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# Town of Chebeague Island Fire Department & Town Hall Study September 6, 2022



## Purpose of the Study

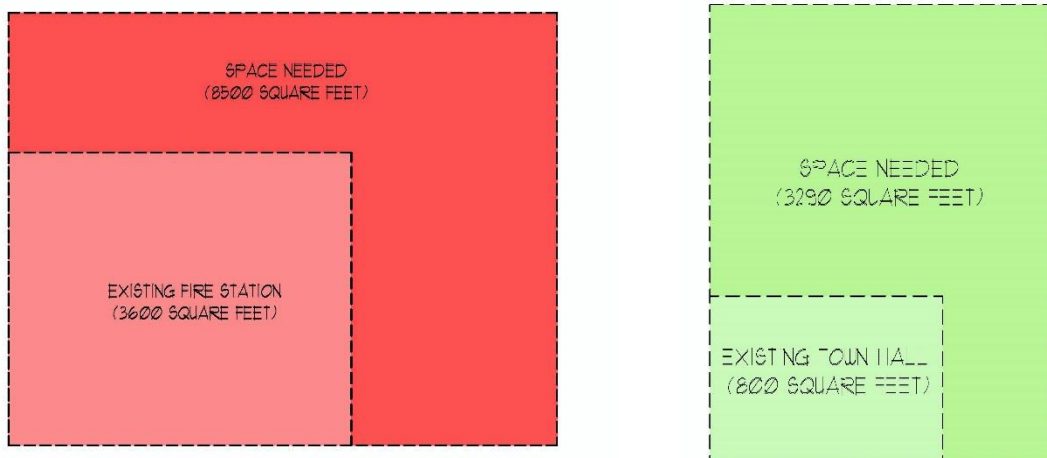
Port City Architecture (PCA) was hired by the Town of Chebeague Island, Maine, to study the Fire Department and Town Hall space requirements. PCA evaluated the existing facilities including their location, staffing, building space programs, and provide conceptual plans for renovation and addition to meet the needs of these departments. The study provides our professional recommendations to address the long term needs of the Chebeague Island community.

## Facility Recommendations

### Assessment

Our first task was to interview both the Fire Department and Town Hall inhabitants to determine the physical space requirements necessary to meet the needs of the town. We based the space program on Chebeague Island's unique requirements and projected growth so that we could compare them to benchmarks from similar sized towns employing modern fire and EMS practices to get the appropriate space needs for the town.

The current 4,400 square foot building houses both the Fire Department and Town Hall. Almost half of the building is used for the apparatus bay, 1600 square feet for fire department support spaces, and only 800 square feet of space is for the Town Hall. Through space programming analysis, both Departments have extremely inadequate space for their needs. The Fire Department needs 8,500 square feet while the Town Hall needs 3,300 square feet to provide adequate services to the community.



The graphic above shows the amount of space each department currently has and what is currently needed for each department.

The existing building does not meet current energy code requirements. The roof has very little blown-in insulation and the CMU block walls have little to no insulation which leads to an increase in heating and cooling costs. The boilers looked to be in good condition although we recommend the system be replaced with a heat pump system because the overall system is inefficient. Electrically, the building's lighting is fluorescent strip lighting in most areas and should be replaced with LED fixtures.

The current Fire Department does not meet modern firefighting and EMS needs, health and safety requirements, and standard support spaces. The current facility has no living quarters, not enough offices, no sprinkler system, no vehicle exhaust system as required by code, and no decontamination room. The fumes from the apparatus equipment flow directly into the dayroom causing potential health issues. The turn-out gear is stored in the apparatus bay instead of in a designated space which is a hazard to the staff. Storage for the Fire Department is at a bare minimum and does not meet their current needs, much less future needs.

The current Town Hall spaces do not meet the town's needs. As stated above, they need four times the amount of space they currently have. The current "entrance" is a space that is shared with the two town clerks. The other room in the back serves as a breakroom, an office for Code Enforcement, assessor, and bookkeeper. There is no space for meetings. The one bathroom does not meet the plumbing code or the American Disabilities Act. Files are being stored in any spot that is open currently. Many files need to be put in a secured room (Vault) for protection per state requirements and all files need to be organized and easily accessible.

