Tech Memo 3: Recommended Enhancements for Bicycle and Pedestrian Project Evaluation and Selection

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I. Introduction

The Atlanta Regional Commission is evaluating its existing process for soliciting, evaluating, and selecting bicycle and pedestrian projects for funding. The assessment presented in this memo has considered multimodal planning factors and recommends modifications to the current eligibility-based project evaluation procedures in place for the short-range Transportation Improvement Program, and is specifically focused on the Last Mile Connectivity and Transportation Alternatives programs.

The goals for this project are to evaluate the current program application and project selection process (for funding), and identify enhancements that:

- Include more strategic project selection criteria focused on safety, mobility, opportunity and economic development that better align projects with the Emphasis Areas and goals of the Regional Transportation Plan
- Streamline the application process
- Help applicants (and ARC staff) understand the application process
- Introduce more transparency to the application process

The findings and recommendations in this memo have been informed by discussions with ARC staff in multiple departments, transportation planners and officials from around the region, bicycle and pedestrian advocates, public health professionals, and others involved in the development and implementation of multimodal transportation projects. The memo's recommendations also incorporate lessons learned from a best practices review of several of ARC's peer planning organizations across the country.

Section II. *Major Findings* provides an overview of current ARC programs and procedures, and introduces the practices of peer regions that were evaluated in developing this report. Section III. *Recommendations for Improving Bicycle and Pedestrian Project Application and Selection Process* introduces the major recommendations related to the submission, review, and selection of bicycle and pedestrian projects for the Transportation Improvement Program.

II. Major Findings

A. Existing Programs that fund Bicycle and Pedestrian Projects

The Atlanta Regional Commission has three programs from which the majority of bicycle and pedestrian project planning and construction in the region are funded: Last Mile Connectivity, Transportation Alternatives, and CMAQ. These programs draw funding from a variety of federal sources including CMAQ, STP-Urban, HSIP, and the MAP-21 surface transportation funding bill signed into law in 2012. Bicycle and Pedestrian projects are also funded through the Livable Centers Initiative which is largely funded through STP-Urban.

Last Mile Connectivity

The Last Mile Connectivity (LMC) funds planning and capital improvements for safe bicycle and pedestrian travel in the region. Funded projects are consistent with regional goals and objectives that support the 2007 Atlanta Region Bicycle Transportation and Pedestrian Walkways Plan and PLAN 2040. The LMC program includes $50 million (includes 20% local match) in the FY 2012-2017 TIP, and on average $12.5 million is awarded per year. The LMC has established eligible project types, e.g. bike lanes, signage programs, curb ramp upgrades, and recommended emphasis areas, e.g. safe access to transit and school, hazardous roadway crossings. The general intent of the LMC program is to fund smaller projects that provide high benefit in terms of safety and mobility within transit corridors and activity centers.

Transportation Alternatives Program

The Transportation Alternatives Program (TAP) is focused on providing safe routes for non-motorized travel. The program is authorized as part of MAP-21 (23 U.S.C. 213(b)), and combines the former Transportation Enhancements (TE), Safe Routes to School (SRTS), and Recreational Trails into one comprehensive program. The first solicitation for the TAP occurred late spring 2013 with anticipated funding of $14-15 million. The TAP solicitation consisted of a two-step process, the first being a letter of interest submitted by project proponents and intended to allow projects to be pre-screened by ARC staff and assess funding levels while minimizing the level of effort on behalf of submitters. ARC staff then provided feedback on whether the project and project scope were appropriate for the TAP and available funding. Those projects deemed appropriate for TAP funding were then asked to proceed with the full application process.

ARC staff found that a large number of projects for which letters of interest were submitted were a more appropriate fit for the Last Mile Connectivity Program given the project scale and funding amount requested. Among stakeholders that were interviewed who had submitted a letter of interest there was general agreement that this two-step process works well because it allows for a decision or feedback from ARC staff on how to make a proposal more competitive before an agency commits large amounts of staff time preparing the formal application.

Livable Centers Initiative

The Livable Centers Initiative (LCI) is a program that awards planning grants on a competitive basis to local governments and nonprofit organizations to prepare and implement plans for the enhancement of existing centers and corridors consistent with regional development policies, and also provides transportation infrastructure funding for projects identified in the LCI plans. Drawing its funding from STP-Urban funds, the LCI program awards approximately $1 million per year for planning studies and additional implementation funding for transportation projects, which varies from year to year.

The LCI program has been successful in terms of awarding funding to transportation projects that get implemented and have an appreciable impact. This success is largely attributed to the upfront land use planning that is required of LCI areas, a scoping report requirement for selected projects, and the level of ARC staff support and review provided to applicants and projects prior to, during and after project selection and award. While the LCI program is focused on tying land use to transportation investment

and targets funding to designated LCI areas, it has several overlapping objectives with the LMC and Transportation Alternatives programs. The following is a list of procedural and project selection-related components of the LCI program that may be transferrable to other programs funding bicycle and pedestrian projects:

- Quantitative criteria – the LCI program application contains a number of quantitative criteria that allow for and efficient and objective assessment of a proposed project's merits.
- Bonus points – the LCI program application awards bonus points for projects that align well with program objectives. For example, bonus points are awarded to projects within a half mile of a transit station, or two applicants that have a good implementation track record.
- ARC staff support – the scale of LCI-funded projects are generally larger than LMC-funded projects, and therefore, a higher level of staff support is warranted. However, the timing and frequency of staff support in relation to pre-application, application, post-award, and post-evaluation phases, may be transferrable. In addition, ARC staff play an active liaison role with GDOT to keep projects moving and help locals resolve issues in GDOT's Plan Development Process. The length of time between project award and project execution, which stakeholders cited as often being attributed to the GDOT review and approval process, was cited as a significant obstacle to getting some LMC projects implemented because conditions change and support withers over time.

B. Practices and Policies of Peer Regions

The Atlanta Regional Commission periodically reviews the practices and policies of other metropolitan planning organizations for regions considered to be similar to the Atlanta region based on population, area, and development patterns. Six of these so called peer regions were reviewed for the methods and practices they have in place for selecting pedestrian and bicycle projects for funding, including Mecklenburg-Union MPO (Charlotte area), North Central Texas Council Governments (Dallas-Fort Worth area), Denver Region Council of Governments, Metropolitan Washington Council of Governments, Metropolitan Council – Twin Cities, and Chicago Metropolitan Agency for Planning. In addition web materials for the Capital Area Metropolitan Planning Organization (Raleigh area) Locally Administered Projects Program were reviewed. Figure below summarizes practices of each the peer regions as they relate to the primary goals for modifying the application and project selection processes of the ARC.

Figure 1: Summary of Peer Region Best Practices

Agency	Streamlined application process (i.e. targeting project types to programs)	Clear , easy-to-access program information	Formalized information sharing and technical assistance	Emphasis on quantitative criteria	Post evaluation and reporting
Mecklenburg-Union MPO (MUMPO)	👍	👍		👍	
North Central Texas Council Governments (NCTCG))				👍	👍
Denver Region Council of Governments (DRCOG)	👍	👍	👍	👍	
Metropolitan Washington Council of Governments (MWCOG)				👍	
Metropolitan Council (Twin Cities)	👍		👍	👍	
Chicago Metropolitan Agency for Planning (CMAP)		👍		👍	
Capital Area Metropolitan Planning Organization (CAMPO)	👍	👍		👍	

In addition, specific practices or policies of several other MPOs and cities were reviewed, including Delaware Valley Regional Planning Commission (regional prioritization), Metropolitan Transportation Commission (performance-based planning and evaluation), Nashville Area MPO (health outcome-based planning), and city of Seattle (sidewalk prioritization).

Many of the specific findings from the review of peer and other regional agencies are referenced in Section III below and additional details can be found in Technical Memorandum 2.

III. Recommendations for Improving Bicycle and Pedestrian Project Application and Selection Process

A. Overview of Recommendations

This section provides recommendations related to the submission, review, and selection of bicycle and pedestrian projects for the Transportation Improvement Program. While the initial scope of this effort was to inform modifications to Last Mile Connectivity Program, the recommendations may be applicable to other funding programs such as the Transportation Alternatives Program. Recommendations are grouped under five topic areas:

- Application Process
- Communication and Coordination
- Project Selection Criteria
- Post Evaluation and Reporting
- Staffing

Recommendations build upon information presented in preceding technical memorandums, the first of which provided an overview of current ARC bicycle and pedestrian project evaluation and selection practices, and a summary of stakeholder and staff input on what is working well and what should be modified in the current process. The second technical memorandum summarized how agencies in peer regions are addressing the application and project selection process as well as related topics that staff and stakeholders identified as needing modification. In addition, findings from a National Cooperative Highway Research Project (07-17), which is focused on developing a model prioritization methodology for bicycle and pedestrian improvements on existing roads, helped inform some of the recommended project selection criteria. The consultant (Toole Design Group) engaged in assessing ARC's current project selection processes is the lead researcher for the NCHRP 07-17 study.

