

CODE SUMMARY 11/20/2023

PROJECT DESCRIPTION
 WAFER SOUTH FAB ADDITION TO (BUILDING L) TO THE EXISTING SEAGATE NORMANDELE CAMPUS, INCLUDING MINOR REMODEL TO THE EXISTING BUILDING 'D' AND 'D.1'. BUILDING 'L' ADDITION IS EXPANDING THE SUBFAB AND T.1 AND PROVIDING A NEW ENTRY AT GATE 8.

GENERAL TYPE OF PROJECT
 NEW BUILDING: YES NO
 ADDITION: YES NO
 ALTERATION, RENOVATION, REMODEL: YES NO

AUTOMATIC SPRINKLER SYSTEM
 INSTALLED THROUGHOUT BUILDING? YES NO

RISK CATEGORY (IBC 1604.5)
 RISK CATEGORY II

AUTHORITIES HAVING JURISDICTION & APPLICABLE REGULATIONS

CITY OF BLOOMINGTON, MN
 MINNESOTA STATE BUILDING CODE
 1305-2020 Minnesota State Building Code (MBC)
 2018 IBC (plus amendments)
 1307-2020 Minnesota State Elevator Code
 1311-2020 Minnesota State Conservation Code for Existing Buildings
 2018-IEBC (plus amendments)
 1315-2023 National Electrical Code
 1323-2024 Minnesota Commercial Energy Code
 ASHRAE 90.1-2019 (plus amendments)
 1341-2020 Minnesota Accessibility Code
 2018 IBC (chapter 11)
 2009 ICC/ANSI A117.1 (plus amendments)
 1346-2020 Minnesota Mechanical Code and Fuel Gas Codes
 2018 IMC and 2018 FGC (plus amendments)
 4714-2020 Minnesota State Plumbing Code
 2015 Uniform Plumbing Code (plus amendments)
 7511-2020 Minnesota State Fire Code
 2018 FFC (plus amendments)

OCCUPANCY AND MIXED USE
 OCCUPANCIES (IBC CH 3 & 4) B, S-1, H-2, H-3, H-4, H-5
 (ISC CH 12.42) YES NO
 ACCESSORY OCCUPANCIES? (IBC SECTION 508.2) YES NO
 NONSEPARATED OCCUPANCIES? (IBC SECTION 508.3) YES NO
 SEPARATED OCCUPANCIES? (IBC SECTION 508.4) YES NO

WORK IN EXISTING BUILDING (Addition, Alteration, Renovation, Remodel)
 COMPLIANCE METHOD (IBC Chapter 3) WORK AREA
 CLASSIFICATION OF WORK (IBC Chapter 10) ALTERATIONS - LEVEL 2
 WATER WEST BUILDING 'D' TO 1st FLOOR
 WAFER SOUTH BUILDING 'L' FIRST & SECOND FLOORS

ALLOWABLE AREA PER FLOOR - BUILDING 'D.1' (B) (Section 506)

ALLOWABLE AREA FACTOR (From table 506.2)	92,000
FRONTAGE INCREASE $1 + 100 \left(\frac{F - 0.25}{F} \right)^2$	+
FRONTAGE INCREASE (Penalties with > 30' open perimeter) $\left(\frac{P - 0.25}{P} \right)^2 \times \text{ALLOWABLE AREA (EVEN IF SPRINKLERED)}$	0
TOTAL ALLOWABLE AREAFLOOR	92,000

ALLOWABLE AREA PER FLOOR - BUILDING 'D.1' (S) (Section 506)

ALLOWABLE AREA FACTOR (From table 506.2)	70,000
FRONTAGE INCREASE $1 + 100 \left(\frac{F - 0.25}{F} \right)^2$	+
FRONTAGE INCREASE (Penalties with > 30' open perimeter) $\left(\frac{P - 0.25}{P} \right)^2 \times \text{ALLOWABLE AREA (EVEN IF SPRINKLERED)}$	0
TOTAL ALLOWABLE AREAFLOOR	70,000

SEPARATED OCCUPANCIES - FLOOR AREA RATIO - BLDG 'D.1' (Section 508)

FIRST LEVEL - ACTUAL SF / ALLOWABLE AREA	AREA RATIO
B OCC S-1 OCC	14.170
17,247	14.170
92,000	70,000
	0.20 (1 MAX)

BUILDING HEIGHT (BUILDING 'L') (Section 504)

EXTRA FLOORHEIGHT FOR SPRINKLER	ACTUAL HEIGHT	ALLOWABLE HEIGHT
FEET (From table 504.1)	32'-0"	32'-0"
STORIES (From table 504.1)	(1) - H2, H3, S-1 (2) - B, H-5	(1) - H2 (2) - H3 (4) - B

