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PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS	
04.20.18	COORDINATION

**MISSISSIPPI AVE
MIXED USE BUILDING**
810 N FREMONT ST, PORTLAND, OR 97227

SHEET:
E1.00

M F I A
Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0877
INC. WWW.MFIA-ENG.COM
CONTACT: DENISE TAYLOR

ELECTRICAL SYMBOL LIST

LIGHTING SYMBOLS

- FLUORESCENT LIGHT FIXTURE, RECESSED. TYPE AS NOTED.
- FLUORESCENT LIGHT FIXTURE, RECESSED - EMERGENCY
- FLUORESCENT LIGHT FIXTURE, SURFACE MOUNT
- FLUORESCENT LIGHT FIXTURE, STRIP
- FLUORESCENT LIGHT FIXTURE, STRIP - EMERGENCY
- DOWNLIGHT FIXTURE, RECESSED
- DOWNLIGHT FIXTURE, RECESSED - EMERGENCY
- FLUORESCENT LIGHT FIXTURE, WALL MOUNT
- LIGHT FIXTURE, WALL MOUNT
- LIGHT FIXTURE, TRACK W/ HEADS AS SHOWN ON PLAN
- EXIT SIGN, UNIVERSAL MOUNT, W/ DIRECTIONAL ARROW
- EMERGENCY LIGHT W/ BATTERY PACK, +8'-0" A.F.F.
- H.I.D. AREA LUMINAIRE, POLE MOUNT

SWITCH SYMBOLS

- SWITCH, SPST +44" A.F.F. TO CENTER
- SWITCH, 3-WAY +44" A.F.F. TO CENTER
- (2) SWITCHES, 3-WAY +44" A.F.F. TO CENTER
- SWITCH, 4-WAY +44" A.F.F. TO CENTER
- SWITCH, DIMMER +44" A.F.F. TO CENTER
- SWITCH, SPST, W/PILOT LIGHT +44" A.F.F. TO CENTER
- SWITCH, KEY-OPERATED +44" A.F.F. TO CENTER
- PHOTOCELL

- OCCUPANCY SENSOR CONTROL TYPE 1
WALL MOUNT - ON/OFF CONTROL ONLY
(TYPICAL FOR RESTROOMS, EQUIPMENT ROOMS & AREAS THAT DO NOT REQUIRE DIMMING)
- OCCUPANCY SENSOR CONTROL-TYPE 1 WITH DIMMING
WALL MOUNT
(TYPICAL FOR AMENITY AREAS, CONFERENCE ROOMS, OFFICES & AREAS THAT REQUIRE DIMMING)
- OCCUPANCY SENSOR CONTROL-TYPE 2 WITH 360 DEGREE COVERAGE
CEILING MOUNT - ON/OFF CONTROL ONLY

POWER SYMBOLS

- RECEPTACLE, DUPLEX +18" AFF
- RECEPTACLE, QUAD +18" AFF
- RECEPTACLE, MT'D ABOVE COUNTER OR HT. INDICATED
- RECEPTACLE, DUPLEX ON 'SWITCHED' CIRCUIT +18" AFF
- EMERGENCY DEVICES MT'D ABOVE COUNTER OR HT. INDICATED
- FURNITURE SYSTEM CONNECTION POKE THRU
- RECEPTACLE, SPECIAL (COORDINATE WITH EQUIPMENT SERVED)
- FLOORBOX WITH QUAD RECEPTACLE, REFER TO LOW VOLTAGE DRAWINGS FOR ADD'L REQUIREMENTS
- POWER POLE
- MAGNETIC MOTOR STARTER
- MANUAL MOTOR STARTER
- RELAY
- PUSHBUTTON STATION
- JUNCTION BOX
- THERMOSTAT, +44" AFF
- TRANSFORMER
- DISCONNECT, NON-FUSED
- DISCONNECT, FUSED
- MOTOR
- 277/480V ELECTRICAL PANEL
- 120/208V ELECTRICAL PANEL
- ELECTRICAL PANEL, RECESSED (FLUSH)
- ELECTRICAL PANEL, SURFACE
- MISCELLANEOUS PANEL, RECESSED
- MISCELLANEOUS PANEL, SURFACE

WIRING SYMBOLS

- PANEL DESIGNATION & CIRCUIT NUMBER
- DENOTES PART CIRCUIT (SHOWN IN MORE THAN ONE PLACE)
- HOMERUN BACK TO ELECTRICAL PANEL
- CONDUCTOR SIZE (IF OTHER THAN #12)
- PHASE CONDUCTOR
- NEUTRAL CONDUCTOR
- GROUND CONDUCTOR
- CONCEALED CONDUIT
- CONDUIT UNDERGROUND
- CONDUIT, STUBBED & CAPPED
- LIGHTING CIRCUIT - NORMAL POWER
- LIGHTING CIRCUIT - EMERGENCY POWER

NOTATIONS

- DRAWING NOTE
- DETAIL REFERENCE: TOP=DETAIL NO., BOTTOM=SHEET NO.
- MECHANICAL EQUIPMENT MARK NO. (SEE EQUIPMENT SCHEDULE)
- REVISION DELTA
- FEEDER NO. (SEE FEEDER SCHEDULE)

ONE LINE DIAGRAM SYMBOLS

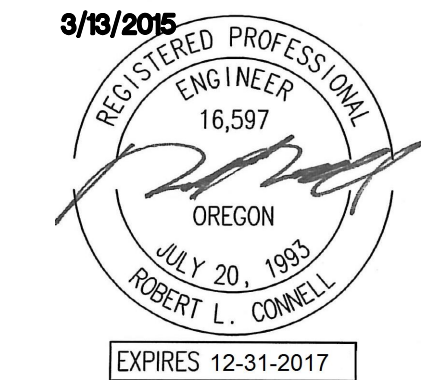
- CIRCUIT BREAKER (TRIP RATING & POLES AS INDICATED ON PLAN)
 - MAIN SWITCH (RATING & POLES AS INDICATED ON PLAN)
 - FUSE (RATING & CLASS AS INDICATED ON PLAN)
 - GENERATOR (RATING AS INDICATED ON PLAN)
 - TRANSFORMER (RATING AS INDICATED ON PLAN)
 - TRANSFER SWITCH (MANUAL OR AUTOMATIC)
 - FUSE (RATING & CLASS AS INDICATED ON PLAN)
 - GROUND SYSTEM (SIZE AS INDICATED ON PLAN)
 - WATER PIPE GROUND ELECTRODE
 - UTILITY METER & METER BASE
 - UTILITY METER CURRENT TRANSFORMER
- (SCALE AS INDICATED ON PLANS)
- (SCALE AS INDICATED ON PLANS)
- (SCALE AS INDICATED ON PLANS)

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	GND	GROUND	SPD	SURGE PROTECTIVE DEVICE (TVSS)
AFG	ABOVE FINISH GRADE	HID	HIGH INTENSITY DISCHARGE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
'ATS'	AUTOMATIC TRANSFER SWITCH	HP	HORSEPOWER	UG	UNDERGROUND
BOF	BOTTOM OF FIXTURE	JB	JUNCTION BOX	UNO	UNLESS NOTED OTHERWISE
C (C/W)	CONDUIT (CONDUIT & WIRE)	MCB	MAIN CIRCUIT BREAKER	VFD	VARIABLE FREQUENCY DRIVE
CATV	CABLE TELEVISION	MLO	MAIN LUGS ONLY	W	WIRE
CB	CIRCUIT BREAKER	'MTS'	MANUAL TRANSFER SWITCH	WG	WIRE GUARD
CCT	CIRCUIT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	WP	WEATHERPROOF
CF/CI	CONTRACTOR FURNISHED / CONTRACTOR INSTALLED	NEC	NATIONAL ELECTRICAL CODE	XFMR	TRANSFORMER
CT	CURRENT TRANSFORMER	NIC	NOT IN CONTRACT	XP	EXPLOSION PROOF
DBL	DOUBLE (AS IN DOUBLE SWITCHED)	NL	NIGHT LIGHT		
(E)	EXISTING	OL	OVERLOAD		
EG	EQUIPMENT GROUND	OF/OI	OWNER FURNISHED / OWNER INSTALLED		
EPO	EMERGENCY POWER OFF	OF/CI	OWNER FURNISHED / CONTRACTOR INSTALLED		
FA	FIRE ALARM	(PC)	PART CIRCUIT		
FACP	FIRE ALARM CONTROL PANEL	RGSC	RIGID STEEL CONDUIT		
GFI	GROUND FAULT INTERRUPTER	SEC	SECONDARY		

- SYMBOLS & ABBREVIATIONS MAY OR MAY NOT APPLY TO PROJECT
- REFER TO LOW VOLTAGE DRAWINGS FOR ASSOCIATED SYMBOLS

FIRE RATED INSTALLATION NOTE:
ELECTRICAL ITEMS (LIGHT FIXTURES, BOXES, ETC.) WHICH ARE RECESSED INTO FIRE-RATED CEILINGS OR WALLS, SHALL BE 'ALCOVED' IN GYPSUM BOARD ENCLOSURES PER ARCHITECTURAL DETAILS, OR THE DEVICES SHALL BE 'UL' LISTED WITH FIRE-RATING EQUAL TO OR GREATER THAN THE FIRE-RATING OF THE ADJACENT CONSTRUCTION.



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DATE: 3/13/2015

- REVISIONS
- 06.30.17 COORDINATION
 - 08.04.17 COORDINATION
 - 08.11.17 COORDINATION
 - 05.11.18 COORDINATION
 - 06.07.19 COORDINATION
 - 08.30.19 COORDINATION

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The Mississippi Apartments
LOAD SUMMARY - MAIN PANEL 'MDP1'
8/6/2019

LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	MISC	LARGEST MOTOR
PANEL H1/H2	8,731	14,880	3,000	0	14,500	12,720	0	
PANEL M1/M2	0	4,860	40,472	0	8,100	33,660	0	
PANEL EM	5,169	0	500	0	7,500	25,280	0	17,388
MC2 (Tenant/Retail)	0	0	0	0	0	0	450,000	
PANEL M3	0	0	47,920	0	500	0	0	
SUBTOTAL	13,900	19,740	91,892	0	30,600	71,660	450,000	17,388
X-FACTOR	1.25	1 + .5	1	0.65	1	1	1	0.25
CODE LOAD:	17,375	14,870	91,892	0	30,600	71,660	450,000	4,347

CONN LOAD: 678 KVA

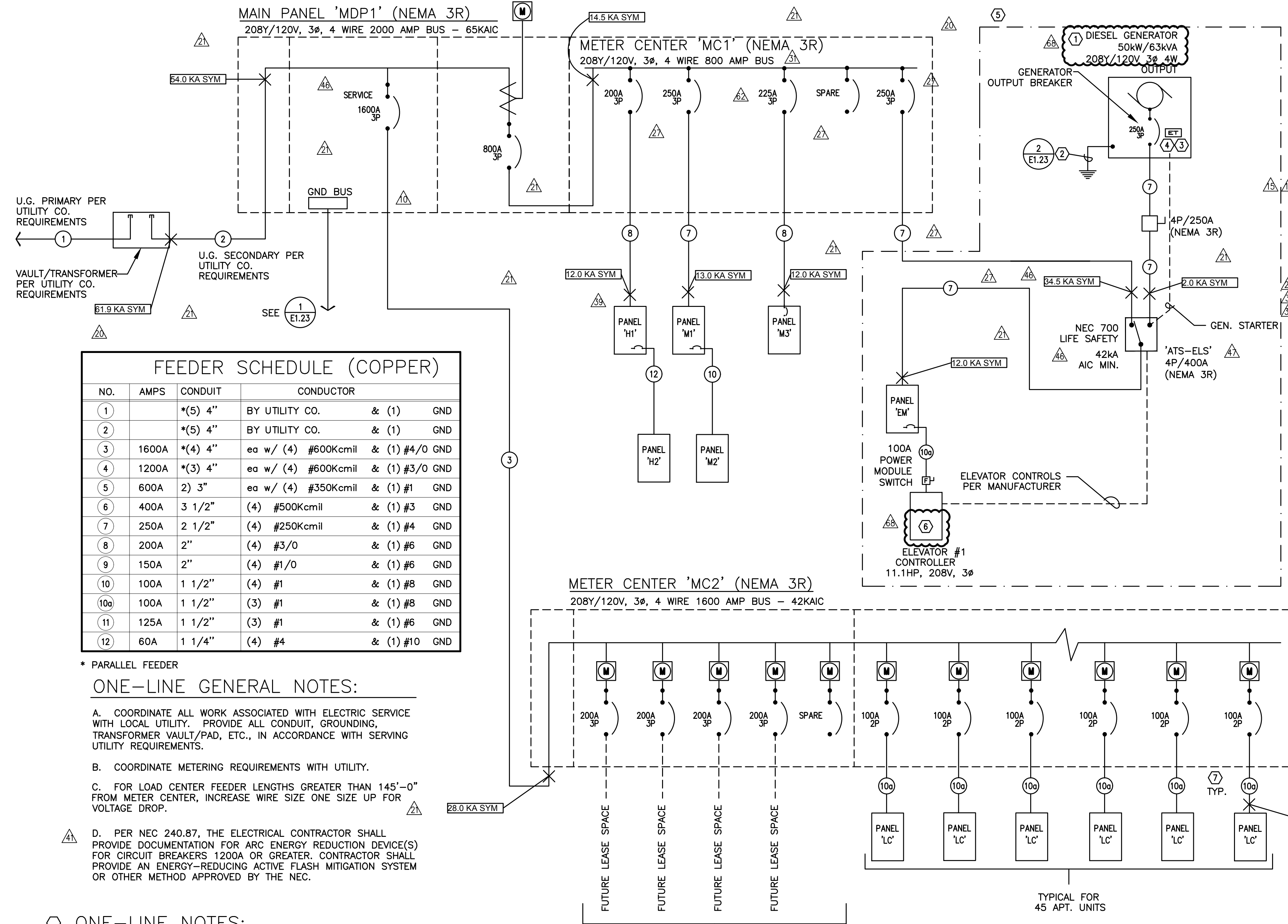
VOLTS: 208 3ph
TOTAL CALC: 681 KVA
CALC AMPS: 1890 AMPS

The Mississippi Apartments
LOAD SUMMARY - EMERGENCY GENERATOR PANEL 'EDP'
8/6/2019

LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	ELEVATOR	LARGEST MOTOR
Panel 'Et' (Life/Safety)	5,169	0	0	0	8,000	7,892	0	
Elevator # 1							17,388	17,388
SUBTOTAL	5,169	0	0	0	8,000	7,892	17,388	17,388
X-FACTOR	1.25	1 + .5	1	0.65	1	1	1	0.25
CODE LOAD:	6,461	0	0	0	8,000	7,892	17,388	4,347

CONN LOAD: 38 KVA

VOLTS: 208 3ph
TOTAL CALC: 44 KVA
CALC AMPS: 122 AMPS



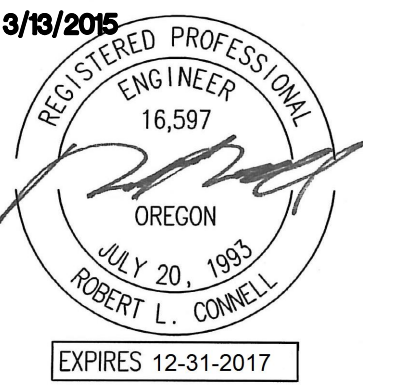
FEEDER SCHEDULE (COPPER)

NO.	AMPS	CONDUIT	CONDUCTOR
1		*(5) 4"	BY UTILITY CO. & (1) GND
2		*(5) 4"	BY UTILITY CO. & (1) GND
3	1600A	*(4) 4"	ea w/ (4) #600Kcmil & (1) #4/0 GND
4	1200A	*(3) 4"	ea w/ (4) #600Kcmil & (1) #3/0 GND
5	600A	2) 3"	ea w/ (4) #350Kcmil & (1) #1 GND
6	400A	3 1/2"	(4) #500Kcmil & (1) #3 GND
7	250A	2 1/2"	(4) #250Kcmil & (1) #4 GND
8	200A	2"	(4) #3/0 & (1) #6 GND
9	150A	2"	(4) #1/0 & (1) #6 GND
10	100A	1 1/2"	(4) #1 & (1) #8 GND
10a	100A	1 1/2"	(3) #1 & (1) #8 GND
11	125A	1 1/2"	(3) #1 & (1) #6 GND
12	60A	1 1/4"	(4) #4 & (1) #10 GND

- * PARALLEL FEEDER
- ONE-LINE GENERAL NOTES:**
- A. COORDINATE ALL WORK ASSOCIATED WITH ELECTRIC SERVICE WITH LOCAL UTILITY. PROVIDE ALL CONDUIT, GROUNDING, TRANSFORMER VAULT/PAD, ETC., IN ACCORDANCE WITH SERVING UTILITY REQUIREMENTS.
 - B. COORDINATE METERING REQUIREMENTS WITH UTILITY.
 - C. FOR LOAD CENTER FEEDER LENGTHS GREATER THAN 145'-0" FROM METER CENTER, INCREASE WIRE SIZE ONE SIZE UP FOR VOLTAGE DROP.
 - D. PER NEC 240.87, THE ELECTRICAL CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR ARC ENERGY REDUCTION DEVICE(S) FOR CIRCUIT BREAKERS 1200A OR GREATER. CONTRACTOR SHALL PROVIDE AN ENERGY-REDUCING ACTIVE FLASH MITIGATION SYSTEM OR OTHER METHOD APPROVED BY THE NEC.

- ONE-LINE NOTES:**
1. GENERATOR SIZED BASED ON CONNECTED LIFE SAFETY PANEL LOADS AND (1) ELEVATOR WITH A MOTOR STARTING RATE OF 53 AMPS. PER THE GENERATOR PROVIDER, THE AUTOMATIC TRANSFER SWITCH SHALL FUNCTION IN TWO STEPS TO REDUCE STARTING INRUSH. CONSULT GENERATOR VENDOR FOR ADDITIONAL INFORMATION.
 2. PROVIDE GROUND FOR SEPARATELY DERIVED SYSTEM PER NEC.
 3. PROVIDE ELECTRONIC TRIP CIRCUIT BREAKER. EXACT BREAKER TYPE, SETTINGS, ETC. TO BE VERIFIED AND AS DETERMINED BY SELECTIVE COORDINATION STUDY AS PERFORMED BY THE ELECTRICAL DISTRIBUTION EQUIPMENT MANUFACTURER.
 4. COORDINATE INSTALLATION OF OUTPUT BREAKER WITH GENERATOR MANUFACTURER TO SELECTIVELY COORDINATE WITH POWER STUDY RECOMMENDATIONS.
 5. 'LIFE SAFETY' BRANCH TO MEET ALL REQUIREMENTS OF NEC 700. CONTRACTOR SHALL BE AWARE THAT MFA HAS ATTEMPTED TO INDICATE EQUIPMENT AND SIZES THAT WILL SELECTIVELY COORDINATE, BUT WILL NOT BE KNOWN UNTIL ELECTRICAL EQUIPMENT MANUFACTURER PERFORMS THE REQUIRED POWER STUDIES AS SPECIFIED IN 26 05 73. CHANGES MAY BE NECESSARY AFTER THE BID.
 6. ELEVATOR TO BE PROVIDED WITH 30 SECOND DELAYED START WHEN TRANSFERRED TO THE EMERGENCY POWER SYSTEM IN THE EVENT OF NORMAL POWER FAILURE. CONSULT MANUFACTURER'S REPRESENTATIVE FOR ADDITIONAL INFORMATION.
 7. ALL TWO BEDROOM APARTMENTS UNITS TO BE PROVIDED WITH A 125A LOAD CENTER, TYPICAL.

1 ELECTRICAL ONE-LINE DIAGRAM
208/120v, 3ph, 4w



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DATE: 3/13/2015

REVISIONS	DATE	DESCRIPTION
06.02.17	COORDINATION	
08.11.17	COORDINATION	
09.01.17	COORDINATION	
10.06.17	COORDINATION	
05.11.18	COORDINATION	
06.07.19	COORDINATION	

**MISSISSIPPI AVE
MIXED USE BUILDING**
810 N FREMONT ST, PORTLAND, OR 97227

SHEET:
E1.12

M
E
A
INC. Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
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MECHANICAL EQUIPMENT SCHEDULE										
NO.	EQUIPMENT NAME	HP/KW	VOLTS	PH	AMPS	CONDUIT	WIRE	GND	CIRCUIT	
EF-1	EXHAUST FAN NO.1	20W	120	1		1/2"	#12	#12	SEE PLANS	
EF-2	EXHAUST FAN NO.2	2 HP	208	3		1/2"	#12	#12	M2-16,18,20	
EF-3	EXHAUST FAN NO.3	3/4 HP	120	1		1/2"	#12	#12	EM-26	
EF-4	EXHAUST FAN NO. 4	1/2 HP	120	1		1/2"	#12	#12	EM-28	
EF-5	EXHAUST FAN NO.5	3/4 HP	120	1		1/2"	#10	#10	EM-30	
EF-6	EXHAUST FAN NO.6	1/6 HP	120	1		1/2"	#12	#12	EM-32	
EF-7	EXHAUST FAN NO. 7	1/4 HP	120	1		1/2"	#12	#12	M2-11	
EF-8	EXHAUST FAN NO.8	1/40 HP	120	1		1/2"	#12	#12	TIED INTO LTG CKT	
EH-1	ELECTRIC WALL HEATER #1	1.5 KW	208	1		1/2"	#12	#12	SEE PLANS	
EH-2a	ELECTRIC WALL HEATER NO.2a	1.0 KW	120	1		1/2"	#12	#12	SEE PLANS	
EH-2b	ELECTRIC WALL HEATER NO.2b	1.0 KW	120	1		1/2"	#12	#12	SEE PLANS	
EH-3	ELECTRIC WALL HEATER NO.3	4.0 KW	208	1		1/2"	#10	#10	SEE PLANS	
EH-4	ELECTRIC WALL HEATER NO.4	500W	120	1		1/2"	#12	#12	SEE PLANS	
EH-5	ELECTRIC HEATER NO.5	2.5KW	208	1		1/2"	#12	#12	SEE PLANS	
FC-1	FAN COIL NO.1 (INDOOR)		208	1	84.0 MCA	1-1/4"	#2	#8	M1-11,13	
HP-1	HEAT PUMP NO.1 (OUTDOOR)		208	1	24.6 MCA	3/4"	#8	#10	M2-7,9	
IHP-1	MINI SPLIT SYST NO.1 (INDOOR)									
OHP-1	MINI SPLIT SYST NO.1 (OUTDOOR)		208	1	27.73 MCA	3/4"	#8	#10	REFER TO UNIT PLANS	
IHP-2	MINI SPLIT SYST NO.2 (INDOOR)									
OHP-2	MINI SPLIT SYST NO.2 (OUTDOOR)		208	1	18.0 MCA	1/2"	#12	#12	REFER TO UNIT PLANS	
IHP-3	MINI SPLIT SYST NO.3 (INDOOR)									
OHP-3	MINI SPLIT SYST NO.3 (OUTDOOR)		208	1	12.0 MCA	1/2"	#12	#12	REFER TO UNIT PLANS	
IHP-4	MINI SPLIT SYST NO.4 (INDOOR)									
OHP-4	MINI SPLIT SYST NO.4 (OUTDOOR)		208	1	12.0 MCA	1/2"	#12	#12	REFER TO UNIT PLANS	
IR-1	INFRARED HEATER ZONE #1	3.0KW	208	3		1"	#4	#8	REFER TO E1.26	
IR-2	INFRARED HEATER ZONE #2	4.0KW	208	3		1"	#4	#8	REFER TO E1.26	
IR-3	INFRARED HEATER ZONE #3	4.0KW	208	3		1"	#4	#8	REFER TO E1.26	
RTU-1	AIR HANDLING UNIT NO.1		208	3	29.0 MCA	3/4"	#8	#10	M2-2,4,6	
PTHP-1	THRU-WALL HEAT PUMP NO.1	3.5KW	208	1		1/2"	#12	#12	SEE UNIT PLANS	
SP-1	SUMP PUMP NO.1	1/2HP	120	1		1/2"	#12	#12	EM-2	
P-1	BOOSTER PUMP NO.1	(2) 5HP	208	3	28.8 EA.	1"	#4	#10	H1-37,38,41	
RP-1	RECIRC. PUMP NO.1	1/2HP	120	1		1/2"	#12	#12	H1-30	
RP-2	RECIRC. PUMP NO.2	1/2HP	120	1		1/2"	#12	#12	H1-32	
WH-1	WATER HEATER NO.1 (GAS)		120	1		1/2"	#12	#12	M1-36 (PC)	
WH-2	WATER HEATER NO.2 (GAS)		120	1		1/2"	#12	#12	M1-36 (PC)	
WH-3	WATER HEATER NO.3 (GAS)		120	1		1/2"	#12	#12	M1-36 (PC)	

GENERAL EQUIPMENT NOTES:

- A. CONTRACTOR/DESIGNER SHALL VERIFY ALL MECHANICAL EQUIPMENT CONNECTION LOAD REQUIREMENTS WITH THE MECHANICAL EQUIPMENT PROVIDER PRIOR TO ROUGH IN.
- B. MECHANICAL EQUIPMENT SIZES SHOWN IN THE MECHANICAL SCHEDULE ABOVE ARE FOR REFERENCE ONLY AND MAY NOT REFLECT THE ACTUAL EQUIPMENT TO BE INSTALLED.
- C. CONTRACTOR SHALL CONSULT MANUFACTURER INSTALLATION INSTRUCTIONS FOR ALL MECHANICAL EQUIPMENT AND INSTALL AS INSTRUCTED. CONTRACTOR SHALL CONSULT MANUFACTURER DOCUMENTATION FOR WIRING DIAGRAMS AND REQUIRED ELECTRICAL COMPONENTS AND PROVIDE AS REQUIRED FOR COMPLETE INSTALLATION. WORK SHALL BE PERFORMED SUCH THAT MANUFACTURER WARRANTY IS NOT VOIDED.

The Mississippi Apartments LOAD SUMMARY - METER CENTER 'MC2'								
LOAD:	LIGHTS	RECEPT	HEAT	KITCHEN	EQUIP	MOTORS	MISC	LARGEST MOTOR
Residential Loads (45 units)	0	0	0	0	0	0	358,000	
(Retail-Future)	0	0	0	0	0	0	92,000	
SUBTOTAL	0	0	0	0	0	0	450,000	0
X-FACTOR	1.25	1 + .5	1	0.65	1	1	1	0.25
CODE LOAD:	0	0	0	0	0	0	450,000	0

CONN LOAD: 450 KVA

VOLTS:	208	3ph
TOTAL CALC:	450	KVA
CALC AMPS:	1249	AMPS

The Mississippi Apartments RESIDENTIAL LOAD SUMMARY (MC2)																	
UNIT TYPE:	QTY PER FLOOR				TOTAL	AREA (SF)	LIG/RECEPT (3VA / SF)	SM APPL (1500VA X 2)	LAUNDRY (1500VA)	COOKING Gas Range (PROVISION)	MICROWAVE (CONNECTED)	DISHWASHER (CONNECTED)	ELECT DRYER (CONNECTED)	WATER HEATER (CONNECTED)	DISPOSAL (CONNECTED)	MOTORS (CONNECTED)	LARGEST OF: AC/HEATING (CONNECTED)
	1	2	3	4													
Type A - 2 Bed/2 Bath	---	3	3	3	9	1058	3174	3000	1500	8000	1580	744	5600	0	864	0	6000
Type B - 1 Bed/1 Bath	---	2	2	2	6	665	1995	3000	1500	8000	1580	744	5600	0	864	0	6000
Type C - Studio	---	1	1	1	3	510	1530	3000	1500	8000	1580	744	5600	0	864	0	6000
Type D - 2 Bed/2 Bath	---	1	1	---	2	982	2946	3000	1500	8000	1580	744	5600	0	864	0	6000
Type E - 2 Bed/2 Bath	---	1	1	---	2	1012	3036	3000	1500	8000	1580	744	5600	0	864	0	6000
Type F - 1 Bed/1 Bath	---	3	3	3	9	619	1857	3000	1500	8000	1580	744	5600	0	864	0	6000
Type G - Studio	---	3	3	3	9	528	1584	3000	1500	8000	1580	744	5600	0	864	0	6000
Type H - Studio	---	1	1	1	3	490	1470	3000	1500	8000	1580	744	5600	0	864	0	6000
Type I-ADA - Studio	---	---	---	---	1	575	1725	3000	1500	8000	1580	744	5600	0	864	0	6000
Type J - 2 Bed/1 Bath	---	---	---	---	1	742	2226	3000	1500	8000	1580	744	5600	0	864	0	6000
TOTALS:	0	15	15	15	45		96420	135000	67500	360000	71100	33480	252000	0	38880	0	270000

VOLTS:	208	3ph
TOTAL CONNECTED:	1324	KVA
DEMAND FACTOR:	0.27	Based on Total Number of Residential Units = 45 (See N.E.C. Article: 220.84)
TOTAL CALCULATED:	358	KVA
CALCULATED AMPS:	994	AMPS



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 - 01.25.19 COORDINATION
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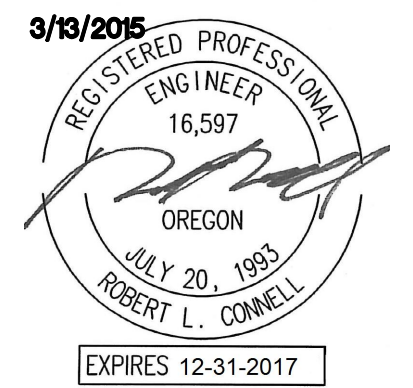
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FAX: (503) 234-0877
www.MEIA-ENG.COM
CONTACT: DENISE TAYLOR

MFA PANEL SCHEDULE												
panel	mounting	location				connected load amps						
		1ST FLOOR		bus & main								
EM	FLUSH	phase	no.	o/p	no.	o/p	no.	o/p	no.	o/p	no.	
120/208V (SCCR: 22KAIC)	3	200A	MLO		calculated load amps	242						246
1 LIGHTS - GARAGE	788	20/1	1	2	20/1	1176	SP-1	service				6
1 LIGHTS - BUILDING EXTERIOR	252	20/1	3	4	20/1	0	SPARE				6	
1 LIGHTS - STAIR #1	504	20/1	5	6	20/1	864	AIR COMPRESSOR				6	
1 LIGHTS - STAIR #2	588	20/1	7	8	20/1	864	AIR COMPRESSOR				6	
1 LIGHTS - 1ST FLOOR	386	20/1	9	10	20/1	500	ELEVATOR RELIEF VENT				1	
1 LIGHTS - 2ND FLOOR	315	20/1	11	12	20/1	248	LIGHTS - ELEVATOR PIT				1	
1 LIGHTS - 3RD FLOOR	315	20/1	13	14	20/1	500	LIGHTS - ELEVATOR CAB				1	
1 LIGHTS - 4TH FLOOR	315	20/1	15	16	20/1	500	GEN SET LTS & RECEIPT				1	
1 LIGHTS - TERRACE	500	20/1	17	18	20/1	500	GEN BLOCK HEATER				3	
5 SMOKE DAMPERS	1000	20/1	19	20	20/1	500	GEN BATTERY CHARGER				5	
5 SMOKE DAMPERS	1000	20/1	21	22	20/1	500	GEN. REMOTE ANNUNCIATOR				5	
5 SMOKE DAMPERS	1000	20/1	23	24	20/1	0	SPARE				6	
5 SMOKE DAMPERS	1000	20/1	25	26	20/1	1656	EF-3				6	
5 FACP/DAS system	1000	20/1	27	28	20/1	1176	EF-4				6	
SPARE	0	20/1	29	30	20/1	1656	EF-5				6	
SPARE	0	20/1	31	32	20/1	528	EF-6				6	
1 LIGHTS - 1ST FLR COURTYARD	100	20/1	33	34	20/1	0	SPARE				6	
SPARE	0	20/1	35	36	20/1	0	SPARE				6	
6 ELEVATOR	5796	100/3	37	38	20/1	0	SPARE				6	
6 *	5796	100/3	39	40	20/1	0	SPARE				6	
6 *	5796	100/3	41	42	20/1	1500	SMOKE CURTAINS				5	
Phase A	14709	VA				line-line voltage						
Phase B	11385	VA				largest motor (va)			208			
Phase C	12883	VA				calculated load (va)			17388			
Total Connected	38977	VA				total factor			1.25			
load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)			6461			
1. LIGHTS=	2189	1413	0	0	0	0	0	0	0	0	0	
2. RECEIPT=	0	0	0	0	0	0	0	0	0	0	0	
3. HEATING=	0	0	500	0	0	0	0	0	0	0	0	
4. KITCHEN=	0	0	0	0	0	0	0	0	0	0	0	
5. EQUIP.=	2500	2500	2500	0	0	0	0	0	0	0	0	
6. MOTORS=	9492	7472	8316	0	0	0	0	0	0	0	0	
7. MISC=	0	0	0	0	0	0	0	0	0	0	0	
(* 125% of the largest motor + 100% of the balance)												
TOTAL = 44088												

MFA PANEL SCHEDULE												
panel	mounting	location				connected load amps						
		1ST FLOOR		bus & main								
H1	FLUSH	phase	no.	o/p	no.	o/p	no.	o/p	no.	o/p	no.	
120/208V (SCCR: 22KAIC)	3	200A	MLO		calculated load amps	125						127
1 LIGHTS - BLDG EXTERIOR	550	20/1	1	2	20/1	1080	RECEPT - BASEMENT LEVEL				2	
1 LIGHTS - GARAGE	544	20/1	3	4	20/1	900	RECEPT - BLDG EXTERIOR				2	
1 LIGHTS - GARAGE	324	20/1	5	6	20/1	1260	RECEPT - 1ST FLOOR				2	
1 LIGHTS - LOBBY & OFFICE	763	20/1	7	8	20/1	1260	RECEPT - 1ST FLOOR				2	
1 LIGHTS - 1ST FLOOR	682	20/1	9	10	20/1	1260	RECEPT - 1ST FLOOR				2	
1 LIGHTS - 2ND FLOOR	440	20/1	11	12	20/1	900	RECEPT - 1ST FLOOR				2	
1 LIGHTS - 1ST FLR COURTYARD	80	20/1	13	14	20/1	500	PHONE BOARD				5	
5 PACKAGE CONERGE SYSTEM	1000	20/1	15	16	20/1	1260	RECEPT - 2ND FLOOR				2	
5 PACKAGE CONERGE SYSTEM	1000	20/1	17	18	20/1	360	RECEPT - 2ND FLOOR DATA				2	
5 DRINKING FOUNTAIN	500	20/1	19	20	20/1	1000	AUTO DOORS				5	
5 CHARGING CABINET	1500	20/1	21	22	20/1	1000	HEAT TRACE				3	
2 RECEIPT - ELEV MACH RM	1000	20/1	23	24	20/1	500	LCP				5	
3 EH-2a - SPACE A (TEMP)	1000	20/1	25	26	20/1	500	CABLE PROVIDER BOARD				5	
3 EH-2a - SPACE A (TEMP)	1000	20/1	27	28	20/1	1176	SECURITY				5	
1 LTS - SPACE A (TEMP)	976	20/1	29	30	20/1	1176	RP-1				6	
1 LTS - SPACE B (TEMP)	496	20/1	31	32	20/1	1176	RP-2				6	
1 LTS - SPACE C (TEMP)	496	20/1	33	34	20/1	500	COFFEE BAR				5	
2 RECEIPT - SPACE A (TEMP)	900	20/1	35	36	20/1	1080	RECEPT - SPACE B&C (TEMP)				2	
6 P-1 (BOOSTER)	3456	60/3	37	38	60/3	2060	PANEL HP2"				7	
6 *	3456	60/3	39	40	60/3	800	*				7	
6 *	3456	60/3	41	42	60/3	1440	*				7	
Phase A	14421	VA				line-line voltage						
Phase B	15898	VA				largest motor (va)			208			
Phase C	14812	VA				calculated load (va)			0			
Total Connected	45131	VA				total factor			1.25			
load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)			6689			
1. LIGHTS=	1889	1722	1740	0	0	0	0	0	0	0	0	
2. RECEIPT=	2340	2420	5500	0	0	0	0	0	0	0	0	
3. HEATING=	1000	2000	0	0	0	0	0	0	0	0	0	
4. KITCHEN=	0	0	0	0	0	0	0	0	0	0	0	
5. EQUIP.=	2500	4500	1500	0	0	0	0	0	0	0	0	
6. MOTORS=	4632	3456	4632	0	0	0	0	0	0	0	0	
7. MISC=	2060	800	1440	0	0	0	0	0	0	0	0	
(* 125% of the largest motor + 100% of the balance)												
TOTAL = 45839												

MFA PANEL SCHEDULE												
panel	mounting	location				connected load amps						
		3RD FLOOR		bus & main								
H2	FLUSH	phase	no.	o/p	no.	o/p	no.	o/p	no.	o/p	no.	
120/208V (SCCR: 22KAIC)	3	60A	MLO		calculated load amps	36						38
1 LIGHTS - 3RD FLOOR	440	20/1	1	2	20/1	1260	RECEPT - 3RD FLOOR				2	
1 LIGHTS - 4TH FLOOR	440	20/1	3	4	20/1	360	RECEPT - 3RD FLOOR DATA				2	
1 LIGHTS - 5TH FLOOR TERRACE	500	20/1	5	6	20/1	1440	RECEPT - 4TH FLOOR				2	
1 LANDSCAPE LIGHTS - TERRACE	1000	20/1	7	8	20/1	360	RECEPT - 4TH FLOOR DATA				2	
1 LANDSCAPE LIGHTS - TERRACE	1000	20/1	9	10	20/1	500	FIREPLACE IGNITOR				5	
5 BUILDING SIGN	500	20/1	11	12	20/1	500	FIREPLACE IGNITOR				5	
5 SYMETRIX AUDIO SYSTEM	1000	20/1	13	14	20/1	500	FIREPLACE IGNITOR				5	
5 BUILDING SIGN	1500	20/1	15	16	20/1	200	LIGHTS-FLR 2-4 EQUIP ROOMS				2	
5 BUILDING SIGN	1500	20/1	17	18	20/1	0	BLANK				2	
BLANK	0	20/1	19	20	20/1	0	BLANK				2	
BLANK	0	20/1	21	22	20/1	0	BLANK				2	
BLANK	0	20/1	23	24	20/1	0	BLANK				2	
BLANK	0	20/1	25	26	20/1	0	BLANK				2	
BLANK	0	20/1	27	28	20/1	0	BLANK				2	
BLANK	0	20/1	29	30	20/1	0	BLANK				2	
Phase A	4560	VA				line-line voltage						
Phase B	4000	VA				largest motor (va)			208			
Phase C	4440	VA				calculated load (va)			0			
Total Connected	13000	VA				total factor			1.25			
load code:	ph. A	ph. B	ph. C	total	factor	calculated load (va)			4225			
1. LIGHTS=	1440	1440	500	0	0	0	0	0	0	0	0	
2. RECEIPT=	1620	560	1440	0	0	0	0	0	0	0	0	
3. HEATING=	0	0	0	0	0	0	0	0	0	0	0	
4. KITCHEN=	0	0	0	0	0	0	0	0	0	0	0	
5. EQUIP.=	1500	2000	2500	0	0	0	0	0	0	0	0	
6. MOTORS=	0	0	0	0	0	0	0	0	0	0	0	
7. MISC=	0	0	0	0	0	0	0	0	0	0	0	
(* 125% of the largest motor + 100% of the balance)												
TOTAL = 13845												

