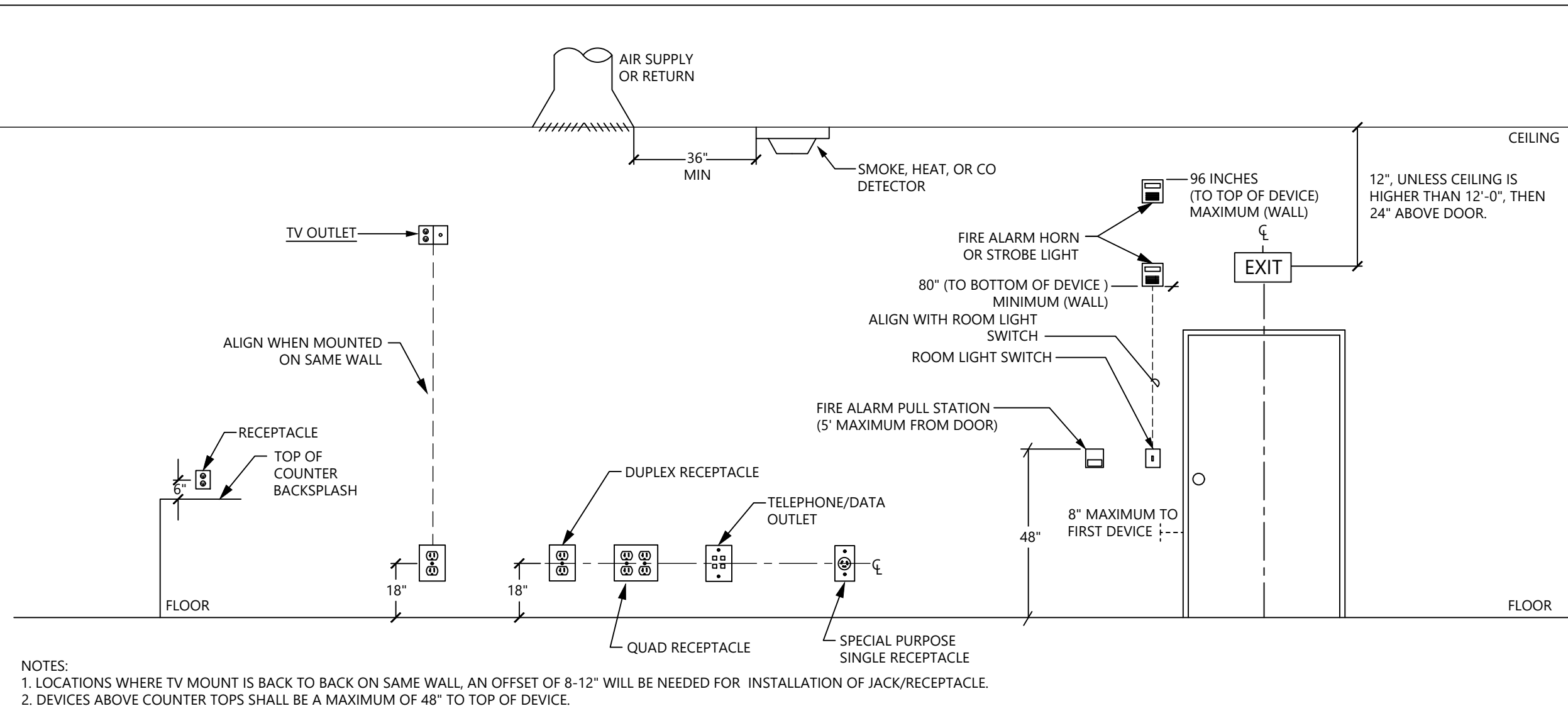


LIGHT FIXTURE SCHEDULE									
TYPE	DESCRIPTION	LUMENS	CCT	WATTS	DRIVER	VOLTAGE	MANUFACTURER	MODEL	REMARKS
A	6" ROUND SURFACE MOUNTED DOWNLIGHT	1,000	3000K	15W	INTEGRAL LED DRIVER	120V	PRESCOUTE	LBSD-RD	MATTE WHITE FINISH FIELD SELECTABLE LUMENS SWITCHABLE CCT
B	BREEZEWAY EXTERIOR WALL LIGHT	546	3000K	12.5W	INTEGRAL LED DRIVER	120V	LIGHTWAY	MENW-600-LED-F	VERIFY FINISH WITH ARCHITECT WET LOCATION LISTED
C	6"Wx12"H EXTERIOR PATIO LIGHT	1,000	3500K	12W	INTEGRAL LED DRIVER	120V	LIGHTWAY	MENW-600-LED-F	VERIFY FINISH WITH ARCHITECT WET LOCATION LISTED
D	4 FT. LED STRIP	5,000	3500K	42W	INTEGRAL LED DRIVER (STANDARD 0-10V DIMMING)	UNIV	COOPER	SNX	PROVIDE CHAIN FOR PENDANT MOUNTING PROVIDE WIRE GUARD LENSED DLC LISTED
E1	EXTERIOR EMERGENCY BATTERY EGRESS LIGHT AIMABLE	-	3500K	2W	INTEGRAL LED DRIVER	120V	EXIT LIGHT CO.	EL-LWET	TEST SWITCH PROVIDED SEALED 90 MINUTE BATTERY WHITE
E2	EXTERIOR EMERGENCY BATTERY EGRESS LIGHT AND EXIT COMBO	-	3500K	3W	INTEGRAL LED DRIVER	120V	EXIT LIGHT CO.	WLF-COMBO	TEST SWITCH PROVIDED SEALED 90 MINUTE BATTERY WET LOCATION LISTED RATED FOR OUTDOOR USE WHITE HOUSING, RED LETTERING
NOTES:									
1	ALL FIXTURES SHALL BE LED UNLESS OTHERWISE SPECIFIED. COLOR TEMPERATURE SHALL BE 3500K UNLESS OTHERWISE NOTED.								
2	LED DRIVERS SHALL BE PROVIDED AS PER MANUFACTURER RECOMMENDATIONS.								
3	COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT FIXTURE LOCATIONS.								
4	FIXTURES IN FIRE RATED CEILING SHALL BE PROVIDED WITH FIRE RATED TENTS AS REQUIRED.								
5	SUSPEND ALL FOUR CORNERS WITH WIRE TO STRUCTURE. DO NOT ALLOW GRID ALONE TO SUPPORT FIXTURE.								
6	FIXTURES WITH EMERGENCY BATTERY PACKS SHALL BE SUPPLIED WITH 1100 LUMEN INVERTERS.								
7	PROVIDE INTEGRAL SURGE PROTECTION ON ALL EXTERIOR LED DRIVER FIXTURE TYPES.								
8	DIMMING OF FIXTURES SHALL BE WITH A SWITCH AS RECOMMENDED BY THE DRIVER MANUFACTURER. COORDINATE COMPATABILITY OF ALL SWITCHES WITH APPROVED FIXTURES PRIOR TO ORDERING.								
9	THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.								
10	DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.								
11	NO SUBSTITUTIONS WILL BE ALLOWED DUE TO LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.								
12	ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.								
13	FIXTURES TO BE INSTALLED IN CEILINGS, INDICATED ON ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH CEILING SURFACE, SHALL BE IC RATED BY MANUFACTURER.								
14	LED DRIVERS LOCATED IN UNCONDITIONED SPACES SHALL BE RATED FOR 90 DEGREES F.								
15	PROVIDE 90 MINUTE EMERGENCY BATTERY BACK UP. EMERGENCY BACK UP SHALL BE BASED ON TYPE OF FIXTURE, LED DRIVER, BALLAST, ETC. EMERGENCY BACKUP SHALL BE DUAL INPUT FOR BOTH SWITCHING AND CHARGING. PROVIDE UNSWITCHED "HOT" FROM LOCAL CIRCUIT UNLESS OTHERWISE INDICATED ON PLANS. PROVIDE WITH INDICATOR LIGHT. INSTALL LED INDICATOR ON LIGHT FIXTURE UNLESS DECORATIVE. DECORATIVE FIXTURES SHALL HAVE INDICATOR PLACED AT LOCAL CEILING. BODINE, PHILLIPS, POWER SENTRY OR EQUAL.								
16	CONTRACTOR SHALL INCLUDE IN BID LABOR AND MATERIAL FOR UP TO (3) ADDITIONAL EXIT SIGNS AND (5) ADDITIONAL EMERGENCY BUGEYE FIXTURES AS REQUIRED BY LOCAL AHJ.								

DEVICES AND PATHWAYS	
	CONDUIT AND/OR WIRING SYSTEM CONCEALED BEHIND WALL OR ABOVE CEILING.
	CONDUIT AND/OR WIRING SYSTEM CONCEALED IN SLAB, UNDER SLAB, OR UNDERGROUND.
	CIRCUIT HOMERUN TO PANEL CALLED OUT ON PLANS. EACH ARROWHEAD REPRESENTS (1) CIRCUIT.
	DUPLEX RECEPTACLE MOUNTED 18" AFF UNLESS NOTED OTHERWISE. SEE SPECIFICATIONS FOR TYPE AND EQUALS.
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER OR AT HEIGHT NOTED. MOUNT 48" TO CENTER OF DEVICE IF NO HEIGHT NOTED AND/OR NOT SHOWN AT A COUNTER TOP.
	QUAD RECEPTACLE, (2) 5-20R DUPLEX RECEPTABLES.
	QUAD RECEPTACLE FOR ELECTRIC WATER COOLER. EXACT LOCATION SHALL BE COORDINATED WITH PLUMBING CONTRACTOR. PROVIDE CIRCUIT WITH GFI (CLASS-A 6mA, PERSONNEL) BREAKER.
	DUPLEX GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. NEMA 5-20R.
	DUPLEX RECEPTACLE WITH GFI AT BREAKER. NEMA 5-20R. REFER TO PANEL SCHEDULES.
	WEATHERPROOF AND GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. COVER BASED ON INTERMATIC #WP1020 (CLEAR).
	JUNCTION BOX. 4" SQUARE BOX WITH SINGLE GANG OPENING AND PLASTER RING, UNLESS NOTED OTHERWISE.
	WALL MOUNTED JUNCTION BOX. 4" SQUARE BOX WITH SINGLE GANG OPENING AND PLASTER RING, UNLESS NOTED OTHERWISE. BOX SHALL BE RECESSED IN WALL WITH NOT EXPOSED CONDUIT, UNLESS NOTED OTHERWISE.
	SPECIAL RECEPTACLE; SEE PLANS FOR TYPE.
	TV POWER AND DATA CONNECTION, SEE DETAIL. MOUNT 72" AFF UNLESS NOTED OTHERWISE.
	SIX GANG FLUSH MOUNTED FLOOR BOX WITH ACCESSIBLE COVER FOR POWER AND COMMUNICATIONS. PROVIDE FIVE NEMA 5-20R DUPLEX RECEPTABLES AND ONE COMM. PLATE WITH PROVISION FOR SIX RJ45 CAT6 JACKS. EQUAL TO WIREMOLD RB66-OG-8CT. ARCHITECT TO SELECT FINISH. STUB FROM BOX ONE CONCEALED 1/4" ROUTED TO WHICHEVER IS NEAREST. BB, J-HOOKS, OR CABLE TRAY. EQUALS: HUBBELL, THOMAS & BETTS, OR SPECIFICATION EQUAL.

LIGHTING	
	LED LIGHTING FIXTURE. SEE FIXTURE SCHEDULE. SUSPEND FOUR CORNERS WITH WIRE TO STRUCTURE. DO NOT ALLOW GRID ALONE TO SUPPORT FIXTURE.
	LED STRIP FIXTURE.
	LED LIGHTING FIXTURE.
	WALL MOUNTED LED LIGHTING FIXTURE.
	LED DOWNLIGHT WITH AN EMERGENCY BATTERY DRIVER, BASED ON 1100 LUMEN INVERTER (SEE SCHEDULE FOR FIXTURE LUMEN MAXIMUM.)
	EXIT LIGHT WITH ARROWS AND NUMBERS OF FACES AS INDICATED ON PLANS. 90 MIN BATTERY BACKUP. SEE LIGHTING FIXTURE SCHEDULE.
	EXTERIOR EMERGENCY FIXTURE WITH EMERGENCY DRIVER. PROVIDE 1100 LUMEN INVERTER RATED FOR 90 MINUTE OPERATION. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.
	EMERGENCY BUGEYE FIXTURE. PROVIDE BATTERY BACKUP RATED FOR 90 MINUTE OPERATION. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.
	EMERGENCY BUGEYE FIXTURE/EXIT SIGN COMBO FIXTURE. PROVIDE BATTERY BACKUP RATED FOR 90 MINUTE OPERATION. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE.
	SINGLE POLE SWITCH. 20 AMP, 120/277 VOLT, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.
	THREE WAY SWITCH. 20 AMP, 120/277 VOLT, COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.
	INDICATES BI-LEVEL SWITCHING/DIMMING. SWITCHES DIM FIXTURES 100/50/0. COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.
	WALLBOX OCCUPANCY SWITCH. PIR TECHNOLOGY, AUTO-ON, 120/277V RATED. COOPER, OR EQUAL BY HUBBELL, LEVITON, AND PASS & SEYMOUR.



NO SCALE

3 MOUNTING HEIGHTS OF DEVICES - ELEVATION

LOW VOLTAGE (PATHWAYS ONLY)	
	TELE/DATA OUTLET ABOVE COUNTER OR HEIGHT SPECIFIED. 1" EC TO ABOVE NEAREST ACCESSIBLE CEILING FOR J-HOOK SYSTEM OR TO LOCAL CABLE TRAY (WITHIN 6") AS APPLICABLE WITH PULL STRING. 4" SQUARE BOX WITH A SINGLE-GANG OPENING AND PLASTER RING.
	TELE/DATA OUTLET. 1" EC TO ABOVE NEAREST ACCESSIBLE CEILING FOR J-HOOK SYSTEM OR TO LOCAL CABLE TRAY (WITHIN 6") AS APPLICABLE WITH PULL STRING. 4" SQUARE BOX WITH A SINGLE-GANG OPENING AND PLASTER RING.
	ABOVE CEILING, STRUCTURE MOUNTED JUNCTION BOX FOR WIRELESS ACCESS LOW VOLTAGE CABLING. 4" SQUARE BOX WITH A TWO-GANG OPENING. STUB 1" EC FROM BOX TO J-HOOKS OR CABLETRAY ABOVE ACCESSIBLE CEILING. PROVIDE CABLING, TERMINATIONS, AND FACEPLATE PER SPECIFICATIONS.
FIRE ALARM	
	FIRE ALARM CONTROL PANEL WITH LOCAL SMOKE DETECTOR
	FIRE ALARM REMOTE ANNUNCIATOR. PROVIDE BOX AS REQUIRED PER MANUFACTURER RECOMMENDATION. PROVIDE 1" C CONDUIT FOR CABLING.
	FIRE ALARM MANUAL STATION. PROVIDE PROTECTION DEVICE.
	CEILING MOUNTED SMOKE DETECTOR. FA VENDOR PROVIDED.
	CEILING MOUNTED HEAT DETECTOR.
	CEILING MOUNTED CARBON MONOXIDE DETECTOR.
	DUCT MOUNTED SMOKE DETECTOR. FURNISHED AND CONNECTED BY ELECTRICAL CONTRACTOR. INSTALLED BY MECHANICAL CONTRACTOR. CUTTING OF DUCT, INSTALLATION OF DETECTOR, AND DETERMINATION OF SAMPLING TUBE LENGTH SHALL BE THE MECHANICAL CONTRACTOR. PROVIDE REMOTE INDICATING LIGHT WITH EACH DETECTOR.
	DETECTOR WITH SOUNDER BASE (SB).
	MULTI-CRITERIA DETECTOR (SMOKE/CO/HEAT).
	ADA COMPLIANT WALL MOUNT FIRE ALARM HORN WITH STROBE LIGHT, 15CD UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.
	ADA COMPLIANT WALL MOUNT FIRE ALARM STROBE LIGHT, 15CD UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.
	ADA COMPLIANT CEILING MOUNTED FIRE ALARM HORN STROBE LIGHT, 15cd, UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.
	ADA COMPLIANT CEILING MOUNTED FIRE ALARM STROBE LIGHT, 15cd, UNLESS OTHERWISE NOTED. WHITE FINISH WITH RED LETTERING.
ELECTRICAL EQUIPMENT	
	FUSED HEAVY DUTY DISCONNECT SWITCH. NUMERALS INDICATE SWITCH RATING/FUSE SIZE. NEMA 1 ENCLOSURE, UNLESS OTHERWISE NOTED.
	PLYWOOD TELEPHONE BACKBOARD WITH TELECOMMUNICATIONS GROUNDING BAR. REFER TO TELECOMMUNICATIONS RISER DIAGRAM FOR DETAILS.
	PANELBOARD. REFER TO POWER RISER DIAGRAM AND PANEL SCHEDULES FOR DETAILS. TOP OF PANEL AT 6'-6" AFF.
	MOTOR RATED SWITCH WITH OVERLOAD PROTECTION.

2018 NORTH CAROLINA ENERGY CONSERVATION CODE	
COMMERCIAL ENERGY EFFICIENCY - ELECTRICAL SUMMARY	
C401 METHOD OF COMPLIANCE	
<input checked="" type="checkbox"/> 2018 NCECC CHAPTER 4	<input type="checkbox"/> NC SPECIFIC COMCHECK PROVIDED
<input type="checkbox"/> N/A BASED ON PROJECT SCOPE	<input type="checkbox"/> ASHRAE 90.1-2013
C406 ADDITIONAL EFFICIENCY PACKAGE OPTIONS	
<input type="checkbox"/> C406.1.1 EFFICIENT MECH EQUIPMENT	<input type="checkbox"/> C406.1.4 ON-SITE RENEWABLE ENERGY
<input checked="" type="checkbox"/> C406.1.2 REDUCED LTG DENSITY	<input type="checkbox"/> C406.1.5 DEDICATED OA SYSTEM
<input type="checkbox"/> C406.1.3 ENHANCED DIGITAL LTG CNTLS	<input type="checkbox"/> C406.1.6 HI-EFF SERVICE WTR HTG
<input type="checkbox"/> NOT APPLICABLE BASED ON PROJECT SCOPE	
C408 - SYSTEM COMMISSIONING:	
<input type="checkbox"/> BUILDING IS LESS THAN 10,000 SQUARE FEET AND IS EXEMPT FROM THE SYSTEM COMMISSIONING REQUIREMENTS OF SECTION C408.	
<input checked="" type="checkbox"/> BUILDING IS GREATER THAN 10,000 SQUARE FEET AND REQUIRES SYSTEM COMMISSIONING PER SECTION C408.	
C405.2 - LIGHTING CONTROLS (MANDATORY REQUIREMENTS):	
<input checked="" type="checkbox"/> LIGHTING SYSTEMS ARE PROVIDED WITH CONTROLS AS REQUIRED PER SECTION C405.2, EXCEPT WHERE EXEMPT.	
<input type="checkbox"/> NOT APPLICABLE	
C405.3 - EXIT SIGNS (MANDATORY REQUIREMENTS):	
<input checked="" type="checkbox"/> INTERNALLY ILLUMINATED EXIT SIGNS DO NOT EXCEED 5 WATTS PER SIDE.	
<input type="checkbox"/> NOT APPLICABLE	
C405.4 - INTERIOR LIGHTING POWER REQUIREMENTS (PRESCRIPTIVE) (NON-EXEMPT):	
<input type="checkbox"/> NOT APPLICABLE PER 2018 NCECC C503.1, EXCEPTION 2.G.	
C405.4.1 - TOTAL CONNECTED INTERIOR LIGHTING POWER:	
12,410 WATTS SPECIFIED	
25 % REDUCTION OF SPECIFIED VS. ALLOWED (APPLICABLE IF C406.1.2 IS SELECTED)	
C405.4.2 - TOTAL ALLOWABLE INTERIOR LIGHTING POWER:	
METHOD OF COMPLIANCE:	
<input checked="" type="checkbox"/> BUILDING AREA METHOD	<input type="checkbox"/> SPACE-BY-SPACE METHOD
16,468 WATTS ALLOWED	
C405.5.1 - EXTERIOR BUILDING LIGHTING POWER (NON-EXEMPT):	
<input type="checkbox"/> NOT APPLICABLE	
TOTAL CONNECTED EXTERIOR LIGHTING POWER:	
970 WATTS SPECIFIED	
TOTAL ALLOWABLE EXTERIOR LIGHTING POWER:	
2,110 WATTS ALLOWED	
C405.6 - ELECTRICAL ENERGY CONSUMPTION (DWELLING UNITS):	
<input type="checkbox"/> SEPARATE ELECTRICAL METERING HAS BEEN PROVIDED FOR EACH DWELLING UNIT IN GROUP R-2 BUILDINGS.	
<input checked="" type="checkbox"/> NOT APPLICABLE	
C405.7 - ELECTRICAL TRANSFORMERS (MANDATORY REQUIREMENTS):	
<input type="checkbox"/> ELECTRICAL TRANSFORMERS HAVE BEEN SPECIFIED TO MEET MINIMUM EFFICIENCY REQUIREMENTS PER C405.7, EXCEPT WHERE EXEMPT.	
<input checked="" type="checkbox"/> NOT APPLICABLE	
C405.8 - ELECTRICAL MOTORS (MANDATORY REQUIREMENTS):	
<input checked="" type="checkbox"/> ELECTRICAL MOTORS HAVE BEEN SPECIFIED TO MEET MINIMUM EFFICIENCY REQUIREMENTS PER C405.8, EXCEPT WHERE EXEMPT.	
<input type="checkbox"/> NOT APPLICABLE	

ABBREVIATIONS	
+42"	DIMENSION INDICATES HEIGHT ABOVE FINISHED FLOOR AT WHICH CENTER OF DEVICE IS TO MOUNTED. SEE PLANS.
3R	NEMA 3R
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLER UNIT
C.B.	CIRCUIT BREAKER
EC	EMPTY CONDUIT WITH PULL CORD
E.C.	ELECTRICAL CONTRACTOR
EWC	ELECTRIC WATER COOLER
EWV	ELECTRIC WATER HEATER
FACP	FIRE ALARM CONTROL PANEL
FPN	FUSE PER NAMEPLATE
LC	LIGHTING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
U.G.	UNDERGROUND
WP	WEATHERPROOF
S.E.	SERVICE ENTRANCE
EM	EMERGENCY FIXTURE WITH BATTERY OR GEN. BACK-UP
ER	EXISTING ITEM RELOCATED TO THIS LOCATION.
RL	EXISTING ITEM TO BE RELOCATED.
RM	EXISTING ITEM TO REMAIN.
RP	EXISTING ITEM TO BE REPLACED.
RV	EXISTING ITEM TO BE REMOVED.
Isc	RMS SYMMETRICAL SHORT CIRCUIT CURRENT
AIC	AMPERE INTERRUPTING CAPACITY (EQUIPMENT RATING)
EMERGENCY RESPONDER RADIO COVERAGE	
THE ELECTRICAL CONTRACTOR SHALL INCLUDE A SEPARATE LINE ITEM IN HIS BID PROVISIONS FOR THE EMERGENCY RESPONDER RADIO COVERAGE AS REQUIRED PER SECTION 510 EMERGENCY RESPONDER RADIO COVERAGE (ERRC) FOR NEW BUILDINGS. BUILDING SHALL BE TESTED UPON COMPLETION OF CONSTRUCTION AND ADDITIONAL EQUIPMENT PROVIDED AS NEEDED. ALL BUILDINGS SHALL HAVE RADIO COVERAGE FOR EMERGENCY RESPONDERS WITHIN THE BUILDING BASED UPON EXISTING COVERAGE LEVELS FTO THE PUBLIC SAFETY COMMUNICATIONS SYSTEM OF THE JURISDICTION AT THE EXTERIOR OF THE BUILDING. THIS SECTION SHALL NOT REQUIRE IMPROVEMENT OF THE EXISTING PUBLIC SAFETY COMMUNICATION SYSTEM.	

wilde engineering
MECHANICAL, ELECTRICAL & PLUMBING
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Hendersonville, NC
(704) 459-7038
NC Firm License No. P-2182

- PRELIMINARY -
NOT FOR CONSTRUCTION

CLIENT:

The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef, President

Orchards PROPERTIES

PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:

