

RECTANGULAR DUCT

ROUND DUCT

FLAT OVAL DUCT

DUCT WITH ACOUSTIC LINING

SUPPLY GRILLE OR REGISTER

RETURN/EXHAUST GRILLE OR REGISTER

CEILING DIFFUSER - SQUARE (ROUND SIMILAR)
(FLOW ARROWS INDICATE DIRECTION OF FLOW
FOUR WAY FLOW IF NO ARROWS SHOWN)

RETURN/EXHAUST GRILLE OR REGISTER

SUPPLY DUCT UP

SUPPLY DUCT DOWN

RETURN DUCT UP

RETURN DUCT DOWN

EXHAUST DUCT UP

EXHAUST DUCT DOWN

CHANGE OF ELEVATION RISE (R) DROP (D)

TRANSITION - RECTANGULAR OR ROUND

TRANSITION - RECTANGULAR TO ROUND

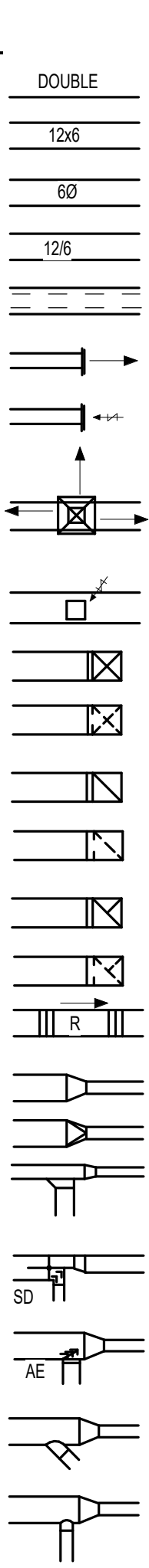
BRANCH DUCT - STANDARD (45° ENTRY)

BRANCH DUCT WITH SPLITTER

BRANCH DUCT WITH AIR EXTRACTOR

BRANCH DUCT, STRAIGHT LATERAL, ROUND

BRANCH DUCT, STRAIGHT TEE, ROUND



BRANCH DUCT, LO-LOSS TEE, ROUND

BRANCH DUCT, CONICAL TEE, ROUND

BRANCH DUCT, CONICAL TEE, FLEX
TAKE OFF, SPIN-IN COLLAR W/DAMPER

FLEXIBLE DUCT

WATERTIGHT DUCT

CONTROL DAMPER (MOD OR MVD)

SAFETY DAMPER (FDR OR SDR)

SQUARE ELBOW WITH TURNING VANE

FLEXIBLE DUCT CONNECTION

PIPING - GENERAL

DIRECTION OF FLOW

DIRECTION OF SHOCK DOWN

PIPE TURNING UP

PIPE TURNING DOWN

BRANCH CONNECTION - TOP

BRANCH CONNECTION - BOTTOM

BRANCH CONNECTION - SIDE

PIPE ANCHOR

PIPE ALIGNMENT GUIDE

SERVICE VALVE (GATE, BALL OR BUTT)

GLOBE VALVE

CHECK VALVE

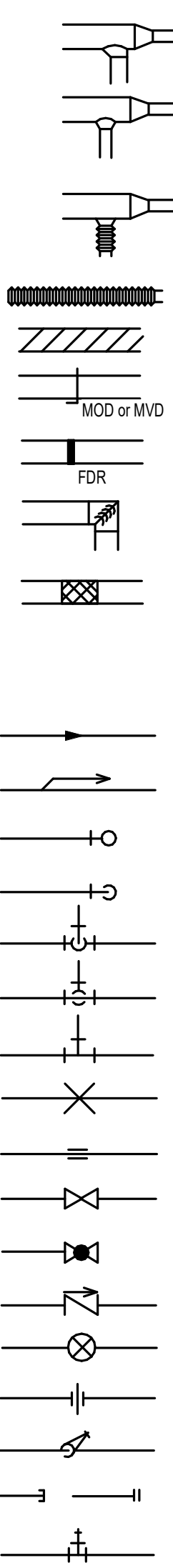
BALANCING COCK

UNION

PIPE IN RISER

VALVE CAP OR BLIND FLANGE

OUTLETS (A, V, OX, CW, HW)



EXPANSION JOINT

PRESSURE REDUCING VALVE

PRESSURE RELIEF VALVE

PRESSURE GAUGE

THERMOMETER

FLEXIBLE PIPE CONNECTION

STRAINER

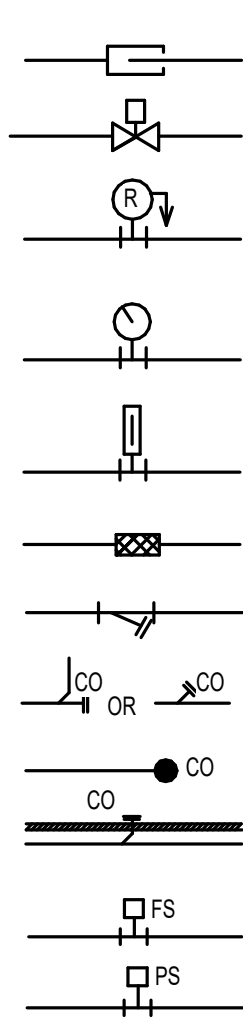
CLEANOUT PLUG

FLOOR CLEANOUT

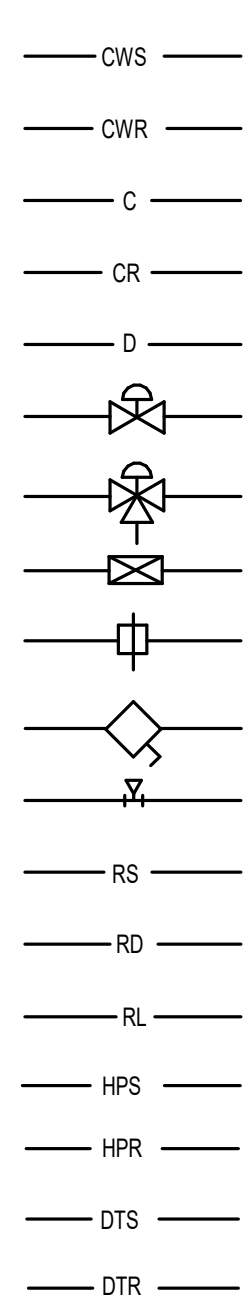
WALL CLEANOUT

FLOW SWITCH

PRESSURE SWITCH



CHILLED WATER SUPPLY
CHILLED WATER RETURN
CONDENSER WATER SUPPLY
CONDENSER WATER RETURN
CONDENSATE DRAIN
CONTROL VALVE (2-WAY)
CONTROL VALVE (3-WAY)
AUTOMATIC FLOW CONTROL VALVE
CALIBRATED BALANCING VALVE
TRIPLE DUTY VALVE (PUMP DISCHARGE)
PRESSURE/TEMPERATURE FITTING
REFRIGERANT SUCTION
REFRIGERANT DISCHARGE
REFRIGERANT LIQUID
HEAT PUMP WATER SUPPLY
HEAT PUMP WATER RETURN
DUAL TEMP SUPPLY
DUAL TEMP RETURN



COMPRESSED AIR

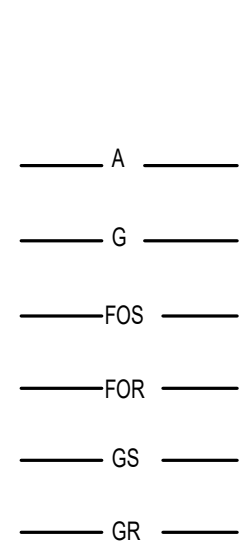
GAS

FUEL OIL SUPPLY

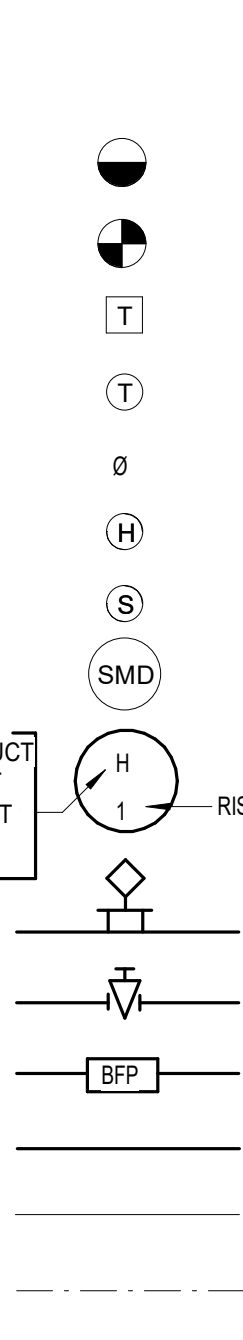
FUEL OIL RETURN

GLYCOL SUPPLY

GLYCOL RETURN



LIMIT OF DEMOLITION
 CONNECT NEW TO EXISTING
 ELECTRIC THERMOSTAT (OR SENSOR)
 PNEUMATIC THERMOSTAT
 DIAMETER
 HUMIDISTAT
 FAN SPEED SWITCH
 DUCT - MOUNTED SMOKE DETECTOR
 PIPE AND DUCT
 RISER REFERENCE
 AQUASTAT
 GAS COCK
 BACKFLOW PREVENTER
 NEW WORK
 EXISTING TO REMAIN
 EXISTING TO BE REMOVED



AAV	AUTOMATIC AIR VENT	MAV	MANUAL AIR VENT
ACC	ACCESS DOOR	MBU	BTU PER HOUR (THOUSANDS)
AE	AIR EXTRACTOR	MOP	MOTOR OPERATED DAMPER
AFCH	AUTOMATIC FLOW CONTROL VALVE	MPD	MEDIUM PRESSURE STEAM RETURN
APD	AIR PRESSURE DROP, IN. WG	MPS	MEDIUM PRESSURE STEAM SUPPLY
AQ	AQUASTAT	MVD	MANUAL VOLUME DAMPER
ATD	AIR TRANSFER DUCT	NC	NOISE CRITERIA
BG	BOTTOM GRILLE	OED	OPEN END DUCT
BHP	BRAKE HORSEPOWER	OED	OVERFLOW DRAIN
BCD	BOTTOM OF DUCT	OA	OUTSIDE AIR
BR	BOTTOM REGISTER	OPBD	OPPOSED BLADE DAMPER
BTU	BRITISH THERMAL UNIT	OTC	OVERSIDE TIMER
BTUH	BRITISH THERMAL UNIT/HOUR	OTCP	OPEN TO CIRCUL PLENUM
CAD	CEILING ACCESS DOOR	PVR	POST INDICATOR VALVE
CFM	CEILING DIFFUSER, CONDENSATE DRAIN	PVR	PRESSURE REDUCING VALVE
CD	CUBIC FEET PER MINUTE	PSI	POUNDS PER SQUARE INCH
CE	CEILING GRILLE	R	RAIN
CO	CLEANOUT	RA	RETURN AIR
CR	CEILING REGISTER	RC	RAIN CONDUCTOR
CW	CEILING RADIATION DAMPER	RD	ROOF DRAIN
CWD	COLD WATER	RH	RELATIVE HUMIDITY
CWR	CHILLED WATER RETURN	RPM	REVOLUTIONS PER MINUTE
CWS	CHILLED WATER SUPPLY	SA	SUPPLY AIR
DAD	DUCT ACCESS DOOR	SD	SHOWER DRAIN, SPLITTER DAMPER
DB	DRY BULB °F, DECEIBEL	SD	STORM DRAIN
DD	DOOR GRIPE	SDR	SMOKE DAMPER
DWD	DOUBLE WALLED DUCT	SMD	SMOKE DETECTOR
EA	EXHAUST AIR	SP	STATIC PRESSURE
EAT	ENTERING AIR TEMPERATURE	SS	SANITARY SEWER
ESA	EQUIPMENT SERVICE AREA	SS	STAINLESS STEEL
EWT	ENTERING WATER TEMPERATURE	SV	SERVICE VALVE
FD	FLOOR DRAIN	SW	SWITCH
FDR	FIRE DAMPER	TC	TIME CLOCK
FG	FLOOR GRILLE	TEMP	TEMPERATURE
FR	FROM	TD	TEMPERATURE DIFFERENTIAL
FSDR	FIRE/SMOKE DAMPER	TG	TOP GRILLE, TRANSFER GRILLE
GAL	GALLON	TR	TOP REGISTER, TONS OF REFRIGERATION
GPD	GALLONS PER DAY	TSTAT	THERMOSTAT
GPH	GALLONS PER HOUR	UC	DOOR UNDERCUT
GPM	GALLONS PER MINUTE	V	VOLT, VENT
HB	HOSE BIBB	VAC	VACUUM
HP	HORSEPOWER	VAV	VARIABLE AIR VOLUME
HPR	HIGH PRESSURE STEAM RETURN	VTR	VENT THROUGH ROOF
HPS	HIGH PRESSURE STEAM SUPPLY	W	WASTE, WATTS
HW	HOT WATER	WG	WET BULB, °F
HWR	HEATING/HOT WATER RETURN	WG	WATER GAUGE (FEET OR INCHES)
HWS	HEATING WATER SUPPLY	WH	WALL HYDRANT
HZ	FREQUENCY (CYCLES/SECOND)	WHA	WATER HAMMER ARRESTOR
KW	KILOWATT	WPD	WATER PRESSURE DROP, FT., WG
KWHT	KILOWATT HOUR	WS	WATER STOP
L	LEAVING AIR TEMPERATURE	WTD	WATER TEMPERATURE DROP, °F
LdHR	POUNDS PER HOUR	WTR	WATER TEMPERATURE RISE, °F
LDH	LINEAR DIFFUSER	WWM	WOVEN WIRE MESH
LC	LINEAR GRILLE	Z	ZONE
LR	LINEAR RETURN		
LWT	LEAVING WATER TEMPERATURE		

THESE SYMBOLS AND ABBREVIATIONS ARE MECHANICAL DEPARTMENT STANDARDS AND MAY NOT NECESSARILY BE APPLICABLE TO OR APPEAR ON THESE DRAWINGS. HOWEVER, WHEREVER THESE SYMBOLS DO OCCUR ON THE DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL SYMBOLS AND ABBREVIATIONS.

EXHAUST FAN SCHEDULE												
MARK	LOCATION	TYPE	CFM	APPROX. S.P.	DRIVE	ELECTRICAL DATA				MANUFACTURER	ACCESSORIES	CONTROLS
						FAN RPM	WATTS	H.P.	VOLTAGE/PHASE			
EF-1	BATHROOM	EXHAUST	80	0.25"	DIRECT W/ SPEED CONTROLLER	950	80	-	120/1	GREENHECK SP-B110	A, B, E, F, G	1
EF-2	RES. STORAGE	EXHAUST	100	0.25	DIRECT W/ SPEED CONTROLLER	1350	-	1/64	120/1	GREENHECK SE1-8-DGEX-QD	A, B, E, H	2
F-1	ROOF - IL	EXHAUST	300	0.375"	DIRECT W/ SPEED CONTROLLER	1050	-	1/4	120/1	GREENHECK GB-0814	A, B, C, D	2
F-2	ROOF - ATRIUM	EXHAUST	150	0.375"	DIRECT W/ SPEED CONTROLLER	1550	-	1/20	120/1	GREENHECK G-080-D	A, B, C, D	2
SEVF-1	ROOF - ATRIUM	SMOKE EVACUATION	20,420	0.3	DIRECT W/ ECM	377	-	5	208/3	GREENHECK CUBE-480-VG-50	A, B, C, D	3
SEVF-2	ROOF - ATRIUM	SMOKE EVACUATION	20,420	0.3	DIRECT W/ ECM	377		5	208/3	GREENHECK CUBE-480-VG-50	A, B, C, D	3
SEVF-3	ROOF - ATRIUM	SMOKE EVACUATION	20,420	0.3	DIRECT W/ ECM	377		5	208/3	GREENHECK CUBE-480-VG-50	A, B, C, D	3

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MARK	LOCATION	TYPE	CFM	APPROX. S.P.	DRIVE	FAN RPM	WATTS	H.P.	VOLTAGE/PHASE	MANUFACTURER	ACCESSORIES	CONTROLS
EF-1	BATHROOM	EXHAUST	80	0.25"	DIRECT W/ SPEED CONTROLLER	950	80	-	120/1	GREENHECK SP-B110	A, B, E, F, G	1
EF-2	RES. STORAGE	EXHAUST	100	0.25	DIRECT W/ SPEED CONTROLLER	1350	-	1/64	120/1	GREENHECK SE1-8-DGEX-OD	A, B, E, H	2
F-1	ROOF - IL	EXHAUST	300	0.375"	DIRECT W/ SPEED CONTROLLER	1050	-	1/4	120/1	GREENHECK GB-081-4	A, B, C, D	2
F-2	ROOF - ATRIUM	EXHAUST	150	0.375"	DIRECT W/ SPEED CONTROLLER	1550	-	1/20	120/1	GREENHECK G-080-D	A, B, C, D	2
SEVF-1	ROOF - ATRIUM	SMOKE EVACUATION	20,420	0.3	DIRECT W/ ECM	377	-	5	208/3	GREENHECK CUBE-480-VG-50	A, B, C, D	3
SEVF-2	ROOF - ATRIUM	SMOKE EVACUATION	20,420	0.3	DIRECT W/ ECM	377		5	208/3	GREENHECK CUBE-480-VG-50	A, B, C, D	3
SEVF-3	ROOF - ATRIUM	SMOKE EVACUATION	20,420	0.3	DIRECT W/ ECM	377		5	208/3	GREENHECK CUBE-480-VG-50	A, B, C, D	3

PROVIDED ACCESSORIES:	CONTROLS:
A: DISCONNECT SWITCH	1. WALL MOUNTED ON/OFF SWITCH (PROVIDE INDIVIDUAL CONTROL FOR BOTH FAN AND LIGHT)
B: GRAVITY BACKDRAFT DAMPER	2. CONTINUOUS OPERATION
C: PREFAB ROOF CURB	3. INTERFACE W/ FIRE ALARM SYSTEM AND SMOKE DETECTORS IN SPACE.
D: BIRDSCREEN	
E: HANGING BRACKETS WITH VIBRATION ISOLATION	
F: EXHAUST GRILLE	
G: RADIATION DAMPER	
H: WEATHER HOOD	

MARK	CFM	NOMINAL TONAGE	O.A. CFM	E.S.P	COOLING CAPACITY			HEATING CAPACITY			EFFICIENCY	COMPRESSOR (EA)		COND. FM		EVAP. FM		COMB. FM	POWER	MOP ²	VOLTAGE/PH	WEIGHT	MANUFACTURER	RTU MODEL
					T.C (BTU/H)	S.H.C (BTU/H)	EER	SEER	INPUT (BTU/H)	OUTPUT (BTU/H)		AFUE	NO	REA	SI.Y.K.W	QTY	FLA							
RTU-1	370	12.5	400	1.5"	134.10	95.310	10.8	15.8	250,000	202,500	81%	2	28.4/14.10	16.14	1	4.3	11.0	1	71.0	90.0	2063	1627 LBS.	TRANE	YH150A3
RTU-2	3870	12.5	400	1.5"	161.00	95.310	10.8	15.8	250,000	202,500	81%	2	30.8/14.10	16.36	2	2.3	8.9	1	83.0	110.0	2063	2502 LBS.	TRANE	YH180A3
RTU-3	5200	15.0	1040	1.5"																				

NOTES:

PROVIDED ACCESSORIES:

1. 1" HIGH ROOF CURB
2. SUPPLY FAN VFD
3. NON-FUSED, UNT/MOUNTED DISCONNECT SWITCH
4. POWER EXHAUST FAN
5. ECONOMIZER
6. FAN MOTORS WITH SHAFT GROUNDING RINGS
7. SINGLE SOURCE POWER CONNECTION
8. SZ VAV CONTROL W/ HOT GAS REHEAT COIL

MARK	CFM	NOMINAL TONAGE	O.A. CFM	E.S.P	COOLING CAPACITY				HEATING CAPACITY				EFFICIENCY	COMPRESSOR (EA)		COND. FM		EVAP. FM		COMB. FM	POWER	MOP ²	VOLTAGE/PH	WEIGHT	MANUFACTURER	RTU MODEL
					T.C (BTU/H)	S.H.C (BTU/H)	EER	SEER	INPUT (BTU/H)	OUTPUT (BTU/H)	AFUE	NO		REA	SI.Y.K.W	QTY	FLA	V.F.A	FLA							
RTU-1	370	12.5	400	1.5"	134.10	95.310	10.8	15.8	250,000	202,500	81%	2	28.4/14.10	16.14	1	4.3	11.0	1	71.0	90.0	2063	1627 LBS.	TRANE	YH150A3		
RTU-2	3870	12.5	400	1.5"	161.00	95.310	10.8	15.8	250,000	202,500	81%	2	30.8/14.10	16.36	2	2.3	8.9	1	83.0	110.0	2063	2502 LBS.	TRANE	YH180A3		
RTU-3	5200	15.0	1040	1.5"																						

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PROVIDED ACCESSORIES:

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2. SUPPLY FAN VFD

3. NON-FUSED, UNT/MOUNTED DISCONNECT SWITCH

4. POWER EXHAUST FAN

5. ECONOMIZER

6. FAN MOTORS WITH SHAFT GROUNDING RINGS

7. SINGLE SOURCE POWER CONNECTION

8. SZ VAV CONTROL W/ HOT GAS REHEAT COIL

MARK	CFM	ESP	OA CFM	NOMINATING COOLING CAPACITY (BTU/H)	HEATING CAP (BTU/H)	COMPRESSOR		OUTSIDE FAN		INDOOR..		POWER SUPPLY			MANUFACTURER	MODEL
						RLA	LRA	FLA	RLA	FLA	RLA	FLA	MCA	MCCP		
VPVAT-1	630	0.5	100	18,000	24,500	6.7	37.5	1/8	0.9	1/3	1	34.3	35	208/1	MAGIC-PAK	7MCE4-12-181FP
VPVAT-2	600	0.5	100	24,000	24,500	8.7	39	1/8	0.9	1/3	1.8	34.8	35	208/1	MAGIC-PAK	7MCE4-12-241FP
VPVAT-3	930	0.5	100	30,000	32,700	13.4	72.5	1/4	1.6	1/2	1.2	45.2	50	208/1	MAGIC-PAK	10MCE-12-301FP

NOTES:
1. UNIT OA FLOW RATE SHALL BE BALANCED TO MATCH COMBINED DWELLING UNIT BATHROOM EXHAUST RATE, OR MAXIMUM UNIT OA CAPACITY, WHICHEVER IS LOWER.

MARK	CFM	ESP	OA CFM	NOMINATING COOLING CAPACITY (BTU/H)	HEATING CAP (BTU/H)	COMPRESSOR		OUTSIDE FAN		INDOOR..		POWER SUPPLY			MANUFACTURER	MODEL
						RLA	LRA	FLA	RLA	FLA	RLA	FLA	MCA	MOCp		
VPVAT-1	630	0.5	100	18,000	24,500	6.7	37.5	1/8	0.9	1/3	1	34.3	35	208/1	MAGIC-PAK	7MCE4-12-181FP
VPVAT-2	600	0.5	100	24,000	24,500	8.7	39	1/8	0.9	1/3	1.8	34.8	35	208/1	MAGIC-PAK	7MCE4-12-241FP
VPVAT-3	930	0.5	100	30,000	32,700	13.4	72.5	1/4	1.6	1/2	1.2	45.2	50	208/1	MAGIC-PAK	10MCE-12-301FP

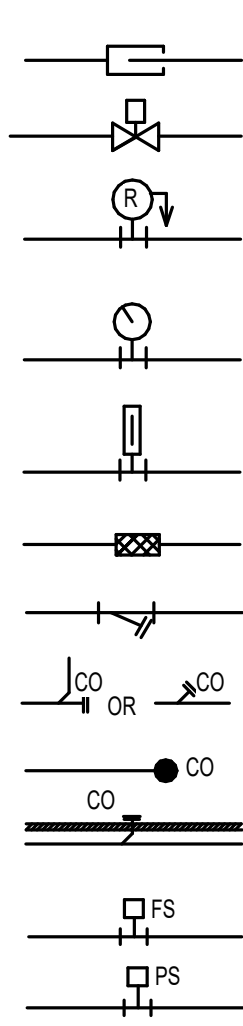
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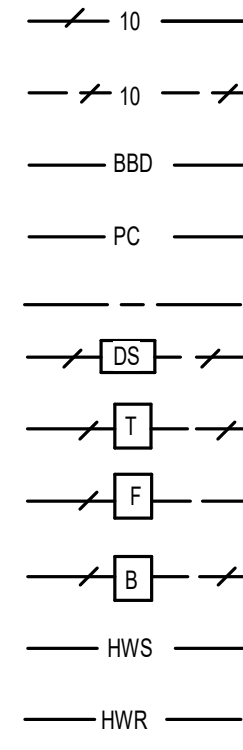
MARK	SERVICE	DESCRIPTION	FACE SIZE	NECK SIZE	CFM	BASIS OF DESIGN MANUF. AND MODEL
CD-1	SUPPLY	DOUBLE DEFLECTION	---	8X4	0 - 120	PRICE: 520-FR
CD-2	SUPPLY	DOUBLE DEFLECTION	---	8X6	125 - 180	PRICE: 520-FR
CD-3	SUPPLY	DOUBLE DEFLECTION	---	10X6	185 - 220	PRICE: 520-FR
CD-4	SUPPLY	PLAQUE	24X24	8"	0 - 175	PRICE: SPD
CD-5	SUPPLY	PLAQUE	24X24	10"	180 - 270	PRICE: SPD
CD-6	SUPPLY	DOUBLE DEFLECTION	---	14X8	275 - 390	PRICE: 520
CR-1	RETURN OR EXHAUST	SINGLE DEFLECTION	---	8X6	60 - 130	PRICE: 530
CR-2	RETURN OR EXHAUST	SINGLE DEFLECTION W/ FILTER	---	28X12	400 - 1000	PRICE: 630FF
CR-3	RETURN OR EXHAUST	EGG CRATE W/ FILTER	24X24	22X22	890 - 1400	PRICE: 80FF
CR-4	RETURN OR EXHAUST	SINGLE DEFLECTION W/ FILTER	---	14X28	490 - 1225	PRICE: 630FF
CR-5	RETURN OR EXHAUST	SINGLE DEFLECTION W/ FILTER	---	40X24	1250 - 3125	PRICE: 630
CR-6	RETURN OR EXHAUST	SINGLE DEFLECTION W/ FILTER	---	10X12	200 - 550	PRICE: 630FF
CR-7	RETURN OR EXHAUST	EGG CRATE	46 X 46	44 X 44	3500 +	PRICE: 82

MARK	SERVICE	DESCRIPTION	FACE SIZE	NECK SIZE	CFM	BASIS OF DESIGN MANUF. AND MODEL
CD-1	SUPPLY	DOUBLE DEFLECTION	---	8X4	0 - 120	PRICE: 520-FR
CD-2	SUPPLY	DOUBLE DEFLECTION	---	8X6	125 - 180	PRICE: 520-FR
CD-3	SUPPLY	DOUBLE DEFLECTION	---	10X6	185 - 220	PRICE: 520-FR
CD-4	SUPPLY	PLAQUE	24X24	8"	0 - 175	PRICE: SPD
CD-5	SUPPLY	PLAQUE	24X24	10"	180 - 270	PRICE: SPD
CD-6	SUPPLY	DOUBLE DEFLECTION	---	14X8	275 - 390	PRICE: 520
CR-1	RETURN OR EXHAUST	SINGLE DEFLECTION	---	8X6	60 - 130	PRICE: 530
CR-2	RETURN OR EXHAUST	SINGLE DEFLECTION W/ FILTER	---	28X12	400 - 1000	PRICE: 630FF
CR-3	RETURN OR EXHAUST	EGG CRATE W/ FILTER	24X24	22X22	890 - 1400	PRICE: 80FF
CR-4	RETURN OR EXHAUST	SINGLE DEFLECTION W/ FILTER	---	14X28	490 - 1225	PRICE: 630FF
CR-5	RETURN OR EXHAUST	SINGLE DEFLECTION W/ FILTER	---	40X24	1250 - 3125	PRICE: 630
CR-6	RETURN OR EXHAUST	SINGLE DEFLECTION W/ FILTER	---	10X12	200 - 550	PRICE: 630FF
CR-7	RETURN OR EXHAUST	EGG CRATE	46 X 46	44 X 44	3500 +	PRICE: 82

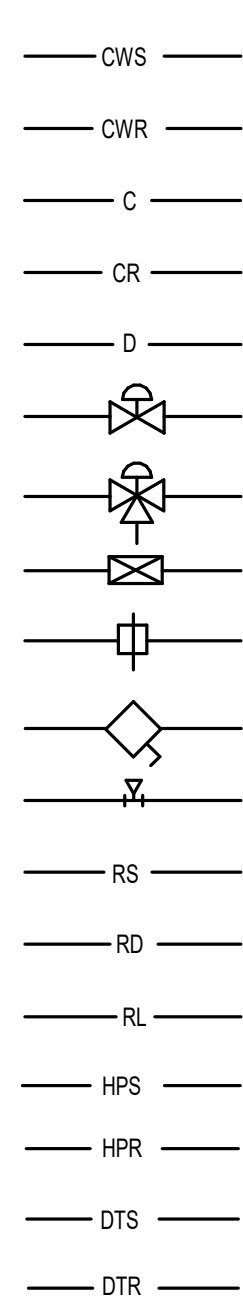
PRESSURE REDUCING VALVE
PRESSURE RELIEF VALVE
PRESSURE GAUGE
THERMOMETER
FLEXIBLE PIPE COUPLER
STRAINER
CLEANOUT PLUG
FLOOR CLEANOUT
WALL CLEANOUT
FLOW SWITCH
PRESSURE SWITCH



STEAM (NUMBER DENOTES PRESSURE)
STEAM CONDENSATE RETURN (S)
BOILER BLOWDOWN
PUMPED CONDENSATE
COLD WATER
DRIP STATION
THERMOSTATIC TRAP
FLOAT AND THERMOSTATIC TRAP
BUCKET TRAP
HEATING WATER SUPPLY
HEATING WATER RETURN



CHILLED WATER RETURN
CONDENSER WATER SUPPLY
CONDENSER WATER RETURN
CONDENSATE DRAIN
CONTROL VALVE (2-WAY)
CONTROL VALVE (3-WAY)
AUTOMATIC FLOW CONTROL
CALIBRATED BALANCING
TRIPLE DUTY VALVE (PUMP)
PRESSURE/TEMPERATURE
REFRIGERANT SUCTION
REFRIGERANT DISCHARGE
REFRIGERANT LIQUID
HEAT PUMP WATER SUPPLY
HEAT PUMP WATER RETURN
DUAL TEMP SUPPLY
DUAL TEMP RETURN



THE LISTED MANUFACTURERS AND EQUIPMENT HAVE BEEN USED AS THE BASIS OF DESIGN OF THIS PROJECT AND ARE LISTED TO ESTABLISH A STANDARD OF QUALITY AND TO DEFINE CONNECTION AND CLEARANCE REQUIREMENTS. ALL OTHER MANUFACTURERS AND EQUIPMENT OF EQUAL OR BETTER QUALITY MAY BE ACCEPTED UPON REVIEW BY THE ENGINEER. HOWEVER, IF THESE SUBSTITUTIONS ARE MADE, THE CONTRACTOR IS REQUIRED TO COMPLY WITH ALL REQUIREMENTS OF DESIGN. I ASSUME FULL RESPONSIBILITY FOR ALL COORDINATION ISSUES, AND SHALL SUBMIT WITH THE SHOP DRAWINGS A DETAILED DRAWING SHOWING ALL CHANGES IN THE EQUIPMENT SIZE AND LOCATION, DUCTWORK, PIPING, ELECTRICAL, WIRING CONNECTIONS, CLEARANCES, ETC. IF ANY CHANGES ARE MADE TO THE EQUIPMENT LISTED, THE CONTRACTOR SHALL SUBMIT A STATEMENT AS TO HOW, BY WHOM, AND THE ARRANGEMENT. OTHER TRADES HAVE BEEN ADVISED OF THE PROPOSED CHANGES, AND SHALL ALSO INCLUDE A STATEMENT AS TO HOW, BY WHOM, AND THE ARRANGEMENT WHEREBY THESE CHANGES WILL BE ACCOMPLISHED. ALL ADDITIONAL COSTS AND PERFORMANCE ISSUES RESULTING FROM THE SUBSTITUTION WILL BE THE RESPONSIBILITY OF THE MECHANICAL SUBCONTRACTOR. THE SUBSTITUTED EQUIPMENT WILL NOT BE PERMITTED TO ADD ELECTRICAL LOAD TO THE PROJECT.

1. FOR GENERAL AND ARCHITECTURAL ABBREVIATIONS AND SYMBOLS, SEE SHEET A0.0
2. DUCT WORK INSTALLATION, CONNECTIONS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST APPLICABLE SMACNA STANDARDS.
3. EQUIPMENT INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. COPY OF INSTRUCTIONS SHALL BE ON JOB SITE AT TIME OF BUILDING INSPECTIONS.
4. DUCT DIMENSIONS INDICATED ARE ACTUAL, SHEET METAL SIZES, WHERE ACOUSTIC LINING IS INDICATED (IF SHOWN), THE DUCT SIZES WERE ADJUSTED TO COMPENSATE FOR THE LINING.
5. DUCTWORK AND PIPING LAYOUTS ARE SCHEMATIC, ALL DROPS, RISERS, OR OFFSETS REQUIRED BUT NOT SHOWN SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
6. DUCT CONNECTIONS TO SUE WALL OR DUCT MOUNTED REGISTERS AND GRILLES SHALL BE MADE WITH RIGID DUCT. DUCT CONNECTIONS TO CEILING-MOUNTED DIFFUSERS, REGISTERS, AND GRILLES MAY BE ON RIGID OR FLEXIBLE DUCT (CONTRACTOR OPTION). PROVIDE SMOOTH BENDS IN FLEXIBLE DUCT SECTIONS.
7. ALL TEMPERATURE AND HUMIDITY SENSORS (NON SPACE ADJUSTABLE) IN PUBLIC AREAS SHALL BE MOUNTED AT 5'-0" AFF. THERMOSTATS FOR NON-PUBLIC, NON-RESIDENTIAL AREAS SHALL BE MOUNTED AT 5'-0" AFF WITH AN 18" LOOP OUNG OF SURPLUS CONTROL WIRE IN WALL CAVITY TO PERMIT THE OWNER TO LOWER THE CONTROL DEVICE IN THE FUTURE IF REQUIRED FOR HAND/ACP ACCESS. MOUNT THERMOSTATS AT 48" AFF IN AREAS DESIGNATED AS "ADA-HANDICAP ACCESSIBLE".
8. ALL DUCTWORK SHALL BE SEALED ACCORDING TO SMACNA CLASS 5*. DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING PRESSURE CLASSIFICATIONS:
SEV-1: EXHAUST AND ROOFTOP AC UNITS 52"; ALL OTHER SUPPLY, RETURN, AND EXHAUST: 41"

MARK	LOCATION	BTUH	CFM	HEATER			MANUFACTURE - MODEL	ACCESSORIES
				KW	AMPS	VOLTAGE/PH		
EWH-1	STAIRCASE	10,200	245	3.0	14.4	208/1	MARKEL - MODEL F3423T	A,B,C,D

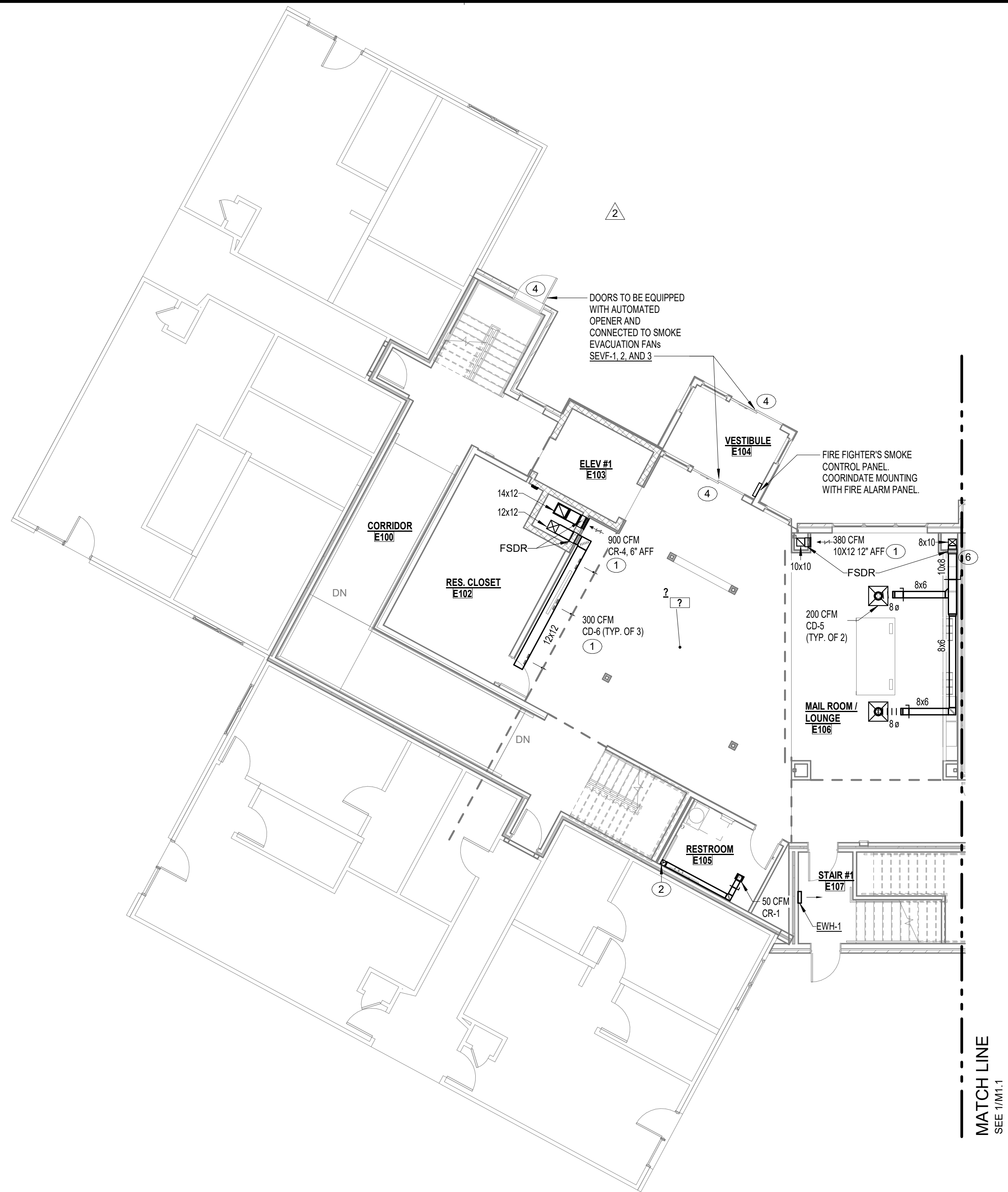
MARK	LOCATION	BTUH	CFM	HEATER			MANUFACTURE - MODEL	ACCESSORIES
				KW	AMPS	VOLTAGE/PH		
EWH-1	STAIRCASE	10,200	245	3.0	14.4	208/1	MARKEL - MODEL F3423T	A,B,C,D

NOTES:
1. HEATING CAPACITY BASED ON 65°F. E.A.T.

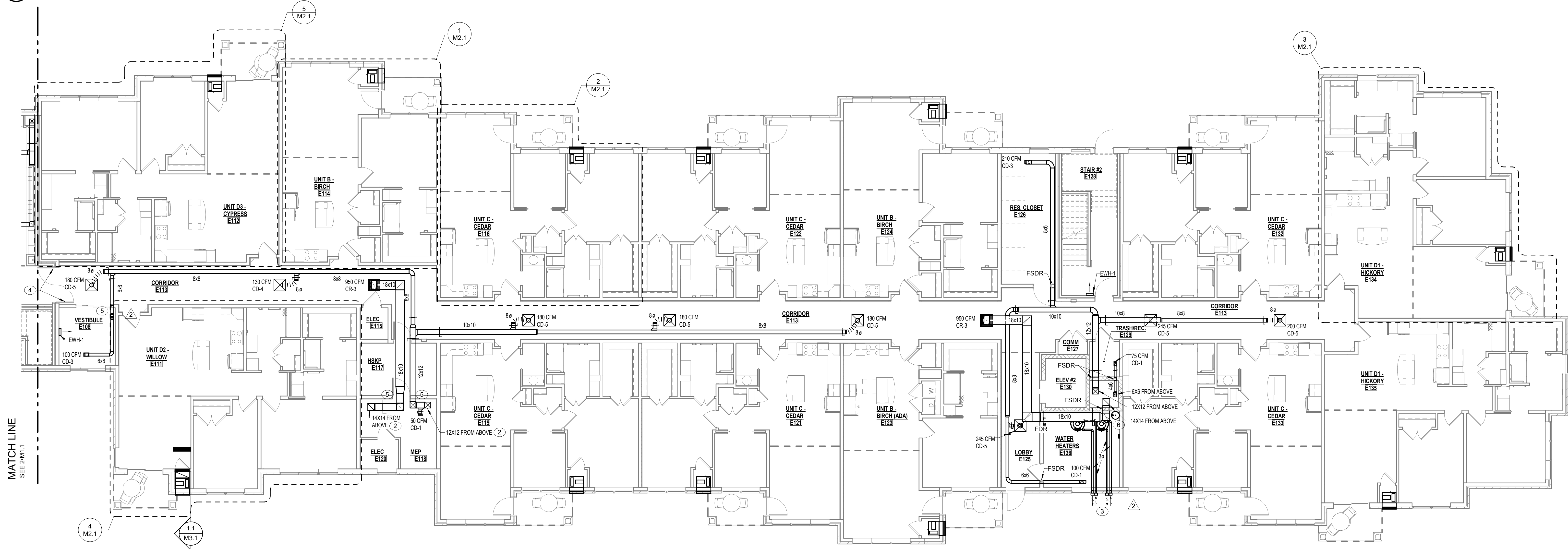
ACCESSORIES
A: DISCONNECT SWITCH
B: BUILT-IN THERMOSTAT
C: ARCHITECTURAL PENCIL PROOF LOUVER
D: CABINET FOR SURFACE MOUNTING

MARK	CFM	WIDTH (IN)	HEIGHT (IN)	FREE AREA (%)	PPRESSURE DROP (IN. WG)	BASIS OF DESIGN
L-1	10000	72	48	63	0.06	RUSKIN ELF6350DMP

MARK	CFM	WIDTH (IN)	HEIGHT (IN)	FREE AREA (%)	PPRESSURE DROP (IN. WG)	BASIS OF DESIGN
L-1	10000	72	48	63	0.06	RUSKIN ELF6350DMP

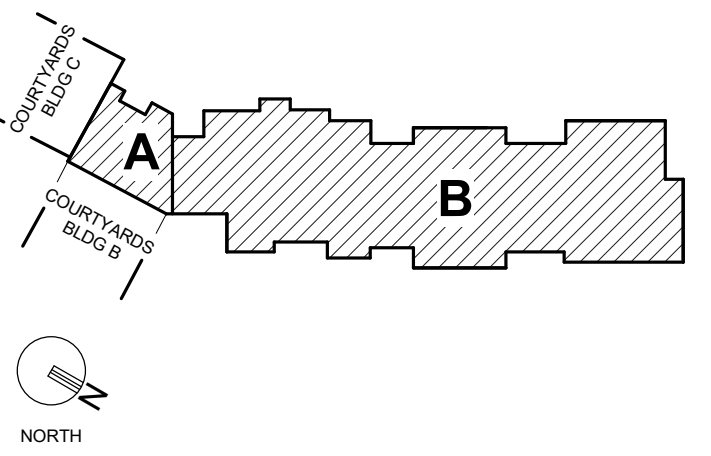


2 ATRIUM FIRST FLOOR PLAN - HVAC
M1.1 1/8" = 1'-0"



1 FIRST FLOOR PLAN - IL UNITS - HVAC
M1.1 1/8" = 1'-0"

KEYPLAN



PLAN NOTES

- 1 PROVIDE FACE OPERATED DAMPER.
- 2 PROVIDE COMBINATION FIRE SMOKE DAMPER (FSDR) AT DECK OF SECOND FLOOR WHERE VERTICAL DUCT EXITS RATED SHAFT.
- 3 WATER HEATER VENT ROUTING IS DIAGRAMATIC IN NATURE. FOR EACH WATER HEATER PROVIDE MANUFACTURER CONCENTRIC VENT KITS, WALL CAP AND VENT FITTINGS REQUIRED FOR CONNECTION. INSTALL VENT SYSTEM IN ACCORDANCE WITH WATER HEATER MANUFACTURER INSTRUCTIONS.
- 4 DOOR TO BE CONNECTED TO SMOKE EVACUATION SYSTEM AND OPERATED PER CONTROL DIAGRAM ON SHEET M4.1.
- 5 DUCTWORK ROUTED IN JOIST SPACE SHALL BE PROVIDED WITH 1 HR FIRE RATED DUCT INSULATION TO PROVIDE A CONTINUOUS 1 HR ENCLOSURE FROM THE HORIZONTAL PENETRATION OF THE RATED FLOORCEILING ASSEMBLY TO THE UNDERSIDE OF THE RATED FLOORCEILING ASSEMBLY. COMPLIANT WITH BC 2016 711.5.2. FIRE RATED WRAP PROVIDES A 1 HR FIRE RATED SHAFT ENCLOSURE. FIRE SEAL ALL DUCT PENETRATIONS IN THE RATED FLOORCEILING ASSEMBLY.
- 6 PROVIDE 1-HR FIRE RATED ACCESS DOOR IN THE RATED FLOORCEILING ASSEMBLY TO ALLOW ACCESS TO DAMPER LOCATED IN TRUSS SPACE.

2

CONSTRUCTION SET



PROJECT TITLE



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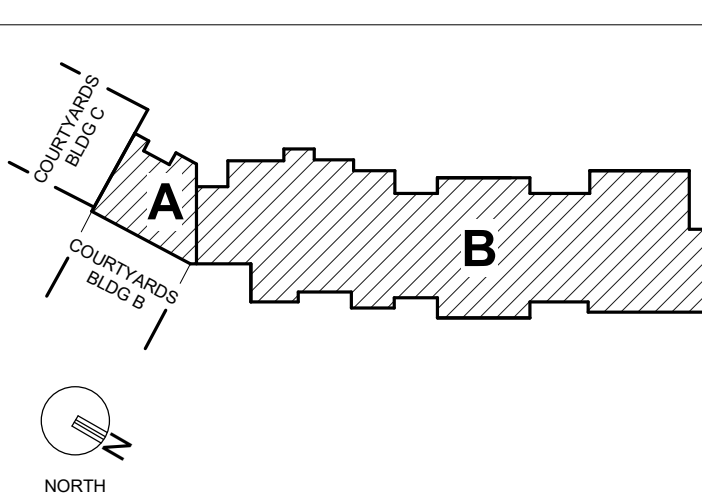
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ENGINEER : KEY	APPROVED : AJM
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Rev 1 - Permit Comments	02/15/24

DRAWING TITLE
FIRST FLOOR PLANS -
HVAC

DATE: February 16, 2024
DRAWING
COMM. NO. 23104.00
M1.1

KEYPLAN



PLAN NOTES

- ① PROVIDE FACE OPERATED DAMPER.
- ② DOOR TO BE CONNECTED TO SMOKE EVACUATION SYSTEM AND OPERATED PER CONTROL DIAGRAM ON SHEET M4.1.
- ③ DUCTWORK ROUTED IN JOIST SPACE SHALL BE PROVIDED WITH 1 HR FIRE RATED DUCT INSULATION TO PROVIDE A CONTINUOUS 1 HR ENCLOSURE FROM THE HORIZONTAL PENETRATION OF THE RATED FLOORCEILING ASSEMBLY TO THE UNDERSIDE OF THE RATED FLOORCEILING ASSEMBLY. COMPLIANT WITH 901.11.2.2 FIRE RATED WRAP PROVIDES A 1 HR FIRE RATED SHAFT ENCLOSURE. FIRE SEAL ALL DUCT PENETRATIONS IN THE RATED FLOORCEILING ASSEMBLY.
- ④ PROVIDE 1-HR FIRE RATED ACCESS DOOR IN THE RATED FLOORCEILING ASSEMBLY TO ALLOW ACCESS TO DAMPER LOCATED IN TRUSS SPACE.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

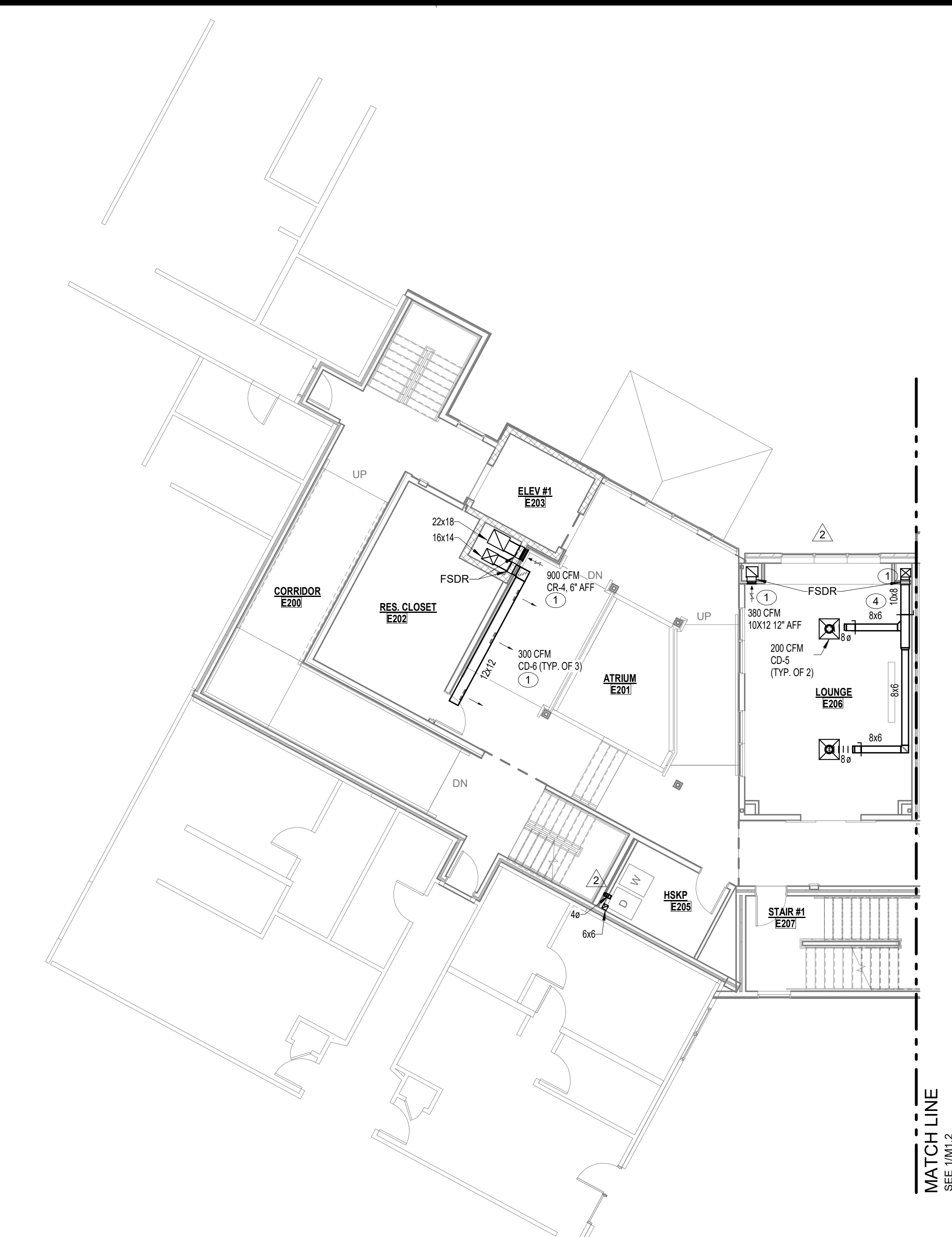
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NO. 2	REVISION DESCRIPTION DATE
Rev 1 - Permit Comments	02/15/24

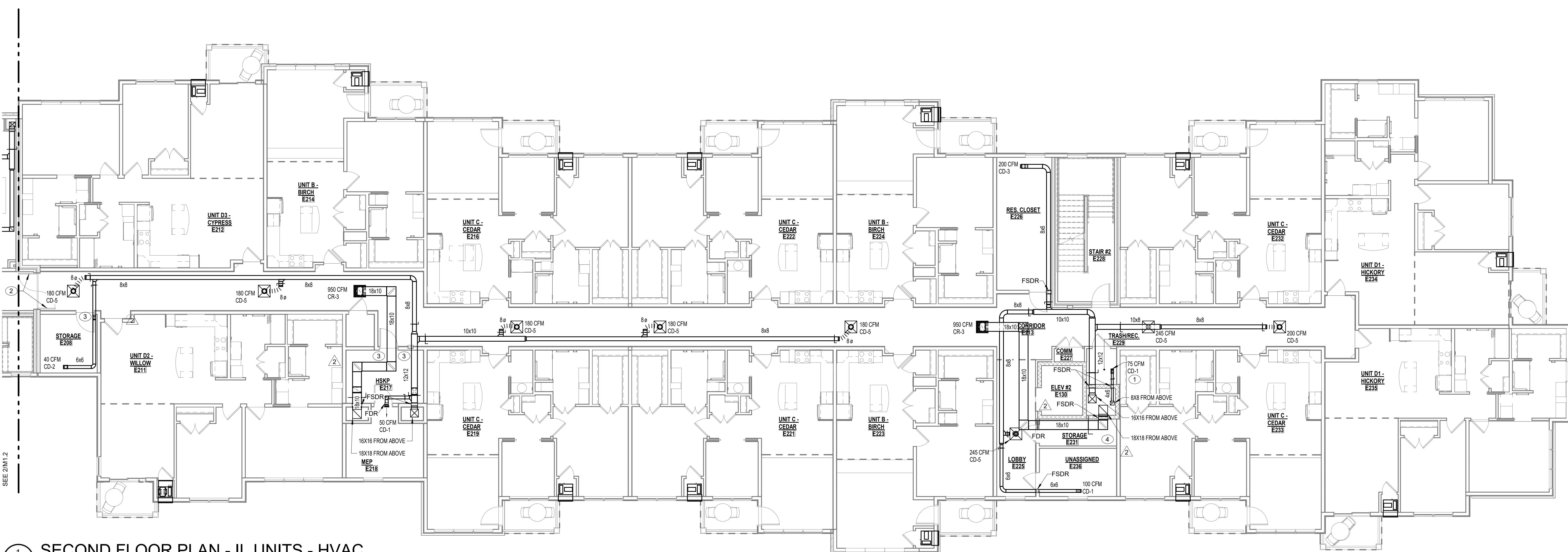
DRAWING TITLE
SECOND FLOOR PLANS - HVAC

DATE: February 16, 2024	DRAWING
COMM. NO. 23104.00	M1.2



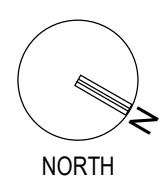
2 ATRIUM SECOND FLOOR PLAN - HVAC

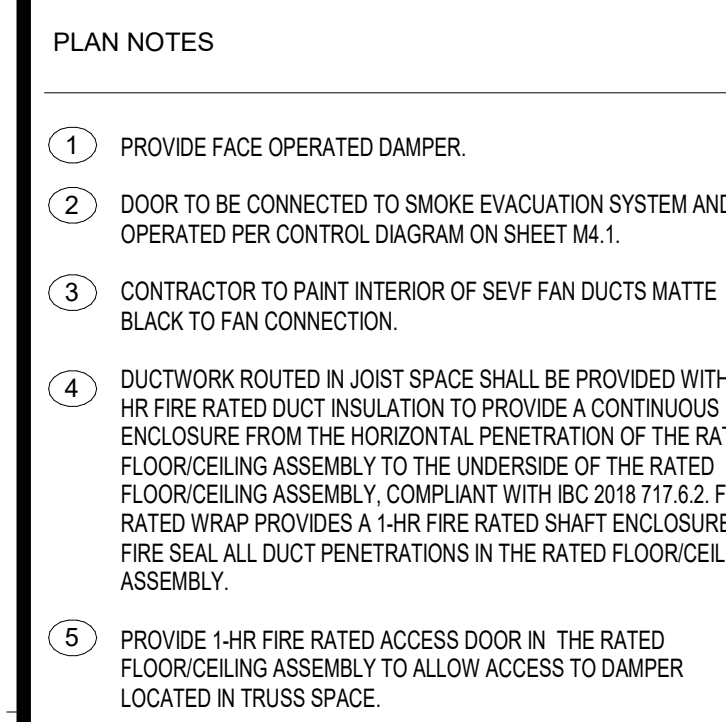
M1.2 1/8" = 1'-0"

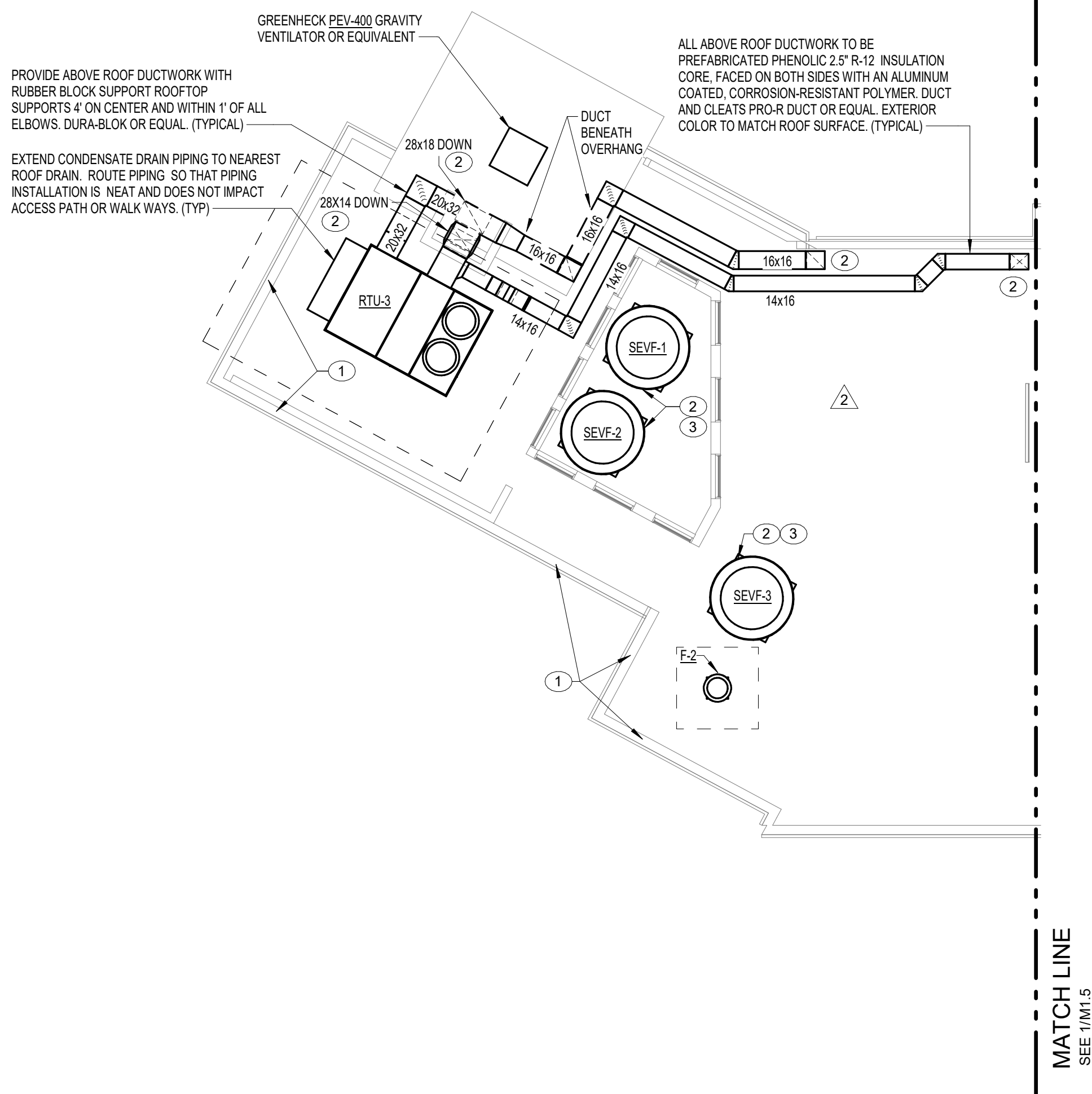


1 SECOND FLOOR PLAN - IL UNITS - HVAC

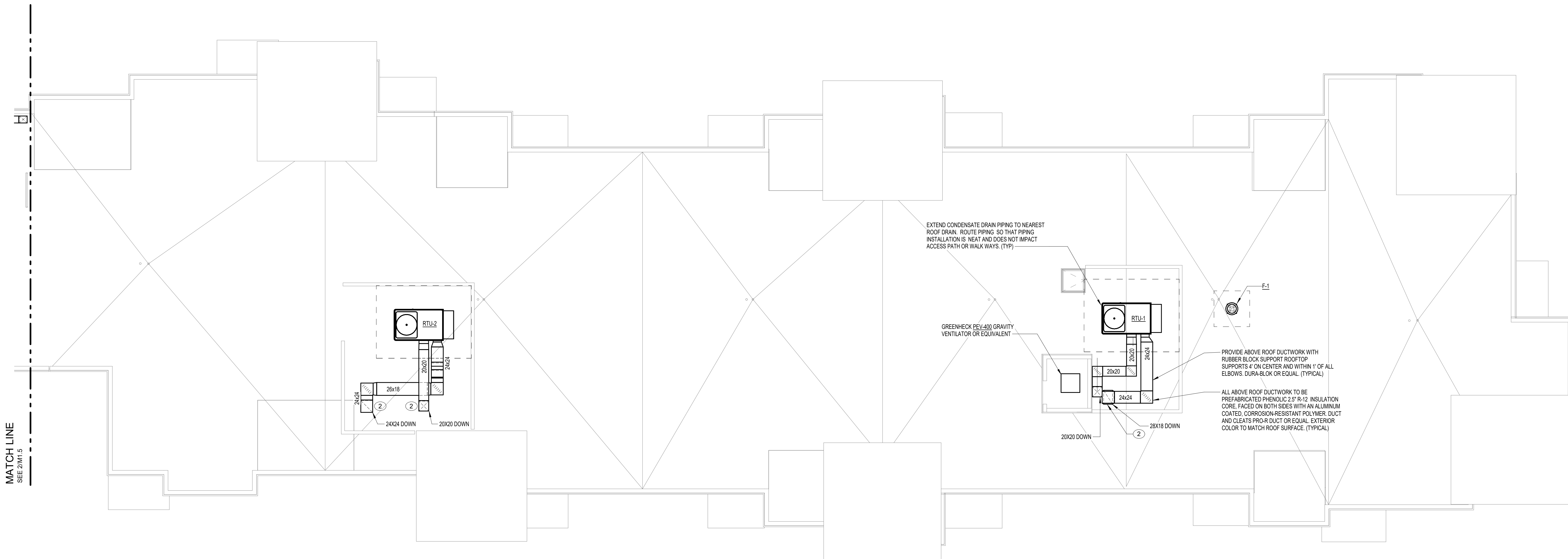
M1.2 1/8" = 1'-0"





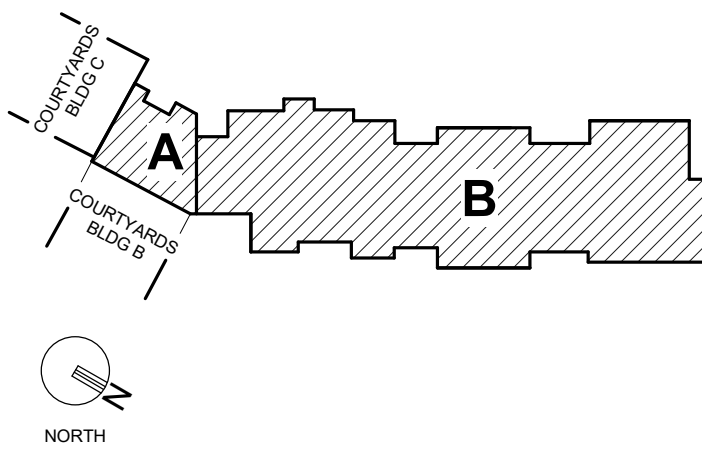


2 ROOF PLAN - ATRIUM
M1.5 1/8" = 1'-0"



1 ROOF PLAN - IL UNITS
M1.5 1/8" = 1'-0"

KEYPLAN



PLAN NOTES

- 1 PROVIDE 30" TALL SAFETY RAILING AT ROOF EDGE IN COMPLIANCE WITH LOCAL MECHANICAL CODE. CONTRACTOR TO COORDINATE WITH ARCHITECTURE FOR RAILING MATERIAL AND COLOR. TYPICAL FOR ANY LOCATION WHERE ROOFTOP EQUIPMENT IS INSTALLED WITHIN 10' HORIZONTALLY FROM ROOF EDGE.
- 2 PROVIDE ROOF DUCT PENETRATION. COORDINATE WITH ROOFING CONTRACTOR. TYPICAL.
- 3 PROVIDE GRAVITY BACK DRAFT DAMPER IN FAN CURB.

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NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24

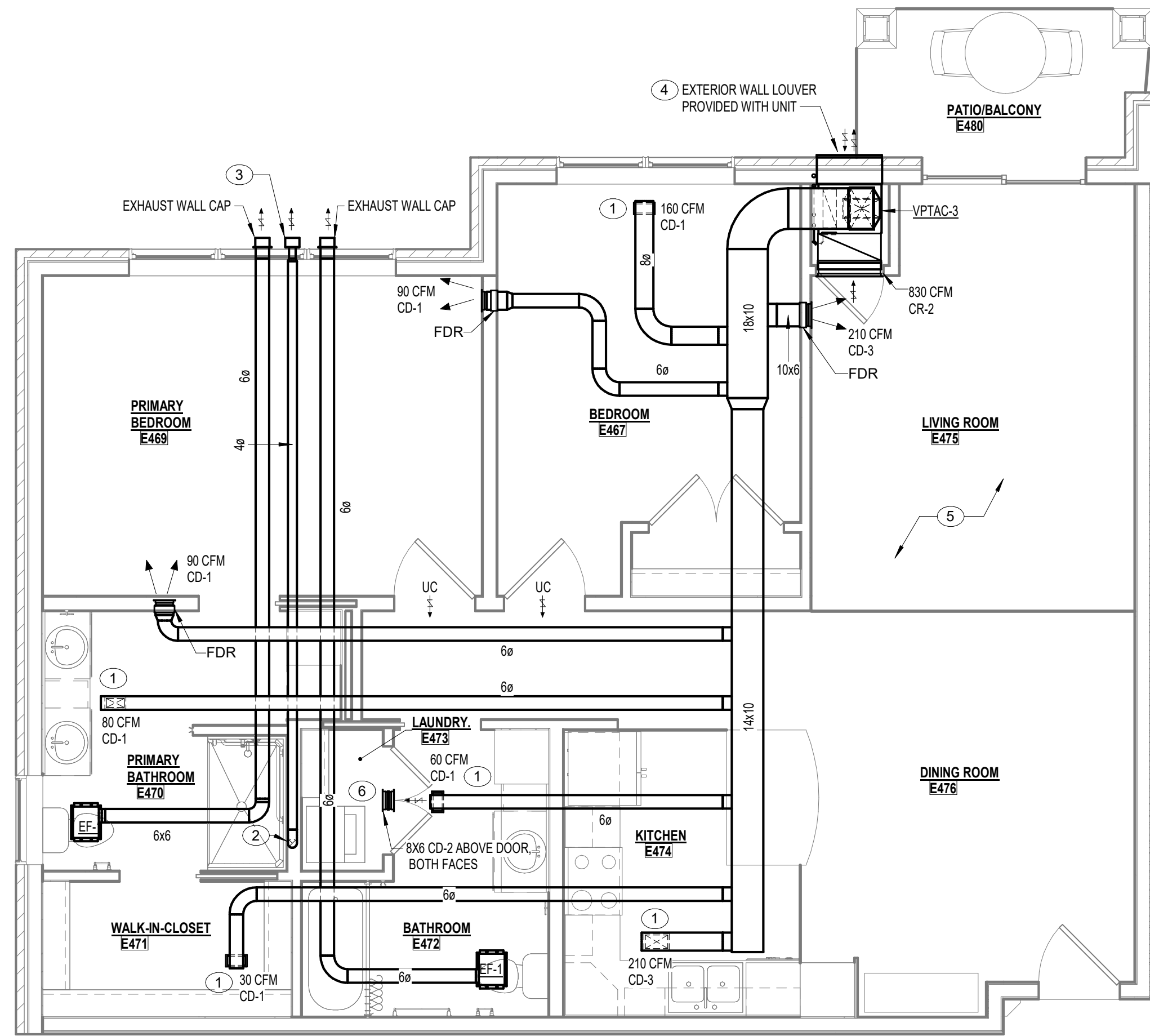
DRAWING TITLE

ROOF PLAN

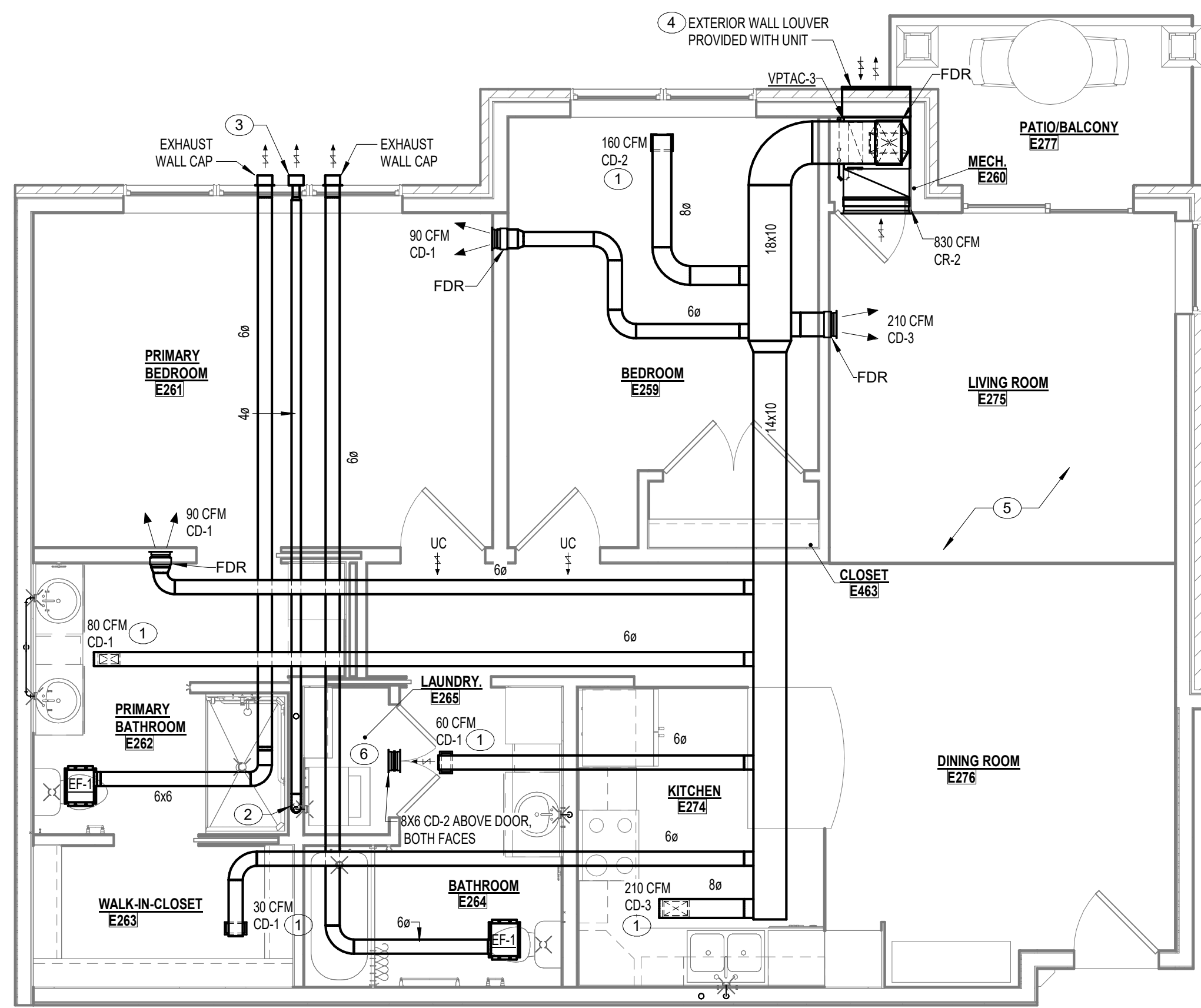
DATE: February 16, 2024	DRAWING
COMM. NO. 23104.00	M1.5

PLAN NOTES

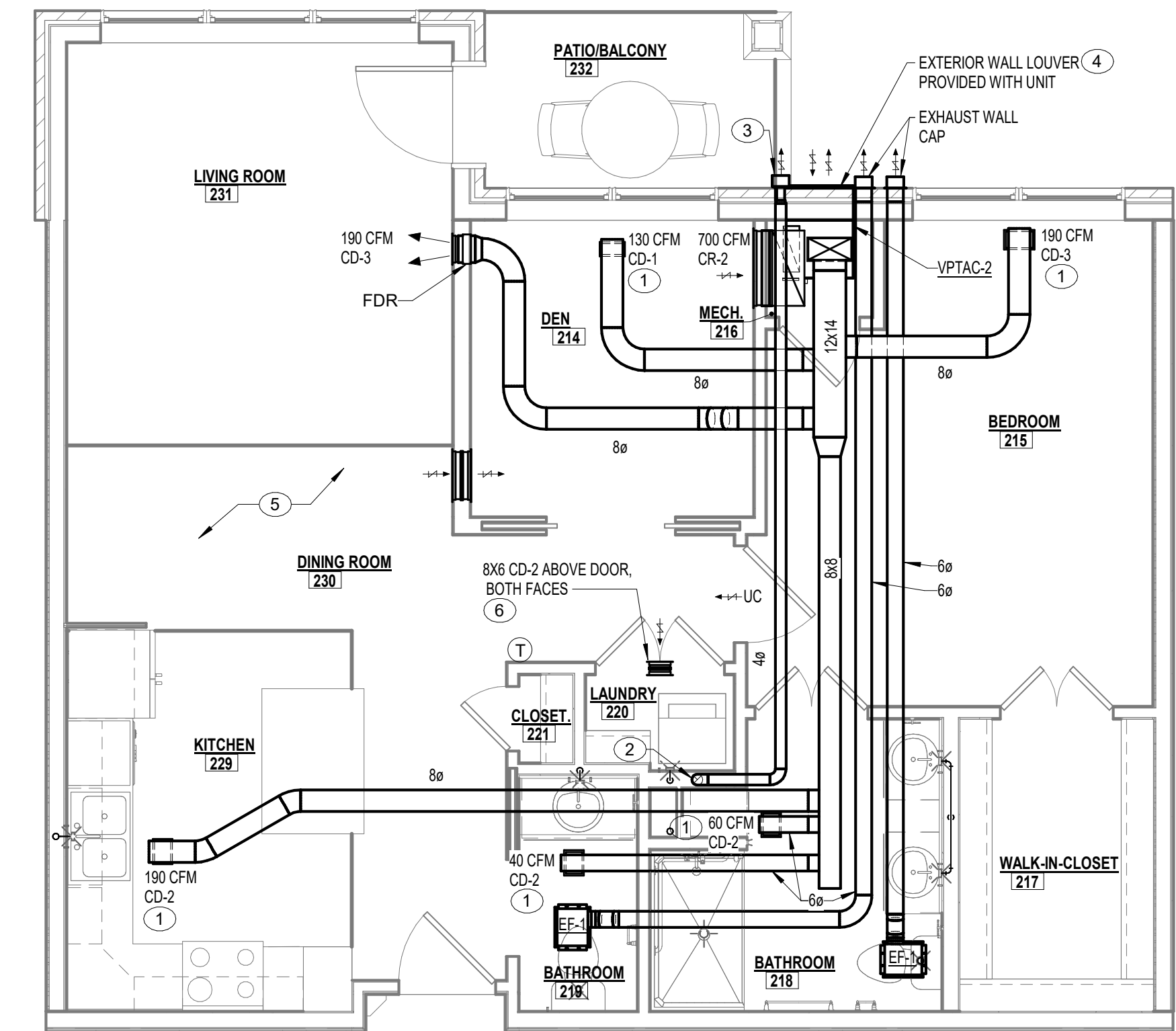
- 1 PROVIDE CEILING RADIATION DAMPER. TYPICAL OF ALL AIR DEVICE PENETRATIONS IN RESIDENT UNIT CEILINGS.
- 2 4" RIGID DRYER VENT DOWN TO DRYER
- 3 DRYER VENT WALL CAP WITH BACKDRAFT DAMPER
- 4 VTAC OR FLOW RATE SHALL MATCH COMBINED DWELLING UNIT. BATHROOM EXHAUST OR MAXIMUM UNIT OR VALUE, WHICHEVER IS LESS.
- 5 PROVIDE FACE OPERATED BALANCING DAMPERS FOR ALL SUPPLY AIR DEVICES.
- 6 PROVIDE TRANSFER DUCT ABOVE LAUNDRY ROOM DOOR. UTILIZE 8X6 CD-2 ON BOTH FINISHED SURFACES. MOUNTING HEIGHT AFF SHALL MATCH OTHER SIDEWALL DEVICES VISIBLE IN SAME SPACE. TYPICAL OF ALL RESIDENT UNIT LAUNDRY ROOMS.



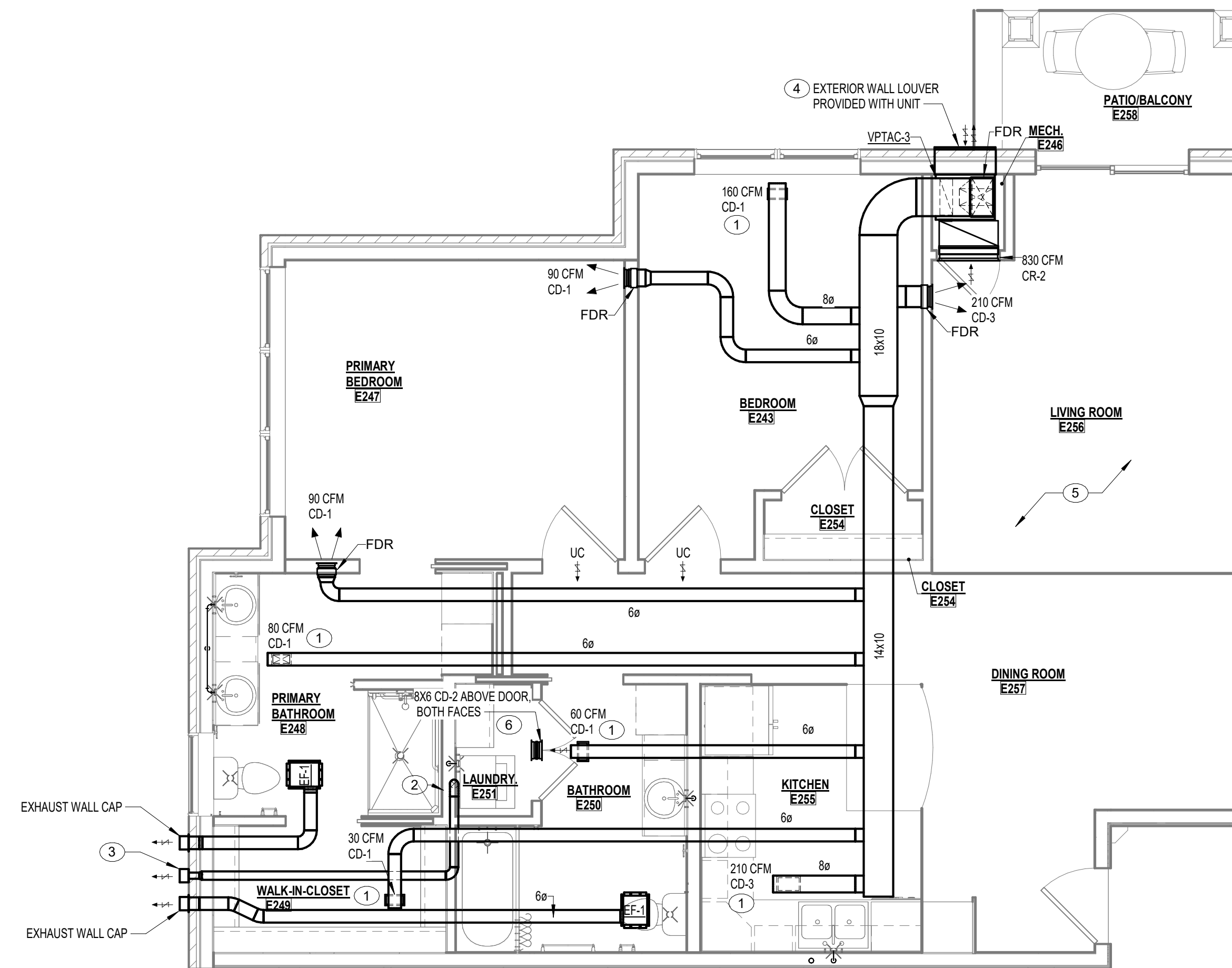
5 UNIT D3 - HVAC
M2.1 1/4" = 1'-0"



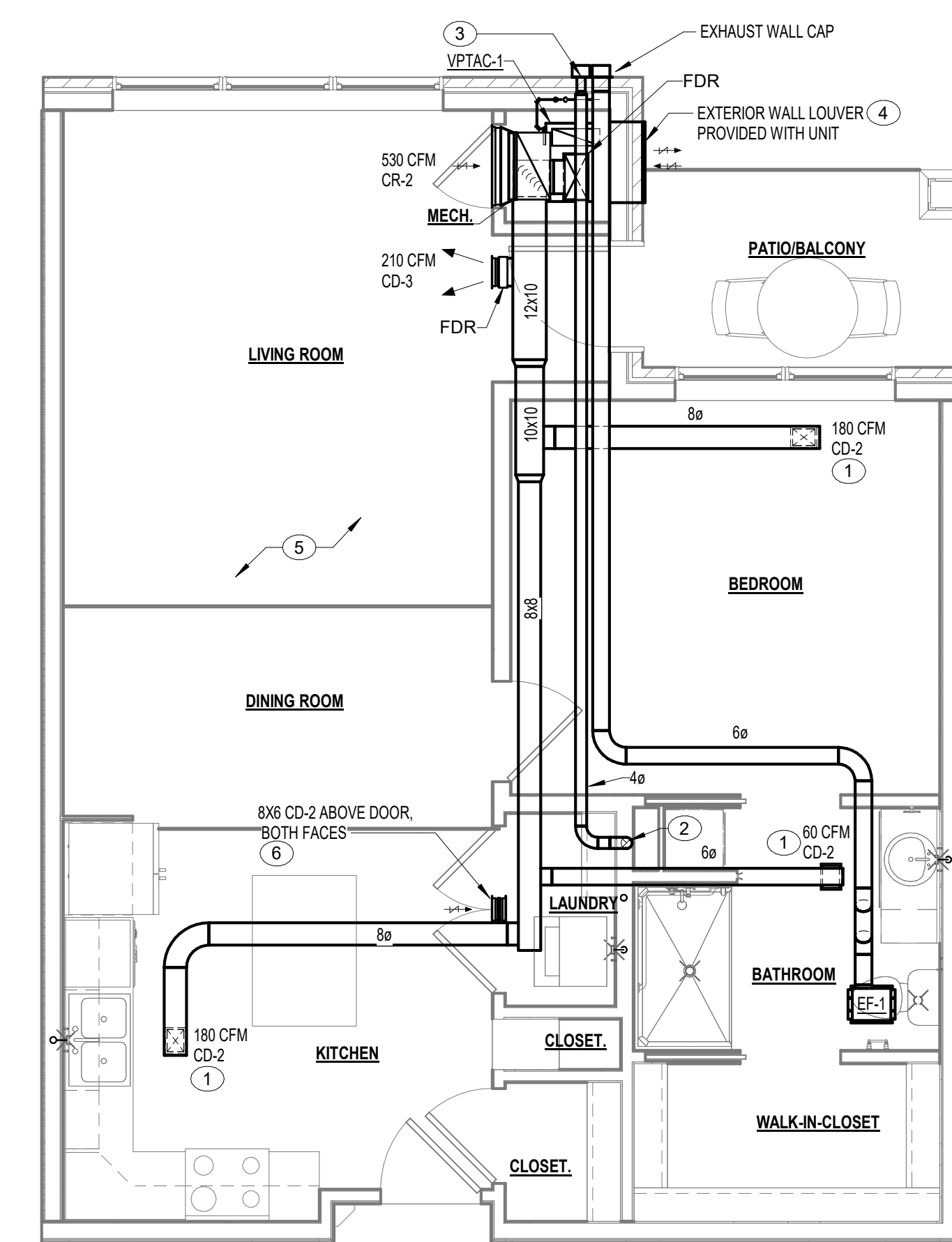
4 UNIT D2 - HVAC
M2.1 1/4" = 1'-0"



2 UNIT C - HVAC
M2.1 1/4" = 1'-0"

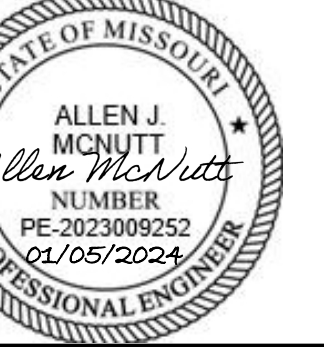


3 UNIT D1 - HVAC
M2.1 1/4" = 1'-0"



1 UNIT B - HVAC
M2.1 1/4" = 1'-0"

CONSTRUCTION SET



PROJECT TITLE



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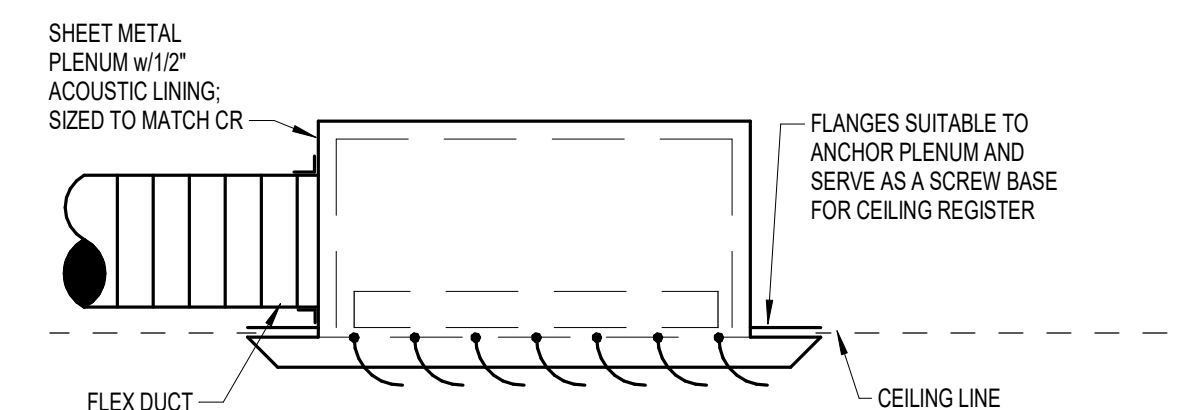
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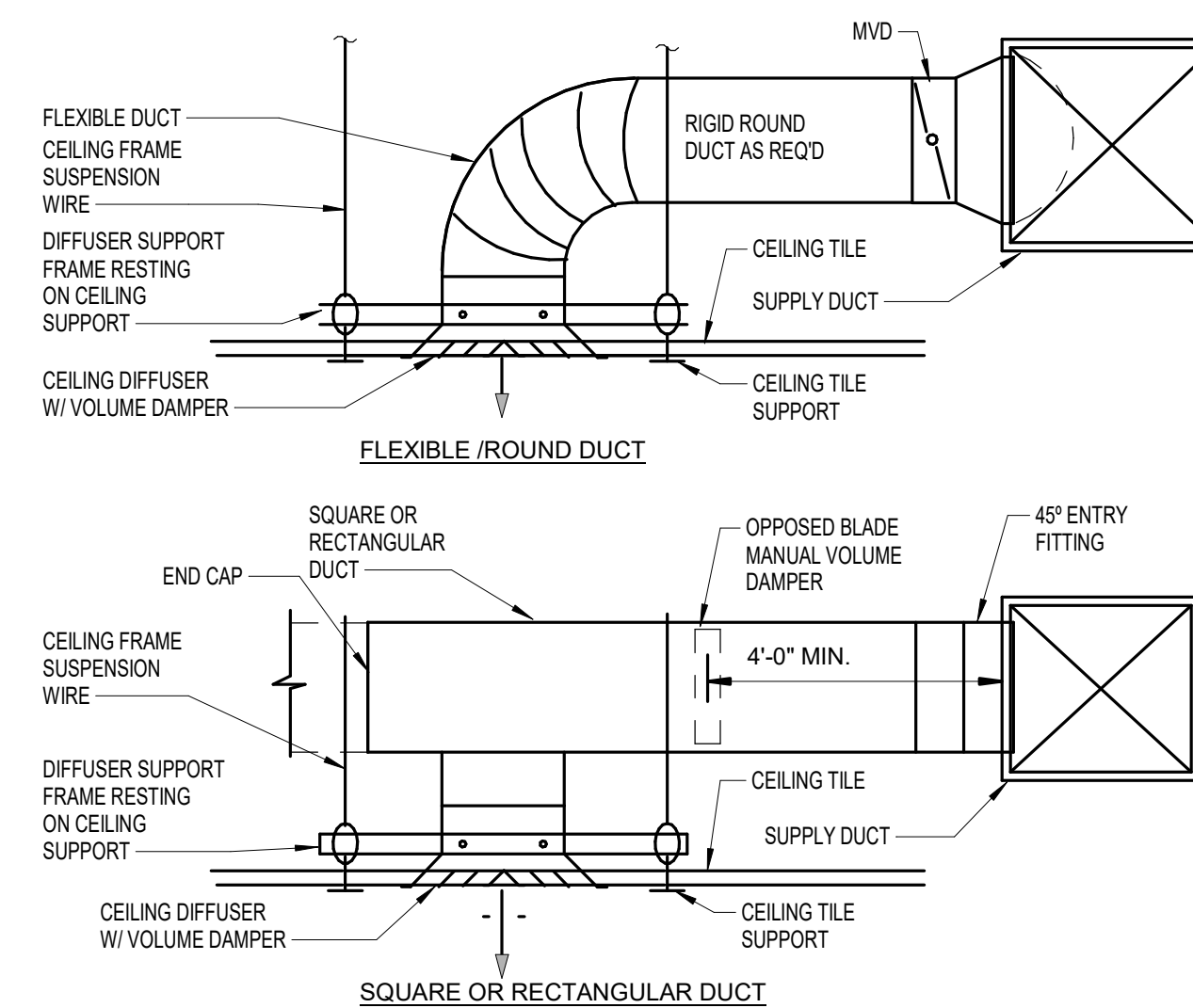
DRAWING TITLE

ENLARGED PLANS - HVAC

DATE: February 16, 2024	DRAWING
COMM. NO. 23104.00	M2.1

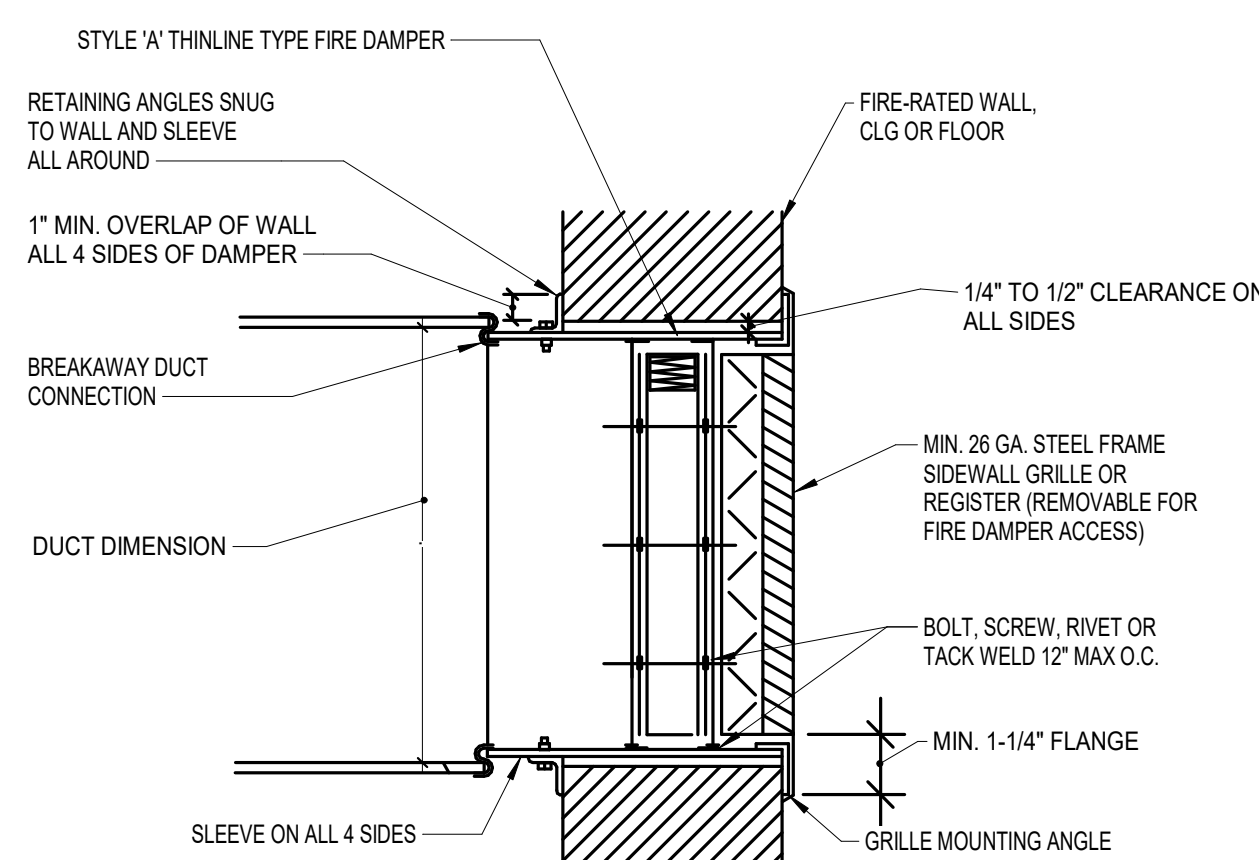


4 **CEILING REGISTER DETAIL**
M3.1 N.T.S.



NOTE: SEE SPECIFICATIONS FOR INSULATION AND ACOUSTIC LINE REQUIREMENTS

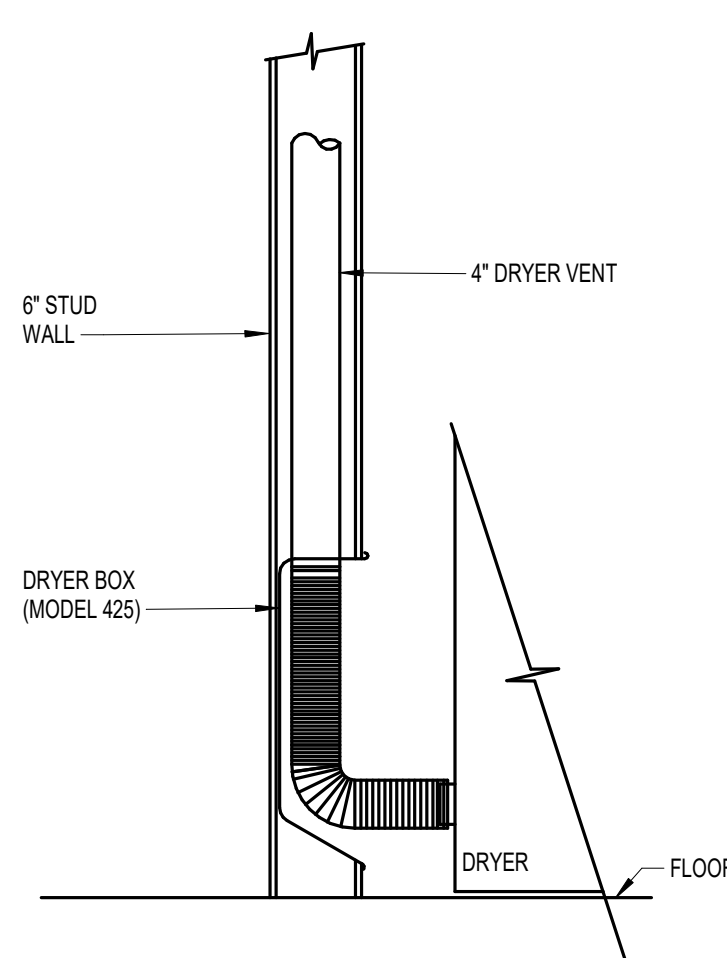
3 CEILING DIFFUSER BRANCH DUCTS
M3.1 N.T.S.



NOTE:

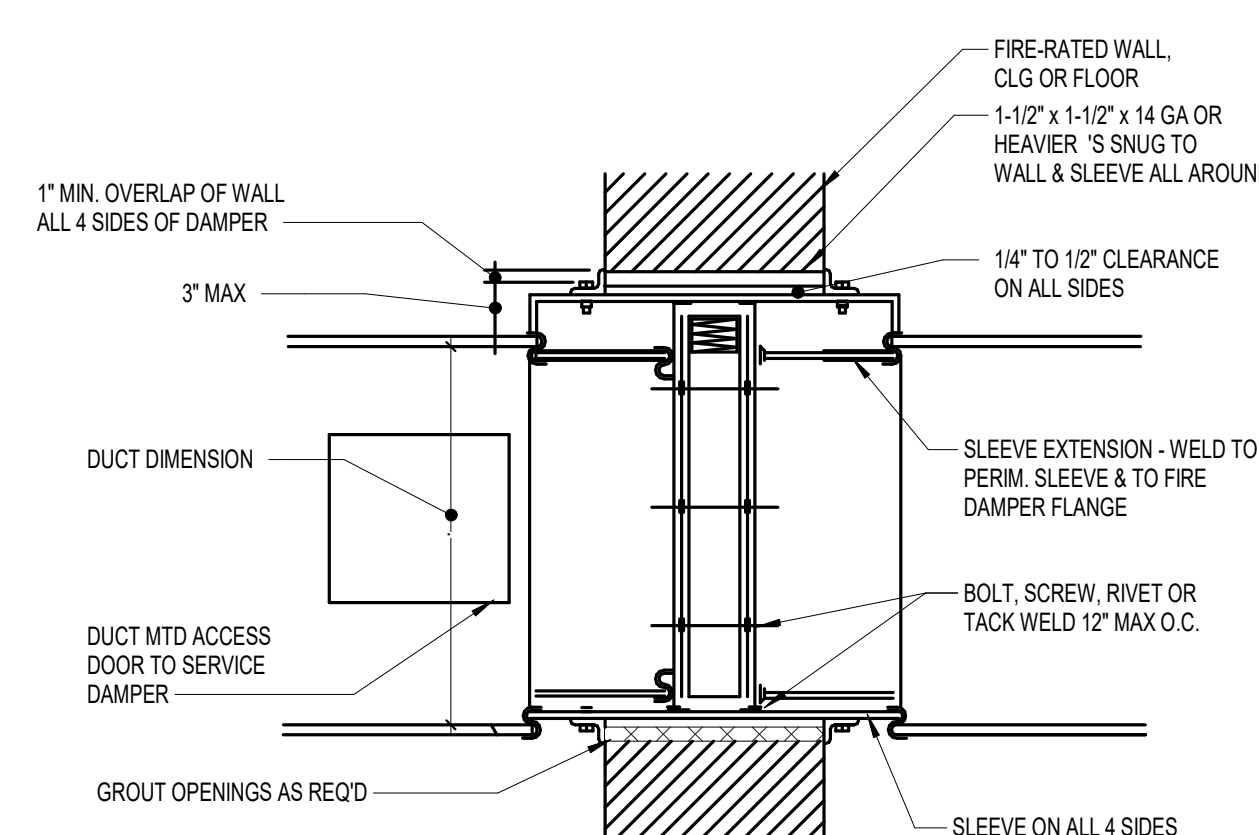
1. THE DETAIL ABOVE IS PICTORIAL IN NATURE AND NOT ABSOLUTELY CORRECT FOR ALL SITUATIONS. FIRE DAMPERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S UL APPROVED REQUIREMENTS. (EQUIVALENT TO RUSKIN STYLE G GRILLE/FIRE DAMPER INSTALLATION DESIGN).
2. OMIT REGISTER DAMPER WHERE MANUAL VOLUME DAMPER IS INSTALLED IN DUCT RUNOUT TO REGISTER.