B. Application Process

Stakeholder feedback indicated that there is some confusion about what funding program may be most appropriate for a specific project they are sponsoring. Stakeholders indicated that having separate application processes and deadlines for each funding program creates some confusion and can result in a substantial amount of work on behalf of local agencies because they may submit multiple applications for the same project. ARC staff desire to see a more streamlined application process that better aligns projects with funding sources and program goals.

Below is a summary of current practice and recommendations for modifying the application process to address concerns of staff and stakeholders.

1. Two-stage application process

Current Practice: The ARC's first project solicitation for the Transportation Alternatives Program (TAP) entailed a two-stage application process, which included a Letter of Interest (LOI), and then if the project was deemed suitable for funding and shortlisted, a detailed project proposal. A similar approach is being used for the CMAQ project selection process. The LOI approach is still being evaluated by ARC staff to determine if it is resulting in the selection of better projects and not encouraging local jurisdictions to submit multiple projects with the hope that one would be shortlisted, which could put more burden on ARC staff in the review process.

Staff/stakeholder comments: Stakeholder's familiar with the TAP solicitation process indicated they like this approach because it allows them to get valuable feedback from ARC staff regarding project eligibility and funding levels, and provided them with an opportunity to modify the project to be more competitive without having to expend the amount of effort typically required for a full application. Staff also liked this approach because it allows them to see what types of projects are being considered and provide feedback that hopefully will result in better projects being funded without having to review a large number of lengthy applications.

It was also suggested by staff that the LOI approach can help them identify projects on GDOT roads, allowing them to play an intermediary role between locals and GDOT and determine whether projects have legs to move forward. On the other hand, there is some concern among staff that broader adoption of the LOI approach among all of its programs could result in local sponsors submitting more projects than they otherwise would given the lower level of effort, which could exceed the staff resources available for reviewing the letters.

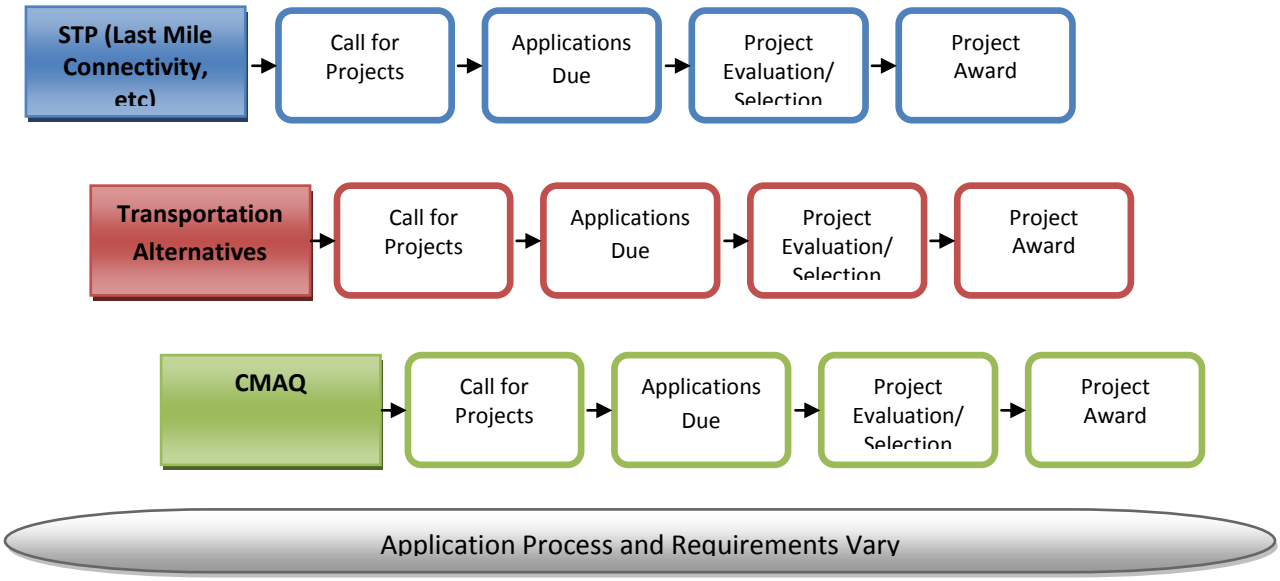
Recommendation: Continue the two-stage approach for TAP and CMAQ and institute it for the next Last Mile Connectivity call for projects. If there is a flood of LOIs, and many do not fit the program eligibility requirements then consider providing additional information on webpage to better direct applicants to the appropriate funding program, and conduct pre-application trainings to clarify eligibility. Ultimately, this approach could be used under a unified call for projects approach (see below).

Good Peer Region Model: None of the peer region models evaluated support this recommendation.

2. Unified Call for Projects/Rolling Application Process

Current Practice: Currently the ARC has separate calls for projects under each of its funding programs for which bicycle and pedestrian projects are eligible. In addition, each program's call for projects may occur at different times of the year resulting in unpredictability. This is largely a result of when funding is distributed at the federal level. A unified call for projects is seen by some ARC staff as a way to reduce confusion among applicants about which funding source to pursue for a given project, and reduce staff time required to administer funding programs.

Figure 2: Current Project Solicitation and Selection Processes



Staff/stakeholder comments: Generally, there was agreement among staff and stakeholders that a more coordinated and comprehensive approach to project solicitation would help address uncertainty and ease the burden on local agencies. While a unified call for projects has been discussed by ARC staff the general feeling is that it would take considerable effort to reconcile such a call with the federal funding process. In addition, one staff member indicated that having a unified or coordinated call for projects has been discussed and there was some uncertainty about how to include Livable Centers Initiative areas in such a process, or if it would be necessary to do so.

Recommendation: Instituting a unified call for projects for the Transportation Improvement Program should be a goal over the next three to five years. The unified call should include STP, CMAQ, and Transportation Alternatives funding programs. The unified call may be divided into different tracks (e.g. roadway, freight, bicycle and pedestrian, and transit). Each track could have different deadlines to ease burden on staff.

The application process may consist of two stages as described above and shown in Figure 3. The letter of interest would allow staff to identify the most appropriate funding program for the proposed project. Applicants could then be provided anapplication tailored to the appropriate funding source as determined by staff. In addition, providing very clear information about project eligibility for each of the funding programs on ARC's website would allow applicants to better understand which program their project best fits and submit the appropriate application.

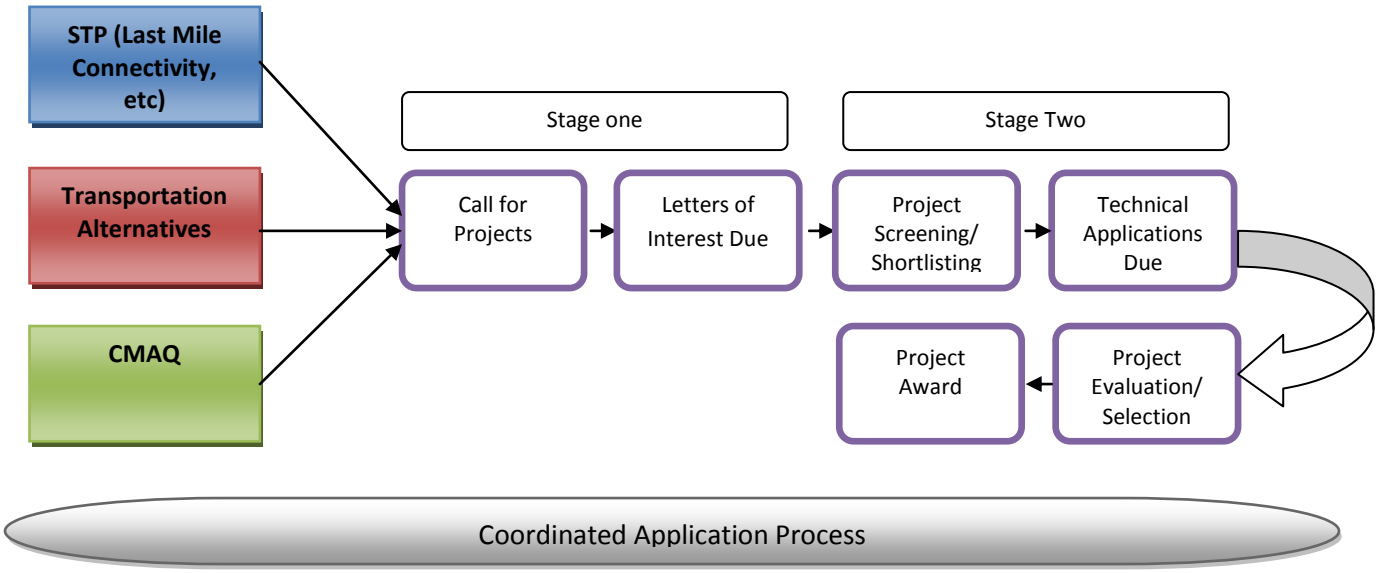
If a unified call for projects is not feasible or desirable in the near-term, then a rolling application process may be another option that allows ARC staff to effectively assign projects to appropriate funding programs. This option would also reduce the uncertainty applicants experience when trying to

determine which funding program is most appropriate for their project. A rolling application process could include the following components:

- Local sponsors may submit letters of interest at any time over the calendar year. Local sponsors should be made aware of the cut-off date for the fiscal year in which they hope to receive funding. For example, a letter of interest should be received at least three months prior to the end of the fiscal year for consideration in the following fiscal year.
- ARC staff sorts letters of interest into the most applicable funding program for bicycle/pedestrian projects (e.g. LMC, TA, CMAQ) and sets ineligible projects aside. The rolling application process could have potential staffing implications if it is found that local agencies are submitting multiple letters of interest for a given fiscal year. If staff are overburdened with reviewing LOIs limits on the number of LOIs submitted in a given fiscal year could be applied.
- As letters of interest are received, they are reviewed by internal/external committees to determine which projects best meet selection criteria and have the strongest local commitment.
- Local sponsors are notified if their project has been selected to submit a full application and which funding program they are to apply for. If necessary, ARC provides additional information (feedback on the project, supporting data, etc.) for the full application.
- Local sponsors submit full applications to the appropriate funding program. The application schedule may either follow the unified call discussed elsewhere in this memorandum, or a staggered call for projects similar to the current process.

