

199 ELM STREET // PERMIT SET // 11.14.2025

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LOCUS MAP
1" = 100'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

REGISTERED ARCHITECT
PAUL D. MILES
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

SCALE	NEIGHBOR PROJECT NUMBER
As indicated	2418

COVER SHEET

G0.00

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199 ELM STREET

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1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE
1" = 40'-0"

NEIGHBOR PROJECT NUMBER
2418

EXTERIOR VIEWS

G0.01

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ABBREVIATIONS

&	AND	ID	INSIDE DIMENSION
<	ANGLE	INSUL	INSULATION
@	AT	INT	INTERIOR
CL	CENTERLINE		
#	POUND OR NUMBER	JAN	JANITOR CLOSET
		JT	JOINT
AB	AIR BARRIER		
ACSP	ACCESSIBLE SPACE	LBE	LOAD BEARING ELEMENT
ACAS	ACCESSIBLE AISLE	LCC	LEAD COATED COPPER
ACOUS	ACOUSTICAL	LH	LEFT HAND
ACT	ACOUSTICAL CEILING TILE	LKR	LOCKER
ADJ	ADJUSTABLE	LP	LOW POINT
ADJC	ADJACENT	LT	LIGHT
AFF	ABOVE FINISHED FLOOR		
AGGR	AGGREGATE	MATL	MATERIAL
ALUM	ALUMINUM	MAX	MAXIMUM
APPROX	APPROXIMATE	MECH	MECHANICAL
ARCH	ARCHITECTURAL	MEMB	MEMBRANE
ASPH	ASPHALT	MTL	METAL
AUD	AUDITORIUM	MFR	MANUFACTURER
		MIN	MINIMUM
BD	BOARD	MISC	MISCELLANEOUS
BITUM	BITUMINOUS	MO	MASONRY OPENING
BLD	BOLLARD	MR	MOISTURE RESISTANT
BLDG	BUILDING	MTD	MOUNTED
BLK	BLOCK	MUL	MULLION
BLKG	BLOCKING		
BM	BEAM	N	NORTH
BOD	BOTTOM OF ROOF DECK	NIC	NOT IN CONTRACT
BOT	BOTTOM	NO	NUMBER
		NOM	NOMINAL
CAB	CABINET	NTS	NOT TO SCALE
CB	CATCH BASIN		
CEM	CEMENT	OC	ON CENTER
CER	CERAMIC	OD	OUTSIDE DIAMETER
CI	CAST IRON	OFF	OFFICE
CJ	CONTROL JOINT	OFCI	OWNER FURNISHED
CLAD	CLADDING		CONTRACTOR INSTALLED
CLG	CEILING	OFOI	OWNER FURNISHED OWNER INSTALLED
CLO	CLOSET	OH	OPPOSITE HAND
CLR	CLEAR	OPNG	OPENING
CO	CASED OPENING	OPP	OPPOSITE
COL	COLUMN	OVHD	OVERHEAD
COMP	COMPRESSIBLE		
CONC	CONCRETE	PART	PARTITION
CONN	CONNECTION	PC	PRECAST
CONSTR	CONSTRUCTION	PEP	PORCELAIN ENAMEL PANEL
CONT	CONTINUOUS	PERF	PERFORATED
CORR	CORRIDOR	PL	PLATE
CPT	CARPET	PLAS	PLASTER
CT	CERAMIC TILE	PLYWD	PLYWOOD
CTR	CENTER	POL	POLISHED
CTSK	COUNTERSUNK	POLY	POLYETHYLENE
		PR	PAIR
DBL	DOUBLE	PT	PRESSURE TREATED
DEPT	DEPARTMENT	PTD	PAINTED
DF	DRINKING FOUNTAIN		
DET	DETAIL	QT	QUARRY TILE
DIA	DIAMETER		
DIM	DIMENSION	R	RISER
DISP	DISPENSER	RAD	RADIUS
DN	DOWN	RCP	REFLECTED CEILING PLAN
DO	DOOR OPENING	RD	ROOF DRAIN
DR	DOOR	REF	REFERENCE
DWR	DRAWER	REINF	REINFORCED
DS	DOWNSPOUT	REM	REMOVE
DSP	DRY STANDPIPE	REQ'D	REQUIRED
DWG	DRAWING	RESIL	RESILIENT
		REV	REVISION
E	EAST	RH	RIGHT HAND
EA	EACH	RM	ROOM
EJ	EXPANSION JOINT	RO	ROUGH OPENING
EL	ELEVATION	ROW	RIGHT OF WAY
ELEC	ELECTRICAL	RTU	ROOF TOP UNIT
ELEV	ELEVATOR		
EMER	EMERGENCY	S	SOUTH
ENCL	ENCLOSURE	SAFB	SOUND ATTENUATION FIRE BLANKET
EP	ELECTRICAL PANELBOARD	SCHED	SCHEDULE
EQ	EQUAL	SECT	SECTION
EQPM	EQUIPMENT	SG	SOUND GASKET
ESB	EXTERIOR SOFFIT BOARD	SH	SHELF
EWC	ELECTRIC WATER COOLER	SHT	SHEET
EXST	EXISTING	SIM	SIMILAR
EXPO	EXPOSED	SOH	SIMILAR OPPOSITE HAND
EXP	EXPANSION	SPEC	SPECIFICATION
EXT	EXTERIOR	SQ	SQUARE
		SS	STAINLESS STEEL
FA	FIRE ALARM	STD	STANDARD
FD	FLOOR DRAIN	STL	STEEL
FDC	FIRE DEP. CONNECTION	STOR	STORAGE
FDN	FOUNDATION	STRUCT	STRUCTURAL
FE	FIRE EXTINGUISHER	SUSP	SUSPENDED
FEC	FIRE EXTINGUISHER CABINET	SYM	SYMMETRICAL
FHC	FIRE HOSE CABINET	SYS	SYSTEM
FF	FINISH FLOOR		
FIN	FINISH	TEL	TELEPHONE
FL	FLOOR	TER	TERRAZZO
FLSH	FLASHING	THK	THICK
FLUOR	FLUORESCENT	TOC	TOP OF CONCRETE
FM	FLOOR MAT	TOS	TOP OF STEEL
FOC	FACE OF CONCRETE	TOW	TOP OF WALL
FOF	FACE OF FINISH	TYP	TYPICAL
FOS	FACE OF STUD		
FRPF	FIREPROOF	UNF	UNFINISHED
FR	FIRE RATED	UON	UNLESS OTHERWISE NOTED
FRP	FIBERGLASS REINFORCED PLASTIC		
FRT	FIRE RETARDANT TREATED	VEN	VENEER
FS	FULL SIZE	VB	VAPOR BARRIER
FT	FOOT OR FEET	VCT	VINYL COMPOSITION TILE
FTG	FOOTING	VERT	VERTICAL
FUR	FURRING	VEST	VESTIBULE
FUT	FUTURE	VIF	VERIFY IN FIELD
		VWC	VINYL WALL COVERING
GC	GENERAL CONTRACTOR		
GA	GAUGE	W	WEST
GALV	GALVANIZED	WID	WIDTH
GL	GLASS	W/	WITH
GL BLK	GLASS BLOCK	WD	WOOD
GND	GROUND	WH	WALL HUNG
GR	GRADE	W/O	WITHOUT
GRT	GRATE	WP	WATERPROOF
GWB	GYPSUM WALL BOARD	WRB	WEATHER RESISTIVE BARRIER
GYP	GYPSUM	WT	WEIGHT
HDCP	HANDICAPPED		
HB	HOSE BIB		
HC	HOLLOW CORE		
HDWD	HARDWOOD		
HDWE	HARDWARE		
HM	HOLLOW METAL		
HORIZ	HORIZONTAL		
HR	HOUR		
HGT	HEIGHT		

SYMBOLS & GRAPHIC CONVENTIONS

Room name
101
150 SF
ROOM TAG

100
DOOR TAG

AA
WINDOW TAG

1
WALL TAG

ACT 1
8'-6" A.F.F.
CEILING TAG

0
GRID LINES AND BUBBLES

1
A101
BUILDING SECTION

1
A101
SIM
WALL SECTION

1
A101
SIM
DETAIL

1
A101
SIM
CALLOUT

A201
1
EXTERIOR ELEVATION

1
4 A601 2
3
INTERIOR ELEVATION

LEVEL 1
0'-0"
DATUM/SPOT ELEVATION

NORTH ARROW

1
REVISION CLOUD & MARK

ALUMINUM	GYPSUM - PLASTER
BRICK, STONE MASONRY	PARTICLE BOARD
CONCRETE	PLASTIC
CONCRETE MASONRY	PLYWOOD
EARTH	STEEL
GRAVEL	WOOD FINISH
SPRAYED FIREPROOFING	ACOUSTIC BATT

AIR (AB) & WEATHER-RESISTIVE (WRB) BARRIER MEMBRANES AND WATER & VAPOR CONTROL LAYERS

- FLUID APPLIED AB/WRB
- SELF-ADHERING AB/WRB FLASHING
- FLUID-APPLIED DAMPPROOFING
- FLUID APPLIED OR SELF-ADHERING WATERPROOFING
- SHEET VAPOR BARRIER
- VAPOR RETARDER

THERMAL INSULATION

- SPRAYED FIBROUS CAVITY INSULATION
- RIGID FOAM BOARD INSULATION
- FIBROUS BOARD (RIGID OR SEMI-RIGID) INSULATION
- BATT/BLANKET INSULATION
- SPRAY FOAM INSULATION
- HIGH R-VALUE SPRAYED FIREPROOFING

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES AS ADOPTED BY THE LOCAL JURISDICTION HAVING AUTHORITY. CONTRACTOR TO ARRANGE FOR REQUIRED INSPECTIONS BY AUTHORITIES AT THE PROPER TIME DURING PROGRESS OF THE WORK.
2. THIS SHEET IS PART OF AN ENTIRE SET OF CONSTRUCTION DOCUMENTS AS OUTLINED IN THE SCHEDULE OF DRAWINGS. THE OWNER'S CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN SUBCONTRACTORS BASED ON THE ENTIRE SET OF DOCUMENTS. NO EXTRA COMPENSATION WILL BE GIVEN TO A BIDDER, OR SUPPLIER WHO HAS BID FROM AN INCOMPLETE SET OF CONSTRUCTION DOCUMENTS. IN CASE OF INACCURACIES OR DISCREPANCIES BETWEEN DRAWINGS, THE MOST STRINGENT NOTE OR CONDITION SHALL APPLY AND THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF SUCH DISCREPANCIES.
3. IT IS THE RESPONSIBILITY OF THE OWNER'S CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS AND DIMENSIONS PRIOR TO STARTING CONSTRUCTION. CONDITIONS SHOWN ON THESE DOCUMENTS ARE BASED ON INFORMATION OBTAINED PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE SUBMITTING A BID, VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF WORK OR ORDERING MATERIAL (SUCH AS WINDOWS, DOORS, AND TRUSSES) AND SHALL ADVISE ARCHITECT OF ANY DISCREPANCIES.
4. THE OWNER'S CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A CURRENT SET OF CONSTRUCTION DOCUMENTS ON THE SITE DURING CONSTRUCTION. THE OWNER'S CONTRACTOR SHALL INDICATE ON THESE PLANS ALL APPROVED CHANGES TO THE WORK DESCRIBED ON THESE DRAWINGS. THIS SHALL BE TURNED OVER TO THE OWNER WHEN THE PROJECT IS COMPLETED, WITH A COPY PROVIDED TO THE ARCHITECT.
5. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS APPEAR ON THESE DRAWINGS, SPECIFICATIONS, OR OTHER DOCUMENTS, THE OWNER'S CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITTEN FORM IMMEDIATELY.
6. THE OWNER'S CONTRACTOR SHALL VERIFY WITH THE OWNER ALL FIXTURES BY OTHERS, AND SHALL BE AVAILABLE TO RECEIVE DELIVERY AND ASSIST IN INSTALLATION OF ALL EQUIPMENT AND FIXTURES PROVIDED BY OWNER. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION AND SAFE KEEPING OF ALL PRODUCTS STORED ON SITE.
7. CONTRACTOR TO COORDINATE WORK SCHEDULES, DELIVERIES, AND SERVICE DISCONNECTS WITH OWNER.
8. OWNER'S CONTRACTOR IS TO PROVIDE ALL NECESSARY BARRICADES, PLASTIC FOR DUST PROTECTION, AND OTHER FORMS OF PROTECTION FOR PORTIONS OF THE BUILDING NOT TO BE DAMAGED.
9. THESE DRAWINGS ARE NOT TO BE ALTERED IN ANY WAY WITHOUT WRITTEN AUTHORIZATION FROM THE ARCHITECT. CHANGES IN DRAWINGS OR ACTUAL WORK SHALL BE ISSUED BY THE ARCHITECT.
10. GENERAL CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS CONCERNING THE DEMOLITION AND DISPOSAL OF HAZARDOUS MATERIALS, INCLUDING LEAD, ASBESTOS, OIL, AND ALL OTHER MATERIALS DEEMED HAZARDOUS BY THE EPA.
11. OWNER'S CONTRACTOR TO WARRANT TO THE OWNER THAT ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED UNDER THIS CONTRACT SHALL BE NEW, UNLESS OTHERWISE SPECIFIED, AND THAT ALL WORK SHALL BE OF GOOD QUALITY, IN CONFIRMATION WITH THE CONTRACT DOCUMENTS, AND FREE FROM FAULTS AND DEFECTS, FOR A PERIOD OF ONE YEAR (UNLESS OTHERWISE STATED IN THE CONTRACT DOCUMENTS). BEGINNING AT THE DATE OF SUBSTANTIAL COMPLETION, CONTRACTOR SHALL PROMPTLY CORRECT WORK NOT FOUND TO BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR SHALL BEAR ALL COSTS OF CORRECTIONS.
12. CONTRACTOR SHALL PROVIDE SUPPLEMENTARY SUPPORT AND/OR FRAMING FOR ALL LIGHT FIXTURES, CEILING DIFFUSERS, BATHROOM FIXTURES, ETC.
13. CONTRACTOR SHALL PERFORM ALL WORK AND INSTALL MATERIALS IN STRICT ACCORDANCE WITH MANUFACTURERS' SPECIFICATIONS AND INSTRUCTIONS, AND IN A MANNER CONSISTENT WITH INDUSTRY STANDARDS OF WORKMANSHIP.
14. CONTRACTOR SHALL MAINTAIN A CLEAN AND ORDERLY CONSTRUCTION SITE AT ALL TIMES.
15. CONTRACTOR SHALL EXAMINE ALL SURFACES TO DETERMINE THAT THEY ARE SOUND, DRY, CLEAN, AND READY TO RECEIVE FINISHES OR MILLWORK PRIOR TO INSTALLATION. START OF INSTALLATION SHALL IMPLY ACCEPTANCE OF SUBSTRATE AND SHALL NOT BE GROUNDS FOR CLAIMS AGAINST IMPROPER PERFORMANCE OF INSTALLED MATERIALS. ADVISE ARCHITECT OF ANY EXISTING CONDITIONS NOT LEVEL, PLUMB, AND SMOOTH OR WITHIN INDUSTRY STANDARDS PRIOR TO START OF CONSTRUCTION.
16. CONTRACTOR TO THOROUGHLY CLEAN ALL SURFACES OF DUST, DEBRIS, LOOSE CONSTRUCTION MATERIAL AND EQUIPMENT 24 HOURS PRIOR TO OCCUPANCY OF FINISHED WORK. CONTRACTOR TO VACUUM OR MOP AS APPROPRIATE ALL FLOORS, AND CLEAN WINDOWS AND GLAZING.
17. CONTRACTOR SHALL COMPLETE ALL WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. NO CHANGES OR MODIFICATIONS TO THE WORK SHALL BE MADE WITHOUT APPROVAL OF THE OWNER AND/OR ARCHITECT/ENGINEER. FAILURE TO OBTAIN APPROVAL SHALL CAUSE THE CONTRACTOR OR SUBCONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR SUBSEQUENT MODIFICATION OF THE WORK REQUIRED BY OWNER OR ANY REGULATORY AUTHORITY.
18. THE CONTRACTOR SHALL RETAIN THE SERVICES OF LICENSED PROFESSIONALS FOR CODE COMPLIANCE FOR THE ELECTRICAL, MECHANICAL AND PLUMBING SYSTEMS WHICH ARE NOT PART OF THESE DRAWINGS.
19. ALL WORK UNDER THE CONTRACT IS TO BE PERFORMED TO A COMPLETE AND FINISHED PRODUCT. AT END OF JOB, CONTRACTORS SHALL LEAVE THE JOB SITE IN AN ORDERLY AND NEAT FASHION CAPABLE OF BEING USED FOR THE INTENDED PURPOSE. ALL WORK IS TO BE WARRANTED FOR ONE YEAR AGAINST ANY DEFECTS OR DEFICIENCIES, UNLESS OTHERWISE STATED WITHIN THE CONTRACT DOCUMENTS. IT IS EXPRESSLY UNDERSTOOD THAT ONE CONDITION FOR FINAL PAYMENT TO THE CONTRACTOR UNDER THIS AGREEMENT IS COMPLETENESS OF ALL WORK. CONTRACTOR TO PROVIDE ALL KEYS, EQUIPMENT, OPERATING INSTRUCTIONS, RECORD DRAWINGS, ETC., TO OWNER.
20. THESE DRAWINGS ARE NOT TO BE SCALED.
21. UNLESS OTHERWISE NOTED, ALL DIMENSIONS SHOWN ARE FROM FINISH FACE TO FINISH FACE.

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REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

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SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

GENERAL NOTES & ABBREVIATIONS

G0.02

11/11/2025 3:56:30 PM

ZONING TABLE

MID-RISE 4 (MR4) - GENERAL BUILDING

LOT DIMENSIONS	REQUIREMENT	PROPOSED	COMPLIANT
LOT WIDTH	30' MIN.	42'	YES

LOT DEVELOPMENT	REQUIREMENT	PROPOSED	COMPLIANT
LOT COVERAGE (REFER TO 2/G1.00)	90% MAX	88%	YES
GREEN SCORE	0.25 MIN, 0.30 IDEAL	0.273	YES
OPEN SPACE (REFER TO 4/G1.00)	15% MIN	48%	YES

BUILDING SETBACKS (REFER TO 1/G1.00)	REQUIREMENT	PROPOSED	COMPLIANT
CURB SETBACK	12' MIN	12'	YES
PRIMARY FRONT SETBACK	2' MIN - 15' MAX	2'	YES
SIDE SETBACKS (ABUTTING NON-NR)	0'	0'	YES
REAR SETBACKS (ABUTTING NON-NR)	10'	10'	YES

MAIN MASSING	REQUIREMENT	PROPOSED	COMPLIANT
BUILDING WIDTH	200' MAX	42'	YES
FACADE BUILD OUT, PRIMARY FRONT	80%	99.6%	YES
FLOOR PLATE	15,000 SF MAX	2,891 SF	YES
GROUND STORY HEIGHT	14' MIN	14'	YES
UPPER STORY HEIGHT	10' MIN	10'	YES
NUMBER OF STORIES	3 MIN, 4 MAX	4	YES
BUILDING HEIGHT	52' MAX	46'	YES
ROOF TYPE	FLAT	FLAT	YES

FACADE COMPOSITION (REFER TO 5/G1.00)	REQUIREMENT	PROPOSED	COMPLIANT
GROUND STORY FENESTRATION	70% MIN	70%	YES
UPPER STORY FENESTRATION	15% MIN, 50% MAX	42%	YES
BLANK WALL	20' MAX	20'	YES

LOBBY ENTRANCE	REQUIREMENT	PROPOSED	COMPLIANT
WIDTH	15' MIN, 30' MAX	15'	YES
HEIGHT (% GROUND STORY HEIGHT)	80%	82%	YES

STOREFRONT	REQUIREMENT	PROPOSED	COMPLIANT
WIDTH	15' MIN, 30' MAX	18'	YES
HEIGHT (% GROUND STORY HEIGHT)	80%	82%	YES
DISPLAY WINDOW HEIGHT	8' MIN	9'-6"	YES

USE & OCCUPANCY	REQUIREMENT	PROPOSED	COMPLIANT
GROUND STORY ENTRANCE SPACING	30' MAX	8'-8"	YES
COMMERCIAL SPACE DEPTH	30' MIN	65'	YES
DENSITY FACTOR (LOT AREA <5,000 SF) = GROSS FLOOR AREA / DENSITY FACTOR = 15,176 / 1,500 = 10.1 = 10 UNITS	10 UNITS MAX	10 UNITS	YES
OUTDOOR AMENITY SPACE REFER SZO 2.4.5.b.viii.c	1 / DU OR SHARED OUTDOOR AMENITY SPACE	SHARED ROOF DECK	YES

ROOF MOUNTED MECHANICALS	REQUIREMENT	PROPOSED	COMPLIANT
PENTHOUSE HEIGHT	10' MAX	15'	REQUIRES SPECIAL PERMIT

BIKE PARKING	REQUIREMENT	PROPOSED	COMPLIANT
COMMERCIAL - FOOD & BEVERAGE SERVICE SHORT-TERM BICYCLE PARKING SPACES LONG-TERM BICYCLE PARKING SPACES	 1.0 / 1,000 SF 0.2 / 1,000 SF	 2 SHORT-TERM 1 LONG-TERM	 YES YES
RESIDENTIAL HOUSING SHORT-TERM BICYCLE PARKING SPACES LONG-TERM BICYCLE PARKING SPACES	 0.1 / DU 1.0 / DU	 1 SHORT-TERM 10 LONG-TERM	 YES YES

PERMITTED LUMENS (TABLE 10.6.1)		PERMITTED	PROPOSED	COMPLIANT
LUMENS/SF IMPERVIOUS SURFACE AREA (PER SQUARE FOOT OF ILLUMINATED AREA) + BUILDING ENTRANCES/EXITS (PER DOOR, INSTALLED WITHIN TWENTY (20) FEET OF THE DOOR)	2.5 LUMENS / SF + 2,000 LUMENS / DOOR	130 SF FRONT YARD + 430 REAR YARD = 560 SF / 2.5 = **224 LUMENS** + 3 DOORS * 2000 LUMENS = **6000 LUMENS** **= 6,224 LUMENS MAX.**	(6) SW1 FIXTURES @ 863 LUMENS/FIXTURE **= 5,178 LUMENS**	 YES

MAXIMUM BUG RATINGS (TABLE 10.6.2)	PERMITTED	PROPOSED (SW1)	COMPLIANT
BACKLIGHT ONE (1) TO LESS THAN TWO (2) MOUNTING HEIGHTS FROM PROPERTY LINE AND IDEALLY ORIENTED.	B3	B1	YES
UPLIGHT	U2	U1	YES
GLARE ONE (1) TO LESS THAN TWO (2) MOUNTING HEIGHTS FROM PROPERTY LINE AND IDEALLY ORIENTED.	G2	G0	YES

UNIT TOTAL AND MIX

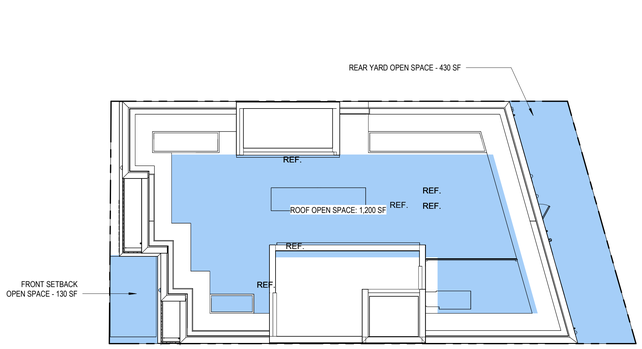
FLOOR	UNIT	QTY	TYPE	ACCESSIBLITY
LOWER LEVEL	--	--	COMMERCIAL	--
GROUND FLOOR	--	1	COMMERCIAL	--
SECOND FLOOR	1BED/STU	4	APARTMENT	GROUP 1 UNITS
THIRD FLOOR	1BED/STU	4	APARTMENT	GROUP 1 UNITS
FOURTH FLOOR	2BED	2	APARTMENT	GROUP 1 UNITS
ROOF LEVEL	--	--	AMENITY	--
TOTAL		10 RESIDENTIAL UNITS + 1 COMMERCIAL		

CODE SUMMARY

PROJECT AREA	
SITE AREA	3,609 SF
GROSS FLOOR AREA	14,875 SF

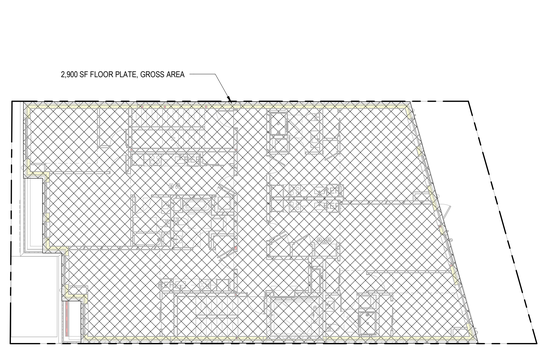
PROJECT HEIGHT	
STORIES / FEET	4 STORIES / 45'-0"
SPRINKLERED	YES

CONSTRUCTION CLASSIFICATION	
ALL LEVELS	TYPE VA

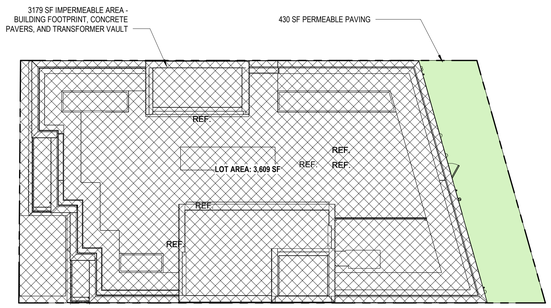


4 OPEN SPACE
3/32" = 1'-0"

OPEN SPACE
OPEN SPACE AREA: 1,760 SF
LOT AREA: 3,609 SF
OPEN SPACE %: **48%**

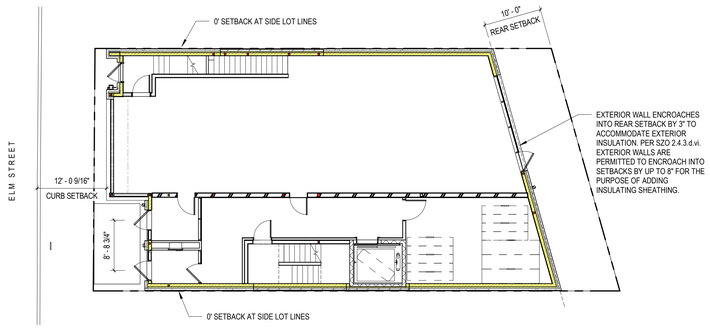


3 FLOOR PLATE
3/32" = 1'-0"



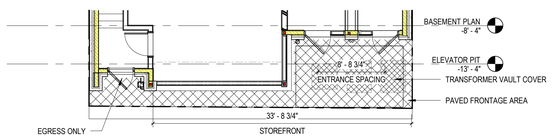
LOT COVERAGE
COVERED AREA: 3,179 SF
LOT AREA: 3,609 SF
LOT COVERAGE %: **88%**

2 LOT COVERAGE
3/32" = 1'-0"



1 ZONING PLAN
3/32" = 1'-0"





5 PRIMARY FACADE
1/8" = 1'-0"

GROUND STORY FENESTRATION
FENESTRATION AREA: 292 SF
FACADE AREA: 420 SF
FENESTRATION %: **70%**

UPPER STORY FENESTRATION
FENESTRATION AREA: 178 SF
FACADE AREA: 420 SF
FENESTRATION %: **42%**

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA, 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

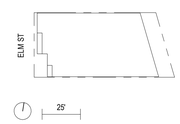
GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MULLEN
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

DEVELOPMENT SUMMARY & ZONING ANALYSIS

G0.03

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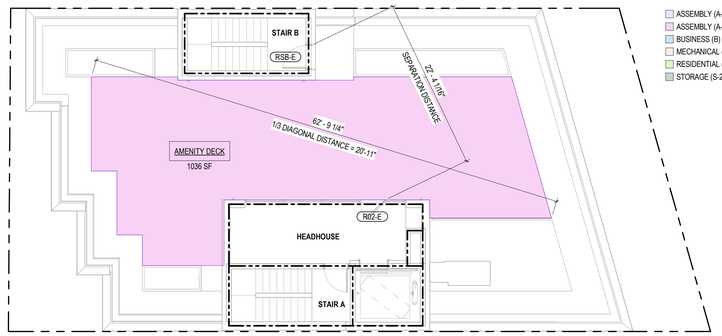


ASSEMBLY (A-2)
ASSEMBLY (A-3)
BUSINESS (B)
MECHANICAL (U)
RESIDENTIAL (R-2)
STORAGE (S-2)

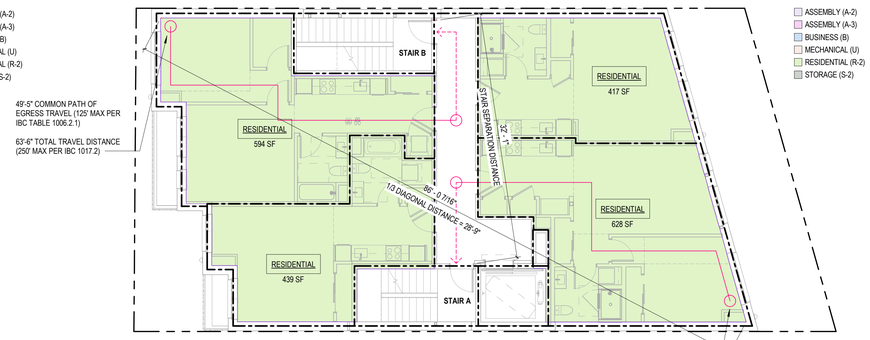
OCCUPANT LOAD CALCULATION - ROOF (IBC TABLE 1004.5)			
ROOM	AREA	USE GROUP	POSTED OCCUPANCY
ROOF			
AMENITY DECK	1036 SF	ASSEMBLY (A-3)	49
	1036 SF		

STAIR CAPACITY:

REQUIRED: 49" 2 OR 36" MINIMUM (IBC 1011.2.1) = 36"
PROVIDED: 36" (STAIR A) + 36" (STAIR B) = 72" (COMPLIES)

STAIR DOOR CAPACITY:

REQUIRED: 49" 15 OR 32" MINIMUM (IBC 1010.1.1) = 32"
PROVIDED: 33" (DOOR R02-E) + 33" (DOOR RSB-E) = 66" (COMPLIES)



ASSEMBLY (A-2)
ASSEMBLY (A-3)
BUSINESS (B)
MECHANICAL (U)
RESIDENTIAL (R-2)
STORAGE (S-2)

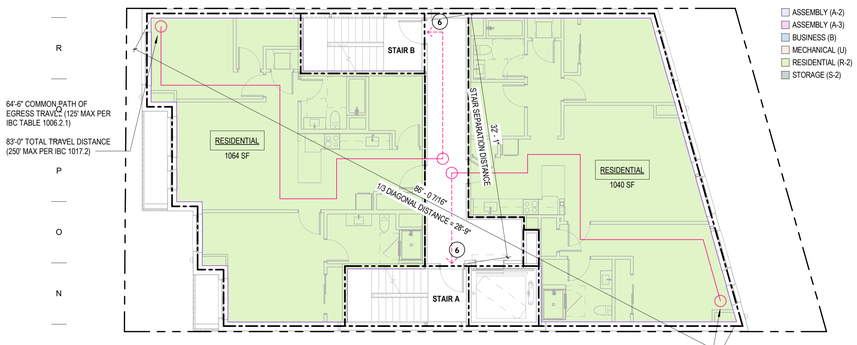
OCCUPANT LOAD CALCULATION - 2ND FLOOR (IBC TABLE 1004.5)				
ROOM	AREA	USE GROUP	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
2ND FLOOR				
RESIDENTIAL	2079 SF	RESIDENTIAL (R-2)	200 SF	13
	2079 SF			13

STAIR CAPACITY:

REQUIRED: 12" 2 OR 36" MINIMUM (IBC 1011.2.1) = 36"
PROVIDED: 36" (STAIR A) + 36" (STAIR B) = 72" (COMPLIES)

STAIR DOOR CAPACITY:

REQUIRED: 69" 15 OR 32" MINIMUM (IBC 1010.1.1) = 32"
PROVIDED: 33" (STAIR A DOOR) + 33" (STAIR B DOOR) = 66" (COMPLIES)



ASSEMBLY (A-2)
ASSEMBLY (A-3)
BUSINESS (B)
MECHANICAL (U)
RESIDENTIAL (R-2)
STORAGE (S-2)

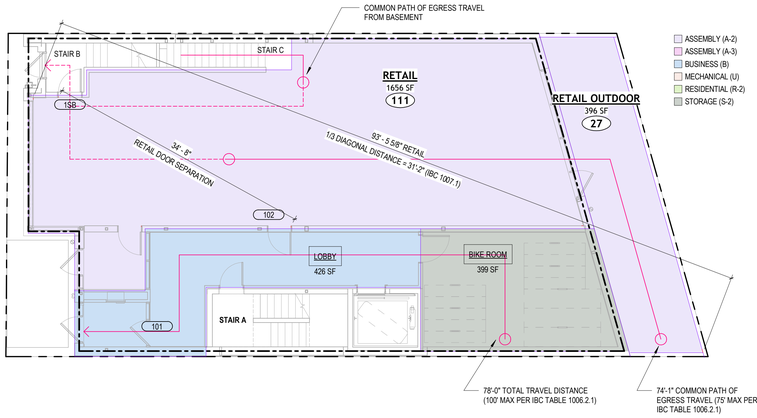
OCCUPANT LOAD CALCULATION - 4TH FLOOR (IBC TABLE 1004.5)				
ROOM	AREA	USE GROUP	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
4TH FLOOR				
RESIDENTIAL	2104 SF	RESIDENTIAL (R-2)	200 SF	12
	2104 SF			12

STAIR CAPACITY:

REQUIRED: 12" 2 OR 36" MINIMUM (IBC 1011.2.1) = 36"
PROVIDED: 36" (STAIR A) + 36" (STAIR B) = 72" (COMPLIES)

STAIR DOOR CAPACITY:

REQUIRED: 69" 15 OR 32" MINIMUM (IBC 1010.1.1) = 32"
PROVIDED: 33" (STAIR A DOOR) + 33" (STAIR B DOOR) = 66" (COMPLIES)



ASSEMBLY (A-2)
ASSEMBLY (A-3)
BUSINESS (B)
MECHANICAL (U)
RESIDENTIAL (R-2)
STORAGE (S-2)

OCCUPANT LOAD CALCULATION - GROUND FLOOR (IBC TABLE 1004.5)				
ROOM	AREA	USE GROUP	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
GROUND FLOOR				
LOBBY	426 SF	BUSINESS (B)	150 SF	3
BIKE ROOM	399 SF	STORAGE (S-2)	300 SF	2
RETAIL	1656 SF	ASSEMBLY (A-2)	15 SF	111
RETAIL OUTDOOR	396 SF	ASSEMBLY (A-2)	15 SF	27
	2876 SF			143

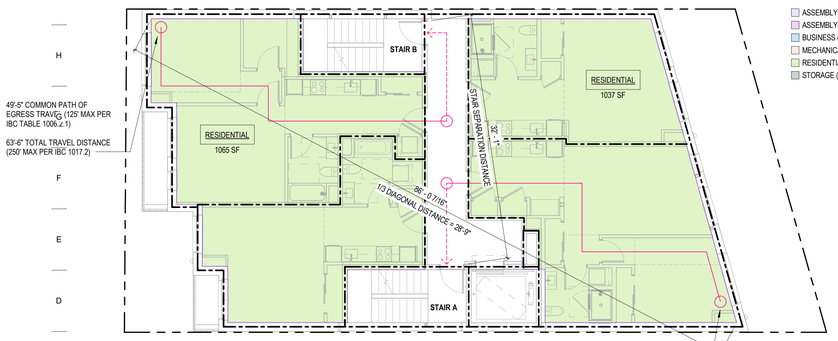
DOOR CAPACITY AT RETAIL:

REQUIRED: 142" 15 OR 32" MINIMUM (IBC 1010.1.1) = 32"
PROVIDED: 33" (DOOR 112) + 33" (DOOR 1SB) = 66" (COMPLIES)

DOOR CAPACITY AT RESIDENTIAL:

REQUIRED: 5" 15 OR 32" MINIMUM (IBC 1010.1.1) = 32"
PROVIDED: 33" (DOOR 101), COMPLIES

ONE EXIT PERMITTED FROM LOBBY / BIKE ROOM PER IBC TABLE 1006.2.1. OCCUPANCY DOES NOT EXCEED 29 AND COMMON PATH OF EGRESS TRAVEL DISTANCE DOES NOT EXCEED 100 FEET.



ASSEMBLY (A-2)
ASSEMBLY (A-3)
BUSINESS (B)
MECHANICAL (U)
RESIDENTIAL (R-2)
STORAGE (S-2)

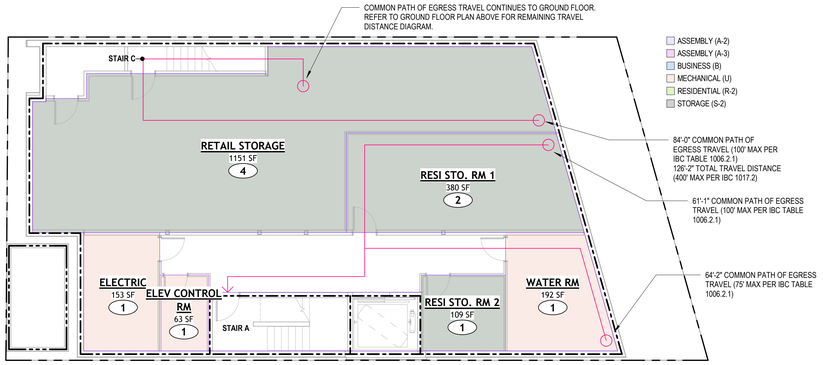
OCCUPANT LOAD CALCULATION - 3RD FLOOR (IBC TABLE 1004.5)				
ROOM	AREA	USE GROUP	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
3RD FLOOR				
RESIDENTIAL	2102 SF	RESIDENTIAL (R-2)	200 SF	12
	2102 SF			12

STAIR CAPACITY:

REQUIRED: 12" 2 OR 36" MINIMUM (IBC 1011.2.1) = 36"
PROVIDED: 36" (STAIR A) + 36" (STAIR B) = 72" (COMPLIES)

STAIR DOOR CAPACITY:

REQUIRED: 69" 15 OR 32" MINIMUM (IBC 1010.1.1) = 32"
PROVIDED: 33" (STAIR A DOOR) + 33" (STAIR B DOOR) = 66" (COMPLIES)



ASSEMBLY (A-2)
ASSEMBLY (A-3)
BUSINESS (B)
MECHANICAL (U)
RESIDENTIAL (R-2)
STORAGE (S-2)

OCCUPANT LOAD CALCULATION - BASEMENT (IBC TABLE 1004.5)				
ROOM	AREA	USE GROUP	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
BASEMENT PLAN				
ELECTRIC	153 SF	MECHANICAL (U)	300 SF	1
RETAIL STORAGE	1151 SF	STORAGE (S-2)	300 SF	4
RESI STO. RM 1	380 SF	STORAGE (S-2)	300 SF	2
WATER RM	192 SF	MECHANICAL (U)	300 SF	1
ELEV CONTROL RM	63 SF	MECHANICAL (U)	300 SF	1
RESI STO. RM 2	109 SF	STORAGE (S-2)	300 SF	1
	2048 SF			10

ONE EXIT PERMITTED FROM MECHANICAL/STORAGE SPACES THIS FLOOR PER IBC TABLE 1006.2.1. OCCUPANCY DOES NOT EXCEED 29 FOR STORAGE USE NOR 49 FOR UTILITY USE AND COMMON PATH OF EGRESS TRAVEL DISTANCE DOES NOT EXCEED 100 FEET FOR STORAGE USE NOR 75 FEET FOR UTILITY USE.

PROJECT INFORMATION

DESCRIPTION: THE PROJECT IS A NEWLY CONSTRUCTED 4-STORY MIXED-USE BUILDING THAT INCLUDES: STORAGE IN THE BASEMENT; 1 COMMERCIAL UNIT, A RESIDENTIAL LOBBY, AND BIKE STORAGE ROOM ON THE GROUND FLOOR; AND 10 RESIDENTIAL APARTMENTS ON LEVELS 2-4.

THE BUILDING WILL BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM COMPLYING WITH NFPA 13 AND INSTALLED PER 780 CMR SECTION 903.3.

APPLICABLE CODES

ACCESSIBILITY:
MASSACHUSETTS ARCHITECTURAL ACCESS BOARD 2006 EDITION (MAAB, 521 CMR); AMERICANS WITH DISABILITIES ACT (ADA), 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN; FAIR HOUSING ACT DESIGN GUIDELINES (FHA)
BUILDING CODES:
MASSACHUSETTS STATE BUILDING CODE, TENTH EDITION (780 CMR); 780 CMR IS AN AMENDED VERSION OF THE 2021 INTERNATIONAL BUILDING CODE (IBC)
ENERGY CONSERVATION CODE: 780 CMR CHAPTER 115 AA: STRETCH ENERGY CODE. THE STRETCH CODE IS AN AMENDED VERSION OF THE 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC). SOMERVILLE HAS ADOPTED THE SPECIALIZED ENERGY CODE. THE PROJECT WILL FOLLOW THE HERS/COMCHECK COMPLIANCE PATH.
MECHANICAL CODE: 2021 INTERNATIONAL MECHANICAL CODE (IMC), AS ADOPTED AND AMENDED BY 780 CMR.
FIRE CODE: MASSACHUSETTS COMPREHENSIVE FIRE SAFETY CODE (527 CMR 1.00). 527 CMR IS AN AMENDED VERSION OF THE 2021 NFPA 1, NATIONAL FIRE CODE.
ELECTRICAL CODE: MASSACHUSETTS ELECTRICAL CODE (527 CMR 12.00). 527 CMR 12 IS AN AMENDED VERSION OF THE 2023 NATIONAL ELECTRICAL CODE (NFPA 70).
PLUMBING CODE: 248 CMR 10.00: BOARD OF STATE EXAMINERS OF PLUMBERS AND GAS FITTERS REGULATIONS EFFECTIVE DECEMBER 08, 2023.
FIRE PROTECTION CODE: APPLICABLE EDITIONS OF THE LISTED NFPA STANDARDS UNDER UNDER 780 CMR 10TH EDITION ARE: NFPA 13 2019, NFPA 14 2019, NFPA 72 2019, NFPA 25 2020.
ELEVATOR CODE: MASSACHUSETTS ELEVATOR REGULATIONS 524 CMR 35.00: SAFETY CODE FOR ELEVATORS AND ESCALATORS (A17.1-2013) AND MASSACHUSETTS MODIFICATIONS OF THAT CODE.

TYPES OF CONSTRUCTION

TYPES OF CONSTRUCTION (780 CMR CH. 6)
ALL LEVELS: TYPE VA

FIRE RESISTANCE RATING (HOURS)	
BUILDING ELEMENT	**TYPE VA**
PRIMARY STRUCTURAL FRAME	1
BEARING WALLS, EXTERIOR[7]	1
BEARING WALLS, INTERIOR	1
NONBEARING WALLS, EXTERIOR	PER TABLE 705.5
NONBEARING WALLS AND PARTITIONS, INTERIOR	0
FLOOR CONSTRUCTION	1
ROOF CONSTRUCTION	1

* NOT LESS THAN FIRE-RESISTANCE RATING BASED ON FIRE SEPARATION DISTANCE (SEE TABLE 705.5).
[7] NOT LESS THAN THE FIRE-RESISTANCE RATING AS REFERENCED IN SECTION 704.10 "EXTERIOR STRUCTURAL MEMBERS."

FIRE AND SMOKE PROTECTION

FIRE AND SMOKE PROTECTION FEATURES (780 CMR CH. 7)

BUILDING ELEMENT	FIRE RESISTANCE RATING (HRS)	OPENING PROTECTIVE (HRS) [780 CMR 716.1.2]
SHAFTS CONNECTING LESS THAN 4 STORIES (780 CMR 713.4)	1	1
SHAFTS CONNECTING 4 OR MORE STORIES (780 CMR 713.4)	2	1.5
RESIDENTIAL LEVELS EXIT ACCESS CORRIDOR WALLS (780 CMR 708.3, 1020.2)	1/2	1/3
INTERIOR WALLS SEPARATING DWELLING UNITS (780 CMR 708.1, 708.3)	1	1/3

LIFE SAFETY DRAWINGS LEGEND

- 1/2-HR FIRE RATING
- 1-HR FIRE RATING
- 2-HR FIRE RATING
- 3-HR FIRE RATING
- 45 → EGRESS LOAD
- TRAVEL DISTANCE
- COMMON PATH OF TRAVEL

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

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BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

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231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

CODE ANALYSIS & DIAGRAMS

G0.04

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TYPICAL ASSEMBLY NOTES, APPLICABLE TO EACH ASSEMBLY, UON:

1: DEPICTION OF EXTERIOR ASSEMBLIES: EXTERIOR ASSEMBLIES ARE SHOWN DIAGRAMMATICALLY ONLY. NOT EVERY CONDITION REQUIRED IS INDICATED. SEE PLANS, SECTIONS AND DETAILS FOR ADDITIONAL REQUIREMENTS.

2: EGA SPECIFIC ARRANGEMENT / LOCATION OF STOREFRONT COMPONENTS: SEE EXTERIOR ELEVATION DRAWINGS & DETAILS.

3: WALLBOARD AT EXTERIOR WALL FRAMING: PROVIDE WALL BOARD AT INTERIOR FACE OF ALL EXTERIOR WALL FRAMING EXPOSED TO VIEW OR WHERE REQUIRED FOR ACOUSTICAL OR FIRE RESISTIVE REQUIREMENTS. WALL BOARD SHALL CONFORM TO THE REQUIREMENTS FOR INTERIOR PARTITIONS IN ABUTTING ROOM / SPACE. SEE SHEET G0.20

4: ERA SHOWN FLAT. SEE ROOF PLAN FOR ROOF SLOPES.

5: DEPICTION OF COLD-FORMED METAL FRAMING: FRAMING IS INDICATED DIAGRAMMATICALLY IN THE DOCUMENTS. IT IS NOT THE INTENT OF THE DOCUMENTS TO DELINEATE EVERY CONDITION NOR MEMBER SIZE REQUIRED. THE CONTRACTOR SHALL PROVIDE CONFIGURATIONS OF FRAMING AS REQUIRED BY THE DOCUMENTS TO MAINTAIN THE SHAPE AND PROFILE OF SURFACES / MATERIALS REQUIRED. COORDINATE WITH THE BUILDING STRUCTURE, AND SUPPORT THE REQUIRED LOADS. THIS PROJECT REQUIRES ATYPICAL FRAMING INCLUDING, WITHOUT LIMITATION, HEAVY GAUGES, CLOSER FRAMING SPACINGS, BUILT-UP FRAMING, SPLICE CONNECTIONS, FRAMING AROUND STRUCTURAL ELEMENTS, FRAMING MODIFICATION TO ACCOMMODATE STRUCTURE AND UTILITIES, AND OTHER SPECIAL REQUIREMENTS.

6: DEPICTION OF MASONRY COURSING AND REINFORCING: COURSING AND REINFORCING IS SHOWN DIAGRAMMATICALLY TYPICALLY IN THE DOCUMENTS. IT IS NOT THE INTENT OF THE DOCUMENTS TO DELINEATE EVERY COURSING CONDITION, GROUTED COURSE / CORE / ANCHORAGE, OR REINFORCING INSTANCE REQUIRED. THE CONTRACT SHALL PROVIDE COURSING, GROUTING, ANCHORAGE, REINFORCING AND THE LIKE AS REQUIRED BY THE DOCUMENTS. SEE STRUCTURAL DOCUMENTS FOR REINFORCING REQUIREMENTS.

7: DEPICTION OF THERMAL INSULATION, VAPOR / MOISTURE / WATER BARRIERS / MEMBRANES: THERMAL INSULATION, VAPOR / MOISTURE / WATER BARRIERS / MEMBRANES ARE SHOWN DIAGRAMMATICALLY TYPICALLY IN THE DOCUMENTS. IT IS NOT THE INTENT OF THE DOCUMENTS TO DELINEATE EVERY TRANSITION, TERMINATION, MASTIC, SEALANT, ADHESIVE OR ACCESSORY MATERIAL REQUIRED. IT IS THE INTENT OF THE DOCUMENTS THAT CONTINUOUS THERMAL INSULATION AND VAPOR / MOISTURE / WATER BARRIERS / MEMBRANES BE PROVIDED. THE CONTRACTOR SHALL PROVIDE TRANSITIONS, TERMINATIONS, MASTICS, SEALANTS, ADHESIVES, ACCESSORY MATERIALS, AND THE LIKE FOR CONTINUOUS INSULATION / BARRIERS / MEMBRANES AS REQUIRED BY THE DOCUMENTS AND BUILDING CODE.

8: FIRE PROOFED STRUCTURAL STEEL / DECK: WHERE FRAMING CONNECTS TO FIREPROOFED STRUCTURAL STEEL / DECK PROVIDE Z-FURRING FASTENED TO STRUCTURAL STEEL / DECK PRIOR TO APPLICATION OF FIREPROOFING. Z-FURRING SHALL MATCH FIREPROOFING THICKNESS AND SHALL BE CONFIGURED AS REQUIRED FOR PROPER SUPPORT / ATTACHMENT OF FRAMING AND/OR FINISHES. MINIMUM GAUGE AND SPACING SHALL MATCH FRAMING REQUIREMENTS FOR GWB FRAMING.

9: COLD-FORMED METAL FRAMING: TOUCH-UP WITH ZINC-RICH PAINT:
- A: ENCAPSULATE CUT ENDS
- B: ENCAPSULATE DAMAGED CORROSION PROTECTED COATINGS
- C: ENCAPSULATE EACH FASTENER POST INSTALLATION

10: MAINTAIN AIR BARRIER INTEGRITY WHEN INSTALLING CLADDING AND CLADDING ANCHORS.

11: DESIGN CLADDING INSTALLATION TO BE MADE 100% FROM EXTERIOR SIDE.

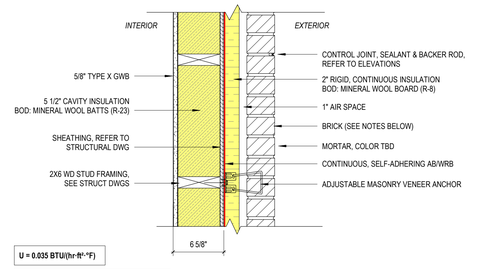
12: CLADDING ANCHOR / SUPPORT, ADDITIONAL STRUCTURAL STEEL, MISCELLANEOUS METALS OR OTHER SUPPORT SYSTEMS NEEDED FOR VENEER INSTALLATION: PROVIDE ALL.

13: CLADDING ANCHOR / SUPPORT: CONNECT TO COLD FORMED METAL FRAMING OR BUILDING STRUCTURE ONLY WHERE SHOWN ON APPROVED, ENGINEERED SHOP DRAWINGS.

14: CLADDING ANCHORS: DO NOT PENETRATE / ANCHOR INTO FLASHING

15: THROUGH-WALL FLASHING SYSTEMS: PROVIDE AT ASSEMBLIES, INCLUDING SUB-TYPES: EWA-01, -02

PLAN VIEW



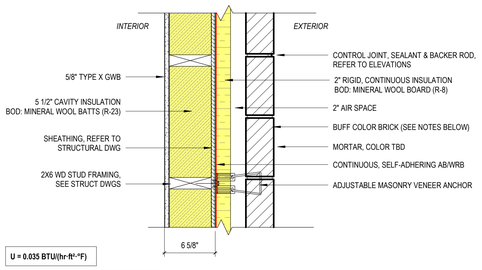
U = 0.035 BTU/(hr·ft²·°F)

1-HOUR RATED
FROM INT. AND EXT.
CALCULATED PER IBC SECTION 722.6

TYPICAL ASSEMBLY NOTES, URO:
1. REFER TO SPECIFICATIONS FOR BRICK TYPES.
2. DRAWINGS DO NOT SHOW ALL CONDITIONS REQUIRED.
3. DRAWINGS ARE DIAGRAMMATIC, NOT ALL MATERIALS REQUIRED SHOWN IN DRAWINGS FOR CLARITY

EWA04 EWA04 BRICK @ STAIRS & ELEVATOR
1 1/2" = 1'-0"

PLAN VIEW



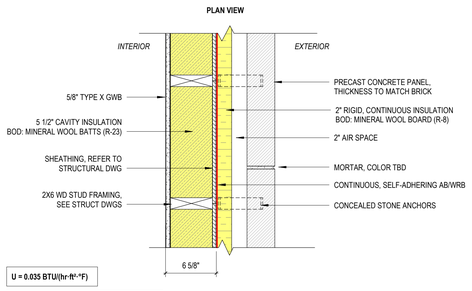
U = 0.035 BTU/(hr·ft²·°F)

1-HOUR RATED
FROM INT. AND EXT.
CALCULATED PER IBC SECTION 722.6

TYPICAL ASSEMBLY NOTES, URO:
1. REFER TO SPECIFICATIONS FOR BRICK TYPES.
2. PROVIDE SOLDIER COURSE AT EWA03A.
3. DRAWINGS DO NOT SHOW ALL CONDITIONS REQUIRED.
4. DRAWINGS ARE DIAGRAMMATIC, NOT ALL MATERIALS REQUIRED SHOWN IN DRAWINGS FOR CLARITY

EWA03 EWA03 BRICK
1 1/2" = 1'-0"

PLAN VIEW



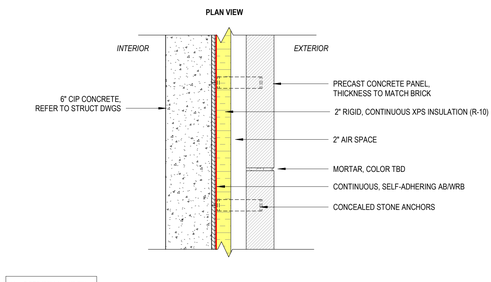
U = 0.035 BTU/(hr·ft²·°F)

1-HOUR RATED
FROM INT. AND EXT.
CALCULATED PER IBC SECTION 722.6

TYPICAL ASSEMBLY NOTES, URO:
1. REFER TO SPECIFICATIONS FOR BRICK TYPES.
2. DRAWINGS DO NOT SHOW ALL CONDITIONS REQUIRED.
3. DRAWINGS ARE DIAGRAMMATIC, NOT ALL MATERIALS REQUIRED SHOWN IN DRAWINGS FOR CLARITY

EWA02 EWA02 PRECAST WALL
1 1/2" = 1'-0"

PLAN VIEW



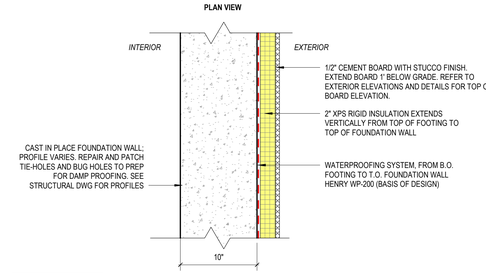
U = 0.078 BTU/(hr·ft²·°F)

2-HOUR FIRE-RATED
PER IBC TABLE 722.2.1.1

TYPICAL ASSEMBLY NOTES, URO:
1. REFER TO SPECIFICATIONS FOR BRICK TYPES.
2. DRAWINGS DO NOT SHOW ALL CONDITIONS REQUIRED.
3. DRAWINGS ARE DIAGRAMMATIC, NOT ALL MATERIALS REQUIRED SHOWN IN DRAWINGS FOR CLARITY

EWA01 EWA01 PRECAST BASE
1 1/2" = 1'-0"

PLAN VIEW



U = 0.081 BTU/(hr·ft²·°F)

3-HOUR FIRE-RATED
PER IBC TABLE 722.2.1.1

TYPICAL ASSEMBLY NOTES, URO:
1. REFER TO SPECIFICATIONS FOR BRICK TYPES.
2. DRAWINGS DO NOT SHOW ALL CONDITIONS REQUIRED.
3. DRAWINGS ARE DIAGRAMMATIC, NOT ALL MATERIALS REQUIRED SHOWN IN DRAWINGS FOR CLARITY

EWA00 EWA-00 FOUNDATION WALL
1 1/2" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**



25°

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

EXTERIOR WALL ASSEMBLIES

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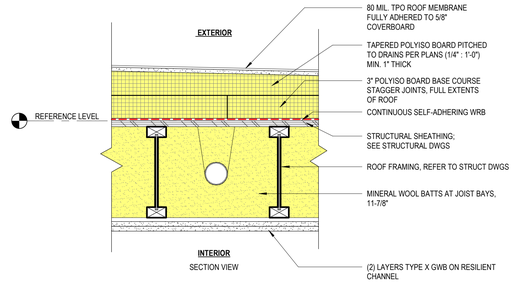
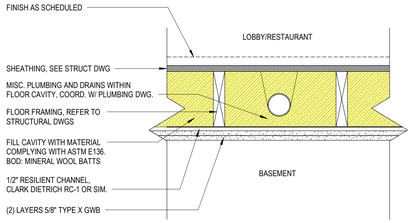
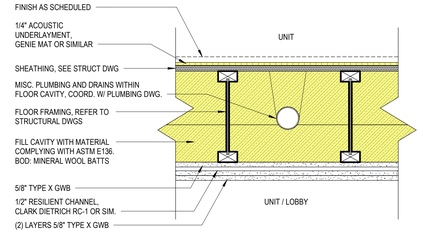


ERA01 ERA-01 TYPICAL ROOF
1 1/2" = 1'-0"



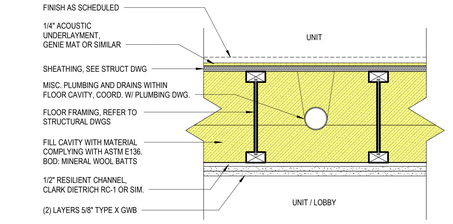
NOTES:
1. COMBINED FLOOR/CEILING ASSEMBLY MUST MEET THE REQUIREMENTS OF UL L570.

IFA03 IFA-03 - WOOD JOIST - 1 HOUR FIRE RATED
1 1/2" = 1'-0"



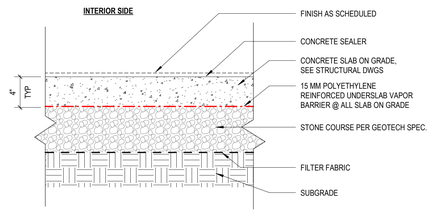
NOTES:
1. COMBINED FLOOR/CEILING ASSEMBLY MUST MEET THE REQUIREMENTS OF UL L538.
2. MINIMUM RATINGS: STC-50 / IIC-50

IFA02 IFA-02 - WOOD JOIST - 2 HOUR FIRE RATED
1 1/2" = 1'-0"



NOTES:
1. COMBINED FLOOR/CEILING ASSEMBLY MUST MEET THE REQUIREMENTS OF UL L570.
2. MINIMUM RATINGS: STC-50 / IIC-50

IFA01 IFA-01 - WOOD JOIST - 1 HOUR FIRE RATED
1 1/2" = 1'-0"



TYPICAL USA01 NOTES:
1. MAINTAIN CONTINUOUS ASSEMBLY AT HORIZONTAL TO VERTICAL TRANSITIONS
2. TRANSITION VAPOR BARRIER TO FOUNDATION WALL AND SECURE W/ VAPOR BARRIER TAPE WHERE CONDITIONED SPACE ADJOINS FOUNDATION WALL.

USA01 USA01 UNDERSLAB ASSEMBLY
1 1/2" = 1'-0"

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1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE **1 1/2" = 1'-0"**
NEIGHBOR PROJECT NUMBER **2418**

FLOOR AND ROOF ASSEMBLIES

G0.11

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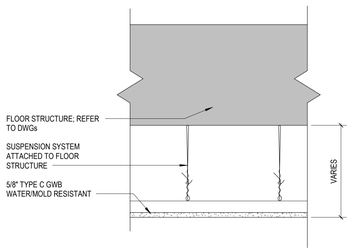
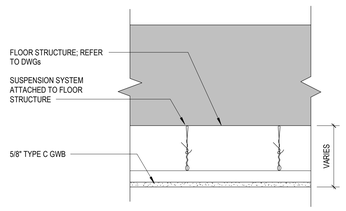
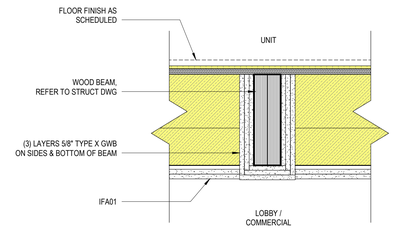


CLG02 GWB ON SUSEPNSION SYSTEM WET LOCATION
1 1/2" = 1'-0"



CLG01 CLG-01 - GWB ON SUSPENSION SYSTEM
1 1/2" = 1'-0"

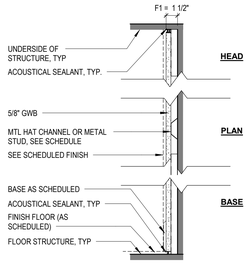


1 2 HOUR FIRE RATED BEAM @ IFA01
1 1/2" = 1'-0"

F1 = 7/8" (HAT CHANNEL)	UL: N/A	F
F2 = 1 1/2" (HAT CHANNEL)	UL: N/A	
F3 = 2 1/2"	UL: N/A	
F4 = 3 5/8"	UL: N/A	
F5 = 5 1/2"	UL: N/A	
F6 = 6"	UL: N/A	

WALL THICKNESS:

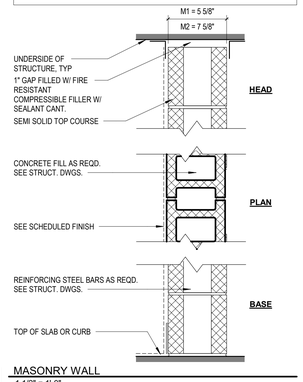
F1 = 1 1/2"
F2 = 2 1/8"
F3 = 3 1/8"
F4 = 4 1/4"
F5 = 6 1/8"
F6 = 6 5/8"



F FURRING WALL - METAL
1 1/2" = 1'-0"

M1 = 6" 2 HR	UL: U 906	STC: 48
M1 = 8" 2 HR	UL: U 906	STC: 48

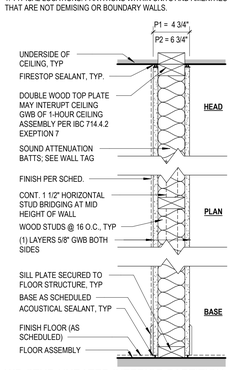
M



M MASONRY WALL
1 1/2" = 1'-0"

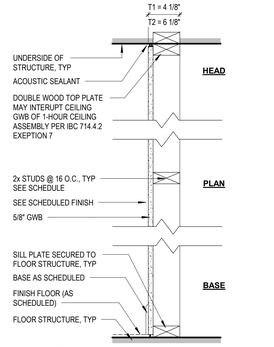
P1 = 2X4	UL: N/A	P
P2 = 2X6	UL: N/A	

NOTES:
1. TYPICAL LOCATIONS: PARTITIONS WITHIN UNITS AND AMENITIES THAT ARE NOT DEMISING OR BOUNDARY WALLS.



P WD STUD UNRATED INTERIOR PARTITION
1 1/2" = 1'-0"

T1 = 2x4	UL: N/A	T
T2 = 2x6	UL: N/A	

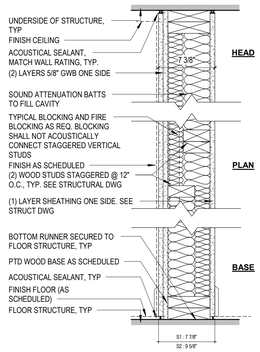


T SINGLE SIDED CHASE WALL
1 1/2" = 1'-0"

D1 = 2X4 STUDS, 2X6 SILL AND HEAD	UL: U340	STC: 55

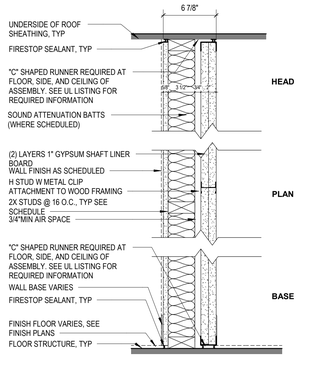
D

NOTES:
1. TYPICAL @ DEMISING WALLS.
2. STUDS, SILL PLATES, TOP PLATES AND BLOCKING SHALL BE 2X6 U.N.O. SEE STRUCT DWG FOR SIZING AND SPACING.
2. SEE STRUCT DWG FOR FRAMING & NAILING SPECIFICATIONS & DETAILS.



D STAGGERED WOOD STUD ACOUSTIC DEMISING WALL
1 1/2" = 1'-0"

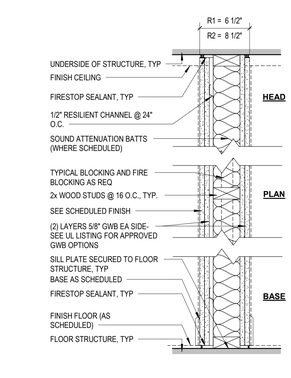
H1 = 2X4 WOOD STUD + 2" H STUD	UL: U347	H



H 2 HR SHAFT WALL
1 1/2" = 1'-0"

R1 = 2x4	UL: U334	STC: 59
R2 = 2x6	UL: U334	STC: 60

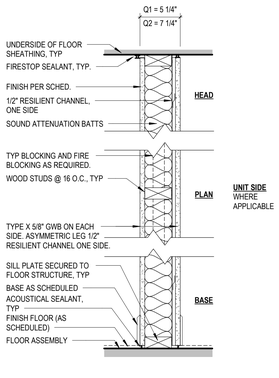
R



R 2HR RATED WOOD PARTITION
1 1/2" = 1'-0"

Q1 = 2X4	UL: U311	STC: 52
Q2 = 2X6	UL: U311	STC: 52

NOTES:
TYPICAL LOCATIONS: CORRIDORS



Q WOOD STUD 1 HR RATED INTERIOR PARTITION
1 1/2" = 1'-0"

GENERAL NOTES:
1. FIRE CAULK ALL PENETRATIONS AND INTERSECTIONS AT RATED WALLS.
2. SEE UL LISTING FOR APPROVED GWB OPTIONS FOR ALL ASSEMBLIES.
3. SHEAR WALL SHEATHING TO BE 1/2" OSB TYP. REFER TO STRUCT. DWG.

A. METAL AND WOOD STUD FRAMING:
UNLESS OTHERWISE NOTED ON A SPECIFIC DETAIL ALL METAL AND WOOD STUD FRAMING SHALL BE AS FOLLOWS:

2. HEIGHT: EXCEPT FOR TYPE F FURRING ALL STUDS SHALL BE FULL HEIGHT FROM FLOOR TO UNDERSIDE OF FLOOR OR ROOF ABOVE. STUDS SHALL BE CUT SHORT AT HEAD TRACK/RUNNER TO ALLOW FOR DIFFERENTIAL LIVE LOAD DEFLECTION AS REQUIRED HEREIN.
   A. FURRING WALLS SHALL EXTEND FROM FLOOR TO FOUR-INCHES ABOVE FINISHED CEILING, OR IF THERE IS NO CEILING, TO STRUCTURAL DECK ABOVE.
3. SPACING: ALL STUDS SHALL BE SPACED AS REQUIRED TO SUPPORT APPLIED FINISHES AND LOADS, BUT NOT MORE THAN 16" ON CENTER UNLESS NOTED OTHERWISE. REFER TO STRUCTURAL DRAWINGS FOR SPACING AND SIZING OF STUDS IN LOAD BEARING AND SHEAR WALL APPLICATIONS.
4. DOOR AND BORROWED LIGHT OPENINGS: PROVIDE FULL HEIGHT, UNPUNCHED, DOUBLE STUDS AT ALL JAMB AND HEAD CONDITIONS.
5. TRACKS/RUNNERS: PROVIDE MINIMUM 20 GAUGE TRACKS/RUNNERS TO MATCH STUD SIZE UON. AT HEAD PROVIDE TRACKS/RUNNERS WITH VERTICAL LEGS OF SUFFICIENT HEIGHT TO ACCOMMODATE DIFFERENTIAL LIVE LOAD DEFLECTION DIMENSION BETWEEN FLOORS.
   A. PARTITIONS WITHIN 15 FEET OF A COLUMN LINE: ALLOW FOR 1/2" LIVE LOAD DEFLECTION.
   B. PARTITIONS MORE THAN 15 FEET BUT LESS THAN 30 FEET FROM A COLUMN LINE: ALLOW FOR 3/4" LIVE LOAD DEFLECTION.
   C. PARTITIONS MORE THAN 30 FEET FROM A COLUMN LINE: ALLOW FOR 1" LIVE LOAD DEFLECTION.
   D. PROVIDE 1" GYPCRETE OR (2) LAYERS OF 5/8" GWB IN BOTTOM OF WALL IF TRACK INTERRUPTS GYPCRETE LAYER OF FLOOR ASSEMBLY, OR AS NECESSARY TO RETAIN ANY REQUIRED FIRE RATING.
6. AT PARTITIONS EXTENDING OVER ROUGH OPENINGS (DOORS, SIDELIGHTS, BORROWED LIGHTS AND THE LIKE), IN EXCESS OF 6'-4" WIDE PROVIDE FRAMING OF DEPTH TO MATCH ABUTTING PARTITIONS. PROVIDE CONCEALED DIAGONAL BRACING TO STRUCTURE ABOVE AT 4'-0" OC, CONFIGURED TO CLEAR STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS.
7. AT PARTITIONS FRAMED WITH 3 5/8" STUDS, PROVIDE DIAGONAL BRACING AT 4'-0" OC EXTENDING FROM 12" ABOVE CEILING TO DECK ABOVE AT 12/12 SLOPE, CONFIGURED TO CLEAR STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS.
8. PROVIDE BLOCKING IN PARTITIONS FOR ALL SUPPORTED/ATTACHED ITEMS/SYSTEMS.
   A. PROVIDE WOOD BLOCKING FROM 2'-0" ABOVE FLOOR TO 4'-0" ABOVE FLOOR IN ALL ACCESSIBLE (HANDICAP) TOILET STALLS.
   B. PROVIDE WOOD BLOCKING REQUIRED FOR WALL MOUNTED OWNER PROVIDED EQUIPMENT. COORDINATE WITH OWNER FOR TYPE, SIZE AND LOCATION OF BLOCKING REQUIRED.
9. WHERE FRAMING CONNECTS TO CEMENTITIOUS FIREPROOFING COATED STRUCTURAL STEEL/DECK PROVIDE Z-FURRING FASTENED TO STRUCTURAL STEEL/DECK PRIOR TO APPLICATION OF FIREPROOFING. Z-FURRING SHALL MATCH FIREPROOFING THICKNESS AND SHALL BE CONFIGURED AS REQUIRED FOR PROPER SUPPORT/ATTACHMENT OF FRAMING. MINIMUM GAUGE AND SPACING SHALL MATCH FRAMING REQUIREMENTS.
10. WHERE A SINGLE LAYER PARTITION TYPE ALIGNS WITH A MULTILAYER PARTITION TYPE, ADJUST FRAMING LOCATION TO ALIGN FINISHED FACES OF WALL BOARD ACROSS PARTITION TYPES UNLESS REQUIRED OTHERWISE.
11. FRAMING IS INDICATED DIAGRAMMATICALLY TYPICALLY IN THE DOCUMENTS. IT IS NOT THE INTENT OF THE DOCUMENTS TO DELINEATE EVERY CONDITION NOR MEMBER SIZE REQUIRED. THE CONTRACTOR SHALL PROVIDE CONFIGURATIONS OF FRAMING AS REQUIRED BY THE DOCUMENTS TO MAINTAIN THE SHAPE AND PROFILES OF SURFACES/MATERIALS REQUIRED, COORDINATE WITH THE BUILDING STRUCTURE, AND SUPPORT THE REQUIRED LOADS.
12. FORM RADIUS/CURVED WORK TO TRUE RADIUS WITHOUT SEGMENTATION, FACETING, BUCKLING, WARPING OR OTHERWISE ALTERING MEMBER DIMENSION OR APPEARANCE.
13. PROVIDE FRAMING LOCATED TO CLEAR CEILING/WALL MOUNTED DEVICES/EQUIPMENT. COORDINATE FRAMING WITH DEVICE/EQUIPMENT REQUIREMENTS FOR CLEARANCES AND SUPPORT. DEVICE SHALL TAKE PRECEDENCE.
14. WHERE UTILITIES SUCH AS ELECTRICAL, TELEDATA, PLUMBING AND THE LIKE CAN NOT BE CONCEALED ABOVE CEILINGS PROVIDE PUNCHED STUDS CONFIGURED TO PERMIT UTILITY DISTRIBUTION WITHIN THE FRAMING. WHERE SUCH PUNCHES ARE PROVIDED THEY SHALL BE ALIGNED WITHIN THE FRAMING TO PERMIT STRAIGHT UTILITY RUNS WITH MINIMAL OFFSETS. COORDINATE WITH UTILITIES FOR SIZE, NUMBER AND LOCATIONS OF PUNCHES REQUIRED.

B. WALLBOARD:
UNLESS OTHERWISE NOTED ALL WALLBOARD SHALL BE AS FOLLOWS:

1. THICKNESS: 5/8" UNLESS OTHERWISE NOTED.
2. HEIGHT: ALL GYPSUM WALL BOARD SHALL EXTEND FULL HEIGHT OF PARTITION FROM SLAB TO LIVE LOAD DEFLECTION DIMENSION FROM DECK.
3. BOARD TYPE: PROVIDE FIRE-RESISTIVE WALLBOARD FOR ALL PARTITION TYPES EXCEPT AS NOTED HEREIN:
   A. SHAFTWALL LINER BOARD: PROVIDE AT ALL SHAFTWALL PARTITIONS ON THE SHAFT SIDE OF THE PARTITION.
   B. HIGH-STRENGTH CEILING BOARD: PROVIDE FOR ALL CEILING/SOFFIT BOARD.
   C. BACKER-BOARD: PROVIDE AS THE FIRST LAYER (NOT EXPOSED) AT ALL MULTIPLE LAYER APPLICATIONS.
   D. MOISTURE RESISTANT BOARD: PROVIDE AS OUTER LAYER ON PARTITIONS WHERE FINISH IS PAINT IN TOILET ROOMS. DO NOT USE MOISTURE RESISTANTWALLBOARD ON CEILINGS.
   E. ABUSE RESISTANT BOARD: PROVIDE AS OUTER LAYER IN ALL CORRIDORS AND ELEVATOR LOBBIES.
   F. IMPACT-RESISTANT BOARD: PROVIDE AS OUTER LAYER IN ALL STORAGE ROOMS.
   H. CEMENTITIOUS BACKERBOARD: PROVIDE AS SUBSTRATE FOR CERAMIC WALL TILE.

   NOTE: GYPSUM PLASTER BASE, MOISTURE RESISTANT, ABUSE RESISTANT, AND IMPACT RESISTANT BOARD SHALL BE SUBSTITUTED FOR FACE/OUTER LAYER OF WALLBOARD IN ACCORDANCE REQUIREMENTS HEREIN AND FINISH SYSTEM(S) REQUIRED. SEE FINISH INFORMATION (PLANS/SCHEDULE) FOR ADDITIONAL REQUIREMENTS.

4. MULTI-LAYER WALLBOARD: PROVIDE ALTERNATING ORIENTATION (VERTICAL/HORIZONTAL) OF WALLBOARD LAYERS IN MULTI-LAYER PARTITION TYPES. STAGGER JOINTS IN LAYERS EACH WAY. SECURE EACH LAYER TO FRAMING WITH SCREWS.

C. FIRE-RESISTIVE RATED PARTITIONS:
SEE PLANS FOR DEFINITION OF SCOPE OF FIRE-RESISTIVE PARTITIONS. ALL FIRE-RESISTIVE PARTITIONS SHALL CONFORM TO THE FOLLOWING:

1. WHERE AN UNDERWRITERS LABORATORY OR OTHER TESTING AGENCY NUMBER IS INDICATED ON THE PARTITION TYPE DETAIL, THE PARTITION SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE DICTATES OF THE TESTED ASSEMBLY.
2. OVERSIZE "CUT-OUTS" FOR ELECTRICAL DEVICE BOXES WILL NOT BE PERMITTED.
3. PROVIDE FIRESTOP SYSTEM AT ALL PENETRATIONS OF FIRE-RESISTIVE RATED PARTITIONS AND AT ALL OTHER LOCATIONS NECESSARY TO MAINTAIN THE FIRE RESISTIVE INTEGRITY OF THE ASSEMBLY.
4. PROVIDE FIRE RESISTIVE JOINT SYSTEM AT TOP OF ALL FIRE-RESISTIVE RATED PARTITIONS AT DECK ABOVE AND AT CONTROL JOINTS.
5. WHERE FIRE RATED PARTITION INTERSECTS NON-RATED PARTITION FIRE RATED PARTITION SHALL EXTEND THROUGH NON-RATED PARTITIONS. WHERE TWO FIRE RATED PARTITIONS INTERSECT GREATER FIRE RESISTANCE RATING SHALL EXTEND THROUGH LESSER FIRE RATED PARTITION.

D. WALLBOARD CONTROL JOINT REQUIREMENTS:
PROVIDE CONTROL JOINTS IN HORIZONTAL AND VERTICAL WALLBOARD SURFACES IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS AND AS NOTED BELOW. SEE ELEVATIONS AND PLANS FOR JOINT LOCATIONS, OR, WHERE NOT INDICATED, PROVIDE CONTROL JOINTS AS FOLLOWS:

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL OF CONTROL JOINT LOCATIONS PRIOR TO INSTALLATION OF FRAMING.
2. PROVIDE CONTROL JOINTS AT 30' MAXIMUM O.C. PROVIDE CONTROL JOINTS WHERE WALLBOARD ABUTS DISSIMILAR MATERIALS. CONTROL JOINTS AT DISSIMILAR MATERIALS SHALL BE L BEAD/EDGE TRIM AND SEALANT AS SPECIFIED.
3. WHERE CONTROL JOINTS ARE REQUIRED IN A SURFACE THEY SHALL BE CONFIGURED TO COORDINATE WITH THE BUILDING GEOMETRY/LAYOUT. PROVIDE ADDITIONAL CONTROL JOINTS AT EACH END OF OPENINGS OVER 8' IN ANY DIMENSION.
4. PROVIDE CONTROL JOINTS AT THE EDGE OF HORIZONTAL WALLBOARD WHERE IT ABUTS VERTICAL WALLBOARD SURFACES BELOW.
5. PROVIDE CONTROL JOINTS IN WALLBOARD WHERE CONTROL JOINTS ARE REQUIRED IN FINISHES OR WHERE CONTROL JOINTS OCCUR IN SUBSTRATES.
6. PROVIDE CONTROL JOINTS IN ACCORDANCE WITH THE REQUIREMENTS ABOVE AT HORIZONTAL WALL BOARD CEILINGS/SOFFITS.
7. PROVIDE CUSTOM FORMED RADIUS CONTROL JOINT TRIM AT RADIUS WORK. TRIM SHALL BE EXTRUDED ALUMINUM.

E. ACOUSTICAL PERFORMANCE PARTITIONS:
SEE ARCHITECTURAL FLOOR PLANS FOR DEFINITION OF SCOPE OF ACOUSTICAL PERFORMANCE PARTITIONS. ALL ACOUSTICAL PERFORMANCE PARTITIONS SHALL PROVIDE THE STC RATINGS INDICATED AND SHALL CONFORM TO THE FOLLOWING:

1. JOINTS IN WALLBOARD: SHALL BE TAPED AND FINISHED AS REQUIRED BELOW EVEN IN CONCEALED LOCATIONS SUCH AS ABOVE SUSPENDED CEILINGS.
2. ELECTRICAL DEVICES BOXES: BOXES FACING OPPOSITE SIDES OF THE PARTITION SHALL NOT BE LOCATED BACK-TO-BACK OR BE LOCATED WITHIN THE SAME CAVITY BETWEEN STUDS.
3. PROVIDE ACOUSTICAL SEALANT IN ACCORDANCE WITH SPECIFICATIONS AND AS FOLLOWS:
   A. CONTINUOUSLY AROUND PENETRATIONS AT OUTER LAYER OF WALL BOARD AT EACH FACE.
   B. CONTINUOUSLY BETWEEN CONCRETE FLOORS AND OUTER LAYER OF WALL BOARD AT EACH FACE.
   C. CONTINUOUSLY BETWEEN TOP OF OUTER LAYER OF WALLBOARD AND DECK ABOVE AT EACH FACE.
   D. CONTINUOUSLY UNDER BASE RUNNER TRACKS.
4. PROVIDE ACOUSTICAL INSULATION AS FOLLOWS:
   A. BETWEEN STUDS FOR FULL DEPTH AND HEIGHT OF PARTITION.
   B. AT TOP OF PARTITION TO FILL THE VOIDS AT METAL DECK INTERFACE. NOTE, IF PARTITION IS ALSO A FIRE RESISTIVE RATED PARTITION FOLLOW NOTES HEREIN.
   C. ACOUSTICAL INSULATION IS NOT TYPICALLY SHOWN IN THE DRAWINGS.
   D. BETWEEN WOOD FLOOR TRUSSES. REFER TO TYPICAL INTERIOR FLOOR ASSEMBLY.

F. TRIM:
PROVIDE METAL TRIM SCREWED TO FRAMING AT ALL EXPOSED GYPSUM WALLBOARD EDGES OR CORNERS EXCEPT WHERE CEMENTITIOUS BACKERBOARD, IS REQUIRED. WHERE RADIUS TRIM IS REQUIRED PROVIDE CUSTOM FORMED EXTRUDED ALUMINUM TRIM. WHERE CEMENTITIOUS BACKBOARD, IS REQUIRED PROVIDE PLASTIC TRIM. NO PAPER OR COMBINATION PAPER/METAL OR PAPER/PLASTIC TRIM SHALL BE PERMITTED/ACCEPTED.

