ELECTRICAL GENERAL NOTES

GENERAL NOTES:

1. GENERAL CONTRACTOR IS RESPONSIBLE FOR THE SITE, VERIFICATION OF ALL EXISTING AND NEW EQUIPMENT AND SYSTEMS TO REMAIN. IF ANY SYSTEMS OR EQUIPMENT ARE MISSING, DAMAGED OR MALFUNCTIONING THE CONTRACTOR SHALL PROVIDE NEW TO BE INSTALLED AS SPECIFIED AND REQUIRED BY NEC 2020 CODE.
2. GENERAL CONTRACTOR AND ELECTRICAL TRADES INVOLVED IN THE PROJECT ARE TO INSTALL ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH THEIR SPECIFIC MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS, SPECIFIC CONTRACT DOCUMENTS AND ANY AND ALL APPLICABLE CODES AND REGULATIONS. STRICT ADHERENCE TO MITSUBISHI AND RENEWAIRE WIRING DIAGRAMS IS REQUIRED.
3. GENERAL CONTRACTOR TO COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS CERTIFIED DRAWINGS AND/OR DOCUMENTS. COORDINATE WITH AND PROVIDE ALL CONDUIT AND TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT.
4. COORDINATE WITH THE OWNER AND ARCHITECT TO ENSURE THAT THE PROGRESS OF ELECTRICAL WORK IS ON SCHEDULE AND THAT THE PROGRESS AND WORKMANSHIP OF OTHER TRADES IS ON SCHEDULE.
5. APPLY AND PAY FOR ALL PERMITS, FEES, LICENSEES AND INSPECTIONS FOR THIS DIVISION OF WORK.
6. COMPLY WITH ALL STATE AND LOCAL CODE REQUIREMENTS AND ORDINANCES, SPECIFICALLY THE 2020 NATIONAL ELECTRICAL CODE (NEC) AS ADOPTED BY N.J.A.C. 5:23-3.16. COMPLY WITH REQUIREMENTS OF THE UTILITY COMPANIES (PSE&G). IN THE CASE OF DIFFERENCES BETWEEN THESE REQUIREMENTS AND ORDINANCES, THE MOST STRINGENT SHALL GOVERN. CALL FOR INSPECTIONS REQUIRED BY LOCAL BUILDING INSPECTION AUTHORITY.
7. SUBMIT SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT SHOWING ANY CHANGES REQUIRED IN ELECTRICAL WIRING, SPACE ALLOCATION, ETC. TO ARCHITECT.
8. THE LOCATION OF EXISTING UNDERGROUND/OVERHEAD/CONCEALED UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PAY FOR AND REPAIR ALL DAMAGES CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
9. PATCH AND REPAIR TO MATCH EXISTING ANY WALLS, CEILINGS, OR FLOORS ACCESSED DURING THE INSTALLATION OF CONDUIT AND WIRING.
10. MAINTAIN ONE SET OF REDLINED DRAWINGS ON THE JOB SITE INDICATING ALL CHANGES AND DEVIATIONS FROM THE WORK SHOWN ON THE DRAWINGS.
11. AT COMPLETION OF WORK, DELIVER COMPLETED PROJECT RECORD DOCUMENTS MARKED WITH FIELD CHANGES TO OWNER'S REPRESENTATIVE.
12. PROVIDE A WRITTEN WARRANTY TO THE OWNER COVERING THE ENTIRE ELECTRICAL WORK TO BE FREE FROM DEFECTIVE MATERIALS, EQUIPMENT AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE.
13. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING CONSTRUCTION DOCUMENTS TO THE LOCAL UTILITY COMPANY FOR REVIEW AND APPROVAL PRIOR TO ORDERING EQUIPMENT OR INSTALLATION OF ANY EQUIPMENT, HARDWARE OR WORK TO BE DONE.
14. UNLESS OTHERWISE NOTED OR AGREED UPON, THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL WIRING, CABLES AND ELECTRICAL DEVICES EXISTING IN WALLS TO BE DEMOLISHED AND THE REMOVAL OF ALL OTHER REDUNDANT ELECTRICAL DEVICES NOT SHOWN ON PLANS. CUT BACK AND CAP UNUSED RACEWAYS AND OUTLETS AND REMOVE UNUSED WIRING BACK TO PANEL BOARD.
15. COORDINATION OF WORK SHALL BE DONE WITH ALL OTHER TRADES ON THE SITE TO THE EXTENT OF PROPERLY LOCATING ALL DEVICES, FIXTURES, EQUIPMENT, PIPING, DUCTWORK, ETC. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ACCURATE DIMENSIONS FROM THE ARCHITECTURAL DRAWINGS AT THE SITE.
16. PRIOR TO FINAL ACCEPTANCE, THOROUGHLY CLEAN ALL WORK.
17. ACCESS DOORS & PANELS ARE TO BE SUPPLIED BY CONTRACTOR AND LOCATED ON THE SITE BY THIS TRADE WHERE REQUIRED TO SERVICE NEW OR EXISTING EQUIPMENT AND/OR SYSTEMS. COORDINATE INSTALLATION WITH REQUIRED TRADES. DO NOT LOCATE J-BOXES IN FINISHED CEILINGS UNLESS APPROVED.
18. CONNECTIONS TO EQUIPMENT THAT PRODUCE NOISE AND OR VIBRATIONS (HEAT PUMPS, ERV, MOTORS, ETC.) SHALL BE MADE WITH FLEXIBLE CONDUIT. USE A MINIMUM 3 FEET OF FLEXIBLE CABLE WITH SLACK AT EACH DEVICE.
19. PROVIDE HANGERS, INSERTS AND SUPPORTS AS REQUIRED. SUPPORT ALL BRANCH CONDUITS FOR POWER AND COMMUNICATIONS FROM BUILDING STRUCTURE; DO NOT CLIP TO CEILING HANGERS/GRID WIRES.
20. GROUNDING: PROVIDE ALL EQUIPMENT GROUNDING AS REQUIRED TO CONFORM WITH THE APPLICABLE SAFETY CODE. NEUTRAL AND GROUND BARS MUST BE SEPARATED (FLOATING) IN ALL INTERIOR SUBPANELS. BOND NEUTRAL AND GROUND ONLY AT THE MAIN EXTERIOR METER STACK DISCONNECT. INSULATED GROUNDING CONDUCTORS SHALL BE GREEN.
21. LIGHTING SYSTEM: TEMPORARY LIGHTING SHALL BE PROVIDED THROUGHOUT PROJECT AS REQ., WHERE REQUIRED BY GENERAL CONTRACTOR.
22. CIRCUITRY SHOWN ON PLANS IS FOR GROUPING PURPOSES ONLY. EXACT CIRCUITS ARE TO BE DETERMINED ON SITE BASED ON AVAILABILITY. EXISTING CIRCUITRY SHALL BE VERIFIED FOR CONTINUITY AND CODE COMPLIANCE ON SITE BY THE GENERAL CONTRACTOR PRIOR TO COMMENCING NEW WORK.
23. CONTRACTOR TO VERIFY AND MAKE NECESSARY ADJUSTMENTS TO ENSURE THAT LOADING ON EACH PHASE IS BALANCED (UNBALANCED LOAD SHALL BE LESS THAN 10%). PROVIDE A TYPED CIRCUIT DIRECTORY IN EACH PANEL.
24. SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR. ALL SMOKE AND CARBON MONOXIDE DETECTORS SHALL BE HARDWIRED (120V) WITH BATTERY BACKUP AND INTERCONNECTED WITHIN EACH INDIVIDUAL DWELLING UNIT PER RESIDENTIAL CODE.
25. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO ARCHITECT AS APPLICABLE FOR REVIEW.
26. ALTERNATIVES TO THE MATERIALS SPECIFIED HEREIN AND/OR ON THE DRAWING MAY BE SUBMITTED SEPARATELY SHOWING ANY CHANGE TO THE BASE CONTRACT PRICE FOR THEIR SUBSTITUTION.
27. OPERATING & MAINTENANCE INSTRUCTIONS PREPARED BY MANUFACTURERS SHALL BE PROVIDED TO CUSTOMER.
28. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO THE OWNER.

CONT.:

29. THE ELECTRICAL DRAWINGS ARE SCHEMATIC IN NATURE AND INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF CONDUIT AND WIRING, EQUIPMENT, SYSTEMS, ETC. INFORMATION SHOWN IS DIAGRAMMATIC IN CHARACTER AND DOES NOT INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. ANY AND ALL DESIGN ELEMENTS, FIXTURE LOCATIONS, ETC. TO BE FIELD VERIFIED BY THE GENERAL CONTRACTOR AND THE ELECTRICIAN ON SITE.
30. THE LOCATIONS OF THE ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE THE DRAWINGS (UNLESS NOTED OTHERWISE).
31. CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND SIZES OF ALL EXISTING EQUIPMENT, ELECTRICAL CONDUIT, STRUCTURAL MEMBERS, ETC. PRIOR TO BID. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY AND ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND CONTRACT DRAWINGS.
32. WHERE BEAMS ARE INDICATED TO BE PENETRATED WITH CONDUITS AND WIRING, COORDINATE DUCTWORK AND PIPING LAYOUT WITH BEAM OPENING SIZE AND OPENING LOCATIONS. COORDINATION SHALL BE DONE PRIOR TO FABRICATION OF BEAMS.
33. USE ADJUSTABLE PIPE HANGERS ON SUSPENDED CONDUIT. PROVIDE HANGERS TO SUPPORT THE SYSTEMS WITHOUT SAGGING. INCLUDE HANGERS AT EACH OFFSET OR CHANGE IN DIRECTION AND AT ENDS OF BRANCHES OVER FIVE FEET IN LENGTH.
34. SLEEVES AND BOXES SHALL BE PROVIDED WHEREVER CONDUITS PASS THROUGH FLOOR, WALL AND ROOF CONSTRUCTION. WHERE HORIZONTAL CONDUITS AND WIRING PASS THROUGH WALLS AND VERTICAL DUCTS AND PIPES PASS THROUGH FLOORS OR ROOFS, SEAL OFF VOID BETWEEN OPENING AND DUCT OR PIPE AND SLEEVE, WITH AN APPROVED NON-COMBUSTIBLE MATERIAL.
35. FURNISH AND INSTALL ALL FOUNDATIONS, BASES AND SUPPORTS.
36. ELECTRICAL RECEPTACLES IN BATHROOMS, KITCHENS, LAUNDRY AREAS, BASEMENTS, AND GARAGES SHALL BE G.F.I. OR G.F.I.C. PER 2020 NATIONAL ELECTRICAL CODE REQUIREMENTS. OUTDOOR RECEPTACLES SHALL BE WEATHER-RESISTANT (WR) TYPE.
37. FIXTURES TO BE SELECTED BY THE DESIGNER AND OWNER.
38. ARC FAULT (AFCI) PROTECTION REQUIRED FOR ALL 15A AND 20A BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS.
39. ALL RECEPTACLES IN DWELLING UNITS SHALL BE TAMPER-RESISTANT (TR) TYPE.
40. ALL LIGHT SWITCHES TO BE AT 48"-52" TO BTTM. (50"-54" O.C.) UNLESS OTHERWISE NOTED. PROVIDE VACANCY SENSORS WHERE REQUIRED BY ENERGY CODE.
41. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL AND STATE CODES AND STANDARDS. SPECIFICALLY THE NEC 2020.
42. PROVIDE PERMITS AND INSPECTIONS AS REQUIRED.
43. PROVIDE RECORD DRAWINGS TO ENGINEER. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS, REROUTING, ETC.
44. SYSTEMS SHALL BE COMPLETE, OPERABLE AND READY FOR CONTINUOUS OPERATION.
45. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING, AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PULLBOXES, TRANSFORMER PADS, SAWCUTTING AND PATCHING, CONCRETE/PAVING, ETC. REQUIRED, BACKFILL TRENCHES TO 90 PERCENT COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.
46. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURERS APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED AND SOURCED.
47. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO THE OWNER.
48. ALUMINUM WIRE AND CABLE IN SIZES @#1/0 AND LARGER MAY BE SUBSTITUTED FOR COPPER ON MAIN SERVICE FEEDERS ONLY IF AMPACITY IS EQUAL TO OR GREATER THAN COPPER. ALL BRANCH CIRCUIT WIRING INSIDE THE BUILDING SHALL BE COPPER.
49. ALL ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY U.L. OR OTHER RECOGNIZED TESTING FACILITY.
50. 50. SERVICE ENTRANCE: INSTALL (1) NEW NEMA 3R 5-GANG METER STACK ON EXTERIOR SIDE WALL. METER SOCKET #5 SHALL BE LABELED "SPARE / FUTURE USE" WITH A BLANK PLATE; NO LOAD SHALL BE CONNECTED TO THIS SOCKET IN THE CURRENT PERMIT PHASE.
51. EMERGENCY EGRESS: PROVIDE UL-LISTED LED EXIT/EMERGENCY LIGHT COMBO UNITS WITH 90-MINUTE BATTERY BACKUP AT ALL EXTERIOR EXIT DOORS AND STAIRWELL LANDINGS. ALL UNITS TO BE HARD-WIRED TO THE HOUSE PANEL. ON A NON-SWITCHED CIRCUIT. FIXTURES SHALL BE MOUNTED ABOVE DOORS OR ON CEILING ADJACENT TO THE PATH OF EGRESS.

PROJECT SPECIFIC NOTES:

1 ELECTRICAL SERVICE: SYSTEM SHALL BE 400 AMP, 120/240V, 1-PHASE, 3-WIRE. FURNISH AND INSTALL A 5-GANG VERTICAL METER STACK (4 RESIDENTIAL + 1 HOUSE PANEL) ON THE EXTERIOR WALL.

2 EMERGENCY DISCONNECT: THE METER STACK SHALL INCLUDE MAIN BREAKERS FOR ALL UNITS ON THE EXTERIOR TO SERVE AS THE "EMERGENCY SERVICE DISCONNECT" PER NEC 230.85.

3 HOUSE LOADS: ALL COMMON AREA LIGHTING, EXTERIOR LIGHTING, AND FIRE ALARM SYSTEMS SHALL BE FED FROM THE "HOUSE PANEL" (METER #5). STRICTLY NO COMMON LOADS SHALL BE FED FROM TENANT PANELS (NEC 210.25).

4 SURGE PROTECTION: PROVIDE TYPE 1 OR TYPE 2 SURGE PROTECTIVE DEVICES (SPD) FOR ALL DWELLING UNIT SERVICES AS REQUIRED BY NEC 230.67.

5 HVAC WIRING: PROVIDE 208/230V DISCONNECTS FOR MITSUBISHI PUZ-AK18NL OUTDOOR HEAT PUMPS. MAINTAIN MINIMUM 24-INCH CLEARANCE BETWEEN OUTDOOR UNITS FOR ELECTRICAL SERVICE ACCESS.

6 ERV SYSTEM: PROVIDE DEDICATED CIRCUIT FOR RENEWAIRE SL75 ERV UNITS. PROVIDE LOW-VOLTAGE (CLASS 2) WIRING FROM THE ERV UNIT TO EACH BATHROOM FOR "PUSH-BUTTON BOOST" TIMERS.

7 ZONING COORDINATION: IF AIRZONE OR SIMILAR ZONING SYSTEM IS UTILIZED, GENERAL CONTRACTOR TO VERIFY SOFFIT DIMENSIONS ACCOMMODATE "HOME RUN" DUCT BUNDLES PRIOR TO FRAMING.

8 PROVIDE UL-LISTED LED EXIT/EMERGENCY LIGHT COMBO UNITS WITH 90-MINUTE BATTERY BACKUP AT ALL EXTERIOR EXIT DOORS AND STAIRWELL LANDINGS. ALL UNITS TO BE HARD-WIRED TO THE HOUSE PANEL. ON A NON-SWITCHED CIRCUIT. FIXTURES SHALL BE MOUNTED ABOVE DOORS OR ON CEILING ADJACENT TO THE PATH OF EGRESS.



N

LOCATION MAP

ABBREVIATIONS

ACT - ACOUSTIC CEILING TILE
AD - AREA DRAIN
AFF - ABOVE FINISHED FLOOR
ALUM - ALUMINUM
ANOD - ANODIZED
BSMT - BASEMENT
BYND - BEYOND
BOT - BOTTOM
CIP - CAST IN PLACE
CHNL - CHANNEL
CJ - CONTROL JOINT
CLG - CEILING
CLR - CLEAR
CMU - CONCRETE MASONRY UNIT
COL - COLUMN
COMPR - COMPRESSIBLE
CONC - CONCRETE
CONT - CONTINUOUS
CPT - CARPET
CT - CERAMIC TILE
CTYD - COURTYARD
DBL - DOUBLE
DEMO - DEMOLISH OR DEMOLITION
DIA - DIAMETER
DIM - DIMENSION
DIMS- DIMENSIONS
DN - DOWN
DR - DOOR
DWG - DRAWING
EA - EACH
EJ - EXPANSION JOINT
EL - ELEVATION
ELEC - ELECTRICAL
ELEV - ELEVATOR OR ELEVATION
EP - ELECTRIC PANEL
EPDM - ETHYLENE PROPYLENE DIENE M-CLASS (ROOFING)
EQ - EQUAL
EXIST - EXISTING
EXP JT - EXPANSION JOINT
EXT - EXTERIOR
FD - FLOOR DRAIN OR FIRE DEPT. CONNECTION
FEC - FIRE EXTINGUISHER CABINET
FIXT - FIXTURE
FLR - FLOOR
FM - FILLED METAL
FO - FACE OF
FND - FOUNDATION
GA - GAUGE
GALV - GALVANIZED
GWB - GYPSUM WALL BOARD
HC - HOLLOW CORE
HI - HIGH
HM - HOLLOW METAL
HP - HIGH POINT
HR - HOUR
HVAC - HEATING, VENTILATING, AND AIR CONDITIONING
ILO - IN LIEU OF
INSUL - INSULATED OR INSULATION
INT - INTERIOR
LO - LOW
MAX - MAXIMUM
MO - MASONRY OPENING
MECH - MECHANICAL
MEMBR - MEMBRANE
MIN - MINIMUM
MRGWB - MOISTURE-RESISTANT GYPSUM WALL BOARD
MTL - METAL
NIC - NOT IN CONTACT
NO - NUMBER
NOM - NOMINAL
OC - ON CENTER
OH - OVERHANG OR OPPOSITE HAND
OPP - OPPOSITE OR OPPOSITE HAND
OZ - OUNCE
PCC - PRE CAST CONCRETE
PLUMB - PLUMBING
PLYD - PLYWOOD
PT - PRESSURE TREATED
PNT - PAINT OR PAINTED
PVC - POLYVINYL CHLORIDE
RBR - RUBBER
RCP - REFLECTED CEILING PLAN
RD - ROOF DRAIN
REQD - REQUIRED
RM - ROOM
SIM - SIMILAR
SPEC - SPECIFIED OR SPECIFICATION
SPK - SPRINKLER OR SPEAKER
SSTL - STAINLESS STEEL
STC - SOUND TRANSMISSION COEFFICIENT
STL - STEEL
STRUCT - STRUCTURE OR STRUCTURAL
T&G - TONGUE AND GROOVE
TELE - TELEPHONE
TME - TO MATCH EXISTING
TO - TOP OF
TOC - TOP OF CONCRETE
TOS - TOP OF STEEL
T/D - TELEPHONE/DATA
TYP - TYPICAL
UNO - UNLESS NOTED OTHERWISE
U/S - UNDERSIDE
VIF - VERIFY IN FIELD
VP - VISION PANEL
W/ - WITH
WD - WOOD

SYMBOLS

ELECTRICAL CONN.
CONCRETE
ELEVATION MARKER

BUILDING CONTRACTOR/HOME OWNER TO REVIEW AND VERIFY ALL DIMENSIONS, SPECS, AND CONNECTIONS BEFORE CONSTRUCTION BEGINS.

SHEET SCHEDULE

SHEET NUMBER	SHEET NAME
E0.0	COVER SHEET & NOTES
E0.1	LOT UTILITIES- ELECTRIC
E1.0	ELECTRICAL NOTES & PANEL SCHEDULE
E2.0	ELECTRICAL LAYOUT - CELLAR
E2.1	ELECTRICAL LAYOUT - FLOOR 01
E2.2	ELECTRICAL LAYOUT - FLOOR 02
E2.3	ELECTRICAL LAYOUT - FLOOR 03
E3.0	ELECTRICAL REFLECTED CEILING PLAN - CELLAR
E3.1	ELECTRICAL REFLECTED CEILING PLAN - FLOOR 01
E3.2	ELECTRICAL REFLECTED CEILING PLAN - FLOOR 02
E3.3	ELECTRICAL REFLECTED CEILING PLAN - FLOOR 03
E3.4	ELECTRICAL PLAN - ROOF
E4.0	ELECTRICAL SERVICE - ELECTRICAL NOTES
E4.1	ELECTRICAL SERVICE - ONE LINE DIAGRAM
E5.0	ELECTRICAL PANEL ZONING
FA-1	LIFE SAFETY SYSTEM - FIRE ALARM|
FA-2	FIRE ALARM RISER DIAGRAM

DESIGN CRITERIA & CONDITIONS

PROJECT CITY: CITY OF JERSEY CITY
PROJECT COUNTY: HUDSON COUNTY COUNTY
PROJECT ELEVATION: 66 FT. ABOVE SEA LEVEL
ZONING DISTRICT: R-1 NEIGHBORHOOD HOUSING

APPLICABLE CODES:
- REHABILITATION SUBCODE (NJAC 5:23-6)
- INTERNATIONAL RESIDENTIAL CODE/2021, NJ ED
- NATIONAL STANDARD PLUMBING CODE/2021, NJ ED
- NATIONAL ELECTRICAL CODE (NFPA 70)/2020
- INTERNATIONAL MECHANICAL CODE/2021
- INTERNATIONAL FUEL GAS CODE/2021
- INTERNATIONAL ENERGY CONSERVATION CODE/2021 (LOW-RISE RESIDENTIAL)

PROJECT SCOPE

NEW 3RD FLOOR ADDITION AND INTERIOR RENOVATION OF EXISTING BUILDING.

