\$ SINGLE POLE SWITCH \$2 TWO POLE SWITCH \$3 THREE-WAY SWITCH \$4 FOUR-WAY SWITCH \$D DIMMER SWITCH \$3D 3 WAY DIMMER SWITCH - (4D INDICATES A 4WAY DIMMER) \$MA MANUAL ON / AUTO OFF VACANCY SENSOR SWITCH \$MA MANUAL ON / AUTO OFF DIMMING VACANCY SENSOR SWITCH \$0S AUTO ON / AUTO OFF OCCUPANCY SENSOR SWITCH (OS)(OS) CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH \$SC SCENE CONTROL STATION \$_{MS} UNIT LIGHTING MANAGEMENT CONTROL STATION \$K KEY OPERATED LIGHT SWITCH \$T MANUAL ON - TIMED AUTO OFF LIGHT SWITCH \$P PILOT LIGHT SWITCH \$TO MANUAL MOTOR STARTER \$DR DOOR ACTIVATED SWITCH \$F CEILING FAN SWITCH

LIGHT FIXTURE LEGEND A 1'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED 2'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED 2'x2' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE A 2'x2' LED TROFFER OR DIRECT/INDIRECT GRID, FLANGE OR SURFACE MOUNTED A - OPEN STRIP LED FIXTURE A 📜 🚅 LED WALL BRACKET FIXTURE A — WALL BRACKET LIGHT FIXTURE A 🖒 RECESSED DOWNLIGHT CAN FIXTURE A - SURFACE CEILING OR PENDANT MOUNTED FIXTURE EX2 🔀 DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED EX1 SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED EM () WALL MOUNTED EMERGENCY LIGHT

EMR

EMERGENCY EXTERIOR EGRESS FIXTURE

ELECTRICAL EQUIPMENT LEGEND BRANCH CIRCUIT PANELBOARD FUSED SAFETY SWITCH / DISCONNECT COMBINATION LA-7 CIRCUITRY HOMERUN: PANEL LA - CIR. #7 CONDUIT OR WIRE CONCEALED IN WALL/CLG. (SOLID LINE TYPE) CONDUIT OR WIRE UNDERFLOOR/UNDERGND. (DASHED LINE TYPE) ELECTRICAL DEVICE LEGEND CEILING JUNCTION BOX - SURFACE/FLUSH

WALL JUNCTION BOX - SURFACE/FLUSH SPLIT WIRED DUPLEX RECEPTACLE CEILING MOUNTED DUPLEX RECEPTACLE FOURPLEX RECEPTACLE FLOOR MOUNTED FOURPLEX RECEPTACLE APPLIANCE RECEPTACLE - 3 WIRE $\bigoplus_{\mathsf{GFCI}}$ RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER USB RECEPTACLE WITH USB CHARGING CAPABILITIES RECEPTACLE MOUNTED ABOVE COUNTER RECEPTACLE MOUNTED IN CASEWORK GFCI RECEPTACLE - WITH GFCI AND WEATHER PROOF COVER $\bigcirc_{44"}^{\mathsf{GFCI}}$ RECEPTACLE - WITH GFCI AND MOUNTED AT 44" A.F.F. ELECTRIC HAND DRYER THERMOSTAT OPEN / CLOSE / STOP PUSH BUTTON

	PAD MOUNTED UTILITY TRANSFORMER
M	ELECTRICAL METER SHOWN IN ONE LINE
100 A 2P CLASS T	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 PI 225A MLO 225A 120/208V 120/2 3PH, 4W 3PH	208V

MAIN DISTRIBUTION GEAR LEGEND

GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK TO COMPLY WITH LATEST EDITION OF NEC, IECC AND ALL APPLICABLE GOVERNING CODES.

2. FIELD COORDINATION DURING CONSTRUCTION IS IMPERATIVE. CONTRACTORS BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES. 3. ELECTRIC UTILITY TO ADVISE OWNER AND/OR THE ELECTRICAL ENGINEER PRIOR TO SERVICE MODIFICATION REQUIRING COST TO THE OWNER.

1. ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWING, FIELD VERIFY ALL CONDITIONS PRIOR 2. ALL CONDUITS AND CONVEYANCES 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. 3. 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. 4. ALL BRANCH CIRCUITS WITH HOME RUNS OVER 50 FEET, WILL BE SIZED ONE SIZE LARGER. 5. ALL PENETRATIONS IN OR THROUGH FIRE RATED PARTITIONS SHALL BE FIRE STOPPED IN SUCH A

WAY THAT THE PENETRATION MATCHES THE FIRE RATING OF THE WALL. 6. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN THE APPROPRIATE DISCIPLINES AND CONTRACTORS.

PRIOR TO MAKING SHOP DRAWING SUBMITTALS. 8. COORDINATE THE MOUNTING HEIGHTS OF ALL RECEPTACLES MOUNTED ABOVE COUNTERS, CASEWORK AND APPLIANCE RECEPTACLES WITH ARCHITECTURAL ELEVATIONS.

9. BRANCH CIRCUIT AND SPECIAL SYSTEMS WIRING FOR DEVICES ON WALLS IN FINISHED AREAS WHICH CANNOT BE CONCEALED SHALL BE INSTALLED IN SURFACE MOUNTED RACEWAY. 10. 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 UN-PAINTED. EXPOSED CONDUIT, BOXES, ETC. ON THE EXTERIOR OF BUILDINGS SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE AS CLOSELY AS POSSIBLE.

7. COORDINATE ALL DEVICE, FIXTURE AND HARDWARE COLOR SELECTIONS WITH THE ARCHITECT

11. 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. 12. 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 15000 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

ASSOCIATED WITH PLUMBING AND HVAC EQUIPMENT AND OWNER/GENERAL CONTRACTOR

CONTRACTOR WILL PROVIDE A REMOTE TEST STATION AND ALL WIRING NECESSARY TO COMPLETE INSTALLATION. 13. REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL REQUIREMENTS

FURNISHED EQUIPMENT.

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

COMMUNICATION LEGEND

	FIRE ALARM EQUIPMENT LEGEND
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATION PANEL
F	FIRE ALARM PULL STATION
	FIRE ALARM HORN
	FIRE ALARM STROBE
	FIRE ALARM HORN STROBE
(D)	DUCT DETECTOR
S _P	SMOKE DETECTOR - PHOTOELECTRIC
S	SMOKE DETECTOR - IONIZATION
so	COMBINATION SMOKE / CARBON MONOXIDE DETECTOR
(H) _{135°}	HEAT DETECTOR - 135° ALARM
RL	REMOTE LAMP
Fs	FLOW SWITCH
Ts	TAMPER SWITCH
DH	DOOR HOLD - MAGNETIC HOLD

	SECURITY SYSTEM LEGEND
	SECURITY CAMERA
HC	ADA DOOR OPERATOR PUSH BUTTON
DS	ELECTRIC DOOR STRIKE
CR	CARD READER FOR DOOR OPERATOR

1. 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.

2. LIGHTING FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE AND SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID.

3. 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. 4. VERIFY LUMINAIRE MOUNTING REQUIREMENTS AND OVERALL HEIGHT OF ALL PENDANT

MOUNTED FIXTURES PRIOR TO ORDERING. 5. ALL LIGHT FIXTURES NEED TO BE COMPATIBLE WITH THE SWITCHES AND CONTROLS BEING

6. THE LIGHTING PACKAGE SHALL BE APPROVED BY BOTH THE ARCHITECT AND ENGINEER AS APPROVED EQUAL 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. 7. COORDINATE LUMINAIRE MOUNTING REQUIREMENTS PRIOR TO PLACING ORDER. RESPONSIBLE DIVISION:

EQUIPMENT	00			
	23	23	26	
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23(1)	26	26(2)	23
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR	20	00	00	
STARTERS	26	26	26	
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)
				20(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)

2. 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.

SUBSTITUTIONS:

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:

A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.

B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR TO

C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING

D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING AND ENERGY CONSERVATION CODES. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.

E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.

