

- Gross Square Feet: 4,178 GSF
- Number of Floors Above Ground: 1
- Building Height: 28 Feet
- Status: Vacant/NPS
- Current Use: None

Significance: Building 32 is significant in terms of past uses as successively a storehouse for explosive shells, administrative offices for the yard, and a bank and credit union serving the financial needs of yard employees. The building is significant architecturally for its original simplicity and fine masonry that remains visually coherent.



Building Description

The FY 1856 Naval Appropriations Act, approved on March 3, 1855, provided funds for both a “fire-proof building for loaded shells” and a “house for unloaded shells and workshop.”

In March 1856 Commandant Silas H. Stringham forwarded a plan of the proposed House for Unloaded Shells. He recommended that it be located at the eastern end of the Anchor Park so it would be close to the Shot Park, located immediately to its west on the south side of the Main (Second) Avenue. The plan prepared by Civil Engineer Joseph E. Billings two years earlier proposed a structure measuring approximately 53 x 33 ft., with a height of 19 ft. to the base of the hipped roof, the peak of which reached to 29.5 ft. In keeping with recommendations from the Bureau of Ordnance, the interior was to contain two floors, the upper story being “a storeroom for shell boxes.”

With the exception of eliminating the second floor, the Shell House (Building 32) was erected that summer in accordance with the March plans. It had a granite watertable, brick walls, and a slate roof. The center bay on each side contained a door with granite steps and recessed granite arch marking the entrance. The remaining bays contained blank arched recesses of solid brick where windows would have been in a normal building and lacked the doorways’ granite trim.

On April 20, 1865, two large Parrott rifle shells exploded while being worked on in the building, killing four men and wounding six others. In reporting the accident to Washington, Commandant Stringham, serving his second tour as yard commandant, wrote that “this accident demonstrates the impropriety of have a building for such a purpose in the midst of the offices and buildings of a crowded Navy Yard.” He recommended that the Shell House be removed to the grounds of the Chelsea Naval Magazine, but Washington instead simply ordered that no loaded shells were to be drilled in the yard.

By the late 1880s, the office situation was becoming critical. Mindful of the financial restraints on public works construction in Navy Yards, Yard officials in 1889 decided that instead of advocating for a new office building, they would propose to convert Building 32. They submitted a scheme to add a 32 x 30 ft. wing on the west side of the structure, as well as to insert windows into the blank walls in existing arches. The final plans, approved on July 1, 1891, however, provided only for the modification of the existing building. The conversion work was completed during FY 1892.

The resurrection of the Navy Yard in the early 1900s meant an expansion of the yard's senior management staff. Thus, in 1910, the yard awarded a contract to C.M. Leach to build a two-bay extension at the north end of the building. The 20 ft. x 33 ft. structure duplicated the details of the original building. Indeed, the north portion of the original hipped roof was removed and reused on the extension. The project was completed in November 1910.

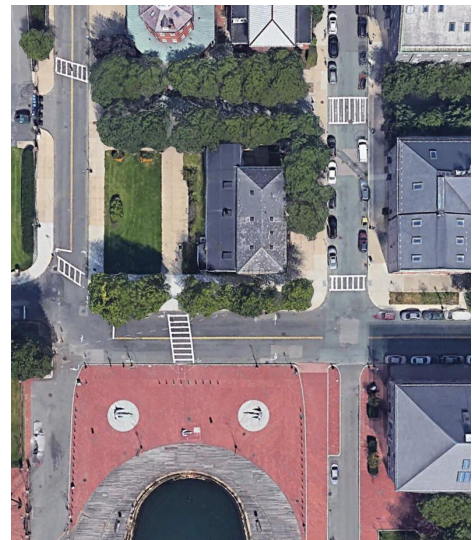
Annual site plans show that Building 32 continued as the pay and disbursing office through the end of FY 1942. The FY 1943 site plan shows the structure having no tenant; a year later, the Safety Engineer and the Personnel Department Compensation section were listed as its occupants. These functions were joined on the FY 1947 plan by the Safety Shoe Store and the Employees' Credit Union, although both organizations had moved into the structure around 1945.

While the store would move out in FY 1951, the credit union would remain in the north half of the building until the closure of the Navy Yard.

During FY 1941 a wooden addition measuring 22 x 70 ft. was built along the west side of the structure. Three years later, a 22 x 18.5 ft. extension was added to the north end of this addition; this section housed the Safety Shoe Store. Originally separated from the rest of the wooden addition, the dividing wall was later removed to allow expansion of the credit union.

The next modifications came in 1951 as a result of an agreement by the yard to allow the National Shawmut Bank to open a branch in the building. Most of the work was internal, including the removal of the original five-bay brick west wall and construction of a second vault. The front steps were replaced by a new concrete platform with steps leading from both the north and south. The bank opened for business on November 5, 1951.

Both the bank and credit union closed in 1974 with the shipyard. The building, which was included in the portion of the yard transferred to the National Park Service, remained vacant from 1974 until October 1977, when the Boston Redevelopment Authority (BRA) opened a site construction office in it. The BRA remained there until the summer of 1980, when the NPS entered into an agreement with the Boston Marine Society to move its offices, museum, and library into the building. Following rehabilitation work, designed by architect Ronald H. Albert of Haverhill, Mass., the society moved into the structure in 1981.



