

PUBLIC SAFETY FACILITIES RENOVATION
AND PLANNING COMMITTEE

WORK PRODUCT REPORT

2008 - 2013

Committee Membership

David Heer, Co-Chair
Andrew Meiman, Co-Chair
Edward Mik, Jr., Communications Secretary

Frank Behrens
Chris Flanagan
Bill Joyce
Peter Lowe
Duncan Milne
Thomas Wilt
Sue Wimler

Ex-Officio Members

Robert Chadd
Harry Hall
Francis Willett
Thomas Wimler
Scott Wright

Project Design Team

David Stein, A.I.A., Project Manager (Principal, Silver-Petrucci & Associates)
Paul Jorgensen, A.I.A., (Associate, Silver-Petrucci & Associates)
Donald Smith, Jr., P.E.

Committee Charge

- The Committee shall consist of 9 members with the option for appointing more members if needed. Members will be appointed by the Board of Selectmen.
- The terms of office shall be for the duration of the project and until the committee is discharged.
- The committee shall elect its own Chairman, Vice-Chairman and Secretary and shall establish a regular meeting schedule. All records of the Committee shall be filed with the Town Clerk and open to public inspection in accordance with applicable State Statutes.
- Members shall serve without financial compensation.
- The Committee shall not have a budget of their own, but may request funds for specific purposes through the Board of Finance and Board of Selectmen process.
- The Committee shall review prior studies regarding public safety renovations and space needs. The Committee shall consult with the Chiefs of Service of each public safety department.
- The Committee shall consult an expert opinion on mold remediation of the town-owned houses.
- The Committee shall create biddable building plans to incorporate the Volunteer Fire Company, Volunteer Ambulance Corps, Emergency Management Department, Office of the Resident State Trooper and Fire Marshal on the current firehouse site, including town-owned property adjacent to the firehouse.
- The Committee shall create an RFP to be managed by the town's Finance Director.
- The Committee shall participate in the Grant Application process as needed.
- The Committee shall interface with Town Hall management and staff during the planning process.
- Upon completion of the planning project, the Committee shall make a complete report and accounting to the Board of Selectmen.
- The Committee shall assist the Board of Selectmen in presentations at town meetings, budget meetings, public hearings, etc. as needed.

History

1999

The Public Safety Committee of the Town of Durham was charged by First Selectman Ray Kalinowski to assess current and future public safety needs, and look at the feasibility, and potential advantages or disadvantages of locating services at a common location. That Committee produced a report entitled “Public Safety Plan to the Year 2015.” Their recommendation was to bring all services (Fire, Ambulance, Police and Civil Defense)* to a common location by expanding the firehouse.

2007

A plan to address the needs of Durham’s public safety agencies and make use of town-owned property to meet those needs was developed by the Emergency Services Facilities Committee in 2007. Among the members of that committee were the Chief of the Durham Fire Company, Harry Hall, and Chief of Service of the Durham Volunteer Ambulance Corps, Scott Wright. That Committee’s recommendations were to

- a. Establish an emergency services complex using the properties of 37, 41 and 51 Main Street;
- b. Suggest that the resident trooper and fire marshal occupy 37 Main Street, Emergency Management occupy 51 Main Street, and that the Fire Company and Volunteer Ambulance Corps occupy an expanded/renovated facility on 41 Main Street.

2008

The Public Safety Facilities Renovation and Planning Committee (“the Committee”) was charged by the Board of Selectmen to develop biddable plans to construct the kind of emergency services complex on the specified town properties that was envisioned in 1999 and 2007 (“the Project”). Serving on this Committee in ex officio status were Fire Chief Harry Hall, Chief of Service Scott Wright and Emergency Management Director Francis Willett. Chief Robert Chadd and Chief of Service Thomas Wimler succeeded their predecessors on the Committee.

* Emergency Management was not yet established.

History of the Properties

The houses on 37 and 51 Main Street were residential structures until they were sold or acquired by the town of Durham. Both structures have been unoccupied and unused for a considerable number of years.



37 Main Street, Durham



51 Main Street, Durham



Durham Firehouse, 41 Main Street, Durham

The current firehouse was constructed in 1978 and is essentially the same layout as when it first opened after construction. The firehouse was built on a site that was known at the time to have a poorly draining soil type. The firehouse building committee accepted the site's shortcomings in favor of a strategically located placement. Poor drainage on-site required locating the septic system in an area where the drainage was more favorable for septic use. A verbal agreement was made between the building committee and the Durham Fair Association (DFA) to permit the Fire Company to use DFA property. A leaching field for the firehouse septic drainage was then installed in an area just south of the current Commercial Exhibit Building.