PROJECT DIRECTORY

ANODRI

MA SS:
17 VENUE,
JE J 07305

PROJECT DATA

EXISTING BUILDING HEIGHT:
EXISTING 44'9" HIGHEST RIDGE (+/-) FROM TERRAIN

CONSTRUCTION TYPE:
V-A

OCCUPANCY TYPE:
RESIDENTIAL R2

FIRE PROTECTION:
-

NUMBER OF STORIES:
4

EXISTING STORIES (ABOVE GROUND)
3

ATTACHED GARAGE
NO

GAS: NO

SEWER: CITY
WATER: CITY

COOLING:

HEATING:

EXISTING SQ. FT.:
6545 SF
REFER TO ARCH

PROPOSED SQ. FT.:
REFER TO ARCH

REFERENCES

SI
17 VENUE,
JE J 07305

PLAN DISTRICT
R-1 NEIGHBORHOOD HOUSING

SUBDIVISION:
-

PID/ACCOUNT #:
00361345

BLDG DESC:
2.5S-F-3U-H

LEGAL DESCRIPTION:
21402 MUNICIPALITY: 0906 ADDRESS: 170 VENUE JERSEY CITY

BOOK: 9888 PAGE:
865
PROPERTY CLASS:
25X100

- ELEC.

170 AVE,
JERSEY CITY, NJ 07305

DRAWN BY:

CHECKED BY:

REVISIONS:

No.	DESCRIPTION	DATE

ISSUE RECORD:

No.	DESCRIPTION	DATE

SCALE:

SHEET CONTENTS:

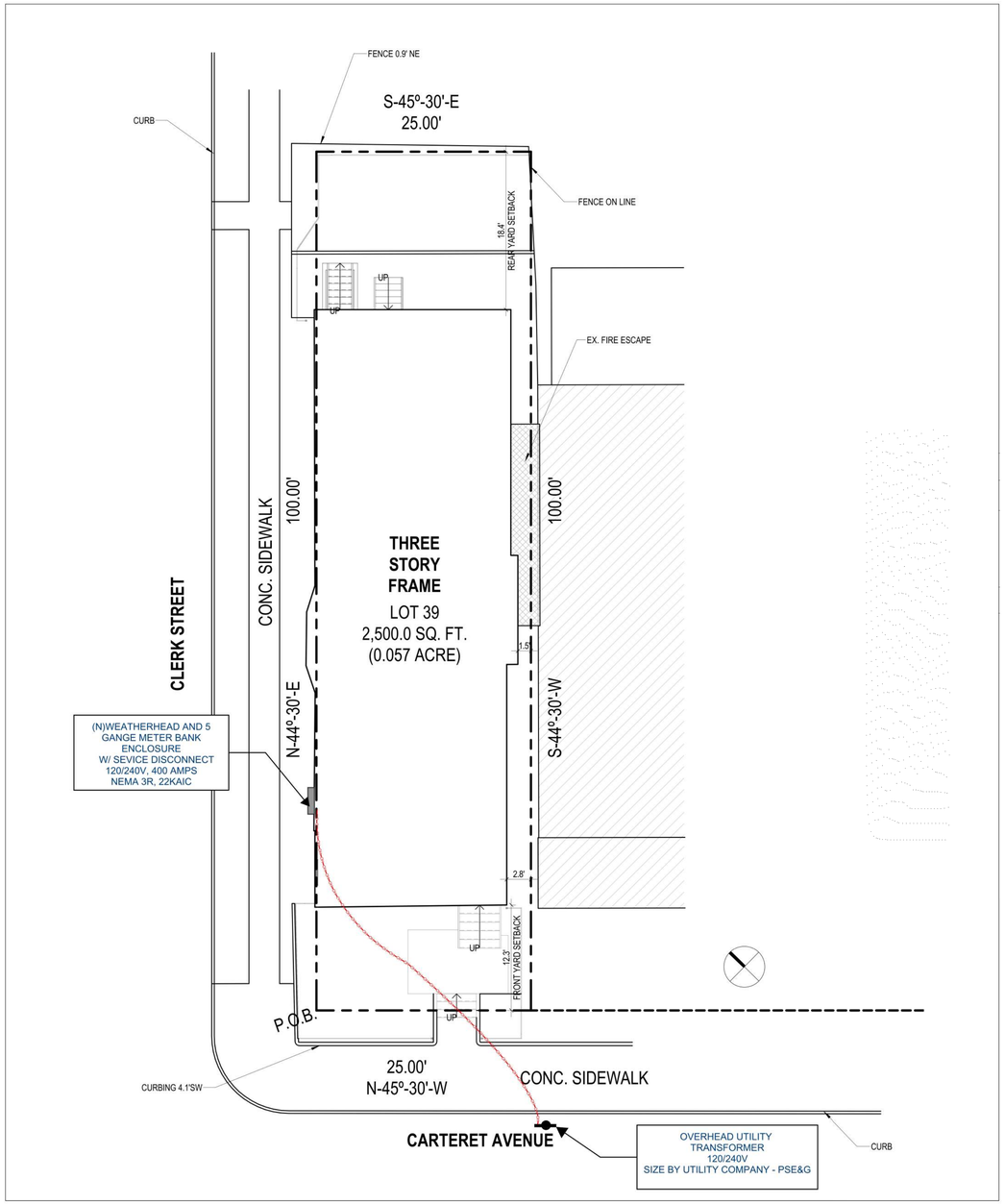
PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.:

E0.0

FOR UTILITIES REFERENCE ONLY - REFER TO OFFICIAL SITE SURVEY AND FIELD VERIFY ALL UTILITIES



LEGEND	
LINE	DESCRIPTION
-OH — OH —	OVERHEAD ELECTRIC SERVICE LINES
-ug — ug —	UNDER GROUND ELECTRIC SERVICE LINES
	SUBJECT PROPERTY

* G.C. TO FIELD VERIFY ALL MEASUREMENTS ON SITE.

1 LOT UTILITIES- ELECTRIC

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

- ELEC.

170 AVE,
JERSEY CITY, NJ 07305

DRAWN BY:

CHECKED BY:

REVISIONS:

No.	DESCRIPTION	DATE

ISSUE RECORD:

No.	DESCRIPTION	DATE

SCALE:

SHEET CONTENTS:

PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.: **E0.1**

ELECTRICAL SCHEDULE

2D SYMBOL	QTY	DESCRIPTION	COMMENTS
	15	PENDANT/CHANDLIER LIGHT	LED FIXURE, ON EACH BEDROOM
EP	5	ELECTRICAL PANEL - FLUSH MOUNTED	APPROVED 120/240V 1PHASE 100 AMP PANEL
OS	5	OCCUPANCY SENSOR	ROVIDE UL-LISTED "AUTO-ON/AUTO-OFF" DUAL-TECHNOLOGY SENSORS WITH INTEGRATED DAYLIGHT SENSING. SET TO AUTOMATICALLY DEACTIVATE LIGHTS WITHIN 20 MINUTES OF VACANCY PER NJ ENERGY CODE REQUIREMENTS.
CO/SMOKE	3	CO/SMOKE DETECTOR	HARDWIRED, INTERCONNECTED W/ BATTERY BACKUP PHOTOELECTRIC SMOKE DETECTORS
S	3	SINGLE POLE SWITCH	PROVIDE 3WAY SWITCH
GD	3	GARBAGE DISPOSAL	120V GFCI PROTECTED RECEPTACLE
AS	3	AIR SWITCH - COUNTERTOP	120V GFCI PROTECTED RECEPTACLE
PB ERV	7	PUSH BUTTON SWITCH	ERV PUSH-BUTTON BOOST TIMER
GFCI WP	1	GFCI WP	120V GFCI WEATHER PROTECTED OUTLETS FOR EXTERIOR
T	1	TIMER	PROVIDE ASTRO TIMER SWITCH FOR EXTERIOR LIGHTING CONTROL AT UTILITY
	5	EMERGENCY LIGHT & EXIT	PROVIDE UL-LISTED LED EXIT/EMERGENCY LIGHT COMBO UNITS WITH 90-MINUTE BATTERY BACKUP AT ALL EXTERIOR EXIT DOORS AND STAIRWELL LANDINGS. ALL UNITS TO BE HARD-WIRED TO THE HOUSE PANEL (PANEL 'H') ON A NON-SWITCHED CIRCUIT. FIXTURES SHALL BE MOUNTED ABOVE DOORS OR ON CEILING ADJACENT TO THE PATH OF EGRESS
EJP	1	SIMPLEX	120V RECEPTACLE FOR EJECTOR PUMP
SP	1	SIMPLEX	120V RECEPTACLE FOR SUMP PUMP
	1	PENDENT OVER KITCHEN ISLAND	PENDANT LIGHT OVER KITCHEN ISLAND
	1	INTERCOM	PROVIDE AND INSTALL A COMPLETE VIDEO INTERCOM SYSTEM INCLUDING ENTRY STATION, APARTMENT MONITORS, POWER SUPPLY, AND ELECTRIC DOOR RELEAS
	3	WIFI SECURITY CAMERA	CCTV SYSTEM SHALL BE IP-BASED (DIGITAL)
SD	1	SMOKE DETECTOR	PHOTOELECTRIC TYPE. LOCATE ABOVE FACP FOR PANEL PROTECTION.
	8	SIREN STROBE COMBO	WALL MOUNTED @ 80" AFF. RED FINISH WITH WHITE "FIRE" LETTERING. SYNCHRONIZED FLASH.
3WAY	10	3-WAY DIMMER	PROVIDE 3WAY DIMMER SWITCH
CO/SMOKE	27	CO/SMOKE DETECTOR	HARDWIRED, INTERCONNECTED W/ BATTERY BACKUP
DW	3	DISHWASHER	120V RECEPTACLE FOR DISHWASHER
	143	DUPLEX	120V RECEPTACLE
GFCI	50	GFCI	120V GFCI PROTECTED RECEPTACLE
GFCI WP	8	GFCI WP	120V GFCI WEATHERPROOF RECEPTACLE FOR EXTERIOR
HP	3	HOOD W/ VENT	120V RECEPTACLE CONNECTION FOR HOOD
	175	RECESSED DOWN LIGHT	HIGH EFFICACY LED FIXTURE
	8	RECESSED VAPOR LIGHT	PROVIDE VAPOR RESISTANCE LED FIXTURE ABOVE WET AREA
	3	REFRIGERATOR	120V DEDICATED RECEPTACLE FOR RECEPTACLE.
	18	WALL SCONCE	WALL SCONCE LIGHTING, LED FIXTURE
2W	22	SINGLE POLE DIMMER	PROVIDE DIMMER SWITHCHES FOR DESIGNATED AREA
S	44	SINGLE POLE SWITCH	

