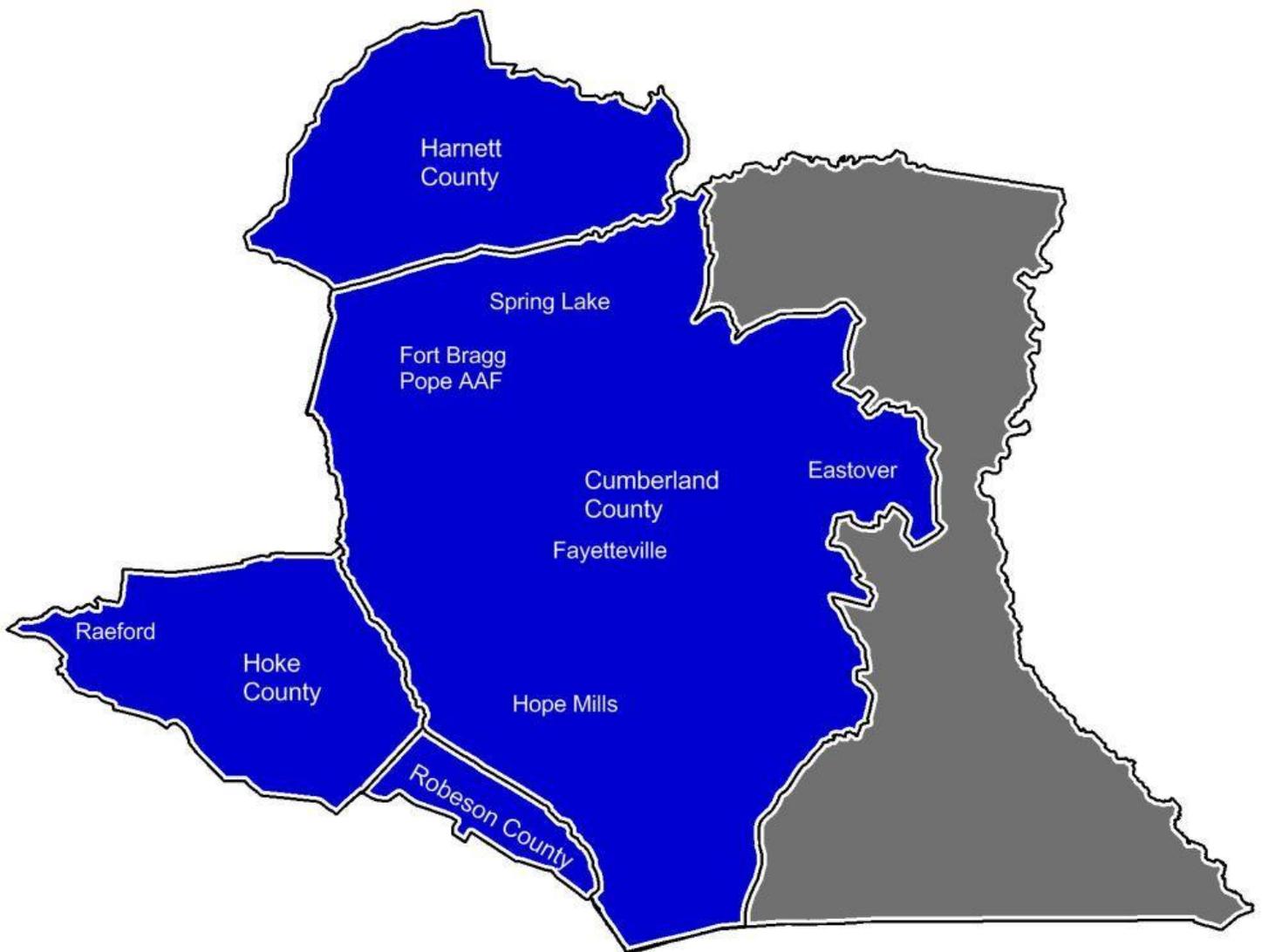


FAMPO

Fayetteville Area Metropolitan Planning Organization

Implementation of Strategic Prioritization 5.0

PROJECT RANKING PROCESS



January 24, 2018

Continuing · Comprehensive · Cooperative · Transportation Planning

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Introduction

Session Law 2012-84 amended Section 2 of the General Statutes 136-18 by adding a new subdivision to read:

“The Department shall develop and utilize a process for selection of transportation projects that is based on professional standards in order to most efficiently use limited resources to benefit all citizens of the State. The strategic prioritization process should be a systematic, data-driven process that includes a combination of quantitative data, qualitative input, and multimodal characteristics, and should include local input. The Department shall develop a process for standardizing or approving local methodology used in Metropolitan Planning Organization and Rural Transportation Planning Organization prioritization.”

