

GENERAL INFORMATION			
LOCATION OF PROJECT:	Project Title: Street Address: Des Moines, IA 50309 Parcel No. 000/00000-000-000	ARCHITECT:	Architect: Street Address: Des Moines, IA 50309 State of Iowa Registration No.
STRUCTURAL ENGINEER:	Structural Engineer: Street Address: Des Moines, IA 50309 State of Iowa Registration No.	M/E/P ENGINEER:	Mechanical Engineer: Street Address: Des Moines, IA 50309 State of Iowa Registration No.

**PROJECT DESCRIPTION**  
A brief Description of the project. Include: Occupancy classification, number of stories, building height, floor to floor dimension. The primary structure is constructed of ????. Exterior walls are constructed of ????. The interior walls are constructed of ????. Building is supported on what type of foundation ????.

APPLICABLE CODES - City of Des Moines		CODES/REGS. UTILIZED IN DESIGN
2006 - International Building Code	2006 - Internation Existing Building Code	The City of Des Moines has adopted the codes listed above. It is recommended that applicants review the City of Des Moines Municipal Code for any modifications or amendments. The Municipal Code can be viewed at <a href="http://www.dmgov.org">www.dmgov.org</a> . ALTERNATE MATERIALS, DESIGN & METHODS OF CONST. 2006 IBC Section 104.1.1 MODIFICATIONS - 2006 IBC Section 104.10
2006 - International Mechanical Code	2005 - National Electrical Code	
2006 - Uniform Plumbing Code	2006 - International Fire Code	
2006 - International Fuel Gas Code	2003 - ANSI A117.1	
2006 - International Energy Code		

BUILDING HEIGHTS AND AREAS (Chapter 5)	
Floor area:	105,399 TOTAL GSF [See occupancy/exiting matrix for floor areas]
Building stories/height:	11 stories/140ft
Building type:	Type 1A
Sprinklers:	Yes
Parking:	None Required

- OCCUPANCY TYPE (Chapter 3)**
- See Occupancy/Exiting Matrix
  - Minimum stair and exit path width is 44"
  - Occupancy Separation
    - Existing Basement S-2 to Existing First Floor B = Remain as is (no change in occupancy this floor)
    - Existing B to R-2 = 1 hour
    - R-2 to R-2 = 1 hour
    - R-2 to Existing Attic S-2 = 1 hour
  - Special Use/Occupancy (High Rise)
    - NFPA 13 fully sprinkled building per 903.3.1.1 and 903.3.5.2
    - 2 hour shafts may be reduced to 1 hour if sprinklers are installed at the top of the shaft and at alternating floors
    - Egress windows not required
    - Fire alarm system per 907.2.12.2
    - Fire department communication systems installed per 907.2.12.3
    - Provide a full fire command center (room) per 911
    - Standby (emergency generator) power will be provided per 403.10
    - Emergency power systems (and stairway systems) will be provided per 403.11 and 403.12
    - Existing stair to remain per IBC 812.4.1.1 exception 2, existing handrail acceptable per IBC 1003.9
    - Elevators per chapter 30
      - Provide signs at each change of occupancy floor per 3002.3
      - A new elevator cab will be required to meet the stretcher requirement per 3002.4
      - Standby power and emergency operation per 3003
      - A vent is required at the top of the shaft per 3004

**TYPES OF CONSTRUCTION (Chapter 6)**  
Construction Type: 1A

**Structural Fire Ratings (Table 601)**

Structural frame including columns, girders & trusses	3 hr.
Bearing exterior walls	3 hr.
Bearing interior walls	3 hr.
Nonbearing exterior walls & partitions	1 hr.
Nonbearing interior walls & partitions	0 hr.
Floor construction including supporting beams & joists	2 hr.
Roof construction including supporting beams & joists	1.5 hr.

**Fire Resistance Rating - Exterior Walls (Table 602)**

< 5'	1 hr.
> 5' - < 10'	1 hr.
> 10' - < 30'	1 hr.
> 30'	0 hr.

