing regional transportation facilities and resources on which the project will capitalize (transit stations, key roadways, bikeways, etc.). (100 Points)

RESPONSE (Limit 2,800 characters; approximately 400 words):

### SCORING GUIDANCE (100 Points)

The applicant will receive points based on the quality of the response. Projects that effectively use existing regional infrastructure will receive the most points. The applicant with the top score will receive full points. Remaining projects will receive a share of the full points.

## Travel Demand Management

**2. Usage (100 Points)** – This criterion quantifies the project’s impact by estimating the number of direct users of the TDM.

- A. MEASURE: Calculate and provide the average weekday users of the project. A direct project user is someone who will participate in the TDM program or project, and not one who receives an indirect benefit from the project. For example, if the project involves teleworking, a user would be the individual that is teleworking, not the roadway users that benefit from reduced congestion. Applicants must describe their methodology for determining the number of project users. (100 Points)

RESPONSE:

- Average Weekday Users: \_\_\_\_\_

RESPONSE (Limit 2,800 characters; approximately 400 words):

SCORING GUIDANCE (100 Points)

The applicant with the most users will receive the full points. Remaining projects will receive a proportional share of the full points. For example, if the top project had 90 users and the application being scored had 50, this applicant would receive  $(50/90)*100$  points or 56 points.

Fifty percent of points can be deducted if the applicant provides no methodology. If a methodology is provided, then points should only be deducted if the estimation methodology is not sound.

**3. Equity and Housing Performance (150 Points)** -- This criterion addresses the project's positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community's efforts to promote affordable housing.

- A. *MEASURE*: Describe the project's positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above (low-income populations; people of color; children, people with disabilities, and the elderly). As part of the response, reference the "Socio-Econ" map generated at the beginning of the application process to identify if the project is located in Area of Concentrated Poverty with 50% or more of residents are people of color, Concentrated Area of Poverty, or census tracts above the regional average in poverty or populations of color. (80 Points)

*RESPONSE (Limit 2,800 characters; approximately 400 words):*

**SCORING GUIDANCE (80 Points)**

The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

- B. *MEASURE*: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project is located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project is in more than one jurisdiction, the points will be awarded based on an average score of the jurisdictions. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

*RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):*

- City/Township: \_\_\_\_\_ (Cities and Townships entered by applicant)
- Housing Score: \_\_\_\_\_

### SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportional share of the full points. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale.

If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

**4. Congestion Reduction/Air Quality (400 Points)** – This criterion measures the project’s ability to reduce congestion during the peak period in an area or corridor. This criterion also measures the impact that the project’s implementation will have on air quality as measured by reductions in CO, NO<sub>x</sub>, CO<sub>2e</sub>, PM<sub>2.5</sub>, and VOC emissions.

A. **MEASURE:** Describe the congested roadways in the geographic area of the project and how this project will address or alleviate those issues by reducing congestion and/or single occupancy vehicle (SOV) trips. (200 Points)

RESPONSE: (Limit 2,800 characters; approximately 400 words):

**SCORING GUIDANCE (200 Points)**

The applicant with best response will receive the full points. Remaining projects will receive a share of the full points at the scorer’s discretion.

- The project is located in an area of traffic congestion served by one or more principal arterials or A-minors: Up to 60 Points, plus
- The project will reduce congestion and/or SOV trips in the project area: Up to 140 Points

B. **MEASURE:** The applicant must show that the project will reduce CO, NO<sub>x</sub>, CO<sub>2e</sub>, PM<sub>2.5</sub>, and/or VOC due to the reduction in VMT. Calculate and provide the number of one-way commute trips reduced and the average commute trip length to calculate VMT reduction. The emissions factors will be automatically applied to the VMT reduction to calculate the total reduced emissions Applicants must describe their methodology for determining the number of one-way trips reduced. (200 Points)

- $VMT\ reduced = \text{Number of one-way commute trips reduced} * 12.1$

(12.1 is the regional average commute trip length in miles as determined by the 2011 Travel Behavior Inventory, conducted by Metropolitan Transportation Services. You may use a number other than 12.1 if you know the commute length of your targeted market area).

**Emissions Factors**

- $CO\ reduced = VMT\ reduced * 2.39$
- $NO_x\ reduced = VMT\ reduced * 0.16$
- $CO_{2e}\ reduced = VMT\ reduced * 366.60$
- $PM_{2.5}\ reduced = VMT\ reduced * 0.005$
- $VOCs\ reduced = VMT\ reduced * 0.03$

RESPONSE (Emissions reduction will be automatically calculated):

- Number of One-Way Commute Trips Reduced: \_\_\_\_\_
- Average Commute Trip Length (Default 12.1): \_\_\_\_\_
- RESPONSE: (Limit 2,800 characters; approximately 400 words):

## Travel Demand Management

### SCORING GUIDANCE (200 Points)

The applicant with the greatest reduction in emissions will receive the full points. Remaining projects will receive a proportional share of the full points. For example, if the top project reduced 5 kg and the application being scored reduced 4 kg, this applicant would receive  $(4/5)*200$  points or 160 points.

Fifty percent of points can be deducted if the applicant provides no methodology. If a methodology is provided, then points should only be deducted if the estimation methodology is not sound.

## Travel Demand Management

**5. Innovation (200 Points)** – This prioritizing criterion measures how well the project introduces new concepts to the region or expands to a new geographic region. Innovative TDM projects may involve the deployment of new creative strategies for the region, expand the geographic scope of a project to a new geographic area, serve populations that were previously unserved, or incorporate enhancements to an existing program.

A. MEASURE: Describe how the project is innovative or expands the geographic area of an existing project. (200 Points)

RESPONSE (Limit 2,800 characters; approximately 400 words):

### SCORING GUIDANCE (200 Points)

The applicant will receive the full points shown for each of innovation categories based on the quality of the response. The applicant with the top score will receive full points. Remaining projects will receive a proportional share of the full points.

- Project introduces a new policy, program, or creative strategy: Up to 200 Points or
- Project expands the geographic scope of an existing project, serves or engages a new group of people, or significantly enhances an existing program: Up to 100 Points

**6. Risk Assessment (50 Points)** - This criterion measures technical capacity of the applicant and their long-term strategy to sustain their proposed projects beyond the initial funding period.

