SYMBOLS LIST

CIRCUITRY

Symbol	Description
LP-A#3	SINGLE POLE HOME-RUN TO PANEL AND CIRCUIT AS INDICATED. 2#12,1#12G-3/4"C-20A OCPD UON
RP-A #1,3,5	HOMERUN TO PANEL BOARD AS INDICATED. QUANTITY OF ARROWHEADS INDICATE THE NUMBER OF SINGLE POLE CIRCUITS. EACH CIRCUIT WITH DEDICATED NEUTRAL.
RP-A #2	MULTIPOLE HOMERUN TO PANELBOARD AS INDICATED.

SECURITY/DOOR CONTROL

PC DESKTOP COMPUTER FOR SPECIFIC SYSTEM (FIRE ALARM, ACCESS CONTROL ETC...) COMPLETE WITH ALL CONNECTIONS, SOFTWARE AND PROGRAMMING.

IT/DATA OUTLET/JACK RJ45 WITH CAT 6A CABLING IN ACCESSIBLE CEILING CAVITY FOR POE WiFi ACCESS POINT.

226 — DOOR IDENTIFIER. SEE SECURITY/ACCESS CONTROL DETAILS AND ARCHITECTURAL DRAWINGS/SCHEDULES FOR ADDITIONAL INFORMATION

CONCEALED MAGNETIC SWITCHES IN THE HEAD OF THE DOOR/JAMB (LATCH SIDE) AND IN THE ELECTRIC HINGE HARDWARE.

ML — ELECTRIFIED MORTISE LOCK/LATCH SET AND ASSOCIATED ELECTRIC HINGE HARDWARE. PROVIDE CONCEALED THRU WIRING IN DOOR THROUGH TO HINGE. PROVIDE MORTAR SHIELD BOX WITH RACEWAY UP FRAME/WALL TO SYSTEM.

ESR — ELECTRIC STRIKE RELEASE. PROVIDE MORTISE SHIELD WITH CONCEALED WIRING UP FRAME/WALL (IN RACEWAY) TO ACCESS CONTROL SYSTEM.

ACCESS CONTROL READER AND ASSOCIATED DOOR DEVICES ETC..

EH — ELECTRIC HINGE WITH CONCEALED MAGNETIC CONTACT AND WIRING THROUGH THE DOOR LEAF TO EML OR STRIKE COMPONENT(S).

DOORCHIME/BUZZER WITH ASSOCIATED CONTROL POWER TRANSFORMER. CIRCUIT TO ACTIVATE ON OPERATION OF THE ASSOCIATED PUSHBUTTON

PUSHBUTTON. CIRCUIT TO ACTIVATE ASSOCIATED DOORCHIME/BUZZER.

PSa — POWER SUPPLY "a" (DESIGNATION VARIES) FOR LED LIGHTING. PROVIDE IN NEMA 1 ENCLOSURE. PROVIDE CONCEALED LOW VOLTAGE CIRCUITRY TO LED.

EMERGENCY CALL ANNUNCIATOR/CONTROLLER/SYSTEM WITH AUDIO AND VISUAL INDICATING OF EMERGENCY CALL STATION ACTIVATION. CIRCUIT TO ORIGINAL CIRCUIT.

Ø SR — EMERGENCY CALL ELECTRIC STRIKE RELEASE. CIRCUIT TO RELEASE DOOR ON ACTIVATION OF EMERGENCY CALL STATION ACTIVATION.

E — IN TOILETS: EMERGENCY CALL PULL STATION WITH PULL CORD. INTERCONNECT WITH SYSTEM. CIRCUIT TO ACTIVATE ASSOCIATED AUDIO-VISUAL ANNUNCIATING DEVICE. PROVIDE COMPLETE SYSTEM AND POWER SUPPLY.

SURFACE MOUNTED CAMERA. POWERED OVER ETHERNET (POE). PROVIDE WITH CAT6A CABLE IN RACEWAY BACK TO THE NEAREST IT/DATA CLOSET/ROOM

POWER DEVICES

DECORA STYLE SPECIFICATION GRADE DUPLEX SAFETY GRADE NEMA 5-20R RECEPTACLE. WHERE INDICATED WITH "TV" MOUNT 60"AFF FOR TELEVISION.

DECORA STYLE DOUBLE DUPLEX (QUAD) RECEPTACLE, SPECIFICATION SAFETY GRADE GRADE NEMA 5-20R. WHERE INDICATED PROVIDE WITH INTEGRAL USB POWER JACKS.

SPECIFICATION GRADE DECORA DUPLEX NEMA 5-20R RECEPTACLE ON DEDICATED CIRCUIT.

USB — DECORA STYLE SPECIFICATION GRADE TAMPER RESISTANT DUPLEX NEMA 5-20R RECEPTACLE. WITH TYPE A AND C USB POWER PORTS

SPECIFICATION GRADE NEMA L21-30R (UON) RECEPTACLE

SPECIFICATION GRADE NEMA L6-30R (UON) RECEPTACLE

OR / OR — RECESSED FLOOR BOX WITH TWO (1) NEMA 5-20R RECEPTACLE, (1) NEMA 5-20R W/USB RECEPTACLE AND DATA/IT/AV/MEDIA ETC... RECEPTACLES. WIREMOLD EVOLUTION SERIES EFB6S-(OG WHERE APPLICABLE). COORDINATE TYPE TO ACCOMMODATE THE TYPE OF CONSTRUCTION BOX IS TO BE INSTALLED IN. PROVIDE COMPLETE WITH SIDE MODULES, PLATES, DIVIDERS, CAPS AND COVERS AND TRIMS. EXPOSED FINISHES AS APPROVED BY ARCHITECT. PROVIDE CONCEALED POWER CIRCUITRT IN 1¼"C. PROVIDE CONCEALED 1 ¼" DATA RACEWAY.

P — WALL MOUNTED/TRANSITION BASE POWER FEED WITH CONNECTION WHIP TO/FOR FURNITURE. "P" DENOTES FOR POWER. "D" DENOTES LOW VOLTAGE (DATA, TELEPHONE ETC..).

FLOOR MOUNTED/TRANSITION BASE FEED FOR FURNITURE. FIRE RATED FLOOR BOX WITH CONNECTION WHIP. "P" OR "PWR" DENOTES FOR POWER. "D" OR "DATA" DENOTES LOW VOLTAGE (DATA, TELEPHONE ETC.)

PROVIDE CIRCUITRY DOWN THROUGH FEED TO ASSOCIATED DEVICES IN FURNITURE. FOR DATA PROVIDE 1 1/4" RACEWAY CONCEALED FROM FEED UP WALL INTO ACCESSIBLE CEILING CAVITY.

DOOR CONTROL UP/DN/STOP PUSHBUTTON STATION. CIRCUIT TO CONTROL ASSOCIATED GARAGE DOOR OPERATOR.

GARAGE DOOR SAFETY EDGE SWITCH. CIRCUI TO GARAGE DOOR OPERATOR CONTROL(S).

K — DOOR CONTROL OUTDOOR KEYPAD. CIRCUIT TO CONTROL ASSOCIATED GARAGE DOOR OPERATOR.

SB — SPLICE BOX, NEMA 3R, SIZED PER NEC. SPLICE CONDUCTORS USING HEAT SHRINK INSULATED COMPRESSION CONNECTORS OR BURNDY TAP BLOCK(S).

GENERAL

— KEYED NOTE

FIRE ALARM

CO — CEILING MOUNTED CARBON MONOXIDE DETECTOR. PROGRAM FOR SUPERVISORY ANNUNCIATION

DUCT MOUNTED SMOKE DETECTOR WITH PITOT SAMPLING TUBE, HOUSING, HEATER AND WEATHER ENCLOSURE. PROVIDE REMOTE STATION.

Z — INTELLIGENT MONITOR MODULE.

S — ADDRESSABLE OPEN AREA CEILING MOUNTED SMOKE DETECTOR.

B — ADDRESSABLE BEAM TYPE SMOKE DETECTOR.

F — MANUAL PULL STATION

F — AUDIO/VISUAL INDICATING APPLIANCE. (FIRE-ALARM)

F — VISUAL INDICATING APPLIANCE.

PAD — FIRE ALARM SUPERVISED EXTENDED POWER SUPPLY WITH AUDIO/VISUAL APPLIANCE CIRCUIT(S).

FACP — FIRE ALARM CONTROL PANEL (FACP).

FAA — FIRE ALARM 2 LINE LIQUID CRYSTAL ANNUNCIATOR.

FIRE ALARM REMOTE INDICATOR STATION. ILLUMINATES WHEN ASSOCIATED (USUALLY CONCEALED) DEVICE IS ACTIVATED.

AT — THREAT INDICATING APPLIANCE. (FIRE-ALARM)

AT — THREAT PULL STATION

S ELEV — ADDRESSABLE OPEN AREA CEILING MOUNTED SMOKE DETECTOR PROVIDED FOR ELEVATOR RECALL.

ONE-LINE

M — METER

(3) — METERING CURRENT TRANSFORMERS AND POTENTIAL CT'S/TAPS AS APPLICABLE.

— CIRCUIT TAG

CIRCUIT BREAKER - 3 POLE UON. "ST" INDICATES WITH SHUNT TRIP COIL.

CIRCUIT BREAKER - 3 POLE UON

FUSED DISCONNECT (ONE-LINE)

GROUND

PANEL — PANELBOARD (ONE-LINE)

SPD OR SPD — SURGE PROTECTION DEVICE-JOSLYN SURGITRON III 1455-49

STATIONARY ELECTRIC GENERATOR.

G — PORTABLE TRAILER MOUNTED ELECTRIC GENERATOR.

UTILITY POLE

TRANSFORMER

AUTOMATIC TRANSFER SWITCH.

GROUNDING

LIGHTNING PROTECTION AIR TERMINAL AND ASSOCIATED COMPONENTS.

GROUNDING/BONDING CONNECTION. CADWELD UON.

GROUND ROD. COPPER CLAD 5/8"ø 10' LONG UON

OR — COPPER GROUND BAR.

LIGHTING

2'X4' (NOMINAL) LIGHTING FIXTURE -TYPE 'BB' UON

2'X4' (NOMINAL) LIGHTING FIXTURE WITH INTEGRAL EMERGENCY BATTERY PACK -TYPE 'BBE' UON

2'X2' (NOMINAL) LIGHTING FIXTURE-TYPE 'BA' UON

2'X2' (NOMINAL) EMERGENCY LIGHT FIXTURE WITH INTEGRAL EMERGENCY BATTERY PACK -TYPE 'BAE' UON.

RECESSED DOWN LIGHT

WALL MOUNTED LIGHT FIXTURE WITH INTEGRAL EMERGENCY BATTERY PACK -TYPE 'T' UON.

1'X4' (NOMINAL) LIGHTING FIXTURE. TYPE T WITH PENDANT MOUNT UON.

WALL MOUNTED LIGHT FIXTURE. CIRCUITING/FIXTURE TYPE AS INDICATED. WHERE NO TYPE IS INDICATED PROVIDE TYPE "X" WITH BATTERY BACKUP.

SYMBOL FOR HEAD / TRACK — TRACK LIGHTING WITH ALL ASSOCIATED FITTINGS AND PLATES. TRACK LENGTH PER PLANS HEADS AS INDICATED.

WALL MOUNTED EXTERIOR LED FLOOD LIGHT WITH INTEGRAL PHOTO SENSOR AND BI LEVEL OCCUPANCY SENSOR. CIRCUIT VIA TIME SWITCH CONTROL. LSI SSALED12LACR3UNVDIM40ALBCS1BRZWMJ2

WALL MOUNTED LED ILLUMINATED EXIT LIGHT WITH INTEGRAL BATTERY BACKUP AND DUAL EMERGENCY LIGHTS

SAME AS ABOVE BUT DUAL DIRECTIONAL AND CEILING MOUNTED

SAME AS ABOVE BUT DIRECTIONAL AND WALL MOUNTED

WALL MOUNTED EMERGENCY LIGHT

UPPER CASE LETTER(S) DENOTES TYPE, NUMBER DENOTES CIRCUIT, LOWER CASE LETTER DENOTES SWITCH LEG

LIGHTING CONTROLS

S_{3a} — ANTIMICROBIAL DECORA SERIES SPDT (3 WAY) 120-277 VAC SPECIFICATION GRADE SWITCH

S — ANTIMICROBIAL DECORA SERIES SPST 120-277 VAC SPECIFICATION GRADE SWITCH

S_P — ANTIMICROBIAL DECORA SERIES SPST 120-277 VAC SPECIFICATION GRADE SWITCH ILLUMINATED WHEN ON LEVITON SERIES 5628.

S_T — THERMAL SWITCH

S_a^{LV}, $S_{a,b,f}^{LV}$, $S_{a,c-f(g)}^{LV}$ — LOW VOLTAGE SPECIFICATION GRADE NETWORKED DIGITAL SWITCH. WATT STOPPER. NUMBER OF BUTTONS TO PROVIDE SWITCH LEGS AS DESIGNATED BY SUBLETTERS AND/OR NUMBER IN PARENTHESES. SUB LETTER DESIGNATED WITH A HYPHEN REPRESENTS ONE BUTTON PROGRAMMED TO CONTROL SEVERAL SWITCH LEGS/GROUPS.

S_{TM} — BATHROOM FAN/LIGHT SWITCH WITH DELAY TIMERS AND VENTILATION TIMER. AIRCYCLER SMART EXHAUST SE1 (TOGGLE) SED-S (DECORA).

S_a^{PIR} — LOW VOLTAGE LIGHTING CONTROL SWITCH DIGITAL OCCUPANCY SENSOR/WALL SWITCH. PROGRAMMIBLE AS OCCUPANCY OR VACANCY AS DIRECTED IN THE FIELD. WATT STOPPER LMPW-101*.

S_a^{VS} — LOW VOLTAGE LIGHTING CONTROL SWITCH DIGITAL VACANCY SENSOR/WALL SWITCH WITH ON/OFF AND DIMMER. WATT STOPPER LMPW-101*.

S_P^{3a} — SPECIFICATION GRADE 3-WAY SWITCH WITH ILLUMINATED HANDLE. SWITCH ILLUMINATES WHEN LOAD IS ON.

S_a^{OC} — CONVENTIONAL HARD WIRED LIGHTING CONTROL SWITCH/VACANCY SENSOR/WALL SWITCH.

OS a — DIGITAL NETWORKED ULTRASONIC/PASSIVE INFRARED OCCUPANCY SENSOR. WATT STOPPER LMDC-100. "US" INDICATES ULTRASONIC ONLY

VS a — DIGITAL NETWORKED ULTRASONIC/PASSIVE INFRARED VACANCY SENSOR. WATT STOPPER LMDC-VS-100. "US" INDICATES ULTRASONIC ONLY

a,b,c 1 LC — DIGITAL LOAD CONTROL RELAY WITH 3 RELAYS. WATT STOPPER LMRC-213.

I/O — DIGITAL NETWORK INPUT/OUTPUT DEVICE. WATT STOPPER

TS — 4 ZONE PROGRAMMABLE TIME SWITCH. PROVIDE WITH NETWORK I/O DEVICE MODULE. INTERFACE TO CONTROL (1)EXTERIOR LIGHTS (2)OUTDOOR SIGN LIGHTS (3)END OF WORK DAY LIGHTS OFF

DH — DAYLIGHT HARVESTING NETWORK SENSOR.

OC a — CONVENTIONAL HARD WIRED ULTRASONIC OCCUPANCY SENSOR. WATT STOPPER.

LOWER CASE LETTER DENOTES SWITCH LEG

CAT 6A ETHERNET (LAN) PATCH CORD WITH RJ45 TERMINATED ENDS. RED OUTER JACKET. PROVIDE FOR INTERCONNECTIONS BETWEEN LIGHTING CONTROL DEVICES. RUN CONCEALED. WHERE EXPOSED (NO CEILING, MECHANICAL ROOMS, OUTDOORS) PROVIDE IN RACEWAY. PROGRAM SYSTEM TO CONTROL(S) AS DESIGNATED BY SUB-LETTERS ON THE DOCUMENTS.

TS — INTERMATIC ELECTRONIC TIMER CONTROL - ASTRONOMIC 365-DAY 1-CIRCUIT ELECTRONIC CONTROL, 120-277 VAC, 50/60 HZ, SPDT, INDOOR METAL ENCLOSURE,ITEM ET90115CE. PROGRAM TO CONTROL EXTERIOR LIGHTS AS DIRECTED BY THE OWNER'S REPRESENTITIVE.

EQUIPMENT

ELECTRICAL PANELBOARD SURFACE MOUNTED

ELECTRICAL PANELBOARD FLUSH MOUNTED

DISCONNECT SWITCH. 3 POLE, 60 AMPS, WP U.O.N.

FUSED DISCONNECT SWITCH.

P — CHARGING STATION FOR ELECTRIC VEHICLES. DUAL STATION TO ACCOMMODATE 2 VEHICLES. LEVITON EVR-GREEN 4000 LEVEL 2 STATION. #CHHU2-CBMBX-CPCAP-B-CPCBX-CPCMX-CPWY3-CPVAL

AFD — ADJUSTABLE FREQUENCY DRIVE. SEE MECHANICAL DOCUMENTS FOR ADDITIONAL INFORMATION.

MOTOR CONTROLLER/STARTER. SEE MECHANICAL DOCUMENTS FOR ADDITIONAL INFORMATION.

MOTOR/HVAC/HWH/FURNACE/FAN. CIRCUIT VIA STARTERS/CONTROLLERS/DRIVES ETC.. SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.

IT/DATA/TV

JACK/OUTLET FOR IT/DATA/TELEPHONE. PROVIDE RECESSED CONCEALED DEEP 1900 BOX, PLASTER RING, 1" RACEWAY UP INTO ACCESSIBLE CEILING. PROVIDE (2)DIGITAL TELEPHONE AND (3) RJ45 COMPUTER JACKS EACH WITH COLOR CODED CAT 6A CABLE TERMINATED AND PATCHED IN THE NEAREST IT CLOSET.

JACK/OUTLET FOR IT/DATA/TELEPHONE IN MODULAR FURNITURE. PROVIDE AS INDICATED FOR OPEN TRIANGLE SYMBOL EXCEPT EXTENDED INTO THE MODULAR FURNITURE.

JACK/OUTLET FOR IT/DATA/TELEPHONE. PROVIDE AS INDICATED FOR OPEN TRIANGLE SYMBOL EXCEPT AT NON-STANDARD MOUNTING HEIGHT

TV — WALL COAX JACK FOR TELEVISION OR AV EQUIPMENT. WITH 1" EMPTY RACEWAY UP INTO ACCESSIBLE CEILING CAVITY.

TERMINATE AT PATCH PANEL (OR PUNCH DOWN BLOCK WHERE APPLICABLE) AS DESIGNATED BY THE OWNER'S REPRESENTATIVE.

LIST OF ELECTRICAL DRAWINGS

E-001	ELECTRICAL SYMBOLS LIST, ABBREVIATIONS AND LIST OF ELECTRICAL DRAWINGS.
E-002	ELECTRICAL SPECIFICATIONS.
E-201	GROUND FLOOR PLAN BUILDING NUMBER 1, PANEL SCHEDULE AND KEYED NOTES.
E-202	GROUND FLOOR PLAN BUILDING NUMBER 2, PANEL SCHEDULE AND KEYED NOTES.
E-203	ELECTRICAL SITE PLANS AND KEYED NOTES.
E-301	ELECTRICAL ONE-LINE DIAGRAM AND KEYED NOTES.

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
A	AMPERE
ACCU	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
ANN	ANNUNCIATOR
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
CB	CIRCUIT BREAKER
CCT	CORRELATED COLOR TEMPERATURE
CKT	CIRCUIT
COL	COLUMN
DET	DETECTOR
DWG	DRAWING
EF	EXHAUST FAN
ELEC	ELECTRIC(AL)
EMER	EMERGENCY
EML	ELECTRIC MORTISE LOCK
EMT	ELECTRICAL METALLIC TUBING
ESR	ELECTRIC STRIKE RELEASE
(E), EX	EXISTING
EXIST	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FL	FLOOR, FLUORESCENT
FBO	FURNISHED BY ANOTHER DIVISION, WIRED BY THIS DIVISION
FIBO	FURNISHED AND INSTALLED BY ANOTHER DIVISION, WIRED BY THIS DIVISION
FLA	FULL LOAD AMPERES
FLR, FL	FLOOR
FLUOR	FLUORESCENT
FUT	FUTURE
FURN	FURNISH, FURNITURE
G, GND	GROUND
GFF	GAS FIRED FURNACE
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HP	HORSEPOWER, HEAT PUMP
HTR	HEATER
HWH	HOT WATER HEATER
IBC	INTERNATIONAL BUILDING CODE
JB	JUNCTION BOX
J-BOX	JUNCTION BOX

ABBREVIATION	DESCRIPTION
JCT	JUNCTION
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LP	LIGHTING PANEL
LTG	LIGHTING
LT(S)	LIGHT(S)
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR MILS
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTR	MOTOR
NEC	NATIONAL ELECTRIC CODE
NL	NIGHT LIGHT
NO	NORMALLY OPEN
OC	OVER COUNTER
OCPD	OVERCURRENT PROTECTIVE DEVICE
P	POLE(S)
PNL	PANEL
POE	POINT OF ENTRY
PWR	POWER
ø	PHASE
(R)	REMOVE
RP	RECEPTACLE PANEL
RECP, RECEP	RECEPTACLE
RM	ROOM
SCH	SCHEDULE
SPD	SURGE PROTECTION DEVICE
SPR	SPARE
STA	STATION
SUSP	SUSPEND(ED)
SW	SWITCH
SWBD	SWITCHBOARD
T, TEL, TELE	TELEPHONE
TEMP	TEMPORARY
TV	TELEVISION
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLT, VOLTS
VIF	VERIFY IN FIELD
W	WIRE
WH	WATER HEATER
WP	WEATHERPROOF
WG	WIRE GUARD
XFRM	TRANSFORMER

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Date	Revision

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ELECTRICAL SYMBOLS LIST, ABBREVIATIONS AND LIST OF ELECTRICAL DRAWINGS

ELECTRICAL SERVICES UPGRADES FOR HIGHWAY DEPARTMENT
Town Of Beekman
4 Main Street
Poughquag, NY

Date: September 30, 2025
Job No: 2025-016
Scale: As Noted
Drawing: E-001
Of

ISSUE 1 9-30-2025 ISSUED FOR PRICING

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one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

GENERAL

A. ALL WORK PERFORMED SHALL BE FIRST CLASS WORK IN EVERY RESPECT. THE WORK SHALL BE PERFORMED BY MECHANICS SKILLED IN THEIR RESPECTIVE TRADES, WHO SHALL AT ALL TIMES BE UNDER THE SUPERVISION OF COMPETENT PERSONS.