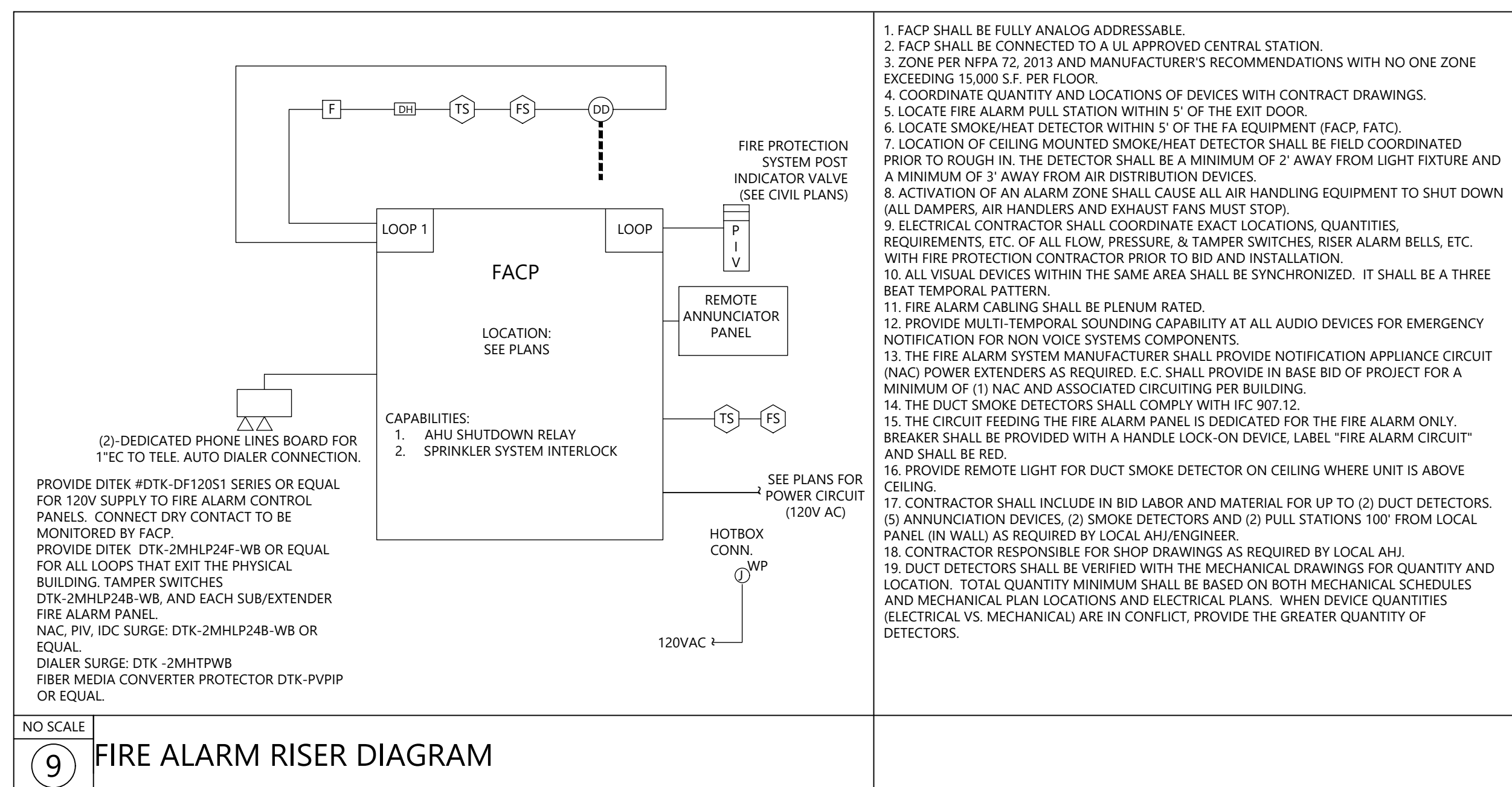
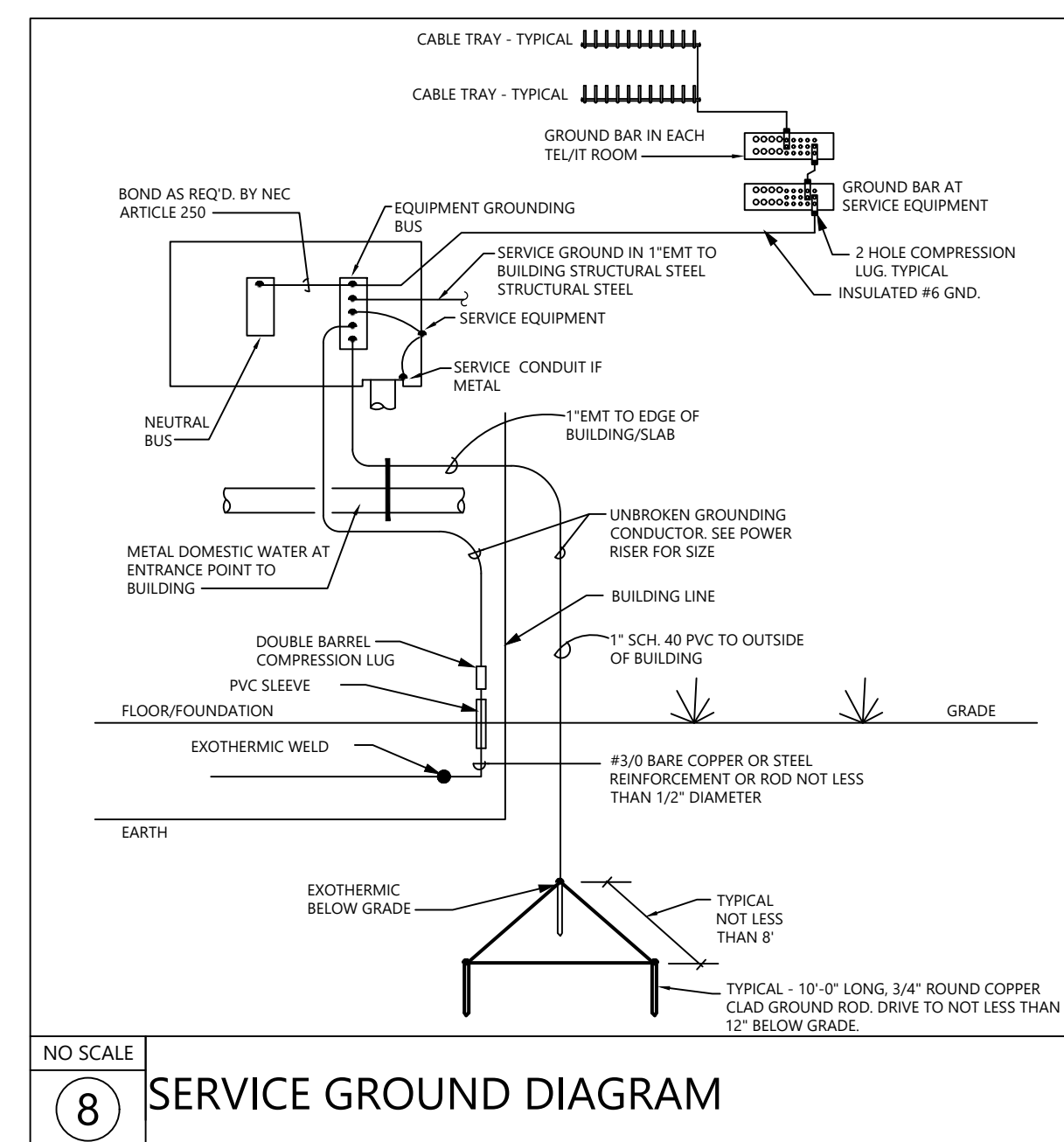
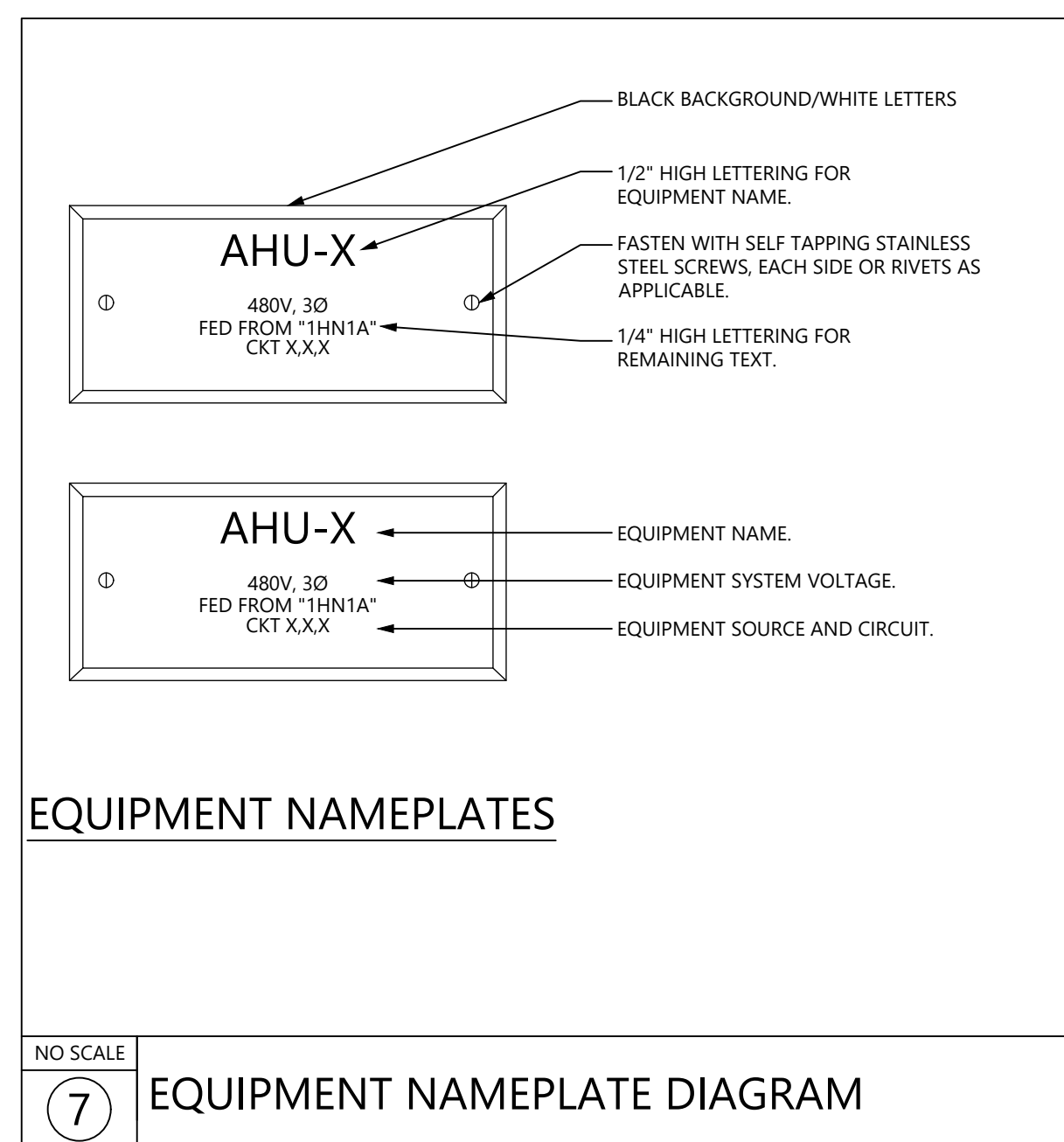
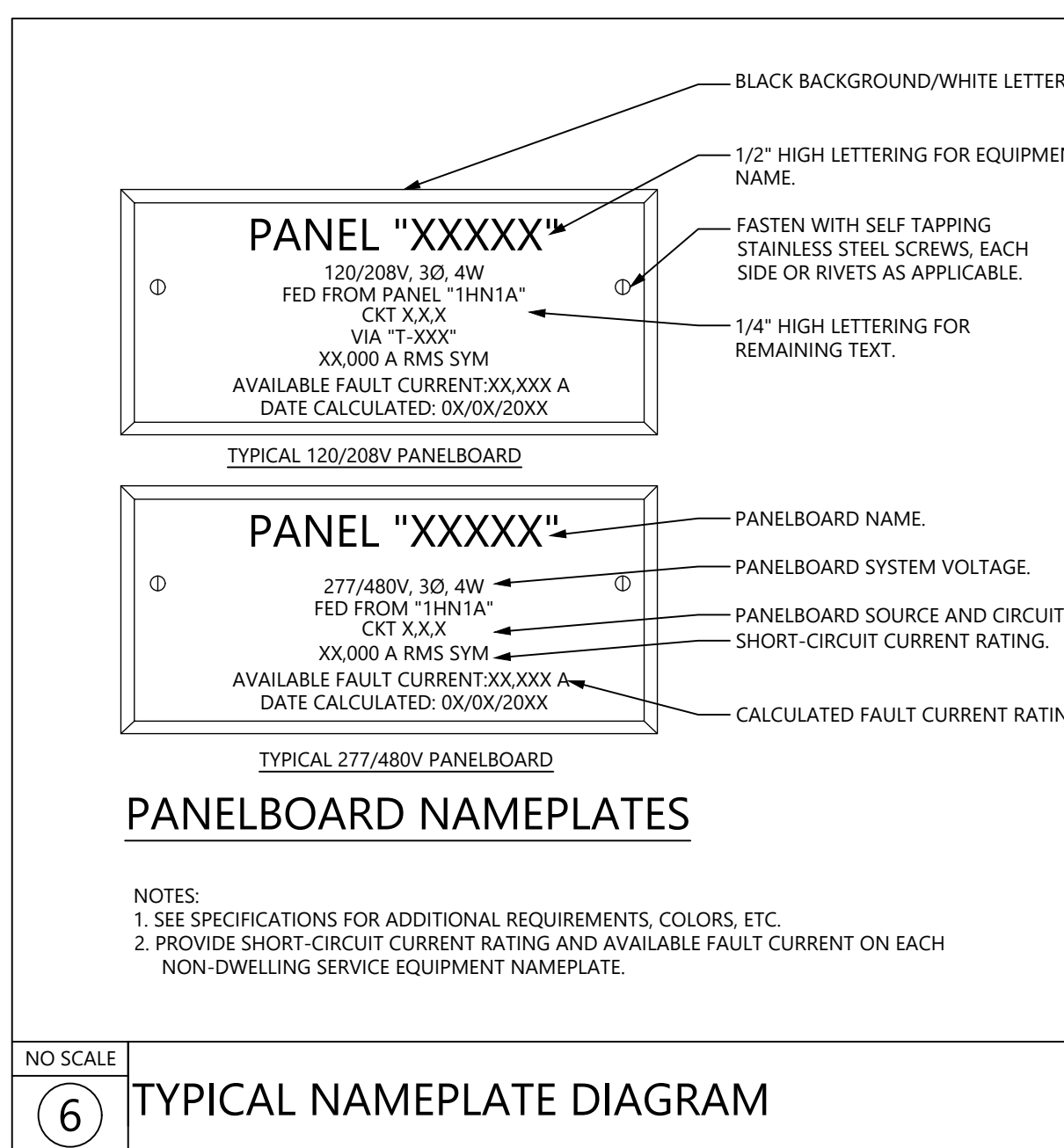
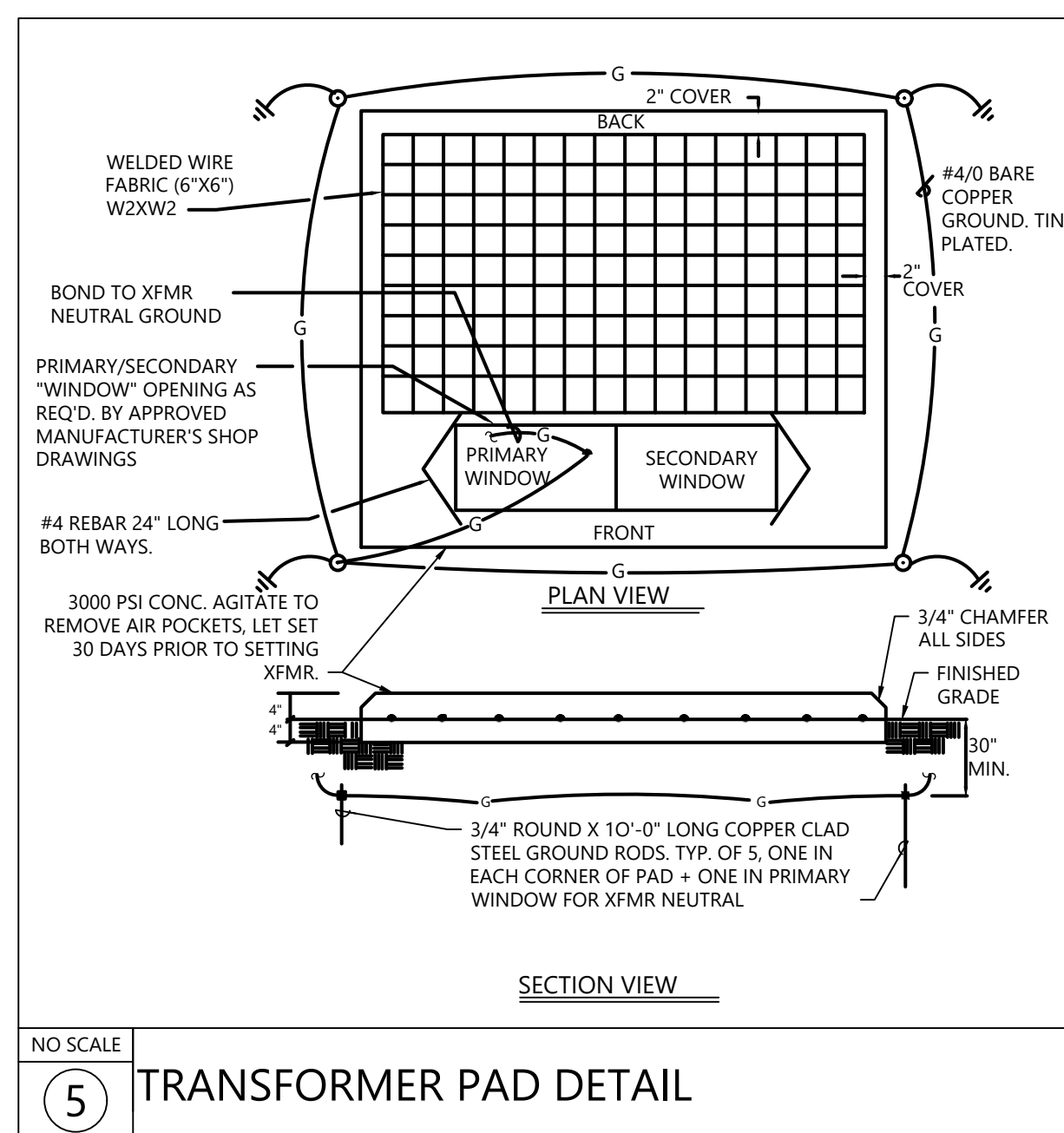
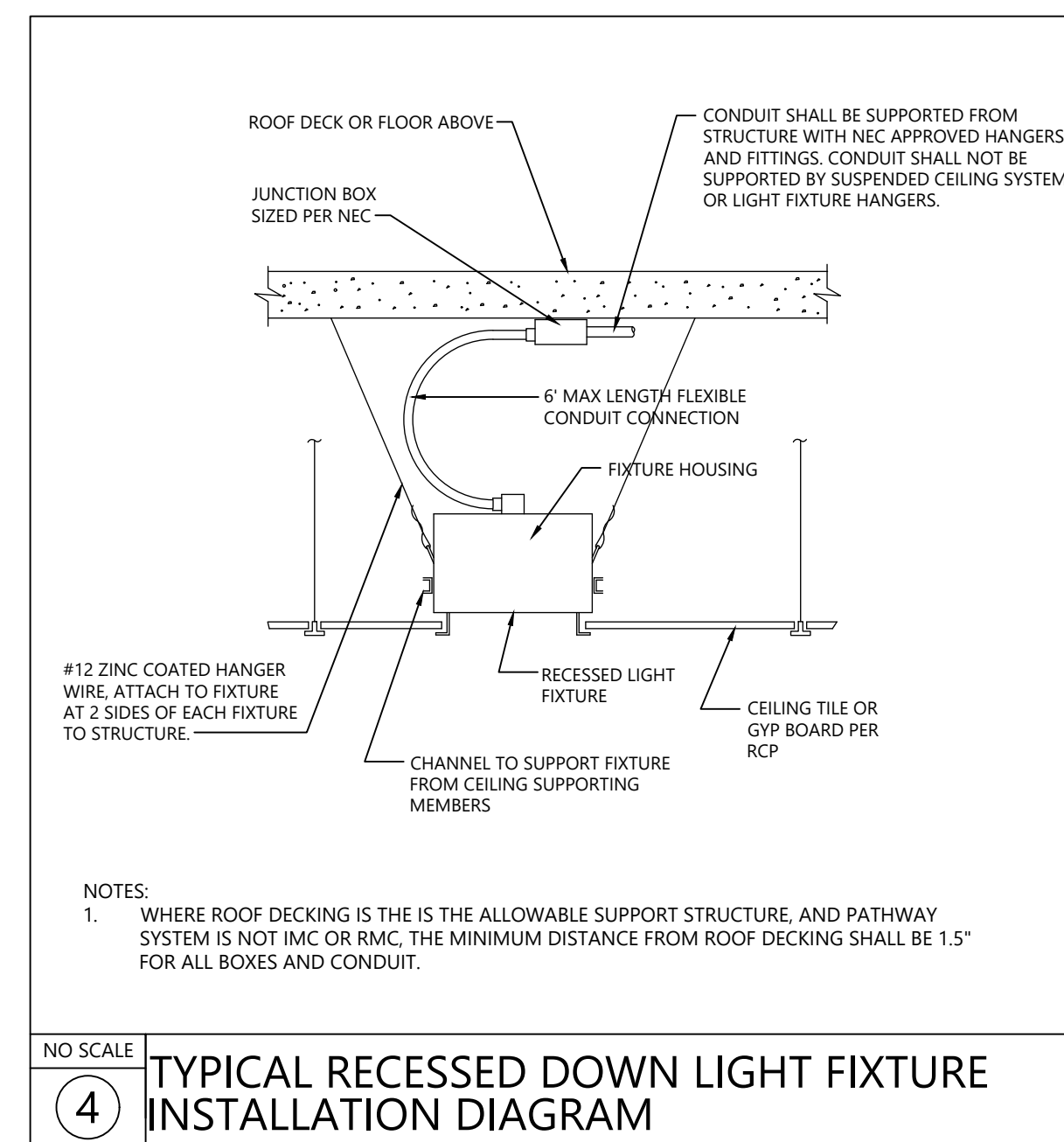
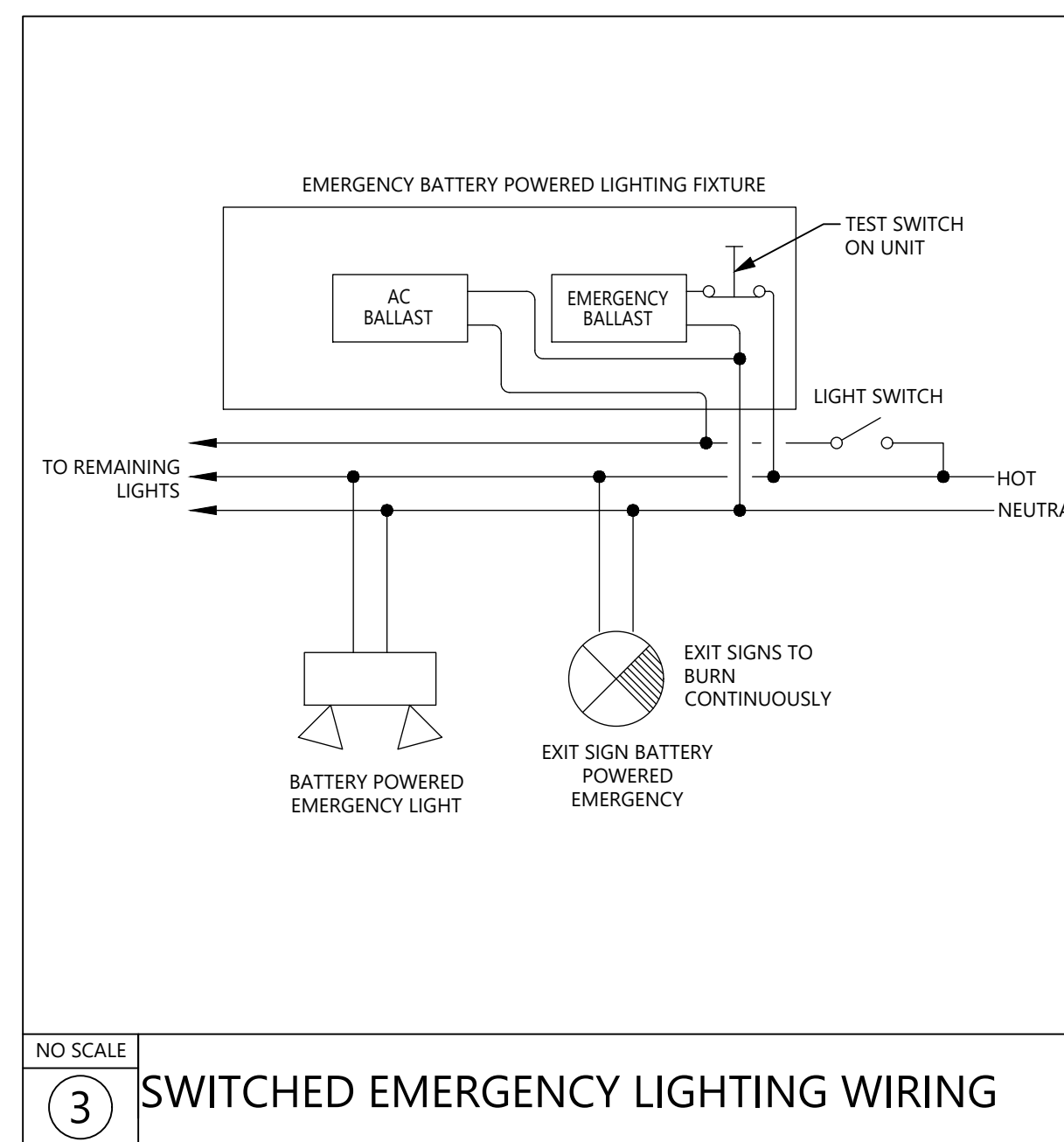
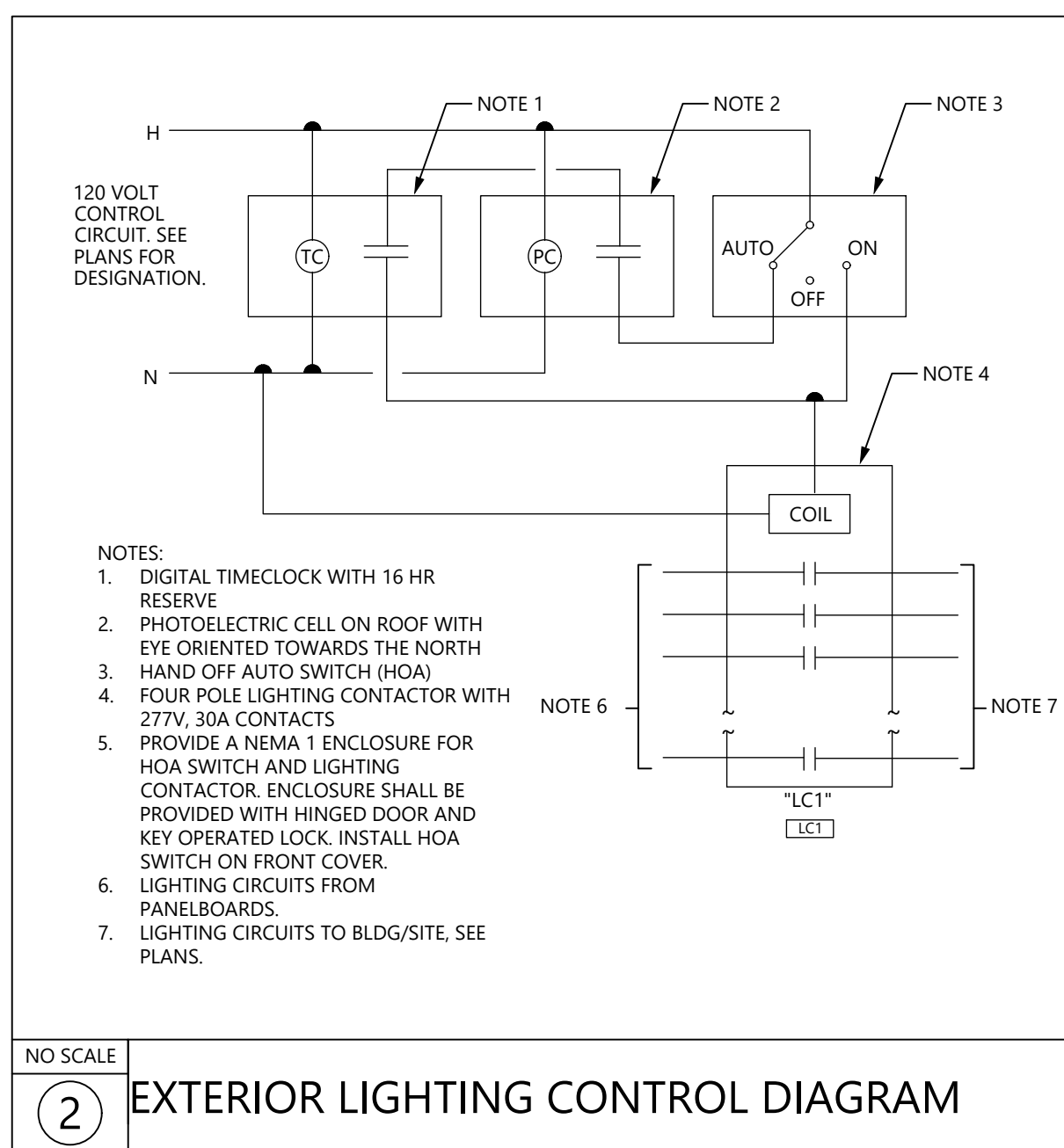
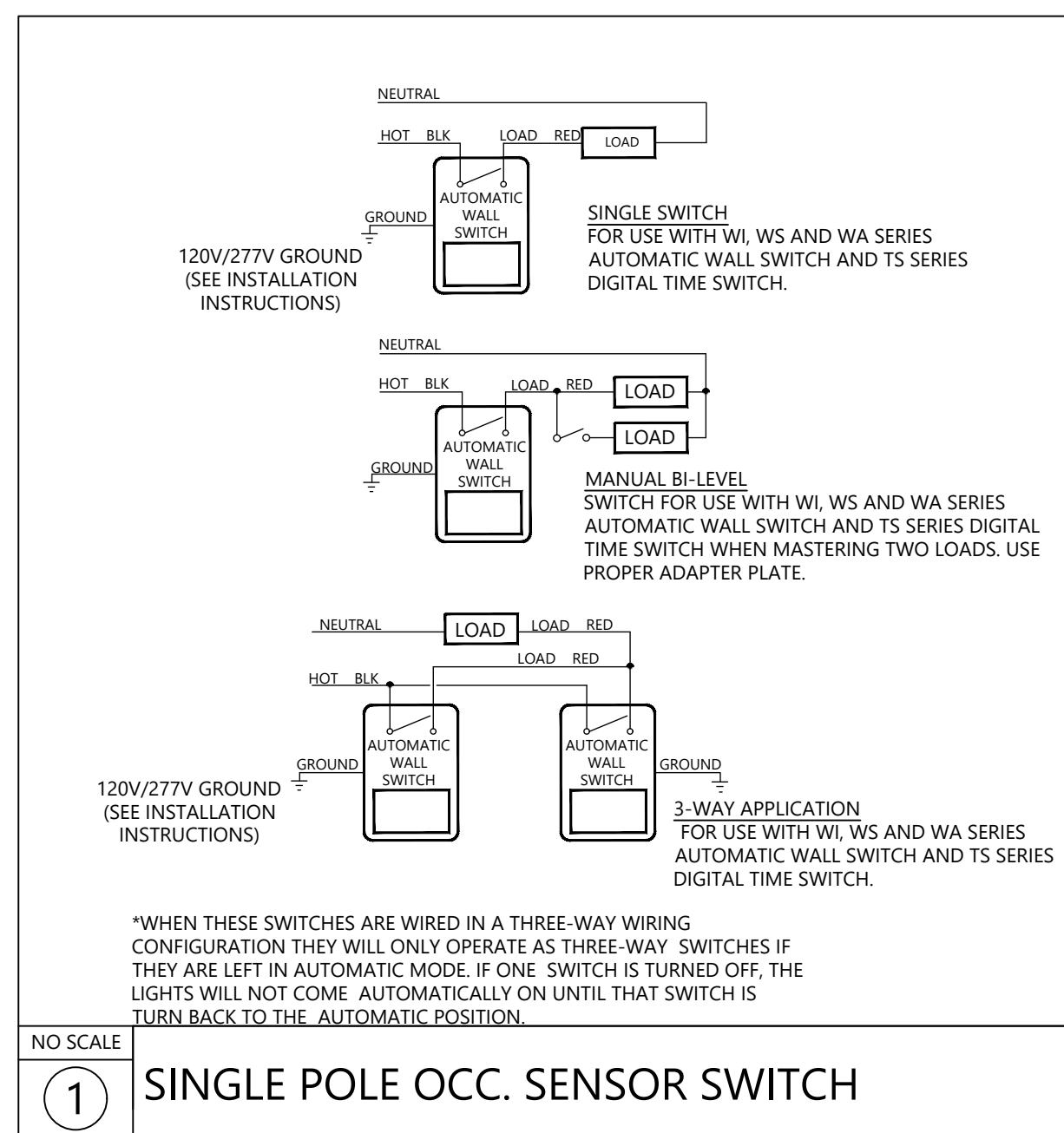
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ELECTRICAL COVER SHEET

SHEET #:

E-01

WILDE # 24-125

[illegible]

- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:

The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

[illegible]

DWG INFO :

WORKING DESCRIPTION

ELECTRICAL DETAILS

SHEET #:

E-03

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SIGNATURE:

CLIENT:
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Luis Graef: President



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The Orchards at Naples Road
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Hendersonville, North Carolina

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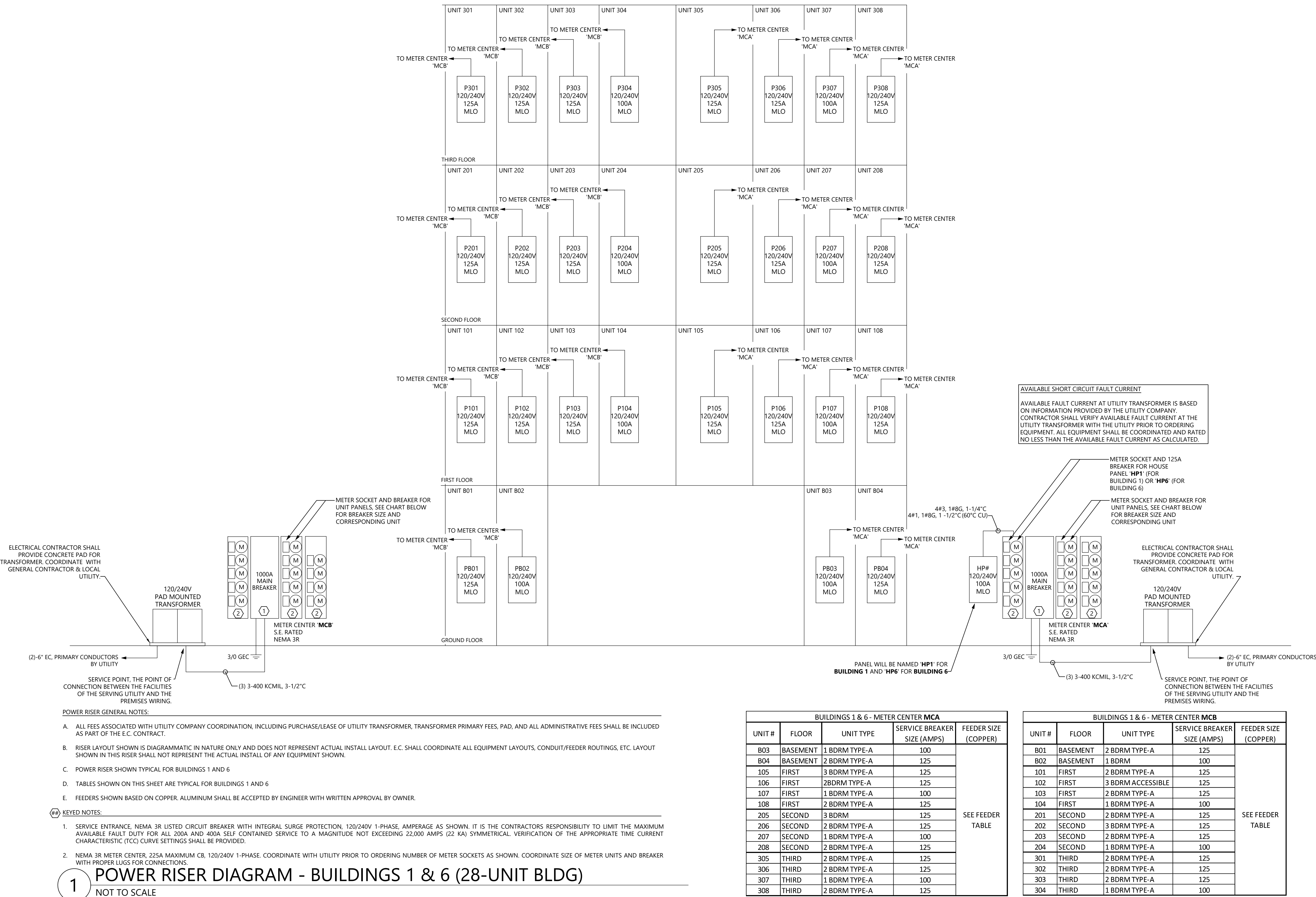
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DWG DESCRIPTION:
POWER RISER DIAGRAM -
BUILDINGS 1 & 6

SHEET #:

E-04

WILDE # 24-125

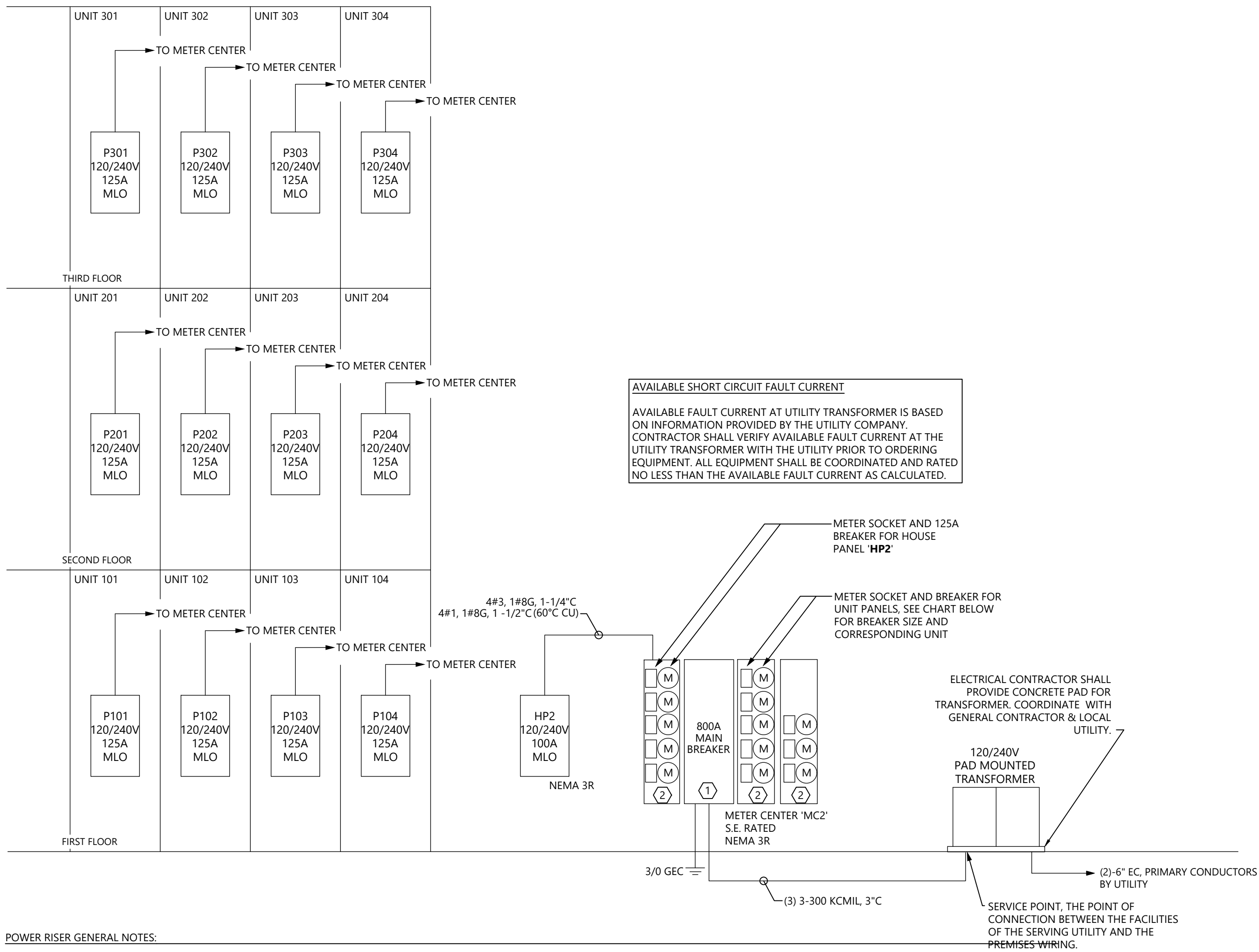


DEMAND LOADS: METER CENTER 'MCA'				
	NUMBER OF UNITS	UNIT KVA	TOTAL KVA	
2 BEDROOM UNIT	8	40.92	327.37	
1 BEDROOM UNIT	4	38.11	152.45	
3 BEDROOM UNIT	2	42.07	84.14	
TOTAL # OF UNITS		14		
		TOTAL:	564.0 KVA	
WITH DEMAND FACTOR (PER NEC 220.84)		40%	225.6 KVA	
		HOUSE PANEL	6.7 KVA	
		TOTAL:	232.3 KVA	
		VOLTAGE OF SERVICE:	240 V	
		SERVICE PHASE:	1 PH	
		TOTAL AMPACITY:	967.8 A	

DEMAND LOADS: METER CENTER 'MCB'				
	NUMBER OF UNITS	UNIT KVA	TOTAL KVA	
2 BEDROOM UNIT	8	40.92	327.37	
1 BEDROOM UNIT	4	38.11	152.45	
3 BEDROOM UNIT	2	42.07	84.14	
TOTAL # OF UNITS		14		
		TOTAL:	564.0 KVA	
WITH DEMAND FACTOR (PER NEC 220.84)		40%	225.6 KVA	
		TOTAL:	225.6 KVA	
		VOLTAGE OF SERVICE:	240 V	
		SERVICE PHASE:	1 PH	
		TOTAL AMPACITY:	939.9 A	

RESIDENTIAL FEEDER SIZING TABLE, COPPER CONDUCTORS (240V, 1-PHASE, 3-WIRE)						
SERVICE RATING (AMPS)	MAXIMUM DISTANCE					
	0 - 150'	151' - 175'	176' - 200'	201' - 225'	226' - 250'	251' - 275'
100	3#3, 1#8G, 1" C	3#2, 1#6G, 1-1/4" C	3#1, 1#4G, 1-1/4" C	3#1/0, 1#2G, 1-1/2" C	3#1/0, 1#4G, 1-1/2" C	3#2/0, 1#3G, 1-1/2" C
110	3#2, 1#6G, 1-1/4" C	3#1, 1#4G, 1-1/4" C	3#1/0, 1#2G, 1-1/2" C	3#1/0, 1#4G, 1-1/2" C	3#2/0, 1#2G, 1-1/2" C	3#3/0, 1#3G, 2" C
125	3#1, 1#6G, 1-1/4" C	3#1/0, 1#4G, 1-1/2" C	3#3/0, 1#4G, 2" C	3#4/0, 1#3G, 2" C	3-250, 1#3G, 2" C	3-300, 1#2G, 2-1/2" C
150	3#1/0, 1#6G, 1-1/2" C	3#2/0, 1#4G, 1-1/2" C	3#3/0, 1#4G, 2" C	3#4/0, 1#3G, 2" C	3-250, 1#4G, 2" C	3-300, 1#2G, 2-1/2" C
175	3#2/0, 1#6G, 1-1/2" C	3#3/0, 1#4G, 2" C	3#4/0, 1#4G, 2" C	3-250, 1#4G, 2" C	3-300, 1#3G, 2-1/2" C	3-350, 1#2G, 2-1/2" C
200	3#3/0, 1#6G, 2" C	3#4/0, 1#4G, 2" C	3-250, 1#4G, 2" C	3-300, 1#3G, 2-1/2" C	3-350, 1#2G, 2-1/2" C	
NOTE:						
1. THIS TABLE SHALL TAKE PRECEDENCE OVER ANY FEEDERS LISTED IN PANEL SCHEDULES, RISERS AND/OR PLANS. VOLTAGE DROP IS A FUNCTION OF DISTANCE, WHICH IS DETERMINED BY THE CONTRACTOR'S ROUTING IN THE FIELD DURING CONSTRUCTION.						
2. CONSULT ENGINEER FOR FEEDERS GREATER THAN 300' IN LENGTH.						
3. CONDUIT SIZING IS BASED ON "THHN", "THWN", "THWN-2" TYPE CONDUCTORS IN EMT CONDUIT.						
4. CONDUCTOR SIZES BASED ON COPPER CONDUCTORS.						
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL LUG REQUIREMENTS FOR WIRE SIZE, COUNTS, AND TYPE.						