GRILLE/FIRE DAMPER INSTALLATION



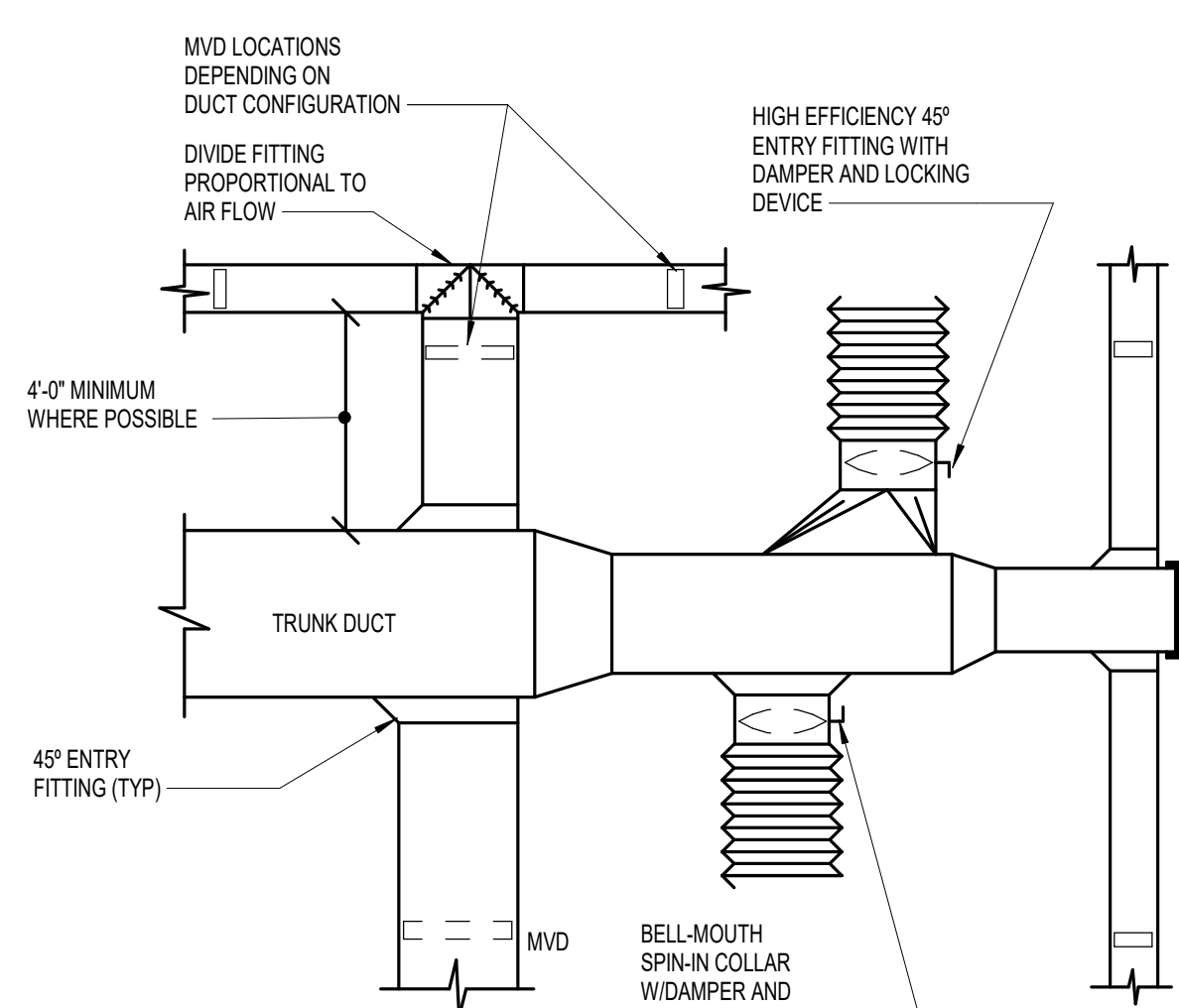
NOTE: DRYER BOX MAY BE USED AT ANY LOCATION WITH A 6" STUD WALL AND CAN BE USED TO ELIMINATE 1-ELBOW AND REDUCE THE MEASURED LENGTH OF THE DRYER VENT USE FOR DIRECT VENTING ONLY. NOT SUITABLE FOR SHARED RISER CONNECTIONS.

 **DRYER EXHAUST VENT CONNECTION**
M3.1 12" = 1'-0"



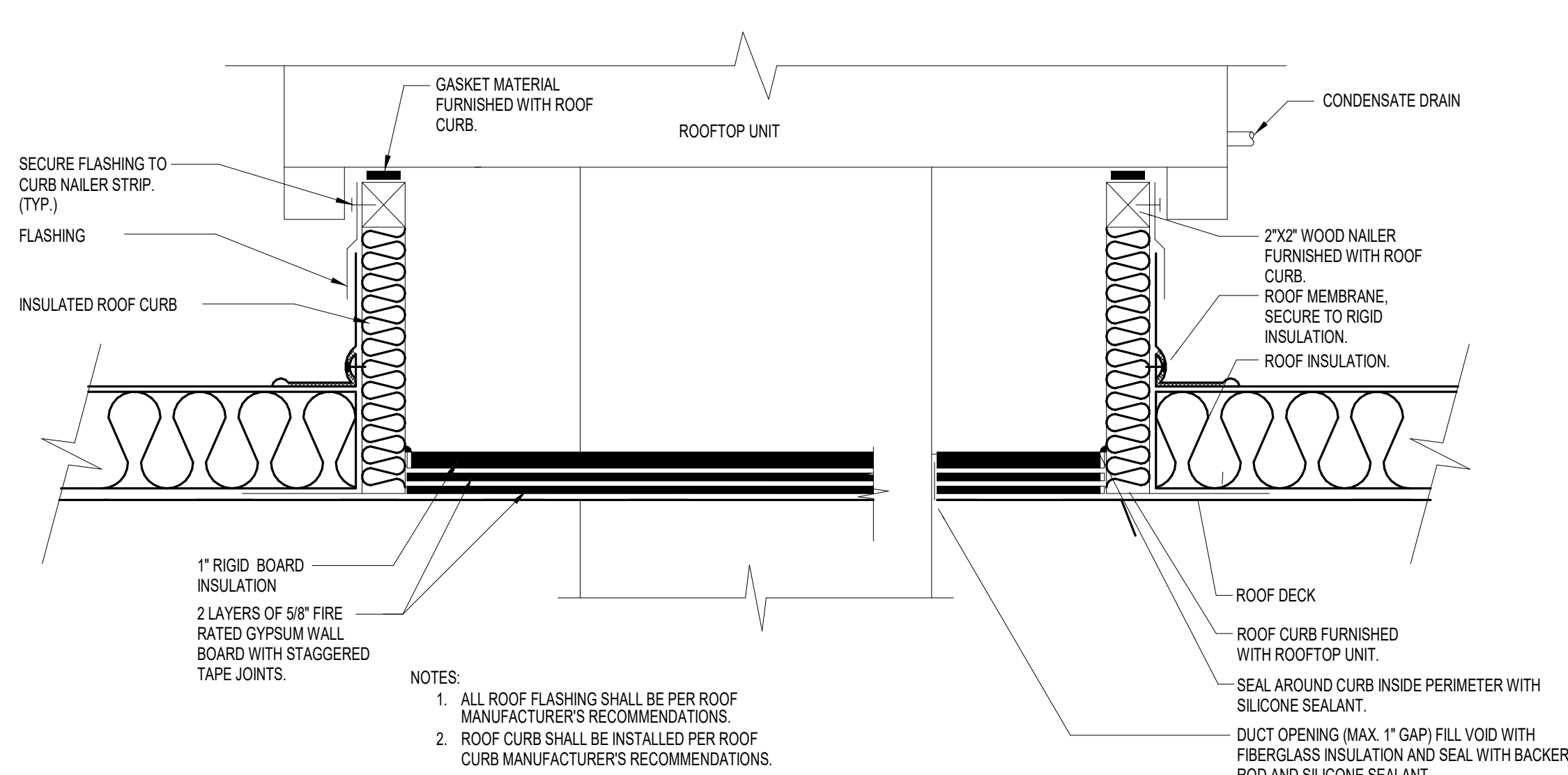
NOTE:
THE DETAIL ABOVE IS PICTORIAL IN NATURE AND NOT ABSOLUTELY
CORRECT FOR ALL SITUATIONS. FIRE DAMPERS SHALL BE INSTALLED
IN STRICT ACCORDANCE WITH THE MANUFACTURER'S UL APPROVED
REQUIREMENTS.

6 FIRE DAMPER INSTALLATION



NOTE: THIS DETAIL IS GENERAL IN NATURE AND APPLIES WHERE CEILING ACCESS IS READILY AVAILABLE. DO NOT INSTALL BALANCING DAMPERS ABOVE "HARD" CEILINGS UNLESS BOTH DAMPERS AND ACCESS DOORS ARE INDICATED ON THE DRAWINGS. ASK IF THERE IS DOUBT AS TO THE DESIGNER'S INTENT.

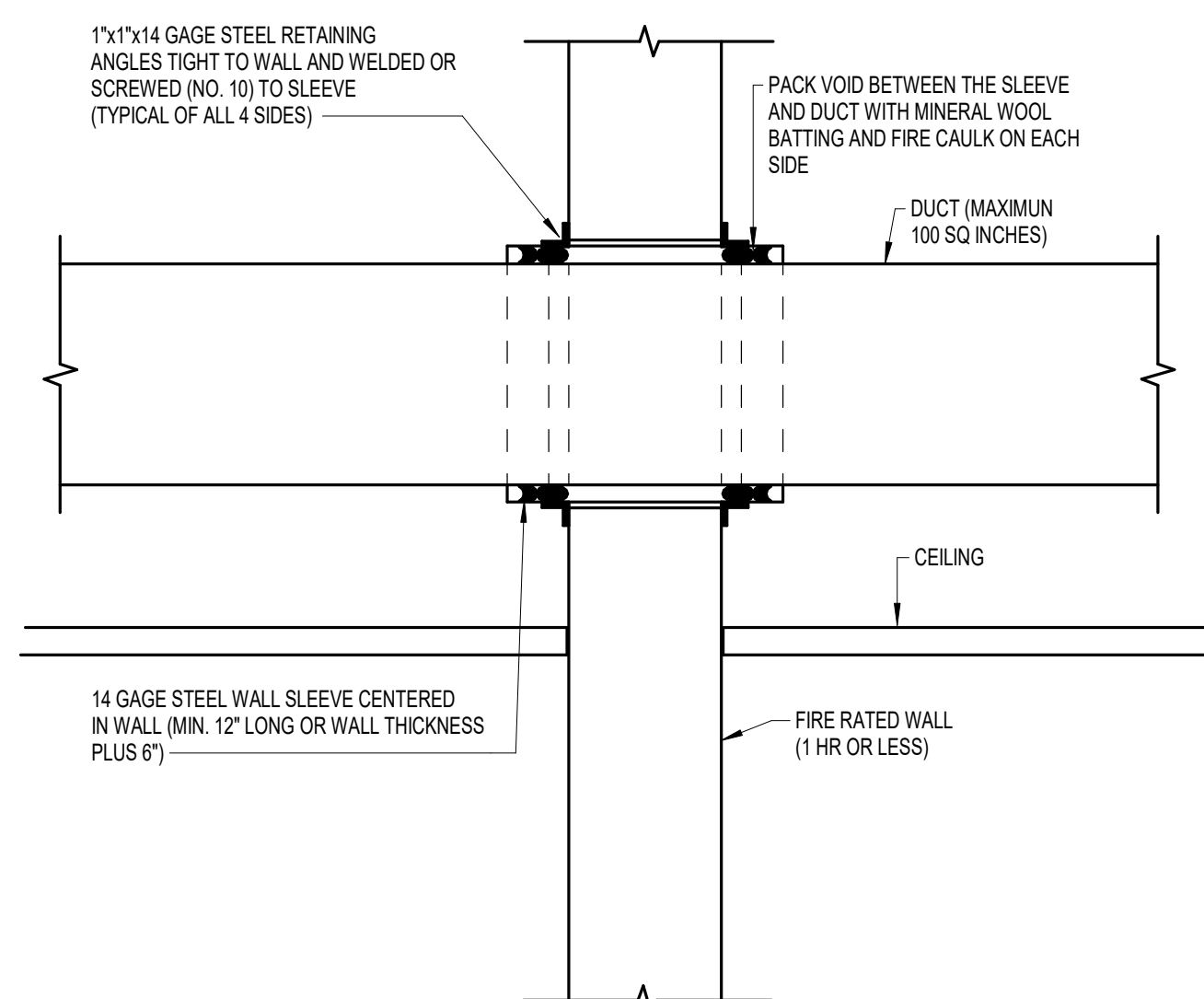
2 BRANCH DUCT TAKE-OFF OPTIONS



NOTES:

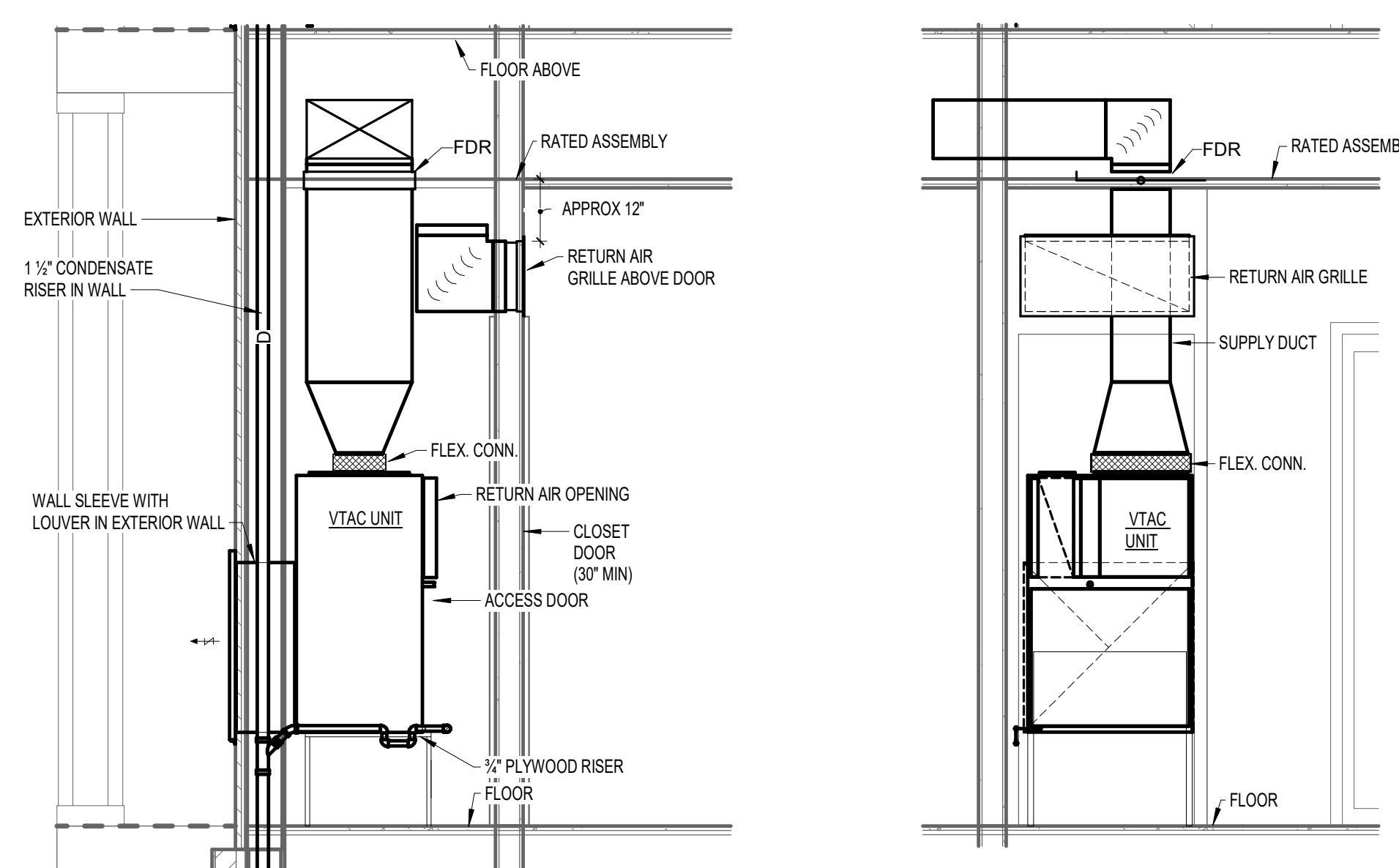
1. ALL ROOF FLASHING SHALL BE PER ROOF MANUFACTURER'S RECOMMENDATIONS.
2. ROOF CURB SHALL BE INSTALLED PER ROOF CURB MANUFACTURER'S RECOMMENDATIONS.

DETAIL - RTU & DOA UNIT CURB



14 GAGE STEEL WALL SLEEVE CENTERED
IN WALL (MIN. 12" LONG OR WALL THICKNESS)
PLUS 67) _____

DUCT PENETRATION OF FIRE RATED PARTITION



1 VERTICAL PTAC UNIT DETAIL
M3.1 N.T.S.



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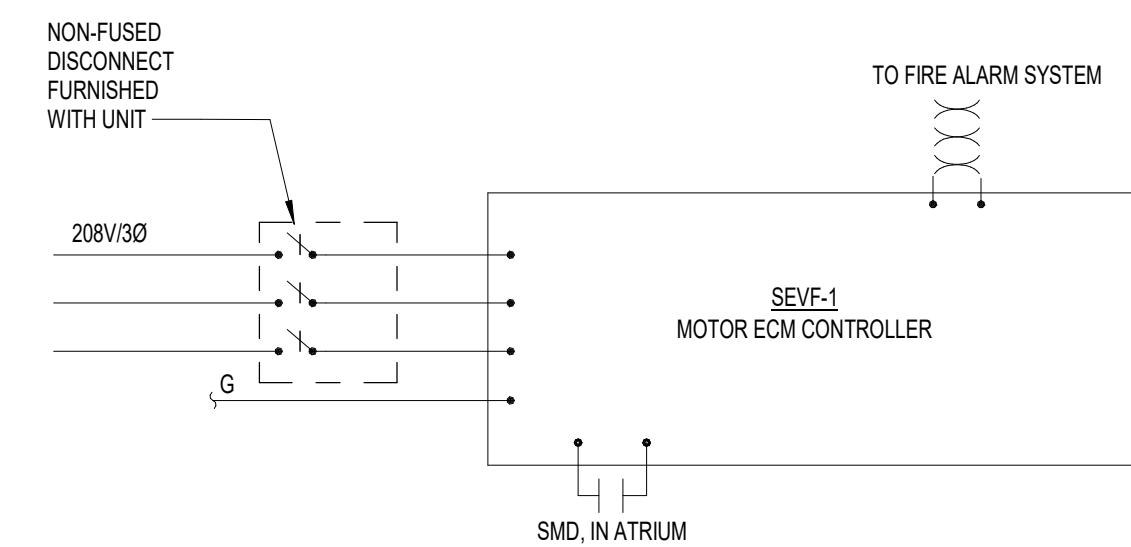
DRAWING TITLE
DETAILS - HVAC

DATE: February 16, 2024

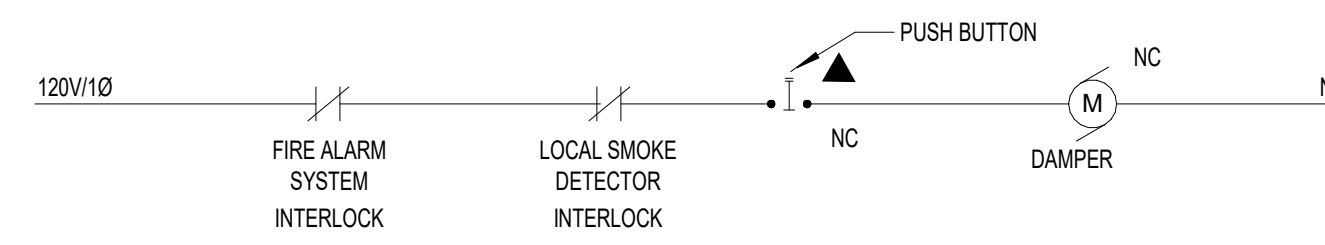
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M3.1

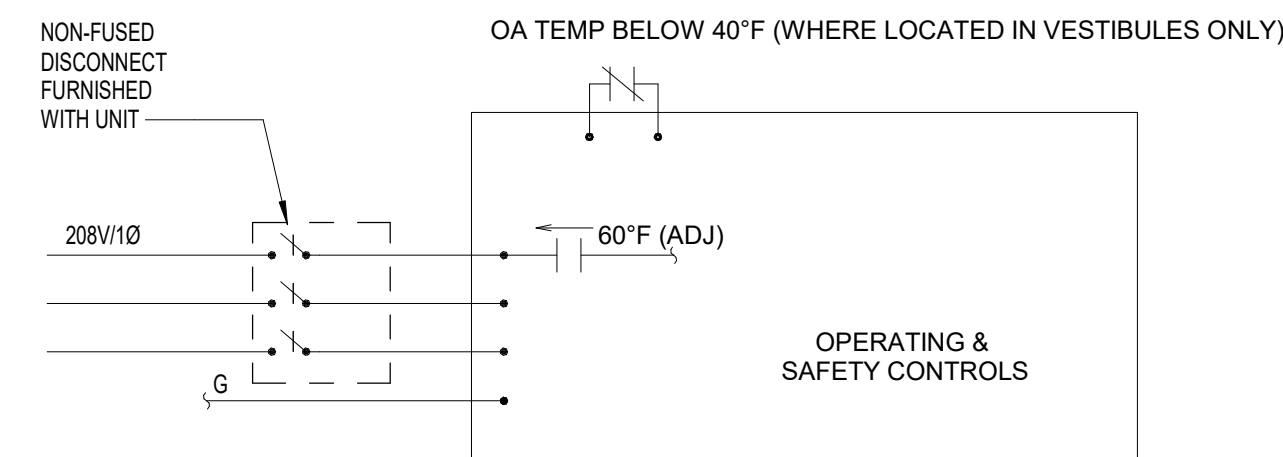
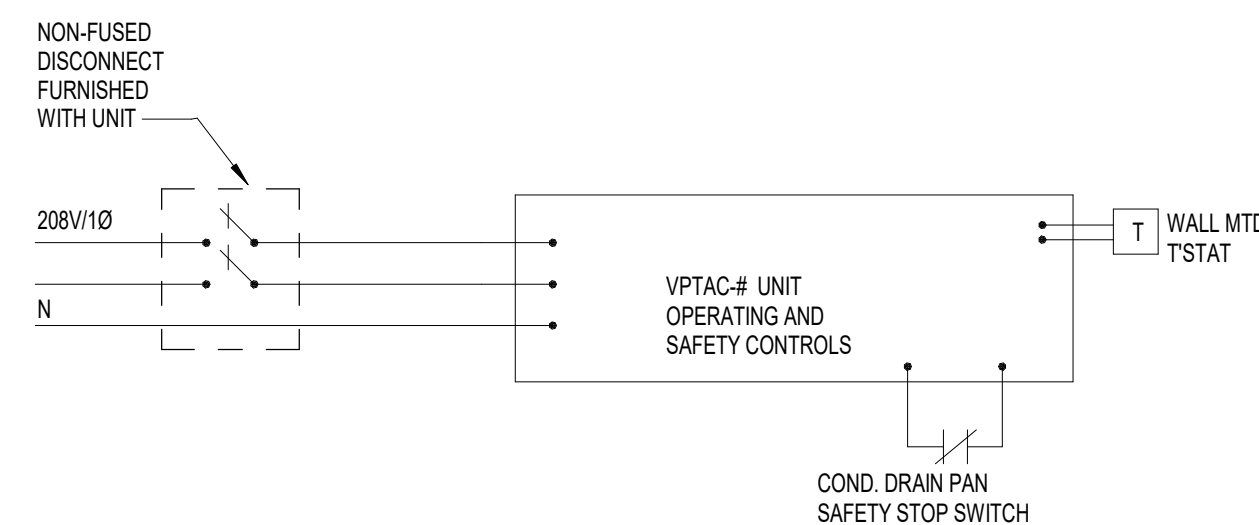
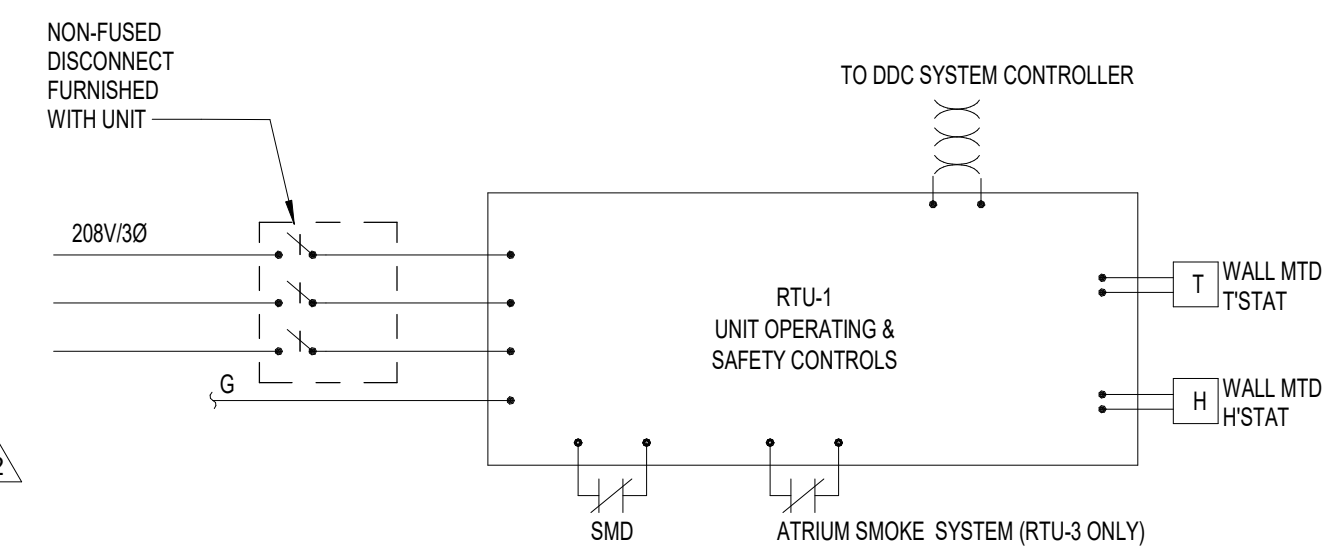
**SEVF-1, SMOKE EVACUATION FAN**

NOTE: SEVF-2&3 ARE SIMILAR.

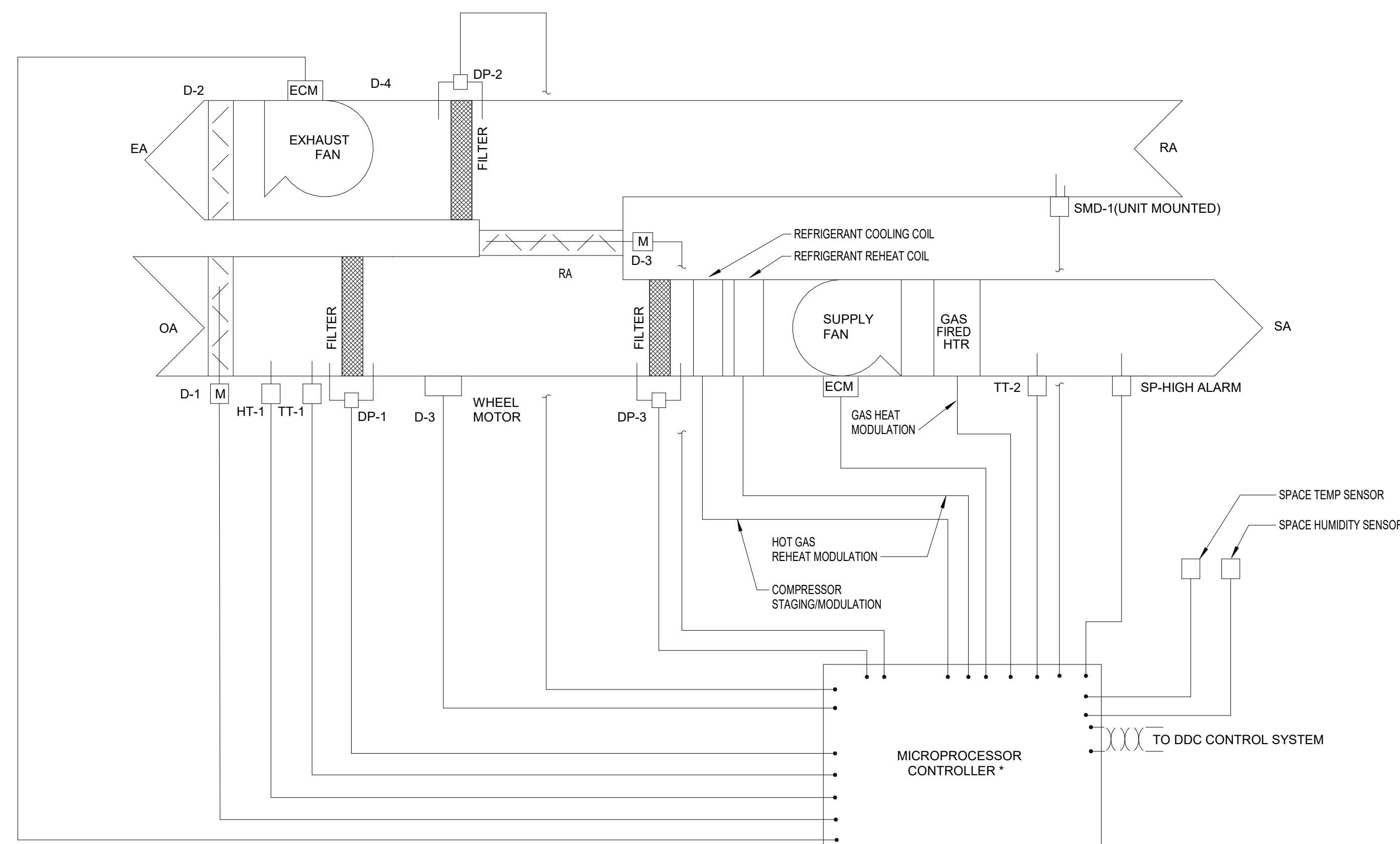
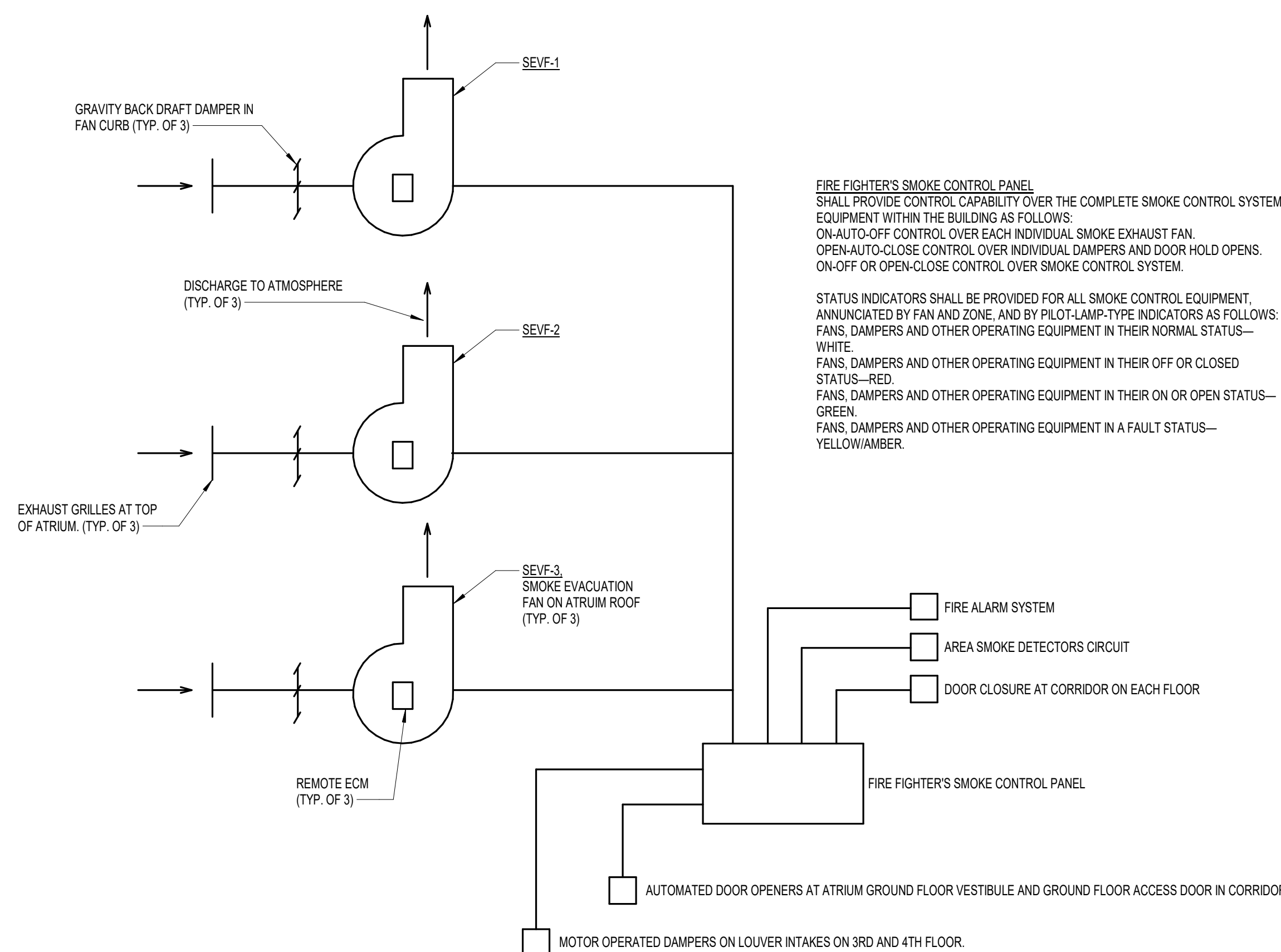


NOTES:

1. SMOKE DAMPER MAY BE A COMBINATION FIRE/SMOKE IN LIEU OF SMOKE DAMPER ONLY. FOR DETAILS SEE DRAWING M3.0.

SMOKE DAMPERS & FIRE/SMOKE DAMPERS (TYPICAL)**ELECTRIC WALL HEATERS (EWH)****VERTICAL PACKAGED TERMINAL AIR CONDITIONER UNITS****PACKAGED ROOFTOP AC UNIT (RTU)**

NOTE: RTU-2 AND RTU-3 ARE SIMILAR.



* CONTROLLER FURNISHED BY UNIT MANUFACTURER AND FACTORY INSTALLED

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Rev 1 - Permit Comments	

DRAWING TITLE

ELECTRONIC SEQUENCE CONTROLS

DATE: February 16, 2024

COMM. NO. 23104.00

DRAWING

M4.1

PLUMBING FIXTURE SCHEDULE

TAG	DESCRIPTION	MINIMUM CXL	MINIMUM HW	MINIMUM TRAP	MINIMUM SOL OR WASTE	MINIMUM VENT
	WATER CLOSETS:					
P-10	GERBER "VIPER" MODEL 21-518 ELONGATED BOWL, ADA COMPLIANT, FLOOR MOUNTED, WHITE, TANK TYPE, 1.6 GPF BOLT CAPS AND WHITE CLOSED FRONT SEAT WITH COVER, WITH SLOW CLOSE STAINLESS STEEL CHECK HINGES AND ANGLE SUPPLY WITH WHEEL HANDLE STOPS.	12"	-	-	3"	1-1/2"
P-11	GERBER "VIPER" MODEL 21-518 ELONGATED BOWL, ADA COMPLIANT, FLOOR MOUNTED, WHITE, TANK TYPE, 1.6 GPF BOLT CAPS AND WHITE OPEN FRONT SEAT WITH COVER, WITH SLOW CLOSE STAINLESS STEEL CHECK HINGES AND ANGLE SUPPLY WITH WHEEL HANDLE STOPS.	12"	-	-	3"	1-1/2"
	LAVATORIES: PROVIDE COMPLETE UNDER LAVATORY ANTI-MICROBIAL WASTE AND WATER PIPING PROTECTION INSULATION KITS AS MANUFACTURED BY PLUMBEREX SPECIALTY PRODUCTS, INC., OR TRUEBRO, INC. ON ALL HANDICAPPED LAVATORIES.					
P-30	LAVATORY BOWL, INTEGRAL WITH COUNTERTOP. SEE ARCHITECTURAL FINISH SPECIFICATIONS. FAUCET, PEERLESS MODEL P108LF-M SINGLE LEVER HANDLE, 1.5 GPM, BRUSHED NICKEL FINISH. ACCESSORIES: POP UP DRAIN.	12"	1/2"	1-1/4"	1-1/2"	1-1/2"
P-31	LAVATORY BOWL, AMERICAN STANDARD "OVALNY" MODEL, 0456.211, WHITE, UNDERMOUNT BOWL, 18-1/4" X 16-1/4" FAUCET, AMERICAN STANDARD "ELECTRONIC" MODEL, 6165.105, BATTERY POWERED SENSOR FAUCET, 0.5 GPM, CHROME FINISH. ACCESSORIES: GRID DRAIN, WATTS MODEL LFU55-6-MC POINT OF USE THERMOSTATIC MIXING VALVE CONFORMING TO ASSE 1070, WITH INTEGRAL CHECK VALVES. SET MAXIMUM OUTLET TEMPERATURE TO 110 DEGREES.	12"	1/2"	1-1/4"	1-1/2"	1-1/2"
	SINKS: PROVIDE COMPLETE UNDER SINK ANTI-MICROBIAL WASTE AND WATER PIPING PROTECTION INSULATION KITS AS MANUFACTURED BY PLUMBEREX SPECIALTY PRODUCTS, INC., OR TRUEBRO, INC. ON ALL HANDICAPPED SINKS.					
P-40	BASIN, ELKAY MODEL ELU43220, STAINLESS STEEL, DOUBLE BOWL, UNDERMOUNT SINK, 31-1/4" WIDE X 1'-8" LONG X 7'-7/8" DEEP. FAUCET, PEERLESS MODEL P683SLF, SINGLE HOLE, SINGLE LEVER HANDLE, PULL DOWN SPRAY, 1.5 GPM, CERAMIC CARTRIDGE, STAINLESS STEEL FINISH. ACCESSORIES: BASKET STRAINER DRAIN ASSEMBLY, DO NOT INSTALL INCLUDED DECKPLATE.	12"	1/2"	1-1/2"	2"	1-1/2"
P-41	(BRCH UNIT E12) CEDAR UNIT E310 BASIN, ELKAY MODEL ELU4322118, STAINLESS STEEL, DOUBLE BOWL, ADA COMPLIANT, UNDERMOUNT SINK, 30-3/4" WIDE X 18-1/2" LONG X 5-1/2" DEEP. FAUCET, PEERLESS MODEL P683SLF, SINGLE HOLE, SINGLE LEVER HANDLE, PULL DOWN SPRAY, 1.5 GPM, CERAMIC CARTRIDGE, STAINLESS STEEL FINISH. ACCESSORIES: BASKET STRAINER DRAIN ASSEMBLY, DO NOT INSTALL INCLUDED DECKPLATE.	12"	1/2"	1-1/2"	2"	1-1/2"
P-42	MOP SINK, PROFLO MODEL PFM82424, MOLDED STONE, INTEGRAL DRAIN, 24" WIDE X 24" LONG X 10" DEEP. FAUCET, ZURN MODEL 2843M1 SERVICE SINK FAUCET WITH VACUUM BREAKER AND INTEGRAL CHECK VALVES AND INTEGRAL STOPS. ACCESSORIES: HOSE AND HOSE BRACKET, MOP HANGER, ADJUSTABLE WALL BRACE, PAL HOOK, STAINLESS STEEL BUMPERGUARDS ON ALL CURBS AND STAINLESS STEEL WALL GUARDS ON ALL ADJACENT WALLS.	12"	1/2"	3"	3"	1-1/2"
P-43	BASIN, ELKAY MODEL ELU432118, STAINLESS STEEL, DOUBLE BOWL, ADA COMPLIANT, UNDERMOUNT SINK, 30-3/4" WIDE X 18-1/2" LONG X 5-1/2" DEEP. FAUCET, PEERLESS MODEL P683SLF, SINGLE HOLE, SINGLE LEVER HANDLE, PULL DOWN SPRAY, 1.5 GPM, CERAMIC CARTRIDGE, STAINLESS STEEL FINISH. ACCESSORIES: BASKET STRAINER DRAIN ASSEMBLY, DO NOT INSTALL INCLUDED DECKPLATE.	12"	1/2"	1-1/2"	2"	1-1/2"
	SHOWERS/BATHING UNITS: SHOWERS SHALL HAVE A MAXIMUM FLOW RATE OF 2.5 GALLONS PER MINUTE. UNITS SHALL BE CONFIGURED LEFT-HAND AND RIGHT-HAND UNITS AS REQUIRED BY FLOOR PLAN LAYOUT. PROVIDE INLET CHECK STOPS ON ALL SHOWER VALVES THAT ARE CONNECTED TO HANDHELD SHOWER WANDS WITH ON/OFF CAPABILITY.					
P-40	SURROUND, COMFORT DESIGNS MODEL XSS 9038 BF, ONE PIECE, GELCOAT/FIBERGLASS SHOWER MODULE WITH 1" THRESHOLD, GRAB BARS, SEMI-PERMANENT THRESHOLD AND T-SHAPED WATER STOPPER. SHOWER TRIM, KOHLER "BANCROFT" MODEL K-10583-4 SHOWER TRIM WITH METAL LEVER HANDLE AND SHOWER HEAD WITH KOHLER RITE-TEMP K-8304-KS PRESSURE-BALANCED MIXING SHOWER VALVE WITH INTEGRAL STOPS AND CHECK VALVES, KOHLER "BANCROFT" MODEL K-10584-4 TRANSFER VALVE, GROHE MODEL 28077END 24 INCH SHOWER BAR WITH HAND HELD SHOWER AND 69 INCH HOSE, AND GROHE MODEL 28627END SHOWER OUTLET ELBOW. ALL COMPONENTS TO BE BRUSHED NICKEL FINISH. PROVIDE ALL REQUIRED MATCHING MANUFACTURER ACCESSORIES. DRAIN: PROVIDE 2" BRUSHED NICKEL FINISH SHOWER DRAIN.	12"	1/2"	2"	2"	1-1/2"
P-41	SURROUND, AQUARIUS MODEL G 6237 BF, 75, ONE PIECE, ADA COMPLIANT, ROLL-IN, GELCOAT/FIBERGLASS SHOWER MODULE WITH .75" THRESHOLD, ADA GRAB BARS, FACTORY FOLD UP SEAT, SEMI-PERMANENT THRESHOLD AND T-SHAPED WATER STOPPER. SHOWER TRIM, KOHLER "BANCROFT" MODEL K-10583-4 SHOWER TRIM WITH METAL LEVER HANDLE AND SHOWER HEAD WITH KOHLER RITE-TEMP K-8304-KS PRESSURE-BALANCED MIXING SHOWER VALVE WITH INTEGRAL STOPS AND CHECK VALVES, KOHLER "BANCROFT" MODEL K-10584-4 TRANSFER VALVE, GROHE MODEL 28077END 24 INCH SHOWER BAR WITH HAND HELD SHOWER AND 69 INCH HOSE, AND GROHE MODEL 28627END SHOWER OUTLET ELBOW. ALL COMPONENTS TO BE BRUSHED NICKEL FINISH. PROVIDE ALL REQUIRED MATCHING MANUFACTURER ACCESSORIES. DRAIN: PROVIDE 2" BRUSHED NICKEL FINISH SHOWER DRAIN.	12"	1/2"	2"	2"	1-1/2"
P-42	BATHTUB, AMERICAN STANDARD "PRINCETON" MODEL 2390.202, WHITE, ACID RESISTANT PORCELAIN FINISH. TRIM, KOHLER "BANCROFT" MODEL K-10583-4 BATH TRIM KIT WITH METAL LEVER HANDLE, SHOWER HEAD AND TUB SPOUT WITH KOHLER RITE-TEMP K-8304-KS PRESSURE-BALANCED MIXING SHOWER VALVE WITH INTEGRAL STOPS AND CHECK VALVES, KOHLER "BANCROFT" MODEL K-10584-4 TRANSFER VALVE, GROHE MODEL 28077END 24 INCH SHOWER BAR WITH HAND HELD SHOWER AND 69 INCH HOSE, AND GROHE MODEL 28627END SHOWER OUTLET ELBOW. ALL COMPONENTS TO BE BRUSHED NICKEL FINISH. PROVIDE ALL REQUIRED MATCHING MANUFACTURER ACCESSORIES. DRAIN: PROVIDE BRUSHED NICKEL FINISH TUB DRAIN ASSEMBLY WITH OVERFLOW.	12"	1/2"	1-1/2"	1-1/2"	1-1/2"
	MISCELLANEOUS:					
P-20	WASHING MACHINE CONNECTION BOX. UNIT SHALL BE RECESSED TYPE. BOX AND FACE PLATE SHALL BE CONSTRUCTED OF 16 GAUGE STEEL WITH EPOXY FINISH, OR HEAVY-DUTY PLASTIC ABS. UNIT SHALL BE FITTED WITH 2-INCH DRAIN CONNECTION KIT WITH OVERFLOW, BOTTOM SUPPLY HOSE CONNECTIONS, AS REQUIRED, WATER HAMMER ARRESTORS CONFORMING TO ASSE 1010. BOXES LOCATED ON RATED CORRIDOR OR RATED UNIT SEPARATION WALL SHALL BE A FIRE-RATED BOX ASSEMBLY APPROVED FOR FIRE-RATED INSTALLATION.	12"	1/2"	2"	3"	1-1/2"
P-21	ICE MAKER CONNECTION BOX. UNIT SHALL BE RECESSED TYPE. BOX AND FACE PLATE SHALL BE CONSTRUCTED OF 16 GAUGE STEEL WITH EPOXY FINISH, OR HEAVY-DUTY PLASTIC ABS. UNIT SHALL BE FITTED WITH CHROME PLATED SUPPLY VALVE. BOXES LOCATED ON RATED CORRIDOR OR RATED UNIT SEPARATION WALL SHALL BE A FIRE-RATED BOX ASSEMBLY APPROVED FOR FIRE-RATED INSTALLATION. MOUNT BOTTOM OF BOX ABOVE TRIMBASEBOARD.	12"	-	-	-	-
WH	FREEZE PROOF, AUTOMATIC DRAINING CHROME-PLATED WALL HYDRANT EQUAL TO WOODFORD MODEL #65, MOUNTED 24" ABOVE FINISHED GRADE.	3/4"	-	-	-	-
TP	PROVIDE BRONZE TRAP PRIMER VALVE WITH AUTOMATIC VACUUM BREAKER COMPLYING WITH ASSE 1016 WITH 1/2" CONNECTIONS MATCHING PIPING SYSTEM. PROVIDE TRAP PRIMERS BY PRECISION PLUMBING PRODUCTS, INC.; JOSAM, MFG. CO.; ZURN INDUSTRIES, INC.; JOSAM MFG. CO.; OR WATTS DRAINAGE.	1/2"	-	-	-	-
PH	ZURN Z1396 ROOF POST HYDRANT, NON FREEZE, WITH VACUUM BREAKER, 3/4" HOSE CONNECTION, DEPTH OF BURY TO BE BASED UPON 4 FEET SO THAT DRAIN PORT IS LOCATED BELOW ATTIC INSULATION IN CEILING SPACE OF ROOM BELOW. FIELD VERIFY DEPTH OF BURY PRIOR TO ORDERING.	3/4"	-	-	-	-
WHA	EQUAL TO ZURN Z1700 WATER HAMMER ARRESTOR.	3/4"	-	-	-	-

- FIXTURES SHALL BE PROVIDED WITH ALL ITEMS, ARTICLES, MATERIALS AND INCIDENTALS, AS REQUIRED, INCLUDING ALL LABOR NECESSARY FOR A COMPLETE PLUMBING INSTALLATION.
- THE PLUMBING CONTRACTOR SHALL CLEAN ALL FIXTURES, POLISH ALL METAL PARTS, CHECK AND ADJUST ALL FITTINGS, FAUCETS AND VALVES. ALL OPERATING INSTRUCTIONS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR FOR PRESENTATION TO THE OWNER.
- PROVIDE INDIVIDUAL STOPS ON ALL PLUMBING FIXTURES.
- ALL LAVATORY, SINK, LAUNDRY TUB, WATER COOLER AND SIMILAR FIXTURE TRAPS, INCLUDING THOSE MOUNTED IN CASEWORK, SHALL BE CHROME PLATED, CAST BRASS, MINIMUM 17-GAUGE, ADJUSTABLE TYPE WITH CLEANOUT FLUSH.
- PROVIDE CHROME PLATED ANGLE STOP WITH WHEEL HANDLES AT FIXTURE SUPPLY THROUGH WALLS, INCLUDING THOSE MOUNTED IN CASEWORK.
- ALL EXPOSED SUPPLY PIPES, STOPS, FLEXIBLE RISERS, INCLUDING THOSE MOUNTED IN CASEWORK, SHALL HAVE A POLISHED CHROME PLATED FINISH AND BE OF THE SAME MANUFACTURER THROUGHOUT THE JOB.
- ALL EXPOSED SUPPLY PIPES, STOPS, P-TRAP, AND ANY WASTE PIPE IN ADA ACCESSIBLE LOCATIONS SHALL HAVE ADA COMPLIANT UNDER-SINK PROTECTION.
- PROVIDE CHROME PLATED ESCUTCHEONS AT ALL FIXTURE SUPPLY AND WASTE PIPE PENETRATIONS THROUGH WALLS, INCLUDING THOSE MOUNTED IN CASEWORK.
- ALL WATER CLOSET FLUSHING MECHANISMS ON HANDICAP WATER CLOSETS SHALL BE INSTALLED ON THE "WIDE SIDE" OF EACH WATER CLOSET TO MAINTAIN ADA ACCESSIBILITY.
- PROVIDE INLET CHECK STOPS ON ALL FIXTURES (I.E. MOP SINKS, KITCHEN PRE-RINSE SPRAY UNITS, SHOWER VALVES, SPA BATHING UNITS AND SIMILAR FIXTURE(S)) SUSCEPTIBLE TO BACKFLOW/CROSS CONNECTION SITUATIONS.
- PROVIDE CONCEALED FIXTURE CARRIERS AND SUPPORTS OF PROPER TYPE AND DESIGN TO SUIT JOB CONDITIONS. PROVIDE CARRIERS BY J.R. SMITH MFG. CO.; ZURN INDUSTRIES, INC.; JOSAM MFG. CO.; WADE DIVISION/TYLER PIPE.
- PLUMBING FIXTURE COLORS SHALL BE SELECTED BY ARCHITECT/OWNER AT A LATER DATE FROM STANDARD FACTORY COLORS, UNLESS OTHERWISE NOTED TO BE DESIGNER COLOR IN SCHEDULE.
- PLUMBING FIXTURES AND TRIM SPECIFIED IN THIS SCHEDULE ARE TO ESTABLISH A STANDARD LEVEL OF QUALITY. OTHER MANUFACTURERS MAY BE CONSIDERED EQUAL. SEE LISTINGS BELOW FOR SOME MANUFACTURERS CONSIDERED EQUALS. OTHER MANUFACTURERS NOT LISTED BELOW MAY ALSO BE CONSIDERED WITH WRITTEN APPROVALS OBTAINED FROM ARCHITECT AND/OR ENGINEER PRIOR TO TEN DAYS BEFORE BIDS ARE DUE.
 - VITREOUS CHINA PLUMBING FIXTURES: AMERICAN STANDARD, SLOAN, KOHLER, PROFLO, ZURN
 - MOP SINKS, LAUNDRY TUBS: FIAT, E.L. MUSTEE, PROFLO, STERN WILLIAMS
 - STAINLESS STEEL SINKS: ELKAY, DAYTON, JUST, PROFLO
 - FAUCETS, SHOWER VALVES AND TRIM, FLUSH VALVES: AMERICAN STANDARD, KOHLER, SLOAN, ELKAY, MOEN, T&S BRASS, DELTA, CHICAGO, PROFLO
 - SHOWER AND TUBS: COMFORT DESIGNS, BEST BATH, AQUA BATH, AQUARIUS, AMERICAN STANDARD, KOHLER, AQUATIC (LASCO)
- PROVIDE SHOP DRAWINGS/SUBMITTAL AND OPERATIONS MANUAL FOR ALL ITEMS LISTED ABOVE IN PLUMBING FIXTURE SCHEDULE.
- MINIMUM SIZES IN SCHEDULE ABOVE REPRESENT MINIMUM PLUMBING FIXTURE CONNECTIONS ALLOWED AND DOES NOT REFLECT SPECIAL SITUATIONS SUCH AS WET VENTING, WASTE STACK VENTS, COMBINATION WASTE AND VENT SYSTEMS, ETC. REFER TO PLANS AND/OR RISER DIAGRAMS FOR PIPE SIZES AND ADDITIONAL INFORMATION.

PLUMBING DRAINS/CLEANOUT SCHEDULE

PROVIDE SHOP DRAWINGS/SUBMITTAL AND OPERATIONS MANUAL FOR ALL ITEMS LISTED BELOW.	
	CLEANOUTS: CLEANOUTS SHALL BE LINE SIZE UP TO 4". FOR PIPE SIZES LARGER THAN 4" PROVIDE A 4" CLEANOUT, WHERE ALLOWED BY CODE AND AUTHORITY HAVING JURISDICTION. ALL EXTERIOR AND IN-LINE CLEANOUTS SHALL BE TWO-WAY.
CO	EXPOSED HORIZONTAL OR VERTICAL CLEANOUT IN PIPING EXPOSED OR CONCEALED ABOVE ACCESSIBLE CEILINGS.
FOC	(REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR FINISH INFORMATION. PROVIDE CLEANOUTS AS DESCRIBED BELOW) 1. WHERE SHEET VINYL FLOORING SIMILAR TO ALTRO, PROTECTALL AND ETC. IS INSTALLED, PROVIDE WATTS MODEL CO-200-RFC7 FLOOR CLEANOUT WITH SURFACE MEMBRANE CLAMP. 2. FOR AREAS WHERE CARPET WILL BE INSTALLED PROVIDE ROUND ADJUSTABLE CLEANOUT WITH CARPET MARKER. 3. BACK OF HOUSE AREAS (I.E. KITCHEN, UTILITY ROOMS, LAUNDRY ROOMS AND SIMILAR SPACES) WHERE TILE FLOORS ARE TO BE INSTALLED, PROVIDE SQUARE ADJUSTABLE CLEANOUT WITH STAINLESS STEEL COVER. 4. IN PUBLIC AREAS (I.E. DINING ROOMS, CORRIDORS, OFFICES, CONFERENCE ROOMS AND SIMILAR SPACES) WHERE TILE FLOORS ARE TO BE INSTALLED, PROVIDE SQUARE ADJUSTABLE CLEANOUT WITH RECESS TILE COVER. 5. IN AREAS SUBJECT TO TRAFFIC (I.E. PARKING GARAGES, PARKING SPACES AND SIMILAR SPACES) PROVIDE HEAVY DUTY/TRAFFIC RATED CLEANOUT COVER.
GOO	CLEANOUT TO GRADE WITH HEAVY DUTY ACCESS COVER CAST IN A 12" X 12" X 4" THICK CONCRETE PAD. (PAD MAY BE ELIMINATED IN POURED CONCRETE SIDEWALKS, DRIVEWAYS, PATIOS, ETC.)
WCO	PROVIDE CLEANOUT IN VERTICAL PIPE WITH STAINLESS STEEL ACCESS COVER. (WHERE PIPES ARE CONCEALED IN WALLS OR CHASES). ROOF/OVERFLOW DRAINS: ACCEPTABLE MANUFACTURERS: ZURN, WATTS, JOSAM, JAY R. SMITH, FROET INDUSTRIES.
RD	ROOF DRAIN - EQUAL TO ZURN 100. DRAIN SHALL HAVE DURA-COATED CAST IRON BODY WITH POLY-DOME COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARDS, SUMP RECEIVER, UNDERDECK CLAMPING DEVICE, EXTENSION COLLAR TO SUIT THICKNESS OF INSULATION.
OD	OVERFLOW DRAIN - EQUAL TO ZURN Z100-W2. DRAIN SHALL HAVE DURA-COATED CAST IRON BODY WITH POLY-DOME INTERNAL OVERFLOW WATER DAM, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARDS, SUMP RECEIVER, UNDERDECK CLAMPING DEVICE, EXTENSION COLLAR TO SUIT THICKNESS OF INSULATION.
ODS	OVERFLOW DISCHARGE SPOUT - EQUAL TO FROET INDUSTRIES MODEL LPS, OVERFLOW DISCHARGE SPOUT, STAINLESS STEEL FRAME WITH STAINLESS STEEL HINGED STRAINER.
FD-1	(GENERAL PURPOSE, BACK OF HOUSE, CONCRETE FLOORS) - FLOOR DRAIN EQUAL TO ZURN ZN418B. DURA-COATED CAST IRON BODY WITH INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS. TYPE "B" ROUND NICKEL BRONZE STRAINER, 3" STRAINER FOR 2" OUTLET, 4" STRAINER FOR 3" OUTLET AND 6" STRAINER FOR 4" SEEPAGE SLOTS. TYPE "B" ROUND NICKEL BRONZE STRAINER, 5" STRAINER FOR 2" OUTLET, 6" STRAINER FOR 3" OUTLET AND 8" STRAINER FOR 4" OUTLET.
FS-1	(TILE FLOORS, CONCRETE FLOORS) - FLOOR SINK - EQUAL TO ZURN ZN1900. 4" BOTTOM OUTLET, CAST-IRON BODY, ANTI-SPLASH INTERIOR AND SEDIMENT BUCKET, NICKEL BRONZE 1/2 GRATE, 12" SQUARE BY 6" DEEP.

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PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

DIRECTION OF FLOW		AW	AIR ADMITTANCE VALVE
PIPE TURNING UP		AD	AREA DRAIN
PIPE TURNING DOWN		AFF	ABOVE FINISHED FLOOR
BRANCH CONNECTION - TOP		AFG	ABOVE FINISHED GRADE
BRANCH CONNECTION - BOTTOM		AHJ	AUTHORITY HAVING JURISDICTION
BRANCH CONNECTION - SIDE		BFP	BACKFLOW PREVENTER
SERVICE VALVE (BALL OR GATE)		BP	BOOSTER PUMP
SERVICE VALVE (BUTTERFLY)		BTUH	BRITISH THERMAL UNIT/HOUR
CHECK VALVE		CFH	CUBIC FEET PER HOUR
DIELECTRIC UNION		CLG	CEILING
PIPE CAP OR BLIND FLANGE		CO	CLEANOUT
OUTLETS/FIXTURE STOPS (GAS, AIR, VACUUM, OXYGEN)		CP	CIRCULATION PUMP
PRESSURE REDUCING VALVE		CW	COLD WATER
FLEXIBLE PIPE CONNECTION OR JOINT		DD	DECK DRAIN
HOSE BIBB OR FREEZEPROOF WALL HYDRANT		DN	DOWN
GAS SHUT-OFF VALVE		DWV	DRAINAGE, WASTE AND VENT
GAS SOLENOID VALVE		EA	EACH
GAS CONNECT NEW TO EXISTING		ET	EXPANSION TANK
POINT OF DISCONNECTION		EX	EXISTING
COLD WATER PIPING		F	FAHRENHEIT
HOT WATER SUPPLY (NUMBER DENOTES TEMPERATURE, NO NUMBER INDICATES 120°F TEMPERATURE SYSTEM)		FCO	FLOOR CLEANOUT
HOT WATER RETURN (NUMBER DENOTES TEMPERATURE, NO NUMBER INDICATES 120°F TEMPERATURE SYSTEM)		FD	FLOOR DRAIN
SANITARY SEWER PIPING		PFE	FINISHED FLOOR ELEVATION
VENT PIPING		FL	FLOOR
ROOF DRAIN STORM PIPING		FT	FEET
OVERFLOW DRAIN STORM PIPING		FU	FIXTURE UNIT
GREASE WASTE PIPING		G	GAS
NATURAL GAS PIPING		GAL	GALLON
PIPE REFERENCE		GPD	GRADE CLEANOUT
		GPO	GALLONS PER DAY
		GPH	GALLONS PER HOUR
		GPM	GALLONS PER MINUTE
		GW	GREASE WASTE
		HB	HOSE BIBB
		HD	HEAD
		HP	HORSEPOWER
		HTR	HEATER
		HW	HOT WATER
		HWIR	HOT WATER RETURN
		IE	INVERT ELEVATION
		KW	KILOWATT
		L	LAVATORY
		MIN	MINIMUM
		NC	NORMALLY CLOSED
		NO	NORMALLY OPEN
		OD	OVERFLOW DRAIN
		PD	PARKING DRAIN
		PRV	PRESSURE REDUCING VALVE
		PSI	POUNDS PER SQUARE INCH
		PVC	POLYVINYL CHLORIDE
		RAC	ROUTE ABOVE CEILING
		RBF	ROUTE BELOW FLOOR
		RD	ROOF DRAIN
		SD	STORM DRAIN
		SEP	SEWAGE EJECTOR PUMP
		SF	SQUARE FEET
		SH	SHOWER
		SP	SUMP PUMP
		SS	SANITARY SEWER
		SS	STAINLESS STEEL
		TD	TRENCH DRAIN
		TMV	THERMOSTATIC MIXING VALVE
		TRP	TRAP PRIMER
		V	VENT
		VTR	VENT THRU ROOF
		W	WASTE
		WC	WATER COLUMN
		WCO	WALL CLEANOUT
		WH	WALL HYDRANT
		WHA	WATER HAMMER ARRESTOR
		WTR	WATER

SOME SYMBOLS ABOVE MAY BE SHOWN WITH DOUBLE LINE PIPING IN LIEU OF SINGLE LINE PIPING AND MAY NOT APPEAR AS INDICATED ABOVE. THESE SYMBOLS WILL BE NOTED ON PLANS WHERE APPLICABLE.

THESE SYMBOLS AND ABBREVIATIONS ARE PLUMBING DEPARTMENT STANDARDS AND MAY NOT NECESSARILY BE APPLICABLE TO, OR APPEAR ON THESE DRAWINGS, HOWEVER, WHERE THESE SYMBOLS DO OCCUR ON THE DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL ABBREVIATIONS.

GENERAL PLUMBING NOTES

- THE PLUMBING CONTRACTOR SHALL DETERMINE NECESSARY INVERT ELEVATIONS FOR PROPER DRAINAGE AND CONNECTION INTO SEWERS. ALL INVERT ELEVATIONS SHALL BE SET PRIOR TO INSTALLATION.
- ALL PIPING PASSING THROUGH FIRE RATED OR FIRE AND SMOKE RATED ASSEMBLIES SHALL BE SLEEVED AND FIRESTOPPED. FIRESTOPPING SHALL COMPLY WITH U.L. LISTING AND REQUIREMENTS FOR ASSEMBLY TYPE BEING PENETRATED.
- PLUMBING CONTRACTOR SHALL NOT CORE DRILL OR DISTURB ANY STRUCTURAL MEMBERS WITHOUT WRITTEN AUTHORIZATION BY THE ARCHITECT AND/OR STRUCTURAL ENGINEER.
- PLUMBING CONTRACTOR SHALL COORDINATE PIPING LOCATIONS AND ROUTING WITH OTHER PIPING DUCTWORK AND ELECTRICAL CONDUIT INSTALLATIONS. PLUMBING CONTRACTOR SHALL REVIEW ARCHITECTURAL DRAWINGS TO ESTABLISH WHERE FURR-DOWNS AND SOFFITS OCCUR AND DIMENSIONS OF SAME SO THAT DISTANCES AND PIPING ROUTING CAN BE PROPERLY COORDINATED. ALL PIPING SHALL BE ROUTED IN A CONCEALED MANNER.
- PLUMBING CONTRACTOR SHALL AVOID LOCATING HW/OW PIPING IN LOCATIONS WHERE POSSIBILITY OF FREEZING OF SAME EXISTS. CONTRACTOR SHALL ADVISE ENGINEER WHERE THIS CONDITION MAY OCCUR PRIOR TO ROUGH-IN.
- ALL ADA ACCESSIBLE LAVATORIES AND SINKS WITH EXPOSED WATER AND DRAIN PIPES SHALL BE INSULATED TO PROTECT AGAINST CONTACT PER ADA REQUIREMENTS. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES.
- ALL PLUMBING WORK SHALL BE INSTALLED IN COMPLIANCE WITH ALL STATE AND LOCAL CODES.
- COORDINATE ROUTING OF ALL PIPING WITH THE ELECTRICAL CONTRACTOR SO AS NOT TO ROUTE ANY PLUMBING LINES OVER ELECTRICAL PANELS, SWITCHGEAR, ETC.
- REFER TO SPECIFICATION SECTION 231123 FACILITY NATURAL-GAS PIPING FOR GAS PIPING AND INSTALLATION INFORMATION.
- ACCESS DOORS TO VALVES, CLEANOUTS AND ETC. TO BE EQUAL TO "ACUDOR" DW OR FW SERIES. ACCESS DOORS FOR DRYWALL INSERTS PROVIDE FIRE RATED ACCESS DOORS WHERE REQUIRED. COORDINATE WITH GENERAL CONTRACTOR AND VERIFY EXACT LOCATIONS AND SIZES ON SITE. PAINT TO MATCH CEILING OR WALL.
- PLASTIC PIPING SHALL NOT BE INSTALLED IN ANY SPACE THAT IS A RETURN AIR PLENUM. COORDINATE WITH MECHANICAL CONTRACTOR FOR PLENUM LOCATIONS PRIOR TO INSTALLATION OF ANY PIPING. ONLY PLASTIC PIPING THAT IS APPROVED FOR PLENUM SPACES AND IS APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION MAY BE INSTALLED IN RETURN AIR PLENUMS.
- PIPING AND EQUIPMENT HANGERS SHALL BE SPACED IN A SYSTEMATIC RANDOM PATTERN AS REQUIRED TO ELIMINATE OVERLOADING INDIVIDUAL STRUCTURAL MEMBERS. THE ESTIMATED WEIGHT ASSIGNED TO PIPE AND EQUIPMENT HANGERS SHALL BE DETERMINED BY THE PLUMBING CONTRACTOR AND SUBMITTED TO THE GENERAL CONTRACTOR FOR REVIEW, COORDINATION AND APPROVAL PRIOR TO INSTALLATION. THIS REQUIREMENT APPLIES TO ALL PLUMBING PIPING.

EQUIPMENT SCHEDULE

PROVIDE SHOP DRAWINGS/SUBMITTAL AND OPERATIONS MANUAL FOR ALL ITEMS LISTED BELOW. PROVIDE EQUIPMENT TAGS PER SPECIFICATIONS FOR ALL ITEMS LISTED IN THIS SCHEDULE.	
WTR-HTR-1 WTR-HTR-2	WATER HEATER - EQUAL TO A.O. SMITH MODEL NO 87H-250 NATURAL GAS FIRED ASME WATER HEATER WITH GLASS TANK LINING AND CONDENSATE NEUTRALIZING KIT. HEATER TO HAVE 100 GALLON NOMINAL STORAGE CAPACITY WITH RECOVERY CAPACITY OF 327 GPH AT 80°F TEMPERATURE RISE. 250 CFH INPUT RATING; 120V ELECTRICAL CONNECTION.
ET-1	THERMAL EXPANSION COMPENSATOR - EQUAL TO AMTROL ST-25V-C, ASME RATED, 10.3 GALLON CAPACITY.
TMV-1	THERMOSTATIC MIXING VALVE - EQUAL TO LEONARD VALVE "NUCLEUS" MODEL NV-200-LF, 115 GPM AT 10 PSIG PRESSURE LOSS, 200 PSIG MAXIMUM OPERATING PRESSURE, TEMPERATURE OUTLET RANGE OF 80°F - 180°F, WITH ABILITY TO CONTROL TEMPERATURE +/- 2°F OF SETPOINT, PROVIDE WALL MOUNTING BRACKET, 120V ELECTRICAL CONNECTION.
SP-1 SP-2	ELEVATOR SUMP PUMP - EQUAL TO STANCOR SE-50 ELEVATOR SUMP PUMP, 1/2 HP, 120V, 1 PHASE. PROVIDE WITH WATER LEVEL PROBE AND CONTROL PANEL.
BFP-1 BFP-2	BACKFLOW PREVENTER - EQUAL TO ZURN MODEL NO. 975X3 WITH 2" CONNECTIONS, PROVIDE WITH AIR GAP ASSEMBLY, BALL VALVES, AND WYE STRAINER ON INLET SIDE OF VALVE.
CP-1 CP-2	HOT WATER RECIRCULATION PUMP - EQUAL TO BELL AND GOSSETT EDCORC MODEL 55-45, VARIABLE SPEED WITH CAPACITY OF 25 GPM @ 25 FT/HEAD, 1/2 HP, 208V, 1 PHASE, STAINLESS STEEL CONSTRUCTION.

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CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

SFCS Architecture Engineering Planning Interiors

SFCS Inc. • 1927 South Tryon St. - Suite 207 Charlotte, North Carolina 28203.4633 704.372.7327 • Fax 704.372.7369 www.sfcs.com

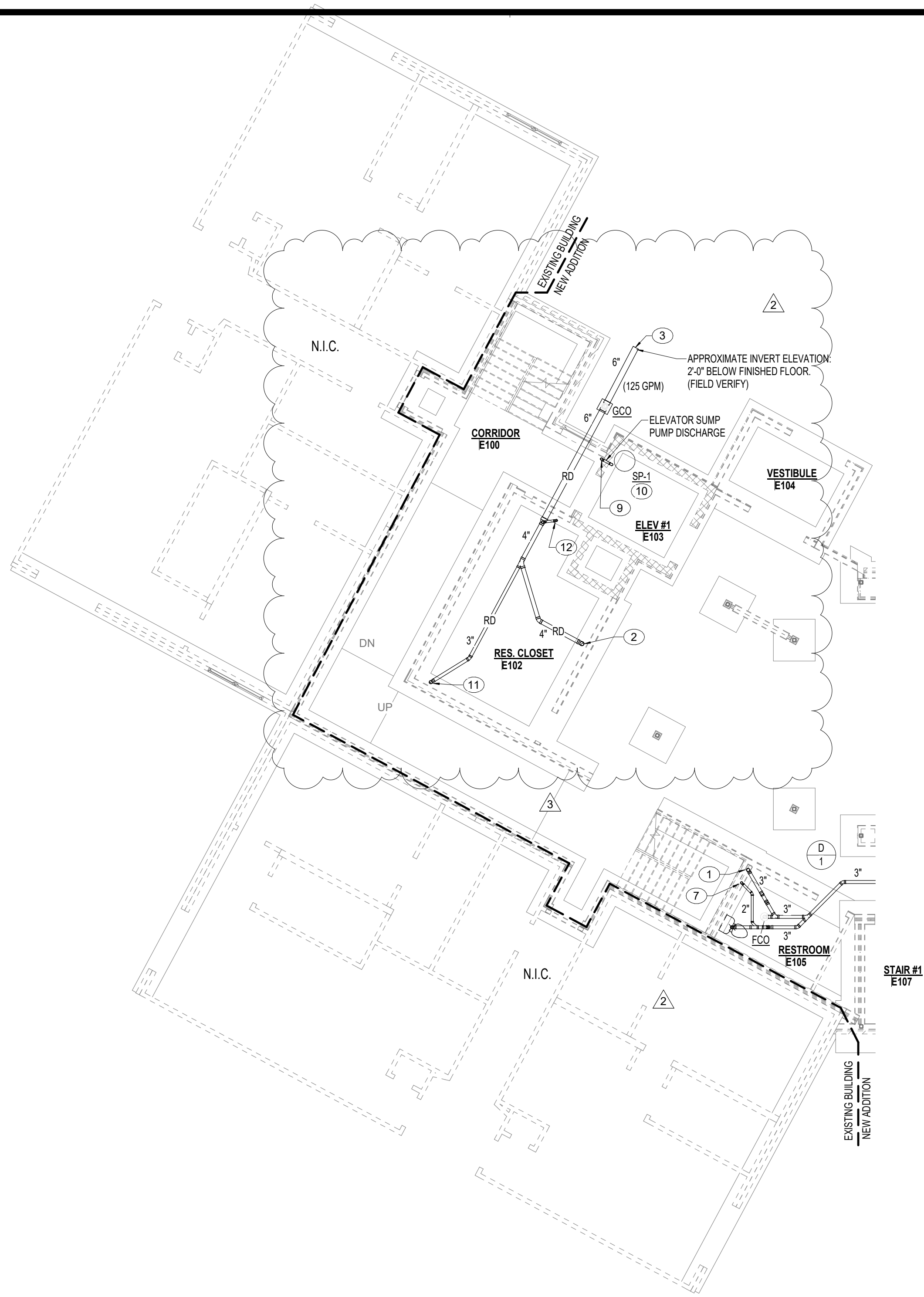
DESIGNER : DAS	DRAWN : RCK
ARCHITECT : DAS	CHECKED : DPW/MAH
ENGINEER : AJM	APPROVED : AJM
NO.	REVISION DESCRIPTION DATE
2	Rev 1 - Permit Comments 02/07/24
3	Addendum 1 03/07/24

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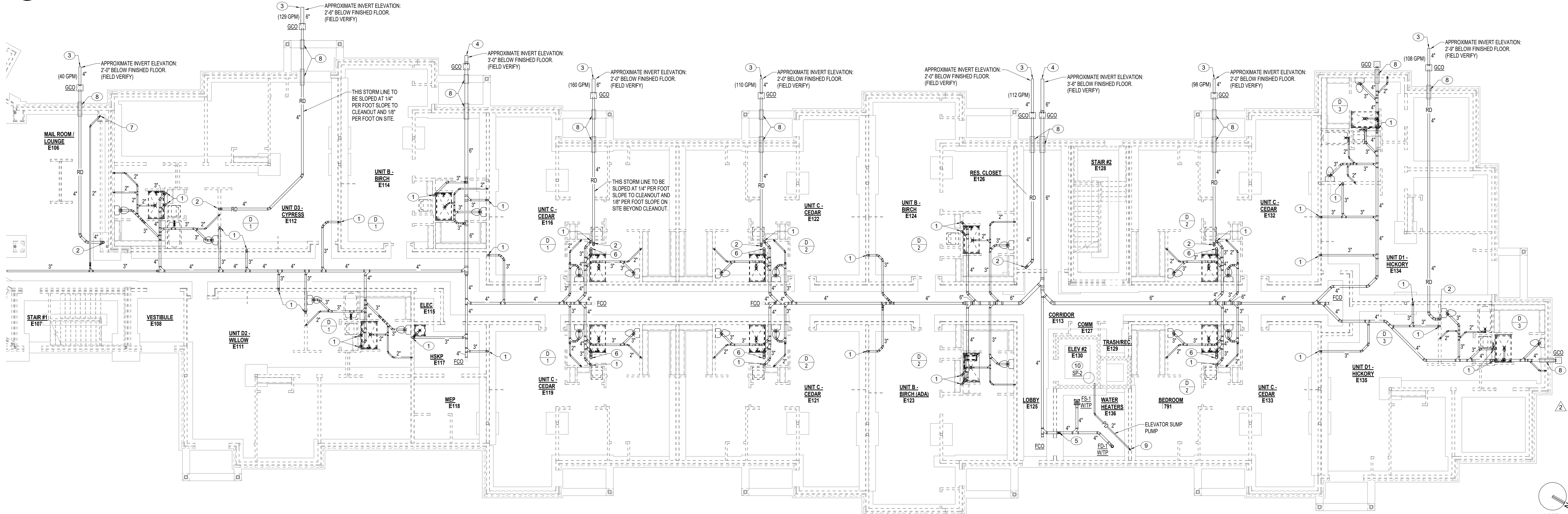
PLUMBING - LEGENDS, ABBREVIATIONS AND SCHEDULES

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	P0.0

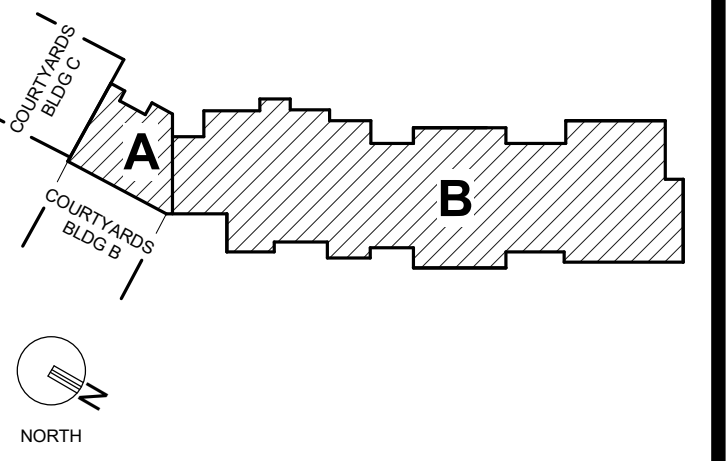




2 FOUNDATION PLAN - WASTE, VENT AND STORM - ATRIUM
P1.0 1/8" = 1'-0"



1 FOUNDATION PLAN - WASTE, VENT AND STORM - IL UNITS
P1.0 1/8" = 1'-0"



- GENERAL NOTES
- ALL PIPING INDICATED ON THIS SHEET IS TO BE ROUTED BELOW SLAB, UNLESS NOTED OTHERWISE. COORDINATE ROUTING OF PIPING BELOW SLAB WITH STRUCTURAL FOOTINGS TO AVOID CONFLICT WHERE POSSIBLE.
- PLAN NOTES
- 3" WASTE LINE UP.
 - 4" ROOF DRAIN STORM LINE UP.
 - STORM LINE OUT TO SITE 5'-0". REFER TO CIVIL ENGINEERS PLANS FOR CONTINUATION. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION.
 - 6" WASTE LINE OUT TO SITE 5'-0". REFER TO CIVIL ENGINEERS PLANS FOR CONTINUATION. PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION.
 - 3" VENT LINE UP.
 - 4" WASTE LINE UP.
 - 2" WASTE LINE UP.
 - PROVIDE SLEEVE AT PIPE PENETRATION THROUGH GRADE BEAM. COORDINATE WITH GENERAL CONTRACTOR.
 - 2" ELEVATOR SUMP PUMP DISCHARGE LINE UP.
 - ELEVATOR SUMP PUMP. REFER TO DETAIL SHEET P0.1 FOR ADDITIONAL INFORMATION.
 - 3" ROOF DRAIN STORM LINE UP.
 - 2" ROOF DRAIN STORM LINE UP.

CONSTRUCTION SET



PROJECT TITLE



COURTYARDS - BUILDING E

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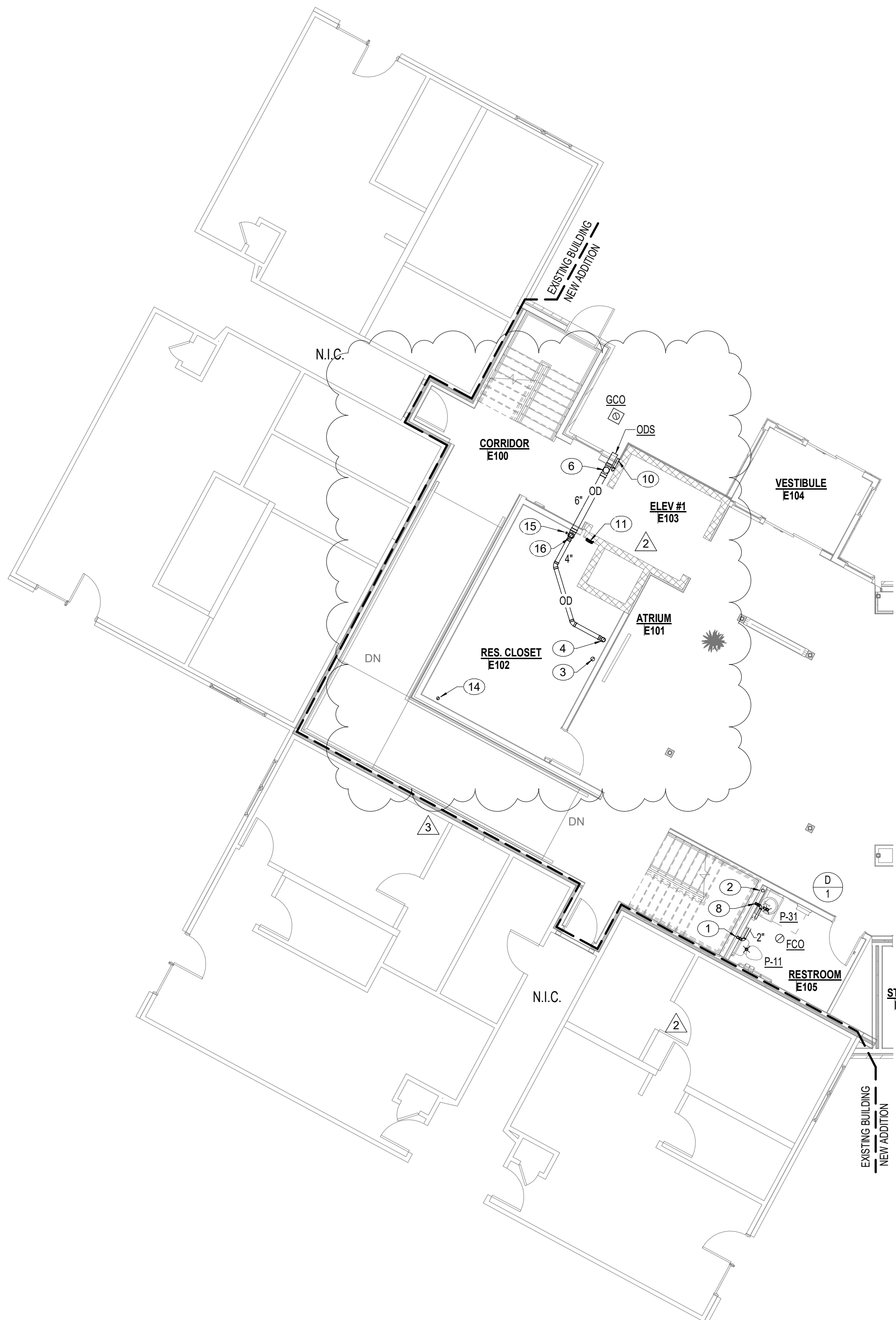
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ENGINEER : AJM	APPROVED : AJM
NO.	REVISION DESCRIPTION DATE
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3	Addendum 1 03/07/24

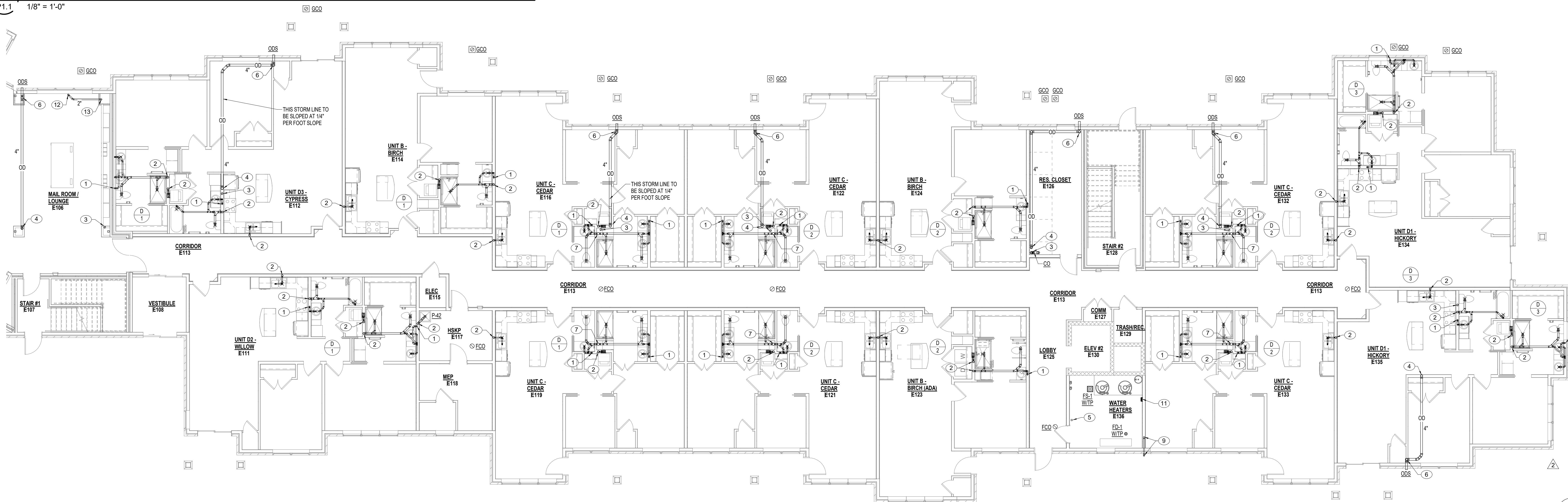
DRAWING TITLE
FOUNDATION PLAN -
WASTE, VENT AND STORM

DATE: January 5, 2024
DRAWING
COMM. NO. 23104.00

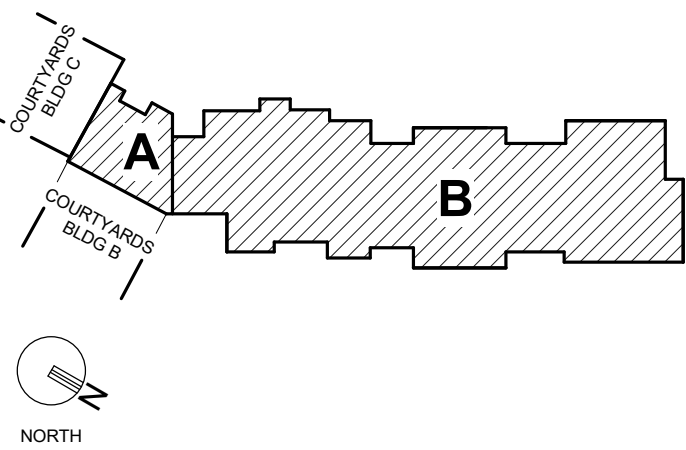
P1.0



2 FIRST FLOOR PLAN - WASTE, VENT AND STORM - ATRIUM
P1.1 1/8" = 1'-0"



1 FIRST FLOOR PLAN - WASTE, VENT AND STORM - IL UNITS
P1.1 1/8" = 1'-0"



PLAN NOTES

- 2" VENT LINE UP.
- 3" WASTE LINE UP AND DOWN.
- 4" ROOF DRAIN STORM LINE UP AND DOWN.
- 4" OVERFLOW DRAIN STORM LINE UP.
- 3" VENT LINE UP AND DOWN.
- OVERFLOW DRAIN STORM LINE DOWN TO OVERFLOW DISCHARGE SPOUT.
- 4" WASTE LINE UP AND DOWN.
- 2" VENT LINE DOWN.
- EXTEND 2" ELEVATOR SUMP PUMP DISCHARGE AND SPILL TO GRADE. SEAL PENETRATION WATERTIGHT.
- EXTEND 2" ELEVATOR SUMP PUMP DISCHARGE AND SPILL TO GRADE. SEAL PENETRATION WATERTIGHT. COORDINATE TERMINATION LOCATION WITH OVERFLOW DRAIN NOZZLE TO AVOID CONFLICT. PIPING SHOWN FOR CLARITY.
- ELEVATOR SUMP PUMP CONTROL PANEL. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR AND POWER CONNECTION WITH ELECTRICAL CONTRACTOR.
- 2" WASTE LINE UP.
- 2" WASTE LINE DOWN.
- 3" ROOF DRAIN STORM LINE UP AND DOWN.
- 2" ROOF DRAIN STORM LINE UP AND DOWN.
- 4" OVERFLOW STORM LINE UP.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

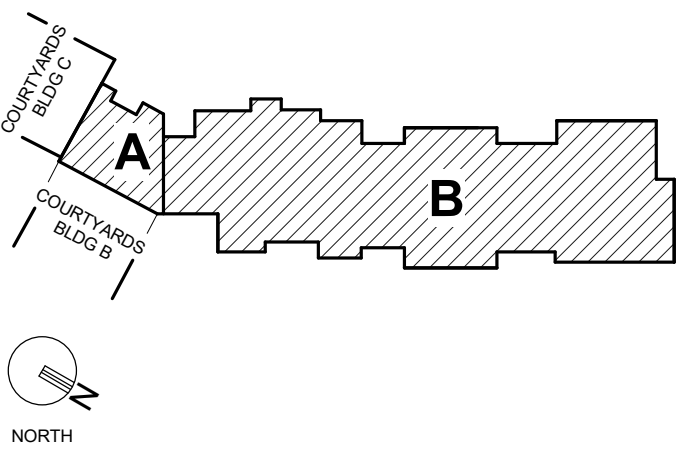
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GINEER : AJM	APPROVED : AJM
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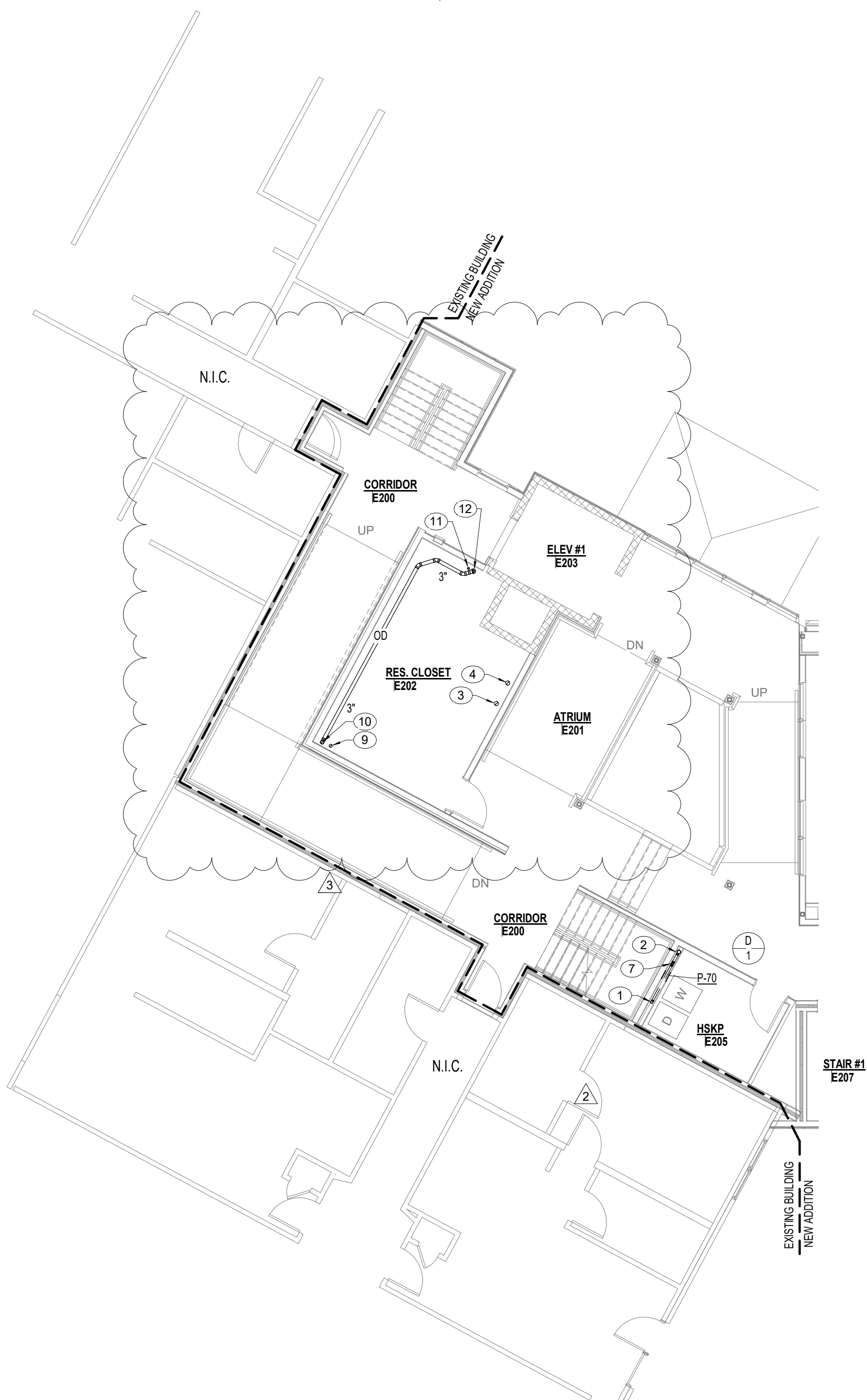
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FIRST FLOOR PLAN - WASTE, VENT AND STORM

DATE: January 5, 2024	DRAWING
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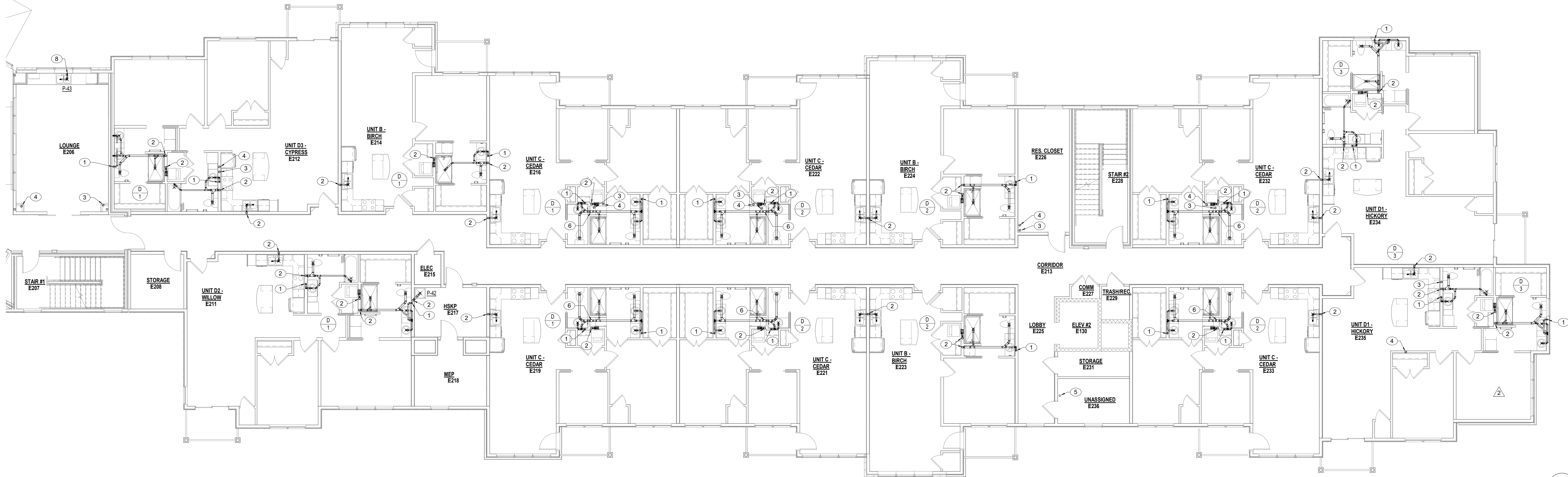


PLAN NOTES

- 2" VENT LINE UP AND DOWN.
- 3" WASTE LINE UP AND DOWN.
- 4" ROOF DRAIN STORM LINE UP AND DOWN.
- 4" OVERFLOW DRAIN STORM LINE UP AND DOWN.
- 3" VENT LINE UP AND DOWN.
- 4" WASTE LINE UP AND DOWN.
- 1-1/2" VENT LINE DOWN.
- PROVIDE AIR ADMITTANCE VALVE AT SINK. INSTALL PER MANUFACTURERS RECOMMENDATIONS. CONTINUE 2" WASTE LINE DOWN.
- 3" ROOF DRAIN STORM LINE UP AND DOWN.
- 3" OVERFLOW STORM LINE UP.
- 2" ROOF DRAIN STORM LINE UP AND DOWN.
- 2" OVERFLOW STORM LINE UP. 4" OVERFLOW STORM LINE DOWN.