B. WORK THAT IS SLIPSHOD, POORLY LAID OUT, NOT PERFECTLY ALIGNED, OR THAT IS NOT CONSISTENT WITH THE REQUIREMENTS GENERALLY ACCEPTED IN THE TRADE FOR "FIRST CLASS WORK" WILL NOT BE ACCEPTABLE.

C. IN ADDITION TO THE MATERIALS SPECIFIED ELSEWHERE, FURNISH AND INSTALL ALL OTHER MISCELLANEOUS ITEMS NECESSARY FOR THE COMPLETION OF THE WORK TO THE EXTENT THAT ALL SYSTEMS BE COMPLETE AND OPERATIVE.

D. ALL WORK UNDER THIS SECTION SHALL BE PERFORMED IN COOPERATION WITH THE WORK PERFORMED UNDER ALL OTHER SECTIONS OF THE SPECIFICATIONS ON THE PROJECT IN ORDER TO AVOID INTERFERENCE'S AND TO SECURE THE PROPER INSTALLATION OF ALL WORK. REVIEW THE DRAWINGS AND SPECIFICATIONS COVERING THE WORK TO BE PERFORMED UNDER ALL SECTIONS, SO THAT THE RELATION AND EXTENT OF THE WORK OF THIS SECTION WITH RESPECT TO THE WORK OF ALL OTHER SECTIONS IS UNDERSTOOD.

E. ALL WORK UNDER THIS SECTION SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, OTHER CODES, LAWS, REGULATIONS AND STANDARDS OF ALL LOCAL AND STATE AUTHORITIES. WHERE REFERENCES ARE MADE TO LAWS, CODES, REGULATIONS AND STANDARDS, THESE DOCUMENTS, INCLUDING THE LATEST REVISIONS AND AMENDMENTS THERETO IN EFFECT AS OF THE DATE OF BID OPENING, SHALL FORM PART OF THESE SPECIFICATIONS.

F. UPON COMPLETION OF THE WORK, FURNISH CERTIFICATES OF APPROVAL FROM THE LOCAL AUTHORITIES HAVING JURISDICTION FOR APPROVING MATERIALS, EQUIPMENT INSTALLATION AND PROCEDURES UNDER THIS SECTION AND SUCH OTHER CERTIFICATES PERTAINING TO THE ELECTRICAL WORK AS MAY BE REQUIRED BY THE AUTHORITIES FOR THE ISSUANCE OF A PERMANENT CERTIFICATE OF OCCUPANCY. PAY ALL EXPENSES ARISING FROM THE PROCUREMENT OF THESE CERTIFICATES AND INCLUDED IN THE LUMP SUM CONTRACT PRICE.

G. THE ACCESS INTO THE BUILDING FOR CONTRACTOR'S EMPLOYEES, EQUIPMENT AND MATERIALS FURNISHED UNDER THIS CONTRACT SHALL BE THROUGH OPENINGS AND ENTRANCES DESIGNATED BY OWNER.

H. COOPERATE WITH ALL OTHER SUBCONTRACTORS ON THE PROJECT. THIS DIVISION SHALL BE RESPONSIBLE FOR PROMPT DELIVERY OF ALL MATERIALS AND EQUIPMENT AND FOR THE INSTALLATION OF ALL WORK UNDER THIS DIVISION, AT A TIME AND IN A MANNER THAT WILL ENSURE THAT THERE WILL BE NO DELAY IN THE CONSTRUCTION SCHEDULE. INCLUDING BUT NOT LIMITED TO COORDINATION WITH THE UTILITY COMPANY.

I. VERIFY ALL CONDITIONS ON THE JOB WHICH MAY AFFECT THE INSTALLATION OF THE WORK, AND BECOME FAMILIAR WITH APPLICABLE LOCAL AND STATE REGULATIONS. ANY DISCREPANCIES OR INTERFERENCES SHALL BE REPORTED IMMEDIATELY TO THE OWNER. ADDITIONS TO THE CONTRACT PRICE WILL NOT BE ALLOWED WHEN THEY ARE DUE TO THE FAILURE TO CAREFULLY INSPECT EXISTING CONDITIONS.

J. METHOD OF PROCEDURE (MOP) WILL BE REQUIRED FOR ALL WORK THAT WILL INVOLVE DISRUPTION OF SERVICE TO THE BUILDING OR OTHER TENANT IN THE BUILDING. SUBMIT METHOD OF PROCEDURE TO THE OWNER AND ARCHITECT FOR APPROVAL. THE MOP SHALL STATE PROPOSED STARTING DATES OF EACH ITEM OF WORK, TRANSITIONS, SHUTDOWNS, ETC. WITH THE EXPECTED DURATION OF EACH. REVISE THE MOP TO ADDRESS THE CONCERNS OF THE OWNER OR AS SPECIFICALLY DIRECTED BY THE OWNER.

K. PROVIDE UPDATED "LOOK AHEAD" SCHEDULES THAT INDICATE THE WORK TO BE PERFORMED FOR THE UPCOMING TWO-WEEK PERIOD. THIS SCHEDULE WILL CONTAIN ALL THE FEATURES OF THE BASIC PROJECT SCHEDULE BUT WILL BE MUCH MORE DETAILED THAN THE BASIC PROJECT SCHEDULE.

L. ALL WORK, MATERIALS AND EQUIPMENT, WHETHER INCORPORATED INTO THE BUILDING OR NOT, SHALL BE PROTECTED FROM DAMAGE DUE TO MOISTURE, DIRT, PLASTER, CONCRETE OR FROM CARELESSNESS. ALL MATERIAL AND EQUIPMENT WHICH IS DAMAGED, INCLUDING INSTALLED WORK, SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO ADDITIONAL COST TO THE OWNER. AFTER WORK IS COMPLETED, ALL WORK, EQUIPMENT, SHALL BE CLEANED OF ALL CONSTRUCTION DIRT. ALL WASTE AND DEBRIS RESULTING FROM THE ELECTRICAL INSTALLATION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.

M. ALL SHOP DRAWINGS AND MANUFACTURER'S LITERATURE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE GENERAL CONDITIONS. THE CONTRACTOR SHALL VERIFY THE COMPLIANCE OF ALL SHOP DRAWINGS WITH THE REQUIREMENT OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL CERTIFY THAT THE SHOP DRAWINGS COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. ANY DEVIATION FROM THE SPECIFIED ITEMS SHALL BE CLEARLY MARKED AND BROUGHT TO THE ENGINEER'S ATTENTION AS DEVIATIONS. ITEMS THAT DEVIATE FROM THE SPECIFIED THAT ARE NOT CLEARLY HIGHLIGHTED (THAT MANAGE PASS THROUGH THE APPROVAL) SHALL BE CHANGED AFTER THE INSTALLATION WHEN THE DEVIATION IS DISCOVERED, AT THE COST OF THE CONTRACTOR.

N. SHOP DRAWINGS SHALL INCLUDE DESCRIPTIVE DATA, MANUFACTURER'S RATINGS AND APPLICATION RECOMMENDATIONS, CUTS, DIAGRAMS, DRAWINGS, TEST REPORTS, PERFORMANCE CURVES AND SUCH OTHER INFORMATION OR SAMPLES AS MAY BE REQUIRED BY THE OWNER TO JUDGE COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT AND SUITABILITY TO THE APPLICATION. ITEMS ON THE LIST SHALL BE CLEARLY IDENTIFIED AS TO PROPOSED APPLICATION. APPROVAL OF MATERIALS AND EQUIPMENT WILL BE BASED ON MANUFACTURER'S PUBLISHED RATINGS. SHOP DRAWINGS SHALL CLEARLY INDICATE THE REQUIREMENTS FOR THIS SPECIFIC PROJECT ONLY.

O. MAINTAIN AN ACCURATE RECORD OF ALL WORK AS ACTUALLY INSTALLED. THIS RECORD SHALL BE KEPT CURRENT AND SHALL BE KEPT AVAILABLE AT THE SITE FOR INSPECTION. UTILIZE THE CONTRACT DESIGN DRAWINGS FOR MARKING UP THE WORK AS INSTALLED. UPON COMPLETION OF THE WORK, AND BEFORE FINAL PAYMENT IS AUTHORIZED, AUTOCAD® REVISION 14 DRAFTED MYLARS OF THE AS-BUILT CONDITIONS WITH SIGNED CERTIFICATION OF ACCURACY SHALL BE DELIVERED TO THE ARCHITECT (THIS SUPERSEDES SUPPLEMENTARY AND GENERAL CONDITIONS). PROVIDE THE AUTOCAD® "DRAWING" DATA FILES TO THE OWNER.

P. GUARANTEE ALL WIRING FREE FROM UNWANTED GROUNDS AND SHORT CIRCUITS. GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR STARTING FROM THE DATE OF ACCEPTANCE BY THE OWNER. OBTAIN FROM THE VARIOUS MANUFACTURERS OR VENDORS STANDARD GUARANTEES OR WARRANTIES FOR THEIR PARTICULAR EQUIPMENT OR COMPONENTS, AND DELIVER THEM TO THE OWNER.

Q. CONDUCT A FINAL INSPECTION OF ALL WORK INSTALLED UNDER THIS DIVISION OF THE SPECIFICATION AFTER THE INSTALLATION HAS BEEN COMPLETED; THE TESTING HEREINAFTER SPECIFIED HAS BEEN PERFORMED; AND TEST REPORTS HAVE BEEN SUBMITTED TO THE OWNER. DURING THE CONDUCT OF THE FINAL INSPECTION, HAVE PRESENT A REPRESENTATIVE OF THE VARIOUS MANUFACTURERS AND A REPRESENTATIVES OF THE MANUFACTURERS OF OTHER EQUIPMENT AS DIRECTED BY THE OWNER.

S. PROVIDE QUALITY CONTROL PERFORMANCE TESTS, AND ACCEPTANCE TESTING FOR ALL SYSTEMS, DEVICES AND EQUIPMENT INSTALLED OR WIRED UNDER THIS DIVISION. TESTS SHALL BE PERFORMED TO THE SATISFACTION OF THE OWNER AND THE OWNER'S REPRESENTATIVE. FOR ACCEPTANCE TESTING REQUIREMENTS.

U. SUBMIT FOR APPROVAL A SCHEDULE OF NECESSARY TEMPORARY SHUTDOWNS OF THE EXISTING ELECTRICAL SERVICES AND SHALL SECURE SUCH APPROVAL IN WRITING BEFORE PROCEEDING. ALL COSTS FOR PERFORMING SPECIFIED OVERTIME WORK AND SPECIFIED PREMIUM TIME WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

V. ELECTRICAL SERVICE, BUILDING SERVICES AND SYSTEMS SHALL NOT BE INTERRUPTED DURING REGULAR WORKING HOURS. ALL WORK REQUIRING THE INTERRUPTION OF ALARM SYSTEMS OR INTERRUPTION OR SHUTDOWN OF ELECTRIC POWER SHALL BE PERFORMED DURING PREMIUM TIME. PROVIDE TEMPORARY CONNECTIONS, IF NECESSARY, TO MAINTAIN CONTINUOUS ELECTRICAL POWER FOR THE OPERATION OF ANY AREA AFFECTED BY THE WORK OF THIS SECTION.

