RELIEF GRAVITY HOOD SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	CONNECTION SIZE	NOTES
RGH1	GREENHECK	GRSR-8	230	8"	1,2
RGH2	GREENHECK	GRSR-16	830	16"	1,2
RGH3	GREENHECK	GRSR-12	555	12"	1,2
RGH4	GREENHECK	GRSR-16	990	16"	1,2
RGH5	GREENHECK	GRSR-12	550	12"	1,2
RGH6	GREENHECK	GRSR-16	670	16"	1,2
RGH7	GREENHECK	GRSR-16	790	16"	1,2
RGH8	GREENHECK	GRSR-16	665	16"	1,2
RGH9	GREENHECK	GRSR-16	680	16"	1,2
RGH10	GREENHECK	GRSR-16	770	16"	1,2
RGH11	GREENHECK	GRSR-16	700	16"	1,2

NOTES:
1. SEE DETAIL 2 ON SHEET M207.
2. PROVIDE GRAVITY HOOD WITH GRAVITY DAMPER, ROOF CURB, AND ALUMINUM BIRDSCREEN.

INTAKE GRAVITY HOOD SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	CONNECTION SIZE	NOTES
IGHI	GREENHECK	GRSI-8	200	8"	1,2
IGH2	GREENHECK	GRSI-12	525	12"	1,2
IGH3	GREENHECK	GRSI-16	635	16"	1,2
IGH4	GREENHECK	GRSI-16	745	16"	1,2
IGH5	GREENHECK	GRSI-10	300	10"	1,2
IGH6	GREENHECK	GRSI-12	630	12"	1,2
IGH7	GREENHECK	GRSI-8	155	8"	1,2
IGH8	GREENHECK	GRSI-10	395	10"	1,2
IGH9	GREENHECK	GRSI-16	735	16"	1,2
IGH10	GREENHECK	GRSI-16	735	16"	1,2
IGH11	GREENHECK	GRSI-16	665	16"	1,2

NOTES:
1. SEE DETAIL 2 ON SHEET M207.
2. PROVIDE GRAVITY HOOD WITH GRAVITY DAMPER, ROOF CURB, AND ALUMINUM BIRDSCREEN.

DIFFUSER & GRILLE SCHEDULE

CALLOUT	DESCRIPTION	FACE SIZE (IN)
EA	14X14 EXHAUST GRILL W/ 8" RUNOUT	14x14
EB	14X14 EXHAUST GRILL W/ 10" RUNOUT	14x14
EC	20X20 EXHAUST GRILL W/ 12" RUNOUT	20x20
ED	20X20 EXHAUST GRILL W/ 14" RUNOUT	20x20
RA	14X14 RETURN GRILL W/ 10" RUNOUT	14x14
RC	20X20 RETURN GRILL W/ 14" RUNOUT	20x20
SA	6X6 SUPPLY CEILING DIFFUSER WITH 6" RUNOUT	6x6
SB	9X9 SUPPLY CEILING DIFFUSER WITH 8" RUNOUT	9x9
SC	12X12 SUPPLY CEILING DIFFUSER WITH 10" RUNOUT	12x12
SE	12X12 SUPPLY SIDEWALL GRILL WITH 12" RUNOUT	12x12

NOTES:
1. PROVIDE RADIATION DAMPER IN ALL CEILING DIFFUSERS

LOUVER SCHEDULE

CALLOUT	DESCRIPTION	SIZE (IN)	NOTE
L1	KITCHEN MAKEUP AIR INTAKE LOVER	24x24	PROVIDE ALUMINUM INSECT SCREEN

HVAC SPECIFICATIONS

GENERAL

1. INSTALLATION SHALL COMPLY WITH THE LATEST EDITION OF THE NORTH CAROLINA STATE MECHANICAL CODE AND ALL OTHER APPLICABLE LOCAL AND NATIONAL CODES.
2. CONTRACTOR SHALL PROVIDE ALL LICENSES, FEES, PERMITS, INSURANCE, ETC., REQUIRED FOR THE EXECUTION OF THIS WORK.
3. INSTALLATION SHALL COMPLY WITH OSHA STANDARDS.
4. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR FOR PENETRATIONS AND PATCHING.
5. CONTRACTOR SHALL PROVIDE PLEATED FILTERS WITH MINIMUM MERV 11 RATING. FILTERS INSTALLED AT UNITS.
6. ALL EQUIPMENT SHALL BE AS DESIGNATED ON THE PLANS OR EQUAL.
7. ALL HEATING, COOLING, AND VENTILATION EQUIPMENT, UPON COMPLETION, SHALL BE TESTED FOR AT LEAST ONE (1) DAY AND SHALL BE SHOWN TO BE IN SATISFACTORY CONDITION ON BOTH HEATING AND COOLING.
8. DUCT MOUNTED SMOKE DETECTORS SHALL BE PROVIDE IN RETURN AS SHOWN ON PLAN PER CODE.

DUCT

1. ALL DUCT SHALL BE FABRICATED AND SUPPORTED IN ACCORDANCE WITH APPLICABLE SMACNA STANDARDS.
2. ALL SUPPLY AND RETURN DUCT SHALL HAVE A MINIMUM PRESSURE CLASSIFICATION OF 2" W.G.
3. ALL DUCT SHALL BE UL LABELED FOR CLASS I AIR DUCT MEETING NFPA 90 FLAME SPREAD AND SMOKE GENERATION REQUIREMENTS.
4. ALL DUCT SIZES SHOWN ON PLANS ARE INSIDE CLEAR DIMENSIONS.
5. ALL TURNS SHALL UTILIZE SINGLE THICKNESS TURNING VANES OR RADIUS BEND.
6. ALL TAKE-OFFS SHALL BE 45 DEGREE TYPE.
7. DUCT MATERIALS AND REQUIREMENTS.

7.1. HVAC SUPPLY AND RETURN DUCTS.

7.1.1. ABOVE ACOUSTICAL CEILING – SINGLE-WALL GALVANIZED SHEET METAL WITH 2" FOIL-BACKED INSULATION UNLESS OTHERWISE NOTED OR FLEX DUCT WITH MINIMUM R6 INSULATION VALUE (ATCO UPC #036 OR EQUAL) MAY BE USED ON RUNOUTS.

7.1.2. OUTSIDE AIR INTAKES SHALL BE GALVANIZED SHEETMETAL WITH 2" FOIL-BACKED INSULATION.

7.2. KITCHEN HOOD & ASSOCIATED DUCTS

7.2.1. SHALL BE IN ACCORDANCE WITH SECTIONS 506-509 OF THE MECHANICAL CODE AND APPLICABLE NFPA REQUIREMENTS FOR A TYPE I COMMERCIAL KITCHEN HOOD. PROVIDE CLEANOUTS AND MAINTAIN CLEARANCES TO COMBUSTIBLE MATERIALS IN ACCORDANCE WITH NORTH CAROLINA MECHANCAL CODE AND FIRE CODE. ALL DUCTS SHALL BE FACTORY-BUILT GREASE DUCTS LISTED AND LABELED IN ACCORDANCE WITH UL 1978 OR CONTINUOUSLY COVERED ON ALL SIDES WITH A LISTED AND LABELED FIELD APPLIED GREASE DUCT ENCLOSURE MATERIAL EVALUATED IN ACCORDANCE WITH ASTM E 2336 AND LISTED AND LABELED AS SUCH.

TESTING & BALANCING

1. TESTING & BALANCING OF ALL HVAC SYSTEMS SHALL BE AS SHOWN ON THE PLANS
2. THIS WORK SHALL BE PERFORMED BY A CERTIFIED TEST AND BALANCE COMPANY AND TAB REPORTS SHALL BE SUBMITTED FOR APPROVAL.
3. TOLERANCES
   - 3.1. SUPPLY AND RETURN AIR FLOWS SHALL BE BALANCED TO WITHIN +/-10% OF FLOWS INDICATED ON PLANS
   - 3.2. EXHAUST & OUTSIDE AIR FLOWS SHALL BE BALANCED TO WITHIN +/-5% OF FLOWS SHOWN ON PLANS.

HVAC LEGEND

- SIDEWALL SUPPLY GRILL
- SIDEWALL RETURN GRILL
- CEILING SUPPLY GRILL
- CEILING RETURN GRILL
- EXHAUST GRILL
- 6x6 — RECTANGULAR RIGID DUCT
- 10ø — ROUND RIGID DUCT
- ROUND FLEXIBLE DUCT
- MANUAL BALANCING DAMPER
- 90 DEGREE BEND WITH TURNING VANES
- DUCT MOUNTED SMOKE DETECTOR
- BD — BACK DRAFT DAMPER
- 1½ HR. FIRE DAMPER, LISTED PER UL 555

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20 JANUARY, 2023

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REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

M001

MECHANICAL COVER

PACKAGE TERMINAL HEAT PUMP SCHEDULE

SERVICE AREA		PRIVATE UNITS	SEMI-PRIVATE UNITS
MARK		PTHP1	PTHP2
MANUFACTURER	DEIGN BASIS	AMANA HEH124H	AMANA HEH124H
SUPPLY AIR		370	370
MIN. OUTSIDE AIR (CFM)		30	40
COOLING	CAPACITY (MBH)	12.0	12.0
	EFFICIENCY (EER)	11.5	11.5
HEATING	CAPACITY (MBH)	11.4	11.4
	EFFICIENCY (COP)	3.2	3.2
ELECTRICAL	AUX. HEAT	2.1KW	2.1KW
	VOLTS / PHASE	208/1	208/1
	MCA	14.1	14.1
	MOCP	15	15
NOTES		1, 2, 3, 4, 5	1, 2, 3, 4, 5

NOTES:
1. PTHP UNITS SHALL BE HEAT PUMPS (R410A) WITH ELECTRIC AUX. STRIP HEAT.
2. PROVIDE UNITS WITH CORD AND PLUG.
3. PROVIDE UNITS WITH WALL COLLAR.
4. PROVICE UNITS WITH ARCHITECTURAL GRILLE.
5. CONTRACTOR SHALL INSTALL SET SCREW IN OUTSIDE AIR DAMPER TO PREVENT ACCIDENTAL CLOSING AFTER AIR BALANCING HAS BEEN COMPLETED.

EXHAUST FAN SCHEDULE

SERVICE AREA		MEN (107) & WOMEN (108)	BEAUTY (160), BATHING (179), JAN. (180), & VISITOR TOILET (181)	LAUNDRY (172)	UNITS (122, 123, 124, 125, 126, 127, 128, 129, 131)	ELECTRICAL ROOM 169)	MECHANICAL ROOM (168)
MARK		EF1	EF2	EF3	EF4	EF5	EF6
FAN TYPE		INLINE CABINET	INLINE CABINET	INLINE CABINET	INLINE CABINET	ROOF UPBLAST EXHAUST	ROOF UPBLAST EXHAUST
MANUFACTURER	DEIGN BASIS	GREENHECK CSP-A390-VG	GREENHECK CSP-A1050-VG	GREENHECK CSP-A700-VG	GREENHECK CSP-A1050-VG	GREENHECK CUE-099-VG	GREENHECK CUE-099-VG
EXHAUST AIR		230	830	555	990	400	400
E.S.P. (in. H20)		0.375	0.375	0.375	0.375	0.500	0.500
ELECTRICAL	HP					1/4	1/4
	VOLTS / PHASE	115/1	115/1	115/1	115/1	115/1	115/1
	AMPS	1.45	3.85	3.53	3.85	5.8	5.8
NOTES		1,2,3,4,5,6	1,2,3,4,5,6	1,2,3,4,5,6	1,2,3,4,5,6	1, 2, 3, 4	1,2,3,7 8,9

NOTES:
1. EQUAL BY COOK OR PENN ALSO ACCEPTABLE
2. VARIGREEN DIAL ON EXTERIOR OF FAN HOUSING.
3. UL LISTED FOR POWER VENTILATORS.
4. PROVIDE SPRING ISOLATORS AND BRACKET.
5. PROVIDE NEMA-1 TOGGLE SWITCH.
6. PROVIDE INLINE BACKDRAFT DAMPER.
7. SEE DETAIL 1 ON SHEET M207.
8. CONTROLLED BY THERMOSTAT.
9. PROVIDE FAN WITH 12" CURB.

ELECTRIC HEATER SCHEDULE

SERVICE AREA		ELECTRICAL ROOM (169)	MECHANICAL ROOM (168)
MARK		EUH1	EUH2
TYPE		FAN-FORCED WALL HEATER	FAN-FORCED WALL HEATER
MANUFACTURER	DEIGN BASIS	QMARK LFK404	QMARK LFK404
	ALTERNATE 1	RAYWALL	RAYWALL
	ALTERNATE 2	MARKEL	MARKEL
WATTS		3,000	3,000
ELECTRICAL	VOLTS / PHASE	208/1	208/1
	AMPS	14.4	14.4
NOTES		1, 2	1, 2

NOTES:
1. UNIT MOUNTED THERMOSTAT.
2. PROVIDE SURFACE MOUNTING FRAME FOR SEMI RECESSED INSTALLATION.

HEAT PUMP SCHEDULE

	MARK		HP1	HP2	HP3	HP4	HP5	HP6	HP8	HP9	HP10	HP11	HP12
OUTDOOR UNIT	MANUFACTURER		TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
	MODEL		4TWR6060N1	4TWR4024N1	4TWR4024N1	4TWR4024N1	4TWR6048N1	4TWR4042N1	4TWR6060N1	4TWR6060N1	4TWR4048N1	4TWR4030N1	4TWR4048N1
	DESCRIPTION		2 STAGE HEAT PUMP	1 STAGE HEAT PUMP	1 STAGE HEAT PUMP	1 STAGE HEAT PUMP	2 STAGE HEAT PUMP	1 STAGE HEAT PUMP	2 STAGE HEAT PUMP	2 STAGE HEAT PUMP	1 STAGE HEAT PUMP	1 STAGE HEAT PUMP	1 STAGE HEAT PUMP
	NOMINAL UNIT SIZE		5 TON	2 TON	2 TON	2 TON	4 TON	3.5 TON	5 TON	5 TON	4 TON	2.5 TON	4 TON
	ELECTRIC	Volts / Phase	208/1	208/1	208/1	208/1	208/1	208/1	208/1	208/1	208/1	208/1	208/1
		MCA	37	15	15	15	28	24	37	37	26	13	26
		MOCP	60	25	25	25	45	40	60	60	40	20	40
INDOOR UNIT	MARK		AH1	AH2	AH3	AH4	AH5	AH6	AH8	AH9	AH10	AH11	AH12
	MANUFACTURER		TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
	MODEL		GAM5B0C60M51	GAM5B0A24M21	GAM5B0A24M21	GAM5B0A24M21	TAM9A0C48V41	GAM5B0C42M31	GAM5B0C60M51	GAM5B0C60M51	GAM5B0C48M41	GAM5B0B30M21	GAM5B0C48M41
	ELECTRIC RESISTANCE HEAT		7.20KW @ 208V	3.60KW @ 208V	3.60KW @ 208V	3.60KW @ 208V	5.77KW @ 208V	5.77KW @ 208V	7.20KW @ 208V	7.20KW @ 208V	5.77KW @ 208V	3.60KW @ 208V	5.77KW @ 208V
	ELECTRIC	Volts / Phase	208/1	208/1	208/1	208/1	208/1	208/1	208/1	208/1	208/1	208/1	208/1
		MCA	53.0	25.0	25.0	25.0	42.0	40.0	53.0	53.0	42.0	25.0	42.0
		MOCP	60	25	25	25	45	40	60	60	45	25	45
	AIR FLOWS (CFM)	SUPPLY	2,000	800	790	800	1,600	1,375	2,000	2,000	1,530	1,000	1,600
		RETURN	1,800	275	155	55	1,300	745	1,845	1,605	760	265	995
		OUTDOOR	200	525	635	745	300	630	155	395	770	735	685
	INDOOR FAN	DESCRIPTION	ECM MOTOR	ECM MOTOR	ECM MOTOR	ECM MOTOR	ECM MOTOR	ECM MOTOR	ECM MOTOR	ECM MOTOR	ECM MOTOR	ECM MOTOR	ECM MOTOR
		MOTOR HP	1.00	0.33	0.33	0.33	0.75	0.50	1.00	1.00	0.75	0.33	0.75
AHRI DATA		CAPACITY (BTUH)	53,500	23,200	23,200	23,200	46,000	40,000	53,500	53,500	45,500	29,200	45,500
		EER/SEER2	11.5/14.8	12.0/14.6	12.0/14.6	12.0/14.6	12.0/16.0	12.0/14.6	11.5/14.8	11.5/14.8	12.0/14.6	12.0/14.6	12.0/14.6
COOLING PERFORMANCE		NET COOLING CAPACITY (BTUH)	54,265	24,716	23,828	24,065	48,907	42,790	54,356	60,133	45,966	29,924	47,100
		NET SENSIBLE CAPACITY (BTUH)	38,277	12,218	14,484	14,199	30,161	24,385	41,955	35,391	32,843	19,447	30,757
		NET LATENT CAPACITY (BTUH)	15,987	12,497	9,344	9,865	18,745	18,404	12,401	24,741	13,122	10,476	16,342
HEATING PERFORMANCE		HEATING CAPACITY @ 47F (BTUH)	52,000	22,000	22,000	22,000	46,500	37,600	52,000	52,000	42,000	26,000	42,000
		HEATING CAPACITY @ 17F (BTUH)	35,200	14,400	14,400	14,400	31,000	24,600	35,200	35,200	28,000	17,200	28,000
		COP @ 47F	3.50	3.70	3.70	3.70	3.60	3.80	3.50	3.50	3.60	3.80	3.60
		COP @ 17F	2.50	2.40	2.40	2.40	2.60	2.60	2.50	2.50	2.50	2.60	2.50

Notes:
1. Trane is the design basis. Equivalent of other manufacutuers also acceptable.
2. Provide for low ambient temperature cooling.
3. All air handlers shall have single point electrical connection.
4. Provide filter rack with MERV13, pleated filter at return of each air handling unit. Provide new filter once construction activity is complete.
5. Indoor fans shall run continuously.

DUCTLESS HEAT PUMP SCHEDULE

OUTDOOR UNIT			HP7
MANUFACTURER			MITSUBISHI ELECTRIC
MODEL			PUZ-A36NKA7
DESCRIPTION			HEAT PUMP OUTDOOR UNIT
NOMINAL UNIT SIZE			3 TONS
ELECTRIC		Volts / Phase	208/230/1
		MCA / MOCP	25 / 30
INDOOR UNITS			IU7
Description			WALL MOUNTED UNIT
MANUFACTURER			MITSUBISHI ELECTRIC
MODEL			PKA-A36KA7
ELECTRIC		Volts / Phase	POWERED FROM OUTDOOR UNIT
		MCA / MOCP	
PERFORMANCE	COOLING	CAPACITY (BTU/HR)	36,000
		EFFICIENCY (SEER)	18.8
	HEATING	CAPACITY (BTU/HR)	40,000
		EFFICIENCY (HSPF)	9.2
		COP @ 47F	4.52
		COP @ 17F	2.85

NOTES:
1. PROVIDE WIRELESS REMOTE CONTROLLER.

ENERGY RECOVERY VENTILATOR SCHEDULE

MARK		ERV2		ERV3		ERV4		ERV6		ERV10		ERV11		ERV12	
MANUFACTURER		GREENHECK		GREENHECK		GREENHECK		GREENHECK		GREENHECK		GREENHECK		GREENHECK	
MODEL		MINIVENT 750-VG		MINIVENT 750-VG		MINIVENT 750-VG		MINIVENT 750-VG		MINIVENT 750-VG		MINIVENT 750-VG		MINIVENT 750-VG	
UNIT SERVED		AH2		AH3		AH4		AH6		AH10		AH11		AH12	
OUTSIDE AIR	AIRFLOW (CFM)	525		635		745		630		735		735		665	
	EXTERNAL STATIC PRESSURE (inw.c)	0.75		0.75		0.75		0.75		0.75		0.75		0.75	
EXHAUST AIR	AIRFLOW (CFM)	550		670		790		665		680		770		700	
	EXTERNAL STATIC PRESSURE (inw.c)	0.75		0.75		0.75		0.75		0.75		0.75		0.75	
		WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER	WINTER	SUMMER
ROOM EXHAUST AIR	DRY BULB (°F)	72.0	75.0	72.0	75.0	72.0	75.0	72.0	75.0	72.0	75.0	72.0	75.0	72.0	75.0
	RELATIVE HUMIDITY (%)	35	60	35	60	35	60	35	60	35	60	35	60	35	60
OUTSIDE AIR	DRY BULB (°F)	18.8	94.1	18.8	94.1	18.8	94.1	18.8	94.1	18.8	94.1	18.8	94.1	18.8	94.1
	WET BULB (°F)	15.5	78.3	15.5	78.3	15.5	78.3	15.5	78.3	15.5	78.3	15.5	78.3	15.5	78.3
SUPPLY AIR	DRY BULB (°F)	62.5	78.3	61.2	78.7	60.1	79.0	61.2	78.7	57.4	79.8	60	79.1	60.8	78.8
	WET BULB (°F)	49.9	68.0	49.1	68.3	48.4	68.6	49.1	68.3	46.7	69.1	48.3	68.6	48.8	68.4
ASHRAE 90.1 ERR		81.0	81.7	78.5	79.4	76.4	77.4	78.6	79.5	71.4	73.5	76.3	77.4	77.8	78.8
EATR (%)		4.9		3.2		3.7		3.2		2.8		3.6		3.4	
ELECTRIC	OUTSIDE AIR MOTOR HP	0.75		0.75		0.75		0.75		0.75		0.75		0.75	
	EXHAUST AIR MOTOR HP	0.75		0.75		0.75		0.75		0.75		0.75		0.75	
	Volts / Phase	208/1		208/1		208/1		208/1		208/1		208/1		208/1	
	MCA	12.5		12.5		12.5		12.5		12.5		12.5		12.5	
	MOCP	15		15		15		15		15		15		15	

NOTES:
1. ENERGY RECOVERY UNITS SHALL BE INTERLOCKED WITH SERVING AIR HANDLING UNIT.
2. ALL FAN MOTORS SHALL BE VARI-GREEN MOTORS WITH SPEED DIAL.
3. FANS SHALL RUN CONTINUOUSLY.

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REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1		REVISION 1
2	2/13/2023	REVISION 2

M002

HVAC SCHEDULES

VENTILATION SUMMARY

ROOM ID	ROOM DESCRIPTION	AREA (SF)[Az]	OCCUPANT DENSITY (# PER 1000 SF)	OCCUPANT LOAD (PEOPLE) [Pz]	PEOPLE OUTDOOR AIR		AREA OUTDOOR AIR		TOTAL OUTDOOR AIR REQUIRED (CFM) [PzRp*AzRa]	DESIGN OUTDOOR AIR PROVIDED BY AH (CFM)	DESIGN OUTDOOR AIR PROVIDED BY PTHP (CFM)	TOTAL DESIGN OUTDOOR AIR (CFM)	EXHAUST RATE REQUIRED (CFM PER SF)	EXHAUST REQUIRED (CFM)	DESIGN EXHAUST AIR (CFM)
					RATE (CFM/PERSON) [Rp]	TOTAL (CFM) [PzRp]	RATE (CFM/SF) [Ra]	TOTAL (CFM) [AzRa]							
100	VESTIBULE	75	0	0	0.0	0	0.06	5	5	5	0	5	0	0	0
101	LOBBY	247	30	8	5.0	40	0.06	15	55	55	0	55	0	0	0
102	RECEPTION	99	5	1	5.0	5	0.06	6	11	15	0	15	0	0	0
103	ADMIN. OFFICE	123	5	1	5.0	5	0.06	7	12	15	0	15	0	0	0
105	MARKETING OFFICE	176	5	1	5.0	5	0.06	11	16	20	0	20	0	0	0
106	BUSINESS OFFICE	209	5	2	5.0	10	0.06	13	23	25	0	25	0	0	0
107	MEN'S RESTROOM	54	0	0	0.0	0	0.00	0	0	0	0	0	2	108	115
108	WOMEN'S RESTROOM	54	0	0	0.0	0	0.00	0	0	0	0	0	2	108	115
110/111	LOUNGE/BISTRO	954	5	5	5.0	5	0.06	57	62	65	0	65	0	0	0
112	RESIDENT LAUNDRY	70	0	0	0.0	0	0.06	4	4	70	0	70	2	140	150
113	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
113R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
114	CLEAN LINEN	71	0	0	0.0	0	0.06	4	4	5	0	5	0	0	0
115	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
115R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
116	ACTIVITIES OFFICE	118	5	1	5.0	5	0.06	7	12	15	0	15	0	0	0
117	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
117R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
118	ACTIVITIES DIRECTOR	103	5	1	5.0	5	0.06	6	11	15	0	15	0	0	0
119	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
119R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
120	LIVING	553	30	17	5.0	85	0.06	33	118	120	0	120	0	0	0
121	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
121R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
122	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
122R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
123	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
123R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
124	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
124R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
125	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
125R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
126	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
126R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
127	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
127R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
128	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
128R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
129	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
129R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
130	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
130R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
131	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
131R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
132	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
132R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
133	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
133R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
134	WEST CORRIDOR	1131	0	0	0.0	0	0.06	68	68	200	0	200	0	0	0
135	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
135R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
136	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
136R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
137	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
137R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
138	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
138R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
139	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
139R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
140	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
140R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
150	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
150R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
151	SOUTH CORRIDOR	496	0	0	0.0	0	0.06	30	275	0	0	0	0	0	0
152	EAST CORRIDOR 1	724	0	0	0.0	0	0.06	43	43	250	0	250	0	0	0
153	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
153R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
154	SEMI- PRIVATE COMMON SPACE	114	5	1	5.0	5	0.06	7	12	40	0	40	0	0	0
154R	SEMI-PRIVATE BATH	55	0	0	0.0	0	0.00	0	0	0	0	0	2	110	120
154A	SEMI-PRIVATE ROOM	164	5	1	5.0	5	0.06	10	15	0	40	40	0	0	0
154B	SEMI-PRIVATE ROOM	156	5	1	5.0	5	0.06	9	14	0	40	40	0	0	0
155	STORAGE	93	0	0	0.0	0	0.06	6	6	10	0	10	0	0	0

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Gabriela Salazar
Pamela Friday
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REVISIONS

#	DATE	DESC.
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1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

M003
VENTILATION SUMMARY

VENTILATION SUMMARY CONT.

ROOM ID	ROOM DESCRIPTION	AREA (SF)[Az]	OCCUPANT DENSITY (# PER 1000 SF)	OCCUPANT LOAD (PEOPLE) [Pz]	PEOPLE OUTDOOR AIR		AREA OUTDOOR AIR		TOTAL OUTDOOR AIR REQUIRED (CFM) [PzRp*AzRa]	DESIGN OUTDOOR AIR PROVIDED BY AH (CFM)	DESIGN OUTDOOR AIR PROVIDED BY PTHP (CFM)	TOTAL DESIGN OUTDOOR AIR (CFM)	EXHAUST RATE REQUIRED (CFM PER SF)	EXHAUST REQUIRED (CFM)	DESIGN EXHAUST AIR (CFM)
					RATE (CFM/PERSON) [Rp]	TOTAL (CFM) [PzRp]	RATE (CFM/SF) [Ra]	TOTAL (CFM) [AzRa]							
156	CLEAN LINEN	81	0	0	0.0	0	0.06	5	5	0	0	0	0	0	0
157	SEMI- PRIVATE COMMON SPACE	114	5	1	5.0	5	0.06	7	12	40	0	40	0	0	0
157R	SEMI-PRIVATE BATH	55	0	0	0.0	0	0.00	0	0	0	0	0	2	110	120
157A	SEMI-PRIVATE ROOM	164	5	1	5.0	5	0.06	10	15	0	40	40	0	0	0
157B	SEMI-PRIVATE ROOM	156	5	1	5.0	5	0.06	9	14	0	40	40	0	0	0
350	DINING	600	70	32	7.5	236	0.18	108	344	345	0	350	0	0	0
159	SERVERY	200	5	1	7.5	8	0.18	36	44	45	0	45	0	0	0
160	BEAUTY	170	25	5	20.0	100	0.12	20	120	120	0	120	0.6	102	110
162	ACTIVITY	1138	40	46	5.0	230	0.06	68	298	300	0	300	0	0	0
163	KITCHEN	613	5	4	0.0	0	0.00	0	0	145	0	145	0	0	0
167	DRY STORAGE	118	0	0	0.0	0	0.06	7	7	10	0	10	0	0	0
170	STORAGE	304	0	0	0.0	0	0.06	18	18	20	0	20	0	0	0
170B	CORRIDOR	333	0	0	0.0	0	0.06	20	20	270	0	270	0	0	0
171	JANITOR'S CLOSET	55	0	0	0.0	0	0.00	0	0	30	0	30	2	110	120
172	LAUNDRY	262	0	0	0.0	0	0.00	0	0	0	0	0	2	524	555
173	SOILED HOLD.	131	0	0	0.0	0	0.00	0	0	150	0	150	2	262	280
174	STAFF LOUNGE	125	5	1	5.0	5	0.06	8	13	15	0	15	0	0	0
175	STAFF RESTROOM	68	0	0	0.0	0	0.00	0	0	30	0	30	2	136	145
176	CARE BASE	723	5	4	5.0	20	0.06	43	63	65	0	65	0	0	0
177	STAFF TOILET	56	0	0	0.0	0	0.00	0	0	30	0	30	2	112	120
178	MEDS	80	5	1	5.0	5	0.06	5	10	10	0	10	0	0	0
179	BATHING	251	0	0	0.0	0	0.00	0	0	0	0	0	2	502	530
180	JANITOR'S CLOSET	29	0	0	0.0	0	0.06	2	2	5	0	5	2	58	65
181	VISITOR TOILET	58	0	0	0.0	0	0.00	0	0	0	0	0	2	116	125
182	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
182R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
183	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
183R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
184	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
184R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
186	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
186R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
188	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
188R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
190	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
190R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
191	E. CORRIDOR 2	618	0	0	0.0	0	0.06	37	37	265	0	265	0	0	0
192	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
192R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
193	STORAGE	235	0	0	0.0	0	0.06	14	14	15	0	15	0	0	0
194	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
194R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
195	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
195R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
196	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
196R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
197	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
197R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
198	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
198R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
199	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
199R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
200	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
200R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
201	PRIVATE ROOM	235	5	2	5.0	10	0.06	14	24	80	30	110	0	0	0
201R	PRIVATE BATH	52	0	0	0.0	0	0.00	0	0	0	0	0	2	104	110
202	N. CORRIDOR	873	0	0	0.0	0	0.06	52	52	375	0	375	0	0	0

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Pamela Friday
Yuan Ping Lien

REVISIONS

#	DATE	DESC.
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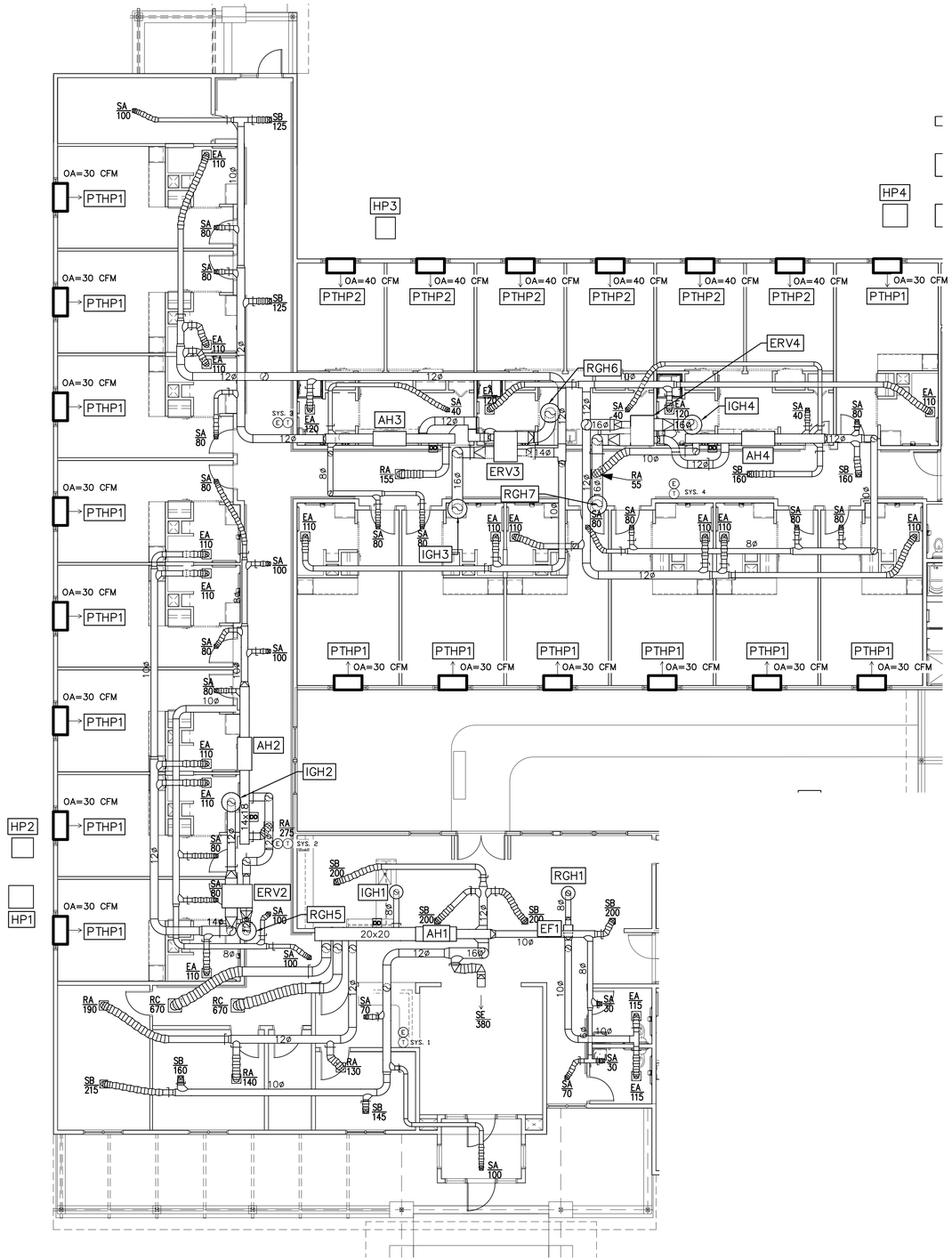
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

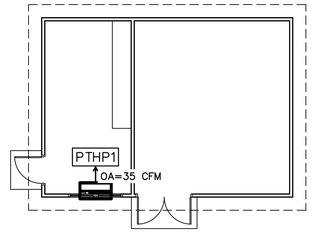
M004
VENTILATION SUMMARY CONT.



1 M101

PARTIAL HVAC PLAN (SMOKE COMPARTMENT A)

SCALE: 1/8"=1'-0"



2 M101

STORGE BUILDING HVAC PLAN

SCALE: 1/8"=1'-0"

MECHANICAL GENERAL NOTES:

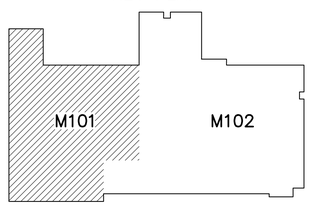
1. ALL DIFFUSERS AND GRILL SHALL HAVE RADIATION DAMPERS; SEE DETAIL 6/M207.
2. CONFIRM LOCATION OF FIRE AND/OR SMOKE ASSEMBLIES WITH ARCHITECTURAL PLANS. PROVIDE COMBINATION FIRE/SMOKE DAMPER PER DETAIL 1/M208.
3. CONDENSATE DRAINS SHALL BE ROUTED TO NEAREST PREVIOUS AREA OUTSIDE. ALL CONDENSATE DRAINS SHALL BE PVC WITH ½" ARMAFLEX INSULATION.

8 4 0 8 16

GRAPHIC SCALE: 1"=8'

NORTH

KEY PLAN



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Yuan Ping Lien

REVISIONS		
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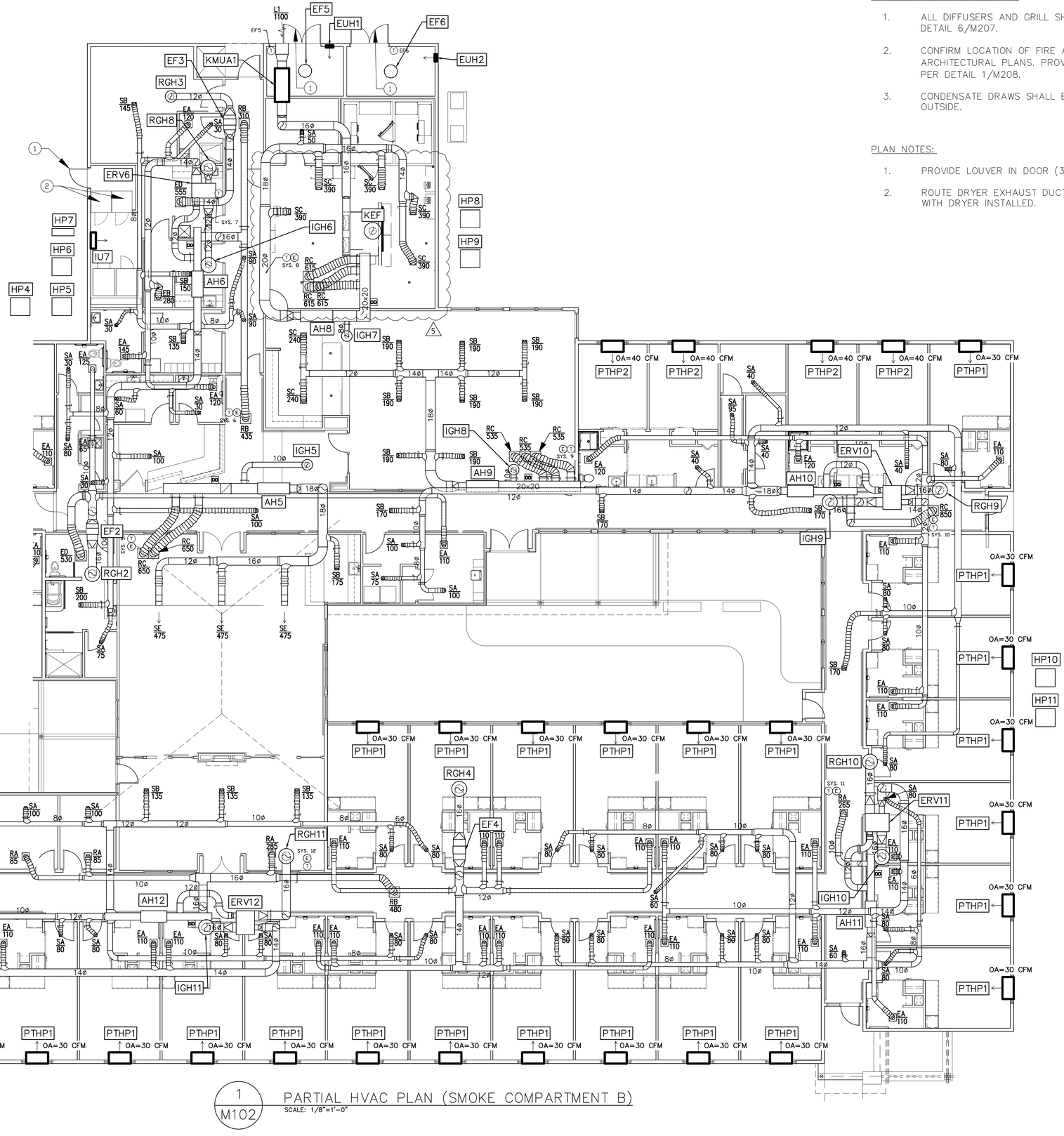
M101

PARTIAL HVAC PLAN



1 M102 PARTIAL HVAC PLAN (SMOKE COMPARTMENT B)

SCALE: 1/8"=1'-0"

MECHANICAL GENERAL NOTES:

1. ALL DIFFUSERS AND GRILL SHALL HAVE RADIATION DAMPERS; SEE DETAIL 6/M207.
2. CONFIRM LOCATION OF FIRE AND/OR SMOKE ASSEMBLIES WITH ARCHITECTURAL PLANS. PROVIDE COMBINATION FIRE/SMOKE DAMPER PER DETAIL 1/M208.
3. CONDENSATE DRAWS SHALL BE ROUTED TO NEAREST PREVIOUS AREA OUTSIDE.

PLAN NOTES:

1. PROVIDE LOUVER IN DOOR (3 SF OF FREE AREA MIN.).
2. ROUTE DRYER EXHAUST DUCT TO ROOF CAP. VERIFY REQUIREMENTS WITH DRYER INSTALLED.

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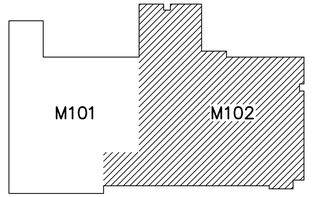
NORTH

8 4 0 8 16

GRAPHIC SCALE: 1"=8'

KEY PLAN



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1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2
5	5/31/2023	REVISION 5

M102

PARTIAL HVAC PLAN

HOOD INFORMATION – JOB#5581799

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)							TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP			END TO END	ROW
1		5424 ND-2-PSP-F	CAPTIVEAIRE	6' 0"	600 DEG	I	HEAVY	225	1350			4"	14"	1350	1263	-0.640"	1100	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)					FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
												FIRE SYSTEM		ELECTRICAL	SWITCHES	
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #	QUANTITY	
1		CAPTRATE SOLO FILTER	4	16"	16"	85% SEE FILTER SPEC	4	RECESSED ROUND	NO	RIGHT	12"x54"x24"	TANK FS	4.0/4.0	SC-311110MA	1 LIGHT 1 FAN	YES	737 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 18.00" HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00" HIGH X 84.00" LONG 430 SS VERTICAL.
		RIGHT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS.
		INSULATION FOR BACK OF HOOD.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG	DIA	CFM	SP
1		Front	84"	14"	6"	MUA	10"	28"		550	0.141"
						MUA	10"	28"		550	0.141"

(S) GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW" DOES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE.
PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "DW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS.

IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT

HVAC DISTRIBUTION NOTE

HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.

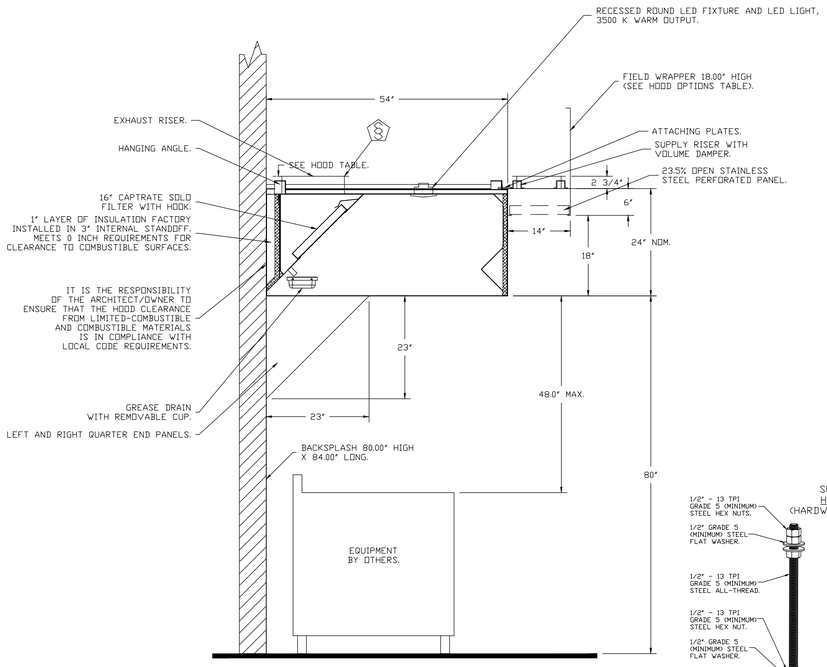
VERIFY CEILING HEIGHT

__' - __"

HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

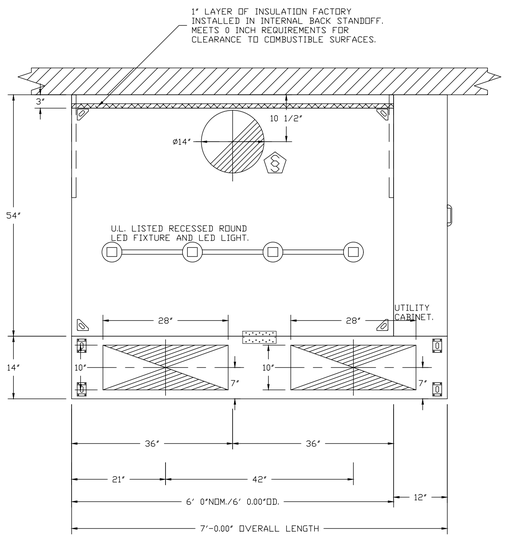
CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED ☐
APPROVED WITH NO EXCEPTION TAKEN ☐
REVISE AND RESUBMIT ☐
SIGNATURE _____
YOUR TITLE _____ DATE _____



SECTION VIEW – MODEL 5424ND-2-PSP-F HOOD – #1

2 / M201 KITCHEN HOOD SECTION VIEW
SCALE: NONE



PLAN VIEW – HOOD #1
6' 0.00" LONG 5424ND-2-PSP-F

1 / M201 KITCHEN HOOD PLAN VIEW
SCALE: NONE

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

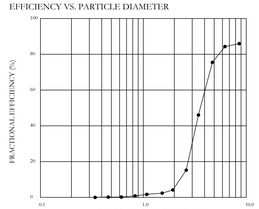
FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

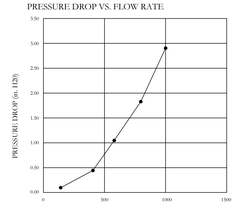
GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05. MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER

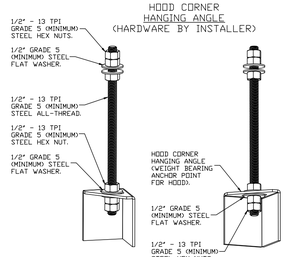


PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:
NFPA #96.
NSF STANDARD #2.
UL STANDARD #1046.
INT. MECH. CODE (IMC).
ULC-S649.

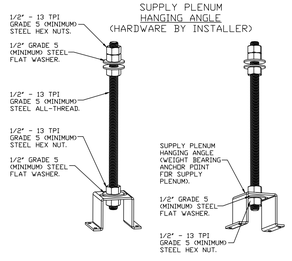
HOOD CORNER HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

SUPPLY PLENUM HANGING ANGLE (HARDWARE BY INSTALLER)



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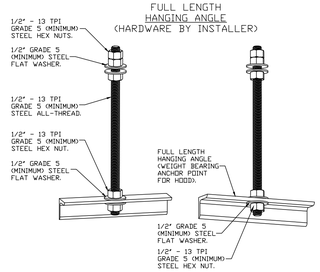
FULL LENGTH HANGING ANGLE (HARDWARE BY INSTALLER)



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

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LICENSE NO. C-0647
L. MICHAEL STROUD, P.E.

NORTH CAROLINA PROFESSIONAL ENGINEER #PE021990 L. MICHAEL STROUD

DocuSigned by: L. Michael Stroud F104013C715F4A1...

20 JANUARY, 2023

Matthew A Conte, AIA
NC. REG.#15129

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PROJECT NAME:

THE SPRINGS OF BALLENTINE

40 RAWLS CLUB RD
FUQUAY-VARINA NC.

PROJECT CLIENT:

CAROLINA COMMERCIAL CONTRACTORS
--

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PROJECT TEAM:
Gabriela Salazar
Pamela Friday
Yuan Ping Lien

REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

M201
KITCHEN HOOD DETAILS

EXHAUST FAN INFORMATION – JOB#5581799

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF	1	EADU85H	ECON-AIR	1350	1.000	1232	ODP	0.750	0.3380	3	208	2.6	427 FPM	94	9.39488711708618

MUA FAN INFORMATION – JOB#5581799

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2	KMAU-1	1	EA-A1-15D	15MF-1-MOD	A1	-	1100	0.500	1294	ODP	0.750	0.3390	3	208	2.5	3.2A	15A	347	12.312931000911

FAN OPTIONS

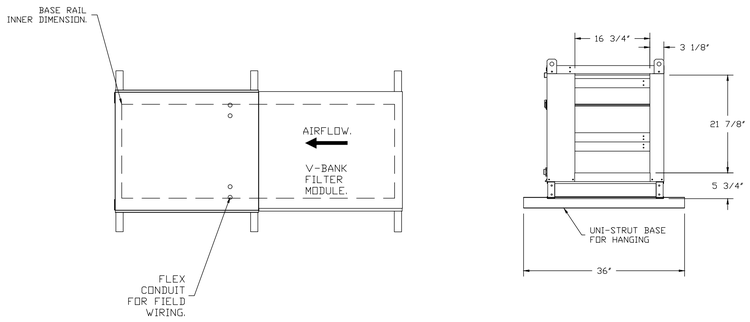
FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF	1	GREASE BOX
		1	2 YEAR PARTS WARRANTY
2	KMAU-1	1	INSULATION OPTION FOR V-BANK FILTER SECTION
		1	GRAVITY BACKDRAFT DAMPER FOR SIZE 1 HOUSING
		1	A1 INDOOR HANGING OPTION - INCLUDES 2 HSA125 HANGING SPRING ISOLATORS PER UNI-STRUT
		1	2 YEAR PARTS WARRANTY

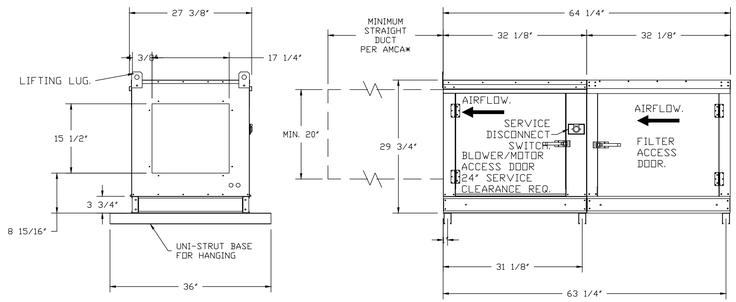
FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF	YES						
2	KMAU-1				YES	YES		

CURB ASSEMBLIES

NO	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF	41 LBS	CURB	23.000"W X 23.000"L X 24.000"H ALONG LENGTH, RIGHT VENTED HINGED.



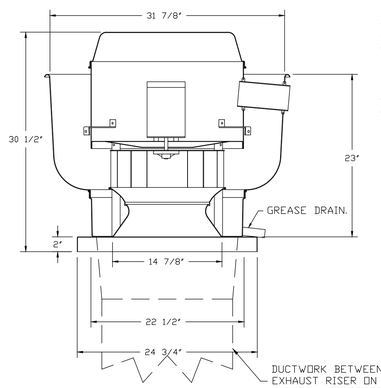


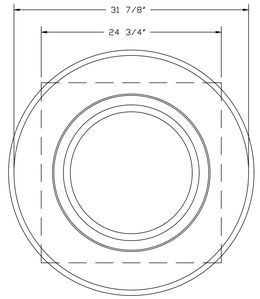
FAN #2 EA-A1-15D - SUPPLY FAN (KMAU-1)
1. UNTEMPERED SUPPLY UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN IN SIZE #1 HOUSING.
2. V-BANK EZ FILTERS - INDOOR.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. "INSULATION" FOR V-BANK INTAKE OPTION.
5. GRAVITY BACK DRAFT DAMPER, 16" WIDE X 18" HIGH, STANDARD GALVANIZED CONSTRUCTION, 1 1/4" REAR FLANGE, FOR SIZE 1 UNTEMPERED FAN HOUSING (5181).
6. INDOOR HANGING CRADLE FOR THE SIZE 1 UNTEMPERED UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
7. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
8. 2 YEAR PARTS WARRANTY

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".

1 M202 KITCHEN HOOD SUPPLY FAN (KMAU-1) DETAILS
SCALE: NONE

FAN #1 DUBSHFA - EXHAUST FAN (KEF)





TOP VIEW

FEATURES:

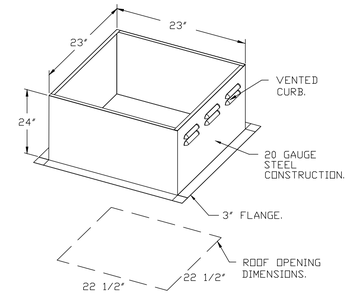
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

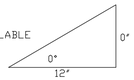
OPTIONS

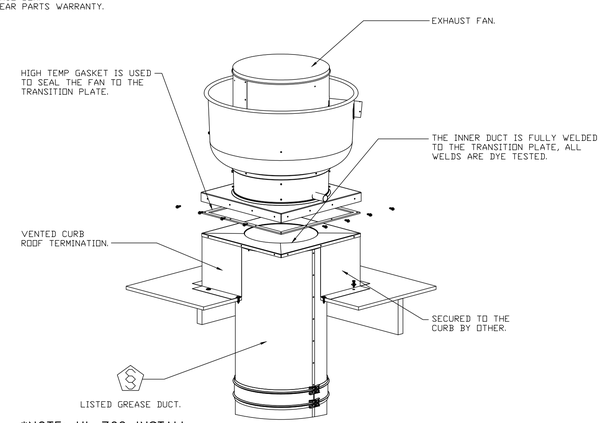
GREASE BOX.
2 YEAR PARTS WARRANTY.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.





*NOTE: UL 762 INSTALL.

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2 M202 KITCHEN HOOD EXHAUST FAN (KEF) DETAILS
SCALE: NONE

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L. MICHAEL STROUD, P.E.

NORTH CAROLINA PROFESSIONAL #PE021990 ENGINEER L. MICHAEL STROUD

DocuSigned by: L. Michael Stroud F1D4013C715F4A1...