G. FINISH:
PROVIDE LEVEL 4 FINISH AT ALL EXPOSED GYPSUM WALLBOARD SURFACES EXTENDING TO NOT LESS THAN 4" ABOVE FINISHED CEILING.

1. PROVIDE LEVEL 1 FINISH AT SURFACES ABOVE CEILINGS, EXCEPT FIRE RESISTIVE RATED PARTITIONS.
2. PROVIDE LEVEL 2 IN MECHANICAL AND ELECTRICAL TYPE ROOMS.
3. PROVIDE LEVEL 2 FINISH AT SURFACES OF FIRE RESISTANCE RATED PARTITIONS ABOVE CEILINGS.

H. TYPICAL PARTITION DETAILS:
DETAILS DO NOT INDICATE EVERY COMBINATION OF MATERIALS REQUIRED. SEE FLOOR PLAN INDICATIONS FOR PARTITION TYPES REQUIRED.

J. WALLBOARD AT EXTERIOR WALL FRAMING:
PROVIDE WALLBOARD AT INTERIOR FACE OF ALL EXTERIOR WALL FRAMING EXPOSED TO VIEW OR WHERE REQUIRED FOR ACOUSTICAL OR FIRE RESISTIVE REQUIREMENTS. WALLBOARD SHALL CONFORM TO THE REQUIREMENTS HEREIN

K. CLEANING:
CLEAN INSIDE OF ALL STUD CAVITIES BEFORE ENCLOSING WALL.

L. PLYWOOD BACK BOARDS:
PROVIDE 4'x8'x3/4" FIRE-RESISTANT PLYWOOD BACK BOARDS TO LINE ROOM IN TELECOM/DATA ROOMS, ELECTRICAL AND CLOSETS. BACKBOARD SHALL BE MOUNTED VERTICALLY, 4" ABOVE FLOOR, TIGHT TO PARTITION FACE. WHERE MOUNTED ON MASONRY PARTITION, PAINT FACE OF MASONRY WITH HIGH PERFORMANCE INTERIOR COATING TO REDUCE MOISTURE TRANSMISSION PAINT FACE AND EDGES FLAT BLACK.

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 PROJECT

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 OWNER

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 ARCHITECT

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 CIVIL / TRANSPORTATION

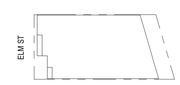
GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 LANDSCAPE

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 STRUCTURAL

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 MEPFP

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 CODE CONSULTANT

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 SUSTAINABILITY



KEY PLAN

NO.	DATE	DESCRIPTION
1.	11.14.2025	PERMIT SET

STAMP

REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

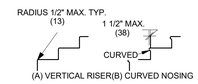
SCALE	NEIGHBOR PROJECT NUMBER
As indicated	2418

INTERIOR PARTITION TYPES

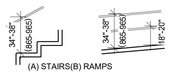
G0.12

11/11/2025 4:43:32 PM

STAIRS & RAMPS



(A) VERTICAL RISER(B) CURVED NOSING



(A) STAIRS(B) RAMPS

FIG. 505.4
HANDRAIL HEIGHT

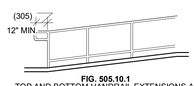
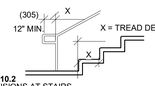


FIG. 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSIONS AT RAMPS

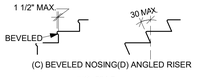


(A) TOP



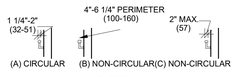
(B) BOTTOM

FIG. 505.10.2
HANDRAIL EXTENSIONS AT STAIRS



(C) BEVELED NOSING(D) ANGLED RISER

FIG. 504.6
STAIR NOSINGS



(A) CIRCULAR (B) NON-CIRCULAR(C) NON-CIRCULAR

FIG. 505.7
HANDRAIL CROSS SECTION



FIG. 505.5
HANDRAIL CLEARANCE

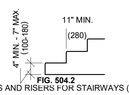
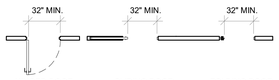
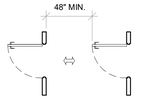


FIG. 504.2
TREADS AND RISERS FOR STAIRWAYS (780 CMR 101.5.2)

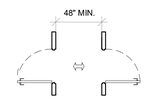
CLEAR WIDTH OF DOORWAYS



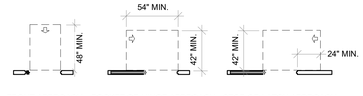
HINGED DOOR SLIDING DOOR FOLDING DOOR
CLEAR WIDTH OF DOORWAYS



TWO DOORS IN SERIES

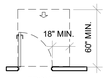


TWO DOORS OPPOSITE EACH OTHER

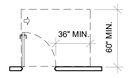


FRONT APPROACH POCKET OR HINGE APPROACH STOP OR LATCH APPROACH
MANEUVERING CLEARANCE AT SLIDING AND FOLDING DOORS

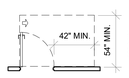
PULL AND PUSH SIDES



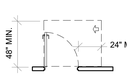
FRONT APPROACH PULL SIDE



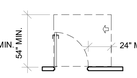
HINGE APPROACH W/O CLOSER PULL SIDE



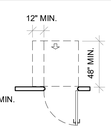
HINGE APPROACH W/CLOSER PULL SIDE



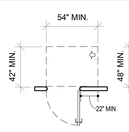
LATCH APPROACH W/O CLOSER PULL SIDE



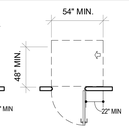
LATCH APPROACH W/CLOSER PULL SIDE



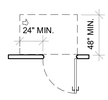
LATCH W/ CLOSER FRONT APPROACH PUSH SIDE



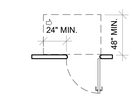
HINGE APPROACH W/O CLOSER PUSH SIDE



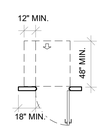
HINGE APPROACH W/CLOSER PUSH SIDE



LATCH APPROACH W/O CLOSER PUSH SIDE



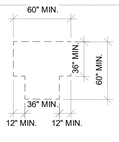
LATCH APPROACH W/CLOSER PUSH SIDE



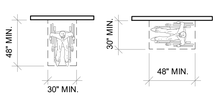
FRONT, LATCH, CLOSER AND HINGE APPROACH PUSH SIDE

CLEAR FLOOR SPACE

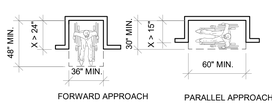




SIZE OF WHEELCHAIR TURNING SPACE

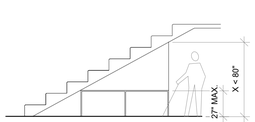


POSITION OF CLEAR FLOOR OR GROUND SPACE

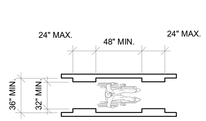


FORWARD APPROACH PARALLEL APPROACH
MANEUVERING CLEARANCE IN AN ALCOVE

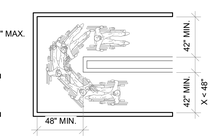
ACCESSIBLE ROUTES AND REACH RANGES



REDUCED VERTICAL CLEARANCE



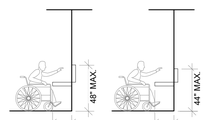
CLEAR WIDTH OF AN ACCESSIBLE ROUTE



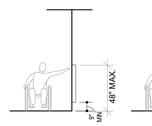
CLEAR WIDTH AT TURN



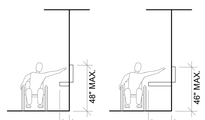
UNOBSTRUCTED FORWARD REACH



OBSTRUCTED HIGH FORWARD REACH

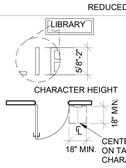


UNOBSTRUCTED SIDE REACH

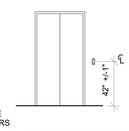


OBSTRUCTED HIGH SIDE REACH

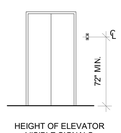
VISUAL ELEMENTS AND PROTRUDING OBJECTS



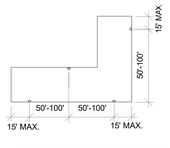
MOUNTING LOCATION AT DOORS



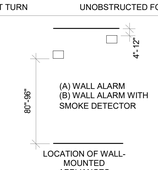
ELEVATOR CALL BUTTONS



HEIGHT OF ELEVATOR VISIBLE SIGNALS



APPLIANCE SPACING IN CORRIDORS



LOCATION OF WALL-MOUNTED APPLIANCES

LIMITS OF PROTRUDING OBJECTS

POST-MOUNTED PROTRUDING OBJECTS

PLUMBING FACILITIES

PARALLEL APPROACH

FORWARD APPROACH

DRINKING FOUNTAIN SPOUT LOCATION SINK CLEARANCE

WATER CLOSET LOCATION/SIZE CLEARANCE

HEIGHT OF WATER CLOSET/SIDE WALL GRAB BAR FOR WATER CLOSET

TRANSFER SIDE
REAR WALL GRAB BAR FOR WATER CLOSET

DISPENSER LOCATION

WALL-HUNG WATER CLOSET

FLOOR-MOUNTED WATER CLOSET

WHEELCHAIR ACCESSIBLE TOILET COMPARTMENTS TOILET COMPARTMENT DOORS

KNEE CLEARANCE TOE CLEARANCE
HEIGHT OF LAVATORIES AND SINKS

1 ADA NOTES

3/16" = 1'-0"

TYPICAL WALL CONDITION (FRONT APPROACH) **TYPICAL WALL CONDITION (SIDE APPROACH)**

2 ADA PUSH PADDLE MOUNTING LOCATIONS

1/2" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLER
No. 052044
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS
STAMP

SCALE: **As indicated**
NEIGHBOR PROJECT NUMBER: **2418**

TYPICAL ADA STANDARDS

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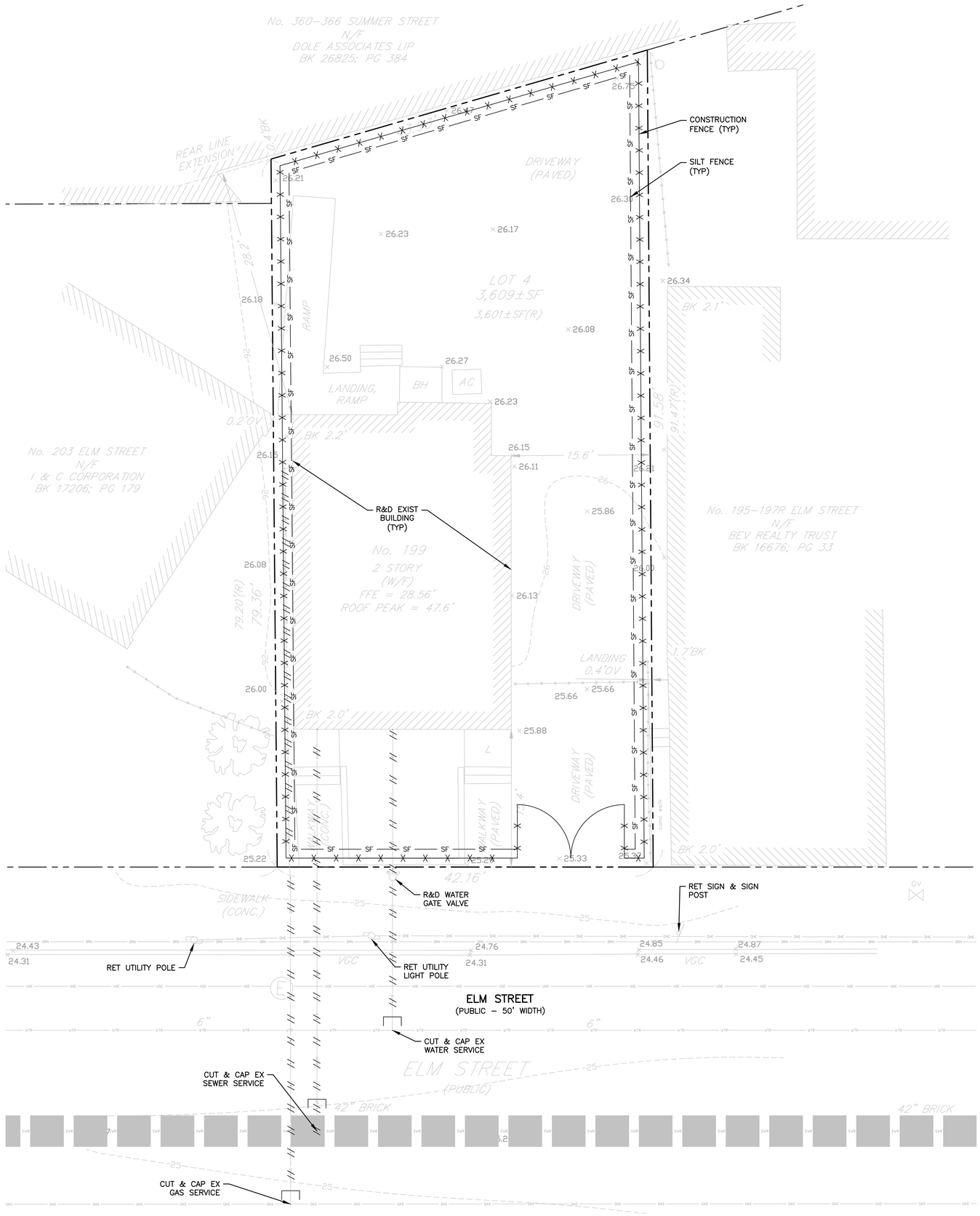

EROSION & SEDIMENT CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED AND UPGRADED AS NECESSARY DURING CONSTRUCTION BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND INSTALL ADDITIONAL CONTROL MEASURES AS NEEDED DURING CONSTRUCTION.
2. ALL CATCH BASINS RECEIVING DRAINAGE FROM THE PROJECT SITE MUST BE PROVIDED WITH A CATCH BASIN FILTER.
3. STABILIZATION OF ALL RE-GRADED AND SOIL STOCKPILE AREAS MUST BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.
4. SEDIMENT REMOVED FROM EROSION AND SEDIMENT CONTROL DEVICES MUST BE PROPERLY REMOVED AND DISPOSED. ALL DAMAGED CONTROLS MUST BE REMOVED AND REPLACED.
5. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE EROSION AND SEDIMENT CONTROL PLAN. THIS INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, AND NOTIFYING THE PROPER CITY AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING WIND EROSION AND DUST THROUGHOUT THE LIFE OF HIS CONTRACT. DUST CONTROL MAY INCLUDE, BUT IS NOT LIMITED TO, SPRINKLING OF WATER ON EXPOSED SOILS AND STREET SWEEPING ADJACENT ROADWAYS.
7. IF FINAL GRADING IS TO BE DELAYED FOR MORE THAN 21 DAYS AFTER LAND DISTURBANCE ACTIVITIES CEASE, TEMPORARY VEGETATION OR MULCH SHALL BE USED TO STABILIZED SOILS WITHIN 14 DAYS OF THE LAST DISTURBANCE.
8. IF A DISTURBED AREA WILL BE EXPOSED FOR GREATER THAN ONE YEAR, PERMANENT GRASSES OR OTHER APPROVED COVER MUST BE INSTALLED.
9. THE CONTRACTOR MUST KEEP ON-SITE AT ALL TIMES ADDITIONAL FILTER BERMS AND/OR SILT FENCE FOR THE INSTALLATION AT THE DIRECTION OF THE ENGINEER TO MITIGATE ANY EMERGENCY CONDITION.
10. THE CONSTRUCTION FENCING AND EROSION AND SEDIMENT CONTROLS AS SHOWN MAY NOT BE PRACTICAL DURING ALL STAGES OF CONSTRUCTION. EARTHWORK ACTIVITY ON-SITE MUST BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED TO A SEDIMENT CONTROL DEVICE OR INFILTRATED TO THE GROUND.
11. DEMOLITION AND CONSTRUCTION DEBRIS MUST BE PROPERLY CONTAINED AND DISPOSED OF.
12. DISPOSAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE HAULED OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.

LEGEND

RET	RETAIN
R&D	REMOVE & DISPOSE
R&R	REMOVE & RELOCATE
// // //	ABANDON
SF	SILT FENCE
	STABILIZED CONSTRUCTION ENTRANCE
	PROPERTY LINE

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 — PROJECT

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285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 — LANDSCAPE

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 — STRUCTURAL

ZADE ENGINEERING
1 BILLINGS RD, 306
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P 617 338 4406 — MEPFP

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 — CODE CONSULTANT

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 — SUSTAINABILITY

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.17.25	PERMIT SET

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

SITE PREPARATION PLAN

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Printed by: Joseph Connolly

GENERAL NOTES

1. EXISTING TOPOGRAPHIC, PROPERTY LINE AND UTILITY INFORMATION SHOWN IS BASED ON A PLAN ENTITLED "UTILITY SITE PLAN, LOCATED AT 199 ELM STREET, SOMERVILLE, MA," DATED FEBRUARY 3, 2025 AND PREPARED BY BOSTON SURVEY, INC. OF CHARLESTOWN, MA.
2. THE ACCURACY AND COMPLETENESS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EXACT LOCATION, SIZE, TYPE, ETC. OF ALL UNDERGROUND UTILITIES THAT MAY BE AFFECTED BY THE WORK. AT LEAST 72 HOURS BEFORE EXCAVATION BEGINS THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT (888)344-7233.
3. ELEVATIONS SHOWN REFER TO CITY OF SOMERVILLE BASE.
4. THE CONTRACTOR SHALL FIELD VERIFY CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
5. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE NOTIFIED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN, (SEE CHAPTER 370, ACTS OF 1963, MASSACHUSETTS) PRIOR TO DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, OR REPAVING.
6. NO EXISTING PUBLIC UTILITY STRUCTURES SHALL BE ABANDONED AND/OR DISMANTLED WITHOUT AUTHORIZATION FROM THE ENGINEER.
7. CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES EXCEPT THOSE NOTED TO BE ABANDONED OR REMOVED & DISPOSED.
8. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AT HIS OWN EXPENSE, OUTSIDE OF THE PROJECT LIMITS.
9. ALL WATER, SEWER, AND DRAIN WORK SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS AND STANDARD DETAILS OF THE CITY OF SOMERVILLE ENGINEERING DEPARTMENT.
10. CONTRACTOR MUST PAY ALL FEES AND PERMITS.
11. SANITARY SEWER AND STORM DRAINS MUST BE A MINIMUM OF 10 FEET APART FROM ANY NEW OR EXISTING WATER SERVICES.
12. PIPE MATERIALS (UNLESS OTHERWISE NOTED)
    STORM DRAIN: SDR-35 PVC
    SANITARY SEWER: SDR-35 PVC
    WATER: CEMENT-LINED DUCTILE IRON (CLDI) CLASS 56

DRAINAGE CALCULATIONS:
EXISTING TOTAL SITE AREA = 3,609 SF
EXISTING IMPERVIOUS AREA = 3,422 SF

PROPOSED IMPERVIOUS AREA = 3,033 SF

REQUIRED TOTAL STORAGE VOLUME = ($^{1.50}/_{12}$ x IMPERVIOUS AREA)
= ($^{1.50}/_{12}$ x 3,033)
= 379.1 CF

PROPOSED INFILTRATION SYSTEM STORAGE VOLUME
PIPE STORAGE VOLUME
INNER PIPE DIAMETER = 1 FT
TOTAL PIPE LENGTH = 122 LF
PIPE STORAGE = π x ($^{\text{DIAMETER}}/_{2}$)^2 x LENGTH
= π x ($^1/_2$)^2 x 122
= 95.8 CF

PIPE DISPLACEMENT
OUTER PIPE DIAMETER = 1.2 FT
PIPE STORAGE = π x ($^{\text{DIAMETER}}/_{2}$)^2 x LENGTH
= π x ($^{1.2}/_{2}$)^2 x 122
= 138 CF

STONE STORAGE VOLUME
STONE VOLUME = AREA x HEIGHT
= 270.67 SF x 3.46 FT = 936.52 CF
STONE STORAGE = (STONE VOLUME-PIPE DISPLACEMENT)xVOID RATIO
= (936.5 CF - 138 CF)x0.3
= 239.6 CF

PROPOSED INFILTRATION SYSTEM STORAGE VOLUME
= 95.8 CF + 239.6 CF
= 335.4 CF

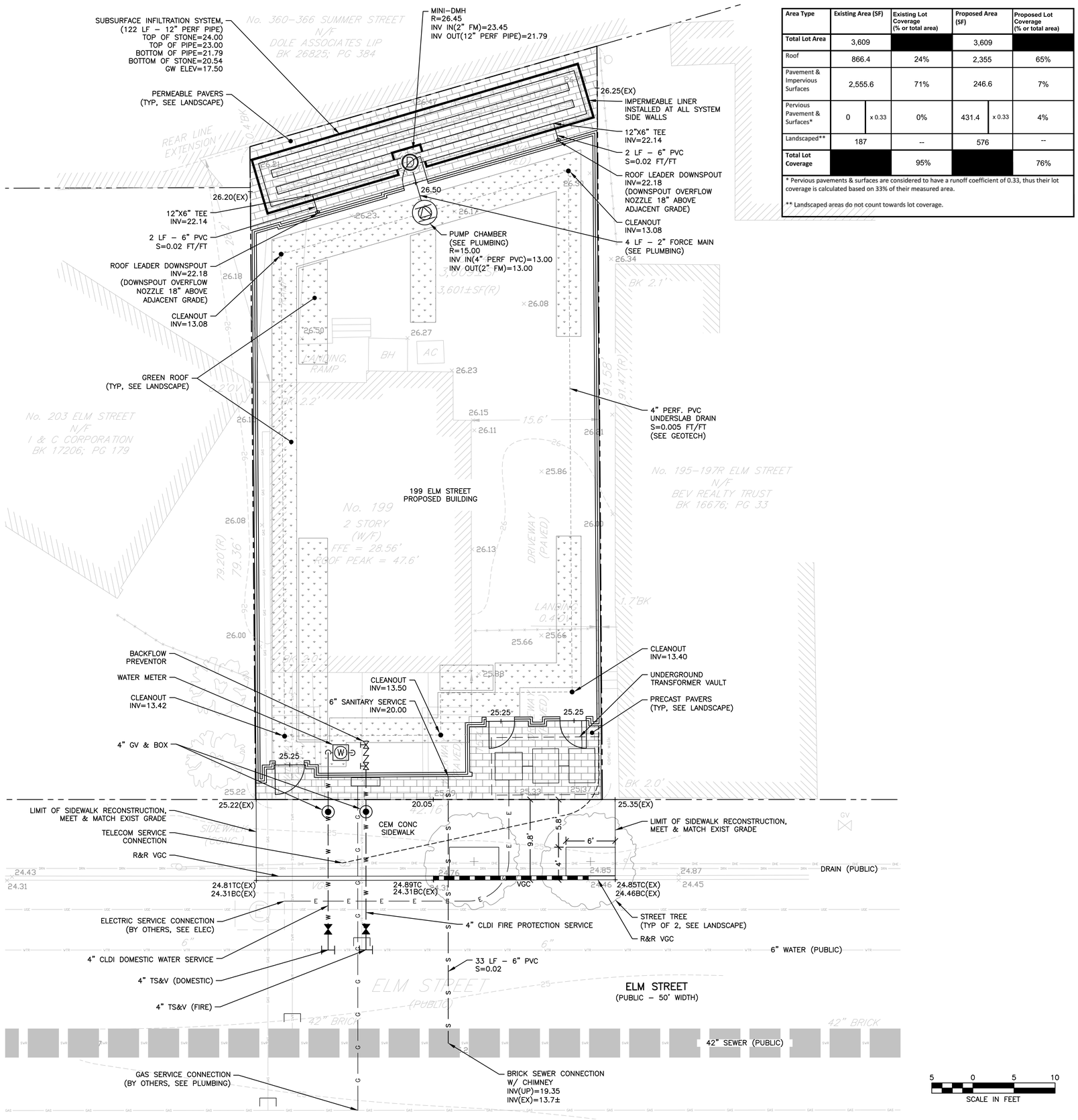
PROPOSED GREEN ROOF STORAGE VOLUME
SOIL STORAGE VOLUME
SOIL VOLUME = AREA x HEIGHT
= 576 SF x 1 FT = 576 CF
SOIL STORAGE = SOIL VOLUME X VOID RATIO
= 576 CF X 0.2
= 115.2 CF

PROPOSED TOTAL STORMWATER STORAGE VOLUME
= 335.4 CF + 115.2 CF
= 450.6 CF

450.6 CF PROPOSED > 379.1 CF REQUIRED

LEGEND

X17.27	SPOT GRADE
EX	EXISTING
BC	BOTTOM OF CURB
TC	TOP OF CURB
INV	INVERT
PVC	POLYVINYL CHLORIDE
RET	RETAIN
R&R	REMOVE & RESET
•	CLEANOUT
•	INSPECTION PORT
◉	CURB STOP
D	DRAIN LINE
E	ELECTRIC SERVICE
S	SANITARY SEWER
T	TELECOM SERVICE
W	WATER SERVICE
	NEW VERTICAL GRANITE CURB
	R&R VERTICAL GRANITE CURB
	PROPERTY LINE



Area Type	Existing Area (SF)	Existing Lot Coverage (% or total area)	Proposed Area (SF)	Proposed Lot Coverage (% or total area)
Total Lot Area	3,609		3,609	
Roof	866.4	24%	2,355	65%
Pavement & Impervious Surfaces	2,555.6	71%	246.6	7%
Pervious Pavement & Surfaces*	0 x 0.33	0%	431.4 x 0.33	4%
Landscaped**	187	--	576	--
Total Lot Coverage		95%		76%

* Pervious pavements & surfaces are considered to have a runoff coefficient of 0.33, thus their lot coverage is calculated based on 33% of their measured area.

** Landscaped areas do not count towards lot coverage.

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VvS ARCHITECTS & CONSULTANTS
F 617 898 8995 **SUSTAINABILITY**

KEY PLAN

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1	11.17.25	PERMIT SET

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
Civil
No. 41033
REGISTERED PROFESSIONAL ENGINEER

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

SITE PLAN

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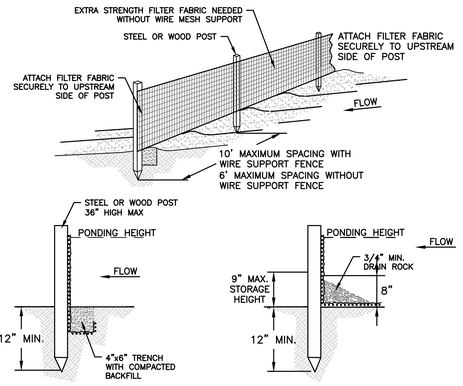


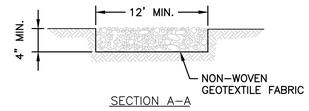
TRENCH DETAIL

INSTALLATION WITHOUT TRENCHING

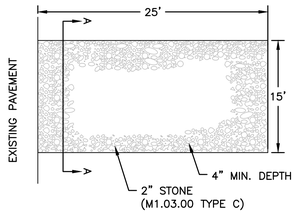
NOTES:

1. EROSION CONTROL BARRIER (HAY BALES, SILT FENCE OR EROSION STOCK) SHALL BE PLACED AROUND ALL MATERIAL STOCKPILE AREAS AND MAINTAINED AT STAGING AREAS TO ASSURE NO SILTATION ONTO PUBLIC OR PRIVATE WAYS OR PROPERTY.

SILT FENCE
NOT TO SCALE



SECTION A-A

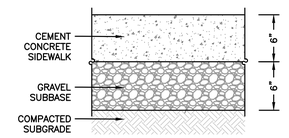


PLAN

NOTES:

1. INSTALLATION: THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE GRAVEL SHALL BE PLACED TO THE SPECIFIED DIMENSIONS NOTED ABOVE.
2. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAYS. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE, OR ADDITIONAL LENGTH, AS CONDITIONS DEMAND, AND REPAIR, AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.

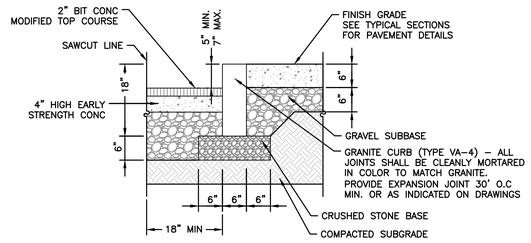
CONSTRUCTION ENTRANCE
NOT TO SCALE



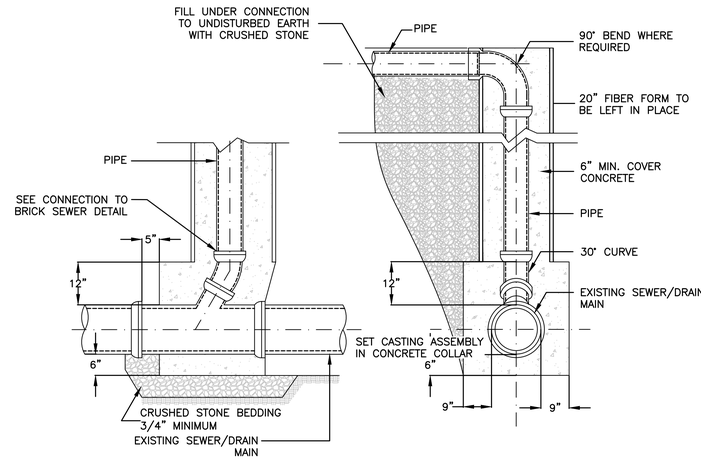
NOTES:

1. CONCRETE SIDEWALK DETAIL AND NOTES APPLY TO SIDEWALK WITHIN THE RIGHT-OF-WAY.
2. CONCRETE SHALL BE 4,000 PSI.
3. SIDEWALKS ARE TO BE RAKED FINISH WITH 3/8 INCH TROWEL JOINTS.

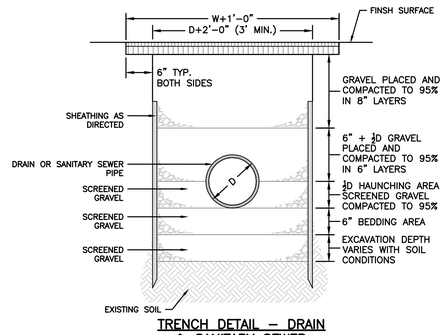
CEM CONC SIDEWALK SECTION DETAIL
NOT TO SCALE



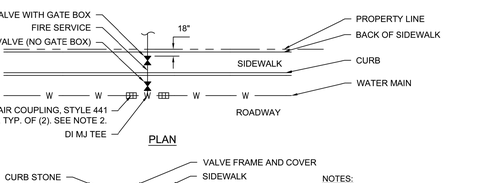
VERTICAL GRANITE CURB AT STREET
NOT TO SCALE



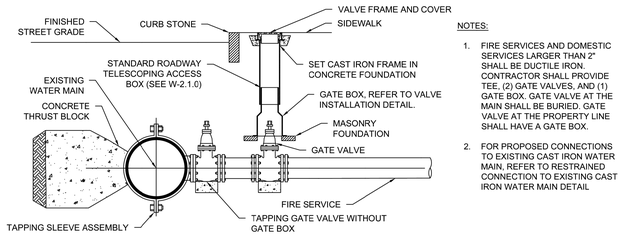
TYPICAL SEWER/DRAIN CHIMNEY (B-15)
NOT TO SCALE



TRENCH DETAIL - DRAIN & SANITARY SEWER
NOT TO SCALE



PLAN



NOTES:

1. FIRE SERVICES AND DOMESTIC SERVICES LARGER THAN 2" SHALL BE DUCTILE IRON. CONTRACTOR SHALL PROVIDE TEE, (2) GATE VALVES, AND (1) GATE BOX. GATE VALVE AT THE MAIN SHALL BE BURIED. GATE VALVE AT THE PROPERTY LINE SHALL HAVE A GATE BOX.
2. FOR PROPOSED CONNECTIONS TO EXISTING CAST IRON WATER MAIN, REFER TO RESTRAINED CONNECTION TO EXISTING CAST IRON WATER MAIN DETAIL

TAPPING SLEEVE & VALVE FIRE SERVICE CONNECTION
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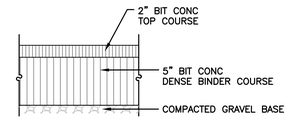
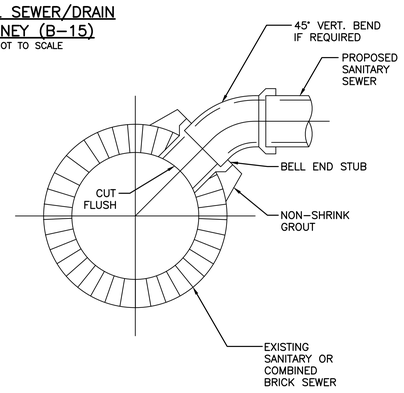


TRENCH PATCH DETAIL
NOT TO SCALE



CONNECTION TO BRICK SEWER
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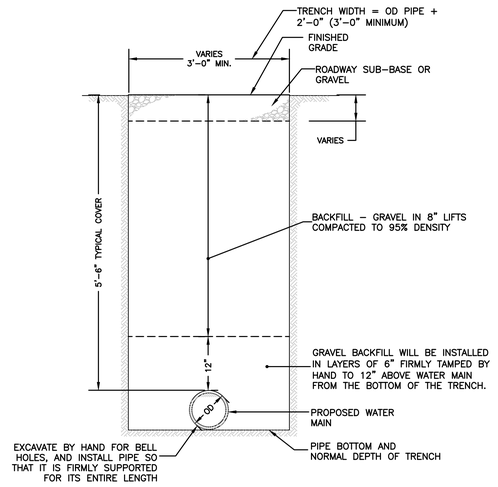

TRENCH DETAIL - WATER MAIN
NOT TO SCALE

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COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

SITE DETAILS

DETAIL SHEET 1 OF 2

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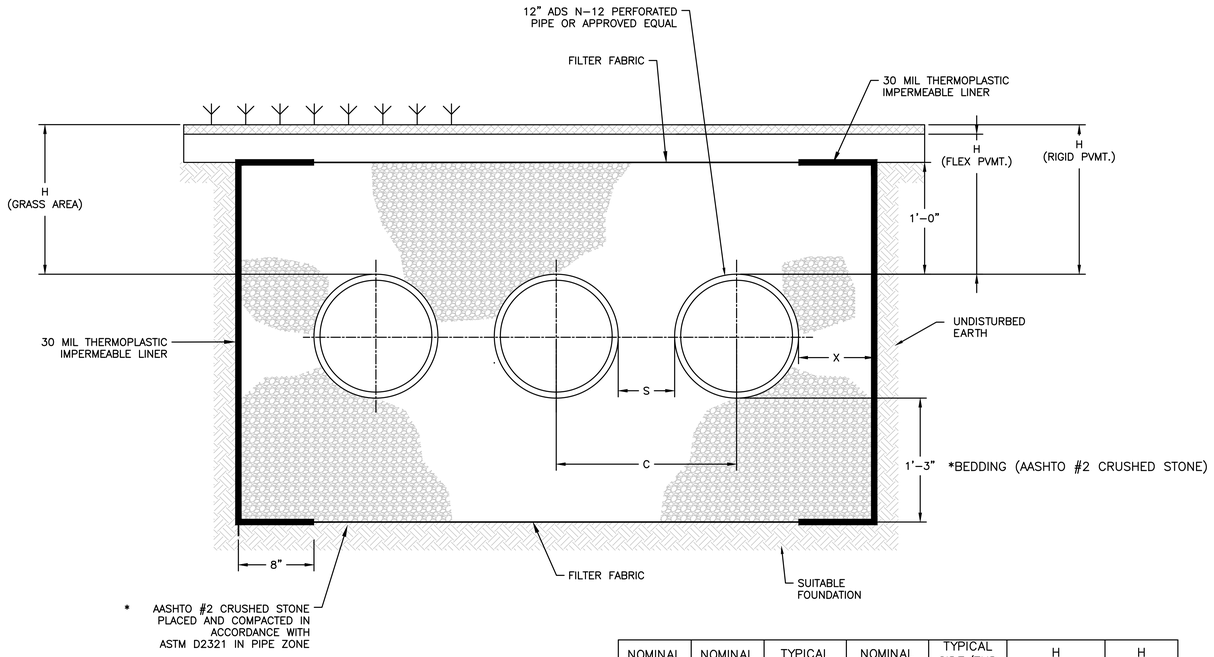


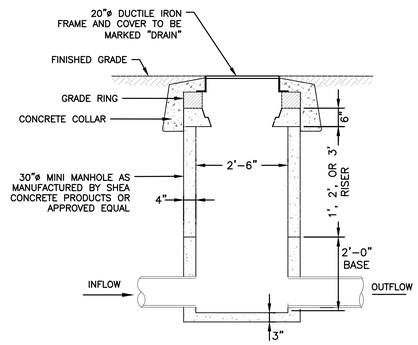
PROPOSED INFILTRATION SYSTEM ELEVATIONS

MAXIMUM ALLOWABLE FINISH GRADE:	–
MINIMUM ALLOWABLE FINISH GRADE:	25.50
TOP OF STONE:	24.00
TOP OF PIPE:	23.00
BOTTOM OF PIPE:	21.79
BOTTOM OF STONE:	20.54
GROUNDWATER ELEVATION:	17.50

NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	NOMINAL SPACING "C"	TYPICAL SIDE/END WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12" (300mm)	14.5" (368mm)	11" (279mm)	25.5" (648mm)	8" (203mm)	12" (305mm)	12" (305mm)
15" (375mm)	18" (457mm)	11.5" (292mm)	29.0" (737mm)	8" (203mm)	12" (305mm)	12" (305mm)
18" (450mm)	21" (533mm)	17.0" (432mm)	38.0" (965mm)	9" (229mm)	12" (305mm)	12" (305mm)
24" (600mm)	28" (711mm)	14.0" (356mm)	41.5" (1054mm)	10" (254mm)	12" (305mm)	12" (305mm)
30" (750mm)	36" (914mm)	18" (457mm)	53.0" (1346mm)	18" (457mm)	12" (305mm)	12" (305mm)
36" (900mm)	42" (1067mm)	22" (559mm)	63.0" (1600mm)	18" (457mm)	12" (305mm)	12" (305mm)
42" (1050mm)	48" (1219mm)	24" (610mm)	72.0" (1829mm)	18" (457mm)	12" (305mm)	24" (610mm)
48" (1200mm)	54" (1372mm)	25" (635mm)	78.5" (1994mm)	18" (457mm)	12" (305mm)	24" (610mm)
60" (1500mm)	67" (1702mm)	24" (610mm)	90" (2286mm)	18" (457mm)	12" (305mm)	24" (610mm)

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

SUBSURFACE INFILTRATION SYSTEM
12" PERFORATED HDPE PIPE
NOT TO SCALE



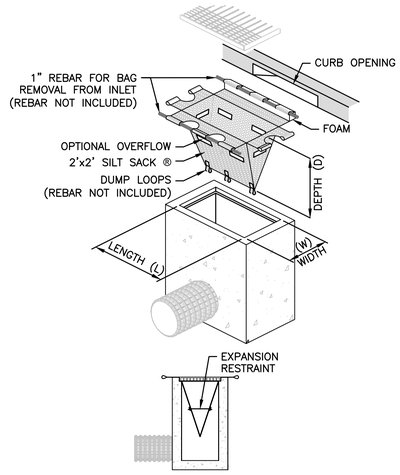
NOTES:

1. CONCRETE: 5000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR H-20 LOADING.

MINI MANHOLE
NOT TO SCALE

NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I OR II. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I OR II IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. MINIMUM COVER: MINIMUM COVER OVER ALL RETNETION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" – 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.



SIDE VIEW INSTALLED

CATCH BASIN FILTER

TEMPORARY INLET PROTECTION
NOT TO SCALE

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
F 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
F 617 482 7080 **CIVIL / TRANSPORTATION**

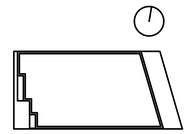
GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
F 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
F 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
F 617 338 4406 **MEPFP**

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
F 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
F 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.17.25	PERMIT SET

COMMONWEALTH OF MASSACHUSETTS
RICHARD E. LATINI
CIVIL
No. 41033
REGISTERED PROFESSIONAL ENGINEER

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

SITE DETAILS
DETAIL SHEET 2 OF 2

C3.01

7/29/2025 3:51:39 PM

11/5/2025 L:\2020\CURRENT\CUTSHEETS\25020 SITE DETAILS.dwg
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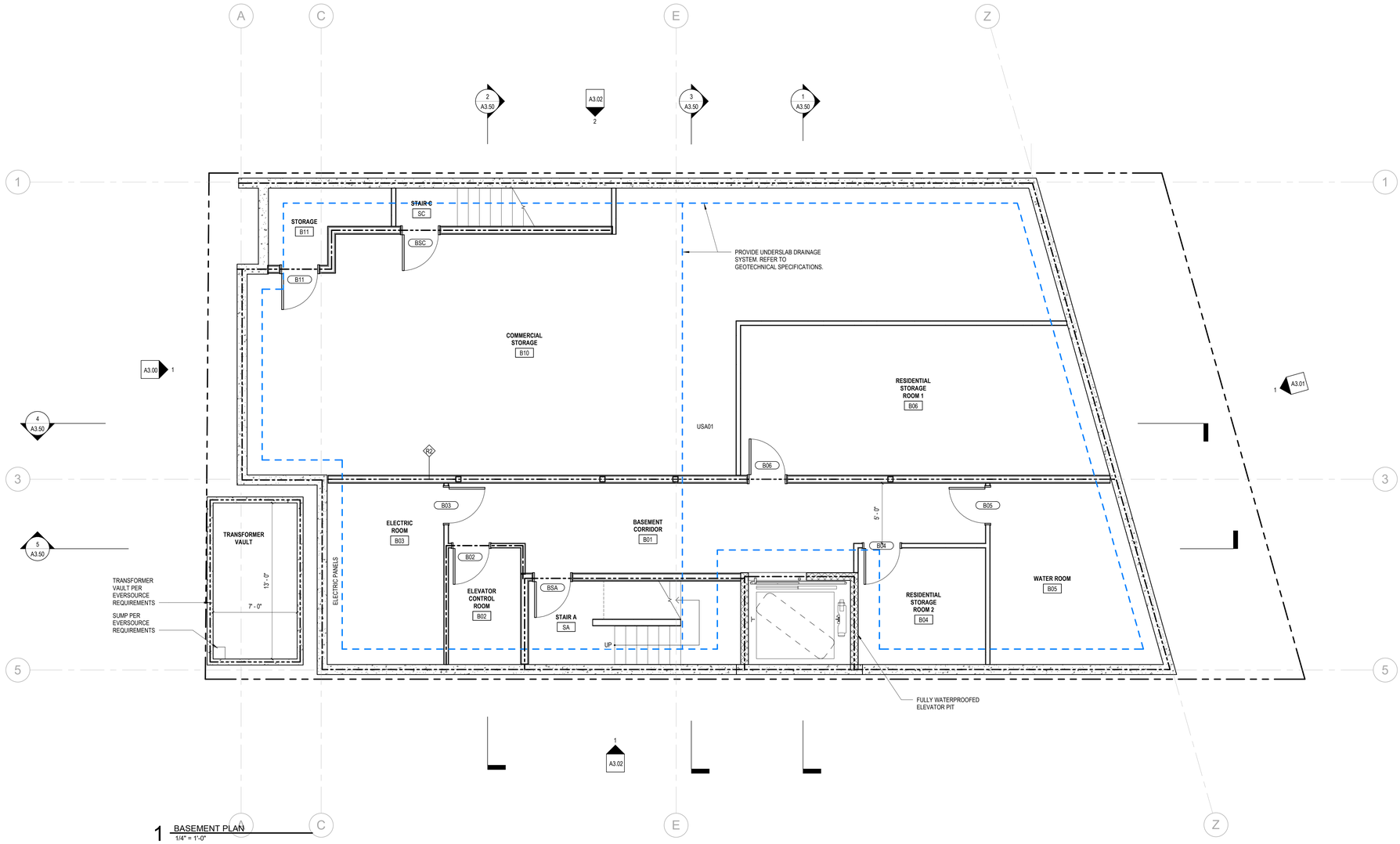
Printed by: Joseph Connolly



1 BASEMENT PLAN
1/4" = 1'-0"

GENERAL NOTES

1. GRID LINES ARE ALIGNED TO FACE OF FRAMING UON
2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UON
3. DOOR OPENINGS LOCATED 4" MIN. FROM CORNER UON
4. REFER TO LIFE SAFETY PLANS TO DETERMINE ALL REQUIRED FIRE RATINGS
5. FOR ALL LOAD BEARING ELEMENTS, COORDINATE WITH STRUCT DWGS
6. FIRE CAULK ALL PENETRATIONS AND JOINTS AT RATED WALLS
7. PROVIDE SEMI-RECESSED FIRE EXTINGUISHER CABINETS. LOCATE PER CODE REQUIREMENTS. COORDINATE FINAL LOCATION IN FIELD WITH ARCHITECT.
8. REFER TO:
   - **G0.10** FOR EXTERIOR WALL ASSEMBLIES. EXTERIOR ASSEMBLIES CALLED OUT ON EXTERIOR ELEVATIONS & WALL SECTIONS.
   - **G0.11** FOR FLOOR AND ROOF ASSEMBLIES
   - **G0.12** FOR TYPICAL INTERIOR ASSEMBLIES
   - **A5 SERIES** FOR STAIR & ELEVATOR DRAWINGS
   - **A10 SERIES** FOR SCHEDULES

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

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HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



25'

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MULLEN
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

FLOOR PLAN - BASEMENT

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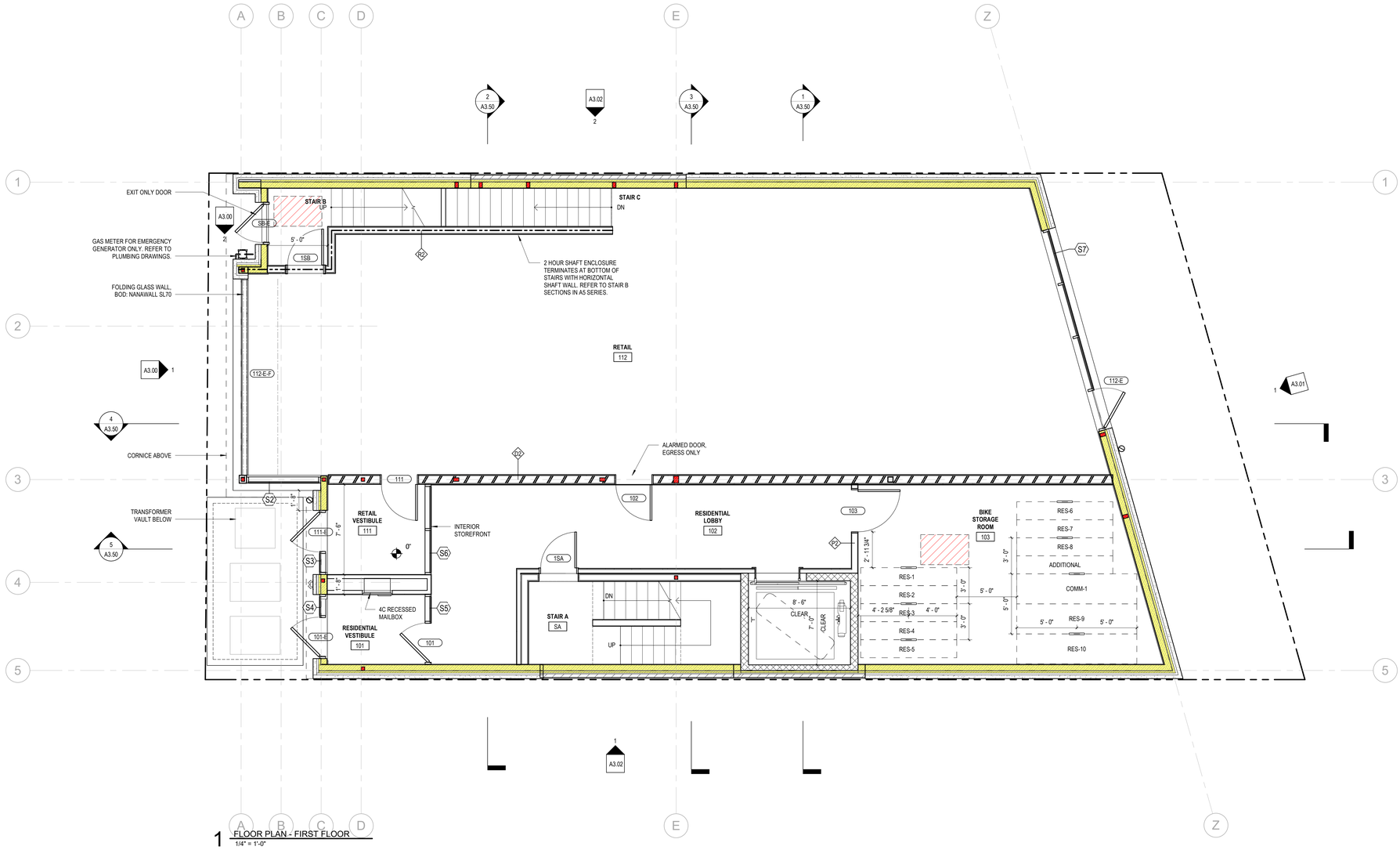

1 FLOOR PLAN - FIRST FLOOR
1/4" = 1'-0"

GENERAL NOTES

1. GRID LINES ARE ALIGNED TO FACE OF FRAMING UON
2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UON
3. DOOR OPENINGS LOCATED 4" MIN. FROM CORNER UON
4. REFER TO LIFE SAFETY PLANS TO DETERMINE ALL REQUIRED FIRE RATINGS
5. FOR ALL LOAD BEARING ELEMENTS, COORDINATE WITH STRUCT DWGS
6. FIRE CAULK ALL PENETRATIONS AND JOINTS AT RATED WALLS
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   - **G0.12** FOR TYPICAL INTERIOR ASSEMBLIES
   - **A5 SERIES** FOR STAIR & ELEVATOR DRAWINGS
   - **A10 SERIES** FOR SCHEDULES

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
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BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE	NEIGHBOR PROJECT NUMBER
As indicated	2418

FLOOR PLAN - FIRST FLOOR

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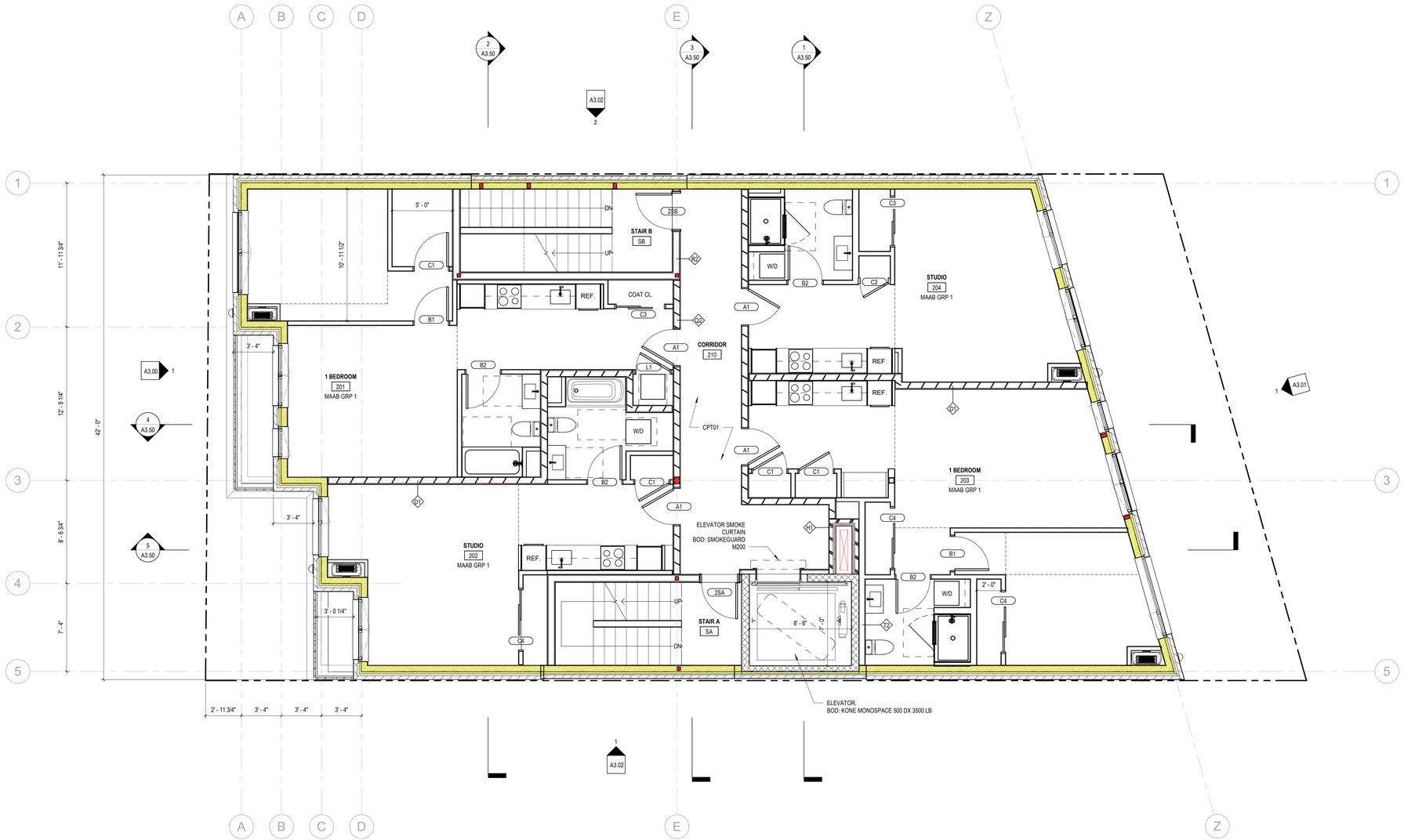

1 FLOOR PLAN - SECOND FLOOR
1/4" = 1'-0"

GENERAL NOTES

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2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UON
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   - **G0.12** FOR TYPICAL INTERIOR ASSEMBLIES
   - **A5 SERIES** FOR STAIR & ELEVATOR DRAWINGS
   - **A10 SERIES** FOR SCHEDULES

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



25'

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET



STAMP

SCALE **As indicated**

NEIGHBOR PROJECT NUMBER **2418**

FLOOR PLAN - SECOND FLOOR

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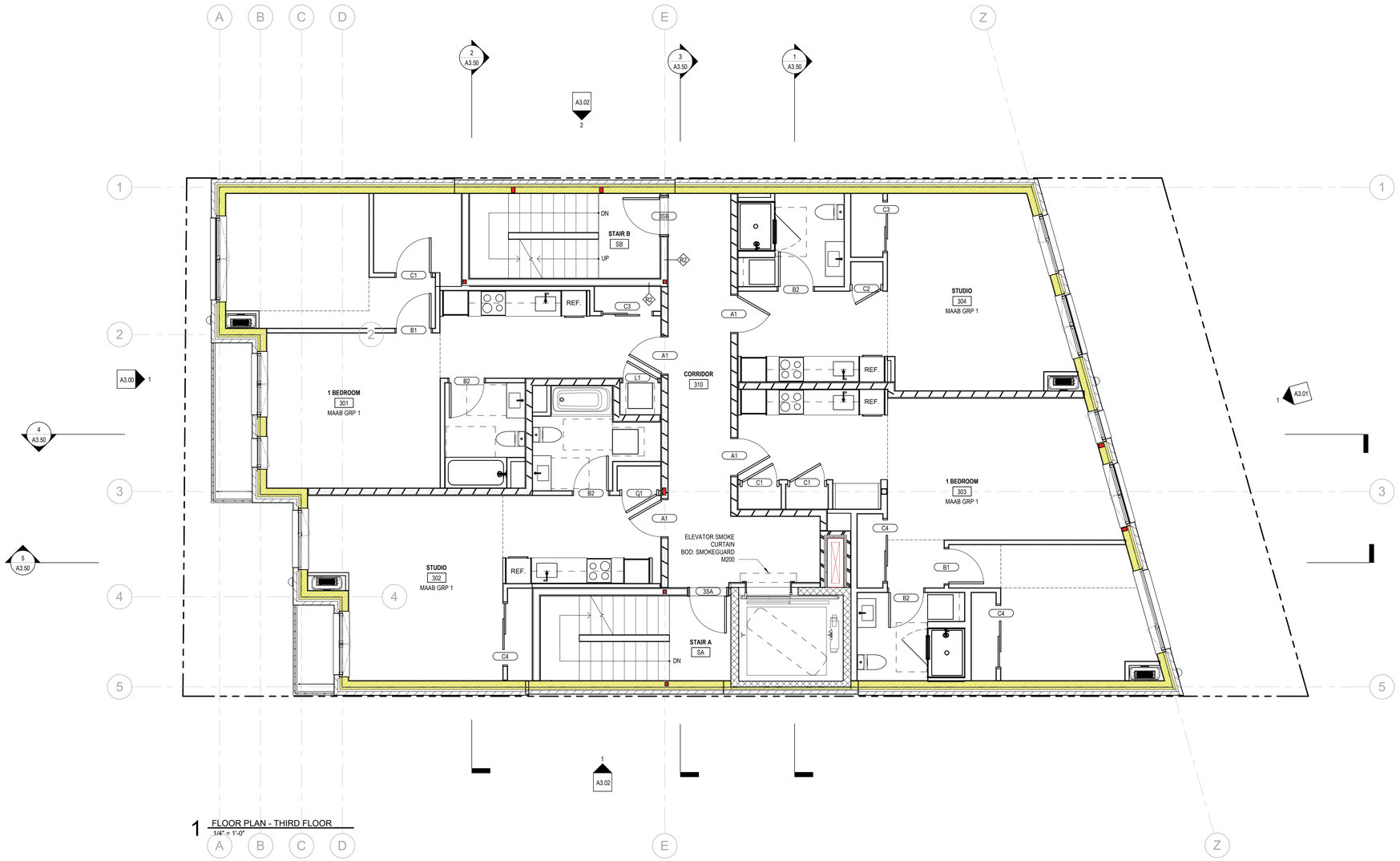

1 FLOOR PLAN - THIRD FLOOR
1/4" = 1'-0"

GENERAL NOTES

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2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UON
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   - **G0.12** FOR TYPICAL INTERIOR ASSEMBLIES
   - **A5 SERIES** FOR STAIR & ELEVATOR DRAWINGS
   - **A10 SERIES** FOR SCHEDULES

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

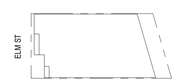
GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

REGISTERED ARCHITECT
ROY D. MILLER
No. 952364
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

SCALE	NEIGHBOR PROJECT NUMBER
As indicated	2418

FLOOR PLAN - THIRD FLOOR

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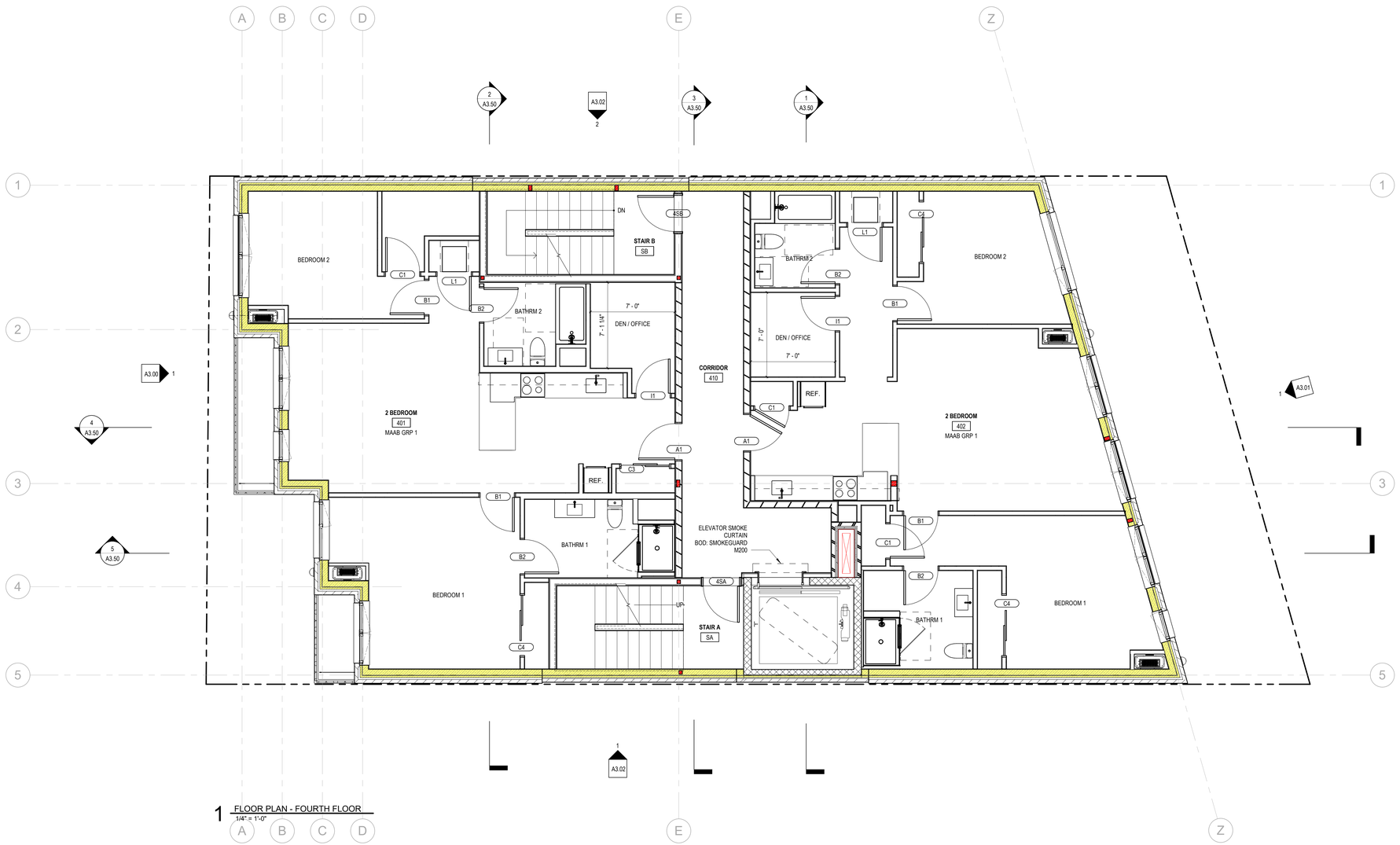

1 FLOOR PLAN - FOURTH FLOOR
1/4" = 1'-0"

GENERAL NOTES

1. GRID LINES ARE ALIGNED TO FACE OF FRAMING UON
2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UON
3. DOOR OPENINGS LOCATED 4" MIN. FROM CORNER UON
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5. FOR ALL LOAD BEARING ELEMENTS, COORDINATE WITH STRUCT DWGS
6. FIRE CAULK ALL PENETRATIONS AND JOINTS AT RATED WALLS
7. PROVIDE SEMI-RECESSED FIRE EXTINGUISHER CABINETS. LOCATE PER CODE REQUIREMENTS. COORDINATE FINAL LOCATION IN FIELD WITH ARCHITECT.
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   - **A5 SERIES** FOR STAIR & ELEVATOR DRAWINGS
   - **A10 SERIES** FOR SCHEDULES

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



25'

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLETT
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

FLOOR PLAN - FOURTH FLOOR

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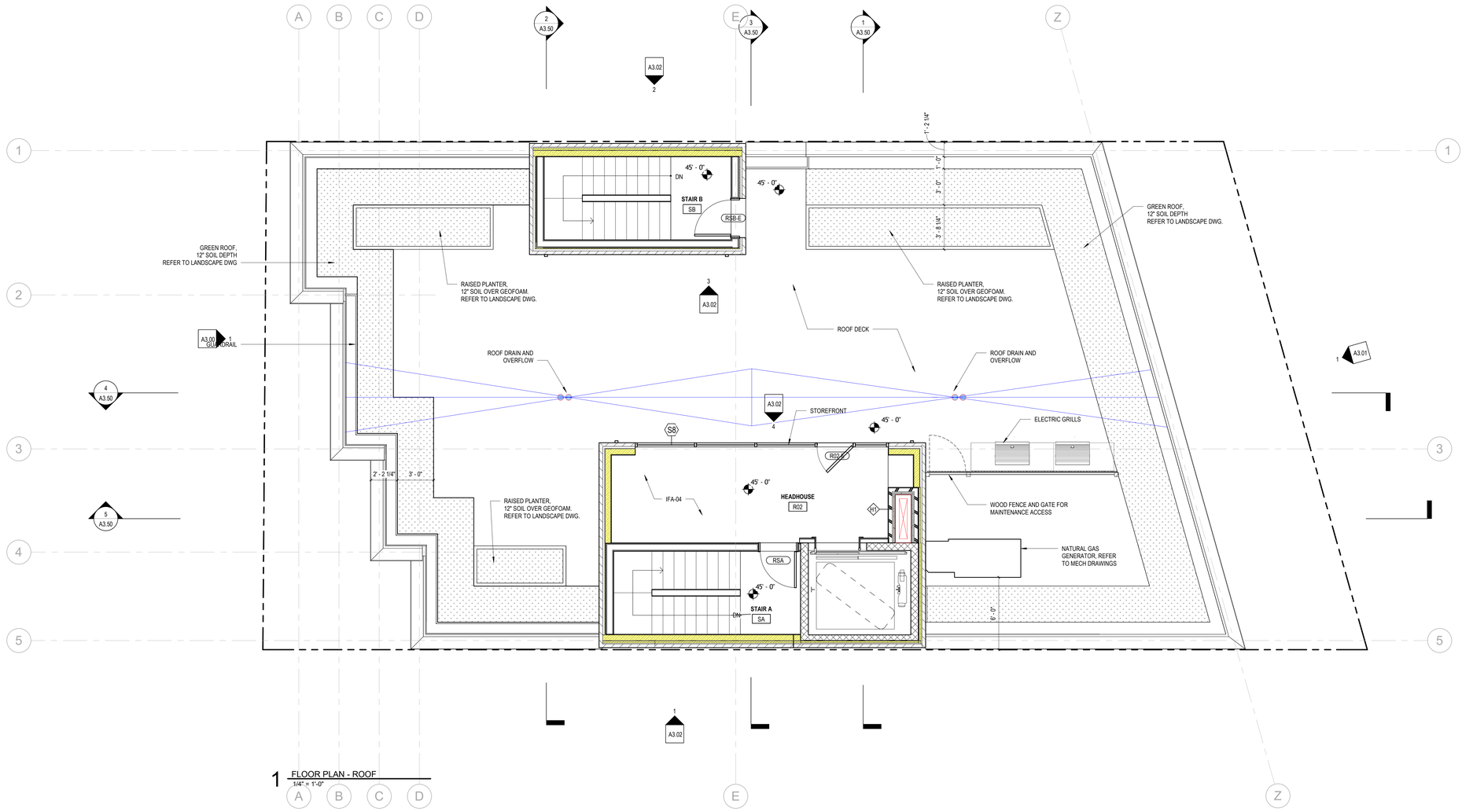

1 FLOOR PLAN - ROOF
1/4" = 1'-0"

GENERAL NOTES

1. GRID LINES ARE ALIGNED TO FACE OF FRAMING UON
2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UON
3. DOOR OPENINGS LOCATED 4" MIN. FROM CORNER UON
4. REFER TO LIFE SAFETY PLANS TO DETERMINE ALL REQUIRED FIRE RATINGS
5. FOR ALL LOAD BEARING ELEMENTS, COORDINATE WITH STRUCT DWGS
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   - **A5 SERIES** FOR STAIR & ELEVATOR DRAWINGS
   - **A10 SERIES** FOR SCHEDULES

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS &
CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



25'

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MELDER
No. 952364
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

FLOOR PLAN - ROOF

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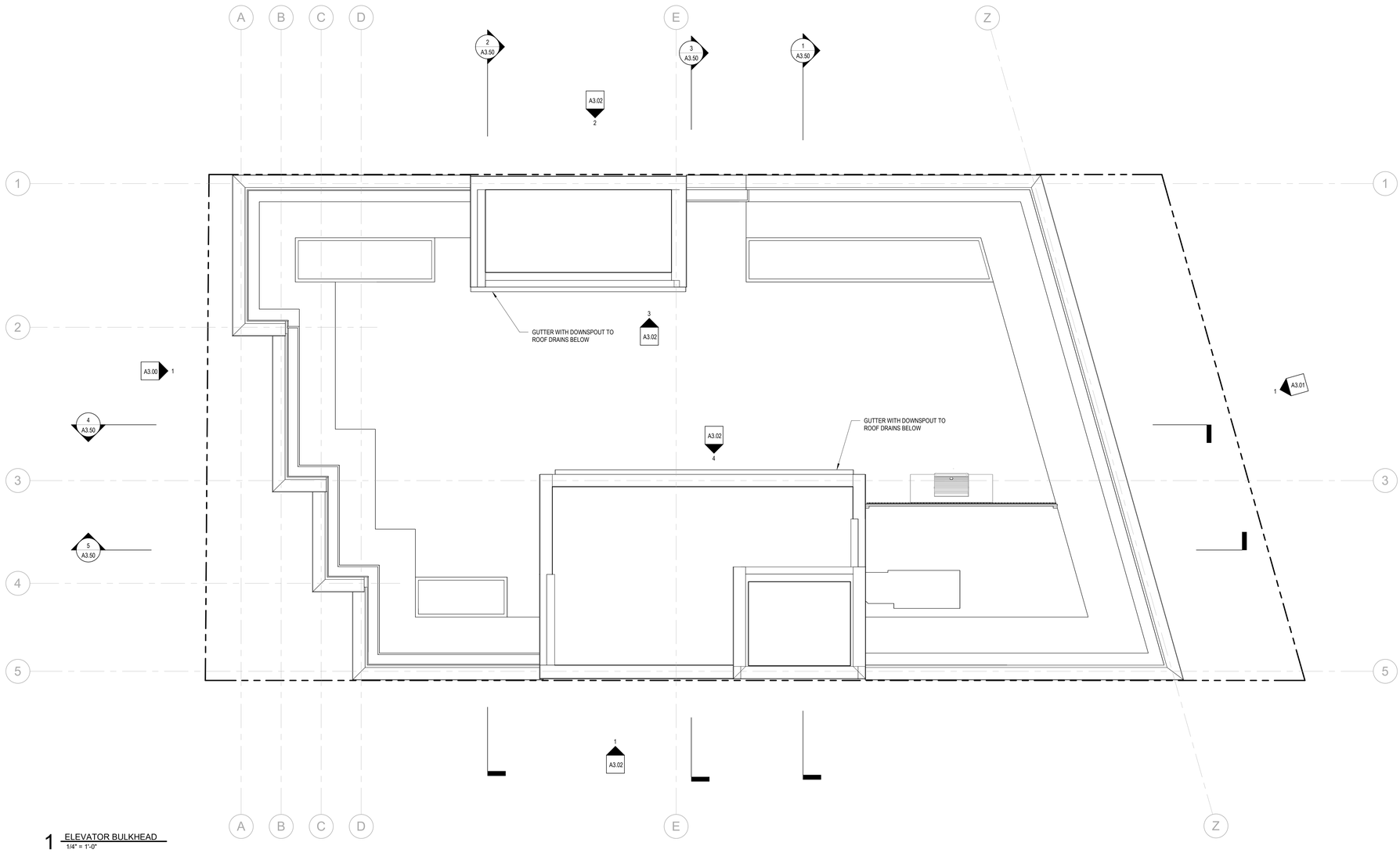

1 ELEVATOR BULKHEAD
1/4" = 1'-0"

GENERAL NOTES

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2. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISH UON
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199 ELM STREET

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P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

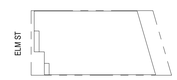
GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
JOSEPH D. MULLEN
No. 952364
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

FLOOR PLAN - BULKHEAD ROOF

A1.06

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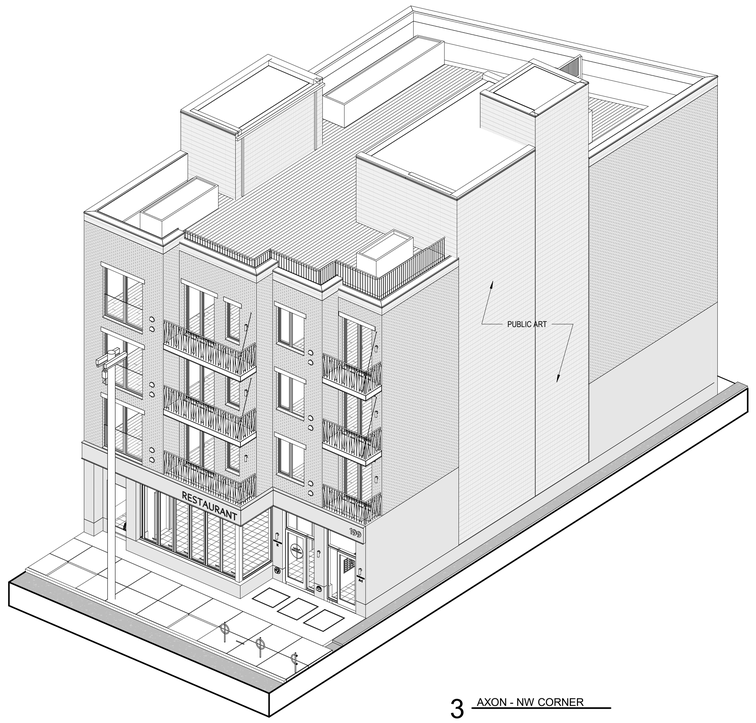

3 AXON - NW CORNER



2 EGRESS ALCOVE - NORTH ELEVATION
1/4" = 1'-0"

1 WEST ELEVATION
1/4" = 1'-0"

EXTERIOR WALL ASSEMBLIES

EWA01 PRECAST CONCRETE BASE

EWA02 PRECAST CONCRETE WALL

EWA03 BRICK VENEER RUNNING BOND

EWA04 BRICK VENEER SOLDIER COURSE

NOTES

1. REFER TO G0.10 FOR EXTERIOR WALL, SLAB AND ROOF ASSEMBLIES.

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

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FOREST ENGINEERING

231 W NEWTON ST, 1
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P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

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BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT PAUL D. MILLER No. 052044 CAMBRIDGE, MA COMMONWEALTH OF MASSACHUSETTS

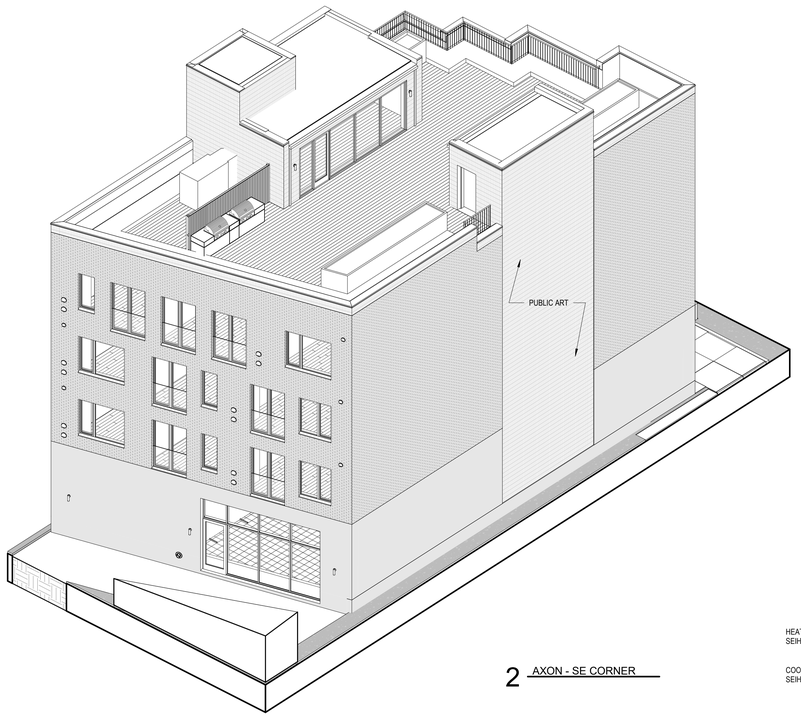
STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

EXTERIOR ELEVATIONS

A3.00

11/13/2025 12:08:22 PM



2 AXON - SE CORNER



1 EAST ELEVATION
1/4" = 1'-0"

EXTERIOR WALL ASSEMBLIES

EWA01
PRECAST
CONCRETE BASE

EWA02
PRECAST
CONCRETE WALL

EWA03
BRICK VENEER
RUNNING BOND

EWA04
BRICK VENEER
SOLDIER COURSE

NOTES

1. REFER TO G0.10 FOR EXTERIOR WALL, SLAB AND ROOF ASSEMBLIES.

199 ELM STREET

199 ELM ST
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PICKER CONSTRUCTION

177 HUNTINGTON AVE
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P 617-888-0552 **OWNER**

NEIGHBOR
NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

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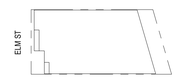
VvS ARCHITECTS &
CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



25'

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLER
No. 052044
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

EXTERIOR ELEVATIONS

A3.01

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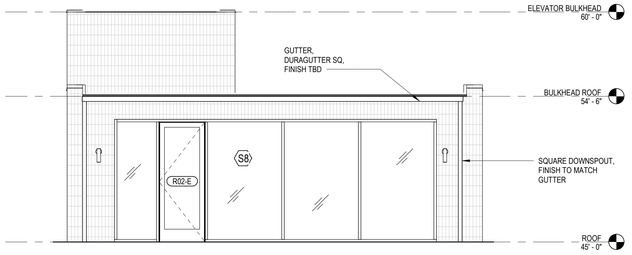
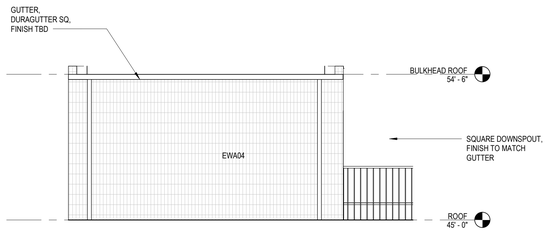
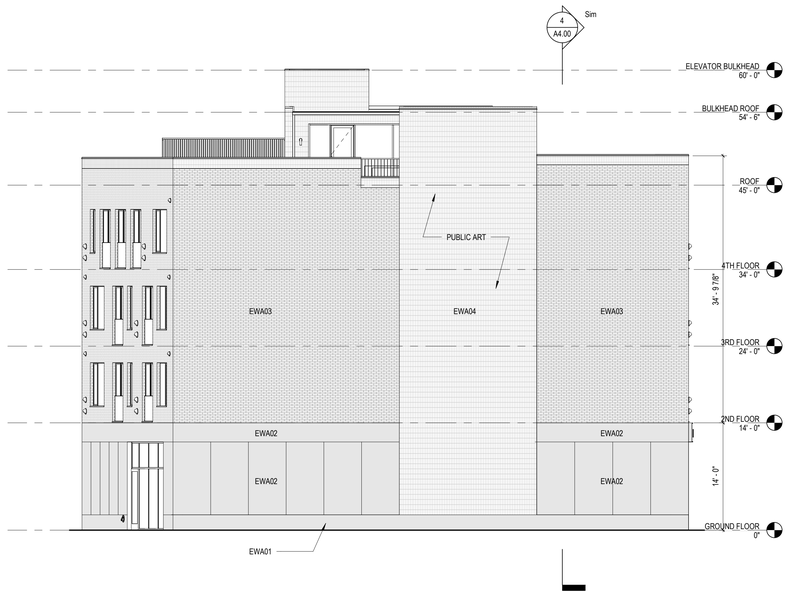


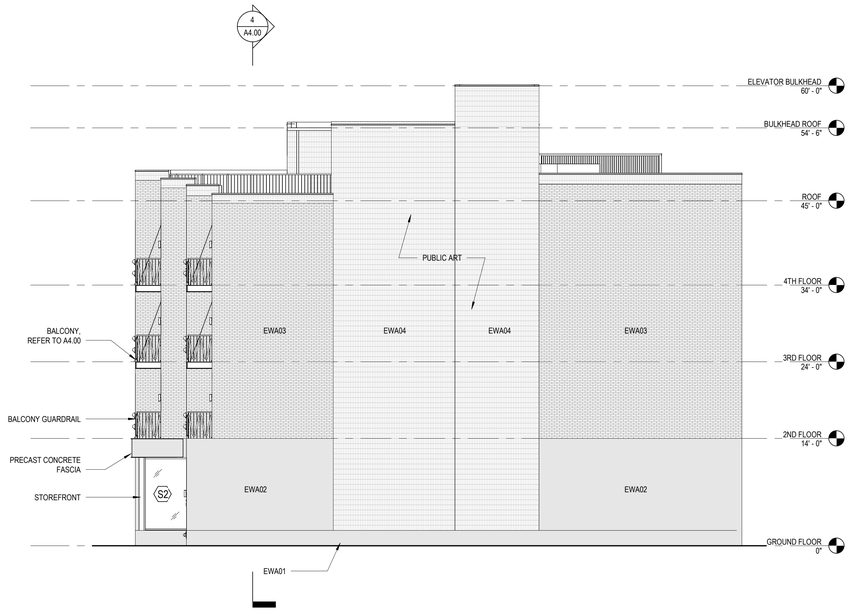
4 BULKHEAD - NORTH ELEVATION
1/4" = 1'-0"



3 BULKHEAD WALL - SOUTH ELEVATION
1/4" = 1'-0"



2 NORTH ELEVATION
1/8" = 1'-0"



1 SOUTH ELEVATION
1/8" = 1'-0"

EXTERIOR WALL ASSEMBLIES

EWA01
PRECAST
CONCRETE BASE

EWA02
PRECAST
CONCRETE WALL

EWA03
BRICK VENEER
RUNNING BOND

EWA04
BRICK VENEER
SOLDIER COURSE

NOTES

1. REFER TO G0.10 FOR EXTERIOR WALL, SLAB AND ROOF ASSEMBLIES.

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
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P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS &
CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



