



Appendix G to the 2050 Regional Transportation Plan

BIRMINGHAM MPO SYSTEMS PERFORMANCE REPORT

Image Credit: ALDOT

Birmingham MPO

Systems Performance Report

February 2023



Systems Performance Report

Overview

Federal transportation legislation, beginning with the Moving Ahead for Progress in the 21st Century (MAP-21) Act, and continuing with the Fixing America's Surface Transportation (FAST) Act and the Infrastructure Investment and Jobs Act (IIJA), has directed state Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) to develop their long-range regional transportation plans (RTPs) and four-year Transportation Improvement Programs (TIPs) through a "performance-driven, outcome-based approach to planning," or an approach known as performance-based planning and programming (PBPP).

The intent of PBPP is to tie performance outcomes to investment decisions. The process is designed to ensure there is collaboration among State DOTs, MPOs, and transit agencies and different requirements are outlined for each respective entity. When implemented effectively, performance management can improve project delivery, inform investment decisions, and provide greater transparency and accountability. The core of this approach is the use of performance measures and performance targets to evaluate how well our transportation system is functioning.

Investments are made through the RTP and TIP to maintain, expand, and operate the region's transportation system. With limited funding and a long list of needs, investment priorities must have their intended impact. Understanding and measuring these impacts over time is accomplished through the establishment of performance measures.

In order to measure progress toward achieving the national goals, the legislation required all state departments of transportation, MPOs, and public transportation operators to set targets in key performance areas that must be reached within a designated timespan. Progress toward reaching these targets is monitored using performance measures, which are quantifiable metrics that describe how well some element of the system is performing. These performance measures are the cornerstone of PBPP, enabling agencies to make objective, informed decisions about how to achieve the national goals, the Federal Highway Administration (FHWA) has required states and MPOs to monitor their transportation systems using specific performance measures. These measures will be used to identify progress in achieving the performance targets described above. Both the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have released performance measures for roadways and transit respectively.

FHWA Performance Measures

The FHWA measures were released in three groups. PM1, the first group, addresses measures related to safety. PM2 addresses measures related to infrastructure conditions, specifically related to pavement and bridge conditions. The

final group, PM3, addresses system performance measures, including system reliability, freight movement and environmental sustainability. Table 4.2 lists these measures and relates them to the national goals.

SAFETY (PM1)

The safety rule is intended to reduce fatalities and serious crashes on all public roads. Five safety measures have been defined at the federal level and performance targets are adopted annually, by calendar year, for each measure. The safety targets are based on five-year rolling averages and are documented in the State's annual Highway Safety Improvement Program (HSIP). MPOs must set highway safety performance targets annually, within 180 days after the state establishes its targets, or no later than February of the following year. The MPO can either endorse the state targets or adopt its own.

The FHWA makes an annual assessment to determine if the Alabama Department of Transportation (ALDOT) has met or made significant progress towards achieving its targets. Significant progress means four of the five targets are performing better than the established baseline. If ALDOT does not meet or make significant progress towards achieving its targets, there are funding implications and an HSIP Implementation Plan must be submitted to the FHWA.

INFRASTRUCTURE CONDITION (PM2)

The intent of the infrastructure condition rule is to monitor and manage performance of interstate and non-interstate National Highway System (NHS) pavement and bridges. Six measures have been established to evaluate pavement and bridge condition. For infrastructure condition measures, the state and MPO are required to set 2-year and 4-year targets. Monitoring and reporting are required every two years, at which time targets can be evaluated and updated.

ALDOT assesses progress toward meeting the infrastructure condition targets every two years in a system performance report, which the FHWA reviews. If targets are not met, or significant progress is not made, ALDOT is required to document the actions it will take to achieve their targets in the performance report. The Birmingham MPO does not face repercussions if significant progress is not made toward meeting its targets.

SYSTEMS PERFORMANCE (PM3)

The system performance rule includes seven measures to assess the performance of the interstate and non-interstate National Highway System (NHS), freight movement on the interstate system, traffic congestion, and on-road mobile source emissions. As with infrastructure condition, ALDOT and the Birmingham MPO are required to set 2-year and 4-year targets for system performance measures. Monitoring and reporting are required every two years, at which time targets can be evaluated and updated.

ALDOT monitors the system performance targets in a similar manner as the infrastructure condition targets and documents progress every two years in a system performance report that is reviewed by the FHWA. If targets are not met, or significant progress is not made, ALDOT is required to utilize the performance report to document actions it will take to achieve the targets.

FTA Performance Measures

The FTA measures were released in two groups. All recipients of public transit funds, including transit operators, states, or local authorities, must establish performance targets for safety and equipment condition, develop transit asset management and safety plans, and report on their progress toward reaching targets.

