Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 11/24/15

CODE ANALYSIS

223 CUMBERLAND AVENUE
PORTLAND, MAINE

CODE ANALYSIS

NFPA 101 Life Safety Code - 2012 Edition

Building Classification:	Chapter 30 - New Apartments (5,250 Gross sf) (6) Two-Bedroom Units Chapter 35 - New Mercantile Class C (840 Gross sf) Chapter 38 - New Business (770 Gross sf)
Construction Type:	V (000)
Hazard Classification:	Class B - Ordinary Hazard
Occupant Loads:	Residential 200 sf/occ. @ 5250 sf net = 27 occ. Mercantile 30 sf/occ. @ 800 sf net = 27 occ. Business 100 sf/occ. @ 700 sf net = 7 occ. Total occupant load = 61 occupants
Dwelling Unit Separation Walls:	1 hour - Foundation to Roof Sheathing
Occupancy Separation Floor/Ceiling:	1 hour
Occupancy Separation Wall:	1hour
Janitor, Mech, Stor Rating:	1 hour (none within unit if under 12sf)
Exit Stair Rating:	1 hour - 3 Stories or less
Minimum Stair width:	44" / 36" if less than 50 occupants
Maximum Riser height:	7"
Minimum Tread width:	11"
Minimum Headroom:	6'-8" at stairs; 7'-6" at occupied spaces
Maximum height between landings:	12'-0"
Guardrail Height:	42"
Handrail height:	34-38"
Handrail top extension:	12" horz.
Handrail bottom extension:	11" angled + 12" horz.
Handrail diameter:	1-1/4" O.D.
Maximum baluster open space:	less than 4"
Max. Allowable Travel Distance:	100' (200' if fully sprinkled) Unit to Stair Enclosure at Apartments 75' (125' if fully sprinkled) within Unit to exit door at Apartments 150' (250' if fully sprinkled at Mercantile) 200' (300' if fully sprinkled at Business)
Max. Allowable Common Path:	35' (50' if fully sprinkled) 100' at Mercantile / Business
Max. Allowable Dead End Corridor:	35' (50' if fully sprinkled) at Apartments 20' (50' if fully sprinkled) at Mercantile / Business
Minimum Egress Corridor Width:	44" / 36" if less than 50 occupants
Minimum Number of Required Exits	2 at each floor/unit; 1 if sprinkled and per 30.2.4.6 at Apartments 2 at each floor; 1 at Mercantile if travel distance is less than 75'; or 100' if fully sprinkled. 2 at each floor; 1 if exit at level of discharge, under 100 occupants, under 75' travel distance to exit; fully sprinkled
Minimum Horz Egress Enclosure rating:	1 hr. (1/2 hour if fully sprinkled)
Separation of exits:	0.5 the diagonal distance (.33 if fully sprinkled)
Panic Hardware	Not Required unless exit serves over 50 total occupants
Minimum Egress Door Width:	36" (32" clear) Self-closing at rated assembly
Exit Lighting:	Required
Emergency Lighting:	Required
Fire Sprinkler System:	Required - (NFPA 13) at Mixed-Use Occupancies
Fire Alarm System:	Required at Mixed-Use building & more than 3 stories)
Portable Fire Extinguishers:	Not Required (does not exceed 11 Units) unless per AHJ
Smoke Detector/Alarms:	Required at all sleeping & living areas (inter-connected within dwelling unit) at Apartments Required at all egress areas & common areas at Apartments
Carbon Monoxide Detectors:	Required outside of sleeping rooms and a fuel-burning Rooms at Apartments
Classification of Finishes:	Class A at Exit Enclosures Class A or Class B at Lobbies and non-rated Corridors