ACCESSIBLE MEANS OF EGRESS (BUILDING 'L') (Section 1009)

AREAS OF REFUGE REQUIRED: YES NO
 ELEVATOR REQUIRED FOR 5 OR MORE STORIES OR OCCUPIED ROOF ABOVE 4 STORIES: YES NO

MISCELLANEOUS

FIRE RESISTIVE CORRIDORS? (IBC Table 1018.1) YES NO
 SMOKE TIGHT CORRIDORS (SMOKE PARTITIONS) (IBC 407.3) YES NO
 INCIDENTAL USE AREA RATINGS (IBC Table 506) SEE PLANS
 RECYCLING SPACE 993.043 ft² x 0.003 = Non-occupied space. See First Level Reference Plan.

INTERIOR FINISHES CLASSIFICATION (Table 603.9 & Section 904)

OCCUPANCY	EXITS	CORRIDORS	ROOMS (UNO)
B	B	DOC-FF-1	C
H	B	DOC-FF-1	C
S	C	DOC-FF-1	C

FIRE-RESISTIVE REQUIREMENTS (BUILDING 'L') (TABLE 601/NAFPA 225)

STRUCTURAL FRAME	TEST
COLUMNS	0 TABLE T21.1(1)
GIRDERS	0 TABLE T21.1(1)
TRUSSES	0 TABLE T21.1(1)
BEARING WALLS	
EXTERIOR BEARING WALLS	0 TABLE T21.1(2)
INTERIOR BEARING WALLS	0 TABLE T21.1(2)
NON-BEARING WALLS AND PARTITIONS	0 (IBC Table 602 and Section 602.4.1)
EXTERIOR	TABLE T21.1(2)
INTERIOR	See Code Plans, RC Plans, & Spec

FLOOR CONSTRUCTION

FLOOR/CEILING ASSEMBLY	0	TABLE T21.1(3)
PRIME & SEC. FLOOR BEAMS, JOISTS	0	TABLE T21.1(3)
ROOF CONSTRUCTION		
ROOF/CEILING ASSEMBLY	0	TABLE T21.1(3)
PRIME & SEC. ROOF BEAMS, JOISTS	0	TABLE T21.1(3)

ENERGY CONSERVATION (2024 Minnesota Energy Code)

ENERGY CODE 2019 ASHRAE 90.1 CLIMATE ZONE 6A
 COMPLIANCE PATH DOCUMENTATION
 ASHRAE 90.1 ADDITIONAL EFFICIENCY REQUIREMENTS
 BUILDING USE TYPE(S) # OF REQ'D CREDITS
 ENERGY CREDITS

OCCUPANT LOAD (BUILDING 'L')

AREA LOCATION	OCCUPANCY	FLOOR AREA	SF/OCC	# OF OCC.
FIRST LEVEL	B	13,894	150	92
	B (MEP)	9,545 + 4,171 YARD	300	30 + 14 YARD
	H-2	741	300	3
	H-3	3,744	300	12
	H-4	198	300	1
	H-5	44,922	250	222
	S-1	987	350	3
TOTAL:		10,691	180	372

PLUMBING FIXTURES (ENTIRE FACILITY)

TOILETS & URINALS	A-3	6.1 M, 6 F	175
	A-3	1 M, 1 F	1131 min, 185 max
	F-1, S-1	28 M, 28 F	125 for 50 occupants, then 150
	B	3 M, 3 F	1100
TOTAL:		90 M, 81 F	37 M, 37 F

LAVATORIES

	A-2, A-3	3 M, 3 F	1000
	F-1	19 M, 19 F	140 for 80 occupants, then 180
	F-1, S-1	3 M, 3 F	1100
TOTAL:		39 M, 49 F	24 M, 24 F

DRINKING FOUNTAINS

	A-2, A-3	2	1500
	B	27	1100; 90% may be serving
	F-1	1	1400
	S-1	1	1100
TOTAL:		34	31

SERVICE SINKS

	B	1	5
	F-1	1	5
	S-1	1	5
TOTAL:		3	15

SEPARATED OCCUPANCIES - STORY / FLOOR AREA RATIO (Section 508.4)

FIRST LEVEL - ACTUAL SF / ALLOWABLE AREA	AREA RATIO
B OCC S-1 OCC	12.820
12,820	925
80,204	78,525
	10,410
	20,820
	78,525
	80,204
	(1 MAX)

