

# Hillsborough Metropolitan Planning Organization 2040 Long-Range Transportation Plan System Performance Report



# **TABLE OF CONTENTS**

BACKGR	OUND							1
SAFETY I	MEASURES (PM1)					•••••		5
PAVEME	NT AND BRIDGE C	ONDITION I	MEASU	RES (PM2)		•••••		8
SYSTEM	PERFORMANCE,	FREIGHT,	AND	CONGESTION	MITIGATION	&	AIR	QUALITY
IMPROV	EMENT PROGRAM	MEASURES	(PM3	)		•••••		8
TRANSIT	ASSET MANAGEM	IENT MEASU	JRES					10



### **BACKGROUND**

Pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) Act enacted in 2012 and the Fixing America's Surface Transportation Act (FAST Act) enacted in 2015, State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) must apply a transportation performance management approach in carrying out their federally-required transportation planning and programming activities. The process requires the establishment and use of a coordinated, performance-based approach to transportation decision-making to support national goals for the federal-aid highway and public transportation programs.

On May 27, 2016, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued the Statewide and Nonmetropolitan Transportation Planning; Metropolitan Transportation Planning Final Rule (The Planning Rule). Through revisions to the Code of Federal Regulations, this rule details how state DOTs and MPOs must implement a suite of related transportation planning and transportation performance management provisions of MAP-21 and the FAST Act.

In accordance with the Planning Rule, the Hillsborough MPO must publish a System Performance Report for applicable performance measures as an element of its Long-Range Transportation Plan (LRTP). The System Performance Report presents the condition and performance of the transportation system with respect to required performance measures, documents performance targets, and reports on progress achieved in meeting the targets in comparison with previous reports.

There are several milestones related to the required content of the System Performance Report:

- In any LRTP amended or adopted on or after May 27, 2018, the System Performance Report must reflect Highway Safety/PM1 measures;
- In any LRTP amended or adopted on or after October 1, 2018, the System Performance Report must reflect Transit Asset Management measures; and
- In any LRTP amended or adopted on or after May 20, 2019, the System Performance Report must reflect Pavement and Bridge Condition/PM2 and System Performance/PM3 measures.

<sup>&</sup>lt;sup>1</sup> The Final Rule modified the Code of Federal Regulations at 23 CFR Part 450 and 49 CFR Part 613.

The Hillsborough MPO's 2040 Long-Range Transportation Plan was amended on June 11, 2019. Per the Planning Rule, the System Performance Report for the Hillsborough MPO is included for the required Highway Safety (PM1), Bridge and Pavement (PM2), and System Performance (PM3) measures.

# **SAFETY MEASURES (PM1)**

Effective April 14, 2016, the FHWA established five highway safety performance measures<sup>2</sup> to carry out the Highway Safety Improvement Program (HSIP). These performance measures are:

- 1. Number of fatalities;
- 2. Rate of fatalities per 100 million vehicle miles traveled;
- 3. Number of serious injuries;
- 4. Rate of serious injuries per 100 million vehicle miles traveled; and
- 5. Number of combined non-motorized fatalities and non-motorized serious injuries.

FDOT publishes statewide safety performance targets in the HSIP Annual Report that it transmits to FHWA each year. Current safety targets address calendar year 2019 and are based on a five-year rolling average (2015-2019).

The Hillsborough MPO adopted safety performance targets on February 5, 2019. Table 1 indicates the areas in which the MPO is expressly supporting the statewide target developed by FDOT, as well as those areas in which the MPO has adopted a target specific to the MPO planning area.

