

CMAQ/RSTP FUNDING PROJECT APPLICATION, SELECTION AND PRIORITIZATION METHODOLOGY

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INTRODUCTION

This document describes the process the Fredericksburg Area Metropolitan Planning Organization (FAMPO) will undertake to identify and select transportation projects for inclusion in FAMPO's Transportation Improvement Program (TIP) and VDOT's Six Year Improvement Program (SYIP). The selection process outlined in this document will be used for all proposed projects using Federal Regional Surface Transportation Program (RSTP) and Congestion Mitigation and Air Quality (CMAQ) program funding.

FAMPO's CMAQ and RSTP project selection is a cooperative process between the Fredericksburg MPO, VDOT, DRPT and Commonwealth Transportation Board (CTB). CMAQ and RSTP project recommendations are selected and prioritized by the Fredericksburg MPO, and submitted to the Commonwealth Transportation Board for final approval.

The procedure for selecting and prioritizing includes the development of a candidate project list by the FAMPO Technical Committee (FTC). A numeric scoring procedure is used to score each candidate project, and the results of the scores and project recommendations are reported to the FAMPO Policy Committee for consideration. The results of the project scores, according to established criteria, are the basis of FTC recommendations. The FAMPO Policy Committee considers the recommendations from the FTC and selects the final recommended list of CMAQ and RSTP projects in coordination with the district CTB member for annual submittal to the Commonwealth Transportation Board for approval as part of the SYIP. Amendments to 23 USC funded projects, and in particular CMAQ and RSTP funded projects, must be approved by the Commonwealth Transportation Board. This project selection process, as outlined above, is consistent with 23 U.S.C. section 134(j)(3)(5)a and 23 CFR 450.330(b).

OBLIGATION AND EXPENDITURE OF CMAQ AND RSTP FUNDS

On July 1 of 2010 the Commonwealth of Virginia's FY2011 Budget Bill with Transportation Policy Goals became law. This bill contained provisions related to the obligation and expenditure of federal Regional Surface Transportation (RSTP) funds and Congestion Mitigation and Air Quality (CMAQ) funds and their local matching funds (which are provided by the Commonwealth).

The provisions for CMAQ funds state that projects funded by CMAQ funds (whole or part) shall be federally obligated within 24 months of their allocation by the board and expended within 48 months of the obligation (total six years). If the defined timeframes are not met, the Commonwealth Transportation Board (CTB) may use the funds for any other project eligible under 23 USC 149.

The provisions for RSTP funds state that funds from FY11 and thereafter shall be federally obligated within 12 months of their allocation by the board and expended within 36 months of obligation (total four years), or "board shall rescind state match". Fiscal Year 2010 and any preceding funds shall be federally obligated within 12 months of July 1, 2010 and expended within 36 months their obligation (total four years), or "board shall rescind state match". If these funds are not obligated and expended within the defined timeframes the CTB has the power to rescind the Commonwealth provided 20% in matching funds that the Federal funds require.

The following table illustrates the obligation and expenditure deadlines for CMAQ and RSTP funds through Fiscal Year 2019.

Funding Source/ Year	Obligation Deadline	Expenditure Deadline
RSTP 2006 -2010	July 1, 2011	July 1, 2014
RSTP 2011	July 1, 2012	July 1, 2015
RSTP 2012	July 1, 2013	July 1, 2016
RSTP 2013	July 1, 2014	July 1, 2017
RSTP 2014	July 1, 2015	July 1, 2018
RSTP 2015	July 1, 2016	July 1, 2019
RSTP 2016	July 1, 2017	July 1, 2020
RSTP 2017	July 1, 2018	July 1, 2021
RSTP 2018	July 1, 2019	July 1, 2022
RSTP 2019	July 1, 2020	July 1, 2023
RSTP 2020	July 1, 2021	July 1, 2024
CMAQ 2006 -2010	July 1, 2012	July 1, 2015
CMAQ 2011	July 1, 2013	July 1, 2016
CMAQ 2012	July 1, 2014	July 1, 2017
CMAQ 2013	July 1, 2015	July 1, 2018
CMAQ 2014	July 1, 2016	July 1, 2019
CMAQ 2015	July 1, 2017	July 1, 2020
CMAQ 2016	July 1, 2018	July 1, 2021
CMAQ 2017	July 1, 2019	July 1, 2022
CMAQ 2018	July 1, 2020	July 1, 2023
CMAQ 2019	July 1, 2021	July 1, 2024
CMAQ 2020	July 1, 2022	July 1, 2025

UNUSED FUNDING

Any excess CMAQ or RSTP funds will revert to their respective FAMPO Reserve Balance for competitive re-allocation at the regional level.

