



WHIPPLE - CALLENDER ARCHITECTS

4.11.17 – 343 FOREST AVENUE NFPA 2009 CODE REVIEW SUMMARY

Project Description:

343 Forest Avenue is a two-story brick structure with wood framed floor and roof. The building has approximately 12,000 s.f. per floor that is currently partitioned into rooms and spaces that suite this tenant well. Liberty Bay Recovery Center will have 19 clients and 12 staff. Minimal adjustments are required to the existing plan. On floor two we will be improving an existing kitchen spaces' equipment and adding men's and women's bathrooms. At the ground floor, we will maintain the existing layout and use it as staff space.

Site Burdens:

There is in effect a 99 year lease of City property to 164 Realty Inc. This property is separate from and behind the site for 343 Forest Avenue. Our project scope includes a re-build of the existing parking lot.

Portland Zoning- 2009- Relevant sections:

14-250 Dimensional Req.:

B-2 Business zone- permitted use, day program and intermediate care facility

Existing lot size- 17,500 s.f.

Setback requirements

Street frontage Existing to remain

Front setback- none, OK

Side setback- 5' existing OK

Rear yard- varies, existing to remain, OK

Parking- one space for every 5 beds @ intermediate care, one space per 400 s.f. of area for day program. The program will have 19 clients and approximately 14 staff. Clients are not permitted to have cars, but the staff will. We propose to "right size" our parking requirement at about 20 cars. We have access to 36 spaces with the current plan.

Max. permitted imperv. surface -90% for B2 zone.

Max. permitted bldg. height - Existing two story height to remain

Paved Parking Area- Existing leased parking area to remain and be repaved/ rebuilt.

Lighting- There is currently no exterior lighting and none is planned with this proposed interior work.

Signage-Signage will be applied to the glass entry vestibules at the Forest Ave. entry as well as the side entry.

Trash- Trash will be handled privately. It will not involve a dumpster but will be bagged for private hauling. Kitchen waste will be composted.

IBC- 2009- Relevant sections:

The existing building use is defined as R-1 Board and Care .



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Per table 503 the existing Type III B/ R-1 structure can have 16,000 s.f. per floor and be 4 stories while remaining unsprinklered. We are 12,000 s.f. per floor, protected and fully sprinkled

Fire Department checklist- please refer to plan for travel distance, F.E. locations, notification, emergency lighting, exit signs, etc.

EXISTING KNOX BOX AT FOREST AVE. ENTRY SHALL REMAIN

1. Owner- **Liberty Bay Recovery Center- Nathan Cermelj**
2. Architect- **Whipple Callender Architects, PO Box 1276 Portland, Maine 04101 (775-2696)**
3. Proposed use- **Board and Care facility**
4. Square footage of structure- **24,000 s.f. gross (12,000 s.f. / flr.)**
5. Elevation of all structures- **existing 10' floor to floor**
6. Proposed fire protection of all structures- **fully sprinkled**
7. Hydrant Locations- **Forest Ave**
8. Water main sizes and locations- **not known**
9. Access to any Fire Department Connections-**Connection to existing sprinkler system provided**
10. Access to all structures (2 sides Min.)- **Clear access to 3 sides**
11. A code summary shall be included referencing NFPA and all fire department technical standards-

NFPA 101-2009 – Chapter 32: New Residential Board and Care

32.1 General Requirements

32.1.1.3 Chapter Sections.

(3) Section 32.3. Large Facilities (that is, sleeping accommodations for more than 16 residents)- WE ANTICIPATE 19 CLIENTS

32.1.2 Multiple Occupancies- BOTH FLOORS WILL BE OCCUPIED BY THE SAME TENANT WITH ADMINISTRATION ON THE GROUND FLOOR

32.3 Large Facilities.

32.3.1.3 Minimum Construction Requirements. Large Board and Care facilities shall be limited to the building construction types in Table 32.3.1.3 based on the number of stories in height. AS TYPE III (211) WE ARE PERMITTED TO BE A TWO STORY OCCUPANCY

32.3.1.4 Occupant Load. WE ANTICIPATE 19 CLIENTS AND 12 STAFF FOR A TOTAL OF 31 OCCUPANTS.

32.3.2 Means of Egress.

32.3.2.1.1 Means of egress from resident rooms and resident living units shall be in accordance with Chapter 7 and this chapter.