TRANSIT ASSET MANAGEMENT (TAM)

The Transit Asset Management (TAM) rule was established by the FTA on July 26, 2016 to define the term “state of good repair” and to establish minimum requirements that apply to all recipients and subrecipients of federal transit funds that own, operate, or manage public transportation capital assets. TAM is a business model that uses the condition of assets to guide the optimal prioritization of funding at transit agencies in order to keep our transit networks in a state of good repair.

The TAM rule specifies four performance measures, which apply to four TAM asset categories: rolling stock (vehicles that provide passenger service), equipment (nonrevenue service vehicles), facilities, and infrastructure (rail fixed guideway systems).

FTA will neither penalize transit agencies or MPOs for not achieving regional TAM targets nor reward these entities for attaining them. FTA will review how the MPO is incorporating performance-based planning and programming practices, including those related to TAM, into its planning process during quadrennial certification reviews.

TRANSIT SAFETY

In addition to asset management, public transportation safety is a key component of the performance-based planning process as it relates to transit. The FTA established the Public Transportation Agency Safety Plan (PTASP) rule to emphasize a more effective and proactive approach to managing safety risks in public transit systems. The rule applies to all operators of public transportation systems that are recipients and sub-recipients of FTA grant funds.

BJCTA is required to develop a compliant agency safety plan annually, which includes performance targets. The FTA requires that public transit agencies self-certify their safety plans and targets annually. There is no penalty for the BJCTA or the Birmingham MPO if targets are not met.

The following page lists the performance measures for both FHWA and FTA.

FHWA Safety Performance Measures (PM1)
Number of Fatalities
Rate of Fatalities (per 100 million Vehicle Miles Traveled)
Number of Serious Injuries
Rate of Serious Injuries (per 100 million Vehicle Miles Traveled)
Number of Non-motorized fatalities and serious injuries
FHWA Bridge/Pavement Performance Measures (PM2)
% of Pavements of the Interstate System in Good Condition
% of Pavements of the Interstate System in Poor Condition
% of Pavements of the Non-Interstate NHS in Good Condition
% of Pavements of the Non-Interstate NHS in Poor Condition
% of NHS bridges in Good condition by deck area
% of NHS bridges in Poor condition by deck area
FHWA System Performance Measures (PM3)
% of Person-Miles Traveled on the Interstate that are Reliable
% of Person-Miles Traveled on the Non-Interstate NHS that are Reliable
Truck Travel Time Reliability (TTTR) Index on the Interstate
FTA Transit State of Good Repair Performance Measures
% of Rolling Stock (Revenue vehicles) meet or exceed Useful Life Benchmark (ULB)
% of Equipment (over \$50K) meet or exceed Useful Life Benchmark (ULB)
% of FTA-funded Facilities with condition rating below 3.0 (average) of FTA Average TERM Scale
FTA Transit Safety Performance Measures
Fatalities
Rate of Fatalities
Injuries
Rate of Injuries
Safety Events
Rate of Safety Events
Mean distance between major mechanical failure

Resolutions

The following pages include the most recent resolutions for both roadway (FHWA) and transit (FTA) performance measures. All resolutions are reviewed and approved by the MPO sub-committees as well as the MPO Policy Committee.

**RESOLUTION 2022-7
PERFORMANCE TARGETS**

WHEREAS, federal regulations require that the plans and programs of Metropolitan Planning Organizations include Performance Measurements and Targets for urbanized areas; and

WHEREAS, the Birmingham MPO, in coordination with the Federal Highway Administration (FHWA) and the Alabama Department of Transportation (ALDOT) has reviewed the requirement to adopt Performance Measures and Targets for use in the transportation process as required by 23 CFR 490.105; and

WHEREAS, ALDOT requires the Birmingham MPO to implement a performance-based approach to planning and programming activities and to indicate their support of these Performance Measures and Targets within the Birmingham urbanized area; and

WHEREAS, the Birmingham MPO has reviewed these Performance Measures and Targets and believes them to be in the best interest of the community.

FHWA Safety Performance Measures (PM1)		Annual Target 2023	
Number of Fatalities		1,000	
Fatality Rate (per million vehicle miles traveled)		1.44	
Number of Serious Injuries		6,500	
Serious Injury Rate (per million vehicle miles traveled)		9.82	
Number Non-motorized Fatalities and Serious Injuries		400	
FHWA Bridge/Pavement Performance Measures (PM2)		4-Year Target 2023	
% of pavements of the interstate System in Good Condition		50% or more	
% of Pavements of the Interstate System in Poor Condition		5% or less	
% of Pavements of the Non-Interstate NHS in Good Condition		25% or more	
% of Pavements of the Non-Interstate NHS in Poor Condition		5% or less	
% of NHS bridges in Good condition by deck area		25% or more	
% of NHS bridges in Poor condition by deck area		3% or less	
FHWA System Performance Measures (PM3)		2022	2024
<i>Based on data from calendar year ending</i>		<i>2021</i>	<i>2023</i>
% of Person-Miles Traveled on the Interstate that are Reliable		98.8%	92.0%
% of Person-Miles Traveled on the Non-Interstate NHS that are Reliable		95.3%	90.0%
Truck Travel Time Reliability (TTTR) Index on the Interstate		1.22	1.30