- A. MEASURE: Describe the technical capacity of the applicant's organization and what makes them well suited to deliver the project. (25 Points)

RESPONSE (200 words or less):

**SCORING GUIDANCE (25 Points)**

The applicant will receive a maximum of the points listed below, based on the quality of their response (200 words or less). Highest scoring projects will be led by agencies with staff expertise in TDM, experience in the field, and adequate resources to deliver the project in a timely manner. The applicant with the top score will receive full points. Remaining projects will receive a proportional share of the full points. For example, if the top project had 15 points and the application being scored had 10, this applicant would receive  $(10/15)*25$  points or 17 points.

- Organization has experience implementing similar projects: Up to 10 Points, plus
- Organization has adequate resources to implement the project in a timely manner: Up to 15 Points

- B. MEASURE: Describe if the project will continue after the initial federal funds are expended. Identify potential future sources of funding, if needed, to continue the project. (25 Points)

RESPONSE (Check one):

- Project funding sources are identified and secured to continue the project past the initial funding period, and/or carry on the project to a future phase:  (25 Points)
- Applicant has identified potential funding sources that could support the project beyond the initial funding period:  (15 Points)
- Applicant has not identified funding sources to carry the project beyond the initial funding period:  (0 Points)

RESPONSE (Limit 2,800 characters; approximately 400 words):

**SCORING GUIDANCE (25 Points)**

The applicant will receive a maximum of the points shown below based on the quality of their response. Applicants that receive the highest scores will have a financial plan in place to continue the project after the initial funding period. The applicant with the top score will receive full points. Remaining projects will receive a proportional share of the full points. For example, if the top project had 15 and the application being scored had 0, this applicant would receive  $(0/15)*25$  points or 0 points.

**7. Cost Effectiveness (100 Points)** –This criterion will assess the project’s cost effectiveness based on the total TAB-eligible project cost (not including noise walls) and total points awarded in the previous 6 criteria.

A. MEASURE: Calculate the cost effectiveness of the project. Metropolitan Council staff will divide the TAB-eligible project cost (not including noise walls) by the total number of points awarded in the previous criteria (1-6).

- Cost effectiveness = total TAB-eligible project cost/total number of points awarded in previous criteria (1-6)

RESPONSE (This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):

- Total Project Cost (entered in Project Cost Form): \_\_\_\_\_

**SCORING GUIDANCE (100 Points)**

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportional share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000)*100$  points or 50 points.

**TOTAL: 1,100 POINTS**

# Multiuse Trails and Bicycle Facilities – Prioritizing Criteria and Measures

May 18, 2016

**Definition:** A project that benefits bicyclists (or bicyclists and other non-motorized users). All projects must have a transportation purpose (i.e., connecting people to destinations). A facility may serve both a transportation purpose and a recreational purpose. Multiuse trail bridges or underpasses should apply in this application category instead of the Pedestrian Facilities application category given the nature of the users and the higher maximum award amount.

## Examples of Multiuse Trail and Bicycle Facility Projects:

- Multiuse trails
- Trail bridges/underpasses
- On-street bike lanes
- Filling multiple gaps, improving multiple crossings, or making other similar improvements along a trail corridor

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>200</b>	<b>20%</b>
Measure A - Identify location of project relative to Regional Bicycle Transportation Network	200	
<b>2. Potential Usage</b>	<b>200</b>	<b>20%</b>
Measure A - Existing population and employment within 1 mile	200	
<b>3. Equity and Housing Performance</b>	<b>120</b>	<b>12%</b>
Measure A - Connection to disadvantageded populations and project's benefits, impacts, and mitigation	50	
Measure B - Housing Performance Score	70	
<b>4. Deficiencies and Safety</b>	<b>250</b>	<b>25%</b>
Measure A – Gaps closed/barriers removed and/or continuity between jurisdictions improved by the project	100	
Measure B - Deficiencies corrected or safety problems addressed	150	
<b>5. Multimodal Facilities and Existing Connections</b>	<b>100</b>	<b>10%</b>
Measure A - Transit or pedestrian elements of the project and connections	100	
<b>6. Risk Assessment/Public Engagement</b>	<b>130</b>	<b>13%</b>
Measure A - Risk Assessment Form	130	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

## Multiuse Trails and Bicycle Facilities

**1. Role in the Regional Transportation System and Economy (200 Points)** - This criterion measures the project's ability to serve a transportation purpose within the regional transportation system and economy through its inclusion within or direct connection to the [Regional Bicycle Transportation Network \(RBTN\)](#), which is based on the Twin Cities Regional Bicycle System Study (2015).

- A. ***MEASURE:*** Reference the "RBTN Evaluation" map generated at the beginning of the application process. Draw the proposed trail on the map.

Upload the "RBTN Evaluation" map used for this measure.

***RESPONSE (Select one, based on the "RBTN Evaluation and Major Barriers" map):***

- Tier 1, Priority RBTN Corridor (200 Points)
  - Tier 1 RBTN Alignment (200 points)
  - Tier 2, RBTN Corridor (175 Points)
  - Tier 2, RBTN Alignment (175 Points)
  - Direct connection to an RBTN Tier 1 corridor or alignment: (150 Points)
  - Direct connection to an RBTN Tier 2 Corridor or Alignment (125 Points)
- 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. (50 Points)

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### SCORING GUIDANCE (200 Points)

The applicant will receive the points shown in the above bullets based on the location of the project relative to the RBTN.

#### **RBTN Projects (Tier 1/Tier 2 corridors and alignments)**

To receive the available points associated with Tier 1 and Tier 2 corridors and alignments, a project must accomplish one of the following:

- Improve a segment of an existing Tier 1 or Tier 2 alignment beyond a simple resurfacing of the facility;
- Implement a currently non-existing segment of a Tier 1 or Tier 2 alignment within and along a Tier 1 or Tier 2 corridor; OR
- Connect directly to a specific Tier 1 or Tier 2 corridor or alignment of the RBTN.

\* Note: if connecting to a RBTN **corridor**, the project must connect to a roadway or to the planned terminus of a trail in a way that makes possible a future connection to a potential RBTN alignment for the corridor.

#### **Projects that include both on-RBTN and off-RBTN improvements**

Projects will be scored based on the proportion of the project that is within and along a RBTN corridor or along a designated RBTN alignment as shown on the RBTN map. Specifically:

- Tier 1 projects with 50% or more of the project's length within and along a Tier 1 corridor or alignment will receive 200 points.
- Tier 2 projects with 50% or more of the project's length within and along a Tier 2 corridor or alignment will receive 175 points.
- A project with less than 50% of its length within and along a Tier 1 corridor or alignment will be considered a Tier 1 direct connection and will receive 150 points for providing the direct connection.
- A project with less than 50% of its length within and along a Tier 2 corridor or alignment will be considered a Tier 2 direct connection and will receive 125 points for providing the direct connection.
- A project with less than 50% of its length within and along a Tier 1 or Tier 2 corridor or along a Tier 1 or Tier 2 alignment, but with 50% or more of its length within and along a combined Tier 1/Tier 2 corridor or alignment will receive the number of points corresponding to the Tier level with the higher proportion of project length.

Note: Due to tiered scoring, it is possible that no, or multiple, projects will receive the maximum allotment of 200 points.

## Multiuse Trails and Bicycle Facilities

**2. Potential Usage (200 Points)** - This criterion quantifies the project's potential usage based on the existing population and employment adjacent to the project. Metropolitan Council staff will calculate the potential usage of the project using the Metropolitan Council model.

- A. **MEASURE:** Reference the "Population Summary" map generated at the beginning of the application process. Report the existing population and employment within one mile, as depicted on the "Population Summary" map.

Upload the "Population Summary" map used for this measure.

**RESPONSE (Data from the "Population Summary" map):**

- Existing Population within 1 Mile (100 Points): \_\_\_\_\_
- Existing Employment within 1 Mile (100 Points): \_\_\_\_\_

### **SCORING GUIDANCE (200 Points)**

The applicant with highest population will receive the full 100 points, as will the applicant with the highest number of jobs. Remaining projects will receive a proportionate share of the full points for population and jobs, respectively. As an example for population, projects will score equal to the existing population within 1 mile of the project being scored divided by the project with the highest population within 1 mile multiplied by the maximum points available for the measure (100). For example, if the application being scored had 1,000 people within 1 mile and the top project had 1,500 people, this applicant would receive  $(1,000/1,500)*100$  points or 67 points.

- Existing population: 100 Points
- Existing employment: 100 Points

Using the Metropolitan Council model, all Census block groups that are included within or intersect the buffer area around the project will be included in the analysis.

The highest-scoring application for this measure will be adjusted to receive the full 200 points. Remaining projects will receive a proportional share of the full points. For example, if the application being scored had 80 points and the top project had 190 points, this applicant would receive  $(80/190)*200$  points or 84 points.

## Multiuse Trails and Bicycle Facilities

**3. Equity and Housing Performance (120 Points)** – This criterion addresses the project’s positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community’s efforts to promote affordable housing.

- A. ***MEASURE:*** Reference the “Socio-Econ” map generated at the beginning of the application process. Identify the project’s location from the list below, as depicted on the map. Describe the project’s positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above. (50 Points)

Upload the “Socio-Econ” map used for this measure.

***RESPONSE (Select one, based on the “Socio-Econ” map):***

- Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 50 Points)
- Project located in Area of Concentrated Poverty:  (0 to 40 Points)
- Project’s census tracts are above the regional average for population in poverty or population of color:  (0 to 31 Points)
- Project located in 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:  (0 to 19 Points)

***RESPONSE (Limit 2,800 characters; approximately 400 words):***

### **SCORING GUIDANCE (50 Points)**

Based on the “Socio-Econ” map’s output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups. Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area defined above. Remaining projects will receive a share of the full points at the scorer’s discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 50 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 50 points. Remaining projects will receive a proportional share of the full points. For example, if the application being scored had 20 points and the top project had 40 points, this applicant would receive  $(20/40)*50$  points or 25 points.

## Multiuse Trails and Bicycle Facilities

MEASURE: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project is located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project is in more than one jurisdiction, the points will be awarded based on a weighted average using the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):

- City/Township: \_\_\_\_\_
- Length of Segment within City/Township:

### SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportional share of the full points. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction.

If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale.

If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

## Multiuse Trails and Bicycle Facilities

**4. Deficiencies and Safety (250 Points)** – This criterion addresses the project’s ability to overcome barriers or system gaps through completion of a [Critical Bicycle Transportation Link](#), as defined in the 2040 TPP. **Critical Bicycle Transportation Links** encompass several types of barriers that can disrupt the connectivity of the Regional Bicycle Transportation Network (RBTN) and isolate communities and key destinations. In addition to providing critical links, projects will be scored on their ability to correct deficiencies and improve the overall safety/security of an existing facility, or expand safe biking opportunities with a future multiuse trail or bicycle facility.

Note: Routine maintenance activities on a multiuse trail or bicycle facility are not eligible for funding. As defined by the FHWA, examples of routine maintenance activities include shrub and brush removal or minor drainage improvements. In order to be eligible for funding, reconstruction projects must be replacing a facility at the end of its useful life or include improvements to the facility (e.g., ADA, safety, other deficiencies). Resurfacing of a facility is eligible only if other improvements to the facility are also included in the proposed project.

- A. **MEASURE:** Discuss how the project will close a gap, cross or circumvent a physical barrier and/or improve continuity or connections between jurisdictions. The applicant should include a description of barriers and gap improvements for the project map. If the project is crossing or circumventing a barrier (e.g., river, stream, railroad corridor, freeway, or multi-lane highway), the applicant should describe the magnitude of the barrier (number of lanes, average daily traffic, posted speed limit, etc.) and how the proposed project will improve travel across or around that barrier. The description should include the distance to and condition of the nearest parallel crossing of the barrier, including the presence or absence of bicycle facilities, number of lanes, average daily traffic, and posted speed limit. (100 Points)

**RESPONSE (Check all that apply):**

- **Closes a transportation network gap and/or provides a facility that crosses or circumvents a physical barrier**  (0-90 Points):

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).

## Multiuse Trails and Bicycle Facilities

- **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):  (10 Points)

*RESPONSE (Limit 2,800 characters; approximately 400 words):*

### SCORING GUIDANCE (100 Points)

The applicant will receive up to 90 points if the response shows that the project closes a gap and/or crosses or circumvents a physical barrier and up to 10 points if it improves continuity and/or connections between jurisdictions. The project that the most meets the intent of each the criteria will receive the maximum points (e.g., 90 points for the project that best overcomes a gap or barrier). Remaining projects will receive a portion of the maximum points based on the response. Projects that do not check the box or whose description does not fulfill the intent of the criteria, will receive 0 points.

The highest-scoring application for this measure will be adjusted to receive the full 100 points. Remaining projects will receive a proportional share of the full points. For example, if the application being scored had 80 points and the top project had 90 points, this applicant would receive  $(80/90)*100$  points or 89 points.

