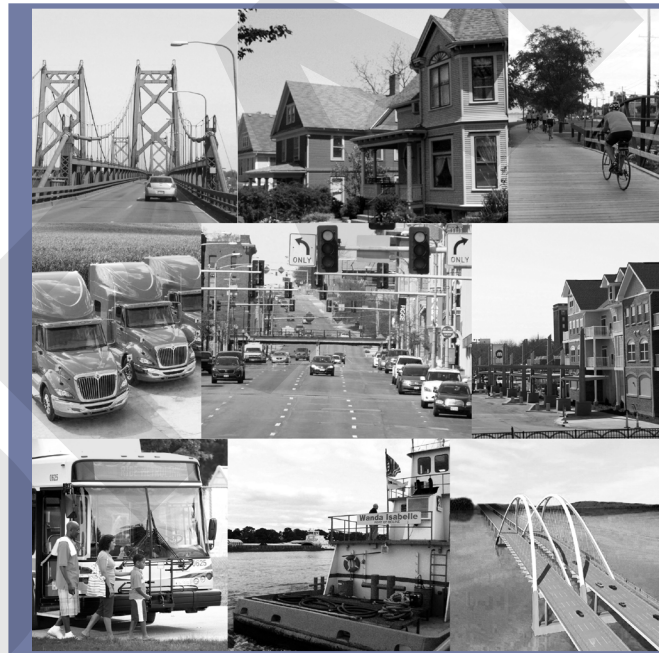


Performance Measures

Addendum to the 2045 Quad Cities Long Range Transportation Plan

August 2020



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Overview and National Goals

The passage of Moving Ahead for Progress in the 21st Century (MAP-21) introduced Performance Management to the transportation planning process. This was continued with Fixing America’s Surface Transportation Act (FAST). Metropolitan transportation planning processes were continued and enhanced to include performance goals, measures, and targets in the process of identifying needed transportation improvements and project selection. Performance Management is a systematic approach to making investment and strategic decisions using information about the condition and performance of the system and developing an approach to achieve a desired set of national goals. According to FAST and summarized by the Federal Highway Administration (FHWA), national performance goals are the following:

- **Safety**—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- **Infrastructure condition**—To maintain the highway infrastructure asset system in a state of good repair
- **Congestion reduction**—To achieve a significant reduction in congestion on the NHS
- **System reliability**—To improve the efficiency of the surface transportation system
- **Freight movement and economic vitality**—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development

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- **Environmental sustainability**—To enhance the performance of the transportation system while minimizing impacts to the natural environment
- **Reduced project delivery delays**—To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

Locally, the transportation planning process will work to integrate these national goals and work with each state to identify and address them. The locally appropriate performance measures identified and developed will be used to monitor the metropolitan transportation system.

Indicators are used to track system performance and progress. There are many ways to track system performance and different ways for different modes of transportation. The *2045 Quad Cities Long Range Transportation Plan* outlines some broad transportation system indicators that will allow the area to gauge performance from the metropolitan level, such as average travel times; number of miles of bicycle lanes, paths, and trails; and transit trips per capita. As projects shift from long range planning to implementation, there are performance indicators that can be used to assess project need and whether it will solve a transportation problem at the local or project level. For example, the metropolitan area's Surface Transportation Block Grant Program (STBG) Evaluation Process looks at level of service, safety, and physical condition of the facility. An intersection or roadway segment crash rate can be analyzed to determine whether an improvement will help reduce crashes and improve travel time. The federal transportation planning process emphasizes comprehensive, coordinated, and continuing evaluation to implement the regional vision and goals and monitor system performance through data analysis and feedback. This process leads to projects that are outlined in this document in order to meet the goals and performance objectives of the long-range transportation plan.