XFMR TRANSFORMER

DIAG DIAGRAM

HP HORSEPOWER

A" MOUNTING BEIGUT ABOVE	DIFF DIFFERENTIAL	HR HOUR	PT PRESSURE TRANSMITTER
14" MOUNTING HEIGHT ABOVE SINISHED FLOOR TO CENTER OF DEVICE			
A AMPS	DISCH DISCHARGE	HT HEIGHT	PTAC PACKAGED TERMINAL AIR CONDITIONER
A.D. ACCESS DOOR	DIV DIVISION	HTR HEATER	PV PLUG VALVE
AV AIR ADMITTANCE VALVE	DN DOWN	HWR HEATING WATER CURRY	PVC POLYVINYL CHLORIDE
BV ABOVE	DS DUCT SILENCER	HWS HEATING WATER SUPPLY	QTY QUANTITY
C AIR CONDITIONING UNIT	DWG DRAWING	HX HEAT EXCHANGER	RA RETURN AIR GRILLE / REGISTI
	DX DIRECT EXPANSION	HZ HERTZ	
C ABOVE COUNTER	(E) EXISTING	ID INSIDE DIAMETER	RCP 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	EC ELECTRICAL CONTRACTOR	INV INVERT	REQD REQUIRED
AIC AMPERE INTERRUPTING	ECC ECCENTRIC	JBOX JUNCTION BOX	RF RETURN FAN
CAPACITY	EF EXHAUST FAN	K KELVIN	RH RELATIVE HUMIDITY
A.F.F. ABOVE FINISHED FLOOR	EFF EFFICIENCY	KW KILOWATT	RHC REHEAT COIL
HU AIR HANDLING UNIT	EL ELEVATION	KVA KILO VOLT - AMPS	RLA RATED LOAD AMPS
LUM ALUMINUM	ELEC ELECTRIC	L LENGTH	RM ROOM
P ACCESS PANEL OR DOOR			RPM REVOLUTIONS PER MINUTE
TS AUTOMATIC TRANSFER SWITCH	ELEV ELEVATOR	LAT LEAVING AIR TEMPERATURE	SA SUPPLY AIR GRILLE / REGISTE
V AUDIO / VIDEO	EM EMERGENCY FUNCTION	LV LAVATORY	SC SHORT CIRCUIT
VG AVERAGE	ENT ENTERING	LB POUND	
WG AMERICAN WIRE GAGE	EMT ELECTRIC METALLIC TUBE	LD LINEAR DIFFUSER	SCA SHORT CIRCUIT AVAILABLE
AS BUILDING AUTOMATION SYSTEM	EQ EQUAL	LF LINEAR FEET	SCCR SHORT CIRCUIT CURRENT RATING
	EQUIP EQUIPMENT	LIN LINEAR	SCH SCHEDULE
B BASEBOARD	EQUIV EQUIVALENT	LIQ LIQUID	
D BACK DRAFT DAMPER	ES END SWITCH	LM LUMEN	SD SMOKE DAMPER
FP BACK FLOW PREVENTOR	ESP EXTERNAL STATIC PRESSURE	LRA LOCKED ROTOR AMPS	SEF SMOKE EXHAUST FAN
L BOILER	ET EXPANSION TANK	LV LOUVER	SF SUPPLY FAN
LDG BUILDING		LVG LEAVING	SH SENSIBLE HEAT
LW BELOW	EWC ELECTRIC WATER COOLER		SH SHOWER
OB BOTTOM OF BEAM	EWT ENTERING WATER TEMPERATURE	LWT LEAVING WATER TEMPERATURE	SP STATIC PRESSURE
OD BOTTOM OF DUCT		MBH THOUSANDS OF BTU PER HOUR	SPD SURGE PROTECTION DEVICE
OP BOTTOM OF PIPE	EX EXHAUST	MC MECHANICAL CONTRACTOR	SPEC SPECIFICATION
SMT BASEMENT	EXPAN EXPANSION	MCA MINIMUM CIRCUIT AMPACITY	SQ SQUARE
	EXT EXTERNAL	MCB MAIN CIRCUIT BREAKER	
TU BRITISH THERMAL UNIT	F DEGREES FAHRENHEIT	MD MOTORIZED DAMPER	SS STAINLESS STEEL
CHILLER	FA FREE AREA	MDP MAIN DISTRIBUTION PANEL	SS SAFETY SHOWER
CAP CAPACITY	FC FAN COIL UNIT	MED MEDIUM	STD STANDARD
CB CIRCUIT BREAKER	FC FOOTCANDLE	MFR MANUFACTURER	STL STEEL
BV CIRCUIT BALANCING VALVE	FCV FLOW CONTROL VALVE	MIN MINIMUM	SYS SYSTEM
CCT CORRELATED COLOR	FD FIRE DAMPER	MISC MISCELLANEOUS	TEMP TEMPERATURE
EMPERATURE	FD FLOOR DRAIN		TR TRANSFER GRILLE / REGISTEI
CKT CIRCUIT	FIN FINISHED	MLO MAIN LUG ONLY	TR TAMPER RESISTANT
CFH CUBIC FEET PER HOUR		MOCP MAXIMUM OVERCURRENT	TT TEMPERATURE TRANSMITTER
FM CUBIC FEET PER MINUTE	FLA FULL LOAD AMPS	PROTECTION	TTB TELECOMMUNICATIONS
HWR CHILLED WATER RETURN	FLEX FLEXIBLE	MTD MOUNTED	TERMINAL BACKBOARD
CHWS CHILLED WATER SUPPLY	FLR FLOOR	MUA MAKE-UP AIR UNIT	TYP TYPICAL
CAST IRON	FOB FLAT ON BOTTOM	N NEUTRAL	TX TRANSFORMER
CENTER LINE	FOT FLAT ON TOP	NC NORMALLY CLOSED	UC UNDERCUT DOOR
	FP FIRE PROTECTION	NEG NEGATIVE	
CLG CEILING	FP FIRE PUMP	NIC NOT IN CONTRACT	UH UNIT HEATER
CMU CONCRETE MASONRY UNIT	FPM FEET PER MINUTE	NL NIGHT / SECURITY LIGHT - DO	UNO UNLESS NOTED OTHERWISE
CO CLEAN OUT	FPS FEET PER SECOND	NOT SWITCH	UNOCC UNOCCUPIED
OL COLUMN	FS FLOW SWITCH	NO NORMALLY OPEN	UR URINAL
COMP COMPRESSOR		NOM NOMINAL	V VOLTS
CONC CONCRETE		NTS NOT TO SCALE	VA VOLT AMPERE
OND CONDENSATE	FT FEET	OA OUTSIDE AIR	VA VALVE
CONN CONNECTION	FXC FLEXIBLE CONNECTION	OBD OPPOSED BLADE DAMPER	VAV VARIABLE AIR VOLUME UNIT
ONT CONTINUATION	GND GROUND		VFD VARIABLE FREQUENCY DRIVE
ONTR CONTRACTOR	GA GAUGE		VRF VARIABLE REFRIGERANT FLO
	GAL GALLON	OCC OCCUPIED	VOLT VOLTAGE
	GALV GALVANIZED	OCP OVER CURRENT PROTECTION	
T COOLING TOWER	GEC GROUND ELECTRODE	OD OUTSIDE DIAMETER	VTR VENT THROUGH ROOF
T CURRENT TRANSFORMER	CONDUCTOR	OL OVERLOAD	W WIDTH
U CONDENSING UNIT	GFCI / GFI GROUND FAULT CIRCUIT	ORD OVERFLOW ROOF DRAIN	W WATTS
U COPPER	INTERRUPTER	OZ OUNCE	W/ WITH
UH CABINET UNIT HEATER	GC GENERAL CONTRACTOR	PBD PARALLEL BLADE DAMPER	W/O WITHOUT
VB CONSTANT VOLUME BOX	GPH GALLONS PER HOUR	PD PRESSURE DROP	WB WET BULB
WR CONDENSER WATER RETURN	GPM GALLONS PER MINUTE		WC WATER COLUMN
CWS CONDENSER WATER SUPPLY	GRS/LB GRAINS PER POUND	PH PHASE	WC WATER CLOSET
		POS POSITIVE PRESSURE	
B DRY BULB	H 20 WATER	POS POINT OF SALES	
EPT DEPARTMENT	HB HOSE BIBB	PRV PRESSURE REDUCING VALVE	WP WEATHERPROOF
F DRINKING FOUNTAIN	HD HEAD (SEE SCHEDULES)	PS PRESSURE SWITCH	WPIU WEATHERPROOF IN-USE
DIA DIAMETER	HP HEAT PUMP	PSI POUNDS PER SQUARE INCH	WSR WITHSTAND RATING

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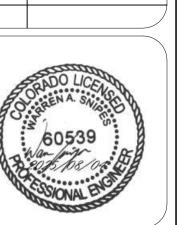
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DRAWN BY: CHECKED BY: SHEET NUMBER:

E0-1

PADDOCK 2 - EXTERIOR FULL CUTOFF WALL SCONCE

WET LISTED, ETL LISTED

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 HOMEWORKS OR EQUIVALENT TO ALLOW SCENE PROGRAMMING AND

85CRI, 8W

EQUIVALENT WALL SURFACE 159LM, 3000K

INTEGRATE SHADE CONTROL. 3. PROVIDE COMPATIBLE NORA DOWNLIGHT FOR HOUSING SPECIFIED FOR D1 WITH

SW1 73370-66-L

MEGIL <u>______</u> GARAGE 4-13 [5-13](CN)— LIGHTING FLAG NOTES: 1> 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. (DN)—

