

Draft Capital Region Transportation Council Bridge NY 2023 Evaluation Methodology

Each candidate bridge project received in the Bridge NY 2023 solicitation will be evaluated and scored by Transportation Council staff using the methodology below. The project evaluations prepared by staff are used as an aid in decision making by the Transportation Council's Planning Committee and Policy Board.

Scoring Criteria

Criterion	Description	Points available
Facility Importance	Value of the bridge to the regional transportation network; measured as the additional transportation cost of all vehicle travel if the bridge is closed. Takes into account AADT and all available detour routes. Calculated using the STEP Model.	40 points
Condition	Scaled from the 1 to 7 Computed Condition Rating; bridges with condition 3 or below receive the full 40 points.	40 points
Merit/Qualitative	Up to four points awarded for each of the following criteria: • Complete Streets • Freight Impact • Project Delivery • Security/Resiliency • Equity/Environmental Justice	20 points
	Total	100 points

Explanation of scores:

Facility Importance – estimated annual value the bridge provides to the regional transportation network. Measured in \$/year and converted into a 0 to 40 score. The Facility Importance score takes into account AADT and all available detour routes.

This value is calculated using the Transportation Council's STEP Model. The STEP (Systematic Transportation Evaluation and Planning) model is a regional transportation network model

maintained by the Transportation Council and used for transportation planning and forecasting. The model runs in the industry standard PTV Visum software suite and is calibrated to recent real-world traffic data.

For the Transportation Council TIP (Transportation Improvement Program) and Bridge NY solicitations, the model is used to estimate the transportation benefits provided by each proposed roadway and bridge investment.

To estimate the annual benefits of a bridge investment, the STEP model is run with the bridge open to traffic and run again with the bridge closed to traffic (to simulate the effect of the bridge not being maintained). These two scenarios are compared to calculate the annual benefits of the bridge to the traveling public, measured in millions of dollars per year. The benefits of bridge investments are typically found to far outweigh the costs, demonstrating the importance of investing in our region's bridge infrastructure.

To convert the annual benefits to a 0 to 40 score, the project with the highest calculated annual benefits received forty (40) points, and the remaining projects are scaled proportionally.

Condition – score is calculated using the 1 to 7 Computed Condition Rating from the most recent inspection report; if unavailable, the General Recommendation will be used instead. The Computed Condition Rating is provided by NYSDOT and sourced from the most recent available bridge inspection report. Bridges with condition 3 or below receive 40 points, all other bridges are scaled accordingly. See chart on right for example scores.

Condition Rating (1 to 7 scale)	Condition score (out of 40 points)
3.0 or below	40
3.5	35
4	30
4.5	25
5	20
5.5	15
6	10

Merit/Qualitative – Each of the five criteria are scored out of 4 points, for a total of 20 points. Scores are defined in the table below.

Merit Category	Description
Complete Streets (4 points max)	4 points for adding new bicycle/pedestrian facility. 2 points for preserving existing bicycle/pedestrian facility. 0 points otherwise. -2 points if removing an existing bicycle/pedestrian facility.
Freight Impact (4 points max)	One point awarded for each freight criteria met by bridge project: • Improves an MPO or NYSDOT identified freight movement issue. • Removes/substantially improves a freight related land-use compatibility, noise, or safety issue. • Located on, or provides access to, the Transportation Council Freight Priority Network, and provides a travel time and/or reliability benefit(s). • Enhances access to a key freight generator (Ex: Airport, Ports, Major Distribution Centers, Industrial Park/cluster of industrial land uses). • Enhances access to any intermodal freight movement (Ex: air to truck/rail, rail to truck/water, water to rail/truck/air, etc.). -1 point if project is located on, or provides access to, the Transportation Council Freight Priority Network, and increases travel time and/or decreases reliability. -2 points if Project negatively affects freight movement or safety in an area with a known MPO or NYSDOT identified freight movement or freight-related safety issue; alternatively, project introduces a specifically freight-related land use incompatibility (e.g., substantial increase to freight traffic load in residential area, introduction of significant freight traffic noise or other significant freight related nuisance).
Project Delivery (4 points max)	4 points – Proposed project has progressed preliminary design to the point of identifying specific project impacts and mitigations that are anticipated to satisfy regulatory agencies. 2 points – A design consultant has been hired by the project sponsor and they have begun preliminary design assistance such as scoping and cost estimation. 0 points otherwise.

Merit Category	Description
Security/Resiliency (4 points max)	+2 points for being located in 100- or 500- year floodplain and proposing improvements of an existing asset to withstand one or more elements of a weather event or natural disaster, or to increase the resilience of surface transportation infrastructure from the impacts of changing conditions, such as sea level rise, flooding, wildfires, extreme weather events, and other natural disasters. +1 point for each critical facility within a 1-mile proximity (up to 3 points available): • Hospital • Emergency operations center • Electric substation • Nursing home • School • Shelter • Power generation facility • Wastewater treatment facility • Hazardous materials facility • Freight facility • Public multi-modal transportation facility (Amtrak Station, Greyhound Station, Airport, CDTA transit stop) • Critical or evacuation route in a local, county, or state hazard/security/emergency management or operations plan
Equity/EJ (4 points max)	4 points if project is within or directly connected to an Environmental Justice (EJ) area and has a significant focus on transit, bicycling, walking, or carpool. Significant focus means a dedicated facility is provided, like a sidewalk, trail, or cycle track, and/or transit or carpool lanes. 2 points if project is within or directly connected to an EJ area but does not provide a dedicated facility as listed above. 0 points if the project either A) maintains existing infrastructure that has a significant focus on automobiles, or B) provides a greater benefit to non-EJ population. -2 points if project is within or directly connected to an EJ area AND is new construction, improves vehicle capacity, or is a reconstruction project that adds auto capacity.