If a unified call for projects or rolling application process is not the direction ARC wants to go, then establishing a set schedule for each funding program's call for projects that does not vary from year to year should be a top priority.

Figure 3: Two-stage Unified Call for Projects



Good Peer Region Model: There are several regional planning agencies that have instituted a unified call for projects. The Capital Area Metropolitan Planning Organization's (Raleigh Area) Locally Administered Projects Program was adopted by the MPO in 2010 as a means to prioritize and program all projects in the region that utilize federal funding (STP-DA, CMAQ, etc). The LAPP process involves a once-a-year call for all local highway, bicycle and pedestrian projects.

The Metropolitan Council's (Twin Cities) Transportation Advisory Board (TAB) conducts a regional solicitation of projects for federal transportation funds (including STP, TA, and CMAQ) every two years. Rather than being a unified call in the sense that agency staff sort projects and determine the most appropriate funding source, the TAB's approach requires applicants to determine which federal funding program is most appropriate for their project prior to applying. Separate applications are provided for each funding program.

DRCOG has a unified call for projects for its TIP every four years. Their application process and how they have programmed federal dollars provides them with flexibility in how it applies different funding sources to any given project submitted for the TIP.

3. Review of Project Applications

Current Practice: Currently project applications for TIP funding programs are reviewed by internal staff review committees. The LCI program utilizes external and internal committees to review study and project proposals.

Staff/stakeholder comments: While staff indicated internal review committees work fairly well in terms of being able to review projects in a thorough and efficient manner, they acknowledged that this approach may be perceived as non-transparent and that involving individuals external to the agency may be beneficial to the overall process.

Recommendation: As a means to reduce burden on staff and create an application review process that is more transparent the ARC might consider a combination of external and internal review. The internal review committee may be charged with the initial screening of projects while an external review committee could be used to review shortlisted projects. Staff may also be involved in some of the more technical aspects of evaluating shortlisted projects. Proper vetting of external committee members would be necessary to ensure objectivity

Good Peer Region Model: MWCOG uses a panel of national and local experts consisting of representatives from the public and private sectors. The panel recommends a slate of projects to the Transportation Planning Board, which has final approval of the projects. MUMPO established a bicycle/pedestrian subcommittee consisting of transportation professionals from the region to develop criteria to recommend projects to the MUMPO based on a comprehensive and technically-oriented project ranking process. The subcommittee uses these criteria for each call for applications to submit a ranked list to the MUMPO.

C. Communication and Coordination

Providing clear, up-to-date and easily accessible information about funding programs and the application process is a key aspect of soliciting the right kind of projects that respond to program goals and reducing burden on staff. Below are recommendations for specific communication components.

1. Webpage

The web is likely the first place applicants look for information about funding opportunities available through the ARC. Having well-organized and up-to-date information about the various funding programs, including eligibility requirements, selection criteria, funding amounts, and even case study examples of previously funded projects helps applicants determine if their project may be a good candidate and reduces the amount of ARC staff required to respond to applicant inquiries.

Current Practice: Under the "Transportation" heading there are at least two subheadings in the side navigation bar an applicant may navigate to in order to find out about funding opportunities for bicycle and pedestrian projects: "Bicycle and Pedestrian" and "Transportation Improvement Program. Neither of these pages provides readily apparent information about bicycle and pedestrian funding opportunities. On the Bicycle and Pedestrian Planning main page there is a link to "Funding Bicycle and Pedestrian Infrastructure", which directs users to information on FHWA federal funding sources, ARC's Livable Centers Initiative, and the Recreational Trails Program.

Upon clicking on Bicycle and Pedestrian in the side navigation bar, several additional subheadings appear, including "Transportation Alternatives Program". The Transportation Alternatives Program page is well-organized and includes sections on "pages/forms", "application process overview", project selection criteria", and "additional resources".

On the "Transportation Improvement Program" page there is no clear indication of bicycle and pedestrian funding opportunities such as the Last Mile Connectivity program. Upon clicking on the Transportation Improvement Program subheading, several additional subheadings appear, including

Congestion Mitigation and Air Quality Program. This page is well organized and includes sections on "pages/forms", "application process overview", project selection criteria" and "additional resources". Of particular note is a link entitled "Which Program is the Best Fit for My Project", which very clearly provides information on the three funding programs (STP Urban, CMAQ, and TAP), including goals for each program, emphasis areas, funding scale, estimated funding per year, and key dates.

Staff/Stakeholder Comments: Staff indicated a need for more easily accessible contextual information directly applicable to pedestrian and bicycle projects such as maps of existing facilities, other planned facilities, and planning goals, objectives, and policies. There was a suggestion that internal mapping tools developed, or being developed, by the ARC could be made available to project proponents to assist them in addressing project selection criteria that may require spatial analysis. Stakeholders did not offer many comments on web content other than keeping information up-to-date.

Recommendation: All programs that fund bicycle and pedestrian programs should be listed in one place on the Bicycle and Pedestrian page and links may be used to direct users to pages that are already established (e.g. CMAQ, TAP). The same kind of information that is provided on the "Which Program is the Best Fit for My Project" information sheet noted above should be prominently provided in this section. Additional contextual information such as regional bicycle and pedestrian maps and mapping tools could also be provided to assist local governments with conducting analysis that may be needed to address project selection criteria. Application process information similar to what is provided for on the CMAQ and TAP pages should also be provided for Last Mile Connectivity program.

Figure 4: Example of clear information provided on ARC website

WHICH PROGRAM IS THE BEST FIT FOR MY PROJECT?

Program	STP URBAN	CMAQ	TAP
Goals & Principles	- Improve and preserve the safety, quality, and movement along corridors classified above local collector[1] - Expand transportation options for pedestrians, bicyclists, and transit riders	- Invest in projects that provide significant reductions in emissions and congestion for the broadest area possible - Strategically implement projects with measurable emissions and/or congestion benefit immediately upon completion	- Optimize and expand transportation options by investing in the safety, accessibility and mobility of bicyclists, pedestrians and transit riders[1] - Focus on projects of regional significance[1]
Emphasis Areas	**Last Mile Connectivity** – Localized pedestrian and bicyclist safety, access and mobility with emphasis on correcting "hot spot" issues near transit & schools **Roadway Safety**[1] – Address multimodal safety issues along key roadways, with emphasis on thoroughfares **Freight Safety**[1] – Address multimodal safety issues along truck routes **Livable Centers Initiative** – Projects within designated LCI areas that are defined in LCI plan, linking transportation and land use to create sustainable, livable communities **Transit Capital and Preventative Maintenance**[1] – Transit infrastructure projects to maintain state of good repair and/or improve overall patron experience	**Travel Demand Management**[1] – Physical assets and services that provide real-time information network performance and support better decision-making for travelers **Clean Vehicle & Technology Programs** – Purchase alternative fuel vehicles or convert fleets to run on alternative fuels **Transit Service Start-up Operation**[1] – Transit facilities, operation assistance (3 year max), or vehicles (bus, rail, or van) associated with new mass transit service that expands current system **Roadway ITS/Ops/Incident Management**[1] – Signal synchronization, traffic management, and traveler information systems, with emphasis on thoroughfare and truck routes **Managed Lanes**[1] – Tolling infrastructure such as transponders, roadway modifications to enable tolling, marketing, public outreach, and support services	**Regional Trail Networks** – Shared-use paths that enhance mobility & access in the region **Safe Routes to Schools** – Enhancing safe & convenient access to elementary and middle schools; can be projects that compliment education, outreach, and planning efforts to enhance safe access to schools **Transit & Station Area Access**[1] – Increase the safe and convenient access to regional transit systems, including rail, bus (local or express), and the first-mile and last-mile connectivity to the regional transit network **Comprehensive Activity Center Strategy**[1] – Substantial safety and accessibility improvements to a geographically-focused activity center or high-demand destination **Other** – Any other federally-eligible TA project types as defined by FHWA that significantly and comprehensively enhance safety, accessibility, and mobility for bicyclists, pedestrians, and transit riders
Scale[2]	$1,000,000 - $5,000,000	$1,000,000 - $5,000,000	$1,000,000 - $7,500,000
Est. Funding	$70,000,000 per Year	$29,000,000 per Year	$7,500,000 per Year
Key Dates	(TBD)	LOI due 10/2013; Projects added to TIP 12/2013	LOI 6/2013; Projects added to TIP 9/2013

Consideration should be given to separating this page into a section that is geared more toward local governments (e.g. funding, planning documents) and a section geared more toward bicycle and pedestrian user groups (e.g. maps, trip planning).