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

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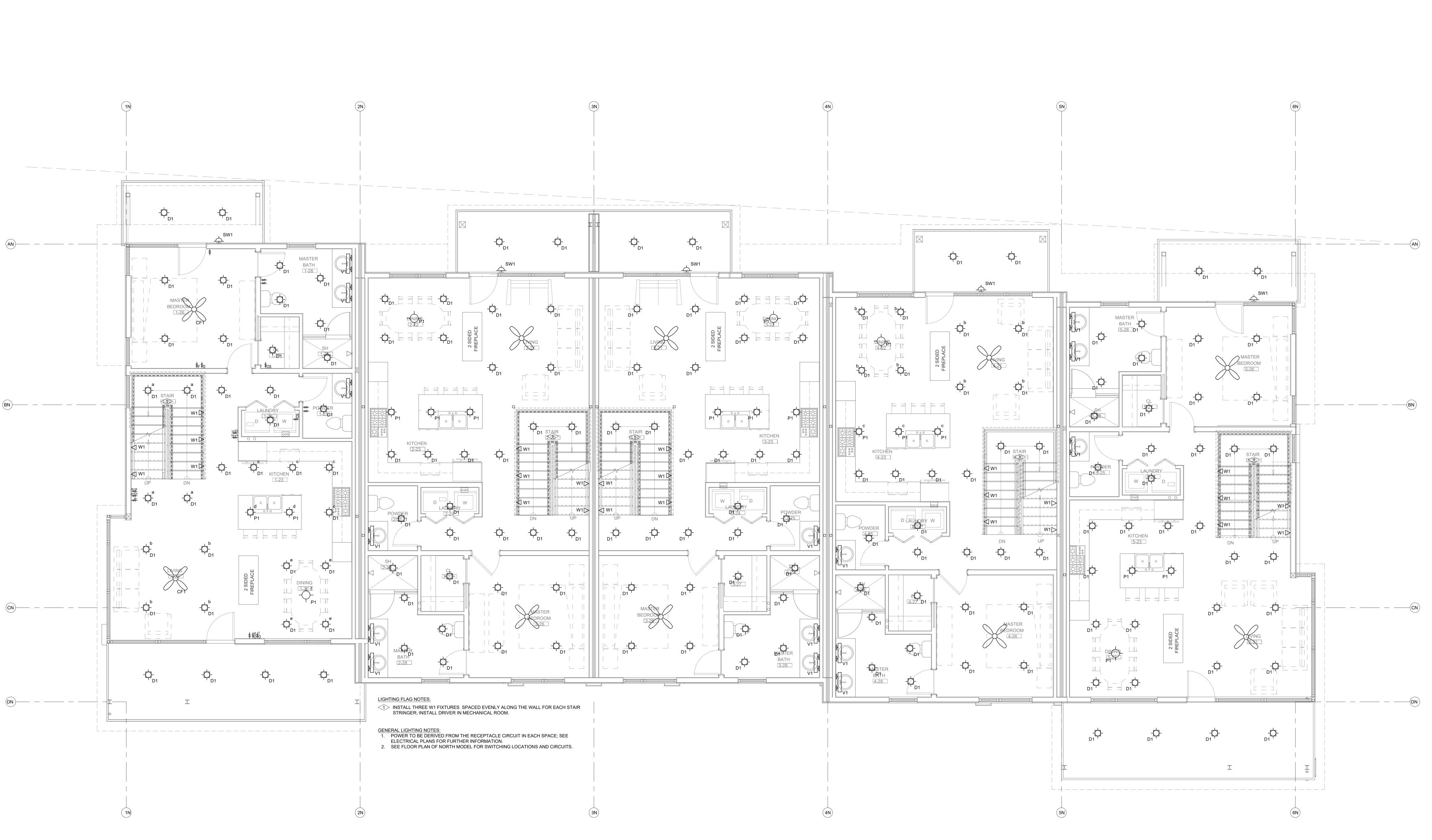
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LIGHTING - NORTH BUILDING - LEVEL 2 FLOOR PLAN

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

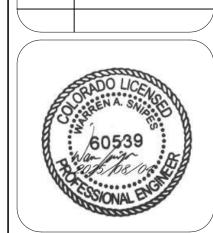
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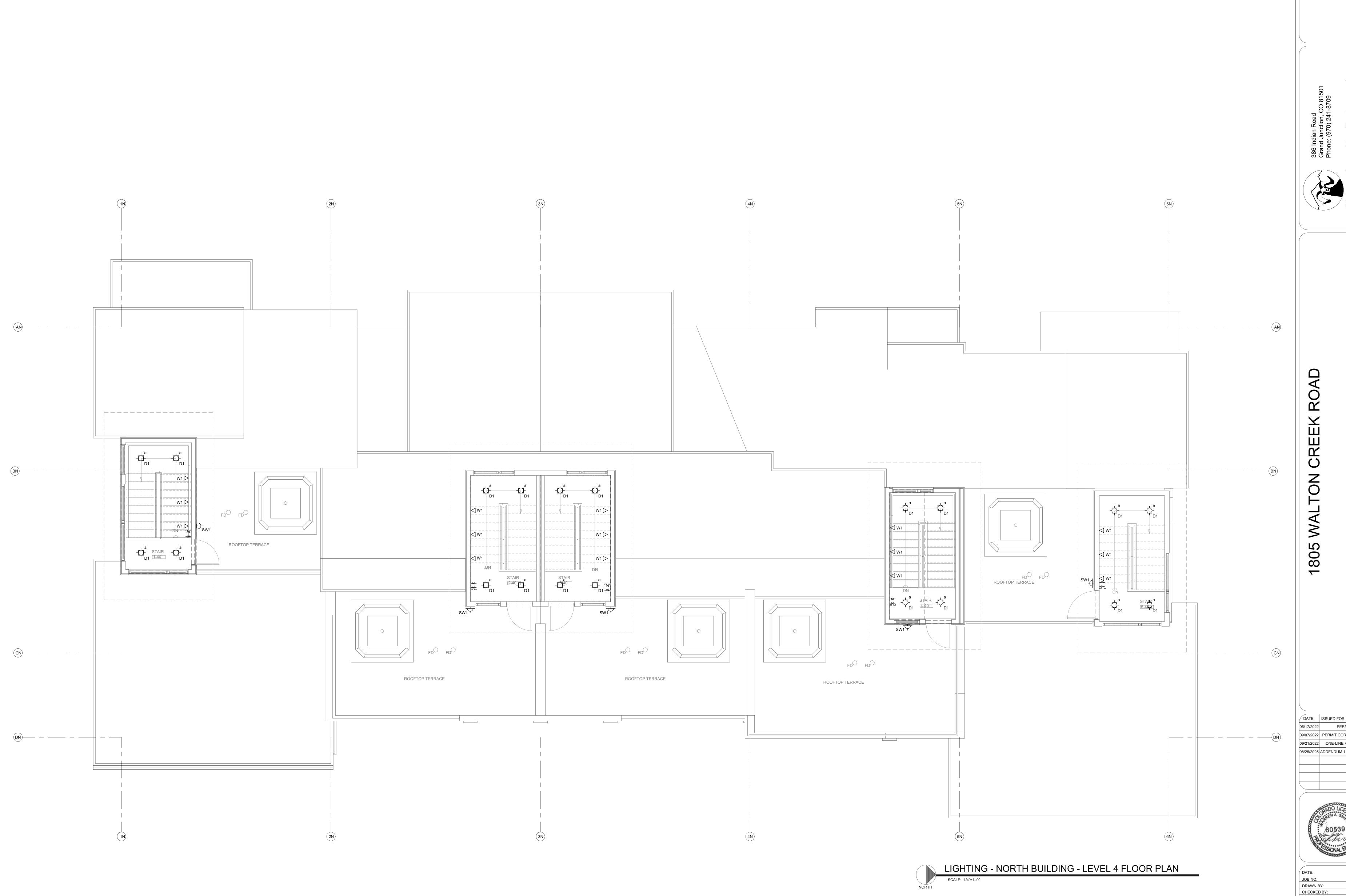
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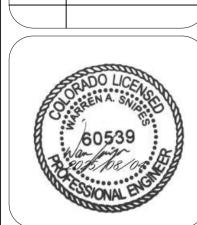


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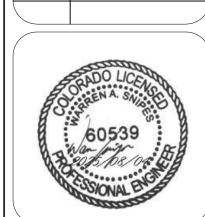


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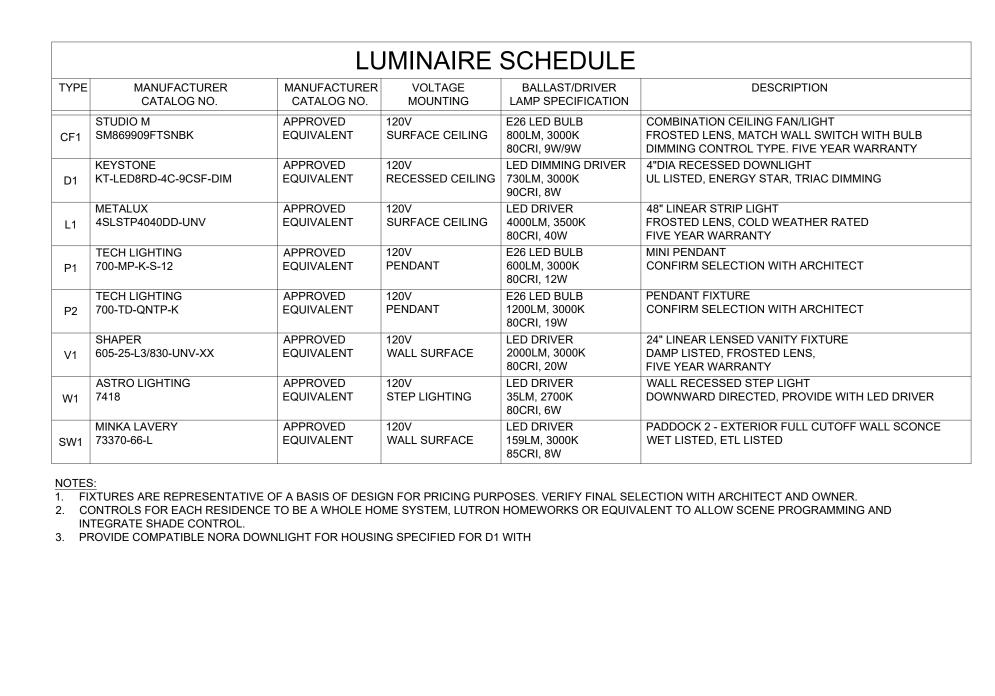
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Mechanical & Electrical Engineers

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06/17/2022 PERMIT

09/07/2022 PERMIT CORRECTIONS

09/21/2022 ONE-LINE REVISION

08/25/2025 ADDENDUM 1 RE-ISSUE



DATE: 06/17/2022

JOB NO: 21-276

DRAWN BY: BCE

CHECKED BY: BCE

SCALE: AS SHOWN

SHEET NUMBER:

า**Sulting Engine**(I & Electrical Engine

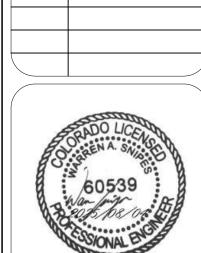
CREEK 1805

 DATE:
 ISSUED FOR:

