# 16. SUMMARY OF FIRE CODES

A Fire Plan (FP-01) was created for the Technology Park as part of the initial permitting effort. This plan has been updated to include the proposed Limited Common Element (LCE) 4 Development. In addition, a Life Safety Plan and Code Summary (G-002) has been created for the proposed Unit 4 building. Both of these plans are attached and address the items in the Portland Fire Department Site Review Checklist as follows:

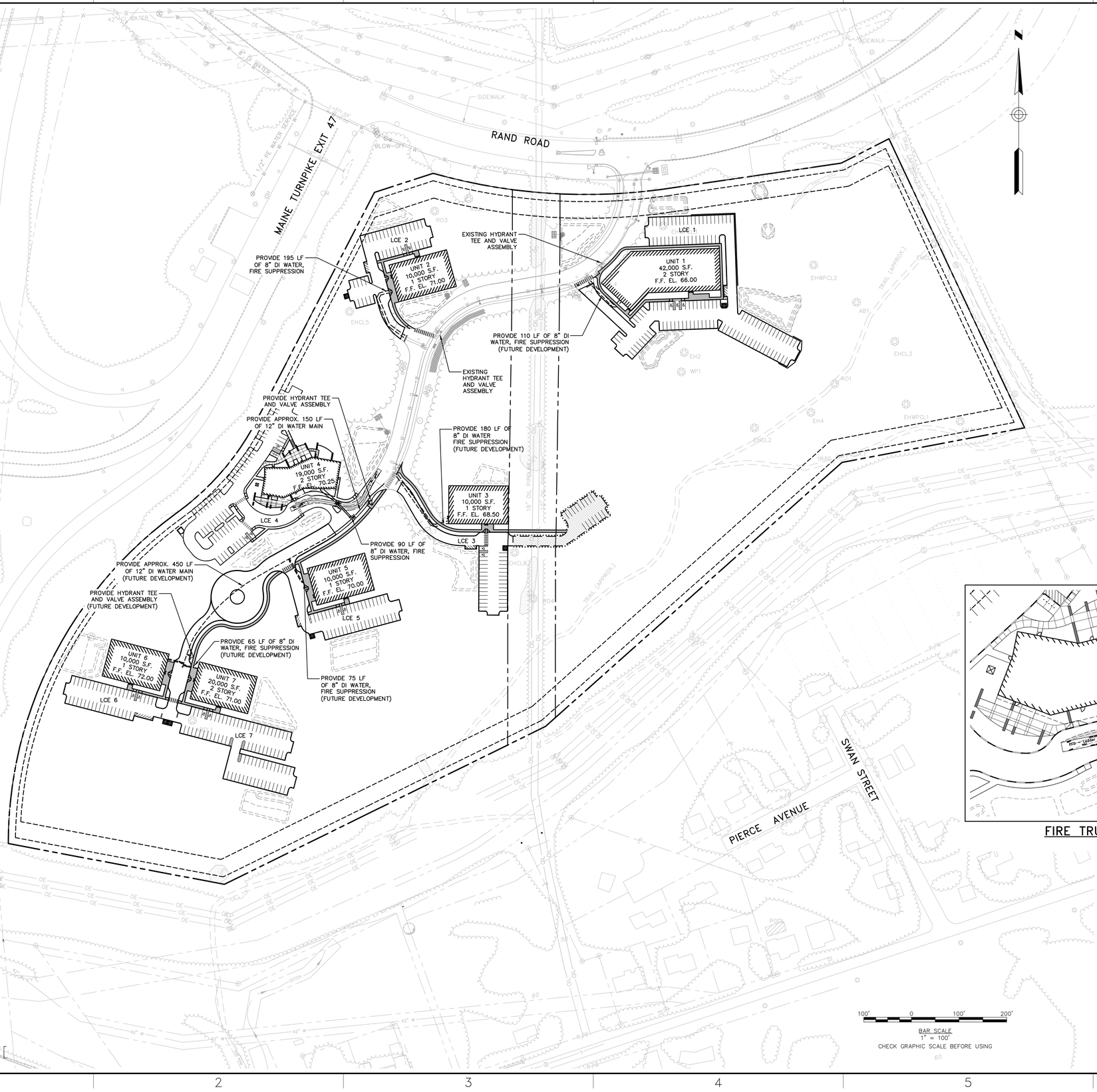
- Name, address, telephone number of applicant
    - This information is provided on sheet FP-01. It now includes both the City of Portland as the contact for the Technology Park and Patrons Oxford Insurance as the contact for LCE 4.
- Name, address, telephone number of architect
    - This information is provided on sheet FP-01.
- Proposed uses of any structures [NFPA and IBC classification]
    - General discussion for the Technology Park is provided on FP-01. Specific LCE 4 structure uses are defined on sheet G-002. Unit 4 will be classified as Mixed Use and Occupancy, Business, B-2, and Assembly, A-3.
- Square footage of all structures [total and per story].
    - This information is provided on sheet FP-01. Areas are conceptual for LCEs 1, 2, 3, 5, 6, and 7. LCE 4 information is as designed.
- Elevations of all structures
    - This information is provided on sheet FP-01. Elevations are conceptual for LCEs 1, 2, 3, 5, 6, and 7. LCE 4 information is as designed.
- Proposed fire protection of all structures
    - All structures shall be sprinkled as noted on both sheet FP-01 and G-002.
- Hydrant locations
    - Existing and proposed hydrant locations are shown on sheet FP-01. One hydrant will be constructed as part of this project.
- Water main size and location
    - The water main is 12 inches in diameter and is shown on sheet FP-01.
- Access to all structures [min. 2 sides]
    - Sheet FP-01 shows the location of all proposed future Technology Park buildings, with access to at least two sides. In addition, the plan shows fire truck access verification for the current proposed LCE 4 development. The fire truck turning template shows that the truck will drive over the curb on the driveway island. This curb will be sloped, granite, mountable curb, ensuring that fire truck access will be possible.
- A code summary shall be included referencing NFPA 1 and all fire department technical standards.
    - The development of LCE 4 will be in conformance with all NFPA and City of Portland Fire Department Standards.
        - Sheet G-002 provides a code review for the proposed LCE 4 building. Building fire protection will be provided by a sprinkler system and all materials will provide adequate fire resistance.

