

Highway Administrator's Report

Carrie Lavallee, Chief Engineer
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Preparing for Infrastructure Investment

- Staff is working in agile workstreams to identify opportunities for program efficiencies
 - Six workstreams currently underway:
 - Right of Way
 - Environmental Permitting
 - Alternative Project Delivery
 - Traffic Management
 - Risk Management
 - Bridge Maintenance
 - Workstreams involve employees across Highway Division, MassDOT and outside stakeholders
 - Builds on ongoing streamlining efforts that has already reduced procurement time by 63%



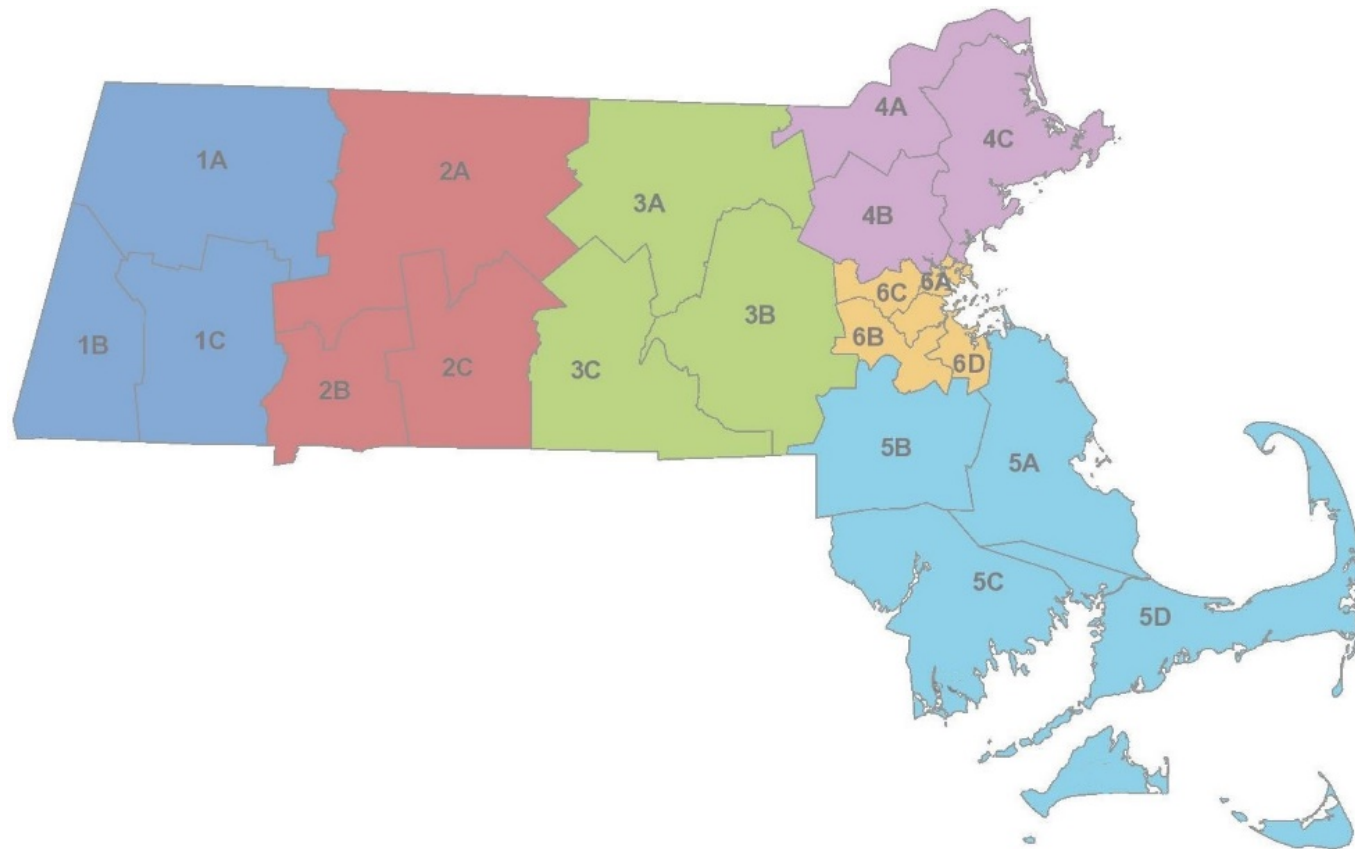
Preparing for Infrastructure Investment

- Programmatic planning has been underway for several months to develop strategies for adding new projects to capital plan
- Work is continuing across all of MassDOT and industry to ensure that there is adequate capacity to deliver new program
- Highway is working with HR on staffing plan and will be adding new project managers and construction inspectors over the next year
- Project selection and sequencing will be developed in accordance with program criteria



Snow and Ice - Overview

- Perform snow and ice removal on 15,000+ lane miles.
- 6 Districts and 20 sub-Districts.
- 150 Depots/ Salt Storage Locations.
- Over 700 personnel at the height of a storm.



Snow and Ice - Equipment

Vendor Equipment (1,182 Vendors)

- This is a 1-year Agreement including the protocols necessary for working with Vendors during the pandemic.
- Vendors have submitted required documentation and have had vehicles inspected and calibrated for proper deicing materials dispensation.

MassDOT Equipment

- Maintenance garages are performing preseason maintenance and repairs on all Snow and Ice equipment.

Available Equipment Breakdown			
Equipment Type	Total	Hired	State
Combo (Plow and Spreader)	1491	1233	258
Plows	1683	1541	142
Front End Loaders	429	293	136
Misc. equipment (Tankers, Snow blowers)	293	264	29
Snow Melters	3	0	3
Totals	3899	3331	568



