



CITY OF MELROSE

Department of Public Works
Annual Report Fiscal Year 2017

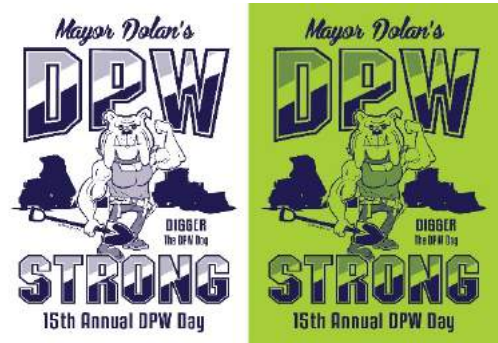
Mission Statement

To maintain the city's roadways and sidewalk infrastructure for the safe and efficient movement of vehicles and pedestrians; provide dependable solid waste, recycling and yard waste pickup; promote recycling; provide safe water distribution and sewer collection; and expand and improve the city's infrastructure systems to meet the future needs of its citizenry.

John V. Scenna
Director of Public Works

Administration

Director of Public Works *John V. Scenna*
Assistant Director of Public Works *Ann Waitt*
Operations Director *Peter Pietrantonio*
Senior Account Clerk *Tina Bright*
Senior Account Clerk *Marisa Kelly*
Executive Secretary *Cindy Brickley*
Solid Waste & Recycling Coordinator *Sadie Brown*
Residential Service Representative *Lynda Garron*



Engineering Division

Director of Public Works *John V. Scenna*
City Engineer P.E., BCEE *Elena Proakis Ellis*
Staff Engineer *Rick Cantone*
Project Engineer *Larry Erekson*
Project Engineer *Scott Dixon*
Administrative Clerk *Amy Heidebrecht*
Engineering Intern *Aslah Alshaiea*
Engineering Intern *Matthew Connolly*
Engineering Intern *Hannah Andry*
Engineering Intern *Erin Reardon*
Engineering Intern *Joseph Gilardi*

Water Division

Director of Public Works *John V. Scenna*
Operations Director *Peter Pietrantonio*
Division Foreman *Matthew Hickey*
Working Foreman/HMEO *Joseph Brancato*
MEO *James French*
Skilled Laborer *Doug Hanlon*
Water/Sewer Foreman *John MacDonnell*
HMEO *Tom Bagarella*
Laborer *Dennis Cashman*
Skilled Laborer *Bob McKenzie*
Operator *Eric Arria*
Enterprise Fund Manager *Donna Cardillo*
Water & Sewer Administrator *Lisa Patterson*



Sewer Division

Director of Public Works *John V. Scenna*
Operations Director *Peter Pietrantonio*
Working Foreman *Robert DiVola*
MEO *Richard Merrick*
Laborer *Paul Gould*
Operator *Nick Vrooman*

Facilities Division

Director of Public Works *John V. Scenna*

Assistant Director of Public Works *Ann Waitt*

Division Foreman *James Politano*

Plumber *Ryan Means*

Tradesman *Scott Enos*

Custodian Franklin ECC *Trevor Rudolph and
Zack Pietrantonio*

Custodian Horace Mann School *Jack Rizzari and
Lenny MacLean*

Custodian Hoover School *Mike Mackey*

Custodian Lincoln School *Lenny MacLean and
Trevor Rudolph*

Custodian MVMMS *Kevin Cronin*

Custodian MVMMS second shift *Louis Peck
covering for Rachelle Lever*

Custodian High School *Will Altidor*

Custodian High School second shift *Angelo Dacova*

Custodian High School second shift *Louis Peck*

Custodian Library and Milano Senior Center *Zack Pietrantonio
Library – Dan Guevin Milano – Jack Rizzari*

Custodian City Hall and Police Station *Dan Guevin and Jack Rizzari*



Sanitation

Director of Public Works *John V. Scenna*

Operations Director *Peter Pietrantonio*

Working Foreman *Nichols Heller*

Laborer *Sean Foss*

Park & Forestry Division

Director of Public Works *John V. Scenna*

Operations Director *Peter Pietrantonio*

Division Foreman *John Doherty*

HMEO *Joe Dello Russo*

MEO *Alejandro Guerra*

Laborer *Nicholas Vrooman*

MEO/Acting Foreman *Michael Sasso*

Laborer *Nick DaCova*

Laborer *Mike Nee*

Laborer *Brian West*

Tree Foreman/HMEO *Carman Sorrentino*





Highway Division

Director of Public Works *John V. Scenna*
Operations Director *Peter Pietrantonio*
Working Foreman *Derek Lanphere*
MEO *Ryan Fusco*
HMEO *John Bartlebaugh*
Laborer *David Filipiak*

Cemetery

Director of Public Works *John V. Scenna*
Operations Director *Peter Pietrantonio*
Cemetery Administrator *Angela Pisacreta*
Division Foreman *Jack Rossi*
Laborer *Scott Rush*
HMEO *Ray McGrath*



Fleet Division

Director of Public Works *John V. Scenna*
Operations Director *Peter Pietrantonio*
Mechanic/Welder *Kris Vozzella*
Mechanic/Welder *Michael Kuleszka*
JR Mechanic *Leo Norton*

Administration

The Administrative Division continues to handle issues and requests from the residents of Melrose concerning Public Works responsibilities with the assistance of E-Gov a web based technology software. Under the direction of the Director of Public Works, the Administrative Division provides necessary budget management, payroll, and clerical support services for the Department of Public Works. The employees in this division track finances, and complete administrative and clerical tasks requested by members of the City's largest department.

Curbside Recycling / Sanitation

Melrose DPW provides curbside solid waste, recycling and yard waste pickup to all residents living in buildings with 6 or less units in the city - totaling 8,905 households. Solid waste (trash) and recycling service is provided weekly to residents and municipal buildings (including schools) by JRM, while yard waste and solid waste from public trash and recycling barrels is collected by Melrose DPW directly. For trash disposal, JRM contracts with Covanta in Haverhill, MA, where Melrose's trash is hauled to be incinerated in their waste-to-energy facility. There is a tip fee of \$63/ton that the city pays on all trash hauled out of the city by JRM, and this tip fee is set to rise annually through the end of the current contract (through 2021). In FY2017 Melrose generated 7239 tons of municipal trash, just 4 tons (less than 0.05%) more than in FY2016. Residents can put out up to 4 barrels or bags of trash that are each 45 gallons or less. In addition to regular household trash, residents may place one burnable bulky item with their curbside trash every week.

In the city's current contract with JRM, curbside recyclables are hauled away free of charge (thus there is financial incentive for trash to be diverted to recycling). At the beginning of FY2015, DPW transitioned from biweekly, separated curbside recycling pickup to weekly, unlimited, single stream (non-sorted) recycling pickup. In the two years since this change, recycling tonnage and set-out rate have increased and continue to rise. Set out rate (the percentage of residents who put recycling curbside) increased from 67% in FY2014 to 76% in FY2016 to 83% in late 2017 (early FY2018). DPW picked up 2369 tons of recyclables curbside in FY2017, 1% less than in FY2016 but still up 5.6% from FY2015.

DPW collects curbside yard waste 15 weeks per year and Christmas trees 2 weeks per year. Residents can set out up to 10 bags or labeled barrels per week. We also hosted 10 events over the course of FY17 including a swap event, hazardous waste events and multiple recycling events.

