



**CLARKSVILLE URBANIZED AREA
METROPOLITAN PLANNING ORGANIZATION**

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January 28, 2021

Ms. Jennifer Marshall, Senior Planner
TDOT, Long Range Planning Division
J. K. Polk Bldg., 9th Floor
505 Deaderick Street
Nashville, TN 37243

RE: Clarksville Urbanized Area MPO 2045 MTP Administrative Modification #3

Dear Ms. Marshall:

The Clarksville Urbanized Area is submitting 2045 MTP Administrative Modification #3 for approval. The administrative modification is consistent with the requirements of the FAST ACT for PM2 Bridge and Pavement Performance Measure Targets and PM3 System Performance Measure Targets required by Federal Highway Administration (FHWA).

It is therefore, the request by the Clarksville Urbanized Area MPO that the 2045 MTP administrative modification #3 is submitted for approval and made part of the 2045 MTP. Please find attached Resolution 2021-01 supporting the PM2 Bridge and Pavement Performance Measure Targets and PM3 System Performance Measure Targets for the State of Tennessee and the State of Kentucky, along with the old and new 2045 MTP page 6/118- 6/120 showing the PM2 Bridge and Pavement Performance Measure Targets and PM3 System Performance Measure Targets.

Should you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jill Hall", written in a cursive style.

Jill Hall, Transportation Planner
Clarksville MPO

RESOLUTION 2021-01
ADOPTION TO SUPPORT THE PM2 BRIDGE AND PAVEMENT PERFORMANCE MEASURE
TARGETS AND PM3 SYSTEM PERFORMANCE MEASURE FOR THE STATE OF TENNESSEE AND
THE STATE OF KENTUCKY

WHEREAS, the Clarksville Urban Area Metropolitan Planning Organization (MPO) is the organization responsible for planning an efficient transportation system in the Clarksville Metropolitan Planning Area and for the appropriate use of federal transportation funds in that area; and

WHEREAS, in 2012 Congress passed the Moving Ahead for Progress in the 21st Century (MAP-21) and in 2015 the Fixing America's Surface Transportation (FAST) Act that mandate the establishment of a performance and outcome based program for transportation decisions; and

WHEREAS, the PM2 Bridge Performance Management Measures require State DOTs and MPOs to establish 2-year and 4-year for PM2 Bridge Performance Measure Targets. States are required to establish minimum standards for the percentage of bridges in poor condition and good condition on the total NHS, in which the percentage of bridges in poor condition do not exceed 10.0%; and

WHEREAS, the PM2 Pavement Performance Measures require State DOTs and MPOs to establish 2-year and 4-year for PM2 Pavement Performance Measure Targets. States are required to establish minimum standards for the percentage of pavements in poor condition and good condition on the Interstate system and non-Interstate system, in which the percentage of pavements in poor condition do not exceed 5.0%; and

WHEREAS, the PM3 System Performance Measures require State DOTs and MPOs to establish 2-year and 4-year Targets for Interstate reliability, non-Interstate NHS reliability, freight reliability, peak hour excessive delay (PHED), non-single occupancy vehicle (non-SOV) travel, and on road mobile source emissions measure. The emissions measure is not applicable to the Clarksville MPO area; and

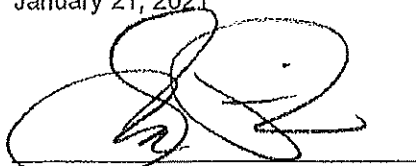
WHEREAS, the PM2 Bridge and Pavement Performance Measure Targets, and the PM3 System Performance Measure Targets adopted by the States are depicted in "Attachment A" attached to this resolution; and

WHEREAS the Clarksville MPO, with concurrence from the TCC, will support each individual State's PM2 Bridge and Pavement Performance Measure Targets, and the PM3 System Performance Measure Targets;

NOW, THEREFORE BE IT RESOLVED, that the Executive Board of the Clarksville Urban Area Metropolitan Planning Organization (MPO) hereby approves that the Clarksville MPO will support each individual State's PM2 Bridge Performance Measure Targets, PM2 Pavement Performance Measure Targets, and PM3 System Performance Measure Targets for each of the above-mentioned measures by agreeing to plan and program projects so that they contribute toward the accomplishment of each State's PM2 Bridge, PM2 Pavement, and PM3 System Performance Measure Targets.