DWELLING UNITS:

ALL 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN DWELLING UNIT KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY ANY OF THE MEANS DESCRIBED IN 210.12(A)(1) THROUGH (6):

1 A LISTED COMBINATION-TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT

2 A LISTED BRANCH/FEEDER-TYPE AFCI INSTALLED AT THE ORIGIN OF THE BRANCH-CIRCUIT IN COMBINATION WITH A LISTED OUTLET BRANCH-CIRCUIT-TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED AT THE FIRST OUTLET BOX ON THE BRANCH CIRCUIT. THE FIRST OUTLET BOX IN THE BRANCH CIRCUIT SHALL BE MARKED TO INDICATE THAT IT IS THE FIRST OUTLET OF THE CIRCUIT.

3 A LISTED SUPPLEMENTAL ARC PROTECTION CIRCUIT BREAKER INSTALLED AT THE ORIGIN OF THE BRANCH CIRCUIT IN COMBINATION WITH A LISTED OUTLET BRANCH-CIRCUIT-TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED AT THE FIRST OUTLET BOX ON THE BRANCH CIRCUIT WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET:
1 THE BRANCH-CIRCUIT WIRING SHALL BE CONTINUOUS FROM THE BRANCH-CIRCUIT OVERCURRENT DEVICE TO THE OUTLET BRANCH-CIRCUIT ARC-FAULT CIRCUIT INTERRUPTER.
2 THE MAXIMUM LENGTH OF THE BRANCH-CIRCUIT WIRING FROM THE BRANCH-CIRCUIT OVERCURRENT DEVICE TO THE FIRST OUTLET SHALL NOT EXCEED 15.2 M (50 FT) FOR A 14 AWG CONDUCTOR OR 21.3 M (70 FT) FOR A 12 AWG CONDUCTOR.
3 THE FIRST OUTLET BOX IN THE BRANCH CIRCUIT SHALL BE MARKED TO INDICATE THAT IT IS THE FIRST OUTLET OF THE CIRCUIT.

4 A LISTED OUTLET BRANCH-CIRCUIT-TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED AT THE FIRST OUTLET ON THE BRANCH CIRCUIT IN COMBINATION WITH A LISTED BRANCH-CIRCUIT OVERCURRENT PROTECTIVE DEVICE WHERE ALL OF THE FOLLOWING CONDITIONS ARE MET:
1 THE BRANCH-CIRCUIT WIRING SHALL BE CONTINUOUS FROM THE BRANCH-CIRCUIT OVERCURRENT DEVICE TO THE OUTLET BRANCH-CIRCUIT ARC-FAULT CIRCUIT INTERRUPTER.
2 THE MAXIMUM LENGTH OF THE BRANCH-CIRCUIT WIRING FROM THE BRANCH-CIRCUIT OVERCURRENT DEVICE TO THE FIRST OUTLET SHALL NOT EXCEED 15.2 M (50 FT) FOR A 14 AWG CONDUCTOR OR 21.3 M (70 FT) FOR A 12 AWG CONDUCTOR.
3 THE FIRST OUTLET BOX IN THE BRANCH CIRCUIT SHALL BE MARKED TO INDICATE THAT IT IS THE FIRST OUTLET OF THE CIRCUIT.
4 THE COMBINATION OF THE BRANCH-CIRCUIT OVERCURRENT DEVICE AND OUTLET BRANCH-CIRCUIT AFCI SHALL BE IDENTIFIED AS MEETING THE REQUIREMENTS FOR A SYSTEM COMBINATION-TYPE AFCI AND SHALL BE LISTED AS SUCH.

5 IF METAL RACEWAY, METAL WIREWAYS, METAL AUXILIARY GUTTERS, OR TYPE MC, OR TYPE AC CABLE MEETING THE APPLICABLE REQUIREMENTS OF 250.118, WITH METAL BOXES, METAL CONDUIT BODIES, AND METAL ENCLOSURES ARE INSTALLED FOR THE PORTION OF THE BRANCH CIRCUIT BETWEEN THE BRANCH-CIRCUIT OVERCURRENT DEVICE AND THE FIRST OUTLET, IT SHALL BE PERMITTED TO INSTALL A LISTED OUTLET BRANCH-CIRCUIT-TYPE AFCI AT THE FIRST OUTLET TO PROVIDE PROTECTION FOR THE REMAINING PORTION OF THE BRANCH CIRCUIT.

6 WHERE A LISTED METAL OR NONMETALLIC CONDUIT OR TUBING OR TYPE MC CABLE IS ENCASED IN NOT LESS THAN 50 MM (2 IN.) OF CONCRETE FOR THE PORTION OF THE BRANCH CIRCUIT BETWEEN THE BRANCH-CIRCUIT OVERCURRENT DEVICE AND THE FIRST OUTLET, IT SHALL BE PERMITTED TO INSTALL A LISTED OUTLET BRANCH-CIRCUIT-TYPE AFCI AT THE FIRST OUTLET TO PROVIDE PROTECTION FOR THE REMAINING PORTION OF THE BRANCH CIRCUIT.

EXCEPTION: AFCI PROTECTION SHALL NOT BE REQUIRED FOR AN INDIVIDUAL BRANCH CIRCUIT SUPPLYING A FIRE ALARM SYSTEM INSTALLED IN ACCORDANCE WITH 760.41(B) OR 760.121(B). THE BRANCH CIRCUIT SHALL BE INSTALLED IN A METAL RACEWAY, METAL AUXILIARY GUTTER, STEEL-ARMORED CABLE, TYPE MC OR TYPE AC, MEETING THE APPLICABLE REQUIREMENTS OF 250.118, WITH METAL BOXES, CONDUIT BODIES, AND ENCLOSURES.

INFORMATIONAL NOTE NO. 1: FOR INFORMATION ON COMBINATION-TYPE AND BRANCH/FEEDER-TYPE ARC-FAULT CIRCUIT INTERRUPTERS, SEE UL 1699-2011, STANDARD FOR ARC-FAULT CIRCUIT INTERRUPTERS. FOR INFORMATION ON OUTLET BRANCH-CIRCUIT TYPE ARC-FAULT CIRCUIT INTERRUPTERS, SEE UL SUBJECT 1699A, OUTLINE OF INVESTIGATION FOR OUTLET BRANCH CIRCUIT ARC-FAULT CIRCUIT-INTERRUPTERS. FOR INFORMATION ON SYSTEM COMBINATION AFCIS, SEE UL SUBJECT 1699C, OUTLINE OF INVESTIGATION FOR SYSTEM COMBINATION ARC-FAULT CIRCUIT INTERRUPTERS.

INFORMATIONAL NOTE NO. 2: SEE 29.6.3(5) OF NFPA 72-2013, NATIONAL FIRE ALARM AND SIGNALING CODE, FOR INFORMATION RELATED TO SECONDARY POWER-SUPPLY REQUIREMENTS FOR SMOKE ALARMS INSTALLED IN DWELLING UNITS.

INFORMATIONAL NOTE NO. 3: SEE 760.41(B) AND 760.121(B) FOR POWER-SUPPLY REQUIREMENTS FOR FIRE ALARM SYSTEMS.

* ELECTRICAL SCHEDULE FOR REFERENCE ONLY. G.C. AND ELECTRICIAN TO FIELD VERIFY NEED AND COUNT OF ALL TYPES OF ELECTRICAL HARDWARE, SWITCHES, OUTLETS AND CONNECTIONS

PROJECT: 170 CARTERT AVE JERSEY CITY NJ | **PANEL:** House Panel | **DATE:** 1/28/2026

Project Type	Mounting	Status	Type	Info
◉ RESIDENTIAL ○ COMMERCIAL	○ SURFACE ◉ FLUSH	○ RELOCATED ◉ NEW ○ EXISTING	○ MAIN ○ MLO ◉ SUB	**Volt:** 240/120 **Bus Rating:** 100 **Phase:** 1 **Main Breaker:** 100 **Wire:** 3 **AIC Rating:** 22000 **Circuits:** 20

			**Arc fault circuit interrupters (AFCI) per NEC required in all living areas						**Arc fault circuit interrupters (AFCI) per NEC required in all living areas				
			**Panel schedule/setup can be altered as conditions required			MAIN BREAKER (AMP) 100			**Panel schedule/setup can be altered as conditions required				
Ckt #	Wire	Code	Description	Load	Bkr	P	Ph A	Ph B	P	Bkr	Load	Description	Code	Wire	Ckt #
1	12	2	Exterior Front/Rear Lights	1200	20	1	●		1	20	1500	Cellar Storage Receptacles	2	12	2
3	12	2	Basement Common Utility Lighting	1500	20	1		●	1	20	480	Fire Alarm Control Panel - FACP	2	12	4
5	12	2	Exit signs and Emergency Lightings	300	20	1	●		1	20	1800	Hallway/Stair Lighting (All Floors)	2	12	6
7	12	2	Cellar Bath Lighting and outlets	1500	20	1		●	1	20	600	Security Cameras / Intercom	2	12	8
9	12	3	Sump pump	1200	20	1	●		1	20	1200	Ejector Pump	3	12	10
11	12	2	Exterior GFCI Receptacles (Front/Rear) WR-1	1500	20	1		●	1	20	1500	Rooftop general purpose outlets	2	12	12
13			SPARE			1	●		1			SPARE			14
15			SPARE			1		●	1			SPARE			16
17			SPARE			1	●		1			SPARE			18
19			SPARE			1		●	1			SPARE			20