Table 1. Highway Safety/PM1, Targets

Performance Target	Hillsborough MPO agrees to plan and program projects so that they contribute toward the accomplishment of the FDOT safety target	Hillsborough MPO has adopted a target specific to the MPO Planning Area
Number of fatalities	n/a	≤188
Rate of fatalities per 100 million vehicle miles traveled (VMT)	n/a	≤1.33
Number of serious injuries;	n/a	≤1,354
Rate of serious injuries per 100 million vehicle miles traveled (VMT)	n/a	≤9.55
Number of combined non- motorized fatalities and non- motorized serious injuries.	n/a	≤229

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<sup>&</sup>lt;sup>2</sup> 23 CFR Part 490, Subpart B

Statewide system conditions for each performance measure are included in Table 2, along with system conditions in the Hillsborough MPO metropolitan planning area. System conditions reflect baseline performance, which for this first system performance report is the same as the current reporting period (2013-2017). The latest safety conditions will be updated on a rolling 5-year window and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets. In addition to those measures reported in Table 2 below, the Hillsborough MPO adopted a supplemental safety target for fatalities in Calendar Year 2019 to not exceed 163. This supplemental target was adopted based on the Hillsborough MPO's long-term goal of reducing crashes by 3.4% annually.

Table 2. Highway Safety/PM1, System Conditions and Performance

Performance Measures	Florida Statewide Baseline Performance (Five-Year Rolling Average 2013-2017)	Hillsborough MPO Baseline Performance (Five-Year Rolling Average 2013-2017)	Calendar Year 2019 Florida Performance Targets	Calendar Year 2019 Hillsborough MPO Planning Area Performance Targets
Number of Fatalities	2,737.6	187.2	0	≤188
Rate of Fatalities per 100 Million Vehicle Miles Traveled (VMT)	1.44	1.39	0	≤1.33
Number of Serious Injuries	20,568.8	1,535.6	0	≤1,354
Rate of Serious Injuries per 100 Million Vehicle Miles Traveled	10.01	11.51	0	≤9.55
Number of Non- Motorized Fatalities and Non-Motorized Serious Injuries (VMT)	3,255.0	236.4	0	≤229

The Hillsborough MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the LRTP directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes; specifically the Florida Strategic Highway Safety Plan (SHSP), the Florida Highway Safety Improvement Program (HSIP), the current Florida Transportation Plan (FTP), and the current Hillsborough MPO 2040 LRTP.

- The Florida SHSP is intended to reduce the number of fatalities and serious injuries resulting
  from motor vehicle crashes on public roads in Florida. Existing highway Florida plans are
  aligned and coordinated with the SHSP, including (but not limited to) the Florida HSIP, MPO
  and local agencies' safety plans. The SHSP guides FDOT, the Florida MPOs, and other safety
  partners in addressing safety and defines a framework for implementation activities to be
  carried out across Florida.
- The FDOT HSIP annual report provide for a continuous and systematic process that identifies and reviews traffic safety issues around the state to identify locations with potential for improvement. The ultimate goal of the HSIP process is to reduce the number of crashes, injuries and fatalities by eliminating certain predominant types of crashes through the implementation of engineering solutions.
- The Hillsborough MPO's 2040 LRTP increases the safety of the transportation system for motorized and non-motorized users as required. The LRTP identifies safety needs within the metropolitan planning area and provides funding for targeted safety improvements.

To support progress towards approved highway safety targets, the LRTP includes a number of key safety investments. A total of \$2.21 billion (12.9%) has been identified in the 2040 LRTP to improve highway safety, averaging approximately \$69 million per year (2014 USD).

## **PAVEMENT AND BRIDGE CONDITION MEASURES (PM2)**

In January 2017, USDOT published the Pavement and Bridge Condition Performance Measures Final Rule, which is also referred to as the PM2 rule. This rule establishes the following six performance measures:

- 1. Percent of Interstate pavements in good condition;
- 2. Percent of Interstate pavements in poor condition;
- 3. Percent of non-Interstate National Highway System (NHS) pavements in good condition;
- 4. Percent of non-Interstate NHS pavements in poor condition;
- 5. Percent of NHS bridges by deck area classified as in good condition; and
- 6. Percent of NHS bridges by deck area classified as in poor condition.