MFA PANEL SCHEDULE												
panel	mounting	location				connected load amps						
		4TH FLOOR		bus & main								
M2	FLUSH	phase	no.	o/p	no.	o/p	no.	o/p	no.	o/p	no.	
120/208V (SCCR: 22KAIC)	3	100A	MLO		calculated load amps	78						85
6 RTU-1	3480	40/3	1	2	20/1	500	Roof Gas Shutoff & Switches				5	
6 *	3480	40/3	3	4	20/1	500	Roof Gas Shutoff & Switches				5	
6 *	3480	40/3	5	6	20/1	1000	EH-2 (5TH FLR ELEV LOBBY)				3	
6 HP-1 (INTERCONNECT W/ FC-1)	2558	40/2	7	8	20/1	500	IRRIGATION CONTROLS				5	
6 *	2558	40/2	9	10	20/1	900	RECEPT - ROOF				2	
6 EF-7	696	20/1	11	12	20/1	1260	RECEPT - ROOF				2	
2 RECEIPT - ROOF	900	20/1	13	14	20/1	900	RECEPT - ROOF				2	
5 Roof Gas Shutoff & Switches	500	20/1	15	16	20/1	936	EF-2				6	
5 Roof Gas Shutoff & Switches	500	20/1	17	18	20/1	936	*				6	
5 BUILDING SIGNS	1500	20/1	19	20	20/1	936	*				6	
BLANK	0	20/1	21	22	20/1	0	BLANK				6	
BLANK	0	20/1	23	24	20/1	0	BLANK				6	
Phase A	11274	VA				line-line voltage						
Phase B	8874											



IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2014-26 DATE: 3/13/2015

Table with 2 columns: REVISIONS, and 1 row: 01.20.17 COORDINATION

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type A, 2 bed/2bath. Area: 1,058 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 3,174 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 25,138 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 6,055 VA. Net "general load" 16,055 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,955 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,955 VA / 208 volts = 96 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type B, 1 bed/bath. Area: 665 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 1,995 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 23,959 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 5,584 VA. Net "general load" 15,584 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,484 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,484 VA / 208 volts = 94 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type C, Studio. Area: 510 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 1,530 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 23,494 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 5,398 VA. Net "general load" 15,398 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,298 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,298 VA / 208 volts = 93 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type D, 2 bed/2 bath. Area: 982 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 2,946 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 24,910 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 5,964 VA. Net "general load" 15,964 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,864 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,864 VA / 208 volts = 96 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type E, 2 bed/2 bath. Area: 1,012 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 3,036 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 25,000 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 6,000 VA. Net "general load" 16,000 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,900 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,900 VA / 208 volts = 96 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type F, 1 bed/1 bath. Area: 619 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 1,857 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 23,821 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 5,528 VA. Net "general load" 15,528 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,428 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,428 VA / 208 volts = 93 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type G, Studio. Area: 528 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 1,584 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 23,548 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 5,419 VA. Net "general load" 15,419 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,319 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,319 VA / 208 volts = 93 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type H, Studio. Area: 490 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 1,470 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 23,434 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 5,374 VA. Net "general load" 15,374 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,274 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,274 VA / 208 volts = 93 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type I-ADA, Studio. Area: 575 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 1,725 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 23,689 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 5,476 VA. Net "general load" 15,476 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,376 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,376 VA / 208 volts = 93 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

DWELLING UNIT LOAD CALCULATION. Project: The Mississippi Apartments. Unit Type: Type J, 2 bed/1 bath. Area: 742 square feet. Minimum Size Feeder (NEC 220.82): General lighting load at 3 VA / SF 2,226 VA, Small Appliance load (2 ckt at 1500VA each) 3,000 VA, Laundry Load (1 ckt at 1500VA) 1,500 VA, Gas Range 8,000 VA, Other Cooking Appliance Load (Microwave Oven) 1,800 VA, Dishwasher Load 1,200 VA, Electric Dryer Load 5,600 VA, Electric Water Heater Load 0 VA, Disposal load 864 VA, Other motor loads 0 VA. Total "General Loads" 24,190 VA. First 10 kVA of "general loads" at 100% 10,000 VA, Remainder of "general loads" at 40% 5,676 VA. Net "general load" 15,676 VA. Largest of: 6,000 VA of electric space heating (less than 4) at 65%, 3,900 VA of electric space heating (4 or more) at 40%, 0 VA of air conditioning/cooling/heat pumps at 100%. TOTAL LOAD 19,576 VA. For 120/208-volt, 3-wire, single-phase service or feeder, 19,576 VA / 208 volts = 94 Amps. Therefore, this dwelling unit shall be permitted to be served by a 100 amp service.

MISSISSIPPI AVE MIXED USE BUILDING 810 N FREMONT ST, PORTLAND, OR 97227

M Consulting Engineers 2007 S.E. Ash St. Portland, OR 97214 PHN: (503) 234-0548 FAX: (503) 234-0877 INC. WWW.MFIA-ENG.COM CONTACT: DENISE TAYLOR



IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS

04.28.17	COORDINATION
06.02.17	COORDINATION
06.30.17	COORDINATION
07.07.17	COORDINATION
08.04.17	COORDINATION
10.06.17	COORDINATION

**MISSISSIPPI AVE
MIXED USE BUILDING**
810 N FREMONT ST, PORTLAND, OR 97227

LIGHTING FIXTURE LIST

TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'A'	(2) F25T8 54 W	TEXAS FLUORESCENTS	C SERIES	TYPE :4' GEN. PURPOSE STRIP MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :ELECTRONIC	RETAIL SPACE
'A1' 'A1E'	LED 3500K 2000 LM/80CRI 24W	LITHONIA (OR APPROVED EQUAL)	ZL2N SERIES	TYPE :4' GEN. PURPOSE STRIP MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :DIFFUSED ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER	TYPE 'AE' SIMILAR TO TYPE 'A' EXCEPT WITH EMERGENCY BATTERY BACK-UP EQUIP. RMS, TRASH RM
'A2'	LED 3500K 1800 LM/80CRI 24W	LITHONIA (OR APPROVED EQUAL)	XWMLD SERIES	TYPE :4' ENCLOSED INDUSTRIAL MOUNTING :SURFACE HOUSING :POLYCARBONATE LENS/REFL :CLEAR POLYCARBONATE VOLTAGE :MVOLT BALLAST :LED DRIVER	ELEVATOR PIT
'B1'	LED 3500K 2152 LM 18.7W	LITHONIA (OR APPROVED EQUAL)	WL4 20LP835 SERIES	TYPE :4' WRAP AROUND MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER	BIKE STORAGE RM, STAIRWELLS, CORRIDORS
'B2' (LF-10)	LED 3500K 940LM/FT 40W	PRUDENTIAL LIGHTING (OR APPROVED EQUAL)	P40 SERIES	TYPE :6' SUSPENDED DIRECT MOUNTING :SUSPENDED (CABLE) HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	VERIFY MOUNTING HEIGHT W/ ARCHITECT FINISH & LENS OPTION PER ARCHITECT FITNESS ROOM
'C1' (LF-09)	LED 3500K 314LM/80CRI 5.8W	WAC LIGHTING LIGHTING (OR APPROVED EQUAL)	HR-LED321 SERIES	TYPE :3" DIA. DOWNLIGHT MOUNTING :RECESSED HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT PROVIDE APPROPRIATE HOUSING FOR IC RATED CEILING RESTROOMS, CORRIDORS
'C2' (LF-02)	LED 3500K 750LM 12W	CORE LIGHTING (OR APPROVED EQUAL)	RLD-420C SERIES	TYPE :4" SQ. DOWNLIGHT MOUNTING :RECESSED HOUSING :ALUMINUM LENS/REFL :BLACK BAFFEL VOLTAGE :MVOLT BALLAST :LED DRIVER	FINISH PER ARCHITECT FIXTURE SHALL BE IC RATED WHERE REQUIRED. LOBBY, CORRIDORS
'C3' (LF-11)	LED 3500K 750LM 12W	CORE LIGHTING (OR APPROVED EQUAL)	RLD-420C SERIES	TYPE :4" SQ. DOWNLIGHT MOUNTING :RECESSED HOUSING :ALUMINUM LENS/REFL :WHITE BAFFLE VOLTAGE :MVOLT BALLAST :LED DRIVER	FINISH PER ARCHITECT FIXTURE SHALL BE IC RATED WHERE REQUIRED. RESTROOMS, FITNESS RM, OFFICE
'D' (LF-01)	LED 3500K 750 LM/FT 4.4W/FT	CORE LIGHTING (OR APPROVED EQUAL)	LSP-50 SERIES	TYPE :COVE LIGHT MOUNTING :SURFACE (BEHIND MIRROR) HOUSING :PLASTIC LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER	FIXTURE TO BE MOUNTED BEHIND MIRROR CONSULT WITH INTERIOR DECORATOR FOR EXACT REQUIREMENTS. RESTROOMS
'D1' (LF-04)	(2) 2G11 36W (2) 2G11 24W 3500K 120W	VIBIA LIGHTING (OR APPROVED EQUAL)	"BIG" SERIES	TYPE :39.5" DIA. PENDANT MOUNTING :SUSPENDED HOUSING :STEEL LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :ELECTRONIC (DIMMING)	REFER TO INTERIOR DESIGNER'S PLAN SET FOR FINISHES AND MOUNTING HEIGHT MAIN LOBBY, MAIL ROOM
'D3' (LF-06)	(1)E26PAR16LED 3500K 500 LUMEN 8 W (MAX)	STUDIO ITALIA DESIGN (OR APPROVED EQUAL)	A-TUBE SERIES	TYPE :PENDANT CLUSTER MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :NA VOLTAGE :MVOLT BALLAST :INTEGRAL DRIVER (DIMMING)	CLUSTER OF (4) FIXTURES. ARCHITECT TO DETERMINE FINISH, MOUNTING PATTERN AND HEIGHT. MAIN LOBBY
'D4' (LF-07)	LED 3500K 920 LUMEN 12.3W	JUNIPER LIGHTING (OR APPROVED EQUAL)	THIN SERIES	TYPE :36" GALLERY LIGHT MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :CLEAR VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	180MM STANDOFF WALL MOUNT ARCHITECT TO DETERMINE FINISH AND MOUNTING HEIGHT. MAIN LOBBY
'D5' 'D5E' (LF-01)	LED 3500K 368LM/LF 4.4W/LF	CORE LIGHTING (OR APPROVED EQUAL)	LSP-30 SERIES W/ALUSF SURFACE MOUNT	TYPE :COVE LIGHT MOUNTING :COVE MOUNTED/CONTINUOUS HOUSING :ALUMINUM LENS/REFL :CLEAR LENS VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FIXTURE NOTED AS TYPE 'D5E' TO BE CIRCUITED VIA EMERGENCY POWER SYSTEM. SEE PLANS FOR ADDIT. INFO. CORRIDORS
'D6' (LF-03)	LED 3500K 428LM/LF 5W/LF	A-LIGHT (OR APPROVED EQUAL)	AQL9 SERIES	TYPE :COVE LIGHT MOUNTING :COVE MOUNTED/CONTINUOUS HOUSING :ALUMINUM LENS/REFL :CLEAR LENS VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	LOBBY
'X1' 'X2'	LED (GREEN LETTERS) (1.5W)	LITHONIA DMF LIGHTING (OR APPROVED EQUAL)	LE EL N SERIES DLED500EM-G	TYPE :EXIT SIGN MOUNTING :UNIVERSAL HOUSING :DIE-CAST ALUMINUM LENS/REFL :SINGLE FACE/DUAL FACE VOLTAGE :MVOLT BALLAST :NICKLE CADMIUM BATTERY	TYPE 'X2' SIMILAR TO 'X1' EXCEPT WITH DUAL FACE AND/OR DIRCTIONAL ARROWS

LIGHTING FIXTURE LIST

TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'X3'	LED (GREEN LETTERS) (3.5W)	LITHONIA (OR APPROVED EQUAL)	WLTE EL SERIES	TYPE :EXIT SIGN MOUNTING :UNIVERSAL HOUSING :DIE-CAST ALUMINUM LENS/REFL :SINGLE FACE VOLTAGE :MVOLT BALLAST :NICKLE CADMIUM BATTERY	UL LISTED WET LOCATION
'SA'	LED 3000K 1488LM 31W	BEGA (OR APPROVED EQUAL)	6057LED SERIES	TYPE :7.5" DIA. CYLINDER MOUNTING :SURFACE HOUSING :ALUMINUM LENS/REFL :PARTIALLY FROSTED GLASS VOLTAGE :MVOLT BALLAST :LED DRIVER	FINISH PER ARCHITECT UL LISTED WET LOCATION BUILDING EXTERIOR, CANOPY
'SA1' (LF-02)	LED 3000K 750LM 12W	CORE LIGHTING (OR APPROVED EQUAL)	RLD-420C SERIES	TYPE :4" SQ. DOWNLIGHT MOUNTING :RECESSED HOUSING :ALUMINUM LENS/REFL :PLASTIC VOLTAGE :MVOLT BALLAST :LED DRIVER	FINISH PER ARCHITECT UL LISTED WET LOCATION COVERED TERRACE
'SB'	LED 4000K 4245 LUMENS 56 W	LSI LIGHTING (OR APPROVED EQUAL)	CROSSOVER (XPG3) SERIES	TYPE :GARAGE LIGHT MOUNTING :SURFACE HOUSING :ALUMINUM LENS/REFL :TEMPERED GLASS VOLTAGE :MVOLT BALLAST :LED DRIVER	PARKING GARAGE
'SC'	LED 521 LUMEN 3000K 25 W	BEGA LIGHTING (OR APPROVED EQUAL)	2252 SERIES	TYPE :WALL SCONCE MOUNTING :RECESSED HOUSING :ALUMINUM LENS/REFL :FROSTED TEMPERED GLASS VOLTAGE :MVOLT BALLAST :LED DRIVER	FINISH PER ARCHITECT GARGAE DRIVEWAY,BLDG EXTERIOR
'SC1'	LED 1080 LUMEN 3000K 26 W	BEGA LIGHTING (OR APPROVED EQUAL)	33 136 SERIES	TYPE :10" SQ CEILING LIGHT MOUNTING :SURFACE HOUSING :ASTEEL LENS/REFL :FROSTED TEMPERED GLASS VOLTAGE :MVOLT BALLAST :LED DRIVER	FINISH PER ARCHITECT GARGAE DRIVEWAY,BLDG EXTERIOR
'SD'	LED 2000K 2739 LUMEN 50 W	BEGA LIGHTING LSI INDUSTRIES (OR APPROVED EQUAL)	2260L SERIES SWS SERIES	TYPE :WALL SCONCE MOUNTING :SURFACE (+8"-0" AFF MIN) HOUSING :STEEL LENS/REFL :TEMEPERED MATT GLASS VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT 1ST FLOOR COURTYARD
'SF' (FF-01)	NA 30 W	BIG ASS FANS (OR APPROVED EQUAL)	HAIKU SERIES	TYPE :60" CEILING FAN MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :NA	FINISH PER ARCHITECT. VERIFY MOUNTING HEIGHT & LOCATION WITH INTERIOR DESIGNER. UL LISTED WET/DAMP LOCATION 1ST FLOOR COURTYARD

GENERAL NOTES:

- A. ALL LIGHT FIXTURES SHALL HAVE ENERGY EFFICIENT LAMPING AND BALLASTS.
- B. LIGHT FIXTURES FOR LIVING UNITS SHALL BE "ENERGY STAR" RATED.
- C. VERIFY ALL FIXTURE FINISHES WITH ARCHITECT PRIOR TO BID.
- D. VERIFY ALL FIXTURE MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO BID.
- E. VERIFY ALL FIXTURE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH IN.
- F. ALL INTERIOR LIGHTING SHALL BE 3500 KELVIN UNLESS OTHERWISE NOTED. THE EXCEPTION TO THIS WILL BE THE LIGHT FIXTURES IN THE APARTMENT UNITS, FIXTURES IN MAINTENANCE AREAS AND TEMPORARY LIGHTING.
- G. ALL PRODUCT SUBSTITUTIONS AND VALUE ENGINEERING SHALL BE SUBMITTED DURING BID PHASE, SHALL MEET DESIGN INTENT AND IS SUBJECT TO OWNER APPROVAL.
- F. FIXTURES TO CORRESPOND TO THE INTERIOR DESIGNER'S FIXTURE DESIGNATION AS NOTED IN PARENTHESES.
- G. CONTRACTOR SHALL CONSULT MANUFACTURER INSTALLATION INSTRUCTIONS FOR ALL FIXTURES AND DEVICES AND INSTALL AS INSTRUCTED. THIS INCLUDES ALL ELECTRICAL COMPONENTS REQUIRED FOR COMPLETE INSTALLATION. WORK SHALL BE PERFORMED SUCH THAT MANUFACTURER WARRANTY IS NOT VOIDED.

KEYED LIGHTING NOTES:

- 1. CONTRACTOR TO DETERMINE FIXTURE LENGTH BASED ON ARCHITECTURAL REFLECTED CEILING PLANS AND ELECTRICAL LIGHTING PLANS. DESIGN INTENT IS FOR THE FIXTURE TO RUN THE ENTIRE LENGTH OF THE "COVE" TO PROVIDE EVEN LIGHT DISTRIBUTION.

FIXTURE TO BE FIELD AIMED SUCH THAT THE LIGHT OUTPUT IS DIRECTED TOWARD THE CENTER OF THE CORRIDOR.

FIXTURE(S) SHALL BE PROVIDED WITH DIMMING CAPABILITY TO REDUCE THE LIGHT LEVELS.
- 2. STAIRWELL AND CORRIDOR FIXTURES TO BE EQUIPPED WITH FACTORY INSTALLED OCCUPANCY SENSORS FOR LIGHT REDUCTION DURING PERIODS OF NO ACTIVITY.
- 3. PENDANT CLUSTER TO CONSIST OF:
(1) PL3 - 2.4"Ø X 11.8"H
(1) PL4 - 2.4"Ø X 23.6"H
(1) PL5 - 2.4"Ø X 39.4"H
(1) PL6 - 2.4"Ø X 5.5" H
- 4. PROVIDE ALTERNATE PRICING FOR SIMILAR TYPE FIXTURE WITH LED LAMPING. FIXTURE SHALL BE 3500K, 2400 LUMEN (MINIMUM) AND 100 WATTS (MAX.).
- 5. IF NECESSARY, CONTRACTOR SHALL PROVIDE IC RATED BOXES FOR FIXTURES NOT MEETING INSULATED CEILING REQUIREMENTS.
- 6. a) ELECTRICAL CONTRACTOR TO INSTALL LOW VOLTAGE TRANSFORMER(S) FOR THE LED COVE CLOSE TO CEILING AT LOCATION(S) NOTED.

b) ELECTRICAL CONTRACTOR SHALL PROVIDE ACCESS PANELS OF THE APPROPRIATE SIZE TO SUIT THE SPACE AND/OR AS DESCRIBED IN THE DIVISION 26, SECTION 260500, 2.02(A) OF THE ELECTRICAL SPECIFICATIONS. CONTRACTOR SHALL CONSULT ARCHITECT TO IDENTIFY EXACT LOCATIONS IN ORDER TO AVOID CONFLICTS, PRIOR TO ROUGH IN OF EACH ACCESS PANEL.

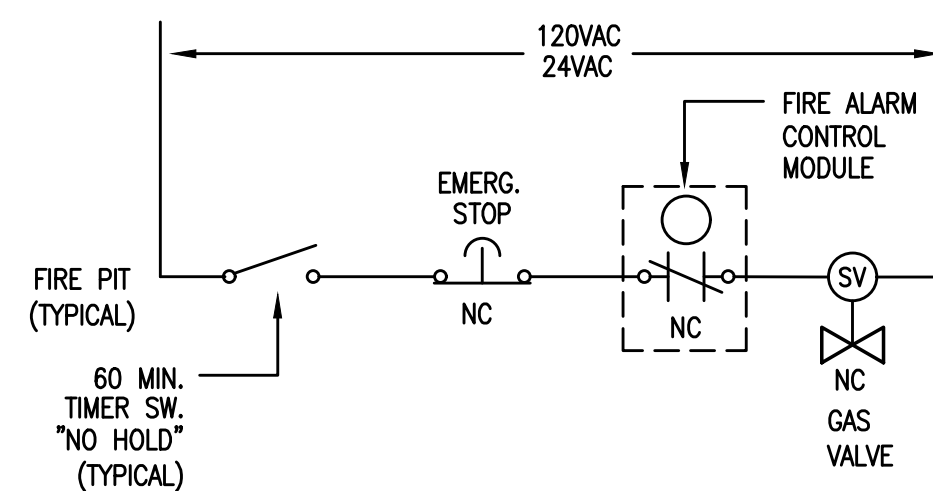
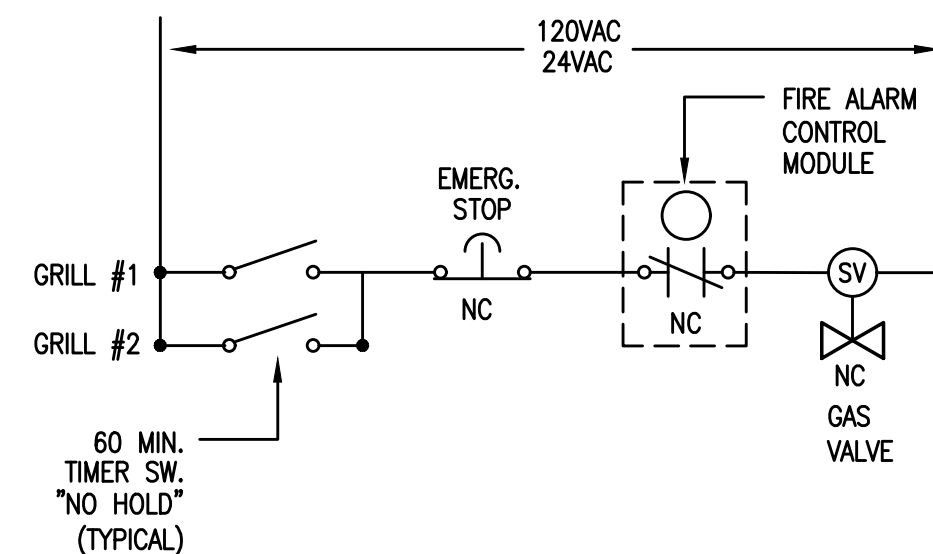
c) ELECTRICAL CONTRACTOR SHALL INSTALL THE LOW VOLTAGE TRANSFORMERS PER MANUFACTURER'S INSTRUCTION AND PROVIDE THE LEAST AMOUNT OF DEVICES POSSIBLE TO KEEP ACCESS POINTS TO A MINIMUM. EACH TRANSFORMER INSTALLED SHALL BE SIZED TO MEET THE TOTAL WATTAGE OF THE LENGTH OF LED TAPE IT IS TO SERVE.

d) ELECTRICAL CONTRACTOR SHALL IDENTIFY THE EXACT LOCATION OF EACH ACCESS POINT ON THE FINAL CLOSE OUT DOCUMENTS.

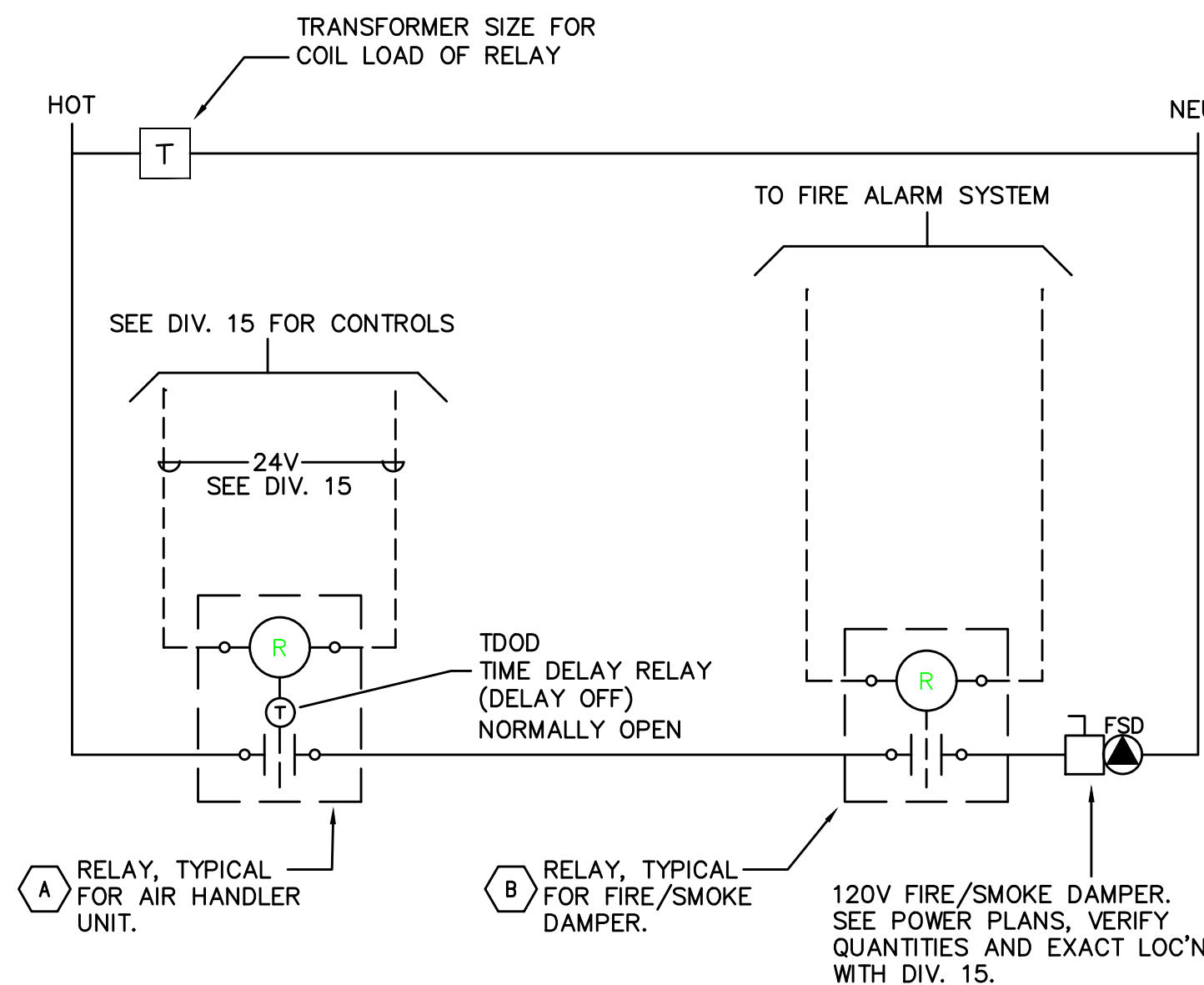
LIGHTING FIXTURE LIST - TYPICAL LIVING UNITS					
TYPE	LAMP	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	OPTIONS
'UA' ② ③	LED 786 LUMEN 3500K (10W)	HALO (OR APPROVED OTHER)	SMD4R SERIES	TYPE :4" DIA. DOWNLIGHT MOUNTING :SURFACE (J-BOX) HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	FINISH PER ARCHITECT. UNIT KITCHEN, HALL, CLOSET,LIVING
'UB'	LED 750 LUMEN 3500K (18W)	KUZCO LIGHTING (OR APPROVED OTHER)	FM3511 SERIES	TYPE :11" DIA. CEILING LIGHT MOUNTING :SURFACE HOUSING :STEEL LENS/REFL :GLASS VOLTAGE :120V BALLAST :LED DRIVER	FINISH PER ARCHITECT. UNIT DINING, BEDROOM
'UC'	LED 850 LUMEN 3500K 11W	KUZCO LIGHTING (OR APPROVED EQUAL)	WS3909 SERIES	TYPE :WALL SCONCE MOUNTING :SURFACE (+7"-0" AFF) HOUSING :BRUSHED NICKEL FINISH LENS/REFL :WHITE OPAL GLASS VOLTAGE :120V BALLAST :LED DRIVER	 LOFT UNIT ONLY
'UD'	LED 3500K 2200 LUMENS 20W	BARTCO (OR APPROVED EQUAL)	BSS210-45-35-5 SERIES	TYPE :4" LINEAR LED LIGHT MOUNTING :SUSPENDED (+9"-0" AFF) HOUSING :ALUMINUM LENS/REFL :ACRYLIC VOLTAGE :MVOLT BALLAST :LED DRIVER (DIMMING)	 LOFT UNIT ONLY
'UF' ④	LED 3000K (5W)	MAJESTIC MIRROR & FRAME (OR APPROVED EQUAL)	ARGYLE SMALL-V SERIES	TYPE :23.5"x37.5" BACK-LIT MIRROR MOUNTING :SURFACE HOUSING :PER MFR LENS/REFL :PER MFR VOLTAGE :120V BALLAST :LED DRIVER	MOUNTING HEIGHT AND FINISH PER ARCHITECT. VERIFY WIRING METHOD PRIOR TO ROUGH IN. UNIT BATHROOM
'UH' ①	N/A 500 W	KING (OR APPROVED EQUAL)	WHFC1210	TYPE :CEILING HEATER MOUNTING :RECESSED HOUSING :STEEL LENS/REFL :NA VOLTAGE :120V BALLAST :NA	 UNIT BATHROOM

KEYED LIGHTING NOTES:

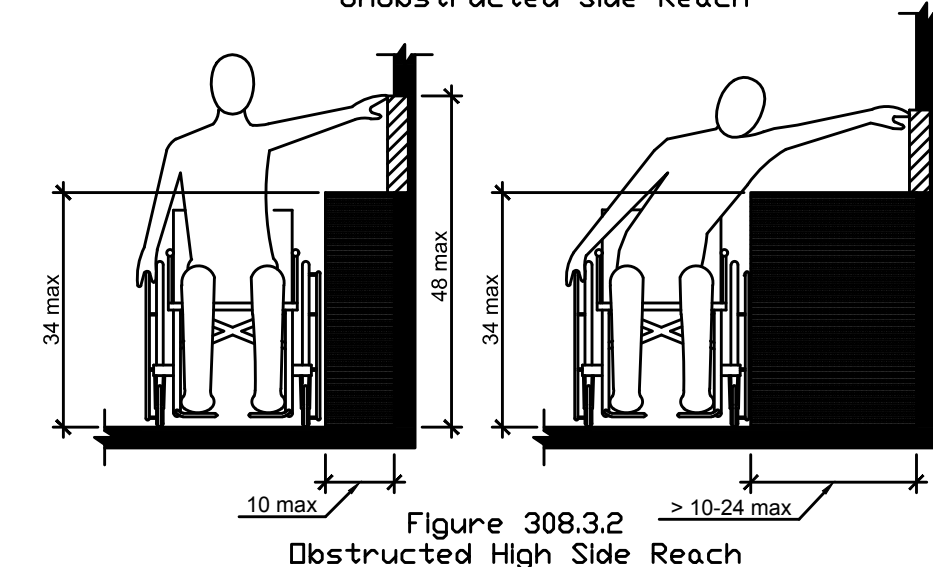
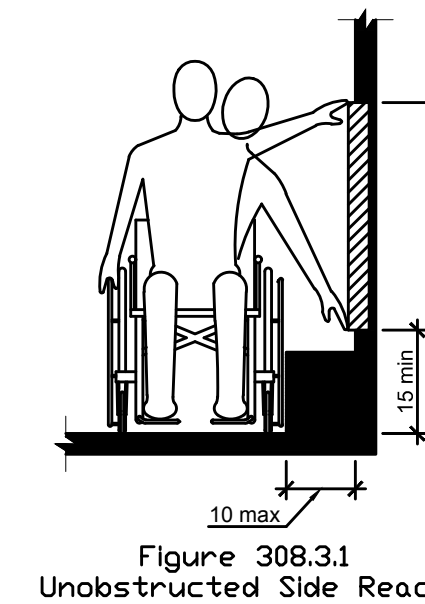
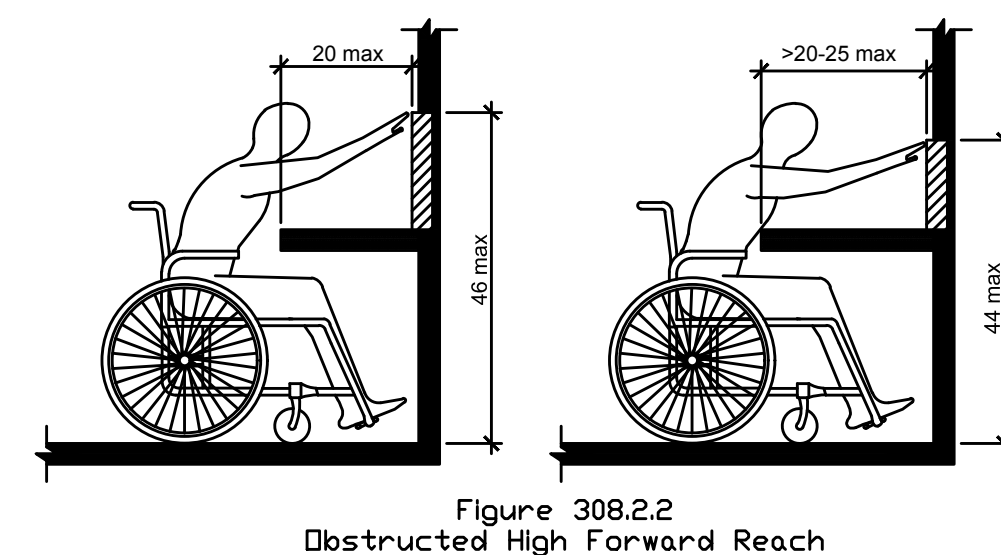
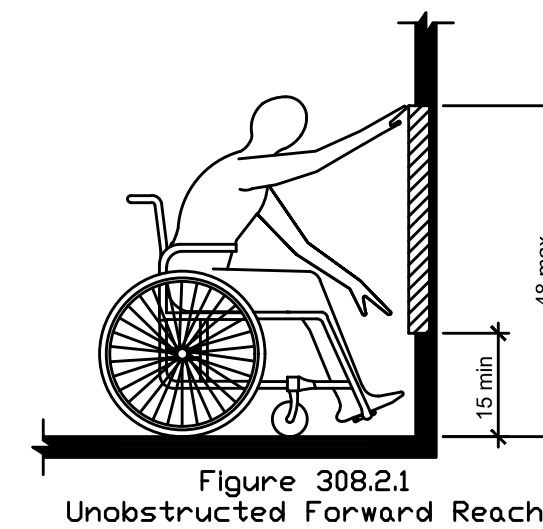
- ELECTRICAL CONTRACTOR TO PROVIDE BATHROOM HEATERS AND COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. EACH HEATER SHALL BE CONTROLLED VIA WALL MOUNTED THERMOSTAT, KING ELECTRICAL MODEL K101 OR APPROVED OTHER, MOUNTED PER ADA REACH REQUIREMENTS (48" AFF). REFER TO TYPICAL ENLARGED UNIT PLANS FOR ADDITIONAL INFORMATION.
- CONTRACTOR TO PROVIDE SINGLE POLE DIMMER SWITCHES AS INDICATED ON SHEETS E4.01-E4.03. DIMMER SWITCHES SHALL MATCH THE DECORATOR TYPE ROCKER SWITCH SPECIFIED IN THE TYPICAL UNIT LIGHTING PLANS OR AS DIRECTED BY THE OWNER. DIMMER SWITCHES SHALL BE COMPATIBLE WITH THE LED LIGHT FIXTURES AND SHALL BE FULLY ADJUSTABLE. CONTRACTOR SHALL FIELD ADJUST TO REDUCE ANY MOMENTARY FLASH DURING START UP.
- TYPE 'UA' FIXTURES LOCATED IN UNIT BATHROOMS SHALL BE 3000K COLOR TEMPERATURE. ALL OTHER 'UA' FIXTURES SHALL BE AS INDICATED.
- BACK-LIT MIRROR FIXTURE TYPE 'UF' IS A CUSTOM FIXTURE AND SIZE WILL VARY PER EACH UNIT BATHROOM INSTALLATION. CONTRACTOR SHALL CONSULT WITH ARCHITECTURAL INTERIOR ELEVATIONS FOR THE FIXTURE REQUIREMENTS IN EACH UNIT TYPE, INCLUDING MOUNTING HEIGHT AND LOCATION.



3 ROOFTOP GAS APPLIANCE EMERGENCY SHUT-OFF DIAGRAM
E1.22 SCALE: NONE



1 SMOKE/FIRE DAMPER CONTROL DIAGRAM
E1.22



2 ADA REACH REQUIREMENTS
E1.22 N.T.S.

308.2 Forward Reach.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48" maximum and the low forward reach shall be 15" minimum above the floor or ground.

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor or ground space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48" maximum where the reach depth is 20" maximum. Where the reach depth exceeds 20", the high forward reach shall be 44" maximum and the reach depth shall be 25" maximum.