2 SECOND FLOOR - WASTE, VENT AND STORM - ATRIUM
P1.2 1/8" = 1'-0"



1 SECOND FLOOR - WASTE, VENT AND STORM - IL UNITS
P1.2 1/8" = 1'-0"

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PROJECT TITLE



John Knox Village

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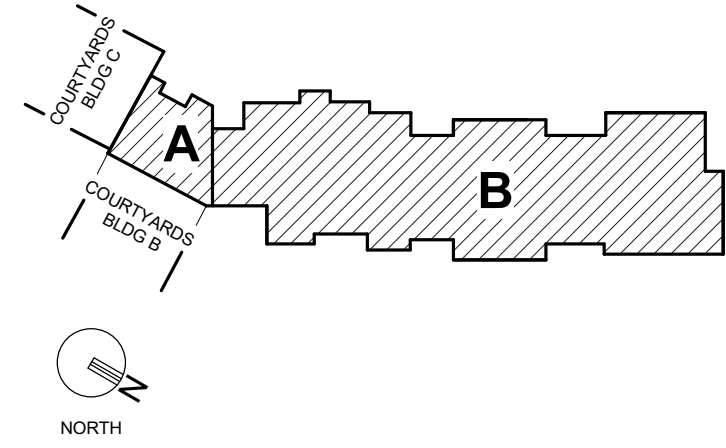
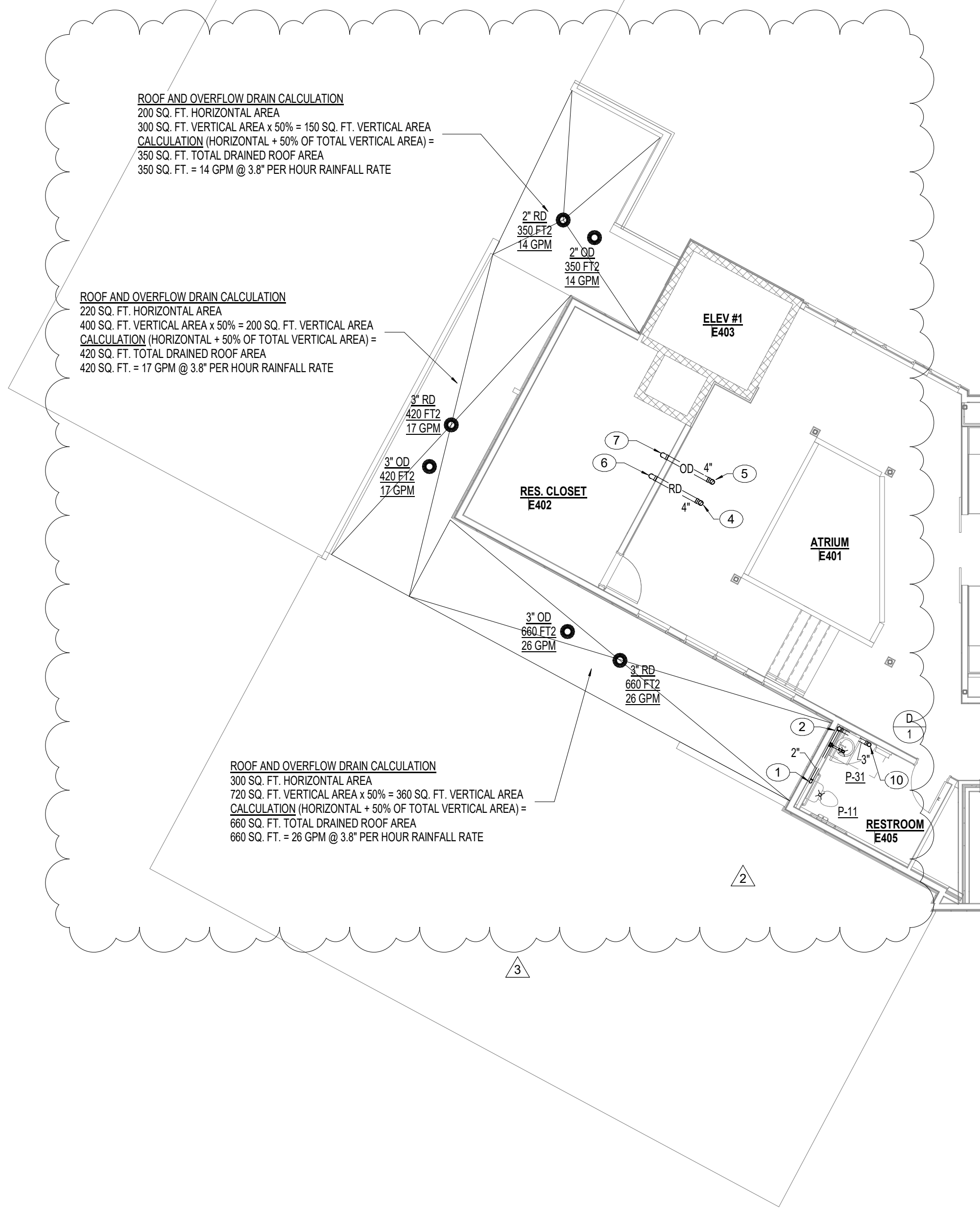
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SECOND FLOOR PLAN -
WASTE, VENT AND STORM

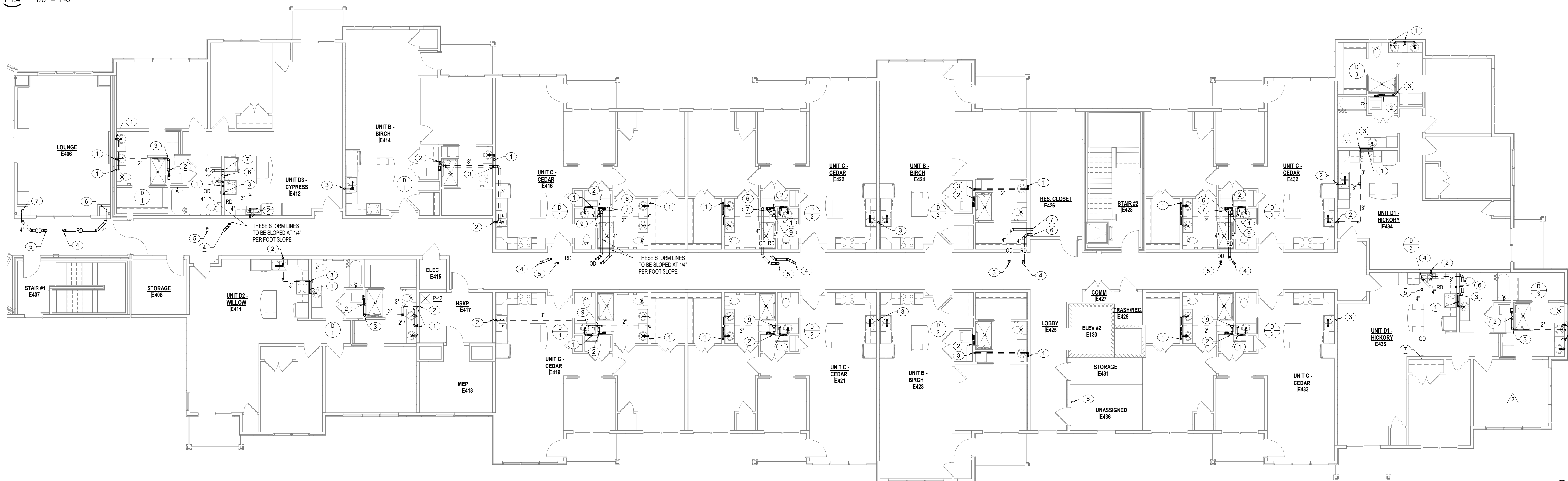
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- PLAN NOTES
- 2\"/>

2 FOURTH FLOOR - WASTE, VENT AND STORM - ATRIUM

P1.4 1/8\"/>



1 FOURTH FLOOR - WASTE, VENT AND STORM - IL UNITS

P1.4 1/8\"/>



PROJECT TITLE

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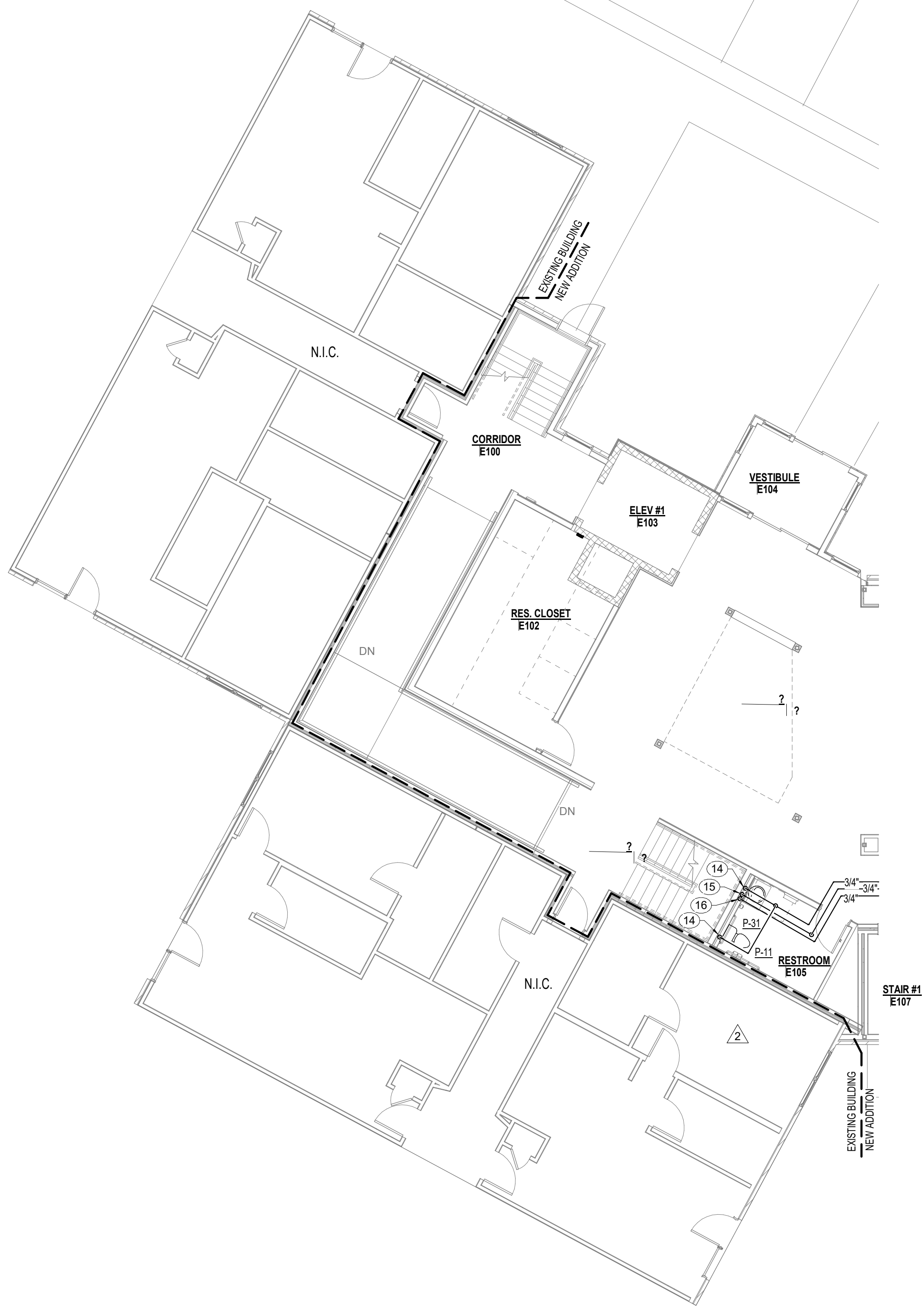
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ENGINEER : AJM	APPROVED : AJM
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DRAWING TITLE

**FOURTH FLOOR PLAN -
WASTE, VENT AND STORM**

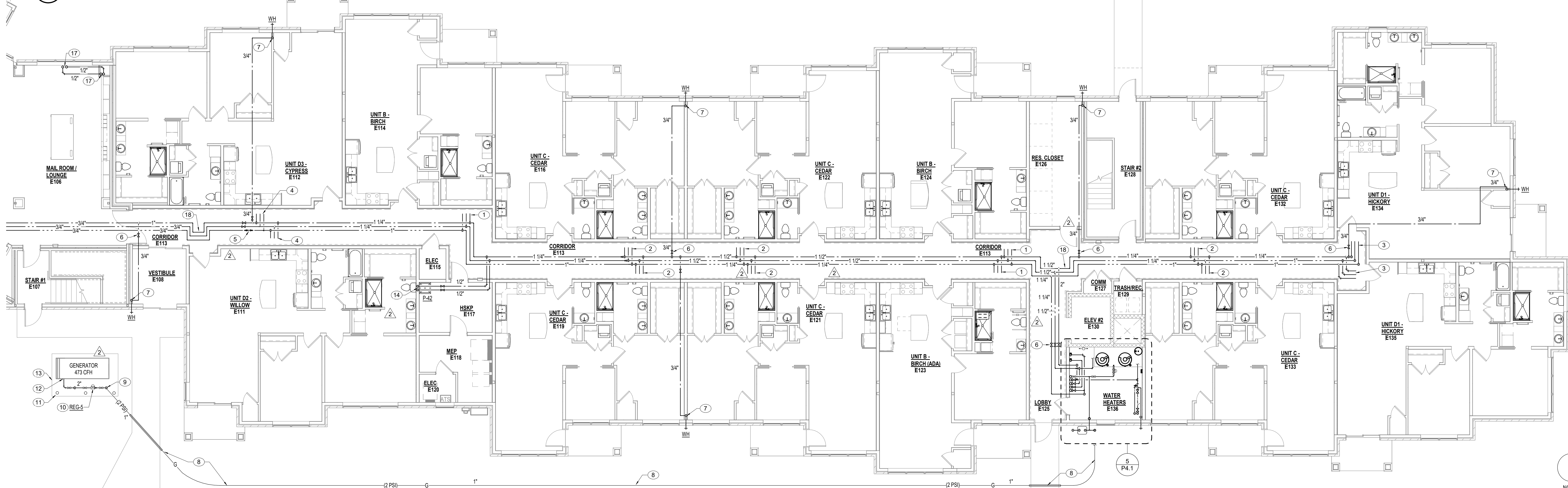
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COMM. NO. 23104.00 **P1.4**



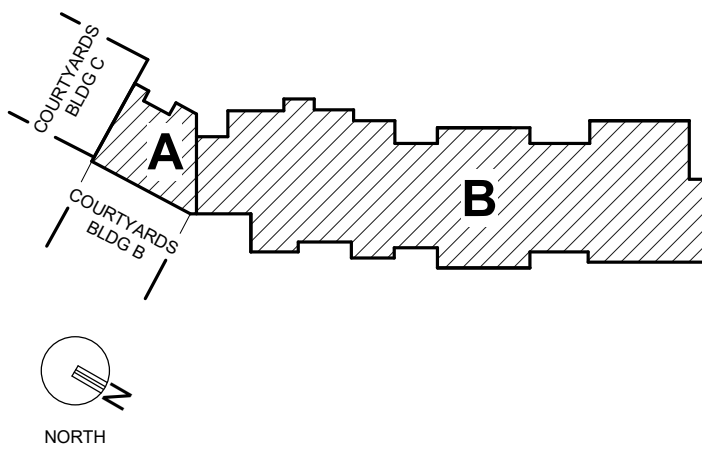
2 FIRST FLOOR PLAN - WATER AND GAS - ATRIUM

P2.1 1/8" = 1'-0"



1 FIRST FLOOR PLAN - WATER AND GAS - IL UNITS

P2.1 1/8" = 1'-0"



PLAN NOTES

1. REFER TO TYPICAL ENLARGED UNIT PLAN BIRCH DETAIL 1/P4.1 FOR WATER PIPING SERVING UNIT.
2. REFER TO TYPICAL ENLARGED UNIT PLAN CEDAR DETAIL 2/P4.1 FOR WATER PIPING SERVING UNIT.
3. REFER TO TYPICAL ENLARGED UNIT PLAN HICKORY DETAIL 3/P4.1 FOR WATER PIPING SERVING UNIT.
4. REFER TO TYPICAL ENLARGED UNIT PLAN WILLOW/CYPRESS DETAIL 4/P4.1 FOR WATER PIPING SERVING UNIT.
5. HOT WATER RETURN CIRCUIT SOLVER BALANCING VALVE. LOCATE ABOVE ACCESSIBLE LAY-IN CEILING. REFER TO DETAIL SP0.1 FOR ADDITIONAL INFORMATION.
6. PROVIDE VALVES IN ACCESSIBLE LOCATION ABOVE CEILING.
7. 3/4" CW LINE DOWN IN WALL TO WALL HYDRANT.
8. 1" POLYETHYLENE (2 PSI) GAS LINE ROUTED BELOW GRADE. PROVIDE MINIMUM OF 24" OF COVER AND SCHEDULE 40 P.V.C. PIPE SLEEVES AT SIDEWALKS, PAVING, ETC. PROVIDE TRACER WIRE AND WARNING TAPE IN TRENCH ABOVE PIPING. REFER TO WARNING TAPE TRACER WIRE DETAIL SHEET P0.1.
9. 1" (2 PSI) POLYETHYLENE GAS LINE UP FROM BELOW GRADE. PROVIDE ANODELESS RISER ASSEMBLY AND TERMINATE TRACER WIRE ON STEEL PIPING AS REQUIRED.
10. PROVIDE GAS PRESSURE REGULATOR. REFER TO GAS PRESSURE SCHEDULE AND DETAIL SHEET P0.1.
11. PROVIDE 6" SCHEDULE 40 STEEL PIPE BOLLARDS TO PROTECT GAS PIPING. PIPE BOLLARDS TO BE 6'-0" LONG BURIED 2'-0" FILLED WITH CONCRETE WITH DOMED TOP PAINT WITH 2 COATS OF RUST INHIBITING PAINT. COLOR TO BE AS DIRECTED BY OWNER.
12. 2" GAS LINE FOR CONNECTION TO GAS GENERATOR. VERIFY EXACT CONNECTION LOCATION ON SITE. PROVIDE GAS VALVE, UNION AND DIRT LEG IN CONNECTION.
13. CONCRETE PAD. REFER TO STRUCTURAL PLANS FOR ADDITIONAL INFORMATION.
14. 1/2" CW LINE DOWN IN WALL TO FIXTURE.
15. 3/4" HW LINE DOWN IN WALL TO FIXTURE.
16. 3/4" HW LINE DOWN IN WALL. CONNECT LINE TO HW LINE WITHIN 2'-0" OF TEE TO LAVATORY CONNECTION.
17. 1/2" CW, HW LINES UP.
18. PROVIDE EXPANSION LOOPS IN PIPING IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

SFCS

Architecture
Engineering
Planning
Interiors

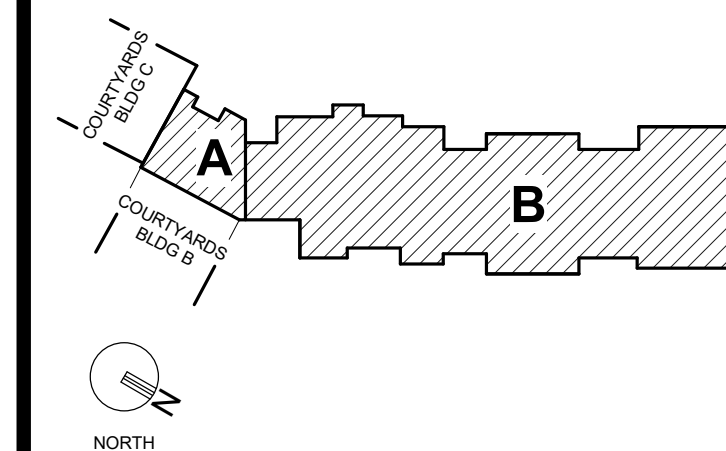
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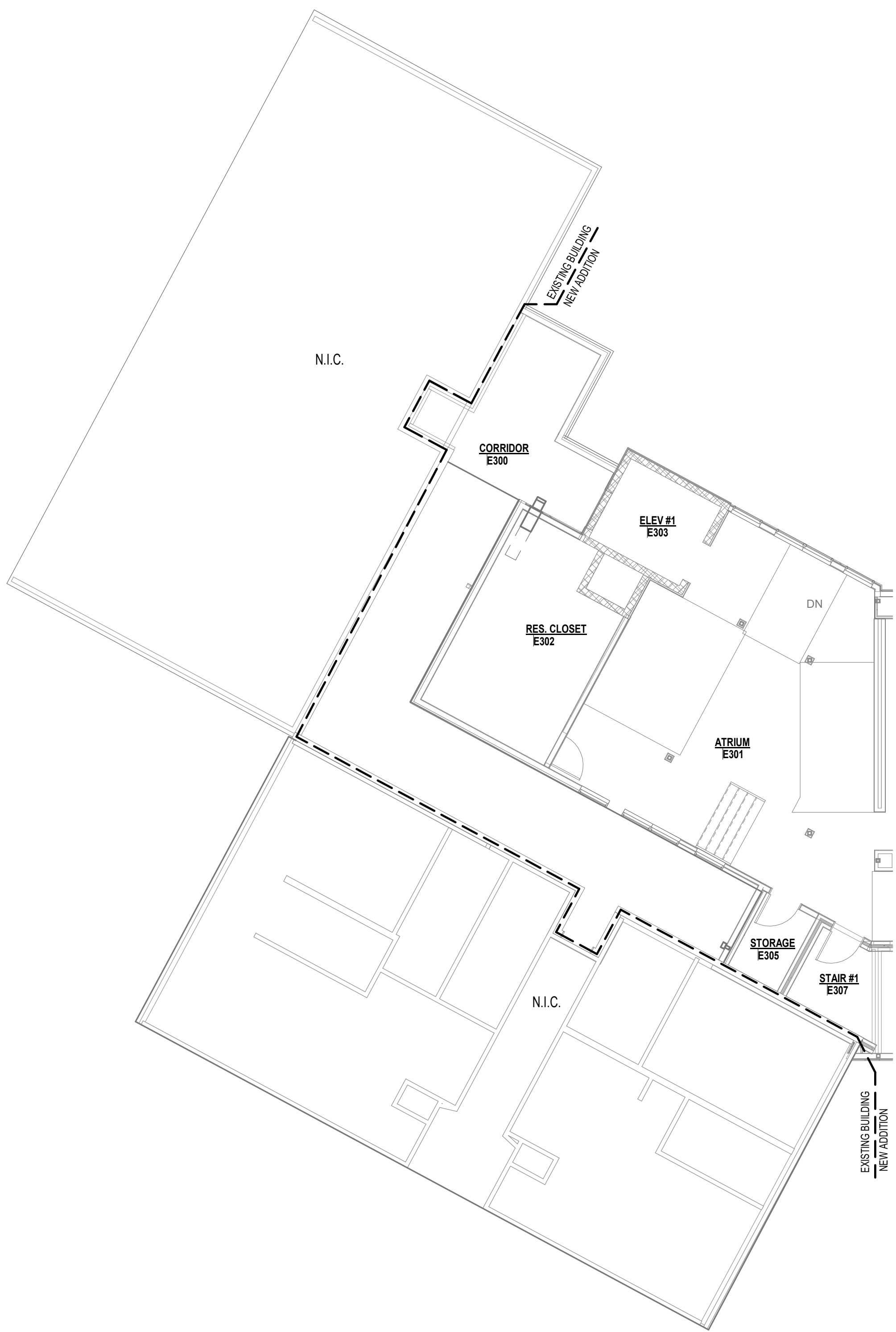
FIRST FLOOR PLAN -
WATER AND GAS

DATE: January 5, 2024	DRAWING
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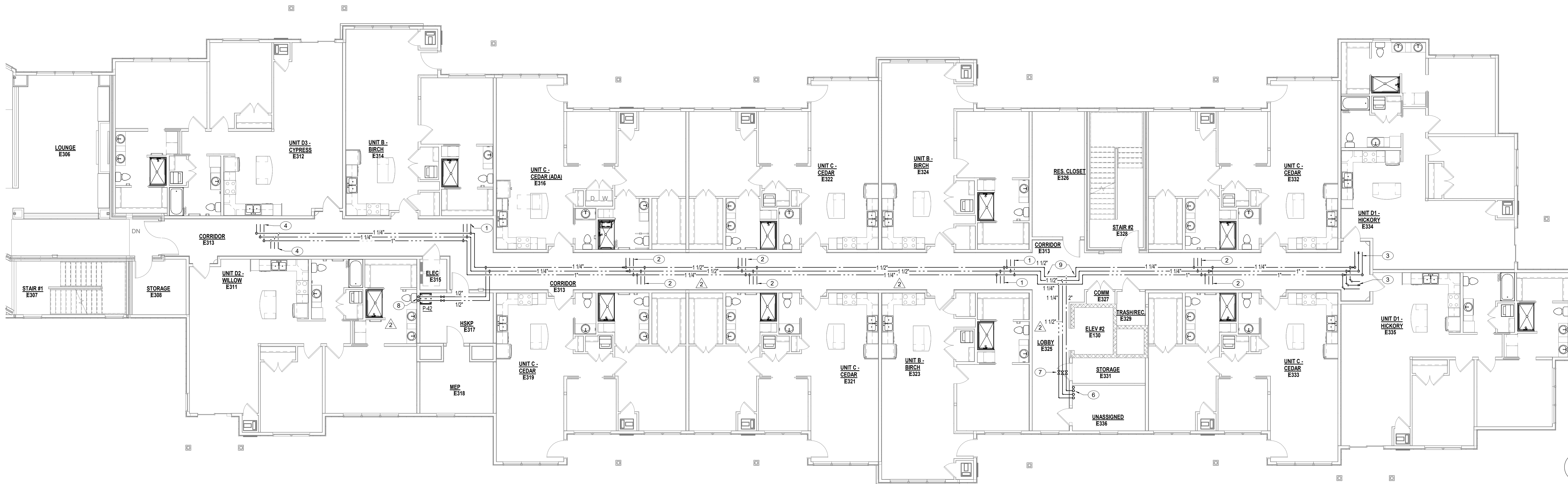


1. REFER TO TYPICAL ENLARGED UNIT PLAN BIRCH DETAIL 1P4-1 FOR WATER PIPING SERVING UNIT.
2. REFER TO TYPICAL ENLARGED UNIT PLAN CEDAR DETAIL 2P4-1 FOR WATER PIPING SERVING UNIT.
3. REFER TO TYPICAL ENLARGED UNIT PLAN HICKORY DETAIL 3P4-1 FOR WATER PIPING SERVING UNIT.
4. REFER TO TYPICAL ENLARGED UNIT PLAN WILLOW/CYPRESS DETAIL 4P4-1 FOR WATER PIPING SERVING UNIT.
5. HOT WATER RETURN CIRCUIT SOLDER BALANCING VALVE. LOCATE ABOVE ACCESSIBLE LAY-IN CEILING. REFER TO DETAIL SP0-1 FOR ADDITIONAL INFORMATION.
6. 1/4" NATURAL GAS UP AND DOWN, 2-1/2" COLD WATER UP AND DOWN, 1-1/2" HOT WATER UP AND DOWN, AND 1-1/4" HOT WATER REGULATION UP AND DOWN, AND 1-1/4" HOT WATER REGULATION DOWN.
7. PROVIDE SHUT-OFF VALVES IN AN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING. LOCATION OF VALVES SHOWN IS BASED ON LAY-IN CEILING LOCATION. [TYPICAL FOR ALL SHUT-OFF VALVES SHOWN IN THIS SECTION, UNLESS NOTED OTHERWISE].
8. 1/2" CW, HW LINES DOWN IN WALL TO FUTURE AND CONNECT.
9. 1/2" CW, HW LINES DOWN IN CHASE TO FIRST FLOOR CEILING.
10. 1/2" CW, HW LINES UP FROM BELOW TO FUTURE AND CONNECT.
11. PROVIDE EXPANSION LOOPS IN PIPING IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS.

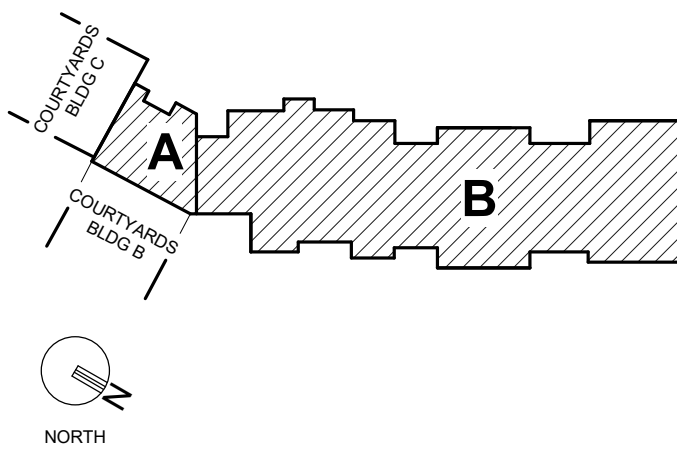
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2 THIRD FLOOR - WATER AND GAS - ATRIUM
P2.3 1/8" = 1'-0"



1 THIRD FLOOR - WATER AND GAS - IL UNITS
P2.3 1/8" = 1'-0"



PLAN NOTES

1. REFER TO TYPICAL ENLARGED UNIT PLAN BIRCH DETAIL 1/P4.1 FOR WATER PIPING SERVING UNIT.
2. REFER TO TYPICAL ENLARGED UNIT PLAN CEDAR DETAIL 2/P4.1 FOR WATER PIPING SERVING UNIT.
3. REFER TO TYPICAL ENLARGED UNIT PLAN HICKORY DETAIL 3/P4.1 FOR WATER PIPING SERVING UNIT.
4. REFER TO TYPICAL ENLARGED UNIT PLAN WILLOW/CYPRESS DETAIL 4/P4.1 FOR WATER PIPING SERVING UNIT.
5. HOT WATER RETURN CIRCUIT SOLVER BALANCING VALVE. LOCATE ABOVE ACCESSIBLE LAY-IN CEILING. REFER TO DETAIL SP0.1 FOR ADDITIONAL INFORMATION.
6. 1-1/4" NATURAL GAS UP AND DOWN, 2" COLD WATER UP AND 2-1/2" COLD WATER DOWN, 1-1/2" HOT WATER UP AND 2" HOT WATER DOWN, AND 1-1/4" HOT WATER RECIRCULATION UP AND DOWN.
7. PROVIDE SHUT-OFF VALVES IN AN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING. LOCATION OF VALVES SHOWN IS BASED ON LAY-IN CEILING LOCATIONS. (TYPICAL FOR ALL SHUT-OFF VALVES SHOWN ON THIS SHEET, UNLESS NOTED OTHERWISE).
8. 1/2" CW, HW LINES DOWN IN WALL TO FIXTURE AND CONNECT.
9. PROVIDE EXPANSION LOOPS IN PIPING IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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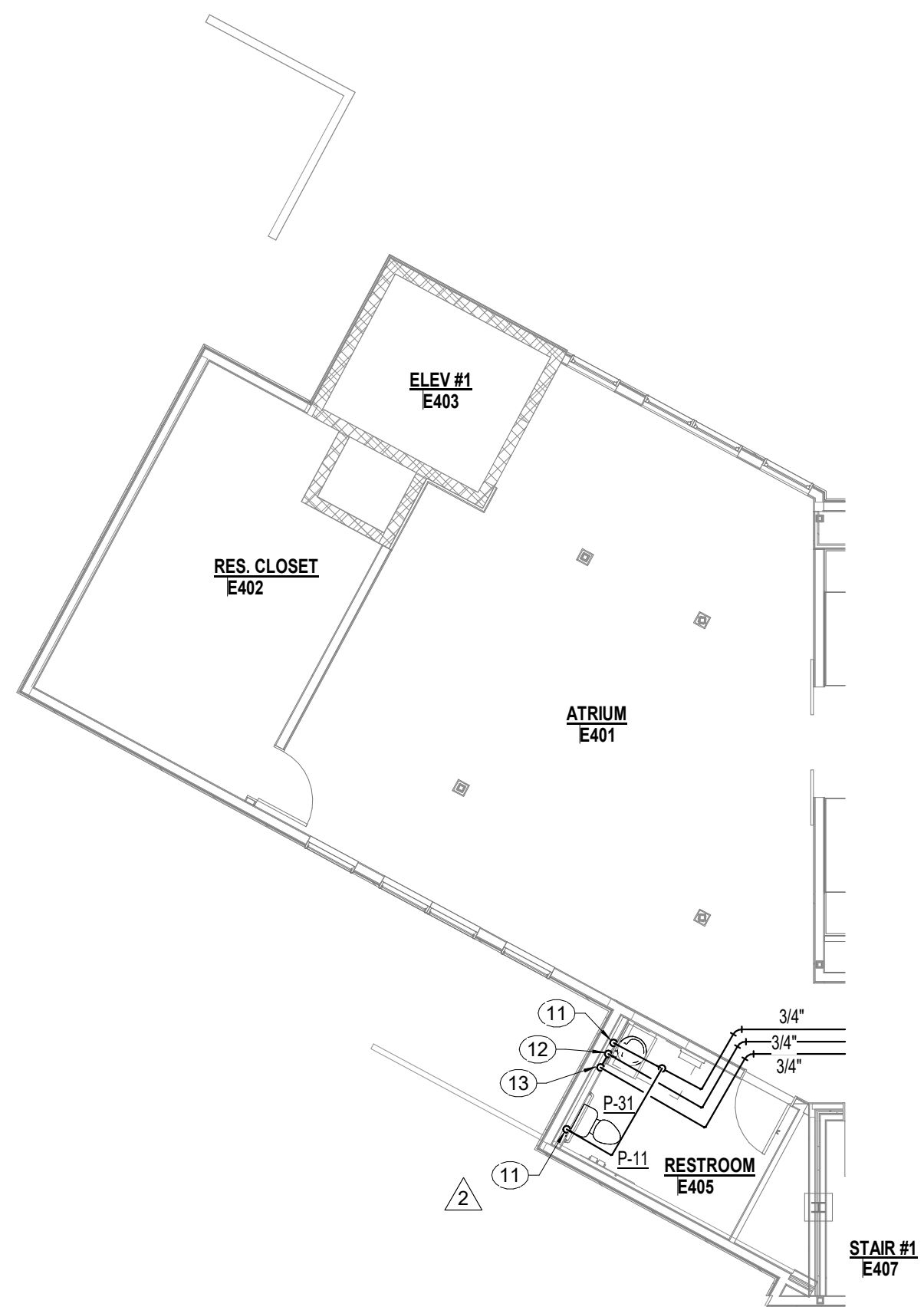
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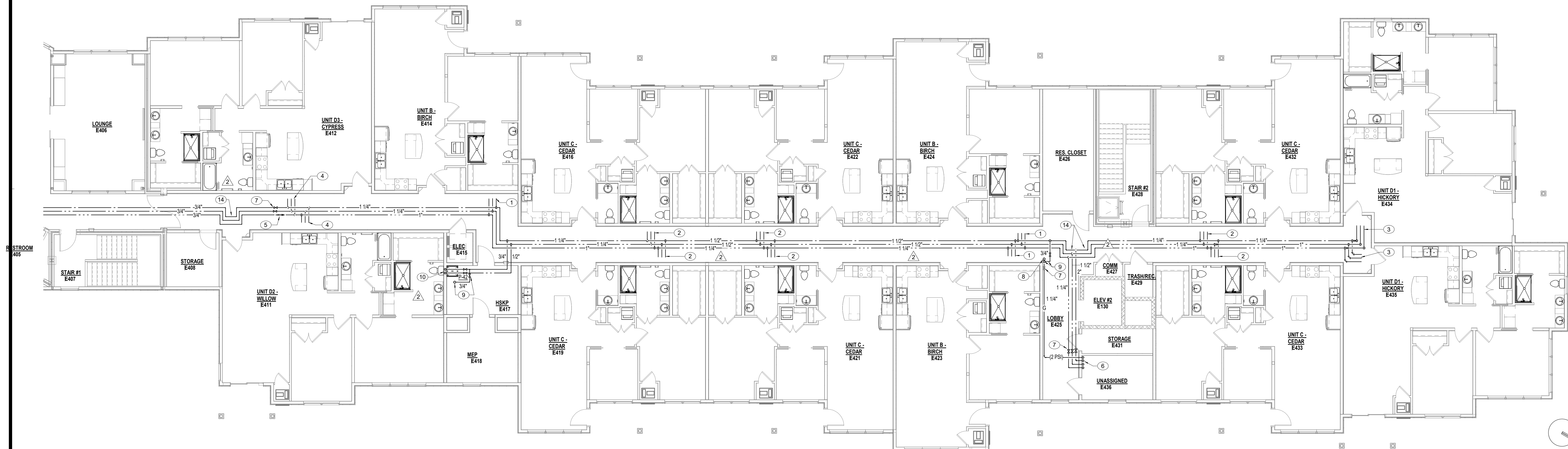
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THIRD FLOOR PLAN -
WATER AND GAS

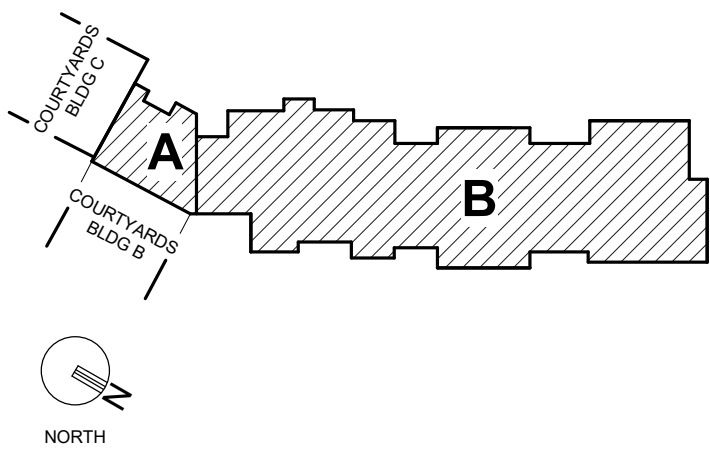
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2
P2.4
FOURTH FLOOR - WATER AND GAS - ATRIUM
1/8" = 1'-0"



1
P2.4
FOURTH FLOOR - WATER AND GAS - IL UNITS
1/8" = 1'-0"



PLAN NOTES

1. REFER TO TYPICAL ENLARGED UNIT PLAN BIRCH DETAIL 1/P4.1 FOR WATER PIPING SERVING UNIT.
2. REFER TO TYPICAL ENLARGED UNIT PLAN CEDAR DETAIL 2/P4.1 FOR WATER PIPING SERVING UNIT.
3. REFER TO TYPICAL ENLARGED UNIT PLAN HICKORY DETAIL 3/P4.1 FOR WATER PIPING SERVING UNIT.
4. REFER TO TYPICAL ENLARGED UNIT PLAN WILLOW/CYPRESS DETAIL 4/P4.1 FOR WATER PIPING SERVING UNIT.
5. HOT WATER RETURN CIRCUIT SOLVER BALANCING VALVE. LOCATE ABOVE ACCESSIBLE LAY-IN CEILING. REFER TO DETAIL SP0.1 FOR ADDITIONAL INFORMATION.
6. 1-1/4" NATURAL GAS DOWN, 2" COLD WATER DOWN, 1-1/2" HOT WATER DOWN, AND 1-1/4" HOT WATER RECIRCULATION DOWN.
7. PROVIDE SHUT-OFF VALVES IN AN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING. LOCATION OF VALVES SHOWN IS BASED ON LAY-IN CEILING LOCATIONS. (TYPICAL FOR ALL SHUT-OFF VALVES SHOWN ON THIS SHEET, UNLESS NOTED OTHERWISE).
8. 1-1/4" GAS LINE UP.
9. 3/4" CW LINE UP TO ROOF HYDRANT. PROVIDE SHUT-OFF VALVE IN LINE.
10. 1/2" CW, HW LINES TO FIXTURE AND CONNECT.
11. 1/2" CW LINE DOWN IN WALL TO FIXTURE.
12. 3/4" HW LINE DOWN IN WALL TO FIXTURE.
13. 3/4" HW LINE DOWN IN WALL. CONNECT LINE TO HW LINE WITHIN 2'-0" OF TEE TO LAVATORY CONNECTION.
14. PROVIDE EXPANSION LOOPS IN PIPING IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

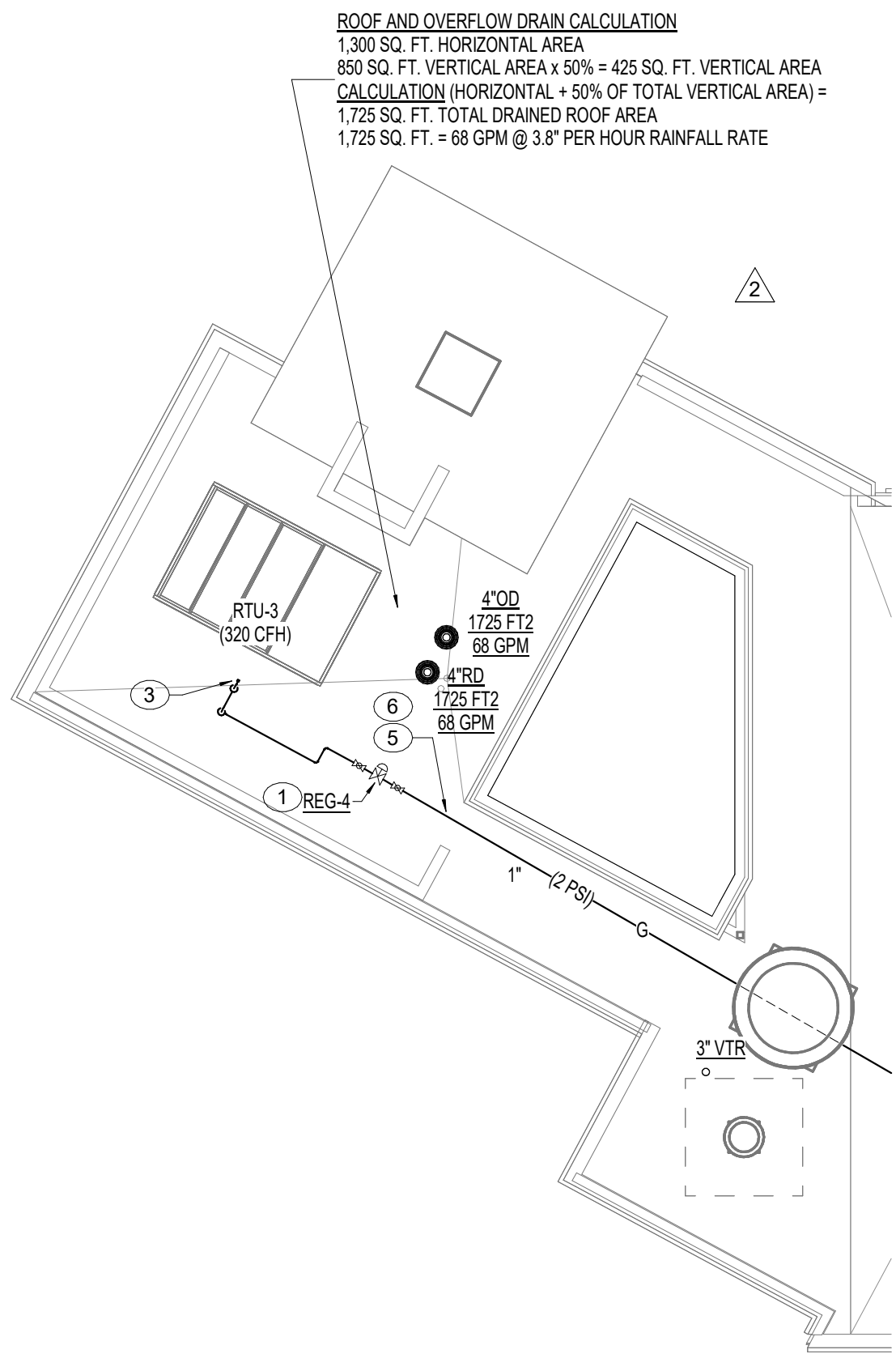
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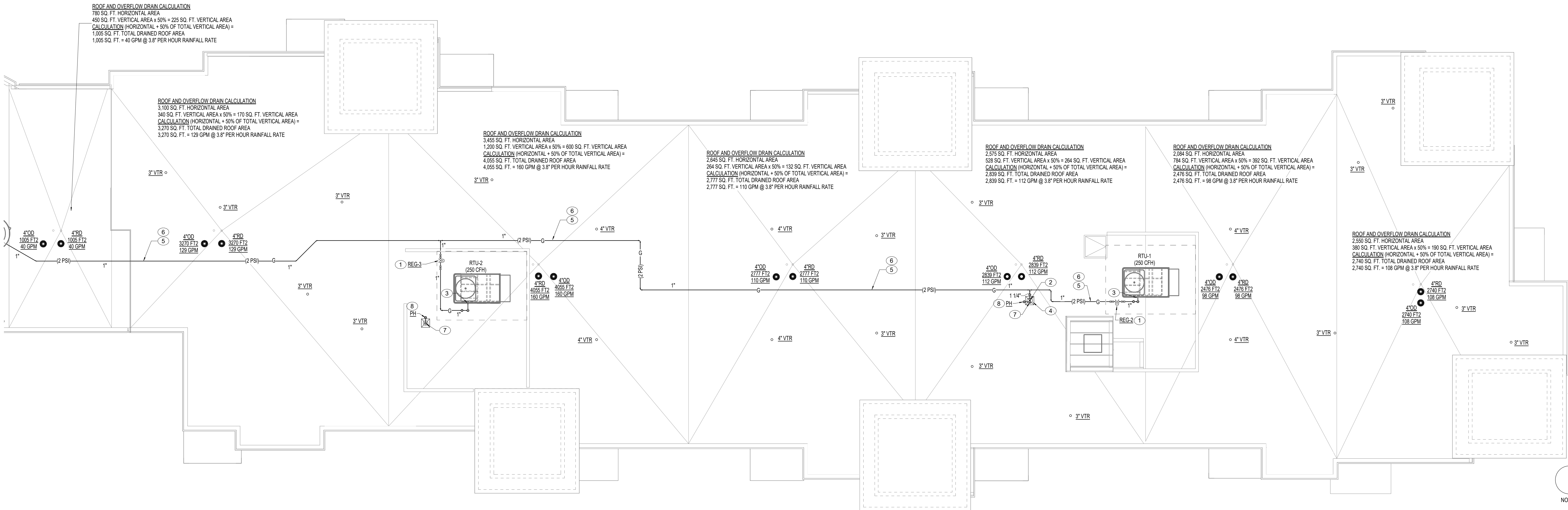
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DRAWING TITLE
**FOURTH FLOOR PLAN -
WATER AND GAS**

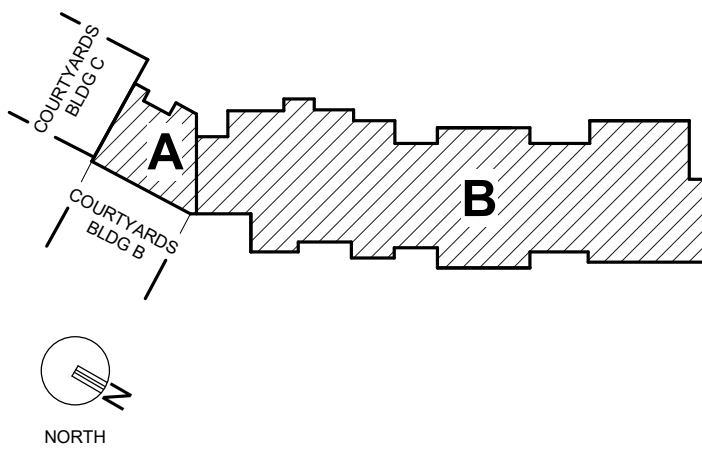
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2 ROOF PLAN - ATRIUM
P3.1 1/8" = 1'-0"



1 ROOF PLAN - IL UNITS
P3.1 1/8" = 1'-0"



GENERAL NOTES

ALL ROOF DRAIN AND OVERFLOW DRAIN STORM PIPING INDICATED ON PLUMBING DRAWINGS IS BASED ON 1/8" PER FOOT SLOPE, UNLESS NOTED OTHERWISE.

PLAN NOTES

1. PROVIDE GAS PRESSURE REGULATOR. REFER TO SCHEDULE AND DETAIL SHEET P0.1 FOR ADDITIONAL INFORMATION.
2. 1-1/4" (2 PSI) NATURAL GAS DOWN THROUGH PIPE PORTAL.
3. CONNECT 1" NATURAL GAS LINE TO ROOFTOP UNIT. SEE DETAIL 710.1 AND MECHANICAL SHEETS FOR MORE INFORMATION.
4. PROVIDE PIPE PORTAL FOR WATER AND/OR GAS LINE. REFER TO DETAIL SHEET P0.1 FOR ADDITIONAL INFORMATION.
5. GAS LINE ROUTED ON ROOF. PROVIDE PIPE SUPPORTS. REFER TO PIPE SUPPORT DETAIL SHEET P0.1 FOR ADDITIONAL INFORMATION.
6. PAINT GAS PIPING WITH 2 COATS OF RUST INHIBITING PRIMER AND 2 COATS OF RUST INHIBITING PAINT.
7. 3/4" WATER LINE FOR ROOF POST HYDRANT DOWN THROUGH PIPE PORTAL.
8. PROVIDE ROOF POST HYDRANT. REFER TO DETAIL SHEET P0.1 FOR ADDITIONAL INFORMATION.

CONSTRUCTION SET



PROJECT TITLE



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ROOF PLAN - PLUMBING

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PLAN NOTES (CONTINUED)

26. 3/4" CW LINE OUT TO SITE 5'-0". SEE CIVIL SITE PLANS FOR CONTINUATION OF CW LINE TO DOG PARK.

27. PROVIDE 3/4" REDUCED PRESSURE ZONE BACKFLOW PREVENTER EQUAL TO WATTS 80SS WITH STRAINER AND VALVES IN CW LINE. EXTEND DRAIN LINE TO NEAREST DRAIN AND SPILL WITH CODE APPROVED AIR GAP. PROVIDE VALVE AND BLOWOUT PORT DOWNSTREAM OF BACKFLOW PREVENTER TO ALLOW FOR DRAINING OF WATER LINE TO DOG PARK.

GENERAL NOTES

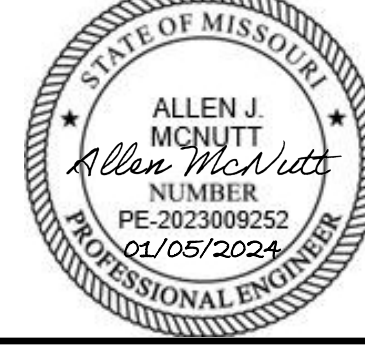
1. REFER TO FLOOR PLANS FOR ORIENTATION OF UNIT PLANS. UNIT PIPING MAY BE MIRRORED AND/OR OPPOSITE HAND BASED ON THE LOCATION AND CONFIGURATION OF THE UNIT IN THE BUILDING.

2. PIPING ROUTED IN JOIST SPACE AND THROUGH JOISTS SHALL BE INSTALLED AND LOCATED IN ACCORDANCE WITH JOIST MANUFACTURERS' RECOMMENDATIONS. COORDINATE PIPE ROUTING WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN. PIPING SHOWN IS SCHEMATIC AND INDICATED FOR DESIGN INTENT.

PLAN NOTES

- 1/2" CW LINE DOWN TO FIXTURE AND CONNECT.
- 1/2" CW, 1/2" HW LINES DOWN TO FIXTURE(S) AND CONNECT.
- REFER TO FLOOR PLAN FOR CONTINUATION OF CW, HW LINES AND UNIT SHUT-OFF VALVE LOCATIONS.
- PROVIDE HOT WATER RETURN "CIRCUIT SOLVER" ASSEMBLY IN AN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING. REFER TO DETAIL SHEET P0.1 FOR ADDITIONAL INFORMATION.
- 3" DOMESTIC WATER SERVICE. SEE CIVIL SITE PLANS FOR CONTINUATION.
- REFER TO WATER HEATER SYSTEM SCHEMATIC PIPING DIAGRAM SHEET P0.2 FOR CONTINUATION OF PIPING AND ADDITIONAL INFORMATION.
- 1-1/4" (2 PSI) NATURAL GAS UP, 2-1/2" COLD WATER, 2" HOT WATER, 1-1/4" HOT WATER RECIRCULATION UP, AND 1-1/4" HOT WATER RECIRCULATION UP.
- GAS METER, METER LOOP, PIPING VALVES, BY-PASS, VENTS, REGULATORS AND ETC., AS REQUIRED BY LOCAL GAS COMPANY. PAINT ALL EXPOSED GAS PIPING AND ACCESSORIES WITH TWO COATS OF RUST INHIBITOR TYPE PAINT. COLOR TO BE DETERMINED BY GAS COMPANY. 2 PSIG SERVICE PRESSURE.
- REFER TO FLOOR PLANS FOR CONTINUATION OF LINES.
- INDICATES FLOW DIRECTION IN PIPE (TYPICAL).
- PROVIDE SHUT-OFF VALVES IN AN ACCESSIBLE LOCATION ABOVE LAY-IN CEILING. LOCATION OF VALVES SHOWN IS BASED ON LAY-IN CEILING LOCATIONS. (TYPICAL FOR ALL SHUT-OFF VALVES SHOWN ON THIS SHEET, UNLESS NOTED OTHERWISE).
- NATURAL GAS OUT TO SITE. REFER TO CIVIL ENGINEERS PLANS FOR CONTINUATION.
- REFER TO FIRST FLOOR WATER AND GAS PLAN FOR CONTINUATION OF GAS PIPING TO GENERATOR.
- 1" POLYETHYLENE (2 PSI) GAS LINE ROUTED BELOW GRADE. PROVIDE MINIMUM OF 24" OF COVER. PROVIDE TRACER WIRE AND WARNING TAPE IN TRENCH ABOVE PIPING. REFER TO WARNING TAPE TRACER WIRE DETAIL SHEET P0.1.
- 1" (2 PSI) POLYETHYLENE GAS LINE UP FROM BELOW GRADE. PROVIDE ANODELESS ROSSER ASSEMBLY AND TERMINATE TRACER WIRE ON STEEL PIPING AS REQUIRED.
- WHERE LAVATORIES ARE LOCATED ON AN EXTERIOR WALL, ROUTE PIPING DOWN IN INTERIOR WALL AND BELOW FLOORSLAB TO LAVATORIES LOCATED ON EXTERIOR WALL.
- 1/2" CW, HW LINES UP FROM BELOW FLOORSLAB TO LAVATORY AND CONNECT. NO PIPING TO BE ROUTED IN EXTERIOR WALL. ROUGH-IN PIPING THROUGH BASE CABINET.
- GAS FIRED WATER HEATER. REFER TO EQUIPMENT SCHEDULE SHEET P0.0 AND WATER HEATER SYSTEM SCHEMATIC PIPING DIAGRAM SHEET P0.2 FOR ADDITIONAL INFORMATION.
- THERMOSTATIC MIXING VALVE ASSEMBLY MOUNTED ON WALL 5'-0" ABOVE FINISHED FLOOR TO CENTERLINE. REFER TO EQUIPMENT SCHEDULE SHEET P0.0 AND WATER HEATER SYSTEM SCHEMATIC PIPING DIAGRAM SHEET P0.2 FOR ADDITIONAL INFORMATION.
- EXPANSION TANK. REFER TO EQUIPMENT SCHEDULE SHEET P0.0 AND WATER HEATER SYSTEM SCHEMATIC PIPING DIAGRAM SHEET P0.2 FOR ADDITIONAL INFORMATION.
- HOT WATER RETURN CIRCULATING PUMP MOUNTED ON WALL 4'-0" ABOVE FINISHED FLOOR TO CENTERLINE. REFER TO EQUIPMENT SCHEDULE SHEET P0.0, IN LINE RECIRCULATION PUMP PIPING DIAGRAM SHEET P0.1, AND WATER HEATER SYSTEM SCHEMATIC PIPING DIAGRAM SHEET P0.2 FOR ADDITIONAL INFORMATION.
- REDUCED PRESSURE PRINCIPLE TYPE BACKFLOW PREVENTERS. REFER TO EQUIPMENT SCHEDULE SHEET P0.0 AND BACKFLOW PREVENTER DETAIL SHEET P0.1 FOR ADDITIONAL INFORMATION.
- GAS PRESSURE REGULATOR STATION. REFER TO DETAIL AND SCHEDULE SHEET P0.1 FOR ADDITIONAL INFORMATION. VERIFY EXACT LOCATION ON SITE.
- 3/4" CW LINE DOWN TO WALL HYDRANT AND CONNECT. PROVIDE SHUT-OFF VALVE IN LINE TO WALL HYDRANT. WALL HYDRANT TO BE USED FOR SYSTEM DRAIN AS WELL.
- 1-1/4" (2 PSI) GAS LINE UP ON WALL. PROVIDE MAIN GAS SHUT OFF VALVE IN VERTICAL LINE 48" ABOVE FLOOR. PROVIDE SIGN AT VALVE STATING "MAIN GAS SHUT OFF VALVE - DO NOT OPERATE".

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

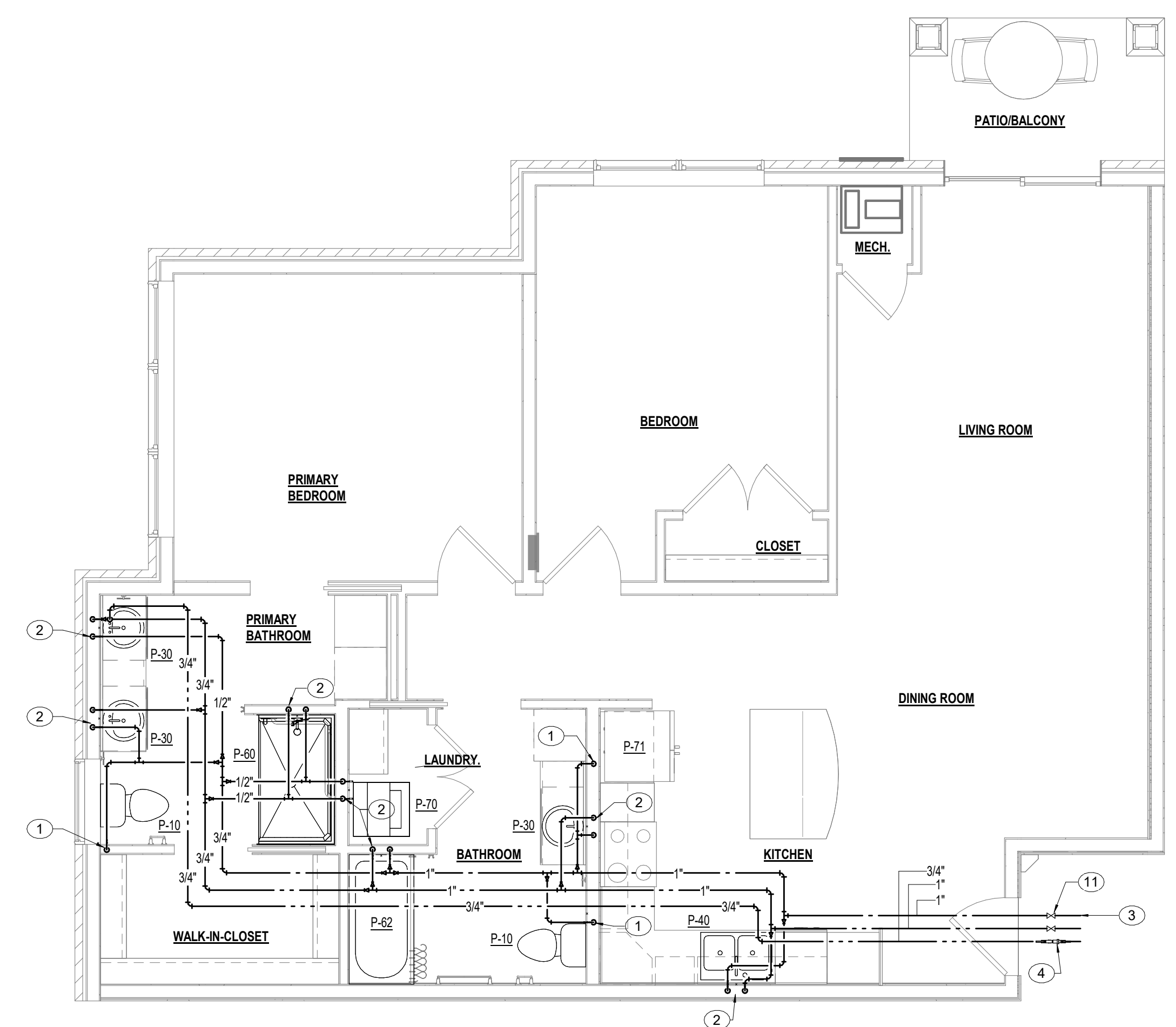
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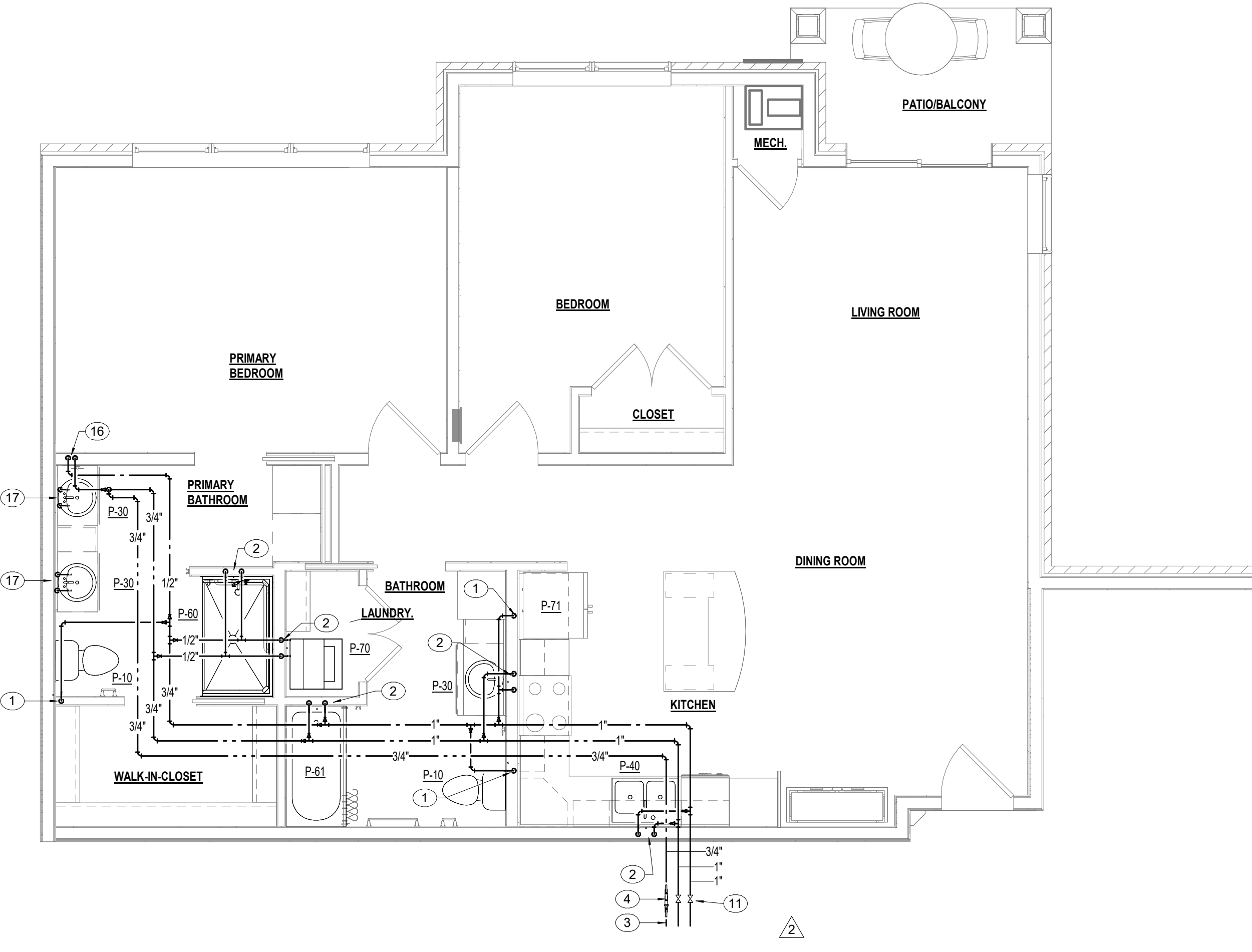
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ARCHITECT : DAS	CHECKED : DPW/MAH
ENGINEER : AJM	APPROVED : AJM
NO.	REVISION DESCRIPTION DATE
2	Rev 1 - Permit Comments 02/15/24

DRAWING TITLE
**ENLARGED PLANS -
PLUMBING**

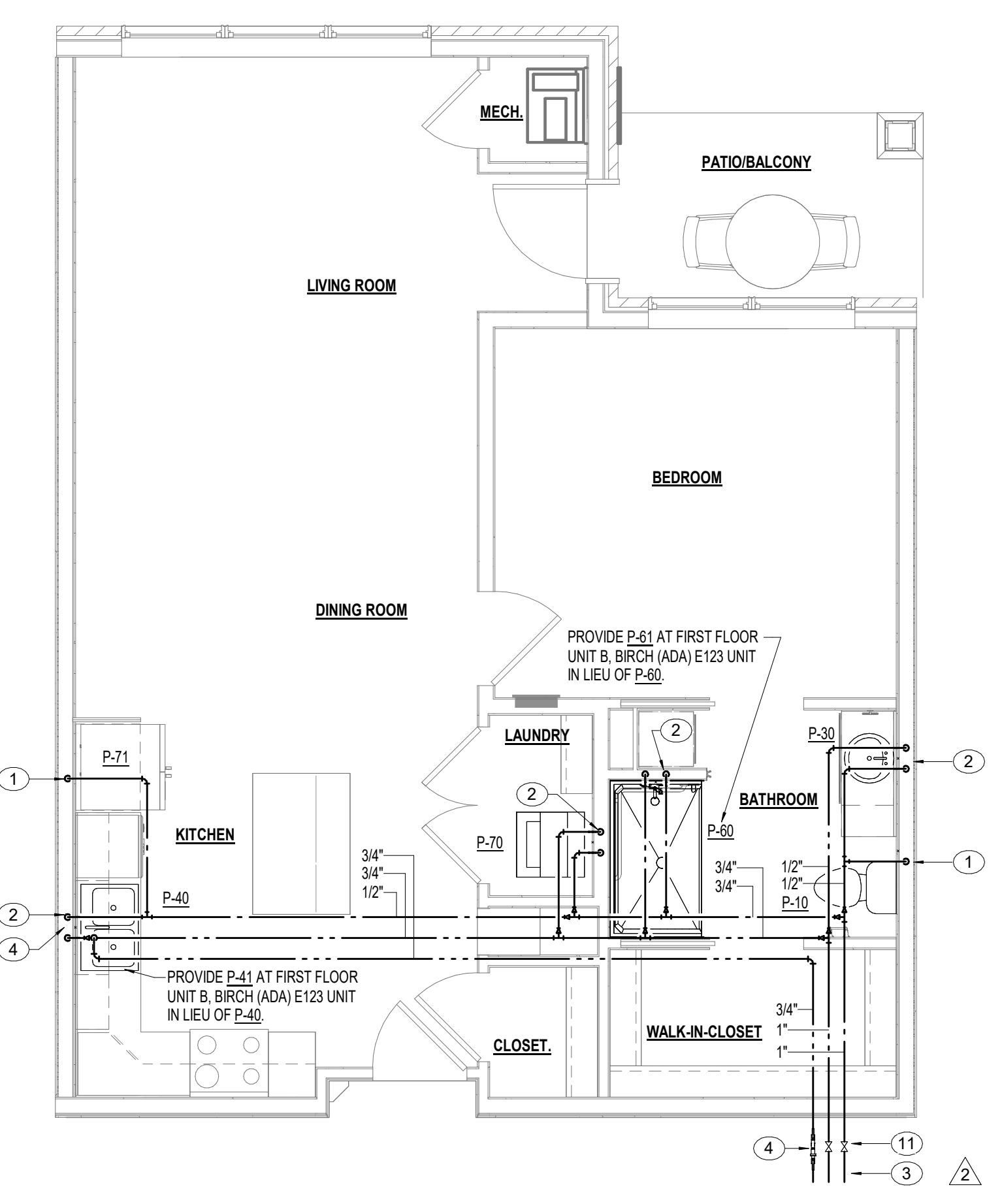
DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	P4.1



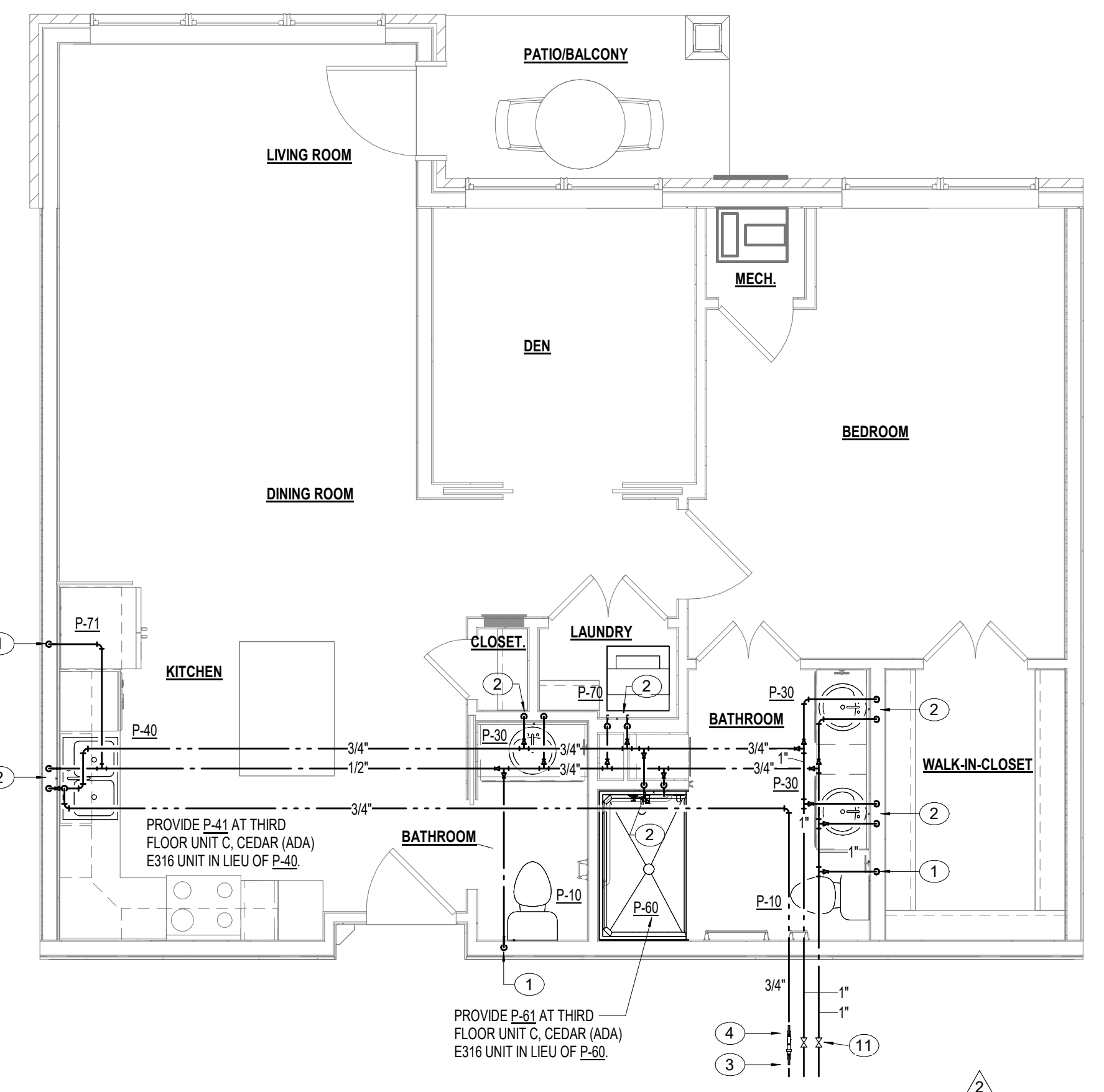
3 UNIT PLUMBING PLAN - HICKORY
P4.1 1/4" = 1'-0"



4 UNIT PLUMBING PLAN - CYPRESS & WILLOW
P4.1 1/4" = 1'-0"

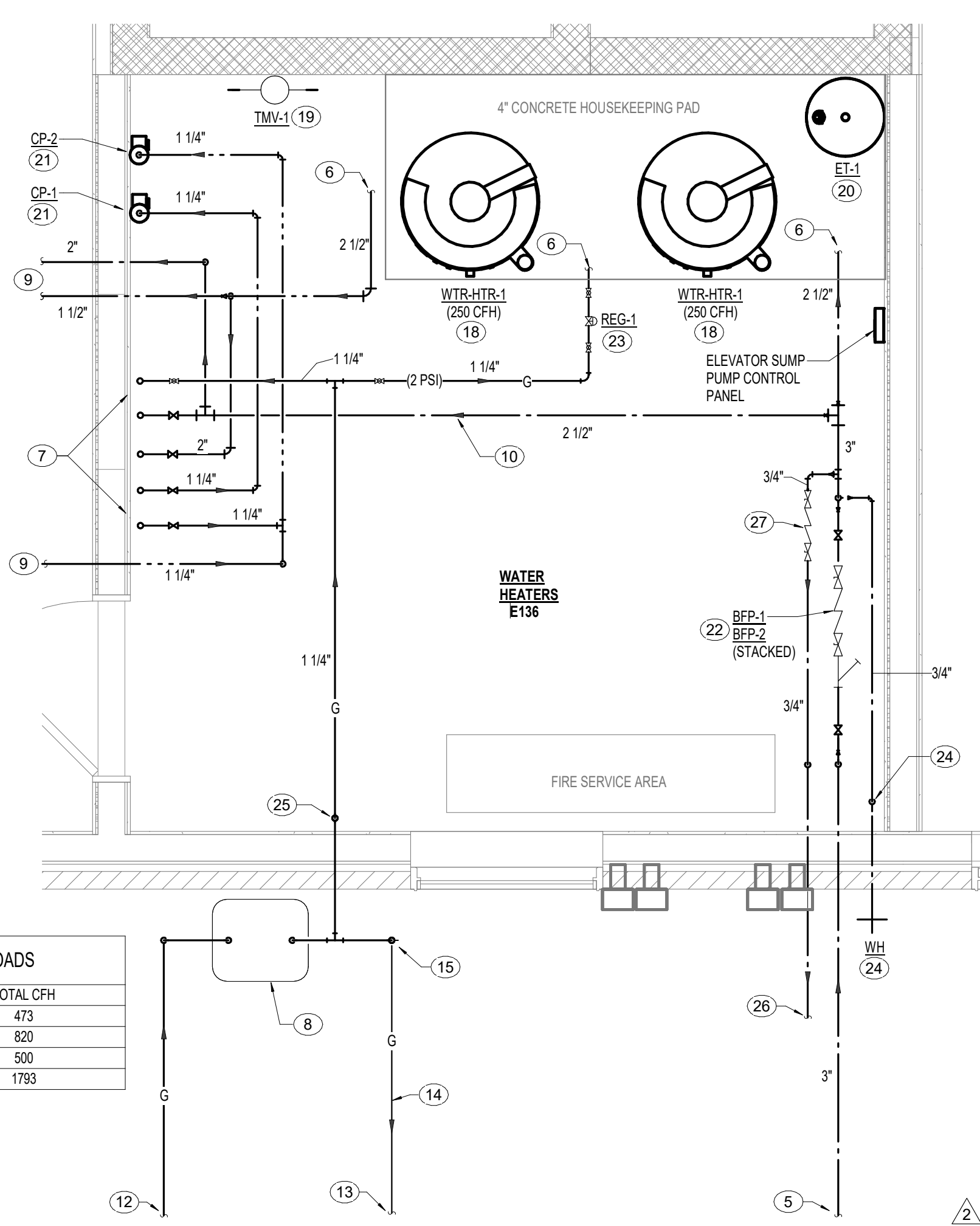


1 UNIT PLUMBING PLAN - BIRCH
P4.1 1/4" = 1'-0"

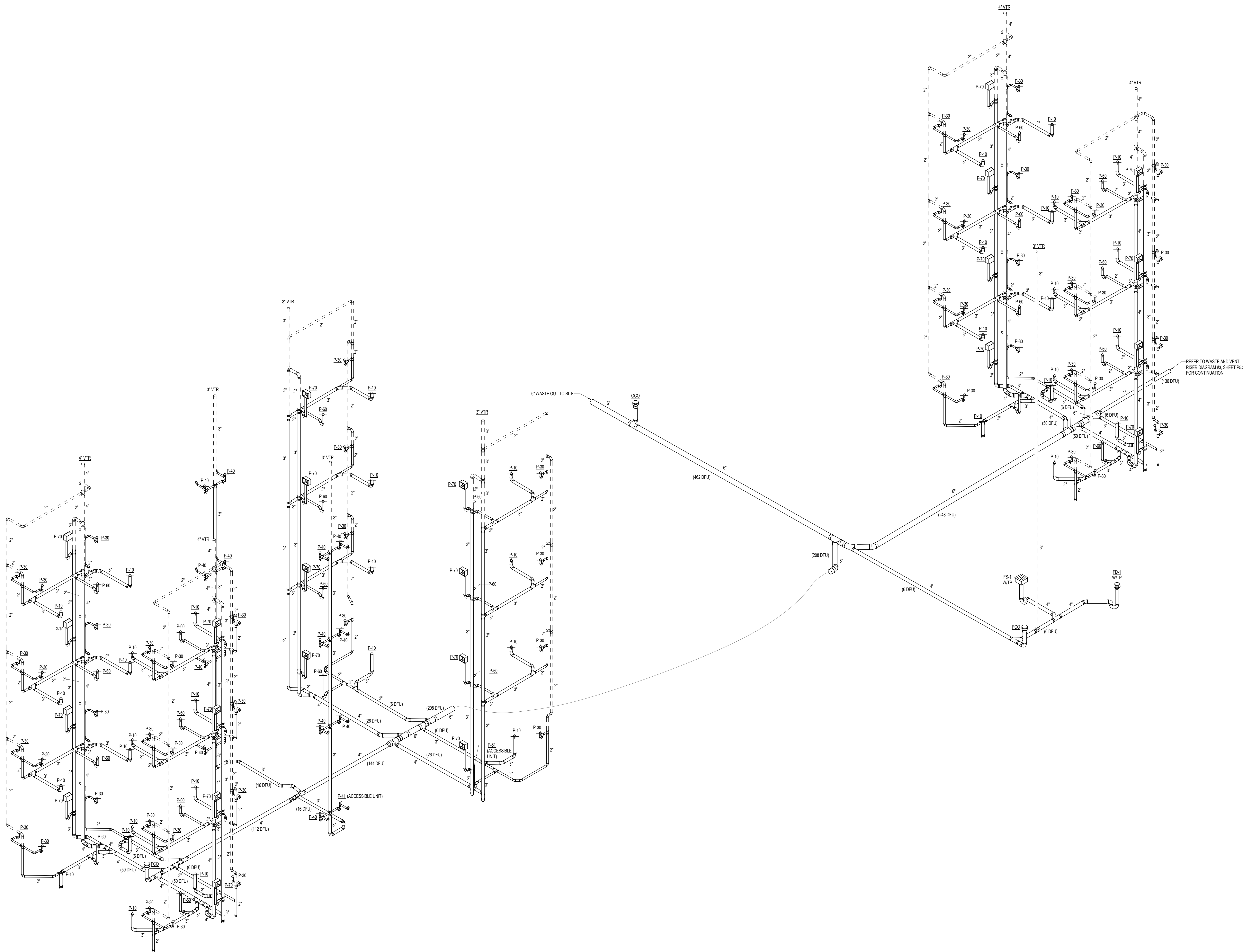


2 UNIT PLUMBING PLAN - CEDAR
P4.1 1/4" = 1'-0"

TOTAL CONNECTED GAS LOADS	
EQUIPMENT CATEGORY	TOTAL CFH
GENERATOR	475
SPACE HEATING	820
WATER HEATING	500
TOTAL	1795



5 WATER HEATERS E136 ROOM
P4.1 1/2" = 1'-0"



REFER TO WASTE AND VENT
RISER DIAGRAM RS. SHEET P5.3
FOR CONTINUATION.

1 WASTE AND VENT DIAGRAM #2
P5.2 N.T.S.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

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NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24

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WASTE AND VENT RISER
DIAGRAMS

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	P5.2



GENERAL FIRE SUPPRESSION NOTES

- A. ALL PIPE SIZES INDICATED ON PLANS ARE MINIMUM PIPE SIZES. THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL PIPE SIZES, PIPING CONFIGURATIONS, AND ETC. AS REQUIRED TO MEET SYSTEM HYDRAULIC CALCULATIONS, BUILDING CONDITIONS, ALL APPLICABLE NFPA STANDARDS AND BUILDING CODES/LOCAL ORDINANCES.
- B. CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE FIRE PROTECTION SYSTEM TO PROVIDE COVERAGE FOR THE ENTIRE PREMISES. INCLUDE ALL PIPING AND ACCESSORIES PER THE REQUIREMENTS OF ALL APPLICABLE CODES, NFPA-13, NFPA-13R, NFPA-14, NFPA 24 AND OWNERS FIRE AND CASUALTY INSURER.
- C. THE SPRINKLER SYSTEM SHALL BE INSTALLED ACCORDING TO ALL FEDERAL, STATE, LOCAL, AND NFPA STANDARDS. ANY WORK INDICATED ON PLANS THAT IS ABOVE AND BEYOND REGULATIONS SHALL BE INSTALLED AS INDICATED ON PLANS OR IN SPECS.
- D. THE FIRE PROTECTION CONTRACTOR SHALL AVOID CONFLICT WITH DUCTWORK, LIGHTS, CONDUITS, PIPING, STRUCTURAL MEMBERS, AND ETC. AND REROUTE LINES AS REQUIRED.
- E. SPRINKLER HEADS LOCATED IN LAY-IN CEILINGS SHALL BE LOCATED IN CENTER OF TILES, ONE DIRECTION AND NO CLOSER THAN 12" IN THE OTHER DIRECTION IN 2X4 TILES. SPRINKLER HEADS LOCATED IN DRYWALL CEILINGS SHALL BE LOCATED SYMMETRICALLY WITH OTHER ITEMS IN CEILING.
- F. FIRE PROTECTION CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ELECTRICAL PANELS, SWITCHES, MOTOR CONTROL CENTERS, AND ETC. REROUTE LINES AND HEADS AS REQUIRED TO AVOID HAVING THEM DIRECTLY ABOVE ELECTRICAL EQUIPMENT.
- G. THE FIRE PROTECTION CONTRACTOR SHALL CONSIDER ALL LOCATIONS OF LIGHTS, DIFFUSERS, RETURN GRILLES, SPRINKLER HEADS, AND ETC. TO BE APPROXIMATE LOCATIONS AND SHOULD BE VERIFIED ON SITE BEFORE ANY WORK IS BEGUN. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- H. HANGERS AND SUPPORTS SHALL BE NFPA APPROVED FOR CONSTRUCTION USE. ALSO, SAME SHALL MEET NFPA AND PIPE MANUFACTURER'S REQUIREMENTS FOR INSTALLATION, LOCATIONS AND SPACING. HANGERS AND SUPPORTS SHALL BE RATED AND INSTALLED FOR SEISMIC REQUIREMENTS.
- I. PIPING PASSING THROUGH FIRE RATED SURFACES SHALL BE PROVIDED WITH SCHEDULE 40 CARBON STEEL SLEEVES FIRE-STOPPED WITH FIRE SEALANT APPROVED BY AUTHORITY HAVING JURISDICTION FOR ASSEMBLY BEING PENETRATED.
- J. DRAINS, DRAIN VALVES, FLUSHING CONNECTIONS, TEST CONNECTIONS, GAUGES, GUARDS, SHIELDS, AND SIMILAR ITEMS NECESSARY TO COMPLY WITH APPLICABLE CODES, STANDARDS AND/OR NFPA-13 SHALL BE FURNISHED AND INSTALLED.
- K. WHERE REQUIRED BY LOCAL AND STATE CODES, CONTRACTOR SHALL FURNISH AND INSTALL DEFLECTOR SHIELD ON SPRINKLER HEADS ADJACENT TO ELECTRIC PANELS, TELEPHONE BOARDS AND ELECTRICAL EQUIPMENT.
- L. PRIOR TO INSTALLATION, CONTRACTOR SHALL SUBMIT PRINTS OF FIRE PROTECTION DESIGN TO OWNERS FIRE AND CASUALTY INSURER FOR APPROVAL. CONTRACTOR SHALL OBTAIN ALL APPROVALS FROM APPLICABLE STATE AND LOCAL AUTHORITIES. CONTRACTOR SHALL ALSO SUBMIT FIRE PROTECTION DESIGN TO ARCHITECT AND ENGINEER FOR REVIEW.
- M. ALL PIPING SHALL BE CONCEALED, WHERE APPLICABLE AND PITCHED FOR POSITIVE DRAINAGE.
- N. SPRINKLER CONTRACTOR SHALL INCLUDE NECESSARY ARCHITECTURAL ACCESS DOORS WITH APPROPRIATE FIRE RATING AND SHALL MATCH ARCHITECTURAL FINISH WHERE NECESSARY FOR ACCESS TO VALVES, ETC. THESE ACCESS DOORS SHALL BE INDICATED ON SHOP DRAWINGS.
- O. WHERE SIDEWALL SPRINKLER HEADS ARE INSTALLED THRU WALL/SOFFIT, CONTRACTOR SHALL INSTALL ESCUTCHEON PLATES FLUSH WITH WALL/SOFFIT.
- P. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL FIRE RATED WALL AND CEILING INFORMATION.
- Q. OVERHANGS AND CANOPIES SHALL BE PROVIDED WITH SPRINKLER COVERAGE WHERE REQUIRED BY NFPA-13, STATE AND LOCAL CODES.
- R. ALL CEILING CAVITIES WITH COMBUSTIBLE CONSTRUCTION MATERIALS SHALL BE PROVIDED WITH SPRINKLER COVERAGE WHERE REQUIRED BY NFPA-13 AND ALL STATE/LOCAL CODES.
- S. REFER TO SPECIFICATIONS FOR HAZARD CLASSIFICATIONS FOR VARIOUS AREAS THROUGHOUT BUILDING.
- T. PIPING AND EQUIPMENT HANGERS SHALL BE SPACED IN A SYSTEMATIC RANDOM PATTERN AS REQUIRED TO ELIMINATE OVERLOADING INDIVIDUAL STRUCTURAL MEMBERS. THE ESTIMATED WEIGHT ASSIGNED TO PIPE AND EQUIPMENT HANGERS SHALL BE DETERMINED BY THE FIRE PROTECTION CONTRACTOR AND SUBMITTED TO THE GENERAL CONTRACTOR FOR REVIEW, COORDINATION AND APPROVAL PRIOR TO INSTALLATION. THIS REQUIREMENT APPLIES TO ALL FIRE PROTECTION PIPING.
- U. WHERE BACKFLOW PREVENTER IS REQUIRED, CONTRACTOR SHALL PROVIDE FORWARD FLOW TESTING PROVISION IN ACCORDANCE WITH NFPA REQUIREMENTS.

SPRINKLER HEAD SCHEDULE

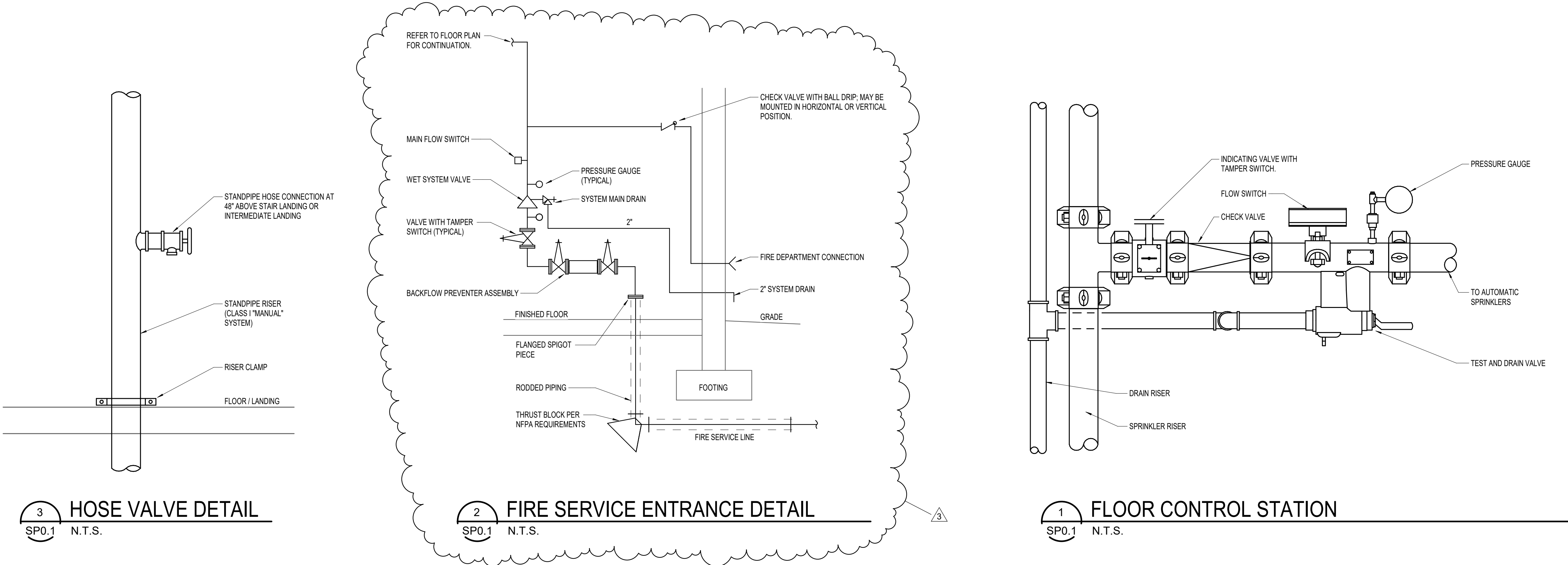
TYPE	LOCATION
QUICK RESPONSE, CONCEALED TYPE SPRINKLER HEAD WITH WHITE COVER PLATE	PUBLIC AREAS WITH DRYWALL OR HARD CEILINGS
QUICK RESPONSE, CONCEALED TYPE SPRINKLER HEAD WITH WHITE COVER PLATE	CORRIDORS, LOBBY AND SIMILAR SPACES WITH SUSPENDED ACOUSTICAL TILE CEILINGS
QUICK RESPONSE, UPRIGHT TYPE SPRINKLER HEAD MAY USE PENDANT WHERE APPLICABLE	MECHANICAL ROOMS, STORAGE ROOMS AND SIMILAR SPACES WITHOUT CEILINGS

FLOW TEST INFORMATION

FLOW TEST PERFORMED BY:	CITY OF LEE'S SUMMIT
FLOW TEST PERFORMED ON:	3-19-2021
STATIC PRESSURE:	94 PSI
RESIDUAL PRESSURE:	56 PSI
FLOW:	1800 GPM

NOTE:
INFORMATION INDICATED ON THESE DRAWINGS IS FOR DESIGN INTENT AND INFORMATION ONLY. THE DESIGN AND LAYOUT OF THE FIRE SUPPRESSION SYSTEM FOR THIS BUILDING IS A DELEGATED DESIGN TO BE PROVIDED BY A LICENSED FIRE SUPPRESSION CONTRACTOR. ALL TAMPER SWITCHES, FLOW SWITCHES, PRESSURE SWITCHES AND ELECTRICAL CONNECTIONS ASSOCIATED WITH THE SYSTEM ARE NOTED ON THESE DOCUMENTS TO ASSIST THE DELEGATED DESIGN FIRE SUPPRESSION AND FIRE ALARM CONTRACTORS IN PREPARING THEIR DOCUMENTS. FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE EXACT QUANTITIES AND LOCATIONS OF ALL POINTS TO BE MONITORED WITH FIRE ALARM CONTRACTOR.

NOTE:
FIRE SUPPRESSION SHOP DRAWINGS, PRODUCT DATA AND HYDRAULIC CALCULATIONS SHALL BE SUBMITTED AS ONE COMPLETE SUBMITTAL PACKAGE. INFORMATION INCLUDED IN SUBMITTAL SHALL BE PROJECT SPECIFIC AND CLEARLY IDENTIFIED.



