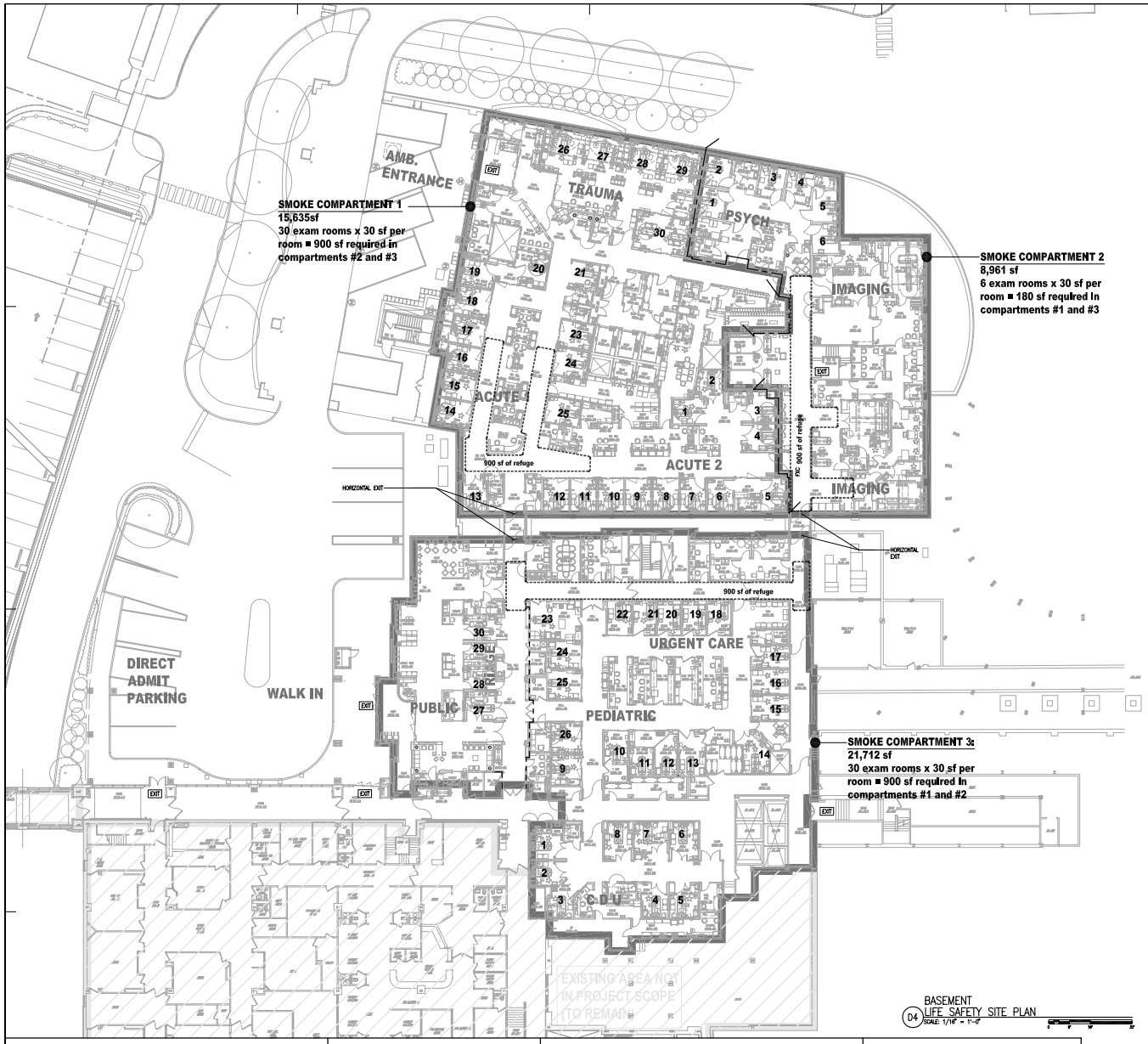


D4 BASEMENT
LIFE SAFETY SITE PLAN
SCALE: 1/16" = 1'-0"