Resolution Approval Date: January 21, 2021

Authorized Signature:



Mayor Joe Pitts, Chairperson
MPO Executive Board

Attachment A:

PM2 Bridge and PM2 Pavement Performance Measures Targets for 2018-2021 Performance Period:

Pavement Performance	TDOT Baseline	TDOT 2 year Condition/ Performance	TDOT 2 year Target	TDOT 4 year Target	KYTC Baseline (2013-2017)	KYTC 2020 Target	KYTC 2022 Target
% Good Interstate	N/A	71.5%	N/A	60.0%	N/A	N/A	50.0%
% Poor Interstate	N/A	0.3%	N/A	1.0%	N/A	N/A	4.0%
% Good Non-Interstate NHS	72.7%	41.6%	42.0%	40.0%	78.9%	35.0%	35.0%
% Poor Non-Interstate NHS	6.7%	4.0%	4.0%	*5.0%	4.3%	6.0%	6.0%
NHS Bridge Performance							
% Good Condition by Deck Area	39.5%	35.1%	36.0%	36.0%	34.8%	35.0%	27.0%
% Poor Condition by Deck Area	3.5%	4.1%	6.0%	6.0%	3.8%	3.7%	3.6%

*TDOT Adjusted value

PM3 System Performance Measures Targets for 2018-2021 Performance Period:

Measure:	TDOT Baseline	TDOT 2 year Condition/ Performance	TDOT 2 year Target	TDOT 4 year Target	KYTC Baseline (2013- 2017)	KYTC 2020 year Target	KYTC 2022 Target
Interstate Travel Time Reliability	87.7%	88.2%	85.3%	83.0%	95.6%	93.0%	93.0%
Non-Interstate NHS Travel Time Reliability	N/A	89.4%	N/A	87.5%	N/A	N/A	82.50%
Truck Travel Time Reliability Index	1.35%	1.35	1.35%	*1.37%	1.24	1.25%	1.30%
Peak Hours Excessive Delay (PHED) Per Capita	N/A	7.5%	N/A	*8.0%	N/A	N/A	12.0%
% Non-SOV Travel	16.6%	15.9%	16.5%	*14.5%	17.6%	17.4%	17.4%
Total Emissions Reduction	VOC=230.025 CO=530.282 NOx=363.399 PM2.5=2.897	VOC=44.438 NOx=196.176 PM2.5=7.586	VOC=30.698 CO=75.000 NOx=62.840 PM2.5=0.120	*VOC=41.449 CO=150.000 *NOx=181.679 *PM2.5=7.340	VOC=4.93 NOx=33.4	VOC= 100 NOx= 100	VOC= 48.0 NOx= 36.0

*TDOT Adjusted value

New
1-26-21
Adm Mod 3

2045

Clarksville Urbanized Area

CHAPTER 6

6.7 | Overview of MPO Planning Performance Measures

The MTP 2045 follows the regulations laid out in MAP-21 and the FAST Act, which require that MPOs meet national goals and track the established TPMs. The plan follows the principles of Performance-Based Planning and Programming. The sections above provided the MPO's baseline performance and the supported state targets. Tables 6.42 through 6.45 summarize the performance data in the previous sections and identify areas of concern that may be addressed.

PM3 System Performance Measures Targets for 2018-2021 Performance Period:

Pavement Performance	TDOT Baseline	TDOT 2 year Condition/ Performance	TDOT 2 year Target	TDOT 4 year Target	KYTC Baseline (2013-2017)	KYTC 2020 Target	KYTC 2022 Target
% Good Interstate	N/A	71.5%	N/A	60.0%	N/A	N/A	50.0%
% Poor Interstate	N/A	0.3%	N/A	1.0%	N/A	N/A	4.0%
% Good Non-Interstate NHS	72.7%	41.6%	42.0%	40.0%	78.9%	35.0%	35.0%
% Poor Non-Interstate NHS	6.7%	4.0%	4.0%	*5.0%	4.3%	6.0%	6.0%
NHS Bridge Performance							
% Good Condition by Deck Area	39.5%	35.1%	36.0%	36.0%	34.8%	35.0%	27.0%
% Poor Condition by Deck Area	3.5%	4.1%	6.0%	6.0%	3.8%	3.7%	3.6%