- B. **MEASURE:** Discuss how the project will correct existing deficiencies or address an identified safety or security problem on the facility. The applicant should also include any available project site-related safety data (e.g. crash data, number of conflict points to be eliminated by the project by type of conflict (bicyclist/pedestrian, bicyclist/vehicle, pedestrian/vehicle, and vehicle/vehicle)) to demonstrate the magnitude of the existing safety problem. Where available, use of local crash data for the project length is highly encouraged. Crashes involving bicyclists and pedestrians should be reported for 2011-2015. As part of the response, demonstrate that the project improvements will reduce the crash potential and provide a safer environment (by referencing crash reduction factors or safety studies) and/or correct a deficiency. (150 Points)

*RESPONSE (Limit 2,800 characters; approximately 400 words):*

### SCORING GUIDANCE (150 Points)

The applicant will receive the points shown below, based on the magnitude of the deficiencies or safety issues and the quality of the improvements, as addressed in the response. The scorer will first place each project into one of the two categories below based on if crash data is cited as part of the response. The project with the most extensive improvements will receive the full points for each category. Remaining projects will receive a share of the full points as listed below.

- For applicants that provide actual bicycle and pedestrian crash data to demonstrate the magnitude of the existing safety problem only. Project also demonstrates that the project will reduce the crash potential and provide a safer environment and/or correct a deficiency. The project that will reduce the most crashes will receive 150 points. The other projects in this category will receive a proportional share between 101 and 150 points (i.e., a project that reduces one-half of the crashes of the top project would receive 125 points): 101 to 150 Points
- For applicants that do not provide actual bicycle and pedestrian crash data. However, the applicant demonstrates the project's ability to reduce the risk for bicycle and pedestrian crashes with the reduction of modal conflict points (bike/pedestrian, bike/vehicle, pedestrian/vehicle, and

## Multiuse Trails and Bicycle Facilities

vehicle/vehicle), safety improvements that address these modal conflicts, or the project's ability to correct deficiencies. The top project will receive 100 points while other projects will receive a portion of the 100 points based on the quality of the project and response: 0 to 100 Points

## Multiuse Trails and Bicycle Facilities

**5. Multimodal Elements and Connections (100 Points)** - This criterion measures how the project improves the travel experience, safety, and security for other modes of transportation, provides strong connections, and addresses the safe integration of these modes.

- A. ***MEASURE:*** Discuss any transit or pedestrian elements that are included as part of the project and how they improve the travel experience, safety, and security for users of these modes. Applicants should make sure that new multimodal elements described in the response are accounted for as part of the cost estimate form earlier in the application. Also, describe the existing transit and pedestrian connections. Furthermore, address how the proposed bikeway project safely integrates all modes of transportation (i.e., bicyclists, transit, pedestrians, and vehicles). Applicants should note if there is no transit service in the project area and identify supporting studies or plans that address why a mode may not be incorporated in the project.

***RESPONSE (200 words or less):***

### **SCORING GUIDANCE (100 Points)**

The project with the most comprehensive enhancements to the travel experience and safe integration of other modes, as addressed in the required response, will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion. The project score will be based on the quality of the improvements, as opposed to being based solely on the number of modes addressed. Projects that include the transit or pedestrian elements as part of the project should receive slightly more points than existing or planned multimodal facilities on parallel routes, consistent with the supporting plans and studies.

Scorers should make sure that new multimodal elements described in the response are accounted for on the cost estimate form earlier in the application.

**6. Risk Assessment (130 Points)** - This criterion measures the number of risks associated with the project and the steps already completed in the project development process. These steps are outlined in the checklist in the required Risk Assessment.

MEASURE: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.).

RESPONSE (Complete Risk Assessment):

**SCORING GUIDANCE (130 Points)**

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportional share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70) * 130$  points or 74 points.

**7. Cost Effectiveness (100 Points)** – This criterion will assess the project’s cost effectiveness based on the total TAB-eligible project cost and total points awarded in the previous 6 criteria.

A. *MEASURE: Calculate the cost effectiveness of the project.* Metropolitan Council staff will divide the TAB-eligible project cost by the total number of points awarded in the previous criteria (1-6).

- Cost Effectiveness = total TAB-eligible project cost/total number of points awarded in previous criteria (1-6)

*RESPONSE (This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):*

- Total Project Cost (entered in Project Cost Form): \_\_\_\_\_

**SCORING GUIDANCE (TBD Points)**

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportional share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000)*100$  points or 50 points.

**TOTAL: 1,100 POINTS**

# Pedestrian Facilities (Sidewalks, Streetscaping, and ADA) – Prioritizing Criteria and Measures

May 18, 2016

**Definition:** A project that primarily benefits pedestrians as opposed to multiple types of non-motorized users. Most non-motorized projects should apply in the Multiuse Trail and Bicycle Facilities application category. All projects must relate to surface transportation. 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. Multiuse trail bridges or underpasses should apply in the Multiuse Trail and Bicycle Facilities application category instead of this application category given the nature of the users and the higher maximum awards.

## Examples of Pedestrian Facility Projects:

- Sidewalks
- Streetscaping
- Americans with Disabilities Act (ADA) improvements
- Making similar improvements in a concentrated geographic area, such as sidewalk gap closure throughout a defined neighborhood or downtown area

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Role in the Regional Transportation System and Economy</b>	<b>150</b>	<b>15%</b>
Measure A - Connection to Jobs and Educational Institutions	150	
<b>2. Potential Usage</b>	<b>150</b>	<b>15%</b>
Measure A - Existing population within 1/2 mile	150	
<b>3. Equity and Housing Performance</b>	<b>120</b>	<b>12%</b>
Measure A - Connection to disadvantageded populations and project's benefits, impacts, and mitigation	50	
Measure B - Housing Performance Score	70	
<b>4. Deficiencies and Safety</b>	<b>300</b>	<b>30%</b>
Measure A - Barriers overcome or gaps filled	120	
Measure B - Deficiencies corrected or safety problems addressed	180	
<b>5. Multimodal Facilities and Existing Connections</b>	<b>150</b>	<b>15%</b>
Measure A - Transit or bicycle elements of the project and connections	150	
<b>6. Risk Assessment</b>	<b>130</b>	<b>13%</b>
Measure A - Risk Assessment Form	130	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>7. Cost Effectiveness</b>	<b>100</b>	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

**1. Role in the Regional Transportation System and Economy (150 Points)** - This criterion measures the regional significance of the project, including the project's connections to jobs and Educational Institutions, as defined in ThriveMSP 2040.

