

Addressing Safety Performance Targets in MPO Transportation Improvement Plans (TIPs)

Background

Pursuant to MAP-21 (and carried through into the FAST Act), MPOs must employ a transportation performance management approach in carrying out their federally-required planning and programming activities. Chapter 23 part 150(b) of the *United States Code* [23USC §150(b)] includes the following seven national performance goals for the Federal-Aid Highway Program:

- Safety – To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure Condition – To maintain the highway infrastructure asset system in a state of good repair.
- Congestion Reduction – To achieve a significant reduction in congestion on the National Highway System.
- System Reliability – To improve the efficiency of the surface transportation system.
- Freight Movement and Economic Vitality – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental Sustainability – To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced Project Delivery Delays – To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practice.

On the public transportation side, transportation performance management shall be utilized to advance the general policy and purposes of the public transportation program as included in 49USC §5301(a) and (b).

The CDTC TIP was developed and is managed in cooperation with NYSDOT and CDTA. It reflects the investment priorities established in the "Agreement Defining Roles and Responsibilities for Metropolitan Transportation Planning in the Capital District" of December 3, 2009, which incorporates comments and input from affected agencies and organizations and the public.

TIPs "shall include, to the maximum extent practicable, a description of the anticipated effects of the transportation improvement program toward achieving the performance targets established in the metropolitan transportation plan, linking investment priorities to those performance targets" [23USC §134(j)(2)(D)]. Metropolitan transportation plans (MTPs) adopted

or amended after the following dates must include performance targets for the associated measures:

- May 27, 2018 – Highway Safety Improvement Program (HSIP) and Highway Safety
- October 1, 2018 – Transit Asset Management
- October 1, 2018 – Public Transportation Safety Program
- May 20, 2019 – Pavement and Bridge Condition
- May 20, 2019 – System Performance/Freight/Congestion Mitigation & Air Quality Improvement Program

MPOs that do not adopt or amend their MTP prior to these dates are still required to establish performance targets (or support the statewide targets) for the measures discussed above, and include “a description of the anticipated effects of the transportation improvement program toward achieving” said targets. This portion of the 2016-21 TIP meets these requirements of 23USC §134(j)(2)(D).

HSIP and Highway Safety

Performance Targets

On March 15, 2016, FHWA published the final rule for the HSIP and Safety Performance Management (Safety PM) Measures in the *Federal Register* with an effective date of April 14, 2016.

The 2017 New York Strategic Highway Safety Plan (SHSP) is intended to reduce “the number of fatalities and serious injuries resulting from motor vehicle crashes on public roads in New York State.” The SHSP guides NYSDOT, the MPOs, and other safety partners in addressing safety and defines a framework for implementation activities to be carried out across New York State. The NYSDOT Highway Safety Improvement Program (HSIP) annual report documents the statewide performance targets.

CDTC agreed to support the NYSDOT statewide 2018 targets for the following Safety PM measures, based on five year rolling averages per Title 23 Part 490.207 of the *Code of Federal Regulations*, on September 7, 2017 via Resolution #17-2:

- Number of Fatalities: 1,086
- Rate of Fatalities per 100M Vehicle Miles Traveled (VMT): 0.87
- Number of Serious Injuries: 10,854
- Rate of Serious Injuries per 100M VMT: 8.54
- Number of Non-motorized Fatalities and Serious Injuries: 2,843

Anticipated Effects

Safety is a critical component of CDTC’s mission, and the projects on the TIP are consistent with the need to address safety. Safety is also a primary consideration in the selection of projects to be included in the CDTC TIP. CDTC TIP candidate project evaluation consists of a

calculation of the benefit/cost ratio (a quantitative score with a maximum of 50) and a merit evaluation scoresheet (a qualitative score with maximum of 50) for a total maximum score of 100 for each project. The higher the total candidate project score, the higher the probability that the project will be awarded TIP federal transportation funding.

The safety benefits for the project benefit/cost ratio are measured in the dollar value of the projected reduction in crashes per year calculated by using the steps described our TIP Appendix H. Established counter measures and crash reduction factors are used to estimate the safety benefit of each project. The methodology used is consistent with the methodology used by NYSDOT as contained in the NYSDOT document Highway Safety Improvement Program Procedures and Techniques and specifically in form TE 164a, Safety Benefits Evaluation Form, Method 1.

In addition to calculating a project benefit/cost ratio, CDTC completes a Merit Evaluation Scoresheet for each candidate project, which has a total project score ranging from 67 points to -28 points. The scoresheet consists of 11 categories, each with an assigned value ranging from a maximum of 10 to 2 points and a minimum of 0 to -2 points. One of the 11 categories is "Safety & Security" and one of its subcategories is "Additional Safety Benefit Beyond Crash History." The maximum score for this subcategory is 3 points and the minimum score is -1. For additional information regarding our merit evaluation scoresheet, see our TIP pages 11-13 and Appendix H.

Because of the above candidate project evaluation process, the CDTC TIP includes projects programmed with HSIP funds and other fund sources that are expected to materially benefit the safety of the traveling public on roadways throughout the metropolitan planning area.

The CDTC TIP has been reviewed and the anticipated effect of the overall program is that it will contribute to progress made in addressing the safety performance targets established by the State.