32.3.2.2.2 Doors. Doors in means of egress shall be as follows:

1. Doors complying with 7.2.1 shall be permitted
2. Doors within indiv. rooms or suites of rooms shall be permitted to be swinging or sliding.
3. No door shall be equipped with a lock requiring a tool or key from the egress side.
4. Delayed egress locks in accordance with 7.2.1.6.1 shall be permitted , provided not more than 1 device is located in any egress path. WE WILL INSTALL 15 SECOND DELAY LOCKS AT THE TWO SECOND FLOOR EGRESS LOCATIONS.
5. Access controlled egress doors in accordance with 7.2.1.6.2 shall be permitted.
6. Doors located in the means of egress are permitted to be locked under the provisions of Chapter 32 #4 & #5, shall have adequate provisions made for rapid removal of occupants by



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means such as remote control of locks, keying of locks to keys carried by staff at all times, or other such reliable means available to staff at all times.

7. Only one such locking device described in #6 shall be permitted at each door.

32.2.2.3 Stairs

32.2.2.3.1 Stairs complying with 7.2.2 shall be permitted. EXISTING EXTERIOR STAIRS COMPLY WITH 7" RISER AND 11" FIN. TREAD. EXISTING INTERIOR EGRESS STAIR HAS 7 1/2" RISERS AND 10 1/4" TREADS.

32.3.2.3 Capacity of Means of Egress

32.3.2.3.3 The width of corridors shall be sufficient for the occupant load served and but shall not be less than 60". THE EXISTING CORRIDORS ARE APPROX. 4'4" WIDE

32.3.2.4 Number of Exits. The minimum number of exits as required by Section 7.4 shall be provided on every story. TWO MEANS OF EGRESS ARE PROVIDED AT EACH FLOOR.

32.3.2.5 Arrangement of Means of Egress

32.3.2.5.1 Access to all required exits shall be in accordance with Section 7.5. WE COMPLY WITH SECTION 7.5

32.3.2.6 Travel Distance to Exits. Travel distance from any point in a room to the nearest exit, measured in accordance with Section 7.6, shall not exceed 250 ft. TRAVEL DISTANCE IS LESS THAN 250 FT.

32.3.2.9 Emergency Lighting. Emergency lighting in accordance with Section 7.9 shall be provided unless each sleeping room has direct exit to outside at finished ground level. WE WILL PROVIDE EMERGENCY LIGHTING PER SECTION 7.9

TABLE 32.3.3.2.2 Hazardous area protection. WE WILL PROVIDE PROTECTION IN AREAS NOTED IN THE SEPARATION TABLE

32.3.2.3 Means of egress from resident rooms and resident living units shall be in accordance with Chapter 7 and this chapter.

31.3.3.3.2 Interior wall and ceiling finish. Interior finishes shall comply with Section 10.2 and be in accordance with the following:

1. Exit Enclosures-Class A
2. Lobbies and Corridors-Class B
3. Rooms and Enclosed Spaces – Class B

NEW INSTALLED MATERIALS WILL COMPLY WITH THESE REQUIREMENTS

32.3.3.4 Detection, Alarm and Communication Systems

32.3.3.4.2 Initiation. The required fire alarm system shall be initiated by the following:

1. Manual means in accordance with 9.6.2 EXISTING SYSTEM TO REMAIN
2. Manual fire box located at a convenient central control point under continuous supervision of responsible employees.
3. Required sprinkler system. EXISTING SYSTEM TO REMAIN
4. Required detection system. EXISTING SYSTEM TO REMAIN & BE IMPROVED WITH ADDITIONAL SMOKE, HORN/STROBES AND ANNUNCIATOR STATION

ALL 4 INITIATION ITEMS WILL BE PROVIDED

32.3.3.4.3 Annunciator panel. An annunciator panel, connected to the fire alarm system, shall be provided at a location readily accessible from the primary point of entry for emergency response personnel. A NEW ANNUNCIATOR PANEL WILL BE PROVIDED, FLOOR 1 ZONED AND FLOOR 2 POINT.



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32.3.3.4.4 Occupant notification. Occupant notification shall be provided automatically, without delay in accordance with 9.6.3. WE WILL PROVIDE OCCUPANT NOTIFICATION.

32.3.3.4.6 Emergency Forces Notification. Emergency forces notification shall meet the following requirements:

1. Fire Dept. notification shall be in accordance with 9.6.4 WILL BE A MONITORED SYSTEM
2. Smoke detection (systems) shall be permitted to initiate primary alarm system in accordance with 9.6.3.4 for not more than 120 seconds. WE WILL PROVIDE EMERG. FORCES NOTIFICATION.