CONSTRUCTION SET



PROJECT TITLE



John Knox Village

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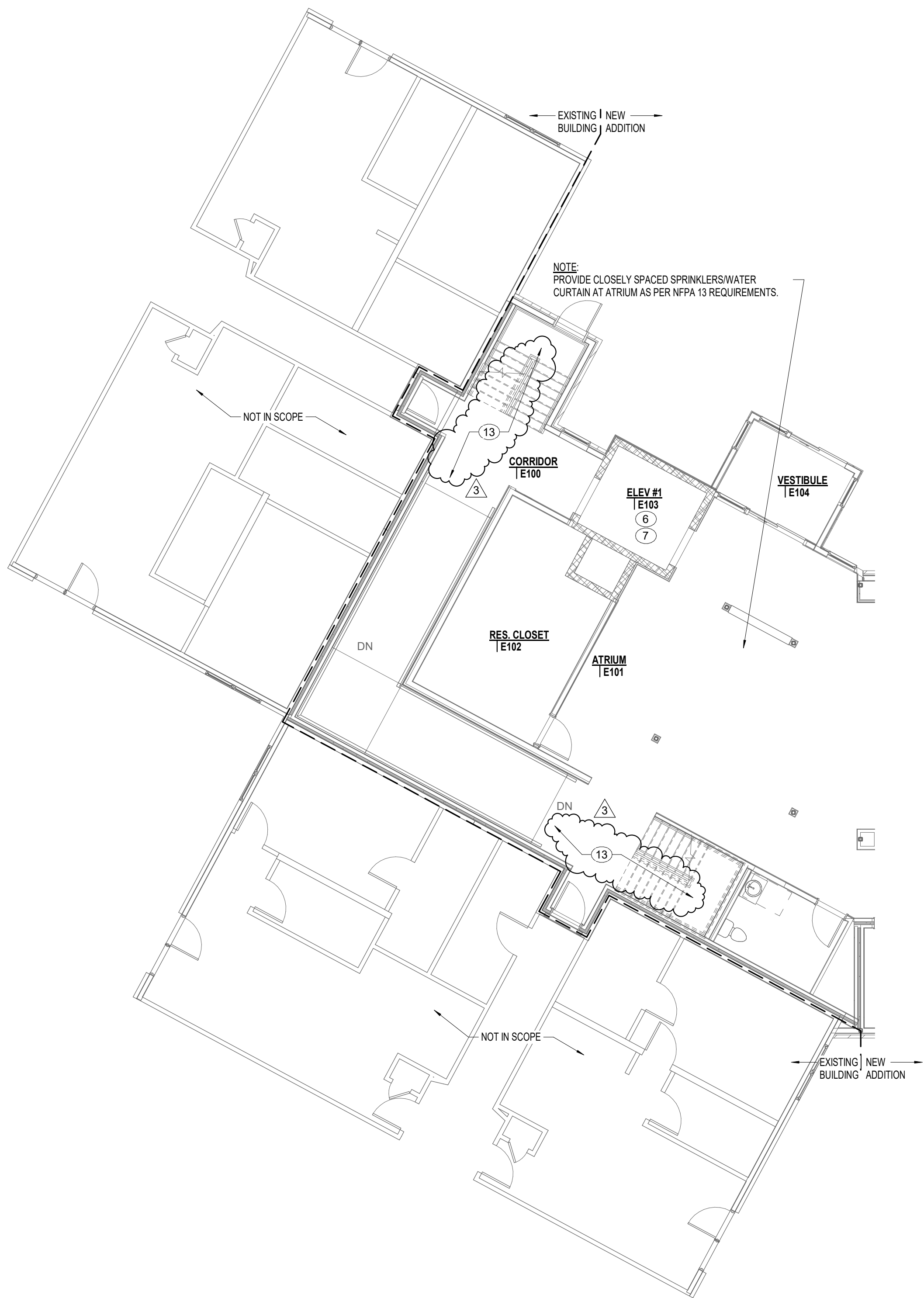
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ARCHITECT : DAS	CHECKED : DPWIMAH
ENGINEER : AJM	APPROVED : AJM
NO.	REVISION DESCRIPTION DATE
3	Addendum 1 03/07/24

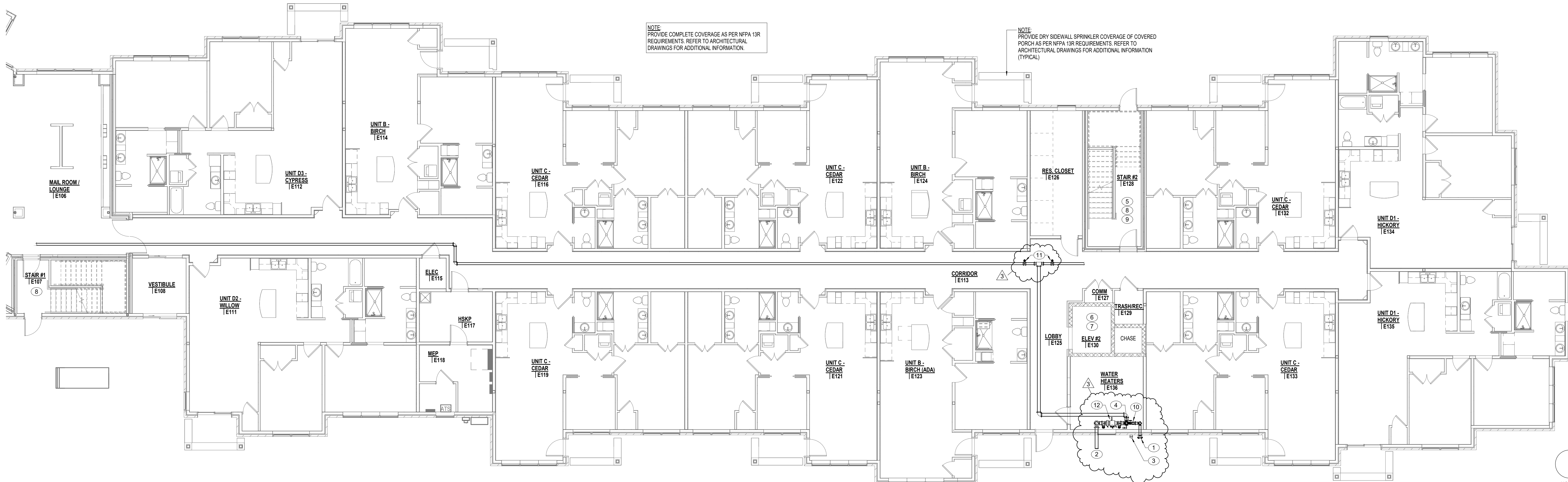
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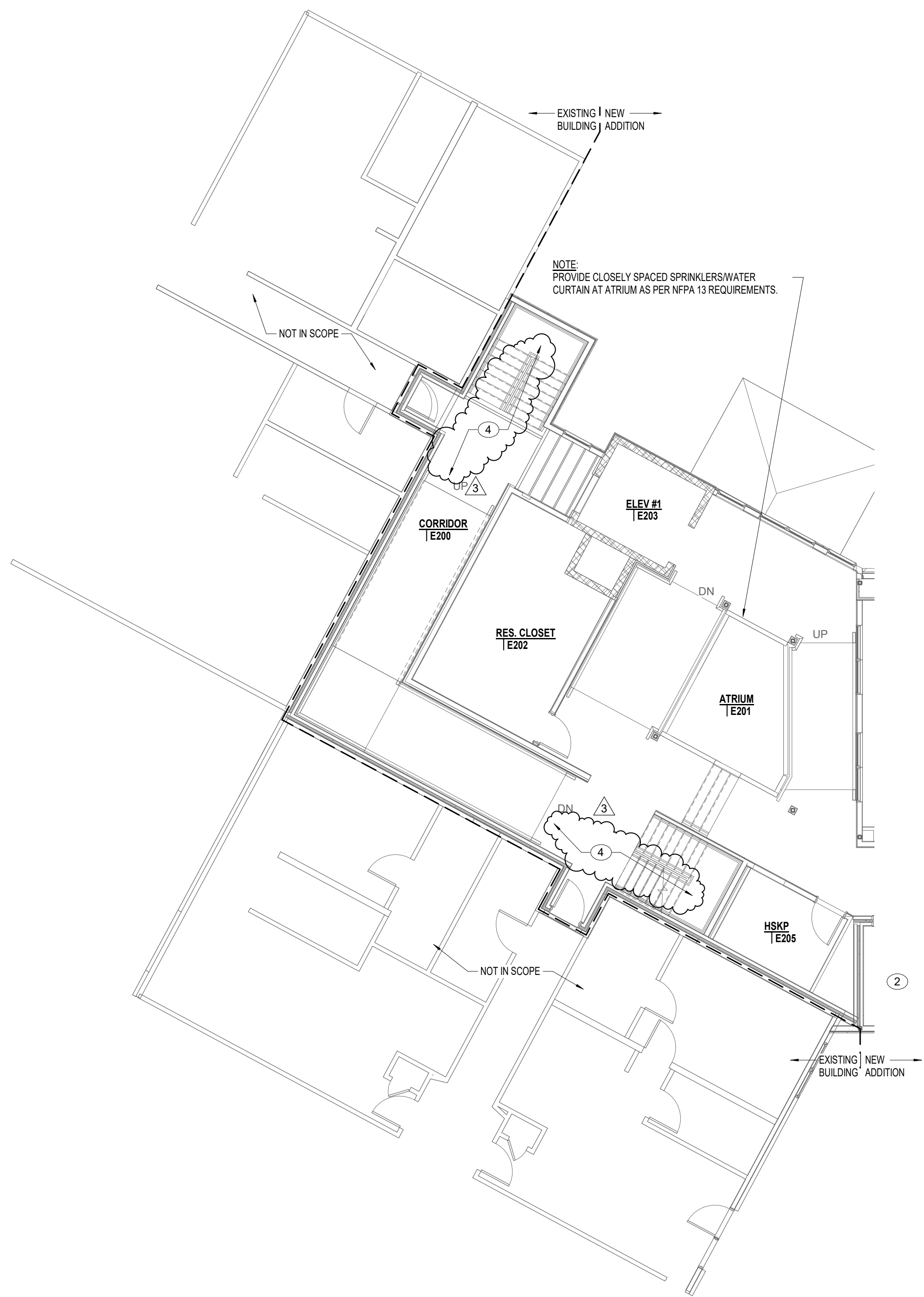
FIRE SUPPRESSION
INFORMATION

DATE:	January 5, 2024	DRAWING
COMM. NO.	23104.00	SP0.1



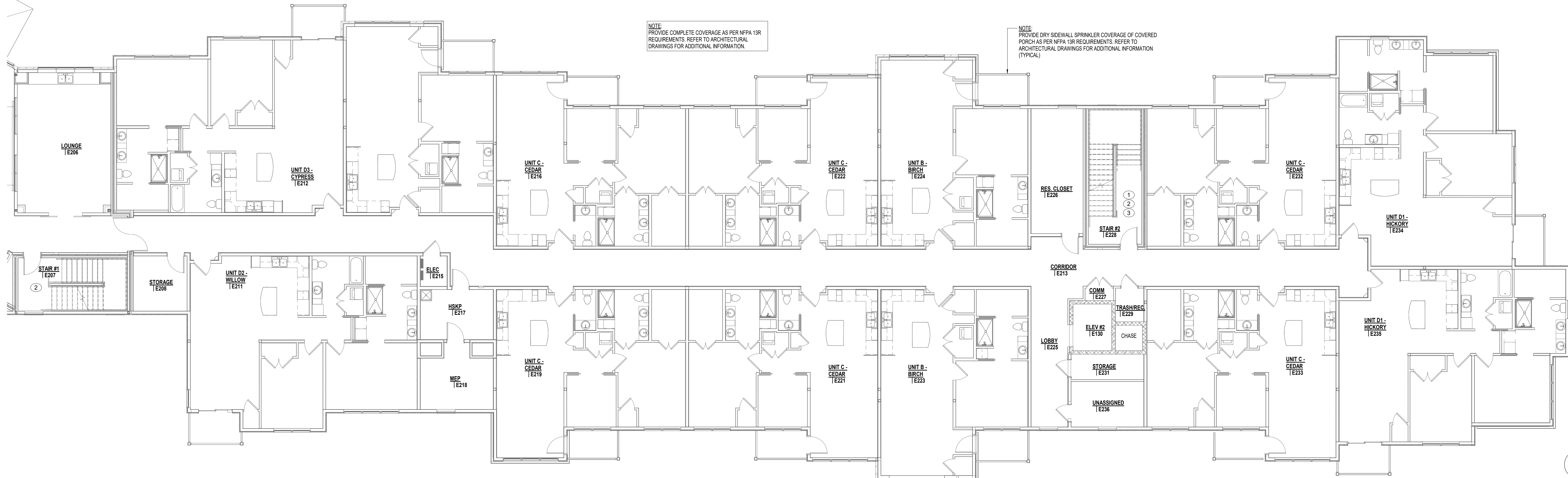
2 FIRST FLOOR PLAN - FIRE SUPPRESSION - ATRIUM
SP1.1 1/8" = 1'-0"





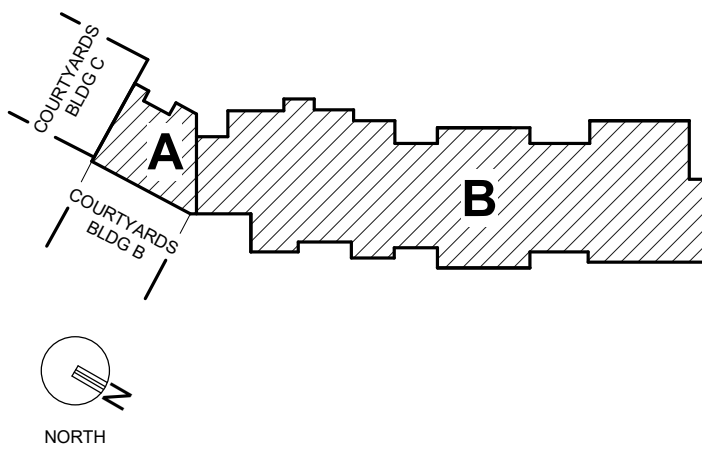
2 SECOND FLOOR PLAN - FIRE SUPPRESSION - ATRIUM

SP1.2 1/8" = 1'-0"



1 SECOND FLOOR PLAN - FIRE SUPPRESSION - IL UNITS

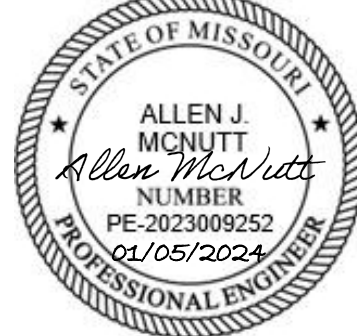
SP1.2 1/8" = 1'-0"



PLAN NOTES

1. FLOOR CONTROL STATION WITH TAMPER AND FLOW SWITCH. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE IN AN ACCESSIBLE LOCATION.
2. 4" RISER UP AND DOWN 2-1/2" FIRE DEPARTMENT CONNECTION HOSE VALVE WITH CAP AND CHAIN. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE STANDPIPE AND HOSE VALVE AS TIGHT TO CORNER AS POSSIBLE. MAINTAIN EGRESS CLEARANCE IN STAIRWELL. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION ON SITE.
3. 2" DRAIN RISER UP AND DOWN.
4. PROVIDE STANDPIPE HOSE CONNECTIONS IN THIS AREA AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF HOSE VALVE AND STANDPIPE ON SITE. PROVIDE CONTROL VALVE WITH TAMPER SWITCH ON EACH STANDPIPE AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

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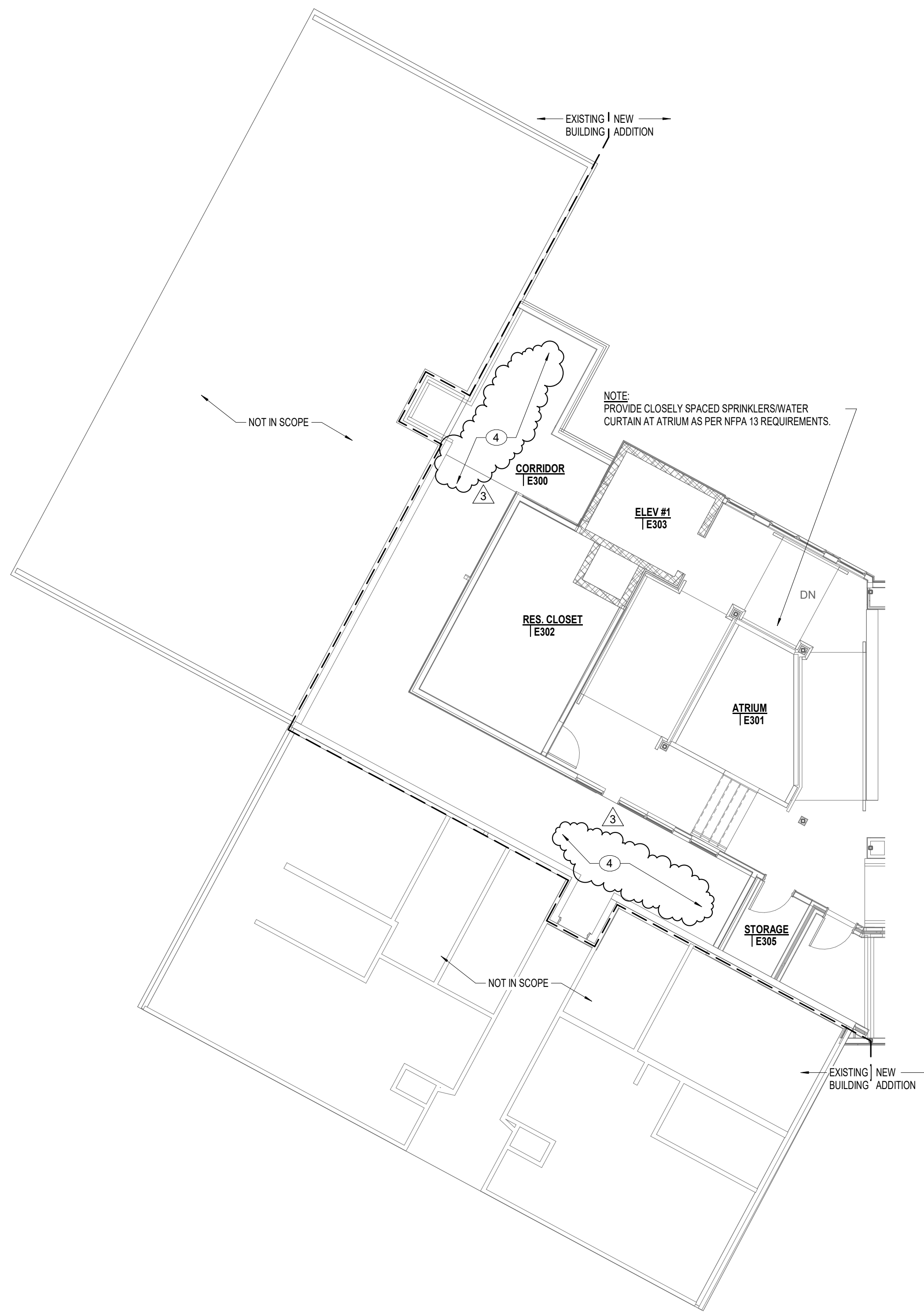
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ENGINEER : AJM	APPROVED : AJM
NO. 3	REVISION DESCRIPTION DATE
	Addendum 1 03/07/24

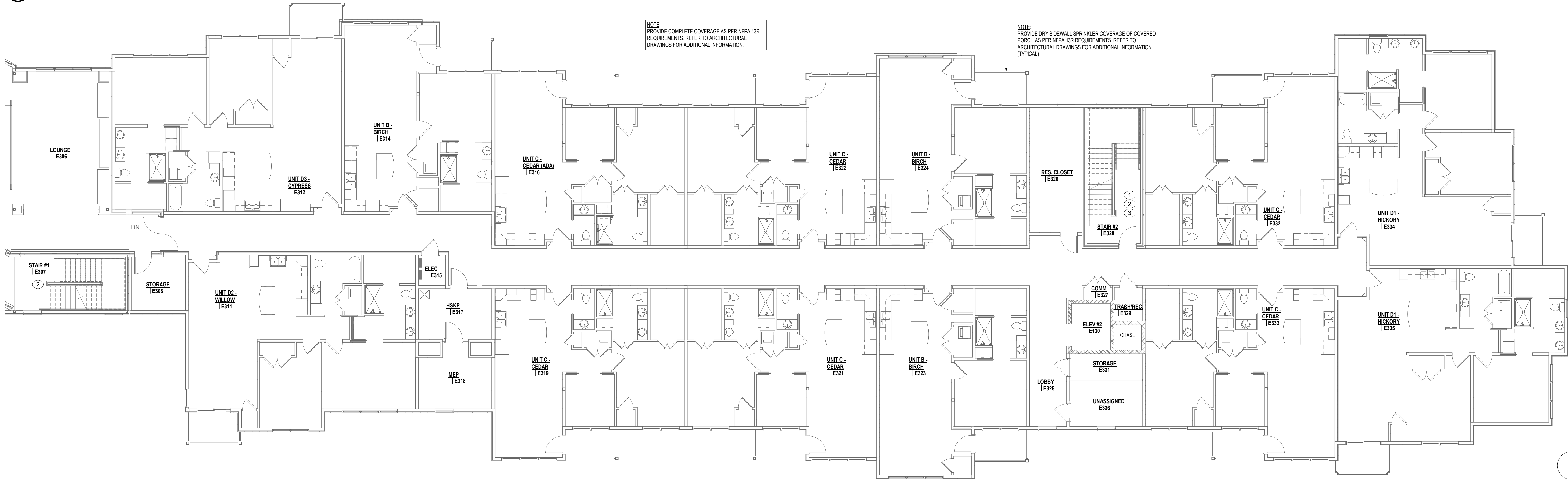
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SECOND FLOOR PLAN -
FIRE SUPPRESSION

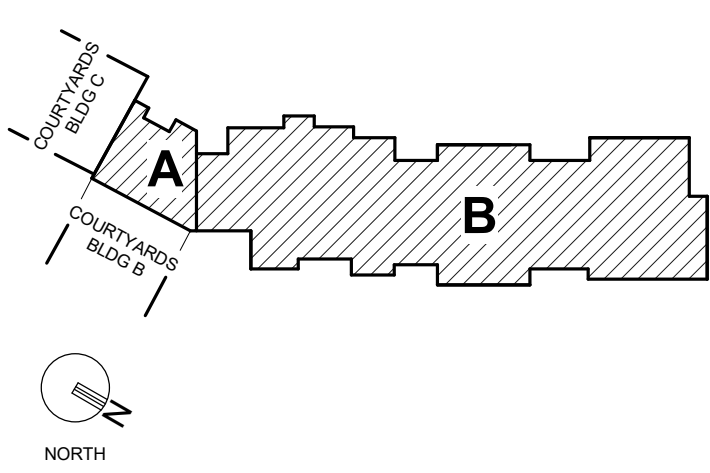
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COMM. NO. 23104.00	SP1.2



2 THIRD FLOOR PLAN - FIRE SUPPRESSION - ATRIUM
SP1.3 1/8" = 1'-0"



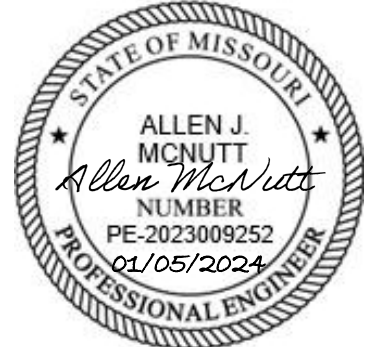
1 THIRD FLOOR PLAN - FIRE SUPPRESSION - IL UNITS
SP1.3 1/8" = 1'-0"



PLAN NOTES

- FLOOR CONTROL STATION WITH TAMPER AND FLOW SWITCH. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE IN AN ACCESSIBLE LOCATION.
- 4" RISER UP AND DOWN, 2-1/2" FIRE DEPARTMENT CONNECTION HOSE VALVE WITH CAP AND CHAIN. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE STANDPIPE AND HOSE VALVE AS TIGHT TO CORNER AS POSSIBLE. MAINTAIN EGRESS CLEARANCE IN STAIRWELL. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION ON SITE.
- 2" DRAIN RISER UP AND DOWN. PROVIDE DRAIN AT LOW POINT OF STANDPIPE PIPING.
- PROVIDE STANDPIPE HOSE CONNECTIONS IN THIS AREA AS REQUIRED. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF HOSE VALVE AND STANDPIPE ON SITE. PROVIDE CONTROL VALVE WITH TAMPER SWITCH ON EACH STANDPIPE AS REQUIRED. COORDINATE EXACT REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

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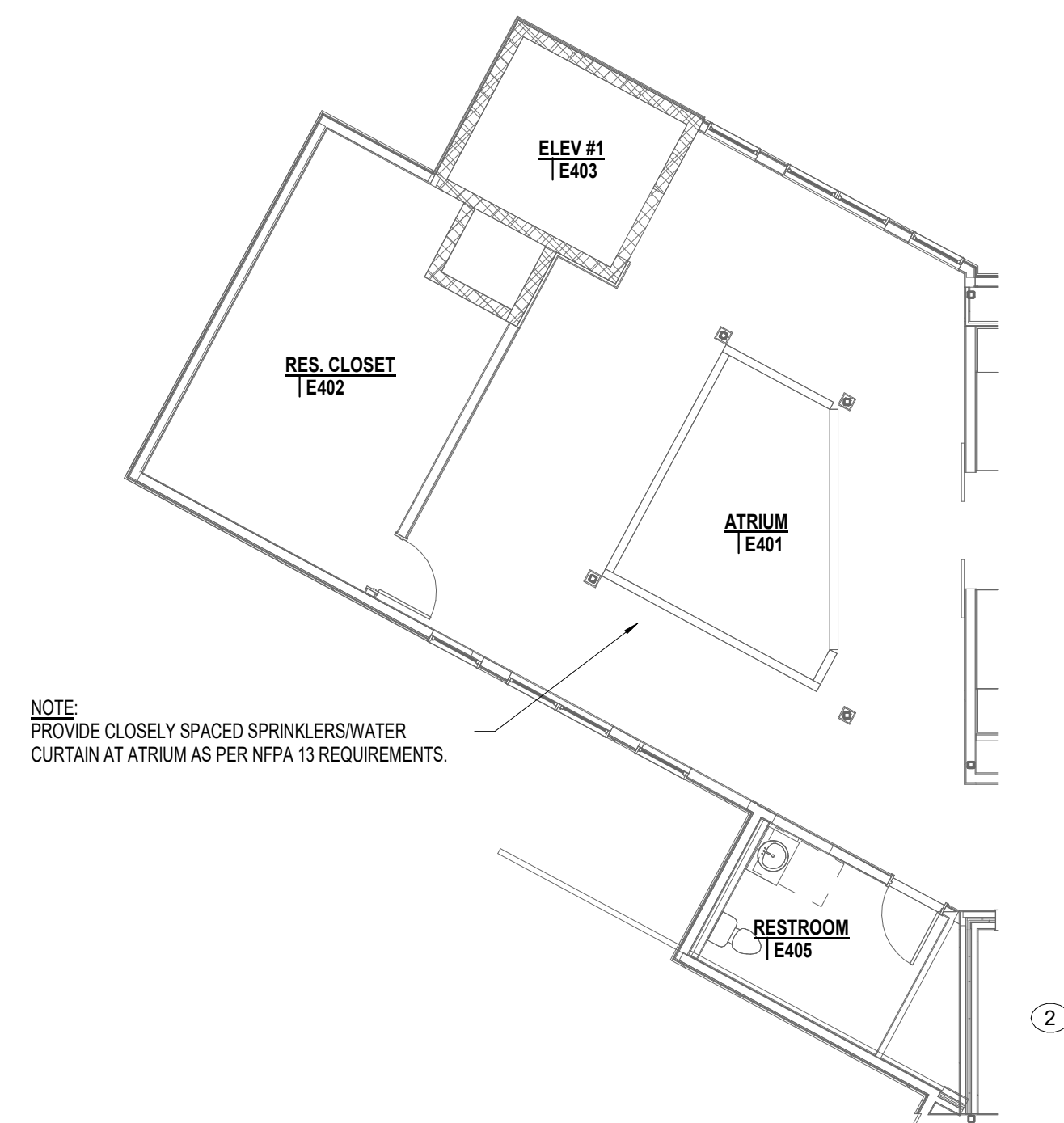
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ENGINEER : AJM	APPROVED : AJM	
NO.	REVISION DESCRIPTION	DATE
3	Addendum 1	03/07/24

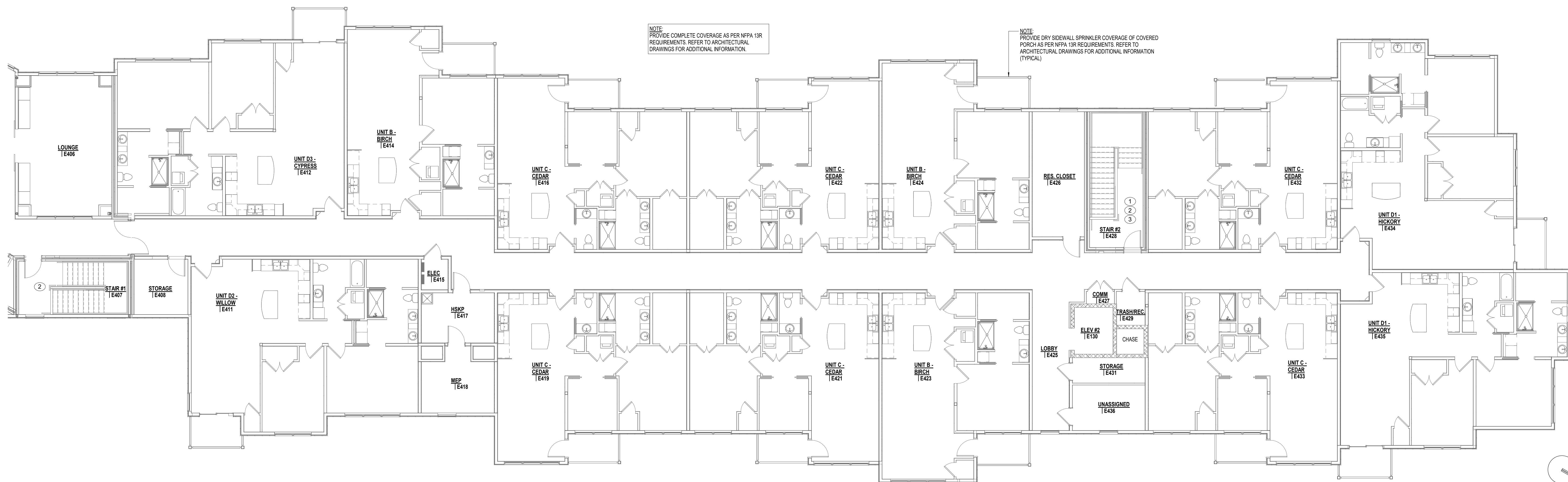
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THIRD FLOOR PLAN - FIRE SUPPRESSION

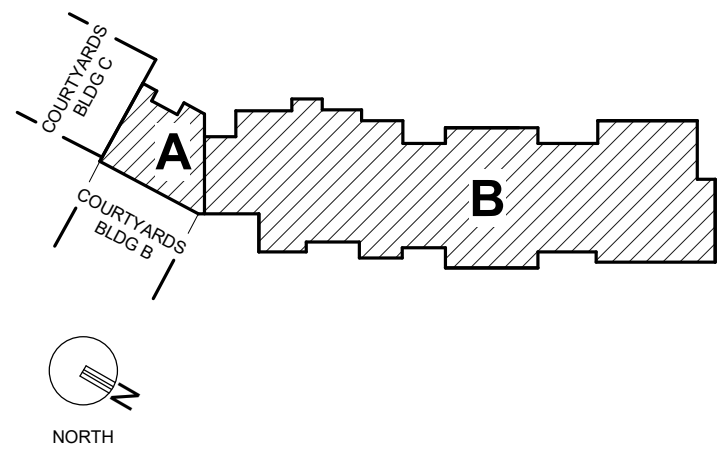
DATE:	January 5, 2024	DRAWING
COMM. NO.	23104.00	SP1.3



2 FOURTH FLOOR PLAN - FIRE SUPPRESSION - ATRIUM
SP1.4 1/8" = 1'-0"



 FOURTH FLOOR PLAN - FIRE SUPPRESSION - IL UNITS
SP1.4 1/8" = 1'-0"



PLAN NOTES ○

1. FLOOR CONTROL STATION WITH TAMPER AND FLOW SWITCH. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE IN AN ACCESSIBLE LOCATION.
2. 4" RISE UP FROM BELOW. PROVIDE 2-1/2" FIRE DEPARTMENT CONNECTION HOSE VALVE WITH CAP AND CHAIN. REFER TO DETAIL FOR ADDITIONAL INFORMATION. LOCATE STANDPIPE AND HOSE VALVE AS TIGHT TO CORNER AS POSSIBLE. MAINTAIN EGRESS CLEARANCE IN STAIRWELL. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION ON SITE.
3. 2" DRAIN RISER DOWN FROM FLOOR CONTROL STATION.

CONSTRUCTION SET



PROJECT TITLE



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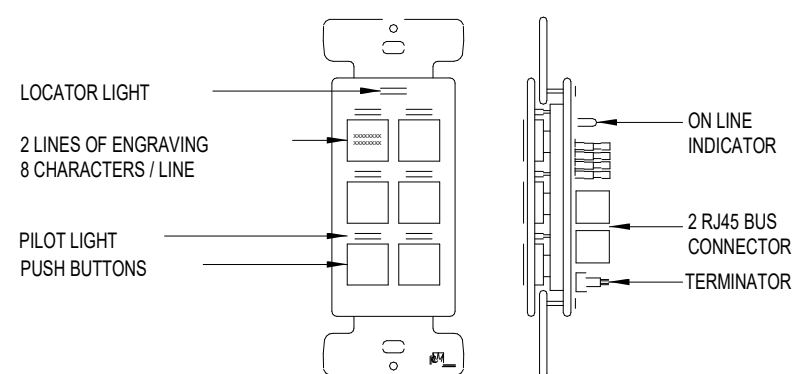
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NO.	REVISION DESCRIPTION
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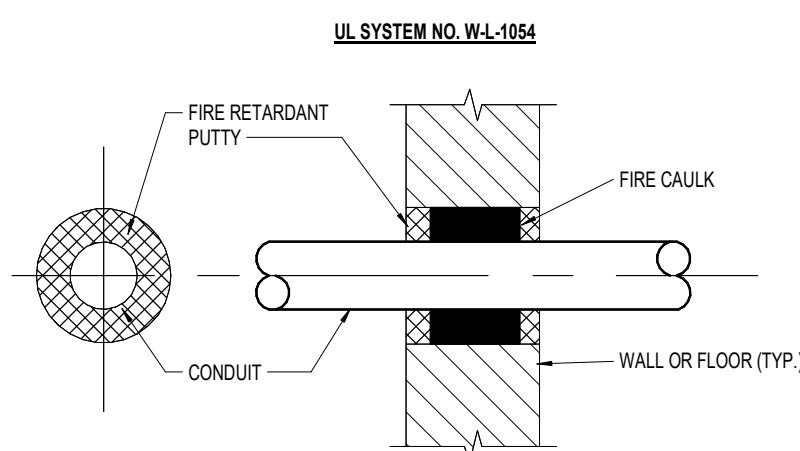
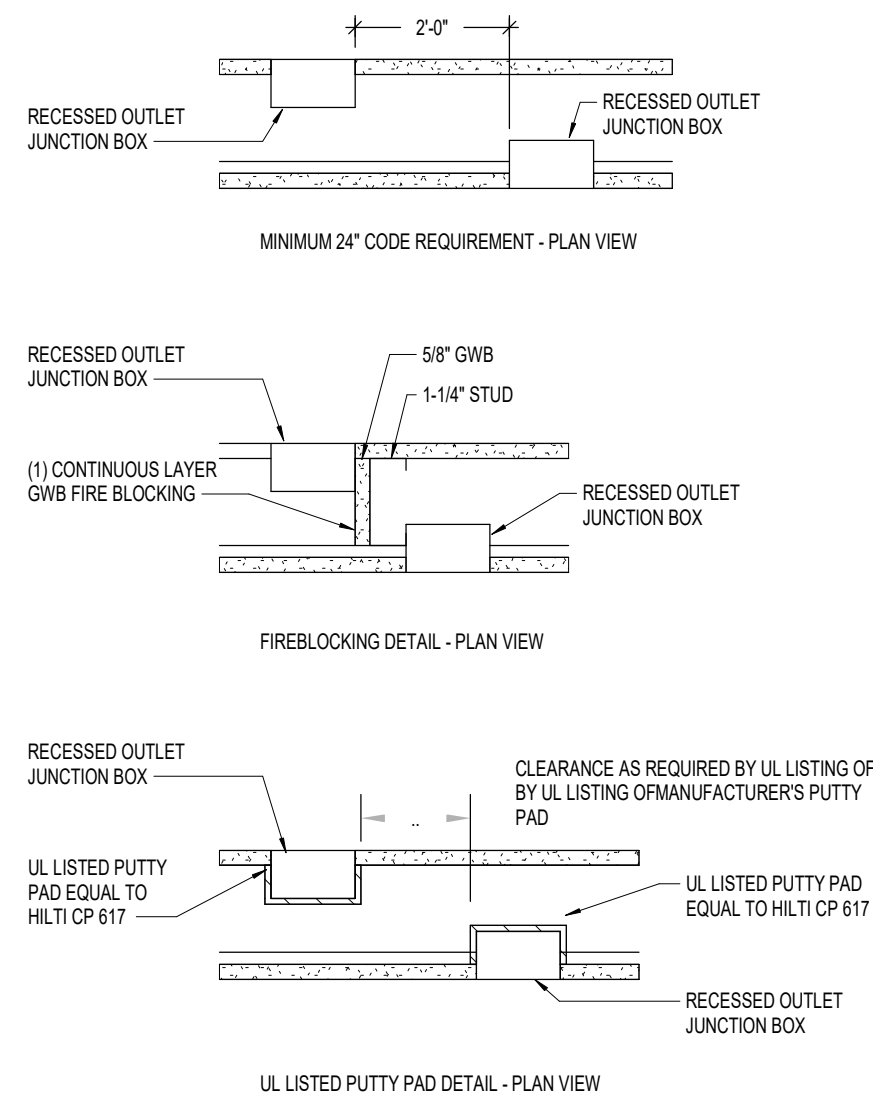
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FOURTH FLOOR PLAN -
FIRE SUPPRESSION

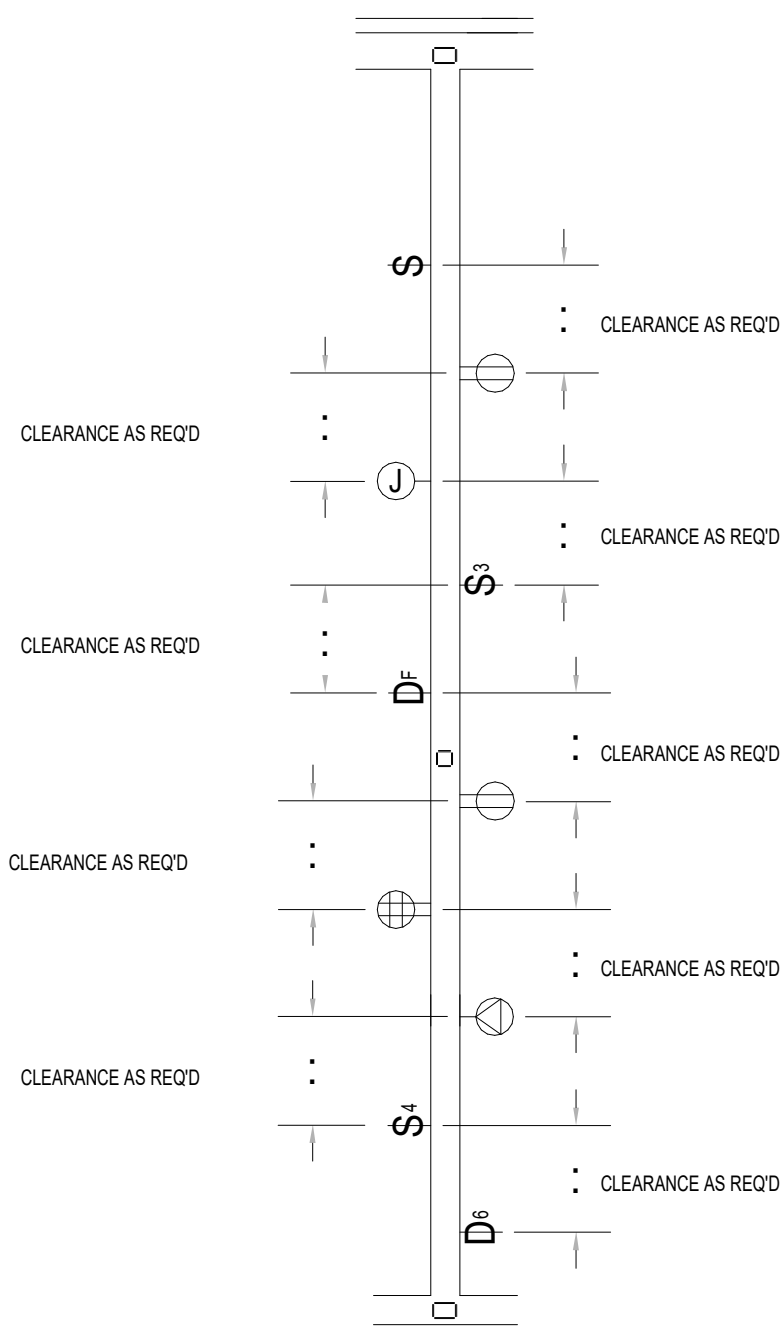
DATE:	January 5, 2024	DRAWING SP1.4
COMM. NO.	23104.00	

**DIGITAL SWITCH****OUTDOOR PHOTOCELL**

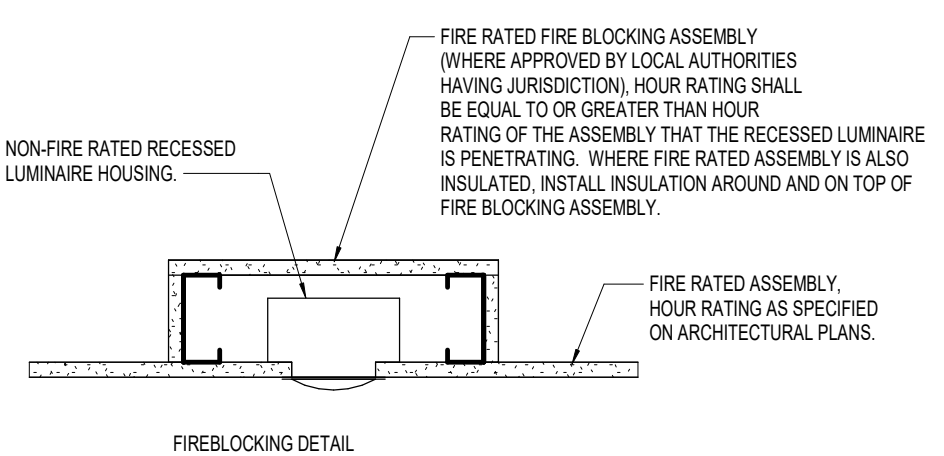
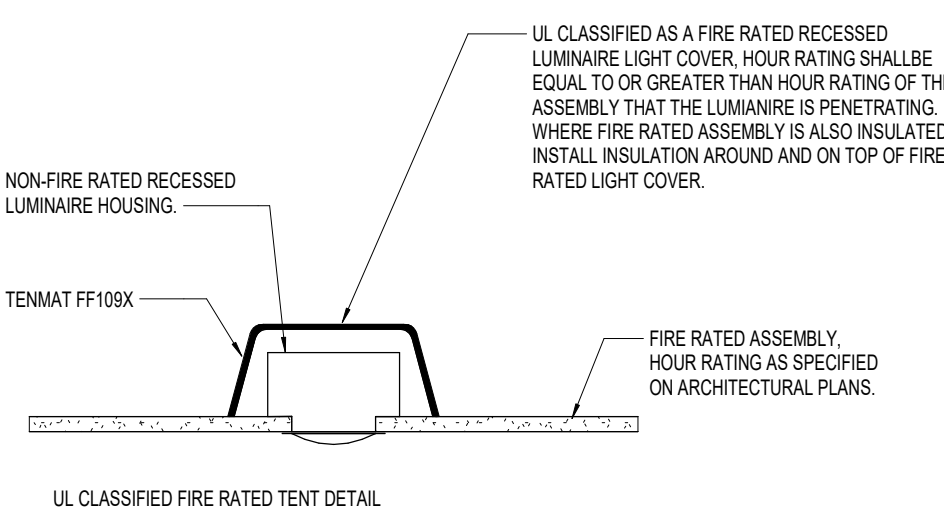
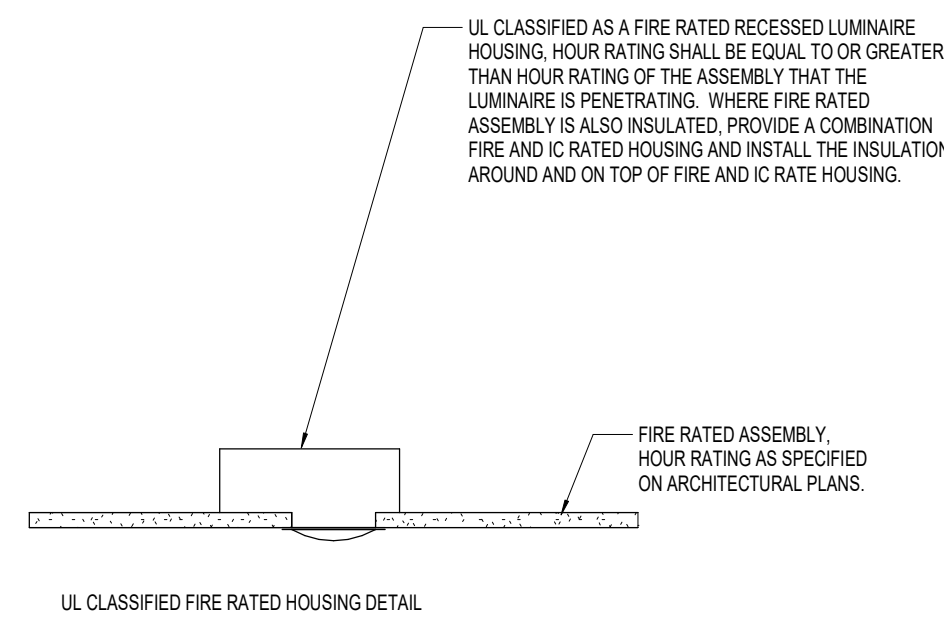
- NOTES:
1. SWITCH BUTTONS ARE FACTORY ENGRAVED.
 2. PUSH BUTTONS MAY CONTROL ANY RELAYS IN ANY COMBINATION.
 3. LED PILOT LIGHTS INDICATE STATUS.
 4. SWITCH LINKED TO THE GR-2400 DIGITAL BUS VIA CAT. 5 PATCH CABLE WITH R/W CONNECTORS.
 5. DECORA STYLE FACE PLATE BY CONTRACTOR.

6
E0.1 **PHOTOCELL DETAILS**
N.T.S.**5**
E0.1 **FIRESTOP INSTALLATION DETAIL**
N.T.S.

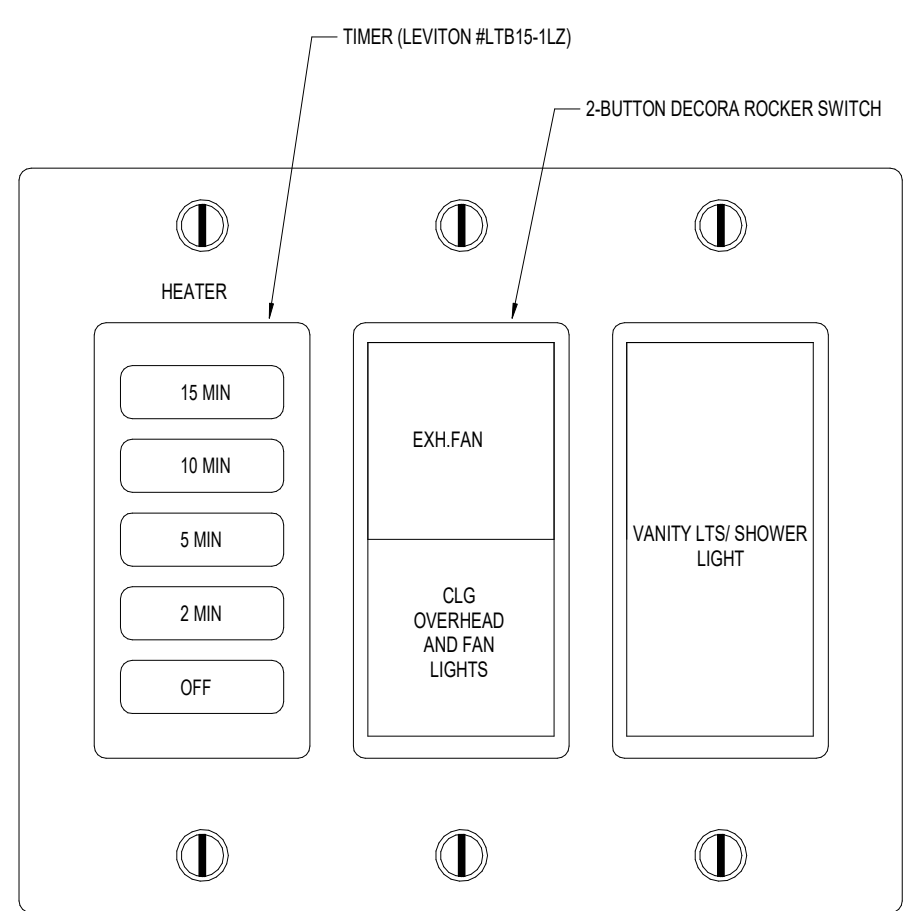
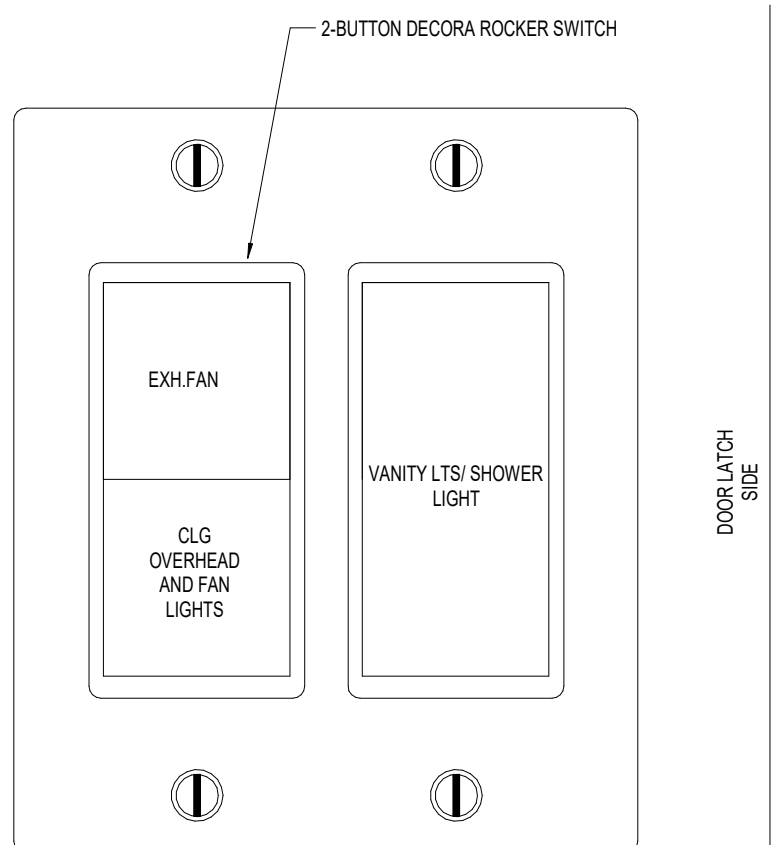
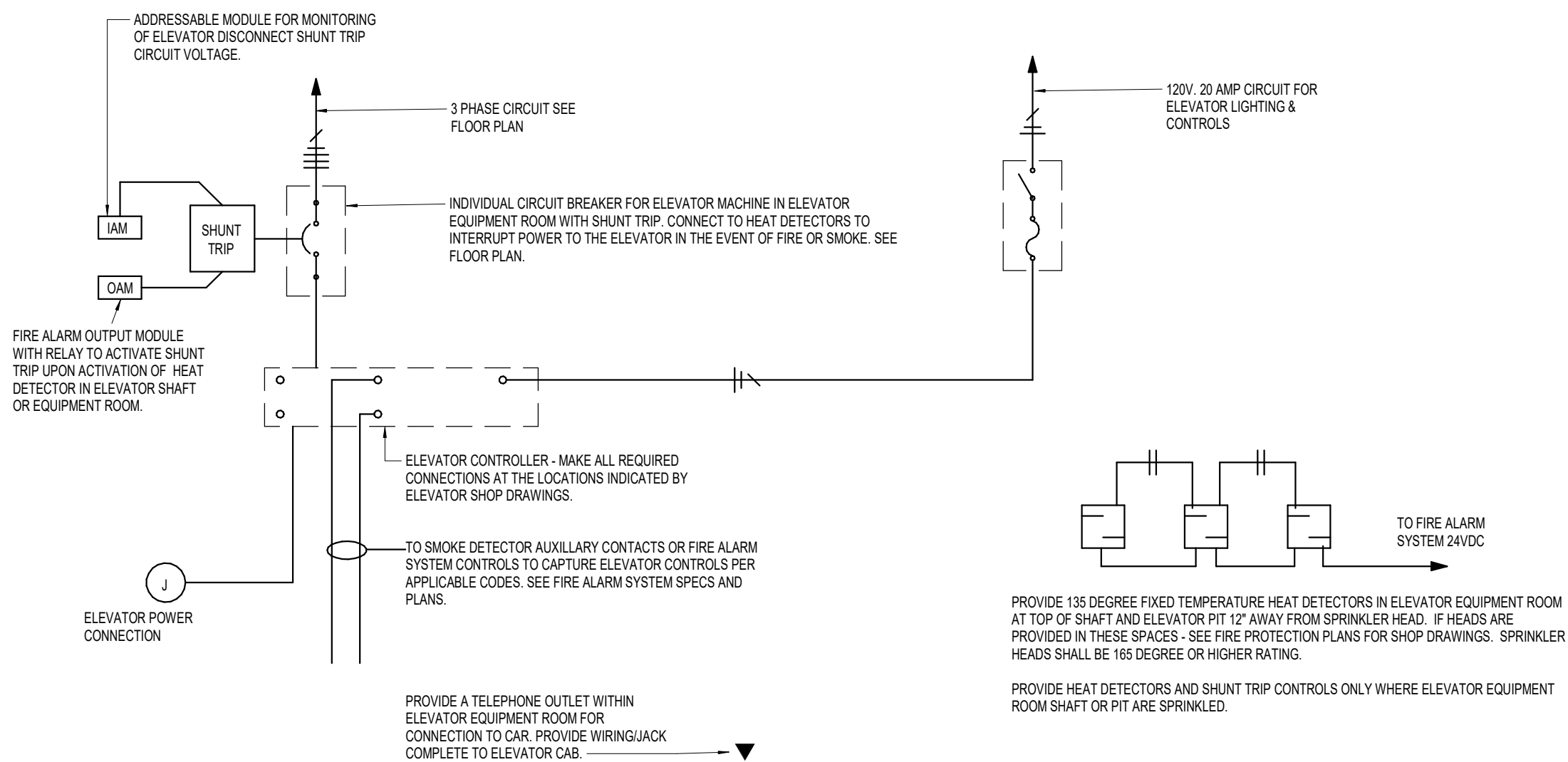
NOTE:
RECESSED ELECTRICAL BOXES IN RATED ASSEMBLIES ARE MEMBRANE PENETRATIONS AND MUST COMPLY WITH 714.3.2 OF THE 2012 IBC CODE. RECESSED OUTLET BOXES ON OPPOSITE SIDES OF THE WALL MUST BE SEPARATED BY 24" HORIZONTAL DISTANCE. SOLID FIREBLOCKING OR WITH UL LISTED PUTTY PADS.

4
E0.1 **DETAILS FOR MEMBRANE PENETRATIONS IN FIRE & ACOUSTICAL RATED ASSEMBLIES**
N.T.S.

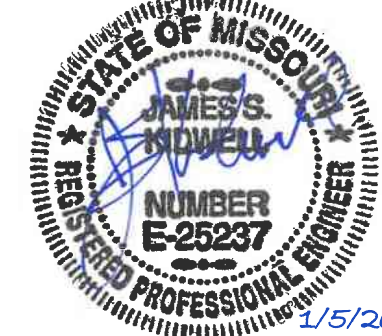
NOTE:
TYPICAL OF RECESSED WALL MOUNTED ELECTRICAL DEVICES LOCATED AT FIRE AND ACOUSTICAL RATED PARTITIONS. REFER TO 'DETAILS FOR MEMBRANE PENETRATIONS IN FIRE & ACOUSTICAL RATED WALLS' ON THIS DRAWING AND TO SPECIFICATIONS.

2
E0.1 **PARTIAL FIRE OR ACOUSTICAL RATED PARTITION**
N.T.S.

NOTE:
RECESSED LUMINAIRES IN FIRE RESISTANCE RATED HORIZONTAL ASSEMBLIES ARE MEMBRANE PENETRATIONS AND MUST COMPLY WITH 714.4.1.1.1 OR 714.4.1.1.2 OF THE 2012 IBC CODE. RECESSED LUMINAIRES SHALL BE INSTALLED SUCH THAT THE REQUIRED FIRE RESISTANCE WALL NOT BE REQUIRED.

3
E0.1 **DETAILS FOR LUMINAIRE PENETRATIONS IN FIRE RATED ASSEMBLIES**
N.T.S.**1**
E0.1 **DWELLING UNIT BATHROOM COMBINATION TIMER AND SINGLE POLE SWITCHES**
12" = 1'-0"**7**
E0.1 **ELEVATOR POWER WIRING DIAGRAM**
N.T.S.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

SFCs

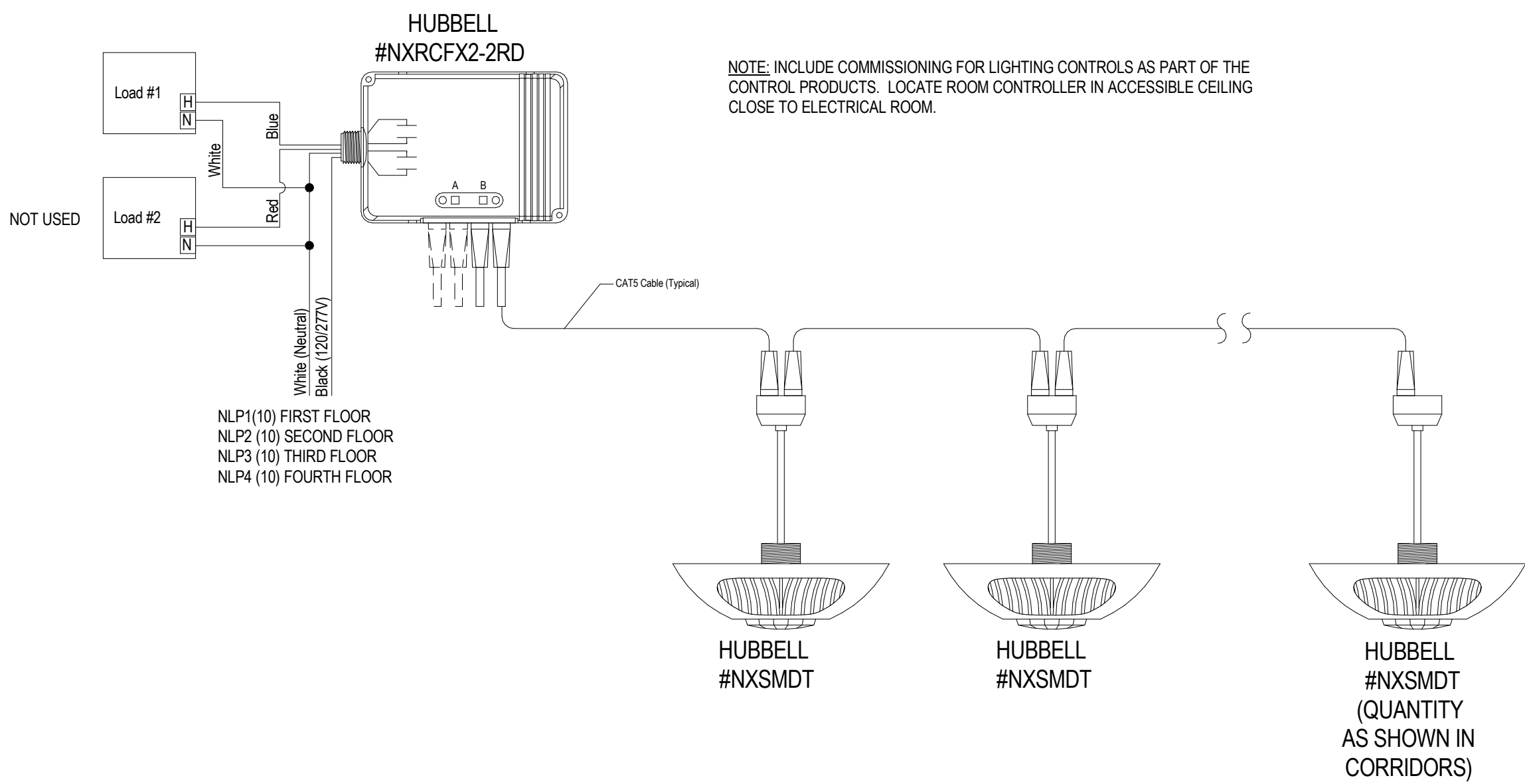
SFCs Inc. • 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 • Fax 540.343.6925
www.sfcsc.com

DESIGNER : DAS	DRAWN : MAW, DKW
ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO. 3	REVISION DESCRIPTION 03/07/24

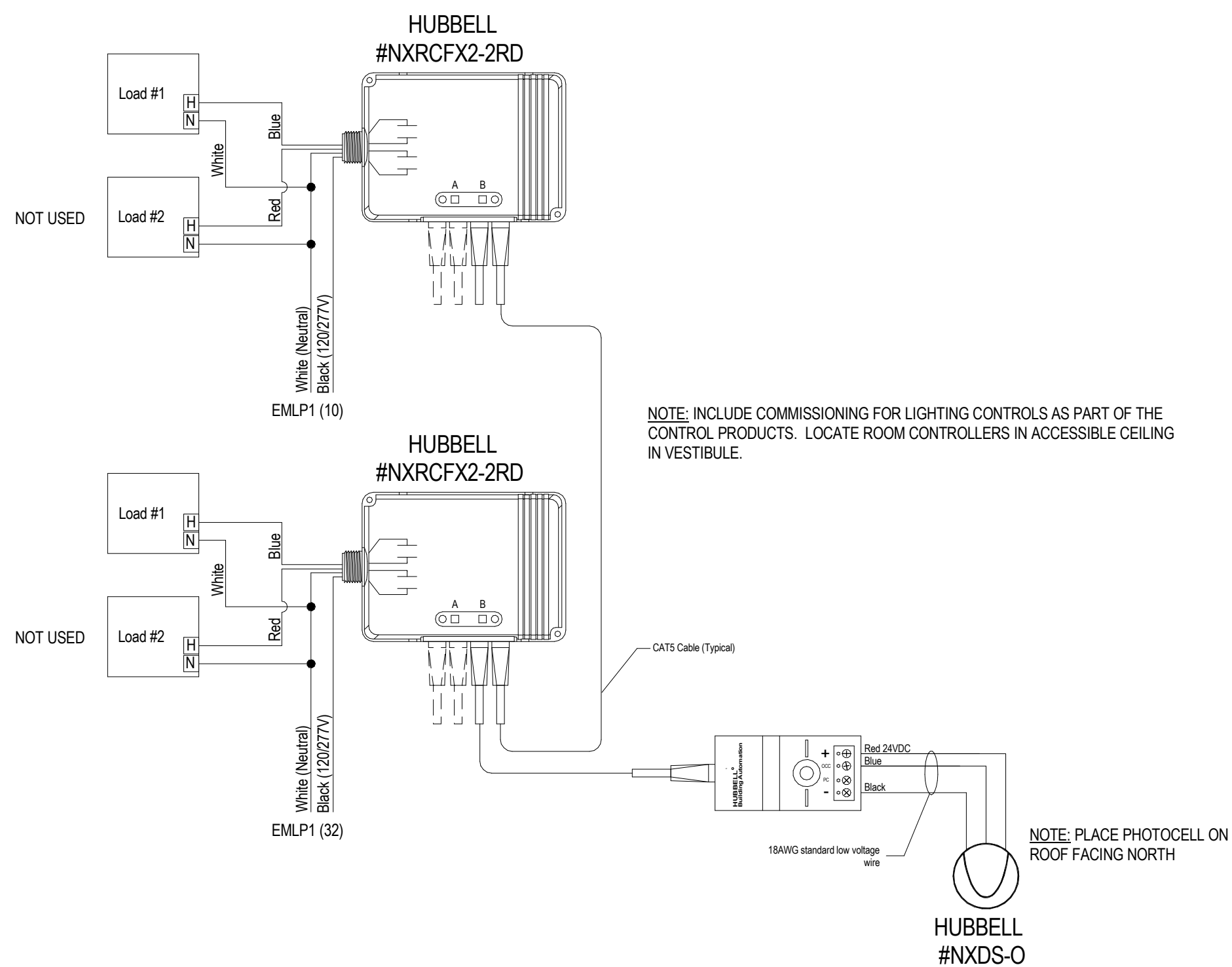
DRAWING TITLE
ELECTRICAL DETAILS

DATE: January 5, 2024
COMM. NO. 23104.00

E0.1



CORRIDOR LIGHTING CONTROL DIAGRAM
(TYPICAL FOR EACH FLOOR)



EMERGENCY EXTERIOR LIGHTING CONTROL DIAGRAM
(CONTROLLING ALL "TYPE 7" FIXTURES AT ENTRY AND EXIT DOORS)

LUMINAIRE SCHEDULE													
LUMINAIRE TYPE	DESCRIPTION			LAMPS					VOLTS	TOTAL CONNECTED WATTS	MOUNTING	FINISH	REMARKS
	LUMINAIRE DESCRIPTION	MANUFACTURER	LUM CATALOG NUMBER	QTY	TYPE	NOM. WATTS	INITIAL LUMENS	TEMP. COLOR (KELVINS)					
1	2X2 DIRECT/INDIRECT RECESSED, FIELD ADJUSTABLE LUMEN AND CCT SELECTORS, 0-10V DIMMABLE	ORACLE LIGHTING	22 OEVHP LED 3000 DIM10 MVOLT 35K 85	1	LED	21	3178	3500	MVOLT	21	RECESSED		
2	6" LED DOWNLIGHT, CLEAR SPECULAR, 0-10V DIMMING	PRESCOUTE	HOUSING ILTR-6RD-H-ML-25L DM1 NXE TRIM# LTR-6RD-T ML 30K9 WD S WT	1	LED	28	2500	3000	MVOLT	28	RECESSED	CLEAR SPECULAR WITH WHITE FLANGE	
3	4'-0" LED STRIPLIGHT W/ FROSTED LENS	COLUMBIA	MPS 4 30 ML F W U	1	LED	40	4800	3000	MVOLT	40	SURFACE OR CHAIN	FROSTED LENS	
4	SURFACE MOUNT LED WALL BRACKET (STAIR) WITH INTEGRAL OCCUPANCY SENSOR OPTION	LITHONIA	WL4 30L EZ1 LP30 XADN5T DIM10	1	LED	28	3952	3000	120/277	28	SURFACE	SURFACE WALL AT 7'-6" TO CL OF JBOX	LIGHT OUTPUT DIMS TO 10% IN UNOCCUPIED MODE. FIXTURES SHALL BE CAPABLE OF COMMUNICATION WITH NEIGHBORING FIXTURES TO ALLOW FOR ILLUMINATION OF ALL FIXTURES IN STAIRWELL UPON DETECTION OF MOVEMENT.
5	2'-0" LONG LED WALL MOUNT VAPORPROOF LED ELEVATOR PIT LIGHT ACRYLIC DIFFUSER	LITHONIA	DMN2 L24 4000LM MD AFL MVOLT GZ1 39K 80CRI	1	LED	40	5000	3000	120/277	40	SURFACE WALL	GASKETED VAPORPROOF	MOUNT FIXTURE AT APPROXIMATELY 5'-0" AG
6	7" ROUND LED SLIM SURFACE MOUNT DOWNLIGHT	ELITE LIGHTING	RL791-900L-DIMTR-120-30K-90-WH	1	LED	14	900	3000	120	14	SURFACE	WHITE	
7	EXTERIOR WALL PACK FOR EGRESS LIGHTING, DUAL POWER FEEDS	CURRENT	QSP2-160L-75-4K7-3-UNV-BLT-2PF	2	LED	72	9996	4000	120/277	72	SURFACE WALL AT 10'-0" AFG	BLACK	DUAL DRIVER, DUAL FEED PER CODE
8	LED AREA FIXTURE WITH A 16' STEEL POLE	LITHONIA	RSX2-P4-40K-R4-MVOLT-SPA-PE-DBLXD SSS-16-4G-DM19AS-STLHHC-FBCSTL2PC-DBLXD	1	LED	187	25329	4000	120/277	187	POLE MOUNT	BLACK	
9	POLE MOUNTED DECORATIVE PENDANT STYLE LED LUMINAIRE WITH DECORATIVE ARM AND POLE BASE	VISIONAIRE LIGHTING (TO MATCH EXISTING) - NO EQUALS (MOUNTING ARM)	QDN-2-L-74-80LC-3-4K-UNV-UAM-(COLOR TO MATCH-GSH1 (FIXTURE), RNTA-SR-188-16-08-343-728R-8K (POLE), DCB-14-SRS-8K (POLE BASE), VA103-L-S1-3-8K (MOUNTING ARM))	1	LED	54	6653	4000	120/208	54	POLE MOUNT	TO MATCH EXISTING	MATCH EXISTING LIGHT POLES ON SITE
10	(2) LED AREA FIXTURE WITH A 16' STEEL POLE MOUNTED AT 90 DEGREES FROM EACH OTHER	LITHONIA	(2)RSX2-P4-40K-R4-MVOLT-SPA-PE-DBLXD (1)SSS-16-4G-DM29AS-STLHHC-FBCSTL2PC-DBLXD	2	LED	187	25329	4000	120/277	374	POLE MOUNT	BLACK	
X1	EDGE LIT LED EXIT SIGN, 2-CIRCUIT	LITHONIA	EDG-1 (OR 2)-RMR-X2	--	LED	2.5	N/A	N/A	120/277	2.5	UNIVERSAL CEILING/WALL	MIRRORED FACE RED LETTERS	REFER TO LIGHTING FLOOR PLANS FOR # OF FACES AND DIRECTIONAL CHEVRONS. PROVIDE TWO CIRCUITS, ONE TO NORMAL LTG BRANCH CIRCUIT IN AREA THE OTHER TO THE EMERGENCY BRANCH CIRCUIT INDICATED.
X2	WHITE THERMOPLASTIC LED EXIT SIGN, 2-CIRCUIT	LITHONIA	LQM S W 3 R 120/277 X2	--	LED	2.5	N/A	N/A	120/277	2.5	UNIVERSAL CEILING/WALL	RED LETTERS	REFER TO LIGHTING FLOOR PLANS FOR # OF FACES AND DIRECTIONAL CHEVRONS. PROVIDE TWO CIRCUITS, ONE TO NORMAL LTG BRANCH CIRCUIT IN AREA, THE OTHER TO THE EMERGENCY BRANCH CIRCUIT INDICATED.
X3	WET LOCATION LISTED LED EXIT SIGN, 2-CIRCUIT	LITHONIA	WLTE W 1 R	--	LED	5	N/A	N/A	120/277	5	UNIVERSAL CEILING/WALL	RED LETTERS	REFER TO LIGHTING FLOOR PLANS FOR # OF FACES AND DIRECTIONAL CHEVRONS. PROVIDE EMERGENCY BRANCH CIRCUIT INDICATED.
NOTES - APPLY TO ALL LUMINAIRE SCHEDULES: ALL DECORATIVE LIGHT FIXTURE FINISHES SHALL BE DETERMINED BY AND COORDINATED WITH INTERIOR DESIGNER. COORDINATE THE FINISHED CEILING HEIGHTS WITH THE ARCHITECT/INTERIOR DESIGNER DRAWINGS FOR APPROPRIATE STEM LENGTHS OF PENDANT MOUNTED FIXTURES. NO FIXTURES SHALL EXTEND BELOW 7'-6" ABOVE FINISHED FLOOR, UNLESS SO DIRECTED BY ARCHITECT. ALL EMERGENCY LIGHT FIXTURES AND EXIT SIGNS SHALL MEET N.F.P.A. LIFE SAFETY REQUIREMENTS. INTERIOR / EXTERIOR FIXTURES FINISHES SUBJECT TO APPROVAL / CHANGE BY ARCHITECT. VERIFY PRIOR TO RELEASE OF ORDER AND SHOP DRAWING SUBMITTAL. VERIFY NECESSARY MOUNTING TRIMS WITH ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT CEILING TYPES. PROVIDE FLANGE KITS FOR RECESSED LIGHTING WHERE NEEDED. PROVIDE ARLINGTON T-BOX FOR SUSPENDED CEILING T-GRID WHERE FIXTURES ARE MOUNTED AT T-GRID RAILS. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL INDUSTRIAL STRIP LIGHT FIXTURE IN ALL MECHANICAL ROOMS WITH MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC. PRIOR TO ROUGH-IN AND FINAL INSTALLATION. LIGHT FIXTURES ARE TO BE ARRANGED TO PROVIDE THE SPACE WITH ADEQUATE LIGHTING FOR MECHANICAL EQUIPMENT ACCESS AND GENERAL EQUIPMENT MAINTENANCE.													

DECORATIVE LUMINAIRE SCHEDULE													
LUMINAIRE TYPE	DESCRIPTION			LAMPS					VOLTS	TOTAL CONNECTED WATTS	MOUNTING	FINISH	REMARKS
	LUMINAIRE DESCRIPTION	MANUFACTURER	LUM CATALOG NUMBER	QTY	TYPE	NOM. WATTS	INITIAL LUMENS	TEMP. COLOR (KELVINS)					
D1	30" DIA. IL CORRIDOR PENDANT.	LITETOPS	SS5-JKVC-DF10	3	GU24 LED	12	-	3000	120	36	PENDANT	STANDARD POWDER COAT BRONZE	ORDER WITH OPAL MATTE ACRYLIC DIFFUSER/ OFF WHITE LINEN/ CHOCOLATE TRIM. PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT
D2	1ST FLOOR VESTIBULES FLUSH MOUNT	ULTRALIGHT	CUSTOM CABLE HUNG DRUM PENDANT DF4	4	GU24 LED	12	-	3000	120	48	FLUSH MOUNT	STANDARD POWDER COAT FINISH W/ OPAL ACRYLIC DIFFUSER	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT
D3	1L CORRIDOR DWELLING UNIT ENTRY WALL SCONCE	HUBBARDTON FORGE	BANDED SCONCE #205812-1074	1	A19 - LED	10	-	3000	120	10	SURFACE WALL	OIL RUBBED BRONZE	PROVIDE A ALLOWANCE OF \$300 PER WALL SCONCE
D4	36" DIA. CHANDELIER AT TOP OF ATRIUM.	METROPOLITAN LIGHTNIG FIXTURE CO.	N6957-1-267B	5	E26 - MED LED	12	-	3000	120	60	PENDANT	CIMARRON BRONZE	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT
D5	30" DIA LOUNGE PENDANTS, MOUNTED AT VARIOUS HEIGHTS INDICATED ON FLOOR PLANS.	METROPOLITAN LIGHTNIG FIXTURE CO.	N6955-1-267B	4	E26 - MED LED	12	-	3000	120	48	PENDANT	CIMARRON BRONZE	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT
D6	24" DIA. 2ND & 4TH FLOOR LOUNGE PENDANT.	ULTRALIGHT	TAMBOUR 13223-24	3	LED	12	-	3000	120	30	PENDANT	CAST BRONZE W/ OPAL SHADE	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT
D7	ATRIUM DECORATIVE WALL SCONCE	RENAISSANCE LIGHTING	RL-4-0708-ADA	1	LED	15	-	3000	120	15	SURFACE WALL	MEDIUM BRONZE PC W/ FROSTED WHITE ACRYLIC SHADE	PROVIDE FIXTURE WITH DIMMABLE LED LAMPS COMPARABLE TO 60W INCANDESCENT
D8	30" WIDE WALL FIXTURE DESIGNED AS A PICTURE LIGHT	HINKLEY	ART1 LARGE ADJUSTABLE ACCENT LIGHT ITEM # 47095H8	2	EE8T14LE D	4.5	350	2700	120V	10	WALL PICTURE LIGHT	HERITAGE BRASS	PICTURE LIGHT. VERIFY MOUNTING HEIGHT WITH INTERIORS PRIOR TO INSTALLATION.

RESIDENT DWELLING UNIT LUMINAIRE SCHEDULE													
LUMINAIRE TYPE	DESCRIPTION			LAMPS					VOLTS	TOTAL CONNECTED WATTS	MOUNTING	FINISH	REMARKS
	LUMINAIRE DESCRIPTION	MANUFACTURER	LUM CATALOG NUMBER	QTY	TYPE	NOM. WATTS	INITIAL LUMENS	TEMP. COLOR (KELVINS)					
U1	6" LED WAFER DOWNLIGHT, DIMMABLE	COOPER LIGHTNIG	SLD006-9-30-WH	1	LED	13	800	3000	120	13	RECESSED CEILING	WHITE	
U2	BAHTRROOM VANITY LIGHT WITH ETCHED GLASS SHADES	PROGRESS LIGHTNIG	P300160-009	3	LED - E26	7	-	3000	120	21	SURFACE WALL AT 7'-0" TO CL OF JBOX	BRUSHED NICKEL	PROVIDE DIMMABLE LED LAMPING EQUIVALENT TO 100W INCANDESCENT WITH FIXTURE. LOCATE ABOVE VANITY MIRROR.
U3	BEDROOM / DEN 54" 5 BLADE CEILING FAN W/ LIGHT KIT	HARBOR BREEZE	SAILOR BAY 32" BRUSHED NICKEL LED INDOOR DOWNROD	3	LED A15	7	-	3000	120	21	SURFACE	BRUSHED NICKEL	
U4	MINI-PENDANT ABOVE KITCHEN ISLAND	PROGRESS LIGHTNIG	P500125-009	1	LED-E26	16	-	3000	120	16	PENDANT, 5'-6" TO BOTTOM OF SHADE	BRUSHED NICKEL	PENDANT MOUNT OVER COUNTER - COORDINATE OAH WITH ARCHITECTURAL AND INTERIOR ELEVATIONS. PROVIDE DIMMABLE LED LAMPING EQUIVALENT TO 100W INCANDESCENT WITH FIXTURE. REFER TO ELEVATIONS FOR MTG. HT.
U5	4" LED STRIP WITH LENS	HE WILLIAMS	7SS-4-L30-830-DIM-UNV	1	LED	19.6	2830	3000	120/277	19.6	SURFACE	WHITE	MOUNT FIXTURE ON CEILING DIRECTLY ABOVE DOOR IN SMALL CLOSETS, OTHER LOCATIONS AS SHOWN ON PLANS.
U6	FLUSH MOUNT IN DWELLING UNIT CORRIDOR	PROGRESS LIGHTNIG	P3852-09	2	LED-E26	16	-	3000	120	32	FLUSH MOUNT	BRUSHED NICKEL	PROVIDE WITH DIMMABLE LED LAMP
U7	4" LED RECESSED DOWNLIGHT-SHOWERLIGHT WITH FLUSH NON-CONDUCTIVE LENS	HE WILLIAMS	4DR-TL-10-8-35-DIM1-UNV-S-W-OF-WH-AD-N-F1	1	LED	9	1000	3500	120	9	RECESSED	WHITE	STANDARD WITH AD DIFFUSE ACRYLIC LENS AND IP1WET STANDARD OPTION
U8	EXTERIOR LANTERN ON DWELLING UNIT PATIO/ BALCONY	PROGRESS LIGHTNIG	P6052-20	1	LED	10	-	3000	120	10	SURFACE WALL AT 7'-10" TO CTR OF JBOX ABOVE PATIO DOOR	BLACK	PROVIDE DIMMABLE LED LAMPING EQUIVALENT TO 100W INCANDESCENT WITH FIXTURE. INSTALL AT 6'-8" TO BOTTOM OF FIXTURE.
U9	2" LED STRIP WITH LENS	HE WILLIAMS	7SS-2-L20-830-DIM-UNV	1	LED	14.5	1976	3000	120/277	14.5	SURFACE	WHITE	MOUNT FIXTURE ON WALL DIRECTLY ABOVE DOOR IN SMALL CLOSETS, OTHER LOCATIONS AS SHOWN ON PLANS.
U10	FLUSH MOUNT ABOVE DINING TABLE.	PROGRESS LIGHTNIG	P3852-09	2	LED-E26	16	-	3000	120	32	FLUSH MOUNT	BRUSHED NICKEL	PROVIDE WITH DIMMABLE LED LAMP
U11A	18" LED UNDERCABINET FIXTURE	ELITE LIGHTING	EU-LED-18-450L-DIMTR-120-30K-WH	1	LED	7	600	3000	120	7	UNDERCABINET	WHITE	DETERMINE WHICH LENGTH TO USE WITH THE WIDTH OF THE UPPER CABINET
U11B	12" LED UNDERCABINET FIXTURE	ELITE LIGHTING	EU-LED-12-450L-DIMTR-120-30K-WH	1	LED	4.6	450	3000	120	5	UNDERCABINET	WHITE	DETERMINE WHICH LENGTH TO USE WITH THE WIDTH OF THE UPPER CABINET

GENERAL NOTES

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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DESIGNER : DAS	DRAWN : MAW, DKW
ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO. 1	REVISION DESCRIPTION DATE
	FDP 1 02/22-24

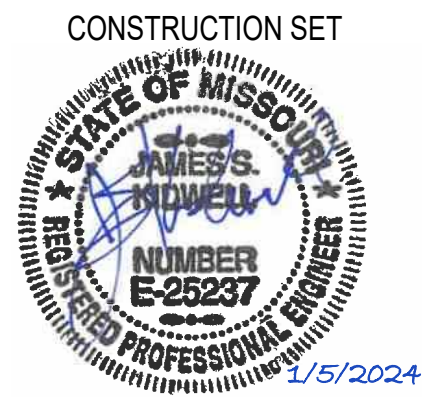
DRAWING TITLE

LUMINAIRE SCHEDULES &
LIGHTING CONTROLS
DETAILS

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E0.2

MECHANICAL & PLUMBING EQUIPMENT ELECTRICAL CONNECTION SCHEDULE														
Load Name	Description	Load (VA)	Voltage	# of Poles	Wire Size	Conduit Size	# of Runs	Disconnect	Panel	Circuit Number	Rating	Remarks		
CP-1	CIRCULATION PUMP	1125 VA	208 V	2	2-#12, 1-#12, 1-#12	3/4"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 1 ENCLOSURE.	NLDP1	38.40	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
CP-2	CIRCULATION PUMP	1125 VA	208 V	2	2-#12, 1-#12, 1-#12	3/4"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 1 ENCLOSURE.	NLDP1	37.39	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EF-1 (UNIT B)	EXHAUST FAN	40 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	LC-B	29	20 A	THIS EXHAUST FAN IS CIRCUITED TO UNIT TYPE B. THIS INFORMATION IS TYPICAL FOR THE EF-1 SERVING DWELLING UNITS #E14, E103, E104, E204, E205, E206, E314, E303, E304, E414, E403 & E404 ALL FED FROM THEIR OWN LC-B LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EF-1 (UNIT C)	EXHAUST FAN	160 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	LC-C	22	20 A	THIS EXHAUST FAN IS CIRCUITED TO UNIT TYPE C. THIS INFORMATION IS TYPICAL FOR THE EF-1 SERVING DWELLING UNITS #E16, E110, E101, E102, E103, E104, E210, E202, E203, E204, E205, E206, E310, E301, E302, E303, E304, E410, E401, E402, E403 & E404 ALL FED FROM THEIR OWN LC-C LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EF-1 (UNIT D1)	EXHAUST FAN	160 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	LC-D1	22	20 A	THIS EXHAUST FAN IS CIRCUITED TO UNIT TYPE D1. THIS INFORMATION IS TYPICAL FOR THE EF-1 SERVING DWELLING UNITS #E104, E105, E204, E205, E304, E305, E404 & E405 ALL FED FROM THEIR OWN LC-D1 LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EF-1 (UNIT D2)	EXHAUST FAN	160 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	LC-D2	22	20 A	THIS EXHAUST FAN IS CIRCUITED TO UNIT TYPE D2. THIS INFORMATION IS TYPICAL FOR THE EF-1 SERVING DWELLING UNITS #E111, E211, E311 & E411 ALL FED FROM THEIR OWN LC-D2 LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EF-1 (UNIT D3)	EXHAUST FAN	160 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	LC-D3	22	20 A	THIS EXHAUST FAN IS CIRCUITED TO UNIT TYPE D3. THIS INFORMATION IS TYPICAL FOR THE EF-1 SERVING DWELLING UNITS #E112, E212, E312, E412 ALL FED FROM THEIR OWN LC-D3 LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EF-2 (RES. CLOSET #E302)	EXHAUST FAN	528 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	NLDP1	25	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EF-2 (RES. CLOSET #E402)	EXHAUST FAN	528 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	NLDP4	36	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EW-1 (STAIRWELL #1, 4TH FLOOR)	ELECTRIC WALL HEATER	3000 VA	208 V	2	2-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	NLDP4	19.11	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EW-1 (STAIRWELL #1, 1ST FLOOR)	ELECTRIC WALL HEATER	3000 VA	208 V	2	2-#10, 1-#10, 1-#10	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	NLDP1	30.32	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EW-1 (STAIRWELL #2, 4TH FLOOR)	ELECTRIC WALL HEATER	3000 VA	208 V	2	2-#10, 1-#10, 1-#10	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	NLDP4	13.15	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
EW-1 (STAIRWELL #2, 1ST FLOOR)	ELECTRIC WALL HEATER	3000 VA	208 V	2	2-#10, 1-#10, 1-#10	3/4"	1	MANUFACTURER PROVIDED NON-FUSED DISCONNECT SWITCH.	NLDP1	29.31	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
F-1 (L. ROOF)	EXHAUST FAN	700 VA	120 V	1	1-#10, 1-#10, 1-#10	3/4"	1	MANUFACTURER PROVIDED DISCONNECT SWITCH.	NLDP4	29	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
F-2 (ATRIUM ROOF)	EXHAUST FAN	528 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	MANUFACTURER PROVIDED DISCONNECT SWITCH.	NLDP4	27	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
RTU-1	ROOF TOP UNIT (GX COOLING & NAT GAS HEAT)	25950 VA	208 V	3	3-#10, 1-#10, 1-#10	1"	1	3P, 30A, 240V, DISCONNECT SWITCH IN NEMA 3R ENCLOSURE.	NLDP4	29.31.33	90 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
RTU-2	ROOF TOP UNIT (GX COOLING & NAT GAS HEAT)	25950 VA	208 V	3	3-#10, 1-#10, 1-#10	1"	1	3P, 30A, 240V, DISCONNECT SWITCH IN NEMA 3R ENCLOSURE.	NLDP4	30.32.34	90 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
RTU-3	ROOF TOP UNIT (GX COOLING & NAT GAS HEAT)	26880 VA	208 V	3	3-#10, 1-#10, 1-#10	1"	1	3P, 30A, 240V, DISCONNECT SWITCH IN NEMA 3R ENCLOSURE.	NLDP4	30.37.39	110 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
SEV-F-1	SMOKE EVACUATION EXHAUST FAN	6012 VA	208 V	3	3-#10, 1-#10, 1-#10	1"	1	MANUFACTURER PROVIDED DISCONNECT SWITCH AND ECM.	EMLP1	19.11.13	30 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
SEV-F-2	SMOKE EVACUATION EXHAUST FAN	6012 VA	208 V	3	3-#10, 1-#10, 1-#10	1"	1	MANUFACTURER PROVIDED DISCONNECT SWITCH AND ECM.	EMLP1	19.33.35	30 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
SEV-F-3	SMOKE EVACUATION EXHAUST FAN	6012 VA	208 V	3	3-#10, 1-#10, 1-#10	1"	1	MANUFACTURER PROVIDED DISCONNECT SWITCH AND ECM.	EMLP1	32.34.36	30 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
SP-1	SUMP PUMP	1176 VA	120 V	1	1-#10, 1-#10, 1-#10	3/4"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 3R ENCLOSURE.	NLDP1	29	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
SP-2	SUMP PUMP	1176 VA	120 V	1	1-#10, 1-#10, 1-#10	3/4"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 3R ENCLOSURE.	NLDP1	17	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
TWV-1 (CONTROLS)	THERMOSTATIC MIXING VALVE	240 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	JUNCTION BOX	NLDP1	34	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
VPAC-1 (UNIT B)	VERTICAL PACKAGED TERMINAL AIR CONDITIONER UNITS (THRU WALL)	7280 VA	208 V	2	2-#10, 1-#10, 1-#10	1"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 1 ENCLOSURE.	LC-B	19.21	40 A	THIS PTAC IS CIRCUITED TO UNIT TYPE B. THIS INFORMATION IS TYPICAL FOR THE VPAC-1 SERVING DWELLING UNITS #E14, E103, E104, E214, E203, E204, E314, E303, E304, E414, E403 & E404 ALL FED FROM THEIR OWN LC-B LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
VPAC-2 (UNIT C)	VERTICAL PACKAGED TERMINAL AIR CONDITIONER UNITS (THRU WALL)	7280 VA	208 V	2	2-#10, 1-#10, 1-#10	1"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 1 ENCLOSURE.	LC-C	21.23	40 A	THIS PTAC IS CIRCUITED TO UNIT TYPE C. THIS INFORMATION IS TYPICAL FOR THE VPAC-2 SERVING DWELLING UNITS #E16, E110, E101, E102, E103, E104, E210, E202, E203, E204, E205, E206, E310, E301, E302, E303, E304, E410, E401, E402, E403 & E404 ALL FED FROM THEIR OWN LC-C LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
VPAC-3 (UNIT D1)	VERTICAL PACKAGED TERMINAL AIR CONDITIONER UNITS (THRU WALL)	9668 VA	208 V	2	2-#10, 1-#10, 1-#10	1"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 1 ENCLOSURE.	LC-D1	21.23	50 A	THIS PTAC IS CIRCUITED TO UNIT TYPE D1. THIS INFORMATION IS TYPICAL FOR THE VPAC-3 SERVING DWELLING UNITS #E104, E105, E204, E205, E304, E305, E404 & E405 ALL FED FROM THEIR OWN LC-D1 LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
VPAC-3 (UNIT D2)	VERTICAL PACKAGED TERMINAL AIR CONDITIONER UNITS (THRU WALL)	9668 VA	208 V	2	2-#10, 1-#10, 1-#10	1"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 1 ENCLOSURE.	LC-D2	21.23	50 A	THIS PTAC IS CIRCUITED TO UNIT TYPE D2. THIS INFORMATION IS TYPICAL FOR THE VPAC-3 SERVING DWELLING UNITS #E111, E211, E311 & E411 ALL FED FROM THEIR OWN LC-D2 LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
VPAC-3 (UNIT D3)	VERTICAL PACKAGED TERMINAL AIR CONDITIONER UNITS (THRU WALL)	9668 VA	208 V	2	2-#10, 1-#10, 1-#10	1"	1	2P, 30A, 240V, DISCONNECT SWITCH IN NEMA 1 ENCLOSURE.	LC-D3	21.23	50 A	THIS PTAC IS CIRCUITED TO UNIT TYPE D3. THIS INFORMATION IS TYPICAL FOR THE VPAC-3 SERVING DWELLING UNITS #E112, E212, E312, E412 ALL FED FROM THEIR OWN LC-D3 LOAD CENTERS SHOWN ON ENLARGED UNIT PLANS. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
WTR-HTR-1 (CONTROLS)	WATER HEATER	600 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	JUNCTION BOX	NLDP1	33	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		
WTR-HTR-2 (CONTROLS)	WATER HEATER	600 VA	120 V	1	1-#12, 1-#12, 1-#12	3/4"	1	JUNCTION BOX	NLDP1	35	20 A	VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.		

GENERAL NOTES

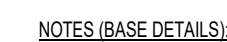
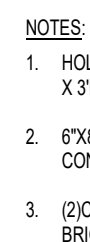


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ENGINEER : MAW	APPROVED : JSK	
NO.	REVISION DESCRIPTION	DATE
2	Rev 1 - Permit Comments	02/15/24

DRAWING TITLE
**MECHANICAL & PLUMBING
EQUIPMENT ELECTRICAL
CONNECTION SCHEDULE**

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E0.3



1. STUB OUT CONDUIT 1'-0" BEYOND BASE FOR LAST LIGHTING FIXTURE IN RUN AND CAP FOR FUTURE EXTENSION OF CIRCUIT.
2. 1" SCH 40 PVC HOMERUN OR TO ADJACENT FIXTURE.
3. NO RUBBING OR PARGING OF CONCRETE BASE AFTER REMOVAL OF FORM.

④ POLE BASE DETAIL



1. MINIMUM #1 GALVANIZED STRUCTURAL STEEL CHANNEL OR #4 RIGID GALVANIZED CONDUIT.
2. 1.5-17 1/2 GAUGE, SLOTTED BACK, GALVANIZED ZINC UNISTRUT.
3. 2H24KED 1.5-17 1/2 GAUGE, SLOTTED BACK, GALVANIZED ZINC UNISTRUT WITH CONDUIT STRAPS.
4. PROVIDE EATON #H24K2SLSN-FLX, MANUAL TRANSFER SWITCH WITH CAM LOCKS FOR CONNECTION OF TEMPORARY EMERGENCY SUPPLY GENERATOR, 150A, 4P, 240V, NEMA 3R.
5. 1" C. GR5C WITH STEEL THREADED TYPE CONNECTORS AND PVC SCH. 40. FOR COMMUNICATION CABLES TO GENERATOR CONTROL PANEL.
6. GR5C WITH STEEL THREADED TYPE CONNECTORS AND PVC SCH. 40. FEEDER TO GENERATOR.
7. GR5C WITH STEEL THREADED TYPE CONNECTORS AND PVC SCH. 40. FEEDER TO BUILDING.



- GENERAL NOTES

- PLAN NOTES

1. EXISTING UTILITY PAD MOUNTED SWITCH
2. TWO (2) 4" SCH 40 PVC FOR PRIMARY PROVIDER AND INSTALLED BY ELECTRICAL CONTRACTOR. UTILITY PROVIDER TO PROVIDE AND INSTALL CONDUCTORS.
3. PAD MOUNTED UTILITY SERVICE TRANSFORMER PROVIDED AND INSTALLED BY UTILITY. E.C. TO PROVIDE AND INSTALL CONCRETE TRANSFORMER PAD PER UTILITY REQUIREMENTS.
4. UNDERGROUND SERVICE LATERAL - 4 SETS OF (4 - #500 KMC ALUMINUM 1/8" S/S 2' C)
5. EXISTING SOLAR ARCADE AND DISTRIBUTION ON EXISTING BUILDING ROOF TO BE RELOCATED OR REMOVE
6. TO BE RELOCATED. PROVIDE NEW UNDERGROUND WIRING AND CONNECT TO EXISTING CIRCUIT
7. PROVIDE AND INSTALL TWO (2) 4" SCH 40 PVC WITH STRONG FAN PANEL N/ST TO PULL (1) CONDUIT IS FOR FUTURE AND (1) CONDUIT TO HAVE 2#10, 1#10G FOR NEW LIGHTING CIRCUIT.
8. PROVIDE AND INSTALL 12" X12" PULLBOX.
9. EXISTING LIGHTING POLES TO REMAIN.
10. ROLL-UP TEMPORARY GENERATOR CONNECTION CABINET ON STRUCT FRAME. REF. ONE-LINE DIAGRAM, E4.1, AND DETAIL ON THIS SHEET
11. PROTECTIVE BOLLARD. REF. ONE-LINE DIAGRAM AND DETAIL ON THIS SHEET
12. GENERATOR EMERGENCY STOP BUTTON, TAMPER RESISTANT. MOUNTED AT 48" AFF ADJACENT TO OPENING OF GENERATOR DOOR. INTERFACE WITH GENERATOR CONTROLS TO SHUT GENERATOR DOWN WHEN OPERATED.
13. 36 KW EMERGENCY GAS GENERATOR SET WITH CONCRETE PAD. REFER TO DETAIL ON THIS SHEET FOR ADDITIONAL GENERATOR RELATED CONNECTIONS, DETAILS AND INFORMATION. REFER TO ONE-LINE DIAGRAM SHEET E4.1
14. UNDERGROUND FEEDER FROM EMERGENCY GAS GENERATOR TO ATS-EM IN ELEC. ROOM #E20. INSTALL 3" BELOW GRADE. REFER TO ONE-LINE DIAGRAM SHEET E4.1.
15. REMOVE EXISTING POLE AND LIGHT FIXTURE. POLE BASE TO REMAIN. INSTALL NEW POLE AND (2) LIGHT FIXTURES ON EXISTING POLE BASE. INTERCEPT EXISTING UNDERGROUND CIRCUIT, DISCONNECT AND INSTALL NEW UNDERGROUND CIRCUITS AS SHOWN. ENSURE NEW POLE MATCHES UP TO EXISTING ANCHOR BOLT SPACING PATTERN.
16. NEW POLE BASE, POLE AND LIGHT FIXTURE. SEE POLE BASE DETAIL.
17. (2#10, 1#10G) 1" SCH. 40 PVC.
18. REMOVE POLE AND LIGHT FIXTURE FROM EXISTING POLE BASE. DEMO EXISTING POLE BASE. INSTALL NEW POLE BASE AND COORDINATE WITH LOCATION OF NEW CONCRETE WALL. EXISTING ANCHOR BOLTS IN NEW POLE BASE MATCHES WITH EXISTING POLE. INSTALL EXISTING POLE AND LIGHT FIXTURE ON NEW POLE BASE. INTERCEPT EXISTING UNDERGROUND CIRCUITING AND CONNECT TO NEW POLE BASE.
19. REMOVE POLE AND LIGHT FIXTURE FROM EXISTING POLE BASE. DEMO EXISTING POLE BASE. INSTALL NEW POLE BASE AND COORDINATE LOCATION WITH NEW PAVEMENT WARNING STRIP. ENSURE ANCHOR BOLTS IN NEW POLE BASE MATCHES WITH EXISTING POLE. INSTALL EXISTING POLE AND LIGHT FIXTURE ON NEW POLE BASE. INTERCEPT EXISTING UNDERGROUND CIRCUITING AND CONNECT TO NEW POLE BASE.
20. REMOVE POLE AND LIGHT FIXTURE FROM EXISTING POLE BASE. DEMO EXISTING POLE BASE. INSTALL NEW POLE BASE AND COORDINATE LOCATION WITH CIVIL ENGINEER. EXISTING ANCHOR BOLTS IN NEW POLE BASE MATCHES WITH EXISTING POLE. INSTALL EXISTING POLE AND LIGHT FIXTURE ON NEW POLE BASE. INTERCEPT EXISTING UNDERGROUND CIRCUITING AND CONNECT TO NEW POLE BASE.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT : DAS	CHECKED : MAW	
ENGINEER : MAW	APPROVED : JSK	
NO.	REVISION DESCRIPTION	DATE
1	FDP 1	02/22-24
3	Addendum #1	03/07/24

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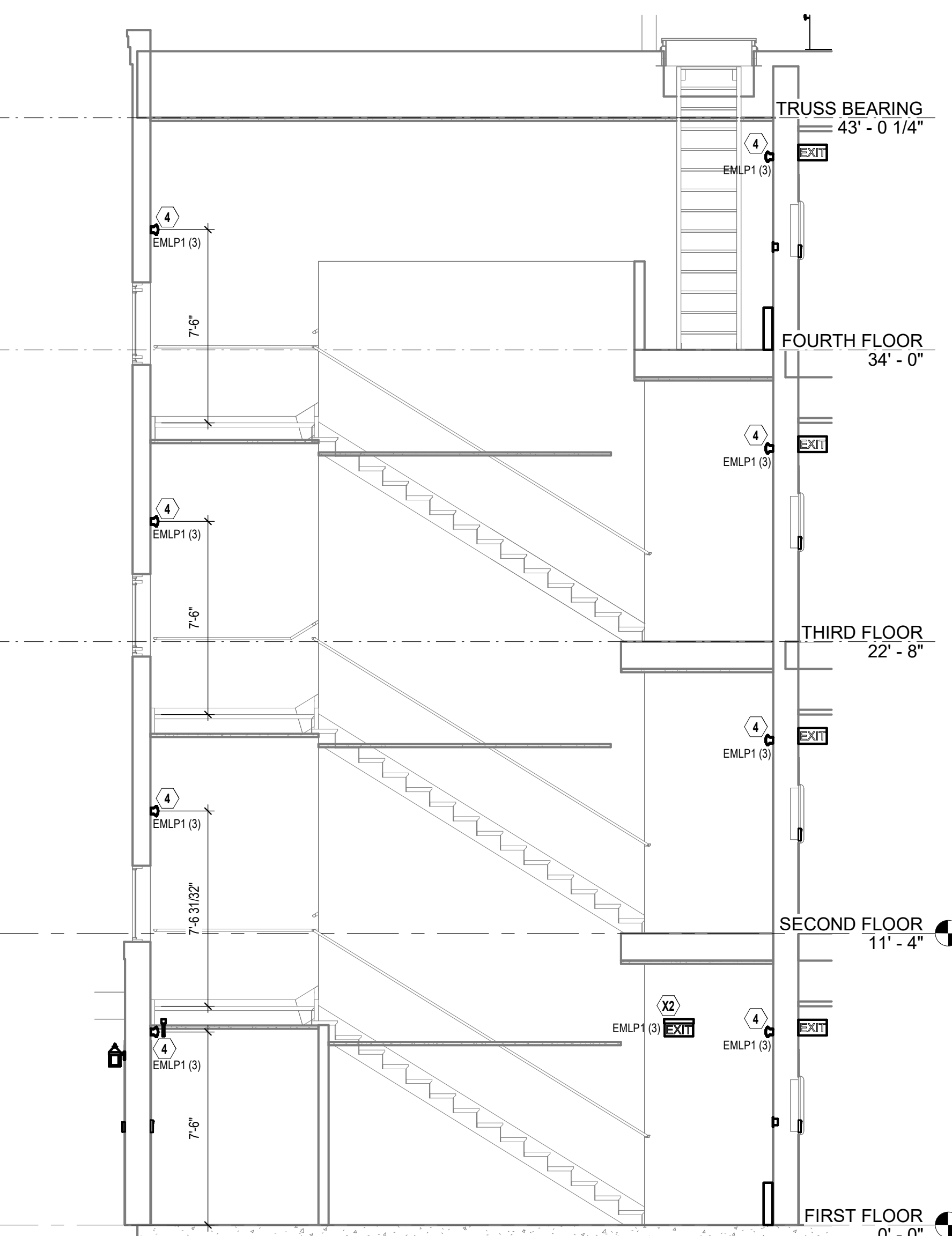
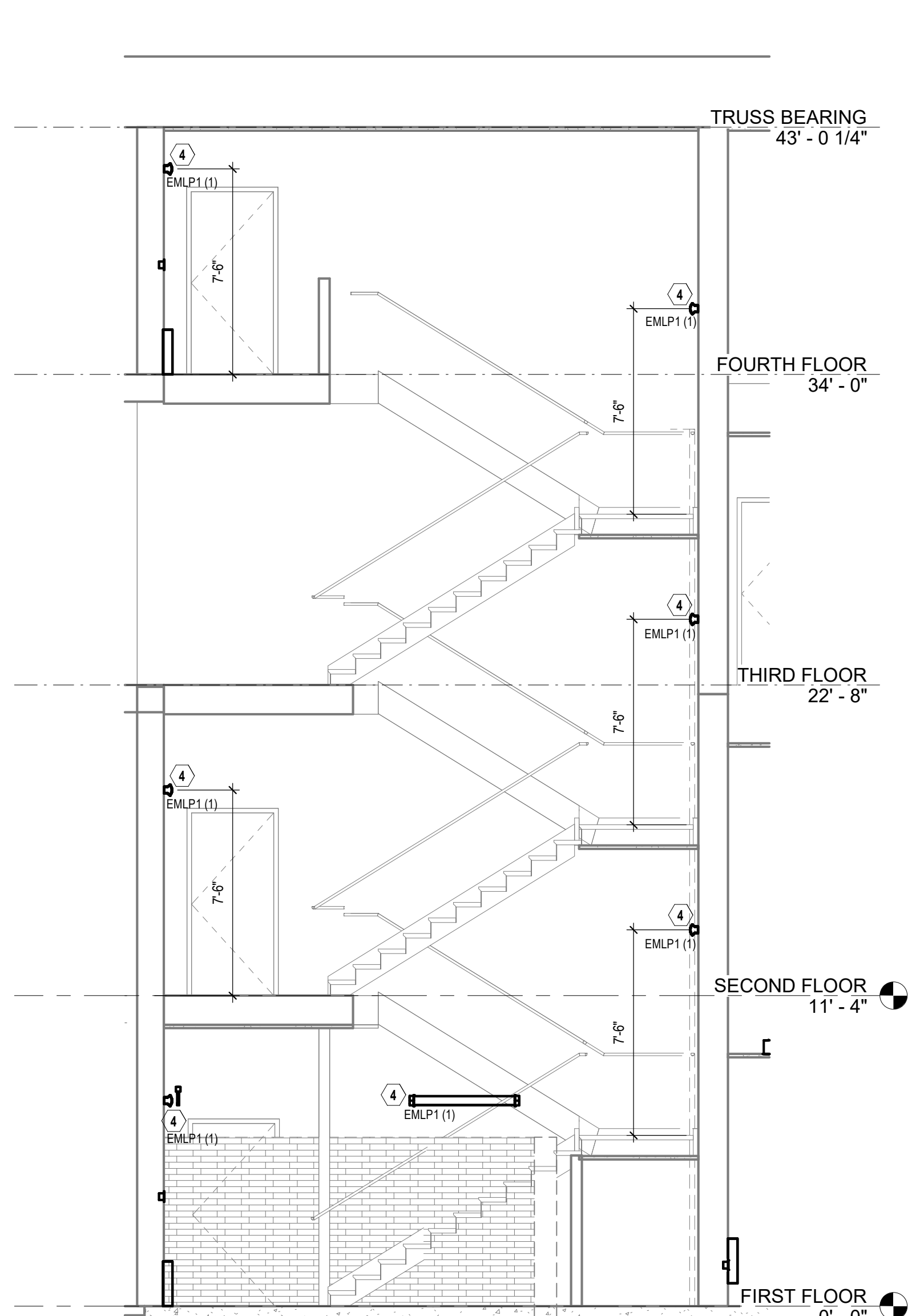
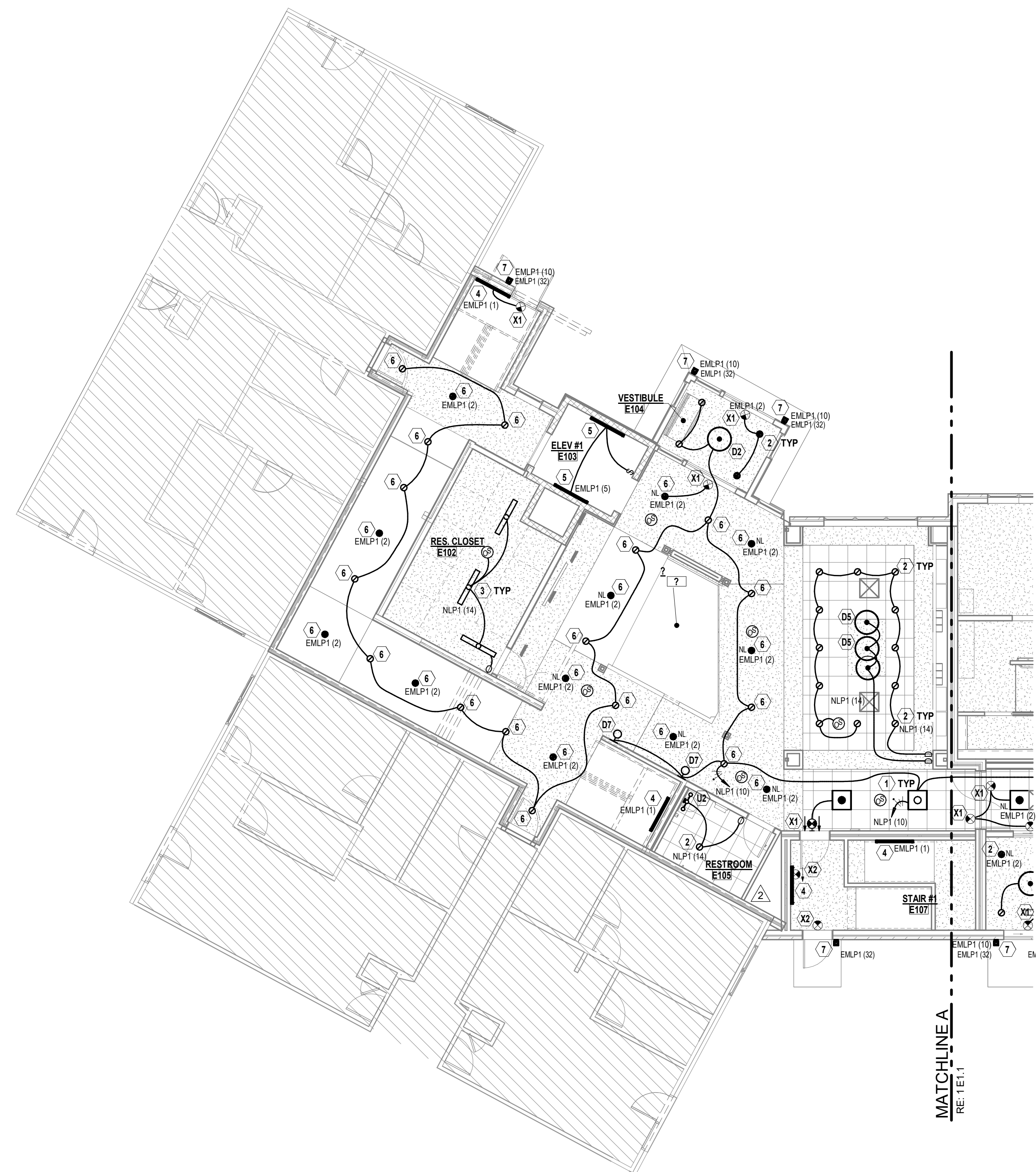
ELECTRICAL SITE PLAN

DATE: January 5, 2024

DRAWING

COMM. NO.	23104.00
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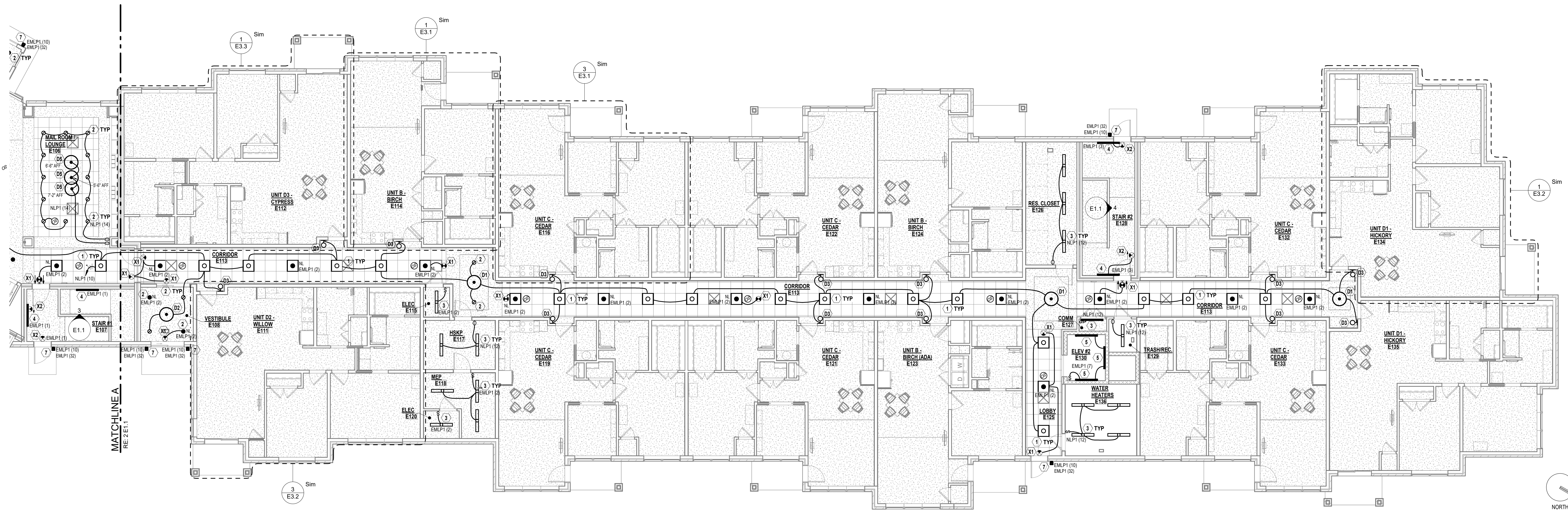
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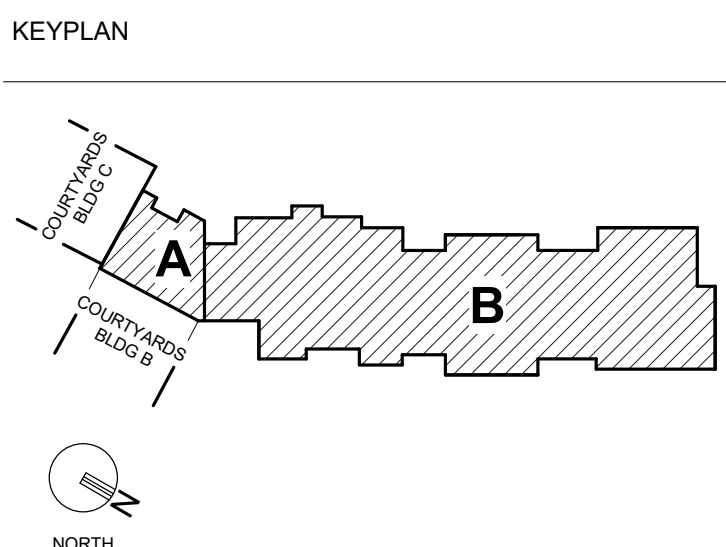
2 FIRST FLOOR ATRIUM - LIGHTING
E1.1 1/8" = 1'-0"

3 STAIRWELL #1 - LIGHTING ELEVATION
E1.1 1/4" = 1'-0"

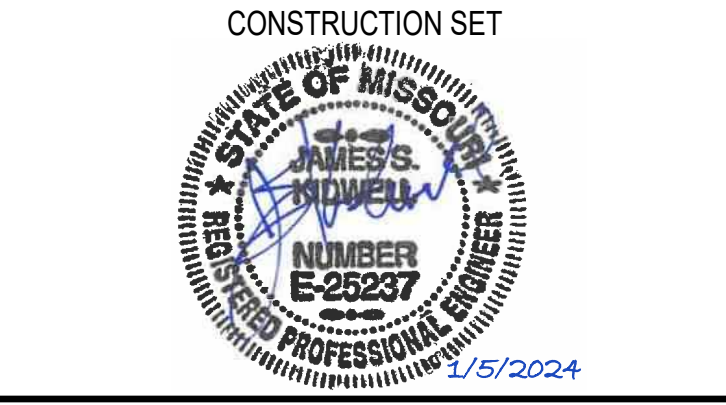
4 STAIRWELL #2 - LIGHTING ELEVATION
E1.1 1/4" = 1'-0"



1 FIRST FLOOR IL UNITS - LIGHTING
E1.1 1/8" = 1'-0"



- GENERAL NOTES
- SHADED LUMINAIRE OR (E) TAG INDICATES LUMINAIRE EQUIPPED WITH EMERGENCY BATTERY BACKUP OR CONNECTED TO EMERGENCY BRANCH CIRCUIT.
 - COMMON AREAS, CORRIDOR SPACES SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL.
 - ALL EXIT SIGNS SHALL BE TWO (2) CIRCUIT TYPE (NON-CONNECTED TO EMERGENCY CIRCUIT) INDICATED AS WELL AS TO LOCAL "NORMAL" BRANCH CIRCUIT. "NORMAL" CIRCUIT CONNECTED TO EMERGENCY EXIT SIGNS SHALL BE UNSWITCHED. CONNECT EXIT SIGNS AHEAD OF LIGHT SWITCH AND EXTEND ADDITIONAL "HOT" CONDUCTOR TO KEEP DEVICES UNSWITCHED.
 - COORDINATE WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND CASEWORK DETAILS FOR LOCATIONS OF UNDERCABINET LIGHTING. PROVIDE NOTICES WITH LOCAL WALL SWITCH.
 - COORDINATE LUMINAIRE PLACEMENT WITH ARCHITECTURAL PLANS AND OTHER TRADES.
 - COORDINATE LUMINAIRE TYPE AND ACCESSORIES FOR INSTALLATION IN CEILING TYPES SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS.
 - LUMINAIRES SHALL BE CONTROLLED BY SWITCHES SHOWN IN EACH SPACE AND CONNECTED TO LIGHTING PANELS WITH THE REQUIRED QUANTITY OF WIRES FOR PROPER OPERATION.
 - LUMINAIRES INDICATED WITH MULTILEVEL SWITCHING SHALL HAVE SIMILAR LAMPS CONTROLLED TOGETHER, I.E. INWARD AND OUTWARD LAMPS OR RIGHT AND LEFT HAND LAMPS.
 - CONNECT EXIT LIGHTS, EMERGENCY BATTERIES, AND NIGHT LIGHTS TO UNSWITCHED LEG OF CIRCUIT. THE UNSWITCHED LEG SHALL BYPASS ANY LIGHTING CONTROL DEVICES INCLUDING RELAYS, SWITCHES, OCCUPANCY SENSORS, OR DIMMABLE CONTROL DEVICES.
 - TEST SWITCHES FOR EMERGENCY BATTERIES SHALL BE INTEGRAL TO LUMINAIRE. COORDINATE WITH SUPPLIER AS FACTORY INSTALLED BATTERIES MAY BE NECESSARY TO MEET THIS REQUIREMENT.
 - LOCATE EXIT SIGNS FOR MAXIMUM VIEWING AREA TO IDENTIFY EGRESS PATHS AS INDICATED ON PLANS. COORDINATE LOCATIONS SUCH THAT ARCHITECTURAL FEATURES OR EQUIPMENT FROM OTHER TRADES DO NOT OBSTRUCT VIEW.
 - INSTALL SWITCHES AND OTHER CONTROL DEVICES WITHIN 12" OF LATCH SIDE OF DOOR, SLED LIGHT OR DOOR SWING IN OPEN POSITION. DO NOT INSTALL DEVICES BEHIND DOOR SWING. COORDINATE WITH ACTUAL DOOR ASSEMBLY PRIOR TO INSTALLATION.
 - LOCATE OCCUPANCY SENSORS FOR MAXIMUM COVERAGE AND TO LIMIT FALSE TRIPPING. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR ALLOWABLE PROXIMITY TO MECHANICAL DIFFUSERS.
 - INSTALL POWER PACKS OR OTHER CONTROL RELAYS ABOVE ACCESSIBLE CEILING. LABEL DEVICE AND AREA IT CONTROLS.
 - LOCATE PHOTOCELLS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR OPTIMAL RESPONSE TO NATURAL LIGHT IN SPACE AND TO MINIMIZE FALSE READINGS.
 - ADJUST SENSITIVITY COVERAGE AREA AND TIME DELAY FOR LIGHTING CONTROL DEVICES DURING CONSTRUCTION. PROVIDE FOLLOW UP VISIT THREE WEEKS AFTER OWNER HAS OCCUPIED SPACE TO MAKE ADDITIONAL ADJUSTMENTS TO ACCOUNT FOR FURNITURE LAYOUTS AND USER INPUT.
 - COORDINATE WITH MECHANICAL CONTRACTOR FOR INTEGRATION OF OCCUPANCY SENSORS WITH MECHANICAL SYSTEM CONTROLS. PROVIDE ADDITIONAL RELAYS AS REQUIRED.
 - RECESSED LUMINAIRES SHALL BE SECURED SUCH THAT THE FORCE REQUIRED TO INSERT LAMPS, TRIMS, LENSES, LOUVERS, OR DOOR FRAMES DOES NOT SHIFT HOUSING.



