

BOARD PREVIEW

FY2017 TRACKER

FY2017 PERFORMANCE AND ASSET

MANAGEMENT ADVISORY COUNCIL REPORT

October 16, 2017

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Division

TRACKER

Prepared by OPM&I
October, 2017

Legislative Mandate – Acts of 2009

The Secretary shall:

Establish performance management system for the Divisions

Establish program goals

Report publicly on progress to improve the effectiveness of transportation design and construction, service delivery and policy decision management

The Office of Performance Management & Innovation (OPMI)

Charged with working with Divisions to:

Set goals

Establish performance measures to improve the department and the divisions' operation and the delivery of transportation services and projects in the Commonwealth

Measure program performance against goals

Include all modes, for current year and five previous years

MassDOT Performance Goals



Customer Experience: Provide reliable and accessible services to MassDOT and MBTA customers and ensure that they are satisfied with the services provided.



System Condition: Ensure that the transportation system is well maintained and follows best practices for maintaining, preserving, and modernizing assets.



Budget and Capital Performance: Maximize MassDOT capital investment effectively and efficiently by delivering programs and projects that produce the greatest benefits to the Commonwealth, its residents and its visitors.



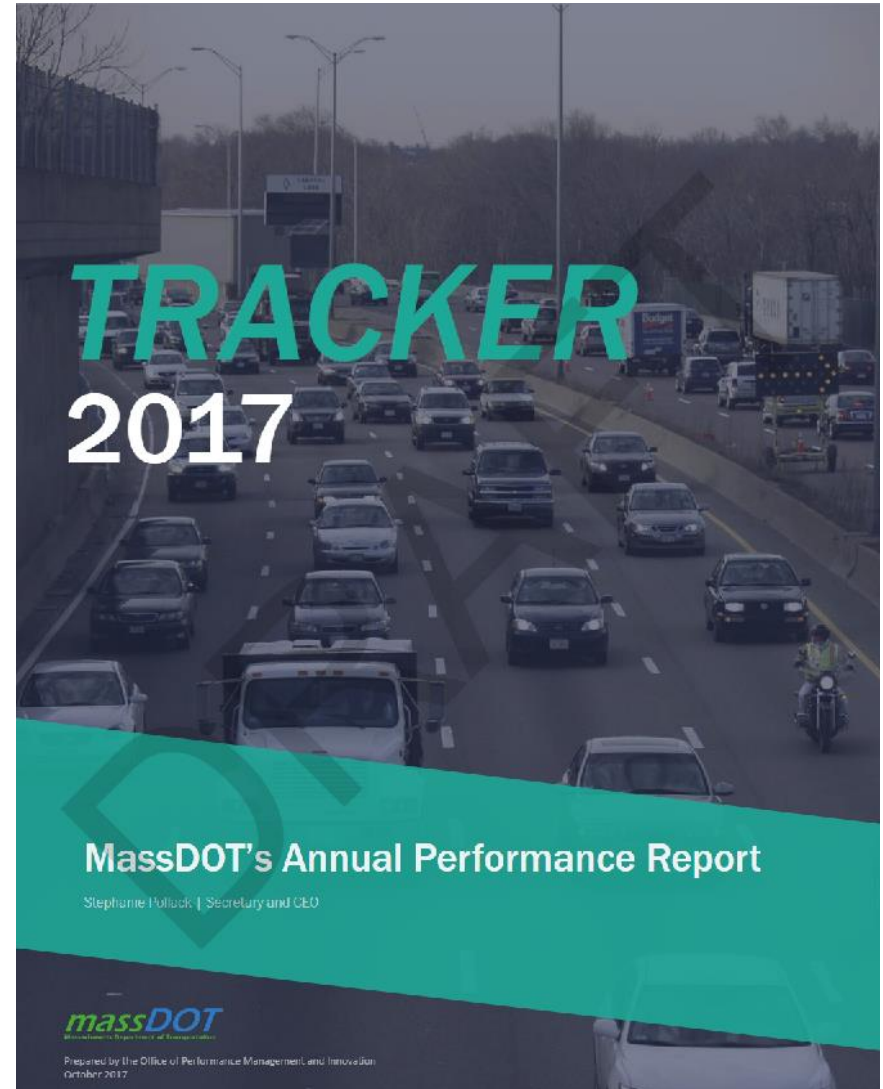
Safety: Provide and support a multi-modal transportation network that is safe for our workers and all users.

