

REPORT OF THE FACILITIES MAINTENANCE DEPARTMENT

The Town of Wellesley Facilities Maintenance Department (FMD) was created by Town Meeting vote in March 2012 and officially began operations on July 1, 2012. On June 30, 2014, the second full year of successful operations was completed. Overseen by the Town's Executive Director of Government Services, the department falls under the jurisdiction of the Board of Selectmen, and has a mission of treating municipal department heads and school principals as highly valued customers. The FMD is responsible for the operation and maintenance of all schools and most municipal buildings in the Town. The Municipal Light Plant and Department of Public Works currently manage their own buildings.

The FMD is responsible for custodial service, maintenance, energy management and capital projects in all twenty buildings, which total over one million square feet, with a staff of 63 and an FY14 operational budget of \$6.4M and a cash-capital budget of \$1.14M. The FMD was again able to provide a high level of service to all of its customers in FY14 and finish the year under budget by about \$265,000, or approximately 4% below the established budget. FMD employees working in schools are AFSCME union members, staff working in the Library buildings belong to a separate library union and the remaining FMD staff are non-union. New contracts were negotiated and executed in 2013.

The Facilities Director leads a group of professional managers who oversee four core business areas: custodial, maintenance, energy and capital projects. Preventive maintenance practices are a focus of the department, as are custodial procedures which incorporate "green cleaning" techniques. In FY14 maintenance and custodial staff again performed a significant number of tasks and projects "in-house" rather than outsourcing, and as a result were able to respond more quickly and at lower costs. Capital projects are identified during planning through a collaborative approach with department managers and school principals. Design and construction is managed within the Department and also through outside design professionals, and for certain projects by the Town's Permanent Building Committee (PBC). The FMD's Energy Manager is charged with managing and reducing energy consumption, with an eye towards sustainability issues.

Energy

Our most significant accomplishment in the energy management area was the completion of a \$320k heating, ventilation and air-conditioning (HVAC) recommissioning project. This energy conservation measure (ECM) project included all elementary schools and the Middle School. This project was unique in that it was the first time that these buildings were recommissioned. The scope of work involved inspecting, servicing, calibrating, and repairing over 1,000 pieces of heating/cooling equipment in 800 spaces situated throughout 9 schools, while the schools were occupied. This successful project resulted in estimated savings in the range of \$95k/year, with a simple payback of approximately 3.2 years. Moreover, the indoor air-quality and reliability of the equipment was greatly improved by the project. FMD's "hands-on" management and "buy-in" from WPS staff were essential to successfully completing this work during regular school hours.

Another significant energy-related accomplishment in FY14 was implementing a \$70k LED (light-emitting diode) ECM project. The LED project involved replacing the parking lot and building-mounted security lights at Sprague and Bates with LEDs. This project was also unique in that it was the first ever project to be completed as a joint-venture between FMD and MLP under MGL 25A §14. To minimize cost, FMD designed the project in-house and purchased the LEDs directly from the vendor. The project cost was \$68k, yielding estimated savings of \$28k/year, and life-cycle cost analysis (LCCA) payback of 2.5 years. FMD also implemented \$15k in HVAC controls ECM projects at the Middle School and Main Library. These projects were part of much larger ECM program to install/upgrade the “Metasys” digital control systems in all of our Town/School buildings so that the building’s HVAC systems can be better monitored, managed, and optimized by FMD staff.

Negotiating and procuring a new FY15 natural gas contract was another cost-saving achievement. In July 2013, we initiated discussions with our utility broker and requested they advise us on timing to lock-in our future gas prices so that we could secure the most competitive price. At the same time, we independently tracked the natural gas market on a daily basis. In October 2013, it appeared that the price of natural gas had finally bottomed-out and so we locked-in our FY15 natural gas contract. As a result, we avoided an additional \$160k in natural gas costs had we delayed our decision by only a few months.