As part of the final rule for statewide and metropolitan transportation planning, 23 CFR 450.314 (h) was amended to state that MPOs, states, and the providers of public transportation shall jointly agree upon and develop specific written provisions for cooperatively developing and sharing information related to transportation performance data, the selection of performance targets, the reporting of performance targets, the reporting of performance to be used in tracking progress toward attainment of critical outcomes for the region of the MPO, and the collection of data for the respective states' asset management plan for the National Highway System (NHS) when an MPO serves an urbanized area. These agreements for the Quad Cities MPO are contained in the Quad Cities MPO Transportation Planning Work Program within the Appendix, and consolidated in the *2045 Quad Cities Long Range Transportation Plan – Performance Measures Addendum*. As part of the regulations, the TIP shall include a description of the anticipated effect the program of projects has toward achieving the performance targets identified in the long range transportation plan, linking investment priorities to those performance targets.

Roles, Responsibilities and Timelines

Roles and Responsibilities

State DOTs and MPOs are required to establish annual safety targets for all public roads within their boundaries using 5-year rolling averages. State DOTs and MPOs that have Interstates or non-Interstate NHS within their boundaries shall establish performance targets for the pavement, bridge, system performance, and freight measures. Non-safety targets must be established for the entire applicable network within the boundary, regardless of ownership.

Timelines

FHWA Timelines

State DOTs established initial HSIP targets by August 31, 2017 and all other targets by May 20, 2018. MPOs were then allowed 180 days to adopt the state targets or establish their own. The Quad Cities MPO elected to adopt all state targets. The

target setting cycle repeats annually for safety targets and every four years for all other targets. The most recent safety target cycle is shown in the following table.

State	State Targets Adopted	MPO Adoption Deadline	MPO Adoption Date
Illinois	July 19, 2019	January 15, 2020	December 3, 2019
Iowa	August 31, 2019	February 27, 2020	December 3, 2019

The Quad Cities MPO adopted the statewide targets for system performance and freight on September 25, 2018, within 180 days of the state DOT adoption and before November 16, 2018. The next target setting cycle for these targets will begin in October 2022.

FTA Timelines

Target setting for Transit Asset Management (TAM) was initiated January 1, 2017, with the first targets due for MPOs on June 30, 2017. The target setting cycle for these targets repeats annually within four months of the end of the transit providers fiscal year. The latest round of targets for the Quad Cities MPO was adopted June 23, 2020.

The transit safety targets have not yet been adopted for the Quad Cities MPO. These targets will be due 180 days after our public transit providers submit their Public Transportation Agency Safety Plans. The deadline for agency adoption of a PTASP has been extended to December 31, 2020. At this time, there are four forthcoming targets for transit safety. Bettendorf Transit and Davenport CitiBus submitted their PTASP on May 27, 2020 putting the deadline for adopting their safety targets on November 23, 2020.

Data and Target Setting

Safety

Highway Safety Improvement Program

The Safety Performance Measures rulemaking requires MPOs to agree to set their own targets or agree to contribute and support meeting each state’s DOT’s respective traffic safety targets for each of five safety measures. These include number

of fatalities, rate of fatalities per 100 million vehicles miles traveled (VMT), number of serious injuries, rate of serious injuries per 100 million VMT, and number of non-motorized fatalities and non-motorized serious injuries.

The selected targets and referenced methodology are outlined below. The Quad Cities Transportation Policy Committee at its December 3, 2019 meeting agreed to support the respective state-level targets of IADOT and ILDOT by geography for all five performance measures. By supporting each DOT’s targets, the jurisdictions represented in the Quad Cities, IA/IL Metropolitan Planning Area (MPA) as part of the federal transportation planning process agree to plan and program projects to contribute toward achieving the states’ respective targets by the state side represented. The ultimate goal is to reduce fatalities and serious injuries on all public roads within Iowa and Illinois through supporting efforts in the Quad Cities, Iowa/Illinois. A Quad Cities Strategic Traffic Safety Plan is under development that will aid local jurisdiction decision-making on emphasis areas within the MPO to aid in crash reduction through engineering, enforcement, emergency response, and education.

The Quad Cities MPO Policy Committee acknowledges through each state’s performance management agreement(s) between the MPO and IADOT and ILDOT, that cooperative planning and programming will require coordination related to crash data collection and sharing, target setting, and reporting. This memorandum represents notification of the Quad Cities MPO’s decision support the statewide targets, and to report the decision related to traffic safety performance targets within 180 days after each respective DOT’s reports its statewide targets,

Performance Measures

prior to January 15, 2020 based on the Illinois DOT target setting, and February 27, 2020 for Iowa target setting.