- Sheet FP-01 shows the Technology Park's compliance with all Public Safety Technical Standards for fire hydrants and site access. No hazardous materials will be stored on the site. Blasting or open burning will not be required for construction.

The full plan set, the Fire Plan FP-01, and the Code Review Plan G-002 have been provided to the Fire Department Reviewer along with a cover letter including the above information.

## 16.1 **ATTACHMENTS**

- Fire Plan
- Life Safety and Code Summary Plan




APPLICANT:
PORTLAND TECHNOLOGY PARK – SUBDIVISION AMENDMENT
CITY OF PORTLAND ECONOMIC DEVELOPMENT DIVISION
CONTACT: NELLE HANIG
389 CONGRESS STREET
PORTLAND, ME 04101
PHONE: (207)756-8019
NRH@PORTLANDMAINE.GOV

LCE 4 – LEVEL III SITE PLAN
PATRONS OXFORD INSURANCE
CONTACT: MARK PETTINGILL
P.O. BOX 1960
AUBURN, ME 04211
PHONE: (800)442-6071

ARCHITECT:
SCOTT SIMONS, AIA
MAINE LICENSED ARCHITECT
PHONE: (207)772-4656
SCOTT SIMONS ARCHITECTS
75 YORK STREET
PORTLAND, MAINE 04101
SIMONSARCHITECTS.COM

ENGINEER:
WOODARD & CURRAN
DAVID SENUS
PHONE: (207)774-2112
41 HUTCHINS DRIVE
PORTLAND, MAINE 04102

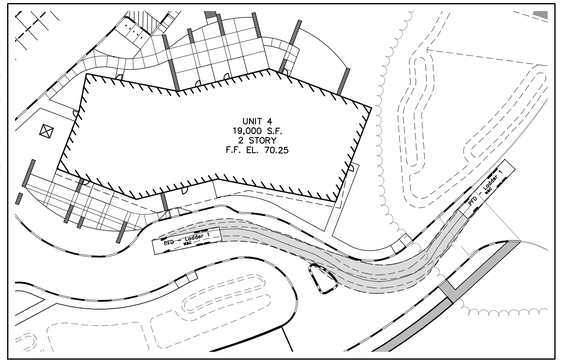
PROPOSED OCCUPANCY TYPE: "BUSINESS USE"

PROPOSED BUILDING TYPE : T.B.D.