Overall in FY14 we successfully implemented \$400k of ECMs, reduced energy use by 8%, (\$100k), and increased our average Energy Star (ES) Score (a measure of a building’s energy efficiency) from 55 to 59. For FY15, we plan to implement another \$300k of ECMs, reduce energy use by another 10% (\$125k), and increase our average ES Score for our schools by 10%. We will continue to use Metasys, UtilityDirect, Portfolio Manager, and Regression Analysis as energy management tools. We will also work closely with the Middle School Green Team to create and implement a pilot program to reduce energy use through occupant behavior change.

Capital Projects

At its inception, the FMD developed the first comprehensive five-year capital plan for all 20 buildings. This plan is updated annually and is relied upon to identify capital projects that will be presented at Town Meeting, including cash-capital projects to be executed by the FMD, and costlier projects that will ultimately fall under the Permanent Building Committee’s (PBC) jurisdiction.

Plans are collaboratively developed with school principals, municipal department heads and the FMD’s managers and maintenance/custodial staff. The *School Feasibility Study and Conditions Assessment*, an FY12 capital project also managed by the FMD, was the genesis for many of the major school projects currently being planned, designed or in construction.

By Town charter, building projects costing over \$100,000 are managed and overseen by the PBC; however the FMD works closely with its customers to identify the need for these projects at the earliest stages and then incorporate them into the

capital plan. The FMD advocates for the projects through the capital budgeting process via presentations to various Town boards and committees, and ultimately turns these projects over to PBC at Town Meeting. During design and construction the FMD's Building Operations Liaison will coordinate between the PBC and the FMD's customers, providing services including: design review, site access/information, continuity of operations, inspections, training coordination, punch list preparation, close-out support and startup feedback.

In FY14, the FMD planned, designed, bid, managed and completed construction on the vast majority of the sixty-seven (67) cash-capital projects that were approved at TM. This ambitious slate of projects was completed in a timely manner by effective project management and a thoughtful balance of outsourced procurement and use of in-house maintenance staff. The FMD managers were able to prepare public bid packages for many of these projects saving significant budget in outsourced design fees, while expediting the project schedules. The FMD's approach to capital projects has been effective in moving them from the planning stage to construction.

Eleven (11) major construction projects first identified in the FMD's capital plan, and subsequently managed by the PBC, moved into the design and construction phase in FY14:

- Sprague Slate Roof Replacement and Oak Street Plaza Repair
- Middle School Auditorium Seating Replacement and Donizetti Entrance Renovation
- Hunnewell Roof Repairs
- Fire Headquarters Floor and HVAC Replacements
- Police Station HVAC Replacement
- Warren Building Renovations
- Schofield and Fiske School Renovations

The FMD has an experienced professional staff of managers; however feasibility studies prepared by outside consultants are sometimes needed to supplement this expertise. In FY14 the FMD managed two major studies: the Hardy, Hunnewell, Upham Master Planning Study and the Middle School Engineering Study – both of which also fall under the oversight of the School Facilities Committee (SFC).

In addition to the HVAC recommissioning and Bates/Sprague LED lighting projects, which totaled \$442k, other FMD projects completed in FY14 include:

In-House Projects: The FMD's maintenance staff performed numerous cash-capital projects including the following:

- Schofield School: Installation of central air-conditioning system for main office suite
- Hardy & Hunnewell Schools: Replacement of bathroom partitions throughout the schools.

- Hardy School: Renovation of kitchen including utilization of surplus fixture from High School project.
- PAWS Preschool: Renovation of conference room.
- Fire Station 1: Renovation of living quarters and kitchen, and compressor replacement
- Warren: Renovation of rear entry lobby.

Hunnewell Modular Classrooms: \$46,000 project included removal and replacement of siding, trim, insulation, gutters and lighting for two modular classrooms, with a goal of increasing service life by 7 years.

School Flooring and Door Replacement: As part of an on-going plan to replace carpeting, vinyl tile and exterior doors in all schools, two projects totaling \$160,000 were completed over the summer of 2013 on schedule and under budget.

Site Work: FMD also accomplished many site-related projects, most of which included the assistance of our partners at the DPW: paving of the MS access road, Hardy fence replacement, Bates basketball court improvements and a storage shed at the MS.

