

**Building Code Analysis (IBC 2009, NFPA 101)**

Use and Occupancy Classification	Business Group B (304.1), Business (6.1.11)	
Construction Type	Type III A (602.3) Exterior walls are of non-combustible material and interior building elements are of any material permitted by code	
Automatic Sprinkler System	The building is currently fully sprinklered per NFPA 13	

**1. Existing Structure Information**

	Building Area	Renovation Area
Lower Level	26,500 sq ft	0 sq ft
First Floor	25,000 sq ft	0 sq ft
Second Floor	25,000 sq ft	0 sq ft
<b>Third Floor</b>	<b>25,000 sq ft</b>	<b>4,380 sq ft</b>
Fourth Floor	25,000 sq ft	0 sq ft
Fifth Floor	25,000 sq ft	0 sq ft
Totals	151,500 sq ft	0 sq ft

Number of Stories above Grade: 5 w/ basement  
Building height: approx. 80ft

**2. Allowable Area (Table 503)**

Allowable area per floor	28,500 sq ft
Allowable height	65
Allowable number of stories	5

**3. Height and Area Modification with Automatic Sprinkler System (504.2)**

Allowable height increase	1 Story, 20 ft
Total allowable height with modifications	6 Stories, 85ft

The building height and area are within the permitted limits

**4. Occupant Load (Table 7.3.1.2, & IBC Table 1004.1.1)**

Rm #	Occupied Spaces	Area Net Sq. Ft.	Occupancy Load	Actual Design Occupancy	Use Classification
300	Drawing	1,022	21		Educational vocational space = 50 persons
301	Drawing	1,515	31		
302	2D Foundation	1,670	34		
303	Critique Space ( in Main Hallway )	NA	NA	NA	NA
304	Computer Lab	794	40		Educational Classroom space = 20 persons
305	Classroom	922	47		Educational Classroom space = 20 persons
306	Drawing Office	300	3		Business Office space = 100 persons
307	Illustration Office	305	3		
309a	Illustration Studio	2,173	44		Educational vocational space = 50 persons
309b	General Studio Space	2,904	58		Educational vocational space = 50 persons
310	Tool Storage	NA	NA		
311	Wood Machine Room	2,592	26		Industrial General Use = 100 persons
312	Wood Office	198	2		Business Office space = 100 persons
313	Wood Working	995	20		Educational vocational space = 50 persons
314	Storage Closet	NA	NA		
320	General Studio Space	958	20		Educational vocational space = 50 persons
321	Wood Majors	1,200	24		Educational vocational space = 50 persons
<b>Design Occupant Load</b>			<b>373</b>		

**6. Minimum Fire Resistance Requirements of Building Elements (Table 601, Table 602, 39.3.2.2)**

Building Element	Fire Resistance Rating
Structural Frame	1 hour
Loadbearing exterior walls	2 hours
Loadbearing interior walls	1 hour
Non-loadbearing exterior walls (fire separation distance less than 30 ft.)	1 hour
Non-loadbearing exterior walls (fire separation distance greater than 30 ft.)	0 hours
Floor construction	1 hour
Roof construction	1 hour
Shaft enclosures	2 hours
Exit enclosures	2 hours
Corridors	0 hours Table 1018.1

**7. Means of Egress Components**

Exit access travel distance with automatic sprinkler system	300 ft (Table 1016.1)
Minimum number of exits required per floor	2 (Table 1021.1)
Number of exits provided per floor	3
Spaces with (1) means of Egress allowed when occ. load less than 50 in Group B	Table 1015.1
Common path of travel in group B fully sprinklered buildings.	100 ft (1014.3)

An area of refuge is provided in each exit stairway on each floor level (7.2.12)

Floor Level	Stair #	Area Served	Occupant Load	Required Stair Width	Stair Width Provided	Required Corridor Width	Corridor Width Provided
Third Floor	Stair 1	8300 sq ft	124	38"	42"	25"	49"
	Stair 2	8300 sq ft	124	38"	42"	25"	81"
	Stair 3	8300 sq ft	124	38"	52"	25"	74"

Calculations based on Tables 7.3.1.2 and 7.3.3.1

**GRAPHIC KEY:**

NOTE: SEE ELECTRICAL DRAWINGS FOR EXIT SIGNS, ALARM PULL STATIONS, STROBES AND EMERGENCY EGRESS LIGHTING.