Iowa Statewide Safety Measures	Baseline 2014-18 Rolling Average	Target 2015-2019 Rolling Average
Number of Fatalities	337.1	345.8
Fatality Rate	1.046	1.011
Number of Serious Injuries	1,499.1	1,396.2
Serious Injury Rate	4.497	4.083
Non-Motorized Fatalities & Serious Injuries	134.2	138.1
Illinois Statewide Safety Measures	Baseline 2012-16 Rolling Average	Target 2016-2020 Rolling Average
Number of Fatalities	989.4	985.0
Fatality Rate	0.94	0.91
Number of Serious Injuries	12,168.00	11,668.70
Serious Injury Rate	11.54	10.80
Non-Motorized Fatalities & Serious Injuries	1,498.80	1,456.20

Core Highway Safety Performance Measures Based on Rolling Average Using 2012-2016 FARS and Survey Data. Rates are per 100 million vehicle miles traveled (VMT).

Transit Safety

The safety measures that will be addressed in the Transit Safety component are as follows:

- **Fatalities** – Total number of reportable fatalities and rate per total vehicle revenue miles by mode
- **Injuries** – Total number of reportable injuries and rate per total vehicle revenue miles by mode
- **Safety Events** – Total number of reportable events and rate per total vehicle revenue miles by mode
- **System Reliability** – Mean distance between major mechanical failures by mode (revenue miles/# major mechanical failures)

Pavement, Bridge, and Freight

Rather than setting its own pavement and bridge targets and freight reliability targets, the Quad Cities MPO has chosen to support the respective DOT's

targets as submitted in the most recent baseline period performance report. The MPO supports those targets by reviewing and programming all Interstate and National Highway System projects within the MPO boundary that are included in the DOTs' Transportation Improvement Program.

Any DOT-sponsored pavement and bridge projects within the MPO area were determined in alignment with the state's Transportation Asset Management Plan (TAMP) and the pavement and bridge performance measures. The TAMP connects state long-range plans and system/modal plans to the DOT's Five-Year Programs and STIP. The state long range plans define a vision for the transportation system over the next 20 years, while the Five-Year Program and STIP identify specific investments over the next four to five years. The TAMP has a 10-year planning horizon and helps ensure that investments in the Five-Year Programs and STIPs are consistent with DOTs' longer-term visions.

The DOTs conferred with numerous stakeholder groups, including the Quad Cities MPO and local

owners of NHS assets, as part of its target setting process. The methodology used to set targets used current and historical data on condition and funding to forecast future condition. Asset management focuses on performing the right treatment at the right time to optimize investments and outcomes. Management systems are utilized to predict bridge and pavement needs and help determine the amount of funding needed for stewardship of the system. The TAMP discusses the major investment categories that the DOTs allocate funding through. Once the DOTs receive funding approval for these categories, they work through their respective processes to allocate funds to specific projects as described in their respective TAMPs. Pavement and bridge projects are programmed to help meet the desired program outcomes documented in each respective states' TAMP.

Each state examined travel time datasets to forecast future conditions. Projects focused on improving pavement and bridge condition often help improve system reliability and freight movement. Additional

projects focused specifically on improving reliability of system performance are developed in alignment with the target-setting process for related performance measures, and the freight improvement strategies and freight investment plan included in the respective states' freight plan. These plans include detailed analysis and prioritization of freight bottlenecks, which are locations that should be considered for further study and possibly for future improvements. The process also involved extensive input from state, MPO, RPA, and industry representatives. State projects identified in the respective freight investment plans and programmed in the STIP are based on priorities outlined in these documents.

The Iowa and Illinois statewide targets are outlined below. Note both Departments of Transportation are required to establish 2- and 4-year targets for each measure, except noted in the table with an asterisk, which are not required in the first performance period.