PROJECT TITLE

John Knox Village
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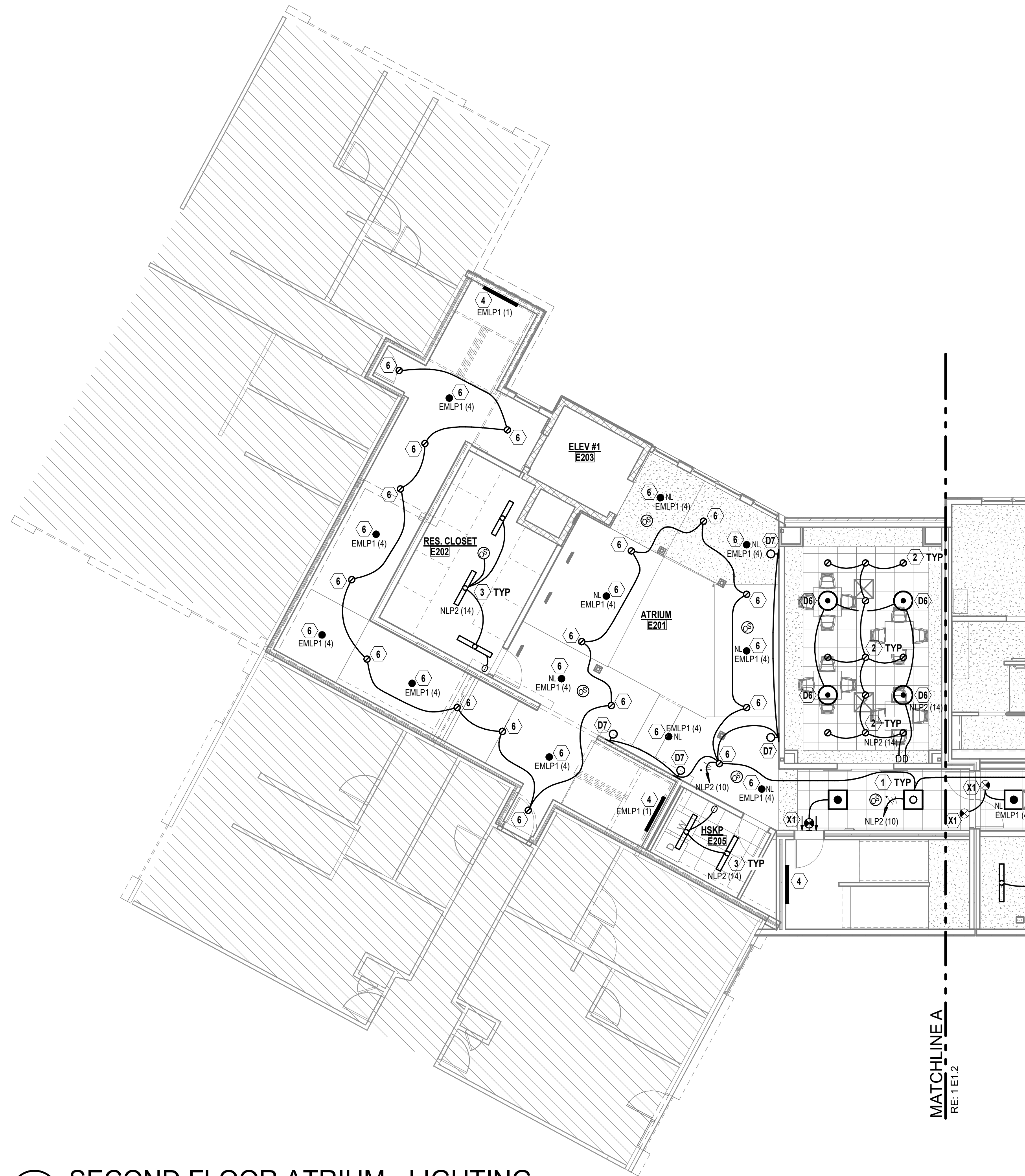
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ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO. 2	REVISION DESCRIPTION DATE
Rev 1 - Permit Comments	02/15/24

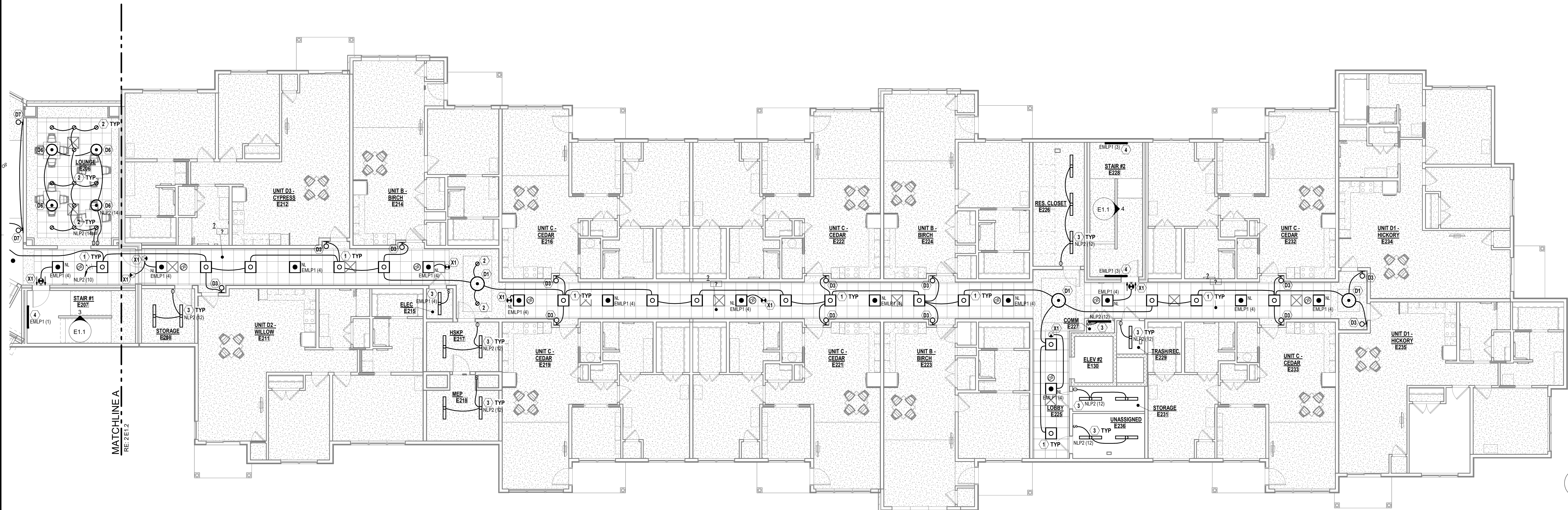
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FIRST FLOOR PLAN -
LIGHTING

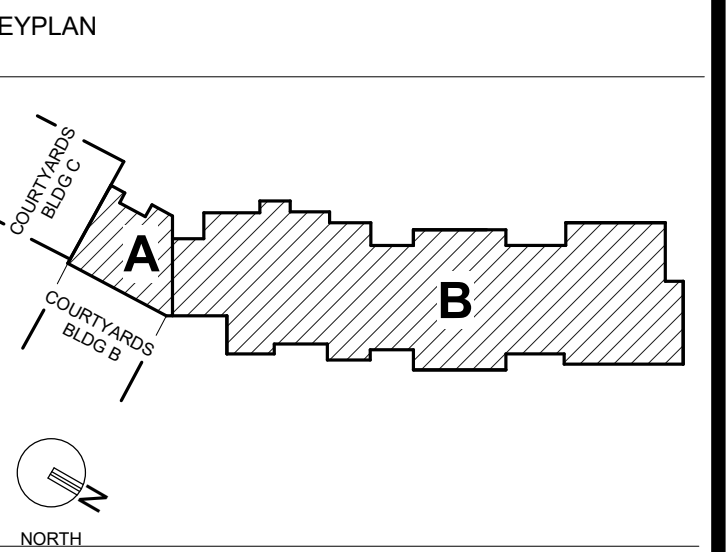
DATE: January 5, 2024
DRAWING
COMM. NO. 23104.00
E1.1



2 SECOND FLOOR ATRIUM - LIGHTING
E1.2 1/8" = 1'-0"



1 SECOND FLOOR IL UNITS - LIGHTING
E1.2 1/8" = 1'-0"



- GENERAL NOTES
- SHADED LUMINAIRE OR (E) TAG INDICATES LUMINAIRE EQUIPPED WITH EMERGENCY BATTERY BACKUP OR CONNECTED TO EMERGENCY BRANCH CIRCUIT.
 - COMMON AREAS, CORRIDOR SPACES SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL.
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 - COORDINATE WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND CASEWORK DETAILS FOR LOCATIONS OF UNDERCABINET LIGHTING. PROVIDE FIXTURES WITH LOCAL WALL SWITCH.
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 - CONNECT EXIT LIGHTS, EMERGENCY BATTERIES, AND NIGHT LIGHTS TO UNSWITCHED LEG OF CIRCUIT. THE UNSWITCHED LEG SHALL BYPASS ANY LIGHTING CONTROL DEVICES INCLUDING RELAYS, SWITCHES, OCCUPANCY SENSORS, OR DAYLIGHT CONTROL DEVICES.
 - TEST SWITCHES FOR EMERGENCY BATTERIES SHALL BE INTEGRAL TO LUMINAIRE. COORDINATE WITH SUPPLIER AS FACTORY INSTALLED BATTERIES MAY BE NECESSARY TO MEET THIS REQUIREMENT.
 - LOCATE EXIT SIGNS FOR MAXIMUM VIEWING AREA TO IDENTIFY EGRESS PATHS AS INDICATED ON PLANS. COORDINATE LOCATIONS SUCH THAT ARCHITECTURAL FEATURES OR EQUIPMENT FROM OTHER TRADES DO NOT OBSTRUCT VIEW.
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 - NECESSARY LUMINAIRES SHALL BE SECURED SUCH THAT THE FORCE REQUIRED TO INSERT LAMPS, TRIMS, LENSES, LOUVERS, OR DOOR FRAMES DOES NOT SHIFT HOUSING.

CONSTRUCTION SET



PROJECT TITLE



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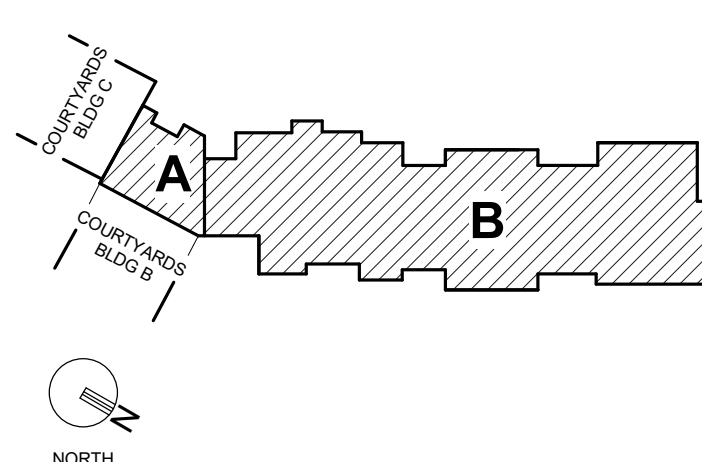
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ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO.	REVISION DESCRIPTION DATE

DRAWING TITLE
SECOND FLOOR PLAN -
LIGHTING

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E1.2

KEYPLAN

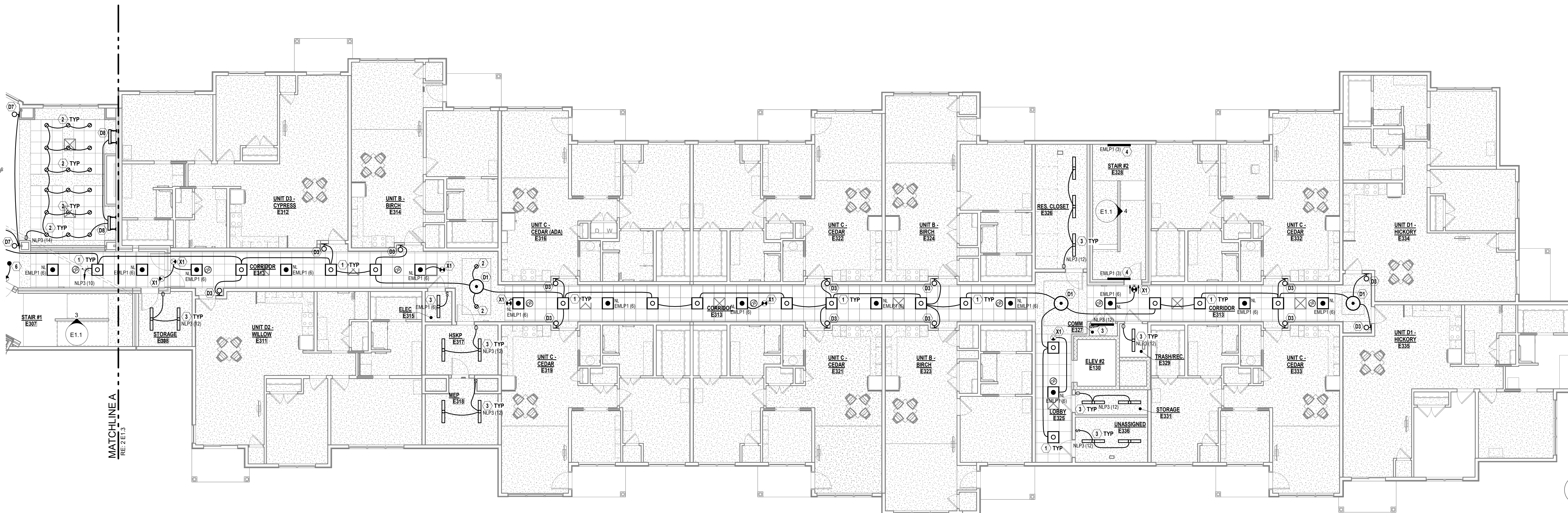


GENERAL NOTES

- SHADED LUMINAIRE OR (E) TAG INDICATES LUMINAIRE EQUIPPED WITH EMERGENCY BATTERY BACKUP OR CONNECTED TO EMERGENCY BRANCH CIRCUIT.
- COMMON AREAS, CORRIDOR SPACES SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL.
- ALL EXIT SIGNS SHALL BE TWO (2) CIRCUIT TYPE ION. CONNECT EXIT SIGNS TO EMERGENCY CIRCUIT INDICATED AS WELL AS TO LOCAL "NORMAL" BRANCH CIRCUIT. "NORMAL" CIRCUIT CONNECTED TO EMERGENCY EXIT SIGNS SHALL BE UNSWITCHED. CONNECT EXIT SIGNS AHEAD OF LIGHT SWITCH AND EXTEND ADDITIONAL "HOT" CONDUCTOR TO KEEP DEVICES UNSWITCHED.
- COORDINATE WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND CASEWORK DETAILS FOR LOCATIONS OF UNDERCABINET LIGHTING. PROVIDE FIXTURES WITH LOCAL WALL SWITCH.
- COORDINATE LUMINAIRE PLACEMENT WITH ARCHITECTURAL PLANS AND OTHER TRADES.
- COORDINATE LUMINAIRE TYPE AND ACCESSORIES FOR INSTALLATION IN CEILING TYPES SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS.
- LUMINAIRES SHALL BE CONTROLLED BY SWITCHES SHOWN IN EACH SPACE AND CONNECTED TO LIGHTING PANELS WITH THE REQUIRED QUANTITY OF WIRES FOR PROPER OPERATION.
- LUMINAIRES INDICATED WITH MULTILEVEL SWITCHING SHALL HAVE SIMILAR LAMPS CONTROLLED TOGETHER, I.E. INWARD AND OUTWARD LAMPS OR RIGHT AND LEFT HAND LAMPS.
- CONNECT EXIT LIGHTS, EMERGENCY BATTERIES, AND NIGHT LIGHTS TO UNSWITCHED LEG OF CIRCUIT. THE UNSWITCHED LEG SHALL BYPASS ANY LIGHTING CONTROL DEVICES INCLUDING RELAYS, SWITCHES, OCCUPANCY SENSORS, OR DIMMABLE CONTROL DEVICES.
- TEST SWITCHES FOR EMERGENCY BATTERIES SHALL BE INTEGRAL TO LUMINAIRE. COORDINATE WITH SUPPLIER AS FACTORY INSTALLED BATTERIES MAY BE NECESSARY TO MEET THIS REQUIREMENT.
- LOCATE EXIT SIGNS FOR MAXIMUM VIEWING AREA TO IDENTIFY EGRESS PATHS AS INDICATED ON PLANS. COORDINATE LOCATIONS SUCH THAT ARCHITECTURAL FEATURES OR EQUIPMENT FROM OTHER TRADES DO NOT OBSTRUCT VIEW.
- INSTALL SWITCHES AND OTHER CONTROL DEVICES WITHIN 12" OF LATCH SIDE OF DOOR, SLED LIGHT OR DOOR SWING IN OPEN POSITION. DO NOT INSTALL DEVICES BEHIND DOOR SWING. COORDINATE WITH ACTUAL DOOR ASSEMBLY PRIOR TO INSTALLATION.
- LOCATE OCCUPANCY SENSORS FOR MAXIMUM COVERAGE AND TO LIMIT FALSE TRIPPING. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR ALLOWABLE PROXIMITY TO MECHANICAL DIFFUSERS.
- INSTALL POWER PACKS OR OTHER CONTROL RELAYS ABOVE ACCESSIBLE CEILING LABEL DEVICE AND AREA CONTROLLED.
- LOCATE PHOTOCELLS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR OPTIMAL RESPONSE TO NATURAL LIGHT IN SPACE AND TO MINIMIZE FALSE READINGS.
- ADJUST SENSITIVITY COVERAGE AREA AND TIME DELAY FOR LIGHTING CONTROL DEVICES DURING CONSTRUCTION. PROVIDE FOLLOW UP VISIT THREE WEEKS AFTER OWNER HAS OCCUPIED SPACE TO MAKE ADDITIONAL ADJUSTMENTS TO ACCOUNT FOR FURNITURE LAYOUTS AND USER INPUT.
- COORDINATE WITH MECHANICAL CONTRACTOR FOR INTEGRATION OF OCCUPANCY SENSORS WITH MECHANICAL SYSTEM CONTROLS. PROVIDE ADDITIONAL RELAYS AS REQUIRED.
- NECESSARY LUMINAIRES SHALL BE SECURED SUCH THAT THE FORCE REQUIRED TO INSERT LAMPS, TRIMS, LENSES, LOUVERS, OR DOOR FRAMES DOES NOT SHIFT HOUSING.



2 THIRD FLOOR ATRIUM - LIGHTING
E1.3 1/8" = 1'-0"



1 THIRD FLOOR IL UNITS - LIGHTING
E1.3 1/8" = 1'-0"

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

SFCs

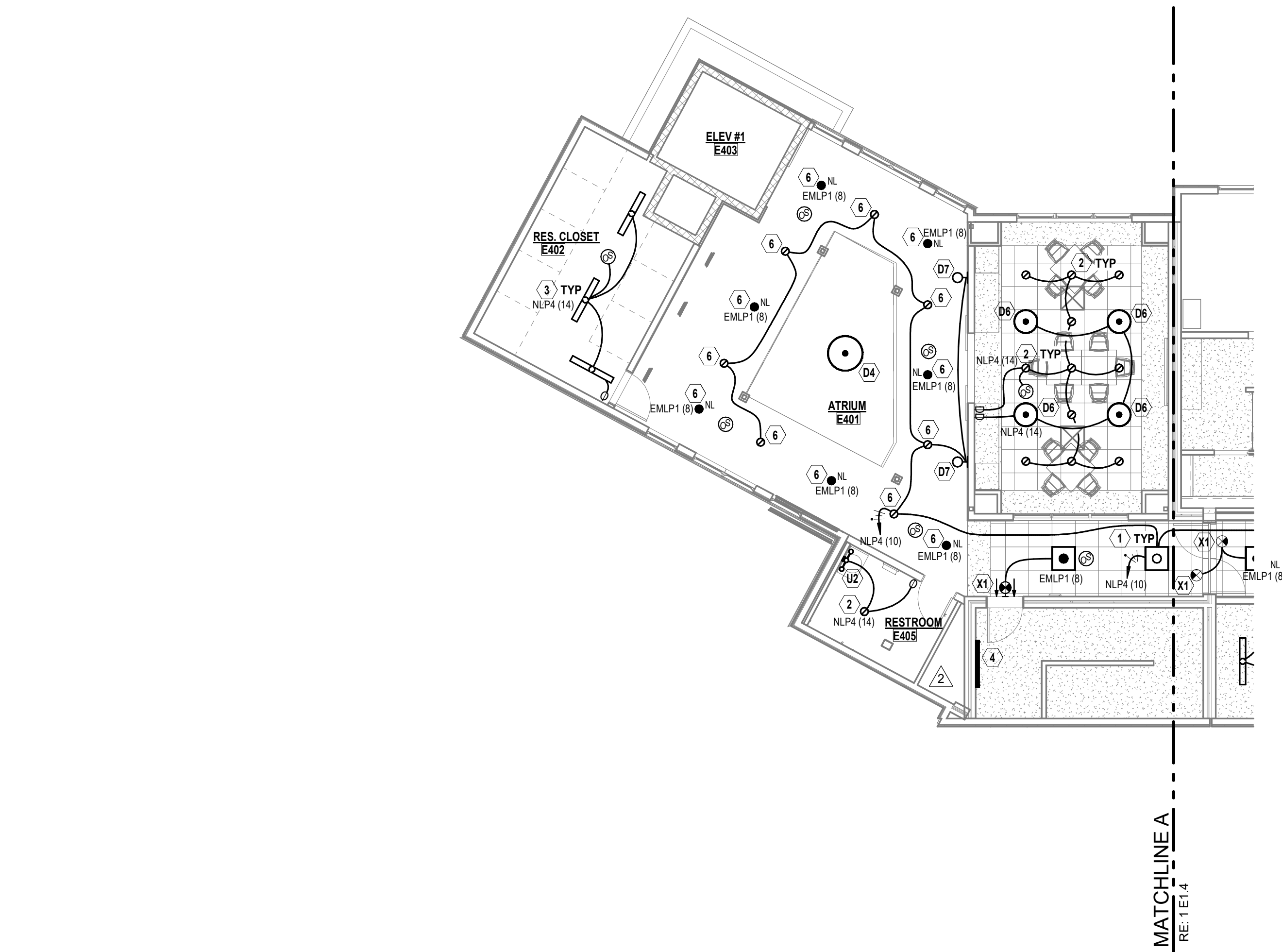
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DESIGNER : DAS	DRAWN : MAW, DKW
ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO.	REVISION DESCRIPTION DATE

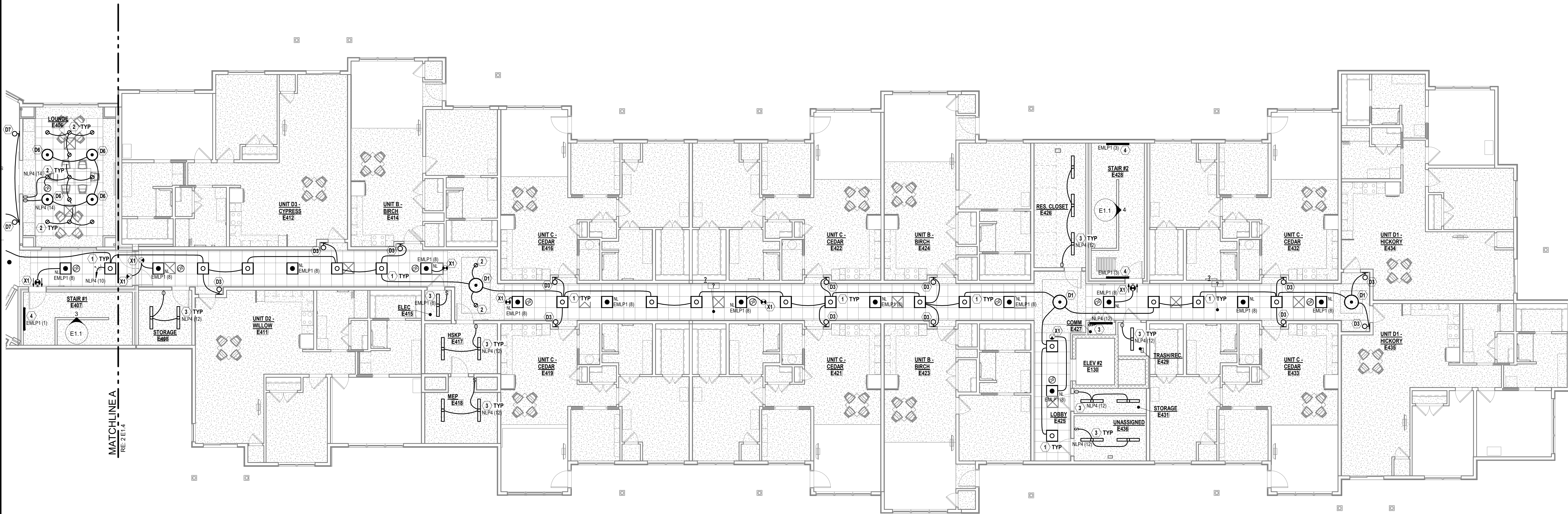
DRAWING TITLE

THIRD FLOOR PLAN -
LIGHTING

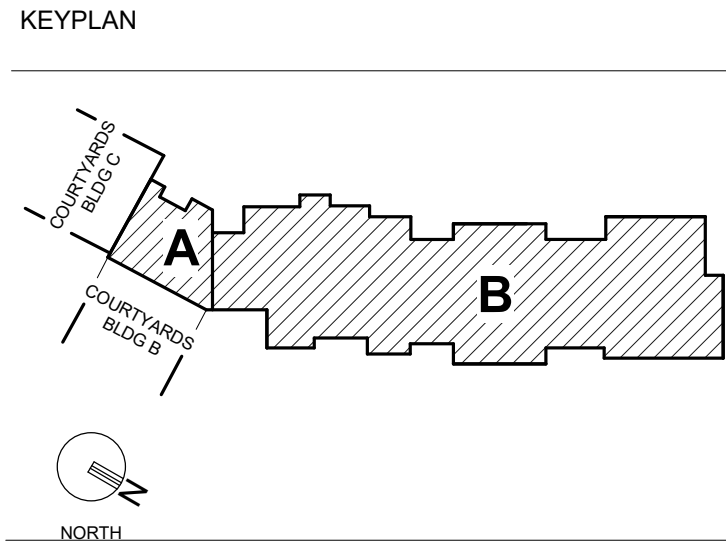
DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E1.3



2 FOURTH FLOOR ATRIUM - LIGHTING
E1.4 1/8" = 1'-0"



1 FOURTH FLOOR IL UNITS - LIGHTING
E1.4 1/8" = 1'-0"



- GENERAL NOTES
- A. SHADDED LUMINAIRE OR (E) TAG INDICATES LUMINAIRE EQUIPPED WITH EMERGENCY BATTERY BACKUP OR CONNECTED TO EMERGENCY BRANCH CIRCUIT.
 - B. COMMON AREAS, CORRIDOR SPACES SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL.
 - C. ALL EXIT SIGNS SHALL BE TWO (2) CIRCUIT TYPE (ION). CONNECT EXIT SIGNS TO EMERGENCY CIRCUIT INDICATED AS WELL AS TO LOCAL "NORMAL" BRANCH CIRCUIT. "NORMAL" CIRCUIT CONNECTED TO EMERGENCY EXIT SIGNS SHALL BE UNSWITCHED. CONNECT EXIT SIGNS HERE OF LIGHT SWITCH AND EXTEND ADDITIONAL "NOT" CONDUCTOR TO KEEP DEVICES UNSWITCHED.
 - D. COORDINATE WITH ARCHITECTURAL FLOOR PLANS, ELEVATIONS AND CASEWORK DETAILS FOR LOCATIONS OF UNDERCABINET LIGHTING. PROVIDE FIXTURES WITH LOCAL WALL SWITCH.
 - E. COORDINATE LUMINAIRE PLACEMENT WITH ARCHITECTURAL PLANS AND OTHER TRADES.
 - F. COORDINATE LUMINAIRE TYPE AND ACCESSORIES FOR INSTALLATION IN CEILING TYPES SHOWN ON ARCHITECTURAL REFLECTED CEILING PLANS.
 - G. LUMINAIRES SHALL BE CONTROLLED BY SWITCHES SHOWN IN EACH SPACE AND CONNECTED TO LIGHTING PANELS WITH THE REQUIRED QUANTITY OF WIRES FOR PROPER OPERATION.
 - H. LUMINAIRES INDICATED WITH MULTILEVEL SWITCHING SHALL HAVE SIMILAR LAMPS CONTROLLED TOGETHER, I.E. INBOARD AND OUTBOARD LAMPS OR RIGHT AND LEFT HAND LAMPS.
 - I. CONNECT EXIT LIGHTS, EMERGENCY BATTERIES, AND NIGHT LIGHTS TO UNSWITCHED LEG OF CIRCUIT. THE UNSWITCHED LEG SHALL BYPASS ANY LIGHTING CONTROL DEVICES INCLUDING RELAYS, SWITCHES, OCCUPANCY SENSORS, OR DIMMABLE CONTROL DEVICES.
 - J. TEST SWITCHES FOR EMERGENCY BATTERIES SHALL BE INTEGRAL TO LUMINAIRE. COORDINATE WITH SUPPLIER AS FACTORY INSTALLED BATTERIES MAY BE NECESSARY TO MEET THIS REQUIREMENT.
 - K. LOCATE EXIT SIGNS FOR MAXIMUM VIEWING AREA TO IDENTIFY EGRESS PATHS AS INDICATED ON PLANS. COORDINATE LOCATIONS SUCH THAT ARCHITECTURAL FEATURES OR EQUIPMENT FROM OTHER TRADES DO NOT OBSTRUCT VIEW.
 - L. INSTALL SWITCHES AND OTHER CONTROL DEVICES WITHIN 12" OF LATCH SIDE OF DOOR, SLED LIGHT OR DOOR SWING IN OPEN POSITION. DO NOT INSTALL DEVICES BEHIND DOOR SWING. COORDINATE WITH ACTUAL DOOR ASSEMBLY PRIOR TO INSTALLATION.
 - M. LOCATE OCCUPANCY SENSORS FOR MAXIMUM COVERAGE AND TO LIMIT FALSE TRIPPING. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR ALLOWABLE PROXIMITY TO MECHANICAL DIFFUSERS.
 - N. INSTALL POWER PACKS OR OTHER CONTROL RELAYS ABOVE ACCESSIBLE CEILING LABEL DEVICE AND AREA CONTROLLED.
 - O. LOCATE PHOTOCELLS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR OPTIMAL RESPONSE TO NATURAL LIGHT IN SPACE AND TO MINIMIZE FALSE READINGS.
 - P. ADJUST SENSITIVITY COVERAGE AREA AND TIME DELAY FOR LIGHTING CONTROL DEVICES DURING CONSTRUCTION. PROVIDE FOLLOW UP VISIT THREE WEEKS AFTER OWNER HAS OCCUPIED SPACE TO MAKE ADDITIONAL ADJUSTMENTS TO ACCOUNT FOR FURNITURE LAYOUTS AND USER INPUT.
 - Q. COORDINATE WITH MECHANICAL CONTRACTOR FOR INTEGRATION OF OCCUPANCY SENSORS WITH MECHANICAL SYSTEM CONTROLS. PROVIDE ADDITIONAL RELAYS AS REQUIRED.
 - R. RECESSED LUMINAIRES SHALL BE SECURED SUCH THAT THE FORCE REQUIRED TO INSERT LAMPS, TRIMS, LENSES, LOUVERS, OR DOOR FRAMES DOES NOT SHIFT HOUSING.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

SFCS

Architecture
Engineering
Planning
Interiors

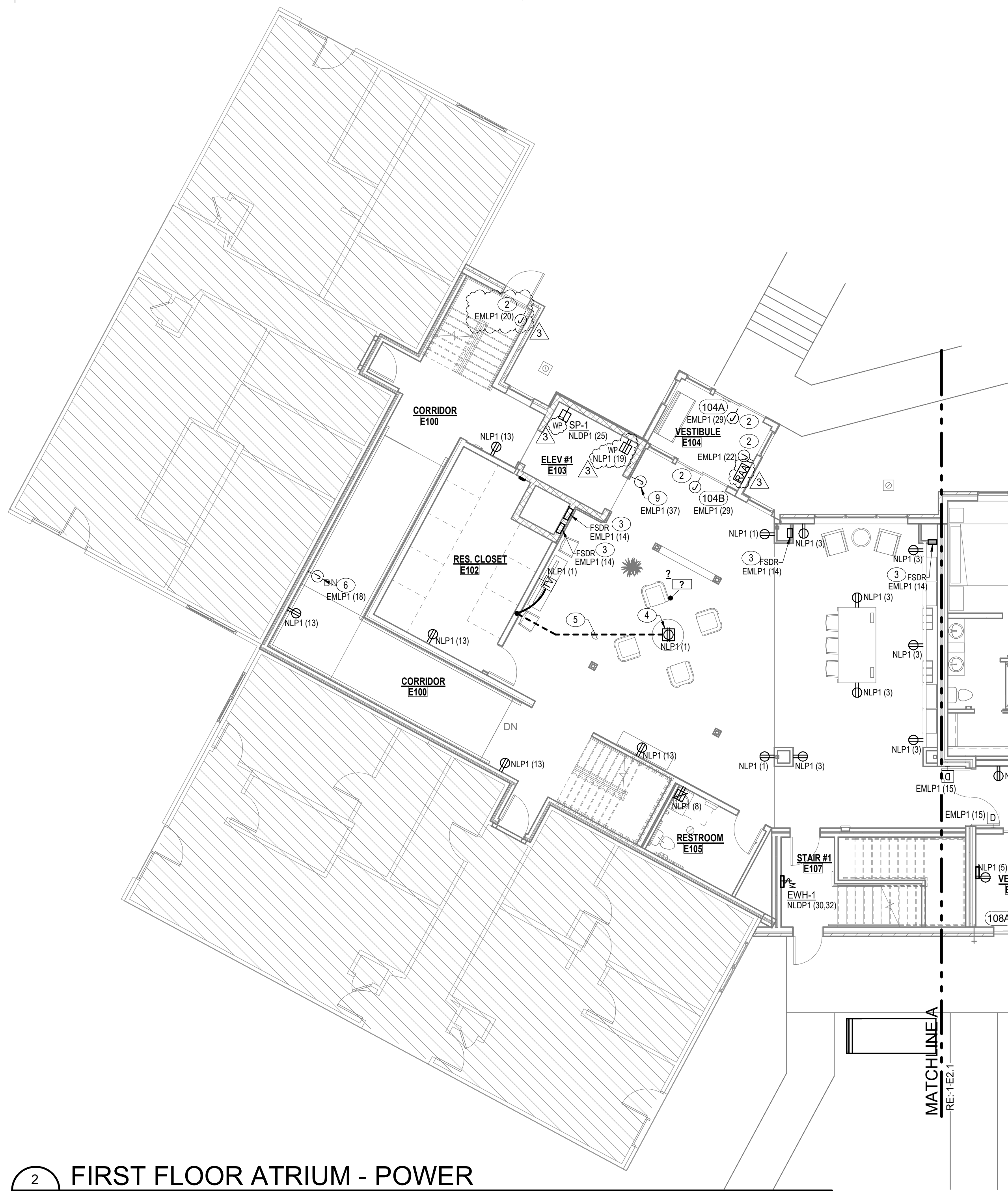
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ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO. 2	REVISION DESCRIPTION DATE
Rev 1 - Permit Comments	02/15/24

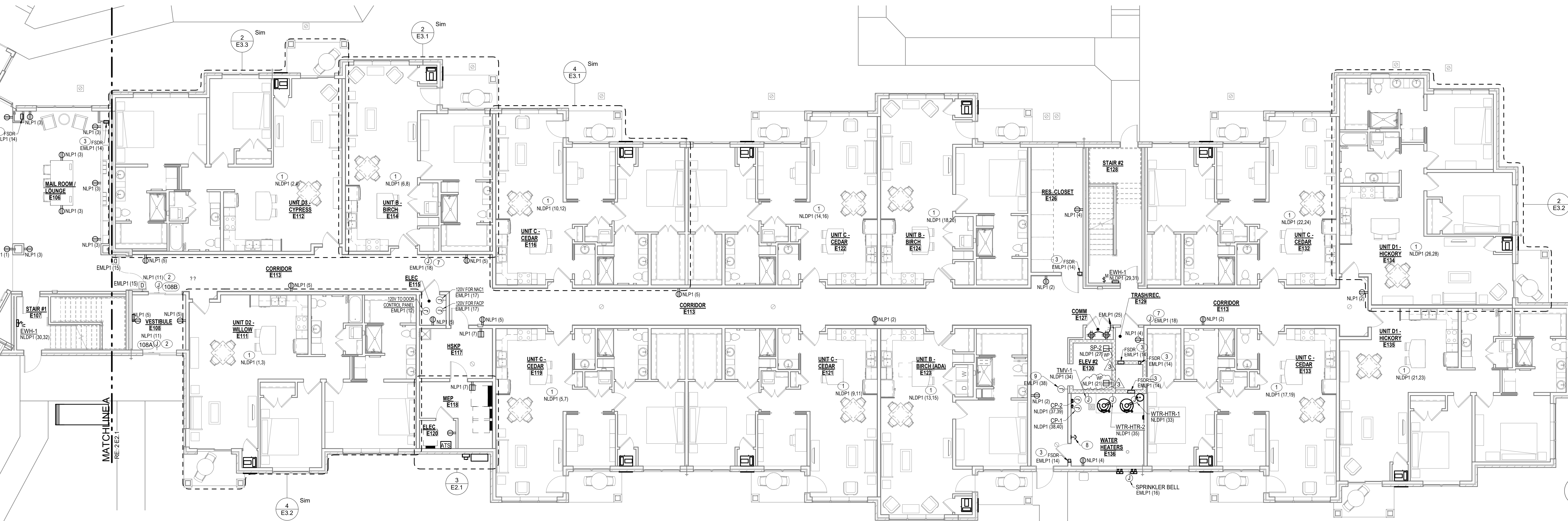
DRAWING TITLE

FOURTH FLOOR PLAN -
LIGHTING

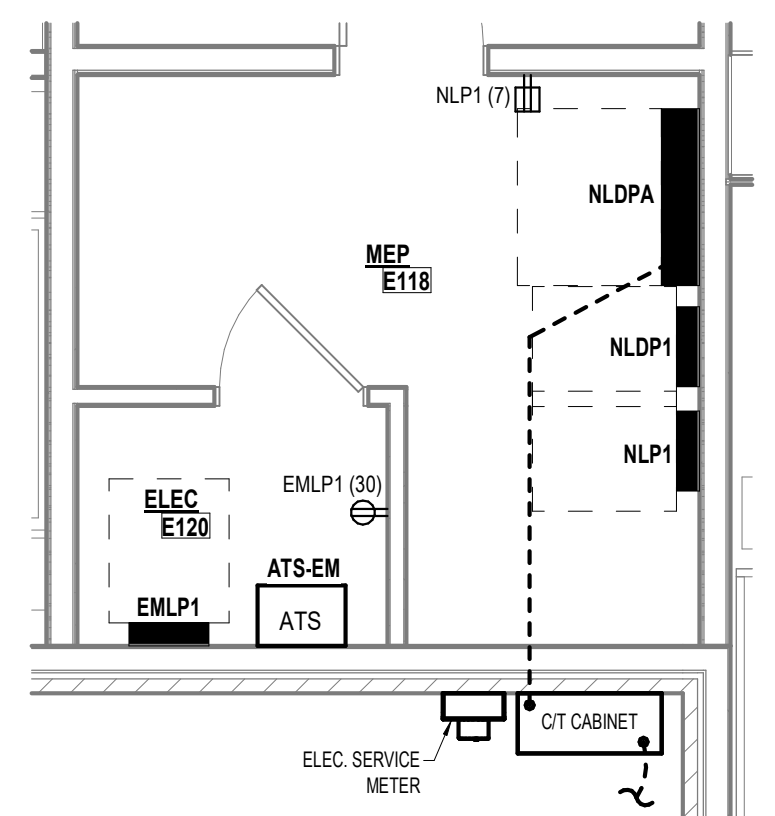
DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E1.4



2 FIRST FLOOR ATRIUM - POWER
E2.1 1/8" = 1'-0"



1 FIRST FLOOR IL UNITS - POWER
E2.1 1/8" = 1'-0"



ENLARGED PLAN - MEP RM.
#E118 & ELEC. RM. E120
3 1/4" = 1'-0"

KEYPLAN

GENERAL NOTES

A. REFER TO MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.

B. DOORS INDICATED WITH A CLOSING ARE CONTROLLED DOORS. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS. ROUGH-INS AND ADDITIONAL INFORMATION, COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.

C. ELECTRICALLY LOCKED DOORS SHALL BE INTERFACED WITH FIRE ALARM SYSTEM FOR RELEASE UPON FIRE ALARM SIGNAL. ELECTRICAL LOCKED DOORS SHALL FAIL "SAFE" IN EVENT OF POWER OUTAGE.

D. REFERENCE FIRE ALARM DRAWINGS FOR ADDITIONAL DEVICES.

E. REQUIRE POWER CONNECTIONS AS WELL AS AN INTERFERENCE WITH FIRE ALARM SYSTEM. REFER TO MECHANICAL DRAWINGS FOR QUANTITY AND LOCATION OF SMOKE DAMPERS, SMOKE/FIRE DAMPERS AND DUCT SMOKE DETECTORS. PROVIDE 120V CONNECTION TO SMOKE DAMPERS, FIRE SMOKE DAMPERS AND PROVIDE WITH SMOKE DETECTOR. SEE PANEL SCHEDULES AND MECHANICAL EQUIPMENT SCHEDULES FOR RELATED INFORMATION.

- PLAN NOTES
- 1 INDICATES PANEL/CIRCUIT FROM WHICH APARTMENT LOADCENTER IS SERVED. REFER TO ENLARGED UNIT PLANS FOR LOADCENTER LOCATION WITHIN UNITS.
 - 2 120VAC CONNECTION TO AUTOMATIC DOOR OPERATOR. PROVIDE POWER CONNECTION TO DOOR MOTOR AND PROVIDE CONTROL WIRING TO PUSHPLATE LOCATIONS.
 - 3 LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0222 FOR ADDITIONAL INFORMATION.
 - 4 FLOOR BOX HUBBELL 6261 CAST IRON OR EQUAL WITH 6230 FLANGE AND 6284 COVER WITH FLIP RECEPTACLE COVERS.
 - 5 3/4" CONDUIT INSTALLED BELOW SLAB. ROUTE UP IN WALL 12" INTO ACCESSIBLE CEILING BRANCH CIRCUIT INDICATED.
 - 6 PROVIDE JUNCTION BOX AT 6-0 FOR 120V DIRECT CONNECTION FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
 - 7 PROVIDE 120V DIRECT CONNECTION ABOVE ACCESSIBLE CEILING FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
 - 8 EMERGENCY STOP BUTTON FOR WTR-HTR.1 & WTR-HTR.2. INTERFACE WITH WATER HEATERS CONTROLS TO SHUT DOWN BOTH WATER HEATERS WHEN OPERATED.
 - 9 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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ENGINEER : MAW	APPROVED : JSK
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2	Rev 1 - Permit Comments 02/15/24
3	Addendum #1 03/07/24

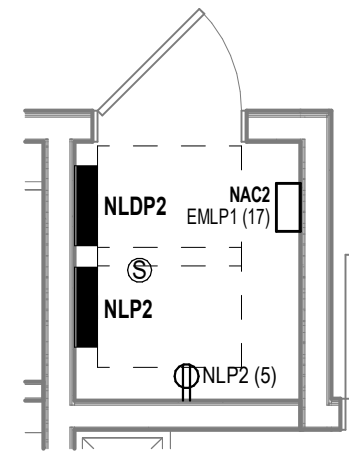
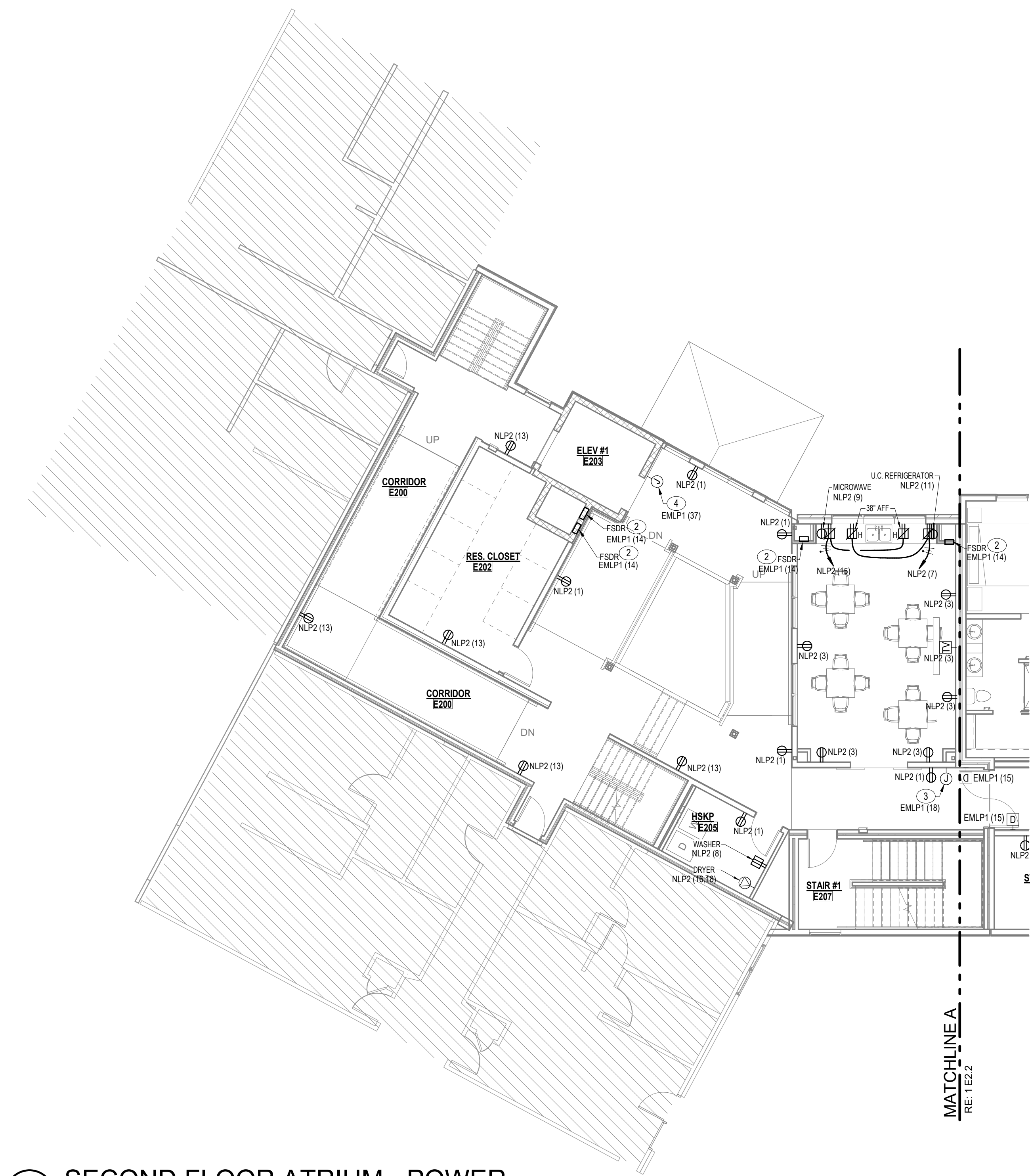
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FIRST FLOOR PLAN - POWER

DATE: January 5, 2024 DRAWING

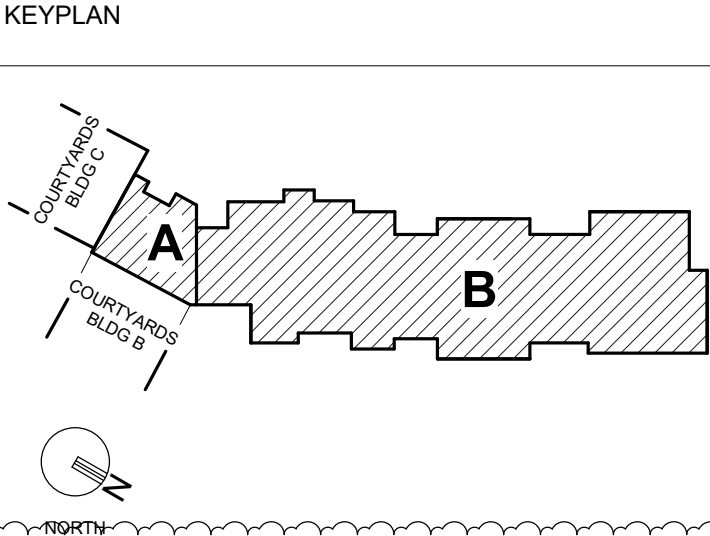
COMM. NO. 23104.00

E2.1



ENLARGED PLAN -
ELEC. RM. #E215

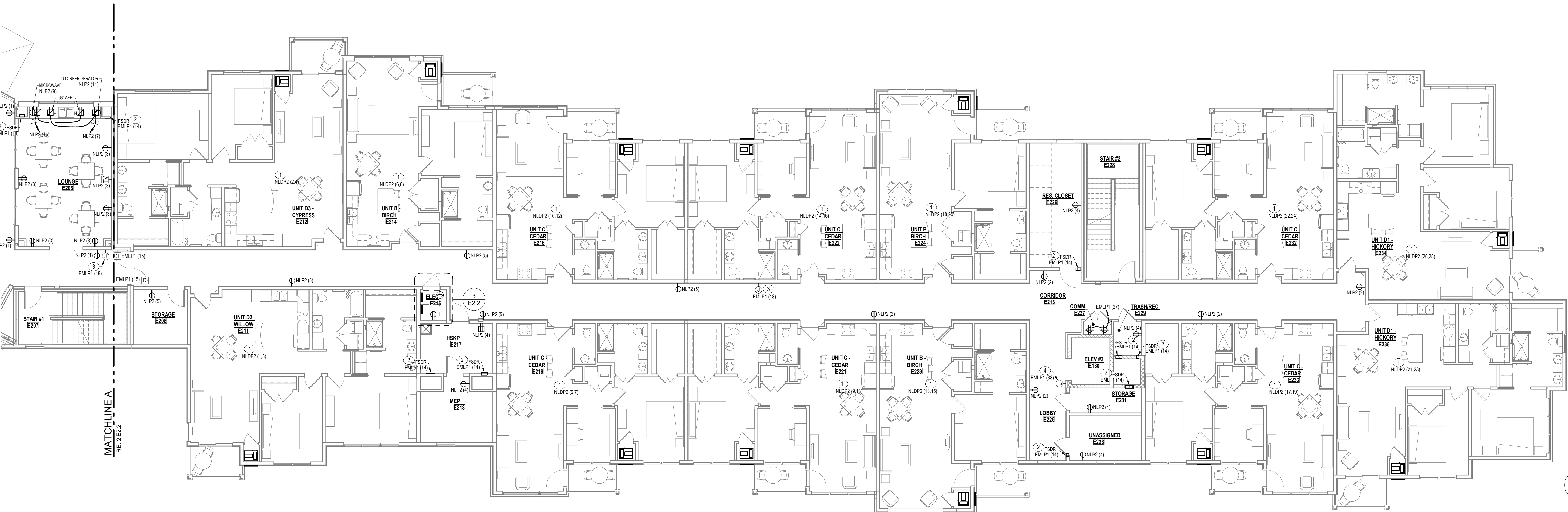
3
E2.2 1/4" = 1'-0"



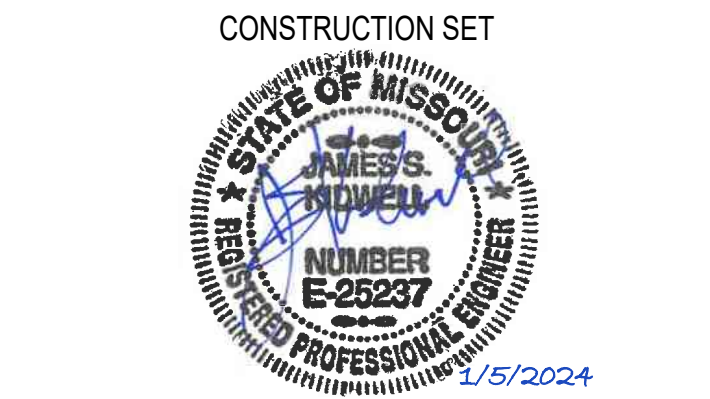
- GENERAL NOTES
- REFER TO MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
 - DOORS INDICATED WITH A "D" ARE CONTROLLED DOORS. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS. ROUGH-IN AND ADDITIONAL INFORMATION COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
 - ELECTRICALLY ELECTROMAGNETICALLY HELD OPEN DOORS SHALL BE INTERFACED WITH FIRE ALARM SYSTEM FOR RELEASE UPON FIRE ALARM SIGNAL. ELECTRICALLY LOCKED DOORS SHALL FAIL "SAFE" IN EVENT OF POWER OUTAGE.
 - REFERENCE FIRE ALARM DRAWINGS FOR ADDITIONAL DEVICES. REQUIRE POWER CONNECTIONS AS WELL AS AN INTERFACE WITH FIRE ALARM SYSTEM. REFER TO MECHANICAL DRAWINGS FOR QUANTITY AND LOCATION OF SMOKE DAMPERS, SMOKE/FIRE DAMPERS AND DUCT SMOKE DETECTORS. PROVIDE 120VAC CONNECTION TO SMOKE DAMPERS, FIRE SMOKE DAMPERS AND PROVIDE WITH SMOKE DETECTOR. SEE PANEL SCHEDULES AND MECHANICAL EQUIPMENT SCHEDULES FOR RELATED INFORMATION.

- PLAN NOTES
- INDICATES PANEL/CIRCUIT FROM WHICH APARTMENT LOADCENTER IS SERVED. REFER TO ENLARGED UNIT PLANS FOR LOADCENTER LOCATION WITHIN UNITS.
 - LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0222 FOR ADDITIONAL INFORMATION.
 - PROVIDE 120V DIRECT CONNECTION ABOVE ACCESSIBLE CEILING FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
 - 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.G. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.

2
E2.2 1/8" = 1'-0"



1
E2.2 1/8" = 1'-0"



PROJECT TITLE

John Knox Village
COURTYARDS - BUILDING E

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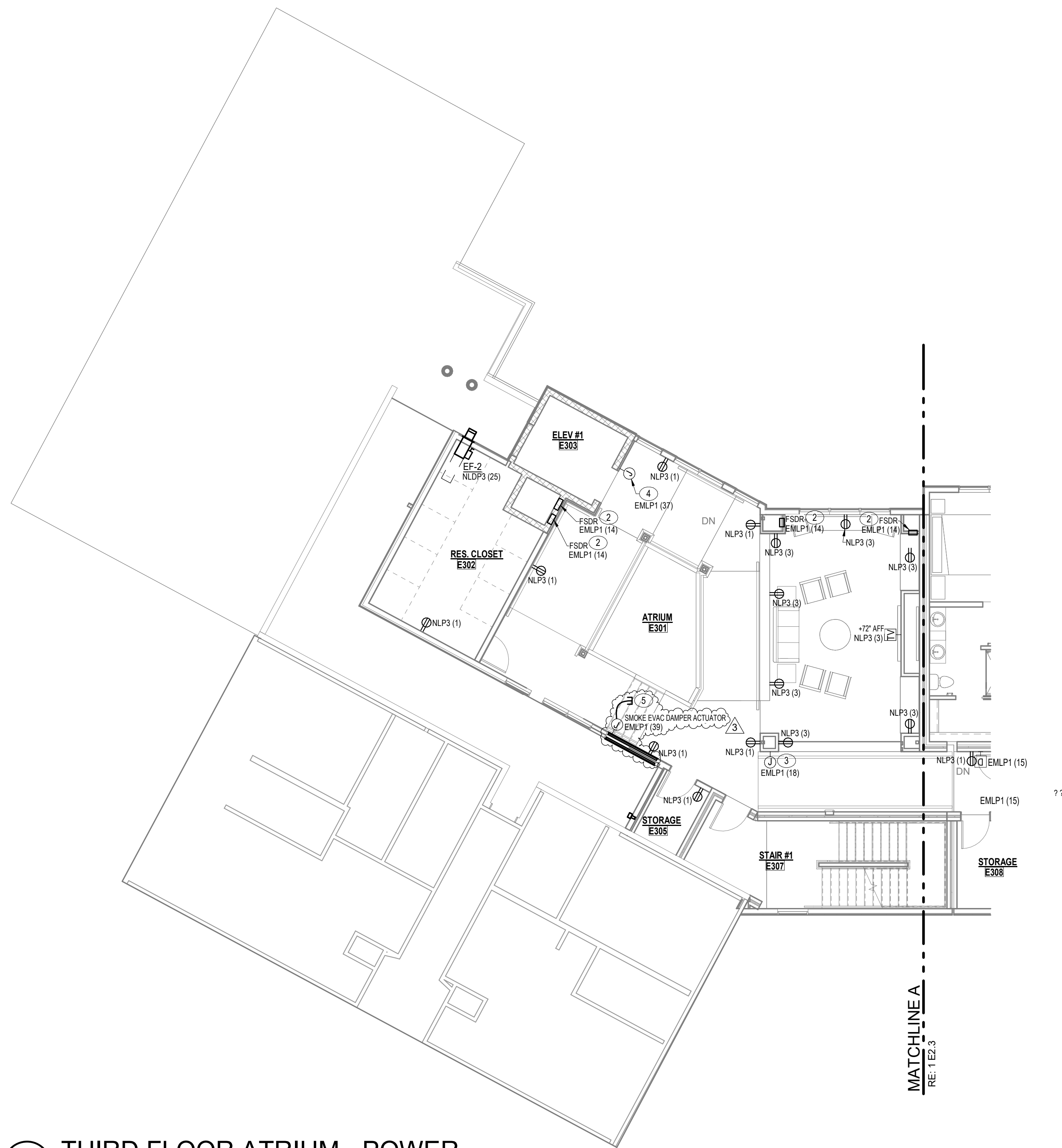
DESIGNER :	DAS	DRAWN :	MAW, DKW
ARCHITECT :	DAS	CHECKED :	MAW
ENGINEER :	MAW	APPROVED :	JSK
NO.	REVISION DESCRIPTION	DATE	
2	Rev 1 - Permit Comments	02/15/24	
3	Addendum #1	03/07/24	

DRAWING TITLE

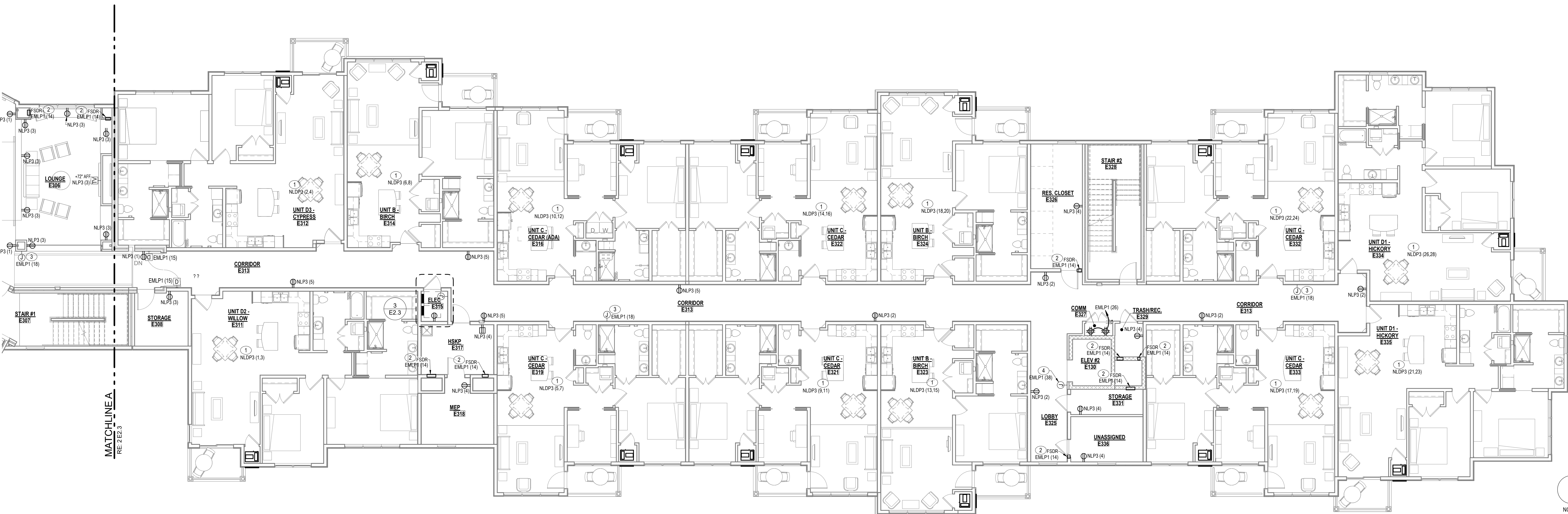
SECOND FLOOR PLAN -
POWER

DATE: January 5, 2024
DRAWING
COMM. NO. 23104.00

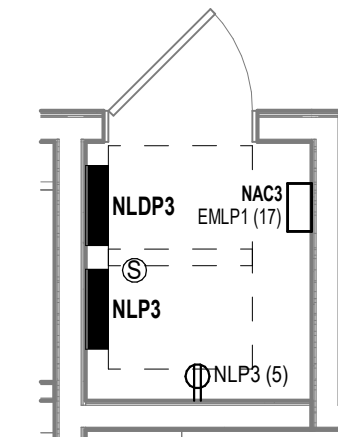
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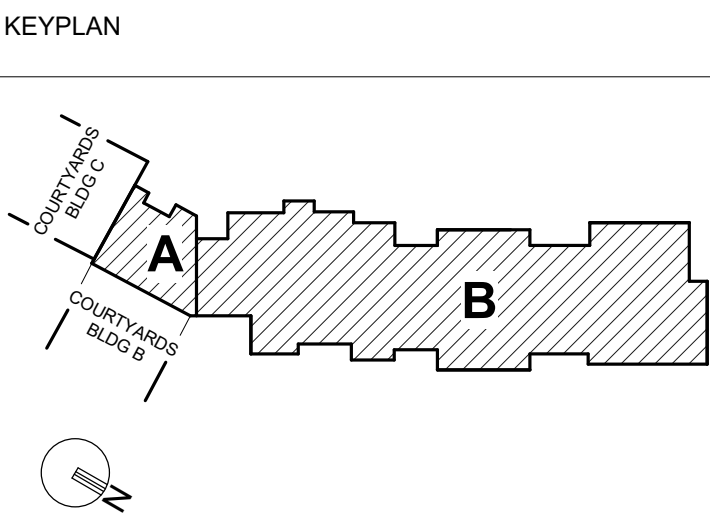
2 THIRD FLOOR ATRIUM - POWER
E2.3 1/8" = 1'-0"



1 THIRD FLOOR IL UNITS - POWER
E2.3 1/8" = 1'-0"



ENLARGED PLAN -
ELEC. RM. #E315
3
E2.3 1/4" = 1'-0"



- GENERAL NOTES
- REFER TO MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
 - DOORS INDICATED WITH A DOOR HINGE ARE CONTROLLED BY A DOOR HINGE OPERATOR. REFER TO MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE FOR ADDITIONAL INFORMATION. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
 - ELECTRICALLY LOCKED DOORS SHALL BE RELEASED IN EVENT OF POWER OUTAGE. INTERFERENCE WITH FIRE ALARM SYSTEM FOR RELEASE UPON FIRE ALARM SIGNAL. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL DEVICES.
 - REFERENCE FIRE ALARM DRAWINGS FOR ADDITIONAL DEVICES.
 - REQUIRE POWER CONNECTIONS AS WELL AS AN INTERFERENCE WITH FIRE ALARM SYSTEM. REFER TO MECHANICAL DRAWINGS FOR QUANTITY AND LOCATION OF SMOKE DAMPERS, SMOKE FIRE DAMPERS AND DUCT SMOKE DETECTORS. PROVIDE 120VAC CONNECTION TO SMOKE DAMPERS, FIRE SMOKE DAMPERS AND PROVIDE WITH SMOKE DETECTOR.
 - SEE PANEL SCHEDULES AND MECHANICAL EQUIPMENT SCHEDULES FOR RELATED INFORMATION.

- PLAN NOTES
- INDICATES PANEL/CIRCUIT FROM WHICH APARTMENT LOADCENTER IS SERVED. REFER TO ENLARGED UNIT PLANS FOR LOADCENTER LOCATION WITHIN UNITS.
 - LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E3.022 FOR ADDITIONAL INFORMATION.
 - PROVIDE 120V DIRECT CONNECTION ABOVE ACCESSIBLE CEILING FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
 - 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.G. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.
 - EXTEND Y-EMIT TO SMOKE EVACUATION CONTROL PANEL.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

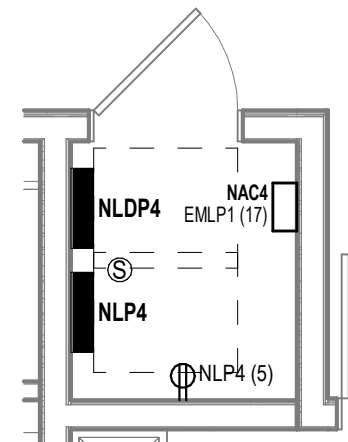
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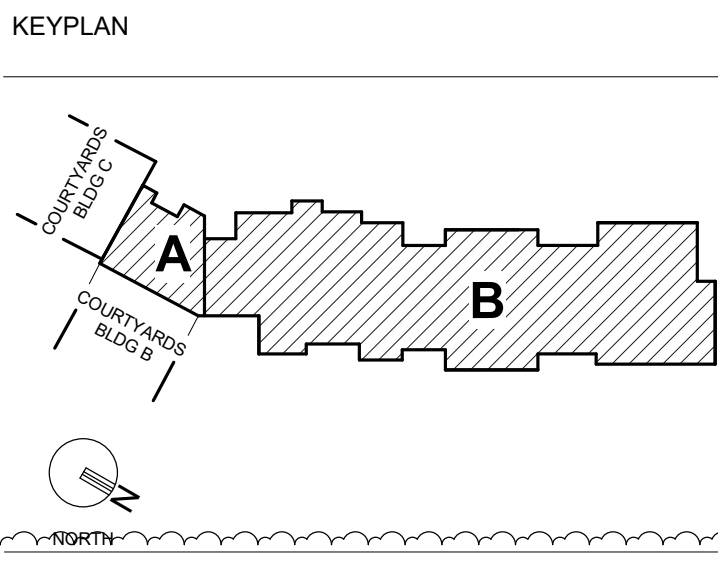
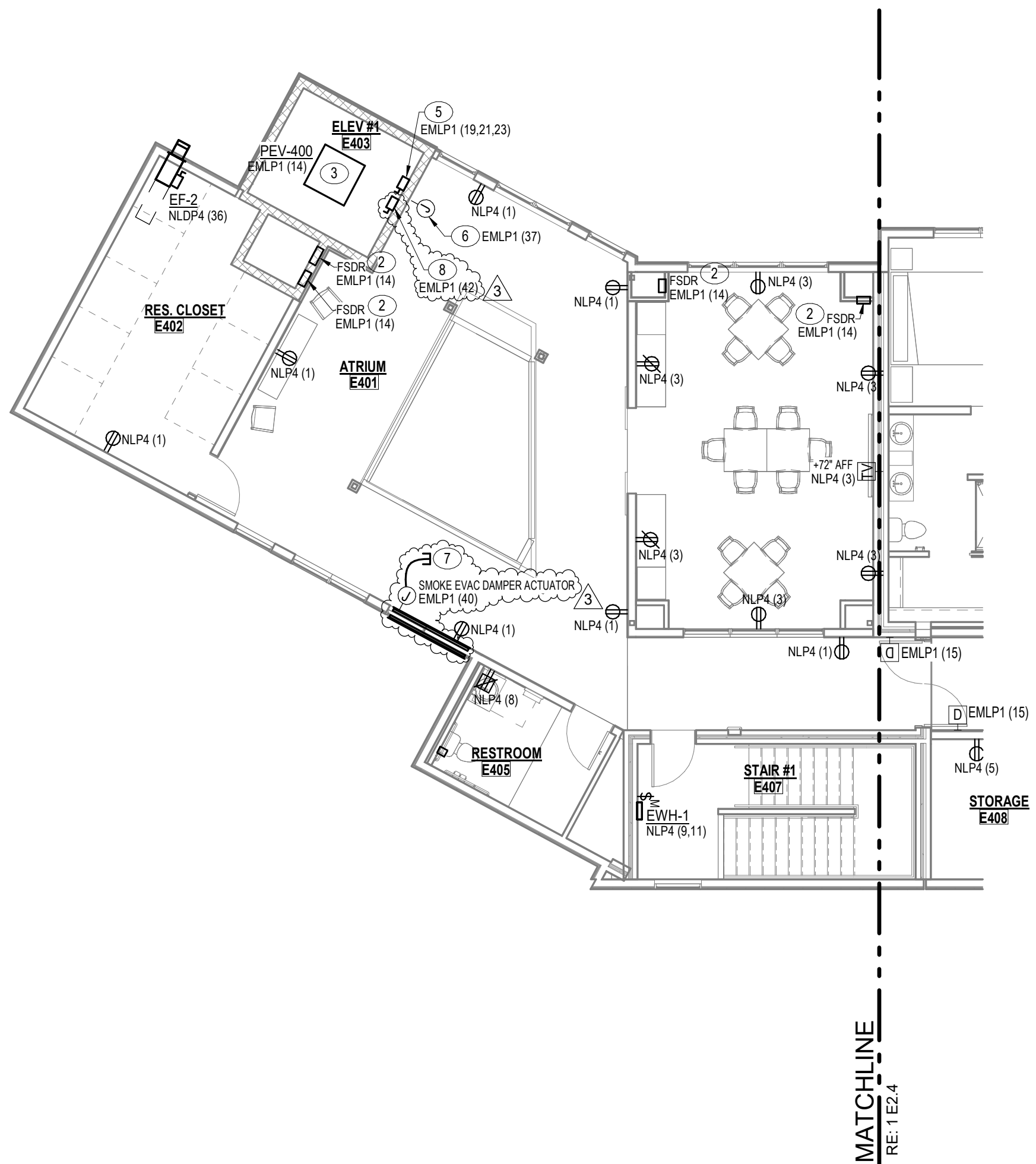
DRAWING TITLE
THIRD FLOOR PLAN -
POWER

DATE: January 5, 2024
DRAWING
COMM. NO. 23104.00
E2.3



ENLARGED PLAN -
ELEC. RM. #E415

3
E2.4 1/4" = 1'-0"

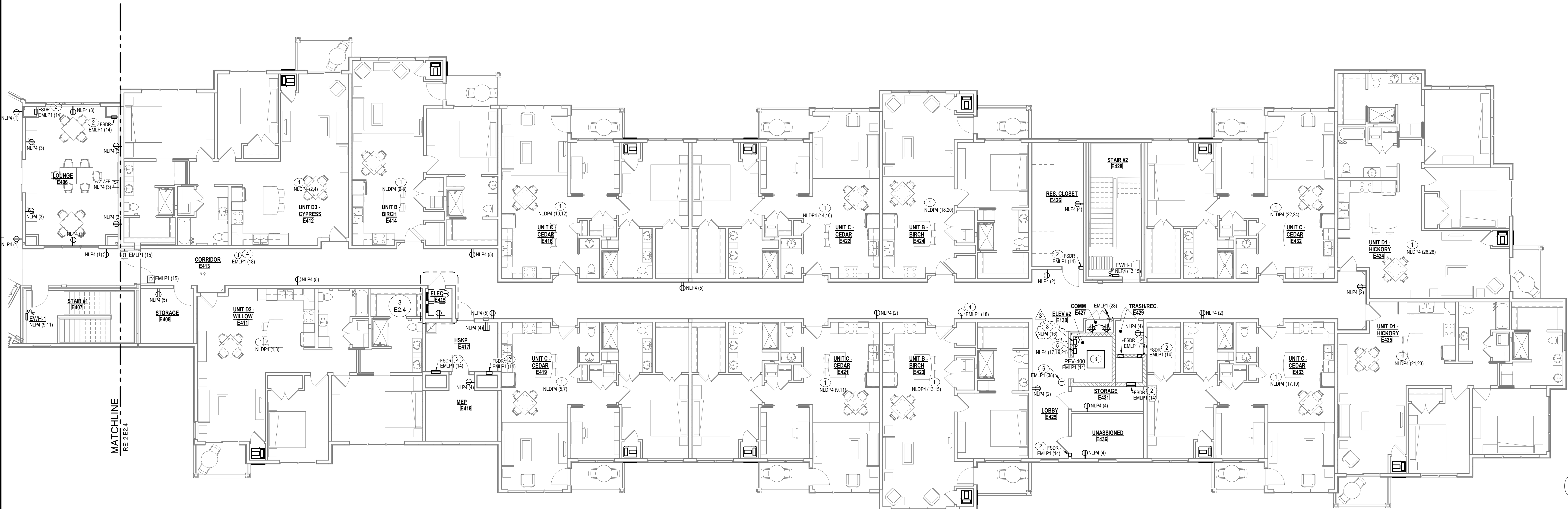


- GENERAL NOTES
- REFER TO MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
 - DOORS INDICATED WITH A DOOR TAG ARE CONTROLLED DOORS. REFER TO DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR FOR ADDITIONAL INFORMATION. COORDINATE WITH ELECTRICAL VENDOR FOR ADDITIONAL INFORMATION.
 - ELECTRICALLY LOCKED DOORS SHALL BE INTERFACED WITH FIRE ALARM SYSTEM FOR RELEASE UPON FIRE ALARM SIGNAL. ELECTRICAL LOCKED DOORS SHALL FAIL "SAFE" IN EVENT OF POWER OUTAGE.
 - REFERENCE FIRE ALARM DRAWINGS FOR ADDITIONAL DEVICES.
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- PLAN NOTES
- INDICATES PANEL/CIRCUIT FROM WHICH APARTMENT LOADCENTER IS SERVED. REFER TO ENLARGED UNIT PLANS FOR LOADCENTER LOCATION WITHIN UNITS.
 - LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0222 FOR ADDITIONAL INFORMATION.
 - LOCATION OF GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT REFER TO FOURTH FLOOR PLAN FIRE ALARM DRAWINGS.
 - PROVIDE 120V DIRECT CONNECTION ABOVE ACCESSIBLE CEILING FOR EMERGENCY CALL SARA SYSTEM REPEATER. VERIFY LOCATION WITH SARA SYSTEM CONTRACTOR. CONNECT TO 120V EMERGENCY CIRCUIT.
 - 3P, 60 AMP, 208V ENCLOSED MOLDED CASE CIRCUIT BREAKER WITH LOCK-OUT DEVICE FOR ELEVATOR CONTROLLER. DISCONNECT. EXTEND FEEDER FROM LOAD SIDE OF CIRCUIT BREAKER AND TERMINATE ON ELEVATOR CONTROLLER. VERIFY EXACT OVERCURRENT PROTECTIVE DEVICE REQUIRED WITH ELEVATOR MANUFACTURER PRIOR TO ORDERING.
 - 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTUALLY BY FIRE ALARM SYSTEM. EXTEND 1" EMT TO SMOKE EVACUATION CONTROL PANEL.
 - 1/30/2401V FOR CONNECTION TO ELEVATOR LIGHTS AND CONTROLS. E.C. SHALL VERIFY EXACT REQUIREMENTS WITH ELEVATOR SUPPLIER PRIOR TO ORDERING.

2
E2.4 1/8" = 1'-0"

FOURTH FLOOR ATRIUM - POWER



1
E2.4 1/8" = 1'-0"

FOURTH FLOOR IL UNITS- POWER

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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DESIGNER :	DAS	DRAWN :	MAW, DKW
ARCHITECT :	DAS	CHECKED :	MAW
ENGINEER :	MAW	APPROVED :	JSK
NO.	REVISION DESCRIPTION		DATE
2	Rev 1 - Permit Comments		02/15/24
3	Addendum #1		03/07/24

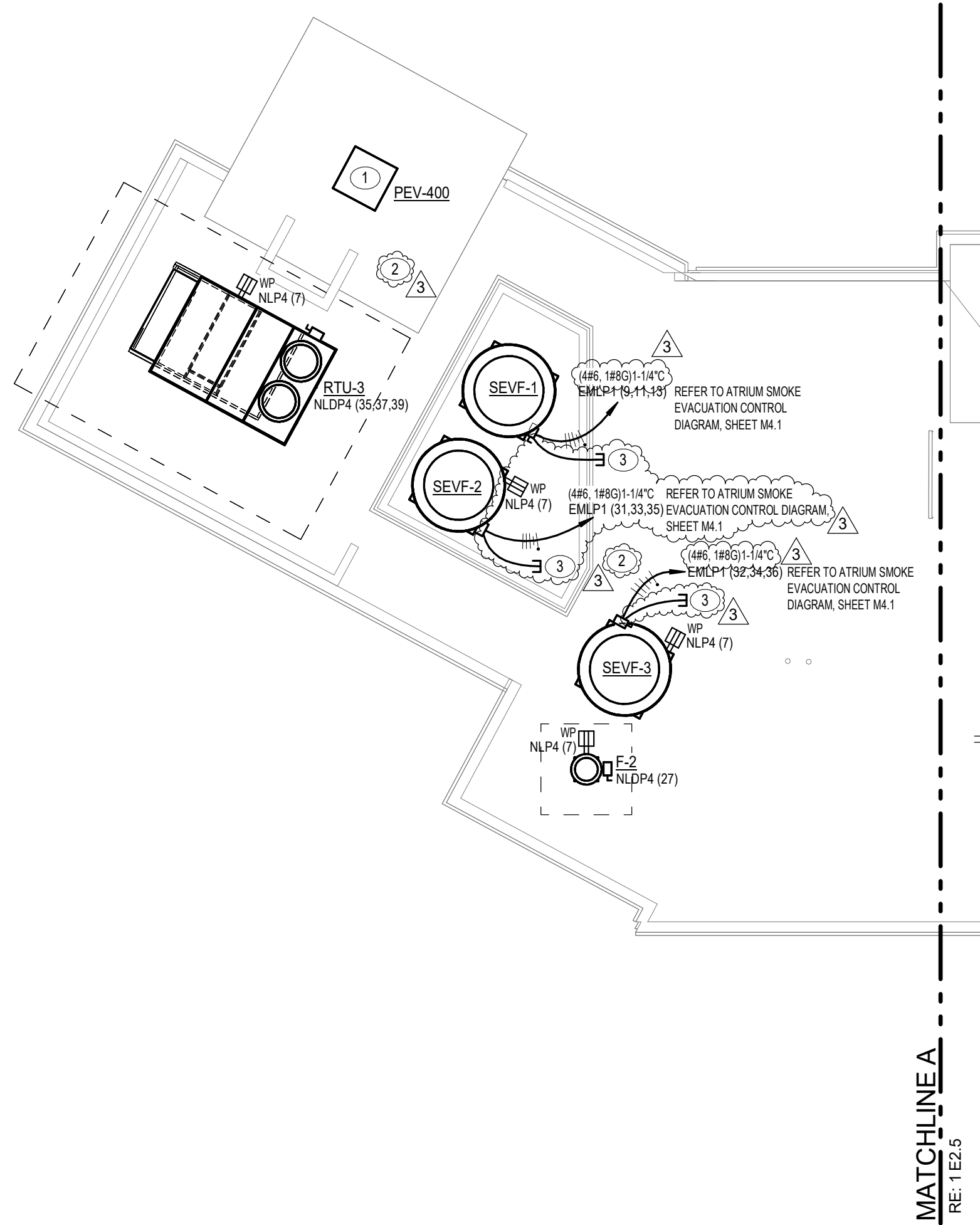
DRAWING TITLE

FOURTH FLOOR PLAN -
POWER

DATE: January 5, 2024 DRAWING

COMM. NO. 23104.00

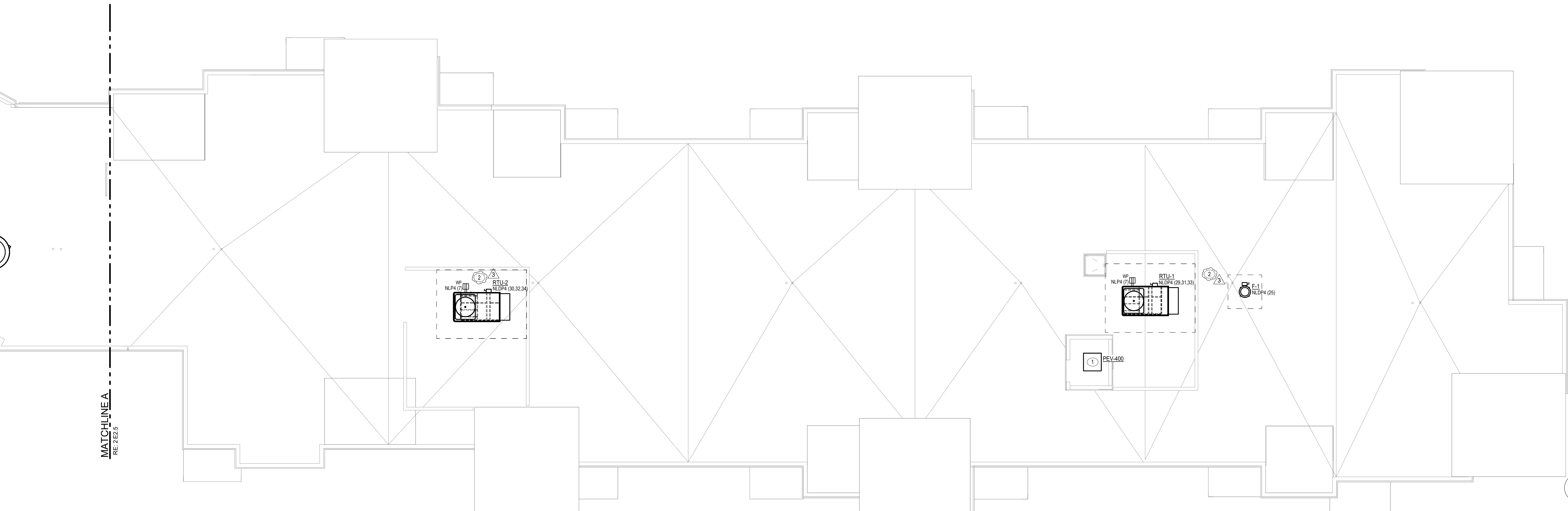
E2.4



4 ROOF HVAC EQUIP. DISCONNECT MOUNTING DETAIL
E2.5 1/4" = 1'-0"

3 ROOF MOUNTED RECEPTACLE DETAIL
E2.5 1/4" = 1'-0"

2 5 - ROOF PLAN ATRIUM - POWER
E2.5 1/8" = 1'-0"



1 5- ROOF PLAN IL UNITS - POWER
E2.5 1/8" = 1'-0"

KEYPLAN

GENERAL NOTES

- REFER TO "MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE" FOR ADDITIONAL EQUIPMENT CONNECTION INFORMATION.
- LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS.
- PROVIDE MAINTENANCE RECEPTACLE WITHIN 25 FT. OF EACH MECHANICAL UNIT AS REQUIRED BY NEC. COORDINATE INSTALLATION LOCATIONS WITH FINAL EQUIPMENT LAYOUT PROVIDED BY MECHANICAL CONTRACTOR.
- BRANCH CIRCUIT RACEWAY AND CABLE SERVING ROOF MOUNTED EQUIPMENT SHALL BE ROUTED IN CEILING SPACE BELOW ROOF DECK TO A POINT NEAR THE EQUIPMENT IN ORDER TO MINIMIZE EXPOSED RACEWAY ON ROOF.
- COORDINATE WITH ARCHITECTURAL AND STRUCTURAL PLANS FOR ROOF PENETRATIONS. SEAL PENETRATIONS PER ROOF MANUFACTURER'S RECOMMENDATIONS.
- ANY ADHESIVES USED ON ROOF SURFACES MUST BE APPROVED BY ROOF MANUFACTURER. DO NOT USE ANY PRODUCTS OR METHODS THAT VOID OR REDUCE ROOF WARRANTIES.
- WHERE RACEWAY OR CONDUCTORS ARE INSTALLED EXPOSED ON ROOF, DERATE AMPACITY OF CONDUCTORS IN ACCORDANCE WITH NEC.
- NON-METALLIC FLEXIBLE CONDUIT IS NOT AN ACCEPTABLE RACEWAY ON ROOF.

PLAN NOTES

- LOCATION OF GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT REFER TO FOURTH FLOOR PLAN FIRE ALARM DRAWINGS.
- ALL DISCONNECTS SHALL BE INSTALLED ON A UNISTRUT RACK PER ROOF HVAC EQUIP. DISCONNECT MOUNTING DETAIL ON THIS SHEET. PROVIDE WP RECEPTACLE ON RACK AND CONNECT TO RECEPTACLE CIRCUIT AS SHOWN ON ROOF PLAN.
- EXTEND 1 1/4" EMT FROM FAN CONTROLLER TO THE SMOKE EVACUATION CONTROL PANEL IN VESTIBULE FOR USE BY M.C. FOR WIRING.

CONSTRUCTION SET

STATE OF MISSISSIPPI
JAMES J. JONES
NUMBER E-20237
PROFESSIONAL ENGINEER
1/5/2024

PROJECT TITLE

John Knox Village
COURTYARDS - BUILDING E

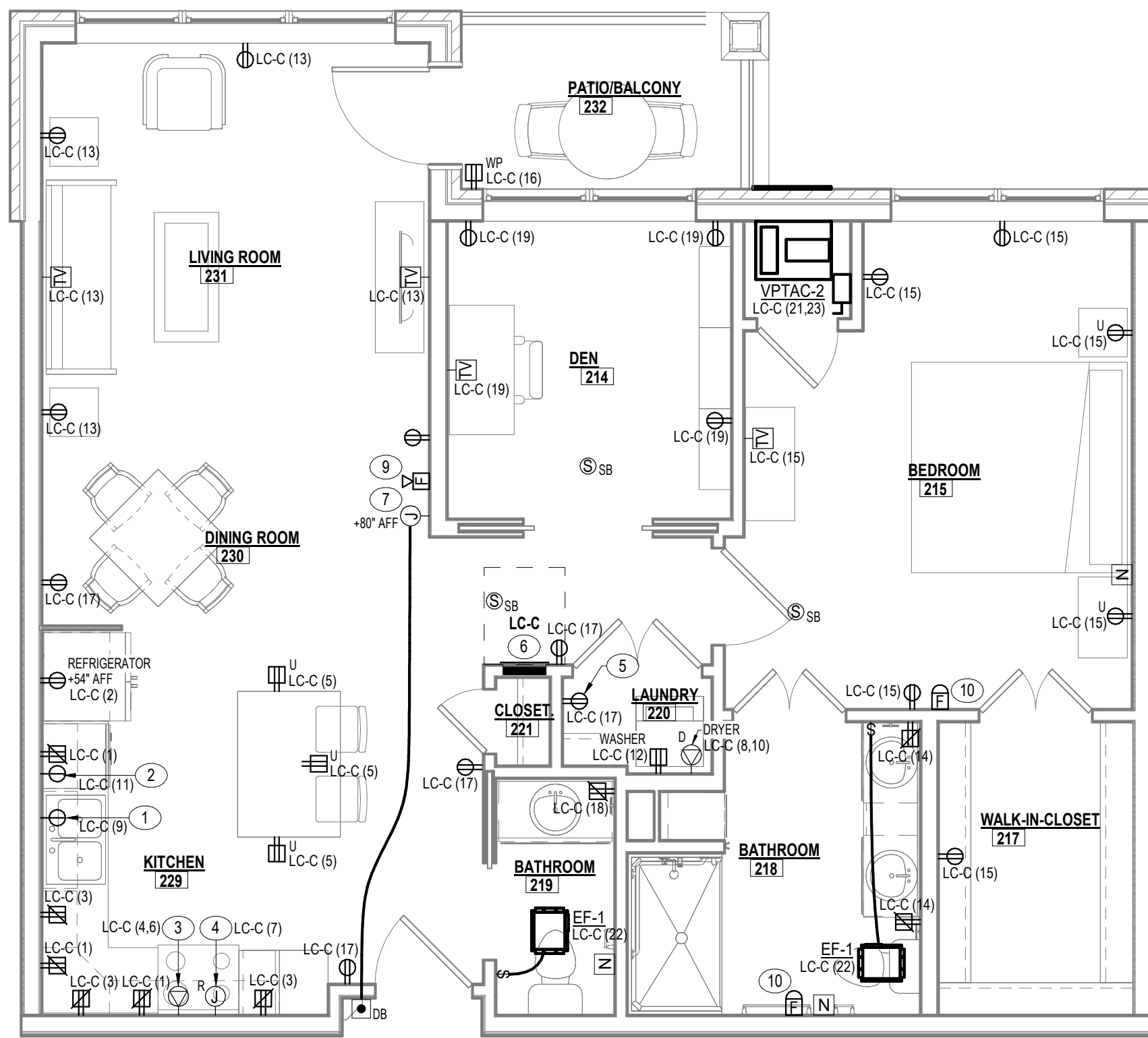
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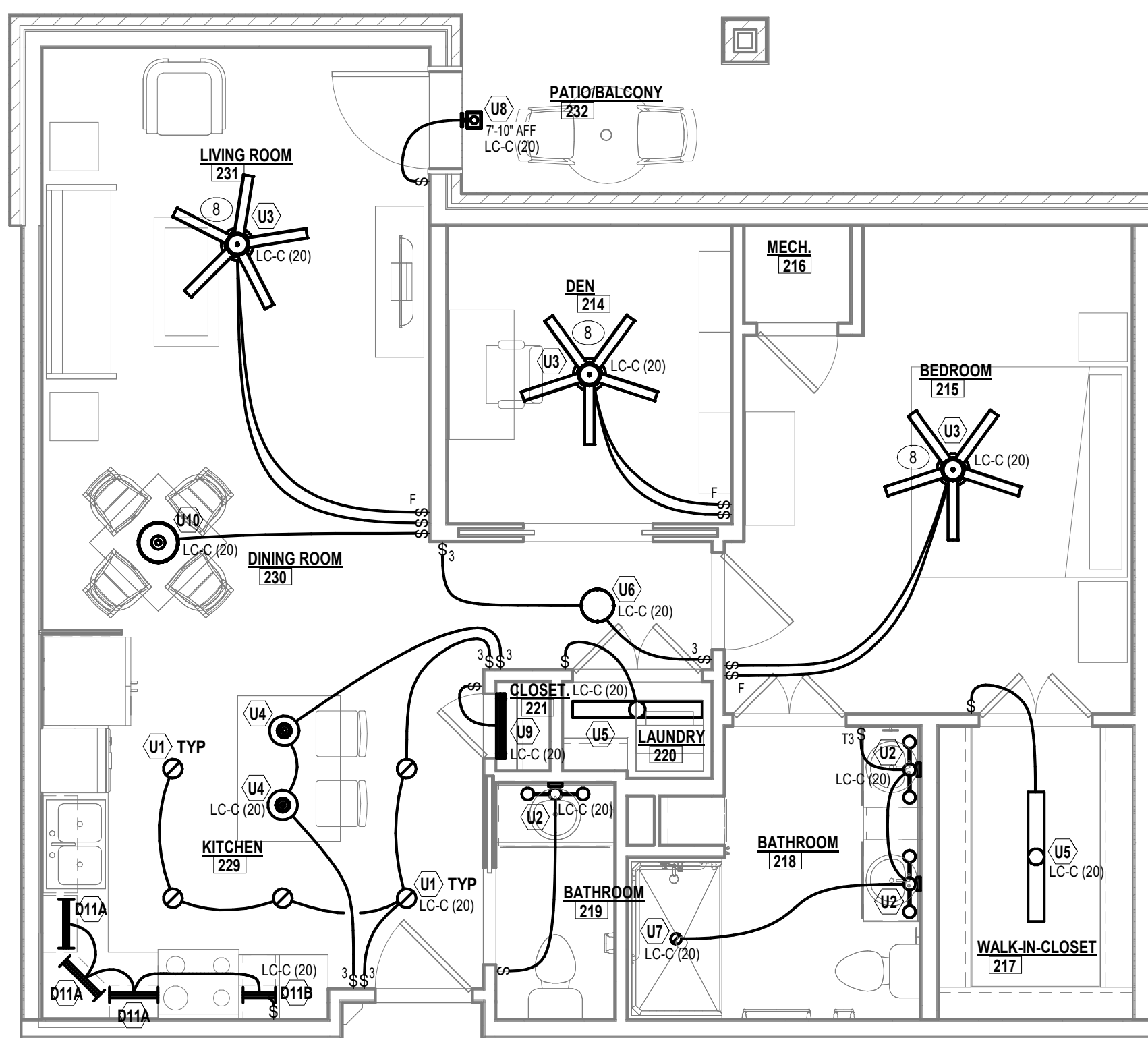
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ENGINEER : MAW	APPROVED : JSK	
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3	Addendum #1	03/07/24

DRAWING TITLE
ROOF PLAN - POWER

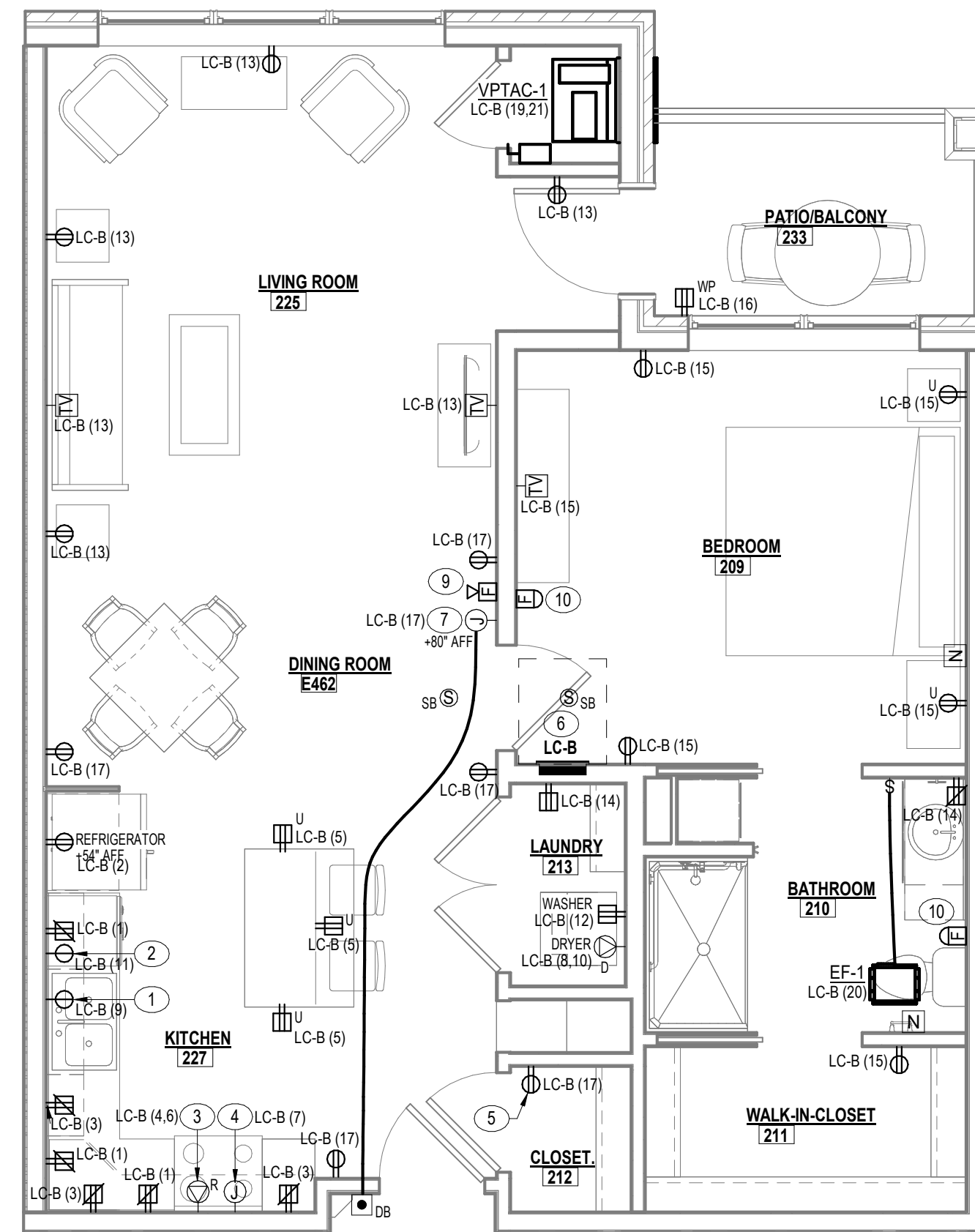
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COMM. NO.	23104.00		



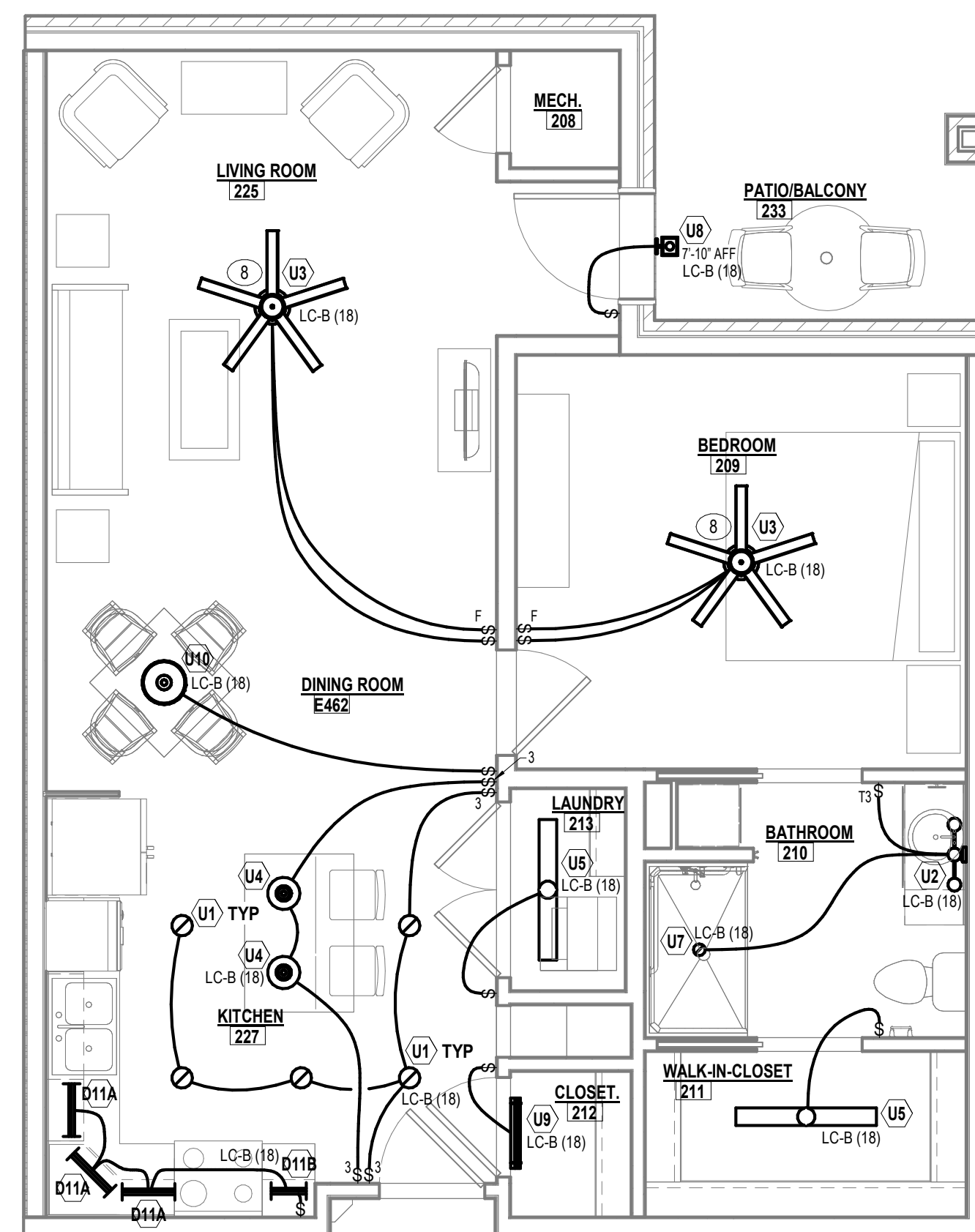
4 UNIT C - CEDAR - POWER & FIRE ALARM
E3.1 1/4" = 1'-0"



3 UNIT C - CEDAR - LIGHTING
E3.1 1/4" = 1'-0"



2 UNIT B - BIRCH - POWER & FIRE ALARM
E3.1 1/4" = 1'-0"



1 UNIT B - BIRCH - LIGHTING
E3.1 1/4" = 1'-0"

GENERAL NOTES

- PROVIDE FOAM GASKETS FOR ALL WIRING DEVICES (RECEPTACLES, SWITCHES, AND DIMMERS) INSTALLED ON THE INTERIOR OF AN EXTERIOR BUILDING WALL. FOAM GASKETS PROVIDE ADDITIONAL INSULATION BETWEEN THE BACK BOX, WIRING DEVICES, AND WALLS/LATES).
- REFER TO ARCHITECTURAL FIRE PROTECTION PLANS FOR LOCATIONS OF FIRE RATED WALLS. ALL RECESSED ELECTRICAL JUNCTION BOXES LOCATED IN FIRE OR ACoustICAL RATED WALLS SHALL BE SEPARATED AS REQUIRED BY THE LATEST ENFORCED IBC.
- WALL BOXES FOR SWITCH BOXES OR RECEPTACLES IN WALL WITH POCKET DOORS SHALL BE INSTALLED SO WALL BOX OR WIRING TO WALL BOX DOES NOT CONFLICT WITH THE OPENING OR CLOSING OF THE POCKET DOOR.
- ALL BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT DINING ROOMS, LIVING, GENS, BEDROOMS, CLOSETS AND HALLWAYS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER.
- BRANCH CIRCUIT WIRING WITHIN APARTMENTS IS TYPE MC CABLE WITH INSULATED COPPER CONDUCTORS AND AN INSULATED GROUNDING CONDUCTOR.
- RECEPTACLES IN DWELLING UNITS SHALL BE TAMPER-PROOF TYPE AS REQUIRED PER NEC ARTICLE 406.12 AND 210.52.
- PLACEMENT OF RECEPTACLES WITHIN DWELLING UNITS SHALL BE IN ACCORDANCE WITH NEC ARTICLE 210.
- LIVING UNIT LOAD CENTER DOORS SHALL BE PAINTED TO MATCH INTERIOR WALL COLOR.
- RANGE HOODS SHALL BE SERVED FROM LOCAL BRANCH CIRCUIT.
- REFER TO PANEL SCHEDULES FOR BRANCH CIRCUIT OF HVAC UNITS SERVING APARTMENTS.
- ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL APPLIANCE ELECTRICAL CORDS NOT SUPPLIED BY THE MANUFACTURER.
- MOUNT LOAD CENTER SO THAT TOP MOST BREAKER IS NO HIGHER THAN 44" AFF.
- ROOMS (DECORDA STYLE) SWITCHES AND RECEPTACLES.
- DEVICE AND SWITCHPLATE COLOR: WHITE, UNLESS ON EMERGENCY POWER (RED, OR DENOTE WITH RED "EMERGENCY" LABEL, SM. TO LEGRAND TRIVEN).