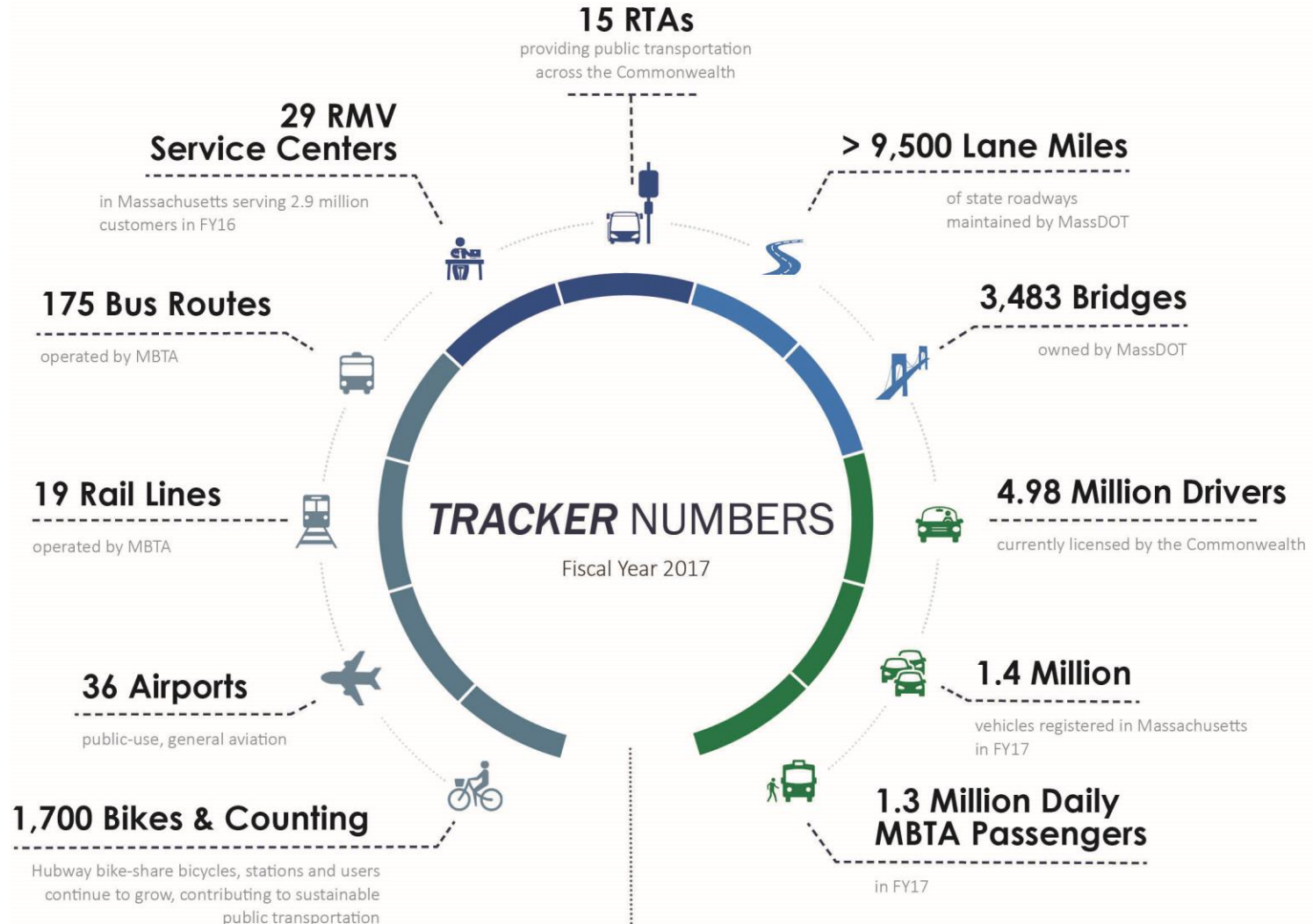


Healthy and Sustainable Transportation: Invest in and support a transportation system that promotes and protects the health of all users and the natural environment.

Tracker 2017

- Performance relative to targets established for 2018 and 2020
 - New 2020 and 2024 targets will be developed for Tracker 2018
- Co-release as companion document with PAMAC report