*TDOT Adjusted value

TABLE 6.42 MPA INTERSTATE AND NON-INTERSTATE PERFORMANCE

PAVEMENT CONDITION INDEX	INTERSTATE NHS ROUTES						NON-INTERSTATE NHS ROUTES					
	MPA BASE- LINE	TN BASE- LINE	KY BASE- LINE	TN 2-YEAR TARGET	TN 4-YEAR TARGET	KY 2-YEAR TARGET	MPA Base- line	TN BASE- LINE	KY BASE- LINE	TN 2-YEAR TARGET	TN 4-YEAR TARGET	KY 2-YEAR TARGET
Good	98.80%	N/A	N/A	N/A	60.0%	N/A	53.40%	72.7%	78.9%	42.0%	40.0%	35.0%
Fair	1.20%	N/A	N/A	N/A	N/A	N/A	46.20%	N/A	N/A	N/A	N/A	N/A
Poor	0.00%	N/A	N/A	N/A	1.0%	N/A	0.40%	6.7%	4.3%	4.0%	5.00%	6.0%

LEVEL OF TRAVEL TIME RELIABILITY	INTERSTATE NHS ROUTES						NON-INTERSTATE NHS ROUTES					
	MPA BASE- LINE	TN BASE- LINE	KY BASE- LINE	TN 2-YEAR TARGET	TN 4-YEAR TARGET	KY 2-YEAR TARGET	MPA Base- line	TN BASE- LINE	KY BASE- LINE	TN 2-YEAR TARGET	TN 4-YEAR TARGET	KY 2-YEAR TARGET
Reliable	100.00%	87.70%	95.6%	85.30%	83.00%	93.00%	92.40%	N/A	N/A	N/A	87.50%	N/A
Not Reliable	0.00%	12.30%	4.31%	N/A	N/A	N/A	7.60%	N/A	N/A	N/A	N/A	N/A

TRUCK TRAVEL TIME RELIABILITY	INTERSTATE NHS ROUTES						NON-INTERSTATE NHS ROUTES					
	MPA BASE- LINE	TN BASE- LINE	KY BASE- LINE	TN 2-YEAR TARGET	TN 4-YEAR TARGET	KY 2-YEAR TARGET	MPA Base- line	TN BASE- LINE	KY BASE- LINE	TN 2-YEAR TARGET	TN 4-YEAR TARGET	KY 2-YEAR TARGET
TTTR	1.14	1.35	1.24	1.35	1.37	1.25	N/A	N/A	N/A	N/A	N/A	N/A

Source: KYTC, TDOT, NPMRDS

2045

Clarksville Urbanized Area

CHAPTER 6

TABLE 6.43 BRIDGE PERFORMANCE

BRIDGE CONDITION	NHS BRIDGES						
	MPA BASELINE	TN BASELINE	KY BASELINE	TN 2-YEAR TARGET	TN 4-YEAR TARGET	KY 2-YEAR TARGET	KY 4-YEAR TARGET
Good	57.90%	39.5%	34.8%	36.0%	36.0%	35.0%	27.0%
Fair	42.10%	N/A	N/A	N/A	N/A	N/A	N/A
Poor	0.00%	3.5%	3.8%	6.0%	6.0%	3.7%	3.6%

Source: KYTC, TDOT, NBI

TABLE 6.44 MPA SAFETY PERFORMANCE

PERFORMANCE MEASURE	MPA BASELINE (2012-2016)	TN BASELINE (2015- 2019)	KY BASELINE (2015-2019)	TN TARGET 2021	KY TARGET 2021
Number of Fatalities	24.4	1,039.8	767.0	1,078.8	720.0
Rate of Fatalities (per 100 million VMT)	2.054	1.302	1.560	1.355	1.5
Number of Serious Injuries	203.80	6,725.8	2,955.0	6,227.1	2,590.0
Rate of Serious Injuries (per 100 million VMT)	17.195	8.462	6.000	8.394	5.4
Number of Non-Motorized Fatalities and Serious Injuries	11.6	511.4	289.0	521.0	285

Source: FARS, TDM, KYTC, TITAN

2045

Clarksville Urbanized Area

CHAPTER 6

6.7 | Overview of MPO Planning Performance Measures

The MTP 2045 follows the regulations laid out in MAP-21 and the FAST Act, which require that MPOs meet national goals and track the established TPMs. The plan follows the principles of Performance-Based Planning and Programming. The sections above provided the MPO's baseline performance and the supported state targets. Tables 6.42 through 6.45 summarize the performance data in the previous sections and identify areas of concern that may be addressed.