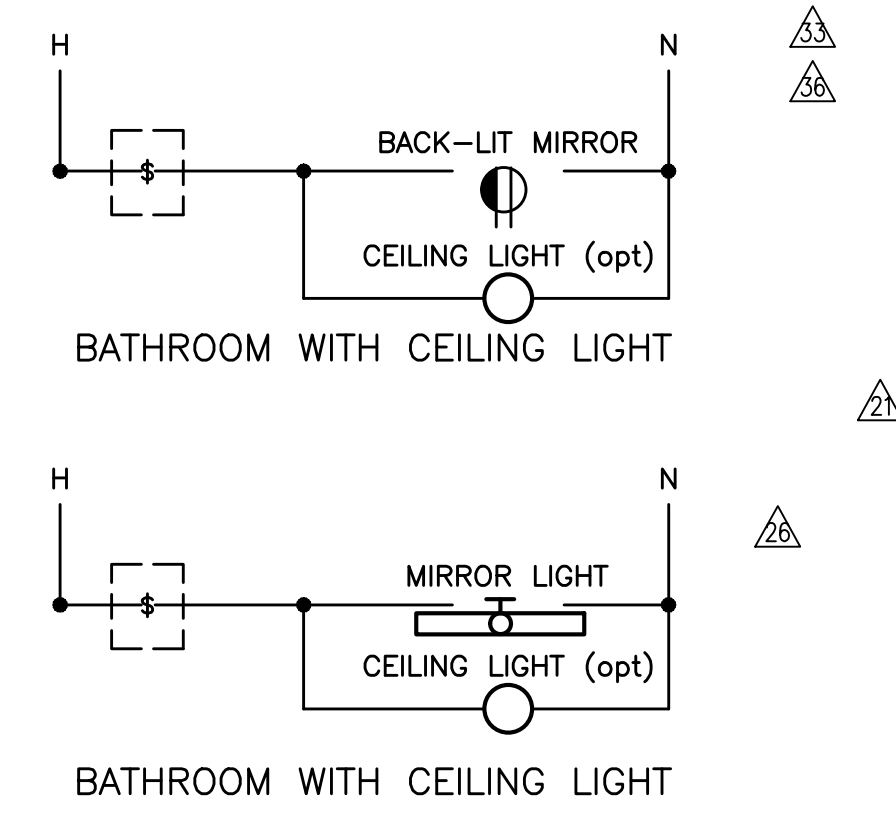
308.3 Side Reach.

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48" maximum and the low side reach shall be 15" minimum above the floor or ground.

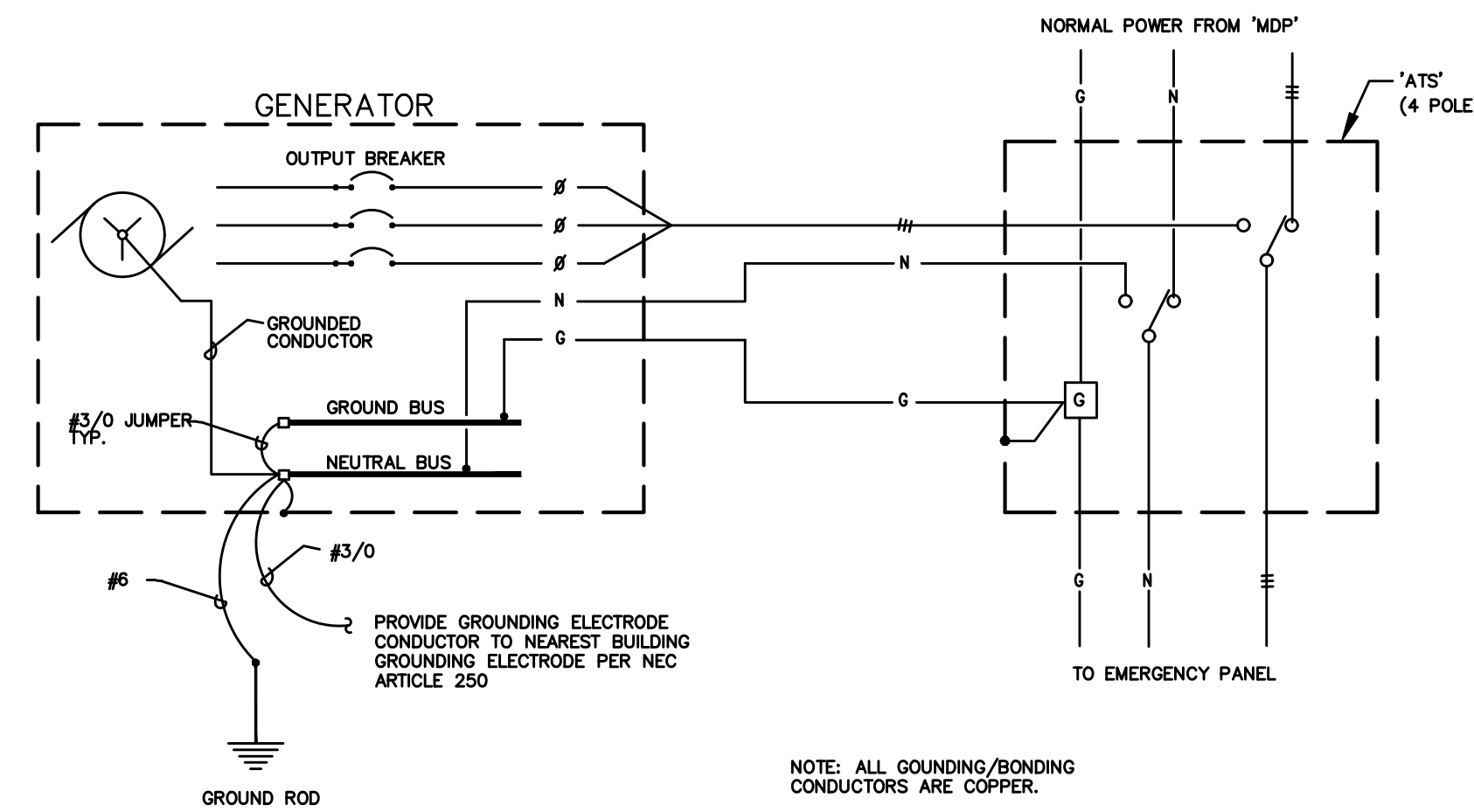
Exception: Existing elements shall be permitted at 54" maximum above the floor or ground.

308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an object and the high side reach is over an obstruction, the height of the obstruction shall be 34" maximum and the depth of the obstruction shall 24" maximum. The high side reach shall be 48" maximum for a reach depth of 10" maximum. Where the reach depth exceeds 10", the high side reach shall be 46" maximum for a reach depth of 24" maximum.

REVISIONS	
12.30.16	COORDINATION
04.28.17	COORDINATION
10.06.17	COORDINATION

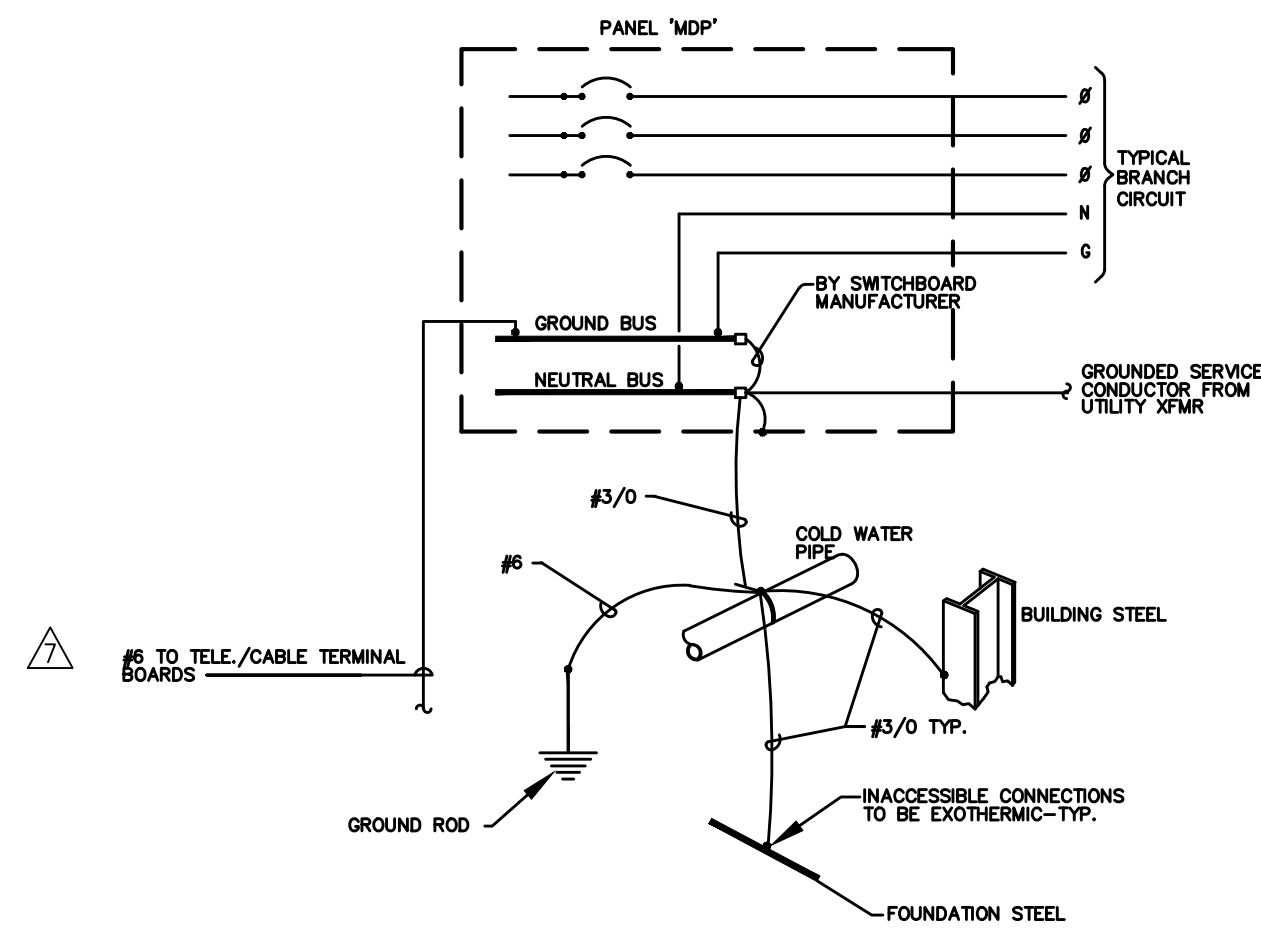


3
E1.23 BATHROOM SWITCHING DIAGRAM – TYPICAL
NO SCALE

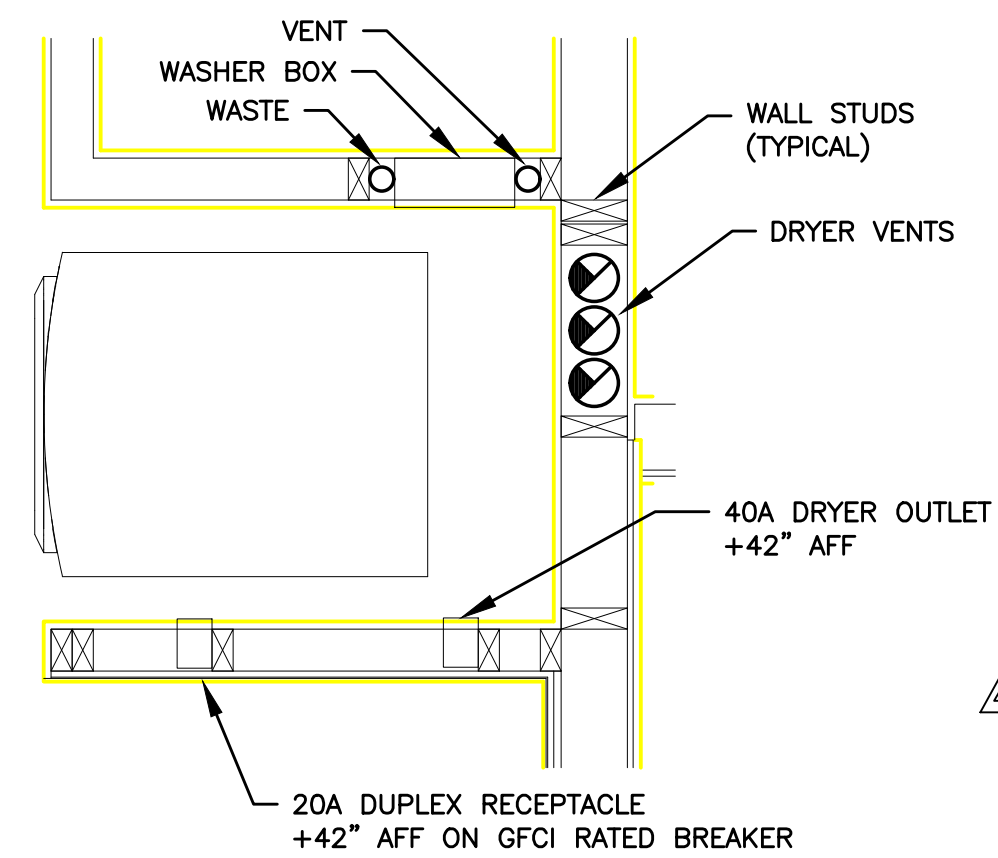


2
E1.23 GENERATOR – ELECTRICAL GROUNDING/BONDING DETAIL
NO SCALE

NOTE: ALL GROUNDING/BONDING CONDUCTORS ARE COPPER.

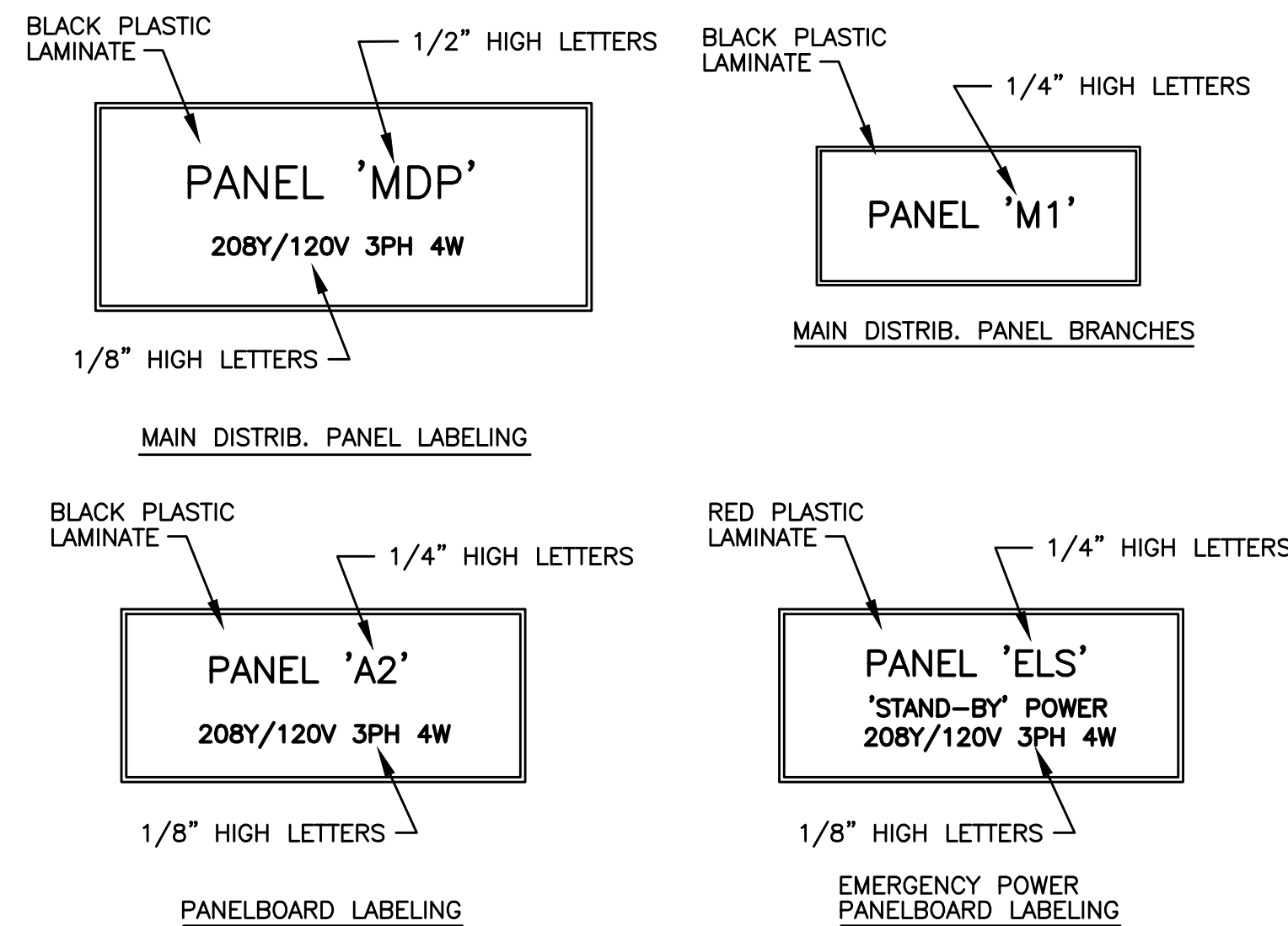


1
E1.23 GROUNDING/BONDING DIAGRAM
208Y/120V, 3φ, 4 WIRE



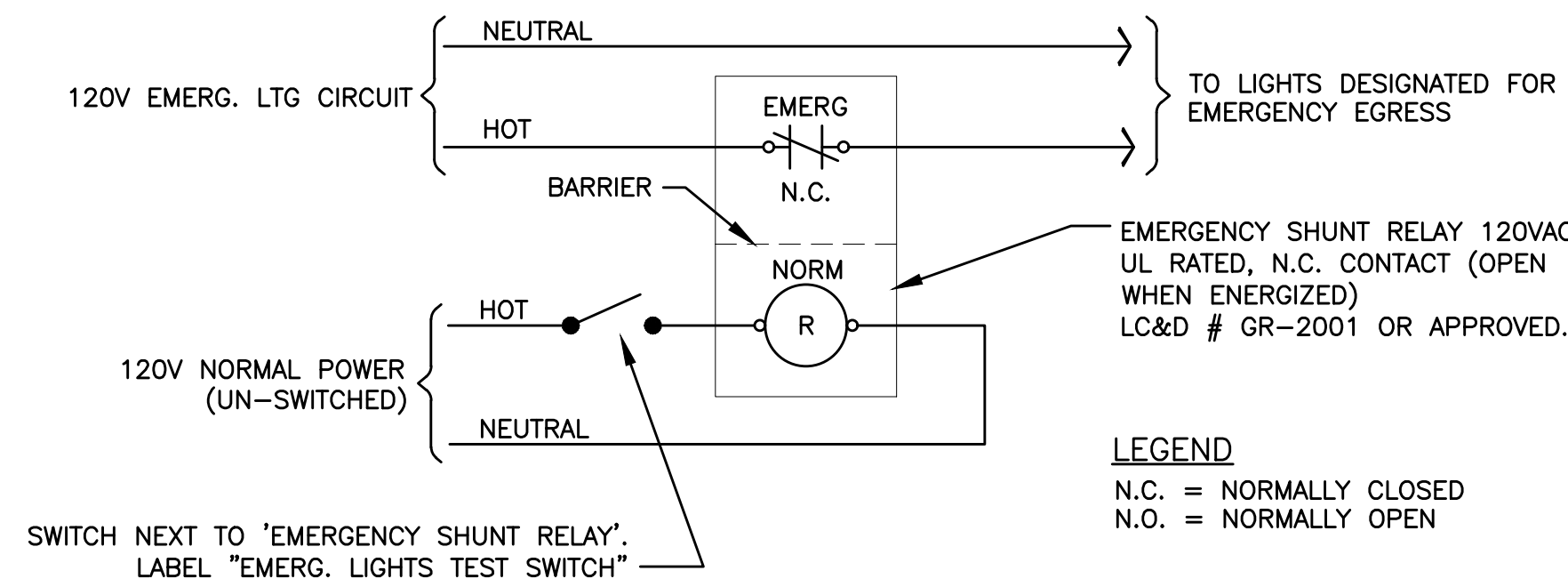
4
E1.23 TYPICAL WASHER/DRYER ALCOVE
NO SCALE

NOTE:
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR PRIOR TO ROUGH IN, TO ENSURE THAT ELECTRICAL DEVICES ARE NOT INSTALLED WHERE THEY WILL CREATE CONFLICT.
2. PREFERRED INSTALLATION SHALL HAVE THE ELECTRICAL DEVICES ON A WALL OPPOSITE THE WORK OF ANY OTHER TRADE.

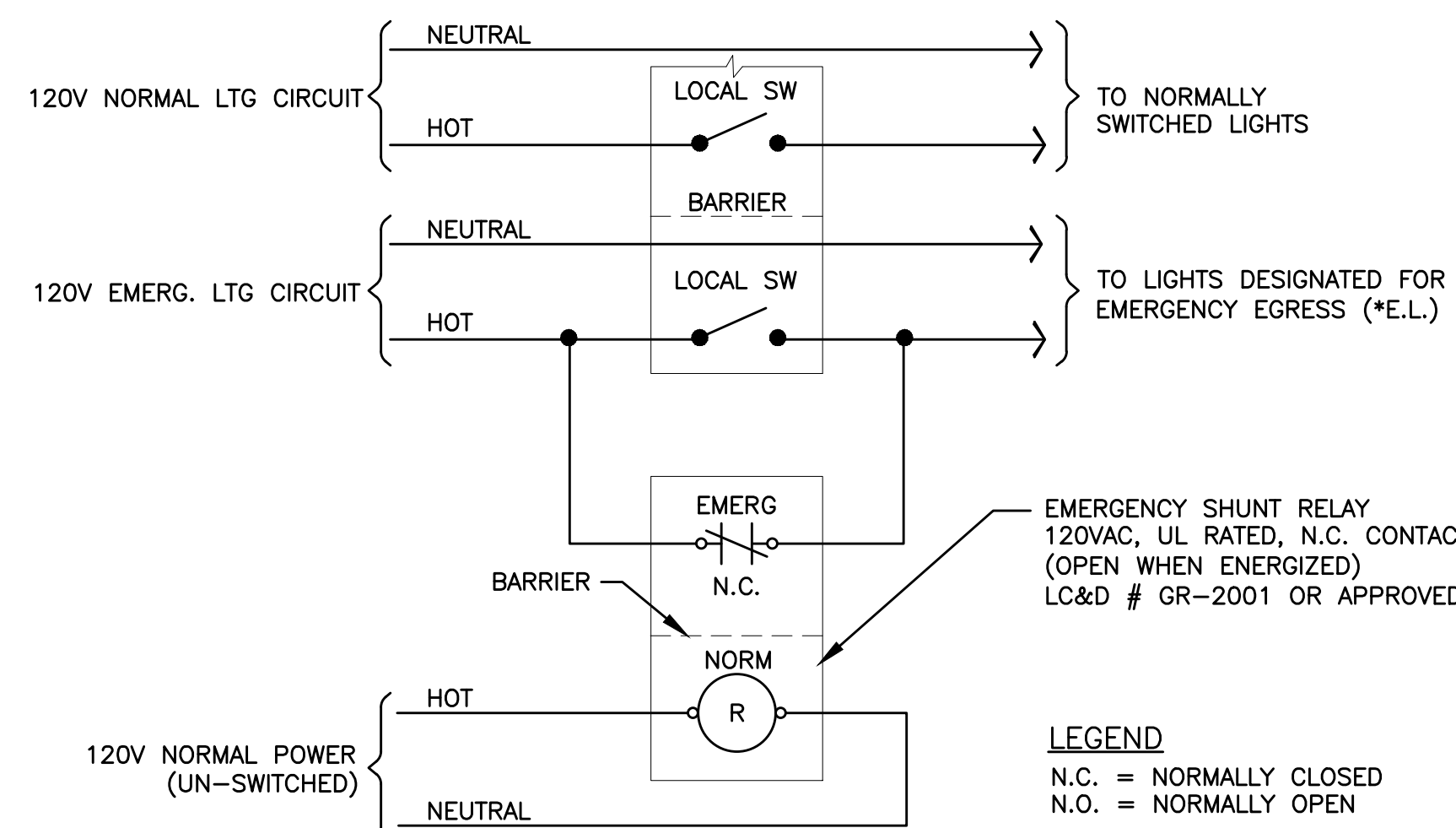


7
E1.23 SWITCHBOARD/PANEL LABELING DETAIL
NO SCALE

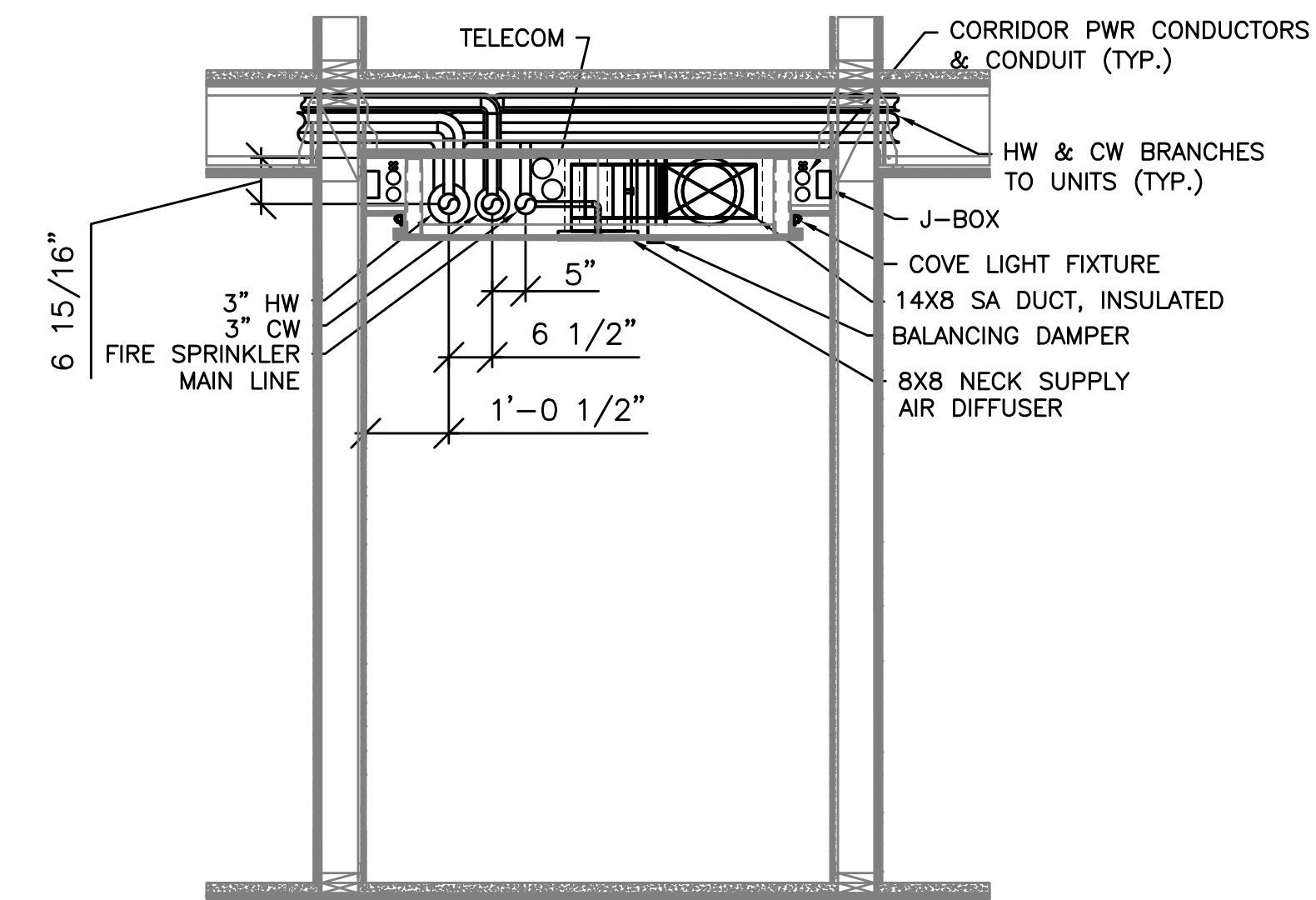
NOTE: ALL LETTERS ARE ENGRAVED WHITE



5
E1.23 EMERGENCY EGRESS LIGHTING – UNSWITCHED
NO SCALE

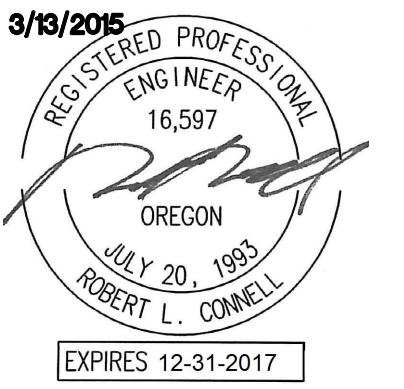


6
E1.23 EMERGENCY EGRESS LIGHTING – SWITCHED
NO SCALE



NOTES:
1. UNIT ELECTRICAL PANEL FEEDERS ARE NOT TO BE RUN IN CORRIDOR.
2. COVE LIGHT FIXTURES TO BE FIELD AIMED TO MAXIMIZE LUMEN OUTPUT DIRECTED INTO THE CORRIDOR.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES TO ENSURE PROPER COORDINATION OF EQUIPMENT WITHIN THE CEILING CAVITY.
4. REFER TO MECHANICAL SHEET M6.04 FOR ADDITIONAL INFORMATION.

8
E1.23 CORRIDOR SECTION
NO SCALE



IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS

04.28.17	COORDINATION
10.20.17	COORDINATION
02.23.18	COORDINATION
05.11.18	COORDINATION
01.25.19	COORDINATION

**MISSISSIPPI AVE
MIXED USE BUILDING**
 810 N FREMONT ST, PORTLAND, OR 97227

CHELSEA SWITCH SCHEDULE-1ST FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS		ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
		TOTAL	#				
CS1a	LEASE OFFICE	6	1	R3	LOBBY	ON/OFF	LOBBY SITTING AREA
			2	R3	LOBBY	RAISE	LOBBY SITTING AREA
			3	R3	LOBBY	LOWER	LOBBY SITTING AREA
			4	R4	LOBBY	ON/OFF	ELEVATOR LOBBY & CORRIDOR
			5	R4	LOBBY	RAISE	ELEVATOR LOBBY & CORRIDOR
			6	R4	LOBBY	LOWER	ELEVATOR LOBBY & CORRIDOR

SWITCH #	GENERAL LOCATION	BUTTONS		ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
		TOTAL	#				
CS1b	LEASE OFFICE	3	1	R11	LOBBY (EP)	ON/OFF	1ST FLOOR EGRESS
			2	R11	LOBBY (EP)	RAISE	1ST FLOOR EGRESS
			3	R11	LOBBY (EP)	LOWER	1ST FLOOR EGRESS

CHELSEA SWITCH SCHEDULE-2ND FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS		ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
		TOTAL	#				
CS2	ELEVATOR LOBBY	6	1	R5	DOWNLIGHTS	ON/OFF	DOWNLIGHTS AT UNIT ENTRIES
			2	R5	DOWNLIGHTS	RAISE	DOWNLIGHTS AT UNIT ENTRIES
			3	R5	DOWNLIGHTS	LOWER	DOWNLIGHTS AT UNIT ENTRIES
			4	R12	COVE LTS (EP)	ON/OFF	COVE LIGHTS ON EMERG. POWER
			5	R12	COVE LTS (EP)	RAISE	COVE LIGHTS ON EMERG. POWER
			6	R12	COVE LTS (EP)	LOWER	COVE LIGHTS ON EMERG. POWER

CHELSEA SWITCH SCHEDULE-3RD FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS		ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
		TOTAL	#				
CS3	ELEVATOR LOBBY	6	1	R6	DOWNLIGHTS	ON/OFF	DOWNLIGHTS AT UNIT ENTRIES
			2	R6	DOWNLIGHTS	RAISE	DOWNLIGHTS AT UNIT ENTRIES
			3	R6	DOWNLIGHTS	LOWER	DOWNLIGHTS AT UNIT ENTRIES
			4	R13	COVE LTS (EP)	ON/OFF	COVE LIGHTS ON EMERG. POWER
			5	R13	COVE LTS (EP)	RAISE	COVE LIGHTS ON EMERG. POWER
			6	R13	COVE LTS (EP)	LOWER	COVE LIGHTS ON EMERG. POWER

CHELSEA SWITCH SCHEDULE-4TH FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS		ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
		TOTAL	#				
CS4	ELEVATOR LOBBY	6	1	R7	DOWNLIGHTS	ON/OFF	DOWNLIGHTS AT UNIT ENTRIES
			2	R7	DOWNLIGHTS	RAISE	DOWNLIGHTS AT UNIT ENTRIES
			3	R7	DOWNLIGHTS	LOWER	DOWNLIGHTS AT UNIT ENTRIES
			4	R14	COVE LTS (EP)	ON/OFF	COVE LIGHTS ON EMERG. POWER
			5	R14	COVE LTS (EP)	RAISE	COVE LIGHTS ON EMERG. POWER
			6	R14	COVE LTS (EP)	LOWER	COVE LIGHTS ON EMERG. POWER

CHELSEA SWITCH SCHEDULE - 5TH FLOOR

SWITCH #	GENERAL LOCATION	BUTTONS		ASSOCIATED RELAY(S)	ENGRAVED LABELING	FUNCTION	DESCRIPTION
		TOTAL	#				
CS5	5TH FLOOR ELEV. LOBBY	3	1	R21	ELEV. LOBBY	ON/OFF	ELEVATOR LOBBY COVE LIGHTS
			2	R21	ELEV. LOBBY	RAISE	ELEVATOR LOBBY COVE LIGHTS
			3	R21	ELEV. LOBBY	LOWER	ELEVATOR LOBBY COVE LIGHTS

CHELSEA SWITCH NOTES:

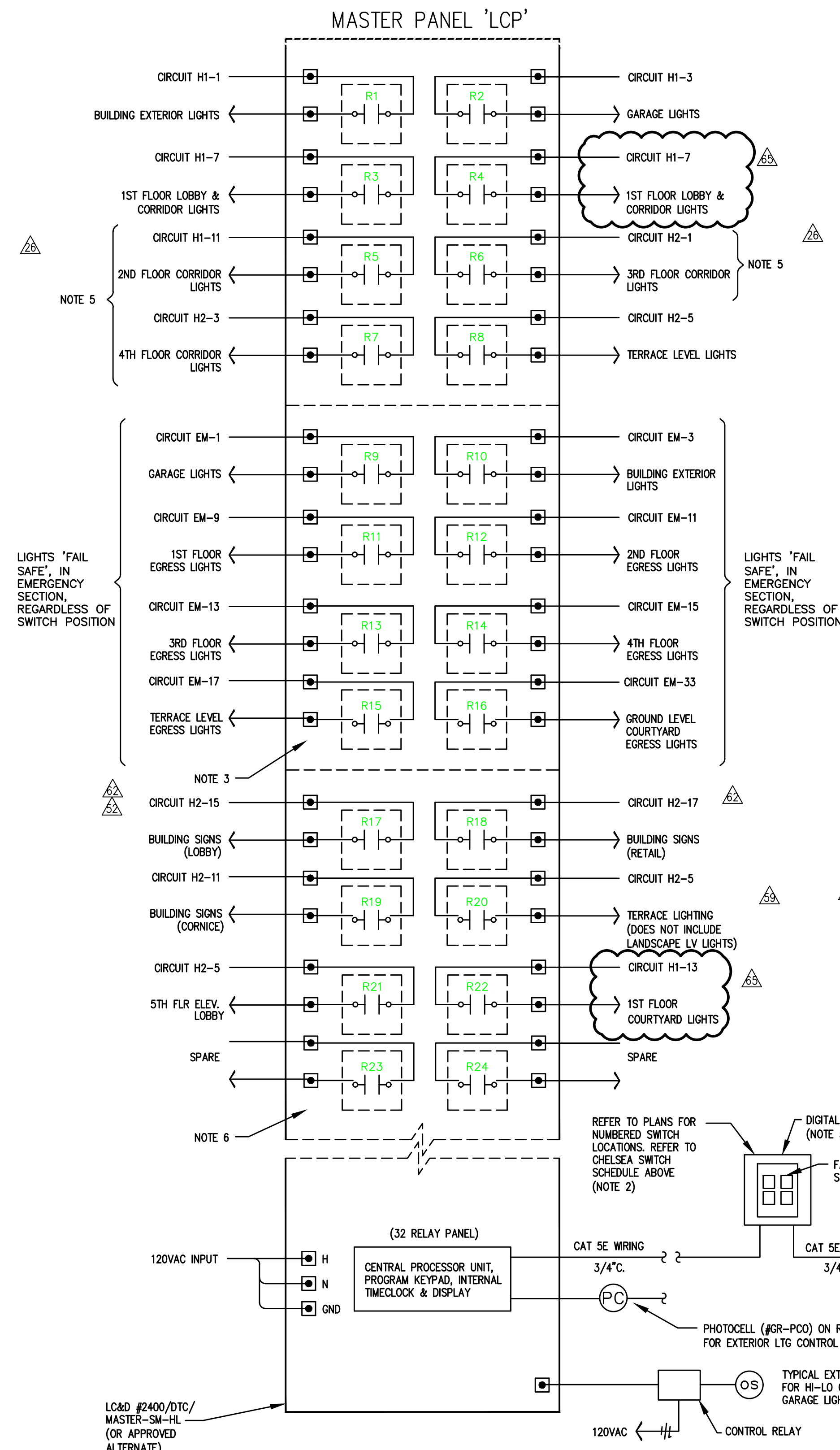
- REGARDLESS OF SETTING, EGRESS LIGHTING SHALL REMAIN "ON" AT ALL TIMES. MANUAL SWITCHING IS ONLY PROVIDED FOR MAINTENANCE PURPOSES.
- EGRESS LIGHTING SHALL MEET CODE MINIMUM REQUIREMENT OF (1) FOOTCANDLE AVERAGE, MEASURED AT THE FLOOR AT ALL TIMES. CONSULT VENDOR FOR PROCEDURE TO SET DIMMING LIMITS FOR THE RESIDENT FLOOR COVE LIGHTS.
- CONTRACTOR TO PROVIDE LOCKING COVERS AT ALL SWITCH LOCATIONS TO PREVENT TAMPERING ONCE LIGHT LEVELS ARE SET BY THE OWNER.