Performance Measures

Iowa Department of Transportation Targets for 2018-2021			
Performance Measure	Baseline (2017)	2-year target	4-year target
Percentage of pavements of the Interstate System in Good condition*	57.68%	N/A	49.4%
Percentage of pavements of the Interstate System in Poor condition*	1.75%	N/A	2.7%
Percentage of pavements of the non-Interstate NHS in Good condition	49.06%	48.8%	46.9%
Percentage of pavements of the non-Interstate NHS in Poor condition	14.22%	13.2%	14.5%
Percentage of NHS bridges classified as in Good condition	46.8%	45.7%	44.6%
Percentage of NHS bridges classified as in Poor condition	2.6%	3.7%	3.2%
Percent of the person-miles traveled on the Interstate that are reliable	100.0%	99.5%	99.5%
Percent of the person-miles traveled on the non-Interstate NHS that are reliable*	95.6%	N/A	95.0%
Truck Travel Time Reliability (TTTR) Index	1.12	1.14	1.14

Based on total lane miles in Iowa by highway system: 3,305 interstate; and 12,656 NHS non-interstate (DOT and local). Based on 715 interstate bridges and 2,580 NHS non-interstate (DOT and local) bridges.

Illinois Department of Transportation Targets for 2018-2021			
Performance Measure	Baseline (2017)	2-year target	4-year target
Percentage of pavements of the Interstate System in Good condition*	65.96%	65%	65%
Percentage of pavements of the Interstate System in Poor condition*	.27%	<5%	<5%
Percentage of pavements of the non-Interstate NHS in Good condition	27.71%	27%	27%
Percentage of pavements of the non-Interstate NHS in Poor condition	4.94%	6%	6%
Percentage of NHS bridges classified as in Good condition	29.4%	28%	27%
Percentage of NHS bridges classified as in Poor condition	11.6%	13%	14%
Percent of the person-miles traveled on the Interstate that are reliable	80.8%	79%	77%
Percent of the person-miles traveled on the non-Interstate NHS that are reliable*	87.3%	83.3%	83.3%
Truck Travel Time Reliability (TTTR) Index	1.3	1.34	1.37

Based on 2,185 interstate lane miles in Illinois. Based on 16,674 non-interstate NHS lane miles. There are 2,320 interstate bridges in Illinois and a total of 4,815 bridges on the NHS, or 2,495 non-interstate NHS bridges.

Transit Asset Management

Transit Asset Management targets address percentage of non-revenue vehicles met or exceeded useful life, percentage of revenue vehicles met or exceeded useful life, percentage of assets with condition rating below 3.0 on FTA TERM scale. The Technical and Policy Committee will work with Bettendorf Transit, Davenport CitiBus, and MetroLINK to review, encourage, and support programming to facilitate transit equipment, facilities and rolling stock meet targets for State of Good Repair. The three fixed-route systems are direct recipients of FTA 5339 Bus and Bus Facilities funding that can be used for vehicle replacements and facility improvements. In Iowa, the systems are eligible for statewide 5339 funds as part of the PTMS process, and when buses would meet the age/mileage thresholds as part of the prioritization process.

Public transit capital projects included in the STIP align with the transit asset management (TAM) planning and target setting processes undertaken

by the Iowa DOT, transit agencies, and MPOs. The Iowa DOT establishes a group TAM plan and group targets for all small urban and rural providers while large urban providers establish their own TAM plans and targets. Investments are made in alignment with TAM plans with the intent of keeping the state's public transit vehicles and facilities in a state of good repair and meeting transit asset management targets. The Iowa DOT allocates funding for transit rollingstock in accordance with the Public Transit Management System process. In addition, the Iowa DOT awards public transit infrastructure grants in accordance with the project priorities established in Iowa Code chapter 924. Additional state and federal funding sources that can be used by transit agencies for vehicle and facility improvements are outlined in the funding chapter of the Transit Manager's Handbook. Individual transit agencies determine the use of these sources for capital and operating expenses based on their local needs. The transit systems' targets are outlined below.

