



METHODOLOGY FOR RANKING METROPOLITAN TIP PROJECT REQUESTS

INTRODUCTION

The purpose of the Regional Priority List is to determine the region's project priorities for the development of a fiscally constrained Transportation Improvement Program (TIP). The Transportation Equity Act for the 21st Century (TEA 21) calls for a TIP development process that documents a methodology for ranking project requests, reflects local and metropolitan goals, and addresses mobility, environmental and air quality goals.

OBJECTIVE

The methodology outlined below is designed to address multi-modal transportation needs and to ensure regional balance. The methodology is used to rank projects on specific technical criteria. The Technical Coordinating Committee (TCC) will use the methodology to develop a draft Regional Priority List. This draft Priority List is to be used as a starting point or a reference base by the Transportation Advisory Committee (TAC) for the approval of a final Regional Priority List. The TAC may reorder projects at its discretion to promote jurisdictional and geographical balance, or based upon the TAC members' knowledge of the urban area and the policies of their communities. Therefore, the TCC will make its technical recommendation on a draft Priority List based on the methodology described below, and the TAC will then be afforded the opportunity to make any changes it deems appropriate.

METHODOLOGY GOALS

- Produce a program of projects (or project priorities) which satisfies MPO, local and State goals, and which addresses TEA 21 policies of system preservation, operational efficiency in the movement of people and goods, multi-modalism and inter-modalism, and air quality mandates.
- Address projects on equal footing, regardless of mode or project type.
- Be simple enough for project-level analysis without requiring unnecessary data collection.
- Be understandable by the general public.

PROCEDURE FOR RANKING PROJECTS

1. Goal Setting For Project Priority List

The TAC will formulate an overall goal or set of goals for the Regional Priority List. The annual goal setting should reflect the TIP Preamble adopted by the TAC. It states that the DCHC urban area "is committed to developing a balanced transportation system within the region." The MPO should begin the annual TIP process with goal setting, which could merely be a reaffirmation of previous goals or development of new goals arising out of the Transportation Plan. This annual goal setting will ensure that any change in "need" can be captured in the TIP goals.

2. Ranking Criteria

The screening criteria for project ranking fall into four broad groups:

- a. Regional Goals - How well does the project meet the adopted regional goals? Is the project an element of the current long-range plan? Does it implement community objectives (for the intrastate system, does it meet NCDOT mobility objectives)? Does the project have a broad base of local support?
- b. Cost Effectiveness - How much benefit does the project offer compared to the estimated cost?
- c. Timing Factor - Is timing a critical element for the project (one-time opportunity)? Will the opportunity to do the project be lost if it is not in the current priority cycle?
- d. Specific Project Merits - How many points does a project receive using scoring criteria?

The scoring criteria are listed below (evaluation criteria shown in parenthesis)

- Degree of Congestion/Type of Transit Project (volume/capacity ratio or new/replacement)
- Safety (accidents/100 million VMT)
- Promotes National Highway System (yes, no)
- Reduces use of single occupant vehicles (yes, no)
- Provides for more transportation choices (number of choices)
- Promotes energy conservation (yes, no)
- Has minimal impact on the natural environment (yes, no)
- Encourages economic development (yes, no)
- Adverse impacts do not disproportionately affect low income populations (yes, no)
- Transportation Improvement Program Status (Partially funded, unfunded)

APPLICATION OF THE METHODOLOGY

1. The TCC first examines the consistency in which local jurisdictions have responded to the ten (10) project criteria. If the criteria are not applied consistently, the TCC can agree to change some criteria responses for consistency among all projects.
2. Project Criteria Points are totaled for each project request.

Degree of Congestion - This category refers to the Volume to Capacity (V/C) ratio for road projects or the system/route capacity (%) for transit. For degree of congestion, **10 points are awarded for volume/capacity ratios greater or equal to 1.00. 5 points for V/C ratios of 0.90 to 0.99. Zero points for V/C ratios less than 0.9.** For new facilities or for roads for which traffic counts are not available, volumes on a parallel existing facility may be used. For bicycle and pedestrian projects, auto volumes may be used if bike/pedestrian features are being added to an existing road or if the bicycle/pedestrian facility on new location will take bike/pedestrian traffic off an existing parallel road.

Safety (Accidents/100 Million Vehicle Miles) - For safety, points are awarded to projects with reported accident rates significantly greater than statewide averages for urban road segments (330-370 ACC/100 MVM). **10 points are awarded for accident rates greater than 800 ACC/100 MVM. 5 points for rates between 400 and 800 ACC/100 MVM. Zero points are awarded for accident rates less than 400 ACC/100 MVM.** For bicycle and pedestrian projects, auto accidents may be used if bike/pedestrian features are being added to an existing facility or if the bicycle/pedestrian facility on new location will take bike/pedestrian traffic off an existing parallel road.