Snow and Ice - New Program Updates

1. MassDOT is continuing use of GPS and GIS to analyze activities and performance during and post storms to increase effectiveness and efficiency.
2. Expanding and upgrading network of RWISs (Road Weather Information Systems), adding more Fixed and Mobile Grip sensors. Area supervisor's vehicles carry mobile RWISs to inform treatment needs.
3. Implement draft tractor trailer/vehicle restrictions during extreme events to limit accidents causing roadway blockages and delays in snow and ice operations.

Weather Event Vehicle Restriction Chart

Level	Restriction	Vehicles	Snowfall Forecast	Snowfall Intensity	Visibility	Roadway Icing	Road Friction Sensor
0	No Restriction Winter road conditions warning	All Vehicle Types	Light Snow fall	Present	< 1.0 mile	Roadway icing possible	Grip < .7
1 (Significant)	Speed (Restricted to 40 mph) & Commercial Vehicles (To Use Right Lane Only)	All Vehicle Types	Snowfall Forecast (lasting > 2 hrs.)	> .5" per hour for > 2 hours	< 1.0 mile	Roadway icing present/anticipated	Grip < .5
2 (Major)	Vehicle Restriction	Special Permitted Vehicles RV's Box Trucks Vehicles with Trailers Tandems	Snowfall Forecast (lasting > 4 hrs. duration)	> 1" per hour for > 2 hours	Between 1.0 mile & 0.5 miles	Freezing Rain > .075" per hour for > 2 hours Re-freezing expected / experienced	Grip < .5
3 (Extreme)	Vehicle Restriction	All level 2 Restrictions plus Tractor Trailers (Box or Open) Tankers	Snowfall Forecast (lasting > 8 hrs. duration)	> 2" per hour for > 2 hours	< 0.5 mile	Freezing Rain > .15" per hour for > 4 hours Re-freezing expected / experienced	Grip < .5
4 (Dangerous)	Vehicle Restriction All vehicles except emergency and essential employees	All level 3 Restrictions plus All vehicles (incl. passenger cars & trucks)	Snowfall Forecast (very significant duration)	> 2" per hour for > 6 hours Snowfall > 24" over 20 hours	< 0.25 miles / White Out	Freezing Rain > .25" per hour for > 6 hours Re-freezing expected / experienced	Grip < .5

Massachusetts Avenue over Charles River (Harvard Bridge)