25°

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET



STAMP

SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

EXTERIOR ELEVATIONS

A3.02

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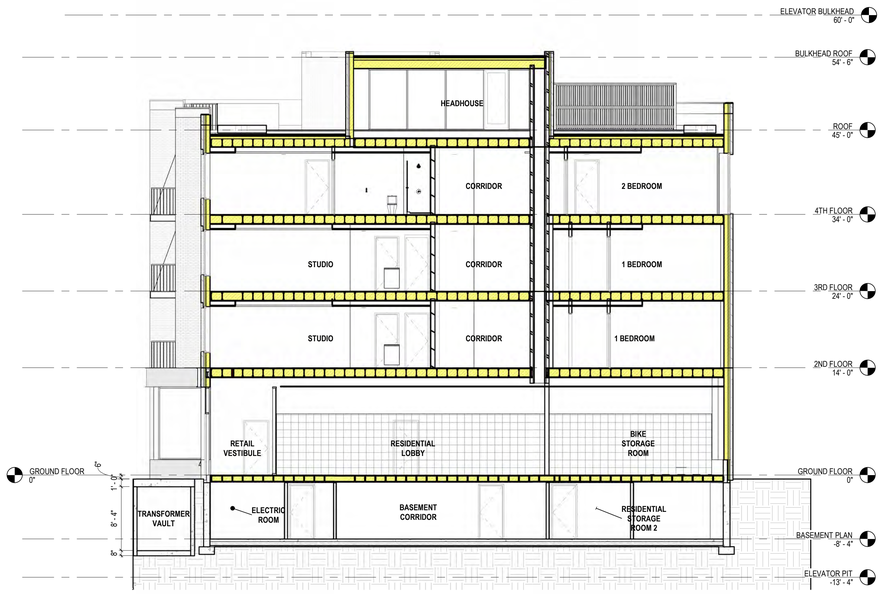
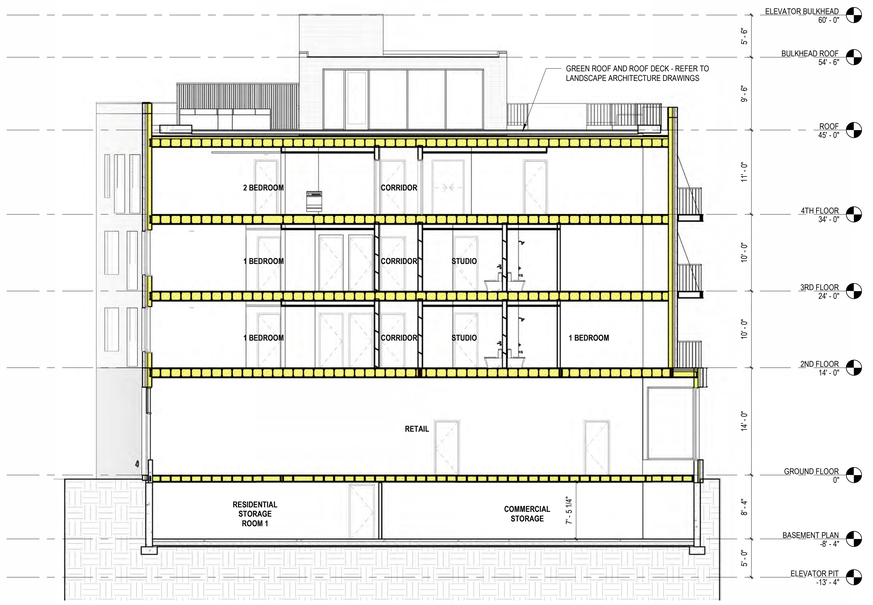
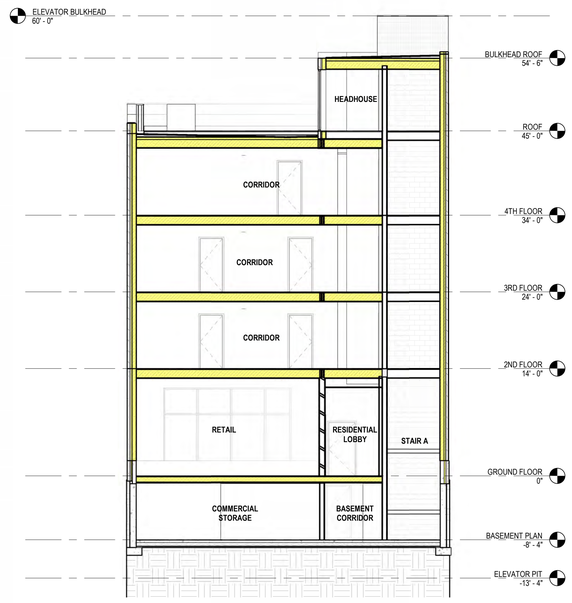


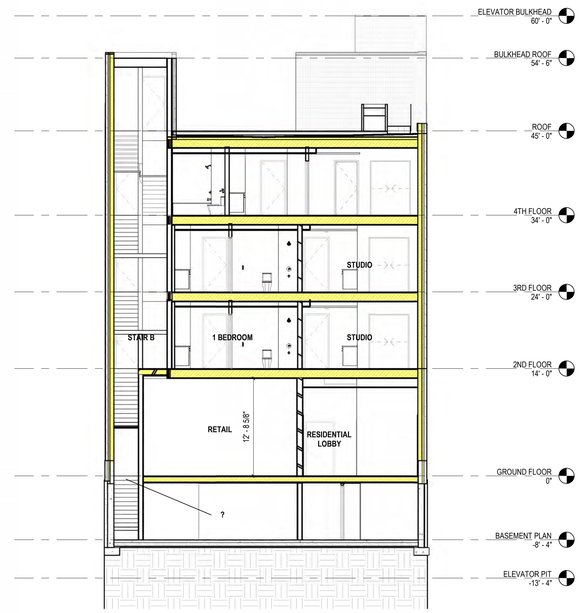
5 BUILDING SECTION - E/2 2
1/8" = 1'-0"



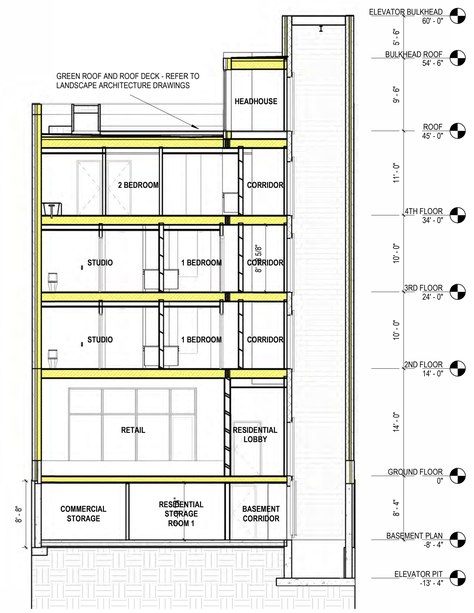
4 BUILDING SECTION - E/W 1
1/8" = 1'-0"



3 BUILDING SECTION - N/S 3
1/8" = 1'-0"



2 BUILDING SECTION - N/S 2
1/8" = 1'-0"



1 BUILDING SECTION - N/S 1
1/8" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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FOREST ENGINEERING

231 W NEWTON ST, 1
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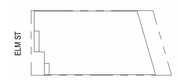
VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MULLEN
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

BUILDING SECTIONS

A3.50

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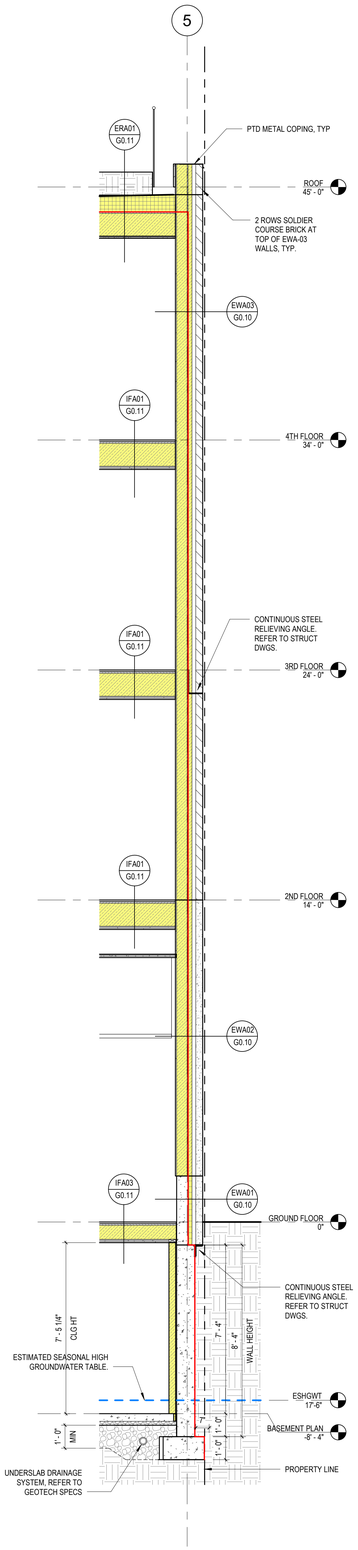
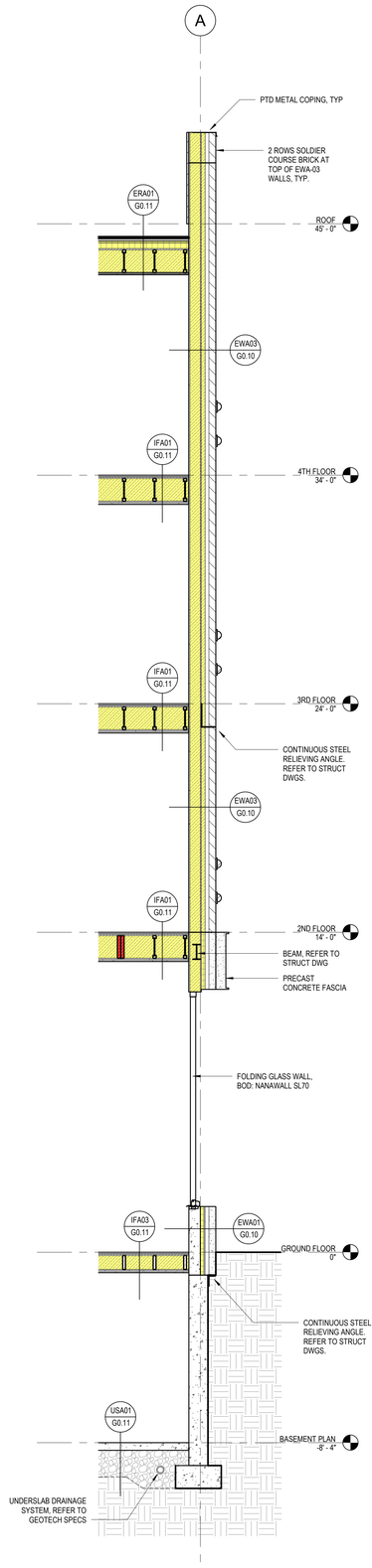
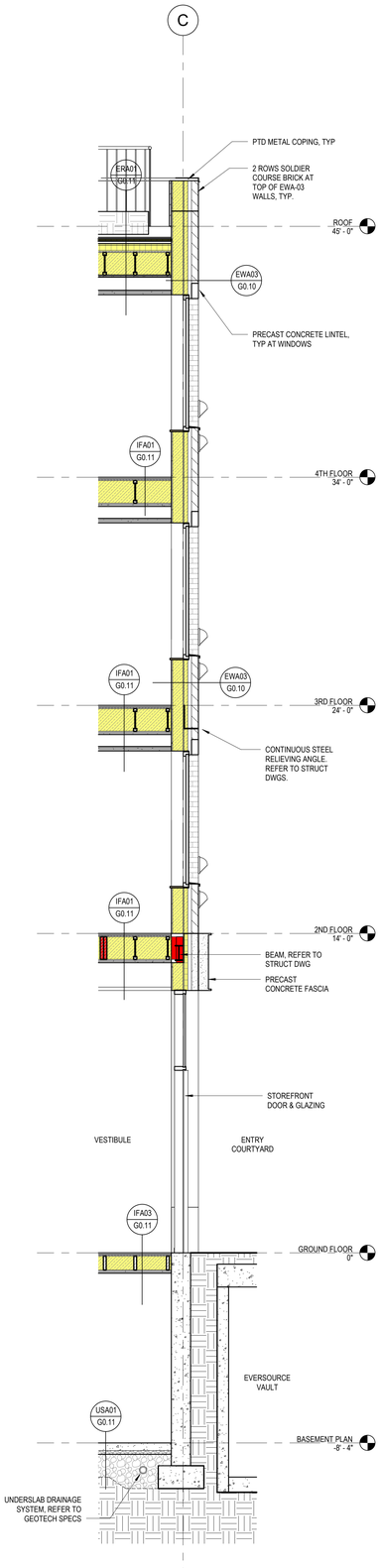


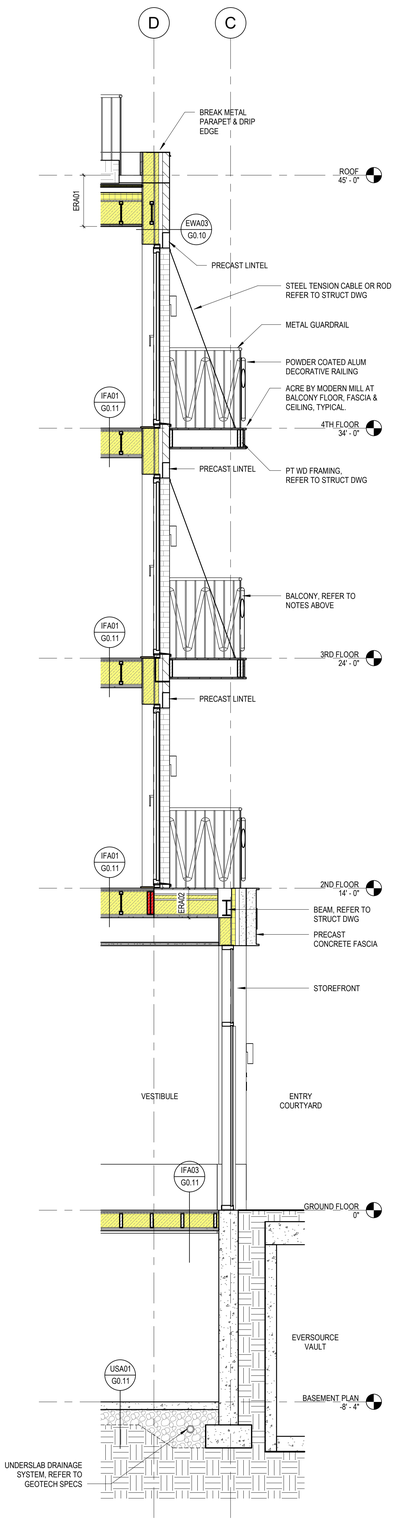
4 WALL SECTION - SOUTH 1
3/8" = 1'-0"



3 WALL SECTION - WEST 3
3/8" = 1'-0"



2 WALL SECTION - WEST 2
3/8" = 1'-0"



1 WALL SECTION - WEST 1
3/8" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

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SUITE 1703
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NEIGHBOR ARCHITECTS

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
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HOWARD STEIN HUDSON

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P 617 482 7080 **CIVIL / TRANSPORTATION**

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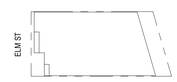
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. NEZZO
No. 052354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

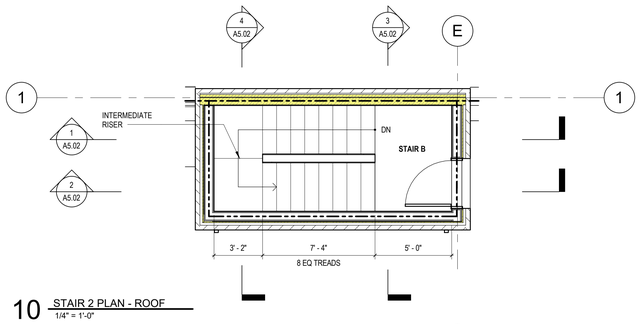
STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

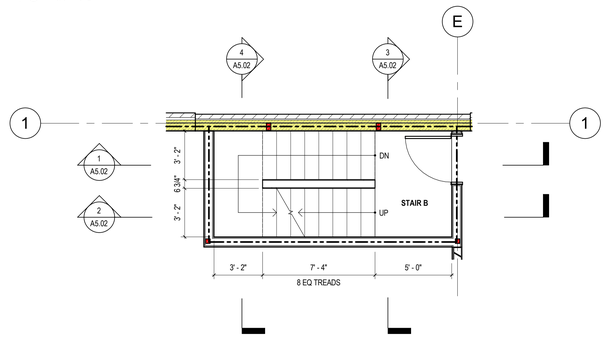
WALL SECTIONS

A4.00

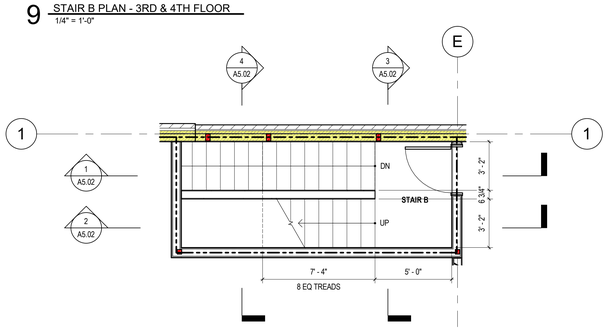
11/11/2025 3:57:19 PM



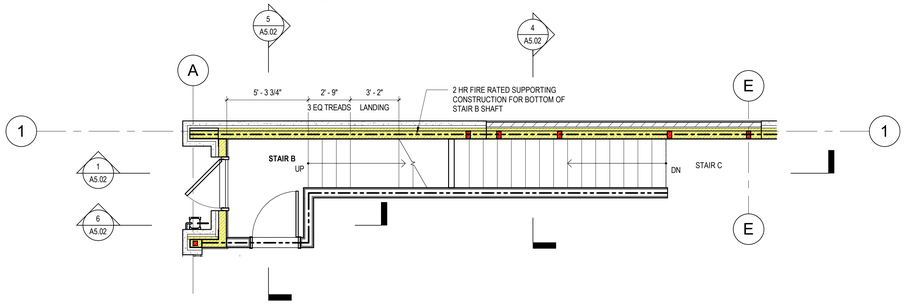
10 STAIR 2 PLAN - ROOF
1/4" = 1'-0"



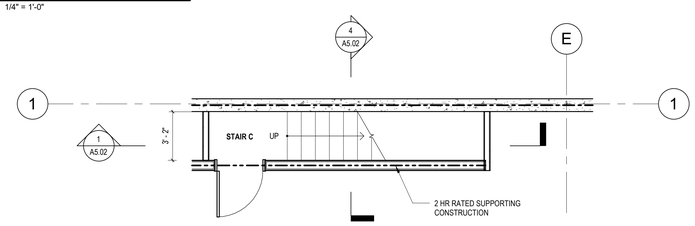
9 STAIR B PLAN - 3RD & 4TH FLOOR
1/4" = 1'-0"



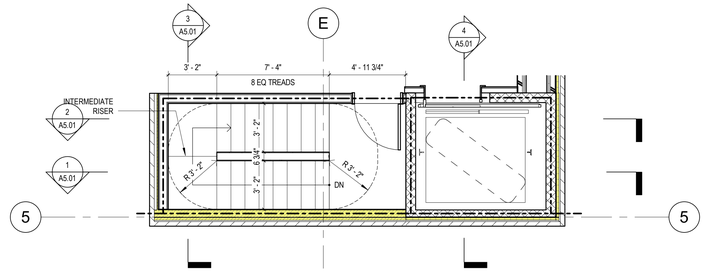
8 STAIR B PLAN - 2ND FLOOR
1/4" = 1'-0"



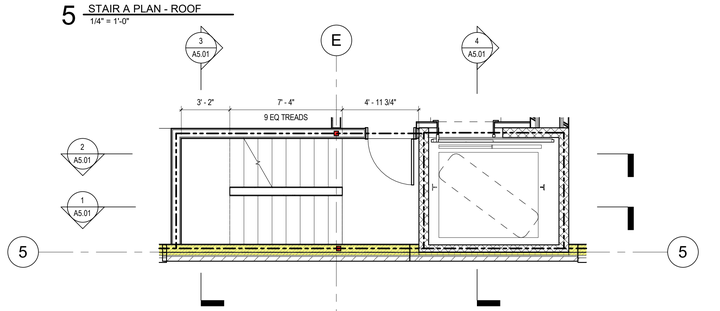
7 STAIR B & C PLAN - GROUND FLOOR
1/4" = 1'-0"



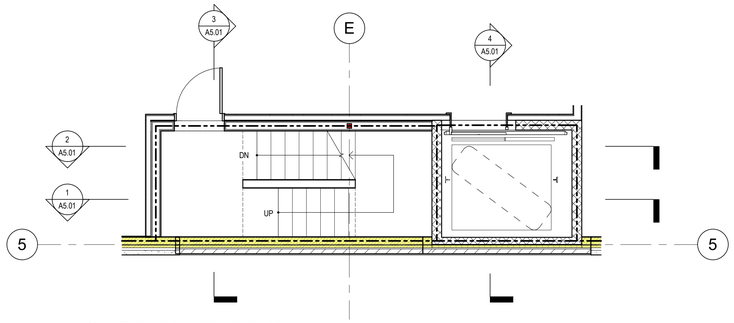
6 STAIR C PLAN - LOWER LEVEL
1/4" = 1'-0"



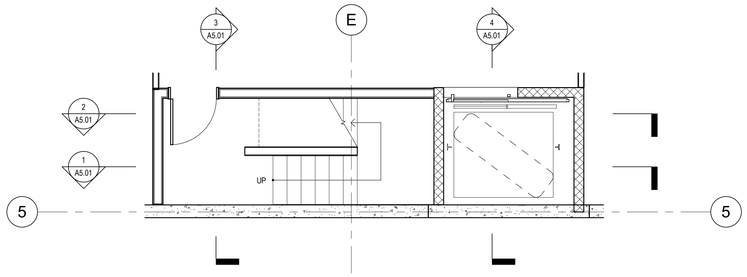
5 STAIR A PLAN - ROOF
1/4" = 1'-0"



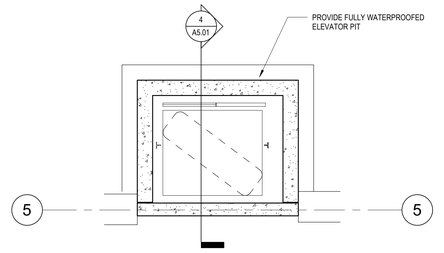
4 STAIR A PLAN - 2ND, 3RD, & 4TH FLOOR
1/4" = 1'-0"



3 STAIR A PLAN - GROUND FLOOR
1/4" = 1'-0"



2 STAIR A PLAN - BASEMENT
1/4" = 1'-0"



1 ELEVATOR PIT
1/4" = 1'-0"

LEGEND

- 1/2-HR FIRE RATING
- 1-HR FIRE RATING
- 2-HR FIRE RATING
- 3-HR FIRE RATING

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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NEIGHBOR ARCHITECTS
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HOWARD STEIN HUDSON

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GROUND INC.

285 WASHINGTON ST, SUITE G
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FOREST ENGINEERING

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P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

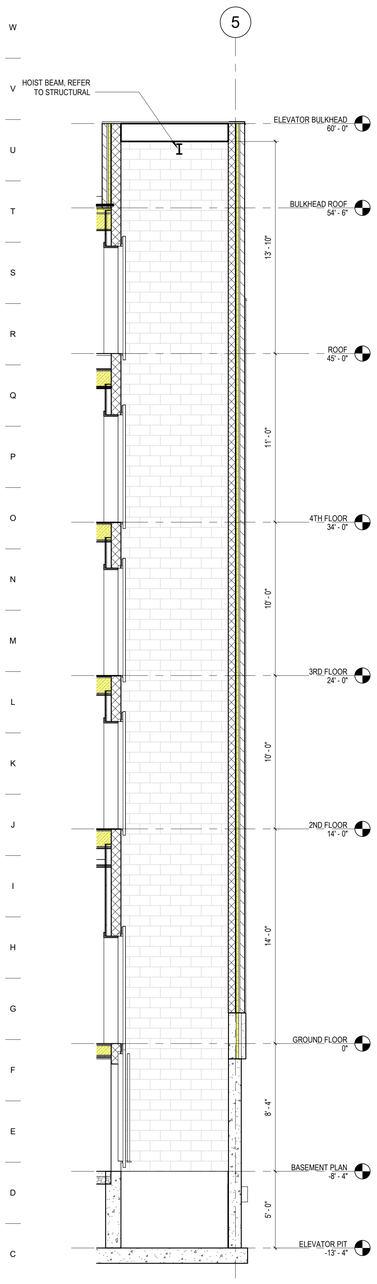
SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

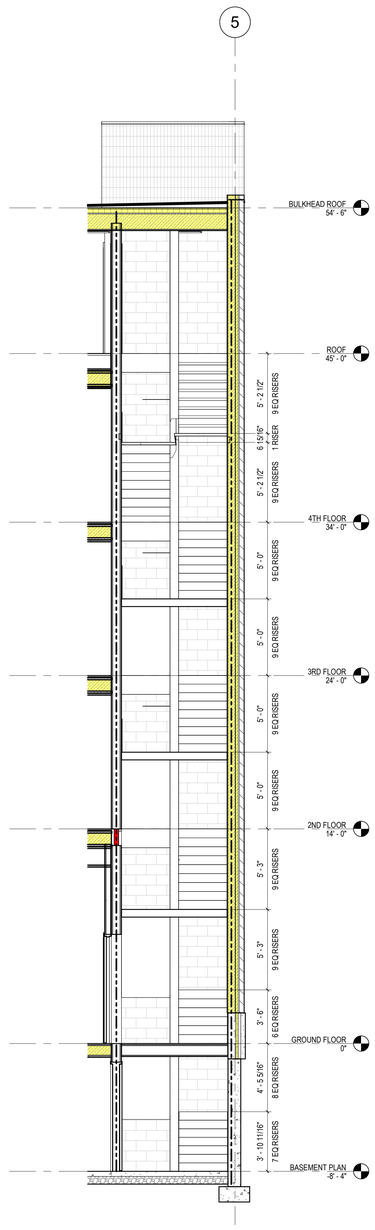
STAIR & ELEVATOR PLANS

A5.00

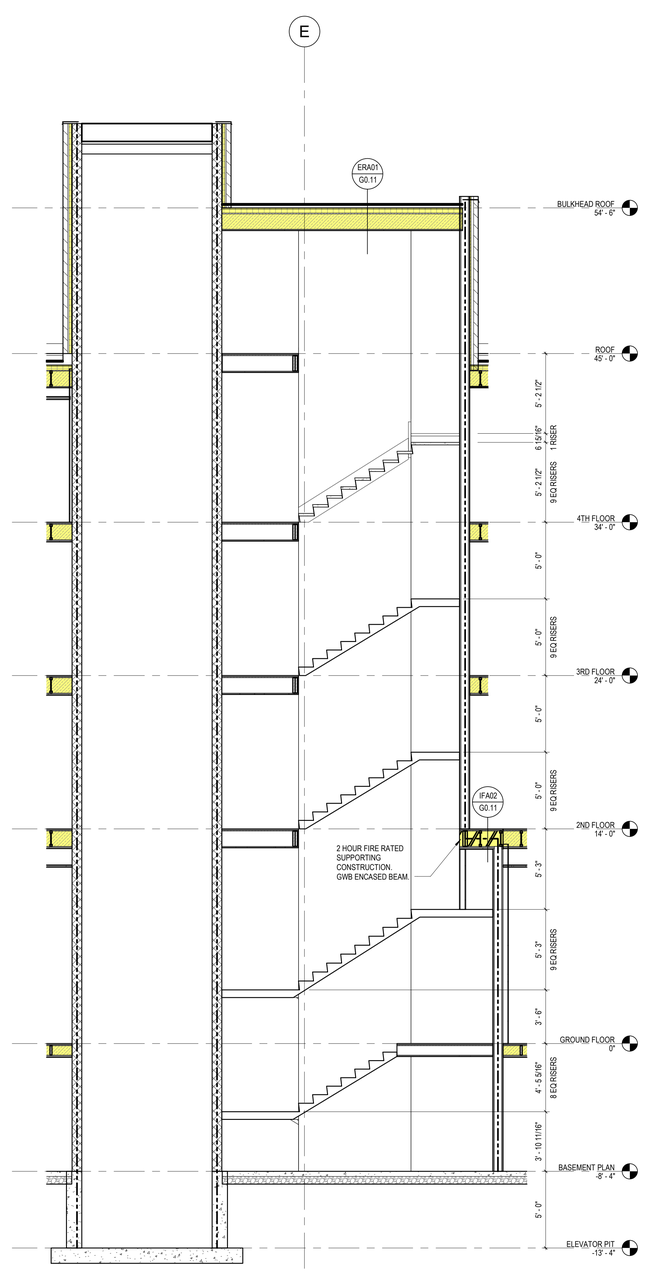
11/11/2025 3:57:21 PM



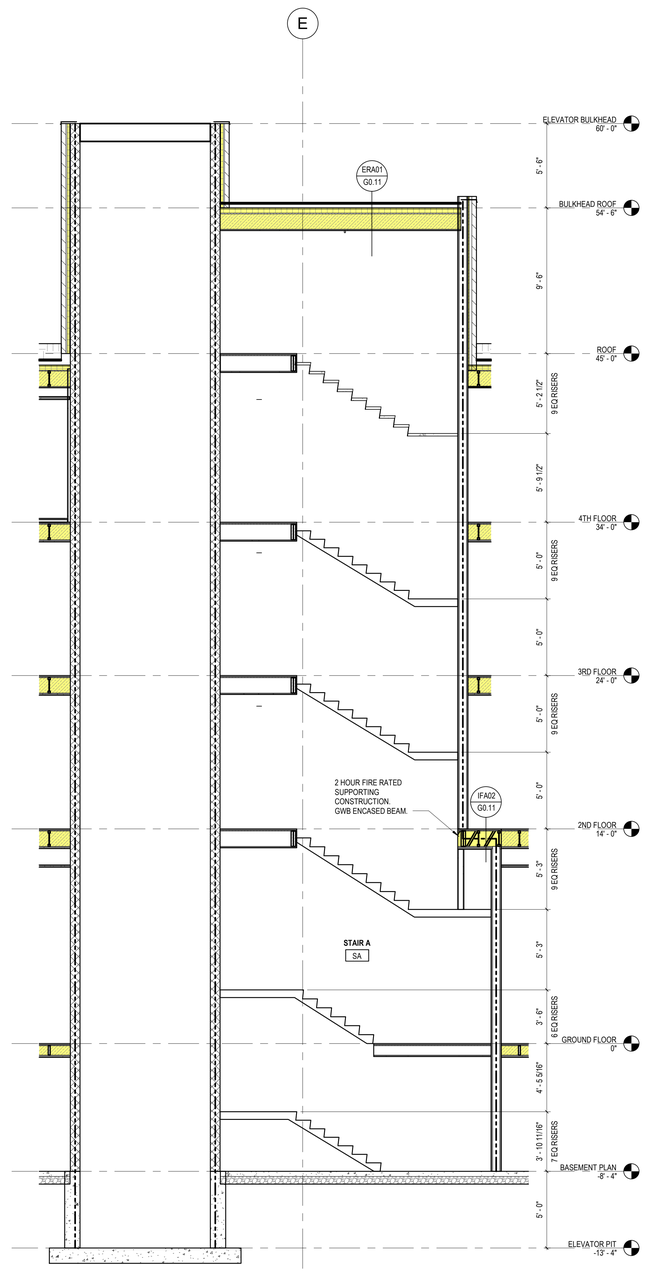
4 ELEVATOR SECTION 1
1/4" = 1'-0"



3 STAIR A SECTION - NS 1
1/4" = 1'-0"



2 STAIR A SECTION - EW 2
1/4" = 1'-0"



1 STAIR A SECTION - EW 1
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

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BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

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BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

LEGEND

- 1/2-HR FIRE RATING
- 1-HR FIRE RATING
- 2-HR FIRE RATING
- 3-HR FIRE RATING



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

STAIR A & ELEVATOR - SECTIONS

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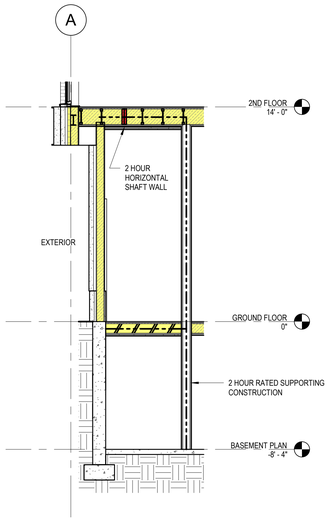
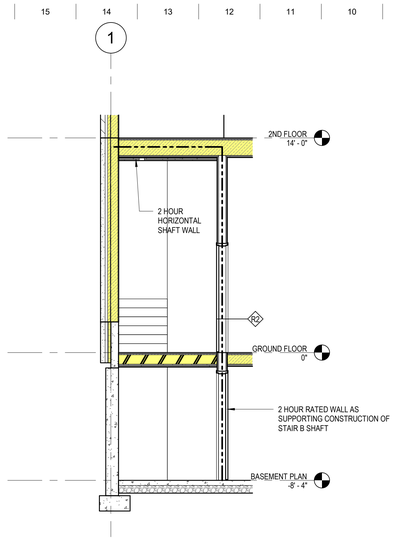
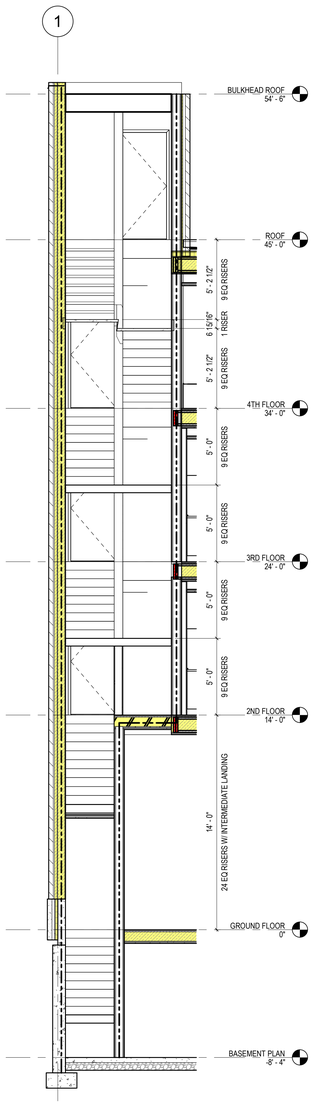


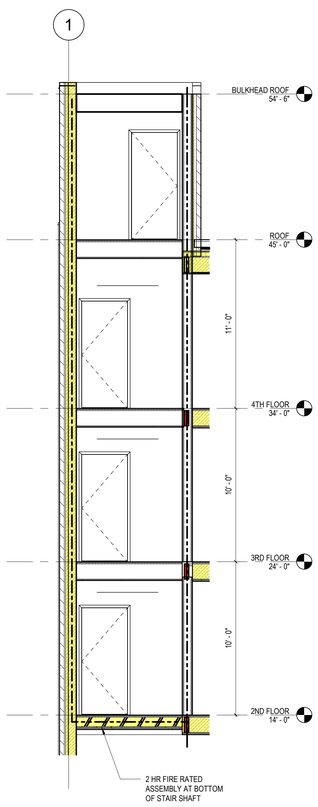
6 STAIR B SECTION - EW 3
1/4" = 1'-0"



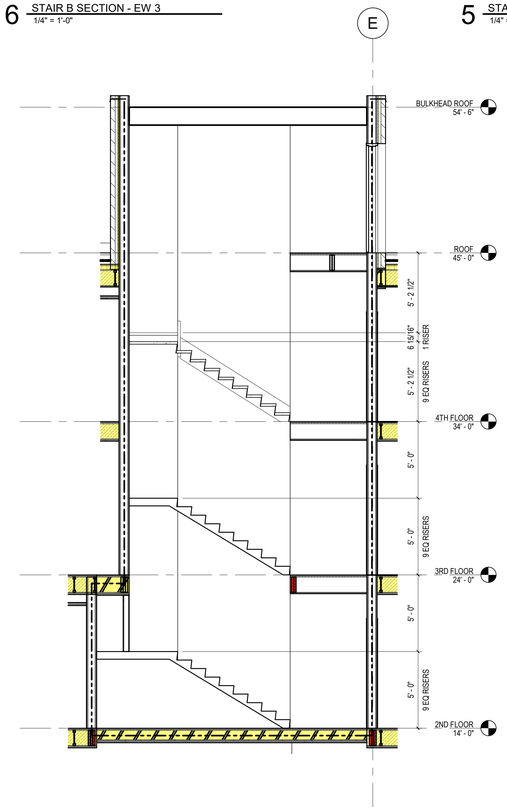
5 STAIR B SECTION - NS 3
1/4" = 1'-0"



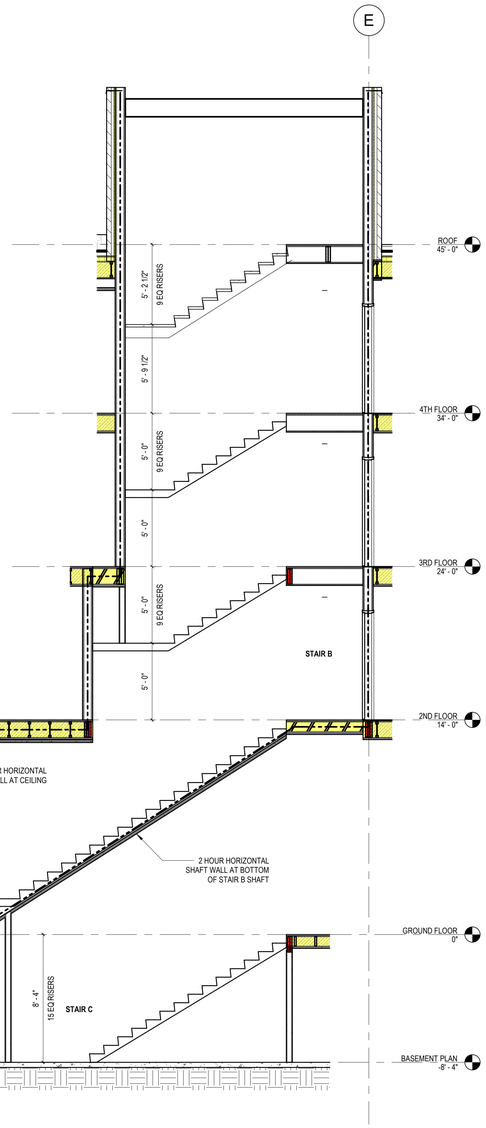
4 STAIR B SECTION - NS 2
1/4" = 1'-0"



3 STAIR B SECTION - NS 1
1/4" = 1'-0"



2 STAIR B SECTION - EW 2
1/4" = 1'-0"



1 STAIR B SECTION - EW 1
1/4" = 1'-0"

LEGEND

- 1/2-HR FIRE RATING
- 1-HR FIRE RATING
- 2-HR FIRE RATING
- 3-HR FIRE RATING

199 ELM STREET

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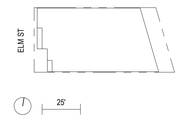
P 617 898 8995 **SUSTAINABILITY**



KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

STAIR B & C SECTIONS

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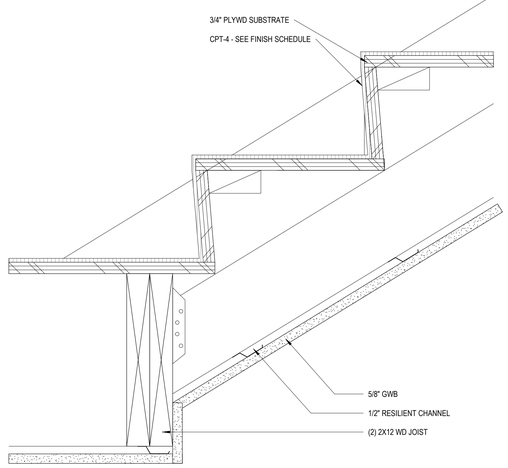
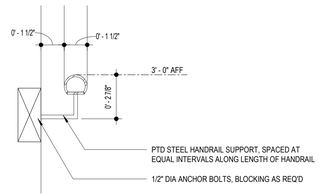
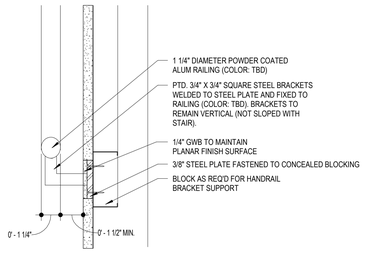


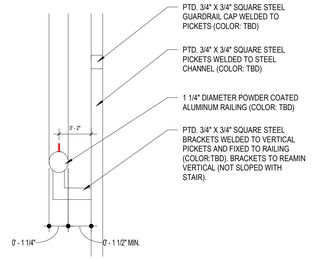
13 SECTION DETAIL - WOOD STAIR AT LEVEL/LANDING 3
3" = 1'-0"



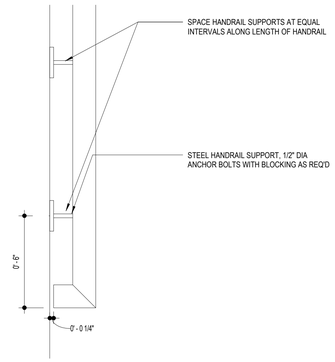
12 SECTION DETAIL - WALL MOUNTED HANDRAIL
3" = 1'-0"



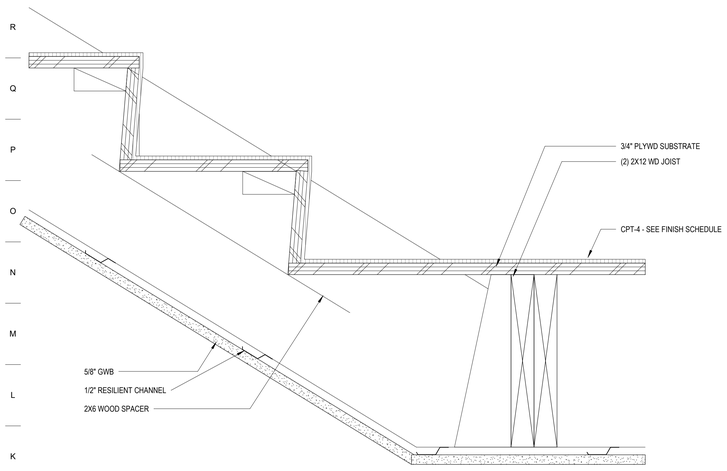
11 SECTION DETAIL - HANDRAIL AT WALL
3" = 1'-0"



10 SECTION DETAIL - HANDRAIL AT GUARDRAIL
3" = 1'-0"



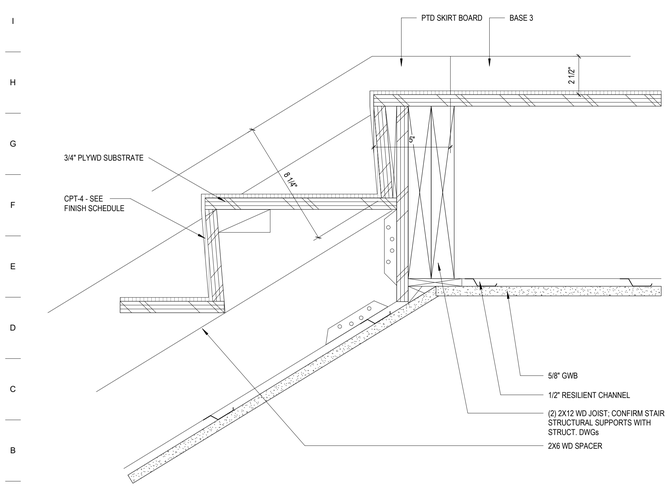
9 PLAN DETAIL - WALL MOUNTED HANDRAIL
3" = 1'-0"



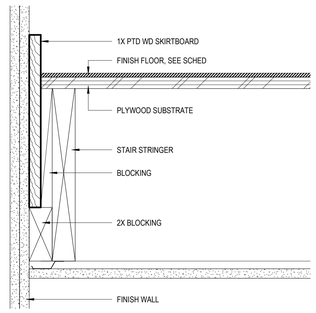
8 SECTION DETAIL - WOOD STAIR AT LEVEL/LANDING 2
3" = 1'-0"

6 ELEVATION - TYPICAL WALL MOUNTED HANDRAIL
1/2" = 1'-0"

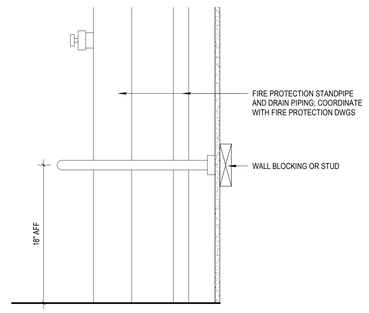
5 ELEVATION - HANDRAIL CONTINUITY AT LANDINGS
1 1/2" = 1'-0"



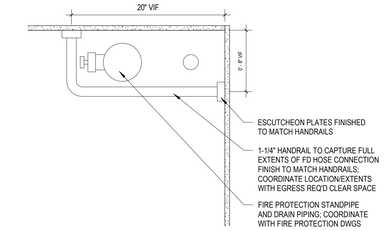
4 SECTION DETAIL - WOOD STAIR AT LEVEL/LANDING
3" = 1'-0"



3 TYPICAL STAIR SKIRTBOARD
3" = 1'-0"



2 ELEVATION - CANE GUARDS
1 1/2" = 1'-0"



1 PLAN - CANE GUARDS
1 1/2" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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NEIGHBOR ARCHITECTS
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P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**





KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
PAUL D. MILLER
No. 952354
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

STAIR DETAILS

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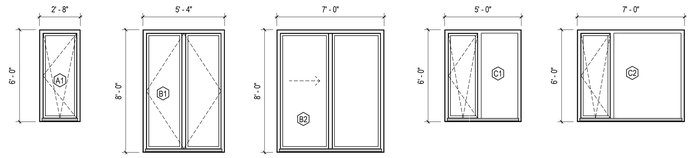
WINDOWS & PATIO DOORS

NOTES:
- PROVIDE 42" HIGH GLASS GUARDRAIL AT JULIET BALCONIES. REFER TO ELEVATIONS.
- ALL WINDOWS & PATIO DOORS SHALL HAVE MIN 40% VLT AND MAX 15% VLR.
- BASIS OF DESIGN:
  - MANUFACTURER: OKO
  - FRAME: UPVC, BLACK
  - GLAZING: TRIPLE GLAZED
  - HARDWARE: BLACK FINISH
  - SCREEN: PROVIDE AT ALL OPERABLE WINDOWS

WINDOW & PATIO DOOR SCHEDULE				
		FRAME SIZE		
TYPE	DESCRIPTION	WIDTH	HEIGHT	NOTES
A1	TILT-TURN	2' - 4"	5' - 8"	
B1	DOUBLE SWING	5' - 0"	7' - 8"	
B2	SLIDING	6' - 8"	7' - 8"	
C1	TILT-TURN / FIXED	4' - 8"	5' - 8"	
C2	TILT-TURN / FIXED	6' - 8"	5' - 8"	

WINDOW & PATIO DOOR ELEVATIONS
SCALE: 1/4" = 1'-0"
- DIMENSIONS SHOW FRAME SIZE
- REFER TO SCHEDULE FOR ADDITIONAL INFORMATION



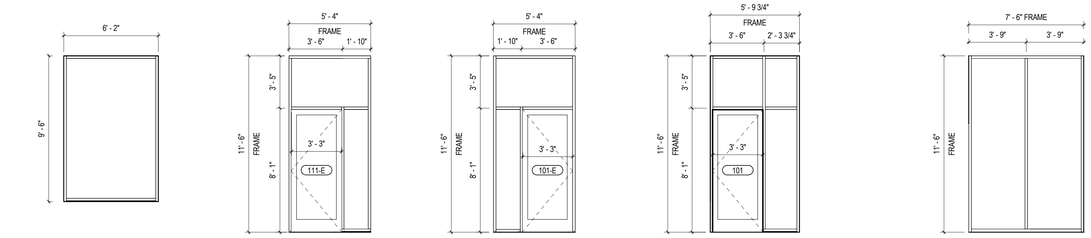
STOREFRONT GLAZING & DOORS

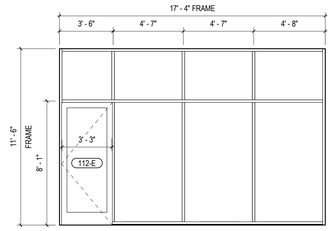
NOTES:
- ALL STOREFRONT GLAZING SHALL HAVE MIN 60% VLT AND MAX 15% VLR.
- SEE EXTERIOR DOOR SCHEDULE FOR ADDITIONAL INFORMATION ON STOREFRONT DOORS.

084110: ALUMINUM FRAMED ENTRY AND STOREFRONTS
- BASIS OF DESIGN: KAWNEER TRIFAB 601 UT
- EXTERIOR, THERMAL BREAK
- INTERIOR, NON-THERMAL BREAK
- BASIS OF DESIGN FOR DOORS: KAWNEER AA425, THERMALLY BROKEN THRESHOLDS
- MEDIUM STILE PROFILE FOR DOORS

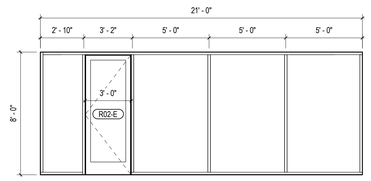
088000: GLAZING
NOTE THIS IS RELATED ONLY TO SECTION 084110
ALUMINUM FRAMED ENTR. AND STOREFRONTS
- EXTERIOR INSULATING GLASS, CLEAR, LOW-E,
  BASIS OF DESIGN: GUARDIAN SN-68, ARGON FILL.
  U-VALUE 0.245 BTU/HR-FT2-F. SHGC 0.37
- WARM EDGE SPACER.
  BASIS OF DESIGN: TGI-SPACER M BY TECHNOFORM

STOREFRONT GLAZING							
TYPE	OVERALL DIMENSIONS			DOOR DIMENSIONS			NOTES
	HEIGHT	WIDTH	AREA	HEIGHT	WIDTH	AREA	
S1							NOT USED
S2	9' - 6"	6' - 2"	59 SF	N/A	N/A	N/A	
S3	11' - 6"	5' - 4"	61 SF	8'	3' - 3"	26 SF	
S4	11' - 6"	5' - 4"	61 SF	8'	3' - 3"	26 SF	
S5	11' - 6"	5' - 9 3/4"	67 SF	8'	3' - 3"	26 SF	INTERIOR
S6	11' - 6"	7' - 6"	86 SF	N/A	N/A	N/A	INTERIOR
S7	11' - 6"	17' - 4"	200 SF	8'	3' - 3"	26 SF	
S8	8' - 0"	21' - 0"	168 SF	7' - 10"	3' - 0"	24 SF	
TOTAL			507 SF			103 SF	





S7 STOREFRONT - S7
1/4" = 1'-0"



S8 STOREFRONT S8
1/4" = 1'-0"

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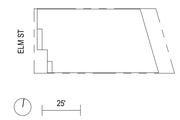

KEY PLAN

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STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

WINDOW & STOREFRONT SCHEDULES

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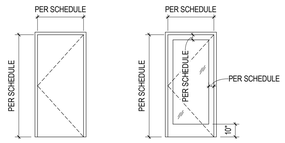
EXTERIOR DOORS

NOTES:
- ALL GLAZING AT GROUND FLOOR DOORS SHALL HAVE MIN 60% VLT AND MAX 15% VLR.

EXTERIOR DOOR AND FRAME SCHEDULE

DOOR	LOCATION	Type	SIZE WD	SIZE HT	TYPE	DOOR MATERIAL	RATING	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	DETAIL HARDWARE	COMMENTS
101-E	RESIDENTIAL VESTIBULE	TYP STOREFRONT DOOR	3' - 3 3/8"	8' - 0 3/8"	E-B	ALUM	NR					GLASS STOREFRONT DOOR
111-E	RETAIL VESTIBULE	TYP STOREFRONT DOOR	3' - 3 3/4"	8' - 0 3/8"	E-B	ALUM	NR					GLASS STOREFRONT DOOR
112-E	RETAIL PATIO	TYP STOREFRONT DOOR	3' - 3 3/4"	8' - 0 3/8"	E-B	ALUM	NR					GLASS STOREFRONT DOOR
112-E-F	RETAIL	NanaWall - SL70	16' - 4"	9' - 6"	SEE ELEV		NR					BOD: NANAWALL SL70
R02-E	HEADHOUSE	TYP STOREFRONT DOOR	3' - 0"	7' - 10"	E-B	ALUM	NR					GLASS STOREFRONT DOOR
RSB-E	STAIR B ROOF	TYP PTD INSUL HM DOOR	3' - 0"	7' - 0"	E-A	PTD INSUL HM	90 MIN					
SB-E	STAIR B GROUND FLOOR	EXTERIOR EMERENCY EXIT - STOREFRONT 2	3' - 2 3/8"	7' - 8 1/2"	E-B	PTD INSUL HM	NR					

EXTERIOR DOOR ELEVATIONS
SCALE: 1/4" = 1'-0"
REFER TO SCHEDULE FOR ADDITIONAL INFORMATION



TYPE E-A
SINGLE DOOR,
SINGLE SWING, FLUSH

TYPE E-B
SINGLE DOOR,
SINGLE SWING, FULL LITE

INTERIOR DOORS

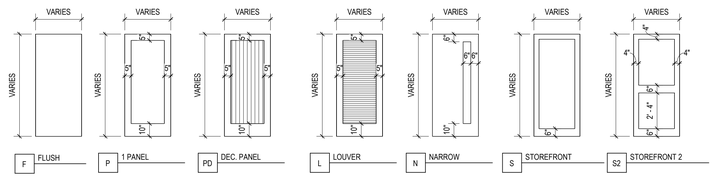
COMMON INTERIOR DOOR AND FRAME SCHEDULE

Mark	SIZE WD	SIZE HT	DOOR TYPE	DOOR MATERIAL	RATING	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	DETAIL HARDWARE	Comments
1SA	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
1SB	3' - 0"	7' - 0"	90 MIN FIRE DOOR EXIT	PTD HM	90 MIN					
2SA	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
2SB	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
3SA	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
3SB	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
4SA	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
4SB	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
101	3' - 3 3/4"	8' - 0 3/8"	INTERIOR - STOREFRONT	ALUM						
102	3' - 0"	7' - 0"	RETAIL EMERGENCY EXIT 36" x 84"		90 MIN					
103	3' - 6"	7' - 0"	42" x 84"							
111	3' - 0"	7' - 0"	RETAIL VESTIBULE 36" x 84"							
B02	3' - 0"	7' - 0"	60 MIN FIRE DOOR	PTD INSUL HM	60 MIN					
B03	3' - 0"	7' - 0"	UNNAMED HOLLOW METAL DOOR	PTD INSUL HM						
B04	3' - 0"	7' - 0"	UNNAMED HOLLOW METAL DOOR	PTD INSUL HM						
B05	3' - 0"	7' - 0"	UNNAMED HOLLOW METAL DOOR	PTD INSUL HM						
B06	3' - 0"	7' - 0"	90 MIN FIRE DOOR	PTD INSUL HM	90 MIN					
B11	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
BSA	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
BSC	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					
RSA	3' - 0"	7' - 0"	90 MIN FIRE DOOR STAIRS	PTD HM	90 MIN					

UNIT INTERIOR DOOR AND FRAME SCHEDULE

DOOR	FILTER	DESCRIPTION	SIZE WD	SIZE HT	TYPE	DOOR MATERIAL	FRAME MATERIAL	RATING	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	DETAIL HARDWARE	Comments
A1	INT DOORS	UNIT ENTRY	3' - 0"	7' - 0"	36" x 84"								
B1	INT DOORS	BEDROOM	2' - 10"	7' - 0"	BEDROOM 34" x 84"								
B2	INT DOORS	BATHROOM	2' - 10"	7' - 0"	BATHROOM 34" x 84"								
C1	INT DOORS	CLOSET	2' - 10"	7' - 0"	CLOSET 34" x 84"								
C2	INT DOORS	CLOSET	2' - 4"	7' - 0"	CLOSET SML 28" x 84"								
C3	INT DOORS	CLOSET	4' - 0"	7' - 0"	CLOSET_SLIDE 48"	PTD SOLID CORE	PTD WD						
C4	INT DOORS	CLOSET	5' - 0"	7' - 0"	CLOSET_SLIDE 60"	ALUM	AN						
I1	INT DOORS	UNIT INTERIOR	2' - 10"	7' - 0"	GENERIC INTERIOR 34" x 84"								
L1	INT DOORS	LAUNDRY	2' - 10"	7' - 0"	LAUNDRY 34" x 84"								

INTERIOR DOOR PANEL ELEVATIONS
SCALE: 1/4" = 1'-0"
REFER TO SCHEDULE FOR ADDITIONAL INFORMATION



199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
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ZADE ENGINEERING

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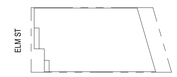
SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**





KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

REGISTERED ARCHITECT
ROY D. MILLER
No. 952344
CAMBRIDGE, MA
COMMONWEALTH OF MASSACHUSETTS

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

DOOR SCHEDULES

A10.02

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GENERAL

1. STRUCTURAL DESIGN IS IN ACCORDANCE WITH THE 10th Edition MA Building Code. ALL STRUCTURAL WORK TO BE COMPLETED IN ACCORDANCE WITH THIS CODE.
2. DESIGN LOAD ASSUMPTIONS:

   LIVE LOAD
   FLOORS.....40 PSF
   BALCONIES.....60 PSF
   RETAIL.....100 PSF

   GROUND SNOW LOAD.....40 PSF

   WIND LOAD
   BASIC WIND SPEED.....128 MPH
   EXPOSURE CATEGORY.....B
   IMPORTANCE FACTOR.....1
   C&C LATERAL LOAD.....-50 PSF (WALLS), -117 PSF (ROOF)
   PARAPET.....143 PSF

   EARTHQUAKE DESIGN DATA
   IMPORTANCE FACTOR, I_E.....1
   S_s.....0.217
   S_1.....0.058
   SITE CLASS.....D
   S_{DS}.....0.23
   S_{D1}.....0.09
   SEISMIC DESIGN CATEGORY.....B
   BASE SEISMIC FORCE-RESISTING SYSTEM....WOOD FRAMED SHEAR WALLS
   ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
   RESPONSE MODIFICATION FACTOR.....R=6.5
   SEISMIC RESPONSE COEFFICIENT.....$C_S = I_e * S_{DS}/R$= .035
   WEIGHT OF BUILDING.....W = 410k
   BASE SHEAR.....$V_S = C_S W$ = 14.5k

3. THE CONTRACTOR SHALL COMPARE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL DRAWINGS BEFORE COMMENCING WITH THE WORK AND SHALL NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES REQUIRING CLARIFICATION OR REVISIONS. DO NOT SCALE STRUCTURAL DRAWINGS.
4. IN THE EVENT THAT CERTAIN DETAILS OF THE CONSTRUCTION ARE NOT FULLY SHOWN OR NOTED ON THE DRAWINGS, THEIR CONSTRUCTION SHALL BE OF THE SAME TYPE AS FOR SIMILAR CONDITIONS WHICH ARE SHOWN AND NOTED, SUBJECT TO THE STRUCTURAL ENGINEER'S APPROVAL.
5. SEE THE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
   A. SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON BEARING PARTITIONS.
   B. SIZE AND LOCATION OF ALL CONCRETE CURBS, FLOOR DRAINS, SLOPES, INSERTS, ETC. EXCEPT AS SHOWN.
   C. SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS EXCEPT AS SHOWN.
   D. FLOOR AND ROOF FINISHES.
   E. WATERPROOFING AND DAMP PROOFING DETAILS.
   F. FINISHED FLOOR AND EXTERIOR ELEVATIONS.
   G. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
6. BOLTS AND ANCHOR RODS MUST BE OF SUFFICIENT LENGTH TO PROTRUDE BEYOND THE END OF THE NUT WHEN FULLY INSTALLED.
7. CUTTING, SPLICING, OR NOTCHING OF STRUCTURAL MEMBERS IS NOT PERMITTED UNLESS NOTED OTHERWISE IN THE STRUCTURAL DRAWINGS FOR SPECIFIC LOCATIONS.
8. ALL WINDOW HEADERS TO BE (3) 2x8s UNLESS NOTED OTHERWISE.

FOUNDATION

1. FOUNDATIONS ON THIS PROJECT CONSIST OF CAST IN PLACE CONCRETE GRADE BEAMS ABOVE HELICAL PILES.
2. PROVIDE 4'-0" MINIMUM FROST COVER FOR FOOTINGS.
3. ALLOWABLE SOIL BEARING PRESSURE HAS NOT BEEN RELIED UPON FOR DESIGN OF FOUNDATION.
4. NO FOUNDATION CONCRETE SHALL BE PLACED INTO STANDING WATER. WATER SHALL NOT BE ALLOWED TO STAND IN TRENCHES BEFORE OR AFTER CONCRETE IS PLACED. IF TRENCHES BECOME SOFTENED DUE TO RAIN OR OTHER WATER BEFORE THE CONCRETE IS CAST, THE CONTRACTOR SHALL EXCAVATE THE SOFTENED MATERIAL AND REPLACE WITH CONCRETE OR WELL COMPACTED CRUSHED STONE.
5. FOUNDATION UNITS SHALL BE CENTERED UNDER SUPPORTED STRUCTURAL MEMBER, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
6. BACKFILL UNDER ANY PORTION OF THE STRUCTURE SHALL BE COMPACTED IN 6 INCH LIFTS.

CONCRETE AND REINFORCEMENT

1. CONCRETE 28 DAYS COMPRESSIVE STRENGTH TO BE 4000 PSI MINIMUM.
2. NOMINAL COARSE AGGREGATE SIZE SHALL NOT EXCEED ¾" U.N.O..
3. STEEL REINFORCING IN CONCRETE TO BE ASTM A615 GRADE 60.
4. WELDED WIRE FABRIC TO BE ASTM A185 WITH ULTIMATE TENSILE STRENGTH OF 70,000 PSI.
5. OVERLAP STEEL REINFORCING BARS TO PROVIDE CLASS B LAP SPLICES. RETURN BARS BY 1'-0" MIN. AROUND CORNERS.
6. MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 6" OR ONE FULL MESH, WHICHEVER IS GREATER, AND SHALL BE WIRED TOGETHER.
7. PROVIDE CLEAR COVERAGE OF OUTER REINFORCEMENT AS FOLLOWS:

LOCATION IN STRUCTURE	CLEAR COVERAGE
SURFACE CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH	3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER	
#5 BAR OR SMALLER	1½"
#6 BAR TO #18 BAR	2"
FORMED SLABS, WALLS AND JOISTS NOT EXPOSED TO EARTH OR WEATHER	¾" **

   **MAX COARSE AGGREGATE SIZE FOR ¾" COVER IS ½" NOMINAL DIAMETER

   FORMED BEAMS AND COLUMNS NOT EXTERIOR SLABS AND EQUIPMENT PADS..... 1½"

8. THE MINIMUM CLEAR SPACING BETWEEN PARALLEL REINF. BARS IN A LAYER SHALL BE EQUAL TO THE BAR DIAMETER, BUT NOT LESS THAN ONE INCH.
9. CAST IN PLACE OPENING, POCKETS, ETC. LARGER THAN 6" SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, OR WALLS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC LARGER THAN 6" WHICH ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS.
10. CAST IN PLACE STRUCTURAL CONCRETE SHALL NOT BE CUT OR CORED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
11. ALL REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI 315 DETAILING MANUAL.
12. ALL REINFORCING STEEL SHALL BE SECURELY HELD IN PROPER POSITION WHILE POURING CONCRETE. IF REQUIRED, ADDITIONAL BARS AND STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR TO FURNISH SUPPORT TO THE REINFORCING STEEL.
13. NO PIPES OR CONDUIT SHALL BE EMBEDDED IN THE STRUCTURAL CONCRETE FLOOR SLABS WITHOUT APPROVAL OF STRUCTURAL ENGINEER.
14. PROVIDE VAPOR BARRIER UNDER INTERIOR GROUND LEVEL SLABS.
15. ALL CONCRETE EXPOSED TO THE WEATHER SHALL BE AIR ENTRAINED. PROVIDE AIR CONTENT OF 4% TO 7%.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE FOLLOWING GRADES:
   ANGLES, PLATES, AND BARS.....ASTM A36
   WIDE FLANGE COLUMNS & BEAMS.....A572
   HSS COLUMNS & BEAMS.....ASTM A500 GRADE B
   PIPES.....A53, GRADE B
2. STEEL CONNECTION BOLTS TO BE ASTM A325. ANCHOR BOLTS TO BE ASTM F1554. WELDED STEEL CONNECTIONS TO BE MINIMUM 5/16" CONTINUOUS FILLET WELD, UNLESS LARGER WELDS ARE REQUIRED.
3. PROVIDE MINIMUM 3/4" THICK BASE PLATE WITH 4-½"Ø NUT AND WASHER TYPE ANCHOR BOLTS FOR COLUMNS (U.N.O.). EMBED ANCHOR BOLTS 12" MINIMUM IN CONCRETE (U.NO.)
4. WHERE STEEL COLUMNS ARE WITHIN STUD WALLS, ANCHOR STUDS TO STEEL USING A MINIMUM OF (2) HILTI X-U POWDER ACTUATED FASTENERS @ 8 INCHES O.C., UNO.
5. BOLTED CONNECTIONS SHALL BE AS FOLLOWS: MINIMUM BOLT DIAMETER ¾".
6. EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED IN AREAS WHERE STRUCTURAL STEEL ELEMENTS ARE EXPOSED TO THE ELEMENTS.
7. ALL CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR. CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD (E.O.R.) FOR REVIEW. THE CALCULATIONS SHALL BEAR THE SIGNATURE AND SEAL OF A MASSACHUSETTS REGISTERED STRUCTURAL ENGINEER.

WOOD & ENGINEERED WOOD CONSTRUCTION

1. DIMENSIONAL LUMBER TO BE SPRUCE-PINE-FIR (SPF) NO. 2 OR BETTER UNO.
2. ALL ENGINEERED LUMBER SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. ALTERNATE PRODUCTS SHALL NOT BE SUBSTITUTED UNLESS APPROVED IN WRITING BY ENGINEER OF RECORD.
4. LVL'S (LAMINATED VENEER LUMBER) TO BE f_b = 3100 PSI.
5. PSL'S (PARALLEL STRAND LUMBER) TO BE f_b = 2650 PSI.
6. PROVIDE SIMPSON CONNECTORS AT POST/BEAM, POST BASE, JOIST/BEAM AND BEAM/BEAM CONNECTIONS. USAGE AND INSTALLATION TO BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PROVIDE SIMPSON HURRICANE TIES AT ROOF RAFTER CONNECTIONS TO STUD WALL CONNECTIONS OR SUPPORTING BEAMS.
7. PROVIDE MINIMUM ¾" PLYWOOD SHEATHING FOR FLOORS AND ROOFS. PLYWOOD TO BE APA-RATED EXPOSURE 1 GRADE C-D (CDX). PROVIDE ⅛" SPACE BETWEEN EDGES OF ADJACENT PLYWOOD PANELS AND STAGGER PANEL JOINTS BETWEEN ROWS OF SHEATHING.
8. ALL PLYWOOD FLOOR AND ROOF SHEATHING SHALL BE GLUED AND SCREWED TO SUPPORTING WOOD FRAMING. GLUE SHALL CONSIST OF CONSTRUCTION GRADE ADHESIVE. SCREWS NOT TO BE PLACED WITHIN ⅜" OF PANEL EDGES. MAXIMUM SCREW SPACING TO BE 6", UNO. SCREWS TO BE MIN #8x2½" LONG. SCREW LENGTH SHALL BE SUFFICIENT TO PROVIDE EMBEDMENT OF 10X SCREW DIAM INTO FRAMING.
9. PROVIDE MINIMUM ½" PLYWOOD SHEATHING FOR EXTERIOR WALLS AND SHEAR WALLS. FASTEN SHEATHING TO STUDS WITH MINIMUM 8d NAILS @ 4" O.C..
10. PROVIDE CONTINUOUS BLOCKING ABOVE INTERIOR SHEAR WALLS.
11. MAXIMUM MOISTURE CONTENT OF DIMENSIONAL LUMBER AT TIME OF INSTALLATION TO BE 19%.
12. SILL PLATE ANCHOR BOLTS: PROVIDE ½"Ø ANCHOR BOLTS AT 3'. TWO BOLTS MINIMUM PER SILL PIECE WITH A BOLT WITHIN 10" OF EACH END OF EACH PIECE. BOLT SPACING SHALL BE COORDINATED PRIOR TO PLACING OF STUDS AND POSTS TO AVOID CONFLICTS. ALL BOLTS SHALL HAVE STEEL WASHERS.
13. PROVIDE PERPENDICULAR BLOCKING AT 32 INCHES O.C. BETWEEN ALL PERIMETER JOISTS AND EXTERIOR WALLS OR PERIMETER BEAMS.
14. STAND-ALONE WOOD POSTS OVER CONCRETE SHALL BEAR UPON SIMPSON POST BASE EMBEDDED IN OR ANCHORED TO CONCRETE FOUNDATION.
15. WASHERS SHALL ALWAYS BE INSTALLED BETWEEN BOLT HEADS OR NUTS AND WOOD OR ENGINEERED WOOD.

PRESSURE PRESERVATIVE TREATED (P.T.) WOOD

1. ALL P.T. LUMBER SHALL BE SOUTHERN PINE NO. 2 OR BETTER.
2. ALL P.T. LUMBER SHALL BE UNINCISED.
3. ALL WOOD IN CONTACT WITH THE GROUND, OR CONCRETE, OR EXPOSED TO THE WEATHER, SHALL BE PRESSURE-PRESERVATIVE TREATED AND SUITABLE FOR EXTERIOR USE AND GROUND CONTACT IN ACCORDANCE WITH AWPA STANDARDS, UNO.
4. FIELD-CUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD WITH COMPATIBLE PRESERVATIVE IN ACCORDANCE WITH AWPA M4.
5. ALL HARDWARE AND STEEL CONNECTORS USED IN CONTACT WITH P.T. LUMBER SHALL BE HOT-DIP GALVANIZED, STAINLESS STEEL, OR OTHERWISE NOTED BY THE MANUFACTURER AS APPROVED FOR EXTERIOR USE AND FOR CONTACT WITH ALL P.T. LUMBER PRESERVATIVES. CARE SHALL BE TAKEN NOT TO MIX GALVANIZED MILD STEEL WITH STAINLESS STEEL IN CONNECTIONS.

MASONRY

1. CONCRETE MASONRY UNITS TO BE ASTM C55
2. MORTAR FOR USE IN FOUNDATIONS WALLS, RETAINING WALLS, AND BELOW-GRADE CMU TO BE ASTM C270 TYPE M. ADMIXTURES ARE NOT ALLOWED.
3. MORTAR FOR USE IN ABOVE GRADE STRUCTURAL MASONRY WALLS TO BE ASTM C270 TYPE S.
4. MORTAR FOR USE IN NON-STRUCTURAL ABOVE GRADE WALLS/VENEERS TO BE ASTM C270 TYPE S OR TYPE N
5. GROUT TO CONFORM TO ASTM C476, FINE, WITH A MINIMUM STRENGTH OF 3000 PSI.
6. REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615 GRADE 60.
7. MASONRY OPENINGS FOR MORE THAN 16" WIDE REQUIRE APPROVED LINTELS.
8. PROVIDE AND INSTALL LINTELS FOR VENEER OPENINGS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

MAX OPENINGS	LINTEL PER 4" OF MASONRY WIDTH
4'-0"	1-L4x4x5/16
7'-0"	1-L6x4x5/16

9. PROVIDE 1-#5 VERTICAL REINFORCING BAR AT 32" O.C. AT CMU WALLS, UNO. THIS REINFORCING SHALL BE CONTINUOUS FOR THE FULL HEIGHT OF THE WALL. MASONRY BLOCK CELLS CONTAINING VERTICAL REINFORCING SHALL BE GROUTED SOLID. FILLING CELLS WITH MORTAR IS NOT ACCEPTABLE.
10. REINFORCED MASONRY WALLS SHALL HAVE 9 GA LONGITUDINAL WIRES, LADDER OR TRUSS TYPE, AT 16 INCHES O.C. HORIZONTAL REINFORCEMENT, UNO.
11. PROVIDE BOND BEAM AT EACH FLOOR LEVEL AND 8 FEET ON CENTER VERTICALLY.