The apparatus bays are full to capacity with vehicles and equipment. Modern fire apparatus are wider and longer than the vehicles used by the Fire Company when the firehouse was built. Storage space is inadequate. In addition to being the home of fire company emergency response operations and training, the building has a large event room that is used for a variety of public safety-related functions and other selected events, managed by the Fire Company Board of Trustees. The Fire Company also uses the land surrounding the building in its fund-raising efforts by parking vehicles during the Durham Fair.

The Ambulance Corps is housed in the original fire company building at 205 Main Street. The structure was constructed in 1933 and used by the Fire Company until the present firehouse was built in 1978. With the exception of minor renovations, there has been little change made to the building in decades. There has also been little maintenance over the years, although the Town of Durham has been responsive to the needs for repair work when needed. The second floor of the building is no longer usable without renovation, repair and mold remediation. There are no other areas in the building that can be used for administrative offices, facilities are substandard, storage space is inadequate and there is an ongoing problem with water leakage in the building. The building has storage space for only one ambulance. A second ambulance is needed and purchase has been delayed for over two years pending identification of suitable storage space.

The evolution of standards within the Fire and Emergency Medical Services disciplines, the expansion of services and the needs of modernization have resulted in the need for renovated and modernized facilities to carry out the primary function of providing public safety services to the town and to support the administrative and training needs of the organizations. There is no space for additional vehicles needed by both services.

The resident state trooper currently occupies some small office space in a building owned by the Durham Fair Association. The Fire Marshal has office space in Town Hall. Emergency Management operates out of a few locations, including Town Hall and a private residence; it has no dedicated space to consolidate its operation. Recent activations of the Emergency Operations Center in the aftermath of natural events have shown why the Town benefits from these functions operating out of a space dedicated for this purpose.

Early Committee Work

Architect Selection

The Committee began its work by developing a process to select an architectural firm.

- a. A request for qualified firms (RFQ) resulted in returns by 17 interested participants. Fifteen of those were deemed qualified;
- b. A request for proposals (RFP) was sent to qualified respondents;
- c. Of the 15 who sent in proposals, 7 were selected for interviews;
- d. Interviews were conducted over six weeks, and a scoring system was used to select a firm offering the best value;
- e. The Committee began its work with Silver-Petrucci and Associates in September 2009 and David Stein was assigned as our Project Manager.

Project Funding

The Committee asked the town to designate funds from a Capital Reserve Account to carry work through the schematic phase of planning. At a Special Town Meeting in August 2009, residents approved the use of \$95,000 to be used for the Conceptual Design and Schematic Design phases of work.

Property Evaluations

The Committee outlined a plan to assess the three properties to be used in the Project.

- a. Structural integrity, asbestos, lead and mold remediation, septic and drainage issues, compliance to building, life safety, ADA and other appropriate codes;
- b. Consideration of current and future zoning regulations;
- c. Consideration of the physical and economic feasibilities;
- d. Consideration of the limitations of the land, how will they impact the Project?
- e. Conduct a traffic study to assess impact of Project;
- f. Effects of Project on septic, storm drainage, water storage.

Public Safety Agencies Input

Leaders of the public safety agencies were interviewed and a needs assessment of the respective organizations was developed. Discussion points included the following factors:

- a. Identify functions that require space
- b. What functions will change in coming years, and how?
- c. Personnel: sporadic vs. continuous occupancy
- d. Will organizations (people or equipment/apparatus) expand in future?
- e. Can some functions utilize shared space/facilities?
- f. Which needs require completely dedicated space?
- g. Based on needs, the architect determines square footage. Do all these things fit into space we have now?

Program Development

The architectural program encompasses the needs of the various services that drive the expansion and renovation. These needs are identified by the various functions (operational, supportive, administrative) each service or department carries out and its associated equipment. The needs help to guide the inclusion of space required to carry out the function.

The Committee made site visits to several facilities to see how modern service needs are incorporated into facility construction. The Committee also reviewed floor plans of other facilities that were in the pre- or post-construction phase. The comparisons allowed Committee members to identify desirable and undesirable facility features.

A listing of program needs by the respective public safety agencies was developed by the design team from interviews with the service chiefs and Committee meetings. Over time, the listing was revised as discussions included ways to consolidate and share functions and space.

Site Issues

Septic

The ability of the site (the properties of 37, 41 and 51 Main Street) to support a septic system for an expanded complex was addressed early on in the Committee's first year, and was a regular topic of discussion in succeeding months as planning proceeded. The site was known by a previous assessment in 1975 to have a poorly draining soil type. At that time, ground water was seen 7 inches below the surface. The Project Manager's professional engineer consultant found a consistently high water table during testing in 2010. It was the consultant's opinion that additional engineered measures would be needed to improve drainage.

The options before the Committee included using the existing septic system or develop an on-site system. Options for on-site systems were considered and evaluated. The pros and cons of 7 septic options were presented to the Committee.