The Department engaged the P5.0 Workgroup to assist in developing guidance on how to implement S.L. 2012-84. The emphasis is on an open and transparent process.

Outlined below is the guidance each MPO and RPO needs to follow in developing their local methodology. This methodology will be used to assign MPO/RPO local input points under the new Strategic Transportation Investments (STI) law. The Department requests you submit your local methodology for approval and address each of the following items:

- Describe the MPO/RPO ranking process for all modes of transportation that identifies at least one quantitative and one qualitative criterion to be used in the scoring process. These criteria should be understandable to the public. In other words, the measures and the percentages assigned to each measure should be defined, described, and outlined in such a way that the public can follow how project points will be assigned.
- Describe how your organization intends to engage and solicit public input on your methodology: i.e., the rationale behind the preliminary assignment of points; posting of this approach on a public website; holding a public hearing to receive comments on the preliminary assignment and/or how your organization followed its public input policies to adhere to this requirement. At least one public review period and public meeting/hearing should be included in the process. This review period needs to allow sufficient time for consideration of any public comments prior to the TCC/TAC making the final point assignment.
- Describe how your Technical Coordinating and Transportation Advisory Committees (TCC/TAC) will consider the input of public comments on the preliminary assignment of points as they develop and ultimately approve the final point assignment.
- Describe how the final local point assignment (approved by your TAC) will be disseminated and shared with the public. Include dates on your schedule you are targeting to achieve this.
- The methodology needs to be approved by the TAC.

Applicability

This process applies to all projects within the MPO that are ranked and identified in the Strategic Highway Investments (STI) Legislation as either “regional” or “division”.

Schedule and Public Involvement

FAMPO issued a new candidate projects solicitation in August 2017 to all member jurisdictions. Member jurisdictions were requested to submit new candidate projects to FAMPO by September 29, 2017.

Local methodology will be presented at the January 2018 Citizen Advisory Committee (CAC), Technical Coordinating Committee (TCC), and Transportation Policy Board (TPB) meetings, and delivered to SPOT offices for their comment. The January TPB Meeting will be advertised via multiple media outlets as well as through the FAMPO newsletter and website and public input will be welcome. In addition, a 30 day public comment period on the methodology will open on February 12, 2018 to gain citizen input into the process and will be advertised via the local newspaper. The methodology will be available on our website (www.fampo.org) as well as in our offices during normal business hours. The methodology will also be distributed via our Citizen Notification Database (approximately 400 citizens).

If changes are needed after receiving and considering comments from the public, FAMPO’s committees, and the SPOT offices, the local methodology will be re-presented for approval at the April 2018 CAC, TCC, and TPB meetings.

Beginning in April 2018 local points will be assigned according to the approved methodology. The results will be made available on FAMPO’s website and at our offices for public comment for 30 days. The results will also be distributed via our Citizen Notification Database. A summary of comments received will be presented to TPB for consideration. The TPB may modify the scoring prior to approval based on these comments at their scheduled meetings.

All local point assignments will be reviewed by the CAC, TCC, and TPB for final approval before being submitted to the SPOT office. All final point assignments per project and any final adjustments made to the scoring by the FAMPO TPB will be posted on our website immediately after approval.

Ranking Process

Introduction

The proposed process outlined on the following pages will be used to assign local input points to all projects within the FAMPO Metropolitan Planning Area. FAMPO receives 1800 points to distribute to Regional Level projects and 1800 points to distribute to Division Level projects.

The Fayetteville Area MPO proposes giving the top ranked projects in the Regional Funding Category and the top ranked projects in the Division Category the maximum points each, until the 1800 total points per category have been met. The remaining projects will receive no local input points from the MPO, but will receive their only points based upon the SPOT assigned quantitative scoring system.