RESIDENTIAL Demand Calculations

Code	Description	Load	Factor	Demand
1	SMALL APPLIANCE (MIN. 2 CKT @ 1500VA)	0	100% fixed	0
2	Lighting/Outlets	11880	100% 1st 3k, 35% Rem	6108
3	APPLIANCE W/MOTOR	2400	125% largest, 75% rest	2400
4	APPLIANCE W/O MOTOR	0	100%	0
5	KITCHEN EQUIPMENT	0	80%	0
6	AC/HEAT	0	100%	0
7	ELECTRIC DRYER	0	100%	0
8	LAUNDRY WASHER	0	100%	0

LOAD SUMMARY

Phase A:	**7200 VA**
Phase B:	**7080 VA**
Balance:	**98.3%**
Total Conn:	**14280 VA**
Total Demand:	**8508 VA**
Conn Amps:	**59.50 A**
Demand Amps:	**35.45 A**

MIN FEEDER: #3 AWG (Cu) or #1 AWG (Al) **GROUND: #8 AWG (Cu) or #6 AWG (Al)**

PROJECT: 170 CARTERT AVE JERSEY CITY NJ | **PANEL:** Floor 02 | **DATE:** 1/29/2026

Project Type	Mounting	Status	Type	Info
◉ RESIDENTIAL ○ COMMERCIAL	◉ SURFACE ○ FLUSH	○ RELOCATED ◉ NEW ○ EXISTING	○ MAIN ○ MLO ◉ SUB	**Volt:** 240/120 **Bus Rating:** 100 **Phase:** 1 **Main Breaker:** 100 **Wire:** 3 **AIC Rating:** 22000 **Circuits:** 20

			**Arc fault circuit interrupters (AFCI) per NEC required in all living areas						**Arc fault circuit interrupters (AFCI) per NEC required in all living areas				
			**Panel schedule/setup can be altered as conditions required			MAIN BREAKER (AMP) 100			**Panel schedule/setup can be altered as conditions required				
Ckt #	Wire	Code	Description	Load	Bkr	P	Ph A	Ph B	P	Bkr	Load	Description	Code	Wire	Ckt #
1	12	2	BEDROOM 2 & 3 outlet and lighting	1500	20	1	●		1	20	1500	Kitchen Lighting and Outlets	2	12	2
3	12	2	Laundry outlet and ltg	1000	20	1		●	1	20	1500	Living Dining outlet and ltg	2	12	4
5	12	2	WIC and Home office	1500	20	1	●		1	20	1000	Primary Bath outlet and lighting	2	12	6
7	12	2	Primary Bedroom outlet and lighting	1200	20	1		●	1	20	300	Gas range	5	12	8
9	12	5	Dishwasher	1500	20	1	●		1	20	1200	Garbage Disposal	5	12	10
11	12	1	Refrigerator - Kitchen Small Appliance -1	1500	20	1		●	1	20	1800	Washer & Dryer Combo	3	12	12
13	12	1	Kitchen Small Appliance -2	1500	20	1	●		1	15	300	Smoke Detector	4	14	14
15	12	2	Exterior Lighting and outlet	1200	20	1		●	2	30	4140	HVAC - PEAD-AA18NL & PUZ-AK18NL	6	10	16
17	14	6	ERV	300	15	1	●		/	/		(see ckt #16)		10	18
19	12	2	Bedroom 1 outlet and lighting	1200	20	1		●	1	20	800	Range Hood	5	12	20
21	12	4	Gas Water heater	300	20	1	●		1	20	500	Radiant Floor Heat All Baths (LOW VOLT ELI	6	12	22
23			SPARE			1		●	1			SPARE			24
25			SPARE			1	●		1			SPARE			26
27			SPARE			1		●	1			SPARE			28
29			SPARE			1	●		1			SPARE			30
31			SPARE			1		●	1			SPARE			32
33			SPARE			1	●		1			SPARE			34
35			SPARE			1		●	1			SPARE			36
37			SPARE			1	●		1			SPARE			38
39			SPARE			1		●	1			SPARE			40

RESIDENTIAL Demand Calculations

Code	Description	Load	Factor	Demand
1	SMALL APPLIANCE (MIN. 2 CKT @ 1500VA)	3000	100% fixed	3000
2	Lighting/Outlets	11600	100% 1st 3k, 35% Rem	6010
3	APPLIANCE W/MOTOR	1800	125% largest, 75% rest	2250
4	APPLIANCE W/O MOTOR	600	100%	600
5	KITCHEN EQUIPMENT	3800	80%	3040
6	AC/HEAT	4940	100%	4940
7	ELECTRIC DRYER	0	100%	0
8	LAUNDRY WASHER	0	100%	0

LOAD SUMMARY

Phase A:	**13170 VA**
Phase B:	**12570 VA**
Balance:	**95.4%**
Total Conn:	**25740 VA**
Total Demand:	**19840 VA**
Conn Amps:	**107.25 A**
Demand Amps:	**82.67 A**

MIN FEEDER: #3 AWG (Cu) or #1 AWG (Al) **GROUND: #8 AWG (Cu) or #6 AWG (Al)**

ENGINEERS NOTE:

1. G.C. AND ELECTRICAL TRADES AND INSTALLERS TO WALK SPACE AND CONSULT HOME OWNERS FOR SPECIFIC ELECTRICAL LAYOUT NEEDS PRIOR TO INSTALLATION OR ORDERING OF ELECTRICAL COMPONENTS.
2. COORDINATE W/OTHER TRADES AS REQ.
3. ELECTRICAL DESIGN DONE WITH ALL EXISTING AVAILABLE INFORMATION FOR THE PROPERTY. CERTIFIED ELECTRICIAN TO VERIFY PANEL CONNECTIONS, SIZING AND LAYOUT.
4. CERTIFIED ELECTRICIAN TO INSTALL PER NEC 2020 CODE.
5. CERTIFIED ELECTRICIAN TO NOTIFY ENGINEER W/ ANY CHANGES.
6. ALL ELECTRICAL LAYOUTS ARE SCHEMATIC IN NATURE
7. ELECTRICIAN TO REVIEW ALL SCHEDULES FOR ELECTRICAL COMPONENTS AND ADJUST ACCORDINGLY TO ON SITE CONDITIONS AND NEEDS. REQS. AND FINAL COUNT OF ALL LIGHTING FIXTURE BOXES, SWITCHES, RECEPTACLES, ETC. NEEDED FOR THE HOME.

PROJECT: 170 CARTERT AVE JERSEY CITY NJ | **PANEL:** Floor 01 | **DATE:** 1/29/2026

Project Type	Mounting	Status	Type	Info
◉ RESIDENTIAL ○ COMMERCIAL	◉ SURFACE ○ FLUSH	○ RELOCATED ◉ NEW ○ EXISTING	○ MAIN ○ MLO ◉ SUB	**Volt:** 240/120 **Bus Rating:** 100 **Phase:** 1 **Main Breaker:** 100 **Wire:** 3 **AIC Rating:** 22000 **Circuits:** 20

			**Arc fault circuit interrupters (AFCI) per NEC required in all living areas						**Arc fault circuit interrupters (AFCI) per NEC required in all living areas				
			**Panel schedule/setup can be altered as conditions required			MAIN BREAKER (AMP) 100			**Panel schedule/setup can be altered as conditions required				
Ckt #	Wire	Code	Description	Load	Bkr	P	Ph A	Ph B	P	Bkr	Load	Description	Code	Wire	Ckt #
1	12	2	BEDROOM 2 outlet and ltg	1500	20	1	●		1	20	1500	Kitchen Lighting and Outlets	2	12	2
3	12	2	Laundry outlet and ltg	1000	20	1		●	1	20	1500	Living Dining outlet and ltg	2	12	4
5	12	2	BEDROOM 3 outlet and ltg	1200	20	1	●		1	20	1000	Primary Bath outlet and ltg	2	12	6
7	12	2	Primary Bedroom	1200	20	1		●	1	20	300	Gas range	5	12	8
9	12	5	Dishwasher	1500	20	1	●		1	20	1200	Garbage Disposal	5	12	10
11	12	5	Refrigerator - Kitchen Small Appliance -1	1500	20	1		●	1	20	1800	Washer & Dryer Combo	3	12	12
13	12	1	Kitchen Small Appliance -2	1500	20	1	●		1	15	300	Smoke Detector	4	14	14
15	12	2	Exterior Lighting and outlet	1200	20	1		●	2	20	4140	HVAC - PEAD-AA18NL & PUZ-AK18NL	6		16
17	14	6	ERV	300	15	1	●		/	/		(see ckt #16)			18
19	12	2	Bedroom 1 outlet and lighting	1200	20	1		●	1	20	800	Range Hood	5	12	20
21	12	4	Gas Water heater	300	20	1	●		1	20	500	Radiant Floor Heat All Baths (LOW VOLT ELI	6	12	22
23			SPARE			1		●	1			SPARE			24
25			SPARE			1	●		1			SPARE			26
27			SPARE			1		●	1			SPARE			28
29			SPARE			1	●		1			SPARE			30
31			SPARE			1		●	1			SPARE			32
33			SPARE			1	●		1			SPARE			34
35			SPARE			1		●	1			SPARE			36
37			SPARE			1	●		1			SPARE			38
39			SPARE			1		●	1			SPARE			40

RESIDENTIAL Demand Calculations

Code	Description	Load	Factor	Demand
1	SMALL APPLIANCE (MIN. 2 CKT @ 1500VA)	1500	100% fixed	1500
2	Lighting/Outlets	11300	100% 1st 3k, 35% Rem	5905
3	APPLIANCE W/MOTOR	1800	125% largest, 75% rest	2250
4	APPLIANCE W/O MOTOR	600	100%	600
5	KITCHEN EQUIPMENT	5300	80%	4240
6	AC/HEAT	4930	100%	4930
7	ELECTRIC DRYER	0	100%	0
8	LAUNDRY WASHER	0	100%	0

LOAD SUMMARY

Phase A:	**12865 VA**
Phase B:	**12565 VA**
Balance:	**97.7%**
Total Conn:	**25430 VA**
Total Demand:	**19425 VA**
Conn Amps:	**105.96 A**
Demand Amps:	**80.94 A**

MIN FEEDER: #3 AWG (Cu) or #1 AWG (Al) **GROUND: #8 AWG (Cu) or #6 AWG (Al)**

PROJECT: 170 CARTERT AVE JERSEY CITY NJ | **PANEL:** Floor 03 | **DATE:** 1/29/2026

Project Type	Mounting	Status	Type	Info
◉ RESIDENTIAL ○ COMMERCIAL	◉ SURFACE ○ FLUSH	○ RELOCATED ◉ NEW ○ EXISTING	○ MAIN ○ MLO ◉ SUB	**Volt:** 240/120 **Bus Rating:** 100 **Phase:** 1 **Main Breaker:** 100 **Wire:** 3 **AIC Rating:** 22000 **Circuits:** 20