ABBREVIATION LIST

ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B or BOT	BOTTOM
BEW	BOTTOM EACH WAY
BM	BEAM
BS	BOTH SIDES
CANT	CANTILEVER
CIP	CAST-IN-PLACE
CJ	CONTROL JOINTS
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
D	DEPTH
DIA or Ø	DIAMETER
DIM	DIMENSION
DIR	DIRECTION
DWG	DRAWING
DWLS	DOWELS
EA	EACH
EE	EACH END
EF	EACH FACE
EL or ELEV	ELEVATION
EQ	EQUAL
ES	EACH SIDE
EW	EACH WAY
EXIST	EXISTING
EXP BOLT	EXPANSION BOLT
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FD	FLOOR DRAIN
FF	FAR FACE
FIN	FINISH
FIN FL	FINISHED FLOOR
FL	FLOOR
FND	FOUNDATION
FP	FULL PENETRATION
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GND	GROUND
GR	GRADE
GUS PL	GUSSET PLATE
H or HORIZ	HORIZONTAL
HEF	HORIZONTAL EACH FACE
HIF	HORIZONTAL INSIDE FACE
HOF	HORIZONTAL OUTSIDE FACE
HP	HIGH POINT
HSB	HIGH STRENGTH BOLT
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
INT	INTERIOR
INV	INVERT
JST	JOIST
JT	JOINT
K	KIP (1000 POUNDS)
LL	LOWER LAYER
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
LP	LOW POINT
LW	LIGHTWEIGHT
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MID	MIDDLE
MID-PT	MIDPOINT
MIN	MINIMUM
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO or #	NUMBER
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
OC or O/C	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
P/C	PRE-CAST
PC	PILE CAP
PCI	PRECAST CONCRETE INSTITUTE
PEN	PENETRATION
PL	PLATE
PSF	POUNDS/SQUARE FOOT
PSI	POUNDS/SQUARE INCH
PT	PRESSURE-TREATED
PVC	POLYVINYL CHLORIDE
R or RAD	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCE or REINFORCEMENT/ING
REQ'D	REQUIRED
RET	RETURN
REV	REVISION
SAD	SEE ARCHITECTS DRAWINGS
SC	SLIP CRITICAL
SCHED	SCHEDULE
SECT	SECTION
SF	STEP FOOTING
SIM	SIMILAR
SOG	SLAB ON GROUND / GRADE
SPECS	SPECIFICATIONS
SS	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STR	STRUCTURAL
T	TOP
TB	TIE BEAM
TEMP	TEMPORARY
THK	THICK or THICKNESS
THRD	THREADED
T/SLAB	TOP OF SLAB
TOC	TOP OF CONCRETE
TOS or T/ST	TOP OF STEEL
TOW or T/W	TOP OF WALL
TYP	TYPICAL
UL	UPPER LAVER UNLESS NOTED OTHERWISE
UNO	
V or VERT	VERTICAL
VEF	VERTICAL EACH FACE
VIF	VERIFY IN FIELD
VOF	VERTICAL OUTSIDE FACE
W/	WITH
W/O	WITHOUT
WP	WORKING POINT
WWF	WELDED WIRE FABRIC

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
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F 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
F 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

11/13/25

COMMONWEALTH OF MASSACHUSETTS
SCOTT FOREST
STRUCTURAL
NO. 54896
REGISTERED
PROFESSIONAL ENGINEER

STAMP

SCALE: 1" = 1'-0"

GENERAL NOTES

S0.00

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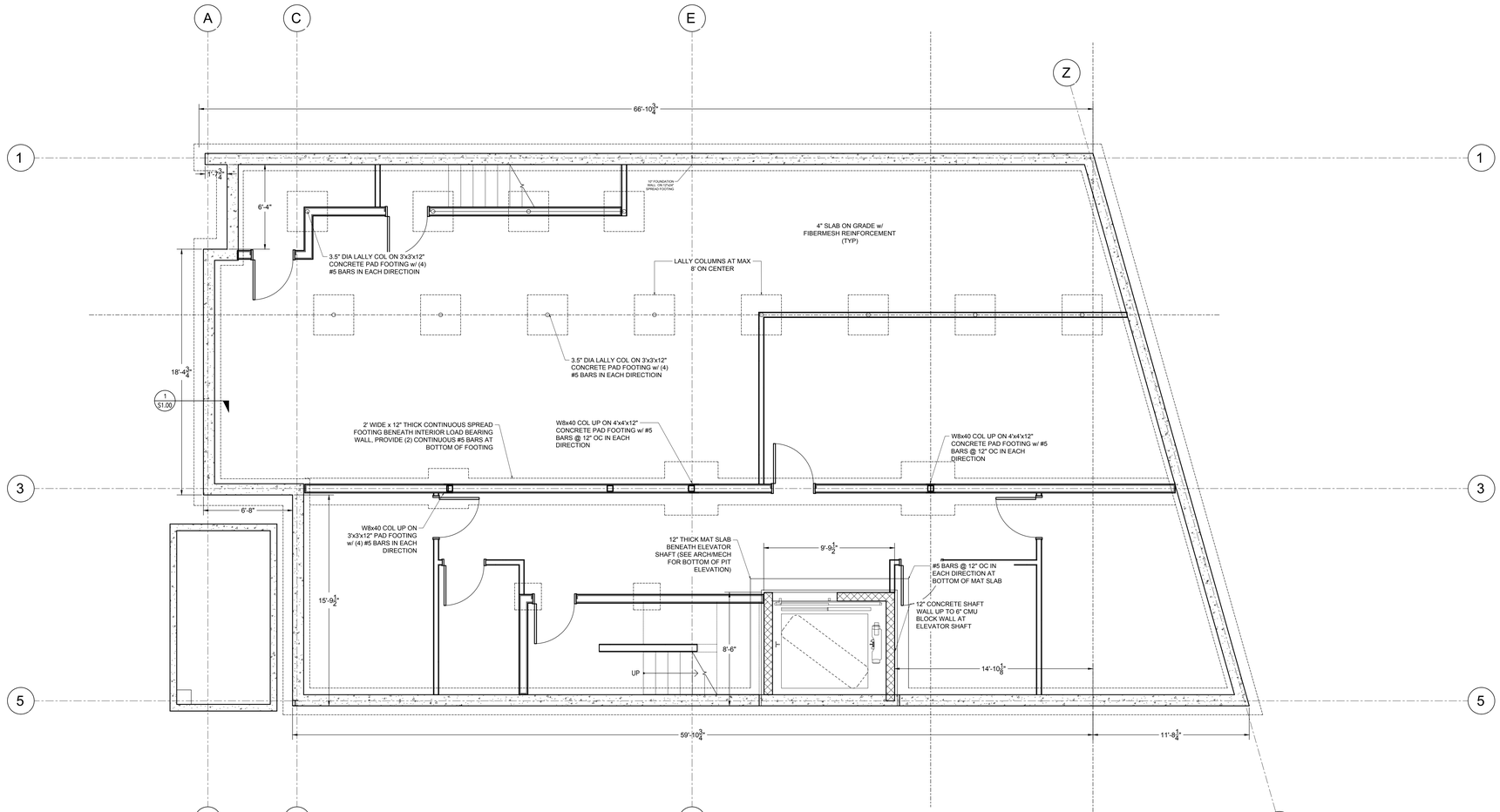
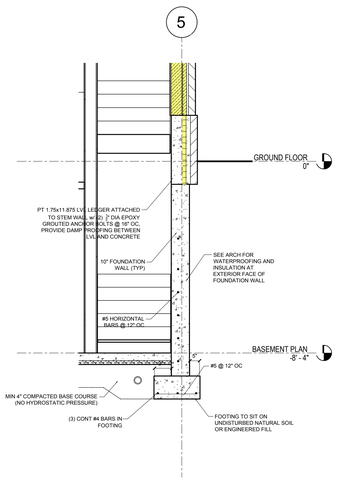
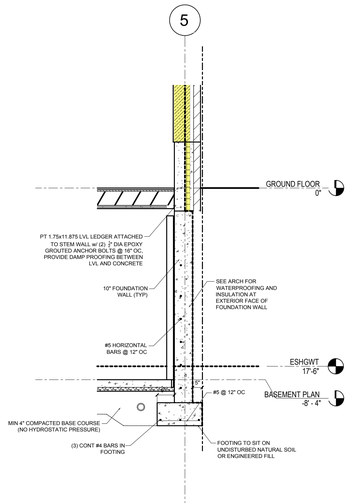


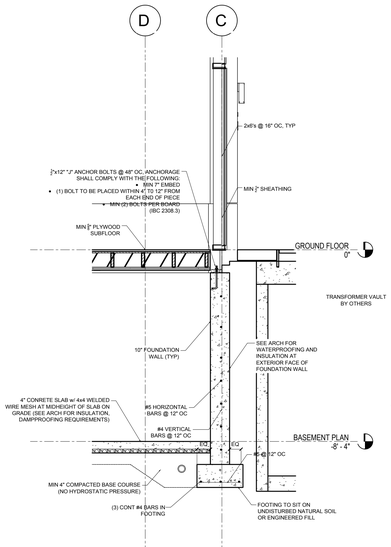
A PROPOSED FOUNDATION PLAN
1/4" = 1' - 0"



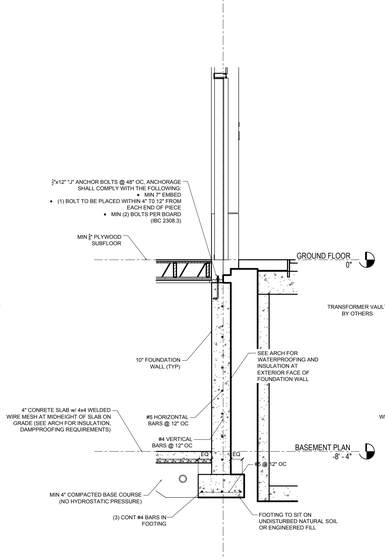
5 WALL SECTION- SOUTH 2
3/8" = 1' - 0"



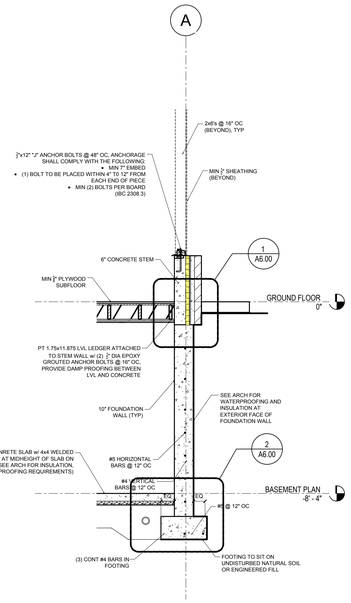
4 WALL SECTION- SOUTH 1
3/8" = 1' - 0"



3 WALL SECTION- WEST 3
3/8" = 1' - 0"



2 WALL SECTION- WEST 2
3/8" = 1' - 0"



1 WALL SECTION- WEST 1
3/8" = 1' - 0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
F 617-888-0552 **OWNER**

NEIGHBOR
NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
F 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
F 617 718 0889 **LANDSCAPE**

FOREST STRUCTURAL ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
F 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
F 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
F 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

F 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

11/18/25

COMMONWEALTH OF MASSACHUSETTS
SCOTT FOREST
STRUCTURAL
NO. 54896
REGISTERED
PROFESSIONAL ENGINEER

STAMP

SCALE: 1/4" = 1'-0"

FOUNDATION PLAN

S1.00

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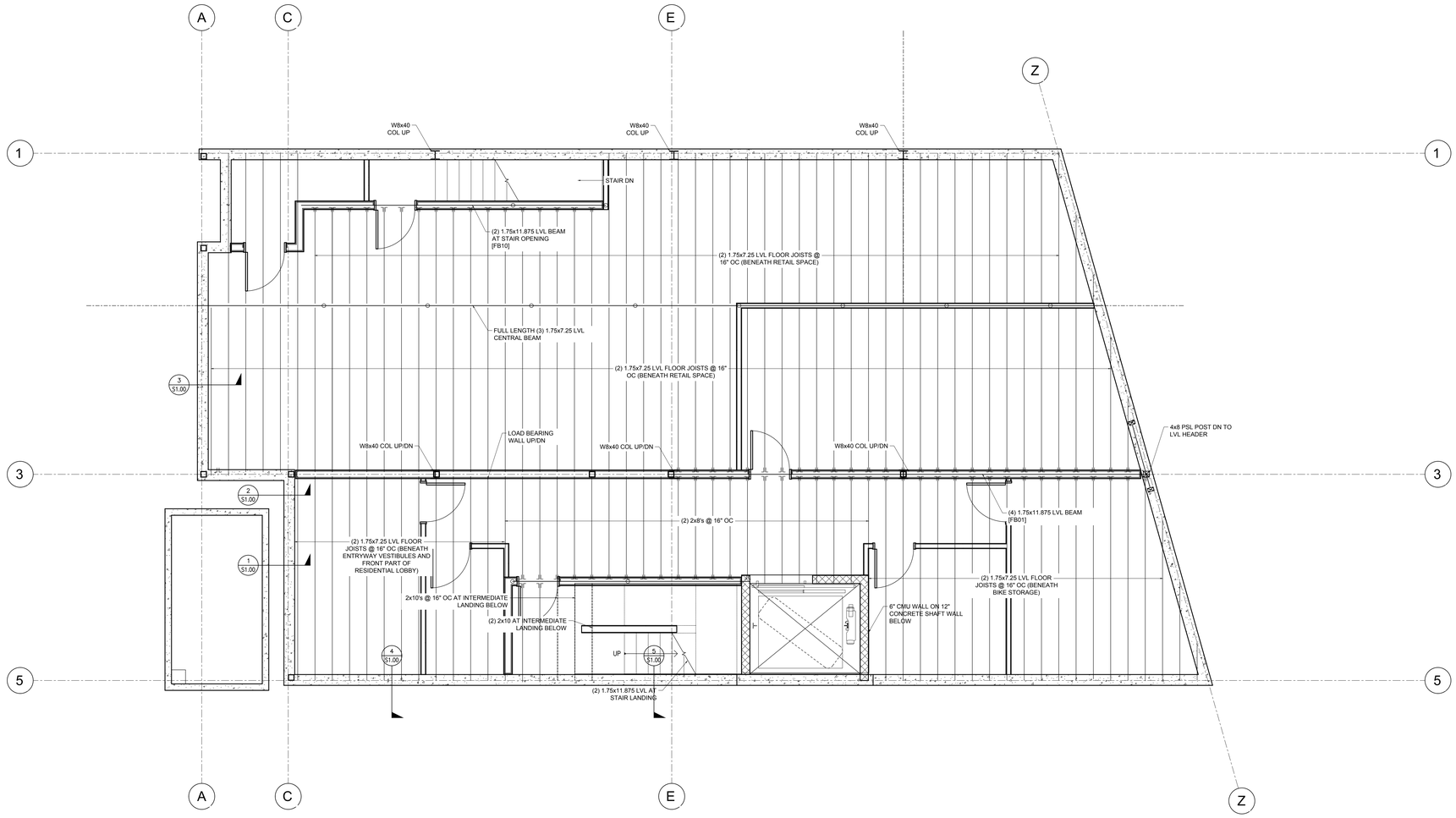

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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F 617-888-0552 **OWNER**

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VvS ARCHITECTS & CONSULTANTS

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KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

11/13/25

COMMONWEALTH OF MASSACHUSETTS
SCOTT FOREST
STRUCTURAL
NO. 54896
REGISTERED
PROFESSIONAL ENGINEER

STAMP

SCALE: 1/4" = 1'-0"

FIRST FLOOR FRAMING PLAN

S1.01

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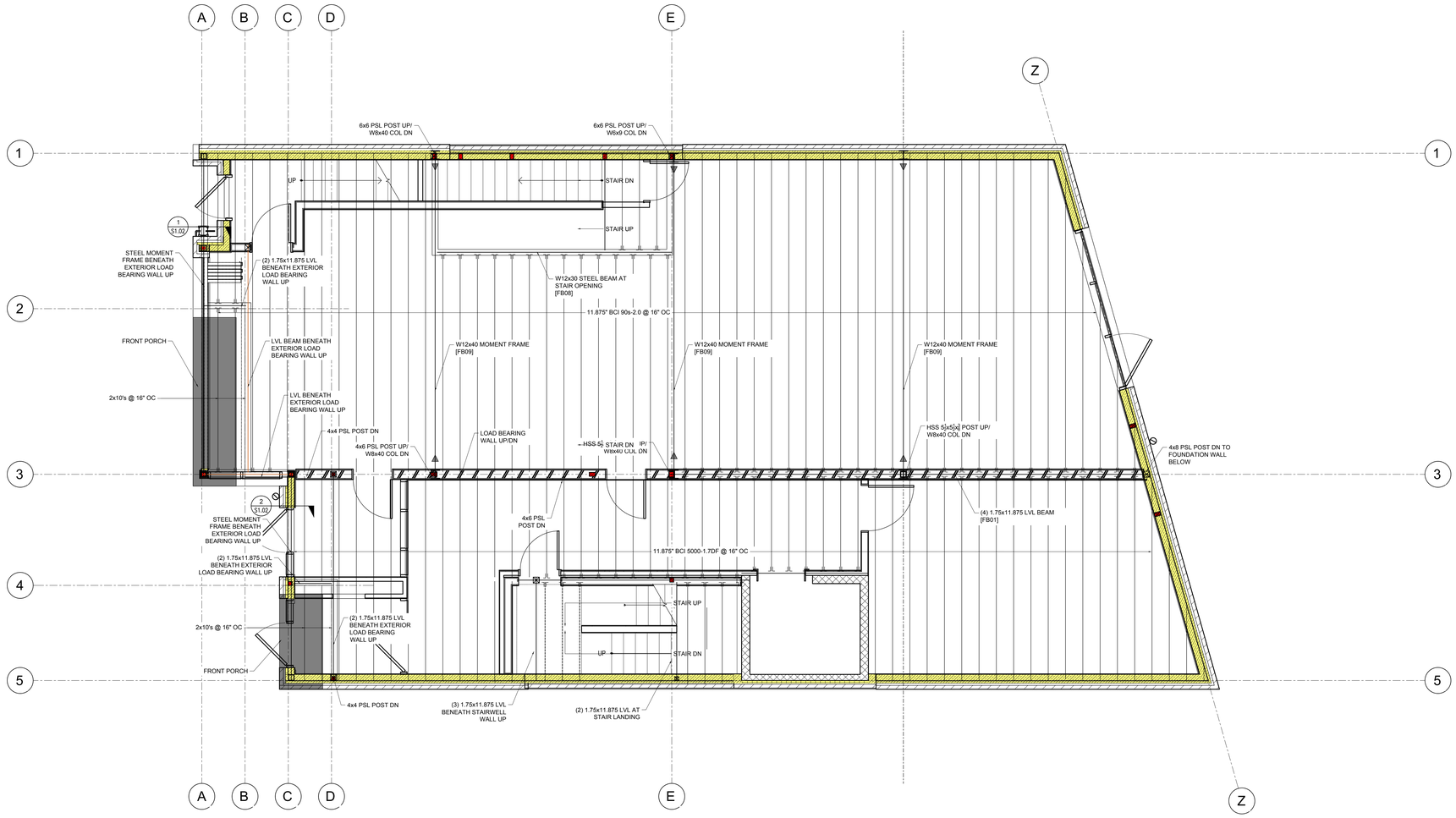
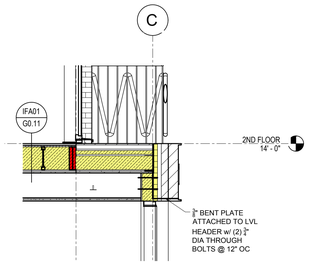
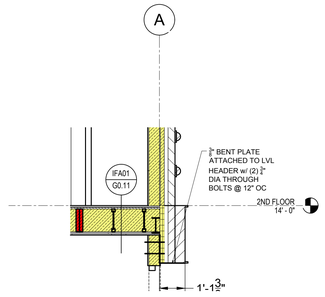




2 WALL SECTION- WEST 3
3/8" = 1' - 0"



1 WALL SECTION- WEST 1
3/8" = 1' - 0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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F 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
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HOWARD STEIN HUDSON

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BOSTON, MA 02108
F 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
F 617 718 0889 **LANDSCAPE**

FOREST STRUCTURAL ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
F 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
F 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
F 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

F 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

11/13/25

COMMONWEALTH OF MASSACHUSETTS
SCOTT FOREST
STRUCTURAL
NO. 54896
REGISTERED
PROFESSIONAL ENGINEER

STAMP

SCALE: 1/4" = 1'-0"

2ND FLOOR FRAMING PLAN

S1.02

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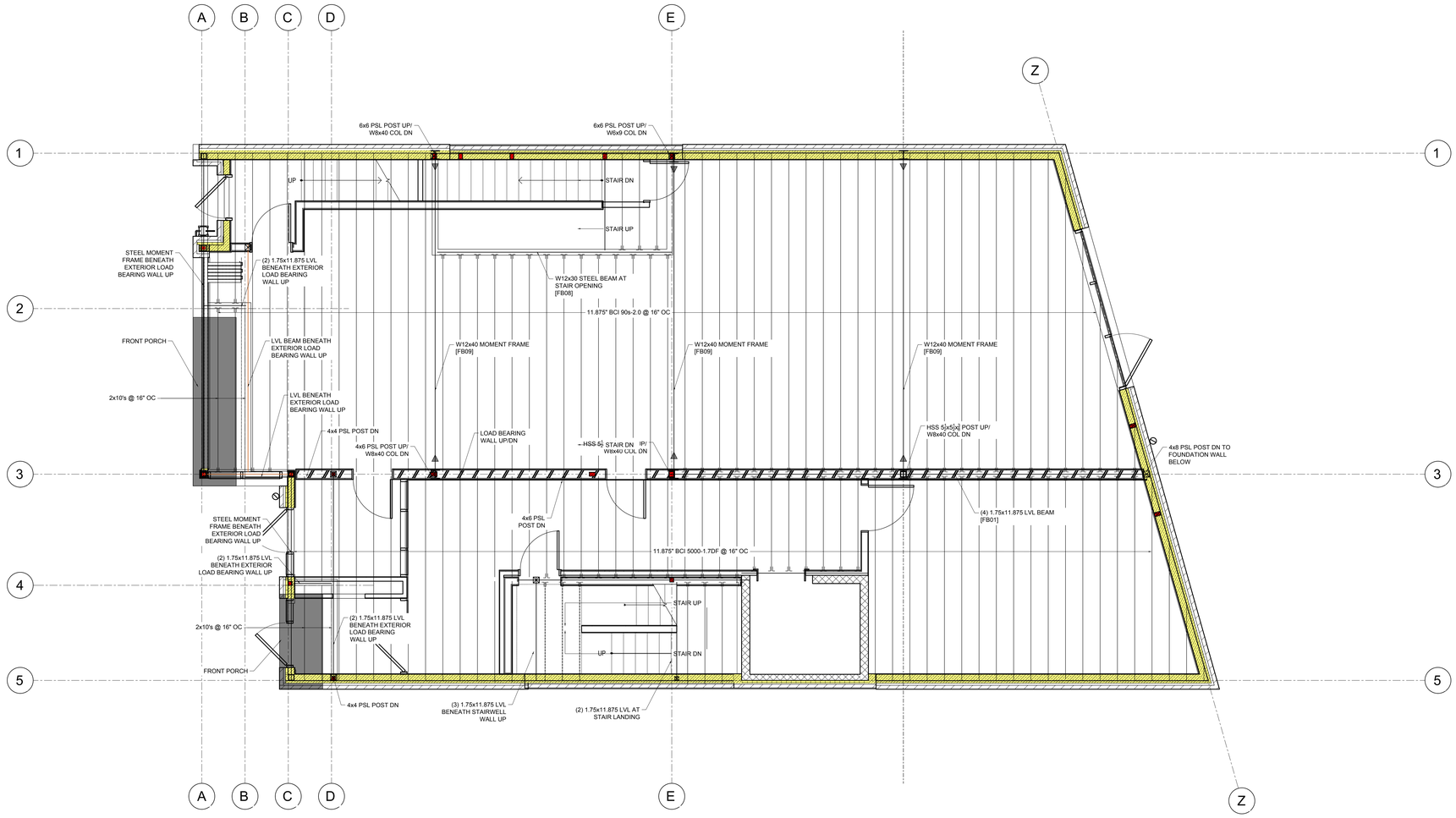

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
F 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
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CAMBRIDGE, MA 02139
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HOWARD STEIN HUDSON

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GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
F 617 718 0889 **LANDSCAPE**

FOREST STRUCTURAL ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
F 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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QUINCY, MA 02171
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SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
F 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

F 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

11/13/25

COMMONWEALTH OF MASSACHUSETTS
SCOTT FOREST
STRUCTURAL
NO. 54896
REGISTERED
PROFESSIONAL ENGINEER

STAMP

SCALE: 1/4" = 1'-0"

3RD FLOOR FRAMING PLAN

S1.03

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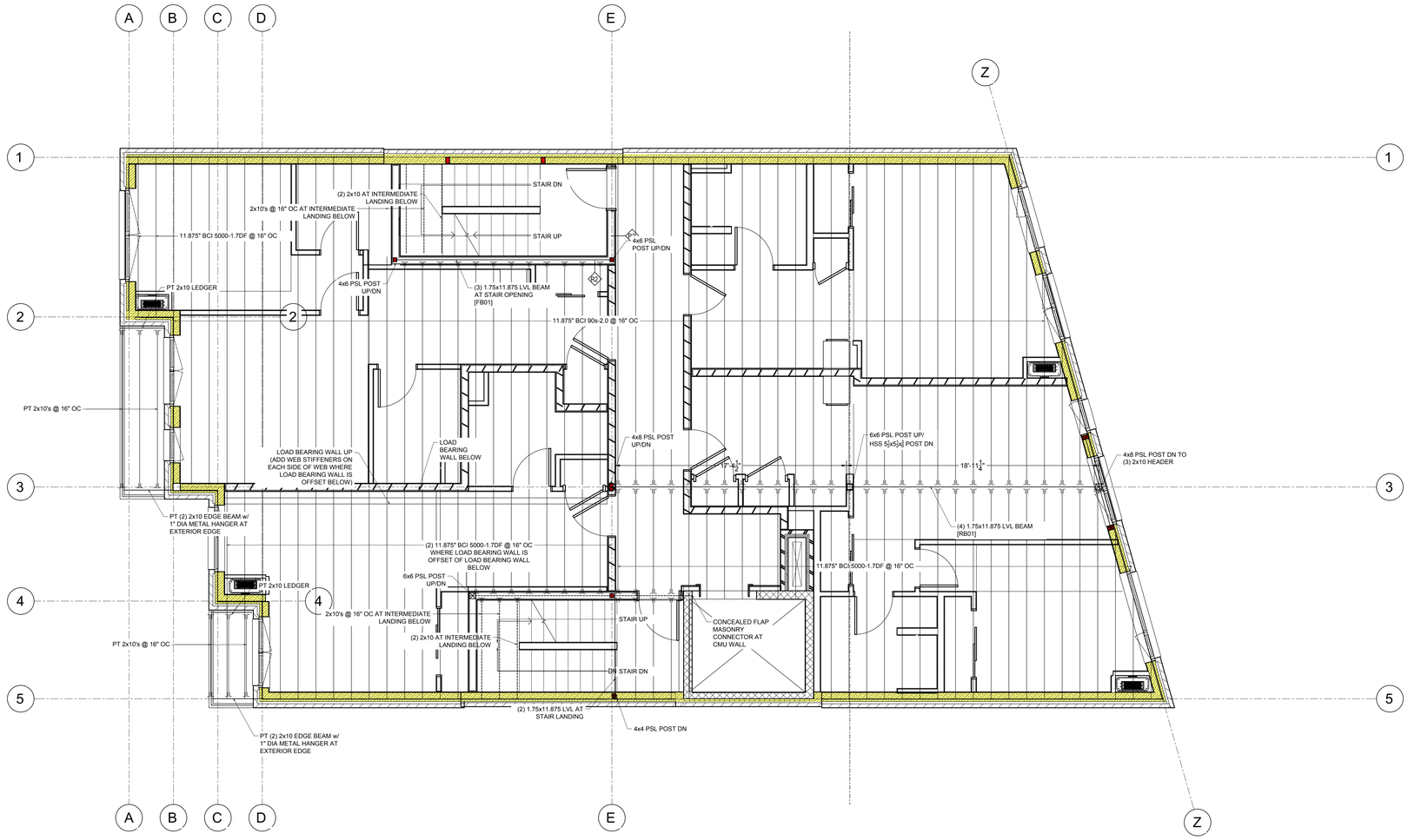

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
F 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

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GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
F 617 718 0889 **LANDSCAPE**

FOREST STRUCTURAL ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
F 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
F 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
F 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

F 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

11/18/25

COMMONWEALTH OF MASSACHUSETTS
SCOTT FOREST
STRUCTURAL
NO. 54696
REGISTERED
PROFESSIONAL ENGINEER

STAMP

SCALE: 1/4" = 1'-0"

4TH FLOOR FRAMING PLAN

S1.04

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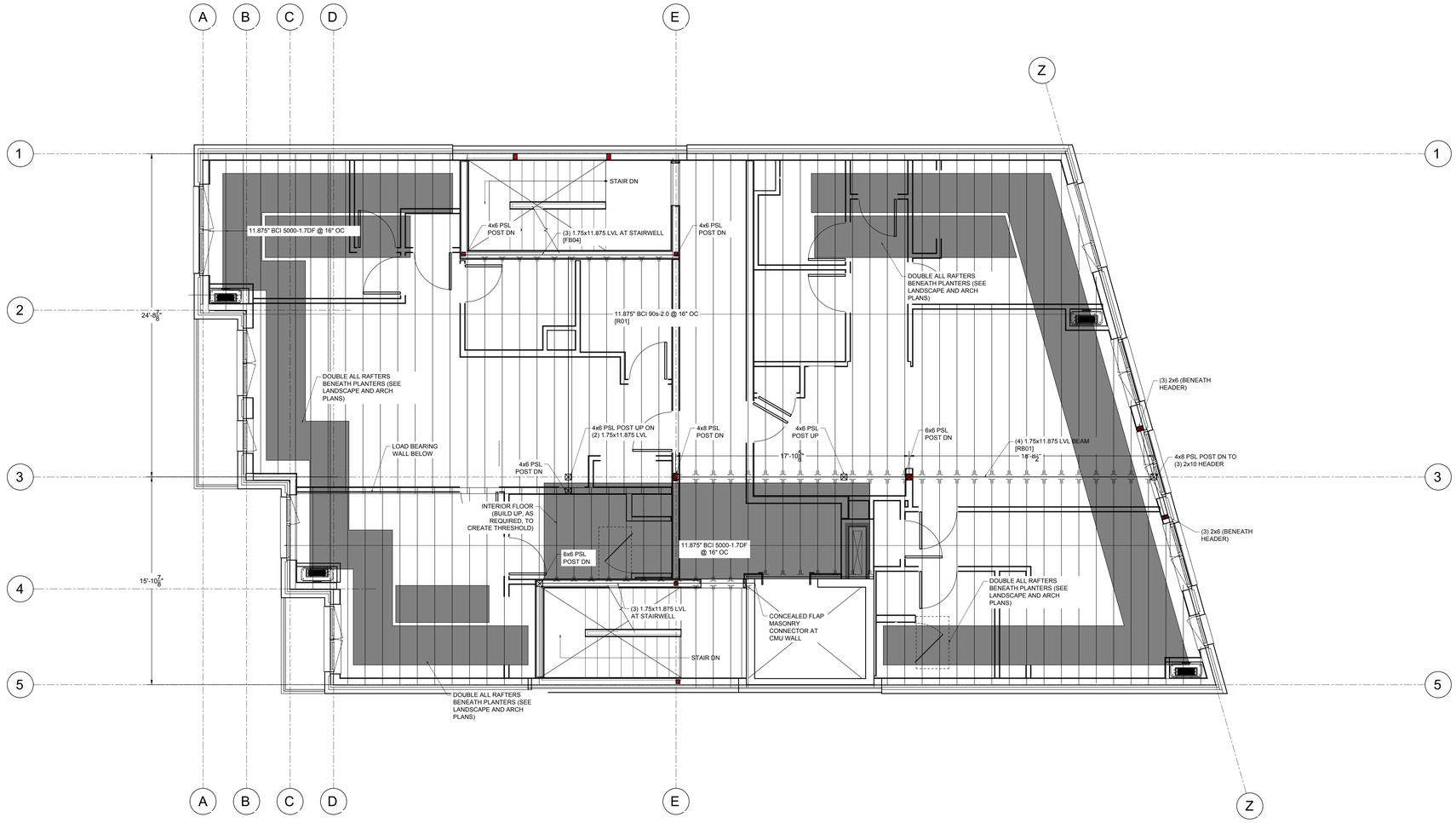

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
F 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
F 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
F 617 718 0889 **LANDSCAPE**

FOREST STRUCTURAL ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
F 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
F 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
F 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

F 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

11/13/25

COMMONWEALTH OF MASSACHUSETTS
SCOTT FOREST
STRUCTURAL
NO. 54896
REGISTERED
PROFESSIONAL ENGINEER

STAMP

SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN

S1.05

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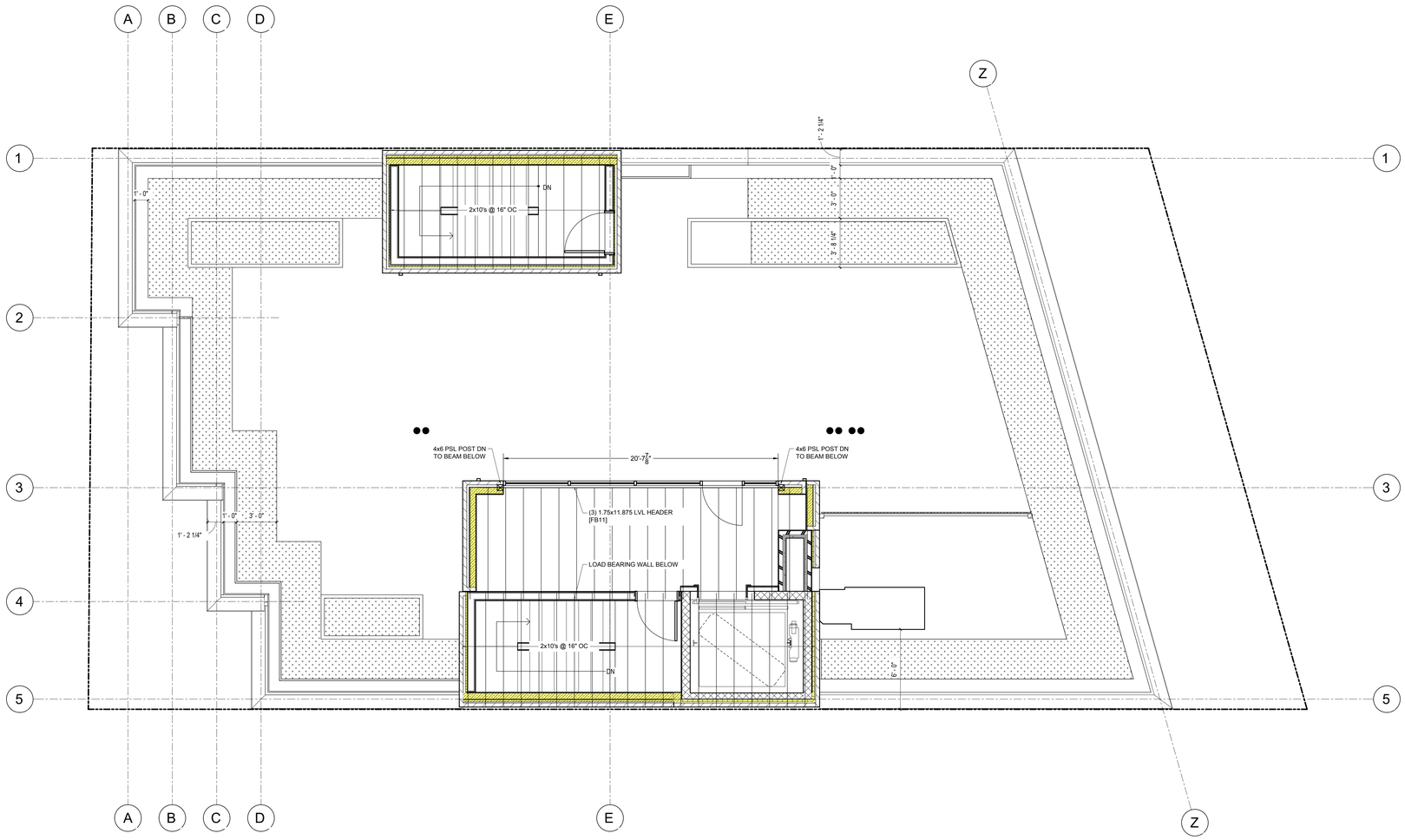

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST STRUCTURAL ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

KEY PLAN

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

11/13/25

COMMONWEALTH OF MASSACHUSETTS
SCOTT FOREST
STRUCTURAL
NO. 54896
REGISTERED
PROFESSIONAL ENGINEER

STAMP

SCALE: $\frac{1}{4}$" = 1'-0"

ROOF HEADHOUSE FRAMING PLAN

S1.06

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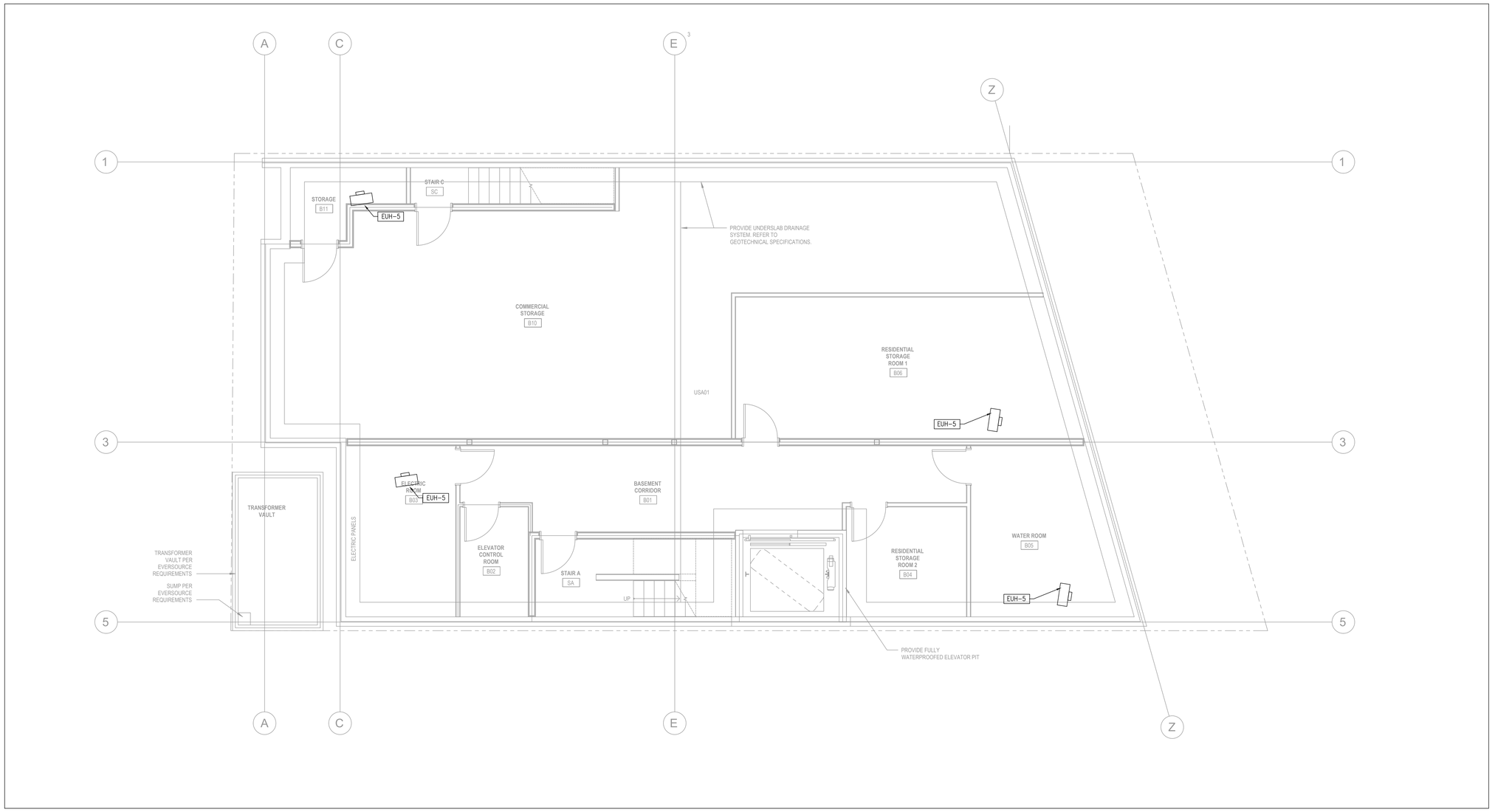


1 LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51895
REGISTERED PROFESSIONAL ENGINEER

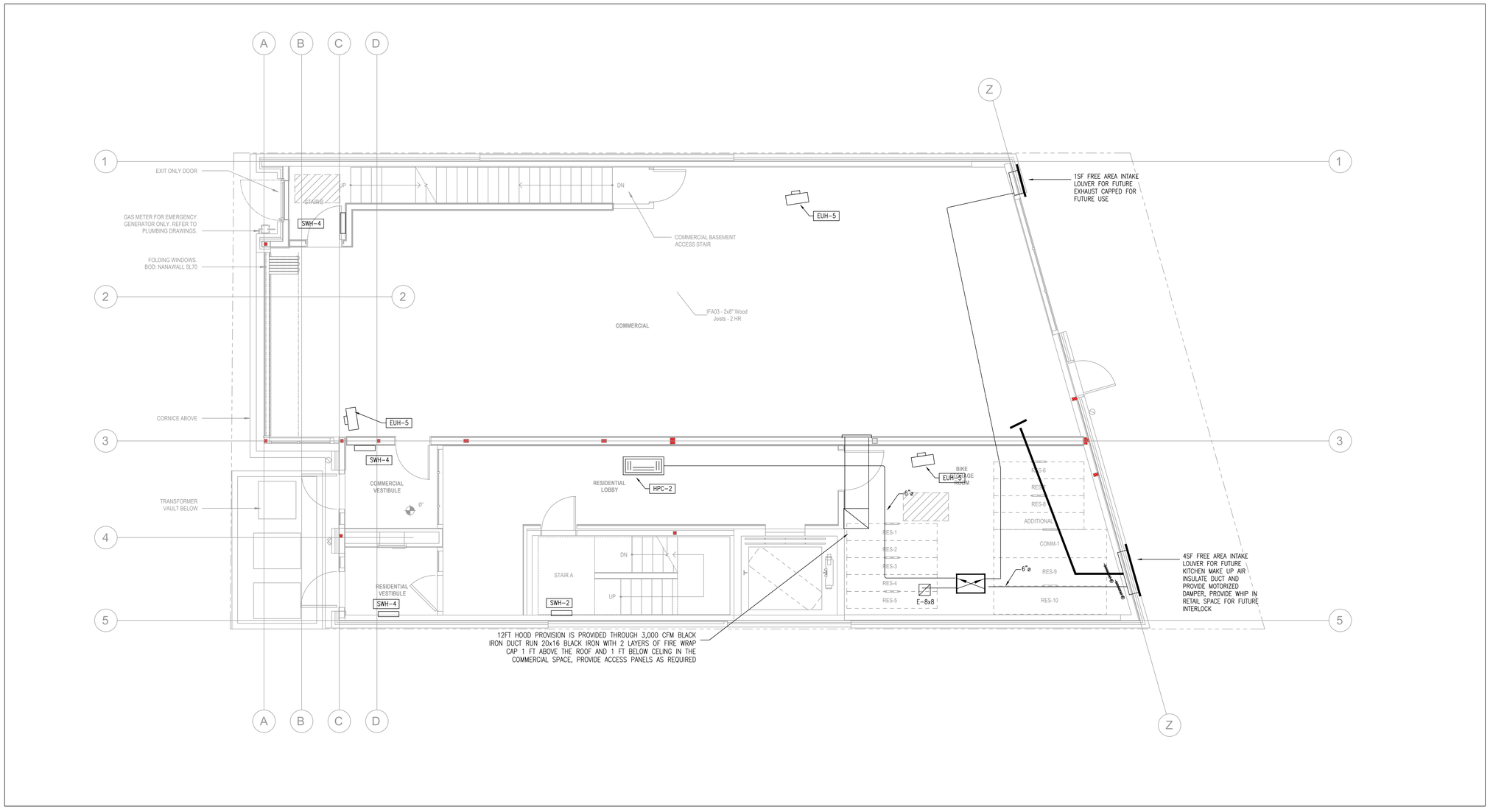
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

MECHANICAL
FLOOR PLAN - LOWER LEVEL

M1.00



1 FIRST FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51899
REGISTERED PROFESSIONAL ENGINEER

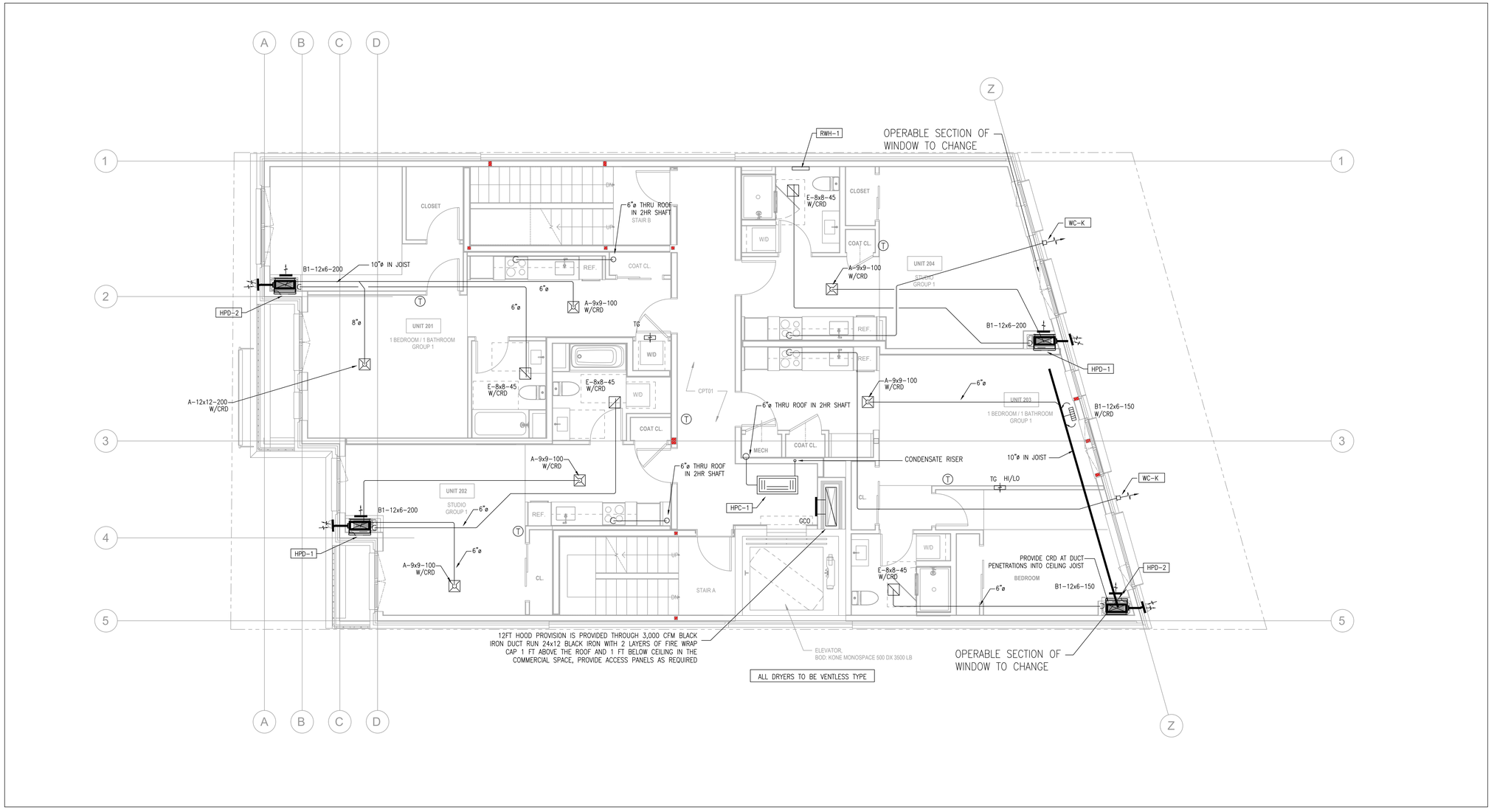
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

MECHANICAL
FLOOR PLAN - FIRST FLOOR

M1.01



1 SECOND FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

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BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER MECHANICAL
No. 51896
REGISTERED PROFESSIONAL ENGINEER

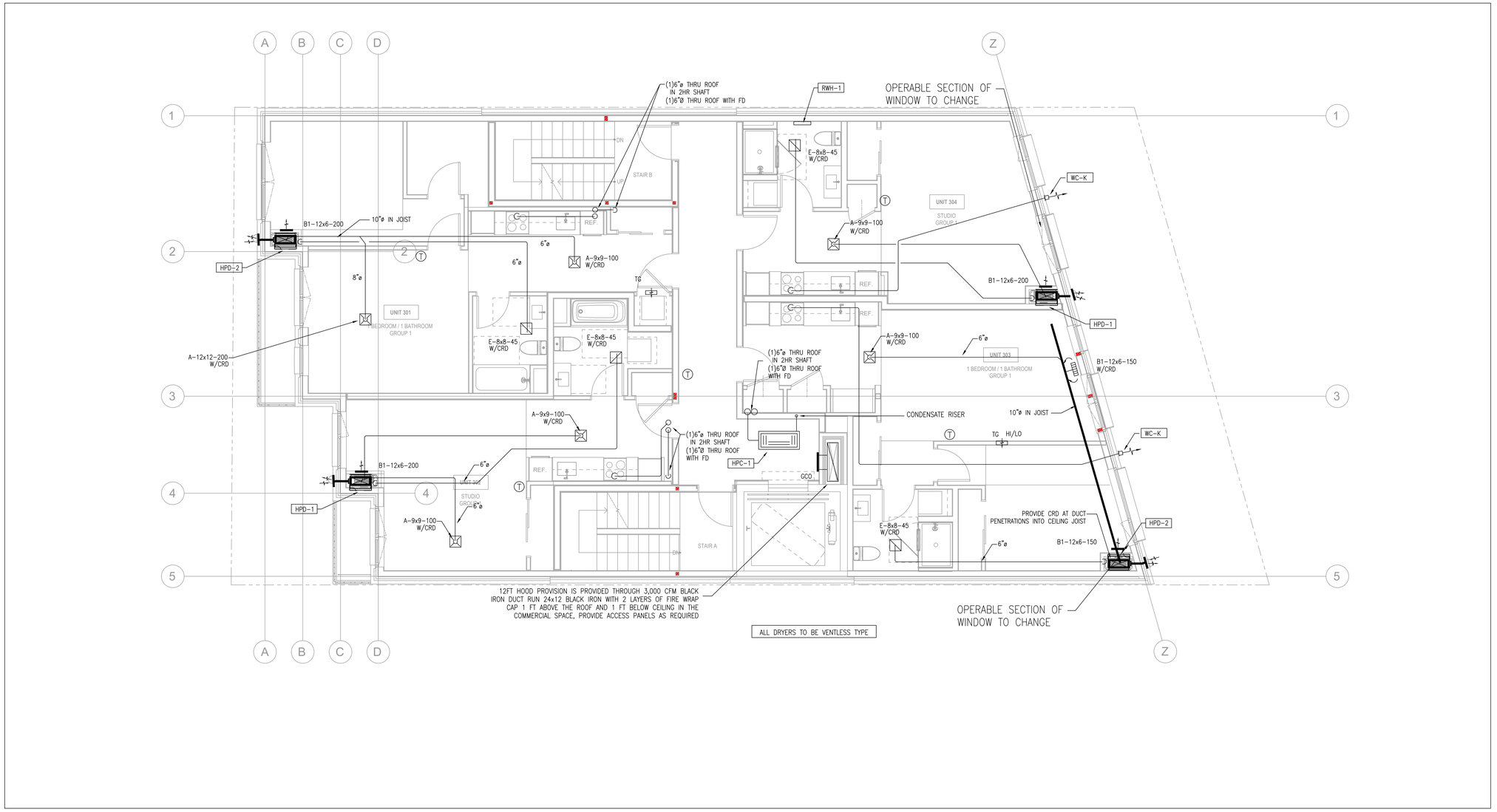
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

MECHANICAL
FLOOR PLAN - SECOND FLOOR

M1.02



1 THIRD FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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P 617-888-0552 **OWNER**

NEIGHBOR

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BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

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P 617 447 8030 **STRUCTURAL**

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P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS &
CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51899
REGISTERED
PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

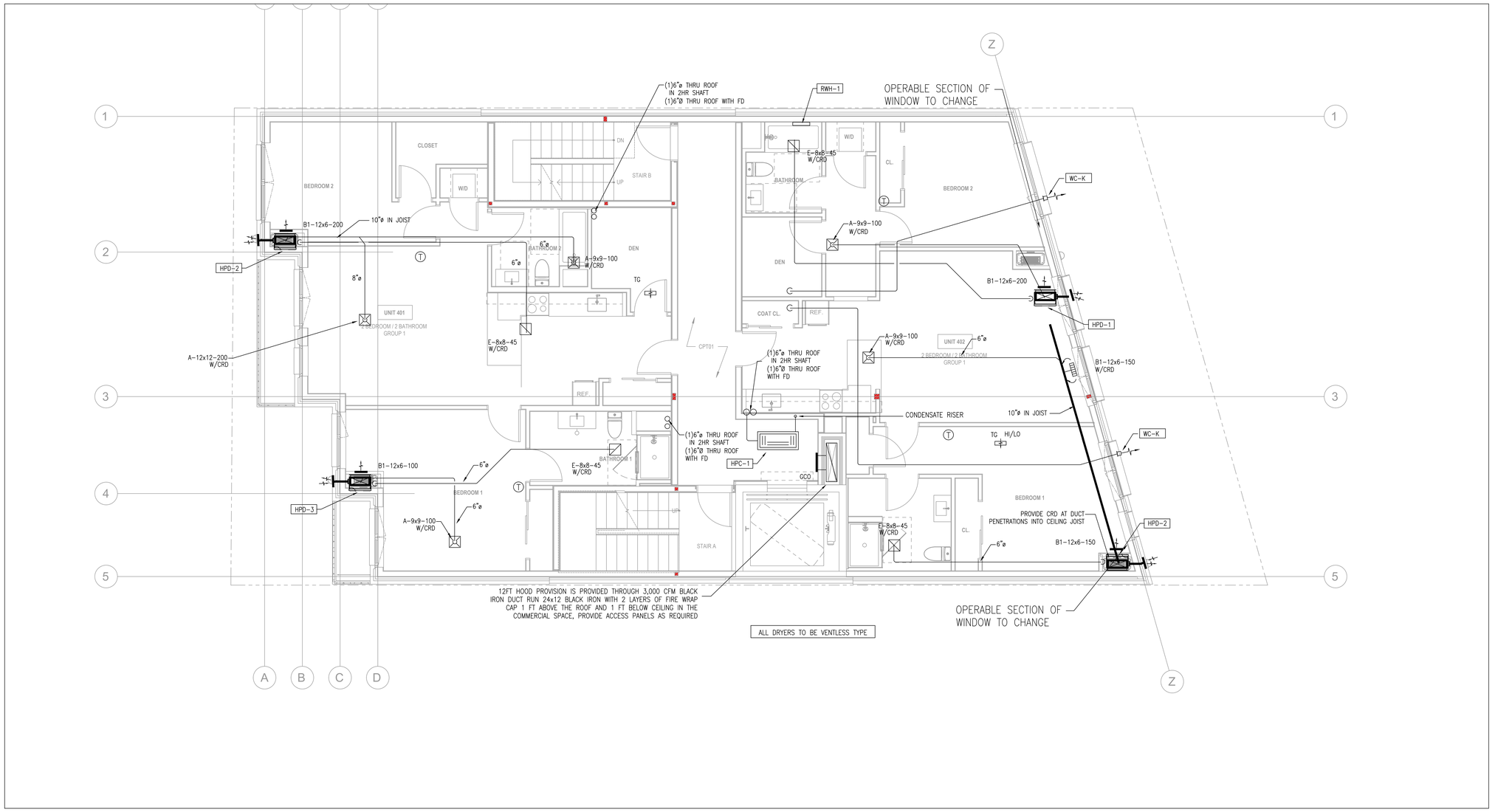
STAMP

SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

MECHANICAL
FLOOR PLAN - THIRD
FLOOR

M1.03



1 FOURTH FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

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P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

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BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

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P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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P 617 338 4406 **MEPFP**

SLS CONSULTING

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BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS &
CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51899
REGISTERED
PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

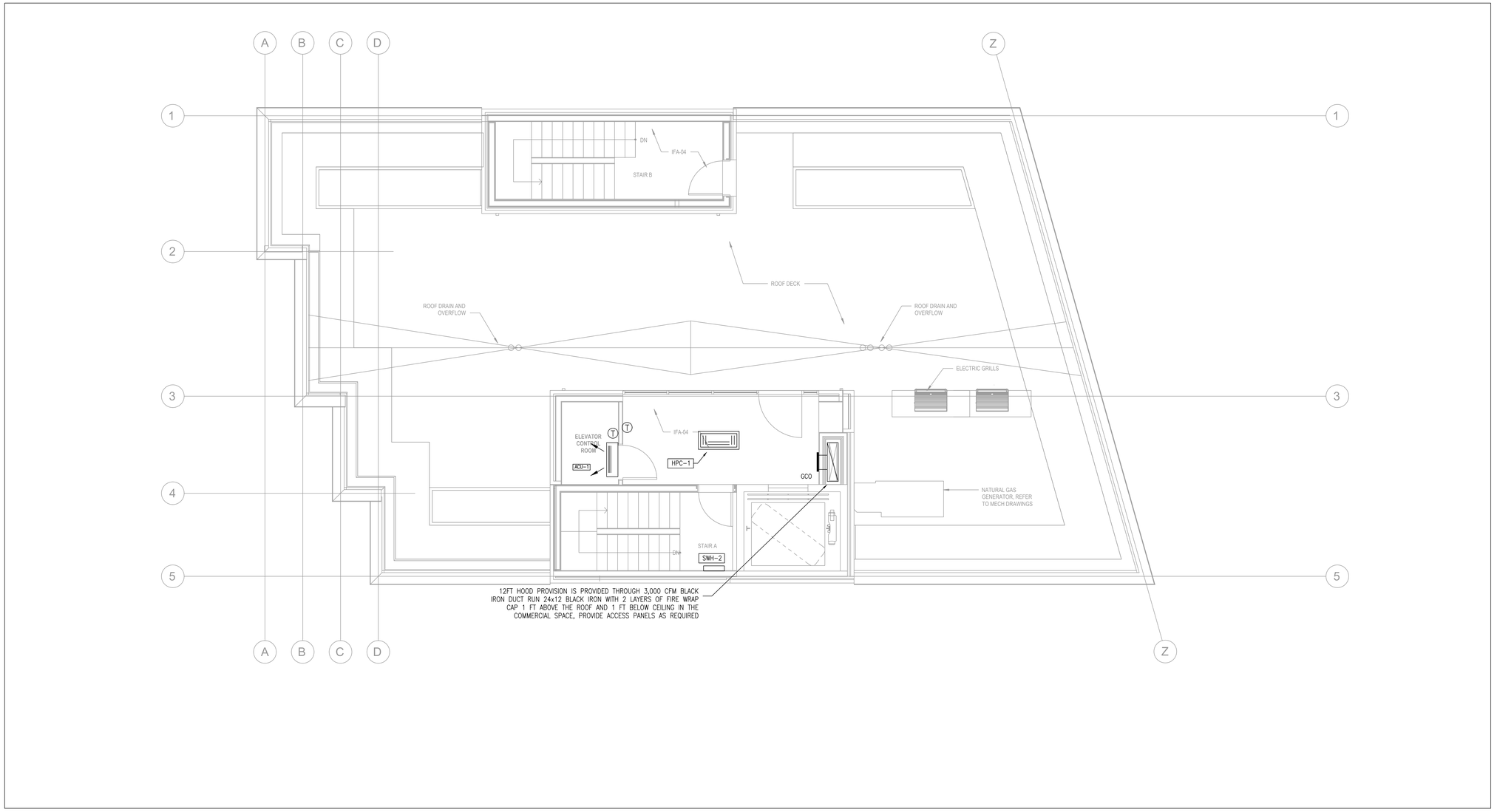
STAMP

SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

MECHANICAL
FLOOR PLAN - FOURTH
FLOOR

M1.04



1 ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
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P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51895
REGISTERED PROFESSIONAL ENGINEER

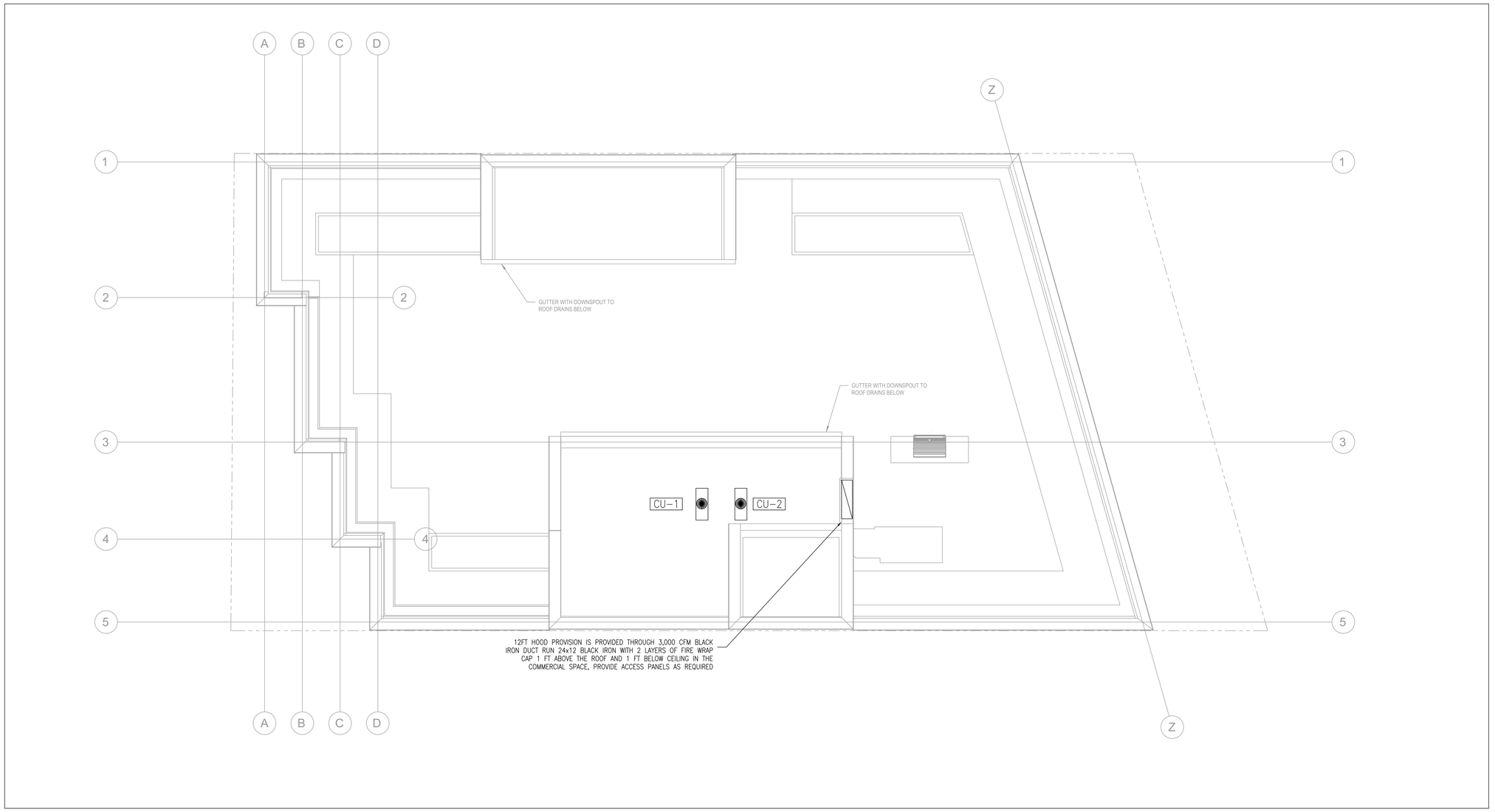
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

MECHANICAL
FLOOR PLAN - ROOF

M1.05



1 BULKHEAD ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51899
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: **As indicated**
NEIGHBOR PROJECT NUMBER: **2418**

MECHANICAL
FLOOR PLAN - BULKHEAD ROOF

M1.06

GENERAL NOTES

1. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO EXECUTE THE WORK SHOWN AND DESCRIBED. INSTALLATION OF MATERIALS SHALL MEET ALL APPLICABLE STATE, FEDERAL AND MUNICIPAL REQUIREMENTS.
2. OBTAIN PERMITS AND PAY ALL FEES FOR WORK AND REQUIRED INSPECTIONS.
3. MAINTAIN LIABILITY INSURANCE TO PROTECT OWNER AND THE CONTRACTOR FROM ANY AND ALL CLAIMS UNDER THE WORKER'S COMPENSATION ACT.
4. THE DRAWINGS SHALL CONSIDERED DIAGRAMMATIC ONLY. ALL MEASUREMENTS SHALL BE TAKEN FROM BUILDING SITE AND ARCHITECT'S DRAWINGS.
5. PROVIDE TEMPORARY MATERIAL STORAGE AS REQUIRED AND BE RESPONSIBLE FOR ANY LOSS OR DAMAGE THERETO.
6. SUBMIT DIGITAL COPIES OF SHOP DRAWINGS FOR REVIEW COVERING MAJOR MANUFACTURED ITEMS, IE. AIR HANDLING UNITS, REGISTERS & DIFFUSERS, WIRING DIAGRAMS, ETC.
7. KEEP ACCURATE RECORD OF "AS-BUILT" DRAWINGS AND SUBMIT THESE BEFORE FINAL CERTIFICATE OF COMPLETION.
8. ON COMPLETION OF THE WORK, REMOVE FROM THE PREMSES ALL TOOLS, DEBRIS, SURPLUS AND WASTE MATERIALS RESULTING FROM OPERATIONS UNDER THIS SECTION. CLEAN ALL EQUIPMENT AND LEAVE ALL ITEMS IN PERFECT ORDER READY FOR OPERATION.
9. AFTER ACCEPTANCE, INSTRUCT OWNER IN EQUIPMENT OPERATION AND PROVIDE HIM WITH OPERATING AND MAINTENANCE MANUALS STANDARDS AND EXTENDED WARRANTY DOCUMENTS, INSPECTION CERTIFICATES AND COPIES OF SHOP DRAWINGS OF INSTALLED EQUIPMENT.
10. THE CONTRACTOR SHALL, BEFORE FINAL PAYMENT IS MADE, GUARANTEE ALL MATERIALS AND WORKMANSHIP SUPPLIED BY HIM IN THE PERFORMANCE OF THIS CONTRACT FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AND SHALL, WHEN CALLED UPON, MAKE GOOD WITHOUT FURTHER COST TO THE OWNER SUCH DEFECTS AS MAY APPEAR WITHIN THIS PERIOD.
11. SUPPLY AND INSTALL DUCTWORK AS INDICATED ON DRAWING. DUCTWORK SHALL BE FABRICATED AND INSTALLED IN STRICT ACCORDANCE WITH LATEST ASHRAE & SMACNA STANDARDS AND SHALL BE MANUFACTURED OF GALVANIZED STEEL UNLESS SPECIFICALLY NOTED OTHERWISE.
12. ADJUST ALL FAN SPEEDS TO DELIVER SHOWN AIR QUANTITIES. BALANCE ALL AIR SYSTEMS AND SUPPLY WRITTEN AIR BALANCING REPORTS IN TRIPLICATE. INCLUDE NECESSARY SPARE BELTS AND PULLEYS FOR FIELD ADJUSTMENT.
13. ALL VALVES AND FITTINGS SHALL BE SUITABLE FOR THIS PARTICULAR PIPING APPLICATION AND MINIMUM 150LBS PRESSURE RATING.
14. ALL DUCTWORK SHALL BE: 24 GAUGE UP TO 36 INCHES WIDE, 22 GAUGE 31 INCHES WIDE TO 60 INCHES WIDE, ROUND DUCT SHALL BE 24 GAUGE UO TO 10 INCHES DIAMETER, 22 GAUGE 11 TO 20 INCHES DIAMETER, 20 GAUGE ABOVE 20 INCHIES DIAMETER; ALL GALVINIZED SHEETMETAL. SEAL ALL JOINTS AND SLIPS WITH EC 800 OR OTHER SUITABLE SEALANT. ALL LONGTUDINAL SEAMS SHALL BE PITTSBURG LOCKING TAPE. ALL SUPS SHALL BE REINFORCED BAR TYPE. FABRICATE AND INSTALL ALL DUCTS IN COMPLIANCE WITH SMACNA STANDARDS FOR LOW PRESURE DUCT CONSTRUCTION.
15. ALL DUCT CONNECTIONS TO FAN DRIVEN UNITS SHALL BE MADE WITH A FIREPROOF FLEXIBLE DUCT CONNECTOR.
16. BEFORE THE H.V.A.C. SYSTEM IS OPERATED, ALL DUCTS SHALL BE BLOWN OUT & THOUGHLY CLEANED. SYSTEM SHALL BE TEST AT FULL PRESSURE & ALL LEAKS & FAULTS CORRECTED.
17. INSTALL ALL PIPING AND VALVES AS HIGH AS POSSIBLE.
18. BALANCE THE AIR SYSTEM AS PER ASSOCIATED AIR BALANCING COUNCILS LATEST STANDARDS. SUBMIT BALANCING REPORT FOR ENGINEERS APPROVAL.
19. THESE DRAWINGS ARE DIAGRAMMATIC. FIELD CONDITIONS SHALL DETERMINE ACTUAL LOCATION OF ALL PIPING AND DUCTWORK.
20. ALL DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS.
21. DUCT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOCAL MECHANICAL CODE AND THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION DUCT CONSTRUCTION STANDARDS UNLESS OTHERWISE INDICATED IN THESE DRAWINGS OR IN THE SPECIFICATIONS.
22. ALL DUCT SUPPORTS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS UNLESS OTHERWISE NOTED.

GENERAL NOTES

SHOULD ANY CONTRADICTION, AMBIGUITY, ERROR, INCONSISTENCY, OMISSION OR INCOMPLETE SYSTEM APPEAR IN OR BETWEEN ANY OF CONTRACT DOCUMENTS THE CONTRACTOR SHALL, BEFORE SUBMITTING THE FINAL BID AND SIGNING THE CONTRACT FOR CONSTRUCTION, NOTIFY THE ARCHITECT AND REQUEST A WRITTEN RESOLUTION AS TO WHICH METHODS OR MATERIALS WILL BE REQUIRED. IN THE EVENT OF CONFLICTING REQUIREMENTS OF STANDARDS , DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLY WITH THE MORE STRINGENT REQUIREMENTS. BEFORE SUBMITTING THE FINAL BID AND THE SIGNING THE CONTRACT FOR THE CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION FROM THE ARCHITECT, IN NO CASE SHALL THE CONTRACTOR PROCEED WITH THE AFFECTED WORK UNTIL ADVISED BY THE ARCHITECT.

IF THE CONTRACTOR FAILS TO MAKE A REQUEST FOR INTERPRETATION OR RESOLUTION NO EXCUSE WILL BE ACCEPTED FOR FAILURE TO CARRY OUT THE WORK IN A SATISFACTORY MANNER, AS INTERPRETED BY THE ARCHITECT. THIS GENERALLY MEANS THE USE OF THE HIGHEST QUALITY MATERIAL, MOST EXPENSIVE WAY OF PERFORMING WORK AND PROVIDING COMPLETE FUNCTIONING SYSTEM FOR PROPER OPERATION.

EACH AND EVERY TRADE OR SUBCONTRACTOR WILL BE DEEMED TO HAVE FAMILIARIZED THEMSELVES WITH ALL THE CONTRACT DOCUMENTS OF THIS PROJECT, INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND SITE WORK, AND TO HAVE VISITED THE SITE, SO AS TO AVOID ERROR, OMISSIONS AND MISINTERPRETATIONS. RELATED INFORMATION MAY BE PROVIDED ON CONTRACT DOCUMENTS OTHER THAN THOSE ASSOCIATED WITH THE SUBCONTRACTOR'S TRADE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELATED WORK OF ALL THE CONTRACT DOCUMENTS. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR ALLEGED ERRORS, OMISSIONS AND MISINTERPRETATIONS WHETHER THEY ARE A RESULT OF FAILURE TO OBSERVE THIS REQUIREMENT OR NOT.

FIRE SAFE THROUGH FLOORS

TYPE	SIZE	HILTI	MATERIAL	RATING	BOTTOM	TOP	CHASE WALL
STEEL/CAST COPPER/DWT	MAX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
STEEL/CAST 4" DWT/ 2" FLEX	MAX 6"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
STEEL/CAST COPPER/DWT	MAX 4"	CP-620	FIRE FOAM	1HRS	FIRE STOP	FIRE STOP	REQUIRED
PEX	MAX 1"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	BOTH SIDES	BOTH SIDES	NOT REQUIRED
PVC PIPE	MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
PVC PIPE	MAX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
PVC PIPE	MAX 4"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	COLLAR	FIRE STOP	NOT REQUIRED
REFRIGERANT	–	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
4" DUCT	MAX 4"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
INSULATED COPPER/STEEL	MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
CABLES	MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED

ENERGY CODE 2021 REQUIREMENTS

APPLICABILITY (CONTRACTOR SHALL PROVIDE ALL ITEMS LISTED BELOW)

RESIDENTIAL BUILDING. FOR THIS CODE, INCLUDES DETACHED ONE– AND TWO–FAMILY DWELLINGS AND MULTIPLE SINGLE–FAMILY DWELLINGS (TOWNHOUSES) AS WELL AS GROUP R–2, R–3 AND R–4 BUILDINGS THREE STORIES OR LESS IN HEIGHT ABOVE GRADE PLANE.

R401.2 COMPLIANCE
PROJECTS SHALL COMPLY WITH SECTIONS IDENTIFIED AS "MANDATORY" AND WITH EITHER SECTIONS IDENTIFIED AS "PRESCRIPTIVE" OR THE PERFORMANCE APPROACH IN SECTION R405. (PRESCRIPTIVE METHOD IS CHOSEN)

R403.1.1 PROGRAMMABLE THERMOSTAT.

PROVIDE, AT LEAST ONE THERMOSTAT PER DWELLING UNIT. THERMOSTAT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT TEMPERATURE SET POINTS AT DIFFERENT TIMES OF THE DAY. THIS THERMOSTAT SHALL INCLUDE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55°F (13°C) OR UP TO 85°F (29°C). THE THERMOSTAT SHALL INITIALLY BE PROGRAMMED WITH A HEATING TEMPERATURE SET POINT NO HIGHER THAN 70°F (21°C) AND A COOLING TEMPERATURE SET POINT NO LOWER THAN 78°F (26°C).

PROVIDE PER R403.2.1 INSULATION (PRESCRIPTIVE).
ANY SUPPLY DUCT IN ATTIC SHALL BE INSULATED TO A MINIMUM OF R–12. ALL OTHER DUCTS SHALL BE INSULATED TO A MINIMUM OF R–6.

PROVIDE PER R403.2.2 SEALING (MANDATORY).
ALL DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH EITHER THE INTERNATIONAL MECHANICAL CODE OR INTERNATIONAL RESIDENTIAL CODE, AS APPLICABLE.

DO NOT USE BUILDING CAVITIES PER R403.2.3. (MANDATORY)
BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS.

PROVIDE VENTILATION R403.5 AS SHOWN (MANDATORY).
THE BUILDING SHALL BE PROVIDED WITH VENTILATION THAT MEETS THE REQUIREMENTS OF THE INTERNATIONAL RESIDENTIAL CODE OR INTERNATIONAL MECHANICAL CODE, AS APPLICABLE, OR WITH OTHER APPROVED MEANS OF VENTILATION. OUTDOOR AIR INTAKES AND EXHAUSTS SHALL HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING.

R403.2 HOT WATER BOILER OUTDOOR TEMPERATURE SETBACK.
HOT WATER BOILERS THAT SUPPLY HEAT TO THE BUILDING THROUGH ONE– OR TWO–PIPE HEATING SYSTEMS SHALL HAVE AN OUTDOOR SETBACK CONTROLL THAT LOWERS THE BOILER WATER TEMPERATURE BASED ON THE OUTDOOR TEMP.

R403.3.2 SEALING (MANDATORY)
DUCTS, AT HANDLERS AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH EITHER THE INTERNATIONAL MECHANICAL CODE OR IRC, AS APPLICABLE

EXCEPTIONS:
1. AIR–IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITONAL JOINT SEALS
2. FOR DUCTS HAVING A STATIC PRESSURE CLASSIFICATION OF LESS THAN 2 INCHES OF WATER COLUMN (500 PA) , ADDITIONAL CLOSURE SYSTEMS SHALL NOT BE REQUIRED TO CONTINUOUSLY WELDED JOINTS AND SEAMS, LOCKING TYPE JOINTS AND SEAMS OF OTHER THAN THE SNAP–LOCK AND BUTTON–LOCK TYPES.

403.3.2.1– SEALED AIR HANDLER
AIR HANDLERS SHALL HAVE A MANUFACTURERS DESIGNATION OF AIR LEAKAGE OF NO MORE THAN 2 PERCENT OF THE DESIGN AIR FLOW RATE WHEN TESTED IN ACCORDANCE WITH ASHRAE 193.

R403.3.3 DUCT TESTING
DUCRS SHALL BE PRESSURE TESTED THROUGH ROUGH IN TEST, POST CONSTRUCTION TEST

EXCEPTION– NOT REQUIRED WHERE DUCTS AND AIR HANDLERS ARE LOCATED ENTIRLEY THROUGH THE BUILING THERMAL ENVELOPE

MAIN/BRANCH DUCT SCHEDULE

SIZE	MAX. CFM
6" DIA	100
7" DIA	150
8" DIA	200
9" DIA	300
10" DIA	400
8x6	200
8x8	250
10x8	300
12x8	350
12x8	400
12x8	450
14x8	500
16x8	600
18x8 OR 16x10	700
20x8 OR 18x10	800
24x8 OR 20x10	1000
30x8 OR 24x10	1200

NOTE: MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 4' USE INSULATED SEMI RIGID BUCK DUCT.

MINIMUM RETURN DUCT PER HERS

CAPACITY	RETURN	FILTER
1.5 TON	ø16"	500 INCH2
2.0 TON	ø18"	600 INCH2
2.5 TON	ø20"	500 INCH2

MAXIMUM RETURN DUCT 30FT

INSULATION NOTES

CONTRACTOR SHALL FOLLOW THE MOST STRINGENT INSULATION REQUIREMENT FOR EACH ITEM

THE FOLLOWING SYSTEMS SHALL BE INSULATED.
DUCT LINER SHALL BE CLOSED CELL TYPE, GERM PROOF

IECC 2021 REQUIREMENTS:

1. HEATING HOT WATER MAINS AND BRANCHES:
   PIPING < 1" REQUIRES 1 1/2" INSULATION
   PIPING > 1¼" REQUIRES 2" INSULATION
2. SUPPLY & RETURN DUCTWORK FROM HVAC UNITS:
   1 1/2" INSULATION MIN. R–6

LEED/ASHRAE 2013 REQUIREMENTS:

1. HEATING HOT WATER MAINS AND BRANCHES:
   PIPING < 1 1/2" REQUIRES 1½" INSULATION
   PIPING > 1½" REQUIRES 2" INSULATION
2. SUPPLY & RETURN DUCTWORK FROM HVAC UNITS:
   1" INSULATION MIN. R–6

GENERAL INSULATION REQUIREMENTS:

1: ALL LINED SUPPLY, RETURN AND TRANSFER DUCTWORK SHALL BE 1" DUCT LINER –DUCT INSULATION SHALL CONTINUE OVER DUCT AT LINED POINT –FIRST 10' OF SUPPLY AND RETURN FOR ALL ERU'S AND HVAC UNITS
2. CONDENSATE DRAIN: 1"
3. ALL DUCTWORK IN CEILING SPACE SHALL HAVE R–6 INSULATION,
4. REFRIGERANT PIPING ¾" ARMAFLEX

ALL DUCTWORK ON ROOF OR UNCONDITIONED SPACE SHALL BE INSULATED WITH R–12 INSULATION AND COVERED WITH EPDM ROOFING MATERIAL FOR WATER TIGHT INSTALLATION.

DIFFUSER/REGISTER SCHEDULE

LEGEND: (N)– #-# – ###
CFM
DIMENSIONS
TYPE

TYPE	DESCRIPTION	MODEL (BASED ON TITUS)
A	LOUVER FACE CEILING DIFFUSER FOR SHEET ROCK CEILING INSTALLATION. PROVIDE ROUND TO SQUARE ADAPTOR. WITH OPPOSIBLE BLADE DAMPER	TITUS TDCA, BORDER 1
A1	LOUVER FACE CEILING DIFFUSER FOR 2'x2' LAY–IN CEILING INSTALLATION. PROVIDE ROUND TO SQUARE ADAPTOR. WITH OPPOSIBLE BLADE DAMPER	TITUS TDCA, BORDER 3
B	DOUBLE DEFLECTION REGISTER FOR SHEET ROCK INSTALLATION. PROVIDE ROUND TO SQUARE ADAPTOR.	TITUS 272RS
E	DOUBLE DEFLECTION GRILLE FOR SHEET ROCK INSTALLATION. WITH OPPOSIBLE BLADE DAMPER	TITUS 25 RS
E1	DOUBLE DEFLECTION GRILLE FOR SHEET ROCK INSTALLATION. WITH OPPOSIBLE BLADE DAMPER ALUMINUM TYPE	TITUS 25 RS
F	PERFORATED SIGHT PROOF EGGCRATE GRILLE FOR SHEET ROCK CEILING INSTALLATION.	TITUS 45F
G	LINEAR DIFFUSER, LINEAR STYLE 1 1/2" SLOT SPACING WIDTH, 4 SLOT FOR SHEET ROCK CEILING INSTALLATION. 100 CFM/FT WITH DAMPER, INSULATED PLENUM	TITUS MLR–40, BORDER TYPE 22

CONSTRUCTION NOTES

–ALL CEILING MOUNTED HVAC UNITS SHALL BE HUNG FROM STRUCTURAL STEEL WITH SPRING ISOLATORS,
–PROVIDE FLEXIBLE DUCT CONNECTIONS AT HVAC UNIT, AND ALL FANS
–PROVIDE ISOLATION VALVES, CONTROL VALVES, DRAIN AND STRAINER FOR ALL WATER BASED HVAC UNITS.
–PROVIDE SECONDARY DRAIN PAN WITH LEAK DETECTOR TO SHUT DOWN HVAC UNIT.
–MAINTAIN ACCESS DOORS AND CODE REQUIRED CLEARANCES FOR ALL FILTER REPLACEMENT, EQUIPMENT REPAIR AND ELECTRICAL CONTROLS,
–PRIOR TO ANY INSTALLATION, COORDINATE CLEARANCES WITH ALL TRADES.
–ALL CONDENSATE DRAINS SHALL RUN TO NEAREST STORM CONNECTION PROVIDED BY P.C. REFER TO PLUMBING DRAWINGS
–ALL CONDENSING UNITS SHALL BE MOUNTED ON CONCRETE PAD ON VIBRATION PADS, OR MOUNTED ON SLEEPERS ANCHORED TO ROOF.
–ALL SPLIT SYSTEM CONDENSER UNITS IF LOCATED AWAY FROM THE BUILDING SHALL BE PIPED UNDERGROUND UP TO BUILDING, PROVIDE MINIMUM 18" COVER.
–PROVIDE MAINTENANCE PADS MINIMUM 4" HIGH FOR ALL FLOOR–MOUNTED EQUIPMENT PUMPS AND BOILERS.
–PROVIDE 13 FILTERS FOR ALL INDOOR UNITS, MERV 8 FOR ESTAR/LEED BUILDINGS
–PROVIDE 11 FILTERS FOR ALL OUTSIDE AIR UNITS, MERV 8 FOR ESTAR/LEED BUILDINGS
–ALL PIPING CONNECTED TO VIBRATION–ISOLATED EQUIPMENT TO BE ISOLATED BY MEANS OF VIBRATION ISOLATORS, RESILIENT LATERAL SUPPORTS AND RESILIENT PENETRATION SLEEVE /SEALS. THIS APPLIES TO FIRST 50 FEET OF TOTAL PIPE LENGTH OR THE ENTIRE PIPE WITHIN MECH. ROOM (WHICHEVER IS LONGER). PIPES THAT ARE 4" DIAMETER OR LARGER TO BE ISOLATED THROUGHT THE BUILDING REFER TO SPEC SECTION 230548 FOR ADDITIONAL INFORMATION
–PROVIDE EXPANSION LOOPS AS REQIRED
–ALL FRESH AIR DUCTS SHALL HAVE MOTORIZED DAMPERS INTERLOCKED WITH UNIT AND HAVE VOLUME DAMPERS

CEILING RADIATION DAMPERS

CEILING RADIATION DAMPERS SHALL BE AS MANUFACTURED BY GREENHECK
MODEL CRD–1WT FOR SIDE INLET
MODEL CRD–2WT FOR TOP INLET

CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE UL LISTED DAMPER WITH THE UL LISTING OF THE CEILING

APPROVED CEILING RATINGS ARE
L–528,546,558,562,574,576,581,583,585,592
M–501,503,508
P–533,538,545,547,548,554

APARTMENT EXHAUST NOTES

i) EACH APARTMENT SHALL BE PROVIDED WITH A CONNECTION POINT FOR A CLOTHES WASHER VENT.
ii) PROVIDE AND INSTALL THEDRYERBOX ®, SIZED TO THE WALL THICKNESS, SHALL BE PROVIDED AT EACH SCHEDULED DRYER LOCATION
III) DRYER VENT PIPE SHALL BE MINIMUM 28 GAUGE RIGID METAL, WITH NO SCREWS FOR ATTACHMENT, AND CONSTRUCTED AND INSTALLED PER SMACNA STANDARDS.
IV) DRYER VENTING SHALL USE THE DRYER ELL FOR THE FIRST ELBOW, LOCATED AND COORDINATED TO MINIMIZE ANY ADDITONAL BENDS. DUCTWORK SHALL HAVE THE LAST (5) FEET MINIMUM PITCHED TO THE EXTERIOR EXHAUST POINT.
V) DUCTWORK SHALL EXHAUST TO THE EXTERIOR TO A NON–SCREENED VINYL SIDEWALL HOOD PROVIDED UNDER THIS SCOPE AND COLORED TO MATCH THE ADJACENT EXTERIOR FINISH.
VI)INSULATE WITH R–4 MINIMUM LAST 10' OF EXHAUST SEAL AGAINST EXTERIOR WALL
VII)LAUNDRY VENT DUCT SHALL BE ALUMINUM TYPE TO PREVENT CORROSION AND TAPE SHALL BE IN COMPLIANCE WITH UL FOR DRYER DUCT CONNECTIONS

KITCHEN EXHAUST
i) EACH APARTMENT SHALL BE PROVIDED WITH A CONNECTION POINT FOR EXHAUSTING A RANGE HOOD.
ii) COORDINATE SIZE AND CONNECTION POINT WITH THE GENERAL CONTRACTOR, APPLIANCE SUPPLIER AND CABINET SUPPLIER.
III) EXHAUST PIPE SHALL BE MINIMUM 26 GAUGE RIGID METAL, WITH NO SCREWS FOR ATTACHMENT, AND CONSTRUCTED AND INSTALLED PER SMACNA STANDARDS. DUCTWORK SHALL HAVE THE LAST (5) FEET MINIMUM PITCHED TO THE EXTERIOR EXHAUST POINT.
IV) DUCTWORK SHALL EXHAUST TO THE EXTERIOR TO A SCREENED VINYL SIDEWALL HOOD PROVIDED UNDER THIS SCOPE AND COLORED TO MATCH THE ADJACENT EXTERIOR FINISH.
V)INSULATE WITH R–4 MINIMUM LAST 10' OF EXHAUST SEAL AGAINST EXTERIOR WALL

BATHROOM EXHAUST
i) EACH APARTMENT SHALL BE PROVIDED WITH A CONNECTION POINT FOR EXHAUSTING A BATHROOM
ii) COORDINATE SIZE AND LOCATION WITH THE GENERAL CONTRACTOR AND ARCHITECT
I) EXHAUST PIPE SHALL BE MINIMUM 26 GAUGE RIGID METAL, CONSTRUCTED AND INSTALLED PER SMACNA STANDARDS. DUCTWORK SHALL HAVE THE LAST (5) FEET MINIMUM PITCHED TO THE EXTERIOR EXHAUST POINT.
IV) DUCTWORK SHALL EXHAUST TO THE EXTERIOR TO A SCREENED VINYL SIDEWALL HOOD PROVIDED UNDER THIS SCOPE AND COLORED TO MATCH THE ADJACENT EXTERIOR FINISH.
V)INSULATE WITH R–4 MINIMUM LAST 10' OF EXHAUST SEAL AGAINST EXTERIOR WALL

LOUVER NOTES

LOUVER DIMENSIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND FIELD CONDITIONS
LOUVERS SHALL BE AMCA CERTIFIED FOR WIND DRIVEN RAINS
BLADES SHALL BE 4" DEEP MOUNTED BETWEEN 35–45 DEGREES WITH DRAINABLE BLADE AND DRAINABLE HEAD
PROVIDE BIRD SCREENS IN COMPLIANCE WITH IMC 401
PROVIDE CLOR ANODIZED LOUVER PER ARCHITECTS DIRECTION
LOUVERS SHALL BE AS MANUFACTURED BY GREENHECK MODEL EHH 401 SERIES

FIRE RATED CEILING NOTES:

WHEN DUCT PENETRATE RATED CEILING:

–ALL RECESSED DIFFUSERS AND REGISTERS SHALL HAVE RADIATION DAMPERS.
–ALL UNITS DUCTED TO PLENUM SPACE SHALL HAVE CEILING FIRE DAMPERS TO MEET UL 555C
–ALL RETURN DUCTS SHALL BE BELOW THE RATED CEILING, DROPPED CEILING AREAS SHALL NOT BE RATED CEILING UNLESS SHOWN OTHERWISE
–ALL RETURN AIR GRILLES IN RATED CEILING SHALL HAVE CEILING FIRE DAMPERS
–ALL UNIT DISCHARGES SHALL BE OFFSET TO GET INTO PROPER JOIST SPACES, CARRY TRANSITION PIECE AS NEEDED
–ALL DUCTS LARGER THAN 4'Ø DIAMETER SHALL HAVE FIRE DAMPERS AT CEILING PENETRATIONS

FIRE/SMOKE DAMPER REQUIREMENTS

IMC 607.5.5 REQUIRES FIRE/SMOKE DAMPER AT ALL SHAFT PENETRATIONS

IMC 607.6.1. REQUIRES DAMPER EXCEPT
–DUCT CAN PENETRATE UP TO THREE FLOORS IF, 26 GAUGE, OPEN FROM ONE UNIT TO OUTSIDE, 4" ROUND AND SEALED ARGUND AND CEILING GRILLES HAVE RADIATION DAMPERS

IMC 607.5.3 REQUIRES FIRE PARTITION PENETRATIONS TO HAVE FIRE DAMPERS EXCEPT
–BUILDING IS SPRINKLED OR
–DUCT IS MINIMUM 26 GAUGE, LESS THAN 100 SQ–INCH AND
–DUCT IS ABOVE CEILING AND,
–DUCT IS NOT TERMINATED AT FIRE RATED WALL AND
–MINIMUM 12" SLEEVE IS PROVIDED

LEGEND

	SUPPLY AIR DUCT UP	HWR	HOT WATER RETURN PIPE
	SUPPLY AIR DUCT DOWN	HWS	HOT WATER SUPPLY PIPE
	RETURN AIR DUCT UP	D	CONDENSATE DRAIN PIPE
	RETURN AIR DUCT DOWN		PIPE UP
	VOLUME DAMPER		PIPE DOWN
FD	MOTORIZED DAMPER		BALL VALVE
	FIRE DAMPER		GATE VALVE
	1" LINED DUCTWORK		CHECK VALVE
	SUPPLY AIR REGISTER		STRAINER
	RETURN OR EXHAUST AIR REGISTER		UNION
	SUPPLY AIR DIFFUSER		3–WAY CONTROL VALVE
	CEILING TRANSFER GRILL		2–WAY CONTROL VALVE
AD	ACCESS DOOR		BALANCING VALVE
AV	SELF BALANCING AIR VALVE		THERMOMETER
CFD	CEILING FIRE DAMPER		PRESSURE GAUGE
			FLEXIBLE PIPE CONNECTION

EQUIPMENT TAG NUMBERS

EF–# EXHAUST FAN
CU–# CONDENSING UNIT
AC–# SPLIT SYSTEM AC UNIT
HVAC–# AIR HANDLER UNIT
UH–# UNIT HEATER UNIT

E = EXHAUST RISER
# = REFERS TO RISER DIAGRAM

VS = SUPPLY VENTILATION RISER
# = REFERS TO RISER DIAGRAM

VR = RETURN VENTILATION RISER
# = REFERS TO RISER DIAGRAM

R = CONDENSER WATER RISER
# = REFERS TO RISER DIAGRAM

AIR OUTLET + INLET DESIGNATION

EXAMPLE:
TYPE OF GRILLE, DIFFUSER SEE SCHEDULE FOR SPECIFIC INFORMATION ABOUT THIS OUTLET/INLET TYPE
A-6x6-00
SIZE OF GRILLE, DIFFUSER
AIRFLOW

NOTE:
THIS DESIGNATION FORMAT IS TYPICAL FOR ALL DIFFUSERS, GRILLES, AND REGISTERS, LAY–IN OR SURFACE MOUNTED, FOR SUPPLY, RETURN OR EXH.

