WIDGERY WHARF - BLDG. 1

13 WIDGERY WHARF
PORTLAND, ME

DRAWING LIST

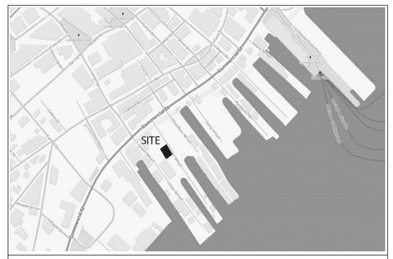
Client:
Proprietors of Union Wharf
36 Union Wharf
Portland, ME
04101
207.772.8160

Architect:
Archetype Architects
48 Union Wharf
Portland, ME
04101
207.772.6022

Structural Engineer:
Structural Design
Consulting, Inc.
2696 Lake Shore Road
Unit 130
Gilford, NH 03249
603.293.8038

Civil Engineer:
Stantec
482 Payne Road
Scarborough, ME
04074
207.883.3355

Contractor:
Ducas Construction
3 Southgate Road #8
Scarborough, ME
04074
207.536.0838



LOCATION MAP NOT TO SCALE

BUILDING TOTALS - GROSS SF

LOWER LEVEL:	896 SF
SECOND FLOOR:	6062 SF
THIRD FLOOR:	6062 SF
FOURTH FLOOR:	6062 SF
TOTAL:	**19,082 SF**

DATE OF ISSUE

ISSUED FOR CONSTRUCTION - 17 FEB 2017

ARCHETYPE architects

LICENSED ARCHITECT
DAVID LLOYD
NO. 936
STATE OF MAINE

CODE SUMMARY

Applicable Codes
- MUBEC - Maine Uniform Building and Energy Code
  2015 International Building Code - IBC (except chapters 11 and 30)
  2015 IECC: International Energy Conservation Code
- NFPA 101 Life Safety - 2015

Accessibility Codes
- State of Maine Human Rights Act
- ADAAG Americans with Disabilities Act
- ICC ANSI 117.1 Accessible and Usable Buildings and Facilities

PROJECT SUMMARY:

Four-story office building with a surface parking at grade under the building.
Non-Sprinkled.

Square Footages:

6,175 sq.ft.

CODE SUMMARY IBC 2015:

Chapter 3- Use and Occupancy Classification Mixed Use

304.1 Business Group B Office
311.3 Storage Group S-2 Parking

Chapter 5- General Building Heights and Areas

Table 504.4 Allowable Heights and Areas
Business Group B
Type IIA (Non-Sprinkled) - 5 stories (4 Proposed)

Table 506.2 Allowable Areas
Business Group B
Type IIA (Non-Sprinkled) - 37,500 sf. (6,175 sf. Proposed)

Table 508.4 Req'd Separation of Occupancies
Between S-2 and B = 1 hour

Chapter 6- Types of Construction
Table 601 - Fire Resistance Ratings for Building Elements

Building Element	Type IIA
Primary Structural Frame	1 hour
Bearing Walls	
Exterior Walls	1 hours
Interior Walls	1 hour
Non-Bearing Walls and Partitions. Exterior	(See Table 602)
Non-Bearing Walls and Partitions, Interior	0 hour
Floor Construction and Secondary Members	1 hour
Roof Construction and Secondary Members	1 hour

705.8.5 Vertical separation of openings
Openings in exterior walls in adjacent stories shall be separated vertically to protect against fire spread on the exterior of the buildings where the openings are within 5 feet of each other horizontally and the opening in the lower story is not a protected opening with a fire protection rating of not less than 3/4 hour. Such openings shall be separated vertically not less than 3 feet by spandrel girders, exterior walls or other similar assemblies that have a fire-resistance rating of not less than 1 hour, rated for exposure to fire from both sides.

713.4 Shaft Enclosure Fire-resistance rating
Shaft enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more, and not less than 1 hour where connecting less than four stories.

713.6 Exterior walls
Where exterior walls serve as a part of a required shaft enclosure, such walls shall comply with the requirements of Section 705 for exterior walls and the fire-resistance-rated enclosure requirements shall not apply.

715.4 Exterior curtain wall/floor intersection
Where fire resistance-rated floor or floor/ceiling assemblies are required, voids created at the intersection of the exterior curtain wall assemblies and such floor assemblies shall be sealed with an approved system to prevent the interior spread of fire. Such systems shall be securely installed and tested in accordance with ASTM E2307 to provide an F rating for a time period not less than the fire-resistance rating of the floor assembly.