'LCP' GENERAL NOTES:

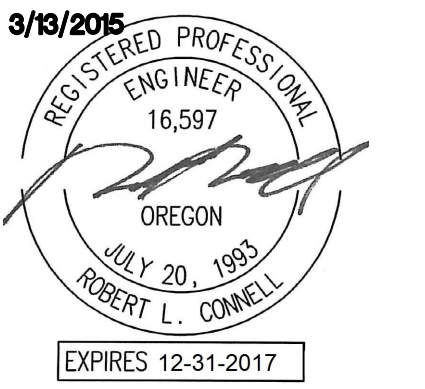
- DESIGN IS BASED ON 'LCP' COMPANY EQUIPMENT. THE LIGHTING CONTROL SYSTEM WILL BE INSTALLED COMPLETE WITH ALL FUNCTIONS MEETING THE DESIGN INTENT.
- ADEQUATE TRAINING SHALL BE PROVIDED TO THE OWNER (& REPRESENTATIVES) TO FULLY UNDERSTAND LIGHTING CONTROL SYSTEM FUNCTIONS, PROGRAMMING, MAINTENANCE, RE-PROGRAMMING RELAYS, ETC.
- PROVIDE A MINIMUM OF 6 SYSTEM ENABLE KEYS (CHELSEA SWITCH) TO THE OWNER.

'LCP' - DETAIL NOTES:

- RELAYS R1, R2, R4, R8, R10, R15 & R16 ARE PHOTOCELL/TIMECLOCK CONTROLLED. VERIFY WITH OWNER FOR TIMECLOCK SETTINGS.
- RELAYS R3, R5, R6 & R7 ARE TIMECLOCK CONTROLLED AS WELL AS MANUALLY SWITCHED BY KEY ENABLED CHELSEA SWITCH. COORDINATE WITH OWNER FOR SET TIMES.
- UL924 BARRIERED SECTION FOR EMERGENCY CIRCUITS.
- RELAYS R9, R11, R12, R13 & R14 INTENDED TO BE CONSTANT "ON" FOR EGRESS/NIGHT LIGHTING.
- CHELSEA SWITCHES FOR CORRIDOR LIGHTS ON FLOORS 2, 3, & 4 TO HAVE LOCKING COVER.
- RELAYS R17, R18, R19 & R20 ARE PHOTOCELL/TIMECLOCK CONTROLLED. VERIFY WITH OWNER FOR TIMECLOCK SETTINGS. DESIGN INTENT IS FOR DUSK-TIL-DAWN OPERATION.



1 LIGHTING CONTROL SYSTEM DIAGRAM
E1.24 NO SCALE



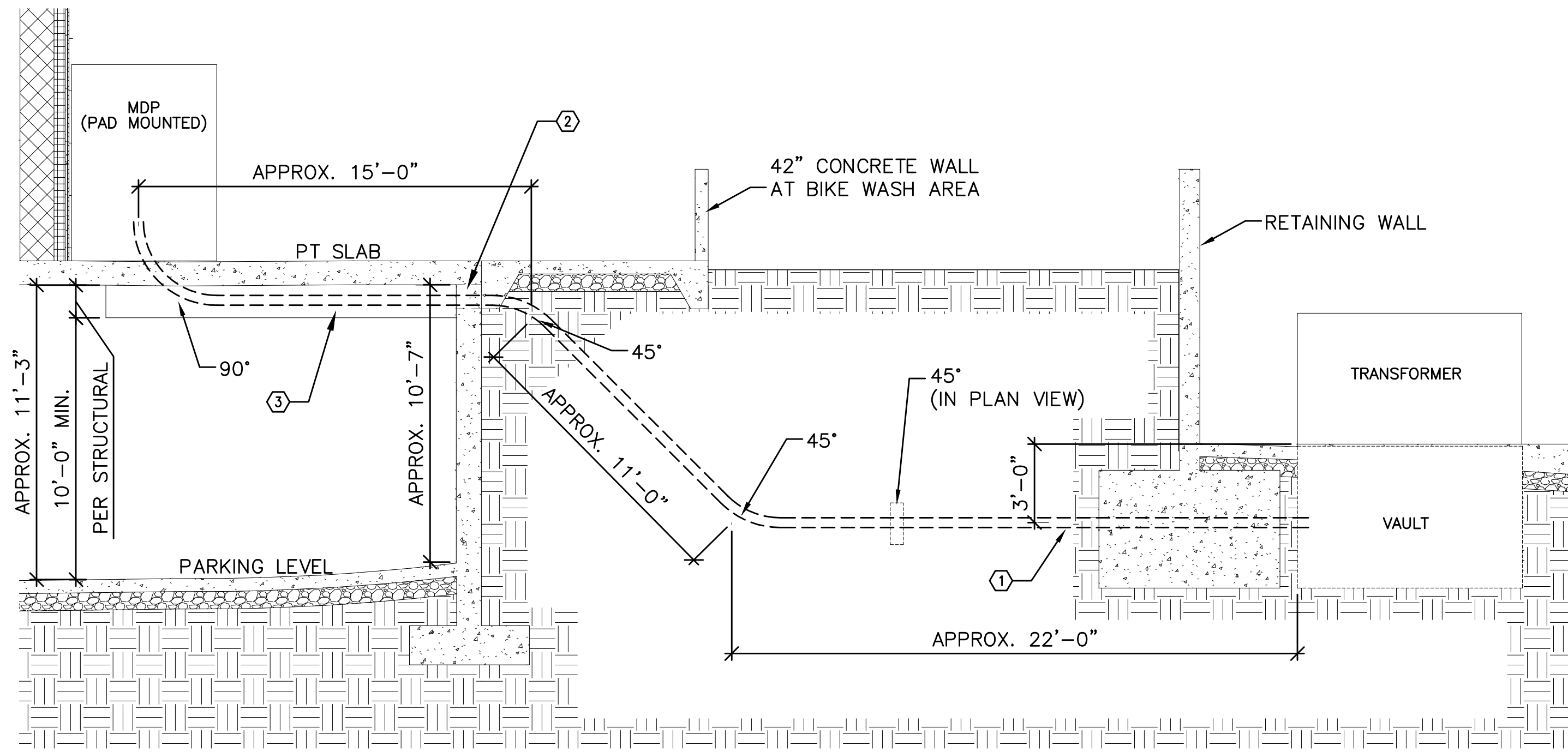
IN THE EVENT CONFLICTS ARE DISCOVERED BETWEEN THE ORIGINAL SIGNED AND SEALED DOCUMENTS PREPARED BY THE ARCHITECTS AND/OR THEIR CONSULTANTS, AND ANY COPY OF THE DOCUMENTS TRANSMITTED BY MAIL, FAX, ELECTRONICALLY OR OTHERWISE, THE ORIGINAL SIGNED AND SEALED DOCUMENTS SHALL GOVERN.

PROJECT # 2014-26
DATE: 3/13/2015

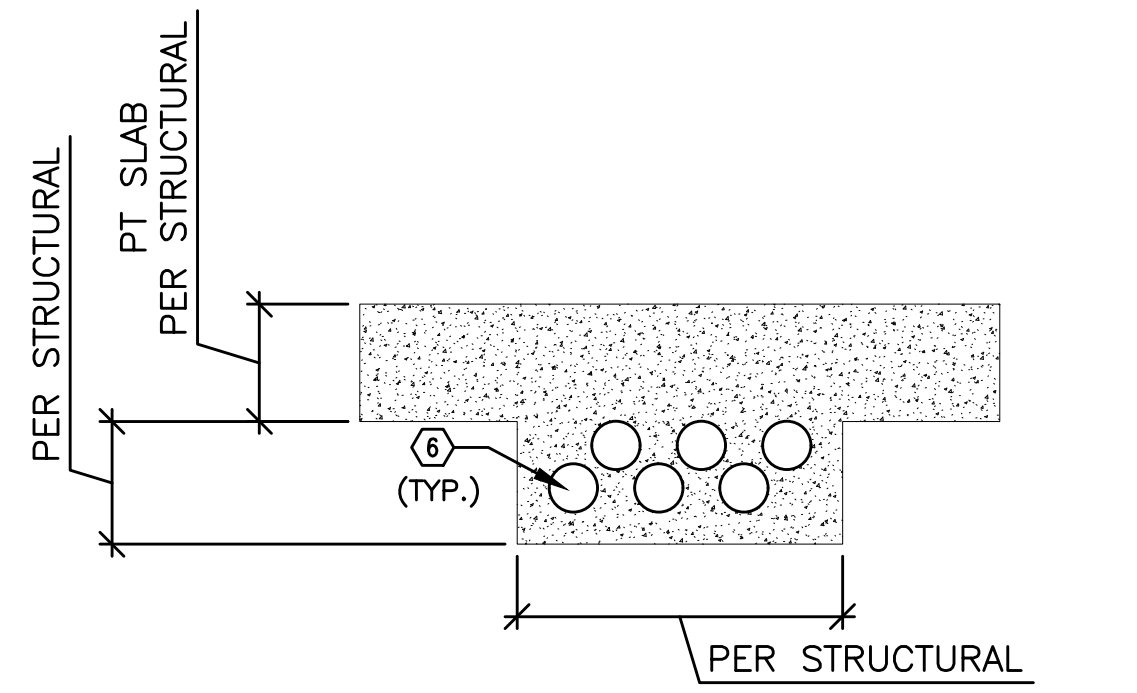
REVISIONS	
AA	9.23.16 COORDINATION

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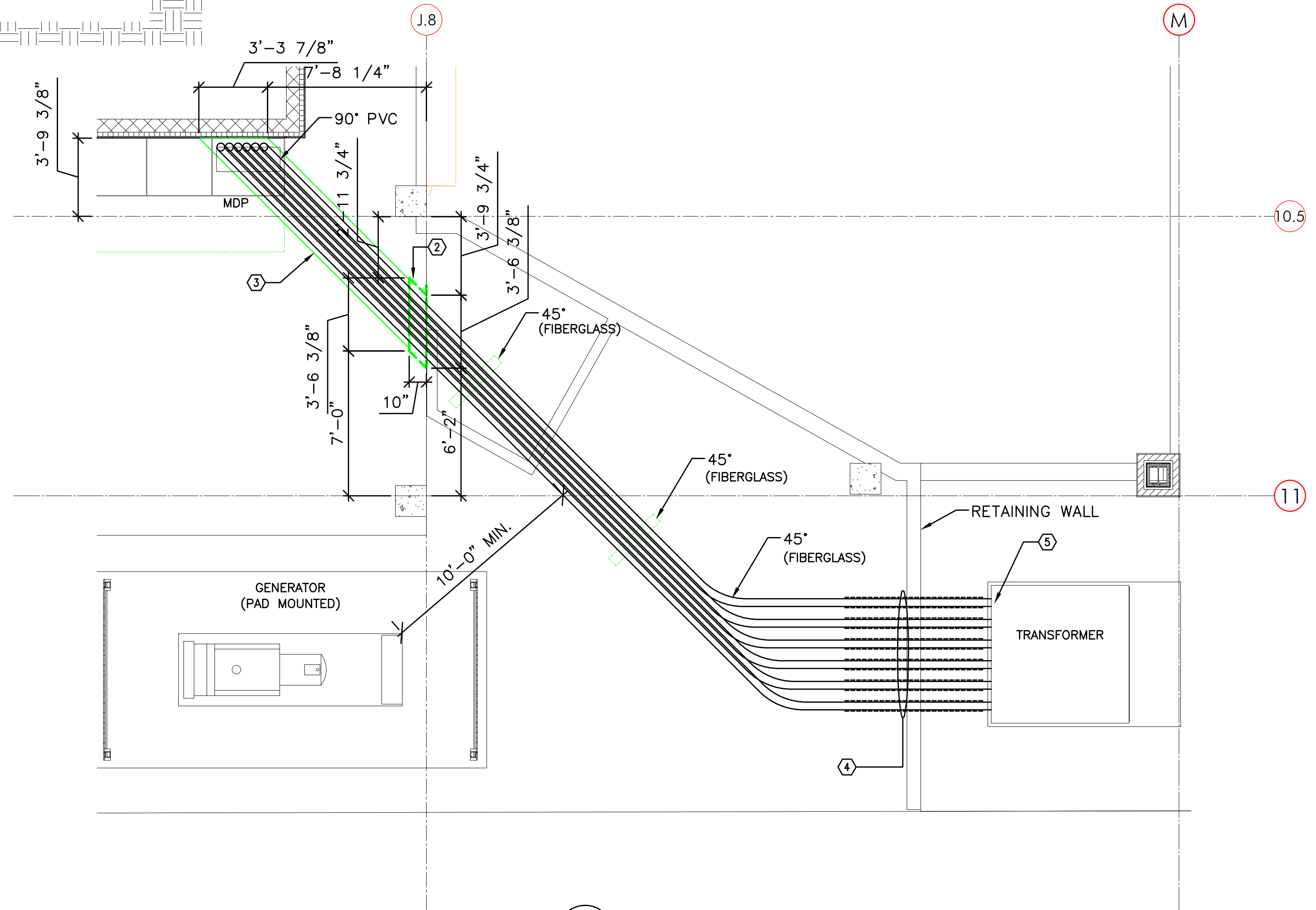
SHEET: **E1.25**



1 SERVICE ENTRANCE FEEDERS - SECTION
E1.25 NO SCALE



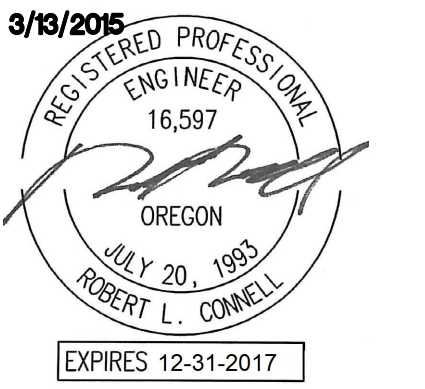
3 CONCRETE ENCASED CONDUITS - SECTION
E1.25 NO SCALE



2 SERVICE ENTRANCE FEEDERS - PLAN VIEW
E1.25 NO SCALE

KEYED NOTES:

- CONDUIT SLEEVES THROUGH FOOTING AT 36" BELOW TOP OF VAULT PER PACIFIC POWER. PROVIDE 6" MIN. CLEAR CONCRETE COVER BETWEEN EACH CONDUIT THROUGH FOOTING PER STRUCTURAL.
- STRUCTURAL TO PROVIDE BLOCKOUT IN TOP OF WALL FOR CONDUITS.
- CONDUITS TO BE ENCASED IN THICKENED CONCRETE SLAB. REFER TO DETAIL #3 ON THIS SHEET.
- (6) 4" C. SCHEDULE 40 PVC (FIBERGLASS) EACH IN A 6" SLEEVE WITH 6" MINIMUM CLEAR SPACING WHEN PENETRATING RETAINING WALL FOOTING.
- CONDUITS ENTERING TRANSFORMER VAULT SHALL BE CORE DRILLED AND SEALED.
- PER NEC 230.6(2), PROVIDE A MINIMUM OF 2" OF CONCRETE TO ENCASE FEEDER CONDUIT.



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PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS	
01.20.17	COORDINATION
05.11.18	COORDINATION

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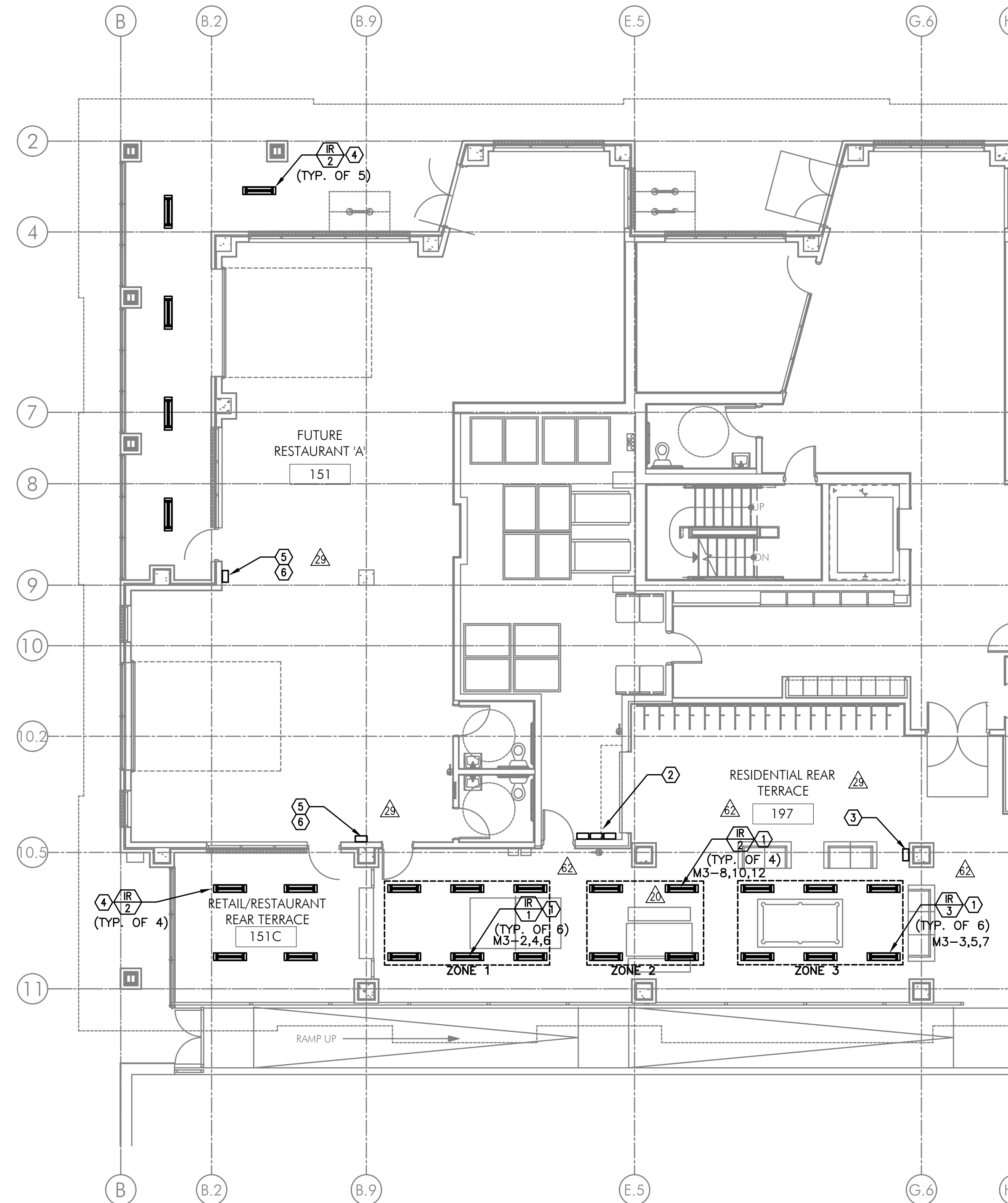
GENERAL NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN. REFER TO SHEET M2.01 FOR ADDITIONAL INFORMATION.
- C. INFRARED PATIO HEATERS ARE TO BE FLUSH MOUNTED AT THE LOCATIONS INDICATED ON THE PLAN (THIS SHEET). CONSULT WITH MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS PRIOR TO ROUGH IN.
- D. HEATERS LOCATED ON THE RESIDENTIAL TERRACE SHALL BE LOCATED AS INDICATED ON THE PLAN (THIS SHEET). THE HEATERS IN EACH ZONE SHALL BE CONNECTED TO A RELAY PANEL, WITH A MAXIMUM OF TWO HEATERS PER RELAY (MAXIMUM OF 8KW PER RELAY). THE QUANTITY OF RELAYS IN EACH PANEL SHALL BE DETERMINED BY THE NUMBER OF HEATERS IN EACH ZONE.
- E. CONTRACTOR TO PROVIDE POWER CONNECTION FOR EACH ANALOG ZONE CONTROL DEVICE. PROVIDE ONE 20A, 1P CIRCUIT FROM PANEL 'M3' FOR CONTROLS.
- F. CONTRACTOR SHALL CONSULT PATIO HEATER MANUFACTURER DOCUMENTATION FOR ADDITIONAL INFORMATION PERTAINING TO INSTALLATION PRIOR TO ROUGH IN. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE MECHANICAL CONTRACTOR.
- G. ANY EXPOSED CONDUIT SHALL BE ROUTED TIGHT TO STRUCTURE IN A NEAT AND CLEAN MANNER TO CONCEAL CONDUIT RUNS AS MUCH AS POSSIBLE.

KEYED NOTES:

- 1. INFRARED PATIO HEATERS. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR AND PROVIDE ALL ELECTRICAL CONNECTIONS AS REQUIRED. EACH ZONE SHALL BE CONTROLLED VIA SEPARATE CONTROL PANEL AND FED FROM PANEL 'M3' LOCATED IN THE TRASH ROOM.

AT THE RESIDENTIAL TERRACE, THERE SHALL BE THREE(3) SINGLE ZONE CONTROLLERS, EACH WITH A TIMER AND ANALOG CONTROLLER WHICH WILL REQUIRE ONE 20A, 120V, 1P POWER CIRCUIT FROM PANEL 'M3' AND LOW VOLTAGE WIRING TO THE CONTROL (RELAY) PANEL.
- 2. LOCATION OF THREE SOLID STATE CONTROL (RELAY) PANELS FOR RESIDENT TERRACE HEATERS.
- 3. LOCATION OF THREE SINGLE ZONE CONTROLLERS (TIMERS) FOR RESIDENT TERRACE HEATERS.
- 4. INFRARED PATIO HEATERS AT LEASE SPACE 'A' SHALL BE INSTALLED, WIRED TO AND TERMINATED AT SOLID STATE CONTROL (RELAY) PANEL(S) LOCATED WITHIN THE SPACE. PROVIDE LOW VOLTAGE WIRING FROM CONTROL PANEL TO EACH ZONE CONTROLLER AS INDICATED. FINAL ELECTRICAL CONNECTIONS TO BE MADE AS PART OF THE TENANT IMPROVEMENT UNDER A SEPARATE CONTRACT.
- 5. LOCATION OF TWO SOLID STATE CONTROL (RELAY) PANELS FOR LEASE SPACE HEATERS.
- 6. LOCATION OF SINGLE ZONE CONTROLLER (4 HOUR TIMER) FOR LEASE SPACE HEATERS.



1 PARTIAL FIRST FLOOR POWER PLAN
E1.26 SCALE: 1/8" = 1'-0"

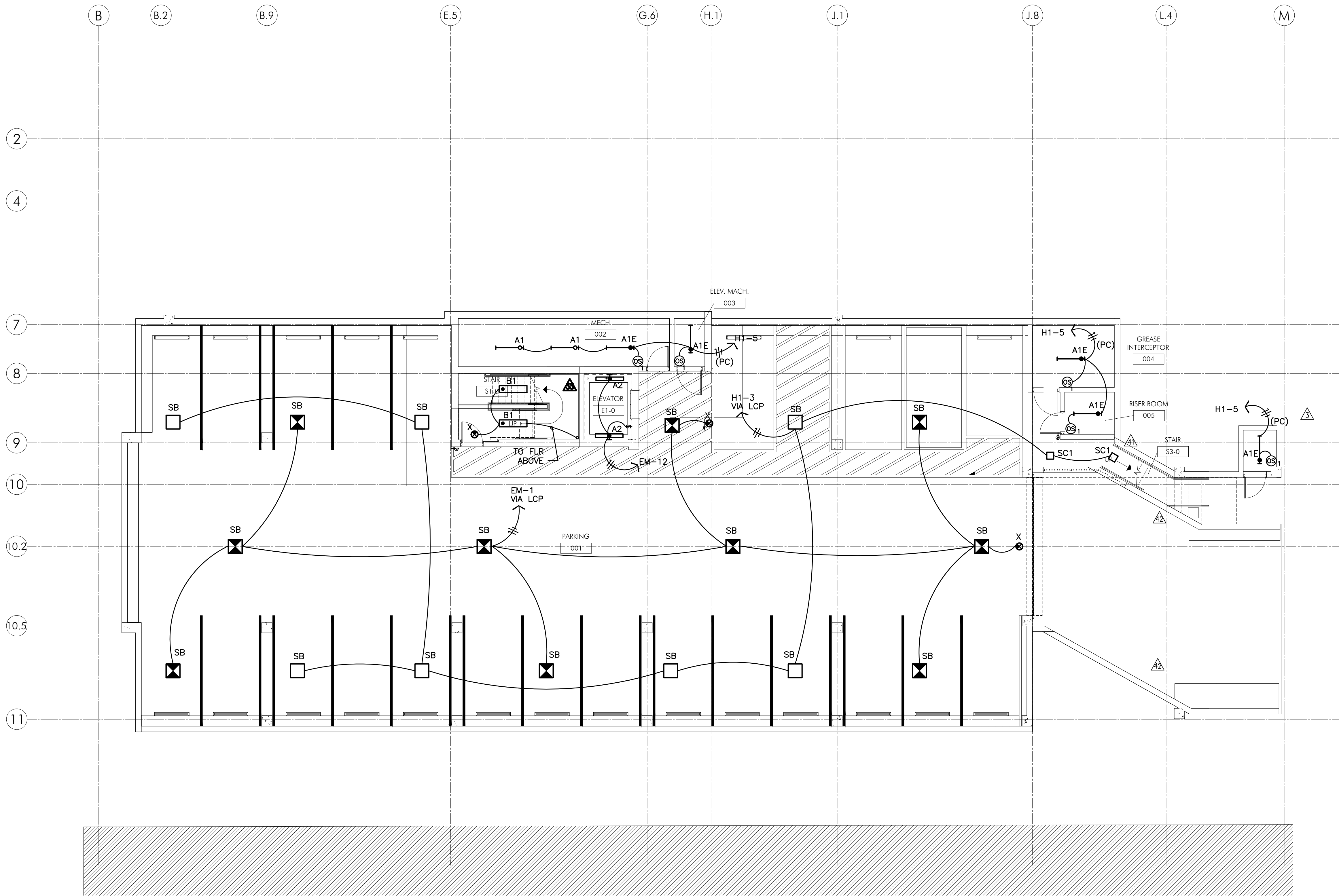
M Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0877
INC. WWW.MFIA-ENG.COM
CONTACT: DENISE TAYLOR

SHEET: **E1.26**

REVISIONS	
12.08.15	COORDINATION
04.28.17	COORDINATION
06.30.17	COORDINATION
07.07.17	COORDINATION

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SHEET:
E2.00



1 LIGHTING PLAN – BASEMENT LEVEL
E2.00 SCALE: 1/8" = 1'-0"



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PROJECT # 2014-26 DATE: 3/13/2015

REVISIONS	
07.07.17	COORDINATION
08.04.17	COORDINATION
09.15.17	COORDINATION
10.06.17	COORDINATION
01.25.19	COORDINATION

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SHEET: E2.01

GENERAL NOTES:

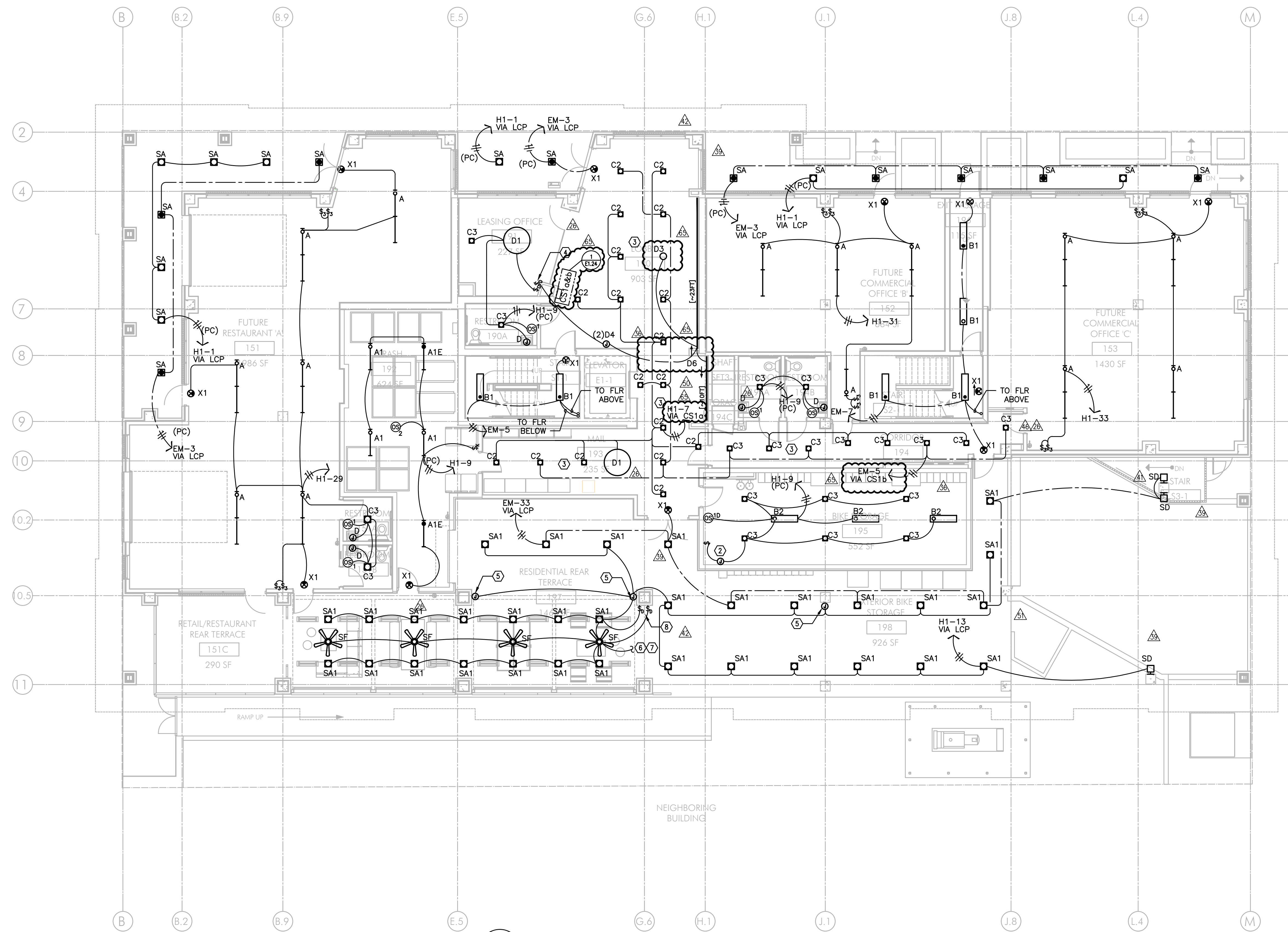
- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. LIGHTING AND RECEPTACLES IN THE RETAIL LEASE SPACES SHALL BE PROVIDED WITH TEMPORARY CIRCUITS FROM THE HOUSE BRANCH PANELS AS INDICATED ON THE PLANS. AT SUCH TIME THAT EACH SPACE IS LEASED AND BUILT TO SUIT THE TENANT, THE TEMPORARY POWER CIRCUITS SHALL BE DISCONNECTED AND REMOVED, WITH THE BREAKERS NOTED AS "SPARE".
- C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.
- E. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.
- F. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK.
- G. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.

KEYED NOTES:

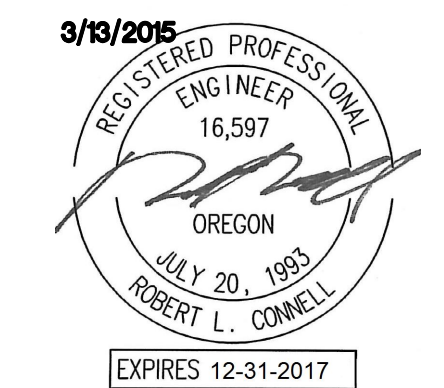
- 1. NOT USED.
- 2. PROVIDE J-BOX AND SWITCH FOR OWNER PROVIDED SWING ARM LAMP AND TIE INTO LIGHTING CIRCUIT FOR THIS AREA AS SHOWN.
- 3. LOBBY, CORRIDOR & MAIL ROOM LIGHTS TO BE CONTROLLED VIA DIGITAL SWITCH "CS1" LOCATED IN THE LEASING OFFICE.
- 4. PROVIDED DIMMING SWITCH FOR MANUAL CONTROL OF THE ART WALL LIGHT FIXTURE(S). CONSULT INTERIOR DECORATOR FOR EXACT SWITCHING REQUIREMENTS PRIOR TO ROUGH IN.
- 5. PROVIDE JUNCTION BOX TIED INTO EXTERIOR LIGHTING CIRCUIT AS INDICATED FOR OWNER PROVIDED AND INSTALLED LOW VOLTAGE LIGHT LANDSCAPE LIGHTING. CONSULT ARCHITECT FOR EXACT LOCATION(S) PRIOR TO ROUGH IN.
- 6. PROVIDE BLOCKING AT CEILING FAN J-BOX TO SUPPORT A MINIMUM OF 35LBS. CONSULT INTERIOR DECORATOR FOR CEILING FAN CONTROL METHOD(S) AND SWITCHING DEVICE TYPE AND LOCATION(S).
- 7. CEILING FANS TO BE MOUNTED SUCH THAT THE BLADES DO NOT COME IN CONTACT WITH OTHER CEILING FIXTURES.
- 8. PROVIDE DIMMING SWITCH FOR LIGHTING AND VARIABLE SPEED CONTROL FOR CEILING FANS. FAN CONTROLS SHALL BE PER MANUFACTURER'S REQUIREMENTS. PROVIDE WEATHER PROOF COVER FOR ALL SWITCHING.

CONTRACTOR NOTE:

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1 LIGHTING PLAN - LEVEL ONE SCALE: 1/8" = 1'-0"



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PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS	
08.04.17	COORDINATION
09.15.17	COORDINATION
02.23.18	COORDINATION
04.20.18	COORDINATION
01.25.19	COORDINATION

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- G. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- F. DESIGN INTENT IS SUCH THAT ONE SIDE OF THE CORRIDOR COVE LIGHTING BE ON NORMAL POWER AND THE COVE LIGHTING ON THE OPPOSITE SIDE BE ON EMERGENCY POWER FOR EGRESS.
- G. LOW VOLTAGE POWER SUPPLIES FOR LED COVE LIGHTS SHALL BE LOCATED AS INDICATED IN SHEET NOTE #3 BELOW. POWER SUPPLIES SHALL BE INSTALLED IN THE TRASH ROOM AND DATA CLOSETS AT EACH FLOOR, WITH EACH LOCATION SERVING ONE HALF OF THE CORRIDOR COVE LIGHTS. QUANTITY & SIZE OF POWER SUPPLIES SHALL BE PER MANUFACTURER RECOMMENDATION. REFER TO MFR PRODUCT SUBMITTALS FOR MORE INFORMATION.

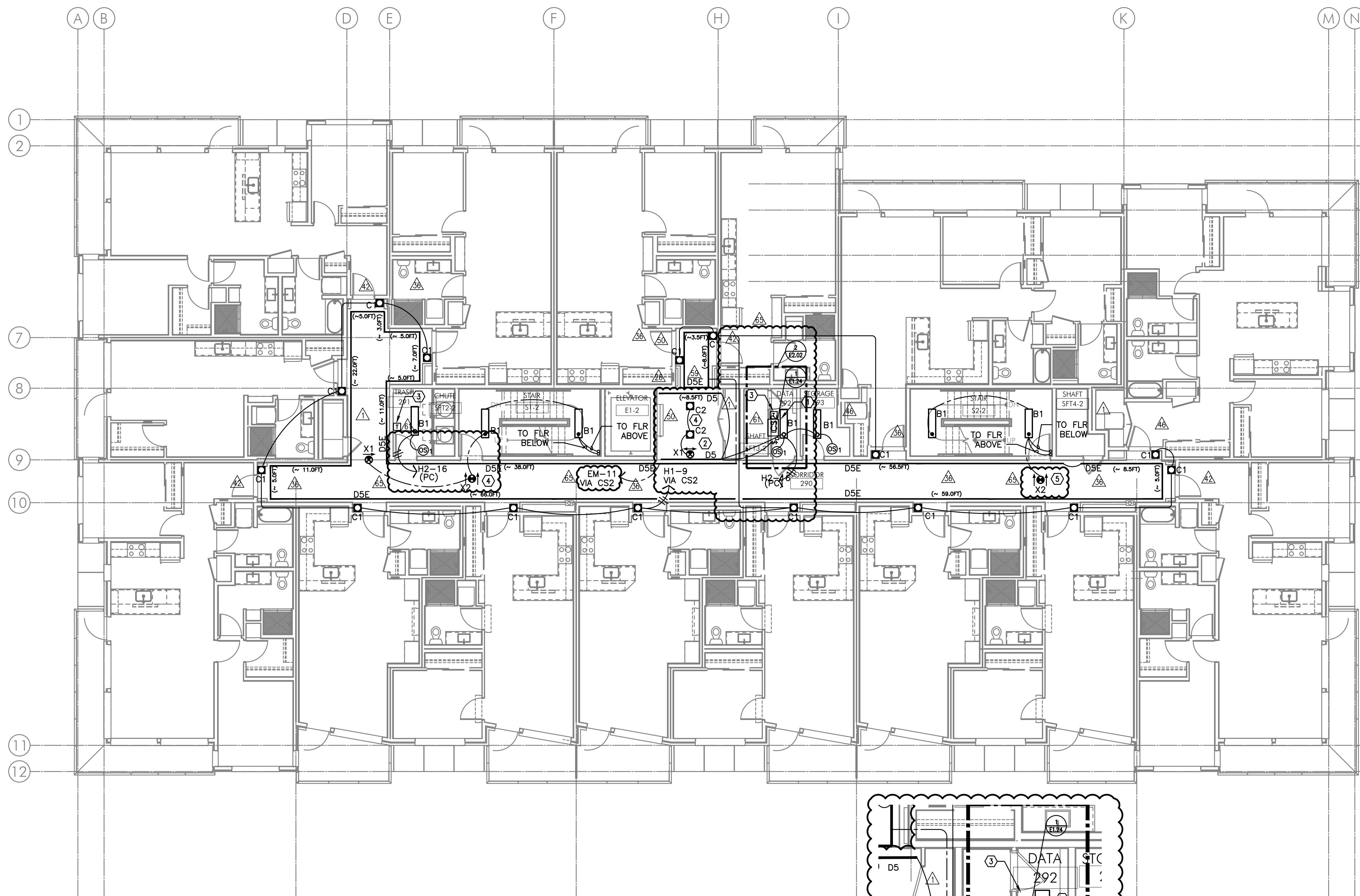
KEYED NOTES:

- 1. PROVIDE LOCKING COVER FOR LIGHTING CONTROLS.
- 2. CONSULT INTERIOR DECORATOR'S PLAN SET FOR EXACT INFORMATION, LOCATION AND INSTALLATION REQUIREMENTS FOR THE RECESSED COVE LIGHTS IN THE ELEVATOR LOBBY.
- 3. LOW VOLTAGE TRANSFORMERS FOR COVE LIGHTING PER MANUFACTURER'S REQUIREMENTS. MOUNT DEVICES CLOSE TO CEILING OR ABOVE, IF PROVIDING ACCESS PANEL. WIRING TO BE #12 AWG TO MEET MANUFACTURER'S REQUIREMENTS FOR 5% VOLTAGE DROP. MAXIMUM WIRING RUN TO BE 80'-0".
- 4. ALL EXIT SIGNS AND ELEVATOR THRESHOLD LIGHTS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #1.
- 5. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #2.