DPW Recycling Facilities

In addition to curbside trash, recycling and yard waste pickup service, Melrose DPW offers access to paper, cardboard, and commingled (plastic, glass and aluminum containers) recycling to all members of the public – including businesses – during all hours of operation at the DPW Operations Facility and Recycling Center at 72 Tremont Street. By doing so, DPW endeavors to make recycling easily available to all Melrose residents and businesses, regardless of their living situation or access to recycling pickup services at their home or business.

In FY2017 56 tons of paper, 109 tons of cardboard and 40 tons of commingled recyclables were collected at the Operations Facility and Recycling Center and hauled to Green Works in Peabody for sorting and recycling.

Residents of Melrose may also bring their yard waste (leaves and brush) to the DPW Operations Facility during all hours of operation, which include seasonal Saturdays from the beginning of April until mid-December. This yard waste is hauled by DPW to the land on Rt. 99 where it is composted and brought back to the DPW Operations Facility for free distribution to the residents.

Additional items that are collected from residents at the DPW Operations Facility and Recycling Center during weekday hours of operation include rechargeable and button cell batteries, books, CFL bulbs and fluorescent tubes, electronics, eyeglasses, fire extinguishers, dried latex paint, mercury items, propane tanks, textiles and tires. In order to cover costs of proper disposal, fees do apply to some of these items, while others are free.

Residents with curbside trash and recycling service can also purchase stickers for curbside pickup of metal items at the DPW Operations Facility or City Hall during weekday hours of operation. DPW carries out metal pickups every Tuesday of the year.

The DPW Operations Facility and Recycling Center also hosts special Saturday events throughout the year, typically on the 3rd Saturday of the month, April through October (except July and August). These events focus on collecting hard-to-recycle items or other materials that are recyclable but not allowed in the curbside recycling bin (e.g. plastic bags and styrofoam). In FY2017 DPW hosted 8 special Saturday recycling events, and collaborated on 2 additional Saturday events. Events and materials that were collected in FY2017 include: expanded polystyrene foam (Styrofoam, twice per year), paper shredding (twice per year), household hazardous waste (twice per year, through a partnership with Stoneham), mattresses, wine corks, Brita filters, dehumidifiers (in collaboration with Mass Save), plastic bags (twice per year) and rigid plastics. At each Saturday event, DPW also collects all of the additional items listed above that are normally collected during the weekdays, plus metal goods.



DPW Day

The Department of Public Works, together with the Melrose Mayor Robert J. Dolan, held its fifteenth annual DPW Day on Thursday, June 15, 2017. The theme this year was DPW Strong! DPW Day is a departmental open house which brought over 1000 kindergarten through third grade students from Melrose's elementary schools to the Public Works Operations Facility and Recycling Center for a day of education and enlightenment relative to our field of work, the services we provide, and the equipment we use to provide them. Children got to meet employees from all divisions of our department, experience the equipment they use and listen to what Public Works employees do, and how they accomplish their daily responsibilities. One of the educational highlights of DPW Day is the student projects. Teachers in each Melrose public elementary school select eight fourth grade students per school to serve as peer leaders and mentors to the kindergarten through third grade students in their school. Each group of fourth graders from every elementary school met twice after school in the spring with DPW's Solid Waste & Recycling Coordinator, the City Engineer and



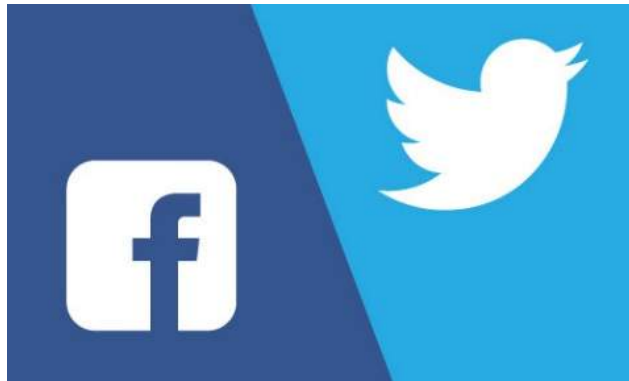
the city's Energy Efficiency Manager to create interactive educational games and/or presentations that focused on a DPW-related topic of interest to each group of students. Last year the activities that students created included: Solar Science Trivia, LED Melody & More, Water Wasters Wise Up, Recycling 101 and Protect Our Planet – Put Things in Their Place. The fourth grade students used these creative games they came up with to engage each other and their younger peers at DPW Day in a fun and educational way, so that they learned more about the functions of various DPW departments and services, and how they impact each student's daily life.

Social Media

The Department of Public Works communicates with the residents of Melrose through many avenues. Event information can be obtained thru Twitter, Facebook, the City of Melrose website, the Melrose Recycles blog and an electronic newsletter. Residents looking to report an issue or make a request can do so by calling, emailing, or putting in a work order thru E-Gov Link or See Click Fix.

DPW has maintained a [Twitter account](#) since 2014 to get word out efficiently and succinctly to Melrose's technology-connected residents. Posts by the Solid Waste & Recycling Coordinator and the Engineering/Water Department Clerk - which are often shared by the City of Melrose's Twitter account and by other city officials - include reminders about holiday schedules, relevant events, recycling tips, links to Melrose Recycles blog posts, and other items of interest. Currently the account has 663 followers, up 21% since last year.

DPW's Solid Waste & Recycling Coordinator operates a [Facebook page](#) that 679 people "like" (or follow). In the past year the page has increased followers by 19%. The page is used in a similar way as Twitter, though it also has the benefit of allowing cross-posting to various Melrose community pages in order to get word out about events and news of interest to larger numbers (thousands) of community members. In addition, Facebook can provide an informal but convenient means of communicating after-hours with residents who voice concerns or ask urgent questions online.



Residents can also access detailed information about DPW's services on the [City of Melrose website](#). Pages include Engineering Division, Facilities Rentals, Potholes, Road Construction Schedule, Sidewalk Plow Routes, Street Light Outage, Street Sweeping, Trash & Recycling (Curbside Recycling Instructions, Special Collections & Events, Compost Bin & Rain Barrel Sale, Household Hazardous Waste, Calendars & Schedules, Curbside Pickup Routes, Recycling Committee & Commercial Recycling), Trees, Water & Sewer, Water Main Flushing and Yard Waste.

DPW's Solid Waste & Recycling Coordinator also posts event updates, reviews, and brief reminders of holiday schedules, curbside collection delays, etc. on its [Melrose Recycles Blog](#). This site has 99 followers who receive email updates after each blog post (up 43% from last year). In addition to all of the above means of communication, DPW's Solid Waste & recycling Coordinator distributes a regular [electronic newsletter](#) to 555 subscribers.

DPW utilizes the [E-Gov Link](#) work order system to keep track of requests for all its divisions. This system is available 24/7 from any computer with the internet. DPW Personnel can search and sort work orders by date, address, category, status, reporter, and more. The work order system has proven to be a useful tool for City employees and residents. Schools and City Departments use the on-line work order system to report and track requests. Work orders are updated as work progresses and reports can see up to date information.

Another 24/7 tool that residents can use to report issues such as potholes and graffiti is [See Click Fix](#). See Click Fix is a digital communication system. Residents can use this mobile app to report nonemergency issue in their neighborhood. With the See Click Fix app, residents can take pictures of an issue and attached it to their requests. The picture helps the DPW staff find and correct the issue quickly and easily. DPW continuously works to improve our technology options and ways for residents to communicate with Public Works.