			**Arc fault circuit interrupters (AFCI) per NEC required in all living areas						**Arc fault circuit interrupters (AFCI) per NEC required in all living areas				
			**Panel schedule/setup can be altered as conditions required			MAIN BREAKER (AMP) 100			**Panel schedule/setup can be altered as conditions required				
Ckt #	Wire	Code	Description	Load	Bkr	P	Ph A	Ph B	P	Bkr	Load	Description	Code	Wire	Ckt #
1	12	2	BEDROOM 2 & 3 outlet and lighting	1500	20	1	●		1	20	1500	Kitchen Lighting and Outlets	2	12	2
3	12	2	Laundry outlet and ltg	1000	20	1		●	1	20	1500	Living Dining outlet and ltg	2	12	4
5	12	2	WIC and Home office outlet and lighting	1500	20	1	●		1	20	1000	Primary Bath outlet and ltg	2	12	6
7	12	2	Primary Bedroom outlet and lighting	1500	20	1		●	1	20	300	Gas range	5	12	8
9	12	5	Dishwasher	1500	20	1	●		1	20	1200	Garbage Disposal	5	12	10
11	12	1	Refrigerator - Kitchen Small Appliance -1	1500	20	1		●	1	20	1800	Washer & Dryer Combo	3	12	12
13	12	1	Kitchen Small Appliance -2	1500	20	1	●		1	15	300	Smoke Detector	4	14	14
15	12	2	Exterior Lighting and outlet	1200	20	1		●	2	20	4140	HVAC - PEAD-AA18NL & PUZ-AK18NL	6		16
17	14	4	ERV	300	15	1	●		/	/		(see ckt #16)			18
19	12	2	Bedroom 1 outlet and lighting	1200	20	1		●	1	20	800	Range Hood	5	12	20
21	12	4	Gas Water heater	300	20	1	●		1	20	500	Radiant Floor Heat All Baths (LOW VOLT ELI	6	12	22
23			SPARE			1		●	1			SPARE			24
25			SPARE			1	●		1			SPARE			26
27			SPARE			1		●	1			SPARE			28
29			SPARE			1	●		1			SPARE			30
31			SPARE			1		●	1			SPARE			32
33			SPARE			1	●		1			SPARE			34
35			SPARE			1		●	1			SPARE			36
37			SPARE			1	●		1			SPARE			38
39			SPARE			1		●	1			SPARE			40

RESIDENTIAL Demand Calculations

Code	Description	Load	Factor	Demand
1	SMALL APPLIANCE (MIN. 2 CKT @ 1500VA)	3000	100% fixed	3000
2	Lighting/Outlets	11900	100% 1st 3k, 35% Rem	6115
3	APPLIANCE W/MOTOR	1800	125% largest, 75% rest	2250
4	APPLIANCE W/O MOTOR	900	100%	900
5	KITCHEN EQUIPMENT	3800	80%	3040
6	AC/HEAT	4640	100%	4640
7	ELECTRIC DRYER	0	100%	0
8	LAUNDRY WASHER	0	100%	0

LOAD SUMMARY

Phase A:	**13170 VA**
Phase B:	**12870 VA**
Balance:	**97.7%**
Total Conn:	**26040 VA**
Total Demand:	**19945 VA**
Conn Amps:	**108.50 A**
Demand Amps:	**83.10 A**

MIN FEEDER: #3 AWG (Cu) or #1 AWG (Al) **GROUND: #8 AWG (Cu) or #6 AWG (Al)**

2 ELECTRICAL NOTES & PANEL SCHEDULE

SCALE: NO SCALE

- ELEC.

170 JERSEY CITY, NJ 07305 AVE,

DRAWN BY:

CHECKED BY:

REVISIONS:

No.	DESCRIPTION	DATE

ISSUE RECORD:

No.	DESCRIPTION	DATE

SCALE:

SHEET CONTENTS:

PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.: **E1.0**

ELECTRICAL GENERAL NOTES

REF NEC 2020 CODE FOR ELECTRICAL

1 GENERAL CONTRACTOR TO COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS CERTIFIED DRAWINGS AND/OR DOCUMENTS. COORDINATE WITH AND PROVIDE ALL CONDUIT AND TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT.

2 ELECTRICAL RECEPTACLES IN BATHROOMS, KITCHENS AND GARAGES SHALL BE G.F.I. OR G.F.I.C. PER 2020 NATIONAL ELECTRICAL CODE REQUIREMENTS.

3 FIXTURES TO BE SELECTED BY THE GENERAL CONTRACTOR, ARCHITECT, OWNER OR OWNER REPRESENTATIVE.

4 - ALL FLOOR OUTLETS TO BE AT 12" TO BTTM. (14" OC), FROM F.F. UNLESS OTHERWISE NOTED, BATHROOM OUTLETS NEAR THE SINK(S) WHICH ARE TO BE 48" TO BTTM. (50" O.C.) FROM F.F. & RECEPTACLES ABOVE KITCHEN CABINETS TO BE AT 44" TO BTTM. (46 O.C.) FROM F.F.

5 THE US NATIONAL ELECTRICAL CODE, SECTION 210.52, STATES THAT THERE SHOULD BE AN ELECTRICAL OUTLET IN EVERY KITCHEN, BEDROOM, LIVING ROOM, FAMILY ROOM, AND ANY OTHER ROOM THAT HAS DEDICATED LIVING SPACE. THEY MUST BE POSITIONED AT LEAST EVERY SIX FEET MEASURED ALONG THE FLOOR LINE & INSTALLED IN EACH WALL SPACE 2 FT. OR MORE IN LENGTH.

6 ALL LIGHT SWITCHES TO BE AT 48" TO BTTM. (50" O.C.) UNLESS OTHERWISE NOTED. *KITCHEN SWITCHES ABOVE CABINETS TO BE @ 46" O.C.

7 CLOSETS:
- DISTANCES BETWEEN FIXTURES AND STORAGE ITEMS: FOR SURFACE-MOUNTED INCANDESCENT OR LED LIGHT FIXTURES, THERE MUST BE A MINIMUM DISTANCE OF 12 INCHES BETWEEN THE FIXTURE AND ANY ITEMS STORED IN THE CLOSET. FOR RECESSED INCANDESCENT OR LED LIGHT FIXTURES, THIS DISTANCE MUST BE AT LEAST 6 INCHES. FOR FLUORESCENT LIGHT FIXTURES, THE MINIMUM DISTANCE IS 6 INCHES.

- NO BARE BULBS ALLOWED. EXPOSED OR PARTIALLY EXPOSED INCANDESCENT OR LED LAMPS (BULBS) ARE NOT ALLOWED IN CLOSETS. WHILE UTILITY LIGHT FIXTURES WITH BARE BULBS IN A SOCKET WERE ONCE COMMON IN CLOSETS AND OTHER STORAGE AREAS, THESE ARE NO LONGER ALLOWED. ALL LIGHT BULBS MUST BE FULLY ENCLOSED IN A GLOBE OR OTHER HOUSING.

- GFCI PROTECTION:
REF. NEC, 210.8(A): DWELLING UNITS. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(A)(1) THROUGH (A)(11) AND SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL.

(1) BATHROOMS - MIN. 1 GFCI OUTLET AND WITHIN 3 FT. OF SINK.

(2) KITCHENS — WHERE THE RECEPTACLES ARE INSTALLED TO SERVE THE COUNTERTOP SURFACES

(3) SINKS — WHERE RECEPTACLES ARE INSTALLED WITHIN 1.8 M (6 FT) FROM THE TOP INSIDE EDGE OF THE BOWL OF THE SINK

(4) BATHTUBS OR SHOWER STALLS — WHERE RECEPTACLES ARE INSTALLED WITHIN 1.8 M (6 FT) OF THE OUTSIDE EDGE OF THE BATHTUB OR SHOWER STALL

(5) LAUNDRY AREAS
EXCEPTION TO (1) THROUGH (3), (5) THROUGH (8), AND (10): LISTED LOCKING SUPPORT AND MOUNTING RECEPTACLES UTILIZED IN COMBINATION WITH COMPATIBLE ATTACHMENT FITTINGS INSTALLED FOR THE PURPOSE OF SERVING A CEILING LUMINAIRE OR CEILING FAN SHALL NOT BE REQUIRED TO BE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTED. IF A GENERAL-PURPOSE CONVENIENCE RECEPTACLE IS INTEGRAL TO THE CEILING LUMINAIRE OR CEILING FAN, GFCI PROTECTION SHALL BE PROVIDED.

(6) INDOOR DAMP AND WET LOCATIONS

- SD TO BE INSTALLED INSIDE OF EACH SEPARATE SLEEPING AREA AND OUTSIDE EACH DOOR IN THE IMMEDIATE VICINITY OF THE BEDROOMS. (R315.3) CO MUST BE INSTALLED OUTSIDE EACH BEDROOM WITHIN 15' OF EACH ROOM.

-LAUNDRY AREAS REQUIRE A 20 AMP BRANCH CIRCUIT TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET. THIS CIRCUIT SHALL SERVE ONLY RECEPTACLE OUTLETS LOCATED IN LAUNDRY AREA.

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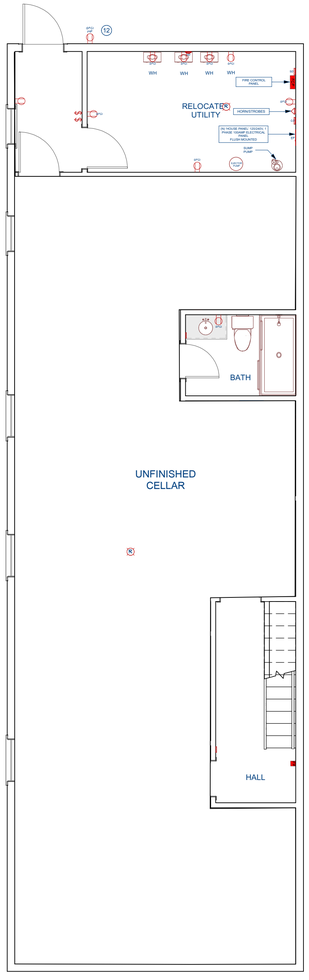



3 ELECTRICAL LAYOUT - CELLAR
SCALE: 3/8" = 1 FT.

- ELEC.

