



Approved for Historic Preservation
Certificate of Appropriateness

07/13/17

RESURGENCE

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CREIGHTON BLOCK – 92-96 COMMERCIAL STREET, PORTLAND, MAINE STRUCTURAL REHABILITATION AND BUILDING CONSTRUCTION BACKGROUND

The Creighton Block at 94-96 Commercial Street, dates to 1872 and occupies the Commercial Street end of Custom House Wharf. Before the harbor infill that created Commercial Street, Titcomb's Wharf sat at the approximate location of the Creighton Block. The Custom House across Commercial Street was built between 1867 and 1872, following destruction of the earlier building in the fire of 1866.

Timber piles, concrete pile caps, and rubble walls support the building. An 1876 bird's eye view of the Portland Waterfront (MMN #71166) shows the Creighton Block supported by timber piles, and no rubble perimeter wall. It is unknown whether this image contains artistic license by the renderer, or if it was in fact supported on piles. According to Meg Donovan, ships or barges were formerly able to enter the rear of the building to offload goods. An 1898 view of Custom House wharf (MMN #1189) clearly shows a rubble wall along the east side of the building, and a rubble wall extending at least partially beneath the southern side. Sometime during or shortly after its original construction of the wharf, organic and inorganic debris was dumped into the basement. The three-story masonry, timber, and steel structure currently sits upon perimeter rubble bearing walls and pile caps in its unfinished, tidal basement. No information is available to determine how deep any existing piles extend into the subgrade and natural harbor floor. Rubble masonry foundation walls contain fill dumped into the basement, possibly after the 1866 fire, or after the building no longer supported ship unloading.

Years of rail traffic, street traffic, construction activity and tides have caused the building to settle unevenly. By 1924, when the building was approximately 52 years old, Portland Tax Map Photographs show that the storefront columns listed noticeably to the east. We have found no earlier images that show the storefront of the building.

The building foundation and first floor has settled to the east and continues to do so, despite a well-executed structural rehabilitation by Bob Swift and Scott Teas in 1999. Potential reasons for this continued settlement, beyond the loss of fines through the rubble wall and decay of organic debris and piles, include:

1. Lack of positive tie between floor joists and the east and west walls;
2. Removal of a significant portion of the second-floor diaphragm along the east wall to install a long stairway to the second and third floors;
3. East wall floor joist rot at the first-floor level;

Our current plan to stabilize and strengthen the structure, and to rehabilitate the storefront includes:

- a. Interior basement excavation to install riprap, gravel, and filter fabric against the east wall, to slow migration of soil fines out that wall;
- b. Anchoring west wall floor joists to the west wall, to stiffen the first floor and west wall;
- c. Repairing and replacing rotted first floor joists tied to the east wall, to stiffen that wall structure;
- d. Excavation and strengthening of interior pile caps, if possible;
- e. Rebuilding interior brick and timber column bases, compromised by recurring water infiltration;
- f. Strengthening the Commercial Street foundation wall to facilitate repairs to the storefront.
- g.

The structural rehabilitation work will proceed from the back to the front of the building, helping provide time for longer-lead windows and storefront items, and allowing time for the project to proceed through appropriate Historic Preservation review.



Structural Engineering Assessment and Rehabilitation Design
Element Structural Repairs – Draft – April 21, 2017
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