## Recommendations

### Initial thoughts

Our initial thoughts were to keep both departments on site. With the existing building mostly being apparatus bays, we looked at the Fire Department taking over the entire building and adding an addition for the remaining space needs. This would require a new building for the Town Hall which would have to be located off site because of site constraints. There are many issues that arise with the Fire Department taking over the entire building. The current building does not meet essential facility code requirements and would require extensive renovations to meet these code requirements. This includes the current exterior concrete masonry unit walls do not meet the structural requirement for essential facility and would need to be removed and replaced. Preliminary examination of the roof structure indicates that it also does not meet essential facility requirements, which would require additional structural members. There is no sprinkler system, which would



need to be installed. The existing apparatus bays would need a vehicle exhaust system installed. The extra costs associated with everything mentioned above is not a feasible option for the Town. We did not continue pursuing this option. Not to mention, the phasing of construction would require the Town Hall to be constructed before renovation could happen at the existing facility for the Fire Department to move in.

## Option A – See A0.1

This option involves a full renovation of the existing building for the Town Hall along with a two-story 9,200 square foot addition for the Fire Department. This addition is 9,200 square feet instead of 8,500 square feet because of the required circulation. The second floor requires by code an elevator and two stair towers which adds approximately 700 square feet of additional space and associated costs. The site constraints limit the addition from being one-story. The addition can only fit on the site in one location and would need to be angled because of site constraints such as the well, septic system, and site setbacks. One of the bays in the existing building will remain with a demising wall separating it from the Town Hall expansion to meet the apparatus demands. Because of the site constraints, the new apparatus bays must be on the opposite side of the site and will result in a split apparatus bay. The apparatus bays will barely meet the requirements for the department based on everything stated above. The septic tank will need to be inspected to know if it could handle the extra load. Construction will need to be coordinated carefully to keep the current Fire Station operational while it is being done. Once the Fire Department is out of the existing spaces they occupy currently, Town Hall could immediately move into the rest of the building with minimal costs. Over time, Town Hall could renovate as funds become available while still being operational. The overall square footage Town Hall would inhabit is 3,400 square feet which meets their current needs with minimal future growth of approximately 5-10 years.

## Option B – See A0.2

With the existing building not being viable for the Fire Department without substantial improvements, the most cost-effective solution is the Town Hall taking over the entire existing building. This would require the Fire Department to relocate off site in a new 8,600 square foot building. Directly across from the existing site is town owned land that is big enough to house the fire station. There are many advantages with a new station. A one-story building is more cost effective, as a second floor would require two stair towers and an elevator, adding additional cost. The layout of the new building will be more efficient including movement through the building and



apparatus circulation. Drive-through bays will be provided to prevent less accidents with the apparatus equipment. This will include everything required for a modern station. As previously stated in Option A, with the Fire Department out of the existing building, Town Hall could immediately move into rest of the building with minimal costs. Over time, Town Hall could renovate as funds become available while still being operational. The overall square footage Town Hall would have is 4,400 square feet which allows future growth for 25 years.

## Rough Costs

The current estimated costs for a turn-key project are estimated at \$550 a square foot for brand new and \$325 a square foot for renovations.

### Option A

- Renovated space of 3,400 square feet for Town Hall = \$1,105,000
- Addition Turn-Key space of 8,200 square feet for Fire Department = \$4,510,000
- Reuse of one Apparatus bay (1,000 square feet) for Fire Department = \$0
- The minimum investment for the town = **\$4,510,000**
- Total Project Costs of both projects = **\$5,615,000**

Notes: Inflation of 10% per year

Town Hall can take over existing spaces currently and renovations can be done over time.

### Option B

- Renovated space of 4,400 square feet for Town Hall = \$1,430,000
- New Turn-Key space of 8,500 square feet for Fire Department = \$4,675,000
- The minimum investment for the town = **\$4,675,000**
- Total Project Costs of both projects = **\$6,105,000**

Notes: Inflation of 10% per year

Town Hall can take over existing spaces currently and renovations can be done over time.

## Conclusion

Based on the information above, the recommended option is Option B. The Fire Department would get a station that is adequately sized for their current needs as well as the future growth, has modern firefighting and EMS features, and has health and safety features that are required by code. The apparatus layout on the site will reduce risk of accidents and give the Fire Department an easy drive-in/out to respond to calls more efficiently. The Town Hall will be able to immediately reduce its space needs by moving into the old Fire Department offices/rooms and renovate space as the funds are available. The overall existing building allows for large growth for the Town Hall.



