

## PERFORMANCE BASED PLANNING

With the passing of the Moving Ahead for Progress in the 21st Century (MAP-21) transportation bill, and continuing in the FAST-Act, states and MPOs are required to use performance based transportation planning practices. MPO TIPs will be required to document compliance with each of the performance-based planning categories. Those categories include:

- Safety (PM I)
- Pavement and Bridge (PM II)
- System and Freight Reliability (PM III)
- Transit

### **Safety (PM I)**

Compliance with safety performance-based planning requirements begins May 27, 2018 for MPOs. To satisfy the safety performance measure MPOs can choose to support the DOT safety targets or MPOs can set their own unique targets. For MPOs supporting the DOT safety targets the following language should be incorporated.

Rather than setting its own safety targets, the DMATS area has chosen to support the Iowa DOT, Illinois DOT and Wisconsin DOT's safety targets. The Iowa DOT targets are based on the Iowa Highway Safety Improvement Program Annual Report. The DMATS supports those targets by reviewing and programming all Highway Safety Improvement Program (HSIP) projects within the DMATS boundary that are included in the DOT's Transportation Improvement Program. Safety Targets from Iowa, Illinois and Wisconsin DOTs are listed below. Resolutions of State Safety Targets are attached in Appendix C.

### **Iowa Department of Transportation HSIP Targets**

Performance Measures	Five Year Rolling Averages	
	2013-2017 Baseline	2015-2019 Target
Number of Fatalities	338.0	353.6
Fatality Rate*	1.027	1.047
Number of Serious Injuries	1,498.8	1,483.7
Serious Injury Rate*	4.568	4.391

Non-Motorized Fatalities and Serious Injuries	146.4	149.8
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\*Rates are per 100 million vehicle miles traveled (VMT)

### Illinois Department of Transportation HSIP Targets

Performance Measures	2% Reduction Annually as Compared to 2013-2017 Baseline	
	2018	2019
Number of Fatalities	997.4	977.5
Fatality Rate*	0.94	0.92
Number of Serious Injuries	11,966.7	11,727.4
Serious Injury Rate*	11.27	11.04
Non-Motorized Fatalities and Serious Injuries	1,460.9	1,431.7

\*Rates are per 100 million vehicle miles traveled (VMT)

### Wisconsin Department of Transportation HSIP Targets

Performance Measures	Five Year Rolling Averages	
	2013-2017 Average	2019 Safety Target
Number of Fatalities	567.0	555.7
Fatality Rate*	0.934	0.915
Number of Serious Injuries	3,123.8	2,967.6
Serious Injury Rate*	5.037	4.785
Non-Motorized Fatalities and Serious Injuries	360.0	342.0

\*Rates are per 100 million vehicle miles traveled (VMT)

Any Iowa DOT sponsored HSIP projects within the MPO area were selected based on the strategies included in the Strategic Highway Safety Plan and safety performance measures and were approved by the Iowa Transportation Commission. The Iowa DOT conferred with numerous stakeholder groups, including DMATS, as part of its target setting process. Working in partnership with local agencies, Iowa DOT safety investments were identified and programmed which will construct effective countermeasures to reduce traffic fatalities and serious injuries. The Iowa DOT projects chosen for HSIP investment are based on crash history, roadway characteristics, and the existence of infrastructure countermeasure that can address the types of crashes present. The Iowa DOT continues to utilize a systemic safety improvement process rather than relying on “hot spot” safety improvements.

## **Pavement and Bridge (PM II)**

Compliance with the PM II performance based planning requirements begins on May 20th, 2019 for MPOs. To satisfy the PM II performance measure MPOs can choose to support the DOT PM II targets or MPOs can set their own unique targets. For MPOs supporting the DOT PM II targets the following language should be incorporated.

Rather than setting its own pavement and bridge targets, the DMATS has chosen to support the Iowa DOT, Illinois DOT and Wisconsin DOT's pavement and bridge 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 DOT's Transportation Improvement Program. Pavement and Bridge Targets from Iowa, Illinois and Wisconsin DOTs are listed below. Resolutions of Pavement and Bridge Targets are attached in Appendix C.

### **Iowa Department of Transportation NHS Pavement Condition Targets**

<b>Measure</b>	<b>Baseline (2017)</b>	<b>4-Year Target (2022)</b>
Non-Interstate NHS – Percentage pavements in “Good” condition	49.06%	46.9%
Non-Interstate NHS – Percentage pavements in “Poor” condition	14.22%	14.5%

### **Iowa Department of Transportation NHS Bridge Condition Targets**

<b>Measure</b>	<b>Baseline (2017)</b>	<b>4-Year Target (2022)</b>
Percentage of NHS bridges by deck area in “Good” condition	46.8%	44.6%
Percentage of NHS bridges by deck area in “poor” condition	2.6%	3.2%

