

Draft Programming Policies to Address Transportation Improvement Program (TIP) Project Cost Increases

This memorandum outlines a three-pronged approach to addressing the issue of cost increases for those projects funded using the Boston Region Metropolitan Planning Organization's (MPO) Regional Target funds. These categories of policy interventions are based on key takeaways from conversations had at the first three meetings of the TIP Project Cost Ad Hoc Committee on June 3, June 17, and July 8, 2021. These recommendations have been further revised based on committee feedback at its July 29, 2021, meeting.

When reviewing this memorandum, committee members should consider the extent to which the recommendations below represent the preferred course of action for addressing project cost increases. Committee members should specifically focus on Intervention #3, which will be the focus of the discussion at the August 19, 2021, committee meeting.

Intervention #1: Require More Advanced Design Status at Project Programming

Current Approach

Projects may be selected for funding by the MPO at any stage of design. This means a significant number of projects are first placed on the TIP having only been approved by the Massachusetts Department of Transportation's (MassDOT) Project Review Committee (PRC), the earliest possible stage at which a project may be selected for funding.

Resulting Issue

In the sample of 50 projects selected for funding by the MPO since federal fiscal year (FFY) 2016, projects saw the largest cost increases when advancing from PRC approval to 25 percent design, with a median cost increase at this stage of 28 percent. While costs still tend to increase later in project development, these increases are more modest. The median increase when advancing from 25 percent design to 75 percent design is 15 percent, and the median increase from 75 percent design to 100 percent design is nine percent. The earlier in design a project is selected for funding, the greater the uncertainty with respect to its final cost.

Recommended Policy

The MPO should require that projects submit 25 percent design plans and obtain an updated cost estimate from MassDOT based on these plans prior to being selected for TIP funding.

Coupled with this higher programming threshold, the MPO should make three complementary policy changes:

1. Formalize a preliminary project evaluation step that would offer proponents guidance on how their projects would score using the MPO's criteria before proponents invest local resources to reach 25 percent design. This preliminary scoring could be done any time after a project has been PRC approved.
2. Establish year-over-year benchmarks for project design progress to set clear expectations for project proponents at the outset of the programming process. These

benchmarks would be used to gauge the extent to which projects are advancing at an appropriate pace and can act as an early warning sign for those projects that see their schedules lag.

3. Create additional instructional materials on the TIP process to support project proponents. This should take the form of a TIP how-to guide and outline all of the key steps and requirements of having a project funded in the TIP.

Question for Consideration

1. Should the 25 percent design threshold apply to projects already included in the MPO's Long-Range Transportation Plan?

Intervention #2: Create Additional Touch Points Between Project Proponents, MPO Staff, the MPO Board, and MassDOT Staff

Current Approach

Interactions between project proponents and the MPO are largely focused on the development of each year's TIP. During the early stages of TIP development in the fall and winter, the most engaged proponents tend to be those who have projects being scored and considered for funding. Proponents of projects that have already been programmed in the TIP tend to interact with MPO staff and the MPO board the most when a concern has arisen about their projects' cost or schedule. Project proponents are not required to attend MPO meetings at any point during their projects' life cycle in the TIP. MPO staff's interactions with MassDOT Highway District staff are mostly concentrated during early TIP development in the fall when MPO staff are sourcing new projects to be considered for funding.

Resulting Issues

In the absence of regular, established check-in points between all parties, project-related issues often only rise to the surface at MassDOT's annual TIP project readiness meetings in February. While this information is useful, the timing allows the MPO only six or seven weeks to find solutions for any project cost or schedule issues that come to light before the new TIP must be drafted. Given the limited amount of time at this stage, it is difficult for all parties to exchange high-quality information so that informed programming decisions can be made for the new TIP. The lack of ongoing project monitoring also means that MPO staff and the MPO board may not know when a project's scope has changed.

Recommended Policy

1. Establish biannual check-ins between MPO staff, project proponents, and MassDOT Highway District staff. These check-ins will provide an opportunity to regularly discuss project progress and address challenges and questions as they arise.
2. Encourage proponents to include MPO staff on design submissions to MassDOT. This will keep MPO staff informed in the event that there are significant changes to a project's scope or design as it advances.
3. Require proponents to present to the MPO board in the event of major project cost or scope changes. This provides an opportunity for the MPO board to directly engage

proponents to learn why changes have occurred and to assess the appropriate course of action for addressing such changes.

Questions for Consideration

1. What action should the MPO take in the event that project proponents do not meet the requirements for engagement in the TIP process?

Intervention #3: Establish a Policy for Rescoring Projects When Costs Increase Beyond a Specified Threshold