Engineering Division

The City of Melrose's Engineering Division consists of five full-time staff and one to two rotating intern positions. In FY2017, the Division was staffed as follows:

City Engineer: Elena Proakis Ellis, P.E., BCEE

Staff Engineer: Rick Cantone

Project Engineers: Scott Dixon and Larry Erekson

Administrative Clerk: Amy Heidebrecht, began employment in May 2017

Engineering Interns: Hannah Andry, May – September 2016

Matthew Connolly, May – August 2016

Erin Reardon, June – August 2016

Joseph Gilardi, September – December 2016

Aslah Alshaiea, January – April 2017

The mission of the Melrose Engineering Division is to provide all engineering functions and support for the City's infrastructure, including roadways, sidewalks, traffic signals, street lights, drainage, water distribution, wastewater collection and conveyance, and public buildings, while also supporting DPW Operations and Facilities Divisions as needed and providing support to the general public. Public interaction includes permitting and oversight of work within or impacting the City's right-of-way and/or utilities connected to the City's infrastructure, assistance with walk-in needs related to DPW functions (e.g., collecting billing discount forms, arranging metal goods pickups, etc.), and answering questions and concerns regarding the City's construction projects. Each year, the Engineering Division procures and oversees improvements to all types of City-owned infrastructure, as described herein.

Project Reviews and Permitting

In FY2017, the Engineering Division issued 222 permits for work within the right-of-way. This included 42 permits for water utility upgrades or replacement, 26 permits for sewer upgrades or replacement, 13 new service/cut & cap water and sewer permits, 90 permits for National Grid gas work (services and/or mains), 12 permits for curb cuts or other right-of-way modifications, 17 occupancy permits such as placement of Dumpsters within the right-of-way, and 22 miscellaneous permits that fell into other categories.

In addition to reviewing, issuing, and overseeing permits for small private projects, the Division also performed detailed reviews of cases submitted to the Planning Board and the Zoning Board of Appeals (ZBA). In FY2017, reviews were provided for seven Site Plan Review projects, one Special Permit project, 30 ZBA cases, and one Subdivision.

Regulatory Compliance and Funding Reporting

The Engineering Division ensures that the City remains in compliance with many regulations applicable to DPW functions. Additionally, the City uses state and federal funding for projects that require periodic reporting. Some of these programs are noted below:

- An Annual Statistical Report is submitted to MassDEP each spring pertaining to the City's water distribution system, detailing system performance with regard to water quality, leak detection, unaccounted-for water, cross-connection control, and staffing.

- An annual Consumer Confidence Report is mailed to all water system customers via the MWRA, including community-specific information prepared by the Engineering Division in conjunction with the Director of Public Works.
- Lead and Copper Rule sampling is conducted one or two times per year, depending upon the results of past sampling events, as dictated by both state and federal regulations. In FY2017, one sampling round was conducted, in September 2016. Based on the passing results of the September 2016 sampling round, no further sampling was required in FY2017. However, prior results from September 2015 required lead service line replacement work to be conducted, and this work extended throughout calendar year 2016. Thus, a portion of this work was completed in FY2017. The City fully complied with MassDEP's lead service line replacement requirements.
- The Massachusetts Lead and Copper Control Act contains guidelines for lead sampling and follow-up actions in school facilities. Over the course of FY17, the City performed lead sampling, with the assistance of the Massachusetts Water Resources Authority (MWRA) and MassDEP, on all fixtures that may be used for drinking water in six of the City-owned public school buildings.
- In October 2016, the City underwent a MassDEP Water System Sanitary Survey, during which the water system's management and procedures are reviewed for compliance with state and federal regulatory requirements. The City complied with all associated requirements.
- In January 2017, the City updated its Water System Emergency Response Plan and submitted relevant updates to MassDEP.
- An annual Municipal Discharge Permit Application is submitted to the MWRA to allow for the City to discharge its wastewater to the MWRA sewer system. This application was submitted in December 2016 and the permit was issued shortly thereafter. The City has consistently maintained compliance with the provisions of this permit.
- An annual report is required to be submitted each year in accordance with the City's National Pollutant Discharge Elimination System "Phase II" stormwater permit. This report was submitted in spring 2017 and detailed measures the City is taking to improve stormwater quality such as street sweeping and catch basin cleaning.
- The City utilizes the MWRA's Grant and Loan Assistance Programs for water and sewer infrastructure upgrades. These programs require periodic reporting to continue to secure funding eligibility. These reports have been submitted to the MWRA throughout FY2017 as needed.
- The state provides roadway improvement funding through the Chapter 90 program. This program also entails frequent reporting to ensure funding disbursement. Such reports were submitted in FY2017 to receive reimbursement for all Chapter 90 roadway improvements.
- A grant was received from the Massachusetts Office of Coastal Zone Management to follow up on select recommendations from the 604b grant received from MassDEP in FY2016. This grant, in the amount of \$6,700, funded the design of rain gardens to help mitigate stormwater quality impacts in the Ell Pond drainage watershed.
- The City received notification in summer 2016 that our Complete Streets Policy, signed by Mayor Dolan in June 2016, had been accepted by the Massachusetts Department of Transportation. This allowed the City to pursue and obtain a technical assistance grant for the development of a Complete Streets Prioritization Plan. Much of the technical assistance in association with this grant was conducted in FY2017.

Annual Contracts

The Engineering Division procures a number of annual contracts for services and supply, to allow for continuous operation of the DPW Operations and Facilities Divisions. In FY2017, the following contracts were either bid and awarded or renewed:

Service Contracts Bid in FY2017:

- On-call Plumbing Services
- Tree Supply and Planting
- Pump Station and Ell Pond Floodgate Inspections and Maintenance
- Street Sweeping
- Traffic Line Painting
- On-call Masonry Services
- Supplying Diesel Fuel
- Supplying Gasoline
- Supplying Bituminous Materials
- Supplying Catch Basins, Frames, and Covers
- Supplying Hydrants and Gate Valves
- Supplying Stops and Wastes

Service Contracts Renewed in FY2017:

- Citywide Roadway and Sidewalk Improvements
- Catch Basin Cleaning
- Citywide Elevator Repair and Maintenance
- Traffic Signal Maintenance
- Street Light Maintenance
- Utility System Repairs
- Building Cleaning Services
- Tree Removal
- Tree Stump and Brush Grinding
- Athletic Field Turf Maintenance Services
- Plowing, Sanding, and Snow Removal
- On-call Roadway and Traffic Services
- Drainage Consulting Services
- On-call Electrical Services and Repairs
- Irrigation System Maintenance and Repairs
- Supplying Rock Salt
- Supplying Liquid Calcium
- Supplying Sign Materials

Infrastructure

The infrastructure of the city requires continual maintenance and evaluation for adequacy. To do this efficiently, the Department of Public Works (DPW) has been developing data-driven tools to evaluate infrastructure priorities in Melrose, allowing the City to make the best use of its limited funding. The DPW relies on accurate and current data and has increasingly made greater use of geographic information systems (GIS) to map and prioritize needs. Five main elements of this program were completed or advanced in FY2017:

- 1) The City completed its assessment of the needs of the water distribution system via a Capital Efficiency Plan, which was finalized by Tata & Howard in February 2017.
- 2) City staff completed a roadway condition assessment in fall/winter 2016, which considered thirteen different parameters for each segment of roadway (from cross street to cross street) and calculated a respective roadway ranking based on a formula to process the individual parameter ratings. This analysis resulted in four categories of roadway conditions: poorest, poor, fair, and good/excellent.
- 3) The City advanced its Complete Streets Prioritization Plan with assistance from engineers from BETA Group. This plan will be completed and submitted in FY2018.
- 4) Working with Weston and Sampson Engineers and their subcontractor, Inland Waters, the City identified locations where extraneous flows (infiltration and inflow, or I/I) are entering the sewer system and determined which locations could be most cost-effectively rehabilitated, to reduce extraneous flows.
- 5) The City gathered data from National Grid to determine the material of gas mains throughout Melrose, to identify mains that require replacement as part of National Grid's program to replace all leak-prone pipe within its network.