- Alignment, where possible, with MAP-21 legislation





RMV Highlights

- Customer wait time* exceeded the 2018 targets
- Contact Center wait times are improving, but remain well above the target

*Last year of Qmatic data

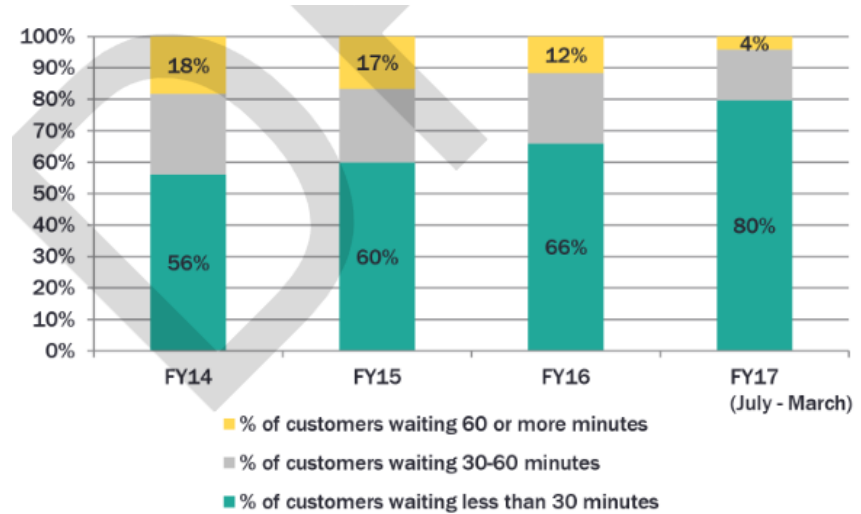


Figure 27. Service center wait times

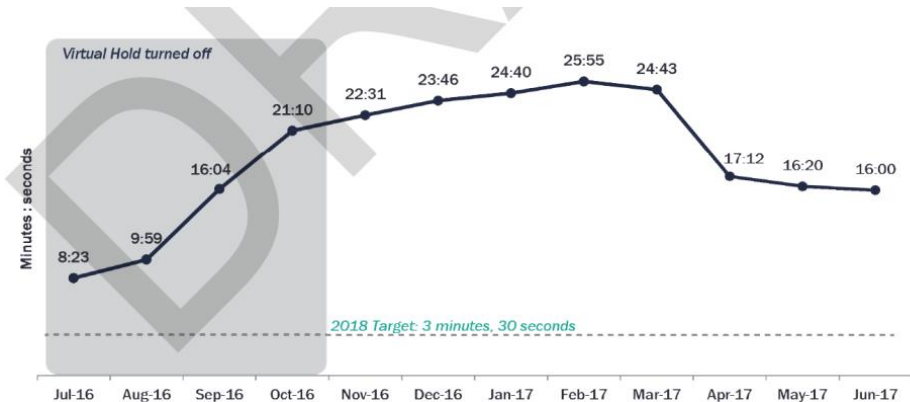



Figure 33. Average speed of answer (call wait times)