Good Peer Region Models: The Capital Area MPO's Locally Administered Projects Program webpage is a concise and easy-to-navigate page containing links to all the information that a local sponsor would need both at the application stage and the award and implementation stage. MUMPO and CMAP also provided relevant bicycle and pedestrian planning and funding information in a logical manner that is easy to access.

2. Pre- –application and post - award meetings

Current Practice: Following a call for projects, pre-application group meetings have been routinely convened for the Livable Centers Initiative with the intent to clarify eligibility and other questions related to the application process.

Staff/stakeholder comment: Several stakeholders suggested that attending a pre-application meeting should be a requirement. Staff indicated that a post-award kick-off meeting with awardees would help to expedite signing of the Project Framework Agreement for GDOT and get funded projects underway more quickly.

Recommendation: Pre-application meetings should be conducted prior to accepting applications. Attendance should be required by all first-time applicants and optional for all others. A post-award meeting should be arranged for all awardees to go over the Project Framework Agreement and set expectations for project implementation and reporting.

Good Peer Region Models: DRCOG requires all first time applicants to attend a pre-application training which walks attendees through the online application and addresses any questions about the process and eligibility. Also local sponsors are encouraged to call staff whenever they have questions.

3. Staff Assistance

Current Practice: ARC staff persons have indicated that the door is always open to applicants for any of its funding programs to meet one-on-one to discuss their proposed project and the application process. Generally, inquiries are handled and assistance is provided by whatever staff is available at the given time.

Staff/stakeholder comments: Staff and stakeholders identified several areas where staff could play a more active role in assisting applicants with the application process, during implementation, and post-implementation reporting and evaluation. At least one staff person indicated that staff time required for providing a higher level of support at these various stages would need to be distributed among a larger number of staff or new staff is required. Staff also indicated that clearer boundaries should be established between program managers and jurisdictional staff in order to reduce the potential for being partisan while providing assistance to local sponsors.

Recommendation: It was suggested by ARC staff that jurisdictional representatives or liaisons should be re-instituted or formalized (formally jurisdictional representatives were more established). Each representative would be assigned one or more jurisdictions and provide assistance as needed in the following ways:

- Answer questions about what funding program to pursue for a given project
- Provide assistance during application process, including sourcing data or conducting analysis that may be required by application, but beyond capability of local jurisdiction, e.g. conducting pedestrian or bicycle volume counts, conducting a Bicycle Level of Service Analysis.
- Assist in project development to ensure appropriate design and that funded projects are implemented as proposed
- Address questions of design, available funding, etc.
- Provide other assistance as needed to move projects along , e.g. working with GDOT
- Project evaluation of implemented projects (see Section E below)
- Post application meetings for those local sponsors that were not awarded funds to review why their project was not selected and how they can submit a stronger application.

Good Peer Region Models: The majority of agencies reviewed provide assistance to applicants on an as needed basis.

4. Internal Staff Trainings

Current Practice: Currently only a select number of ARC staff persons are familiar with local sponsors and the types of bicycle and pedestrian projects they may have identified.

Staff/stakeholder comments: Staff indicated that the ability to provide a higher level of applicant and project support, there is a need for more staff to be "brought into the loop" about projects and the project development process. It was suggested that a larger number of staff could play a more active point of contact role (i.e. jurisdictional representatives or liaisons).

Recommendation: Provide periodic internal staff trainings that address funding programs for bicycle and pedestrian programs, some of the key projects that locals are likely to seek funding for, and some of the issues that are typically encountered during the application, project development, and implementation phases. This training might follow a call for projects (i.e. after letters of interest are received, but before full applications are submitted) when ARC would have a list of jurisdictions and projects seeking funding. Staff could then be assigned to one or more jurisdictions.

Good Peer Region Models: None of the models evaluated support this recommendation.

D. Recommended Project Evaluation Criteria

The following section presents recommended criteria for evaluating and selecting pedestrian and bicycle projects for funding. In an effort to streamline the project review process and promote projects that support the Regional Transportation Plan, have a high probability of being implemented and are likely to offer the greatest return on investment, recommended criteria are organized into three emphasis areas:

safety, mobility, and economic development. Criteria under each focus area are further categorized as "screening" and "technical review" criteria.

Screening criteria are intended to identify those projects that support high-level goals related to the three emphasis areas. Projects that meet one or more of these criteria and demonstrate strong local commitment would be shortlisted and applicants would be requested to submit a technical application. The technical review criteria would be incorporated into the technical application. These criteria are intended to emphasize a technically-oriented, more quantitative approach to project evaluation and selection. Figure 5 summarizes the recommended evaluation criteria.

Consideration has been given to the level of effort required of applicants to respond to criteria and ARC staff or committees to review applications. The goal is to strike a balance between minimizing the burden of the application process while ensuring sufficient analysis and information is provided to allow reviewers to identify projects that best support RTP goals and funding emphasis areas.

Figure 5: Summary of Project Evaluation Criteria

	Safety	**Mobility**	**Economic Development**	**Local Sponser Commitment**
Screening Criteria	Crashes	Connectivity	Access	Match
Technical Criteria	Exposure/risk reduction	VMT reduction	Demand	Urgency/timeliness of project
	Crash reduction/ modification factors	Level of service/ traffic stress	Equity	Supportive policies and programs
			Health	Previous performance
				Project readiness/ maturity of concept

Not all of the criteria listed above may be equally important. Weighting would allow the most important criteria to be emphasized in the project evaluation. Weights might represent community values, or an emphasis area that the ARC chooses to prioritize (e.g. safety). This may even change from year to year based on current priorities (e.g. a focus on air quality). Deciding on weights for individual criteria or emphasis areas may involve ARC staff, the Technical Coordinating Committee, and other stakeholders. Figure 6 below provides a conceptual example of how weights may be applied to the criteria.

Figure 5: Summary of Project Evaluation Criteria and Conceptual Weighting

	Safety	Mobility	Economic Development	Local Sponser Commitment
Screening Criteria	Crashes	Connectivity	Access	Match
	Exposure/risk reduction	VMT reduction	Demand	Urgency/timeliness of project
Technical Criteria	Crash reduction/ modification factors	Level of service/ traffic stress	Equity	Supportive policies and programs
			Health	Previous performance Project readiness/ maturity of concept
	High Weight	**Med. Weight**	**Low Weight**	

1. Safety

Safety is an "emphasis area" of the Regional Transportation Plan. Safety is also a key objective for the federal transportation funding sources distributed by the ARC.

Current Practice: Recommended emphasis areas for the Last Mile Connectivity program include safe access to transit and schools, hazardous roadway crossings, and bicycle and pedestrian safety education. In addition, safety is among the criteria used to evaluate projects submitted to the Transportation Alternatives programs.

Staff/stakeholder comments: Bicycle and pedestrian stakeholder groups did not emphasize safety as a criterion. Level of service and comfort, which are closely linked to safety (perceived and actual), was an important criteria discussed by the bicycle group. The public health group identified crashes and crash reduction as a key public health concern.

Recommended Screening Criterion

1. Crashes - Does the proposed project improve safety in a location where there have been pedestrian or bicycle crashes? A proposed project may be evaluated based on the number of crashes (either total crashes, or fatal and injurious crashes only) within the proposed project extent. The higher the number of crashes, the higher the project is scored.

Data considerations: Crash data is widely available throughout the region and is updated regularly, however the data is not always clean and readily usable, and there are some limitations to how the data can be applied.

Recommended Technical Review Criteria

1. Crash Reduction/ Modification Factors

There is substantial amount of research on what causes pedestrian and bicycle crashes and the most effective countermeasures for reducing these crashes. Does the proposed project include countermeasures that have a high documented crash reduction factor (CRF) or Crash Modification Factor (CMF)?

Data considerations: The FHWA has developed several resources that provide guidance on CRFs and CMFs, which can be found here: http://safety.fhwa.dot.gov/tools/crf/resources/#cmfc CRFs for bicycle facilities are currently not well-documented.

If no CRF or CMF has been developed for the proposed project or any element of the proposed project, then an analysis of exposure or risk reduction may be conducted.

2. Exposure/Risk

For proposed projects that include countermeasures without well-established CRF/CMFs, evaluation should be based on whether the project reduces the pedestrian or bicycle exposure/risk. A project that creates more separation between motor vehicles and pedestrians/bicyclists, or reduces the amount of time pedestrians/bicyclists are exposed to traffic would in effect reduce exposure/risk. The greater the risk reduction and/or the greater the number of pedestrians/bicyclists being impacted, the higher the project is scored.