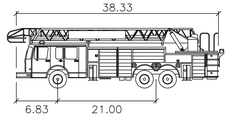
| SQUARE FOOTAGE OF STRUCTURES | | | |
|---|---|---|---|
| BUILDING NO. | STORY 1 S.F. | STORY 2 S.F. | TOTAL S.F. |
| 1 | 21,000 S.F. | 21,000 S.F. | 42,000 S.F. |
| 2 | 10,000 S.F. | – | 10,000 S.F. |
| 3 | 10,000 S.F. | – | 10,000 S.F. |
| 4 | 9,500 S.F. | 9,500 S.F. | 19,000 S.F. |
| 5 | 10,000 S.F. | – | 10,000 S.F. |
| 6 | 10,000 S.F. | – | 10,000 S.F. |
| 7 | 10,000 S.F. | 10,000 S.F. | 20,000 S.F. |

| ELEVATION OF STRUCTURES | | |
|---|---|---|
| BUILDING NO. | F.F. EL. | NO. OF STORIES |
| 1 | 66.00 | 2 |
| 2 | 71.00 | 1 |
| 3 | 68.50 | 1 |
| 4 | 70.25 | 2 |
| 5 | 70.00 | 1 |
| 6 | 72.00 | 1 |
| 7 | 71.00 | 2 |

PROPOSED FIRE PROTECTION:
ALL STRUCTURES SHALL BE SPRINKLERED




FIRE TRUCK TURNING TEMPLATE
SCALE: 1" = 40'




PFD – Ladder 1

| | |
|---|---|
| Width | : 8.00' |
| Track | : 8.00' |
| Lock to Lock Time | : 6.0' |
| Steering Angle | : 28.4 |

100' 0 100' 200'
BAR SCALE
1" = 100'
CHECK GRAPHIC SCALE BEFORE USING

CITY REVIEW SET
NOT FOR CONSTRUCTION

WOODARD & CURRAN
41 Hutchins Drive
Portland, Maine 04102
800.426.4262 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS



STATE OF MAINE DAVID A. SENUS 10791 REGISTERED PROFESSIONAL ENGINEER
MARCH 30, 2011

| REV. | DESCRIPTION | DATE |
|---|---|---|
| DESIGNED BY: | MAC | CHECKED BY: DAS |
| DRAWN BY: | JDE | 22900-FP01.dwg |