Scoring Criteria Descriptions

- **Existing Congestion:** a measure of the volume/capacity ratio of a facility or transit service taken from SPOT data.
- **Safety Score:** a calculation based on the crash frequency and severity along sections of a particular roadway. The safety score is the score generated in the quantitative scoring process and is calculated in accordance with the SPOT calculation detailed in Attachment 1 of this document.
- **Freight Volume:** the number of trucks or equivalent vehicles that utilize the facility on a daily basis. Percentage of truck volume of average daily traffic converted to a number of trucks or equivalent. Data generated by NCDOT SPOT offices will be used for this measure.
- **Transportation Plan Consistency:** a yes or no question to determine if the proposed project is found in an existing adopted transportation plan for the area.
- **Corridor Continuity:** a measure of the project completing or continuing improvements on a defined transportation corridor.
- **Multimodal Accommodations:** a yes or no measure of the incorporation of pedestrian, bicycle or transit elements into a project.
- **Public Support:** Public support for the project as documented through feedback received through public outreach efforts, including surveys, Citizen Advisory Committee input, and public meetings.
- **Supports Environmental Justice, Land Use, or Economic Development:** a qualitative measure of EJ, land use and transportation integration, and local economic development benefits gauged by coordination with technical experts from the respective areas (E.G.

NCDOT Transportation Planning Branch, local government planning departments and economic development departments.)

- **Transit Expansion:** a yes or no measure of the project expanding passenger service on existing routes or opening new routes for increased service
- **Serves Activity Center(s):** a yes or no measure of the project serving a large employment center, trauma center, institution of higher learning, tourist center or other high traffic facility/site.
- **Connectivity:** a measure of the project which continues improvements in an area which other similar or better projects are completed or planned.

Regional Needs Ranking

Certain highway, aviation, transit, and rail projects are scored at the regional impact level, as well as any projects that cascade into the regional impact category from the statewide mobility category. FAMPO's methodology allows for non-highway projects to be scored independently, thus the table below applies only to highway projects.

Regional Ranking – Criteria and Weights					
Criteria	0 Points	5 Points	10 Points	15 Points	20 Points
Existing Congestion (20 Max)	Volume to capacity less than 0.5	Volume to capacity between 0.51 and 0.75	Volume to capacity between 0.76 and 0.9	Volume to capacity between 0.91 and 1.0	Volume to Capacity over 1.0
Safety Score (20 Max)	SPOT safety points less than 20	SPOT safety points between 21-40	SPOT safety points between 41-60	SPOT safety points between 61-80	SPOT safety scores over 81 points
Freight Volume (5 Max)	Less than 400 trucks/equivalent per day	More than 400 trucks/equivalent per day			
Transportation Plan Consistency (10 Max)	Project is not in CTP or MTP or other approved plan		Project is in CTP or MTP or other approved plan		
Corridor Continuity (10 Max)	Project does not complete of continue corridor improvement		Project does continue corridor improvement		
Multimodal Accommodations (10 Max)	Project does not include ped/bike/transit facilities		Project does include ped/bike/transit facilities		
Public Support (5 Max)	No Public Support	Some Public Support			
Supports Environmental Justice, Land Use, or Economic Development (20 Max)	Project adds capacity or accessibility where growth is not encouraged		Project adds some new capacity or accessibility in support of EJ, land use, or economic developments		Project adds significant new capacity or accessibility in support of EJ, land use, or economic development

Division Needs Ranking

Certain highway, aviation, bicycle and pedestrian, transit, and rail projects are scored at the division needs level, as well as any projects that cascade into the division needs category from the regional impact category. FAMPO's methodology allows for non-highway projects to be scored independently, thus the table below applies only to highway projects.

Highway Project Division Impact Ranking – Criteria and Weights						
Criteria	0 Points	5 Points	10 Points	15 Points	20 Points	25 points
Existing Congestion (25 Max)	Volume to capacity less than 0.5	Volume to capacity between 0.51 and 0.65	Volume to capacity between 0.66 and 0.8	Volume to capacity between 0.81 and 0.9	Volume to capacity between 0.91 and 1.0	Volume to Capacity over 1.0
Safety Score (25 Max)	SPOT safety points less than 20	SPOT safety points between 21-35	SPOT safety points between 36-50	SPOT safety points between 51-65	SPOT safety points between 66-80	SPOT safety scores over 81 points
Transportation Plan Consistency (10 Max)	Project is not in CTP or MTP or other approved plan		Project is in CTP or MTP or other approved plan			
Multimodal Accommodations (20 Max)	Project does not include ped/bike/transit facilities		Project includes minor ped/bike/transit improvements		Project includes major ped/bike/transit improvements	
Public Support (5 Max)	No Public Support	Some Public Support				
Supports Environmental Justice, Land Use, or Economic Development (15 Max)	Project adds capacity or accessibility where growth is not encouraged		Project adds some new capacity or accessibility in support of EJ, land use, or economic developments	Project adds significant new capacity or accessibility in support of EJ, land use, or economic development		