#	REVISIONS	DATE



POWER RISER GENERAL NOTES:

- ALL FEES ASSOCIATED WITH UTILITY COMPANY COORDINATION, INCLUDING PURCHASE/LEASE OF UTILITY TRANSFORMER, TRANSFORMER PRIMARY FEES, PAD, AND ALL ADMINISTRATIVE FEES SHALL BE INCLUDED AS PART OF THE E.C. CONTRACT.
- RISER LAYOUT SHOWN IS DIAGRAMMATIC IN NATURE ONLY AND DOES NOT REPRESENT ACTUAL INSTALL LAYOUT. E.C. SHALL COORDINATE ALL EQUIPMENT LAYOUTS, CONDUIT/FEEDER ROUTINGS, ETC. LAYOUT SHOWN IN THIS RISER SHALL NOT REPRESENT THE ACTUAL INSTALL OF ANY EQUIPMENT SHOWN.
- POWER RISER SHOWN TYPICAL FOR BUILDING 2
- TABLES SHOWN ON THIS SHEET ARE TYPICAL FOR BUILDING 2
- FEEDERS SHOWN BASED ON COPPER. ALUMINUM SHALL BE ACCEPTED BY ENGINEER WITH WRITTEN APPROVAL BY OWNER.

KEYED NOTES:

- SERVICE ENTRANCE, NEMA 3R LISTED CIRCUIT BREAKER WITH INTEGRAL SURGE PROTECTION, 120/240V 1-PHASE, AMPERAGE AS SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO LIMIT THE MAXIMUM AVAILABLE FAULT DUTY FOR ALL 200A AND 400A SELF CONTAINED SERVICE TO A MAGNITUDE NOT EXCEEDING 22,000 AMPS (22 KA) SYMMETRICAL. VERIFICATION OF THE APPROPRIATE TIME CURRENT CHARACTERISTIC (TCC) CURVE SETTINGS SHALL BE PROVIDED.
- NEMA 3R METER CENTER, 225A MAXIMUM CB, 120/240V 1-PHASE. COORDINATE WITH UTILITY PRIOR TO ORDERING NUMBER OF METER SOCKETS AS SHOWN. COORDINATE SIZE OF METER UNITS AND BREAKER WITH PROPER LUGS FOR CONNECTIONS.

1

POWER RISER DIAGRAM - BUILDING 2 (12-UNIT BLDG)

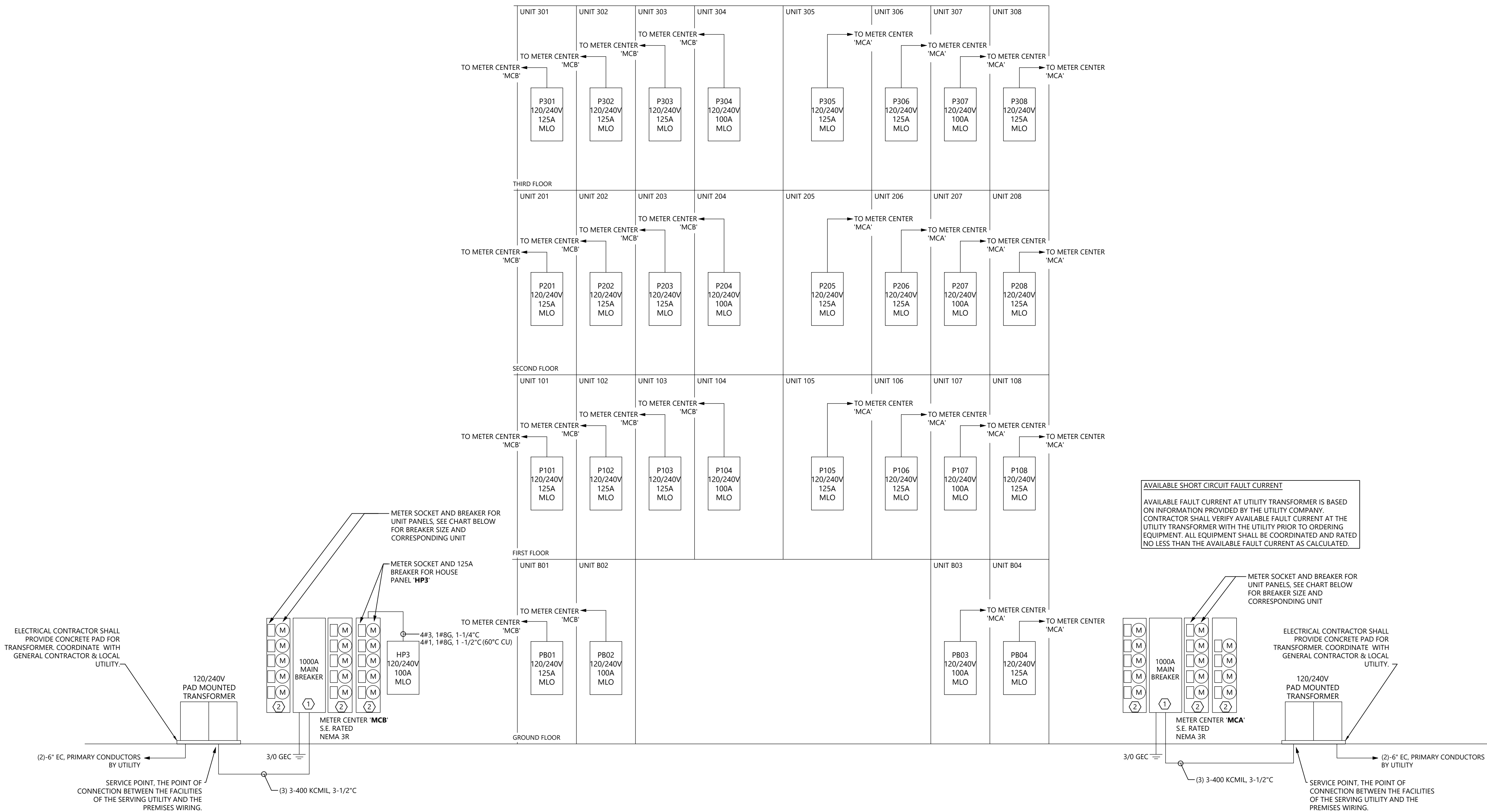
NOT TO SCALE

BUILDING 2 - METER CENTER MC2				
UNIT #	FLOOR	UNIT TYPE	SERVICE BREAKER SIZE (AMPS)	FEEDER SIZE (COPPER)
101	FIRST	2 BDRM ACCESSIBLE	125	SEE FEEDER TABLE
102	FIRST	2 BDRM ACCESSIBLE	125	
103	FIRST	2 BDRM TYPE-A	125	
104	FIRST	2 BDRM TYPE-A	125	
201	SECOND	2 BDRM	125	
202	SECOND	2 BDRM	125	
203	SECOND	2 BDRM	125	
204	SECOND	2 BDRM	125	
301	THIRD	2 BDRM	125	
302	THIRD	2 BDRM	125	
303	THIRD	2 BDRM	125	
304	THIRD	2 BDRM	125	

DEMAND LOADS: METER CENTER 'MC2'			
NUMBER OF UNITS	UNIT KVA	TOTAL KVA	
2 BEDROOM UNIT	12	40.92	491.05
TOTAL # OF UNITS	12		
		TOTAL:	491.1 KVA
WITH DEMAND FACTOR (PER NEC 220.84)		41%	201.3 KVA
		PANEL 'HP2':	6.4 KVA
		TOTAL:	207.7 KVA
		VOLTAGE OF SERVICE:	240 V
		SERVICE PHASE:	1 PH
		TOTAL AMPACITY:	865.5 A

RESIDENTIAL FEEDER SIZING TABLE, COPPER CONDUCTORS (240V, 1-PHASE, 3-WIRE)						
SERVICE RATING (AMPS)	MAXIMUM DISTANCE					
	0 - 150'	151' - 175'	176' - 200'	201' - 225'	226' - 250'	251' - 275'
100	3#3, 1#8G, 1" C	3#2, 1#6G, 1-1/4" C	3#1, 1#4G, 1-1/4" C	3#1/0, 1#4G, 1-1/2" C	3#1/0, 1#4G, 1-1/2" C	3#2/0, 1#3G, 1-1/2" C
110	3#2, 1#6G, 1-1/4" C	3#1, 1#4G, 1-1/4" C	3#1/0, 1#3G, 1-1/2" C	3#2/0, 1#2G, 1-1/2" C	3#2/0, 1#2G, 1-1/2" C	3#3/0, 1#3G, 2" C
125	3#1, 1#6G, 1-1/4" C	3#1/0, 1#4G, 1-1/2" C	3#2/0, 1#4G, 1-1/2" C	3#3/0, 1#4G, 2" C	3#4/0, 1#3G, 2" C	3#3/0, 1#3G, 2" C
150	3#1/0, 1#6G, 1-1/2" C	3#2/0, 1#4G, 1-1/2" C	3#3/0, 1#4G, 2" C	3#4/0, 1#4G, 2" C	3-250, 1#3G, 2" C	3-300, 1#2G, 2-1/2" C
175	3#2/0, 1#6G, 1-1/2" C	3#3/0, 1#4G, 2" C	3#4/0, 1#4G, 2" C	3-250, 1#4G, 2" C	3-300, 1#3G, 2-1/2" C	3-350, 1#2G, 2-1/2" C
200	3#3/0, 1#6G, 2" C	3#4/0, 1#4G, 2" C	3-250, 1#4G, 2" C	3-300, 1#3G, 2-1/2" C	3-350, 1#2G, 2-1/2" C	3-400, 1#2G, 2-1/2" C
NOTE:						
1. THIS TABLE SHALL TAKE PRECEDENCE OVER ANY FEEDERS LISTED IN PANEL SCHEDULES, RISERS AND/OR PLANS. VOLTAGE DROP IS A FUNCTION OF DISTANCE, WHICH IS DETERMINED BY THE CONTRACTOR'S ROUTING IN THE FIELD DURING CONSTRUCTION.						
2. CONSULT ENGINEER FOR FEEDERS GREATER THAN 300' IN LENGTH.						
3. CONDUIT SIZING IS BASED ON "THHN", "THWN", "THWN-2" TYPE CONDUCTORS IN EMT CONDUIT.						
4. CONDUCTOR SIZES BASED ON COPPER CONDUCTORS.						
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL LUG REQUIREMENTS FOR WIRE SIZE, COUNTS, AND TYPE.						

#	REVISIONS	DATE



- POWER RISER GENERAL NOTES:
- ALL FEES ASSOCIATED WITH UTILITY COMPANY COORDINATION, INCLUDING PURCHASE/LEASE OF UTILITY TRANSFORMER, TRANSFORMER PRIMARY FEES, PAD, AND ALL ADMINISTRATIVE FEES SHALL BE INCLUDED AS PART OF THE E.C. CONTRACT.
 - RISER LAYOUT SHOWN IS DIAGRAMMATIC IN NATURE ONLY AND DOES NOT REPRESENT ACTUAL INSTALL LAYOUT. E.C. SHALL COORDINATE ALL EQUIPMENT LAYOUTS, CONDUIT/FEEDER ROUTINGS, ETC. LAYOUT SHOWN IN THIS RISER SHALL NOT REPRESENT THE ACTUAL INSTALL OF ANY EQUIPMENT SHOWN.
 - POWER RISER SHOWN TYPICAL FOR BUILDING 3
 - TABLES SHOWN ON THIS SHEET ARE TYPICAL FOR BUILDING 3
 - FEEDERS SHOWN BASED ON COPPER. ALUMINUM SHALL BE ACCEPTED BY ENGINEER WITH WRITTEN APPROVAL BY OWNER.

KEYED NOTES:

- SERVICE ENTRANCE, NEMA 3R LISTED CIRCUIT BREAKER WITH INTEGRAL SURGE PROTECTION, 120/240V 1-PHASE, AMPERAGE AS SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO LIMIT THE MAXIMUM AVAILABLE FAULT DUTY FOR ALL 200A AND 400A SELF CONTAINED SERVICE TO A MAGNITUDE NOT EXCEEDING 22,000 AMPS (22 KA) SYMMETRICAL. VERIFICATION OF THE APPROPRIATE TIME CURRENT CHARACTERISTIC (TCC) CURVE SETTINGS SHALL BE PROVIDED.
- NEMA 3R METER CENTER, 225A MAXIMUM CB, 120/240V 1-PHASE. COORDINATE WITH UTILITY PRIOR TO ORDERING NUMBER OF METER SOCKETS AS SHOWN. COORDINATE SIZE OF METER UNITS AND BREAKER WITH PROPER LUGS FOR CONNECTIONS.

1 POWER RISER DIAGRAM - BUILDING 3 (28-UNIT BLDG)

NOT TO SCALE

DEMAND LOADS: METER CENTER 'MCA'

	NUMBER OF UNITS	UNIT KVA	TOTAL KVA
2 BEDROOM UNIT	8	40.92	327.37
1 BEDROOM UNIT	4	38.11	152.45
3 BEDROOM UNIT	2	42.07	84.14

TOTAL # OF UNITS	14
TOTAL:	564.0 KVA
WITH DEMAND FACTOR (PER NEC 220.84)	40%
TOTAL:	225.6 KVA

TOTAL:	225.6 KVA
VOLTAGE OF SERVICE:	240 V
SERVICE PHASE:	1 PH
TOTAL AMPACITY:	939.9 A

DEMAND LOADS: METER CENTER 'MCB'

	NUMBER OF UNITS	UNIT KVA	TOTAL KVA
2 BEDROOM UNIT	8	40.92	327.37
1 BEDROOM UNIT	4	38.11	152.45
3 BEDROOM UNIT	2	42.07	84.14

TOTAL # OF UNITS	14
TOTAL:	564.0 KVA
WITH DEMAND FACTOR (PER NEC 220.84)	40%
TOTAL:	225.6 KVA

TOTAL:	225.6 KVA
PANEL 'HP1':	6.7 KVA
TOTAL:	232.3 KVA
VOLTAGE OF SERVICE:	240 V
SERVICE PHASE:	1 PH
TOTAL AMPACITY:	967.8 A

RESIDENTIAL FEEDER SIZING TABLE, COPPER CONDUCTORS (240V, 1-PHASE, 3-WIRE)

SERVICE RATING (AMPS)	MAXIMUM DISTANCE					
	0 - 150'	151' - 175'	176' - 200'	201' - 225'	226' - 250'	251' - 275'
100	3#3, 1#8G, 1" C	3#2, 1#6G, 1-1/4" C	3#1, 1#4G, 1-1/4" C	3#1/0, 1#4G, 1-1/2" C	3#2/0, 1#4G, 1-1/2" C	3#2/0, 1#3G, 1-1/2" C
110	3#2, 1#6G, 1-1/4" C	3#1, 1#4G, 1-1/4" C	3#1/0, 1#3G, 1-1/2" C	3#2/0, 1#2G, 1-1/2" C	3#3/0, 1#2G, 1-1/2" C	3#3/0, 1#3G, 1-1/2" C
125	3#1, 1#6G, 1-1/4" C	3#1/0, 1#4G, 1-1/2" C	3#2/0, 1#4G, 1-1/2" C	3#3/0, 1#4G, 2" C	3#4/0, 1#3G, 2" C	3#3/0, 1#3G, 2" C
150	3#1/0, 1#6G, 1-1/2" C	3#2/0, 1#4G, 1-1/2" C	3#3/0, 1#4G, 1-1/2" C	3#4/0, 1#4G, 2" C	3-250, 1#3G, 2" C	3-300, 1#2G, 2-1/2" C
175	3#2/0, 1#6G, 1-1/2" C	3#3/0, 1#4G, 1-1/2" C	3#4/0, 1#4G, 2" C	3-250, 1#4G, 2" C	3-300, 1#3G, 2-1/2" C	3-350, 1#2G, 2-1/2" C
200	3#3/0, 1#6G, 2" C	3#4/0, 1#4G, 2" C	3-250, 1#4G, 2" C	3-300, 1#3G, 2-1/2" C	3-350, 1#2G, 2-1/2" C	3-400, 1#2G, 2-1/2" C

- NOTE:
- THIS TABLE SHALL TAKE PRECEDENCE OVER ANY FEEDERS LISTED IN PANEL SCHEDULES, RISERS AND/OR PLANS. VOLTAGE DROP IS A FUNCTION OF DISTANCE, WHICH IS DETERMINED BY THE CONTRACTOR'S ROUTING IN THE FIELD DURING CONSTRUCTION.
 - CONSULT ENGINEER FOR FEEDERS GREATER THAN 300' IN LENGTH.
 - CONDUIT SIZING IS BASED ON "THHN", "THWN", "THWN-2" TYPE CONDUCTORS IN EMT CONDUIT.
 - CONDUCTOR SIZES BASED ON COPPER CONDUCTORS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL LUG REQUIREMENTS FOR WIRE SIZE, COUNTS, AND TYPE.



SIGNATURE:

CLIENT



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

[illegible]

DWG INFO

DWG DESCRIPTION :

POWER RISER DIAGRAM -
BUILDING 4

SHEET #:

E-07

WILDE #: 24-125



- A. ALL FEES ASSOCIATED WITH UTILITY COMPANY COORDINATION, INCLUDING PURCHASE/LEASE OF UTILITY TRANSFORMER, TRANSFORMER PRIMARY FEES, PAD, AND ALL ADMINISTRATIVE FEES SHALL BE INCLUDED AS PART OF THE E.C. CONTRACT.
- B. RISER LAYOUT SHOWN IS DIAGRAMMATIC IN NATURE ONLY AND DOES NOT REPRESENT ACTUAL INSTALL LAYOUT. E.C. SHALL COORDINATE ALL EQUIPMENT LAYOUTS, CONDUIT/FEEDER ROUTINGS, ETC. LAYOUT SHOWN IN THIS RISER SHALL NOT REPRESENT THE ACTUAL INSTALL OF ANY EQUIPMENT SHOWN.
- C. POWER RISER SHOWN TYPICAL FOR BUILDING 4
- D. TABLES SHOWN ON THIS SHEET ARE TYPICAL FOR BUILDING 4
- E. FEEDERS SHOWN BASED ON COPPER. ALUMINUM SHALL BE ACCEPTED BY ENGINEER WITH WRITTEN APPROVAL BY OWNER.

 KEYED NOTES:

1. SERVICE ENTRANCE, NEMA 3R LISTED CIRCUIT BREAKER WITH INTEGRAL SURGE PROTECTION, 120/240V 1-PHASE, AMPERAGE AS SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO LIMIT THE MAXIMUM AVAILABLE FAULT DUTY FOR ALL 200A AND 400A SIZED SERVICE TO A MAGNITUDE NOT EXCEEDING 22,000 AMPS (22 KA) SYMMETRICAL. VERIFICATION OF THE APPROPRIATE TIME CURRENT CHARACTERISTIC (TCC) CURVE SETTINGS SHALL BE PROVIDED.
2. NEMA 3R METER CENTER, 225A MAXIMUM CB, 120/240V 1-PHASE. COORDINATE WITH UTILITY PRIOR TO ORDERING NUMBER OF METER SOCKETS AS SHOWN. COORDINATE SIZE OF METER UNITS AND BREAKER WITH PROPER LUGS FOR CONNECTIONS.

1) POWER
NOT TO SCALE

DEMAND LOADS: METER CENTER 'MC4'				
NUMBER OF UNITS	UNIT KVA		TOTAL KVA	
2 BEDROOM UNIT	14	40.92	572.89	
TOTAL # OF UNITS	14			
		TOTAL:	572.9 KVA	
WITH DEMAND FACTOR (PER NEC 220.84)	40%		229.2 KVA	
		PANEL 'HP4':	6.4 KVA	
		TOTAL:	235.6 KVA	
		VOLTAGE OF SERVICE:	240 V	
		SERVICE PHASE:	1 PH	
		TOTAL AMPACITY:	981.5 A	

RESIDENTIAL FEEDER SIZING TABLE, COPPER CONDUCTORS (240V, 1-PHASE, 3-WIRE)							
SERVICE RATING (AMPS)	MAXIMUM DISTANCE						
	0 - 150'	151' - 175'	176' - 200'	201' - 225'	226' - 250'	251' - 275'	276' - 300'
100	3#3, 1#8G, 1" C	3#2, 1#6G, 1-1/4" C	3#1, 1#4G, 1-1/4" C		3#1/0, 1#4G, 1-1/2" C		3#2/0, 1#3G, 1-1/2" C
110	3#2, 1#6G, 1-1/4" C		3#1, 1#4G, 1-1/4" C	3#1/0, 1#3G, 1-1/2" C		3#2/0, 1#2G, 1-1/2" C	
125	3#1, 1#6G, 1-1/4" C		3#1/0, 1#4G, 1-1/2" C		3#2/0, 1#4G, 1-1/2" C		3#3/0, 1#3G, 2" C
150	3#1/0, 1#6G, 1-1/2" C		3#2/0, 1#4G, 1-1/2" C		3#3/0, 1#4G, 2" C		3#4/0, 1#3G, 2" C
175	3#2/0, 1#6G, 1-1/2" C		3#3/0, 1#4G, 2" C		3#4/0, 1#4G, 2" C		3-250, 1#3G, 2" C
200	3#3/0, 1#6G, 2" C		3#4/0, 1#4G, 2" C		3-250, 1#4G, 2" C		3-300, 1#3G, 2-1/2" C
					3-300, 1#3G, 2-1/2" C		3-350, 1#2G, 2-1/2" C

NOTE:

1. THIS TABLE SHALL TAKE PRECEDENCE OVER ANY FEEDERS LISTED IN PANEL SCHEDULES, RISERS AND/OR PLANS. VOLTAGE DROP IS A FUNCTION OF DISTANCE, WHICH IS DETERMINED BY THE CONTRACTOR'S ROUTING IN THE FIELD DURING CONSTRUCTION.
2. CONSULT ENGINEER FOR FEEDERS GREATER THAN 300' IN LENGTH.
3. CONDUIT SIZING IS BASED ON "THHN", "THWN", "THWN-2" TYPE CONDUCTORS IN EMT CONDUIT.
4. CONDUCTOR SIZES BASED ON COPPER CONDUCTORS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL LUG REQUIREMENTS FOR WIRE SIZE, COUNTS, AND TYPE.



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

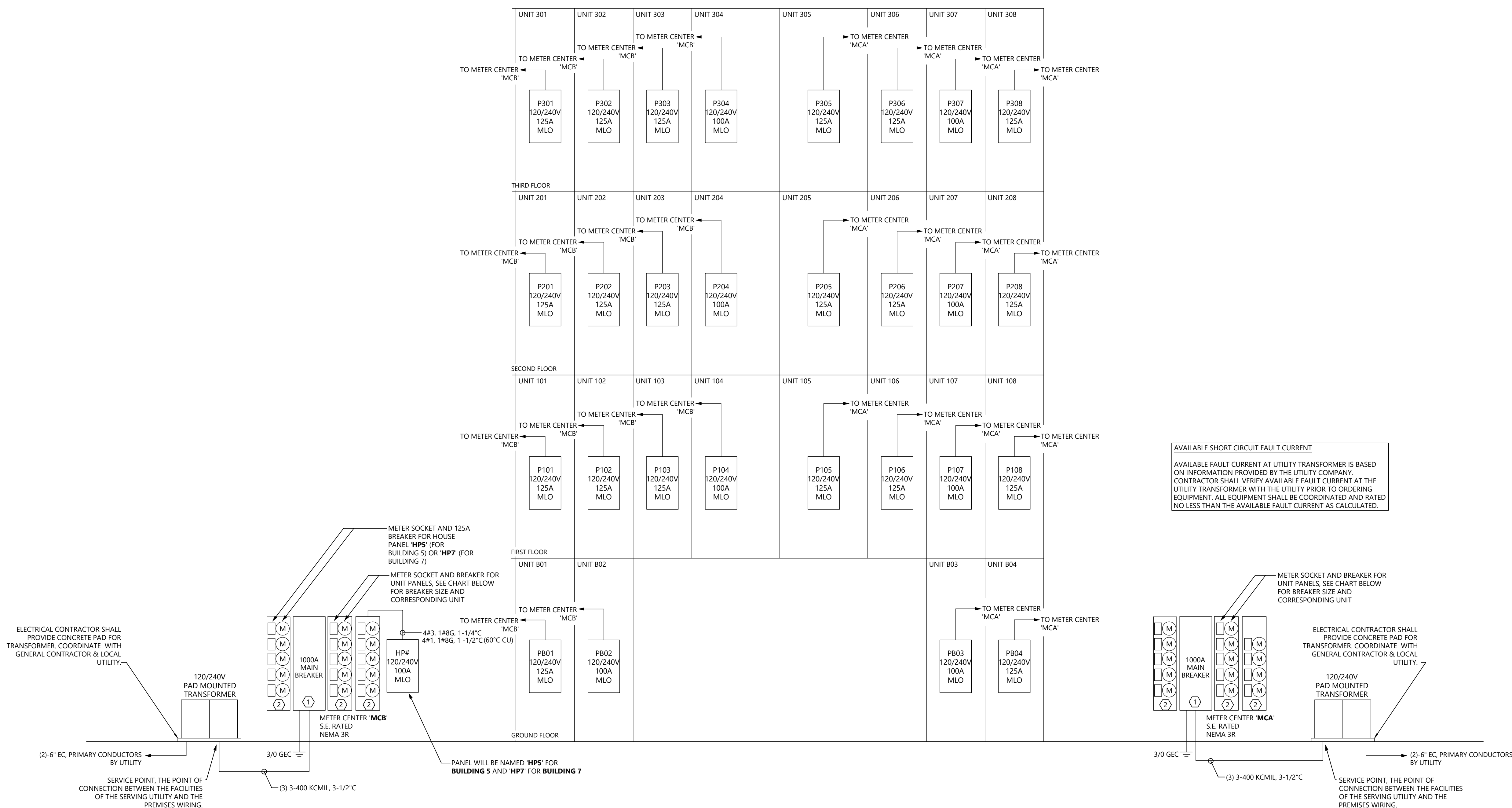
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DWG INFO :

DWG DESCRIPTION :

POWER RISER DIAGRAM -
BUILDINGS 5 & 7

E-08



BUILDINGS 5 & 7 - METER CENTER MCA				
UNIT #	FLOOR	UNIT TYPE	SERVICE BREAKER SIZE (AMPS)	FEEDER SIZE (COPPER)
B03	BASEMENT	1 BDRM TYPE-A	100	SEE FEEDER TABLE
B04	BASEMENT	2 BDRM TYPE-A	125	
105	FIRST	3 BDRM TYPE-A	125	
106	FIRST	2BDRM TYPE-A	125	
107	FIRST	1 BDRM TYPE-A	100	
108	FIRST	2 BDRM TYPE-A	125	
205	SECOND	3 BDRM	125	
206	SECOND	2 BDRM TYPE-A	125	
207	SECOND	1 BDRM TYPE-A	100	
208	SECOND	2 BDRM TYPE-A	125	
305	THIRD	2 BDRM TYPE-A	125	
306	THIRD	2 BDRM TYPE-A	125	
307	THIRD	1 BDRM TYPE-A	100	
308	THIRD	2 BDRM TYPE-A	125	

BUILDINGS 5 & 7 - METER CENTER MCB				
UNIT #	FLOOR	UNIT TYPE	SERVICE BREAKER SIZE (AMPS)	FEEDER SIZE (COPPER)
B01	BASEMENT	2 BDRM TYPE-A	125	SEE FEEDER TABLE
B02	BASEMENT	1 BDRM	100	
101	FIRST	2 BDRM TYPE-A	125	
102	FIRST	3 BDRM ACCESSIBLE	125	
103	FIRST	2 BDRM TYPE-A	125	
104	FIRST	1 BDRM TYPE-A	100	
201	SECOND	2 BDRM TYPE-A	125	
202	SECOND	3 BDRM TYPE-A	125	
203	SECOND	2 BDRM TYPE-A	125	
204	SECOND	1 BDRM TYPE-A	100	
301	THIRD	2 BDRM TYPE-A	125	
302	THIRD	2 BDRM TYPE-A	125	
303	THIRD	2 BDRM TYPE-A	125	
304	THIRD	1 BDRM TYPE-A	100	

RESIDENTIAL FEEDER SIZING TABLE, COPPER CONDUCTORS (240V, 1-PHASE, 3-WIRE)

SERVICE RATING (AMPS)	MAXIMUM DISTANCE						
	0 - 150'	151' - 175'	176' - 200'	201' - 225'	226' - 250'	251' - 275'	276' - 300'
100	3#3, 1#8G, 1" C	3#2, 1#6G, 1-1/4" C	3#1, 1#4G, 1-1/4" C		3#1/0, 1#4G, 1-1/2" C		3#2/0, 1#3G, 1-1/2" C
110	3#2, 1#6G, 1-1/4" C		3#1, 1#4G, 1-1/4" C	3#1/0, 1#3G, 1-1/2" C		3#2/0, 1#2G, 1-1/2" C	
125	3#1, 1#6G, 1-1/4" C		3#1/0, 1#4G, 1-1/2" C		3#2/0, 1#4G, 1-1/2" C		3#3/0, 1#3G, 2" C
150	3#1/0, 1#6G, 1-1/2" C		3#2/0, 1#4G, 1-1/2" C		3#3/0, 1#4G, 2" C		3#4/0, 1#3G, 2" C
175	3#2/0, 1#6G, 1-1/2" C		3#3/0, 1#4G, 2" C		3#4/0, 1#4G, 2" C	3-250, 1#3G, 2" C	3-300, 1#2G, 2-1/2" C
200	3#3/0, 1#6G, 2" C		3#4/0, 1#4G, 2" C	3-250, 1#4G, 2" C	3-300, 1#3G, 2-1/2" C		3-350, 1#2G, 2-1/2" C

NOTE:

1. THIS TABLE SHALL TAKE PRECEDENCE OVER ANY FEEDERS LISTED IN PANEL SCHEDULES, RISERS AND/OR PLANS. VOLTAGE DROP IS A FUNCTION OF DISTANCE, WHICH IS DETERMINED BY THE CONTRACTOR'S ROUTING IN THE FIELD DURING CONSTRUCTION.
2. CONSULT ENGINEER FOR FEEDERS GREATER THAN 300' IN LENGTH.
3. CONDUIT SIZING IS BASED ON "THHN", "THWN", "THWN-2" TYPE CONDUCTORS IN EMT CONDUIT.
4. CONDUCTOR SIZES BASED ON COPPER CONDUCTORS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL LUG REQUIREMENTS FOR WIRE SIZE, COUNTS, AND TYPE.

DEMAND LOADS: METER CENTER 'MCA'				
	NUMBER OF UNITS		UNIT KVA	TOTAL KVA
2 BEDROOM UNIT	8		40.92	327.37
1 BEDROOM UNIT	4		38.11	152.45
3 BEDROOM UNIT	2		42.07	84.14

TOTAL # OF UNITS	14		
		TOTAL:	564.0 KVA
WITH DEMAND FACTOR (PER NEC 220.84)		40%	225.6 KVA

TOTAL:	225.6 KVA
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VOLTAGE OF SERVICE:	240 V
SERVICE PHASE:	1 PH
TOTAL AMPACITY:	939.9 A

DEMAND LOADS: METER CENTER 'MCB'				
	NUMBER OF UNITS		UNIT KVA	TOTAL KVA
2 BEDROOM UNIT	8		40.92	327.37
1 BEDROOM UNIT	4		38.11	152.45
3 BEDROOM UNIT	2		42.07	84.14

TOTAL # OF UNITS	14		
		TOTAL:	564.0 KVA
WITH DEMAND FACTOR (PER NEC 220.84)		40%	225.6 KVA

TOTAL:	232.3 KVA
--------	-----------

VOLTAGE OF SERVICE:	240 V
SERVICE PHASE:	1 PH
TOTAL AMPACITY:	967.8 A

NEW PANEL: HP1 & HP6 (NOTE #9)

MAIN: LUGS ONLY

7.9	SUB TOTALS	5.1
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NEW PANEL: HP4

MAIN: LUGS ONLY

3.2	SUB TOTALS	5.1
-----	------------	-----

NEW PANEL: HP2

MAIN: LUGS ONLY

2.6	SUB TOTALS	5.1
-----	------------	-----

NEW PANEL: HP5 & HP7 (NOTE #9)

MAIN: LUGS ONLY

5.9	SUB TOTALS	5.1
-----	------------	-----

NEW PANEL: HP3

MAIN: LUGS ONLY

5.9	SUB TOTALS	5.1
-----	------------	-----

NOTES:
1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.

8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.

NOTES:

1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.

