HELEN WATTS ENGINEERING, PLLC
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Inspections Division
Date: 04/30/14

April 15, 2014

Tanner Herget
Bonfire LLC
37 Wharf Street
Portland, ME 04101

RE: 37-39 Wharf Street, Portland, ME; HCW Project No. 14-007
Additional Code Requirements Regarding Egress Doors

Dear Tanner:

Helen Watts Engineering PLLC provided a site visit on February 17, 2014 and met with your representative to discuss removing the bearing wall to join the spaces at 37 and 39 Wharf Street into one bar/lounge space. We provided a stamped sketch of the required structural work and a Life Safety Plan. The code requires that the egress doors swing out, and there were additional questions about means of egress, which are discussed below. This space was most recently used for a Mercantile Occupancy; prior to that it was another nightclub. The space falls under either chapter 12 or Chapter 13 in the NFPA Life Safety 101 code.

This is the door nearest the alley; both doors are the same size and configuration and have the same window arrangement and door hardware.

Photos: Door #2, nearest the alley, Door 1 is the same size

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The existing doors are solid wood doors with glazing in the upper half, and no mullion. At present they swing in, because of the brick masonry arch to which the doors are set. The doors are 59" wide, with each side having 29.5" clear. The clear height at the top of the arch is 81" and 79" at the outside of the arch.

The Portland Planning Department, the Portland Fire Chief, and the State Fire Marshall's office want the doors swinging outward, for life safety requirements. The doors can be removed and modified to swing outward, but only with the permission of the Historic Preservation Board as Wharf Street is characterized by a particular historic appearance, and the doors are considered to be a part of that appearance. This change appears to be acceptable to Mr. Weiner, the Preservation Compliance Officer, as long as the door in the poorest condition is repaired.

The top of the door will need to be reinforced at the glazing inside and out. The doors will be provided with panic hardware. Because of the narrow door leaves, the closer will be a 'cross bar' type with vertical rod exit devices, with a top and bottom rod. These are cut to fit the door onsite by the installer. A quote for one model door hardware that will work for this application from Loranger Door is attached.

In NFPA Life Safety Code 101 (2012), 7.2.1.3 requires a 32" door leaf minimum; the door leaves provided are 29.5". There is an exception for double doors which allows 28" (7.2.1.3.2 (1), and in 7.2.1.3.2 (4) the width can be 28" in existing buildings.

Per NFPA Life Safety Code 101 (2012),7.5.1.3.5 an existing building must just meet the requirement to be as remote as possible; the exterior door placement is set by the historic requirements for buildings on Wharf Street. The shortest interior travel distance (as in 7.5.1.3.4) from Door 1 to Door 2 is 20.3', the exterior distance is 18.1'.

Thank you for the opportunity to provide engineering services to you.

Yours truly,

STATE OF MAINE
HELEN C. WATTS
No. 3281
4/15/14
LICENSED
PROFESSIONAL ENGINEER

Helen C. Watts, P.E.
Principal

Enclosures: Sketch, Loranger Quote

HWE\ *C:\Users\Ralph\Documents\HWE\37-9 Wharf\37-39 Wharf door code ltr 04152014.docx*

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ASSEMBLY GROUP A-2 (RESTAURANTS, TAVERNS AND BARS) (IBC), EXISTING ASSEMBLY (NFPA 101)
BUILDING TYPE VA, SPRINKLERED (IBC), V(111) SPRINKLERED (NFPA 101)
OCCUPANCY PER TABLE 1004.1.1 (IBC): ASSEMBLY WITH TABLES AND CHAIRS, NO FIXED SEATS
15 SF NET/PERSON, = 80 PERSONS (88 PERSONS IF OCCUPANCY OF 4 ASSIGNED TO EACH BATHROOM)
▦ ILLUMINATED EXIT SIGN (5 REQUIRED). EMERGENCY LIGHTING NOT SHOWN (5 REQUIRED)
○ ABC FIRE EXTINGUISHER

PER 13.2.6.2 (1) THE EGRESS DISTANCE MUST BE LESS THAN 250'.

INTERIOR FINISHES: CLASS A, B, OR C PER 13.3.3.3

CEILING: 2-HOUR FIRE RATED WITH 2 LAYERS OF 5/8" TYPE X DRYWALL, STAGGERED SEAMS, TYPE X CAULKED PENETRATIONS
FLOOR: EXISTING WOOD

BATHROOM WALLS: 2X4 SPF #2 STUDS WITH 5/8" DRYWALL
BATHROOM FLOORS: TILE
OTHER WALLS: BRICK MASONRY

EXISTING 90-MIN RATED DOOR W/ CLOSER @ ENCLOSED EGRESS FROM LIFE IS GOOD SHOP
2-HOUR FIRE-RATED WALLS PER T 6.1.14.4.1 (a)
90-MIN RATED DOOR W/ CLOSER, ACCESS TO BASEMENT

COOKING: MICROWAVE PER 13.2.2.2(3)

EXISTING SOLID WOOD DOOR: 2@ 29.5" X 6'-9"
DOOR: 2@ 29.5" X 6'-9"
EXTERIOR DOORS ARE EXISTING AND WILL BE MODIFIED AND RE-HUNG TO SWING OUT

THE DOORS HAVE AN OPENING OF 59" EACH. THE DOORS WILL HAVE PANIC HARDWARE. THE OPENING FOR ONE SIDE IS 29.5" (ALL 4)

NOTE: THE TOTAL BUILDING AREA IS ~9000 SF; THE UPPER FLOORS EXITS DISCHARGE TO FORE STREET EXCEPT FOR THE FLOOR DIRECTLY ABOVE, 1800 SF @ 30 PERSONS/sf = 60, PER TABLE 7.3.1.2, CLASS C MERCANTILE, 37.1.2.2.1 (c) WITH ORDINARY HAZARD PER 6.2.2.3. THE BASEMENT IS A LOW-HAZARD STORAGE SPACE SERVING THE BAR/LOUNGE WHICH DISCHARGES TO THE BAR/LOUNGE SPACE AND IS USED BY EMPLOYEES ONLY. THE LOT LINE IS JUST OUTSIDE THE FACE OF THE BUILDING, WITH A NARROW FENCED AREA BEING APPROVED FOR SERVING OUTSIDE WHICH WILL PROVIDE PROTECTION FOR THE SWING OF THE DOOR AT WHARF STREET.

SKETCH – NOT TO SCALE

04/15/2014
Helen C. Watts, P.E.
HWE P/N 14-007

STATE OF MAINE
HELEN C. WATTS
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LICENSED
PROFESSIONAL ENGINEER
4/15/14

LIFE SAFETY PLAN: 37-39 WHARF ST
PORTLAND, ME
TANNER HERGET, BONFIRE LLC

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