

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	25,350 sq ft	11,905 sq ft
First Floor	25,000 sq ft	275 sq ft
Second Floor	25,000 sq ft	0 sq ft
Third Floor	25,000 sq ft	0 sq ft
Fourth Floor	25,000 sq ft	0 sq ft
Fifth Floor	25,000 sq ft	0 sq ft
Totals	150,350 sq ft	12,180 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 PHASE ONE	Area Net Sq. Ft.	Occupancy Load	Actual Design Occupancy	Use Classification
002	Gallery Lobby	215	15		Assembly space = 15 net/person
003	Recording Control Room	310	16		Educational = 20 net/person
004	Performing / Recording	430	22		-
007	Music Classroom	835	42		-
008	Practice	49	3		-
009	Practice	35	2		-
010	Practice	35	2		-
---	Existing Storage (phase one)	2,065	7		Storage Rm. = 300 /person
---	Existing Unfinished Storage	5,450	18		Storage Rm. = 300 /person
---	Existing Electrical	551	2		Mech. Equip. Rm. = 300/person
---	Existing Mechanical (Boiler Room)	1,382	5		-
---	Existing Mechanical (chiller room)	1,615	6		-
016	Photo Shooting Studio	1,043	21		Educational/Vocational = 50 net/person
019	Crewe Art Gallery	1,785	119		Gallery space = 15 net/person
Lower Level Design Occupant Load			280		

6. MINIMUM FIRE RESISTANCE REQUIREMENTS OF BUILDING ELEMENTS (IBC TABLES 601 & 602)

Structural Frame	1 hour
Load bearing exterior walls	2 hours
Load bearing interior walls	1 hour
Non-load bearing exterior walls (fire separation distance less than 30 ft.)	1 hour
Non-load bearing 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 w/sprinkler system and NFPA 39.3.6 (existing business occupancy)

7. MEANS OF EGRESS COMPONENTS

Exit access travel distance with automatic sprinkler system	300 ft (IBC Table 1016.1) and NFPA 39.2.6.3
Minimum number of exits required per floor	2 (IBC Table 1021.1) and NFPA 39.2.4
Number of exits provided per floor	(2) for Lower Flr. and (3) for others
Spaces with (1) means of Egress allowed when occ. load less than 50 in Group B	IBC Table 1015.1
Common path of travel in group B fully sprinklered buildings.	100 ft (IBC 1014.3) and NFPA 39.2.5.3.1