	AREA OF RENOVATION		1-HOUR RATED WALL
	2-HOUR RATED ENCLOSURE		2-HOUR RATED WALL
	EXISTING WALL		TRAVEL DISTANCE
	NEW WALL		NEW WALL
	LIMIT OF WORK		

**RR A**  
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**REGISTERED ARCHITECT**  
RICHARD K. RENNER  
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STATE OF MAINE

**Permit Set Revised**

**MAINE COLLEGE OF ART**  
Third Floor Phase I & II

522 Congress Street  
Portland, Maine

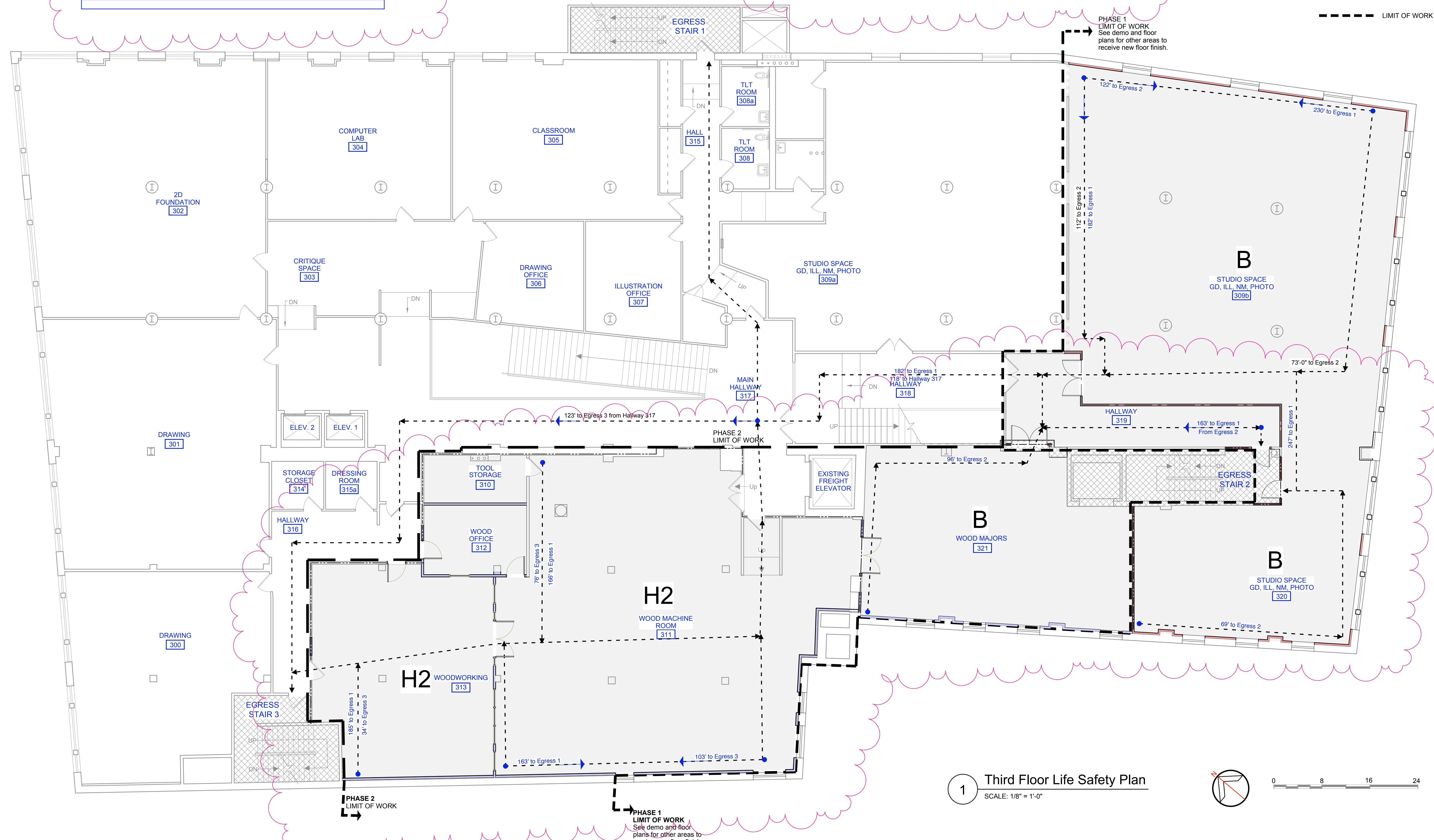
**Third Floor Life Safety Plan & Code Review**

Drawn by: CNY  
Scale: 1/8"=1'  
Date: 04.15.11

File Name: LS1.1 Life Safety  
Project No. 2008-04.10  
Revised: 05.17.11

**THIRD FLOOR RENOVATIONS**

**LS1.1**



**1 Third Floor Life Safety Plan**  
SCALE: 1/8" = 1'-0"