PLAN NOTES

- 120V SIMPLEX RECEPTACLE FOR GARBAGE DISPOSAL. VERIFY LOCATION AND INSTALL PER DISPOSAL MANUFACTURER REQUIREMENTS PRIOR TO ROUGH-IN.
- 120V SIMPLEX RECEPTACLE FOR UNDERCOUNTER DISHWASHER. VERIFY LOCATION AND INSTALL PER DISPOSAL MANUFACTURER REQUIREMENTS PRIOR TO ROUGH-IN.
- RECEPTACLE FOR ELECTRIC RANGE. VERIFY LOCATION AND NEKA CONFIGURATION WITH MANUFACTURER PRIOR TO ROUGH-IN.
- JUNCTION BOX FOR 120V CONNECTION TO MICROWAVE. VERIFY LOCATION AND CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN.
- RECEPTACLE FOR RESIDENTIAL COMMUNICATION SERVICE ENCLOSURE.
- MOUNT LOAD CENTER(S) 48" A.F.F. TO HIGHEST BREAKER HANDLE.
- LOCATE DOOR CHIME 6" BELOW CEILING. PROVIDE NUTONE PLATINUM WIRED DOOR CHIME WITH NUTONE AC305 TRANSFORMER.
- PROVIDE CEILING FAN RATED BACKBOX. PROVIDE 12-3 MC CABLE FROM CEILING FAN RATED BACKBOX TO LIGHT SWITCH FOR FUTURE WIRING OF CEILING FAN.
- ADA ACCESSIBLE UNIT OPTION ONLY: FIRE ALARM AUDIO/ VISUAL DEVICE TO COMPLY WITH ADA REQUIREMENTS REFER TO DETAILS ON SHEET E6.6.
- ADA ACCESSIBLE UNIT OPTION ONLY: FIRE ALARM VISUAL DEVICE IN BEDROOMS TO COMPLY WITH ADA REQUIREMENTS REFER TO DETAILS ON SHEET E6.6.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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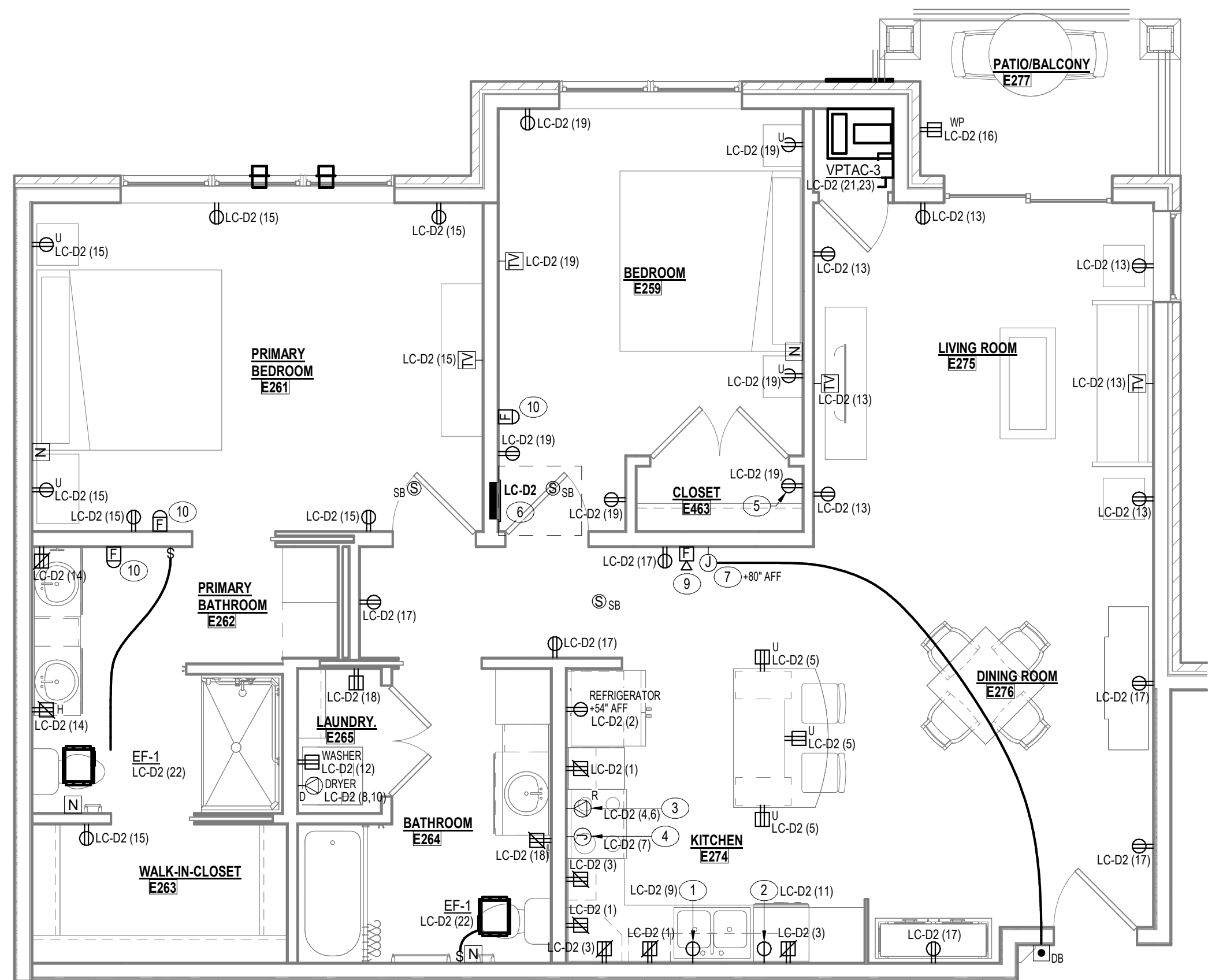
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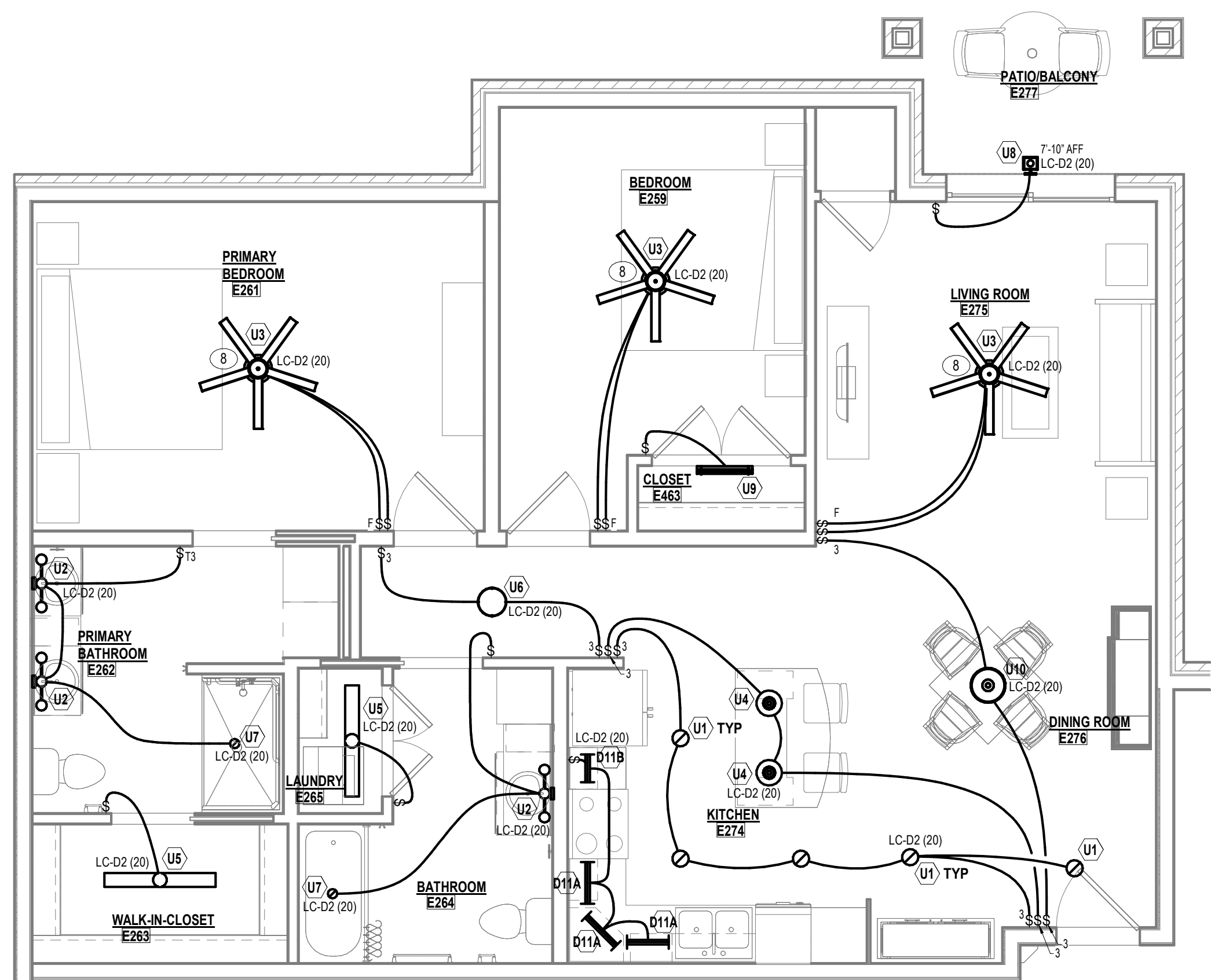
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ENLARGED PLANS -
ELECTRICAL

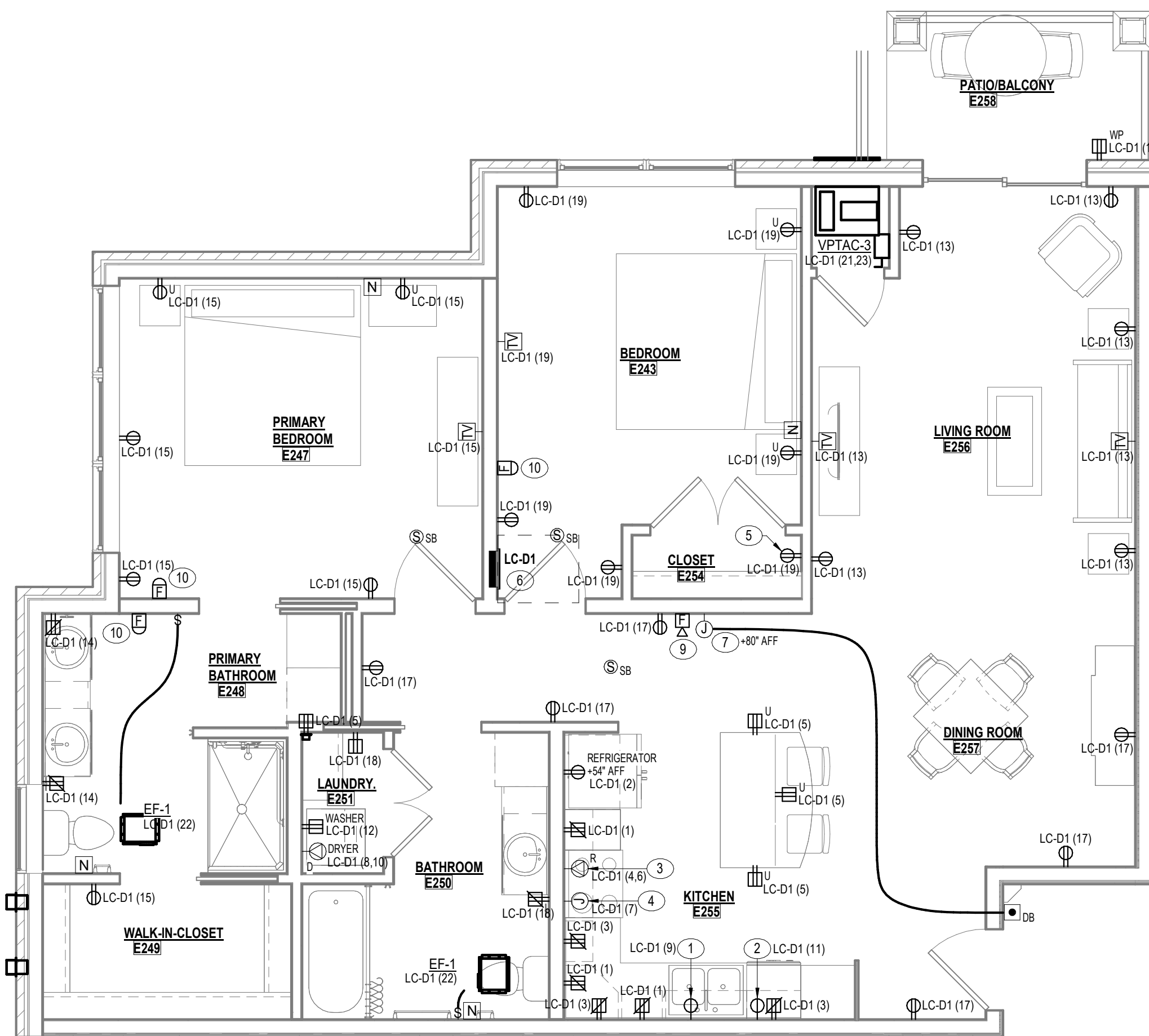
DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E3.1



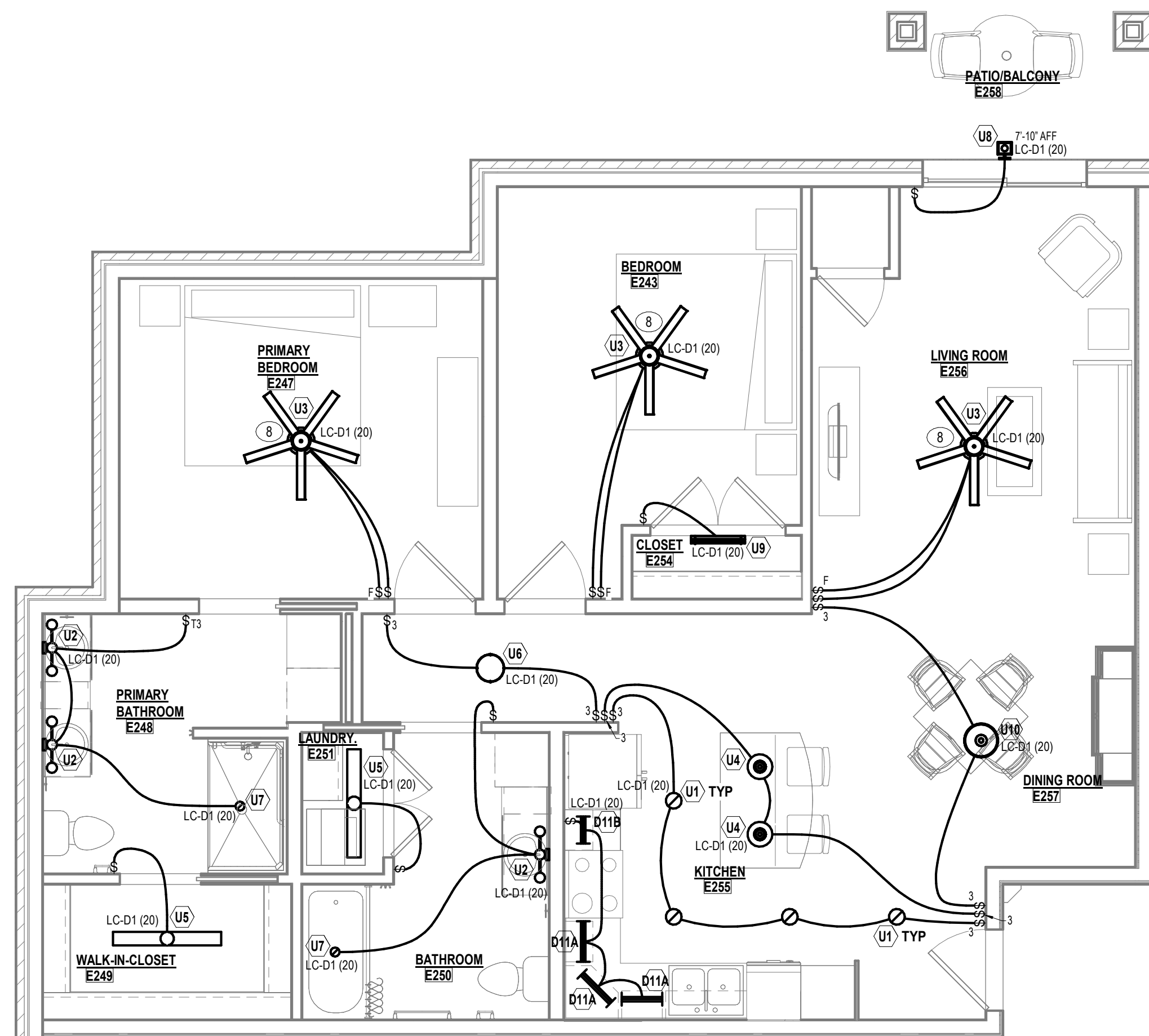
4 UNIT D2 - WILLOW - POWER & FIRE ALARM
E3.2 1/4" = 1'-0"



3 UNIT D2 - WILLOW - LIGHTING
E3.2 1/4" = 1'-0"



2 UNIT D1 - HICKORY - POWER & FIRE ALARM
E3.2 1/4" = 1'-0"



1 UNIT D1 - HICKORY - LIGHTING
E3.2 1/4" = 1'-0"

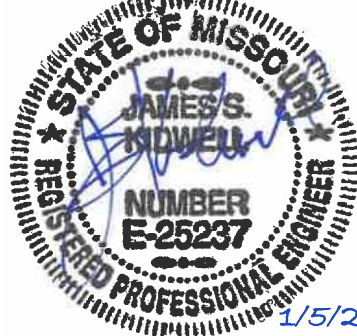
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- PROVIDE FOAM GASKETS FOR ALL WIRING DEVICES (RECEPTACLES, SWITCHES, AND DIMERS) INSTALLED ON THE INTERIOR OF AN EXTERIOR BUILDING WALL. FOAM GASKETS PROVIDE ADDITIONAL INSULATION BETWEEN THE BACK BOX, WIRING DEVICES, AND WALL PLATES.
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- BRANCH CIRCUIT WIRING WITHIN APARTMENTS IS TYPE MC CABLE WITH INSULATED COPPER CONDUCTORS AND AN INSULATED GROUNDING CONDUCTOR.
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- MOUNT LOAD CENTER SO THAT TOP MOST BREAKER IS NO HIGHER THAN 44" AFF.
- PROVIDE (DECORA STYLE) SWITCHES AND RECEPTACLES.
- DEVICE AND SWITCH PLATE COLOR: WHITE, UNLESS ON EMERGENCY POWER (RED, OR DENOTE WITH RED "EMERGENCY" LABEL, SIM. TO LEGRAND TYPE).

PLAN NOTES

- 120V SIMPLEX RECEPTACLE FOR GARBAGE DISPOSAL. VERIFY LOCATION AND INSTALL PER DISPOSAL MANUFACTURER REQUIREMENTS PRIOR TO ROUGH-IN.
- 120V SIMPLEX RECEPTACLE FOR UNDERCOUNTER DISHWASHER. VERIFY LOCATION AND INSTALL PER DISPOSAL MANUFACTURER REQUIREMENTS PRIOR TO ROUGH-IN.
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- RECEPTACLE FOR RESIDENTIAL COMMUNICATION SERVICE ENCLOSURE.
- MOUNT LOAD CENTER(S) 48" A.F.F. TO HIGHEST BREAKER HANDLE.
- LOCATE DOOR CHIME 6" BELOW CEILING. PROVIDE NUTONE PLATINUM WIRED DOOR CHIME WITH NUTONE AC305 TRANSFORMER.
- PROVIDE CEILING FAN RATED BACKBOX. PROVIDE 12-3 MC CABLE FROM CEILING FAN RATED BACKBOX TO LIGHT SWITCH FOR FUTURE WIRING OF CEILING FAN.
- ADA ACCESSIBLE UNIT OPTION ONLY: FIRE ALARM AUDIO/ VISUAL DEVICE TO COMPLY WITH ADA REQUIREMENTS REFER TO DETAILS ON SHEET E66.
- ADA ACCESSIBLE UNIT OPTION ONLY: FIRE ALARM VISUAL DEVICE IN BEDROOMS TO COMPLY WITH ADA REQUIREMENTS REFER TO DETAILS ON SHEET E66.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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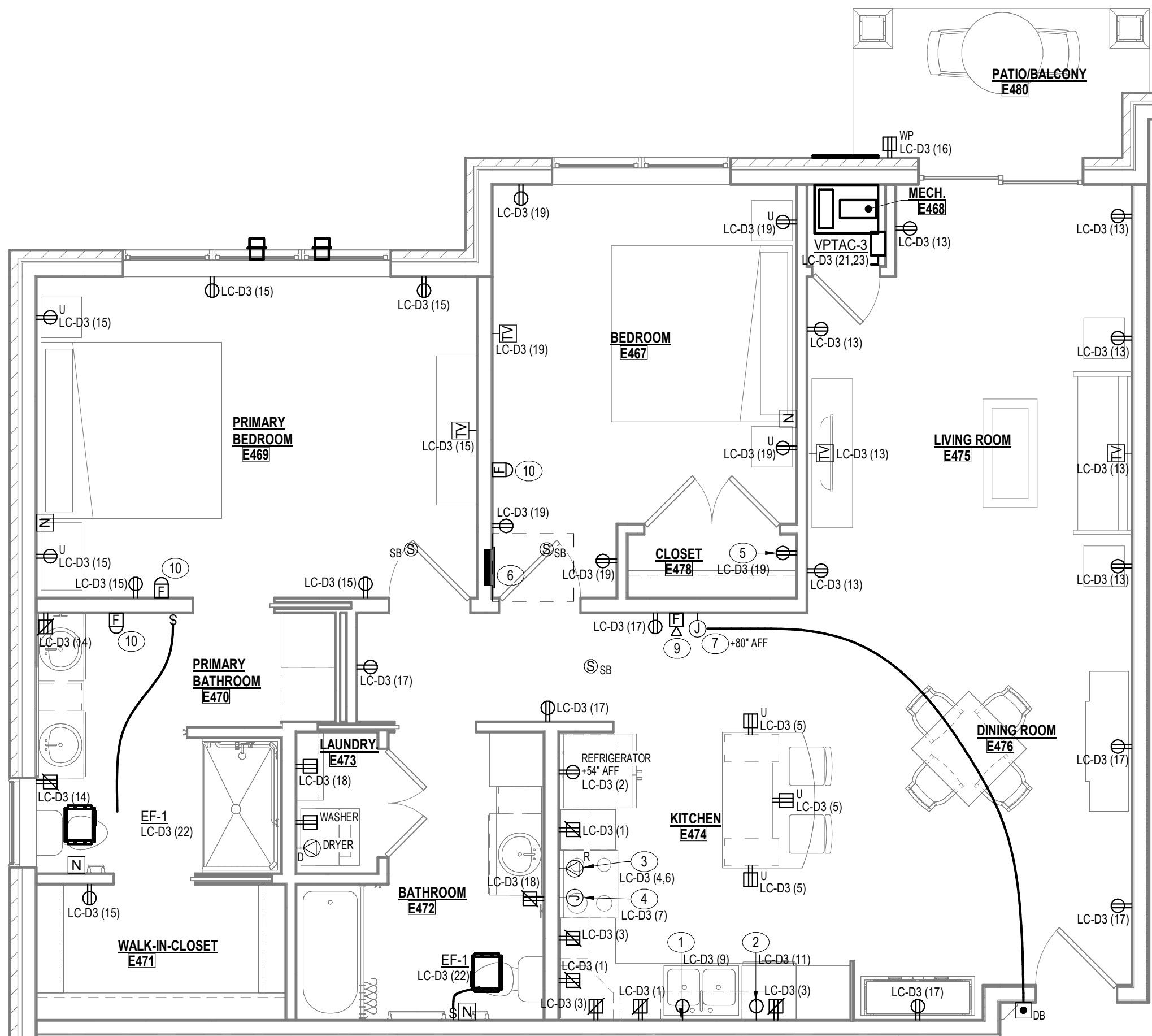
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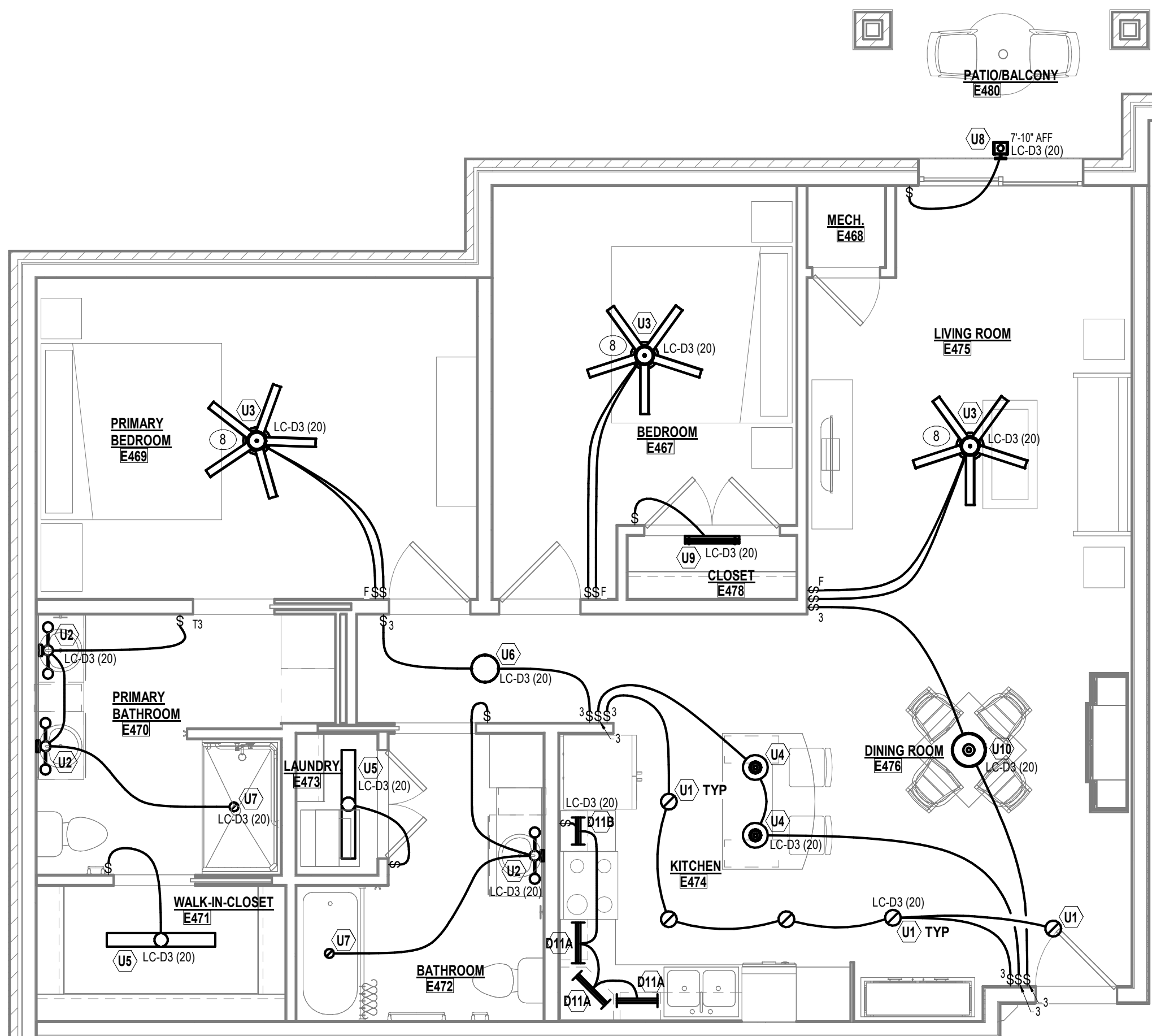
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ENLARGED PLANS -
ELECTRICAL

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E3.2



2 UNIT D3 - CYPRESS - POWER & FIRE ALARM
E3.3 1/4" = 1'-0"



1 UNIT D3 - CYPRESS - LIGHTING
E3.3 1/4" = 1'-0"

GENERAL NOTES

- PROVIDE FOAM GASKETS FOR ALL WIRING DEVICES (RECEPTACLES, SWITCHES, AND DIMMERS) INSTALLED ON THE INTERIOR OF AN EXTERIOR BUILDING WALL. FOAM GASKETS PROVIDE ADDITIONAL INSULATION BETWEEN THE BACK BOX, WIRING DEVICES, AND WALL PLATES.
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- REFER TO PANEL SCHEDULES FOR BRANCH CIRCUIT OF HVAC UNITS SERVING APARTMENTS.
- ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL APPLIANCE ELECTRICAL CIRCUITS NOT SUPPLIED BY THE MANUFACTURER.
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- MOUNT LOAD CENTER SO THAT TOP MOST BREAKER IS NO HIGHER THAN 44" AFF.
- ROCKER (DECORA STYLE) SWITCHES AND RECEPTACLES.
- DEVICE AND SWITCH PLATE COLOR: WHITE, UNLESS ON EMERGENCY POWER (RED, OR DENOTE WITH RED "EMERGENCY" LABEL SIM. TO LEGRAND TPWE).

PLAN NOTES

- 120V SIMPLEX RECEPTACLE FOR GARBAGE DISPOSAL. VERIFY LOCATION AND INSTALL PER DISPOSAL MANUFACTURER REQUIREMENTS PRIOR TO ROUGH-IN.
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- RECEPTACLE FOR ELECTRIC RANGE. VERIFY LOCATION AND NEKA CONFIGURATION WITH MANUFACTURER PRIOR TO ROUGH-IN.
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- LOCATE DOOR CHIME 6" BELOW CEILING. PROVIDE NUTONE PLATINUM WIRED DOOR CHIME WITH NUTONE AC305 TRANSFORMER.
- PROVIDE CEILING FAN RATED BACKBOX. PROVIDE 12-3 MC CABLE FROM CEILING FAN RATED BACKBOX TO LIGHT SWITCH FOR FUTURE WIRING OF CEILING FAN.
- ADA ACCESSIBLE UNIT OPTION ONLY: FIRE ALARM AUDIO/ VISUAL DEVICE TO COMPLY WITH ADA REQUIREMENTS REFER TO DETAILS ON SHEET E6.6.
- ADA ACCESSIBLE UNIT OPTION ONLY: FIRE ALARM VISUAL DEVICE IN BEDROOMS TO COMPLY WITH ADA REQUIREMENTS REFER TO DETAILS ON SHEET E6.6.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

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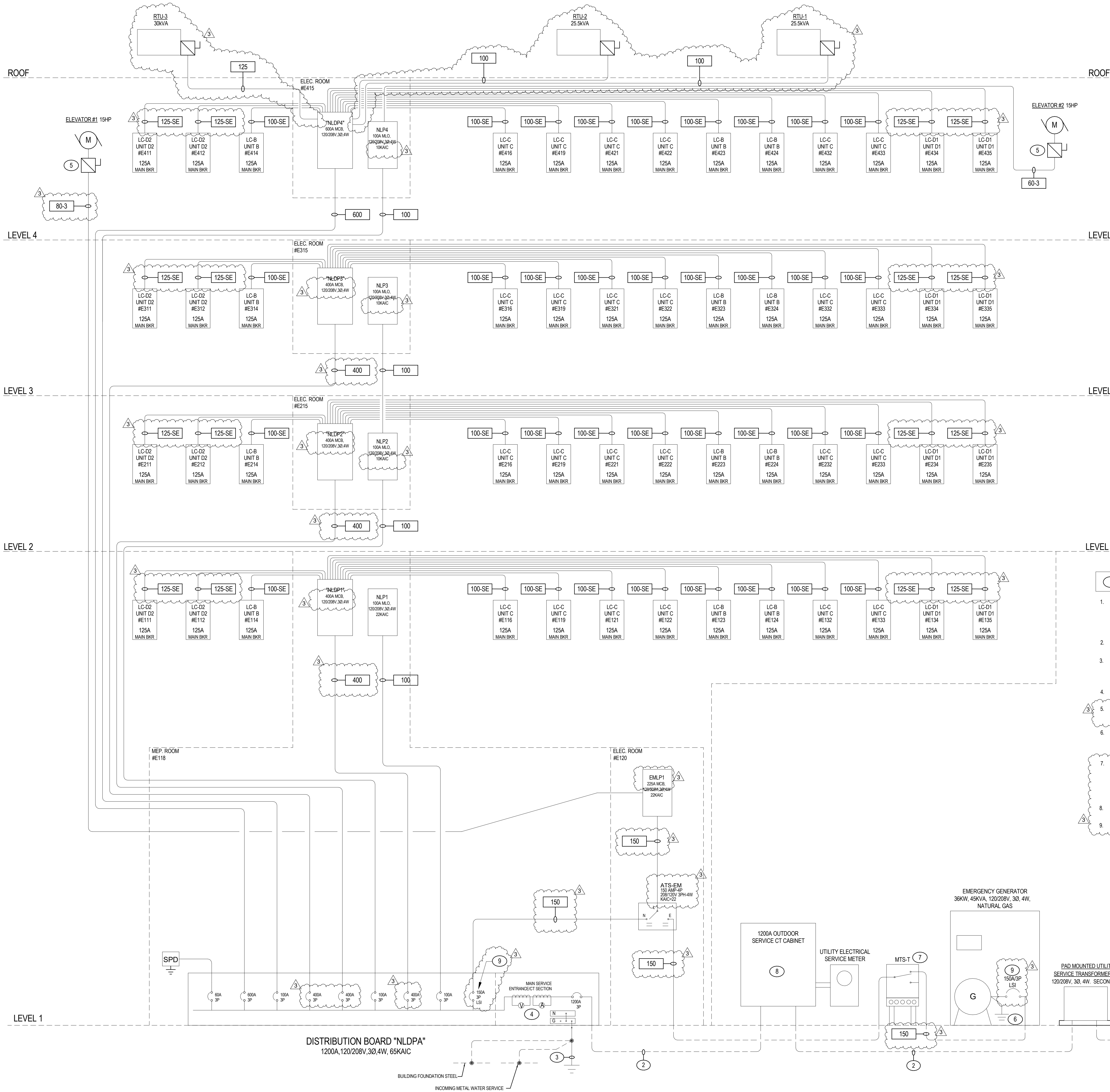
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NO.	REVISION DESCRIPTION DATE

DRAWING TITLE

ENLARGED PLANS -
ELECTRICAL

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E3.3



SINGLE-LINE KEYED NOTES

- UTILITY PRIMARY FEEDER TO SERVICE TRANSFORMER UNDERGROUND DUCT WITH (24" SCH 40) PVC CONDUITS. FULL BOXES, SPICE BOXES INCLUDING CONCRETE TRANSFORMER PAD BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL FOLLOW ALL CONCORD ELECTRICAL SPECIFICATIONS FOR INSTALLATIONS.
- UNDERGROUND SERVICE LATERAL 4 SETS OF (4 - #500 KCMIL ALUMINUM IN 3 1/2")
- ELECTRICAL SERVICE GROUNDING ELECTRODE CONDUCTOR - #30 CU. BOND TO GROUND RODS, BUILDING AND FOUNDATION REINFORCING STEEL METAL WATER SERVICE PIPING AND CONCRETE ENCASED ELECTRODE PER NEC REQUIREMENTS.
- PROVIDE SWITCHBOARD WITH DIGITAL CUSTOMER METER. REFER TO SPECIFICATIONS.
- ELEVATOR CONTROLLER DISCONNECT - 3P, 80A SHUNT TRIP CIRCUIT BREAKER WITH LOCKOUT DEVICE FOR ELEVATOR CONTROLLER DISCONNECT. SEE FORTH FLOOR POWER PLAN FOR FURTHER DETAILS.
- #8 (CU) GROUNDING ELECTRODE CONDUCTOR. BOND TO GROUND COUNTERPOISE. DO NOT BOND NEUTRAL AND GROUND TERMINALS OF GENERATOR OUTPUT TERMINALS. GENERATOR IS NOT A SEPARATELY SERVED SYSTEM.
- ROLL-UP TEMPORARY GENERATOR QUICK CONNECT CABINET / MANUAL TRANSFER SWITCH WITH CAM LOCKS FOR CONNECTION OF TEMPORARY LIFE SAFETY GENERATOR. 150A, 4P, 240V, NEMA 3R. PROVIDE SATON RSTC200BSC-CLX OR EQUIVALENT FOR COMPLIANCE WITH 2020 NEC 700.3(F) AND 517.26. REFER TO DETAILS ON SHEET E0.5.
- 1200 AMP, OUTDOOR CT COMPARTMENT MOUNTED TO EXTERIOR WALL. PROVIDE PER ELECTRICAL UTILITY REQUIREMENTS.
- ELECTRONIC TRIP, LS, MOLDED CASE CIRCUIT BREAKER

ELECTRICAL PANEL KEY:

SYSTEM

EM - EMERGENCY
ED - EQUIPMENT (OPTIONAL STANDBY)
G - GENERATOR
LS - LIFE SAFETY (LEGALLY REQ'D. STANDBY)
N - NORMAL POWER

VOLTAGE

H - 277/480V
L - 120/208V

PANEL TYPE

DP - DISTRIBUTION PANEL
P - BRANCH PANEL
SD - SERVICE DISCONNECT
SW - SWITCHBOARD
T - TRANSITION ENCLOSURE

FLOOR

L - LOWER LEVEL / GARAGE
1 - 1ST FLOOR
2 - 2ND FLOOR
3 - 3RD FLOOR
4 - 4TH FLOOR
5 - 5TH FLOOR
R - ROOF

PANELBOARD SUFFIX

A, B, C, ... (DEPENDENT ON NO. OF PANELS)

BUILDING SUFFIX

E - EAST BUILDING
W - WEST BUILDING

ONE-LINE RISER FEEDER SCHEDULE

CABLE TAG #	NO. OF SETS	CONDUIT SIZE	PHASE CONDUCTORS NO.	CONDUIT SIZE	CONDUIT TYPE	REMARKS
20	20	1	3/4"	4	#12 CU	
20-3	20	1	3/4"	3	#12 CU	
25	20	1	3/4"	4	#10 CU	
25-3	25	1	3/4"	3	#10 CU	
30	30	1	3/4"	4	#10 CU	
30-3	30	1	3/4"	3	#10 CU	
40	40	1	3/4"	4	#8 CU	
45-3	40	1	3/4"	3	#8 CU	
50	50	1	3/4"	4	#8 CU	
50-3	50	1	3/4"	3	#8 CU	
60	60	1	1-1/4"	4	#4 CU	
60-3	60	1	1-1/4"	3	#4 CU	
70-3	70	1	1-1/4"	3	#3 CU	
80	80	1	1-1/2"	4	#2 CU	
80-3	80	1	1-1/2"	3	#2 CU	
100	100	1	1-1/2"	4	#1 CU	
100X	100	1	1-1/2"	4	#1 CU	#6 CU
100-3	100	1	1-1/2"	3	#1 CU	#6
100-SE	100	-	-	3	#10 AL	#6 3/C ALUMINUM SE RATED
125	125	1	2"	4	#20 AL	#4
125-3	125	1	1-1/2"	3	#20 AL	#4 3/C ALUMINUM SE RATED
125-SE	125	-	-	3	#20 AL	#4 3/C ALUMINUM SE RATED
150	150	1	2"	4	#30 AL	#4
150-3	150	1	2"	3	#30 AL	#4
150-SE	150	-	-	3	#20 AL	#1 3/C ALUMINUM SE RATED
175	175	1	2-1/2"	4	#40 AL	#4
175-3	175	1	2"	3	#40 AL	#4
200	200	1	2-1/2"	4	#50 kcmil	#4
200X	200	1	2-1/2"	4	#50 kcmil	#2 CU
200-3	200	1	2-1/2"	3	#50 kcmil	#4
200-SE	200	-	-	3	#40 AL	#20 3/C ALUMINUM SE RATED
225	225	1	3"	4	#50 kcmil	#2
225-3	225	1	2-1/2"	3	#50 kcmil	#2
250	250	1	3"	4	#50 kcmil	#2
250-3	250	1	2-1/2"	3	#50 kcmil	#2 CU
300	300	1	3-1/2"	4	#50 kcmil	#2
350	350	2	2-1/2"	4	#40 AL	#1
350-3	350	2	2-1/2"	3	#40 AL	#1
400	400	2	2-1/2"	4	#50 kcmil	#1
400X	400	2	2-1/2"	4	#50 kcmil	#10 CU
400-3	400	2	2-1/2"	3	#50 kcmil	#10
450-3	450	2	2-1/2"	3	#50 kcmil	#10
500	500	2	3"	4	#50 kcmil	#10
600	600	2	3-1/2"	4	#50 kcmil	#20
600-3	600	2	3"	3	#50 kcmil	#20
750-3	750	3	2-1/2"	3	#40 AL	#30
800	800	3	3"	4	#40 kcmil	#30
800X	800	3	3"	4	#40 kcmil	#10 CU
1000	1000	4	3"	4	#50 kcmil	#40
1200	1200	4	3-1/2"	4	#50 kcmil	250 kcmil
1600	1600	6	3"	4	#40 kcmil	350 kcmil
2000	2000	7	3-1/2"	4	#50 kcmil	400 kcmil
2500	2500	9	3-1/2"	4	#50 kcmil	600 kcmil
3000	3000	10	3-1/2"	4	#50 kcmil	600 kcmil

FEEDER SCHEDULE NOTES:

- ALL FEEDER SIZES INDICATED IN SCHEDULE ARE BASED ON CONDUCTORS WITH A TEMPERATURE RATING OF 75° C UNLESS NOTED OTHERWISE.
- SCHEDULE DOES NOT INCLUDE VOLTAGE DROP CONSIDERATIONS. CONTRACTOR SHALL ACCOUNT FOR VOLTAGE DROP BY UTILIZING AN NEC APPROVED CALCULATION METHOD FOR FEEDERS WITH LENGTHS GREATER THAN 200 FEET.
- GROUND CONDUCTOR MATERIAL SHALL MATCH PHASE CONDUCTOR MATERIAL UNLESS OTHERWISE NOTED.
- GROUNDING ELECTRODE FOR TRANSFORMERS SHALL ALWAYS BE COPPER.

GENERAL NOTES

- VOLTAGE DROP IN FEEDER CONDUCTORS SHALL NOT EXCEED 1.5%.
- VOLTAGE DROP IN BRANCH CONDUCTORS SHALL NOT EXCEED 1.5%.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

SFC Architecture
Engineering
Planning
Interiors

SFC Inc. • 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 • Fax 540.343.6925
www.sfc.com

DESIGNER : DAS	DRAWN : MAW, DKW
ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO.	REVISION DESCRIPTION DATE
2	Rev 1 - Permit Comments 02/15/24
3	Addendum #1 03/07/24

DRAWING TITLE

**ELECTRICAL ONE-LINE
DIAGRAM**

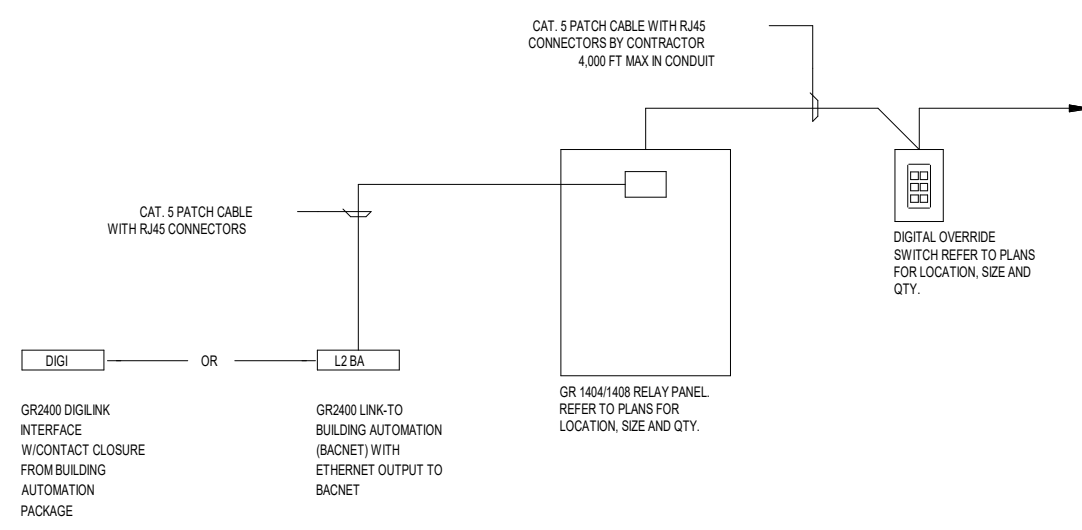
DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E4.1

RELAY PANEL LOW VOLTAGE CONTROL SYSTEM

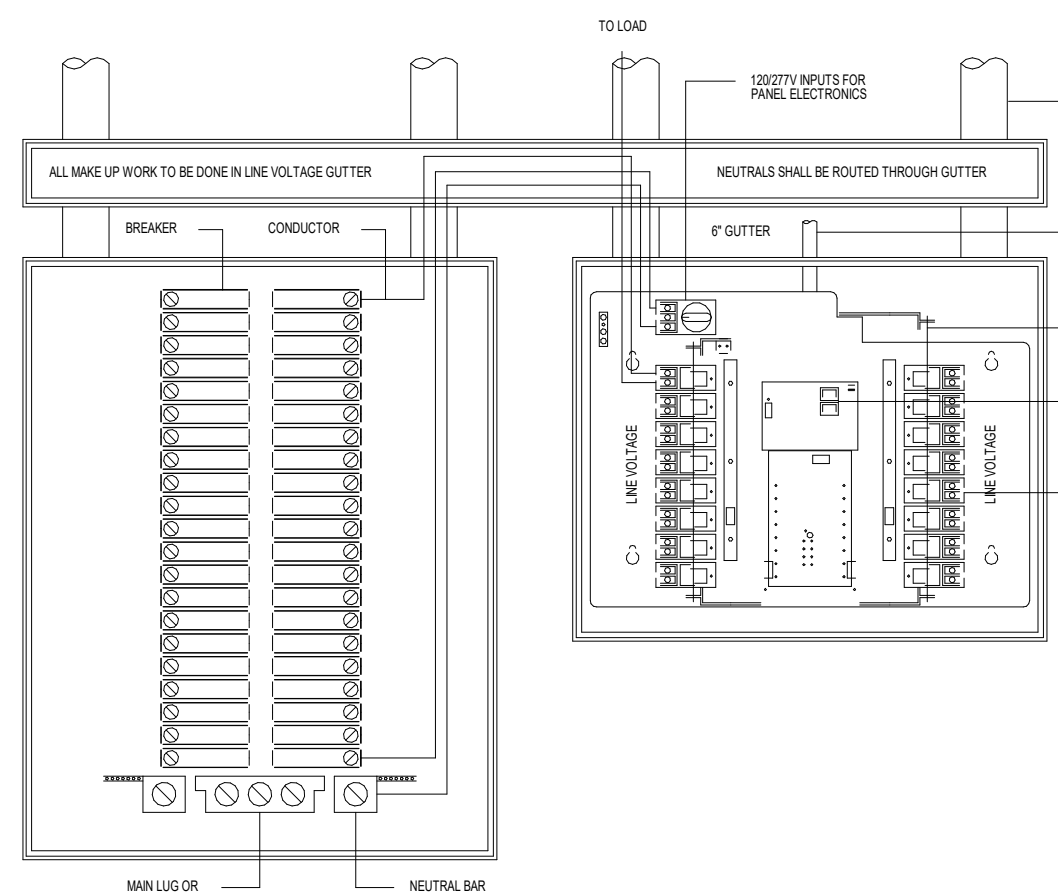
NOTE:

REFER TO THE SCHEDULES ABOVE FOR THE LOCATION OF THE LIGHTING RELAY PANELS. MAKE ALL REQUIRED CONNECTIONS DURING INSTALLATION & INCLUDE PROGRAMMING IN ACCORDANCE WITH INSTRUCTIONS & WIRING DIAGRAMS FROM MANUFACTURER.

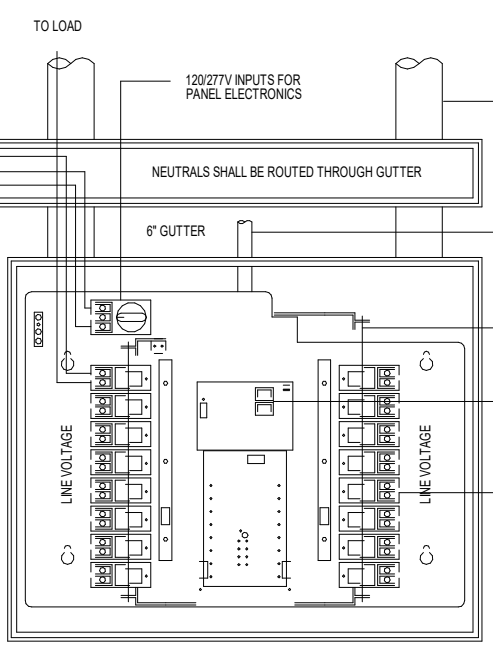
DESIGN BASIS: ACUITY CONTROLS, HUBBELL CONTROL SOLUTIONS, LEVITON GREENMAX, OR DOUGLAS LIGHTING CONTROLS EQUALS.

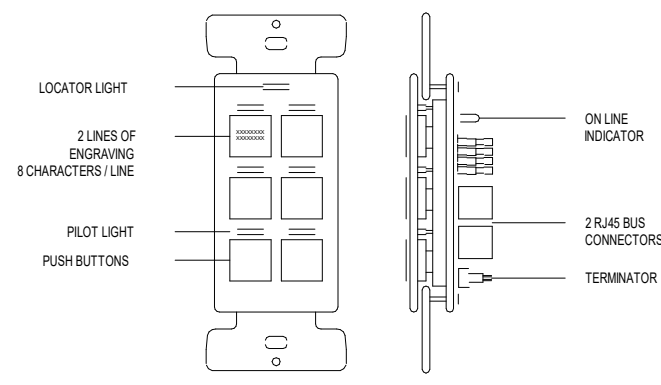


PANEL CDT.

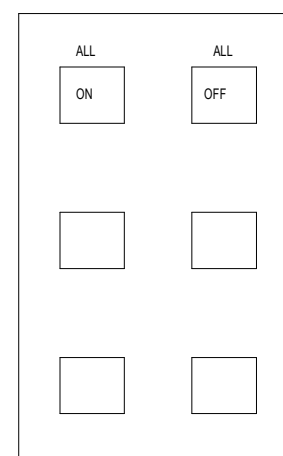


PANEL DETAIL

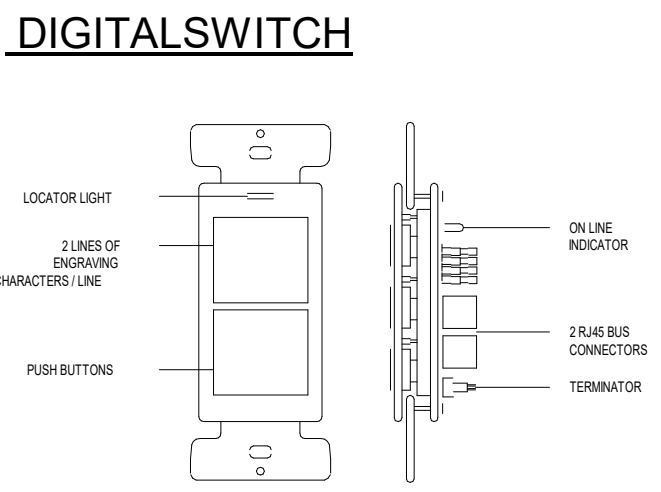




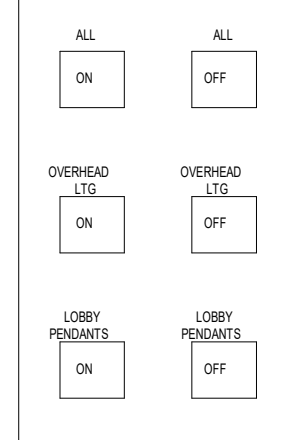
- NOTES:**
1. SWITCH BUTTONS ARE FACTORY ENGRAVED.
 2. PUSH BUTTONS MAY CONTROL ANY RELAY(S) IN ANY COMBINATION.
 3. LED PILOT LIGHTS INDICATE STATUS.

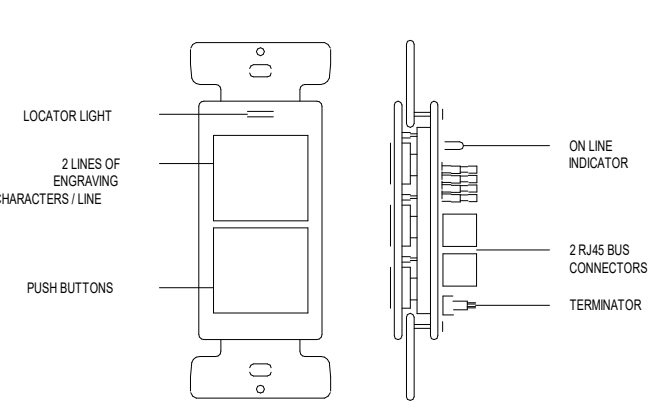


STAFF AREA CORRIDOR LIGHTING
CONTROL SWITCH



- NOTES:
1. SWITCH BUTTONS ARE FACTORY EMPLOYED.
 2. PUSH BUTTONS MAY CONTROL ANY RELAY(S) IN ANY COMBINATION.
 3. LED PILOT LIGHTS INDICATE STATUS.

RECEPTION LIGHTING CONTROL
SWITCH



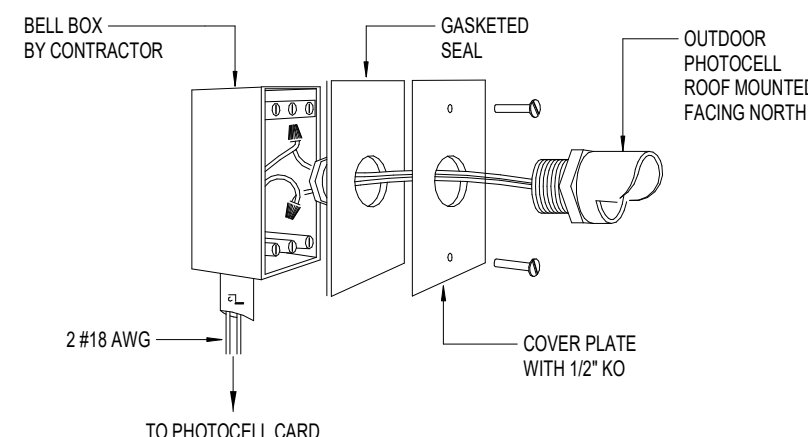
- NOTES:
1. SWITCH BUTTONS ARE FACTORY EMPLOYED.
 2. PUSH BUTTONS MAY CONTROL ANY RELAY(S) IN ANY COMBINATION.
 3. LED PILOT LIGHTS INDICATE STATUS.

GENERAL CONTROL NOTES:

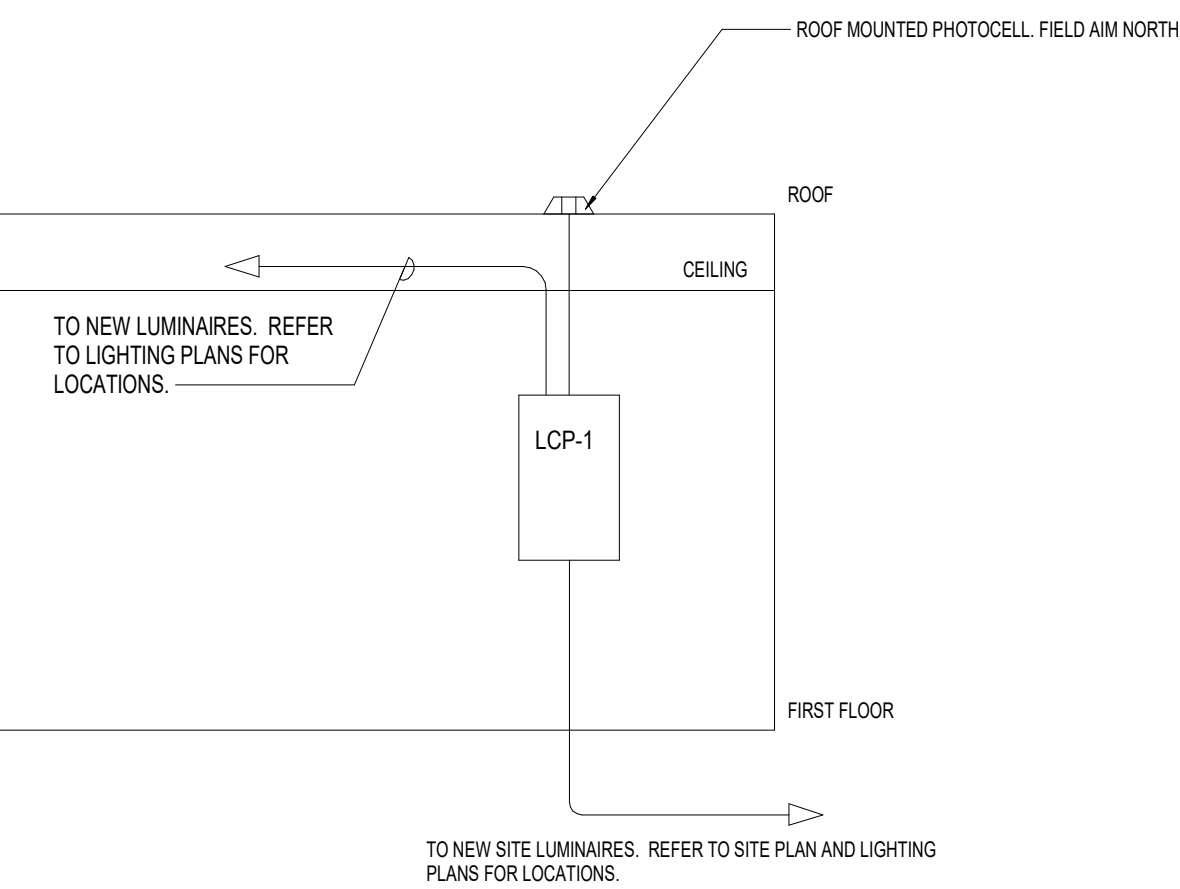
- A. PROVIDE 48 RELAY LIGHTING CONTROL PANELS WITH INTEGRATED TIMECLOCK AND BUILDING AUTOMATION (BAS) INTERFACE TO COMMUNICATE WITH BUILDING BAS (IF APPLICABLE). INTERIOR AND EXTERIOR LIGHTING SCHEDULING PANELS WILL BE WIRING THROUGH THE RELAYS AND CONTROLLED BY THE TIMECLOCK FOR SCHEDULING/OVERIDES OF OPERATION.
- B. PROVIDE DIGITAL, OVERRIDE SWITCHES FOR LOCK, OVERRIDE OF TIMECLOCK OR BAS SCHEDULING AND REDUCED NIGHT LIGHTING. OVERRIDE SWITCHES WILL BE PROVIDED FOR SCHEDULING/OVERIDES OF OPERATION.
- C. VERIFY EXIST LOCATION OF SWITCHES WITH OWNER PRIOR TO ROUGH-IN.
- D. PROVIDE FLUORESCENT RATCHET/CATCH CABLE FROM THE RELAY PANELS TO EACH BYPASS SWITCH.
- E. PROVIDE TELEPHONE JACK NEAR PANEL.
- F. CONTRACTOR TO INCLUDE IN PRICING, COMMISSION AND SET UP OF PROGRAMMING BY MANUFACTURER REPRESENTATIVE.
- F. RELAY PANEL BASIS OF DESIGN: AUTOMATICS RGR-1040LT OR RGR-1040LT WITH SURFACE MOUNT ENCLOSURE.
- G. DASHY CHAIN SWITCHES AND PANELS WITH CABLE AND RATCHET CABLE CONNECTORS.

LIGHTING CONTROL PANEL OVERALL SYSTEM NOTES

- [illegible]



- NOTES:
1. SWITCH BUTTONS ARE FACTORY ENGRAVED.
 2. PUSH BUTTONS MAY CONTROL ANY RELAY(S) IN ANY COMBINATION.
 3. LED PILOT LIGHTS INDICATE STATUS.
 4. SWITCH LINKED TO THE GR 2400 DIGITAL BUS VIA CAT. 5 PATCH CABLE WITH RJ45 CONNECTORS.
 5. DECORA STYLE FACE PLATE BY CONTRACTOR.



GENERAL NOTES

1. PROVIDE LIGHTING CONTROL SYSTEM WIRING PER MANUFACTURERS REQUIREMENTS.
2. PROVIDE FIRE ALARM SYSTEM WIRING AND CONDUIT PER MANUFACTURER REQUIREMENTS.

PLAN NOTES

- 1 REFER TO FIRE ALARM DRAWINGS E8.2 & E8.3 FOR FACP & FAA.
- 2 REFER TO FIRE ALARM DRAWINGS E8.2, E8.3 & E8.4 FOR INATING AND ANNUNCIATING DEVICE LOCATIONS.
- 3 PROVIDE PERMANENT LABEL AFFIXED TO PANEL INDICATING CIRCUIT # AND PANEL LOCATION.
- 4 EXTEND TO ELEVATOR CONTROLLER FOR FIREMAN RECALL. TYPICAL FOR ELEVATOR LOBBY SMOKE DETECTORS.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

S F C S | Architecture
Engineering
Planning
Interiors

SFCS Inc. ■ 305 South Jefferson Street
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DESIGNER : DAS	DRAWN : MAW, DKW
ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO.	REVISION DESCRIPTION

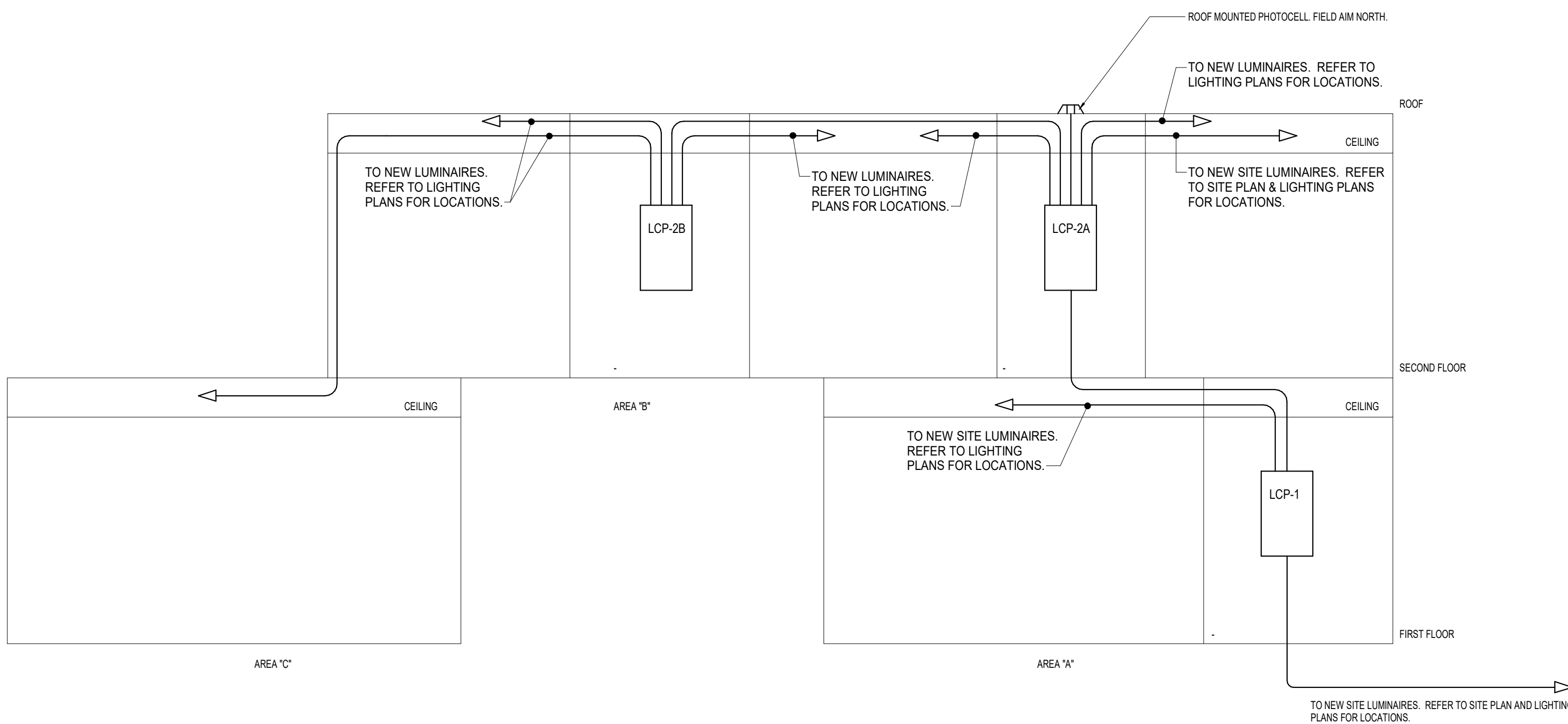
DRAWING TITLE

LIGHTING CONTROL DIAGRAMS

DATE:	January 5, 2024	DRAWING E4.2
COMM. NO.	23104.00	

E4.2

E4.2 N.T.S



Branch Panel: NLP4																							
Location: ELEC E415				Volts: 120/208 Wye				A.I.C. Rating: 10,000 AIC															
Supply From: NLDPA				Phases: 3				Mains Type: MLO															
Mounting: SURFACE				Wires: 4				Mains Rating: 100 A															
Enclosure: NEMA 1				MCB Rating:																			
Notes:																							
CKT	Circuit Description	Trip	Poles	A			B			C			Poles	Trip	Circuit Description	CKT							
				20 A	1	1260 VA	900 VA				1	20 A					RCPTS - CORRIDOR #E413	2					
				20 A	1			1260 VA	1080 VA			1					20 A	RCPTS - RM. #E417, E418, E426, E429, E431,...	4				
				20 A	1					1080 VA	0 VA	1					20 A	SPARE	6				
				5	RCPTS - CORRIDOR #E413 & ELEC #E415	20 A	1	1080 VA	180 VA									1	20 A	GFI RCPTS - RESTROOM #E405	8		
				7	GFI / WP RCPT - ROOFTOP	20 A	1			1500 VA	770 VA							1	20 A	LTG. - 4TH FLOOR CORRIDOR & ATRIUM	10		
				9	EW-H1 (STAIRWELL #1, 4TH FLOOR)	20 A	2					1500 VA					988 VA		1	20 A	LTG. - LOUNGE #E406 & RES. CLOSET #E402	12	
				11	--	--	--	--	--	--	--	--					--	--	--	--	--	--	--
				13	EW-H1 (STAIRWELL #2, 4TH FLOOR)	20 A	2	1500 VA	953 VA										1	20 A	ELEV #2 - LIGHTS & CONTROLS	14	
				15	--	--	--	--	--	--	--	--					--	--	--	--	--	--	--
				17	ELEVATOR #2 (15 HP)	60 A	3			1500 VA	1000 VA								1	20 A	SPARE	16	
				19	--	--	--	3360 VA	0 VA			3360 VA					0 VA		1	20 A	SPARE	18	
				21	--	--	--			3360 VA	0 VA							0 VA	1	20 A	SPARE	20	
				23	SPARE	20 A	1					0 VA					0 VA		1	20 A	SPARE	22	
				25	SPARE	20 A	1	0 VA	--										1	--	SPARE	24	
				27	SPARE	20 A	1			0 VA	--								1	--	SPARE	26	
				29	SPARE	20 A	1					0 VA					--		1	--	SPARE	28	
				31	SPARE	20 A	1	0 VA	--										1	--	SPARE	30	
				33	SPACE	--	1	--	--	--	--	--					--	--	1	--	SPARE	32	
				35	SPACE	--	1	--	--	--	--	--					--	--	1	--	SPARE	34	
				37	SPACE	--	1	--	--	--	--	--					--	--	1	--	SPARE	36	
				39	SPACE	--	1	--	--	--	--	--					--	--	1	--	SPARE	38	
				41	SPACE	--	1	--	--	--	--	--					--	--	1	--	SPARE	40	
				Total Load:				8673 VA		10970 VA		6528 VA											
				Total Amps:				77 A		94 A		54 A											
				Legend:																			
				Load Classification		Connected Load		Demand Factor		Estimated Demand		Panel Totals											
				Heating		6000 VA		100.00%		6000 VA													
				Motor		10080 VA		100.00%		10080 VA		Total Conn. Load: 26371 VA											
				Other		1521 VA		100.00%		1521 VA		Total Est. Demand: 26853 VA											
				Receptacle		6840 VA		100.00%		6840 VA		Total Conn.: 73 A											
				Lighting		1930 VA		125.00%		2412 VA		Total Est. Demand: 75 A											
				Notes:																			

Branch Panel: NLP2											
Location: ELEC E215				Volts: 120/208 Wye				A.I.C. Rating: 10,000 AIC			
Supply From:				Phases: 3				Mains Type: MLO			
Mounting: SURFACE				Wires: 4				Mains Rating: 100 A			
Enclosure: NEMA 1								MCB Rating: 3			
Notes:											
CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	RCPTS - ATRIUM #E201	20 A	1	1080 VA	900 VA		1	20 A	RCPTS - CORRIDOR #E213	2	
3	RCPTS - LOUNGE #E206	20 A	1		1080 VA	1080 VA		1	RCPTS - RM. #E217, E218, E226, E229, E231,...	4	
5	RCPTS - CORRIDOR #E213 & ELEC #E215	20 A	1			1080 VA	0 VA	1	SPARE	6	
7	GFI RCPTS - LOUNGE #E206	20 A	1	360 VA	850 VA		1	20 A	CLOTHES WASHER - HSKP #E205	8	
9	UC MICROWAVE - LOUNGE #E206	20 A	1		1200 VA	927 VA	1	20 A	LTG. - 2ND FLOOR CORRIDOR & ATRIUM	10	
11	UC REFRIGERATOR - LOUNGE #E206	20 A	1			600 VA	588 VA	1	20 A	LTG. - RM. #E217, E218, E226, E229, E231, E236	12
13	RCPTS - CORRIDOR #E200	20 A	1	800 VA	624 VA			1	20 A	LTG. - LOUNGE #E206 & RES. CLOSET #E202	14
15	GFI RCPTS - LOUNGE #E206	20 A	1		360 VA	2500 VA		2	20 A	CLOTHES DRYER - HSKP #E205	16
17	SPARE	20 A	1			0 VA	2500 VA				18
19	SPARE	20 A	1	0 VA	0 VA			1	20 A	SPARE	20
21	SPARE	20 A	1		0 VA	0 VA		1	20 A	SPARE	22
23	SPARE	20 A	1			0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	0 VA			1	20 A	SPARE	26
27	Space	--	1	--	--	0 VA	--	1	20 A	SPARE	28
29	Space	--	1	--	--	--	--	1	--	Space	30
31	Space	--	1	--	--	--	--	1	--	Space	32
33	Space	--	1	--	--	--	--	1	--	Space	34
35	Space	--	1	--	--	--	--	1	--	Space	36
37	Space	--	1	--	3004 VA	--	--	3	100 A	PANEL NLP3	38
39	Space	--	1	--	--	3629 VA	--	--	--	--	40
41	Space	--	1	--	--	--	1488 VA	--	--	--	42
Total Load:		7718 VA		10775 VA		6296 VA					
Total Amps:		66 A		92 A		52 A					
Legend:											
Load Classification		Connected Load		Demand Factor		Estimated Demand		Panel Totals			
Other		0 VA		0.00%		0 VA					
Receptacle		20610 VA		74.26%		15305 VA		Total Conn. Load: 24749 VA			
Lighting		4139 VA		125.00%		5174 VA		Total Est. Demand: 20479 VA			
								Total Conn.: 69 A			
								Total Est. Demand: 57 A			
Notes:											

Branch Panel: NLP1													
Location: MEP E118				Volts: 120/208 Wye				A.I.C. Rating: 22,000 AIC					
Supply From: NLDPA				Phases: 3				Main Type: MLO					
Mounting: SURFACE				Wires: 4				Mains Rating: 100 A					
Enclosure: NEMA 1								MCB Rating:					
Notes:													
CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT			
1	RCPTS - ATRIUM #E101	20 A	1	720 VA	900 VA		1	20 A	RCPTS - CORRIDOR #E113	2			
3	RCPTS - MAIL RM. / LOUNGE #E106	20 A	1		1260 VA	840 VA		1	RCPTS - RM. #E126, E129, E131, E136	4			
5	RCPTS - CORRIDOR #113 & ELEC #E115	20 A	1			1440 VA	0 VA	1	20 A SPARE	6			
7	RCPTS - RM. #E105, E117, E118	20 A	1	360 VA	180 VA			1	20 A GFI RCPTS - RESTROOM #E105	8			
9	Space	--	1		--	1066 VA		1	20 A LTG. - 1ST FLOOR CORRIDOR & ATRIUM	10			
11	POWER AUTODOORS #108A, 108B	20 A	1			400 VA	428 VA	1	20 A LTG. - RM. #E117, E118, E126, E129, E131, E136	12			
13	RCPTS - CORRIDOR #E100	20 A	1	900 VA	811 VA			1	20 A LTG. - LOUNGE #E106 & RES. CLOSET #E102	14			
15	SITE LTG. - WEST PARKING LOT	20 A	2		468 VA	241 VA		2	20 A SITE LTG. - EAST PARKING LOT	16			
17						468 VA	241 VA			18			
19	GFI / WP RCPT - ELEVATOR #1 PIT	20 A	1	180 VA	0 VA			1	20 A SPARE	20			
21	GFI / WP RCPT - ELEVATOR #2 PIT	20 A	1		180 VA	0 VA		1	20 A SPARE	22			
23	SPARE	20 A	1			0 VA	0 VA	1	20 A SPARE	24			
25	SPARE	20 A	1	0 VA	0 VA			1	20 A SPARE	26			
27	SPARE	20 A	1		0 VA	--		1	-- SPACE	28			
29	SPARE	20 A	1			0 VA	--	1	-- SPACE	30			
31	SPACE	--	1	--	--	--	--	1	-- SPACE	32			
33	SPACE	--	1	--	--	--	--	1	-- SPACE	34			
35	SPACE	--	1	--	--	--	--	1	-- SPACE	36			
37	SPACE	--	1	--	--	--	--	1	-- SPACE	38			
39	SPACE	--	1	--	--	--	--	1	-- SPACE	40			
41	SPACE	--	1	--	--	--	--	1	-- SPACE	42			
Total Load:				3651 VA	3754 VA	2377 VA							
Total Amps:				33 A	32 A	25 A							
Legend:													
Load Classification		Connected Load		Demand Factor		Estimated Demand		Panel Totals					
Other		21 VA		100.00%		21 VA							
Receptacle		7060 VA		100.00%		7060 VA		Total Conn. Load: 10582 VA					
Lighting		3501 VA		125.00%		4376 VA		Total Est. Demand: 11457 VA					
								Total Conn. : 29 A					
								Total Est. Demand: 32 A					
Notes:													

Branch Panel: LC-C											
Location: DINING ROOM 230				Volts: 120/208 Single			A.I.C. Rating: 10,000 AIC				
Supply From:				Phases: 1			Mains Type:				
Mounting: FLUSH				Wires: 3			Mains Rating: 125 A				
Enclosure: NEMA 1							MCB Rating:				
Notes:											
CKT	Circuit Description	Trip	Poles	A		B		Poles	Trip	Circuit Description	CKT
1	GFI RCPTS - KITCHEN	20 A	1	540 VA	780 VA	540 VA	3840 VA	1	20 A	REFRIGERATOR	2
3	GFI RCPTS - KITCHEN	20 A	1					2	30 A	ELECTRIC COOKTOP	4
5	ISLAND GFI RCPTS - KITCHEN	20 A	1	540 VA	3840 VA						6
7	MICROWAVE	20 A	1			1200 VA	2500 VA	2	40 A	CLOTHES DRYER	8
9	GARBAGE DISPOSAL	20 A	1	540 VA	2500 VA			--	--		10
11	DISHWASHER	20 A	1			852 VA	850 VA	1	20 A	CLOTHES WASHER	12
13	RCPTS - LIVING ROOM	20 A	1	1080 VA	360 VA			1	20 A	GFI RCPTS - BATHROOM	14
15	RCPTS - BEDROOM	20 A	1			1260 VA	180 VA	1	20 A	GFI W/FP RCPT - BALCONY	16
17	RCPTS - DINING ROOM	20 A	1	900 VA	180 VA			1	20 A	GFI RCPTS - BATHROOM	18
19	RCPTS - DEN	20 A	1			720 VA	423 VA	1	20 A	LIGHTING - DWELLING UNIT	20
21	VPTAC-2 (UNIT C)	35 A	2	3640 VA	180 VA			1	20 A	EF-1 (UNIT C)	22
23		--	--	--	--	3640 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	0 VA			1	20 A	SPARE	26
27	SPARE	20 A	1	0 VA	0 VA	0 VA	0 VA	1	20 A	SPARE	28
29	SPARE	20 A	1	0 VA	0 VA			1	20 A	SPARE	30
31	SPARE	20 A	1			0 VA	--	1	--	SPACE	32
33	SPACE	--	1	--	--			1	--	SPACE	34
35	SPACE	--	1	--	--	--	--	1	--	SPACE	36
37	SPACE	--	1	--	--			1	--	SPACE	38
39	SPACE	--	1	--	--	--	--	1	--	SPACE	40
41	SPACE	--	1	--	--			1	--	SPACE	42
				Total Load:		15060 VA		16005 VA			
				Total Amps:		145 A		153 A			
Legend:											
Notes:											

Branch Panel: LC-B

Location: BEDROOM 209

Supply From:

Mounting: FLUSH

Enclosure: NEMA 1

Volts: 120/208 Single

Phases: 1

Wires: 3

A.I.C. Rating: 10,000 AIC

Mains Type:

Mains Rating: 125 A

MCB Rating:

Notes:

CKT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT
1	GFI RCPTS - KITCHEN	20 A	1	540 VA	780 VA	1	20 A	REFRIGERATOR	2
3	GFI RCPTS - KITCHEN	20 A	1		540 VA	3840 VA	2	ELECTRIC COOKTOP	4
5	ISLAND GFI RCPTS - KITCHEN	20 A	1	720 VA	3840 VA				6
7	MICROWAVE	20 A	1		1200 VA	2500 VA	2	CLOTHES DRYER	8
9	GARBAGE DISPOSAL	20 A	1	540 VA	2500 VA		--		10
11	DISHWASHER	20 A	1		852 VA	850 VA	1	CLOTHES WASHER	12
13	RCPTS - LIVING ROOM	20 A	1	1080 VA	350 VA	1	20 A	GFI RCPTS - BATHROOM	14
15	RCPTS - BEDROOM	20 A	1		1080 VA	180 VA	1	GFI W/FP RCPT - BALCONY	16
17	RCPTS - DINING ROOM	20 A	1	800 VA	180 VA	1	20 A	LIGHTNING - DWELLING UNIT	18
19	VPTAC-1 (UNIT B)	35 A	2		3640 VA	80 VA	1	EF-1 (UNIT B)	20
21		--	--	3640 VA	0 VA				22
23	SPARE	20 A	1	0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	0 VA	1	20 A	SPARE	26
27	SPARE	20 A	1	0 VA	0 VA	1	20 A	SPARE	28
29	SPARE	20 A	1	0 VA	--	1	--	SPACE	30
31	SPACE	--	1	--	--	--	1	SPACE	32
33	SPACE	--	1	--	--	--	1	SPACE	34
35	SPACE	--	1	--	--	--	1	SPACE	36
37	SPACE	--	1	--	--	--	1	SPACE	38
39	SPACE	--	1	--	--	--	1	SPACE	40
41	SPACE	--	1	--	--	--	1	SPACE	42
Total Load:				15216 VA	14762 VA				
Total Amps:				146 A	142 A				

Legend:

Notes:

PROJECT TITLE: JOHN KNOX VILLAGE - UNIT TYPE C										PROJECT #: 23104.00			
Optional Method Load Calculation for One-Family Dwellings													
1	General Lighting and Receptacle Loads 220.12 <i>Do not include open porches, garages, and unused or unfinished spaces not adaptable for future use.</i>				3	x	$\frac{888}{(\text{sq ft outside dimension})}$	=	1	2664			
2	Small Appliance Branch-Circuits 220.52(A) <i>At least two small appliance branch circuits must be included. 210.11(C)(1)</i>				1500	x	$\frac{2}{(\text{minimum of two})}$	=	2	3000			
3	Laundry Branch-Circuit(s) 220.52(B) <i>At least one laundry branch circuits must be included. 210.11(C)(2)</i>				1500	x	$\frac{1}{(\text{minimum of one})}$	=	3	1500			
4	Appliances 220.53 <i>Use nameplate rating of ALL appliances (fastened-in-place, permanently connected, or connected to a specific circuit), ranges, ovens cooktops, motors, and clothes dryers.</i>				Refrigerator	/	780 (va each)	Clothes Washer	/	850 (va each)			
					Dishwasher	/	852 (va each)	Clothes Dryer	/	5000 (va each)			
					Disposal	/	540 (va each)	Water Heater (N/A)	/	0 (va each)			
	<i>Convert any nameplate rating given in amperes to volt-amperes by multiplying the amperes by the rated voltage.</i>				Microwaves	/	1200 (va each)	Exhaust Fans	/	100 (va each)			
	<i>Do not include any heating or air conditioning equipment in this section.</i>				Range	/	7680 (va each)	HW Circ Pump (N/A)	/	0 (va each)			
	<i>#4 TOTAL VA OF ALL APPLIANCES: Take 75% of the total appliances and laundry loads minus the Range and Clothes Dryer and then add in the 100% of the Range and Clothes Dryer</i>				Cook Top (N/A)	/	0 (va each)		/	0 (va each)			
					Range Hood	/	250 (va each)		/	0 (va each)			
										Total volt-amperes of all appliances LISTED ABOVE		4	16109
5	Apply 220.82(B) demand factor to the total of lines 1 through 4.										5	15309	
$\frac{23273}{(\text{total of lines 1 through 4})} - 10000 = 13273 \times 40\% = 5309 + 10000 =$													
6	Heating and/or Air Conditioning System 220.82(C) <i>Use the nameplate rating(s) in volt-amperes for all applicable systems in lines a through e.</i>				a) Central electric space heating equipment, including integral supplemental heating in heat pumps where the controller prevents the compressor and supplemental heating from operate at the same time.				0	x	65% = c) 0		
a) Air-conditioning and cooling system(s), including heat pump compressors and supplemental heating, unless the controller prevents the compressor and supplemental heating from operate at the same time.				d) Electric space heating equipment, if less than four separately controlled units.				3328	7000	x	65% = d) 4550		
b) Electrical thermal storage and other heating systems where the usual load is expected to be continuous at full nameplate value: Systems qualifying under this section shall not be figured under any other selection in 220.82(C).				e) Electric space heating equipment, if four or more separately controlled units.				0	x	40% = e) 0			
$0 \times 100\% = b) 0 \qquad 0 \qquad 0 \qquad \times 40\% = e) 0$													
7	Total Volt-Ampere Demand Load:				4550	+ 15309 (line 5)				7	19859		
$\frac{19859}{(\text{line 7})} = 208 \text{ (voltage)}$													
8	Minimum Amperes				19859	= 8 95 (min.amps)				9	Minimum Size Service and/or Feeder 220.40		
$\frac{19859}{(\text{line 7})} = 208 \text{ (voltage)}$													
(min. is 100A)													

PROJECT TITLE: JOHN KNOX VILLAGE - UNIT TYPE B										PROJECT #: 23104.00				
Optional Method Load Calculation for One-Family Dwellings														
1	General Lighting and Receptacle Loads 220.12 <i>Do not include open porches, garages, and unused or unfinished spaces not adaptable for future use.</i>					3	x	766 (sq ft outside dimension)	=	1	2298			
2	Small Appliance Branch-Circuits 220.52(A) <i>At least two small appliance branch circuits must be included. 210.11(C)(1)</i>					1500	x	2 (minimum of two)	=	2	3000			
3	Laundry Branch-Circuit(s) 220.52(B) <i>At least one laundry branch circuits must be included. 210.11(C)(2)</i>					1500	x	1 (minimum of one)	=	3	1500			
4	Appliances 220.53 <i>Use nameplate rating of ALL appliances (fastened-in-place, permanently connected, or connected to a specific circuit), ranges, ovens cooktops, motors, and clothes dryers.</i>					Refrigerator	/	780 (va each)	Clothes Washer	/	850 (va each)			
						Dishwasher	/	852 (va each)	Clothes Dryer	/	5000 (va each)			
						Disposal	/	540 (va each)	Water Heater (N/A)	/	0 (va each)			
	<i>Convert any manepate rating given in amperes to volt-amperes by multiplying the amperes by the rated voltage.</i>					Microwaves	/	1200 (va each)	Exhaust Fans	/	100 (va each)			
	<i>Do not include any heating or air conditioning equipment in this section.</i>					Range	/	7680 (va each)	HW Circ Pump (N/A)	/	0 (va each)			
	<i>#4 TOTAL VA OF ALL APPLIANCES: Take 75% of the total appliances and laundry loads minus the Range and Clothes Dryer and then add in the 100% of the Range and Clothes Dryer</i>					Cook Top (N/A)	/	0 (va each)		/	0 (va each)			
						Range Hood	/	250 (va each)		/	0 (va each)			
										Total volt-amperes of all appliances LISTED ABOVE		4	16109	
5	Apply 220.82(B) demand factor to the total of lines 1 through 4.												5	15163
<div>22907 - 10000 = 12907 x 40% = 5163 + 10000</div> <div>(total of lines 1 through 4)</div>													6	15163
6	Heating and/or Air Conditioning System 220.82(C) <i>Use the nameplate rating(s) in volt-amperes for all applicable systems in lines a through e.</i>					a) Central electric space heating equipment, including integral supplemental heating in heat pumps where the controller prevents the compressor and supplemental heating from operate at the same time.					0 x 65% = c) 0			
a)	Air conditioning and cooling system(s), including heat pump compressors and supplemental heating, unless the controller prevents the compressor and supplemental heating from operate at the same time.					d) Electric space heating equipment, if less than four separately controlled units.								
<div>2517 x 100% = a) 2517</div> <div>7000 x 65% = d) 4550</div>													b)	4550
b)	Electrical thermal storage and other heating systems where the usual load is expected to be continuous at full nameplate value. Systems qualifying under this section shall not be figured under any other section in 220.82(C).					e) Electric space heating equipment, if four or more separately controlled units.								
<div>0 x 100% = b) 0</div> <div>0 x 40% = e) 0</div>													7	4550
7	Total Volt-Ampere <div>(largest VA rating from line 6a through 6e)</div>					15163 (line 5)					=	7	19713	
8	Minimum Volt-Ampere <div>Divide the total volt-amperes by the voltage</div>					19713 208 (line 7) (voltage)					=	8	95 (min.amps)	
										9	Minimum Size Service and/or Feeder 220.40	9	(min. is 100A)	

Branch Panel: LC-D3												
Location: BEDROOM E467					Volts: 120/208 Single			A.I.C. Rating: 10,000 AIC				
Supply From: Mounting: FLUSH					Phases: 1			Mains Type: 125 A				
Enclosure: NEMA 1					Wires: 3			MCB Rating:				
Notes:												
CKT	Circuit Description				Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT
1	GFI RCPTS - KITCHEN				20 A	1	540 VA 780 VA		1	20 A	REFRIGERATOR	2
3	GFI RCPTS - KITCHEN				20 A	1		540 VA 3840 VA	2	30 A	ELECTRIC COOKTOP	4
5	ISLAND GFI RCPTS - KITCHEN				20 A	1	540 VA 3840 VA		--	--		6
7	MICROWAVE				20 A	1		1200 VA 2500 VA	2	40 A	CLOTHES DRYER	8
9	GARBAGE DISPOSAL				20 A	1	540 VA 2500 VA		--	--		10
11	DISHWASHER				20 A	1		852 VA 850 VA	1	20 A	CLOTHES WASHER	12
13	RCPTS - LIVING ROOM				20 A	1	1440 VA 360 VA		1	20 A	GFI RCPTS - BATHROOM	14
15	RCPTS - PRIMARY BEDROOM				20 A	1		1440 VA 180 VA	1	20 A	GFI / WP RCPT - BALCONY	16
17	RCPTS - DINING ROOM				20 A	1	1080 VA 360 VA		1	20 A	GFI RCPTS - BATHROOM	18
19	RCPTS - BEDROOM				20 A	1		1260 VA 432 VA	1	20 A	LIGHTING - DWELLING UNIT	20
21	VPTAC-3 (UNIT D3)				50 A	2	4784 VA 160 VA		1	20 A	EF-1 (UNIT D3)	22
23					--	--		4784 VA 0 VA	1	20 A	SPARE	24
25	SPARE				20 A	1	0 VA 0 VA		1	20 A	SPARE	26
27	SPARE				20 A	1		0 VA 0 VA	1	20 A	SPARE	28
29	SPARE				20 A	1	0 VA 0 VA		1	20 A	SPARE	30
31	SPARE				20 A	1		0 VA --	1	--	SPACE	32
33	SPACE				--	1	-- --		1	--	SPACE	34
35	SPACE				--	1	-- --	-- --	1	--	SPACE	36
37	SPACE				--	1	-- --		1	--	SPACE	38
39	SPACE				--	1	-- --	-- --	1	--	SPACE	40
41	SPACE				--	1	-- --		1	--	SPACE	42
Total Load:					16924 VA			17878 VA				
Total Amps:					163 A			171 A				
Legend:												
Notes:												

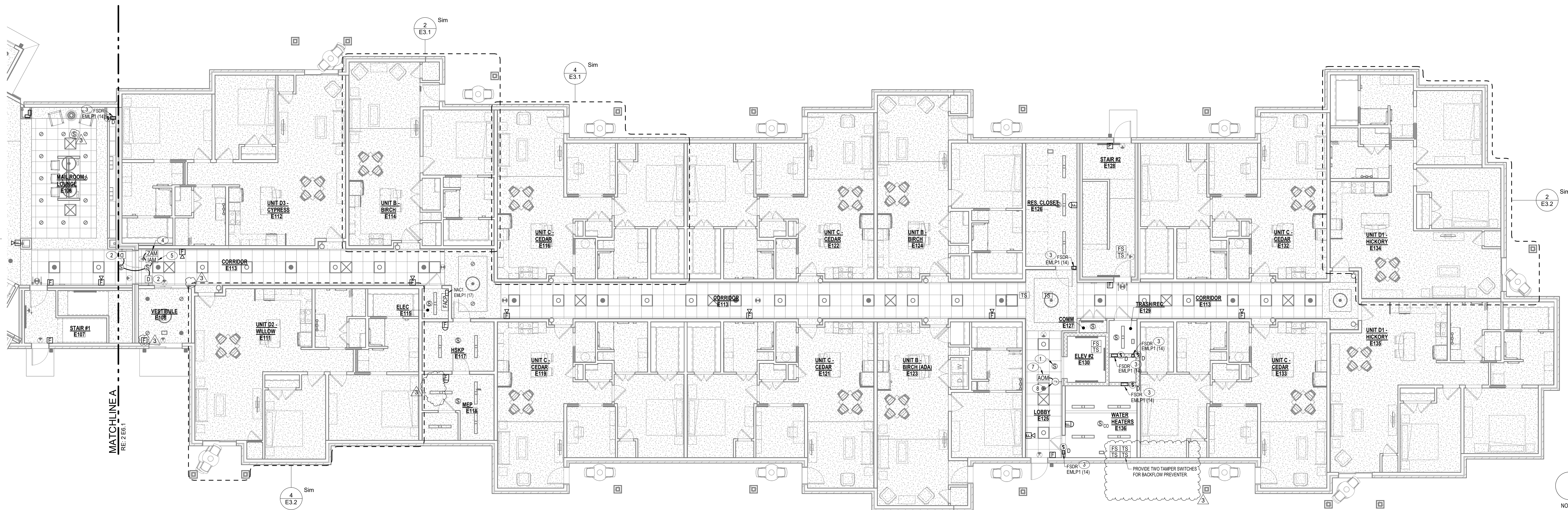
Branch Panel: LC-D2													
Location: BEDROOM E259					Volts: 120/208 Single			A.I.C. Rating: 10,000 AIC					
Supply From: Mounting: FLUSH					Phases: 1			Mains Type: 125 A					
Enclosure: NEMA 1					Wires: 3			MCB Rating:					
Notes:													
CKT	Circuit Description				Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT	
1	GFI RCPTS - KITCHEN				20 A	1	540 VA 780 VA			1	20 A	REFRIGERATOR	2
3	GFI RCPTS - KITCHEN				20 A	1		540 VA 3840 VA	2	30 A	ELECTRIC COOKTOP	4	
5	ISLAND GFI RCPTS - KITCHEN				20 A	1	540 VA 3840 VA						6
7	MICROWAVE				20 A	1		1200 VA 2500 VA	2	40 A	CLOTHES DRYER	8	
9	GARBAGE DISPOSAL				20 A	1	540 VA 2500 VA			--	--		10
11	DISHWASHER				20 A	1		852 VA 850 VA	1	20 A	CLOTHES WASHER	12	
13	RCPTS - LIVING ROOM				20 A	1	1260 VA 360 VA		1	20 A	GFI RCPTS - BATHROOM	14	
15	RCPTS - PRIMARY BEDROOM				20 A	1		1440 VA 180 VA	1	20 A	GFI / WP RCPT - BALCONY	16	
17	RCPTS - DINING ROOM				20 A	1	1080 VA 360 VA		1	20 A	GFI RCPTS - BATHROOM	18	
19	RCPTS - BEDROOM				20 A	1		1260 VA 432 VA	1	20 A	LIGHTING - DWELLING UNIT	20	
21	VPTAC-3 (UNIT D2)				50 A	2	4784 VA 160 VA		1	20 A	EF-1 (UNIT D2)	22	
23					--	--		4784 VA 0 VA	1	20 A	SPARE	24	
25	SPARE				20 A	1	0 VA 0 VA		1	20 A	SPARE	26	
27	SPARE				20 A	1		0 VA 0 VA	1	20 A	SPARE	28	
29	SPARE				20 A	1	0 VA 0 VA		1	20 A	SPARE	30	
31	SPARE				20 A	1		0 VA --	1	--	SPACE	32	
33	SPACE				--	1	-- --		1	--	SPACE	34	
35	SPACE				--	1	-- --	-- --	1	--	SPACE	36	
37	SPACE				--	1	-- --	-- --	1	--	SPACE	38	
39	SPACE				--	1	-- --	-- --	1	--	SPACE	40	
41	SPACE				--	1	-- --	-- --	1	--	SPACE	42	
Total Load:					16744 VA			17878 VA					
Total Amps:					161 A			170 A					
Legend:													
Notes:													

Branch Panel: LC-D1												
Location: BEDROOM E243					Volts: 120/208 Single			A.I.C. Rating: 10,000 AIC				
Supply From: Mounting: FLUSH					Phases: 1			Mains Type: 125 A				
Enclosure: NEMA 1					Wires: 3			MCB Rating:				
Notes:												
CKT	Circuit Description				Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT
1	GFI RCPT'S - KITCHEN				20 A	1	540 VA 780 VA		1	20 A	REFRIGERATOR	2
3	GFI RCPT'S - KITCHEN				20 A	1		540 VA 3840 VA	2	30 A	ELECTRIC COOKTOP	4
5	ISLAND GFI RCPT'S - KITCHEN				20 A	1	720 VA 3840 VA		--	--		6
7	MICROWAVE				20 A	1		1200 VA 2500 VA	2	40 A	CLOTHES DRYER	8
9	GARBAGE DISPOSAL				20 A	1	540 VA 2500 VA		--	--		10
11	DISHWASHER				20 A	1		852 VA 880 VA	1	20 A	CLOTHES WASHER	12
13	RCPT'S - LIVING ROOM				20 A	1	1260 VA 360 VA		1	20 A	GFI RCPT'S - BATHROOM	14
15	RCPT'S - PRIMARY BEDROOM				20 A	1		1260 VA 180 VA	1	20 A	GFI / WP RCPT - BALCONY	16
17	RCPT'S - DINING ROOM				20 A	1	1080 VA 360 VA		1	20 A	GFI RCPT'S - BATHROOM	18
19	RCPT'S - BEDROOM				20 A	1		1260 VA 419 VA	1	20 A	LIGHTING - DWELLING UNIT	20
21	VPTAC-3 (UNIT D1)				50 A	2	4784 VA 160 VA		1	20 A	EF-1 (UNIT D1)	22
23	--				--	--		4784 VA 0 VA	1	20 A	SPARE	24
25	SPARE				20 A	1	0 VA 0 VA		1	20 A	SPARE	26
27	SPARE				20 A	1		0 VA 0 VA	1	20 A	SPARE	28
29	SPARE				20 A	1	0 VA 0 VA		1	20 A	SPARE	30
31	SPARE				20 A	1		0 VA --	1	--	SPACE	32
33	SPACE				--	1	-- --		1	--	SPACE	34
35	SPACE				--	1	-- --	-- --	1	--	SPACE	36
37	SPACE				--	1	-- --		1	--	SPACE	38
39	SPACE				--	1	-- --	-- --	1	--	SPACE	40
41	SPACE				--	1	-- --		1	--	SPACE	42
Total Load:					16924 VA			17685 VA				
Total Amps:					163 A			169 A				
Legend:												
Notes:												

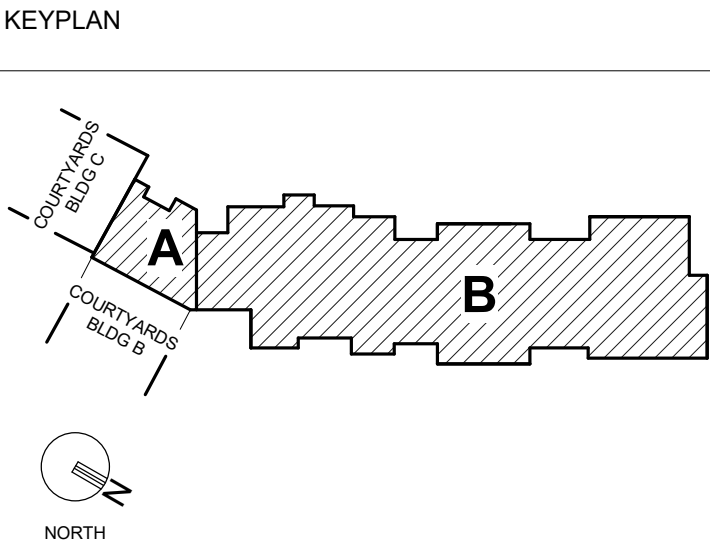
PROJECT TITLE: JOHN KNOX VILLAGE - UNIT TYPE D3					PROJECT #: 23104.00									
Optional Method Load Calculation for One-Family Dwellings														
1	General Lighting and Receptacle Loads 220.12				3	x	1120	=	3360					
Do not include open porches, garages, and unused or unfinished spaces not adaptable for future use.														
					(sq ft outside dimension)									
2	Small Appliance Branch-Circuits 220.52(A)				1500	x	2	=	3000					
At least two small appliance branch circuits must be included. 210.11(C)(1)														
					(minimum of two)									
3	Laundry Branch-Circuit(s) 220.52(B)				1500	x	1	=	1500					
At least one laundry branch circuits must be included. 210.11(C)(2)														
					(minimum of one)									
4	Appliances 220.53				Refrigerator	/	780		850					
Use nameplate rating of ALL appliances (fastened-in-place, permanently connected, or connected to a specific circuit), ranges, ovens cooktops, motors, and clothes dryers.														
						(va each)			(va each)					
					Dishwasher	/	852		5000					
						(va each)			(va each)					
					Disposal	/	540		0					
						(va each)			(va each)					
					Microwaves	/	1200		100					
						(va each)			(va each)					
					Range	/	7880		0					
						(va each)			(va each)					
					Cook Top (N/A)	/	0		0					
						(va each)			(va each)					
					Range Hood	/	250		0					
						(va each)			(va each)					
Total volt-amperes of all appliances LISTED ABOVE									4	16109				
5	Apply 220.82(B) demand factor to the total of lines 1 through 4.									5	15588			
					23969 - 10000 = 13969 x 40% = 5588 + 10000									
					(total of lines 1 through 4)									
6	Heating and/or Air Conditioning System 220.82(C)				c) Central electric space heating equipment, including integral supplemental heating in heat pumps where the controller prevents the compressor and supplemental heating from operating at the same time.					0	x 65% =	d) 0		
Use the nameplate rating(s) in volt-amperes for all applicable systems in lines a through e.														
a)	Air-conditioning and cooling system(s), including heat pump compressors and supplemental heating, unless the controller prevents the compressor and supplemental heating from operate at the same time.				d) Electric space heating equipment, if less than four separately controlled units.					10000	x 65% =	d) 6500		
					3361	x 100% =	a) 3361							
b)	Electrical thermal storage and other heating systems where the usual load is expected to be continuous at full nameplate value: Systems qualifying under this section shall not be figured under any other selection in 220.82(C).				e) Electric space heating equipment, if four or more separately controlled units.					0	x 40% =	e) 0		
					0	x 100% =	b) 0							
7	Total Volt-Ampere Demand Load				15588									
					(largest VA rating from line 6a through 6e)									
8	Minimum Amperes				22088	208				106	Minimum Size Service and/or Feeder 220.40		9	(min. is 100A)
					(line 7)				(min. amps)					



2 FIRST FLOOR ATRIUM - FIRE ALARM
E6.1 1/8" = 1'-0"

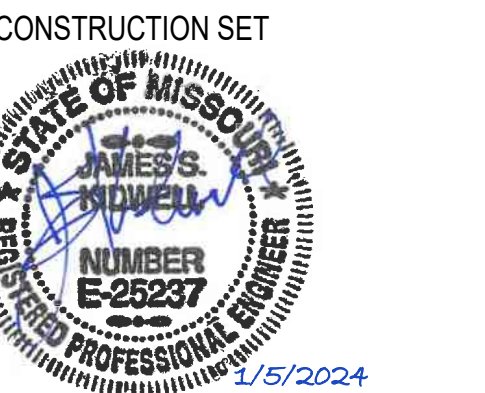


1 FIRST FLOOR IL UNITS - FIRE ALARM
E6.1 1/8" = 1'-0"



- GENERAL NOTES
- PROVIDE ALL REQUIRED CONNECTIONS, MATERIALS AND FIRE ALARM DEVICES TO INTERFACE TO ANY LOW VOLTAGE EQUIPMENT, LOW VOLTAGE EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, EMERGENCY CALL SYSTEM, DOOR SECURITY SYSTEM, ETC. REFER TO LOW VOLTAGE SUBMITTALS AND COORDINATE WITH THE LOW VOLTAGE INSTALLERS FOR REQUIRED CONNECTIONS.
 - PROVIDE ALL REQUIRED CONNECTIONS, MATERIALS AND FIRE ALARM DEVICES TO INTERFACE WITH THE SPRINKLER SYSTEM. SPRINKLER SYSTEM CONNECTIONS INCLUDE, BUT IS NOT LIMITED TO, FLOW SWITCHES, PRESSURE SWITCHES, SUPPLY SWITCHES, ETC. COORDINATE QUANTITY AND LOCATION OF SWITCHES WITH THE SPRINKLER DRAWINGS AND INSTALLER FOR REQUIRED CONNECTIONS. NOTE THAT SPRINKLER DRAWINGS SHALL BE PROVIDED BY THE SPRINKLER CONTRACTOR.
 - PROVIDE ALL REQUIRED CONNECTIONS, MATERIALS AND FIRE ALARM DEVICES TO INTERFACE TO THE TRASH CHUTE DOOR INTERLOCKS. REFER TO THE TRASH CHUTE SUBMITTAL AND COORDINATE WITH THE INSTALLER TO PROVIDE ALL REQUIRED CONNECTIONS.
 - FIRE ALARM SYSTEM DEVICES SHOWN ARE FOR BIDDING PURPOSES ONLY. SYSTEM SHALL BE DESIGNED BY AN ENTITY MEETING THE REQUIREMENTS LISTED IN THE SPECIFICATIONS. COORDINATE WORK WITH FIRE ALARM VENDOR PRIOR TO SUBMITTING BIDS.
 - ONLY FIRE ALARM SHOP DRAWINGS APPROVED BY ENGINEER AND PERMITTING AGENCY SHALL BE USED FOR CONSTRUCTION.