EQUIPMENT SYMBOLS

ROOFTOP UNIT
ROOFTOP UPBLAST EXHAUST FAN
EXHAUST CONTROL VALVE
ROOFTOP UPBLAST EXHAUST FAN
CONSTANT AIRFLOW REGULATOR DEVICE
FIRE AND SMOKE DAMPER
VD VOLUME DAMPERS
CABINET UNIT HEATER IN CEILING
HORIZONTAL HVAC UNIT
VERTICAL HVAC UNIT
ROOF MOUNTED CONDENSING UNIT

CONTROL SYMBOLS

T TS WALL MOUNTED THERMOSTAT/SENSOR
H HS HUMIDISTAT/SENSOR
LOCAL CONTROL PANEL

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 PROJECT

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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BOSTON, MA, 02115
P 617-888-0552 OWNER

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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 SUSTAINABILITY

COMMONWEALTH OF MASSACHUSETTS
MURAT ERERBICER
MECHANICAL
No. 51895
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

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SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

MECHANICAL NOTES

M2.00

ENERGY RECOVERY UNITS

TAG #	EQUIPMENT PERFORMANCE						MAKE/MODEL	DB	ESTAR	HVI	DESIGN	DIMENSIONS
	CFM	EFF HEAT	EFF COOL	ESP (IN WG)	VOLT	FLA (AMP)						
ERU-1	95	%60	%80	0.40	120/1	1.4	PANASONIC-FV-10VEC2	–	YES	YES	IN/OUT OPPOSITE SIDE	28"LX23"WX9-6" DUCT

-PROVIDE BOOST SWITCH IN BATHROOM
-PROVIDE MERV 8 FILTER FOR STANDARD DESIGN

THROUGH WALL HEAT PUMP SCHEDULE WITH INTEGRAL ERV AND HEATER

TAG	CAPAC. TONS	COOLING-BTH		FAN CFM	HEATING BTU @2.5W	EFFICIENCY		ELECTRIC HEAT	UNIT WIRING			MAKE/MODEL	DIMENSIONS	ACCESSORIES
		TOTAL	SENS.			SEER	HSPF		MCA	MOCP	V/ø			
HPD-1	1.25	15,000	XXX	500	16.90	14.36	9.81	1.8 KW	20	30	208/1ø	EPHOCA/AVK10R3H2	24"W X 75.5"H X 26.5"D	PROVIDE SUNVENT
HPD-2	2.00	24,000	XXX	800	36,300	13.91	9.81	3.6 KW	33	40	208/1ø	EPHOCA/AVK20R3H2	24"W X 75.5"H X 26.5"D	PROVIDE SUNVENT
HPD-2	.75	8,900	XXX	300	16,900	13.91	9.81	1.8 KW	20	30	208/1ø	EPHOCA/AVK10N3H1-3	28.7"W X 81.9"H X 12.4"D	PROVIDE SUNVENT

NOTE
PROVIDE HARDWIRED ENERGY START THERMOSTATS
PROVIDE SECONDARY DRAIN PAN WITH LEAK SENSOR
HPD-3 DOES NOT HAVE INTEGRAL ERV
PROVIDE LINED ACCESS DOOR

SPLIT HEAT PUMP SYSTEM SCHEDULE (INDOOR)

UNIT NO.	MITSUBISHI MODEL	RATED CAPACITY (BTU/H)	SEER	POWER SUPPLY	MCA	FAN MOTOR	AIRFLOW (LOW-MEDIUM HIGH)	SOUND LEVEL (LO-M1-M2-HI)	W	D	H	WEIGHT (LBS)	INTAKE AIR TEMP	
													MAX	MIN
ACU-1	PKA-A12HA7	12,000	15.3	208/230V 1 PHASE, 60HZ	1.0 A	0.76 F.L.A	268-328-381 DRY CFM 240-293-342 WET CFM	34-40-45 DB(A)	30-11/16"	8-1/4"	11-3/4"	23	95°FDB 71°FWB	67°FDB 57°FWB

PROVIDE ME HVAC CONTROLLER WALL MOUNTED THERMOSTAT, DISCONNECT SWITCH

SPLIT HEAT PUMP SYSTEM SCHEDULE (OUTDOOR)

UNIT NO.	MITSUBISHI MODEL	RATED CAPACITY (BTU/H)	SEER	POWER SUPPLY	R.L.A.	MCA	MOCP	SOUND LEVEL	W	D	H	WEIGHT (LBS)	MAX REFRIDGERANT PIPE LENGTH (FT)	MAX REFRIDGERANT PIPE HEIGHT DIFF (FT)	INTAKE AIR TEMP	
															MAX	MIN
CU-1	PUZ-A12NHA4	12,000	16	208/1PHASE	DC	14	20	50 DB(A)	31-1/2"	11-1/4"	21-5/8"	88	100	100	D.B. 115° F	D.B. -13° F

WITH EACH UNIT PROVIDE
-3R RATED FUSED DISCONNECT SWITCH BY ELECTRICAL CONTRACTOR
-PROVIDE MOUNTING STAND ABOVE SNOW LINE
-PROVIDE WIND BAFFLE KIT FOR LOW AMBIENT OPERATION

CEILING MOUNTED EXHAUST FAN

TAG	LOCATION	TYPE	DRIVE	CFM	V/ø	LAMP	SP	NOISE SONES	DIMENSIONS	PANASONIC MODEL	ESTAR	CONTROLS
EF-1	BATHROOM	CEILING	DIRECT	110	120/1	(2)PL18	0.1"	0.3	14.5"X17"X11.5"H-16LBS-6" DUCT	FV-05-11VKSL1	YES	HIGH/LOW FAN REQUIRES TWO WALL SWITCHES (HAS LIGHT)

PROVIDE PANASONIC FIRE DAMPER ENCLOSURE FOR ALL CEILING BATHROOM FANS.

WALL CAP SCHEDULE

TAG	BRAND	SIZE	DIMENSIONS	LOCATION	DUCT
WC-B	X-VENT THVB	4" VENT	7.5"X7.5"X1.5"	BATHROOM EXHAUST	#4"-NO FLEX
WC-K	X-VENT THVB	6" VENT	10"x9"X5"	KITCHEN EXHAUST	#6" W/TD AT CEILING PENETRATION
WC-D	X-VENT THVB	4" VENT	7.5"X7.5"X1.5"	DRYER EXHAUST-REMOVE SCREEN	#4" AL WITH HARD ELBOW
WC-FA	X-VENT TEVB	6" VENT	7.5"X7.5"X1.5"	FRESH AIR INTAKE	#6"-INSULATED

VYNIL COLOR TO MATCH SIDING.
MATCH DUCT SIZE CONNECTED TO UNIT.
ALL EXHAUST DUCTS SHALL HAVE R-6 INSULATION FIRST 10FT FROM EXTERIOR WALL IN
ALL FRESH AIR INTAKE DUCTS SHALL HAVE MOTORIZED DAMPER AT ENVELOPE PENETRATION WITH ACCESS PANEL.
DAMPER SHALL BE INTERLOCKED WITH HVAC UNIT
FOR COMBINED BATHROOMS, USE 6" DUCT AFTER COMBINE AND USE WC-K WALL CAP
COMBINE EXHAUST TO ONE WALL CAP WITH SEPARATE DUCT CONNECTIONS IF LOCATED NEXT TO EACH OTHER COORDINATE WITH ARCHITECT

ELECTRIC HEATER SCHEDULE

TYPE	KW	VOLT/PH	DIMENSIONS	MODEL NUMBER-COLOR BY ARCH
RWH-1	1	120/1		Q'MARK@CRA 1512-T2
RWH-2	2	120/1	19"HX16"WX4"D	Q'MARK@ MCSSARWH1802/HTWHS1
RWH-4	4	208/1	19"HX16"WX4"D	Q'MARK@ MCSSARWH4808/HTWHS1
SWH-4	4	208/1	19"HX16"WX4"D	Q'MARK@ MCSSARWH4808/HTWHSM
EBB-2	0.4	120/1		Q'MARK@MK-2512W-W/T'STAT
EBB-3	0.75	120/1		Q'MARK@MK-2513W-W/T'STAT
EBB-4	1	120/1		Q'MARK@MK-2514W-W/T'STAT
EBB-6	1.5	120/1		Q'MARK@MK-2516W-W/T'STAT
EUH-5	5	208/1		Q'MARK@MUH-35-W/T'STAT
CCH-4	4	208/1		Q'MARK@CDF548-W/T'STAT

SOME HEATERS MAY NOT BE USED

MULTIZONE HEAT PUMP UNIT SCHEDULE (NON-SIMULTANE HEAT AND COOL)

TAG NO.	TON	REFRIG	OUTDOOR UNIT					DUCTED/NON-DUCTED				MAX # OF INDOOR	NOISE @3FT PRESSURE	MITSUBISHI MODEL#	DIMENSIONS	MAX REF LENGHT EACH/TOTAL/HEIGHT	ESTAR
			HEAT	COOL	VOLT/PHS	AMP	MCA	KW	SEER	EER	HSPF	qav/rf					
CU-2	4.0	R454B	54,000	48,000	208/1	45	80	–	15.0 19.0	10.8 13.4	10.1 11.0	2.50 2.85		54 DBA	MXZ-SM48NLHZ	42"WX13"DX53"H-275 LBS	130 BELOW/164 ABOVE 262/492	YES

WITH EACH UNIT PROVIDE
-3R RATED FUSED DISCONNECT SWITCH
-SEACOST PROTECTION OPTION,
-HEATING VALUES ARE AT 5F, USE 95% FACTOR FOR RUNS MORE THAN 50FT
-85% AT -13F
-PROVIDE CLEARANCES OF 6" BEHIND, 15" ON THE RIGHT SIDE AND 20" ON THE FRONT AND ABOVE
-PROVIDE BRANCH BOX FOR MORE THAN 3 UNIT CONNECTIONS
--208/1/.5A POWER TO EACH BC CONTROLLER,
-PROVIDE COLD TEMPERATURE BAFFLE

MULTIZONE HEAT PUMP UNIT SCHEDULE (NON-SIMULTANE HEAT AND COOL)

TAG NO.	TON	CFM	INDOOR UNIT						NOISE	MITSUBISHI MODEL#	DIMENSIONS
			HEAT	COOL	VOLT/PHS	SP	KW				
HPC-1	.75	300	10,000	9,000	208/1	0.1"	.6		45 DBA	MLZ-KX09NL	39"WX27"DX8"H-150LBS
HPC-2	1	400	15,000	12,000	208/1	0.1"	.6		45 DBA	MLZ-KX12NL	39"WX27"DX8"H-150LBS

NOTE
UNITS ARE BASED ON HIGH EXTERNAL STATIC PRESSURE OPTION, STANDARD PRESSURE IS 0.1"
HEATING VALUES ARE AT 92% WHEN OUTDOORS IS -13 DEGREE F
WITH EACH UNIT PROVIDE ME PROGRAMMABLE CONTROLLER

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P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER MECHANICAL No. 51899 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
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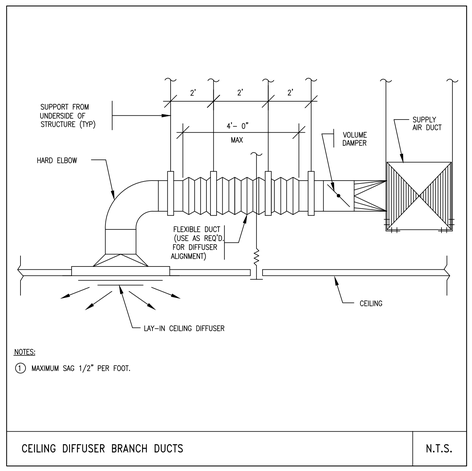
SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

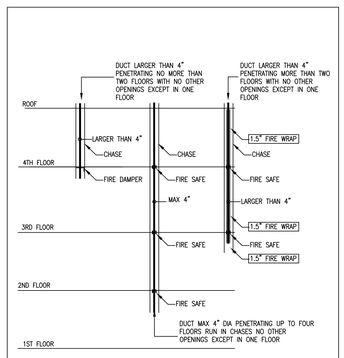
MECHANICAL SCHEDULES

M2.01



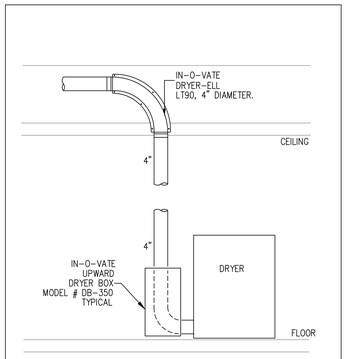
NOTES:
① MAXIMUM SAG 1/2" PER FOOT.

CEILING DIFFUSER BRANCH DUCTS | N.T.S.

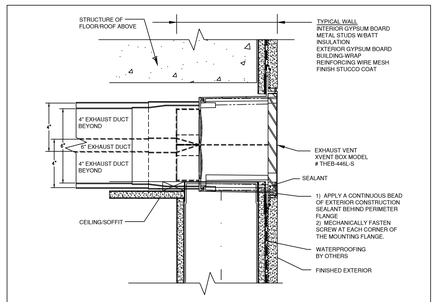


PER IMC 2015 FIGURE 607.6.1(2)

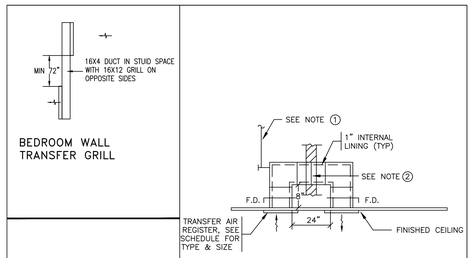
DUCT RISER THROUGH FLOORS | NTS



TYPICAL DRYER BOX AND DRYER ELL DETAIL | NTS

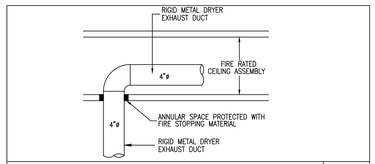


TYPICAL WALL CAP PENETRATION XVENT BOX | NTS

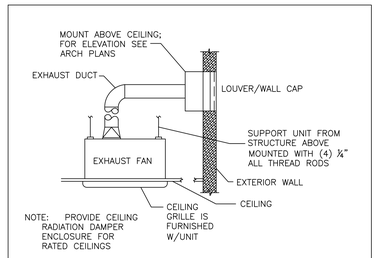


NOTES:
① TRANSFER DUCTS TO BE SUPPORTED FROM STRUCTURE ABOVE.
② FIRE DAMPER WHERE APPLICABLE, SEE PLANS FOR LOCATION.
③ OPEN END DUCT WxH.

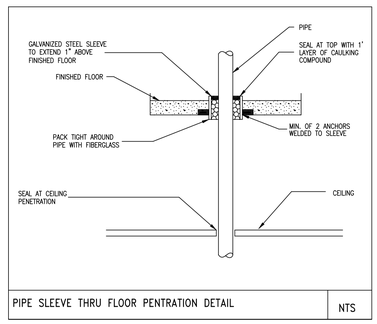
CEILING AND WALL TRANSFER DUCT DETAIL | N.T.S.



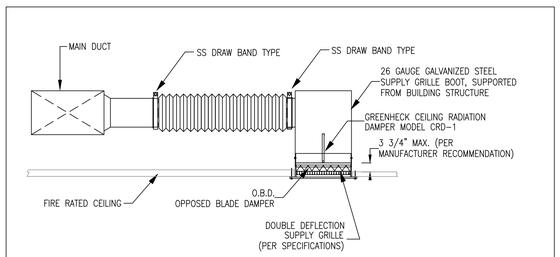
FLOOR/CEILING DUCT PROTECTION DETAIL | NTS



CEILING EXHAUST FAN DETAIL | NTS



PIPE SLEEVE THRU FLOOR PENTRATION DETAIL | NTS



SUPPLY GRILLE/CRD INSTALLATION DETAIL | NTS

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199 ELM ST
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PICKER CONSTRUCTION

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COMMONWEALTH OF MASSACHUSETTS
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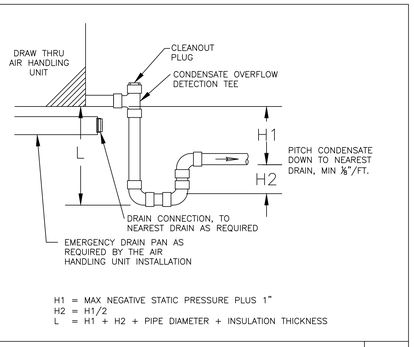
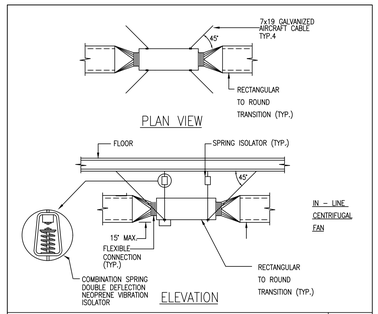
MECHANICAL DETAILS

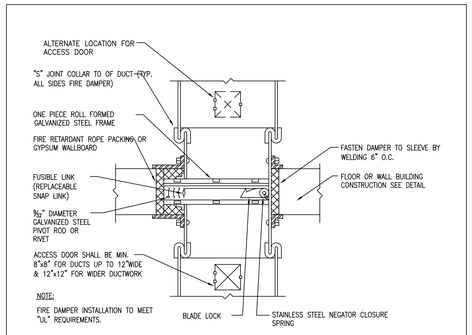
M2.02



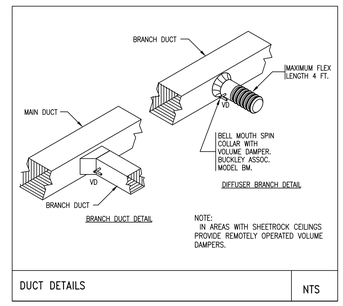
CONDENSATE DRAIN DETAIL | NTS



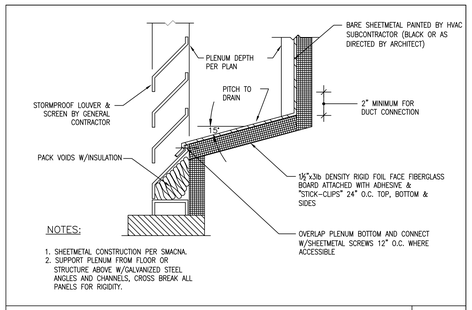
IN LINE FAN HANGER DETAIL | NTS



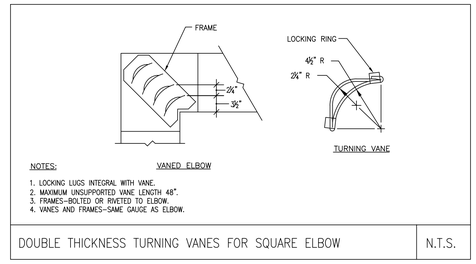
FIRE DAMPER W/BLADES OUTSIDE THE AIR STREAM | N.T.S.



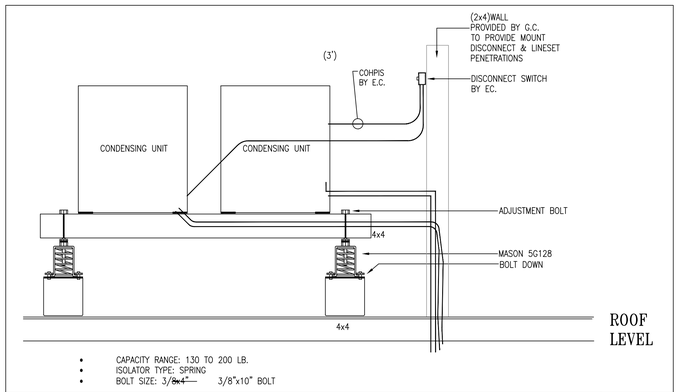
DUCT DETAILS | NTS



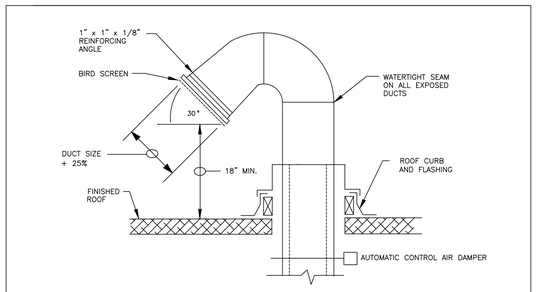
PLENUM AT LOUVER DETAIL | N.T.S.



DOUBLE THICKNESS TURNING VANES FOR SQUARE ELBOW | N.T.S.



CONDENSING UNIT MOUNTING DETAIL | N.T.S.



ROOF GOOSENECK DETAIL | NTS

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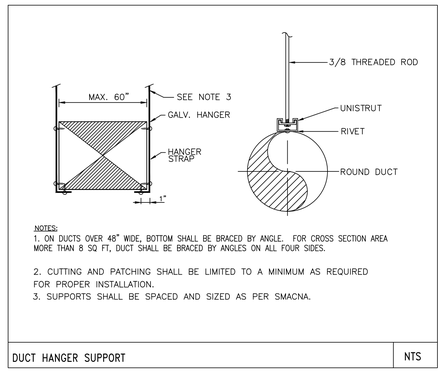
MECHANICAL DETAILS

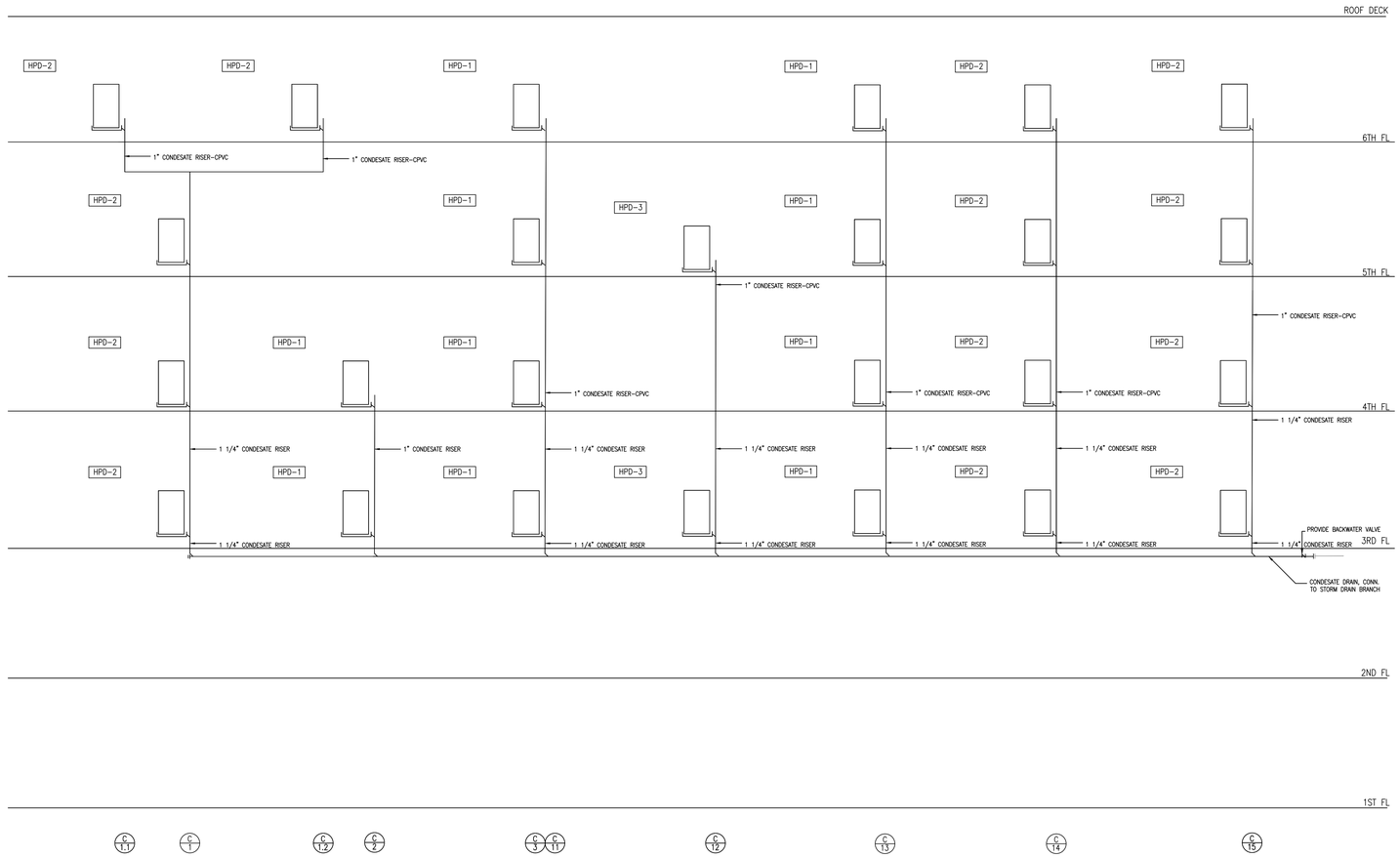
M2.03



NOTES:
1. ON DUCTS OVER 48" WIDE, BOTTOM SHALL BE BRACED BY ANGLE. FOR CROSS SECTION AREA MORE THAN 8 SQ FT, DUCT SHALL BE BRACED BY ANGLES ON ALL FOUR SIDES.

2. CUTTING AND PATCHING SHALL BE LIMITED TO A MINIMUM AS REQUIRED FOR PROPER INSTALLATION.
3. SUPPORTS SHALL BE SPACED AND SIZED AS PER SMACNA.

DUCT HANGER SUPPORT | NTS



CONDENSATE RISER DIAGRAM

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NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51896
REGISTERED
PROFESSIONAL ENGINEER

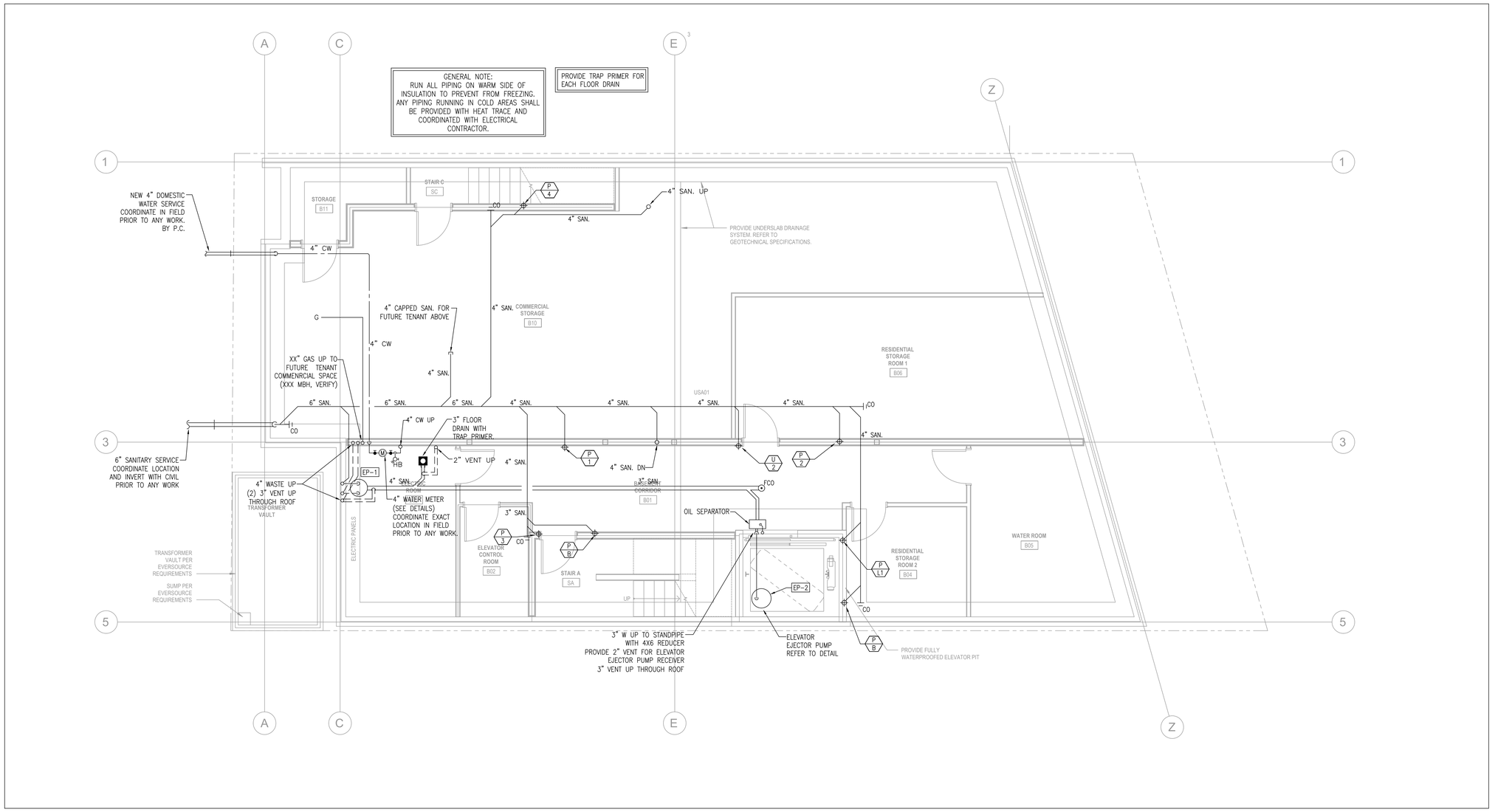
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

MECHANICAL
RISER DIAGRAMS

M2.04



1 LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER MECHANICAL No. 51896 REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
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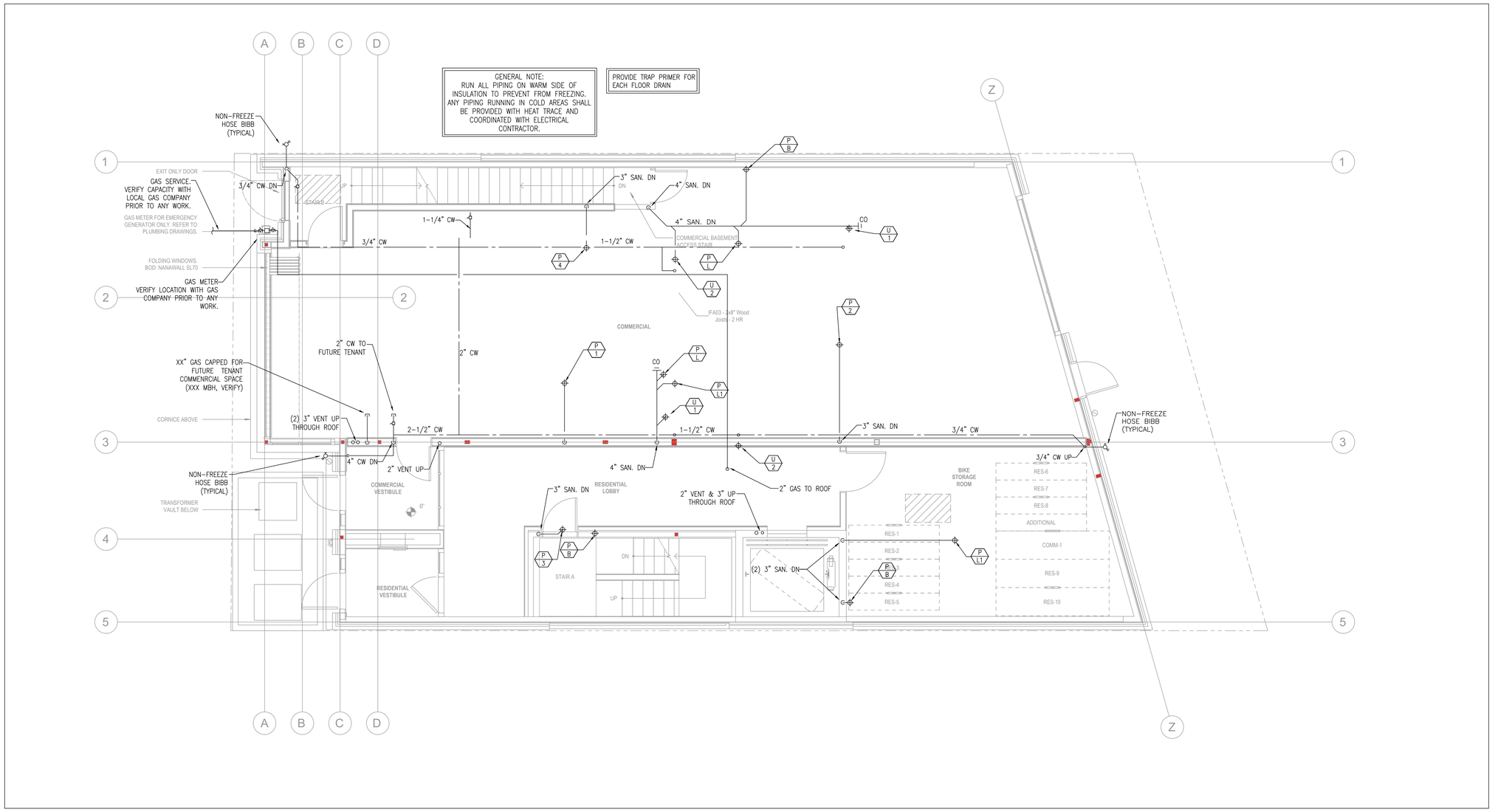
STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

PLUMBING
FLOOR PLAN - LOWER LEVEL

P1.00



1 FIRST FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51899
REGISTERED PROFESSIONAL ENGINEER

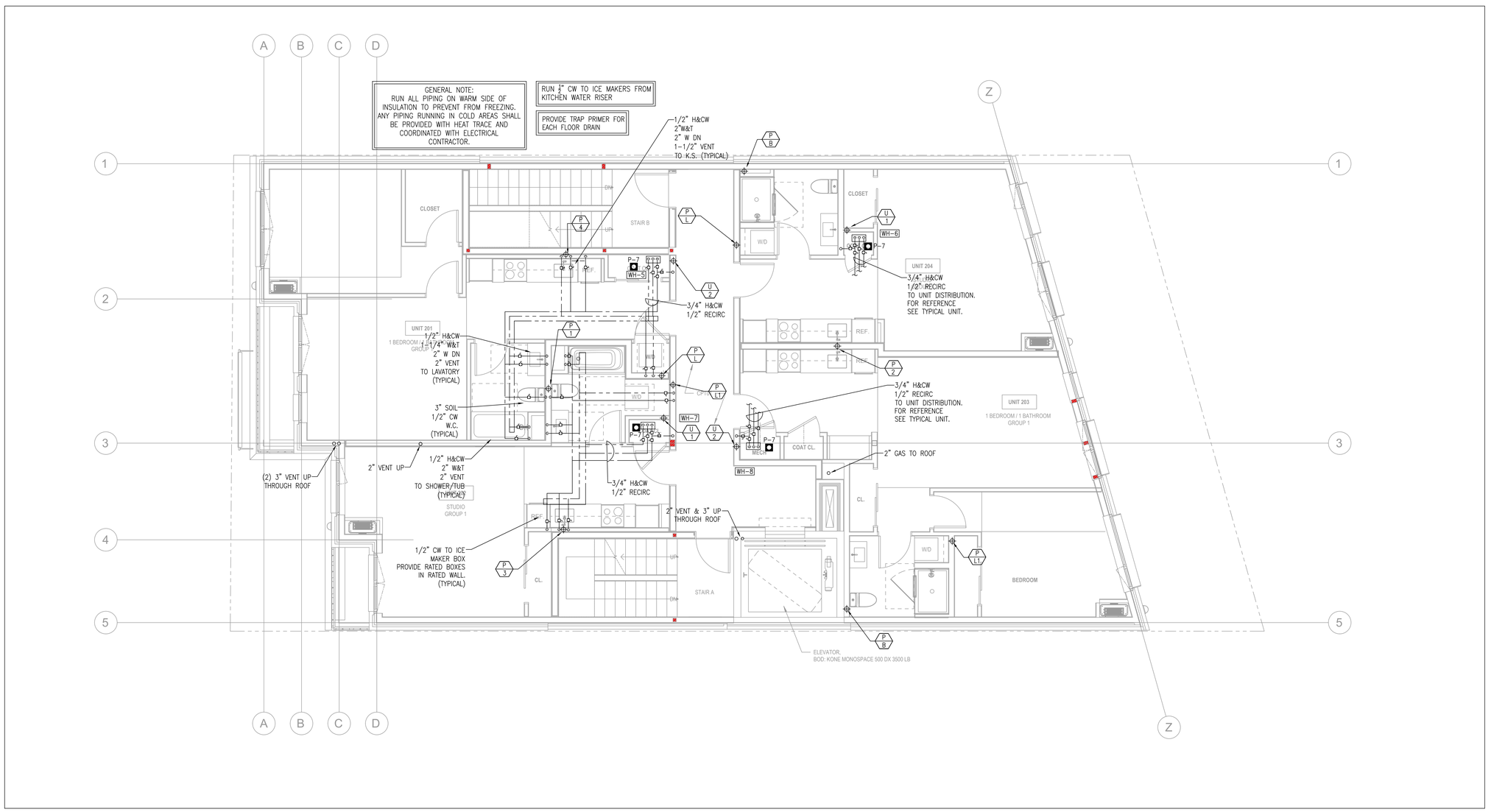
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

PLUMBING
FLOOR PLAN - FIRST FLOOR

P1.01



1 SECOND FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

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SUITE 1703
BOSTON, MA 02115
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VvS ARCHITECTS & CONSULTANTS

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COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51895
REGISTERED PROFESSIONAL ENGINEER

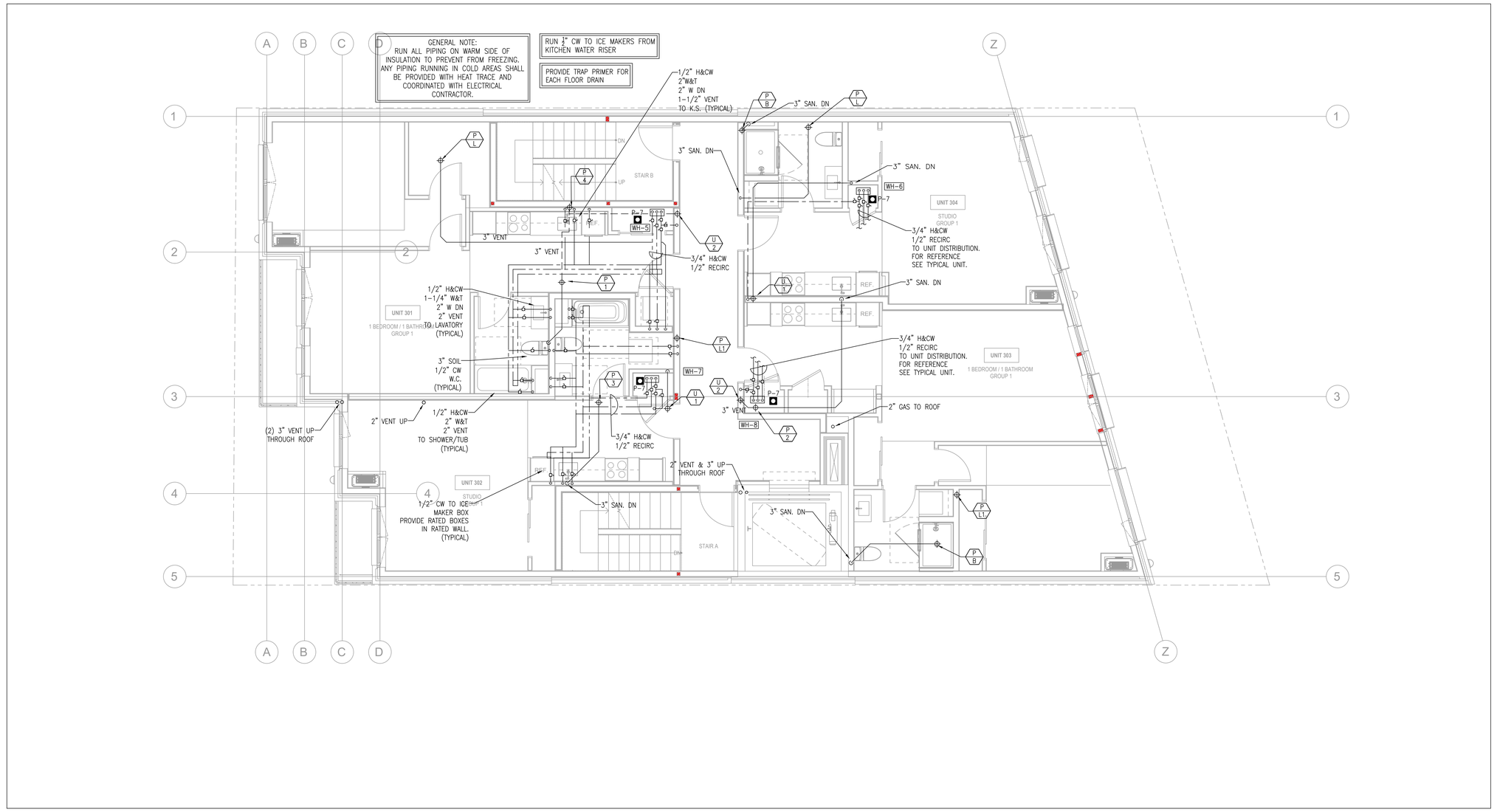
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

PLUMBING
FLOOR PLAN - SECOND FLOOR

P1.02



1 THIRD FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

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P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51899
REGISTERED PROFESSIONAL ENGINEER

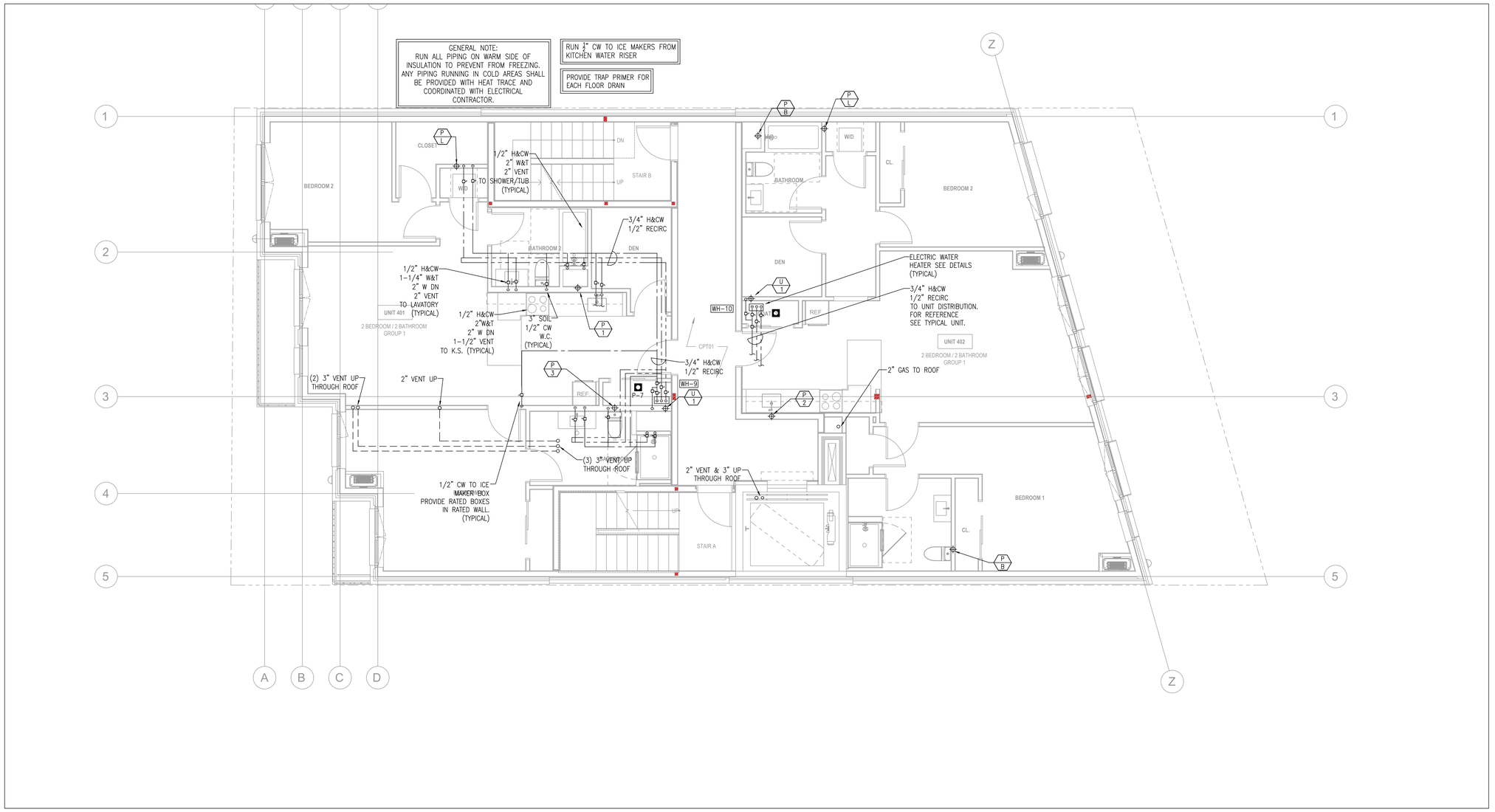
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

PLUMBING
FLOOR PLAN - THIRD FLOOR

P1.03



1 FOURTH FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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VvS ARCHITECTS & CONSULTANTS

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COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAD
No. 51899
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
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SCALE: As indicated
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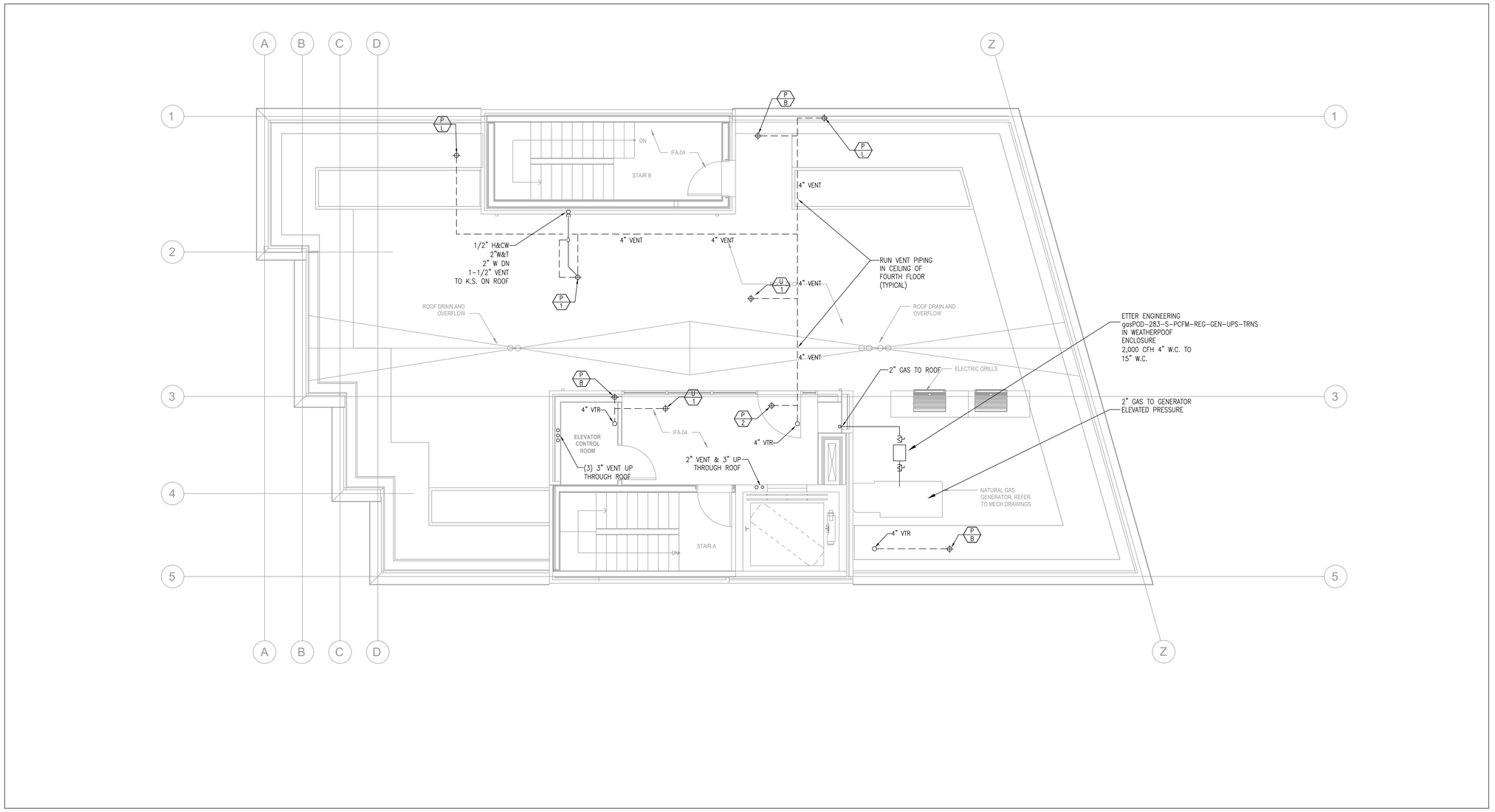
PLUMBING
FLOOR PLAN - FOURTH FLOOR

P1.04



1 ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
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COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAD
No. 51895
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NO.	DATE	DESCRIPTION
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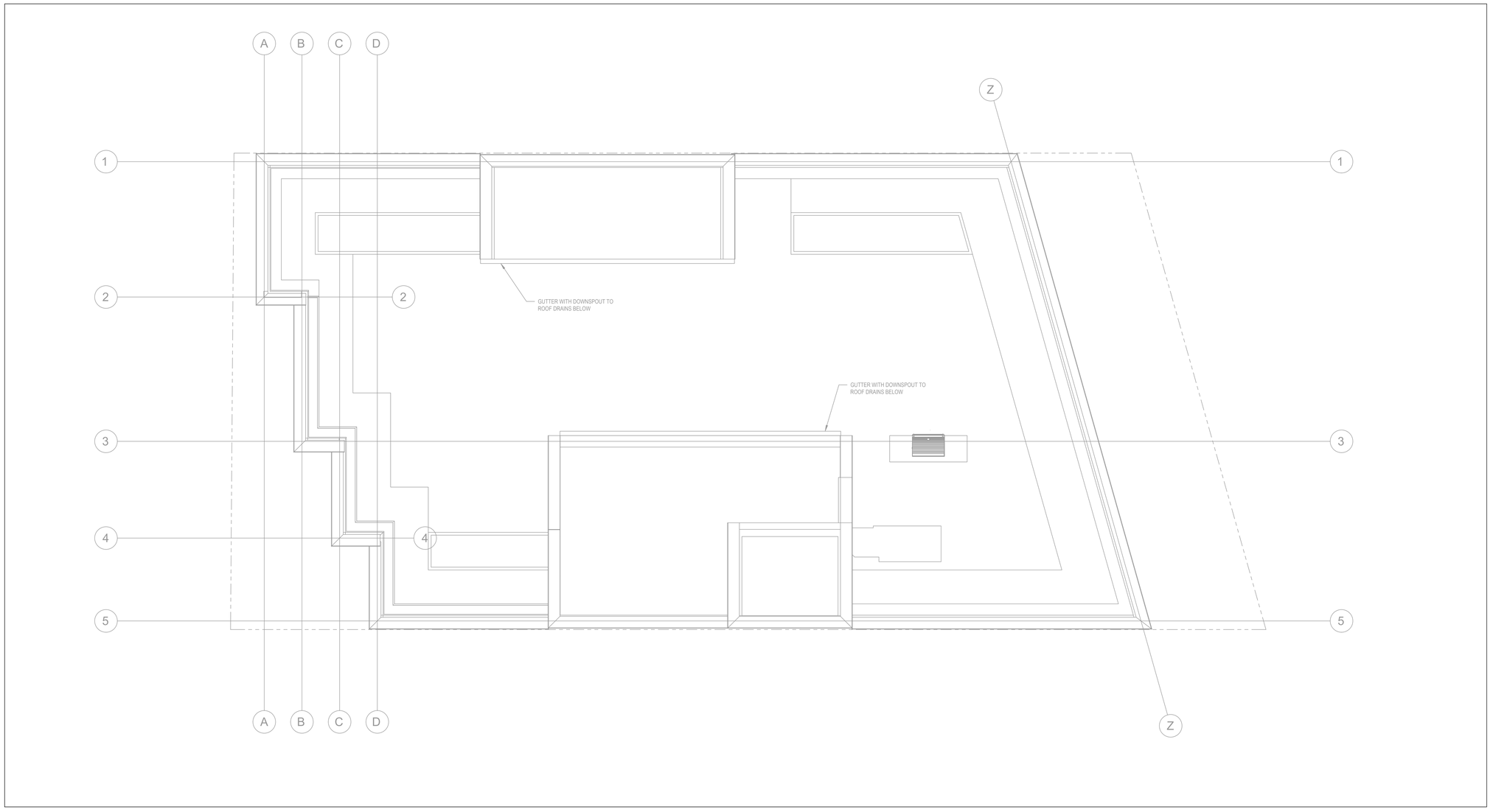
SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

PLUMBING
FLOOR PLAN - ROOF

P1.05



1 BULKHEAD ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

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NEIGHBOR

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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER MECHANICAL
No. 51899
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
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SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

PLUMBING
FLOOR PLAN - BULKHEAD ROOF

P1.06

BASIC PLUMBING REQUIREMENTS

PART 1. – GENERAL

1.1 RELATED DOCUMENTS

ALL APPLICABLE REQUIREMENTS OF OTHER PORTIONS OF THE CONTRACT DOCUMENTS APPLY TO THE WORK OF THIS SECTION INCLUDING, BUT NOT LIMITED TO, ALL DRAWINGS, ALL SPECIFICATIONS, GENERAL CONDITIONS, AND GENERAL REQUIREMENTS INCLUDING SUBMITTALS.

1.2 APPLICABLE CODES AND STANDARDS

APPLICABLE CODES: ALL LOCAL AND STATE BUILDING CODES, INCLUDING THE INTERNATIONAL PLUMBING CODE MASSACHUSETTS STATE PLUMBING CODE AND THE MASSACHUSETTS STATE BUILDING CODE.
APPLICABILITY OF STANDARDS: EXCEPT WHERE THE CONTRACT DOCUMENTS INCLUDE MORE STRINGENT REQUIREMENTS, APPLICABLE CONSTRUCTION INDUSTRY STANDARDS HAVE THE SAME FORCE AND EFFECT AS IF BOUND OR COPIED DIRECTLY INTO THE CONTRACT DOCUMENTS. SUCH STANDARDS ARE MADE A PART OF THE CONTRACT DOCUMENTS BY REFERENCE.

CONFLICTING REQUIREMENTS: WHERE COMPLIANCE WITH TWO OR MORE STANDARDS IS SPECIFIED, AND THE STANDARDS ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, REFER REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, AND UNCERTAINTIES TO THE ARCHITECT FOR A DECISION BEFORE PROCEEDING.

PUBLICATION DATES: WHERE THE DATE OF ISSUE OF A REFERENCED STANDARD IS NOT SPECIFIED, COMPLY WITH THE STANDARD IN EFFECT AS OF DATE OF CONTRACT DOCUMENTS.

ABBREVIATIONS AND NAMES: TRADE ASSOCIATION NAMES AND TITLES OF GENERAL STANDARDS ARE FREQUENTLY ABBREVIATED. THE FOLLOWING ACRONYMS OR ABBREVIATIONS AS REFERENCED IN CONTRACT DOCUMENTS ARE DEFINED TO MEAN THE ASSOCIATED NAMES. NAMES AND ADDRESSES ARE SUBJECT TO CHANGE AND ARE BELIEVED TO BE BUT ARE NOT ASSURED TO BE ACCURATE AND UP TO DATE AS OF DATE OF CONTRACT DOCUMENTS.

AGA – AMERICAN GAS ASSOCIATION
ANSI – AMERICAN NATIONAL STANDARDS INSTITUTE
ARI – AIR CONDITIONING AND REFRIGERATION INSTITUTE
ASHRAE – AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS
ASME – AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASSE – AMERICAN SOCIETY OF SANITARY ENGINEERING
ASTM – AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS – AMERICAN WELDING SOCIETY
AWWA – AMERICAN WATER WORKS ASSOCIATION
CISPI – CAST IRON SOIL PIPE INSTITUTE
NEC – NATIONAL ELECTRIC CODE
NFPA – NATIONAL FIRE PROTECTION ASSOCIATION
NSF – NATIONAL SANITATION FOUNDATION
PDI – PLUMBING AND DRAINAGE INSTITUTE
UL – UNDERWRITERS LABORATORIES
DOT – DEPARTMENT OF TRANSPORTATION
EPA – ENVIRONMENTAL PROTECTION AGENCY
OSHA – OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

1.3 SUBMITTALS

PRIOR TO THE PERFORMANCE OF ANY WORK OR INSTALLATION OF ANY MATERIALS, OBTAIN APPROVAL FROM THE ARCHITECT BY SUBMITTING SHOP DRAWINGS AND DATA SHEETS.

SUBMITTAL OF SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES WILL BE ACCEPTED ONLY WHEN SUBMITTED BY THE GENERAL CONTRACTOR. DATA SUBMITTED FROM SUBCONTRACTORS AND MATERIAL SUPPLIERS DIRECTLY TO THE ARCHITECT WILL NOT BE PROCESSED. CERTIFIED DRAWINGS AND CATALOG DATA SHEETS SHALL SHOW:
1. SPECIFICALLY WHAT ITEMS AND FEATURES ARE TO BE PROVIDED.
2. APPLICABLE SPECIFICATION SECTION NUMBER AND EQUIPMENT TAG NUMBER.
3. PRINCIPAL DIMENSIONS AND DETAILS OF CONSTRUCTION.
4. WEIGHTS: INFORMATION REQUIRED FOR THE DESIGN OF SUPPORTS AND FOUNDATIONS.
5. SIZES AND LOCATIONS OF PIPING AND CONNECTIONS.
6. PERFORMANCE DATA CERTIFIED BY THE MANUFACTURER.
7. SUBMIT SCHEDULE OF PROPOSED PIPING, VALVES, SPECIALTIES, ETC.
8. ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE SEPERATLY IDENTIFIED.

PLUMBING SUBMITTALS SHALL BE PROVIDED FOR THE FOLLOWING ITEMS:
1. PIPING AND FITTING MATERIALS.
2. PLUMBING VALVES AND SPECIALTIES.
3. PIPING HANGER AND ATTACHMENT ASSEMBLIES.
4. PIPING INSULATION.
5. ALL SCHEDULED PLUMBING FIXTURES, DRAINS, AND CLEANOUTS.
6. UTILITY CONNECTION DETAILS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

APPROVAL OF SHOP DRAWINGS DOES NOT RELEASE RESPONSIBILITY OF COORDINATING HIS WORK AT JOBSITE AND TAKING FIELD MEASUREMENTS. IN CASES WHERE INTERFERENCES BECOME APPARENT, NOTIFY ARCHITECT SO THAT SUCH INTERFERENCES MAY BE RESOLVED PRIOR TO PROCEEDING WITH SHOP WORK. NO CLAIM WILL BE ALLOWED FOR WORK THAT MIGHT HAVE TO BE MOVED OR REPLACED BASED ON A CLAIM THAT WORK WAS PLACED IN ACCORDANCE WITH DIMENSIONS INDICATED ON AN APPROVED SHOP DRAWING.

1.4 COORDINATION

COORDINATE WITH THE BUILDING TRADES:
1. STRUCTURAL MEMBERS, PADS, AND BUILDING OPENINGS FOR FIXTURES, EQUIPMENT, PIPING, ETC., FOR USE BY THIS INDICATED ON THE ARCHITECTURAL AND STRUCTURAL PLANS ARE THE COORDINATION RESPONSIBILITY OF THIS INSTALLER. PAY FOR ANY CHANGES IN THE ABOVE REQUIREMENTS AFTER LETTING AND ACCEPTING THE CONTRACT.
2. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT, DIRECTIONS AND SIZES OF EQUIPMENT, PIPING, ETC. IT IS NOT INTENDED TO SHOW EVERY OFFSET AND FITTING OF EVERY SITE DIFFICULTY THAT MAY BE ENCOUNTERED. PROVIDE ALL MATERIALS AND PERFORM ALL LABOR NECESSARY TO MAKE COMPLETE WORKING SYSTEMS, READY FOR USE, WITHOUT EXTRA CHARGE. ALL MEASUREMENTS MUST BE VERIFIED ON THE JOBSITE.
3. EXAMINE THE SITE AND ALL DRAWINGS BEFORE PROCEEDING WITH THE LAYOUT AND INSTALLATION OF THIS TO SUIT ACTUAL CONDITIONS. CONFER AND COOPERATE WITH OTHER TRADES ON THE JOB SO THAT ALL WORK WILL BE INSTALLED IN PROPER RELATIONSHIP. COORDINATE PRECISE LOCATION OF PARTS WITH OTHER WORK. ALL SYSTEMS SHALL BE INSTALLED TO PROVIDE MAXIMUM HEADROOM, EXCEPT WHERE DIMENSIONED OTHERWISE ON THE DRAWINGS.

1.5 RECORD DOCUMENTS

RECORD DRAWINGS: MAINTAIN A CLEAN, UNDAMAGED SET OF PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK WHICHEVER DRAWING IS MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY; WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD LATER.
1. MARK INFORMATION THAT IS IMPORTANT TO THE OWNER, BUT WAS NOT SHOWN ON CONTRACT DRAWINGS OR SHOP DRAWINGS.
2. ORGANIZE RECORD DRAWING SHEETS INTO MANAGEABLE SETS, BIND WITH DURABLE PAPER COVER SHEETS, AND PRINT SUITABLE TITLES, DATES AND OTHER IDENTIFICATION ON THE COVER OF EACH SET.
3. MAINS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED (I.E., TRAPS, STRAINERS, EXPANSION COMPENSATORS, TANKS, ETC.).
4. EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM AT LEAST TWO PROMINENT BUILDING LINES.
5. APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
6. INCLUDE ALL "CORRECTED FOR RECORD" SHOP DRAWINGS TO REFLECT APPROVALS RECEIVED.

1.6 MAINTENANCE MANUALS

ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL HEAVY-DUTY 2-INCH, 3-RING VINYL-COVERED BINDERS, WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION. MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER. INCLUDE THE FOLLOWING TYPES OF INFORMATION:
1. COPIES OF WARRANTIES.
2. WIRING DIAGRAMS.
3. INSPECTION PROCEDURES.
4. APPROVED SHOP DRAWINGS AND PRODUCT DATA.
5. DESCRIPTION OF FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING DATA AND TESTS, AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF REPLACEMENT PARTS.
6. MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN, AND ROUTINE AND NORMAL OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND WINTER OPERATING INSTRUCTIONS.
7. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS.
8. SERVICING INSTRUCTIONS AND LUBRICATION CHARTS AND SCHEDULES.

1.7 REGULATIONS AND PERMITS
PROVIDE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY FEES, AND OBTAIN NECESSARY APPROVALS FROM AUTHORITIES HAVING JURISDICTION.

PAY FOR AND OBTAIN ALL REQUIRED PERMITS & SCHEDULE INSPECTIONS IN A TIMELY MANNER AS TO NOT DELAY THE PROJECT. OBTAIN ALL NECESSARY PERMITS INCLUDING BUT NOT LIMITED TO ENTERING MANHOLES, USE OF WATER FROM LOW PRESSURE HYDRANTS, DEMOLITION AND NEW WORK, ETC. PRIOR TO COMMENCE OF WORK.

PART 2. – PRODUCTS

2.1 GENERAL PRODUCT REQUIREMENTS

ALL EQUIPMENT AND MATERIALS, EXCEPT AS OTHERWISE SPECIFIED, SHALL BE NEW, OF CURRENT PRODUCTION, FIRST QUALITY AND OF THE BEST OF EACH CLASS SPECIFIED. MATERIALS, PRODUCTS, AND EQUIPMENT SHALL BE DELIVERED TO JOBSITE WITH FACTORY PACKAGING BEARING MANUFACTURER'S NAME OR LABEL, AND UNION LABEL WHENEVER PRACTICAL.

PART 3. – EXECUTION

3.1 PLUMBING INSTALLATIONS
GENERAL: SEQUENCE, COORDINATE, AND INTEGRATE THE VARIOUS ELEMENTS OF PLUMBING SYSTEMS, MATERIALS, AND EQUIPMENT. COMPLY WITH THE FOLLOWING REQUIREMENTS:
1. COORDINATE SYSTEMS, EQUIPMENT, AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS.
2. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.
3. ARRANGE FOR CHASES, SLOTS, AND OPENINGS IN OTHER BUILDING COMPONENTS DURING PROGRESS OF CONSTRUCTION, TO ALLOW FOR MECHANICAL INSTALLATIONS.
4. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.
5. INSTALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS, WHERE INSTALLED EXPOSED IN FINISHED SPACES.
6. INSTALL EQUIPMENT TO FACILITATE SERVICING, MAINTENANCE, AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.
7. PROVIDE ACCESS PANELS OR DOORS WHERE UNITS ARE CONCEALED BEHIND FINISHED SURFACES.
8. COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS, TO THE EXTENT THAT THOSE INSTRUCTIONS AND RECOMMENDATIONS ARE MORE EXPLICIT OR STRINGENT THAN REQUIREMENTS CONTAINED IN CONTRACT DOCUMENTS.
9. INSPECT MATERIALS OR EQUIPMENT IMMEDIATELY UPON DELIVERY AND AGAIN PRIOR TO INSTALLATION. REJECT DAMAGED AND DEFECTIVE ITEMS.

3.2 FINAL INSPECTION
PRIOR TO FINAL ACCEPTANCE, ALL SYSTEMS SHALL BE OPERATED TO TEST PERFORMANCE TO THE SATISFACTION OF THE ARCHITECT.
1. WATER SHALL CIRCULATE THROUGHOUT SYSTEMS WITHOUT NOISE, WATER HAMMER, LEAKS, TRAPPING, OR AIR-BINDING.
2. MOTORS AND OTHER EQUIPMENT SHALL OPERATE WITHOUT EXCESSIVE NOISE OR VIBRATION.
3. DRAINS SHALL FLOW FREELY, WITHOUT EXCESSIVE NOISE, LEAKS OR STOPPAGES.

CORRECT DEFECTS DEMONSTRATED BY INSPECTIONS AND TESTS TO THE SATISFACTION OF THE ARCHITECT.

3.3 CLEANING OF SYSTEMS AND PREMISES

ALL EQUIPMENT AND FIXTURES SHALL BE THOROUGHLY CLEANED OF DIRT AND DEBRIS AT THE COMPLETION OF THE PROJECT AND PRIOR TO ACCEPTANCE BY THE OWNER.

3.4 PROTECTION

GUARDS, BARRICADES, LIGHTS, SERVICES, ETC., NECESSARY FOR THE PROTECTION OF PERSONS AND PROPERTY SHALL BE FURNISHED AND MAINTAINED.

EXISTING WORK SUCH AS PAVEMENTS, LAWNS, SIDEWALKS, FLOORS, CURBS, AND OTHER STRUCTURES AND UTILITIES WHICH ARE DAMAGED OR DISTURBED DUE TO MAKING CONNECTIONS OR ANY PHASE OF OPERATIONS SHALL BE RESTORED TO THE SATISFACTION OF THE OWNER AND THE GOVERNING AUTHORITIES.

GENERAL NOTES:

1. SHOULD ANY CONTRADICTION, AMBIGUITY, ERROR, INCONSISTENCY, OMISSION OR INCOMPLETE SYSTEM APPEAR IN OR BETWEEN ANY OF CONTRACT DOCUMENTS THE CONTRACTOR SHALL, BEFORE SUBMITTING THE FINAL BID AND SIGNING THE CONTRACT FOR CONSTRUCTION, NOTIFY THE ARCHITECT AND REQUEST A WRITTEN RESOLUTION AS TO WHICH METHODS OR MATERIALS WILL BE REQUIRED. IN THE EVENT OF CONFLICTING REQUIREMENTS OF STANDARDS , DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR SHALL COMPLY WITH THE MORE STRINGENT REQUIREMENTS. BEFORE SUBMITTING THE FINAL BID AND THE SIGNING THE CONTRACT FOR THE CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A WRITTEN INTERPRETATION FROM THE ARCHITECT. IN NO CASE SHALL THE CONTRACTOR PROCEED WITH THE AFFECTED WORK UNTIL ADVISED BY THE ARCHITECT.

IF THE CONTRACTOR FAILS TO MAKE A REQUEST FOR INTERPRETATION OR RESOLUTION NO EXCUSE WILL BE ACCEPTED FOR FAILURE TO CARRY OUT THE WORK IN A SATISFACTORY MANNER, AS INTERPRETED BY THE ARCHITECT. THIS GENERALLY MEANS THE USE OF THE HIGHEST QUALITY MATERIAL, MOST EXPENSIVE WAY OF PERFORMING WORK AND PROVIDING COMPLETE FUNCTIONING SYSTEM FOR PROPER OPERATION.

EACH AND EVERY TRADE OR SUBCONTRACTOR WILL BE DEEMED TO HAVE FAMILIARIZED THEMSELVES WITH ALL THE CONTRACT DOCUMENTS OF THIS PROJECT, INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND SITE WORK, AND TO HAVE VISITED THE SITE, SO AS TO AVOID ERROR, OMISSIONS AND MISINTERPRETATIONS. RELATED INFORMATION MAY BE PROVIDED ON CONTRACT DOCUMENTS OTHER THAN THOSE ASSOCIATED WITH THE SUBCONTRACTOR'S TRADE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RELATED WORK OF ALL THE CONTRACT DOCUMENTS. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR ALLEGED ERRORS, OMISSIONS AND MISINTERPRETATIONS WHETHER THEY ARE A RESULT OF FAILURE TO OBSERVE THIS REQUIREMENT OR NOT.

2. ALL PENETRATIONS OF ASSEMBLIES EXPOSED TO THE EXTERIOR ENVIRONMENT SHALL BE SEALED WITH FOAM SEALANT OR EQUIVALENT SEALER TO PROVIDE ZERO AIR INFILTRATION. COORDINATE WITH FIRE STOPPING REQUIREMENTS.

3. NO COMPONENT OF ANY SYSTEM SHALL RUN THROUGH THE STAIR ENCLOSURE THAT DOES NOT RELATE TO OR SERVE THE STAIR ENCLOSURE.

PLUMBING NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF ALL FIRE WALLS. ANY PENETRATION THROUGH FIRE FLOORS SHALL BE FIRE STOPPED . ANY PENETRATION THROUGH FIRE WALL SHALL BE FIRE CAULKED. REFER TO SECTION 7275 FOR PROCEDURE.

2. WITHOUT LIMITATION PAY ATTENTION TO THE FOLLOWING ITEMS:

   A. CHASES BEHIND BATHROOM (WALL BETWEEN CORRIDOR AND BATHROOM) AND WALLS BETWEEN UNITS ARE FIRE RATED. FIRE CAULK ALL PENETRATIONS.

   B. TOP AND BOTTOM WALL PLATES AT CEILING AND AT FLOOR IS PART OF FIRE SEPARATION. FIRE STOP ALL PENETRATIONS THROUGH PLATES.

INSULATION NOTES

THE FOLLOWING SYSTEMS SHALL BE INSULATED.
DUCT LINER SHALL BE CLOSED CELL TYPE, GERM PROOF

ESTAR REQUIREMENTS:

1. DOMESTIC HOT WATER & RECIRCULATION MAINS AND BRANCHES:
PIPING < 1" REQUIRES 1" INSULATION
PIPING > 1½" REQUIRES 1½" INSULATION

IECC 2018 REQUIREMENTS:

1. DOMESTIC HOT WATER MAINS AND BRANCHES:
PIPING < 1" REQUIRES 1" INSULATION
PIPING > 1½" REQUIRES 2" INSULATION

GENERAL INSUALTION REQUIREMENTS:

CW PIPING: ½" INSULATION
HORIZONTAL STORM: ½" INSULATION

THIS BUILDING WILL SHALL BE QUALIFIED FOR ESTAR, STRETCH CODE, AND LEED SILVER. PROVIDE THE MOST STRINGENT LEVELS OF INSULATION FOR QUALIFICATION

1. GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND GENERAL REQUIREMENTS, APPLY TO WORK SPECIFIED ON THESE DRAWINGS.
2. COORDINATE WORK WITH THAT OF OTHER TRADES AFFECTING OR AFFECTED BY WORK OF THIS SECTION AND COOPERATE WITH SUCH TRADES TO ASSURE THE STEADY PROGRESS OF THE WORK.
3. ALL WORK AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING AND GAS CODES AND THE LOCAL CODES.
4. FURNISH AND INSTALL A COMPLETE, SANITARY DRAINAGE AND VENT SYSTEM THROUGHOUT THE BUILDING FOR CONNECTION TO EVERY FIXTURE OR PIECE OF EQUIPMENT REQUIRING DRAINAGE. THE NEW WORK SHALL EXTEND AND CONNECT TO THE EXTERIOR SANITARY SYSTEM AS INDICATED.
5. FURNISH AND INSTALL A COMPLETE HOT WATER AND COLD WATER SYSTEM THROUGHOUT THE BUILDING, CONNECTING TO ALL FIXTURES AND EQUIPMENT REQUIRING HOT AND/OR COLD WATER. THE COLD WATER SYSTEM WORK SHALL EXTEND AND CONNECT TO THE EXTERIOR COLD WATER SYSTEM AS INDICATED. THE HOT WATER SYSTEM WORK SHALL BEGIN AT EACH NEW WATER HEATER WHERE INDICATED.
6. FURNISH TO OWNER A WRITTEN GUARANTEE OF THE GENERAL CONTRACTOR AND THIS SUBCONTRACTOR JOINTLY AND SEVERALLY, AGAINST ANY DEFECTS IN MATERIALS AND WORKMANSHIP IN WORK OF THIS SECTION FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
7. SUBMIT SHOP DRAWINGS ON PLUMBING FIXTURES AND VALVES SPECIFIED.
8. FURNISH AND INSTALL ALL PIPE OPENINGS, PIPE HANGERS AND HANGER RODS, AND FIXTURE SUPPORTS. PROPERLY SECURE HANGER RODS TO BUILDING STRUCTURE. SEAL ALL PIPE OPENINGS THROUGH FLOORS AND ROOF WATER TIGHT.
9. BURIED STORM, SANITARY AND VENT PIPING SHALL BE CAST IRON PIPE AND DRAINAGE FITTINGS. ABOVE GROUND SANITARY AND VENT PIPING SHALL BE CAST IRON PIPE AND DRAINAGE FITTINGS/PVC SCHED. 40 SOLID. PROVIDE FIRE STOPPING AND SHEET METAL SLEEVES AS REQUIRED BY CODE WHERE ALL PVC PIPING PASSES THROUGH FIRE RATED WALLS AND FLOORS.
10. HOT AND COLD WATER PIPING SHALL BE TYPE L SEAMLESS COPPER TUBING AND FITTINGS WITH 95–5 SOLDER JOINTS, FLOWGUARD PIPING SYSTEM. SEEK APPROVAL FROM ARCHITECT AND BUILDING OWNER REPRESENTATIVE BEFORE SUBMITTING FOR APPROVAL TO ENGINEER. ALL PIPING SHALL BE INSULATED AND MARKED AS HOT WATER (HW) OR COLD WATER (CW)
11. VALVES FOR HOT AND COLD WATER SHALL BE GATE VALVE, BRONZE BODY AND TRIM, NON-RISING STEM, 200 PSIG, SOLDER END, SIMILAR TO JENKINS 1240 OR APPROVED EQUAL. VALVES FOR GAS SHALL BE IRON BODY, PLUG TYPE, WITH SQUARE KEY AND THREADED ENDS.
12. COLD WATER AND HOT WATER PIPING INSULATION SHALL BE 1/2" THICK, WITH FACTORY APPLIED FIBERGLASS CLOTH WITH INTEGRAL VAPOR BARRIER AND SELF-SEALING LAP. FITTINGS AND VALVES SHALL BE COVERERD WITH PRE-CUT FIBERGLASS INSERTS AND FITTED WITH MOULDED PVC COVERS, SECURED WITH GLASS FABRIC TAPE WITH MASTIC. INSULATION SHALL BE FIBERGLASS 25 ASJ OR EQUAL, AND SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS TO CONFORM TO THE AUL NON-COMBUSTIBLE RATING.
13. PLUMBING FIXTURES:
(TO BE APPROVED BY BUILDING OWNER REPRESENTATIVE BEFORE SUBMISSION FOR APPROVAL TO ENGINEER)
14. HB- HOSE BIBB, WALL HYDRANT – WOODFORD MODEL 25 FREEZE RESISTANT, WITH INTEGRAL VACUUM BREAKER. (PROVIDE EVERY 150', WHERE DIRECTED BY BUILDING OWNER)
15. WATER HEATERS – FURNISH AND INSTALL WATER HEATERS WHERE INDICATED. (TO BE APPROVED BY BUILDING OWNER REPRESENTATIVE BEFORE SUBMISSION FOR APPROVAL TO ENGINEER)
16. TEST ALL NEW PLUMBING WORK IN ACCORDANCE WITH PLUMBING CODE REQUIREMENTS.
17. PROVIDE HEAT TRACE ON ALL PIPING SUBJECT TO FREEZING.

GENERAL NOTES

NTS

GENERAL NOTES

NOTE FOLLOWING LINE ITEMS ARE LISTED FOR QUALITY PURPOSES AND APPLICABLE WHERE COMPONENTS PRESENT IN THE PROJECT.

REGARDLESS HOW THE DETAILS ARE SHOWN, CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS.

CONTRACTOR SHALL PAY ATTENTION TO GAS FIRED EQUIPMENT DISCHARGE LOCATIONS RELATIVE TO AIR INTAKES BEFORE ANY INSTALLATION AND MAINTAIN CODE REQUIRED OR MANUFACTURER REQUIRED CLERANCES.

1–ALL HOT WATER PIPING SHALL BE INSULATED, INCLUDING TAKE OFFS.

2–ALL HORIZONTAL COLD WATER MAINS OR BRANCH LINES ABOVE CEILINGS SHALL BE INSULATED.

3–ALL TRAPS SHALL HAVE CLEAN OUTS.

4–ALL COMMON AREA FAUCETS SHALL HAVE POINT OF USE MIXING VALVES, ZURN LEAD FREE SERIES LFUSG–B OR EQUAL

5–ALL FIXTURES SHALL HAVE MULTI TURN LEAD FREE WATER STOPS AS MANUFACTURED BY ZURN LF SERIES.

6–ALL VENT THROUGH THE ROOF LOCATIONS SHALL BE FIELD COORDINATED WITH HVAC EQUIPMENT INTAKES AND IF NECESSARY SHALL BE EXTENDED 3FT ABOVE THE EQUIPMENT WITHIN 10FT OF THE VENT.

7–ALL FLOOR DRAINS SHALL HAVE TRAP PRIMERS.

8–ALL FLOOR PENETRATIONS SHALL BE FIRE RATED WITH FIRE STOP MATERIAL OR INTUMESCENT TYPE COLLARS AS REQUIRED.