W. ONCE A SYSTEM HAS BEEN ENERGIZED, ANY WORK REQUIRING THE INTERRUPTION OF ALARM SYSTEMS OR INTERRUPTION SHUTDOWN OF AN ELECTRICAL PANEL SHALL BE PERFORMED DURING PREMIUM TIME EXCEPT AS OTHERWISE INDICATED. THE INSTALLATION OF CIRCUIT BREAKERS, CONNECTIONS TO ACTIVE CIRCUIT BREAKERS AND DISCONNECTING FROM CIRCUIT BREAKERS IN ACTIVE PANELBOARDS OR SWITCHBOARDS SHALL BE PERFORMED ONLY DURING THE SHUTDOWN OF ELECTRIC SERVICE TO THE PANEL.

X. ANY WORK UNDER THIS SECTION WHICH MAY CAUSE INTERFERENCE WITH THE OWNER'S OPERATION SHALL BE DONE IN SUCH A MANNER AND AT SUCH TIME AS IS APPROVED BY THE OWNER AND/OR THE BUILDING SUPERVISOR. REMOVAL AND ALTERATION OF ELECTRICAL EQUIPMENT, CONDUIT AND WIRING AND THE INSTALLATION OF NEW WORK SHALL BE PERFORMED WITH MINIMUM INTERRUPTION. WHERE THE SITUATION PERMITS, MAKE TEMPORARY CONNECTIONS AS REQUIRED TO PREVENT ELECTRICAL SERVICE INTERRUPTIONS.

Y. SCHEDULED SHUTDOWNS SHALL BE ARRANGED TO FACILITATE THE PHASING OF THE WORK. COMPLETE AS MUCH PREPARATORY WORK AS CAN BE DONE IN ADVANCE OF SHUTDOWN, SO AS TO MINIMIZE THE LENGTH OF SHUTDOWNS. THE SHUTDOWNS SHALL BE ARRANGED WITH THE OWNER.

Z. PROVIDE SUFFICIENT PERSONNEL FOR ALL SHUTDOWNS TO ACCOMPLISH THE REQUIRED WORK WITHIN THE TIME AVAILABLE. SHOULD ANY WORK IMPAIR OR LIMIT THE EFFECTIVENESS OF ANY EXISTING SYSTEM, PROVIDE ADEQUATE MANPOWER TO SUPERVISE ANY AND ALL AREAS COMPROMISED BY THE WORK FOR THE DURATION OF THE WORK. FOR EXAMPLE, IF THE WORK CAUSES OR REQUIRES THE LOSS OF FIRE ALARM SYSTEM COVERAGE IN PART OR FULL, PROVIDE CERTIFIED DEDICATED FIRE WARDEN PERSONNEL FOR EACH ROOM AND AREA LACKING COVERAGE, TO DETECT AND ANNOUNCE ANY POTENTIAL FIRE OR LIFE SAFETY HAZARD.

AA. DELIVER PRODUCTS TO THE PROJECT PROPERLY IDENTIFIED WITH NAMES, MODEL NUMBERS, TYPES, GRADES, COMPLIANCE LABELS, AND OTHER INFORMATION NEEDED FOR IDENTIFICATION. MATERIALS STORED AT THE PROJECT SITE WHICH BECOME SOILED WITH CONSTRUCTION DIRT, CONCRETE OR EARTH WORK SHALL BE REMOVED FROM THE SITE AND REPLACED WITH NEW. DO NOT INSTALL SOILED MATERIAL. CLEAN WIPE THE INTERIOR OF ALL CONDUIT, PULLBOXES AND PANEL BOARD BACKBOXES, SOILED BY MASONRY TRADES, BEFORE PROCEEDING WITH WIRING.

AB. GENERALLY, DO NOT INSTALL DAMAGED, BROKEN OR MARRED MATERIAL OR PRODUCTS; REPLACE WITH NEW. ON LONG DELIVERY ITEMS THAT ARE DAMAGED IN SHIPPING OR STORAGE, FIELD REPAIR THESE ITEMS AND TEMPORARILY INSTALL THEM IN THE INTERIM UNTIL REPLACEMENT ITEMS HAVE ARRIVED. REPLACE THE DAMAGED ITEMS WHEN THE REPLACEMENT ITEM HAS ARRIVED.

AC. THE ELECTRICAL DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATION AND DETAILS OF THE WORK TO BE INSTALLED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE WORK IN CONFORMITY WITH THE REQUIREMENTS OF THESE SPECIFICATIONS, THE APPLICABLE CODES, REGULATIONS AND STANDARDS, AND THE BEST TRADE PRACTICES MEETING WITH THE APPROVAL OF THE OWNER. IF ANY DEPARTURES FROM THE DRAWINGS ARE DEEMED NECESSARY, DETAILS OF SUCH DEPARTURES AND THE REASONS THEREFORE SHALL BE SUBMITTED IMMEDIATELY TO THE OWNER FOR APPROVAL. IF ANY CONFLICTS OR DISCREPANCIES ARE FOUND TO EXIST ON THE DRAWINGS, IN THE SPECIFICATIONS OR BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, ASSUME THE MOST EXPENSIVE OPTION AND INCLUDE SUCH COSTS IN THE BID. IT SHALL BE UNDERSTOOD THAT THE OWNER RESERVES THE RIGHT TO CHANGE THE LOCATION OF EQUIPMENT AND APPARATUS TO A REASONABLE EXTENT AS BUILDING CONDITIONS MAY DICTATE, WITHOUT EXTRA COST TO THE OWNER.

AD. LOCATIONS OF LIGHTING FIXTURES, OUTLETS, PANELS, DEVICES AND OTHER EQUIPMENT ARE APPROXIMATELY CORRECT, BUT ARE SUBJECT TO SUCH REVISION AS MAY BE FOUND NECESSARY OR DESIRABLE AT THE TIME WORK IS INSTALLED IN CONSEQUENCE OF INCREASE OR REDUCTION IN THE NUMBER OF OUTLETS, TO MEET FIELD CONDITIONS, TO COORDINATE WITH MODULAR REQUIREMENTS OF CEILINGS, TO SIMPLIFY WORK, OR FOR OTHER LEGITIMATE CAUSES.

AE. ARCHITECT'S DRAWINGS OF THE BUILDING SHALL BE EXAMINED TO ASCERTAIN WHETHER ANY CHANGES HAVE BEEN MADE SINCE ELECTRICAL DRAWINGS WERE COMPLETED. PARTICULAR CAUTION SHALL BE EXERCISED WITH REFERENCE TO LOCATION OF PANELS, OUTLETS, SWITCHES, ETC. AND PRECISE AND DEFINITE LOCATIONS SHALL BE APPROVED BY THE OWNER BEFORE PROCEEDING WITH INSTALLATION. IT SHALL BE DISTINCTLY UNDERSTOOD THAT THE DRAWINGS SHOW ONLY GENERAL RUN OF CONDUIT AND APPROXIMATE LOCATION OF OUTLETS.

AF. ANY SIGNIFICANT CHANGES IN LOCATION OF OUTLETS, CABINETS, ETC., FOUND NECESSARY IN ORDER TO MEET FIELD CONDITIONS, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER AND WRITTEN APPROVAL MUST BE OBTAINED BEFORE SUCH ALTERATIONS ARE MADE. LOCATIONS OF OUTLETS AND EQUIPMENT NOT DEFINITELY LOCATED ON THE DRAWINGS SHALL BE OBTAINED FROM THE ARCHITECT IN THE FIELD.

AG. ELECTRICAL DRAWINGS SHOW GENERAL ARRANGEMENT OF CONDUIT, EQUIPMENT AND APPURTENANCES AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND WORK OF OTHER TRADES WILL PERMIT. VERIFY DIMENSIONS IN FIELD AND MEASURE OFF BUILDING CONSTRUCTION FOR LOCATIONS OF EQUIPMENT AND DEVICES. ELECTRICAL WORK SHALL CONFORM TO REQUIREMENTS SHOWN ON EACH TRADE'S DRAWINGS. ARCHITECTURAL LAYOUT ON CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER ARCHITECTURAL LAYOUT ON ELECTRICAL DRAWINGS. BECAUSE OF THE SMALL SCALE OF ELECTRICAL DRAWINGS, IT IS NOT POSSIBLE TO INDICATE EVERY OFFSET, FITTING AND ACCESSORY WHICH MAY BE REQUIRED. INVESTIGATE STRUCTURAL AND FINISH CONDITIONS AFFECTING WORK AND ARRANGE ELECTRICAL WORK ACCORDINGLY, PROVIDING ALL ACCESSORIES REQUIRED TO MEET SUCH CONDITIONS.

AH. CIRCUIT "TAGS" IN THE FORM OF ARROWS ARE USED TO INDICATE HOME RUNS OF CONDUIT TO ELECTRICAL PANELS. THESE TAGS SHOW QUANTITY OF CIRCUITS IN EACH HOME RUN, NUMBER OF EACH CIRCUIT AND PANEL DESIGNATION. CIRCUIT NUMBERS SHOWN ARE FOR REFERENCE ONLY TO INDICATE DEVICES ON A COMMON CIRCUIT, NOT NECESSARILY THE EXACT CIRCUIT POSITION TO BE UTILIZED. SHOW ACTUAL CIRCUIT NUMBERS ON THE FINISHED RECORD DRAWINGS AND ON THE PANEL DIRECTORY CARD.

AI. THE DRAWINGS GENERALLY DO NOT INDICATE THE QUANTITY OF WIRES OF CONDUIT FOR BRANCH CIRCUIT WIRING NOR THE CONDUIT SIZE FOR FEEDERS. PROVIDE THE CORRECT WIRE SIZE AND QUANTITY OF WIRES INSTALLED IN CONDUIT OF PROPER SIZE AS REQUIRED BY THE INDICATED CIRCUITING, CONTROL WIRE DIAGRAMS, IF ANY, SPECIFIED VOLTAGE DROP OR MAXIMUM DISTANCE LIMITATIONS AND APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE. SHOW BRANCH CIRCUIT AND FEEDER WIRING AND CONDUIT RUNS ON THE RECORD DRAWINGS.

AJ. PROVIDE ALL MATERIALS REQUIRED FOR A COMPLETE AND PROPER INSTALLATION.

AK. IN ADDITION TO THE MATERIALS SPECIFIED ELSEWHERE, ALL OTHER MISCELLANEOUS ITEMS NECESSARY FOR THE COMPLETION OF THE WORK SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR TO THE EXTENT THAT ALL SYSTEMS BE COMPLETE AND OPERATIVE.

AL. ALL MATERIAL AND EQUIPMENT FURNISHED UNDER THIS DIVISION SHALL BE NEW AND LISTED AND/OR LABELED BY THE UNDERWRITERS' LABORATORIES, INC. FOR THE APPLICATION, UNLESS OTHERWISE SPECIFIED HEREIN. MATERIALS, MATERIAL SIZES AND METHODS OF CONSTRUCTION NOT SPECIFIED SHALL BE AT LEAST EQUAL TO OR BETTER THAN THE STANDARDS LISTED BY THE UNDERWRITERS' LABORATORIES, INC. AND/OR REQUIREMENTS OF THE LAWS, REGULATIONS AND CODES MENTIONED HEREINAFTER.

AM. DO NOT CONNECT SWITCHES IN THE NEUTRAL CONDUCTOR. INSTALL SWITCHES INDICATED BY "S" WITH SUBLETTER TO CONTROL THE OUTLETS INDICATED. HOWEVER, IF SUBLETTER IS OMITTED, INSTALL SWITCHES TO CONTROL LIGHTING IN THE ROOM OR AREA. IF THERE IS ONLY ONE SWITCH INDICATED IN THE ROOM, INSTALL THE SWITCH TO CONTROL ALL LIGHTING IN THE ROOM EVEN THOUGH THEY ARE NOT INDICATED BY SUBLETTER. IF TWO SWITCHES ARE SHOWN IN A ROOM AT THE SAME LOCATION WITH NO SUBLETTER, INSTALL EACH SWITCH TO CONTROL HALF THE LAMPS IN EACH FIXTURE EVEN THOUGH THERE IS NO SUBLETTER. FOR FIXTURES WITH 3 LAMPS ONE SWITCH SHALL CONTROL THE TWO OUTER LAMPS AND THE SECOND SHALL CONTROL THE INNER LAMP.

GROUNDING

A. PROVIDE ALL BRANCH CIRCUITS AND FEEDERS WITH GREEN INSULATED GROUND CONDUCTORS. COMPLY WITH NEC ARTICLE 250 FOR TYPES, SIZES, AND QUANTITIES OF EQUIPMENT GROUNDING CONDUCTORS, EXCEPT WHERE SPECIFIC TYPES, LARGER SIZES, OR MORE CONDUCTORS THAN REQUIRED BY NEC ARE INDICATED. INSTALL EQUIPMENT-GROUNDING CONDUCTOR WITH ALL CIRCUIT CONDUCTORS. COMPLY WITH NEC 517.13 AT DEVICES AND FIXED EQUIPMENT.

B. WHERE NEC REQUIRES GROUNDING, GROUND ACCORDING TO NEC PARAGRAPH 250-26. GROUND ELECTRICAL SYSTEMS AND EQUIPMENT ACCORDING TO NEC REQUIREMENTS, EXCEPT WHERE DRAWINGS OR SPECIFICATIONS EXCEED NEC REQUIREMENTS.

C. WHERE METALLIC RACEWAYS TERMINATE PROVIDE EACH CONDUIT WITH A GROUNDING BUSHING. CONNECT GROUNDING BUSHINGS WITH GROUNDING CONDUCTOR. BOND CONDUITS AT BOTH ENTRANCES AND EXITS WITH GROUNDING BUSHINGS AND CONTINUOUS GROUNDING CONDUCTORS, EXCEPT AS OTHERWISE INDICATED.

CONDUCTORS AND CABLES

1. CONDUCTORS SHALL BE UL-LISTED CLASS B CONCENTRIC ROUND COPPER BUILDING WIRES AND CABLES WITH CONDUCTOR MATERIAL, INSULATION TYPE, CABLE CONSTRUCTION, AND RATING AS SPECIFIED. RUBBER INSULATION: CONFORM TO NEMA WC 3. THERMOPLASTIC INSULATION: CONFORM TO NEMA WC 5. CROSS-LINKED POLYETHYLENE INSULATION: CONFORM TO NEMA WC 7. ETHYLENE PROPYLENE RUBBER INSULATION (EPR): CONFORM TO NEMA WC 8. SOLID CONDUCTOR FOR LIGHTING AND RECEPTACLE CIRCUIT CONDUCTORS AND ALL CONDUCTORS 10 AWG AND SMALLER; STRANDED CONDUCTOR FOR LARGER THAN 10 AWG.

2. WIRE AND CABLE CONNECTORS SHALL BE SOLDERLESS, MECHANICAL, SOLID COPPER OR COPPER ALLOY TYPES. CONNECTORS SHALL BE BUCHANAN ELECTRICAL PRODUCTS COPPER SQUEEZE-ON TYPE WITH MOLDED RUBBER OR VINYL CAP, MINNESOTA MINING AND MANUFACTURING COMPANY "SCOTCHLOCK" OR IDEAL INDUSTRIES "SUPER-NUT" SPRING CONNECTORS WITH MOLDED VINYL CAP OR AS APPROVED.

3. BRANCH CIRCUITS SHALL BE TYPE THHN/THWN, COPPER CONDUCTOR, IN RACEWAY. INSTRUMENT CABLING: TWISTED SHIELDED PAIR OR TRIADS WITH ALUMINUM MYLAR SHIELD AND COPPER DRAIN WIRE, TYPE XHHW OR THHN INSULATION. CLASS 1 CONTROL CIRCUITS: TYPE THHN/THWN, COPPER CONDUCTOR, IN RACEWAY. CLASS 2 CONTROL CIRCUITS: TYPE THHN/THWN, COPPER CONDUCTOR, IN RACEWAY. DIRECT CURRENT CIRCUITS: TYPE EPR, COPPER CONDUCTOR, IN RACEWAY.

4. INSTALL WIRES AND CABLES AS INDICATED, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND THE NETA "STANDARD OF INSTALLATION." PULL CONDUCTORS INTO RACEWAY SIMULTANEOUSLY WHERE MORE THAN ONE IS BEING INSTALLED IN SAME RACEWAY. USE PULLING COMPOUND OR LUBRICANT WHERE NECESSARY; COMPOUND USED MUST NOT DETERIORATE CONDUCTOR OR INSULATION. USE PULLING MEANS, INCLUDING FISH TAPE, CABLE, ROPE, AND BASKET WEAVE WIRE/CABLE GRIPS THAT WILL NOT DAMAGE CABLES OR RACEWAY.

5. INSTALL EXPOSED CABLE, PARALLEL AND PERPENDICULAR TO SURFACES OR EXPOSED STRUCTURAL MEMBERS, AND FOLLOW SURFACE CONTOURS WHERE POSSIBLE.

6. CONDUCTOR SPLICES: KEEP TO MINIMUM. SPLICES ARE NOT PERMITTED IN FEEDERS. SPLICES ARE PERMITTED ONLY WHERE REQUIRED TO CIRCUIT SPECIFIC DEVICES ON SHARED CIRCUITS. INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCTORS BEING SPLICED. USE ONLY COMPRESSION TYPE SPLICE AND TAP CONNECTORS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL.

7. CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND AS INDICATED AND INSTRUCTED BY MANUFACTURER. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, ACCORDING TO EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES FOR EQUIPMENT CONNECTORS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS ACCORDING TO TIGHTENING TORQUE SPECIFIED IN UL STANDARD 486A.

8. UPON INSTALLATION OF WIRES AND CABLES AND BEFORE ELECTRICAL CIRCUITRY HAS BEEN ENERGIZED, DEMONSTRATE PRODUCT CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST STATED IN NETA STANDARD ATS, SECTION 7.3.1. CERTIFY COMPLIANCE WITH TEST PARAMETERS. TEST ALL CABLES WITH 1000VDC MEGGER TEST. TEST BRANCH CIRCUIT WIRING FOR ONE MINUTE. TEST FEEDER WIRING FOR 15 MINUTES WITH READINGS AT ONE MINUTE INTERVALS. TERMINATION: PROVIDE INFRARED THERMOSCANS OF ALL TERMINATIONS OF CONDUCTORS #8AWG AND LARGER. PERFORM SCANS WITH CONDUCTORS CARRYING THE DESIGNED LOAD.

RACEWAY AND ENCLOSURES

A. PROVIDE RACEWAYS INCLUDING RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT, ELECTRICAL METALLIC TUBING (EMT).

B. PROVIDE BOXES, ENCLOSURES AND CABINETS AS REQUIRED INCLUDING, PULL AND JUNCTION BOXES, CABINETS AND HINGED COVER ENCLOSURES.

C. ALL CIRCUITRY SHALL BE INSTALLED CONCEALED. USE THE FOLLOWING WIRING METHODS INDOORS:

1. CONNECTION TO VIBRATING EQUIPMENT (INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT): LIQUIDTIGHT FLEXIBLE METAL CONDUIT.
2. DAMP OR WET LOCATIONS: RIGID STEEL CONDUIT.
3. EXPOSED: WHERE CONCEALMENT IS IMPOSSIBLE; ELECTRICAL METALLIC TUBING, EXCEPT WHERE EXPOSED TO PHYSICAL DAMAGE.
4. CONCEALED: HEALTH CARE FACILITY TYPE HCF CABLING, ELECTRICAL METALLIC TUBING, EXCEPT WHERE EXPOSED TO PHYSICAL DAMAGE UNLESS OTHERWISE NOTED.
5. BOXES AND ENCLOSURES: NEMA TYPE 1, EXCEPT IN DAMP OR WET LOCATIONS USE NEMA TYPE 4, STAINLESS STEEL.
6. WHERE SUBJECT TO PHYSICAL DAMAGE: RIGID OR INTERMEDIATE METAL CONDUIT.
7. MOTOR CIRCUITS: EMT.
8. IN CONCRETE: RIGID GALVANIZED STEEL CONDUIT.
9. ALL OTHER LOCATIONS: RIGID OR INTERMEDIATE METAL CONDUIT.
10. LOW VOLTAGE SYSTEMS (OTHER THAN SECURITY/ACCESS CONTROL/CCTV): IN RACEWAY WHERE INSTALLED BELOW 10'-0" ABOVE THE FINISHED FLOOR LEVEL. WHERE INSTALLED ABOVE THE 10'-0" LEVEL EXPOSED, SUPPORTED TO STRUCTURAL MEMBERS AND OTHER RIGID RACEWAY, SUPPORTED PER CODE AND LOCAL AUTHORITIES REQUIREMENTS.
11. UNDERGROUND: RIDGID PVC SCHEDULE 80

D. INSTALL RACEWAYS, BOXES, ENCLOSURES, AND CABINETS AS INDICATED, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. UNLESS OTHERWISE NOTED ALL RACE WAY IS TO BE INSTALLED CONCEALED.

E. DO NOT USE EMT IN AREAS WHERE RACEWAY WILL BE EXPOSED TO PHYSICAL DAMAGE. CONCEAL CONDUIT AND EMT, UNLESS OTHERWISE INDICATED, WITHIN FINISHED WALLS, CEILINGS, AND FLOORS.

F. KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES AND STEAM OR HOT WATER PIPES. INSTALL HORIZONTAL RACEWAY RUNS ABOVE WATER AND STEAM PIPING.

G. INSTALL RACEWAYS LEVEL AND SQUARE AND AT PROPER ELEVATIONS. PROVIDE ADEQUATE HEADROOM.

H. COMPLETE RACEWAY INSTALLATION BEFORE STARTING CONDUCTOR INSTALLATION.

I. SUPPORT RACEWAY AS SPECIFIED IN THE NATIONAL ELECTRIC CODE

J. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY.

K. PROTECT STUB-UPS FROM DAMAGE WHERE CONDUITS RISE THROUGH FLOOR SLABS. ARRANGE SO CURVED PORTION OF BENDS IS NOT VISIBLE ABOVE THE FINISHED SLAB.

L. MAKE BENDS AND OFFSETS SO THE INSIDE DIAMETER IS NOT REDUCED. UNLESS OTHERWISE INDICATED, KEEP THE LEGS OF A BEND IN THE SAME PLANE AND THE STRAIGHT LEGS OF OFFSETS PARALLEL.

M. USE RACEWAY FITTINGS COMPATIBLE WITH RACEWAY AND SUITABLE FOR USE AND LOCATION. FOR INTERMEDIATE STEEL CONDUIT, USE THREADED RIGID STEEL CONDUIT FITTINGS, EXCEPT AS OTHERWISE INDICATED. UNTHREADED FITTINGS SHALL NOT BE USED EXCEPT FOR EMT.

N. RUN CONCEALED RACEWAYS WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE TYPE OF BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED.