- A. ***MEASURE:*** Reference the "Regional Economy" map generated at the beginning of the application process. Report the existing employment and educational institution enrollment within 1/2 mile of the project. Existing employment will be measured by summing the employment located in the Census block groups that intersect the 1/2-mile buffer. Enrollment at public and private post-secondary institutions will also be measured. (150 Points)

Upload the "Regional Economy" map used for this measure.

***RESPONSE (Select all that apply, based on the "Regional Economy" map):***

- Existing Employment: \_\_\_\_\_
- Existing Post-Secondary Enrollment: \_\_\_\_\_

**SCORING GUIDANCE (150 Points)**

The applicant with the highest combined total employment and post-secondary education enrollment will receive the full points for this measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 1,000 workers/students within 1/2 mile and the top project had 1,500 workers/students, this applicant would receive  $(1,000/1,500) \times 150$  points or 100 points. Using the Metropolitan Council model, all census block groups that are included within or intersect the buffer area around the project.

Using the Metropolitan Council model, all Census block groups that are included within or intersect the buffer area around the project will be included in the analysis.

**2. Usage (150 Points)** - This criterion quantifies the project’s potential usage based on the existing population adjacent to the project.

- A. MEASURE: Reference the “Population Summary” map generated at the beginning of the application process. Report the existing population within 1/2-mile, as depicted on the “Population Summary” map.

Upload the “Population Summary” map used for this measure.

RESPONSE (Data from the “Population Summary” map):

- Existing Population within 1/2 Mile: \_\_\_\_\_

SCORING GUIDANCE (150 Points)

The applicant with the highest population will receive the full 150 points, as will the applicant with the highest population. Remaining projects will receive a proportional share of the full points. For example, if the application being scored had 1,000 people within 1/2 mile and the top project had 1,500 people, this applicant would receive  $(1,000/1,500) * 150$  points or 100 points.

Using the Metropolitan Council model, all Census block groups that are included within or intersect the buffer area around the project will be included in the analysis.

**3. Equity and Housing Performance (120 Points)** – This criterion addresses the project’s positive and negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly. The criterion also evaluates a community’s efforts to promote affordable housing.

- A. **MEASURE:** Reference the “Socio-Econ” map generated at the beginning of the application process. Identify the project’s location from the list below, as depicted on the map. Describe the project’s positive benefits, and negative impacts, and mitigation for low-income populations; people of color; children, people with disabilities, and the elderly. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above. (50 Points)

Upload the “Socio-Econ” map used for this measure.

RESPONSE (Select one, based on the “Socio-Econ” map):

- Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 50 Points)
- Project located in Area of Concentrated Poverty:  (0 to 40 Points)
- Project’s census tracts are above the regional average for population in poverty or population of color:  (0 to 31 Points)
- Project located in 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:  (0 to 19 Points)

RESPONSE (Limit 2,800 characters; approximately 400 words):

**SCORING GUIDANCE (50 Points)**

Based on the “Socio-Econ” map’s output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups. Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area defined above. Remaining projects will receive a share of the full points at the scorer’s discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 50 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 50 points. Remaining projects will receive a proportional share of the full points. For example, if the application being scored had 20 points and the top project had 40 points, this applicant would receive  $(20/40)*50$  points or 25 points.

## Pedestrian Facilities

- B. MEASURE: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project is located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project is in more than one jurisdiction, the points will be awarded based on a weighted average using the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):

- City/Township: \_\_\_\_\_
- Length of Segment within City/Township:

SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportional share of the full points. Note: Metropolitan Council staff will score this measure. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale.

If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

### 4. Deficiencies and Safety (300 Points) – This criterion addresses the project’s ability to improve the overall safety of an existing or future pedestrian facility. This includes how the project will overcome physical barriers or system gaps, correct deficiencies, and/or fix a safety problem.

Note: Routine maintenance activities on a pedestrian facility are not eligible for funding. As defined by the FHWA, examples of routine maintenance activities include shrub and brush removal or minor drainage improvements. In order to be eligible for funding, reconstruction projects must be replacing a facility at the end of its useful life or include improvements to the facility (e.g., ADA, safety, other deficiencies). Resurfacing of a facility is eligible only if other improvements to the facility are also included in the proposed project.

- A. **MEASURE:** Reference the “RBTN Evaluation and Major Barriers” map generated at the beginning of the application process. Discuss how the project will overcome barriers (i.e., bridge or tunnel), fill gaps, or connects system segments in the pedestrian network. The applicant should include a description of barriers and gap improvements for the project. If the project is crossing or circumventing a barrier (e.g., river, stream, railroad corridor, freeway, or multi-lane highway), the applicant should describe the magnitude of the barrier (number of lanes, average daily traffic, posted speed, etc.) and how the proposed project will improve travel across or around that barrier. The description should include distance to and condition of the nearest parallel crossing of the barrier, including the presence or absence of pedestrian facilities, number of lanes, average daily traffic, and posted speed limit. (120 Points)

**RESPONSE (Limit 2,800 characters; approximately 400 words):**

#### **SCORING GUIDANCE (120 Points)**

The applicant will receive up to 120 points if the response shows that the project overcomes a physical barrier or system gap. The project that most meets the intent will receive the maximum points. Remaining projects will receive a portion of the maximum points based on the response. Projects that do not fulfill the intent of the criteria will receive 0 points.

- B. **MEASURE:** Discuss how the project will correct existing deficiencies or address an identified safety or security problem on the facility. The applicant should also include any available project site-related safety data (e.g. crash data, number of conflict points to be eliminated by the project by type of conflict (bicyclist/pedestrian, bicyclist/vehicle, pedestrian/vehicle, and vehicle/vehicle)) to demonstrate the magnitude of the existing safety problem. Where available, use of local crash data for the project length is highly encouraged. Crashes involving bicyclists and pedestrians should be reported for 2011-2015. As part of the response, demonstrate that the project improvements will reduce the crash potential and provide a safer environment (by referencing crash reduction factors or safety studies) and/or correct a deficiency. (180 Points)

**RESPONSE (Limit 2,800 characters; approximately 400 words):**

### SCORING GUIDANCE (180 Points)

The applicant will receive the points shown below, based on the magnitude of the deficiencies or safety issues and the quality of the improvements, as addressed in the response. The scorer will first place each project into one of the two categories below based on if crash data is cited as part of the response. The project with the most extensive improvements will receive the full points for each category. Remaining projects will receive a share of the full points as listed below.