PROJECT SELECTION

CMAQ and RSTP funds should be allocated and implemented in a manner consistent with the current Federal guidelines for their use (federal guidelines are available from FAMPO upon request).

Ranking Factors:

- Safety
- Congestion Management
- Cost Effectiveness
- Project Readiness/ Additional Committed Funding for Project
- Ability to Get Project to the Next Phase
- Natural and Built Environment
- Efficient Future Land Use
- System Continuity
- Mobility/Accessibility
- A demonstration that the project improves air quality (CMAQ funding only)

APPLICATION PROCESS AND PRELIMINARY SCREENING

Project funding application forms will be in an electronic format (either .doc or .pdf) and will be posted on the FAMPO website, available for download. Once the applications are received, the projects will go through an initial screening process that will check for:

- The proposed project meets all applicable criteria under federal RSTP/CMAQ guidelines regulations (Moving Ahead for Progress in the 21st Century - MAP-21)
- The project must be consistent with FAMPO's current Long Range Transportation Plan (2040 LRTP)
- The project must be consistent with FAMPO's current Congestion Management Process (CMP), additional consideration given to projects in identified CMP Corridors
- A detailed project description with supporting technical data
- Cost estimates for proposed projects that have been vetted through VDOT Fredericksburg District staff

- Project must be screened for impacts to identified Environmental Justice communities (see FAMPO EJ Mapping on website for locations of communities)
- A defined project implementation schedule
- A demonstration that the project is ready for the proposed phase (PE, ROW or CN)
- An identified project management team to oversee the project

PROJECT EVALUATION AND PROGRAMMING

After the initial screening process has been completed, projects will be placed into one of six categories, which are listed below, and then scored. Projects within each category will then be compared to each other. FAMPO Staff will evaluate all projects according to the criteria for each project category. Staff will then prepare a list of candidate projects that have been scored and ranked in each category. The projects will be listed in descending order from the highest score to lowest score in each category.

The six project categories are as follows:

- 1. Roadway Capacity/Paving Projects**
 - Widening, new facilities, interchanges/intersection improvements
 - Bridge rehabilitation projects & PE
 - Roadway paving projects
- 2. Intelligent Transportation Systems (ITS) and Operational Improvements**
 - Corridor operational improvements (i.e. signal synchronization/ optimization, and incident management)
- 3. Intermodal Transportation Projects**
- 4. Transit Projects**
 - Vehicle replacement/purchases
 - Other projects/programs/equipment/signage
 - Commuter Parking Lot Expansions
 - Transportation Demand Management (TDM)
- 5. Planning/PE Studies**

6. Non-Motorized Projects

- Bicycle projects
- Pedestrian projects

The descriptions of the evaluation criteria and methods used in scoring candidate projects are as follows:

If the total list of projects exceeds the amount of total funding available; FAMPO staff, in consultation with Fredericksburg District VDOT staff will recommend priority projects that will receive funding. Per VDOT Policy, funding will be programmed for all six years of the SYIP. The following principles will be used to program all projects:

- Project phases will be fully funded according to current schedules and estimates
- Funds will be allocated consistent with CTB and Regional priorities
- Existing projects will be reviewed prior to adding new projects. Reviews include:
 1. Cover deficits and move/transfer surpluses
 2. Adjust funding for schedule and estimate changes
 3. Review and reallocate funds with development, timeline and inactive issues
 4. Fund next phase of projects before adding new projects
- Address existing inactive projects

The project priority list will be presented to the Technical Committee for review, adjustment, and endorsement. Next, the list will be presented for approval by the FAMPO Policy Committee and forwarded on to VDOT and the Fredericksburg District CTB representative for consideration to be included in the Six Year Improvement Program (SYIP).