The DPW and its Divisions invested in upgrading the data for each infrastructure system, so that a prioritization analysis could be completed using GIS tools. In spring 2017, the Engineering Division finalized a multi-year roadway and utility improvement program, aimed at holistically addressing infrastructure repair needs in select areas that presented the greatest level of need based on the GIS analyses performed using these five data sets.

Additionally, to ensure that private developments adhere to the same high standards applied to public works projects, the Engineering Division is continuing to work on the development of written policies, standards, and details for the installation of water, sewer, and drainage lines, as well as roadways and sidewalks. Having written policies that are adopted by the City carries more weight when working with private developers.

These efforts address previous issues faced by the DPW when maintenance was reactionary rather than proactive. Having robust, up-to-date data ensures that DPW and its Divisions know what the status and condition of the City's infrastructure is and can effectively prioritize projects to make the best use of funding. Melrose's infrastructure systems fall into four main categories: water distribution, wastewater collection and conveyance, stormwater management, and right-of-way/traffic management. Each of these systems is discussed herein. In addition, while the City does not own the natural gas distribution system, it plays a significant role in the City's right-of-way and is thus included in the discussion below.

FY2017 Projects

Each year, a large focus of the Engineering Division is the planning, design, bidding, and construction oversight of capital projects. These projects span the range of City-owned infrastructure and are oftentimes interrelated, such as neighborhoods that receive utility upgrades followed by roadway reconstruction. The major projects performed in FY2017 are described below by infrastructure type.

Water Distribution System

Tremont Street Water Main Replacement

After discovering a major water main leak at a culvert crossing near Ell Pond in 2014, the City has replaced the water main on Tremont Street between Lake Avenue and Union Street. The portion from Lake Avenue to the Lynn Fells Parkway was replaced in late 2015, and the remainder, including crossing beneath the Parkway, was completed in spring/summer 2016. The project included the replacement of approximately 2,000 linear feet of unlined 12-inch cast iron water main with new 12-inch cement lined ductile iron main, as well as replacement of all water services with new copper services from the water main to the property line. The portion from the Parkway to Union Street, which was performed in FY2017, consisted of approximately 1,100 linear feet. This work was performed by GTA Co., Inc.



Crescent Place and Crescent Court Water Main Replacement

The two-inch water mains on Crescent Place and Crescent Court had a history of frequent water main breaks and required replacement. The City replaced this main with approximately 335 linear feet of new 6-inch cement lined ductile iron water main in July 2016. This work was performed in conjunction with the Tremont Street project by GTA Co., Inc.

2017 Water Main Replacement Project

Near the end of FY2017, the City initiated the design of water main improvements to be bid in fall 2017 as the 2017 Water Main Replacement Project. This design included replacement of water mains on Altamont Avenue, Day Street, and Perkins Street from Warwick Road to the Stoneham line. In addition, the design included abandoning the existing 6-inch water main on Warwick Road from Vinton Street to the Lynn Fells Parkway and conversion of all hydrants, water services, and side-street tie-ins over to the existing 16-inch water main in Warwick Road.

Water Service Line Tie Card Inventory

In response to increasing attention paid to the possibility of lead in drinking water, the City continued its work to develop an inventory of all water service lines serving the City's over 8,000 water customers. Paper cards presently log water service information such as location, material, size, and date of installation. In FY2016, the City began a project to update and scan all of these service cards, linking each scan to an address. Subsequently, the most relevant data from the cards was entered into a database which will ultimately be linked to the City's Geographic Information System (GIS) locational data. This inventory, once completed, will allow City personnel or the public to easily retrieve water service material information and to query the data to determine the number of lead service lines connecting the water mains to customers in Melrose. At the end of FY2017, the database and scanning was completed for all streets beginning with the letters A through H.

Sewer Collection System

Sewer Infiltration and Inflow (I/I) Investigations and Rehabilitation

The City of Melrose's sewer collection system is among the oldest in the country, with many pipelines dating back over 100 years. In an effort to reduce infiltration and inflow (I/I), which contribute clean groundwater and rainwater into the City's sewer system, the City has undertaken a comprehensive program to reduce I/I where feasible and cost effective. Following up on the spring 2016 flow metering performed throughout the City's sewer system, the City performed follow-up investigations to identify the pipe segments contributing the highest volumes of extraneous flows to the sewer system. These investigations included closed circuit television inspections of sewer pipelines, measurement of nighttime flows in each pipe segment between manholes, and manhole interior inspections. This work was performed by Weston and Sampson Engineers, working with a subconsultant, Inland Waters, Inc. The data resulting from these investigations was then analyzed to develop a targeted construction program to reduce I/I. The construction projects will be designed and bid during summer 2017 and are scheduled to begin in fall 2017 and continue into 2018.

In addition to this work, Inland Waters performed grouting and cementitious lining on the interior of 14 manholes within the sewer collection system to minimize infiltration through gaps in the manhole walls. This is a problem typical of old brick manholes and contributes to sewer system infiltration. The 14 manholes selected for this work were those determined to be contributing the highest levels of infiltration based on Weston and Sampson's manhole inspections. They had an estimated infiltration of approximately 18,000 GPD. Per DEP guidelines, an estimated 9,000 GPD (or approximately 3.3 MGY) of infiltration was removed.

Infiltration and Inflow Mitigation Fund

After an ordinance was passed in June 2016, the City developed policies and procedures in FY2017 to formalize the methodology for assessing and collecting the I/I Mitigation Fees specified in the ordinance. The Engineering Division now reviews all projects for which a building permit is sought which may require assessment of the I/I fee. Fees are collected prior to the issuance of a building permit, deposited in a dedicated I/I Mitigation Fund, and tracked for future reference.

Drainage

The City's drainage system consists of approximately 1,644 catch basins, 1,162 drainage manholes, and drainage pipes ranging in diameter from 4 to 48 inches. Several drainage projects were undertaken in FY2017, as described below.

Stowecroft and Burrell Area Drainage Project (including work on Grove St and Linwood Ave)

The neighborhoods of Stowecroft Road, Albert Street, Old Brook Circle, and Burrell Street, on either side of the Lynn Fells Parkway, historically experienced flooding conditions during heavy rains. This project was designed to prevent much of the flooding in the area and to redirect stormwater infrastructure outside of easements running through residential back yards. The project began in June and was completed in August 2016. The project included installation of new or replacement of existing drainage catch basins and installation of new manholes and mainline pipes, to redirect flows to beneath roadways. The total project cost was approximately \$420,000, including \$82,000 of added work at the intersection of Grove Street and Linwood Avenue. The work at the intersection of Grove and Linwood was similarly designed to mitigate historic flooding conditions and involved the replacement of collapsed drainage pipe and the replacement of catch basins and manholes. This work was performed in September and October of 2016. These projects were designed by Meridian Associates and performed by GTA Co., Inc.

Fairfield Road Drainage Improvements

In FY2016, the City investigated drainage needs in several neighborhoods in the vicinity of Lebanon and Sylvan Streets, including Fairfield Avenue, the intersection of Grove Street and Linwood Avenue, and within Wyoming Cemetery. This work was conducted via the City's on-call drainage consulting services contract with Meridian Associates. Among other projects, these investigations resulted in recommendations for modification of the drainage configuration on the slope between the upper and lower portions of Fairfield Avenue. The proposed improvements to the drainage in this area were performed by Commonwealth Construction in December 2017.

