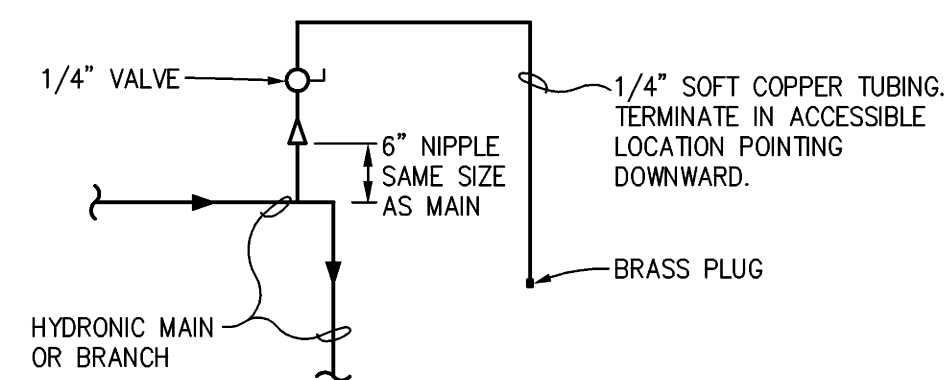


DESCRIPTION	PLAN VIEW	DESCRIPTION	SHEETMETAL DUCTWORK
RADIUS ELBOW		ROUND TO ROUND TRANSITION	
TAKE-OFF WITH 45° ENTRY		ROUND TAKE-OFF	
TRANSITION		ROUND TAKE-OFF	
MITERED OFFSET		RECTANGULAR-TO-ROUND TAKE-OFF WITH 45° ENTRY	

**1 DUCT CONSTRUCTION**  
NO SCALE



**2 MANUAL AIR VENT**  
NO SCALE

SYMBOL	ABBR.	DESCRIPTION	SYMBOL	ABBR.	DESCRIPTION
	F	FIRE SPRINKLER PIPE		PSW	PUMPED SANITARY WASTE
		DIRECTION OF AIR FLOW		CD	COOLING COIL CONDENSATE DRAIN
		SUPPLY DUCT UP AND DOWN		CHS	CHILLED WATER SUPPLY PIPE
		RETURN DUCT UP AND DOWN		CHR	CHILLED WATER RETURN PIPE
		RECTANGULAR DUCT - 1ST DIMENSION IS SIDE SHOWN			SPRINKLER HEAD - UPRIGHT
		FLEXIBLE DUCT CONNECTOR			STRAINER WITH BLOWDOWN VALVE
		DUCT WITH RECTANGULAR ELBOW AND TURNING VANES			CONCENTRIC REDUCER
		TAKE-OFF WITH 45 DEGREE ENTRY			PIPE TAKE OFF - DOWN
		DUCT TRANSITION			90 DEGREE ELBOW DOWN
		DUCT DROP/RISE		PT	PRESSURE/TEMPERATURE TEST PLUG
		DUCT TO BE REMOVED			TEE DOWN
		FIRE DAMPER			BREAK IN LINE - SHOWN FOR CLARITY
	FCU	FAN COIL UNIT			FLEXIBLE PIPE CONNECTOR
	EF	EXHAUST FAN			PIPE UNION
	CC	COOLING COIL			BALL VALVE
	SGW	SUPPLY GRILLE WALL			2-WAY CONTROL VALVE
	RGW	RETURN GRILLE WALL		FCV	FLOW CONTROL VALVE
	AFF	ABOVE FINISHED FLOOR		125 SDC-1 6x6 - 4W	AIR FLOW (CFM) - TYPE / NECK SIZE - PATTERN
	OFCI	OWNER FURNISHED - CONTRACTOR INSTALLED		RS-1	ROOM SENSOR W/UNIT CONTROLLED
	(E)	EXISTING		AC-1	THERMOSTAT WITH ZONE/UNIT CONTROLLED
	(R)	REMOVE		A205	ROOM NUMBER
				5	DETAIL & SHEET NUMBER
					KEYED NOTE REFERENCE
					POINT OF CONNECTION BETWEEN NEW & EXISTING WORK
					MAINTENANCE ACCESS AREA (SEE UO CAMPUS CONSTRUCTION STANDARDS)

**FAN COIL UNITS - OFCI**

TAG	MODEL NO.	FAN		COOLING COIL							ELECTRICAL				UNIT WEIGHT (LBS)	REMARKS		
		CFM	ESP	EAT (DB/WB)	LAT (DB/WB)	SENSIBLE MBH	TOTAL MBH	GPM	ROWS	MAXIMUM WPD (FT)	CONTROL VALVE	MCA	MOC	VOLT			PHASE	
FCU-1	FCDB10	650	0.5	75 / 60	58 / 53	12.2	13.0	2.75	2	3.5	X		6.0 A	15 A	115	1	200	

NOTES:  
BASIS OF DESIGN: TRANE. OBTAIN FAN COIL UNIT FROM OWNER FOR INSTALLATION.  
53 DEGREE F ENTERING CHILLED WATER TEMPERATURE (WINTER WATER-SIDE ECONOMIZER CONDITION).

**SUMP PUMPS**

TAG	MODEL NO.	LOCATION	SERVICE	TYPE	GPM	HEAD (FT)	MOTOR				CONTROLS	NOTES
							HP	RPM	VOLT	PHASE		
SP-1	1413-500	ELEVATOR PIT	WASTE WATER	SUBMERSIBLE	50	20	1/2	1750	208	1	PANEL / ALARM	SINGLE PUMP

NOTES:  
BASIS OF DESIGN: Well.

**MECHANICAL SHEET INDEX**

SHEET NO.	SHEET TITLE
M1	SHEET INDEX, SYMBOLS LIST AND SCHEDULES
M2	FLOOR PLANS - MECHANICAL



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SHEET INDEX, SYMBOLS LIST AND SCHEDULES