RMV Division

Example

RMV - 2017 SCORECARD

PERFORMANCE GOAL	PERFORMANCE MEASURE	CURRENT (FY17)	CHANGE FROM FY16	2018 YEAR TARGET	2020 YEAR TARGET	LONG-TERM TARGET
	Service Center customer wait time (systemwide): Percent of total customers waiting less than 30 minutes	80%	17%	80%	80%	80%
	Service Center customer wait time (systemwide): Percent of total customers waiting one hour or more	4%	-10%	10%	4%	0%
	Contact Center wait time	18:54	15:20	3:30	2:50	1:00
	% of license renewals conducted online (as a percentage of eligible transaction volume)	71%	21%	80% of eligible transaction volume	85% of eligible transaction volume	95% of eligible transaction volume
	% of registration renewals conducted online (as a percentage of eligible transaction volume)	67%	9%	92% of eligible transaction volume	95% of eligible transaction volume	97% of eligible transaction volume
	% of systemwide transactions conducted outside of service center	63%	1%	65%	70%	75%
	% of systemwide transactions conducted online	32%	4%	35%	40%	50%
	Class D, M-F, Road test availability (Offered supply/demand ratio)	0.17	no data	n/a	TBD	TBD

Aeronautics Highlights

- 100% of capital budget was dispersed
- 90% of contracts completed on or under budget (2018 target = 85%)
- 81% of contracts completed on time (2018 target = 85%)

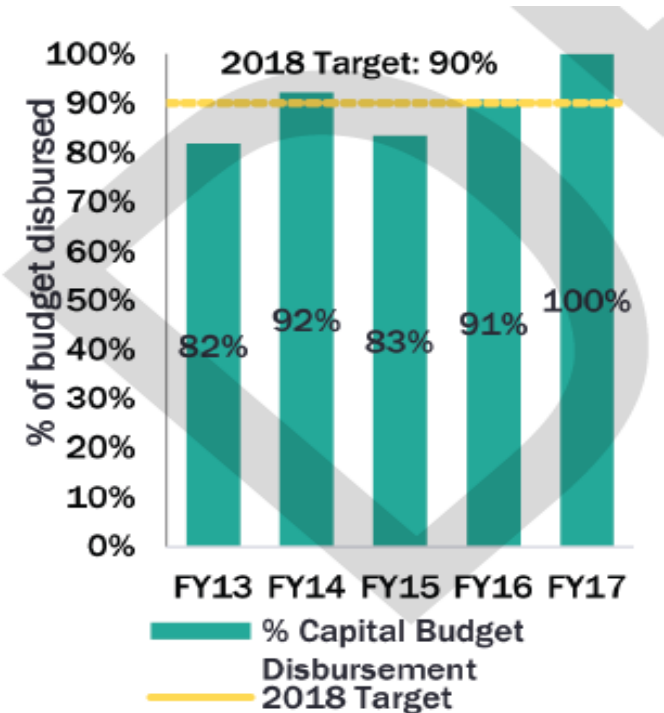






Figure 1. Capital budget disbursement

Aeronautics Division

Example

AERONAUTICS DIVISION - 2017 SCORECARD

PURPOSE	PERFORMANCE MEASURE	CURRENT (FY17)	CHANGE FROM FY16	2018 TARGET	2020 TARGET	LONG-TERM TARGET
	Percent of aircraft registrations registered	85% (1,935 of 2,290)	+2%	85%	85%	85%
	Pavement condition (PCI)	68	-2	72	74	75
	Capital budget disbursement	100%	+9%	90%	92%	95%
	Contracts completed on budget	90%	+8%	85%	90%	95%
	Contracts completed on time	81%	+8%	90%	90%	90%
	Airport safety and emergency management training attendance rate	89%	+12%	75%	75%	75%
	Airport safety inspections completed (CY17)	6 to date (12 projected)	-13	12	12	12

Rail & Transit Highlights

- RTAs operated between 98.4% and 100% of scheduled trips
- Number of highway-rail incidents declined
- 11 out of 15 RTAs has the same or fewer number of preventable accidents as the previous year