EII Pond Investigations

Two projects were advanced in FY2017 pertaining to EII Pond. First, following up on the prior MassDEP 604b grant to investigate stormwater quality within a portion of the drainage watershed that is tributary to EII Pond, a grant was received from the Massachusetts Office of Coastal Zone Management to develop final design documents for four rain gardens within the EII Pond watershed. Stormwater collection and discharge typically does not include treatment, and the system upstream of EII Pond is no exception. The grant was used to advance four rain gardens that were proposed during the 604b study at a conceptual level through final design. Specifically, the City is considering Orient Avenue as a location for piloting the use of the City-owned grass strip between the street and the sidewalk to provide stormwater treatment using natural vegetation. A T P Environmental provided consulting support for this project.

The second project pertains to the flood elevations around EII Pond. The City procured the services of CDM Smith to perform a hydraulic and hydrologic investigation of the pond and its watershed, to determine if the Base Flood Elevation, equivalent to the 100-year storm elevation, should be adjusted according to the Flood Insurance Rate Maps produced by the Federal Emergency Management Agency (FEMA). This project was bid in FY2016 and performed in FY2017. The April 2017 final report developed

by CDM Smith indicates that the base flood elevation should be lowered to reflect more detailed modeling data and the improvements that were made in 2007 to the pond's outlet and downstream resources.

Roadway/Sidewalks

Several major right-of-way projects were either completed or started in FY2017, as described below. Many of the project components in each of these projects follow a "Complete Streets" design aesthetic, which is also described herein.

Melrose Complete Streets Policy

Melrose's Complete Streets program strives to safely connect people to where they want to go. The City's goal is to enhance the transportation network for all modes by connecting home, work, school, shopping, dining, recreation and more. In June 2016, the City adopted a Complete Streets Policy which was subsequently approved by the state. In order to qualify for state grant funding to assist in the implementation of our Complete Streets goals, the City must complete a Prioritization Plan, identifying the top ranked 15 projects recommended for construction. These projects were discussed by the City's Complete Streets Working Group, which convened its first meeting in May 2017.

The Engineering Division, working with the BETA Group, is prioritizing a final list of Complete Streets projects based on the input of the Working Group. The resulting projects will then be evaluated in more detail to develop cost estimates. Ultimately, this information will be presented to the public then submitted to MassDOT for approval, so that the City can qualify for construction grant funds. These Complete Streets construction grants can be up to \$400,000 per year, allowing the City to undertake important projects to better connect Melrosians to our destinations.

Essex Street Revitalization

Following approval of the new LCB Senior Living Center at the bend of Essex Street, in the location previously occupied by Deering Lumber, the City sought and received \$641,000 of funding through the MassWorks program to revitalize Essex Street. The remainder of the project was funded through Chapter 90 and developer contributions. This project included improvements to underground infrastructure (drainage replacement, lead service line replacement) repaving all of Essex Street and Willow Street from Cherry Street to Essex



Street, and adding a designated bike lane and Victorian lighting from Main Street to Myrtle Street. Similar to the Franklin Street project, this project also included enhanced pedestrian amenities such as bump-outs at crosswalks and improved signage. In addition, street trees, bike racks, and benches have improved the street. The project has successfully made Essex Street a more direct extension of the Main Street business district and has enhanced the walkability, bikeability, and overall aesthetics of this corridor. Tree planting and final paving for the Essex Street revitalization project was completed in FY2017, during the summer of 2016.

Lebanon Street Reconstruction

Lebanon Street Reconstruction Project reached substantial completion in July of 2016. Construction of this project began in 2014 and continued into 2016, providing major aesthetic and infrastructure improvements to the roadway extending from Main Street at Green Street, through Hospital Square, and up Lebanon Street to Grove Street. This project was funded through federal Transportation Improvement Program (TIP) funding and the general contractor, Tropeano Inc., was overseen by MassDOT. Design services were provided by BETA Group. In FY2017, the City performed the final closeout tasks for the project, including the completion of punch list items and the planting of trees with a City subcontractor, LCM Plus.

Stowecroft Neighborhood Reconstruction

Reconstruction on the entirety of Stowecroft Road and Burrell Street from Lincoln Street to the Lynn Fells Parkway, as well as portions of Albert Street and Old Brook Circle, was performed in September and October 2016. This project upgraded 353 linear feet of publicly accepted roadway on Stowecroft Road, 498 feet on Old Brook Circle, 222 feet on Albert Street, and 613 feet on Burrell Street, for a total of 1,686 linear feet. The work included curb-to-curb grind and overlay in locations where appropriate, as well as reclamation in areas where there was not proper base material, overlay-only of a portion of Burrell Street, associated casting replacement or adjustments as needed, sidewalk repairs, handicap accessible ramps, pavement markings, and police details. The Stowecroft area project was paid for by MassDOT through Chapter 90.

Tremont Street and Union Street

Construction on Tremont Street from the Lynn Fells Parkway to Melrose Street, as well as very limited sidewalk repairs on Union Street began in September of 2016. This project upgraded 1,325 linear feet of publicly accepted roadway on Tremont Street. The work included a curb to curb grind and inlay on Tremont Street, associated casting replacement or adjustments as needed, sidewalk repairs on Tremont and Union Streets where required, pavement markings, and police details. A new bike lane was added on one side of Tremont Street, and sharrows were placed in the travel lane on the other side of the roadway. This project was conducted in conjunction with roadway work on Union Street. The Union Street work within the roadway, as well as a portion of the Tremont Street work, was being funded by National Grid as restoration for gas main replacement completed in this area. The remaining work was reimbursed by MassDOT through Chapter 90.

Kimball Court Parking Lot Expansion

In FY2017, the City continued its effort to construct 23 additional parking spaces in the location of the building at One Kimball Court, which had previously been purchased by the City for this purpose. The Engineering Division designed the new parking lot layout and bid and awarded the services of LaVerde Brothers Inc. to demolish the existing house, following any necessary environmental abatement work. Approvals for the project were sought and obtained from the Planning Board and the ZBA. All related construction work occurred during the summer of 2016, with completion of demolition, drainage, paving, and striping work prior to the Victorian Fair in September 2016. Paving was performed by D&R Paving, using GTA as a subconsultant for some drainage and sidewalk work, and striping was performed by HiWay Safety Systems through the City's on-call services contract.



Other Paving Projects

Working in parallel, the Engineering Division and the Public Works Department Highway Division were responsible for planning, contracting, scheduling, implementation, record keeping and inspection relative to the following maintenance services and/or improvement work described below:

Paving was performed in November 2016 on the following private ways by D&R Paving as a follow-up to utility work performed by a combination of City contractors and National Grid contractors:

- Beech Avenue from Water Street to the dead end
- Perham Avenue
- Crescent Place
- Crescent Court
- Haverhill Place (from beyond 160 Green Street to the dead end)

As a follow-up to work performed by National Grid's contractors, the following additional streets were paved, either by National Grid's paving contractor or by D&R Paving via the City's contract:

- Glendale Road
- Garden Street
- Warren Street
- Melrose Street (Garden to Warren, one half of roadway paved)

Finally, paving was completed in conjunction with the following private or state-run projects:

- Porter Street was paved between Rowe Street and Main Street by a contractor for Melrose Wakefield Hospital, in conjunction with the completion of their new Rowe Street parking lot project.
- A portion of Washington Street was paved as part of the completion of the new development at 37/47 Washington Street.
- The Department of Conservation and Recreation (DCR) paved the Lynn Fells Parkway from Vinton Street to Melrose Street and from Green Street to the Saugus line, including the addition of new bike lanes along the majority of this route.

