

City of
Fitchburg



Department of
Public Works

**301 Broad Street
Fitchburg, MA 01420
Phone: 978-829-1900**

DPW Weekly Update January 20 – January 27, 2020

Dear Mayor, Councilors, and Colleagues;

Last week Fitchburg DPW Streets Division participated in the funeral procession for Marcos “Tony” Ruiz who was shot and killed while fixing potholes for the Lawrence DPW. Hundreds of DPW trucks from towns far and wide were present in a show of solidarity and respect. Tony Ruiz was your typical DPW worker – a hard working family man that served the City for 20 years driving trucks, plowing snow, and fixing the roads. His senseless murder is a tragedy that leaves a void for his family and community. Tony Ruiz was the seventh DPW worker to die while on the job in Massachusetts since 2016.

DPW Workers face many risks everyday in the performance of their duties. They work in hazardous conditions and are exposed to speeding traffic, heavy machinery, treatment plant equipment, chemicals, excavations, inclement weather, and sometimes even violence. DPW Workers are first responders per Homeland Security Presidential Directive (HSPD-8) that recognizes DPW’s role in providing immediate support in emergency situations including floods, blizzards, and wind storms. DPW is also a partner to the Police and Fire Departments providing support and assistance during emergencies. Unlike other first responders however, DPW workers do not receive a death benefit from the Commonwealth when they are killed in the service to the public. The death benefit is currently limited to firefighters, police, prosecutors and corrections officers and provides a \$300,000 payment in case of death by incident, accident or violence. The benefits are paid directly to the family of the deceased.

At its last meeting on December 6, 2019 the MMA’s Public Works, Transportation, and Public Utilities Policy Committee voted broad support for House Bill 2314, 2317 and Senate Bill 1554 - An Act Relative to Public Safety Employee Death Benefits. This bill would add the words “and Department of Public Works employee” to the list of public safety officers eligible for the death benefit. A similar measure was attempted and failed in 2017 after a Longmeadow DPW foreman was killed by an Amtrak train while plowing snow. HB 2314 had wide support within the municipal and DPW community even before the senseless murder of Tony Ruiz, and we ask for your support in this latest effort to protect our workers.

Sincerely,

Nicolas H. Bosonetto, PE
Commissioner of Public Works/City Engineer

CONSTITUENT SERVICES

DPW continued to respond to service requests in a timely manner through the [SeeClickFix](#) program. In the past two weeks DPW received 18 new requests and closed 14 requests. The total outstanding requests backlog is now 148, an increase of 4 from the previous reporting period. We will continue to work on the backlog request in preparation for the spring season.

<u>Reporting Period</u> 1/13/20 - 1/26/20		<u>Previous Period</u>	<u>Change</u>
Previous Request Backlog	144		
New Requests	18	21	-3
Completed Requests	14	214	-200
Total Request Backlog	148	144	4
Potholes	20	16	4
Storm Drains	40	40	0
Tree & Brush Pruning	14	15	-1
Traffic, Signals, Signs	6	7	-1
Berm Repairs	7	7	0
All other categories	61	59	2
New Requests	18	21	-3
Acknowledged	3	9	-6
Completed & Closed	8	14	-6
Open	10	7	3

ROADWAYS

Snow Operations

	Saturday 1/18	Sunday 1/19	Monday 1/20	Tuesday 1/21	Wednesday 1/22	Thursday 1/23	Friday 1/24
Rain (in)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Snow (in)	5.5	0.0	0.0	0.0	0.0	0.0	0.0
Hi/Lo Temp (F)	9/19	18/36	10/25	10/25	10/30	21/43	34/43

Sources: <https://www.cocorahs.org/ViewData/ListDailyPrecipReports.aspx> (STA MA-WR-22)
<https://www.timeanddate.com/weather/@4936825/historic>

- Salted and Sanded streets due to 5.5-inches of snow on Saturday 1/18.
- Hauled snow from Senior Center and parking lot.
- Sand was hauled from Airport Pit to DPW yard.
- Additional salt was ordered and delivered into the salt shed.
- Trucks and plows continued to be maintained and fixed.

