

## Executive Summary

In 2012, the Town of Falmouth determined that it was in the best long-term interest of the Town to develop a short and long-range plan to renovate, and possibly expand, the Town Hall and Falmouth Food Pantry. Oak Point Associates was tasked with developing solutions for improving the spatial efficiency, interior appearance, energy efficiency, structural integrity, and indoor air quality of the Town Hall building. The recommendations are intended to build on recent renovations that were conducted, and Oak Point was asked to prioritize improvements so that they provide the greatest cost-benefit to Town stakeholders.

To summarize the results of Oak Point's analysis, there are four prime areas of deficiency that currently exist at Town Hall and some additional considerations:

1. the crawl space below the original building and a portion of the 1990's addition,
2. the exterior building envelope,
3. the building mechanical and electrical systems
4. space use inefficiencies, and
5. additional site-related considerations.

Each is addressed individually below.

### **1. Crawl space – approximate costs: \$141,900**

The crawl space, which contains two abandoned air handling units that used to serve the clerk's office area, is a low-ceilinged space with moisture infiltration issues. As part of the project, Northeast Test Consultants was contracted to do a Limited Indoor Air Quality Assessment of the first floor spaces of the building, during which elevated mold spore activity was detected. A follow-up Indoor Air Quality Assessment was conducted, where it was found that airborne mold spores from the crawl space were being passively vented through the floor register in the first floor Town Clerk's office area. The floor registers were temporarily sealed up, but the mold and moisture issues in the crawl space need to be more permanently addressed. The recommendations for this area are:

- Install a drainage and lining system to control soil moisture conditions
- Remove crawl space ceiling insulation and floor debris, and re-insulate ceiling with spray foam
- Clean and sanitize areas of surface mold within the crawl space
- Remove floor registers at first floor office space and infill with floor decking
- Replace basement windows with new units
- Remove the existing (abandoned) air handling units within the crawl space as part of the remediation work in that area
- Install a dehumidification system in the crawl space to keep humidity below 60 percent

## **2. Exterior building envelope - approximate costs: \$350,200**

The exterior building siding is a combination of asbestos siding over wood clapboards, vinyl siding over concrete block, and vinyl siding on sheathing. Asbestos is considered a hazardous material. Exterior walls at the original building and 1960's addition do not appear to be insulated. Windows are vinyl replacement units with snap-in muntins, which cause air and moisture infiltration. Exterior doors are flush hollow metal, embossed hollow metal (with sidelites) and aluminum storefront. Many exterior doors do not have a proper seal. The performance of these combined components of the exterior building envelope, from an energy efficiency and aesthetic standpoint, is poor. The following improvements to the building exterior envelope are recommended:

- Remove existing building siding, abate the asbestos siding, and replace with cement board smooth bevel siding
- Install poured urethane expanded foam insulation at the original (1900's) building walls, rigid insulation at the 1960's addition, and no additional insulation at the 1990's addition
- Replace all windows with clad wood units with insulating glass
- Replace existing exterior doors with new insulated hollow metal doors
- Remove and reinstall glass fiber batts at attic level roof insulation
- Provide roof hold down anchors at existing rafter connections to increase the wind uplift resistance of the roof

## **3. Building mechanical and electrical system upgrades – approximate costs: \$262,200**

The building mechanical system components vary in age and performance. The building recently received a new propane gas-fired boiler. The building HVAC controls are old and the system is made up of proprietary equipment. There are various air handlers, ductless split systems and condensing units that service different parts of the building. The air handling units in the crawl space that used to serve the clerk's office area are abandoned due to indoor air quality issues. This space currently receives no mechanical ventilation, and is cooled by a window air conditioning unit. The condensing unit serving the ductless split system in the server room is inoperable due to damage from falling snow and ice. Each of the building cooling systems use R-22 refrigerant, which is a greenhouse gas and being phased out. The systems are not made to accept any other type of refrigerant.

The building electrical systems are generally in good condition, but a few deficiencies were noted that would require a minor amount of work, but which should be addressed.

Recommendations for upgrading the building mechanical and electrical systems are as follows:

- Install a new HVAC system within the attic space to serve the general/clerk's office area on the first floor
- Remove the existing (abandoned) air handling units within the crawl space as part of the remediation work in that area

- Install a dehumidification system in the crawl space to keep humidity below 60 percent
- Phase in new HVAC units and controls to replace the existing units that are 20 years old, and which utilize R-22 refrigerant
- Replace the inoperable, ductless split system for the server room
- Replace existing electric water cooler in the Lobby with a dual-height unit
- Reinforce floor framing at floor penetrations and locations of new mechanical equipment
- Provide a fire alarm pull station at the exterior door within the Council Chambers
- Install ceiling-mounted occupancy sensors throughout the building
- Repair faulty electrical devices in the food pantry area
- Test emergency egress lighting and exit signs, and replace non-functioning units
- Provide additional coverage for emergency egress lighting and additional exit signs at building egress points
- Replace lamps of different color temperatures
- Label horizontal cabling in the second floor copy/data room
- Provide signage indicating when the elevator is operating on standby generator power
- Support antenna wiring in the fenced area (rear of building) and provide clearance beneath condensing units for maintenance access

#### **4. Space use inefficiencies / space planning – approximate costs: \$120,000**

The Falmouth Town Hall building was last renovated in the 1990's, and over the course of the past several years departments, programs and staff have changed, and there are many noted inefficiencies with interior space. Some of these include:

- The Falmouth Food Pantry occupies space in the former police station, and has insufficient space for food storage, waiting space, intake space, and counseling space
- The Land Use Group (Planning, Assessing, and Codes) is spread out over the 2nd floor, not contiguous, but the various departments within this group work together regularly and share files
- The Finance Department is spread out in various locations on the 1st floor
- Council Chambers often requires overflow into the Lobby, and the existing furniture doesn't fit well within the existing space

Three layout options for reconfiguring space within town hall were developed and reviewed. The consensus was that some to-be-determined version of Option 1 is preferred because it requires the least disruption of existing walls, does not trigger significant life-safety and fire code-mandated updates, would adequately address the majority of the space inefficiencies within the building, and was also the least expensive option. The following summarizes the space planning strategies contained within Option 1:

- Space on the second floor can be reallocated to the Land Use Group, allowing them to be located together in one area of the building.

- Property Records file storage is increased from 335 square feet to 420 square feet
- Town Clerk's office is consolidated allowing the vault to be relocated and doubled in size. The existing vault area will be converted to a conference room
- The Finance Group staff members are located together on the first floor. Two of the three offices are currently in undesirable locations in the building; little natural light and near distractions from the Food Pantry.
- Size of Food Pantry is increased from 550 square feet to 880 square feet
- Reinforce floor framing in areas where proposed renovations would increase the live load (2nd floor file storage area)
- Provide posted live load signage for the attic area in the original building

##### **5. Site-related work items – approximate cost: \$55,100**

There are a few additional site-related work items that would be desirable if a significant renovation of the Falmouth Town Hall is undertaken, although these could be conducted at a separate time from building work. They are as follows:

- Install new landscaping at the perimeter of the building
- Replace the wall-mounted flagpole with a ground-mounted flagpole
- Install flagpole lighting compatible with the ground-mounted flagpole
- Install parking area lighting that meets IES-recommended illumination levels