FIRE PLAN

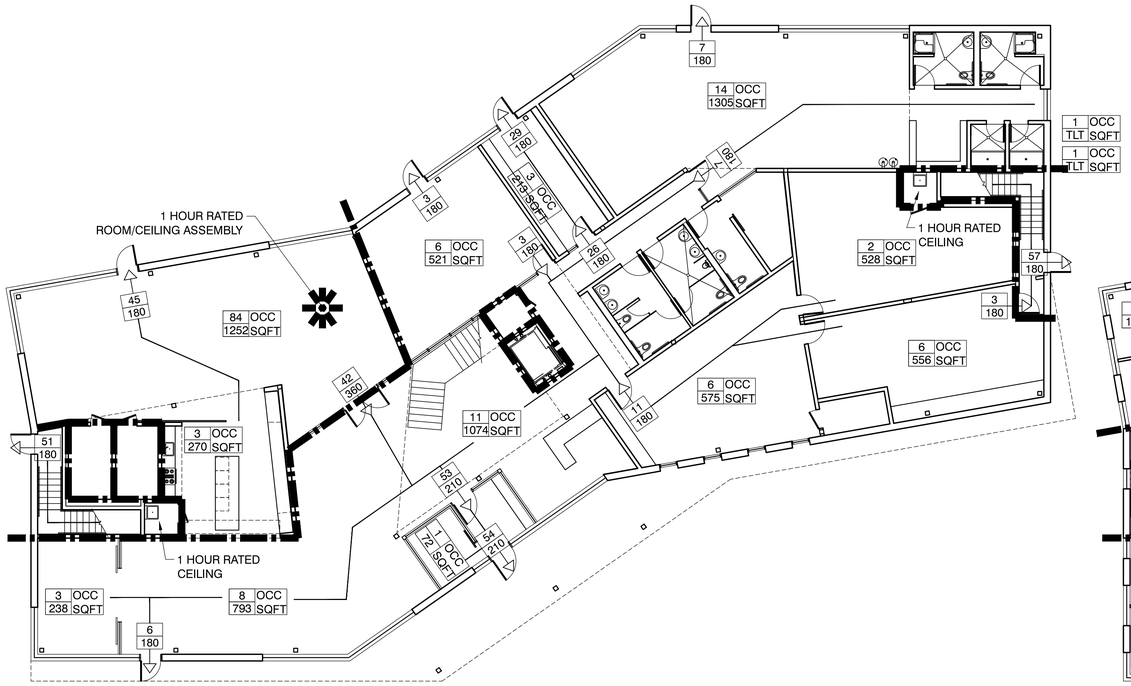
CITY OF PORTLAND
ECONOMIC DEVELOPMENT OFFICE
PORTLAND, MAINE

PORTLAND TECHNOLOGY PARK

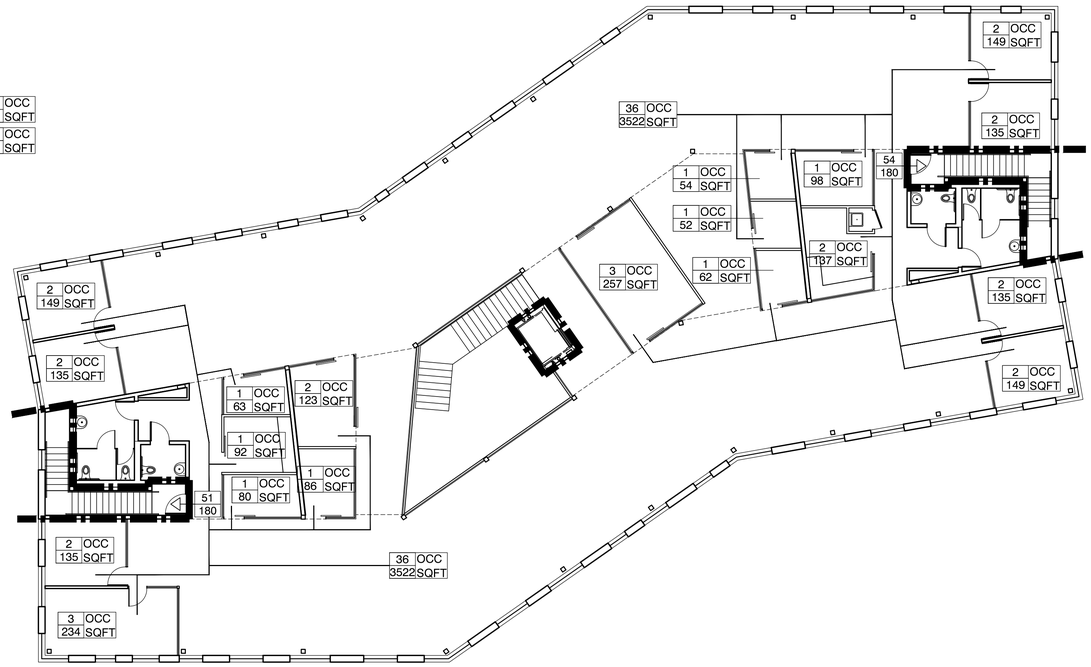
JOB NO.: 203848.63
DATE: DECEMBER, 2011
SCALE: 1"=100'
SHEET: 1 OF 1

FP-01

\\Woodardcurran.net\shared\Projects\22900 SSA - PTP Lot 1 Development\wip\Drawings\CIVIL\22900-FP01.dwg, Oct 02, 2015 11:17am




1 FIRST FLOOR CODE PLAN
SCALE: 3/32" = 1'-0"




2 SECOND FLOOR CODE PLAN
SCALE: 3/32" = 1'-0"

FIRE RATINGS LEGEND

1–HOUR FIRE RATED SEPARATION WITH 1 HOUR OPENINGS

scott simons architects
designed for human potential

75 York Street
Portland, Maine 04101
phone 207 772 4656
fax 207 828 4656
www.simonsarchitects.com

**CODE SUMMARY**

date: Friday, July 23, 2015
project: Patrons Oxford Insurance, Patrons Oxford, 2015-0100
Subject: Schematic Design Code Review
prepared by: Philip Chaney PC Scott Simons Architects SSA

**APPLICABLE CODES**

Maine Uniform Building and Energy Code "MUBEC"
Consists of the following applicable codes:

2009 International Building Code (IBC)
2009 International Energy Conservation Code (IECC)
2007 ASHRAE 62.1 (Ventilation for Acceptable Indoor Air Quality)
2007 ASHRAE90.1 - (Energy Standard for Buildings except Low-Rise Residential Buildings) editions without addenda.
E-1465-2006, Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.
Maine State Internal Plumbing Code based on the 2009 Uniform Pluming Code
State of Maine Subsurface Wastewater Disposal Rules Version dated: Jan 18, 2011
2011 National Electrical Code (NEC)

Fire/ Life Safety

NFPA Life Safety Code as adopted by the State of Maine
Including but not limited to:

2009 NFPA 101: Life Safety Code
2007 NFPA 13: Installation of Sprinkler Systems, [2010 Edition through Equivalency]

Accessibility

2010 ADA Standards for Accessible Design

NOTE: All Codes shall include changes/amendments by the State of Maine

**OCCUPANCY CLASSIFICATION**

Mixed Use and Occupancy
Business, B-2
Assembly, A-3 (IBC Sec 302, 303, 304) (NFPA)

**AUTOMATIC SUPRESSION SYSTEM**

Fully Coverage (NFPA 13)

**GENERAL BUILDING INFORMATION AND**



**ALLOWABLE BUILDING HEIGHTS AND AREA**

(IBC Chapter 5, Table 503) (NFPA)

Building Height (To mid-height of the roof) – 2 Stories

**Allowable Building Area**

| | Occupancy (per IBC chapter 3) | Con. Type (per IBC chapter 6) | Allowable Area (IBC Table 503 modified per IBC 506) | Actual Area |
|---|---|---|---|---|
| **Lower Floor Level** | | | | |
| | B-2 | VB | 9,000 Tabular, per floor 14,400 Allowable | 9,481 sf |
| **Upper Floor Level** | | | | |
| | B-2 | VB | 9,000 Tabular, per floor 14,400 Allowable | 10,372 sf |
| **Total** | | | | 19,853 sf |

**Building Area Modifications** (IBC Sec 506.1, 506.2, 506.3)

60% Total increase taken

General Equation:
A(a) = A(t) + [A(t) x I(f)] + [A(t) x I(s)]

Where :

A(a)= 9,000 sf
A(t)=
I(f)=
I(s)=

Frontage Increase (IBC 506.2)

I(f) of 60% taken

450' Building Perimeter total
378' Building Perimeter >30' clear

I(f) =[F/P – 0.25]W/30

I(f) = [378/443 - .25]30/30 = .59

Where:

I(f)= Area increase due to frontage
F= Building perimeter fronting public way or open space
P = Total building perimeter
W= Width of public way or open space

Automatic Sprinkler Increase (IBC 506.3)

Not taken. Area increase not taken, Approved automatic sprinkler system used to substitute for 1-hour fire resistance rated construction and reflected on Fire Resistive Rating Table below.



**TYPES OF CONSTRUCTION** (IBC Table 601, Sec 602) (NFPA 220)

Type VB

**FIRE RESISTIVE RATINGS** (IBC Table 601) (NFPA Table A.8.2.1.2)

| | Type VB (with sprinklers) |
|---|---|
| Structural Frame | 0 |
| Bearing Walls, Exterior | 0 |
| Bearing Walls, Interior | 0 |
| Non-Bearing Walls and Partitions, Exterior | 0 |
| Non-Bearing Walls and Partitions, Interior | 0 |
| Floor Construction and Secondary Members | 0 |
| Roof Construction and Secondary Members | 0 |

**OCCUPANCY LOAD by Table 1004.1.1 (IBC)**

| | | | |
|---|---|---|---|
| Business Areas - 100 Gross Sq ft per Occupant | 15,700 sf | ÷ 100sf per occupant = | 157occupants |
| Accessory Storage Areas, Mechanical Rooms | 2,901 sf | ÷ 300 sf per occupant = | 10 occupants |
| Assembly Without fixed seats, Unconcentrated | 1,252 sf | ÷ 15 sf per occupant = | 84 occupants |
| | | | 251 total occupants |

**OCCUPANCY LOAD by Table 7.3.1.2 (NFPA)**

| | | | |
|---|---|---|---|
| Business Use | 15,700 sf | ÷ 100 sf per occupant = | 157 occupants |
| Storage Use in other than storage ÷ mercantile use | 2,901 sf | ÷ 500 sf per occupant = | 6 occupants |
| Assembly, less concentrated, w/o fixed seats | 1,252 sf | ÷ 15 sf per occupant = | 84 occupants |
| | | | 247 total occupants |

scott simons architects
designed for human potential

75 York Street
Portland, Maine 04101
simonsarchitects.com
207.772.4656

PROJECT NAME:

# PATRONS OXFORD OFFICES

PORTLAND TECHNOLOGY PARK
RAND ROAD, PORTLAND, ME

SEAL:



REVISION:

| | |
|---|---|
| 1 | DATE |
| 2 | DATE |
| 3 | DATE |
| 4 | DATE |
| 5 | DATE |
| 6 | DATE |

| | |
|---|---|
| DATE OF ISSUE: | September 21, 2015 |
| PROJECT NUMBER: | 2105-0100 Patrons Oxford |
| STATUS: | 100% Design Development |

## LIFESAFETY PLAN + CODE SUMMARY

# G002