Building Analysis

Character-defining Elements

Exterior

- Brick and stone façades with well-constructed deeply recessed brick arches springing from a granite band across each shared pilaster, projecting rock-faced granite watertable, and keystones over flat granite surrounds within arches at 1856 entrances.
- Slate hipped roof with profiled copper gutter edge and hip battens
- Window openings inserted in 1892 (sashes originally 2/2, then 6/6)
- WW II wood-clad addition on west elevation for massing and materials.
- Original personnel entrance at east elevation's original central archway.

Interior

- Window openings and sill height
- Cast iron columns
- Original north exterior wall, brick, now interior

Integrity/Intactness

Building 32 basically embodies three phases of change in its uses and corresponding expansion. Primary masonry facades are remarkably intact apart from an aluminum replacement door at east entrance. As noted in Section 9.1.3 of this chapter, there is serious settlement cracking where the two-bay expansion to the north joins the original five-bay east elevation.

Wooden additions along the west elevation were accompanied by demolition of the brick exterior wall and insertion of a bank vault. Prior wooden additions from WW I were built and removed without demolition of the exterior masonry. The brick pre-WW II west elevation is lost, but the original massing is clearly conveyed by the hipped roofs of dark slate. Two entry doors at the north elevation share a raised concrete landing. These elements are not significant historically or architecturally.

Interiors are simple rooms with historic and more recent bank vaults and safes, wood moldings, and a pressed metal ceiling in the two-bay addition. Remnant crown molding in a small room with attic access ladder indicates formal office interiors during the paymaster's occupancy.

Structural Assessment

Building 32 is a single-story structure with a hip roof and partial attic that was constructed in multiple phases.

Original Structure

The original structure faces First Avenue toward the southeasterly direction with a three bay (four pilastered) multi-wythe brick masonry wall that once contained the main entrance but has since been filled in. This wall is mirrored with a similar wall on the northwest side of the building but which has since been concealed by the northwest addition. Between the former front and back walls ran matching five-bay (six pilastered) brick walls, however, much of the southwestern wall was removed to annex the southwest addition.

The typical exterior wall construction consists at each bay of a flat recessed brick panel running between projecting vertical pilasters and crowned with projecting brick arch that spans between the pilasters at each side of the bay. Within each flat panel is an arched window or door opening. All of the bays are of similar dimension and overall construction.

The brickwork appears to have been constructed with a lime and sand mortar. The building's foundation is likely using timber piles, and the ground floor is slab-on-grade in good to fair condition.

The first floor was constructed approximately 2½ feet above the surrounding grade. It is surmised that this floor consists of board-sheathed dimensional lumber joists on timber beams and piers, and/or low brick walls.

The roof is constructed with timber trusses spanning between each of the paired pilasters of the northeast and southwest walls. These support a system of timber purlins and dimensional lumber common rafters and hip rafters that comprise the roof structure, as well as northwest-southeast running joists that support the ceiling. Being rectangular in plan, the roof has a ridge in the center that runs between hips in the northwest-southeast direction.

According to the McPhail report, it is likely that the original structure was founded on deep, timber pile foundations.

Northwest Addition

An addition was constructed ca. 1910 against the original structure's northwest side, which was in almost every respect a copy of the original construction, essentially extending the original two more bays in this direction. The addition's northeast and southwest walls are interlocked with the original construction to provide an almost seamless transition, and the roof of the addition incorporates the northwestern slope of the original roof, which appears (from our observations) to have been removed and relocated to its new location toward the northwest. It appears from the exterior that the brickwork of the addition, as well as its toothing into the original construction, is composed of a part natural cement or early Portland cement mortar. The other way that this addition differs from the original construction is that it is founded on relatively shallow spread footings, which bear over a mix of subgrade materials, including organic peat and loam, according to the McPhail report.

Southwest Addition

At some point following the completion of the northwest addition, a single story wood-framed addition was constructed against the southwest side of the combined structure. As part of this addition, much of the original southwest wall was removed and the roof supported on paired steel beams. We do not know what type of foundation system was used under this addition.

Noted Structural Damage

Structural damage has been noted at the northeast wall, where the northwest addition meets the original construction. Based upon observations of this damage, as well as other damage it was determined by the 2006 Structures North report and the McPhail investigation that the northwest addition is sinking.

There is a vertically oriented crack, which has been patched, in the southeast (former front) wall. There are also signs of damage and deformation having occurred in the roof structure above this area.

Mechanical System

Heating Systems

- The building is served by 1 Hydrothermal gas-fired boiler, with a draft hood and flue pipe to the roof. These are observed to be sized 342 MBH output. The boiler is in poor condition and in need of replacement.

- The hot water vertical unit vent, with 100% recirculation and exposed distribution duct, has no nameplate data.
- There are hot water cast iron radiators in the original building along with arrayed piping in a portion of the exterior wall.
- Hot water fin tube radiators serve the addition to the building.

Control Systems

- Electric thermostats used to control valves at the ventilator and the radiators.

Electrical System

- The electrical distribution system comprises of a 225 AMP with 42 circuits of which eight are in fair condition and a 100 AMP with 18 circuits in poor condition. The power is fed by a transformer located underground outside the building.
- Interior lighting is primarily 8'x4' fluorescents in 1x4 pendants. This lighting is generally aged or aging. There are approximately 79 of these fixtures throughout the facility.
- Secondly there is 12"x12" incandescent recessed interior lighting in the vestibule. These are aged.
- One lighting canopy-mounted light fixture over a door is in fair condition.

Building Floor Plan