20 JANUARY, 2023

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-

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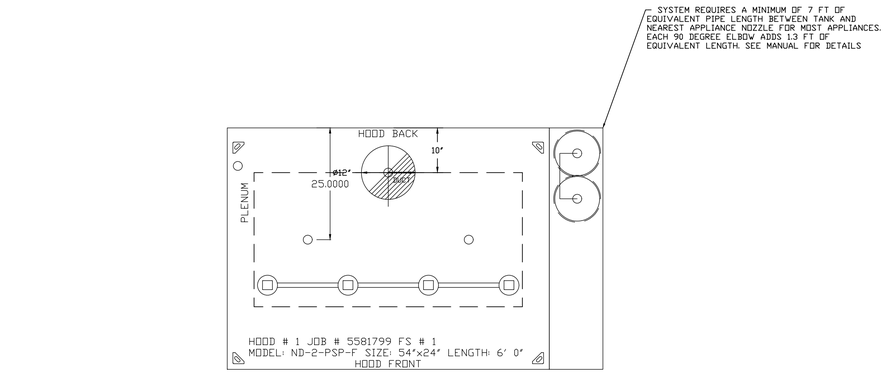
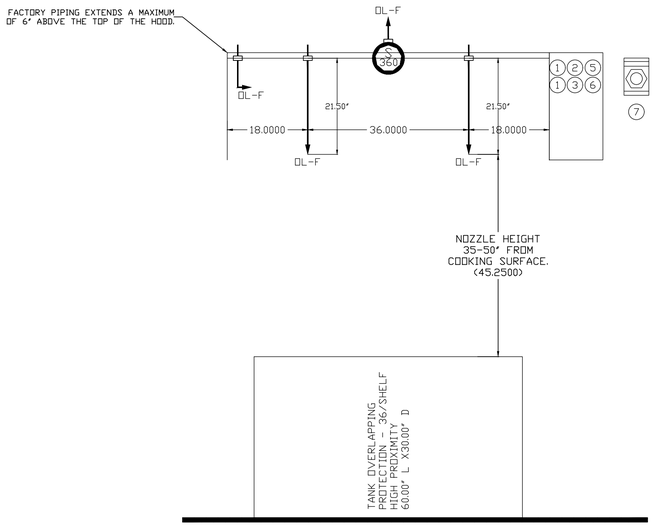
PROJECT TEAM:
Gabriela Salazar
Pamela Friday
Yuan Ping Lien

REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

M202
KITCHEN HOOD FAN DETAILS & SCHEDULES





JOB #: 5581799.
JOB NAME: THE SPRINGS OF BALLENTINE

SYSTEM SIZE: TANK-SP-2 TOTAL FP REQUIRED: 18.
HOOD # 1 6' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 0" x 0".

NOTES
- FIELD PIPE DROPS AS SHOWN
  PIPING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 2 60IN LONG PIECES OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- OVERLAPPING COVERAGE SHALL NOT BE USED ON ANY APPLIANCE WITH AN OBSTRUCTION.
- IF APPLICABLE, EXTENDED PRE-PIPED DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

- OL-F NOZZLE PART NUMBER REPLACES 3070-3/8H-10-SS

JOB #: 5581799.
JOB NAME: THE SPRINGS OF BALLENTINE KITCHEN HOOD. 4

SYSTEM SIZE: TANK-SP-2 TOTAL FP REQUIRED: 18.
HOOD # 1 6' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 12" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.

- HEAVY-DUTY APPLIANCES (RATED 600°F) WILL REQUIRE AN ADDITIONAL DOWNSTREAM FIRESTAT IN THE EVENT THAT THE DUCTWORK CONTAINS ANY HORIZONTAL RUNS OVER 25 FT IN LENGTH.
- MEDIUM TO LIGHT-DUTY APPLIANCES (RATED 450°F) WILL NOT REQUIRE ANY ADDITIONAL DOWNSTREAM DETECTION.

LEGEND – FIRE CABINET TANK SYSTEM

1 4 GALLON TANK.
2 PRIMARY ACTUATOR RELEASE.
3 SECONDARY ACTUATOR RELEASE.
4 PRESSURE SUPERVISION SWITCH.
5 PRIMARY HOSE ASSEMBLY.
6 SECONDARY HOSE ASSEMBLY.
7 REMOTE MANUAL ACTUATION DEVICE.

NOTES
- FIELD PIPE DROPS AS SHOWN
  SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
- FIELD INSTALLED DROP: FACTORY WILL PROVIDE QTY 1 60IN LONG PIECE OF CHROME PLATED PIPING SHIPPED LOOSE TO BE FIELD-INSTALLED.
- SHIP LOOSE DROP: FACTORY WILL PROVIDE THE EXACT CHROME PIPE LENGTH NEEDED SHIPPED LOOSE TO BE FIELD-INSTALLED.
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

1 / M203 KITCHEN HOOD FIRE SUPPRESSION DETAILS
SCALE: NONE

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20 JANUARY, 2023

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PROJECT NAME:

THE SPRINGS OF BALLENTINE

40 RAWLS CLUB RD
FUQUAY-VARINA NC.

PROJECT CLIENT:

CAROLINA COMMERCIAL CONTRACTORS
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PROJECT TEAM:
Gabriela Salazar
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Yuan Ping Lien

REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2
4	4/11/2023	REVISION 4

M203
KITCHEN HOOD FIRE SUPPRESSION

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5581799	SC-311110MA		INSTALL	Fire System #1 TANK FS - 4.0/4.0. Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME: THE SPRINGS OF BALLENTINE	DATE: 8/2/2022	DWG NO: ECP #1-3	

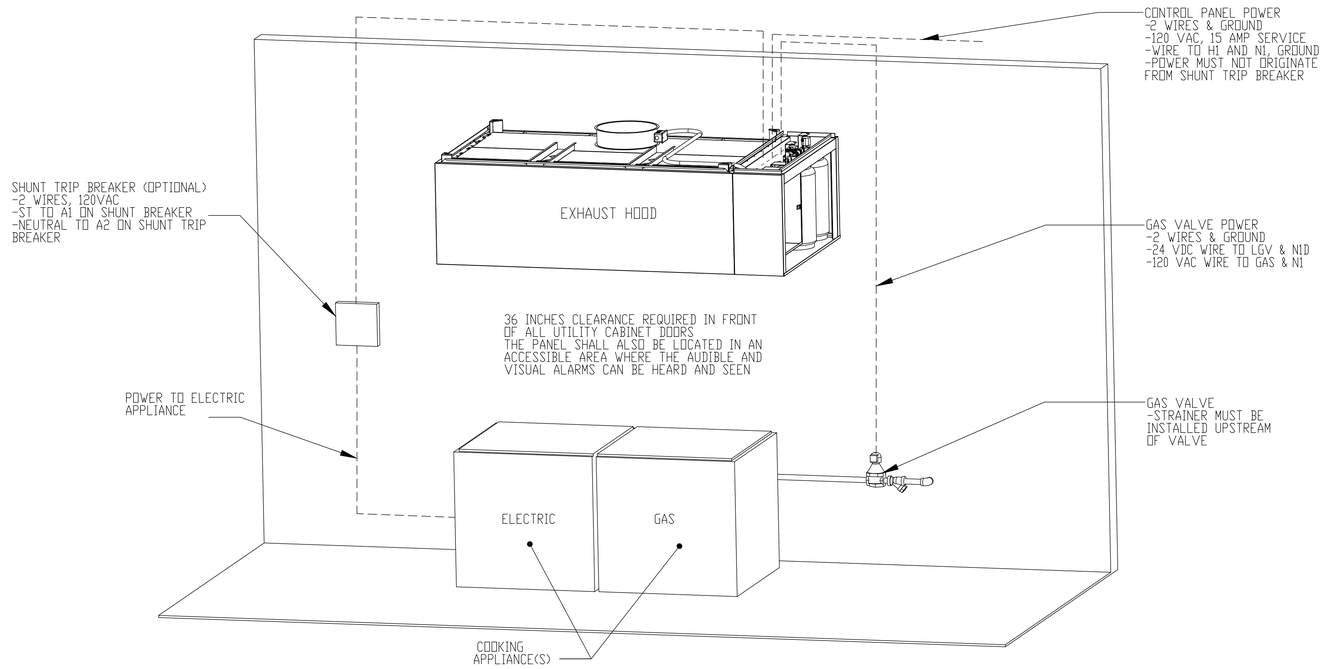
TANK PROTECTION ELECTRICAL DETAIL

02/10/2021 Rev. 2

FS-1: MASTER

ELECTRICIAN:
1. WIRE MAIN CONTROL PANEL PER INCLUDED SCHEMATIC
2. WIRE ALL FANS PER INCLUDED SCHEMATIC
3. WIRE SHUNT TRIP BREAKER (OPTIONAL)
4. WIRE UDS APPLIANCE KILL SWITCH, IF EQUIPPED (OPTIONAL)
5. WIRE GAS VALVE

ELECTRICAL CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION IN DEVICE	VOLTAGE	AMPERAGE	COMMENTS
SHUNT TRIP BREAKER (OPTIONAL)	ST & N1	BREAKER COIL (A1 & A2)	120 VAC	< 4 AMPS	ST TO A1 ON SHUNT BREAKER COIL, AND NEUTRAL TO A2 ON SHUNT TRIP BREAKER COIL
CONTROL PANEL POWER	H1 & N1 + GROUND	CIRCUIT BREAKER	120 VAC	15 AMPS	CONTROL PANEL POWER MUST NOT BE RUN THROUGH SHUNT TRIP BREAKER
UDS APPLIANCE KILL SWITCH (OPTIONAL)	KTS & N1	KTS & N1	120 VAC	< 4 AMPS	KILL SWITCH TERMINALS MUST BE IN SERIES WITH OTHER KILL SWITCHES
REMOTE 120VAC ANSUL AUTOMAN (OPTIONAL)	AU1, AU2	SOLENOID	120 VAC	< 6 AMPS	120V TO AU1, AU2 TO ANSUL ELECTRIC AUTOMAN, ANSUL SOLENOID TO NEUTRAL
GAS VALVE	LGV & N1D (IF 24 VDC) GAS & N1 (IF 120 VAC)	RED/RED/GREEN	24 VDC OR 120 VAC	< 1.0 AMPS	IF 24 VDC - 2 WIRES & GROUND, N1D TO RED, LGV TO RED, AND GREEN TO GROUND IF 120 VAC - 2 WIRES & GROUND GAS TO RED, N1 TO RED, AND GREEN TO GROUND



NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

1 / M204 KITCHEN HOOD ELECTRICAL DETAIL
SCALE: NONE

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M204
KITCHEN HOOD ELECTRICAL DETAIL

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE	DESCRIPTION OF OPERATION:
5581799	SC-311110MA		INSTALL	Fire System #1 TANK FS - 4.0/4.0. Tank-based Fire Protection System equipped with Electronic Detection utilizing CORE board as a Listed Release Mechanism. Installed in Hood Utility Cabinet with integral hood prewire panel.
	JOB NAME THE SPRINGS OF BALLENTINE	DATE 8/2/2022	DWG NO ECP #1-4	

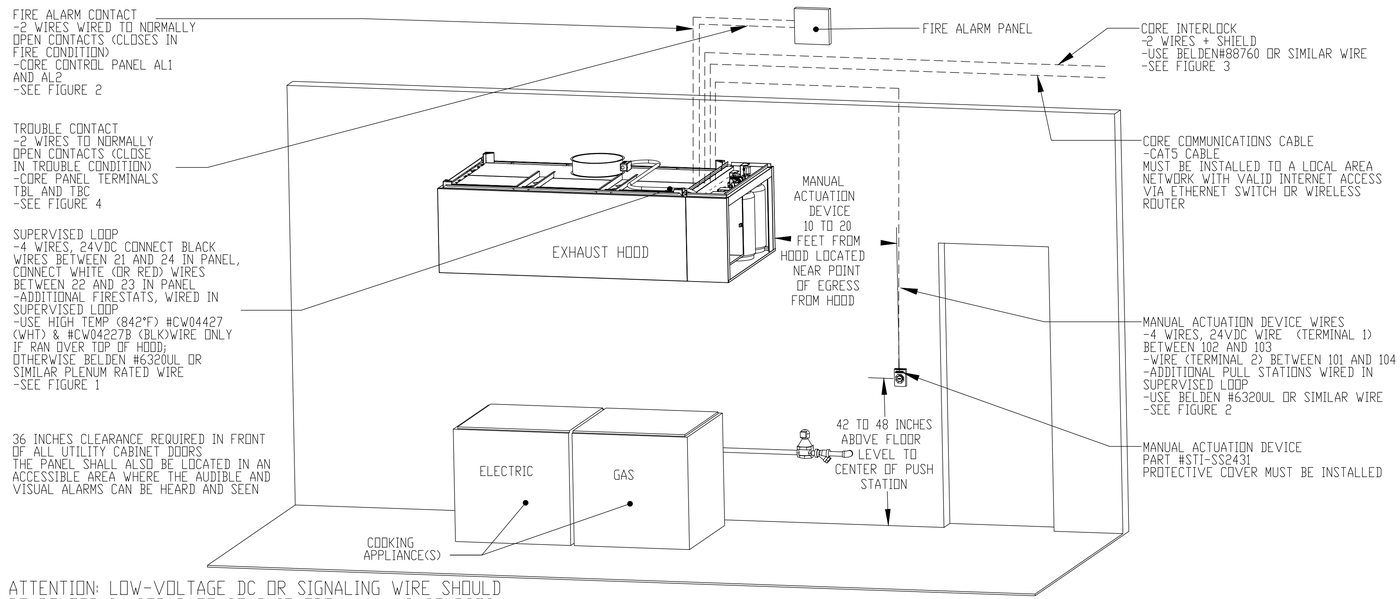
TANK PROTECTION LOW-VOLTAGE DETAIL

02/10/2021 Rev. 2

ALARM CONTRACTOR:
1. WIRE MANUAL ACTUATION DEVICE(S), REMOTE FIRESTAT(S), CORE INTERLOCK(S), FIRE SENSOR(S) AND FIRE ALARM CONTACTS
2. COMPLETE FINAL HOOKUP OF SYSTEM
3. VERIFY FINAL FIRE SYSTEM TEST

FS-1: MASTER

ALARM CONTRACTOR REQUIREMENT					
ITEM	CONNECTION IN PANEL	CONNECTION ON DEVICE	VOLTAGE	AMPERAGE	COMMENTS
MANUAL ACTUATION DEVICE(S)	101 AND 104 102 AND 103	1 & 2	24 VDC	< 1.0 AMPS	WIRE MANUAL ACTUATION DEVICE TERMINAL 1 BETWEEN CORE PANEL TERMINALS 102 AND 103 WIRE MANUAL ACTUATION DEVICE TERMINAL 2 BETWEEN CORE PANEL TERMINALS 101 AND 104 JUMPER 101 TO 104 AND 102 TO 103 IF NO MANUAL ACTUATION DEVICE IS INSTALLED
MANUAL ACTUATION DEVICE COVER	N/A	N/A	N/A	N/A	MANUAL ACTUATION DEVICE COVER MUST BE INSTALLED IF SURFACE MOUNTED, USE COVER EXTENSION STI-6531B
REMOTE FIRESTAT SENSOR(S)	21 AND 24 22 AND 23	BLACK AND WHITE	24 VDC	< 1.0 AMPS	WIRE FIRE SENSOR WHITE WIRES BETWEEN HOOD CORE PANEL TERMINALS 22 AND 23 WIRE FIRE SENSOR BLACK WIRE BETWEEN HOOD CORE PANEL TERMINALS 21 AND 24 HIGH TEMP (842°F) #CW04427 (WHT) & #CW04427B (BLK)WIRE OR SIMILAR ONLY IF RAN OVER TOP OF HOOD; OTHERWISE BELDEN #6320UL OR SIMILAR PLENUM RATED WIRE; SEE FIGURE 1
FIRE ALARM CONTACT	AL1, AL2	VARIES	50V MAX (AC/DC)	UP TO 1 AMP	FIRE ALARM RELAY CONTACTS FOR BUILDING FIRE ALARM LOCATED IN THE CORE ELECTRICAL CONTROL PANEL
CORE INTERLOCK(S)	ILA, ILB, ILC	ILA, ILB, ILC	RS-485 COMMUNICATIONS SIGNAL		CORE SYSTEM (1) ILA, TO CORE SYSTEM (2) ILA. CORE SYSTEM (1) ILB, TO CORE SYSTEM (2) ILB. CORE SYSTEM (1) ILC, TO CORE SYSTEM (2) ILC. USE BELDEN# 88760 OR SIMILAR WIRE
TROUBLE CONTACT	TBC, TBL, TDK	VARIES	MAX 120 VAC	UP TO 6 AMPS	WIRE TO TBL & TBC NORMALLY OPEN CONTACT, CLOSES IN TROUBLE CONDITION
CORE COMMUNICATIONS CABLE	RJ-45 Jack	INTERNET CONNECTION	SIGNAL	<1.0 AMPS	TYPICAL CONNECTION CAT5 CABLE TO LOCAL AREA NETWORK VIA ETHERNET SWITCH OR WIRELESS ROUTER WITH VALID INTERNET CONNECTION



ATTENTION: LOW-VOLTAGE DC OR SIGNALING WIRE SHOULD BE ROUTED IN SEPARATE CONDUIT FROM ALL AC SOURCES

NOTE: SEE INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR FURTHER INSTRUCTIONS

1 / M205 KITCHEN HOOD LOW VOLTAGE DETAIL

SCALE: NONE

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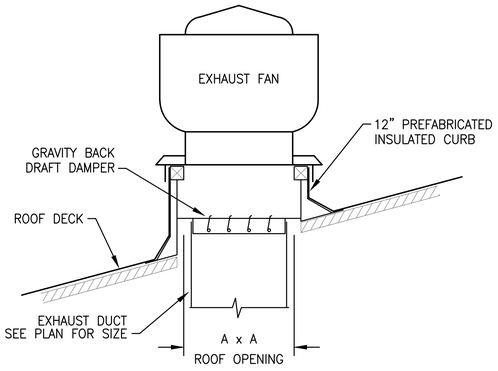
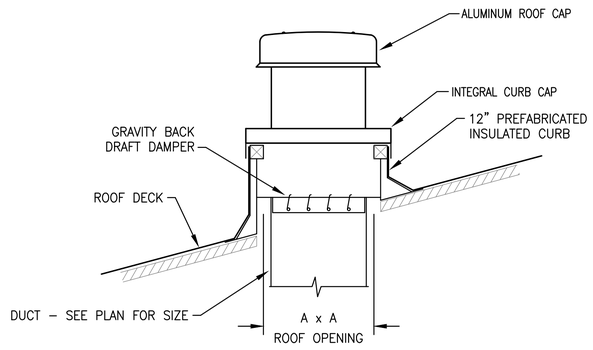
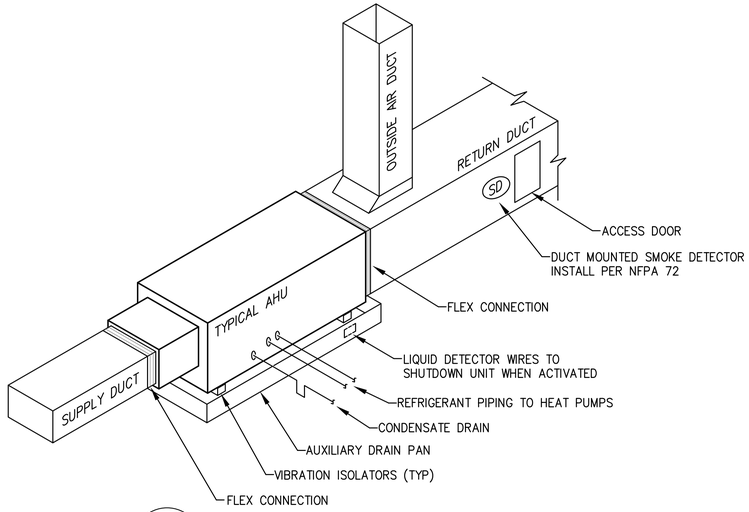
M205
KITCHEN HOOD LOW VOLTAGE DETAIL



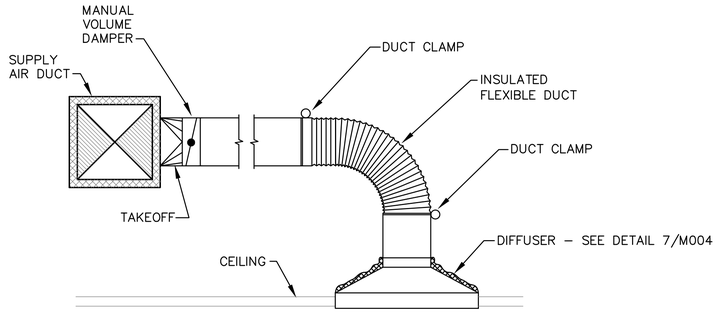
1 M206 ROOF MOUNTED UPBLAST EXHAUST FAN DETAIL
SCALE: NONE



2 M206 GRAVITY INTAKE/RELIEF HOOD DETAIL
SCALE: NONE



3 M206 AIR HANDLER / INDOOR UNIT DETAIL
SCALE: NONE

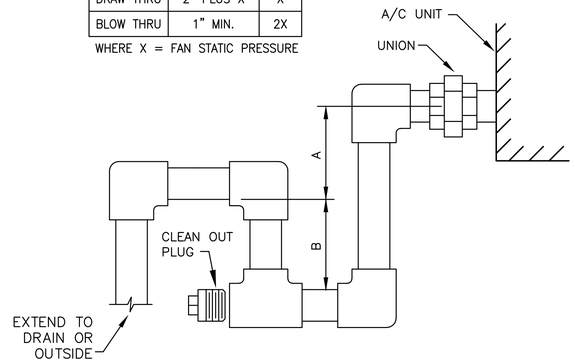


NOTE:
1. COORDINATE DIFFUSER FRAME TYPE WITH CEILING.

4 M206 TYPICAL DFFUSER / GRILLE INSTALLATION DETAIL
SCALE: NONE

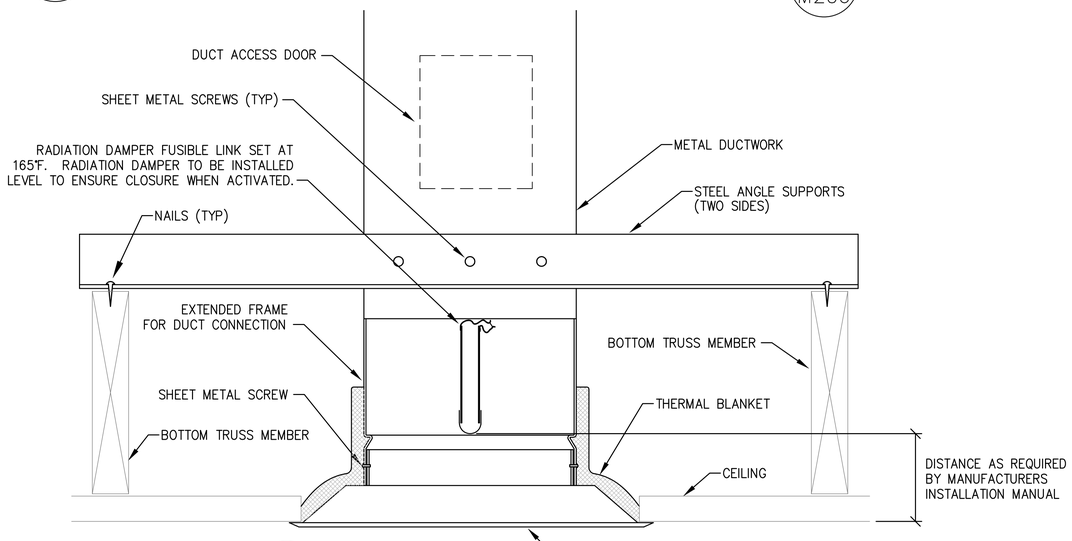
UNIT TYPE	A	B
DRAW THRU	2" PLUS X	X
BLOW THRU	1" MIN.	2X

WHERE X = FAN STATIC PRESSURE

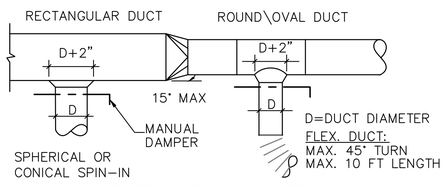


NOTE:
CONDENSATE PIPE SHALL BE SCHEDULE 40 PVC WITH ½" ARMAFLEX INSULATION

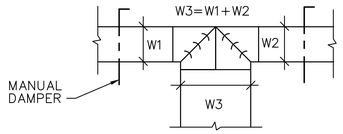
5 M206 TYPICAL CONDENSATE DRAIN DETAIL
SCALE: NONE



6 M206 RADIATION DAMPER DETAIL
SCALE: NONE

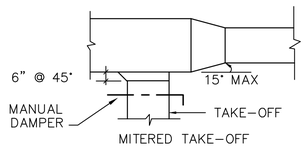


SPHERICAL\OVAL TAKE-OFFS



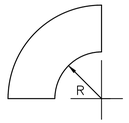
DEPTH OF MAIN=DEPTH OF TEES

LOW PRESSURE TEE



MITERED TAKE-OFF

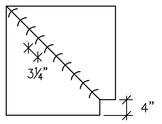
SQUARE DUCT BRANCH TAKE-OFF



R=DUCT WIDTH

FULL RADIUS ELBOW

LOW PRESSURE



DOUBLE THICKNESS VANES ON HIGH PRESSURE DUCT

SINGLE THICKNESS VANES ON LOW PRESSURE DUCT

SECURE VANES EVERY 6" MAX. USE LARGE VANES UNLESS NOTED OTHERWISE

SQUARE MITERED ELBOW

DUCT ELBOWS

7 M206 TYPICAL DUCT DETAILS
SCALE: NONE

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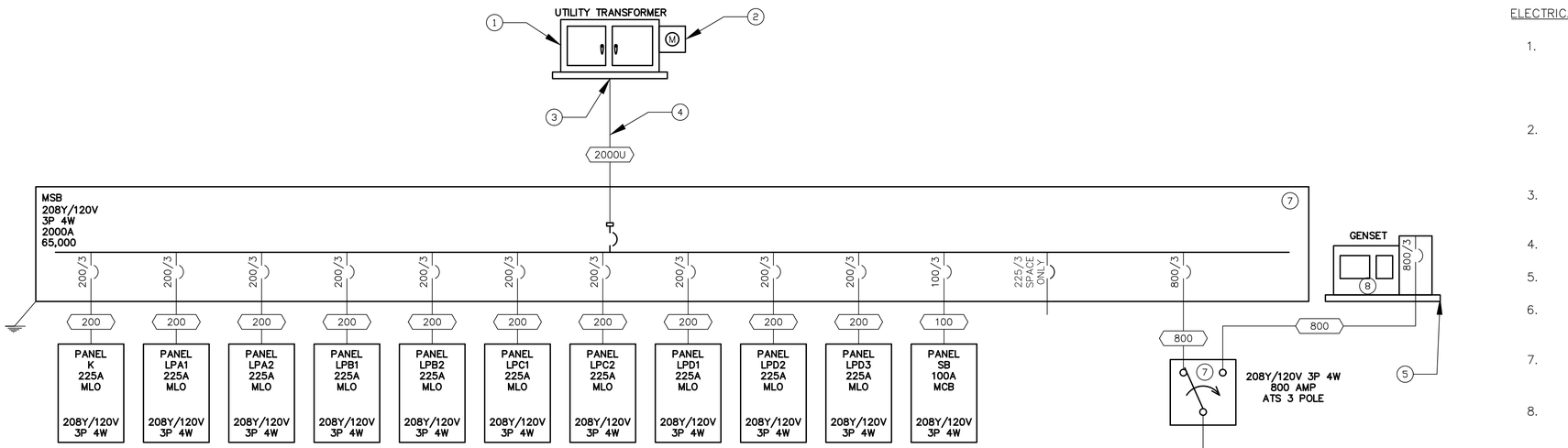
M206
HVAC DETAILS



1
E001

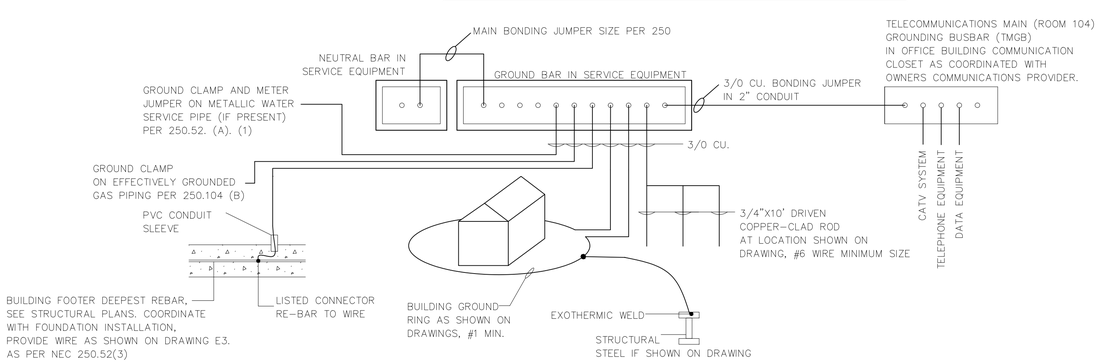
ELECTRICAL ONE-LINE DIAGRAM

SCALE: NONE

FEEDER SCHEDULE

ID	*FEEDER AMPS*	*CONDUIT AND FEEDER*
90D	90	1-1/4"C,3#2,#8G
100	100	1-1/2"C,3#1,#1N,#8G
200	200	2"C,3#3/0,#3/0N,#6G
225	225	2-1/2"C,3#4/0,#4/0N,#4G
800	800	(3)3"C,3#300kcmil,#300kcmil N,#1/0G
2000U	2000	(5)4"C,3#600kcmil,#600kcmil N

SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C 1/0 AND ABOVE
NOTE: SEE SHEET E503 FOR FULL PANEL LIST AND ALUMINUM WIRING ALTERNATES.



2
E001

GROUNDING ELECTRODE DETAIL

SCALE: NONE

ELECTRICAL PLAN NOTES

1. UTILITY TRANSFORMER AND PRIMARY FEED PROVIDED BY POWER COMPANY. 300 KVA 120/208 23,800 S.C.C. VERIFY S.C.C. WITH POWER COMPANY PRIOR TO ORDERING. NOTIFY ENGINEERING IF LARGER THAN NOTED HERE.
2. METERING PROVIDED BY POWER COMPANY INSTALLATION AND MOUNTING OF CONDUIT COORDINATED WITH POWER COMPANY.
3. UTILITY TRANSFORMER PAD PROVIDED BY POWER COMPANY.
4. SECONDARY PROVIDED BY CONTRACTOR.
5. GENERATOR PAD DESIGN PROVIDED BY OTHERS.
6. SEE PANEL SCHEDULE ON SHEET E504 AND DRAWING FOR ADDITIONAL CIRCUITS FROM THIS PANEL.
7. PROVIDE 4" HOUSEKEEPING PAD WITH 3" OVERHANG ON (3) SIDES OF "MSB" AND (3) SIDES OF "ATS."
8. GENERATOR OF DESIGN IS A UL-2200 LISTED KOHLER MODEL: 250REOZJE, W/ 4UA10 ALTERNATOR 250KW/313KVA, 120/208V 3ϕ 4W ALUMINUM ENCLOSURE, UL-142 LISTED 96 HOUR SUB BASE FUEL TANK PROVIDE STAIRS AND PLATFORM ON BOTH SIDES OF GENERATOR.
9. ATS OF DESIGN IS A KOHLER MODEL NUMBER: KSS-ACTA-0800S, UL-1008 LISTED.
10. FEEDER SIZE TO SEWER LIFT STATION SHALL BE CONFIRMED WITH CIVIL ENGINEER PRIOR TO INSTALLATION. FINAL DESIGN OF SEWER LIFT STATION NOT COMPLETE AT TIME OF THIS ELECTRICAL DESIGN.

SYMBOL LEGEND:

- GROUND
- NON-FUSED SWITCH
- FUSED SWITCH 30A, 60A, OR 100A AS REQUIRED

ABBREVIATIONS:

AIC	AMPS INTERRUPTING CAPACITY
AF	AMP FUSE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AT	AMP TRIP
AWG	AMERICAN WIRE GAGE
E.C.	ELECTRICAL CONTRACTOR
EHH	ELECTRICAL HAND HOLE
G	GROUND
KVA	KILOVOLT AMPERE
KW	KILOWATT
MIN	MINIMUM
(N)	NEW
NEC	NATIONAL ELECTRIC CODE (NFPA 70)
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PB	PULL BOX
RCPT	RECEPTACLE
T	TRANSFORMER
TYP	TYPICAL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
U.O.N.	UNLESS OTHERWISE NOTED
V	VOLT
VIF	VERIFY IN FIELD
W	WATT
WP	WEATHERPROOF

ELECTRICAL PLAN NOTES

1. SEE SHEET E503 FOR ONE LINE DIAGRAM FEEDERS COPPER WIRE CALLOUT AND ALTERNATE ALUMINUM WIRE CALLOUT. COORDINATE EQUIPMENT LUG REQUIREMENTS IN ALL GEAR WITH FEEDERS TO BE INSTALLED PRIOR TO INSTALLATION.

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E001

ELECTRICAL COVER

PM3108~001
THE SPRINGS OF BALLENTINE
FUQUAY-VARINA, NC

PART 1 GENERAL

1.01 GENERAL REQUIREMENTS

A. THE CONTRACTOR SHALL COMPLY WITH ALL THE LAWS, ORDINANCES, RULES AND REGULATIONS OF ALL LOCAL AND STATE GOVERNMENTAL AUTHORITIES, THE MOST RECENT RULES OF THE NATIONAL FIRE PROTECTION ASSOCIATION AS INTERPRETED BY THE ENFORCING AUTHORITY HAVING JURISDICTION AND OF THE PUBLIC UTILITIES HAVING CONNECTION WITH ANY OF THE SYSTEMS HEREIN SPECIFIED.

B. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY ANY OF THE FOREGOING AUTHORITIES, AND PAY FOR ALL OTHER COSTS IN CONNECTION WITH THE WORK. ALL CERTIFICATES SHALL BE IN DUPLICATE AND SHALL BE DELIVERED TO THE ARCHITECT.

C. THE SITE, LOCATION, AND CIRCUITING OF SYSTEMS INDICATED TO HAVE NEW CONNECTIONS MADE TO THEM ARE SHOWN AS ACCURATELY AS FIELD CONDITIONS WOULD PERMIT. BIDDERS SHALL VISIT THE SITE AND THOROUGHLY EXAMINE THE CONTRACT DRAWINGS. BIDDERS WHO DO NOT VISIT THE SITE MAY BE UNILATERALLY NOT PERMITTED TO SUBMIT A BID IF THE OWNER SO DESIGNATES. ALL EXISTING CONDITIONS SHALL BE EXAMINED AND THEIR EXACT LOCATIONS VERIFIED. THE CONTRACTOR SHALL REPORT TO THE PROJECT MANAGER BEFORE SUBMITTING A BID, ANY CONDITIONS WHICH MIGHT MAKE INSTALLATION OF REQUIRED EQUIPMENT A PROBLEM. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO INVESTIGATE CONDITIONS OR MISUNDERSTANDINGS OF THE CONTRACTUAL REQUIREMENTS.

D. THE CONTRACTOR SHALL INSTALL AND CONNECT ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE BEST ENGINEERING PRACTICE AND, UNLESS OTHERWISE SHOWN OR SPECIFIED. FOLLOW THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS AND FURNISH AND INSTALL ALL REQUIRED AUXILIARY ITEMS COMPLETE.

E. DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC AND FOR BIDDING PURPOSES ONLY. WHILE THE DRAWINGS ARE GENERALLY TO SCALE AND ARE AS ACCURATE AS THE SCALE WILL PERMIT, ALL IMPORTANT DIMENSIONS SHALL BE DETERMINED IN THE FIELD.

F. COORDINATE WITH ALL TRADES TO AVOID INTERFERENCE AMONG MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL ITEMS. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS IN CIRCUITRY AND OTHER ITEMS REQUIRED TO INSTALL THE WORK WITHOUT INTERFERENCES.

G. THE CONTRACTOR SHALL TEST ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT AND DEMONSTRATE TO OWNER ITS PROPER OPERATIONS. ALL NEW EQUIPMENT SHALL BE MOUNTED VIBRATION FREE.

H. ALL EQUIPMENT AND WORKMANSHIP SHALL BE GUARANTEED IN FULL FROM ALL DEFECTS FOR ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THIS WORK.

I. ALL EQUIPMENT INSTALLED SHALL BE NEW AND SHALL CONFIRM IN ALL RESPECTS TO THE LATEST APPROVED STANDARDS OF IEEE, ANSI, NEMA AND UNDERWRITERS LABORATORIES, INC., (UNLESS INDICATED OTHERWISE.) PERFORM ALL WORK IN ACCORDANCE WITH NECA 1 (GENERAL WORKMANSHIP). SUBSTITUTIONS SHALL ONLY BE ACCOMPLISHED AT THE DISCRETION OF THE PROJECT MANAGER. SHOP DRAWINGS ARE TO BE SUBMITTED AND APPROVED BEFORE THE EQUIPMENT IS ORDERED. SUBMIT COPIES OF SHOP DRAWINGS TO THE PROJECT MANAGER REQUIREMENTS.

J. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN THE CONTRACT AREA AND ALL OTHER AREAS USED FOR STORAGE, STAGING, ETC.

K. PROVIDE TEMPORARY SERVICE FOR LIGHTING AND POWER EQUIPMENT (DRILLS, SAW, ETC.) VERIFY TEMPORARY REQUIREMENTS. TEMPORARY LIGHTING AND POWER SHALL MEET OSHA REQUIREMENTS AND LOCAL CODE. TEMPORARY POWER SHALL BE 120 VOLTS.

L. FINAL TESTING: AT THE TIME OF FINAL INSPECTION AND TESTS, ALL CONNECTIONS AT PANELBOARDS, DEVICES AND EQUIPMENT AND ALL SPLICES MUST BE COMPLETED. EACH BRANCH CIRCUIT AND ITS RESPECTIVE CONNECTED EQUIPMENT MUST TEST FREE OF SHORT CIRCUITS. UPON COMPLETION OF THE WORK, CLEAN AND POLISH ALL EXPOSED SURFACES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

M. THE CONTRACTOR SHALL REVIEW ALL CONSTRUCTION DRAWINGS, SPECIFICATIONS, EQUIPMENT INSTALLATION INSTRUCTIONS AND SHOP DRAWINGS OF ALL TRADES TO FAMILIARIZE HIMSELF WITH THE EXTENT OF THE WORK REQUIRED.

N. CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS OF OSHA AS APPLIED TO CONSTRUCTIONS PROJECTS.

O. IN THE EVENT A CONFLICT OCCURS BETWEEN THE CONTRACT, SPECIFICATIONS, DRAWINGS, REFERRED TO MANUFACTURER'S LITERATURE, CODES HAVING JURISDICTION OR OTHER DOCUMENTS REFERRED TO HEREIN, THIS CONTRACTOR SHALL CONTACT THE PROJECT MANAGER FOR A RULING AND CLARIFICATION PRIOR TO SUBMITTING ANY BID DOCUMENTS. WHERE CONFLICTS ARE QUESTIONED AFTER BID SUBMITTALS, THE DOCUMENT OR DOCUMENTS WITH THE MOST STRINGENT, EXPENSIVE AND DETAILED REQUIREMENTS WILL BE ENFORCED BY THE ARCHITECT. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH AND INSTALL THE MOST STRINGENT REQUIREMENTS AND AGREES THAT NO SEPARATE OR EXTRA PAYMENTS WILL BE MADE FOR ANY ITEM OR WORK OR MATERIALS REQUIRED TO FOLLOW THE MORE STRINGENT REQUIREMENTS.

P. ALL EQUIPMENT AND MATERIAL SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER AND ALIGNED, LEVELED AND ADJUSTED FOR SATISFACTORY OPERATION. INSTALL EQUIPMENT SO THAT ALL PARTS ARE EASILY ACCESSIBLE FOR INSPECTION, OPERATION, MAINTENANCE, AND REPAIR. VERIFY THAT CONDITIONS ARE SATISFACTORY FOR INSTALLATION OF ALL EQUIPMENT REFERENCED IN THESE SPECIFICATIONS PRIOR TO STARTING INSTALLATION.

Q. ALL ELECTRICAL APPARATUS SHALL BE INSTALLED AT THE MOUNTED HEIGHTS INDICATED ON THE DRAWINGS, USING THE SAME MATERIALS AND METHODS USED IN THE EXISTING CONSTRUCTION.

R. THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE EVERY DETAIL OF CONSTRUCTION OR EVERY ITEM OF MATERIAL OR EQUIPMENT REQUIRED. THE CONTRACT DOCUMENTS ARE INTENDED TO ILLUSTRATE AND SPECIFY THE GENERAL EXTENT, TYPE OF SYSTEM AND PERFORMANCE WITH ANY SPECIAL CONDITION AND FUNCTIONS REQUIRED. THE ELECTRICAL CONTRACTOR SHALL BE EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE AND OPERABLE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.

S. CONTRACTOR SHALL MAINTAIN ON THE JOB SITE ONE COMPLETE SET OF CONTRACT DOCUMENTS OF ALL TRADES AND SHALL COORDINATE WITH OTHER TRADES SO AS TO AVOID CONFLICTS AND PROVIDE EQUIPMENT CONNECTIONS AS REQUIRED BY EQUIPMENT SHOP DRAWINGS AND EQUIPMENT NAMEPLATES.

T. INDICATED LOCATIONS OF OUTLETS, EQUIPMENT CONNECTIONS, ETC. ARE APPROXIMATE AND SHALL BE VERIFIED BY REFERENCE TO RELATED DOCUMENTS (I.E. ARCHITECTURAL DRAWINGS, EQUIPMENT SHOP DRAWINGS, MANUFACTURER'S INSTRUCTIONS, MECHANICAL AND PLUMBING DRAWINGS) TO INDICATE ALL CONDUCTORS REQUIRED TO PROVIDE COMPLETE AND FULLY OPERABLE WIRING SYSTEMS.

U. ONE LINE DIAGRAMS ARE DIAGRAMMATIC AND NOT INTENDED TO SHALL ALL REQUIRED MATERIALS, DEVICES AND QUANTITIES OF STATIONS OR DEVICES, THE FLOOR PLANS, SPECIFICATIONS, CODES, REGULATIONS, LAWS, AND MANUFACTURER REQUIREMENTS ALSO SUPPLEMENT AND GOVERN THE REQUIREMENTS AND QUANTITIES FOR DEVICES FOR THE SYSTEMS.

V. THE CONTRACT DOCUMENTS ARE INTENDED TO ILLUSTRATE TO COMPETENT AND EXPERIENCED CONTRACTORS AND WORKMEN THE SYSTEMS REQUIRED AND TO PERMIT SUCH PEOPLE TO TAKE-OFF THE REQUIRED MATERIALS AND EQUIPMENT, LAY OUT THE WORK SPECIFIED, AND EXECUTE ALL NECESSARY MEANS REQUIRED TO PROVIDE THE COMPLETE AND OPERABLE SYSTEMS SPECIFIED AND ILLUSTRATED.

W. THE AESTHETIC APPEARANCE OF THE UNDERSIDE OF THE EXPOSED ROOF DECK, AND WALLS IS CRITICAL. THIS ALSO INCLUDES ALL EXPOSED CONDUITS , CABLING AND EQUIPMENT ABOVE REMOVABLE CEILINGS. CONTRACTORS WILL BE HELD TO A HIGHER STANDARD FOR THE UNIFORMITY OF APPEARANCE. ALL REQUIRED CONDUITS, CABLES, WIRES, JUNCTION BOXES AND MISCELLANEOUS DEVICES/EQUIPMENT SHALL BE INSTALLED PER NEC AS CLOSE AS POSSIBLE AREAS. ALL RUNS SHALL BE PARALLEL OR PERPENDICULAR TO THE BUILDING WALLS AND ROOF DECK STRUCTURE. CONDUIT CABLES RUNS SHALL BE INSTALLED PER NEC REQUIREMENTS AS CLOSE TO THE BOTTOM OF THE DECK/CEILING AS ALLOWABLE AND DIRECTLY ADJACENT TO THE ROOF JOISTS WHEN RUNNING PERPENDICULAR TO THE ROOF DECK.

X. PROVIDE ALL ACCESS PANELS AND ACCESS DOORS WHERE REQUIRED FOR SERVICING AND ADJUSTING ALL EQUIPMENT IN NON ACCESSIBLE LOCATIONS. THE CONTRACTOR SHALL REVIEW AND COORDINATE ALL BOX LOCATION'S AND DOOR CONFIGURATIONS WITH ARCHITECT PRIOR TO INSTALLING.

Y. ALL ELECTRICAL DEVICES SHALL BE ALIGNED WITH THE ARCHITECTURAL FEATURES OF THE BUILDING. DEVICES FOR VARIOUS SYSTEMS (LIGHT SWITCHES, RECEPTACLES, FIRE ALARM, HORNS, THERMOSTATS, ETC.) LOCATED IN THE SAME GENERAL AREA SHALL BE ALIGNED AT THEIR RESPECTIVE MOUNTING HEIGHTS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OTHER TRADES TO ENSURE ALIGNMENT OF ALL DEVICES. BACK BOXES SHALL BE MOUNTED ON THE SAME SIDE OF THE SAME WALL STUD TO SHOW AN ALIGNED APPEARANCE. ANY DIMENSIONS SHOWN ON THE DRAWINGS SHALL SUPERSEDE THIS GUIDANCE. SEE SCHEDULES FOR TYPICAL LOCATIONS AND MOUNTING HEIGHTS. ALL MOUNTING HEIGHTS INDICATED ON DRAWINGS ARE FROM THE FINISHED FLOOR TO THE CENTERLINE OF THE DEVICE OR BACK BOX TRIM, UNLESS NOTED OTHERWISE.

Z. FOR WALL AND FLOOR PENETRATIONS MADE BY CONTRACTOR. FIRE PROOFING SHALL BE PROVIDED AFTER ALL CONDUITS OR SLEEVES ARE INSTALLED. FIRE PROOFING FOR PENETRATIONS SHALL BE UL APPROVED PER THE PENETRATIONS MADE. REFER TO ARCHITECTURAL SHEETS FOR LOCATIONS OF RATED WALLS AND PARTITIONS.

1.02 DEFINITIONS

A. "PROVIDE" UNDER THIS CONTRACT IS DEFINED AS FURNISH AND INSTALL.

B. "CONCEALED" UNDER THIS CONTRACT IS DEFINED AS HIDDEN BY ARCHITECTURAL WALLS AND CEILINGS.

C. "EXPOSED" UNDER THIS CONTRACT IS DEFINED AS VISIBLE TO VIEW.

D. "INDICATED" UNDER THIS CONTRACT IS DEFINED AS SHOWN IN THE CONTRACT DOCUMENTS.

PART 2 RACEWAYS, BOXES AND CONDUITS

2.01 GENERAL REQUIREMENTS :

A. INDOOR WIRING METHODS:
1. CONNECTION TO VIBRATING EQUIPMENT: FLEXIBLE METALLIC CONDUIT.
2. EXPOSED: (UNFINISHED AREAS ONLY) ELECTRICAL METALLIC TUBING (EMT) OR GALVANIZED RIGID CONDUIT (GRC.)(WHERE SUBJECT TO PHYSICAL DAMAGE)
3. CONCEALED: ELECTRICAL METALLIC TUBING OR, AS APPROVED, METAL CLAD "MC."
4. BOXES, COVERS AND ENCLOSURES: NEMA TYPE 1.
5. RIGID PVC 40 CONDUIT IS PERMITTED FOR UNDER GROUND/SLAB FEEDERS AND BRANCH CIRCUITS. ROUTING UNDERGROUND/SLAB SHALL BE AT SINGLE LEVEL OR IN LISTED CONDUIT RACKS AND (2) LEVELS MAXIMUM TO ALLOW FOR EVEN BACKFILL - CONDUITS SHALL NOT BE BUNDLED OR ROUTED TOGETHER WITHOUT SEPARATION.
6. CONDUIT TRANSITIONS FROM UNDER GROUND TO ABOVE GROUND LOCATIONS SHALL BE MADE WITH GALVANIZED HEAVY WALL RIGID ELLS WITH GALVANIZED RIGID CONDUITS TO 48" AFF MIN. OR AS OTHERWISE NOTED FOR PHYSICAL PROTECTION.

B. OUTDOOR WIRING METHODS: PROVIDE UNDERGROUND WARNING TAPES FOR ALL SERVICE AND FEEDER CONDUITS LARGER THAT 1" OR MARK LOCATION ON AS-BUILT DRAWINGS.
1. CONNECTION TO VIBRATING EQUIPMENT : FLEXIBLE METAL SEAL-TIGHT CONDUIT OR NON METALLIC SEAL TIGHT CONDUIT WITH LISTED FITTINGS.
2. EXPOSED : GALVANIZED RIGID CONDUIT (GRC) OR SCHEDULE 80 PVC WHEN SUBJECT TO PHYSICAL DAMAGE.SCHEDULE 40 PVC UNDERGROUND.
3. BOXES, COVERS AND ENCLOSURES : NEMA3R MINIMUM OR AS OTHERWISE NOTED ON DRAWINGS. NON METALLIC BOXES AND ENCLOSURES SHALL BE PERMITTED AS NOTED ON DRAWINGS.
4. CONDUIT TRANSITIONS FROM UNDERGROUND TO ABOVE GROUND LOCATIONS SHALL BE MADE WITH HEAVY WALL RIGID ELLS WITH GALVANIZED RIGID CONDUIT (GRC) TO 48" AFG MIN. OR AS OTHERWISE NOTED FOR PHYSICAL PROTECTION.

C. DO NOT ROUTE CONDUIT EXPOSED ON OUTSIDE OF BUILDING WALLS, UNLESS ROUTING IS REVIEWED AND APPROVED BY ARCHITECT/ENGINEER.

D. ALL CIRCUITRY IN EXTERIOR FINISHED AREAS SHALL BE RUN CONCEALED. MINIMUM SIZE CONDUIT SHALL BE 3/4" EMT..ROUTING MUST BE REVIEWED AND APPROVED BY ARCHITECT/ENGINEER.

E. EMT CONNECTORS AND COUPLINGS SHALL BE OF THE ALL-STEEL, SET SCREW (INTERIOR) OR COMPRESSION (EXTERIOR) TYPE. DIE-CAST FITTINGS ARE NOT PERMITTED.

F. EXPOSED AND CONCEALED CIRCUITRY (WHETHER CONDUIT OR CABLING) SHALL BE RUN TIGHT TO CEILING IN A NEAT, WORKMAN-LIKE MANNER. ALL RUNS SHALL BE PARALLEL OR PERPENDICULAR TO THE BUILDING WALLS.

G. ALL CIRCUITRY RUNS INDICATED ARE DIAGRAMMATIC. THE CONTRACTOR SHALL DETERMINE IN THE FIELD THE MOST SUITABLE ROUTES. ALL CONDUIT AND CABLING INSTALLATIONS SHALL BE INSTALLED IN A NEAT AND WORKMANSHIP LIKE MATTER AS OUTLINE IN NECA 1 STANDARDS.

H. OUTLET BOXES SHALL BE A MINIMUM OF 4" SQUARE WITH THE APPROPRIATE PLASTER RING OR TILE COVER (IF CONCEALED) SURFACE BOXES SHALL HAVE STEEL RAISED COVERS. NON METALLIC BOXES AND FITTINGS ARE NOT ACCEPTABLE IN INTERIOR LOCATIONS.

I. COORDINATE SIZES OF RACEWAYS, BOXES, AND EQUIPMENT ENCLOSURES INSTALLED UNDER OTHER SECTIONS WITH THE ACTUAL CONDUCTORS TO BE INSTALLED, INCLUDING ADJUSTMENTS FOR CONDUCTOR SIZES DUE TO VOLTAGE DROP.

J. SECURE AND SUPPORT BOXES AND CONDUIT IN ACCORDANCE WITH NEC USING LISTED SUPPORTS AND METHODS APPROVED BY THE ENGINEER AND AUTHORITY HAVING JURISDICTION.

K. PROVIDE INDEPENDENT SUPPORT FROM BUILDING STRUCTURE. DO NOT PROVIDE SUPPORT FROM OTHER TRADE INSTALLATION OR SUSPENDED CEILING SUPPORT SYSTEMS. DO NOT ALLOW CONDUITS OR CABLING TO LAY ON CEILING TILES.

L. USE CLAMP BACK SPACERS WITH CONDUIT STRAPS FOR DAMP, WET, OR WASH DOWN LOCATIONS.

M. USE METAL CHANNEL (STRUT) WITH ACCESSORY CONDUIT CLAMPS TO SUPPORT MULTIPLE PARALLEL SURFACE-MOUNTED CONDUITS.

N. PROVIDE ALL CONDUIT CONNECTIONS TO BOXES AND PANELS IN SUCH MANNER TO PROTECT WIRE ROUTING IN AND OUT.

O. DO NOT PENETRATE, NOTCH, OR CUT STRUCTURAL MEMBERS, INCLUDING FOOTINGS AND GRADE BEAMS, WITHOUT APPROVAL OF STRUCTURAL ENGINEER/ARCHITECT.

P. MAKE PENETRATIONS PERPENDICULAR TO SURFACES AND PROVIDE SLEEVES AS INDICATED OR AS REQUIRED TO FACILITATE INSTALLATION.

Q. PROVIDE SLEEVES FOR PENETRATIONS AS INDICATED OR AS REQUIRED TO FACILITATE INSTALLATION. SET SLEEVES FLUSH WITH EXPOSED SURFACES UNLESS INDICATED OR REQUIRED.

R. SEAL INTERIOR OF CONDUITS ENTERING THE BUILDING FROM UNDERGROUND AT FIRST ACCESSIBLE POINT TO PREVENT ENTRY OF MOISTURE AND GASES.

S. WHERE CONDUITS PENETRATE WATERPROOF MEMBRANE, SEAL AS REQUIRED AS REQUIRED TO MAINTAIN INTEGRITY OF MEMBRANE.

T. MAKE PENETRATIONS FOR ROOF MOUNTED EQUIPMENT WITHIN ASSOCIATED EQUIPMENT OPENINGS AND CURBS WHENEVER POSSIBLE. WHERE ROOF PENETRATIONS ARE NECESSARY, PROVIDE SEAL AS REQUIRED TO PRESERVE INTEGRITY AND WARRANTY OF THE ROOF SYSTEM. REVIEW PROPOSED LOCATIONS OF PENETRATION AND METHODS FOR SEALING WITH ARCHITECT PRIOR TO BEGINNING WORK.

U. PROVIDE ESCUTCHEON PLATES FOR CONDUIT OR REVIEW METHOD OF OF SEALING WITH ARCHITECT/ENGINEER FOR SEALING OF CONDUIT PENETRATIONS IN EXPOSED LOCATIONS.

V. INSTALL FIRE STOPPING TO PRESERVE FIRE RESISTANT RATING OF PARTITIONS AND OTHER ELEMENTS AS DIRECTED IN DRAWINGS OR ELSEWHERE IN THESE SPECIFICATIONS.

W. WHERE CONDUITS ARE SUBJECT TO MOVEMENT BY EXPANSION, CONTRACTION, OR DEFLECTION BY STRUCTURE, OR MOVEMENT OF EARTH DUE TO SETTLEMENT OR TEMPERATURE CHANGE, PROVIDE APPROPRIATE RATED FITTINGS.

X. PROVIDE APPROVED SEALING FITTING OR COMPOUND WHERE CONDUITS PASS THROUGH AREAS OF SUBSTANTIAL TEMPERATURE DIFFERENTIAL.

Y. PROVIDE PULL STRING IN ALL EMPTY CONDUITS WHERE CONDUCTORS OR CABLES ARE TO BE INSTALLED BY OTHERS.

Z. IMMEDIATELY AFTER INSTALLATION OF CONDUIT, USE SUITABLE MANUFACTURED PLUGS TO PROVIDE PROTECTION FROM ENTRY OF MOISTURE AND FOREIGN MATERIAL AND DO NOT REMOVE UNTIL READY FOR INSTALLATION.

PART 3 WIRE AND CABLE

3.01 GENERAL REQUIREMENTS

A. UNLESS OTHERWISE NOTED, ALL CONDUCTORS SHALL BE COPPER, MINIMUM #12 (EXCEPT CONTROL CONDUCTORS AND LIGHTING TAPS AS PERMITTED BY NEC (CONDUCTORS FOR SWITCHING LIGHTS SHALL NOT BE CONSIDERED CONTROL CONDUCTORS) WITH 600 VOLT TYPE "THHN-THWN" OR THHN/THWN-2 INSULATION. CONDUCTORS ARE PERMITTED TO BE STRANDED. CONDUCTOR SIZING IS BASED ON 75 DEGREES PER NEC TABLES. WHERE CONDUCTOR SIZE IS NOT INDICATED, SIZE TO COMPLY WITH NFPA 70 (NEC). RECEIVE, INSPECT, HANDLE, AND STORE CONDUCTORS AND CABLES AS PER MANUFACTURER'S INSTRUCTIONS.

B. MINIMUM SIZE SHALL BE #12 , WIRE AND CONDUIT METHODS OR MC CABLE IS REQUIRED OTHERWISE. MINIMUM CONDUCTOR SIZE EXCEPTIONS:
1. 20A, 120V CIRCUITS LONGER THAN 80 FEET: #10 AWG, FOR VOLTAGE DROP.
2. 20A, 120V CIRCUITS LONGER THAN 150 FEET: #8 AWG, FOR VOLTAGE DROP.
3. CONTROL CIRCUITS SHALL BE #14 MINIMUM.
4. IN ADDITION TO THE GENERAL CONDITIONS ABOVE ALL BRANCH CIRCUIT WIRES SHALL BE INSTALLED TO ACHIEVE LESS THAN 3% VOLTAGE DROP FOR ENTIRE CIRCUIT LENGTH TO THE LAST LOAD SERVED PER NEC REQUIREMENTS, OR THE AHJ WHICHEVER IS STRINGENT.

C. IF ALLOWED BY CODE, AHJ, AND STATE OF N.C. BRANCH CIRCUITS WIRING ONLY MAY BE COPPER TYPE NMC W/ GROUND FOR 20A MAX. OTHER WISE PROVIDE SINGLE CONDUCTOR BUILDING WIRE INSTALLED IN SUITABLE RACEWAY.

D. PROVIDE METAL-CLAD CABLE AS PERMITTED BY NFPA 70 AND INDICATED ON DRAWINGS.
1. USE LISTED FITTINGS ONLY TO TERMINATE CABLES. DO NOT USE DIRECT BEARING SETSCREW TYPE FITTINGS FOR CABLES WITH ALUMINUM ARMOR.
2. CABLE IS NOT PERMITTED TO BE INSTALLED EXPOSED UNLESS APPROVED BY ENGINEER.
3. CUT CABLE ARMOR ONLY USING SPECIALIZED TOOLS DO NOT USE HACKSAW OR WIRE CUTTERS TO CUT ARMOR.

E. RUN MULTIPLE HOMERUNS TO ALTERNATELY BUSSED AND NUMBERED PANELBOARD CIRCUITS (I.E., 1,3,5.)

F. INSULATION TO LIGHT FIXTURES OR SPECIAL EQUIPMENT SHALL BE AS REQUIRED BY NAMEPLATES OR TO SUITE THE CONDITION. CONDUCTORS FOR CIRCUITS & EQUIPMENT RATED 100 AMP OR LESS SHALL BE SIZED FOR 60℃. CONDUCTORS FOR CIRCUITS & EQUIPMENT RATED ABOVE 100 AMP SHALL BE SIZED FOR 75℃.

G. CONDUCTORS SHALL BEAR READABLE MARKINGS ALONG THE ENTIRE LENGTH.

H. CONDUCTORS #6 AWG OR SMALLER SHALL BEAR FACTORY COLOR INSULATION COMPLYING WITH SYSTEM PHASING ALONG THE ENTIRE LENGTH.

I. JOINTS FOR #10 AWG OR SMALLER SHALL BE MADE WITH APPROVED TWIST-ON TYPE CONNECTORS AND INSULATED WITH SCOTCH #33 ELECTRICAL TAPE. JOINTS FOR #8 OR LARGER SHALL BE MECHANICAL PRESSURE TYPE CONNECTORS OR LUGS AND PROPERTY TAPED WITH SCOTCHFILL AND SCOTCH #33 ELECTRICAL TAPE TO 150% OF THE INSULATING VALUE OF THE CONDUCTOR. IN ALL CASES PROVIDE TERMINATIONS LISTED FOR CONDUCTORS AND SUITABLE FOR CONDITIONS OF INSTALLATION.

J. WIRING WITHIN PANELBOARDS, JUNCTION BOXES AND OUTLET BOXES SHALL BE NEATLY SQUARED AND BUNCHED TOGETHER. DO NOT USE PLASTIC TIE WRAP SYSTEMS.

K. PROVIDE CIRCUIT NUMBER ON EACH CONDUCTOR WITHIN PANELBOARDS, JUNCTION BOXES, AND OUTLET BOXES.

L. PROVIDE PANEL NAME AND CIRCUIT NUMBERS ON ALL JUNCTION BOX AND DEVICE COVER PLATES (NON VISIBLE SIDE) INDICATING CIRCUIT CONTAINED WITHIN BOX WITH PERMANENT MARKER.

M. NO MORE THAN THREE CIRCUITS SHALL BE ALLOWED IN ANY ONE CONDUIT. NO CONDUIT SHALL CONTAIN ANY SHARED NEUTRAL CONDUCTORS OR MORE THAN ONE CONDUCTOR OF THE SAME PHASE.

N. ACCEPTABLE MANUFACTURERS: CERRO WIRE, ENCORE WIRE, GENERAL CABLE, SERVICE WIRE, SOUTHWIRE, OR APPROVED EQUAL.

O. WIRING CONNECTORS: PROVIDE CONNECTORS APPROPRIATE FOR THE APPLICATION, LISTED AND SUITABLE FOR USE WITH THE CONDUCTORS TO BE CONNECTED.

P. FOR BONDING AND GROUNDING PROVIDE CONNECTORS LISTED FOR CONNECTION SITUATION AND LOCATION USED.

Q. WIRING CONNECTORS FOR TERMINATION:
1. PROVIDE TERMINAL LUGS FOR CONNECTING CONDUCTORS TO EQUIPMENT FURNISHED WITH TERMINATIONS DESIGNED FOR TERMINAL LUGS.
2. PROVIDE COMPRESSION ADAPTERS FOR CONNECTING CONDUCTORS TO EQUIPMENT FURNISHED WITH MECHANICAL LUGS ONLY WHEN ONLY COMPRESSION CONNECTORS ARE SPECIFIED.
3. WHERE OVER-SIZED CONDUCTORS ARE LARGER THAN THE EQUIPMENT TERMINATIONS CAN ACCOMMODATE, PROVIDE CONNECTORS SUITABLE FOR REDUCING TO APPROPRIATE SIZE, BUT NOT LESS THAN REQUIRED FOR THE RATING OF THE OVERCURRENT PROTECTIVE DEVICE.
4. CONDUCTORS SIZE 8 AWG AND LARGER: USE MECHANICAL CONNECTORS OR COMPRESSION CONNECTORS WHERE CONNECTORS ARE REQUIRED.
5. STRANDED CONDUCTORS SIZE 10 AND SMALLER: USE CRIMPED NYLON INSULATED TERMINALS FOR CONNECTIONS TO TERMINAL SCREWS.

R. TWIST-ON INSULATED SPRING CONNECTORS: SHALL BE RATED 105 ℃ FOR STANDARD APPLICATIONS AND 150 ℃ FOR HIGH TEMPERATURE APPLICATIONS: FOR APPLICATIONS FOR DAMP AND WET LOCATIONS THEY SHOULD BE PRE-FILLED WITH SEALANT AND LISTED PER UL 486D.
1. MANUFACTURERS: 3M, IDEAL INDUSTRIES, NSI INDUSTRIES OR APPROVED EQUAL.

S. MECHANICAL CONNECTORS: PROVIDE BOLTED OR SET-SCREW TYPE.
1. MANUFACTURERS: BURNDY, ILSCO, OR THOMAS AND BETTS OR APPROVED EQUAL.
2. COMPRESSION CONNECTORS: PROVIDE CIRCUMFERENTIAL TYPE CRIMP CONFIGURATION.

T. ACCESSORIES:
1. ELECTRICAL TAPE: 3M OR PLYMOUTH OR APPROVED EQUAL.
2. VINYL COLOR CODING TAPE: INTEGRALLY COLORED TO MATCH COLOR CODE INDICATED; LISTED AS COMPLYING WITH UL 510: MINIMUM THICKNESS OF 7 MIL. RESISTANT TO ABRASION, CORROSION, AND SUNLIGHT FOR CONTINUOUS TEMPERATURE ENVIRONMENT UP TO 105 ℃ OR APPROVED EQUAL.
3. VINYL INSULATING ELECTRICAL TAPE: COMPLYING WITH ASTM D3005 AND LISTED AS COMPLYING WITH UL510 MINIMUM. SAME PHYSICAL QUALITIES AS COLOR CODING TAPE ABOVE.
4. RUBBER SPLICING ELECTRICAL TAPE: ETHYLENE PROPYLENE RUBBER (EPR) TAPE, COMPLYING WITH ASTM D4388, MINIMUM THICKNESS OF 30 MIL, SUITABLE FOR CONTINUOUS TEMPERATURE ENVIRONMENT UP TO 90℃ AND SHORT TERM 130℃ OVERLOAD SERVICE.
5. ELECTRICAL FILLER TAPE: RUBBER-BASED INSULATING MOLDABLE PUTTY, MINIMUM THICKNESS OF 125 MIL. SUITABLE FOR CONTINUOUS TEMPERATURE ENVIRONMENT UP TO 80℃.
6. MOISTURE SEALING ELECTRICAL TAPE: INSULATING MASTIC COMPOUND LAMINATED TO FLEXIBLE, ALL-WEATHER VINYL BACKING, 90 MIL MINIMUM THICKNESS.

U. HEAT SHRINK TUBING: HEAVY WALL, SPLIT RESISTANT WITH FACTORY-APPLIED ADHESIVE: RATED 600V. SUITABLE FOR DIRECT BURIAL APPLICATIONS: LISTED AS COMPLYING WITH UL 486D.

V. OXIDE INHIBITING COMPOUND: LISTED, SUITABLE FOR USE WITH THE CONDUCTORS OR CABLES TO BE INSTALLED.

W. WIRE PULLING LUBRICANT: LISTED, SUITABLE FOR USE WITH THE CONDUCTORS OR CABLES TO BE INSTALLED AND SUITABLE FOR USE AT THE INSTALLATION TEMPERATURE.

X. CABLE TIES : MATERIAL AND TENSILE STRENGTH RATING SUITABLE FOR APPLICATION AND SUNLIGHT RESISTANT. MANUFACTURERS: BURNDY, IDEAL OR APPROVED EQUAL.

Y. INSTALLATION:
1. CIRCUITING REQUIREMENTS: MAINTAIN SEPARATION OF CLASS 1, CLASS 2, AND CLASS 3 REMOTE-CONTROL, SIGNALING, AND POWER-LIMITED CIRCUITS IN ACCORDANCE WITH NFPA 70.
2. CIRCUITING ADJUSTMENTS: UNLESS OTHERWISE NOTED, WHEN BRANCH CIRCUITS ARE INDICATED AS SEPARATE, COMBINING THEM IN A SINGLE RACEWAY IS NOT PERMITTED.
3. PERFORM WORK IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
4. INSTALLATION IN RACEWAY:
   a. TAPE ENDS OF CONDUCTORS AND CABLES TO PREVENT INFILTRATION OF MOISTURE AND OTHER CONTAMINANTS.
   b. PULL ALL CONDUCTORS AND CABLES INTO RACEWAY SO AS NOT TO DAMAGE INSULATION AND EXCEED RECOMMENDED MAXIMUM PULLING TENSION AND SIDEWALL PRESSURE. USE SUITABLE PULLING LUBRICANT WHERE NECESSARY AS RECOMMENDED BY MANUFACTURERS.
5. PARALLEL CONDUCTORS SHALL BE INSTALLED PER NEC DIRECTION.
6. SECURE AND SUPPORT CONDUCTORS AND CABLES IN ACCORDANCE WITH NFPA 70 USING SUITABLE SUPPORTS AND METHODS APPROVED BY AHJ. PROVIDE INDEPENDENT SUPPORT FROM BUILDING STRUCTURE, RACEWAYS, PIPING, DUCTWORK, AND OTHER SYSTEMS.
7. INSTALL CONDUCTORS WITH A MINIMUM OF 12 INCHES OF SLACK AT EACH OUTLET.
8. NEATLY TRAIN AND BUNDLE CONDUCTORS INSIDE BOXES, WIREWAYS, PANELBOARDS, AND OTHER EQUIPMENT ENCLOSURES. GROUP OR OTHERWISE IDENTIFY NEUTRAL/GROUNDED CONDUCTORS WITH ASSOCIATED UNGROUNDED CONDUCTORS INSIDE ENCLOSURES IN ACCORDANCE WITH NFPA 70.
9. MAKE WIRING CONNECTIONS USING SPECIFIED WIRING CONNECTORS.
10. MAKE SPLICES AND TAPS ONLY IN ACCESSIBLE BOXES. DO NOT PULL SPLICES INTO RACEWAYS OR MAKE SPLICES IN CONDUIT BODIES.
11. DO NOT REMOVE CONDUCTOR STRANDS TO FACILITATE INSERTION INTO CONNECTORS.
12. CLEAN CONTACT SURFACES ON CONDUCTORS AND CONNECTORS TO SUITABLE REMOVE CORROSION, OXIDES, AND OTHER CONTAMINATES. DO NOT USE WIRE BRUSH ON PLATED CONNECTOR SURFACES.
13. MECHANICAL CONNECTORS: SECURE CONNECTIONS ACCORDING TO MANUFACTURER'S RECOMMENDED TORQUE SETTINGS.
14. COMPRESSION CONNECTORS: SECURE CONNECTIONS USING MANUFACTURER'S RECOMMENDED TOOLS AND DIES.
15. INSULATE SPLICES AND TAPS ARE MADE WITH UNINSULATED CONNECTORS USING METHODS SUITABLE FOR THE APPLICATION, WITH INSULATION AND MECHANICAL STRENGTH AT LEAST EQUIVALENT TO UNSPLICED CONDUCTORS.
16. DRY LOCATIONS: USE INSULATING COVERS SPECIFICALLY DESIGNED FOR THE CONDUCTORS, ELECTRICAL TAPE OR HEAT SHRINK. PROVIDE PROVISIONS FOR CONNECTIONS LIKELY TO REQUIRE RE-ENTERING, INCLUDING MOTOR LEADS.
17. DAMP LOCATIONS: USE INSULATING COVERS SPECIFICALLY DESIGNED FOR THE CONNECTORS, ELECTRICAL TAPE, OR HEAT SHRINK TUBING.
18. WET LOCATIONS: USE HEAT SHRINK TUBING.
19. INSULATE ENDS OF SPARE USING VINYL INSULATING ELECTRICAL TAPE.
20. FIELD-APPLIED COLOR CODING: WHERE VINYL COLOR CODING ELECTRICAL TAPE IS USED IN LIEU OF INTEGRALLY COLORED INSULATION, APPLY HALF OVERLAPPING TURNS OF TAPE AT EACH TERMINATION AND AT EACH TERMINATION AND AT EACH LOCATION CONDUCTORS ARE ACCESSIBLE.
21. UNLESS SPECIFICALLY INDICATED TO BE EXCLUDED, PROVIDE FINAL CONNECTIONS TO ALL EQUIPMENT AND DEVICES, INCLUDING THOSE FURNISHED BY OTHERS AS REQUIRED FOR A COMPLETE OPERATING SYSTEM.

Z. DISCONNECT SURGE PROTECTIVE DEVICES (SPD) PRIOR TO PERFORMING ANY HIGH POTENTIAL TESTING WITH SPD'S DAMAGED BY PERFORMING HIGH POTENTIAL TESTING WITH SPD'S CONNECTED. CORRECT DEFICIENCIES AND REPLACE DAMAGED OR DEFECTIVE CONDUCTORS AND CABLES.

CONTINUED ON SHEET E102

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E101

SPECIFICATIONS

PM3108--001
THE SPRINGS OF BALLENTINE
FUQUAY-VARINA, NC

PART 4 WIRING DEVICES/DATA/COMMUNICATIONS OUTLETS

4.01 GENERAL REQUIREMENTS

A. THE LOCATION OF ALL WIRING DEVICES AND TELEPHONE /DATA OUTLETS SHALL BE VERIFIED BEFORE INSTALLATION WITH THE ARCHITECT/OWNER. THE ARCHITECT/OWNER, AT THEIR OPTION, RELOCATE ANY DEVICE WITHIN 6 FEET AT NO CHARGE TO THE OWNER.

B. WHERE TWO OR MORE DEVICES ARE SHOWN TOGETHER ON THE PLANS, A MULTI-GANG BOX AND PLATE SHALL BE USED. DEVICE OF DIFFERENT VOLTAGES SHALL BE SEPARATED BY PERMANENTLY INSTALLED BOX PARTITIONS.

C. ALL OUTLETS SHOWN ON A WALL BACK TO BACK SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY.

D. ALL MOUNTED WIRING DEVICES SHALL BE INDICATED BY HUBBELL CATALOG NUMBERS WITH EQUALS IN LEVITON , LEGRAND ACCEPTABLE. COLOR'S AND FINISHES SHALL BE VERIFIED PRIOR TO ORDERING.

E. WALL AND CEILING MOUNTED OCCUPANCY/VACANCY SENSORS ARE INDICATED ON DRAWING SCHEDULES.

F. DEVICE PLATES SHALL BE SMOOTH PLASTIC (NYLON) WITH COLOR MATCHING DEVICE INSTALLED.

G. WEATHERPROOF COVERS FOR WET LOCATIONS, GASKETED, CAST ALUMINUM OR THERMOPLASTIC, WITH HINGED LOCKABLE COVERS AND CORROSION RESISTANT SCREWS; LISTED AS SUITABLE FOR USE IN WET LOCATIONS WHILE IN USE WITH ATTACHMENT PLUGS CONNECTED.

H. COORDINATE LIGHT SWITCHES SHOWN ON DRAWINGS AND FIELD VERIFY WITH FINAL DOOR SWINGS, LOCATE LIGHT SWITCH ON LOCK SIDE OF DOOR UNLESS INDICATED.
1. VERIFY OUTLET BOXES ARE INSTALLED IN PROPER LOCATIONS AND AT PROPER MOUNTING HEIGHTS AND ARE PROPERLY SIZED TO ACCOMMODATE DEVICES AND CONDUCTORS IN ACCORDANCE WITH NFPA 70.
2. WHERE COVER PLATES FOR ALL DEVICES CONFLICT WITH CASEWORK OR MILLWORK. THE MOUNTING HEIGHTS OF WIRING DEVICES SHALL BE SLIGHTLY ADJUSTED SO THAT THE COVER PLATES CLEAR THE BACKSPLASH BY 1/4". THE ELECTRICAL CONTRACTOR SHALL THOROUGHLY REVIEW THE CASEWORK DRAWINGS AND ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN OF OUTLET BOXES.
3. VERIFY FINAL SURFACE FINISHES ARE COMPLETE, INCLUDING PAINTING.
4. INSTALL WIRING DEVICES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
5. INSTALL PERMANENT BARRIER BETWEEN GANGED WIRING DEVICE WHEN THE VOLTAGE BETWEEN ADJACENT DEVICES EXCEEDS 300V.
6. CONNECT WIRING DEVICES BY WRAPPING CONDUCTOR CLOCKWISE 3/4 TURN AROUND SCREW TERMINAL AND TIGHTENING TO PROPER TORQUE SPECIFIED BY THE MANUFACTURER. DO NOT USE PUSH-IN PRESSURE THAT DO NOT RELY ON SCREW-ACTUATED BINDING.
7. CONNECT WIRING DEVICE GROUNDING TERMINAL TO BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR AND TO OUTLET BOX WITH BONDING JUMPER.
8. PROVIDE GFCI RECEPTACLES WITH INTEGRAL GFCI PROTECTION AT EACH LOCATION INDICATED. DO NOT USE FEED THRU WIRING FOR DOWNSTREAM PROTECTION.
9. INSTALL ALL DEVICES AND PLATES PLUMB AND LEVEL AND MOUNTING YOKE RIGIDLY IN PLACE. INSTALL ALL SWITCHES WITH OFF POSITION DOWN.
10. INSTALL VERTICAL MOUNTED RECEPTACLES WITH GROUNDING POLE ON TOP AND HORIZONTAL MOUNTED RECEPTACLES WITH GROUNDING ON THE LEFT.
11. INSTALL BLANK WALL PLATES ON JUNCTION BOXES WITH NO WIRING DEVICES INSTALLED OR DESIGNATED FOR FUTURE.
12. ADJUST PRESETS FOR WALL DIMMERS ACCORDING TO MANUFACTURER INSTRUCTIONS AS DIRECTED BY OWNER.

PART 5 SUPPORTING DEVICES

5.01 GENERAL REQUIREMENTS

A. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER ELECTRICAL INSTALLATIONS.

B. ALL ASSEMBLIES SHALL BE UL APPROVED, MANUFACTURER RECOMMENDED, OR APPROVED BY AHJ.

PART 6 ELECTRICAL IDENTIFICATIONS

6.01 GENERAL REQUIREMENTS

A. CONDUCTOR COLOR CODING: PROVIDE COLOR CODING OF FEEDERS AND BRANCH CIRCUIT CONDUCTORS AS FOLLOWS:

208/120 VOLTS	PHASE
BLACK	A
RED	B
BLUE	C
WHITE	NEUTRAL
GREEN	GROUND
PURPLE	TRAVELERS

B. FOR PANELBOARDS; PROVIDE FRAMED, TYPED CIRCUIT SCHEDULES WITH EXPLICIT DESCRIPTIONS AND IDENTIFICATION OF ITEMS CONTROLLED BY EACH INDIVIDUAL BREAKER.

C. IDENTIFICATION REQUIREMENTS:
1. USE IDENTIFICATION NAMEPLATES TO IDENTIFY EACH PIECE OF ELECTRICAL DISTRIBUTION AND CONTROL EQUIPMENT AND ASSOCIATED SECTIONS, COMPARTMENTS, AND COMPONENTS.
   a. MOTOR CONTROL STARTERS:
      1. IDENTIFY AMPERE RATING.
      2. IDENTIFY VOLTAGE AND PHASE.
      3. IDENTIFY POWER SOURCE AND CIRCUIT NUMBER. INCLUDING LOCATION.

   b. PANELBOARDS:
      1. IDENTIFY VOLTAGE AND PHASE.
      2. IDENTIFY AMPERE RATING.
      3. IDENTIFY POWER SOURCE AND CIRCUIT NUMBER. INCLUDE LOCATION.
      4. USE TYPE WRITTEN CIRCUIT DIRECTORY TO IDENTIFY LOADS(S) SERVED FOR PANELBOARDS WITH A DOOR. IDENTIFY SPARES AND SPACES USING PENCIL.
      5. PROVIDE ADDITIONAL IDENTIFICATION ON ALL PANELS SERVED BY GENERATOR STAND-BY POWER.

   c. WIRING DEVICES:
      1. IDENTIFY VOLTAGE AND PHASE.
      2. IDENTIFY POWER SOURCE AND CIRCUIT NUMBER.
      3. USE PERMANENT IDENTIFICATION LABELS ON WIRING DEVICE PLATES VISIBLE ON DEVICE PLATES OR INSIDE PLATES AS DETERMINED BY AHJ, AND OWNER.
      4. PROVIDE ADDITIONAL IDENTIFICATION ON ALL DEVICES SERVED FROM GENERATOR STAND-BY POWER.

PART 7 GROUNDING

7.01 GENERAL REQUIREMENTS

A. GROUND ELECTRICAL SYSTEMS AND EQUIPMENT IN ACCORDANCE THE MINIMUM NEC REQUIREMENTS OR AS INDICATED ON DRAWING.

B. CONNECTORS APPROPRIATE AND SUITABLE FOR THE CONDUCTORS AND ITEMS TO BE CONNECTED, LISTED AND LABELED AS COMPLYING WITH UL 467.

C. ALL GROUNDING CONDUCTORS SHALL BE INSTALLED AS TO PERMIT SHORTEST PATH FROM EQUIPMENT TO GROUND. ALL MECHANICAL CONNECTIONS TO GROUND CONDUCTORS SHALL BE ACCESSIBLE FOR INSPECTION AND MADE WITH APPROVED SOLDERLESS CONNECTORS, ALL NON- ACCESSIBLE GROUND CONNECTIONS SHALL BE EXOTHERMIC WELDED OR CONNECTED BY OTHER LISTED FITTINGS APPROVED BY AHJ .

D. ALL CONTACT SURFACES SHALL BE THOROUGHLY CLEANED BEFORE CONNECTIONS ARE MADE TO INSURE GOOD METAL TO METAL CONTACT.

E. EXOTHERMIC GROUNDING CONNECTIONS SHALL BE INSTALLED WITH LISTED, WELDING "SHOTS" AND WELDING MOLDS LISTED FOR EACH WELD LOCATION.

F. ALL CIRCUITS SHALL CONTAIN AN INSULATED GROUNDING CONDUCTOR IN BRANCH CIRCUIT AND FEEDER CONDUITS USED.

G. ALL GROUND RODS SHALL BE 5/8" X 10' CU. CLAD, LACE AT 10' SPACING WHEN SHOWN ON DRAWINGS.

PART 8 PANELBOARDS

8.01 GENERAL REQUIREMENTS

A. PANELBOARD CIRCUITING SHALL MATCH THE DRAWINGS, CIRCUITING CHANGES MUST BE APPROVED BY THE ARCHITECT/OWNER.

B. ALL BREAKERS IN PROJECT SHALL BE NEW AND MATCH PANEL MANUFACTURER AND AIC RATING.

C. ALL PANELBOARDS AND DISTRIBUTION BOARDS SHALL HAVE ALUMINUM BUSSING AS MINIMUM STANDARD.

D. ALL PANELBOARDS AND DISTRIBUTION BOARDS AND OVER CURRENT DEVICES SHALL BE FULLY RATED FOR AIC AS SHOWN ON SCHEDULES AND DRAWINGS SERIES RATED EQUIPMENT IS NOT PERMITTED.

E. PROVIDE TYPE WRITTEN LEGENDS WITHIN OR ON DOORS OF ALL DISTRIBUTION EQUIPMENT PANELS AFTER ALL INSTALLATION AND CONNECTION HAVE BE ACCEPTED BY OWNER AND ALL AHJ'S.

F. WIRING WITHIN ALL DISTRIBUTION EQUIPMENT SHALL BE IN A NEAT AND WORKMANSHIP MANNER AS PER ACCEPTED INDUSTRY STANDARDS. ALL EQUIPMENT ALSO BE CLEANED PRIOR TO FINAL ACCEPTANCE BY OWNER .

PART 9 SAFETY AND SERVICE DISCONNECT SWITCHES

9.01 GENERAL REQUIREMENTS

A. ALL SAFETY AND SERVICE DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE RATED.

B. FUSES < 600 AMPS SHALL BE ("BUSSMAN") RK1 OR APPROVED EQUAL.

PART 10 LIGHTING

10.01 GENERAL REQUIREMENTS

A. ALL NEW LIGHTING FIXTURES SHALL BE INSTALLED WITH ALL ACCESSORIES REQUIRED TO PROVIDE A COMPLETE INSTALLATION. SEE PLANS FOR SPECIFIC REQUIREMENTS, COLOR OF LIGHTING FIXTURES SHALL BE 4000°K OR 3000°K AS VERIFIED BY ARCHITECT/OWNER.

PART 11 FIRESTOPPING

11.01 GENERAL REQUIREMENTS

A. FIRESTOPPING OF JOINTS AND PENETRATIONS IN FIRE-RESISTANCE-RATED WALLS AND CEILING ASSEMBLIES WHETHER INDICATED ON DRAWINGS OR NOT, AND OTHER OPENINGS INDICATED.

B. REFERENCE STANDARDS
1. ASTM E2174 - STANDARD PRACTICE FOR ON-SITE INSPECTION OF INSTALLED FIRESTOP SYSTEMS; 2020a.
2. ASTM G21 - STANDARD PRACTICE FOR DETERMINING RESISTANCE OF SYNTHETIC POLYMERIC MATERIALS TO FUNGI; 2015, WITH EDITORIAL REVISION (2021.)

C. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS: INDICATE PREPARATION, INSTALLATION INSTRUCTIONS, AND MANUFACTURER'S QUALIFICATION STATEMENT.

D. APPROVAL FROM AUTHORITY HAVING JURISDICTION INDICATED APPROVAL OF MATERIALS USED.

E. MANUFACTURER QUALIFICATIONS: COMPANY SPECIALIZING IN MANUFACTURING THE PRODUCTS SPECIFIED IN THIS SECTION WITH MINIMUM THREE YEARS DOCUMENTED EXPERIENCE.

F. MANUFACTURERS
1. FIRESTOPPING MANUFACTURERS:
   a. 3M FIRE PROTECTION PRODUCTS; www.3m.com/firestop/#sle.
   b. HILTI, INC.; www.hilti.com/#sle
   c. HOLDRITE, A BRAND OF RELIANCE WORLDWIDE CORPORATION; HYDROFLAME 100 INTUMESCENT FIRESTOP SEALENT; www.holdrite.com/#sle
   d. MANUFACTURER AS APPROVED BY ARCHITECT/ENGINEER.

G. MATERIALS
1. USE FIRESTOPPING MATERIALS: ANY MATERIALS MEETING REQUIREMENTS.
2. MOLD AND MILDEW RESISTANCE: PROVIDE FIRESTOPPING MATERIALS WITH MOLD AND MILDEW RESISTANCE RATING OF ZERO (0) IN ACCORDANCE WITH ASTM G21.
3. PRIMERS, SLEEVES, FORMS, INSULATION, PACKING, STUFFING, AND ACCESSORIES: PROVIDE TYPE OF MATERIALS AS REQUIRED FOR TESTED FIRESTOPPING ASSEMBLY.
4. FIRE RATINGS: REFER TO DRAWINGS FOR REQUIRED SYSTEMS AND RATINGS.

H. FIRESTOPPING SYSTEMS
1. INSTALL MATERIALS IN A MANNER DESCRIBED IN FIRE TEST REPORT AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, COMPLETELY CLOSING OPENINGS.
2. DO NOT COVER INSTALLED FIRESTOPPING UNTIL INSPECTED BY OWNER'S INDEPENDENT TESTING AGENCY.
3. DO NOT COVER INSTALLED FIRESTOPPING UNTIL INSPECTED BY AUTHORITIES HAVING JURISDICTION.
4. CLEANING: CLEAN ADJACENT SURFACES OF FIRESTOPPING MATERIALS.

PART 12 EQUIPMENT CONNECTION

12.01 GENERAL REQUIREMENTS

A. ALL EQUIPMENT PROVIDED ON THIS PROJECT SHALL HAVE MANUFACTURER TERMINATIONS RATED AT 75°C.

PART 13 RECORD DRAWINGS

13.01 GENERAL REQUIREMENTS

A. DURING THE CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF ELECTRICAL CONTRACT DRAWINGS ON WHICH SHALL BE RECORDED ALL, BUT NOT LIMITED TO, SIGNIFICANT CHANGES IN EQUIPMENT LOCATIONS, CIRCUIT ASSIGNMENT DEVIATIONS, EQUIPMENT SIZE CHANGES, ADDITIONS AND DELETIONS TO THE PROJECT, LOCATIONS OF ALL CONDUITS AND WIRING BELOW GRADE, LOCATIONS OF ALL INSTALLED PULL AND JUNCTION BOXES, FEEDER CIRCUIT LOCATIONS, ETC. THIS SET OF DRAWINGS SHALL BE USED TO PREPARE RECORD DRAWINGS TO BE SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.

B. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL PREPARE AN OPERATION AND MAINTENANCE MANUAL WHICH SHALL INCLUDE CATALOG DATA, EQUIPMENT INFORMATION, WIRING DIAGRAMS, WARRANTY INFORMATION, RECOMMENDED MAINTENANCE PROCEDURES, REPLACEMENT PARTS LISTS, ETC. FOR THE ELECTRICAL INSTALLATION. THE QUANTITIES OF MANUALS SHALL BE AS REQUIRED BY THE ARCHITECTURAL SECTIONS OF THESE SPECIFICATIONS. THESE MANUALS SHALL BE DELIVERED TO THE ARCHITECT FOR APPROVAL AND PRESENTATION TO THE OWNER.

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20 JANUARY, 2023

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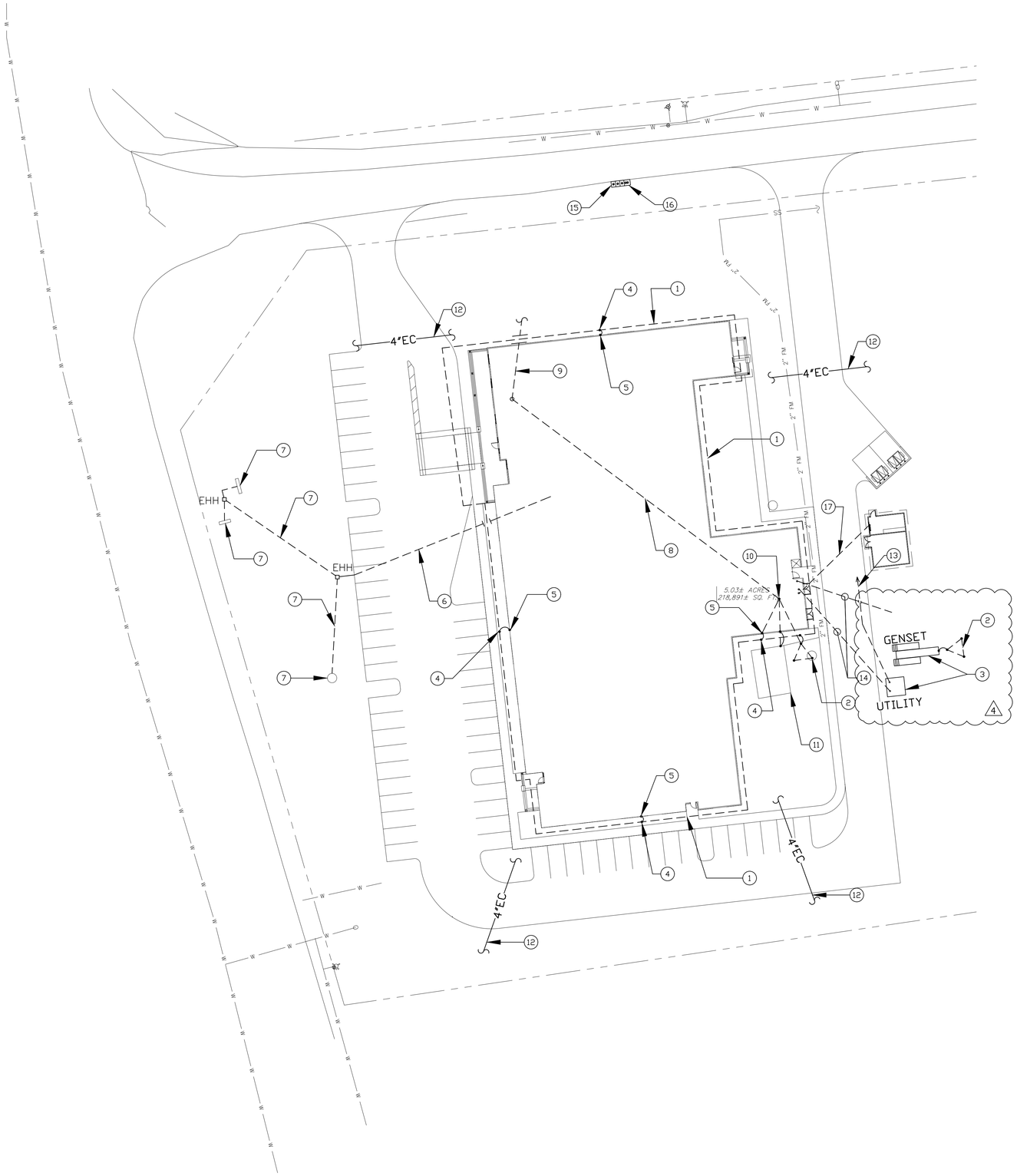
E102

SPECIFICATIONS CONT.



1 / E201 ELECTRICAL SITE PLAN
SCALE: 1"=30'

ELECTRICAL GENERAL NOTES:

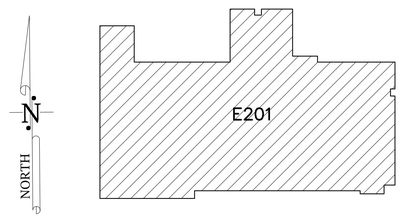
1. COORDINATE SERVICE TRANSFORMER INSTALLATION WITH:
   DUKE ENERGY CONTACT
   MR. JEREMY BATSON, ENGINEER III
   (919) 210-9274
   JEREMY.BATSON@DUKE-ENERGY.COM
   WORK ORDER #46216323
2. ALL CONDUIT ROUTING SHOWN ON DRAWING IS 30" BELOW GRADE OR 6" BELOW FLOOR SLAB MINIMUM.
3. PROVIDE CONCRETE ENCASEMENT OF ALL CONDUIT ROUTED UNDER DRIVEWAYS.
4. ALSO SEE SERIES FA (FIRE ALARM DRAWINGS) FOR CONNECTIONS REQUIRED FOR FIRE ALARM SYSTEM.

ELECTRICAL PLAN NOTES

1. PROVIDE #1 MINIMUM WIRE GROUND RING AROUND BUILDING 30" DEEP MINIMUM. PROVIDE WARNING TAPE AROUND RING AT 6" BELOW GRADE. IDENTIFY ON AS BUILT DRAWINGS.
2. PROVIDE (3) DRIVEN GROUND RODS FOR SERVICE GROUNDING AND GENERATOR ASSEMBLY AT (2) LOCATIONS. CONNECT TO BUILDING "MSB" MAIN GROUNDING BAR AND GENERATOR FRAME SERVICE AS SHOWN ON ELECTRICAL SITE PLAN 1/E201 WITH #1 WIRE.
3. STANDBY GENERATOR AND TRANSFORMER LOCATION. SEE SHEET E211 FOR ADDITIONAL REQUIREMENTS.
4. PROVIDE CONNECTION TO CONCRETE ENCASED ELECTRODE. SEE DETAIL 4/E401.
5. PROVIDE CONNECTION TO BUILDING GROUND RING AND TO ASSOCIATED GROUND ROD. SEE DETAIL 4/E401.
6. PROVIDE (1) 1 1/2" CONDUIT FROM PANEL AS DESIGNATED ON PANEL SCHEDULES TO EHH LOCATION FOR DISTRIBUTION TO SITE SIGN AND TO FLAG POLE POWER LOCATION.
7. PROVIDE 1" MINIMUM CONDUIT TO SITE SIGN AND FLAG POLE LOCATION. PROVIDE CONNECTIONS TO EACH SITE EQUIPMENT AS COORDINATED WITH EQUIPMENT PROVIDER.
8. PROVIDE #4/0 THHN WIRE IN 2" CONDUIT FOR COMMUNICATION HEAD END (ROOM 104) TO EQUIPMENT GROUND BAR IN MAIN SERVICE DISCONNECT (ROOM 169).
9. COORDINATE (2) 4" CONDUITS FOR BUILDING COMMUNICATIONS HEAD END AND (1) 3" CONDUIT FOR BUILDING CATV HEAD END ROUTING OUTSIDE BUILDING FOR OWNER'S COMMUNICATIONS PROVIDER.
   CONDUITS ARE ROUTED OUT OF ROOM 104.
10. MAIN SERVICE DISCONNECT GROUNDING ELECTRODE GROUND BAR. LOCATION IN ELECTRICAL ROOM (169).
11. FEEDER SIZE TO SEWER LIFT STATION SHALL BE CONFIRMED WITH CIVIL ENGINEER PRIOR TO INSTALLATION. FINAL DESIGN OF SEWER LIFT STATION NOT COMPLETE AT TIME OF THIS ELECTRICAL DESIGN.
12. PROVIDE 4" CONDUIT CROSSING UNDER DRIVEWAY AS COORDINATED WITH SITE LIGHTING PROVIDER.
13. TRANSFORMER PRIMARY CONDUIT AND CONNECTION, AND METERING PROVIDED BY POWER COMPANY.
14. PROVIDE GENERATOR AND SERVICE CONDUITS AS SHOWN ON PROJECT DRAWINGS.
15. PROVIDE (3) 20A, 120 VAC CIRCUITS AS SHOWN FOR BACK FLOW PREVENTER ENCLOSURE HEATERS. VERIFY POWER REQUIREMENTS OF EACH HEATER PRIOR TO INSTALLATION BRANCH CONDUCTORS. WIRE SIZE #10 MIN. CONDUIT SIZE 3/4" MIN.
16. PROVIDE (2) 3/4" CONDUITS FROM HEAT SENSOR AND "RPZ" VALVE INDICATOR LOCATION TO BUILDING FIRE ALARM SYSTEM. SHALL BE #10 MIN. IN 3/4" CONDUIT MIN.
17. PROVIDE (1) 1-1/2" CONDUIT FROM "MSB" MAIN SWITCHBOARD TO PANEL "SB" LOCATED IN STORAGE BUILDING.

30 15 0 30 60
GRAPHIC SCALE: 1"=30'

KEY PLAN



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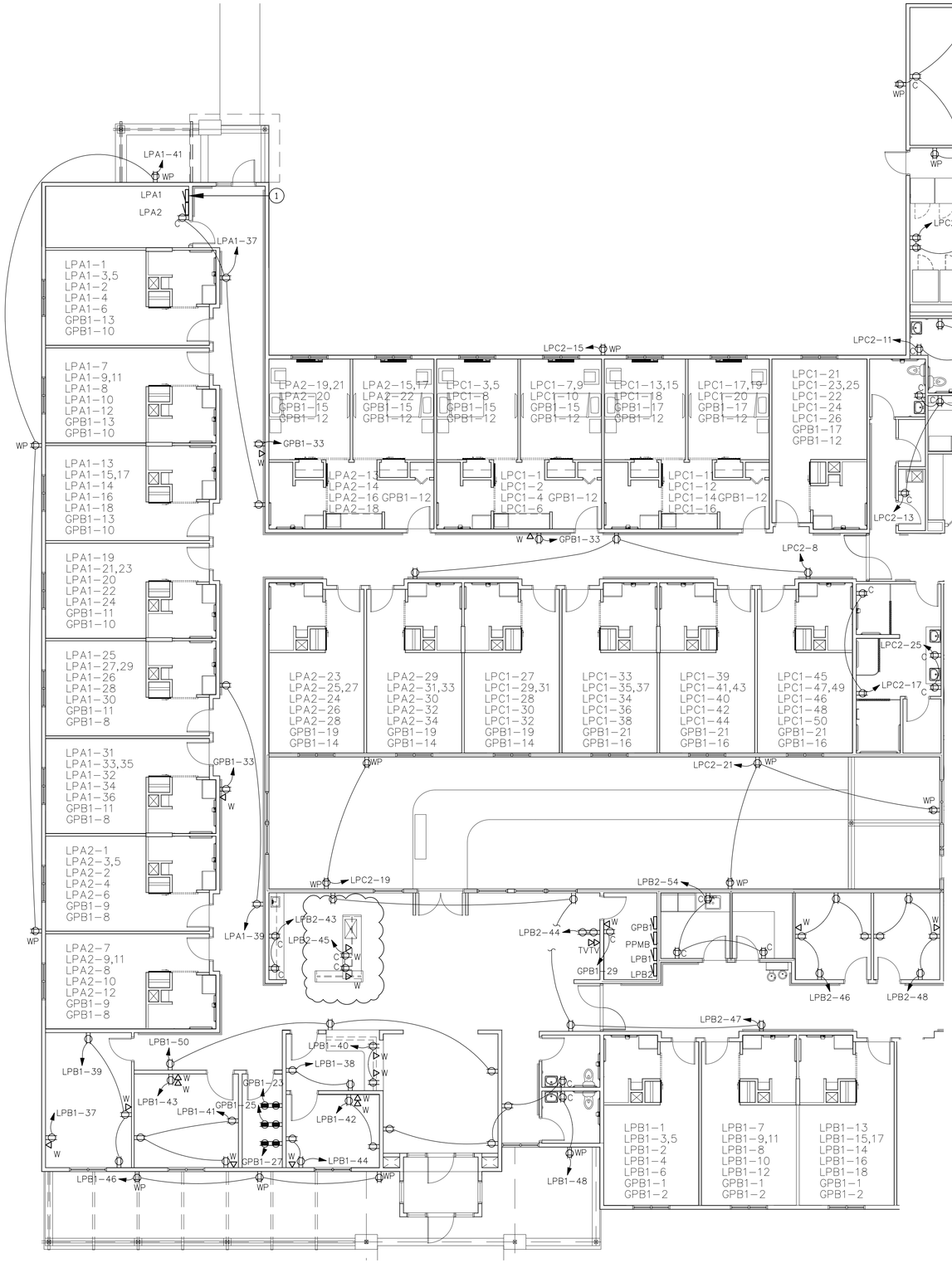
4	4/11/2023	REVISION 4

E201
ELECTRICAL SITE PLAN



1 E202 PARTIAL ELECTRICAL POWER PLAN

SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SPECIFICATIONS, SHEET E501 FOR RECEPTACLE SCHEDULE, AND SHEET E502 FOR COMMUNICATIONS SCHEDULE FOR ADDITIONAL INFORMATION.
3. VERIFY ALL OUTLET LOCATIONS PRIOR TO ROUGH-IN. OFFSET RECEPTACLES IN ADJACENT ROOMS TO ENSURE NO RECEPTACLES ARE BACK TO BACK (MINIMUM OF 6" BETWEEN RECEPTACLES.) SEE ARCHITECTURAL PLANS FOR FIRE RATED WALLS.
4. COORDINATE RECEPTACLE AND COMMUNICATIONS/TELEPHONE BOX HEIGHTS WITH COUNTER ELEVATIONS AS SHOWN ON ARCHITECTURAL DRAWINGS.
5. ALL TELEPHONE/DATA POINTS SHALL BE SUPPLIED WITH TWO JUNCTION BOXES, ONE FOR DATA, ONE FOR TELEPHONE; TYPICAL FOR ALL CONNECTIONS.

ELECTRICAL PLAN NOTES

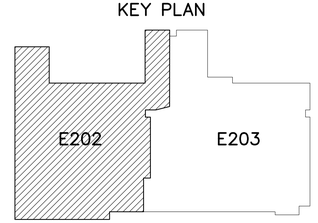
1. PROVIDE PAINT OR TAPE ON FLOORING IN FRONT OF PANEL TO ENSURE MINIMUM REQUIRED WORKING CLEARANCES ARE MAINTAINED, SEE DETAIL 2/E401 FOR CLEARANCE REQUIREMENTS.

NORTH

8 4 0 8 16

GRAPHIC SCALE: 1"=8'

KEY PLAN



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PROJECT NAME:

THE SPRINGS OF BALLENTINE

40 RAWLS CLUB RD
FUQUAY-VARINA NC.

PROJECT CLIENT:

CAROLINA COMMERCIAL CONTRACTORS
--

ELEVEN18 PROJECT LEAD:
MATTHEW A. CONTE
407-745-5301
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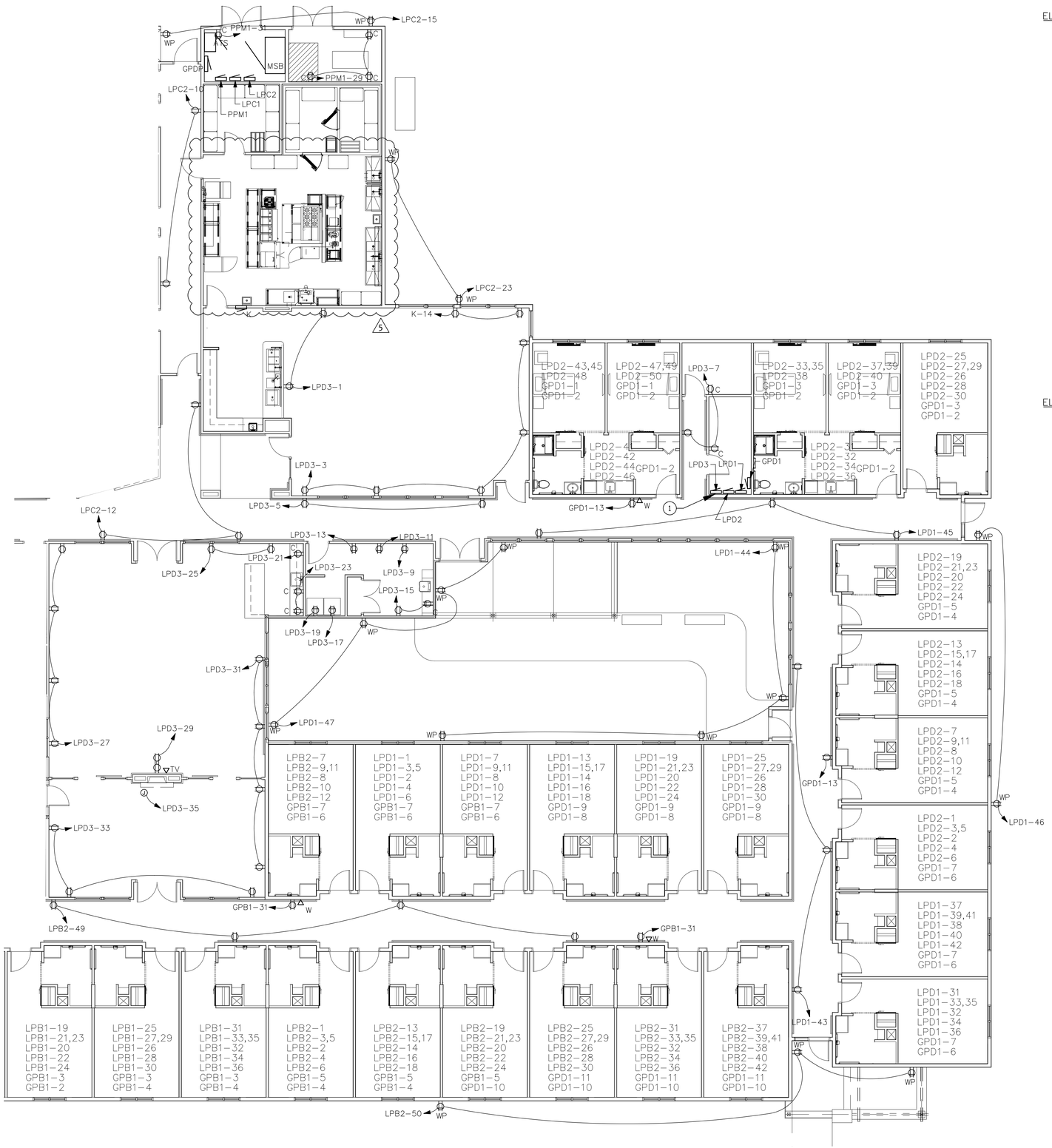
PROJECT TEAM:
Gabriela Salazar
Pamela Friday
Yuan Ping Lien

REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2
3	3/22/2023	REVISION 3

E202

PARTIAL POWER PLAN



1 E203 PARTIAL ELECTRICAL POWER PLAN

SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SPECIFICATIONS, SHEET E501 FOR RECEPTACLE SCHEDULE, AND SHEET E502 FOR COMMUNICATIONS SCHEDULE FOR ADDITIONAL INFORMATION.
3. VERIFY ALL OUTLET LOCATIONS PRIOR TO ROUGH-IN. OFFSET RECEPTACLES IN ADJACENT ROOMS TO ENSURE NO RECEPTACLES ARE BACK TO BACK (MINIMUM OF 6" BETWEEN RECEPTACLES.) SEE ARCHITECTURAL PLANS FOR FIRE RATED WALLS.
4. COORDINATE RECEPTACLE AND COMMUNICATIONS/TELEPHONE BOX HEIGHTS WITH COUNTER ELEVATIONS AS SHOWN ON ARCHITECTURAL DRAWINGS.
5. ALL TELEPHONE/DATA POINTS SHALL BE SUPPLIED WITH TWO JUNCTION BOXES, ONE FOR DATA, ONE FOR TELEPHONE. TYPICAL FOR ALL CONNECTIONS.

ELECTRICAL PLAN NOTES

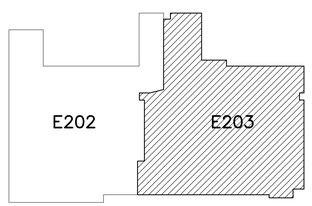
1. PROVIDE PAINT OR TAPE ON FLOORING IN FRONT OF PANEL TO ENSURE MINIMUM REQUIRED WORKING CLEARANCES ARE MAINTAINED, SEE DETAIL 2/E401 FOR CLEARANCE REQUIREMENTS.

NORTH

8 4 0 8 16

GRAPHIC SCALE: 1"=8'

KEY PLAN



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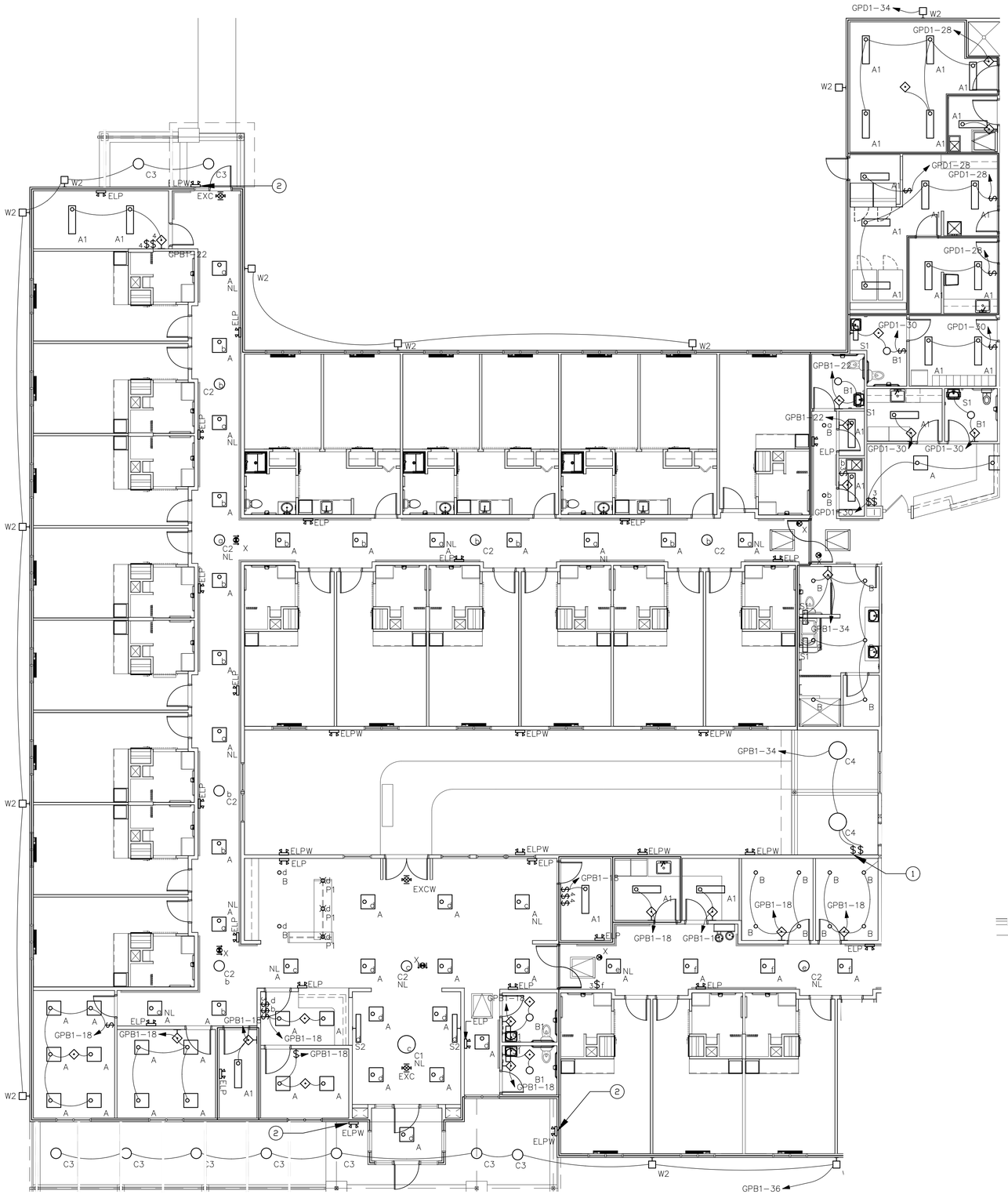
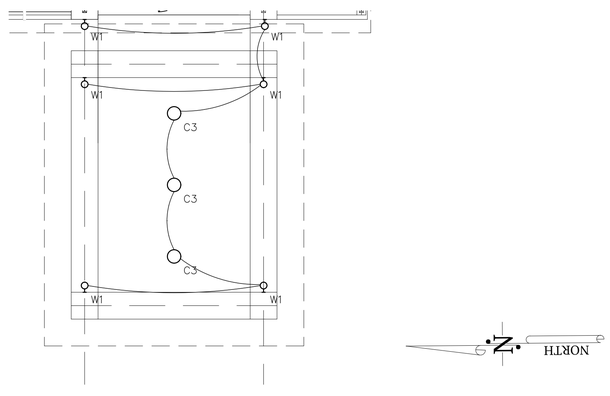
2	3/13/2023	REVISION 2
5	5/31/2023	REVISION 5

E203

PARTIAL POWER PLAN



1 E204 PARTIAL LIGHTING PLAN
SCALE: 1/8"=1'-0"



2 E204 CANOPY LIGHTING PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SPECIFICATIONS, SHEET 502 FOR LUMINAIRE SCHEDULE, AND WIRING DEVICES SCHEDULES FOR ADDITIONAL INFORMATION.
3. EXIT SIGNS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND ARCHITECT TO BE VISIBLE AWAY FROM ANY OBSTRUCTION HANGING FROM CEILING.
4. ALL EXTERIOR LIGHTING SHALL BE CONNECTED TO A LIGHTING CONTACTOR PANEL CONTROLLED BY A PHOTOCELL/TIME CLOCK DEVICE U.O.N.
5. LIGHTING SUBSCRIPTS FOUND ON LIGHT FIXTURES:
   a. CIRCUIT ALL NIGHT LIGHTS AND EMERGENCY LIGHTS UNSWITCHED TO GPB1-20.
   b. CIRCUIT ALL LIGHTS SWITCHED BY "b" THREE-POLE SWITCHES IN RECEPTION 102 AND JAN 180, FOUR-POLE SWITCH IN STORAGE 193, TO GPB1-22.
   c. CIRCUIT ALL NIGHT LIGHTS AND EMERGENCY LIGHTS UNSWITCHED TO GPB1-24.
   d. CIRCUIT ALL LIGHTS SWITCHED BY "d" SINGLE-POLE SWITCH IN RECEPTION 102 TO GPB1-26.
   e. CIRCUIT ALL NIGHT LIGHTS AND EMERGENCY LIGHTS UNSWITCHED TO GPB1-28.
   f. CIRCUIT ALL LIGHTS SWITCHED BY "f" THREE-POLE SWITCHES IN W. CORRIDOR 134 TO GPB1-30.
6. AS PER 2020 NEC 700.12 (f) AND NC FIRE CODE 605.3.1: ALL EMERGENCY CIRCUITS FOR THE BUILDING ARE PICKED UP BY THE GENERATOR.

ELECTRICAL PLAN NOTES

1. CEILING FANS AND LIGHTS TYPE "C4" WILL HAVE TWO ADJUSTABLE SWITCHES: ONE FOR LIGHT CONTROL AND ONE FOR FAN CONTROL. COORDINATE EXACT REQUIREMENTS AND SWITCH PLACEMENT.
2. PROVIDE CONNECTION TO EMERGENCY FIXTURE TO ENERGIZE UPON LOSS OF CIRCUIT POWER TO ADJACENT TYPE "C3" FIXTURE.

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	DATE	
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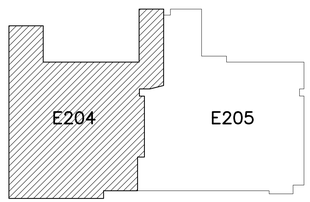
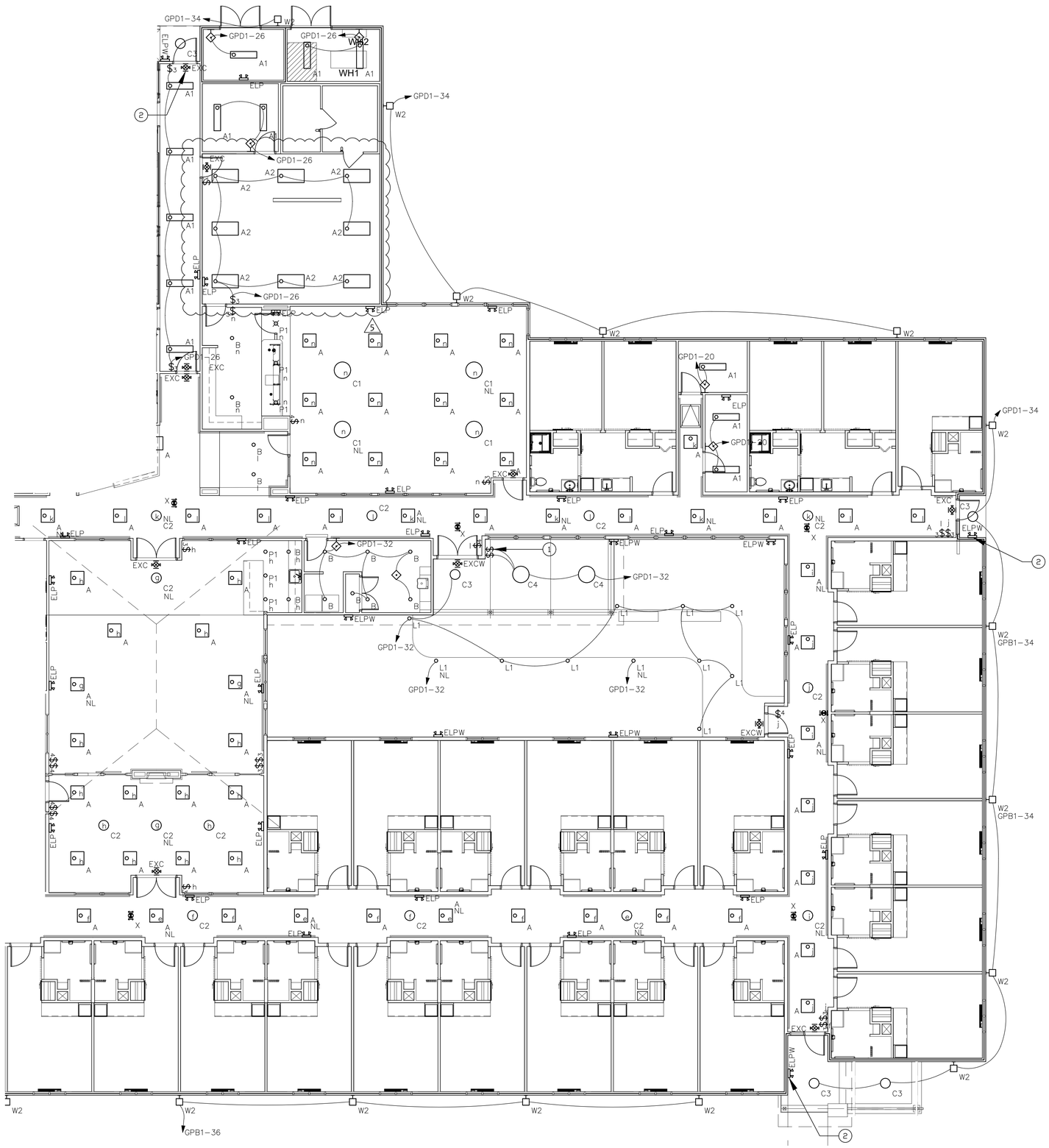
2	3/13/2023	REVISION 2

8 4 0 8 16
GRAPHIC SCALE: 1"=8'

KEY PLAN



E204
PARTIAL LIGHTING PLAN



1 E205 PARTIAL LIGHTING PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.

2. SEE SPECIFICATIONS, SHEET 502 FOR LUMINAIRE SCHEDULE, AND WIRING DEVICES SCHEDULES FOR ADDITIONAL INFORMATION.

3. EXIT SIGNS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND ARCHITECT TO BE VISIBLE AWAY FROM ANY OBSTRUCTION HANGING FROM CEILING.

4. ALL EXTERIOR LIGHTING SHALL BE CONNECTED TO A LIGHTING CONTACTOR PANEL CONTROLLED BY A PHOTOCELL/TIME CLOCK DEVICE U.O.N.

5. LIGHTING SUBSCRIPTS FOUND ON LIGHT FIXTURES:
   - e. CIRCUIT ALL NIGHT LIGHTS (NL) AND EMERGENCY LIGHTS IN THIS AREA UNSWITCHED TO GPB1-28.
   - a. CIRCUIT ALL LIGHTS SWITCHED BY "f" THREE-POLE SWITCHES IN W. CORRIDOR 134 TO GPB1-30.
   - b. CIRCUIT ALL NIGHT LIGHTS (NL) AND EMERGENCY LIGHTS IN THIS AREA UNSWITCHED TO GPB1-32.
   - c. CIRCUIT ALL LIGHTS SWITCHED BY "h" THREE-POLE SWITCHES IN LIVING 120 AND ACTIVITY 162 TO GPB1-34.
   - d. CIRCUIT ALL NIGHT LIGHTS (NL) AND EMERGENCY LIGHTS IN THIS AREA UNSWITCHED TO GPD1-14.
   - e. CIRCUIT ALL LIGHTS SWITCHED BY "j" THREE-POLE SWITCHES IN S. CORRIDOR 151 AND E. CORRIDOR 152, FOUR-POLE SWITCH IN S. CORRIDOR 151, TO GPD1-16.
   - f. CIRCUIT ALL NIGHT LIGHTS (NL) AND EMERGENCY LIGHTS IN THIS AREA UNSWITCHED TO GPD1-18.
   - g. CIRCUIT ALL LIGHTS SWITCHED BY "l" THREE-POLE SWITCHES IN E. CORRIDOR 152 AND CARE BASE 176, FOUR-POLE SWITCH IN E. CORRIDOR 152, TO GPD1-20.
   - h. CIRCUIT ALL NIGHT LIGHTS (NL) AND EMERGENCY LIGHTS IN THIS AREA UNSWITCHED TO GPD1-22.
   - i. CIRCUIT ALL LIGHTS SWITCHED BY "n" THREE-POLE SWITCHES IN DINING 158 AND SERVERY 159, FOUR-POLE SWITCH IN DINING 158, TO GPD1-24.

6. AS PER 2020 NEC 700.12 (F) AND NC FIRE CODE 605.3.1: ALL EMERGENCY CIRCUITS FOR THE BUILDING ARE PICKED UP BY THE GENERATOR.

ELECTRICAL PLAN NOTES

1. CEILING FANS AND LIGHTS TYPE "C4" WILL HAVE TWO ADJUSTABLE SWITCHES: ONE FOR LIGHT CONTROL AND ONE FOR FAN CONTROL. COORDINATE EXACT REQUIREMENTS AND SWITCH PLACEMENT.

2. PROVIDE CONNECTION TO EMERGENCY FIXTURE TO ENERGIZE UPON LOSS OF CIRCUIT POWER TO ADJACENT TYPE "C3" FIXTURE.

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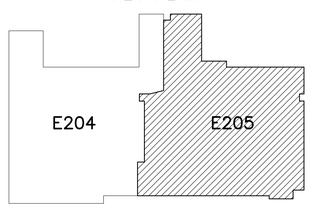
PROJECT TEAM:
Gabriela Salazar
Pamela Friday
Yuan Ping Lien

GRAPHIC SCALE: 8 4 0 8 16 1"=8'

NORTH

KEY PLAN



REVISIONS		
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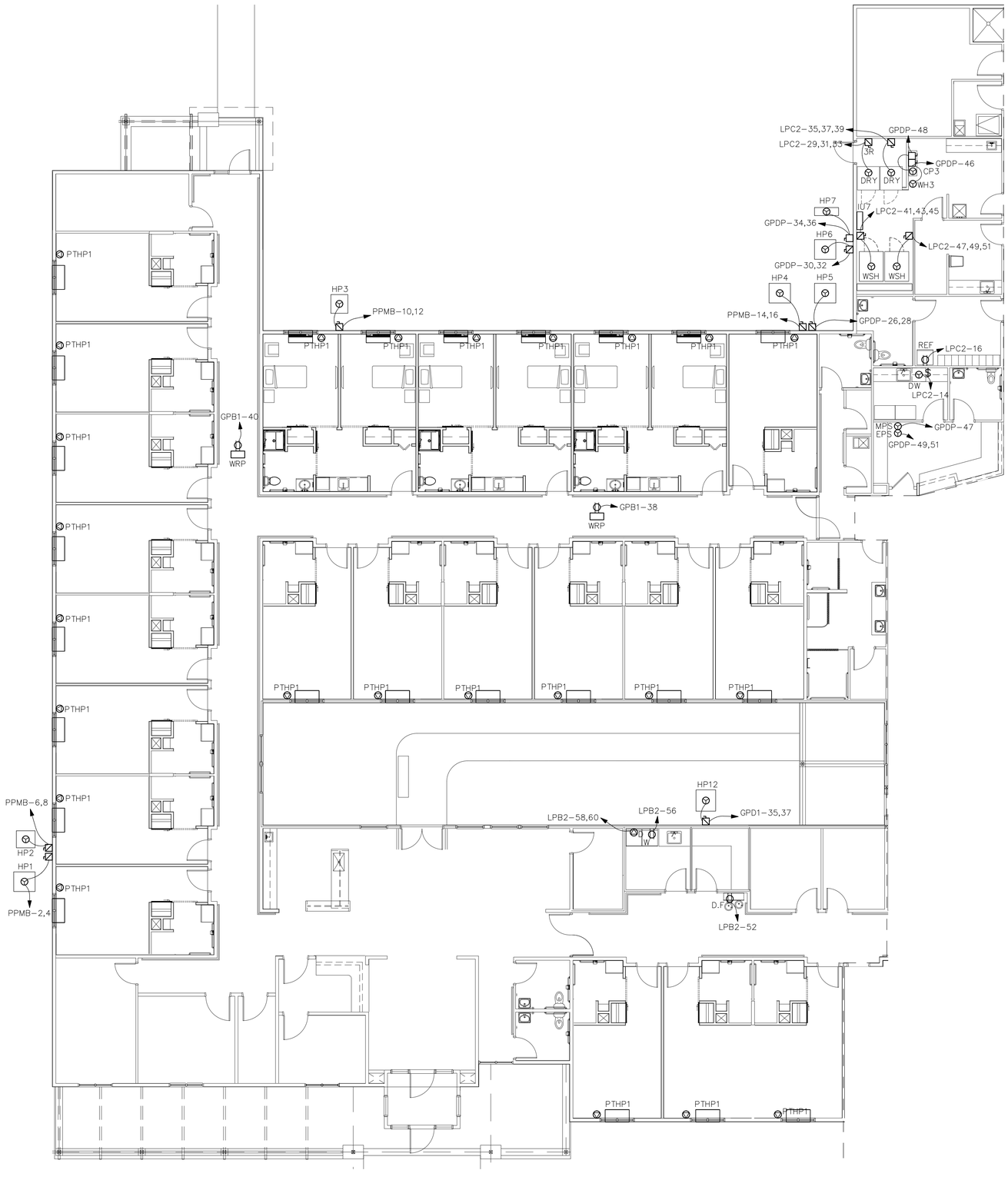
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2
5	5/31/2023	REVISION 5

E205
PARTIAL LIGHTING PLAN



1 E206

PARTIAL MECHANICAL POWER PLAN

SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SHEET E501 FOR EQUIPMENT CONNECTION SCHEDULE.
3. FOR CONNECTION TO "PTHP1" AND "PTHP2" RESIDENT HEATING UNIT CIRCUITS, PROVIDE RECEPTACLE AT 24" AFF. SEE PANEL SCHEDULES FOR CORRESPONDING ROOMS.

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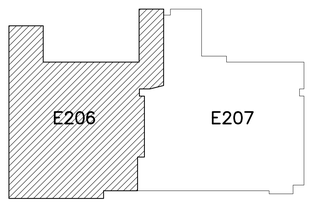
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

8 4 0 8 16

GRAPHIC SCALE: 1"=8'

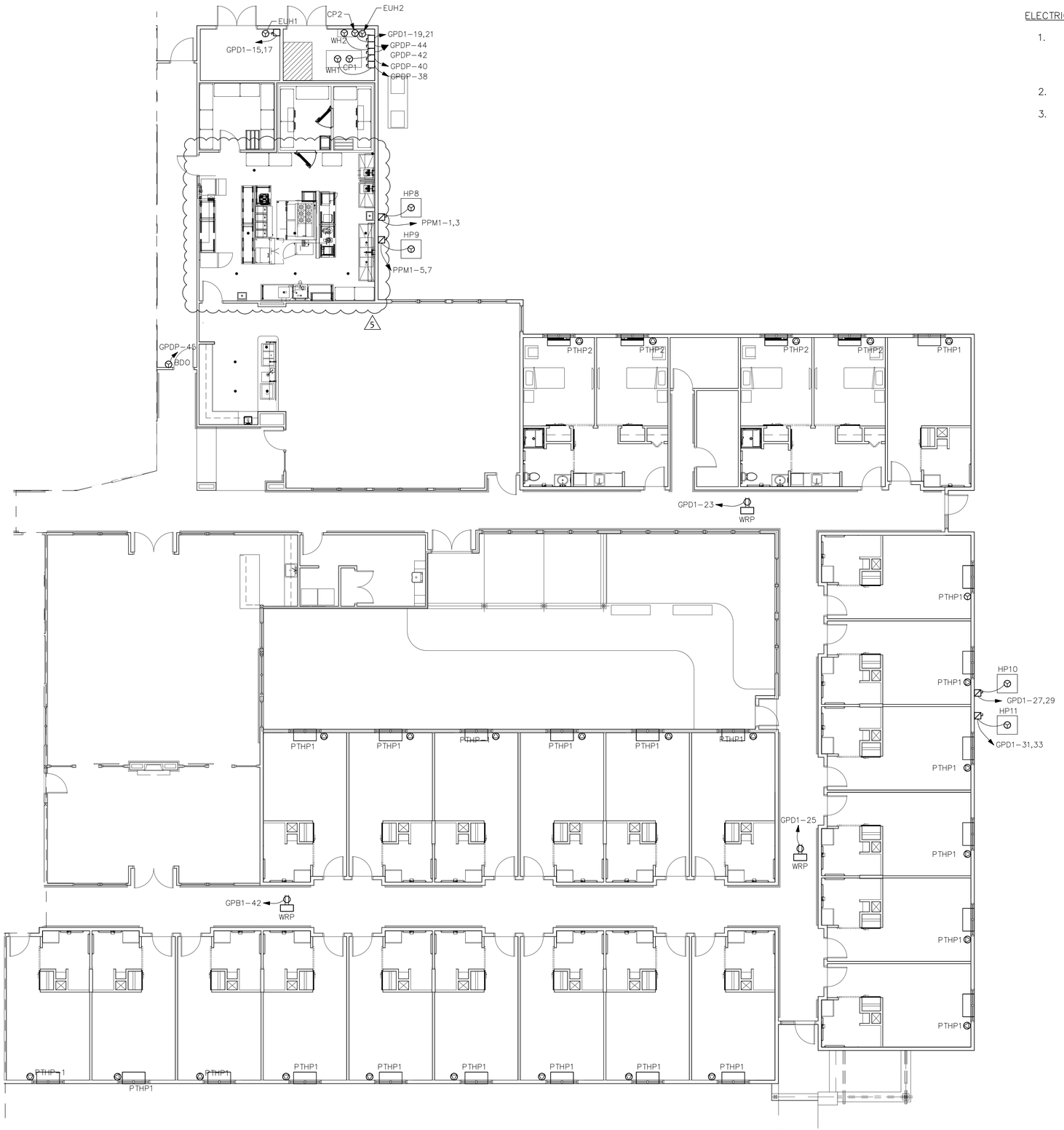
KEY PLAN



NORTH

E206

PARTIAL MECHANICAL POWER PLAN



1 E207 PARTIAL MECHANICAL POWER PLAN

SCALE: 1/8"=1'-0"

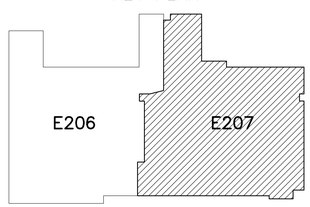
ELECTRICAL GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SHEET E501 FOR EQUIPMENT CONNECTION SCHEDULE.
3. FOR CONNECTION TO "PTHP1" AND "PTHP2" RESIDENT HEATING UNIT CIRCUITS, PROVIDE RECEPTACLE AT 24" AFF. SEE PANEL SCHEDULES FOR CORRESPONDING ROOMS.

NORTH

GRAPHIC SCALE: 8 4 0 8 16 1"=8'

KEY PLAN



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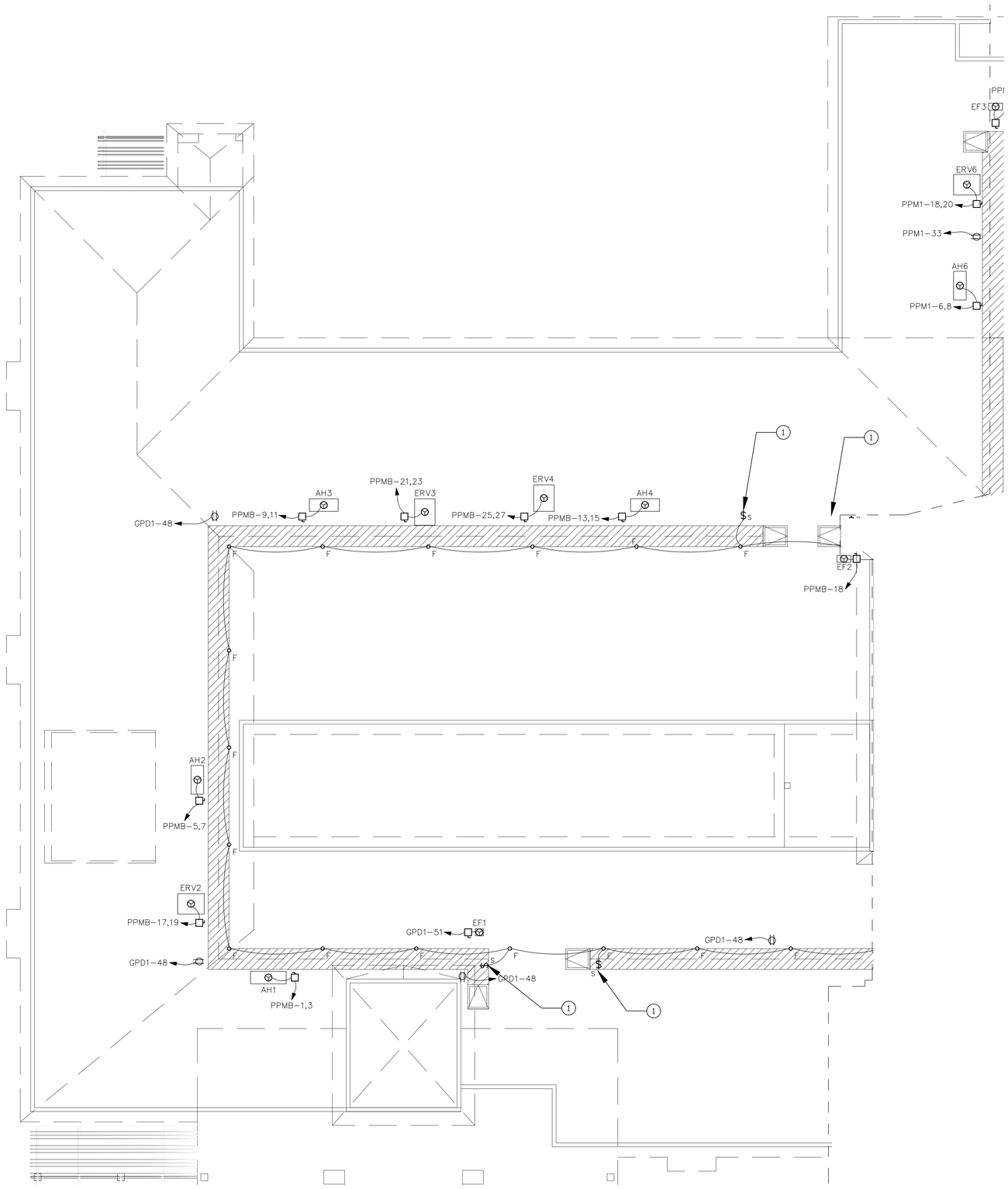
5	5/31/2023	REVISION 5

E207
PARTIAL MECHANICAL POWER PLAN



1 E208 PARTIAL ATTIC POWER PLAN

SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1–HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SHEET E001 FOR GENERAL NOTES AND ABBREVIATIONS.
3. SEE MECHANICAL POWER PLAN SHEET E206 FOR MECHANICAL EQUIPMENT LOCATED IN ATTIC AREA.
4. E.C. SHALL PULL ALL CAT5e, CAT6e, AND PHONE/DATA CABLING TO DATA ROOM AND CONNECT.
5. RECEPTACLE LOCATIONS SHALL BE WITHIN 25 FOOT OF ATTIC EQUIPMENT PER NEC 210.63.
6. PLACE ALL LIGHT FIXTURES IN ATTIC OUTSIDE OF WALKING PLATFORM FOOTPRINT AND ALSO LOCATED TO PROVIDE BEST LIGHTING FOR SERVICING ATTIC EQUIPMENT AFTER ALL ITEMS HAVE BEEN INSTALLED.

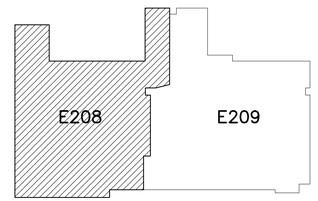
ELECTRICAL PLAN NOTES

1. WIRE ALL SPRING WOUND SWITCHES ON PLATFORM IN PARALLEL.

8 4 0 8 16

GRAPHIC SCALE: 1"=8'

KEY PLAN



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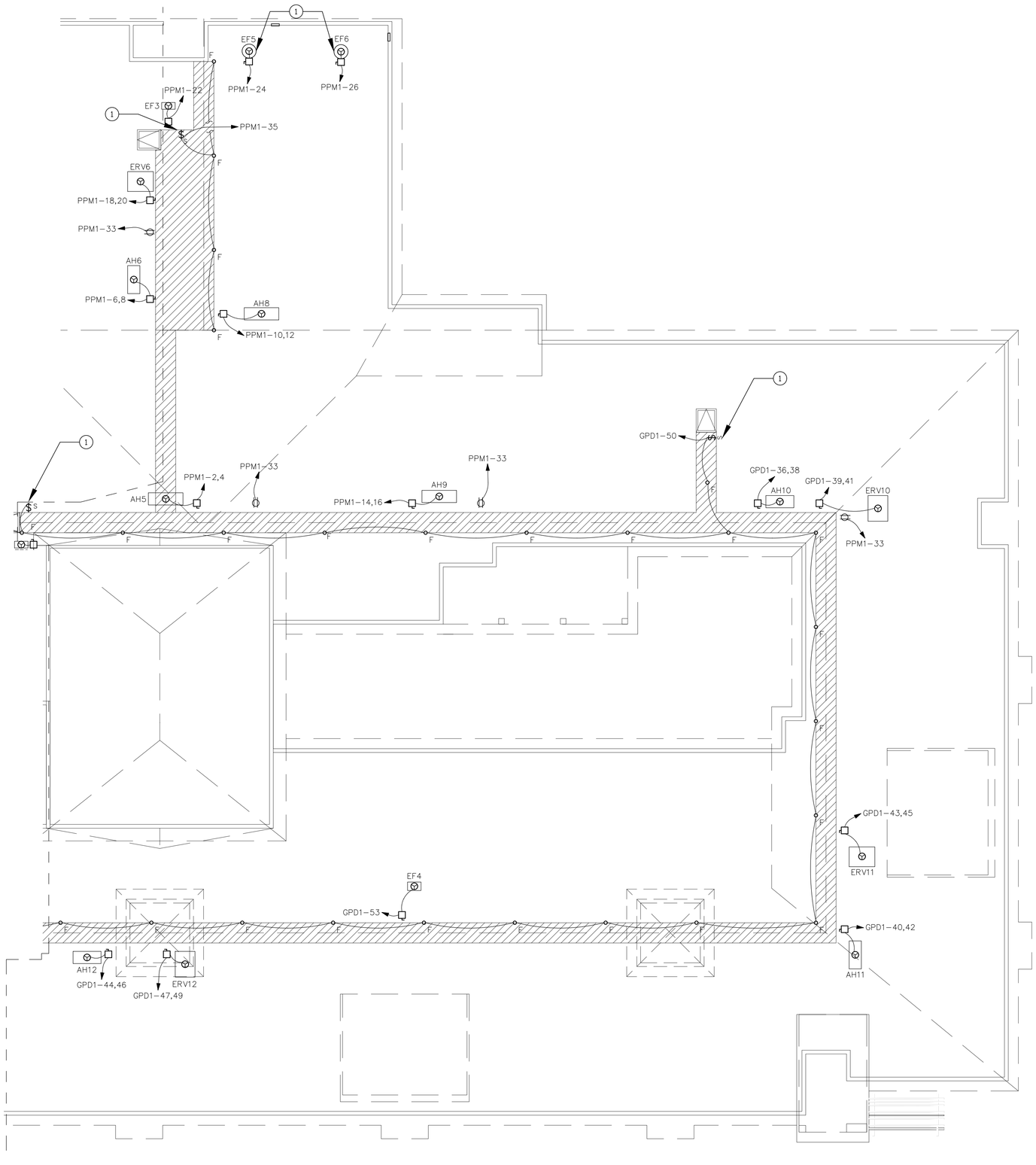
E208
PARTIAL ATTIC POWER PLAN



1 / E209 PARTIAL ATTIC POWER PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SHEET E001 FOR GENERAL NOTES AND ABBREVIATIONS.
3. SEE MECHANICAL POWER PLAN SHEET E207 FOR MECHANICAL EQUIPMENT LOCATED IN ATTIC AREA.
4. E.C. SHALL PULL ALL CAT5e, CAT6e, AND PHONE/DATA CABLING TO DATA ROOM AND CONNECT.

ELECTRICAL PLAN NOTES

1. WIRE ALL SPRING WOUND SWITCHES ON COMMON CIRCUITS ON PLATFORM IN PARALLEL.
2. EF5 AND EF6 ARE ROOF-MOUNTED FANS.

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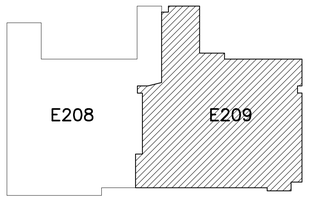
REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

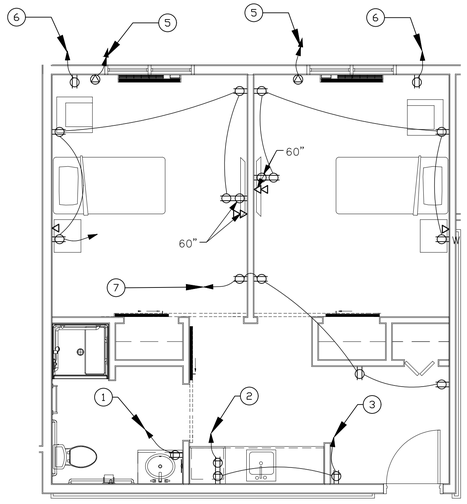
8 4 0 8 16
GRAPHIC SCALE: 1"=8'

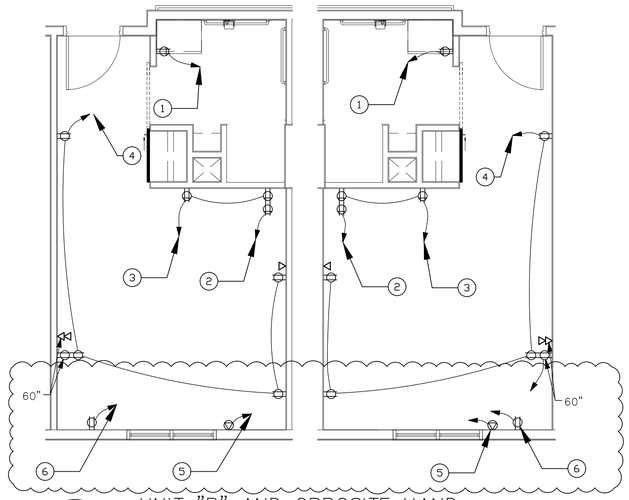
KEY PLAN



NORTH

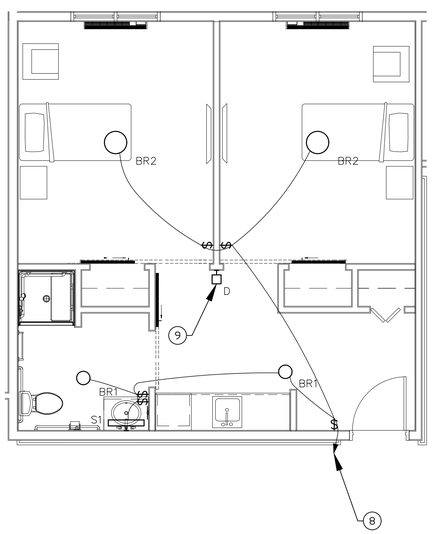
E209
PARTIAL ATTIC POWER PLAN

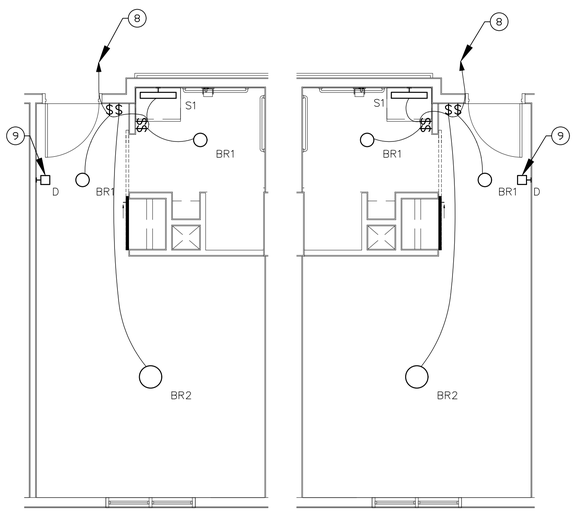




1 E210 UNIT "A" TYPICAL POWER PLAN
SCALE: 1/4"=1'-0"

2 E210 UNIT "B" AND OPPOSITE HAND TYPICAL POWER PLAN
SCALE: 1/4"=1'-0"





3 E210 UNIT "A" TYPICAL LIGHTING PLAN
SCALE: 1/4"=1'-0"

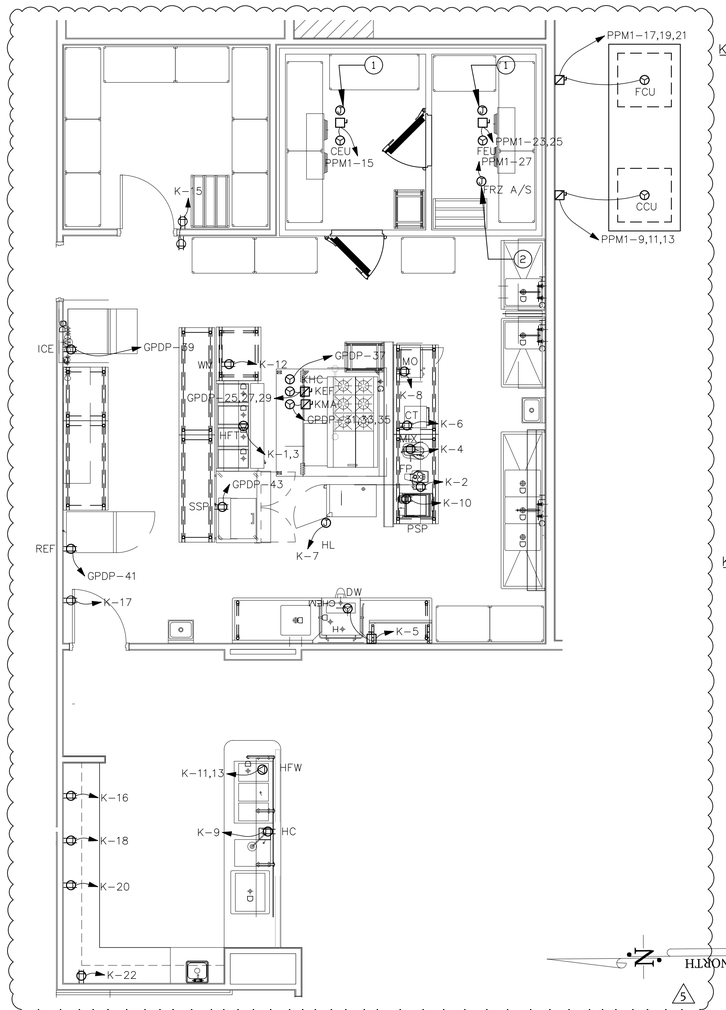
4 E210 UNIT "B" AND OPPOSITE HAND TYPICAL LIGHTING PLAN
SCALE: 1/4"=1'-0"

UNIT "A" AND UNIT "B" PLAN NOTES:

1. PROVIDE SINGLE CIRCUIT TO "TOILET" DESIGNATED CIRCUIT ON PANEL SERVING ROOM.
2. PROVIDE SINGLE CIRCUIT FOR UNDER COUNTER "FRIDGE" RECEPTACLE DESIGNATED CIRCUIT ON PANEL SERVING ROOM.
3. PROVIDE SINGLE CIRCUIT TO "KITCHEN" COUNTER TOP RECEPTACLES DESIGNATED CIRCUIT ON PANEL SERVING ROOM.
4. PROVIDE SINGLE CIRCUIT TO "BEDROOM" RECEPTACLES DESIGNATED CIRCUIT ON PANEL SERVING ROOM.
5. PROVIDE SINGLE CIRCUIT TO "PTHP1" OR "PTHP2" EQUIPMENT RECEPTACLE DESIGNATED CIRCUIT ON PANEL SERVING ROOM.
6. PROVIDE CIRCUIT TO SINGLE GENERATOR BACKUP POWERED RECEPTACLE IN EACH ROOM, CIRCUIT WITH MULTIPLE ROOMS AS SHOWN ON PANEL SCHEDULES.
7. IN UNIT "A" TYPE ROOMS: PROVIDE SINGLE CIRCUIT TO "COMMON AREA" RECEPTACLES DESIGNATED CIRCUIT ON PANEL SERVING ROOM.
8. PROVIDE SINGLE CIRCUIT FOR GENERATOR BACKUP POWERED LIGHTING CIRCUIT TYPICAL OF BOTH UNIT TYPES. CIRCUIT THESE LIGHTS WITH MULTIPLE ROOMS AS SHOWN ON PANEL SCHEDULES.
9. NIGHT LIGHT (NL) DENOTED BY LIGHT FIXTURE "D" SHALL BE CONNECTED UNSWITCHED TO ROOM LIGHTING CIRCUIT.

UNIT "A" AND UNIT "B" GENERAL NOTES:

1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SPECIFICATIONS, PANEL SCHEDULES, LUMINAIRE SCHEDULES, AND ALL DEVICE SCHEDULES FOR ADDITIONAL ELECTRICAL INFORMATION ON EQUIPMENT INSTALLATION.
3. COORDINATE ALL RECEPTACLE HEIGHTS AND COUNTERTOP HEIGHTS WITH ARCHITECTURAL ELEVATIONS PRIOR TO ALL ROUGH-INS.
4. VERIFY ALL OUTLET LOCATIONS PRIOR TO ROUGH-IN. OFFSET RECEPTACLES IN ADJACENT ROOMS TO ENSURE NO RECEPTACLES OR COMMUNICATIONS BOXES ARE BACK-TO-BACK (MINIMUM OF 6" BETWEEN RECEPTACLES.) SEE ARCHITECTURAL PLANS FOR FIRE RATED WALLS.
5. PROVIDE TAMPERPROOF RECEPTACLES AT ALL LOCATIONS.



5 E210 KITCHEN/SERVERY POWER PLAN
SCALE: 1/4"=1'-0"

KITCHEN ELECTRICAL GENERAL NOTES:

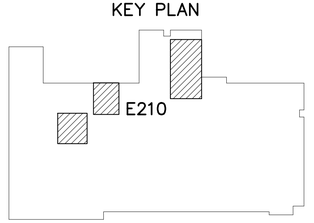
1. PROVIDE FIRE STOPPING AT ALL CONDUIT, BOX, AND MOUNTING PENETRATIONS AT ALL 1-HR FIRE SEPARATION WALLS AND CEILING ASSEMBLIES AS SHOWN ON LIFE SAFETY PLANS, SPECIFICATIONS, AND DETAILS.
2. SEE SHEET E501 FOR EQUIPMENT SCHEDULES AND RECEPTACLE SCHEDULES. ALSO SEE KITCHEN EQUIPMENT PROVIDER DRAWINGS FOR MORE INFORMATION.
3. VERIFY ALL OUTLET LOCATIONS PRIOR TO ROUGH-IN. OFFSET RECEPTACLES IN ADJACENT ROOMS TO ENSURE NO RECEPTACLES ARE BACK TO BACK (MINIMUM OF 6" BETWEEN RECEPTACLES.) SEE ARCHITECTURAL PLANS FOR FIRE RATED WALLS.
4. COORDINATE RECEPTACLE AND COMMUNICATIONS/TELEPHONE BOX HEIGHTS WITH COUNTER ELEVATIONS AS SHOWN ON ARCHITECTURAL AND KITCHEN EQUIPMENT DRAWINGS.
5. ALL TELEPHONE/DATA POINTS SHALL BE SUPPLIED WITH TWO JUNCTION BOXES, ONE FOR DATA, ONE FOR TELEPHONE. TYPICAL FOR ALL CONNECTIONS.

KITCHEN ELECTRICAL PLAN NOTES

1. IN ADDITION TO POWER TO CONDENSING UNIT: PROVIDE PATHWAY FOR (7) #12, (1) #12G IN A 3/4" C FOR ASSOCIATED EVAPORATOR UNIT FOR CONTROL.
2. PROVIDE A CONNECTION TO ANTI-SWEATS AND DRAIN HEATER IN FREEZER AS COORDINATED WITH PROVIDER.

4 2 0 4 8
GRAPHIC SCALE: 1"=4'

KEY PLAN



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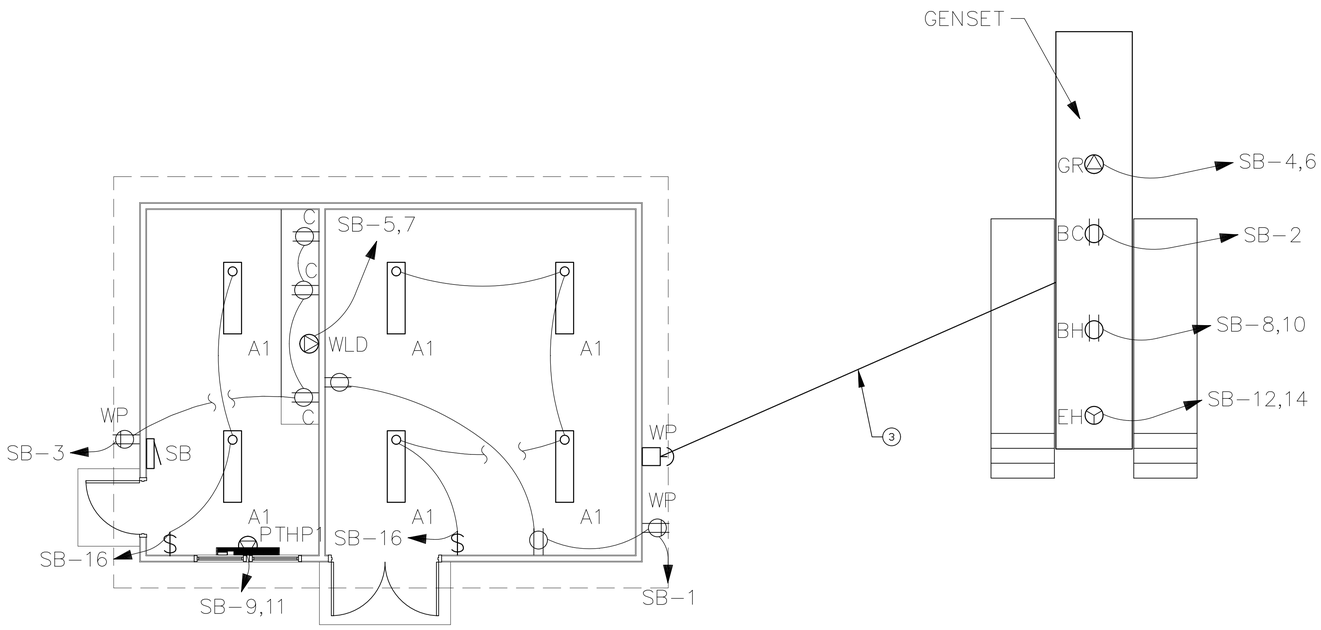
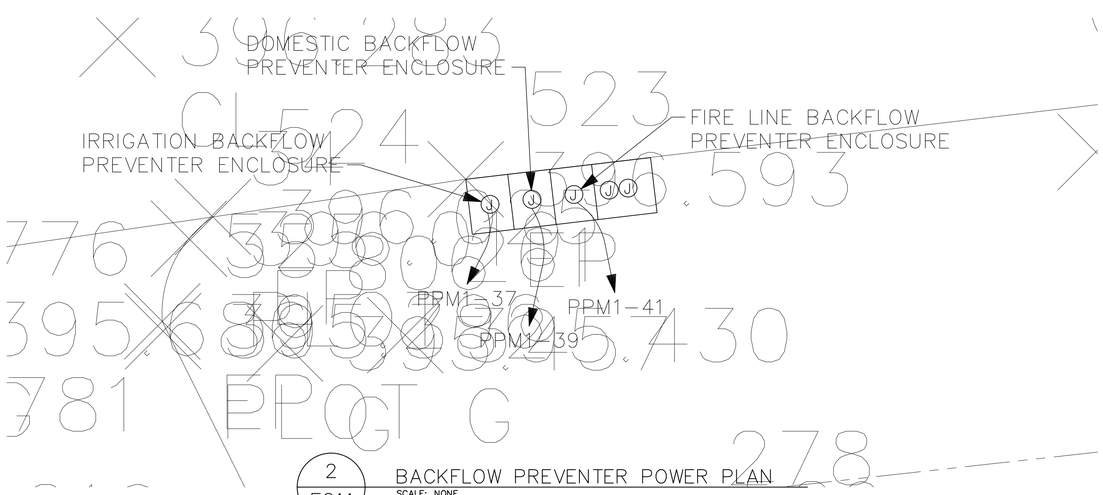
3	3/22/2023	REVISION 3
5	5/31/2023	REVISION 5

E210
ENLARGED AREA ELECTRICAL PLAN



1 E211 STORAGE BUILDING, GENERATOR, AND UTILITY TRANSFORMER PAD POWER PLAN

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



2 E211 BACKFLOW PREVENTER POWER PLAN

SCALE: NONE

ELECTRICAL GENERAL NOTES:

1. PROVIDE CONDUITS AND REQUIRED WIRING STUBBED FROM GENERATOR CONTROL PANEL TO STORAGE BUILDING. (1) 3/4" INCH FOR EMERGENCY STOP STATION BUTTON FOR GENERATOR (E.C.TO PROVIDE WITH GENERATOR). (3) 1" CONDUITS AND REQUIRED WIRING TO PANEL "SB" IN STORAGE BUILDING FOR GENERATOR ACCESSORIES NOTED.
2. PROVIDE (1) 1" CONDUIT AND REQUIRED WIRING GENERATOR CONTROL PANEL TO "ATS" IN MAIN BUILDING ELECTRICAL ROOM.
3. PROVIDE (1) 1" CONDUIT AND REQUIRED WIRING FROM GENERATOR CONTROL PANEL TO GENERATOR REMOTE ANNUNCIATOR PANEL IN MAIN BUILDING. VERIFY LOCATION OF ANNUNCIATOR PANEL WITH OWNER.

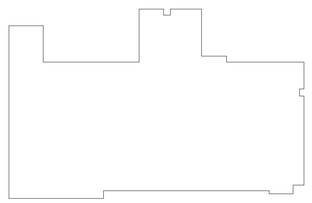
ELECTRICAL PLAN NOTES

1. PROVIDE BOLLARDS FOR PROTECTION OF UTILITY TRANSFORMER, TYPICAL OF (7.)
2. PROVIDE PRECAST OR POURED IN PLACE CONCRETE "SMALL PIT PAD" FOR SERVICE TRANSFORMER AS COORDINATED WITH POWER COMPANY.
3. CONDUIT BANK FOR EMERGENCY STOP AND ALL GENERATOR ACCESSORIES NOTED, SEE GENERAL NOTE 1 ON THIS SHEET.

4 2 0 4 8

GRAPHIC SCALE: 1"=4'

KEY PLAN



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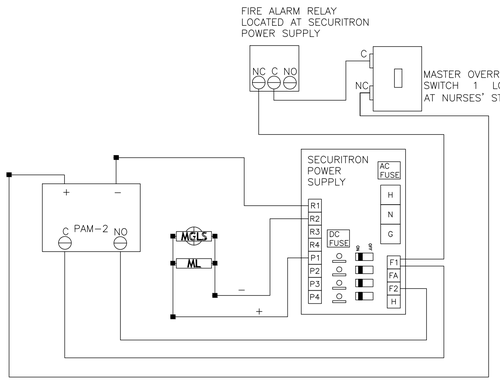
E211
UTILITY AND GENERATOR PLAN



NOTE: SYSTEM STATUS IS SHOWN IN NORMAL OPERATION WITH ALL MAGLOCKS ENERGIZED (DOORS HELD CLOSED).