NOTES:	1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING. 2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED
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Orchards at Naples Road



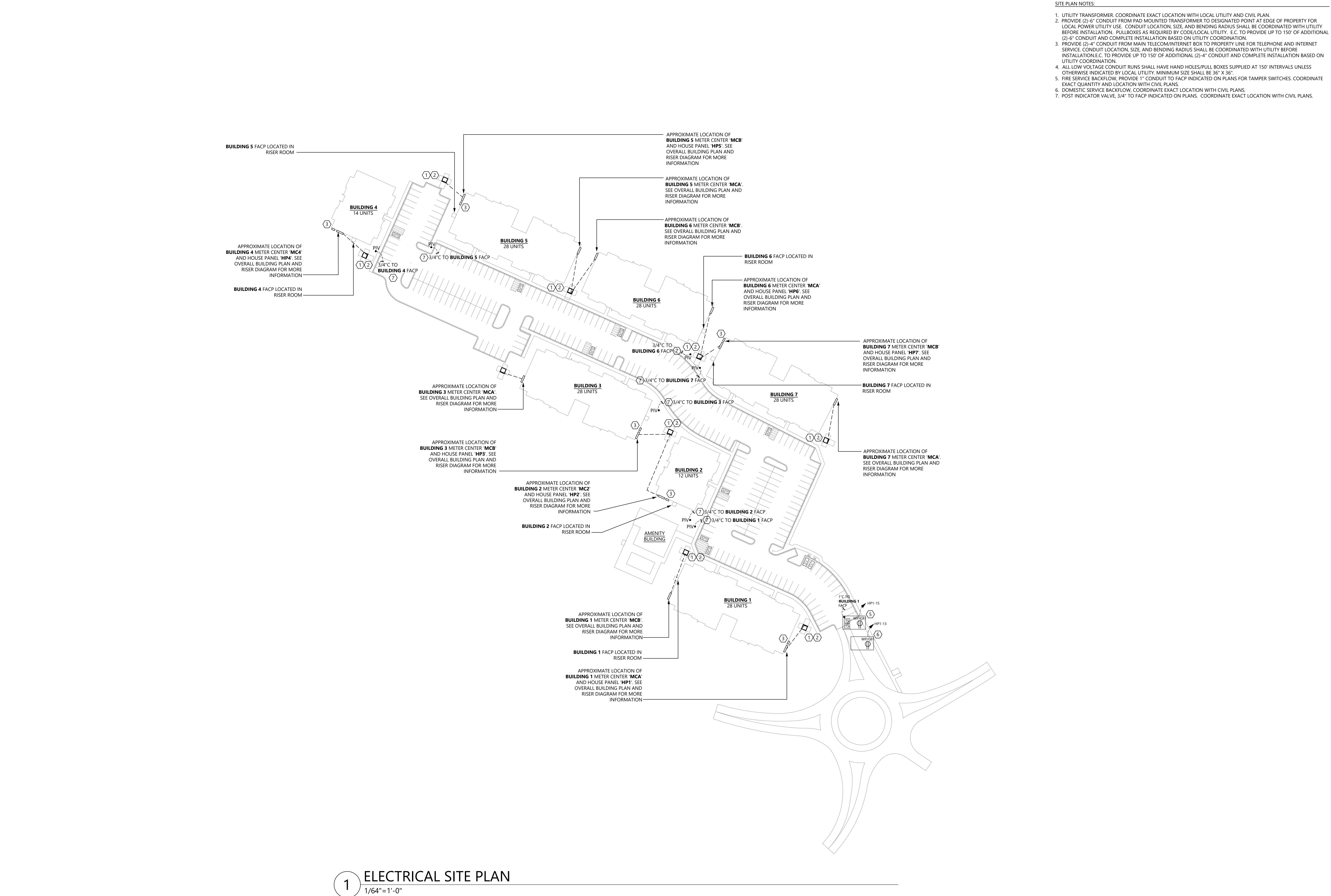
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DWG INFO :

ANEL SCHEDULES

500

WILDE #: 24-125



- SITE PLAN NOTES:
1. UTILITY TRANSFORMER, COORDINATE EXACT LOCATION WITH LOCAL UTILITY AND CIVIL PLAN.
 2. PROVIDE (2)-6" CONDUIT FROM PAD MOUNTED TRANSFORMER TO DESIGNATED POINT AT EDGE OF PROPERTY FOR LOCAL POWER UTILITY USE. CONDUIT LOCATION, SIZE, AND BENDING RADIUS SHALL BE COORDINATED WITH UTILITY BEFORE INSTALLATION. PULLBOXES AS REQUIRED BY CODE/LOCAL UTILITY. E.C. TO PROVIDE UP TO 150' OF ADDITIONAL (2)-6" CONDUIT AND COMPLETE INSTALLATION BASED ON UTILITY COORDINATION.
 3. PROVIDE (2)-4" CONDUIT FROM MAIN TELECOM/INTERNET BOX TO PROPERTY LINE FOR TELEPHONE AND INTERNET SERVICE. CONDUIT LOCATION, SIZE, AND BENDING RADIUS SHALL BE COORDINATED WITH UTILITY BEFORE INSTALLATION.E.C. TO PROVIDE UP TO 150' OF ADDITIONAL (2)-4" CONDUIT AND COMPLETE INSTALLATION BASED ON UTILITY COORDINATION.
 4. ALL LOW VOLTAGE CONDUIT RUNS SHALL HAVE HAND HOLES/PULL BOXES SUPPLIED AT 150' INTERVALS UNLESS OTHERWISE INDICATED BY LOCAL UTILITY. MINIMUM SIZE SHALL BE 36" X 36".
 5. FIRE SERVICE BACKFLOW, PROVIDE 1" CONDUIT TO FACP INDICATED ON PLANS FOR TAMPER SWITCHES. COORDINATE EXACT QUANTITY AND LOCATION WITH CIVIL PLANS.
 6. DOMESTIC SERVICE BACKFLOW, COORDINATE EXACT LOCATION WITH CIVIL PLANS.
 7. POST INDICATOR VALVE, 3/4" TO FACP INDICATED ON PLANS. COORDINATE EXACT LOCATION WITH CIVIL PLANS.



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:
The Orchards at Naples Road
Apartment Complex
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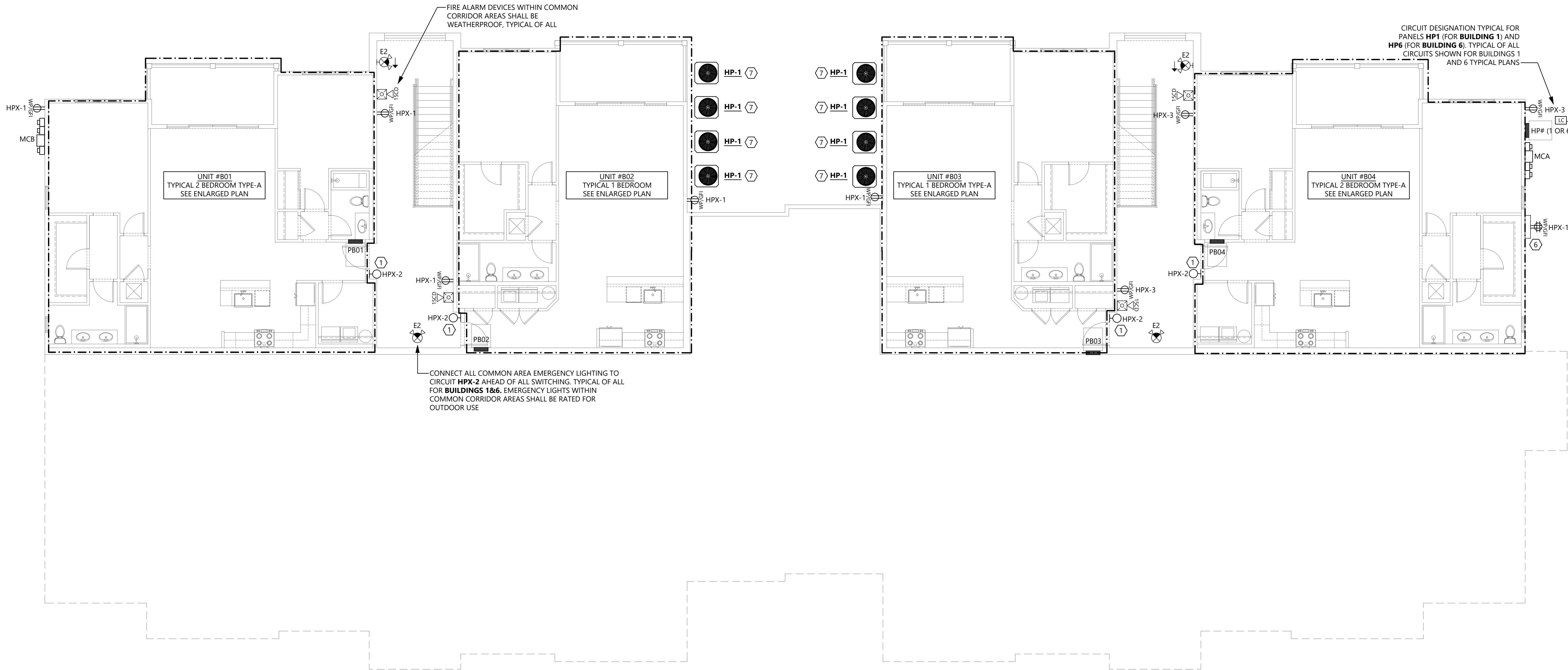
#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:
ELECTRICAL SITE PLAN

SHEET #:
E-10

1 ELECTRICAL SITE PLAN
1/64"=1'-0"



- GENERAL NOTES:
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 - B. ALL CONDUIT SHALL BE CONCEALED BEHIND WALLS AND ABOVE CEILINGS. NO EXPOSED CONDUIT PERMITTED.
 - C. MC CABLE SHALL NOT BE EXPOSED. CIRCUITS NOT CONCEALED BY CEILINGS SHALL BE RUN IN CONDUIT. CIRCUITS INSTALLED BEHIND HARD CEILINGS SHALL BE IN CONDUIT. ALL WORK IN ELECTRICAL ROOMS SHALL BE IN CONDUIT.
 - D. LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.
 - E. PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS FOR ALL CONDUITS STUBBED ABOVE CEILING.
 - F. CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.
 - G. PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.
 - H. COORDINATE ALL MECHANICAL EQUIPMENT ELECTRICAL CONNECTION LOCATIONS AND REQUIREMENTS WITH MECHANICAL DRAWINGS AND APPROVED MECHANICAL SUBMITTALS PRIOR TO ORDERING AND INSTALLATION.
 - I. ALL 15A AND 20A RECEPTACLES IN COMMON AREAS SHALL BE TAMPER RESISTANT.
 - J. SMOKE/HEAT DETECTORS SHALL NOT BE LOCATED WITHIN 3' OF MECHANICAL AIR TERMINALS AND DIFFUSERS.
 - K. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
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 - 2. COORDINATE FACP LOCATION WITH FIRE RISER, IRRIGATION CONTROLS, ETC. WITHIN UTILITY ROOM.
 - 3. POWER FOR IRRIGATION CONTROLS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
 - 4. ALL QUANTITIES, LOCATIONS, ETC. OF TAMPER AND FLOW SWITCHES SHALL BE COORDINATED WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
 - 5. FIRE ALARM BELL. COORDINATED EXACT QUANTITY, LOCATION, REQUIREMENTS, ETC. WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
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 - 7. COORDINATE WITH M.C. FOR WHICH UNIT EACH HEAT PUMP IS ASSOCIATED WITH. SIZE FEEDERS TO ACCOMMODATE VOLTAGE DROP PER NEC. SEE ENLARGED UNIT PLAN AND PANEL SCHEDULE FOR CIRCUIT DESIGNATION, DISCONNECT SIZE, ETC.

1 OVERALL PLAN - BUILDINGS 1 & 6 (28-UNIT BLDG) - BASEMENT
1/8" = 1'-0"



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE

CLIENT:
The Orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO

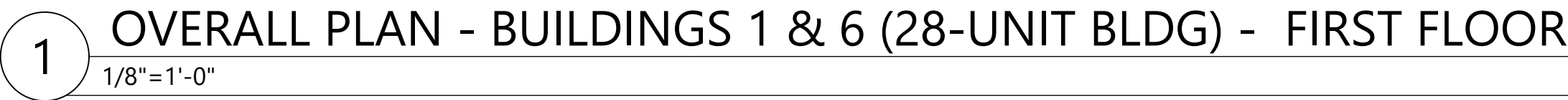
DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - BASEMENT -
BUILDINGS 1 & 6

SHEET #:
E-11

GENERAL NOTES:

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KEYED NOTES (ALL MAY NOT BE ON THIS SHEET):



Wilde —
engineering

MECHANICAL, ELECTRICAL & PUMBIN

15822 Kelly Park Cir
Huntersville, NC
(704) 439-7038
NC Firm License No. P-2182

- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE _____

CLIENT:
 s at Naples Road, LLC
 Street
 ville, NC 28792
 President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

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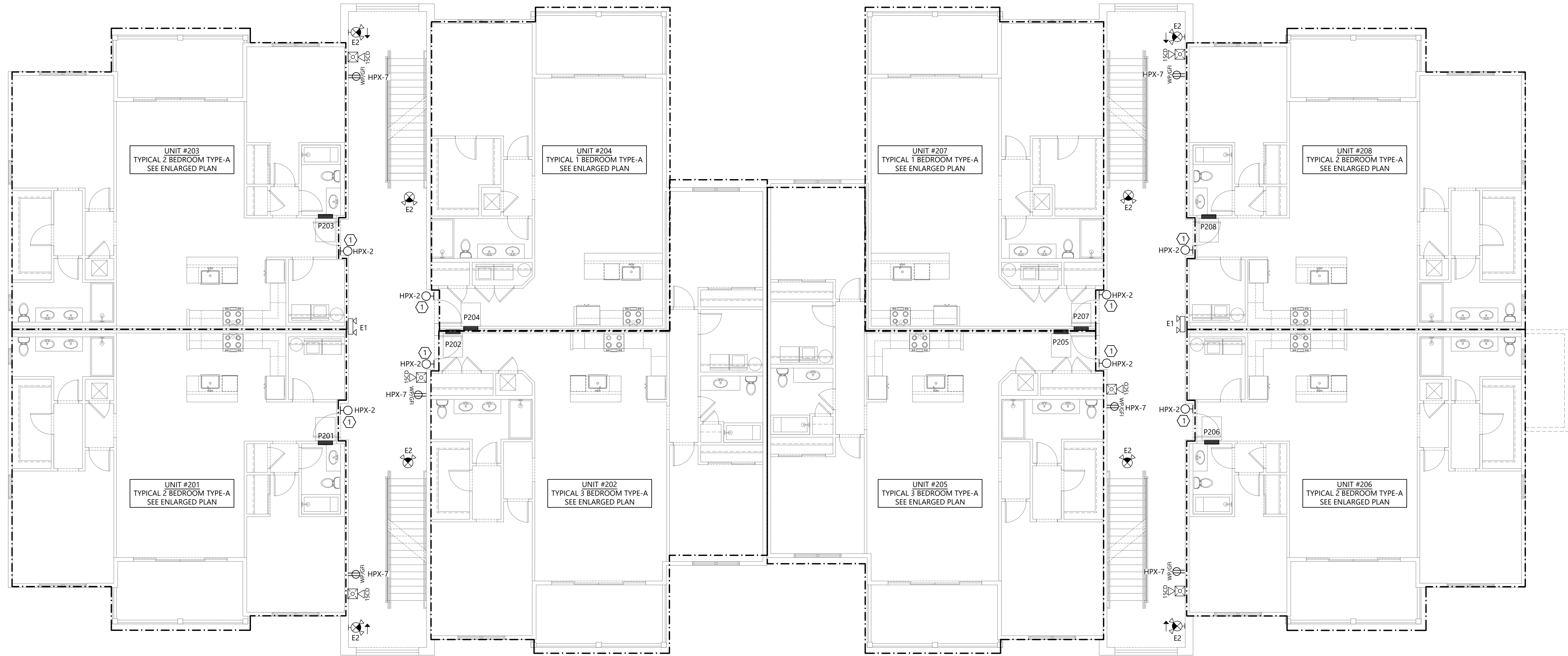
DWG INFO

DWG DESCRIPTION :
OVERALL ELECTRICAL
PLAN - FIRST FLOOR -
BUILDINGS 1 & 6

SHEET #:

E-12

WILDE #: 24-125



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Hendersonville, NC 28792
Luis Graef: President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

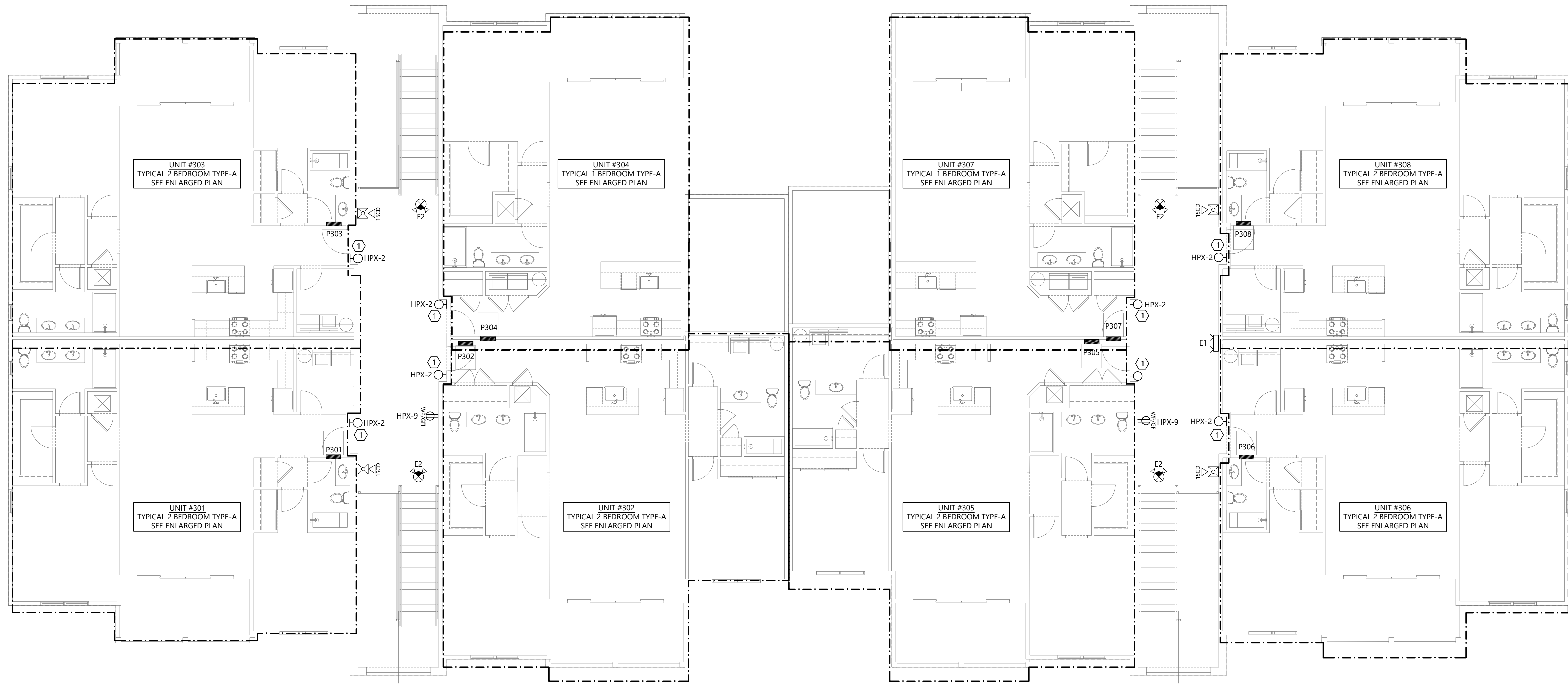
DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - SECOND FLOOR -
BUILDINGS 1 & 6

SHEET #:

E-13

WILDE # 24-125



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- PRELIMINARY -
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SIGNATURE

CLIENT:
The Orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

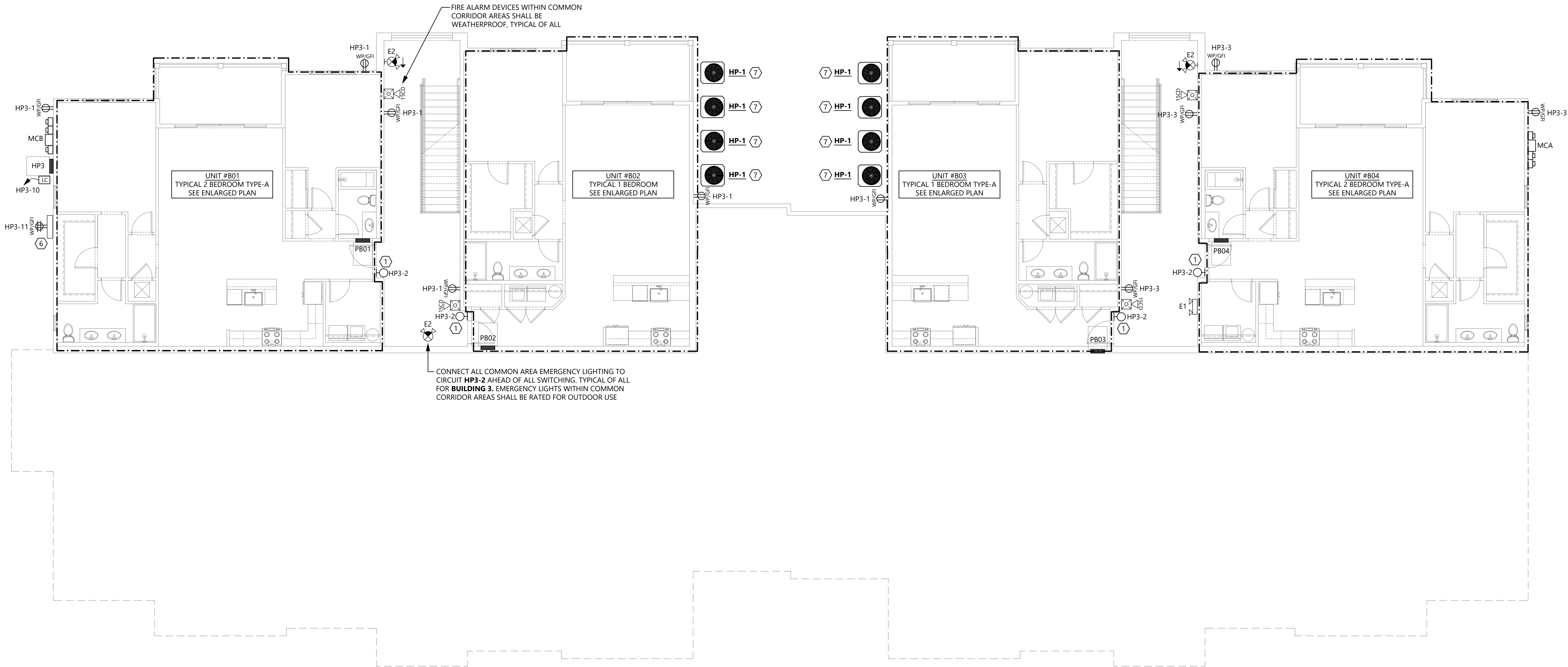
#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - THIRD FLOOR -
BUILDINGS 1 & 6

SHEET #:
E-14

WILDE # 24-125



- GENERAL NOTES:
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1 OVERALL PLAN - BUILDING 3 (28-UNIT BLDG) - BASEMENT LEVEL

1/8"=1'-0"



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - BASEMENT -
BUILDING 3

SHEET #:

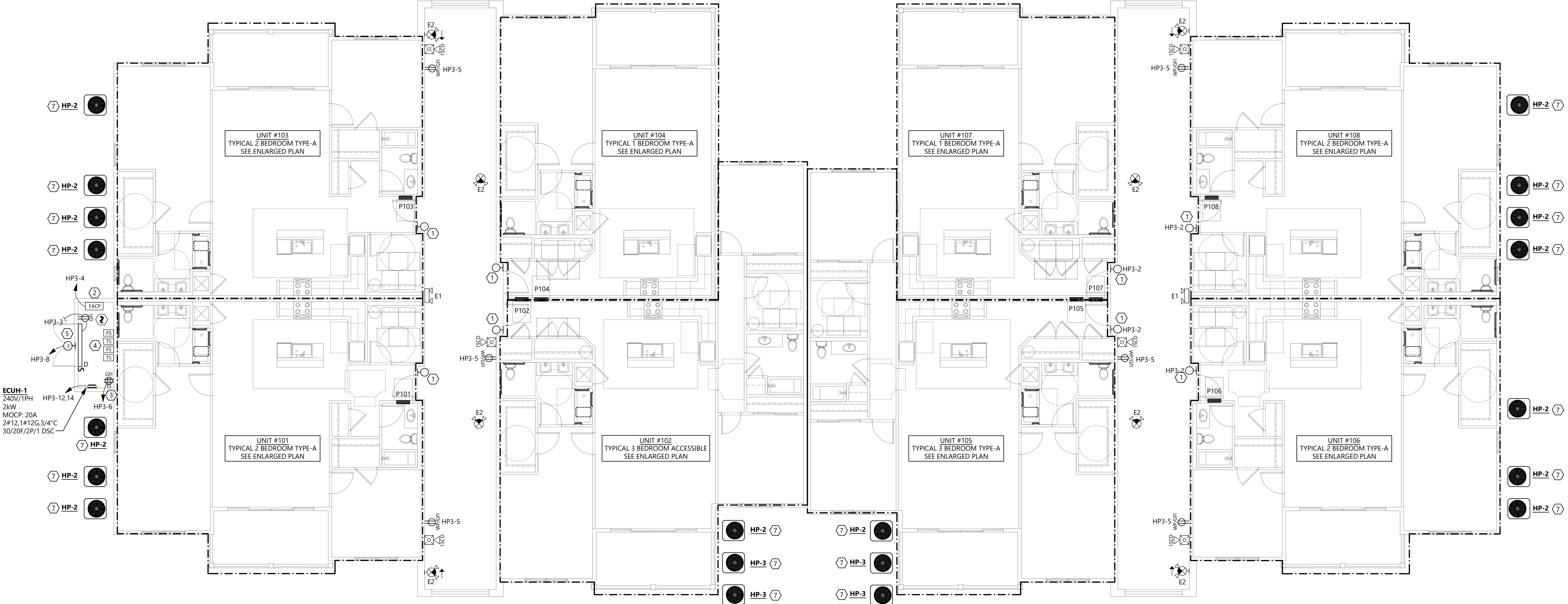
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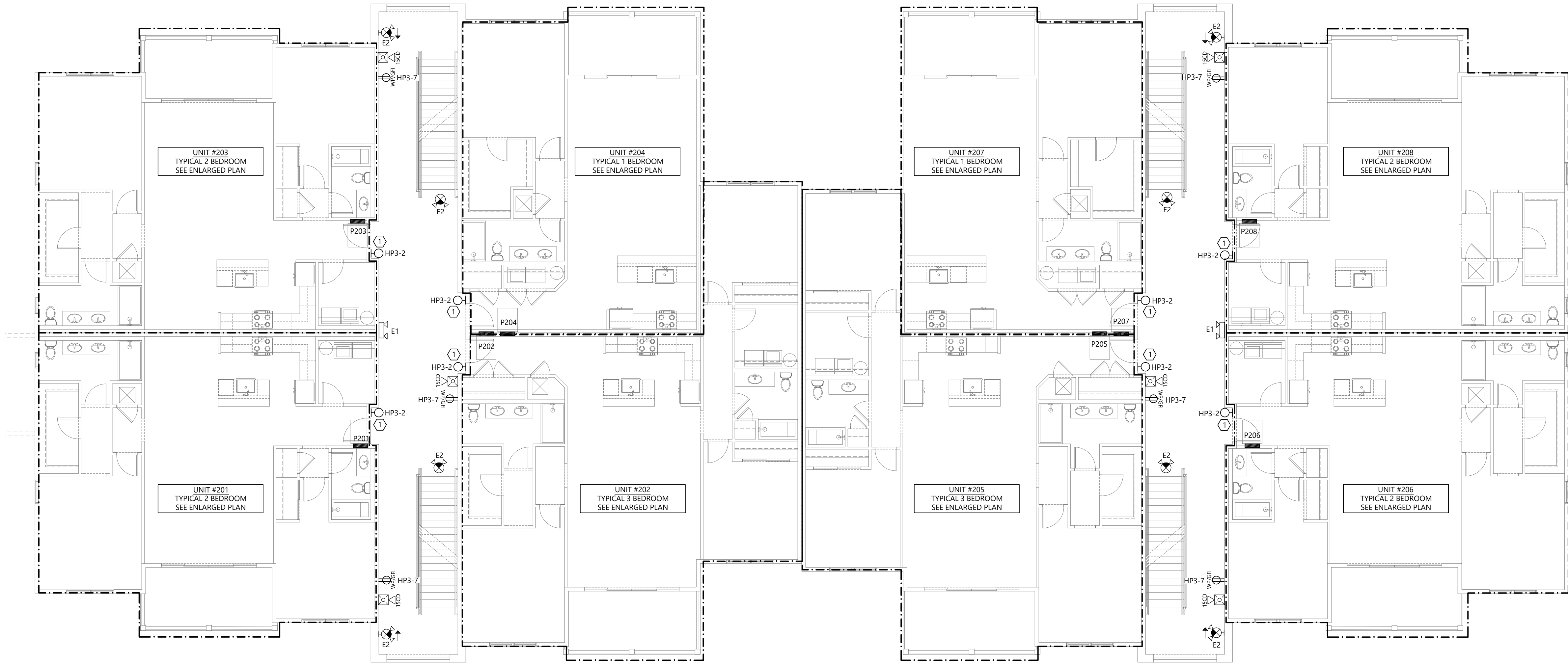
WILDE # 24-125

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - OVERALL PLAN												
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCP	FEEDER	DISCONNECT SWITCH			
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA
ECUH-1	ELECTRIC WALL HEATER	240	1	2.00	-	-	20	3#12,1#12G,3/4"C	30	2	20	1
NOTES:												
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.											

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1 OVERALL PLAN - BUILDING 3 (28-UNIT BLDG) - SECOND FLOOR
1/8"=1'-0"

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The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

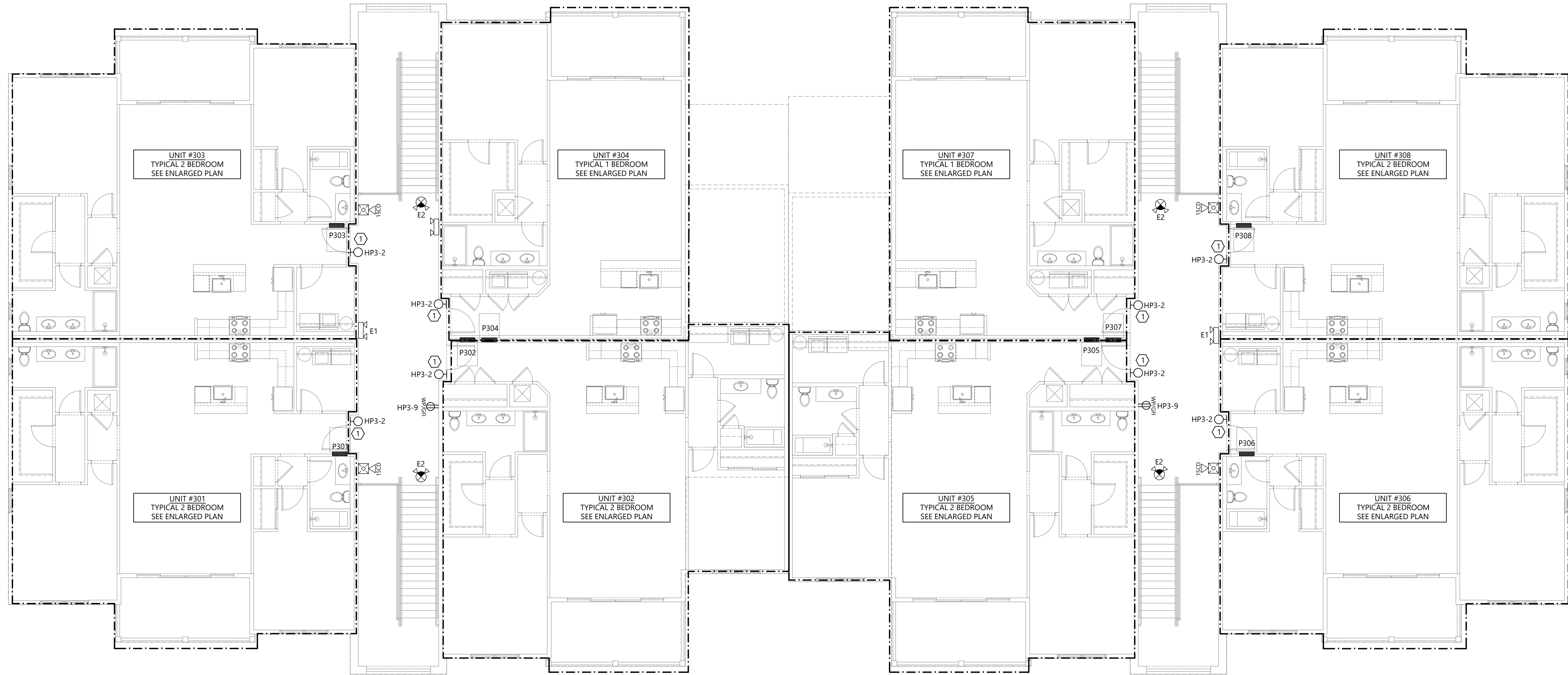
DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - SECOND FLOOR -
BUILDING 3

SHEET #:

E-17

WILDE # 24-125



- GENERAL NOTES:
- A. CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS. PROVIDE COPY OF AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.
 - B. ALL CONDUIT SHALL BE CONCEALED BEHIND WALLS AND ABOVE CEILINGS. NO EXPOSED CONDUIT PERMITTED.
 - C. MC CABLE SHALL NOT BE EXPOSED. CIRCUITS NOT CONCEALED BY CEILINGS SHALL BE RUN IN CONDUIT. CIRCUITS INSTALLED BEHIND HARD CEILINGS SHALL BE IN CONDUIT. ALL WORK IN ELECTRICAL ROOMS SHALL BE IN CONDUIT.
 - D. LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.
 - E. PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS FOR ALL CONDUITS STUBBED ABOVE CEILING.
 - F. CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.
 - G. PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.
 - H. COORDINATE ALL MECHANICAL EQUIPMENT ELECTRICAL CONNECTION LOCATIONS AND REQUIREMENTS WITH MECHANICAL DRAWINGS AND APPROVED MECHANICAL SUBMITTALS PRIOR TO ORDERING AND INSTALLATION.
 - I. ALL 15A AND 20A RECEPTACLES IN COMMON AREAS SHALL BE TAMPER RESISTANT.
 - J. SMOKE/HEAT DETECTORS SHALL NOT BE LOCATED WITHIN 3' OF MECHANICAL AIR TERMINALS AND DIFFUSERS.
 - K. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
- KEYED NOTES (ALL MAY NOT BE ON THIS SHEET):

1. WALL SCONCE (FIXTURE TAG 'B') AT EACH APARTMENT ENTRY DOOR. REFER TO ENLARGED UNIT PLANS. COORDINATE EXACT LOCATION IN FIELD WITH ARCHITECT. ROUTE THROUGH LIGHTING CONTRACTOR FOR ASSOCIATED BUILDING. CONTRACTOR TO BE LOCATED ADJACENT TO BUILDING HOUSE PANEL. SEE LIGHTING CONTRACTOR DETAIL.
2. COORDINATE FACP LOCATION WITH FIRE RISER, IRRIGATION CONTROLS, ETC. WITHIN UTILITY ROOM.
3. POWER FOR IRRIGATION CONTROLS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
4. ALL QUANTITIES, LOCATIONS, ETC. OF TAMPER AND FLOW SWITCHES SHALL BE COORDINATED WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
5. FIRE ALARM BELL. COORDINATED EXACT QUANTITY, LOCATION, REQUIREMENTS, ETC. WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
6. MAIN TELECOM CABINET FOR BUILDING. PROVIDE 36"x36" NEMA 3R CABINET AND (2)-4" C FROM CABINET TO MAIN PROPERTY LINE AND CONNECTION TO UTILITY. PROVIDE WP/GFI QUAD RECEPTACLE WITHIN CABINET. CONNECT TO CIRCUIT SHOWN ON PLANS.
7. COORDINATE WITH M.C. FOR WHICH UNIT EACH HEAT PUMP IS ASSOCIATED WITH. SIZE FEEDERS TO ACCOMMODATE VOLTAGE DROP PER NEC. SEE ENLARGED UNIT PLAN AND PANEL SCHEDULE FOR CIRCUIT DESIGNATION, DISCONNECT SIZE, ETC.