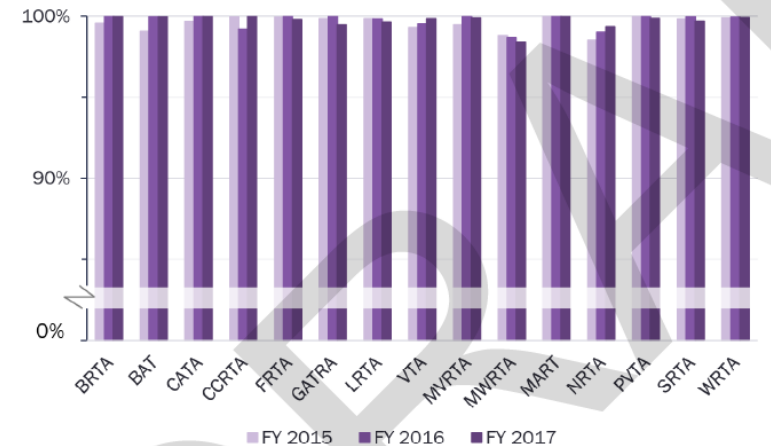


Figure 35. Percent of scheduled trips operated, All RTAs, FY 2015-16

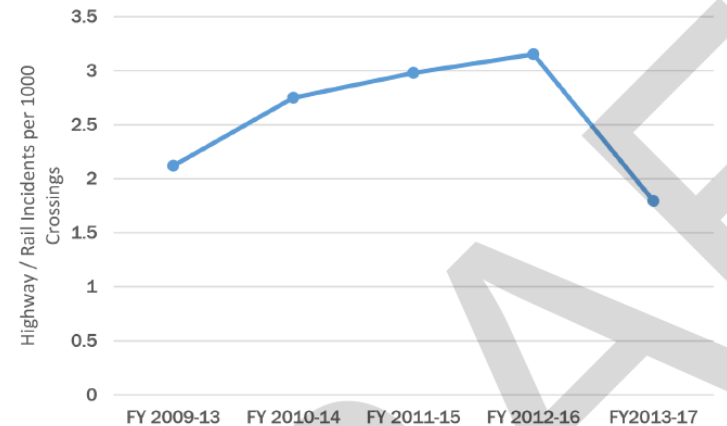





Figure 47. Number of highway-rail incidents, 5 year rolling average FY13-17; Source: FRA; state-wide data

Rail & Transit Division

Example

RAIL & TRANSIT DIVISION- 2017 TRANSIT SCORECARD

PURPOSE	PERFORMANCE MEASURE	CURRENT (FY17)	CHANGE FROM FY16	SERVICE TYPE
	% of scheduled trips operated	98.4%-100%	5 out of 15 RTAs increased	Fixed-route bus
	Fleet age	1.8-8.1 years	n/a	Fixed-route bus
		1.5-5.7 years	n/a	Demand response
	Revenue vehicle condition	2.8-4.8	n/a	Fixed-route bus
		2.6-5.0	n/a	Demand response
	Facility condition	3.0-5.0	14 increased or remained the same	Fixed-route bus
	% of capital dollars spent by year's end	100%	TBD	All
	Operating expense per vehicle revenue mile	\$3.61 - \$9.57 (FY15)	12 of 15 increased from FY14	Fixed-route bus
		\$3.08 - \$15.70 (FY15)	10 of 15 increased from FY14	Demand response
	Farebox recovery ratio	7.8% - 35.2% (FY15)	3 of 15 increased from FY14	Fixed-route bus
		2.8% - 56.0% (FY15)	8 of 15 increased from FY14	Demand response

MBTA Highlights

- All heavy rail lines remained above the 90% target for on time performance
- Commuter Rail reliability remained above the target of 92% of trips operated on time