1
E300

MAGLOCK SYSTEM DIAGRAM

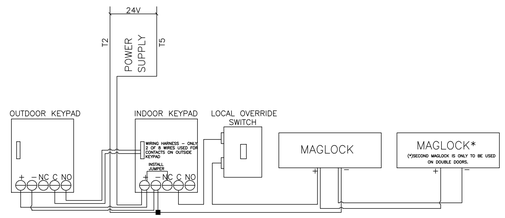
SCALE: NONE

MAGLOCK SYSTEM SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	NOTE 1	NOTE 2
B	B	DOORBELL CHIME		
DB		DOORBELL BUTTON	PROVIDE WEATHERPROOF CASING WHEN DESIGNATED WITH "WP" TAG	
DC	DC	DOOR SECURITY CONTACT (SF520)		
DS				
ES	ES	ELECTRIC DOOR STRIKE (SF250)		
KP	KP	KEYPAD (HONEYWELL 0P95HON)		
KS	KS	MAGLOCK KILL SWITCH WITH SCREAMER COVER (STI–13020NR)		KILL SWITCHES SHALL BE MOUNTED WITHIN 42" AND 48" TO CENTER OF SWITCH AFF, INCLUDING EMERGENCY STATION
MGLS	MGLS	GATELOCK LOCATION		
MKS	MKS	MASTER KILL SWITCH		
ML	ML	MAGLOCK (ALARM CONTROLS AC600)	ALL MAGLOCKS SHALL DE–ENERGIZE ON ALL FIRE ALARMS AND MEET REQUIREMENTS OF THE NC BUILDING CODE 407.12 FOR SPECIAL LOCKING ARRANGEMENTS	ALL MAGLOCK SHALL OPEN UNDER THE FOLLOWING CONDITIONS: COMMERCIAL POWER FAILURE, ACTIVATION OF THE FIRE ALARM, ACTIVATION OF SHUT–OFF SWITCH AT EMERGENCY STATION
MPS	MPS	MAGLOCK POWER SUPPLY (SECURITRON BPS–24–3)	LOW VOLTAGE POWER (24VDC) FROM THE POWER SUPPLY IS CONTROLLED THROUGH SERIES CONNECTED MASTER OVERRIDE "KILL" SWITCH(ES) LOCATED AT NURSES STATION, WHEN THE MASTER KILL SWITCH(ES) IS/ARE TURNED TO THE "OFF" POSITION, ALL MAGLOCKS SHALL DE–ENERGIZE SIMULTANEOUSLY	

MAGLOCK SYSTEM GENERAL NOTES:

1. THE ENTIRE MAGLOCK SYSTEM SHALL MEET ALL APPLICABLE CODES AND STANDARDS AND SHALL COMPLY WITH 2018 NCSBC, SECTION 407.12 AND SHALL BE CONSIDERED AS ONE SYSTEM.
2. THE ENTIRE MAGLOCK SYSTEM SHALL BE INSTALLED BY A LICENSED ALARM CONTRACTOR LICENSED FROM THE NORTH CAROLINA ALARM LICENSING BOARD.
3. THERE SHALL BE A MASTER MAGLOCK KILL SWITCH LOCATED AT EACH NURSE STATION, COVERED WITH A STI–13020NR SAFETY TECHNOLOGIES, INC STOPPER COVER WITH HORN. THIS KILL SWITCH WILL DE–ENERGIZE ALL MAGLOCK'S SIMULTANEOUSLY IF TURNED TO THE OFF POSITION.
4. THERE SHALL BE A LOCAL MAGLOCK KILL SWITCH LOCATED WITHIN 36" OF EACH MAGLOCK CONTROLLED DOOR, COVERED WITH A STI–13020NR SAFETY TECHNOLOGIES, INC STOPPER COVER WITH HORN. THIS SWITCH SHALL BE DOUBLE POLE, SINGLE THROW SWITCH. THIS SWITCH WILL SERVE TWO FUNCTIONS:
   a. BREAK POWER GOING TO THE MAGLOCK(S.)
   b. PROVIDE A CONTACT FOR TIE–IN TO THE WIRELESS EMERGENCY CALL SYSTEM. THE WIRELESS EMERGENCY CALL SYSTEM WILL USE A UNIVERSAL TRANSMITTER (SF525UL) TO MONITOR THE SECOND SET OF CONTACTS. WHEN THE REQUIRED KILL SWITCH IS TURNED OFF, THE CONTACT WILL OPEN AND TRIP THE UNIVERSAL TRANSMITTER. THIS IN TURN WILL CAUSE AN ALARM CONDITION ON THE WIRELESS EMERGENCY CALL SYSTEM MASTER STATION (NC475 DESK W LS500 SOFTWARE AND NC 510 UL) WHICH WILL THEN SEND AN ALARM SIGNAL TO THE MASTER STATION.
   c. WHEN THE KILL SWITCH IS TURNED ON, THE MAGLOCK SYSTEM WILL RETURN TO NORMAL.
5. THE MAGLOCK SYSTEM SHALL DE–ENERGIZE UPON ACTIVATION OF THE AUTOMATIC FIRE DETECTION SYSTEM.
6. AT EACH EMERGENCY STATION INCLUDE A WIRING DIAGRAM UNDER GLASS. WIRING DIAGRAM SHALL IDENTIFY PANEL AND BREAKER FOR 120V SERVICE.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTING TO THE 120V SYSTEM AS REQUIRED. SEE PANEL "GPDP" PANEL SCHEDULE ON SHEET E504.
8. PROVIDE DOORBELL TO CARE BASE 176.
9. ALL WIRE IS TO BE TWO CONDUCTOR TWISTED #16 STRANDED AND IS TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.
10. ALL DEVICES AND OPERATION OF MAGLOCK SYSTEM SHALL BE COORDINATED AND CONFIRMED WITH AHJ.



2
E300

MAGLOCK SYSTEM DOOR COMPONENTS

SCALE: NONE

EMERGENCY CALL SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	NOTE 1	NOTE 2
B	B	EMERGENCY PULL CORD BEDROOM (SF123 W/ IH121K)		MOUNT AT 42" AFF U.O.N., VERIFY AND COORDINATE LOCATIONS OF ALL PULL CORDS WITH BED LAYOUT AND BATHROOM HAND RAIL LAYOUT, PULL CORD SHALL ACTIVATE LIGHT SOUNDER AT EMERGENCY STATION, COORDINATE WITH FURNITURE LAYOUT
DL		DOME LIGHT TWO LAMP (L122)		COORDINATE LOCATION WITH ARCHITECTS ELEVATIONS
E	E	EMERGENCY PULL CORD (SF123 W/ IH121K)	PROVIDE WEATHERPROOF CASING WHEN DESIGNATED WITH "WP" TAG (SF123 W/ IH121K, RP087 GASKET)	MOUNT AT 42" AFF U.O.N., VERIFY AND COORDINATE LOCATIONS OF ALL PULL CORDS WITH BED LAYOUT AND BATHROOM HAND RAIL LAYOUT, PULL CORD SHALL ACTIVATE LIGHT SOUNDER AT EMERGENCY STATION, BATHROOMS AND RESTROOMS SHALL HAVE PULL CORD TO ACTIVATE SYSTEM
ECR	ECR	EMERGENCY CALL REMOTE MASTER STATION (NC415D)		
EM	EM	EMERGENCY CALL MASTER STATION (NC475 DESK W LS500 SOFTWARE & NC 510 UL)		
EPS	EPS	EMERGENCY CALL POWER SUPPLY (NC120)	SEE EQUIPMENT CONNECTION SCHDULE FOR POWER CONNECTION	
VD	VD	EMERGENCY CALL VISIBLE DUTY LIGHT	AUDIBLE SIGNAL AND VISIBLE DUTY LIGHT SHALL ACTIVATE	

EMERGENCY CALL GENERAL NOTES:

1. ALL RECEPTACLES FOR THE WIRELESS EMERGENCY CALL SYSTEM REPEATER'S (WRP) SHALL BE IN THE ATTIC AND SHALL BE ON A DEDICATED CIRCUIT. ALL RECEPTACLES CAN BE ON ONE CIRCUIT AS LONG AS THERE ARE NO VOLTAGE DROPS AT THE RECEPTACLES. THESE RECEPTACLES SHALL BE ON GENERATOR POWER. SEE SHEET E206 AND E207.
2. OWNER SHALL APPROVE EMERGENCY CALL SYSTEM BEFORE MATERIALS ARE ORDERED.
3. CONTRACTOR SHALL PROVIDE ALL CONDUIT, MATERIAL, ETC. FOR A COMPLETE AND OPERATIONAL SYSTEM.
4. SYSTEM SHALL BE HARD WIRED WITH WIRELESS REPEATERS.
5. EMERGENCY CALL SYSTEM SHALL BE TEKTONE NC120 VISUAL SYSTEM WITH WIRELESS REPEATERS.
6. SELECTED WIRELESS CALL SYSTEM SHALL BE UL LISTED AND MEET THE REQUIREMENTS OF LICENSURE RULE 10A NCAC 13F.0311 (i) FOR ELECTRICALLY OPERATED CALL SYSTEMS IN NEWLY LICENSED FACILITIES.

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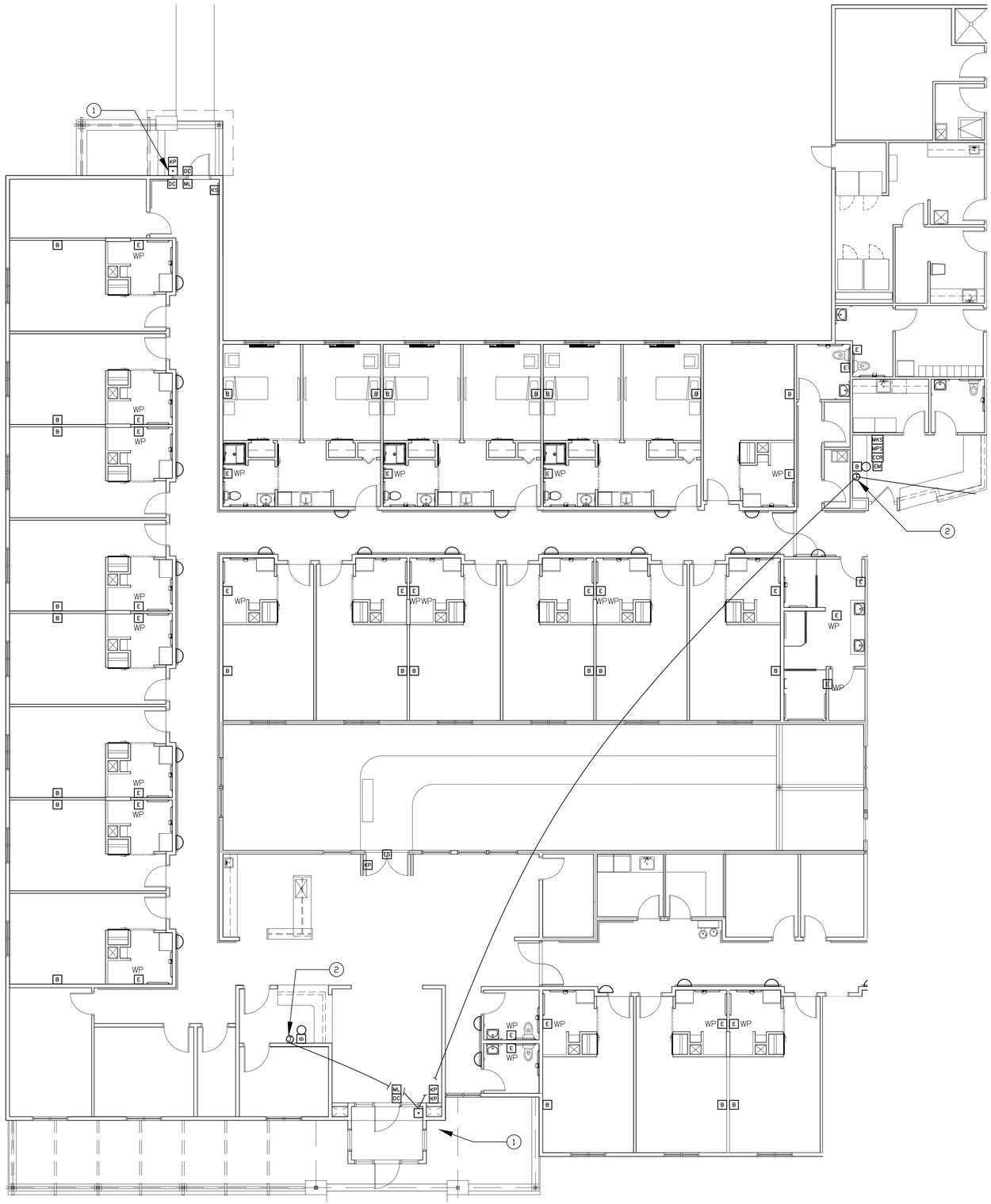
E300
EMERGENCY/SECURITY COVER SHEET



1
E301

PARTIAL EMERGENCY/SECURITY PLAN
SCALE: 1/8"=1'-0"

EMERGENCY/SECURITY GENERAL NOTES:

1. SEE SHEET E300 FOR GENERAL NOTES AND SCHEDULES.
2. PROVIDE 120/208V, 1PH, 4 WIRE, 1500W BATTERY INVERTER SYSTEM FOR EMERGENCY CALL WIRELESS SYSTEM. PROVIDE AT LEAST (5) 20A (COORDINATE EXACT REQUIREMENT WITH SUPPLIER) SINGLE POLE CIRCUIT BREAKERS FOR FEED TO ATTIC RECEPTACLE FOR EMERGENCY CALL TRANSMITTERS. VERIFY EXACT LOCATION OF TRANSMITTERS ADJACENT TO UNIT. PROVIDE BATTERY SUFFICIENT FOR 12 HOURS OF OPERATION.
3. OWNER SHALL APPROVE EMERGENCY CALL SYSTEM REQUIREMENTS BEFORE MATERIALS ARE ORDERED.
4. OWNER/"END USER" SHALL PROVIDE EMERGENCY CALL SYSTEM REQUIREMENTS AND REVIEW SHOP DRAWINGS PRIOR TO EQUIPMENT BEING PURCHASED OR INSTALLED.

EMERGENCY/SECURITY PLAN NOTES

1. CALL BUTTON TO DOORBELL CHIME IN CARE BASE 176.
2. PROVIDE PUSH BUTTON FOR DOOR RELEASE AT FRONT DOOR.

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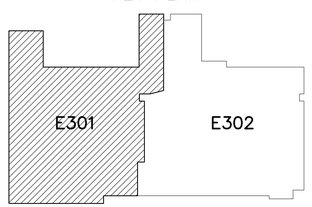
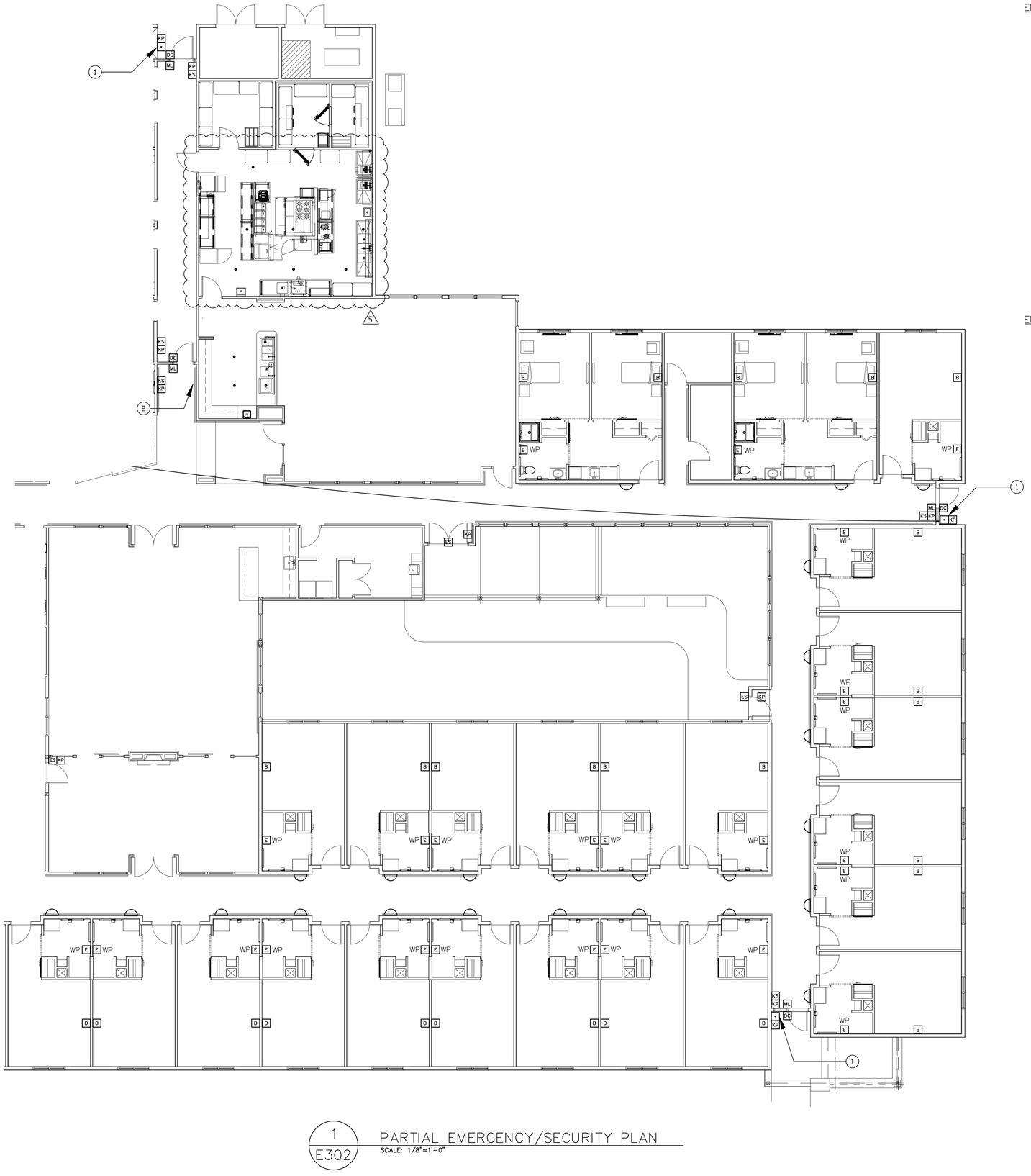
8 4 0 8 16
GRAPHIC SCALE: 1"=8'

KEY PLAN



NORTH

E301
EMERGENCY/SECURITY PARTIAL PLAN



1 PARTIAL EMERGENCY/SECURITY PLAN
E302 SCALE: 1/8"=1'-0"

EMERGENCY/SECURITY GENERAL NOTES:

1. SEE SHEET E300 FOR GENERAL NOTES AND SCHEDULES.
2. PROVIDE 120/208V, 1PH, 4 WIRE, 1500W BATTERY INVERTER SYSTEM FOR EMERGENCY CALL WIRELESS SYSTEM. PROVIDE AT LEAST (5) 20A (COORDINATE EXACT REQUIREMENT WITH SUPPLIER) SINGLE POLE CIRCUIT BREAKERS FOR FEED TO ATTIC RECEPTACLE FOR EMERGENCY CALL TRANSMITTERS. VERIFY EXACT LOCATION OF TRANSMITTERS ADJACENT TO UNIT. PROVIDE BATTERY SUFFICIENT FOR 12 HOURS OF OPERATION.
3. OWNER SHALL APPROVE EMERGENCY CALL SYSTEM REQUIREMENTS BEFORE MATERIALS ARE ORDERED.
4. OWNER/"END USER" SHALL PROVIDE EMERGENCY CALL SYSTEM REQUIREMENTS AND R3EVIEW SHOP DRAWINGS PRIOR TO EQUIPMENT BEING PURCHASED OR INSTALLED.

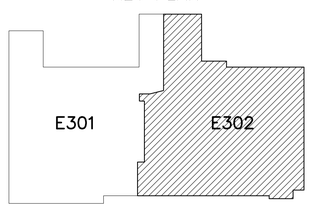
EMERGENCY/SECURITY PLAN NOTES.

1. CALL BUTTON TO DOOR BELL CHIME IN CARE BASE 176.
2. SEE POWER DRAWINGS FOR DOOR CIRCUIT CONNECTION.

NORTH

8 4 0 8 16
GRAPHIC SCALE: 1"=8'

KEY PLAN



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NORTH CAROLINA PROFESSIONAL ENGINEER #PE021990 L. MICHAEL STROUD

Docusigned by: L Michael Stroud F104013C715F4A1...

20 JANUARY, 2023

Matthew A Conte, AIA
NC. REG.#15129

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PROJECT NAME:

THE SPRINGS OF BALLENTINE

40 RAWLS CLUB RD
FUQUAY-VARINA NC.

PROJECT CLIENT:

CAROLINA COMMERCIAL CONTRACTORS
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ELEVEN18 PROJECT LEAD:
MATTHEW A. CONTE
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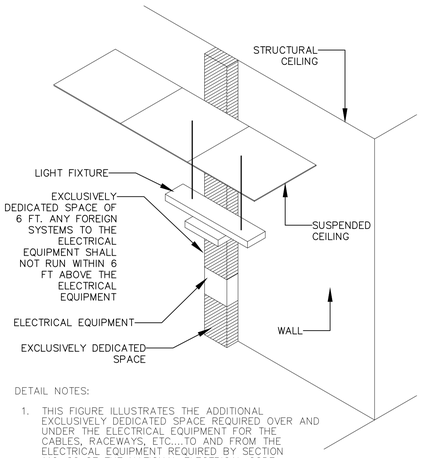
PROJECT TEAM:
Gabriela Salazar
Pamela Friday
Yuan Ping Lien

REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
/#	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2
5	5/31/2023	REVISION 5

E302
EMERGENCY/SECURITY PARTIAL PLAN



DETAIL NOTES:

1. THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER THE ELECTRICAL EQUIPMENT FOR THE CABLES, RACEWAYS, ETC...TO AND FROM THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-26 OF THE NATIONAL ELECTRICAL CODE.

1 / E401 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT

SCALE: NONE

TABLE "A" WORKING CLEARANCES

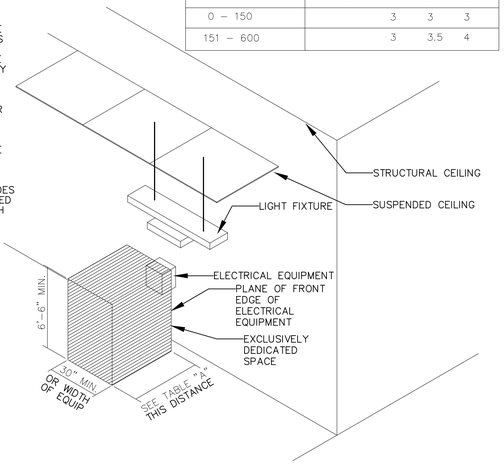
VOLTAGE TO GROUNDED NOMINAL	MINIMUM CLEAR DISTANCE (FEET)		
CONDITION:	1	2	3
0 – 150	3	3	3
151 – 600	3	3.5	4

WHERE THE "CONDITIONS" ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300V SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

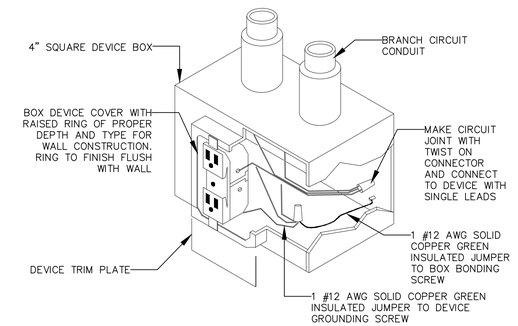
DETAIL NOTES:

1. THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110-26 OF THE NATIONAL ELECTRICAL CODE.



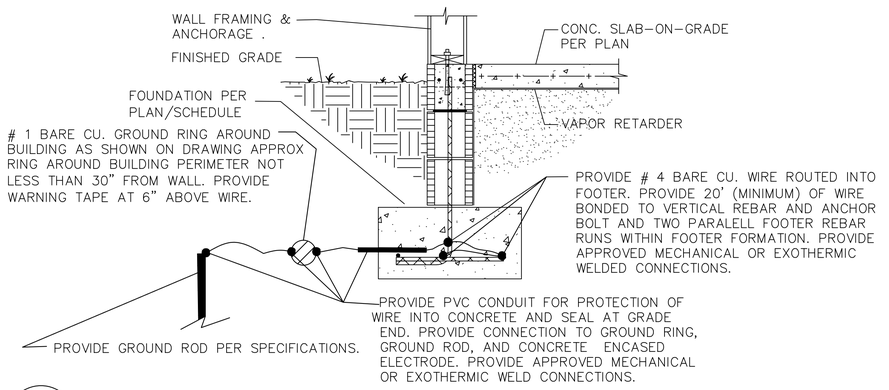
2 / E401 WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT

SCALE: NONE



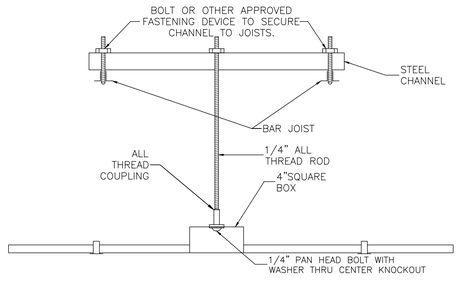
3 / E401 TYPICAL RECEPTACLE GROUNDING DETAIL

SCALE: NONE



4 / E401 GROUND RING FOUNDATION DETAIL (TYPICAL OF4 LOCATIONS)

SCALE: NONE



5 / E401 CEILING BOX SUPPORT DETAIL

SCALE: NONE

PANEL "A" 120/208V, 3ø, 4W, 225A FED FROM MDP-21 INSTALLED 12/23/02	DISC AHU#1 120/208V, 3ø, 4W, 100A FED FROM PP-2,4,6 INSTALLED 12/23/02	PANEL "AA" 120/208V, 3ø, 4W, 225A SUB-FED FROM PNL "A" INSTALLED 12/23/02

NOTE:

1. SUBMIT COMPLETE LIST OF PROPOSED NAMEPLATES TO ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO FABRICATION.

6 / E401 TYPICAL NAMEPLATE DETAIL

SCALE: NONE

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DocuSigned by: L. Michael Stroud F1D4013C715F4A1...

20 JANUARY, 2023

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	DATE	
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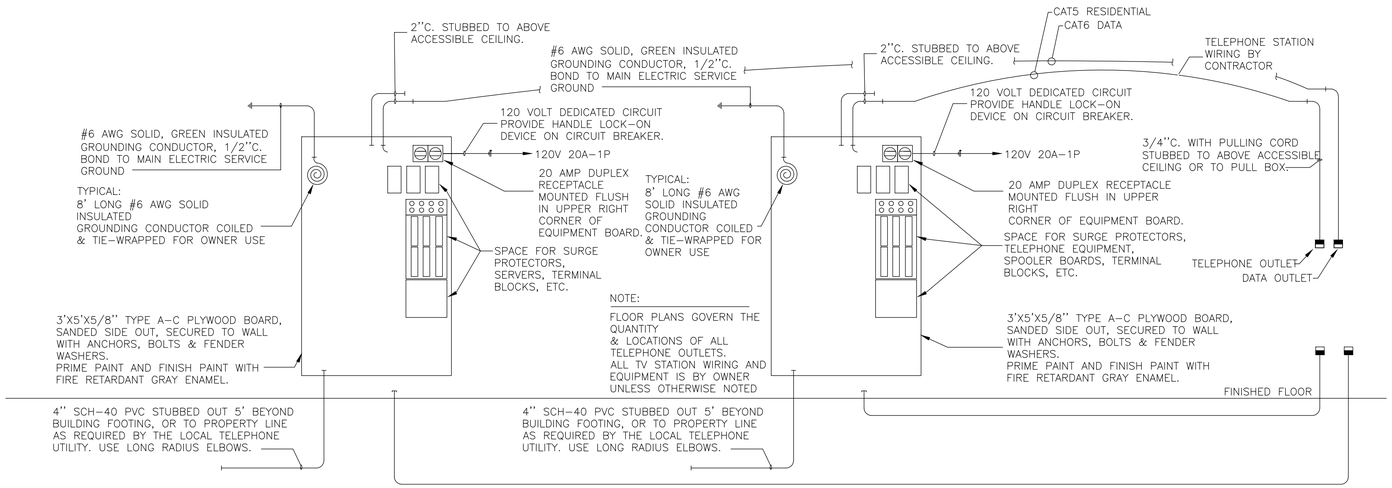
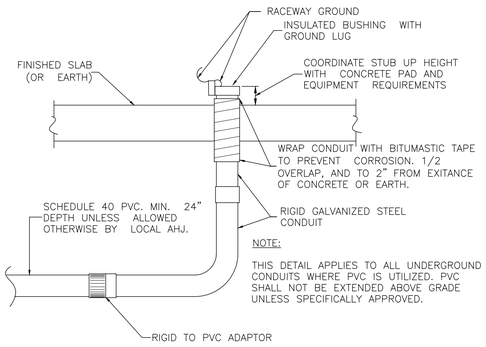
2	3/13/2023	REVISION 2

E401

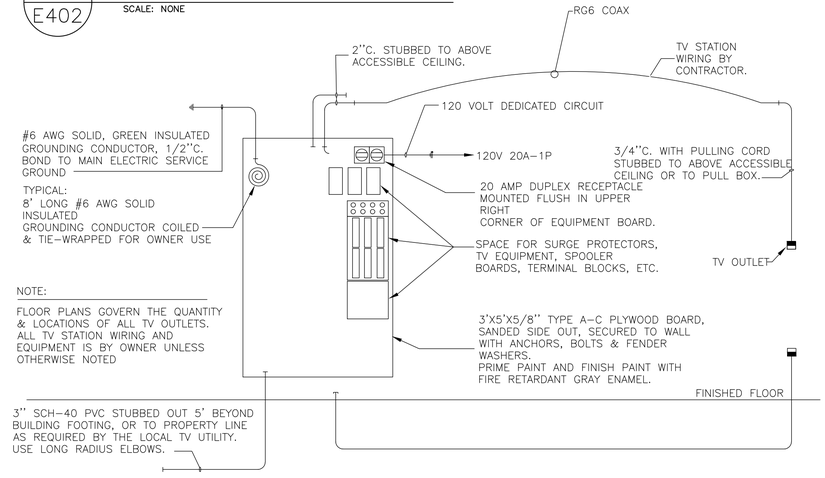
ELECTRICAL DETAILS



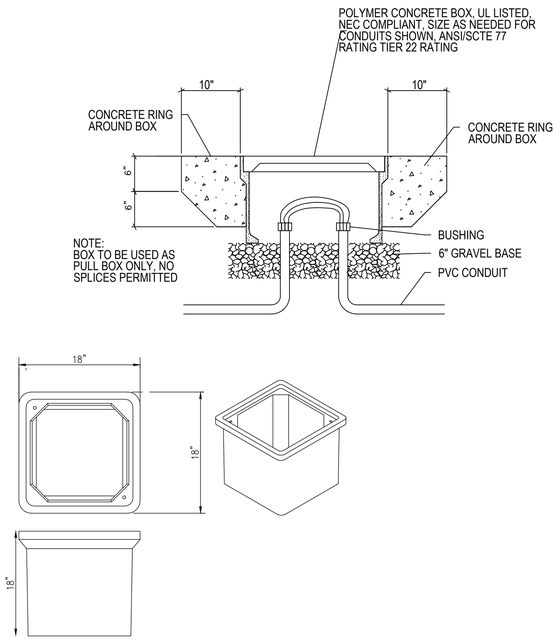
1 / E402 TELEPHONE AND DATA RISER DIAGRAM
SCALE: NONE



2 / E402 TYPICAL CONDUIT STUB-UP
SCALE: NONE



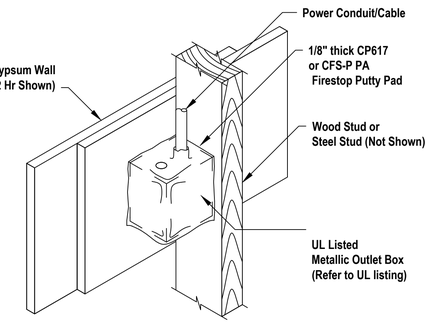
3 / E402 CABLE TV RISER DIAGRAM
SCALE: NONE



4 / E402 ELECTRIC HAND HOLE DETAIL
SCALE: NONE

WALL /CEILING Opening Protective Materials (CLIV, CLIV7)

Classified by Underwriters Laboratories, Inc. to UL 263 and CAN/ULC-S101



CFS-P PA FIRESTOPPING

Wall/Ceiling Opening Protective Materials (CLIV, CLIV7)

CP 617 or CFS-PA firestop Putty Pads, for use with flush device UL Listed Metallic Outlet Boxes installed with steel mud rings. When protective material is used on outlet boxes on both sides of the wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. provided that the boxes are not installed back-to-back (unless otherwise indicated). Installation shall comply with the National Electrical Code (NFPA 70). Min 1/8 in. thick (CP 617) or min 0.2 in. (CFS-P PA) thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and conduit fittings/connectors and to completely seal against the stud and gypsum board in the wall cavity unless otherwise noted below. When CFS-P PA is used, the putty pads may be installed with the release liner intact on the outside of the pad with the exception of any overlaps, in which case the liner is to be removed from the bottom layer at the overlap location. The box composition, max device dimensions, hourly rating, type of stud and type of faceplate are specified below.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4 by 4 by max 2-1/8 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates in 1 and 2 hr. fire rated gypsum wallboard wall assemblies framed with min 3-1/2 in. deep wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4-11/16 by 4-11/16 by max 2-1/8 in., or max 4-3/8 by 4-7/8 by max 2-1/8 in., flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 hr fire rated V446 gypsum board/steel stud or U341 gypsum board/wood stud Wall and Partition Design No. in the Fire Resistance Directory. When U341 wall design is used, wall shall be sheathed with 5/8 in. gypsum board, and glass or mineral fiber batt insulation shall be installed in stud cavities in accordance with U341 design. Boxes may be installed back-to-back.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4-11/16 by 4-11/16 by max 2-1/8 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 and 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. deep wood or steel studs and constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Min 0.8 pcf density fiberglass batt insulation is to be installed within the wall cavity required for 1 hr fire rated gypsum board wall assemblies and optional in 2 hr fire rated gypsum wallboard assemblies.

Nominal dimensions listed in previous paragraph's also apply to octogon?round boxes and fittings .

Fire Rating	Wall Type
2 hour	U300, U400 or V400 - wood or steel studs
1 hour	U300, U400, or V400 - wood or steel studs
** - Min 3/4 in. deep plaster rings installed over outlet box. After installation of gypsum board, nom 1/4 in. thickness of Hilti FS-ONE Sealant or FS-ONE MAX Intumescent Sealant, bearing the UL Classification Marking for Fill, Void or Cavity Materials, applied between the base layer of wallboard and the plaster ring.	

HILTI
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. December 07, 2016

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REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

E402
ELECTRICAL DETAILS CONT.

EQUIPMENT CONNECTION SCHEDULE

CALLOUT	DESCRIPTION	SYMBOL	VOLTS	AMPS	MCA	MOCP	WIRE CALLOUT	NOTES
AH1	AIR HANDLER 1		208V 2P 2W	42.4	53	60	1"C,2#4,#10G	
AH2	AIR HANDLER 2		208V 2P 2W	20	25	25	3/4"C,2#10,#10G	
AH3	AIR HANDLER 3		208V 2P 2W	20	25	25	3/4"C,2#10,#10G	
AH4	AIR HANDLER 4		208V 2P 2W	20	25	25	3/4"C,2#10,#10G	
AH5	AIR HANDLER 5		208V 2P 2W	33.6	42	45	3/4"C,2#6,#10G	
AH6	AIR HANDLER 6		208V 2P 2W	32	40	40	3/4"C,2#8,#10G	
AH8	AIR HANDLER 8		208V 2P 2W	42.4	53	60	1"C,2#4,#10G	
AH9	AIR HANDLER 9		208V 2P 2W	42.4	53	60	1"C,2#4,#10G	
AH10	AIR HANDLER 10		208V 2P 2W	33.6	42	45	3/4"C,2#6,#10G	
AH11	AIR HANDLER 11		208V 2P 2W	20	25	25	3/4"C,2#10,#10G	
AH12	AIR HANDLER 12		208V 2P 2W	33.6	42	45	3/4"C,2#6,#10G	
BDO	BACK DOOR OPENER		120V 1P 2W	4.17			3/4"C,1#12,#12N,#12G	PROVIDE NEMA 6-15R AT 24" AFF, COORDINATE EXACT LOACTION ADJACENT TO WALL UNIT WITH OWNER
CP1	CIRCULATING PUMP		120V 1P 2W	3.5			3/4"C,1#12,#12N,#12G	
D	CLOTHES DRYER		208/120V 2P 3W	24.04			3/4"C,2#10,#10N,#10G	PROVIDE NEMA 14-30R RECEPTACLE BEHIND UNIT AT ACCESSABLE LOCATION ABOVE UNIT HEIGHT
D.F	DRINKING FOUNTAIN		120V 1P 2W	12.5			3/4"C,1#12,#12N,#12G	
DRY	DRYER		208V 3P 3W	9.02			3/4"C,3#12,#12G	VERIFY WITH EQUIPMENT PROVIDER
DW	MEDICINE ROOM DISHWASHER		120V 1P 2W	8.33			3/4"C,1#10,#10N,#10G	
EF1	EXHAUST FAN		120V 1P 2W	1.45			3/4"C,1#10,#10N,#10G	
EF2	EXHAUST FAN		120V 1P 2W	3.53			3/4"C,1#10,#10N,#10G	
EF3	EXHAUST FAN		120V 1P 2W	3.53			3/4"C,1#12,#12N,#12G	
EF5	EXHAUST FAN		120V 1P 2W	5.8			3/4"C,1#12,#12N,#12G	
EF6	EXHAUST FAN		120V 1P 2W	5.8			3/4"C,1#12,#12N,#12G	
EPS	EMERGENCY CALL POWER SUPPLY		208/120V 2P 3W	7.21			3/4"C,2#10,#10N,#10G	
ERV2	ENERGY RECOVERY 2		208V 2P 2W	10	12.5	15	3/4"C,2#10,#10G	
ERV3	ENERGY RECOVERY 3		208V 2P 2W	10	12.5	15	3/4"C,2#10,#10G	
ERV4	ENERGY RECOVERY 4		208V 2P 2W	10	12.5	15	3/4"C,2#10,#10G	
ERV6	ENERGY RECOVERY 6		208V 2P 2W	10	12.5	15	3/4"C,2#12,#12G	
ERV10	ENERGY RECOVERY 10		208V 2P 2W	10	12.5	15	3/4"C,2#12,#12G	
ERV11	ENERGY RECOVERY 11		208V 2P 2W	10	12.5	15	3/4"C,2#10,#10G	
ERV12	ENERGY RECOVERY 12		208V 2P 2W	10	12.5	15	3/4"C,2#10,#10G	
EUH1	ELECTRIC HEATER		208V 2P 2W	14.42	18	20	3/4"C,2#12,#12G	
EUH2	ELECTRIC HEATER		208V 2P 2W	14.42	18	20	3/4"C,2#12,#12G	
GR	GENERATOR RECEPTACLE		208V 2P 2W	18.46			3/4"C,2#10,#10G	
HP1	HEAT PUMP 1		208V 2P 2W	29.6	37	60	1"C,2#4,#10G	
HP2	HEAT PUMP 2		208V 2P 2W	12	15	25	3/4"C,2#10,#10G	
HP3	HEAT PUMP 3		208V 2P 2W	12	15	25	3/4"C,2#10,#10G	
HP4	HEAT PUMP 4		208V 2P 2W	12	15	25	3/4"C,2#10,#10G	
HP5	HEAT PUMP 5		208V 2P 2W	22.4	28	45	3/4"C,2#6,#10G	
HP6	HEAT PUMP 6		208V 2P 2W	19.2	24	40	3/4"C,2#10,#10G	
HP7	HEAT PUMP 7		208V 2P 2W	20	25	30	3/4"C,2#10,#10G	
HP8	HEAT PUMP 8		208V 2P 2W	29.6	37	60	1"C,2#4,#10G	
HP9	HEAT PUMP 9		208V 2P 2W	29.6	37	60	1"C,2#4,#10G	
HP10	HEAT PUMP 10		208V 2P 2W	20.8	26	40	3/4"C,2#6,#10G	
HP11	HEAT PUMP 11		208V 2P 2W	10.4	13	20	3/4"C,2#10,#10G	
HP12	HEAT PUMP 12		208V 2P 2W	20.8	26	40	3/4"C,2#6,#10G	
MPS	MAGLOCK POWER SUPPLY		120V 1P 2W	8.33			3/4"C,1#10,#10N,#10G	
PS	PUMP STATION		208V 3P 3W	50.56		90	1-1/4"C,3#2,#8G	
PTHP1	PACKAGED TERMINAL HEAT PUMP		208/120V 2P 3W	10.1	14.1	15	3/4"C,2#12,#12N,#12G	PROVIDE NEMA 6-15R AT 24" AFF, COORDINATE EXACT LOACTION ADJACENT TO WALL UNIT WITH OWNER
PTHP1	PTHP1 - STORAGE		208V 2P 2W	16.27			3/4"C,2#12,#12G	
REF	SOILED ROOM REFRIGERATOR		120V 1P 2W	8.33			3/4"C,1#10,#10N,#10G	
W	CLOTHES WASHER		120V 1P 2W	12.5			3/4"C,1#12,#12N,#12G	PROVIDE RECEPTACLE BEHIND UNIT AT ACCESSABLE LOCATION ABOVE UNIT HEIGHT
WH1	WATER HEATER		120V 1P 2W	24			3/4"C,1#10,#10N,#10G	
WH2	WATER HEATER		120V 1P 2W	8			3/4"C,1#12,#12N,#12G	
WH3	WATER HEATER		120V 1P 2W	8			3/4"C,1#12,#12N,#12G	
WLD	WELDER - STORAGE		208V 2P 2W	16.27			3/4"C,2#12,#12G	
WRP	WIRELESS REPEATER		120V 1P 2W	4.5			3/4"C,1#12,#12N,#12G	
WSH	WASHER		208V 3P 3W	9.02			3/4"C,3#10,#10G	VERIFY WITH EQUIPMENT PROVIDER

NOTE: CONFIRM POWER REQUIREMENTS WITH ACTUAL EQUIPMENT BEING PROVIDED PRIOR TO ROUGH-IN AND PROCURRING GEAR

RECEPTACLE SCHEDULE

CALLOUT	SYMBOL	VOLTS	NOTE 1	NOTE 2	NOTE 3
DUPLEX		120V 1P 2W	PROVIDE HUBBELL "HBL5362" OR APPROVED EQUAL	PROVIDE STANDARD SMOOTH THERMOPLASTIC PLATES TO MATCH DEVICE CONFIGURATION AT EACH INDOOR LOCATION	U.O.N. MOUNT AT 18" AFF TO CENTER, MOUNT AT 18" ABOVE THE WALKING PLATFORM IN ATTIC SPACE
DUPLEX COUNTER TOP		120V 1P 2W	PROVIDE HUBBELL "HBL5362" OR APPROVED EQUAL	PROVIDE STANDARD SMOOTH THERMOPLASTIC PLATES TO MATCH DEVICE CONFIGURATION AT EACH INDOOR LOCATION	U.O.N. MOUNT AT 6" TO CENTER ABOVE COUNTER OR BACK SPLASH, OR 48" AFF IF NO COUNTER OR BACK SPLASH AVAILABLE, VERIFY ALL FINAL HEIGHTS WITH CABINET INSTALLATION AND FURNITURE LOCATIONS
DUPLEX GFCI		120V 1P 2W	PROVIDE HUBBELL "GF5362" OR APPROVED EQUAL	PROVIDE STANDARD SMOOTH THERMOPLASTIC PLATES TO MATCH DEVICE CONFIGURATION AT EACH INDOOR LOCATION	U.O.N. MOUNT AT 18" AFF TO CENTER
DUPLEX GFCI COUNTER TOP		120V 1P 2W	PROVIDE HUBBELL "GF5362" OR APPROVED EQUAL	PROVIDE STANDARD SMOOTH THERMOPLASTIC PLATES TO MATCH DEVICE CONFIGURATION AT EACH INDOOR LOCATION	U.O.N. MOUNT AT 6" TO CENTER ABOVE COUNTER OR BACK SPLASH, OR 48" AFF IF NO COUNTER OR BACK SPLASH AVAILABLE, VERIFY ALL FINAL HEIGHTS WITH CABINET INSTALLATION AND FURNITURE LOCATIONS
DUPLEX WP, GFCI		120V 1P 2W	PROVIDE HUBBELL "GF5362" OR APPROVED EQUAL	PROVIDE STANDARD SMOOTH THERMOPLASTIC PLATES TO MATCH DEVICE CONFIGURATION AT EACH INDOOR LOCATION AND PROVIDE "IN USE" COVER	U.O.N. MOUNT AT 18" AFF TO CENTER
QUADRAPLEX COUNTER TOP		120V 1P 2W	PROVIDE (2) HUBBELL "HBL5362" OR APPROVED EQUAL	PROVIDE STANDARD SMOOTH THERMOPLASTIC PLATES TO MATCH DEVICE CONFIGURATION AT EACH INDOOR LOCATION	U.O.N. MOUNT AT 6" TO CENTER ABOVE COUNTER OR BACK SPLASH, OR 48" AFF IF NO COUNTER OR BACK SPLASH AVAILABLE
SPECIAL		120V 1P 2W	NEMA CONFIGURATION AS SHOWN ON DRAWING OR ADDITIONAL SCHEDULE		MOUNT AT HEIGHT INDICATED ON DRAWING OR ADDITIONAL SCHEDULE
SURGE SUPPRESSION		120V 1P 2W	PROVIDE HUBBELL "5362SA" OR APPROVED EQUAL	PROVIDE STANDARD SMOOTH THERMOPLASTIC PLATES TO MATCH DEVICE CONFIGURATION AT EACH INDOOR LOCATION	U.O.N. MOUNT AT 48" AFF TO CENTER

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20 JANUARY, 2023

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PROJECT NAME:

THE SPRINGS OF BALLENTINE

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FUQUAY-VARINA NC.

PROJECT CLIENT:

CAROLINA COMMERCIAL CONTRACTORS
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REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

E501
ELECTRICAL SCHEDULES

LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	MOUNTING	MODEL	INPUT WATTS	COLOR	VOLTS	NOTE 1	NOTE 2
A		2x2 EDGELIT LED PANEL LIGHT WITH OPTIONAL SURFACE MOUNTING KIT FOR SURFACE MOUNTING ON GYPSUM CEILING, >80CRI	CEILING	RAB LIGHTING – EZPAN2X2–40N/D10 4000K	40	4000K	120V 1P 2W	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION WITH FLEXABLE CONNECTION TO LIGHT UNIT	
A1		1x4 EDGELIT LED PANEL LIGHT WITH OPTIONAL SURFACE MOUNTING KIT FOR SURFACE MOUNTING ON GYPSUM CEILING, >80CRI	CEILING	RAB LIGHTING – EZPAN1X4–40N/D10 4000K	40	4000K	120V 1P 2W	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION WITH FLEXABLE CONNECTION TO LIGHT UNIT	
A2		2x4 EDGELIT LED PANEL LIGHT WITH OPTIONAL SURFACE MOUNTING KIT FOR SURFACE MOUNTING ON GYPSUM CEILING, >80CRI	CEILING	RAB LIGHTING – EZPAN2X4–40N/D10 4000K	40	4000K	120V 1P 2W	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION WITH FLEXABLE CONNECTION TO LIGHT UNIT	
B		9" ROUND LED FLUSH MOUNTED LIGHT WITH 108 DEGREE ANGLE BEAM, GLASS LENS, WHITE ALUMINUM FRAME	CEILING	SATCO/NUVO – S29690 4000K	18.5	4000K	120V 1P 2W	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION FOR CONNECTION TO LIGHT	
B1		15" ROUND LED FLUSH MOUNTED, WHITE ALUMINUM FRAME	CEILING	SATCO/NUVO – 62–1291 4000K	26	4000K	120V 1P 2W	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION FOR CONNECTION TO LIGHT	
BR1		15" ROUND LED FLUSH MOUNTED, WHITE ALUMINUM FRAME, 90CRI	CEILING	NUVO 621191 3000K 3000K	26	3000K	120V 1P 2W	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION FOR CONNECTION TO LIGHT	
BR2		19" ROUND LED FLUSH MOUNTED, WHITE ALUMINUM FRAME, 90CRI	CEILING	NUVO 621192 3000K 3000K	30	3000K	120V 1P 2W	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION FOR CONNECTION TO LIGHT	
C1		ADJUSTABLE SUSPENDED DRUM FIXTURE, TWO TIERED 36" W, 12" DP	CEILING	LUMENANT LIGHTING – CUSTOM MANUFACTURED FOR COLOR MATCHING, SIZE, KELVEN, AND MOUNTING 4000K	64	4000K	120V 1P 2W	PROVIDE CEILING BOX WITH ADDITIONAL SUPPORT TO CEILING ABOVE AT BOX FOR CONNECTION TO LIGHT UNIT	
C2		FLUSH MOUNTED 24" DRUM FIXTURE, 4.5" DP	CEILING	LUMENANT LIGHTING – CUSTOM MANUFACTURED FOR COLOR MATCHING, SIZE, KELVEN, AND MOUNTING 4000K	40	4000K	120V 1P 2W	PROVIDE CEILING BOX WITH ADDITIONAL SUPPORT TO CEILING ABOVE AT BOX FOR CONNECTION TO LIGHT UNIT	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION FOR CONNECTION TO LIGHT
C3		LED CANOPY SURFACE MOUNT SUITABLE FOR WET LOCATIONS, FLAT LENS, WHITE FINISH	CEILING	RAB LIGHTING – VANLED20FW/PCS 5000K	20	5000K	120V 1P 2W	EXTERIOR FIXTURE TO BE CONTROLLED THROUGH EXTERIOR PHOTEYE AND CONTACT SWITCHING	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION FOR CONNECTION TO LIGHT
C4		LED CEILING MOUNTED EXTERIOR RATED CEILING FAN AND LIGHT	CEILING	PROGRESS LIGHTING – AIRPRO 52" WITH FINISH AND BLADE COLOR SELECTED BY OWNER, PROVIDE P2612–01WB FAN LIGHT KIT IN SIMILAR FINISH 5000K	20	5000K	120V 1P 2W	PROVIDE CEILING JUNCTION BOX AT EACH FIXTURE LOCATION FOR CONNECTION TO LIGHT	VERIFY SWITCHING DESIRED BY OWNER AND PROVIDE MANUFACTURER RECOMMENDED CONTROLS, MOUNT AT 80" AFF MINIMUM
D		RESIDENT ROOM NIGHT LIGHT	WALL	RADIENT – NTLFULLW 3000K	3	3000K	120V 1P 2W	MOUNT IN RECESSED SINGLE GANG 12" AFF BOX, CIRCUIT UNSWITCHED TO CIRCUIT SERVING AREA	
ELP		LOW PROFILE LED EMERGENCY LIGHT WITH INJECTION MOLDED WHITE PLASTIC HOUSING	WALL	COMPASS LIGHTING – CU2	1		120V 1P 2W	DIMENSIONS OF UNIT: 9" W, 4" H, 2.75" DP	LOCATE WHERE SHOWN ON DRAWINGS AND AS COORDINATED WITH ARCHITECT ELVATIONS AND BUILDING FINISHES
ELPW		SEALED OPTIC LED EXTERIOR EMERGENCY LIGHT, FULLY ADJUSTABLE DUAL HEADS, PUSH–TO–TEST SWITCH, AC ON INDICATOR, WET LOCATION AND LOW TEMPERATURE (0 DEGREE F) RATED	WALL	UTOPIA LIGHTING – WCEM–2–XX–HTR COLOR SELECTED BY OWNER/ARCHITECT	2		120V 1P 2W	DIMENSIONS OF UNIT: 14.9" W, 5.7" H, 4.2" DP	LOCATE WHERE SHOWN ON DRAWINGS AND AS COORDINATED WITH ARCHITECT ELVATIONS AND BUILDING FINISHES.
EXC		LED COMBINATION EXIT/EMERGENCY LIGHT, FULLY ADJUSTABLE DUAL HEADS, PUSH–TO–TEST SWITCH, AND AC–ON INDICATOR. HOUSING AND LETTERING COLOR AS VERIFIED WITH OWNER, PROVIDE SINGLE UNITS U.O.N. SHOWN ON DRAWING	WALL	COMPASS LIGHTING – CCRG OR APPROVED EQUAL, VERIFY LETTERING COLOR REQUIREMENTS WITH OWNER PRIOR TO ORDERING	3.9		120V 1P 2W	DIMENSIONS OF UNIT: 18" W, 7.2" H, 4.3" DP	LOCATE WHERE SHOWN ON DRAWINGS AND AS COORDINATED WITH ARCHITECT ELVATIONS AND BUILDING FINISHES
EXCW		LED COMBINATION EXIT/EMERGENCY LIGHT, FULLY ADJUSTABLE LAMP HEADS, PUSH–TO–TEST SWITCH, AND AC–ON INDICATOR, PROVIDE SINGLE FACED UNITS U.O.N ON DRAWINGS, COLD TEMP (–20 C) OPTION	WALL	COMPASS LIGHTING – CWCIRW–CT OR APPROVED EQUAL, VERIFY LETTERING COLOR REQUIREMENTS WITH OWNER PRIOR TO ORDERING	5.3		120V 1P 2W	DIMENSIONS OF UNIT: 12.4" W, 13.65" H, 5.91" DP	LOCATE WHERE SHOWN ON DRAWINGS AND AS COORDINATED WITH ARCHITECT ELVATIONS AND BUILDING FINISHES
F		KEYLESS FIXTURE	CEILING	EATON – S1174W–SP W/ LED LAMP 100W INCANDESCENT EQUIVALENT	9.5		120V 1P 2W	LOCATE SWITCHES ON WALKWAY TO PROVIDE HEAD ROOM AND TO PROVIDE MAXIMUM ILLUMINATION AFTER ALL EQUIPMENT IS INSTALLED	
L1		LED FREE–STANDING BOLLARD	OUTDOOR	RAB LIGHTING – BDLEDR18K 5000K	25	5000K	120V 1P 2W	PROVIDE CONCRETE PAD AND ACHNOR BOLTS, PROVIDE INSTALLATION PER MANUFACTURER	
P1		LED MINI PENDENT, BRUSH NICKEL FINISH, 8" GLASS GLOVE, 90CRI	PENDANT	KICHLER – LEXI 1 4000K	5	4000K	120V 1P 2W	MOUNT AT LOCATION SHOWN ON DRAWING WITH HEIGHT AFF AS SHOWN ON ARCHITECTURAL DETAIL, OR COORDINATED IN FIELD WITH ARCHITECT	
S1		LED WALL MOUNTED SQUARE VANITY 24" STRIP UNIT, BRUSHED NICKEL FINISH, ACRYLIC DIFFUSER LISTED FOR DAMP LOCATIONS, ADJUSTABLE COLOR AT FIXTURE, 90CRI	WALL	LITHONIA LIGHTING – FMVCSLS 24IN MVOLT 30K 35K 40K 90CRI BN 3000K 4	27	3000K	120V 1P 2W	MOUNT OVER MIRROR AS SHOWN ON ARCHITECT DETAILS AND VERIFIED IN FIELD WITH OWNER	
S2		LED SWING ARM FIXTURE	WALL	WAC LIGHTING – PL–11017–XX–14, FINISH AS SELECTED BY OWNER 3000K	14	3000K	120V 1P 2W	MOUNT ABOVE 80" AFF TO ANY PART OF FIXTURE	
W1		LED EXTERIOR CANDELABRA BRASS SCONCE	WALL	QUOIZEL – NY8317Z 5000K	60	5000K	120V 1P 2W	MOUNT ON PORTE–COCHERE ENTRANCE COLUMNS AS SHOWN ON ARCHITECTURAL ELEVATION DRAWINGS	
W2		EXTERIOR GENERAL AREA LIGHT	WALL	RAB LIGHTING – BRISKM48L 5000K	32	5000K	120V 1P 2W	EXTERIOR FIXTURE TO BE CONTROLLED THROUGH EXTERIOR PHOTEYE AND LIGHTING CONTACTOR SWITCHING	MOUNT ABOVE WINDOW HEIGHT AT LOCATIONS AND HEIGHT COORDINATED WITH ARCHITECT
X		LED EMERGENCY EXIT SIGN, HOUSING AND LETTER COLOR AS VERIFIED WITH OWNER, UNIVERSAL SINGLE OR DOUBLE FACE, DAMP LOCATION RATED	CEILING	COMPASS LIGHTING – CERG OR APPROVED EQUAL, VERIFY COLOR REQUIREMENTS WITH OWNER PRIOR TO ORDERING	3.4		120V 1P 2W	LOCATE AT LOCATIONS AS SHOWN ON DRAWINGS AND AS COORDINATED WITH ARCHITECT ELEVATION, RCP AND LIFE SAFETY PLANS	MOUNT DIRECTLY ON CEILING TILE, PROVIDE ADDITIONAL SUPPORT ABOVE CEILING, TO SUPPORT WEIGHT OFF UPPER STRUCTURE

