

APPENDIX A

PERFORMANCE

REPORT



PERFORMANCE MEASURES AND TARGETS

The Federal Highway Administration (FHWA) requires MPOs to adopt performance targets for defined measures, including for safety, transit asset management, system performance, bridge condition and pavement condition. Forward Pinellas must demonstrate progress towards meeting defined targets through the projects programed for funding in the LRTP, so each section contains representative examples of projects that will help make progress towards the established targets.

SAFETY MEASURES

In 2017, FDOT set a statewide target of zero traffic deaths and injuries. While this is an aspirational goal that Forward Pinellas supports, the FHWA has encouraged the MPOs to set realistic, data-driven targets for all performance measures.

Safety performance targets are required to be adopted on an annual basis. FDOT, in August of each calendar year, will report the following year's targets in the Highway Safety Improvement Program (HSIP) Annual Report. After FDOT adopts the targets, Forward Pinellas is required to either adopt FDOT's targets or establish its own targets by the following February. Forward Pinellas has chosen to set slightly aspirational targets for safety performance measures, targeting the percent difference between a trendline projection to the lowest annual average from the previous five years.

On February 14, 2018, the Forward Pinellas Board adopted safety performance targets for the five categories of fatality and serious injury data. These categories and corresponding targets are listed below:

- Number of fatalities : 21.6% decrease
- Number of serious injuries: 8.6% decrease
- Rate of fatalities: 19.1% decrease
- Rate of serious injuries: 6% decrease
- Number of non-motorized fatalities and serious injuries: 9.995% decrease

On February 13, 2019, the Forward Pinellas Board reevaluated the performance targets and the progress being made towards those targets. Over the previous five years, Pinellas County has seen the following progress towards the safety performance measures:

- Average annual fatalities increase 3.6%
- Average annual serious injuries decreased 4.7%
- Average annual fatality rate has increased 1.7%
- Average annual serious injury rate has decreased 6.3%
- Average annual pedestrian and bicyclist fatalities and serious injuries have decreased 2.6%

The years 2014-2019 performance data show the following numbers for Pinellas County.

Performance Measures	Years 2014-2019	% Change	2 Year Target Set 2018	Recommended 2 Year Target for 2019
Average Annual Fatalities	111.0	1.46%	-21.60%	-10.80%
Average Annual Serious Injuries	1,045.1	-6.68%	-8.60%	-17.70%
Average Annual Fatality Rates	1.377	3.53%	-19.10%	-10.70%
Average Annual Serious Injury Rates	12.632	-7.57%	-6%	-19.80%
Average Annual Pedestrian and Bicyclist Fatalities and Serious Injuries	215.8	0.37%	-9.995%	-1.70%

All numbers are in 5 year rolling averages.

Given that there is still much progress to be made to improve the safety of the transportation network, the board took action to update the performance targets using the most recent data available. Taking a similar approach to the prior year, the board adopted the performance targets listed below, looking at the percent difference between the highest annual average and the lowest annual average from the most recent five years and the two year trendline.

- Number of fatalities : 10.8% decrease
- Number of serious injuries: 17.7% decrease
- Rate of fatalities: 10.7% decrease
- Rate of serious injuries: 19.8% decrease
- Number of non-motorized fatalities and serious injuries: 1.7% decrease

TRANSIT ASSET MANAGEMENT MEASURES

Forward Pinellas has coordinated with the Pinellas Suncoast Transit Authority to develop targets for transit asset management measures.

The targets for 2017 are as follows:

- Rolling Stock – Percent of revenue vehicles that have met or exceeded their useful life benchmark:
- Over the road bus: 100%
 - Bus: 7.8%
 - Cutaway: 0%
- Equipment – Percent of service vehicles that have met or exceeded their useful life benchmark:
 - Automobiles: 24%
 - Trucks and other Rubber Tire Vehicles: 29%
- Facility – Percent of facilities rated below 3 on the condition scale:
 - Passenger/Parking Facilities: 25%
 - Administrative/Maintenance Facilities: 0%

Forward Pinellas includes funding for a variety of transit projects in the LRTP including for the replacement of vehicles, facility repair and service development programs.