Traffic Signs and Signals

DPW traffic signal contractor visited the city last week and performed the following tasks:

- Reduced the volume of the audio pedestrian buttons on South Street at Electric Avenue due to neighbor complaint.
- Fixed RRFB on Water Street at Broad Street.
- Retimed school zone beacons on Summer Street in front of St Bernard Elementary.

Drainage

DPW Streets crews cleaned drainage swales along Williams Road and culverts and catch basins throughout the city.

Potholes

Pothole patching efforts continued during the week using cold-patch and the hot box at various locations, including the following:

- Airport Road,
- Alpine Road,
- Benson Street,
- Cathy Street,
- Causeway Street,
- Clinton Street,
- Davis Street,
- Electric Ave,
- Fairmount Street,
- Fifth Mass Turnpike,
- Franklin Road,
- Grove Street,
- King Street,
- Lincoln Street,
- Miami Street,
- Middle Street,
- Miller Street,
- Oak Hill Road,
- Parker Street,
- Pepper Road.
- Pinard Ave,
- Pleasant Street,
- Pratt Road,
- River Street,
- Romes Way,
- Shea Street,
- South Street,
- Valdalia Ave,
- Vine Street,
- Wanoosnoc Road,
- Westminster Hill Road,

PARKS & RECREATION

Biddy League PeeWee Games began on Tuesday, January 14, 2020. Elementary Division games continued on Thursday, January 16, 2020.

Fitchburg State welcomes Fitchburg residents of all ages to walk or jog on the 1/11th of a mile track, which is suspended above the gymnasium on the second floor. Minors must be accompanied by an adult. Starting on October 1, 2019, the program is open Mondays through Fridays from 6:00 AM to 12:00 PM, Saturdays from 10:00 AM to 3:00 PM and Sundays from 3:00 PM to 10:00 PM. The walking club ends on April 1, 2020. Registration is required and is now available in the City of Fitchburg Recreation Department.

CEMETERIES

Cemeteries crews aided in the ice and snow storm clean up by plowing the cemetery properties, sidewalks and roadways. In addition to routine maintenance and administration tasks, the following were completed:

Full Interments	1
Inurnments.....	1
Up righted monuments.....	0
Uncovered/cleaned flat monuments	0
Foundation marking for monuments.....	0
Catch basin repair	0
Trimmed Trees	0
Trimmed shrubs.....	0
Meeting with Families.....	3
Payments - invoiced/processed.....	1
Family Genealogy	2

ENGINEERING

- Staff attended training for the City’s new ViewPoint cloud online permitting software. In addition to the internal permitting functions, the new ViewPoint cloud offers a public portal for online permit application.
- Assisted MassIT with E-911 address assignments and address confirmations for the state wide emergency database.
- Provided street layout plans for Caswell Rd and Ashburnham Hill Road for a Land Survey being performed by Hancock Associates Land surveyors.
- Staff registered for a 2-day workshop held by Baystate Roads titled “Constructing and Inspecting Asphalt Paving Projects” and will be attended by our Junior Engineer and DPW Inspector.
- Per request from Weston & Sampson for an environmental study, DPW Engineering investigated the history of Blueberry Land landfill which was operated between 1969 to 1971.
- Began compiling a new paving list for 2020. This list is based on paving contributions from completed infrastructure work throughout the City, presence of underground utilities, Pavement Condition Index (PCI), and a number of other factors. Once the list is finalized it will be reviewed by Commissioner Bosonetto.

Project Reviews

- Conducted a plan search for #55 Minneapolis Ave to determine if the property has access to City sewer. This plan review was conducted per request prospective buyer/property developer. Plans were provided as well as a copy of Utility Site Plan Requirements.

- Continued review of the 25% Design Submission for the Twin Cities Rail Trail project, which is being designed by Stantec through MassDOT. Once review comments are finalized they will be provided to MassDOT/Stantec for consideration.
- Started review of the 25% Design Submission for the Westminster Hill Road Bridge project.