TABLE 6.42 MPA INTERSTATE AND NON-INTERSTATE PERFORMANCE

PAVEMENT CONDITION INDEX	INTERSTATE NHS ROUTES						NON-INTERSTATE NHS ROUTES							
	MPA BASE- LINE	TN BASE- LINE	KY BASE- LINE	TN	TN	KY	MPA Base- line	TN BASE- LINE	KY BASE- LINE	TN	TN	KY	KY	
				2-YEAR TARGET	4-YEAR TARGET	2-YEAR TARGET				4-YEAR TARGET	2-YEAR TARGET	4-YEAR TARGET		
Good	98.80%	75.60%	66.20%	N/A	60.00%	N/A	50.00%	53.40%	44.80%	78.90%	42.00%	40.00%	35.00%	35.00%
Fair	1.20%	24.26%	33.80%	N/A	N/A	N/A	N/A	46.20%	51.96%	16.80%	N/A	N/A	N/A	N/A
Poor	0.00%	0.14%	0.00%	N/A	1.00%	N/A	3.00%	0.40%	3.24%	4.30%	4.00%	4.00%	6.00%	6.00%
LEVEL OF TRAVEL TIME RELIABILITY	INTERSTATE NHS ROUTES						NON-INTERSTATE NHS ROUTES							
	MPA BASE- LINE	TN BASE- LINE	KY BASE- LINE	TN	TN	KY	MPA Base- line	TN BASE- LINE	KY BASE- LINE	TN	TN	KY	KY	
				2-YEAR TARGET	4-YEAR TARGET	2-YEAR TARGET				4-YEAR TARGET	2-YEAR TARGET	4-YEAR TARGET		
Reliable	100.00%	87.70%	95.69%	85.30%	83.00%	93.00%	93.00%	92.40%	N/A	N/A	N/A	87.50%	N/A	82.50%
Not Reliable	0.00%	12.30%	4.31%	N/A	N/A	N/A	N/A	7.60%	N/A	N/A	N/A	N/A	N/A	N/A
TRUCK TRAVEL TIME RELIABILITY	INTERSTATE NHS ROUTES						NON-INTERSTATE NHS ROUTES							
	MPA BASE- LINE	TN BASE- LINE	KY BASE- LINE	TN	TN	KY	MPA Base- line	TN BASE- LINE	KY BASE- LINE	TN	TN	KY	KY	
				2-YEAR TARGET	4-YEAR TARGET	2-YEAR TARGET				4-YEAR TARGET	2-YEAR TARGET	4-YEAR TARGET		
TTTR	1.14	1.35	1.23	1.35	1.33	1.25	1.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: KYTC, TDOT, NPMRDS

1-26-21 Old
Atm Mod 3

2045

Clarksville
Urbanized Area

CHAPTER 6

TABLE 6.43 BRIDGE PERFORMANCE

BRIDGE CONDITION	NHS BRIDGES						
	MPA BASELINE	TN BASELINE	KY BASELINE	TN 2-YEAR TARGET	TN 4-YEAR TARGET	KY 2-YEAR TARGET	KY 4-YEAR TARGET
Good	57.90%	39.50%	34.80%	36.00%	36.00%	35.00%	35.00%
Fair	42.10%	55.60%	61.40%	N/A	N/A	N/A	N/A
Poor	0.00%	4.90%	3.80%	6.00%	6.00%	3.70%	3.20%

Source: KYTC, TDOT, NBI

TABLE 6.44 MPA SAFETY PERFORMANCE

PERFORMANCE MEASURE	MPA BASELINE (2012-2016)	TN BASELINE (2015- 2019)	KY BASELINE (2015-2019)	TN TARGET 2021	KY TARGET 2021
Number of Fatalities	24.4	1,039.8	767.0	1,078.8	720.0
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Number of Non-Motorized Fatalities and Serious Injuries	11.6	511.4	289.0	521.0	285

Source: FARS, TDM, KYTC, TITAN