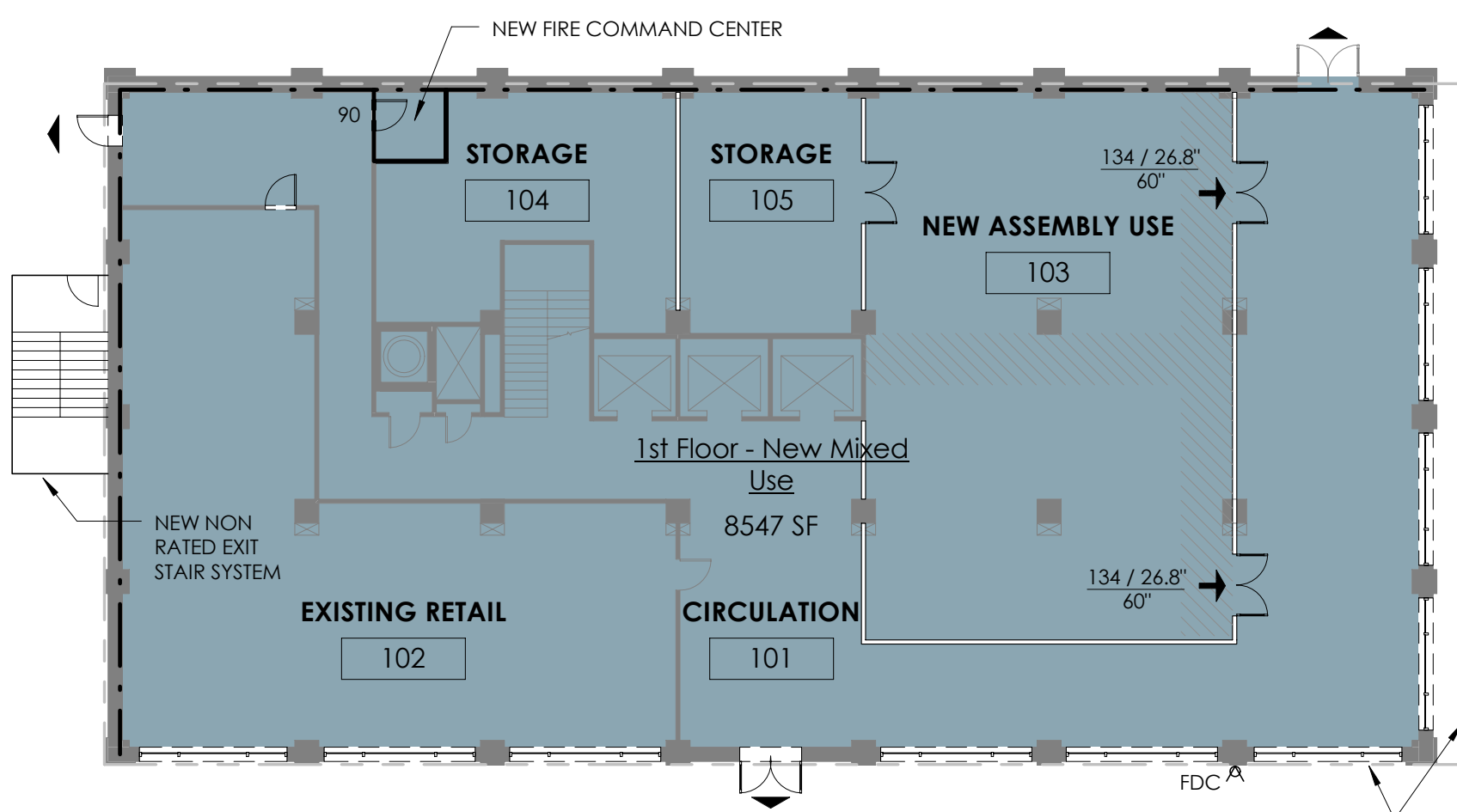
FIRE PROTECTION FEATURES		WATER SUPPLY - FLOW TESTS	
Fire Command Center:	Required/Provided: Location	Static:	
Fire Alarm:	Required/Provided	Residual:	
FACP:	Required/Provided: Location	Flow:	
Remote Annunciator Panel:	Required/Provided: Location	Date and Location:	
Smoke Control System:	Required/Provided: Location	Date of Original System Installation:	
Smoke Detection:	Required/Provided		
Heat Detection:	Required/Provided		
Fire Pump:	Not Required/Not Provided		
Backup Power:	Not Required/Not Provided		
Suppression - Standpipes:	Required/Provided: Per NFPA		
Suppression - Automatic:	Required/Provided: Per NFPA		
Fire Extinguishers:	Required/Provided: Per NFPA 10		
Type I Commercial Hoods:	Required/Provided: Location		