3

SWITCH SCHEDULE

CALLOUT	SYMBOL	NOTE 1	NOTE 2	NOTE 3
SPRING WOUND SWITCH	$S	12 HR SPRING WOUND SPST SWITCH WITH HOLD FEATURE	INTERMATIC FF12 HH OR APPROVED EQUAL .	
FOURWAY SWITCH	$4	HUBBELL 1224 OR APPROVED EQUAL IN ARCHITECT APPROVED COLOR.	MOUNT AT 48" AFF U.O.N.	
OC		DETECTOR OF DESIGN IS A SENSOR SWITCH "CMR PDT 9" OR APPROVED EQUAL, PROVIDE WITH ARCHITECT APPROVED COLOR	MOUNT IN CEILING IN RECESSED BOX, PROVIDE QUANTITIES AND LOCATION TO PROVIDE COVERAGE FOR DETECTOR SHOWN	INSTALL PER MANUFACTURER RECOMMENDATIONS
SINGLE POLE SWITCH	$	HUBBELL 1221 OR APPROVED EQUAL IN ARCHITECT APPROVED COLOR	MOUNT AT 48" AFF U.O.N.	
THREEWAY SWITCH	$3	HUBBELL 1223 OR APPROVED EQUAL IN ARCHITECT APPROVED COLOR	MOUNT AT 48" AFF U.O.N.	
WALL OC		20 AMP RATED WALL MOUNTED OCCUPANCY SENSOR MOUNT AT 48" U.O.N.	PROVIDE "WATTSTOPPER" "DSW–100" OR APPROVED EQUAL	PROVIDE IN ARCHITECT APPROVED COLOR

COMMUNICATION SCHEDULE

CALLOUT	SYMBOL	NOTE 1	NOTE 2	NOTE 3
DATA OUTLET		PROVIDE 4X4 DEEP BOX WITH 2 GANG MUD RING AND 1" CONDUIT TO ABOVE CEILING	U.O.N. MOUNT AT 18" AFF TO CENTER	
DATA OUTLET COUNTER TOP	C	PROVIDE 4X4 DEEP BOX WITH 2 GANG MUD RING AND 1" CONDUIT TO ABOVE CEILING	U.O.N. MOUNT AT 6" TO CENTER ABOVE COUNTER OR BACK SPLASH	
TV	TV	PROVIDE 4X4 DEEP BOX WITH 2 GANG MUD RING AND 1" CONDUIT TO ABOVE CEILING	U.O.N. MOUNT AT 60" AFF TO CENTER	

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REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
#	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2
3	3/28/2023	REVISION 3
4	4/11/2023	REVISION 4

E502
LIGHTING & LOW VOLTAGE SCHEDULES

PANEL SCHEDULE

CALLOUT	LOCATION	VOLTS	BUS AMPS	MAIN DISCONNECT TYPE	MAIN DISCONNECT AMPS	MOUNTING	UPSTREAM OCP	UPSTREAM DEVICE	COPPER WIRE CALLOUT	ALT. ALUMINUM WIRE CALLOUT
GPB1	STORAGE 193	208Y/120V 3P 4W	225	MLO		SURFACE	200	GPDP	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
GPD1	STORAGE 155	208Y/120V 3P 4W	225	MLO		SURFACE	200	GPDP	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
GPDP	ELECTRICAL 169	208Y/120V 3P 4W	800	MLO		SURFACE	800	ATS	(3)3"C, 3#300KCMIL, #300KCMIL N, #1/0G	3"C, (3)#400KCMIL AL, #400KCMIL AL N, #3/0 AL G
K	SERVERY 159	208Y/120V 3P 4W	225	MLO		FLUSH	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPA1	STORAGE 193	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPA2	STORAGE 193	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPB1	TEL. ELECTRIC 109	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPB2	TEL. ELECTRIC 109	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPC1	ELECTRICAL 169	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPC2	ELECTRICAL 169	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPD1	STORAGE 155	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPD2	STORAGE 155	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
LPD3	STORAGE 155	208Y/120V 3P 4W	225	MLO		SURFACE	200	MSB	2"C, 3#3/0, #3/0N, #6G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
PPM1	ELECTRICAL 169	208Y/120V 3P 4W	225	MLO		SURFACE	225	GPDP	2-1/2"C, 3#4/0, #4/0N, #4G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
PPMB	STORAGE 193	208Y/120V 3P 4W	225	MLO		SURFACE	225	GPDP	2-1/2"C, 3#4/0, #4/0N, #4G	2-1/2"C, (3)#250KCMIL AL, #250KCMIL AL N, #4 AL G
SB	STORAGE BUILDING	208Y/120V 3P 4W	100	BREAKER	100	SURFACE	100	MSB	1-1/2"C, 3#1, #1N, #8G	1-1/2"C, (3)#1 AL, #1 AL N, #6 AL G

SWITCHBOARD SCHEDULE

CALLOUT	DESCRIPTION	LOCATION	VOLTS	BUS AMPS	MAIN DISCONNECT TYPE	MAIN DISCONNECT AMPS	MOUNTING	UPSTREAM OCP	UPSTREAM DEVICE	WIRE CALLOUT	ALT. ALUMINUM WIRE CALLOUT
MSB	MAIN SERVICE BOARD	ELECTRICAL 169	208Y/120V 3P 4W	2000	BREAKER	2000	FLOOR	2000	UTILITY	(5)4"C, 3#600KCMIL, #600KCMIL N	(5)4"C, (3)#750KCMIL AL, #750KCMIL AL N, (2) 4" SPARE

GENERATOR SCHEDULE

CALLOUT	VOLTS	KVA	KW	POWER FACTOR	NOTE 1	NOTE 2	NOTE 3
GENSET	208Y/120V 3P 4W	313	250	0.7987	GENERATOR OF DESIGN IS A KOHLER 250REOZJE WITH A 4UA10 ALTERNATOR, PROVIDE A CONNECTION FOR A REMOTE START/STOP STATION AND A REMOTE ANNUNCIATOR AT A LOCATION COORDINATED WITH OWNER	PROVIDE A SUB-BASE TANK MOUNTED GENERATOR ENCLOSURE (ALUMINUM OR STEEL) PER OWNER, PROVIDE ENGINEER DESIGNED CONCRETE PAD	PROVIDE A PLATFORM ASSEMBLY ON BOTH SIDES OF GENERATOR LENGTH WITH STAIRS 42" HIGH

TRANSFER SWITCH SCHEDULE

CALLOUT	TYPE	VOLTS	AMPS	NORMAL UPSTREAM DEVICE	EMERGENCY UPSTREAM DEVICE	NOTE 1	NOTE 2
ATS	AUTOMATIC	208Y/120V 3P 4W	800	MSB	GENSET	PROVIDE PAD FOR FLOOR MOUNTED ATS	ATS OF DESIGN IS A KOHLER KSS-ACTA-D800S

KITCHEN EQUIPMENT SCHEDULE

CALLOUT	DESCRIPTION	SYMBOL	VOLTS	AMPS	CIRCUIT	MCA	MOCP	WIRE CALLOUT	RECP. CONFIG.	NOTES
CCU	#102 COOLER CONDENSOR UNIT		208V 3P 3W	12.3	PPM1-9,11,13	12.3	20	3/4"C,3#12,#12G		PROVIDE CONNECTION TO UNIT WITH ADDITIONAL CONTROL WIRES TO ASSOCIATED EVAPORATOR AS SHOWN ON E210
CEU	#102.1 COOLER EVAPORATOR		120V 1P 2W	16	PPM1-15	15	20	3/4"C,1#12,#12N,#12G		PROVIDE WEATHERPROOF DISCONNECT WITH FLEXIBLE CONNECTION THROUGH TO ASSOCIATED UNIT, VERIFY EXACT LOCATION WITH EQUIPMENT PROVIDER
CT	#403 CONVEYOR TOASTER		120V 1P 2W	13.3	K-6			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE COUNTER GFCI RECEPTACLE AT LOCATION COORDINATED WITH EQUIPMENT PROVIDER AND OWNER
DW	#216 DISHWASHER		120V 1P 2W	16	K-5			3/4"C,1#12,#12N,#12G		PROVIDE FLEXIBLE WATERTIGHT CONNECTION THROUGH A NEMA 3R DISCONNECT ON WALL ABOVE HEIGHT OF UNIT OR AS COORDINATED WITH EQUIPMENT PROVIDER, PROVIDE GFCI PROTECTED BREAKER IN PANEL
FCU	#103 FREEZER CONDENSOR UNIT		208V 3P 3W	15	PPM1-17,19,21	15	20	3/4"C,3#12,#12G		PROVIDE CONNECTION TO UNIT WITH ADDITIONAL CONTROL WIRES TO ASSOCIATED EVAPORATOR AS SHOWN ON E210
FEU	#103.1 FREEZER EVAPORATOR		208V 2P 2W	20	PPM1-23,25	15	20	3/4"C,2#12,#12G		PROVIDE WEATHERPROOF DISCONNECT WITH FLEXIBLE CONNECTION THROUGH TO ASSOCIATED UNIT, VERIFY EXACT LOCATION WITH EQUIPMENT PROVIDER
FP	#401 FOOD PROCESSOR		120V 1P 2W	7	K-2			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE COUNTER GFCI RECEPTACLE AT LOCATION COORDINATED WITH EQUIPMENT PROVIDER AND OWNER
FRZ A/S	FREEZER DRAIN ANTISWEATS		120V 1P 2W	0.83	PPM1-27			3/4"C,1#12,#12N,#12G		PROVIDE WEATHERPROOF DISCONNECT WITH FLEXIBLE CONNECTION THROUGH TO ASSOCIATED UNIT, VERIFY EXACT LOCATION WITH EQUIPMENT PROVIDER
HC	#305 HEAT LAMP TABLE MOUNT		120V 1P 2W	8.3	K-9			3/4"C,1#12,#12N,#12G		PROVIDE GFCI PROTECTION UNDER COUNTER AT MANUFACTURER COORDINATED LOCATION
HFT	#202 HOT FOOD TABLE		208V 2P 2W	13.3	K-1,3			3/4"C,2#12,#12G	6-20R	PROVIDE RECEPTACLE AT FLOOR BOX UNDER UNIT AT LOCATION COORDINATED WITH EQUIPMENT PROVIDER, PROVIDE GFCI PROTECTION BREAKER AT PANEL
HFW	#306 DROP IN HOT FOOD WELL		208V 2P 2W	12.5	K-11,13			3/4"C,2#12,#12G	6-20R	PROVIDE CONNECTION UNDER COUNTER TO LOCATION COORDINATED WITH EQUIPMENT PROVIDER AND OWNER, PROVIDE GFCI PROTECTED BREAKER IN PANEL
HL	#221 HEAT LAMPS		120V 1P 2W	6.25	K-7			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE ADDITIONAL SUPPORT OF (3) JUNCTION BOXES IN CEILING PER NEC 314.23F, PROVIDE GFCI PROTECTED BREAKER IN PANEL
ICE	#212 ICE MAKER		120V 1P 2W	8.4	GPDP-39			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE RECEPTACLE ON WALL AT HEIGHT COORDINATED WITH EQUIPMENT PROVIDER AND OWNER, PROVIDE GFCI PROTECTED BREAKER IN PANEL
KEF	#1 KITCHEN HOOD EXHAUST FAN		208V 3P 3W	2.6	GPDP-25,27,29	3.25	20	3/4"C,3#12,#12G		PROVIDE CONNECTION TO KITCHEN HOOD CONTROL COMPLETE THROUGH TO ROOF EXHAUST FAN AS COORDINATED WITH EQUIPMENT PROVIDER
KHC	#1 KITCHEN HOOD CONTROL		120V 1P 2W	0.1	GPDP-37			3/4"C,1#12,#12N,#12G		PROVIDE CIRCUIT TO KITCHEN HOOD CONTROL PANEL FOR CONTROL, COORDINATE WITH EQUIPMENT PROVIDER CONNECTION REQUIREMENTS.
KMA	#1 KITCHEN MAKE-UP AIR FAN		208V 3P 3W	3.69	GPDP-31,33,35	3.25	20	3/4"C,3#12,#12G		PROVIDE CONNECTION TO KITCHEN HOOD CONTROL COMPLETE THROUGH TO ROOF MAKE-UP AIR AS COORDINATED WITH EQUIPMENT PROVIDER
MIX	#402 PLANETARY MIXER		120V 1P 2W	4.1	K-4			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE COUNTER GFCI RECEPTACLE AT LOCATION COORDINATED WITH EQUIPMENT PROVIDER AND OWNER
MO	#404 MICROWAVE OVEN		120V 1P 2W	14	K-8			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE COUNTER GFCI RECEPTACLE AT LOCATION COORDINATED WITH EQUIPMENT PROVIDER AND OWNER
PSP	#406 PANINI SANDWICH PRESS		120V 1P 2W	15	K-10			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE COUNTER GFCI RECEPTACLE AT LOCATION COORDINATED WITH EQUIPMENT PROVIDER AND OWNER
REF	#215 REACH-IN FRIDGE		120V 1P 2W	15	GPDP-41			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE RECEPTACLE ON WALL AT HEIGHT COORDINATED WITH EQUIPMENT PROVIDER AND OWNER, PROVIDE GFCI PROTECTED BREAKER IN PANEL
SSP	#222 SANDWICH/SALAD PREP		120V 1P 2W	3	GPDP-43			3/4"C,1#12,#12N,#12G	5-20R	PROVIDE RECEPTACLE AT FLOOR BOX LOCATION UNDER UNIT AT LOCATION COORDINATED WITH EQUIPMENT PROVIDER, PROVIDE GFCI PROTECTION BREAKER AT PANEL
WM	#407 WAFFLE MAKER		120V 1P 2W	20	K-12			3/4"C,1#12,#12N,#12G		PROVIDE RECEPTACLE MOUNTED ON BACKWALL AT 6" AFF OR AS COORDINATED WITH EQUIPMENT PROVIDER AND OWNER

NOTE: CONFIRM POWER REQUIREMENTS WITH ACTUAL EQUIPMENT BEING PROVIDED PRIOR TO ROUGH-IN AND PROCURRING GEAR

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NORTH CAROLINA PROFESSIONAL #PE021990 ENGINEER L. MICHAEL STROUD

DocuSigned by: L Michael Stroud F1D4013C715F4A1...

20 JANUARY, 2023

☒ Matthew A Conte, AIA
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PROJECT CLIENT:

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REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

E503
DISTRIBUTION EQUIPMENT SCHEDULE

LPA1

ROOM STORAGE 193 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	FRIDGE (AFCI) – UNIT 194	0.9			2	20/1	RCPT (AFCI) – UNIT 194 BEDROOM	0.9		
3	15/2	PTHP1 – UNIT 194		1.05		4	20/1	RCPT (AFCI) – UNIT 194 KITCHEN		0.54	
5	|				1.05	6	20/1	RCPT – UNIT 194 TOILET			0.18
7	20/1	FRIDGE (AFCI) – UNIT 195	0.9			8	20/1	RCPT (AFCI) – UNIT 195 BEDROOM	0.9		
9	15/2	PTHP1 – UNIT 195		1.05		10	20/1	RCPT (AFCI) – UNIT 195 KITCHEN		0.54	
11	|				1.05	12	20/1	RCPT – UNIT 195 TOILET			0.18
13	20/1	FRIDGE (AFCI) – UNIT 196	0.9			14	20/1	RCPT (AFCI) – UNIT 196 BEDROOM	0.9		
15	15/2	PTHP1 – UNIT 196		1.05		16	20/1	RCPT (AFCI) – UNIT 196 KITCHEN		0.36	
17	|				1.05	18	20/1	RCPT – UNIT 196 TOILET			0.18
19	20/1	FRIDGE (AFCI) – UNIT 197	0.9			20	20/1	RCPT (AFCI) – UNIT 197 BEDROOM	0.9		
21	15/2	PTHP1 – UNIT 196		1.05		22	20/1	RCPT (AFCI) – UNIT 197 KITCHEN		0.36	
23	|				1.05	24	20/1	RCPT – UNIT 197 TOILET			0.18
25	20/1	FRIDGE (AFCI) – UNIT 198	0.9			26	20/1	RCPT (AFCI) – UNIT 198 BEDROOM	0.9		
27	15/2	PTHP1 – UNIT 198		1.05		28	20/1	RCPT (AFCI) – UNIT 198 KITCHEN		0.36	
29	|				1.05	30	20/1	RCPT – UNIT 198 TOILET			0.18
31	20/1	FRIDGE (AFCI) – UNIT 199	0.9			32	20/1	RCPT (AFCI) – UNIT 199 BEDROOM	0.9		
33	15/2	PTHP1 – UNIT 199		1.05		34	20/1	RCPT (AFCI) – UNIT 199 KITCHEN		0.36	
35	|				1.05	36	20/1	RCPT – UNIT 199 TOILET			0.18
37	20/1	RCPT – N. CORRIDOR 202	0.54			38	20/1	SPARE	0		
39	20/1	RCPT – N. CORRIDOR 202		0.36		40	20/1	SPARE		0	
41	20/1	RCPT – N. & N.E. EXTERIOR			0.54	42	20/1	SPARE			0
43	20/1	SPARE	0			44	20/1	SPARE	0		
45	20/1	SPARE		0		46	20/1	SPACE		0	
47	15/2	SPARE			0	48	20/1	SPARE			0
49	|		0			50	20/1	SPARE	0		
51	15/2	SPARE		0		52	20/1	SPARE		0	
53	|				0	54	20/1	SPARE			0
		TOTAL CONNECTED KVA BY PHASE	11.3	9.18	7.92						

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	2.1	0.525	(25%)	RECEPTACLES	15.3	12.7	(50%>10)
MOTORS	2.1	2.1	(100%)	HEATING	10.5	10.5	(100%)
				TOTAL LOAD		25.8	
				BALANCED 3–PHASE LOAD		71.5 A	

(AFCI) = PROVIDE AFCI PROTECTION IF REQUIRED BY AHJ

LPA2

ROOM STORAGE 193 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	FRIDGE (AFCI) – UNIT 200	0.9			2	20/1	RCPT (AFCI) – UNIT 200 BEDROOM	0.9		
3	15/2	PTHP1 – UNIT 200		1.05		4	20/1	RCPT (AFCI) – UNIT 200 KITCHEN		0.36	
5	|				1.05	6	20/1	RCPT – UNIT 200 TOILET			0.18
7	20/1	FRIDGE (AFCI) – UNIT 201	0.9			8	20/1	RCPT (AFCI) – UNIT 201 BEDROOM	0.9		
9	15/2	PTHP1 – UNIT 201		1.05		10	20/1	RCPT (AFCI) – UNIT 201 KITCHEN		0.36	
11	|				1.05	12	20/1	RCPT – UNIT 201 TOILET			0.18
13	20/1	FRIDGE (AFCI) – UNIT 189	0.9			14	20/1	RCPT (AFCI) – UNIT 189 COMMON AREA	0.18		
15	15/2	PTHP1 – UNIT 189A		1.05		16	20/1	RCPT (AFCI) – UNIT 189 KITCHEN		0.4	
17	|				1.05	18	20/1	RCPT – UNIT 189 TOILET			0.18
19	15/2	PTHP1 – UNIT 189B	1.05			20	20/1	RCPT (AFCI) – UNIT 189A BEDROOM	0.9		
21	|			1.05		22	20/1	RCPT (AFCI) – UNIT 189B BEDROOM		0.9	
23	20/1	FRIDGE (AFCI) – UNIT 192			0.9	24	20/1	RCPT (AFCI) – UNIT 192 BEDROOM			0.9
25	15/2	PTHP1 – UNIT 192	1.05			26	20/1	RCPT (AFCI) – UNIT 192 KITCHEN	0.36		
27	|			1.05		28	20/1	RCPT – UNIT 192 TOILET		0.18	
29	20/1	FRIDGE (AFCI) – UNIT 190			0.9	30	20/1	RCPT (AFCI) – UNIT 190 BEDROOM			0.9
31	15/2	PTHP1 – UNIT 190	1.05			32	20/1	RCPT (AFCI) – UNIT 190 KITCHEN	0.36		
33	|			1.05		34	20/1	RCPT – UNIT 190 TOILET		0.18	
35	20/1	SPARE			0	36	20/1	SPARE			0
37	20/1	SPARE	0			38	20/1	SPARE	0		
39	20/1	SPARE		0		40	20/1	SPARE		0	
41	20/1	SPARE			0	42	20/1	SPARE			0
43	20/1	SPARE	0			44	20/1	SPACE	0		
45	20/1	SPARE		0		46	20/1	SPACE		0	
47	20/1	SPARE			0	48	15/2	SPARE			0
49	|		0			50	|		0		
51	15/2	SPARE		0		52	15/2	SPARE		0	
53	|				0	54	|				0
		TOTAL CONNECTED KVA BY PHASE	9.45	8.68	7.29						

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	2.1	0.525	(25%)	RECEPTACLES	12.8	11.4	(50%>10)
MOTORS	2.1	2.1	(100%)	HEATING	10.5	10.5	(100%)
				TOTAL LOAD		24.5	
				BALANCED 3–PHASE LOAD		68.1 A	

(AFCI) = PROVIDE AFCI PROTECTION IF REQUIRED BY AHJ

K

ROOM SERVERY 159 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING FLUSH | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/2	#202 HOT FOOD TABLE (GFCI) – KITCHEN 163	1.38			2	20/1	#401 FOOD PROCESSOR – KITCHEN 163	0.84		
3	|			1.38		4	20/1	#402 PLANETARY MIXER – KITCHEN 163		0.492	
5	20/1	#216 DISHWASHER – KITCHEN 163			1.92	6	20/1	#403 CONVEYOR TOASTER – KITCHEN 163			1.6
7	20/1	#221 HEAT LAMPS – KITCHEN 163	0.75			8	20/1	#404 MICROWAVE OVEN – KITCHEN 163	1.68		
9	20/1	#305 HEAT LAMP TABLE MOUNT – SERVERY 159		0.996		10	20/1	#406 PANINI SANDWICH PRESS – KITCHEN 163		1.8	
11	20/2	#306 DROP IN HOT FOOD WELL – SERVERY 159			1.3	12	30/1	#407 WAFFLE MAKER – SERVERY 159			2.4
13	|		1.3			14	20/1	RCPT – KITCHEN 163	0.36		
15	20/1	RCPT – KITCHEN 163		0.36		16	20/1	RCPT – SERVERY 159		0.18	
17	20/1	RCPT – KITCHEN 163			0.18	18	20/1	RCPT – SERVERY 159			0.18
19	20/1	SPARE	0			20	20/1	RCPT – SERVERY 159	0.18		
21	20/1	SPARE		0		22	20/1	RCPT – SERVERY 159		0.18	
23	20/1	SPARE			0	24	20/1	SPARE			0
25	20/1	SPARE	0			26	20/1	SPARE	0		
27	20/1	SPARE		0		28	20/1	SPARE		0	
29	20/1	SPARE			0	30	20/1	SPARE			0
31	20/1	SPARE	0			32	20/1	SPARE	0		
33	20/1	SPARE		0		34	20/1	SPARE		0	
35	20/1	SPARE			0	36	20/1	SPARE			0
37	20/1	SPARE	0			38	20/1	SPARE	0		
39	20/1	SPARE		0		40	20/1	SPARE		0	
41	20/1	SPARE			0	42	20/1	SPACE			0
		TOTAL CONNECTED KVA BY PHASE	6.49	5.39	7.58						

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	2.4	0.6	(25%)	RECEPTACLES	1.62	1.62	(50%>10)
MOTORS	5.88	5.88	(100%)	KITCHEN EQUIPMENT	12	7.77	(65%)
				TOTAL LOAD		15.9	
				BALANCED 3–PHASE LOAD		44.1 A	

(GFCI) = PROVIDE GFCI PROTECTION

GPDP

ROOM ELECTRICAL 169 | VOLTS 208Y/120V 3P 4W | AIC 65,000
MOUNTING SURFACE | BUS AMPS 800 | MAIN BKR MLO
FED FROM ATS | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	200/3	PANEL GPB1	7.41			2	–/3	BUS SPACE FOR GPB1	0		
3	|			7.1		4	|			0	
5	|				7.83	6	|				0
7	200/3	PANEL GPD1	16.7			8	–/3	BUS SPACE FOR GPD1	0		
9	|			16.2		10	|			0	
11	|				14.8	12	|				0
13	225/3	PANEL PPM1	26.6			14	–/3	BUS SPACE FOR PPM1	0		
15	|			23.8		16	|			0	
17	|				20.5	18	|				0
19	225/3	PANEL PPMB	16.2			20	–/3	BUS SPACE FOR PPMB	0		
21	|			16.2		22	|			0	
23	|				9.16	24	|				0
25	20/3	#1 KITCHEN HOOD EXHAUST FAN – KITCHEN 163	0.312			26	45/2	HEAT PUMP 5	2.33		
27	|			0.312		28	|			2.33	
29	|				0.312	30	40/2	HEAT PUMP 6			2
31	20/3	#1 KITCHEN MAKE–UP AIR FAN – KITCHEN 163	0.443			32	|		2		
33	|			0.443		34	30/2	HEAT PUMP 7		2.08	
35	|				0.443	36	|				2.08
37	20/1	#1 KITCHEN HOOD CONTROL – KITCHEN 163	0.012			38	30/1	WATER HEATER	2.88		
39	20/1	#212 ICE MAKER – KITCHEN 163		1.01		40	20/1	CIRCULATING PUMP		0.42	
41	20/1	#215 REACH–IN FRIDGE – KITCHEN 163			1.8	42	20/1	WATER HEATER			0.96
43	20/1	#222 SANDWICH/SALAD PREP – KITCHEN 163	0.36			44	20/1	CIRCULATING PUMP	0.42		
45	20/1	BACK DOOR OPENER POWER – E. CORRIDOR 152		0.5		46	20/1	WATER HEATER		0.96	
47	20/1	MAGLOCK POWER SUPPLY – CARE BASE 176			1	48	20/1	CIRCULATING PUMP			0.42
49	20/2	EM. CALL POWER SUPPLY – CARE BASE 176	0.75			50	20/2	ELECTRIC HEATER	1.5		
51	|			0.75		52	|			1.5	
53	90/3	PUMP STATION			6.07	54	20/2	ELECTRIC HEATER			1.5
55	|		6.07			56	|		1.5		
57	|			6.07		58	25/2	SPARE		0	
59	90/3	SPARE			0	60	|				0
61	|		0			62	45/2	SPARE	0		
63	|			0		64	|			0	
65	20/1	SPARE			0	66	20/1	SPARE			0
		TOTAL CONNECTED KVA BY PHASE	85.6	79.7	68.8						

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	16.2	20.2	(125%)	CONTINUOUS	2.22	2.78	(125%)
LARGEST MOTOR	18.2	4.55	(25%)	NONCONTINUOUS	3.9	3.9	(100%)
MOTORS	49.1	49.1	(100%)	HEATING	138	138	(100%)
RECEPTACLES	17.4	13.7	(50%>10)	COOLING	135	0	(0%)
KITCHEN EQUIPMENT	3.17	2.85	(90%)	DIVERSE	3.7	3.7	(100%)
				TOTAL LOAD		2.39	
				BALANCED 3–PHASE LOAD		664 A	

GPB1

ROOM STORAGE 193 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM GPDP | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RCPT (AFCI) – UNIT 113, 115, 117	0.54			2	20/1	LIGHT – UNIT 113, 115, 117, 119	0.456		
3	20/1	RCPT (AFCI) – UNIT 119, 121, 123		0.54		4	20/1	LIGHT – UNIT 121, 123, 125, 127		0.456	
5	20/1	RCPT (AFCI) – UNIT 125, 127, 129			0.54	6	20/1	LIGHT – UNIT 122, 124, 126			0.342
7	20/1	RCPT (AFCI) – UNIT 122, 124, 126	0.54			8	20/1	LIGHT – UNIT 198, 199, 200, 201	0.456		
9	20/1	RCPT (AFCI) – UNIT 200, 201		0.54		10	20/1	LIGHT – UNIT 194, 195, 196, 197		0.456	
11	20/1	RCPT (AFCI) – UNIT 197, 198, 199			0.54	12	20/1	LIGHT – UNIT 183, 185, 187, 189			0.546
13	20/1	RCPT (AFCI) – UNIT 194, 195, 196	0.54			14	20/1	LIGHT – UNIT 188, 190, 192	0.342		
15	20/1	RCPT (AFCI) – UNIT 187A/B, 189A/B		0.72		16	20/1	LIGHT – UNIT 182, 184, 186		0.342	
17	20/1	RCPT (AFCI) – UNIT 183, 185A/B			0.54	18	20/1	LIGHT – 102 RECEPTION, 103 OFFICE, 104 DATA, 105 OFFICE, 106 OFFICE, 109 TEL/ELEC, 112 LAUNDRY, 114 LINEN, 116 OFFICE, 118 DIRECTOR			0.974
19	20/1	RCPT (AFCI) – UNIT 188, 190, 192	0.54			20	20/1	LIGHT – JAN 180, TOILET 181, E. CORRIDOR 191, N. CORRIDOR 202 EM/NL	0.466		
21	20/1	RCPT (AFCI) – UNIT 182, 184, 186		0.54		22	20/1	LIGHT – JAN 180, TOILET 181, E. CORRIDOR 191, N. CORRIDOR 202		0.832	
23	20/1	RCPT – DATA 104			1.86	24	20/1	LIGHT – LOBBY 101, LOUNGE 110, BISTRO 111 EM/NL			0.222
25	20/1	RCPT – DATA 104	1.86			26	20/1	LIGHT – VESTIBULE 100, LOBBY 101, LOUNGE 110, BISTRO 111	0.52		
27	20/1	RCPT – DATA 104		0.36		28	20/1	LIGHT – W. CORRIDOR 134 EM/NL		0.354	
29	20/1	RCPT – TEL./ELECTRIC 109			0.18	30	20/1	LIGHT – W. CORRIDOR 134			0.48
31	20/1	POC UNIT – W. CORRIDOR 134	0.36			32	20/1	LIGHT – LIVING 120, ACTIVITY 162 EM/NL	0.253		
33	20/1	POC UNIT – E. CORRIDOR 191, N. CORRIDOR 202		0.54		34	20/1	LIGHT – LIVING 120, ACTIVITY 162		0.881	
35	20/1	SPARE			0	36	20/1	LIGHT – N. EXTERIOR			1.07
37	20/1	SPARE	0			38	20/1	WIRELESS REPEATER	0.54		
39	20/1	SPARE		0		40	20/1	WIRELESS REPEATER		0.54	
41	20/1	SPARE			0	42	20/1	WIRELESS REPEATER			0.54
43	20/1	SPARE	0			44	20/1	SPARE	0		
45	20/1	SPARE		0		46	20/1	SPARE		0	
47	20/1	SPARE			0	48	20/1	SPARE			0
49	20/1	SPARE	0			50	20/1	SPARE	0		
51	20/1	SPARE		0		52	20/1	SPARE		0	
53	20/1	SPARE			0	54	20/1	SPARE			0
55	20/1	SPACE	0			56	20/1	SPACE	0		
57	20/1	SPACE		0		58	20/1	SPACE		0	
59	20/1	SPACE			0	60	20/1	SPACE			0
		TOTAL CONNECTED KVA BY PHASE	7.41	7.1	7.83						

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	9.45	11.8	(125%)	RECEPTACLES	11.3	10.6	(50%>10)
				DIVERSE	1.62	1.62	(100%)
				TOTAL LOAD		24.1	
				BALANCED 3–PHASE LOAD		66.8 A	

GPD1

ROOM STORAGE 155 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM GPDP | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RCPT – UNIT 157A/B	0.36			2	20/1	LIGHT – UNIT 153, 154, 157	0.402		
3	20/1	RCPT – UNIT 153, 154A/B		0.54		4	20/1	LIGHT – UNIT 139, 140, 150		0.342	
5	20/1	RCPT – UNIT 139, 140, 150			0.54	6	20/1	LIGHT – UNIT 136, 137, 138			0.342
7	20/1	RCPT – UNIT 136, 137, 138	0.54			8	20/1	LIGHT – UNIT 128, 130, 132	0.342		
9	20/1	RCPT – UNIT 128, 130, 132		0.54		10	20/1	LIGHT – UNIT 129, 131, 133, 135		0.456	
11	20/1	RCPT – UNIT 131, 133, 135			0.54	12	20/1	LIGHT – EMERGENCY			0.011
13	20/1	POC UNIT – S. CORRIDOR 151, E. CORRIDOR 152	0.36			14	20/1	LIGHT – S. CORRIDOR 151 EM/NL	0.135		
15	20/1	WIRELESS REPEATER		0.54		16	20/1	LIGHT – S. CORRIDOR 151		0.2	
17	20/1	WIRELESS REPEATER			0.54	18	20/1	LIGHT – E. CORRIDOR 152 EM/NL			0.359
19	40/2	HEAT PUMP 10	2.16			20	20/1	LIGHT – E. CORRIDOR 152	0.557		
21	|			2.16		22	20/1	LIGHT – DINING 158 EM/NL		0.264	
23	20/2	HEAT PUMP 11			1.08	24	20/1	LIGHT – DINING 158, SERVERY 159			0.532
25	|		1.08			26	20/1	LIGHT – KITCHEN 163, DRY STOR 167, MECHANICAL 168, ELECTRICAL 169	0.72		
27	40/2	HEAT PUMP 12		2.16		28	20/1	LIGHT – STORAGE 170, JAN. 171, LAUNDRY 172, SOILED HOLD. 173		0.52	
29	|				2.16	30	20/1	LIGHT – BEAUTY 160, COURTYARD 161			0.306
31	15/2	ENERGY RECOVERY 10	1.04			32	20/1	LIGHT – BEAUTY 160, COURTYARD 161	0.485		
33	|			1.04		34	20/1	LIGHT – S. EXTERIOR		0.38	
35	15/2	ENERGY RECOVERY 11			1.04	36	45/2	AIR HANDLER 10			3.49
37	|		1.04			38	|		3.49		
39	15/2	ENERGY RECOVERY 12		1.04		40	25/2	AIR HANDLER 11		2.08	
41	|				1.04	42	|				2.08
43	20/1	EXHAUST FAN	0.174			44	45/2	AIR HANDLER 12	3.49		
45	20/1	EXHAUST FAN		0.462		46	|			3.49	
47	20/1	SPACE			0	48	20/1	RCPT – ATTIC			0.72
49	20/1	SPACE	0			50	20/1	LIGHT – ATTIC	0.361		
51	20/1	SPACE		0		52	20/1	SPACE		0	
53	20/1	SPACE			0	54	20/1	SPACE			0
55	20/1	SPACE	0			56	20/1	SPACE	0		
57	20/1	SPACE		0		58	20/1	SPACE		0	
59	20/1	SPACE			0	60	20/1	SPACE			0
		TOTAL CONNECTED KVA BY PHASE	16.7	16.2	14.8						

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	6.71	8.39	(125%)	RECEPTACLES	4.14	4.14	(50%>10)
LARGEST MOTOR	6.99	1.75	(25%)	HEATING	35.2	35.2	(100%)
MOTORS	0.636	0.636	(100%)	COOLING	35.2	0	(0%)
				DIVERSE	1.08	1.08	(100%)
				TOTAL LOAD		51.2	
				BALANCED 3–PHASE LOAD		142 A	

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20 JANUARY, 2023

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REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

E504

PANEL SCHEDULES

LPB1

ROOM TEL. ELECTRIC 109 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	FRIDGE (AFCI) – UNIT 113	0.9			2	20/1	RCPT (AFCI) – UNIT 113 BEDROOM	0.9		
3	15/2	PTHP1 – UNIT 113		1.05		4	20/1	RCPT (AFCI) – UNIT 113 KITCHEN		0.36	
5	|				1.05	6	20/1	RCPT – UNIT 113 TOILET			0.18
7	20/1	FRIDGE (AFCI) – UNIT 115	0.9			8	20/1	RCPT (AFCI) – UNIT 115 BEDROOM	0.9		
9	15/2	PTHP1 – UNIT 115		1.05		10	20/1	RCPT (AFCI) – UNIT 115 KITCHEN		0.36	
11	|				1.05	12	20/1	RCPT – UNIT 115 TOILET			0.18
13	20/1	FRIDGE (AFCI) – UNIT 117	0.9			14	20/1	RCPT (AFCI) – UNIT 117 BEDROOM	0.9		
15	15/2	PTHP1 – UNIT 117		1.05		16	20/1	RCPT (AFCI) – UNIT 117 KITCHEN		0.36	
17	|				1.05	18	20/1	RCPT – UNIT 117 TOILET			0.18
19	20/1	FRIDGE (AFCI) – UNIT 119	0.9			20	20/1	RCPT (AFCI) – UNIT 119 BEDROOM	0.9		
21	15/2	PTHP1 – UNIT 119		1.05		22	20/1	RCPT (AFCI) – UNIT 119 KITCHEN		0.36	
23	|				1.05	24	20/1	RCPT – UNIT 119 TOILET			0.18
25	20/1	FRIDGE (AFCI) – UNIT 121	0.9			26	20/1	RCPT (AFCI) – UNIT 121 BEDROOM	0.9		
27	15/2	PTHP1 – UNIT 121		1.05		28	20/1	RCPT (AFCI) – UNIT 121 KITCHEN		0.36	
29	|				1.05	30	20/1	RCPT – ROOM 121 TOILET			0.18
31	20/1	FRIDGE (AFCI) – UNIT 123	0.9			32	20/1	RCPT (AFCI) – UNIT 123 BEDROOM	0.9		
33	15/2	PTHP1 – UNIT 123		1.05		34	20/1	RCPT (AFCI) – UNIT 123 KITCHEN		0.36	
35	|				1.05	36	20/1	RCPT – UNIT 123 TOILET			0.18
37	20/1	RCPT – OFFICE 106	0.18			38	20/1	RCPT – RECEPTION 102	0.36		
39	20/1	RCPT – OFFICE 106		0.54		40	20/1	RCPT – RECEPTION 102		0.36	
41	20/1	RCPT – OFFICE 105			0.54	42	20/1	RCPT – OFFICE 103			0.36
43	20/1	RCPT – OFFICE 105	0.18			44	20/1	RCPT – OFFICE 103	0.36		
45	20/1	LIGHT – SITE POLE		1.09		46	20/1	RCPT – N.E. EXTERIOR		0.54	
47	20/1	EXTERIOR SIGNAGE			0.3	48	20/1	RCPT – N.E. EXTERIOR, VESTIBULE 100, MEN'S 108, WOMEN'S 109			1.08
49	20/1	EXTERIOR SIGNAGE	0.3			50	20/1	RCPT – LOBBY 101, LOUNGE 110	0.54		
51	15/2	SPARE		0		52	20/1	EXTERIOR SIGNAGE		0.4	
53	|				0	54	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	12.7	11.4	9.66

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	2.09	2.61	(125%)	RECEPTACLES	19.1	14.5	(50%>10)
				HEATING	12.6	12.6	(100%)
				TOTAL LOAD		29.7	
				BALANCED 3–PHASE LOAD		82.6 A	

(AFCI) = PROVIDE AFCI PROTECTION IF REQUIRED BY AHJ

LPB2

ROOM TEL. ELECTRIC 109 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	FRIDGE (AFCI) – UNIT 125	0.9			2	20/1	RCPT (AFCI) – UNIT 125 BEDROOM	0.9		
3	15/2	PTHP1 – UNIT 125		1.05		4	20/1	RCPT (AFCI) – UNIT 125 KITCHEN		0.36	
5	|				1.05	6	20/1	RCPT – UNIT 125 TOILET			0.18
7	20/1	FRIDGE (AFCI) – UNIT 122	0.9			8	20/1	RCPT (AFCI) – UNIT 122 BEDROOM	0.9		
9	15/2	PTHP1 – UNIT 122		1.05		10	20/1	RCPT (AFCI) – UNIT 122 KITCHEN		0.36	
11	|				1.05	12	20/1	RCPT – UNIT 122 TOILET			0.18
13	20/1	FRIDGE (AFCI) – UNIT 127	0.9			14	20/1	RCPT (AFCI) – UNIT 127 BEDROOM	0.18		
15	15/2	PTHP1 – UNIT 127		1.05		16	20/1	RCPT (AFCI) – UNIT 127 KITCHEN		0.36	
17	|				1.05	18	20/1	RCPT – UNIT 127 TOILET			0.18
19	20/1	FRIDGE (AFCI) – UNIT 129	0.9			20	20/1	RCPT (AFCI) – UNIT 129 BEDROOM	0.9		
21	15/2	PTHP1 – UNIT 129		1.05		22	20/1	RCPT (AFCI) – UNIT 129 KITCHEN		0.36	
23	|				1.05	24	20/1	RCPT – UNIT 129 TOILET			0.18
25	20/1	FRIDGE (AFCI) – UNIT 131	0.9			26	20/1	RCPT (AFCI) – UNIT 131 BEDROOM	0.9		
27	15/2	PTHP1 – UNIT 131		1.05		28	20/1	RCPT (AFCI) – UNIT 131 KITCHEN		0.36	
29	|				1.05	30	20/1	RCPT – UNIT 131 TOILET			0.18
31	20/1	FRIDGE (AFCI) – UNIT 133	0.9			32	20/1	RCPT (AFCI) – UNIT 133 BEDROOM	0.9		
33	15/2	PTHP1 – UNIT 133		1.05		34	20/1	RCPT (AFCI) – UNIT 133 KITCHEN		0.4	
35	|				1.05	36	20/1	RCPT – UNIT 133 TOILET			0.2
37	20/1	FRIDGE (AFCI) – UNIT 135	0.9			38	20/1	RCPT (AFCI) – UNIT 135 BEDROOM	0.9		
39	15/2	PTHP1 – UNIT 135		1.05		40	20/1	RCPT (AFCI) – UNIT 135 KITCHEN		0.36	
41	|				1.05	42	20/1	RCPT – UNIT 135 TOILET			0.18
43	20/1	RCPT – BISTRO 111	0.36			44	20/1	RCPT – LOUNGE 110	0.36		
45	20/1	RCPT – BISTRO 111		0.36		46	20/1	RCPT – OFFICE 116		0.72	
47	20/1	RCPT – N.W. CORRIDOR 134			0.72	48	20/1	RCPT – DIRECTOR 118			0.72
49	20/1	RCPT – S.W. CORRIDOR 134	0.72			50	20/1	RCPT – E. EXTERIOR	0.54		
51	15/2	SPARE		0		52	20/1	RCPT (GFCI) – DRINKING FOUNTAIN		1.5	
53	|				0	54	20/1	RCPT – LAUNDRY 112			0.54
55	15/2	SPARE	0			56	20/1	WASHER (GFCI) – LAUNDRY 112	1.5		
57	|			0		58	30/2	DRYER (GFCI) – LAUNDRY 112		2.5	
59	20/1	SPARE			0	60	|				2.5
								TOTAL CONNECTED KVA BY PHASE	15.4	15	13.1

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
ELECTRIC DRYER	5	5	(100%)	NONCONTINUOUS	3	3	(100%)
RECEPTACLES	20.8	15.4	(50%>10)	HEATING	14.7	14.7	(100%)
				TOTAL LOAD		38.1	
				BALANCED 3–PHASE LOAD		106 A	

(GFCI) = PROVIDE GFCI BREAKER

SB

ROOM STORAGE BUILDING | VOLTS 208Y/120V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 100 | MAIN BKR 100
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RCPT – STORAGE	0.54			2	20/1	BATTERY CHARGER	0.5		
3	20/1	RCPT – STORAGE		0.72		4	30/2	GENERATOR RECEPTACLE		1.92	
5	20/2	WELDER – STORAGE			1.69	6	|				1.92
7	|		1.69			8	20/2	BLOCK HEATER	1.2		
9	15/2	PTHP1 – STORAGE		1.69		10	|			1.2	
11	|				1.69	12	20/2	ENCLOSURE HEATER			1.25
13	20/1	SPARE	0			14	|		1.25		
15	20/1	SPARE		0		16	20/1	LIGHT – STORAGE		0.24	
17	20/1	SPARE			0	18	20/1	SPACE			0
19	20/1	SPARE	0			20	20/1	SPACE	0		
21	20/1	SPARE		0		22	20/1	SPACE		0	
23	20/1	SPARE			0	24	20/1	SPACE			0
25	20/1	SPACE	0			26	20/1	SPACE	0		
27	20/1	SPACE		0		28	20/1	SPACE		0	
29	20/1	SPACE			0	30	20/1	SPACE			0
31	20/1	SPACE	0			32	20/1	SPACE	0		
33	20/1	SPACE		0		34	20/1	SPACE		0	
35	20/1	SPACE			0	36	20/1	SPACE			0
37	20/1	SPACE	0			38	20/1	SPACE	0		
39	20/1	SPACE		0		40	20/1	SPACE		0	
41	20/1	SPACE			0	42	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	5.18	5.77	6.55

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.24	0.3	(125%)	RECEPTACLES	8.03	8.03	(50%>10)
LARGEST MOTOR	3.84	0.96	(25%)	NONCONTINUOUS	0.5	0.5	(100%)
MOTORS	3.84	3.84	(100%)	HEATING	4.9	4.9	(100%)
				TOTAL LOAD		18.5	
				BALANCED 3–PHASE LOAD		51.4 A	

PPM1

ROOM ELECTRICAL 169 | VOLTS 208Y/120V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM GPDP | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	60/2	HEAT PUMP 8	3.08			2	45/2	AIR HANDLER 5 – ATTIC	3.49		
3	|			3.08		4	|			3.49	
5	60/2	HEAT PUMP 9			3.08	6	40/2	AIR HANDLER 6 – ATTIC			3.33
7	|		3.08			8	|		3.33		
9	20/3	#102 COOLER CONDENSOR UNIT		1.48		10	60/2	AIR HANDLER 8 – ATTIC		4.41	
11	|				1.48	12	|				4.41
13	|		1.48			14	60/2	AIR HANDLER 9 – ATTIC	4.41		
15	20/1	#102.1 COOLER EVAPORATOR – KITCHEN 163		1.92		16	|			4.41	
17	20/3	#103 FREEZER CONDENSOR UNIT			1.8	18	15/2	ENERGY RECOVERY 6			1.04
19	|		1.8			20	|		1.04		
21	|			1.8		22	20/1	EXHAUST FAN		0.424	
23	20/2	#103.1 FREEZER EVAPORATOR – KITCHEN 163			2.08	24	20/1	EXHAUST FAN			0.696
25	|		2.08			26	20/1	EXHAUST FAN	0.696		
27	20/1	FREEZER DRAIN ANTISWEATS – KITCHEN 163		0.1		28	15/2	SPARE		0	
29	20/1	RCPT – MECHANICAL 168			0.54	30	|				0
31	20/1	RCPT – ELECTRICAL 169	0.18			32	15/2	SPARE	0		
33	20/1	RCPT – ATTIC		0.72		34	|			0	
35	20/1	LIGHT – ATTIC			0.038	36	20/1	SPARE			0
37	20/1	RPZ HEATER #1 (GFEP)	1.98			38	20/1	SPACE	0		
39	20/1	RPZ HEATER #2 (GFEP)		1.98		40	20/1	SPACE		0	
41	20/1	RPZ HEATER #3 (GFEP)			1.98	42	20/1	SPACE			0
43	20/1	SPACE	0			44	20/1	SPACE	0		
45	20/1	SPACE		0		46	20/1	SPACE		0	
47	20/1	SPACE			0	48	20/1	SPACE			0
49	20/1	SPACE	0			50	20/1	SPACE	0		
51	20/1	SPACE		0		52	20/1	SPACE		0	
53	20/1	SPACE			0	54	20/1	SPACE			0
55	20/1	SPACE	0			56	20/1	SPACE	0		
57	20/1	SPACE		0		58	20/1	SPACE		0	
59	20/1	SPACE			0	60	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	26.6	23.8	20.5

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	0.038	0.048	(125%)	RECEPTACLES	1.98	1.98	(50%>10)
LARGEST MOTOR	8.82	2.2	(25%)	NONCONTINUOUS	1.9	1.9	(100%)
MOTORS	17.7	17.7	(100%)	HEATING	49.3	49.3	(100%)
				COOLING	45.7	0	(0%)
				TOTAL LOAD		73.1	
				BALANCED 3–PHASE LOAD		203 A	

GFEP = GROUND FAULT EQUIPMENT PROTECTION

PPMB

ROOM STORAGE 193 | VOLTS 208Y/120V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM GPDP | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	60/2	AIR HANDLER 1	4.41			2	60/2	HEAT PUMP 1	3.08		
3	|			4.41		4	|			3.08	
5	25/2	AIR HANDLER 2			2.08	6	25/2	HEAT PUMP 2			1.25
7	|		2.08			8	|		1.25		
9	25/2	AIR HANDLER 3		2.08		10	25/2	HEAT PUMP 3		1.25	
11	|				2.08	12	|				1.25
13	25/2	AIR HANDLER 4	2.08			14	25/2	HEAT PUMP 4	1.25		
15	|			2.08		16	|			1.25	
17	15/2	ENERGY RECOVERY 2			1.04	18	20/1	EXHAUST FAN			0.424
19	|		1.04			20	20/1	SPACE	0		
21	15/2	ENERGY RECOVERY 3		1.04		22	20/1	SPACE		0	
23	|				1.04	24	20/1	SPACE			0
25	15/2	ENERGY RECOVERY 4	1.04			26	20/1	SPACE	0		
27	|			1.04		28	20/1	SPACE		0	
29	20/1	SPACE			0	30	20/1	SPACE			0
31	20/1	SPACE	0			32	20/1	SPACE	0		
33	20/1	SPACE		0		34	20/1	SPACE		0	
35	20/1	SPACE			0	36	20/1	SPACE			0
37	20/1	SPACE	0			38	20/1	SPACE	0		
39	20/1	SPACE		0		40	20/1	SPACE		0	
41	20/1	SPACE			0	42	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	16.2	16.2	9.16

	CONN KVA	CALC KVA			CALC KVA	
LARGEST MOTOR	8.82	2.2	(25%)	TOTAL LOAD	43.8	
MOTORS	0.424	0.424	(100%)	BALANCED 3–PHASE LOAD	122 A	
HEATING	41.2	41.2	(100%)			
COOLING	41.2	0	(0%)			

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DocuSigned by: Michael Stroud F1D4013C715F4A1...