GIS/Asset Management

- Assigned LOC_ID to 8 Tax Parcels: 50-27-B4-A1 through A4 and 50-27-B5-B1 through B4. These LOC_ID are a GIS Key attribute which links Tax records to their respective parcels.
- Continued digitizing sidewalks-feature dataset for DPW Asset Management geodatabase. Once the sidewalk connectivity framework is complete, the data will be imported from Streetscan sidewalk assessments.
- PW Engineering reviewed MassDOT bridge inspection report for Ashby West Rd/Scott Reservoir Outlet bridge (Asset ID F-04-053). Updated City Bridge master inventory with notable defects and filed inspection report.

Permits & Inspections

- Issued 12 excavation permits for Unitil gas work.
- Issued 1 Trench permit o Glenn Hines for emergency water service repair.
- Issued 1 Excavation permit for Curb stop installation by the Water Division at 17 Summer Street.
- Inspected complaint of pot hole at 491 Oak Hill Road. It was found that it was a sunken trench patch from a private sewer repair performed by a contractor. Tandem Construction was contacted and they repaired the trench.
- Inspected sewer project at 600 Pearl Hill Road
- Digsafe
 - 40 Digsafe/site visits for Unitil pole installations on Pearl St, Klondike Ave, Townsend St, and Marshall Rd.
- Streetlights
 - Inspection for Caldwell St @ Flatrock Rd light reported out after site inspection it was found that this is a privately owned spot light.
 - Inspection at 196 Tibbett Circle ornamental street light is private.
 - Inspection of traffic lights at Water St and Main St.
 - Unitil repaired 6 outstanding street light outages this week
- Miscellaneous
 - Supplied as-built plans to Whitman and Bingham for 691 Mt Elam Rd

Engineering Services			
Type		Number	Fees
PERMITS	Dumpster Permits		
	Trench Permits	1	\$ 75
	Excavation Permits	13	\$ 900
	Driveway Permits		n/a
	Sign Permits		n/a
	Sewer Permits		\$ 0
INSPECTIONS	Driveway Inspections		n/a
	Trench Inspections	2	n/a
	Site Inspections	46	n/a
	Dig-Safe requests	40	n/a
	Sewer/Drain Inspections	1	n/a
	Street Light Inspection	3	n/a
Totals		60	\$ 975

WATER SUPPLY

The Water Supply Division produced 29.2 million gallons of drinking water this past week. No transfer of water between reservoirs is taking place. Water supply reservoirs and watershed properties continued to be inspected and patrolled.

Water Treatment

Reservoir Levels as of 1/24/20			
Northern Reservoirs	Elevation below spillway		Southern Reservoirs
Fitchburg/Ashby	Full	Full	Meetinghouse
Scott	Full	Full	Mare Meadow
Lovell	Full	Full	Bickford
Water Filtration Plant Flows/Production from 1/17/20 through 1/23/20			
	Falulah Plant	Regional Plant	Totals
Raw Water Inlet (Gal)	6,197,000	27,092,000	33,289,000
Backwash to waste (Gal)	992,000	3,099,000	4,091,000
Finish Water - Treated & Distributed (Gal)	5,205,000	23,993,000	29,198,000
Capacity	(6 MGD) 15%	(12 MGD) 32%	(18 MGD) 23%
Efficiency	84%	89%	88%

Wyman Pond gate was closed to 3 inches due to no liquid precipitation or snow melt over the past week which resulted in reduced inflow to the reservoir. The Reservoir Caretaker is monitoring the level on a daily basis and opening/closing the discharge gate as needed to maintain the 2-foot winter/seasonal drawdown.