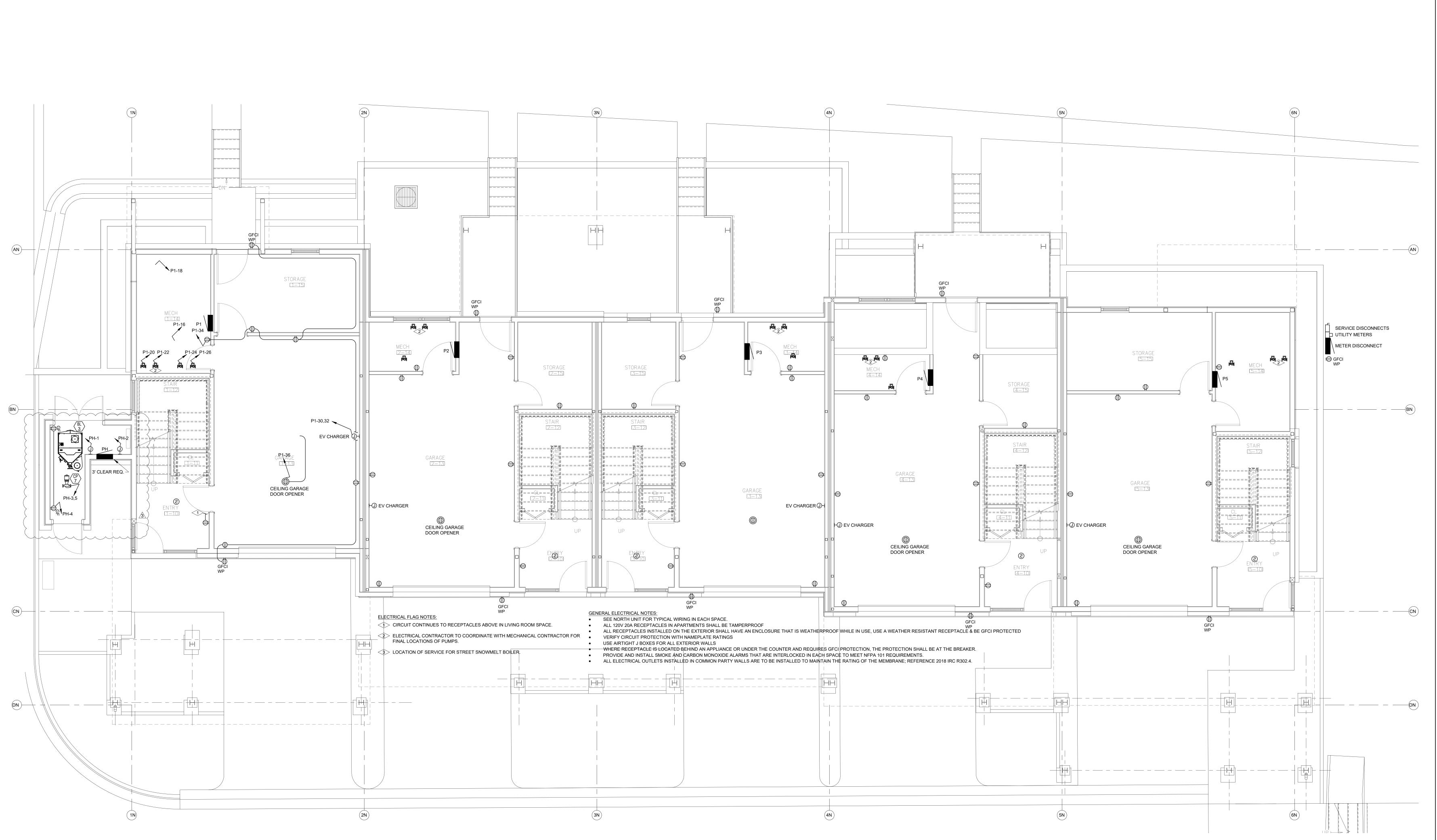
 06/17/2022
 PERMIT

 09/07/2022
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 09/21/2022
 ONE-LINE REVISION
 08/25/2025 ADDENDUM 1 RE-ISSUE 3



JOB NO: DRAWN BY: CHECKED BY: SCALE: AS SHOWN SHEET NUMBER:



386 Indian Road
Grand Junction, CO 81501
Phone: (970) 241-8709

Norn Consulting Engineers, Inc.

ALTON CREEK ROAD

805

DATE: ISSUED FOR:

06/17/2022 PERMIT

09/07/2022 PERMIT CORRECTIONS

09/21/2022 ONE-LINE REVISION

08/25/2025 ADDENDUM 1 RE-ISSUE 3



DATE: 06/17/2022

JOB NO: 21-276

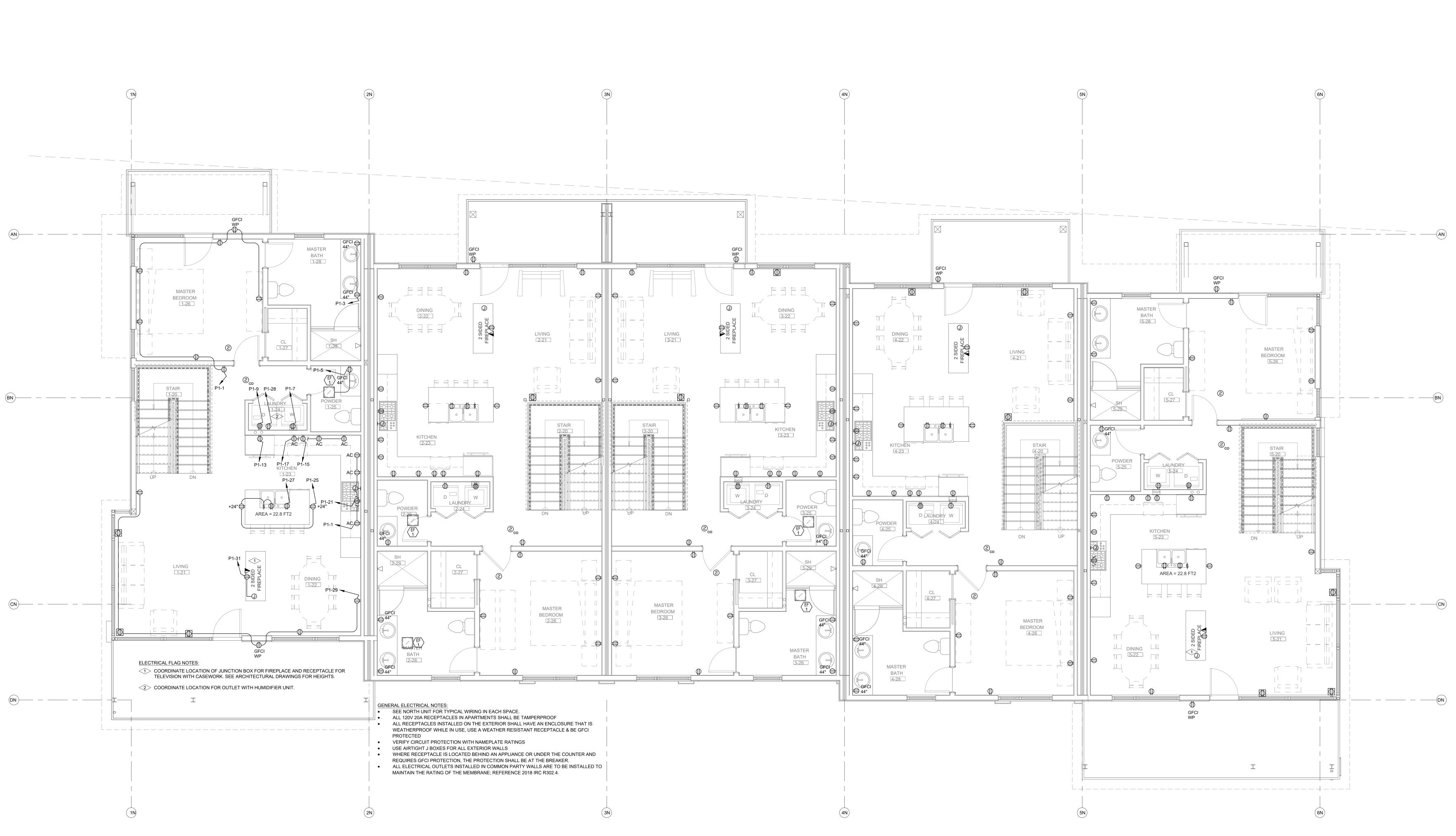
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SCALE: AS SHOWN

SHEET NUMBER:

ELECTRICAL - NORTH BUILDING - LEVEL 1 FLOOR PLAN



805

DATE: ISSUED FOR: 06/17/2022

09/21/2022 ONE-LINE REVISION 08/25/2025 ADDENDUM 1 RE-ISSUE/3

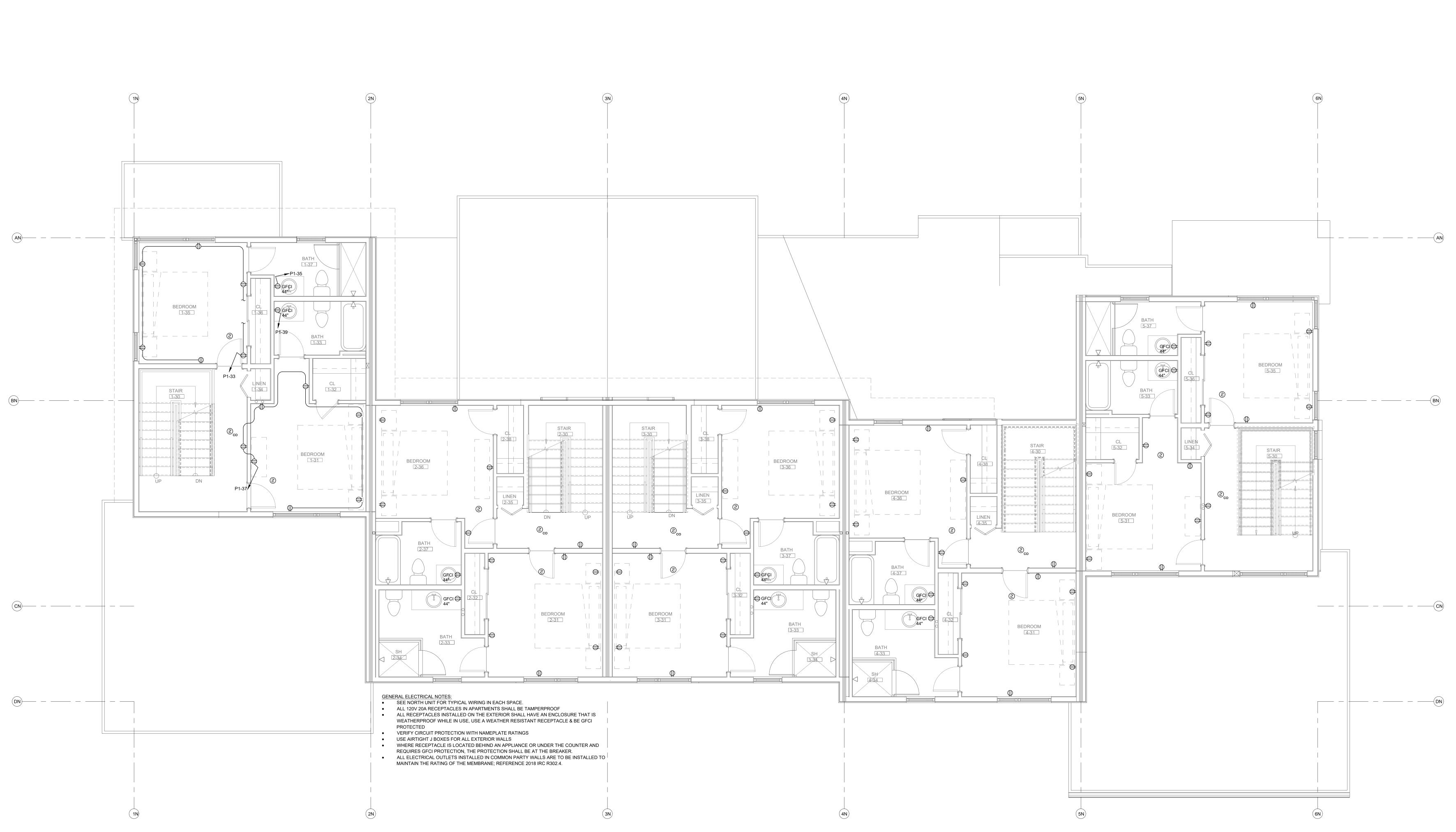


DRAWN BY: CHECKED BY:

ELECTRICAL - NORTH BUILDING - LEVEL 2 FLOOR PLAN

AS SHOWN

SHEET NUMBER:



386 Indian Road
Grand Junction, CO 81501
Phone: (970) 241-8709
ighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers

JAD

805 WALTON CREEK

DATE: ISSUED FOR:

06/17/2022 PERMIT

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09/21/2022 ONE-LINE REVISION

08/25/2025 ADDENDUM 1 RE-ISSUE/3



DATE: 06/17/2022

JOB NO: 21-276

DRAWN BY: BCE

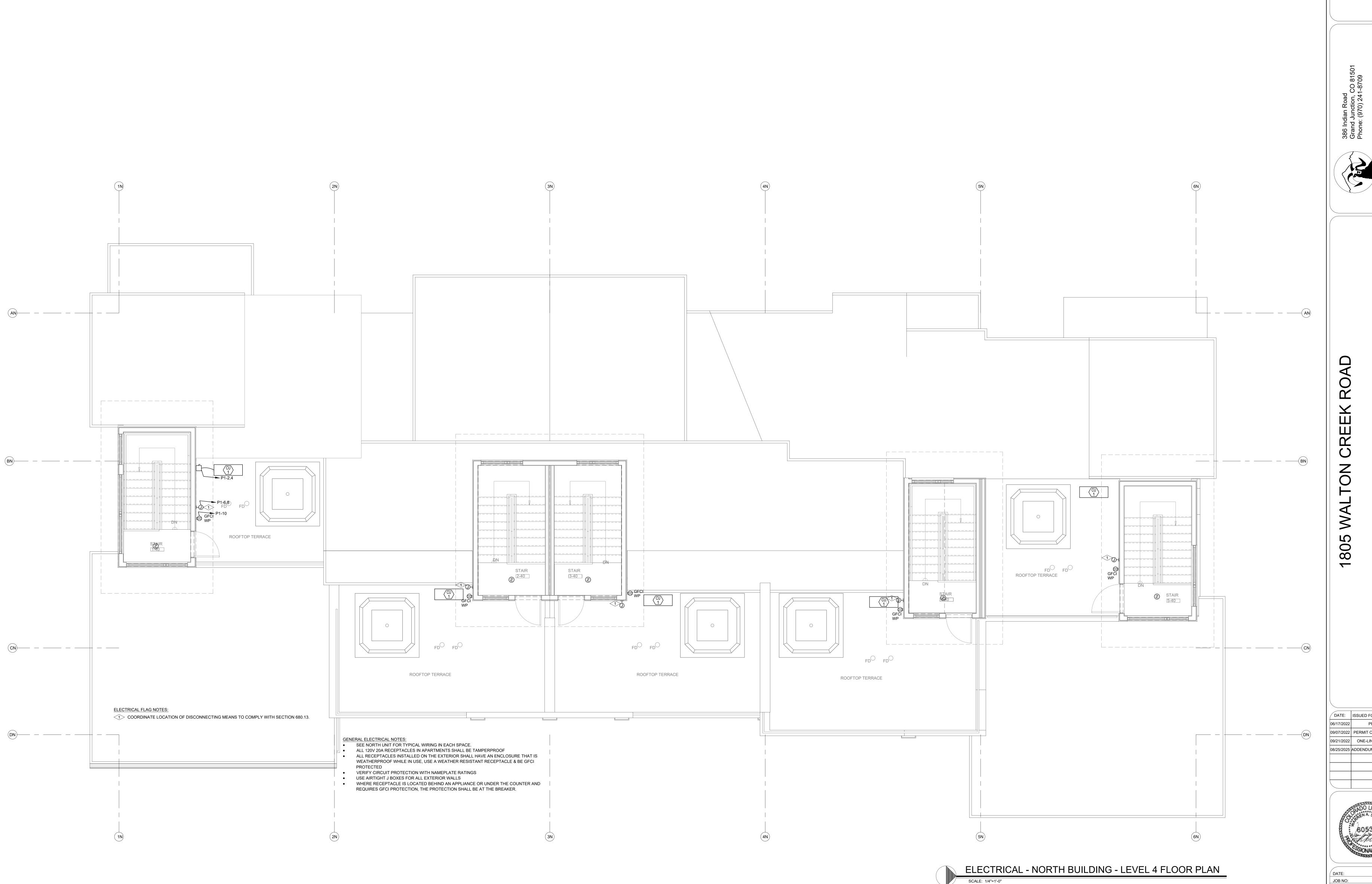
CHECKED BY: BCE

SCALE: AS SHOWN

SHEET NUMBER:

August 25, 2025 - 3:54:13pm

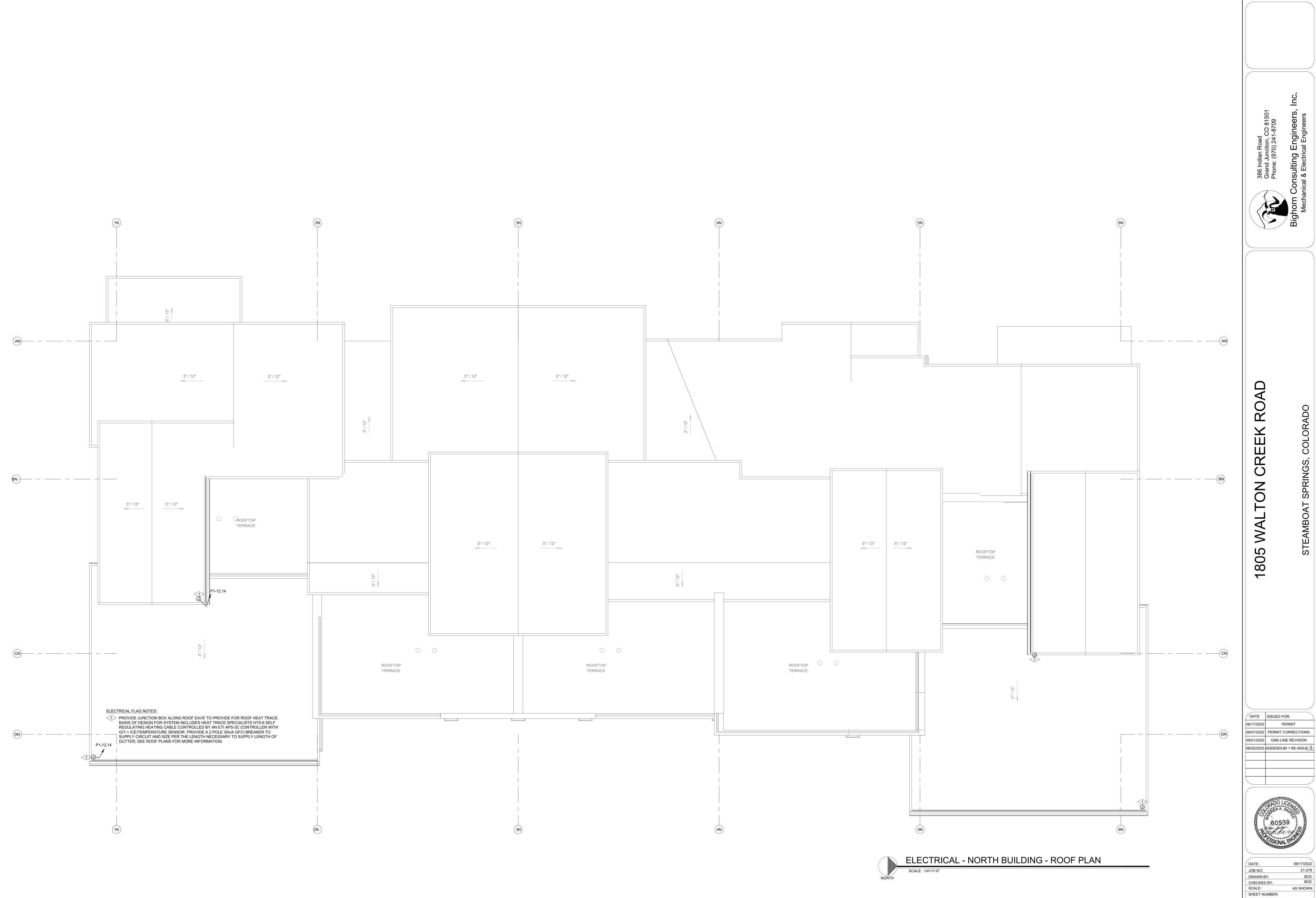
ELECTRICAL - NORTH BUILDING - LEVEL 3 FLOOR PLAN