1 OVERALL PLAN - BUILDING 3 (28-UNIT BLDG) - THIRD FLOOR
1/8"=1'-0"

- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE

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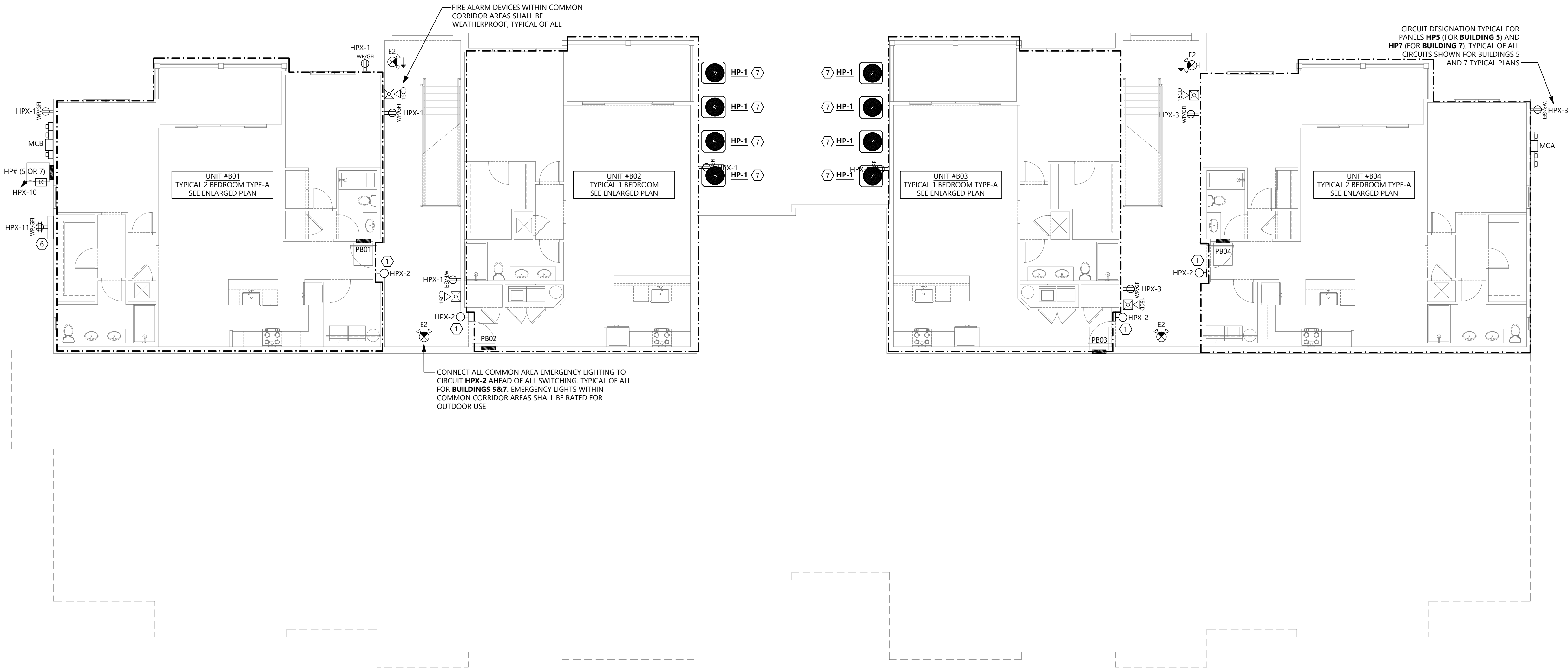
#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - THIRD FLOOR -
BUILDING 3

SHEET #:

E-18



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1 OVERALL PLAN - BUILDINGS 5 & 7 (28-UNIT BLDG) - BASEMENT LEVEL
1/8" = 1'-0"



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PROJECT:

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Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - BASEMENT -
BUILDINGS 5 & 7

SHEET #:

E-19

WILDE # 24-125

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - OVERALL PLAN													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCp	FEEDER	DISCONNECT SWITCH				NOTES
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	
ECUH-1	ELECTRIC WALL HEATER	240	1	2.00	-	-	20	3#12,1#12G,3/4"C	30	2	20	1	1
NOTES:													
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.												

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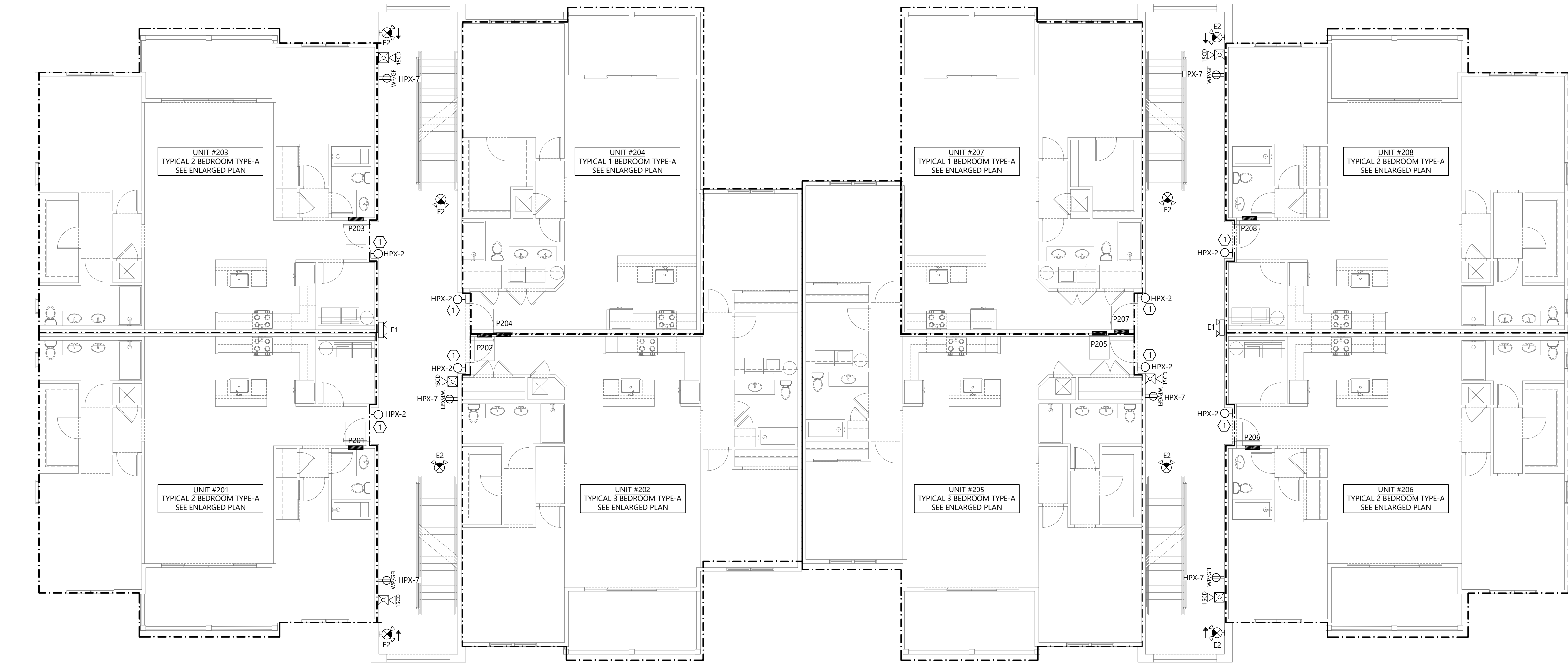
REVISIONS DATE

DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - FIRST FLOOR -
BUILDINGS 5 & 7

SHEET #:
E-20

WILDE # 24-125



1 OVERALL PLAN - BUILDINGS 5 & 7 (28-UNIT BLDG) - SECOND FLOOR
1/8"=1'-0"

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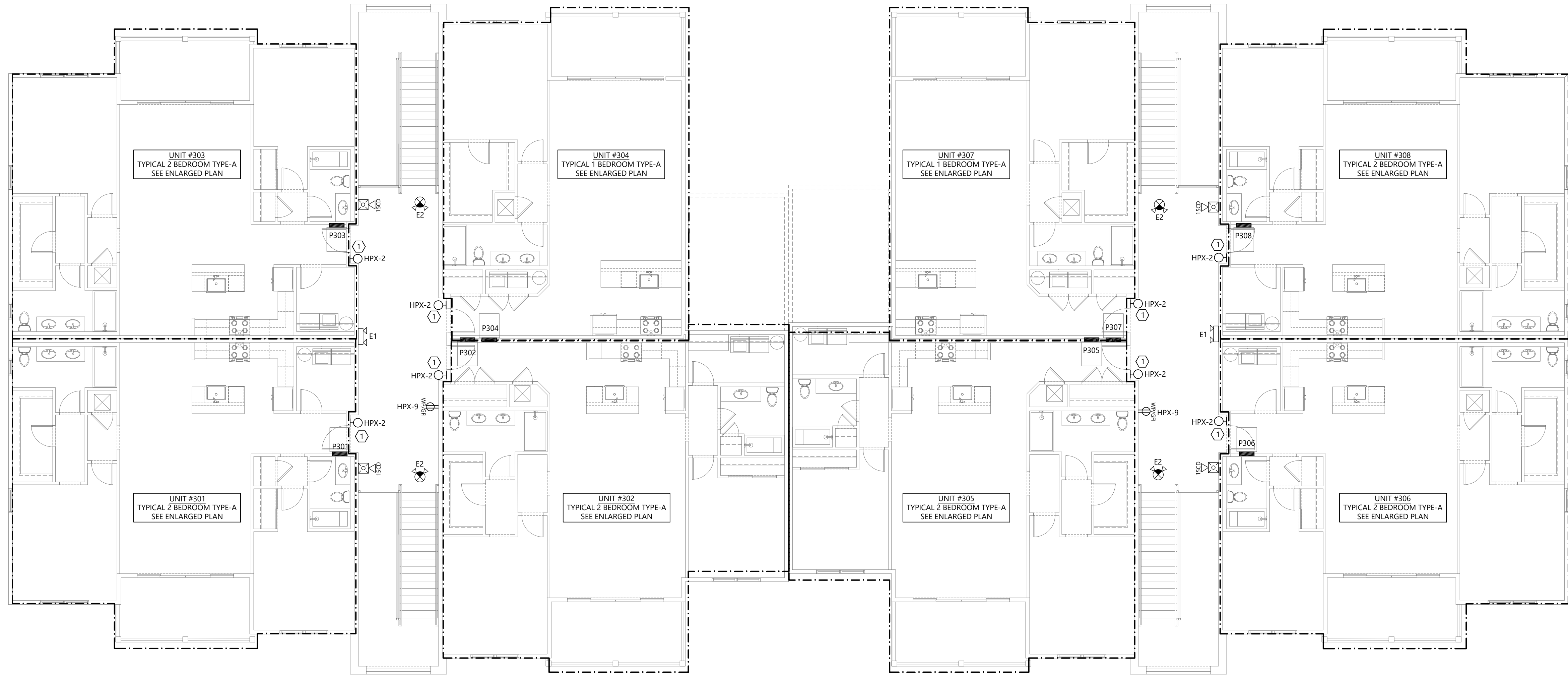
#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - SECOND FLOOR -
BUILDINGS 5 & 7

SHEET #:

E-21



- GENERAL NOTES:
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PROJECT:
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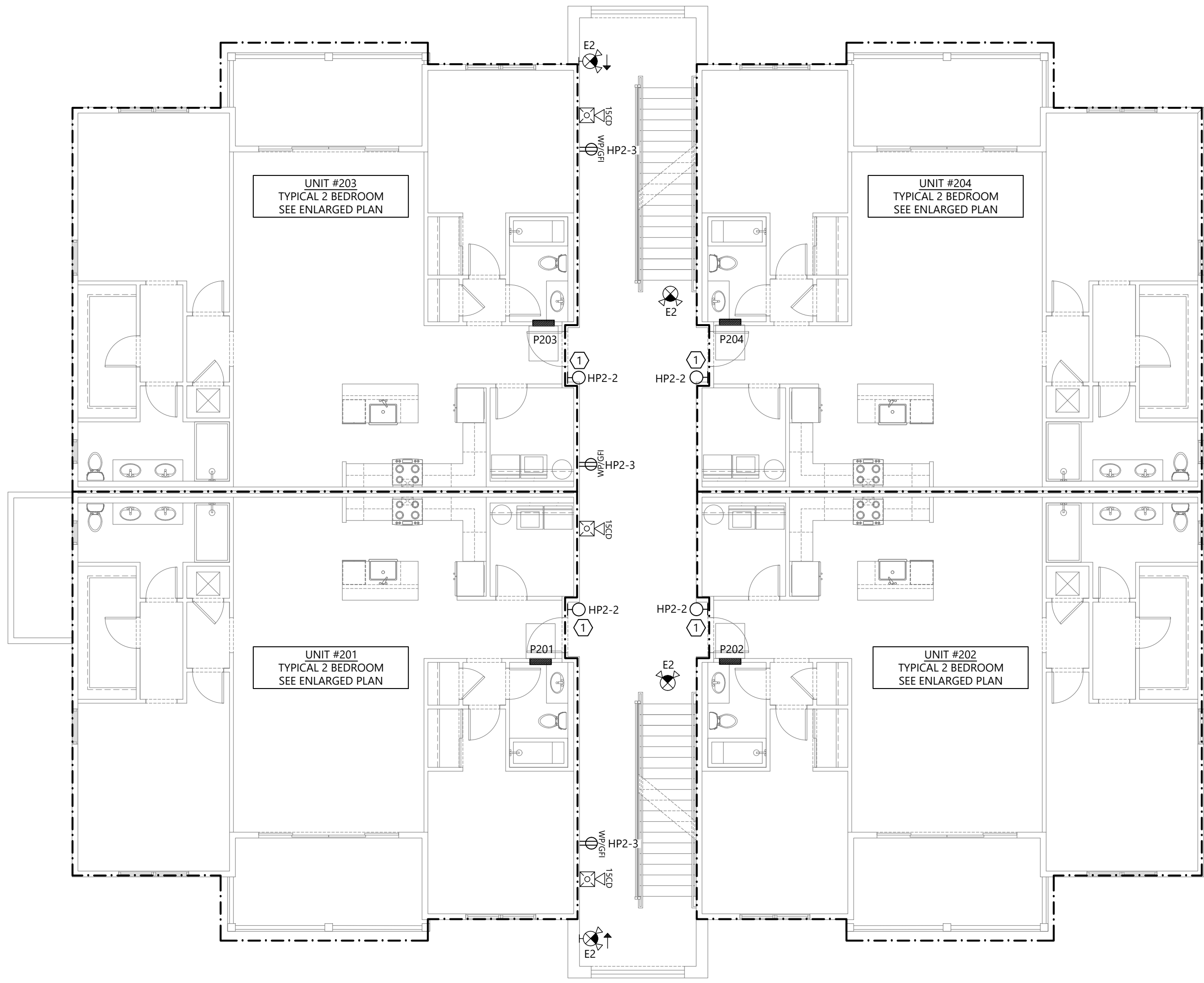
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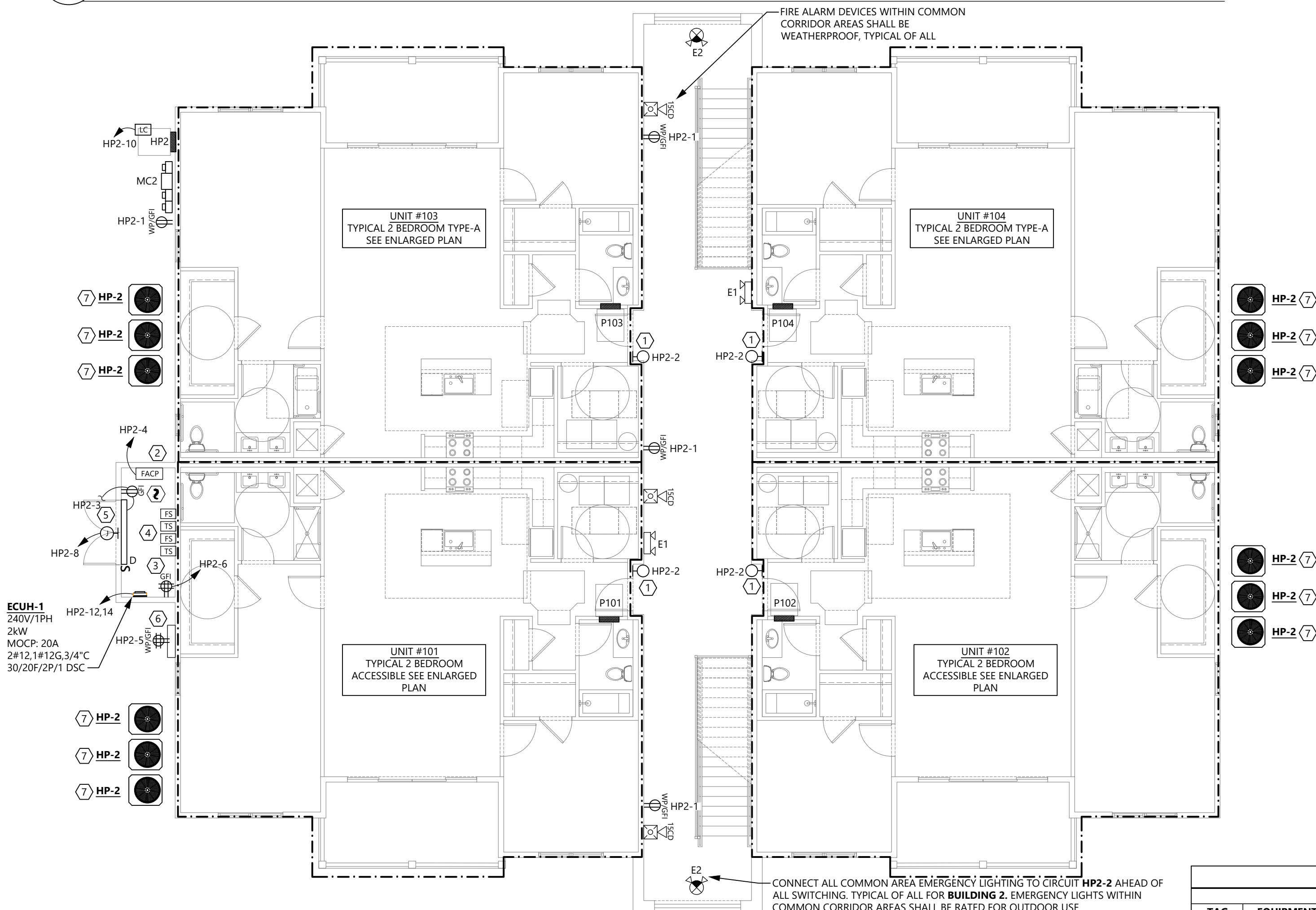
DWG DESCRIPTION:
OVERALL ELECTRICAL
PLAN - THIRD FLOOR -
BUILDINGS 5 & 7

SHEET #:
E-22

WILDE # 24-125



2 OVERALL PLAN - BUILDING 2 (12-UNIT BLDG) - SECOND FLOOR
1/8" = 1'-0"



1 OVERALL PLAN - BUILDING 2 (12-UNIT BLDG) - FIRST FLOOR
1/8" = 1'-0"

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - OVERALL PLAN													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCp	FEEDER	DISCONNECT SWITCH				NOTES
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	
ECUH-1	ELECTRIC WALL HEATER	240	1	2.00	-	-	20	3#12,1#12G,3/4"	30	2	20	1	1
NOTES:													
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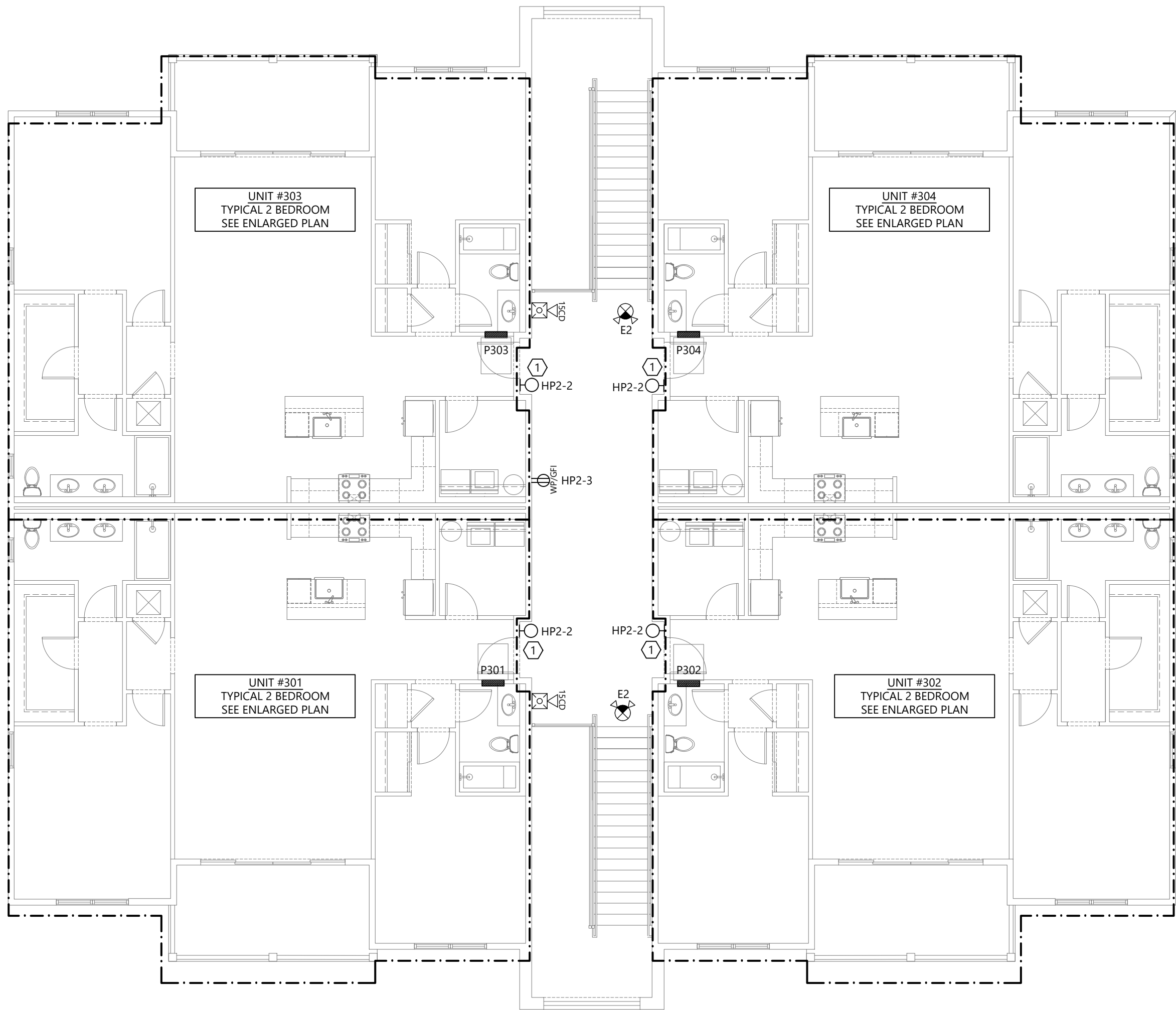
PROJECT:
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#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL PLAN -
FIRST & SECOND FLOORS -
BUILDING 2

SHEET #:
E-23



1 OVERALL PLAN - BUILDING 2 (12-UNIT BLDG) - THIRD FLOOR
1/8" = 1'-0"

- GENERAL NOTES:
- CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS. PROVIDE COPY OF AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.
 - ALL CONDUIT SHALL BE CONCEALED BEHIND WALLS AND ABOVE CEILINGS. NO EXPOSED CONDUIT PERMITTED.
 - MC CABLE SHALL NOT BE EXPOSED. CIRCUITS NOT CONCEALED BY CEILINGSS SHALL BE RUN IN CONDUIT. CIRCUITS INSTALLED BEHIND HARD CEILINGSS SHALL BE IN CONDUIT. ALL WORK IN ELECTRICAL ROOMS SHALL BE IN CONDUIT.
 - LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.
 - PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS FOR ALL CONDUITS STUBBED ABOVE CEILING.
 - CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.
 - PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.
 - COORDINATE ALL MECHANICAL EQUIPMENT ELECTRICAL CONNECTION LOCATIONS AND REQUIREMENTS WITH MECHANICAL DRAWINGS AND APPROVED MECHANICAL SUBMITTALS PRIOR TO ORDERING AND INSTALLATION.
 - ALL 15A AND 20A RECEPTACLES IN COMMON AREAS SHALL BE TAMPER RESISTANT.
 - SMOKE/HEAT DETECTORS SHALL NOT BE LOCATED WITHIN 3' OF MECHANICAL AIR TERMINALS AND DIFFUSERS.
 - COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
- KEYED NOTES (ALL MAY NOT BE ON THIS SHEET):
- WALL SCONCE (FIXTURE TAG 'B') AT EACH APARTMENT ENTRY DOOR. REFER TO ENLARGED UNIT PLANS. COORDINATE EXACT LOCATION IN FIELD WITH ARCHITECT. ROUTE THROUGH LIGHTING CONTACTOR FOR ASSOCIATED BUILDING. CONTACTOR TO BE LOCATED ADJACENT TO BUILDING HOUSE PANEL. SEE LIGHTING CONTACTOR DETAIL.
 - COORDINATE FACP LOCATION WITH FIRE RISER, IRRIGATION CONTROLS, ETC. WITHIN UTILITY ROOM.
 - POWER FOR IRRIGATION CONTROLS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
 - ALL QUANTITIES, LOCATIONS, ETC. OF TAMPER AND FLOW SWITCHES SHALL BE COORDINATED WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
 - FIRE ALARM BELL. COORDINATED EXACT QUANTITY, LOCATION, REQUIREMENTS, ETC. WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
 - MAIN TELECOM CABINET FOR BUILDING. PROVIDE 36"x36" NEMA 3R CABINET AND (2)-4" C FROM CABINET TO MAIN PROPERTY LINE AND CONNECTION TO UTILITY. PROVIDE WP/GFI QUAD RECEPTACLE WITHIN CABINET. CONNECT TO CIRCUIT SHOWN ON PLANS.
 - COORDINATE WITH M.C. FOR WHICH UNIT EACH HEAT PUMP IS ASSOCIATED WITH. SIZE FEEDERS TO ACCOMMODATE VOLTAGE DROP PER NEC. SEE ENLARGED UNIT PLAN AND PANEL SCHEDULE FOR CIRCUIT DESIGNATION, DISCONNECT SIZE, ETC.



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



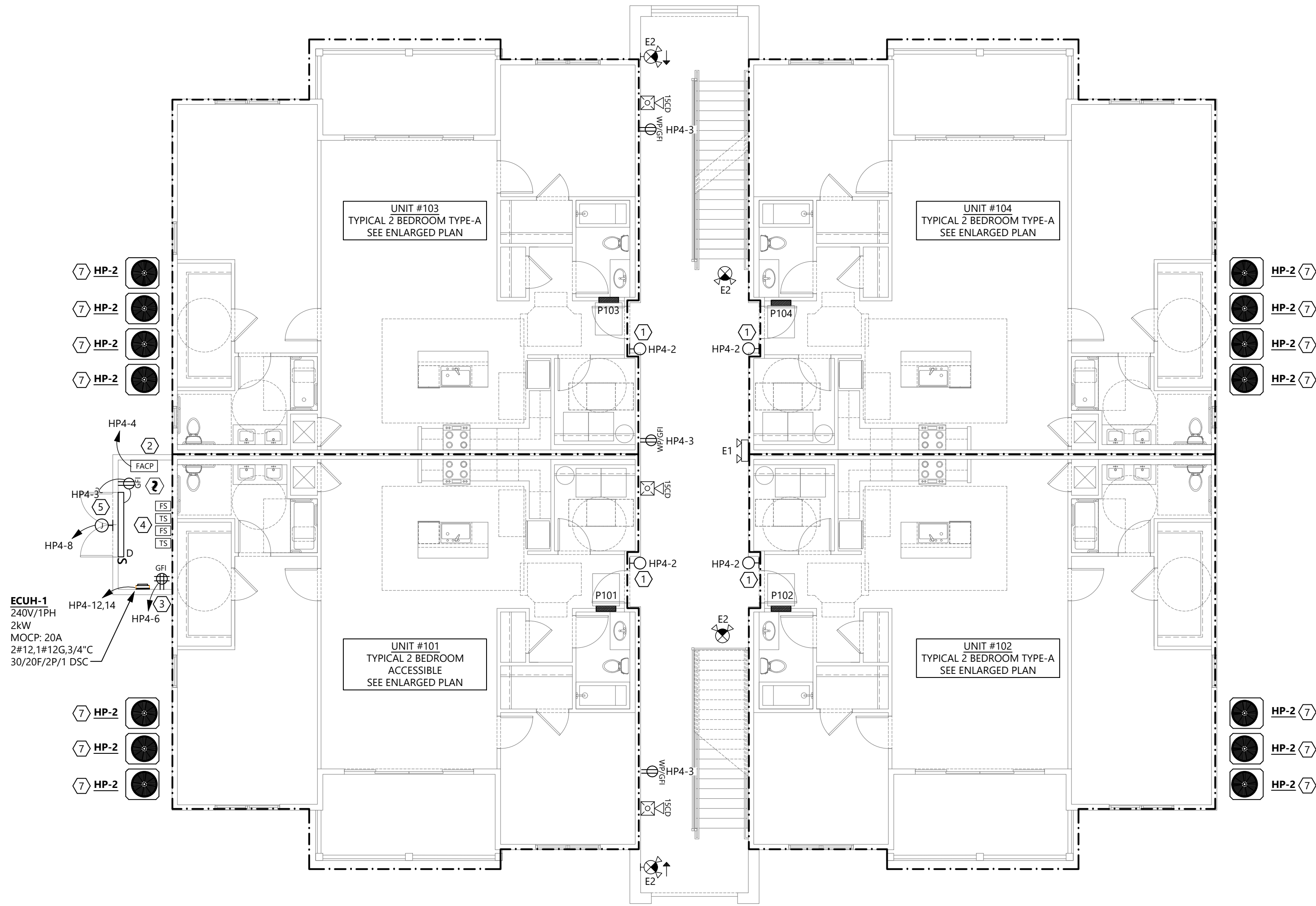
PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

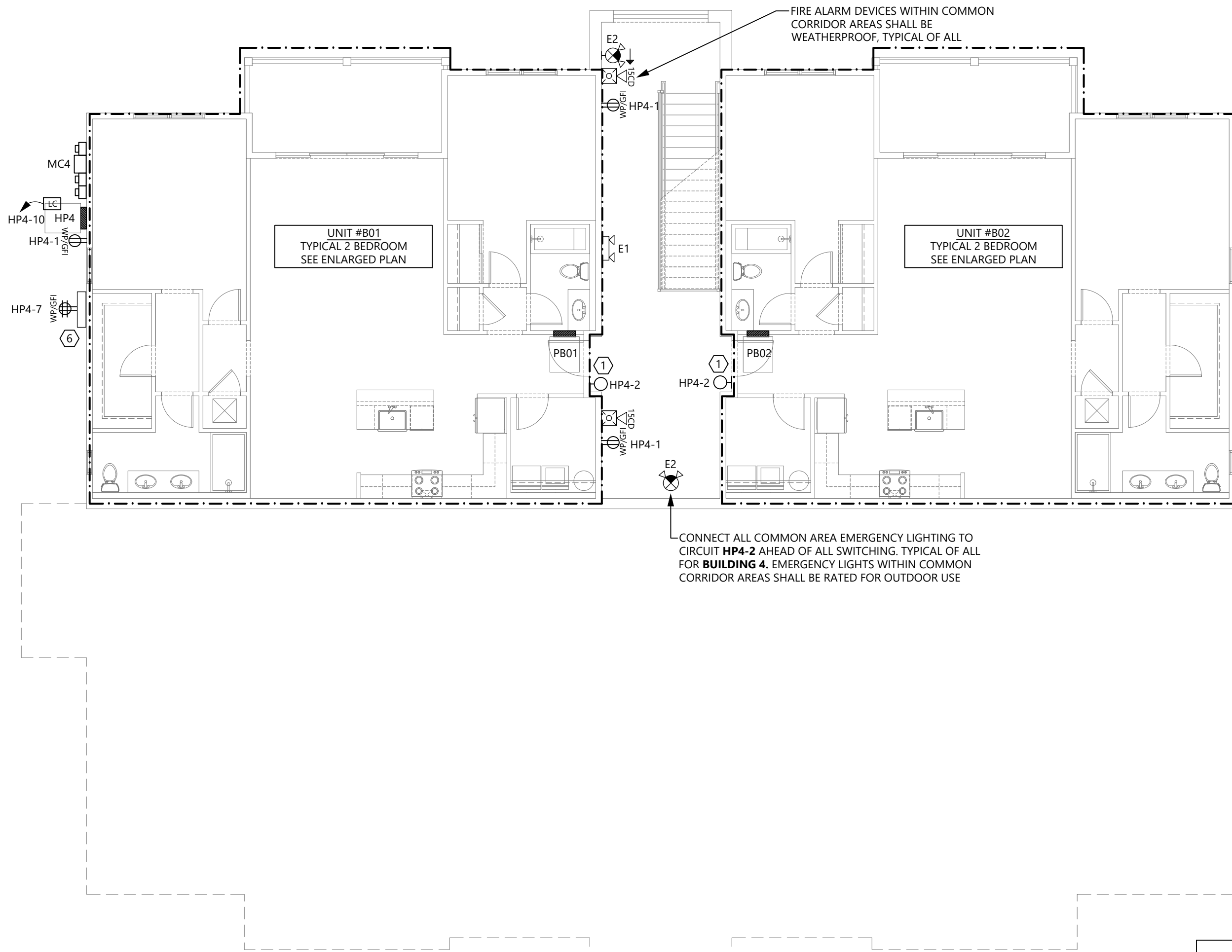
DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL PLAN -
THIRD FLOOR -
BUILDING 2

SHEET #:
E-24



2 OVERALL PLAN - BUILDING 4 (14-UNIT BLDG) - FIRST FLOOR
1/8" = 1'-0"



1 OVERALL PLAN - BUILDING 4 (14-UNIT BLDG) - BASEMENT
1/8" = 1'-0"

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - OVERALL PLAN													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOC	FEEDER	DISCONNECT SWITCH				NOTES
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	
ECUH-1	ELECTRIC WALL HEATER	240	1	2.00	-	-	20	3#12,1#12G,3/4"C	30	2	20	1	1
NOTES:													
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.												