PROJECT TITLE

SHEET TITLE

DATE

11/18/13

DESIGNER

TSE/CHL

PROJECT

8900-002-13

FILENAME

8900-002-13m1.dwg

SHEET NO

M1



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FLOOR PLANS - MECHANICAL

SHEET TITLE

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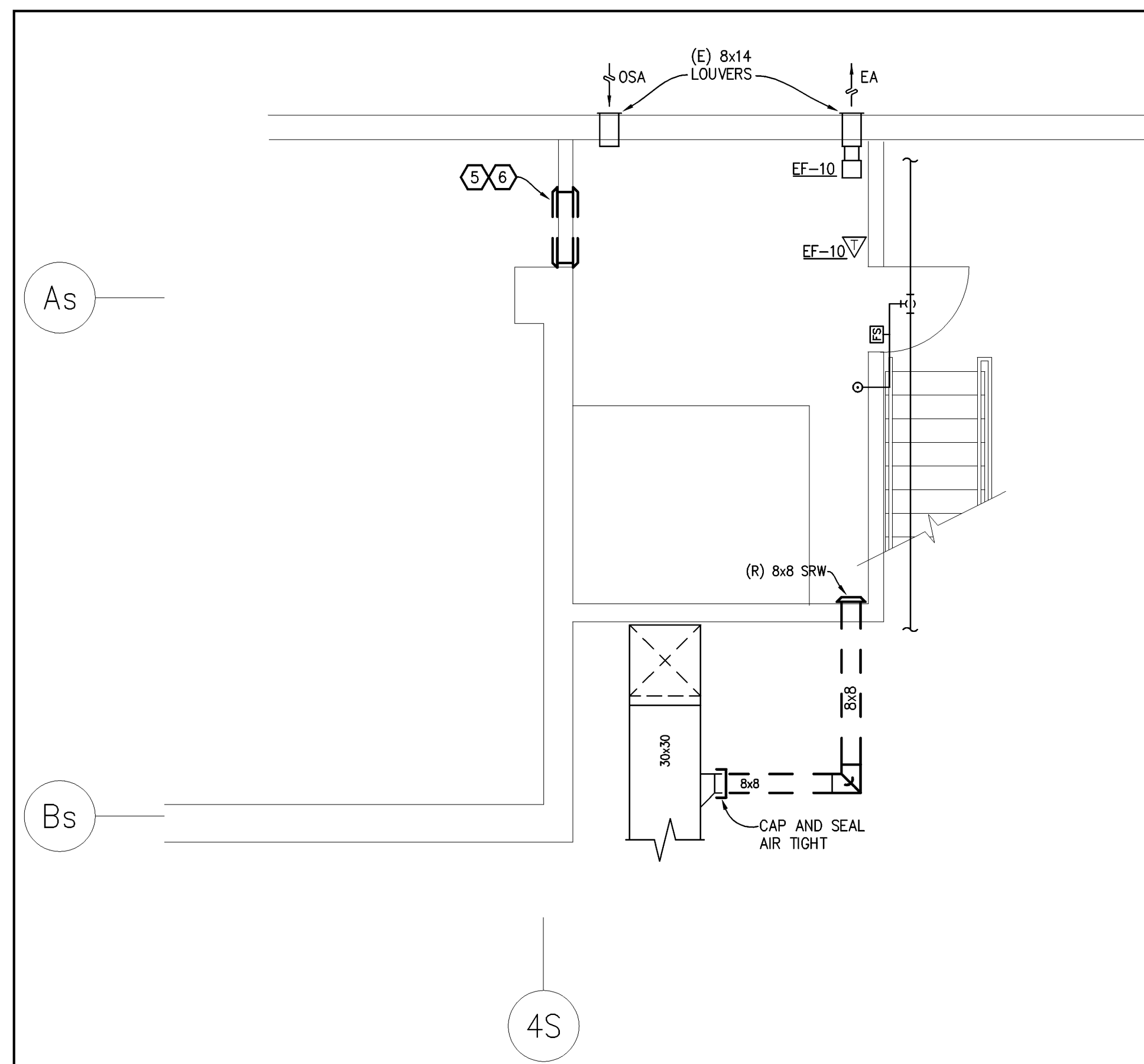
DESIGNER  
 TSE/CHL

PROJECT  
 8900-002-13

FILENAME  
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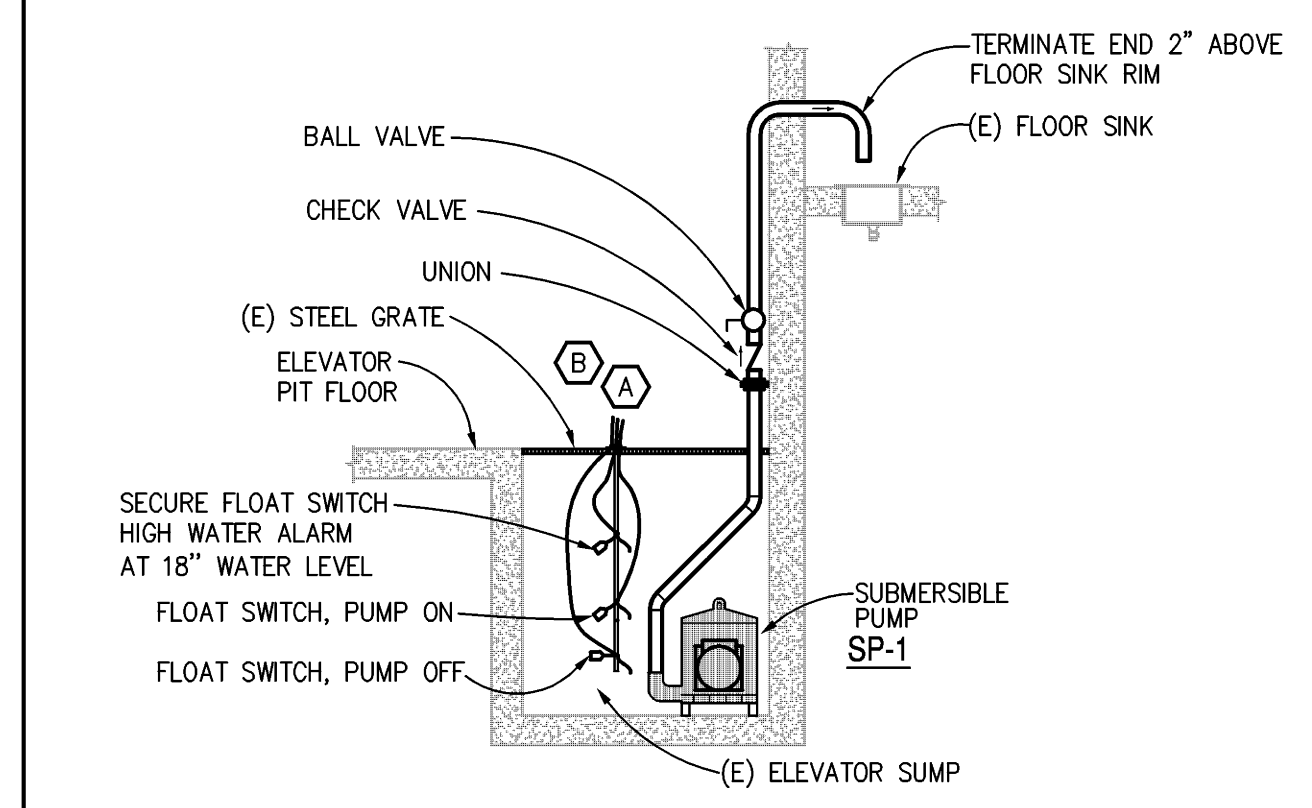
SHEET NO

M2



**3 ELEVATOR MACHINE ROOM DEMOLITION PLAN - MECHANICAL**

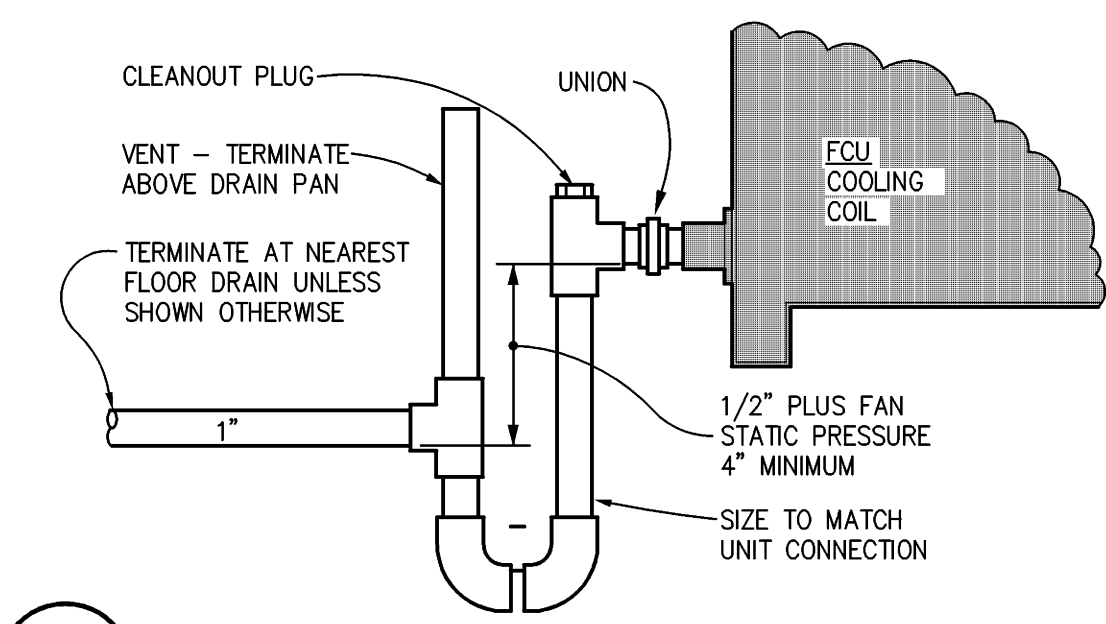
SCALE: 1/4"=1'-0"



- A ROUTE HIGH LEVEL ALARM FLOAT TO HIGH WATER ALARM PANEL. CONNECTION TO FIRE ALARM PANEL VIA MONITOR MODULE TO HIGH WATER ALARM PANEL BY DIVISION 28.
- B ROUTE FLOAT SWITCHES TO PUMP CONTROL PANEL. SEE 2/M2 FOR PANEL LOCATION.