DATE: ISSUED FOR: 09/21/2022 ONE-LINE REVISION 08/25/2025 ADDENDUM 1 RE-ISSUE/3



DRAWN BY: CHECKED BY: SCALE: AS SHOWN SHEET NUMBER:



E2-5

August 25, 2025 - 3:54:14pm

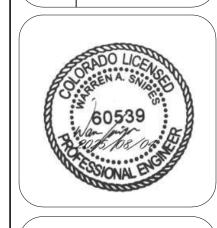
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CREEK 1805

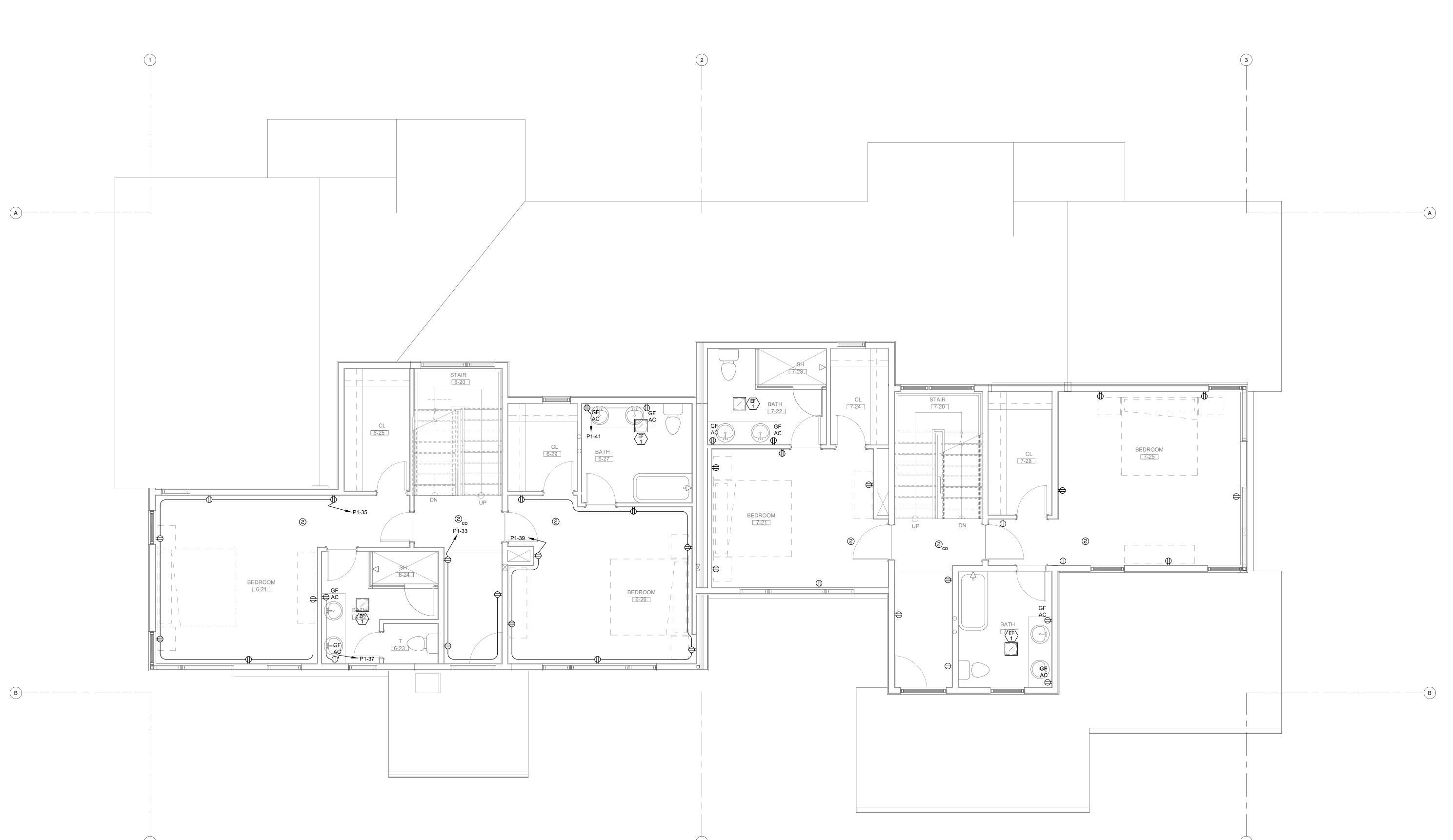
DATE: ISSUED FOR: 06/17/2022 09/07/2022 PERMIT CORRECTIONS 09/21/2022 ONE-LINE REVISION

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August 25, 2025 - 3:54:14pm



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

า**Sulting Engine**(I & Electrical Engine

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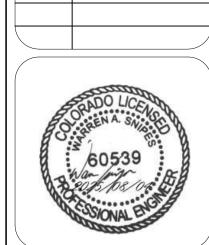
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CREEK 1805

DATE: ISSUED FOR: 06/17/2022 PERMIT 09/07/2022 PERMIT CORRECTIONS
09/21/2022 ONE-LINE REVISION 08/25/2025 ADDENDUM 1 RE-ISSUE 3



JOB NO: DRAWN BY: CHECKED BY: SCALE: SHEET NUMBER:

August 25, 2025 - 3:54:15pm

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DATE: ISSUED FOR: PERMIT

09/07/2022 PERMIT CORRECTIONS 09/21/2022 ONE-LINE REVISION 08/25/2025 ADDENDUM 1 RE-ISSUE/3\

JOB NO: DRAWN BY: CHECKED BY: SCALE: AS SHOWN SHEET NUMBER:

dential Calculation - Village D NFPA 70 ART. 220 PART I\			PANEL SCHEDULE -	P1 TYPE: LOAD VOLTAGE: 120/24 ENCLOSURE: NEMA		BUS SIZE: MAIN BRKR: MOUNTING:			PHASES: 1 WIRES: 3 SC RATING: 10000	NEUTRAL BUS: YES GROUND BUS: YES
2020 NEC 220.82(B) 371 SQFT Garage Level			LOAD TYPE	LOAD DESCRIPTION	AMPS POLES	CKT# 0 LOAD	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION
1014 SQFT Main Level 686 SQFT Upper Level			RECEPTACLE	RCPT - MAST. BED CAFCI	20A 1P	1 A 1440	2 2880	30A 2P	MECH YEAR ROUND	CU-1 - HEAT PUMP HACR
136 SQFT Upper Stairwell	0004.1/4		RECEPTACLE	RCPT - MAST. BATH	20A 1P	3 B 500	4 2880		MECH YEAR ROUND	
2207 SQFT General Lighting Load 2 CCT Small Appliance	6621 VA 3000 VA		RECEPTACLE	RCPT - POWDER ROOM	20A 1P	5 300	6 4800	50A 2P	MISCELLANEOUS	SPA - ROOF
1 CCT Laundry Circuit Total General Load:	1500 VA 11121 VA	General Lighting Load: 11121 VA	MISCELLANEOUS	WASHER CAFCI/GFCI 5mA	20A 1P	7 1500	8 4800		MISCELLANEOUS	
Appliance Loads:			MISCELLANEOUS	DRYER GFCI 5mA	30A 2P	9 2500 A	10 180	20A 1P	RECEPTACLE	RCPT - ROOF
1 Refrigerator 1 Dishwasher	600 VA 1200 VA		MISCELLANEOUS			11 B 2500	12 1000	20A 2P	MECH HEATING	GUTTER HEAT TRACE GFCI 30mA
1 Disposal 1 Microwave	900 VA 1200 VA		APPLIANCE	FRIDGE CAFCI	15A 1P	13 A 600	14 1000		MECH HEATING	
1 Gas Range/ Hood	1000 VA 4900 VA	Appliance Load: 4900 VA	APPLIANCE	MICROWAVE DRAWER CAFCI	20A 1P	15 B 1500	16 20	1A 1P	MECH HEATING	EUH-1 - UNIT HEATER
Dryer Loads:			RECEPTACLE	RCPT - KITCHEN COUNTER CAFCI/GFCI 5mA	20A 1P	17 A 1500	18 20	1A 1P	MECH YEAR ROUND	BL-1 BOILER
1 Electric Dryer	5000 VA	Electric Dryer Load: 5000 VA	RECEPTACLE	RCPT - KITCHEN COUNTER CAFCI/GFCI 5mA	20A 1P	19 B 1500	20 1500	20A 1P	MOTOR	CP1/3-BOILER/LOOP PUMP
Oven loads: 1 Electric Oven	9600 VA	Electric Oven Load: 9600 VA	APPLIANCE	GAS RANGE/HOOD CAFCI	20A 1P	21 A 1500	22 1500	20A 1P	MOTOR	CP2/7- WATER HEATER/DOMESTIC
Other Loads:			SPACE	==		23 B	24 1500	20A 1P	MOTOR	CP4/6 - SNOWMELT / LOOP
1 Humidifier	1200 VA		RECEPTACLE	RCPT - ISLAND COUNTER CAFCI/GFCI 5mA	20A 1P	25 A 1500	26 1500	20A 1P	MOTOR	CP6/7-RADIANT/LOOP
1 Boiler 2 Circ Pumps	1440 VA 720 VA		APPLIANCE	DISHWASHER CAFCI/GFCI 5mA	20A 1P	27 B 1200	28 1200	20A 1P	MISCELLANEOUS	HUMIDIFIER CAFCI/GFCI 5mA
1 Irrigation Pump 1 Hot Tub	2400 VA 9600 VA		RECEPTACLE	RCPT - LIVING/DINING CAFCI	20A 1P	29 A 1260	30 3500	40A 2P	MISCELLANEOUS	EVC - GARAGE
1 EVC Level II	7200 VA 23280 VA	125% LARGEST MOTOR: 1440 VA Total Other Load: 23280 VA	RECEPTACLE	RCPT - FIREPLACE/TV CAFCI	20A 1P	31 B 1200	32 3500		MISCELLANEOUS	
		Subtotal General Loads: 55341 VA	RECEPTACLE	RCPT - BEDROOM E CAFCI	20A 1P	33 A 1080	34 1500	20A 1P	RECEPTACLE	RCPT - GARAGE GFCI 5mA
		10000 VA @ 100% 10000 VA 45341 VA @ 40% 18136.4 VA	RECEPTACLE	RCPT - 3RD BATH E	20A 1P	35 B 500	36 1500	20A 1P	RECEPTACLE	RCPT - GARAGE GFCI 5mA
		00400 4 1/4	DECEDIACIE	DODT DEDDOOMW	004	107	100		00405	