- There were no issues this week with communication lines (Verizon copper lines) between plants and stations after the final connection (line to the Overlook Storage Tank) was corrected on 1/19/20. The problems came to a peak the week before when 9 out of 9 of the communication lines to the outlying stations were down for three days straight. The quality of the signals on each of these lines over the past week is the best it has been in many months so it appears that Verizon may have finally listened to our complaints and made a good effort to resolve the problems in their lines/equipment.
- Issues developed with the clearwell chlorine analyzer at the Regional plant. Replacement of the tube appeared to correct the problem and it has been working correctly since.
- Stonkus Hydraulics worked on the settling basin dump valves at the Falulah Plant. They were able to open and close #3 and #4 dump valve manually but determined that both will need new solenoid valves (will need to order). Once #3 and #4 are repaired and returned to service, maintenance will be completed on dump valves #1 and #2 (if there is an issue with #1 and/or #2 dump valves, personnel will manually operate #3/#4 valves as needed).
- Early on Thursday, 1/23, there as a power blip/surge at the Falulah plant that caused several pieces of equipment to trip out. One issue was that it resulted in 4 of the 6 chlorine scales readouts failed. Personnel were able to rearrange the chlorine tanks to working scales to continue operating the plant. The readouts will have to be repaired/replaced (quotes are being obtained for the parts, personnel will replaced them once they have been received).

Fire Hydrants

Total Hydrants	Out of Operation	Hydrants Replaced	Hydrants Repaired	Painted	Flushed	Winterized
1,632	2	0	0	0	0	27

Water Distribution

- Rebuilt the boring bar for the Mueller tapping machine.
- FWD crews located and cleaned out curb stop boxes throughout the week to prepare for possible service line shut downs for meter replacements. Service lines that have been determined to be, or potentially be, iron pipe are likely to require shut downs.
- Completed shut downs of water service lines throughout the week to allow the meter replacement contractor to replace meters which had iron services and/or wheel valves that the contractor determined might fail if operated.
- Investigated a complaint of discolored water at 56 Cedar Street. There was no known cause of the discolored water, FWD personnel checked for leaks on the service line and in the area as well as checked nearby gate valves to ensure all were open. Told owner to call back if it did not clear up.

- During the course of the week, FWD crews checked/maintained all water trenches repaired with cold patch (final restoration will be completed in the spring when the weather improves and local asphalt plants reopen).
- Excavated and reset the curb stop box for 350 Daniels Street.
- Repaired gate boxes on Reingold Avenue at England Avenue, St. Joseph Avenue at Delisle Street, and in front of 226 Plymouth Street.
- Investigated leak reported on Granite Street at Water Street - no leak detected, water is from melting snow/ice.
- Installed extension on curb stop box at 9 Exeter Street.
- Completed several shut-offs at vacant buildings in which water lines/plumbing had frozen and were discovered leaking by owners, etc.
- Continued checking for frozen hydrants and wintering hydrants as needed throughout the course of the week.
- FWD crews excavated and exposed the corporation for the water line to 17 Summer Street. The water lines/plumbing in this building had frozen and cracked and water was running out of building onto adjacent property. Water was shut off inside the building but could not be shut off in street. Personnel were able to close the corporation (the tee head had snapped off) using a pipe wrench and then installed a new curb stop 5 feet from the corporation to allow the water to be turned on/off (the head on the corporation could not be made "usable" and corporation could not be replaced without a major shutdown of water mains in the area).
- FWD personnel picked up cold patch from P.J. Keating (Lunenburg) for patching/maintaining Water Division trench excavations (for water system repairs).
- FWD personnel picked up parts at Pipe Plus (Leominster).
- Completed weekly inspections and maintenance/cleaning of Water Division vehicles and equipment.
- Completed housekeeping duties at 1200 Rindge Road.

Meters and Billing

- Total of 5 real estate closings – final readings completed along with preparation of final bills for attorneys/realtors. Future real estate closing final readings also scheduled.
- 31 invoices totaling \$196,220.24 were processed for FY20 warrant WG20031.
- 3 purchase requisitions were entered into Munis for approval by Purchasing.
- Completed the January commitment for Water and sent to the Assistant Treasurer. The total commitment was \$427,137.43 (January 2019 total commitment was \$418,400.64).
- The monthly meter project progress meeting was held on Thursday, in attendance were Water Division personnel as well as representatives of Weston & Sampson, Ti-Sales, and Baystate WinWater. No major issues have come up and meter replacements are being completed at a rate of approximately 250 per week. Close to 3,000 meters have now been replaced as of 1/24 (out of a total of approximately 10,300), so the project is just about 1/3 complete.
- The final gateway/data collector (out of a total of 9) for the meter project was commissioned this week and appeared to be functioning correctly. All meter readings (from the new

meters/MIUs) should now be able to be read through the network (some had to be read via drive-by as they were located in areas covered by this last gateway).