Data considerations: Calculating the magnitude of exposure/risk reduction requires vehicle volume data as well as bicycle/pedestrian volume data. More information about pedestrian/bicycle exposure measures may be found here:
http://www.fhwa.dot.gov/publications/research/safety/pedbike/11043/index.cfm

Good Peer Region Models Addressing Safety: Safety was identified as one of the nine key factors included in the NCHRP 07-17 draft prioritization methodology, which has been developed using findings from a nationwide literature review of methodologies currently being applied by agencies and a survey of over 400 agencies involved in the planning, programming, and implementation of transportation systems.

In addition, all project selection processes in the peer regions reviewed include safety as a criterion. Of particular note are the DRCOG's safety evaluation criteria, which awards points in three sub-categories:

1. Relevant crash history based on the number of documented injury accidents:

    - created by the interaction between motorized and non-motorized traffic;
    - in the area to be affected by the proposed new facility; and
    - occurring over the last three-year period for which data is available.
- 1 point will be awarded for each applicable injury accident, up to a maximum of 5

2. Conflict factor

If the existing facilities are roadways that allow interaction between motorized and non-motorized traffic, and if the project will build new facilities for the non-motorized traffic that eliminate or reduce the conflict factor, the project will earn safety points. Based on the speed limit on the existing facilities, up to 4 points will be awarded as follows:

- 1 point will be awarded if the existing speed limit is 30 MPH or less;
- 2 points will be awarded if the existing speed limit is 35 MPH;
- 3 points will be awarded if the existing speed limit is 40 MPH; or
- 4 points will be awarded if the existing speed limit is 45 MPH or above.

3. Facility lighting

- 1 point will be awarded to projects that will provide ADA/AASHTO compliant lighting to facilitate non-motorized travel on the planned facilities, if no lighting is currently available.

And for upgrade/reconstruction bicycle/pedestrian projects number 2 above is replaced with the following safety criteria sub-category:

The MUMPO project ranking criteria for safety include measures that require little data:

- Existing conditions - Conditions must demonstrate a safety hazard to cyclists and/or pedestrians as currently designed. Examples of demonstrated safety hazards may include recorded crash data or a posted speed limit over 30 miles per hour. Yes = 10 points, No = 0 points

- Vehicular speed - Proposed project design encourages a reduction in vehicular speeds (i.e. - traffic calming devices, narrowed travel lanes, or lower speed limits). Yes = 5 points, No = 0 points

- Reduced exposure - Proposed project reduces the exposure between the motor vehicles, bicyclists and/or pedestrians. Examples of a physical barrier may include an off-road greenway, pedestrian refuge island, or a bike boulevard separated by a vertical structure. Examples of a defined space include striped bike lanes, sidewalks adjacent to the curb, crosswalks, and signed bike routes. The applicant should recognize any new safety risks introduced by the project design, such as placing a multi-modal side-path separate from the roadway but crossing multiple driveways or conflict points. Physical barrier = 10 points, Defined space = 5 points, No reduction = 0 points

2. Mobility

Regional mobility depends upon how well all travel modes function individually and as an interdependent system. Bicycle and pedestrian mobility is enhanced by developing connected, comfortable, and safe networks. Filling network gaps and removing barriers, which includes developing facilities that people of all ages and abilities feel comfortable and safe using, is key to enhancing mobility.

Recommended Screening Criteria for Mobility

1. Connectivity

Current Practice: Plan 2040 has as one of its objectives to "Increase mobility options for people and goods", and the Regional Transportation Plan has as one of its principles supporting this objective "Continuing to implement cost effective improvements such as sidewalks, multi-use trails, bicycle lanes, and roadway operational upgrades to expand transportation alternatives, improve safety, and maximize existing assets." Among the emphasis areas for the Last Mile Connectivity Program is regional bicycle mobility network.

Staff/stakeholder comments: Connecting existing trail and on-street bicycle facilities into a comprehensive network was emphasized as a key need by stakeholders in the bicycle group. Improving connections to transit was also cited as important. There was some concern from stakeholders about evaluation of large, multi-phased projects in which the first phase for which funding is being requested doesn't immediately connect to the existing network.

Recommendation: Responses to this criterion should be able to demonstrate the degree to which the proposed project relates to and improves the functionality of the existing pedestrian or bicycle facility network. Applicants should discuss how the proposed project fills a gap or removes a barrier and how it relates to the overall multimodal system. A map should be provided that shows the relationship of the proposed project to the broader pedestrian, bicycle or transit network. Projects that enhance access to high volume transit stops should receive additional consideration.

For large multi-phased projects for which funding is being requested for a phase that doesn't immediately connect to the existing network, ARC needs assurances from local sponsors that subsequent phases will be implemented. ARC should apply Maturity of Concept/Project Readiness criterion more heavily to such projects. For example, multi-phased projects that have been fully designed to at least the 30% level provide a higher level of assurance that the entire project will be implemented. In addition, a phasing plan that details costs, and possibly other strategies that will facilitate implementation should be required.

Data considerations: Data (e.g. existing pedestrian or bicycle facilities, transit system) used to respond to this criterion is readily available.

Good Peer Region Models Addressing Connectivity: All project selection processes in the peer regions reviewed include connectivity as a criterion, and for most regions this is the most heavily weighted criterion. Several agencies consider access as a component of connectivity. DRCOG's evaluation criteria (Tables 10 and 11) focus on gap closure, access to destinations (e.g. schools, employment, parks, shopping), barrier elimination, transit access, and neighborhood and jurisdictional connections. Connectivity and Access is the most heavily weighted criteria category in the MUMPO project ranking process. It includes the following criterion among others in this category that touch more on demand and access:

- Directness of facility – If proposed project is most direct feasible route from origin to destination it receives 5 points, if not, 0 points.

CMAP's GO TO 2040 uses miles of trails completed as an indicator of plan implementation. Thus, completion of the regional trail network is an important criterion. Projects that fill a gap in the regional trail network score highest, followed by extending a regional trail or intersecting a regional trail. NCTCOG also heavily weights projects that increase connectivity within the regional bicycle network (Veloweb).

The Metropolitan Council considers the relationship to intermodal/multimodal transportation system when evaluating bicycle and pedestrian projects. Applicants are to discuss how the project will function as a component and/or enhancement of the transportation system and how will the project benefit multiple modes of transportation?

Connectivity was identified as one of the nine key factors included in the NCHRP 07-17 draft prioritization methodology, which has been developed using findings from a nationwide literature review of methodologies currently being applied by agencies and a survey of over 400 agencies involved in the planning, programming, and implementation of transportation systems.

Recommended Technical Review Criteria for Mobility

1. VMT reduction

Reducing Vehicle Miles Traveled (VMT) is a key regional goal. A connected network of high quality bicycle and pedestrian facilities can facilitate modal shift and be a significant component of a VMT reduction strategy.

Current Practice: Development of a CMAQ calculator tool that can estimate VMT reduction is currently underway and expected to be applied to the review of projects submitted for the latest round of CMAQ funding. The ability to calculate VMT reduction associated with proposed transportation projects is seen as an important step towards selecting and funding projects that are likely to contribute to this regional goal.

Staff/Stakeholder comments: Vehicle Miles Traveled reduction was not among the criteria identified by stakeholder groups.

Recommendation: Bicycle and pedestrian projects that have high potential for achieving mode shift, and thus reducing VMT, should be prioritized. While there is some overlap between other recommended project evaluation criteria (e.g. connectivity to transit and activity centers) and inputs for the VMT component of the CMAQ calculator, projects that score well under these other criteria and result in the greatest VMT reduction should be prioritized as they are likely to also be projects that offer the greatest benefits in terms of ridership, congestion relief, and emission reductions.

Data Considerations: The CMAQ calculator that has been developed for the ARC requires data that should be available and applicable across many types of project submittals, including: ADT on parallel arterial, capacity of the parallel arterial (vph), length of project, posted speed limit on parallel arterial,

number of activity centers within ½ and ¼ mile, transit access, existing daily boardings in project transit corridor or at station, relationship to fixed guideway transit, and connection to Strategic Regional Bike Corridors.

Good Peer Region Models Addressing VMT: Whereas several peer regions have VMT reduction as a goal, and in some cases have set specific reduction targets (e.g. the Metropolitan Transportation Commission's 10% reduction by 2035) there is a lack of good models among these regions for how VMT reduction is calculated. That said, many of the criteria that are used to calculate VMT reduction potential, particularly as it related to non-motorized projects, such as multi-modal connections, demand, and network connectivity, are commonly among project selection criteria.

2. Level of Service/Level of Traffic Stress

The level of service (LOS) of a given pedestrian or bicycle facility is tied to perceived safety and comfort of the user. Facilities that provide more separation from motor vehicles, or reduce potential conflicts have a higher level of service, and generally will attract more users than a non-separated facility in the same context. Various models have been developed to assess level of service quantitatively. Existing LOS models for bicycle and pedestrian projects require data that may not always be readily available. The quality of a facility and resultant level of service may also be assessed qualitatively. For example, a proposed sidewalk facility that provides buffer between pedestrians and motor vehicles would have a higher level of service than an "attached" sidewalk facility that provides no buffer.