On-Road Mobile Source Emissions and Traffic Congestions Measures	2022	2024	2026
<i>Based on data from calendar year ending</i>	<i>2021</i>	<i>2023</i>	<i>2025</i>
PM 2.5 (kg/day)	18.18	10.00	10.00
NOx (kg/day)	188.53	140.00	140.00
Peak Hour Excessive Delay (PHED) Per Capita	8.94 hours	9.30 hours	9.30 hours
Non-single Occupancy Vehicle (SOV) Travel Percentage	18.1%	16.5%	16.5%

NOW THEREFORE, BE IT RESOLVED that the Birmingham MPO hereby adopts and supports the Performance Measures and Targets above this 14th day of December 2022.

Chair, Vice Chair, or Secretary
Birmingham MPO Policy Committee

Charles Ball, Executive Director
Regional Planning Commission of Greater Birmingham

RESOLUTION 2022 - 3
BJCTA TRANSIT ASSET MANAGEMENT PERFORMANCE TARGETS

WHEREAS, federal regulations require that the Metropolitan Transportation Plans and Transportation Improvement Programs include Transit Asset Management (TAM) performance targets for urbanized areas and;

WHEREAS, the Birmingham Metropolitan Planning Organization (MPO), supports the TAM targets for the Birmingham-Jefferson County Transit Authority (BJCTA) as follows:

BJCTA Transit Asset Management measures and targets:

Condition Assessment and Performance Targets of Inventory Assets

Asset Category	Total	Avg Age (Years)	Met or Exceeded ULB
Rolling Stock - Revenue Vehicles			14%
BU-Bus	79	7	14%
CU-Cutaway	35	6	0%
VN-Van	10	3	0%
MV-Minivan	7	7	100%
Equipment			12%
AO-Automobile	18	5	17%
ZZ-Trucks/Other Rubber Tire Vehicles	6	4	0%
Facilities			25%
Passenger Facility	2	4	0%
Maintenance Facility	1	66	100%
Passenger Parking	1	4	0%

NOW, THEREFORE, BE IT RESOLVED that the Birmingham MPO supports the Transit Asset Management targets set by the Birmingham-Jefferson County Transit Authority.

Adopted this 11th day of May 2022.

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Chair, Vice Chair, or Secretary
 Birmingham MPO Policy Committee



Charles Ball, Executive Director
 Regional Planning Commission of Greater Birmingham

RESOLUTION 2022-4
TRANSIT SAFETY PERFORMANCE TARGETS

WHEREAS, federal regulations require that plans and programs of Metropolitan Planning Organizations include Transit Safety Performance Targets; and

WHEREAS, the Transportation Citizens Committee (TCC) and the Transportation Technical Committee (TTC) of the Birmingham MPO, in coordination with the Federal Highway Administration, Federal Transit Administration, and the Alabama Department of Transportation, has reviewed Birmingham-Jefferson County Transit Authority’s (BJCTA’s) Transit Safety Performance Targets for use in the transportation process; and

WHEREAS, the TCC and TTC have recommended that the Birmingham MPO support BJCTA’s Transit Safety Performance Targets as follows:

Fixed Route Safety Performance Targets

Mode	Baseline	Target
Fatalities	0	0
Rate of Fatalities*	0**	0**
Injuries	24.2	24.2
Rate of Injuries*	0**	0**
Safety Events	19	19
Rate of Safety Events*	0**	0**
Mean Distance Between Major Mechanical Failure	0**	0**

Demand Response Safety Performance Targets

Mode	Baseline	Target
Fatalities	0	0
Rate of Fatalities*	0**	0**
Injuries	4.8	4.8
Rate of Injuries*	0**	0**
Safety Events	4.8	4.8
Rate of Safety Events*	0**	0**
System Reliability	0**	0**

* Rate = total number for the year/total revenue vehicle miles traveled

** MAX is working to collect and calculate the rate of fatalities, injuries, events, and a baseline number for Mean Distance Between Major Mechanical Failures

NOW THEREFORE, BE IT RESOLVED that the Birmingham MPO Policy Committee concurs with the recommendation of the TCC and TTC and supports BJCTA’s Transit Safety Performance Measures.

Adopted this 11th day of May 2022.

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Chair, Vice Chair, or Secretary
Birmingham MPO Policy Committee



Charles Ball, Executive Director
Regional Planning Commission of Greater Birmingham

