

Building Code Analysis (IBC 2009 and NFPA 101 2009)					
Current Use and Occupancy Classification	Business Group B (304.1), and (6.1.11)				
Proposed Use and Occupancy Classification	MIXED OCCUPANCY - Educational Group E (NFPA 6.1.14.3) / Business, NON-separated				
Existing Building Area Modification	NFPA 43.4 and 43.5				
Construction Type	Type III B 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 (monitored system)				
1. Existing Structure Information					
	Building Area	Renovation Area			
Lower Level	7,067 Gross sq ft	5,690 Gross sq ft			
First Floor	7,067 Gross sq ft	0 sq ft			
Second Floor	7,067 Gross sq ft	0 sq ft			
Totals	21,201 Gross sq ft	5,690 Gross sq ft			
Number of Stories above Grade	3				
Building height	approx. 35 ft				
2. Allowable Area (Table 503)					
Allowable area per floor	23,500 sq ft				
Allowable height	65'				
Allowable number of stories	2 See Hgt. Modifications below				
3. Height and Area Modification with Automatic Sprinkler System (504.2)					
Allowable height increase	1 Story, 20 ft		2+1 = 3 Stories		
Total allowable height with modifications	3 Stories, 85 ft				
THE BUILDING HEIGHT AND AREA ARE WITHIN THE PERMITTED LIMITS					
4. Occupant Load (NFPA 101 Table 7.3.1.2, & IBC Table 1004.1.1)					
Floor	Occupied Spaces	Area NET Sq. Ft.	Occupancy Load	Actual Design Occupancy	Use Classification
LOWER FLOOR	Classroom 001	537	27	18	Educational Classroom space = 20 net/person
	Classroom 002	557	28	18	"
	Mstr. Science Lab 003	825	42	18	"
	Computer Lab 004	415	21	18	"
	Fabrication Lab 005	1,350	27	18	Educational vocational space = 50 net/person
	TOTAL Lower Floor NSF	3,684	145	90	

4. Occupant Load (NFPA 101 Table 7.3.1.2, & IBC Table 1004.1.1)						
Floor	Occupied Spaces	Area NET Sq. Ft.	Occupancy Load	Actual Design Occupancy	Use Classification	
FIRST FLOOR	Classroom 101	463	24	16	Educational Classroom space = 20 net/person	
	Classroom 102	580	29	16	"	
	Art Classroom 103	897	18	18	Educational vocational space = 50 net/person	
	Classroom 104	678	34	18	Educational Classroom space = 20 net/person	
	Student Center 105	1,360	91	---	Assembly space = 15 net/person	
	Admin. Office 106	277	3	3	Business Office space = 100 net/person	
	Teacher's Room 108	80	2	---	Occupant Load = 2	
	TOTAL First Floor	4,281	201	71		
	SECOND FLOOR NO WORK THIS FLOOR	Office 201	173	2	2	Business Office space = 100 net/person
		Classroom 202	321	16	16	Educational Classroom space = 20 net/person
Classroom 203		412	21	16	"	
Classroom 204		432	22	18	"	
Classroom 205		432	22	18	"	
Classroom 206		534	27	18	"	
Tutoring Room 207		165	9	6	"	
Office 212		143	2	2	Business Office space = 100 net/person	
Social Worker's Office 215		112	2	1	Business Office space = 100 net/person	
Office 216		90	1	1	"	
Office 217		92	1	1	"	
Existing Stair 218		---	---	---	---	
Existing Clo. 219		---	---	---	---	
Hall 220		---	---	---	---	
Office 221		111	2	1	Business Office space = 100 net/person	
Secretary 222		105	2	1	"	
Guidance Office 223		105	2	1	"	
Storage 224		---	---	---	---	
Hall 225		---	---	---	---	
Meeting 226		215	14	10	Assembly space = 15 net/person	
Conf. 227	70	1	1	Business Office space = 100 net/person		
Classroom 228	431	22	18	Educational Classroom space = 20 net/person		
Classroom 229	449	23	18	"		
TOTAL Second Floor	4,392	191	149			
TOTAL Net occupied - All Floors	12,357	537	310			

