

| 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 | | | |

| MINIMUM PLUMBING FIXTURES - UNIFORM PLUMBING CODE 2009 | | | | | | | For current enrollment = 370 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 370 Current Enrollment | Male Students 130 | Female Students 240 max. | 370 Students *assumes gender split of approx. 35% male and 65% female | | | | |
| Required Fixtures For Student Enrollment | 4 WC | 8 WC | 4 Urinals | 4 Lavs | 6 Lavs | 3 DF | |
| Staff Fixture Requirements For ALL Schools | 4 per 56-96 | 4 per 56-96 | 1 per 50 | 1: 40 male 1: 40 female | none | | |
| All Staff And Faculty 132* | Male Staff 66 | Female Staff 66 | *assumes no more than 70% of total faculty in building at any time | | | | |
| Required Staff Fixtures | 4 WC | 6 WC | 2 Urinals | 2 Lav | 2 Lav | none | |
| ICA Galleries 3,084 SF @ 30 SF/Person | 1: 100 male | 4: 51-100 female | 1: 100 male | 1: 1-200 male 1: 1-200 female | 1 per 150 | | |
| General Public 104 | Males 52 | Females 52 | Males 52 | Females 52 | | | |
| Required Public Fixtures | 1 WC | 4 WC | 1 Urinal | 1 Lav | 1 Lav | 1 DF | |
| TOTAL FIXTURES REQ'D. | 9 WC | 18 WC | 7 Urinals | 7 Lav | 9 Lav | 4 DF | |
| CURRENT FIXTURES PROVIDED | 11 WC | 19 WC | 8 Urinals | 11 Lavs | 11 Lavs | | |
| NO ADDITIONAL FIXTURES REQUIRED | | | | | | | |

| 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 |
| Design Occupant Load | | | 280 | | |

| MINIMUM PLUMBING FIXTURES - UNIFORM PLUMBING CODE 2009 | | | | | | | FOR 490 STUDENTS MAX. *assumes approx. 35% male and 65% female |
|--|----------------------------|-----------------------------|--|----------------------------------|--|------|---|
| | 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, 490* = 370 Current Enrollment Plus 60 Future | Male Students 160 max. | Female Students 270 max. | *assumes approx. 35% male and 65% female | | Min. # of Female fixtures to equal total of male WC and Urinals. | | |
| Required Fixtures For Student Enrollment | 4 WC | 11 WC | 5 Urinals | 5 Lavs | 8 Lavs | 4 DF | |
| Staff Fixture Requirements For ALL Schools | 4 per 56-96 | 4 per 56-96 | 1 per 50 | 1: 40 male 1: 40 female | none | | |
| All Staff And Faculty 132* | Male Staff 66 | Female Staff 66 | *assumes no more than 70% of total faculty in building at any time | | Min. # of Female fixtures to equal total of male WC and Urinals. | | |
| Required Staff Fixtures | 4 WC | 6 WC | 2 Urinals | 2 Lavs | 2 Lavs | none | |
| ICA Galleries 3,084 SF @ 30 SF/Person | 1: 100 male | 4: 51-100 female | 1: 100 male | 1: 1-200 male 1: 1-200 female | 1 per 150 | | |
| General Public 104 | Males 52 | Females 52 | Males 52 | Females 52 | | | |
| Required Public Fixtures | 1 WC | 4 WC | 1 Urinal | 1 Lav | 1 Lav | 1 DF | |
| TOTAL FIXTURES REQ'D. | 10 WC | 21 WC | 8 Urinals | 8 Lavs | 11 Lavs | 5 DF | |
| CURRENT FIXTURES PROVIDED | 11 WC | 19 WC | 8 Urinals | 11 Lavs | 11 Lavs | | |
| NO ADDITIONAL FIXTURES REQUIRED | | | | | | | |