32.3.3.4.8 Smoke Detection Systems.

32.3.3.4.8 Corridors and spaces open to corridors, other than those meeting the requirements of 32.3.3.4.8.3 shall be provided with smoke detectors that comply with NFPA 72 National fire Alarm Code and are arranged to initiate an alarm that is audible in all sleeping areas. WE WILL PROVIDE CORRIDOR SMOKE DETECTORS THAT INITIATE SLEEPING AREA ALARMS

32.3.3.5 Extinguishing requirements

32.3.3.5.1 General. All buildings shall be protected throughout by an approved automatic sprinkler system installed in accordance with 9.7.1.1 (1) . THE BUILDING IS SPRINKLED WITH AN EXISTING SUPERVISED SPRINKLER SYSTEM COVERING THE ENTIRE BUILDING.

32.3.3.5.6 Portable Fire Extinguishers. Portable fire extinguishers shall be provided in accordance with 9.7.4.1. EXISTING FIRE EXTINGUISHERS TO REMAIN

32.3.3.6 Corridors and Separation of Sleeping Rooms.

32.3.3.6.2 Sleeping Room shall be separated from corridors, living areas and kitchens by walls complying with 32.3.3.6.3 through 32.3.3.6.6 EXISTING 5/8" TYPE X EA. SIDE TO REMAIN

32.3.3.6.3 Walls required by 32.3.3.6.1 through 32.3.3.6.2 shall be smoke partitions in accordance with Section 8.4 having a minimum ½ hr. fire resistance rating. ½ HR. WALLS WILL BE PROVIDED

32.3.3.6.4 Doors protecting corridor openings shall not be required to have a fire protection rating but shall be constructed to resist the passage of smoke. EXISTING 5/8" TYPE X EA. SIDE TO REMAIN

32.3.3.6.5 Door closing devices shall not be required on doors in corridor wall openings, other than those serving exit enclosures, smoke barriers, enclosures of vertical openings and hazardous areas. EXISTING CLOSERS WILL REMAIN AT EGRESS DOORS – NO CLOSERS OTHERWISE

32.3.3.6.6 No louvers, grilles, operable transoms, other than properly installed heating and utility installations shall penetrate the walls of doors specified in 32.3.3.6 NO LOUVERS SPECIFIED

32.3.3.7 Buildings shall be subdivided by smoke barriers in accordance with 32.3.3.7.1 through 32.3.3.7.21 NO SMOKE BARRIERS AS AREAS ARE LESS THAN MAX. ALLOWABLE

32.3.3.7.1 Every story shall be divided into not less than two smoke compartments, unless it meets the requirements of 32.3.3.7.4, 32.3.3.7.5, 32.3.3.7.6, 32.3.3.7.7 WE MEET REQUIREMENTS

32.3.3.7.2 Each smoke compartment shall have an area not exceeding 22,500 s.f. FLOOR AREAS IS 12,000 S.F., NOT REQUIRED

32.3.3.7.3 The travel distance from any point to reach a door in the required smoke barrier shall be limited to a distance of 200 ft. NA



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32.3.3.7.4 Smoke barriers shall not be required on stories that do not contain a board and care facility located above the board and care facility. NA

32.3.3.7.5 Smoke barriers shall not be required in areas that do not contain a board and care occupancy and that are separated from the board and care occupancy by a fire barrier complying with Section 8.3 NA

32.3.3.7.8 Smoke barriers shall be constructed in accordance with Section 8.5 and shall have a minimum 1 hr. fire resistance rating unless they meet the requirements of 32.3.3.7.9 or 32.3.7.10. NA

32.3.3.7.10 Dampers shall not be required in duct penetrations of smoke barriers in fully ducted heating, ventilating and air conditioning systems. NA

32.3.3.7.11 Not less than 15 net s.f. shall be provided for each resident within the aggregate area of corridors, lounge or dining areas, and other low hazard areas on each side of the smoke barrier. NA

32.3.3.7.13 Doors in smoke barriers shall be substantial doors, such as 1 3/4" thick solid core doors or shall be of construction that resists the fire for a minimum of 20 minutes. NA

32.3.3.7.16 Swinging doors shall be arranged so that each door swings in a direction opposite from the other. NA

32.3.3.7.17 Doors in smoke barriers shall comply with 8.5.4 and shall be self closing or automatic closing in accordance with 7.2.1.8. NA

32.3.3.7.19 Rabbits, bevels, or astragals shall be required at the meeting edges, and stops shall be required at the head and sides of doors and frames in smoke barriers. NA

32.3.3.7.20 Positive latching hardware shall not be required. NA

32.3.3.7.21. Center mullions shall be prohibited. NA

32.3.3.8 Cooking Facilities. Cooking facilities, other than those within indiv. residential units, shall be protected in accordance with 9.2.3 WILL BE PROTECTED

32.7.1 Emergency Plan WILL BE PROVIDED

32.7.2 Resident Training WILL BE PROVIDED

32.7.3 Emergency Egress and Relocation Drills WILL BE PROVIDED