- Took calls about high bills, payment issues, etc. The water/sewer bills went out last Saturday which resulted in the typical monthly increase call volume, although this month there seemed to be a higher number than usual.
- Worked on the paperwork, reports, etc. that need to be submitted to MA DEP at the end of the month in response to items identified in the Sanitary Survey.
- Worked on MA DEP submissions for approval of purchase of land and conservation restrictions in the northern watershed (purchase of Porter property and purchase of conservation restriction on additional Crocker property).
- Worked on Water Division budget and capital planning.
- Tagged properties for backflow testing.
- Profiled water usage at 199 Ashby State Road after complaint of high bill - it is likely that a toilet leak was the cause of the higher usage/bill.

In addition to routine maintenance and administrative tasks, the following services were completed by Water Division staff:

Water Permits and Inspections	
Type	Number
Emergency DigSafe Mark-outs	1
DigSafe Mark-outs	47
Inspections of Work on Water System	2
Record Plan Updates	8
Curb Stops Turned off/on	20
Located/cleaned gate/curb boxes	14
Final Readings/Real Estate Closings	5
New Meter Installations	14
Backflow Preventers Tested	27
Residential Appointments Made	8
Totals	146

WASTE WATER

The WWTF processed 71.6 million gallons of sewage. In total, 50.8 tons of organics and 63.8 tons of solids were removed and prevented from entering the Nashua River.

<u>Week of 1/12/2020 - 1/18/2020</u>		
Sewage Flow	71.58	Million Gallons
Rainfall	0.2	Inches
Secondary Bypass	0.0	Million Gallons
BOD _{in} (lbs)	105,394	Pounds
BOD _{out} (lbs)	3,718	Pounds
BOD Removal (%)	96.5%	
TSS _{in} (lbs)	133,237	Pounds
TSS _{out} (lbs)	5,718	Pounds
TSS Removal (%)	94.9%	

- Deputy Commissioner appeared on monthly radio segment, on WPKZ's "K-Zone Morning Kommute" with Travis & Sherman.
- Met with Waste Management representatives, to discuss "Local Limits" and Waste Management's Industrial Pretreatment Program Significant Industrial User permit. Waste Management wants ~45% of the available daily copper pollutant loading, which may impact the other industrial permittees.
- Volunteer efforts with Boys & Girls Club of Fitchburg and Leominster in the "Future Cities 2020 Competition" ended at WPI on Sun. - Jan. 26th. One of BGCFL's teams won three special awards in this year's competition (the 1st year BGCFL has participated in this competition).



Figure 1 - Boys and Girls Club Future Cities

Sewer System

- Reviewed quote and sent PO to ADS Environmental to finalize our PRISM and purchase of ADS Echo monitors. The City will now own the ECHO monitors which will help in the prevention of sanitary sewer overflows and combined sewer

overflow monitoring. A year's subscription to the PRISM software was also purchased, allowing the City to have all its flow monitors be in a web based platform.

- Sent On-Call Construction Services Contract to Purchasing for review. Contract will be used to conduct sewer, water, and drainage repairs around the City on an as-needed basis.
- Finished clearing trunk sewer easement at Airport with inmates. An approximately 30-foot wide swath of brush and trees was cleared approximately 1,300 feet long. We now have access to 3 critical manholes along the 54" diameter trunk sewer. In the spring the Wastewater Division will remove the stumps and seed the easement for easier growth management.
- Conducted 20 manhole inspections in near the southern end of Rollstone Street- no major issues.
- Assisted the Water Division with the vector truck at 17 Summer Street by sucking out dirt and water in a trench.
- Placed root killer in 5 root "hot spot" areas to keep root growth at a minimum in the sewers.
- Worked with a vendor to design a new "Fitchburg Standard" manhole cover. The new covers will clearly define storm sewers and sanitary sewers. See image below.

