TO: CATSO Coordinating Committee

FROM: CATSO Staff

SUBJECT: Item 9 – Bridge, Pavement and System Performance Measures

DATE: August 23, 2018

The federal Map-21 legislation established, and the Fast Act continues, a performance-based approach to transportation projects. Seven national performance goals were established for the Federal-Aid Highway Program. From these seven goals, fifteen performance measures were developed for states, Metropolitan Planning Organizations (MPOs), and transit agencies, which are required to set goals and monitor progress. CATSO has already adopted Transit Asset Management and Safety performance measures, and it must now adopt Bridge and Pavement (PM2) and System Performance (PM3) Measures. CATSO can decide to support MoDOT's 4-year Bridge, Pavement and System targets, or it can establish its own quantifiable targets by November 16, 2018.

The below table demonstrates the six Fast Act Bridge and Pavement (PM2) performance measures, as well as the 2022 targets that have been established by MoDOT and CATSO's related current conditions (based on 2016 data).

Infrastructure Performance Measure	MoDOT 2022 Target[1]	CATSO Current Condition
% of NHS Bridges in Good Condition	30.9%	40.1%
% of NHS Bridges in Poor Condition	7.1%	3.3%
% of Interstate Pavement in Good Condition	77.5%	90.3%
% of Non-Interstate NHS Pavement in Good Condition	61.1%	57.2%
% of Interstate Pavement in Poor Condition	0%	.7%
% of Non-Interstate NHS Pavement in Poor Condition	1%	9%

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[1] Targets may be adjusted every two years by the State DOT, with MPOs able to adjust their targets. Targets must be reported in the FHWA TPM portal (to be released). If FHWA determines the State DOT's Interstate pavement condition falls below the minimum level for the most recent year, the State DOT must obligate a portion of National Highway Performance Program (NHPP) and transfer a portion of Surface Transportation Program (STP) funds to address Interstate pavement condition. If for 3 consecutive years more than 10.0% of a State DOT's NHS bridges' total deck area is classified as Structurally Deficient, the State DOT must obligate and set aside National Highway Performance Program (NHPP) funds for eligible projects on bridges on the NHS.

The below table demonstrates the three Fast Act System (PM3) Performance Measures, as well as the 2022 targets that have been established by MoDOT. Unlike the bridge and pavement data, system performance measure data specific to the CATSO MPA is not currently available.

System Performance Measure	MoDOT 2022 Target
Interstate Travel Time Reliability (Ratio of the longer travel times (80th percentile) to the normal travel times (50th percentile) [2]	87.1%
Non-Interstate Travel Time Reliability (Ratio of the longer travel times (80th percentile) to the normal travel times (50th percentile) [3]	87.8%
Freight Reliability (Ratio of the longer travel times (95th percentile) by the normal travel times (50th percentile) [4]	1.3

Technical Committee Review

On August 1, the CATSO Technical Committee meeting reviewed and discussed the PM2 and PM3 performance measures and targets. They voted to recommend that the CATSO Coordinating Committee adopt the Bridge, Pavement and Performance measures that have been established by MoDOT.

Coordinating Committee Action

After review and discussion, the CATSO Coordinating Committee may either vote to adopt MoDOT's 4-year Bridge, Pavement and System targets, or direct staff to establish quantifiable targets, specific to CATSO, by November 16, 2018.

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[2] Travel Time Reliability is defined as the ratio of the longer travel times (80th percentile) to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set (NPMRDS) or equivalent. Data are collected in 15-minute segments during all time periods between 6 a.m. and 8 p.m. local time. The measures are the percent of person-miles traveled on the relevant portion of the NHS that are reliable. Person-miles take into account the users of the NHS. Data to reflect the users can include bus, auto, and truck occupancy levels.

[3] 4-year target for 2022 initially for phase in and may be adjusted in 2020; in 2022, must establish 2 and 4 year targets

[4] Freight movement will be assessed by the TTTR Index. Reporting is divided into five periods: morning peak (6-10 a.m.), midday (10 a.m.-4 p.m.) and afternoon peak (4-8 p.m.) Mondays through Fridays; weekends (6 a.m.-8 p.m.); and overnights for all days (8 p.m.-6 a.m.). The TTTR ratio will be generated by dividing the 95th percentile time by the normal time (50th percentile) for each segment. The TTTR Index will be generated by multiplying each segment's largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate.