

### LEGEND NOTES

NOTES:  
SYMBOLS SHOWN ARE STANDARD. VARIATION AND/OR COMBINATIONS MAY BE USED ON THE PLANS. THIS LIST SHOWS STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE PROJECT DRAWINGS. HOWEVER, WHEREVER THE SYMBOL ON THE PROJECT DRAWINGS OCCUR, THE ITEM SHALL BE PROVIDED AND INSTALLED.

VARIATION AND/OR COMBINATION MAY BE USED ON THE PLANS SUCH AS: A LOWER CASE LETTER NEXT TO A SWITCH INDICATES THE SWITCH DESIGNATION. A NUMBER NEXT TO A DEVICE INDICATES A CIRCUIT NUMBER.

A LOWER CASE LETTER NEXT TO A SWITCH AND LIGHT FIXTURE INDICATES A SWITCH DESIGNATION.

AN UPPER CASE LETTER NEXT TO A SWITCH INDICATES THE FUNCTION OF THE SWITCH. REFER TO THE LIST BELOW. A COMBINATION OF DESIGNATIONS MAY BE USED.

AN UPPER CASE LETTER NEXT TO A LIGHT FIXTURE INDICATES THE TYPE OF FIXTURE. REFER TO THE LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS.

DRAWING FLAG NOTES:  
ROOM ROOM DESIGNATION

### SWITCH LEGEND

§ SINGLE POLE SWITCH  
§2 TWO POLE SWITCH  
§3 THREE-WAY SWITCH  
§4 FOUR-WAY SWITCH  
§0 DIMMER SWITCH  
§10 3 WAY DIMMER SWITCH - (4D INDICATES 4-WAY DIMMER)  
§11 MANUAL ON / AUTO OFF VACANCY SENSOR SWITCH  
§12 MANUAL ON / AUTO OFF DIMMING VACANCY SENSOR SWITCH  
§13 AUTO ON / AUTO OFF OCCUPANCY SENSOR SWITCH  
§14 CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH  
§15 SCENE CONTROL STATION  
§16 UNIT LIGHTING MANAGEMENT CONTROL STATION  
§17 KEY OPERATED LIGHT SWITCH  
§18 MANUAL ON / TIME/AUTO OFF LIGHT SWITCH  
§19 PILOT LIGHT SWITCH  
§20 MANUAL MOTOR STARTER  
§21 DOOR ACTIVATED SWITCH  
§22 CEILING FAN SWITCH

### LIGHT FIXTURE LEGEND

A 1x4 LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED  
A 2x4 LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED  
A 2x2 LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED  
A1 OPEN STRIP LED FIXTURE  
A2 LED WALL BRACKET FIXTURE  
A3 WALL BRACKET LIGHT FIXTURE  
A4 RECESSED DOWNLIGHT CAN FIXTURE  
A5 SURFACE CEILING OR PENDANT MOUNTED FIXTURE  
EX1 DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED  
EX2 SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED  
EM WALL MOUNTED EMERGENCY LIGHT  
EMR EMERGENCY EXTERIOR EGRESS FIXTURE

### ELECTRICAL EQUIPMENT LEGEND

BRANCH CIRCUIT PANELBOARD  
TELEPHONE TERMINAL BOARD  
ELECTRIC MOTOR  
FUSED SAFETY SWITCH / DISCONNECT COMBINATION  
MOTOR STARTER  
CONTACTOR  
CIRCUITRY HOMERUN: PANEL LA - CIR. #7  
CONDUIT OR WIRE CONCEALED IN WALL, C.L.G. (SOLID LINE TYPE)  
CONDUIT OR WIRE UNDER FLOOR/UNDERGROUND, (DASHED LINE TYPE)

### ELECTRICAL DEVICE LEGEND

CEILING JUNCTION BOX - SURFACE/FLUSH  
WALL JUNCTION BOX - SURFACE/FLUSH  
DUPEX RECEPTACLE  
FLOOR MOUNTED RECEPTACLE  
SPLIT WIRED DUPEX RECEPTACLE  
CEILING MOUNTED DUPEX RECEPTACLE  
FOURPLEX RECEPTACLE  
FLOOR MOUNTED FOURPLEX RECEPTACLE  
APPLIANCE RECEPTACLE - 3 WIRE  
RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER  
RECEPTACLE WITH USB CHARGING CAPABILITIES  
RECEPTACLE MOUNTED ABOVE COUNTER  
APPLIANCE RECEPTACLE - 3 WIRE  
RECEPTACLE - WITH GFCI AND WEATHER PROOF COVER  
RECEPTACLE - WITH GFCI AND MOUNTED AT 44" A.F.F.  
ELECTRIC HAND DRYER  
THERMOSTAT  
OPEN / CLOSE / STOP PUSH BUTTON

### MAIN DISTRIBUTION GEAR LEGEND

PAD MOUNTED UTILITY TRANSFORMER  
ELECTRICAL METER SHOWN IN ONE LINE  
FUSED DISCONNECT 100A - AMP RATING 2P - NUMBER OF POLES CLASS T = FUSE CLASS  
CIRCUIT BREAKER  
ELECTRICAL POWER PANEL WITH MAIN LUG OR MAIN BREAKER  
PP1 PANEL NAME  
225A MLO = MAIN LUG OR BREAKER SIZE  
120/208V = PANEL VOLTAGE  
3PH - 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE  
PP1 225A MLO 120/208V 3PH, 4W  
PP1 225A MCB 120/208V 3PH, 4W

- #### GENERAL ELECTRICAL NOTES:
- ALL ELECTRICAL WORK TO COMPLY WITH LATEST EDITION OF NEC, IECC AND ALL APPLICABLE GOVERNING CODES.
  - FIELD COORDINATION DURING CONSTRUCTION IS IMPERATIVE. CONTRACTORS BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES.
  - ELECTRIC UTILITY TO ADVISE OWNER AND/OR THE ELECTRICAL ENGINEER PRIOR TO SERVICE MODIFICATION REQUIRING COST TO THE OWNER.
- #### WIRING:
- ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWING, FIELD VERIFY ALL CONDITIONS PRIOR TO KICK-OUT.
  - ALL CONDUITS AND CONDUYANCES SHALL BE CONCEALED. IN THE EVENT THAT A NEW DEVICE IS BEING INSTALLED IN AN EXISTING DRYWALL PARTITION, PROVIDE A CUT IN TYPE BOX AND FISH FLEXIBLE CONDUIT DOWN INSIDE THE WALL FROM ABOVE THE CEILING AND REPAIR THE DRYWALL AROUND THE CONDUIT. TRANSITION TO EMT ONCE ABOVE THE CEILING.
  - SIZES OF WIRE AND CABLES ARE BASED UPON COPPER CONDUCTORS, UNLESS OTHERWISE INDICATED. ALL CIRCUITS SHALL CONTAIN (2) #12 AWG WITH (1) #12 GND IN 1/2" CONDUIT UNLESS NOTED OTHERWISE.
  - ALL BRANCH CIRCUITS WITH HOME RUNS OVER 50 FEET, WILL BE SIZED ONE SIZE LARGER.
  - ALL PENETRATIONS IN OR THROUGH FIRE RATED PARTITIONS SHALL BE FIRE STOPPED IN SUCH A MANNER THAT THE PENETRATION MATCHES THE FIRE RATING OF THE WALL.
  - THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN THE APPROPRIATE DISCIPLINES AND CONTRACTORS.
  - COORDINATE ALL DEVICES, FIXTURE AND HARDWARE COLOR SELECTIONS WITH THE ARCHITECT PRIOR TO MAKING SHOP DRAWING SUBMITTALS.
  - COORDINATE THE MOUNTING HEIGHTS OF ALL RECEPTACLES MOUNTED ABOVE COUNTERS, CASEWORK AND APPLIANCE RECEPTACLES WITH ARCHITECTURAL ELEVATIONS.
  - BRANCH CIRCUIT AND SPECIAL SYSTEMS WIRING FOR DEVICES ON WALLS IN FINISHED AREAS WHICH CANNOT BE CONCEALED SHALL BE INSTALLED IN SURFACE MOUNTED RACEWAY.
  - ALL EXPOSED CONDUITS, BOXES, ETC. IN ROOMS TO BE PAINTED SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE. EXPOSED CONDUITS, BOXES, ETC. IN ROOMS WHICH ARE NOT PAINTED MAY BE LEFT UNPAINTED. EXPOSED CONDUIT, BOXES, ETC. ON THE EXTERIOR OF BUILDINGS SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE AS CLOSELY AS POSSIBLE.
  - THE CONTRACTOR IS RESPONSIBLE FOR PATCHING, PAINTING, REPAIRING OR REPLACEMENT OF ALL WALLS, CEILING OR OTHER BUILDING ELEMENTS WHICH ARE DISTURBED AS PART OF THE DEMOLITION AND/OR INSTALLATION OF ELECTRICAL WORK.
  - PROVIDE ELECTRICAL CONNECTION TO ALL FIRE, SMOKE, AND FIRE / SMOKE DAMPERS INCLUDING POWER AND FIRE ALARM. VERIFY EXACT SIZE AND FINAL LOCATION OF ALL DAMPERS WITH THE MECHANICAL CONTRACTOR. ALL ROOFTOP UNITS RATED AT MORE THAN 2000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN THE RETURN DUCT. ALL ROOFTOP UNITS RATED AT MORE THAN 1500 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN BOTH THE SUPPLY AND RETURN DUCT AT ROOFTOP LEVEL AND IN THE RETURN DUCT AT EVERY LEVEL THAT IS SERVED. ELECTRICAL CONTRACTOR WILL PROVIDE A REMOTE TEST STATION AND ALL WIRING NECESSARY TO COMPLETE INSTALLATION.
  - REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH PLUMBING AND HVAC EQUIPMENT AND OWNER/GENERAL CONTRACTOR FURNISHED EQUIPMENT.

### COMMUNICATION LEGEND

PLAIN DATA OUTLET  
PLAIN DATA OUTLET WITH MOUNTING HEIGHT  
COMBINATION DATA/TELEPHONE  
FLOOR MOUNTED COMBINATION DATA/TELEPHONE  
CEILING MOUNTED COMBINATION DATA/TELEPHONE  
TELEVISION OUTLET  
CLOCK ONLY  
CLOCK / PA SPEAKER WALL MOUNTED  
ROUND CEILING MOUNTED SPEAKER  
SQUARE SPEAKER  
INTERCOM PUSH TO CALL SWITCH  
WIRELESS ACCESS POINT ABOVE THE CEILING  
PROJECTOR CONNECTION ABOVE THE CEILING  
WALL MOUNTED HDMI

### FIRE ALARM EQUIPMENT LEGEND

FIRE ALARM CONTROL PANEL  
FIRE ALARM ANNUNCIATION PANEL  
FIRE ALARM PULL STATION  
FIRE ALARM HORN  
FIRE ALARM STROBE  
FIRE ALARM HORN STROBE  
DUCT DETECTOR  
SMOKE DETECTOR - PHOTOELECTRIC  
SMOKE DETECTOR - IONIZATION  
COMBINATION SMOKE / CARBON MONOXIDE DETECTOR  
HEAT DETECTOR - 135° ALARM  
REMOTE LAMP  
FLOW SWITCH  
TAMPER SWITCH  
DOOR HOLD - MAGNETIC HOLD

### SECURITY SYSTEM LEGEND

SECURITY CAMERA  
ADA DOOR OPERATOR PUSH BUTTON  
ELECTRIC DOOR STRIKE  
CARD READER FOR DOOR OPERATOR

- #### LUMINAIRES:
- COORDINATE THE LOCATION OF ALL LIGHTING EQUIPMENT INCLUDING BUT NOT LIMITED TO THE LUMINAIRES, SWITCHES WITH THE ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND ALL OTHER TRADES AS REQUIRED. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONAL LOCATION OF LIGHT FIXTURES.
  - LIGHTING FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE AND SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID.
  - THE ELECTRICAL CONTRACTOR IS TO CONFIRM THE LIGHT FIXTURES ORDERED WILL BE COMPATIBLE WITH THE CEILING TYPES AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING THE FIXTURES.
  - VERIFY LUMINAIRE MOUNTING REQUIREMENTS AND OVERALL HEIGHT OF ALL PENDANT MOUNTED FIXTURES PRIOR TO ORDERING.
  - ALL LIGHT FIXTURES NEED TO BE COMPATIBLE WITH THE SWITCHES AND CONTROLS BEING PROVIDED.
  - THE LIGHTING PACKAGE SHALL BE APPROVED BY BOTH THE ARCHITECT AND ENGINEER AS APPROVED BEFORE BID. NO LIGHT FIXTURE SHALL BE ORDERED UNTIL THE LIGHT FIXTURE SUBMITTAL PACKAGE HAS BEEN APPROVED IN WRITING BY THE ARCHITECT, GENERAL CONTRACTOR AND ELECTRICAL ENGINEER.
  - COORDINATE LUMINAIRE MOUNTING REQUIREMENTS PRIOR TO PLACING ORDER.

### RESPONSIBLE DIVISION:

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFDs AND CONTACTORS	23	23	26	--
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	23(1)	26	26(2)	23
MANUAL OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)	--	23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)	--	23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

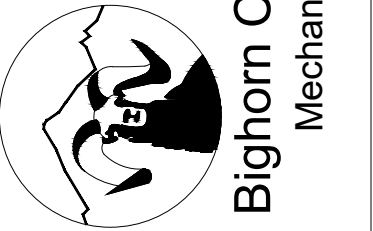
- #### SUBSCRIPT FOOTNOTES:
- MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1) NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.
  - IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23. CONNECT UNDER DIVISION 26.

### ABBREVIATIONS:

44' MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF DEVICE	DIFF DIFFERENTIAL	HR HOUR	PT PRESSURE TRANSMITTER
A AMPS	DISCH DISCHARGE	HT HEIGHT	PTAC PACKAGED TERMINAL AIR CONDITIONER
A.D. ACCESS DOOR	DN DOWN	HTR HEATER	PV PLUG VALVE
AAV AIR ADMITTANCE VALVE	DS DUCT SILENCER	HWR HEATING WATER RETURN	PVC POLYVINYL CHLORIDE
ABV ABOVE	DWG DRAWING	HX HEAT EXCHANGER	QTY QUANTITY
AC AIR CONDITIONING UNIT	DX DIRECT EXPANSION	HZ HERTZ	RA RETURN AIR GRILLE / REGISTER
AC ABOVE COUNTER	(E) EXISTING	ID INSIDE DIAMETER	RPC REFLECTED CEILING PLAN
AD AREA DRAIN (SEE SYMBOLS)	EA EXHAUST AIR GRILLE/REGISTER	IG ISOLATED GROUND	RD ROOF DRAIN
A.F.C. ABOVE FINISHED CEILING	EAT ENTERING AIR TEMPERATURE	IN INCHES	REL RELIEF
A.F.G. ABOVE FINISHED GRADE	EG ECCENTRIC	INV INVERT	REQD REQUIRED
AIC AMPERE INTERRUPTING CAPACITY	EF EXHAUST FAN	JBOX JUNCTION BOX	RF RETURN FAN
A.F.F. ABOVE FINISHED FLOOR	EFF EFFICIENCY	K KELVIN	RH RELATIVE HUMIDITY
AHU AIR HANDLING UNIT	EL ELEVATION	KW KILOWATT	RHC REHEAT COIL
ALUM ALUMINUM	ELEC ELECTRIC	KVA KILO VOLT - AMPS	RLA RATED LOAD AMPS
AP ACCESS PANEL OR DOOR	ELEV ELEVATOR	L LENGTH	RM ROOM
ATS AUTOMATIC TRANSFER SWITCH	EM EMERGENCY FUNCTION	LAT LEAVING AIR TEMPERATURE	RMV REVOLUTIONS PER MINUTE
AV AUDIO / VIDEO	ENT ENTERING	LV LAVATORY	SA SUPPLY AIR GRILLE / REGISTER
AVG AVERAGE	EMT ELECTRIC METALLIC TUBE	LB POUND	SC SHORT CIRCUIT
AWG AMERICAN WIRE GAGE	EQ EQUAL	LD LINEAR DIFFUSER	SCA SHORT CIRCUIT AVAILABLE RATING
BAS BUILDING AUTOMATION SYSTEM	EQUI EQUIPMENT	LF LINEAR FEET	SCCR SHORT CIRCUIT CURRENT RATING
BB BASEBOARD	EQUI EQUIVALENT	LQ LIQUID	SCH SCHEDULE
BD BACK DRAFT DAMPER	ES END SWITCH	LM LUMEN	SD SMOKE DAMPER
BFP BACK FLOW PREVENTOR	ESP EXTERNAL STATIC PRESSURE	LRA LOCKED ROTOR AMPS	SEF SMOKE EXHAUST FAN
BL BOILER	ET EXPANSION TANK	LV LOUVER	SF SUPPLY FAN
BLOG BUILDING	EWC ELECTRIC WATER COOLER	LVG LEAVING	SH SENSIBLE HEAT
BLW BELOW	EWT ENTERING WATER TEMPERATURE	LWT LEAVING WATER TEMPERATURE	SH SHOWER
BOB BOTTOM OF BEAM	EX EXHAUST	MBH THOUSANDS OF BTU PER HOUR	SP STATIC PRESSURE
BOB BOTTOM OF DUCT	EXPAN EXPANSION	MC MECHANICAL CONTRACTOR	SFD SURGE PROTECTION DEVICE
BOP BOTTOM OF PIPE	EXT EXTERNAL	MCA MINIMUM CIRCUIT AMPACITY	SPEC SPECIFICATION
BSMT BASEMENT	F FAN COIL UNIT	MCB MAIN CIRCUIT BREAKER	SS STAINLESS STEEL
BTU BRITISH THERMAL UNIT	FA FREE AREA	MD MOTORIZED DAMPER	SS SAFETY SHOWER
C CHILLER	FC FEET CANDLE	MED MEDIUM	STD STANDARD
CAP CAPACITY	FCV FLOW CONTROL VALVE	MFR MANUFACTURER	STL STEEL
CB CIRCUIT BREAKER	FD FIRE DAMPER	MIN MINIMUM	SYS SYSTEM
CBV CIRCUIT BALANCING VALVE	FD FLOOR DRAIN	MISC MISCELLANEOUS	TEMP TEMPERATURE
CCT CORRELATED COLOR TEMPERATURE	FN FINISHED	MLO MAIN LUG ONLY	TR TRANSFER GRILLE / REGISTER
CKT CIRCUIT	FLA FULL LOAD AMPS	MOP MAXIMUM OVERCURRENT PROTECTION	TR TAMPER RESISTANT
CFH CUBIC FEET PER HOUR	FLX FLEXIBLE	MTD MOUNTED	TT TEMPERATURE TRANSMITTER
CFM CUBIC FEET PER MINUTE	FLR FLOOR	MUA MAKE-UP AIR UNIT	TIB TELECOMMUNICATIONS TERMINAL BACKBOARD
CHWR CHILLED WATER RETURN	FOB FLAT ON BOTTOM	N NEUTRAL	TYP TYPICAL
CHWS CHILLED WATER SUPPLY	FOT FLAT ON TOP	NC NORMALLY CLOSED	TX TRANSFORMER
CI CAST IRON	FP FIRE PROTECTION	NEG NEGATIVE	UC UNDERCUT DOOR
CL CENTER LINE	FP FIRE PUMP	NIC NOT IN CONTRACT	UH UNIT HEATER
CLG CEILING	FFM FEET PER MINUTE	NL NIGHT / SECURITY LIGHT - DO NOT SWITCH	UNO UNLESS NOTED OTHERWISE
CMU CONCRETE MASONRY UNIT	FFS FEET PER SECOND	NO NORMALLY OPEN	UNOC UNOCCUPIED
CO CLEAN OUT	FS FLOW SWITCH	NOM NOMINAL	UR URINAL
COL COLUMN	FSD FIRE/SMOKE DAMPER	NTS NOT TO SCALE	V VOLTS
COMP COMPRESSOR	FT FEET	OA OUTSIDE AIR	VA VOLT AMPERE
CONC CONCRETE	FXC FLEXIBLE CONNECTION	OBD OPPOSED BLADE DAMPER	VA VALVE
COND CONDENSATE	GND GROUND	OC ON CENTER	VAV VARIABLE AIR VOLUME UNIT
CONN CONNECTION	GA GAUGE	OCC OCCUPIED	VFD VARIABLE FREQUENCY DRIVE
CONT CONTINUATION	GAL GALLON	OCF OVER CURRENT PROTECTION	VRF VARIABLE REFRIGERANT FLOW
CONTR CONTRACTOR	GALV GALVANIZED	OD OUTSIDE DIAMETER	VOLT VOLTAGE
CR COLOR RENDERING INDEX	GED GROUND ELECTRODE CONDUCTOR	OL OVERLOAD	VTR VENT THROUGH ROOF
CT COOLING TOWER	GFCI / GFI GROUND FAULT CIRCUIT INTERRUPTER	OZ OUNCE	W WIDTH
CT CURRENT TRANSFORMER	GC GENERAL CONTRACTOR	PB PARALLEL BLADE DAMPER	W/ WITH
CU COPPER	GPH GALLONS PER HOUR	PD PRESSURE DROP	W/ WITHOUT
CUH CABINET UNIT HEATER	GPM GALLONS PER MINUTE	PH PHASE	WB WET BULB
CVB CONSTANT VOLUME BOX	GRLB GRAINS PER POUND	POS POSITIVE PRESSURE	WC WATER COLUMN
CWR CONDENSER WATER RETURN	H 2O WATER	POS POINT OF SALES	WC WATER CLOSET
CWS CONDENSER WATER SUPPLY	H8 HOSE BIBB	PRV PRESSURE REDUCING VALVE	WG WATER GAAUGE
DB DRY BULB	HD HEAD (SEE SCHEDULES)	PS PRESSURE SWITCH	WP WEATHERPROOF
DEPT DEPARTMENT	HP HEAT PUMP	PSI POUNDS PER SQUARE INCH	WPU WEATHERPROOF IN-USE
DF DRINKING FOUNTAIN	HP HORSEPOWER		WTR WITHSTAND RATING
DIAM DIAMETER			XMR TRANSFORMER
DIAG DIAGRAM			

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REVIEWED FOR CODE COMPLIANCE  
12/07/2022

DATE:	ISSUED FOR:
06/17/2022	PERMIT
09/07/2022	PERMIT CORRECTIONS



DATE: 06/17/2022  
JOB NO.: 21-276  
DRAWN BY: BCE  
CHECKED BY: BCE  
SCALE: AS SHOWN  
SHEET NUMBER: E0-1

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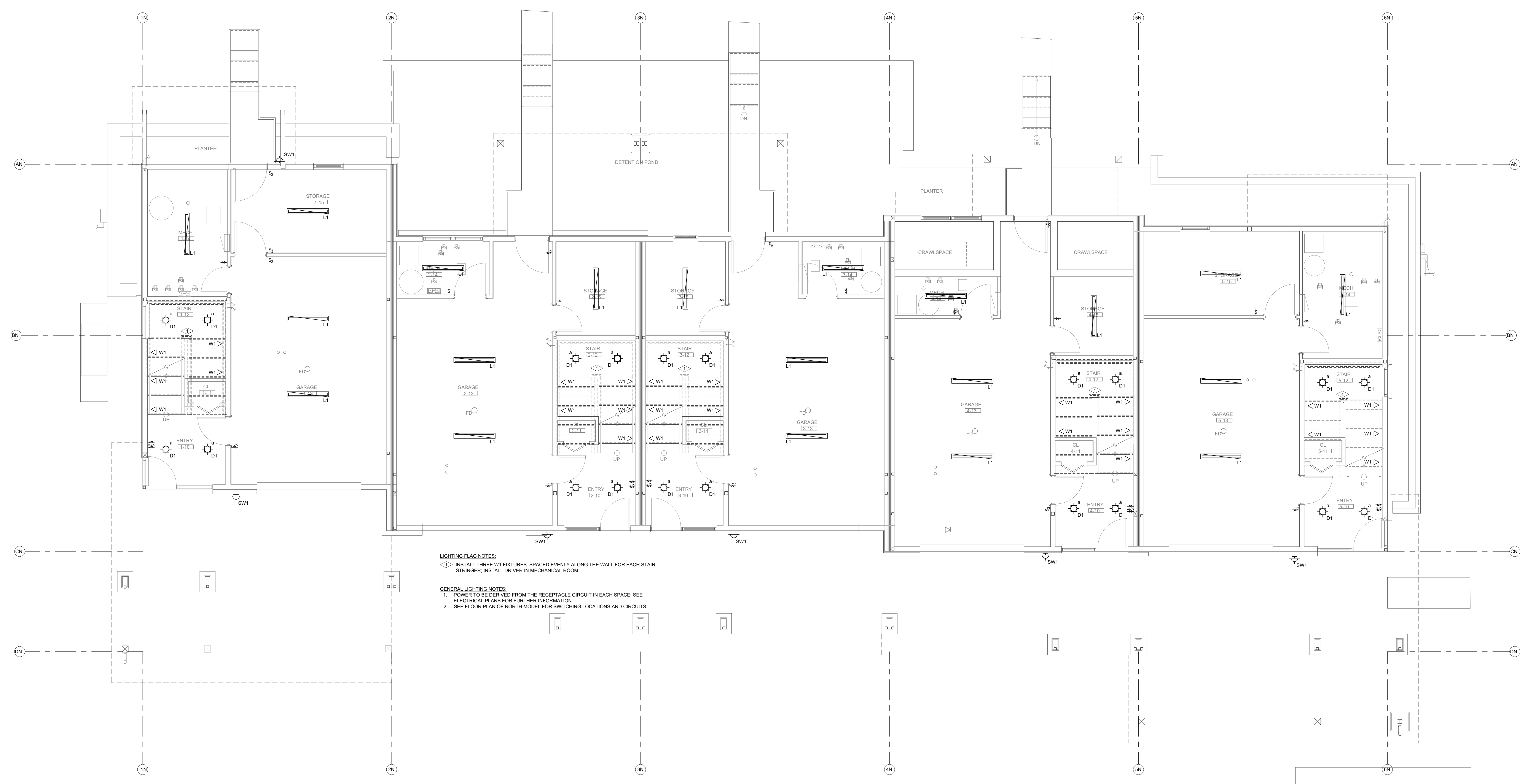
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DATE:	06/17/2022
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DRAWN BY:	BCE
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SCALE:	AS SHOWN
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LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER CATALOG NO.	MANUFACTURER EQUIVALENT	VOLTAGE MOUNTING	BALLAST/DRIVER LAMP SPECIFICATION	DESCRIPTION
CF1	STUDIO M SM869909FTSNBK	APPROVED EQUIVALENT	120V SURFACE CEILING	E26 LED BULB 800LM, 3000K 80CRI, 9W/9W	COMBINATION CEILING FANLIGHT FROSTED LENS, MATCH WALL SWITCH WITH BULB DIMMING CONTROL TYPE, FIVE YEAR WARRANTY
D1	HALO H999CATCP LT460WH930	APPROVED EQUIVALENT	120V RECESSED CEILING	LED DIMMING DRIVER 600LM, 3000K 80CRI, 9W	4" DIA RECESSED DOWNLIGHT FROSTED LENS, CLOSET LISTED, DAMP LISTED COLD WEATHER RATED, FIVE YEAR WARRANTY
L1	METALUX 45LSTP4040DD-UNV	APPROVED EQUIVALENT	120V SURFACE CEILING	LED DRIVER 4000LM, 3500K 80CRI, 40W	48" LINEAR STRIP LIGHT FROSTED LENS, COLD WEATHER RATED FIVE YEAR WARRANTY
P1	TECH LIGHTING 700-MP-K-S-12	APPROVED EQUIVALENT	120V PENDANT	E26 LED BULB 600LM, 3000K 80CRI, 12W	MINI PENDANT CONFIRM SELECTION WITH ARCHITECT
P2	TECH LIGHTING 700-TD-QNTP-K	APPROVED EQUIVALENT	120V PENDANT	E26 LED BULB 1200LM, 3000K 80CRI, 19W	PENDANT FIXTURE CONFIRM SELECTION WITH ARCHITECT
V1	SHAPER 605-25-L3830-UNV-XX	APPROVED EQUIVALENT	120V WALL SURFACE	LED DRIVER 2000LM, 3000K 80CRI, 20W	24" LINEAR LENSED VANITY FIXTURE DAMP LISTED, FROSTED LENS, FIVE YEAR WARRANTY
W1	ASTRO LIGHTING 7418	APPROVED EQUIVALENT	120V STEP LIGHTING	LED DRIVER 35LM, 2700K 80CRI, 6W	1" WALL RECESSED STEP LIGHT DOWNWARD DIRECTED, PROVIDE WITH LED DRIVER
SW1	TECH LIGHTING 7000WATAG-830-6-D-Z-UNV-S	APPROVED EQUIVALENT	120V WALL SURFACE	LED DRIVER 600LM, 3000K 80CRI, 10W	EXTERIOR FULL CUTOFF WALL SCONCE COLD WEATHER RATED, MET LISTED FIVE YEAR WARRANTY

NOTES:  
1. FIXTURES ARE REPRESENTATIVE OF A BASIS OF DESIGN FOR PRICING PURPOSES. VERIFY FINAL SELECTION WITH ARCHITECT AND OWNER.  
2. CONTROLS FOR EACH RESIDENCE TO BE A WHOLE HOME SYSTEM, LUTRON HOMEWORX OR EQUIVALENT TO ALLOW SCENE PROGRAMMING AND INTEGRATE SHADE CONTROL.



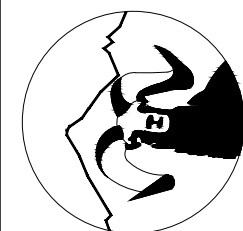
**LIGHTING FLAG NOTES:**  
◁ INSTALL THREE W1 FIXTURES SPACED EVENLY ALONG THE WALL FOR EACH STAIR STRINGER; INSTALL DRIVER IN MECHANICAL ROOM.

**GENERAL LIGHTING NOTES:**  
1. POWER TO BE DERIVED FROM THE RECEPTACLE CIRCUIT IN EACH SPACE; SEE ELECTRICAL PLANS FOR FURTHER INFORMATION.  
2. SEE FLOOR PLAN OF NORTH MODEL FOR SWITCHING LOCATIONS AND CIRCUITS.

**LIGHTING - NORTH BUILDING - LEVEL 1 FLOOR PLAN**  
SCALE: 1/4"=1'-0"

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Mechanical & Electrical Engineers

**1805 WALTON CREEK ROAD**  
STEAMBOAT SPRINGS, COLORADO


**REVIEWED FOR CODE COMPLIANCE**  
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DATE:	06/17/2022
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CHECKED BY:	BCE
SCALE:	AS SHOWN
SHEET NUMBER:	<b>E1-2</b>



**LIGHTING FLAG NOTES:**  
 INSTALL THREE W1 FIXTURES SPACED EVENLY ALONG THE WALL FOR EACH STAIR STRINGER; INSTALL DRIVER IN MECHANICAL ROOM.

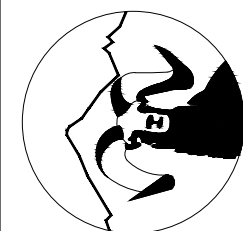
**GENERAL LIGHTING NOTES:**  
 1. POWER TO BE DERIVED FROM THE RECEPTACLE CIRCUIT IN EACH SPACE. SEE ELECTRICAL PLANS FOR FURTHER INFORMATION.  
 2. SEE FLOOR PLAN OF NORTH MODEL FOR SWITCHING LOCATIONS AND CIRCUITS.

**LIGHTING - NORTH BUILDING - LEVEL 2 FLOOR PLAN**  
SCALE: 1/4"=1'-0"



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
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SHEET NUMBER:	<b>E1-3</b>



**LIGHTING FLAG NOTES:**  
 INSTALL THREE W1 FIXTURES SPACED EVENLY ALONG THE WALL FOR EACH STAIR STRINGER, INSTALL DRIVER IN MECHANICAL ROOM.

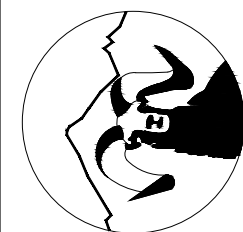
**GENERAL LIGHTING NOTES:**  
 1. POWER TO BE DERIVED FROM THE RECEPTACLE CIRCUIT IN EACH SPACE. SEE ELECTRICAL PLANS FOR FURTHER INFORMATION.  
 2. SEE FLOOR PLAN OF NORTH MODEL FOR SWITCHING LOCATIONS AND CIRCUITS.

**LIGHTING - NORTH BUILDING - LEVEL 3 FLOOR PLAN**  
SCALE: 1/4"=1'-0"



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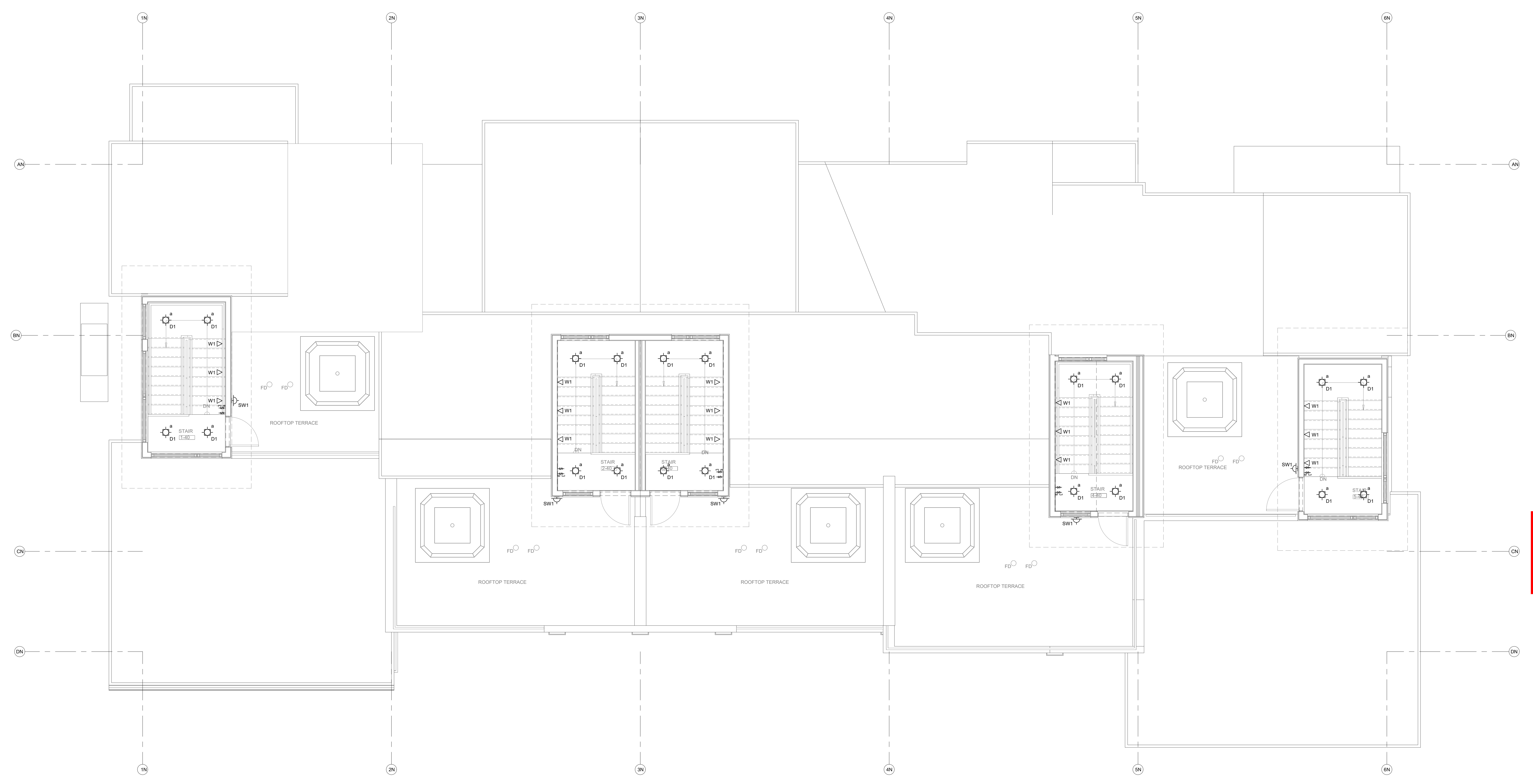
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**LIGHTING - NORTH BUILDING - LEVEL 4 FLOOR PLAN**  
SCALE: 1/4"=1'-0"



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LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER CATALOG NO.	MANUFACTURER EQUIVALENT	VOLTAGE MOUNTING	BALLAST/DRIVER LAMP SPECIFICATION	DESCRIPTION
CF1	STUDIO M SM869909FTSNBK	APPROVED EQUIVALENT	120V SURFACE CEILING	E26 LED BULB 800LM, 3000K 80CRI, 9W/9W	COMBINATION CEILING FAN/LIGHT FROSTED LENS, MATCH WALL SWITCH WITH BULB DIMMING CONTROL TYPE, FIVE YEAR WARRANTY
D1	HALO H999CATCP LT460WH930	APPROVED EQUIVALENT	120V RECESSED CEILING	LED DIMMING DRIVER 600LM, 3000K 80CRI, 9W	4" DIA RECESSED DOWNLIGHT FROSTED LENS, CLOSET LISTED, DAMP LISTED COLD WEATHER RATED, FIVE YEAR WARRANTY
L1	METALUX 45LSTP4040DD-UNV	APPROVED EQUIVALENT	120V SURFACE CEILING	LED DRIVER 4000LM, 3500K 80CRI, 40W	48" LINEAR STRIP LIGHT FROSTED LENS, COLD WEATHER RATED FIVE YEAR WARRANTY
P1	TECH LIGHTING 700-MP-K-S-12	APPROVED EQUIVALENT	120V PENDANT	E26 LED BULB 600LM, 3000K 80CRI, 12W	MINI PENDANT CONFIRM SELECTION WITH ARCHITECT
P2	TECH LIGHTING 700-TD-QNTP-K	APPROVED EQUIVALENT	120V PENDANT	E26 LED BULB 1200LM, 3000K 80CRI, 19W	PENDANT FIXTURE CONFIRM SELECTION WITH ARCHITECT
V1	SHAPER 605-25-L3830-UNV-XX	APPROVED EQUIVALENT	120V WALL SURFACE	LED DRIVER 2000LM, 3000K 80CRI, 20W	24" LINEAR LENSED VANITY FIXTURE DAMP LISTED, FROSTED LENS, FIVE YEAR WARRANTY
W1	ASTRO LIGHTING 7418	APPROVED EQUIVALENT	120V STEP LIGHTING	LED DRIVER 35LM, 2700K 80CRI, 6W	WALL RECESSED STEP LIGHT DOWNWARD DIRECTED, PROVIDE WITH LED DRIVER
SW1	TECH LIGHTING 7000WTAG-830-6-D-Z-UNV-S	APPROVED EQUIVALENT	120V WALL SURFACE	LED DRIVER 600LM, 3000K 80CRI, 10W	EXTERIOR FULL CUTOFF WALL SCORCE COLD WEATHER RATED, WET LISTED FIVE YEAR WARRANTY

NOTES:  
1. FIXTURES ARE REPRESENTATIVE OF A BASIS OF DESIGN FOR PRICING PURPOSES. VERIFY FINAL SELECTION WITH ARCHITECT AND OWNER.  
2. CONTROLS FOR EACH RESIDENCE TO BE A WHOLE HOME SYSTEM, LUTRON HOMEWORXS OR EQUIVALENT TO ALLOW SCENE PROGRAMMING AND INTEGRATE SHADE CONTROL.



**GENERAL LIGHTING NOTES**  
1. POWER TO BE DERIVED FROM THE RECEPTACLE CIRCUIT IN EACH SPACE; SEE ELECTRICAL PLANS FOR FURTHER INFORMATION.

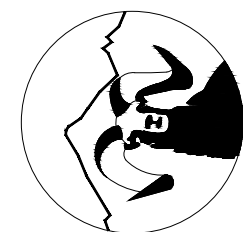
**LIGHTING FLAG NOTES**  
◊ INSTALL THREE W1 FIXTURES SPACED EVENLY ALONG THE WALL FOR EACH STAIR STRINGER; INSTALL DRIVER IN MECHANICAL ROOM.

**LIGHTING - SOUTH BUILDING - LEVEL 1 FLOOR PLAN**  
SCALE: 1/4"=1'-0"



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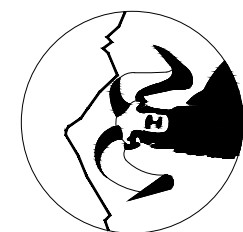
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**LIGHTING FLAG NOTES:**  
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**LIGHTING - SOUTH BUILDING - LEVEL 2 FLOOR PLAN**  
SCALE: 1/4"=1'-0"  
NORTH

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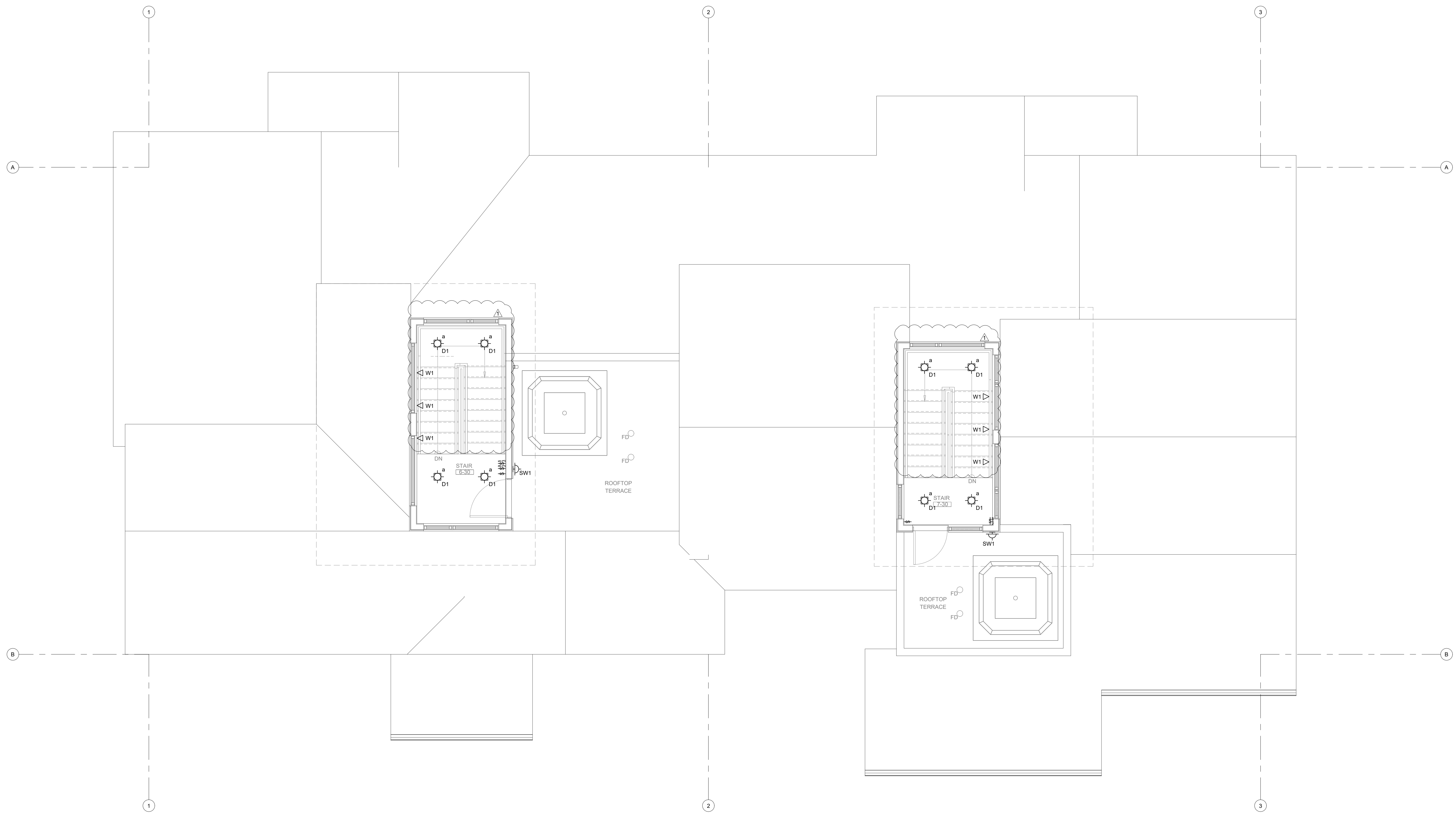
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**LIGHTING - SOUTH BUILDING - LEVEL 3 FLOOR PLAN**  
SCALE: 1/4"=1'-0"  
NORTH

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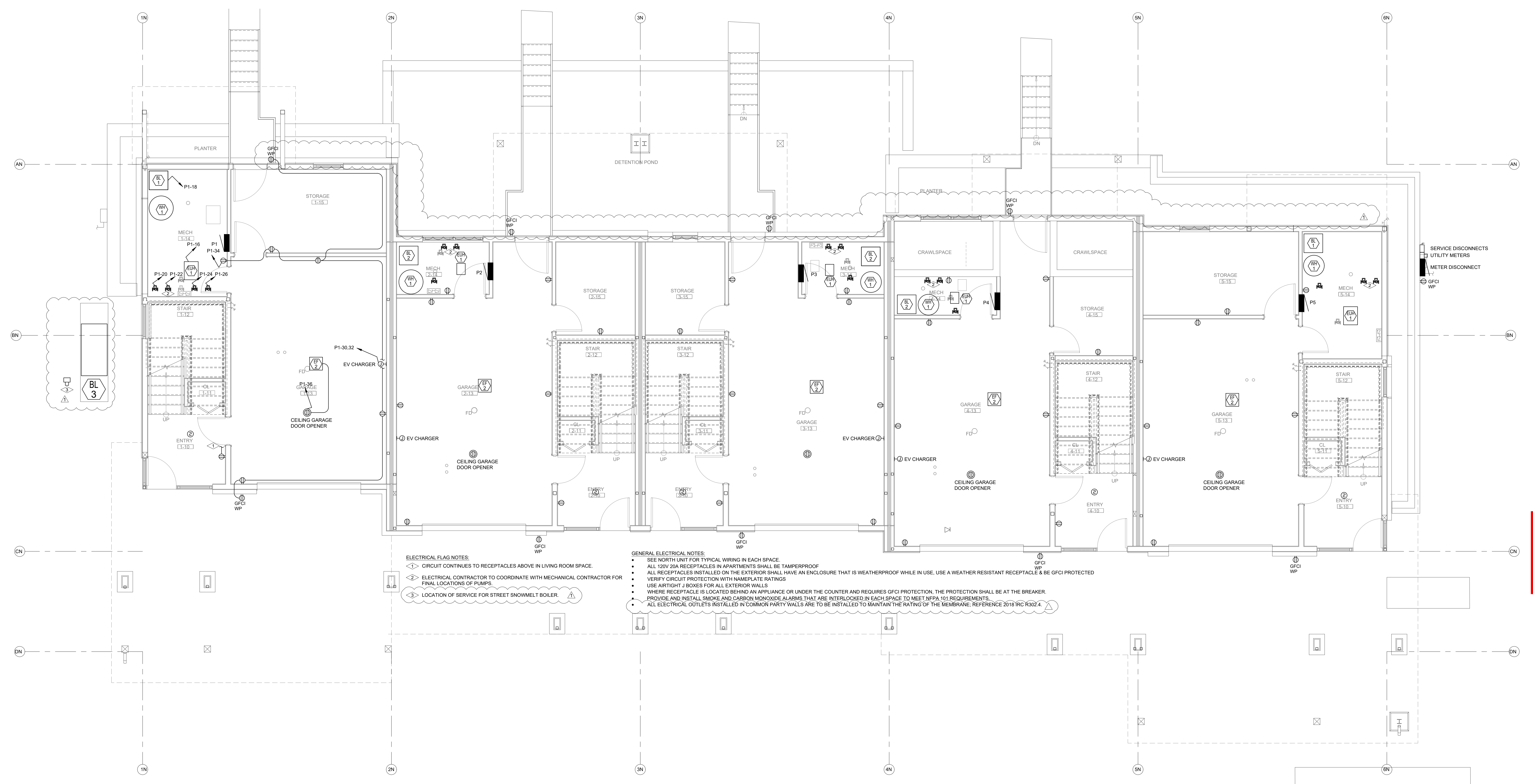
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SCALE:	AS SHOWN
SHEET NUMBER:	<b>E2-1</b>

September 08, 2022 - 9:40:36am



**ELECTRICAL FLAG NOTES:**

- 1. CIRCUIT CONTINUES TO RECEPTACLES ABOVE IN LIVING ROOM SPACE.
- 2. ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR FINAL LOCATIONS OF PUMPS.
- 3. LOCATION OF SERVICE FOR STREET SNOWMELT BOILER.

**GENERAL ELECTRICAL NOTES:**

- SEE NORTH UNIT FOR TYPICAL WIRING IN EACH SPACE.
- ALL 120V 20A RECEPTACLES IN APARTMENTS SHALL BE TAMPERPROOF.
- ALL RECEPTACLES INSTALLED ON THE EXTERIOR SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF WHILE IN USE. USE A WEATHER RESISTANT RECEPTACLE & BE GFCI PROTECTED.
- VERIFY CIRCUIT PROTECTION WITH NAMEPLATE RATINGS.
- USE AIRTIGHT J-BOXES FOR ALL EXTERIOR WALLS.
- WHERE RECEPTACLE IS LOCATED BEHIND AN APPLIANCE OR UNDER THE COUNTER AND REQUIRES GFCI PROTECTION, THE PROTECTION SHALL BE AT THE BREAKER.
- PROVIDE AND INSTALL SMOKE AND CARBON MONOXIDE ALARMS THAT ARE INTERLOCKED IN EACH SPACE TO MEET NFPA 101 REQUIREMENTS.
- ALL ELECTRICAL OUTLETS INSTALLED IN COMMON PARTY WALLS ARE TO BE INSTALLED TO MAINTAIN THE RATING OF THE MEMBRANE; REFERENCE 2018 IRC R302.4.

**ELECTRICAL - NORTH BUILDING - LEVEL 1 FLOOR PLAN**  
SCALE: 1/4"=1'-0"

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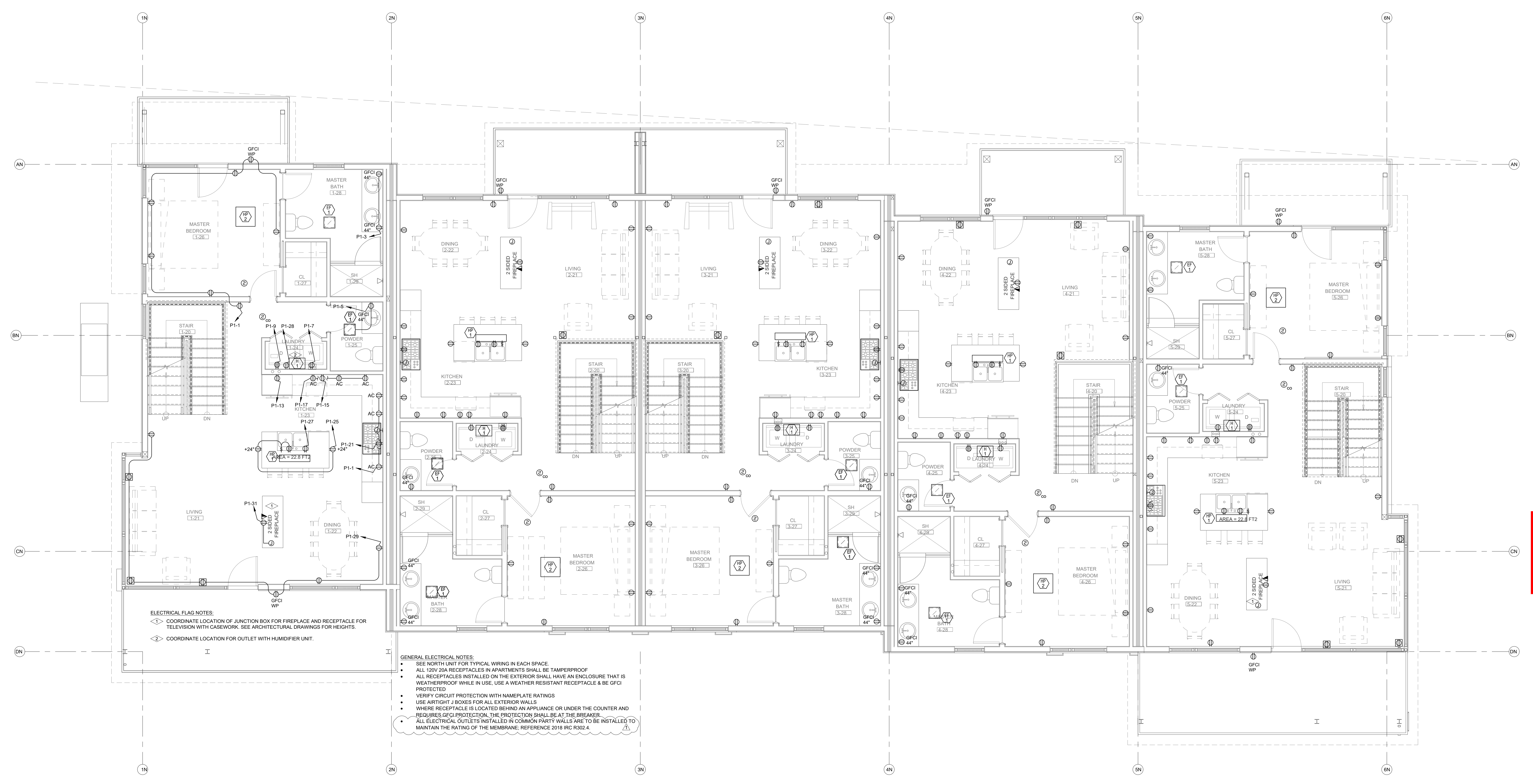
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**ELECTRICAL FLAG NOTES:**

- ◊ COORDINATE LOCATION OF JUNCTION BOX FOR FIREPLACE AND RECEPTACLE FOR TELEVISION WITH CASEWORK. SEE ARCHITECTURAL DRAWINGS FOR HEIGHTS.
- ◊ COORDINATE LOCATION FOR OUTLET WITH HUMIDIFIER UNIT.

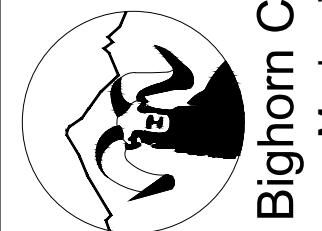
**GENERAL ELECTRICAL NOTES:**

- SEE NORTH UNIT FOR TYPICAL WIRING IN EACH SPACE.
- ALL 120V 20A RECEPTACLES IN APARTMENTS SHALL BE TAMPERPROOF.
- ALL RECEPTACLES INSTALLED ON THE EXTERIOR SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF WHILE IN USE. USE A WEATHER RESISTANT RECEPTACLE & BE GFCI PROTECTED.
- VERIFY CIRCUIT PROTECTION WITH NAMEPLATE RATINGS.
- USE AIRTIGHT J BOXES FOR ALL EXTERIOR WALLS.
- WHERE RECEPTACLE IS LOCATED BEHIND AN APPLIANCE OR UNDER THE COUNTER AND REQUIRES GFCI PROTECTION, THE PROTECTION SHALL BE AT THE BREAKER.
- ALL ELECTRICAL OUTLETS INSTALLED IN COMMON PARTY WALLS ARE TO BE INSTALLED TO MAINTAIN THE RATING OF THE MEMBRANE; REFERENCE 2018 IRC R302.4.

**ELECTRICAL - NORTH BUILDING - LEVEL 2 FLOOR PLAN**  
SCALE: 1/4"=1'-0"

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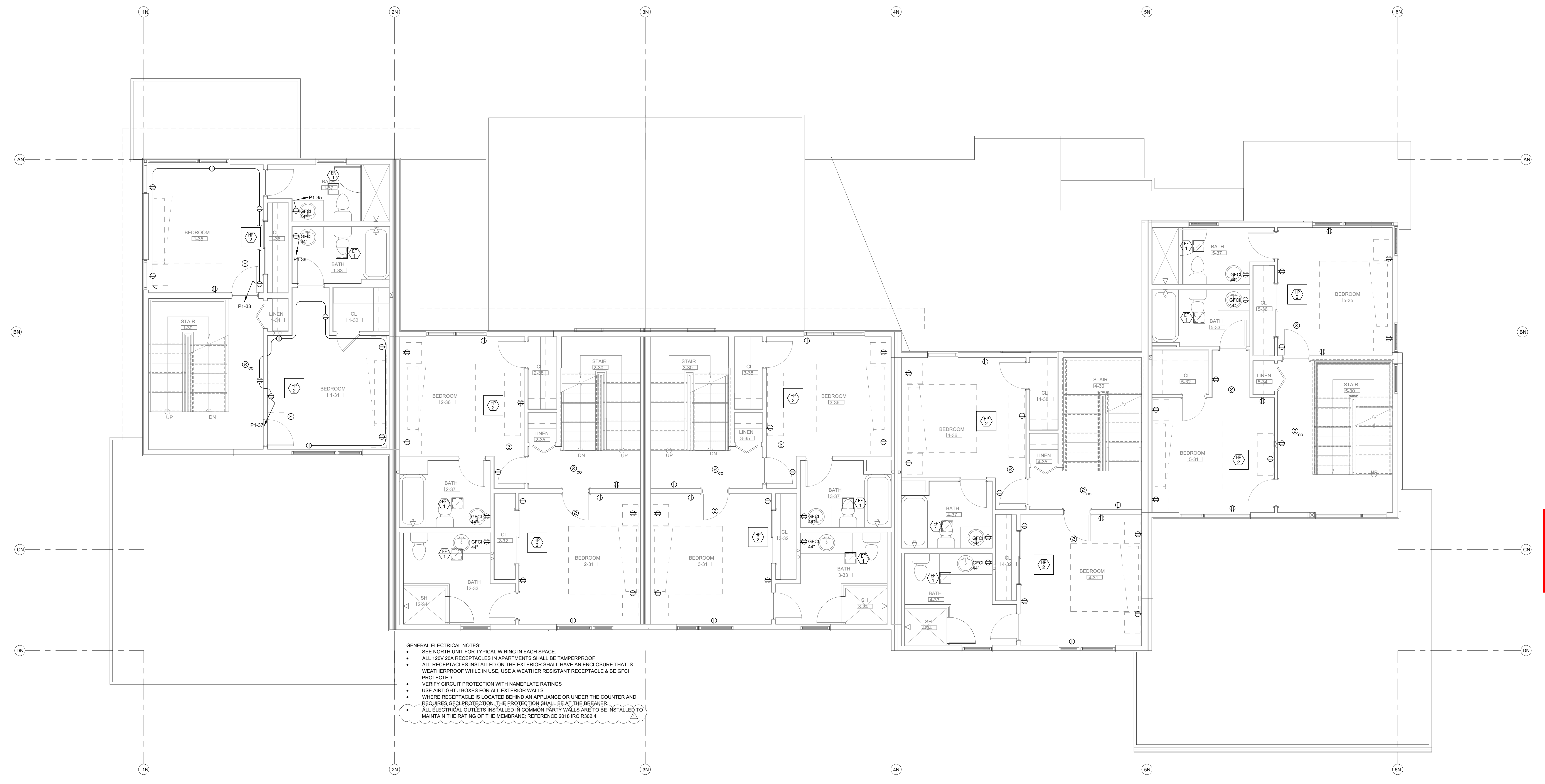
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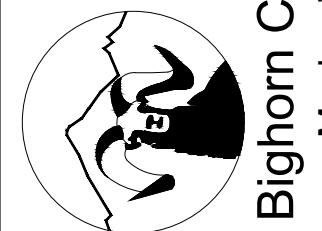


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**ELECTRICAL - NORTH BUILDING - LEVEL 3 FLOOR PLAN**  
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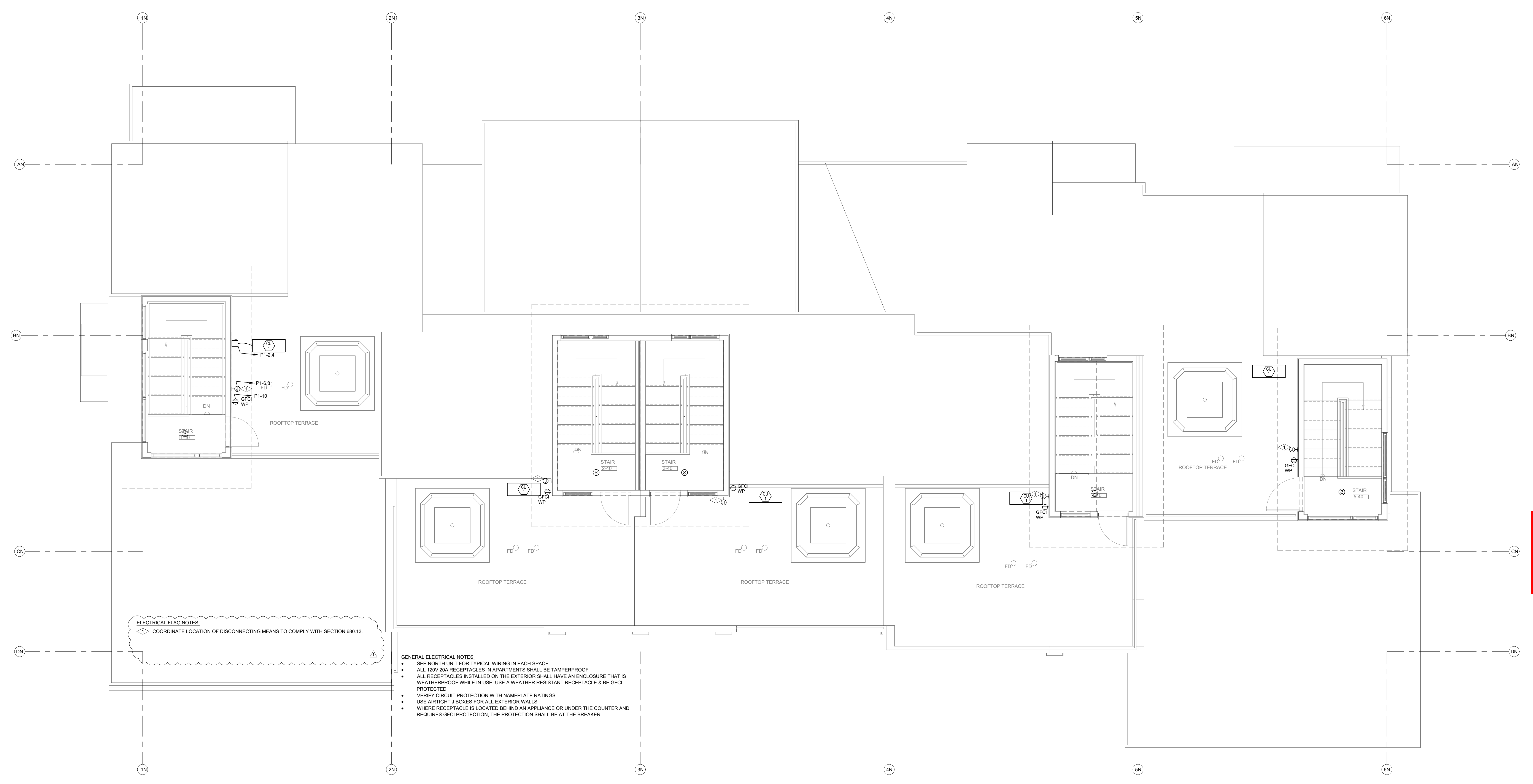
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
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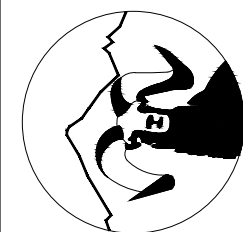
**ELECTRICAL FLAG NOTES:**  
 COORDINATE LOCATION OF DISCONNECTING MEANS TO COMPLY WITH SECTION 680.13.

- GENERAL ELECTRICAL NOTES:**
- SEE NORTH UNIT FOR TYPICAL WIRING IN EACH SPACE.
  - ALL 120V 20A RECEPTACLES IN APARTMENTS SHALL BE TAMPERPROOF.
  - ALL RECEPTACLES INSTALLED ON THE EXTERIOR SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF WHILE IN USE. USE A WEATHER RESISTANT RECEPTACLE & BE GFCI PROTECTED.
  - VERIFY CIRCUIT PROTECTION WITH NAMEPLATE RATINGS.
  - USE AIRTIGHT J BOXES FOR ALL EXTERIOR WALLS.
  - WHERE RECEPTACLE IS LOCATED BEHIND AN APPLIANCE OR UNDER THE COUNTER AND REQUIRES GFCI PROTECTION, THE PROTECTION SHALL BE AT THE BREAKER.

**ELECTRICAL - NORTH BUILDING - LEVEL 4 FLOOR PLAN**  
 SCALE: 1/4"=1'-0"  
 NORTH

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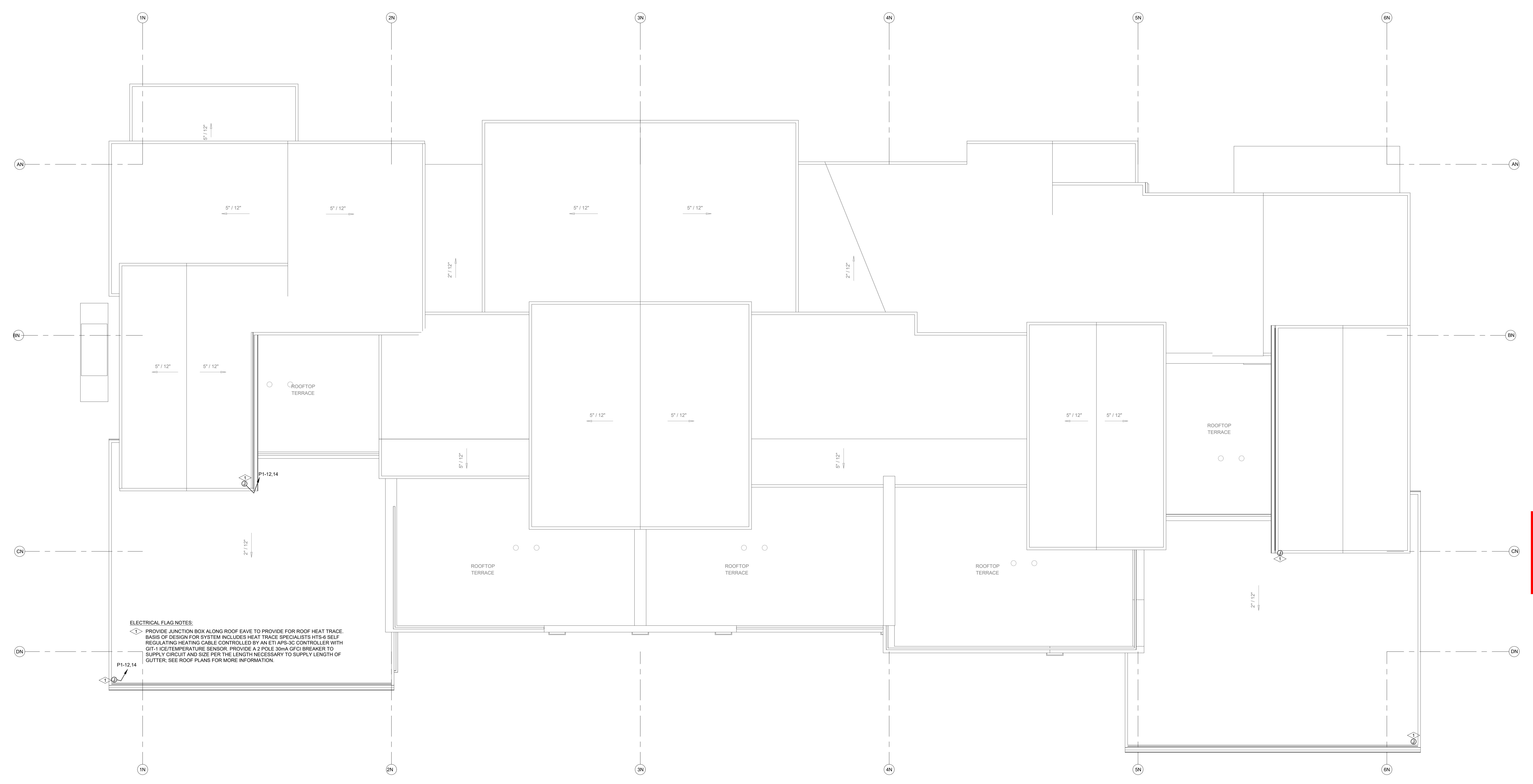
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JOB NO.:	21-276
DRAWN BY:	BCE
CHECKED BY:	BCE
SCALE:	AS SHOWN
SHEET NUMBER:	<b>E2-5</b>



**ELECTRICAL FLAG NOTES:**  
 ◁▷ PROVIDE JUNCTION BOX ALONG ROOF EAVE TO PROVIDE FOR ROOF HEAT TRACE BASIS OF DESIGN FOR SYSTEM INCLUDES HEAT TRACE SPECIALISTS HTS-6 SELF REGULATING HEATING CABLE CONTROLLED BY AN ETI APS-3C CONTROLLER WITH GFI-1 ICE TEMPERATURE SENSOR. PROVIDE A 2 POLE 30mA GFCI BREAKER TO SUPPLY CIRCUIT AND SIZE PER THE LENGTH NECESSARY TO SUPPLY LENGTH OF GUTTER. SEE ROOF PLANS FOR MORE INFORMATION.

**ELECTRICAL - NORTH BUILDING - ROOF PLAN**  
SCALE: 1/4"=1'-0"

DO NOT REPRODUCE THESE DRAWINGS AND SPECIFICATIONS WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE DESIGNER. THE DESIGNER AND SPECIFICATIONS ARE INSTRUMENTS OF THE SERVICE AND SHALL REMAIN THE PROPERTY OF THE DESIGNER. UNLESS THE PROJECT FOR WHICH THEY ARE MADE IS SPECIFICALLY NOTED, THESE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY ANYONE ON ANY OTHER PROJECT OR IN CONNECTION WITH THE PROJECT OR OTHERWISE WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE DESIGNER.

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Mechanical & Electrical Engineers

**1805 WALTON CREEK ROAD**  
STEAMBOAT SPRINGS, COLORADO

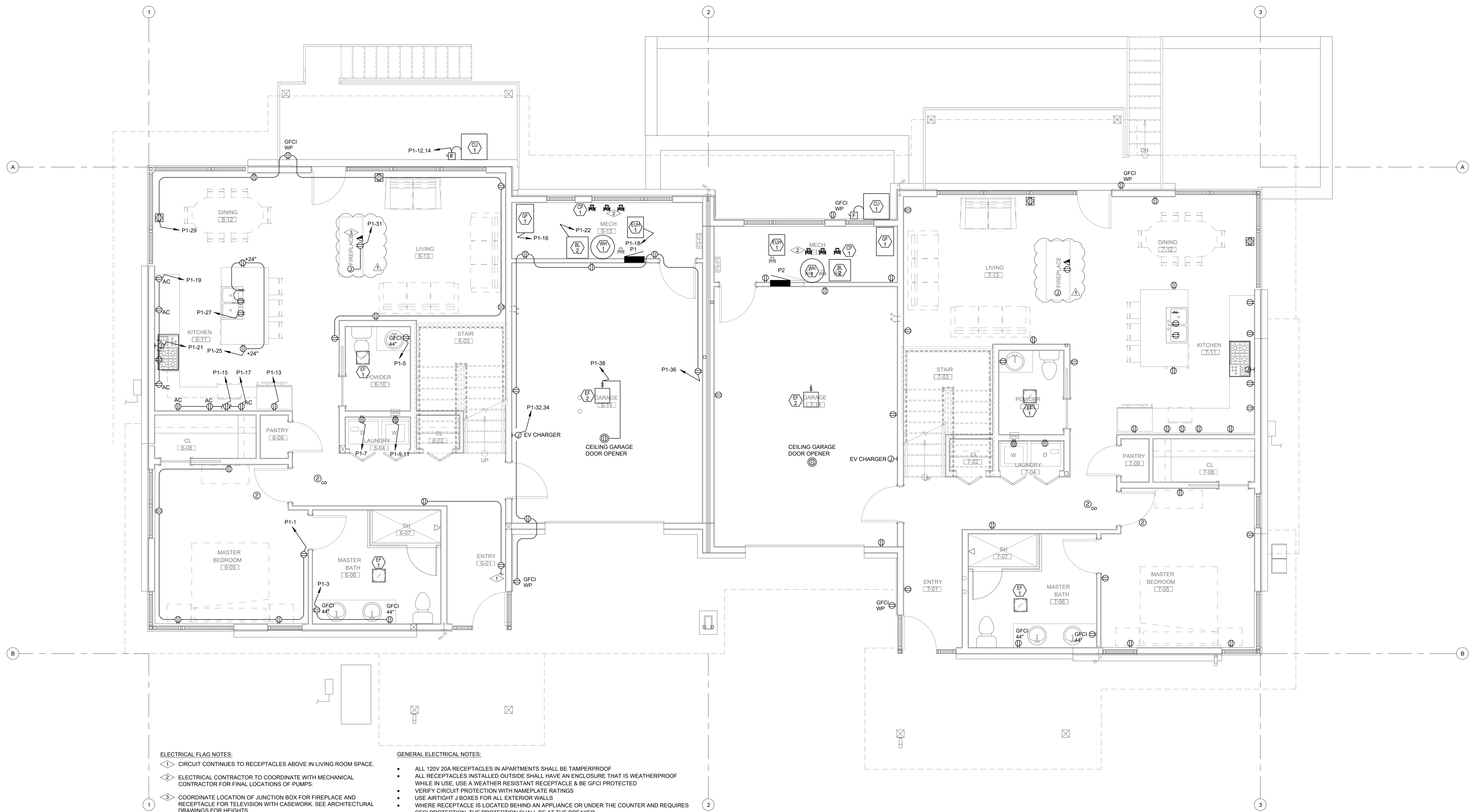
**REVIEWED FOR CODE COMPLIANCE**  
12/07/2022

DATE:	ISSUED FOR:
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09/07/2022	PERMIT CORRECTIONS



DATE:	06/17/2022
JOB NO.:	21-276
DRAWN BY:	BCE
CHECKED BY:	BCE
SCALE:	AS SHOWN
SHEET NUMBER:	<b>E2-6</b>

September 08, 2022 - 9:40:49am

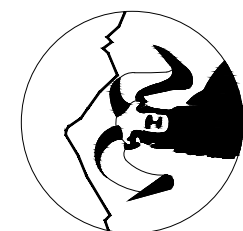


- ELECTRICAL FLAG NOTES:**
- ◁ CIRCUIT CONTINUES TO RECEPTACLES ABOVE IN LIVING ROOM SPACE.
  - ◁ ELECTRICAL CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR FINAL LOCATIONS OF PUMPS.
  - ◁ COORDINATE LOCATION OF JUNCTION BOX FOR FIREPLACE AND RECEPTACLE FOR TELEVISION WITH CASEWORK. SEE ARCHITECTURAL DRAWINGS FOR HEIGHTS.
- GENERAL ELECTRICAL NOTES:**
- ALL 120V 20A RECEPTACLES IN APARTMENTS SHALL BE TAMPERPROOF
  - ALL RECEPTACLES INSTALLED OUTSIDE SHALL HAVE AN ENCLOSURE THAT IS WEATHERPROOF WHILE IN USE. USE A WEATHER RESISTANT RECEPTACLE & BE GFCI PROTECTED
  - VERIFY CIRCUIT PROTECTION WITH NAMEPLATE RATINGS
  - USE AIRTIGHT J BOXES FOR ALL EXTERIOR WALLS
  - WHERE RECEPTACLE IS LOCATED BEHIND AN APPLIANCE OR UNDER THE COUNTER AND REQUIRES GFCI PROTECTION, THE PROTECTION SHALL BE AT THE BREAKER.
  - PROVIDE AND INSTALL SMOKE AND CARBON MONOXIDE ALARMS THAT ARE INTERLOCKED IN EACH SPACE TO MEET NFPA 701 REQUIREMENTS
  - ALL ELECTRICAL OUTLETS INSTALLED IN COMMON PARTY WALLS ARE TO BE INSTALLED TO MAINTAIN THE RATING OF THE MEMBRANE. REFERENCE 2018 IRC R302.4

**ELECTRICAL - SOUTH BUILDING - LEVEL 1 FLOOR PLAN**  
SCALE: 1/4"=1'-0"  
NORTH

DO NOT REPRODUCE THESE DRAWINGS AND SPECIFICATIONS WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE DESIGNER. THE DESIGNER AND SPECIFICATIONS ARE INSTRUMENTS OF THE SERVICE AND SHALL REMAIN THE PROPERTY OF THE DESIGNER. UNLESS THE PROJECT FOR WHICH THEY ARE MADE IS SPECIFICALLY NOTED, THESE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY ANYONE ON ANY OTHER PROJECT OR IN ACCORDANCE TO THE PROJECT BY ANYONE EXCEPT BY THE EXPRESSED WRITTEN PERMISSION OF THE DESIGNER.

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Mechanical & Electrical Engineers

**1805 WALTON CREEK ROAD**  
STEAMBOAT SPRINGS, COLORADO

**REVIEWED FOR CODE COMPLIANCE**  
12/07/2022

DATE	ISSUED FOR:
06/17/2022	PERMIT
09/07/2022	PERMIT CORRECTIONS



DATE	06/17/2022
JOB NO.	21-276
DRAWN BY	BCE
CHECKED BY	BCE
SCALE	AS SHOWN
SHEET NUMBER	<b>E2-7</b>

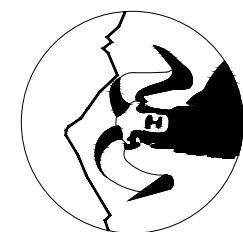


**ELECTRICAL - SOUTH BUILDING - LEVEL 2 FLOOR PLAN**  
SCALE: 1/4"=1'-0"



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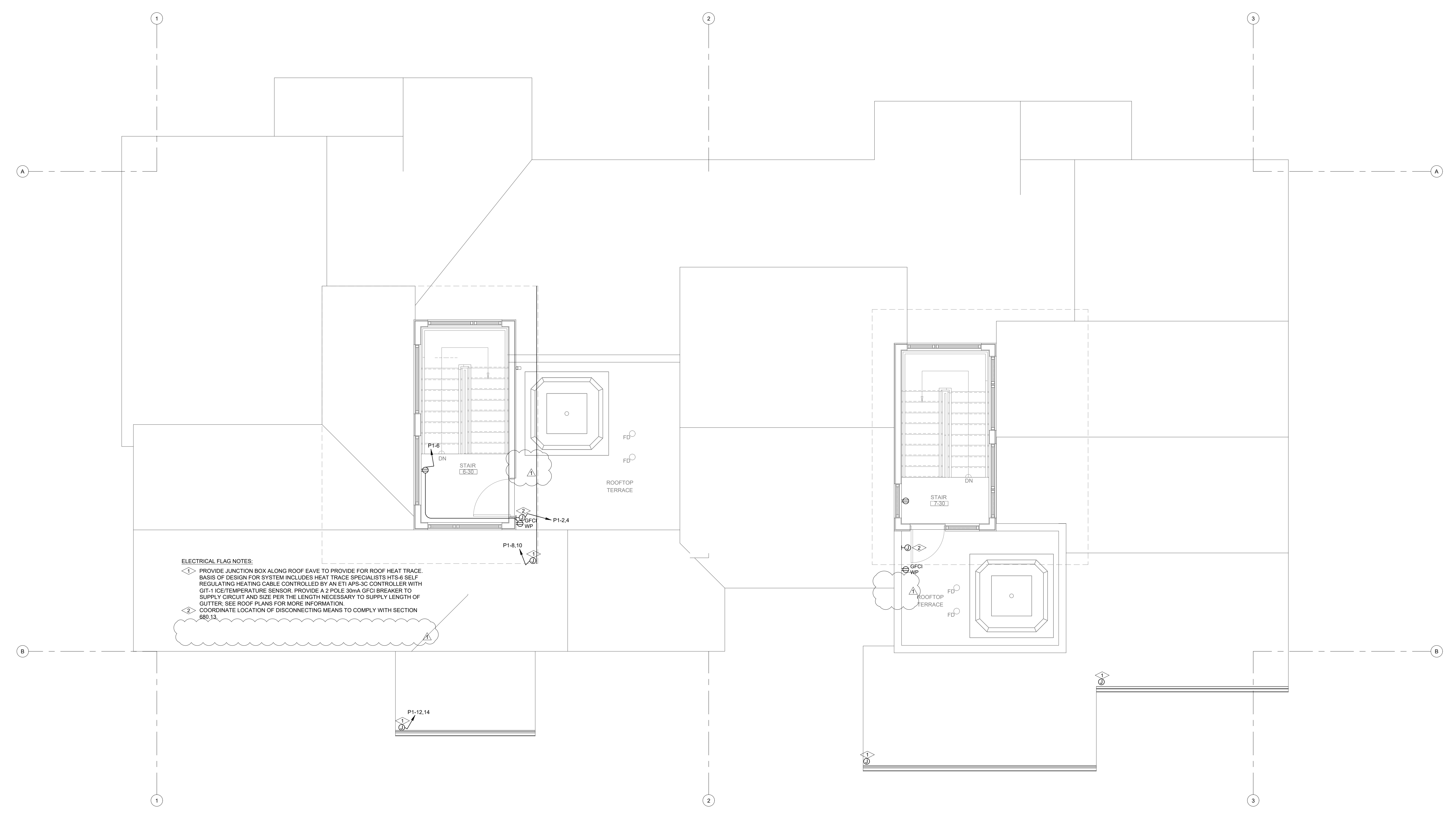
**1805 WALTON CREEK ROAD**  
STEAMBOAT SPRINGS, COLORADO

**REVIEWED FOR CODE COMPLIANCE**  
12/07/2022

DATE	ISSUED FOR:
06/17/2022	PERMIT
09/07/2022	PERMIT CORRECTIONS



DATE	06/17/2022
JOB NO.	21-276
DRAWN BY	BCE
CHECKED BY	BCE
SCALE	AS SHOWN
SHEET NUMBER	<b>E2-8</b>



**ELECTRICAL FLAG NOTES:**

- 1 PROVIDE JUNCTION BOX ALONG ROOF EAVE TO PROVIDE FOR ROOF HEAT TRACE. BASIS OF DESIGN FOR SYSTEM INCLUDES HEAT TRACE SPECIALISTS HTS-6 SELF-REGULATING HEATING CABLE CONTROLLED BY AN ETI AFS-30 CONTROLLER WITH GIT-1 ICE TEMPERATURE SENSOR. PROVIDE A 2 POLE 30mA GFCI BREAKER TO SUPPLY CIRCUIT AND SIZE PER THE LENGTH NECESSARY TO SUPPLY LENGTH OF GUTTER. SEE ROOF PLANS FOR MORE INFORMATION.
- 2 COORDINATE LOCATION OF DISCONNECTING MEANS TO COMPLY WITH SECTION 800.13.