170 JERSEY CITY, NJ 07305 AVE,

DRAWN BY:

CHECKED BY:

REVISIONS:

No.	DESCRIPTION	DATE

ISSUE RECORD:

No.	DESCRIPTION	DATE

SCALE:

SHEET CONTENTS:

PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.: **E2.0**

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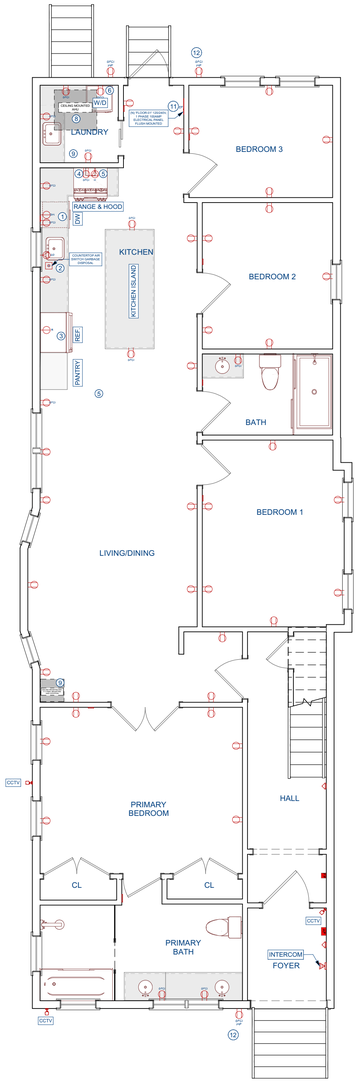

3 ELECTRICAL LAYOUT - FLOOR 01

SCALE: 3/8" = 1 FT.

- ELEC.

170 JERSEY CITY, NJ 07305 AVE,

DRAWN BY:

CHECKED BY:

REVISIONS:

No.	DESCRIPTION	DATE

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SHEET CONTENTS:

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12. PROVIDE 120V WEATHERPROOF GFCI RECEPTACLES AT EXTERIOR OF THE HOUSE (FRONT & REAR).

13. PROVIDE 120V HARDWIRED CONNECTION FOR LOW VOLTAGE ELECTRIC FLOOR HEATING AT ALL BATHS.

14. PROVIDE 208/230V HARDWIRED CONNECTION TO OUTDOOR UNIT AT ROOF (AHU POWERED SEPARATELY FROM OUTDOOR UNIT). PROVIDE NON-FUSED DISCONNECT "WITHIN SIGHT" OF UNIT.

GENERAL NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR CONTINUED CONSTRUCTION AND SCOPE DOCUMENTATION, DIMENSIONS, AND LOCATIONS OF NEW DEVICES AND APPLIANCE OPENING SIZES. IF ANY CONFLICTS BETWEEN DRAWINGS OCCUR, PLEASE CONTACT THE ENGINEER OR ARCHITECT FOR CLARIFICATION.

2. CONTRACTOR TO COORDINATE FINAL KITCHEN APPLIANCES WITH KITCHEN EQUIPMENT PROVIDER, CUSTOMER, AND DESIGN TEAM PRIOR TO FINAL INSTALL AND ROUGH-IN. FINAL LAYOUTS OF APPLIANCES MAY CHANGE AND COORDINATION WILL BE REQUIRED WITH DESIGN TEAM AND CONTRACTORS FOR ANY CHANGES MADE.

3. ARC FAULT CIRCUIT INTERRUPTERS (AFCI), PER NEC, REQUIRED IN ALL LIVING AREAS.

* ELECTRICAL SCHEDULE FOR REFERENCE ONLY. G.C. AND ELECTRICIAN TO FIELD VERIFY NEED AND COUNT OF ALL TYPES OF ELECTRICAL HARDWARE, SWITCHES, OUTLETS AND CONNECTIONS

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3. CERTIFIED ELECTRICIAN TO NOTIFY ENGINEER W/ ANY CHANGES.
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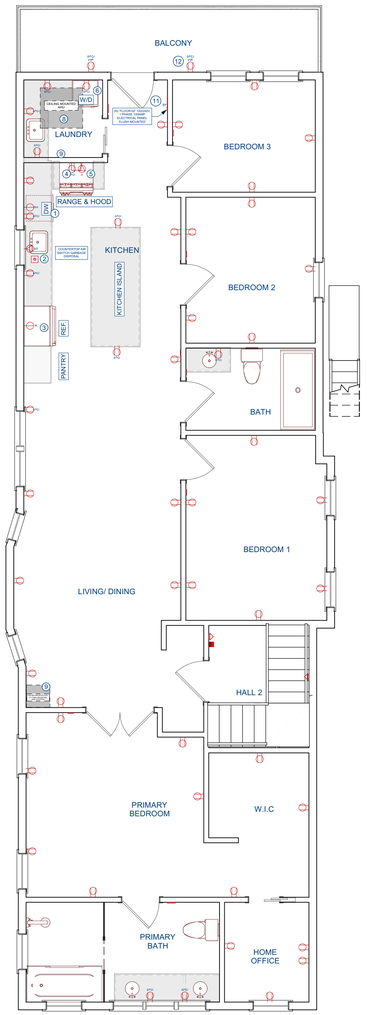

4 ELECTRICAL LAYOUT - FLOOR 02
SCALE: 3/8" = 1 FT.

- ELEC.

170 JERSEY CITY, NJ 07305 AVE,

DRAWN BY:

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REVISIONS:

No.	DESCRIPTION	DATE

ISSUE RECORD:

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SCALE:

SHEET CONTENTS:

PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.: **E2.2**

ELECTRICAL GENERAL NOTES

REF NEC 2020 CODE FOR ELECTRICAL

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2 ELECTRICAL RECEPTACLES IN BATHROOMS, KITCHENS AND GARAGES SHALL BE G.F.I. OR G.F.I.C. PER 2020 NATIONAL ELECTRICAL CODE REQUIREMENTS.

3 FIXTURES TO BE SELECTED BY THE GENERAL CONTRACTOR, ARCHITECT, OWNER OR OWNER REPRESENTATIVE.

4 - ALL FLOOR OUTLETS TO BE AT 12" TO BTTM. (14" OC), FROM F.F. UNLESS OTHERWISE NOTED, BATHROOM OUTLETS NEAR THE SINK(S) WHICH ARE TO BE 48" TO BTTM. (50" O.C.) FROM F.F. & RECEPTACLES ABOVE KITCHEN CABINETS TO BE AT 44" TO BTTM. (46 O.C.) FROM F.F.

5 THE US NATIONAL ELECTRICAL CODE, SECTION 210.52, STATES THAT THERE SHOULD BE AN ELECTRICAL OUTLET IN EVERY KITCHEN, BEDROOM, LIVING ROOM, FAMILY ROOM, AND ANY OTHER ROOM THAT HAS DEDICATED LIVING SPACE. THEY MUST BE POSITIONED AT LEAST EVERY SIX FEET MEASURED ALONG THE FLOOR LINE & INSTALLED IN EACH WALL SPACE 2 FT. OR MORE IN LENGTH.

6 ALL LIGHT SWITCHES TO BE AT 48" TO BTTM. (50" O.C.) UNLESS OTHERWISE NOTED. *KITCHEN SWITCHES ABOVE CABINETS TO BE @ 46" O.C.

7 CLOSETS:
- DISTANCES BETWEEN FIXTURES AND STORAGE ITEMS: FOR SURFACE-MOUNTED INCANDESCENT OR LED LIGHT FIXTURES, THERE MUST BE A MINIMUM DISTANCE OF 12 INCHES BETWEEN THE FIXTURE AND ANY ITEMS STORED IN THE CLOSET. FOR RECESSED INCANDESCENT OR LED LIGHT FIXTURES, THIS DISTANCE MUST BE AT LEAST 6 INCHES. FOR FLUORESCENT LIGHT FIXTURES, THE MINIMUM DISTANCE IS 6 INCHES.

- NO BARE BULBS ALLOWED. EXPOSED OR PARTIALLY EXPOSED INCANDESCENT OR LED LAMPS (BULBS) ARE NOT ALLOWED IN CLOSETS. WHILE UTILITY LIGHT FIXTURES WITH BARE BULBS IN A SOCKET WERE ONCE COMMON IN CLOSETS AND OTHER STORAGE AREAS, THESE ARE NO LONGER ALLOWED. ALL LIGHT BULBS MUST BE FULLY ENCLOSED IN A GLOBE OR OTHER HOUSING.

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REF. NEC, 210.8(A): DWELLING UNITS. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(A)(1) THROUGH (A)(11) AND SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL.

(1) BATHROOMS - MIN. 1 GFCI OUTLET AND WITHIN 3 FT. OF SINK.

(2) KITCHENS — WHERE THE RECEPTACLES ARE INSTALLED TO SERVE THE COUNTERTOP SURFACES

(3) SINKS — WHERE RECEPTACLES ARE INSTALLED WITHIN 1.8 M (6 FT) FROM THE TOP INSIDE EDGE OF THE BOWL OF THE SINK

(4) BATHTUBS OR SHOWER STALLS — WHERE RECEPTACLES ARE INSTALLED WITHIN 1.8 M (6 FT) OF THE OUTSIDE EDGE OF THE BATHTUB OR SHOWER STALL

(5) LAUNDRY AREAS
EXCEPTION TO (1) THROUGH (3), (5) THROUGH (8), AND (10): LISTED LOCKING SUPPORT AND MOUNTING RECEPTACLES UTILIZED IN COMBINATION WITH COMPATIBLE ATTACHMENT FITTINGS INSTALLED FOR THE PURPOSE OF SERVING A CEILING LUMINAIRE OR CEILING FAN SHALL NOT BE REQUIRED TO BE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTED. IF A GENERAL-PURPOSE CONVENIENCE RECEPTACLE IS INTEGRAL TO THE CEILING LUMINAIRE OR CEILING FAN, GFCI PROTECTION SHALL BE PROVIDED.

(6) INDOOR DAMP AND WET LOCATIONS

- SD TO BE INSTALLED INSIDE OF EACH SEPARATE SLEEPING AREA AND OUTSIDE EACH DOOR IN THE IMMEDIATE VICINITY OF THE BEDROOMS. (R315.3) CO MUST BE INSTALLED OUTSIDE EACH BEDROOM WITHIN 15' OF EACH ROOM.

-LAUNDRY AREAS REQUIRE A 20 AMP BRANCH CIRCUIT TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET. THIS CIRCUIT SHALL SERVE ONLY RECEPTACLE OUTLETS LOCATED IN LAUNDRY AREA.

- HARDWIRED APPLIANCES ARE **REQ.** TO HAVE A DISCONNECT WITHIN SIGHT OR A LOCKABLE MEANS AT CIRCUIT BREAKER.