Traffic Commission

In addition to the roadway work described above, the Engineering Division participated in four quarterly meetings of the Melrose Traffic Commission, with the City Engineer serving as the Chair and another Division employee serving as the Committee's Clerk. The Traffic Commission continues to address requests from the public or City personnel for regulatory changes to the City's Traffic Code. In FY2017, the City voted to change the Citywide speed limit for thickly settled areas to 25 mph, down from the prior 30 mph. This change took effect on June 1, 2017.

Wyoming Cemetery

In FY2017, the City worked with CGIS on digitizing all of the cemetery plots. The City also obtained survey-grade imagery by contracting a drone flyover and collecting and processing the associated data. The City now has GIS records for 10,060 cemetery plots total that CGIS created, with section outlines and unique identifiers for each. In the future, the associated database will be populated to include relevant information about each burial and links to burial cards.

Facilities

The Engineering Division procured, awarded, and oversaw three City building projects in FY2017.

Central Fire Station Bathroom Renovations

The Engineering Division procured, awarded, and oversaw construction of the renovation of three bathrooms in the Central Fire Station on Main Street. The downstairs bathroom was undersized and insufficient for use by the firefighters. The upstairs bathrooms were in a state of disrepair and did not allow for a separate men's and women's room. The renovations created one new, larger bathroom downstairs and two newly renovated bathrooms upstairs, allowing for better accommodations for all users of the station. This project began in FY2016 and reached completion in November 2016.

Fred Green Field Storage Shed

The Engineering Division oversaw the construction of the storage shed at Fred Green Field mentioned with more detail in the Park & Forestry section of this report.

Milano Center Exterior Restoration

In 2016, the Trustees of the Beebe Estate received a grant from the Executive Office of Housing and Economic Development Mass Marketing Partnerships and the Office of Travel and Tourism Program to repaint the Beebe Estate, restoring the structure to its original colors. As a follow-up to this project, the Milano Center was painted to match the Beebe Estate, including necessary exterior repairs which were performed in conjunction with the painting. This project was bid on September 14th, 2016 and awarded to Dimitrios C. Contracting (DCC) on October 27th, 2016. DCC painted the entire exterior as well as the storm windows and stairs. The project began on April 24, 2017 and was completed by May 20, 2017.



Other City Projects

Other work managed by the Engineering Division in FY2017 included:

- The enhancement of the City's Geographic Information Systems infrastructure data,
- Oversight of the removal of double utility poles
- Providing input into the City's new Master Plan, especially pertaining to infrastructure and transportation
- Modeling of FY2018 water and sewer rates

Water and Sewer Division

The objective of Melrose's water distribution system is to distribute clean, safe water effectively throughout the City for residential and commercial use, and to provide water for fire emergencies. The City obtains water from the Massachusetts Water Resources Authority (MWRA). Water is distributed via natural (gravitational) flow throughout most of the City. The exception is at high elevation areas in which the water is distributed through two pumping stations, as described below.

There are approximately 82 miles of water mains in the Melrose water distribution system ranging in size from 2 to 16 inches in diameter. These pipes receive water from several large MWRA transmission mains in Melrose and are the responsibility of the City to operate and maintain. Pipe materials include cement lined ductile iron (CLDI), unlined and cement lined cast iron, and copper. Most water mains installed after approximately 1975 (representing 30 percent of all mains in the City) are CLDI pipe, which is the current industry standard. The remaining piping network is mostly comprised of unlined cast iron, with some copper pipes typically of smaller diameters.

The purpose of Melrose's wastewater collection and conveyance system is to remove wastewater coming from residential and commercial properties and convey it to the MWRA's wastewater interceptor pipes. The MWRA treats Melrose's wastewater at the Deer Island Wastewater Treatment Facility and charges the City by metering the volume both entering and leaving Melrose and calculating the difference. There are roughly 76 miles of sewer mains in the City, ranging in size from 4 to 24 inches, approximately 2,286 sewer manholes, and 5 City-owned sewer pump stations. The current standard pipe for wastewater conveyance is polyvinyl chloride (PVC) pipe. However, many of Melrose's sewer pipes are made of clay.

Water and Sewer Pump Stations

The City owns and maintains two water booster stations to provide additional pressure and volume to customers in areas of the City located at high elevations. These are in the northwest (Botolph Street and surrounding areas) and southeast (Park Street and surrounding areas) corners of the City, and the booster stations are located on Greenwood Street and Glendower Road, respectively. The high-pressure service systems are small, representing only about 10 percent of the total system demand. Both pumping stations were replaced by new facilities in the summer of 2003 and are operating as intended. Water Division personnel inspect the stations weekly, and an outside contractor (Weston & Sampson) provides detailed monthly inspections.

The City also owns and maintains five sewer pump stations. These stations convey wastewater from low lying areas via force mains up to the gravity sewer system. All sewer flows in Melrose ultimately flow to the MWRA collection system and to the Deer Island Wastewater Treatment Facility. Similar to the water booster stations, City personnel inspect the sewer stations weekly, and Weston & Sampson inspects them monthly.

City inspections follow written protocols established by the Engineering Division and include confirmation of normal operation of facility equipment and a lack of alarm conditions. Consultant inspections include more detailed preventative maintenance of equipment and equipment replacement when needed.



In January 2017, Weston and Sampson completed a thorough assessment of all seven pumping stations and developed a Capital Improvement Plan outlining both short and long term needs. As a result of this report, several repairs or upgrades were undertaken in FY2017 to address the highest need areas, as follows:

- The Greenwood and Glendower Water Booster Stations had new web based alarm/monitoring systems installed, allowing more detailed information to be both transmitted and tracked with regard to the pump station statuses and alarm conditions.
- Extensive preventative service was performed on the Goodwin emergency backup pump motors at the water booster stations.
- At the Upham Street Sewer Pump Station, Weston and Sampson oversaw heavy cleaning of the wet well, installed a web based alarm/monitoring system, installed a new ultrasonic level control system, and retrofitted the existing valve setup and installed a new gate valve and flange for a bypass pump. At the Fellsway Sewer Pump Station, Weston and Sampson oversaw heavy cleaning of the wet well, installed a web based alarm/monitoring system, installed a new ultrasonic level control system, replaced deteriorated piping, fittings and hardware from the force main gate valve to the pump discharge, and replaced the grinder.
- At the Penny Road Sewer Pump Station, Weston and Sampson oversaw heavy cleaning of the wet well, installed a web based alarm/monitoring system, installed a new 2HP, 3 phase pump, and installed a variable frequency drive.
- At the Union Street Sewer Pump Station, Weston and Sampson oversaw heavy cleaning of the wet well, installed a web based alarm/monitoring system, installed a new 2HP, 3 phase pump, and installed a variable frequency drive.
- At the Cedarwood Lane Sewer Pump Station, Weston and Sampson oversaw heavy cleaning of the wet well and installed a web based alarm/monitoring system.

In addition, the City owns and maintains the Ell Pond Flood Gate, which controls the elevation within the pond, allowing for the pond level to be adjusted as needed to minimize flooding within the City. City personnel check the elevation of the pond weekly and make adjustments prior to predicted heavy rain storms. Weston and Sampson also inspects the flood gate monthly along with their pump station inspections.