For the pavement measures, five pavement metrics are used to assess condition: International Roughness Index (IRI); Cracking Percent; Rutting; Faulting; and a Present Serviceability Rating (PSR) for lower speed roads. The bridge measure assesses the condition of a bridge's deck, superstructure, substructure, and culverts. Good condition suggests that no major investment is needed, and poor condition suggests major reconstruction investment is needed.

MPOs must set four-year targets for all six measures. MPOs can either agree to program projects that will support the statewide targets, or set their own quantifiable targets for the MPO's planning area. The Hillsborough MPO adopted pavement and bridge performance targets on October 30, 2018. Table 3 indicates the areas in which the MPO is expressly supporting the statewide target developed by FDOT, as well as those areas in which the MPO has adopted target specific to the MPO planning area.

Table 3. Pavement and bridges/PM2, Targets

Performance Measures	Hillsborough MPO agrees to plan and program projects so that they contribute toward the accomplishment of the FDOT target	Hillsborough MPO has adopted a target specific to the MPO Planning Area
Percent of Interstate pavements in good condition	≥60%	n/a
Percent of Interstate pavements in poor condition	≤5%	n/a
Percent of non-Interstate NHS pavements in good condition	≥40%	n/a
Percent of non-Interstate NHS pavements in poor condition	≤5%	n/a
Percent of NHS bridges by deck area in good condition	≥50%	n/a
Percent of NHS bridges by deck area in poor condition	≤10%	n/a

Statewide system conditions for each performance measure are included in Table 4, along with system conditions in the Hillsborough MPO metropolitan planning area. System conditions reflect baseline performance (2017). The latest conditions will be updated on a biannual basis and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

Table 4. Pavement and Bridge/PM1, System Conditions and Performance

Performance Measures	Florida Statewide Baseline Performance (2017)	Hillsborough MPO Baseline Performance (2017)	4-year Statewide Target (Jan. 1, 2018 to Dec. 31, 2021)	4-year Hillsborough MPO Target (Jan. 1, 2018 to Dec. 31, 2021)
Percent of Interstate pavements in good condition	66%	50.9%	60%	≥60%
Percent of Interstate pavements in poor condition	0.1%	0%	5%	≤5%
Percent of non- Interstate NHS pavements in good condition	45%	42%	40%	≥40%
Percent of non- Interstate NHS pavements in poor condition	0.4%	0.2%	5%	≤5%
Percent of NHS bridges by deck area in good condition	72%	78%	50%	≥50%
Percent of NHS bridges by deck area in poor condition	1%	0%	10%	≤10%

The Hillsborough MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the LRTP directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes, including the current Florida Transportation Plan (FTP), and the current Hillsborough MPO 2040 LRTP.

To support progress towards approved pavement and bridge targets, the LRTP includes a number of key investments. A total of \$2.89 billion (16.9%) has been identified in the LRTP to improve pavement and bridge condition, averaging approximately \$90 million per year (2014 USD).

# SYSTEM PERFORMANCE, FREIGHT, AND CONGESTION MITIGATION & AIR QUALITY IMPROVEMENT PROGRAM MEASURES (PM3)

In January 2017, USDOT published the System Performance/Freight/CMAQ Performance Measures Final Rule to establish measures to assess passenger and freight performance on the Interstate and non-Interstate National Highway System (NHS), and traffic congestion and onroad mobile source emissions in areas that do not meet federal National Ambient Air Quality Standards (NAAQS). The rule, which is referred to as the PM3 rule, requires MPOs to set targets for the following six performance measures:

- 1. Percent of person-miles on the Interstate system that are reliable, also referred to as Level of Travel Time Reliability (LOTTR);
- 2. Percent of person-miles on the non-Interstate NHS that are reliable (LOTTR);
- 3. Truck Travel Time Reliability index (TTTR);
- 4. Annual hours of peak hour excessive delay per capita;
- 5. Percent of non-single occupant vehicle travel (Non-SOV); and
- 6. Total emissions reduction of on-road mobile source emissions.

In Florida, only the two LOTTR performance measures and the TTTR performance measure apply. Because all areas in Florida meet current NAAQS, the remaining three measures do not currently apply in Florida.