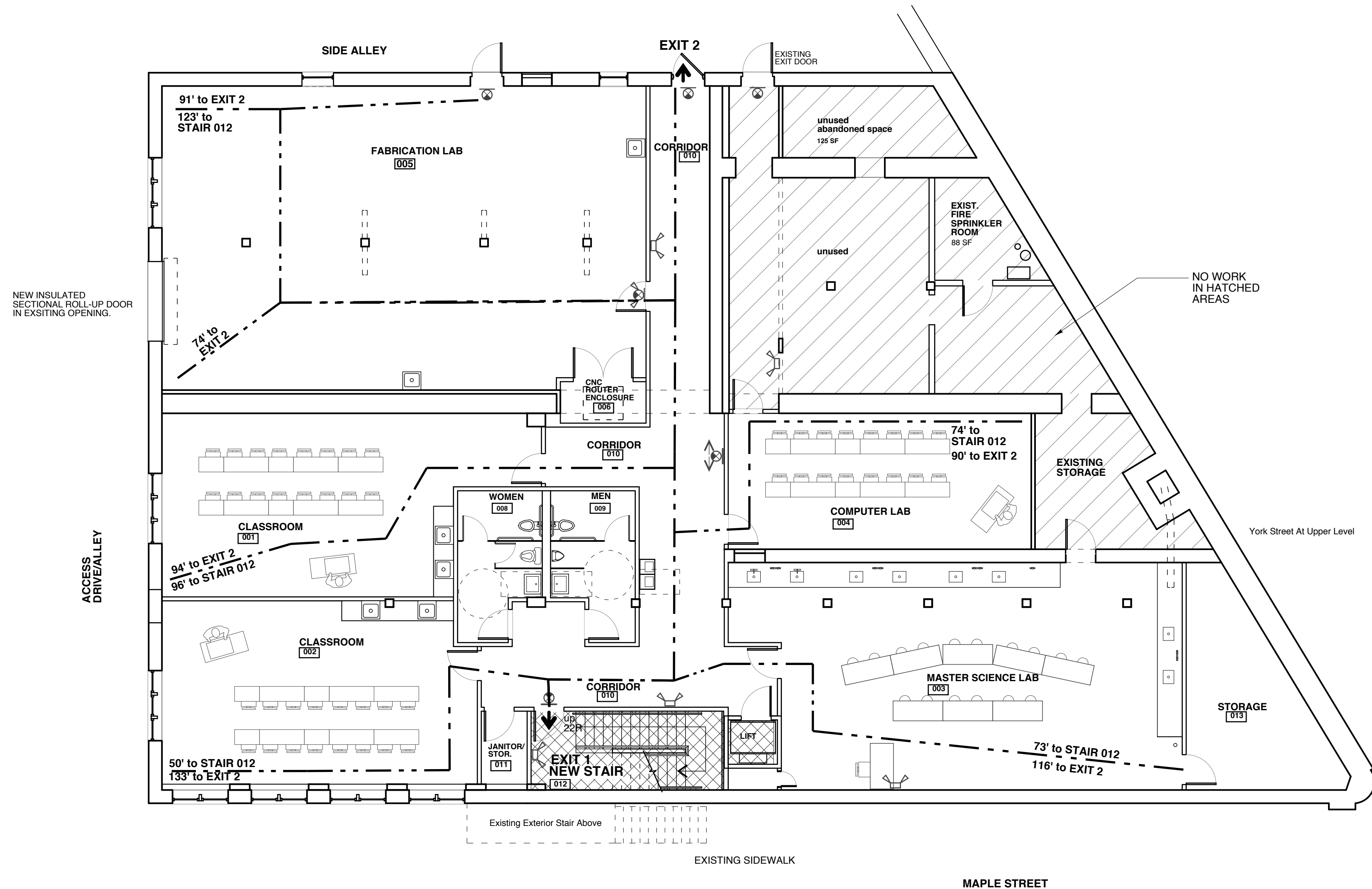
Note: All Sq. Ft. Numbers shown are NET unless otherwise noted.

*Note: MAX. student enrollment planned for this building to be 240.