O. INSTALL EXPOSED RACEWAYS PARALLEL TO OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS, AND FOLLOW THE SURFACE CONTOURS AS MUCH AS PRACTICAL. RUN PARALLEL OR BANKED RACEWAYS TOGETHER, ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTER LINE TO MAKE BENDS PARALLEL. USE FACTORY ELBOWS ONLY WHERE THEY CAN BE INSTALLED PARALLEL; OTHERWISE, PROVIDE FIELD BENDS FOR PARALLEL RACEWAYS.

P. JOIN RACEWAYS WITH FITTINGS DESIGNED AND APPROVED FOR THE PURPOSE AND MAKE JOINTS TIGHT. MAKE RACEWAY TERMINATIONS TIGHT. USE BONDING BUSHINGS AT CONNECTIONS SUBJECT TO VIBRATION. USE GROUND CONDUCTORS THROUGH THE BONDING BUSHINGS.

Q. USE INSULATING BUSHINGS TO PROTECT CONDUCTORS.

R. USE COMPRESSION FITTING FOR NON-THREADED CONNECTIONS.

S. TERMINATE RACEWAYS WITH LOCKNUTS AND GROUNDING BUSHINGS, ALIGN THE RACEWAY TO ENTER SQUARELY, AND INSTALL THE LOCKNUTS WITH DISHED PART AGAINST THE BOX. WHERE TERMINATIONS CANNOT BE MADE SECURE WITH ONE LOCKNUT, USE TWO LOCKNUTS, ONE INSIDE AND ONE OUTSIDE THE BOX. PROVIDE GROUNDING BUSHINGS FOR ALL RACEWAY TERMINATIONS. WHERE TERMINATING IN THREADED HUBS, SCREW THE RACEWAY OR FITTING TIGHT INTO THE HUB SO THE END BEARS AGAINST THE WIRE PROTECTION SHOULDER. WHERE CHASE NIPPLES ARE USED, ALIGN THE RACEWAY SO THE COUPLING IS SQUARE TO THE BOX, AND TIGHTEN THE CHASE NIPPLE SO NO THREADS ARE EXPOSED.

T. INSTALL PULL WIRES IN EMPTY RACEWAYS. USE NO. 14 AWG ZINC-COATED STEEL OR MONOFILAMENT PLASTIC LINE HAVING NOT LESS THAN 200-LB. TENSILE STRENGTH. LEAVE NOT LESS THAN 12 INCHES OF SLACK AT EACH END OF THE PULL WIRE.

U. UPON COMPLETION OF INSTALLATION OF SYSTEM, INCLUDING OUTLET FITTINGS AND DEVICES, INSPECT EXPOSED FINISH. REMOVE BURRS, DIRT, AND CONSTRUCTION DEBRIS AND REPAIR DAMAGED FINISH, INCLUDING CHIPS, SCRATCHES, AND ABRASIONS.

ELECTRICAL IDENTIFICATION

A. COORDINATE INSTALLING ELECTRICAL IDENTIFICATION AFTER COMPLETION OF FINISHING WHERE IDENTIFICATION IS APPLIED TO FIELD-FINISHED SURFACES. COORDINATE INSTALLING ELECTRICAL IDENTIFYING DEVICES AND MARKINGS PRIOR TO INSTALLING ACOUSTICAL CEILINGS AND SIMILAR FINISHES THAT CONCEAL SUCH ITEMS.

B. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:

1. STRANCO, INC.
2. IDEAL INDUSTRIES, INC.
3. PANDUIT CORPORATION
4. READY MADE SIGN COMPANY; CORNERSTONE DIRECT CORPORATION DIVISION
5. SETON NAME PLATE CORPORATION
6. STANDARD SIGNS, INC.

C. CABLE TIES: FUNGUS-INERT, SELF-EXTINGUISHING, 1-PIECE, SELF-LOCKING, TYPE 6/6 NYLON CABLE TIES WITH THE FOLLOWING FEATURES: MINIMUM WIDTH: 3/16 INCH. TENSILE STRENGTH: 50 LB MINIMUM. TEMPERATURE RANGE: MINUS 40 TO 185 DEGREES COLOR: AS INDICATED WHERE USED FOR COLOR-CODING. PAINT: ALKYD-URETHANE ENAMEL OVER PRIMER AS RECOMMENDED BY ENAMEL MANUFACTURER.

D. INSTALL IDENTIFICATION DEVICES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. INSTALL LABELS WHERE INDICATED AND AT LOCATIONS FOR BEST CONVENIENCE OF VIEWING WITHOUT INTERFERENCE WITH OPERATION AND MAINTENANCE OF EQUIPMENT.

E. LETTERING, COLORS, AND GRAPHICS: COORDINATE NAMES, ABBREVIATIONS, COLORS, AND OTHER DESIGNATIONS USED FOR ELECTRICAL IDENTIFICATION WITH CORRESPONDING DESIGNATIONS USED IN THE CONTRACT DOCUMENTS OR REQUIRED BY CODES AND STANDARDS. USE CONSISTENT DESIGNATIONS THROUGHOUT THE PROJECT.

F. SEQUENCE OF WORK: WHERE IDENTIFICATION IS TO BE APPLIED TO SURFACES THAT REQUIRE FINISH, INSTALL IDENTIFICATION AFTER COMPLETION OF FINISH WORK.

G. IDENTIFY RACEWAYS AND EXPOSED CABLES OF CERTAIN SYSTEMS WITH COLOR BANDING: BAND EXPOSED AND ACCESSIBLE RACEWAYS OF THE SYSTEMS LISTED BELOW FOR IDENTIFICATION.

1. BANDS: PRE-TENSIONED, SNAP-AROUND, COLORED PLASTIC SLEEVES; COLORED ADHESIVE TAPE; OR A COMBINATION OF BOTH. MAKE EACH COLOR BAND 2 INCHES WIDE, COMPLETELY ENCIRCLING CONDUIT, AND PLACE ADJACENT BANDS OF 2-COLOR MARKINGS IN CONTACT, SIDE BY SIDE.
2. LOCATE BANDS AT CHANGES IN DIRECTION, AT PENETRATIONS OF WALLS AND FLOORS, AT 20-FOOT MAXIMUM INTERVALS IN STRAIGHT RUNS, AND AT 5 FEET IN CONGESTED AREAS.
3. COLORS: AS FOLLOWS:

A. FIRE-ALARM SYSTEM: RED.
B. FIRE-SUPPRESSION SUPERVISORY AND CONTROL SYSTEM: RED AND YELLOW.
C. SECURITY SYSTEM: BLUE AND YELLOW.
D. MECHANICAL AND ELECTRICAL SUPERVISORY SYSTEM: GREEN AND BLUE.

H. ALL CONDUCTORS: INDICATE SOURCE AND CIRCUIT NUMBERS. CIRCUITS IN THE SAME ENCLOSURE: IDENTIFY EACH CONDUCTOR WITH SOURCE, VOLTAGE, CIRCUIT NUMBER, AND PHASE. USE COLOR-CODING FOR VOLTAGE AND PHASE INDICATION OF SECONDARY CIRCUIT. MULTIPLE CONTROL AND COMMUNICATIONS CIRCUITS IN THE SAME ENCLOSURE: IDENTIFY EACH CONDUCTOR BY ITS SYSTEM AND CIRCUIT DESIGNATION. USE A CONSISTENT SYSTEM OF TAGS, COLOR-CODING, OR CABLE MARKING TAPE.

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Date	Revision

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ELECTRICAL SPECIFICATIONS

ELECTRICAL SERVICES UPGRADES FOR HIGHWAY DEPARTMENT
Town Of Beekman
4 Main Street
Poughquag, NY

Date September 30, 2025
Job No 2025-016
Scale As Noted
Drawing E-002
Of

PANEL PP1 225A MLO COPPER BUS BOLT ON BREAKERS 42KAIC. PROVIDE WITH STRANCO CIRCUIT SAFE LOCKOUT TAGOUT SYSTEM FOR ENTIRE PANEL.

SERVES	LOAD WATTS øA	LOAD WATTS øB	LOAD WATTS øC	CIR No	S/N A	S/N B	S/N C	CIR No	LOAD WATTS øA	LOAD WATTS øB	LOAD WATTS øC	SERVES
GRARGE DOOR OPERATOR	1500			1	20A		20A	2	XXXX			EF-1
GRARGE DOOR OPERATOR		1500		3	20A		20A	4		XXXX		CEILING FAN
GRARGE DOOR OPERATOR			1500	5	20A		20A	6			XXXX	CEILING FAN
GRARGE DOOR OPERATOR	1500			7	20A		20A	8	XXXX			CEILING FAN
GRARGE DOOR OPERATOR		1500		9	20A		20A	10		XXXX		FRONT OUTDOOR FLOOD LTS
GRARGE DOOR OPERATOR			1500	11	20A		20A	12			XXXX	SPARE
SPARE	XXXX			13	20A		20A	14	XXXX			SPARE
SPARE		XXXX		15	20A		20A	16		XXXX		SPARE
SPARE			XXXX	17	20A		20A	18			XXXX	SPARE
SPARE	XXXX			19	20A		20A	20	XXXX			SPARE
SPARE		XXXX		21	20A		20A	22		XXXX		SPARE
SPARE			XXXX	23	20A		20A	24			XXXX	SPARE
SPARE	XXXX			25	20A		20A	26	XXXX			SPARE
SPARE		XXXX		27	20A		20A	28		XXXX		SPARE
SPARE			XXXX	29	20A		20A	30			XXXX	SPARE
SPARE	XXXX			31				32	XXXX			SPARE
--		XXXX		33	20A		20A	34		XXXX		--
SPARE			XXXX	35	20A		20A	36			XXXX	SPARE
--	XXXX			37	20A		20A	38	XXXX			--
SPARE		XXXX		39				40		XXXX		SPARE
--			XXXX	41				42			XXXX	--
	XXXX	XXXX	XXXX		XXXX	XXXX	XXXX		XXXX	XXXX	XXXX	