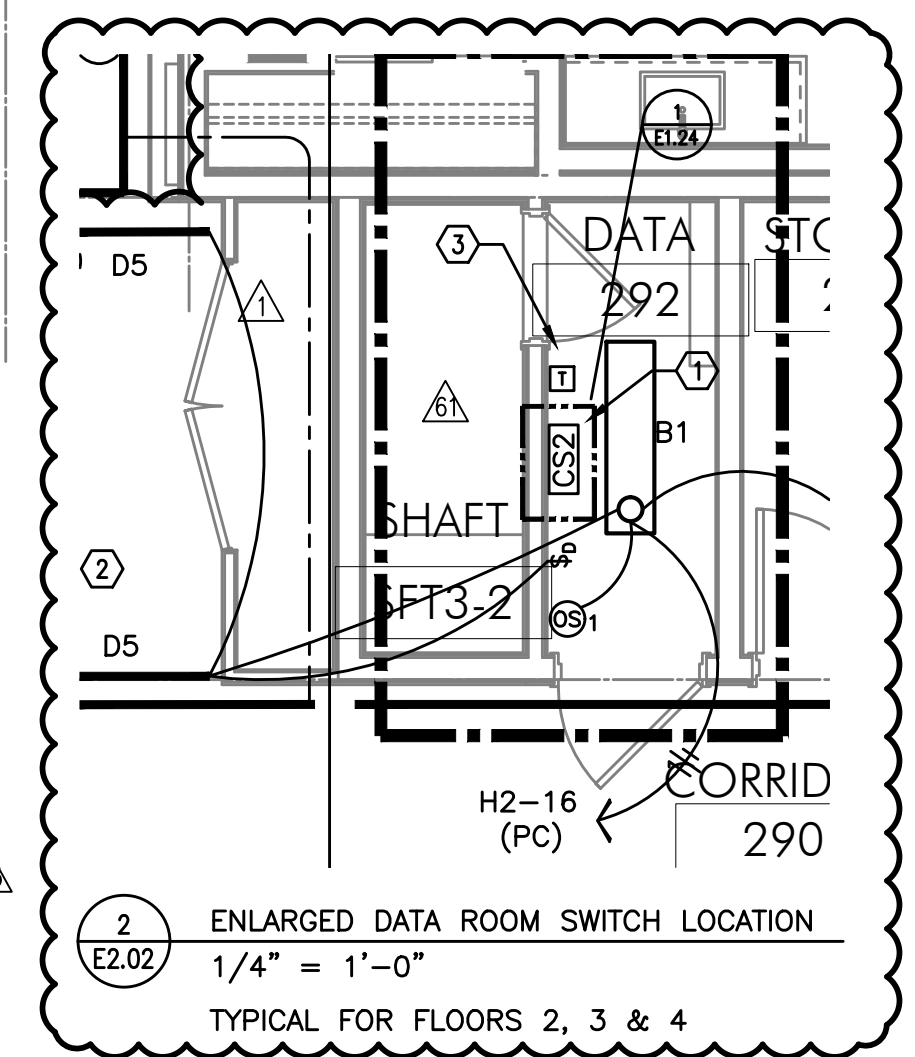
6A

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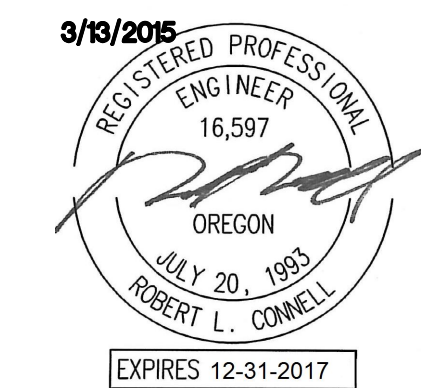


1 LIGHTING PLAN - LEVEL TWO
E2.02 SCALE: 1/8" = 1'-0"



2 ENLARGED DATA ROOM SWITCH LOCATION
E2.02 1/4" = 1'-0"
TYPICAL FOR FLOORS 2, 3 & 4

M Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0877
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PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS	
08.04.17	COORDINATION
09.15.17	COORDINATION
02.23.18	COORDINATION
04.20.18	COORDINATION
01.25.19	COORDINATION

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GENERAL NOTES:

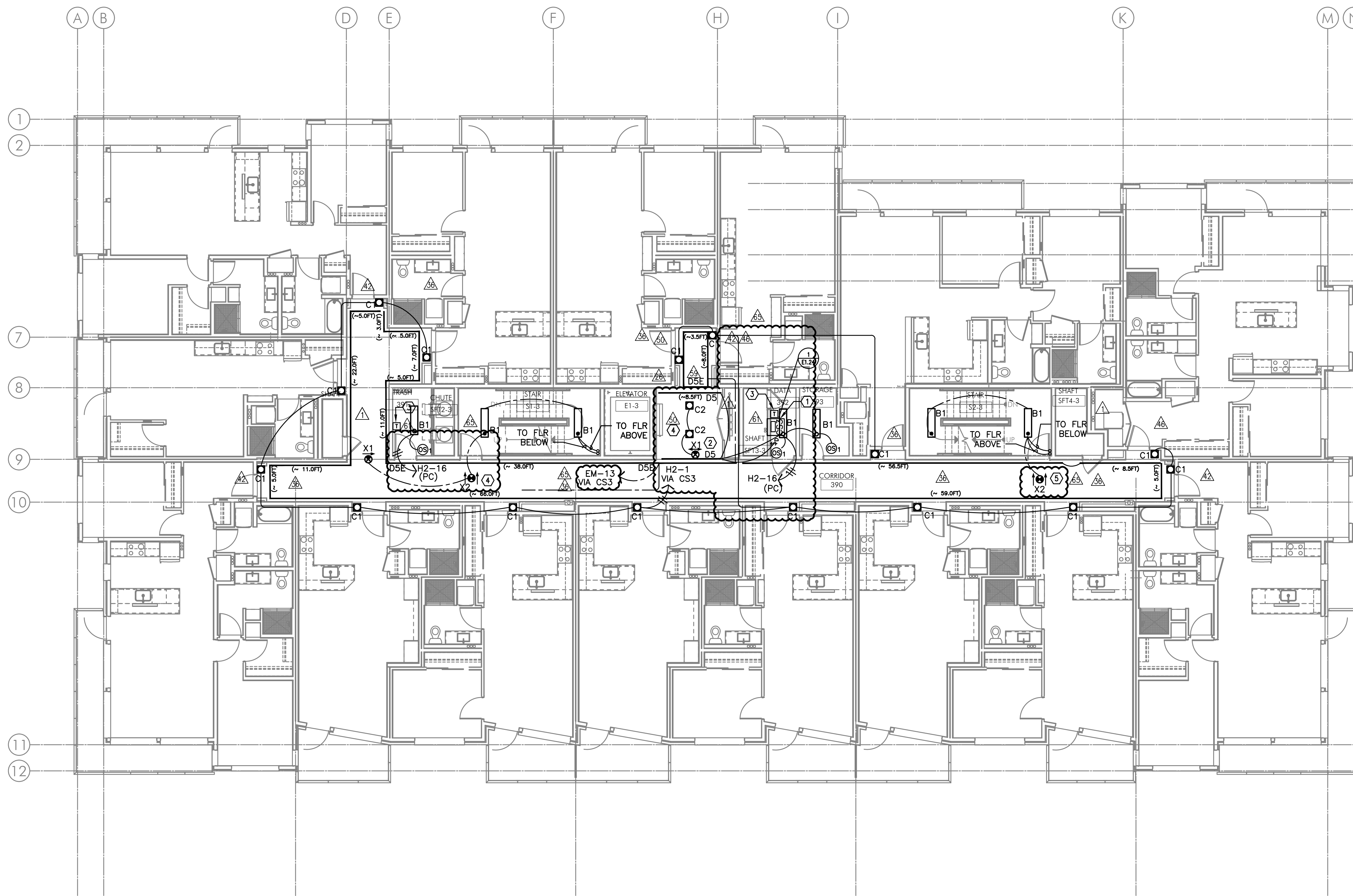
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- C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.
- E. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.
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- F. DESIGN INTENT IS SUCH THAT ONE SIDE OF THE CORRIDOR COVE LIGHTING BE ON NORMAL POWER AND THE COVE LIGHTING ON THE OPPOSITE SIDE BE ON EMERGENCY POWER FOR EGRESS.
- G. LOW VOLTAGE POWER SUPPLIES FOR LED COVE LIGHTS SHALL BE LOCATED AS INDICATED IN SHEET NOTE #5 BELOW. POWER SUPPLIES SHALL BE INSTALLED IN THE TRASH ROOM AND DATA CLOSETS AT EACH FLOOR, WITH EACH LOCATION SERVING ONE HALF OF THE CORRIDOR COVE LIGHTS. QUANTITY & SIZE OF POWER SUPPLIES SHALL BE PER MANUFACTURER'S RECOMMENDATION. REFER TO MFR PRODUCT SUBMITTALS FOR MORE INFORMATION.

KEYED NOTES:

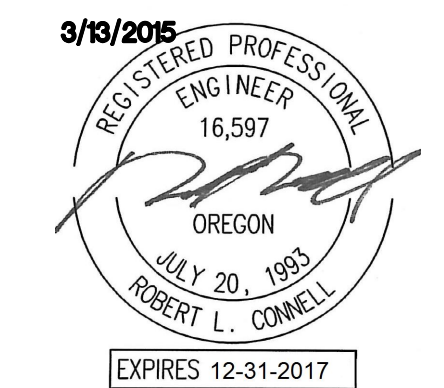
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- 2. CONSULT INTERIOR DECORATOR'S PLAN SET FOR EXACT INFORMATION, LOCATION AND INSTALLATION REQUIREMENTS FOR THE RECESSED COVE LIGHTS IN THE ELEVATOR LOBBY.
- 3. LOW VOLTAGE TRANSFORMERS FOR COVE LIGHTING PER MANUFACTURER'S REQUIREMENTS. MOUNT DEVICES CLOSE TO CEILING OR ABOVE, IF PROVIDING ACCESS PANEL. WIRING TO BE #12 AWG TO MEET MANUFACTURER'S REQUIREMENTS FOR 5% VOLTAGE DROP. MAXIMUM WIRING RUN TO BE 80'-0".
- 4. ALL EXIT SIGNS AND ELEVATOR THRESHOLD LIGHTS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #1.
- 5. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #2.

CONTRACTOR NOTE:

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1 LIGHTING PLAN - LEVEL THREE
E2.03 SCALE: 1/8" = 1'-0"



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PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS	
△2	08.04.17 COORDINATION
△3	09.15.17 COORDINATION
△4	02.23.18 COORDINATION
△5	04.20.18 COORDINATION
△6	01.25.19 COORDINATION

**MISSISSIPPI AVE
MIXED USE BUILDING**
810 N FREMONT ST, PORTLAND, OR 97227

GENERAL NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. LIGHTING AND RECEPTACLES IN THE RETAIL LEASE SPACES SHALL BE PROVIDED WITH TEMPORARY CIRCUITS FROM THE HOUSE BRANCH PANELS AS INDICATED ON THE PLANS. AT SUCH TIME THAT EACH SPACE IS LEASED AND BUILT TO SUIT THE TENANT, THE TEMPORARY POWER CIRCUITS SHALL BE DISCONNECTED AND REMOVED, WITH THE BREAKERS NOTED AS "SPARE".
- C. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- D. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.
- E. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.
- F. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK
- G. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- F. DESIGN INTENT IS SUCH THAT ONE SIDE OF THE CORRIDOR COVE LIGHTING BE ON NORMAL POWER AND THE COVE LIGHTING ON THE OPPOSITE SIDE BE ON EMERGENCY POWER FOR EGRESS.
- G. LOW VOLTAGE POWER SUPPLIES FOR LED COVE LIGHTS SHALL BE LOCATED AS INDICATED IN SHEET NOTE #3 BELOW. POWER SUPPLIES SHALL BE INSTALLED IN THE TRASH ROOM AND DATA CLOSETS AT EACH FLOOR, WITH EACH LOCATION SERVING ONE HALF OF THE CORRIDOR COVE LIGHTS. QUANTITY & SIZE OF POWER SUPPLIES SHALL BE PER MANUFACTURER RECOMMENDATION. REFER TO MFR PRODUCT SUBMITTALS FOR MORE INFORMATION.

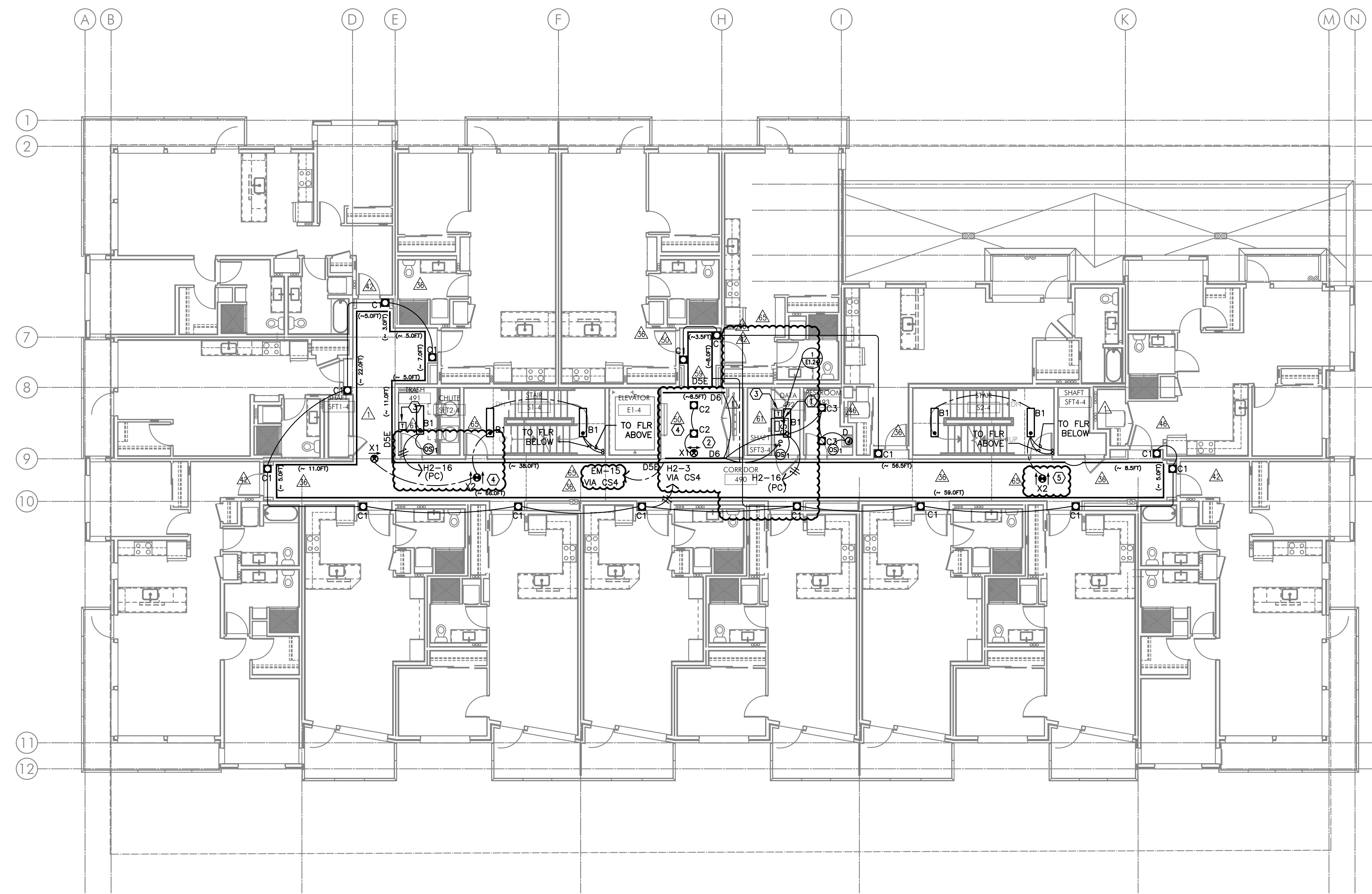
KEYED NOTES:

- 1. PROVIDE LOCKING COVER FOR LIGHTING CONTROLS.
- 2. CONSULT INTERIOR DECORATOR'S PLAN SET FOR EXACT INFORMATION, LOCATION AND INSTALLATION REQUIREMENTS FOR THE RECESSED COVE LIGHTS IN THE ELEVATOR LOBBY.
- 3. LOW VOLTAGE TRANSFORMERS FOR COVE LIGHTING PER MANUFACTURER'S REQUIREMENTS. MOUNT DEVICES CLOSE TO CEILING OR ABOVE, IF PROVIDING ACCESS PANEL. WIRING TO BE #12 AWG TO MEET MANUFACTURER'S REQUIREMENTS FOR 5% VOLTAGE DROP. MAXIMUM WIRING RUN TO BE 80'-0".
- 4. ALL EXIT SIGNS AND ELEVATOR THRESHOLD LIGHTS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #1.
- 5. ALL EXIT SIGNS SHALL BE CONSTANT 'ON'. TIE INTO CIRCUIT SERVING STAIRWELL #2.

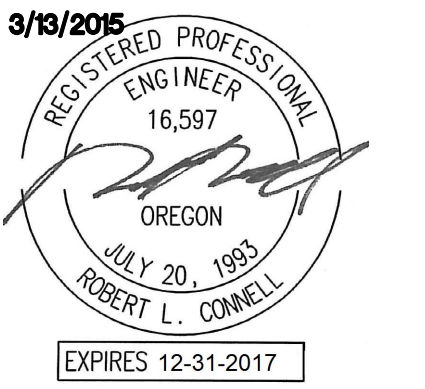


CONTRACTOR NOTE:

THE LIGHT LAYOUT SHOWN ON THIS SHEET IS PER THE INTERIOR DESIGNER'S DIRECTION AND MAY NOT REFLECT ACTUAL LOCATIONS. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL & INTERIOR DESIGNER'S REFLECTED CEILING PLANS & DETAILS FOR EXACT DIMENSIONED LOCATIONS AND MOUNTING OF LIGHT FIXTURES. CONSULT ARCHITECT FOR ANY DISCREPANCIES OR CONFLICTS IMMEDIATELY.



1 LIGHTING PLAN - LEVEL FOUR
E2.04 SCALE: 1/8" = 1'-0"



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PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS	
07.07.17	COORDINATION
08.04.17	COORDINATION
09.15.17	COORDINATION
10.06.17	COORDINATION
12.22.17	COORDINATION
02.23.18	COORDINATION

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MIXED USE BUILDING**
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GENERAL NOTES:

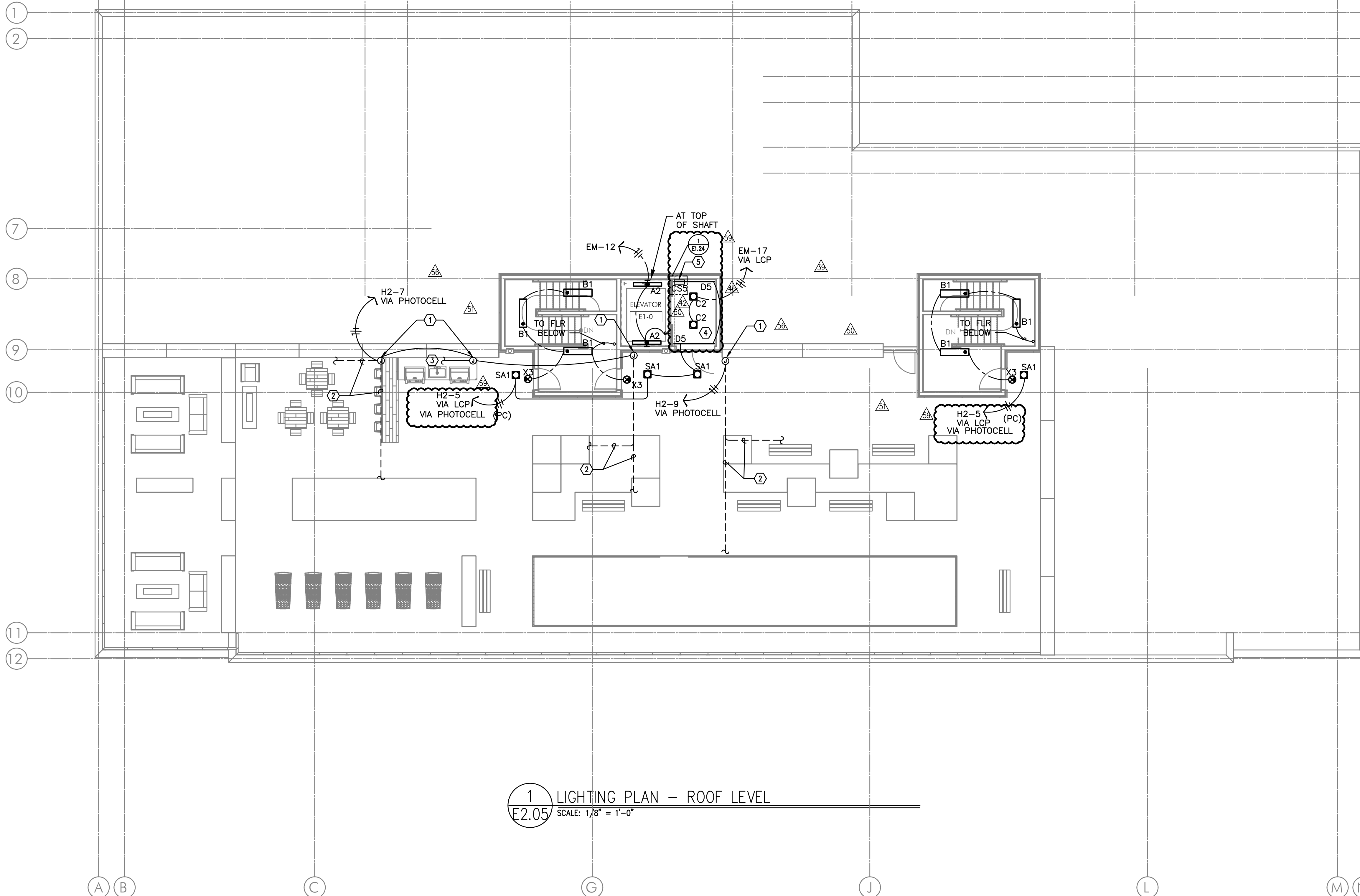
- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- C. REFER TO E400 SERIES SHEETS FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUT.
- D. REFER TO E1.21 FOR LUMINAIRE SCHEDULE.
- E. THE CONTRACTOR SHALL CONSULT THE ARCHITECT AND INTERIOR DESIGNER FOR ALL FIXTURE LOCATIONS PRIOR TO THE START OF ANY ROUGH IN WORK.
- F. REFER TO AVAILABLE ARCHITECTURAL AND/OR INTERIOR DESIGN DOCUMENTS & DRAWINGS FOR ADDITIONAL INFORMATION.
- G. THE ELECTRICAL CONTRACTOR SHALL CONSULT LANDSCAPE DESIGNER AND LANDSCAPE PLAN SHEETS FOR EXACT ELECTRICAL REQUIREMENTS OF LOW VOLTAGE SYSTEMS (LIGHTING, IRRIGATION, ETC.) PRIOR TO ROUGH IN. COORDINATE ALL WORK WITH ALL TRADES.
- H. LOW VOLTAGE LANDSCAPE LIGHTING IS SPECIFIED, PROVIDED AND INSTALLED BY LANDSCAPE CONTRACTOR. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL CONDUIT AND CONDUCTORS AND PROVIDE FINAL POWER CONNECTION(S).

KEYED NOTES:

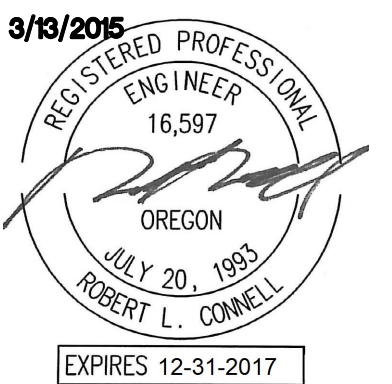
- 1. PROVIDE ONE 20A, 1PH CIRCUIT FROM PANEL 'H2' TO ROOF TERRACE AND TERMINATE AT A JUNCTION BOX AS INDICATED.
- 2. ROUTE LOW VOLTAGE CONDUCTORS UNDER PAVER SYSTEM TO PLANTERS OR OTHER LOCATIONS AS DIRECTED BY THE LANDSCAPE DESIGNER WHEREVER POSSIBLE, KEEPING ROUTING AS DIRECT AND UNOBTRUSIVE AS POSSIBLE. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL LOW VOLTAGE LIGHTING WORK WITH LANDSCAPE INSTALLER TO ENSURE A COMPLETE INSTALLATION. ELECTRICAL CONTRACTOR SHALL CONSULT WITH LANDSCAPE DESIGNER PRIOR TO ROUGH IN, FOR EXACT POWER REQUIREMENTS AND PROVIDE & INSTALL ALL PRODUCTS AS REQUIRED.
- 3. LOCATE POWER CONNECTION FOR COUNTER TOP MOUNTED BBQ LIGHTS UNDER COUNTER AND CIRCUIT AS SHOWN.
- 4. CONSULT INTERIOR DECORATOR'S PLAN SET FOR EXACT INFORMATION, LOCATION AND INSTALLATION REQUIREMENTS FOR THE RECESSED COVE LIGHTS IN THE ELEVATOR LOBBY.
- 5. PROVIDE LOCKING COVER FOR LIGHTING CONTROLS.

CONTRACTOR NOTE:

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1 LIGHTING PLAN - ROOF LEVEL
E2.05 SCALE: 1/8" = 1'-0"



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PROJECT # 2014-26 DATE: 3/13/2015

Table with 2 columns: REVISIONS, DATE. Lists 6 revisions with dates from 09.01.17 to 06.07.19.

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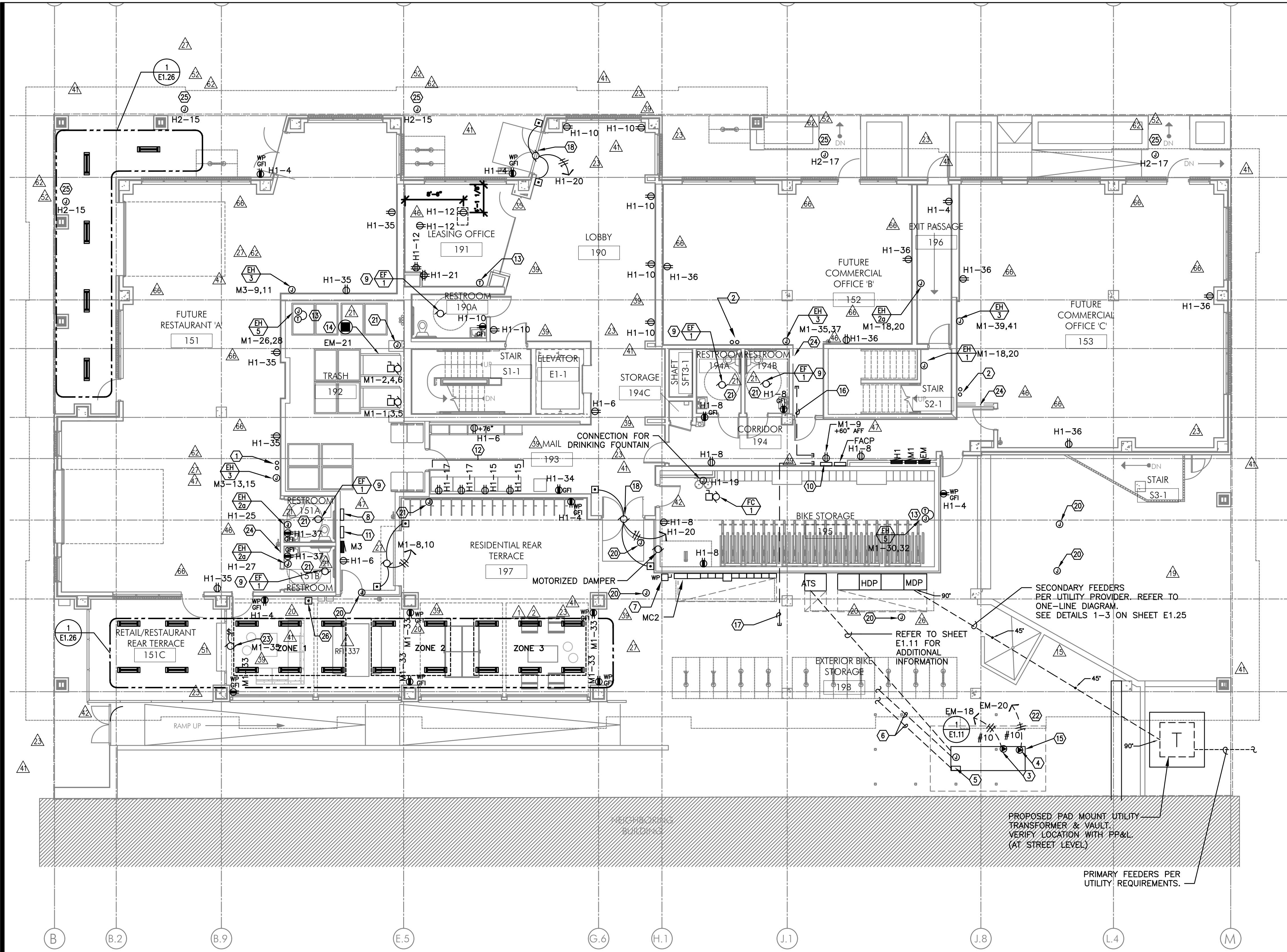
SHEET: E3.01

GENERAL NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN.
C. LIGHTING AND RECEPTACLES IN THE RETAIL LEASE SPACES SHALL BE PROVIDED WITH TEMPORARY CIRCUITS FROM THE HOUSE BRANCH PANELS AS INDICATED ON THE PLANS. AT SUCH TIME THAT EACH SPACE IS LEASED AND BUILT TO SUIT THE TENANT, THE TEMPORARY POWER CIRCUITS SHALL BE DISCONNECTED AND REMOVED, WITH THE BREAKERS NOTED AS "SPARE".
D. ELECTRICAL CONTRACTOR TO PROVIDE EMPTY CONDUIT FOR FUTURE CONNECTION OF MECHANICAL EQUIPMENT INSTALLED FOR EACH RETAIL SPACE. CONSULT MECHANICAL DRAWINGS AND COORDINATE WITH THE MECHANICAL INSTALLED FOR THE APPROPRIATE CONDUIT SIZE AND ROUTING PRIOR TO ROUGH IN.
E. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
F. PER IFC 5704.2.3.2, TANKS MORE THAN 100 GALLONS (379 L) IN CAPACITY, WHICH ARE PERMANENTLY INSTALLED OR MOUNTED AND USED FOR THE STORAGE OF CLASS I, II OR III LIQUIDS, SHALL BEAR A LABEL AND PLACARD IDENTIFYING THE MATERIAL THEREIN. PLACARDS SHALL BE IN ACCORDANCE WITH NFPA 704.
G. ELECTRICAL PANELS LOCATED IN PUBLIC OR UNSECURED SPACES SHALL BE PROVIDED WITH A LOCKABLE DOOR PANEL.

KEYED NOTES:

- 1. ROUTE (2) EMPTY 3 1/2" CONDUIT FROM MC2 UNDER SLAB AND STUB-UP INTO LEASE SPACE FOR TENANT SUPPLIED BRANCH PANEL AND CAP OFF.
2. ROUTE (2) EMPTY 2" CONDUIT FROM MC2 UNDER SLAB AND STUB-UP INTO LEASE SPACE FOR TENANT SUPPLIED BRANCH PANEL AND CAP OFF.
3. 120V GENERATOR BLOCK HEATER. PANEL EM.
4. 120V GENERATOR BATTERY CHARGER. PANEL EM.
5. GENERATOR OUTPUT BREAKER AND CONTROL SECTION. PANEL EM.
6. POWER AND CONTROL TO TRANSFER SWITCH AND REMOTE ANNUNCIATOR. SEE ONE-LINE DIAGRAM ON SHEET E1.11.
7. GENERATOR DISCONNECT. SEE ONE-LINE DIAGRAM ON SHEET E1.11.
8. GENERATOR REMOTE ANNUNCIATOR. PANEL EM.
9. EXHAUST FAN TO BE TIED INTO LIGHTING CIRCUIT FOR THIS AREA. REFER TO DETAIL 3/E1.23 FOR TYPICAL BATHROOM SWITCHING DIAGRAM.
10. IRRIGATION CONTROLS. PANEL M1.
11. LIGHTING CONTROL PANEL. PANEL LCP.
12. PACKAGE CONCERGE SYSTEM. MOUNT DUPLEX RECEPTACLES AT 76" AFF.
13. PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
14. COORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF SMOKE DAMPERS PRIOR TO ROUGH IN.
15. DIESEL GENERATOR TO BE PROVIDED WITH DOUBLE-WALL FUEL TANK AND SPILL CONTAINMENT PER CITY OF PORTLAND REQUIREMENTS.
16. ROUTE ONE 1" PVC CONDUIT SLEEVE W/ PULL STRING THROUGH STRUCTURE, FROM CONTROLLER TO LANDSCAPE PLANTER WITH EXTERIOR FIRE CONNECTION AND PROVIDE ONE 1" PVC CONDUIT SLEEVE BETWEEN (5) PLANTER BOXES FOR IRRIGATION CONTROL. COORDINATE INSTALLATION WITH ARCHITECT.
17. ROUTE ONE 1" PVC CONDUIT SLEEVE W/ PULL STRING THROUGH STRUCTURE, FROM CONTROLLER TO SOUTHERN PLANTING AREA FOR IRRIGATION CONTROL. COORDINATE INSTALLATION WITH ARCHITECT.
18. PROVIDE 20A, 120V, 1P POWER CONNECTION AT CEILING FOR DOOR CONTROLS. CIRCUIT AS NOTED.
19. PACKAGE CONCERGE SYSTEM. VERIFY EXACT POWER REQUIREMENTS AND MOUNTING HEIGHTS PRIOR TO ROUGH IN. CIRCUIT AS INDICATED.
20. PROVIDE ONE 20A, 120V CIRCUIT (TIGHT TO STRUCTURE) FOR HEAT TRACE CONNECTIONS FROM PANEL 'H1'. COORDINATE EXACT LOCATIONS WITH PLUMBING CONTRACTOR.
21. PROVIDE ONE 20A, 120V CIRCUIT FROM PANEL 'M1' (TIGHT TO STRUCTURE) FOR EACH TRAP PRIMER CONNECTION AS INDICATED. COORDINATE EXACT LOCATIONS AND EXACT ELECTRICAL REQUIREMENTS WITH PLUMBING CONTRACTOR PRIOR TO CONSTRUCTION.
22. DIESEL GENERATOR TANK SHALL DOUBLE WALLED AND BE EQUIPPED WITH OVERFILL PROTECTION (AUTO SHUTOFF), 5 GALLON INFILL SPILL BUCKET WITH DRAIN BACK, 12FT ABOVE GRADE TANK FUME VENTING AND ONSITE PRESSURE TESTING PER CITY REQUIREMENTS.
23. PROVIDE ONE 20A CIRCUIT IN 3/4" C., ROUTED UNDERGROUND FROM HOUSE PANEL TO FIRE PLACE LOCATION. CONTRACTOR SHALL VERIFY MANUFACTURER'S ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN AND PROVIDE ALL COMPONENTS AS REQUIRED FOR COMPLETE INSTALLATION. CONSULT ARCHITECT FOR FIREPLACE CONTROL LOCATION. PROVIDE ONE 60-MINUTE TIMER SWITCH WITH NO "HOLD" SETTING. CONSULT ARCHITECT FOR SWITCH LOCATION.
24. PROVIDE ROUGH IN ONLY FOR FUTURE 20A, 120V, 1P CIRCUIT TO BE FED FROM TENANT'S BRANCH PANEL FOR "SMART PANEL" INTEGRAL RECEPTACLE. SEE 'T' SERIES SHEETS FOR LOCATION.
25. PROVIDE ONE 4" SQUARE J-BOX AT CANOPY FOR SIGN POWER CONNECTION. CIRCUIT VIA PANEL 'H2' AS INDICATED. BUILDING SIGNS SHALL BE CONTROLLED VIA THE LIGHTING CONTROL PANEL. SEE E1.24 FOR ADDITIONAL INFORMATION. CONSULT ARCHITECT FOR EXACT LOCATION PRIOR TO ROUGH IN.