- GENERAL NOTES:
- CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS. PROVIDE COPY OF AS-BUILT DRAWINGS TO OWNER AND ENGINEER AT PROJECT COMPLETION.
 - ALL CONDUIT SHALL BE CONCEALED BEHIND WALLS AND ABOVE CEILINGS. NO EXPOSED CONDUIT PERMITTED.
 - MC CABLE SHALL NOT BE EXPOSED. CIRCUITS NOT CONCEALED BY CEILINGS SHALL BE RUN IN CONDUIT. CIRCUITS INSTALLED BEHIND HARD CEILINGS SHALL BE IN CONDUIT. ALL WORK IN ELECTRICAL ROOMS SHALL BE IN CONDUIT.
 - LABEL ALL RECEPTACLES WITH CIRCUIT AND PANEL INFORMATION.
 - PROVIDE PLASTIC BUSHINGS ON CONDUIT ENDS FOR ALL CONDUITS STUBBED ABOVE CEILING.
 - CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATION WITH MECHANICAL CONTRACTOR AND NEW DUCTWORK PRIOR TO ROUGH-IN. RELOCATION OF DUCTWORK FOR CONFLICT WITH NEW LIGHTING WILL BE AT EXPENSE OF CONTRACTOR.
 - PROVIDE 90 MINUTE BATTERY BACKUP FOR ALL EMERGENCY FIXTURES SHOWN ON THIS PLAN. CONNECT TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.
 - COORDINATE ALL MECHANICAL EQUIPMENT ELECTRICAL CONNECTION LOCATIONS AND REQUIREMENTS WITH MECHANICAL DRAWINGS AND APPROVED MECHANICAL SUBMITTALS PRIOR TO ORDERING AND INSTALLATION.
 - ALL 15A AND 20A RECEPTACLES IN COMMON AREAS SHALL BE TAMPER RESISTANT.
 - SMOKE/HEAT DETECTORS SHALL NOT BE LOCATED WITHIN 3' OF MECHANICAL AIR TERMINALS AND DIFFUSERS.
 - COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR PRIOR TO INSTALLATION.
- KEYED NOTES (ALL MAY NOT BE ON THIS SHEET):
- WALL SCONCE (FIXTURE TAG 'B') AT EACH APARTMENT ENTRY DOOR. REFER TO ENLARGED UNIT PLANS. COORDINATE EXACT LOCATION IN FIELD WITH ARCHITECT. ROUTE THROUGH LIGHTING CONTACTOR FOR ASSOCIATED BUILDING. CONTACTOR TO BE LOCATED ADJACENT TO BUILDING HOUSE PANEL. SEE LIGHTING CONTACTOR DETAIL.
 - COORDINATE FACP LOCATION WITH FIRE RISER, IRRIGATION CONTROLS, ETC. WITHIN UTILITY ROOM.
 - POWER FOR IRRIGATION CONTROLS. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
 - ALL QUANTITIES, LOCATIONS, ETC. OF TAMPER AND FLOW SWITCHES SHALL BE COORDINATED WITH FIRE PROTECTION CONTRACTOR PRIOR TO START OF WORK AND ORDERING OF EQUIPMENT, DEVICES, ETC.
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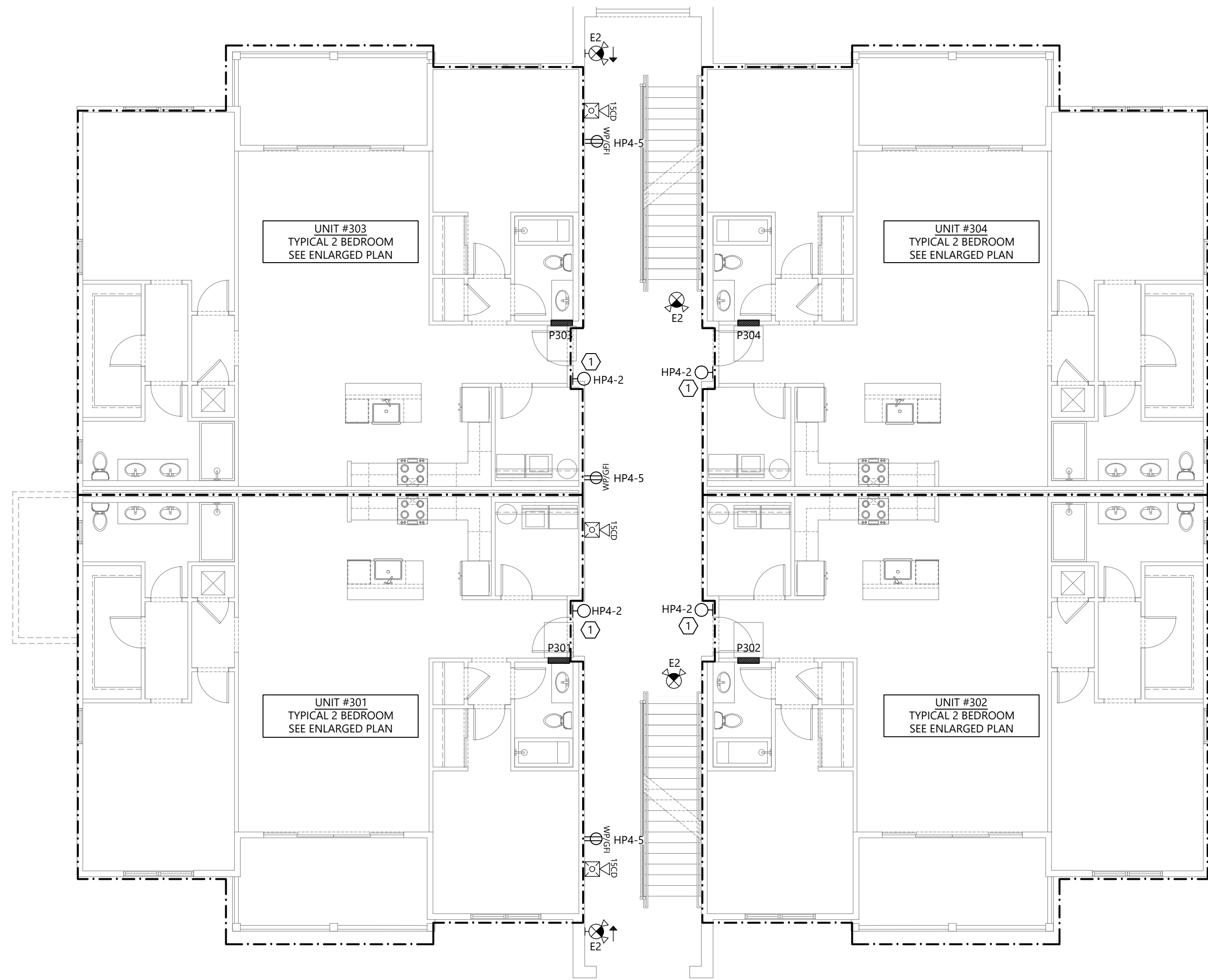
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Hendersonville, North Carolina

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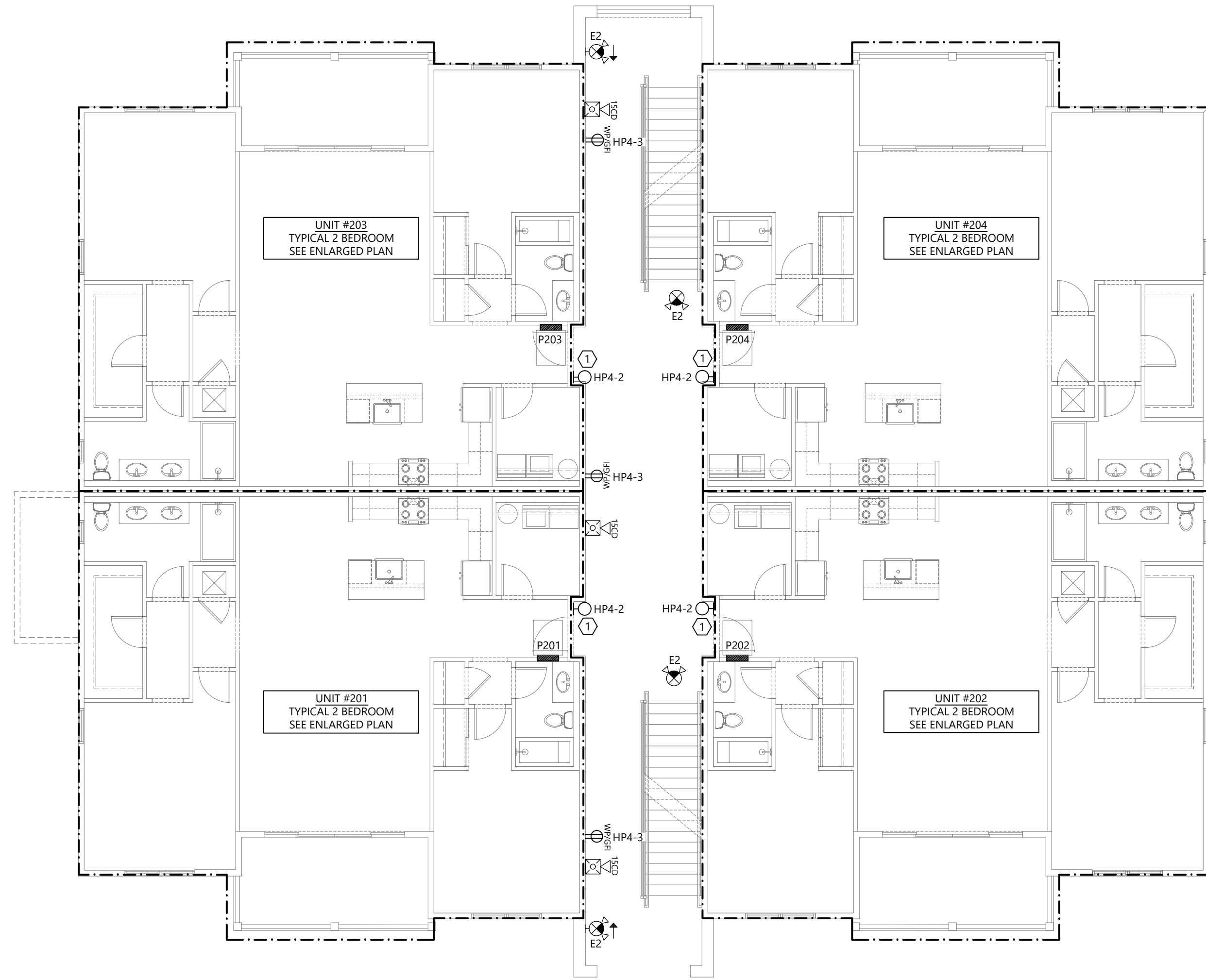
DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL PLAN -
BASEMENT & FIRST FLOOR -
BUILDING 4

SHEET #:
E-25



2 OVERALL PLAN - BUILDING 4 (14-UNIT BLDG) - THIRD FLOOR
1/8"=1'-0"



1 OVERALL PLAN - BUILDING 4 (14-UNIT BLDG) - SECOND FLOOR
1/8"=1'-0"

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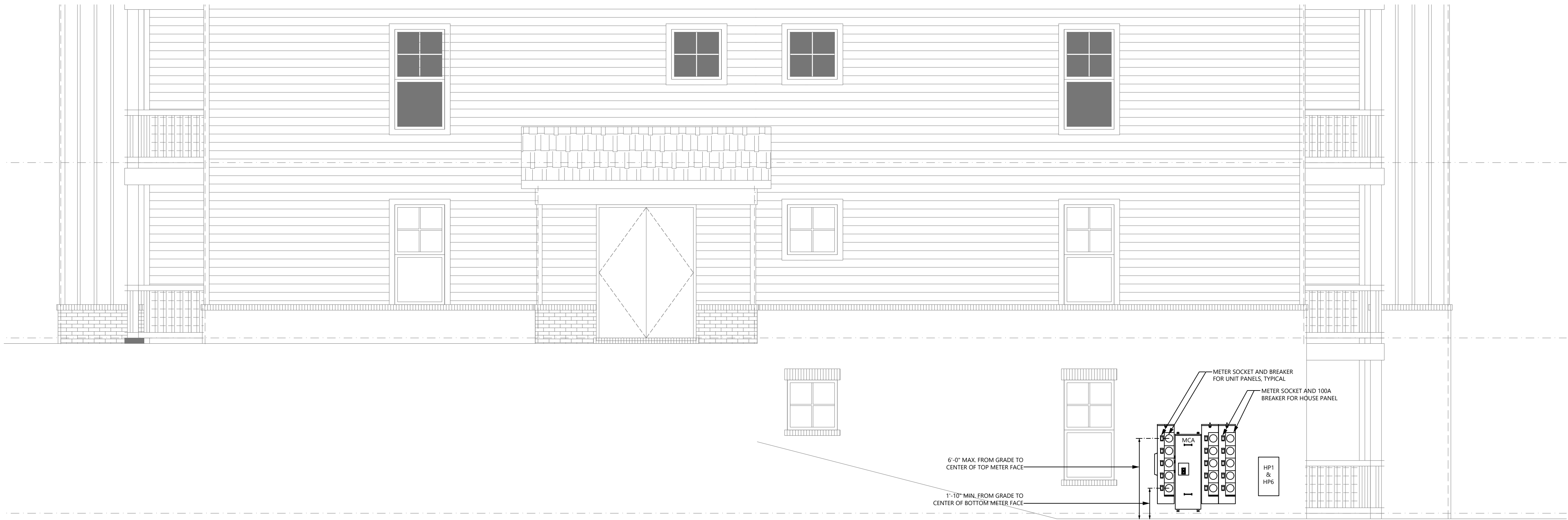
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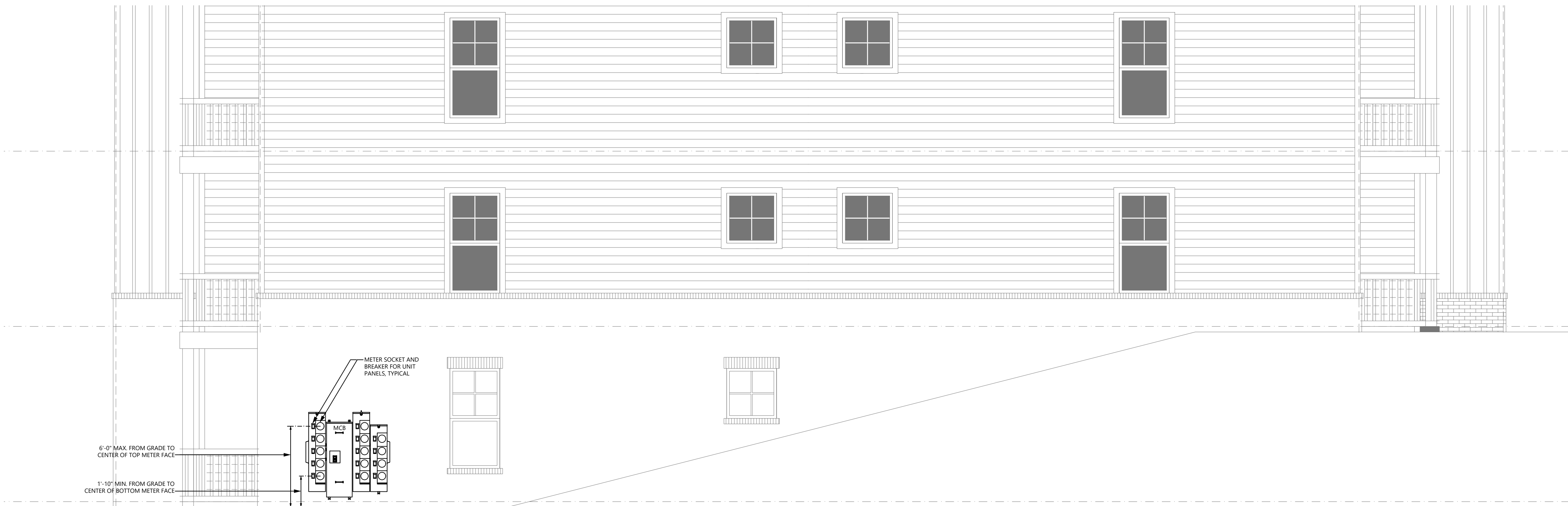
DWG INFO:

DWG DESCRIPTION:
OVERALL ELECTRICAL PLAN -
SECOND & THIRD FLOORS -
BUILDING 4

SHEET #:
E-26



1 PARTIAL PLAN EAST ELEVATION - BUILDINGS 1 & 6 (28-UNIT BUILDINGS)
1/4"=1'-0"



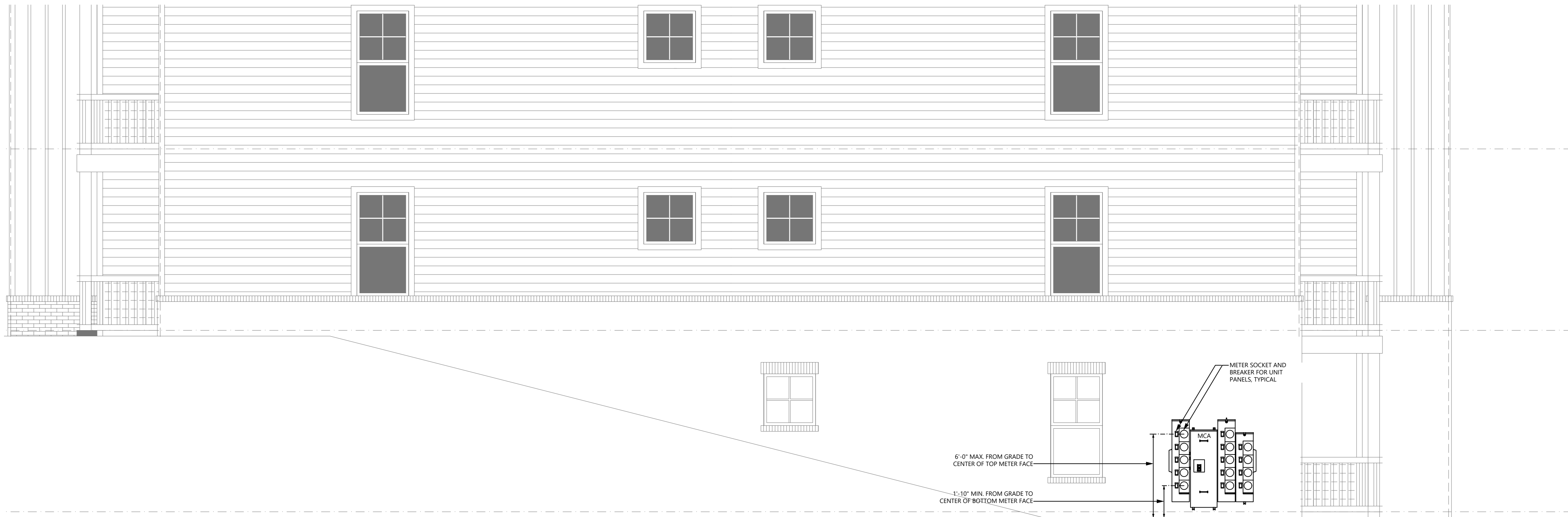
2 PARTIAL PLAN WEST ELEVATION - BUILDINGS 1 & 6 (28-UNIT BUILDINGS)
1/4"=1'-0"

#	REVISIONS	DATE

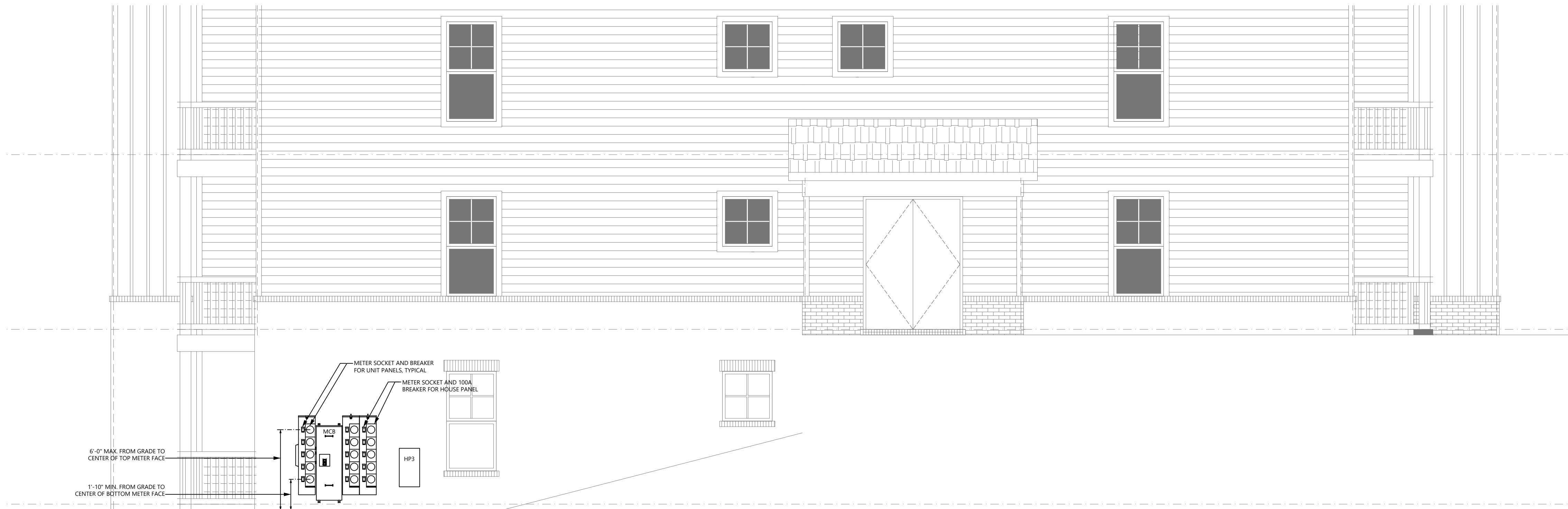


1 PLAN WEST ELEVATION - BUILDING 2 (12-UNIT BUILDING)
1/4" = 1'-0"

#	REVISIONS	DATE

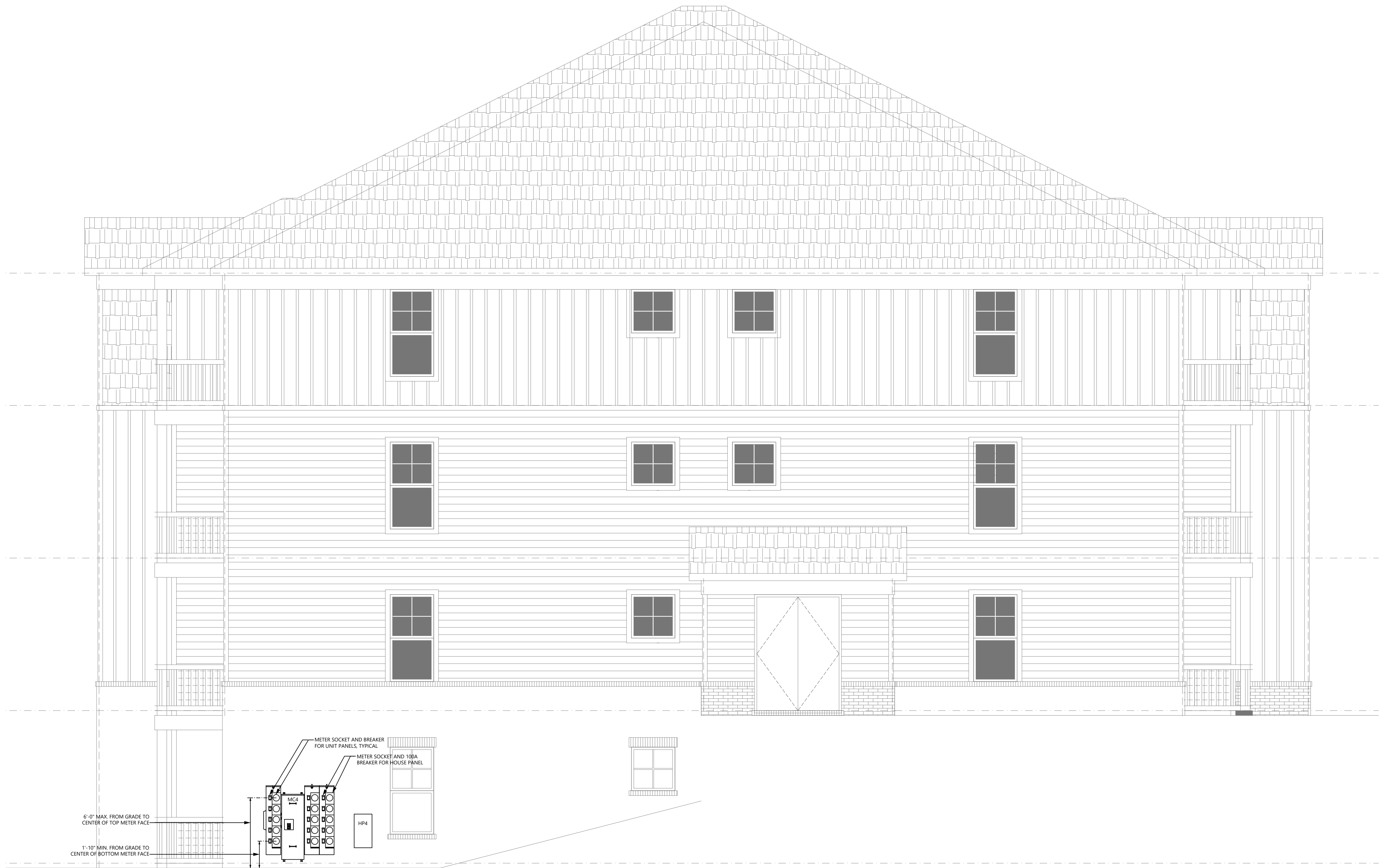


1 PARTIAL PLAN EAST ELEVATION - BUILDING 3 (28-UNIT BUILDING)
1/4" = 1'-0"



2 PARTIAL PLAN WEST ELEVATION - BUILDING 3 (28-UNIT BUILDING)
1/4" = 1'-0"

#	REVISIONS	DATE



1 PLAN WEST ELEVATION - BUILDING 4 (14-UNIT BUILDING)
1/4" = 1'-0"

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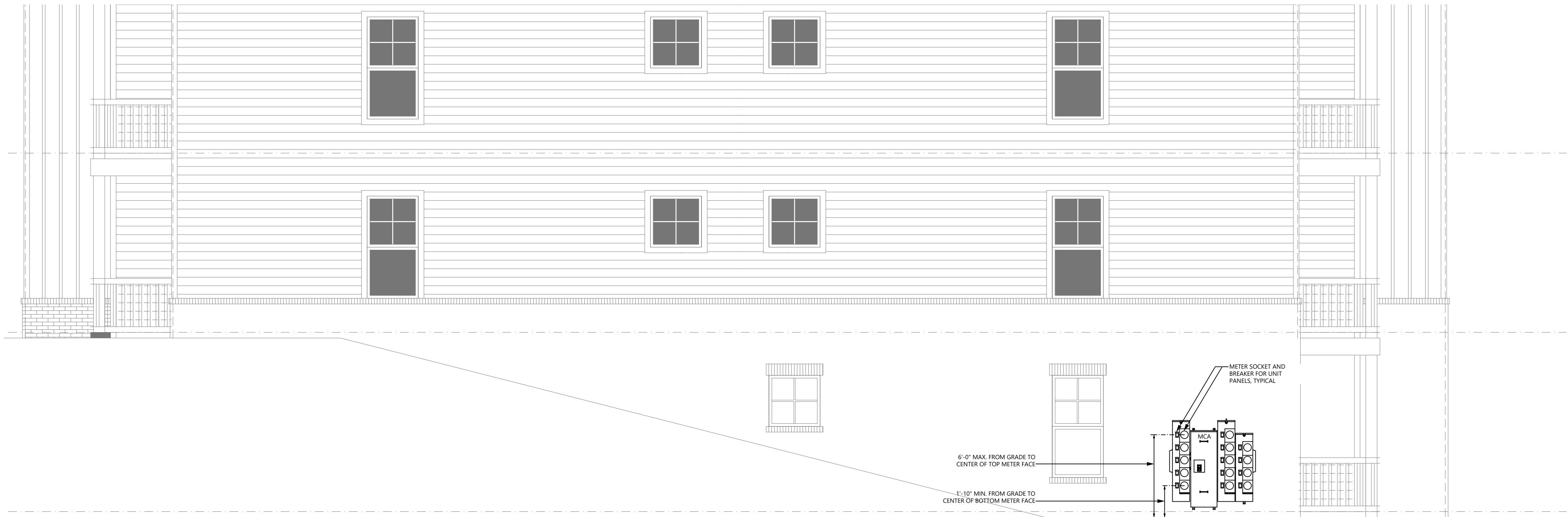
PROJECT:
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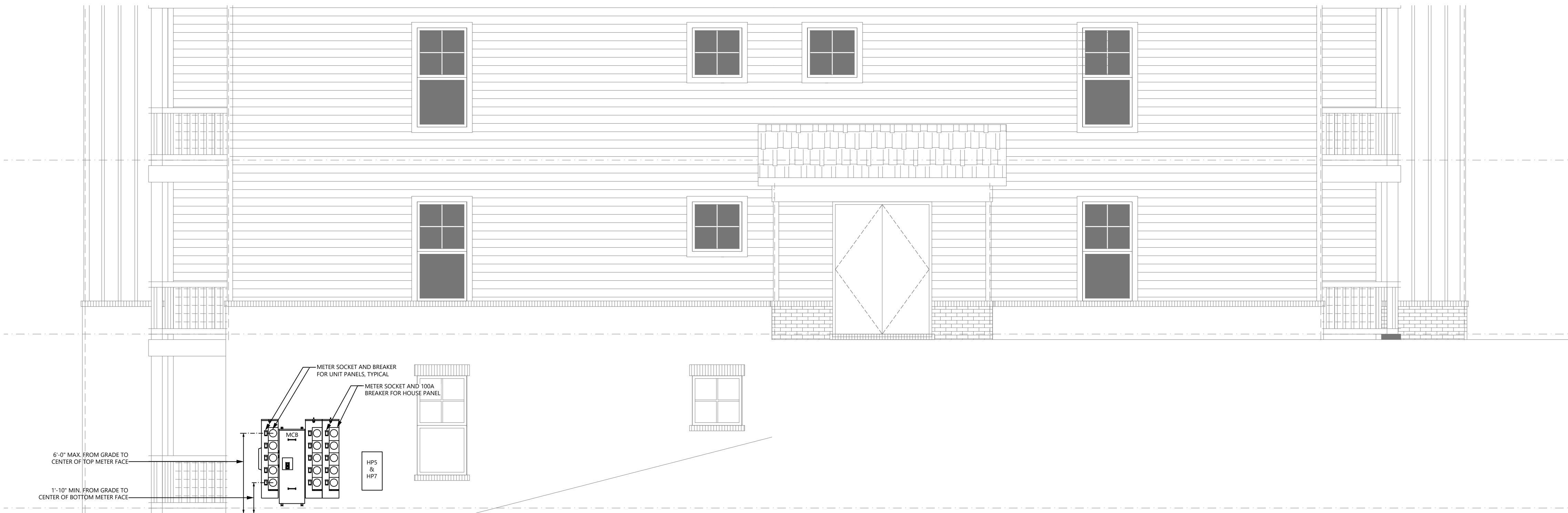
DWG INFO:

DWG DESCRIPTION:
PLAN WEST ELEVATION -
BUILDING 4

SHEET #:
E-34



1 PARTIAL PLAN EAST ELEVATION - BUILDINGS 5 & 7 (28-UNIT BUILDINGS)
1/4"=1'-0"



2 PARTIAL PLAN WEST ELEVATION - BUILDINGS 5 & 7 (28-UNIT BUILDINGS)
1/4"=1'-0"

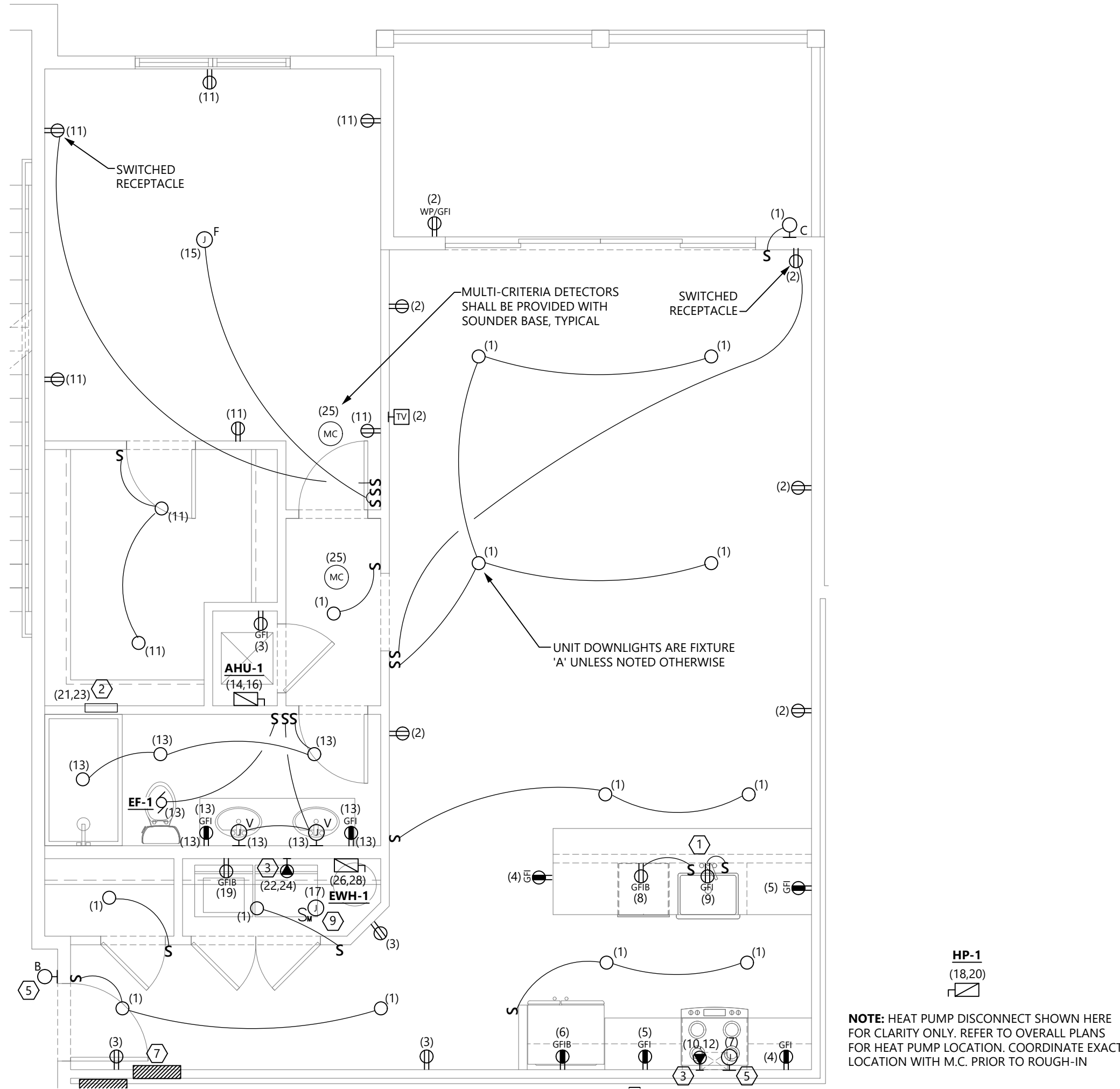
#	REVISIONS	DATE

TYPICAL PANEL SCHEDULE FOR 1 BEDROOM UNITS

NEW PANEL: 1-BDRM																			
VOLTAGE: 120/ 240 PHASE / WIRE: 1ϕ/ 3W AMPS: 100 AIC: 10,000								MOUNTING: FLUSH MAIN: LUGS ONLY											
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA								
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00								
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00								
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00								
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00								
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00								
0.00	12	20	REC - BEDROOM	11		●	12			6	0.00								
0.00	12	20	BATHROOM	13	●		14	AIR HANDLER	20	12	0.00								
0.00	12	20	BEDROOM FAN	15		●	16			12	0.00								
0.00	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	15	8	0.00								
0.00	12	20	WASHER (NOTE #7)	19		●	20			8	0.00								
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00								
0.00	12	20	TELECOM BOX	23		●	24			10	0.00								
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00								
0.00		20	SPARE	27		●	28			6	0.00								
0.00		20	SPARE	29	●		30	SPARE	20		0.00								
				31		●	32												
				33	●		34												
				35		●	36												
				37	●		38												
				39		●	40												
												41	●		42				
				0.0								SUB TOTALS				0.0			
				MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 1 BEDROOM UNITS															
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCB	FEEDER	DISCONNECT SWITCH				NOTES						
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA							
AHU-1	1 BEDROOM AIR HANDLER	240	1	-	-	16.8	20	3#12,1#12G,3/4"C	30	2	20	1	1						
HP-1	1 BEDROOM HEAT PUMP	240	1	-	-	11.4	15	NOTE 3	30	2	15	3R	1.3						
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1						
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2						
NOTES:																			
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.																		
2	FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS																		
3	WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP																		