718 Concealed Spaces
718.2 In combustible construction fireblocking shall be installed to cut off concealed draft openings and form a barrier between floors, between a top story and roof or attic space. Fireblocking required at:
- Mineral wool allowed in double stud walls
  - Vertically at floors and ceilings
  - Horizontal spacing not exceeding 10 feet
- Connections between horizontal and vertical spaces (soffits, dropped ceilings, etc.)
- Stairways at top and bottom of run between stringers
- Piping, vents, etc.

718.2.1.5 Double Stud Walls Batts or blankets of mineral or glass fiber insulation shall be allowed as fire blocking in walls constructed using parallel rows of studs or staggered studs.

718.2.2 Concealed Wall Spaces Fire blocking shall be provided in concealed spaces of stud walls and partitions, including furred spaces, and parallel rows of studs or staggered studs as follows:
1. Vertically at ceiling and floor levels
2. Horizontally at intervals not exceeding 10'.

Chapter 8- Interior Finishes

Table 803.11 Interior Wall and Ceiling Finish Requirements By Occupancy- Sprinklered

Group	Exit Enclosures	Corridors	Rooms and Enclosed Spaces
B	Class A	Class B	Class C

906 Portable Fire Extinguishers- Required in Group A, B, M, R-2, and S occupancies: provided in accordance with NFPA 10
- Exception: In Group A and B occupancies extinguishers only required on each floor.

907.2.2 Group B
A manual fire alarm system shall be installed in Group B occupancies where one of the following conditions exists:
1. The combined Group B occupant load of all floors is 500 or more.
2. The Group B occupant load is more than 100 persons above or below the lowest level of exit discharge.

907.4.2 Manual fire alarm boxes
Where a manual fire alarm system is required by another section of this code, it shall be activated by fire alarm boxes installed in accordance with Sections 907.4.2.1 through 907.426.

907.4.2.1 Location
Manual fire alarm boxes shall be located not more than 5 feet from the entrance to each exit. In buildings not protected by an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, additional manual fire alarm boxes shall be located so that the exit access travel distance to the nearest box does not exceed 200 feet.

907.4.2.2 Height
The height of the manual fire alarm boxes shall be not less than 42 inches and not more than 48 inches measured vertically, from the floor level to the activating handle or lever of the box.

Chapter 10- Means of Egress

1004 Occupant Load
Table 1004.1.2 Maximum Floor Area Allowances per Occupant

Business	100 gross sf
6,062 sf per floor	61 people per floor (x3) = 183 occupants

1005.3.1 Stairway Width
61 x 0.3 inch = 18.3 inches (Min. 44 inch per Sec. 1011.1)

1005.3.2 Other Component Widths
61 x 0.2 inch = 12.2 inches

1006.2.1 Egress based on occupant load and common path of egress travel distance
Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2. 1.

1007.1.1 Two exits or exit access doorways
Where two exits, exit access doorways, exit access stairways or ramps, or any combination thereof, are required from any portion of the exit access, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between them. Interlocking or scissor stairways shall be counted as one exit stairway.

1009.1 Accessible means of egress required
Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress are required by Section 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

1009.3 Stairways
In order to be considered part of an accessible means of egress, a stairway between stories shall have a clear width of 48 inches minimum between handrails and shall either incorporate an area of refuge within an enlarged floor-level landing or shall be accessed from an area of refuge complying with Section 1009.6. Exit access stair-ways that connect levels in the same story are not permitted as part of an accessible means of egress.

1009.6 Areas of refuge
Every required area of refuge shall be accessible from the space it serves by an accessible means of egress.

1009.6.2 Stairway or elevator access
Every required area of refuge shall have direct access to a stairway complying with Sections 1009.3 and 1023 or an elevator complying with Section 1009.4.

1009.6.3 Size
Each area of refuge shall be sized to accommodate one wheelchair space of 30 inches by 48 inches for each 200 occupants or portion thereof, based on the occupant load of the area of refuge and areas served by the area of refuge. Such wheelchair spaces shall not reduce the means of egress minimum width or required capacity. Access to any of the required wheelchair spaces in an area of refuge shall not be obstructed by more than one adjoining wheelchair space.

