Resolution on Proposed Regional Targets for Pavement and Bridge Performance

October 23, 2018

BMC

Overview

- Summary of Infrastructure Performance Requirements

- Regional Performance Targets

Performance reporting requirements for State DOTs and MPOs

- Through MAP-21, Congress required FHWA to establish measures to assess performance in 12 areas, including performance on the Interstate and non-Interstate NHS.

- State DOTs will establish 2- and 4-year targets for a 4-year performance period for the condition of infrastructure assets (bridges and pavement) on the NHS.
  - State DOTs must establish 2- and 4-year targets for NHS bridges by **May 20, 2018.**
  - State DOTs must establish 2- and 4-year targets for the non-Interstate NHS pavements and 4-year targets for the Interstate NHS by **May 20, 2018**

- MPOs must either support the State target or establish their own quantifiable 4-year targets within 180 days of the State target establishment (*in the case of the BRTB, by November 16, 2018*).

BMC

>>BRTB

Pavement Condition Targets

- If FHWA determines 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.

- Pavement condition is based on a calculation using measures of international roughness index (IRI), cracking, and rutting or faulting. A pavement section condition rating (Good, Fair, Poor) is based on the worst measure (IRI, cracking, rutting or faulting) for the section.

Bridge Condition Targets

- **Bridge condition is based on National Bridge Inventory (NBI) condition ratings for item 58 - Deck, 59 - Superstructure, 60 - Substructure, and 62 - Culvert.**
  - Condition is determined by the lowest rating of deck, superstructure, substructure, or culvert.
    - If the lowest rating is greater than or equal to 7, the bridge is classified as good; if less than or equal to 4, the classification is poor.
    - Bridges rated below 7 but above 4 will be classified as fair; there is no related performance measure
    - Deck area is computed using NBI item 49 - Structure Length, and 52 - Deck Width or 32 - Approach Roadway Width (for some culverts).

BMC

Target Measures Related to Bridge and Pavement Performance

(1) percent of NHS bridges in Good Condition;

(2) percent of NHS bridges in Poor Condition;

(3) percent of NHS interstate pavement in Good Condition;

(4) percent of NHS interstate pavement in Poor Condition;

(5) percent of NHS non-interstate pavement in Good Condition; and

(6) percent of NHS non-interstate pavement in Poor Condition

Infrastructure Overview

- Performance targets applied to NHS pavement and bridges regardless of owner

	Pavement			
	State Lane Mi	**State %**	**Region Lane Mi**	**Region %**
NHS	9,037	12.3%	878.8	8%
Non-NHS	64,529	87.7%	10,525.7	92%
Total	73,566		11,404.5	
	Bridge			
	State #	**State %**	**Region #**	**Region %**
NHS	1,896	35.9%	921	40%
Non-NHS	3,390	64.1%	1,372	60%
Total	5,286		2,293	

NHS Pavement Ownership

	% NHS		Thru Lane Miles			
			Interstate	Non-IS	State	Local
Anne Arundel Co	8%	State	182.8	583	765.8	
		Local	0	11.5		11.5
Baltimore City	14%	State	132.6	13.3	145.9	
		Local	39.4	696.4		735.8
Baltimore Co	8%	State	517.9	505.5	1,023.4	
		Local	0	83.2		83.2
Carroll Co	4%	State	9.6	130.1	139.7	
		Local	0	0		0
Harford Co	5%	State	116.6	223.9	340.5	
		Local	0	0		0
Howard Co	9%	State	196.7	309.5	506.2	
		Local	0	6.5		6.5
Queen Anne's Co*	11%	State	0	68.1	68.1	
		Local	0	0		0
		Total	1,195.6	2,631	2,989.6	837
		% Local				21.9%

*Note: only includes roads in the Baltimore Urbanized Area

Bridge Ownership

- National Bridge Inventory
  - Data submitted to FHWA each year
  - Includes all bridges, not just NHS
  - NBI includes latitude and longitude for each bridge; there is not one map with all bridges

	State Bridges					
	State #	State %	SHA	SHA %	Region #	Region %
NHS	1,932*	36.3%	1,483	57.7%	921	40%
Non-NHS	3,390	63.7%	1,086	42.3%	1,372	60%
Total	5,322		2,569		2,293	

*Includes 36 federally-owned bridges (National Park Service)

Regional Pavement Condition Targets

Pavement Performance		Pavement Condition							
		State Performance		State Target		Regional Performance		Proposed Regional Target	
		Good	Poor	Good Target (≥)	Poor Target (≤)	Good	Poor	Good Target (≥)	Poor Target (≤)
2016	Interstate	61.2%	0.5%			63.8%	0.4%		
	Non-Interstate	35.1%	6.5%			29.7%	8.6%		
2018	Interstate	63.7%	0.6%	60.0%	2.0%	65.9%	0.5%	60.0%	2.0%
	Non-Interstate	37.5%	5.9%	35.0%	7.0%	33.4%	6.4%	30.0%	7.0%
2020	Interstate	62.4%	0.7%	60.0%	2.0%	61.6%	0.9%	60.0%	2.0%
	Non-Interstate	37.2%	6.5%	35.0%	8.0%	33.9%	7.0%	30.0%	8.0%

BMC

BRTB

Bridge Conditions

	BRTB	Square Meters			Share for BRTB Overall			Share for BRTB by Condition		
	Sq Meters	Good	Fair	Poor	Good	Fair	Poor	Good	Fair	Poor
Local	324,751	38,392	239,538	46,822	1.4%	9.0%	1.8%	7.3%	11.5%	65.7%
State	2,346,413	487,335	1,834,583	24,495	18.2%	68.7%	0.9%	92.7%	88.5%	34.3%
Total	2,671,164	525,727	2,074,120	71,317	19.7%	77.6%	2.7%			
% Local	12.2%									

Regional Bridge Condition Targets

Bridge Performance	Bridge Condition							
	State Performance		State Target		Regional Performance		Proposed Regional Target	
	Good	Poor	Good Target (≥)	Poor Target (≤)	Good	Poor	Good Target (≥)	Poor Target (≤)
2017	29.7%	1.7%			19.7%	2.7%		
2019	29.7%	1.7%	29.7%	2%	19.7%	2.7%	20.0%	3.0%
2021	27.0%	5.0%	27.0%	5%	19.7%	2.7%	20.0%	5.0%

BMC

Bridge and Pavement Condition Target Summary

Performance Measure	2-Year Targets	4-Year Targets
Percent of NHS bridges in Good Condition (2019, 2021)	20.0%	20.0%
Percent of NHS bridges in Poor Condition (2019, 2021)	3.0%	5.0%
Percent of NHS Interstate pavement in Good Condition (2018, 2020)	60.0%	60.0%
Percent of NHS Interstate pavement in Poor Condition (2018, 2020)	2.0%	2.0%
Percent of NHS non-Interstate pavement in Good Condition (2018, 2020)	30.0%	30.0%
Percent of NHS non-Interstate pavement in Poor Condition (2018, 2020)	7.0%	8.0%

BMC

For More Information

Eileen Singleton | Principal Transportation Engineer

410-732-0500 x1033 | esingleton@baltometro.org | www.baltometro.org

@BALTOMETROCOUNCIL   @BALTIMORE METROPOLITAN COUNCIL   @BALTIMORE METROPOLITAN COUNCIL