

**MECKLENBURG-UNION METROPOLITAN PLANNING ORGANIZATION
LONG-RANGE TRANSPORTATION PLAN
ROADWAY RANKING METHODOLOGY**

INTRODUCTION

The purpose of the Mecklenburg-Union Metropolitan Planning Organization's (MUMPO) Plan Ranking Criteria for Major Roadway Project's process is to facilitate determination of the region's project priorities to be used in development of a fiscally constrained Long-Range Transportation Plan (LRTP). The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) calls for an LRTP development process that documents a methodology for ranking project requests that reflects local and metropolitan mobility, environmental and air quality goals.

OBJECTIVE

The process outlined below is designed to address roadway needs. The Technical Coordinating Committee (TCC) will use the procedure to develop a draft project priority list. This draft priority list will be used as a starting point by the Metropolitan Planning Organization (MPO) for the approval of a final LRTP roadway project priority list.

The MPO may reorder projects at its discretion based upon its 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 procedure described below, and the MPO may make any changes deemed appropriate.

PROCEDURE FOR RANKING PROJECTS

Meetings are scheduled to allow staff to rank projects in a given geography. Each meeting consists of MUMPO staff and staff from the jurisdictions in its area. The meetings cover the following geographies:

- 1) Northern Mecklenburg County towns, and north Charlotte (generally from I-485 to the Iredell County Line)
- 2) Charlotte
- 3) Southern Mecklenburg County towns and south Charlotte (generally from I-485 to the Union County Line)
- 4) Union County

The number of meetings for each area is not pre-determined, as the number of projects in each varies. Projects reviewed are either those from the most recent LRTP or those identified by staff or elected officials from MUMPO area jurisdictions. Each project is given as much time as needed to discuss each of the criterion in depth. The criterion are awarded individual scores by majority rule, but usually are based on group consensus.

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For Criterion #1 *Reduces Congestion*, point values are based on travel demand model outputs which determine per lane volumes. Those volumes are matched to point values noted in the criterion's two tables.

Once the criteria have received individual scores and those scores have been totaled, the projects are ranked in priority order (the higher the score, the higher the priority). If total project scores are tied, then staff will review which of the tied projects has the highest number of criterion with scores of five, then four, and so on. If a tie persists, then the overall ranking committee votes to break it.

After the draft priority list is developed, it is then forwarded to the MPO as the TCC's recommended roadway project priorities for the urban area.

PROJECT SCORING

- The points that can be assigned in this ranking process range from a maximum of positive five (+5) to a minimum of negative five (-5).
- A cap on the maximum or minimum number of points has been established in many of the categories. The objective of establishing caps is to reflect the relative importance of the criteria.
- Scores in the Reduces Congestion criterion are assigned through outputs from the regional travel demand model.
- Scores in the Supports Local Land Use and Improves Quality of Life criterion are established by local land use or transportation planners, subject to consultation with the ranking group. Only one +5 score per jurisdiction is permitted.
- In the event of a tie, the project receiving the highest number of +5 scores will be ranked higher. If both projects receive the same number of +5 scores, the project to be ranked higher will be the one with the highest number of +4 scores. If necessary, the process will continue until the higher ranking project is established.
- As noted below, a +5 score suggests that the project has a very high positive impact on the criterion in question. Conversely, a -5 score suggests that the project has a very high negative impact on the criterion.

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RANKING CRITERIA

1. Reduces Congestion

Objective: To assess the relationship between the amount of physical and operational capacity provided by the roadway project in comparison to the vehicular travel demand for the LRTP’s final horizon year (e.g., for the 2030 Plan, 2030 modeled volumes are used, for the 2035 Plan, 2035 modeled volumes will be used, etc.)

Widening Projects

Daily Vehicle Volumes Per Lane (thousands) Projected to Final Horizon Year		Points				
Arterial	Freeway	Improved * 2-Lane	Median (LTL)**	Widen by 4-6 Lanes	Widen by 2-4 Lanes	Convert to Freeway or Expressway
4 to 6	8 to 12	1	1	1	1	1
>6 to 7	>12 to 14	1	1	1	2	2
>7 to 8	>14 to 16	1	1	2	3	3
>8 to 9	>16 to 18	2	2	3	4	4
>9 to 10	19+	3	3	4	5	5
10+		3	4	5	5	5

* Includes widening pavement (without adding lanes), and/or building curb and gutter or shoulders

** Includes Left Turn Lanes

New Roadway Alignment/Location Projects

Daily Vehicle Volumes (thousands)	Points
3 to 6	1
>6 to 12	2
>12 to 18	3
>18 to 24	4
>24	5

2. Improves Safety

Objective: To reduce or remove potential for crashes; to increase access control

- Pavement widening projects receive up to 2 points
- Medians receive up to 3 points
- Interchanges and roundabouts (replacing at-grade intersections) receive up to 4 points
- A project providing additional, significant safety benefits may receive up to 5 points.

Examples include but are not limited to improving dangerous curves and roadway relocation.

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3. Accesses Transit Parking or Drop Off

Objective: Promote the use of rapid transit, express bus transit & transit hubs

- Project provides direct access to express bus park & ride lot: up to 3 points
- Project provides direct vehicle access to transit hubs not in rapid transit corridor: up to 3 points
- Project provides direct vehicle access to a rapid transit station: up to 5 points
- Other projects: 0 points

4. Supports Local Land Use Planning and Improves Quality of Life

Objective: To assess the project's impact on locally adopted land use plans and/or policies.