Federal rules require MPOs to establish four-year performance targets for the LOTTR and TTTR performance measures, within 180 days of FDOT setting statewide targets. MPOs can either agree to program projects that will support the statewide targets, or set their own quantifiable targets for the MPO's planning area. The Hillsborough MPO adopted system performance, freight, and congestion mitigation performance targets on October 30, 2018. Table 5 indicates the areas in which the MPO is expressly supporting the statewide target developed by FDOT, as well as those areas in which the MPO has adopted target specific to the MPO planning area.

Table 5. System Performance/PM3, Targets

Performance Measures	Hillsborough MPO agrees to plan and program projects so that they contribute toward the accomplishment of the FDOT target	Hillsborough MPO has adopted a target specific to the MPO Planning Area
Percent of person-miles on the Interstate system that are reliable (Interstate LOTTR)	≥75%	n/a

Percent of person-miles on the non-Interstate NHS that are reliable (Non-Interstate NHS LOTTR	≥50%	n/a
Truck travel time reliability (TTTR)	≤2.00	n/a

Statewide system conditions for each performance measure are included in Table 6, along with system conditions in the Hillsborough MPO metropolitan planning area. System conditions reflect baseline performance (2017). The latest system performance conditions will be updated on a biennial basis and reflected within each subsequent System Performance Report, to track performance over time in relation to baseline conditions and established targets.

Table 6. System Performance/PM3, System Conditions and Performance

Performance Measures	Florida Statewide Baseline Performance (2017)	Hillsborough MPO Baseline Performance (2017)	4-year Statewide Target (Jan. 1, 2018 to Dec. 31, 2021)	4-year Hillsborough MPO Target (Jan. 1, 2018 to Dec. 31, 2021)
Percent of person-miles on the Interstate system that are reliable (Interstate LOTTR)	82%	71%	70%	≥75%
Percent of person-miles on the non-Interstate NHS that are reliable (Non-Interstate NHS LOTTR	84%	62.5%	50%	≥50%
Truck travel time reliability (TTTR)	1.43	2.08	2.00	≤2.00

The Hillsborough MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the LRTP directly reflects the goals, objectives, performance measures, and targets as they are available and described in other State and public transportation plans and processes, including the current Florida Transportation Plan (FTP), and the current Hillsborough MPO 2040 LRTP.

To support progress towards approved system performance targets, the LRTP includes a number of key investments. A total of \$1.69 billion (9.9%) has been identified in the LRTP to improve system performance, averaging approximately \$53 million per year (2014 USD).

### TRANSIT ASSET MANAGEMENT MEASURES

### **Transit Asset Performance**

On July 26, 2016, FTA published the final Transit Asset Management rule. This rule applies to all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets. The rule defines the term "state of good repair," requires that public transportation providers develop and implement transit asset management (TAM) plans, and establishes state of good repair standards and performance measures for four asset categories: transit equipment, rolling stock, transit infrastructure, and facilities. The rule became effective on October 1, 2018.

Table 7 below identifies performance measures outlined in the final rule for transit asset management.

**Table 7. FTA TAM Performance Measures** 

Asset Category	Performance Measure and Asset Class
Equipment	Percentage of non-revenue, support-service and maintenance vehicles that have met or exceeded their useful life benchmark
Rolling Stock	Percentage of revenue vehicles within a particular asset class that have either met or exceeded their useful life benchmark
Infrastructure	Percentage of track segments with performance restrictions
Facilities	Percentage of facilities within an asset class rated below condition 3 on the TERM scale

Public transportation providers set and report TAM targets annually. They are required to provide their asset conditions and TAM targets to each MPO in which the transit provider's projects and services are programmed in the MPO's TIP. Subsequent MPO targets must be set when updating the LRTP. MPOs can either agree to program projects that will support the transit provider's targets, or set their own separate regional targets for the MPO's planning area. Regional TAM targets may differ from agency TAM targets, especially if there are multiple transit agencies in the MPO's planning area, or in the event that one or more transit agencies have not provided TAM targets to the MPO.