KEYED NOTES

1. EXISTING UTILITY POLE.
2. EXISTING POLE MOUNTED UTILITY TRANSFORMERS.
3. EXISTING UTILITY UNDERGROUND SERVICE FEEDER.
4. OUTDOOR ELECTRIC SERVICE EQUIPMENT.
5. EXISTING OUTDOOR ELECTRIC SERVICE METER FOR BUILDING #1.
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14. EXISTING UNDERGROUND BRANCH CIRCUITRY TO 911 MONUMENT.
15. EXISTING UNDERGROUND ELECTRIC SERVICE FEED TO SALT PANEL.
16. CONTROL TRANSFER SWITCH FOR GENERATOR START, STOP CONTROL AND ALARM/MONITORING CIRCUITS. PROVIDE MULTI-POLE DOUBLE THROW TRANSFER DEVICE INTERLOCKED WITH THE PORTABLE GEN SELECTOR TRANSFER BREAKER PAIR TO SIMULTANEOUSLY TRANSFER THE GENERATOR CONTROL AND ALARMS BETWEEN THE STATIONARY GENERATOR AND THE PORTABLE GENERATOR IN COORDINATION WITH THE GENERATOR SELECTION.
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27. TRANSIENT VOLTAGE SURGE SUPPRESSOR. JOSLYN 85-MN
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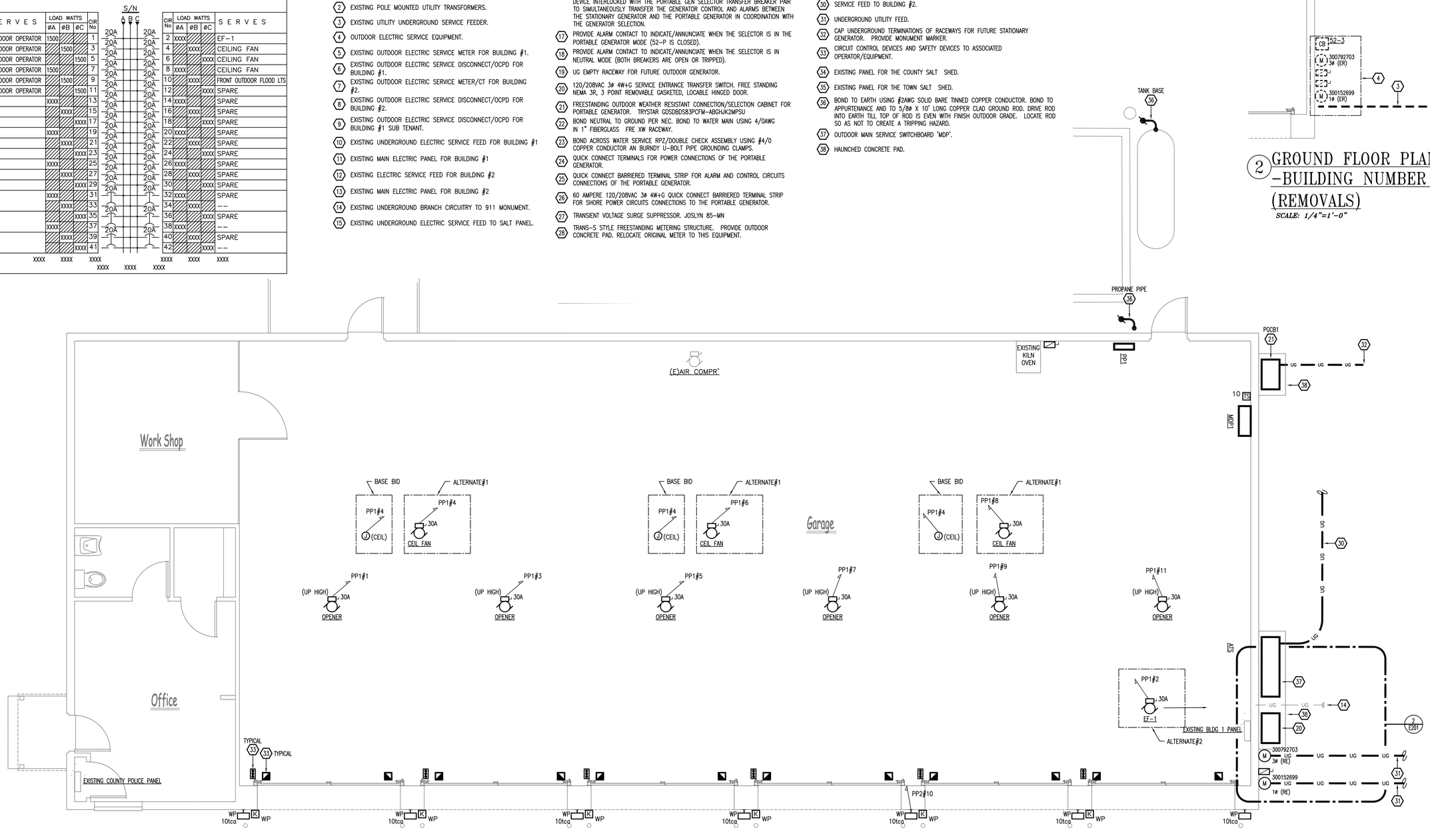
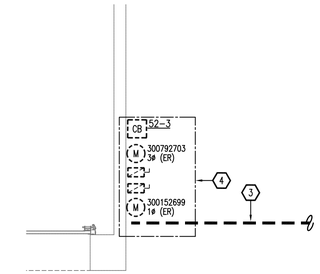
37. OUTDOOR MAIN SERVICE SWITCHBOARD 'MDP'.
38. HAUNCHED CONCRETE PAD.



1 GROUND FLOOR PLAN-BUILDING NUMBER 1

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



2 GROUND FLOOR PLAN -BUILDING NUMBER 1 (REMOVALS)

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

PROJECT NORTH

MAGNETIC NORTH

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Date	Revision

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GROUND FLOOR PLAN BUILDING NUMBER 1, PANEL SCHEDULE AND KEYED NOTES

ELECTRICAL SERVICES UPGRADES FOR HIGHWAY DEPARTMENT

Town Of Beekman

4 Main Street
Poughquag, NY

Date	September 30, 2025
Job No	2025-016
Scale	As Noted
Drawing	E-201
Of	

ISSUE 1 9-30-2025 ISSUED FOR PRICING

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PANEL PP2 225A MLO COPPER BUS BOLT ON BREAKERS 42KAIC. PROVIDE WITH STRANCO CIRCUIT SAFE LOCKOUT TAGOUT SYSTEM FOR ENTIRE PANEL.

S/N

SERVES	LOAD WATTS øA	LOAD WATTS øB	LOAD WATTS øC	CIR No	A	B	C	CIR No	LOAD WATTS øA	LOAD WATTS øB	LOAD WATTS øC	SERVES
GRARGE DOOR OPERATOR	1500			1	20A			2	XXXX			EF-1
GRARGE DOOR OPERATOR		1500		3		20A		4		XXXX		CEILING FAN
GRARGE DOOR OPERATOR			1500	5			20A	6			XXXX	CEILING FAN
GRARGE DOOR OPERATOR	1500			7	20A			8	XXXX			CEILING FAN
GRARGE DOOR OPERATOR		1500		9		20A		10		XXXX		FRONT EXTERIOR LIGHTS
GRARGE DOOR OPERATOR			1500	11			20A	12			XXXX	SPARE
SPARE	XXXX			13	20A			14	XXXX			SPARE
SPARE		XXXX		15		20A		16		XXXX		SPARE
SPARE			XXXX	17			20A	18			XXXX	SPARE
SPARE	XXXX			19	20A			20	XXXX			SPARE
SPARE		XXXX		21		20A		22		XXXX		SPARE
SPARE			XXXX	23			20A	24			XXXX	SPARE
SPARE	XXXX			25	20A			26	XXXX			SPARE
SPARE		XXXX		27		20A		28		XXXX		SPARE
SPARE			XXXX	29			20A	30			XXXX	SPARE
SPARE	XXXX			31	20A			32	XXXX			SPARE
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SPARE			XXXX	35			20A	36			XXXX	SPARE
--	XXXX			37	20A			38	XXXX			--
SPARE		XXXX		39		20A		40		XXXX		SPARE
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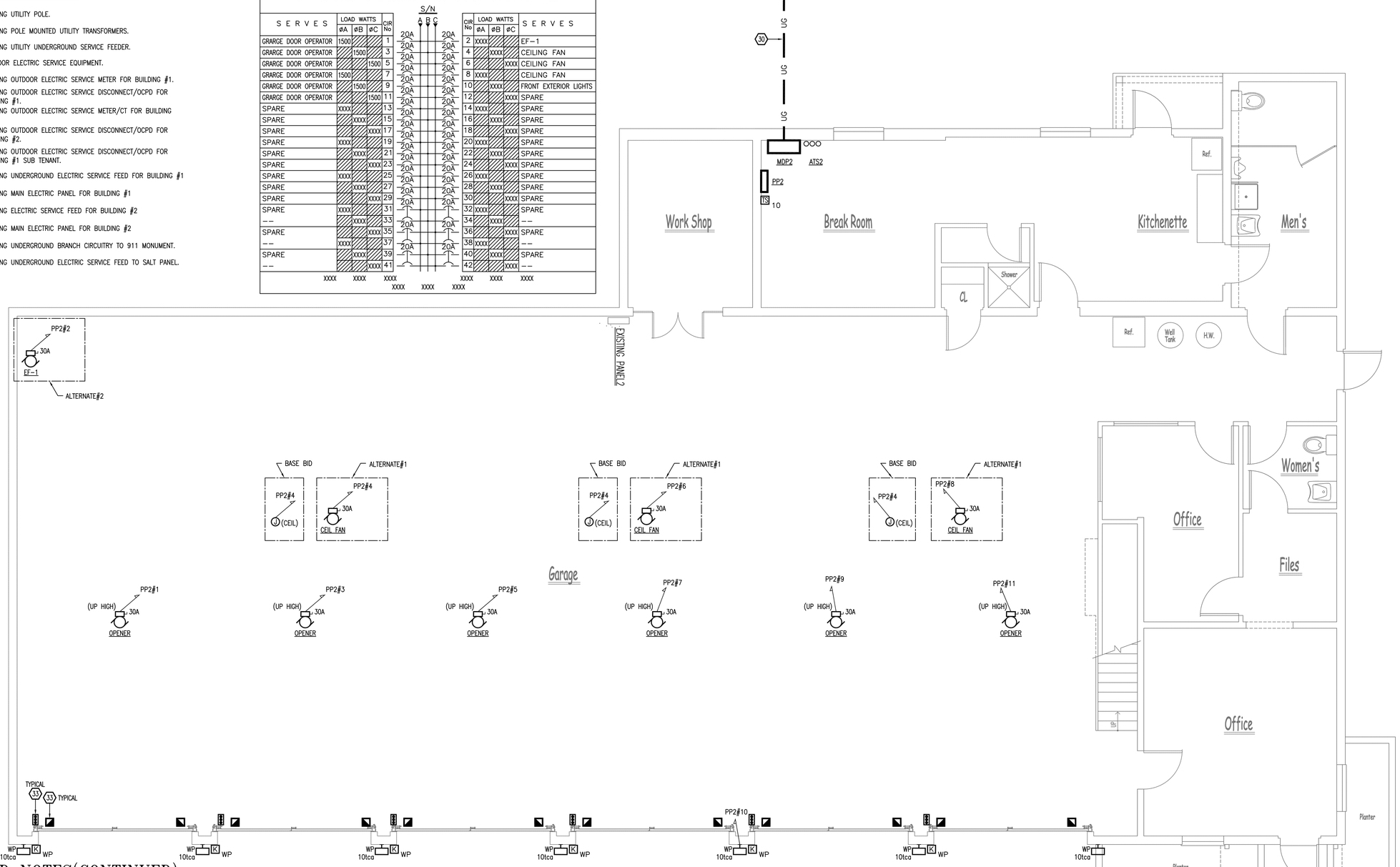
	XXXX	XXXX	XXXX		XXXX	XXXX	XXXX		XXXX	XXXX	XXXX	



1 GROUND FLOOR PLAN-BUILDING NUMBER 2

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

PROJECT NORTH

MAGNETIC NORTH

KEYED NOTES(CONTINUED)

16. CONTROL TRANSFER SWITCH FOR GENERATOR START, STOP CONTROL AND ALARM/MONITORING CIRCUITS. PROVIDE MULTI-POLE DOUBLE THROW TRANSFER DEVICE INTERLOCKED WITH THE PORTABLE GEN SELECTOR TRANSFER BREAKER PAIR TO SIMULTANEOUSLY TRANSFER THE GENERATOR CONTROL AND ALARMS BETWEEN THE STATIONARY GENERATOR AND THE PORTABLE GENERATOR IN COORDINATION WITH THE GENERATOR SELECTION.
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31. UNDERGROUND UTILITY FEED.
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33. CIRCUIT CONTROL DEVICES AND SAFETY DEVICES TO ASSOCIATED OPERATOR/EQUIPMENT.
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Date	Revision