Maintenance

The Maintenance /Operations Manager oversees a staff of seven technicians including: 2 licensed electricians, 2 licensed plumbers, 1 licensed HVAC technician, 1 licensed maintenance craftsman and 1 maintenance mechanic. Utilizing a computerized maintenance management system (CMMS) for both routine and preventative maintenance, the maintenance staff responded to almost 1,300 work order requests in FY14, about a 15% decrease from FY13. We attribute the decrease to the fact that many long-standing maintenance needs were addressed in the first year of operation. Every effort is made to accomplish work order requests with in-house staff so that significant savings from labor and parts/supplies can be realized and prompter service can be provided to the FMD customers. Certain maintenance work is outsourced to qualified vendors such as specialty items (elevators) or if the magnitude of the work and deadlines require outside assistance. School maintenance expense budgets were increased by about 50% when FMD began operations in FY13 to reflect the higher level of maintenance needs in these buildings as recognized by the AdHoc Facilities Maintenance Committee when recommending the establishment of the new department.

The maintenance staff now is of sufficient size and expertise to complete many construction projects that would have previously been outsourced – again saving time and money. Savings are realized from in-house labor rates which can be less than half of prevailing wage rates required to be paid on public construction projects, and also from purchase of equipment and supplies using State bid prices versus paying mark-ups from outside vendors. Schedule efficiencies gained from avoiding public bid requirements and improved quality control resulting from the “ownership” of the work by staff are other benefits. As indicated above, a substantial number of capital projects were completed by the maintenance staff in FY14, and we plan to continue using this approach for FY15 projects.

The FMD's maintenance staff also responded to and resolved numerous emergencies in FY14 – the most significant being a major flood at the High School caused by a burst pipe in January. Approximately 4,600 sf of floor area in the Wood Shop and Band Room were covered with flood waters resulting in damaged sheetrock walls, furniture and insulation. Interruption to the learning environment was minimized by completing all repairs with in-house staff, saving at least 6 to 8 weeks over an outsourced public bid approach. FMD obtained reimbursement for all costs incurred through the contractor's insurance company. With DPW assistance, FMD also mitigated the impact of a failed, 50+ year old sewage ejector pump system at the Schofield School. Other lesser emergencies responded to include failed boilers at the MS, Hunnewell and Library, and a failed air-handler at the Library. Roof leaks from ice dams at the Police Station were corrected. Smaller emergencies such as a toppled fence at the MS were also addressed.

Custodial

The FMD has a total of 49.3 FTE custodians, including 43.3 FTE union staff working in schools and the libraries and 6 non-union staff working in municipal building. A Custodial Service Manager oversees all aspects of custodial operations. 5.5 FTE new school custodial positions were created as part of the new department in FY13. Custodial equipment and supplies budgets for schools were also increased by about 50% in FY13.

In FY14 the custodial staff was trained on and implemented several important projects, which are often outsourced at a much higher cost in other communities. A few of these projects are described below:

- The terrazzo flooring in the Wellesley Police Department Lobby and the entrance flooring at the High School required special attention to bring back their originally installed luster. FMD custodians utilized a unique stone floor protection system which is a greener process, is easier to maintain and enhances the floors' appearance. The refinished floors not only look better, but are also safer due to enhanced traction capability – reducing slip and fall accidents.
- Both the High School and Middle School Gym “B” gymnasium floors are relatively new and required special maintenance. During the first three years of new floors like these, the refinishing process requires the floors to be dry screened, vacuumed and tacked dry. The polyurethane floor finish was applied using a multi-flow application machine that cut down the finishing time and avoided pooling of the polyurethane. The resulting floor finishes are durable, safe and aesthetically pleasing.
- The Custodial Staff was trained on and utilized a carbon-fiber extension pole window cleaning and dusting system to accomplish window cleaning work that had previously been outsourced. The system uses a pure water filtration and feed system that does not use any chemical. Custodians at the High

School, Bates School, Town Hall and Library participated in the initial roll-out of this system, but all staff will be trained on it.