Table 8 presents the TAM targets used in assessing transit asset performance in the Hillsborough MPO. The Hillsborough MPO adopted transit asset performance targets on October 30, 2018.

**Table 8. FTA TAM Targets** 

Asset Category Performance Measure	Asset Class	Useful Life Benchmark	2022 Target
Rolling Stock			l
	Articulated Bus	Х	%
Age - % of revenue vehicles within a particular	Bus	Х	%
asset class that have met or exceeded their Useful	Mini-Bus	Х	%
Life Benchmark (ULB)	Van	Х	%
	Etc.	Х	%
Equipment			
	Non Revenue/Service Automobile	Х	%
Age - % of non-revenue service vehicles within a particular asset class that have met or exceeded	Trucks and other Rubber Tire Vehicles	Х	%
their Useful Life Benchmark (ULB)	Maintenance Equipment	Х	%
	Etc.	Х	%
Infrastructure			
% of track segments with performance restrictions (as applicable)	Rail fixed guideway track	n/a	%
Facilities			
	Administration	n/a	%
	Maintenance	n/a	%
Condition - % of facilities with a condition rating	Parking Structures	n/a	%
below 3.0 on the FTA Transit Economic	Passenger Facilities	n/a	%
Requirements Model (TERM) Scale	Shelter	n/a	%
	Storage	n/a	%
	Etc.	n/a	%

System performance and conditions for each TAM performance measure are included in Table 9 for the Hillsborough MPO metropolitan planning area. This represents system performance and conditions as of October 30, 2018. Transit providers update transit asset conditions on an annual basis.

**Table 9. TAM System Performance** 

Asset Category Performance Measure	Asset Class	System Conditions, 2018	2022 Target	
Rolling Stock			<u> </u>	
	CNG Bus	13%	≤13%	
Age - % of revenue vehicles within a particular	Diesel Bus	20%	≤20%	1
asset class that have met or exceeded their Useful	Cutaways	80%	≤80%	
Life Benchmark (ULB)	Automobiles	39%	≤39%	
	Streetcar	0%	0%	
Equipment	,			Non Revenue/Ser e Automobile
	Automobiles	77%	≤77%	
	Vans	100%	≤100%	
Age - % of non-revenue service vehicles within a	SUVs	82%	≤82%	
particular asset class that have met or exceeded	Bus Equipment	n/a	n/a	
their Useful Life Benchmark (ULB)	Streetcar Systems	n/a	n/a	
	Systems	n/a	n/a	
	Furniture	n/a	n/a	
Infrastructure				Rail fixed guideway tra
% of track segments with performance restrictions (track segments are owned by City of Tampa)	Rail fixed guideway track	0%	0%	
Facilities				Administration
	Administrative	0%	0%	
	Maintenance	0%	0%	
Condition - % of facilities with a condition rating	Admin & Maintenance	0%	0%	
below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale	Bus Stops	10%	≤10%	
	Transit/Transfer Centers	10%	≤10%	1
	Parking Facilities	10%	≤10%	1

The Hillsborough MPO recognizes the importance of linking goals, objectives, and investment priorities to stated performance objectives, and that establishing this link is critical to the achievement of national transportation goals and statewide and regional performance targets. As such, the LRTP directly reflects the goals, objectives, performance measures, and targets as they are described in other public transportation plans and processes, including the HART Transit Asset Management Plan, the HART Transit Development Plan, and the current Hillsborough MPO 2040 LRTP.

To support progress towards TAM performance targets, transit investment and maintenance funding in the 2040 LRTP totals \$269 million, approximately 1.5 percent of total LRTP funding. This allocation represents 100% percent of requested HART funding for transit preservation and would result in an average fleet age of 5yrs and 272 new vehicles by the year 2040. This would dramatically improve the State of Good Repair (SGR) of capital assets, which is an overarching goal of this process.