**MEANS OF EGRESS (Chapter 10)**

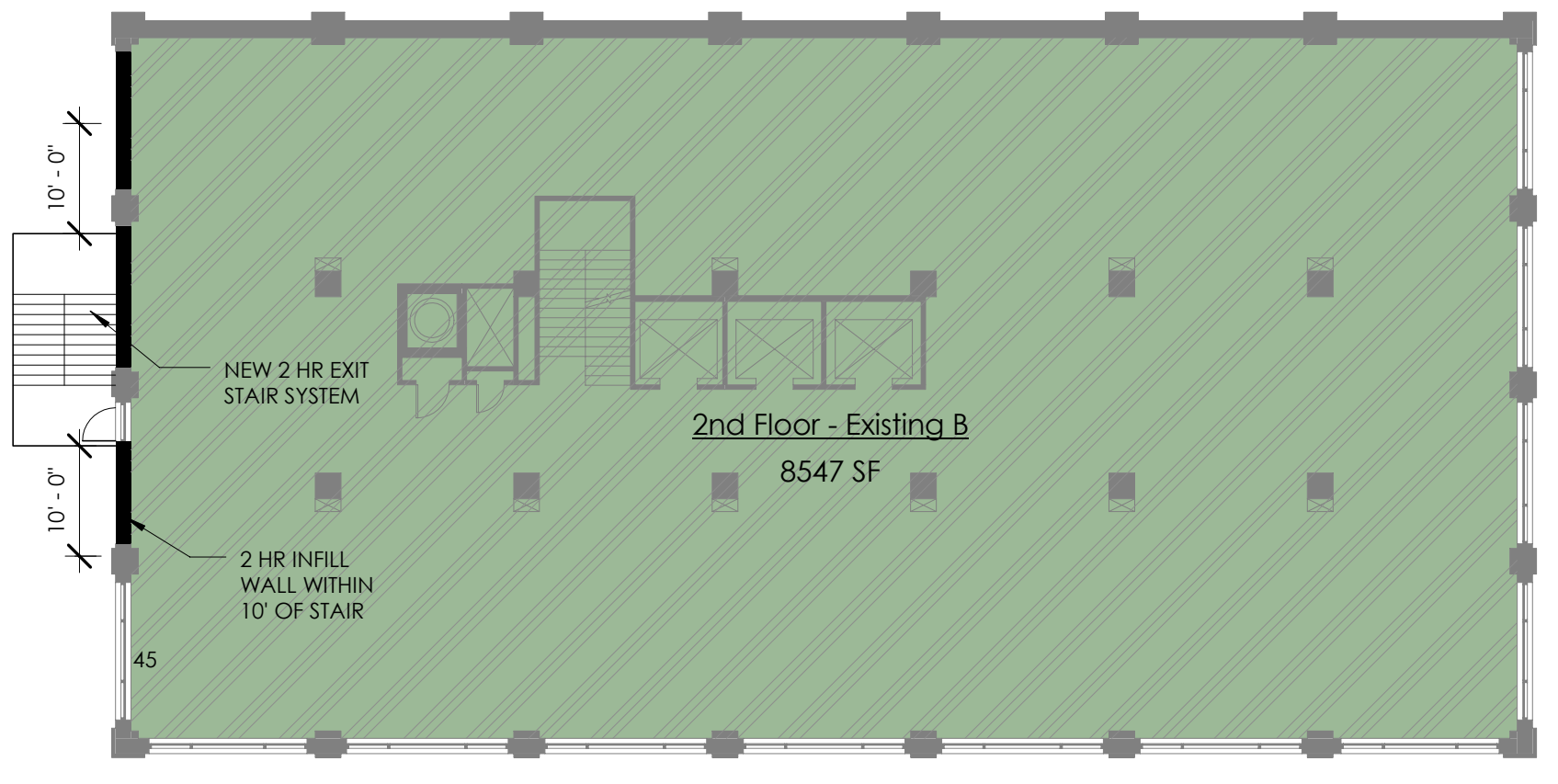
<b>1005.1 EGRESS WIDTHS - SEE PLAN</b>	<b>1011.2</b> Exit signs shall be internally or externally illuminated.
<b>1004 DESIGN OCCUPANT LOADS</b> See Occupancy Matrix	<b>1014.3 Common path of egress</b> Shall not exceed 75 feet
<b>1006 MEANS OF EGRESS ILLUMINATION</b> Required for A2/M/B/R-2 corridors	<b>1016.1 TRAVEL DISTANCE</b> B 200 feet
<b>1007.1 Accessible means of egress</b> Two required	<b>1017.1 CORRIDORS</b> "Minimum width is 44".
<b>1008.1.1</b> "Min. clear width of 32" measured from the face of the door and the stop with the door open 90 degrees."	<b>1017.3 Dead ends</b> B is 20 feet
<b>1008.1.2</b> Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more.	<b>1018 MIN NUMBER OF EXITS</b> 2 exits required
<b>1011.1 EXIT SIGNS</b> 100 feet or viewable.	<b>1024.1 Exit Discharge</b> Exits shall discharge directly to exterior of building