Non-Highway Projects Ranking

Due to the inherent difficulties in comparing highway projects to other modes, FAMPO proposes assigning a minimum number of points to non-highway modes, including rail, transit, bicycle and pedestrian, and aviation projects. A total of 400 of the 1800 Division points (22%) will be assigned to non-highway modes. The projects will be ranked based on the following table and **the top scoring project in each mode will receive 100 points**. Any remaining points will be assigned to the top ranking project after the top project in each category receives its points.

Non-Highway Projects Division Impact Ranking – Criteria and Weights						
Criteria	0 Points	5 Points	10 Points	15 Points	20 Points	25 Points
Transit Expansion (20 max)	Project does not expand passenger service				Project expands passenger service	
Transportation Plan Consistency (25 Max)	Project is not in CTP of TP					Project is in CTP or TP
Public Support (5 Max)	No Public Support	Some Public Support				
Supports Environmental Justice, Land Use, or Economic Development (20 Max)	Project adds capacity or accessibility where growth is not encouraged		Project adds some new capacity or accessibility in support of EJ, land use, or economic developments		Project adds significant new capacity or accessibility in support of EJ, land use, or economic development	
Serves Activity Center(s) (20 Max)	Project does not serve activity center		Project does serve activity center		Project serves multiple activity centers	
Connectivity (10 Max)	No Connectivity		Some Connectivity			

SAFETY SCORES FOR PRIORITIZATION 5.0

The calculation of safety scores varies depending on whether the project is located along a roadway segment or at an intersection:

Segments = (Crash Density x 20%) + (Severity Index x 20%) + (Critical Crash Rate x 20%) + (Safety Benefits x 40%)

Intersections = (Crash Frequency x 30%) + (Severity Index x 30%) + (Safety Benefits x 40%)

Safety scores for segment projects will be calculated automatically in the SPOT Online tool, based on a GIS safety score data layer provided by the Mobility and Safety Division. The layer contains the Crash Density, Severity Index, and Critical Crash Rate scores for all segments on state-maintained roadways (each safety component is scored using a 0-100 point scale). Scores are based on a 3-year moving average of crash data.

Intersection safety scores will be calculated manually by the Mobility and Safety Division.

Definitions for each safety component are as follows:

- **Crash Density:** Number of reported crashes per mile.
- **Severity Index:** Locations with a high severity index have higher than average injury rates and/or more severe injuries. This index uses the “Crash Severity” data as described below. NCDOT has established “Equivalent Property Damage Only” (EPDO) coefficients which are used to compare crash severity types among each other. One “B-injury” crash or “C-injury” crash is equivalent to 8.4 “PDO” crashes. One “K-injury” crash or “A-injury” crash is equivalent to 76.8 “PDO” crashes. The severity index of a location is equal to the total EPDO divided by the number of crashes.
 - Crash Severity: Crash severity is reported based on the “KABCO” scale. The crash injury status is the most severe injury to a person involved in the crash.
 - K-Fatal – A death results from injuries with 12 months after the crash.
 - A-Disabling – Prevents the person from performing normal activities for at least one day
 - B-Evident – Obvious injury.
 - C-Possible – No visible injury may have momentary loss of consciousness.
 - O-Property Damage Only (PDO).
- **Critical Crash Rate:** A statistically derived number, which is often used as a screening tool to identify locations where crash rates are higher than should be expected for a given facility type and where further engineering investigations may be considered. Crash Rate is defined for a section of highway as the number of crashes per 100 million vehicle miles travelled.

- **Crash Frequency:** The number of reported crashes during a given timeframe.
- **Safety Benefits:** Assesses a project's effect on existing safety deficits. This includes an additional / re-examination of Safety Benefit Factors, including:
 - a) New Location Projects on Primary Routes (Interstate, US, NC)
 - b) New Location Projects on Secondary Routes (SR)
 - c) Superstreets
 - d) Roundabouts – split from Intersection Improvements