TYPICAL LOAD SUMMARY FOR 1 BEDROOM & 1 BEDROOM TYPE-A UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION									
UNIT / SUITE: 1BDRM, 1BDRM TYPE-A					(Optional Calculation)				
Voltage (L-L):		240	Volts		Project Name:		Naples Road Apartments		
Phase:		1			Project #:		24-125		
Floor Area:		1094	Sq Ft		By:		Matt Lewis		
					Date:		3/13/2025		
LOAD			KVA	QTY	KVA	NOTES			
General Lighting Load			3.28	1	3.28	3 VA/SF			
(2) Small Appliance Circuits			3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)			
Laundry Circuit			1.50	1	1.50	Dedicated 20A Ckt			
Electric Range			8.00	1	8.00				
Clothes Dryer			5.00	1	5.00				
A/C and Cooling (240V)			3.63	1	3.63	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".			
HP Compressor (240V)			2.19	0	0.00				
Strip Heat (240V)			2.00	0	0.00				
Electric Space Heat (240V)			0.00	0	0.00				
Elec Thermal / Other (240V)			0.00	0	0.00				
Water Heater (240V)			9.60	1	9.60	(1) 20A Ckt for Dishwasher & Disposal			
Water Heater (120V)			1.50	0	0.00				
Dishwasher			0.80	1	0.80				
Disposal			1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal			
Microwave			1.50	1	1.50	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.			
Refrigerator			0.80	1	0.80				
			0.00	0	0.00				
			0.00	0	0.00				
			0.00	0	0.00				
TOTAL CONNECTED LOAD FOR UNIT					38.11	KVA			
DEMAND LOAD (PHASE)									
1st 10 kVA @ 100%			10.00	kVA	Gen Ltg, Small Appliance, Laundry			7.78	
Remaining @ 40%			9.7928	kVA	1st 3 kVA @ 100%			3.00	kVA
A/C & Cooling @ 100%			3.63	kVA	> 3 kVA to 120 kVA @ 35%			1.67	kVA
HP Compressor @ 100%			0.00	kVA	> 120 kVA @ 25%			0.00	kVA
HP Strip Heat @ 65%			0.00	kVA	Remaining L-N Loads @ 100%			4.10	kVA
Electric Space Heat @ 65%			0.00	kVA	Dryer Load @ 70%			3.50	kVA
Electric Space Heat @ 40%			0.00	kVA	Range Load @ 70%			4.48	kVA
Electric Thermal & Other Heating			0.00	kVA	Unbalanced load > 200A @ 70%			0.00	kVA
TOTAL DEMAND LOAD (PHASE)			23.42	kVA	TOTAL DEMAND LOAD (NEUTRAL)			16.75	kVA
			97.60	AMPS				69.81	AMPS
Quantity of 15A general lighting circuits (w/ AFCI-P) = 2 OR Quantity of 20A general lighting circuits (w/ AFCI-P) = 2					AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.				
NOTES:									
1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire									



1 ENLARGED UNIT PLAN - 1 BEDROOM

- GENERAL NOTES:
- AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
 - ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2" EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
 - SPECIAL RECEPTACLE. EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
 - IN ACCESSIBLE UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
 - RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
 - EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL. SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
 - TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
 - COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
 - JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.
- KEYED NOTES:
- PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
 - MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2" EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
 - SPECIAL RECEPTACLE. EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
 - IN ACCESSIBLE UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
 - RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
 - EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL. SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
 - TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
 - COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
 - JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:
The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef, President



PROJECT:
The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:
ENLARGED UNIT PLAN -
1 BEDROOM

SHEET #:
E-41

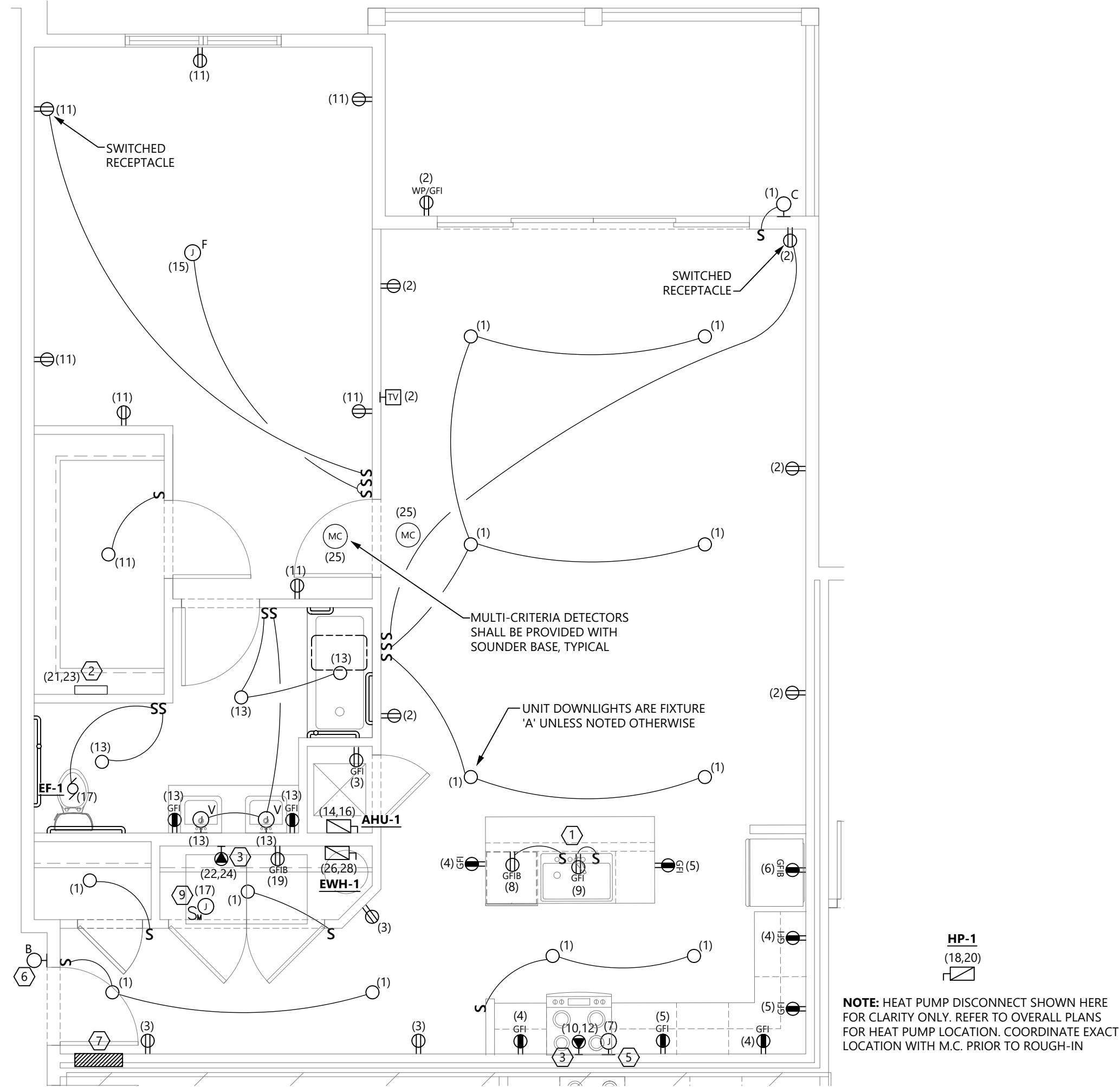
TYPICAL PANEL SCHEDULE FOR 1 BEDROOM TYPE-A UNITS

NEW PANEL: 1-BDRM TYPE-A																				
VOLTAGE: 120/ 240								MOUNTING: FLUSH												
PHASE / WIRE: 1φ/ 3W																				
AMPS: 100								MAIN: LUGS ONLY												
AIC: 10,000																				
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1		L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA								
0.00	12	20	LIGHTING	1	●			2	REC - LIVING ROOM	20	12	0.00								
0.00	12	20	REC - GENERAL	3	●		●	4	REC - KITCHEN	20	12	0.00								
0.00	12	20	REC - KITCHEN	5	●			6	REFRIGERATOR (NOTE #7)	20	12	0.00								
0.00	12	20	RANGE HOOD	7	●		●	8	DISHWASHER (NOTE #7)	20	12	0.00								
0.00	12	20	DISPOSAL	9	●			10	RANGE	50	6	0.00								
0.00	12	20	REC - BEDROOM	11	●		●	12			6	0.00								
0.00	12	20	REC - BATHROOM	13	●			14	AIR HANDLER	20	12	0.00								
0.00	12	20	BEDROOM FAN	15	●		●	16			12	0.00								
0.00	12	20	DRYER BOOSTER FAN	17	●			18	HEAT PUMP	15	8	0.00								
0.00	12	20	WASHER (NOTE #7)	19	●		●	20			8	0.00								
0.00	12	20	TELECOM BOX	21	●			22	DRYER	30	10	0.00								
0.00	12	20	TELECOM BOX	23	●		●	24			10	0.00								
0.00	12	20	FIRE ALARM (NOTE #8)	25	●			26	WATER HEATER	50	6	0.00								
0.00		20	SPARE	27	●		●	28			6	0.00								
0.00		20	SPARE	29	●			30	SPARE	20		0.00								
				31	●		●	32												
				33	●			34												
				35	●		●	36												
				37	●			38												
				39	●		●	40												
				41	●			42												
SUB TOTALS													0.0							
LOAD (kVA)													Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE				(NOTE #10)
LIGHTS				0.0	1.25	0.0	CONNECTED								(NOTE #10)					
HEATING				0.0	1.00	0.0	L1=	0.0	kVA	0.0 AMPS										
COOLING				0.0	1.00	0.0	L2=	0.0	kVA	0.0 AMPS				(NOTE #10)						
VENTILATION				0.0	1.00	0.0	DEMAND													
MOTORS				0.0	1.00	0.0									(NOTE #10)					
KITCHEN				0.0	0.65	0.0	L1-	0.0	kVA	0.0 AMPS										
REC. (1st 10kVA)				0.0	1.00	0.0	L2-	0.0	kVA	0.0 AMPS				(NOTE #10)						
REC. (>10kVA)				0.0	0.50	0.0	DEMAND AT 125%													
WATER HEATER				0.0	1.00	0.0														
MISC.				0.0	1.00	0.0	L1=	0.0	kVA	0.0 AMPS										
SPARE				0.0	1.00	0.0	L2=	0.0	kVA	0.0 AMPS										
NOTES:																				
1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.																				
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.																				
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.																				
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.																				
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.																				
6. PROVIDE METAL DIRECTORY FRAME.																				
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).																				
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.																				
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.																				
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.																				

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 1 BEDROOM UNITS													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCP	FEEDER	DISCONNECT SWITCH				NOTES
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	
AHU-1	1 BEDROOM AIR HANDLER	240	1	-	-	16.8	20	3#12,1#12G,3/4"C	30	2	20	1	1
HP-1	1 BEDROOM HEAT PUMP	240	1	-	-	11.4	15	NOTE 3	30	2	15	3R	1,3
EW-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2
NOTES:													
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.												
2	FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS												
3	WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP												

TYPICAL LOAD SUMMARY FOR 1 BEDROOM & 1 BEDROOM TYPE-A UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION							
UNIT / SUITE: 1BDRM, 1BDRM TYPE-A				(Optional Calculation)			
Voltage (L-L):		240 Volts		Project Name: Naples Road Apartments			
Phase:		1		Project #: 24-125			
Floor Area:		1094 Sq Ft		By: Matt Lewis			
				Date: 3/13/2025			
LOAD		kVA	QTY	kVA	NOTES		
General Lighting Load		3.28	1	3.28	3 VA/SF		
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)		
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt		
Electric Range		8.00	1	8.00			
Clothes Dryer		5.00	1	5.00			
A/C and Cooling (240V)		3.63	1	3.63	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".		
HP Compressor (240V)		2.19	0	0.00			
Strip Heat (240V)		2.00	0	0.00			
Electric Space Heat (240V)		0.00	0	0.00			
Elec Thermal / Other (240V)		0.00	0	0.00			
Water Heater (240V)		9.60	1	9.60			
Water Heater (120V)		1.50	0	0.00			
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal		
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal		
Microwave		1.50	1	1.50			
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.		
		0.00	0	0.00			
		0.00	0	0.00			
		0.00	0	0.00			
TOTAL CONNECTED LOAD FOR UNIT				38.11	kVA		
DEMAND LOAD (PHASE)				DEMAND LOAD (NEUTRAL)			
1st 10 kVA @ 100%	10.00	kVA		Gen Ltg, Small Appliance, Laundry	7.78		
Remaining @ 40%	9.7928	kVA		1st 3 kVA @ 100%	3.00	kVA	
A/C & Cooling @ 100%	3.63	kVA		> 3 kVA to 120 kVA @ 35%	1.67	kVA	
HP Compressor @ 100%	0.00	kVA		> 120 kVA @ 25%	0.00	kVA	
HP Strip Heat @ 65%	0.00	kVA		Remaining L-N Loads @ 100%	4.10	kVA	
Electric Space Heat @ 65%	0.00	kVA		Dryer Load @ 70%	3.50	kVA	
Electric Space Heat @ 40%	0.00	kVA		Range Load @ 70%	4.48	kVA	
Electric Thermal & Other Heating	0.00	kVA		Unbalanced load > 200A @ 70%	0.00	kVA	
TOTAL DEMAND LOAD (PHASE)		23.42	kVA	TOTAL DEMAND LOAD (NEUTRAL)		16.75	kVA
		97.60	AMPS			69.81	AMPS
Quantity of 15A general lighting circuits (w/ AFCI-P) = 2				AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.			
OR							
Quantity of 20A general lighting circuits (w/ AFCI-P) = 2							
NOTES:							
1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire							



1 ENLARGED UNIT PLAN - 1 BEDROOM TYPE-A
1/4" = 1'-0"

GENERAL NOTES:

- AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
- ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
- COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
- ALL ADA UNITS SHALL HAVE 177CD HORN/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
- OUTLETS ARE NOT TO BE LOCATED BACK-TO-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
- ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
- RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
- IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117.1 SECTION 308. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

KEYED NOTES:

- PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
- MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPT



- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE

CLIENT:

The orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef: President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

[illegible]

DWG INFO :

DWG DESCRIPTION :

ENLARGED UNIT PLAN -
2 BEDROOM

SHEET #1

E-43

WILDF #: 24,125

TYPICAL PANEL SCHEDULE FOR 2 BEDROOM UNITS

NEW PANEL: 2-BDRM

VOLTAGE: 120/ 240

PHASE / WIRE: 1φ/ 3W

AMPS: 125

AIC: 10,000

MOUNTING: FLUSH

MAIN: LUGS ONLY

LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00
0.00	12	20	DISPOSAL	9	●		10		50	6	0.00
0.00	12	20	REC - MASTER BEDROOM	11		●	12	RANGE	50	6	0.00
0.00	12	20	MASTER BATHROOM	13	●		14		25	10	0.00
0.00	12	20	FAN - MASTER BEDROOM	15		●	16	AIR HANDLER	25	10	0.00
0.00	12	20	DRYER BOOSTER FAN	17	●		18		20	8	0.00
0.00	12	20	WASHER (NOTE #7)	19		●	20	HEAT PUMP	20	8	0.00
0.00	12	20	TELECOM BOX	21	●		22		30	10	0.00
0.00	12	20	TELECOM BOX	23		●	24	DRYER	30	10	0.00
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26		50	6	0.00
0.00	12	20	REC - BEDROOM #2	27		●	28	WATER HEATER	50	6	0.00
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20		
0.00	12	20	FAN - BEDROOM #2	31		●	32	SPARE	20		
		20	SPARE	33	●		34	SPARE	20		
		20	SPARE	35		●	36	SPARE	20		
		20	SPARE	37	●		38	SPARE	20		
		20	SPARE	39		●	40	SPARE	20		
		20	SPARE	41	●		42	SPARE	20		
0.0							SUB TOTALS				0.0

LOAD (KVA)	Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE				
				CONNECTED				(NOTE #10)
LIGHTS	0.0	1.25	0.0					
HEATING	0.0	1.00	0.0	L1=	0.0	KVA	0.0 AMPS	
COOLING	0.0	1.00	0.0	L2=	0.0	KVA	0.0 AMPS	
VENTILATION	0.0	1.00	0.0					
MOTORS	0.0	1.00	0.0	DEMAND				(NOTE #10)
KITCHEN	0.0	0.65	0.0	L1=	0.0	KVA	0.0 AMPS	
REC. (1st 10KVA)	0.0	1.00	0.0	L2=	0.0	KVA	0.0 AMPS	
REC. (>10KVA)	0.0	0.50	0.0					
WATER HEATER	0.0	1.00	0.0	DEMAND AT 125%				(NOTE #10)
MISC.	0.0	1.00	0.0	L1=	0.0	KVA	0.0 AMPS	
SPARE	0.0	1.00	0.0	L2=	0.0	KVA	0.0 AMPS	

NOTES:

- BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.
- SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.
- ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.
- ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.
- PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.
- PROVIDE METAL DIRECTORY FRAME.
- PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).
- PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.
- PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.
- SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 2 BEDROOM UNITS													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCp	FEEDER	DISCONNECT SWITCH				NOTES
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	
AHU-2	1 BEDROOM AIR HANDLER	240	1	-	-	24.9	25	3#10, 1#10G, 1"C	30	2	25	1	1
HP-2	1 BEDROOM HEAT PUMP	240	1	-	-	13.8	20	NOTE 3	30	2	20	3R	1.3
EWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6, 1#10G, 1"C	60	2	50	1	1
EE-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12, 1#12G, 3/4"C	MOTOR SNAP SWITCH				1,2
NOTES:													
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.												
2	FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS												
3	WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP												









TYPICAL LOAD SUMMARY FOR 2 BEDROOM, 2 BEDROOM TYPE-A, & 2 BEDROOM ACCESSIBLE UNITS

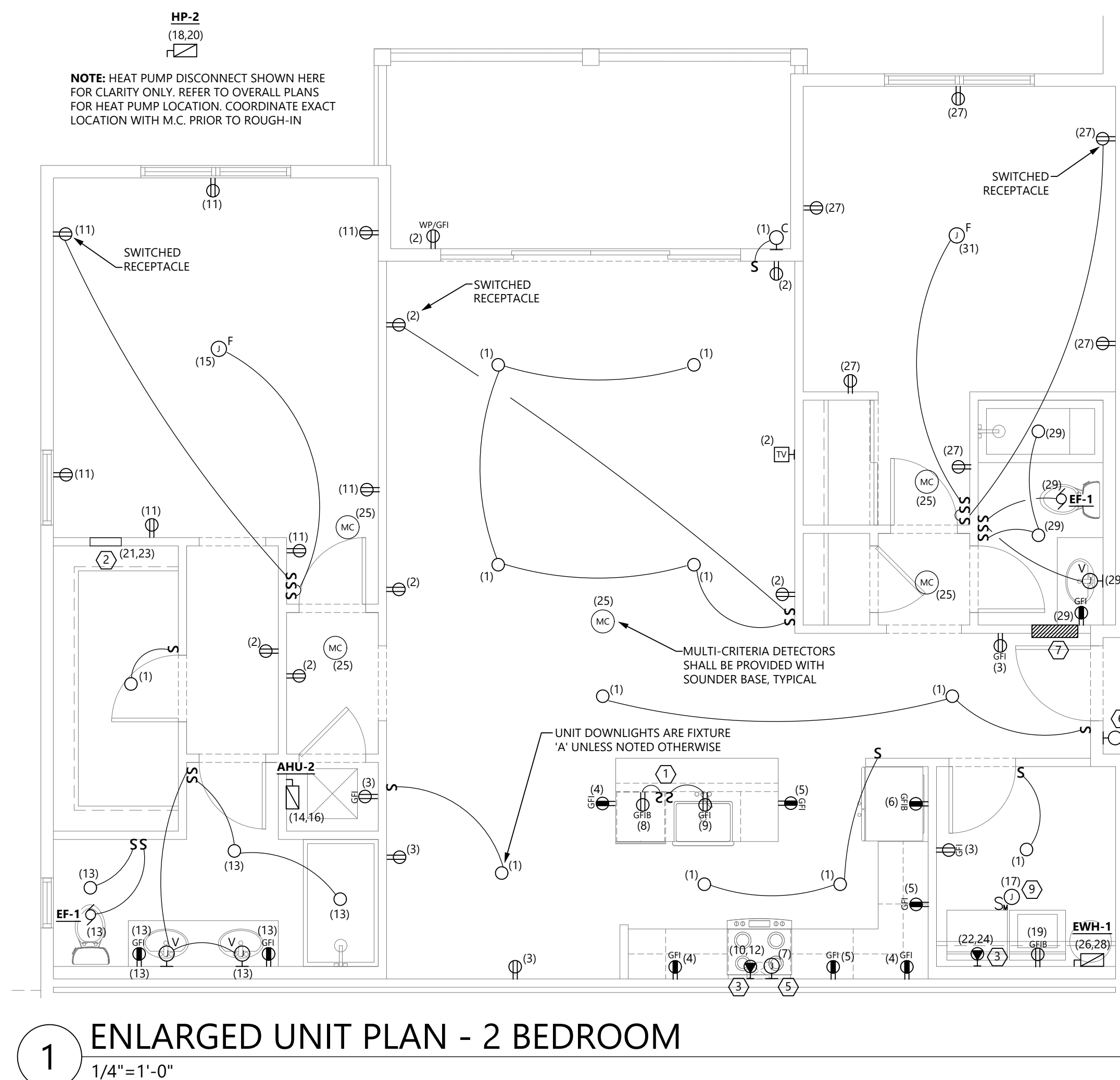
SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION					
UNIT / SUITE:			2 BDRM, 2BDRM TYPE-A, 2BDRM ACCESSIBLE		(Optional Calculation)
Voltage (L-L):	240 Volts		Project Name: Naples Road Apartments Project # 24-125 By: Matt Lewis Date: 3/13/2025		
Phase:	1				
Floor Area:	1427 Sq Ft				
LOAD	kVA	QTY	kVA	NOTES	
General Lighting Load	4.28	1	4.28	3 VA/SF	
(2) Small Appliance Circuits	3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)	
Laundry Circuit	1.50	1	1.50	Dedicated 20A Ckt	
Electric Range	8.00	1	8.00		
Clothes Dryer	5.00	1	5.00		
A/C and Cooling (240V)	5.44	1	5.44	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".	
HP Compressor (240V)	2.65	0	0.00		
Strip Heat (240V)	2.00	0	0.00		
Electric Space Heat (240V)	0.00	0	0.00		
Elec Thermal / Other (240V)	0.00	0	0.00		
Water Heater (240V)	9.60	1	9.60	(1) 20A Ckt for Dishwasher & Disposal (1) 20A Ckt for Dishwasher & Disposal	
Water Heater (120V)	1.50	0	0.00		
Dishwasher	0.80	1	0.80		
Disposal	1.00	1	1.00		
Microwave	1.50	1	1.50		
Refrigerator	0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.	
	0.00	0	0.00		
	0.00	0	0.00		
	0.00	0	0.00		
	0.00	0	0.00		
TOTAL CONNECTED LOAD FOR UNIT			40.92	kVA	

DEMAND LOAD (PHASE)		DEMAND LOAD (NEUTRAL)	
1st 10 kVA @ 100%	10.00 kVA	Gen Ltg, Small Appliance, Laundry	8.78 kVA
Remaining @ 40%	10.1924 kVA	1st 3 kVA @ 100%	3.00 kVA
A/C & Cooling @ 100%	5.44 kVA	> 3 kVA to 120 kVA @ 35%	2.02 kVA
HP Compressor @ 100%	0.00 kVA	> 120 kVA @ 25%	0.00 kVA
HP Strip Heat @ 65%	0.00 kVA	Remaining L-N Loads @ 100%	4.10 kVA
Electric Space Heat @ 65%	0.00 kVA	Dryer Load @ 70%	3.50 kVA
Electric Space Heat @ 40%	0.00 kVA	Range Load @ 70%	4.48 kVA
Electric Thermal & Other Heating	0.00 kVA	Unbalanced load > 200A @ 70%	0.00 kVA
TOTAL DEMAND LOAD (PHASE)	25.63 kVA 106.80 AMPS	TOTAL DEMAND LOAD (NEUTRAL)	17.10 kVA 71.26 AMPS

NOTES:

1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire

ENLARGED UNIT PLAN SYMBOLS LIST	
	DOUBLE GANG, RECESSED JUNCTION BOX FOR VANITY LIGHT FIXTURE. FIXTURE TO BE SELECTED BY OWNER. CONNECT TO CIRCUIT AND SWITCH SHOWN ON PLANS.
	MULTI CRITERIA DETECTOR. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES
	MOTOR CONNECTION FOR BATHROOM EXHAUST FAN. PROVIDE DOUBLE GANG JUNCTION BOX AND 20A MOTOR RATED SWITCH FOR DISCONNECT. CONNECT TO RESTROOM LIGHT CIRCUIT AND CONTROL. VIA SWITCH SHOWN ON PLANS
	6\"
	CEILING FAN RATED JUNCTION BOX. CONNECT TO CIRCUIT SHOWN ON PLANS AND PANEL SCHEDULES. FAN TO BE SELECTED BY OWNER
	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL TURN OFF SWITCH (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
	FLUSH MOUNTED JUNCTION BOX FOR DOORBELL VISUAL/AUDIBLE DEVICE (ONLY REQUIRED IN HEARING IMPAIRED UNITS). REFER TO ARCHITECTURAL PLANS FOR HEARING IMPAIRED AND ADA UNIT DESIGNATIONS.
NOTE: REFER TO OVERALL SYMBOL LEGEND ON COVER SHEET FOR SYMBOLS NOT SHOWN ABOVE	



GENERAL NOTES:

- A. AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
- B. ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND EXHAUSTS.
- C. CEILING FAN BLADE CLEARANCE.
- D. PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
- E. COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
- F. ALL ADA UNITS SHALL HAVE 177CD HORNS/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
- G. OUTLETS ARE NOT TO BE LOCATED BACK-10-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
- H. ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
- I. RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
- J. IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE OF 15" AND 48" AT MAXIMUM 208 CM FROM THE FRONT OF THE UNIT. ALL LIGHTING AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. LOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

 KEYED NOTES:

1. PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
2. MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTABLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRIKING BACK TO BUILDING TELECOM DEMARK LOCATION.
3. SPECIAL RECEPTACLE. PROVIDE (2) 5/8" TYPE 15C SHAKE COORDINATE WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICES.
4. IN ACCESSIBLE UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
5. RANGE HOOD POWER. PROVIDE (2) 20 AMP 120V CIRCUITS TO RANGE HOOD REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
6. EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL. SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
7. TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALLS WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK.
8. COORDINATE WITH ARCHITECTURAL PLANS FOR UNITS THAT ARE REQUIRED TO HAVE HEARING IMPAIRED DEVICES.
9. JUNCTION BOX, MOTOR SNAP SWITCH AND POWER FOR DRYER BOOSTER FAN. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH M.C. PRIOR TO ROUGH-IN.

TYPICAL PANEL SCHEDULE FOR 2 BEDROOM TYPE-A UNITS

NEW PANEL: 2-BDRM TYPE-A													
VOLTAGE: 120/ 240 PHASE / WIRE: 1p/ 3W AMPS: 125 AIC: 10,000								MOUNTING: FLUSH MAIN: LUGS ONLY					
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA		
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00		
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00		
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00		
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00		
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00		
0.00	12	20	REC - MASTER BEDROOM	11		●	12						
0.00	12	20	MASTER BATHROOM	13	●		14	AIR HANDLER	25	10	0.00		
0.00	12	20	FAN - MASTER BEDROOM	15		●	16						
0.00	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	20	8	0.00		
0.00	12	20	WASHER (NOTE #7)	19		●	20						
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00		
0.00	12	20	TELECOM BOX	23		●	24						
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00		
0.00	12	20	REC - BEDROOM #2	27		●	28						
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20				
0.00	12	20	FAN - BEDROOM #2	31		●	32	SPARE	20				
			20 SPARE	33	●		34	SPARE	20				
			20 SPARE	35		●	36	SPARE	20				
			20 SPARE	37	●		38	SPARE	20				
			20 SPARE	39		●	40	SPARE	20				
			20 SPARE	41	●		42	SPARE	20				
				SUB TOTALS								0.0	
LOAD (kVA)				Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE						
LIGHTS				0.0	1.25	0.0	CONNECTED					(NOTE #10)	
HEATING				0.0	1.00	0.0	L1=	0.0	kVA	0.0	AMPS		
COOLING				0.0	1.00	0.0	L2=	0.0	kVA	0.0	AMPS		
VENTILATION				0.0	1.00	0.0							
MOTORS				0.0	1.00	0.0	DEMAND					(NOTE #10)	
KITCHEN				0.0	0.65	0.0	L1-	0.0	kVA	0.0	AMPS		
REC. (1st 10kVA)				0.0	1.00	0.0	L2-	0.0	kVA	0.0	AMPS		
REC. (>10kVA)				0.0	0.50	0.0							
WATER HEATER				0.0	1.00	0.0	DEMAND AT 125%					(NOTE #10)	
MISC.				0.0	1.00	0.0	L1=	0.0	kVA	0.0	AMPS		
SPARE				0.0	1.00	0.0	L2=	0.0	kVA	0.0	AMPS		
NOTES:													
1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.													
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.													
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.													
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.													
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.													
6. PROVIDE METAL DIRECTORY FRAME.													
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).													
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.													
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.													
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.													

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 2 BEDROOM UNITS													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCp	FEEDER	DISCONNECT SWITCH			NOTES	
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE		NEMA
AHU-2	1 BEDROOM AIR HANDLER	240	1	-	-	24.9	25	3#10,1#10G,1"C	30	2	25	1	1
HP-2	1 BEDROOM HEAT PUMP	240	1	-	-	13.8	20	NOTE 3	30	2	20	3R	1,3
FWH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EF-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2
NOTES:													
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.												
2	FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS												
3	WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP												

TYPICAL LOAD SUMMARY FOR 2 BEDROOM, 2 BEDROOM TYPE-A, & 2 BEDROOM ACCESSIBLE UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION						
UNIT / SUITE: 2 BDRM, 2BDRM TYPE-A, 2BDRM ACCESSIBLE				(Optional Calculation)		
Voltage (L-L):		240 Volts		Project Name:		Naples Road Apartments
Phase:		1		Project #:		24-125
Floor Area:		1427 Sq Ft		By:		Matt Lewis
				Date:		3/13/2025
LOAD		KVA	QTY	KVA	NOTES	
General Lighting Load		4.28	1	4.28	3 VA/SF	
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)	
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt	
Electric Range		8.00	1	8.00		
Clothes Dryer		5.00	1	5.00		
A/C and Cooling (240V)		5.44	1	5.44	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".	
HP Compressor (240V)		2.65	0	0.00		
Strip Heat (240V)		2.00	0	0.00		
Electric Space Heat (240V)		0.00	0	0.00		
Elec Thermal / Other (240V)		0.00	0	0.00		
Water Heater (240V)		9.60	1	9.60	(1) 20A Ckt for Dishwasher & Disposal (1) 20A Ckt for Dishwasher & Disposal	
Water Heater (120V)		1.50	0	0.00		
Dishwasher		0.80	1	0.80		
Disposal		1.00	1	1.00		
Microwave		1.50	1	1.50		
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.	
		0.00	0	0.00		
		0.00	0	0.00		
		0.00	0	0.00		
		0.00	0	0.00		
TOTAL CONNECTED LOAD FOR UNIT				40.92	KVA	
DEMAND LOAD (PHASE)				DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%		10.00	kVA	Gen Ltg, Small Appliance, Laundry		8.78
Remaining @ 40%		10.1924	kVA	1st 3 kVA @ 100%		3.00 kVA
A/C & Cooling @ 100%		5.44	kVA	> 3 kVA to 120 kVA @ 35%		2.02 kVA
HP Compressor @ 100%		0.00	kVA	> 120 kVA @ 25%		0.00 kVA
HP Strip Heat @ 65%		0.00	kVA	Remaining L-N Loads @ 100%		4.10 kVA
Electric Space Heat @ 65%		0.00	kVA	Dryer Load @ 70%		3.50 kVA
Electric Space Heat @ 40%		0.00	kVA	Range Load @ 70%		4.48 kVA
Electric Thermal & Other Heating		0.00	kVA	Unbalanced load > 200A @ 70%		0.00 kVA
TOTAL DEMAND LOAD (PHASE)		25.63	kVA	TOTAL DEMAND LOAD (NEUTRAL)		17.10
		106.90	AMPS			71.26
Quantity of 15A general lighting circuits (w/ AFCI-P) = 3 OR Quantity of 20A general lighting circuits (w/ AFCI-P) = 2				AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.		
NOTES:						
1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire						

- PRELIMINARY -
NOT FOR CONSTRUCTION

SIGNATURE:

CLIENT:

The Orchards at Naples Road, LLC
341 N main Street
Hendersonville, NC 28792
Luis Graef, President



PROJECT:

The Orchards at Naples Road
Apartment Complex
Hendersonville, North Carolina

#	REVISIONS	DATE

DWG INFO:

DWG DESCRIPTION:

ENLARGED UNIT PLAN -
2 BEDROOM ACCESSIBLE

SHEET #:

E-45

WILDE # 24-125

TYPICAL PANEL SCHEDULE FOR 2 BEDROOM ACCESSIBLE UNITS

NEW PANEL: 2-BDRM ACCESSIBLE													
VOLTAGE:			120/ 240			MOUNTING: FLUSH							
PHASE / WIRE:			1ϕ/ 3W			MAIN: LUGS ONLY							
AMPS:			125										
AIC:			10,000										
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA		
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00		
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00		
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00		
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00		
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00		
0.00	12	20	REC - MASTER BEDROOM	11		●	12			6	0.00		
0.00	12	20	MASTER BATHROOM	13	●		14	AIR HANDLER	25	10	0.00		
0.00	12	20	FAN - MASTER BEDROOM	15		●	16			10	0.00		
0.00	12	20	DRYER BOOSTER FAN	17	●		18			8	0.00		
0.00	12	20	WASHER (NOTE #7)	19		●	20	HEAT PUMP	20	8	0.00		
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00		
0.00	12	20	TELECOM BOX	23		●	24			10	0.00		
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00		
0.00	12	20	REC - BEDROOM #2	27		●	28			6	0.00		
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20				
			SPARE	31		●	32	SPARE	20				
			SPARE	33	●		34	SPARE	20				
			SPARE	35		●	36	SPARE	20				
			SPARE	37	●		38	SPARE	20				
			SPARE	39		●	40	SPARE	20				
			SPARE	41	●		42	SPARE	20				
0.0				SUB TOTALS								0.0	
LOAD (kVA)			Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE			(NOTE #10)				
LIGHTS			0.0	1.25	0.0	CONNECTED							
HEATING			0.0	1.00	0.0	L1=	0.0 kVA	0.0 AMPS					
COOLING			0.0	1.00	0.0	L2=	0.0 kVA	0.0 AMPS					
VENTILATION			0.0	1.00	0.0				(NOTE #10)				
MOTORS			0.0	1.00	0.0	DEMAND							
KITCHEN			0.0	0.65	0.0	L1=	0.0 kVA	0.0 AMPS					
REC. (1st 10kVA)			0.0	1.00	0.0	L2=	0.0 kVA	0.0 AMPS					
REC. (>10kVA)			0.0	0.50	0.0				(NOTE #10)				
WATER HEATER			0.0	1.00	0.0	DEMAND AT 125%							
MISC.			0.0	1.00	0.0	L1=	0.0 kVA	0.0 AMPS					
SPARE			0.0	1.00	0.0	L2=	0.0 kVA	0.0 AMPS					
NOTES:													
1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.													
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.													
3. ALL BUSSING, INCL. GND AND NEUTRAL, SHALL BE COPPER.													
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.													
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.													
6. PROVIDE METAL DIRECTORY FRAME.													
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).													
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.													
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.													
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.													