ED EXPANSION CODE ANALYSIS - LIFE SAFETY

NFPA 101 2003 - CONSTRUCTION: I (332), OCCUPANCY: AMBULATORY CARE

SECTION	SECTION DESCRIPTION	REQUIREMENT	COMMENTS
6.1.5	CLASSIFICATION OF OCCUPANCY	CHAPTER 18/19	NEW/EXISTING HEALTHCARE OCCUPANCIES
18.1.1.4	ADDITIONS	CHAPTER 18	NEW HEALTHCARE OCCUPANCIES
18.1.6.4	CONSTRUCTION TYPE LIMITATIONS	I(332)	(SEE FIRE RATINGS TABLE)
18.1.7	OCCUPANT LOAD	TABLE 7.3.1.2	SEE TABLE
	NFPA	TABLE 7.3.3.1 (CAPACITY FACTORS)	LEVEL COMPONENTS, HEALTH CARE, SPRINKLERED (.02) STAIRWAYS, HEALTH CARE SPRINKLERED (.03)
	IBC	TABLE 1005.1 (EGRESS WIDTH PER OCCUPANT SERVED)	STAIRWAYS, SPRINKLERED (.03) OTHER EGRESS COMPONENTS, SPRINKLERED (.02)

TRAVEL DISTANCES

TRAVEL	ALLOWED MAX.	PROVIDED	COMMENTS
FROM LOCATION TO EXIT	200' IBC 200' NFPA	SEE PLANS	EXIT ACCESS TRAVEL, TBL 1015.1 REMOTE PT TO NEAREST EXIT NFPA 101 18.2.6.2.3 & TABLE A.7.6
	1/2 OR 1/3 OF THE DIAGONAL DIMENSION NFPA 2003 7.5.1.3.3	SEE PLANS	1006.4.1 REMOTENESS – EXITS OR EXIT ACCESS DOORS (FULLY SPRINKLERED)

ED EXPANSION FIRE RATINGS - LIFESAFETY

NFPA 101 2003 - NEW HEALTHCARE, (I:332)

ITEM DESCRIPTION	FIRE RATING	COMMENTS
EXTERIOR BEARING WALLS	3 HRS.	
INTERIOR BEARING WALLS SUPPORTING MORE THAN ONE FLOOR	NA HRS.	
INTERIOR BEARING WALLS SUPPORTING ONE FLOOR ONLY	2 HRS.	
COLUMNS SUPPORTING MORE THAN ONE FLOOR, COLUMNS, OR BEARING WALLS	3 HRS.	
COLUMNS SUPPORTING ONE FLOOR ONLY	2 HRS.	
BEAMS, GIRDERS, TRUSSES, AND ARCHES SUPPORTING MORE THAN ONE FLOOR	3 HRS.	
BEAMS, GIRDERS, TRUSSES, AND ARCHES SUPPORTING ONE FLOOR ONLY	2 HRS.	
FLOOR CONSTRUCTION	2 HRS.	
ROOF CONSTRUCTION	1 1/2 HRS.	
EXTERIOR NONBEARING WALLS	0 HRS.	SEE A.3.1 (TABLE) [NFPA 220].

* INFORMATION TAKEN FROM 2006 NFPA 220 TABLE 3 -1
FIRE RATINGS FOR STRUCTURAL ELEMENTS LISTED BELOW ARE PROVIDED AS REQUIRED BY IBC 2003 FOR CONSTRUCTION TYPE 1A.

ED EXPANSION FIRE RATINGS - BUILDING CODE

IBC 2003 - TABLES 601 & 602 CONSTRUCTION TYPE 1A

ITEM DESCRIPTION		COMMENTS
EXTERIOR LOADBEARING WALLS	NA HRS.	
EXTERIOR WALLS NON-LOADBEARING (WITH 0 – 5' FIRE SEPARATION)	1 HRS.	
(WITH GREATER THAN 5' – 10' FIRE SEPARATION)	1 HRS.	
FIRE ENCLOSURE OF EXITS	2 HRS.	
SHAFTS AND ELEVATOR HOISTWAYS	2 HRS.	
OTHER NONBEARING PARTITIONS	0 HRS.	
INTERIOR LOAD BEARING WALLS, PARTITIONS, COLUMNS AND FRAMING SUPPORTING MORE THAN ONE FLOOR	3 HRS.	
SUPPORTING ROOF ONLY	1 HRS.	
FLOOR CONSTRUCTION INCLUDING BEAMS AND JOISTS	2 HRS.	
ROOF CONSTRUCTION INCLUDING BEAMS, AND JOISTS	1 1/2 HRS.	