20 JANUARY, 2023

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PROJECT CLIENT:

CAROLINA COMMERCIAL CONTRACTORS
–

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Yuan Ping Lien

REVISIONS

#	DATE	DESC.
–	–	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

E505

PANEL SCHEDULES

LPC1

ROOM ELECTRICAL 169 | VOLTS 208Y/120V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	FRIDGE (AFCI) – UNIT 187	0.9			2	20/1	RCPT (AFCI) – UNIT 187 COMMON AREA	0.36		
3	15/2	PTHP1 – UNIT 187A		1.05		4	20/1	RCPT (AFCI) – UNIT 187 KITCHEN		0.54	
5	|				1.05	6	20/1	RCPT – UNIT 187 TOILET			0.2
7	15/2	PTHP1 – UNIT 187B	1.05			8	20/1	RCPT (AFCI) – UNIT 187A BEDROOM	0.9		
9	|			1.05		10	20/1	RCPT (AFCI) – UNIT 187B BEDROOM		0.9	
11	20/1	FRIDGE (AFCI) – UNIT 185			0.9	12	20/1	RCPT (AFCI) – UNIT 185 COMMON AREA			0.36
13	15/2	PTHP1 – UNIT 185A	1.05			14	20/1	RCPT (AFCI) – UNIT 185 KITCHEN	0.54		
15	|			1.05		16	20/1	RCPT – UNIT 185 TOILET		0.18	
17	15/2	PTHP1 – UNIT 185B			1.05	18	20/1	RCPT (AFCI) – UNIT 185A BEDROOM			0.9
19	|		1.05			20	20/1	RCPT (AFCI) – UNIT 185B BEDROOM	0.9		
21	20/1	FRIDGE (AFCI) – UNIT 183		0.9		22	20/1	RCPT (AFCI) – UNIT 183 BEDROOM		0.9	
23	15/2	PTHP1 – UNIT 183			1.05	24	20/1	RCPT (AFCI) – UNIT 183 KITCHEN			0.54
25	|		1.05			26	20/1	RCPT – UNIT 183 TOILET	0.18		
27	20/1	FRIDGE (AFCI) – UNIT 188		0.9		28	20/1	RCPT (AFCI) – UNIT 188 BEDROOM		0.9	
29	15/2	PTHP1 – UNIT 188			1.05	30	20/1	RCPT (AFCI) – UNIT 188 KITCHEN			0.36
31	|		1.05			32	20/1	RCPT – UNIT 188 TOILET	0.18		
33	20/1	FRIDGE (AFCI) – UNIT 186		0.9		34	20/1	RCPT (AFCI) – UNIT 186 BEDROOM		0.9	
35	15/2	PTHP1 – UNIT 186			1.05	36	20/1	RCPT (AFCI) – UNIT 186 KITCHEN			0.36
37	|		1.05			38	20/1	RCPT – UNIT 186 TOILET	0.18		
39	20/1	FRIDGE (AFCI) – UNIT 184		0.9		40	20/1	RCPT (AFCI) – UNIT 184 BEDROOM		0.9	
41	15/2	PTHP1 – UNIT 184			1.05	42	20/1	RCPT (AFCI) – UNIT 184 KITCHEN			0.36
43	|		1.05			44	20/1	RCPT – UNIT 184 TOILET	0.2		
45	20/1	FRIDGE (AFCI) – UNIT 182		0.9		46	20/1	RCPT (AFCI) – UNIT 182 BEDROOM		0.9	
47	15/2	PTHP1 – UNIT 182			1.05	48	20/1	RCPT (AFCI) – UNIT 182 KITCHEN			0.36
49	|		1.05			50	20/1	RCPT – UNIT 182 TOILET	0.2		
51	15/2	SPARE		0		52	20/1	SPARE		0	
53	|				0	54	20/1	SPARE			0
55	15/2	SPARE	0			56	20/1	SPARE	0		
57	|			0		58	20/1	SPARE		0	
59	20/1	SPACE			0	60	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	12.9	13.8	11.7

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	2.1	0.525	(25%)	RECEPTACLES	19.5	14.8	(50%>10)
MOTORS	4.2	4.2	(100%)	HEATING	14.7	14.7	(100%)
				TOTAL LOAD		34.2	
				BALANCED 3–PHASE LOAD		94.9 A	

(AFCI) = PROVIDE AFCI PROTECTION IF REQUIRED BY AHJ

LPC2

ROOM ELECTRICAL 169 | VOLTS 208Y/120V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RCPT – STORAGE 170	1.08			2	20/1	RCPT – CARE BASE 176	0.36		
3	20/1	RCPT – LAUNDRY 172		0.54		4	20/1	RCPT – CARE BASE 176		0.36	
5	20/1	RCPT – LAUNDRY 172			0.72	6	20/1	RCPT – CARE BASE 176			0.36
7	20/1	RCPT – SOILED HOLD 173	0.36			8	20/1	RCPT – E. CORRIDOR 191	0.54		
9	20/1	RCPT – STAFF LOUNGE 174		0.54		10	20/1	RCPT – E. CORRIDOR 152		0.36	
11	20/1	RCPT – STAFF LOUNGE 174			0.36	12	20/1	RCPT – E. CORRIDOR 152			0.54
13	20/1	RCPT – TOILET 177, MEDS 178, TOILET 181	1.08			14	20/1	DISHWASHER – MEDS 178	1		
15	20/1	RCPT – E. EXTERIOR		0.72		16	20/1	FRIDGE – LOUNGE 174		1	
17	20/1	RCPT – BATHING 179			0.36	18	20/3	SPARE			0
19	20/1	RCPT – N. COURTYARD	0.36			20	|		0		
21	20/1	RCPT – N. COURTYARD		0.54		22	|			0	
23	20/1	RCPT – S.E. EXTERIOR			0.36	24	20/3	SPARE			0
25	20/1	RCPT – BATHING 179	0.36			26	|		0		
27	20/1	WHIRLPOOL (GFCI) – BATHING 179		2		28	|			0	
29	20/3	DRYER – LAUNDRY 172			1.08	30	20/1	SPARE			0
31	|	(NOTE 1)	1.08			32	20/1	SPARE	0		
33	|			1.08		34	20/1	SPACE		0	
35	20/3	DRYER – LAUNDRY 172			1.08	36	20/1	SPACE			0
37	|	(NOTE 1)	1.08			38	20/1	SPACE	0		
39	|			1.08		40	20/1	SPACE		0	
41	20/3	WASHER – LAUNDRY 172			1.08	42	20/1	SPACE			0
43	|	(NOTE 1)	1.08			44	20/1	SPACE	0		
45	|			1.08		46	20/1	SPACE		0	
47	20/3	WASHER – LAUNDRY 172			1.08	48	20/1	SPACE			0
49	|	(NOTE 1)	1.08			50	20/1	SPACE	0		
51	|			1.08		52	20/1	SPACE		0	
53	20/1	SPACE			0	54	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	9.47	10.4	7.03

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	3.25	0.813	(25%)	RECEPTACLES	9.9	9.9	(50%>10)
MOTORS	1.3	1.3	(100%)	NONCONTINUOUS	3	3	(100%)
				DIVERSE	1	1	(100%)
				TOTAL LOAD		27.7	
				BALANCED 3–PHASE LOAD		76.9 A	

NOTES:
1. VERIFY ELECTRICAL REQUIREMENTS OF WASHERS AND DRYERS WITH EQUIPMENT PROVIDER

LPD1

ROOM STORAGE 155 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	FRIDGE (AFCI) – UNIT 124	0.9			2	20/1	RCPT (AFCI) – UNIT 124 BEDROOM	0.9		
3	15/2	PTHP1 – UNIT 124		1.05		4	20/1	RCPT (AFCI) – UNIT 124 KITCHEN		0.36	
5	|				1.05	6	20/1	RCPT – UNIT 124 TOILET			0.18
7	20/1	FRIDGE (AFCI) – UNIT 126	0.9			8	20/1	RCPT (AFCI) – UNIT 126 BEDROOM	0.9		
9	15/2	PTHP1 – UNIT 126		1.05		10	20/1	RCPT (AFCI) – UNIT 126 KITCHEN		0.36	
11	|				1.05	12	20/1	RCPT – UNIT 126 TOILET			0.18
13	20/1	FRIDGE (AFCI) – UNIT 128	0.9			14	20/1	RCPT (AFCI) – UNIT 128 BEDROOM	0.9		
15	15/2	PTHP1 – UNIT 128		1.05		16	20/1	RCPT (AFCI) – UNIT 128 KITCHEN		0.36	
17	|				1.05	18	20/1	RCPT – UNIT 128 TOILET			0.18
19	20/1	FRIDGE (AFCI) – UNIT 130	0.9			20	20/1	RCPT (AFCI) – UNIT 130 BEDROOM	0.9		
21	15/2	PTHP1 – UNIT 130		1.05		22	20/1	RCPT (AFCI) – UNIT 130 KITCHEN		0.36	
23	|				1.05	24	20/1	RCPT – UNIT 130 TOILET			0.18
25	20/1	FRIDGE (AFCI) – UNIT 132	0.9			26	20/1	RCPT (AFCI) – UNIT 132 BEDROOM	0.9		
27	15/2	PTHP1 – UNIT 132		1.05		28	20/1	RCPT (AFCI) – UNIT 132 KITCHEN		0.36	
29	|				1.05	30	20/1	RCPT – UNIT 132 TOILET			0.18
31	20/1	FRIDGE (AFCI) – UNIT 136	0			32	20/1	RCPT (AFCI) – UNIT 136 BEDROOM	0.9		
33	15/2	PTHP1 – UNIT 136		1.05		34	20/1	RCPT (AFCI) – UNIT 136 KITCHEN		0.36	
35	|				1.05	36	20/1	RCPT – UNIT 136 TOILET			0.2
37	20/1	FRIDGE (AFCI) – UNIT 137	0.9			38	20/1	RCPT (AFCI) – UNIT 137 BEDROOM	0.9		
39	15/2	PTHP1 – UNIT 137		1.05		40	20/1	RCPT (AFCI) – UNIT 137 KITCHEN		0.36	
41	|				1.05	42	20/1	RCPT – UNIT 137 TOILET			0.2
43	20/1	RCPT – S. CORRIDOR 151	0.54			44	20/1	RCPT – S. COURTYARD	0.72		
45	20/1	RCPT – E. CORRIDOR 152		0.54		46	20/1	RCPT – S. EXTERIOR		0.36	
47	20/1	RCPT – S. COURTYARD			0.72	48	20/1	SPARE			0
49	20/1	LIGHT – SITE POLE	0.932			50	20/1	SPARE	0		
51	20/1	LIGHT – SITE POLE		0.932		52	20/1	SPARE		0	
53	15/2	SPARE			0	54	20/1	SPARE			0
55	|		0			56	20/1	SPARE	0		
57	20/1	SPACE		0		58	20/1	SPACE		0	
59	20/1	SPACE			0	60	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	13.9	11.7	9.37

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	1.86	2.33	(125%)	RECEPTACLES	18.4	14.2	(50%>10)
				HEATING	14.7	14.7	(100%)
				TOTAL LOAD		31.2	
				BALANCED 3–PHASE LOAD		86.7 A	

(AFCI) = PROVIDE AFCI PROTECTION IF REQUIRED BY AHJ

LPD2

ROOM STORAGE 155 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	FRIDGE (AFCI) – UNIT 138	0.9			2	20/1	RCPT (AFCI) – UNIT 138 BEDROOM	0.9		
3	15/2	PTHP1 – UNIT 138		1.05		4	20/1	RCPT (AFCI) – UNIT 138 KITCHEN		0.36	
5	|				1.05	6	20/1	RCPT – UNIT 138 TOILET			0.2
7	20/1	FRIDGE (AFCI) – UNIT 139	0.9			8	20/1	RCPT (AFCI) – UNIT 139 BEDROOM	0.9		
9	15/2	PTHP1 – UNIT 139		1.05		10	20/1	RCPT (AFCI) – UNIT 139 KITCHEN		0.36	
11	|				1.05	12	20/1	RCPT – UNIT 139 TOILET			0.18
13	20/1	FRIDGE (AFCI) – UNIT 140	0.9			14	20/1	RCPT (AFCI) – UNIT 140 BEDROOM	0.18		
15	15/2	PTHP1 – UNIT 140		1.05		16	20/1	RCPT (AFCI) – UNIT 140 KITCHEN		0.36	
17	|				1.05	18	20/1	RCPT – UNIT 140 TOILET			0.18
19	20/1	FRIDGE (AFCI) – UNIT 150	0.9			20	20/1	RCPT (AFCI) – UNIT 150 BEDROOM	0.9		
21	15/2	PTHP1 – UNIT 150		1.05		22	20/1	RCPT (AFCI) – UNIT 150 KITCHEN		0.36	
23	|				1.05	24	20/1	RCPT – UNIT 150 TOILET			0.18
25	20/1	FRIDGE (AFCI) – UNIT 153	0.9			26	20/1	RCPT (AFCI) – UNIT 153 BEDROOM	0.9		
27	15/2	PTHP1 – UNIT 153		1.05		28	20/1	RCPT (AFCI) – UNIT 153 KITCHEN		0.36	
29	|				1.05	30	20/1	RCPT – UNIT 153 TOILET			0.18
31	20/1	FRIDGE (AFCI) – UNIT 154	0.9			32	20/1	RCPT (AFCI) – UNIT 154 COMMON AREA	0.54		
33	15/2	PTHP2 – UNIT 154A		1.05		34	20/1	RCPT (AFCI) – UNIT 154 KITCHEN		0.54	
35	|				1.05	36	20/1	RCPT – UNIT 154 TOILET			0.18
37	15/2	PTHP2 – UNIT 154B	1.05			38	20/1	RCPT (AFCI) – UNIT 154A BEDROOM	0.9		
39	|			1.05		40	20/1	RCPT (AFCI) – UNIT 154B BEDROOM		0.9	
41	20/1	FRIDGE (AFCI) – UNIT 157			0.9	42	20/1	RCPT (AFCI) – UNIT 157 COMMON AREA			0.54
43	15/2	PTHP2 – UNIT 157A	1.05			44	20/1	RCPT (AFCI) – UNIT 157 KITCHEN	0.54		
45	|			1.05		46	20/1	RCPT – UNIT 157 TOILET		0.18	
47	15/2	PTHP2 – UNIT 157B			1.05	48	20/1	RCPT (AFCI) – UNIT 157A BEDROOM			0.9
49	|		1.05			50	20/1	RCPT (AFCI) – UNIT 157B BEDROOM	0.9		
51	15/2	SPARE		0		52	20/1	SPARE		0	
53	|				0	54	20/1	SPARE			0
55	15/2	SPARE	0			56	20/1	SPARE	0		
57	|			0		58	20/1	SPARE		0	
59	20/1	SPARE			0	60	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	15.2	11.8	10.8

	CONN KVA	CALC KVA			CALC KVA
RECEPTACLES	17.5	13.7	(50%>10)	TOTAL LOAD	34.1
HEATING	20.3	20.3	(100%)	BALANCED 3–PHASE LOAD	94.6 A

(AFCI) = PROVIDE AFCI PROTECTION IF REQUIRED BY AHJ

LPD3

ROOM STORAGE 155 | VOLTS 208Y/120V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR MLO
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RCPT – DINING 158	0.54			2	20/1	SPARE	0		
3	20/1	RCPT – DINING 158		0.9		4	20/1	SPARE		0	
5	20/1	RCPT – E. CORRIDOR 152			0.36	6	20/1	SPARE			0
7	20/1	RCPT – CLEAN LINEN 155, STORAGE 156	0.36			8	20/1	SPARE	0		
9	20/1	RCPT – BEAUTY 160		0.18		10	20/1	SPARE		0	
11	20/1	RCPT – BEAUTY 160			0.18	12	20/1	SPARE			0
13	20/1	RCPT – BEAUTY 160	0.18			14	20/1	SPARE	0		
15	20/1	RCPT – BEAUTY 160		0.36		16	20/1	SPARE		0	
17	20/1	RCPT – VENDING 160			0.18	18	20/1	SPARE			0
19	20/1	RCPT – VENDING 160	0.18			20	20/1	SPARE	0		
21	20/1	RCPT – ACTIVITY 162		0.18		22	20/1	SPARE		0	
23	20/1	RCPT – ACTIVITY 162			0.36	24	20/1	SPARE			0
25	20/1	RCPT – ACTIVITY 162	0.36			26	20/1	SPACE	0		
27	20/1	RCPT – ACTIVITY 162		0.72		28	20/1	SPACE		0	
29	20/1	RCPT – ACTIVITY 162			0.36	30	20/1	SPACE			0
31	20/1	RCPT – LIVING 120, ACTIVITY 162	0.72			32	20/1	SPACE	0		
33	20/1	RCPT – LIVING 120		0.54		34	20/1	SPACE		0	
35	20/1	FIREPLACE – LIVING 120			0.18	36	20/1	SPACE			0
37	20/1	SPACE	0			38	20/1	SPACE	0		
39	20/1	SPACE		0		40	20/1	SPACE		0	
41	20/1	SPACE			0	42	20/1	SPACE			0
43	20/1	SPACE	0			44	20/1	SPACE	0		
45	20/1	SPACE		0		46	20/1	SPACE		0	
47	20/1	SPACE			0	48	20/1	SPACE			0
49	20/1	SPACE	0			50	20/1	SPACE	0		
51	20/1	SPACE		0		52	20/1	SPACE		0	
53	20/1	SPACE			0	54	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	2.34	2.88	1.62

	CONN KVA	CALC KVA			CALC KVA
RECEPTACLES	6.84	6.84	(50%>10)	TOTAL LOAD	6.84
				BALANCED 3–PHASE LOAD	19 A

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L. MICHAEL STROUD, P.E.

NORTH CAROLINA PROFESSIONAL #PE021990 ENGINEER L. MICHAEL STROUD

Docusigned by: L. Michael Stroud F1D4013C715F4A1...

20 JANUARY, 2023

Matthew A Conte, AIA
NC. REG.#15129

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A WOMEN'S BUSINESS ENTERPRISE
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PROJECT NAME:

THE SPRINGS OF BALLENTINE

40 RAWLS CLUB RD
FUQUAY-VARINA NC.

PROJECT CLIENT:

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--

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Pamela Friday
Yuan Ping Lien

REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

E506

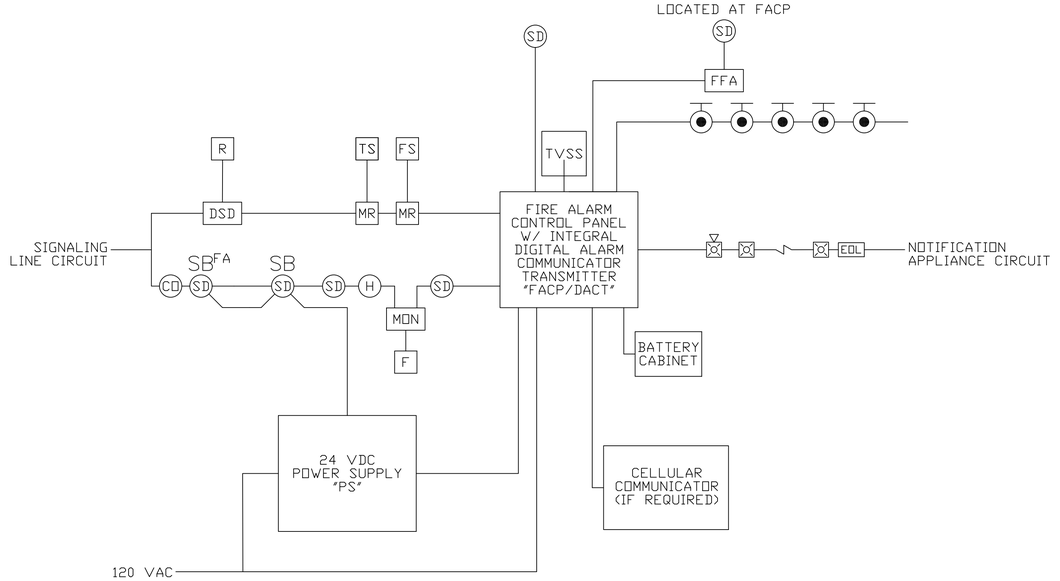
PANEL SCHEDULES

FIRE ALARM SCHEDULE

CALLOUT	SYMBOL	NOTE 1	NOTE 2	NOTE 3
ANNUNCIATOR PANEL	FAA	FIRE LITE – ANN–80	MOUNT AT 66" TO CENTER AFF	
AUDIO VISUAL	15 CD		MOUNT AT THE LOWER HEIGHT OF 80" AFF OR 6" BELOW CEILING	
AUDIO VISUAL WP	WP xxx CD			
CO DETECTOR	CO	FIRE LITE – C012/24TR	MOUNT AT 4" MINIMUM, 12" MAXIMUM BELOW CEILING	
CONTROL PANEL	FACP	FIRE LITE – MS9600UDLS	MOUNT AT 66" TO CENTER AFF	
DOOR HOLDER WALL MOUNTED			DOOR HOLDER HEIGHT TO BE COORDINATED WITH DOOR SUPPLIER	
DUCT SMOKE DETECTOR	DSD	FIRE LITE – D355PL	VERIFY MOUNTING LOCATION WITH MECHANICAL CONTRACTOR AND TO ALLOW FOR MAINTENACE AND INSPECTION.	
FIRE ALARM RELAY	FR			
FLOW SWITCH	FS			
HEAT DETECTOR	H	FIRE LITE – H355R	MOUNT AT 4" MINIMUM, 12" MAXIMUM BELOW CEILING	
MANUAL ALARM STATION	F	FIRE LITE – BG–12LX	MOUNT AT 60" MAXIMUM FROM DOOR, MOUNT AT 44" TO CENTER	
MONITORING RELAY MODULE	MR			
REMOTE INDICATOR TEST STATION	R	MOUNT AT 10" BELOW FINISHED CEILING		
SMOKE DETECTOR	SD	FIRE LITE – SD355	MOUNT AT 4" MINIMUM, 12" MAXIMUM BELOW CEILING	
SMOKE DETECTOR W/ SOUNDER BASE	SB			
TAMPER SWITCH	TS			
VISUAL ALARM	xxx CD		MOUNT AT THE LOWER HEIGHT OF 80" AFF OR 6" BELOW CEILING	

FIRE ALARM GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE AND INSTALL ALL DEVICES AND ACCESSORIES REQUIRED TO MEET CODE, NFPA 72 AND TO SATISFY THE AHJ.
2. REFER TO FIRE PROTECTION SHOP DRAWINGS FOR QUANTITIES AND LOCATIONS OF SPRINKLER FLOW AND TAMPER SWITCHES.
3. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO AHJ FOR APPROVAL PRIOR TO INSTALLATION
4. SYSTEM MUST BE FULLY ADDRESSABLE, SYSTEM MUST BE EXPANDABLE TO INCORPORATE ALL DEVICES IN THE COMPLETE BUILDING AT A LATER DATE. SYSTEM SHALL BE FIRE LITE ALARMS APPROVED BY THE OWNER AND ENGINEER.
5. PROVIDE CELLULAR COMMUNICATION FOR TRANSMISSION TO CENTRAL STATION FOR FIRE ALARM SYSTEM.
6. ALL FIRE ALARM WIRING SHALL BE ENCLOSED IN CONDUIT.
7. CONTRACTOR TO PROVIDE INTERLOCK TO SHUT DOWN MECHANICAL UNITS AND EXHAUST FANS.
8. CONDUIT FILL SHALL NOT EXCEED 40% AT ANY PORTION OF THE RACEWAY SYSTEM.
9. SEE PROJECT SHEET E–201 FOR INFORMATION TO REQUIRED SITE CONNECTIONS FOR MONITORING WATER SERVICE ENTRANCE.



1 FA001 FIRE ALARM RISER DIAGRAM
SCALE: NONE

FIRE ALARM SYSTEM MATRIX

	CONTROL UNIT ANNUNCIATOR										ALARM NOTIFICATION								FIRE SAFETY FUNCTIONS								SUPPLEMENTARY						
	ACTUATE ALARM SIGNAL	ACTUATE TROUBLE SIGNAL	ACTUATE SUPERVISORY SIGNAL								ACTUATE GENERAL ALARM	ACUATE GENERAL ALARM AFTER TIME DELAY							SHUTDOWN AIR HANDLING UNITS	SHUTDOWN MUSIC SYSTEM	RELEASE MAGLOCKS AT DOORS						ACTUATE REMOTE ANNUNCIATORS	TRANSMIT ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION			
MANUAL STATION	•										•								•	•							•	•					
SMOKE DETECTOR - RESIDENT ROOM	•											•							•	•							•	•					
SMOKE DETECTOR - OTHER	•										•								•	•							•	•					
HEAT DETECTOR	•										•								•	•							•	•					
CO DETECTOR		•																									•	•	•	•			
SPRINKLER SYSTEM WATERFLOW	•										•								•	•							•	•	•	•			
RANGE HOOD CHEMICAL RELEASE	•										•								•	•							•	•	•	•			
FIRE ALARM SYSTEM A/C POWER FAILURE		•																									•		•	•			
FIRE ALARM SYSTEM LOW BATTERY		•																									•		•	•			
OPEN CIRCUIT		•																									•		•	•			
GROUND FAULT		•																									•		•	•			
NOTIFICATION APPLIANCE SHORT CIRCUIT		•																									•		•	•			
SPRINKLER SYSTEM VALVE TAMPER		•	•																								•		•	•			

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26 SEPTEMBER, 2022

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407-745-5300

PROJECT NAME:

THE SPRINGS OF BALLENTINE

40 RAWLS CLUB RD
FUQUAY-VARINA NC.

PROJECT CLIENT:

CAROLINA COMMERCIAL CONTRACTORS
--

ELEVEN18 PROJECT LEAD:
MATTHEW A. CONTE
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mconte@eleven18architecture.com

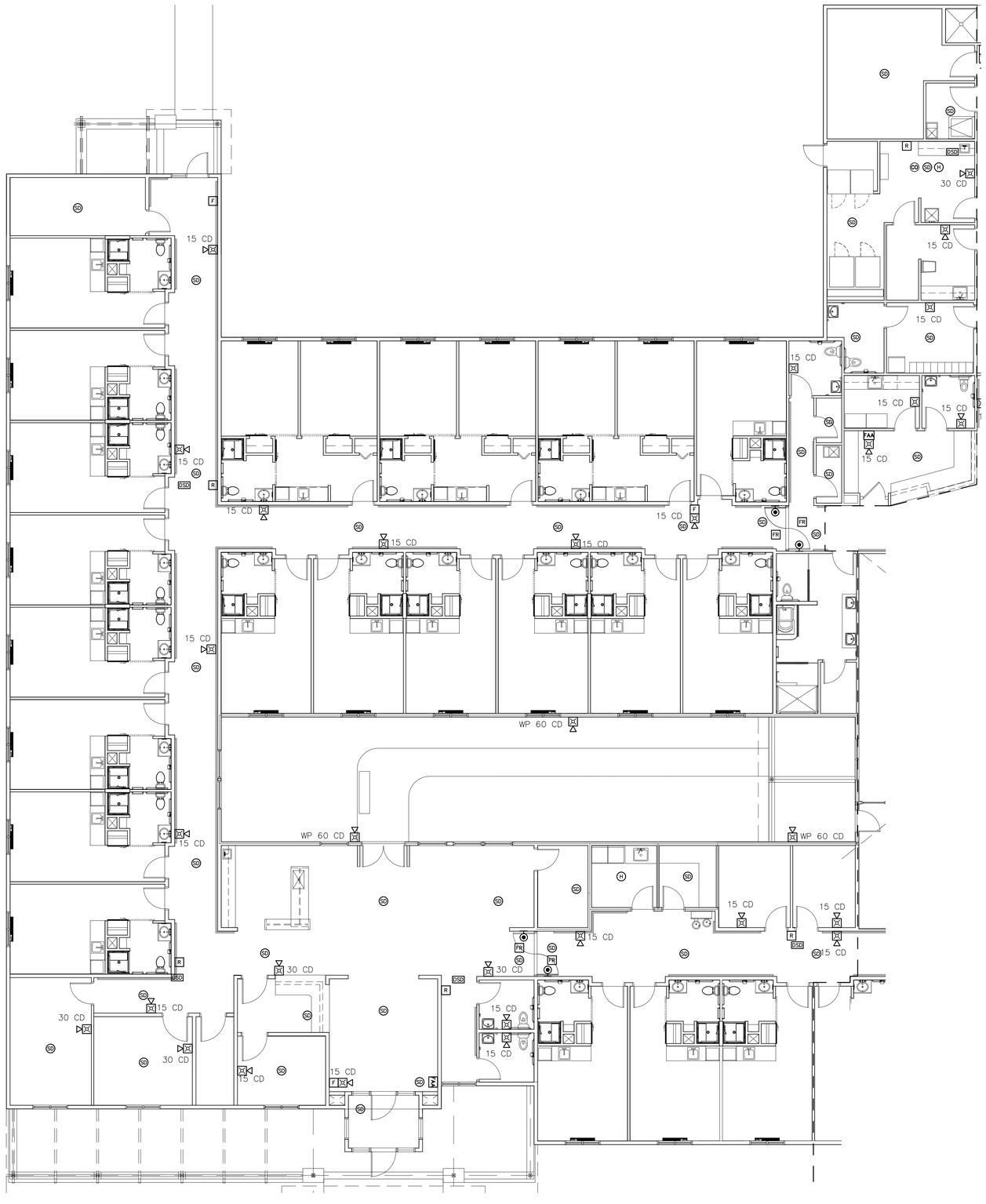
PROJECT TEAM:
Gabriela Salazar
Pamela Friday
Yuan Ping Lien

REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

FA001

FIRE ALARM COVER



1 FA101 WEST WING FIRE ALARM PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. SEE SHEET FA001 FOR FIRE ALARM NOTES AND ABBREVIATIONS.
2. FIRE ALARM CONTRACTOR SHALL PROVIDE DUCT DETECTORS FOR MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL INSTALL DUCT DETECTORS. FIRE ALARM CONTRACTOR TO WIRE DUCT DETECTORS.
3. FIRE ALARM CONTRACTOR TO REFER TO MECHANICAL DRAWINGS FOR AHU LOCATIONS.

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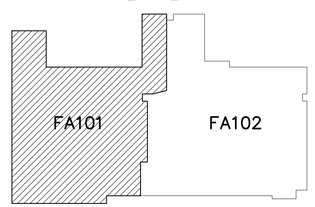
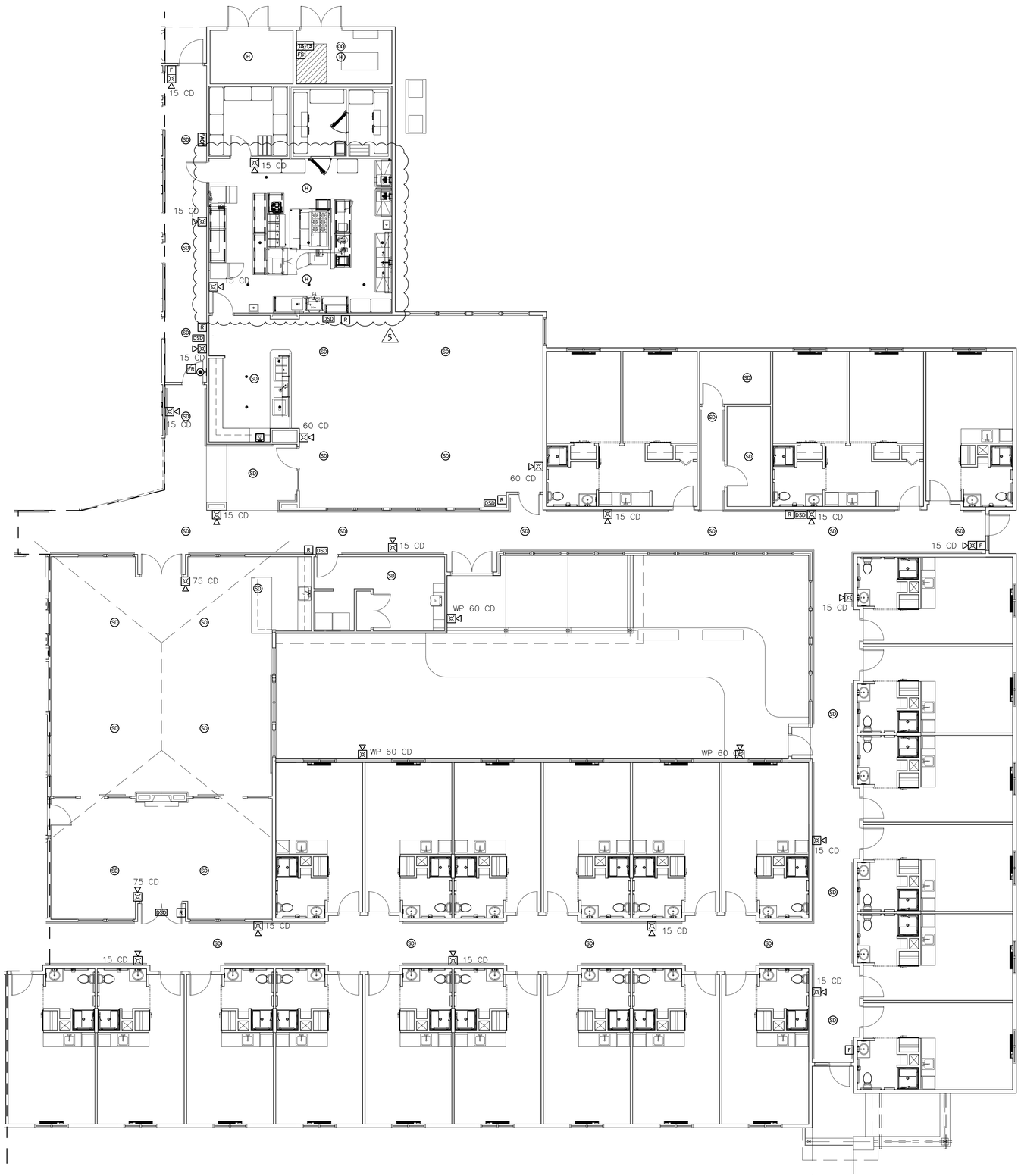
REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

8 4 0 8 16
GRAPHIC SCALE: 1" = 8'

KEY PLAN



FA101
PARTIAL FIRE ALARM PLAN



1 FA102 EAST WING FIRE ALARM PLAN
SCALE: 1/8"=1'-0"

ELECTRICAL GENERAL NOTES:

1. SEE SHEET FA001 FOR FIRE ALARM NOTES AND ABBREVIATIONS.
2. FIRE ALARM CONTRACTOR SHALL PROVIDE DUCT DETECTORS FOR MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL INSTALL DUCT DETECTORS. FIRE ALARM CONTRACTOR TO WIRE DUCT DETECTORS.
3. FIRE ALARM CONTRACTOR TO REFER TO MECHANICAL DRAWINGS FOR AHU LOCATIONS.

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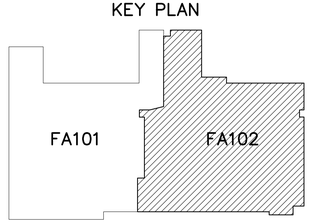
REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
#	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2
5	5/31/2023	REVISION 5

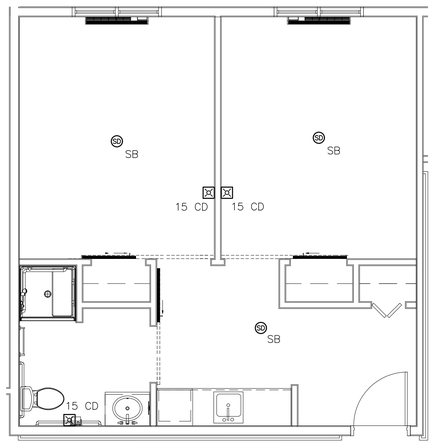
8 4 0 8 16
GRAPHIC SCALE: 1" = 8'

KEY PLAN



NORTH

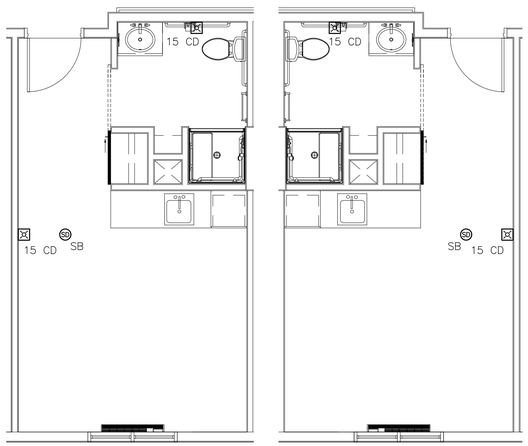
FA102
PARTIAL FIRE ALARM PLAN



1
FA103

UNIT "A" TYPICAL FIRE ALARM PLAN

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



2
FA103

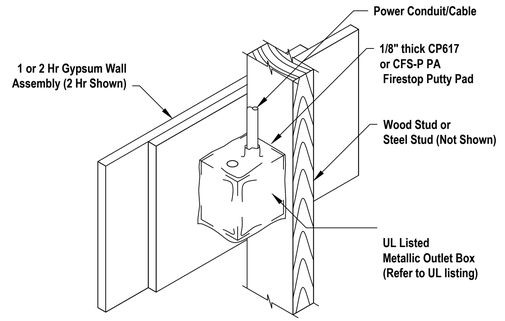
UNIT "B" AND OPPOSITE HAND TYPICAL FIRE ALARM PLAN

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

WALL /CEILING Opening Protective Materials (CLIV, CLIV7)

CFS-P PA FIRESTOPPING

Classified by Underwriters Laboratories, Inc. to UL 263 and CAN/ULC-S101



Wall/Ceiling Opening Protective Materials (CLIV, CLIV7)

CP 617 or CFS-PA firestop Putty Pads, for use with flush device UL Listed Metallic Outlet Boxes installed with steel mud rings. When protective material is used on outlet boxes on both sides of the wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. provided that the boxes are not installed back-to-back (unless otherwise indicated). Installation shall comply with the National Electrical Code (NFPA 70). Min 1/8 in. thick (CP 617) or min 0.2 in. (CFS-P PA) thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and conduit fittings/connectors and to completely seal against the stud and gypsum board in the wall cavity unless otherwise noted below. When CFS-P PA is used, the putty pads may be installed with the release liner intact on the outside of the pad with the exception of any overlaps, in which case the liner is to be removed from the bottom layer at the overlap location. The box composition, max device dimensions, hourly rating, type of stud and type of faceplate are specified below.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4 by 4 by max 2-1/8 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates in 1 and 2 hr. fire rated gypsum wallboard wall assemblies framed with min 3-1/2 in. deep wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4-11/16 by 4-11/16 by max 2-1/8 in., or max 4-3/8 by 4-7/8 by max 2-1/8 in., flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 hr fire rated V446 gypsum board/steel stud or U341 gypsum board/wood stud Wall and Partition Design No. in the Fire Resistance Directory. When U341 wall design is used, wall shall be sheathed with 5/8 in. gypsum board, and glass or mineral fiber batt insulation shall be installed in stud cavities in accordance with U341 design. Boxes may be installed back-to-back.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4-11/16 by 4-11/16 by max 2-1/8 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 and 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. deep wood or steel studs and constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Min 0.8 pcf density fiberglass batt insulation is to be installed within the wall cavity required for 1 hr fire rated gypsum board wall assemblies and optional in 2 hr fire rated gypsum wallboard assemblies.

CP 617 or CFS-P PA Firestop Putty Pads, for use with flush device UL Listed Metallic Outlet Boxes installed with steel mud rings or UL Listed Nonmetallic Outlet Boxes in framed wall assemblies as specified below. When protective material is used on outlet boxes on both sides of the wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. provided that the boxes are not installed back-to-back (unless otherwise indicated). Installation shall comply with the National Electrical Code (NFPA 70). Min 1/8 in. thick (CP 617) or min 0.2 in. (CFS-P PA) thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and conduit fittings/connectors and to completely seal against the stud and gypsum board in the wall cavity unless otherwise noted below. When CFS-P PA is used, the putty pads may be installed with the release liner intact on the outside of the pad with the exception of any overlaps, in which case the liner is to be removed from the bottom layer at the overlap location. The box composition, max device dimensions, hourly rating, type of stud and type of faceplate are specified below.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4 by 4 by max 2-1/8 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates in 1 and 2 hr. fire rated gypsum wallboard wall assemblies framed with min 3-1/2 in. deep wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4-11/16 by 4-11/16 by max 2-1/8 in., or max 4-3/8 by 4-7/8 by max 2-1/8 in., flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 hr fire rated V446 gypsum board/steel stud or U341 gypsum board/wood stud Wall and Partition Design No. in the Fire Resistance Directory. When U341 wall design is used, wall shall be sheathed with 5/8 in. gypsum board, and glass or mineral fiber batt insulation shall be installed in stud cavities in accordance with U341 design. Boxes may be installed back-to-back.

CP 617 or CFS-P PA Firestop Putty Pads, for use with max 4-11/16 by 4-11/16 by max 2-1/8 in. flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 and 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. deep wood or steel studs and constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Min 0.8 pcf density fiberglass batt insulation is to be installed within the wall cavity required for 1 hr fire rated gypsum board wall assemblies and optional in 2 hr fire rated gypsum wallboard assemblies.

Nominal dImensions listed in previous paragraph's also apply to octogon/round boxes and fittings.

Fire Rating	Wall Type
2 hour	U300, U400 or V400 - wood or steel studs
1 hour	U300, U400, or V400 - wood or steel studs
** - Min 3/4 in. deep plaster rings installed over outlet box. After installation of gypsum board, nom 1/4 in. thickness of Hilti FS-ONE Sealant or FS-ONE MAX Intumescent Sealant, bearing the UL Classification Marking for Fill, Void or Cavity Materials, applied between the base layer of wallboard and the plaster ring.	

HILTI
Hilti Firestop Systems

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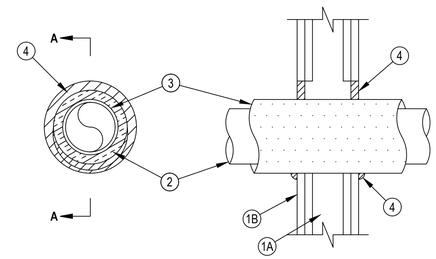
Page: 1 of 1

System No. W-L-5028

WL 5028

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0, 3/4 and 1 Hr (See Item 3)	FT Ratings — 0, ¼ and 1 Hr (See Item 3)
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Ratings — 0, 3/4 and 1 Hr (See Item 3)
	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 7-1/2 in. (191 mm).

   The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrants — One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Copper Tubing — Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tubing.
   C. Copper Pipe — Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Tube Insulation — Plastics+ — Min 1/2 in. (13 mm) to max 1 in. (25 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. An annular space of min 0 in. (point contact) to max 1-1/2 in. (38 mm) is required within the firestop system. The T, FT and FTH Ratings are 1 hr when the 1 in. (25 mm) thick tube insulation is used and 3/4 hr when the 3/4 in. (19 mm) thick tube insulation is used. When tube insulation thickness is less than 3/4 in. (19 mm), the T, FT and FTH Ratings are 0 Hr.
   See Plastics+ (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.
4. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and gypsum board, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

HILTI
Hilti Firestop Systems

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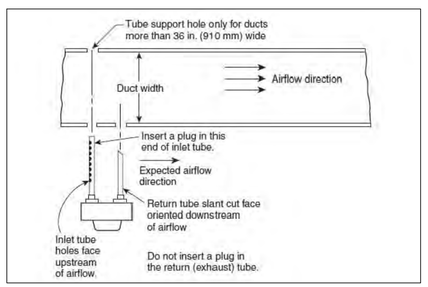


3
FA103

DUCT SMOKE DETECTOR INSTALLATION DETAIL

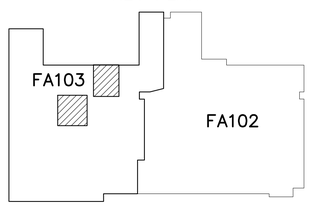
SCALE: NONE

NORTH

8 4 0 8 16

GRAPHIC SCALE: 1" = 8'

KEY PLAN



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FA103
UNIT FIRE ALARM PLAN AND DETAILS

PLUMBING & NATURAL GAS SPECIFICATIONS

GENERAL

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA PLUMBING & FUEL GAS CODES.
2. CONTRACTOR SHALL PROVIDE ALL LICENSES, FEES, PERMITS, INSURANCE, ETC. REQUIRED FOR EXECUTION OF THIS WORK.
3. INSTALLATION SHALL COMPLY WITH OSHA STANDARDS.
4. INSTALL ALL EQUIPMENT AS PER MANUFACTURERS INSTRUCTIONS.
5. ALL PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE SEALED BY UL APPROVED MEANS.

WATER

1. ALL DOMESTIC WATER PIPE SHALL BE TYPE L COPPER, HARD DRAWN OR PEX IN ACCORDANCE WITH NORTH CAROLINA STATE PLUMBING CODE. ALL UNDERGROUND DOMESTIC WATER PIPE SHALL BE PVC.
2. WATER PIPE INSULATION
   a. MATERIALS
      i. INTERIOR - OWENS CORNING SSL II WITH ASJ MAX JACKET FIBERGLASS INSULATION OR EQUAL.
      ii. EXTERIOR – AP ARMAFLEX TUBE INSULATION WITH PVC JACKETING AND
   b. MINIMUM WATER PIPE INSULATION THICKNESS
      i. HOT WATER SUPPLY & RETURN PIPES - 1 ½".
      ii. COLD WATER PIPE IN UNCONDTIONED SPACES – 1" WITH HEAT CABLES (RAYCHEM WINTERGUARD OR EQUAL).
3. GATE VALVES - UP TO & INCLUDING 3 INCHES - MSS SP-80, CLASS 125, BRONZE BODY, BRONZE TRIM, RISING STEM, HANDWHEEL, INSIDE SCREW, SOLID WEDGE DISC, SOLDER ENDS.
4. THE DOMESTIC WATER PIPING SHALL HOLD A HYDROSTATIC TEST PRESSURE OF 100 PSI FOR A PERIOD OF AT LEAST 1-1/2 HOURS. ANY JOINT TO LEAK UNDER TEST SHALL BE BROKEN, REMADE AND RETESTED.
5. ALL DOMESTIC WATER PIPING SHALL BE DISINFECTED PER NORTH CAROLINA STATE BUILDING CODE AND LOCAL REQUIREMENTS.

WASTE

1. GRAVITY WASTE AND VENT PIPE SHALL BE SCHEDULE 40 PVC-DWV (ASTM D 2665) WITH SOLVENT WELD JOINTS.
2. ALL WASTE DRAIN PIPING SHALL BE TESTED BY FILLING THE LINES TO OVERFLOWING. ANY JOINT FOUND TO LEAK UNDER TEST SHALL BE BROKEN, REMADE AND RETESTED.

NATURAL GAS

1. NATURAL GAS PIPING SHALL BE SCHEDULE 40 STEEL COMPLYING WITH ASME B36.10, 10M, ASTM A53/A53M, AND ASTME A106. ALL EXTERIOR GAS PIPE SHALL BE PAINTED WITH RUST PREVENTING PAINT SYSTEM (COLOR AS REQUIRED BY OWNER).
2. GAS PIPING SHALL BE INSPECTED AND TESTING IN ACCORDANCE WITH SECTION 406 OF THE NORTH CAROLINA FUEL GAS CODE.

WASTE PLAN LEGEND

— 3"W —	SANITARY WASTE PIPE
— ¾"C —	CONDENSATE DRAIN PIPE (INSULATED)
— 2"V —	SANITARY WASTE VENT PIPE
	CONNECTION TO EXISTING PIPING
INV.	PIPE INVERT
TYP.	TYPICAL
VTR	VENT THROUGH ROOF

WATER PLAN LEGEND

—¾"CW—	POTABLE COLD WATER PIPE
—¾"116—	POTABLE 116 DEGREE HOT WATER PIPE (INSULATED)
—¾"140—	POTABLE 140 DEGREE HOT WATER PIPE (INSULATED)
⋈	MANUAL BALL VALVE
▷	REDUCER
TYP.	TYPICAL

GAS PLAN LEGEND

—¾"G)—	GAS PIPE
⋈	MANUAL GAS BALL VALVE
	ELECTRIC AUTOMATIC GAS VALVE
	GAS REGULATOR
MBH	THOUSAND BTU PER HOUR
BTU	BRITISH THEMAL UNITS
WC	WATER COLUMN (PRESSURE)
PSI	POUNDS PER SQUARE INCH (PRESSURE)
TYP.	TYPICAL

WATER HEATING SYSTEM: WH1

TANKLESS SYSTEM
SERVICE: RESIDENT & MISC. AREAS
ASSUMED WATER INLET TEMPERATURE: 50
WATER SUPPLY TEMPERATURE: 116

Equipment	Quantity	Flow per Fixture (GPM)	Usage Factor	Total Flow (GPM)
Private bathroom group	46	2.50	0.10	11.50
Private kitchen sink	46	2.50	0.10	11.50
Lavatory - public	7	0.50	0.05	0.18
Food service hand sink	3	0.50	0.40	0.60
Single bowl sink - public	3	2.50	0.10	0.75
Residential washer	1	4.50	0.25	1.13
Shower - public	1	2.50	0.25	0.63
Spa tub	1	15.00	0.25	3.75
Salon sink	1	0.50	0.25	0.13
TOTAL GPM				**30.15**

WATER HEATING SYSTEM: WH2

TANKLESS SYSTEM
SERVICE: KITCHEN
ASSUMED WATER INLET TEMPERATURE: 50
WATER SUPPLY TEMPERATURE: 140

Equipment	Quantity	Flow per Fixture (GPM)	Usage Factor	Total Flow (GPM)
Warewashing sink	1	2.00	1.00	2.00
Prep sink	2	1.00	1.00	2.00
Dishmachine	1	1.24	1.00	1.24
Pre-rinse sink	1	2.00	1.00	2.00
TOTAL GPM				**7.24**

WATER HEATING SYSTEM: WH3

TANKLESS SYSTEM
SERVICE: LAUNDRY
ASSUMED WATER INLET TEMPERATURE: 50
WATER SUPPLY TEMPERATURE: 140

Equipment	Quantity	Flow per Fixture (GPM)	Usage Factor	Total Flow (GPM)
Can wash	1	1.00	0.25	0.25
Commercial washers	2	3.00	1.00	6.00
Laundry sinks	3	2.00	0.25	1.50
Janitors sinks	2	2.00	0.25	1.00
TOTAL GPM				**8.75**

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20 JANUARY, 2023

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Gabriela Salazar
Pamela Friday
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REVISIONS

#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

P001

PLUMBING COVER

KITCHEN EQUIPMENT AND PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	MAKE/MODEL	WATER CONNECTION				WASTE ROUGH-IN	REMARKS
			CW	HW (116)	HW (140)	SUPPLY STOP		
203,204	3-COMPARTMENT SINK	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	1/2"	N/A	1/2"	ANGLE VALVE	INDIRECT DRAIN	
206	HAND SINK	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	1/2"	1/2"	N/A	ANGLE VALVE	2"	ADA COMPLIANT
208, 210	1-COMPARTMENT SINK	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	1/2"	N/A	1/2"	ANGLE VALVE	INDIRECT DRAIN	
209, 210	1-COMPARTMENT SINK	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	1/2"	N/A	1/2"	ANGLE VALVE	INDIRECT DRAIN	
212, 213, 214	ICE MACHINE W/ BIN & WATER FILTER	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	1/2"	N/A	N/A	ANGLE VALVE	INDIRECT DRAIN	
216	DISHWASHER	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	N/A	N/A	3/4"	BALL VALVE	INDIRECT DRAIN	
217, 218	SOILED DISH TABLE	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	1/2"	N/A	1/2"	ANGLE VALVE	INDIRECT DRAIN	
306, 307, 308	FOOD WELL	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	N/A	N/A	N/A	N/A	INDIRECT DRAIN	
309, 310	DROP IN SINK	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	1/2"	1/2"	N/A	ANGLE VALVE	2"	
513, 514	DROP IN SINK	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	1/2"	1/2"	N/A	ANGLE VALVE	2"	
551	FOOD WELL	REFER TO FOOD SERVICE DRAWINGS PROVIDED BY PRICE DAVIS	N/A	N/A	N/A	N/A	INDIRECT DRAIN	
BS	BEAUTY SINK	BELVEDERE 2800 BETA BOWL COMPLETE WITH 522 FIXTURE AND 503 VACUUM BREAKER. PROVIDE HAIR INTERCEPTOR EQUAL TO ZURN Z1175.	1/2"	1/2"	N/A	ANGLE VALVES	2"	
CW	CAN WASH	WALL HYDRANT EQUAL TO ZURN #Z1325, DRAIN EQUAL TO ZURN #Z550, TILED	3/4"	N/A	3/4"	BALL VALVE	3"	
CCW	COMMERCIAL CLOTHES WASHER	WASHING MACHINE BOX SHALL BE EQUAL TO GUT GREY#T150	3/4"	N/A	3/4"	BALL VALVE	INDIRECT DRAIN	PROVIDE SPRING CHECK VALVES ON SUPPLIES
JS	JANITOR'S SINK	SINK SHALL BE EQUAL TO ZURN MODEL #Z1996-24, 24"X24"X10", MOLDED COMPOSITE. PROVIDE FAUCET EQUAL TO ZURN MODEL #Z843M1-RC, INTEGRAL STOPS, VACUUM BREAKER, PAIL HOOK, THREADED SPOUT, AND LEVER HANDLES. PROVIDE SINK COMPLETE WITH MOP HANGER, HOSE WITH BRACKET, ANDP-TRAP.	1/2"	N/A	1/2"	ANGLE VALVES	2"	
LV1	LAVATORY, IN COUNTER TYPE	LAVATORY SHALL BE EQUAL TO MANSFIELD MODEL 251-4, VITREOUS CHINA, COUNTER TOP. PROVIDE FAUCET EQUAL TO CLEVELAND FAUCET MODEL #40712 CENTERSET FAUCET WITH SINGLE LEVER HANDLE W/POP-UP DRAIN WITH TAILPIECE. PROVIDE 0.5 GPM AERATOR EQUAL TO MOEN MODEL #516711. PROVIDE LAVATORY COMPLETE WITH GRIDE DRAIN, PREWRAPPED INSULATED, CAST BRASS, OFFSET TAILPIECE AND P-TRAP WITH CLEANOUT (EQUAL TO MCGUIRE #PW2150WC) AND CHROME PLATED SUPPLIES (EQUAL TO MCGUIRE #175)	1/2"	1/2"	N/A	ANGLE VALVE	2"	ADA COMPLIANT
LV2	LAVATORY, WALL HUNG TYPE	LAVATORY SHALL BE EQUAL TO SEASONS MODEL #SE10407, VITREOUS CHINA, WALL HUNG. PROVIDE FAUCET EQUAL TO CLEVELAND FAUCET MODEL #40712 CENTERSET FAUCET WITH SINGLE LEVER HANDLE W/POP-UP DRAIN WITH TAILPIECE. PROVIDE 0.50 GPM AERATOR EQUAL TO MOEN MODEL #516711. PROVIDE LAVATORY COMPLETE WITH PRE INSULATED OFFSET TAILPIECE AND P-TRAP WITH CLEANOUT (EQUAL TO MCGUIRE #PW2150WC) PROVIDE CAST BRASS SUPPLIES (EQUAL TO MCGUIRE 175)	1/2"	1/2"	N/A	ANGLE VALVE	2"	PROVIDE CARRIER, ADA COMPLIANT
RW	RESIDENTIAL CLOTHES WASHER	WASHING MACHINE BOX SHALL BE EQUAL TO GUT GREY#T150	1/2"	1/2"	N/A	BALL VALVE	2"	PROVIDE UTILITY BOX
S1	1-COMPARTMENT DROP-IN SINK - SOILED HOLD.	SINK SHALL BE EQUAL TO KINDRED MODEL #QSLF2020, SINGLE BOWL, THREE HOLE PUNCHING, 18 GAUGE STAINLESS STEEL. PROVIDE FAUCET EQUAL TO ZURN FAUCET MODEL #Z871C4, 8" CENTERS, DUAL 4" WRIST BLADES, VANDAL RESISTANT AERATOR. PROVIDE SINK COMPLETE WITH TWO STAINLESS STEEL BASKET STRAINERS ADN TAILPIECES (EQUAL TO MCGUIRE #151A.) CHROME PLATED SEMI-CAST BRASS P-TRAP (EQUAL TO MCGUIRE #8902) AND CHROME PLATED SUPPLIES WITH LOOSE KEY STOPS (EQUAL TO MCGUIRE #175LK)	1/2"	N/A	1/2"	ANGLE VALVES	2"	ADA COMPLIANT
S2	1-COMPARTMENT DROP-IN SINK - MEDS	SINK SHALL BE EQUAL TO KINDRED MODEL #QSLF2020, SINGLE BOWL, THREE HOLE PUNCHING, 18 GAUGE STAINLESS STEEL. PROVIDE FAUCET EQUAL TO ZURN FAUCET MODEL #Z871C4, 8" CENTERS, DUAL 4" WRIST BLADES, VANDAL RESISTANT AERATOR. PROVIDE SINK COMPLETE WITH TWO STAINLESS STEEL BASKET STRAINERS ADN TAILPIECES (EQUAL TO MCGUIRE #151A.) CHROME PLATED SEMI-CAST BRASS P-TRAP (EQUAL TO MCGUIRE #8902) AND CHROME PLATED SUPPLIES WITH LOOSE KEY STOPS (EQUAL TO MCGUIRE #175LK)	1/2"	1/2"	N/A	ANGLE VALVES	2"	ADA COMPLIANT
S3	1-COMPARTMENT DROP-IN SINK - UNITS	SINK SHALL BE EQUAL TO DAYTON MODEL J#011719, SINGLE BOWL, THREE HOLE PUNCHING, 22 GAUGE 300 SERIES STAINLESS STEEL. PROVIDE FAUCET EQUAL TO ZURN FAUCET MODEL #Z871C4, 8" CENTERS, DUAL 4" WRIST BLADES, VANDAL RESISTANT AERATOR, PROVIDE SINK COMPLETE WITH ONE STAINLESS STEEL BASKET STRAINER AND TAILPIECE (EQUAL TO MCGUIRE #151A), CHROME PLATED SEMI-CAST BRASS P-TRAP (EQUAL TO MCGUIRE #8902), AND CHROME PLATED SUPPLIES WITH LOOSE KEY STOPS (EQUAL TO MCGUIRE #175LK)	1/2"	1/2"	N/A	ANGLE VALVES	2"	ADA COMPLIANT
S4	1-COMPARTMENT DROP-IN SINK - ACTIMITY ROOM & RESIDENT LAUNDRY	SINK SHALL BE EQUAL TO DAYTON MODEL #011719, SINGLE BOWL, SINGLE HOLE PUNCHING, 22 GAUGE 300 SERIES STAINLESS STEEL. PROVIDE FAUCET EQUAL TO ZURN FAUCET MODEL #Z871C4, 8" CENTERS, DUAL 4" WRIST BLADES, VANDAL RESISTANT AERATOR, PROVIDE SINK COMPLETE WITH ONE STAINLESS STEEL BASKET STRAINER AND TAILPIECE (EQUAL TO MCGUIRE #151A), CHROME PLATED SEMI-CAST BRASS P-TRAP (EQUAL TO MCGUIRE #8902), AND CHROME PLATED SUPPLIES WITH LOOSE KEY STOPS (EQUAL TO MCGUIRE #175LK)	1/2"	1/2"	N/A	ANGLE VALVES	2"	ADA COMPLIANT
SH1	SHOWER -RESIDENT ROOMS	HANDICAP SHOWER SHALL BE EQUAL TO PRAXIS INDUSTRIES G3682-IBS- 50 36"X36", ACRYLIC, ONE PIECE, RIGHT OR LEFT HAND. PROVIDE SHOWER WITH GRAB BARS, FOLDABLE SEAT AND SHOWER VALVE PACKAGE. LEONARD AQUATROL 4505 PRESSURE ACTIVATED SHOWER VALVE WITH D-2L INLINE DIVERTER WITH LEVER HANDLE, H-05 SHOWER HEAD, 501(P)G HAND HELD SHOWER HEAD WITH 60" HOSE, 24" GLIDE RAIL AND INLINE VACUUM BREAKER. WASTE DRAIN SHALL BE GRID STRAINER SHOWER DRAINE, PLATED BRASS. PROVIDE SHOWER COMPLETE WITH P-TRAP.	1/2"	1/2"	N/A	ANGLE CHECK STOPS	2"	ADA COMPLIANT
SH2	SHOWER - SPA	HANDICAP SHOWER SHALL BE TILED BY OTHERS. LEONARD AQUATROL 4505 PRESSURE ACTUATED SHOWER VALVE WITH D-2L INLINE DIVERTER WITH LEVER HANDLE, H-05 SHOWER HEAD, 501(P)G HAND HELD SHOWERHEAD WITH 60" HOSE, 24" GLIDE RAIL AND INLINE VACUUM BREAKER. WASTE DRAIN SHALL BE GRID STRAINER SHOWER DRAIN, PLATED BRASS. PROVIDE SHOWER COMPLETE WITH P-TRAP.	1/2"	1/2"	N/A	ANGLE CHECK STOPS	2"	ADA COMPLIANT
TT	THERAPY TUB - SPA	WALK-IN TUB SHALL BE EQUAL TO CELEBRITY MODEL FIBERGLASS WALK-IN TUB COMPLETE WITH LEONARD AQUATROL 4507 PRESSURE ACTUATED SHOWER VALVE WITH D DIVERTER TUB SPOUT, 501(P)G HAND HELD SHOWER HEAD WITH 60" HOSE, 24" GLIDE RAIL AND INLINE VACUUM BREAKER, AND P-TRAP.	1/2"	1/2"	N/A	BALL VALVE	2"	ADA COMPLIANT
US	UTILITY SINK	SERVICE SINK SHALL BE EQUAL TO ZURN MODEL #Z5420, VITREOUS CHINA, FLOOR MOUNTED. PROVIDE FLUSH VALVE, BEDPAN WASHER, AND SERVICE SINK FAUCET EQUAL TO ZURN #Z60843AV-BWJN.	1/2"	N/A	1/2"	ANGLE VALVE	2"	
WC	WATER CLOSET, TANK TYPE	WATER CLOSET SHALL BE EQUAL TO SEASONS MODEL #SE10008/SE10012, WHITE, VITREOUS CHINA, ELONGATED BOWL, TANK TYPE, 1.6GPF, FLOOR MOUNTED, BOTTOM OUTLET. SEAT SHALL BE EQUAL TO SEASONS MODEL #SE10052, ELONGATED WHITE OPEN FRONT SEAT LESS COVER. WATER CLOSET SHALL BE APPROVED WITH CHROME PLATED SUPPLY WITH LOOSE KEY STOP EQUAL TO MCGUIRE #172.	1/2"	N/A	N/A	ANGLE VALVE	3"	ADA COMPLIANT
WF	BI-LEVEL WATER FOUNTAIN	ELECTRIC WATER FOUNTAIN SHALL BE EQUAL TO ELKAY MODEL #EZSTL8C, BI-LEVEL, STAINLESS STEEL, 370 WATTS, 4.0 AMPS, 120/1/60. PROVIDE WATER FOUNTAIN COMPLETE WITH ANGLE SUPPLY LOOSE KEY STOP (EQUAL TO MCGUIRE #175LK.) P-TRAP (EQUAL TO MCGUIRE #8902.) AND CARRIER.	1/2"	N/A	N/A	ANGLE VALVE	3"	ADA COMPLIANT