### **Illinois Department of Transportation NHS Pavement Condition Targets**

<b>Measure</b>	<b>Baseline (2017)</b>	<b>2-Year Target (2019)</b>	<b>4-Year Target (2021)</b>
Interstate – Percentage pavements in “Good” condition	65.96%	65%	65%

Interstate – Percentage pavements in “Poor” condition	0.27%	<5%	<5%
Non-Interstate NHS – Percentage pavements in “Good” condition	27.71%	27%	27%
Non-Interstate NHS – Percentage pavements in “Poor” condition	4.94%	6%	6%

#### Illinois Department of Transportation NHS Bridge Condition Targets

Measure	Baseline (2017)	2-Year Target (2019)	4-Year Target (2021)
Percentage of NHS bridges by deck area in “Good” condition	29.4%	28%	27%
Percentage of NHS bridges by deck area in “poor” condition	11.6%	13%	14%

#### Wisconsin Department of Transportation NHS Pavement Condition Targets

Measure	2-Year Target (2019)	4-Year Target (2021)
Interstate – Percentage pavements in “Good” condition	NA	≥ 45%
Interstate – Percentage pavements in “Poor” condition	NA	≤ 5%
Non-Interstate NHS – Percentage pavements in “Good” condition	≥ 20%	≥ 20%
Non-Interstate NHS – Percentage pavements in “Poor” condition	≤12%	≤12%

#### Wisconsin Department of Transportation NHS Bridge Condition Targets

Measure	2-Year Target (2019)	4-Year Target (2021)
Percentage of NHS bridges by deck area in “Good” condition	≥ 50%	≥ 50%
Percentage of NHS bridges by deck area in “poor” condition	≤ 3%	≤ 3%

Any Iowa DOT sponsored pavement and bridge projects within the MPO area were determined in alignment with the Iowa Transportation Asset Management Plan (TAMP) and the pavement and bridge performance measures. The TAMP connects Iowa in Motion 2045 and system/modal plans to Iowa DOT’s Five-Year Program and the STIP. Iowa in Motion 2045 defines 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 Program and STIP are consistent with Iowa DOT's longer-term vision. Starting in 2019, the TAMP will also integrate the pavement and bridge performance targets.

The Iowa DOT conferred with numerous stakeholder groups, including the DMATS 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 Commission allocates funding through. Once the Commission approves the funding for these categories, Iowa DOT recommends the allocation of the funds to specific projects using the processes described in the TAMP. Pavement and bridge projects are programmed to help meet the desired program outcomes documented in the TAMP.

### **System Performance and Freight (PM III)**

Compliance with the PM III performance based planning requirements begins on May 20th, 2019 for MPOs. To satisfy the PM III performance measure MPOs can choose to support the DOT PM III targets or MPOs can set their own unique targets. For MPOs supporting the DOT PM III targets the following language should be incorporated.

Rather than setting its own system and freight reliability targets, the DMATS has chosen to support the Iowa DOT, Illinois DOT and Wisconsin DOT's system and freight reliability 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 DOT's Transportation Improvement Program. System Performance and Freight Targets from Iowa, Illinois and Wisconsin DOTs are listed below. Resolutions of System Performance and Freight Targets are attached in Appendix C.

### Iowa Department of Transportation NHS System Performance Target

Measure	Baseline (2017)	4-Year Target (2022)
<b>System Reliability</b>		
Percentage of person-miles traveled that are reliable on the Non-Interstate NHS	95.6%	95.0%

### Illinois Department of Transportation NHS Freight Performance Targets

Measure	2017 Results	2-Year Target (2019)	4-Year Target (2021)
<b>Travel Reliability</b>			
1) Percentage of person-miles traveled that are reliable on the Interstate	80.8%	79%	77%
2) Percentage of person-miles traveled that are reliable on the Non-Interstate NHS	87.3%	83.3%	83.3%
<b>Freight Reliability</b>			
3) Truck Travel Time Reliability Index on the Interstate	1.3	1.34	1.37

### Wisconsin Department of Transportation NHS Freight Performance Targets

Measure	2017 Results	2-Year Target (2019)	4-Year Target (2021)
<b>Travel Reliability</b>			
1) Percentage of person-miles traveled that are reliable on the Interstate	97.9%	94.0%	90.0%
2) Percentage of person-miles traveled that are reliable on the Non-Interstate NHS	93.9%	NA	86.0%
<b>Freight Reliability</b>			
3) Truck Travel Time Reliability Index on the Interstate	1.16	1.40	1.60

The Iowa DOT conferred with numerous stakeholder groups, including the DMATS, as part of its target setting process. Variability within the existing travel time dataset was used to forecast future condition. Projects focused on improving pavement and bridge condition also often help improve system reliability and freight movement. Additional projects focused specifically on

improving these areas 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 State Freight Plan. This plan includes a 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 freight investment plan and programmed in the STIP were highly-ranked freight bottlenecks.