- Areas of refuge will be provided at each floor in the new exterior stair tower. No new areas of refuge will be provided at the basement since there is now change in occupancy.
- Exits
  - A new stair is located on the exterior of the building which now gives the building two exit stairs from each floor.
  - Two exits required per new residential floor plate. The exits are required to be separated 1/3 the diagonal of the floor plate.
  - All residential floor corridors will have 60 min rated walls with 20 minute doors.
  - The existing interior stairwell will be pressurized. New enclosed stairs will be 2 hour rated and pressurized.

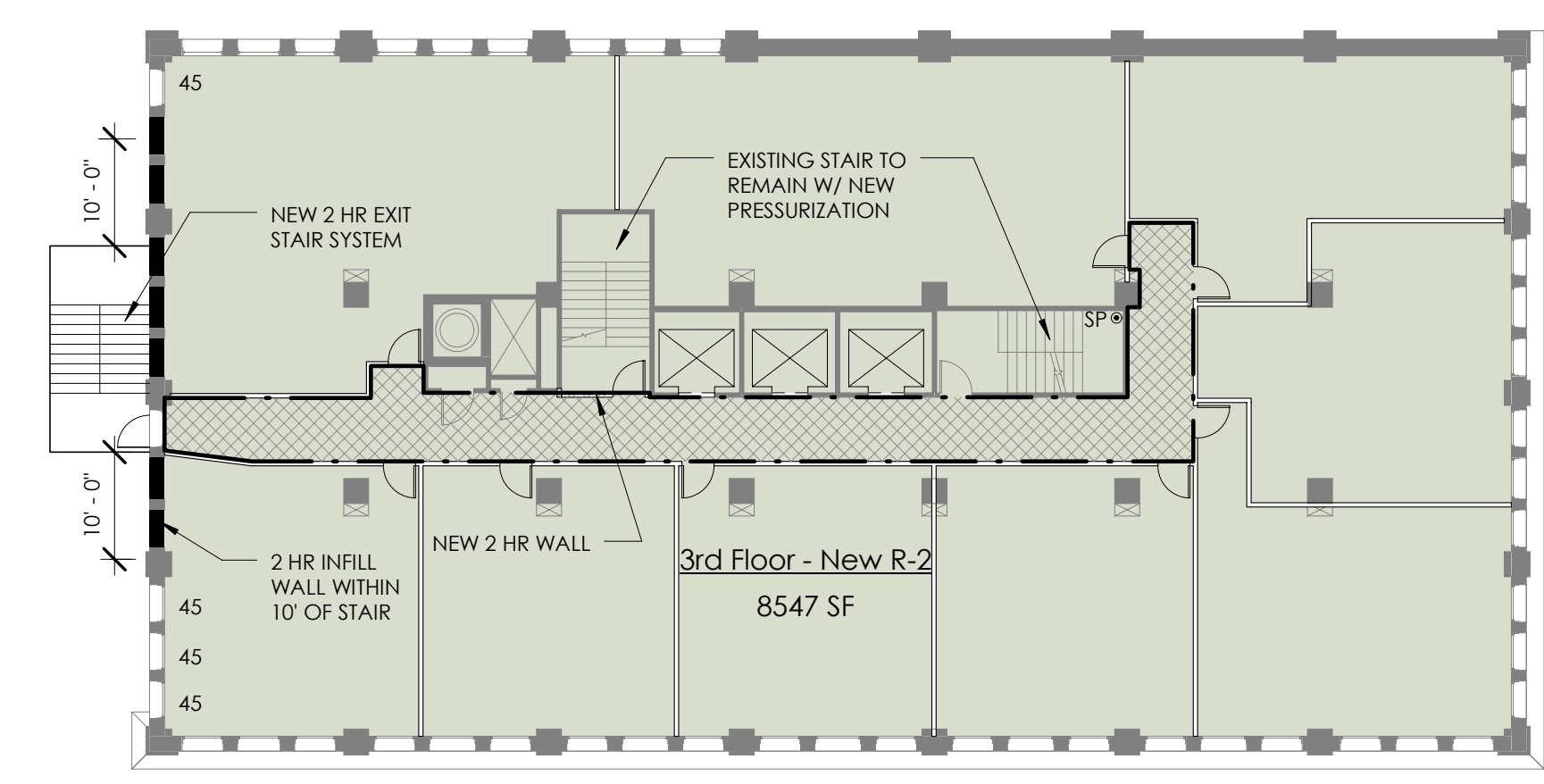
- FIRE RESISTANCE RATED CONSTRUCTION**
- IEBC Hazard Category Tables
    - Heights and areas - higher hazard
    - Exterior walls - same hazard
    - Life safety and exits - higher hazard
  - Exterior openings
    - Since the hazard category for exterior walls is the same for the change of occupancy, the existing openings shall remain as previously accepted
    - Per 812.4.3.3 exceptions 3 & 4, existing openings can be unprotected. However, openings along exit stairs, fire escapes and within 10' of such exits must be protected.
  - Parapets
    - The existing cornice will remain as currently built (acceptable per 704.1.1 exception 4.3)
  - No fire walls are necessary
  - Fire barriers are required
    - Since the hazard category for stairs has increased, the existing enclosure must be built per current standards (2 hr shaft, 90 minute doors, no penetrations through stair, etc.)
    - Occupancy fire barrier separations will be built per BS above.
  - Shaft enclosures
    - New shaft enclosures are to be 2 hr rated. 2 hr shafts may be reduced to 1 hr shafts if sprinklers are installed at the top of the shaft and at alternating floors per IBC 403.