9–UNLESS NOTED OTHERWISE PVC MAY BE USED FOR RESIDENTIAL TYPE BUILDINGS UP TO TEN FLOORS FOR DRAINAGE. CPVC MAY BE USED FOR DOMESTIC HOT/COLD WATER IN RESIDENTIAL TYPE BUILDINGS UP TO 60 FT, OR 6 STORY BUILDINGS. PROVIDE SOUND INSULATION ON ALL PVC VERTICAL DRAIN LINES

10–PROVIDE DRAIN PAN FOR ALL STORAGE TYPE WATER HEATERS AND WASHING MACHINES W/DRAINS CONNECTED TO SEWER DRAIN, PROVIDE TRAP PRIMERS.

11–PROVIDE COMPLETE PIPING FOR DISHWASHER AND DISPOSAL CONNECTIONS, OBSERVE CLEARANCE REQUIREMENTS UNDER KITCHEN SINKS.

12–ALL DRAINS LOCATED BELOW THE STREET GRADE SHALL HAVE LOCAL OR CENTRAL TYPE BACK WATER VALVES. DRAINS FROM UPPER FLOORS WILL CONNECT AT EXIT.

13–ALL PLUMBING FIXTURES SHALL BE APPROVED TYPE IN THE STATE OF PROJECT BEING USED, SPECIFICATIONS ARE FOR QUALITY, LOOK AND PERFORMANCE PURPOSES ONLY. IF SPECIFIED EQUIPMENT IS NOT THE APPROVED TYPE. CONTRACTOR SHALL PROVIDE SIMILAR APPROVED FIXTURE.

14–ALL FLOOR DRAINS IN BOILER ROOMS SHALL BE COORDINATED WITH BOILER PLACEMENTS SO THAT CONDENSATE DRAINS WILL BE DRAINED TO FLOOR DRAIN.

15–ALL PENETRATIONS THROUGH FIRE RATED WALLS AND CEILINGS SHALL BE FIRE SAFED.
USE FIRE PUDDY WITH FIRE WOOL FILLING FOR 2" AND SMALL PIPES,
USE INTUMESCENT COLLAR FOR LARGER PIPES.

16– PROVIDE BALL TYPE SHUT OFF VALVES FOR ALL RISERS AND WATER BRANCHES OFF THE MAIN PIPES. RISERS SHALL HAVE DRAIN VALVES WITH CAP AND CHAIN

GENERAL NOTES

1) FOR EXACT LOCATION OF PLUMBING FIXTURES SEE ARCHITECTURAL DRAWINGS.
2) EXAMINE ALL CONTRACT DRAWINGS, GERNERAL CONDITIONS AND SPECIFICATIONS WHICH MAY AFFECT THE WORK.
3) ALL PLUMBING WORK MUST BE COORDINATED WITH ALL OTHER TRADES BEFORE PROCEEDING WITH INSTALLATION.
4) CHECK INVERT ELEVATIONS AND EXACT LOCATIONS OF ALL OUTSIDE UTILITIES BEFORE INSTALLING ANY UNDERGROUND.
5) NO CHANGES ARE TO BE MADE IN PLUMBING LAYOUT WITHOUT WRITTEN PERMISSION OF THE ARCHITECT.
6) NO PIPING SHALL RUN EXPOSED IN FINISHED AREAS.
7) ALL PLUMBING SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE LOCAL AND STATE PLUMBING CODES.
8) ROUGHING DIMENSIONS OF TOILET FIXTURES MUST BE COORDINATED WITH GENERAL CONTRACTOR.
9) INSTALL ALL HOT AND COLD WATER PIPING AS PER SPECIFICATIONS.
10) INSTALL SHUTOFF GATE VALVES ON ALL BRANCH SUPPLY LINES AND AT THE BASE OF HOT AND COLD WATER RISERS.
11) PLUMBING CONTRACT SHALL REQUIRES PANELS TO ACCESS THE CONCEALED PLUMBING CLEANOUTS, DRAINS, DEVICES AND CONTROLS. ACCESS PANELS SHALL BE FIRE RATED TO MATCH THE PENETRATING PARTITION OR CEILING TYPE. GENERAL CONTRACTOR SHALL INSTALL THE ACCESS PANELS.
12) INSTALL ALL FLOOR CLEANOUTS TO CLEAR EQUIPMENT.
13) PLUMBING CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES AND CHARGES IN CONNECTION WITH THE WORK.
14) PLUMBING CONTRACTOR SHALL PROVIDE WATERTIGHT SLEEVES FOR ALL PIPES PASSING THRU BASEMENT WALLS.
15) INSTALL CLEANOUTS AT THE BASE OF ALL SANITARY STACKS.
16) INSTALL ALL HORIZONTAL RUNS OF PIPING AS HIGH AS POSSIBLE, PITCH ALL WATER PIPING TO DRAIN, DRAW OFFS AT ALL POINTS.
17) PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO OUTSIDE UTILITIES.
18) FOR PIPE SIZES NOT SHOWN ON PLANS SEE DETAILS & RISER DIAGRAMS.

PIPING MATERIAL NOTES

SANITARY AND VENT: BELOW GROUND: SWCI WITH PUSH ON JOINTS.

ABOVE GROUND:
–SCH.40 PVC WITH SOLVENT JOINTS FOR ALL PLUMBING FIXTURES ONLY SERVING RESIDENTIAL FLOORS, IF SANITARY MAIN CONNECTS TO COMMERICAL FIXTURES FROM THAT POINT AND BEYOND SHALL BE CAST IRON. IF ANY CONNECTION FROM RESIDENTIAL TO COMMERCIAL FIXTURES HAPPENS ON FIRST LEVEL TRANSITION TO CAST IRON IN RESIDENTIAL LEVEL.
–SWCI WITH HUSKY 4–BAND CLAMPS FOR ALL PLUMBING IN CONNECTIONS IN COMMERCIAL AND GARAGE LEVELS.

WATER PIPING: TYPE "L" COPPER WITH 95–5 SOLDER JOINTS FOR SERVICE, CPVC FOR RESIDENTIAL USE AREA.

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 PROJECT

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 OWNER

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 ARCHITECT

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 CIVIL / TRANSPORTATION

GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 LANDSCAPE

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 STRUCTURAL

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 MEPFP

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 CODE CONSULTANT

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 SUSTAINABILITY

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51899
REGISTERED
PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated

	SANITARY ABOVE FLOOR
	SANITARY UNDER FLOOR
	VENT
	VENT BURIED
	COLD WATER
	HOT WATER
	HOT WATER CIRCULATION
	SHUT OFF VALVE
	CHECK VALVE
	FLOOR CLEANOUT
	CLEANOUT
WCO	WALL CLEANOUT
VR	VENT RISER
VTR	VENT THRU ROOF
HD	HUB DRAIN
FD	FLOOR DRAIN
FCO	FLOOR CLEANOUT
	UNION
HB	HOSE BIBB
RD	ROOF DRAIN
VS	VENT STACK
WB	WASHER BOX
WC	WATER CLOSET
LAV	LAVATORY SINK
SH	SHOWER
KS	KITCHEN SINK

– PLUMBING LEGEND N.T.S.

PLUMBING FIXTURE SPECIFICATION SCHEDULE

DESIGNATION	FIXTURE SYMBOL	SYMBOL	MANUFACTURER	FIXTURE			FITTING				CARRIER	LOCATION	REMARKS
				MODEL	TYPE	SIZE	MANUF/MODEL#	TYPE	SUPPLY	TRAP			
REFER TO ARCITECTURAL SPECIFICATION FOR PLUMBING FIXTURES													
TRAP PRIMER	FD	T.P.	PRECISION PLUMBING PRODUCTS	PR-500	–	–	–	–	½" CW SUPPLY	–	–	AS SHOWN	PROVIDE DU-4 FOR MULTIPLE TRAP PRIMERS
PLEASE REFER TO PLUMBING SPECIFICATIONS FOR FIXTURE SELECTION.													

NOTE: ALL WASHER MACHINES TO BE PROVIDED WITH AQUA MANAGERS "FLOODSTOP" (FS 3/4-H) AUTOMATIC FLOOD PROTECTION KIT

DESIGNATION	LOCATION	MANUFACTURER	MODEL NO
FD	AS SHOWN	ZURN	SERIES 415B CAST IRON BODY WITH TYPE "B" STRAINER
FCO	AS SHOWN	ZURN	SERIES ZN-1400-HD
HB	AS SHOWN	ZURN	SERIES Z1321 ECOLTROL CERAMIC DISC WALL HYDRANT. EXPOSED, NON-FREEZE, ANTI-SIPHON, AUTOMATIC DRAINING
WATER HAMMER ARRESTOR	AS SHOWN	SIOUX CHIEF	SERIES 660 SERIERS OR EQUAL BY PRECISION PLUMBING PRODUCTS

SCHEDULE OF WATER HEATER

DESIGNATION	NAME	LOCATION	DESCRIPTION
WH-1 TO WH-10	APARTMENT HOT WATER HEATER	RESIDENTAIL MECH. CLOSET	RHEEM ELECTRIC WATER HEATER, MODEL PROPH50 T2 RH375-S050 GAL. CAPACITY, 4.5 KW, 208V/1ø, .93 EF, 21 GPH @90°F RISE RECOVERY,

G.C. TO PROVIDE LOUVERED DOOR FOR WATER HEATER CLOSETS OR PROVIDE DUCT KIT

FIRE SAFE THROUGH WOOD FLOORS

TYPE	SIZE	HILTI	MATERIAL	RATING	BOTTOM	TOP	CHASE WALL
STEEL/CAST COPPER/EMT	MAX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
STEEL/CAST 4" EMT/ 2" FLEX	MAX 6" –	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
STEEL/CAST COPPER/EMT	MAX 4"	CP-620	FIRE FOAM	1HRS	FIRE STOP	FIRE STOP	REQUIRED
PEX	MAX 1"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	BOTH SIDES	BOTH SIDES	NOT REQUIRED
PVC PIPE	MAX 2"	FS-ONE	INTUMESCENT SEALANT	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
PVC PIPE	MAX 4"	FS-ONE	INTUMESCENT SEALANT	2HRS	FIRE STOP	FIRE STOP	REQUIRED
PVC PIPE	MAX 4"	CP 645	INTUMESCENT STRIP W/COLLAR	1HRS	COLLAR	FIRE STOP	NOT REQUIRED
REFRIGERANT	–	FS-ONE	INTUMESCENT SEALANT –	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
4" DUCT	MAX 4"	FS-ONE	INTUMESCENT SEALANT –	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
INSULATED COPPER/STEEL	MAX 2"	FS-ONE	INTUMESCENT SEALANT –	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED
CABLES	MAX 2"	FS-ONE	INTUMESCENT SEALANT –	1HRS	FIRE STOP	FIRE STOP	NOT REQUIRED

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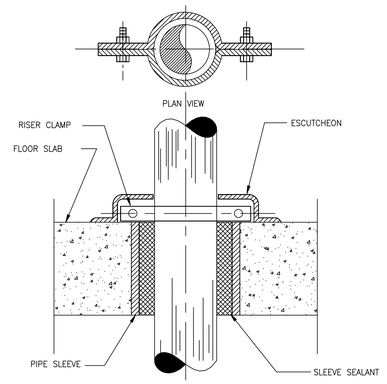
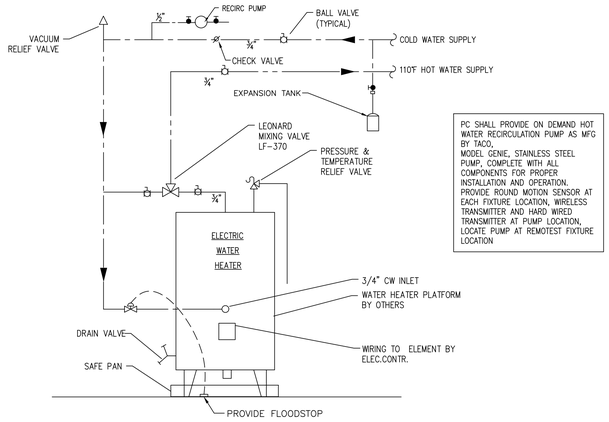
SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

PLUMBING SCHEDULES

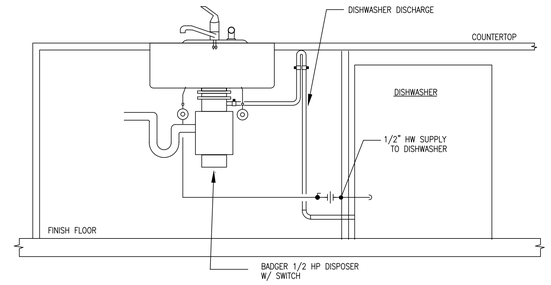
P2.01



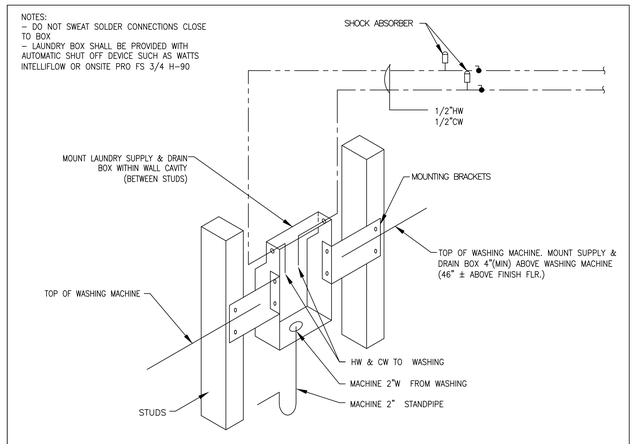
PIPE SLEEVE THROUGH EXPOSED FLOOR SLAB | N.T.S.



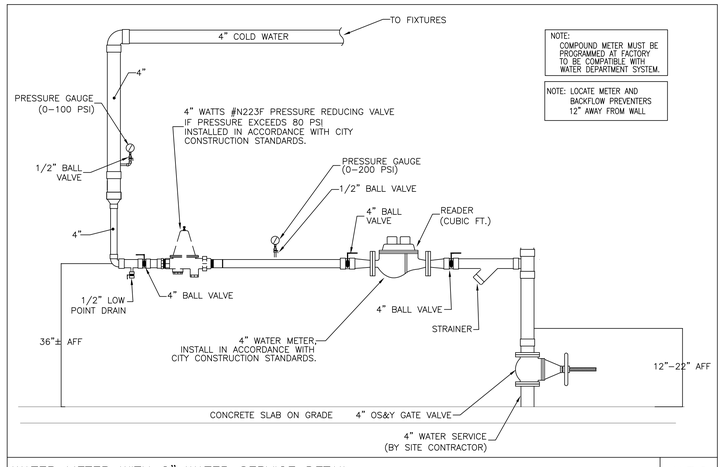
ELECTRIC WATER HEATER PIPING DETAIL | NTS



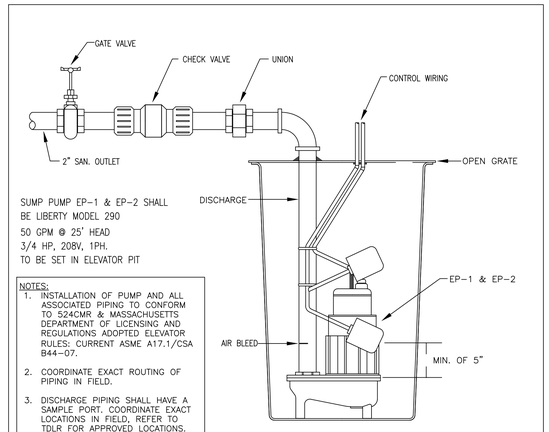
KITCHEN AND DISHWASHER DETAIL | N.T.S.



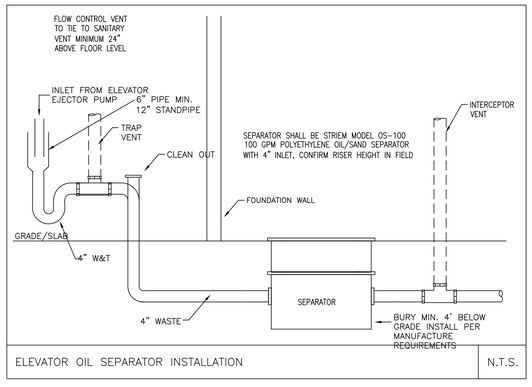
WASHING MACHINE CONNECTION | N.T.S.



WATER METER WITH 2" WATER SERVICE DETAIL | N.T.S.



– | ELEVATOR SUMP PUMP DETAIL | N.T.S.



ELEVATOR OIL SEPARATOR INSTALLATION | N.T.S.

199 ELM STREET

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SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

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P 617-888-0552 **OWNER**

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P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

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P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

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P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

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P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER MECHANICAL No. 51899
REGISTERED PROFESSIONAL ENGINEER

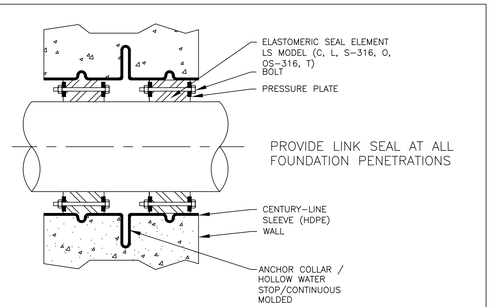
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

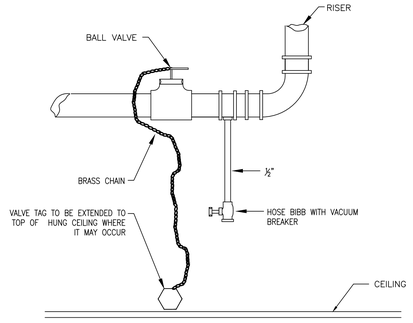
SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

PLUMBING DETAILS

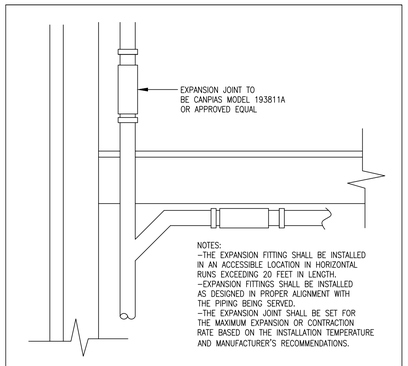
P2.02



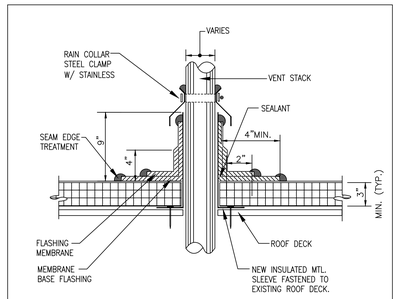
LINK SEAL DETAIL — N.T.S.



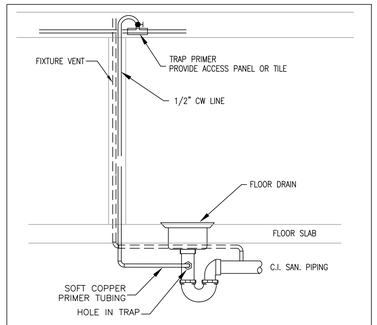
TYPICAL CONNECTION AT BASE OF WATER RISER — N.T.S.



P.V.C. EXPANSION JOINT FITTING — N.T.S.



VENT TERMINAL — N.T.S.



TRAP PRIMER DETAIL — N.T.S.

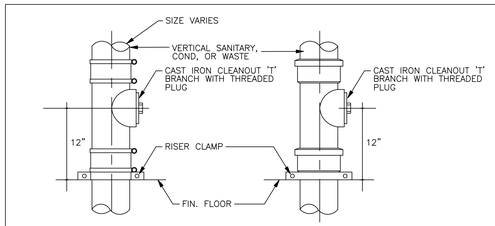
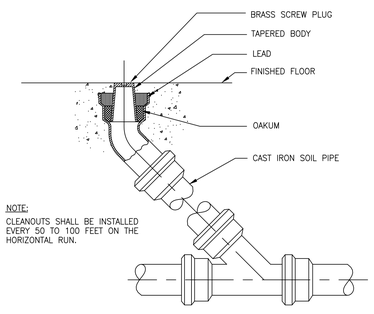
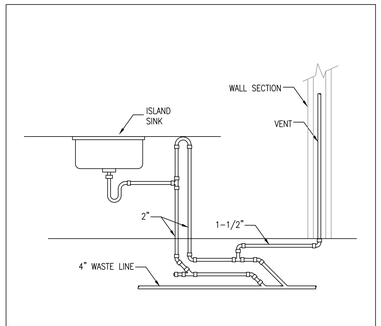


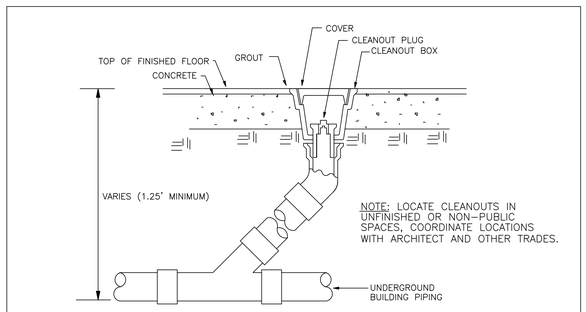
DIAGRAM – DANDY CLEANOUT — N.T.S.



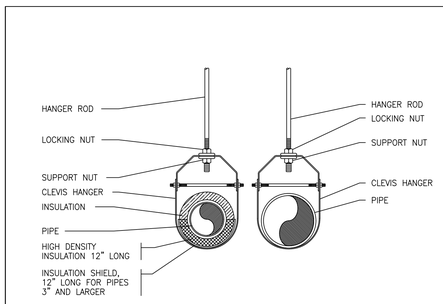
TYPICAL FLOOR CLEANOUT — N.T.S.



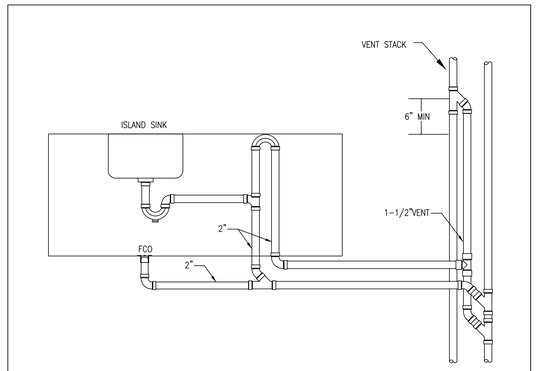
BOW VENT HORIZONTAL CONNECTION DETAIL — N.T.S.



FLOOR LEVEL CLEANOUT DETAIL — N.T.S.



PIPE HANGER INSTALLATION DETAIL — N.T.S.



BOW VENT VERTICAL CONNECTION DETAIL — N.T.S.

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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51895
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
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SCALE: As indicated
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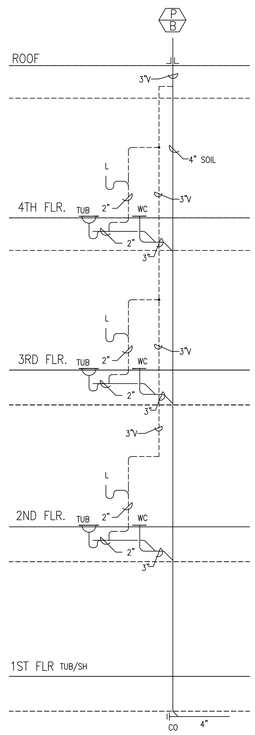
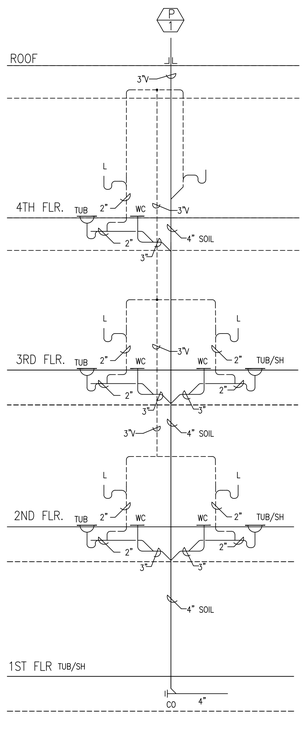
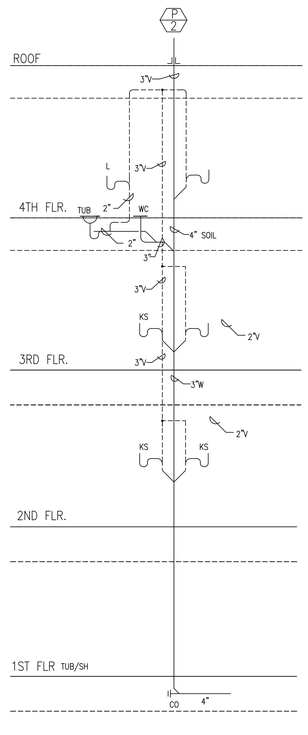
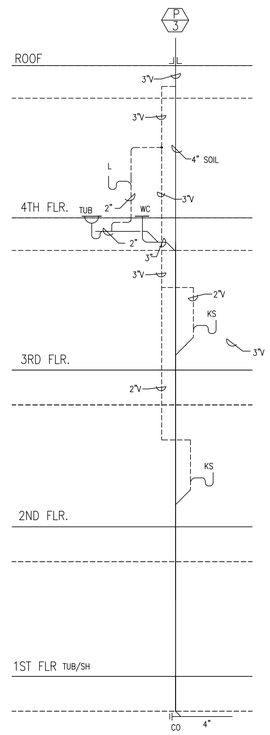
PLUMBING DETAILS

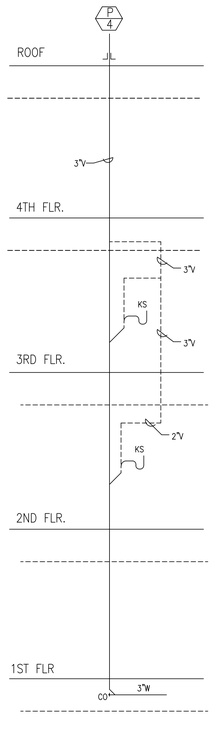
P2.03











LOWER FLR — BATH STACK

LOWER FLR — BATH STACK

LOWER FLR — BATH STACK

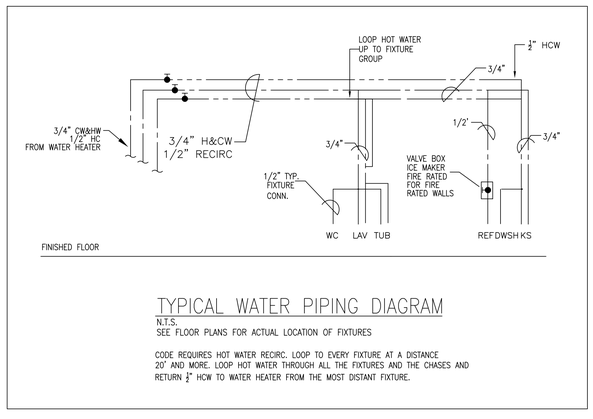
LOWER FLR — BATH STACK

LOWER FLR — KITCHEN STACK

TYPICAL SANITARY RISER DIAGRAMS

N.T.S.

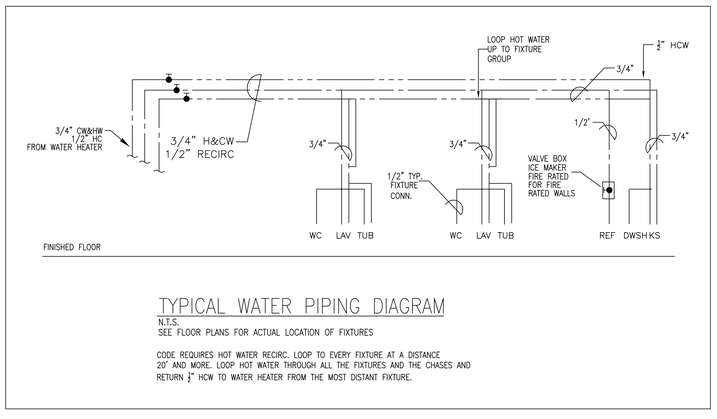
RISER DIAGRAMS DO NOT SHOW OFFSETS.



TYPICAL WATER PIPING DIAGRAM

N.T.S.
SEE FLOOR PLANS FOR ACTUAL LOCATION OF FIXTURES

CODE REQUIRES HOT WATER RECIRC. LOOP TO EVERY FIXTURE AT A DISTANCE 20' AND MORE. LOOP HOT WATER THROUGH ALL THE FIXTURES AND THE CHASES AND RETURN ½" HCW TO WATER HEATER FROM THE MOST DISTANT FIXTURE.



TYPICAL WATER PIPING DIAGRAM

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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MURAT EKERBICER
MECHANICAL
No. 51899
REGISTERED
PROFESSIONAL ENGINEER

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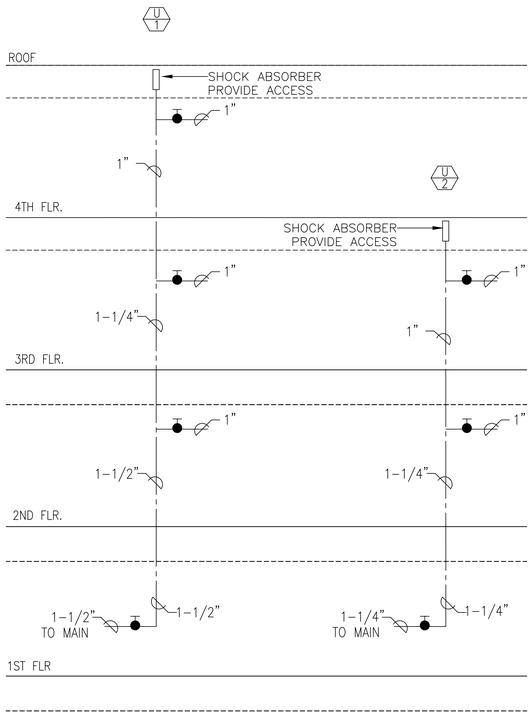
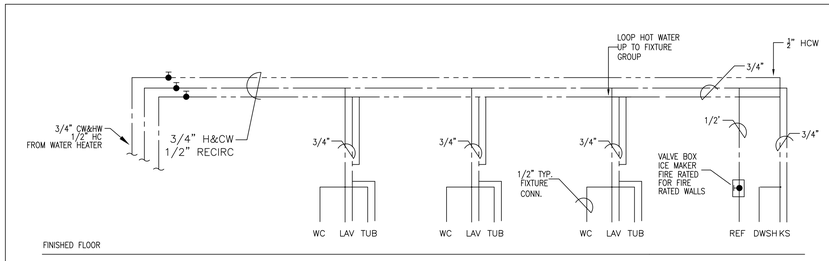
NEIGHBOR PROJECT NUMBER: 2418

PLUMBING DETAILS

P2.04



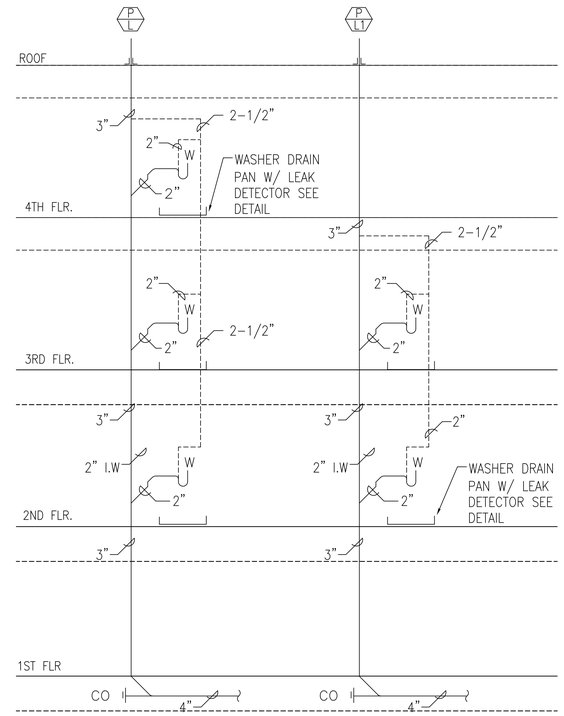
CW RISER



TYPICAL WATER PIPING DIAGRAM

N.T.S.
SEE FLOOR PLANS FOR ACTUAL LOCATION OF FIXTURES

CODE REQUIRES HOT WATER RECIRC. LOOP TO EVERY FIXTURE AT A DISTANCE 20' AND MORE. LOOP HOT WATER THROUGH ALL THE FIXTURES AND THE CHASES AND RETURN 1/2" HCW TO WATER HEATER FROM THE MOST DISTANT FIXTURE.



NOTE: ALL WASHER MACHINES TO BE PROVIDED WITH AQUA MANAGERS "FLOODSTOP" (FS 3/4 H) AUTOMATIC FLOOD PROTECTION KIT

NOTES:

1. 40 PIPE DIAMETER (MIN) IF CHANGE IN DIRECTION IS GREATER THAN 45°.
2. LONG SWEEPS & DANDY CLEANOUTS MAY BE USED IN LIEU OF WYE 1/8 BEND.
3. IF THERE ARE MORE THAN TEN BRANCH INTERVALS ON STACK THEN A RELIEF VENT SHALL BE INSTALLED IN ACCORDANCE WITH 248 CHR 2.16(4)(e).
4. IF IDEAL CONDITIONS DO NOT EXIST, THE LOCAL PLUMBING INSPECTOR MAY APPROVE A VARIATION FROM FIGURE 19 TO ACCOMODATE THE INTENT OF 248 CMR 2.15(9)(d).

WASHER RISER DIAGRAMS

N.T.S.

RISER DIAGRAMS DO NOT SHOW OFFSETS.

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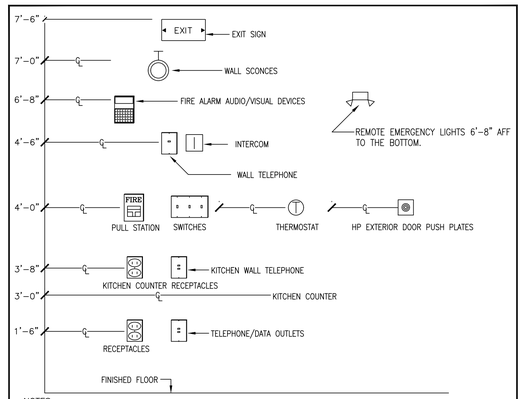
PLUMBING DETAILS

P2.05

SYMBOL LIST

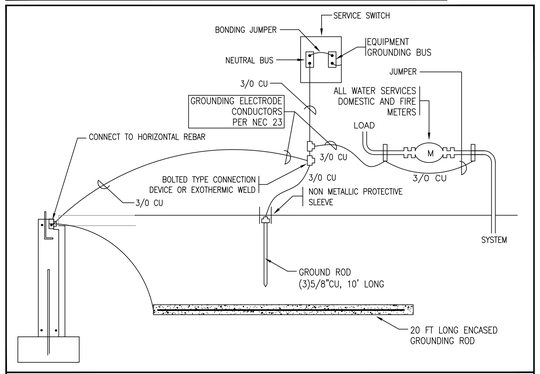
- CEILING MOUNTED LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- PENDANT LIGHT FIXTURE
- 2'X2' OR 2'X4' LED LIGHT FIXTURE
- 1'x4' LED WALL/CEILING MOUNTED LIGHT FIXTURE
- TRACK LIGHT
- S — SINGLE POLE LIGHT SWITCH
- S_3 — THREE-WAY LIGHT SWITCHES
- S_4 — FOUR-WAY LIGHT SWITCHES
- S_D — DIMMER SWITCH MINIMUM 1000W OR AS REQUIRED PER CIRCUIT
- S_{3D} — THREE-WAY DIMMER SWITCHES
- S_{4D} — FOUR-WAY DIMMER SWITCHES
- S_{OS} — SWITCH WITH INTEGRAL OCCUPANCY SENSOR
- DUPLEX RECEPTACLE, 120V, 18" AFF.
- GFI — DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER 8" ABOVE COUNTER TO CENTER
- DUPLEX RECEPTACLE, 120V,18" AFF., ONE OUTLET SWITCHED
- 120V DOUBLE DUPLEX CONVENIENCE RECEPTACLE
- DUPLEX RECEPTACLE ABOVE COUNTER, 8" ABOVE COUNTER TO CENTER
- 208V/1P/30A RECEPTACLE
- SIMPLEX RECEPTACLE, 120V/20A, 18" AFF.
- USB — DUPLEX RECEPTACLE WITH USB PORT
- 208V/1P/50A RANGE RECEPTACLE
- SPECIALTY NEMA RECEPTACLE; SEE FLOOR PLANS FOR NEMA TYPE, 18" AFF.
- CEILING MOUNTED RECEPTACLE, 120V
- TEL/DATA COMBINATION OUTLET, COMPLETE W/JACK AND COVER.
- MOTOR
- 3R — FUSED DISCONNECT SWITCH, (3R RAIN-PROOF)
- HOMERUN TO PANEL WITH CONDUCTOR.(HOT, NEUTRAL, GROUND)
- JUNCTION BOX
- SURFACE MOUNTED PANELBOARD
- RECESS MOUNTED PANELBOARD
- LV — LOW VOLTAGE BOX
- RACEWAY CONCEALED IN CEILING, PLENUM OR WALLS
- RACEWAY CONCEALED IN SLAB (FLOOR)
- TC — TIME SWITCH
- T — DRY TYPE TRANSFORMER
- UNIVERSAL MOUNTING EXIT SIGN (DOUBLE FACED), ARROWS AS INDICATED
- EMERGENCY BATTERY UNIT WITH MOUNTING BRACKET AND VOLTMETER
- M.S. — OCCUPANCY SENSOR
- AORC — AREA OF REFUGE CENTRAL BASE UNIT (TWO-WAY COMMUNICATION SYSTEM)
- AOR — AREA OF REFUGE FLOOR ELEVATOR LOBBY UNIT



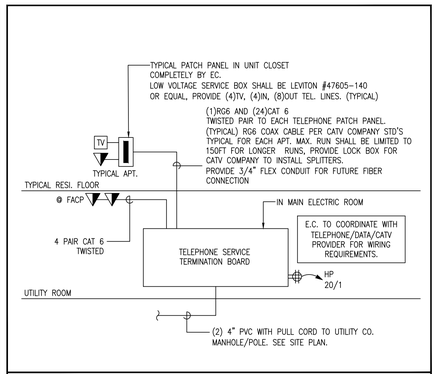
NOTES

1. DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
2. HOOD AND GARBAGE DISPOSAL CONTROL SWITCHES (LIGHT/FAN) SHALL BE MOUNTED ON CABINET APRON, OR ON COUNTERTOP SURFACE IN A UL RATED ASSEMBLY. KITCHEN COUNTER OUTLETS SHALL BE MOUNTED 2" LOWER THAN STANDARD UNITS.
3. ALL DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL, U.N.O. IN CONTRACT DOCUMENTS BY ARCHITECT OR BY OWNER.
4. FIRE ALARM PULL STATION MOUNTING HEIGHT SHALL BE COMPLY WITH NFPA 72. (NOT LESS THAN 42 INCHES AND NOT MORE THAN 48 INCHES ABOVE FINISHED FLOOR)
5. FOR FIRE ALARM HORN/STROBES, THE ENTIRE STROBE LENS IS TO BE LOCATED NOT LESS THAN 80 INCHES A.F.F., AND NOT MORE THAN 96 INCHES A.F.F., AND SHALL COMPLY WITH NFPA 72.

TYPICAL DEVICE MOUNTING HEIGHTS DETAIL



SYSTEM GROUNDING DETAIL (NTS)



CATV/TELEPHONE RISER DIAGRAM (NTS)

WP — INDICATES EXTERIOR MOUNTED EMERGENCY LIGHT. CONNECT ALL REMOTE EMERGENCY LIGHTS ON CIRCUITS SO THAT (WATTSXFT) IS LESS THAN 3200 UNITS AND WIRE WITH #10 CU TO REMOTE BATTERY, PROVIDE 12V SEALED CALCIUM BATTERY UNIT AS REQUIRED OR AS SPECIFIED. BATTERY SHALL BE LOCATED IN A WARM ROOM.
BATTERY SHALL BE EMERGI-LITE 12LSM-220
OUTDOOR LIGHTS SHALL BE EMERGI-LITE EF11D

CONNECT ALL EXIT AND WALL PACK EMERGENCY LIGHTS TO THE LOCAL LIGHTING BRANCH CIRCUIT SERVING THE AREA, AHEAD OF ANY SWITCHED LEG(S). BACKUP BATTERIES SHALL BE CAPABLE OF POWERING THE EXIT AND EMERGENCY LIGHTS FOR A MINIMUM OF 90 MINUTES.

M.S. INDICATES CEILING MOUNTED OCCUPANCY SENSOR.
IN EACH SPACE EXCEPT CLOSETS, BATHROOMS, CORRIDORS, AND UTILITY ROOMS, PROVIDE CEILING MOUNTED OCCUPANCY SENSOR SHOWN OR OTHERWISE TO COMPLY WITH MASS ENERGY CODE. UNITS SHALL BE SIZED PER CIRCUIT REQUIREMENTS. EQUIPMENT SHALL BE AS MANUFACTURED BY NOVITAS 01-087 OR 01-077 OR EQUAL, AIR FLOW COMPENSATED TYPE.

IN ALL RESIDENTIAL DWELLING UNITS, UNLESS NOTED OTHERWISE:
- ALL LIGHT FIXTURES WITHIN BATHROOMS SHALL BE FED FROM THE LOCAL BATHROOM BRANCH CIRCUIT.
- LIGHT FIXTURES IN ALL OTHER AREAS WITHIN THE DWELLING UNIT SHALL BE FED FROM THE DEDICATED LIGHTING CIRCUIT.

ALL 120V RECEPTACLES INSTALLED WITHIN A RESIDENTIAL UNIT SHALL BE SHALL BE SAFETY TYPE AS MANUFACTURED BY LEVITON "5262-SG" OR APPROVED EQUAL.

PER NEW DEFINITION OF READILY ACCESSIBLE, ALL APPLIANCE CONNECTION POINTS WILL BE LOCATED IN THE NEXT BAY OF THE KITCHEN COUNTER OR SIMILAR SUCH THAT PLUGGING/UNPLUGGING OF THE APPLIANCES WILL NOT REQUIRE REMOVAL OR PULLING OUT OR TAKING PANELS OF THE FRONT FACE OF THE APPLIANCE.

IN RESIDENTIAL BUILDINGS ALL EXTERIOR WALL MOUNTED OUTLETS SHALL HAVE DRAFT BARRIERS.
- ALL OUTLETS MOUNTED ON FIRE RATED WALLS (UNIT SEPARATION WALLS) SHALL HAVE FIRE BLANKETS ON THEM.

AIR TIGHT ELECTRICAL BOXES SHALL BE "ALLIED MOULDED PRODUCTS, INC" VAPOR SEAL SINGLE GANG 22.5 CU.IN., PART#1099-NV2 TWO GANG 37.0 CU.IN., PART#2302-HNKV2 4" ROUND 22.5 CU.IN., PART#9350-BHKV2 KV2 HN 4" ROUND 22.5 CU.IN., PART#9350-

ALL WIRES IN DWELLING ENCLOSURE WALLS SHALL BE FOAM SEALED TO THE BOXES AND THE BOXES SHALL BE FOAM SEALED TO THE DRYWALL.

UNLESS NOTED OTHERWISE, ALL BRANCH CIRCUITS SHALL BE #12 AWG CU.

NO EXPOSED WIRING IS ALLOWED.
ALL BRANCH CONDUCTOR WIRING WITHIN RESIDENTIAL UNITS SHALL BE CONCEALED NM SHEATHED CABLE.
ALL BRANCH CONDUCTOR WIRING WITHIN COMMON SPACES SHALL BE CONCEALED MC CABLE UNLESS IN TYPE III, IV, OR V CONSTRUCTION, WHEN TYPE NM SHEATHED CABLE MAY BE USED.
ALL RETAIL TENANT SPACING BRANCH CONDUCTORS SHALL BE IN "MC".
ALL WIRING IN BLOCK WALLS SHALL BE CONCEALED, RUN IN CONDUIT.

PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE BOXES FOR EACH TYPICAL UNIT FOR OWNER/ARCHITECT REVIEW.

OUTLETS AT FOLLOWING LOCATIONS SHALL BE GFI TYPE:
-RESIDENTIAL BATHROOMS, 210.8(A)(1)
-RESIDENTIAL KITCHENS, 210.8(A)
-LAUNDRY, 210.8(A)(10)
-DISHWASHERS, 210.8(D) (THROUGH GFI BREAKER)
-DRINKING FOUNTAIN, 422.52
-VENDING MACHINES, 422.51
-ROOF TOPS, 210.8(B)(2)(WP AS WELL)
-BALCONY/EXTERIOR OUTLETS (WP AS WELL)
-ELEVATOR MACHINE ROOMS AND PITS (WP AS WELL)
-GARAGES
-FINISHED/UNFINISHED BASEMENT OUTLETS

CONDENSING UNITS SERVING DWELLING UNITS SHALL BE WIRED TO DWELLING LOAD CENTER UNIT IS SERVING. CONTRACTOR SHALL COORDINATE WITH HVAC SUB CONTRACTOR FOR EXACT UNIT, CORRESPONDING DWELLING AND ELECTRICAL CHARACTERISTICS PRIOR TO ANY WORK DONE. EC SHALL PROVIDE A GFI/WP PROTECTED RECEPTACLE WITHIN 25' OF ALL CONDENSING UNITS AND EQUIPMENT THAT MAY REQUIRE SERVICING.

LOCATION OF ALL MECHANICAL EQUIPMENTS AND ELECTRICAL CHARACTERISTICS SHALL BE COORDINATED WITH MECHANICAL CONTRACTOR PRIOR TO ANY WORK DONE. ALL EQUIPMENT RELATING TO MECHANICAL COMPONENTS SHALL BE ORDERED ONLY AFTER THE APPROVAL OF MECHANICAL EQUIPMENT SHOP DRAWINGS

WIRING IN ALL EXPOSED AREAS SHALL BE IN METALLIC RACEWAYS AS WIREMOLD OR EQUAL. RACEWAYS SHALL BE PAINTED AS DIRECTED BY THE ARCHITECT. SURFACE RACEWAYS SHALL CLOSELY FOLLOW THE SURFACE AND WRAP AROUND THE BEAMS AS REQUIRED. PRIOR TO ANY INSTALLATION, SUBMIT LAYOUT SKETCH INDICATING PROPOSED ROUTING FOR APPROVAL. ARCHITECT HAS THE RIGHT TO MODIFY OR CHANGE LAYOUT AS NEEDED. ANY CHANGES PRIOR TO ANY INSTALLATION SHALL BE AT NO CHANGE TO CONTRACT PRICE.

CARBON MONOXIDE DETECTORS

PROVIDE CARBON MONOXIDE DETECTORS:
- OUTSIDE EACH BEDROOM.
- ON EVERY HABITABLE LEVEL.
- IN THE ROOM HOUSING THE GAS APPLIANCE.
- FOR ALL GAS FIRED UNITS WITH UNIT SHUT DOWN, INTERLOCK.
- NEAR ALL GAS FIRED FIRE PLACES.

DETECTORS SHALL BE UL LISTED.
DETECTORS SHALL BE HARD WIRED WITH BATTERY BACK-UP.
DETECTORS SHALL BE BRK CO 5120BN, OR EQUAL.

IN RESIDENTIAL BUILDINGS, FOR ALL GAS FIRED VENTILATION/AIR CIRCULATION EQUIPMENT, PROVIDE DUCT MOUNTED CO DETECTOR COMPLETE WITH HOUSING AND SAMPLING TUBE AS MANUFACTURED BY MACURCO CM 15A OR EQUAL, AND CONNECT TO FIRE ALARM PANEL VIA MONITOR MODULE.

ALL CO DETECTORS MUST "LATCH" AT THE PANEL: THE RESPONDER TO A CO DETECTOR SUPERVISORY ALARM MUST BE LEAD TO MITIGATE. THE CO ISSUE AT THE DETECTOR AND THEN CLEAR/RESET THE FIRE ALARM PANEL. THE CO SUPERVISORY ALARM CANNOT BE MITIGATED AT THE POINT LOCATION, BUT REQUIRES A COMPETENT RESPONDER TO ADDRESS THE PANEL IN THE FIRE COMMAND CENTER.

ALARM MONITORING SERVICE RECEIVES A SUPERVISORY CARBON MONOXIDE SIGNAL; THE WORDS "CARBON MONOXIDE" MUST BE PRESENT AT ALARM COMPANY, THE LETTERS "CO" ARE NOT ACCEPTABLE.

TELEPHONE SYSTEM

A. FURNISH AND INSTALL A COMPLETE SYSTEM OF CONDUITS AND BACKBOARDS FOR TELEPHONE INSTRUMENTS AS SHOWN ON THE PLANS.

B. TELEPHONE TERMINAL LOCATIONS AS SHOWN ON THE PLANS SHALL BE 30" X 48" X 3/4" PLYWOOD. GROUND CONNECTIONS SHALL BE MADE BY THE TELEPHONE COMPANY. ELECTRICAL CONTRACTOR SHALL PROVIDE PRIMARY ARRRESTER WITH FUSE AND #6CU GROUNDING WIRE AND GROUND BOLT CONNECTED TO SERVICE GROUND

C. A NYLON FISH WIRE SHALL BE LEFT IN ALL CONDUITS TO FACILITATE PULLING-IN TELEPHONE WIRES. FURNISH AND INSTALL ONE NYLON PULL WIRE FOR PULLING IN TELEPHONE SERVICE IN ALL CONDUITS. SEE SITE PLAN FOR SERVICE ENTRANCE.

D. LOCAL TELEPHONE COMPANY SHALL BE RESPONSIBLE FOR TELEPHONE WIRING FROM THEIR OUTDOOR TERMINATION CABINET TO A NETWORK INTERFACE LOCATED IN THE TELEPHONE ROOM.

F. EACH TELEPHONE OUTLET SHALL BE WIRED TO DATA INTERFACE TERMINATION BOARD WITH PLENUM RATED CAT 6 , #20/8 TWISTED DATA WIRE TERMINATED IN TESTED AND CERTIFIED CAT 6 TERMINATION STYLE AT BOTH ENDS AND CLEARLY RINGED AND TAGGED.

CONSTRUCTION AND TEST REQUIREMENTS (NEC REQUIREMENTS)

800.50 PREVENTS LAYING TELEPHONE WIRES ON CEILING TILES.

800.50 REQUIRES PRIMARY PROTECTOR FOR MOST UNDERGROUND AND ALL OVERHEAD SERVICES

800.30 (2) REQUIRES FUSED TYPE PRIMARY PROTECTOR AT SERVICE ENTRANCE 800.50 REQUIRES ALL METAL SHIELDS TO BE GROUNDED

800.50 REQUIRES INSULATED GROUNDING CONDUCTOR TO BE MINIMUM #14, NO LONGER THAN 20FT AND CONNECTED TO BUILDING GROUND SYSTEM. WITH MINIMUM #6 BONDING CABLE.

800.50 REQUIRES TYPE CMP FOR PLENUM, CMR FOR RISER APPLICATIONS,

800.51 REQUIRES MINIMUM 2" BETWEEN POWER LINES AND COMMUNICATION LINES,
RECOMMENDED PRACTICE 6" FROM BALLASTS AND 6FT FROM LIGHTNING WIRES. ALSO KEEP DISTANCE FROM HEAT SOURCES.
KEEP MINIMUM 6" FROM 20A/2KW CIRCUITS
KEEP MINIMUM 12" FROM 30A/5KW CIRCUITS
KEEP MINIMUM 24" FROM ANY FEEDER.
FOR SHIELDED CABLES THESE VALUES MAY BE TAKEN IN 1/3.

CAT 6 INSTALLATION RECOMMENDATIONS INCLUDE

CAT 6 INSTALLATION REQUIRES MINIMUM ½" UNTWIST
MINIMUM 1" BENDING RADIUS FOR FOUR PAIR OR 4X. FOR 25 PAIR 10XDIA.
PROVIDE MINIMUM TWO LINES AT EACH LOCATION ONE FOR TELEPHONE OTHER FOR DATA
WATCH FOR THAT A KINKED CABLE REDUCES 2.5DB; A SINGLE 1" RADIUS BEND REDUCES 2 DB.

- WIRE MAP TEST (TO IDENTIFY INSTALLATION ERRORS)
- LENGTH TEST (TO VERIFY MAXIMUM OPERATIONAL LENGTH IS 300FT)
- ATTENUATION TEST (TO MEASURE MAXIMUM SIGNAL LOSS AT 100MHZ LESS THAN 22)
- NEXT (TO MEASURE SIGNAL COUPLING BETWEEN THE PAIRS AT 100MHZ LESS THAN 32)
- PROPAGATION TEST (TO MEASURE TIME IT TAKES SIGNAL FROM ONE POINT TO OTHER)

CATV INTERNAL UNIT WIRING SPECIFICATIONS

COAXIAL CABLE

ALL COAXIAL CABLE WITHIN THE UNIT, INCLUDING THE DROP CABLES BACK TO THE COMMON DISTRIBUTION ROOM SHOULD MEET OR EXCEED THE FOLLOWING REQUIREMENTS:
- RG-6 QUAD SHIELD FOR DROP LENGTHS OF UP TO 150 FEET.
- RG-11QUAD SHIELD FOR DROP LENGTHS BETWEEN 151 FEET AND 250 FEET. (DROP LENGTHS SHOULD NOT EXCEED 250 FEET.)

INTERNAL UNIT WIRING

EACH APARTMENT SHALL HAVE IT'S OWN SEPARATE HOME-RUN WIRE. PROVIDE A DUAL CABLE TO BE USED FOR ALL DROP WIRING.

EACH APARTMENT THAT HAS MORE THAN ONE OUTLET MUST HAVE AN INTERFACE ENCLOSURE. THE INTERFACE ENCLOSURE SHALL BE PLACED IN A CENTRAL LOCATION IN THE UNIT, TYPICALLY THE CLOSET. THE ENCLOSURE SHOULD BE LOCATED AS CLOSE AS POSSIBLE TO THE PHONE INTERFACE WITHIN THE UNIT.

NO OUTLET SHOULD BE LOOP-WIRED (NO DAISY CHAIN WIRING.) EVERY OUTLET IN THE UNIT SHOULD BE WIRED BACK TO AN INTERFACE ENCLOSURE WITHIN THE UNIT.

ALL OUTLET LOCATIONS SHOULD HAVE A MINIMUM OF 12" OF EXTRA CABLE BEHIND THE WALLPLATE.

MUD RINGS SHOULD BE USED AS OPPOSED TO CLOSED BOXES.

THE COAXIAL HOME RUN AND TWISTED PAIR HOME RUN SHALL BE WIRED TO THE SAME DISTRIBUTION CLOSET ON EACH FLOOR.

DO NOT KINK, FORM TIGHT NINETY-DEGREE ANGLES, PIERCE THE OUTER JACKET, DAMAGE, OR MISHANDLE THE COAXIAL CABLE IN ANY WAY. USE APPROVED COAXIAL FASTENERS ONLY. METAL STUDS REQUIRE THAT PLASTIC BUSHINGS BE INSTALLED PRIOR TO PULLING THE CABLE.

TV: INDICATES TEL/DATA COMBINATION OUTLET WITH CAT 6 TEL/DATA JACK.
E.C. SHALL WIRE EACH OUTLET HOME RUN 2 PAIR CAT 6 CLP FOR TELEPHONE TO TELEPHONE TERMINATION BOARDS RESPECTIVELY. TERMINATE AT PUNCH DOWN BLOCKS. ALL WIRING AND TERMINATION'S SHALL BE PER CAT 6 SPECIFICATIONS, ALL WIRES SHALL BE PROPERLY LABELED AND RINGED OUT. KEEP WIRES MINIMUM 18" FROM POWER FEEDS AND FIXTURE BALLASTS

TV: INDICATES COAXIAL.
E.C. SHALL HOME RUN EACH OUTLET WITH RG 6 COAX CABLE AND CONNECT TO SPLITTER WITHIN EACH DWELLING UNIT, AND CONNECT DWELLING UNIT WITH DOUBLE COAX TO SERVICE ENTRANCE BOX LOCATED IN ELECTRIC ROOM. COORDINATE WITH LOW VOLTAGE CONTRACTOR.

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 — PROJECT

PICKER CONSTRUCTION
177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA, 02115
P 617-888-0552 — OWNER

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 — ARCHITECT

HOWARD STEIN HUDSON
11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 — CIVIL / TRANSPORTATION

GROUND INC.
285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 — LANDSCAPE

FOREST ENGINEERING
231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 — STRUCTURAL

ZADE ENGINEERING
1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 — MEPFP

SLS CONSULTING
1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 — CODE CONSULTANT

VvS ARCHITECTS & CONSULTANTS
P 617 898 8995 — SUSTAINABILITY

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

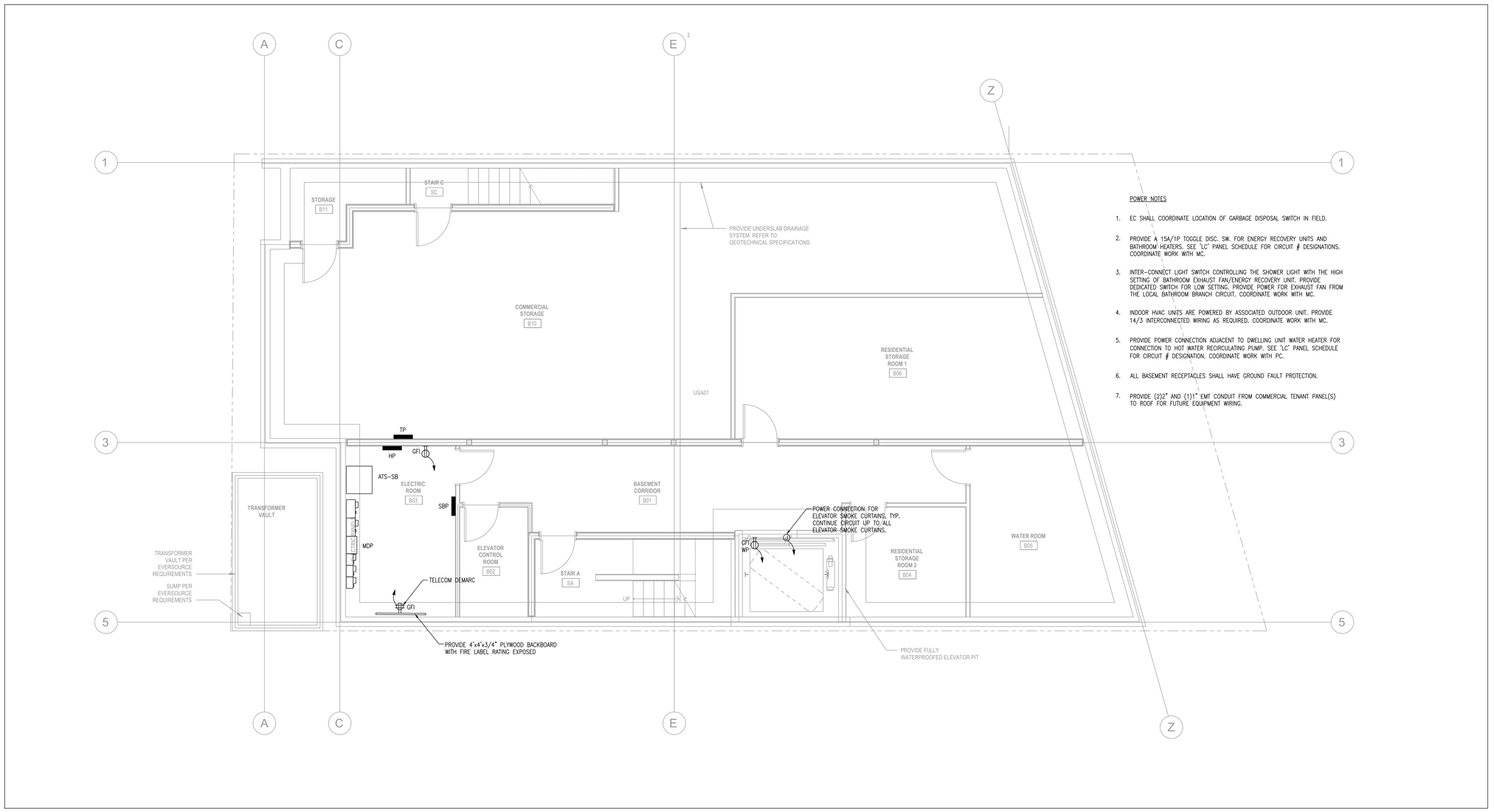
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL
LEGEND & NOTES

E0.00



1 LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

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GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

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COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
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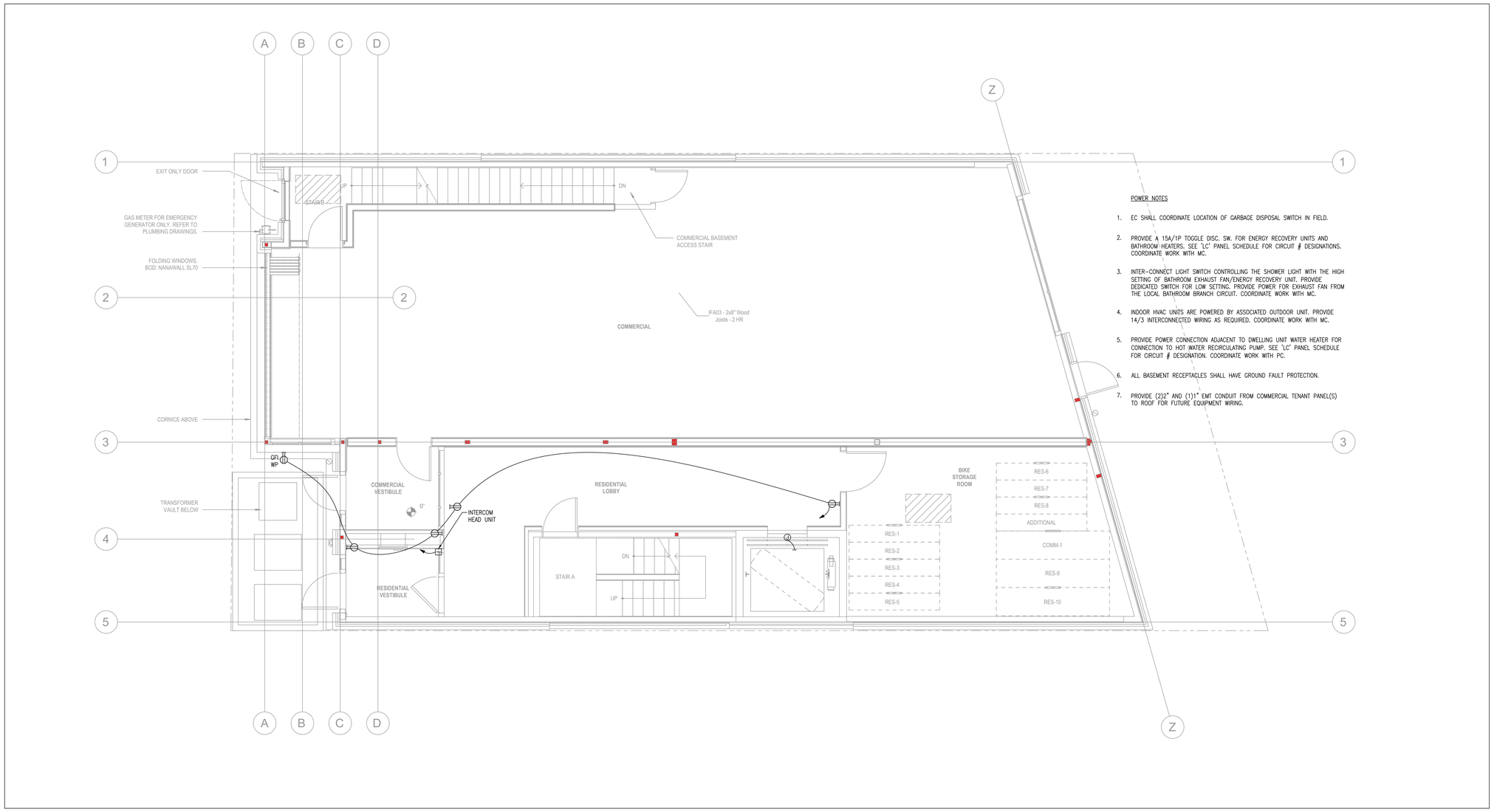
ELECTRICAL
FLOOR PLAN - LOWER LEVEL
- POWER

E1.00



1 FIRST FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
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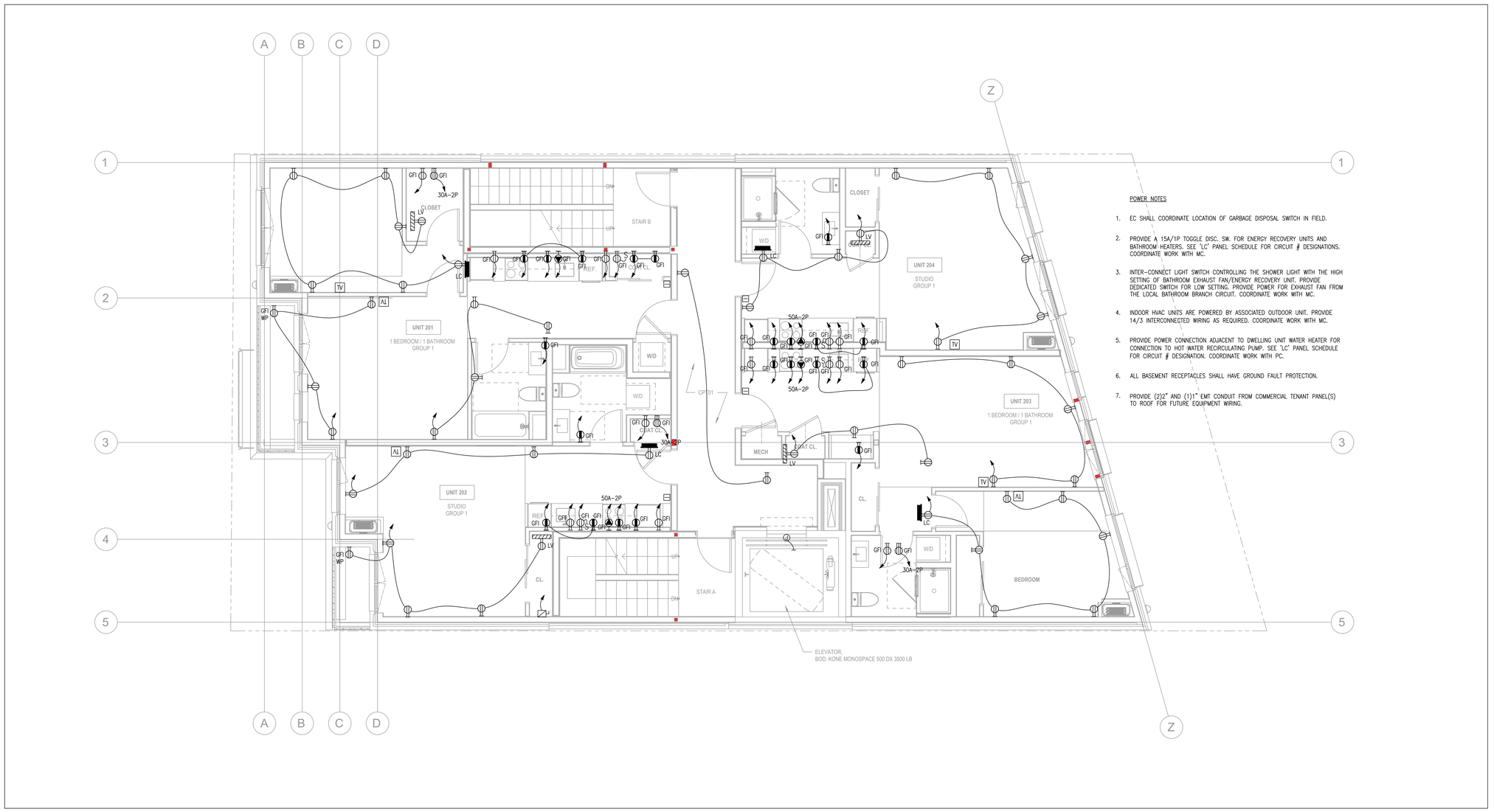
SCALE: **As indicated**
NEIGHBOR PROJECT NUMBER: **2418**

ELECTRICAL
FLOOR PLAN - FIRST FLOOR
- POWER

E1.01



POWER NOTES

1. EC SHALL COORDINATE LOCATION OF GARBAGE DISPOSAL SWITCH IN FIELD.
2. PROVIDE A 15A/1P TOGGLE DISC. SW. FOR ENERGY RECOVERY UNITS AND BATHROOM HEATERS. SEE 'LC' PANEL SCHEDULE FOR CIRCUIT # DESIGNATIONS. COORDINATE WORK WITH MC.
3. INTER-CONNECT LIGHT SWITCH CONTROLLING THE SHOWER LIGHT WITH THE HIGH SETTING OF BATHROOM EXHAUST FAN/ENERGY RECOVERY UNIT. PROVIDE DEDICATED SWITCH FOR LOW SETTING. PROVIDE POWER FOR EXHAUST FAN FROM THE LOCAL BATHROOM BRANCH CIRCUIT. COORDINATE WORK WITH MC.
4. INDOOR HVAC UNITS ARE POWERED BY ASSOCIATED OUTDOOR UNIT. PROVIDE 14/3 INTERCONNECTED WIRING AS REQUIRED. COORDINATE WORK WITH MC.
5. PROVIDE POWER CONNECTION ADJACENT TO DWELLING UNIT WATER HEATER FOR CONNECTION TO HOT WATER RECIRCULATING PUMP. SEE 'LC' PANEL SCHEDULE FOR CIRCUIT # DESIGNATION. COORDINATE WORK WITH PC.
6. ALL BASEMENT RECEPTACLES SHALL HAVE GROUND FAULT PROTECTION.
7. PROVIDE (2)2" AND (1)1" EMT CONDUIT FROM COMMERCIAL TENANT PANEL(S) TO ROOF FOR FUTURE EQUIPMENT WIRING.

1 SECOND FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
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P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

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P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

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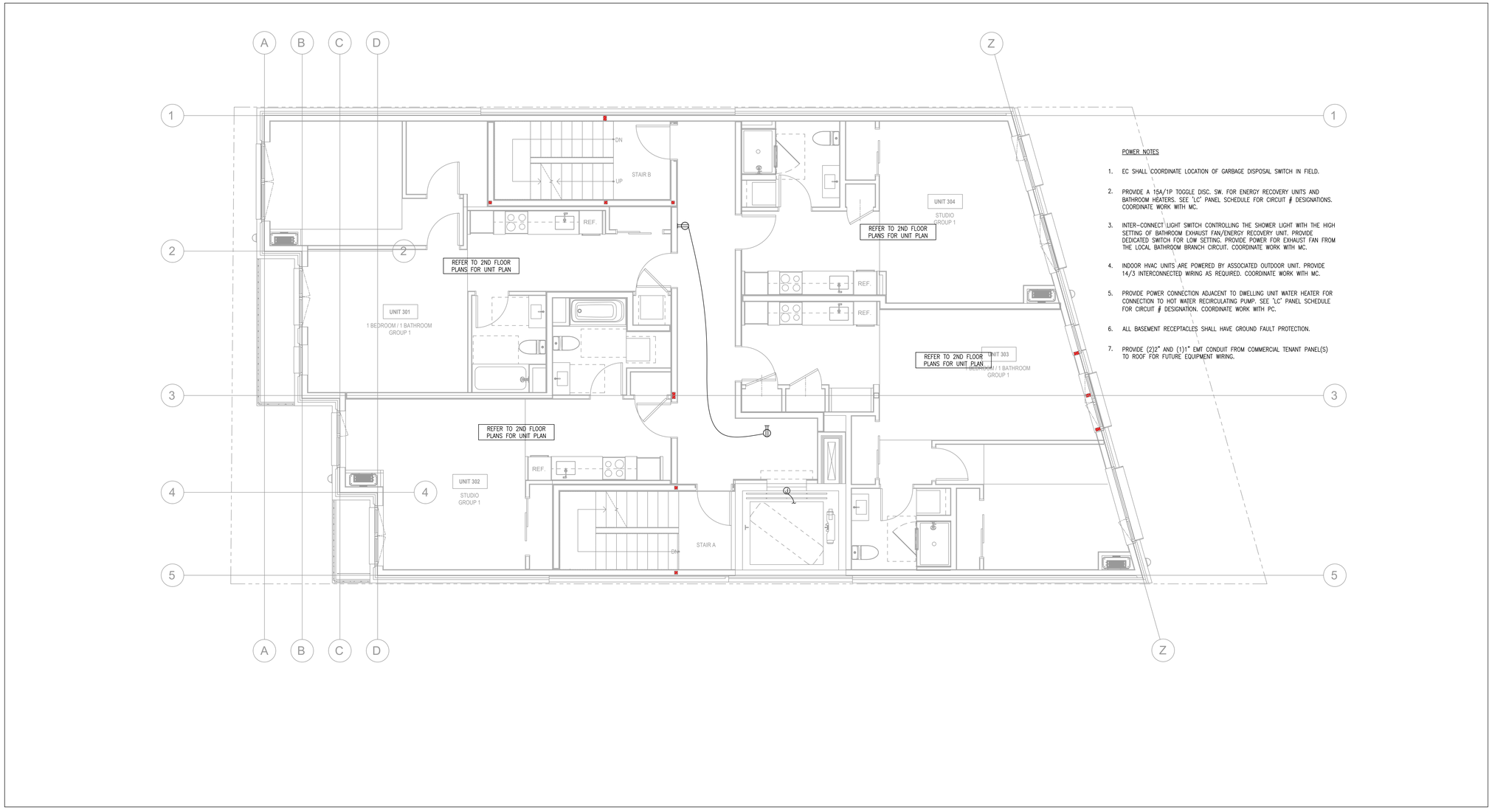
SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL
FLOOR PLAN - SECOND FLOOR
- POWER

E1.02



1 THIRD FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
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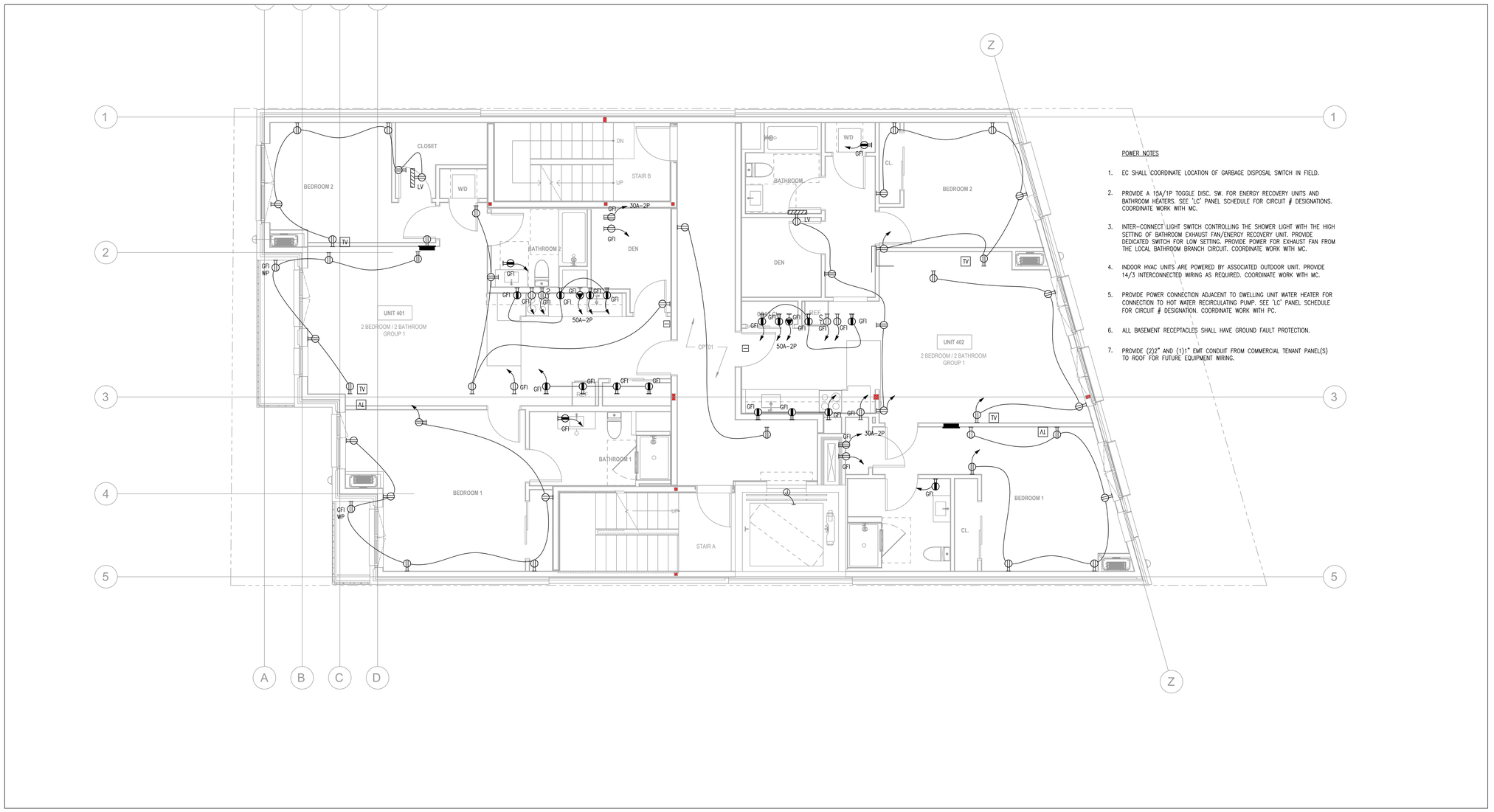
ELECTRICAL
FLOOR PLAN - THIRD FLOOR
- POWER

E1.03



1 FOURTH FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
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PICKER CONSTRUCTION

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COMMONWEALTH OF MASSACHUSETTS
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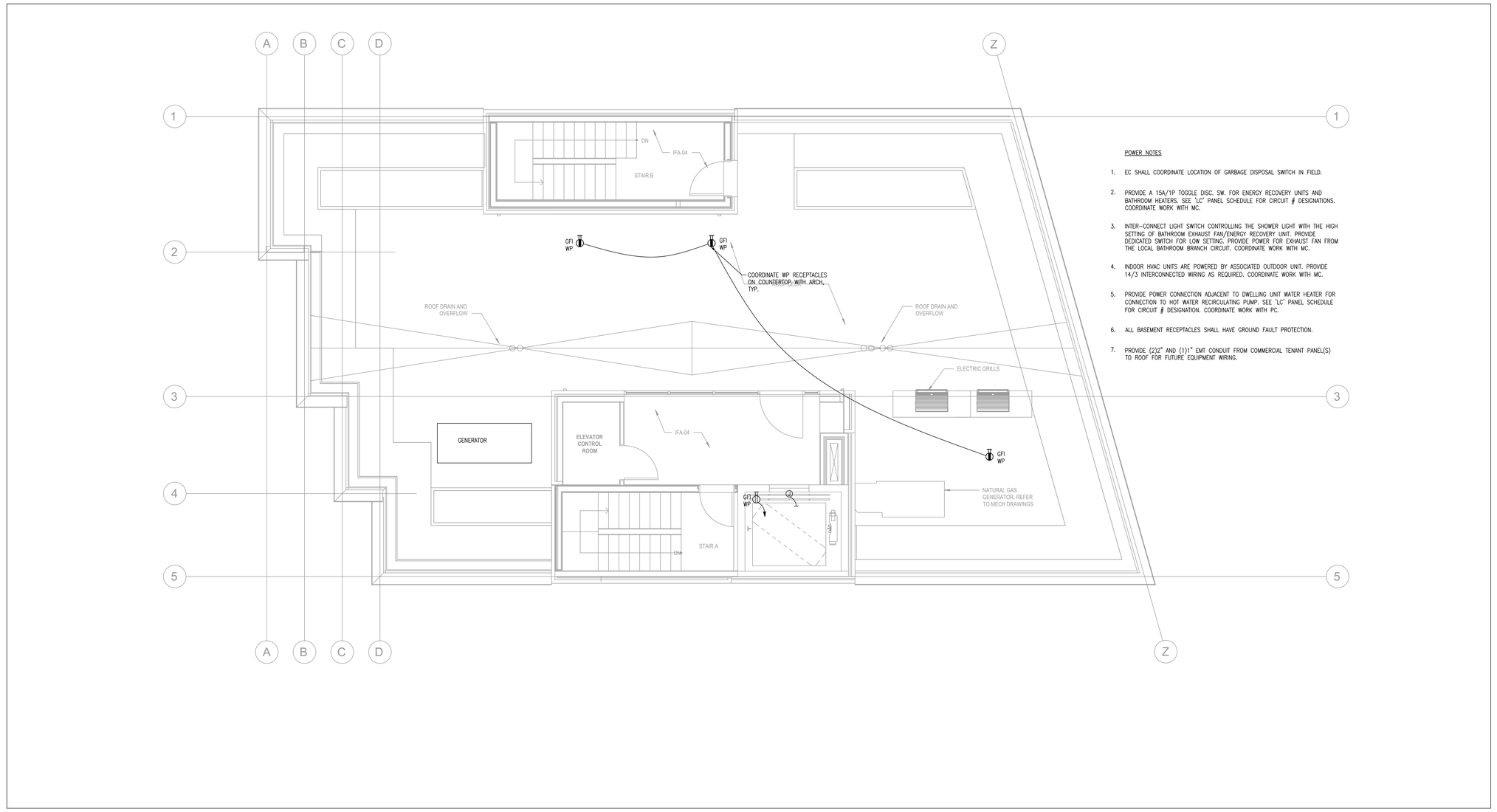
ELECTRICAL
FLOOR PLAN - FOURTH FLOOR
- POWER

E1.04



1 ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

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285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
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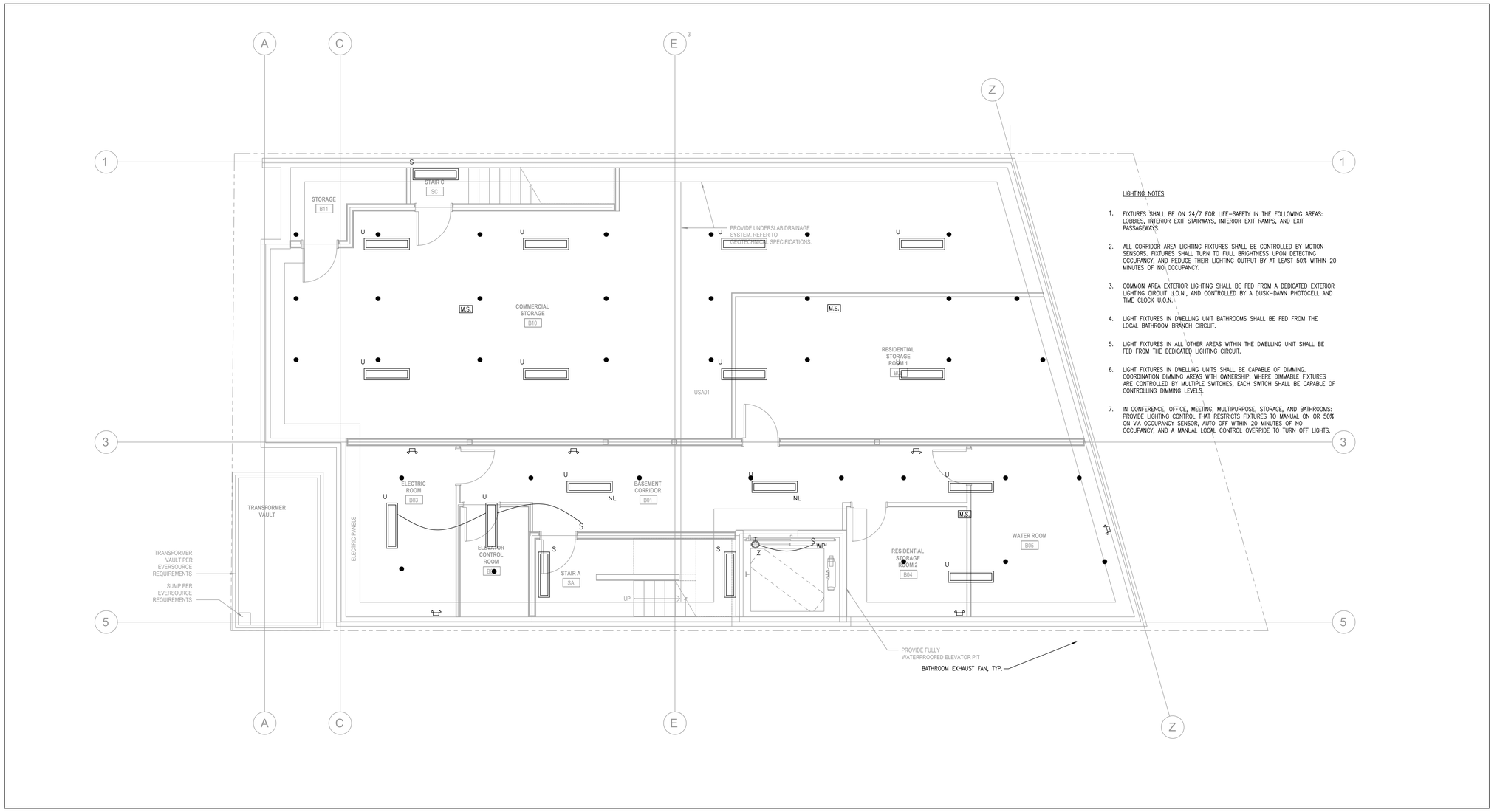
ELECTRICAL
FLOOR PLAN - ROOF
-POWER

E1.05



1 LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"

LIGHTING NOTES

1. FIXTURES SHALL BE ON 24/7 FOR LIFE-SAFETY IN THE FOLLOWING AREAS: LOBBIES, INTERIOR EXIT STAIRWAYS, INTERIOR EXIT RAMPS, AND EXIT PASSAGEWAYS.
2. ALL CORRIDOR AREA LIGHTING FIXTURES SHALL BE CONTROLLED BY MOTION SENSORS. FIXTURES SHALL TURN TO FULL BRIGHTNESS UPON DETECTING OCCUPANCY, AND REDUCE THEIR LIGHTING OUTPUT BY AT LEAST 50% WITHIN 20 MINUTES OF NO OCCUPANCY.
3. COMMON AREA EXTERIOR LIGHTING SHALL BE FED FROM A DEDICATED EXTERIOR LIGHTING CIRCUIT U.O.N., AND CONTROLLED BY A DUSK-DAWN PHOTOCELL AND TIME CLOCK U.O.N.
4. LIGHT FIXTURES IN DWELLING UNIT BATHROOMS SHALL BE FED FROM THE LOCAL BATHROOM BRANCH CIRCUIT.
5. LIGHT FIXTURES IN ALL OTHER AREAS WITHIN THE DWELLING UNIT SHALL BE FED FROM THE DEDICATED LIGHTING CIRCUIT.
6. LIGHT FIXTURES IN DWELLING UNITS SHALL BE CAPABLE OF DIMMING. COORDINATION DIMMING AREAS WITH OWNERSHIP. WHERE DIMMABLE FIXTURES ARE CONTROLLED BY MULTIPLE SWITCHES, EACH SWITCH SHALL BE CAPABLE OF CONTROLLING DIMMING LEVELS.
7. IN CONFERENCE, OFFICE, MEETING, MULTIPURPOSE, STORAGE, AND BATHROOMS: PROVIDE LIGHTING CONTROL THAT RESTRICTS FIXTURES TO MANUAL ON OR 50% ON VIA OCCUPANCY SENSOR, AUTO OFF WITHIN 20 MINUTES OF NO OCCUPANCY, AND A MANUAL LOCAL CONTROL OVERRIDE TO TURN OFF LIGHTS.