Preventative Maintenance and Repairs

City personnel respond year-round to address water and sewer system preventative maintenance needs and respond to system emergencies. Through the City's work order system, activities are tracked and brought to closure. In FY2017, the following items were addressed:

- 4 water leak repairs
- 13 sewer blockages
- 10 water service replacements
- Weekly bacteria sampling of the City's drinking water in nine locations



- Lead and copper drinking water sampling at 15 residential locations and two schools
- Additional lead testing in drinking water at six City-owned school facilities in winter/spring 2017
- Testing of all backflow devices two times annually through a private contractor (Water Safety Services, Inc.)
- Monthly inspections of known locations of sewer main issues (43 locations), drainage pipe and catch basin issues (26 locations)
- Monthly inspections of major drainage system outfalls (6 locations)
- Catch basin cleaning covering one half of the City's total catch basins annually (approximately 1,634 basins cleaned in FY2017)

Each year, the City brings in a private contractor to perform a comprehensive leak detection survey throughout the City. This survey was performed in November to December 2016, and the issues identified in the subsequent report were then addressed by the Water Division.

Water and Sewer Billing

Manage the water, sewer and trash billing program; process and input billing, review quarterly reads, process waivers and discounts. Respond promptly, sensitively and constructively to citizen inquiries, requests or complaints; provide customer service with tact, courtesy, sensitivity and discretion in all dealings with internal and external customers. Cooperatively work with the Meter Reader on a daily basis, scheduling and reviewing water meter readings, shutoffs, installations, water mark-outs and finals. Analyze high consumption accounts' data to minimize customer's leaks.

Special Projects

- City wide meter replacement project for 8200 accounts
- Getting new mobile drive by unit reading equipment up and running
- Review of Municipal Water accounts and meters
- Senior Citizen Discount Fall Open House 2nd Annual, currently have 560 seniors receiving the water/sewer discount, 340 receiving trash discount
- Introduced a condo credit to seniors living in a condo who don't receive a water bill

Projects in Progress

- City wide meter replacement for commercial accounts, problem accounts, and 2nd meters
- Implemented Opt-In monthly billing by zone over the next 6 months
- 2nd meter moratorium was lifted, added 50 new meters
- Fiscal year rates now effective on bills dated 10/1 not 7/1
- For FY2018, introducing a Manual Read Fee for residents who have not replaced their meters
- Went from a 3-tiered rate structure to a 2-tiered rate structure
- Charging sewer based on 90% consumption, down from 100%
- The FY2017 drought increased our water consumption from May 2016-October 2016
- FY2018 rates did not increase

Facilities Division

FY17 was another busy year for the Facilities Division completing over 900 school and building work orders while maintaining 15 municipal buildings and schools covering 1.5 million square feet. This summer the Facilities Division assisted the Planning Office with the Hoover window and door replacement project. The weather cooperated again this past winter, so the Green Team and operations staff again enabled us to complete helped facilities complete a long list of cleaning, painting and equipment & furniture moves. The Green Team also assisted with cleanouts, paint projects, replaced ceiling tiles, moved furniture and equipment, and custodian vacation coverage. We increased the number and type of projects that we completed in-house. Projects included:



Lincoln

- making and hanging wall unit doors

Horace Mann

- constructing and installing new safety backpack hooks

Franklin

- wall repairs and door repairs

Engine One

- window replacement

Roosevelt

- hanging sound panels

Hoover and Horace Mann

- installing shelving systems



The EMS system (EMS) continues to allow us to control the HVAC systems remotely. The EMS is a system of computer aided tools used by operations of HVAC system and certain lighting systems. The EMS tool has proven to be invaluable. This system helps improve energy efficiency, time and cost savings and allows remote adjusting, controls and monitoring. City Hall, Police Station and all school buildings have the EMS control system. Email alerts allow us to be proactive in deal with issues during off hours. Through the EMS System, we can produce and review trend reports and temperature reports that ensure maximum energy savings and systems efficiencies.

The Facilities Division completed over 650 school work orders and 250 municipal building work orders in addition to our regular PM and annual inspections of boilers, elevators, roofs, kitchen equipment, generators, bleachers, stands, science equipment, eye washers, to name a few. Work orders range from repairing a bathroom stall to painting a classroom. Depending on the work order request and building the work is being performed in, facilities employees have staggered shifts in order to make the repair without disruption to the occupant's regular schedule. Some employees start their shifts at 6am, and others start their shift at late as 2pm in order to work until 10:30pm. This later shift allows us to do work in the schools after the regular day has ended.



Work orders on the municipal side included assisting with the replacement of the patio doors and window replacement at the Milano Senior Center, and painted offices at the City Hall. In the schools, we painted the classrooms and hallways at the High School, repaired doors and painted five classrooms at Middle School, replaced five sidewalk panels and painted classrooms, café, and refinished benches at Roosevelt, replaced windows and painted café doors and classroom ceilings at the Winthrop, we transformed a storage area into usable space and replaced VCT tile in three classrooms.

We continued to work on our procedures, staff and methods to keep our buildings as clean, safe and running as smoothly as possible. Training continued to be a top priority for staff. During April School vacation, the custodians and tradesmen attended an all-day facilities training thru the Mass Facilities Administrators Association to which helped improve skills and cleaning methods. We continued to review and investigate new products and cleaning methods.

Parks & Forestry Division

There are 81 sites that the Park Department maintains from parks, street islands and public buildings. The Forestry Division maintains 6000 street trees that are on public property. They take down trees, trim, plant and have a pruning program in place. We issued 3582 Permits, 750 of them were at Pine Banks. We had roughly 28,500 hours of use on our fields and parks this year. There has been 131.5 additional OT hours to date, paid by our outside renters on nights and weekends. We also purchased a new Crew Cab Truck for Park & Forestry Division.

Below are work orders completed in the fiscal year and park department responsibility.

- Cut Grass daily
- Irrigation installations and repairs
- Seed fields and islands
- Fertilize fields and islands
- Water the city hanging plants in spring and summer
- Install spring flowers in 10 locations
- Install fall flowers in 10 locations
- Repair playground equipment and installing
- 278 Tree assessments
- 142 Tree removals
- 209 Tree trims
- 136 Trees planted, 85 done in house
- 148 Stumps ground
- Decorated downtown for the holidays
- Replaced Main Street banner 17 times
- Line fields and painting for High school and youth in the spring and fall



The Green Team contributed to special projects like the Korean Memorial, World War I Memorial and World War II Monument. We also did a lot of work on several of the little league infields laser grading top dressing, the Common Park softball fields received a new face lift with edging and new clay. West Knoll Field and Morelli Field got some much needed verticutting, dethatching and over seeding. You can really see the results this season on Morelli Field. Six fields received core aeration to help with drainage. At Conant Park we painted playground structures, replaced the swings and as well as several play panels on the 5-12 year old climbing structure. Then we removed the wood borders and added plastic ones instead, and topped it off with 12 inches of fresh





mulch. At Fred Green Field we constructed the 16 x 30 Steel Storage Building under the bleachers at Fred for some much needed storage for H.S, Babe Ruth and Recreation. We also created a new island at Grove Street and Lebanon Street.

The Community Garden is a City of Melrose, Rotary and Melrose Community Garden Group collaboration. There are 19 plots all that have been raffled off and there are 37 residents on a waiting list.

Friends of Ell Pond hosted their annual cleanup day, spear headed by Dave Dickerson. DPW's summer help allowed us to touch up areas that are considered maybe a lower priority in the hustle of summer.

Thanks to a partnership between Melrose Arts and the Melrose Messina Fund for the Arts, we have a new wind sculpture on the Main Street side of Ell Pond. The new sculpture is by Lyman Whitaker, who also made the sculpture at Cedar Park. In addition to the grant from the Messina Fund, the sculpture was funded with private donations and a grant from Eastern Bank.