Once the allocations for the SYIP are approved and the SYIP takes effect. FAMPO staff will develop a comprehensive TIP amendment to include the allocations into the current TIP. This typically takes place at the July FAMPO Meeting.

1. Roadway Projects

Roadway Capacity Projects (Road Widening)

The FAMPO highway project prioritization methodology, adopted by the FAMPO Policy Committee, will be employed for ranking all candidate highway projects (i.e. roadway widening or new roadway alignments).

Intersection Improvement Projects

This project type refers to improvements at individual intersections that are not part of a coordinated signal system. The projects may include improvements in the geometric design of the intersection by adding turn lanes, restriping, major reconfigurations, grade separation, etc. The change in emissions for a project is based on the change in delay (in hours per day) at the intersection as a result of the project.

Scoring Factors for Intersection Improvement Projects:

Criteria	Points	Scoring Instructions
Reduction of Congestion	0-20	Greatest positive change to LOS = 15 Lowest positive change to LOS = 0 (2 point sliding scale) Is project located in CMP Corridor? (yes-5, no-0)
Air Quality	0-30	Reduces NOx = 15 points Reduces VOC = 15 points
Safety	0-20	20 points to the project with the highest current crash rate/number of crashes (sliding scale of 2 points each)
Project Readiness	0-20	Projects with detailed design and cost estimates that are ready to undertaken = 10 points Projects with additional funding committed = 10 points (sliding scale of 2 points each)
Land Use/Connectivity	0-10	Will the project provide access to areas of walkable, transit friendly mixed use development (either existing or proposed)? (yes-5, no-0) Will the improvement promote improved inter- connectivity between adjacent developments? (yes-5, no-0)

Bridge Replacement and Rehabilitation Projects

According to US Code: Title 23 CFR 650D – Highway Bridge Replacement and Rehabilitation Program, Section 650.403a, a bridge is defined as: A structure, including supports, erected over a depression or an obstruction, such as water, a highway, or a railway, having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of the openings for multiple boxes; it may include multiple pipes where the clear distance between openings is less than half of the smaller contiguous opening.

Section 650.405 states that all deficient highway bridges on all public roads may be eligible for replacement or rehabilitation.

Criteria	Points	Scoring Instructions
Bridge Condition per VDOT Sufficiency Index*	0-40	80-65 = 10 points 64-50 = 20 points 26-50 = 30 points 25-0 = 40 points
Federal Functional Classification**	0-20	Urban Interstate = 20 Rural Interstate = 18 Urban Principal Arterial = 16 Rural Principal Arterial = 14 Urban Minor Arterial = 12 Rural Minor Arterial = 10 Urban Collector = 8 Rural Major Collector = 6 Minor Collector = 4 (Urban Only)
AADT of Bridge	0-10	Sliding Scale-Maximum points to the bridge with the highest AADT
Project Readiness	0-20	Projects with detailed design and cost estimates that are ready to be undertaken = 10 points Sliding Scale -projects with additional funding committed = 10 points
Operational/Safety Deficiencies	0-10	Bridges with operational and or safety deficiencies such as no bike/ped facilities, bridge creates a bottleneck, bridges floods during bad weather, etc.
*Bridges with sufficiency ratings between 50 and 80 are candidates for rehabilitation and bridges for sufficiency ratings under 50 may be candidates for replacement. **Additional consideration will be given to bridges on roadways that serve as critical links for access by emergency vehicles, school buses and transit vehicles.		

Roadway Paving Projects

According to VDOT’s State of the Pavement - 2006 Report, pavement distress data is collected (per procedures set by VDOT’s Distress Rating Manual) and is aggregated into two Pavement Condition Indices. The Load-related Distress Rating (LDR) incorporates pavement distresses that are related to traffic loadings (for example, longitudinal cracking in wheel paths). The Non Load-related Distress Rating (NDR) is comprised of distresses considered to be primarily non-load related (i.e., climate, materials or construction deficiency). Both indices range from a value of 0 to 100. A value of 100 is assigned to a pavement with no visible distress, while 0 is assigned to a pavement considered impassable. A third index – the Critical Condition Index (CCI) is calculated as the lower of the LDR and NDR. These indices were first developed in 1998, and have undergone extensive validation through a process of consensus building using numerous VDOT pavement experts.