- PLAN NOTES
- SMOKE DETECTOR SHALL BE INTERLOCKED WITH ELEVATOR CONTROLLER AS REQUIRED FOR ELEVATOR RECALL PER NFPA 72 GUIDELINES. CONNECT TO ELEVATOR SMOKE CURTAIN (WHERE APPLICABLE) FOR DEPLOYMENT UPON SMOKE DETECTOR ACTIVATION.
 - DOOR HOLDER SHALL RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM. PROVIDE LIFE SAFETY BRANCH CIRCUIT CONNECTION FOR MAGNETIC DOOR HOLDER. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
 - PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE MAGNETIC DOOR HOLDER OPERATION WITH THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND DOOR STATUS TO THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - FIRE ALARM ZAM CONNECTED TO DOOR CONTROLLER TO SIGNAL OPEN CLOSE FOR ATRIUM SMOKE EVACUATION.
 - OUTPUT MODULE FOR INTERFACE TO SMOKE CURTAIN AT ELEVATOR DOOR.
 - 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION OF FIRE ALARM SYSTEM.
 - FIRE ALARM OUTPUT MODULE FOR INTERFACE TO SMOKE EVACUATION CONTROL PANEL. COORDINATE WITH MECHANICAL CONTRACTOR FOR CONNECTIONS.
 - 1/2" x 1/4" CONDUITS FROM SMOKE EVACUATION CONTROL PANEL TO SEV FANS ON ATRIUM ROOF.



PROJECT TITLE

John Knox Village
COURTYARDS - BUILDING E

SFCs Architecture
Engineering
Planning
Interiors

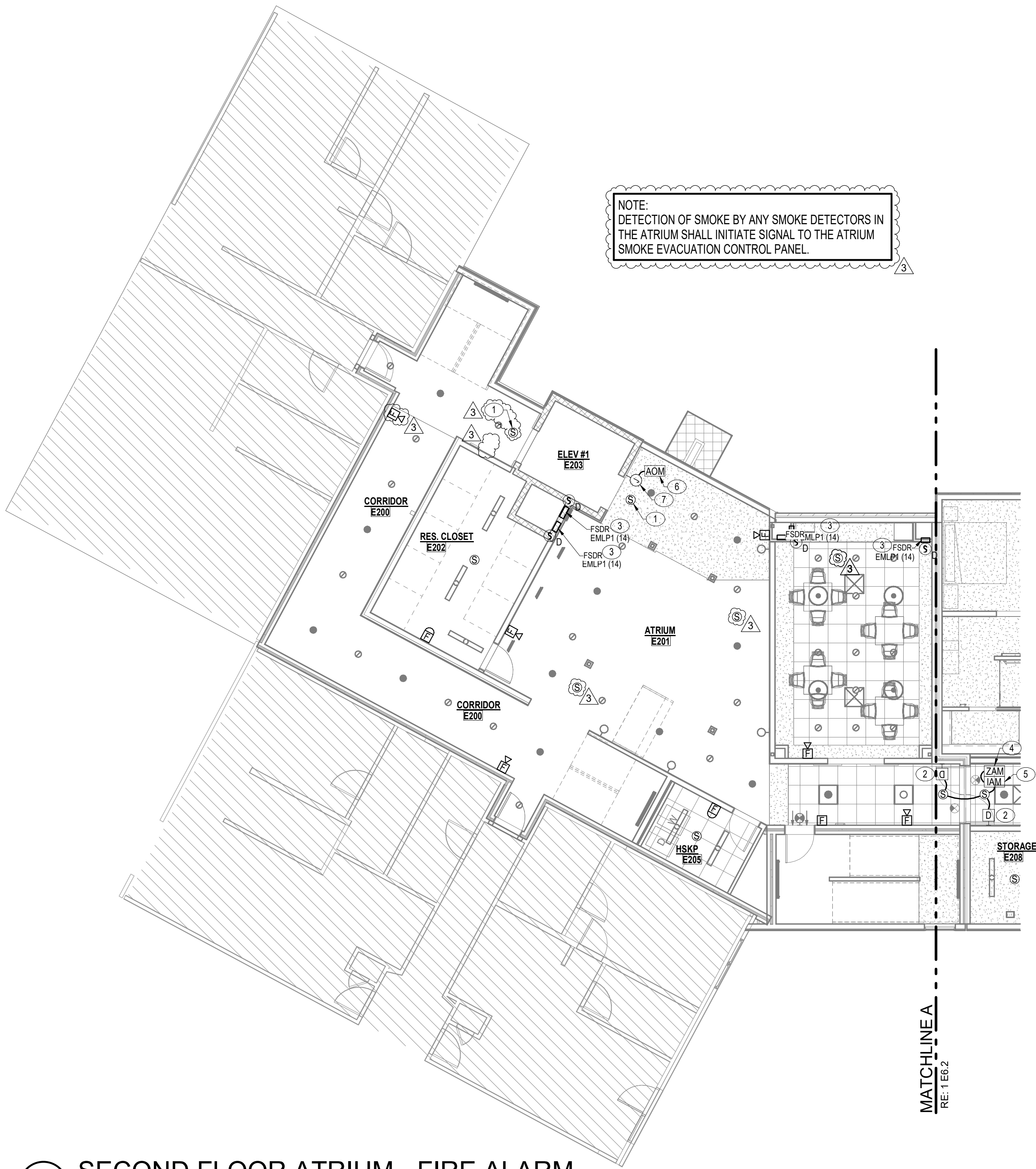
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DESIGNER :	DAS	DRAWN :	MAW, DKW
ARCHITECT :	DAS	CHECKED :	MAW
ENGINEER :	MAW	APPROVED :	JSK
NO.	REVISION DESCRIPTION		DATE
2	Rev 1 - Permit Comments		02/15/24
3	Addendum #1		03/07/24

DRAWING TITLE

FIRST FLOOR PLAN - FIRE ALARM

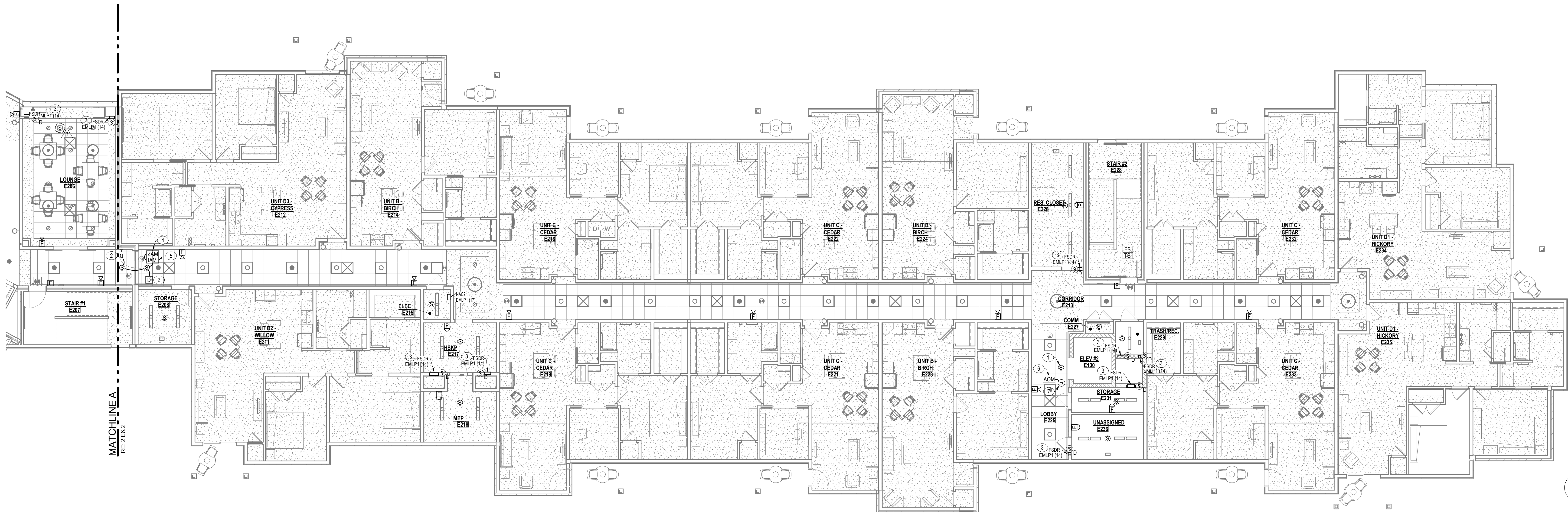
DATE: January 5, 2024
DRAWING: E6.1
COMM. NO.: 23104.00



NOTE:
DETECTION OF SMOKE BY ANY SMOKE DETECTORS IN
THE ATRIUM SHALL INITIATE SIGNAL TO THE ATRIUM
SMOKE EVACUATION CONTROL PANEL.

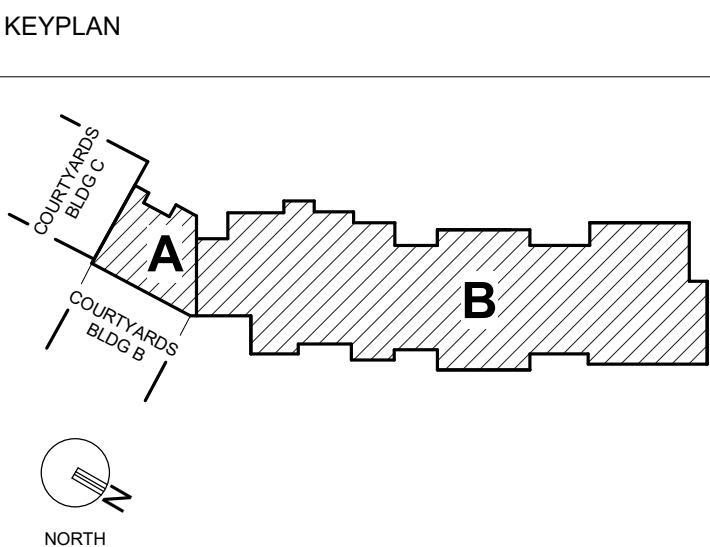
MATCHLINE
REF: E6.2

2 SECOND FLOOR ATRIUM - FIRE ALARM
E6.2 1/8" = 1'-0"



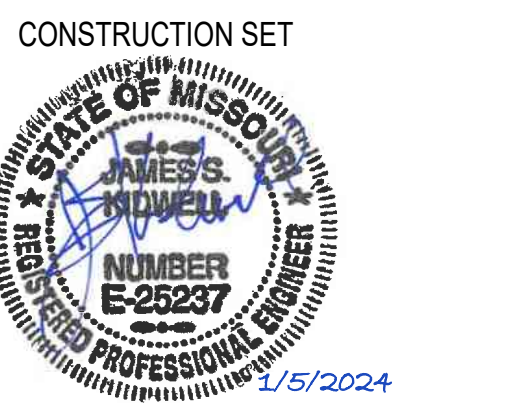
MATCHLINE
REF: E6.2

1 SECOND FLOOR IL UNITS - FIRE ALARM
E6.2 1/8" = 1'-0"



GENERAL NOTES
A REFER TO SHEET E6.1 FOR FIRE ALARM GENERAL NOTES.

- PLAN NOTES
- SMOKE DETECTOR SHALL BE INTERLOCKED WITH ELEVATOR CONTROLLER AS REQUIRED FOR ELEVATOR RECALL PER NFPA 72 GUIDELINES. CONNECT TO ELEVATOR SMOKE CURTAIN (WHERE APPLICABLE) FOR DEPLOYMENT UPON SMOKE DETECTOR ACTIVATION.
 - DOOR HOLDER SHALL RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM. PROVIDE LIFE SAFETY BRANCH CIRCUIT CONNECTION FOR MAGNETIC DOOR HOLDER. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
 - PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE MAGNETIC DOOR HOLDER OPERATION WITH THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND DOOR STATUS TO THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - OUTPUT MODULE FOR INTERFACE TO SMOKE CURTAIN AT ELEVATOR DOOR.
 - 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.



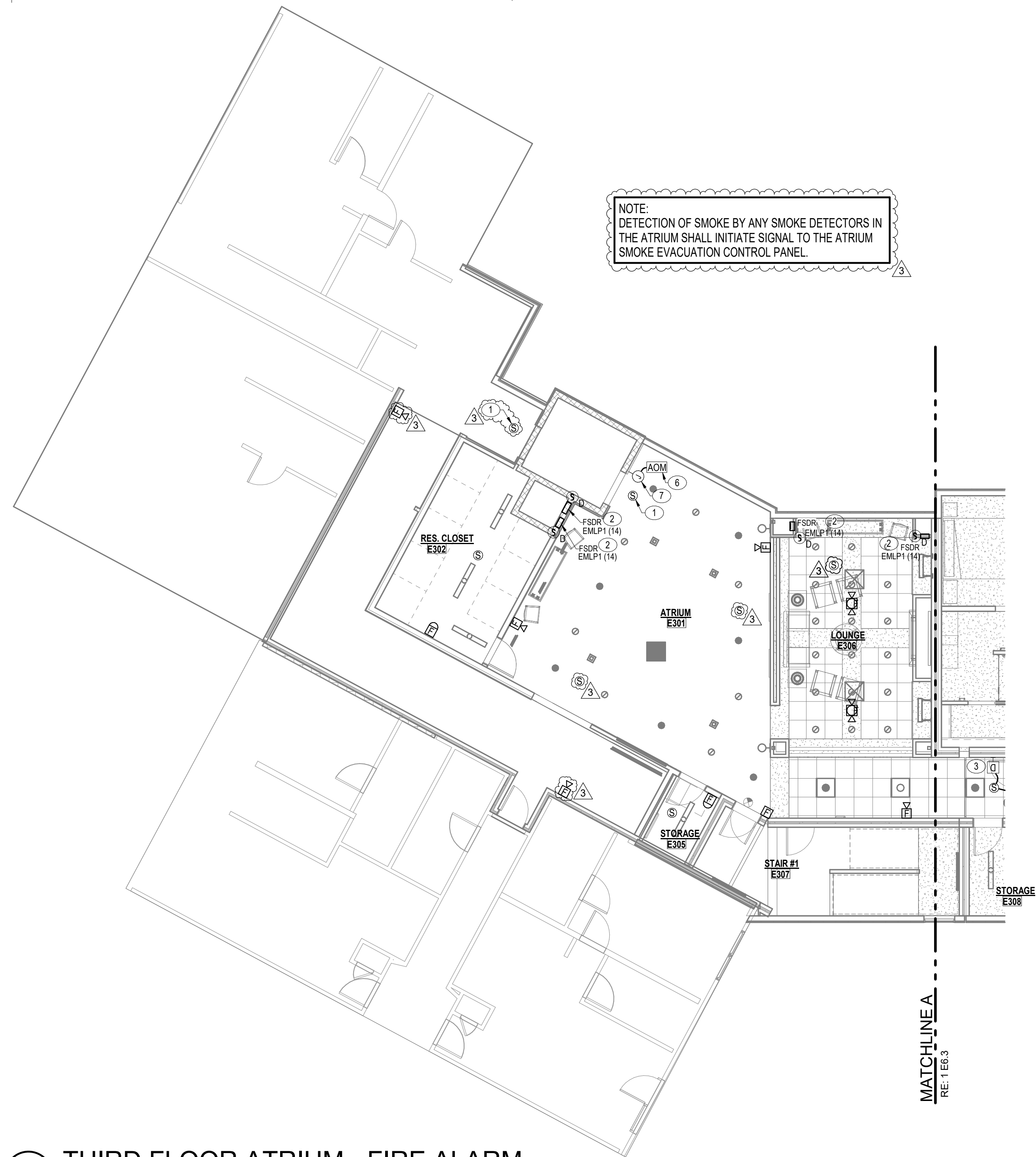
PROJECT TITLE
John Knox Village
COURTYARDS - BUILDING E

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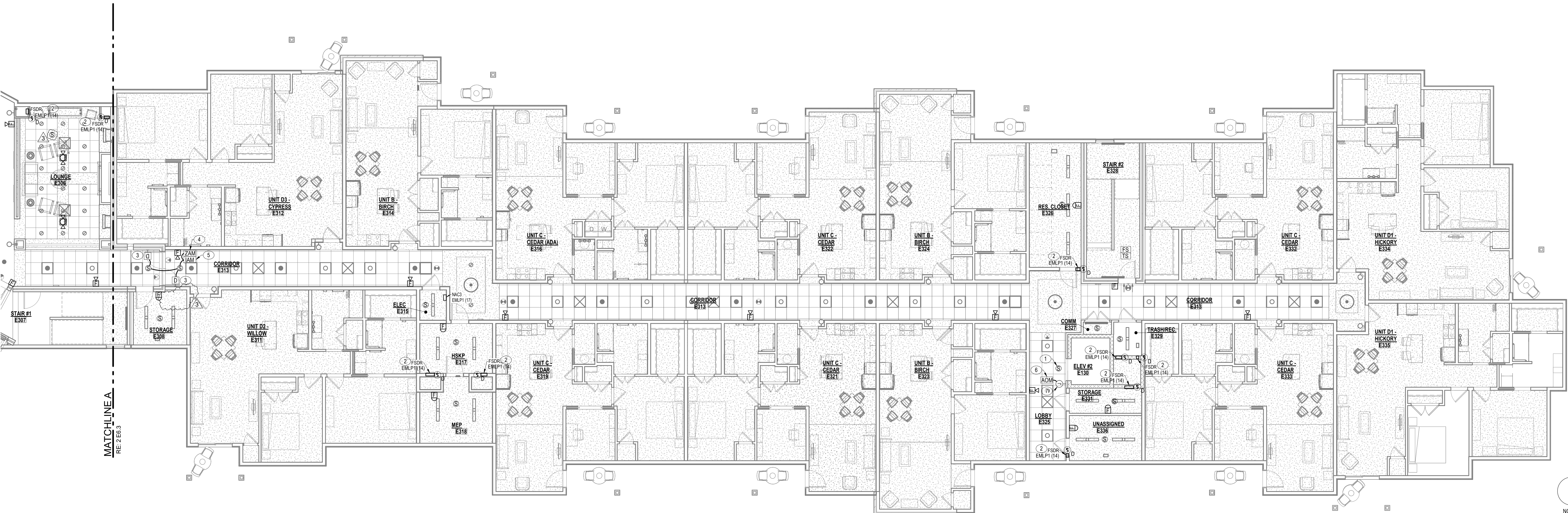
DESIGNER : DAS	DRAWN : MAW, DKW
ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO.	REVISION DESCRIPTION DATE
2	Rev 1 - Permit Comments 02/15/24
3	Addendum #1 03/07/24

DRAWING TITLE
SECOND FLOOR PLAN -
FIRE ALARM

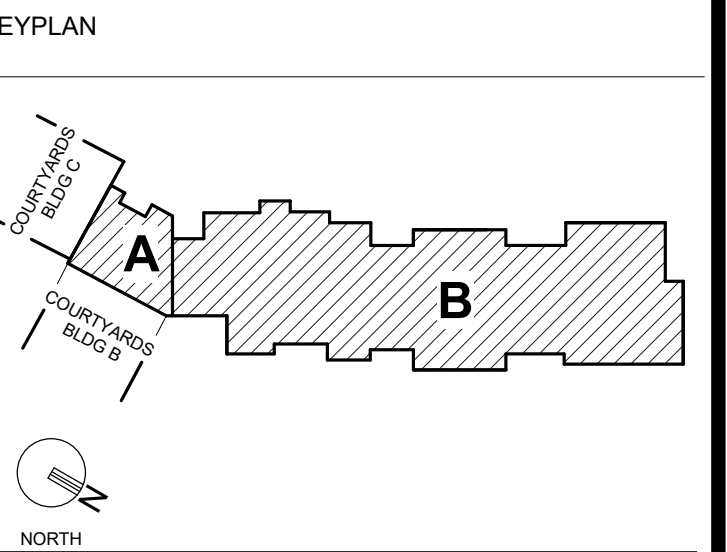
DATE: January 5, 2024
DRAWING
COMM. NO. 23104.00
E6.2



2 THIRD FLOOR ATRIUM - FIRE ALARM
E6.3 1/8" = 1'-0"

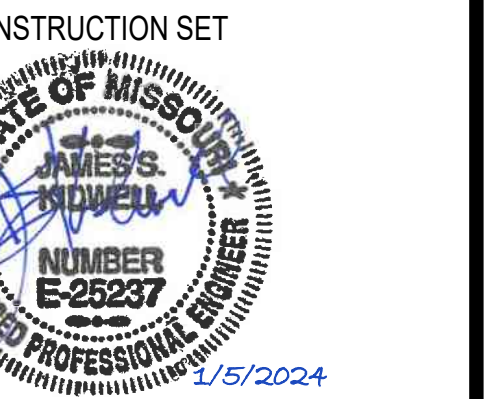


1 THIRD FLOOR IL UNITS - FIRE ALARM
E6.3 1/8" = 1'-0"



GENERAL NOTES
A REFER TO SHEET E6.1 FOR FIRE ALARM GENERAL NOTES.

- PLAN NOTES
- SMOKE DETECTOR SHALL BE INTERLOCKED WITH ELEVATOR CONTROLLER AS REQUIRED FOR ELEVATOR RECALL PER NFPA 72 GUIDELINES. CONNECT TO ELEVATOR SMOKE CURTAIN (WHERE APPLICABLE) FOR DEPLOYMENT UPON SMOKE DETECTOR ACTIVATION.
 - LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.02 FOR ADDITIONAL INFORMATION.
 - DOOR HOLDER SHALL RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM. PROVIDE LIFE SAFETY BRANCH CIRCUIT CONNECTION FOR MAGNETIC DOOR HOLDER. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE MAGNETIC DOOR HOLDER OPERATION WITH THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND DOOR STATUS TO THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
 - OUTPUT MODULE FOR INTERFACE TO SMOKE CURTAIN AT ELEVATOR DOOR.
 - 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.



PROJECT TITLE
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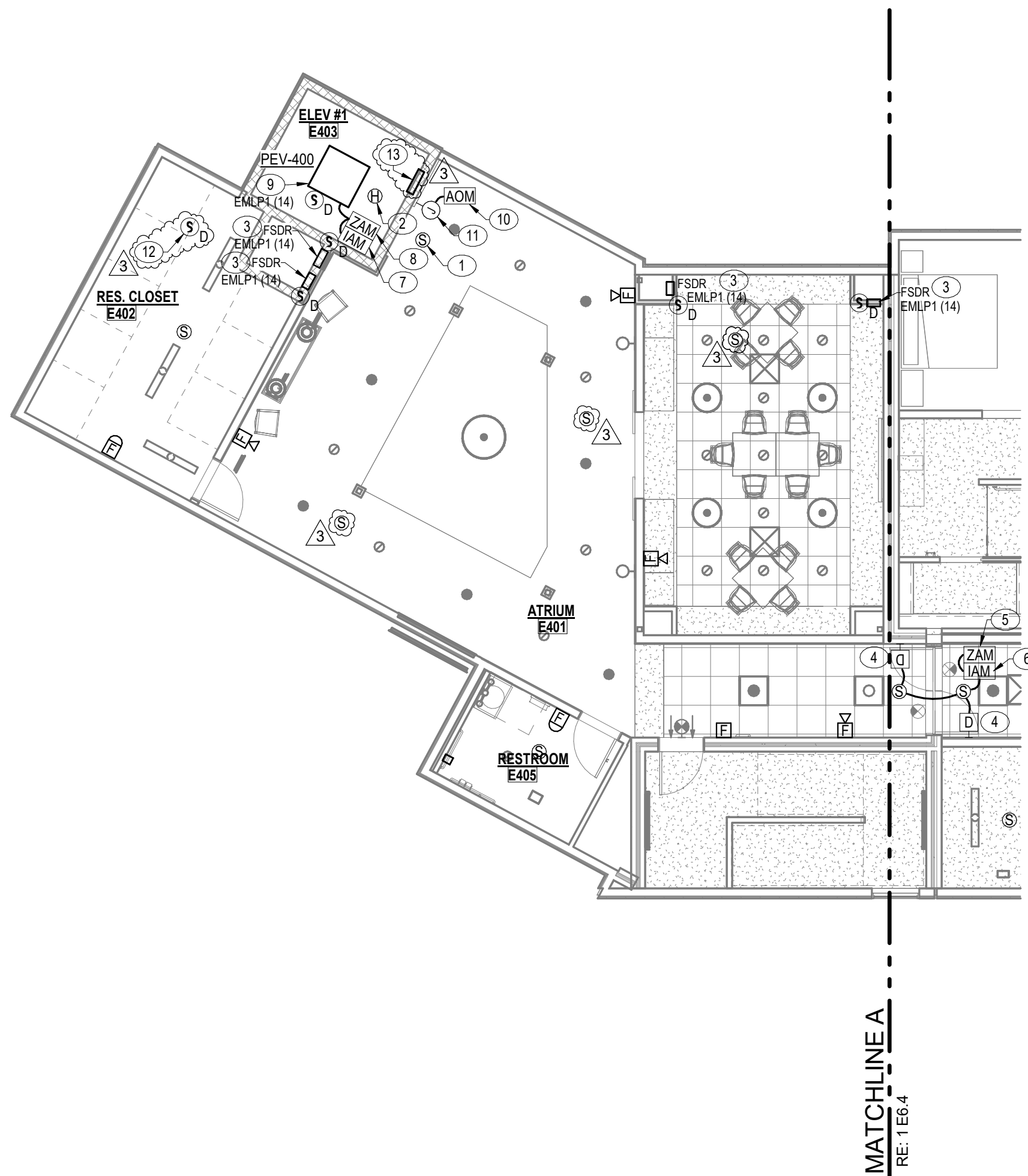
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ARCHITECT : DAS	CHECKED : MAW
ENGINEER : MAW	APPROVED : JSK
NO.	REVISION DESCRIPTION DATE
2	Rev 1 - Permit Comments 02/15/24
3	Addendum #1 03/07/24

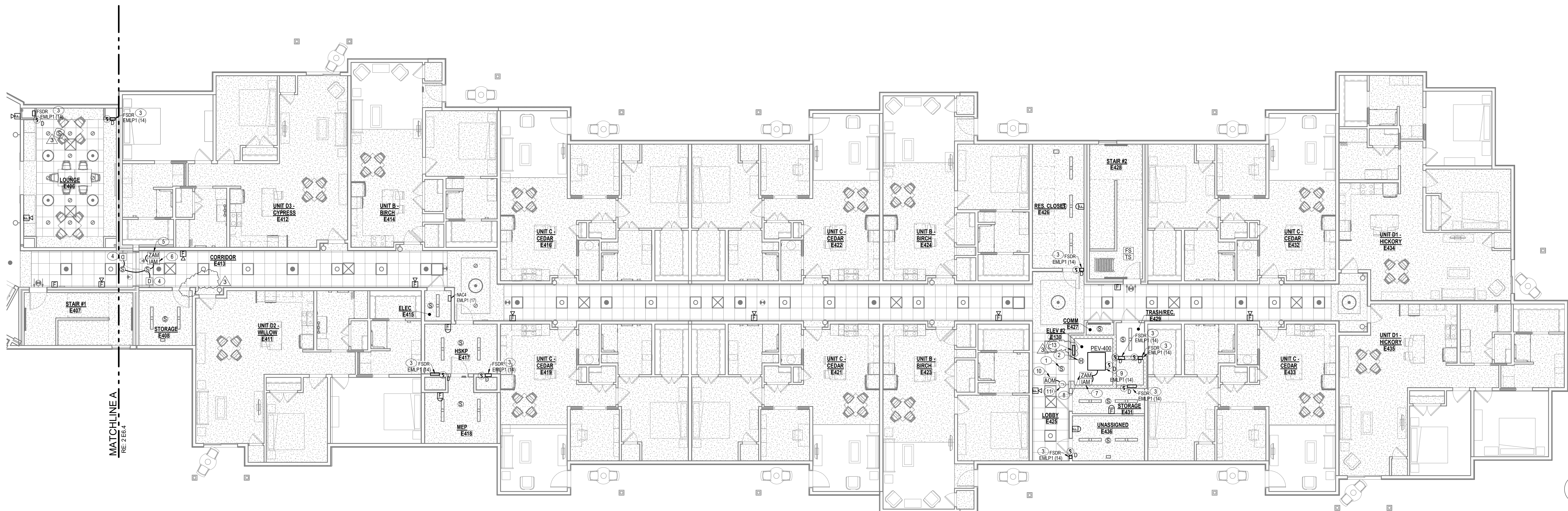
DRAWING TITLE
THIRD FLOOR PLAN - FIRE ALARM

DATE: January 5, 2024
DRAWING
COMM. NO. 23104.00
E6.3

NOTE:
DETECTION OF SMOKE BY ANY SMOKE DETECTORS IN
THE ATRIUM SHALL INITIATE SIGNAL TO THE ATRIUM
SMOKE EVACUATION CONTROL PANEL.

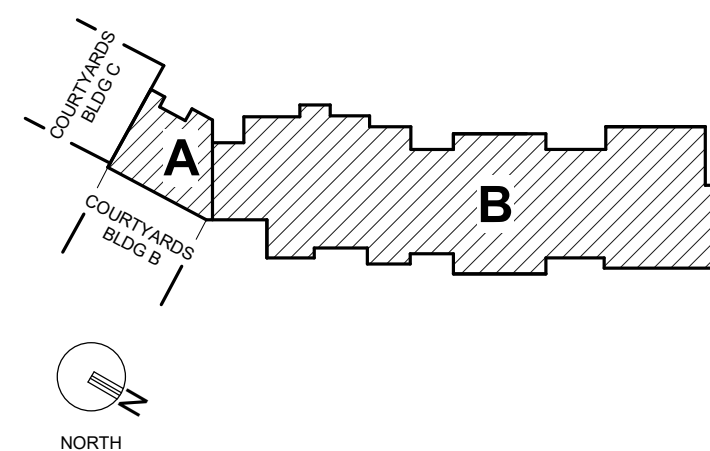


2 FOURTH FLOOR ATRIUM - FIRE ALARM
E6.4 1/8" = 1'-0"



1 FOURTH FLOOR IL UNITS - FIRE ALARM
E6.4 1/8" = 1'-0"

KEYPLAN



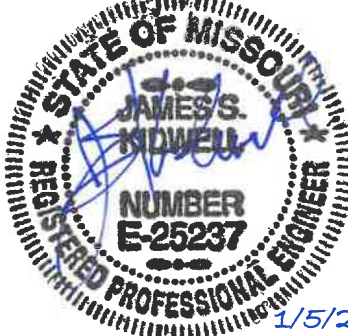
GENERAL NOTES

A REFER TO SHEET E6.1 FOR FIRE ALARM GENERAL NOTES.

PLAN NOTES

- SMOKE DETECTOR SHALL BE INTERLOCKED WITH ELEVATOR CONTROLLER AS REQUIRED FOR ELEVATOR RECALL PER NFPA 72 GUIDELINES. CONNECT TO ELEVATOR SMOKE CURTAIN (WHERE APPLICABLE) FOR DEPLOYMENT UPON SMOKE DETECTOR ACTIVATION.
- HEAT DETECTOR SHALL BE MOUNTED AT TOP OF ELEVATOR SHAFT. LOCATE DETECTORS PER NFPA 72 GUIDELINES. HEAT DETECTOR SHALL BE INTERLOCKED WITH SHUNT TRIP OPERATOR OF ELEVATOR CONTROLLER POWER DISCONNECT.
- LOCATION OF FIRE SMOKE DAMPER WITH 120VAC CONNECTION AND DUCT SMOKE DETECTOR. COORDINATE WITH MECHANICAL DRAWINGS FOR EXACT LOCATION OF FIRE SMOKE DAMPERS. REFER TO DETAILS ON DRAWING E0.022 FOR ADDITIONAL INFORMATION.
- DOOR HOLDER SHALL RELEASE UPON ACTIVATION OF FIRE ALARM SYSTEM. PROVIDE LIFE SAFETY BRANCH CIRCUIT CONNECTION FOR MAGNETIC DOOR HOLDER. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
- PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE MAGNETIC DOOR HOLDER OPERATION WITH THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
- PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND DOOR STATUS TO THE FIRE ALARM SYSTEM. REFER TO MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM ON SHEET E6.6.
- PROVIDE AND INSTALL AN ADDRESSABLE INPUT MODULE TO SEND GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT STATUS TO THE FIRE ALARM SYSTEM.
- PROVIDE AND INSTALL AN ADDRESSABLE RELAY MODULE AND INTERFACE GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT OPERATION WITH THE FIRE ALARM SYSTEM.
- LOCATION OF GREENHECK PEV-400 PENTHOUSE ELEVATOR VENT TOP OF ELEVATOR SHAFT. SMOKE DAMPER AND SMOKE DETECTOR IS ALL CONTAINED WITHIN VENTILATOR FROM GREENHECK. PROVIDE 120VAC CONNECTION TO HONEYWELL MODEL HMS4120F1008 DAMPER ACTUATOR AND COORDINATE WITH MECHANICAL DRAWINGS.
- OUTPUT MODULE FOR INTERFACE TO SMOKE CURTAIN AT ELEVATOR DOOR.
- 120V CONNECTION TO ELEVATOR SMOKE CURTAIN REWIND MOTOR. PROVIDE ALARM CIRCUIT FROM N.O. AUXILIARY CONTACT OF SMOKE DETECTOR FOR CONNECTION TO AND ACTIVATION BY FIRE ALARM SYSTEM.
- DUCT MOUNTED SMOKE DETECTOR INSTALLED ON RTLS RETURN AIR DUCT IN SHAFT. PROVIDE ACCESS DOOR IN SHAFT.
- AT ELEVATOR CONTROLLER, PROVIDE FOR MONITORING OF ELEVATOR POWER DISCONNECT SHUNT TRIP CIRCUIT AND SHUNT TRIP ACTIVATION. REFER TO ELEVATOR WIRING DETAIL.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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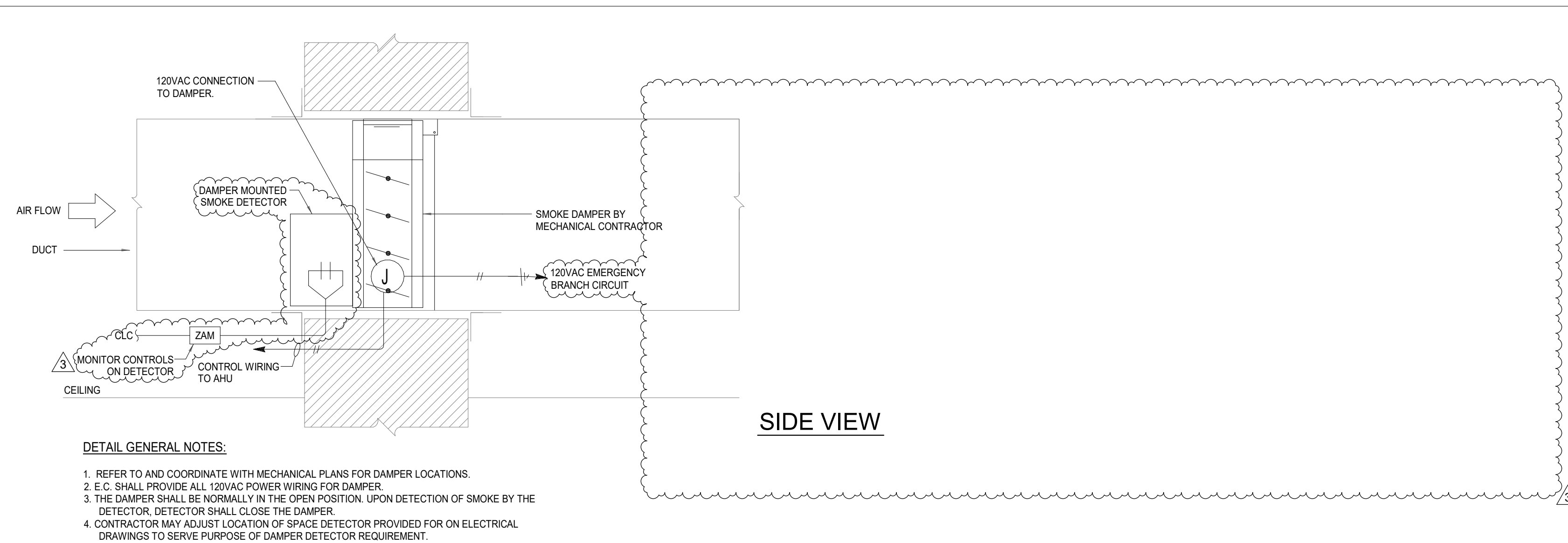
FOURTH FLOOR PLAN -
FIRE ALARM

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	E6.4

- SEND AUTOMATIC SYSTEM INITIATION SIGNAL UPON DETECTION OF SMOKE IN ANY DETECTOR IN THE ATRIUM.
- INTERFACE TO SYSTEM OFF SIGNAL, WHICH WILL OVERRIDE SMOKE DETECTION SIGNAL.
- MANUAL ON SIGNAL FROM CONTROL PANEL SHALL INITIATE ALL OUTPUTS SIMILAR TO ATRIUM SMOKE DETECTOR.
- EXTEND WIRING IN EMT TO CONTROL PANEL. TERMINATION OF WIRING AT PANEL BY M.C.

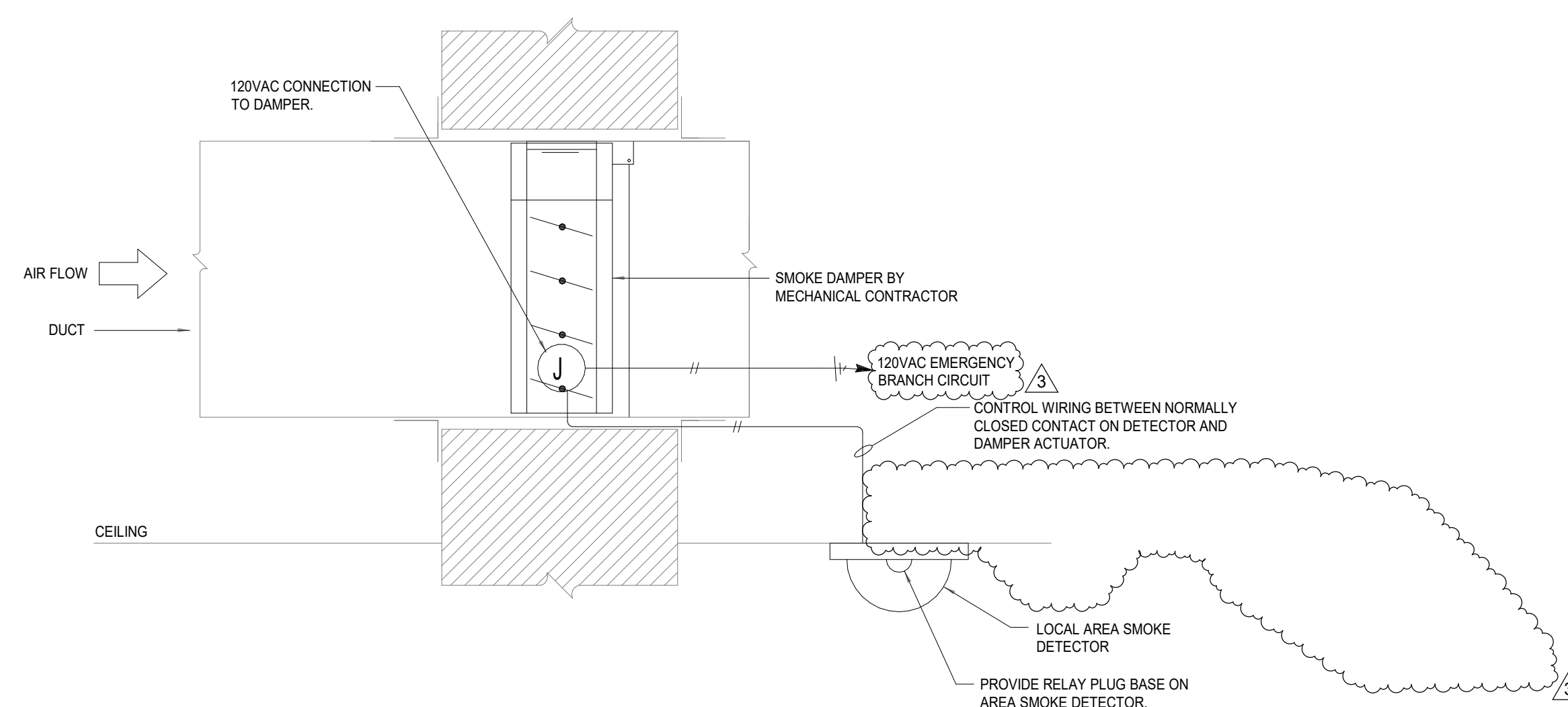
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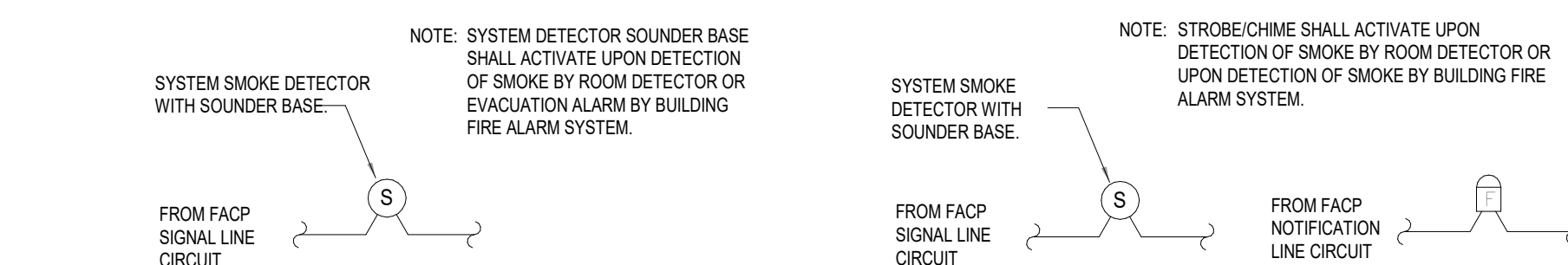
SMOKE DAMPER CONNECTION DETAIL - DAMPER MOUNTED SMOKE DETECTORS (FSDR)

5
E4.2
NTS.



SMOKE DAMPER CONNECTION DETAIL - AREA MOUNTED SMOKE DETECTORS

4
E4.2
NTS.

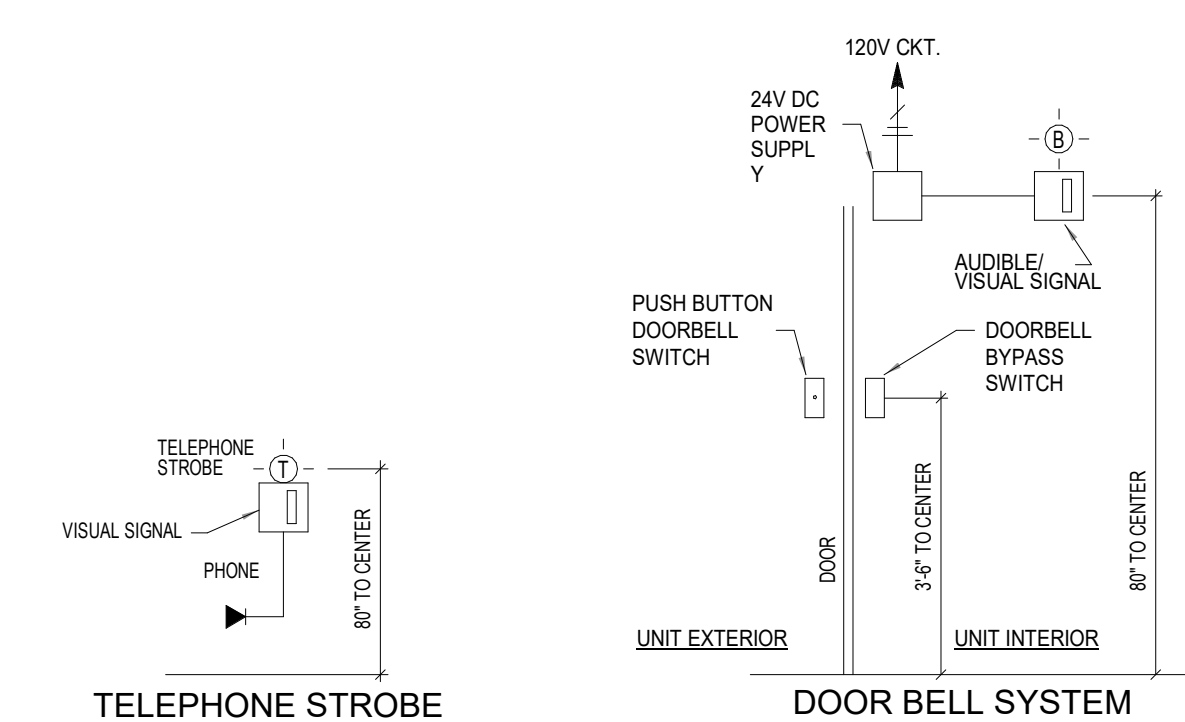


STANDARD ROOM

ACCESSIBLE ROOM

3 E6.6 12" = 1'-0"

TYPICAL DWELLING UNIT FIRE ALARM DETAIL

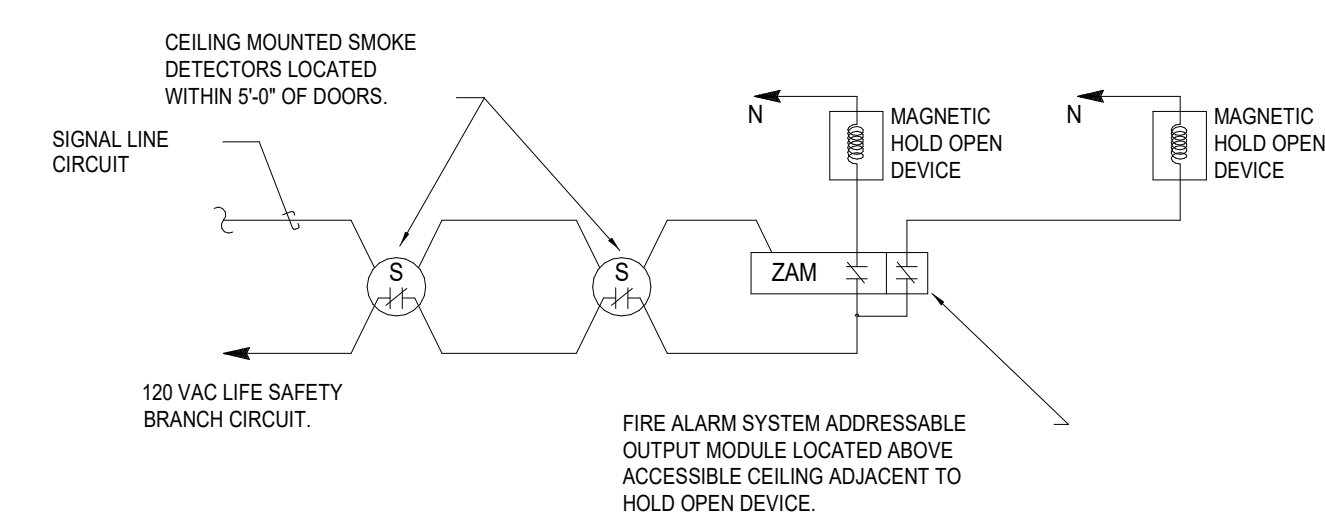


NOTES:

- A. REFER TO ARCHITECTURAL PLANS FOR NUMBER AND LOCATION OF HANDICAP ACCESSIBLE UNITS.
- B. TELEPHONE STROBE SYSTEM FOR HANDICAP ACCESSIBLE UNITS ONLY.
- C. DOORBELL AUDIBLE/VISUAL STROBE SYSTEM FOR HANDICAP ACCESSIBLE UNITS ONLY. DOORBELL AUDIBLE ONLY FOR ALL NON-HANDICAP ACCESSIBLE UNITS.
- D. ALL CABLING BY E.C. VERIFY EXACT REQUIREMENTS WITH MANUFACTURER.
- E. DOORBELL BYPASS SWITCH SHALL BE LOCATED IN THE VICINITY OF THE LIGHT SWITCHES AT DWELLING UNIT ENTRY AND SHALL BE LABELED AS SUCH.

2 E6.6 12" = 1'-0"

DWELLING UNIT - PHONE STROBE AND DOORBELL SYSTEM DIAGRAM



MAGNETIC DOOR HOLD OPEN DEVICE DIAGRAM

NO SCALE

1

CONSTRUCTION SET



PROJECT TITLE



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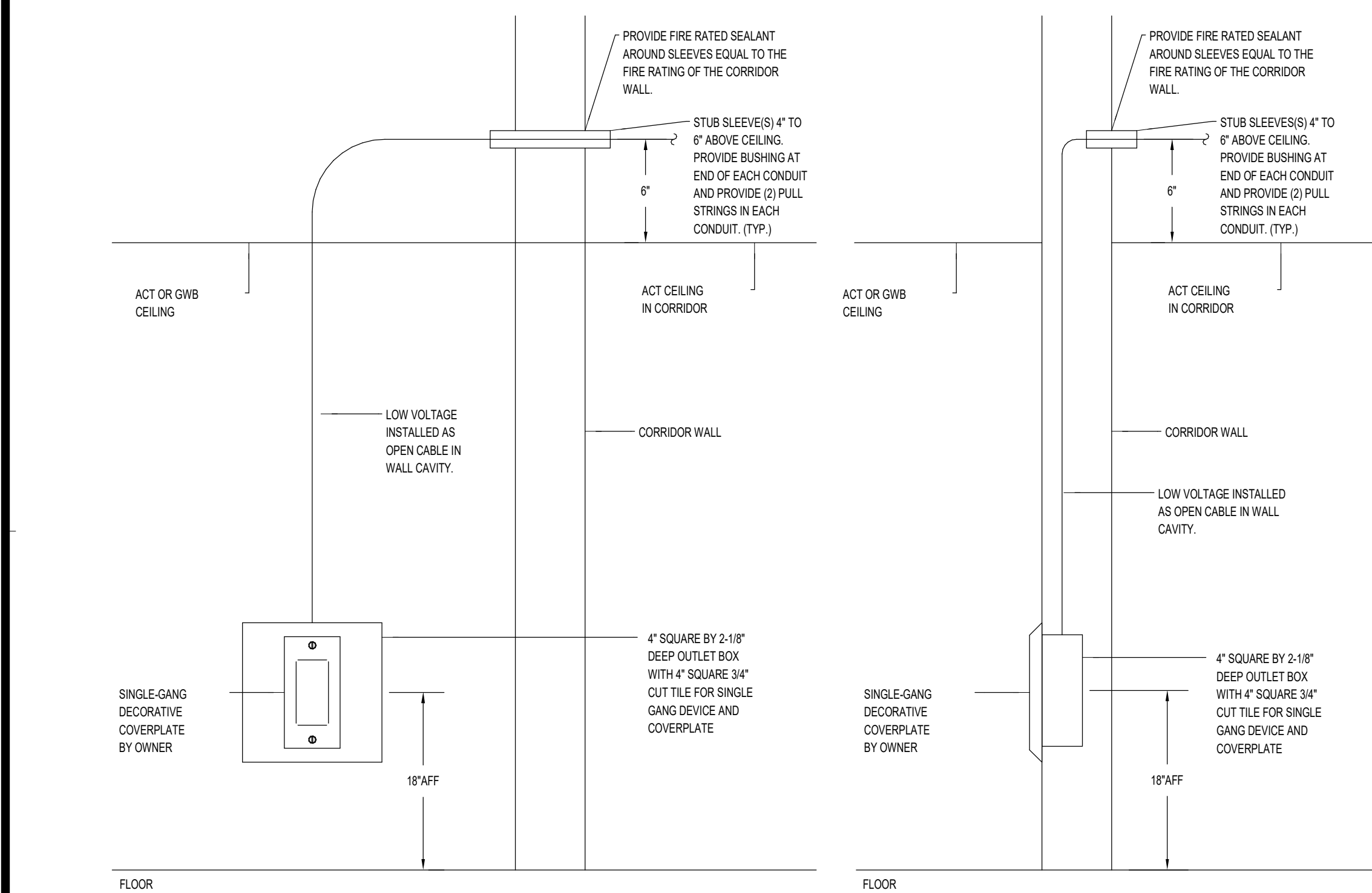
DRAWING TITLE

FIRE ALARM DETAILS

DATE:	January 5, 2024	DRAWING
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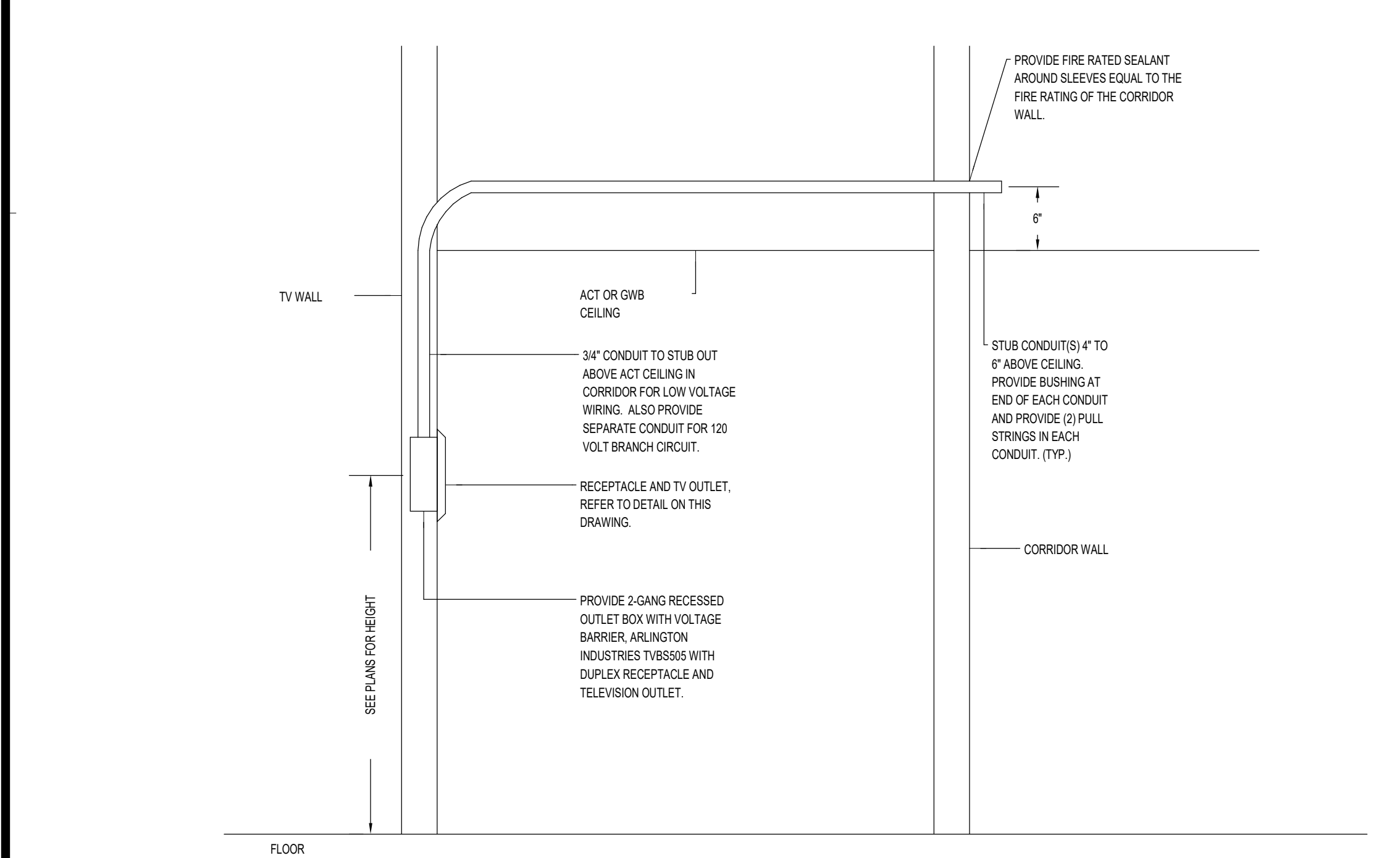
COMM. NO.	23104.00	E6.6
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VOICE & DATA DIAGRAMS (COUNTER TOP HEIGHT)



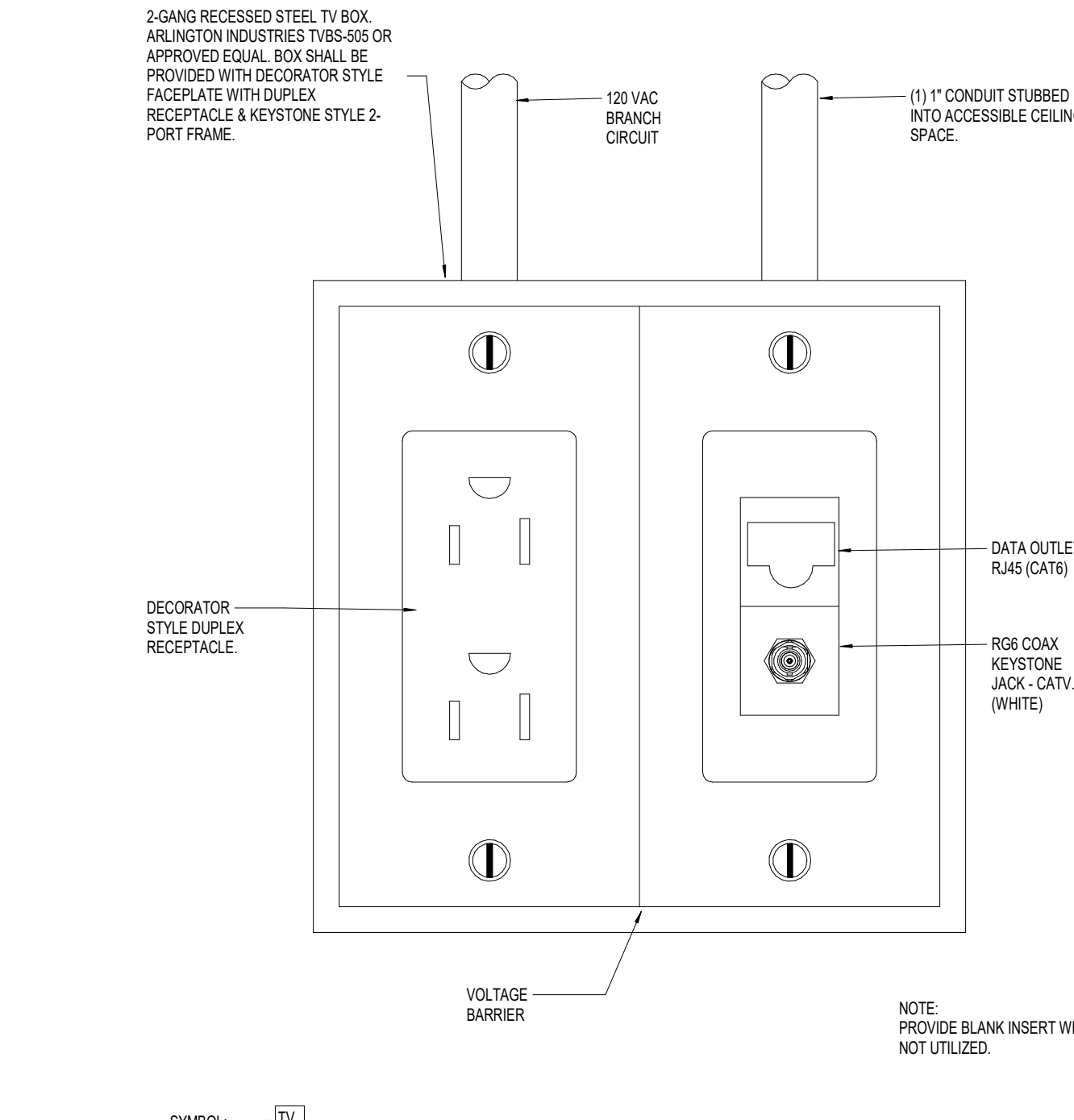
NO SCALE 5

VOICE & DATA DIAGRAMS (STANDARD MOUNTING HEIGHT)



NO SCALE 4

VOICE & DATA OUTLET DETAIL



NO SCALE 2

TV OUTLET DIAGRAM

Autodesk Docs//23104.00 - John Knox Village - Lindbergh/23104.00-JKV-Courtyards-Building E-Electrical & Low Voltage CENTRAL.rvt

NO SCALE 3

TYP. COMBINATION TV OUTLET DETAIL

Autodesk Docs//23104.00 - John Knox Village - Lindbergh/23104.00-JKV-Courtyards-Building E-Electrical & Low Voltage CENTRAL.rvt

LOW VOLTAGE SYSTEMS WORKSCOPE NARRATIVE

GENERAL

THE OWNER'S INTENT IS TO CONTRACT THROUGH THE GENERAL CONSTRUCTION CONTRACT WITH VENDORS/CONTRACTORS TO SUPPLY ALL LOW VOLTAGE SYSTEMS AS DESCRIBED IN PARAGRAPHS BELOW. RESPECTIVE CONTRACTORS SHALL PROVIDE AND INSTALL ALL CABLES, COMPONENTS AND HARDWARE AS PART OF THE WORK SCOPE, AS DESCRIBED ON DRAWINGS AND IN SPECIFICATIONS.

ALL LOW VOLTAGE CABLES SHALL BE INSTALLED AS AN OPEN CABLE SYSTEM IN THE ACCESSIBLE CEILING SPACE. LOW VOLTAGE CABLES SHALL BE INSTALLED IN CONDUIT IN INACCESSIBLE CEILING SPACES (HARD CEILING), PROVIDE OUTLET BOXES AND CONDUIT STUB UPS FOR ROUTING CABLES CONCEALED IN WALLS BETWEEN THE OUTLET LOCATIONS AND THE ACCESSIBLE CEILING SPACE. PROVIDE NEW SUPPORT STRUCTURE, SLEEVES AND FIRESTOPPING AS REQUIRED FOR ALL NEW CABLES INSTALLED IN THE ACCESSIBLE CEILING SPACE. CABLES SHALL BE PLENUM RATED.

THE WALL MOUNTED RACK OR WALL MOUNTED EQUIPMENT FOR THE NEW ADDITION IS LOCATED ON EACH LEVEL IN THE "COMMON ROOMS." VOICE, DATA, SECURITY HORIZONTAL CABLES INSTALLED FOR COMMON SPACES WITHIN THE NEW BUILDING SHALL BE EXTENDED TO THE FIRST FLOOR TELE "COMMON ROOM" AND TERMINATED THERE ON A PATCH PANEL. A FIBER OPTIC BACKBONE CABLE SHALL BE EXTENDED FROM THE FIRST FLOOR COMMON ROOM "HUB" BACK TO THE "B" BUILDING EXISTING TELECOM ROOM FOR INTERCONNECTION TO EXISTING SYSTEMS.

CONTRACTOR SHALL TEST ALL LABEL, TERMINATE AND TEST CABLES TO CONFIRM PROPER PERFORMANCE.

ALL COMMUNICATIONS OUTLETS, HORIZONTAL CABLES AND TERMINATION HARDWARE SHALL BE LABELED PER THE DESIGNED LABELING SCHEME DETAIL.

DATA/VOICE - VOIP

OUTLETS SHALL BE PROVIDED WITH TWO PORTS, IN COMMON AREA AND IN RESIDENTIAL, A COMBINATION TWO PORT FOR DATA/VOICE OR SINGLE PORT FOR VOICE OR DATA. THE HORIZONTAL CABLES SHALL EXTEND AND TERMINATE ON PATCH PANELS FOR COMMON AREAS LOCATIONS. RESIDENT UNIT CABLES WILL TERMINATE IN STRUCTURED MEDIA CABINET (SMC) WITHIN UNIT. PROVIDE AND INSTALL PATCH PANELS OF SUFFICIENT CAPACITY TO TERMINATE ALL NEW DATA NETWORK OUTLETS AND ALLOW FOR 20% SPARE PORTS. CONTRACTOR SHALL PROVIDE FUNDOWN BLOCKS, BACK PATCH PANELS, CABLE MANAGEMENT, LABELING PRODUCTS, ETC.

VOICE (ANALOG)

FOR ANALOG VOICE LINES FOR ANY FAX LOCATIONS, FIRE ALARM SYSTEM & ELEVATOR CONTRACTOR SHALL PROVIDE AND INSTALL JACK IN SINGLE GANG OUTLET BOX. EXTEND HORIZONTAL CABLE TO TYPE 110 BLOCK TERMINAL BOARD. REFER TO RISER FOR ADDITIONAL INFORMATION.

CATV SYSTEM - RESIDENT

FOR ALL OUTLET LOCATIONS WITHIN RESIDENT UNITS, CONTRACTOR SHALL PROVIDE AND INSTALL CATV OUTLETS OF TYPE AND NUMBER AS SHOWN ON THE DRAWINGS. INSTALL OUTLET BOXES, FACEPLATES, JACKS AND RG6 COAX CABLE AND CATV CABLES. EXTEND CATV CABLES AND COAX CABLES BACK TO SMC AND TERMINATE AT DATA MODULE. COAX CABLE WITHIN SMC FOR SERVICE PROVIDER TERMINATION AT CATV SPLITTER.

WIRELESS EMERGENCY CALL SYSTEM

ALL SARA COMPONENTS SHALL BE PROVIDED BY JW SARA SYSTEM VENDOR. CONTRACTOR SHALL PROVIDE 120V POWER FOR THE SYSTEM TRANCEIVERS (REPEATERS), REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

ACCESS CONTROL SYSTEM

DOORS DESIGNATED WITH AN "X" OR DOOR TAG NUMBER WILL BE PART OF THE NEW ACCESS CONTROL SYSTEM. THE SYSTEM SHALL BE COMPATIBLE WITH THE EXISTING (S) ACCESS CONTROL SYSTEM CURRENTLY IN EXISTING CAMPUS BUILDINGS. REFER TO DOOR ELEVATION DETAILS FOR ADDITIONAL INFORMATION FOR DEVICES AT EACH LOCATION. THE NEW SYSTEM SHALL BE INTEGRATED WITH THE EXISTING SECURITY SYSTEM SO THAT WHEN SECURITY DISPATCH RECEIVES COMMUNICATION THROUGH THE ALSO INTERCOM THEY ARE CAPABLE OF RESPONDING TO CALLS NEEDS BY PHYSICALLY OR REMOTELY PERMITTING ENTRANCE INTO FACILITY. ALL DOOR SYSTEM ALARMS WILL BE ANNOUNCED AT THE SECURITY DISPATCH OFFICE.

INTERCOM

AT ENTRY LOCATIONS SHOWN ON PLANS A NEW INTERCOM STATION SHALL BE PROVIDED. THE INTERCOM SHALL BE AN IP BASED, AUDIO INTERCOM, ALSO B2B OR EQUIV. WITH DOOR CONTROLLER. THE INTERCOM SHALL BE INTERFACED WITH THE SECURITY SYSTEM SO THAT THE OPERATION OF THE INTERCOM STATION AT ANY PARTICULAR DOOR WILL PROMPT THE LOCAL CAMERA TO DISPLAY AT THE SECURITY OFFICE. ONCE THE SECURITY CAMERA FOR THE RESPECTIVE DOOR HAS IDENTIFIED AND THE INTERCOM COMMUNICATION HAS BEEN MADE WITH THE SITE SECURITY OFFICE, THE SECURITY OFFICER MAY PERMIT FACILITY ENTRANCE.

SECURITY SURVEILLANCE CAMERAS - CCTV

CONTRACTOR SHALL PROVIDE AND INSTALL ALL RG6 COAX CONDUIT, BACKBOXES AND HORIZONTAL CATV CABLE TO THE NEW CAMERA LOCATIONS SHOWN ON DRAWINGS ONCE BUILDING FACILITIES (JOV) HAS REVIEWED LOCATIONS. CONTRACTOR SHALL INCLUDE IN THE SCOPE A COORDINATION MEETING AFTER THE STRUCTURE HAS BEEN SELECTED PRIOR TO BEGINNING ROUGH-IN. JOV WILL MAKE CHANGES TO ANY OF THE LOCATIONS AT THAT TIME. ALL NEW SECURITY CAMERAS WILL BE PROVIDED AND INSTALLED BY JOV.

LV WORKSCOPE GENERAL NOTES

- OUTER JACKETS OF CATEGORY HORIZONTAL CABLES SHALL BE COLOR CODED FOR RESPECTIVE SYSTEMS:
 - DATA: BLUE
 - VOIP: VOICE: BLUE
 - PANEL DATA/ANALOG VOICE: WHITE
 - SURVEILLANCE CAMERAS: YELLOW FOR INTERIOR, SHELDED GREY FOR EXTERIOR
 - WAP: BLUE

- THE LOW VOLTAGE WORK SCOPE CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL OUTLET BOXES, RACEWAY, PATHWAYS AND SUPPORTS AS SPECIFICALLY INDICATED ON THESE DRAWINGS AND AS REQUIRED FOR COMPLETE INSTALLATION OF THE SYSTEMS.

- CONTRACTOR SHALL PROPERLY SUPPORT LOW VOLTAGE CABLES BETWEEN OUTLET BOXES AND CABLE TRAY UTILIZING J-HOOK SUPPORTS AT A MAXIMUM OF 5 FT. ON CENTER.

- CONTRACTOR SHALL UTILIZE PLENUM RATED VELCRO STRAPS FOR CABLE BUNDLING. NO ZIP TIES ALLOWED. NO MORE THAN 4 IN CABLES SHALL BE BUNDLED TOGETHER. CABLEING FOR DIFFERENT SYSTEMS SHALL BE BUNDLED SEPARATELY.

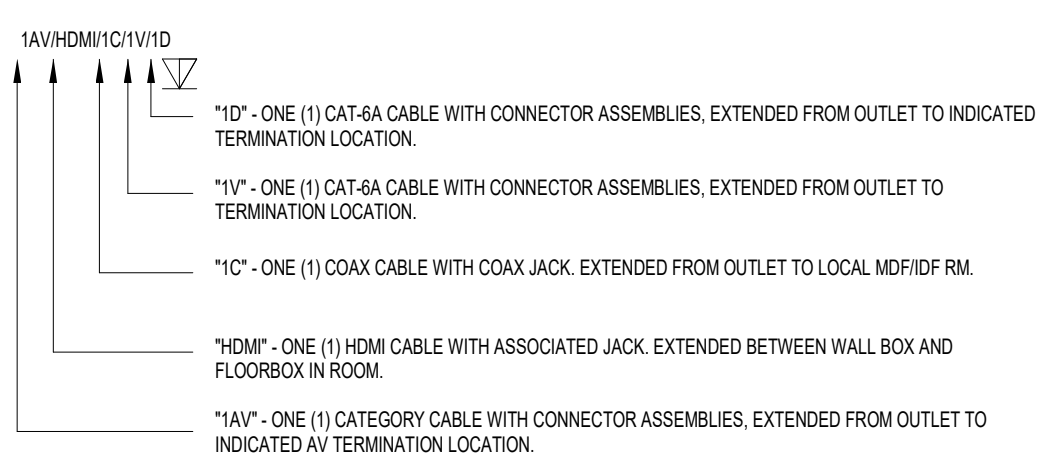
- PARTS OF THE EXISTING BUILDING WILL BE OCCUPIED AND THE RENOVATION WORK MUST BE COMPLETED IN PHASES. COORDINATE WITH THE GENERAL CONTRACTOR FOR PROPER SEQUENCE OF THE WORK.

- PROTECT ANY EXISTING CABLES AND COMPONENTS THAT MAY STILL BE IN USE DURING CONSTRUCTION. IF CABLEING OR COMPONENTS ARE IN CONFLICT WITH NEW CONSTRUCTION OR IN NEED OF PROPER SUPPORT, NOTIFY GENERAL CONTRACTOR.

- PROVIDE WALL TELEPHONE OUTLET 4' AFF FOR THE ELEV CAB TELEPHONE. EXTEND (1) 3/4" EMPTY CONDUIT FROM THE OUTLET BOX TO ACCESSIBLE CEILING SPACE AND PROVIDE BUSHINGS AT EACH END. LOCATE OUTLET BOX AS DIRECTED BY THE ELEV EQUIP INSTALLER.

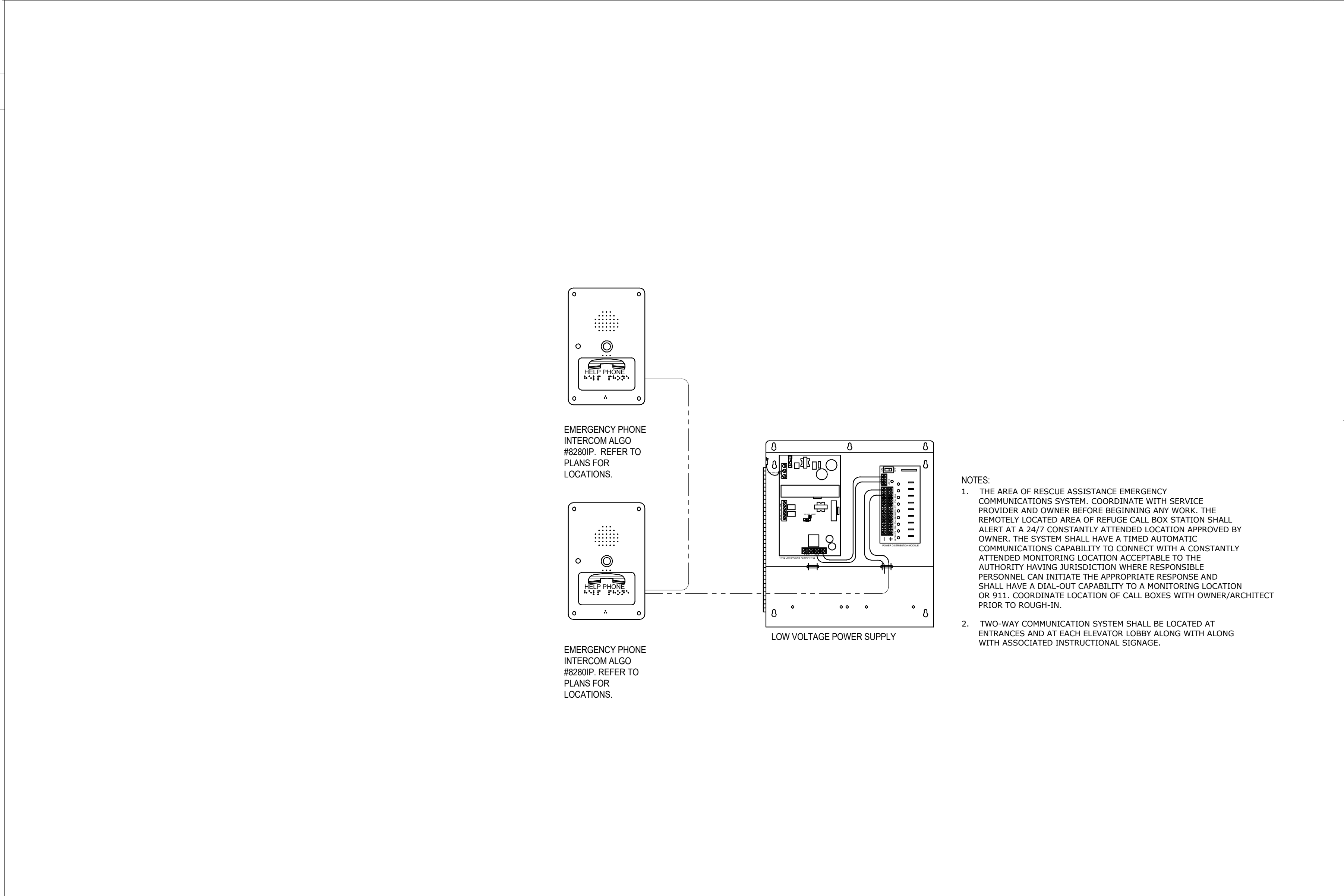
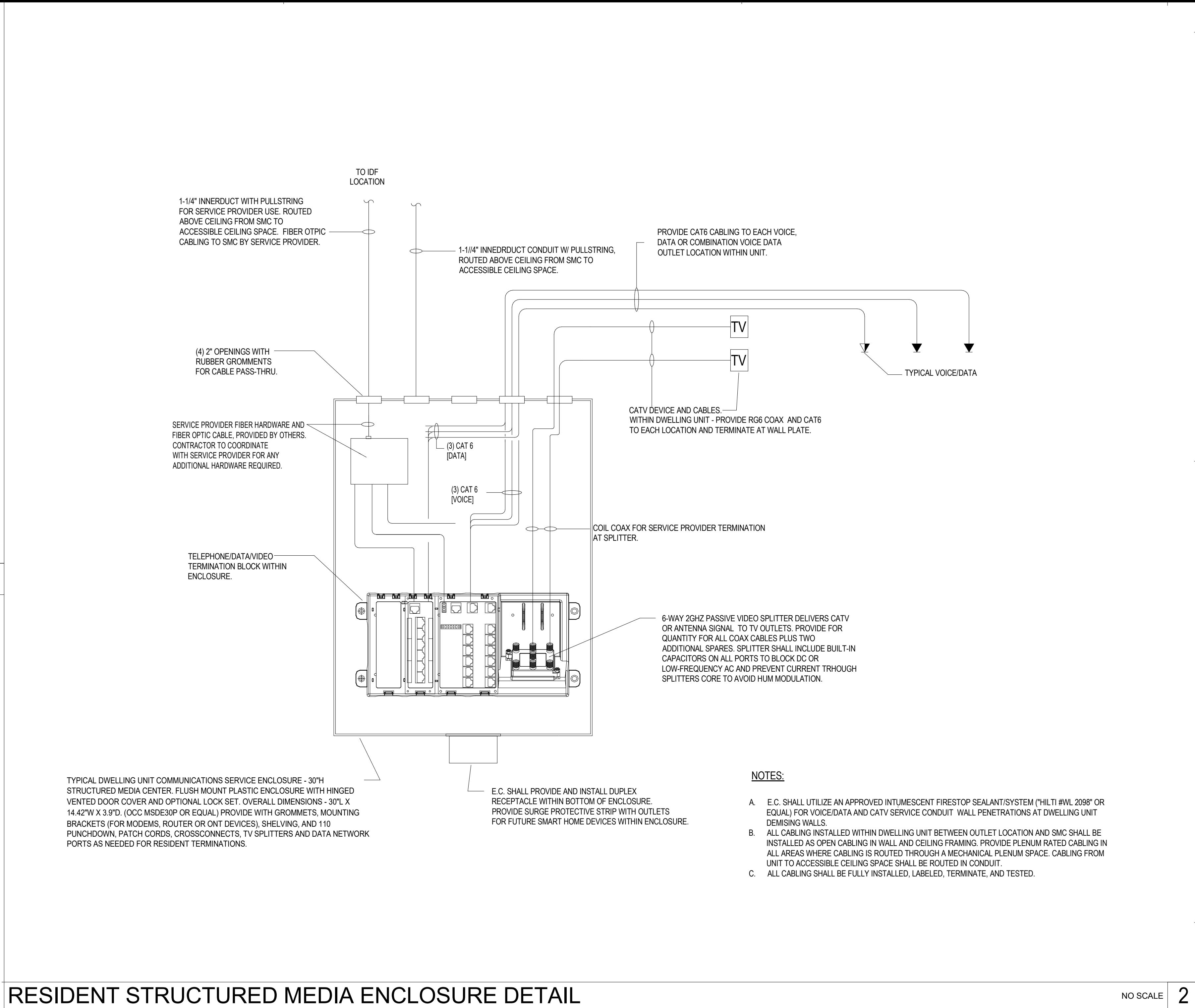
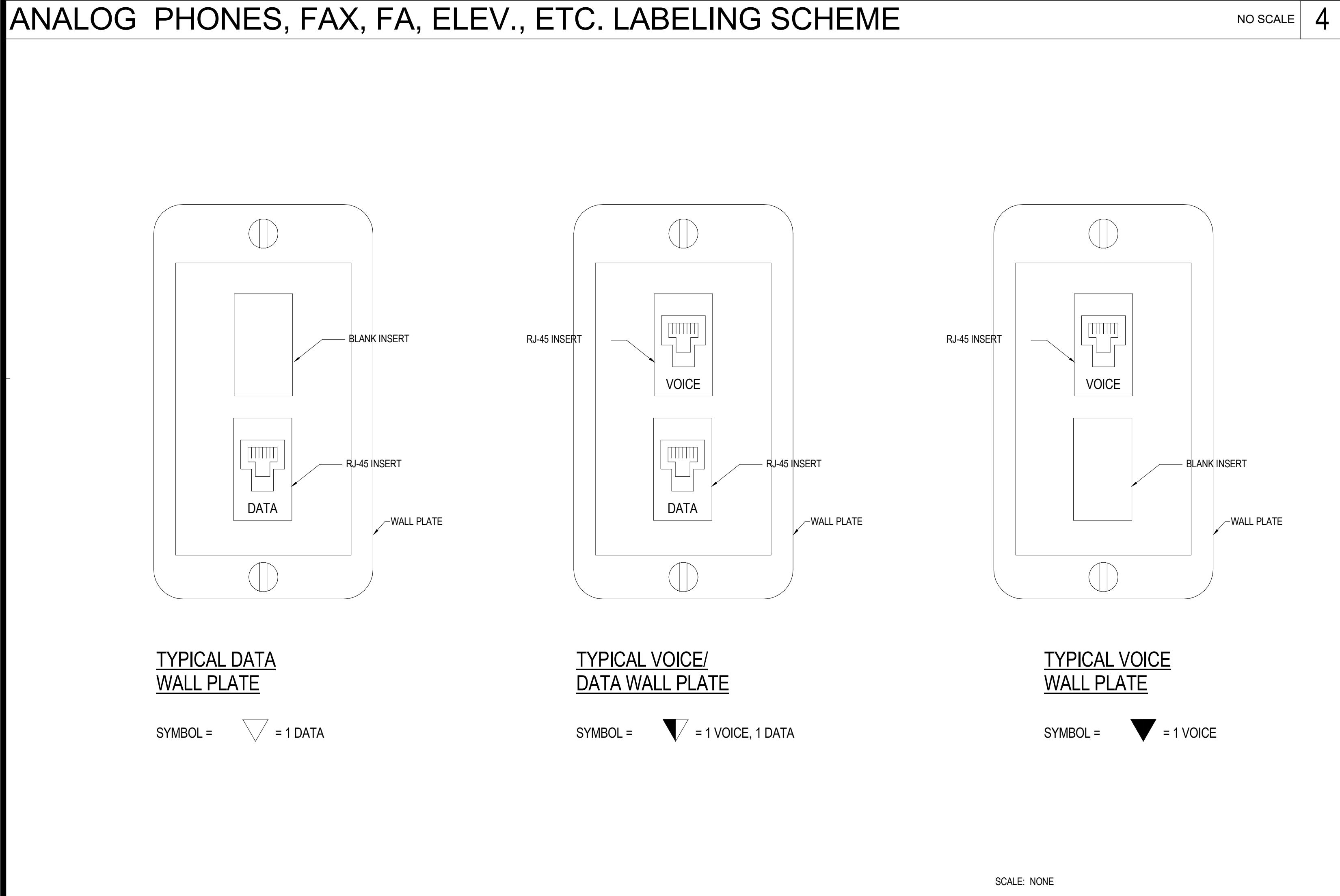
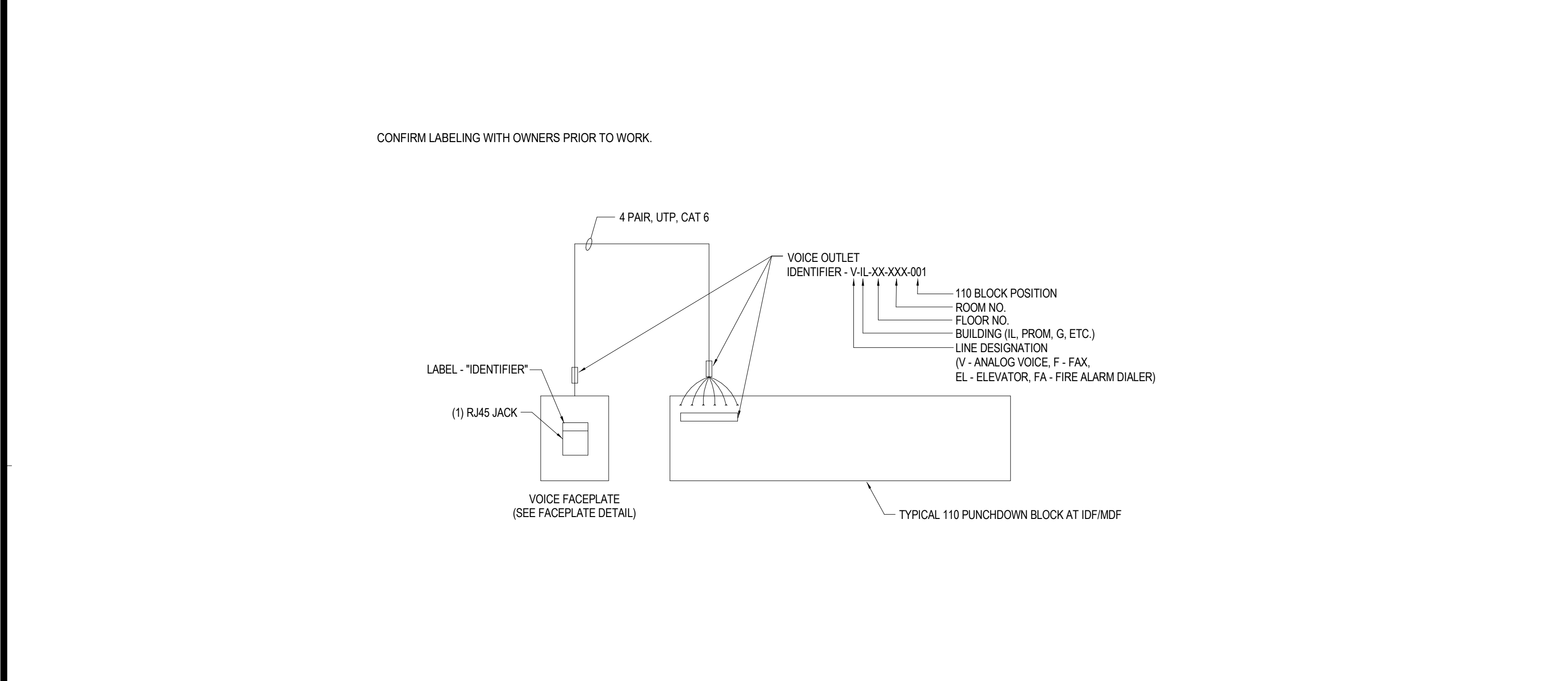
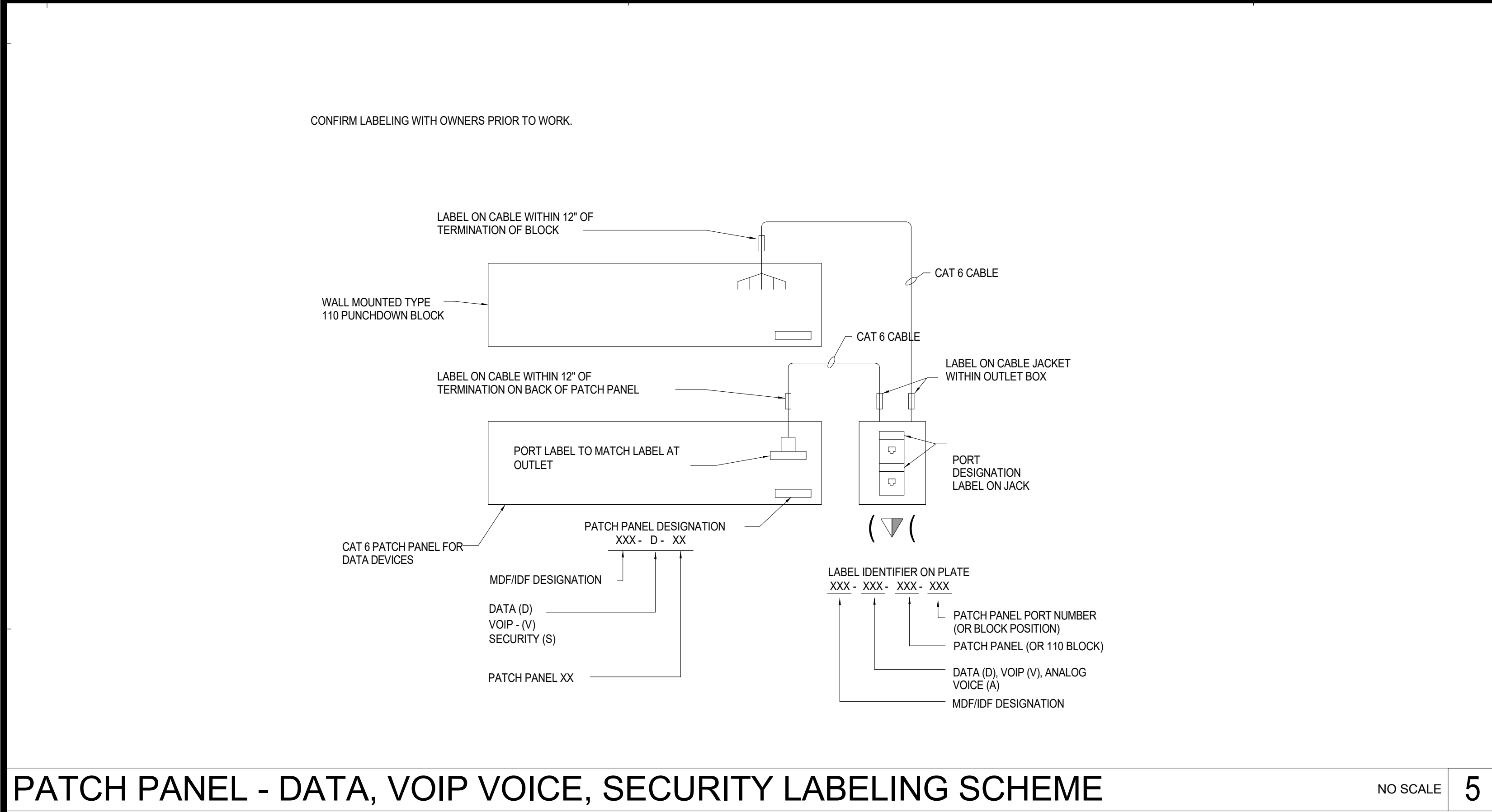
NOTES (LOW VOLTAGE SYMBOL LEGEND):

- THESE ARE STANDARD SYMBOLS AND MAY NOT APPEAR ON THE PROJECT DRAWINGS. HOWEVER, WHEREVER THIS SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE FURNISHED AND INSTALLED.
- UNLESS NOTED OTHERWISE, MOUNTING HEIGHTS ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET AND SHALL MATCH THE HEIGHTS SHOWN ON THE ELECTRICAL SYMBOLS & LEGEND. SHOULD THEY DIFFER, WHERE THE MOUNTING HEIGHT INDICATED ON THE FLOOR PLAN IS DIFFERENT, THE PLAN TAKES PRECEDENCE.
- INSTALL RECEPTACLE AND VOICE/DATA OUTLET BOXES IF APART (EDGE TO EDGE) WHERE SHOWN SIDE BY SIDE ON WALL, UNLESS INDICATED TO BE INSTALLED IN A MULTIGANG BOX WITH VOLTAGE BARRIER.
- CONTRACTOR SHALL PROVIDE TELECOMMUNICATION CABLES TO ALL LOW VOLTAGE DEVICES INDICATED ON PLANS ACCORDING TO THE NOMENCLATURE BELOW OR AS INDICATED IN THE LEGEND NOTES. ALL COMBINATION VOICE/DATA OUTLETS SHALL RECEIVE ONE (1) CATV DATA CABLE AND ONE (1) CATV VOICE CABLE UNLESS NOTED OTHERWISE ON PLAN DRAWINGS.