1 POWER PLAN - LEVEL ONE SCALE: 1/8" = 1'-0"

26. PROVIDE EMERGENCY SHUTOFF CONTROL FOR GAS APPLIANCES LOCATED ON TERRACE. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR. CIRCUIT FROM PANEL 'M2'. SEE DETAIL 3/E1.22 FOR EMERGENCY SHUFF-OFF DIAGRAM.

3/13/2015



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PROJECT # 2014-26
DATE: 3/13/2015

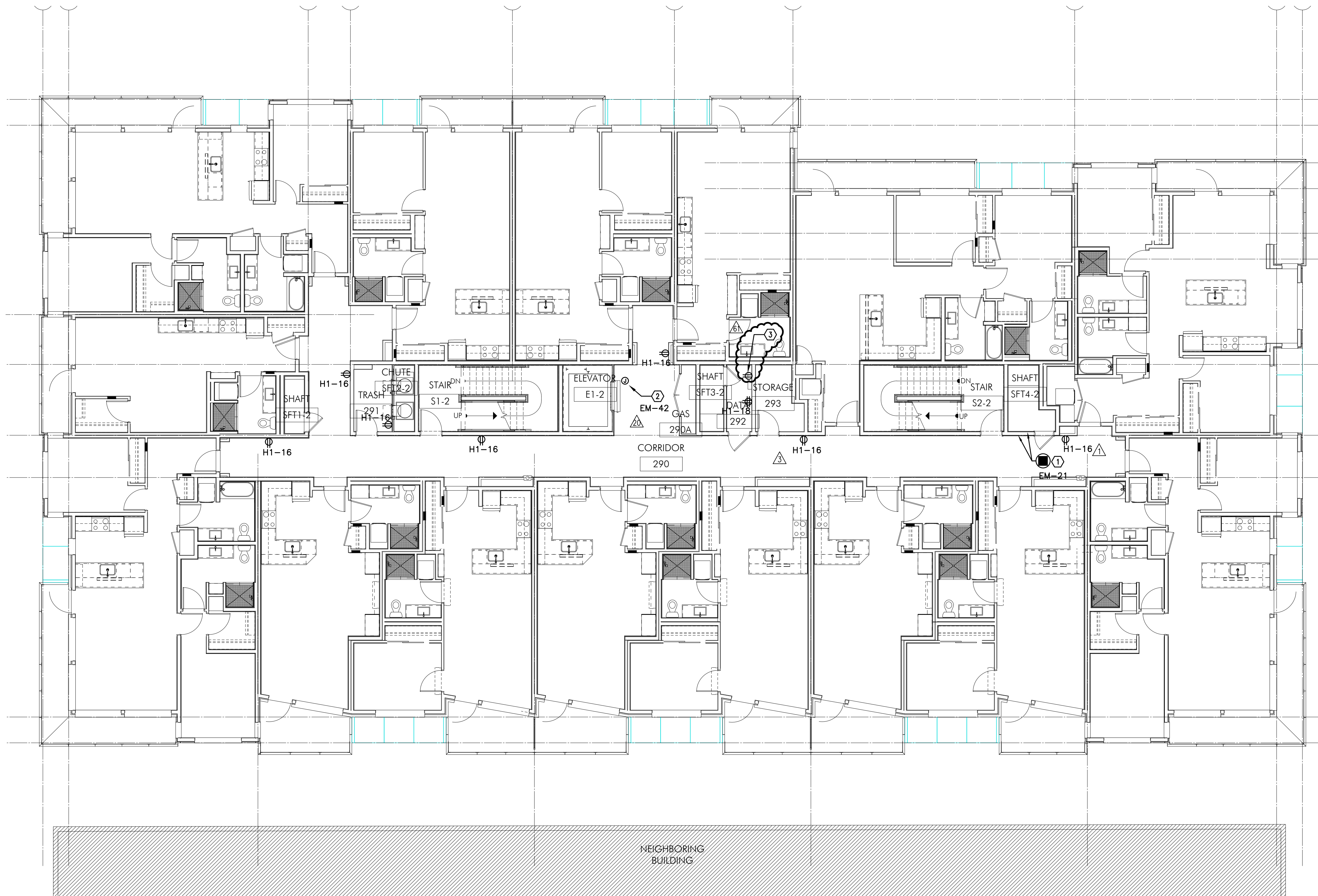
REVISIONS	
06.25.15	PLAN REVIEW
12.08.15	COORDINATION
10.14.16	COORDINATION
04.20.18	COORDINATION

GENERAL NOTES:

- A. ELECTRICAL DRAWINGS ARE DIAGRAMMATICAL AND MAY NOT ACCURATELY REFLECT ACTUAL CONSTRUCTION CONDITIONS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL ELECTRICAL EQUIPMENT, WITH ALL TRADES PRIOR TO AND DURING CONSTRUCTION.
- B. THE ELECTRICAL CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR ALL MOUNTING HEIGHTS AND FINISHES OF DEVICES AND FIXTURES.
- C. REFER TO SHEETS E4.01 - E4.03 FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUTS.

KEYED NOTES:

- 1. COORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF SMOKE DAMPERS PRIOR TO ROUGH IN.
- 2. PROVIDE ONE 20A, 120V, 1P CIRCUIT FROM THE EMERGENCY PANEL "EM" FOR ELEVATOR SMOKE CURTAINS. SMOKE CURTAINS ARE TO BE SMOKE GUARD SYSTEM MODEL 200 AND SHALL BE INSTALLED AT EACH ELEVATOR LOBBY. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION WITH THE EQUIPMENT PROVIDER/INSTALLER FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN. EACH SMOKE CURTAIN SHALL BE INTERLINKED WITH THE NEAREST SMOKE DETECTOR AT EACH LOCATION.
- 3. PROVIDE ONE 20A, 120V, 1P DUPLEX RECEPTACLE FOR OWNER PROVIDED SYMETRIX AUDIO SYSTEM HEAD IN UNIT. CIRCUIT TO PANEL H2-13. CONTRACTOR SHALL PROVIDE ALL POWER CONNECTIONS (INCLUDING LOW VOLTAGE CABLES) PER MANUFACTURER'S REQUIREMENTS. LOW VOLTAGE CABLES TO BE ROUTED TO THE FIRST FLOOR AND THE FIFTH FLOOR TERRACE. CONTRACTOR SHALL CONSULT WITH THE INTERIOR DECORATOR PLANS FOR LOCATION OF ALL SPEAKERS AND CONTROLS AND PROVIDE COMPLETE INSTALLATION PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.



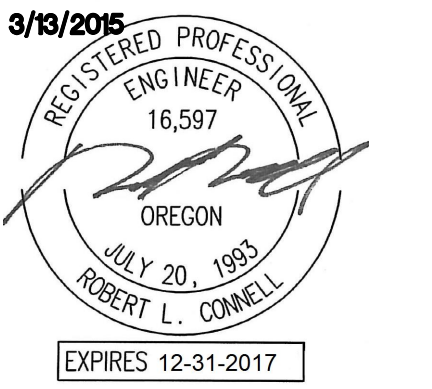
1 POWER PLAN - LEVEL TWO
E3.02 SCALE: 1/8" = 1'-0"

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SHEET:

E3.02

**M
E
I
A** Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0877
INC. WWW.MPIA-ENG.COM
CONTACT: DENISE TAYLOR



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PROJECT # 2014-26
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NO.	DESCRIPTION

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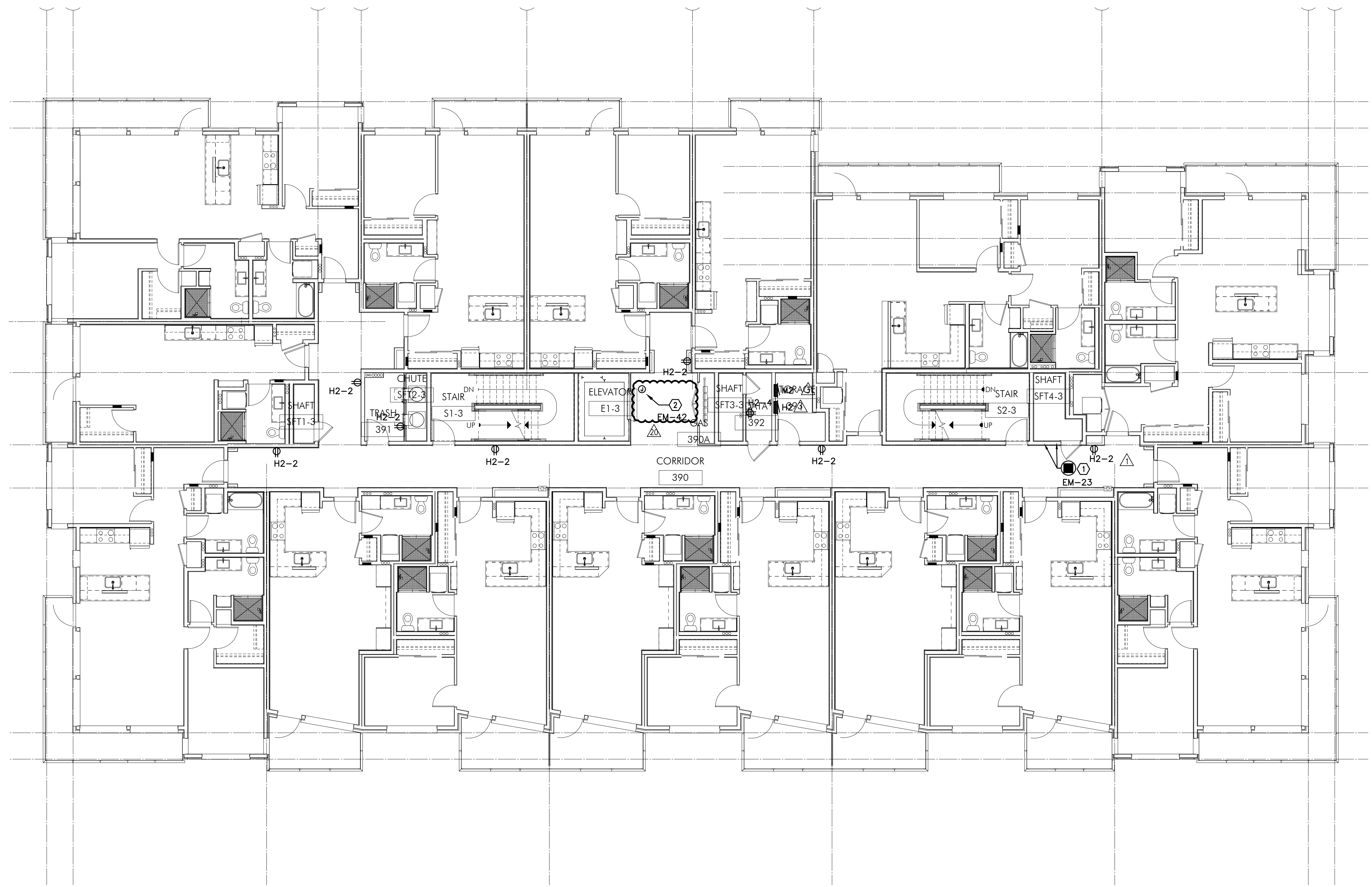
SHEET:
E3.03

GENERAL NOTES:

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- C. REFER TO SHEETS E4.01 - E4.03 FOR TYPICAL APARTMENT UNIT POWER AND LIGHTING LAYOUTS.

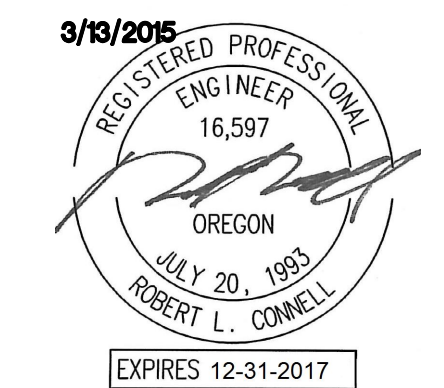
KEYED NOTES:

- 1. COORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF SMOKE DAMPERS PRIOR TO ROUGH IN.
- 2. PROVIDE ONE 20A, 120V, 1P CIRCUIT FROM THE EMERGENCY PANEL "EM" FOR ELEVATOR SMOKE CURTAINS. SMOKE CURTAINS ARE TO BE SMOKE GUARD SYSTEM MODEL 200 AND SHALL BE INSTALLED AT EACH ELEVATOR LOBBY. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION WITH THE EQUIPMENT PROVIDER/INSTALLER FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN. EACH SMOKE CURTAIN SHALL BE INTERLINKED WITH THE NEAREST SMOKE DETECTOR AT EACH LOCATION.



1 POWER PLAN - LEVEL THREE
E3.03 SCALE: 1/8" = 1'-0"

**M
FI
A** Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
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FAX: (503) 234-0877
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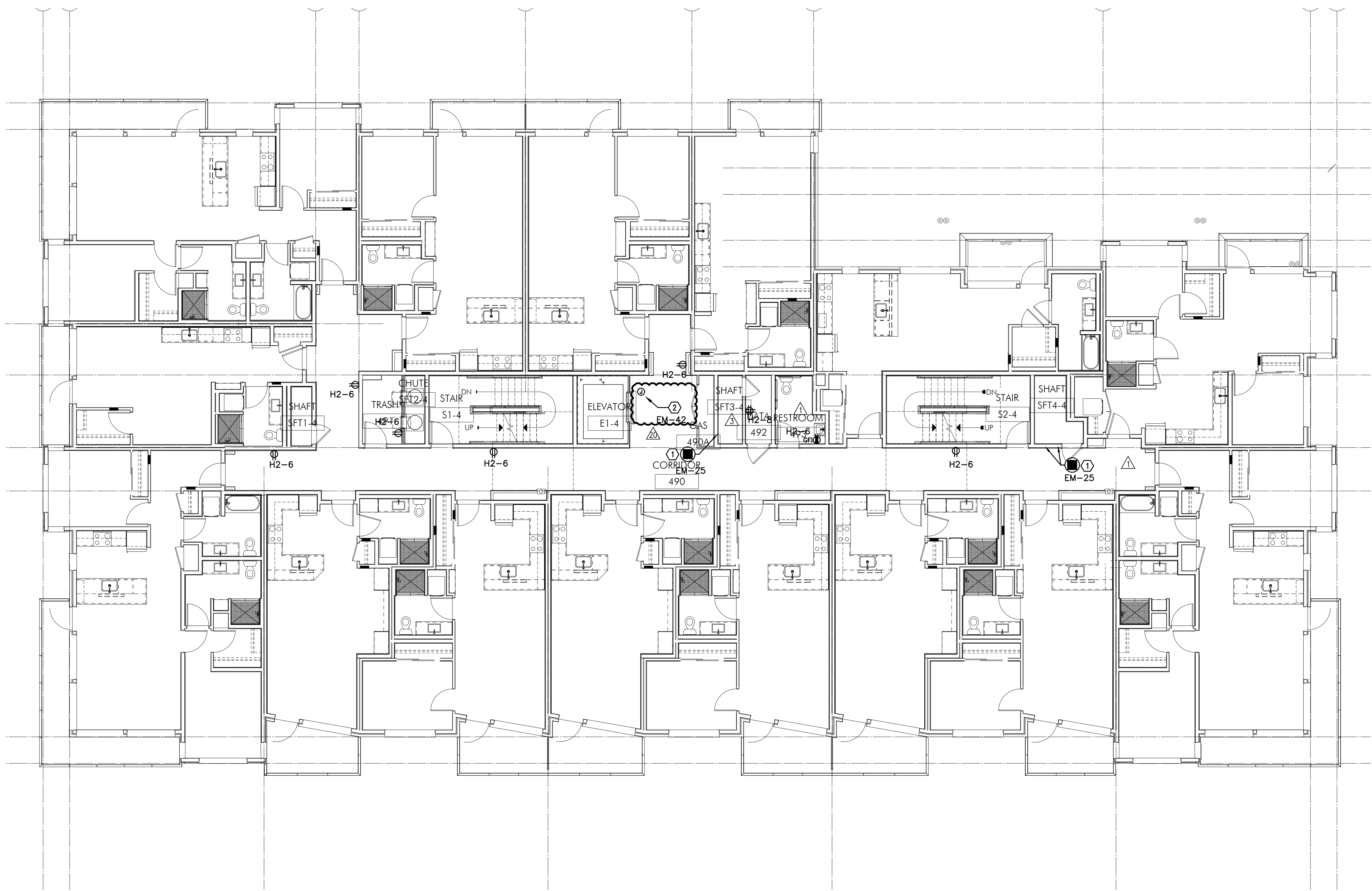
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KEYED NOTES:

- 1. COORDINATE WITH MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF SMOKE DAMPERS PRIOR TO ROUGH IN.
- 2. PROVIDE ONE 20A, 120V, 1P CIRCUIT FROM THE EMERGENCY PANEL "EM" FOR ELEVATOR SMOKE CURTAINS. SMOKE CURTAINS ARE TO BE SMOKE GUARD SYSTEM MODEL 200 AND SHALL BE INSTALLED AT EACH ELEVATOR LOBBY. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE INSTALLATION WITH THE EQUIPMENT PROVIDER/INSTALLER FOR ALL ELECTRICAL REQUIREMENTS PRIOR TO ROUGH IN. EACH SMOKE CURTAIN SHALL BE INTERLINKED WITH THE NEAREST SMOKE DETECTOR AT EACH LOCATION.



1 POWER PLAN - LEVEL FOUR
E3.04 SCALE: 1/8" = 1'-0"



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PROJECT # 2014-26
DATE: 3/13/2015

REVISIONS	
4A	08.04.17 COORDINATION
4B	08.11.17 COORDINATION
4C	10.06.17 COORDINATION
4D	10.20.17 COORDINATION

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SHEET:
E3.05

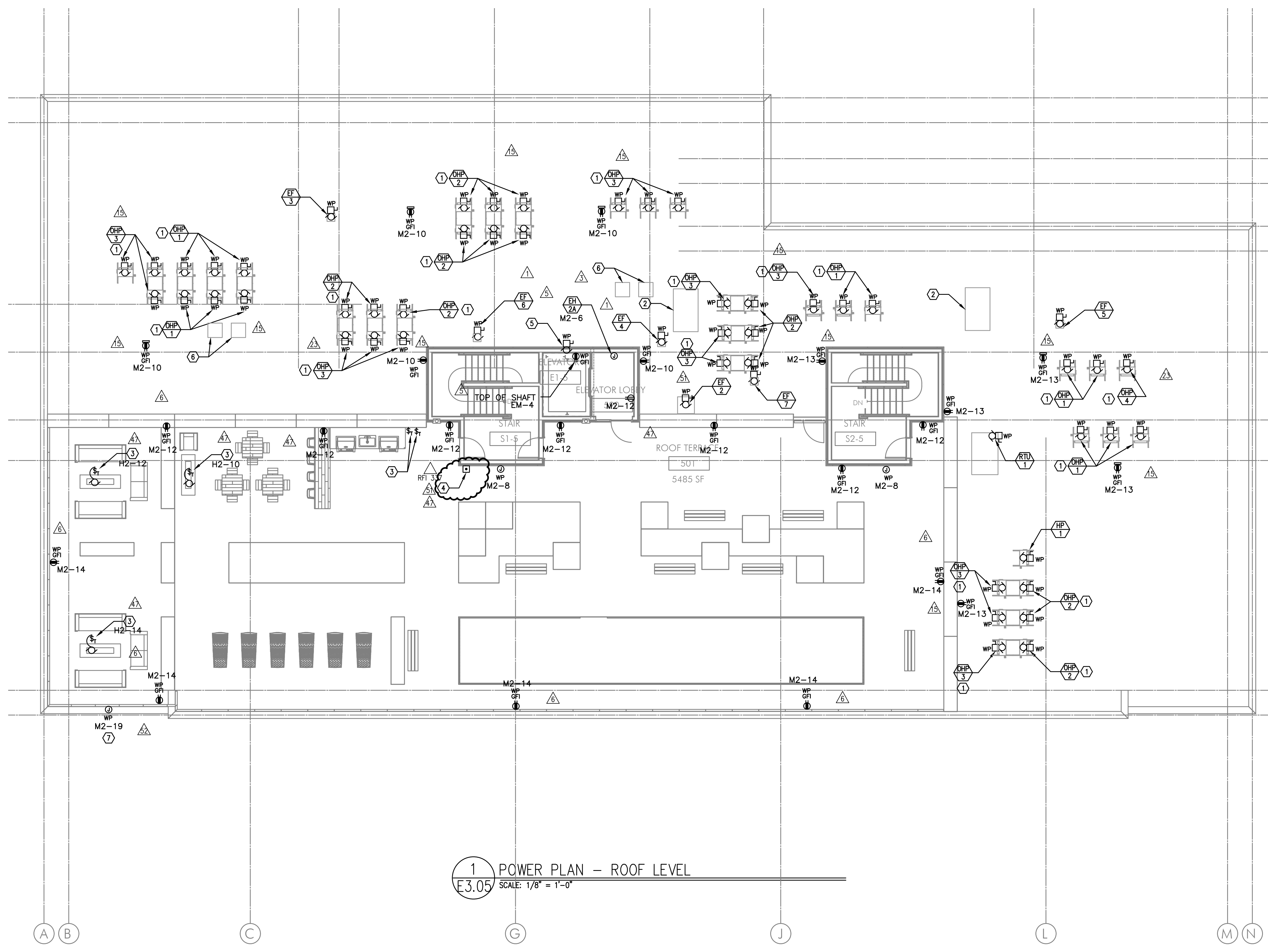
GENERAL NOTES:

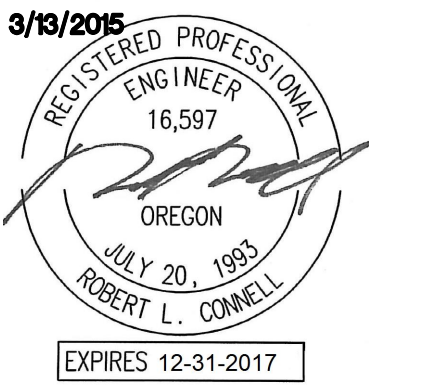
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- B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL EQUIPMENT INSTALLER FOR THE EXACT POWER REQUIREMENTS AND LOCATION OF ALL MECHANICAL EQUIPMENT PRIOR TO ROUGH IN.
- C. ELECTRICAL CONTRACTOR SHALL CONSULT MECHANICAL PLANS FOR THE PURPOSE OF COORDINATING APARTMENT DESIGNATION(S) OF ROOF MOUNTED HEAT PUMP UNITS.

KEYED NOTES:

1. REFER TO TYPICAL UNIT PLANS ON SHEETS E4.01 - E4.03 FOR COORDINATION OF MINI-SPLIT INDOOR UNITS ("IHP"). COORDINATE WITH MECHANICAL INSTALLER TO ENSURE "MATCHED" UNIT CONNECTIONS. MINI-SPLIT SYSTEMS SHALL BE FED FROM APARTMENT TENANT LOAD CENTERS.
2. FUTURE MAKEUP AIR UNIT. PROVIDE ONE EMPTY 1 1/2" CONDUIT WITH PULL STRING, ROUTED THROUGH SHAFT FROM RETAIL SPACE ON FIRST FLOOR.
3. PROVIDE 120V TWIST TIMER SWITCH (MAX. 60 MINUTES, "NO HOLD") IN WEATHER PROOF BOX FOR GAS GRILL AND FIRE PIT IGNITER CONTROLS. CIRCUIT FROM PANEL 'M2'. SEE DETAIL 3/E1.22 FOR EMERGENCY SHUFF-OFF DIAGRAM.
4. PROVIDE EMERGENCY SHUTOFF CONTROL FOR GAS APPLIANCES LOCATED ON TERRACE. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR. CIRCUIT FROM PANEL 'M2'. SEE DETAIL 3/E1.22 FOR EMERGENCY SHUFF-OFF DIAGRAM.
5. PROVIDE ONE 20A, 120V CIRCUIT FROM PANEL 'EM' FOR ELEVATOR RELIEF VENT DAMPER, WEATHER PROOF MOTOR SWITCH.
6. FUTURE CONDENSING UNIT. PROVIDE ONE EMPTY 1 1/2" CONDUIT WITH PULL STRING, ROUTED THROUGH SHAFT FROM RETAIL SPACE ON FIRST FLOOR.
7. PROVIDE ONE 4" SQUARE J-BOX AT CORNICE FOR SIGN POWER CONNECTION. CIRCUIT VIA PANEL 'H2' AS INDICATED. CONTROL SHALL BE VIA THE LIGHTING CONTROL PANEL. SEE E1.24 FOR MORE INFORMATION. CONSULT ARCHITECT FOR EXACT LOCATION PRIOR TO ROUGH IN.

1 POWER PLAN - ROOF LEVEL
E3.05 SCALE: 1/8" = 1'-0"

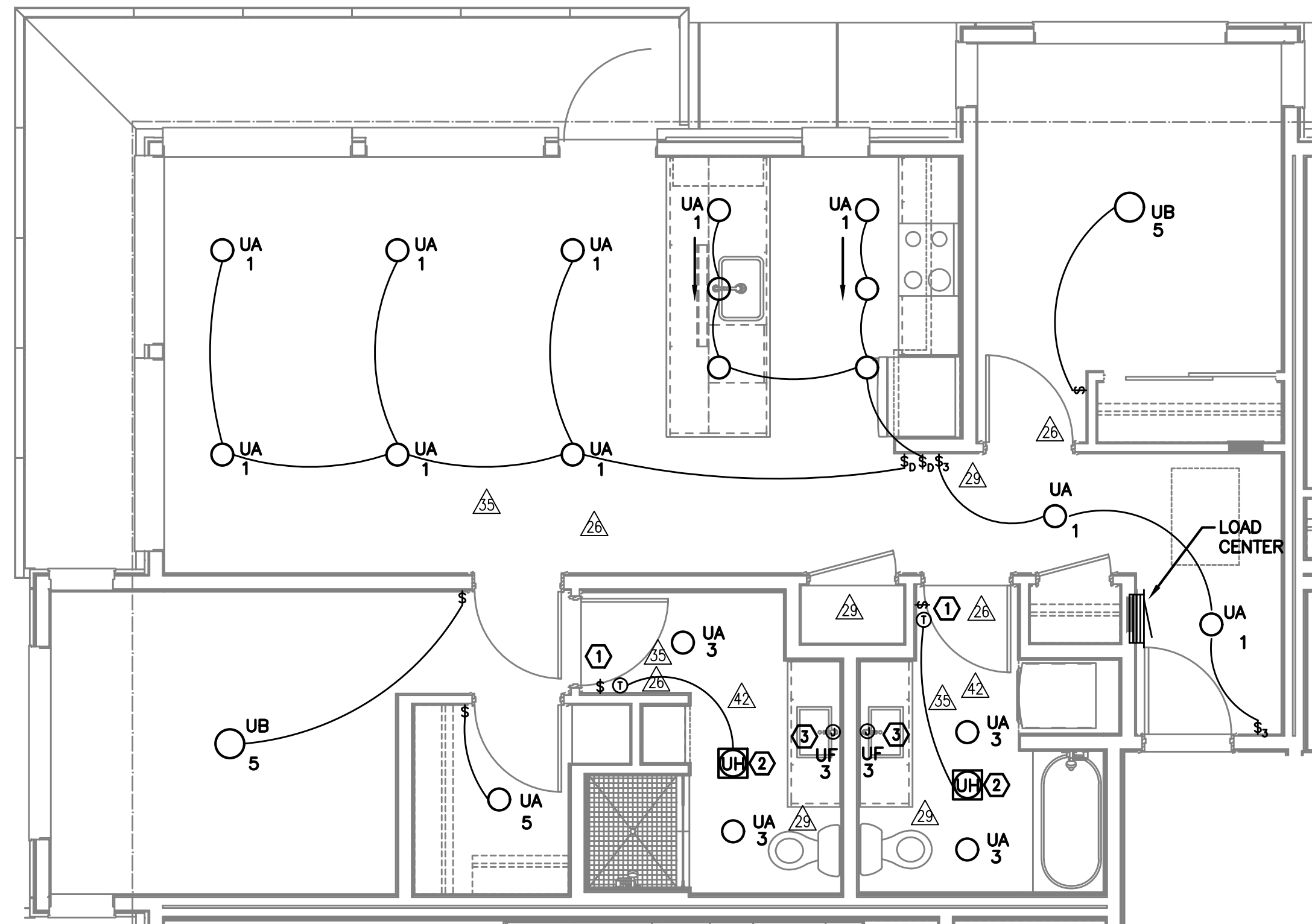




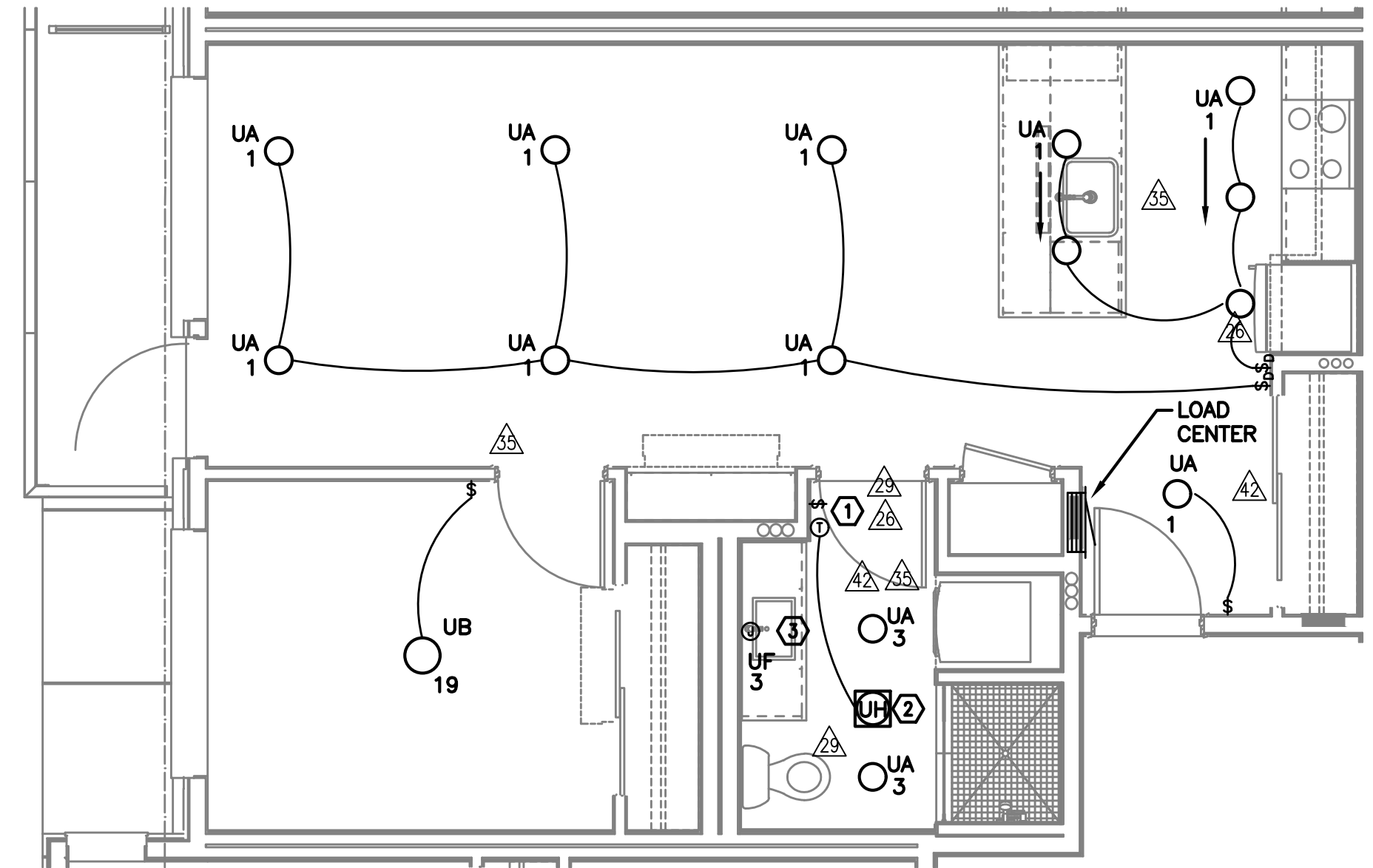
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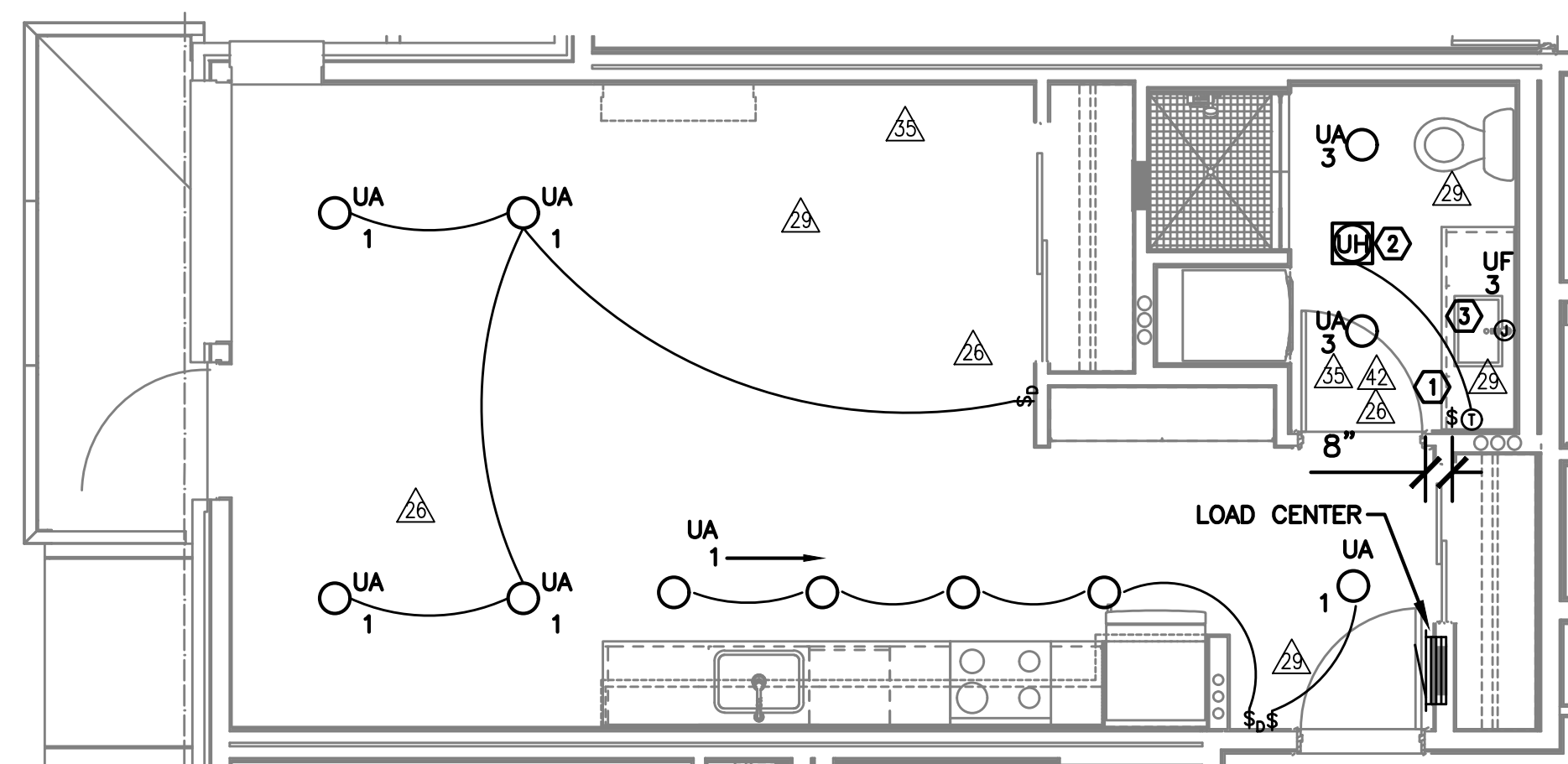
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△	01.20.17 COORDINATION
△	03.10.17 COORDINATION
△	04.20.17 COORDINATION
△	07.07.17 COORDINATION



1 UNIT TYPE 'A' - LIGHTING
E4.01 SCALE: 1/4" = 1'-0"



2 UNIT TYPE 'B' - LIGHTING
E4.01 SCALE: 1/4" = 1'-0"



3 UNIT TYPE 'C' - LIGHTING
E4.01 SCALE: 1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

- A. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL DEVICES AND FIXTURES.
- B. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.
- C. ALL LIGHT SWITCHES SHALL BE ROCKER STYLE, SUCH AS LEVITON DECORA, OR APPROVED EQUAL.
- △ D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS. CONSULT INTERIOR DESIGNER FOR MOUNTING HEIGHTS NOT SPECIFIED.

KEYED NOTES (APARTMENT UNITS):

- △ 1 REFER TO TYPICAL BATHROOM SWITCHING DETAILS ON SHEET E1.23.
- △ 2 PROVIDE ONE DEDICATED 20A CIRCUIT FOR BATHROOM HEATER FROM TENANT LOAD CENTER. PROVIDE THERMOSTAT AS INDICATED.
- △ 3 PROVIDE ONE 15A RECEPTACLE, MOUNTED ABOVE VANITY AND TIED INTO THE BATHROOM LIGHT SWITCH FOR BACK-LIT MIRROR. REFER TO MANUFACTURER'S INSTALLATION GUIDE AND COORDINATE EXACT MOUNTING HEIGHT WITH THE INTERIOR DECORATOR AND/OR THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH IN.