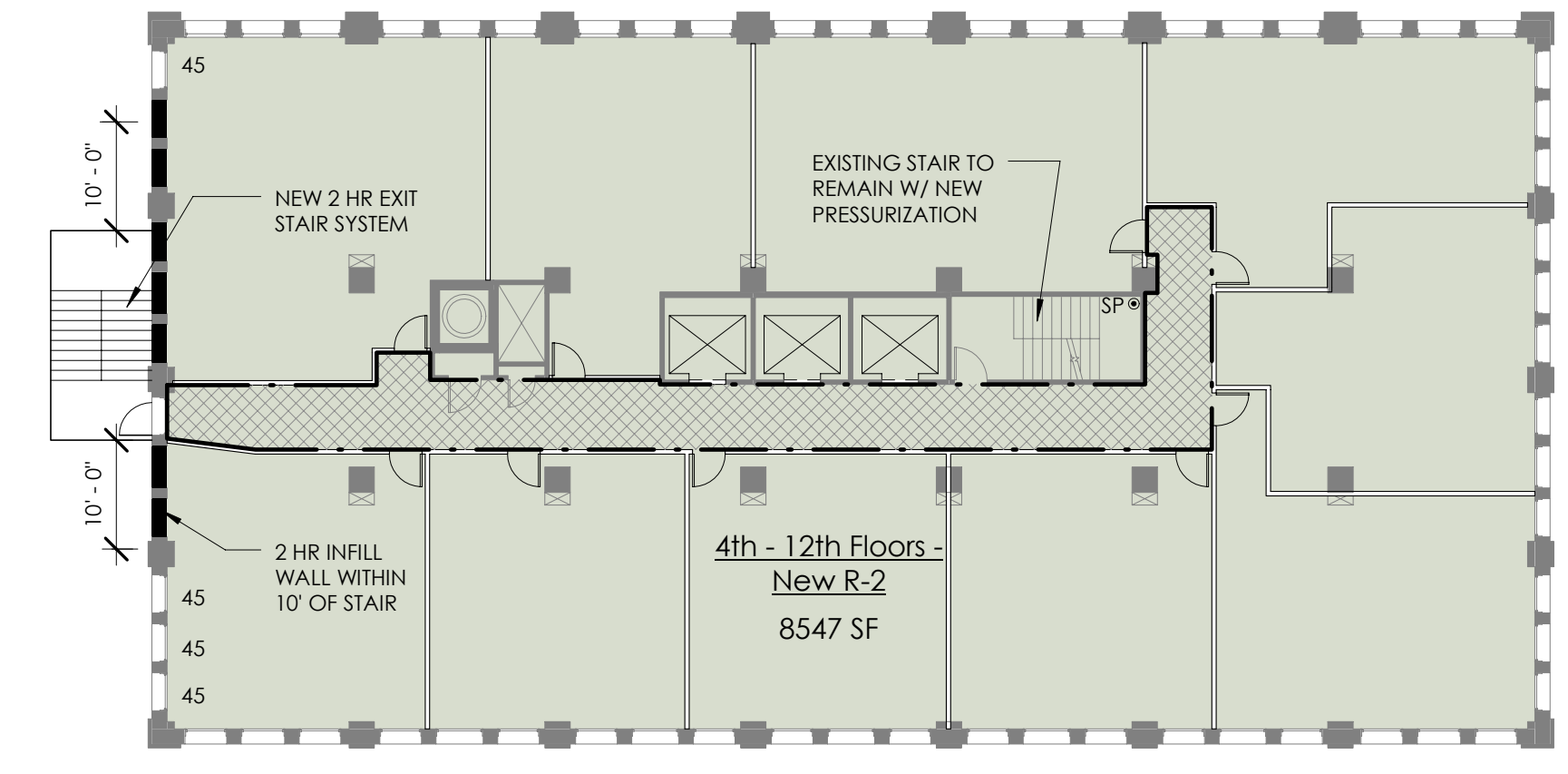
**1 1ST FLOOR CODE PLAN**  
G.202 SCALE: 1/16" = 1'-0" New Mixed Use