Level of Traffic Stress (LTS) is a concept centered around providing routes between people's origins and destinations that do not require cyclists to use links that exceed their tolerance for traffic stress, and that do not involve an undue level of detour.[1] The LTS approach is less data intensive than the LOS approach and therefore may be applied more broadly, as well as at the project level.

Current Practice: Staff indicated that level of service analysis is conducted in-house as a part of proposal review.

Staff/stakeholder comments: Stakeholders, particularly in the bicycle group, indicated that the quality of a facility (i.e. the level of comfort it provides) is very important. Some said that it would be better to fund fewer high quality (i.e. low stress) projects than many lower quality (i.e. high stress) projects.

Recommendation: It is recommended that projects are evaluated based on the quality or stress level of the facility so that higher quality/lower stress facilities that attract a higher number of users are encouraged. The quality of the facility may be measured using the LOS or LTS approach. Regardless of the method, it is important to measure level of service/traffic stress in terms of the difference between the current and proposed condition.

Data considerations: There may be some data-related challenges to taking a quantitative approach to assessing the level of service of a proposed pedestrian or bicycle facility. Traffic speed and volume, travel lane width, on-street parking occupancy, quality of pavement are among the required data for an

[1] Mekuria, Maaza C., Peter G. Furth, Hillary Nixon, Low-Stress Bicycling and Network Connectivity, MTI Report 11-19, Mineta Transportation Institute, 2012.

LOS analysis. This data may not be readily available or collectable by all project sponsors. To get around potential data challenges the level of service or quality of facility could be assessed qualitatively. See peer region models below for examples.

The LTS approach is less data intensive than the LOS approach and the data it requires is likely to be attainable by most local jurisdictions.

Good Peer Region Models Addressing Level of Service: Level of service or quality of facility criteria are less common among those peer regions reviewed. Noted below are the few examples that were found.

DRCOG includes a "conflict factor" as a component of its safety criteria:

If the existing facilities are roadways that allow interaction between motorized and non-motorized traffic, and if the project will build new facilities for the non-motorized traffic that eliminate or reduce the conflict factor, the project will earn safety points. Based on the speed limit on the existing facilities, up to 4 points will be awarded as follows:

- 1 point will be awarded if the existing speed limit is 30 MPH or less;
- 2 points will be awarded if the existing speed limit is 35 MPH;
- 3 points will be awarded if the existing speed limit is 40 MPH; or
- 4 points will be awarded if the existing speed limit is 45 MPH or above.

Addressing one aspect of level of service – vehicle speed – a criterion under the safety category for MUMPO's project ranking process includes:

Vehicular speed - Proposed project design encourages a reduction in vehicular speeds (i.e. - traffic calming devices, narrowed travel lanes, or lower speed limits). Yes = 5 points, No = 0 points

CMAP has developed a "safety and attractiveness rating" to measure bicycle and pedestrian facility design. This measure revolves around the concepts of the "level of accommodation" in a bicycle/pedestrian facility and, or on-street facilities, the functional class of the roadway. The safety and attractiveness measure has evolved to use the following scale:

0: Impassable barrier for walking and bicycling;
1: Arterial road with no bike/ped accommodation;
2: Arterial road with some bike/ped accommodation, including marked shared lanes, and collector streets with no accommodation;
3: Low-speed, local streets with no bike/ped accommodation;
4: Unprotected bike lane; local and collector streets with full accommodation;
5: Trail or arterial sidepath, cycletrack, protected bike lane, or buffered bike lane.

Projects are evaluated based on the "before" and "post-implementation" performance. "Before" measures would be taken at the worst point in the corridor of the project. An impassible river barrier would be ranked "0" no matter how good the cycling infrastructure on either side of the riverbanks. Other factors which would inform the rating of both the current and "post-implementation" performance would be roadway speed, volume, the number of lanes, and lane widths.

3. Economic Development

An efficient multimodal transportation system is a critical component of a vibrant, growing, and equitable economy. Key to economic development is a transportation system that responds to land use by providing access to key destinations and services. More and more cities and regions are making significant investments in walking and biking infrastructure because such infrastructure is a key livability factor that attracts a talented workforce and employers, and helps to address costly public health issues such as obesity and diabetes.

Recommended Screening Criteria for Economic Development

1. Access

Improving access to activity and employment centers encourages economic development and enhances opportunities for a broader segment of the population. By enhancing connectivity to transit, bicycle and pedestrian facilities are an important component of the regional goal to reduce travel times between employment centers to 45 minutes. This criterion relates to the connectivity criterion, but elevates projects that enhance connectivity within, to, or between activity and employment centers higher.

Current Practice: The Last Mile Connectivity program includes an emphasis area focused on providing circulation within activity centers. The Livable Centers Initiative transportation funding is completely focused on activity centers.

Staff/stakeholder comments: There was general consensus among stakeholders in the pedestrian, bicycle and health groups that improving access to activity centers where there are jobs and services makes sense. The pedestrian stakeholder group emphasized providing access to transit, schools, and within LCIs as key areas to focus funding for pedestrian projects. The health-focused stakeholder group emphasized that access to jobs, health care providers, and grocery stores is important from a health perspective.

Recommendation: Require local sponsors to demonstrate how the proposed project improves access to an activity/employment center or high capacity transit. The project should be mapped and distance of project in relation to the activity/employment center or high capacity transit station should be calculated. If the proposed project does not connect directly with the activity/employment center then the applicant should show how it connects to other bicycle or pedestrian facilities that do connect to the activity/employment center. Projects that connect population concentrations directly to activity centers, or improve connectivity within activity centers should receive the highest score.

Data considerations: Data (e.g. activity centers, transit stations) required for measuring this criteria is readily available.

Good Peer Region Models Addressing Access:

Connectivity and Access is the most heavily weighted criteria category in the MUMPO project ranking process. It includes the following criterion among others in this category that touch more on demand and access:

- Distance to destination – project must be directly adjacent to noted destination, or connect to greater bicycle or pedestrian system. The closer the proposed facility is to the noted destination, the more points it receives (e.g. 0.0-0.25 miles = 10 points, >5 miles = 0 points)

Recommended Technical Review Criteria for Economic Development

1. Demand

Demand is an important criterion to include in project evaluation as it ensures that funding is being directed to projects that are more likely to enhance mobility for a greater number people. The demand criteria may represent actual (measured volumes) or potential (latent) pedestrian and bicycle activity levels. Existing pedestrian and bicycle demand can be measured by counting the number of people on foot and bike at a given time and location.

Latent demand refers to the concept that there are people that while not currently walking and bicycling, would choose to do so if better conditions or facilities existed. Demand is a key consideration if the aim is to add new pedestrian or bicycle facilities where they will be used the most. Likewise, if the aim of the project selection process is to identify improvements that will have the greatest impact on reducing crash rates or pedestrian exposure, then those projects in locations where demand is high will likely yield the greatest safety benefits.

Recommendation: Applicants should demonstrate actual demand through user counts or other evidence of demand (e.g. "goat paths"). Population and employment density, land use (existing or planned), proximity to attractors (e.g. transit stops/stations, schools, parks, shopping), or location within an LCI or other activity center should be considered as criteria.

Data Considerations: Local agencies lack pedestrian and bicycle volume data. Other land use related data is readily available. Population and employment densities are available through the ARC.

Current Practice: Improving pedestrian and bicycle circulation within activity centers is a recommended emphasis area for the Last Mile Connectivity Program. Transportation funding through the LCI program is directed to activity centers, where demand is highest.

Staff/stakeholder comments: There was general consensus among stakeholders in the pedestrian and bicycle groups that making investments in bicycle and pedestrian projects in areas where demand (usage) is going to be highest makes sense. There was some concern that if demand was among the more heavily weighted criteria that areas with smaller, or more widely distributed populations would rarely be selected. Several stakeholders and staff commented that the designated LCI areas provide a good (and accepted) framework for addressing the demand factor while also addressing geographic equity.

Staff and several stakeholders indicated a desire to incorporate pedestrian and bicycle volume data (counts) into the project evaluation process. However, the time and resources required for conducting counts was also cited as a potential limitation, particularly by smaller jurisdictions. It was suggested that this could be an area where ARC could provide support.

Good Peer Region Model: Demand was identified as one of the nine key factors included in the NCHRP 07-17 draft prioritization methodology, which has been developed using findings from a nationwide literature review of methodologies currently being applied by agencies and a survey of over 400 agencies involved in the planning, programming, and implementation of transportation systems.

In addition, all project selection processes in the peer regions reviewed include demand as a criterion, and most use multiple demand-related criteria. MUMPO's project ranking criteria includes two demand-related criteria-one focused on actual demand and one on latent demand:

- Quality and perceived interest (high, moderate, low) in getting to existing destination – a total of 20 points is possible for this section. Projects are scored based on the potential "level of interest" in the proposed facility. Projects in or connecting to high interest areas (e.g. town centers, major employment centers), moderate interest areas (e.g. park, medium-density development) and low interest areas (e.g. low-density, bus stop) are scored accordingly.
- Shown path - A shown path illustrates a known need. This can be an actual shown path on the side of the road, a high volume of observed cyclists along a roadway, etc. Yes = 5 points, No = 0 points.