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

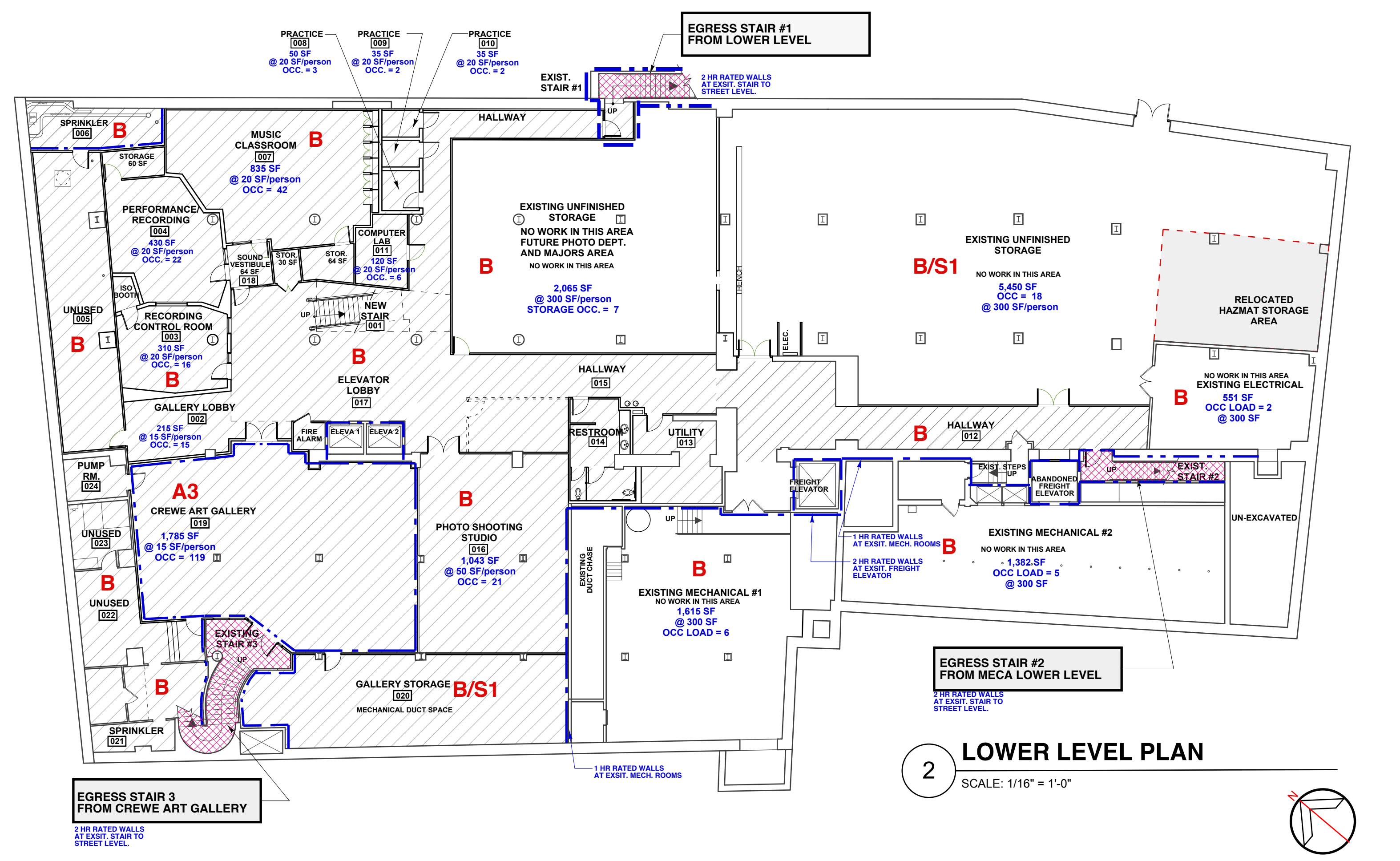
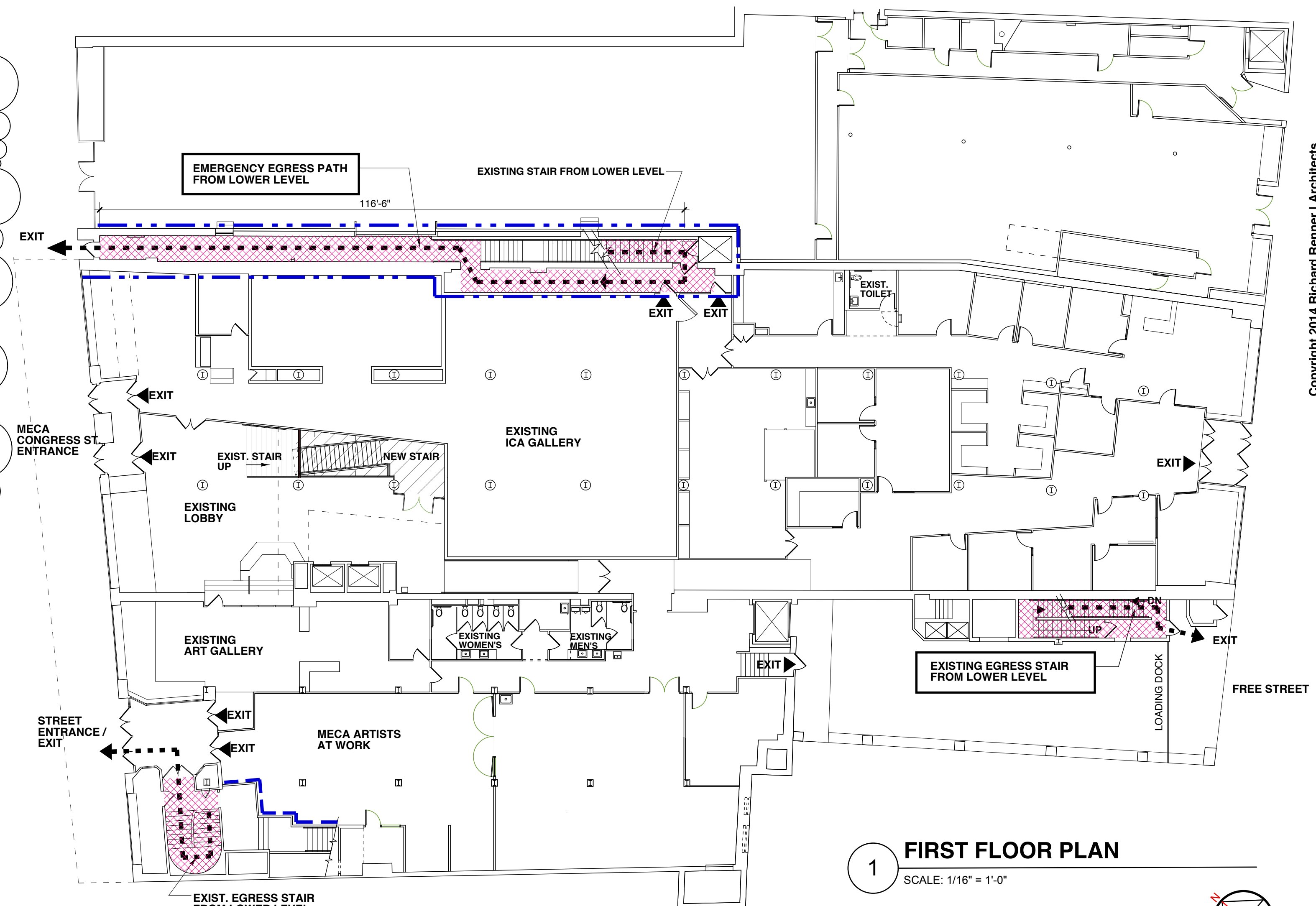
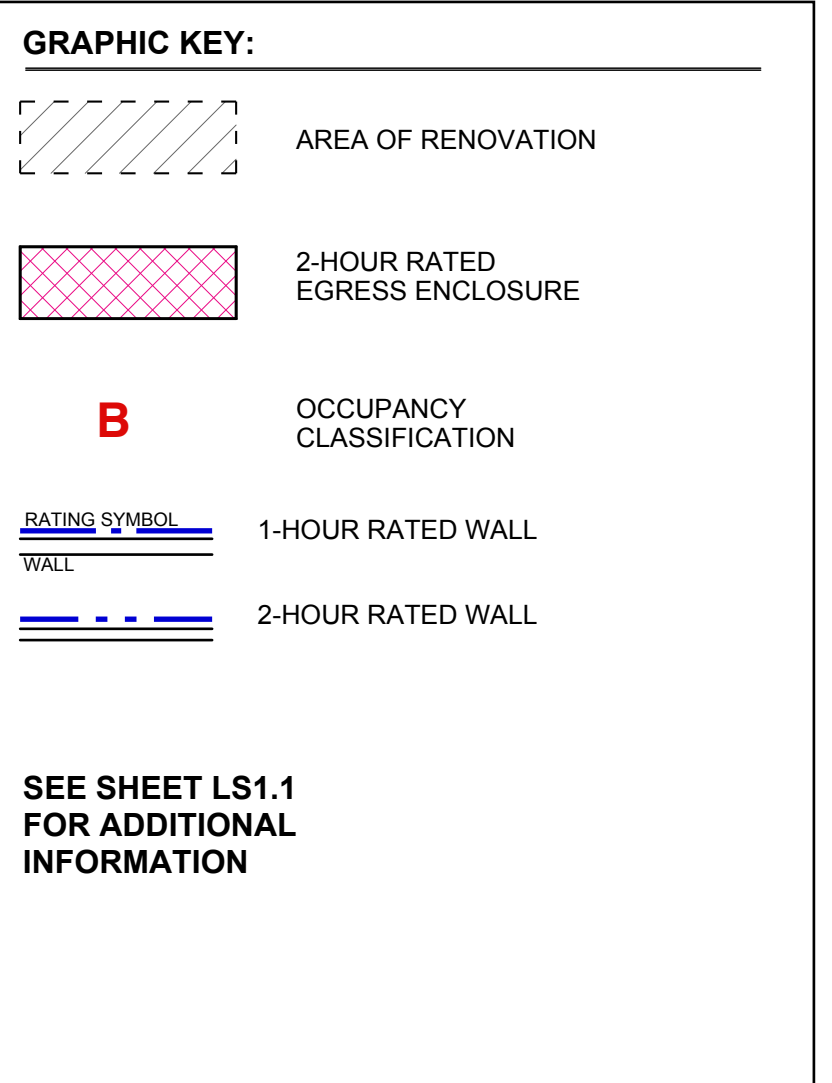
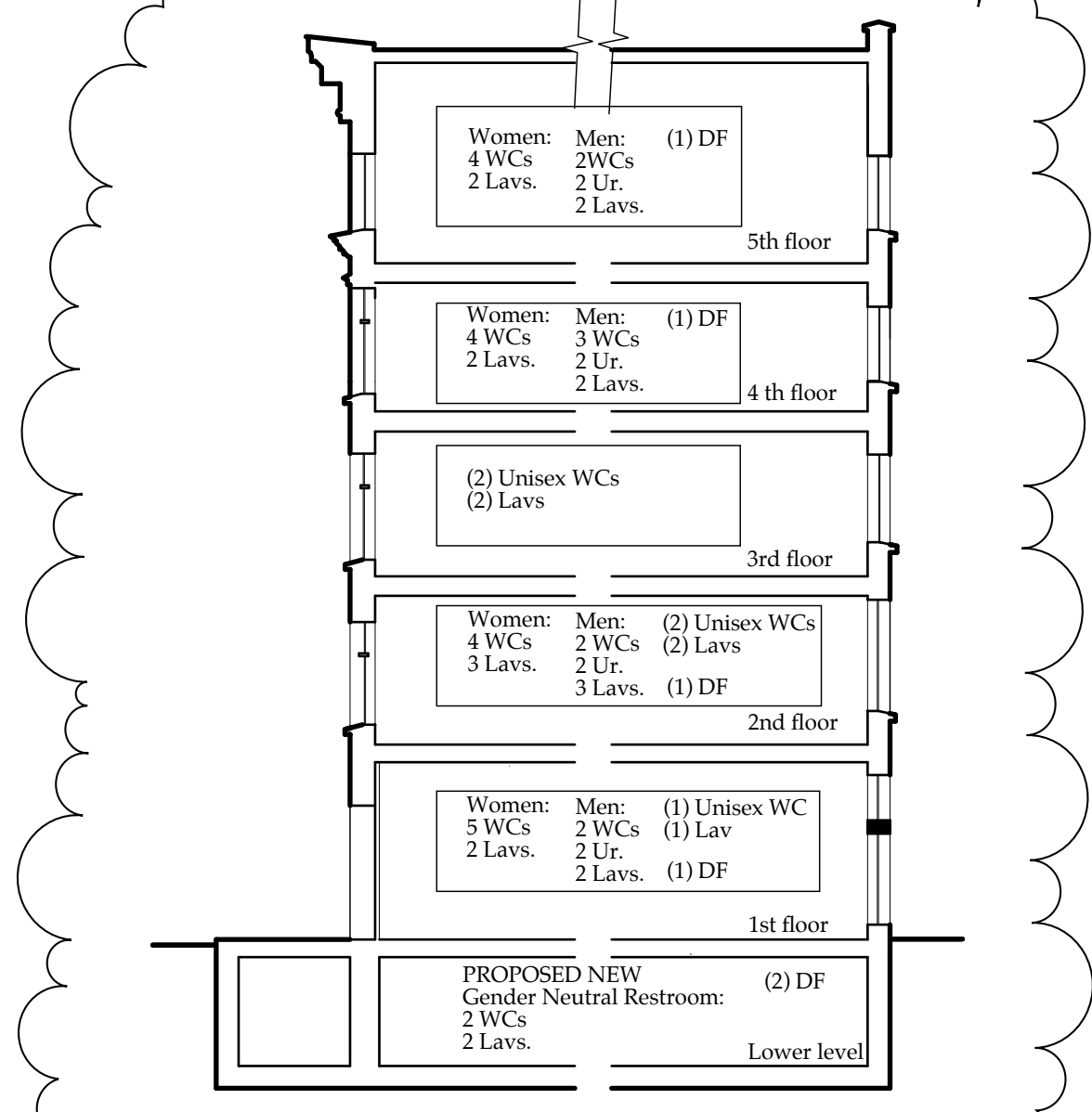
Component Description	Area Served = 1/2 total area	PHASE ONE Occupant Load **	Width Required	Width Provided	Notes
Corridors	6,152 sq ft	111 X 2" =	22.2"	Min. 60"	** Occ. load for stair 001 & 002 calculated based on 1/4 Art Gallery area plus 1/2 all other occupied areas. (1617/2) + (11927/2) = 110.25 = 111
Stair 001	6,152 sq ft	111 X 3" =	33.3"	56"	Stair 003 based on 1/2 total Gallery occ. load. 1192 = 59.6 = 60
Stair 002	6,152 sq ft	111 X 3" =	33.3"	44"	**NFPA 101, 7.2.2.2.1.1(2) and Table 7.2.2.2.1.1(b) Existing Stairs. (36" min. allowed for existing)
Stair 003	893 sq ft	60 X 3" =	18"	56"	
Egress Door to Stair 001		111 x 2" =	22.2"	36"	
Egress Door to Stair 002		111 x 2" =	22.2"	36"	
Egress Door to Stair 003		60 x 2" =	12"	36"	