- For applicants that provide actual bicycle and pedestrian crash data to demonstrate the magnitude of the existing safety problem only. Project also demonstrates that the project will reduce the crash potential and provide a safer environment and/or correct a deficiency. The project that will reduce the most crashes will receive 180 points. The other projects in this category will receive a proportional share between 121 and 180 points (i.e., a project that reduces one-half of the crashes of the top project would receive 150 points): 121 to 180 Points
- For applicants that do not provide actual bicycle and pedestrian crash data. However, the applicant demonstrates the project's ability to reduce the risk for bicycle and pedestrian crashes with the reduction of modal conflict points (bike/pedestrian, bike/vehicle, pedestrian/vehicle, and vehicle/vehicle), safety improvements that address these modal conflicts, or the project's ability to correct deficiencies. The top project will receive 120 points based on the quality of the project and response: 0 to 120 Points

**5. Multimodal Elements and Connections (150 Points Points)** - This criterion measures how the project improves the travel experience, safety, and security for other modes of transportation, provides strong connections, and addresses the safe integration of these modes.

- A. **MEASURE:** Discuss any transit or bicycle elements that are included as part of the project and how they improve the travel experience, safety, and security for users of these modes. Applicants should make sure that new multimodal elements described in the response are accounted for as part of the cost estimate form earlier in the application. Also, describe the existing transit and bicycle connections. Furthermore, address how the proposed pedestrian facility project safely integrates all modes of transportation (i.e., pedestrians, transit, bicyclists, and vehicles). Applicants should note if there is no transit service in the project area and identify supporting studies or plans that address why mode may not be incorporated into the project.

**RESPONSE (Limit 2,800 characters; approximately 400 words):**

**SCORING GUIDANCE (150 Points)**

The project with the most comprehensive enhancements to the travel experience and safe integration of other modes, as addressed in the required response, will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion. The project score will be based on the quality of the improvements, as opposed to being based solely on the number of modes addressed. Projects that include the transit or bicycle elements as part of the project should receive slightly more points than existing or planned multimodal facilities on parallel routes, consistent with the supporting plans and studies.

**6. Risk Assessment (130 Points)** - This criterion measures the number of risks associated with the project and the steps already completed in the project development process. These steps are outlined in the checklist in the required Risk Assessment.

MEASURE: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.). (130 points)

RESPONSE (Complete Risk Assessment):

**SCORING GUIDANCE (130 Points)**

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportional share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70) * 130$  points or 74 points.

**7. Cost Effectiveness Ratio (100 Points)** – This criterion will assess the project’s cost effectiveness based on the total TAB-eligible project cost and total points awarded in the previous 6 criteria.

A. MEASURE: Calculate the cost effectiveness of the project. Metropolitan Council staff will divide the TAB-eligible project cost (not including noise walls) by the total number of points awarded in the previous criteria (1-6).

- Cost effectiveness= total TAB-eligible project cost/total number of points awarded in previous criteria (1-6)

RESPONSE (This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):

- Total Project Cost (entered in Project Cost Form): \_\_\_\_\_

**SCORING GUIDANCE (100 Points)**

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. Remaining projects will receive a proportional share of the full points. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000)*100$  points or 50 points.

**TOTAL: 1,100 POINTS**

# Safe Routes to School Infrastructure – Prioritizing Criteria and Measures

May 18, 2016

Definition: An infrastructure project that is within a two-mile radius and directly benefiting a primary, middle, or high school site.

## Examples of Safe Routes to School Infrastructure Projects:

- Sidewalks benefiting people going to the school
- Multiuse trails benefiting people going to the school
- Improved crossings benefiting people going to the school
- Multiple improvements

## Scoring:

Criteria and Measures	Points	% of Total Points
<b>1. Relationship between Safe Routes to School Program Elements</b>	<b>250</b>	<b>25%</b>
Measure A - Describe how project addresses 5 Es* of SRTS program	250	
<b>2. Potential Usage</b>	<b>250</b>	<b>25%</b>
Measure A - Average share of student population that bikes or walks	170	
Measure B - Student population within school's walkshed	80	
<b>3. Equity and Housing Performance</b>	<b>120</b>	<b>12%</b>
Measure A - Connection to disadvantaged populations and project's benefits, impacts, and mitigation	50	
Measure B - Housing Performance Score	70	
<b>4. Deficiencies and Safety</b>	<b>250</b>	<b>25%</b>
Measure A - Barriers overcome or gaps filled	100	
Measure B - Deficiencies corrected or safety or security addressed	150	
<b>5. Public Engagement/Risk Assessment</b>	<b>130</b>	<b>13%</b>
Measure A - Public engagement process	45	
Measure B - Risk Assessment Form	85	
<b>Sub-Total</b>	<b>1,000</b>	<b>100%</b>
<b>6. Cost Effectiveness</b>	100	
Measure A – Cost effectiveness (total project cost/total points awarded)	100	
<b>Total</b>	<b>1,100</b>	

\* The 5 Es of Safe Routes to School include Evaluation, Engineering, Education, Encouragement, and Enforcement.

**1. Relationship between Safe Routes to School Program Elements (250 Points)** - This criterion assesses the program's ability to integrate the Safe Routes to School Program Elements: Engineering, Education, Enforcement, Encouragement, and Evaluation (the 5 E's).

- A. ***MEASURE***: Describe how the SRTS program associated with the project addresses or integrates the 5 Es. The response should include examples, collaborations or partnerships, and planned activities in the near-term (within five years) to further illustrate the incorporation of the 5Es into the SRTS program associated with the project.

MnDOT Safe Routes to School guidance defines these elements as follows:

- **Engineering** – Creating operational and physical improvements to the infrastructure surrounding schools that reduce speeds and potential conflicts with motor vehicle traffic, and establish safer and fully accessible crossings, walkways, trails, and bikeways. (0-50 points)
- **Education** - Teaching children about the broad range of transportation choices, instructing them in important lifelong bicycling and walking safety skills, and launching driver safety campaigns in the vicinity of schools. (0-50 points)
- **Enforcement** - Partnering with local law enforcement to ensure traffic laws are obeyed in the vicinity of the schools (this includes enforcement of speeds, yielding to pedestrians, and proper walking and bicycling behaviors) and initiating community enforcements such as a crossing guard program. (0-50 points)
- **Encouragement** - Using events and activities to promote walking and bicycling. (0-50 points)
- **Evaluation** - Monitoring and documenting outcomes and trends through the collection of data before and after the project(s). (0-50 points)

***RESPONSE (Limit 2,800 characters; approximately 400 words):***

#### SCORING GUIDANCE (250 Points)

The applicant will receive up to 50 points for each of the five sub-measures based on the program's ability to demonstrate the incorporation of each of the 5 E's through activities completed or to be implemented in the near-term (within five years). Applicants will receive up to the full points for each element at the scorer's discretion. The project that most meets the intent of each of the sub-measure will receive the maximum points (e.g., 50 points for the project that best meets the engineering element). Remaining projects will receive a portion of the maximum points based on the response. Projects that do not check the box or whose description does not fulfill the intent of the criteria, will receive 0 points.