FY2020 Facilities Performance Targets

Facility Type	Facilities Rated Below 3.0	Total Facilities	% Rated Below 3.0
Admin/Maintenance	15	87	17%
Passenger/Parking	4	35	11%
Total	19	122	16%

FY2020 Revenue Vehicles (Rolling Stock) Performance Target

Vehicle Type	# of Vehicles At/Beyond ULB	Total Vehicles	% Vehicles At/Beyond ULB
Articulated bus	12	16	75%
Automobile	8	8	100%
Bus	160	526	30%
Ferryboat	3	3	100%
Minibus	82	171	48%
Minivan	163	243	67%
Other	8	8	100%
Van	447	852	52%
Total	883	1,827	48%

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FY2020 Non-Revenue Vehicles (Equipment) Performance Targets

Vehicle Type	# of Vehicles At/ Beyond ULB	Total Vehicles	% Vehicles At/Beyond ULB
Automobile	52	112	46%
Other rubber tire vehicles (including minivans and vans)	34	60	57%
Total	86	172	50%

Source: IDOT: Group TAM Plan for Participating Tier II Agencies, page 16 Figures 3.4-3.6)

The Bettendorf Transit and Davenport CitiBus FY2020 TAM Performance Targets are:

Vehicle Type		Bettendorf Transit	Davenport CitiBus
Asset Category - Performance Measure	Asset Class	2020Target	2020Target
REVENUE VEHICLES			
Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)	AB - Articulated Bus	N/A	N/A
	AO - Automobile	N/A	N/A
	BR - Over-the-road Bus	N/A	N/A
	BU - Bus	N/A	40%
	CU - Cutaway Bus	0%	N/A
	DB - Double Decked Bus	N/A	N/A
	FB - Ferryboat	N/A	N/A
	MB - Mini-bus	N/A	N/A
	MV - Mini-van	N/A	N/A
	RT - Rubber-tire Vintage Trolley	N/A	N/A
	SB - School Bus	N/A	N/A
	SV - Sport Utility Vehicle	N/A	N/A
	TB - Trolleybus	N/A	N/A
	VN - Van	N/A	N/A
	Custom 1	N/A	N/A
	Custom 2	N/A	N/A
	Custom 3	N/A	N/A
EQUIPMENT			
Age - % of vehicles that have met or exceeded their Useful Life Benchmark (ULB)	Non-Revenue/Service Automobile	N/A	100%
	Steel Wheel Vehicles	N/A	N/A
	Trucks and other Rubber Tire Vehicles	N/A	N/A

Vehicle Type		Bettendorf Transit	Davenport CitiBus
	Drive on Vehicle Lift(BE)/Bus Lifts (2) (DA)	0%	0%
	Vehicle Wash(BE)/Portable Bus Wash (DA)	0%	0%
	Farebox system	N/A	0%
FACILITIES			
Condition - % of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale	Administration	0%	0%
	Maintenance	0%	N/A
	Parking Structures	0%	0%
	Passenger Facilities	N/A	0%
	Custom 1	N/A	N/A
	Custom 2	N/A	N/A
	Custom 3	N/A	N/A

Source: Bettendorf Transit and Davenport CitiBus TAM Plan Updates, September 2019.

Performance-Based Programming

The Quad Cities MPO implements performance-based programming within its STBG programming process. This is done through an application scoring system that factors in the safety history, pavement condition, and level of service for each project submitted for consideration. Projects score higher based on how a project will improve safety, pavement conditions, and reduce congestion. The Quad Cities MPO STBG Program Manual provides more details on the process and can be found here: <https://bistateonline.org/transportation/quad-cities-metro-planning/2012-11-13-20-10-34/project-programming-processes>.

Monitoring, Reporting, and Progress Communication

The Quad Cities MPO report their targets to the Iowa and Illinois DOT via memo. These memos are attached in the appendix. MPOs report baseline conditions and progress toward the achievement of targets in the system performance report in the metropolitan transportation plan. Progress is monitored at the state level over the four-year performance period by a beginning, mid, and full

performance report. These occur at the beginning of the period, two years into the period and at the end of the four-year period. There are no penalties for MPOs that do not achieve their targets, but state DOTs may be required to amend their performance report to include a description of the actions the DOT will take to achieve the target.

Appendix

Agreements with States and Transit Providers

Target Setting Memos