ED EXPANSION CODE ANALYSIS - BLDG CODE

IBC 2003 - CONSTRUCTION: TYPE 1A, OCCUPANCY: I-2

SECTION	SECTION DESCRIPTION	REQUIREMENT	COMMENTS
302.1, 308.3	USE GROUP	I-2 INSTITUTIONAL	NEW RENOVATION/INFILL
SECTION 602 TABLE 601 & 602	CONSTRUCTION CLASSIFICATION	1A	EXISTING RICHARDS BUILDING 1B CONSTRUCTION PER BOCA '99
TABLE 503 REQUIREMENTS	FLOOR ALLOWED – BASE (AREA LIMITATION)	UNLIMITED (UL)	NO ADJUSTMENTS ALLOWED
ACTUAL FLOOR AREAS PROVIDED	NUMBER OF FLOORS	UNLIMITED (UL)	
	GROSS AREA PER FLOOR	UNLIMITED (UL)	
	S.B.–BASEMENT		
	BASEMENT	44,080 SF	
	GROUND LEVEL		
	SECOND LEVEL		
	THIRD LEVEL		
	FOURTH LEVEL		
	FIFTH LEVEL		
TABLE 503	HEIGHT LIMITATIONS	NOT LIMITED	
TABLE 1004.1.2	OCCUPANCY PER FLOOR		
	BASEMENT FLOOR	44,080 SF	98 PEOPLE
TABLE 1018.1	NUMBER OF EXITS REQUIRED		
	INFANTENT	2 EXITS PER BUILDING	

OCCUPANCY INDEX- CHARLES STREET ADDITION

LOCATION	DESCRIPTION	OCCUPANCY (2003 NFPA-101)	FLOOR AREA	OCCUPANT LOAD
BASEMENT	EMERGENCY DEPT.	HEALTH CARE	23,766 SF	100 SF/OCC = 238
	STAFF LOUNGE	HEALTH CARE W/ INCIDENTAL ASSEMBY USE	444 SF	15 NET SF/OCC = 30
	STORAGE	HEALTH CARE W/ INCIDENTAL ASSEMBY USE	330 SF	NA
		TOTALS	24,540 SF	268 OCCUPANTS

EXIST CAPACITY- CHARLES STREET ADDITION

EXISTING STAIR EXIT 3'-8"
42" CLEAR WIDTH / .3 = 140 OCCUPANTS

EXISTING HORIZONTAL EXIT 3'-4"
40" CLEAR WIDTH / .2 = 200 OCCUPANTS

NEW EXIT 7'-10"
92" CLEAR WIDTH / .2 = 460 OCCUPANTS

NEW HORIZONTAL EXIT 3'-6"
42" CLEAR WIDTH / .2 = 210 OCCUPANTS

TOTAL EXIT CAPACITY: 1010 OCCUPANTS

OCCUPANCY INDEX- BEAN BUILDING RENOVATION

LOCATION	DESCRIPTION	OCCUPANCY (2003 NFPA-101)	FLOOR AREA	OCCUPANT LOAD
BASEMENT	EMERGENCY DEPT.	HEALTH CARE	20,948 SF	100 SF/OCC = 209
	WAITING ROOMS	HEALTH CARE W/ INCIDENTAL ASSEMBY USE	623 SF	15 NET SF/OCC = 42
	CONFERENCE ROOM	HEALTH CARE W/ INCIDENTAL ASSEMBY USE	189 SF	15 NET SF/OCC = 13
	CAFE	HEALTH CARE W/ INCIDENTAL ASSEMBY USE	408 SF	15 NET SF/OCC = 27
	STORAGE	HEALTH CARE W/ INCIDENTAL ASSEMBY USE	239 SF	NA
		TOTALS	22,404 SF	291 OCCUPANTS

EXIST CAPACITY- BEAN BUILDING RENOVATION

EXISTING EXIT 3'-2"
36" CLEAR WIDTH / .2 = 180 OCCUPANTS

EXISTING HORIZONTAL EXIT 3'-4"
40" CLEAR WIDTH / .2 = 200 OCCUPANTS

NEW EXIT 6'-9"
79" CLEAR WIDTH / .2 = 395 OCCUPANTS

NEW EXIT 3'-4"
34" CLEAR WIDTH / .2 = 170 OCCUPANTS

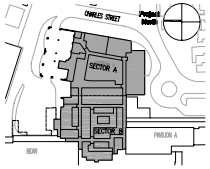
NEW HORIZONTAL EXIT 3'-6"
42" CLEAR WIDTH / .2 = 210 OCCUPANTS

TOTAL EXIT CAPACITY: 1155 OCCUPANTS

General Notes:

MARK	ISSUE DATE	DESCRIPTION
BID	12/14/07	BID SET

Issue Log



Key Plan

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ED Expansion and Renovation
Portland, Maine MMC Project No. 21843

Drawing Title
LIFE SAFETY PLANS AND TABLES

Drawn By	JJV	Commission No.	4696
Approved By	JJV	Date Issued	12/14/07

Phase / Package Number | Sheet Number
G10B

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