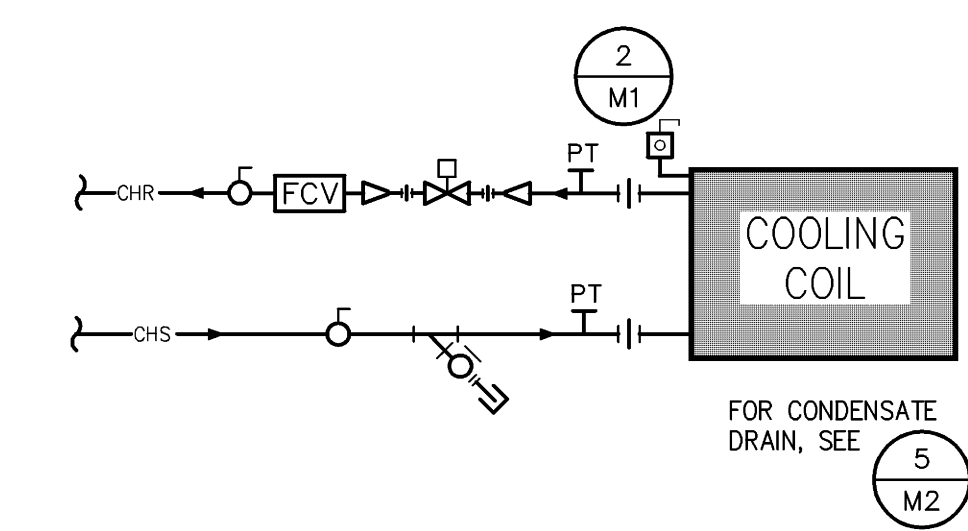
**4 ELEVATOR SUMP PUMP**

NO SCALE



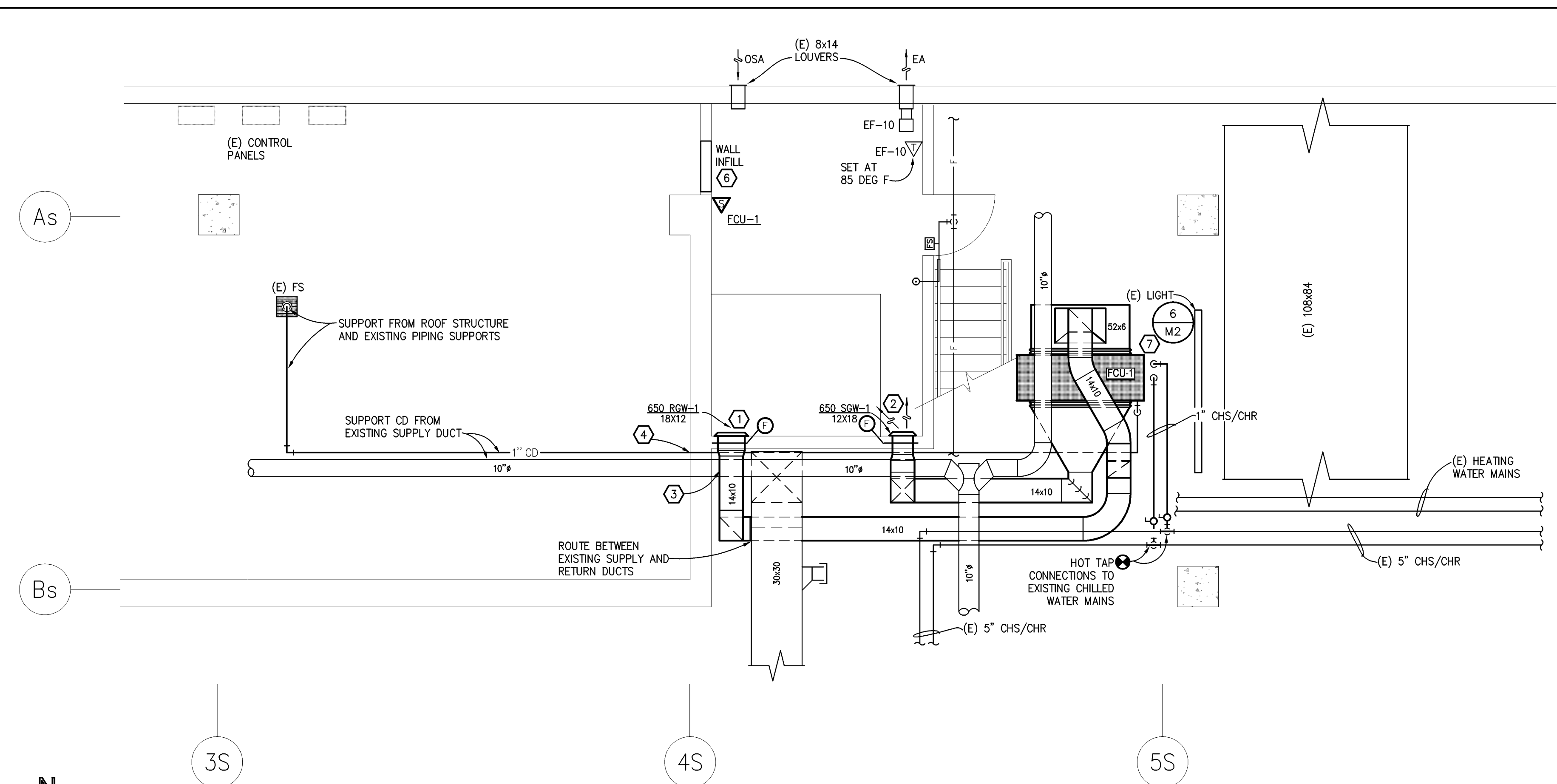
**5 CC CONDENSATE DRAIN**

NO SCALE



**6 AIR HANDLER COOLING COIL - TWO WAY**

NO SCALE

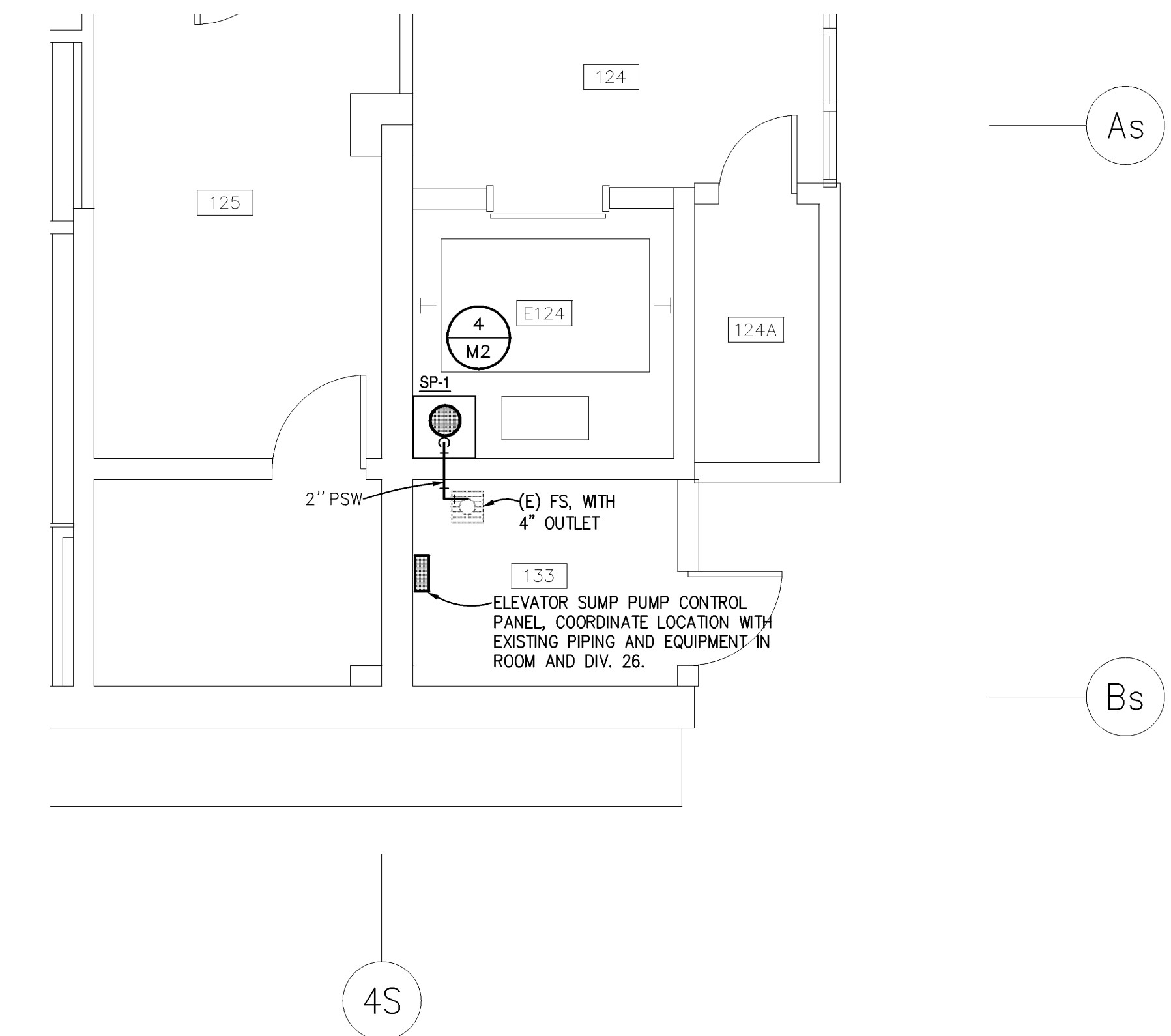


**2 ELEVATOR MACHINE ROOM FLOOR PLAN- MECHANICAL**

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

- KEYED NOTES:**
- 1 CUT WALL OPENING FOR RETURN GRILLE. INSTALL DAMPER BEHIND NEW GRILLE WITHIN WALL. LABEL GRILLE "FIRE DAMPER ACCESS."
  - 2 ENLARGE EXISTING OPENING. INSTALL FIRE DAMPER AT WALL BEHIND GRILLE. LABEL GRILLE "FIRE DAMPER ACCESS."
  - 3 ROUTE SUPPLY DUCT BETWEEN EXISTING 10" DUCT AND HEATING WATER PIPING ABOVE. RELOCATE EXISTING DUCT HANGER TO CREATE CLEAR ROUTING PATH.
  - 4 CONCRETE WALL PENETRATION.
  - 5 (E) 30x14 TRANSFER GRILLE ON EACH SIDE OF WALL. REMOVE GRILLES AND DUCT CONNECTION FROM WALL.
  - 6 NEW INFILL WALL TO MATCH EXISTING. MINIMUM 25 GAUGE STEEL STUDS AT 24" O.C. MAX. PROVIDE (2) LAYERS 5/8" TYPE X GYPBOARD AT WALL FACE OUTSIDE ROOM, WITH LEVEL 4 FINISH. PROVIDE (1) LAYER 5/8" TYPE X GYPBOARD WITH LEVEL 3 FINISH INSIDE ROOM. MINIMUM 1-HR. RATED. PAINT TO MATCH EXISTING, EXTEND TO NEAREST BREAK IN WALL PLANE.
  - 7 BOTTOM OF FAN COIL AT APPROXIMATELY 10' ABOVE FLOOR. MECHANICAL ROOM ROOF STRUCTURE ABOVE AT APPROXIMATELY 18' ABOVE FLOOR.

- GENERAL NOTES:**
1. EXTENT AND CONFIGURATION OF EXISTING SYSTEMS BASED ON ORIGINAL DRAWINGS AND LIMITED FIELD VERIFICATION. CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS IN FIELD.
  2. FULL EXTENT OF DUCTWORK AND PIPING IN BUILDING NOT SHOWN FOR CLARITY OF CURRENT WORK SCOPE.