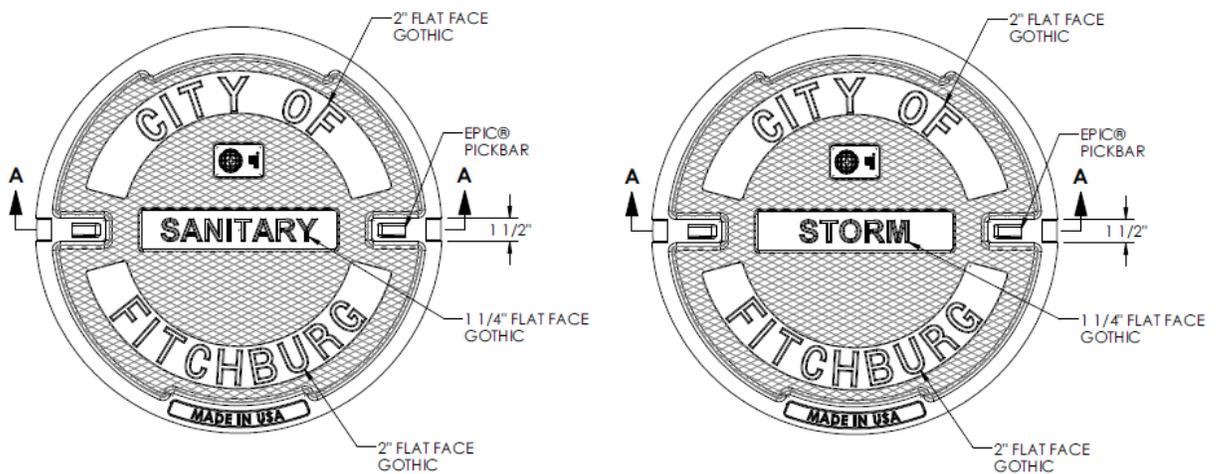


Figure 2 - Proposed Standard Manhole Covers

ADMINISTRATION

- Winter operations:
 - Processed the invoices for payment that were turned in by plow contractors.
 - Calculated the costs associated with winter operations to date. This week we had a winter weather event on Saturday night into Sunday morning that required plowing and salting by DPW crews and plowing contractors.
 - Ordered 10 loads of salt this week from Eastern Salt (approx. 340 tons).

- 15 loads of salt were delivered to the salt shed this week. We are expecting the 5 remaining loads we have ordered to be delivered next week.
- Corresponded with insurance agents to secure certificates of insurance for plow contractors who have expired or expiring insurance policies.
- Budgets:
 - Continued working on FY21 budget prep and scheduled divisional meetings for budget review for the weeks of January 27th and February 4th.
 - Reviewed all DPW Department accounts for accuracy and monitored budgets.
 - Submitted request for proposal to design firms for the DPW office roof design.
 - Correspondence with the Fitchburg Greenway Committee regarding the Rollstone Hill Trail Grant. A meeting will be scheduled next week to discuss remaining work at the trail. The grant has a completion deadline of December 2020.
- Scheduled a meeting in early February with the Town of Ashby to discuss a proposed water line extending into Ashby.
- All DPW divisions submitted updated emergency contact information for employees to Human Resources.

Invoicing, Warrants, and Payrolls						
	Invoices		Deposits		Billings	Payroll
<u>Division</u>	<u>Number</u>	<u>Total \$</u>	<u>Number</u>	<u>Total \$</u>		
Streets/Admin/Engineering	83	\$ 83,458	*Note 1			
Cemeteries	11	\$ 2,157				
Parks						
Recreation	15	\$ 1,758				
Water Supply	31	\$ 196,220				
Waste Water	75	\$ 142,210	*Note 2	\$ 18,580		
			*Note 3	\$ 132,327		
Total	215	\$ 425,803		\$ 150,907	\$ -	\$ -
*1 - Engineering Permits & Performance Bonds						
*2 - Septage at East Plant (Gallons)		218,588				
*3 - Industrial Billing Payments						