Existing International Building Code - 2009 Edition

Use Group Classification:	Residential (R-2) 5,250 gross sf (6) Two- Bedroom Units Business (B) 770 gross sf Mercantile (M) 840 gross sf
Occupant Loads:	Residential 200 sf/occ. @ 5,250 net sf = 27 Business 100 sf/occ @ 700 net sf = 7 Mercantile 30 sf/occ @ 800 net sf = 27 occ Total building occupant load = 61 occupants
Tenant Separation Party Walls/Floors:	1 hour
Use Separation Walls/Floors:	2 hours / 1 hour if fully sprinkled @ Residential None at Business/Mercantile
Janitor, Mechanical & Storage Rooms:	1 hour
Building Limitations	
Construction Type:	VB Combustible/Unprotected/Sprinkled
Maximum Height:	2 Story/40' @ Residential & Business 1 Story/40' @ Mercantile
Maximum Area / Floor:	7,000 sf @ Residential 9,000 sf @ Business 9,000 sf @ Mercantile
Height/Area Sprinkler Increases	Add 1 Story/20' and add 14,000 sf
Fire Resistance Design Criteria	
Load Bearing Exterior Walls:	None
Load Bearing Interior Walls:	None
Floor/Roof Structure:	None
Fire Separation Exits (Stairs):	1 hour
Dwelling Unit Separations:	1 hour at walls and floors
Exit Corridors:	1 hour
Attic Draftstop Area:	3,000 sf maximum (unlimited if fully sprinkled)
Minimum Number of Exits:	2; except 1 per Unit if less than 20 occupants per Unit, 4 Units maximum per floor; 50' travel distance, and fully sprinkled at Residential. 1 at Business & Mercantile if located on LED; less than 75' travel distance and 49 maximum occupants per use
Maximum Dead End Corridor Length:	20'
Maximum Common Travel Path:	75' (125' if fully sprinkled)
Maximum Exit Travel Distance:	200' (250' if fully sprinkled) At Residential / Mercantile 200' (300') at Business
Minimum Stair/Corridor Width:	44" / 36" if less than 50 occupants
Maximum Riser Height:	7"
Minimum Tread Depth:	11"
Minimum Ramp Width:	44" / 36" if less than 50 occupants
Maximum Ramp Pitch:	1:12
Handrails & Guardrails:	Same as NFPA 101
Minimum Ceiling Height:	7'-6"
Fire Alarm System:	Required at Residential Required if Sprinkled or Mixed Use Occupancies
Fire Sprinkler System:	Required (NFPA 13) at Mixed Use Occupancies
Smoke Detection/Alarm System:	Required @ living & sleeping areas & storage - Interconnected within units
Exit Lighting:	Not Required in Units; Required in egress areas
Emergency Lighting:	Required @ egress areas
Portable Fire Extinguishers:	Not Required; except by AHJ at Residential Required at Business/Mercantile
Finish Surfaces Classification:	Class B minimum (Class C if fully sprinkled)
Wall/Floor Separation Acoustic Rating:	STC 50 at units
Building Live Loads	
Stairs:	100 psf (except 80 psf @ upper floor corridors)
Offices:	50 psf
Sales Floor:	100 psf
Apartments	40 psf

2009 INTERNATIONAL ENERGY EFFICIENCY CODE (IECC)

MUBEC (Maine Uniform Building Energy Code)
MINIMUM INSULATION VALUES
Per 2009 IECC; Table 502.1.2 and 502.2(1)
Chapter 5 - Commercial Use

ZONE 6	R-VALUE	U-FACTOR	SHGC
Exterior wall*	13.0+7.5 ci	0.057	NA
Ceiling Attic	38.0	0.026	NA
Floor Joists	30.0	0.033	NA
Slab (24" band)	10.0	0.10	NA
Crawl Space (ci)	10.0	0.10	NA
Doors - Opaque 1.42	0.70	NA	
Windows	2.86	0.35	0.40