Calculations based on Tables 7.3.1.2 and 7.3.3.1

MINIMUM PLUMBING FIXTURES - UNIFORM PLUMBING CODE 2009 For current enrollment = 435 STUDENTS

	WATER CLOSETS	URINALS	LAVATORIES	Drinking Fountains	Remarks
Required Fixtures For Colleges and Universities	1: 40 male 1: 30 female	1 per 35 males	1: 40 male 1: 40 female	1 per 150	
Students 435 Current Enrollment	Male Students 153 Female Students 282 max.	435 Students *gender split of approx. 35% male and 65% female		435 Students	
Required Fixtures For Student Enrollment	4 WC	10 WC	5 Urinals	4 Lavs	7 Lavs
Staff Fixture Requirements For ALL Schools	3 per 38-55	3 per 38-55	1 per 50	1: 40 male 1: 40 female	none
All Staff And Faculty 110*	Male Staff 55 Female Staff 55		*includes all FTE (full time equivalent employees)	Min. # of Female fixtures to equal total of male WC and Urinals.	none
Required Staff Fixtures	3 WC	5 WC	2 Urinals	2 Lav	2 Lav
Art Galleries @ 30 SF/Person ICA 3,084 SF = 103 Crewe Gallery 1,785 SF = 60 Exisit. Gallery 762 SF = 26	1: 1-100 males 2: 26-100 females	1: 26-100 males	1 per two WCs		1: 31-150 Plus One additional per each additional 150 persons
Total General Public-Art Galleries = 189	Males 94 Females 95				
Required Public Fixtures	1 WC	2 WC	1 Urinal	1 Lav	1 Lav
TOTAL FIXTURES REQ'D.	8 WC	17 WC	8 Urinals	7 Lav	10 Lav
PROPOSED NEW FIXTURES PROVIDED	1 WC	1 WC		1 Lav	1 Lav
TOTAL FIXTURES PROVIDED	12 WC	20 WC	8 Urinals	12 Lavs	12 Lavs

see section below for current restroom distribution



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RRRA

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LICENSED ARCHITECT
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STATE OF MAINE
4118

PERMIT SUBMITTAL
AUGUST 07, 2014

REVISED 10-02-14

MAINE COLLEGE OF ART
Lower Level Renovations
PHASE I

522 Congress Street
Portland, Maine

Lower Level
Code Summary

Drawn by: CY
Scale: 1/16"=1'-0"
Date: 09.06.2014

File Name: Project No. 2014-01.00
Revised: 10.02.2014

MECA
LOWER LEVEL
Renovations

G1.1