Other notable projects performed are as follows:

Foss Park

- Stain two benches and raked mulch

Horace Mann

- Painted all three storage bins

Lebanon Park

- Painted all playground structures

Dog Park

- Trimmed bushes coming in and over the fence lines, groomed mulch back from fence and spread 30 yards of mulch

Dutton Park

- Painted concrete climbing structures

Gazebo

- Stained and added two benches to the area



Highway Division

We have 83.5 miles of streets and 170 miles of sidewalks that consist of concrete, asphalt & grass. The Highway Division is also responsible for street signs, potholes, fences, line painting, street sweeping, snow plow damage, traffic signals, street lights, curb side compost collection, trash pickup at all parks, street receptacle's and schools.

Street sweeping has a fall cleaning schedule done by wards and main drags. This program is done by an outside contract for the months of November and December. We sweep in house every Friday for the months of April to October.

Below is the number of work orders done by this department for the fiscal year.

- 107 Signs
- 11 Traffic signs we did in house
- 393 Potholes
- 9 Sinkholes
- 3 Trenches
- 49 Sidewalk assessments
- 94 Concrete repair sidewalks
- 15 Safety repairs on sidewalks
- 43 Snow damage
- 2 Victorian poles and fixture repaired
- 6 Fence repairs in parks & schools
- Street sweeping program
- 17 Weeks of curb side compost pickup a year
- 810 Curb side metal goods pickup
- 35 Block parties
- 128 Crosswalk painted
- Blocking of streets for 12 road races a year
- Working on all city events: Victorian Fair, Trick a Treat walk and etc.



Cemetery Division

The Cemetery Division of the Department of Public Works maintains the cemetery on a daily basis. In addition to burials, the cemetery crew is responsible for the cutting and watering of the grass at reasonable intervals, the raking and cleaning of the grounds, the planting seasonal displays of flowers, the pruning of shrubs and trees, the placement of foundations, the installing of flat markers and veterans government issued headstones. During the fiscal year 2017, Wyoming Cemetery had a total of one hundred fifty-four (154) burials. Eighty four (84) of them were casket burials and seventy (70) were cremation burials. In addition, we saw many improvements to the Wyoming Cemetery grounds and facilities. The mission of the Wyoming Cemetery is to serve the citizens of Melrose by meeting their final needs with compassion and dignity. The Wyoming Cemetery Commission and staff continued their commitment, as always, to serving the needs of the Melrose community.



- A definitive plan for the restoration of the masonry stone wall surrounding the perimeter of the cemetery was put into place. The sum of \$18,500.00 was appropriated from free cash at the April 6, 2017 meeting of the Board of Aldermen to make the necessary repairs.
- The Evergreen Cremation Section of the cemetery was reconfigured in order to allow for placement of upright slant markers in the rear of this section.
- The proposed new expansion area on Vesper Avenue was graded and seeded. The DPW Department, with the assistance of the Engineering Department determined that there would be one hundred and fifty-one (151) double depth graves available in that area for future needs.

The Cemetery Division initiated a software plan, which is another major administrative accomplishment for us. The sum of \$20,000.00 was appropriated for the updating and implementation of a cemetery computer software program. Elena Proakis Ellis, the City Engineer informed the commission that the first phase of GIS records project has been completed. The paper maps of all sections of the cemetery have been superimposed over aerial views of the cemetery.

Memorial Day activities this year included the following:

- The Cemetery Office was opened on Saturday and Sunday from 9:00 a.m. to 3:00 p.m. for the convenience of volunteers and visitors.
- Flags were placed on veterans graves on Saturday, May 27th by volunteers.
- Flag Burning Ceremony took place on Saturday, May 27th.
- The Parade took place on Sunday, May 28th concluding at the cemetery. A tent and chairs were set up for elderly participants.
- On Monday, May 30th flags were lowered at sunrise and raised at 12:00 noon.

In preparation of the Memorial Day holiday, outside of the regular mowing and maintenance the following took place:

- The Administration Building gutters, windows and awnings were cleaned.
- The Administration Building floors were also cleaned and waxed.
- Potholes were filled and all roadways were swept.
- The flag retirement area was given a face lift. Landscaping stone was added around the burning pit and shrubs were added to the landscape bed behind the pit.



Flower Program

The usual seasonal displays of flowers enhanced the cemetery grounds, in particular, the wonderful summer flowering displays of large canna, impatiens, begonias, petunias, etc. This year the shrub/flower gardens around the administration building were upgraded. The beds were edged, mulched and the lawn in front of the building was loamed and seeded. An irrigation system was installed to provide water to that area. The beds at the Lebanon Street entrance of the cemetery were also landscaped.

Perpetual Care Flower Fund Program

Twice-yearly seasonal tributes are placed on designated graves of those who subscribed to the Perpetual Care Flower Fund. Baskets of mixed plants are placed on graves in time for Memorial Day, in addition to a winter basket of holiday greens in mid-December. This year the cemetery staff placed sixty (60) baskets of each.

Memorial Bench Program

The commission determined that the cost for family members wishing to participate in the Memorial Bench Program would be \$1,100.00. This would include an epitaph on the bench seat. The cemetery will choose a location as close as possible to the family's desired location. This year the cemetery placed two (2) memorial benches in memory of the Simpson/Hall and Garland/Menchetti Families.

Memorial Tree Program

The cost for family members wishing to participate in Memorial Tree Planting Program is \$600.00. This includes a granite marker that is placed at the base of each tree that is planted. The cemetery did not plant any trees this year; we did however replace two (2) trees that did not survive the winter.

Fleet Division

The Public Works Fleet Division is responsible for maintenance, repairs, specifications and disposal of all DPW equipment. There are approximately 140 vehicles in our fleet consisting of front end loaders, dump trucks, garbage compactors, recycling trucks, leaf vacuums, tractors, street sweeper, wood chipper, pickup trucks, vans and automobiles. We're also responsible for small equipment such as chainsaws, lawnmowers, weed whackers, etc. In addition, we maintain fifteen vehicles for the Melrose Police Department.



Mechanics are involved with the equipment repair and maintenance process. The Fleet is also responsible for the seasonal change-over of equipment for snow and ice control, leaf collection, street cleaning and other projects completed by DPW. The Fleet Division also has a preventive maintenance program and tracking system to record parts and labor expended on each piece of equipment, identify mechanical issues and determine when equipment should be replaced. The Fleet Division is in the implementation phase for a computerized asset management system that will improve record keeping and inventory for fleet activities. Our average age for our fleet is 11 years old.

The Fleet Division is also responsible for preparing specifications for the purchase of new and replacement equipment each year when there is money available. After new equipment is received, it is verified that it meets all bid specifications. The FY17 DPW equipment replacement program involved specifications, build coordination, acquisition and inspection of the following equipment and vehicles:

- Two 2017 Freightliners 108 SD 40,600 pound Dump Trucks, with a Flink LMC5H hopper/spreader, 10 foot slide-in style steel spreaders and 10 foot Baker plows blades
- 2017 John Deere 544K Front-End Loader with 10 foot baker plow blade
- 2017 Vermeer BC 1200XL Chipper with Winch
- 2017 Chevrolet Silverado 3500HD (CK35743) 4WD Crew Cab
- 2016 Fusco Electric Car

Wish list for next year:

- Mini Excavator
- Two Dump Trucks 1 Ton Plow and spreader
- Two Pickup Trucks
- Backhoe