RCPT - BEDROOM W

RCPT - 3RD BATH W

28136.4 VA

38996 VA

162.5 A

Heating Loads: 10860 VA

Cooling Loads: 5760 VA

10860 VA Greater of Noncoincidental Loads: 10860 VA

DEMAND:

RECEPTACLE

RECEPTACLE

PH	TYPE: VOLTAGE: ENCLOSURE:	120/240		MAIN	BRKR:	60 60 SUR	FACE	PHASES: 1 WIRES: 3 SC RATING: 10000	NEUTRAL BUS: YES GROUND BUS: YES
LOAD DESCRIPTION	l .		AMPS POLES	CKT# LOAD	۵	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION
BOILER 			20A 1P	1 1440	А	2 500	20A 1P	MISCELLANEOUS	FACP
CP-1 - BOILER LOOI	PPUMP		20A 2P	3 775	В	4 440	20A 1P	RECEPTACLE	RCPT/LIGHT - BOILER ROOM
				5 775	А	6 200	20A 1P	SPARE	SPARE
SPARE 			20A 1P	7 1200	В	8 200	20A 1P	SPARE	SPARE
SPARE 			20A 1P	9 1200	А	10 0		SPACE	
				11 0	В	12 0		SPACE	
				13 0	А	14 0		SPACE	
				15 0	В	16 0		SPACE	
				17 0	А	18 0		SPACE	
				19 0	В	20 0		SPACE	
1				LOADS BY	PHASE	Ē:	'		
CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)		PHASE			CONNECTED LOAD (VA)	CONNECTED LOAD (AMPS)	BALANCE (PERCENT)
0.00 0.00 0.00	1.25 0.00 1.00	0.00 0.00 0.00		A B C			4115.00 2615.00 	34.29 21.79 	A-B: 63.5 B-A: 63.5
0.00 0.00	1.00 1.00	0.00 0.00			/AVERA	GE	6730.00	28.04	63.5
0.00 500.00 1550.00 2800.00	1.00 1.00 1.00 1.00	0.00 500.00 2325.00 2800.00			ARGES	T CONNE	CTED MOTOR	LOAD IS INCLUDED IN MEC	CHANICAL, PROCESS, OR MOTOR LOADS.
	LOAD DESCRIPTION	VOLTAGE: ENCLOSURE: LOAD DESCRIPTION BOILER CP-1 - BOILER LOOP PUMP SPARE SPARE -	VOLTAGE: ENCLOSURE: 120/240 NEMA3R	VOLTAGE: NEMA3R 120/240 ENCLOSURE: NEMA3R	VOLTAGE: 120/240 MAIN MOUNT	VOLTAGE: 120/240 MAIN BRKR: MOUNTING:	VOLTAGE: 120/240 MAIN BRKR: 60 SUR	VOLTAGE: 120/240 MAIN BRRR: 60 SURFACE	VOLTAGE: 120/240 NEMA3R MAIN BRKR: 60 SURFACE SC RATING: 10000

37 1080

SPACE

60A 2P	METER DISCONNECT 800A RK1 120/240V 1Ø, 3W 22kAIC	120/240V 1Ø, 3W 200A 2P	PH P1 60A 200A 120/240V 120/240V 1Ø, 3W 1Ø, 3W 10kAIC 10kAIC	P2 P3 200A 200A 120/240V 120/240V 1Ø, 3W 1Ø, 3W 10kAIC 10kAIC	120/240V 12 1Ø, 3W 1	P5 200A 0/240V Ø, 3W 0kAIC
		60A 2P 200A))			
		9 200A	G B	B B	B B	

RES.

(3x) - 3"C (3#400kCMIL(AL)) B 2"C (3#250kCMIL(AL) + 1#4AWG(AL))

C 1 1/2"C (3#6AWG(CU,THWN) + 1#10AWG(CU))

METER STACK

G #4AWG(CU) TO 20' CONCRETE ENCASED ELECTRODE #6AWG(CU) TO GROUND ROD

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 230.67. 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
- PROTECTION IS TO BE AT THE BREAKER. 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.

COMB: MAG:	COMBINATION MOTOR STARTER MAGNETIC MOTOR STARTER		NR: NONE REQUIRED CONT: CONTRACTOR P/I: PLUG-IN UNIT MAN: MANUAL MOTOR STARTER W/U: SUPPLIED WITH UNIT:											
UNIT NO	FUNCTION (NOTES)	LOAD	VOLTS	Ø	MIN CIRC AMP	BRANG CONDUIT SIZE	NO.	WIRE	GRND WIRE SIZE	BRKR SIZE	START	DIS(FUSI		
CU 1	HEAT PUMP CONDENSING UNIT	4TON	240V	1	29.0A	1/2"	2	10	10	30A	W/U	30A 30A		
HP 1	HEAT PUMP INTERIOR CASSETTE TYPICAL OF HP-2,3&4		240V	1	0.4A	1/2"	2	14	14	**	W/U	**		
(EF)	EXHAUST FAN - BATH	10W	120V	1	0.1A	1/2"	2	12	12	15A	W/U	\$		
(EF)	EXHAUST FAN - GARAGE	64W	120V	1	0.5A	1/2"	2	12	12	15A	W/U	\$		
€UH 1	ELECTRIC UNIT HEATER	1.5kW	120V	1	12A	1/2"	2	12	12	20A	W/U	\$		
BL 1	GAS FIRED BOILER	1440W	120V	1	12A	1/2"	2	12	12	20A	W/U	\$		
CP 1	CIRCULATION PUMP	270W	120V	1	5A	1/2"	2	12	12	15A	W/U	\$		
CP 2	CIRCULATION PUMP TYPICAL OF CP-3&4	270W	120V	1	5A	1/2"	2	12	12	15A	W/U	\$		
CP 5	CIRCULATION PUMP	1/8HP	120V	1	2A	1/2"	2	12	12	15A	W/U	\$		
$\left\langle \begin{array}{c} CP \\ 6 \end{array} \right\rangle$	CIRCULATION PUMP	370W	120V	1	3A	1/2"	2	12	12	15A	W/U	\$		

FIELD VERIFY FINAL LOCATIONS OF CIRCULATION PUMPS WITH MECHANICAL CONTRACTOR. 2. HEAT PUMP CASSETTES ARE SUPPLIED FROM EXTERIOR UNIT; SEE MANUFACTURER'S INSTALLATION REQUIREMENTS FOR MORE INFORMATION.