DRCOG awards points for estimated user base; those with a user base of 34,000 or more receive maximum points (8), those projects with user base less than 2,000 receive zero points. The project's user base is the estimated number of daily bicycle and/or pedestrian trips that start and/or end within a 1.5 mile radius of the project area for a bicycle project and within a 0.5 mile radius for a pedestrian project. Sponsors request DRCOG staff to compute the user base using an established model, specifying the appropriate type of users (bicycle, pedestrian or both).

2. Equity

Expanding transportation choices in underserved areas opens up new economic opportunities to these areas and individuals within those areas needing to access jobs and services in other parts of the region.

Current Practice: In early 2011, ARC developed the Equitable Target Area (ETA) Index to identify environmental justice communities in the Atlanta region. The index was based on 5 demographic and socioeconomic parameters (children, low income, minority, elderly or disabled), and was utilized to measure the impacts of PLAN 2040 investments and programs on ETA communities. The ETA index can be further employed for project prioritization and evaluation, resource allocation and decision-making at the regional and local levels.

Staff/stakeholder comments: Equity, and in particular automobile ownership and age, were identified by the health-focused stakeholder group. Staff indicated that Equitable Target Areas haven't always been integrated into the project selection process because often they conflict with meeting regional geographic equity goals.

Recommendation: Equity should be more formally integrated into the project selection process. Low income, disabled, and those people unable to drive have a greater need for transportation choices such as walking and biking. Those projects that fall within areas with these characteristics should be scored

higher. Socioeconomic variables may be combined into an equity index, or assessed individually. While geographic equity may be integrated into the project selection process in a number of ways it may be more appropriately addressed at the policy level. Often agencies will determine the amount of funding a particular funding unit is to receive before prioritizing projects, or they may re-rank prioritized projects based on geographic equity considerations.

Data Considerations: Census-derived demographic data is readily available. The ARC has all equity-related demographic data available in usable form, including maps.

Good Peer Region Model: DRCOG awards points if a 75% or more of the project length is located within a TRP-defined environmental justice area. The sponsor must identify the benefits and disadvantages of the project to the environmental justice community during submittal AND provide evidence (e.g., subarea or comprehensive plan) that the project has been taken through a community-level public process that gave credence to the project being a benefit to the environmental justice area in which the project is located. MWCOG selection criteria favor projects that promote accessibility for people with disabilities and for disadvantaged communities, a goal of the Transportation Policy Board.

Equity was identified as one of the nine key factors included in the NCHRP 07-17 draft prioritization methodology, which has been developed using findings from a nationwide literature review of methodologies currently being applied by agencies and a survey of over 400 agencies involved in the planning, programming, and implementation of transportation systems.

3. Health

Measuring the impacts of land use and transportation planning outcomes on public health is a rapidly emerging practice. There are many public health aspects to be considered in the transportation planning and implementation process. For example, providing more active transportation choices (i.e. walking and biking) or improving access to healthy food or health care has a positive impact on public health. Building or expanding roadways has a generally negative effect on public health due to air quality and noise impacts, increase in potential injuries, and encouraging less active transportation modes.

Current Practice: Currently health is not a planning consideration in and of itself, although some key elements of public health such as roadway safety and air quality are addressed under other planning and design programs. The outcomes of Plan 2040 were evaluated based on a number of health indicators, including physical activity, safety and security, and environmental quality. This Health Impact Assessment resulted in a number of recommendations for how regional land use and transportation planning could have more positive health impacts.

Staff/stakeholder comments: The health stakeholder group, which consisted of several of the academic researchers who conducted the HIA on Plan 2040, had many thoughts on how to integrate health considerations into the project selection process. Access to jobs, health care providers and grocery stores was cited as important health considerations. Physical activity (lack of) and injuries were noted as the #2 and #7 actual causes of death, respectively.

Recommendation: The following health criteria should be considered in the project selection process:

- Access to key resources, including employment, health care providers, and grocery stores (stores with affordable healthy food choices). Projects in low income areas that provide direct access to any of these key resources should be scored higher.
- Level of physical activity the project is likely to encourage. Encouraging physical activity is about providing safer and more attractive non-motorized access to those that don't have alternatives as well as creating new demand in the larger population. In essence, any project that improves conditions for walking and biking will have a positive impact on public health, however the magnitude of the impact is dependent on context and is dependent on both demand and level of health.
    - Areas with lower levels of health - Lower income areas where people have few transportation choices and are also more likely to have higher rates of obesity, diabetes and other health issues related to lack of physical activity and access to affordable healthy food. Census data may be used as proxy data where more detailed health data is lacking.

Good Peer Region Model: The Nashville Area MPO has established a health outcome-based transportation planning process. The MPO's RTP established the Active Transportation Program as a component of the TIP, and puts more emphasis on positive health outcomes for transportation projects. Sixty of the one hundred points on which transportation projects are scored are based on positive outcomes for air quality, provision of active transportation facilities, injury reduction for all modes, improvement to personal health and equity of transportation facilities in underserved areas. Project evaluation was completed in three stages and involved participation by MPO staff and members of the BPAC:

- *Quantitative Scoring by MPO Staff* - MPO staff applied the scoring criteria uses during the development of the 2035 Plan which includes an analysis of Level of Service (LOS), latent/potential demand and the proximity of population and employment, traffic volumes, congestion, environmental features, Title VI populations, High Health Impact areas, etc. **High Health impact areas are determined using Census data (e.g. percent low income households, percent population under 18) as proxies.**

- *Qualitative Assessment by BPAC* - The BPAC performed a qualitative evaluation of each project, scoring applications from 0 (worst) to 5 (best) within each of the following categories:

    - **Infrastructure Projects:** 1. Promotion of Environmental & Personal Health, 2. Expected Utility/ Usage, 3. Contribution to the Built Environment, 4. Value over No Build/ No Action

    - **Non-Infrastructure Projects:** 1. Scope of Audience/ Reach, 2. Consistency of Message to Regional Goals, 3. Synergy with other Programs, 4. Sustainability of Effort

Qualitative Assessment by MPO Staff - MPO staff developed the final rankings for projects, taking into consideration FYs 11-15 TIP budget constraints, the performance history of projects sponsors, the long-term sustainability of the project, and consistency with the 2035 Regional Transportation Plan.

4. Cost/Benefit of Projects

Project costs and benefits are commonly assessed for roadway projects using metrics such as project implementation costs, congestion relief and travel time. Regional travel demand models are well suited for assessing these types of benefits for roadway projects, but most regional travel demand models do not incorporate bicycle and pedestrian modes. Therefore, it is more difficult to assess the benefits of these types of projects. There is growing interest in integrating bicycle and pedestrian modes in to regional travel demand models, which would further efforts to weigh the costs and benefits of these types of projects.

Portland Metro has developed a travel demand model that considers the following factors:

- Cost - What are the expenses of operating and maintaining a car? Are there parking expenses? How much does transit cost? Are there tolls?
- Travel time - Is it faster to drive, take transit, walk or bike?
- Auto availability - Do I have access to a car?
- Transit access - Can I get to transit easily?
- Urban design - Am I in a high-density, mixed-use area where I'm more likely to walk or bike?
- Socio-economic relationships - What is my household income? Are there as many cars as emplo yed people in my household?

This model allows for estimation of trips for proposed bicycle and pedestrian projects, which can be translated into benefits such as VMT and emission reduction.

4. Local Sponsor Commitment

The following evaluation criteria are intended to provide a measure of commitment by local sponsors to the project or projects they are submitting. The more a local sponsor can demonstrate commitment to the project the greater likelihood a proposed project will get implemented. Focusing on projects that have a high level of local sponsor commitment will allow the ARC to utilize its resources more efficiently and have a high implementation rate it can report to federal funding sources. A discussion of what stage in the review process (e.g. screening vs. technical review) is included in the recommendation rather than broken out under separate headings. Alternatively, a number of these criteria may be discretionary in nature, with a maximum number of points established for all discretionary criteria similar to the LCI new study evaluation process.

Match

Current Practice: Local project sponsors are required to provide a 20% match for transportation funding programs that utilize federal funding. No additional points or preference is given to local sponsors that provide more than 20% match (i.e. overmatch). No formal documentation of match is currently required.

Staff/stakeholder comment: Staff indicated that there have been some cases in which local sponsors were not able to follow through on the match. Stakeholders indicated that having a better sense for the level of funding their project may receive would help them determine what match level is they need to pursue. There was also some support among stakeholders for requiring certification of match in the

form of a Council resolution or something similar. Staff mentioned that such certification was previously required, but served as a barrier to some local sponsors. Council procedures differ among jurisdictions- some Councils want to be sure their jurisdiction will receive funding before committing a match.