**1 FIRST FLOOR PLAN- MECHANICAL**

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



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DESIGNER

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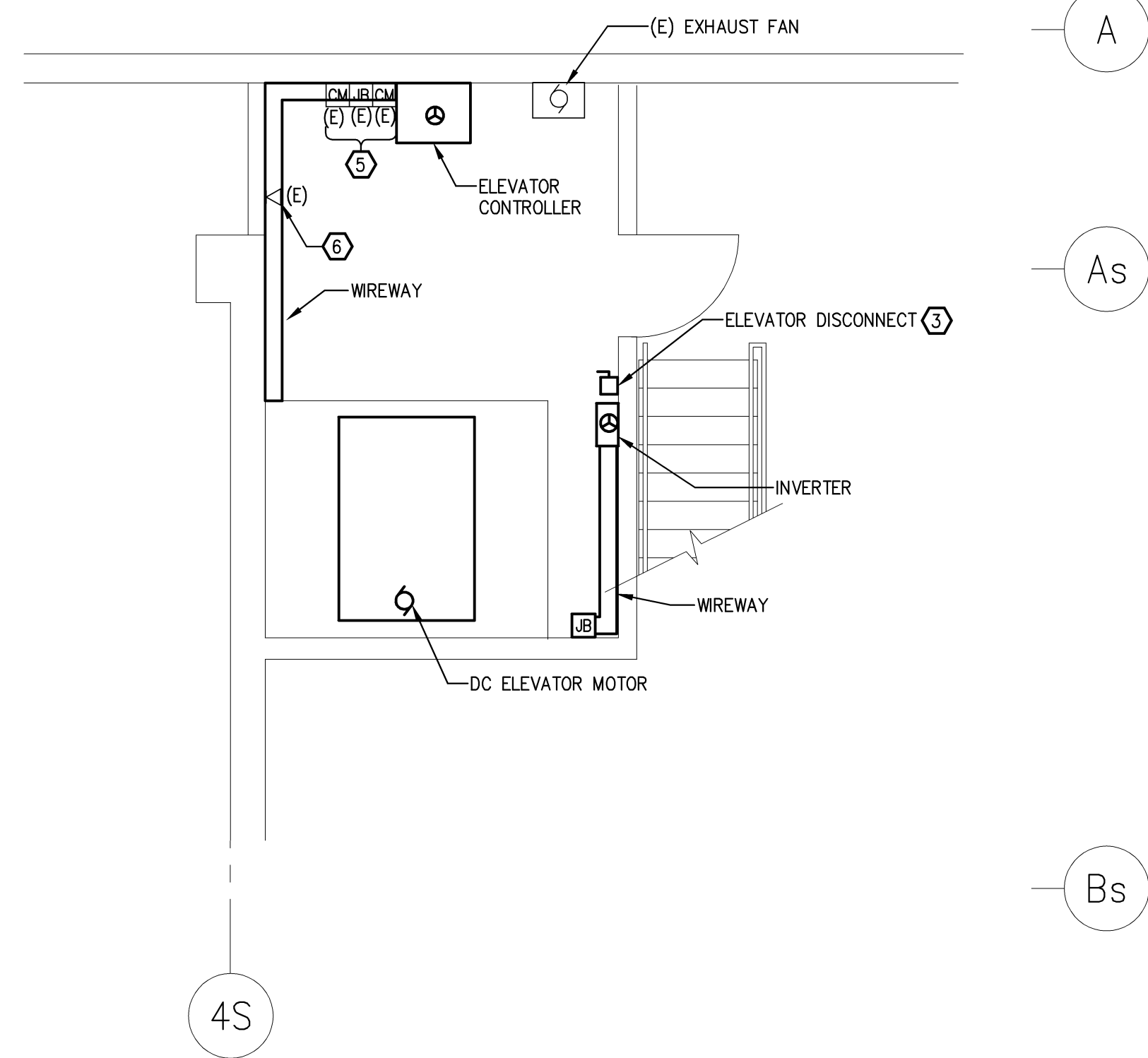
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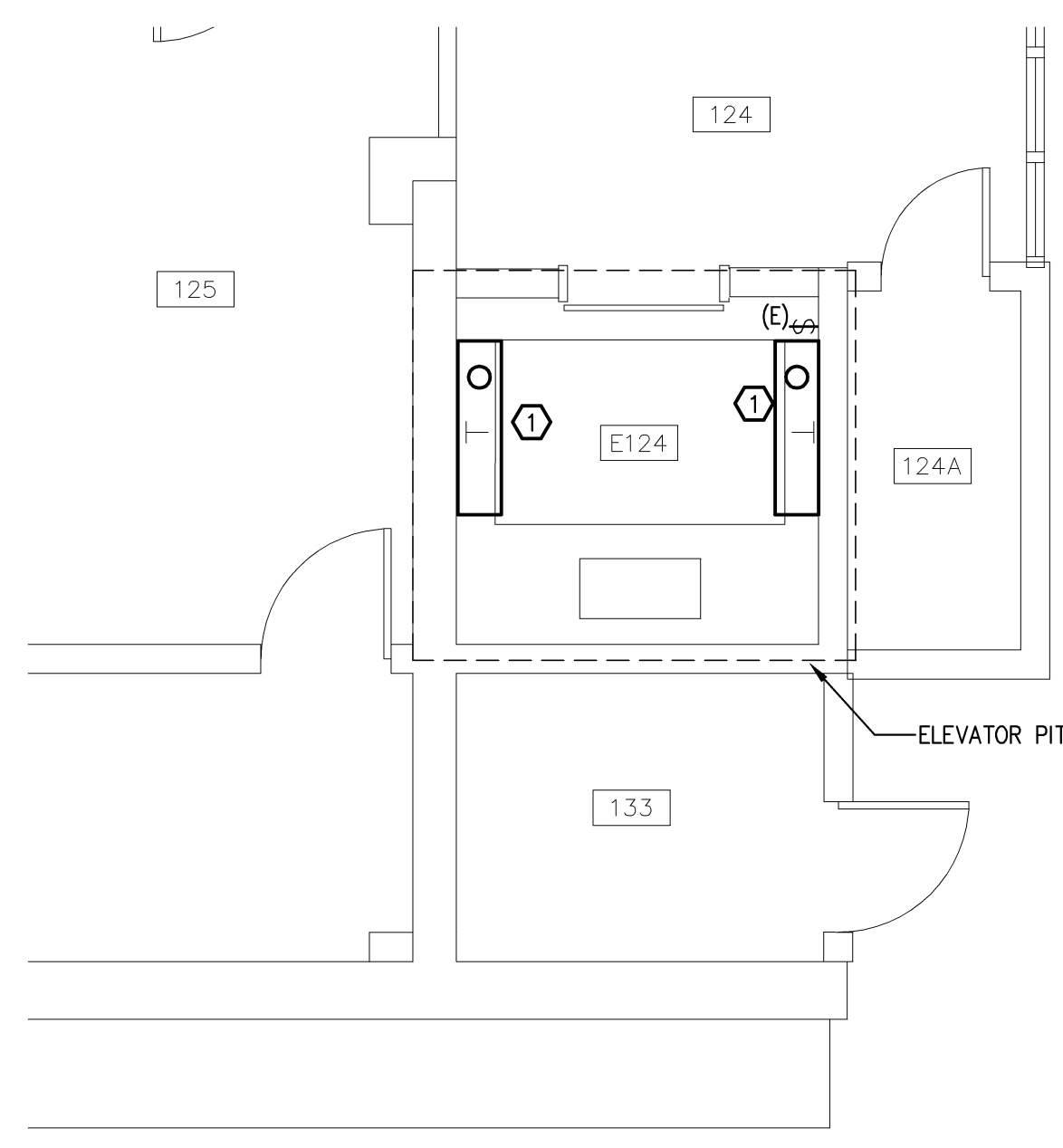
SHEET NO

E1



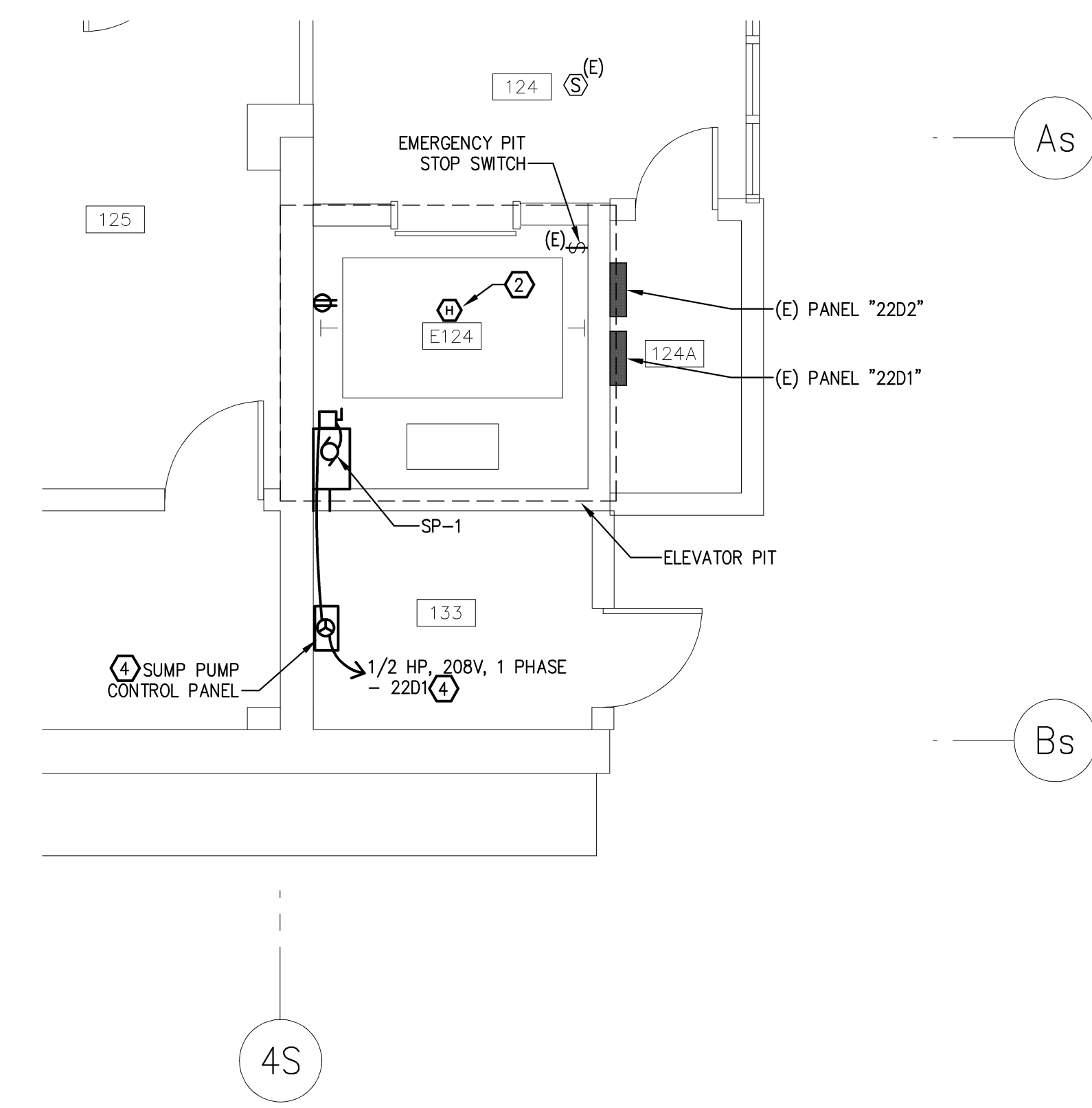
**1 ELEVATOR MACHINE ROOM PLAN - ELECTRICAL DEMOLITION**  
 SCALE: 1/4"=1'-0"

- ELEVATOR MACHINE ROOM PLAN - ELECTRICAL DEMOLITION GENERAL NOTES:
- ALL EQUIPMENT SHOWN SHALL BE DISCONNECTED UNLESS OTHERWISE NOTED. REMOVAL OF ELEVATOR EQUIPMENT INCLUDING CONTROLLER, INVERTER, AND MOTOR WILL BE BY ELEVATOR CONTRACTOR.
  - REMOVE ALL ELECTRICAL CONDUIT AND BOXES SERVING EQUIPMENT SHOWN UNLESS OTHERWISE NOTED.