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3/13/2015

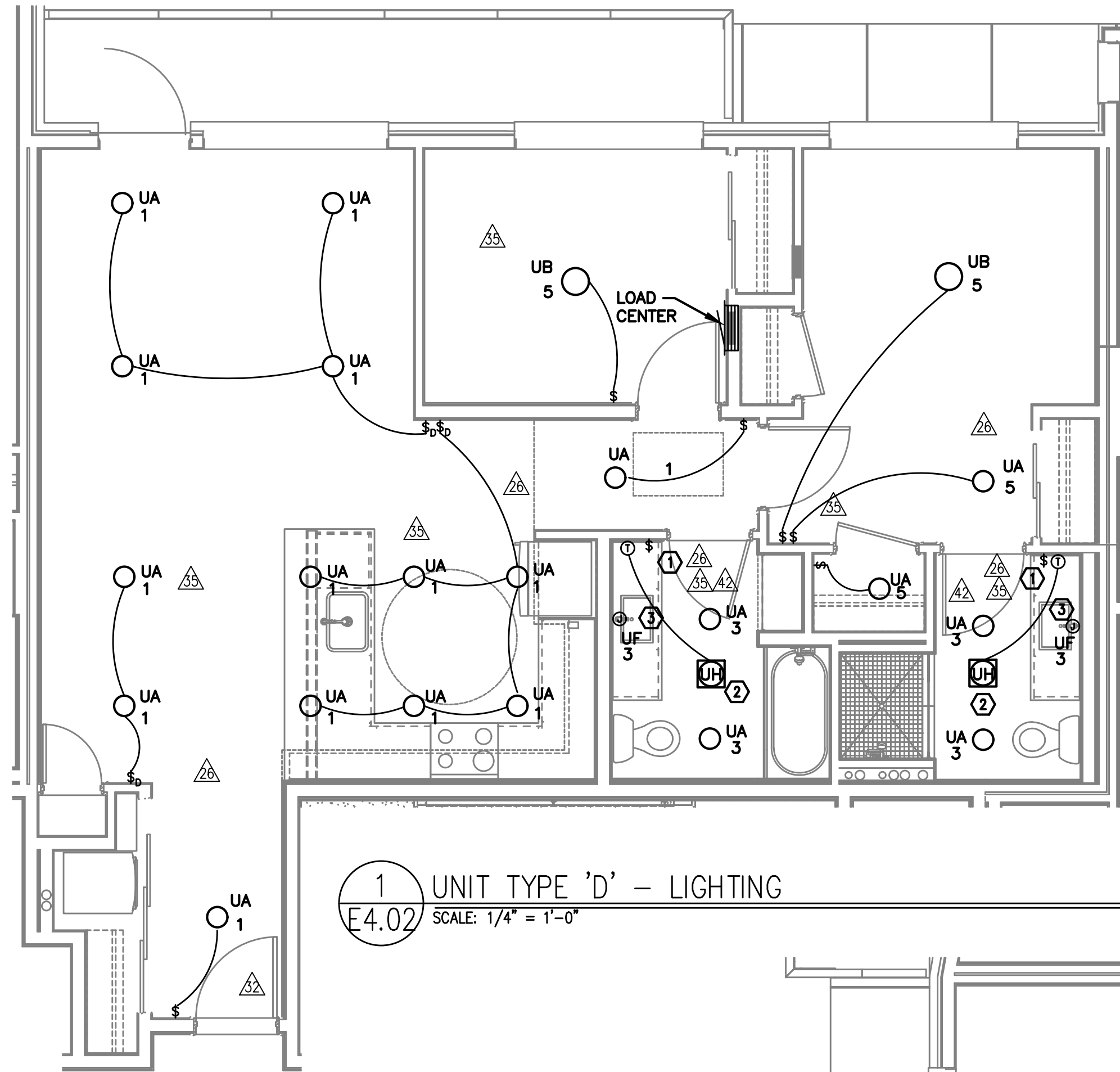


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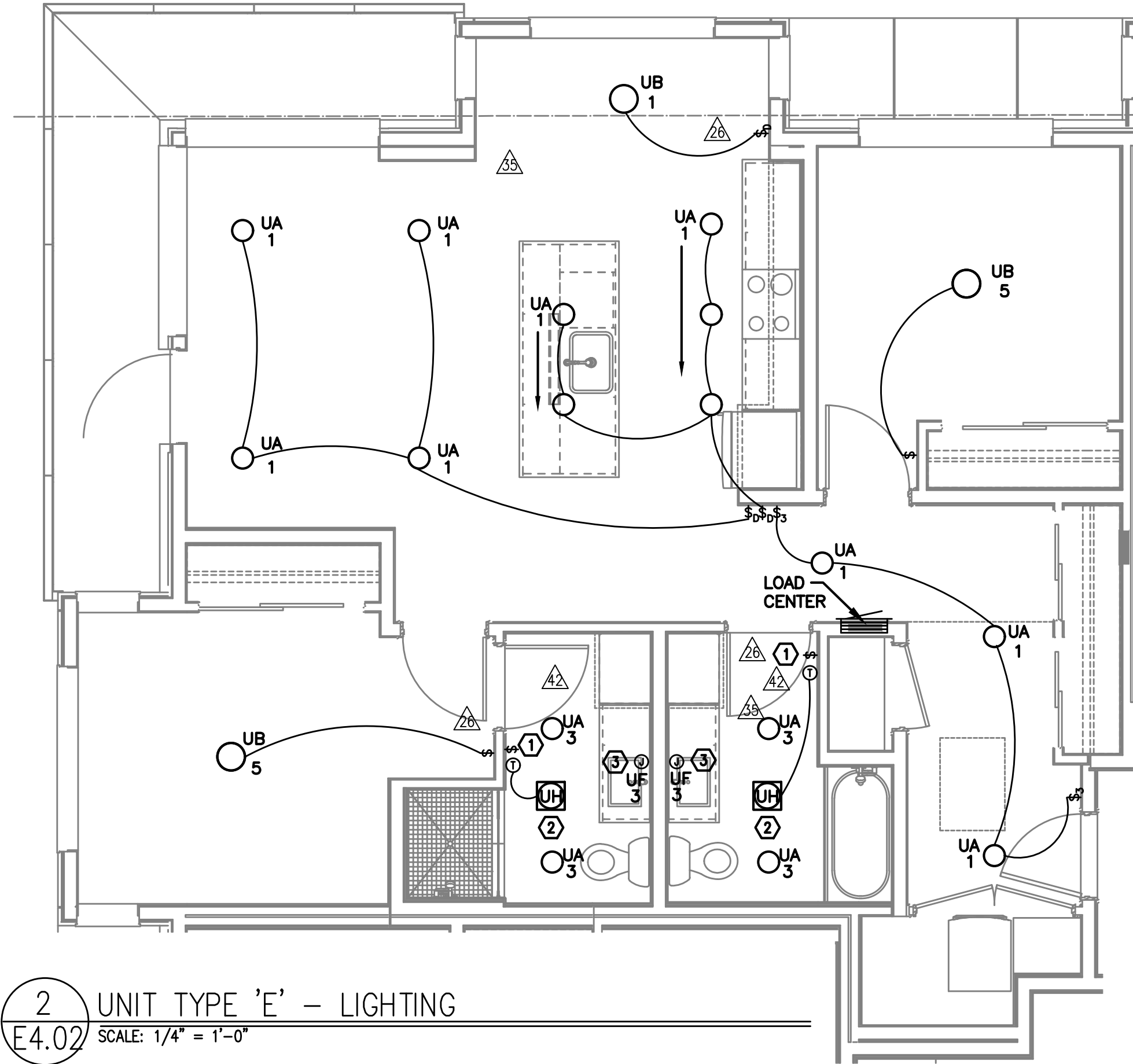
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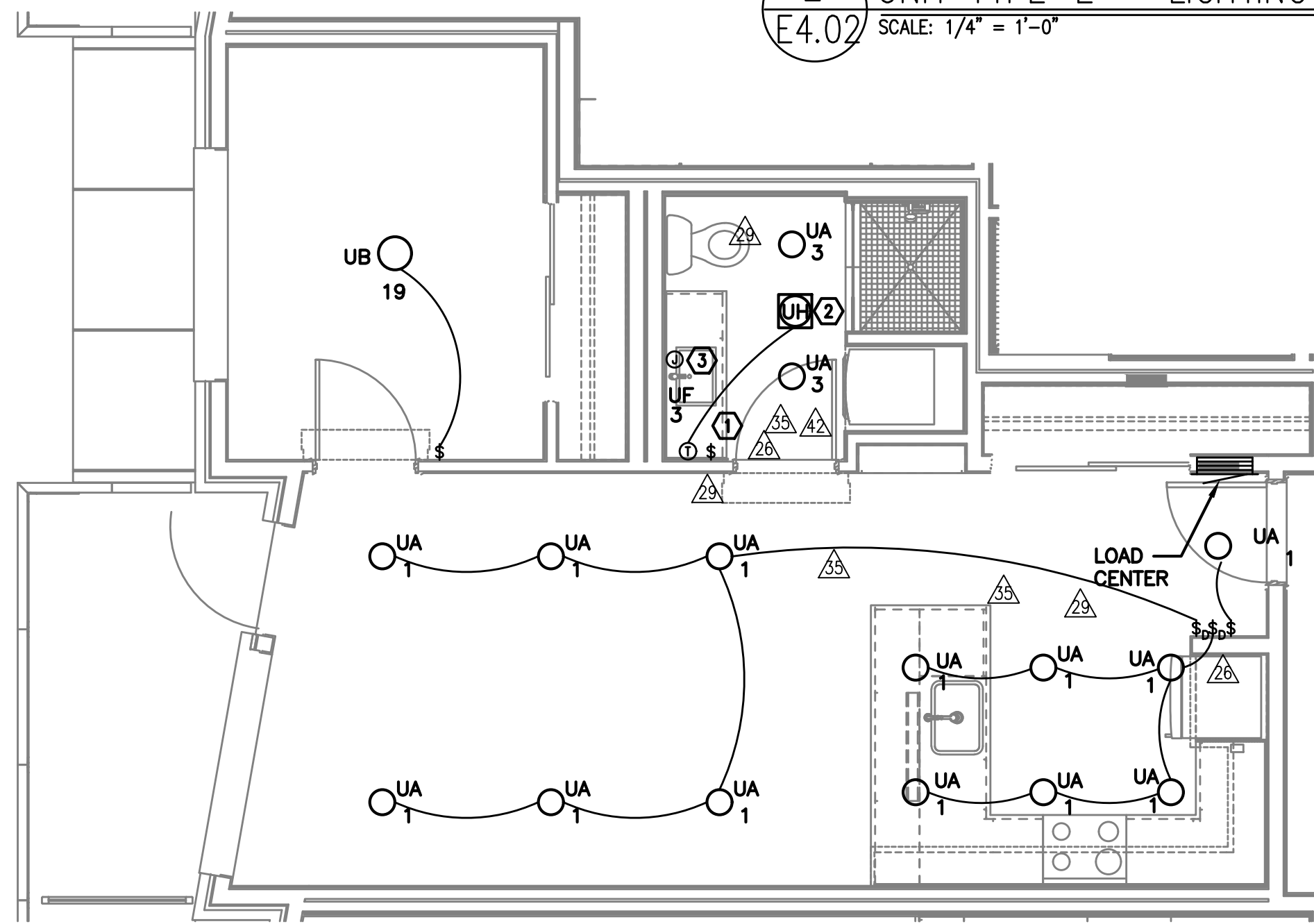
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△ 03.10.17	COORDINATION
△ 04.20.17	COORDINATION
△ 07.07.17	COORDINATION



1 UNIT TYPE 'D' - LIGHTING
E4.02 SCALE: 1/4" = 1'-0"



2 UNIT TYPE 'E' - LIGHTING
E4.02 SCALE: 1/4" = 1'-0"



3 UNIT TYPE 'F' - LIGHTING
E4.02 SCALE: 1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

- A. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL DEVICES AND FIXTURES.
- B. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.
- C. ALL LIGHT SWITCHES SHALL BE ROCKER STYLE, SUCH AS LEVITON DECORA, OR APPROVED EQUAL.
- △ D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS. CONSULT INTERIOR DESIGNER FOR MOUNTING HEIGHTS NOT SPECIFIED.

KEYED NOTES (APARTMENT UNITS):

- △ △ ① REFER TO TYPICAL BATHROOM SWITCHING DETAILS ON SHEET E1.23.
- △ △ ② PROVIDE ONE DEDICATED 20A CIRCUIT FOR BATHROOM HEATER FROM TENANT LOAD CENTER. PROVIDE THERMOSTAT AS INDICATED.
- △ △ ③ PROVIDE ONE 15A RECEPTACLE, MOUNTED ABOVE VANITY AND TIED INTO THE BATHROOM LIGHT SWITCH FOR BACK-LIT MIRROR. REFER TO MANUFACTURER'S INSTALLATION GUIDE AND COORDINATE EXACT MOUNTING HEIGHT WITH THE INTERIOR DECORATOR AND/OR THE OWNER'S REPRESENTATIVE PRIOR TO ROUGH IN.

MISSISSIPPI AVE
MIXED USE BUILDING
810 N FREMONT ST, PORTLAND, OR 97227

SHEET:

E4.02

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A
INC. Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0877
WWW.MPIA-ENG.COM
CONTACT: DENISE TAYLOR

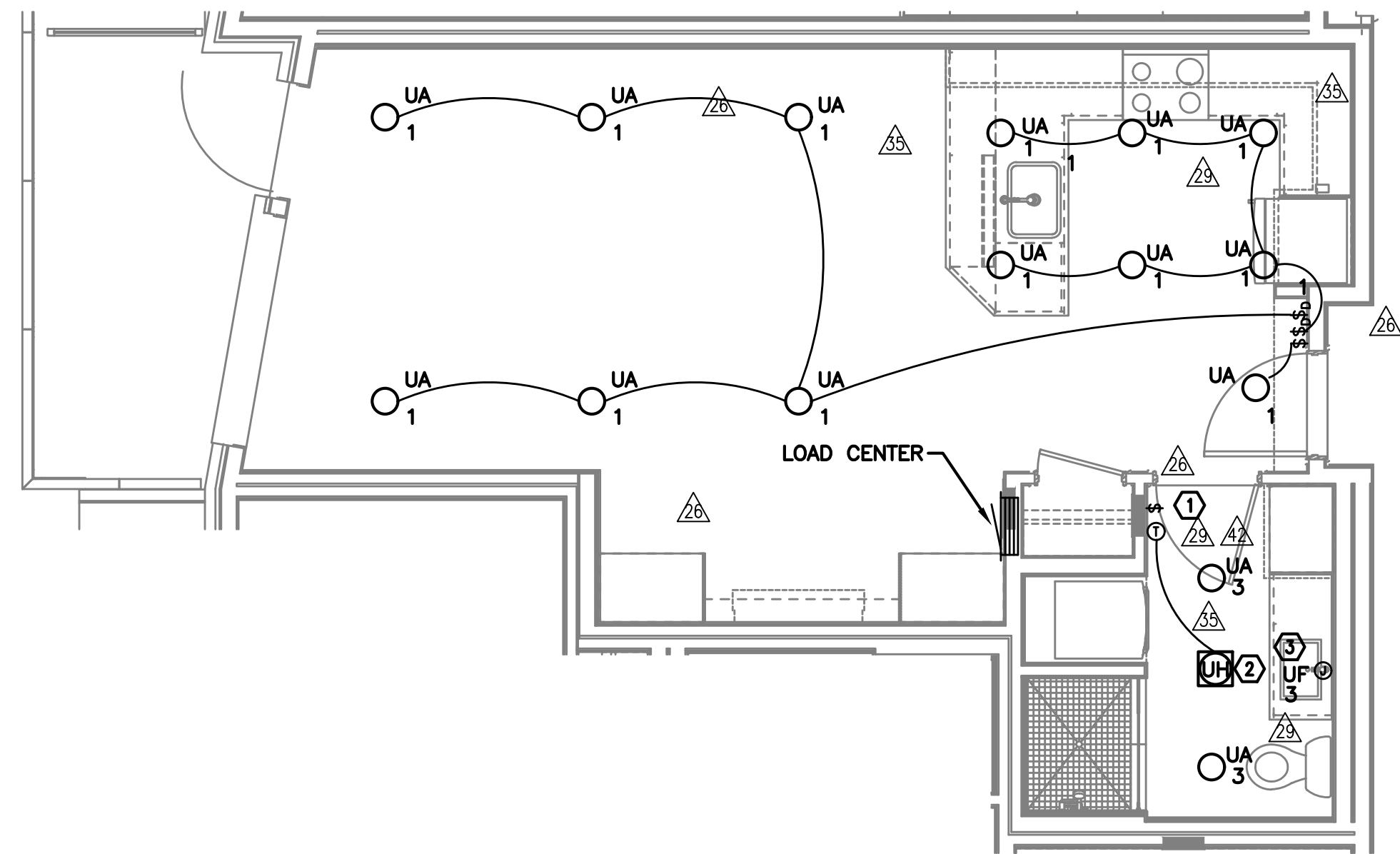
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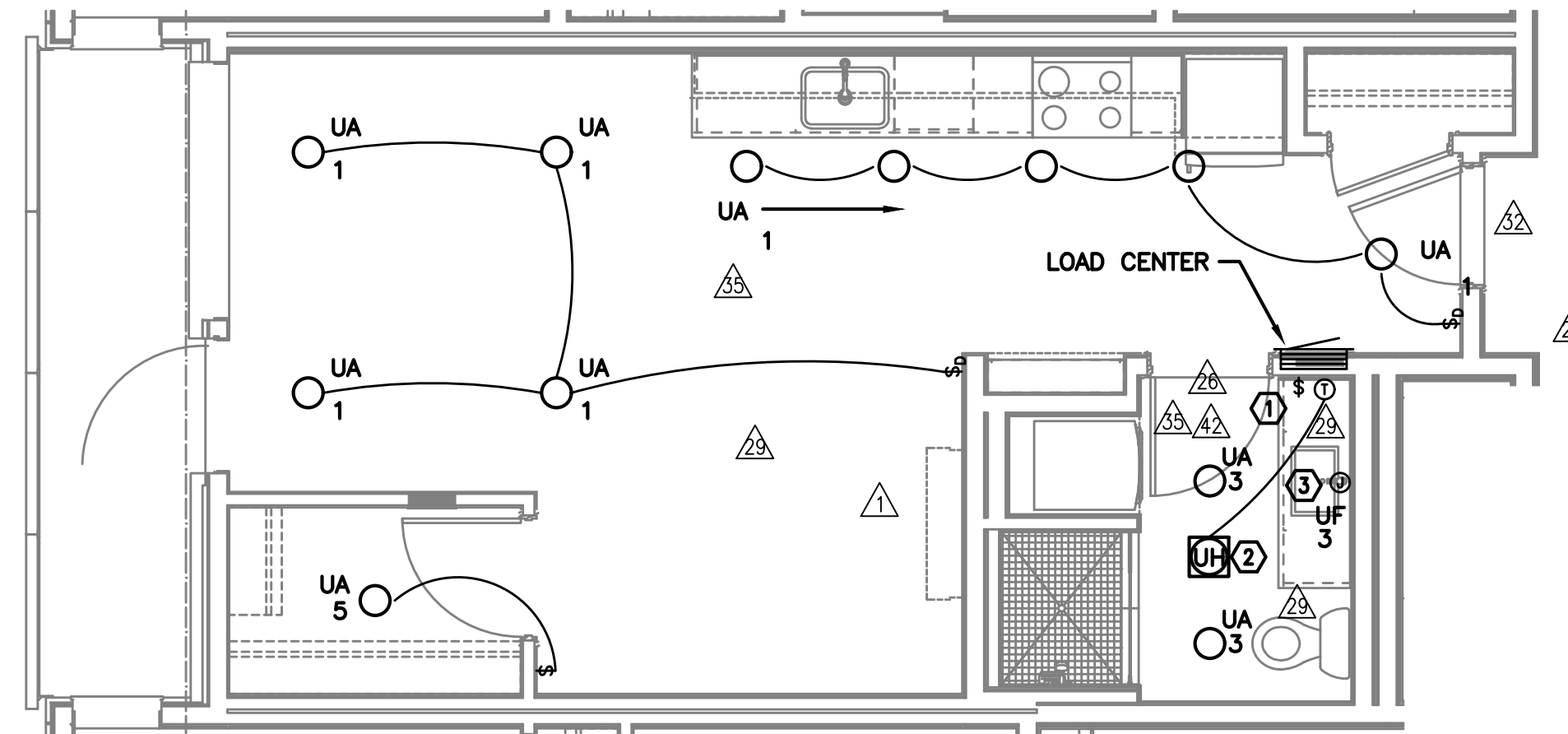
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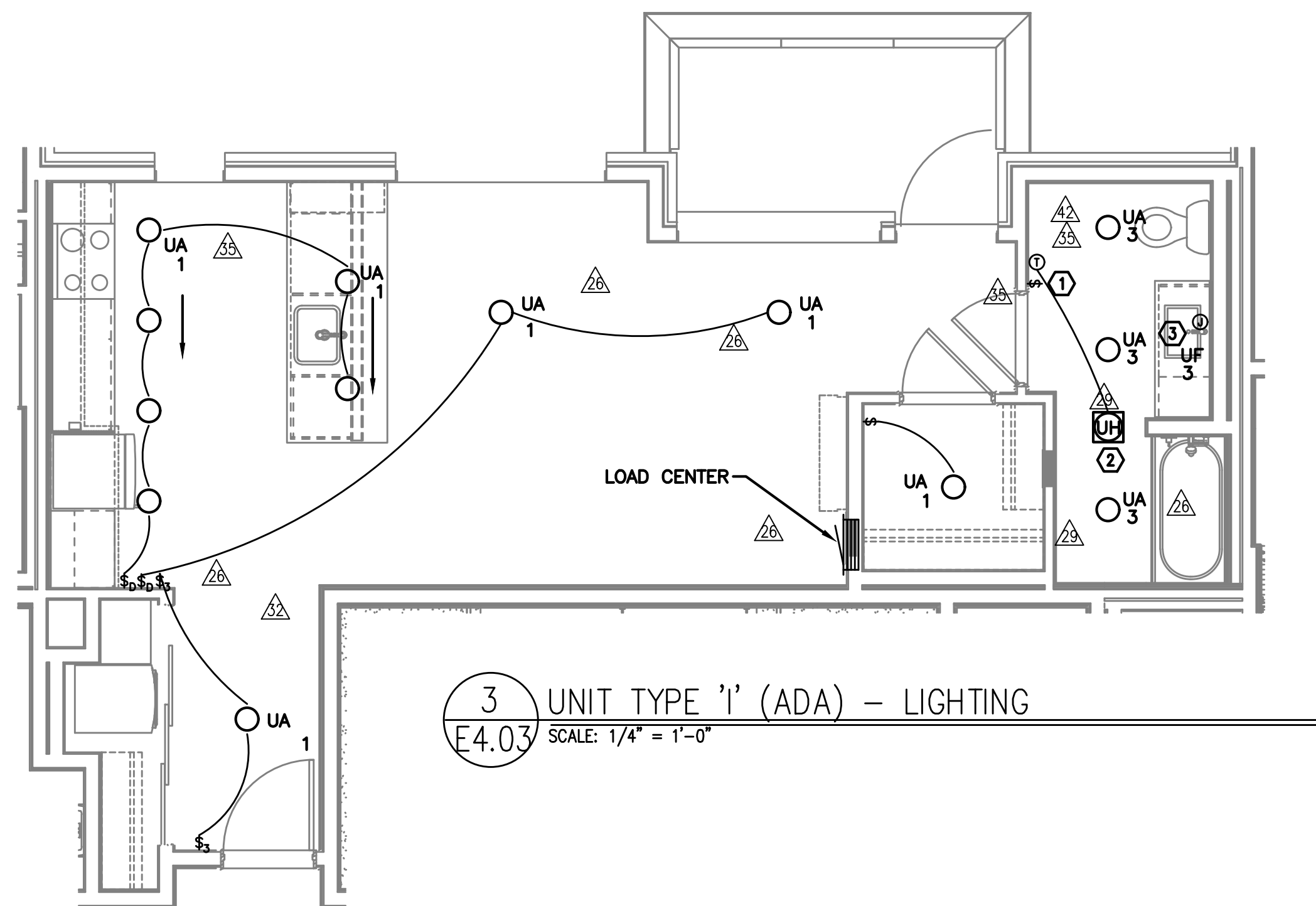
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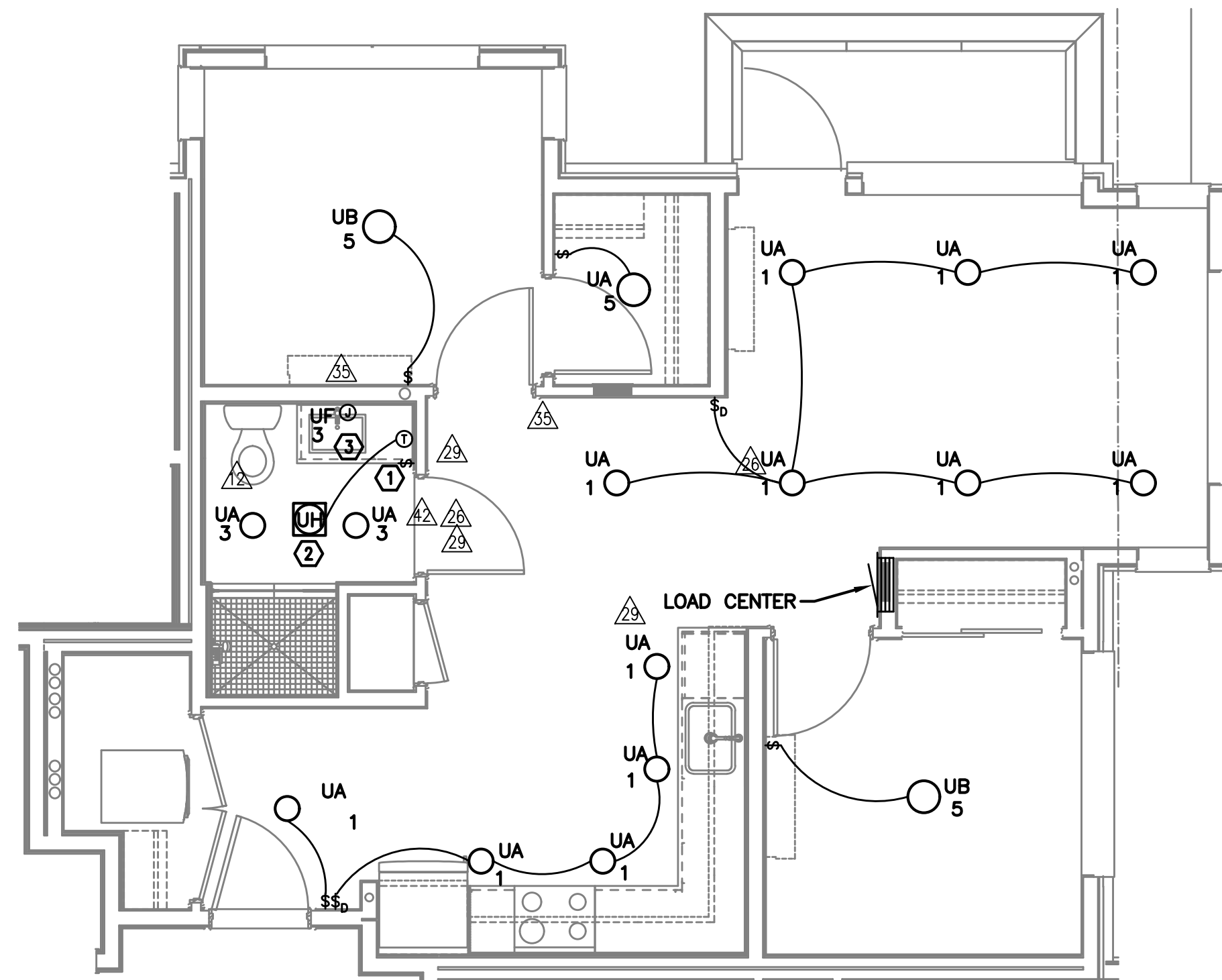
1 UNIT TYPE 'G' - LIGHTING
E4.03 SCALE: 1/4" = 1'-0"



2 UNIT TYPE 'H' - LIGHTING
E4.03 SCALE: 1/4" = 1'-0"



3 UNIT TYPE 'I' (ADA) - LIGHTING
E4.03 SCALE: 1/4" = 1'-0"



4 UNIT TYPE 'J' - LIGHTING
E4.03 SCALE: 1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

- A. ALL PLANS ARE DIAGRAMMATICAL. CONSULT ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL DEVICES AND FIXTURES.
- B. REFER TO SHEET E1.14 FOR TYPICAL UNIT LOAD CENTER DIRECTORIES.
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KEYED NOTES (APARTMENT UNITS):

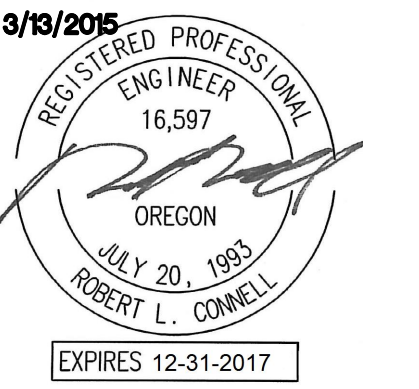
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MIXED USE BUILDING
810 N FREMONT ST, PORTLAND, OR 97227

M Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0877
INC. WWW.MFIA-ENG.COM
CONTACT: DENISE TAYLOR

SHEET:

E4.03



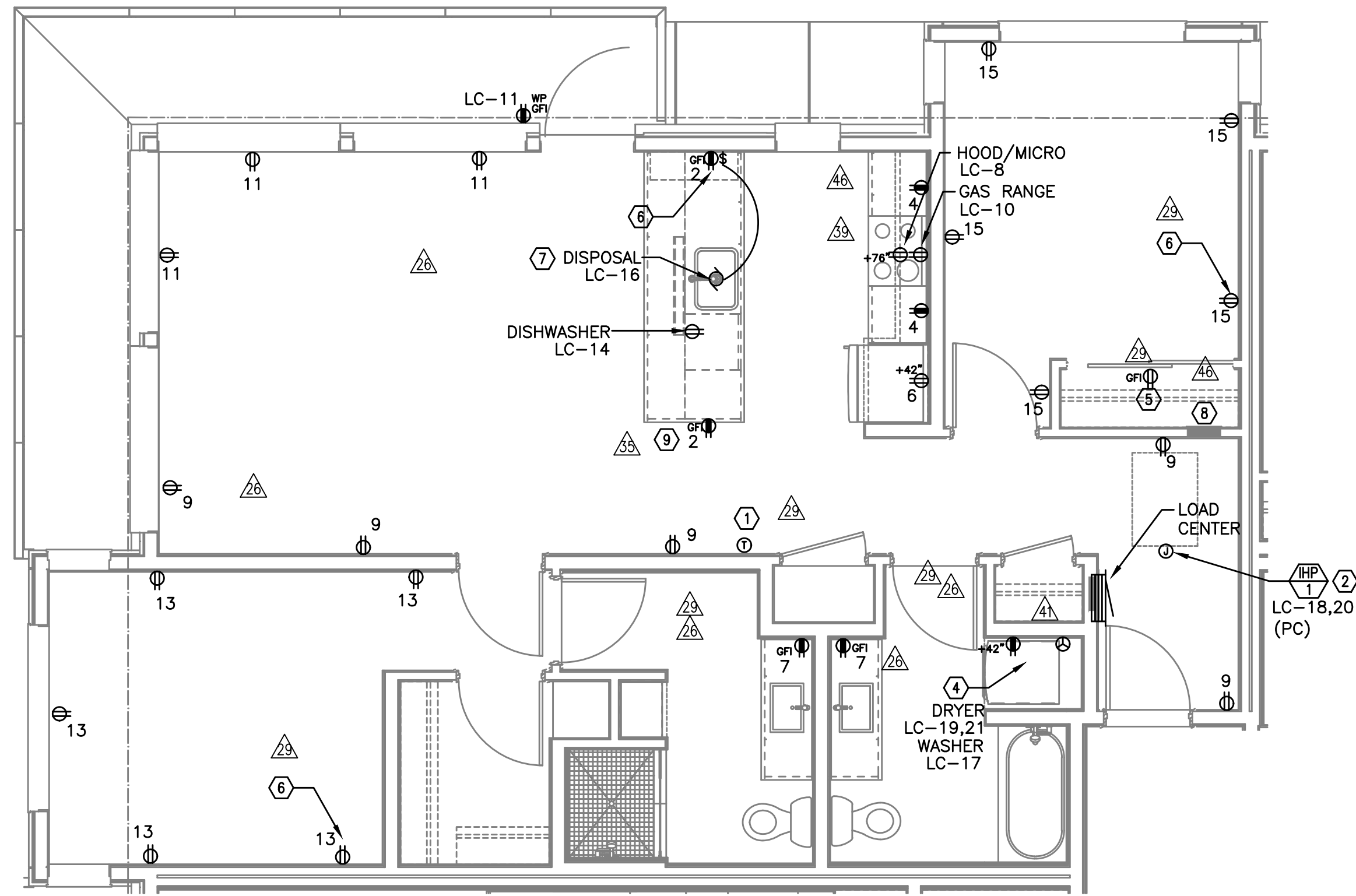
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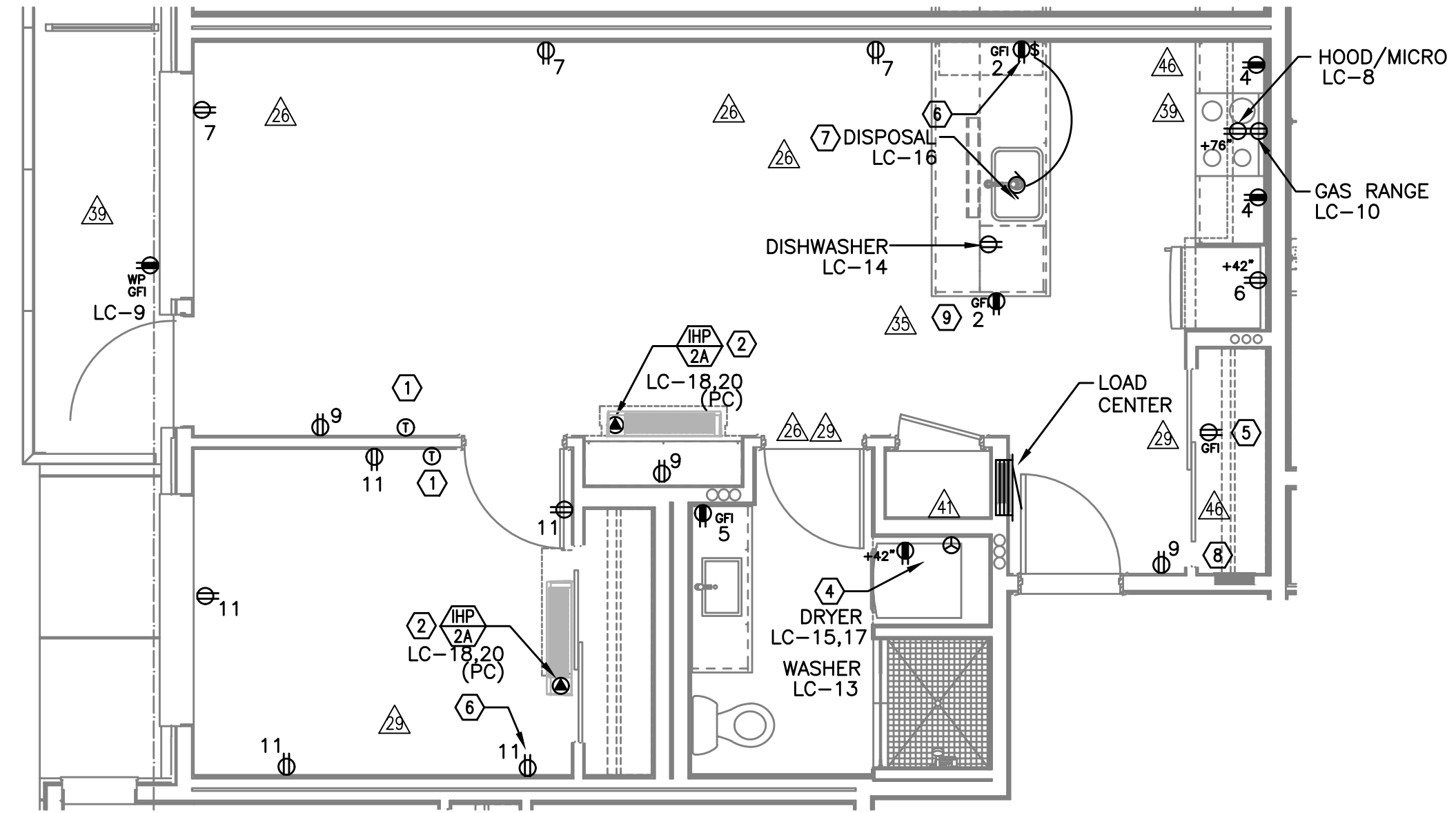
REVISIONS

12.10.16	COORDINATION
01.20.17	COORDINATION
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06.02.17	COORDINATION
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08.04.17	COORDINATION

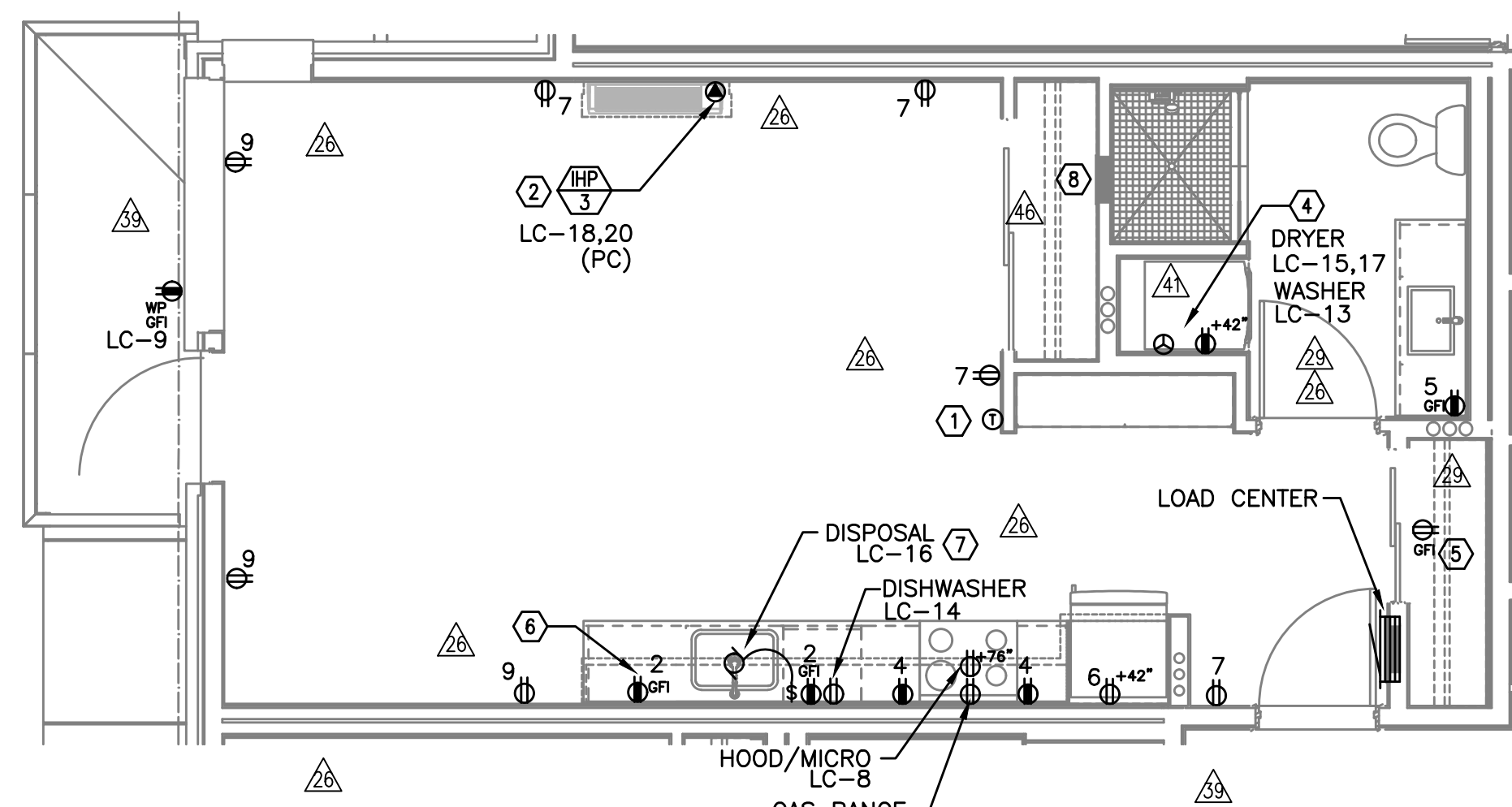
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1 UNIT TYPE 'A' - POWER
E4.11 SCALE: 1/4" = 1'-0"



2 UNIT TYPE 'B' - POWER
E4.11 SCALE: 1/4" = 1'-0"



3 UNIT TYPE 'C' - POWER
E4.11 SCALE: 1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

- A. PATIO/BALCONY RECEPTACLES SHALL BE FLUSH MOUNTED WITH WEATHERPROOF COVER PLATE, SUCH AS LEVITON WM1D-GY OR APPROVED EQUAL, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- B. REFER TO DETAILS ON SHEET E1.23 AND G2.01 FOR ADDITIONAL INFORMATION REGARDING ADA REACH REQUIREMENTS FOR RECEPTACLE AND SWITCH MOUNTING HEIGHT.
- C. STANDARD RECEPTACLE MOUNTING HEIGHT IS 18" A.F.F. UNLESS OTHERWISE SPECIFIED. RECEPTACLES LOCATED BELOW WINDOW SILLS SHALL NOT BE LESS THE 15" A.F.F.
- D. CONTRACTOR TO CONSULT MECHANICAL INSTALLER TO PROVIDE REQUIRED POWER CONNECTION(S) FOR DRYER BOOSTERS WHERE USED.
- E. CONTRACTOR SHALL REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION REGARDING RECEPTACLE LOCATIONS AND MOUNTING HEIGHTS.