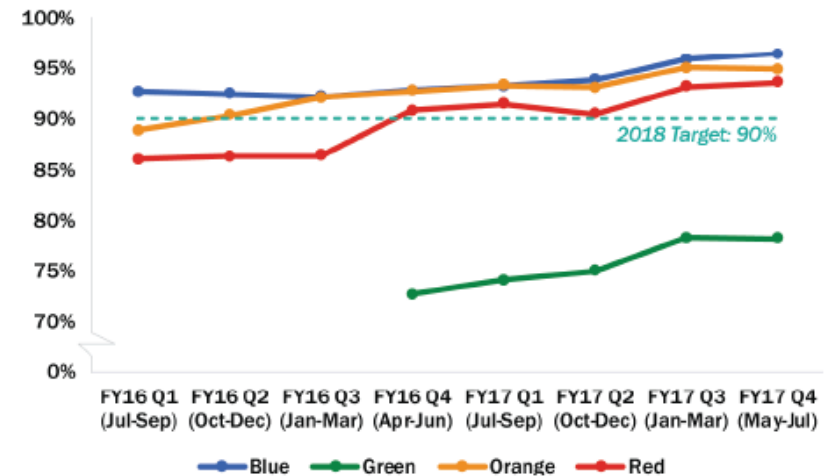


Figure 51. Subway reliability, quarterly, FY16-FY17




Figure 54. Commuter Rail reliability (adjusted), FY13-17.

MBTA Division

Example

MBTA - 2017 SCORECARD

PURPOSE	PERFORMANCE MEASURE	CURRENT (FY17)	CHANGE FROM FY16	2018 TARGET
	Subway reliability - Blue Line	95%	-2.5%	90%
	Subway reliability - Orange Line	94%	+3.2%	
	Subway reliability - Red Line	92%	+4.9%	
	Subway reliability - Green Line ¹	77%	+5.5% ¹	
	Subway passenger travel time - Blue Line	98%	-0.3%	Context only
	Subway passenger travel time - Orange Line	93%	+4.9%	
	Subway passenger travel time - Red Line	96%	+0.8%	
	Subway passenger travel time - Green Line	96%	+5.2% ¹	
	Bus reliability - Key Bus routes	77%	+0.6%	80%
	Bus reliability - Other routes	63%	-4.8%	75%
	Bus service operated	98.3%	-0.3%	99.5%
	Commuter Rail reliability (adjusted)	93%	-0.4%	92%
	Commuter Rail service operated	99.6%	-0.2%	Contract sets fines for canceled service

Highway Highlights

- EZ-Pass payment rate is at 87% since AET
- Fatalities per 100 VMT continue to trend slowly downward although climbing in non-motorized.
- The Complete Streets program continues into implementation of projects throughout the Commonwealth