Current Approach

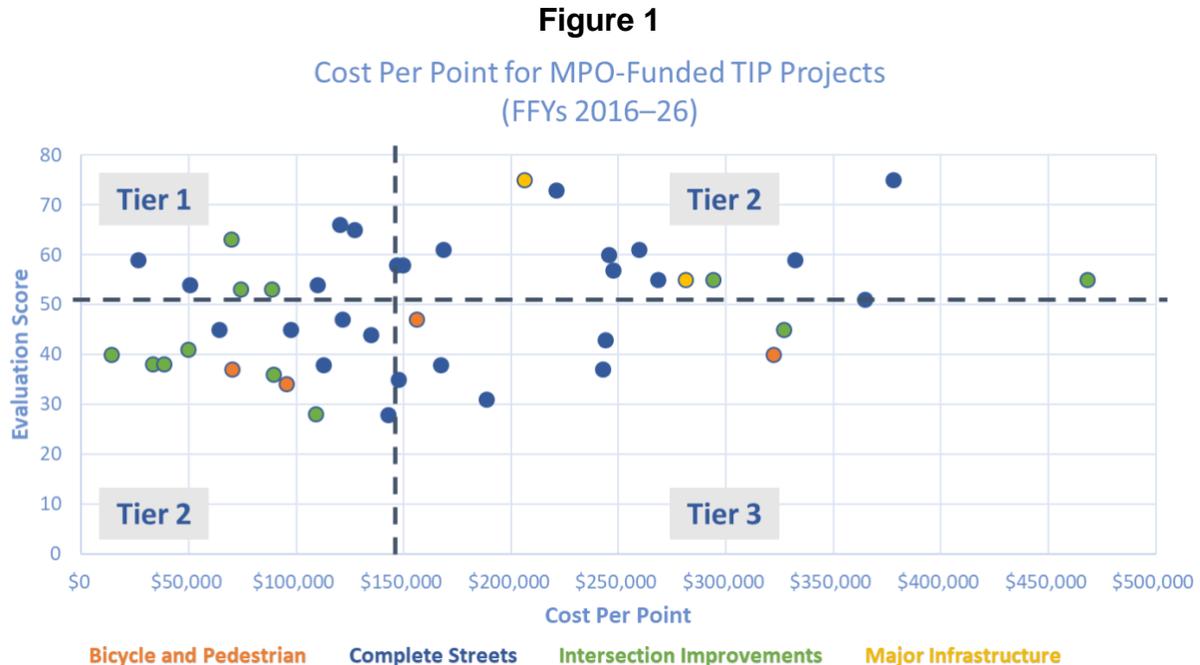
Projects are only scored by the MPO when they are under consideration for new funding. No action is taken to reconsider projects when they experience a cost change of any magnitude.

Resulting Issues

Without a formal mechanism to reconsider projects that have significant cost changes, the MPO has historically maintained its funding commitments to all programmed projects. This includes covering any cost increases and accommodating scope or schedule changes without a great degree of scrutiny. Funding cost increases across the board limits the MPO's financial capacity to program new projects. In the absence of a formal, clear, and transparent policy, any enforcement action taken on a project for a cost increase could be considered arbitrary or unfair.

Recommended Policy

1. Set a cost increase threshold of \$2,500,000 or 25 percent of project cost. If a project exceeds either threshold in any given TIP cycle, the project proceeds to Step 2.
2. Proponents of projects that have exceeded either threshold above must attend an MPO board meeting to explain the cause of the cost increase. Proponents should provide a short presentation and any supporting design documentation for the board's review, as needed or requested. The MPO may also reserve the right to request presentations by project proponents that do not exceed either of the above thresholds in the event that significant questions arise about a project.
 - a. At this stage, proponents have the opportunity to have their project rescored if the cost change is due to a scope or design change. This updated score would be shared with the MPO alongside the project's new cost.
 - b. Projects would be plotted using a model similar to the Atlanta-Region Transit Link Authority's four-quadrant approach, where cost/point is plotted against project evaluation score, in order to compare relative value across projects (see Figure 1 below). Changes in project tier (e.g., from Tier 1 to Tier 2) would be flagged.



3. In response to the proponent's presentation and the project's rescoring, the MPO board may elect to make changes to the project's status. In making this decision, the board may also consider other factors, such as
 - a. the cost, evaluation score, and status of other funded and unfunded projects;
 - b. the availability of funds in any given FFY;
 - c. the historical performance of the project in question, including any past cost or readiness issues; and/or
 - d. the distribution of funds across the MPO's six investment programs (Complete Streets, Intersection Improvements, Bicycle Network and Pedestrian Connections, Transit Modernization, Community Connections, and Major Infrastructure).
4. Decisions made by the MPO on a project's status may include the following scenarios:
 - a. Full MPO funding of the cost increase in the project's current FFY
 - b. Full MPO funding of the cost increase in another FFY (i.e., the project may be delayed due to a lack of available funding in a given FFY)
 - c. Denial of MPO funding at the increased cost, with a possible request that the project proponent seek alternative funding sources to cover the cost difference or seek ways to value-engineer the project to reduce the cost increase
 - d. Removal of the project from the TIP
5. Project proponents may request that the MPO board reconsider any project status decisions through currently established communication channels, including via written letter to the MPO or verbal public comments at an MPO meeting.
6. Project rescoring in the event of a cost increase would occur when a decision by the MPO is required on project funding. This means rescoring would take place during the drafting of a new TIP or when an amendment to the existing TIP is required.

7. The MPO may reserve the right to suspend the above process in the event that exceptional circumstances arise. Such circumstances may include a significant influx of new funding or a meaningful change in funding priorities at the MPO level.

Questions for Consideration

1. What action should be taken if a project has cost increases in multiple years?
2. Should other alternative metrics, such as cost/user or cost/mile, be used as comparative tools?
3. If the MPO elects to use any sort of cost/point or similar cost-effectiveness measure, evaluation scores for currently funded TIP projects would need to be updated so that all projects are compared on the same scoring scale. How and when should this process occur?