KEYED NOTES (APARTMENT UNITS):

- 1 PROVIDE WIRE CONNECTION FOR THERMOSTAT(S). COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
- 2 FOR UNITS USING MINI-SPLIT SYSTEMS, PROVIDE INTERCONNECTION BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED. COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
- 3 RECESSED 20A, 1P GFCI RATED, POP-UP COUNTER TOP RECEPTACLE, LEW ELECTRIC PUR20 SERIES OR APPROVED EQUAL. FINISH PER OWNER'S DIRECTION.
- 4 REFER TO DETAIL 4/E1.23 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. POWER CONNECTIONS TO BE ON SIDE WALL OPPOSITE PLUMBING CONNECTIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR.
- 5 PROVIDE ONE DEDICATED GFCI RATED 20A, 120V, 1P RECEPTACLE, FOR WATER METER. METERS TO BE CENTERED ON WALL ABOVE THE CLOSET DOOR AS CLOSE TO CEILING AS POSSIBLE. PROVIDE RECEPTACLE IN CEILING IMMEDIATELY ADJACENT AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.
- 6 PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, AT KITCHEN ISLAND/PENNINSULA COUNTER, MOUNT AT 48" A.F.F. IN BEDROOMS, MOUNT AT STANDARD RECEPTACLE HEIGHT. CONSULT ARCHITECT AND/OR INTERIOR DESIGNER FOR ADDITIONAL LOCATIONS WHERE REQUIRED.
- 7 PROVIDE ONE 20A, 120V, 1P GFCI RATED DUPLEX RECEPTACLE UNDER KITCHEN SINK FOR DISPOSAL POWER CONNECTION.
- 8 EXTEND NEAREST RECEPTACLE CIRCUIT TO "SMART PANEL" FOR INTEGRAL RECEPTACLE.
- 9 RECEPTACLE LOCATED JUST UNDER COUNTERTOP.

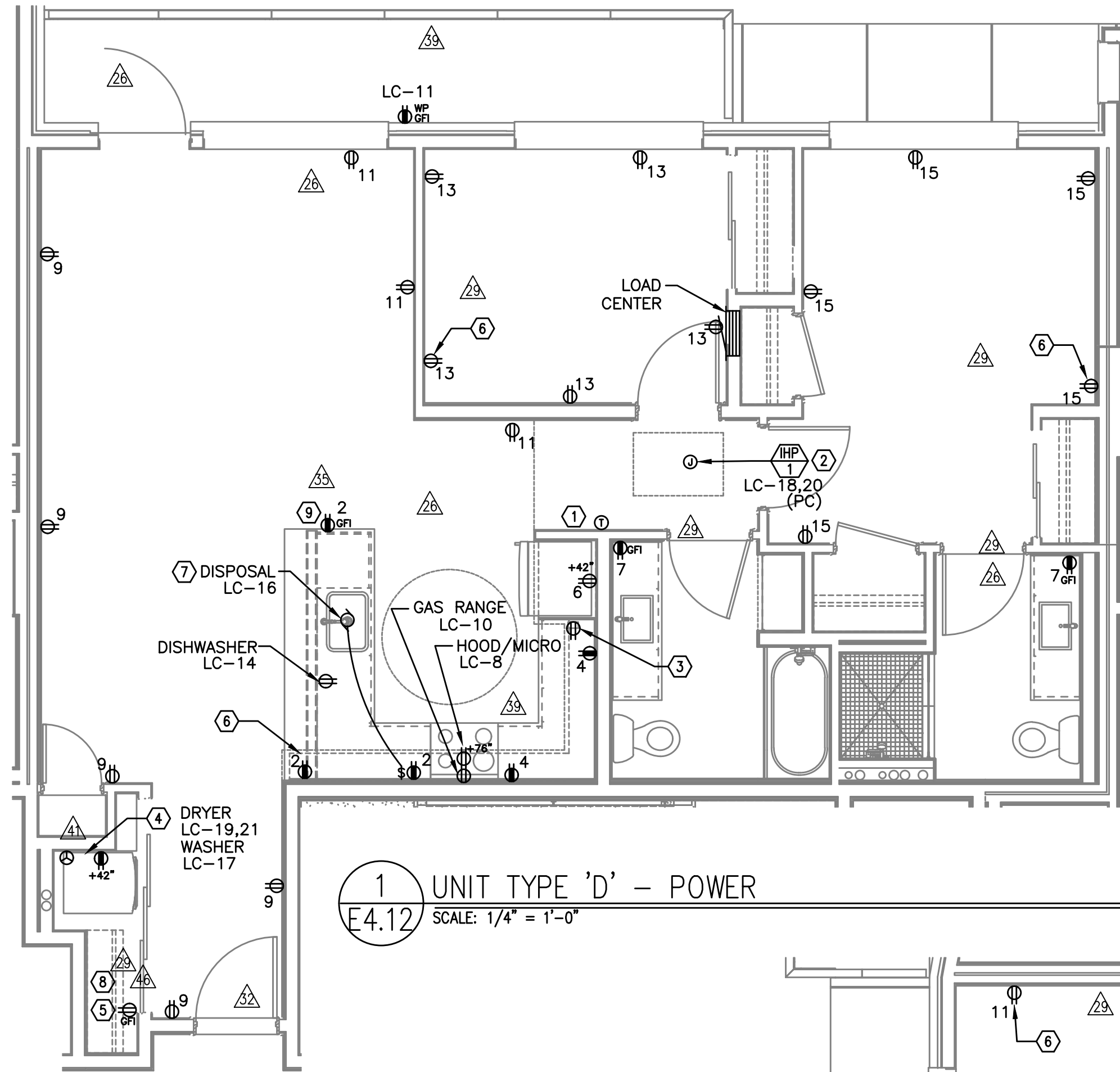
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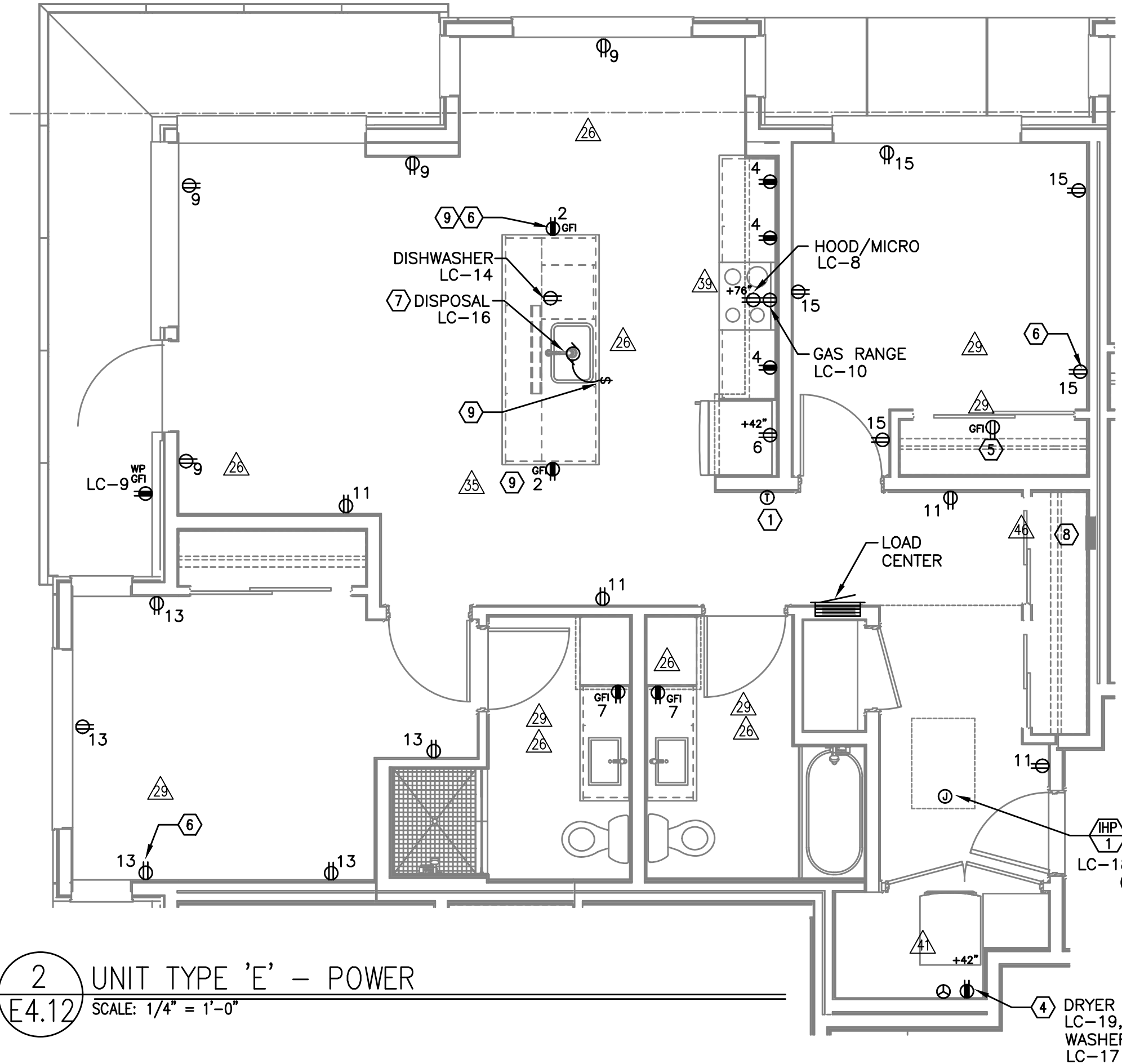
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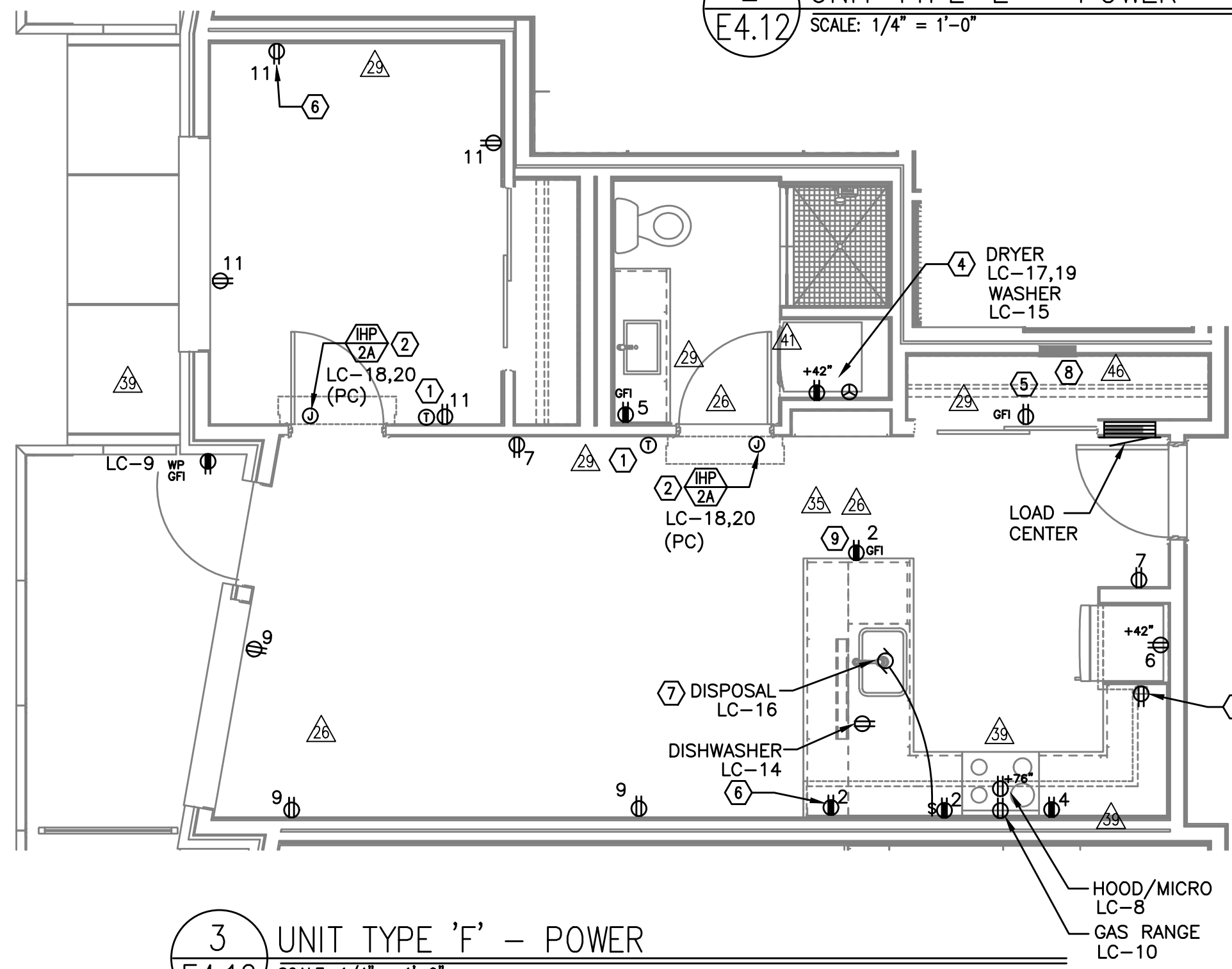
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01.20.17	COORDINATION
04.20.17	COORDINATION
06.02.17	COORDINATION
06.30.17	COORDINATION
08.04.17	COORDINATION



1 UNIT TYPE 'D' - POWER
E4.12 SCALE: 1/4" = 1'-0"



2 UNIT TYPE 'E' - POWER
E4.12 SCALE: 1/4" = 1'-0"



3 UNIT TYPE 'F' - POWER
E4.12 SCALE: 1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

- A. PATIO/BALCONY RECEPTACLES SHALL BE FLUSH MOUNTED WITH WEATHERPROOF COVER PLATE, SUCH AS LEVITON WM1D-GY OR APPROVED EQUAL, UNLESS OTHERWISE DIRECTED BY THE OWNER.
- B. REFER TO DETAILS ON SHEET E1.23 AND G2.01 FOR ADDITIONAL INFORMATION REGARDING ADA REACH REQUIREMENTS FOR RECEPTACLE AND SWITCH MOUNTING HEIGHT.
- C. STANDARD RECEPTACLE MOUNTING HEIGHT IS 18" A.F.F. UNLESS OTHERWISE SPECIFIED. RECEPTACLES LOCATED BELOW WINDOW SILLS SHALL NOT BE LESS THAN 15" A.F.F.
- D. CONTRACTOR TO CONSULT MECHANICAL INSTALLER TO PROVIDE REQUIRED POWER CONNECTION(S) FOR DRYER BOOSTERS WHERE USED.
- E. CONTRACTOR SHALL REFER TO ARCHITECTURAL INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION REGARDING RECEPTACLE LOCATIONS AND MOUNTING HEIGHTS.

KEYED NOTES (APARTMENT UNITS):

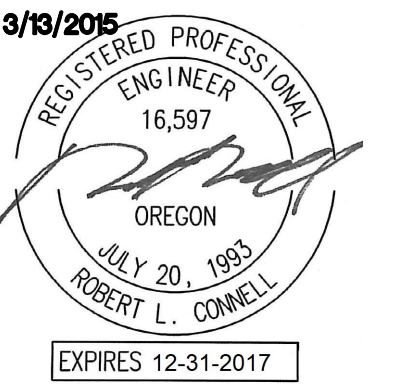
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- 2 FOR UNITS USING MINI-SPLIT SYSTEMS, PROVIDE INTERCONNECTION BETWEEN INDOOR AND OUTDOOR UNITS AS REQUIRED. COORDINATE WITH MECHANICAL INSTALLER FOR EXACT LOCATION AND POWER REQUIREMENTS PRIOR TO ROUGH IN.
- 3 RECESSED 20A, 1P GFCI RATED, POP-UP COUNTER TOP RECEPTACLE, LEW ELECTRIC PUR20 SERIES OR APPROVED EQUAL. FINISH PER OWNER'S DIRECTION.
- 4 REFER TO DETAIL 4/E1.23 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. POWER CONNECTIONS TO BE ON SIDE WALL OPPOSITE PLUMBING CONNECTIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR.
- 5 PROVIDE ONE DEDICATED GFCI RATED 20A, 120V, 1P RECEPTACLE, FOR WATER METER. METERS TO BE CENTERED ON WALL ABOVE THE CLOSET DOOR AS CLOSE TO CEILING AS POSSIBLE. PROVIDE RECEPTACLE IN CEILING IMMEDIATELY ADJACENT AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.
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SHEET:

E4.12

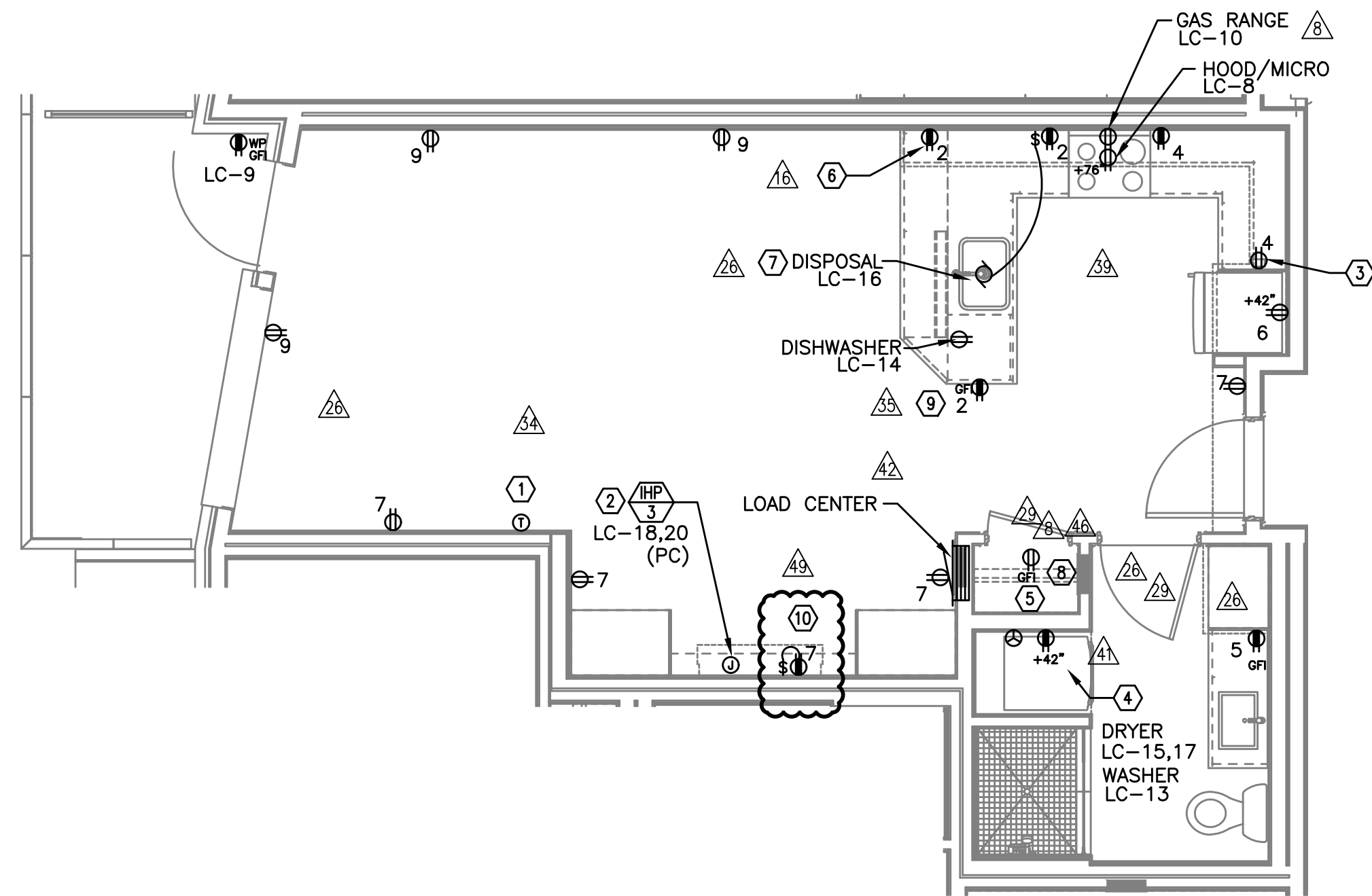
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A
INC. Consulting Engineers
2007 S.E. Ash St.
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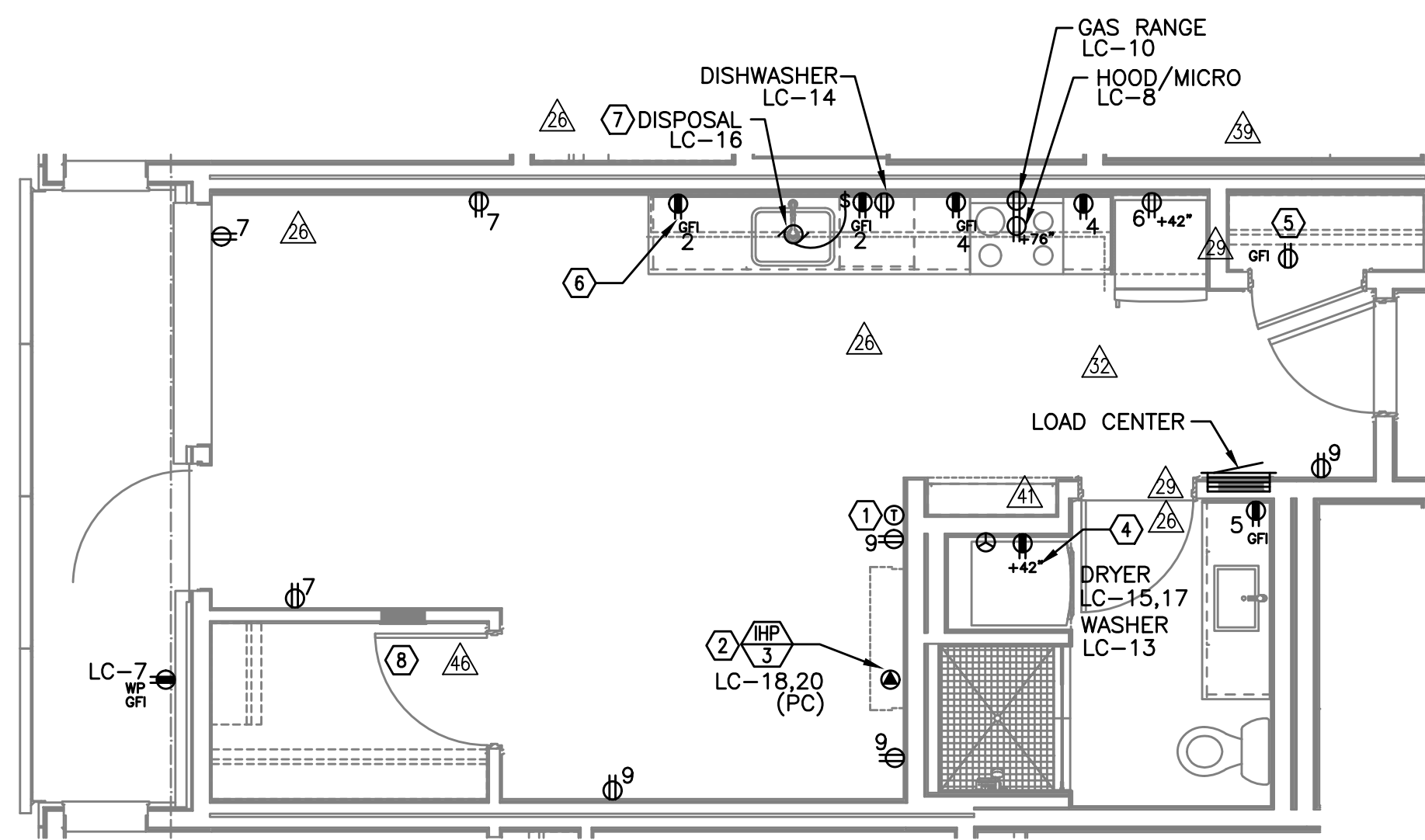
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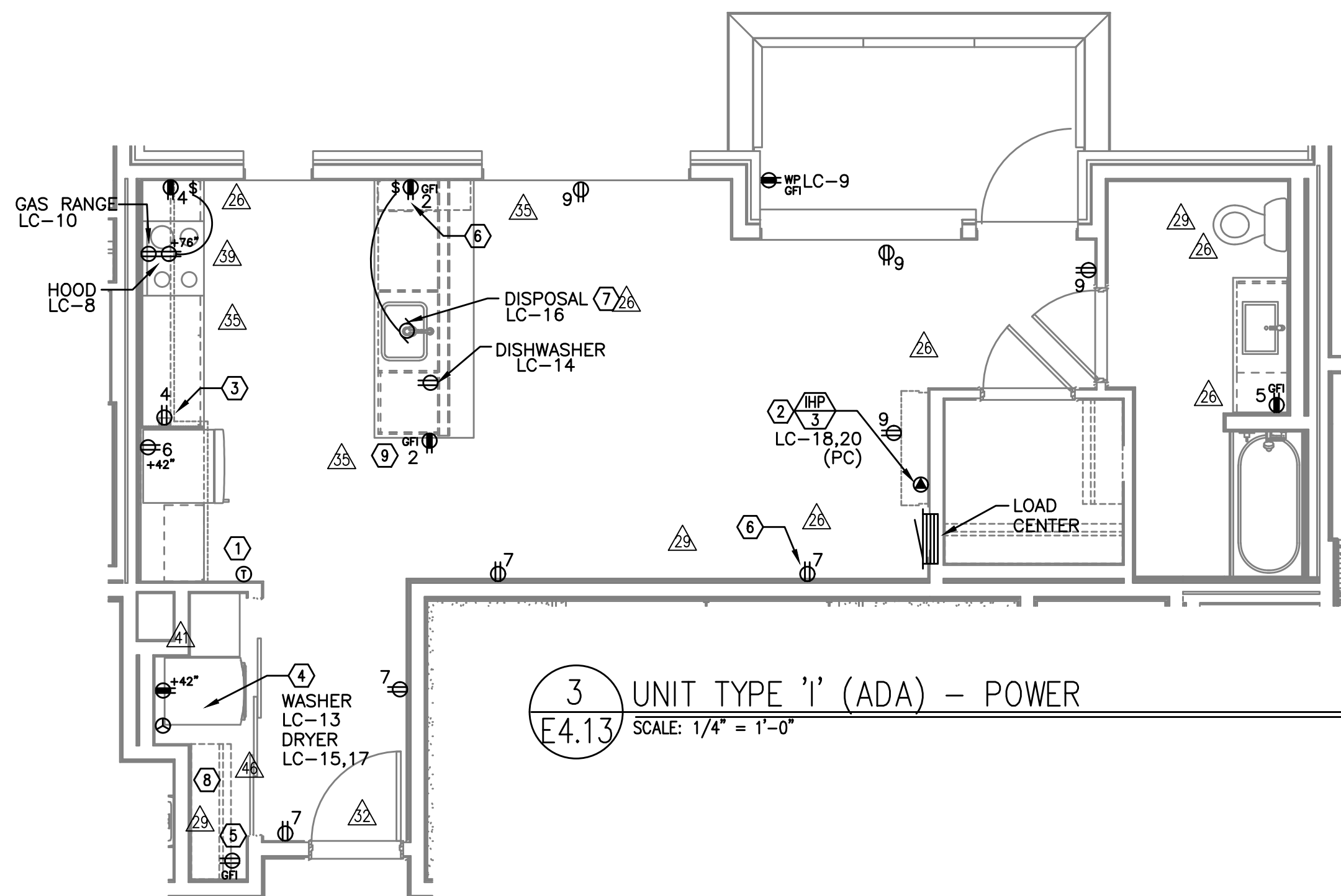
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06.02.17	COORDINATION
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09.01.17	COORDINATION



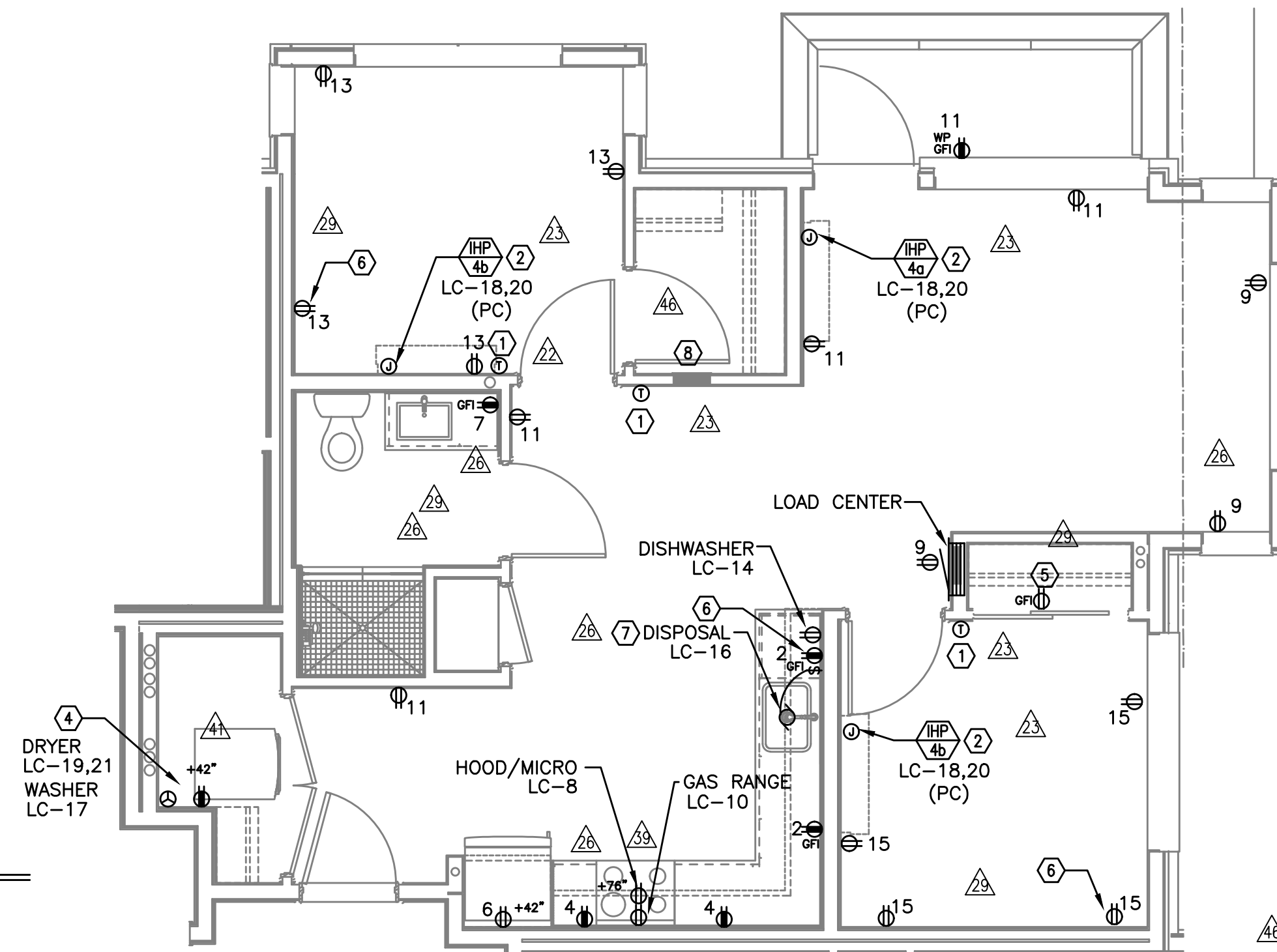
1 UNIT TYPE 'G' - POWER
E4.13 SCALE: 1/4" = 1'-0"



2 UNIT TYPE 'H' - POWER
E4.13 SCALE: 1/4" = 1'-0"



3 UNIT TYPE 'I' (ADA) - POWER
E4.13 SCALE: 1/4" = 1'-0"



4 UNIT TYPE 'J' - POWER
E4.13 SCALE: 1/4" = 1'-0"

GENERAL NOTES (APARTMENT UNITS):

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- C. STANDARD RECEPTACLE MOUNTING HEIGHT IS 18" A.F.F. UNLESS OTHERWISE SPECIFIED. RECEPTACLES LOCATED BELOW WINDOW SILLS SHALL NOT BE LESS THE 15" A.F.F.
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- 4 REFER TO DETAIL 4/E1.23 FOR TYPICAL LAUNDRY ALCOVE RECEPTACLE LOCATIONS. POWER CONNECTIONS TO BE ON SIDE WALL OPPOSITE PLUMBING CONNECTIONS. COORDINATE INSTALLATION WITH MECHANICAL & PLUMBING CONTRACTOR.
- 5 PROVIDE ONE DEDICATED GFIC RATED 20A, 120V, 1P RECEPTACLE, FOR WATER METER. METERS TO BE CENTERED ON WALL ABOVE THE CLOSET DOOR AS CLOSE TO CEILING AS POSSIBLE. PROVIDE RECEPTACLE IN CEILING IMMEDIATELY ADJACENT AND CIRCUIT FROM TENANT PANEL. CONSULT PLUMBING PLANS AND COORDINATE EXACT LOCATION PRIOR TO ROUGH IN.
- 6 PROVIDE ONE 20A, 120V, 1P RECEPTACLE WITH USB PORT, AT KITCHEN ISLAND/PENNISULA COUNTER, MOUNT AT 48" A.F.F. IN BEDROOMS, MOUNT AT STANDARD RECEPTACLE HEIGHT. CONSULT ARCHITECT AND/OR INTERIOR DESIGNER FOR ADDITIONAL LOCATIONS WHERE REQUIRED.
- 7 PROVIDE ONE 20A, 120V, 1P GFIC RATED DUPLEX RECEPTACLE UNDER KITCHEN SINK FOR DISPOSAL POWER CONNECTION.
- 8 EXTEND NEAREST RECEPTACLE CIRCUIT TO "SMART PANEL" FOR INTEGRAL RECEPTACLE.
- 9 RECEPTACLE LOCATED JUST UNDER COUNTERTOP.
- 10 DUPLEX RECEPTACLE AND LIGHT SWITCH FOR MURPHY BED. MOUNT AT 42" AFF AND CIRCUIT AS INDICATED. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION. PROVIDE WIRE CONNECTION PER MANUFACTURER'S INSTRUCTION.

MISSISSIPPI AVE
MIXED USE BUILDING
810 N FREMONT ST, PORTLAND, OR 97227

SHEET:

E4.13

M Consulting Engineers
2007 S.E. Ash St.
Portland, OR 97214
PH: (503) 234-0548
FAX: (503) 234-0877
WWW.MFIA-ENG.COM
CONTACT: DENISE TAYLOR