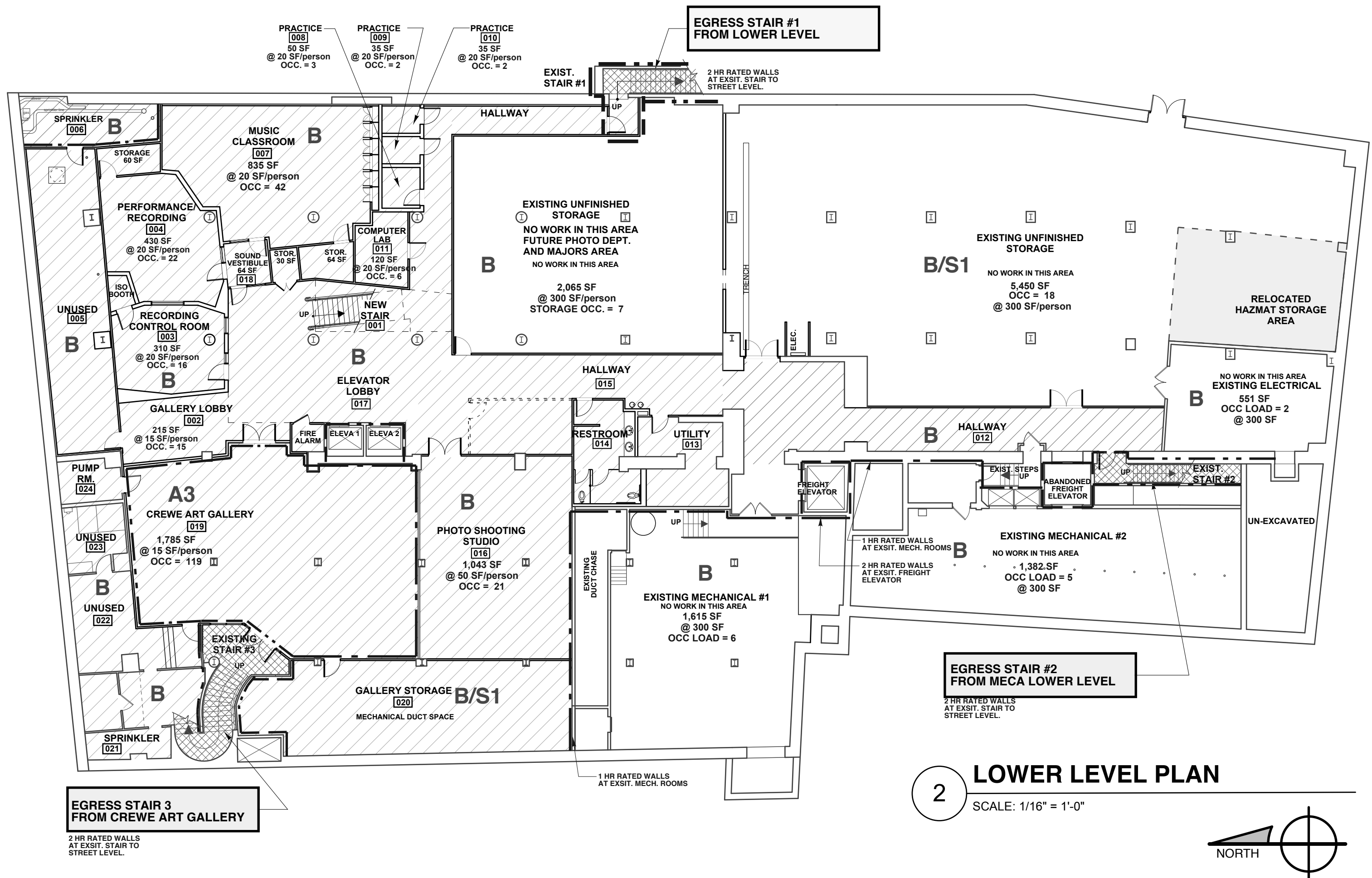
| 4. OCCUPANT LOAD (TABLE 7.3.1.2, & IBC TABLE 1004.1.1) | | | | | |
|--|----------------------------------|------------------|----------------|-------------------------|--|
| Rm # | Occupied Spaces FUTURE PHASE TWO | Area Net Sq. Ft. | Occupancy Load | Actual Design Occupancy | Use Classification |
| | Darkroom | 1,650 | 33 | | Educational/vocational space = 50 net/person |
| | Darkroom Equip. check out | 143 | 2 | | - |
| | Majors | 1,894 | 19 | | Business use = 100 net/person |
| | Digital Lab | 1,071 | 22 | | Educational/vocational space = 50 net/person |
| | Critique Room | 250 | 13 | | Educational Classroom space = 20 net/person |
| Phase II Occupant Load | | | 89 | | |
| Total Phase I and II | | | 369 | | |

| 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 TWO Occupant Load ** | Width Required | Width Provided |
| Corridors | 6,152 sq ft | 155 X 2" | 31" | Min. 60" |
| Stair 001 | 6,152 sq ft | 155 X 3" | 31" | 56" |
| Stair 002 | 6,152 sq ft | 155 X 3" | 31" | 44" |
| Stair 003 | 893 sq ft | 60 X 3" | 18" | 56" |
| Egress Door to Stair 001 | 155 x .2" = | | 31" | 36" |
| Egress Door to Stair 002 | 155 x .2" = | | 31" | 36" |
| Egress Door to Stair 003 | 60 x .2" = | | 12" | 36" |
| ** Occ. load for Stair 001 & 002 calculated based on 144 sq ft Gallery load plus 1/2 all other Occupied areas. (250 / 2) + (11,905 / 2) = 155. Stair 003 based on 1/2 total Gallery occ. load. | | | | |
| 44" = required corridor min. | | | | |
| *NFPA 101, 7.2.2.2.1.1-(2) and Table 7.2.2.2.1.1(1) Existing Stairs. (36" min. allowed for existing) | | | | |
| Calculations based on Tables 7.3.1.2 and 7.3.1.1 | | | | |

GRAPHIC KEY:

- AREA OF RENOVATION
- 2-HOUR RATED EGRESS ENCLOSURE
- B OCCUPANCY CLASSIFICATION
- RATING SYMBOL WALL
- 1-HOUR RATED WALL
- 2-HOUR RATED WALL

SEE SHEET LS.1 FOR ADDITIONAL INFORMATION



1 FIRST FLOOR PLAN
SCALE: 1/16" = 1'-0"
NORTH

2 LOWER LEVEL PLAN
SCALE: 1/16" = 1'-0"
NORTH

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133 South Main Street
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LICENSED ARCHITECT
CHARLES YOUNG
STATE OF MAINE
4118

PERMIT SUBMITTAL
AUGUST 07, 2014

MAINE COLLEGE OF ART
Lower Level Renovations
PHASE I
522 Congress Street
Portland, Maine

Lower Level Code Summary

Drawn by: CY
File Name:
Scale: 1/16" = 1'-0"
Date: 08.07.2014

Project No. 2014-10.00
Revised:

MECA LOWER LEVEL
Renovations
G1.1