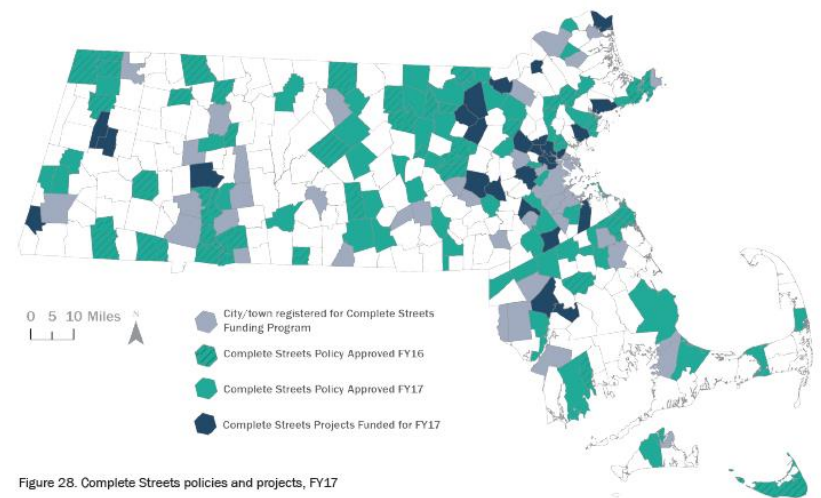
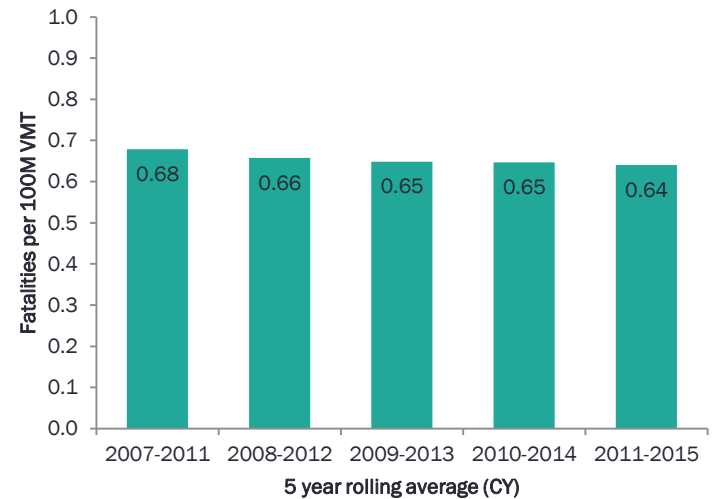



Figure 28. Complete Streets policies and projects, FY17

Highway Division

Example

HIGHWAY DIVISION - 2017 SCORECARD

PURPOSE	PERFORMANCE MEASURE	CURRENT (FY17)	CHANGE FROM FY16	2018 TARGET	2020 TARGET	LONG-TERM TARGET
	Fatalities in roadway work zones	3 (CY11-CY15 rolling average)	-2 (CY10-CY14 rolling average)	5	5	Move Towards Zero
	Number of fatalities ⁴	361 (CY11-CY15 rolling average)	+0 (CY10-CY14 rolling average)	354	347	
	Rate of fatalities per 100 million VMT ⁴	0.64 (CY11-CY15 rolling average)	-0.01 (CY10-CY14 rolling average)	0.63	0.62	
	Number of non-motorized fatalities and serious injuries ⁴	425 (CY11-CY15 rolling average)	+2 (CY10-CY14 rolling average)	415	406	
	Number of serious injuries ⁴	3,252 (CY11-CY15 rolling average)	-114 (CY10-CY14 rolling average)	3298	3231	
	Rate of serious injuries per 100 million VMT ⁴	5.8 (CY11-CY15 rolling average)	-0.35 (CY10-CY14 rolling average)	6	6	
	Number of pedestrian fatalities	76 (CY11-CY15 rolling average)	+2 (CY10-CY14 rolling average)	73	71	
	Number of bicycle fatalities	9 (CY11-CY15 rolling average)	+1(CY10-CY14 rolling average)	8	8	
	Number of motorcycle fatalities	49 (CY11-CY15 rolling average)	0 (CY10-CY14 rolling average)	48	47	

PERFORMANCE AND ASSET MANAGEMENT ADVISORY COUNCIL REPORT

- FY2017

The PAMAC Report

About PAMAC

- Submit report on/before October 1st of each year
 - Extension (11/15) to coordinate with MassDOT Tracker
- Council membership includes:
 - MassDOT board members
 - MPO representatives
 - Industry representatives
 - Municipal representatives (MMA)

New for 2017

- Detail on tunnels and rail
- Respond to FHWA rules
- Incorporate airport and municipal pavement data

2017 Update | Highway Bridge

MAP-21 Performance Measure:
% of NHS bridge area in poor condition

- 15% of NHS deck area is poor
 - Amongst other cold weather states including Rhode Island, Connecticut, New York, Michigan and Washington, MA is ranked at the bottom of National Standings
- Meeting the 2020 target may be a challenge under current spending
 - Report details Highway Analysis of current investment
 - Preservation of fair bridges key to long term reduction