SECOND LEVEL - ACTUAL SF / ALLOWABLE AREA

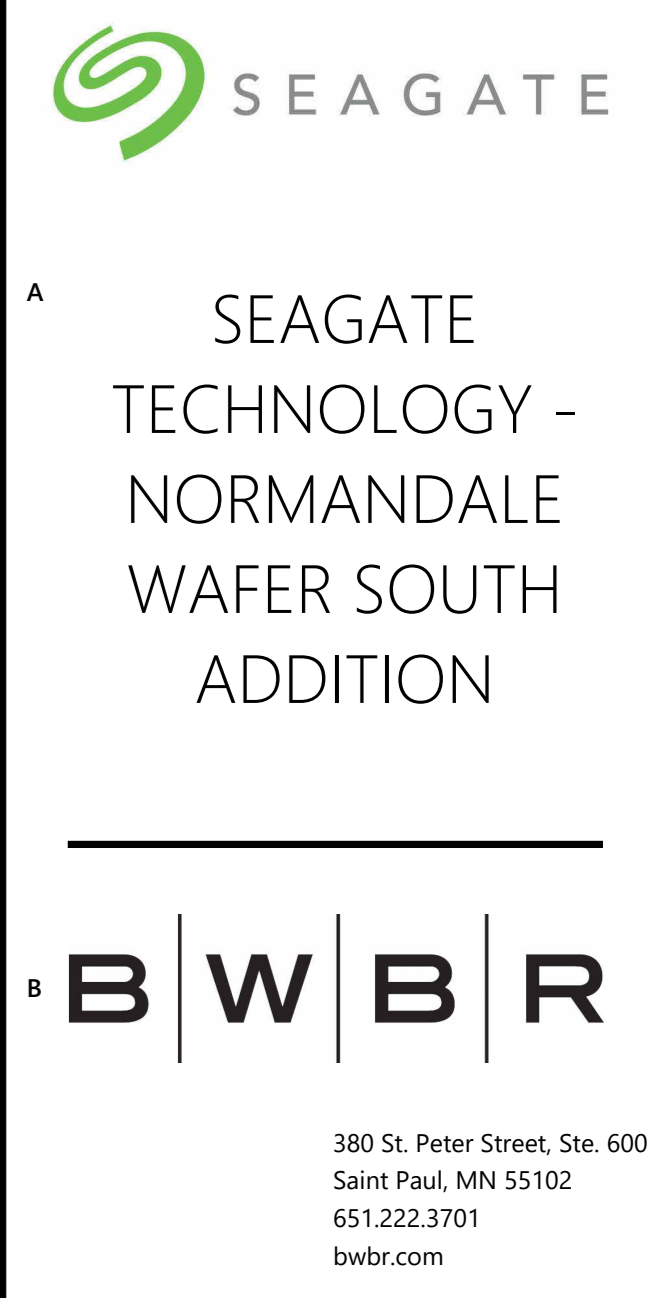
B OCC S-1 OCC	H-2 OCC	H-3 OCC	H-4 OCC	H-5 OCC	AREA RATIO
21,730	N/A	N/A	N/A	28,100	0.61
81,308	N/A	N/A	N/A	81,308	(1 MAX)

ALLOWABLE AREA PER FLOOR - BUILDING 'D' (F-1) (Section 506)

ALLOWABLE AREA FACTOR (From table 506.2)	62,000
FRONTAGE INCREASE $1 + 100 \left(\frac{F - 0.25}{F} \right)^2$	+
FRONTAGE INCREASE (Penalties with > 30' open perimeter) $\left(\frac{P - 0.25}{P} \right)^2 \times \text{ALLOWABLE AREA (EVEN IF SPRINKLERED)}$	2,862
TOTAL ALLOWABLE AREAFLOOR	64,863

ALLOWABLE AREA PER FLOOR - BUILDING 'D' (B) (Section 506)

ALLOWABLE AREA FACTOR (From table 506.2)	92,000
FRONTAGE INCREASE $1 + 100 \left(\frac{F - 0.25}{F} \right)^2$	+
FRONTAGE INCREASE (Penalties with > 30' open perimeter) $\left(\frac{P - 0.25}{P} \right)^2 \times \text{ALLOWABLE AREA (EVEN IF SPRINKLERED)}$	4,249
TOTAL ALLOWABLE AREAFLOOR	96,249