(ci) = continuous insulation
*R-21 per performance criteria

6 UNIT APARTMENT/ COMMERCIAL BUILDING

223 CUMBERLAND AVENUE • PORTLAND, MAINE • 223 CUMBERLAND AVENUE L.L.C.

CBL: 026 - 001-0001

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
ALUM or AL	ALUMINUM
AWP	ACOUSTICAL WALL PANEL
BIT	BITUMINOUS
BM	BENCH MARK
BOT	BOTTOM
BRG	BEARING
BRK	BRICK
C	CARPET
CAB	CABINET
CB	CHALK BOARD
CC	CENTER TO CENTER
CH	CONCRETE FLOOR WITH HARDENER
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CONTR	CONTRACTOR
CT	CERAMIC TILE
DBL	DOUBLE
DC	DOOR CLOSER
DIA	DIAMETER
DIM	DIMENSION
DNA	DOES NOT APPLY
DR	DOOR
DTL	DETAIL
DWG	DRAWING
E	EAST
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMHO	ELECTROMAGNETIC HOLD OPEN
EQ	EQUAL
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXIST OF (E)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FCS	FLOOR COATING SYSTEM
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FFE	FINISH FLOOR ELEVATION
FIN	FINISH
FIN FL or FF	FINISH FLOOR
FIN GR	FINISH GRADE
FL	FLOOR
FR	FIRE RATING
FRMG	FRAMING
FT	FEET (FOOT)
FV	FIELD VERIFY
FWC	FABRIC WALL COVERING
G	GRANITE
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BARS
GC	GENERAL CONTRACTOR
GWB	GYPSUM WALL BOARD
HC	HANDICAP
HD WD	HARDWOOD
HDR	HEADER
HDWE	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCHES
INSUL	INSULATION
INT	INTERIOR
JNT or JT	JOINT
KEC	KITCHEN EQUIPMENT CONSULTANT
KP	KICK PLATE
L	LAVATORY
LAB	LABEL (FIRE)
LVEL	LEVEL
LOC	LOCATION
LS	LOCKSET
M	MARBLE
MAS	MASONRY
MAX	MAXIMUM
MB	MARKER BOARD
MECH	MECHANICAL
MFGR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MR	MOP OPENING
MRGB	MOISTURE RESISTANT GYPSUM BOARD
MTL	METAL
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OVERALL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
P	PAINT
PTD	PAINTED
PB	PANIC BAR
PL	PLATE
PLY WD	PLYWOOD
PNL	PANEL
PS	PASSAGE LATCH SET
P.T.	PRESSURE TREATED
PT & D	PAPER TOWEL & WASTE DISPENSER
PTN	PARTITION
RD	ROOF DRAIN
RE	REFER
REF	REFRIGERATOR
REINF	REINFORCED
REQ'D	REQUIRED
RM	ROOM
RO	ROUGH OPENING
S	SOUTH
SAT	SUSPENDED ACOUSTICAL TILE CEILING
SC	SHOWER CURTAIN
SD	SOAP DISPENSER
SCHED	SCHEDULE
SECT	SECTION
SGD	SUSPENDED GYPSUM BOARD CEILING
SHT	SHEET
SIM	SIMILAR
SND	SANITARY NAPKIN DISPOSAL
SPEC	SPECIFICATIONS
SQ	SQUARE
SSS	SYNTHETIC SPORTS SURFACE
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
STV	STRAIGHT VINYL BASE
SV	SHEET VINYL
T	TEMPERED (GLASS)
TB	TACK BOARD
TH	THERMAL (INSULATED)
THK	THICKNESS
TO	TOP OF
TOB	TOP OF BEAM
TOM	TOP OF MASONRY
TOW	TOP OF WALL
TP	TOILET PAPER DISPENSER
TYP	TYPICAL
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VWC	VINYL WALL COVERING
W	WEST
w/	WITH
WC	WATER CLOSET
WD	WOOD
WF	WATER FOUNTAIN
WG	WIRE GLASS
WP	WOOD PANELING

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO LOCAL AND STATE LAWS, ORDINANCES AND PREVAILING EDITIONS OF ADOPTED BUILDING CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS FOR WORK.

2. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING THE WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT. CONTRACTOR SHALL PROCEED WITH THE WORK ONLY AFTER SUCH DISCREPANCIES HAVE BEEN RESOLVED BY THE ARCHITECT. CONTRACTOR SHALL ALLOW A 48 HOUR TIME FRAME FOR RESOLVING DISCREPANCIES ONCE THE ARCHITECT HAS ACKNOWLEDGED THE CONDITION.

3. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING THE WORK IN ANY GIVEN AREA.

4. WORK WITH GIVEN DIMENSIONS AND LARGE SCALE DETAILS. DO NOT SCALE THE DRAWINGS AS THE REPRODUCTIVE PROCESS TENDS TO DISTORT THE ACCURACY OF THE GRAPHIC SCALE INDICATED.

5. ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN A NEAT, SAFE, AND CLEAN MANNER. ALL CONSTRUCTION WASTE SHALL BE REMOVED FROM THE BUILDING. SITE BURNING IS NOT ALLOWED. LEAVE WORK AREA IN A CLEAN, SAFE CONDITION AT THE END OF EACH WORK DAY.

6. ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF AT AN APPROVED OFF-SITE FACILITY IN COMPLIANCE WITH ALL REGULATIONS.

7. ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE TREATED.