- Over the road bus: coach style bus used on express routes
- Cutaway: smaller bus used on connector, circulator, or other neighborhood oriented routes
- Passenger/parking facilities: transfer centers, park & ride lots

PAVEMENT AND BRIDGE CONDITION PERFORMANCE MEASURES

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) - an indicator of roughness; applicable to all asphalt and concrete pavements;
- Cracking percent - percentage of the pavement surface exhibiting cracking; applicable to all asphalt and concrete pavements;
- Rutting - extent of surface depressions; applicable to asphalt pavements;
- Faulting - vertical misalignment of pavement joints; applicable to certain types of concrete pavements; and
- Present Serviceability Rating (PSR) – a quality rating applicable only to certain lower speed roads.

For each pavement metric, a threshold is used to establish good, fair, or poor condition. Pavement condition is assessed for each 0.1 mile section of the through travel lanes of mainline highways on the Interstate or the non-Interstate NHS using these metrics and thresholds. A pavement section is rated as good if all three metric ratings are good, and poor if two or more metric ratings are poor. Sections that are not good or poor are considered fair.

The good/poor measures are expressed as a percentage and are determined by summing the total lane-miles of good or poor highway segments and dividing by the total lane-miles of all highway segments on the applicable system. Pavement in good condition suggests that no major investment is needed and should be considered for preservation treatment. Pavement in poor condition suggests major reconstruction investment is needed due to either ride quality or a structural deficiency.

The bridge condition measures refer to the percentage of bridges by deck area on the NHS that are in good condition or poor condition. The measures assess the condition of four bridge components: deck, superstructure, substructure, and culverts. Each component has a metric rating threshold to establish good, fair, or poor condition. Each bridge on the NHS is evaluated using these

ratings. If the lowest rating of the four metrics is greater than or equal to seven, the structure is classified as good. If the lowest rating is less than or equal to four, the structure is classified as poor. If the lowest rating is five or six, it is classified as fair.

The bridge measures are expressed as the percent of NHS bridges in good or poor condition. The percent is determined by summing the total deck area of good or poor NHS bridges and dividing by the total deck area of the bridges carrying the NHS. Deck area is computed using structure length and either deck width or approach roadway width.

A bridge in good condition suggests that no major investment is needed. A bridge in poor condition is safe to drive on; however, it are nearing a point where substantial reconstruction or replacement is needed.

Federal rules require state DOTs and MPOs to coordinate when setting pavement and bridge condition performance targets and monitor progress towards achieving the targets. States must establish:

- Four-year statewide targets for the percent of interstate pavements in good and poor condition;
- Two-year and four-year targets for the percent of non-Interstate NHS pavements in good and poor condition; and
- Two-year and four-year targets for the percent of NHS bridges (by deck area) in good and poor condition.

MPOs must set four-year targets for all six measures. MPOs can either agree to program projects that will support the statewide targets, or establish their own quantifiable targets for the MPO's planning area.

On May 20, 2018, FDOT set targets for the performance measures related to pavement and bridge condition. Forward Pinellas evaluated those targets against the role the agency plays as the MPO for Pinellas County and the fact that the condition of the National Highway System roadways in Pinellas County mostly fall within the statewide targets set by FDOT. At their meeting on November 14, 2018, the Forward Pinellas Board took action

to support the statewide targets for pavement and bridge condition. Those measures and targets are as follows:

- % of Interstate pavements in Good condition
 - 2 year target: n/a
 - 4 year target: >60%
- % of Interstate pavements in Poor condition
 - 2 year target: n/a
 - 4 year target: <5%
- % of non-Interstate NHS in Good condition
 - 2 year target: >40%
 - 4 year target: >40%
- % of non-Interstate pavements in Poor condition
 - 2 year target: <5%
 - 4 year target: <5%
- 5 of NHS bridges classified as in Good condition by deck area
 - 2 year target: >50%
 - 4 year target: >50%
- % of NHS bridges classified as in Poor condition by deck area:
 - 2 year target: <10%
 - 4 year target: <10%