The current septic system, with its leaching field on the fairgrounds property, was rated to accommodate up to 1500 gallons per day. Water flow was measured and it was determined that the actual system output is much, much lower than its rated capacity. The improvements anticipated on the site were estimated to still be well under the rated capacity of the system, making this an attractive option from a Project cost perspective.

Three unknowns considered by the Committee were the integrity of the piping from the firehouse down to the leaching field, the willingness of the DFA to allow the tie-in of Project improvements into the existing system, and how many structures would be included in site improvements.

Before an on-site septic system could be contemplated, it was necessary to determine if the site could be modified to lower the water table. This would require installation of a curtain drain, followed by monitoring of water levels through an entire rainy season (February 1 through May 31). The Committee initially considered this option in 2010, but missed the opportunity due to

timing of learning the information, unfavorable weather and insufficient time to plan and implement construction.

Based on data from test pit analysis, there was little optimism that this measure would be successful. Furthermore, construction of a septic system on-site would be quite expensive, and would require inclusion of a force main, pump chamber and pump controls. It would also result in elevation changes on portions of the property, resulting in challenges to building construction and site development.

The Committee approached the DFA and asked that it consider the Committee's desire to use the existing septic system. A lengthy evaluation period followed, and the DFA ultimately decided it would not be able to grant that request.

The Committee turned back to the on-site option, and a curtain drain was installed in January 2012 to try to lower the groundwater. Groundwater levels were monitored throughout the 2012 wet season, and were found to be acceptable for an on-site system. The Committee also decided to incorporate the inclusion of a flow equalization tank into the system design, which would adjust effluent discharge during periods when volume was greater.

Structures

The houses on 37 and 51 Main Street present challenges. Both are in a state of extensive disrepair and both sit within the town's historic district. Both houses have a septic system, although the septic on 51 Main Street is a failed system and cannot be used. The septic system on 37 Main Street is still functional.

The Committee considered how these structures might be used. The houses would require renovation on a significant scale, along with the addition of modern modifications to accommodate ADA requirements, upgrades of materials and a change in use from residential to light industrial. This type of renovation would be very expensive, likely in the hundreds of thousands of dollars per structure.

The Committee and design team extensively discussed how to use the houses throughout the design process. The major concern was producing a scheme that would maintain the existing character and overall appearance of Main Street as much as possible. The Committee decided that removal of the houses with the intent of replacing them with like structures was the best option. This was discussed with the Historic District Commission during a presentation near the end of the schematic phase in the late fall of 2012.

Access

Two earlier study committees raised the possibility of a secondary access for responders because of difficulties getting to the firehouse during emergencies at the same time as exiting emergency vehicles. Locating a secondary access was too problematic, so the Committee early on abandoned this idea.

Three Separate Parcels, or One?

The Committee has regularly revisited the issue of three separate parcels versus joining the parcels into one property. While it would be easier to plan an expansion of facilities if the properties were consolidated, the Town feels that joining the parcels should wait until a firm commitment is reached on construction. At this time, the properties remain as separate entities.

Formulating Ideas: Conceptual Design to Schematic

Starting in 2010 and continuing in 2011, the design team began to develop some conceptual drawings and layouts for the Committee to consider. Work on the design was interrupted in late 2011 by the change in focus on the septic system to an on-site option. Installation of a curtain drain showed that the water table of the property could be lowered sufficiently to make an on-site septic system feasible. The septic situation was resolved by late summer 2012. The design team then resumed its work to develop plans including an on-site septic system.

As ideas began to take shape, renewed discussions of program elements and shared space took place. The Fire Company and Ambulance Corps leadership felt the best operational arrangement was an expansion that would house both services, instead of a campus-style layout with

separate structures for each service. Such an expansion could also accommodate Emergency Management and a town Emergency Operations Center. This layout allowed the design team to reduce the overall scale of the firehouse expansion through use of shared space.

The challenge for the design team was to orient the expansion within the constraints imposed by wetland boundaries on the site. A layout that included all of the program specifications, fit the available space and accommodated the septic system eventually met with Committee approval. The Committee and design team then made presentations to Town boards and commissions in the fall of 2012. Following this was a presentation of the plans to the Board of Finance and the First Selectman in February 2013. Further work to complete the design and develop construction documents awaits town approval.

Financial Accounting

Original contract sum	\$ 255,135.00
Net change by Change Orders	\$ 14,100.00
Contract sum to date (original plus change order)	\$ 269,235.00
Total completed as of March 21, 2013	\$ 88,167.00
Balance to completion, including retainage	\$ 181,068.00

The Town approved \$95,000.00 to fund the Project through to the end of schematic design. With the final payment to Silver-Petrucci & Associates of \$19,500.00, the total amount paid to date is \$88,167.00. The unspent balance is \$6,833.00.

Note: see the attachment "Application and Certification for Payment, AIA Document G702," dated 3/6/13 in Attachments.

Attachments