1009.6.4 Separation
Each area of refuge shall be separated from the remainder of the story by a smoke barrier complying with Section 709 or a horizontal exit complying with Section 1026. Each area of refuge shall be designed to minimize the intrusion of smoke.

1009.6.5 Two-way communication
Areas of refuge shall be provided with a two-way communication system complying with Sections 1009.8.1 and 1009.8.2.

1014.7 Handrail Clearance
Clear space between a handrail and a wall or other surface shall be not less than 1-1/2 inches. A handrail and a wall or other surface adjacent to the handrail shall be free of any sharp or abrasive elements. **2-1/4" REQUIRED BY NFPA 101.**

1017.2 Exit Access Limitations
Exit access travel distance shall not exceed the values in Table 1017.2.
Occupancy B Without Sprinkler 200 feet

1017.3 Measurement
Exit access travel distance shall be measured from the most remote point within a story along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit.

1020.1 Corridor Construction
Corridors shall be fire-resistance rated in accordance with Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 for fire partitions.
Table 1020.1 Corridor Fire Resistance Rating
Occupancy B Without Sprinkler 1 hour

1023.2 Interior Exit Stairway Construction
Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Interior exit stairway and ramp enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the interior exit stairways or ramps shall include any basements, but not any mezzanines. Interior exit stairways and ramps shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

1705.14 Sprayed fire-resistant systems &
1705.16 Exterior insulation and finishing systems
Special Inspections of these systems to be by
SW Cole Engineering, Inc.
286 Portland Rd
Gray, ME

2603.5 Exterior Walls of Buildings of any height.
shall comply with 2603.5.1-2603.5.7
2603.5.1 Fire-resistance-rated walls. N/A
2603.5.2 Thermal Barrier. Any foam plastic insulation shall be separated from the building interior by a thermal barrier meeting the provisions of Section 2603.4 (foam plastic shall be separated from the interior of a building by an approved thermal barrier of 1/2-inch gypsum wallboard)
2603.5.4 Flame spread and smoke developed index. Foam plastic insulation shall have a flame spread index of 25 or less and a smoke-developed index of 450 or less.
2603.5.5 Vertical and lateral fire propogation. The exterior wall assembly shall be tested in accordance with and comply with the acceptance criteria of NFPA 285
2603.5.6 Label required. The edge or face of each piece, package or container of foam plastic insulation shall bear the label of an approved agency.
2603.5.7 Ignition. Exterior walls shall not exhibit sustained flaming where tested in accordance with NFPA 268.

CODE SUMMARY NFPA 101 LIFE SAFETY 2015:

NFPA 6.1.11.1 OCCUPANCY - BUSINESS

NFPA TABLE A.8.2.1.2 CONSTRUCTION TYPE II(111)

UN-SPRINKLERED

NFPA 38.1 NEW BUSINESS OCCUPANCY
NFPA 38.2.5.3.1 COMMON PATH OF TRAVEL < 75 FT.
NFPA 38.2.5.2.1 DEAD END CORRIDOR < 20 FT.
NFPA 38.2.6.3 TRAVEL DISTANCE TO EXIT < 200 FT.
NFPA 38.2.9.1 EMERGENCY LIGHTING SHALL BE PROVIDED
NFPA 38.3.3.2.1 INTERIOR WALL AND CEILING MATERIALS IN EXITS AND EXIT ACCESS MUST BE CLASS A OR CLASS B
NFPA 38.3.3.2.2 INT. WALL AND CEILING MATERIALS CLASS A, B OR C IN OTHER AREAS
NFPA 38.3.4.1 FIRE ALARM SYSTEM REQ'D
NFPA 38.3.4.3 FIRE ALARM OCCUPANT NOTIFICATION REQ'D
NFPA 38.3.4.4 EMERGENCY FORCES NOTIFICATION REQ'D
NFPA 38.3.5 PORTABLE FIRE EXTINGUISHERS REQUIRED
NFPA 38.3.6.1 WHERE ACCESS TO EXITS IS PROVIDED BY CORRIDORS, SUCH CORRIDORS SHALL BE SEPARATED FROM USE AREAS BY FIRE BARRIERS IN ACCORDANCE WITH SECTION 8.3 HAVING A MINIMUM 1-HOUR FIRE RESISTANCE RATING.