### **Transit**

Compliance with transit asset management performance-based planning requirements begins on October 1, 2018. To comply with the transit asset management performance measures DMATS choose to support the targets set by their Jule transit. The transit performance measures and targets developed by JULE transit for State of Good Repair as identified below.

<b>Asset Category/Class</b>	<b>Count</b>	<b>Avg Age</b>	<b>Avg Mileage</b>	<b>Avg TERM Condition</b>	<b>Avg Value</b>	<b>Useful Life Benchmark (ULB)</b>	<b>% At or Past ULB</b>
<b>Revenue Vehicles</b>	<b>34</b>	<b>8.3</b>	<b>163,285</b>	<b>N/A</b>	<b>\$156,923.88</b>		<b>88.24%</b>
<i>MB - Mini-bus</i>	13	6.8	134,868	N/A	\$99,378.82	4	100.00%
<i>MD - Medium Duty</i>	12	7.0	179,235	N/A	\$176,977.00	7	100.00%
<i>HD - Heavy Duty</i>	4	7.0	186,832	N/A	\$421,940.82	12	0.00%
<i>HD - Replacement for MD OOS</i>	5	16.0	180,055	N/A	\$46,400.00	12	100.00%
<b>Equipment</b>	<b>5</b>	<b>3.6</b>	<b>11,383</b>	<b>N/A</b>	<b>\$24,498.80</b>		<b>0.00%</b>
<i>Non Revenue/Service Automobile</i>	3	5.0	18,971	N/A	\$31,048.67	7	0.00%
<i>Floor Sweeper</i>	1	0.0	0	N/A	\$13,205.00	10	0.00%
<i>Riding Lawnmower</i>	1	3.0	0	N/A	\$16,143.00	10	0.00%
<b>Facilities</b>	<b>2</b>	<b>1.5</b>	<b>N/A</b>	<b>5.0</b>	<b>\$11,000,000.00</b>		<b>N/A</b>
<i>Intermodal Facility</i>	1	3.0	N/A	5.0	\$15,700,000.00	N/A	N/A
<i>Operations &amp; Training Center</i>	1	0.0	N/A	5.0	\$6,300,000.00	N/A	N/A

Source: Jule Transit

IADOT the language listed below to ensure TIPs are compliant with transit asset management requirements.

*“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.”*

In addition, DMATS will provide a discussion of the process(es) used by Jule Transit for prioritizing facility and capital projects.



Dubuque Metropolitan Area Transportation Study (FY 2019-2022 Transportation Improvement Program)																		Final Amended January 10th, 2019			
FFY 2019 ( October 1, 2018 to September 30, 2019)					IOWA			TRANSIT													
NO	Fund(s)	Sponsor	Transit #	Expense	Prj. Type	Obj. Type	Unit #	Desc	Add Ons	FY 2019 Total	FY 2020 Total	FY 2021 Total	FY 2022 Total	FY 2019 FA	FY 2020 FA	FY 2021 FA	FY 2022 FA	FY 2019 SA	FY 2020 SA	FY 2021 SA	FY 2022 SA
1	5310	Dubuque	4229	Operations	Other	Other		5310 Preventative Maintenance		\$ 58,553	\$ 60,540	\$ 62,120	\$ -	\$ 46,842	\$ 48,478	\$ 49,696	\$ -	\$ -	\$ -	\$ -	\$ -
2	5311	Dubuque	4230	Operations	Other	Other		Intercity Bus Marketing		\$ 9,375	\$ 9,375	\$ 9,375	\$ -	\$ 7,500	\$ 7,500	\$ 7,500	\$ -	\$ -	\$ -	\$ -	\$ -
3	5307	Dubuque	4228	Operations	Other	Other		5307 FTA Formula Funding		\$ 2,490,768	\$ 2,615,306	\$ 2,693,766	\$ -	\$ 1,245,384	\$ 1,307,653	\$ 1,346,883	\$ -	\$ -	\$ -	\$ -	\$ -
4	STA	Dubuque	4628	Operations	Other	Other		STA Operating Funding		\$ 564,164	\$ 581,088	\$ 598,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 282,082	\$ 290,544	\$ 299,260	\$ -
5	5,339	Dubuque	5,130	Capital	Replacement	Vehicle	Unit#: 2602	Light Duty Bus (176" wb)	Low Floor, Hybrid, BioDiesel	\$ 153,409	\$ -	\$ -	\$ -	\$ 122,727	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	5339	Dubuque	5261	Capital	Replacement	Other		Onboard computers (14) - Minibus		\$ 42,574	\$ -	\$ -	\$ -	\$ 34,062	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	5339	Dubuque	5262	Capital	Replacement	Other		Card readers (14) - Minibus		\$ 3,598	\$ -	\$ -	\$ -	\$ 2,884	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**5339** Buses and Bus Facilities Grants Program  
**5311** Formula Grants for Rural Areas  
**5307** Urbanized Area Formula Grants  
**5310** Enhanced Mobility of Seniors & Individuals with Disabilities  
**PTIG** Public Transit Infrastructure Grant