- Point value to be established by local (land use or transportation) planner(s) subject to consultation with the ranking group
- Includes effect on urban environment, parks, historic properties and or other properties purchased for open space purposes

NOTE: Up to 5 points may be awarded in this category

5. Impacts on the Natural Environment

Objective: To assess the anticipated effect on documented environmentally sensitive areas

- Projects that do not impact documented environmentally sensitive areas:
Up to 3 points
- Projects into documented environmentally sensitive areas with no or little negative impact: 0 to -2 points
- Projects into documented environmentally sensitive areas with significant negative impact: 0 to -5 points.

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6. Improves Accessibility to a Center City (either Charlotte or Monroe)

Objective: Emphasize the importance of center cities in the region

- The distances from the two center cities shall be measured from the two points noted below:
 - Center City Charlotte: the intersection of Trade and Tryon streets
 - Center City Monroe: the intersection of Hayne and Franklin streets
- Points are awarded to roads that generally spread out from the Center City, known as “radial routes”. Radial and non-radial routes include but are not limited to the following:
 - Radial: Charlotte – Freedom Drive, Graham Street, Randolph Road, and South Boulevard
 - Radial: Monroe– Franklin Street, Weddington Road (NC 84), Hayne Street, and Morgan Mill Road
 - Non-Radial: Charlotte– W.T. Harris Boulevard, NC 51, Billy Graham Parkway, Mt. Holly-Huntersville Road
 - Non-Radial: Monroe – Rocky River Road, Unionville-Indian Trail Road, Martin Luther King, Jr. Boulevard, and Sutherland Avenue
- Interchanges receive points only if they add radial capacity [either added thru lanes or if it impacts a radial facility that is being converted to an expressway]
- Non-radial roads receive no points

Distance from Center (Miles)	0-4	4-8	8-12	12-16	>16
Freeway/Expressway*					
Widen from 4 lanes to 6 lanes	5	4	3	2	1
Widen from 6 lanes to 8 lanes	4	3	2	1	0
Widen from 4 lanes to 6 lanes [+HOV]	5	5	4	3	2
Widen from 6 lanes to 10 lanes [+HOV]	5	5	4	3	2
New 4 lane Freeway	5	5	4	3	2
Convert to Expressway	5	5	4	3	2
Non-Freeways*					
Widen from 2 to 4 lanes	4	3	2	1	0
Widen from 4 lanes to 6 lanes	3	2	1	1	0
Add median or center, two-way left-turn lane	2	1	1	1	0
Widen width of existing lanes	1	1	0	0	0
New two-lane facility	4	3	2	1	0
New four-lane facility	5	4	3	2	1

*Projects may receive up to the number of points specified in each category.

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7. Increases Accessibility to Other Employment Centers

Objective: To support access to employment centers within MUMPO and nearby employment centers outside MUMPO boundary and to support economic growth

- Access to center city Charlotte or Monroe is not a consideration for points in this category
- Size and location of economic center is based on employment projections for a Traffic Analysis Zone (TAZ*) for the Plan's final horizon year
- Within each category, points are scaled based on the project's proximity and accessibility to the employment center (planners for the area need to identify the proposed location of future and existing centers)

**TAZ maps are a product of the socio-economic projections that are endorsed by the MPO and show locations of future level population and employment.*

Points are awarded as follows:

- Less than 1,000 employees: 0 points
- 1,000 – 1,500 employees: Up to 1 point
- 1,501 – 3,000 employees: Up to 2 points
- 3001- 4500 employees: Up to 3 points
- 4,501 – 6,000 employees: Up to 4 points
- Greater than 6,000 employees: Up to 5 points

8. Impacts on Air Quality

Objective: To improve air quality by reducing vehicle miles traveled (VMT) by increasing vehicle occupancy, encouraging non-motorized travel, or creating new roadway connections

Points are awarded as follows:

- 5 or more miles of managed lanes: Up to 2 points
- 4 or fewer miles of managed lanes: Up to 1 point
- Projects that significantly reduce VMT by improving connectivity: Up to 2 points
- Projects that greatly induce sprawl: From -3 to -1 points
- Projects that accommodate bicyclists and/or pedestrians: Up to 1 point
- Other roadway projects: 0 points

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9. Supports Low Income and Minority Communities

Objective: To avoid adverse impacts and promote positive social and economic effects on minority and low-income populations.

- Compare positive connectivity/accessibility benefits to negative community impacts

Low income communities are defined by percentage of households below Federal poverty guidelines in relation to total households in Census tracts. Minority communities are defined by the percentage of minorities in relation to total population in Census tracts.

NOTE: Up to 5 points may be awarded in this category

10. Promotes Intermodal Connectivity

Objective: Improve access to existing and potential intermodal facilities

- Charlotte-Douglas International Airport, Monroe Regional Airport, West Trade Multimodal Station, or National Highway System Designated Freight Terminals receive up to 5 points
- Potential truck terminal locations on US or NC numbered route next to freeway up to 3 points
- Existing intermodal sites with 300 or more truck trips per day up to 3 points
- Existing intermodal sites with 100 or more truck trips per day up to 2 points

NOTE: Number of points dependent on distance from intermodal site

11. Provides Benefits That Outweigh Project Costs

Objective: To compare the project's accumulation of positive ratings and specific beneficial impacts versus the project's estimated per/mile construction costs and specific, negative impacts.

Point selection is subject to but not limited to the issues below:

- Includes consideration of ROW reservation or dedication, developer participation and portions completed by others
- Additional points may be awarded to the last segment of a multi-phased project

NOTE: Up to 5 points may be awarded in this category

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RANKING VALUES

- +5 Very High positive impact on this criterion
- +4 High positive impact on this criterion
- +3 Moderate positive impact on this criterion
- +2 Some positive impact on this criterion
- +1 Slight positive impact on this criterion
- 0 No impact on this criterion
- 1 Slight negative impact on this criterion
- 2 Some negative impact on this criterion
- 3 Moderate negative impact on this criterion
- 4 High negative impact on this criterion
- 5 Very High negative impact on this criterion