Promotes National Highway System - Points are awarded for this item if the project is part of the existing or future National Highway System (NHS) or an intermodal facility on an NHS route. (Yes - 10 points; No - 0 points)

Reduces Use of Single Occupant Vehicles - Points are awarded for this category if the project is a bike, pedestrian, transit or High Occupancy Vehicle (HOV) project (traditional road projects do not qualify) (Yes - 10 points; No - 0 points)

Expands Transportation Choices - Points are awarded for road projects that provide transit, bicycle and pedestrian features. (all three [transit, bike and ped] features - 10, two features - 7, one feature - 3, no features - 0)

Addresses Air Quality Concerns - Points are awarded for this item if there is a high degree of congestion (V/C ratio greater than 0.9) or for bicycle, pedestrian and transit projects. (Yes - 10 points; No - 0 points)

Has Minimal Impacts on the Natural Environment - Points are awarded if the transportation project does not expand into or adversely affect documented environmentally sensitive areas. (Yes - 10 points; No - 0 points)

Encourages Economic Development - Points are awarded for this item if the **primary purpose** of the project is economic development or redevelopment. (Yes - 10 points; No - 0 points).



Adverse Impacts Do Not Disproportionately Affect Low Income Populations - Points are awarded if the project does not affect low income groups disproportionately. This item is designed to penalize projects that may have negative impacts on low income areas or federally recognized disadvantaged groups. (Yes - 10 points; No - 0 points)

Transportation Improvement Program (TIP) Status - Points are awarded for projects which are listed in the current Transportation Improvement Program. (Partially Funded- 10 points; Unfunded Projects or Projects Not in the TIP- 0 points)

Type of Transit Project - Points are awarded for transit replacement projects. This category applies to transit projects only. (Replacement Projects- 10 points; New Projects – 0 points) These points are tabulated under the first column, degree of congestion.

3. Projects receiving the same number of project criteria points are ordered by generally giving priority to projects included in last year's Regional Priority List. A lower priority is given to new project requests with the same number of criteria points.
4. When the resulting order of the projects with the same number of criteria points are inconsistent with the order of local priorities, the order of those projects may be reordered.
5. The draft Regional Priority List is created by drawing projects from each of the enhancement, highway, and transit category lists. Projects with the highest number of project criteria points are selected first -- considering local priority rankings, geographical balance, and a mixture of project types.
6. The draft priority list is then forwarded to the TAC, as the TCC's recommended project priorities for the urban area.

OBSERVATIONS

- The order of transit priorities could vary significantly from year to year if anticipated funding sources are reduced or eliminated by Congress.
- Mandates (e.g., the American's with Disabilities Act) may take precedence when programming projects from the Regional Priority List in the TIP.
- The fiscal constraints of programming projects in the TIP may result in the programming of less expensive, lower ranked projects.
- Some lower ranking projects may be implemented earlier than a higher ranked, large project due to the time constraints associated with a more complex project (i.e., major investment studies, preparing environmental documents, designing the project, right-of way acquisition, etc.).
- The significance of ranking more than 25 projects is minimal, at best due to the availability of project funds.

	RANKING CRITERIA (MEASURES)	SCORE (points)
1	<i>Degree of congestion</i>	
	v/c \geq 1.0	10
	v/c between 0.90 and 0.99	5
	v/c < 0.90	0
2	<i>Safety (Highway, Transit, Non-motorized, TDM)</i>	
	facility (or aggregate) accident rate \geq 800 ACC/100 million vmt	10
	facility (or aggregate) accident rate 400-800 ACC/100 million vmt	5
	facility (or aggregate) accident rate < 400 ACC/100 million vmt	0
3	<i>Coordinate with National Highway System(NHS)</i>	
	Part of NHS or key component of the Intermodal System on current/future NHS	10
	Not part of NHS and key component of the Intermodal System	0
4	<i>Reduces use of single-occupant-vehicles (SOV) (Bicycle, Pedestrian, Transit or HOV)</i>	
	Bicycle, Pedestrian, Transit or HOV Project	10
	Non Bicycle, Pedestrian, Transit or HOV Project	0
5	<i>Expands Transportation Choice (Transit, Bicycle or Pedestrian Features)</i>	
	Transit, bike, pedestrian (all three modes)	10
	Any 2 modes (transit, bike, pedestrian)	7
	Any 2 modes (transit, bike, pedestrian)	3
	No modes (transit, bike, pedestrian)	0
6	<i>Addresses Air quality Problem/Concerns (Highway, Transit, Non-motorized, TDM, ITS)</i>	
	v/c \geq 0.90	10
	v/c < 0.90	0
7	<i>Has Minimal Impacts on the Natural Environment</i>	
	Does not extend into/adversely affect documented environmentally sensitive areas	10
	Extends into/adversely affects documented environmentally sensitive areas	0
8	<i>Encourages Economic Development</i>	
	Primary purpose is economic development or redevelopment	10
	Primary purpose is not economic development or redevelopment	0
9	<i>Adverse Impacts Do Not Disproportionately Affect Low Income Populations</i>	
	Does not adversely impact low income groups disproportionately	10
	Adversely impacts low income groups disproportionately	0
10	<i>Funding Status in TIP</i>	
	Partially funded in current TIP	10
	Unfunded in current TIP	0