LOW VOLTAGE SYMBOL LEGEND

MTG. HGT. (NOTE 2)	SYMBOL (NOTE 3)	DESCRIPTION
1'-4"		TELEPHONE OUTLET WALL. SINGLE GANG OUTLET BOX WITH 3/4" CONDUIT STUB INTO ACCESSIBLE CEILING SPACE. PROVIDE WITH TWO (2) CAT 6A RJ45 JACK. EXTEND CAT 6A VOICE CABLE TO NEAREST 8' LOCATION ON RESPECTIVE FLOOR. RESIDENT UNITS SHALL BE OPEN CABLEING.
ABOVE COUNTER		"W" WALL TYPE TELEPHONE OUTLET MOUNTED 52" AFF AND PROVIDED WITH RECESSED STAINLESS STEEL WALL PHONE MOUNT FACEPLATE.
		"EL" ELEVATOR EMERGENCY TELEPHONE. WALL TYPE TELEPHONE OUTLET MOUNTED 48" AFF AND PROVIDED WITH RECESSED STAINLESS STEEL WALL PHONE MOUNT FACEPLATE.
		"AV" INDICATES CABLEING SCOPE TYPE A QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) VOICE CABLE (1V) TO OUTLET LOCATION.
1'-4"		DATA OUTLET WALL. SINGLE GANG OUTLET BOX WITH 1" CONDUIT STUB INTO ACCESSIBLE CEILING SPACE. PROVIDE WITH TWO (2) CAT 6A RJ45 JACK. EXTEND CAT 6A DATA CABLE TO NEAREST 8' LOCATION ON RESPECTIVE FLOOR.
ABOVE COUNTER		"AV" INDICATES CABLEING SCOPE TYPE A QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (2) DATA CABLE (2D) TO OUTLET LOCATION.
1'-4"		COMBINATION VOICE/DATA OUTLET WALL. TWO-GANG OUTLET BOX WITH SINGLE GANG MDO RING AND 1-1/4" CONDUIT STUB INTO ACCESSIBLE CEILING SPACE. PROVIDE WITH TWO (2) CAT 6A RJ45 JACK AND ONE (1) CAT 6A RJ45 VOICE JACK. EXTEND CABLES TO NEAREST 8' LOCATION ON RESPECTIVE FLOOR.
ABOVE COUNTER		"BV" INDICATES CABLEING SCOPE TYPE B QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (2) DATA (2D) AND (1) VOICE (1V) CABLES TO OUTLET LOCATION.
3'-10"		AREA OF RESCUE ASSISTANCE MASTER STATION. SUBSCRIPT INDICATES SYSTEM. SINGLE GANG OUTLET BOX WITH 3/4" CONDUIT STUB INTO ACCESSIBLE CEILING SPACE. PROVIDE WITH ONE (1) CAT 6A RJ45 JACK. EXTEND CAT 6A VOICE CABLE TO NEAREST 8' LOCATION ON RESPECTIVE FLOOR.
FLOOR		PHONE OUTLET FLOOR. REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION.
		"AV" INDICATES CABLEING SCOPE TYPE A QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) VOICE CABLE (1V) TO OUTLET LOCATION.
FLOOR		DATA OUTLET FLOOR. REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION.
		"AV" INDICATES CABLEING SCOPE TYPE A QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) DATA CABLE (1D) TO OUTLET LOCATION.
FLOOR		COMBINATION PHONE & DATA OUTLET FLOOR. REFER TO FLOOR PLANS FOR ADDITIONAL INFORMATION.
		"BV" INDICATES CABLEING SCOPE TYPE B QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) DATA (1D) AND (1) VOICE (1V) CABLES TO OUTLET LOCATION.
1'-4" UCN		WALL MOUNTED COMBINATION RECEPTACLE AND TV OUTLET WITH VOLTAGE BARRIER. PROVIDE WITH (1) 120V DUPLEX RECEPTACLE, (1) TYPE F COAX CONNECTOR WITH RG6 COAX CABLE AND (1) CATV CABLE WITH RJ45 JACK TO NEAREST 8' OR SMC. USE RG6 COAX CABLE FOR RUNS GREATER THAN 200 FT. TYPICAL FOR DIGITAL SIGNAL DISPLAY MONITOR ALSO.
		"W" = EXTEND RG6 COAX CATV CABLE TO DWELLING UNIT COMMON ENCLOSURE AND TERMINATE.
		"WAP" = REFERS TO DIFFERENT ABOVE FLOOR MOUNTING HEIGHT. CONTRACTOR SHALL VERIFY EXACT MOUNTING LOCATION WITH ARCHITECT TO AVOID CONFLICT WITH WALL TV MOUNTS AND/OR CASEWORK.
CEILING		LAN SYSTEM. WIRELESS ACCESS POINT (WAP). FIELD MOUNTABLE CATV RJ45 FLUSH SHALL BE UTILIZED FOR CONNECTION TO DEVICE. EXTEND ONE (1) CAT 6A HORIZONTAL CABLE TO NEAREST 8' LOCATION ON RESPECTIVE FLOOR. WAP DEVICE SHALL BE PROVIDED BY OWNER AND CONNECTED/INSTALLED BY CONTRACTOR.
CEILING		FIXED SECURITY CAMERA - INTERIOR MOUNT. INSTALL FLUSH MOUNT SINGLE GANG OUTLET BOX AND 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE. COORDINATE EXACT MOUNTING REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN. CAMERA DEVICE SHALL BE PROVIDED BY OWNER AND CONNECTED/INSTALLED BY OWNER.
		"AV" INDICATES CABLEING SCOPE TYPE A QTY. REFER TO LOW VOLTAGE NOTES BELOW FOR ADDITIONAL INFORMATION. IF NO # INDICATED, PROVIDE (1) DATA CABLE (1D) TO OUTLET LOCATION.
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GENERAL NOTES

CONSTRUCTION SET

STATE OF MISSOURI
JAMES H. JAMES
REGISTERED PROFESSIONAL ENGINEER
NUMBER E-25237
2/5/2024

PROJECT TITLE

John Knox Village
COURTYARDS - BUILDING E

SFCS
Architecture
Engineering
Planning
Interiors

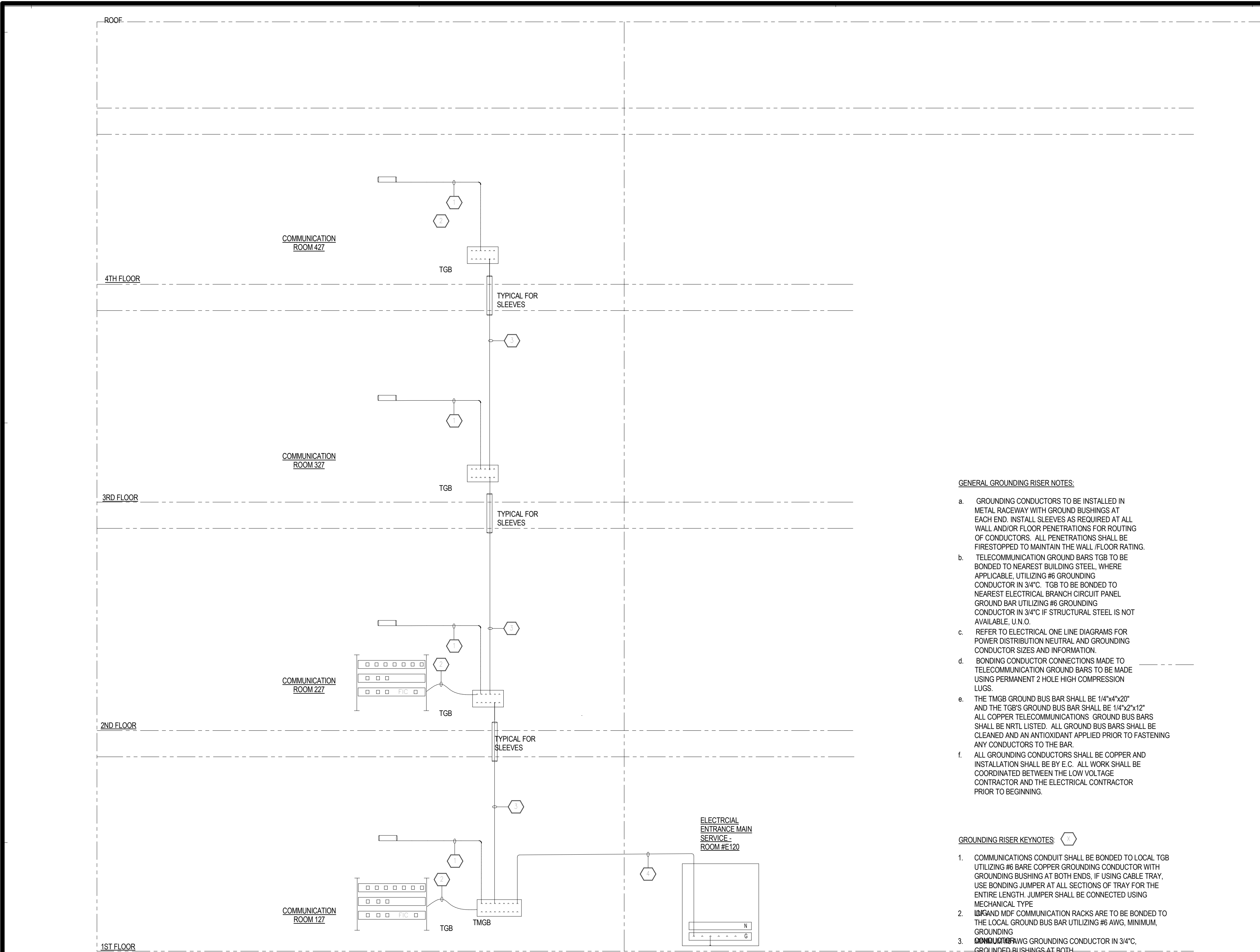
SFCS Inc. • 305 South Jefferson Street
Roanoke, Virginia 24011.2003
540.344.6664 • Fax 540.343.6925
www.sfcs.com

DESIGNER : DAS	DRAWN : DAH, DKW
ARCHITECT : DAS	CHECKED : DAH
ENGINEER : DAH	APPROVED : JSK
NO.	REVISION DESCRIPTION
DATE	

DRAWING TITLE

LOW VOLTAGE DETAILS

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	LV0.2



GENERAL GROUNDING RISER NOTES:

- GROUNDING CONDUCTORS TO BE INSTALLED IN METAL RACEWAY WITH GROUND BUSHINGS AT EACH END. INSTALL SLEEVES AS REQUIRED AT ALL WALL AND/OR FLOOR PENETRATIONS FOR ROUTING OF CONDUCTORS. ALL PENETRATIONS SHALL BE FIRESTOPPED TO MAINTAIN THE WALL/FLOOR RATING.
- TELECOMMUNICATION GROUND BARS TGB TO BE BONDED TO NEAREST BUILDING STEEL, WHERE APPLICABLE, UTILIZING #6 GROUNDING CONDUCTOR IN 3/4" TGB TO BE BONDED TO NEAREST ELECTRICAL BRANCH CIRCUIT PANEL GROUND BAR UTILIZING #6 GROUNDING CONDUCTOR IN 3/4" IF STRUCTURAL STEEL IS NOT AVAILABLE, U.N.O.
- REFER TO ELECTRICAL ONE LINE DIAGRAMS FOR POWER DISTRIBUTION NEUTRAL AND GROUNDING CONDUCTOR SIZES AND INFORMATION.
- BONDING CONDUCTOR CONNECTIONS MADE TO TELECOMMUNICATION GROUND BARS TO BE MADE USING PERMANENT 2 HOLE HIGH COMPRESSION LUGS.
- THE TMGB GROUND BUS BAR SHALL BE 1/4"x4"x20" AND THE TGB'S GROUND BUS BAR SHALL BE 1/4"x2"x12" ALL COPPER TELECOMMUNICATIONS GROUND BUS BARS SHALL BE NRTL LISTED. ALL GROUND BUS BARS SHALL BE CLEANED AND AN ANTI-OXIDANT APPLIED PRIOR TO FASTENING ANY CONDUCTORS TO THE BAR.
- ALL GROUNDING CONDUCTORS SHALL BE COPPER AND INSTALLATION SHALL BE BY E.C. ALL WORK SHALL BE COORDINATED BETWEEN THE LOW VOLTAGE CONTRACTOR AND THE ELECTRICAL CONTRACTOR PRIOR TO BEGINNING.

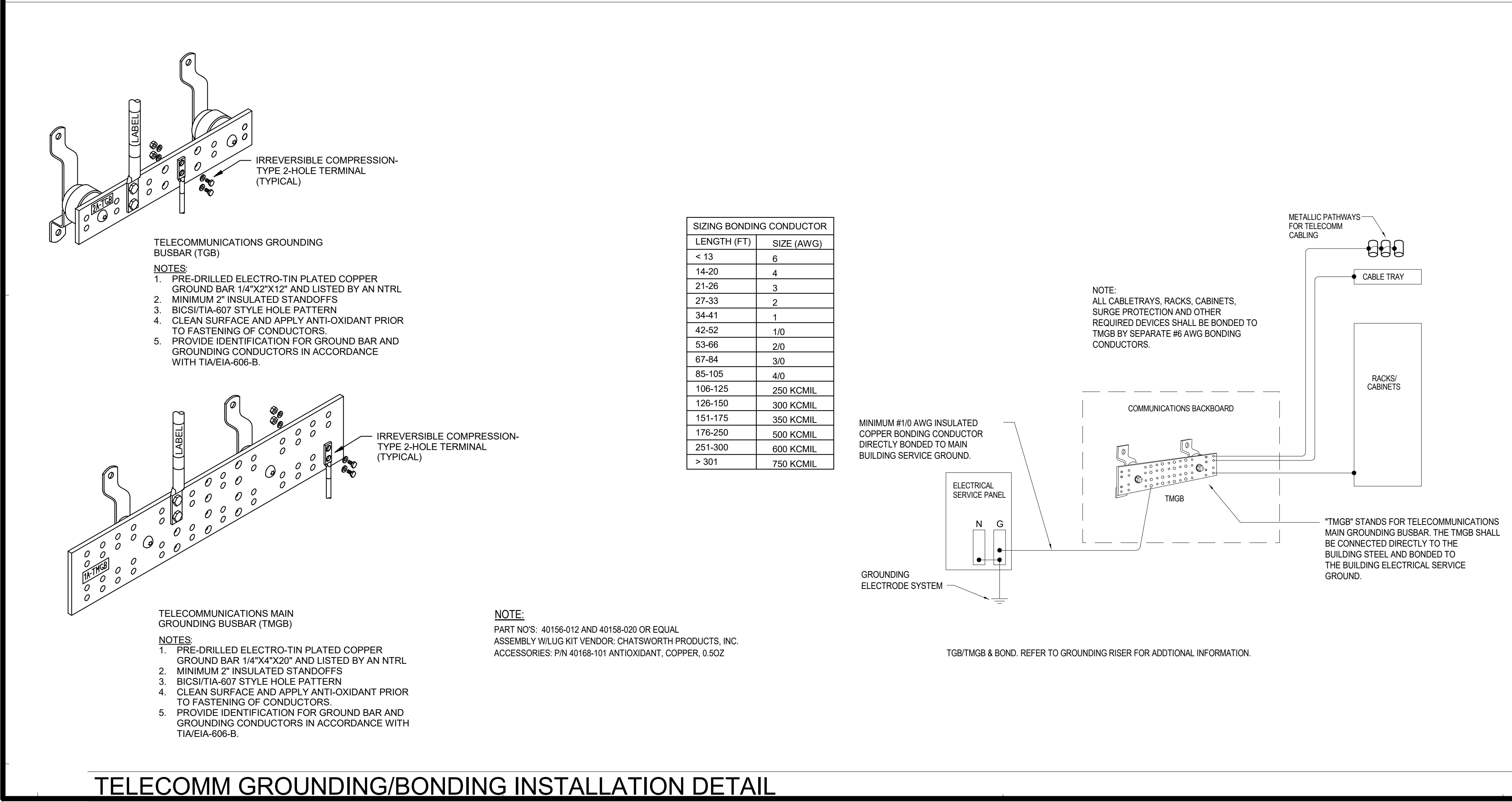
GROUNDING RISER KEYNOTES:

- COMMUNICATIONS CONDUIT SHALL BE BONDED TO LOCAL TGB UTILIZING #6 BARE COPPER GROUNDING CONDUCTOR WITH GROUNDING BUSHING AT BOTH ENDS. IF USING CABLE TRAY, USE BONDING JUMPER AT ALL SECTIONS OF TRAY FOR THE ENTIRE LENGTH. JUMPER SHALL BE CONNECTED USING MECHANICAL TYPE.
- GROUND MDF COMMUNICATION RACKS ARE TO BE BONDED TO THE LOCAL GROUND BUS BAR UTILIZING #6 AWG, MINIMUM, GROUNDING.
- CONDUITS/PIPE GROUNDING CONDUCTOR IN 3/4", GROUND BUSHINGS AT BOTH.
- MINIMUM #10 AWG GROUNDING CONDUCTOR IN 1" CONNECTED TO GROUND BUS BAR IN MAIN ELECTRICAL SERVICE.

TYPICAL TELECOMMUNICATIONS GROUNDING RISER DIAGRAM

NO SCALE

4



TELECOMM GROUNDING/BONDING INSTALLATION DETAIL

NO SCALE

3

ACCESS CONTROL DOORS GENERAL NOTES:

A. PRIOR TO BEGINNING ANY WORK A MEETING SHALL BE HELD WITH THE GENERAL CONTRACTOR, THE ELECTRICAL CONTRACTOR, THE DOOR HARDWARE SUPPLIER AND THE LOW VOLTAGE SECURITY CONTRACTOR TO CONFIRM ALL WORK HAS BEEN PROPERLY COORDINATED.

B. REFER TO DOOR HARDWARE SPECIFICATION 087100 FOR INFORMATION PERTAINING TO HARDWARE THAT WILL BE PROVIDED BY DOOR HARDWARE SUPPLIER.

C. PROVIDE INTERFACE BETWEEN ACCESS CONTROL SYSTEM AND BUILDING FIRE ALARM SUCH THAT DOOR LOCKING DEVICES RELEASE UPON ACTIVATION OF FIRE ALARM CONDITION.

D. ALL ELECTRIC HARDWARE REQUIRED FOR CONTROL OF DOORS SHALL BE PROVIDED AND INSTALLED BY THE HARDWARE SUPPLIER.

E. ALL LOW VOLTAGE SIGNAL, POWER AND MONITOR WIRING INSTALLED AT EACH DOOR BETWEEN FIELD DEVICES AND DOOR CONTROL PANEL AT EACH DOOR SHALL BE INSTALLED IN EMT, MINIMUM SIZE 3/4", UNLESS OTHERWISE NOTED. ALL WIRING AND WIRING TERMINATIONS SHALL BE BY THE LOW VOLTAGE ACCESS CONTROL SECURITY CONTRACTOR.

F. ALL OUTLET BOXES, CONDUITS PROVIDED WITH PULL STRING, AND BACKBOXES REQUIRED FOR INSTALLATION OF THE ACCESS CONTROL SYSTEMS SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

G. ALL ELECTRICALLY CONTROLLED HARDWARE WILL BE SUPPLIED TO OPERATE AT 24VDC. DOOR HARDWARE SUPPLIER SHALL SUPPLY THE POWER SUPPLIES AND THE DOOR CONTROLLER AS INDICATED IN THE SPECIFICATIONS FOR THE REQUIRED 24VDC. ELECTRICAL CONTRACTOR SHALL EXTEND 120VAC BRANCH CIRCUIT TO ALL DOOR CONTROLLERS AND POWER SUPPLIES AS SHOWN.

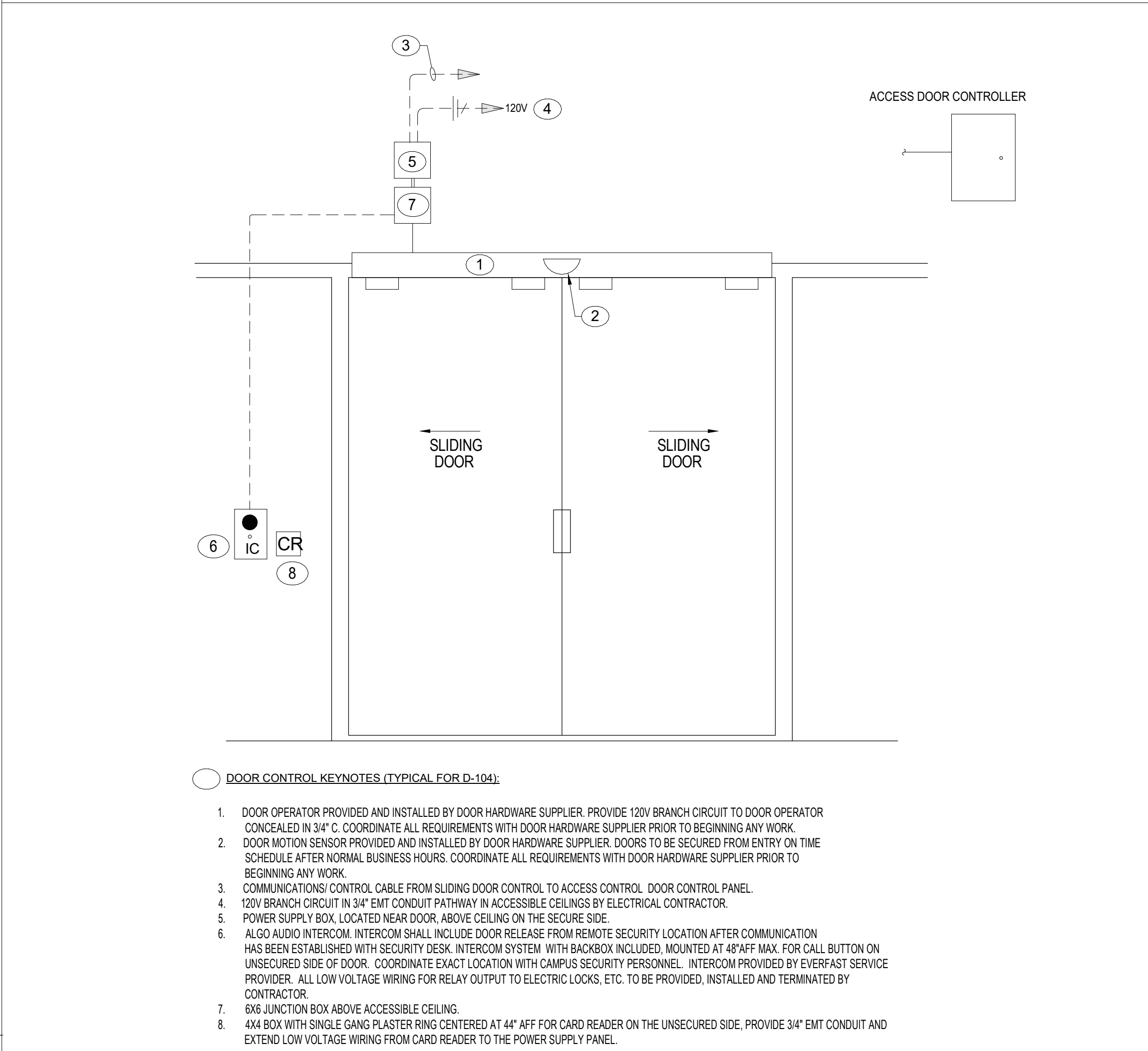
ACCESS CONTROL DOOR FUNCTION DESCRIPTIONS:

DOOR GROUP A

- EXTERIOR DOOR SECURED FROM ENTRY BY MAGNETIC DOOR LOCK. DOOR IS NORMALLY CLOSED. LOCKED.
- PRESENTATION OF CARD AT READER RELEASES MAGNETIC LOCK PERMITTING INGRESS BY DOOR PULL.
- PUSH TO EXIT BUTTON ON INTERIOR, RELEASES MAGNETIC LOCK PERMITTING EGRESS.
- DOOR POSITION SWITCH FOR DOOR MONITORING.
- IN THE EVENT OF LOST POWER THE DOOR UNLOCKS AND PERMITS EGRESS. AFTER INTERCOM COMMUNICATION WITH SECURITY GUARD WHO SHALL PERMIT ENTRANCE BY REMOTE RELEASE.

DOOR GROUP B

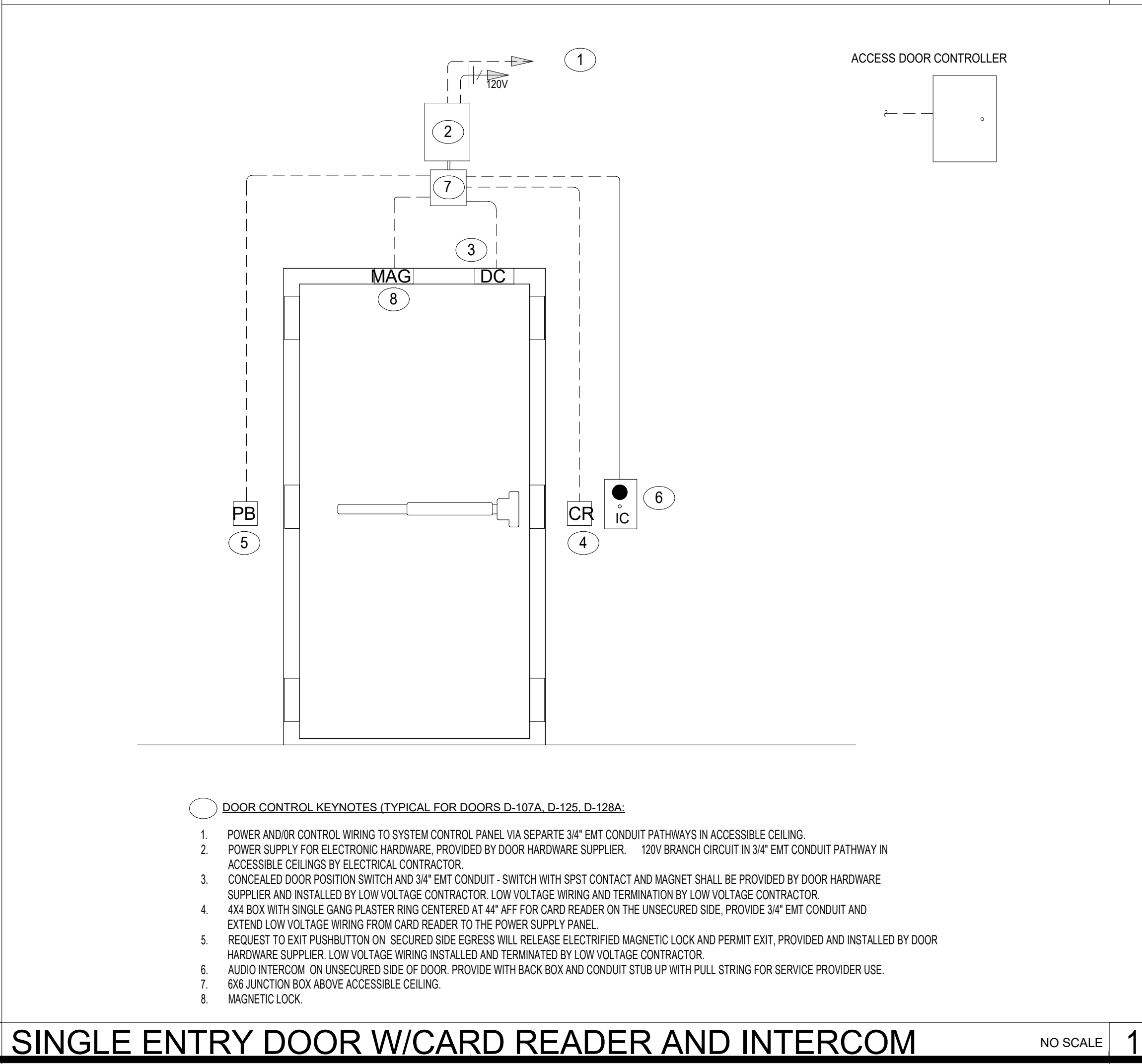
- DOUBLE SLIDING EXTERIOR ENTRANCE/EXIT DOOR SECURED FROM ENTRY ON TIME SCHEDULE FOR AFTER NORMAL BUSINESS HOURS.
- IN UNSECURE MODE, DURING NORMAL BUSINESS HOURS THE DOOR AUTOMATICALLY OPENS BY ACTIVATION OF SENSORS SUPPLIED WITH DOOR HARDWARE.
- IN SECURE MODE, DOOR REMAINS CLOSED UNTIL CREDENTIALS HAVE BEEN PRESENTED ALONG WITH SENSOR ACTIVATION OR AFTER INTERCOM COMMUNICATION WITH SECURITY GUARD WHO SHALL PERMIT ENTRANCE BY REMOTE RELEASE.



DOUBLE AUTO SLIDING DOORS-WITH AUTO OPERATOR

NO SCALE

2



SINGLE ENTRY DOOR W/CARD READER AND INTERCOM

NO SCALE

1

GENERAL NOTES

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

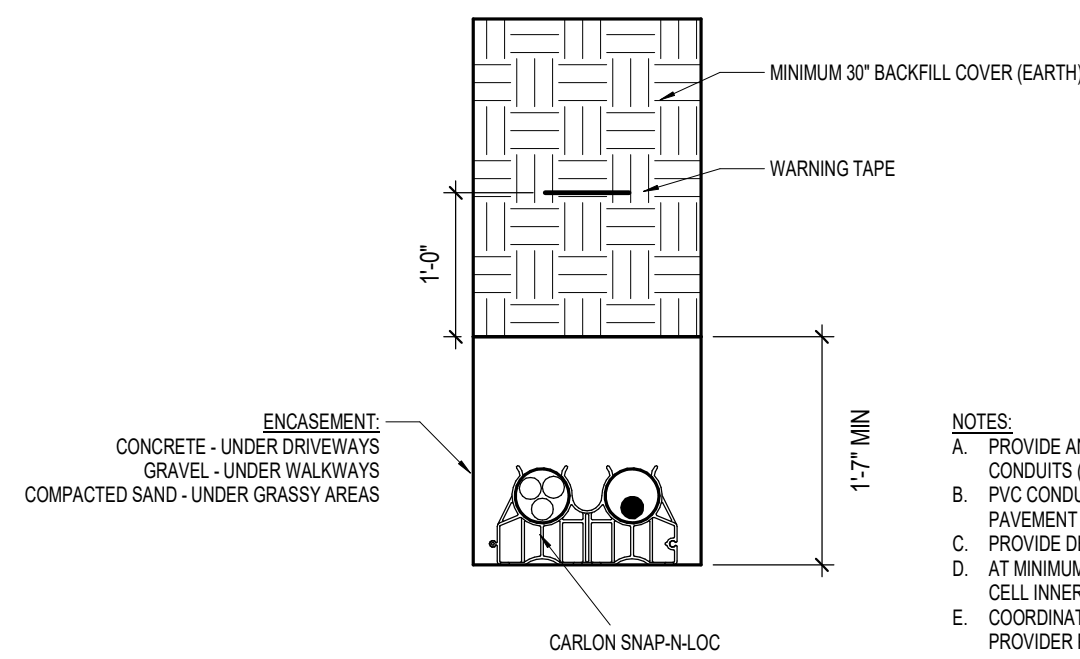
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DESIGNER : DAS	DRAWN : DAH, DKW
ARCHITECT : DAS	CHECKED : DAH
ENGINEER : DAH	APPROVED : JSK
NO.	REVISION DESCRIPTION DATE

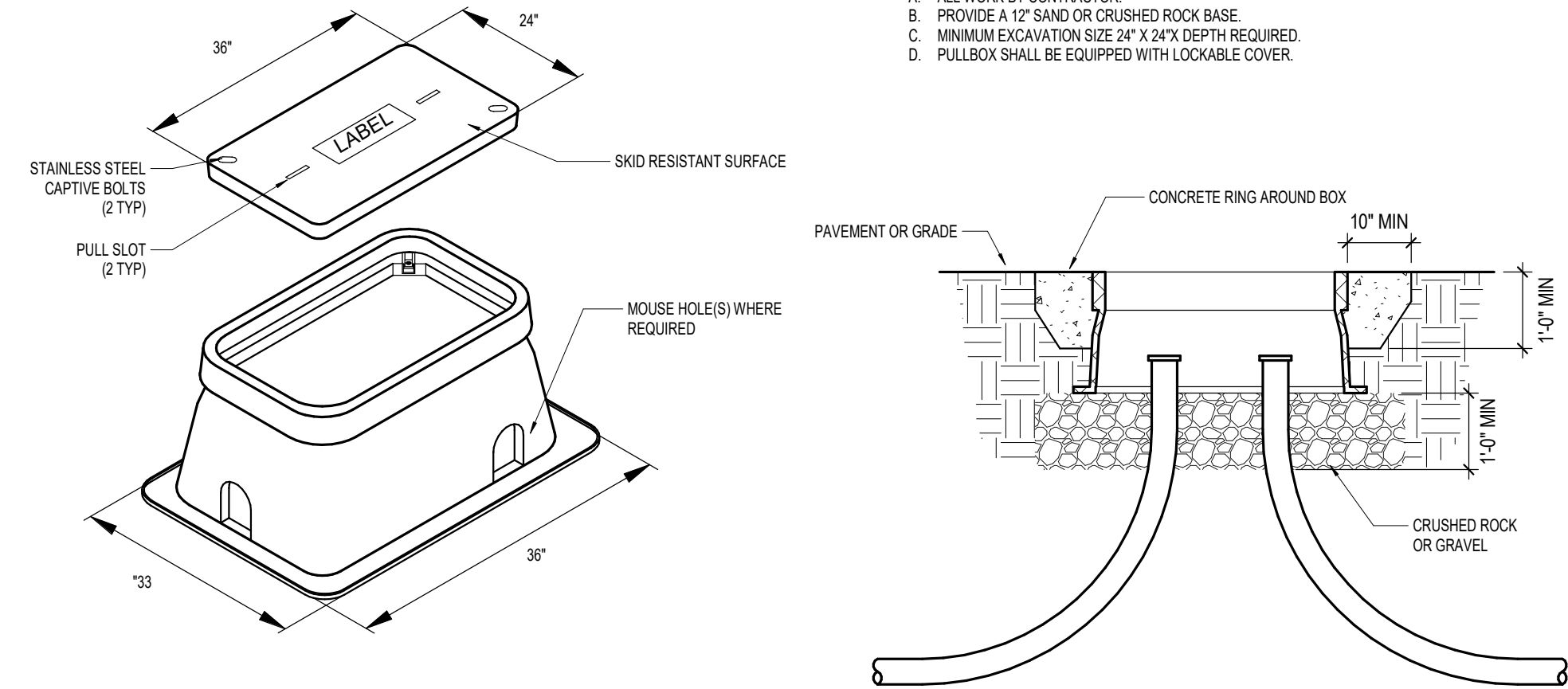
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DOOR ELEVATION AND DETAILS

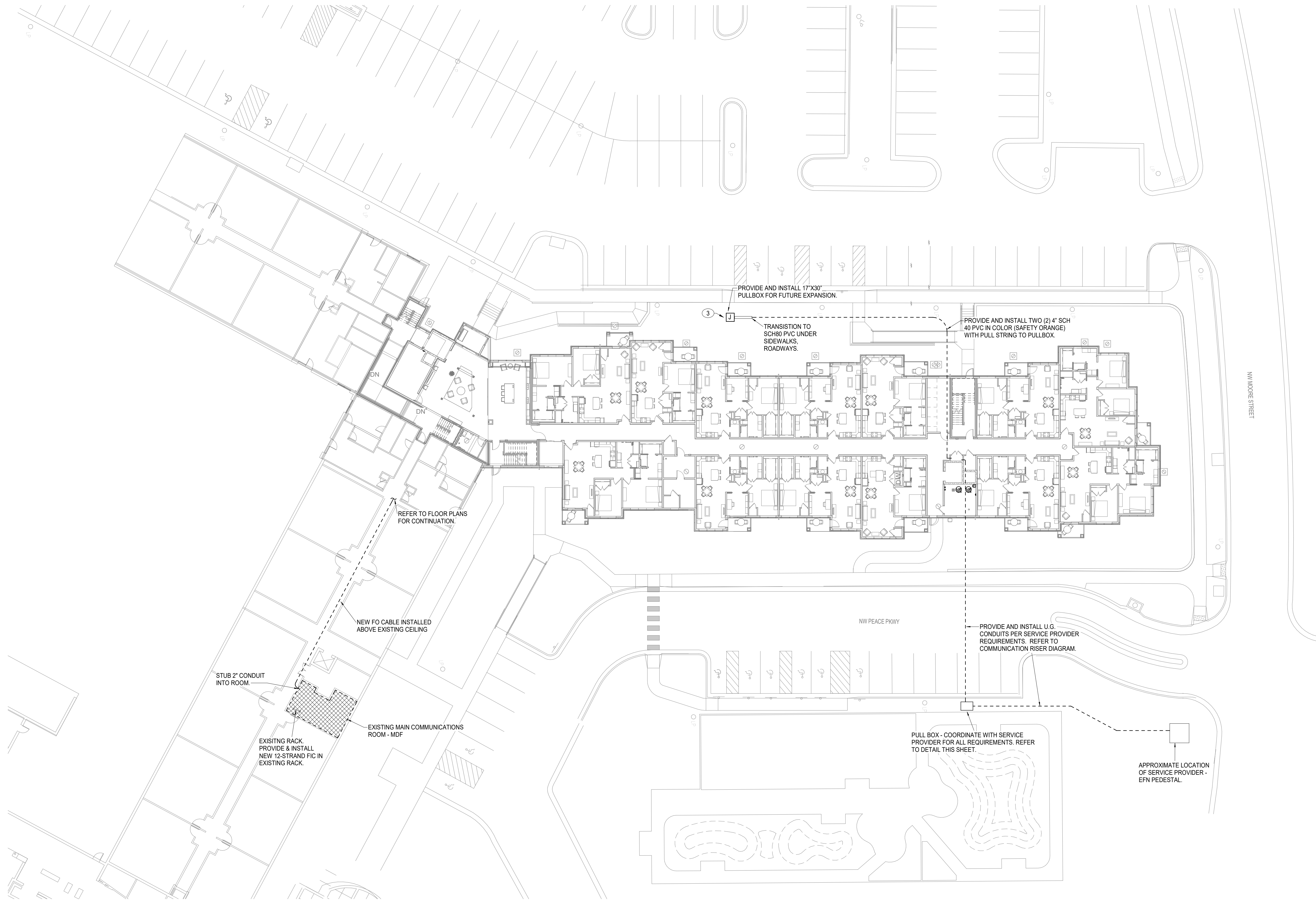
DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	LV0.3



3 DUCT BANK DETAIL
3/4" = 1'-0"



2 TYPICAL COMMUNICATIONS PULL BOX DETAIL
1/2" = 1'-0"



1 LOW VOLTAGE SITE PLAN
1" = 20'-0"

- NOTES:
1. PRECAST POLYMER CONCRETE LID AND ENCLOSURE (HUBBELL #PG-2436-B-A-36 OR EQUAL)
 2. BOX TO INCLUDE KNOCKOUTS (MOUSEHOLE) OPENINGS FOR CONDUIT ENTRY
 3. REFER TO PLAN BELOW FOR PROPER NUMBER OF CONDUITS
 4. INSTALL WITH BASE BELOW THE FROST LINE
- GENERAL NOTES:
- A. ALL WORK BY CONTRACTOR
 - B. PROVIDE A 12" SAND OR CRUSHED ROCK BASE
 - C. MINIMUM EXCAVATION SIZE 24" X 24" DEPTH REQUIRED
 - D. PULLBOX SHALL BE EQUIPPED WITH LOCKABLE COVER

GENERAL NOTES

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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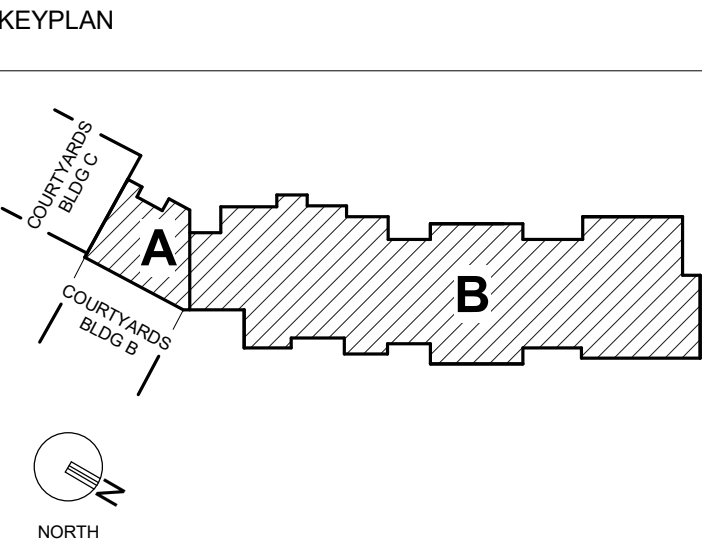
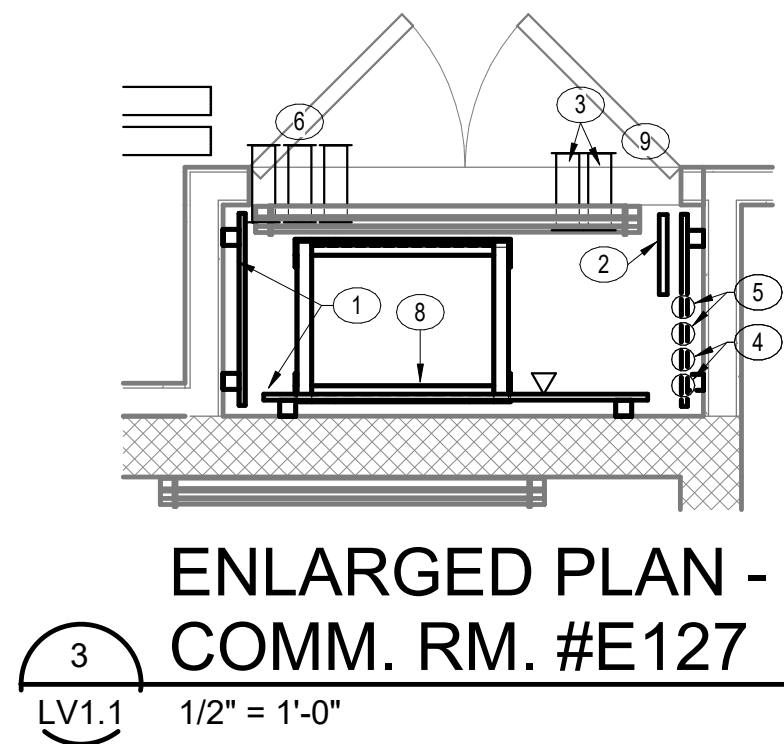
DESIGNER : DAS	DRAWN : MAW, DKW	
ARCHITECT : DAS	CHECKED : MAW	
ENGINEER : MAW	APPROVED : JSK	
NO.	REVISION DESCRIPTION	DATE

DRAWING TITLE

LOW VOLTAGE SITE PLAN

DATE: January 5, 2024
COMM. NO. 23104.00

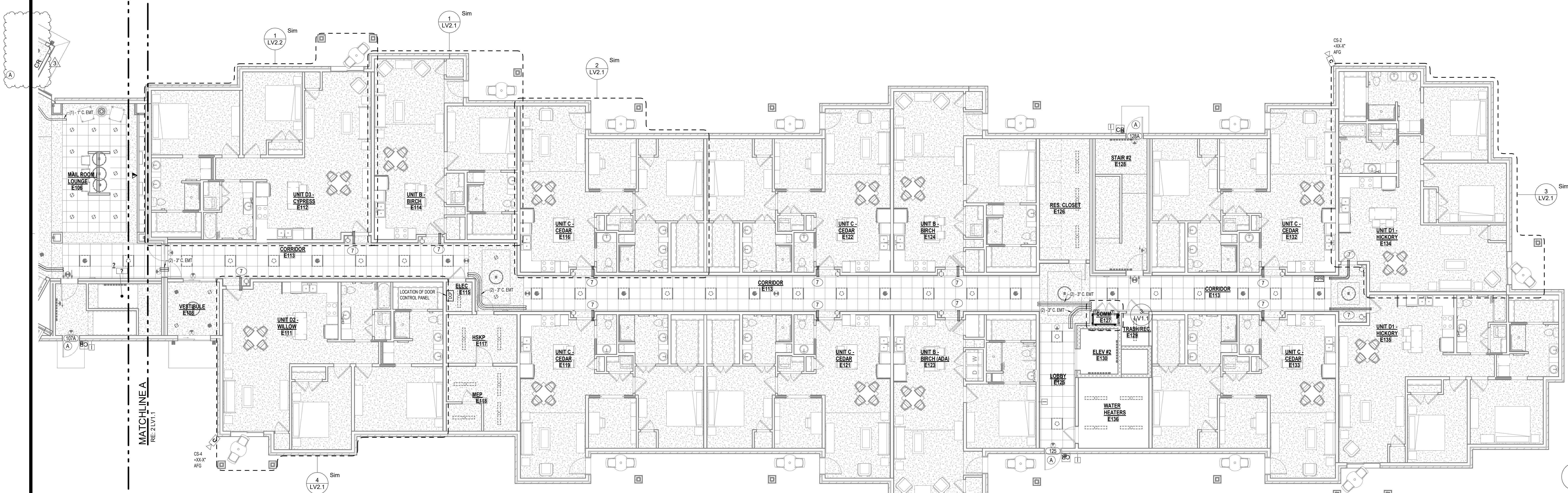
DRAWING
LV0.5



- GENERAL NOTES
- DOORS INDICATED WITH A DOOR TAG OR "A" ARE ACCESS CONTROLLED DOORS. PROVIDE 120VAC CONNECTION WHERE REQUIRED. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS. ROUGHING AND ADDITIONAL INFORMATION, COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
 - CONDUIT TO BE PROVIDED ABOVE GNB OR OTHER INACCESSIBLE AREAS WITH PULL STRING FOR LOW VOLTAGE CONTRACTORS USE FOR CABLE ROUTING ABOVE CEILING.
 - ON RESIDENT FLOORS PROVIDE SUPPORTED J-HOOKS FOR CABLE ROUTING OF CABLE IN CORRIDOR CEILING SPACE.
 - PROVIDE AND INSTALL SLEEVES AT ALL LOCATIONS WHERE CABLE MUST PASS THROUGH WALLS AND PARTITIONS. DO NOT ROUTE CABLE THROUGH WALLS WITHOUT SLEEVES.
 - COORDINATE ALL CONDUITS AND SLEEVES FOR LOW VOLTAGE WITH OTHER DISCIPLINES PRIOR TO INSTALLATION.

- PLAN NOTES
- COMMUNICATIONS BACKBOARD - PROVIDE AND INSTALL 8'-0" H X 3'-4" FIRE RATED PLYWOOD SECURED ALONG ENTIRE LENGTH OF TWO WALLS. AS INDICATED. INSTALL BOTTOM OF BOARD AT 8" AFF. TERMINAL BOARD FOR USE BY IN HOUSE FACILITIES AND TELECOMM SERVICE PROVIDERS FOR DISTRIBUTION OF THEIR RESPECTIVE HARDWARE AND CABLE DISTRIBUTION.
 - TGB GROUND BAR AT 24" AFF.
 - TWO (2) 2" C. ROUTED THROUGH CEILING SPACE FOR OWNER BACKBONE CABLING AND SPARE.
 - TWO (2) 3" C. SLEEVES ROUTED THROUGH FLOOR/CEILING SPACE FOR SERVICE PROVIDER USE FOR CABLE ROUTING.
 - TWO (2) 3" C. STUBBED UP 6" THROUGH FLOOR SLAB FOR SERVICE PROVIDER CABLES.
 - PROVIDE THREE (3) 3" SLEEVES THROUGH WALL ABOVE CORRIDOR ACCESSIBLE CEILING.
 - EXTEND TWO (2) 1-1/4" INNERDUCT, WITH PULL STRING, FROM CORRIDOR ACCESSIBLE CEILING SPACE TO THE RESIDENT UNIT MEDIA CENTER TYPICAL FOR ALL RESIDENT UNITS.
 - PROVIDE WALL RACK FOR OWNER IT NETWORK EQUIPMENT.
 - TELECOM ROOM DESIGNATED FOR OWNERS NETWORK HARDWARE EQUIPMENT. CONTRACTOR TO PROVIDE WALL RACK FOR OWNERS USE. CONTRACTOR TO PROVIDE FIBER CABLE FROM EXISTING MDF TO THIS ROOM. TERMINATION OF FIBER BY OTHERS.

2 FIRST FLOOR ATRIUM - LOW VOLTAGE
LV1.1 1/8" = 1'-0"



1 FIRST FLOOR IL UNITS- LOW VOLTAGE
LV1.1 1/8" = 1'-0"

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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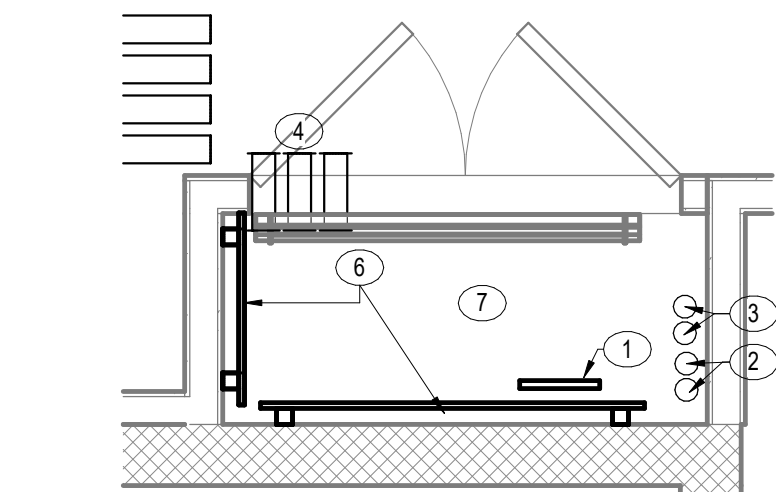
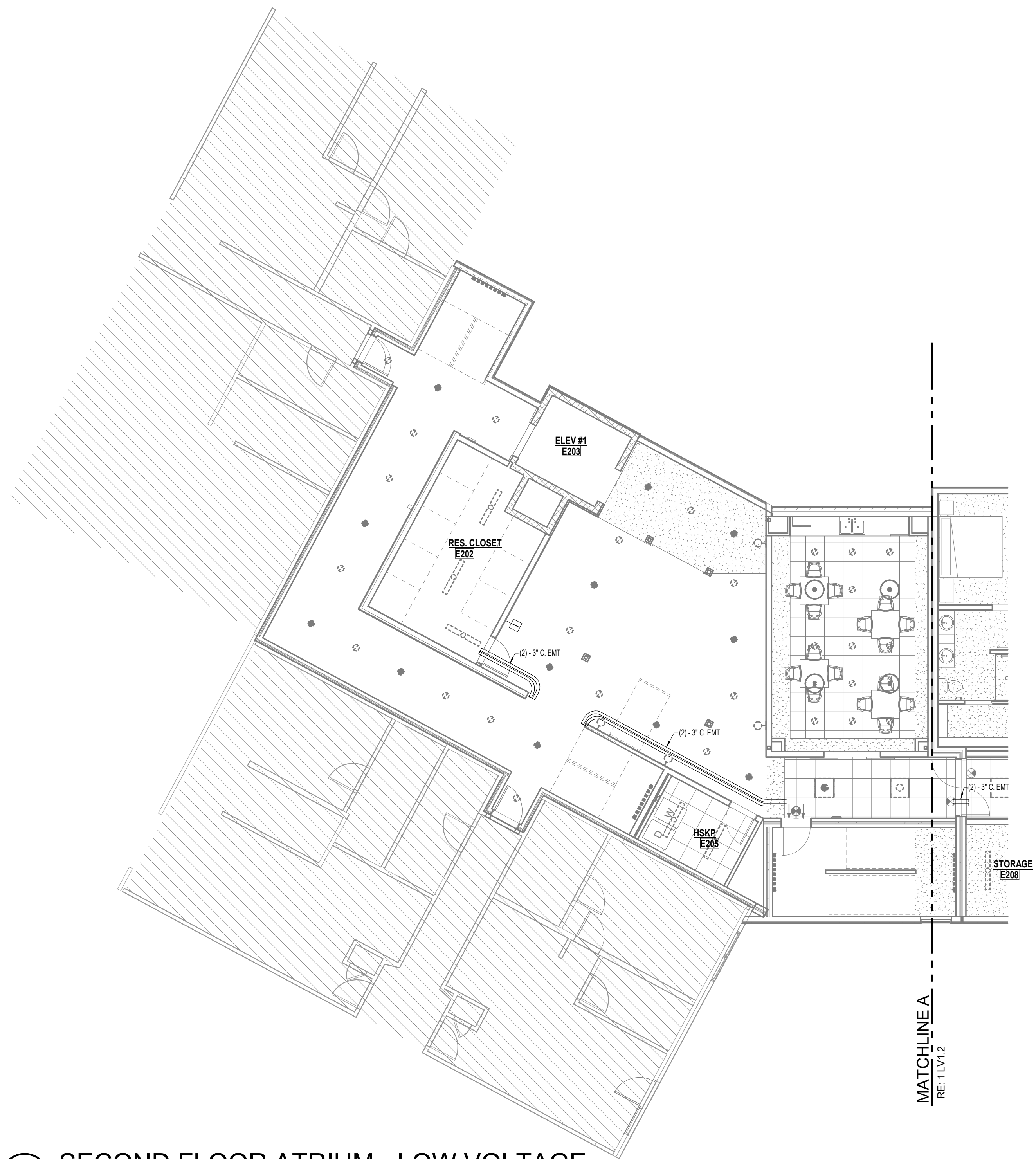
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ENGINEER :	DAH	APPROVED :	JSK
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3	Addendum #1	03/07/24	

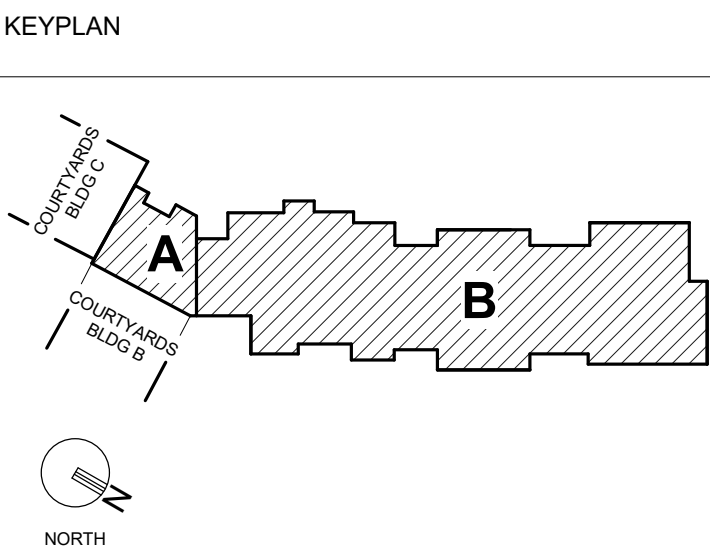
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FIRST FLOOR PLAN - LOW VOLTAGE

DATE:	January 5, 2024	DRAWING	
COMM. NO.	23104.00	LV1.1	



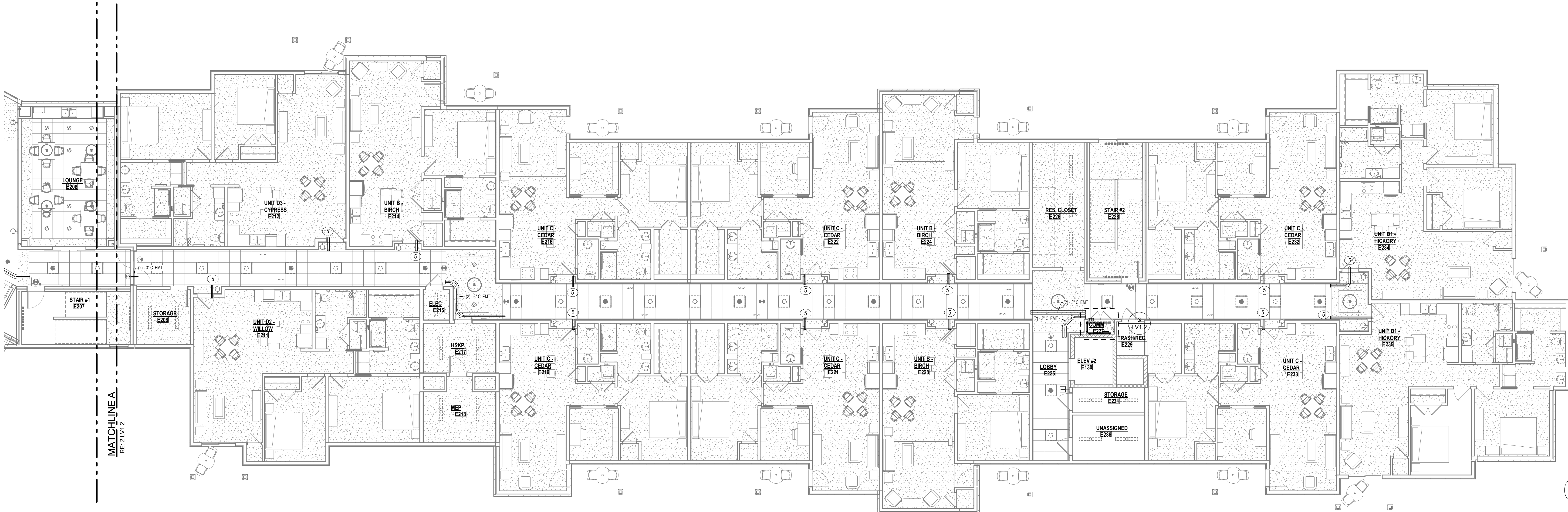
ENLARGED PLAN -
COMM. RM. #E227
3
LV1.2 1/2" = 1'-0"



- GENERAL NOTES
- DOORS INDICATED WITH A DOOR TAG OR "A" ARE ACCESS CONTROLLED DOORS. PROVIDE 120VAC CONNECTION WHERE REQUIRED. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS, ROUGHING, AND ADDITIONAL INFORMATION. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
 - CONDUIT TO BE PROVIDED ABOVE GNB OR OTHER INACCESSIBLE AREAS WITH PULL STRING FOR LOW VOLTAGE CONTRACTORS USE FOR CABLE ROUTING ABOVE CEILING.
 - ON RESIDENT FLOORS PROVIDE SUPPORTED J-HOOKS FOR CABLE ROUTING OF CABLE IN CORRIDOR CEILING SPACE.
 - PROVIDE AND INSTALL SLEEVES AT ALL LOCATIONS WHERE CABLE MUST PASS THROUGH WALLS AND PARTITIONS. DO NOT ROUTE CABLE THROUGH WALLS WITHOUT SLEEVES.
 - COORDINATE ALL CONDUITS AND SLEEVES FOR LOW VOLTAGE WITH OTHER DISCIPLINES PRIOR TO INSTALLATION.

- PLAN NOTES
- TGB GROUND BAR AT 24" AFF.
 - TWO (2) 3" C. SLEEVES STUBBED UP 6" A.F.F. THROUGH CEILING/FLOOR SLAB TO LEVEL ABOVE/BELOW FOR FACILITY NETWORK CABLING OR SERVICE PROVIDER CABLING. PROVIDE APPROPRIATE SEALANT TO MAINTAIN RATING OF FLOOR.
 - TWO (2) 3" C. SLEEVES STUBBED UP 6" A.F.F. THROUGH CEILING/FLOOR SLAB TO LEVEL ABOVE/BELOW FOR SERVICE PROVIDER. PROVIDE APPROPRIATE SEALANT TO MAINTAIN RATING OF FLOOR.
 - PROVIDE THREE (3) 3" SLEEVES THROUGH WALL ABOVE CORRIDOR ACCESSIBLE CEILING.
 - EXTEND TWO (2) 1-1/4" INNERDUCT, WITH PULL STRING, FROM CORRIDOR ACCESSIBLE CEILING SPACE TO THE RESIDENT UNIT MEDIA CENTER TYPICAL FOR ALL RESIDENT UNITS.
 - COMMUNICATIONS BACKBOARD - PROVIDE AND INSTALL 8-0" H X 3-4" FIRE RATED PLYWOOD SECURED ALONG ENTIRE LENGTH OF TWO WALLS, AS INDICATED. INSTALL BOTTOM OF BOARD AT 8" AFF. TERMINAL BOARD FOR USE BY IN-HOUSE FACILITIES AND TELECOMM SERVICE PROVIDERS FOR DISTRIBUTION OF THEIR RESPECTIVE HARDWARE AND CABLE DISTRIBUTION.
 - TELECOM ROOM DESIGNATED FOR EVERAST DEMARC HEADEND EQUIPMENT AND ORIGINATION POINT FOR FIBER CABLES TO EACH RESIDENT SMC. CABLE TO BE PROVIDED AND INSTALLED BY EVERFAST SERVICE PROVIDER FROM HEADEND TO RESIDENT UNIT AND TERMINATED IN SMC.

2
LV1.2 1/8" = 1'-0"



1
LV1.2 1/8" = 1'-0"



PROJECT TITLE

John Knox Village
COURTYARDS - BUILDING E

SFCS Architecture
Engineering
Planning
Interiors

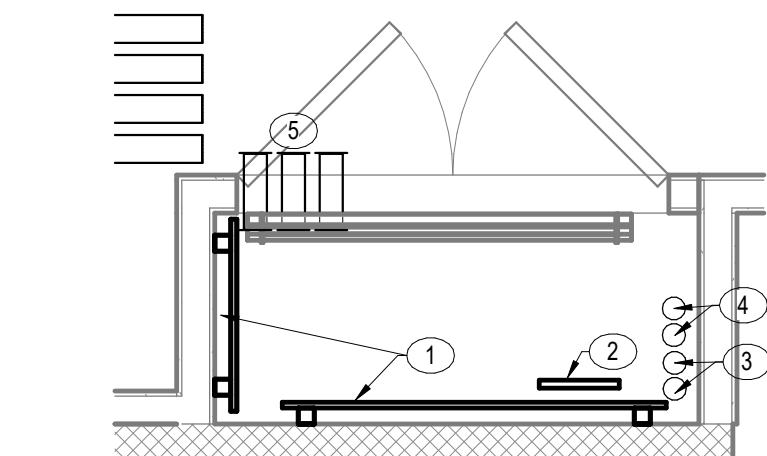
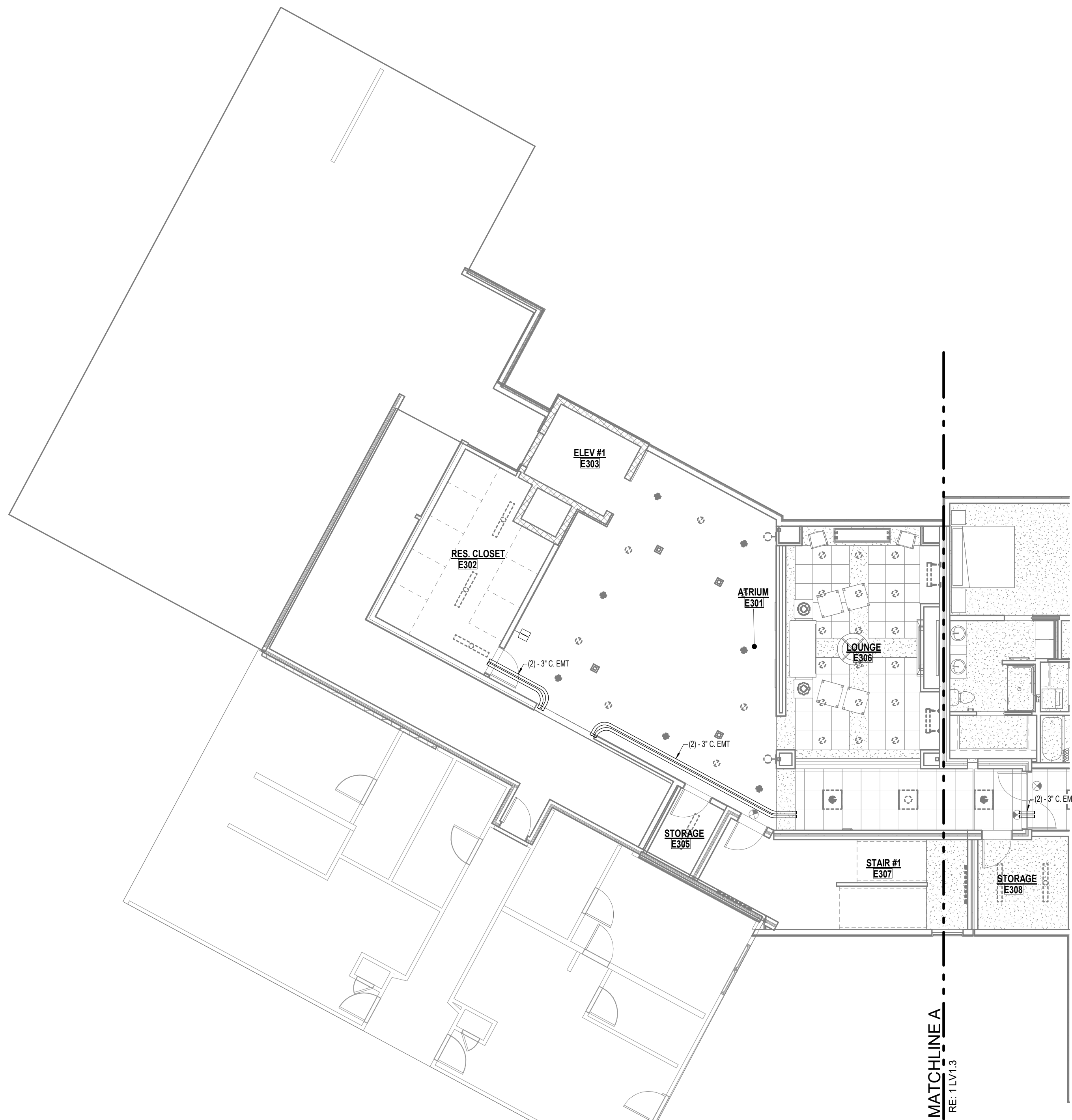
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ARCHITECT : DAS	CHECKED : DAH
ENGINEER : DAH	APPROVED : JSK
NO.	REVISION DESCRIPTION DATE

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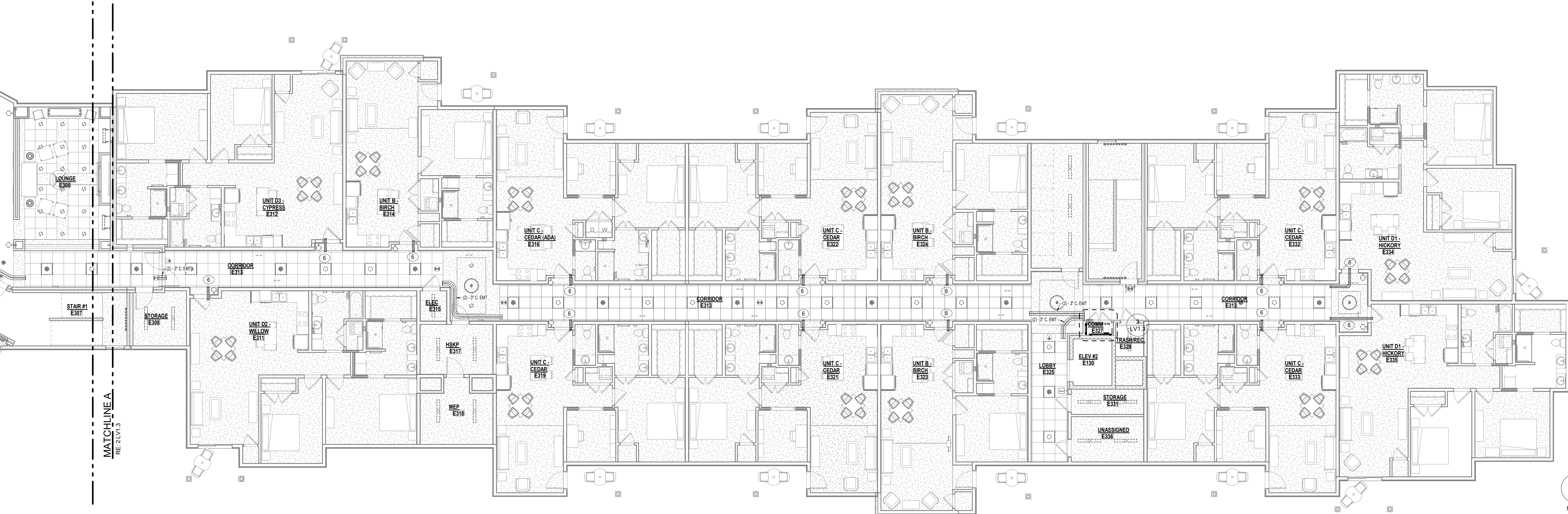
**SECOND FLOOR PLAN -
LOW VOLTAGE**

DATE: January 5, 2024
COMM. NO. 23104.00
DRAWING
LV1.2

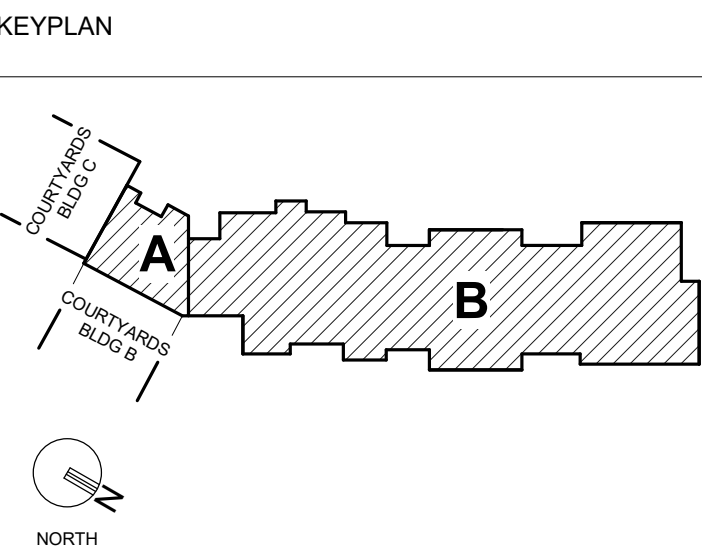


ENLARGED PLAN -
COMM. RM. #E327
LV1.3 1/2" = 1'-0"

THIRD FLOOR ATRIUM - LOW VOLTAGE
LV1.3 1/8" = 1'-0"



THIRD FLOOR IL UNITS - LOW VOLTAGE
LV1.3 1/8" = 1'-0"



- GENERAL NOTES
- DOORS INDICATED WITH A DOOR TAG OR "A" ARE ACCESS CONTROLLED DOORS. PROVIDE 120VAC CONNECTION WHERE REQUIRED. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS, ROUGHING, AND ADDITIONAL INFORMATION. COORDINATE WITH DOOR HARDWARE SUPPLIER AND ACCESS CONTROL VENDOR.
 - CONDUIT TO BE PROVIDED ABOVE GNB OR OTHER INACCESSIBLE AREAS WITH PULL STRING FOR LOW VOLTAGE CONTRACTORS USE FOR CABLE ROUTING ABOVE CEILING.
 - ON RESIDENT FLOORS PROVIDE SUPPORTED J-HOOKS FOR CABLE ROUTING OF CABLE IN CORRIDOR CEILING SPACE.
 - PROVIDE AND INSTALL SLEEVES AT ALL LOCATIONS WHERE CABLE MUST PASS THROUGH WALLS AND PARTITIONS. DO NOT ROUTE CABLE THROUGH WALLS WITHOUT SLEEVES.
 - COORDINATE ALL CONDUITS AND SLEEVES FOR LOW VOLTAGE WITH OTHER DISCIPLINES PRIOR TO INSTALLATION.

- PLAN NOTES
- COMMUNICATIONS BACKBOARD - PROVIDE AND INSTALL 8'-0" H X 3'-4" FIRE RATED PLYWOOD SECURED ALONG ENTIRE LENGTH OF TWO WALLS, AS INDICATED. INSTALL BOTTOM OF BOARD AT 8" AFF. TERMINAL BOARD FOR USE BY IN HOUSE FACILITIES AND TELECOM SERVICE PROVIDERS FOR DISTRIBUTION OF THEIR RESPECTIVE HARDWARE AND CABLE DISTRIBUTION.
 - TGB GROUND BAR AT 24" AFF.
 - TWO (2) 3" C. SLEEVES STUBBED UP 6" A.F.F. THROUGH CEILING FLOOR SLAB TO LEVEL ABOVE/BELOW FOR FACILITY NETWORK CABLING OR SERVICE PROVIDER CABLING. PROVIDE APPROPRIATE SEALANT TO MAINTAIN RATING OF FLOOR.
 - TWO (2) 3" C. SLEEVES STUBBED UP 6" A.F.F. THROUGH CEILING FLOOR SLAB TO LEVEL ABOVE/BELOW FOR SERVICE PROVIDER. PROVIDE APPROPRIATE SEALANT TO MAINTAIN RATING OF FLOOR.
 - PROVIDE THREE (3) 3" SLEEVES THROUGH WALL ABOVE CORRIDOR ACCESSIBLE CEILING.
 - EXTEND TWO (2) 1-1/4" INNERDUCT WITH PULL STRING FROM CORRIDOR ACCESSIBLE CEILING SPACE TO THE RESIDENT UNIT MEDIA CENTER TYPICAL FOR ALL RESIDENT UNITS.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

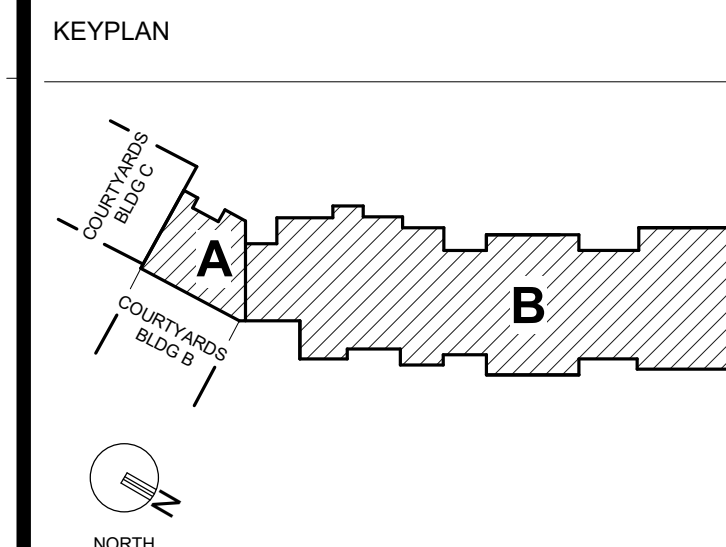
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DRAWING TITLE
THIRD FLOOR PLAN - LOW
VOLTAGE

DATE:	January 5, 2024	DRAWING
COMM. NO.	23104.00	LV1.3



3 COMI
LV1.4 1/2" = 1'-0"

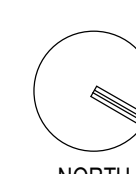
- ## GENERAL NOTES
- A. DOORS INDICATED WITH A DOOR TAG OR "A" ARE ACCESS CONTROLLED DOOR. PROVIDE 120VAC CONNECTION WHERE REQUIRED. REFER TO DOOR HARDWARE SPECIFICATIONS FOR ELECTRICAL CONNECTION REQUIREMENTS. ROUGHINS, AND/OR INFORMATION COORDINATE WITH DOOR HARDWARE SUPPLIER. AN ACCESS CONTROL VENDOR.
 - B. CONDUIT TO BE PROVIDED ABOVE GWB OR OTHER INACCESSIBLE AREAS WITH STRING FOR LOW VOLTAGE CONTRACTORS USE FOR CABLE ROUTING ABOVE CEILING.
 - C. ON RESIDENT FLOORS PROVIDE SUPPORTED J-HOOKS FOR CABLE ROUTING OR CABLE IN CORRIDOR CEILING SPACE.
 - D. PROVIDE AND INSTALL SLEEVES AT ALL LOCATIONS WHERE CABLE MUST PASS THROUGH WALLS AND PARTITIONS. DO NOT ROUTE CABLE THROUGH WALLS WITHOUT SLEEVES.
 - E. COORDINATE ALL CONDUITS AND SLEEVES FOR LOW VOLTAGE WITH OTHER TRADES PRIOR TO INSTALLATION.

PLAN NOTES

1. TGS GROUND BAR AT 24" AFF.
2. PROVIDE 3/4" SLOPES THROUGH WALL ABOVE CORRIDOR ACCESSIBLE CEILING.
3. EXTEND TWO (2) 1/4" INDUCTING, WITH PULL STRING, FOR CORRIDOR ACCESSIBLE CEILING SPACE TO THE RESIDENT UNIT MEDIA CENTER TYPICAL FOR ALL RESIDENT UNITS.
4. PROVIDE 3/4" SLOPE THROUGH WALL ABOVE CORRIDOR ACCESSIBLE CEILING SPACE TO LEVEL ABOVE/BELOW FOR SERVICE PROVIDER. PROVIDE APPROPRIATE SLAB TO MAINTAIN RATING OF FLOOR.
5. TWO (2) 3/4" SLOPE STUBBED UP 1/4" AFF THROUGH CORRIDOR ACCESSIBLE CEILING SPACE TO LEVEL ABOVE FOR FACILITY NETWORK CABLEING OR SERVICE PROVIDER CABLEING. PROVIDE APPROPRIATE SLAB TO MAINTAIN RATING OF FLOOR.
6. COMMUNICATIONS BACKBOARD - PROVIDE AND INSTALL 8'-0" TALL GRATED PLINTHWOOD SLOURED AGAINST ENTIRE LENGTH OF TWO WALLS, AS INDICATED. INSTANT BOTTOM OF BOARD 8'-0" AFF. TERMINAL BOARD FOR USE BY IN-HOUSE FACILITIES AND TELECOMM SERVICE PROVIDERS FOR DISTRIBUTION OF COMMUNICATIONS AND DATA CABLEING.



2 FOUR
LV1.4 1/8" = 1'-0"



1 FOUR
LV1.4 1/8" = 1'-0"



PROJECT TITLE _____



John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT : DAS	CHECKED : DAH
ENGINEER : DAH	APPROVED : JSK
NO.	REVISION DESCRIPTION

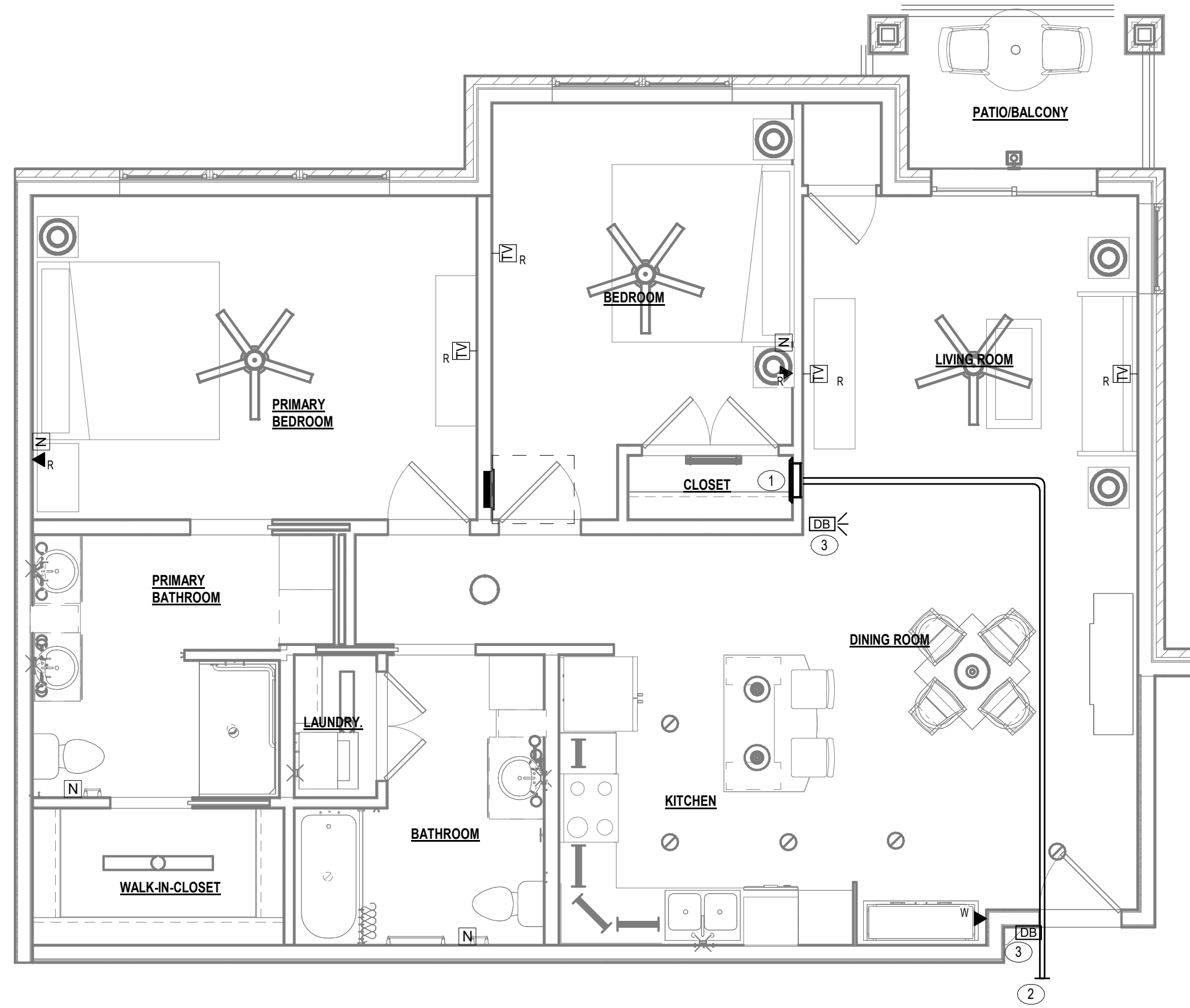
DRAWING TITLE
FOURTH FLOOR PLAN -
LOW VOLTAGE

DATE: January 5, 2024

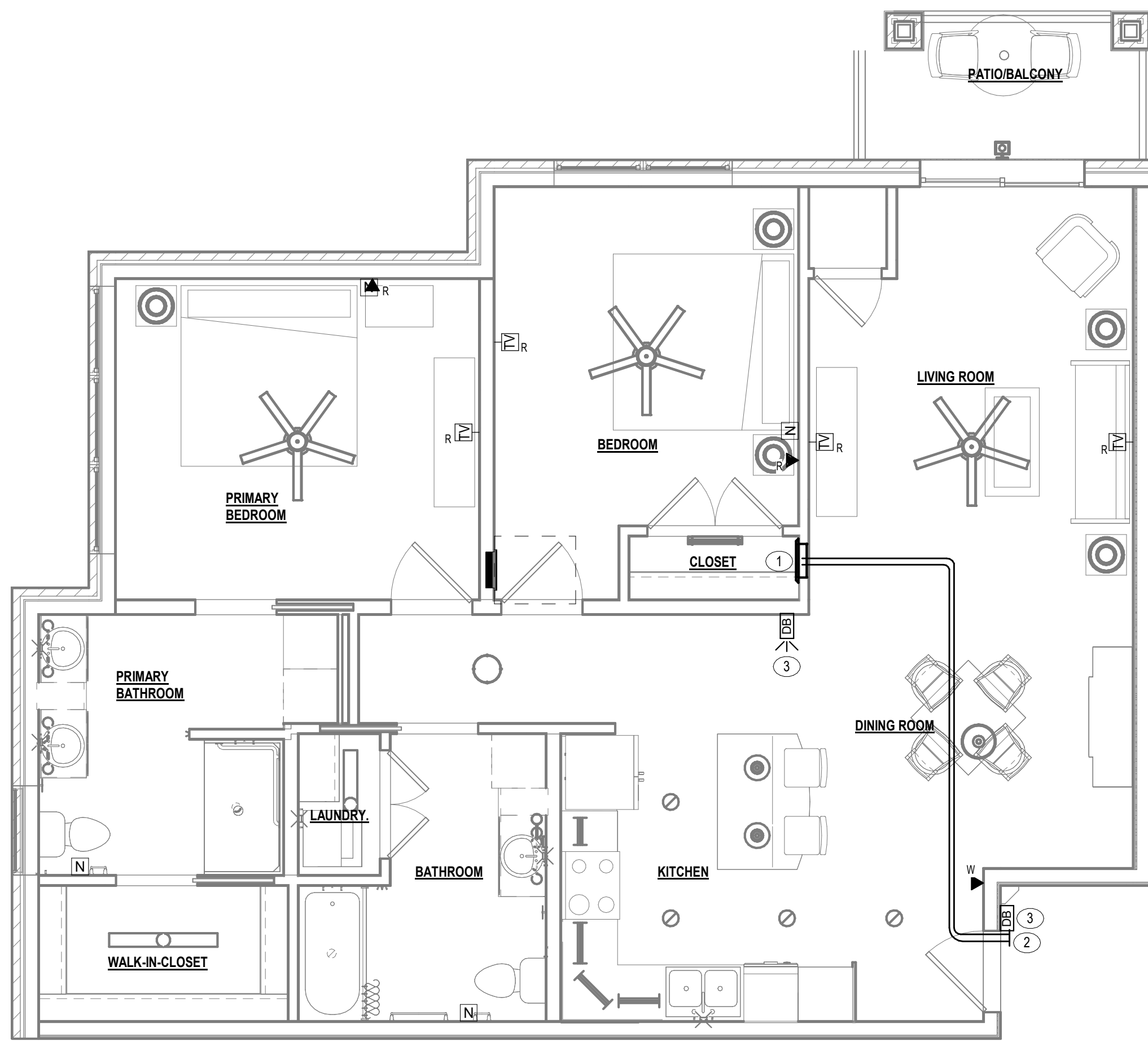
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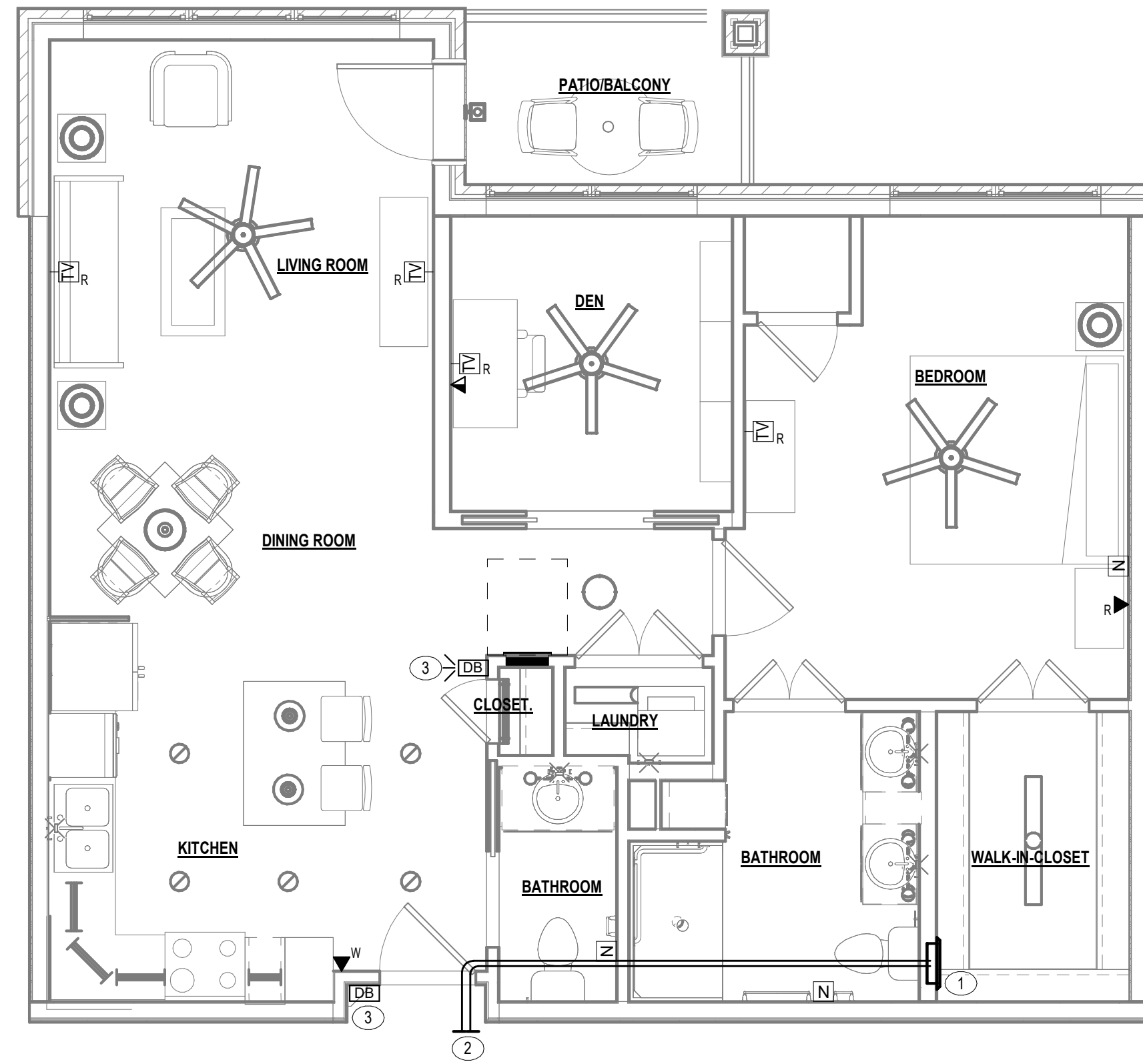
LV1.4



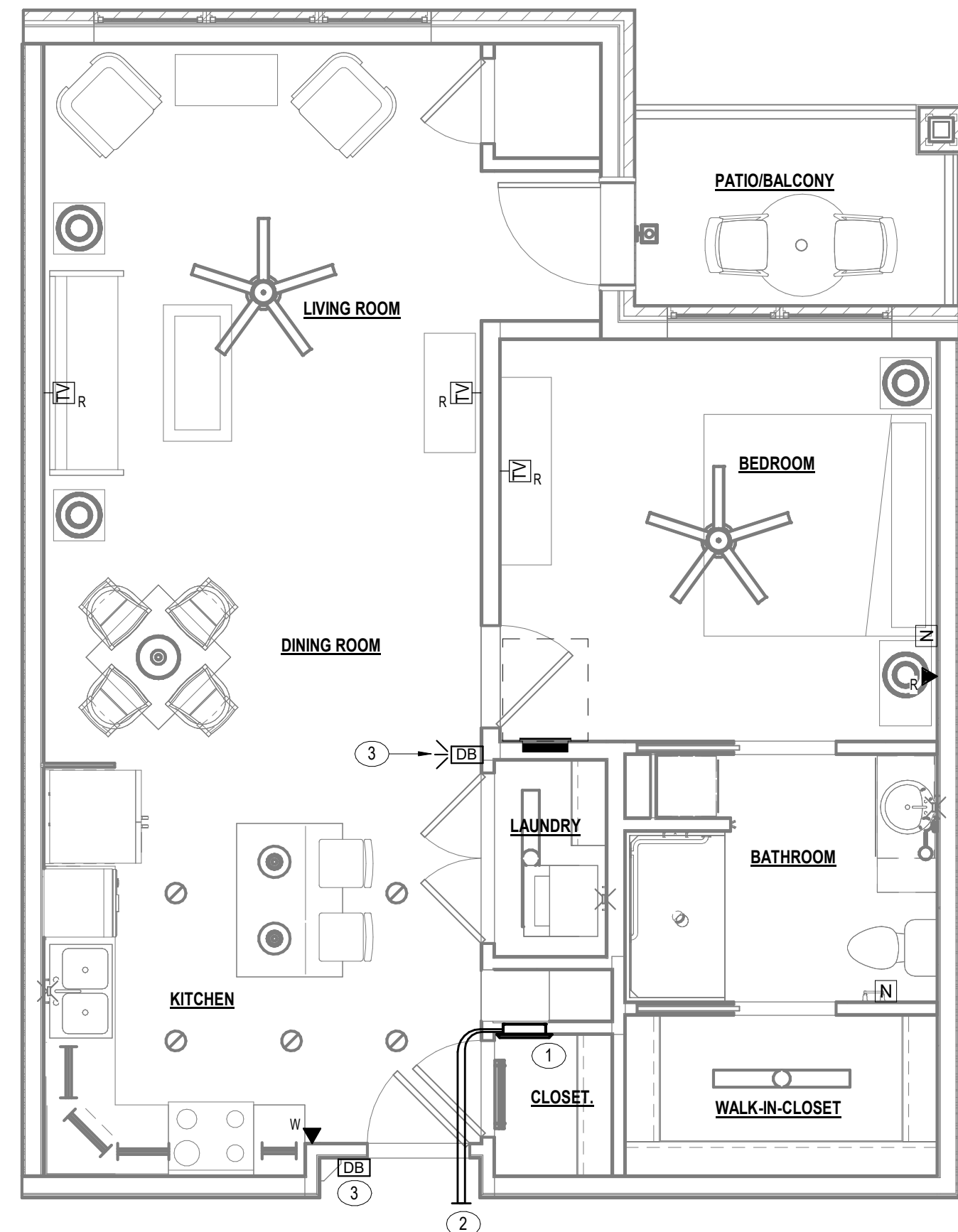
4 UNIT D2 - WILLOW - LOW VOLTAGE
LV2.1 1/4" = 1'-0"



3 UNIT D1 - HICKORY - LOW VOLTAGE
LV2.1 1/4" = 1'-0"



2 UNIT C - CEDAR - LOW VOLTAGE
LV2.1 1/4" = 1'-0"



1 UNIT B - BIRCH - LOW VOLTAGE
LV2.1 1/4" = 1'-0"

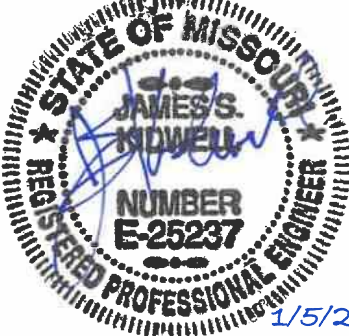
GENERAL NOTES

A. COORDINATE ROUTING OF INNERDUCT ABOVE CEILING WITH OTHER DISCIPLINES PRIOR TO BEGINNING WORK.

PLAN NOTES

1. RESIDENTIAL COMMUNICATIONS SERVICE ENCLOSURE. ELECTRICAL CONTRACTOR TO PROVIDE DUPLEX RECEPTACLE (GFCI, WHERE REQUIRED BY CODE) FOR INSTALLATION ENCLOSURE AND CONNECT TO LOCAL 120V CIRCUIT. COORDINATE WITH LOW VOLTAGE CONTRACTOR.
2. (2) 1-1/4" INNERDUCT EXTENDED, FROM SMC ENCLOSURE, ABOVE CEILING TO ACCESSIBLE CEILING SPACE IN CORRIDOR. PROVIDE PULL STRING IN CONDUITS FROM SMC ENCLOSURE TO STUB OUTS ABOVE CEILING.
3. PROVIDE HONEYWELL SERIES 3 PORTABLE WIRELESS WITH PUSHBUTTON DOORBELL SYSTEM. INSTALL BOTH PUSHBUTTON AND DOORBELL USING BRACKETS, ANCHORS AND SCREWS. PUSHBUTTON AT APPROX. 3'-6" AFF. DOORBELL TO BE INSTALLED ON WALL NEAR ENTRY AT APPROX. 6'-6" AFF.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

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ARCHITECT : DAS	CHECKED : DAH
ENGINEER : DAH	APPROVED : JSK
NO.	REVISION DESCRIPTION

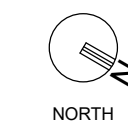
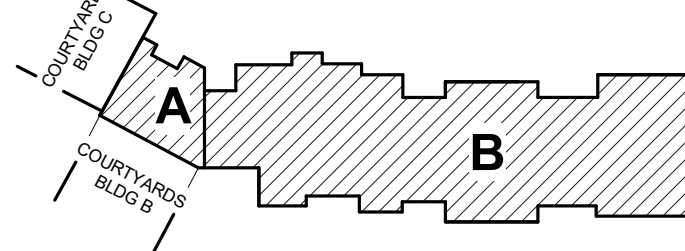
DRAWING TITLE

ENLARGED PLANS - LOW
VOLTAGE

DATE: January 5, 2024	DRAWING
COMM. NO. 23104.00	LV2.1

KEYPLAN

A. COORDINATE ROUTING OF INNERDUCT ABOVE CEILING WITH OTHER DISCIPLINES PRIOR TO BEGINNING WORK.



PLAN NOTES

1. RESIDENTIAL COMMUNICATIONS SERVICE ENCLOSURE. ELECTRICAL CONTRACTOR TO PROVIDE DUPLEX RECEPTACLE (GFI, WHERE REQUIRED BY CODE) FOR INSTALLATION ENCLOSURE AND CONNECT TO LOCAL 120V CIRCUIT. COORDINATE WITH LOW VOLTAGE CONTRACTOR.
2. (2) 1-1/4" INNERDUCT EXTENDED, FROM SMC ENCLOSURE, ABOVE CEILING TO ACCESSIBLE CEILING SPACE IN CORRIDOR. PROVIDE PULL STRING IN CONDUITS FROM SMC ENCLOSURE TO STUB OUTS ABOVE CEILING.
3. PROVIDE HONEYWELL SERIES 3 PORTABLE WIRELESS WITH PUSHBUTTON DOORBELL SYSTEM. INSTALL BOTH PUSHBUTTON AND DOORBELL USING BRACKETS, ANCHORS AND SCREWS. PUSHBUTTON AT APPROX. 3'-6" AFF. DOORBELL TO BE INSTALLED ON WALL NEAR ENTRY AT APPROX. 6'-6" AFF.

CONSTRUCTION SET



PROJECT TITLE



John Knox Village

COURTYARDS - BUILDING E

SFCs Architecture
Engineering
Planning
Interiors

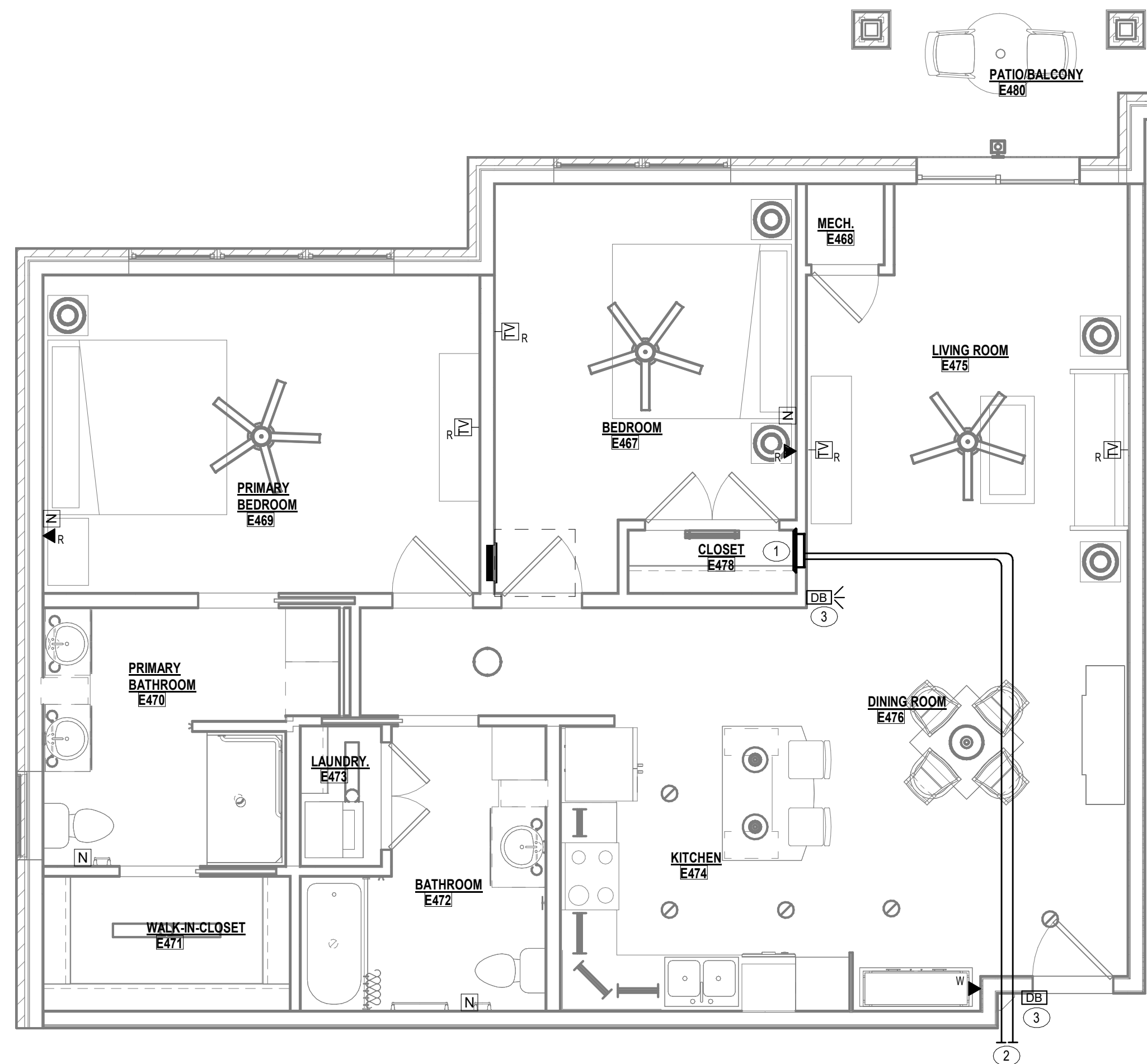
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DESIGNER : DAS	DRAWN : DAH, DKW
ARCHITECT : DAS	CHECKED : DAH
ENGINEER : DAH	APPROVED : JSK
NO.	REVISION DESCRIPTION

DRAWING TITLE

ENLARGED PLANS - LOW
VOLTAGE

DATE:	January 5, 2024	DRAWING
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UNIT D3 - CYPRESS - LOW VOLTAGE
1/4" = 1'-0"