8. ALL CEILINGS SHALL BE LEVEL TO TO A TOLERANCE OF 1/ 8" IN A 20'-0" RADIUS WHEN CHECKED WITH A 10' STRAIGHT EDGE.

9. INSTALL SOLID BLOCKING AT WALL FRAMING BEHIND ALL SURFACE MOUNTED FIXTURES, TRIM AND HANDRAILS.

10. ALL GRAB BARS AND HANDRAILS SHALL BE ABLE TO SUPPORT A DEAD WEIGHT OF 250 LBS. AT ANY POINT.

11. THESE ARCHITECTURAL DRAWINGS WERE PREPARED FOR THE OWNER AS PART OF AN ABBREVIATED SERVICES AGREEMENT, AND AS SUCH, DO NOT DELINEATE ALL ASPECTS OF THE WORK.

12. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL ASPECTS OF THE WORK INCLUDING, BUT NOT LIMITED TO MECHANICAL AND ELECTRICAL DESIGN-BUILD ENGINEERING DISCIPLINES AND TRADES.

13. THE LOCATION OF ANY DOOR JAMBS NOT DIMENSIONED SHALL BE 6" FROM ADJACENT PERPENDICULAR WALL.

14. ALL WALL PARTITIONS SHALL EXTEND FLOOR TO STRUCTURE ABOVE, UNLESS OTHERWISE NOTED.

15. ALL NEW SHEETROCK IN WET AREAS SHALL BE MOISTURE-RESISTANT TYPE, UNLESS OTHERWISE NOTED.

16. ALL INTERIOR WALLS SHALL HAVE FULL-THICK ACOUSTICAL BATT INSULATION UNLESS NOTED OTHERWISE.

17. THE OWNER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL HAZARDOUS MATERIALS PRIOR TO THE COMMENCEMENT OF THE CONTRACTOR'S WORK.

18. REFER TO THE ACCESSIBILITY DETAILS FOR AMERICANS WITH DISABILITIES ACT (ADA) AND MAINE HUMAN RIGHTS ACT (MHRA) CONSTRUCTION CRITERIA.

19. SEAL ALL PENETRATIONS AT FIRE RATED ASSEMBLIES IN ACCORDANCE WITH IBC SECTION 713 AND APPLICABLE UL ASSEMBLIES. PROVIDE AHJ WITH MATERIAL SPECIFICATIONS SHEETS FOR EACH PRODUCT INCORPORATED IN THE WORK. SEE DETAIL 16/ A5.

MATERIALS

CONCRETE
CONCRETE MASONRY UNIT
BRICK
GRAVEL
SOIL
STUD PARTITION (EXISTING)
STEEL
WOOD FRAMING
WOOD BLOCKING
PLYWOOD
GYPSUM BOARD
SUSPENDED ACOUSTICAL TILE
BATT INSULATION
RIGID INSULATION
FINISH WOOD
ONE HOUR RATED PARTITION
TWO HOUR RATED PARTITION
EXISTING PARTITION (SCREENED)
NEW PARTITION

OWNER

223 CUMBERLAND AVENUE L.L.C.
477 CONGRESS STREET
PORTLAND, MAINE 04101

SYMBOLS

101 ROOM NUMBER
10 DOOR NUMBER
A WINDOW NUMBER
A A-1 BUILDING SECTION
A A-1 WALL SECTION
A A-1 DETAIL
CASEWORK ELEVATION
INTERIOR ELEVATION
VERTICAL ELEVATION
PARTITION TYPE
STRUCTURAL CENTERLINE

PROJECT LOCATION MAP

DRAWING INDEX

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S-4 FOURTH FLOOR & ROOF FRAMING PLAN

STRUCTURAL ENGINEER:

ENGINEERING DESIGN PROFESSIONALS
P.O. BOX 575
FREEPORT, MAINE 04032

BUILDING PERMIT SET

GRANT HAYS ASSOCIATES
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SEAL
LICENSED ARCHITECT
MICHAEL F. HAYS
No. 1724
STATE OF MAINE

REVISIONS
10.15.2015

PROJECT NAME
6 UNIT APARTMENT/COMMERICAL
223 CUMBERLAND AVENUE
223 CUMBERLAND AVENUE L.L.C.
477 CONGRESS STREET
PORTLAND, MAINE 04101

SHEET
COVER SHEET

DATE
29 SEPT 2015
SCALE
1/4"=1'-0"
DRAWN
JAM/MFH
JOB NO.
150904
SHEET
A0

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