SYSTEM PERFORMANCE AND FREIGHT MEASURES

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 on-road 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 state DOTs and MPOs to establish targets for the following six performance measures:

National Highway Performance Program (NHPP)

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);

Performance Measure	2 Year Target	4 Year Target	Pinellas County 2017 Conditions
% of Interstate pavements in Good condition	n/a	> 60%	33.40% (Note*)
% of Interstate pavements in Poor condition	n/a	< 5%	0.70%
% of non-Interstate NHS in Good condition	> 40%	> 40%	43.10%
% of non-Interstate NHS in Poor condition	< 5%	< 5%	1.20%
% of NHS bridges classified as in Good condition by deck area	> 50%	> 50%	85%
% of NHS bridges classified as in Poor condition by deck area	< 10%	< 10%	0%
% of person-miles traveled on the Interstate that are reliable	75%	70%	85%
% of person-miles traveled on the non Interstate NHS that are reliable	n/a	50%	82%
Truck travel time reliability ratio (TTR) on the Interstate	1.75	2	1.4

Note*: Pinellas County is below the statewide target.

National Highway Freight Program (NHFP)

3. Truck Travel Time Reliability index (TTTR); Congestion Mitigation and Air Quality Improvement Program (CMAQ)

4. Annual hours of peak hour excessive delay per capita (PHED);
5. Percent of non-single occupant vehicle travel (Non-SOV); and
6. Cumulative 2-year and 4-year reduction of on-road mobile source emissions (NOx, VOC, CO, PM10, and PM2.5) for CMAQ funded projects.

In Florida, only the two LOTTR performance measures and the TTTR performance measure apply. Because all areas in Florida meet current NAAQS, the last three listed measures above pertaining to the CMAQ Program do not currently apply in Florida. A description of the applicable measures follows.

LOTTR Measures

The LOTTR performance measures assesses the percent of person-miles traveled on the Interstate or the non-Interstate NHS that are reliable. LOTTR is defined as the ratio of longer travel times (80th percentile) to a normal travel time (50th percentile) over of all applicable roads, across four time periods between the hours of 6 a.m. and 8 p.m. each day. The measure is expressed as the percent of person-miles traveled on the Interstate or Non-Interstate NHS system that are reliable. Person-miles take into

account the number of people traveling in buses, cars, and trucks over these roadway segments.

TTTR Measure

The TTTR performance measure assesses the reliability index for trucks traveling on the interstate. A TTTR ratio is generated by dividing the 95th percentile truck travel time by a normal travel time (50th percentile) for each segment of the Interstate system over specific time periods throughout weekdays and weekends. This is averaged across the length of all Interstate segments in the state or metropolitan planning organization (MPO) planning area to determine the TTTR index.

Federal rules require state DOTs and MPOs to coordinate when setting LOTTR and TTTR performance targets and monitor progress towards achieving the targets. States must establish:

- Two-year and four-year statewide targets for percent of person-miles on the Interstate system that are reliable;
- Four-year targets for the percent of person-miles on the non-Interstate NHS that are reliable; and
- Two-year and four-year targets for truck travel time reliability

MPOs must establish four-year targets for all three measures. MPOs can either agree to program projects that will support the statewide targets, or establish their own quantifiable targets for the MPO's planning area.

On May 20, 2018, FDOT set targets for the performance measures related to the performance of the transportation system. Forward Pinellas evaluated those targets against the role the agency plays as the MPO for Pinellas County and the fact that the performance of the National Highway System roadways in Pinellas County mostly fall within the statewide targets set by FDOT. At their meeting on November 14, 2018, the Forward Pinellas Board took action to support the statewide targets for system performance. Those measures and targets are as follows:

- % of person miles traveled on the Interstate that are reliable
 - 2 year target: 75%
 - 4 year target: 70%
- % of person miles traveled on the non-Interstate NHS that are reliable
 - 2 year target: n/a
 - 4 year target: 50%
- Truck travel time reliability ratio on the Interstate
 - 2 year target: 1.75
 - 4 year target: 2