- As a near-term action item, the MassDOT Highway Division is preparing to conduct a bicycle safety pilot on the Harvard Bridge between Memorial Drive and Storrow Drive. The bicycle safety pilot is anticipated to run through the winter months.
- These interventions will be more “tactical” in nature, using signs, and traffic barrels to implement a road diet on the bridge.
- The Highway Division is evaluating more robust long-term improvements on the bridge targeting springtime implementation, in partnership with stakeholders (DCR; the Cities of Cambridge and Boston; advocacy organizations).
- These improvements are intended to improve the safety and mobility of all users of the bridge – people walking, people biking, people taking the MBTA Route 1 bridge, as well as motorists.

Thanksgiving Travel



Start Time	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Avg	Avg Volume Graph	Pct. of Total
	11/26/2019	11/27/2019	11/28/2019	11/29/2019	11/30/2019	12/1/2019	12/2/2019			
12:00 AM	1095	1928	1459	851	1087	2403	852	1,382	<div></div>	1.2%
1:00 AM	795	1203	991	623	728	1554	620	931	<div></div>	0.8%
2:00 AM	781	1064	791	576	621	1069	557	780	<div></div>	0.7%
3:00 AM	1053	1217	774	678	652	879	547	829	<div></div>	0.7%
4:00 AM	1692	2029	894	1023	818	985	769	1,173	<div></div>	1.0%
5:00 AM	3192	3504	1368	1769	1225	1440	1226	1,961	<div></div>	1.7%
6:00 AM	4749	4990	2503	2512	2229	2742	1949	3,096	<div></div>	2.7%
7:00 AM	5764	5996	4380	3422	3353	4877	2339	4,304	<div></div>	3.8%
8:00 AM	5584	6648	7129	4536	5144	8039	2488	5,653	<div></div>	5.0%
9:00 AM	6093	7729	9185	6713	7788	10472	2823	7,258	<div></div>	6.4%
10:00 AM	6853	8320	9997	8768	9550	10522	3258	8,181	<div></div>	7.2%
11:00 AM	7382	8899	9994	10011	10234	10033	3479	8,576	<div></div>	7.6%
12:00 PM	7853	9388	10174	10166	9868	9985	3684	8,731	<div></div>	7.7%
1:00 PM	8533	8959	8585	9920	9402	9734	3705	8,405	<div></div>	7.4%
2:00 PM	9145	9410	4963	9630	9451	9081	3839	7,931	<div></div>	7.0%
3:00 PM	8239	9273	3835	8961	8689	6878	3543	7,060	<div></div>	6.2%
4:00 PM	7775	7603	4110	8251	9036	4106	3272	6,308	<div></div>	5.6%
5:00 PM	7900	7228	5333	6864	8857	2434	2800	5,917	<div></div>	5.2%
6:00 PM	7685	6987	6599	5766	8651	3212	1988	5,841	<div></div>	5.2%
7:00 PM	7204	6193	6562	4865	8204	2338	1666	5,290	<div></div>	4.7%
8:00 PM	6415	6042	5835	4137	7588	1277	1295	4,656	<div></div>	4.1%
9:00 PM	5733	4586	4179	3241	6821	1194	995	3,821	<div></div>	3.4%
10:00 PM	3803	3462	2624	2366	6118	1533	907	2,973	<div></div>	2.6%
11:00 PM	2512	2342	1595	1672	4076	1251	782	2,033	<div></div>	1.8%
Total	127830	135000	113859	117321	140190	108038	49383	Avg		
AM Pk Hr	11:00 AM	11:00 AM	10:00 AM	11:00 AM	11:00 AM	10:00 AM	11:00 AM			
AM Peak	7382	8899	9997	10011	10234	10522	3479	8646		
PM Pk Hr	2:00 PM	2:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	2:00 PM			
PM Peak	9145	9410	10174	10166	9868	9985	3839	8941		
Peak %	7.15%	6.97%	8.94%	8.67%	7.30%	9.74%	7.77%	8.08%		

- Plan ahead
- Tuesday is almost as heavy as Wednesday
- Sunday is the heaviest travel day