PLUMBING SPECIALTIES SCHEDULE

MARK	DESCRIPTION	MAKE/MODEL	WATER CONNECTION				WASTE ROUGH-IN	REMARKS
			CW	HW (116)	HW (140)	SUPPLY STOP		
CO	CLEANOUT	SEE DETAIL 6 ON SHEET P201	N/A	N/A	N/A	N/A	SIZE AS INDICATED	
FD	FLOOR DRAIN	SEE DETAIL 2 ON SHEET P201	1/2"	N/A	N/A	BALL VALVE	3"	PROVIDE TRAP PRIMER
FS	FLOOR SINK	SEE DETAIL 2 ON SHEET P201	---	---	---	N/A	3"	
GI	GREASE INTERCEPTOR	SEE DETAIL 7 ON SHEET P201	N/A	N/A	N/A	N/A	4"	
HB	HOSE BIB	WOODFORD MODEL 24 OR EQUAL	3/4"	N/A	N/A	BALL VALVE	N/A	PROVIDE VACUUM BREAKER
LT	LINT TRAP	SEE DETAIL 3 ON SHEET P201	N/A	N/A	N/A	N/A	4"	
WCO	WALL CLEANOUT	SEE DETAIL 6 ON SHEET P201	N/A	N/A	N/A	N/A	SIZE AS INDICATED	SEE SECTION 22 1006 OF SPECIFICATIONS & DETAIL ON PLANS
WH1	6 UNIT ON-DEMAND GAS WATER HEATER FLOOR MOUNTED, PRE-ASSEMBLED, SYSTEM	RINNAI TRS06CUiN	2 1/2"	2 1/2"	N/A	BALL VALVE	INDIRET TO FLOOR DRAIN	SHALL PROVIDE 30.2 GPM AT 76 DEGREE RISE, 1,194 MBH NATURAL GAS INPUT, PROVIDE GRUNFOS UPS 26150 CIRCULATING PUMP, PROVIDE CONCENTRIC VENT KIT & VENT THROUGH ROOF. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
WH2	2 UNIT ON-DEMAND GAS WATER HEATER WALL MOUNTED, PRE-ASSEMBLED SYSTEM	RINNAI TRW02CUiN	2"	N/A	2"	BALL VALVE	INDIRET TO FLOOR DRAIN	SHALL PROVIDE 7.3 GPM AT 90 DEGREE RISE, 398 MBH NATURAL GAS INPUT, PROVIDE GRUNFOS UPS 26150 CIRCULATING PUMP, PROVIDE CONCENTRIC VENT KIT & VENT THROUGH ROOF. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
WH3	2 UNIT ON-DEMAND GAS WATER HEATER WALL MOUNTED, PRE-ASSEMBLED SYSTEM	RINNAI TRW02CUiN	2"	N/A	2"	BALL VALVE	INDIRET TO FLOOR DRAIN	SHALL PROVIDE 8.8 GPM AT 90 DEGREE RISE, 398 MBH NATURAL GAS INPUT, PROVIDE GRUNFOS UPS 26150 CIRCULATING PUMP, PROVIDE CONCENTRIC VENT KIT & VENT THROUGH ROOF. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

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PROJECT NAME:

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40 RAWLS CLUB RD
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PROJECT CLIENT:

CAROLINA COMMERCIAL CONTRACTORS

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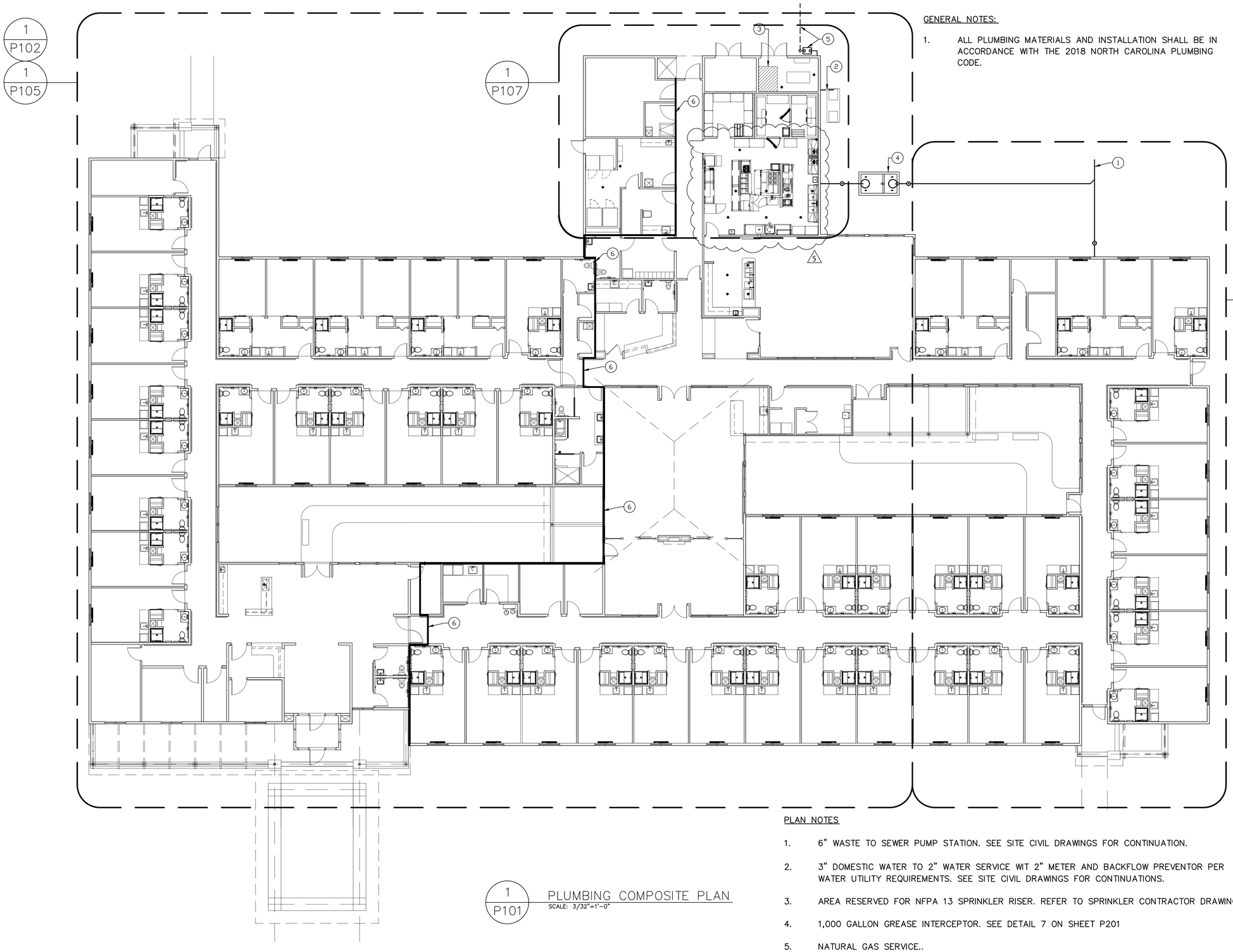
PROJECT TEAM:
Gabriela Salazar
Pamela Friday
Yuan Ping Lien

REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

P002

PLUMBING SCHEDULES



GENERAL NOTES:

1. ALL PLUMBING MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2018 NORTH CAROLINA PLUMBING CODE.

1 P101 PLUMBING COMPOSITE PLAN
SCALE: 3/32"=1'-0"

PLAN NOTES

1. 6" WASTE TO SEWER PUMP STATION. SEE SITE CIVIL DRAWINGS FOR CONTINUATION.
2. 3" DOMESTIC WATER TO 2" WATER SERVICE WIT 2" METER AND BACKFLOW PREVENTOR PER WATER UTILITY REQUIREMENTS. SEE SITE CIVIL DRAWINGS FOR CONTINUATIONS.
3. AREA RESERVED FOR NFPA 13 SPRINKLER RISER. REFER TO SPRINKLER CONTRACTOR DRAWINGS.
4. 1,000 GALLON GREASE INTERCEPTOR. SEE DETAIL 7 ON SHEET P201
5. NATURAL GAS SERVICE..
6. 1-HOUR FIRE WALL TO ROOF DECK.

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△#	DATE	
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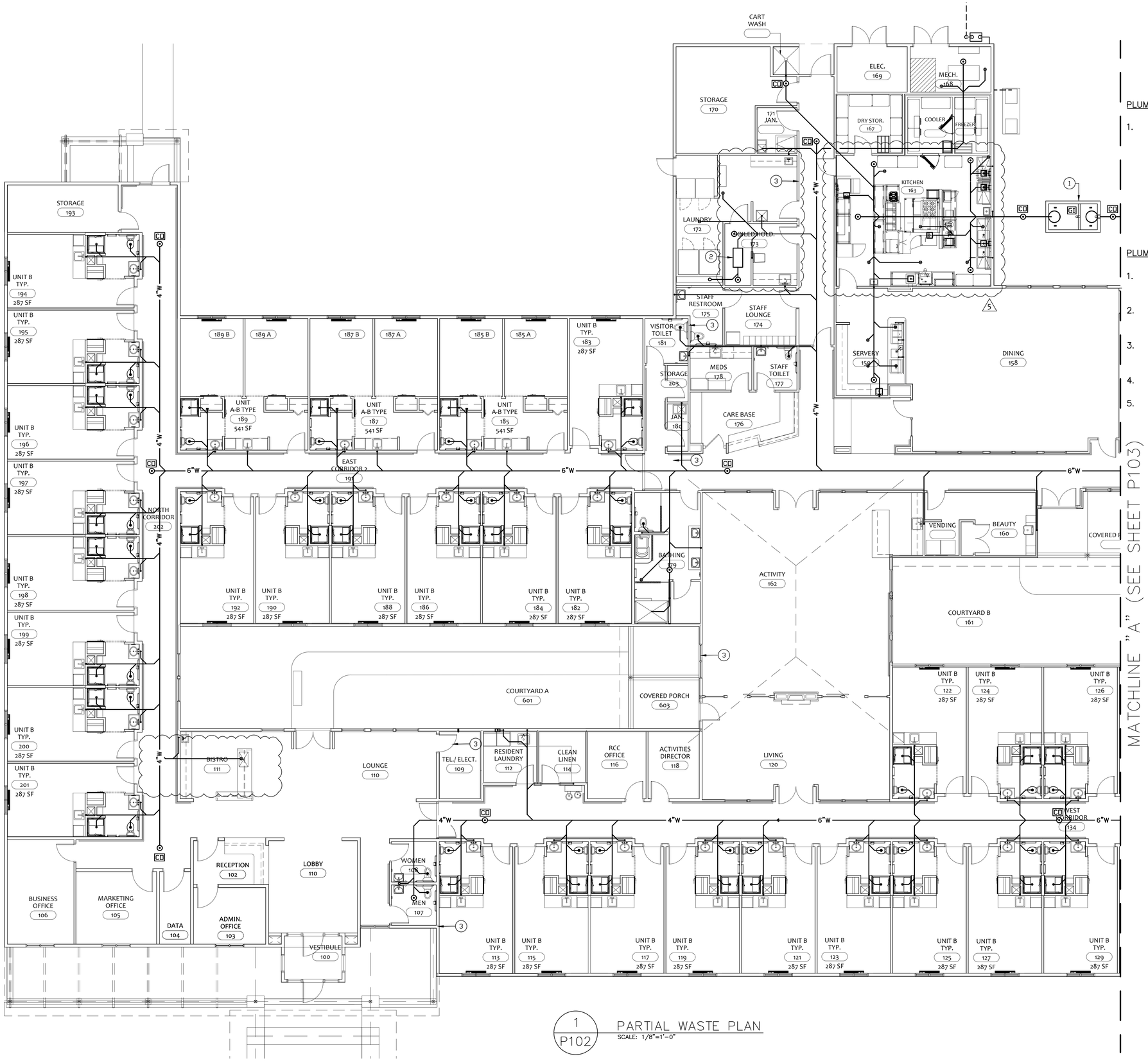
2	3/13/2023	REVISION 2
5	5/31/2023	REVISION 5

P101
PLUMBING COMPOSITE PLAN



1 P102 PARTIAL WASTE PLAN
SCALE: 1/8"=1'-0"

PLUMBING GENERAL NOTES:

1. MAINTAIN ¼" PER FOOT MINIMUM GRADE ON ALL WASTE LINES.

PLUMBING PLAN NOTES

1. 1,000 GALLON GREASE INTERCEPTOR. SEE DETAIL 7 ON SHEET P201.
2. LINT TRAP, SEE DETAIL 3 ON SHEET P201.
3. 1-HOUR FIRE/SMOKE BARRIER TO ROOF DECK.
4. 1-HOUR FIRE BARRIER TO CEILING.
5. SEE CIVIL PLANS FOR COURTYARD STORM WATER DRAINAGE.

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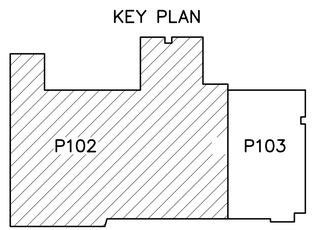
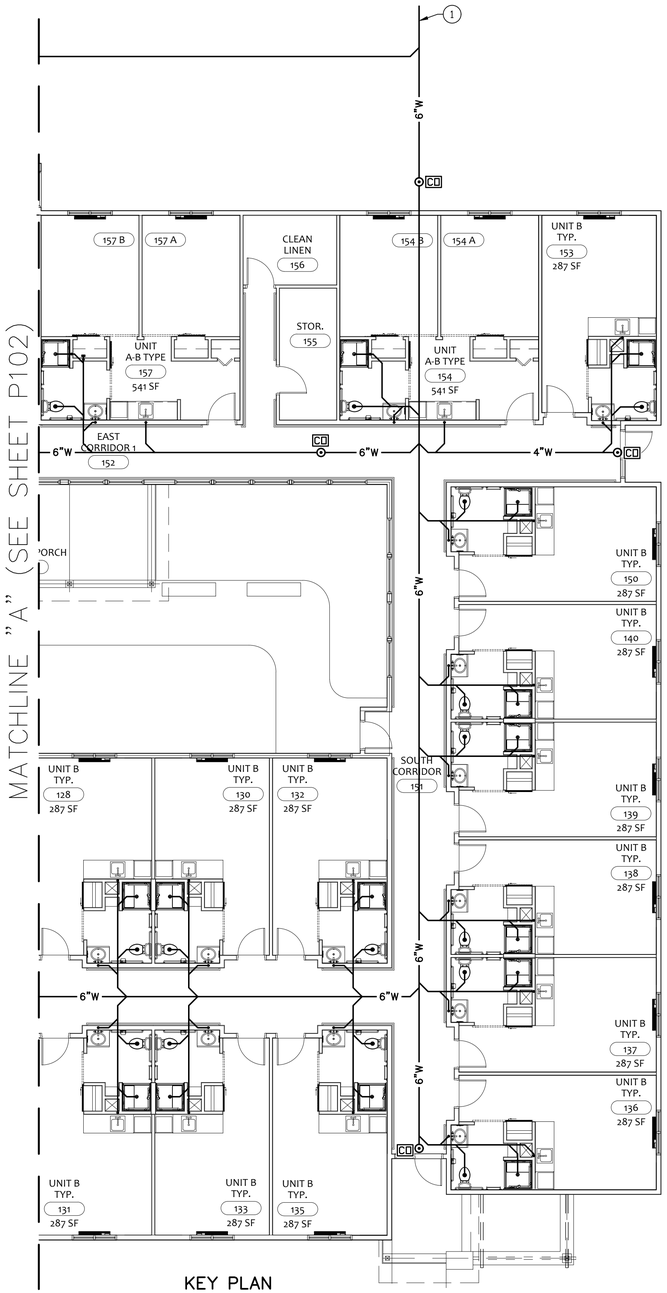
2	3/13/2023	REVISION 2
3	3/22/2023	REVISION 3
5	5/31/2023	REVISION 5

KEY PLAN

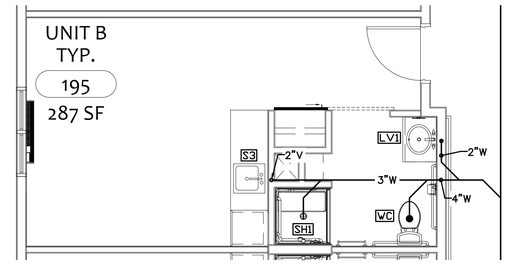


P102

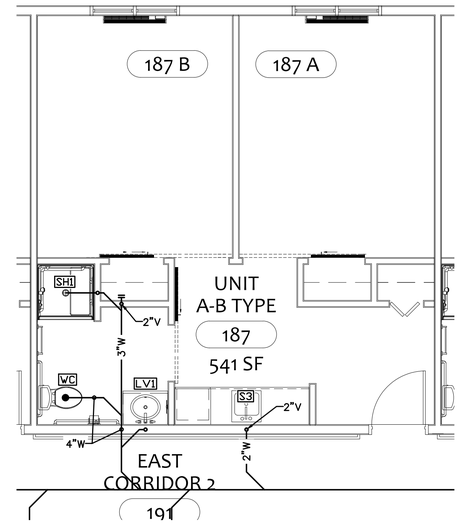
PARTIAL WASTE PLAN



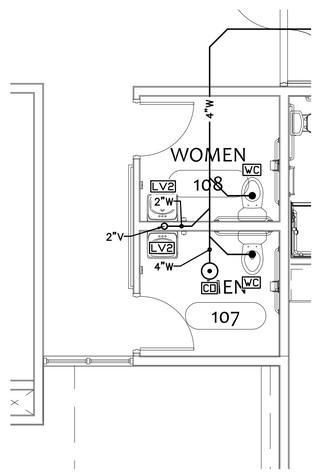
1 P103 PARTIAL WASTE PLAN
SCALE: 1/8"=1'-0"



2 P103 TYPICAL UNIT B WASTE ENLARGEMENT
SCALE: 1/4"=1'-0"



3 P103 TYPICAL UNIT A-B WASTE ENLARGEMENT
SCALE: 1/4"=1'-0"



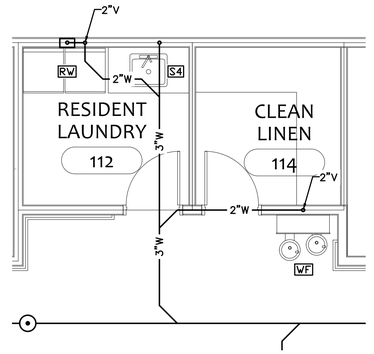
4 P103 LOBBY RESTROOM WASTE ENLARGEMENT
SCALE: 1/4"=1'-0"

PLUMBING GENERAL NOTES:

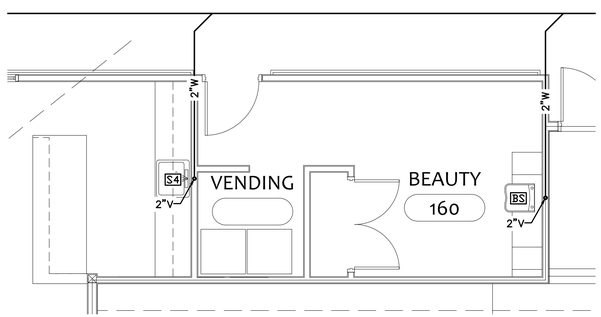
1. MAINTAIN ¼" PER FOOT MINIMUM GRADE ON ALL WASTE LINES.

PLUMBING PLAN NOTES

1. 6" WASTE TO SEWER PUMP STATION. SEE SITE CIVIL DRAWINGS FOR CONTINUATION.



5 P103 RESIDENT LAUNDRY WASTE ENLARGEMENT
SCALE: 1/4"=1'-0"



6 P103 BEAUTY WASTE ENLARGEMENT
SCALE: 1/4"=1'-0"

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PROJECT NAME:

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40 RAWLS CLUB RD
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Pamela Friday
Yuan Ping Lien

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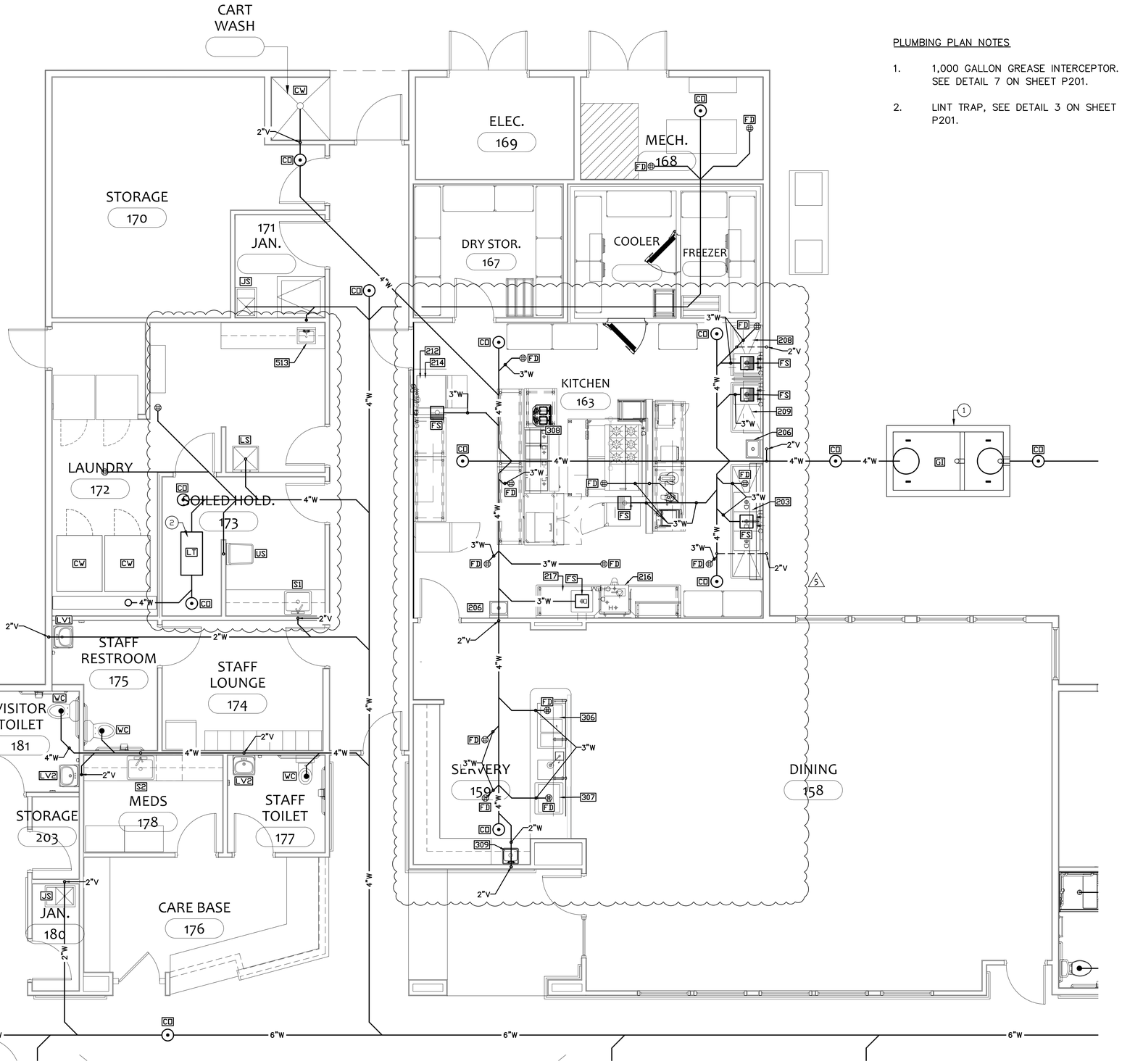
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

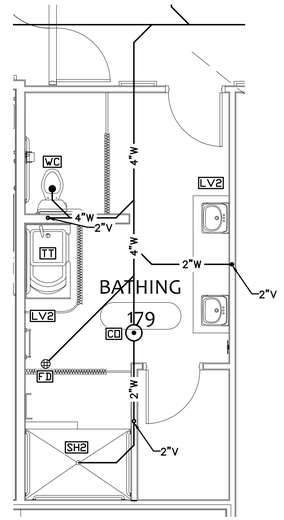
P103
PARTIAL WASTE PLAN & ENLARGEMENTS



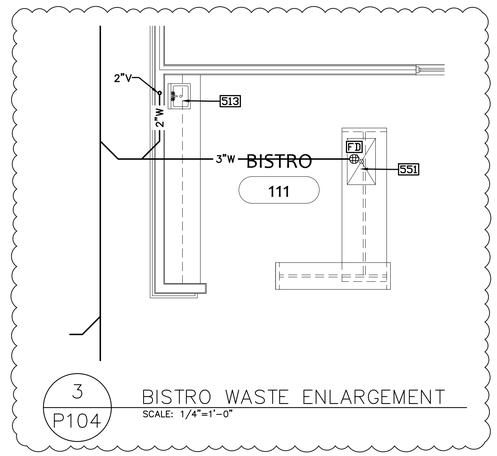
1 P104 SERVICE AREA WASTE ENLARGEMENT
SCALE: 1/4"=1'-0"

PLUMBING PLAN NOTES

1. 1,000 GALLON GREASE INTERCEPTOR. SEE DETAIL 7 ON SHEET P201.
2. LINT TRAP, SEE DETAIL 3 ON SHEET P201.



2 P104 BATHING WASTE ENLARGEMENT
SCALE: 1/4"=1'-0"



3 P104 BISTRO WASTE ENLARGEMENT
SCALE: 1/4"=1'-0"

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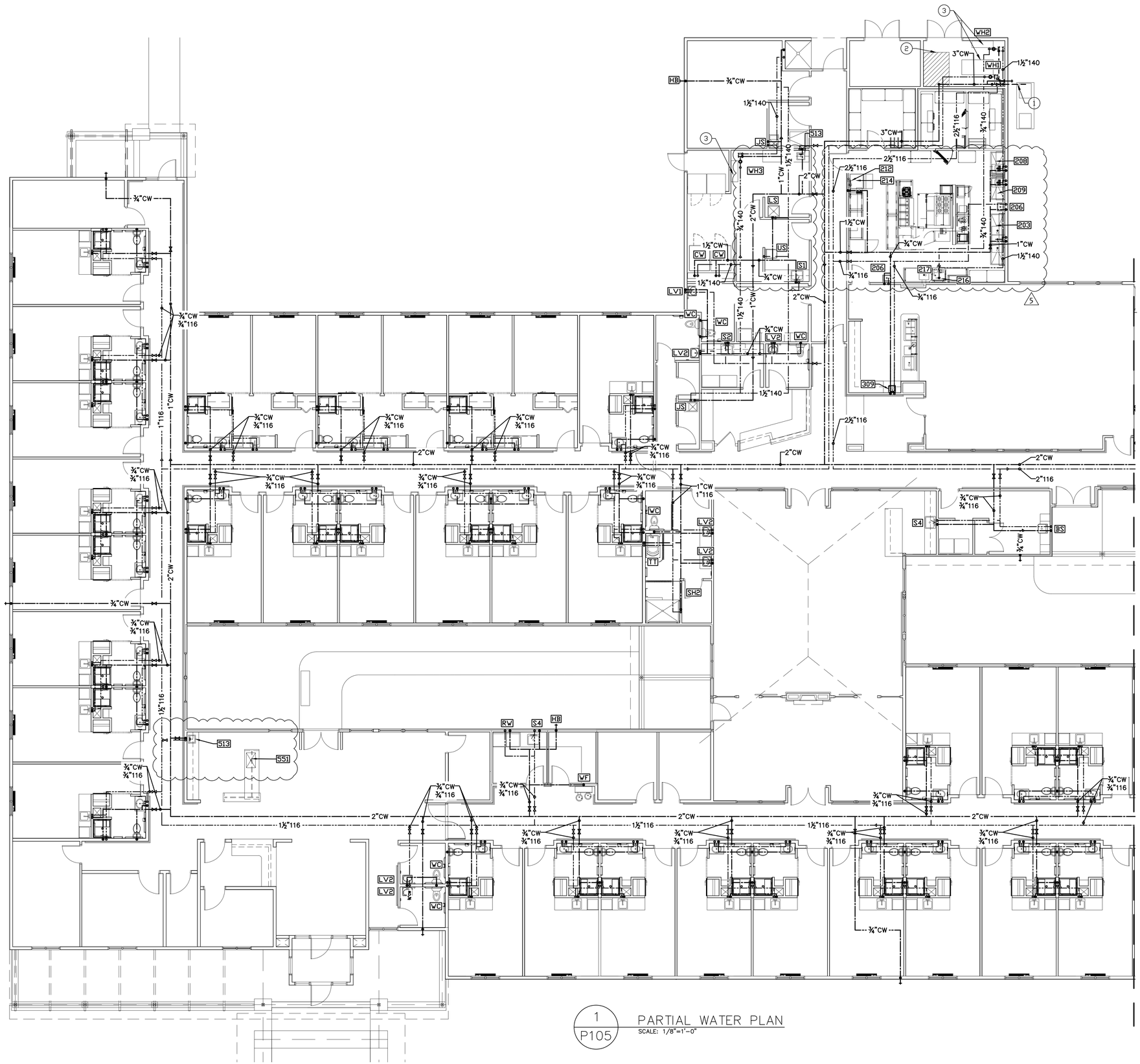
P104
WASTE ENLARGEMENTS



1 P105 PARTIAL WATER PLAN
SCALE: 1/8"=1'-0"

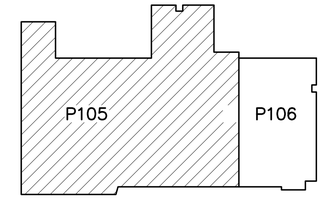
PLUMBING GENERAL NOTES:

PROVIDE BALL VALVE AT BRANCH TAKEOFF.

PLUMBING PLAN NOTES

1. 3" DOMESTIC WATER TO 2" WATER SERVICE WITH 2" METER & 2" BACKFLOW PREVENTER PER WATER UTILITY PROVIDER REQUIREMENTS SEE SITE UTILITY PLANS PROVIDED BY CIVIL ENGINEER FOR CONTINUATION.
2. AREA SET ASIDE FOR SPRINKLER RISER. VERIFY WITH SPRINKLER DRAWINGS PROVIDED BY SPRINKLER CONTRACTOR AND SITE CIVIL UTILITY DRAWINGS.
3. PROVIDE VENTING & COMBUSTION AIR INTAKES FOR WATER HEATERS TO OUTSIDE PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR MAY MANIFOLD UTILIZE MANIFOLDS AND/OR CONCENTRIC KITS AS THEY CHOOSE IN COMPLIANCE WITH INSTALLATION INSTRUCTIONS AND CODE.

KEY PLAN



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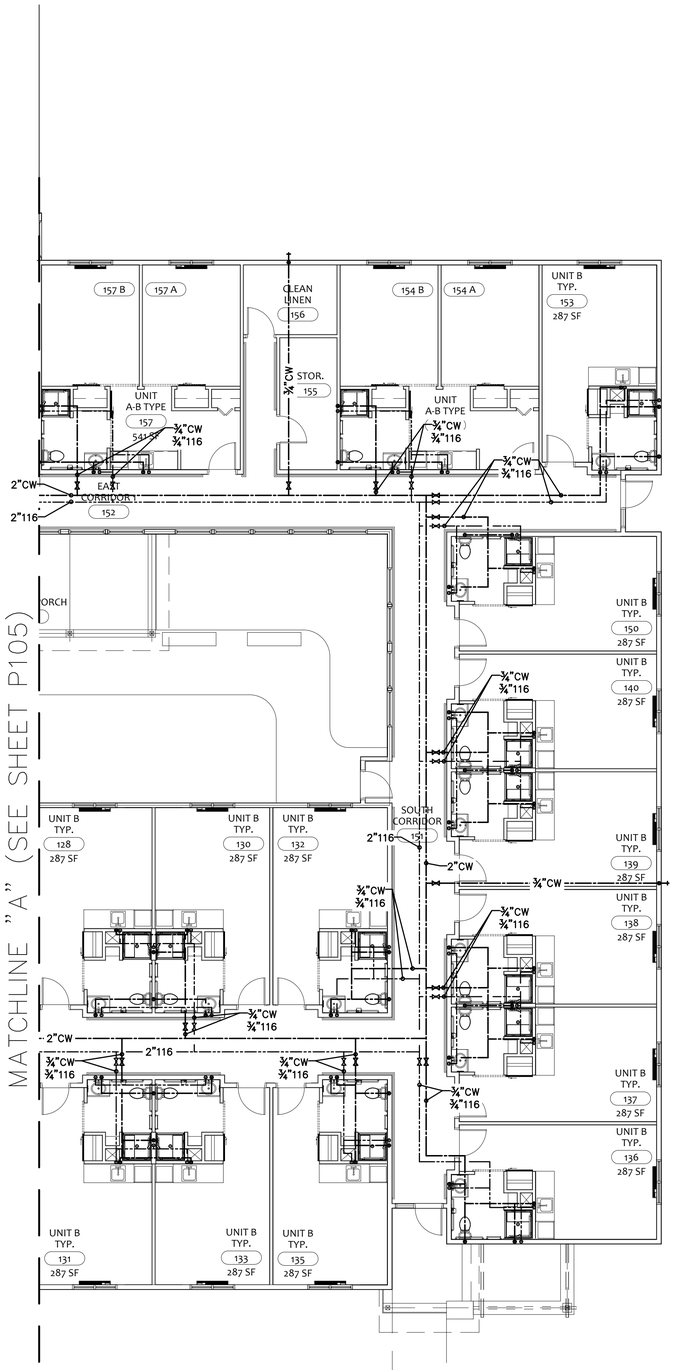
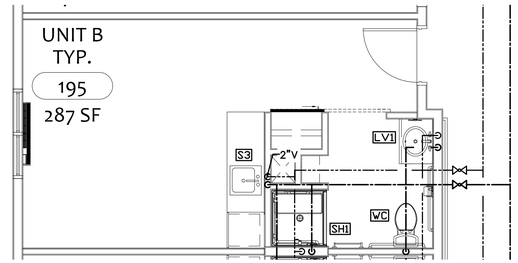
P105

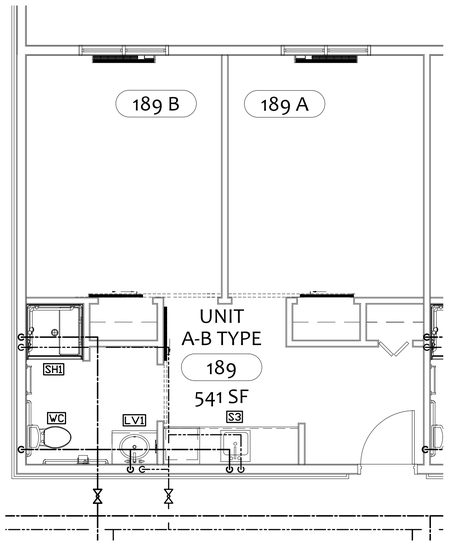
PARTIAL WATER PLAN



1 P106 PARTIAL WATER PLAN
SCALE: 1/8"=1'-0"



2 P106 TYPICAL UNIT B WATER ENLARGEMENT
SCALE: 1/4"=1'-0"

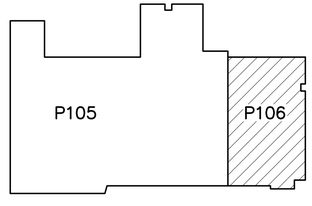


3 P106 TYPICAL UNIT A-B WATER ENLARGEMENT
SCALE: 1/4"=1'-0"

PLUMBING GENERAL NOTES:

1. PROVIDE BALL VALVE AT EACH WATER BRANCH TAKEOFF AS SHOWN ON PLANS.

KEY PLAN



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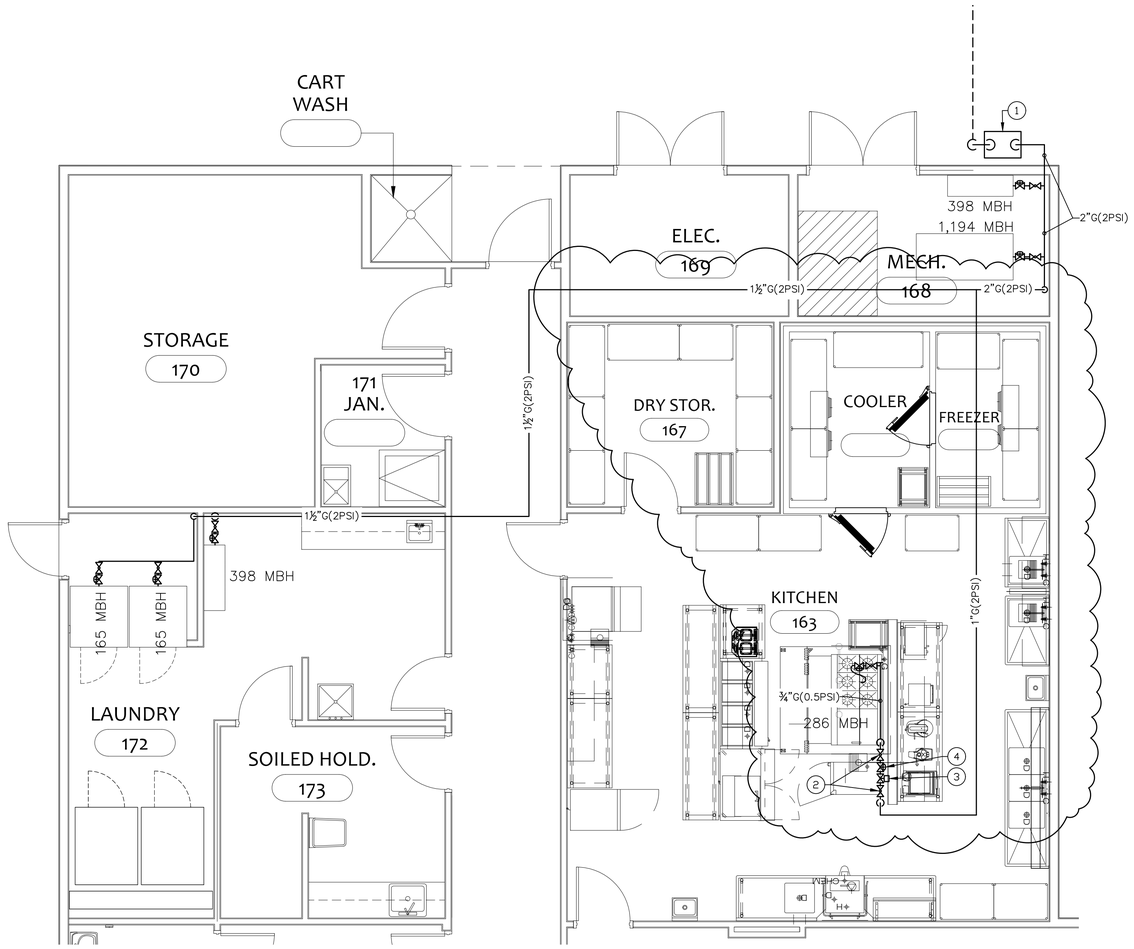
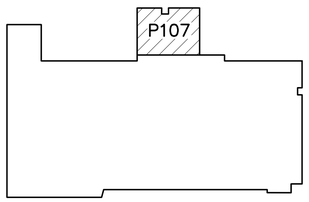
P106
PARTIAL WATER PLAN & ENLARGEMENTS



KEY PLAN



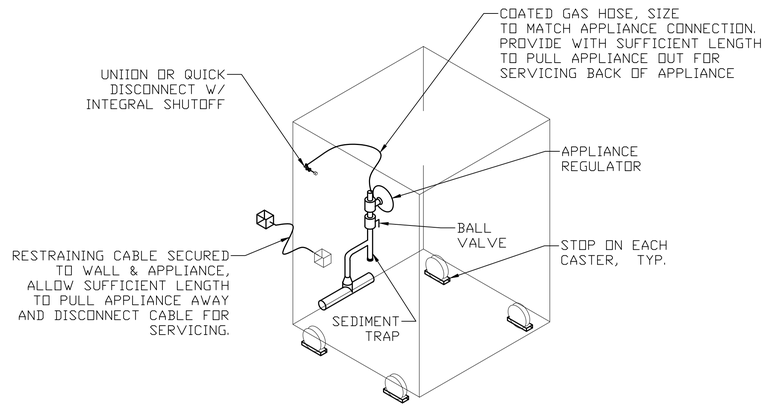
1 / P107 NATURAL GAS PLAN
SCALE: 1/4"=1'-0"

GENERAL NOTES:

1. NATURAL GAS SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE 2018 NORTH CAROLINA FUEL GAS CODE.
2. GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN NFPA 54 AND AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
3. GAS PIPING SHALL BE SCHEDULE 40 STEEL PIPE IN ACCORDANCE WITH NC FUEL GAS CODE.
4. PAINT ALL GAS PIPING WITH TWO COATS OF YELLOW ENAMEL AND STENCIL "GAS" OR "GAS 2 PSI" ON THE PIPE AT 60" ON CENTER.
5. GAS VALVES SHALL BE MIN. 125 PSI RATED, NON-LUBRICATION PLUG TYPE WITH BRONZE BODY AND BRONZE PLUG.
6. PROVIDE NON-CONDUCTING, DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.
7. PROVIDE GAS COCKS, SEDIMENT TRAPS, AND GAS REGULATORS AT EACH PIECE OF EQUIPMENT. REGULATORS SHALL BE AS SUITABLE FOR THE PARTICULAR PIECE OF EQUIPMENT.

PLAN NOTES

1. NEW NATURAL GAS SERVICE. PROVIDE METER, REGULATOR, VALVES, AND ALL REQUIRED APPURTENANCES AS REQUIRED BY GAS COMPANY AND NC FUEL GAS CODE. SERVICE SHALL DELIVER 2,606 CF/HR MINIMUM AT 2 PSI.
2. MANUAL GAS SHUTOFF VALVE.
3. AUTOMATIC, ELECTRIC GAS SHUTOFF VALVE WIRED TO KITCHEN HOOD FIRE PROTECTION SYSTEM.
4. 2 PSI TO 0.5 PSI REGULATOR.



2 / P107 GAS APPLIANCE CONNECTION DETAIL
SCALE: NONE

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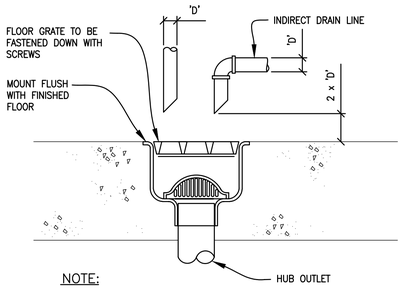
5	5/31/2023	REVISION 5

P107

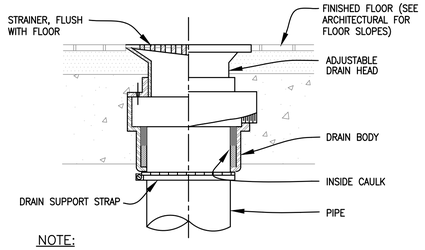
NATURAL GAS PLAN



NOTE:

A. FLOOR SINK COVER TO BE FLUSH WITH TILE OR FLUSH WITH CONCRETE FLOOR IN AREA WITH NO TILE

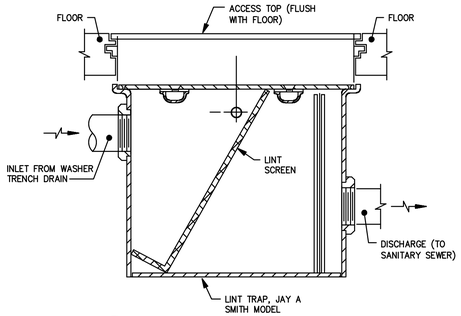
1 / P201 FLOOR SINK DETAIL
SCALE: NONE



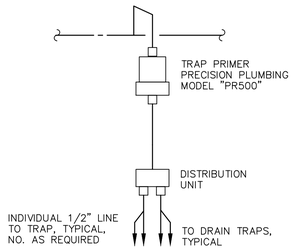
NOTE:

A. FLOOR DRAIN COVER TO BE FLUSH WITH TILE OR FLUSH WITH CONCRETE FLOOR IN AREA WITH NO TILE.

2 / P201 TYPICAL FLOOR DRAIN DETAIL
SCALE: NONE



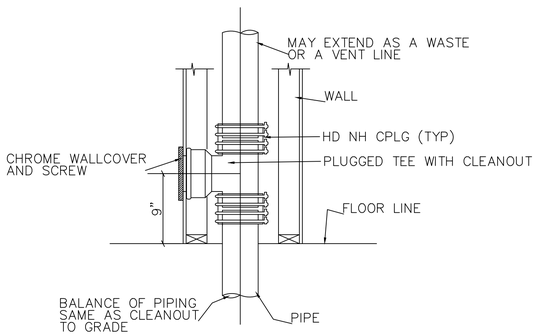
3 / P201 LINT TRAP DETAIL
SCALE: NONE



TP-1

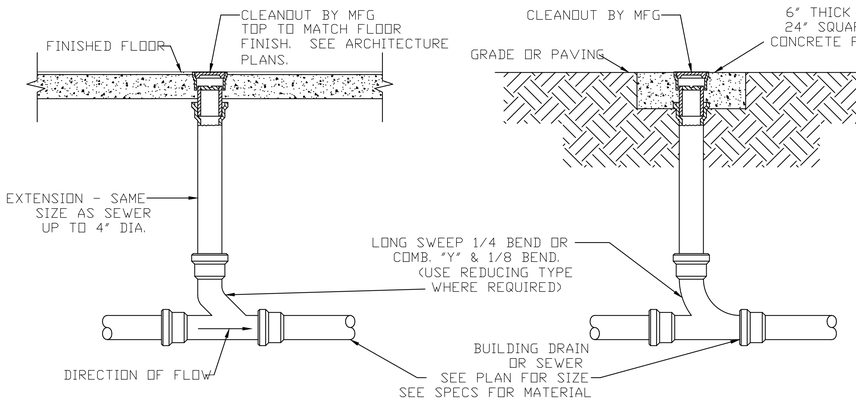
NOTE : TRAP PRIMER ARRANGEMENT FOR REMOTE DRAINS WITHOUT SINK CW STOP.

4 / P201 TRAP PRIMER DETAIL
SCALE: NONE

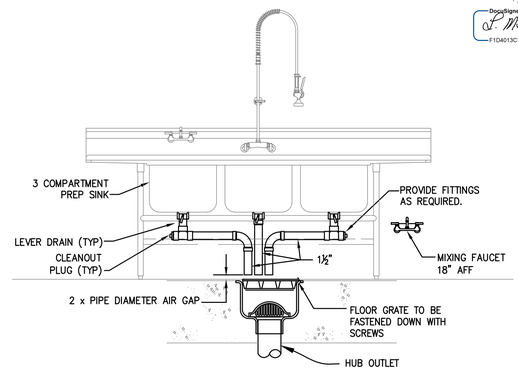


NOTE: CLEANOUT TO BE FLUSH WITH FINISHED WALL.

5 / P201 WALL CLEANOUT DETAIL (WCO)
SCALE: NONE



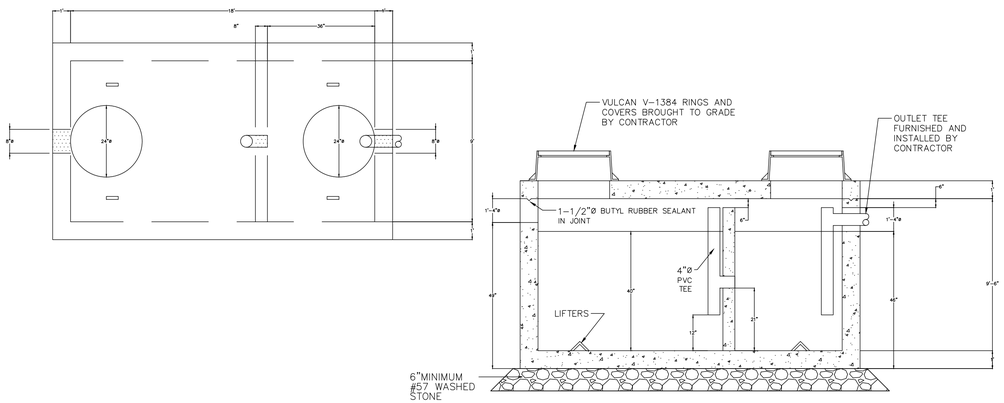
6 / P201 CLEANOUT DETAIL (CO)
SCALE: NONE



NOTE:

1. FLOOR SINK COVER TO BE FLUSH WITH TILE OR FLUSH WITH CONCRETE FLOOR IN AREA WITH NO TILE

8 / P201 PREP SINK DETAIL
SCALE: NONE



7 / P201 1,000 GALLON GREASE INTERCEPTOR DETAIL
SCALE: NONE

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P201

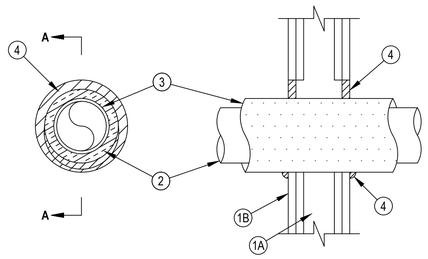
PLUMBING DETAILS

WL 5028

System No. W-L-5028

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 0, 3/4 and 1 Hr (See Item 3)	FT Ratings — 0, ¾ and 1 Hr (See Item 3)
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Ratings — 0, 3/4 and 1 Hr (See Item 3)
	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 7-1/2 in. (191 mm).
   The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrants — One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
   A. Steel Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Copper Tubing — Nom 2 in. (51 mm) diam (or smaller) Type L (or heavier) copper tubing.
   C. Copper Pipe — Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. Tube Insulation — Plastics+ — Min 1/2 in. (13 mm) to max 1 in. (25 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. An annular space of min 0 in. (point contact) to max 1-1/2 in. (38 mm) is required within the firestop system. The T, FT and FTH Ratings are 1 hr when the 1 in. (25 mm) thick tube insulation is used and 3/4 hr when the 3/4 in. (19 mm) thick tube insulation is used. When tube insulation thickness is less than 3/4 in. (19 mm), the T, FT and FTH Ratings are 0 Hr.
   See Plastics+ (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.
4. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and gypsum board, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

1 / P202 — 1–2 HOUR RATED FIRE WALL PENETRATION DETAIL

SCALE: NONE

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20 JANUARY, 2023

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ELEVEN 18 ARCHITECTURE
A WOMEN'S BUSINESS ENTERPRISE
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PROJECT NAME:

THE SPRINGS OF BALLENTINE

40 RAWLS CLUB RD
FUQUAY-VARINA NC.

PROJECT CLIENT:

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REVISIONS		
#	DATE	DESC.
--	--	PERMIT SUBMITTAL
	DATE	
1	1/20/2023	REVISION 1
2	3/13/2023	REVISION 2

P202
PLUMBING DETAILS CONT.