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KEYPLAN

NOT FOR CONSTRUCTION FOR REFERENCE ONLY

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KEYPLAN

WAFER W (BLDG D)
 WAFER E (BLDG J)
 WAFER S (BLDG L)
 WAFER S (BLDG L)
 ZONE 4
 ZONE 1 (BLDG D.1)
 ZONE 2
 ZONE 3

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 P2600023.00
 Sheet Title
FIRST LEVEL - CODE PLAN, CODE SUMMARY, SYMBOLS LEGEND
 Sheet No.
101.CO

SYMBOLS LEGEND - CODE PLAN

	FIRE PARTITION
	1 HR FIRE BARRIER FOR INCIDENTAL / HAZARDOUS AREAS
	1 HR FIRE BARRIER WITH NO SMOKE DAMPERS
	1 HR FIRE BARRIER WITH SMOKE DAMPERS
	2 HR FIRE BARRIER WITH NO SMOKE DAMPERS
	2 HR FIRE BARRIER WITH FIRE AND SMOKE DAMPERS
	3 HR FIRE BARRIER WITH NO SMOKE DAMPERS
	3 HR FIRE BARRIER WITH FIRE AND SMOKE DAMPERS
	SMOKE PARTITION
	1 HR SMOKE BARRIER FOR INCIDENTAL / HAZARDOUS AREAS THAT ALSO SERVES AS SMOKE BARRIER
	1 HR SMOKE BARRIER WITH NO SMOKE DAMPERS
	1 HR FIRE BARRIER AND/OR SMOKE BARRIER WITH SMOKE DAMPERS
	2 HR FIRE BARRIER THAT ALSO SERVES AS A SMOKE BARRIER WITH NO SMOKE DAMPERS
	2 HR FIRE BARRIER THAT ALSO SERVES AS A SMOKE BARRIER WITH FIRE AND SMOKE DAMPERS
	3 HR FIRE BARRIER THAT ALSO SERVES AS A SMOKE BARRIER WITH NO SMOKE DAMPERS
	3 HR FIRE BARRIER THAT ALSO SERVES AS A SMOKE BARRIER WITH FIRE AND SMOKE DAMPERS

	OCC #	REG. (PRO)	REQUIRED AND PROVIDED
	EXIT ACCESS		
	EXIT		
	EXIT DISCHARGE		
	HORIZONTAL EXIT		
	LOCKED - CARD READER ACCESS		
	LOCKED - DELAYED EGRESS		
	LOCKED - SPECIAL LOCKING ARRANGEMENT L1, L2, R-3, R-4 (MBC 1010.1.9.7 LSC 19.2.2.2.5.1)		
	LOCKED THIS SIDE		

	FE	FIRE EXTINGUISHER
	FEC	FIRE EXTINGUISHER & CABINET
	HV	HOSE VALVE
	HVC	HOSE VALVE & CABINET
	FE & VALVE CABINET LOCATIONS	
	MOE	MEANS OF EGRESS
	OUTSIDE LIMITS WITHIN LIMITS	CONSTRUCTION LIMITS

	SMOKE BOUNDARY
	HORIZONTAL EXIT
	OCCUPANCY BOUNDARY
	OCCUPANCY SEPARATION
	HEALTHCARE SUITE

	EGRESS PATH
	EXIT PASSAGEWAY
	SHAFT
	INCIDENTAL USE

NOT ALL SYMBOLS MAY BE USED ON EACH PLAN.
REFERENCES TO LSC (LIFE SAFETY CODE) "XX" REFERS TO CH 12 - 42.