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GROUND FLOOR PLAN BUILDING NUMBER 2, PANEL SCHEDULE AND KEYED NOTES

ELECTRICAL SERVICES UPGRADES FOR HIGHWAY DEPARTMENT

Town Of Beekman
4 Main Street
Poughkeepsie, NY

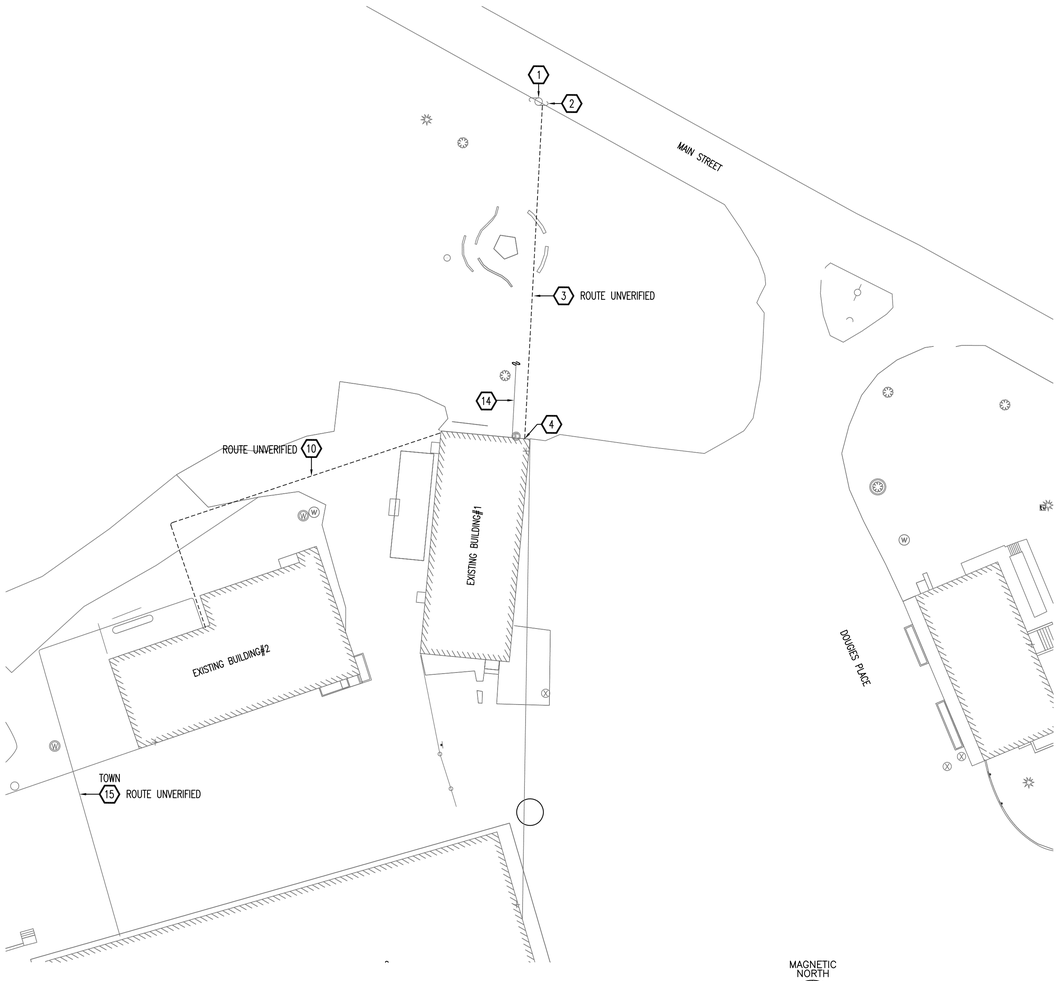
Date September 30, 2025

Job No 2025-016

Scale As Noted

Drawing E-202

Of



1 ELECTRICAL SITE PLAN(REMOVALS)
SCALE: 1/32"=1'-0"

1 ELECTRICAL SITE PLAN
SCALE: 1/32"=1'-0"

KEYED NOTES

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ELECTRICAL ,SITE PLANS AND KEYED NOTES

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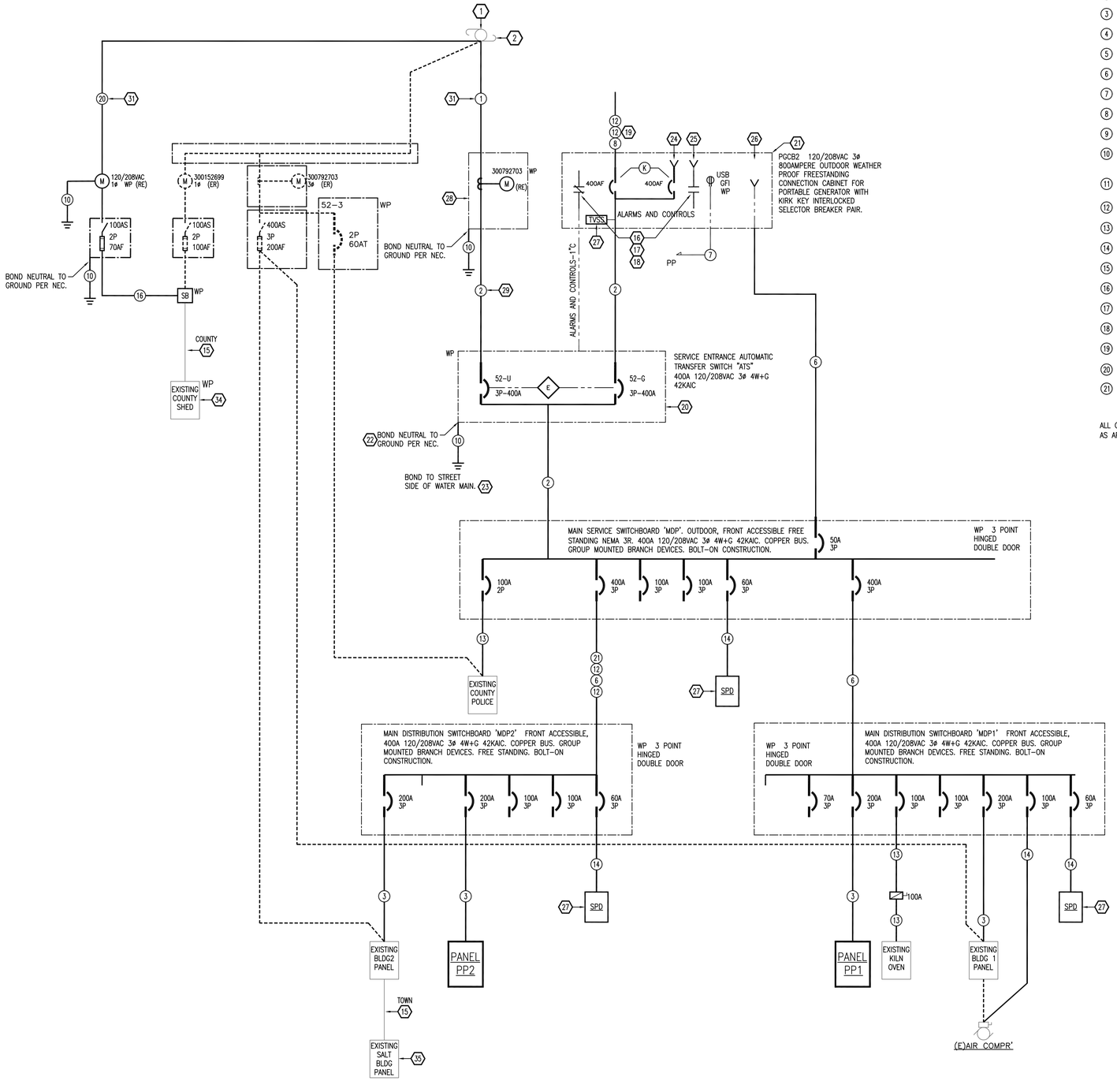
Town Of Beekman
4 Main Street
Poughkeep, NY

Date September 30, 2025
Job No 2025-016
Scale As Noted
Drawing E-203
Of



1 ELECTRICAL ONE-LINE DIAGRAM

FEEDER SCHEDULE

1. 4-600MCM XXHW-4" HDPE C PLUS (1) 4"EC SPARE.
2. 4-500MCM, 1#13-4"C)
3. 4-3/0AWG, 1#6G-2"C
4. 3#4/0,1#6G-2"C
5. 2#8,1#8N,1#10G-3/4" RGS C
6. 3#6,1#8G-1"C
7. 2#12,1#12G-3/4"C
8. (2) 4" EMPTY CONDUIT
9. 2#8,1#10G-3/4"C
10. #1/0AWG COPPER BONDING ELECTRODE CONDUCTOR IN FRE XW RACEWAY.
11. 3 #1/0 CONCENTRIC NEUTRAL-4"C PER UTILITY COMPANY REQUIREMENTS. PLUS 4"EC SPARE.
12. 1"EC SPARE FOR FUTURE USE.
13. 4#2,1#8G-1 1/4"C
14. 4#6,1#6G-1"C
15. 4#4/0,1#4G-2"C
16. 3#2,1#6G-1 1/4"C
17. 1 1/4"C
18. 3#10,1#10G-3/4"C
19. 3#4,1#6G-1"C
20. 3#2 XHHW-2" HDPE C
21. 4"EC SPARE FOR FUTURE USE.

ALL CONDUCTORS ARE COPPER THHN (OR XXHW AS APPLICABLE) IN RACEWAY.

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28. TRANS-S STYLE FREESTANDING METERING STRUCTURE. PROVIDE OUTDOOR CONCRETE PAD. RELOCATE ORIGINAL METER TO THIS EQUIPMENT.
29. SERVICE FEED TO BUILDING #1.
30. SERVICE FEED TO BUILDING #2.
31. UNDERGROUND UTILITY FEED.
32. CAP UNDERGROUND TERMINATIONS OF RACEWAYS FOR FUTURE STATIONARY GENERATOR. PROVIDE MONUMENT MARKER.
33. CIRCUIT CONTROL DEVICES AND SAFETY DEVICES TO ASSOCIATED OPERATOR/EQUIPMENT.
34. EXISTING PANEL FOR THE COUNTY SALT SHED.
35. EXISTING PANEL FOR THE TOWN SALT SHED.
36. BOND TO EARTH USING #2AWG SOLID BARE TINNED COPPER CONDUCTOR. BOND TO APPURTENANCE AND TO 5/8ø X 10' LONG COPPER CLAD GROUND ROD. DRIVE ROD INTO EARTH TILL TOP OF ROD IS EVEN WITH FINISH OUTDOOR GRADE. LOCATE ROD SO AS NOT TO CREATE A TRIPPING HAZARD.
37. OUTDOOR MAIN SERVICE SWITCHBOARD 'MDP'.
38. HAUNCHED CONCRETE PAD.

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These plans are not valid for a building permit unless originally signed and sealed by the Architect

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Date	Revision

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ELECTRICAL ONE-LINE DIAGRAM AND KEYED NOTES

ELECTRICAL SERVICES UPGRADES FOR HIGHWAY DEPARTMENT
Town Of Beekman
4 Main Street
Poughkeep, NY

Date	September 30, 2025
Job No	2025-016
Scale	As Noted
Drawing	E-301
Of	

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