**2 FIRST FLOOR PLAN- LIGHTING**  
 SCALE: 1/4"=1'-0"

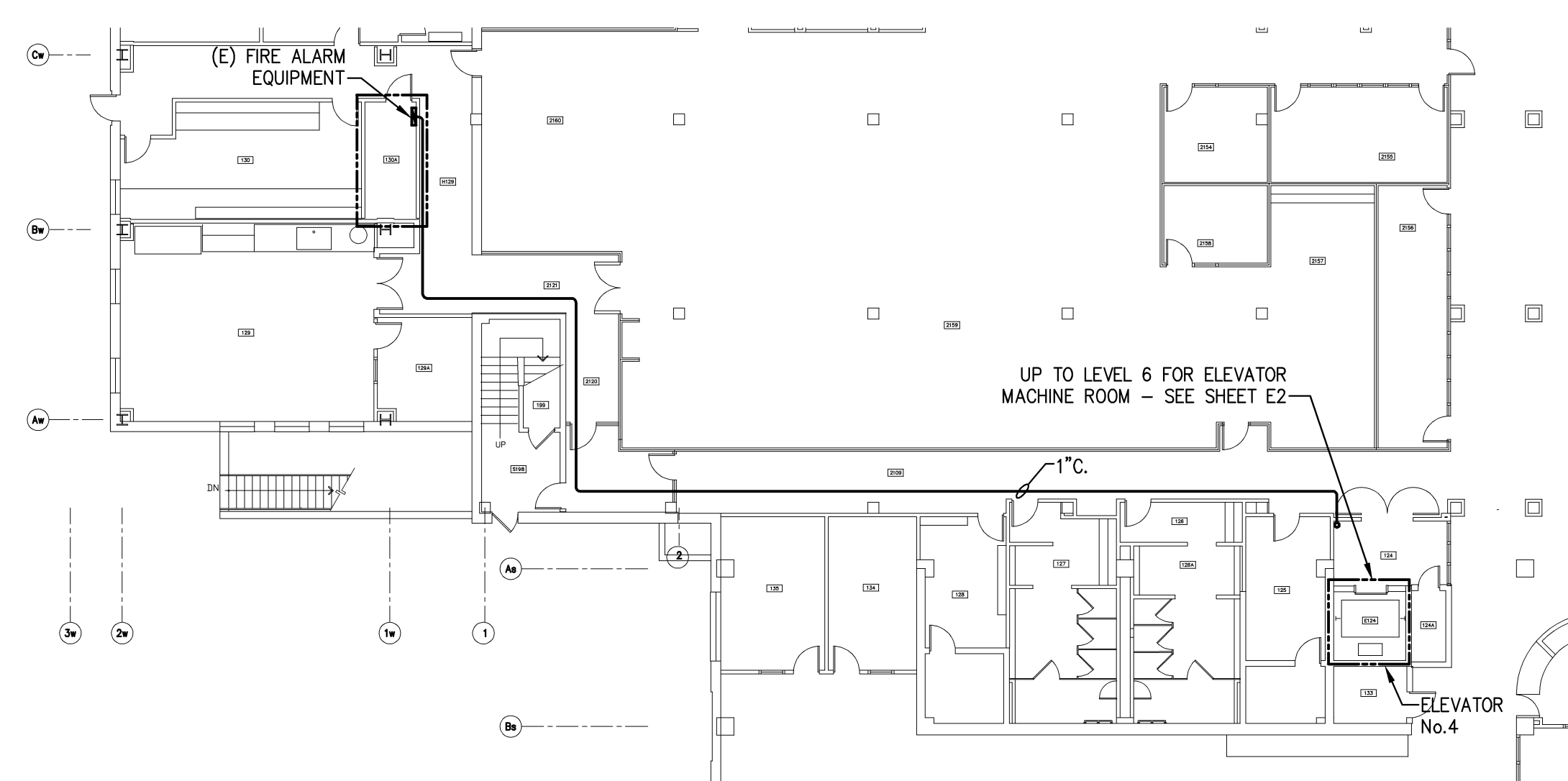
- SHEET NOTES:
- REPLACE EXISTING 120V INCANDESCENT FIXTURE WITH VAPOR TIGHT FLUORESCENT 2 LAMP, 120V SURFACE MOUNTED FIXTURE: LITHONIA DMW SERIES WITH F032XPS LAMPS, PROGRAMMED RAPID START BALLAST. REUSE EXISTING SWITCHING AND CIRCUITING.
  - PROVIDE FIRE ALARM DEVICES AS SHOWN.
  - REMOVE DISCONNECT EXCEPT EXISTING CONDUIT TO MCC-6. CONDUIT TO BE USED FOR NEW WORK.
  - SUMP PUMP SP-1: PROVIDE 3 #12, 1 #12 GND IN 1" C. PROVIDE 20 AMP, 2 POLE CIRCUIT BREAKER TO MATCH EXISTING PANEL "22D1". PROVIDE COMPLETE INSTALLATION OF SUMP PUMP AND CONTROLLER PROVIDED BY MECHANICAL INCLUDING WIRING OF FLOATS AND ALL REQUIRED POWER CONNECTIONS FOR FULL OPERATION. COORDINATE WITH MECHANICAL. PROVIDE SEALED PENETRATION FOR ROUTING CONDUIT FOR FLOATS AND POWER.
  - MAINTAIN EXISTING CONTROL MODULES FOR REUSE TO CONNECT NEW ELEVATOR CONTROLLER TO EXISTING FACP. MAINTAIN EXISTING SMOKE DETECTOR SIGNAL LOOP AT JUNCTION BOX TO EXTEND TO NEW ELEVATOR CONTROLLER.
  - VERIFY TELEPHONE CONNECTION FOR COMMUNICATION TO ELEVATOR. EXTEND TO NEW CONTROLLER OR PROVIDE NEW VOICE CONNECTION.



**3 FIRST FLOOR PLAN - POWER/FIRE ALARM**  
 SCALE: 1/4"=1'-0"



NORTH ALL PLANS



**4 PARTIAL LEVEL 2 PLAN - ELECTRICAL**  
 SCALE: 1/16"=1'-0"

ELECTRICAL SYMBOLS LIST		
SYMBOL	ABBR.	DESCRIPTION
		CEILING, SURFACE MOUNT LUMINAIRE. SEE LUMINAIRE SCHEDULE FOR DETAILS.
		120 VOLT, DUPLEX RECEPTACLE, MOUNTED AT STANDARD HEIGHT.
		EQUIPMENT CONNECTION.
		MOTOR CONNECTION.
		DISCONNECT SWITCH.
		BRANCH PANEL. SURFACE MOUNTED.
		FIRE ALARM SMOKE DETECTOR.
		FIRE ALARM HEAT DETECTOR.
		CONTROL MODULE.
		SWITCH. SINGLE POLE.
		WIRING IN OR ON CEILING OR WALLS.
		HOME RUN TO PANEL.
		CONDUIT UP - CONDUIT DOWN.
		DATA OUTLET.
		JUNCTION BOX.
		FIRE ALARM MONITOR MODULE.
	FACP	FIRE ALARM CONTROL PANEL.
		NOTE REFERENCE.
(E)		INDICATES EXISTING DEVICE TO REMAIN.
GFI		GROUND FAULT INTERRUPTER.