We are here :
15% in 2017



2017 Update | Highway Pavement

- **Non-interstate program challenges and strategies**
 - Significant rise in non-pavement spending within program (analysis detailed in report)
 - Bridge, safety, pedestrian accommodations
 - Pavement Preservation Policy is under development by task force (Highway, Municipal, Consultants, Contractors)
 - Guidance for project development to ensure significant investment to pavements

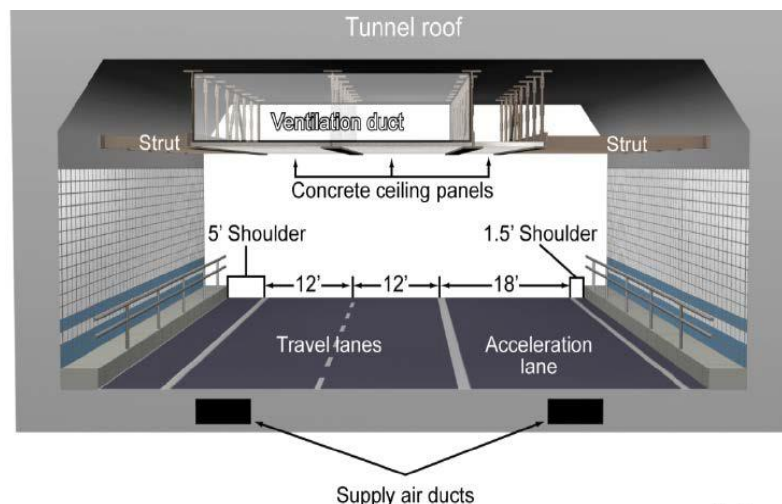
- **New Predictive Modeling in 2018**
 - System condition survey to be completed this fall

PERFORMANCE MEASURE	CURRENT (FY17)	CHANGE FROM FY16	2018 TARGET	2020 TARGET	LONG-TERM TARGET
PSI - Interstate (% good and excellent condition)	87% (FFY16)	+5% (FFY15)	85%	88%	90%
PSI - Non-interstate (% good and excellent condition)	51% (FFY16)	-2% (FFY15)	62%	62%	62%

2017 Update | Highway Tunnels

- Bridge and tunnel investments now distinct in CIP for 2018-2022
- MassDOT classifies 7 structures as “tunnels”
 - Sumner/Callahan
 - Prudential
 - CANA (City Square)
 - Ted Williams
 - I-90 Connector
 - Tip O’Neill (I-93)
- 44 sections controlled by several owners
 - MassDOT, Massport, MBTA
 - MCCA
 - Boston Properties (Pru) and Simon/Copley

- Federal NTIS inspection standards
 - First inventory report in 2015
 - Biannual inspections thereafter
 - Element-level inspections by May, 2018
 - Structural elements (see below) and non-structural (alarms, cameras, fire suppression, ventilation fans, etc.)



2017 Update | Turnpike

- 2018 Triennial Inspection/Report kicking off this month
- Includes recommendations for proper maintenance and repair of the system
- Western Turnpike no longer required (bond payoff); however, MassDOT will continue for 2018
- Due 10/1/18
- Review and incorporate recommendations into the 2019-2023 CIP Discussions

2017 Update | Other Assets

- Highway awarded an FHWA grant to evaluate the effect of extreme weather on infrastructure
 - \$120K to “operationalize a risk assessment process” within asset management
 - Will focus on culvert inventory and inspection
 - MassDOT already has assessments for the Central Artery and coastal areas, and has work in progress for inland
- Sidewalk inventory will be completed in CY2017

2017 Update | Highway TAMP

- FHWA Final Rule requires State DOTs file a Transportation Asset Management Plan (TAMP) for the NHS, initial draft in April, 2018
 - NHS asset summary (bridges and pavement)
 - TAM objectives and measures
 - Lifecycle planning and risk management analysis
 - Financial plan
 - Investment strategies