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

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P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

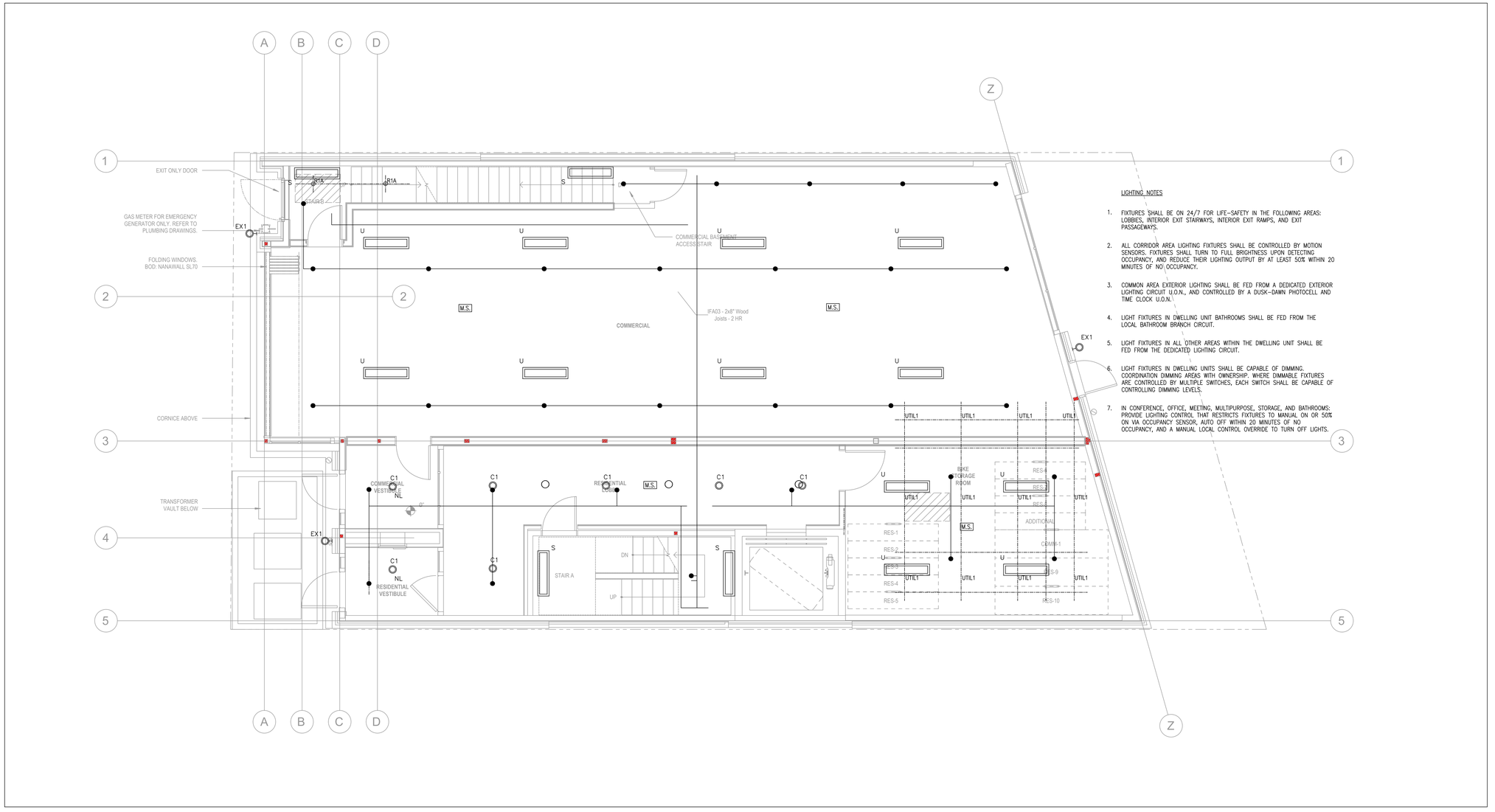
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL
FLOOR PLAN - LOWER LEVEL
- LIGHTING

E2.00



1 FIRST FLOOR PLAN
1/4" = 1'-0"

LIGHTING NOTES

1. FIXTURES SHALL BE ON 24/7 FOR LIFE-SAFETY IN THE FOLLOWING AREAS: LOBBIES, INTERIOR EXIT STAIRWAYS, INTERIOR EXIT RAMPS, AND EXIT PASSAGEWAYS.
2. ALL CORRIDOR AREA LIGHTING FIXTURES SHALL BE CONTROLLED BY MOTION SENSORS. FIXTURES SHALL TURN TO FULL BRIGHTNESS UPON DETECTING OCCUPANCY, AND REDUCE THEIR LIGHTING OUTPUT BY AT LEAST 50% WITHIN 20 MINUTES OF NO OCCUPANCY.
3. COMMON AREA EXTERIOR LIGHTING SHALL BE FED FROM A DEDICATED EXTERIOR LIGHTING CIRCUIT U.O.N., AND CONTROLLED BY A DUSK-DAWN PHOTOCELL AND TIME CLOCK U.O.N.
4. LIGHT FIXTURES IN DWELLING UNIT BATHROOMS SHALL BE FED FROM THE LOCAL BATHROOM BRANCH CIRCUIT.
5. LIGHT FIXTURES IN ALL OTHER AREAS WITHIN THE DWELLING UNIT SHALL BE FED FROM THE DEDICATED LIGHTING CIRCUIT.
6. LIGHT FIXTURES IN DWELLING UNITS SHALL BE CAPABLE OF DIMMING. COORDINATION DIMMING AREAS WITH OWNERSHIP. WHERE DIMMABLE FIXTURES ARE CONTROLLED BY MULTIPLE SWITCHES, EACH SWITCH SHALL BE CAPABLE OF CONTROLLING DIMMING LEVELS.
7. IN CONFERENCE, OFFICE, MEETING, MULTIPURPOSE, STORAGE, AND BATHROOMS: PROVIDE LIGHTING CONTROL THAT RESTRICTS FIXTURES TO MANUAL ON OR 50% ON VIA OCCUPANCY SENSOR, AUTO OFF WITHIN 20 MINUTES OF NO OCCUPANCY, AND A MANUAL LOCAL CONTROL OVERRIDE TO TURN OFF LIGHTS.

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

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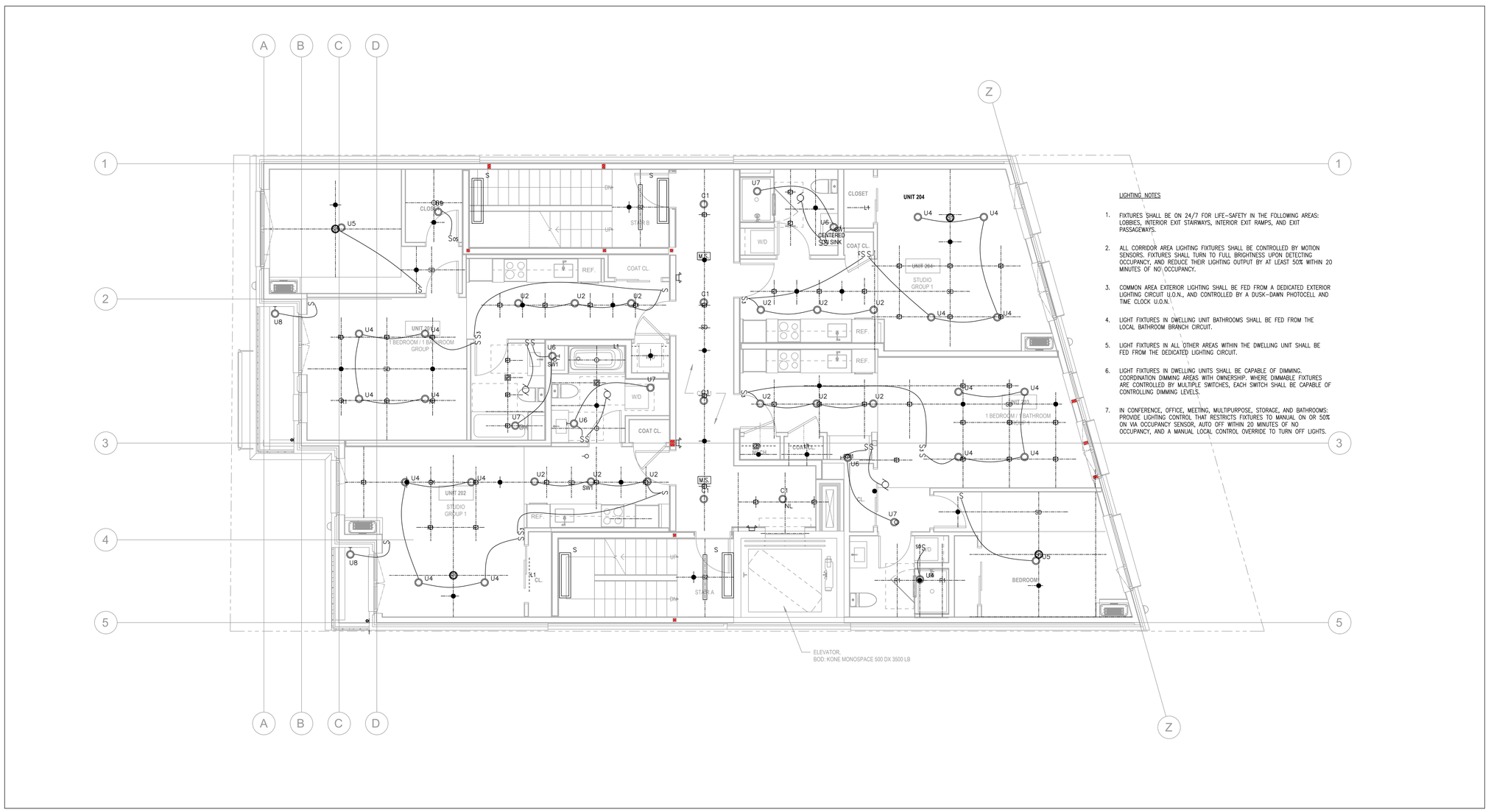
ELECTRICAL
FLOOR PLAN - FIRST FLOOR
- LIGHTING

E2.01



1 SECOND FLOOR PLAN
1/4" = 1'-0"

LIGHTING NOTES

1. FIXTURES SHALL BE ON 24/7 FOR LIFE-SAFETY IN THE FOLLOWING AREAS: LOBBIES, INTERIOR EXIT STAIRWAYS, INTERIOR EXIT RAMPS, AND EXIT PASSAGEWAYS.
2. ALL CORRIDOR AREA LIGHTING FIXTURES SHALL BE CONTROLLED BY MOTION SENSORS. FIXTURES SHALL TURN TO FULL BRIGHTNESS UPON DETECTING OCCUPANCY, AND REDUCE THEIR LIGHTING OUTPUT BY AT LEAST 50% WITHIN 20 MINUTES OF NO OCCUPANCY.
3. COMMON AREA EXTERIOR LIGHTING SHALL BE FED FROM A DEDICATED EXTERIOR LIGHTING CIRCUIT U.O.N., AND CONTROLLED BY A DUSK-DAWN PHOTOCELL AND TIME CLOCK U.O.N.
4. LIGHT FIXTURES IN DWELLING UNIT BATHROOMS SHALL BE FED FROM THE LOCAL BATHROOM BRANCH CIRCUIT.
5. LIGHT FIXTURES IN ALL OTHER AREAS WITHIN THE DWELLING UNIT SHALL BE FED FROM THE DEDICATED LIGHTING CIRCUIT.
6. LIGHT FIXTURES IN DWELLING UNITS SHALL BE CAPABLE OF DIMMING. COORDINATION DIMMING AREAS WITH OWNERSHIP. WHERE DIMMABLE FIXTURES ARE CONTROLLED BY MULTIPLE SWITCHES, EACH SWITCH SHALL BE CAPABLE OF CONTROLLING DIMMING LEVELS.
7. IN CONFERENCE, OFFICE, MEETING, MULTIPURPOSE, STORAGE, AND BATHROOMS: PROVIDE LIGHTING CONTROL THAT RESTRICTS FIXTURES TO MANUAL ON OR 50% ON VIA OCCUPANCY SENSOR, AUTO OFF WITHIN 20 MINUTES OF NO OCCUPANCY, AND A MANUAL LOCAL CONTROL OVERRIDE TO TURN OFF LIGHTS.

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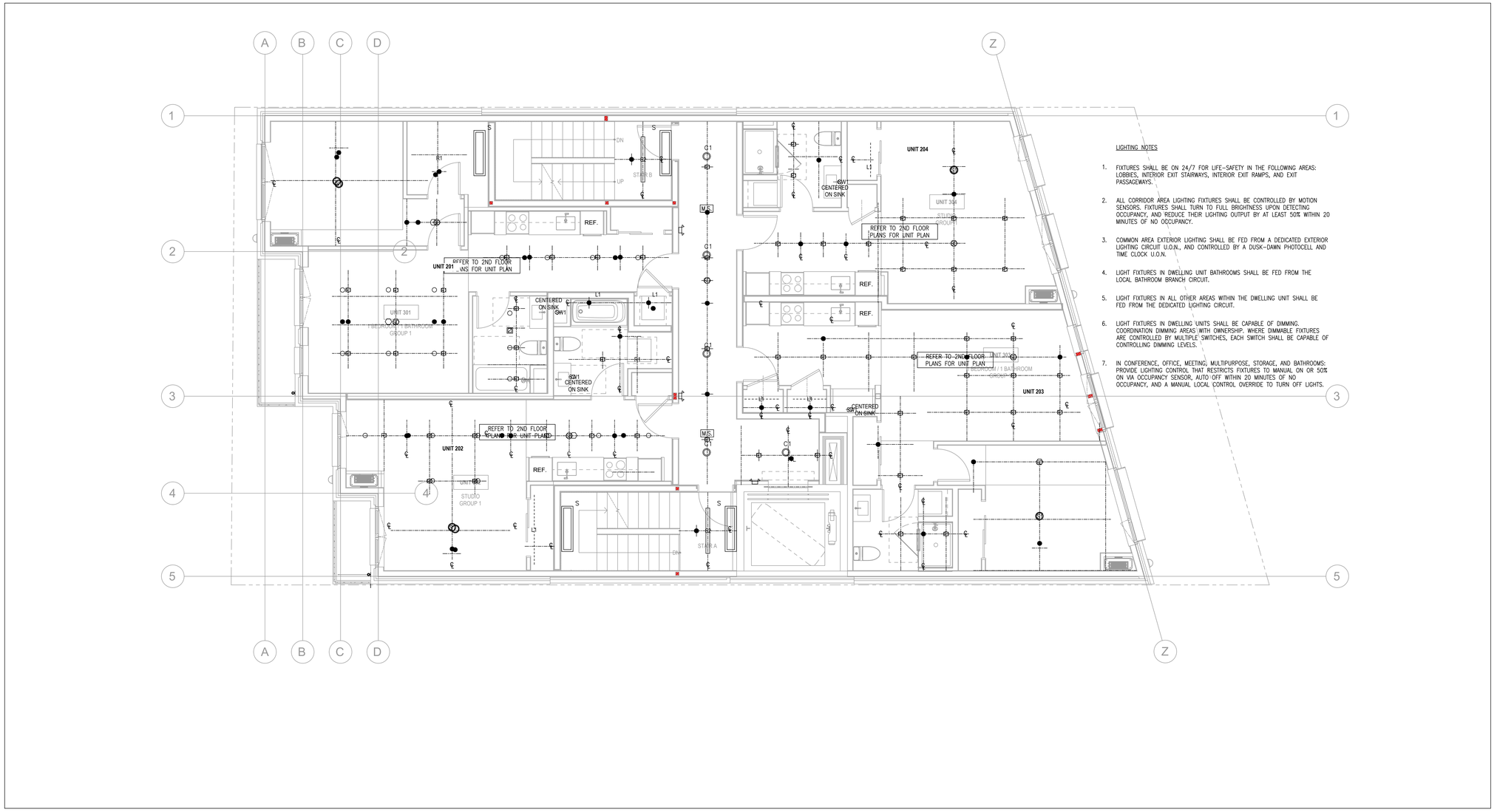
ELECTRICAL
FLOOR PLAN - SECOND FLOOR
- LIGHTING

E2.02



1 THIRD FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

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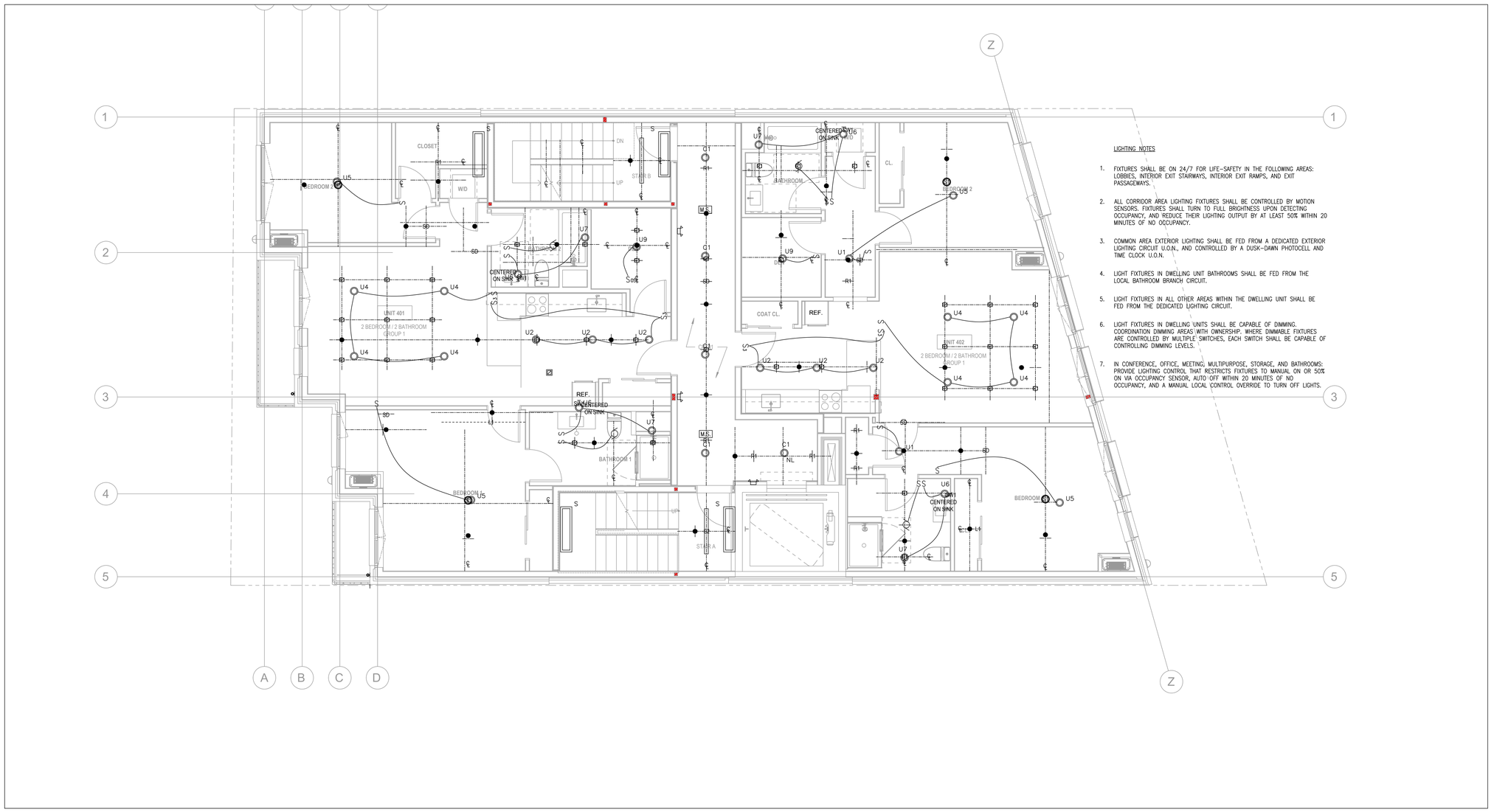
ELECTRICAL
FLOOR PLAN - THIRD FLOOR
- LIGHTING

E2.03



1 FOURTH FLOOR PLAN
1/4" = 1'-0"

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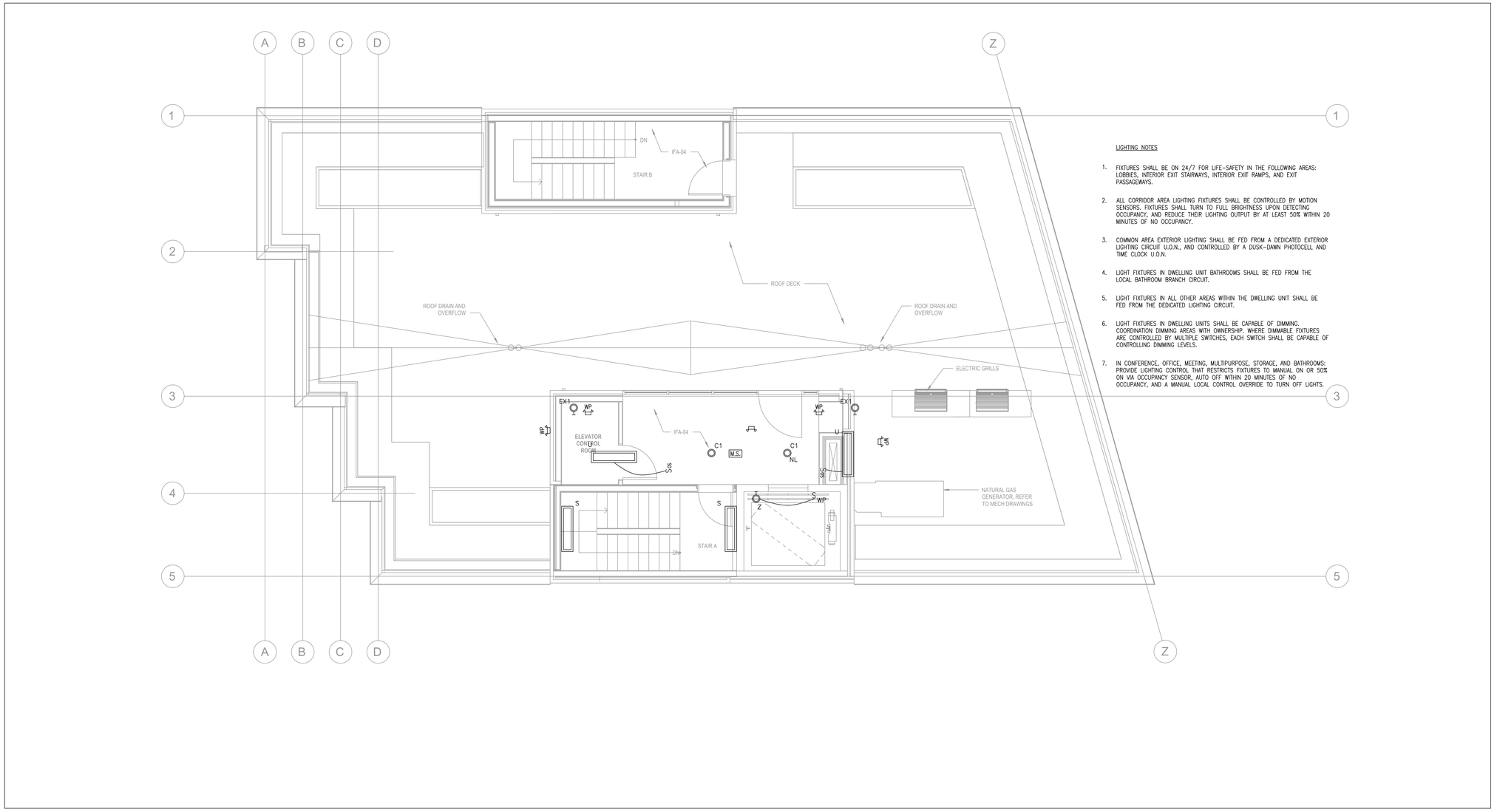
ELECTRICAL
FLOOR PLAN - FOURTH FLOOR
- LIGHTING

E2.04



1 ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
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COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG ELECTRICAL No. 59635
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ELECTRICAL
FLOOR PLAN - ROOF
-LIGHTING

E2.05

CONSTRUCTION NOTES

–LOCAL SMOKE AND CO ALARMS SHALL BE WIRED FROM ARC–FAULT CIRCUITS, VERIFY WITH ELECTRICAL INSPECTOR.

–BACK TO BACK OUTLETS ON FIRE RATED WALLS SHALL BE INSTALLED TO MAINTAIN FIRE RATINGS, IF NECESSARY, USE FIRE RATED OUTLET BOXES.

–ALL FLOOR PENETRATIONS BY CABLES AND CONDUITS SHALL BE SEALED TO MAINTAIN FIRE RATINGS.

–RECESSED LIGHT FIXTURES INSTALLED ON FIRE RATED CEILINGS SHALL HAVE FIRE RATED HOODS ON TOP TO MAINTAIN FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED AREAS.

–ALL WIRING WITHIN UNITS SHALL BE NM TYPE. WIRING OUTSIDE UNITS SHALL BE METAL CLAD.

–ALL OUTLETS MOUNTED ON FIRE RATED WALLS (UNIT SEPERATION WALLS SHALL HAVE) FIRE BLANKETS ON THEM

–AIR TIGHT ELECTRICAL BOXES SHALL BE "ALLIED MOULDED PRODUCTS, INC" VAPOR SEAL SINGLE GANG 22.5 CU.IN., PART#1099–NV2 TWO GANG 37.0 CU.IN., PART#2302–HNKV2 4" ROUND 22.5 CU.IN., PART#9350–BHKV2 KV2 HN 4" ROUND 22.5 CU.IN., PART#9350–

–ALL WIRES IN DWELLING ENCLOSURE WALLS SHALL BE FOAM SEALED TO THE BOXES AND THE BOXES SHALL BE FOAM SEALED TO THE DRYWALL.

–RECEPTACLES LOCATED IN DAMP/WET AREAS SHALL BE WEATHER–RESISTANT TYPE.

FOR EACH APARTMENT, PROVIDE DEDICATED CIRCUITS U.N.O.

–(2) 20A/1P KITCHEN COUNTER OUTLETS GFCI AND AFCI PROTECTION
–(1) 20A/1P FOR REFRIGERATOR GFCI AND AFCI PROTECTON
–(1) 20A/1P FOR DISHWASHER AFCI/GFCI PROTECTION
–(1) 20A/1P FOR DISPOSAL, AFCI/GFCI PROTECTION
–(1) 20A/1P FOR MICROWAVE–HOOD, AFCI/GFCI PROTECTION
–(1) 50A/2P FOR ELECTRIC RANGE, GFCI PROTECTION
–(1) 20A/1P FOR DINING ROOM OUTLETS, AFCI PROTECTION
IF THEY ARE COMBINED WITH KITCHEN COUNTER OUTLETS, GFCI AND AFCI PROTECTION.
–(1) 15A/1P FOR GAS WATER HEATER, GFCI PROTECTION
–(1) 30A/2P FOR ELECTRIC WATER HEATER, LOCKABLE
–(1) 20A/1P FOR WASHER, AFCI/GFI PROTECTION
–(1) 30A/2P FOR DRYER, GFCI PROTECTION
–(1) 30A/2P FOR EACH A/C CONDENSER UNIT (VERIFY)
–(1) 15A/1P FOR EACH A/C INDOOR UNIT (VERIFY)
–(1) 20A/1P FOR EACH BATHROOM, GFCI PROTECTION
–(1) 15A/1P FOR LIGHTING/FIRE ALARM, AFCI PROTECTION
–(1) 20A/1P FOR LIVING ROOM, AFCI PROTECTION
–(1) 20A/1P FOR EACH BEDROOM, AFCI PROTECTION
–(1) 15A/1P FOR RECIRCULATION PUMP, AFCI/GFI PROTECTION

–RECEPTACLES INSTALLED IN KITCHENS, LAUNDRY ROOMS, UTILITY ROOMS, AND WITHIN 6 FEET OF A SINK SHALL BE GFCI PROTECTED, IN ADDITION TO AFCI PROTECTION.

ACCESSIBLE UNIT WIRING NOTES

SEE ARCHITECTURAL PLANS FOR NUMBER OF HANDICAP/ACCESSIBLE UNITS AND LOCATIONS. SEE "TYPICAL DEVICE MOUNTING HEIGHTS DETAIL" ON LEGEND SHEET. CARRY MINIMUM OF 5% OF TOTAL UNIT NUMBER. IN EACH UNIT:

–MOUNTING HEIGHTS OF ALL CONTROL SWITCHES SHALL BE NO HIGHER THAN 48" A.F.F.

–ALL OUTLETS AND CONTROL SWITCHES SHALL BE MINIMUM 18" AWAY FROM AN INTERIOR CORNER.

–PROVIDE STROBE LIGHT FOR INTERCOM SYSTEM IN LIVING ROOM AND IN EACH BEDROOM.

–ALL ELECTRICAL OUTLETS HEIGHTS TO BE A MINIMUM OF 15" TO THE CENTERLINE OF THE LOWEST RECEPTACLE, AND MAXIMUM OF 48" TO THE CENTERLINE OF THE HIGHEST RECEPTACLE.

–ALL ELECTRICAL OUTLETS THAT ARE LOCATED OVER COUNTERTOPS SHALL BE NO HIGHER THAN 44" TO THE CENTERLINE OF THE HIGHEST RECEPTACLE.

–ALL CIRCUIT BREAKER PANELS MUST BE CENTERED ON A 30" BY 48" CLEAR FLOOR SPACE AND IF A PARALLEL APPROACH IS USED, THE HIGHEST CONTROL CAN BE NO HIGHER THAN 54" A.F.F. IF A FRONT APPROACH IS USED, THE HIGHEST CONTROL CAN BE NO HIGHER THAN 48" A.F.F.

GENERAL POWER DISTRIBUTION NOTES

–BEFORE ORDERING ANY EQUIPMENT AND/OR STARTING ANY CONSTRUCTION OR EXCAVATION, ELECTRICAL CONTRACTOR AND/OR GENERAL CONTRACTOR SHALL CONTACT ELECTRIC/TELEPHONE/CATV COMPANIES FOR SERVICE POINT, ROUTING, AND SERVICE AVAILABILITY.

–OWNER SHALL COORDINATE ELECTRICAL SERVICE APPLICATION WITH THE ENGINEER. NO INSTALLATIONS OR PURCHASES SHALL BE STARTED PRIOR TO CONFIRMATION WITH UTILITY COMPANY.

–FEEDERS ARE SIZED BASED ON 3% Vd.
CONTRACTOR SHALL FOLLOW THE FOLLOWING CRITERIA:

50A, UP TO 100FT #6, INCREASE BY ONE SIZE FOR EVERY 30FT.
100A, UP TO 100FT #3, INCREASE BY ONE SIZE FOR EVERY 30FT.
200A, UP TO 150FT 3/0, INCREASE BY ONE SIZE FOR EVERY 50FT.
400A, UP TO 200FT 500MCM, INCREASE BY ONE SIZE FOR EVERY 50FT.

GENERAL POWER DISTRIBUTION NOTES

–FOR SWITCHGEAR SHORT CIRCUIT RATINGS, SEE NOTES IN/UNDER PANEL SCHEDULES OR ON RISER DIAGRAM.

–PRIOR TO ORDERING ANY SWITCHGEAR ELECTRICAL CONTRACTOR SHALL CONFIRM CIRCUIT BREAKER SIZES WITH HVAC AND OTHER MECHANICAL EQUIPMENT SHOP DRAWINGS. DUE TO SUBMITTAL TIMING FROM VARIOUS CONTRACTORS, ENGINEERS APPROVAL IS GIVEN FOR QUALITY ONLY.

–CONTRACTOR SHALL COORDINATE WITH OTHER TRADES SO THAT NO OTHER TRADE SHALL PASS THROUGH ELECTRIC ROOM OR ABOVE DEDICATES SPACES. INFORM ARCHITECT/ENGINEER ABOUT ANY INFRINGEMENTS PRIOR SUCH INSTALLATIONS OCCUR.

–ELECTRIC ROOM DIMENSIONS ARE BASED ON CERTAIN MANUFACTURER EQUIPMENT DIMENSIONS, CONTRACTOR SHALL CONFIRM ROOM DIMENSIONS PRIOR TO ORDERING EQUIPMENT

SWITCHGEAR AND PANELBOARDS SHALL BE MANUFACTURED BY SQUARE D, SIEMENS, OR EQUAL.

MAIN SWITCH, MAIN DISTRIBUTION PANEL, AND ALL CONSECUTIVE PANELS UP TO LAST TWO PANELS IN THE DISTRIBUTION GRID SHALL BE FULLY RATED. THE LAST TWO PANELS MAY BE SERIES RATED FOR AVAILABLE SHORT CIRCUIT RATINGS.

IF SERIES RATINGS ARE APPLIED, SUPPLIER SHALL BE RESPONSIBLE FOR PROVIDING PROPER SERIES RATED EQUIPMENT AS REQUIRED. AVAILABLE SHORT CIRCUIT CURRENT FOR THE MAIN SERVICE IS 42KA.

SEE RISER DIAGRAM FOR CONNECTION DIAGRAM OF THE PANELS. NO LINE IMPEDANCES ARE TO BE CONSIDERED IN SERIES RATING APPLICATIONS.

FOR ALL RESIDENTIAL LOAD CENTERS, 15A AND 20A CIRCUITS SERVING THE UNIT EXCEPT BATHROOMS CIRCUITS SHALL BE ARC FAULT INTERRUPTER TYPE AS REQUIRED PER NEC 210–12(B)

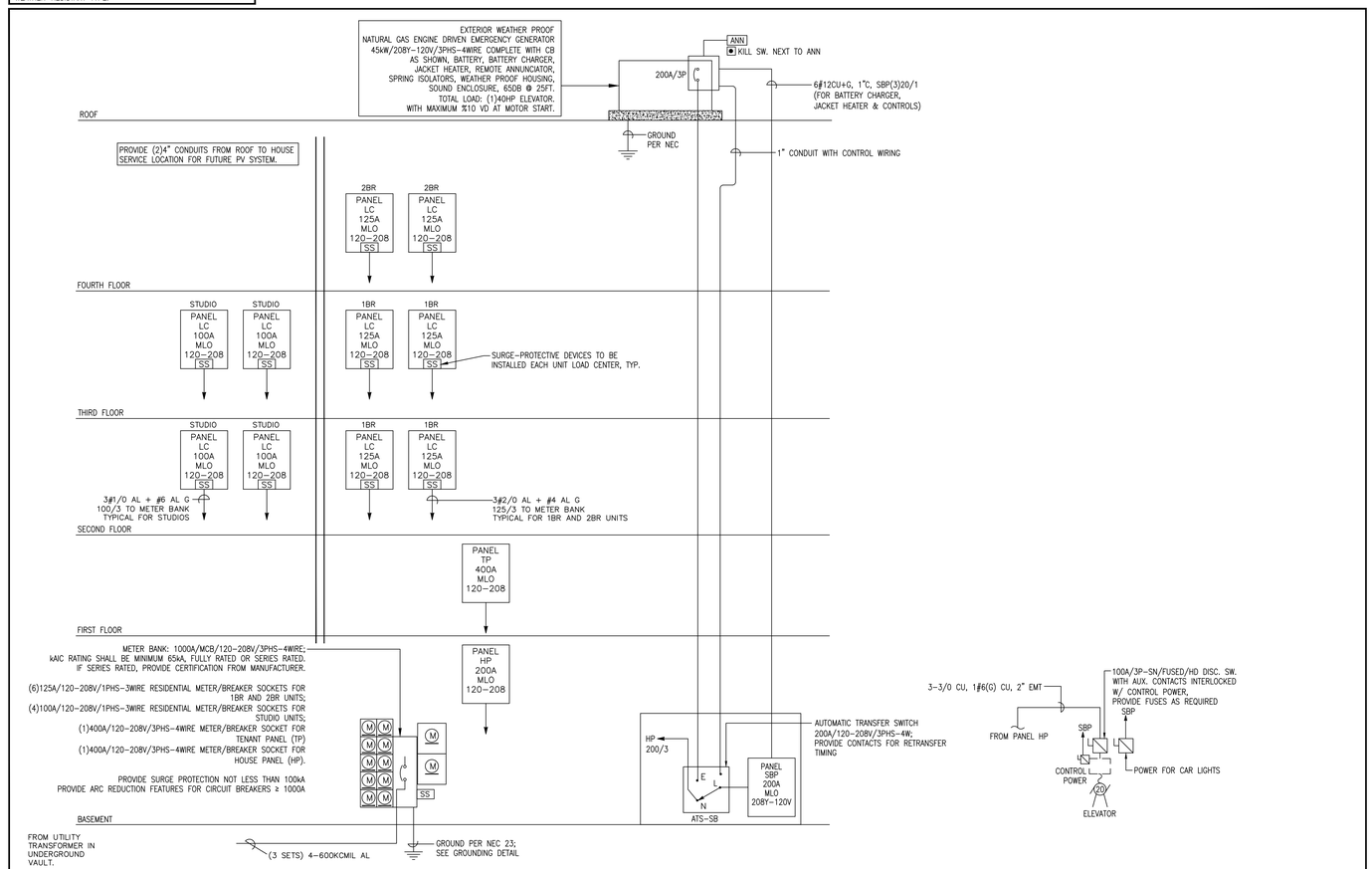
MAINTAIN WORKING SPACE, DEDICATED ELECTRIC SPACE, AND CLEARANCE OF ELECTRICAL EQUIPMENT PER NEC 110.26.

ELECTRICAL IDENTIFICATION

PANELBOARDS, MOTOR STARTERS, AND SIMILAR ELECTRICAL ENCLOSURES SHALL BE IDENTIFIED BY NAMEPLATES SHOWING THE EQUIPMENT IDENTIFICATION NUMBER, VOLTAGE, AND FEEDER OR BRANCH CIRCUIT NUMBERS (E.G. PANEL LP–1 – 208/120 VOLTS – FDR 1–5). NAMEPLATES GENERALLY SHALL BE CUSTOM TWO–TONE LAMINATED PLASTIC WITH BEVELED EDGES. NAMEPLATES, UNLESS OTHERWISE INDICATED, SHALL BE WHITE LETTERS ON BLACK BACKGROUND.

CONDUITS SHALL BE IDENTIFIED IN EACH ROOM AND 50 FOOT ON CENTERS IN OPEN AREAS BY VOLTAGE AND FEEDER NUMBER (E.G. FDR 1–5 – 208/120 VOLTS). CONDUIT MARKERS SHALL BE STANDARD PRE–PRINTED FLEXIBLE PLASTIC SHEET MATERIAL OR SELF–ADHERING VINYL LABELS.

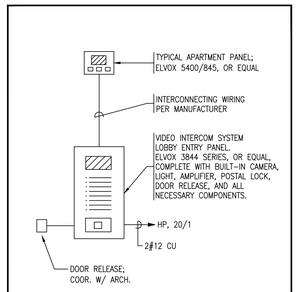
FEEDER CONDUCTORS IN EACH PULL BOX SHALL BE IDENTIFIED WITH A PAPER TAG AS TO NUMBER, VOLTAGE AND CABLE SIZE (E.G. FDR 1–5 – 208/120 VOLTS – 4 NO. 250 MCM). BRANCH CIRCUITS SHALL BE IDENTIFIED WITH A PAPER TAG IN EACH JUNCTION AND OUTLET BOX BY PANEL AND CIRCUIT NUMBER (E.G. PNL LP–5 – CIRC. 3).



POWER RISER DIAGRAM (NTS)

(CU) WIRE SCHEDULE

AMPS/CB	CONDUCTOR SIZE	CMILS	MAX LENGTH
20	#12	6,530	70 FT
30	#10	10,380	70 FT
40	#8	16,510	90 FT
50	#6	26,240	110 FT
60	#6	26,240	95 FT
70	#4	41,740	120 FT
80	#3	52,620	125 FT
100	#2	66,360	140 FT
125	#1	83,690	145 FT
150	1/0	105,600	145 FT
200	3/0	167,800	165 FT
225	4/0	211,600	175 FT
300	300	300,000	200 FT
350	400	400,000	225 FT
400	500	500,000	250 FT



VIDEO INTERCOM RISER DIAGRAM

199 ELM STREET

199 ELM ST
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COMMONWEALTH OF MASSACHUSETTS
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ELECTRICAL
RISER & NOTES

E3.01

TYPICAL DWELLING UNIT PANEL 'LC' SCHEDULE

		VOLTS	120/240V, 1ø, 3W		AIC	65,000; VERIFY WITH UTILITY		
		MAINS	125A MLO		LOCATED	UNIT		
CIR NO	LOAD	DESC	BRKR	BRKR	DESC	LOAD	CIR NO	
1	1500	KITCHEN	*20/1	**15/1	REFRIGERATOR	500	2	
3	1500	KITCHEN	*20/1	**20/1	LAUNDRY	1500	4	
5	1200	DISHWASHER	**20/1	**20/1	MICROWAVE	1000	6	
7	1200	GARBAGE DISPOSAL	**20/1	*20/1	DINING ROOM	1500	8	
9	500	LIGHTING/FA	*15/1	*15/1	LIVING ROOM		10	
11	500	BATHROOM	*20/1	*15/1	BEDROOM		12	
13							14	
15	1000	RWH-1	*15/1				16	
17	172	ENERGY RECOVER UNIT	*15/1	**15/1	RECIRCULATION PUMP	360	18	
19	5000	ELECTRIC WALL OVEN	&30/2	SURGE PROTECTION SPACE			20	
21							22	
23	5000	ELECTRIC DRYER	&30/2	^30/2	ELECTRIC WATER HEATER	4500	24	
25							26	
27	12000	ELECTRIC RANGE	&50/2		HVAC SPACE		28	
29							30	
TOTAL LOAD				38.9 kVA				
DEMAND LOAD								

* - INDICATES AFCI TYPE CIRCUIT BREAKER
** - INDICATES COMBINATION AFCI/GFCI TYPE CIRCUIT BREAKER
& - INDICATES GFCI TYPE CIRCUIT BREAKER
^ - INDICATES LOCKABLE OPEN CIRCUIT BREAKER; TO ACT AS DISCONNECTING MEANS
NOTE: NOT ALL CIRCUITS MAY BE USED IN EVERY UNIT.

HOUSE PANEL 'HP' SCHEDULE

	VOLTS	120/208V, 1ø, 3W		AIC	65,000; VERIFY WITH UTILITY		
	MAINS	100A MLO		LOCATED			
CIR NO	LOAD	DESC	BRKR	BRKR	DESC	LOAD	CIR NO
1	200	FACP	^20/1	20/1	INTERCOM SYSTEM	100	2
3		INTERIOR LIGHTING	20/1	20/1	EXTERIOR LIGHTING		4
5							6
7							8
9				20/1	INTERIOR RECEP	900	10
11				20/1	INTERIOR RECEP	900	12
13				20/1	INTERIOR RECEP	900	14
15							16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33				SOLAR READY SPACE			34
35							36
37							38
39							40
41							42
TOTAL LOAD			1.2 kVA				
DEMAND LOAD							

& - INDICATES GFCI TYPE CIRCUIT BREAKER
^ - INDICATES RED, LOCKABLE CLOSED CIRCUIT BREAKER

HOUSE PANEL 'SBP' SCHEDULE

	VOLTS	120/208V, 3ø, 4W		AIC	65,000; VERIFY WITH UTILITY		
	MAINS	200A MLO		LOCATED			
CIR NO	LOAD	DESC	BRKR	BRKR	DESC	LOAD	CIR NO
1							2
3							4
5							6
7							8
9							10
11							12
13							14
15							16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33				SOLAR READY SPACE			34
35							36
37	200	ELEV. CAB	20/1				38
39	200	ELEV. PIT RECEP/LTG	&20/1	100/3	ELEVATOR (20 HP EST.)	22,372	40
41	500	ELEV. PIT EJECTOR PUMP	&20/1				42
TOTAL LOAD			23.3 kVA				
DEMAND LOAD							

& - INDICATES GFCI TYPE CIRCUIT BREAKER
^ - INDICATES RED, LOCKABLE CLOSED CIRCUIT BREAKER

TENANT PANEL 'TP' SCHEDULE

	VOLTS	120/208V, 1ø, 3W		AIC	65,000; VERIFY WITH UTILITY		
	MAINS	400A MLO		LOCATED			
CIR NO	LOAD	DESC	BRKR	BRKR	DESC	LOAD	CIR NO
1							2
3							4
5							6
7							8
9							10
11							12
13							14
15							16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35							36
37							38
39							40
41							42
TOTAL LOAD			#######				
DEMAND LOAD							

& - INDICATES GFCI TYPE CIRCUIT BREAKER
^ - INDICATES RED, LOCKABLE CLOSED CIRCUIT BREAKER

COMMON AREA LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	CATALOG NUMBER	VOLTS	LIGHTING SYSTEM	INPUT WATTS	NOTES
C1	COMMON AREA DOWNLIGHT	CARRY $150	120V	LED	20W MAX	
EX1	EXTERIOR SCONCE	CARRY $150	120V	LED	30W MAX	
U	UTILITY 1x4 LED TROFFER	CARRY $150	120V	LED	32W	
S	STAIRWELL 1x4 LED TROFFER	CARRY $150	120V	LED	32W	TO BE PROVIDED WITH OCCUPANCY SENSOR, EMERGENCY BATTERY BACKUP, AND AUTOMATIC DIMMING TO 7250 WHEN UNOCCUPIED.
Z	ELEVATOR PIT LED VAPORPROOF LIGHT WALL BRACKET WITH CLEAR PRISMATIC POLYCARBONATE LENS. WET LOCATION RATED.	CANLET 68-02-20W-L-W-F-OG-29	120 V	LED	20W	VERIFY MOUNTING LOCATION & HEIGHT WITH ELEVATOR CONTRACTOR
⊠	EXIT SIGN - UNIVERSAL MOUNTING LED TYPE WITH BATTERY BACKUP	CARRY $100	120/12V	LED	1W	
	BATTERY POWERED EMERGENCY LIGHTING UNIT WITH TWO LIGHTING HEADS AND SPARE BATTERY CAPACITY FOR REMOTE LIGHTING HEADS	CARRY $100	120/6V	LED	11W	LIGHTS TO BE PROVIDED WITH MINIMUM 30" SPACING, LITHONIA ELM2L OR EQUIVALENT.
WP	TWIN REMOTE LIGHTING HEADS FOR BATTERY POWERED EMERGENCY LIGHTING UNIT, WET LOCATION LISTED	CARRY $100	120/6V	LED	3W	

"EM" INDICATES FIXTURE WITH BUILT IN BATTERY OR CONNECTED TO EMERGENCY LIGHTING SYSTEM IF PRESENT
"MS" INDICATES FIXTURE WITH BUILT IN MOTION SENSOR OR CONTROLLED VIA LOCAL MOTION SENSOR
"EM-MS" INDICATES BOTH FEATURES

NOTE: CEILING IS FIRE RATED. UNLESS RATED FIXTURES ARE USED, ALL RECESSED FIXTURES AND EXHAUST FANS SHALL BE INSTALLED WITH FIRE RATED ENCLOSURES THAT ARE A MINIMUM 3" LARGER THAN FIXTURES TO MAINTAIN INTEGRITY OF CEILING FIRE RATING AND COOLING OF THE FIXTURES.

DWELLING UNIT LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	CATALOG NUMBER	VOLTS	LIGHTING SYSTEM	INPUT WATTS	NOTES
U1	GENERAL ENTRY/HALL DOWNLIGHT	CARRY $100	120V	LED	13W	
U2	KITCHEN CEILING DOWNLIGHT	CARRY $100	120V	LED	13W	
U3	NOT USED	CARRY $100	120V	LED	13W	
U4	LIVING/DINING ROOM	CARRY $100	120V	LED	20W	
U5	BEDROOM FIXTURE	CARRY $200	120V	LED	25W	
U6	BATHROOM VANITY	CARRY $100	120V	LED	20W	
U7	SHOWER FIXTURE	CARRY $100	120V	LED	13W	
U8	EXTERIOR SCONCE	CARRY $100	120V	LED	20W	
U9	WALK-IN CLOSET FIXTURE	CARRY $100	120V	LED	20W	PROVIDE FIXTURE WITH INTEGRAL PIR SENSOR

FIXTURE NOTES:

ALL FIXTURE MANUFACTURERS, FINISH COLORS, AND ACCESSORIES SHALL BE VERIFIED BY ARCHITECT.

ALL LIGHT FIXTURES SHALL BE LED TYPE. FIXTURES SHALL BE IN COMPLIANCE WITH LOCAL UTILITY COMPANY REBATE PROGRAMS.

"EM" LABELED FIXTURE INDICATES EMERGENCY LIGHT WITH BUILT IN BODINE BALLAST OR MANUFACTURER BACKUP BATTERY, 700 LUMEN OUTPUT.
EMERGENCY LIGHTS SHALL HAVE INTEGRAL TEST SWITCHES BUILT INTO THE FIXTURE. PROVIDE CONSTANT FEED TO BUILT-IN EMERGENCY BATTERY AS REQUIRED.
EMERGENCY FIXTURES SHALL BYPASS ALL CONTROLS AND TURN TO FULL BRIGHTNESS UPON LOSS OF NORMAL POWER.

EXACT LOCATION AND TYPES OF ALL LIGHTING FIXTURES, MOUNTING HEIGHTS, AND MOUNTING DETAILS SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS. CONFLICTS SHALL BE BROUGHT TO ARCHITECT'S ATTENTION PRIOR TO ANY WORK DONE. OBTAIN LATEST COPY OF THE CEILING PLAN FROM ARCHITECT PRIOR TO ANY WORK DONE.

IN AREAS WHERE FIXTURES ARE MOUNTED INTO INSULATED CEILINGS, THIS CONTRACTOR SHALL PROVIDE HOODS THAT ARE A MINIMUM 3" LARGER THAN FIXTURES TO KEEP INSULATION AWAY FROM THE FIXTURE AND TO MAINTAIN INSULATION INTEGRITY OF THE CEILING. SEE ARCHITECTURAL DRAWINGS FOR AREAS WHERE HOODS MAY BE REQUIRED.

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P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

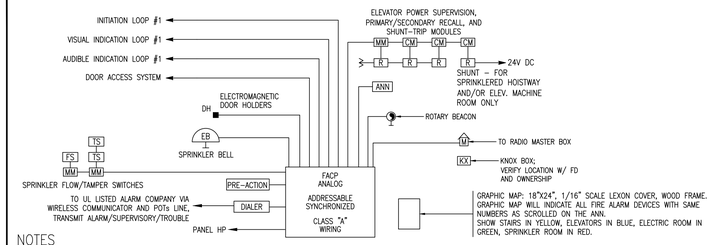
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL SCHEDULES & CALCULATIONS

E3.02



NOTES

PROVIDE ADDRESS MODULES FOR ALL FLOW & TAMPER SWITCHES.
PROVIDE COMPLETE INTERLOCK WIRING FOR ELEVATOR RECALL SYSTEM.
SEE FLOOR PLANS FOR DETECTOR TYPES AND LOCATIONS AND QUANTITIES.
SEE SPRINKLER DRAWINGS FOR FLOW/TAMPER SWITCH LOCATIONS AND QUANTITIES.
CARRY MINIMUM OF (1)FLOW AND (4)TAMPER SWITCH AT SPRINKLER SERVICE LOCATION AND (1) FLOW/TAMPER SWITCH PER FLOOR PER STAIR AND TWO TAMPER SWITCH FOR STAND PIPE LOCATION.
PROVIDE MONITOR MODULES AT DRY ALARM VALVE.
PROVIDE MONITOR MODULES FOR ALL DETECTORS LOCATED IN COLD AREAS.
FOR ELEVATOR BUILDINGS PROVIDE ACCESSIBLE DEVICES FOR 5% OF THE UNITS.
PROVIDE COMPLETE SIGNAL WIRING FOR DOOR RELEASE.
PROVIDE COMPLETE SIGNAL WIRING FOR DRY SYSTEM COMPRESSOR AND ALARM.
PROVIDE BATTERY CALCULATIONS AND ONE LINE WIRING DIAGRAM
PROVIDE RADIO SIGNAL COVERAGE THROUGHOUT BUILDING AS REQUIRED PER 916.1,2,&3.
ALL AUDIO DEVICES LOCATED IN SLEEPING AREAS SHALL COMPLY WITH NFPA 72-18.4.5.3 IN REGARDS TO SIGNAL TYPE,
PROVIDE LOW FREQUENCY DEVICES.
PROVIDE TIER 2 DRAWINGS WITH COMPLETE WIRING DIAGRAMS AND DEVICE ADDRESSES AS REQUIRED FOR FIRE DEPARTMENT APPLICATION.
PROVIDE POWER BOOSTERS (NACs) AS REQUIRED; PROVIDE SMOKE DETECTOR AT EACH BOOSTER LOCATION AND FACP LOCATION.

SIGNALING LINE CIRCUIT (SLC) AND INITIATING DEVICE CIRCUIT (IDC) WIRING SHALL BE 2#14 FPLP CABLE.
24VDC ACCESSORY WIRING SHALL BE 2#16 FPLP CABLE (VERIFY THAT ALL DC ACCESSORY CIRCUITS ARE POWER LIMITED).
NAC WIRING SHALL BE 2#14 FPLP CABLE.

FIRE ALARM SYSTEM EQUIPMENT AND INSTALLATION SHALL BE IN ACCORDANCE WITH CITY FIRE DEPARTMENT'S RULES AND REGULATIONS WHERE THE PROJECT IS LOCATED. CONTRACTOR MAY OBTAIN A COPY OF IT FROM THE CITY FIRE DEPARTMENT. THE PUBLICATION IS HEREBY MADE PART OF THE CONTRACT DOCUMENTS.

TIER 2 DRAWINGS SHALL COMPLY WITH IBC 901;
SHOW DEVICE LOCATIONS, WIRING DIAGRAMS WITH DEVICE IDENTIFICATIONS, AND BATTERY CALCULATIONS.

TYPICAL FIRE ALARM SYSTEM RISER DIAGRAM

FIRE ALARM LEGEND

S	SYSTEM TYPE SMOKE DETECTOR, ANALOG ADDRESSABLE	TS	TAMPER SWITCH
S D	SYSTEM TYPE DUCT SMOKE DETECTOR WITH REMOTE TEST SWITCH, ANALOG ADDRESSABLE. TUBE WILL HAVE MINIMUM 10 HOLES.	FS	FLOW SWITCH
S E	SYSTEM TYPE SMOKE DETECTOR, ANALOG ADDRESSABLE. SUPERVISED FOR ELEVATOR RECALL.	PS	PRESSURE SWITCH
H	SYSTEM TYPE HEAT DETECTOR, ANALOG ADDRESSABLE	A	BDA ANTENNA
C	SYSTEM TYPE CO DETECTOR	MM	ADDRESSABLE MONITOR MODULE
F	FIRE ALARM PULL STATION	CM	ADDRESSABLE CONTROL MODULE
S L	120V LOCAL TYPE SMOKE ALARM W/BATTERY. L-INDICATES BUILT-IN STROBE.	R	INTERPOSING RELAY
CO S L	COMBINATION TYPE 120V LOCAL SMOKE/CO ALARM WITH BATTERY BACK UP. L-INDICATES BUILT-IN STROBE.	SB	520Hz SOUNDER BASE
H LF	MINI HORN/ TEMPORAL PER NFPA 72-18.4.5.3, LOW FREQUENCY IN BEDROOMS.		FIRE ALARM BEACON
		EB	ELECTRIC BELL FOR FIRE DEPARTMENT CONNECTION
F	FIRE ALARM HORN/STROBE (SYCHRONIZED); SEE FLOOR PLAN FOR CANDELA RATING		END OF LINE DEVICE
L	FIRE ALARM STROBE ONLY (SYCHRONIZED); SEE FLOOR PLAN FOR CANDELA RATING	CO/NO	CO/NO DETECTOR
L, (SM/CO)	FIRE ALARM STROBE; 120V FOR LOCAL CO OR SMOKE ALARM AT ACCESSIBLE AND HEARING IMPAIRED UNITS.	FACP	FIRE ALARM CONTROL PANEL
	CEILING MOUNTED A/V DEVICE	ANN	FIRE ALARM ANNUNCIATOR PANEL
	STROBE FOR INTERCOM ACCESSABLE AND HEARING IMPAIRED UNITS	DIALER	DIALER BY E.C. WIRED TO UL LISTED ALARM CO.
		NAC	NAC BOOSTER PANEL

-DUCT SMOKE DETECTORS SHALL BE INSTALLED IN HEATED AREAS AT THE SUPPLY SIDE BEFORE THE FIRST TAKE OFF, MINIMUM 5FT AWAY FROM THE UNIT COIL. REMOTE TEST/INDICATOR LOCATIONS SHALL BE NEXT TO FACP PANEL, OR AS DIRECTED BY THE FIRE DEPARTMENT.

-A/V DEVICE LOCATIONS ARE SHOWN BASED ON DISTANCE REQUIREMENTS. CONTRACTOR SHALL COORDINATE PHYSICAL STRUCTURES SO THAT VISIBILITY WILL BE MAINTAINED. PROPOSED CHANGES SHALL BE FORWARDED TO ARCHITECT/ENGINEER FOR APPROVAL.

AT TOP OF ELEVATOR SHAFT, PROVIDE A 120V/20A DEDICATED CIRCUIT TO POWER FAIL SAFE TYPE MOTORIZED DAMPER (VERIFY W/HVAC TO ASSURE FAIL SAFE TYPE DAMPER INSTALLATION), INTERLOCKED VIA 20A RELAY AND CONTROL MODULE TO OPEN UPON FIRE ALARM PANEL ACTIVATION.

FOR EVERY SMOKE DAMPER SHOWN ON THE MECHANICAL DRAWINGS, PROVIDE A DUCT SMOKE DETECTOR IN THE DUCT TO OPERATE THE SMOKE DAMPER. PROVIDE 120V POWER TO SMOKE DAMPER FOR OPERATION.
WHERE THE AIR SUPPLY FROM THE SHAFT DIRECTLY SERVES A CORRIDOR OR SPACE WHERE THERE ARE SMOKE DETECTORS PROVIDED FOR COMPLETE COVERAGE, NO DUCT SMOKE DETECTOR IS REQUIRED.
INTERLOCK DAMPERS TO CLOSE UPON DUCT DETECTOR ACTIVATIONS.

SMOKE DETECTORS INSTALLED IN DUCTS AND OTHER LOCATIONS WITH AIR VELOCITIES GREATER THAN 300FT/MIN SHALL BE LISTED FOR THE VELOCITY CONDITIONS ANTICIPATED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTRUCTIONS.

AUDIO/VISUAL FIRE ALARM DEVICES:

THE ENTIRE STROBE LENS IS TO BE LOCATED NOT LESS THAN 80 INCHES A.F.F., AND NOT MORE THAN 96 INCHES A.F.F. DEVICES SHALL COMPLY WITH NFPA 72.

MANUAL PULL STATIONS SHALL BE INSTALLED NOT LESS THAN 42 INCHES A.F.F., AND NOT MORE THAN 48 INCHES A.F.F.

ALL BEDROOMS AND LIVING ROOMS SHALL BE WIRED FOR FUTURE STROBE.

ACCESSIBLE UNIT AND HEARING IMPAIRED FIRE ALARM NOTES NOTES

SEE ARCHITECTURAL PLANS FOR NUMBER OF HANDICAP AND HEARING IMPAIRED UNITS AND LOCATIONS.
CARRY MINIMUM 5% OF TOTAL UNIT NUMBER.
IN EACH UNIT, PROVIDE:

-LOCAL TYPE SMOKE ALARM WITH BUILT IN STROBE/OR SEPARATE 120V STROBE IN EACH BEDROOM, AND OUTSIDE BEDROOM FOR LOCAL SMOKE ALARM.
-LOCAL TYPE STROBE IN EACH BEDROOM AND LIVING ROOM FOR CO ALARM.
-SYSTEM TYPE STROBE IN EACH BEDROOM AND LIVING ROOM.
-SYSTEM TYPE STROBE IN EACH BATHROOM.
-LOCAL TYPE STROBE IN EACH BATHROOM FOR LOCAL SMOKE ALARM.
-LOCAL TYPE STROBE IN EACH BATHROOM FOR CO ALARM.
-LOCAL TYPE CO ALARMS OUTSIDE BEDROOMS AND EVERY HABITABLE FLOOR LEVEL, STROBES ARE TO BE LOCATED IN BEDROOMS AND HABITABLE SPACES.

FIRE ALARM CONSTRUCTION NOTES

-LOCAL SMOKE DETECTORS SHALL BE WIRED FROM ARC-FAULT CIRCUITS.

-BACK TO BACK OUTLETS ON FIRE RATED WALLS SHALL BE INSTALLED TO MAINTAIN FIRE RATINGS, IF NECESSARY, USE FIRE RATED OUTLET BOXES.

-ALL FLOOR PENETRATIONS BY CABLES AND CONDUITS SHALL BE SEALED TO MAINTAIN FIRE RATINGS.

-RECESSED LIGHT FIXTURES INSTALLED ON FIRE RATED CEILINGS SHALL HAVE FIRE RATED HOODS ON TOP TO MAINTAIN FIRE RATING. SEE ARCHITECTURAL DRAWINGS FOR FIRE RATED AREAS.

AUDIBLE DEVICES PROVIDED FOR THE SLEEPING AREAS TO AWAKEN OCCUPANTS SHALL PRODUCE A LOW FREQUENCY ALARM SIGNAL THAT COMPLIES WITH THE FOLLOWING:
(1) THE ALARM SIGNAL SHALL BE A SQUARE WAVE OR PROVIDE EQUIVALENT AWAKENING ABILITY.
(2) THE WAVE SHALL HAVE A FUNDAMENTAL FREQUENCY OF 520 HZ +/- 10 PERCENT.

IN DWELLING UNITS, PROVIDE SMOKE ALARMS:

-INSIDE EACH SLEEPING AREA, BEDROOM, OFFICE, OR SIMILAR SPACE.
-OUTSIDE OF EACH SLEEPING AREA, WITHIN 10' OF DOOR.

IN DWELLING UNITS, PROVIDE CARBON MONOXIDE ALARMS:

-OUTSIDE EACH SLEEPING AREA, WITHIN 10' OF DOOR.
-ON EVERY HABITABLE FLOOR.
-IN THE ROOM HOUSING THE GAS APPLIANCE.

ALARMS SHALL BE UL LISTED, AND HARD WIRED WITH BATTERY BACK-UP.

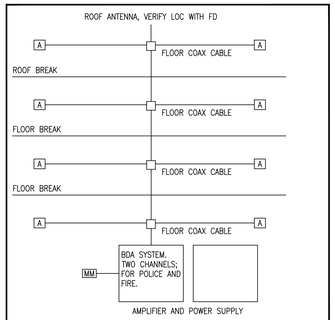
LOCATION(S) OF SMOKE AND CO ALARMS WITHIN DWELLING UNITS SHALL BE PER THE FOLLOWING:
FROM BATHROOM DOOR: 3FT
FROM HVAC DIFFUSERS: 3FT
FROM TIP OF CEILING FAN BLADES: 3FT
FROM COOKING EQUIPMENT:
PHOTOELECTRIC TYPE - 6FT
IONIZATION TYPE - 20FT

SMOKE ALARMS AND COMBINATION SMOKE/CO ALARMS IN EACH DWELLING UNIT SHALL BE INTERCONNECTED FOR MULTIPLE-STATION OPERATION WITHIN THAT DWELLING UNIT ONLY. INTERCONNECT WITH 2#16 FPLP CABLE.

ALL SYSTEM-TYPE CO DETECTORS MUST "LATCH" AT THE PANEL;
THE RESPONDER TO A CO DETECTOR SUPERVISORY ALARM MUST BE LEAD TO MITIGATE THE CO ISSUE AT THE DETECTOR AND THEN CLEAR/RESET THE FIRE ALARM PANEL. THE CO SUPERVISORY ALARM CANNOT BE MITIGATED AT THE POINT LOCATION, BUT REQUIRES A COMPETENT RESPONDER TO ADDRESS THE PANEL IN THE FIRE COMMAND CENTER.

ALARM MONITORING SERVICE RECEIVES A SUPERVISORY CARBON MONOXIDE SIGNAL; THE WORDS "CARBON MONOXIDE" MUST BE PRESENT AT ALARM COMPANY, THE LETTERS "CO" ARE NOT ACCEPTABLE.

CARRY THE COST OF THE BDA SYSTEM IN ITS ENTIRETY, WITH ALL NECESSARY STRUCTURES AND RACEWAYS TO INSTALL A BDA SYSTEM PER IBC 916.1.2&3.
UPON COMPLETION OF THE BUILDING, CONDUCT TEST BY THE MANUFACTURER TO SIZE THE REPEATER CAPACITIES AND COVERAGE REQUIREMENTS TO INSTALL BDA SYSTEM HEAD END EQUIPMENT TO MEET EMERGENCY SERVICES COMMUNICATION NEEDS, AS TO BE DETERMINED BY THE FD.
RUN CONDUITS IN 2HR RATED ENCLOSURE.
IF EQUIPMENT IS TO BE INSTALLED, IT WILL BE HOUSED IN A 2HR ENCLOSURE.
OBTAIN LATEST FIRE DEPARTMENT REQUIREMENTS PRIOR TO PRICING.
INSTALLATION SHALL COMPLY CITY FIRE DEPARTMENT REQUIREMENTS.