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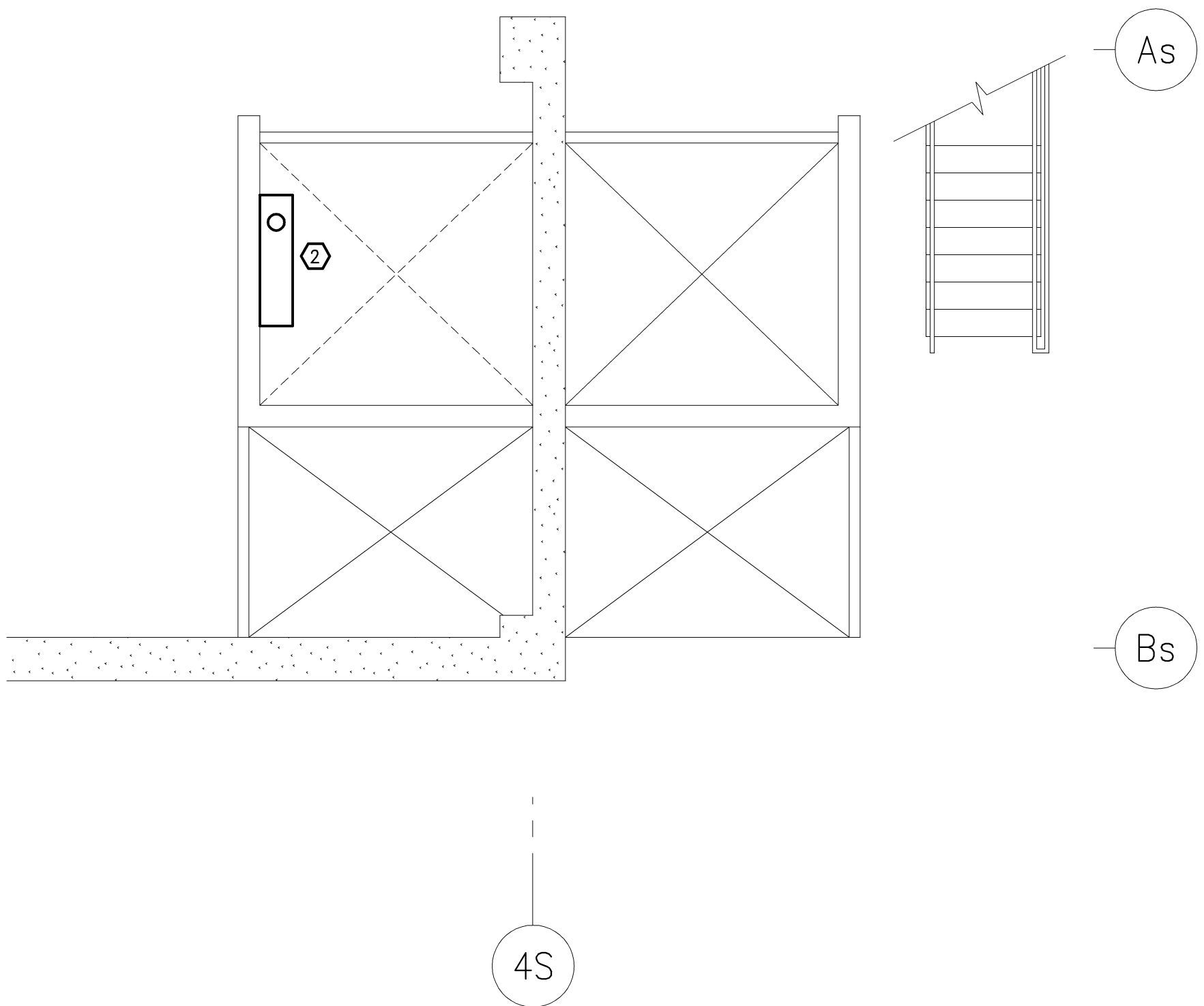
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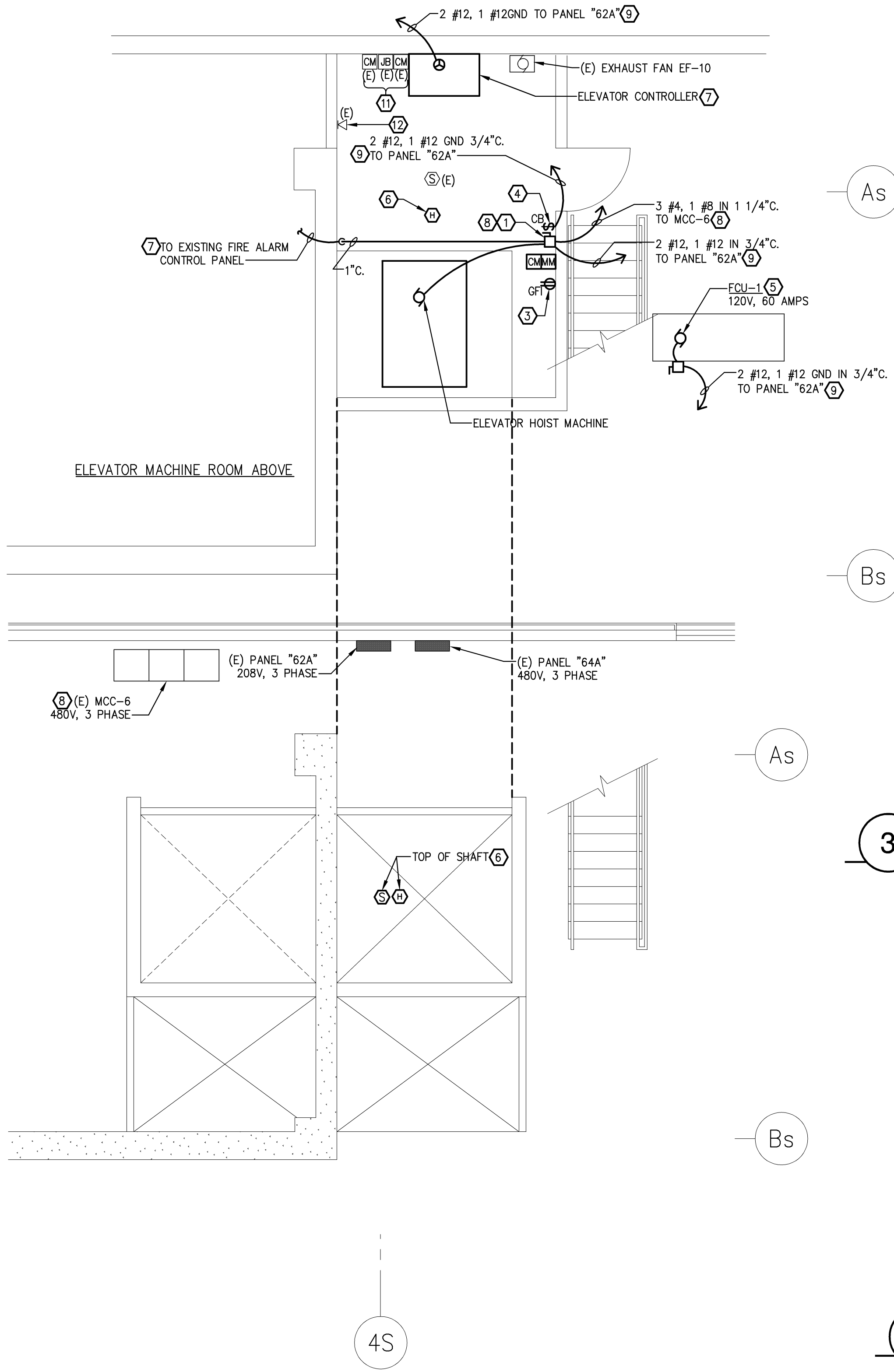