Critical Condition Indexes (CCI) are grouped into five ranges corresponding to condition categories: excellent, good, fair, poor and very poor. These categories, in turn, correspond to a likelihood of corrective action. In general, pavements with an index below 60 are likely candidates for maintenance and rehabilitation action.

Criteria	Points	Scoring Instructions
Overall Pavement Condition per VDOT CCI Index	0-50	<u>CCI Index</u> Very Poor Condition 0-49 = 50 points Poor Condition 50-59 = 40 points Fair Condition 60-69 =30 points Good Condition 70-89 = 20 points Excellent Condition 90+ = 10 points
Federal Functional Classification	0-20	Urban Interstate = 20 Rural Interstate = 18 Urban Principal Arterial = 16 Rural Principal Arterial = 14 Urban Minor Arterial = 12 Rural Minor Arterial =10 Urban Collector = 8 Rural Major Collector = 6 Minor Collector = 4 (Urban Only)
Additional Funding	0-15	Projects with additional committed funding = 15 (2 point sliding scale based on the percentage of total project cost committed)
Safety	0-15	Does the project address a documented safety issue? Yes = 15 No=0

2. Intelligent Transportation Systems and Operational Improvements

Intelligent Transportation Systems (ITS) use technology improve the safety, efficiency and security of the roadway system. ITS does not refer to one specific program or initiative, it can be a combination of technologies working together to improve the system, such as integrated corridor management. Some examples of ITS technologies include: real-time traveler and weather information, adaptive signal control, travel demand management (TDM), variable tolling/congestion pricing, automatic vehicle location (AVL) systems for transit vehicles and emergency transportation operations (ETO) strategies.

A wide array of highway and transit projects are classified as ITS/Operational projects, such as:

- Traffic signal timing
- Upgrades to traffic signal systems
- Advanced traffic management systems
- Variable message signs
- Communications improvements
- Video surveillance infrastructure
- Automatic vehicle location and passenger counting for transit purposes
- Vehicle Detection Systems

Criteria	Points
Will the project improve traffic flow during peak congestion periods and special circumstances?	0-20
Is project located in a CMP Corridor	0-10
Will the project directly reduce the number and severity of roadway incidents?	0-20
Does the project address the mobility or accessibility needs of the region?	0-10
Does the project increase the linkage and communications among various operating agencies to provide better traffic information to users?	0-20
Is the project/project concept part of the Regional ITS Strategic Plan ?	0-10
Additional Funding: Projects with additional committed funding = 10 (2 point sliding scale based on the percentage of total project cost committed)	0-10

3. Intermodal Freight Transportation Projects

Intermodal transportation is aimed at moving freight efficiently between transportation modes, such as train to truck or vice versa. These improvements could range from roadway capacity or operational improvements to truck parking to improvements that provide access to port or intermodal terminals.

Criteria	Points
Will the project establish opportunities for linkages or connections between transportation modes or existing corridors and industrial, employment and population centers?	0-40
Will the project improve the operations to better accommodate intermodal movements?	0-20
Will the project improve rail or vehicular access to freight distribution facilities, ports, major industrial clients, or employment and population centers?	0-20
Project readiness: projects with detailed design and cost estimates that are ready to begin/continue a phase = 10 points Projects with additional committed funding = 10 (2 point sliding scale based on the percentage of total project cost committed)	0-20

4. Transit Projects

Vehicle Replacements/ New Vehicle Acquisitions

New or replacement transit vehicles include buses, rail or vans. Transit agencies are encouraged to purchase vehicles that are the most cost effective in reducing emissions. Routine preventive maintenance for vehicles is not eligible.

With respect to vehicle replacements, the evaluators should assign a score from 0-100 based on “consideration” of the following factors:

Evaluation Criteria	Points	Scoring Instructions/ Supporting Data
Vehicles to be replaced have reached end of usefulness (defined by FTA)	0-20	List of buses to be replaced with existing/projected mileage and age
Estimated cost per vehicle	0-20	Estimated price per fully equipped vehicle
Number of passenger trips effected	0-20	System ridership for past full year/ additional projected ridership
Pollution reduction and energy efficiency enhancements	0-20	Are new vehicles more energy efficient and promote green technologies?
Other available funding sources	0-20	Other potential funding sources: likelihood of funding, local match requirement, grant cycle.