Recommendation: Demonstration of 20% match should be a screening criterion for all project proposals. The letter of interest, if applied more broadly to all funding programs, may provide an opportunity for staff to understand what level of funding is being requested and provide local sponsors with a better of idea of funding likely available to them. Having this feedback would then allow local sponsors to source their match funding and give more certainty that projects being submitted have the required match.

Overmatch may be considered during the technical review stage. Overmatch is a good indication that projects have legs and will be implemented. An overmatch may be considered in the event that there are two comparable projects with similar ranking scores.

Good peer region model: DRCOG requires sponsors to submit a certification form signed by an elected official (e.g. Mayor, City Manager) that says they will follow all federal rules and have committed local match funds. Additional points (up to 9 points for 47% or greater match) are awarded for matches greater than 20%. NCTCOG requires a Council resolution that commits local funds for a minimum 20% match. MWCOG gives preference to projects that exceed the 20% match requirement.

Maturity of Concept/Project Readiness

Maturity of concept/project readiness refers to the degree to which a project has been taken toward implementation. Projects may have been identified in local plans or taken as far as partial or complete design.

Current Practice: Maturity of concept is not currently a consideration in the project selection process other than requiring projects to have been identified in Comprehensive Plans or County Transportation Plans (CTP).

Staff/stakeholder comment: Staff offered two suggestions that may address the maturity of concept idea, including formalizing the requirement for local sponsors to certify their 5-year short-term work program and for proposed projects to be incorporated in that work program. Another thought was to require locals to provide justification for why a proposed project is not included in the CTP or Comprehensive Plan.

Recommendation: Maturity of concept should be included as a project selection criterion at both the screening and technical review stage. At the screening stage a project should be evaluated based on the proposed project being identified in planning documents (e.g. CTP, Comprehensive Plan, 5-year work program) and/or through public processes. Other documentation that could be required includes Council support/adoption, and definition and costing of each project phase.

The degree to which the project is ready for implementation may be a consideration at the technical review stage and may be included as a discretionary criterion. For example, projects that have no or minimal right-of-way acquisition need or have been designed to the 30% level or higher may be ranked

higher or this may be considered in event of a tie between similar project proposals. Alternatively, maturity of concept could be represented by the level to which the proposed project has met the milestones in the federal project development path. Federally funded transportation projects are required to follow a prescribed development path.

Data considerations: Information that would be used to respond to this criterion should be readily available.

Good peer region model: The Metropolitan Council awards 200 points (a fifth of total points) to the "maturity of project concept" criterion. Points under this criterion are assigned based on how many steps have been taken toward implementation of the project. These steps reflect a federally funded project development path. DRCOG includes as a basic eligibility criterion a requirement that the proposed project must be contained in an adopted local or regional plan.

Project Urgency or Opportunity

While this criterion may not be applicable to all projects, it is important for the ARC to be made aware of any time-sensitive opportunities, and give projects that may hinge on these opportunities special consideration.

Recommendation: If applicable, applicants should discuss how the project takes advantage of a time-sensitive opportunity, e.g., a willing landowner, cost savings, affiliation with another project, competing development opportunities, and provide supporting documentation. This criteria may be included among other discretionary criteria.

Data Considerations: Information that would be used to respond to this criterion should be readily available.

Good Peer Region Model: The Metropolitan Council awards proposed up to 200 points (out of 1,000) if it takes advantage of a time-sensitive opportunity.

Supportive policies and programs

Funding pedestrian or bicycle improvements in jurisdictions that support those modes through policies and programs provides a higher likelihood that those improvements will have a high return on investment (i.e. get used). Examples of supportive policies include complete streets policies, bicycle parking requirements, or other policies that ensure bicycles and pedestrians are considered in transportation system planning, design, and maintenance. Examples of supportive programs include safety campaigns, Safe Routes to Schools, and activities such as community rides or open streets.

Current Practice: Local sponsor policies and programs that support walking and biking are currently not evaluated as part of the project selection process. Local sponsors are required to review policies, ordinances and other non-infrastructure components, but there is currently no requirement for them to modify them to be more supportive of walking and biking.

Staff/stakeholder comment: Staff were generally in agreement that supportive policies and programs at the local level would be a positive indicator that funded projects would contribute to efforts already

underway. It was suggested that requiring local sponsors to have supportive bicycle/pedestrian policies in their CTP would be a good place to start. There was some discussion about the level of assistance ARC staff may need to provide to local sponsors for developing these policies and programs. It was suggested that the Green Communities Certification program may provide a good model for level of technical assistance provided to local communities.

Recommendation: At the technical review stage, local sponsors that have supportive policies and programs should receive additional points. Documentation of these policies and programs may include CTPs, local ordinances, and program details, including staff/volunteer/funding commitments. Resources for developing supportive policies and programs are available through organization such as League of American Bicyclists and the Alliance for Walking and Biking.

Good peer region model: None of the models evaluated support this recommendation

Previous Performance

Having a successful track record of implementing projects as proposed and on time and within budget is a positive indicator that subsequent projects will be successfully implemented. Local sponsors that can demonstrate successful follow-through on previous projects present a smaller risk and greater potential for achieving established goals and objectives.

Current Practice: TIP project implementation is currently tracked and published in the annual Breaking Ground report and the TIP/TRP quarterly update.

Staff/stakeholder comment: Follow-through on previous projects was a minor discussion point among some stakeholders and staff. There was agreement that successful implementation potential should be a consideration in the application review process, and that past performance on project delivery may be among the measures of implementation potential.

Recommendation: Local sponsors that have delivered projects on time and on budget should be favorably scored relative to those local sponsors that have repeatedly delayed funded projects. This criterion may be among discretionary criteria in the technical review stage, recognizing that performance on previous projects may be tied to staff no longer with the organization.

Good peer region model: None of the models evaluated formally support this recommendation, although conversations with staff at a few peer agencies indicated that past performance is informally considered.

E. Post-evaluation and Reporting

All projects the ARC funds should be able to demonstrate whether or not Regional Transportation Plan goals are being met (i.e. did the project improve safety, mobility, and/or economic development?)

Post-implementation reporting allows funding agencies to track implementation successes and how funds were expended. This information is useful for fine-tuning project evaluation criteria and requirements to ensure only the best projects with the greatest chance of being implemented are

selected, and for reporting on performance to federal agencies, which, under MAP-21, is likely to become mandated.

Recommendation: A close-out report should be required of all local sponsors receiving federal funding. The report should include photographs and an evaluation of how the project enhanced safety, mobility and economic development. Details such as number of crashes before and after implementation, pedestrian or bicycle volumes (before and after), and any available economic and health data should be included in the report. Project delivery, i.e. was the project on time and within budget is also important to track for purposes of the ARC reporting back to federal funding sources.

Current Practice: No formal reporting is required of local sponsors.

Staff/stakeholder comment: There was interest among staff and some stakeholders (particularly the health group) to have a more formalized post-implementation reporting requirement. It is understood that tracking of project performance will be a requirement of agencies receiving/distributing federal transportation dollars under MAP-21.

Good peer region model: NCTCOG requires all jurisdictions receiving transportation funding to submit a close-out report that includes before/after photographs, schedule details, and development impacts (if funded through a specific program that tracks economic metrics). Upon receiving funding, but before given notice to proceed, awarded applicants are required to fill out the initial fields of the reporting form. This same form is then required to be submitted post-implementation with additional information pertaining to established performance measures pertaining to economic development, impact to the Regional Veloweb, safety, and emissions.

The NCTCOG has purchased automatic count equipment to assist local sponsors with conducting pedestrian and bicycle volume counts to use in before and after evaluation of funded projects. Their goal is to have local agencies install and use the equipment, but they also realize that smaller agencies have limited capacity, and therefore they are prepared to provide this service when needed.

F. ARC Staffing

Many of the recommendations in this memo will have staffing implications, some of which could largely be addressed through clearer definition of staff roles.

Current practice: Currently the roles and responsibility of several staff members are fairly fluid in terms of managing programs and providing assistance to local communities. There are only a few staff that have familiarity with the Last Mile Connectivity program, bicycle and pedestrian project considerations, and the projects that local sponsors may have in the planning stages.

Stakeholder/staff comment: Staff has indicated that clearer definition of staff roles would be beneficial, particularly in terms of providing unbiased assistance to local sponsors. For example, staff tasked with managing a funding program such as Last Mile Connectivity and evaluating project applications should not also be providing technical assistance to local sponsors. Staff also noted that reinstituting

jurisdictional representatives may be an effective strategy for smoothing out the application process, ensuring solid project development and scoping, and successful implementation. Better communication and coordination with GDOT was another noted area for improvement.

Recommendation: Establish clearer roles among staff, drawing a line between staff charged with managing funding programs and evaluation of projects and staff tasked with providing assistance to local sponsors. Improve communication with GDOT throughout the project development process. Some ways of improving communication may be to re-establish the GDOT liaison position, which assigned a GDOT to oversee ARC-funded projects that must go through the Plan Development Process. Alternatively, having jurisdictional representatives attend PDP-related meetings with local sponsors may be an effective means to improve communication and expedite projects.