SCHEMATIC BDA SYSTEM DIAGRAM

		CONTROL UNIT ANN						NOTIFICATION				FIRE SAFETY SYSTEMS CONTROLS					
		ACTUATE COMMON ALARM SIGNAL	ACTUATE AUDIBLE ALARM-GLOBAL	ACTUATE COMMON SUPERVISORY SIGNAL ALARM	ACTUATE AUDIBLE SUPERVISORY ALARM	ACTUATE COMMON TROUBLE SIGNAL	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE APPROPRIATE LOCATION INDICATORS	ACTUATE ALL AUDIBLE EVACUATION SIGNALS	ACTUATE ALL VISIBLE ALARM SIGNALS	DISPLAY CHANGE OF STATUS	TRANSMIT ALARM SIGNAL TO SUPERVISORY STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISORY STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISORY STATION	ACTUATE EXTERIOR BEACON	ACTUATE SPRINKLER BELL	CLOSE FIRE/SMOKE DAMPERS	RELEASE FIRE/SMOKE DOORS	HVAC UNIT SHUTDOWN	MAIN FLOOR ELEVATOR RECALL	ALTERNATE FLOOR ELEVATOR RECALL	ELEVATOR HAT FLASH	-
1	COMMON AREA SMOKE DETECTORS	●	●					●	●	●	●			●		●	●	●					
2	COMMON AREA HEAT DETECTORS	●	●					●	●	●	●			●		●	●	●					
3	COMMON AREA MANUAL PULL STATIONS	●	●					●	●	●	●			●		●	●	●					
4	ELEVATOR LOBBY SMOKE DETECTOR	●	●					●	●	●	●			●		●	●	●			●		
5	ELEVATOR MAIN LOBBY SMOKE DETECTOR	●	●					●	●	●	●			●		●	●	●				●	
6	ELEVATOR MACH. RM. SMOKE DETECTOR	●	●					●	●	●	●			●		●	●	●			●	●	
7	SPRINKLER MAIN FLOW	●	●					●	●	●	●			●		●	●	●					
8	SPRINKLER FLOOR FLOW SWITCH	●	●					●	●	●	●			●		●	●	●					
9	SPRINKLER TAMPER SWITCH ACTUATION		●									●											
10	PRESSURE SWITCH ACTUATION		●									●											
11	DRY ALARM ACTUATION	●	●					●	●	●	●			●		●	●	●					
12	BDA SYSTEM, IF PRESENT		●									●											
13	FIRE ALARM AC POWER FAILURE			●	●			●			●	●											
14	FIRE ALARM SYSTEM LOW BATTERY			●	●			●			●	●											
15	OPEN CIRCUIT OR GROUND FAULT			●	●			●			●	●											
16	DUCT SMOKE DETECTOR																			●			
17	GARAGE CO SYSTEM 50 PPM	●	●					●			●	●											
18	GARAGE CO SYSTEM 100 PPM	●	●					●			●	●											
19	-																						

199 ELM STREET

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SOMERVILLE, MA 02144 **PROJECT**

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P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG ELECTRICAL No. 59635
PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
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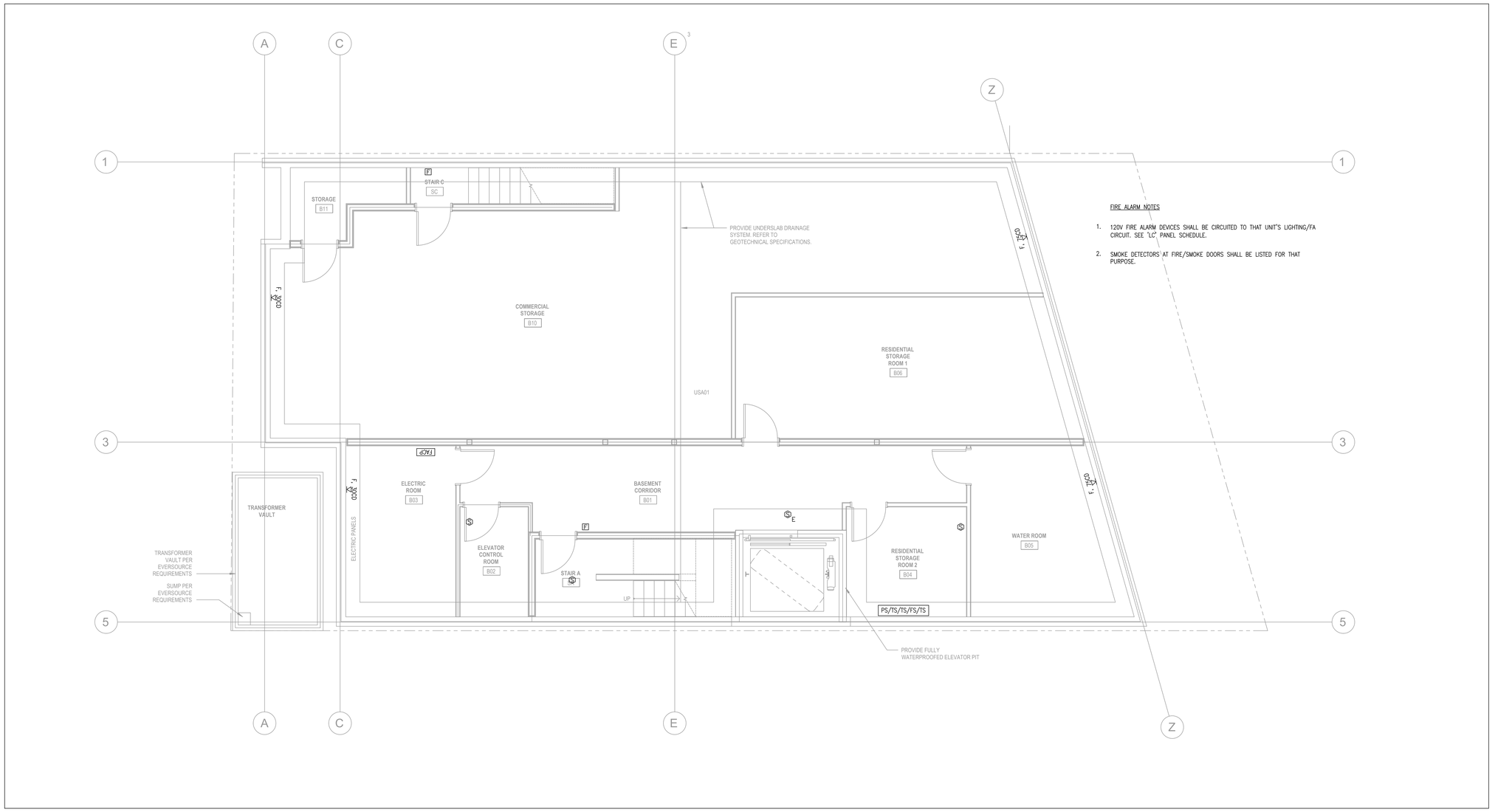
STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

FIRE ALARM
RISER & NOTES

FA0.00



1 LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

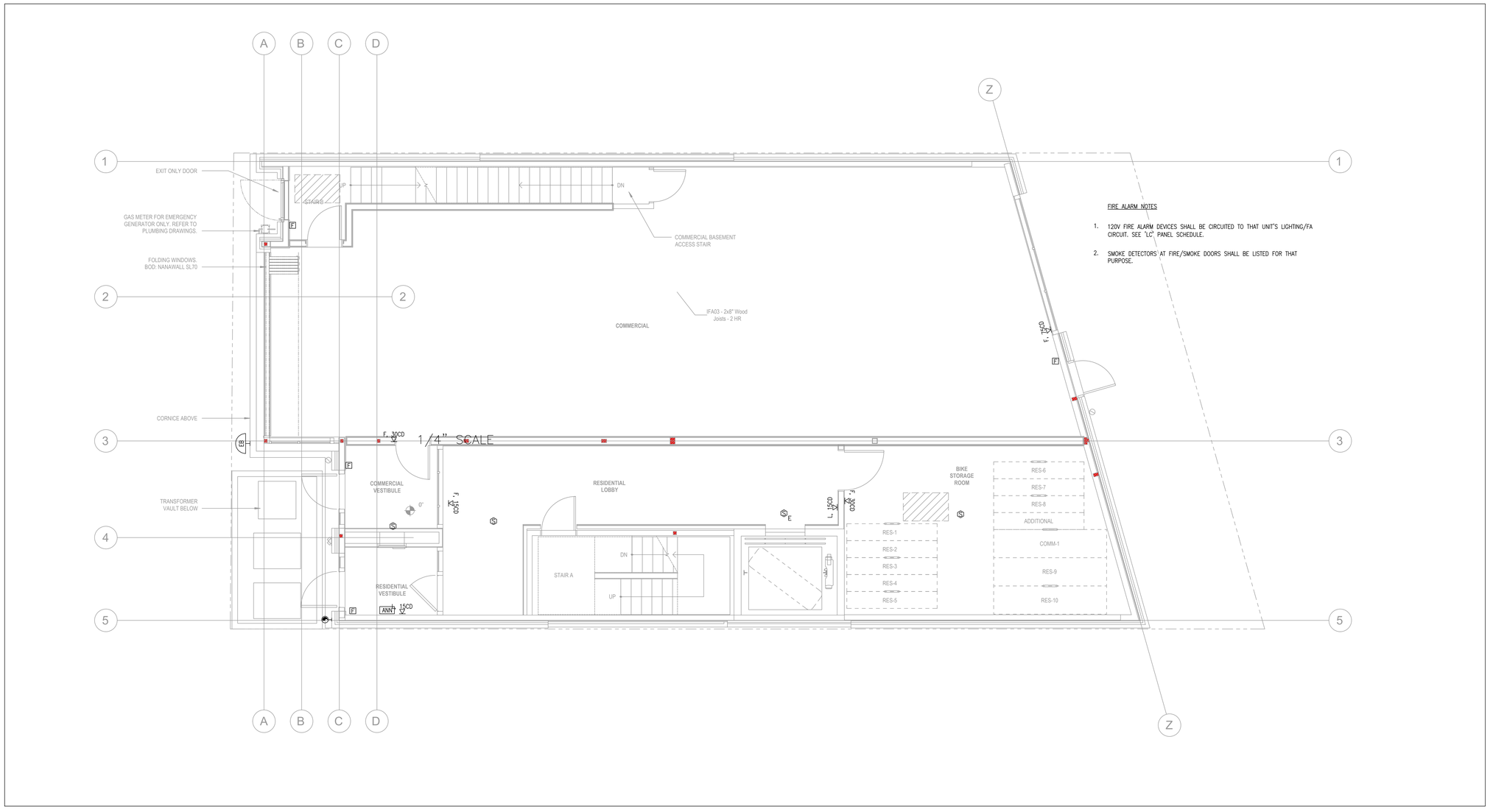
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL
FLOOR PLAN - LOWER LEVEL
- FIRE ALARM

FA1.00



1 FIRST FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

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CAMBRIDGE, MA 02139
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HOWARD STEIN HUDSON

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P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

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1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

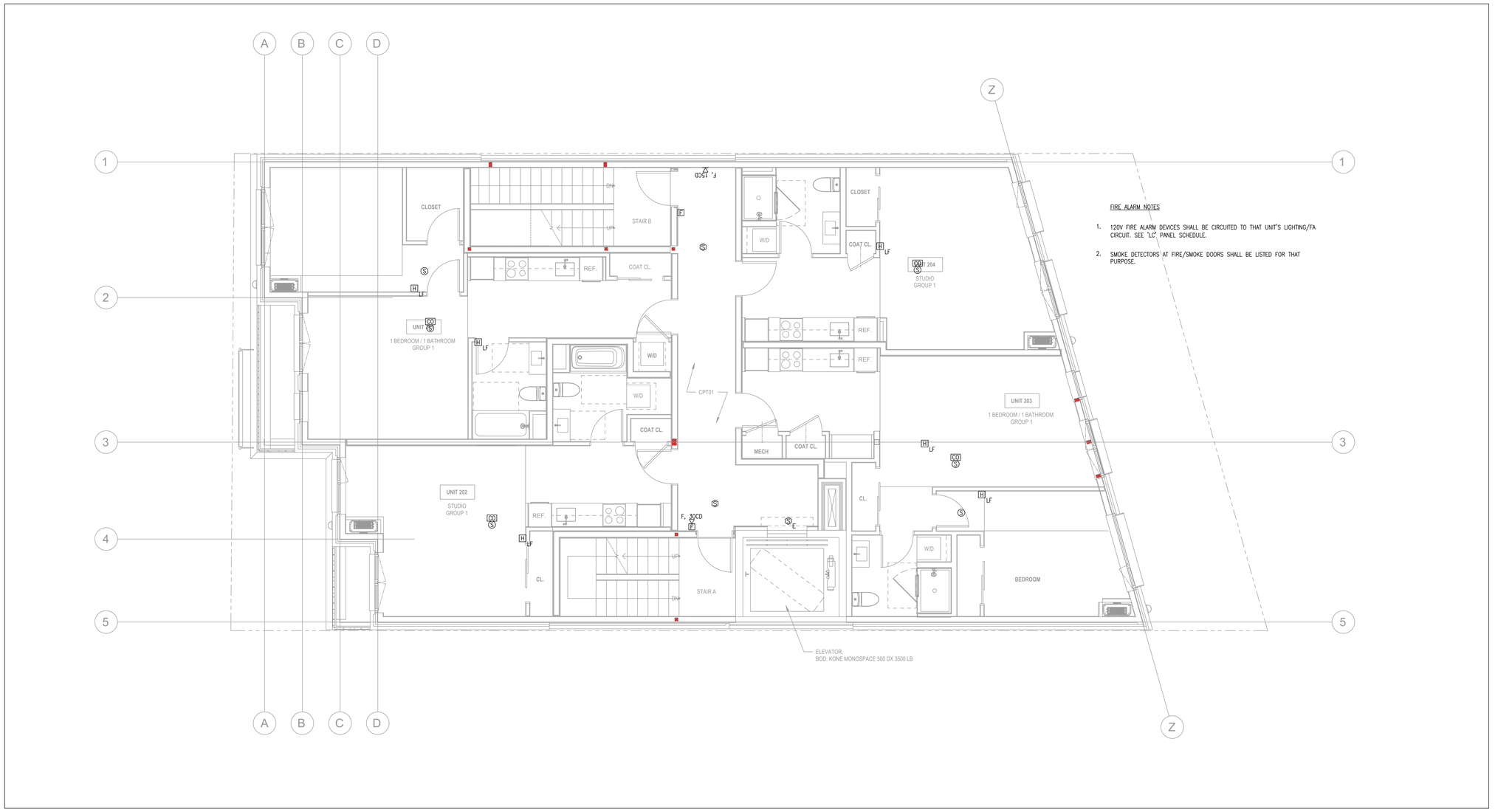
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL
FLOOR PLAN - FIRST FLOOR
- FIRE ALARM

FA1.01



1 SECOND FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

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P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

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BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

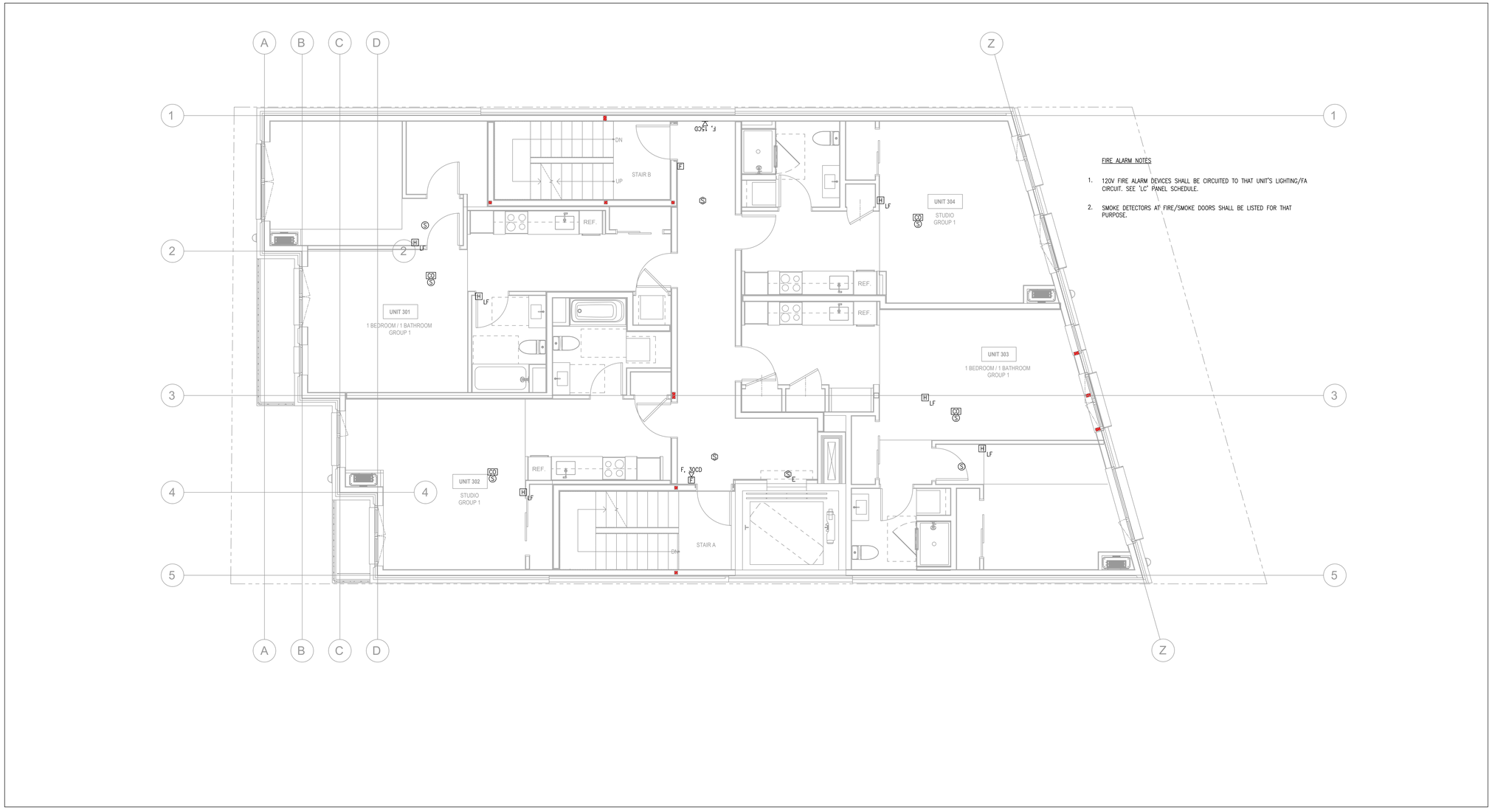
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL
FLOOR PLAN - SECOND FLOOR
- FIRE ALARM

FA1.02



1 THIRD FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG ELECTRICAL No. 59635
PROFESSIONAL ENGINEER

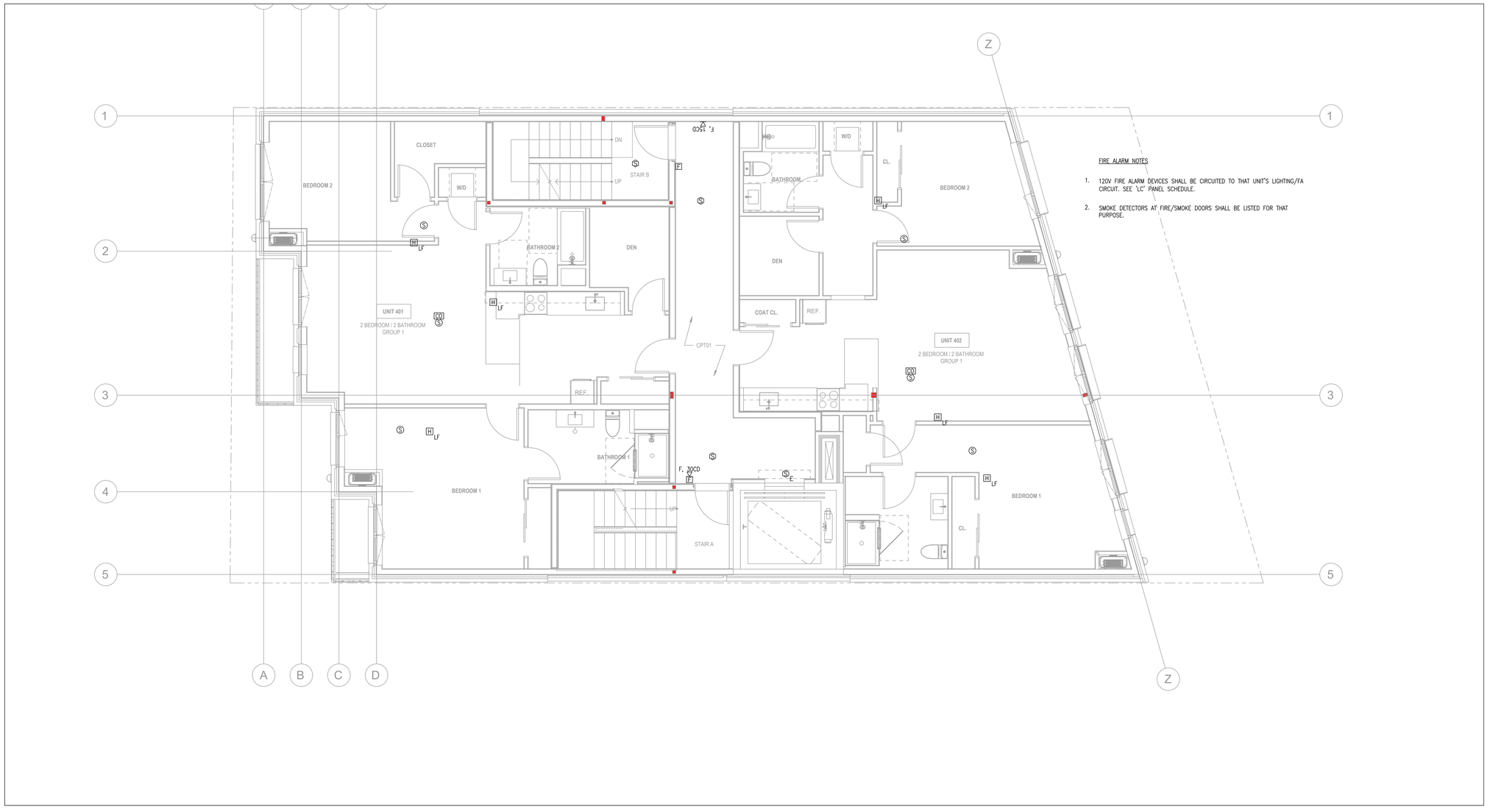
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL
FLOOR PLAN - THIRD FLOOR
- FIRE ALARM

FA1.03



1 FOURTH FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

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BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
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ZADE ENGINEERING

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QUINCY, MA 02171
P 617 338 4406 **MEPFP**

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BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

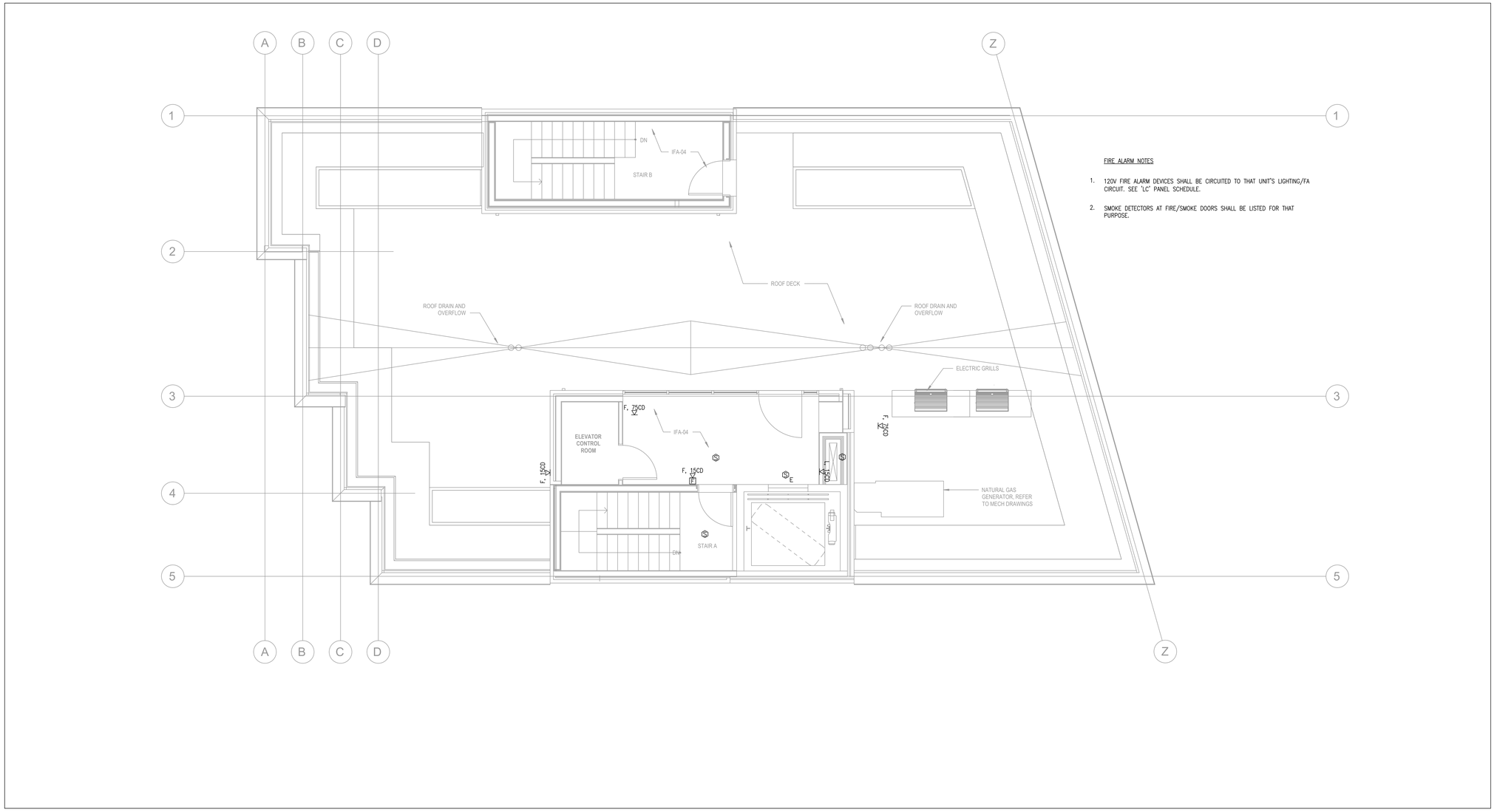
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

ELECTRICAL
FLOOR PLAN - FOURTH FLOOR
- FIRE ALARM

FA1.04



1 ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

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32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

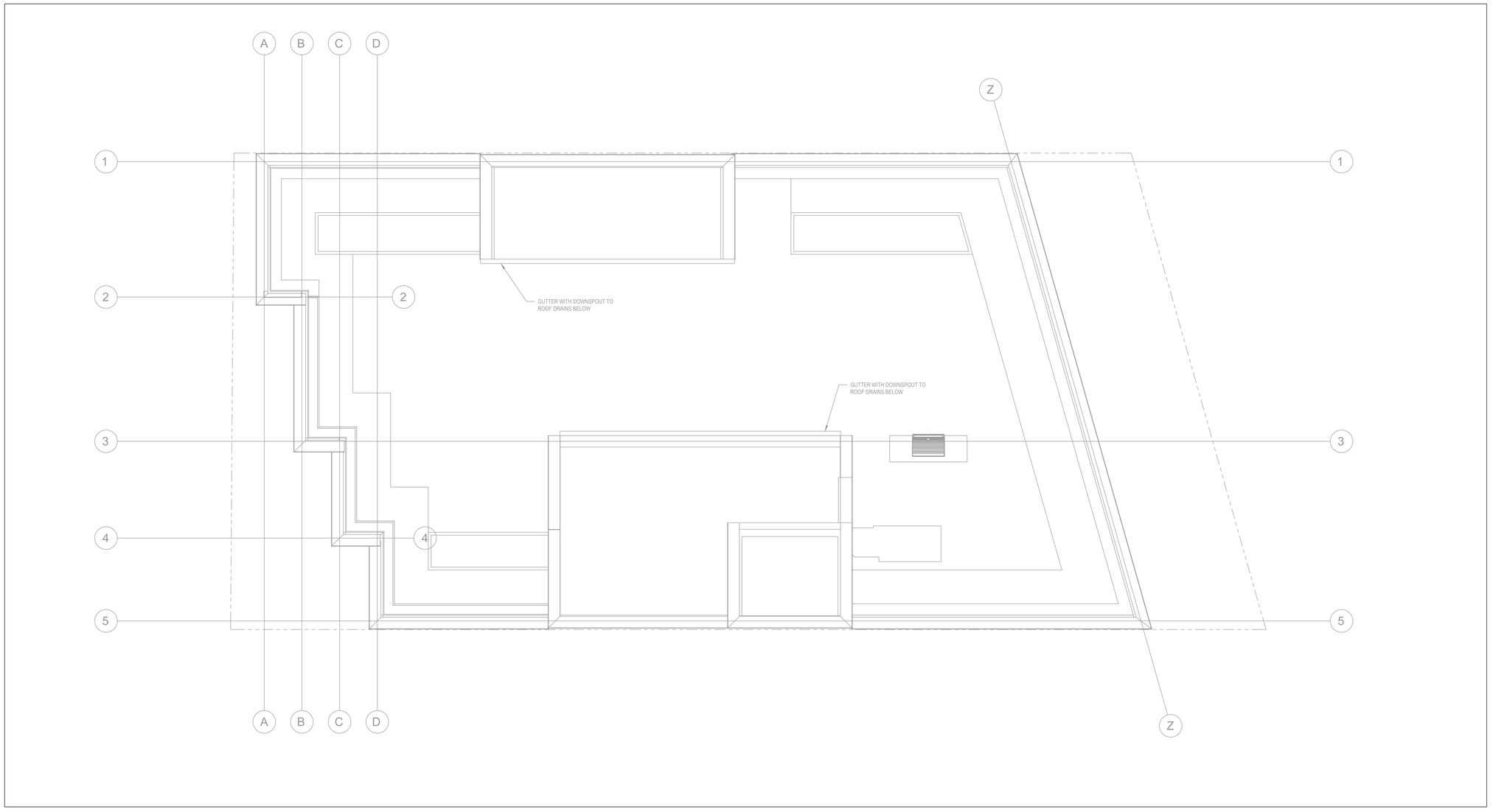
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

ELECTRICAL
FLOOR PLAN - ROOF
- FIRE ALARM

FA1.05



1 BULKHEAD ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
AARON MEBERG
ELECTRICAL
No. 59635
PROFESSIONAL ENGINEER

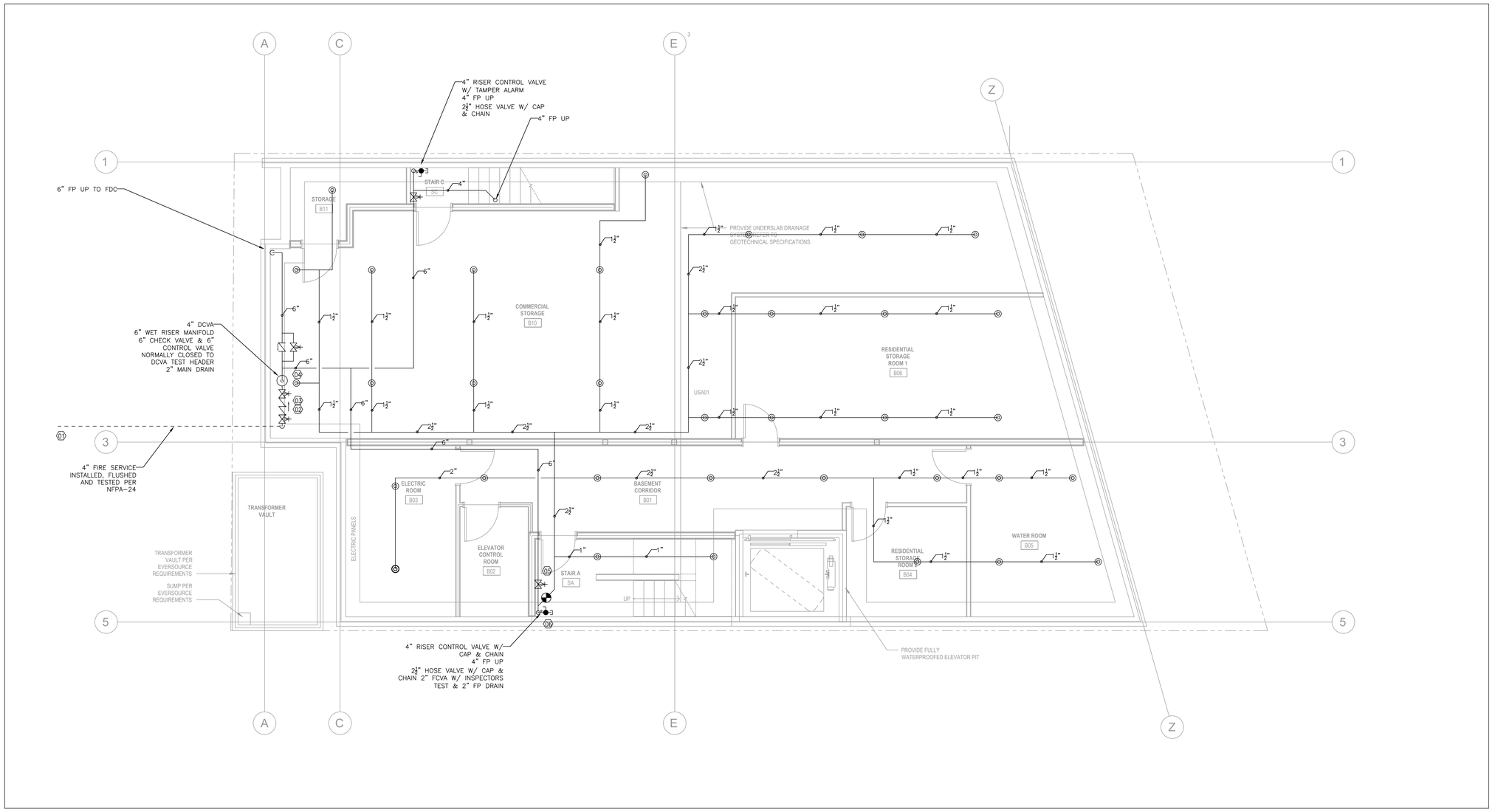
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE **As indicated**
NEIGHBOR PROJECT NUMBER **2418**

ELECTRICAL
FLOOR PLAN - BULKHEAD ROOF
- FIRE ALARM

FA1.06



1 LOWER LEVEL FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

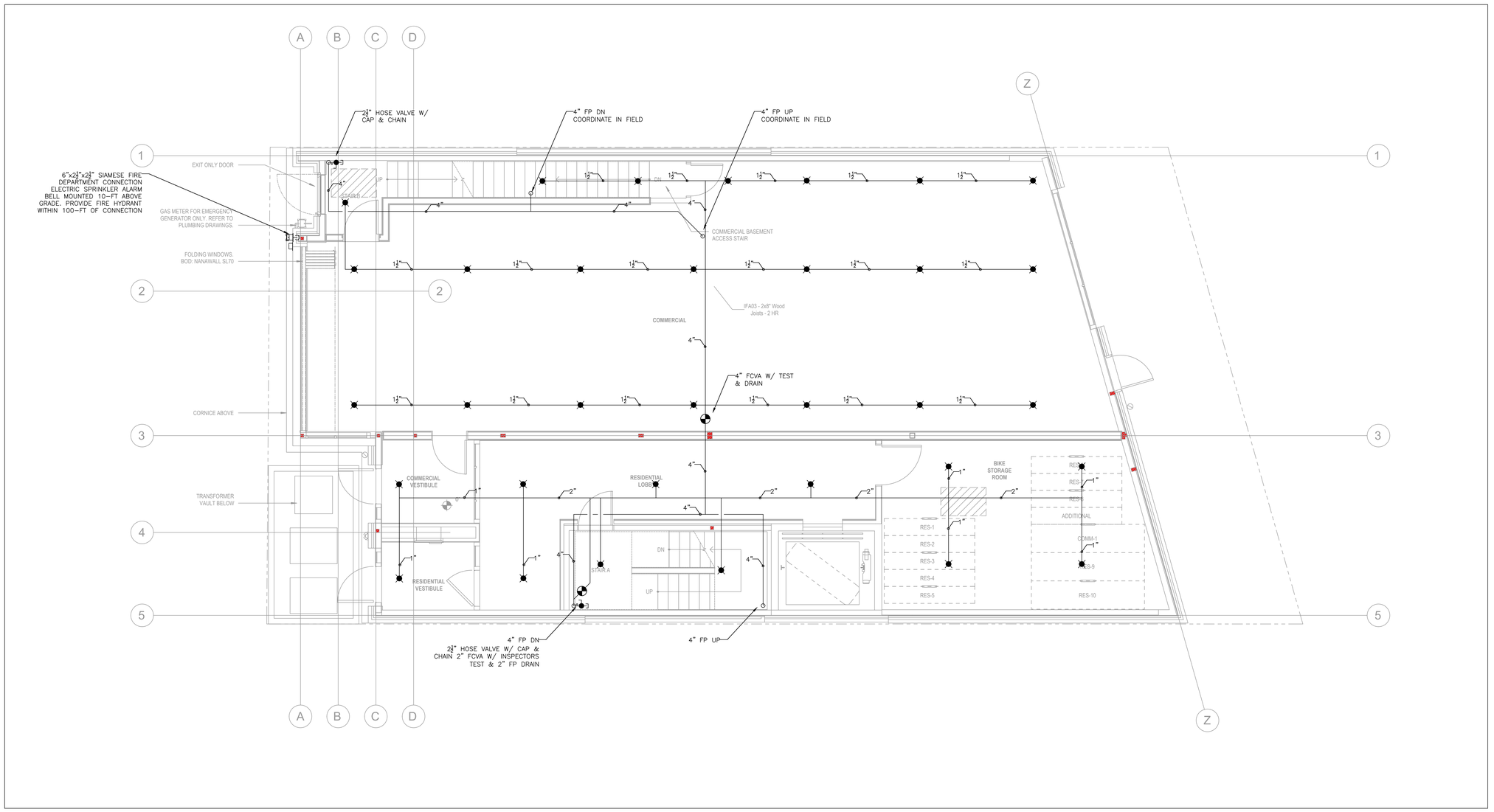
NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

FIRE PROTECTION FLOOR PLAN - LOWER LEVEL

FP1.00



1 FIRST FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

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P 617 945 1375 **ARCHITECT**

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GROUND INC.

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SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

NO.	DATE	DESCRIPTION
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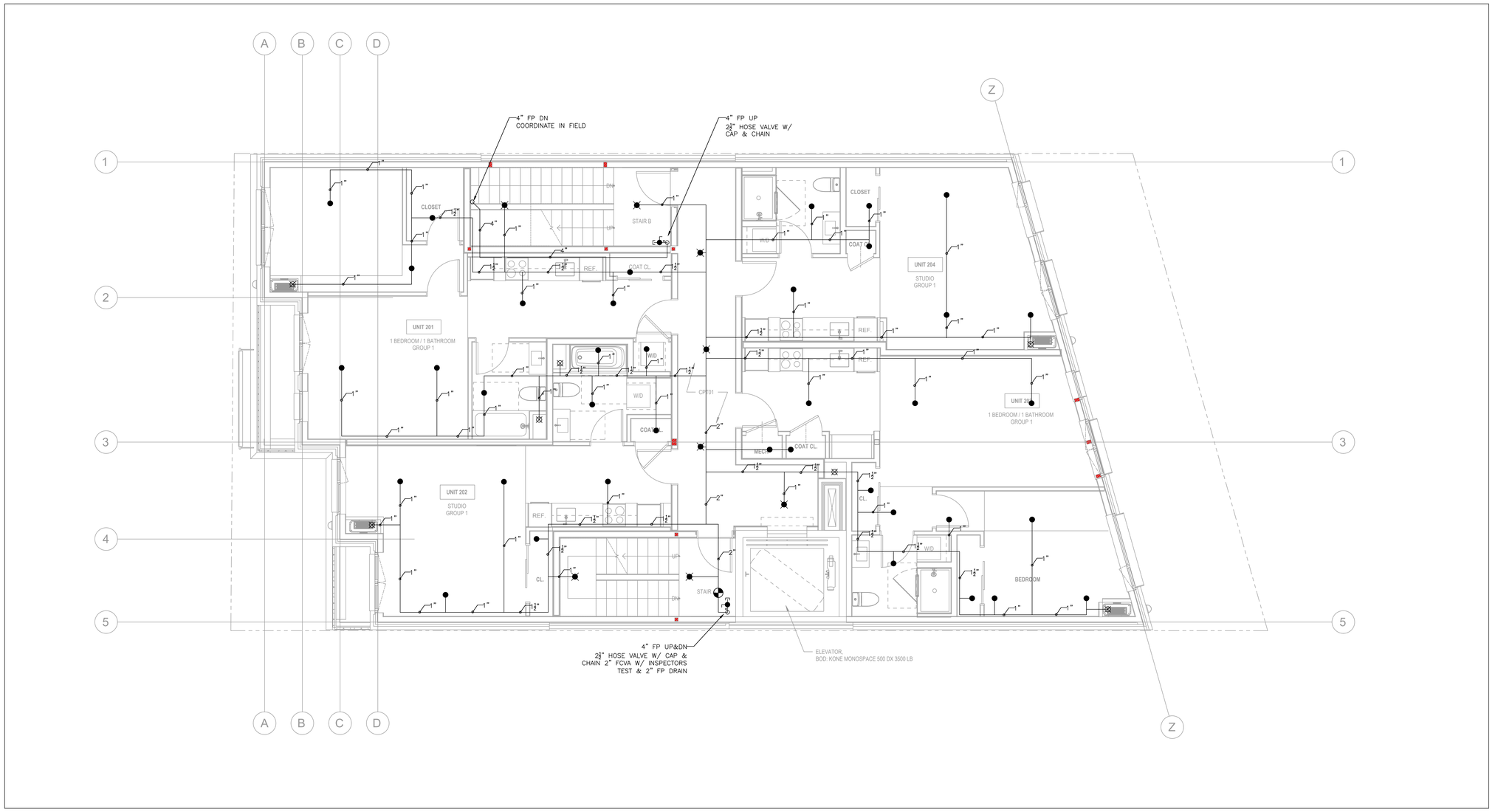
STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

FIRE PROTECTION FLOOR PLAN - FIRST FLOOR

FP1.01



1 SECOND FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
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HOWARD STEIN HUDSON

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GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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QUINCY, MA 02171
P 617 338 4406 **MEPFP**

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BOSTON, MA 02111
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VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

NO.	DATE	DESCRIPTION
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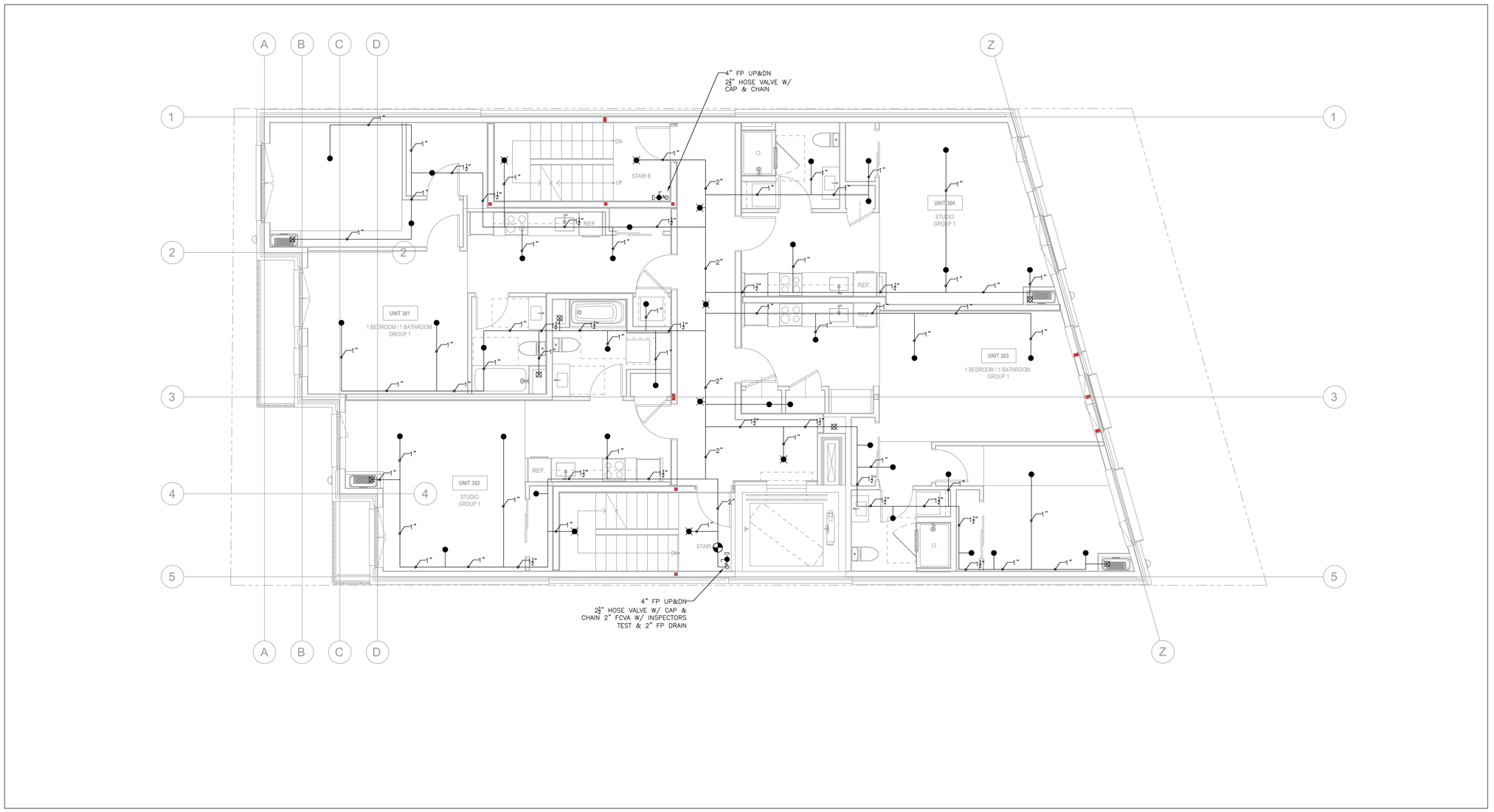
STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

FIRE PROTECTION FLOOR PLAN - SECOND FLOOR

FP1.02



1 THIRD FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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NEIGHBOR

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CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

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BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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QUINCY, MA 02171
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SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
ALEXANDER MUNDELEIN GATE
NO. 39,900
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

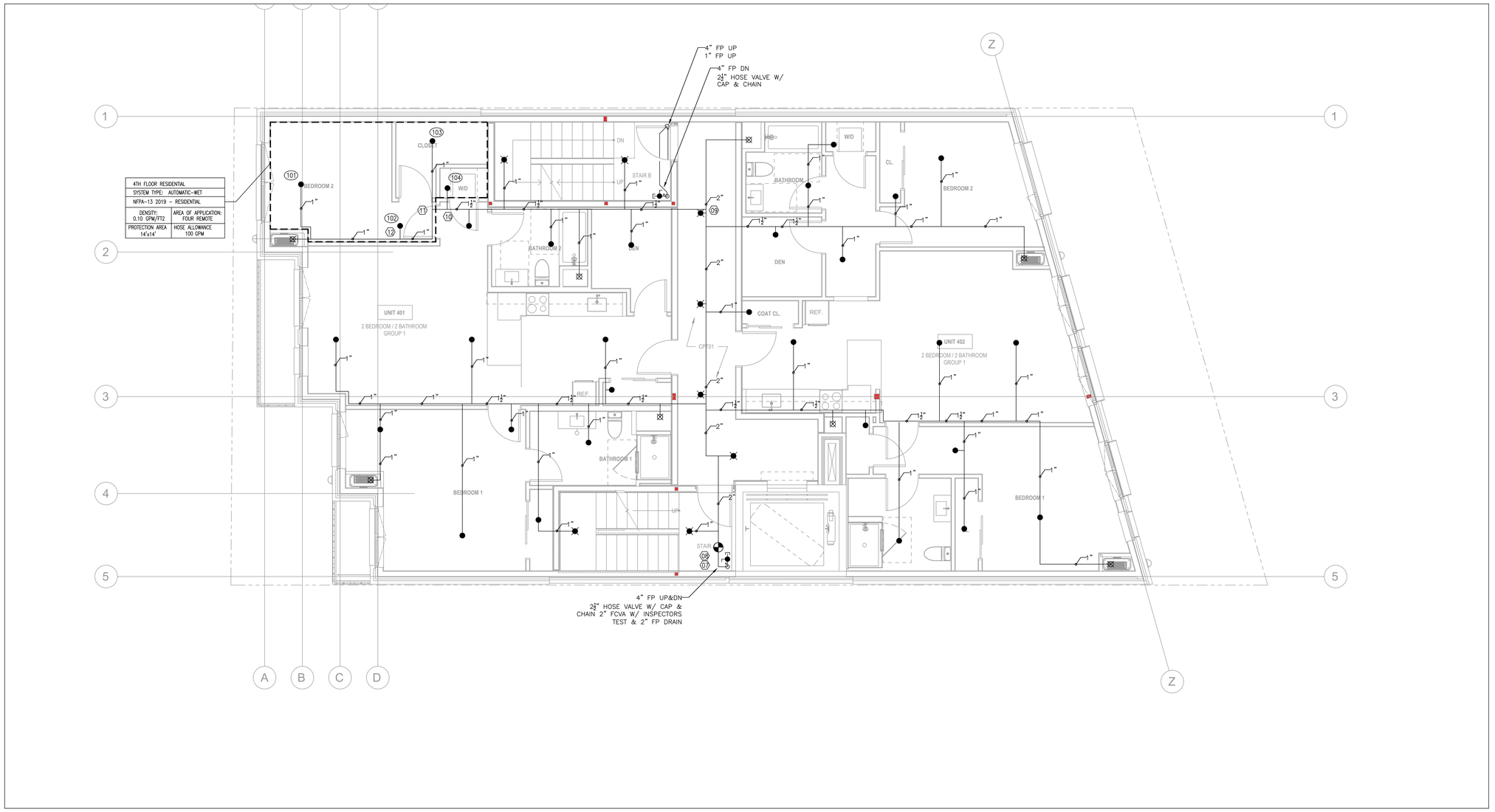
STAMP

SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

FIRE PROTECTION
FLOOR PLAN - THIRD FLOOR

FP1.03



1 FOURTH FLOOR PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

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QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

NO.	DATE	DESCRIPTION
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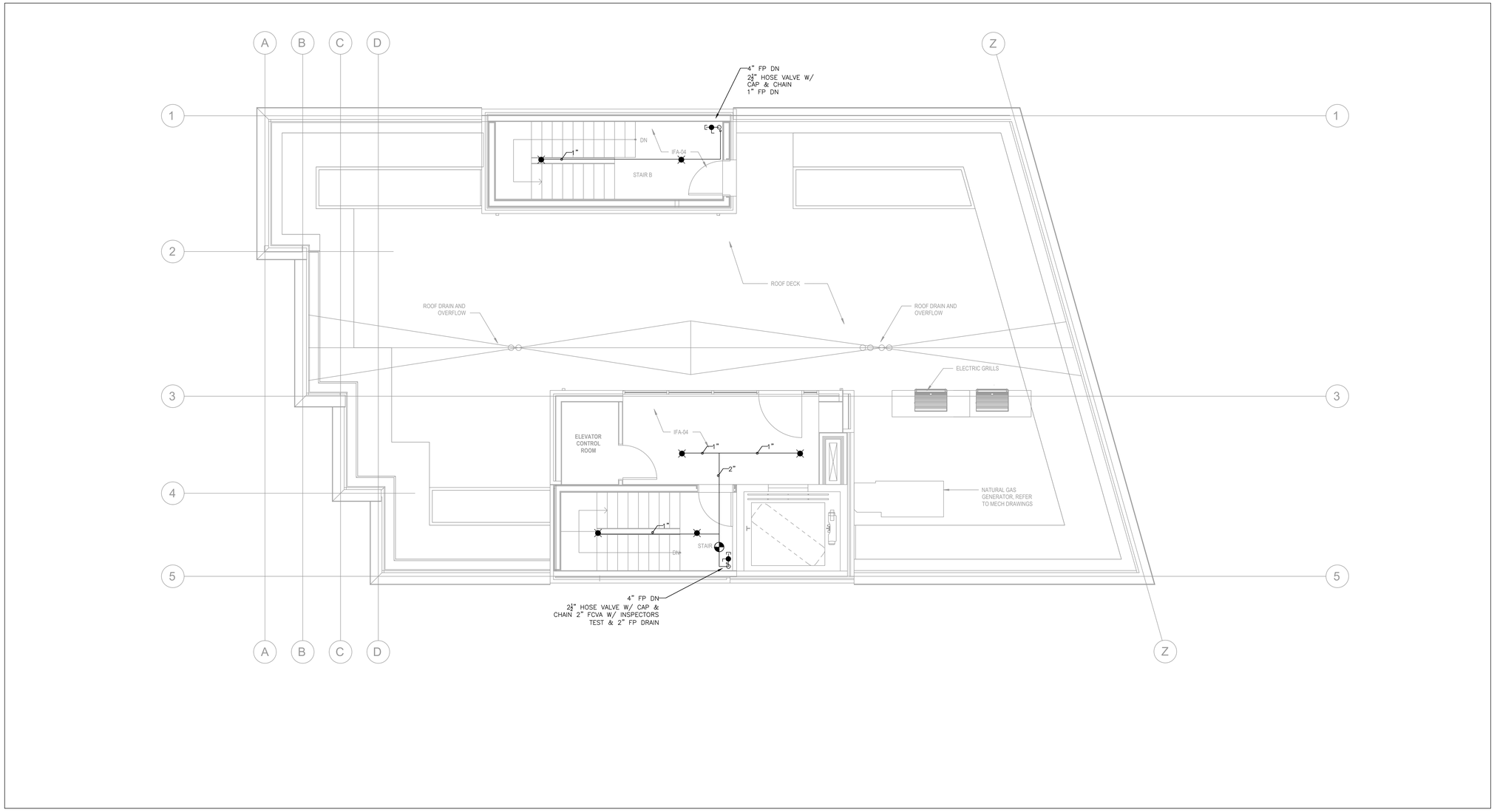
STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

FIRE PROTECTION FLOOR PLAN - FOURTH FLOOR

FP1.04



1 ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
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P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

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P 617 447 8030 **STRUCTURAL**

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P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
MUZAFFER MUNDALGIC
NO. 28306
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

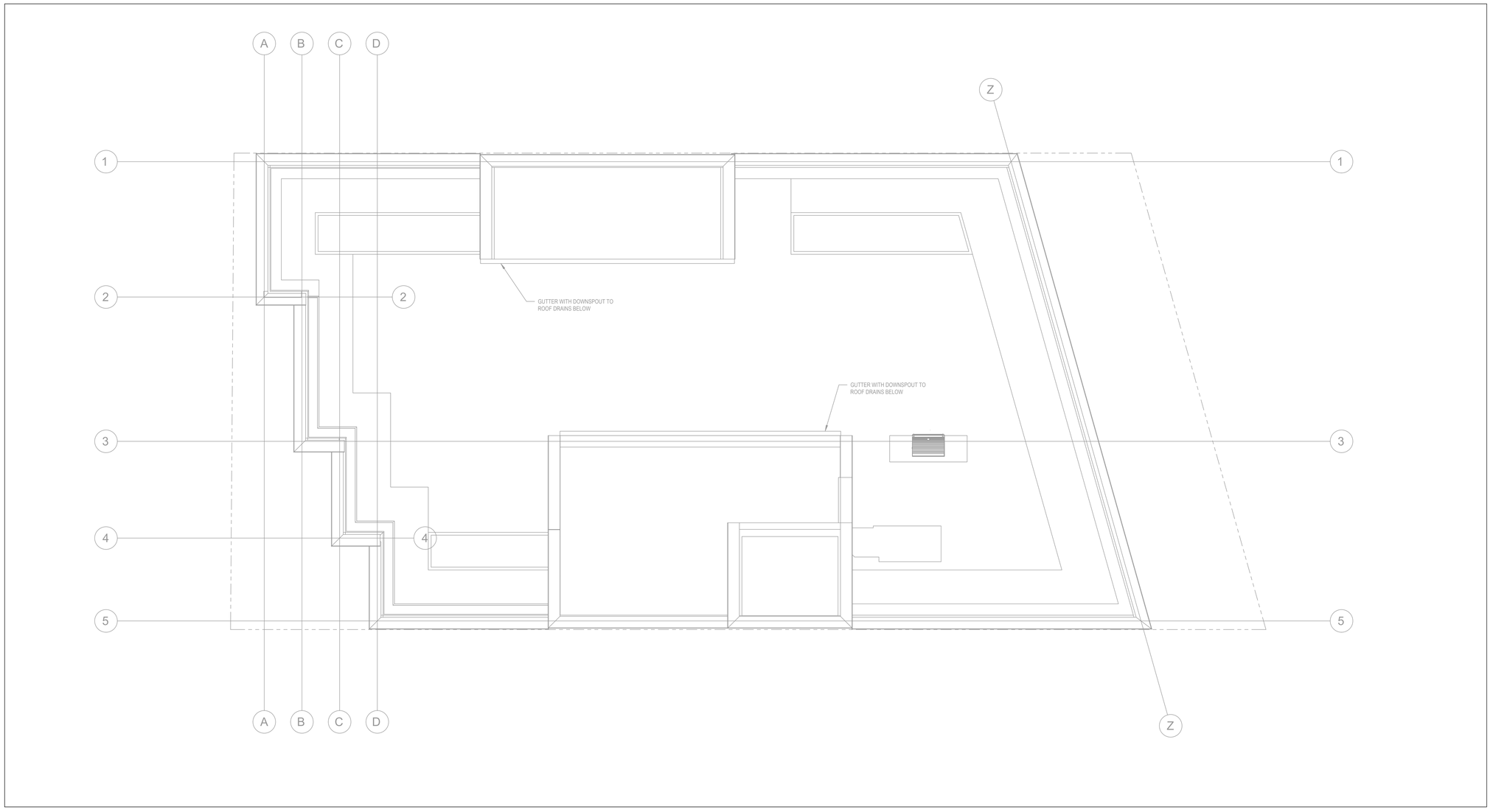
STAMP

SCALE
As indicated

NEIGHBOR PROJECT NUMBER
2418

FIRE PROTECTION
FLOOR PLAN - ROOF

FP1.05



1 BULKHEAD ROOF PLAN
1/4" = 1'-0"

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
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P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
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GROUND INC.

285 WASHINGTON ST, SUITE G
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P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

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BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

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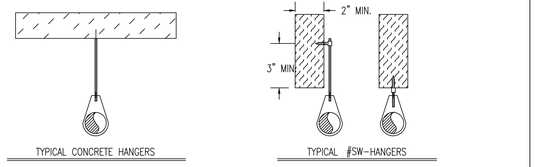
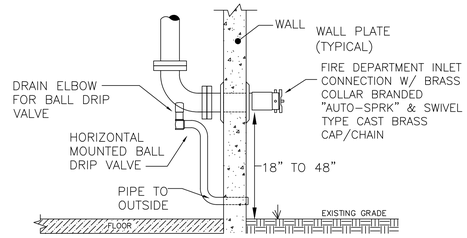
NEIGHBOR PROJECT NUMBER: 2418

FIRE PROTECTION FLOOR PLAN - BULKHEAD ROOF

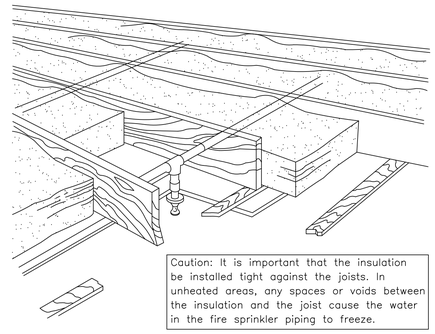
FP1.06



HANGER STRUCTURE ATTACHMENT | NTS



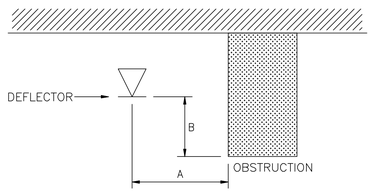
FIRE DEPARTMENT CONNECTION | NTS



PIPE INSULATION | NTS

CONTINUOUS OBSTRUCTION GUIDE

RESIDENTIAL UPRIGHT & PENDENT SPRAY SPRINKLERS PER FIG. 8.10.6.1.2(a)

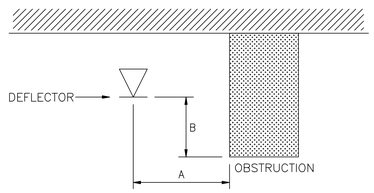


ELEVATION VIEW

DISTANCE FROM SPRINKLERS FROM SIDE OF OBSTRUCTION (A)	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION (IN.) (B)
LESS THAN 1 FT.	0
1 FT. TO LESS THAN 1 FT. 6 IN.	0
1 FT. 6 IN. TO LESS THAN 2 FT.	1
2 FT. TO LESS THAN 2 FT. 6 IN.	1
2 FT. 6 IN. TO LESS THAN 3 FT.	1
3 FT. TO LESS THAN 3 FT. 6 IN.	3
3 FT. 6 IN. TO LESS THAN 4 FT.	3
4 FT. TO LESS THAN 4 FT. 6 IN.	5
4 FT. 6 IN. TO LESS THAN 5 FT.	7
5 FT. TO LESS THAN 5 FT. 6 IN.	7
5 FT. 6 IN. TO LESS THAN 6 FT.	7
6 FT. TO LESS THAN 6 FT. 6 IN.	9
6 FT. 6 IN. TO LESS THAN 7 FT.	11
7 FT. & GREATER	14

CONTINUOUS OBSTRUCTION GUIDE

STANDARD SPRAY PENDENTS & UPRIGHTS AS PER TABLE 8.6.5.1.2

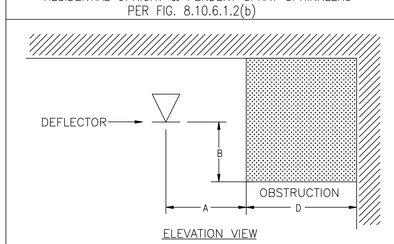


ELEVATION VIEW

DISTANCE FROM SPRINKLERS FROM SIDE OF OBSTRUCTION (A)	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE BOTTOM OF OBSTRUCTION (IN.) (B)
LESS THAN 1 FT.	0
1 FT. TO LESS THAN 1 FT. 6 IN.	2½
1 FT. 6 IN. TO LESS THAN 2 FT.	3½
2 FT. TO LESS THAN 2 FT. 6 IN.	5½
2 FT. 6 IN. TO LESS THAN 3 FT.	7½
3 FT. TO LESS THAN 3 FT. 6 IN.	9½
3 FT. 6 IN. TO LESS THAN 4 FT.	12
4 FT. TO LESS THAN 4 FT. 6 IN.	14
4 FT. 6 IN. TO LESS THAN 5 FT.	16½
5 FT. TO LESS THAN 5 FT. 6 IN.	18
5 FT. 6 IN. TO LESS THAN 6 FT.	20
6 FT. TO LESS THAN 6 FT. 6 IN.	24
6 FT. 6 IN. TO LESS THAN 7 FT.	30
7 FT. 6 IN. TO LESS THAN 7 FT. 6 IN.	35

OBSTRUCTIONS AGAINST WALLS GUIDE

RESIDENTIAL UPRIGHT & PENDENT SPRAY SPRINKLERS PER FIG. 8.10.6.1.2(b)

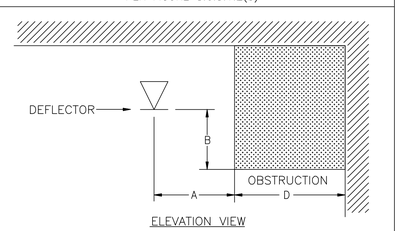


ELEVATION VIEW

$A \geq (D - 8\text{ in.}) + B$
WHERE $D \leq 30$ in.

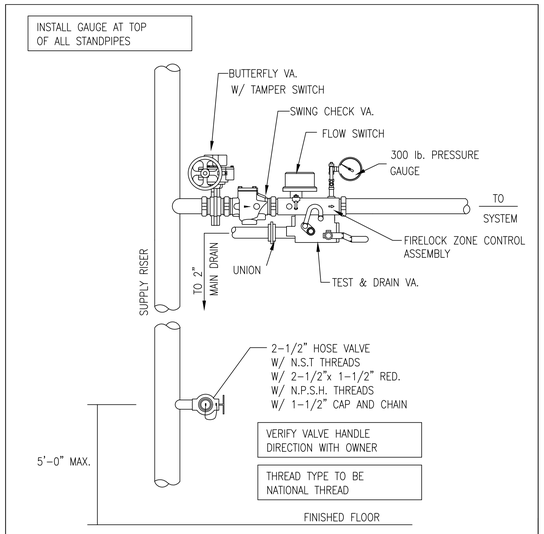
OBSTRUCTIONS AGAINST WALLS GUIDE

EXTENDED COVERAGE AND STANDARD COVERAGE PENDENTS & UPRIGHTS PER FIGURE 8.6.5.1.2(b)

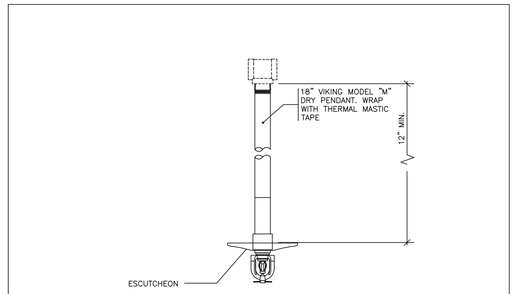


ELEVATION VIEW

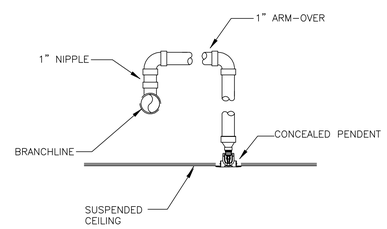
$A \geq (D - 8\text{ in.}) + B$
WHERE $D \leq 30$ in.



TYPICAL STANDPIPE RISER | NTS

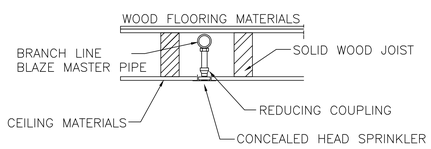


TYPICAL DRY PENDENT SPRINKLER INSTALLATION | NTS



**ALL NEW SPRINKLER PIPING TO BE 1" U.N.O.

TYPICAL PENDENT SPRINKLER INSTALLATION | NTS



SPRINKLER PIPING AT CEILING PLENUM | NTS

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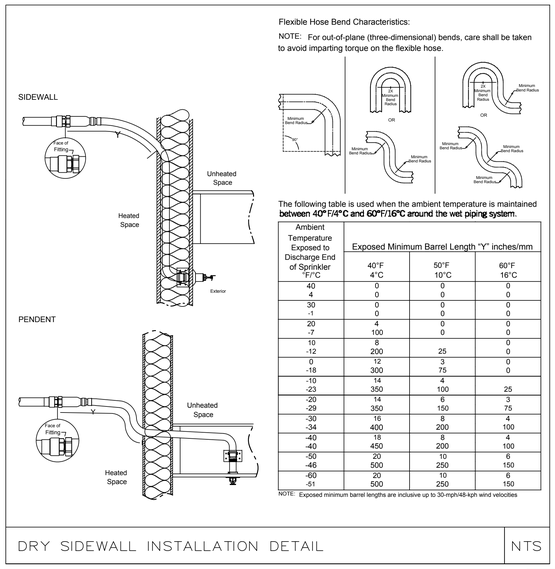
FIRE PROTECTION DETAILS

FP2.00



Flexible Hose Bend Characteristics:

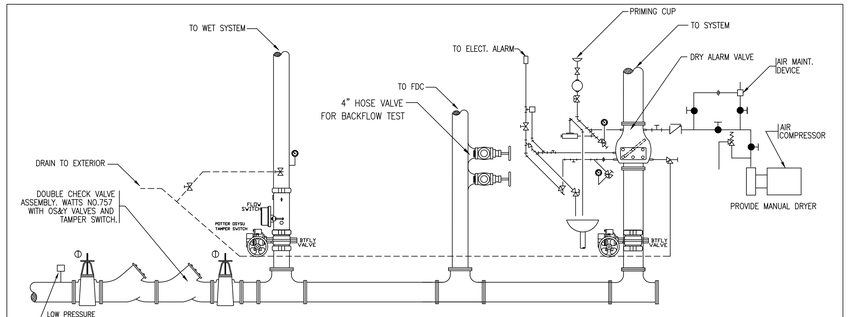
NOTE: For out-of-plane (three-dimensional) bends, care shall be taken to avoid imparting torque on the flexible hose.

The following table is used when the ambient temperature is maintained between 40°F/4°C and 60°F/16°C around the wet piping system.

Ambient Temperature Exposed to Discharge End of Sprinkler °F/°C	Exposed Minimum Barrel Length "Y" inches/mm		
	40°F 4°C	50°F 10°C	60°F 16°C
40	0	0	0
4	0	0	0
30	0	0	0
-1	0	0	0
20	4	0	0
-7	100	0	0
10	8	0	0
-12	200	25	0
0	12	3	0
-18	300	75	0
-10	14	4	
-23	350	100	25
-20	14	6	3
-29	350	150	75
-30	16	8	4
-34	400	200	100
-40	18	8	4
-40	450	200	100
-50	20	10	6
-46	500	250	150
-60	20	10	6
-51	500	250	150

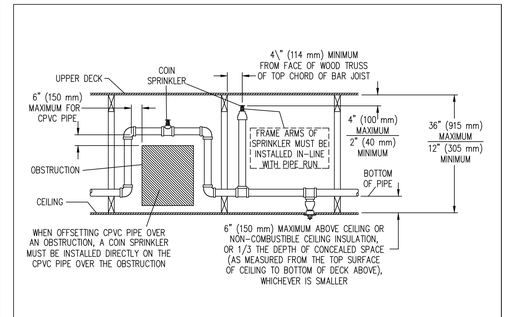
NOTE: Exposed minimum barrel lengths are inclusive up to 30-mph/48-kph wind velocities

DRY SIDEWALL INSTALLATION DETAIL | NTS

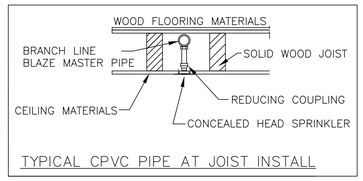


WET ALARM VALVE DETAIL
N.T.S.

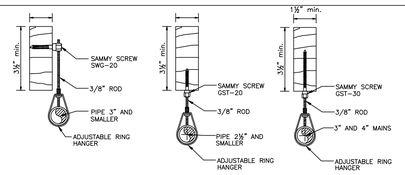
DRY ALARM VALVE DETAIL
N.T.S.

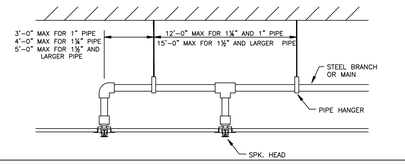


CONCEALED SPACE SPRINKLER COVERAGE | NTS

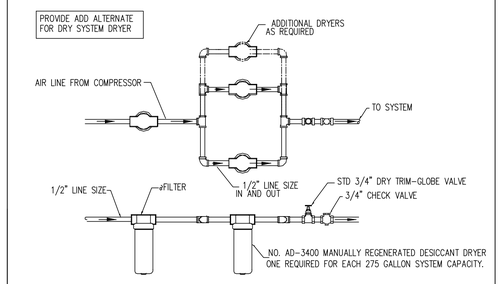


TYPICAL CPVC PIPE AT JOIST INSTALL

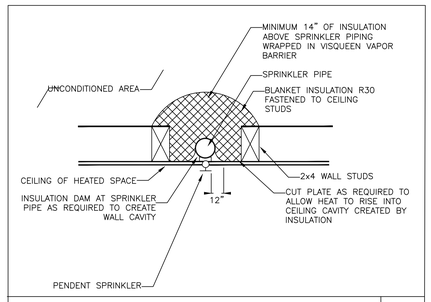




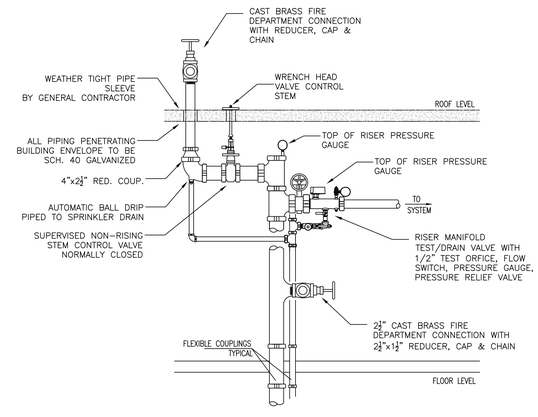
PIPE HANGER SPACING | NTS



MANUAL AIR DRYER | NTS



PENDENT SPRINKLER INSULATION DETAIL | N.T.S



COMBINATION STANDPIPE RISER WITH ROOF HYDRANT CONNECTION | NTS

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FIRE PROTECTION NOTES & SCHEDULES

FP2.01

DESIGN CRITERIA

THE AUTOMATIC FIRE SUPPRESSION SYSTEM HAS BEEN DESIGNED PER NFPA–13 2019, NFPA–14 2019 CMR 780 10TH ED. WITH AMENDMENTS

1. THE DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC IN NATURE AND MAY NOT DEPICT EVERY COMPONENT REQUIRED TO FURNISH A FULLY CODE COMPLIANT SYSTEM. THE FIRE PROTECTION CONTRACTOR IS REQUIRED TO PROVIDE ALL MATERIAL AND LABOR TO FURNISH A FULLY CODE COMPLIANT SYSTEM PER NFPA–13 2019

PIPE, FITTINGS AND JOINTS

1. PIPE AND FITTINGS SHALL CONFORM TO THE LATEST ANSI, ASTM, NFPA AND AWWA STANDARDS INCLUDING LATEST AMENDMENTS AND SHALL BE LISTED FOR USE WITH FIRE SPRINKLER SYSTEMS

2. SEE MATERIAL SCHEDULE ON DETAIL SHEET

HANGERS AND SUPPORTS

1. HANGERS AND SWAY BRACING WHERE REQUIRED , SHALL BE INSTALLED TO MEET NFPA AND LOCAL STATE BUILDING CODE COMPLIANCE AS TO LOCATION, SPACING, AND MAXIMUM LOADS.

2. HANGER MATERIAL SHALL BE COMPATIBLE WITH PIPING MATERIALS WITH WHICH IT COMES INTO CONTACT.

3. HANGERS SHALL BE INSTALLED, IN ADDITION TO THE ABOVE, AT ALL CHANGES OF DIRECTION (HORIZONTAL AND VERTICAL), VALVES AND EQUIPMENT CONNECTIONS. HANGERS SHALL BE LOCATED SO THAT THEIR REMOVAL IS NOT REQUIRED TO SERVICE, ASSEMBLE OR REMOVE EQUIPMENT.

4. HORIZONTAL RUNS MAY USE BAND HANGERS UP TO 4" SIZE. PIPING LARGER THAN 4" SHALL BE PROVIDED WITH CLEVIS TYPE.

5. ALL RODS, CLAMPS, NUTS, WASHERS, SHIELDS AND HANGERS IN ALL AREAS SHALL BE ELECTRO–GALVANIZED COATED STEEL.

VALVES AND SUNDRIES

1. SHUTOFF VALVES ON THE ABOVEGROUND FIRE PROTECTION SYSTEM SHALL BE UL, FM BUTTERFLY OR OS&Y GATE VALVES, AS INDICATED, ON SIZES 2–1/2" AND LARGER, VALVES UP TO 2" SHALL BE UL, FM BALL VALVES. ALL ISOLATION / CONTROL VALVES SHALL BE MONITORED.

2. CHECK VALVES SHALL BE 175–POUND CLASS FOR FIRE PROTECTION.

3. VALVES SHALL BE PROVIDED WITH SEATS SUITABLE FOR THE SERVICE INTENDED.

4. VALVES SHALL BE AS MANUFACTURED BY NIBCO, VICTAULIC, WALLWORTH, MILWAUKEE OR APPROVED EQUAL. MANUFACTURERS MODEL NUMBERS REFERENCED BELOW ARE USED TO INDICATE A TYPE, MATERIAL AND QUALITY TO BE PROVIDED.

5. ALL VALVES SPECIFIED HEREIN SHALL BE UL/FM APPROVED, 175 PSI MINIMUM WORKING PRESSURE. ALL CONTROL VALVES SHALL BE PROVIDED WITH TAMPER SWITCH.

AUTOMATIC SPRINKLERS

1. SPRINKLER HEADS: QUICK RESPONSE, BULB TYPE, AND STYLE AS INDICATED OR REQUIRED BY THE APPLICATION. UNLESS OTHERWISE INDICATED.

2. IN ALL OPEN AREAS, WHERE ELECTRICAL EQUIPMENT IS LOCATED, AN APPROVED TYPE SHIELD, TO KEEP WATER OFF THE ELECTRICAL EQUIPMENT, SHALL BE PROVIDED.

3. PROVIDE ALL SPRINKLER HEADS WITH PROTECTIVE CAGE.

4. PROVIDE IN THE VALVE ROOM, A FINISHED STEEL CABINET SUITABLE FOR WALL MOUNTING, WITH HINGED COVER AND SPACE FOR 6 SPARE SPRINKLER HEADS PLUS SPRINKLER HEAD WRENCH.

SPRINKLER SHOP DRAWINGS

1. PRIOR TO INSTALLATION FIRE PROTECTION CONTRACTOR SHALL FURNISH COMPLETE TIER II SHOP DRAWINGS AND HYDRAULIC CALCULATIONS BASED ON A RECENT HYDRANT FLOW TEST FOR APPROVAL BY THE ENGINEER OF RECORD. FINAL AFFIDAVITS CANNOT BE ISSUED WITHOUT APPROVED SHOP DRAWINGS. TIER 2 SHOP DRAWINGS SHALL BE STAMPED BY A REGISTERED FIRE PROTECTION ENGINEER LICENSED TO PRACTICE IN MASSACHUSETTS.

FLUSHING AND TESTING

1. ALL LABOR, MATERIALS, INSTRUMENTS, DEVICES AND POWER REQUIRED FOR TESTING SHALL BE PROVIDED BY THIS CONTRACTOR. THE TESTS SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF THE ENGINEER, GENERAL CONTRACTOR AND THE LOCAL FIRE DEPARTMENT AND SUCH OTHER PARTIES, AS MAY HAVE LEGAL JURISDICTION. NO PIPING IN ANY LOCATION SHALL BE CLOSED UP, FURRED IN, OR COVERED BEFORE TESTING.

2. WHERE PORTIONS OF PIPING SYSTEMS ARE TO BE COVERED OR CONCEALED BEFORE COMPLETION OF THE PROJECT, THOSE PORTIONS SHALL BE TESTED SEPARATELY IN THE MANNER SPECIFIED HEREIN FOR THE RESPECTIVE ENTIRE SYSTEM.

3. ANY PIPING OR EQUIPMENT THAT HAS BEEN LEFT UNPROTECTED AND SUBJECT TO MECHANICAL OR OTHER INJURY IN THE OPINION OF THE GENERAL CONTRACTOR SHALL BE RE TESTED IN PART OR IN WHOLE AS DIRECTED.

4. THE ENGINEER RETAINS THE RIGHT TO REQUEST A RECHECK OR RESETTING OF ANY PUMP OR INSTRUMENT BY THIS CONTRACTOR DURING THE GUARANTEE PERIOD AT NO ADDITIONAL COST TO THE CONTRACTOR.

5. REPAIR, OR IF DIRECTED, REPLACE ANY DEFECTIVE WORK WITH NEW WORK WITHOUT EXTRA CHARGE TO THE CONTRACT. REPEAT TESTS AS DIRECTED, UNTIL THE WORK IS PROVEN TO MEET THE REQUIREMENTS SPECIFIED HEREIN.

6. RESTORE TO ITS FINISHED CONDITION ANY WORK, DAMAGED OR DISTURBED, PROVIDED BY OTHER CONTRACTORS AND ENGAGE THE ORIGINAL CONTRACTOR TO DO THE WORK OF RESTORATION TO THE DAMAGED OR DISTURBED WORK.

7. THIS CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND ANY INSPECTORS HAVING JURISDICTION, A MINIMUM OF 48 HOURS IN ADVANCE OF MAKING ANY REQUIRED TESTS SO THAT ARRANGEMENTS MAY BE MADE FOR THEIR PRESENCE TO WITNESS HIS SCHEDULED TESTS.

8. TESTING SHALL BE IN ACCORDANCE WITH NFPA–13 "STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS".

9. EACH SYSTEM SHALL BE TESTED TO A HYDROSTATIC PRESSURE OF 200 PSI FOR TWO HOURS.

10. FLUSHING OF ALL BURIED SUPPLY PIPING SHALL BE PERFORMED AT A MINIMUM RATE OF 880 GPM FOR SYSTEMS WITH A 6" SERVICE.

11. ALL WATER FLOW DETECTING DEVICES AND CIRCUITS SHALL BE FLOW TESTED THROUGH THE INSPECTOR'S TEST CONNECTION AND ACTIVATE WITHIN FIVE MINUTES OF INITIATION.

12. ALL FLOW TESTS ON THE FIRE PROTECTION SYSTEMS SHALL BE PERFORMED IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION.

13. SPRINKLER FLOW TEST DISCHARGE AND FLUSHING WATER DISCHARGE SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND THE LOCAL FIRE DEPARTMENT OR PUBLIC WORKS AS TO ACCEPTABLE DISCHARGE POINTS PRIOR TO SCHEDULING OF FLUSHING AND TESTS. THIS CONTRACTOR SHALL PROVIDE ALL HOSE AND EQUIPMENT NECESSARY TO PERFORM THE REQUIRED TESTING AND FLUSHING.

AS BUILT DRAWINGS AND CONTRACTOR CERTIFICATES

1. CONTRACTOR SHALL HAVE, ON HAND, AT TIME OF FINAL INSPECTION BY THE AUTHORITY HAVING JURISDICTION, FOR TEMPORARY / FINAL CERTIFICATE OF OCCUPANCY, ALL COMPLETED CERTIFICATES OF MATERIAL AND TESTING FOR ABOVEGROUND AND UNDERGROUND PIPING AS WELL AS THE AS– BUILT DRAWINGS OF THE FIRE PROTECTION INSTALLATION.

2. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ENGINEER OF RECORD AT SUCH A TIME WHERE THE INSTALLATION HAS PROGRESSED TO 90% AND PRIOR TO WALLS BEING CLOSED FOR INSPECTION.

PATCHING, REPLACEMENT AND MODIFICATION OF EXISTING WORK

1. AFTER INSTALLATION OF PIPELINES, THE CONTRACTOR SHALL NEATLY PATCH, REPAIR, AND/OR REPLACE EXISTING WORK WHERE DAMAGED, REMOVED OR ALTERED FOR PIPE LINE INSTALLATION. THIS WORK SHALL BE SIMILAR AND EQUAL IN QUALITY TO THE WORK REMOVED OR DAMAGED, UNLESS OTHERWISE SHOWN OR SPECIFIED. SUCH WORK SHALL INCLUDE PATCHING AND REPLACEMENT OF EXISTING PIPING AT POINTS OF CONNECTION TO NEW PIPING, PATCHING OF INSULATION, AND WHEREVER ANY SUCH PATCHING WORK IS INDICATED ON THE DRAWINGS OR OTHERWISE REQUIRED.

INSTALLATION

1. GENERAL: INSTALL FIRE PROTECTION SPECIALTY VALVES, FITTINGS, AND SPECIALTIES IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, NFPA 13 AND 14, AND THE AUTHORITY HAVING JURISDICTION.

2. USE PROPER TOOLS TO PREVENT DAMAGE DURING INSTALLATIONS.

3. ALL PENDENT MOUNTED SPRINKLERS SHALL BE INSTALLED ON RETURN BENDS.

4. ALL SPRINKLERS INSTALLED IN ACOUSTICAL CEILING TILES SHALL BE CENTERED IN TILES WHERE APPLICABLE.

5. COORDINATE AND VERIFY DRAFT CURTAINS ARE INSTALLED AS REQUIRED BY SPRINKLER HEAD SPECIFICATIONS

6. CONTRACTOR IS RESPONSIBLE TO PROVIDE 100% SPRINKLED BUILDING INCLUDING ALL COMBUSTIBLE CONCEALED SPACES WHETHER SHOWN ON THIS PLAN OR NOT

7. NO WORK SHALL COMMENCE BEFORE HAVING FULL APPROVAL FROM THIS OFFICE

FIRE PROTECTION SPECIFICATION

1. BEFORE BIDDING THE JOB, CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY EXISTING CONDITIONS. REPORT ADVERSE CONDITIONS IN WRITING TO ARCHITECT.

2. BLAZE–MASTER TYPE CPVC FOR FIRE PROTECTION SHALL BE INSTALLED CONCEALED AND PER MANUFACTURERS INSTRUCTIONS. COORDINATE WITH ALL MATERIALS CONTACTING CPVC COMPONENTS FOR COMPATIBILITY

3. SPRINKLER HEADS IN COMMON AREAS SHALL BE QUICK RESPONSE CONCEALED TYPE MANUFACTURED BY VIKING OR EQUAL. WITHIN UNITS THEY WILL BE RESIDENTIAL CONCEALED TYPE.

4. APPLY AND OBTAIN PERMIT AND APPROVAL FROM LANDLORD'S INSURANCE COMPANY, FIRE DEPARTMENT AND STATE AND LOCAL AUTHORITIES.

5. COORDINATE WITH ARCHITECT AND ARCHITECTURAL REFLECTED CEILING PLAN FOR THE LOCATION OF SPRINKLER HEADS.

6. COORDINATE SPRINKLER WORK WITH OTHER DISCIPLINES. SINCE PERFORMANCE OF SPRINKLER SYSTEM IS AFFECTED BY OBSTRUCTIONS AND NOT OTHER WAY AROUND, THIS CONTRACTOR SHALL COORDINATE ALL LIGHTING FIXTURE LOCATIONS AND TYPES AND OTHER OBSTRUCTIONS PRIOR TO ANY WORK DONE.

7. THE SYSTEM SHALL BE HYDROSTATICALLY TESTED AT NOT LESS THAN 200 PSI PRESSURE FOR 2 HOURS. THERE WILL BE NO VISIBLE LEAKAGE WHEN THE SYSTEM IS SUBJECTED TO THE HYDROSTATIC PRESSURE TEST.

8. GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR FROM THE DATE OF ACCEPTANCE.

FLOW TEST DATA

STATIC	–––––	70 PSI
RESIDUAL	–––––	65 PSI
FLOW	–––––	1250

NOTE:

SPRINKLER CONTRACTOR SHALL SCHEDULE AND OBTAIN A NEW HYDRANT FLOW TEST PRIOR TO WORK

PREPARATION OF SHOP DRAWINGS:

PER 780CMR 901.2.1
SPRINKLER CONTRACTOR SHALL PREPARE TIER ii SHOP DRAWINGS INCLUDING PIPING & HYDRAULIC CALCULATIONS, AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF WORK.
ENGINEER SHALL CERTIFY SYSTEM INSTALLATION FOR CODE COMPLIANCE AT PROJECT COMPLETION.

FIRE SPRINKLER LEGEND

SYM	POSITION	TYPE	TEMP	K	NPT	RESPONSE
◎	COIN UPRIGHT	BRASS	200°	5.60	1/2"	QUICK
⊠	UPRIGHT	BRASS	200°	5.60	1/2"	QUICK
D⊠	DRY UPRIGHT	BRASS	200°	5.60	1/2"	QUICK
◙	PENDENT	CONCEALED	155°	5.60	1/2"	QUICK
●	RES PENDENT	CONCEALED	155°	4.90	1/2"	QUICK
⊙	DRY PENDENT	CONCEALED – ELO	280°	11.2	3/4"	STANDARD
▶	SIDEWALL	RECESSED	155°	5.60	1/2"	QUICK
▷	DRY SIDEWALL	CONCEALED	175°	5.60	1/2"	QUICK

FIRE PROTECTION ABBREVIATIONS

DSW	DRY SIDEWALL
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DIA	DIAMETER
DR	DRAIN
ETR	EXISTING TO REMAIN
FHV	FIRE HOSE VALVE
IT	INTERMEDIATE TEMPERATURE
FP	FIRE PROTECTION
FS	FLOW SWITCH
SP	STANDPIPE
GV	GATE VALVE
GAL	GALLONS
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
DN	PIPE DROP
PSI	POUNDS PER SQUARE INCH
PRV	PRESSURE REDUCING VALVE
RV	RELIEF VALVE
SPK	SPRINKLER
TS	TAMPER SWITCH
UP	PIPE RISE
VIF	VERIFY IN FIELD

FIRE PROTECTION LEGEND

SYMBOL	DESCRIPTION
	SUPERVISED BUTTERFLY VALVE
	DOUBLE CHECK VALVE ASSEMBLY
	SUPERVISED OS&Y GATE VALVE
FS	FLOW ALARM SWITCH
	SPRINKLER ZONE CONTROL ASSEMBLY (SEE DETAIL)
	DRY ALARM VALVE
	WET ALARM VALVE
	CHECK VALVE
	DRAIN VALVE
	FIRE VALVE ASSEMBLY 2–1/2"W X 2–1/2" X 1–1/2"
	PRESSURE GAUGE
XX	HYDRAULIC JUNCTION POINT
XXX	HYDRAULIC DISCHARGE NODE

FIRE PROTECTION MATERIAL SCHEDULE

SYSTEM	PIPE									FITTINGS						JOINTS			
NOTES: 1. COMPONENT PRESSURE RATING TO MATCH EXISTING 2. ALL MATERIALS SELECTED ON THIS SCHEDULE MUST BE APPROVED BY THE ENGINEER & LOCAL AUTHORITIES 2. ALL MATERIALS SELECTED ON THIS SCHEDULE MUST BE APPROVED BY THE ENGINEER & LOCAL AUTHORITIES	BLAZEMASTER CPVC	DUCTILE IRON	EXTRA HEAVY CAST IRON	STEEL SCHED 10	STEEL SCHED 30	STEEL SCHED 40	STEEL SCHED 80	BLACK	GALVANIZED	CEMENT LINED	MALLEABLE IRON	BLAZEMASTER CPVC	LINED	BLACK	GALVANIZED	VICTAULIC	DUCTILE IRON	THREADED	MECH.JOINT–FLANGED	GROOVED	SLIP
BURIED BUILDING FIRE SERVICE		●						●		●								●		
RESIDENTIAL CROSS MAINS	●											●									●
RESIDENTIAL BRANCH LINES	●											●									●
ARM–OVER & DROPS	●											●									●
SPRINKLER DRAIN PIPE						●			●						●			●		●	
DRY SPRINKLER SYSTEM						●			●						●			●		●	

199 ELM STREET

199 ELM ST
SOMERVILLE, MA 02144 **PROJECT**

PICKER CONSTRUCTION

177 HUNTINGTON AVE
SUITE 1703
BOSTON, MA 02115
P 617-888-0552 **OWNER**

NEIGHBOR

NEIGHBOR ARCHITECTS
32R ESSEX ST, SUITE 5
CAMBRIDGE, MA 02139
P 617 945 1375 **ARCHITECT**

HOWARD STEIN HUDSON

11 BEACON ST, SUITE 1010
BOSTON, MA 02108
P 617 482 7080 **CIVIL / TRANSPORTATION**

GROUND INC.

285 WASHINGTON ST, SUITE G
SOMERVILLE, MA 02143
P 617 718 0889 **LANDSCAPE**

FOREST ENGINEERING

231 W NEWTON ST, 1
BOSTON, MA 02116
P 617 447 8030 **STRUCTURAL**

ZADE ENGINEERING

1 BILLINGS RD, 306
QUINCY, MA 02171
P 617 338 4406 **MEPFP**

SLS CONSULTING

1 LINCOLN ST, 24TH FL
BOSTON, MA 02111
P 888 224 9911 **CODE CONSULTANT**

VvS ARCHITECTS & CONSULTANTS

P 617 898 8995 **SUSTAINABILITY**

COMMONWEALTH OF MASSACHUSETTS
REGISTRATION NO. 39,092
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION
1	11.14.2025	PERMIT SET

STAMP

SCALE: As indicated
NEIGHBOR PROJECT NUMBER: 2418

FIRE PROTECTION NOTES & SCHEDULES

FP2.02