**Space Programming**  
**Chebeague Island - Town Hall and Fire Station**

September 8, 2022



Town Hall						
Description	Existing	Number	Sqft.	Number	Total Sqft..	Notes
Vestibule	0	0	60	1	60	
Lobby	0	0	60	1	60	
Public Bathrooms	0	0	60	2	120	
Town Administrator Office	78	1	150	1	150	
Town Clerk Office	120	1	120	2	240	
Assesor/Code Enforcement Office	0	0	150	1	150	Large enough for both desks
General Office	0	0	120	1	120	
Conference room - Large (20 people)	0	0	500	1	500	Fits 20 people (50 to 100 people ideal)
Conference room - Medium (12 people)	0	0	260	1	260	fits 6 to 12 people
Break Room	200	1	200	1	200	
Break Room Supply Storage	0	0	40	1	40	
Vault - Fire Rated	0	0	360	1	360	
File Storage	0	0	200	1	200	
Staff Bathroom	42	1	80	1	80	
Janitor room and supplies	0	1	80	1	80	
Mechanical and electrical room	70	1	100	1	100	
Sprinkler room	0	0	80	1	80	
Server Room	0	0	60	1	60	
<b>Sub-Total Square Footage Space Needs for Town Hall</b>					<b>2,860</b>	
<b>Circulation/Grossing Factor of 15%</b>					<b>429</b>	
<b>Total Square Footage Space Needs for Town Hall</b>					<b>3,289</b>	

Fire Station						
Description	Existing	Number	Sqft.	Number	Total Sqft..	Notes
<b>Admin/Office Area</b>						
Vestibule	0	0	60	1	60	
Lobby	0	0	60	1	60	
Public Bathrooms	65	2	80	2	160	
Fire Chief Office	148	1	150	1	150	
Dep. Chief Office	0	0	120	1	120	
Small Conference Room	0	0	120	1	120	

Report/computer room	0	0	100	1	100	
Records/Storage	0	0	120	1	120	
Sub-total of Admin/Office					890	
Living Quarter Area						
Bunkroom	0	0	108	4	432	
Bunkroom Bath/Shower	0	0	80	1	80	
Bunkroom Storage	0	0	80	1	80	
Laundry General	0	0	40	1	40	1 washer and 1 dryer
Kitchen/Dining	123	1	150	1	150	
Dayroom	359	1	150	1	150	
Sub-total of Living Quarters					932	
App Bay Area						
App Bays ( 2 deep)	2,000	1	1,400	3	4,200	Engine 4, Engine 8 pump, Engine 9, ambulance 1, ambulance 2, 4-wheeler
Decon. Room	0	0	240	1	240	
Turnout Gear/Lockers	0	0	220	1	220	20 lockers
Gear Storage Room	0	0	200	1	200	
EMS Supply Room	120	1	144	1	144	
SCBA Filling and Storage	0	0	125	1	125	
Machine Shop Room	0	0	100	1	100	
General Storage ( Mezz. Storage)	219	1	0	1	-	extra storage
Sub-total of App Bay					5,229	
Support Areas						
Janitor room and supplies	17	1	80	1	80	
Mechanical and electrical room	115	1	120	1	120	
Sprinkler room	0	0	80	1	80	
Server Room	0	0	60	1	60	
Sub-total of Support					340	
<b>Sub-Total Square Footage Space Needs for Fire Department</b>					<b>7,391</b>	
<b>Circulation/Grossing Factor of 15%</b>					<b>1,109</b>	
<b>Total Square Footage Space Needs for Fire Department</b>					<b>8,500</b>	

# Comparable Fire Stations Chebeague Island - Fire Station

September 22, 2022



Town Halls		
Recently Designed Stations	Population year round / summer	Approximate Building Square footage of Fire Station
Castine	900	11,600
Buckfield	1,900	6,500
North Yarmouth	3,800	14,700
Casco	800 / 3600	16,500
Berwick	7,800	18,500
Lisbon	9,000	12,900
Chebeague Island - Current	350 / 1600	3,600
Chebeague Island - Proposed	350 / 1600	8,500