**2 2ND FLOOR CODE PLAN**  
G.202 SCALE: 1/16" = 1'-0" Exist B



**3 3RD FLOOR CODE PLAN**  
G.202 SCALE: 1/16" = 1'-0" New R-2



**4 TYPICAL FLOOR CODE PLAN (4-12)**  
G.202 SCALE: 1/16" = 1'-0" New R-2

**CODE PLAN LEGEND**  
1/8" = 1'-0"

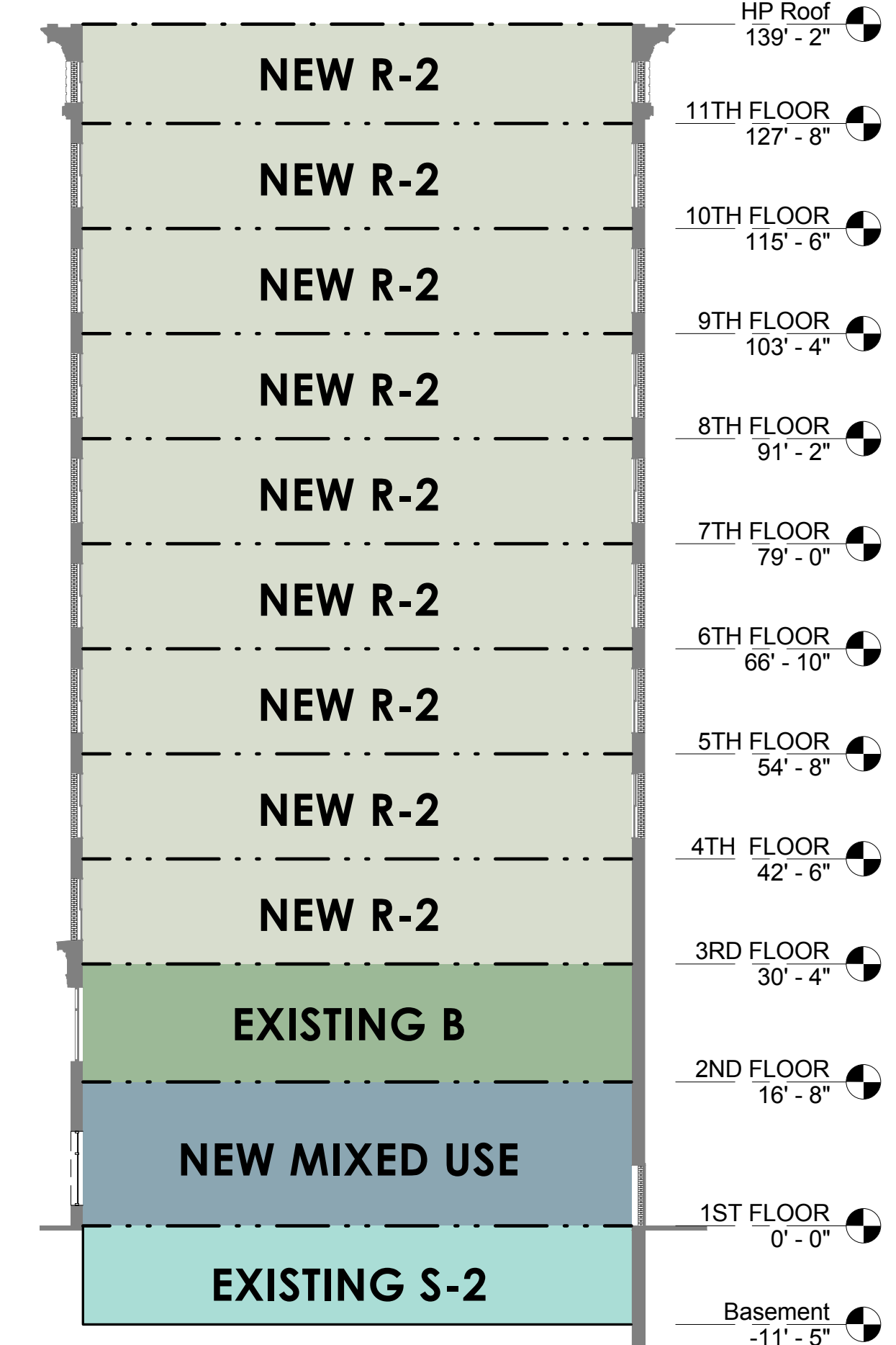
SYMBOL	DESCRIPTION	NOTES	SYMBOL	DESCRIPTION	NOTES
➔	EXIT - EXTERIOR		— · — · —	1 FIRE BARRIER (OCCUPANCY SEPARATION)	1 HOUR F.R. WALL CONSTRUCTION, 1 HOUR RATED DOOR ASSEMBLIES, FIRE & SMOKE DAMPERS.
➔	EXIT - INTERIOR	ASSEMBLY OCCUPANCIES OVER 50 - IBC F.E.C.	— · · — · ·	2 FIRE BARRIER (OCCUPANCY SEPARATION)	2 HOUR F.R. WALL CONSTRUCTION, 1 1/2 HOUR RATED DOOR ASSEMBLIES, FIRE & SMOKE DAMPERS.
●	FIRE EXTINGUISHER		— · · · — · · ·	3 FIRE BARRIER (OCCUPANCY SEPARATION)	3 HOUR F.R. WALL CONSTRUCTION, 3 HOUR RATED DOOR ASSEMBLIES, FIRE & SMOKE DAMPERS.
■	HOSE CABINET		— · · · · — · · · ·	4 FIRE BARRIER (OCCUPANCY SEPARATION)	4 HOUR F.R. WALL CONSTRUCTION, NO OPENINGS.
■	HOSE CABINET WITH EXTINGUISHER		▨	NON-PROTECTED EXIT PATH	AISLES
⊙	FDC		▩	PROTECTED EXIT PATH	1 HOUR F.R. WALL CONSTRUCTION, 20 MIN. RATED DOOR ASSEMBLIES, FIRE & SMOKE DAMPERS
⊙	RISER LOCATION		▨	EXISTING CONSTRUCTION	
⊙	STANDPIPE LOCATION		□	NEW CONSTRUCTION	
198 / 39.6' / 68"	ACCUMULATED EXIT WIDTH AT REQUIRED EXIT (CLEAR WIDTH)	OCCUPANTS / REQUIRED WIDTH PROVIDED WIDTH			