**ELECTRICAL - SOUTH BUILDING - LEVEL 3 FLOOR PLAN**  
SCALE: 1/4"=1'-0"  
NORTH

### Residential Calculation - Village Drive North 2020 NFPA 70 ART. 220 PART III

2020 NEC 220.14(J), 220.42 & 220.52

371 SQFT Garage Level  
1014 SQFT Main Level  
686 SQFT Upper Level  
136 SQFT Upper Stairwell

2207 SQFT General Lighting Load  
2 CCT Small Appliance  
1 CCT Laundry Circuit

6621 VA  
3000 VA  
1500 VA  
11121 VA

3000 VA @ 100% 3000 VA  
8121 VA @ 35% 2842.35 VA

General Lighting Load: 5842 VA

2020 NEC 220.51 and 220.60

Equipment Power	Heating Loads	Power
CU Heat P	5760 VA	CU Heat Pump 5760 VA
		See unit plans
		10860 VA Heating Loads
		5760 VA Cooling Loads
		10860 VA

Connected: 10860 VA Greater of Noncoincidental Loads: 10860 VA

2020 NEC 220.53

Appliance Loads

QTY	Description	Load Each
1	Refrigerator	600 VA
1	Dishwasher	1200 VA
1	Disposal	900 VA
1	Microwave	1200 VA
1	Gas Range/ Hood	1000 VA

4900 VA @ 75% Appliance Load: 3675 VA

2020 NEC 220.14(A)

QTY Description Load Each

1	Humidifier	1200 VA
1	Boiler	1440 VA
2	Circ Pumps	720 VA
1	Gas Dryer	1200 VA
1	Hot Tub	9600 VA
1	EVC Level II	7200 VA

22080 VA 125% LARGEST MOTOR: 480 VA  
Total Other Load: 22560 VA

240 V Connected: 49441 VA Demand: 42937 VA  
1 Ø 206.0 A 178.9 A

### Residential Calculation - Village Drive South 2020 NFPA 70 ART. 220 PART III

2020 NEC 220.14(J), 220.42 & 220.52

1286 SQFT Garage Level  
1018 SQFT Upper Level  
136 SQFT Upper Stairwell  
2440 SQFT General Lighting Load

2 CCT Small Appliance  
1 CCT Laundry Circuit

7320 VA  
3000 VA  
1500 VA  
11820 VA

3000 VA @ 100% 3000 VA  
8820 VA @ 35% 3087 VA

General Lighting Load: 6087 VA

2020 NEC 220.51 and 220.60

Equipment Power	Heating Loads	Power
GF-1 Air	1032 VA	GF-1 Gas Furnace 1032 VA
CU AC	4800 VA	EUH - Garage Unit Heat 1500 VA
		See unit plans
		6432 VA Heating Loads
		5832 VA Cooling Loads
		6432 VA

Connected: 11232 VA Greater of Noncoincidental Loads: 6432 VA

2020 NEC 220.53

Appliance Loads

QTY	Description	Load Each
1	Refrigerator	600 VA
1	Dishwasher	1200 VA
1	Disposal	900 VA
1	Microwave	1200 VA
1	Gas Range/ Hood	1000 VA

4900 VA @ 75% Appliance Load: 3675 VA

2020 NEC 220.14(A)

QTY Description Load Each

1	Humidifier	1200 VA
1	Boiler	1440 VA
2	Circ Pumps	720 VA
1	Gas Dryer	1200 VA
1	Hot Tub	9600 VA
1	EVC Level II	7200 VA

22080 VA 125% LARGEST MOTOR: 400 VA  
Total Other Load: 22480 VA

240 V Connected: 50432 VA Demand: 38674 VA  
1 Ø 210.1 A 161.1 A

### PANEL SCHEDULE - P1

LOAD TYPE	LOAD DESCRIPTION	TYPE: VOLTAGE ENCLOSURE	LOADCENTER	AMPS POLES	CKT# LOAD	D	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION
RECEPTACLE	RCPT - MAST. BED CFCI	20A 1P	1440	A	2	50A 2880	3P	20A 2P	MECH YEAR ROUND	CU-1 - HEAT PUMP HACR
RECEPTACLE	RCPT - MAST. BATH	20A 1P	500	B	4	20A 800	2P	---	MECH YEAR ROUND	---
RECEPTACLE	RCPT - POWDER ROOM	20A 1P	300	A	6	50A 4800	2P	---	MISCELLANEOUS	SPA - ROOF
MISCELLANEOUS	WASHER CFCI/GFCI 5mA	20A 1P	1500	B	8	20A 1600	2P	---	MISCELLANEOUS	---
MISCELLANEOUS	DRYER CFCI/GFCI 5mA	20A 1P	1200	A	10	20A 180	2P	---	RECEPTACLE	RCPT - ROOF
SPACE	---	---	---	B	12	20A 2400	2P	---	MECH HEATING	GUTTER HEAT TRACE GFCI 30mA
APPLIANCE	FRIDGE CFCI	15A 1P	600	A	14	1000	---	---	MECH HEATING	---
APPLIANCE	MICROWAVE DRAWER CFCI	20A 1P	1500	B	16	1A 20	1P	---	MECH HEATING	EUH-1 - UNIT HEATER
RECEPTACLE	RCPT - KITCHEN COUNTER CFCI/GFCI 5mA	20A 1P	1500	A	18	1A 20	1P	---	MECH YEAR ROUND	BL-1 BOILER
RECEPTACLE	RCPT - KITCHEN COUNTER CFCI/GFCI 5mA	20A 1P	1500	B	20	20A 1500	1P	---	MOTOR	CP1/3-BOILER/LOOP PUMP
APPLIANCE	GAS RANGE/hood CFCI	20A 1P	1500	A	22	20A 1500	1P	---	MOTOR	CP2/7 - WATER HEATER/DOMESTIC
SPACE	---	---	---	B	24	20A 1500	1P	---	MOTOR	CP4/6 - SNOWMELT / LOOP
RECEPTACLE	RCPT - ISLAND COUNTER CFCI	20A 1P	1500	A	26	20A 1500	2P	---	MOTOR	CP6/7-RADIANT/LOOP
APPLIANCE	DISHWASHER CFCI/GFCI 5mA	20A 1P	1200	B	28	20A 1200	2P	---	MISCELLANEOUS	HUMIDIFIER CFCI/GFCI 5mA
RECEPTACLE	RCPT - LIVING/DINING CFCI	20A 1P	1200	A	30	40A 1200	2P	---	MISCELLANEOUS	EVC - GARAGE
RECEPTACLE	RCPT - FIREPLACE/TV CFCI	20A 1P	1200	B	32	3500	---	---	MISCELLANEOUS	---
RECEPTACLE	RCPT - BEDROOM E CFCI	20A 1P	1080	A	34	34 20A 1080	1P	---	RECEPTACLE	RCPT - GARAGE GFCI 5mA
RECEPTACLE	RCPT - 3RD BATH E	20A 1P	500	B	36	20A 500	1P	---	RECEPTACLE	RCPT - GARAGE GFCI 5mA
RECEPTACLE	RCPT - BEDROOM W CFCI	20A 1P	1080	A	38	0	---	---	SPACE	---
RECEPTACLE	RCPT - 3RD BATH W	20A 1P	500	B	40	0	---	---	SPACE	---

### PANEL SCHEDULE - P1

LOAD TYPE	LOAD DESCRIPTION	TYPE: VOLTAGE ENCLOSURE	LOADCENTER	AMPS POLES	CKT# LOAD	D	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION
RECEPTACLE	RCPT - MAST. BED CFCI	20A 1P	1440	A	2	50A 4800	2P	---	MISCELLANEOUS	SPA - ROOF
RECEPTACLE	RCPT - MAST. BATH	20A 1P	500	B	4	20A 800	2P	---	MISCELLANEOUS	---
RECEPTACLE	RCPT - POWDER ROOM	20A 1P	300	A	6	50A 4800	2P	---	RECEPTACLE	RCPT - ROOF
MISCELLANEOUS	WASHER CFCI/GFCI 5mA	20A 1P	1500	B	8	20A 1600	2P	---	MECH HEATING	GUTTER HEAT TRACE GFCI 30mA
MISCELLANEOUS	DRYER CFCI/GFCI 5mA	20A 1P	1200	A	10	1000	---	---	MECH HEATING	---
SPACE	---	---	---	B	12	30A 2400	2P	---	MECH COOLING	CU-1 - CONDENSING UNIT
APPLIANCE	FRIDGE CFCI	15A 1P	600	A	14	2498	---	---	MECH COOLING	---
APPLIANCE	MICROWAVE DRAWER CFCI	20A 1P	1500	B	16	20A 1500	1P	---	MECH YEAR ROUND	GF1 - GAS FIRED FURNACE
RECEPTACLE	RCPT - KITCHEN COUNTER CFCI/GFCI 5mA	20A 1P	1500	A	18	0	---	---	SPACE	---
RECEPTACLE	RCPT - KITCHEN COUNTER CFCI/GFCI 5mA	20A 1P	1500	B	20	1A 20	1P	---	MECH HEATING	EUH-1 - UNIT HEATER
APPLIANCE	RANGE/hood CFCI	20A 1P	1500	A	22	1A 20	1P	---	MECH YEAR ROUND	BL-1 BOILER
SPACE	---	---	---	B	24	20A 1500	1P	---	MOTOR	CP1/3-BOILER/LOOP PUMP
RECEPTACLE	RCPT - ISLAND COUNTER CFCI/GFCI 5mA	20A 1P	1500	A	26	20A 1500	1P	---	MOTOR	CP2/7 - WATER HEATER/DOMESTIC
APPLIANCE	DISHWASHER CFCI/GFCI 5mA	20A 1P	1200	B	28	20A 1200	1P	---	MOTOR	CP4/6 - SNOWMELT / LOOP
RECEPTACLE	RCPT - LIVING/DINING CFCI	20A 1P	1200	A	30	40A 1200	2P	---	MOTOR	CP6/7-RADIANT/LOOP
RECEPTACLE	FIREPLACE OUTLETS CFCI	20A 1P	700	B	32	40A 3500	2P	---	MISCELLANEOUS	EVC - GARAGE
RECEPTACLE	RCPT - 2ND COMMON CFCI	20A 1P	720	A	34	3500	---	---	MISCELLANEOUS	---
RECEPTACLE	RCPT - BEDROOM N CFCI	20A 1P	1080	B	36	20A 1080	1P	---	RECEPTACLE	RCPT - GARAGE GFCI 5mA
RECEPTACLE	RCPT - 2ND BATH N	20A 1P	500	A	38	20A 500	1P	---	RECEPTACLE	RCPT - GARAGE GFCI 5mA
RECEPTACLE	RCPT - BEDROOM S CFCI	20A 1P	1080	B	40	0	---	---	SPACE	---
RECEPTACLE	RCPT - 2ND BATH S	20A 1P	500	A	42	0	---	---	SPACE	---

### PANEL SCHEDULE - PH

LOAD TYPE	LOAD DESCRIPTION	TYPE: VOLTAGE ENCLOSURE	LOADCENTER	AMPS POLES	CKT# LOAD	D	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION
MECH YEAR ROUND	BOILER	20A 1P	1440	A	2	20A 200	2P	---	SPARE	---
MOTOR	CP-1 - BOILER PUMP	20A 1P	720	B	4	20A 200	1P	---	SPARE	---
MOTOR	CP-2 - CIRC PUMP	20A 1P	720	A	6	20A 200	1P	---	SPARE	---
MOTOR	CP-3 - CIRC PUMP	20A 1P	720	B	8	20A 200	1P	---	SPARE	---
MOTOR	CP-4 - LOOP PUMP	20A 1P	720	A	10	0	---	---	SPACE	---
SPACE	---	---	---	B	12	0	---	---	SPACE	---
SPACE	---	---	---	A	14	0	---	---	SPACE	---
SPACE	---	---	---	B	16	0	---	---	SPACE	---
SPACE	---	---	---	A	18	0	---	---	SPACE	---
SPACE	---	---	---	B	20	0	---	---	SPACE	---

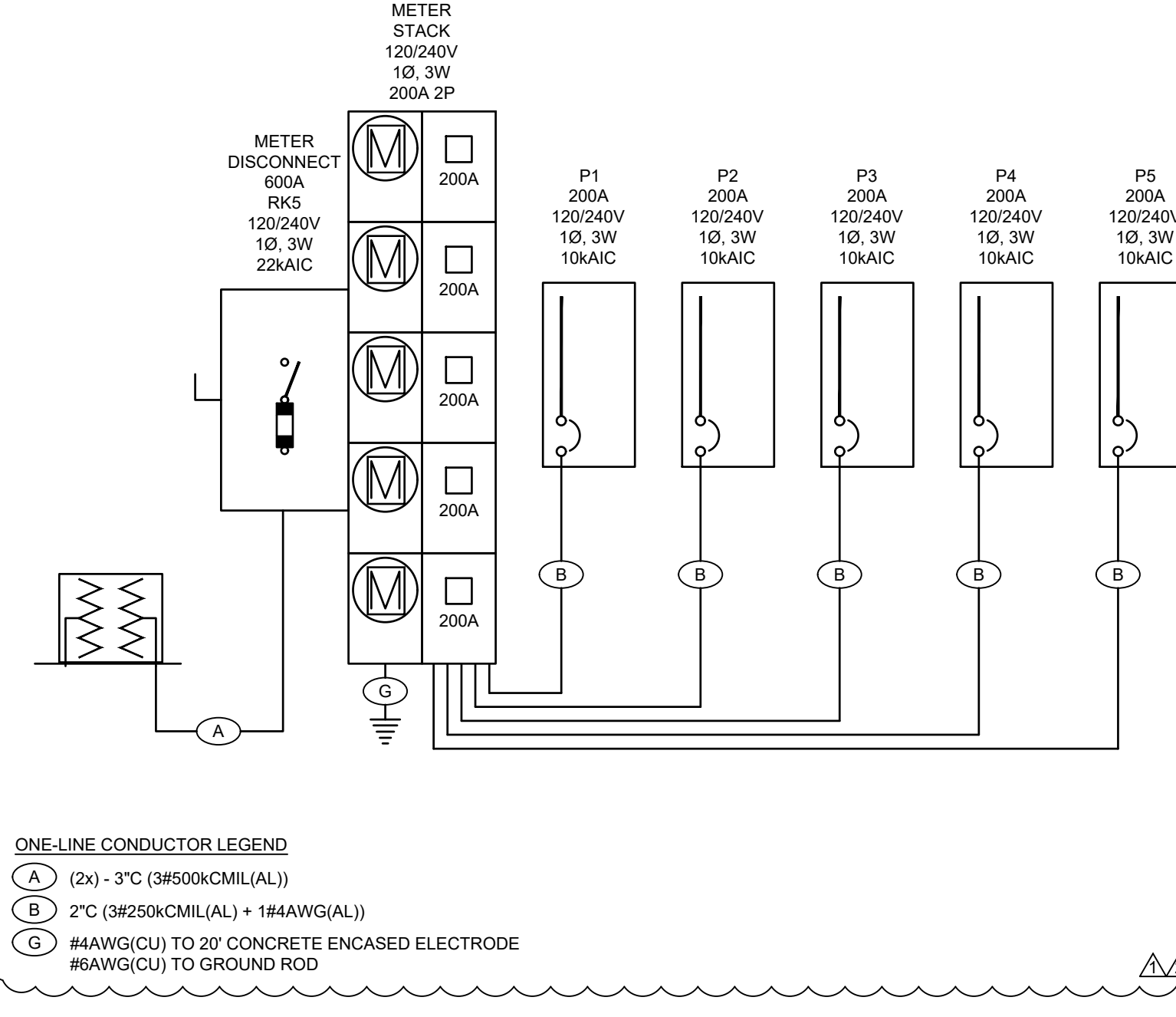
LOADS BY TYPE:

LOAD TYPE	CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)
LIGHTING	0.00	1.25	0.00
KITCHEN PROCESS	0.00	1.00	0.00
RECEPTACLES	0.00	1.00	0.00
MECH HEATING	0.00	1.00	0.00
MECH COOLING	0.00	1.00	0.00
MECH YEAR ROUND	1440.00	1.00	1440.00
APPLIANCE	0.00	1.00	0.00
MISCELLANEOUS MOTOR	2880.00	1.00	4320.00
SPARE	800.00	1.00	800.00
LARGEST MOTOR	ABOVE	0.25	360.00
TOTAL	5120.00		5480.00

LOADS BY PHASE:

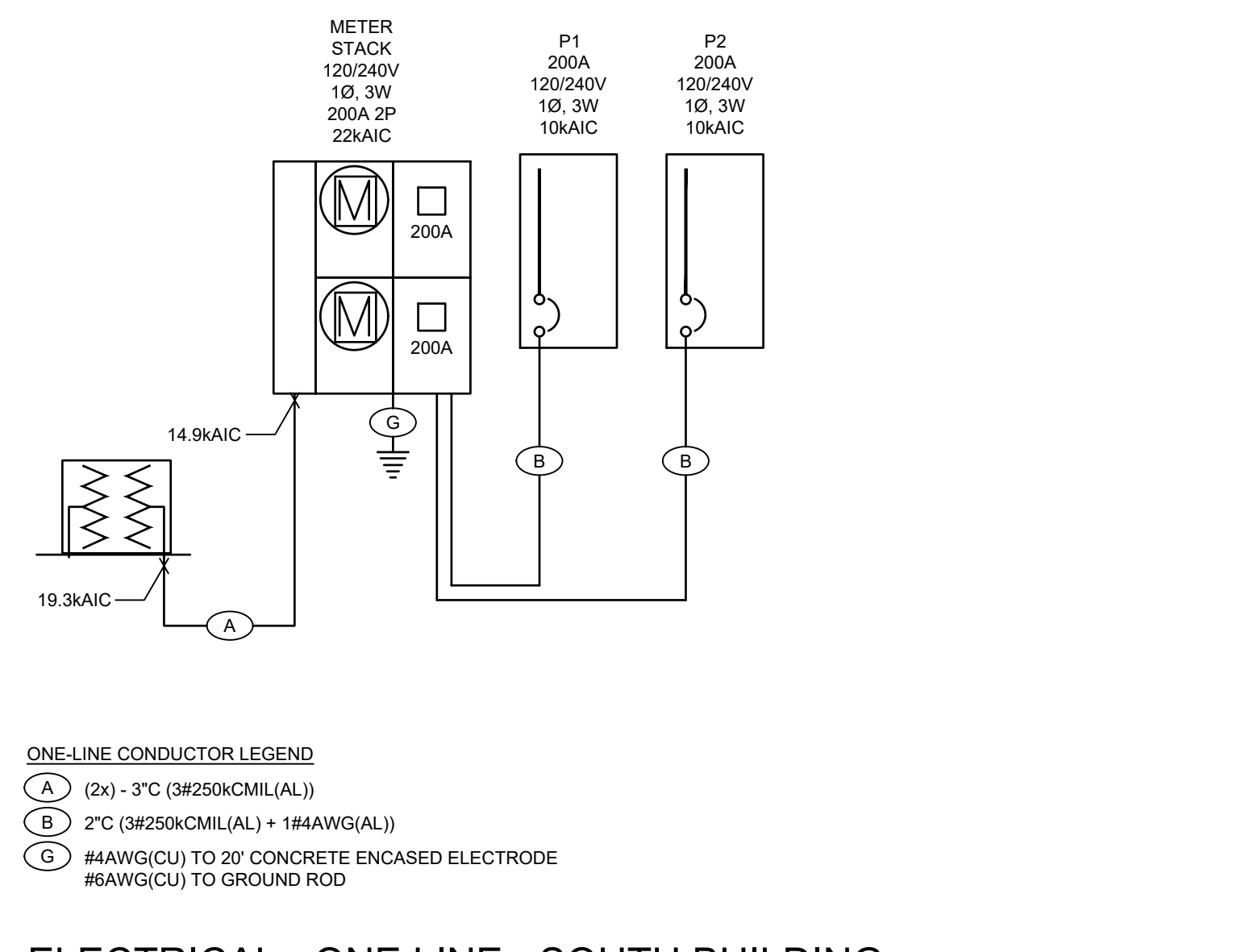
PHASE	CONNECTED LOAD (VA)	CONNECTED LOAD (AMPS)	BALANCE (PERCENT)
A	3290.00	27.33	A-B: 56.1
B	1840.00	15.33	B-A: 56.1
C	---	---	---
TOTAL/AVERAGE	5120.00	21.33	56.1

NOTES:  
1. THE LARGEST CONNECTED MOTOR LOAD IS INCLUDED IN MECHANICAL, PROCESS, OR MOTOR LOADS.



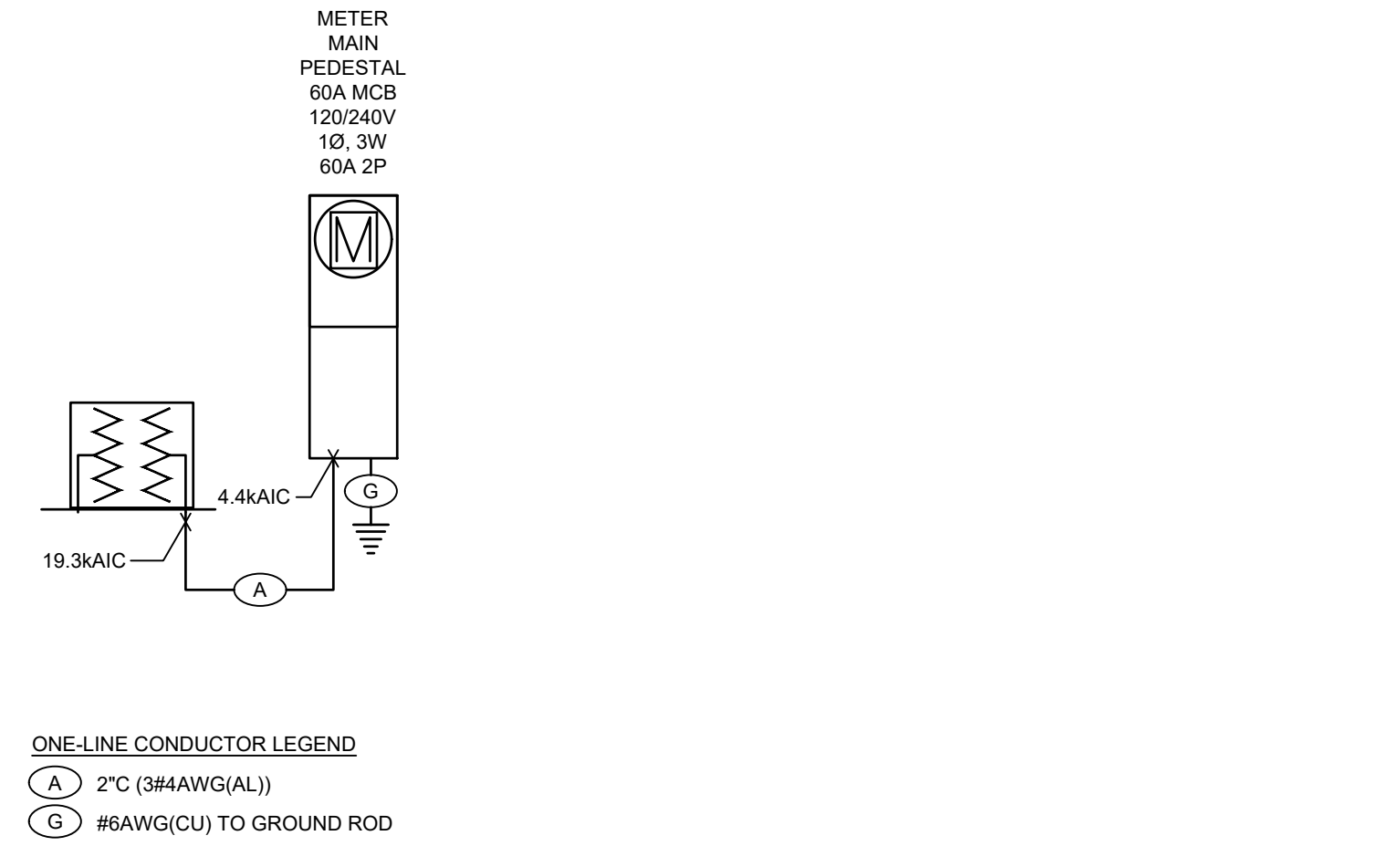
### ELECTRICAL - ONE LINE - NORTH BUILDING

- SCALE: NO SCALE
- ELECTRICAL ONE-LINE NOTES:  
1. PROVIDE GROUNDING AND BONDING MEETING 2020 NEC ARTICLE 250.64(D) REQUIREMENTS.  
2. PROVIDE SURGE SUPPRESSIVE DEVICES IN ALL RESIDENTIAL PANELS PER 230.87.  
3. UTILIZE SERIES RATED BREAKER COMBINATIONS IN RESIDENTIAL PANELS TO REDUCE BRANCH BREAKER INTERRUPT RATINGS.  
4. CIRCUITS IDENTIFIED WITHIN 2020 NEC 210.8(A) AND 210.12(A) ARE TO RECEIVE GROUND FAULT AND ARC FAULT PROTECTION, RESPECTIVELY, WHERE OUTLETS ARE BEHIND LARGE EQUIPMENT OR UNDER COUNTERS.  
5. SHORT CIRCUIT VALUES BASED UPON AN ANTICIPATED 167kVA UTILITY TRANSFORMER LOCATED AT A DISTANCE OF 100 FEET TO THE SERVICE. ELECTRICAL CONTRACTOR TO FIELD VERIFY INSTALLED TRANSFORMER AND DISTANCES TO RECALCULATE AS NECESSARY.  
6. FEEDERS EXTENDING FROM SERVICE GEAR TO INDIVIDUAL TENANT PANELS ARE TO BE INSTALLED UNDER SLAB SO THAT THE FEEDERS DO NOT EXTEND THROUGH NEIGHBORING UNITS.



### ELECTRICAL - ONE LINE - SOUTH BUILDING

- SCALE: NO SCALE
- ELECTRICAL ONE-LINE NOTES:  
1. PROVIDE GROUNDING AND BONDING MEETING 2020 NEC ARTICLE 250 REQUIREMENTS.  
2. PROVIDE SURGE SUPPRESSIVE DEVICES IN ALL RESIDENTIAL PANELS PER 230.87.  
3. UTILIZE SERIES RATED BREAKER COMBINATIONS IN RESIDENTIAL PANELS TO REDUCE BRANCH BREAKER INTERRUPT RATINGS.  
4. PROVIDE LABELING AT MAIN DISCONNECTS TO MEET 230.85.  
5. CIRCUITS IDENTIFIED WITHIN 2020 NEC 210.8(A) AND 210.12(A) ARE TO RECEIVE GROUND FAULT AND ARC FAULT PROTECTION, RESPECTIVELY, WHERE OUTLETS ARE BEHIND LARGE EQUIPMENT OR UNDER COUNTERS PROTECTION IS TO BE AT THE BREAKER.  
6. SHORT CIRCUIT VALUES BASED UPON AN ANTICIPATED 108kVA UTILITY TRANSFORMER LOCATED AT A DISTANCE OF 50 FEET TO THE SERVICE. ELECTRICAL CONTRACTOR TO FIELD VERIFY INSTALLED TRANSFORMER AND DISTANCES TO RECALCULATE AS NECESSARY.  
7. FEEDERS EXTENDING FROM SERVICE GEAR TO INDIVIDUAL TENANT PANELS ARE TO BE INSTALLED UNDER SLAB SO THAT THE FEEDERS DO NOT EXTEND THROUGH NEIGHBORING UNITS.



### ELECTRICAL - ONE LINE - SITE SNOWMELT

- SCALE: NO SCALE
- ELECTRICAL ONE-LINE NOTES:  
1. PROVIDE GROUNDING AND BONDING MEETING 2020 NEC ARTICLE 250 REQUIREMENTS.  
2. REFERENCE SITE PLAN FOR LOCATION ON PROPERTY.  
3. SHORT CIRCUIT VALUES BASED UPON AN ANTICIPATED 108kVA UTILITY TRANSFORMER LOCATED AT A DISTANCE OF 50 FEET TO THE SERVICE. ELECTRICAL CONTRACTOR TO FIELD VERIFY INSTALLED TRANSFORMER AND DISTANCES TO RECALCULATE AS NECESSARY.

### MECHANICAL EQUIPMENT SCHEDULE - NORTH BUILDING

UNIT NO.	FUNCTION (NOTES)	LOAD	VOLTS	Ø	MIN CIRC AMP	BRANCH CIRCUIT CONDUIT SIZE	WIRE NO.	WIRE SIZE	GRND WIRE SIZE	BRKR SIZE	START	DISC FUSE
CU	HEAT PUMP CONDENSING UNIT	4TON	240V	1	29.6A	1/2"	2	10	10	30A	WIU	30A 30A
HP	HEAT PUMP INTERIOR CASSETTE TYPICAL OF HP-2, 3&4	240V	1	0.4A	1/2"	2	14	14	---	---	WIU	---
EF	EXHAUST FAN - BATH	10W	120V	1	0.1A	1/2"	2	12	12	15A	WIU	---
EF	EXHAUST FAN - GARAGE	64W	120V	1	0.5A	1/2"	2	12	12	15A	WIU	---
ED	ELECTRIC UNIT HEATER	1.5kW	120V	1	12A	1/2"	2	12	12	20A	WIU	---
BL	GAS FIRED BOILER	1440W	120V	1	12A	1/2"	2	12	12	20A	WIU	---
CP	CIRCULATION PUMP	270W	120V	1	5A	1/2"	2	12	12	15A	WIU	---
CP	CIRCULATION PUMP TYPICAL OF CP-3, 4&7	270W	120V	1	5A	1/2"	2	12	12	15A	WIU	---
CP	CIRCULATION PUMP	1/8HP	120V	1	2A	1/2"	2	12	12			