- Engineering: 0-50 Points
- Education: 0-50 Points
- Enforcement: 0-50 Points
- Encouragement: 0-50 Points
- Evaluation: 0-50 Points

The highest-scoring application for this measure will be adjusted to receive the full 250 points. Remaining projects will receive a proportionate share of the full points relative to the proportion of the full points assigned to the highest-scoring project. For example, if the application being scored had 100 points and the top project had 200 points, this applicant would receive  $(100/200) * 250$  points or 125 points.

**2. Potential Usage (250 Points)** - This criterion quantifies the project's potential impact to existing population.

- A. MEASURE: Average percent of student population that currently bikes, walks, or takes public transit to school, as identified on the Safe Routes to School student travel tally worksheet. Public transit usage does not refer to school buses. Public transit usage should only be considered when the bus route does not have a stop at the school (since these students must walk or bike to get to the school grounds). As part of the required attachments, applicants should attach copies of all original travel tally documentation. (170 Points)

RESPONSE:

- Average percent of student population: \_\_\_\_\_

SCORING GUIDANCE (170 Points)

The applicant with the highest average share of student population that currently bikes, walks, or takes public transportation to school will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 15 percent of the students and the top project had 30 points, this applicant would receive  $(0.15/0.30)*170$  points or 85 points.

- B. MEASURE: Student population within one mile of the elementary school, middle school, or high school served by the project. (80 Points)

RESPONSE:

- Student population within one mile of the school: \_\_\_\_\_

SCORING GUIDANCE (80 Points)

The applicant with the highest student population within one mile of the school will receive the full points. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 150 students and the top project had 300 points, this applicant would receive  $(150/300)*80$  points or 40 points.

**3. Equity and Housing Performance (120 Points)** – This criterion addresses the project’s positive and negative impacts to low-income populations, people of color, children, and people with disabilities. The criterion also evaluates a community’s efforts to promote affordable housing.

- A. MEASURE: Reference the “Socio-Econ” map generated at the beginning of the application process. Identify the project’s location from the list below, as depicted on the map. Describe the project’s positive benefits, and negative impacts, and mitigation for low-income populations; people of color; students, people with disabilities, and the elderly. Geographic proximity alone is not sufficient to receive the full points listed below. In order to receive the maximum points, the response should address the benefits, impacts, and mitigation for the populations listed above. (50 Points)

Upload the “Socio-Econ” map used for this measure.

RESPONSE (Select one, based on the “Socio-Econ” map):

- Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):  (0 to 50 Points)
- Project located in Area of Concentrated Poverty:  (0 to 40 Points)
- Project’s census tracts are above the regional average for population in poverty or population of color:  (0 to 31 Points)
- Project located in census tract that is below the regional average for population in poverty or populations of color, or includes students, people with disabilities, or the elderly:  (0 to 19 Points)

RESPONSE (Limit 2,800 characters; approximately 400 words):

**SCORING GUIDANCE (50 Points)**

Based on the “Socio-Econ” map’s output, the applicant will select the appropriate option from the above bullets. However, geographic proximity alone is not sufficient to receive full points. The applicant must fully describe the positive benefits and negative impacts (with mitigation to address the issue) for those identified groups (200 words or less). Each project will first be graded on a 10-point scale, not accounting for geography. Each score from the 10-point scale will then be adjusted to the appropriate geography. The project with the most positive benefits and appropriate mitigation for negative impacts will receive the full points relative to its maximum geographic sub-area defined above. Remaining projects will receive a share of the full points at the scorer’s discretion. This response is intended to be qualitative. Metropolitan Council staff will score this measure.

Note: Due to the geographic adjustment to scores, it is possible that the above process will result in no project receiving the maximum allotment of 50 points. In this case, the highest-scoring application for this measure will be adjusted to receive the full 50 points. Remaining projects will receive a proportionate share of the full points equal to the points. For example, if the application being scored had 20 points and the top project had 40 points, this applicant would receive  $(20/40)*50$  points or 25 points.

- B. MEASURE: Metropolitan Council staff will award points to the project based on the 2015 Housing Performance Score for the city or township in which the project is located. The score includes consideration of affordability and diversification, local initiatives to facilitate affordable workforce housing development or preservation, and density of residential development. If the project is in more than one jurisdiction, the points will be awarded based on a weighted average using the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result. (70 Points)

RESPONSE (Affordable Housing Score completed by Metropolitan Council staff):

- City/Township: \_\_\_\_\_
- Length of Segment within City/Township:

SCORING GUIDANCE (70 Points)

The applicant with the highest 2015 Housing Performance Score will receive the full points. Remaining projects will receive a proportionate share of the full points. Note: Metropolitan Council staff will score this measure. Note: Metropolitan Council staff will score this measure.

Projects will use the city Housing Performance Score based on the project location. If a project is located in more than one jurisdiction, the points will be awarded based on a weighted average of the city or township scores for the project location based on the length of the project in each jurisdiction. If a project is located in a city or township with no allocation of affordable housing need (either there is no forecasted household growth or the area does not have land to support sewered development), then the project will not be disadvantaged by this measure and the project's total score will be adjusted as a result.

If this is the case, then the total points possible in the application will be 930 instead of 1,000. The total points awarded through the rest of the application (900 as a hypothetical example) will be divided by 930, then multiplied by 1,000. Therefore, a project scoring 900 out of 930, will equate to 968 points on a 1,000-point scale.

If a portion of the project is located in a city with an affordable housing allocation and the other portion is located in a township with no affordable housing allocation, then a combination of the weighted average and no affordable housing methodologies should be used. This will result in a total score that will be somewhere between 930 and 1,000; then the score will need to be adjusted to fit a 1,000-point scale.

**4. Deficiencies and Safety (250 Points)** - This criterion addresses the project’s ability to improve the overall safety of the proposed project area. This includes how the project will overcome physical barriers or system gaps, correct deficiencies, and/or fix a safety problem.