SEE SHEET 101.CO FOR CODE SUMMARY

SEAGATE
TECHNOLOGY - NORMANDE
WAFER SOUTH ADDITION

B | W | B | R

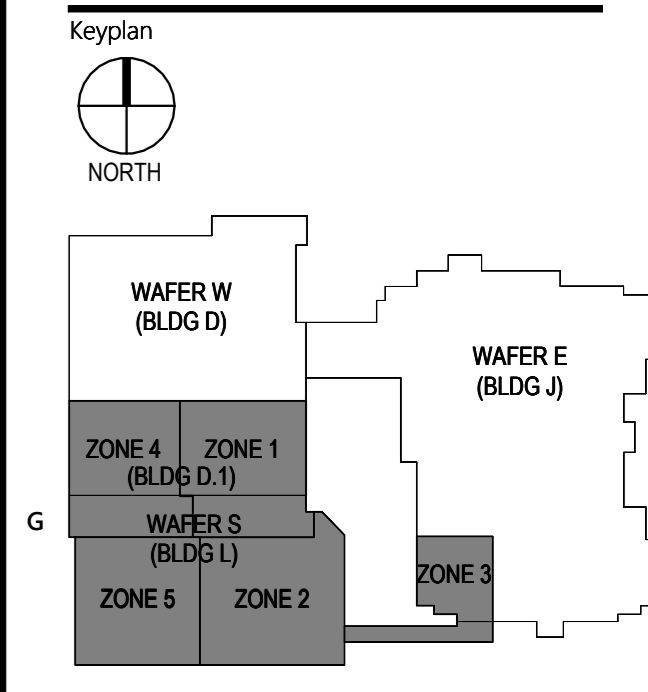
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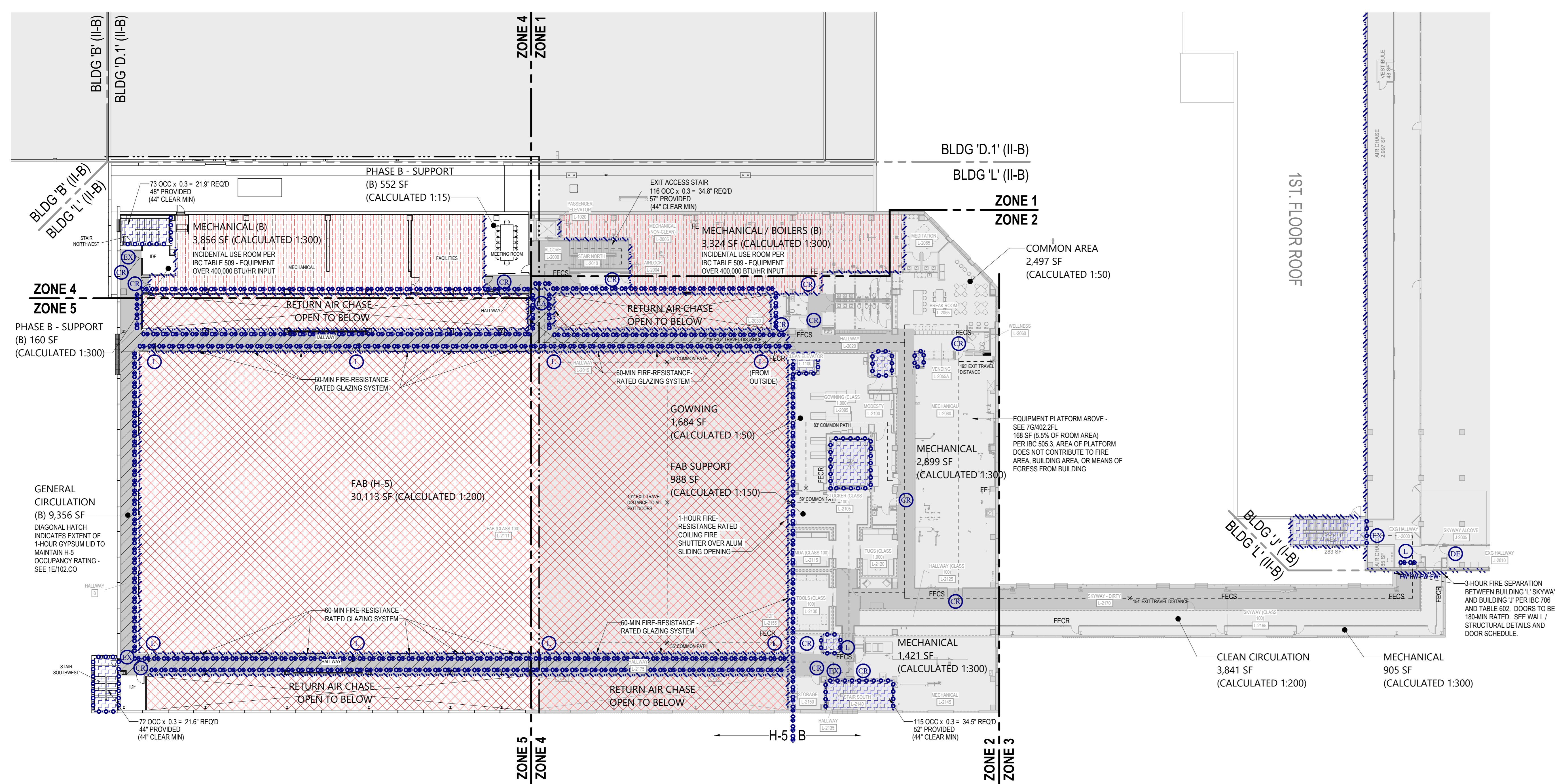
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Sheet Title: **SECOND LEVEL - CODE PLAN**
Sheet No.

102.CO



1H CODE PLAN - SECOND LEVEL
102.CO 384' x 114'

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