Evaluators should consider all of these factors when scoring the application and enter brief comments about each of them on the evaluation sheet.

Transit Operating Assistance

Operating assistance to introduce new transit service or expand existing service is eligible for CMAQ funding. It may be a new type of service, service to a new geographic area, or an expansion of existing service providing additional hours of service or reduced headways. For a service expansion, only the operating costs of the new increment of service are eligible. Eligible operating costs include labor, fuel, maintenance, and related expenses. Operating assistance may be CMAQ-funded for a maximum of three years. The intent is to support the demonstration of new services that may prove successful enough to sustain with other funding sources, and to free up CMAQ funds to generate new air quality benefits.

With respect to new or expanded transit services, the evaluators should assign a score from 0-100 based on “consideration” of the following factors:

Evaluation Criteria	Points	Scoring Instructions/ Supporting Data
Population within service area and prospective ridership within area (within ¼ mile of transit route)	0-20	Preliminary service routing, population estimate within service area, (based 2010 FAMPO TAZ data) & estimate of perspective ridership
Estimated service cost	0-20	Cost per hour of service, revenue hours of service, cost of buses utilized in service
Will proposed service operate in an area with significant traffic congestion	0-20	Highway LOS of D or below
Will proposed service operate in a CMP Corridor?	0-10	Yes – 10, No-0
Will the service attract “choice” or Single Occupant Vehicle (SOV) riders and/or transit dependent populations	0-10	Data by Census Tract: <ul style="list-style-type: none"> • Median household income • Percentage of population below poverty level • Percentage of households with no vehicle and only one vehicle, and • Average household size for owner and renter occupied households
Other funding sources	0-10	Other potential funding sources: likelihood of funding, local match requirement, grant cycle.
Will the jurisdiction commit to continuing the service if the route meets defined ridership objectives	0-10	Letter of Commitment from jurisdiction

Evaluators should consider all of these factors when scoring the application and enter brief comments about each of them on the evaluation sheet.

New Commuter Parking/Commuter Parking Expansion Projects

FAMPO's 2040 Constrained Long Range Transportation Plan calls for an additional 15,000 commuter parking spaces in the Region by 2040. This includes both VRE parking expansions as well as commuter parking lots. The following scoring mechanism will be used to prioritize the parking expansion projects. The scoring criteria includes cost-per-space analysis, demand at existing commuter lots, proximity to I-95 and rail and accessibility to existing transit routes/facilities as well as accessibility to primary roadways.

Evaluation Criteria	Points	Scoring Instructions/Supporting Data
Existing Parking Demand at Proposed Location	0-25	P&R lot presently at/over capacity will receive 20 points. A relative scale will be used for lots not presently at capacity. (for new lots; survey closest existing lot)
Commuter Type Served at P&R Lot	0-20	Carpool/Vanpool = 5 Commuter Bus = 5 Commuter Rail = 5 Local Bus = 5
Proximity to I-95, Principal Arterial Roadways and/or Commuter Rail Stations	0-20	Less than 2 miles = 20 points Between 2 miles and 4 miles = 15 points Between 4 miles and 6 miles = 10 points Over 6 miles = 5 points
Is proposed lot located in a CMP Corridor?	0-5	Yes = 5 points No = 0 points
Is the Parking Expansion part of a Mixed Use Development or Promotes Walkable, Transit Friendly Land Use	0-10	Yes = 10 points No = 0 points
P&R Lot is Bike/Ped Accessible	0-5	Yes = 5 points No = 0 points
P&R Lot will have bicycle parking available	0-5	Yes = 5 points No = 0 points
Cost Per Space	0-10	Projects with the lowest cost per space (total project cost of all phases) will receive the highest score. A 2 point sliding scale will be used for all

Transportation Demand Management (TDM) – GWRideConnect

GWRideConnect, the Regional transportation demand management agency, serves the residents of Stafford, Spotsylvania, Caroline and King George counties and the City of Fredericksburg. GWRideConnect promotes and facilitates ridesharing and transportation demand management initiatives to assist persons seeking transportation options to their workplaces and other destinations. The overarching policy of the GWRideConnect Program is to promote, plan and establish transportation alternatives to the use of the single occupant vehicle, thereby improving air quality, reducing congestion and improving the overall quality of life for the citizens of the region.