- A. **MEASURE**: Reference the “RBTN Evaluation and Major Barriers” map generated at the beginning of the application process. Discuss how the project will overcome barriers (i.e., bridge or tunnel), fill gaps, or connects system segments in the pedestrian/bicycle network serving a K-12 school. The applicant should include a description of barriers and gap improvements for the project in context with the existing bicycle or pedestrian network serving the school(s). If the project is crossing or circumventing a barrier (e.g., river, stream, railroad corridor, freeway, or multi-lane highway), the applicant should describe the magnitude of the barrier (number of lanes, average daily traffic, posted speed, etc.) and how the proposed project will improve travel across or around that barrier. The description should include distance to and condition of the nearest parallel crossing of the barrier, including the presence or absence of bicycle and pedestrian facilities, number of lanes, average daily traffic, and posted speed limit. (100 Points)

*RESPONSE (Limit 2,800 characters; approximately 400 words):*

**SCORING GUIDANCE (100 Points)**

The applicant will receive up to 100 points if the response shows that the project overcomes a physical barrier or system gap. The project that the most meets the intent will receive the maximum points. Remaining projects will receive a portion of the maximum points based on the response. Projects that do not fulfill the intent of the criteria, will receive 0 points.

- B. **MEASURE**: Discuss how the project will correct existing deficiencies or address an identified safety or security problem on the facility or within the project site. Address how these improvements will make bicycling and walking to the school a safer and appealing transportation alternative. Include any available project site-related safety data (e.g. crash data, number of conflict points to be eliminated by the project by type of conflict (bicyclist/pedestrian, bicyclist/vehicle, pedestrian/vehicle, and vehicle/vehicle)) to demonstrate the magnitude of the existing safety problem. Where available, use of local crash data for the project length is highly encouraged. Crashes involving bicyclists and pedestrians should be reported for 2011-2015. As part of the response, demonstrate that the project improvements will reduce the crash potential and provide a safer environment (by referencing crash reduction factors or safety studies) and/or correct a deficiency. Qualitative data from parent surveys, other internal survey data, or stakeholder engagement supporting the safety/security improvements or deficiencies should also be addressed. (150 Points)

*RESPONSE (Limit 2,800 characters; approximately 400 words):*

#### SCORING GUIDANCE (150 Points)

The applicant will receive the points shown below, based on the magnitude of the deficiencies or safety issues and the quality of the improvements, as addressed in the response. The scorer will first place each project into one of the two categories below based on if crash data or other qualitative data is cited as part of the response. Improvements that are supported by crash reduction factors, safety studies, survey data, and/or stakeholder engagement should be scored highest. The project with the most extensive improvements will receive the full points for each category below. Remaining projects will receive a share of the full points at the scorer's discretion.

- For applicants that provide actual bicycle and pedestrian crash data to demonstrate the magnitude of the existing safety problem only. Applicant also demonstrates that the project will reduce the crash potential and provide a safer environment and/or correct a deficiency, supported by crash reduction factors, safety studies, survey data, and/or stakeholder engagement. The project that will reduce the most crashes will receive 150 points. The other projects in this category will receive a proportionate share between 101 and 150 points (i.e., a project that reduces one-half of the crashes of the top project would receive 125 points): 101 to 150 Points
- For applicants that do not provide actual bicycle and pedestrian crash data. However, the applicant demonstrates the project's ability to reduce the risk for bicycle and pedestrian crashes with the reduction of modal conflict points (bike/pedestrian, bike/car, pedestrian/car, and vehicle/vehicle), safety improvements that address these modal conflicts, or the project's ability to correct deficiencies. The top project will receive 100 points while other projects will receive a portion of the 100 points based on the quality of the project and response: 0 to 100 Points

**5. Public Engagement/Risk Assessment (130 Points)** - This criterion measures the planned public engagement, the number of risks associated with the project, and the steps already completed in the project development process. These steps are outlined in the checklist in the required Risk Assessment.

- A. ***MEASURE***: Describe the public engagement process that will be used to include partners and stakeholders (e.g., schools parents, law enforcement, road authorities, and other impacted community members) and build consensus during the development of the proposed project. The number and types of meetings to be held, notices or other notification distributed, stakeholder contacts, and any additional descriptive information should be included in the discussion of the engagement process. As part of the required attachments, copies of all parent survey results must also be attached to the application. The applicant should note if parent surveys were not collected as part of the SRTS planning process. (45 Points)

***RESPONSE (Limit 1,400 characters; approximately 200 words):***

**SCORING GUIDANCE (45 Points)**

The applicant will be scored on the comprehensiveness and quality of the planned public engagement activities. Additionally, applicants with a project selected through a public engagement process should score higher than projects without this engagement step. Community support, as displayed through parent surveys and stakeholder contacts, should also be considered in the scoring. Note: parent surveys are attached for MnDOT informational purposes only.

The project with the most extensive near-term engagement process (current year through project construction year), including any completed engagement activities for the proposed project, will receive the full points. Remaining projects will receive a share of the full points at the scorer's discretion.

- B. ***MEASURE***: Applications involving construction must complete the Risk Assessment. This checklist includes activities completed to-date, as well as an assessment of risks (e.g., right-of-way acquisition, proximity to historic properties, etc.). (85 Points)

***RESPONSE (Complete Risk Assessment):***

**SCORING GUIDANCE (85 Points)**

The applicant with the most points on the Risk Assessment (more points equate to less project risk) will receive the full points for the measure. Remaining projects will receive a proportionate share of the full points. For example, if the application being scored had 40 points and the top project had 70 points, this applicant would receive  $(40/70) * 85$  points or 49 points.

**6. Cost Effectiveness (100 Points)** – This criterion will assess the project’s cost effectiveness based on the total TAB-eligible project cost and total points awarded in the previous five criteria.

A. *MEASURE: Calculate the cost effectiveness of the project.* Metropolitan Council staff will divide the TAB-eligible project cost) by the total number of points awarded in the previous criteria (1-6).

- Cost effectiveness = total TAB-eligible project cost/total number of points awarded in previous criteria (1-6)

*RESPONSE (This measure will be calculated after the scores for the other measures are tabulated by the Scoring Committee):*

- Total Project Cost (entered in Project Cost Form): \_\_\_\_\_

**SCORING GUIDANCE (100 Points)**

The applicant with the lowest dollar value per point earned in the application (i.e., the benefits) will receive the full points for the measure. For example, if the top project had 35,000 and the application being scored had 70,000, this applicant would receive  $(35,000/70,000) \times 100$  points or 50 points.

**TOTAL: 1,100 POINTS**