**1 PENTHOUSE FLOOR PLAN - LIGHTING**

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

PLAN NOTES:

- 1 REPLACE EXISTING DISCONNECT WITH SHUNT TRIP FUSED DISCONNECT. PROVIDE CONTROL MODULE TO RECEIVE SIGNAL FROM FIRE ALARM CONTROL PANEL FOR SHUT DOWN.
- 2 REPLACE EXISTING 120V INCANDESCENT FIXTURE WITH VAPOR TIGHT FLUORESCENT 2 LAMP, 120V SURFACE MOUNTED FIXTURE: LITHONIA DMW SERIES WITH FO32XPS LAMPS, PROGRAMMED RAPID START BALLAST. REUSE EXISTING SWITCHING AND CIRCUITING.
- 3 REPLACE EXISTING RECEPTACLE WITH GFI RECEPTACLE.
- 4 PROVIDE LOCKABLE CIRCUIT BREAKER SWITCH FOR ELEVATOR CAR LIGHTING. PROVIDE CIRCUIT SHOWN WITH 20 AMP, 1 POLE CIRCUIT BREAKER TO MATCH PANEL. PROVIDE PHENOLIC LABEL "CAR LIGHTING".
- 5 FAN COIL UNIT: OWNER FURNISHED, CONTRACTOR INSTALLED. COORDINATE EXACT LOCATION AND INSTALLATION PHASING WITH OWNER'S REPRESENTATIVE.
- 6 PROVIDE FIRE ALARM DEVICES AS SHOWN.
- 7 PROVIDE CONNECTION FOR ELEVATOR RECALL. PROVIDE CONDUCTORS IN CONDUIT AS REQUIRED TO EXISTING FIRE ALARM CONTROL PANEL. SEE PARTIAL LEVEL 2 PLAN 4/E2.
- 8 REUSE EXISTING BUCKET IN MCC-6 MADE AVAILABLE BY REMOVAL OF EXISTING ELEVATOR. PROVIDE 110A, 3 POLE CIRCUIT BREAKER TO MATCH EXISTING SIEMENS MCC (RATED 42KAIC). REUSE EXISTING CONDUIT. VERIFY EXACT REQUIREMENTS WITH ELEVATOR EQUIPMENT SUPPLIER.
- 9 PROVIDE 20 AMP, SINGLE POLE CIRCUIT BREAKER IN EXISTING SPACE TO MATCH EXISTING PANEL.
- 10 RETROFIT EXISTING LIGHT FIXTURES WITH LAMPS AND BALLASTS. REPLACE LAMPS AND BALLASTS WITH SPECIFIED LAMPS AND BALLASTS IDENTIFIED IN SPECIFICATION SECTION 265000. VERIFY LAMP HOLDER COMPATIBILITY AND REPLACE AS NECESSARY. EXISTING FIXTURES ARE 2 LAMP SURFACE MOUNT STRIP FIXTURES.
- 11 EXTEND WIRING FROM EXISTING CONTROL MODULES TO NEW ELEVATOR CONTROLLER PANEL FOR ELEVATOR RECALL.
- 12 EXTEND EXISTING COMMUNICATION CABLE TO ELEVATOR CONTROLLER FOR CAR COMMUNICATION. VERIFY CABLING IS CONNECTED AS REQUIRED FOR FULL COMMUNICATION.

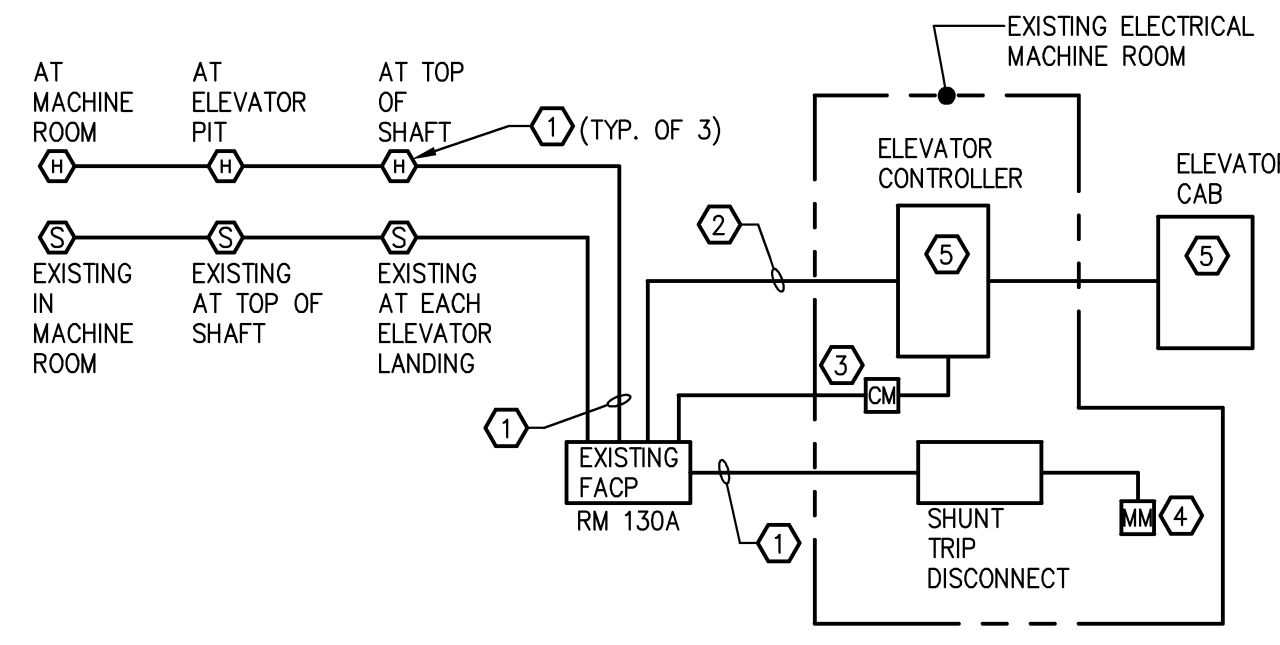


**2 ELEVATOR MACHINE ROOM FLOOR PLAN/ PENTHOUSE FLOOR PLAN - POWER/FIRE ALARM**

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

**3 ELEVATOR MACHINE ROOM FLOOR PLAN-LIGHTING**

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



**4 FIRE ALARM/ELEVATOR CONTROL DIAGRAM**

SCALE: NONE

FIRE ALARM/ELEVATOR CONTROL DIAGRAM NOTES:

- 1 PROVIDE AND MOUNT ADDRESSABLE HEAT DETECTORS ADJACENT TO SPRINKLER HEAD IN ELEVATOR MACHINE ROOM AND ELEVATOR SHAFT. ALARM ACTIVATION FROM ANY ONE OF THESE DETECTORS SHALL ACTIVATE CIRCUIT BREAKER SHUNT TRIP FUSED DISCONNECT AND INTERCEPT 120V CIRCUIT TO THE CONTROLLER. EXTEND EXISTING ADDRESSABLE LOOP OR PROVIDED SEPARATE LOOP FROM EXISTING FIRE ALARM CONTROL PANEL FOR SHUT DOWN.
- 2 RECONNECT EXISTING DETECTORS SHOWN TO SIGNAL ELEVATOR CONTROLLER TO INITIATE RECALL.
- 3 RECONNECT TWO EXISTING ALARM CONTROL MODULES FOR ELEVATOR RECALL. PROVIDE ONE FIRE ALARM CONTROL MODULE FOR ELEVATOR FIRE HAT ANNUNCIATOR.
- 4 PROVIDE FIRE ALARM MONITOR MODULE TO MONITOR 120V POWER TO SHUNT TRIP DEVICE.
- 5 PROVIDED BY ELEVATOR EQUIPMENT SUPPLIER.