ME	CHANICAL EQU	IIPME	ENT	SC	CHEI	DULE	- S	ITE	EEG	UIPI	MEN	Т
	COMBINATION MOTOR STARTER MAGNETIC MOTOR STARTER		P/I	: PLU	NE REQU IG-IN UNI REAKER I		MAN:	MANU		OR TOR STAR TH UNIT:	TER	
UNIT NO	FUNCTION (NOTES)	LOAD	VOLTS	Ø	MIN CIRC AMP	CONDUIT	NO.	WIRE	GRND WIRE SIZE	BRKR SIZE	START	DISC FUSE
BL 1	GAS FIRED BOILER	1440W	120V	1	12A	1/2"	2	12	12	20A	W/U	\$
ČP 7	CIŘCUĽATIŎN PÚMP	1550W	240V	1	6.6A	1/2"	2	12	12	20A	Ŵ/U Č	BKR

MECHANICAL EQUIPMENT SCHEDULE - SOUTH BUILDING

| 120V | 1 | 8.6A | 1/2" | 2 | 12 | 12 | 20A | W/U | \$

2TON | 240V | 1 | 17.6A | 1/2" | 2 | 10 | 10 | 30A | W/U

10W | 120V | 1 | 0.1A | 1/2" | 2 | 12 | 15A | W/U | \$

64W | 120V | 1 | 0.5A | 1/2" | 2 | 12 | 15A | W/U | \$

1.5kW | 120V | 1 | 12A | 1/2" | 2 | 12 | 12 | 20A | W/U | \$ 1440W | 120V | 1 | 12A | 1/2" | 2 | 12 | 12 | 20A | W/U | \$

270W | 120V | 1 | 5A | 1/2" | 2 | 12 | 15A | W/U | \$

270W | 120V | 1 | 5A | 1/2" | 2 | 12 | 15A | W/U | \$ 1/8HP 120V 1 2A 1/2" 2 12 12 15A W/U \$

370W 120V 1 3A 1/2" 2 12 15A W/U \$

COMB: COMBINATION MOTOR STARTER MAG: MAGNETIC MOTOR STARTER

AC CONDENSING UNIT

EF\ EXHAUST FAN - BATH

EXHAUST FAN - GARAGE

EUH ELECTRIC UNIT HEATER

BL GAS FIRED BOILER

CP\ CIRCULATION PUMP

CP CIRCULATION PUMP
TYPICAL OF CP-3&4
CP CIRCULATION PUMP

CP CIRCULATION PUMP

GF GAS FURNACE

NO

FUNCTION

(NOTES)

Resid	ential Cal	culation - Village	e Drive So	outh		
		ART. 220 PART				
2020).14(J), 220.42 & 220.52	1 111			
		Garage Level				
		Upper Level				
		Upper Stairwell				
		General Lighting Load	- 7320 VA			
		Small Appliance	3000 VA			
		Laundry Circuit	1500 VA			
		Total General Load:	11820 VA	-		
			3000 VA	@ 100%	3000 VA	
			8820 VA	@ 35%	3087 VA	
					General Lighting Load:	6087 V
_		0.51 and 220.60		1		
	ling Loads	Heating Loa		1		
Equipmen		Equipment	Power	-		
GF-1 Air CU AC	1032 VA 4800 VA	GF-1 Gas Furnace EUH - Garage Unit Hea	1032 VA	* See unit :	alane	
CO AC	4000 VA	Gutter Heat Trace	1500 VA 1500 VA	* See unit p		ing Loads
		Radiant Pumps	2400 VA			ng Loads
		Connected:			loncoincidental Loads:	6432 V
		Cominación.	11202 170	Croator or r	torroomoratar Edado.	0102 47
	2020 NEC 220					
	Appliance Loa		Load Each			
		Refrigerator	600 VA			
		Dishwasher	1200 VA			
		Disposal	900 VA			
		Microwave	1200 VA			
	1	Gas Range/ Hood	1000 VA 4900 VA	<u> </u>	Appliance Load:	3675 V
	2020 NEC 220	54	-300 VA	w 1370	Appliance Load.	- 3073 V/
	Dryer Loads	7.UT	Load Sum			
	•	Floatria Drugs		Each		
	1	Electric Dryer	5000 VA 5000 VA	_	Electric Dryer Load:	5000 VA
			3000 VA	100 /0	Licetile Diyel Load.	V
	2020 NEC 220	• •				
		Description	Load Each			
		Humidifier	1200 VA			
		Boiler	1440 VA			
		Circ Pumps	720 VA			
		Hot Tub	9600 VA			
		EVC Level II	7200 VA		% LARGEST MOTOR:	400 V

20880 VA

54232 VA

226.0 A

Total Other Load: 21280 VA

Demand: 42474 VA

177.0 A

1 Ø

Equipment

Gutter Heat trace

Radiant Pumps

|EUH - Garage Unit Hea 1500 VA |

CONNECTED: 66201 VA

Connected:

2020 NEC 220.82(C)

CU Heat P 5760 VA CU Heat Pump

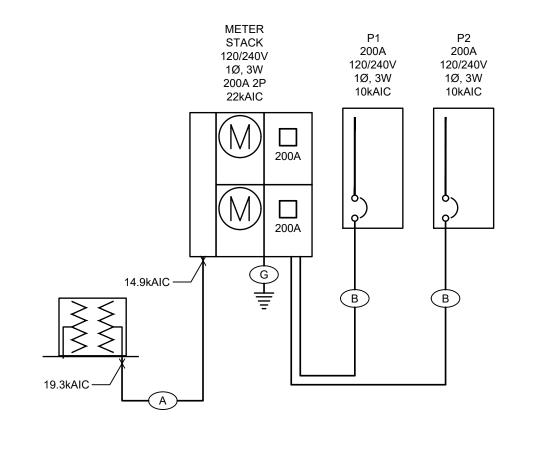
Cooling Loads Equipment Power

1200 VA

2400 VA

275.8 A

PANEL SCHEDULE -	P1	TYPE: VOLTAGE: ENCLOSURE:	LOADCE 120/240 NEMA1	NTER	MAIN	SIZE: N BRKR: JNTING:	400 NONE FLUSH		PHASES: 1 WIRES: 3 SC RATING: 10000	NEUTRAL BUS: YES GROUND BUS: YES
LOAD TYPE	LOAD DESCRIPTION			AMPS POLES	CKT# LOAD	٥	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION
RECEPTACLE	RCPT - MAST. BED CAFCI			20A 1P	1 1440	А	2 4800	50A 2P	MISCELLANEOUS	SPA - ROOF
RECEPTACLE	RCPT - MAST. BATH			20A 1P	3 500	В	4 4800		MISCELLANEOUS	
RECEPTACLE	RCPT - POWDER ROC	MC		20A 1P	5 300	А	6 180	20A 1P	RECEPTACLE	RCPT - ROOF
MISCELLANEOUS	WASHER CAFCI/GFCI 5mA			20A 1P	7 1500	В	8 1000	20A 2P	MECH HEATING	GUTTER HEAT TRACE GFCI 30mA
MISCELLANEOUS	DRYER GFCI 5mA			30A 2P	9 2500	А	10 1000		MECH HEATING	
MISCELLANEOUS					11 2500	В	12 2496	30A 2P	MECH COOLING	CU-1 - CONDENSING UNIT
APPLIANCE	FRIDGE CAFCI			15A 1P	13 600	А	14 2496		MECH COOLING	
APPLIANCE	MICROWAVE DRAWE	R		20A 1P	15 1500	В	16 1500	20A 1P	MECH YEAR ROUND	GF1 - GAS FIRED FURNACE
RECEPTACLE	RCPT - KITCHEN COU CAFCI/GFCI 5mA	JNTER		20A 1P	17 1500	А	18 0		SPACE	
RECEPTACLE	RCPT - KITCHEN COI CAFCI/GFCI 5mA	UNTER		20A 1P	19 1500	В	20 20	1A 1P	MECH HEATING	EUH-1 - UNIT HEATER
APPLIANCE	RANGE/HOOD CAFCI			20A 1P	21 1500	А	22 20	1A 1P	MECH YEAR ROUND	BL-1 BOILER
SPACE					23 0	В	24 1500	20A 1P	MOTOR	CP1/3-BOILER/LOOP PUMP
RECEPTACLE	RCPT - ISLAND COUN CAFCI/GFCI 5mA	ITER		20A 1P	25 1500	А	26 1500	20A 1P	MOTOR	CP2/7- WATER HEATER/DOMESTIC
APPLIANCE	DISHWASHER CAFCI/GFCI 5mA			20A 1P	27 1200	В	28 1500	20A 1P	MOTOR	CP4/6 - SNOWMELT / LOOP
RECEPTACLE	RCPT - LIVING/DINING	3		20A 1P	29 1260	А	30 1500	20A 1P	MOTOR	CP6/7-RADIANT/LOOP
RECEPTACLE	FIREPLACE OUTLETS	3		20A 1P	31 700	В	32 3500	40A 2P	MISCELLANEOUS	EVC - GARAGE
RECEPTACLE	RCPT - 2ND COMMON	N		20A 1P	33 720	А	34 3500		MISCELLANEOUS	
RECEPTACLE	RCPT - BEDROOM N CAFCI			20A 1P	35 1080	В	36 1500	20A 1P	RECEPTACLE	RCPT - GARAGE GFCI 5mA
RECEPTACLE	RCPT - 2ND BATH N			20A 1P	37 500	А	38 1500	20A 1P	RECEPTACLE	RCPT - GARAGE GFCI 5mA
RECEPTACLE	RCPT - BEDROOM S CAFCI			20A 1P	39 1080	В	40 0		SPACE	
RECEPTACLE	RCPT - 2ND BATH S			20A 1P	41 500	А	42 0		SPACE	



ONE-LINE CONDUCTOR LEGEND (2x) - 3"C (3#250kCMIL(AL)) B 2"C (3#250kCMIL(AL) + 1#4AWG(AL)) G #4AWG(CU) TO 20' CONCRETE ENCASED ELECTRODE

#6AWG(CU) TO GROUND ROD

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 230.67.
- 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 LINDER COLINTERS PROTECTION IS TO BE AT THE BREAKER
- 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.

OR UNDER COUNTERS PROTECTION IS TO BE AT THE BREAKER.
SHORT CIRCUIT VALUES BASED UPON AN ANTICIPATED 100kVA 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.
FEEDERS EXTENDING FROM SERVICE GEAR TO INDIVIDUAL TENANT PANELS ARE TO BE INSTALLED