**OCCUPANCY / EXITING MATRIX**

Level	Occupancy	Gross SF	Load Factor	# of occ's	# of exits	Stair Width	Egress Width
Basement	Exist S-2	11378 SF	500 SF	23	2	0' - 4 1/2"	0' - 3 3/8"
1ST FLOOR	New Mixed Use	8547 SF	20 SF	424	2	7' - 0 7/8"	5' - 3 5/8"
2ND FLOOR	Exist B	8547 SF	100 SF	85	2	1' - 5 1/8"	1' - 0 7/8"
3RD FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
4TH FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
5TH FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
6TH FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
7TH FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
8TH FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
9TH FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
10TH FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
11TH FLOOR	New R-2	8547 SF	200 SF	43	2	0' - 8 1/2"	0' - 6 3/8"
Grand total		105399 SF		917			

**NEW 1ST FLOOR MIXED USE - CODE ANALYSIS**

ROOM #	ROOM NAME	AREA	OCCUPANCY	# EXITS REQUIRED	# EXITS PROVIDED	ACCESSORY OR INCIDENTAL USE	PANIC HARDWARE	OCCUPANCY LOAD FACTOR	OCCUPANT LOAD
101	CIRCULATION	2819 SF	M	2	3	-	-	30 SF	94
102	EXISTING RETAIL	1785 SF	M	2	2	-	-	30 SF	60
103	NEW ASSEMBLY USE	1872 SF	A	2	2	-	-	7 SF	267
104	STORAGE	533 SF	S-2	1	1	Accessory	No	300 SF	2
105	STORAGE	407 SF	S-2	1	1	Accessory	No	300 SF	1
Grand total		7417 SF							424



**5 CODE SECTION**  
G.202 SCALE: 1/16" = 1'-0"

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# SCHEME B



**PROJECT TITLE**  
PROJECT ADDRESS

**ISSUED FOR CONSTRUCTION**

NO.	REVISION SCHEDULE	DESCRIPTION	DATE

SHEET AUTHOR NAME: G.202  
CHECKED BY NAME: G.202  
PROJECT MANAGER NAME: G.202  
ISSUE DATE: 2008-05  
DATE: PERMIT SET

SHEET NUMBER: G.202