5. Minimum Fire Resistance Requirements of Building Elements (IBC Tables 601 & 602)			
Structural Frame	0 hour	Table 601	
Load bearing exterior walls	2 hours	Table 601 and 602	
Load bearing interior walls	0 hour	Table 601	
Non-load bearing exterior walls (fire separation Greater than 30 ft.)	0 hour	Table 602	
Non-load bearing exterior walls (fire separation distance greater than 30 ft.)	0 hours	Table 602	
Floor construction	0 hour	Table 601	
Roof construction	0 hour	Table 601	
Shaft enclosures	1 hours	Section 708.4	
Exit enclosures	1 hours	Section 1022.1	
Corridors	0 hours	Table 1018.1 with automatic sprinkler system	
Corridors per NFPA 101 15.3.6	1/2 hours	IF Smoke Partitions provided Per NFPA 101, 8.4.3.5	
Mixed Occupancy - No Separation	0 hour	NFPA 101- 6.1.14.3	
Accessory Occup. - Main Occup.	0 hour	IBC 508.2.4	
6. Means of Egress Components			
Exit access Travel Distance with automatic sprinkler system	200 ft. per "NFPA 101, 15.2.6.3		
Minimum Number of exits required per floor	(2) (Table 1021.1)		
Number of exits provided per floor	(2)		
Spaces with (1) means of Egress allowed when Occ. load less than 50 in Group E	IBC Table 1015.1, NFPA 15.2.5.4		
Common path of travel in Group E fully sprinklered buildings.	75 ft. (IBC 1014.3), 100 ft NFPA 15.2.5.3.1		
Dead End Limit in Group E fully sprinklered buildings.	50 ft. (IBC 1018), NFPA 15.2.5.2		
Required Corridor Width = 6'-0"	Educational Occupancy NFPA 101, 15.2.3.2		
Min. Corridor Width Provided = 6'-0"			
Accessible means of egress are Not required in alterations to EXISTING buildings	IBC Section 1007.1 and NFPA 3411.6		
	Area Served	Occupant Load = 1/2 Total	Width Required, (* min. req'd.)
Existing Stair 1	3,533 gross sq ft	96 X .3" =	28.8" (36")
*Existing Risers: 6.75" to 7"			
*Existing Treads: 9.5"			
Existing Stair 2	3,533 gross sq ft	96 X .3" =	28.8" (36")
*Existing Risers: 6.75" to 7"			
*Existing Treads: 10.75"			
NEW Stair 012 to Lower Floor	73 X .3" =	21.9" (44")	44"
Egress Door from Stair 1	169 x .2" =	33.8" (36")	36"
Egress Doors from Student Center	67 x .2" =	13.4" (36")	36"
Egress Door from Stair 2 and New Stair	235 x .2" =	47" (36")	48"

7. Minimum Plumbing Fixtures - Uniform Plumbing Code 2009						
Required Student Fixtures For Secondary Schools	WATER CLOSETS		URINALS	LAVATORIES		DF/person
	MALE Students	FEMALE Students	add'l Female WCs req'd. to equal total male WC and Urinal fixtures	MALE Students	FEMALE Students	130 Students
STUDENTS	120	120		65	65	
REQUIRED Student Fixtures	3 WC	4 + 3 = 7 WC	3 Urinals	3 Lavs	3 Lavs	2 DF
PROVIDED Student Fixtures per new plans	4 WC	7 WC	3 Urinals	6 Lavs	6 Lavs	3 DF
Required Staff Fixtures For Secondary Schools	1 per 1-15	1 per 1-15	1 per 50	1: 40 male	1: 40 female	none
Required Staff Fixtures	1 WC	1 WC	1 Urinal	1 Lav	1 Lav	
Staff Fixtures Provided	1 WC	1 WC	1 Urinal	1 Lav	1 Lav	

Occupancy Count Based On Max. Number Of Students And Staff Planned For Max Capacity, 2014 - 2015
240 students
20 staff



2 LOWER FLOOR PLAN - INTERIOR UPFIT
SCALE: 1/8" = 1'-0"

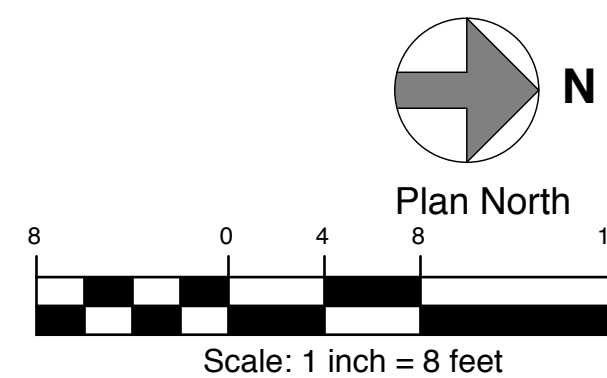
LEGEND

SEE SHEET A1.1 FOR SMOKE PARTITION, RATED WALLS AND NEW AND EXISTING WALL LOCATIONS.

- 1 HOUR RATED SHAFT
- NO WORK THESE AREAS
- EGRESS PATH
- EXIT SIGNS
- EMERGENCY LIGHTS
- EXIT/EMERGENCY COMBINATION LIGHTS

NOTE: ALL CORRIDOR WALLS TO BE SMOKE PARTITIONS. ALL DOORS IN THESE WALLS TO BE SMOKE RATED.

SEE SHEET A1.2 FOR COMPLETE DOOR SCHEDULE AND HARDWARE.



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RRA

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REGISTERED ARCHITECT
RICHARD K. RENNER
1976
STATE OF MAINE

Baxter Academy
54 York Street
Portland, Maine

LOWER FLOOR INTERIOR UPFIT

Code Summary

Drawn by: RRA
Scale: As Shown
Date: 04-08-14

File Name:
Project No. 2012.10.03
Revised:

Baxter Academy
Lower Flr. Upfit
G1.1