TYPICAL LOAD SUMMARY FOR 2 BEDROOM, 2 BEDROOM TYPE-A, & 2 BEDROOM ACCESSIBLE UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION												
UNIT / SUITE: 2 BDRM, 2BDRM TYPE-A, 2BDRM ACCESSIBLE				(Optional Calculation)								
Voltage (L-L):		240 Volts		Project Name:		Naples Road Apartments						
Phase:		1		Project #:		24-125						
Floor Area:		1427 Sq Ft		By:		Matt Lewis						
				Date:		3/13/2025						
LOAD				kVA	QTY	kVA	NOTES					
General Lighting Load				4.28	1	4.28	3 VA/SF					
(2) Small Appliance Circuits				3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)					
Laundry Circuit				1.50	1	1.50	Dedicated 20A Ckt					
Electric Range				8.00	1	8.00						
Clothes Dryer				5.00	1	5.00						
A/C and Cooling (240V)				5.44	1	5.44	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".					
HP Compressor (240V)				2.65	0	0.00						
Strip Heat (240V)				2.00	0	0.00						
Electric Space Heat (240V)				0.00	0	0.00						
Elec Thermal / Other (240V)				0.00	0	0.00						
Water Heater (240V)				9.60	1	9.60						
Water Heater (120V)				1.50	0	0.00						
Dishwasher				0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal					
Disposal				1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal					
Microwave				1.50	1	1.50						
Refrigerator				0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.					
				0.00	0	0.00						
				0.00	0	0.00						
				0.00	0	0.00						
TOTAL CONNECTED LOAD FOR UNIT				40.92 kVA								
DEMAND LOAD (PHASE)				DEMAND LOAD (NEUTRAL)								
1st 10 kVA @ 100%				10.00	kVA	Gen Ltg, Small Appliance, Laundry		8.76				
Remaining @ 40%				10.1924	kVA	1st 3 kVA @ 100%		3.00				
A/C & Cooling @ 100%				5.44	kVA	> 3 kVA to 120 kVA @ 35%		2.02				
HP Compressor @ 100%				0.00	kVA	> 120 kVA @ 25%		0.00				
HP Strip Heat @ 65%				0.00	kVA	Remaining L-N Loads @ 100%		4.10				
Electric Space Heat @ 65%				0.00	kVA	Dryer Load @ 70%		3.50				
Electric Space Heat @ 40%				0.00	kVA	Range Load @ 70%		4.48				
Electric Thermal & Other Heating				0.00	kVA	Unbalanced load > 200A @ 70%		0.00				
TOTAL DEMAND LOAD (PHASE)				25.63	kVA	TOTAL DEMAND LOAD (NEUTRAL)		17.10				
				106.80	AMPS			71.26	AMPS			
Quantity of 15A general lighting circuits (w/ AFCI-P) = 3												
OR												
Quantity of 20A general lighting circuits (w/ AFCI-P) = 2												
AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.												
NOTES:												
1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire												

TYPICAL PANEL SCHEDULE FOR 3 BEDROOM UNITS

NEW PANEL: 3-BDRM													
VOLTAGE: 120/ 240 PHASE / WIRE: 1p/ 3W AMPS: 125 AIC: 10,000								MOUNTING: FLUSH MAIN: LUGS ONLY					
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #	L1	L2	CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA		
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00		
0.00	12	20	REC - GENERAL	3	●	●	4	REC - KITCHEN	20	12	0.00		
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00		
0.00	12	20	RANGE HOOD	7	●	●	8	DISHWASHER (NOTE #7)	20	12	0.00		
0.00	12	20	DISPOSAL	9	●		10		50	6	0.00		
0.00	12	20	REC - MASTER BEDROOM	11	●	●	12	RANGE		6	0.00		
0.00	12	20	REC - MASTER BATHROOM	13	●		14	AIR HANDLER	30	10	0.00		
0.00	12	20	FAN - MASTER BEDROOM	15	●	●	16			10	0.00		
0.00	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	25	8	0.00		
0.00	12	20	WASHER (NOTE #7)	19	●	●	20			8	0.00		
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00		
0.00	12	20	TELECOM BOX	23	●	●	24			10	0.00		
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00		
0.00	12	20	REC - BEDROOM #2	27	●	●	28			6	0.00		
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20		0.00		
0.00	12	20	FAN - BEDROOM #2	31	●	●	32	REC - BEDROOM #3	20	12			
0.00	12	20	FAN - BEDROOM #3	33	●		34	SPARE	20				
			SPARE	35	●	●	36	SPARE	20				
			SPARE	37	●		38	SPARE	20				
			SPARE	39	●	●	40	SPARE	20				
			SPARE	41	●		42	SPARE	20				
0.0				SUB TOTALS								0.0	
TOTAL LOAD PER PHASE													
LOAD (kVA)				Conn.	D.F.	Dmd.	CONNECTED				(NOTE #10)		
LIGHTS				0.0	1.25	0.0	0.0 AMPS						
HEATING				0.0	1.00	0.0	L1=	0.0	kVA				
COOLING				0.0	1.00	0.0	L2=	0.0	kVA	0.0 AMPS			
VENTILATION				0.0	1.00	0.0	0.0 AMPS						
MOTORS				0.0	1.00	0.0	DEMAND				(NOTE #10)		
KITCHEN				0.0	0.65	0.0	L1-	0.0	kVA	0.0 AMPS			
REC. (1st 10kVA)				0.0	1.00	0.0	L2-	0.0	kVA	0.0 AMPS			
REC. (>10kVA)				0.0	0.50	0.0							
WATER HEATER				0.0	1.00	0.0	DEMAND AT 125%				(NOTE #10)		
MISC.				0.0	1.00	0.0	L1=	0.0	kVA	0.0 AMPS			
SPARE				0.0	1.00	0.0	L2=	0.0	kVA	0.0 AMPS			
NOTES:													
1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.													
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.													
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.													
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.													
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.													
6. PROVIDE METAL DIRECTORY FRAME.													
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).													
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.													
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.													
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.													

MECHANICAL EQUIPMENT CONNECTION SCHEDULE - 3 BEDROOM UNITS													
TAG	EQUIPMENT DESCRIPTION	EQUIPMENT CHARACTERISTICS			FLA	MCA	MOCP	FEEDER	DISCONNECT SWITCH				NOTES
		VOLTAGE	PHASE	KW					SIZE	POLE	FUSE	NEMA	
AHU-3	1 BEDROOM AIR HANDLER	240	1	-	-	26.4	30	3#10,1#10G,1"C	30	2	30	1	
HP-3	1 BEDROOM HEAT PUMP	240	1	-	-	17	25	NOTE 3	30	2	25	3R	1.3
EFH-1	ELECTRIC WATER HEATER	240	1	9.60	-	-	50	3#6,1#10G,1"C	60	2	50	1	1
EE-1	BATHROOM EXHAUST FAN	120	1	0.05	-	-	-	2#12,1#12G,3/4"C	MOTOR SNAP SWITCH				1,2
NOTES:													
1	COORDINATE ALL ROUGH-IN LOCATIONS, CONNECTION TYPES, BREAKER SIZES, ETC. WITH APPROVED MECHANICAL EQUIPMENT SUBMITTALS PRIOR TO ROUGH-IN AND INSTALLATION. ALL ROUGH-INS SHALL BE REVIEWED AND APPROVED BY MECHANICAL CONTRACTOR.												
2	FAN POWERED VIA LOCAL LIGHTING CIRCUIT. CONNECT TO SWITCH SHOWN ON ENLARGED UNIT PLANS												
3	WIRE SIZE VARIES BASED ON DISTANCE FROM UNIT PANEL TO EXTERIOR HEAT PUMP. REFER TO OVERALL PLANS AND SIZE EACH UNIT HEAT PUMP TO ACCOUNT FOR VOLTAGE DROP												

TYPICAL LOAD SUMMARY FOR 3 BEDROOM, 3 BEDROOM TYPE-A, & 3 BEDROOM ACCESSIBLE UNITS

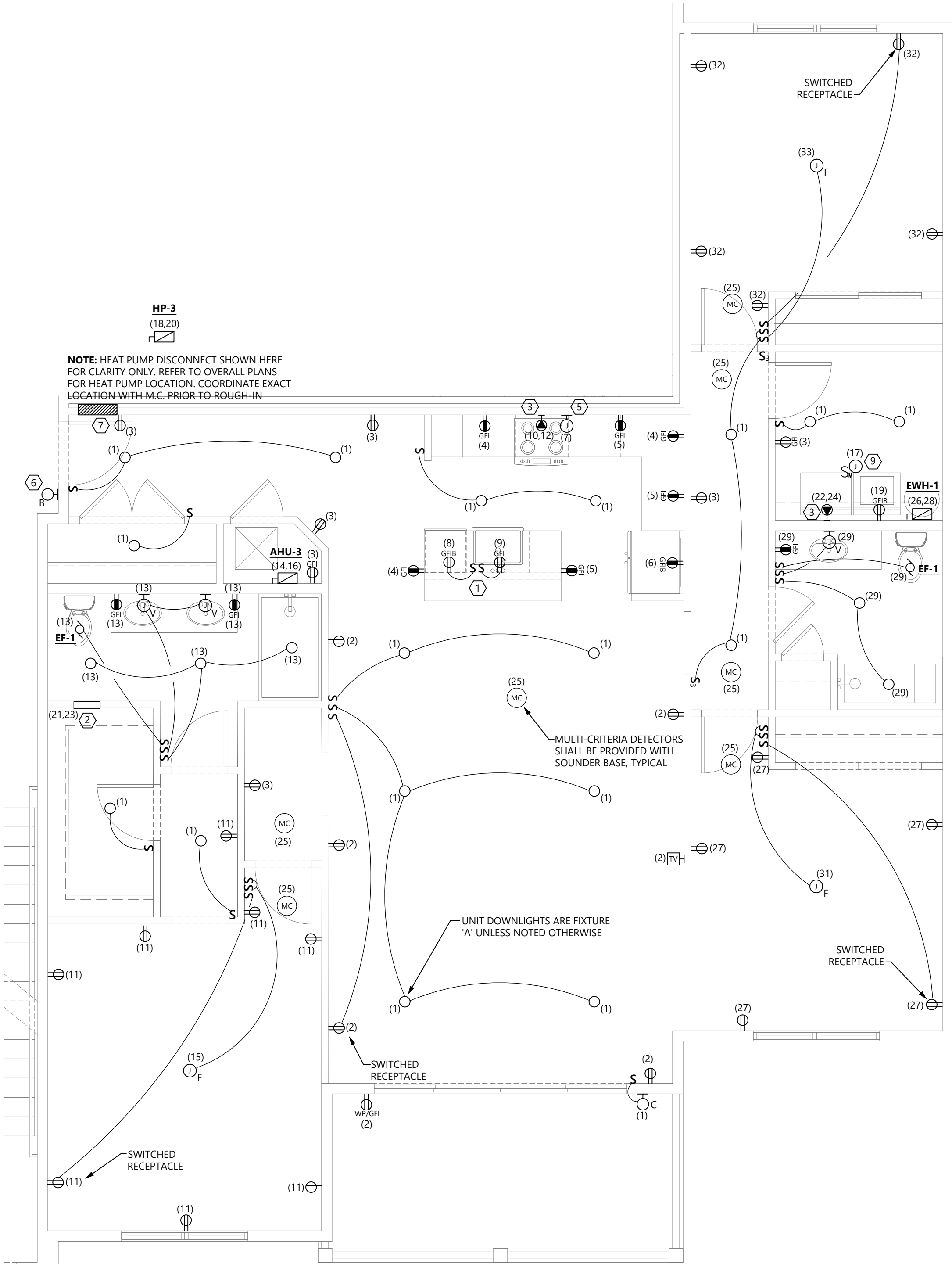
SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION						
UNIT / SUITE: 3BDRM, 3BDRM TYPE-A, 3BDRM ACCESSIBLE				(Optional Calculation)		
Voltage (L-L):		240 Volts		Project Name: Naples Road Apartments		
Phase:		1		Project #: 24-125		
Floor Area:		1716 Sq Ft		By: Matt Lewis		
				Date: 3/13/2025		
LOAD		kVA	QTY	kVA	NOTES	
General Lighting Load		5.15	1	5.15	3 VA/SF	
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)	
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt	
Electric Range		8.00	1	8.00		
Clothes Dryer		5.00	1	5.00		
A/C and Cooling (240V)		5.72	1	5.72	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".	
HP Compressor (240V)		3.26	0	0.00		
Strip Heat (240V)		2.00	0	0.00		
Electric Space Heat (240V)		0.00	0	0.00		
Elec Thermal / Other (240V)		0.00	0	0.00		
Water Heater (240V)		9.60	1	9.60		
Water Heater (120V)		1.50	0	0.00		
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal	
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal	
Microwave		1.50	1	1.50		
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.	
		0.00	0	0.00		
		0.00	0	0.00		
		0.00	0	0.00		
TOTAL CONNECTED LOAD FOR UNIT		42.07		KVA		
DEMAND LOAD (PHASE)				DEMAND LOAD (NEUTRAL)		
1st 10 kVA @ 100%		10.00	kVA	Gen Ltg. Small Appliance, Laundry		9.65
Remaining @ 40%		10.5392	kVA	1st 3 kVA @ 100%		3.00
A/C & Cooling @ 100%		5.72	kVA	> 3 kVA to 120 kVA @ 35%		2.33
HP Compressor @ 100%		0.00	kVA	> 120 kVA @ 25%		0.00
HP Strip Heat @ 65%		0.00	kVA	Remaining L-N Loads @ 100%		4.10
Electric Space Heat @ 65%		0.00	kVA	Dryer Load @ 70%		3.50
Electric Space Heat @ 40%		0.00	kVA	Range Load @ 70%		4.48
Electric Thermal & Other Heating		0.00	kVA	Unbalanced load > 200A @ 70%		0.00
TOTAL DEMAND LOAD (PHASE)		26.26	kVA	TOTAL DEMAND LOAD (NEUTRAL)		17.41
		109.41	AMPS			72.53
Quantity of 15A general lighting circuits (w/ AFCI-P) = 3 OR Quantity of 20A general lighting circuits (w/ AFCI-P) = 3				AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.		
NOTES:						
1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire						

TYPICAL PANEL SCHEDULE FOR 3 BEDROOM TYPE-A UNITS

NEW PANEL: 3-BDRM TYPE-A													
VOLTAGE: 120/ 240 PHASE / WIRE: 1ϕ/ 3W AMPS: 125 AIC: 10,000								MOUNTING: FLUSH MAIN: LUGS ONLY					
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #				CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA	
					L1		L2						
0.00	12	20	LIGHTING	1	●			2	REC - LIVING ROOM	20	12	0.00	
0.00	12	20	REC - GENERAL	3			●	4	REC - KITCHEN	20	12	0.00	
0.00	12	20	REC - KITCHEN	5	●			6	REFRIGERATOR (NOTE #7)	20	12	0.00	
0.00	12	20	RANGE HOOD	7			●	8	DISHWASHER (NOTE #7)	20	12	0.00	
0.00	12	20	DISPOSAL	9	●			10	RANGE	50	6	0.00	
0.00	12	20	REC - MASTER BEDROOM	11			●	12					
0.00	12	20	MASTER BATHROOM	13	●			14	AIR HANDLER	30	10	0.00	
0.00	12	20	FAN - MASTER BEDROOM	15			●	16					
0.10	12	20	DRYER BOOSTER FAN	17	●			18	HEAT PUMP	25	8	0.00	
0.00	12	20	WASHER (NOTE #7)	19			●	20					
0.00	12	20	TELECOM BOX	21	●			22	DRYER	30	10	0.00	
0.00	12	20	TELECOM BOX	23			●	24					
0.00	12	20	FIRE ALARM (NOTE #8)	25	●			26	WATER HEATER	50	6	0.00	
0.00	12	20	REC - BEDROOM #2	27			●	28					
0.00	12	20	BATHROOM #2	29	●			30	SPARE	20			
0.00	12	20	FAN - BEDROOM #2	31			●	32	REC - BEDROOM #3	20	12		
0.00	12	20	FAN - BEDROOM #3	33	●			34	SPARE	20			
		20	SPARE	35			●	36	SPARE	20			
		20	SPARE	37	●			38	SPARE	20			
		20	SPARE	39			●	40	SPARE	20			
		20	SPARE	41	●			42	SPARE	20			
SUB TOTALS													0.0
0.1													
LOAD (kVA)		Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE								
LIGHTS		0.0	1.25	0.0	CONNECTED								(NOTE #10)
HEATING		0.0	1.00	0.0	L1=	0.1 kVA	0.8 AMPS						
COOLING		0.0	1.00	0.0	L2=	0.0 kVA	0.0 AMPS						
VENTILATION		0.0	1.00	0.0									
MOTORS		0.1	1.00	0.1	DEMAND								(NOTE #10)
KITCHEN		0.0	0.65	0.0	L1=	0.1 kVA	0.8 AMPS						
REC. (1st 10kVA)		0.0	1.00	0.0	L2=	0.0 kVA	0.0 AMPS						
REC. (>10kVA)		0.0	0.50	0.0									
WATER HEATER		0.0	1.00	0.0	DEMAND AT 125%								(NOTE #10)
MISC.		0.0	1.00	0.0	L1=	0.1 kVA	1.0 AMPS						
SPARE		0.0	1.00	0.0	L2=	0.0 kVA	0.0 AMPS						
NOTES:													
1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.													
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.													
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.													
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.													
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.													
6. PROVIDE METAL DIRECTORY FRAME.													
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).													
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.													
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.													
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.													

TYPICAL LOAD SUMMARY FOR 3 BEDROOM, 3 BEDROOM TYPE-A, & 3 BEDROOM ACCESSIBLE UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION									
UNIT / SUITE: 3BDRM, 3BDRM TYPE-A, 3BDRM ACCESSIBLE					(Optional Calculation)				
Voltage (L-L):		240 Volts		Project Name:		Naples Road Apartments			
Phase:		1		Project #:		24-125			
Floor Area:		1716 Sq Ft		By:		Matt Lewis			
				Date:		3/13/2025			
LOAD		KVA	QTY	KVA	NOTES				
General Lighting Load		5.15	1	5.15	3 VA/SF				
(2) Small Appliance Circuits		3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)				
Laundry Circuit		1.50	1	1.50	Dedicated 20A Ckt				
Electric Range		8.00	1	8.00					
Clothes Dryer		5.00	1	5.00					
A/C and Cooling (240V)		5.72	1	5.72	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".				
HP Compressor (240V)		3.26	0	0.00					
Strip Heat (240V)		2.00	0	0.00					
Electric Space Heat (240V)		0.00	0	0.00					
Elec Thermal / Other (240V)		0.00	0	0.00					
Water Heater (240V)		9.60	1	9.60					
Water Heater (120V)		1.50	0	0.00					
Dishwasher		0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal				
Disposal		1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal				
Microwave		1.50	1	1.50					
Refrigerator		0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.				
		0.00	0	0.00					
		0.00	0	0.00					
		0.00	0	0.00					
TOTAL CONNECTED LOAD FOR UNIT				42.07	KVA				
DEMAND LOAD (PHASE)				DEMAND LOAD (NEUTRAL)					
1st 10 kVA @ 100%		10.00	kVA	Gen Ltg, Small Appliance, Laundry		9.65			
Remaining @ 40%		10.5392	kVA	1st 3 kVA @ 100%		3.00	kVA		
A/C & Cooling @ 100%		5.72	kVA	> 3 kVA to 120 kVA @ 35%		2.33	kVA		
HP Compressor @ 100%		0.00	kVA	> 120 kVA @ 25%		0.00	kVA		
HP Strip Heat @ 65%		0.00	kVA	Remaining L-N Loads @ 100%		4.10	kVA		
Electric Space Heat @ 65%		0.00	kVA	Dryer Load @ 70%		3.50	kVA		
Electric Space Heat @ 40%		0.00	kVA	Range Load @ 70%		4.48	kVA		
Electric Thermal & Other Heating		0.00	kVA	Unbalanced load > 200A @ 70%		0.00	kVA		
TOTAL DEMAND LOAD (PHASE)		26.26	kVA	TOTAL DEMAND LOAD (NEUTRAL)		17.41	kVA		
		109.41	AMPS			72.53	AMPS		
Quantity of 15A general lighting circuits (w/ AFCI-P) = 3				AMP RATING OF THE GENERAL LIGHTING & RECEPTACLE CIRCUIT(S) SHALL BE AS INDICATED IN THE PANEL SCHEDULES.					
OR									
Quantity of 20A general lighting circuits (w/ AFCI-P) = 3									
NOTES:									
1. Calculations are based on a 120/240-Volt, 1-Phase, 3-Wire									



ENLARGED UNIT PLAN - 3 BEDROOM TYPE-A

1/4" = 1'-0"

GENERAL NOTES:

- AUDIBLE FIRE ALARM IN APARTMENT UNITS MUST INCLUDE 520HZ HORN.
- ALL SMOKE DETECTORS SHALL BE PHOTOELECTRIC TYPE WITH SOUNDER BASE. SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3' FROM MECHANICAL AIR DIFFUSERS AND CEILING FAN BLADE CLEARANCE.
- PROVIDE ARC FAULT CURRENT INTERRUPTER PROTECTION FOR ALL CIRCUITS IN RESIDENT UNITS PER NEC 210.12.
- COORDINATE TV OUTLET BOX HEIGHTS AND LOCATIONS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
- ALL ADA UNITS SHALL HAVE 177CD HORN/STROBES IN BEDROOM/COMMON AREAS AND 15CD STROBE IN BATHROOMS.
- OUTLETS ARE NOT TO BE LOCATED BACK-TO-BACK IN COMMON WALLS BETWEEN ROOMS. VERIFY ALL LOCATIONS PRIOR TO ROUGH-IN.
- ALL 15A AND 20A RECEPTACLES IN RESIDENT UNITS SHALL BE TAMPER RESISTANT.
- RECEPTACLES ABOVE KITCHEN COUNTERTOP SHALL BE MOUNTED HORIZONTALLY.
- IN ACCESSIBLE UNITS, ALL LIGHTING CONTROLS, ELECTRICAL SWITCHES (INCLUDING CIRCUIT BREAKERS), AND RECEPTACLE OUTLETS SHALL BE MOUNTED WITHIN A REACH RANGE SPECIFIED IN ANSI A117.1 SECTION 308. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.

KEYED NOTES:

- PROVIDE GFI RECEPTACLE FOR GARBAGE DISPOSAL AND DISHWASHER UNDER SINK IN ACCESSIBLE LOCATION. PROVIDE SWITCH UNDER COUNTER FOR GARBAGE DISPOSAL AND DISHWASHER. COORDINATE EXACT LOCATION OF SWITCH WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
- MEDIA ENCLOSURE. PROVIDE (2) DUPLEX RECEPTACLES AND MOUNT IN BOTTOM OF MEDIA ENCLOSURE. COORDINATE LOCATION AND HEIGHT IN FIELD WITH OWNER. PROVIDE 2"EC WITH PULL STRING BACK TO BUILDING TELECOM DEMARC LOCATION.
- SPECIAL RECEPTACLE EXACT TYPE, SIZE, ETC. SHALL BE COORDINATED WITH EQUIPMENT MANUFACTURER PRIOR TO ORDERING DEVICE.
- IN ACCESSIBLE UNITS, CONTRACTOR SHALL PROVIDE A REMOTE RANGE EXHAUST HOOD/LIGHT SWITCH, MOUNTED WITH AN ACCESSIBLE REACH RANGE. COORDINATE ALL REQUIREMENTS AND ROUGH-IN LOCATIONS WITH OWNER AND ARCHITECT IN FIELD PRIOR TO ROUGH-IN. RELOCATION OF DEVICES AFTER INSTALLATION AS A RESULT OF LACK OF COORDINATION WILL BE AT THE EXPENSE OF THE CONTRACTOR.
- RANGE HOOD POWER. COORDINATE EXACT LOCATION, REQUIREMENTS, ETC. WITH MANUFACTURER PRIOR TO ORDERING DEVICES AND ROUGH-IN.
- EXTERIOR FIXTURE TO BE POWERED VIA HOUSE PANEL. SEE OVERALL PLAN FOR CIRCUIT DESIGNATION. FIXTURE TO BE CONTROLLED VIA EXTERIOR LIGHTING CONTACTOR, TIME CLOCK, AND PHOTOCELL. SEE DETAIL AND OVERALL PLAN FOR MORE INFORMATION.
- TYPICAL UNIT PANEL LOCATION. SEE OVERALL PLANS FOR PANEL DESIGNATION FOR EACH UNIT AND POWER RISER DIAGRAM FOR PANEL/FEEDER SIZE. PANELS THAT SHARE WALL WITH ADJACENT UNIT SHALL NOT BE INSTALLED BACK TO BACK

TYPICAL PANEL SCHEDULE FOR 3 BEDROOM ACCESSIBLE UNITS

NEW PANEL: 3-BDRM ACCESSIBLE													
VOLTAGE: 120/ 240 PHASE / WIRE: 1φ/ 3W AMPS: 125 AIC: 10,000								MOUNTING: FLUSH MAIN: LUGS ONLY					
LOAD KVA	WIRE	TRIP	LOAD NAME	CKT #			CKT #	LOAD NAME	TRIP	WIRE	LOAD KVA		
					L1	L2							
0.00	12	20	LIGHTING	1	●		2	REC - LIVING ROOM	20	12	0.00		
0.00	12	20	REC - GENERAL	3		●	4	REC - KITCHEN	20	12	0.00		
0.00	12	20	REC - KITCHEN	5	●		6	REFRIGERATOR (NOTE #7)	20	12	0.00		
0.00	12	20	RANGE HOOD	7		●	8	DISHWASHER (NOTE #7)	20	12	0.00		
0.00	12	20	DISPOSAL	9	●		10	RANGE	50	6	0.00		
0.00	12	20	REC - MASTER BEDROOM	11		●	12				6	0.00	
0.00	12	20	MASTER BATHROOM	13	●		14	AIR HANDLER	30	10	0.00		
0.00	12	20	FAN - MASTER BEDROOM	15		●	16				10	0.00	
0.10	12	20	DRYER BOOSTER FAN	17	●		18	HEAT PUMP	25	8	0.00		
0.00	12	20	WASHER (NOTE #7)	19		●	20				8	0.00	
0.00	12	20	TELECOM BOX	21	●		22	DRYER	30	10	0.00		
0.00	12	20	TELECOM BOX	23		●	24				10	0.00	
0.00	12	20	FIRE ALARM (NOTE #8)	25	●		26	WATER HEATER	50	6	0.00		
0.00	12	20	REC - BEDROOM #2	27		●	28				6	0.00	
0.00	12	20	BATHROOM #2	29	●		30	SPARE	20		0.00		
0.00	12	20	FAN - BEDROOM #2	31		●	32	REC - BEDROOM #3	20	12			
0.00	12	20	FAN - BEDROOM #3	33	●		34	SPARE	20				
		20	SPARE	35		●	36	SPARE	20				
		20	SPARE	37	●		38	SPARE	20				
		20	SPARE	39		●	40	SPARE	20				
		20	SPARE	41	●		42	SPARE	20				
0.1				SUB TOTALS								0.0	
LOAD (KVA)				Conn.	D.F.	Dmd.	TOTAL LOAD PER PHASE						
LIGHTS				0.0	1.25	0.0	CONNECTED					(NOTE #10)	
HEATING				0.0	1.00	0.0	L1=	0.1 KVA	0.8 AMPS				
COOLING				0.0	1.00	0.0	L2=	0.0 KVA	0.0 AMPS				
VENTILATION				0.0	1.00	0.0							
MOTORS				0.1	1.00	0.1	DEMAND					(NOTE #10)	
KITCHEN				0.0	0.65	0.0	L1=	0.1 KVA	0.8 AMPS				
REC. (1st 10KVA)				0.0	1.00	0.0	L2=	0.0 KVA	0.0 AMPS				
REC. (>10KVA)				0.0	0.50	0.0							
WATER HEATER				0.0	1.00	0.0	DEMAND AT 125%					(NOTE #10)	
MISC.				0.0	1.00	0.0	L1=	0.1 KVA	1.0 AMPS				
SPARE				0.0	1.00	0.0	L2=	0.0 KVA	0.0 AMPS				
NOTES:													
1. BREAKER FRAME SHALL BE AS REQ'D PER PANEL AIC RATING.													
2. SHALL BE FULLY RATED - SERIES RATINGS NOT ALLOWED.													
3. ALL BUSSING, INCL GND AND NEUTRAL, SHALL BE COPPER.													
4. ALL INCOMING PANEL AND BRKR LUGS SHALL MATCH FEEDERS.													
5. PROVIDE HINGED DOOR-IN-DOOR WITH OUTER DOOR LOCK.													
6. PROVIDE METAL DIRECTORY FRAME.													
7. PROVIDE CLASS A GFI (6mA-PERSONNEL) BRKR (250' MAX).													
8. PROVIDE HANDLE LOCK-ON DEVICE. BREAKER SHALL BE RED.													
9. PROVIDE AFCI (ARC FAULT CIRCUIT INTERRUPTING) BREAKER FOR ALL DWELLING UNIT CIRCUITS.													
10. SEE LOAD SUMMARY TABLE ON THIS SHEET FOR CONNECTED AND DEMAND LOADS.													

TYPICAL LOAD SUMMARY FOR 3 BEDROOM, 3 BEDROOM TYPE-A, & 3 BEDROOM ACCESSIBLE UNITS

SINGLE DWELLING UNIT FEEDER & SERVICE LOAD CALCULATION									
UNIT / SUITE: 3BDRM, 3BDRM TYPE-A, 3BDRM ACCESSIBLE					(Optional Calculation)				
Voltage (L-L):		240		Volts		Project Name:		Naples Road Apartments	
Phase:		1				Project #:		24-125	
Floor Area:		1716		Sq Ft		By:		Matt Lewis	
						Date:		3/13/2025	
LOAD					kVA	QTY	kVA	NOTES	
General Lighting Load					5.15	1	5.15	3 VA/SF	
(2) Small Appliance Circuits					3.00	1	3.00	(2) Dedicated 20A Ckts (w/ GFCI-P)	
Laundry Circuit					1.50	1	1.50	Dedicated 20A Ckt	
Electric Range					8.00	1	8.00		
Clothes Dryer					5.00	1	5.00		
A/C and Cooling (240V)					5.72	1	5.72	Enter quantity for only the largest of the following: "A/C and Cooling", "HP" (with or w/o strip heat), "Electric Space Heat", or "Electric Thermal & Other Heating".	
HP Compressor (240V)					3.26	0	0.00		
Strip Heat (240V)					2.00	0	0.00		
Electric Space Heat (240V)					0.00	0	0.00		
Elec Thermal / Other (240V)					0.00	0	0.00		
Water Heater (240V)					9.60	1	9.60		
Water Heater (120V)					1.50	0	0.00		
Dishwasher					0.80	1	0.80	(1) 20A Ckt for Dishwasher & Disposal	
Disposal					1.00	1	1.00	(1) 20A Ckt for Dishwasher & Disposal	
Microwave					1.50	1	1.50		
Refrigerator					0.80	1	0.80	Examples of fastened in place appliances are compactors, furnace motors, attic fans, water pumps, etc. Add these appliances individually where applicable.	
					0.00	0	0.00		
					0.00	0	0.00		
					0.00	0	0.00		
					0.00	0	0.00		
TOTAL CONNECTED LOAD FOR UNIT					42.07		kVA		
DEMAND LOAD (PHASE)					DEMAND LOAD (NEUTRAL)				
1st 10 kVA @ 100%					10.00		kVA		9.65
Remaining @ 40%					10.5392		kVA		3.00
A/C & Cooling @ 100%					5.72		kVA		2.33
HP Compressor @ 100%					0.00		kVA		0.00
HP Strip Heat @ 65%					0.00		kVA		4.10
Electric Space Heat @ 65%					0.00		kVA		3.50
Electric Space Heat @ 40%					0.00		kVA		4.48
Electric Thermal & Other Heating					0.00		kVA		0.00
TOTAL DEMAND LOAD (PHASE)					26.26		kVA		17.41
					109.41		AMPS		72.53
									AMPS