The activities and programs of a transportation demand management agency are all CMAQ eligible, are Regional in scope and provide air quality and congestion mitigation benefits across the entire FAMPO service area. A base amount of \$125,000 of the yearly CMAQ allocation will be set aside for GWRideConnect. The GWRideConnect agency will submit project applications and corresponding materials for programs and activities each fiscal year. The funding will be reviewed annually and funding will be derived from an off the top designation of the region’s annual allocation of CMAQ funds. If GWRideConnect requires funds in excess of the base allocation; normal CMAQ procedures will be followed.

5. Planning/PE Studies

This category refers to surface transportation planning initiatives including but not limited to:

- Long/Short-Range Planning
- Corridor Studies
- PE Studies
- NEPA Studies
- Conceptual Design
- Project specific planning (i.e. IJR/IMR, Alternative Analysis)

It should be noted that CMAQ funding is only eligible for planning studies that will lead to a CMAQ eligible project (i.e. feasibility studies, conceptual design studies, etc.)

Criteria	Points	Yes/No
Is the study necessary to further a project, recommendation, policy goal, or to enhance/update the Long-Range Transportation Plan?	0-10	
Is the study necessary to address a safety issue?	0-20	
Is the study concerned with encouraging multimodal transportation?	0-15	
Does the study address the region's mobility or accessibility needs?	0-20	
Do the study's goals and/or show support for economic vitality, quality of life and walkable, transit friendly, mixed use development patterns? (5 points each)?	0-15	
Do the goals and/or objectives foster environmental preservation/protection?	0-10	
Projects with additional committed funding (2 point sliding scale based on the percentage of total study cost already committed)	0-10	

6. Bicycle/Pedestrian Projects

Eligible bicycle and pedestrian facilities include:

- Construction of bicycle and pedestrian facilities such as paths, bike lanes, shoulders, and sidewalks/ ADA sidewalk modifications
- Support facilities such as bike racks, signage, signalization, support facilities and trail amenities
- Non-construction outreach related to safe bicycle use (all Transportation Alternatives projects are eligible to receive RSTP funds)

Number of people the project will benefit (0-20 points)

These projects will be evaluated based on estimated users that are within a logical distance from the project. A three-mile radius will be used for bicycle projects and a one-mile radius for pedestrian projects. FAMPO 2010 Traffic Analysis Zone (TAZ) geography will be used to determine the base and horizon year (2040) population and employment.

The highest user base will receive 20 points and the lowest user base will receive 0 points (based on a two point sliding scale).

Projects will address existing needs (0-40 points)

Criteria	Points	Scoring Instructions
Need for Improvements	0-10	Completion of a missing link as part of phased construction or extend/link existing facilities
	0-10	Provides access to transit, commercial/employment centers, recreational facilities from residential areas
	0-10	Eliminates a barrier to major destinations
	0-10	Improves bicycle/pedestrian safety

Transportation Function (0-20 points)

Criteria	Points	Scoring Instructions
Transportation Function	0-10	Serves trips to work/school
	0-10	Serves other trips (personal business, shopping, recreation, etc.)

Additional Committed Funds (0-10 points)

Projects with additional committed funding (i.e. an approved budget, resolution, proffer, impact fee, etc) will be listed on a 2 point sliding scale (based on the percentage of total project cost already committed) with the project pledging the most additional money receiving 10 points and the least receiving 0 points.

Project Readiness (0-10 points)

Projects with detailed design and cost estimates that are ready to begin or continue a project phase will receive 10 points

OTHER PROJECTS

The other project category includes those projects that do not fit perfectly into any other project groupings. Analysis methods for these projects are typically project specific and may be qualitative or quantitative depending on the type of project and the availability of input data. These projects will be addressed on a case by cases basis by FAMPO staff and the FAMPO Technical Committee.