ARC FAULT CIRCUIT INTERRUPTERS (AFCI), PER NEC, REQUIRED IN ALL LIVING AREAS

SMOKE/CO ALARMS:

SD/CO - PER NFPA CODE - SMOKE ALARMS IN NEWLY CONSTRUCTED OR RENOVATED DWELLINGS ARE REQUIRED TO BE HARDWIRED WITH A BATTERY BACK-UP, INTERCONNECTED, AND UL-LISTED.
1. SMOKE ALARMS ARE REQUIRED IN EVERY RESIDENTIAL DWELLING OR SLEEPING UNIT, INCLUDING SINGLE-FAMILY HOMES.

2. EVERY MULTI-FAMILY RESIDENTIAL FACILITY IS REQUIRED TO HAVE SMOKE ALARMS, WHETHER BATTERY-OPERATED OR HARD-WIRED WITH BATTERY BACKUP.

3. SMOKE ALARMS ARE REQUIRED IN EVERY BEDROOM, OUTSIDE EACH SLEEPING AREA, AND ON EVERY LEVEL OF THE HOME INCLUDING THE BASEMENT.

4. CO DETECTORS SHALL BE PLACED ON EACH LEVEL OF THE HOME INCLUDING THE BASEMENT IF THERE IS ONE.

5. GC TO F.V. THAT SMOKE ALARMS AND CARBON MONOXIDE DETECTORS ARE PLACED AND INSTALLED PER REGULATIONS AND CODE.

VIDEO:
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DATA / CABLE/ INTERCOM AND CCTV :
- LOCATE DATA JACKS EQUIPMENT IN SPECIFIED LOCATION BY AND APPROVED BY HOME OWNER.
-CONTRACTOR TO PROVIDE VIDEO INTERCOM SYSTEM COMPATIBLE WITH SMARTPHONE "CALLOUT" MOBILE APP FEATURES.
- WIRING SHALL BE CAT6 (SHIELDED), RUN HOME-RUN FROM DOOR STATION TO BASEMENT LOW-VOLTAGE RACK
- CONTRACTOR TO COORDINATE WITH DOOR HARDWARE INSTALLER FOR ELECTRIC STRIKE POWER AND TRIGGER CONNECTIONS (VERIFY VOLTAGE 12V/24V PRIOR TO ROUGH-IN).
- ENSURE ACTIVE INTERNET CONNECTION IS PROVIDED AT HEAD-END LOCATION FOR REMOTE FUNCTIONS.
- ALL CAMERAS SHALL BE IP-BASED (POE). WIRING SHALL BE CAT6 HOME-RUN TO NVR LOCATION. EXTERIOR CAMERAS TO BE WEATHERPROOF RATED.
- PROVIDE DEDICATED POWER RECEPTACLE FOR NVR AND POE SWITCH AT HEAD-END EQUIPMENT RACK.

KEYED NOTES ⓟ

1. PROVIDE 120V DEDICATED RECEPTACLE TO UNDER COUNTER FOR DISHWASHER (GFCI PROTECTED).

2. PROVIDE 120V SWITCHED RECEPTACLE UNDER SINK FOR GARBAGE DISPOSAL. PROVIDE AIR SWITCH MOUNTED ON COUNTERTOP/SINK DECK.

3. PROVIDE 120V RECEPTACLE FOR REFRIGERATOR. G.C. TO F.V. FINAL LOCATION.

4. PROVIDE 120V RECEPTACLE FOR KITCHEN GAS RANGE (IGNITION).

5. PROVIDE 120V RECEPTACLE FOR RANGE HOOD EXHAUST FAN/CONTROL SYSTEM.

6. PROVIDE 120V DEDICATED GFCI RECEPTACLE FOR ELECTRIC WASHER / DRYER COMBO.

7. PROVIDE 120V RECEPTACLE FOR GAS WATER HEATER IN CELLAR FLOOR UTILITY ROOOM. CIRCUIT SHALL BE FED FROM RESPECTIVE TENANT PANEL. PROVIDE LOCAL DISCONNECT SWITCH "WITHIN SIGHT" OF HEATER IF HARDWIRED

8. PROVIDE 208/230V HARDWIRED CONNECTION TO INDOOR AHU UNIT (AHU POWERED SEPARATELY FROM OUTDOOR UNIT). PROVIDE DISCONNECT WITHIN SIGHT.

9. PROVIDE 120V DEDICATED CIRCUIT FOR ERV UNIT. PROVIDE LOW-VOLTAGE CONTROL WIRING FROM ERV TO BATHROOMS FOR BOOST SWITCHES.

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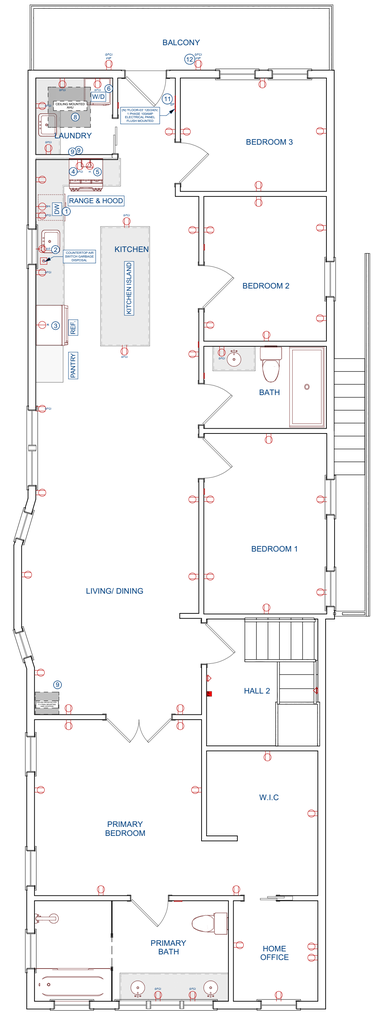

4 ELECTRICAL LAYOUT - FLOOR 03

SCALE: 3/8" = 1 FT.

- ELEC.

170 AVE,
JERSEY CITY, NJ 07305

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DATE: 3/22/2026

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VIDEO:

1 LOCATE JACKS AS REQUESTED BY CUSTOMER/OWNER - INSTALL DATA / CABLE PANEL IN LOCATIONS SPECIFIED BY CUSTOMER. SYSTEM TO BE APPROVED BY HOME OWNER. IF NO JACKS ARE INDICATED IN PLAN, CONTRACTOR TO PLACE IN ACCORDANCE WITH OWNERS REQUESTED LAYOUT

DATA / CABLE:

- LOCATE DATA JACKS EQUIPMENT IN SPECIFIED LOCATION BY AND APPROVED BY HOME OWNER.

(#) RCP NOTES

1. MOUNT LIGHT SWITCHES AT 48" A.F.F. TO CENTER. COORDINATE FINAL LOCATIONS W/OWNER. PROVIDE DIMMER SWITCHES FOR BATHROOM VANITY, DINING ROOM, LIVING ROOM, AND BEDROOM LIGHTING.
2. ALL SMOKE AND CARBON MONOXIDE DETECTORS TO BE HARD WIRED W/ BATTERY BACKUP AND INTERCONNECTED WITHIN EACH DWELLING UNIT.
3. PROVIDE LOW-VOLTAGE PUSH-BUTTON "BOOST" SWITCHES IN BATHROOMS FOR ERV VENTILATION SYSTEM CONTROL.
4. ENSURE LIGHTING IN DAMP OR WET AREAS (SHOWERS, BATHROOMS, OUTDOORS) ARE RATED FOR SUCH LOCATIONS PER NEC 410.10.
5. ALL LIGHT FIXTURES TO BE LED TYPE. CLOSET FIXTURES MUST BE FULLY ENCLOSED AND MAINTAIN CLEARANCE FROM STORAGE AREAS PER NEC 410.16 (12" FOR SURFACE MOUNT, 6" FOR RECESSED).
6. COMMON AREA INTERIOR LIGHTING (HALLS/STAIRS) SHALL BE CONTROLLED BY CEILING-MOUNTED OCCUPANCY SENSORS (AUTO-ON/AUTO-OFF). SENSORS SHALL BE DUAL-TECHNOLOGY (PIR/ULTRASONIC) TO ENSURE COVERAGE AROUND STAIR CORNERS. DO NOT INSTALL MANUAL WALL SWITCHES IN PUBLIC HALLWAYS.
7. COMMON AREA LIGHTING ZONES SHALL BE WIRED INDEPENDENTLY PER FLOOR. MOTION ON ONE FLOOR SHALL NOT ACTIVATE LIGHTING ON ADJACENT FLOORS.
8. PROVIDE (1) SINGLE-POLE MASTER SWITCH IN BASEMENT UTILITY ROOM TO DISCONNECT ALL COMMON LIGHTING CIRCUITS FOR MAINTENANCE.
9. ALL EXTERIOR BUILDING LIGHTING SHALL BE CONTROLLED BY AN ASTRONOMIC DIGITAL TIMER LOCATED IN THE LANDLORD UTILITY ROOM (PROGRAMMED FOR SUNSET/SUNRISE). DO NOT USE PHOTOCELLS DUE TO STREET LIGHT INTERFERENCE.
10. PROVIDE UL-LISTED LED EXIT/EMERGENCY LIGHT COMBO UNITS WITH 90-MINUTE BATTERY BACKUP AT ALL EXTERIOR EXIT DOORS AND STAIRWELL LANDINGS. ALL UNITS TO BE HARD-WIRED TO THE HOUSE PANEL ON A NON-SWITCHED CIRCUIT. FIXTURES SHALL BE MOUNTED ABOVE DOORS OR ON CEILING ADJACENT TO THE PATH OF EGRESS

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3. ARC FAULT CIRCUIT INTERRUPTERS (AFCI), PER NEC, REQUIRED IN ALL LIVING AREAS (BEDROOMS, LIVING ROOMS, HALLWAYS, KITCHENS, LAUNDRY, ETC.).
4. LIGHTING FIXTURE TYPES SHOWN ON PLAN (E.G., 4" RECESSED) ARE FOR QUANTITY AND LAYOUT PURPOSES ONLY. FINAL FIXTURE SELECTIONS, STYLES, AND TRIMS TO BE SELECTED BY OWNER/INTERIOR DESIGNER PRIOR TO ROUGH-IN.
5. CONTRACTOR SHALL COORDINATE ROUGH-IN REQUIREMENTS (JUNCTION BOX TYPE, CUT-OUT SIZE, MOUNTING BRACKETS) WITH THE FINAL FIXTURE SCHEDULE PROVIDED BY OWNER/DESIGNER. ADJUST BOX LOCATIONS AS REQUIRED BY FIXTURE DIMENSIONS.

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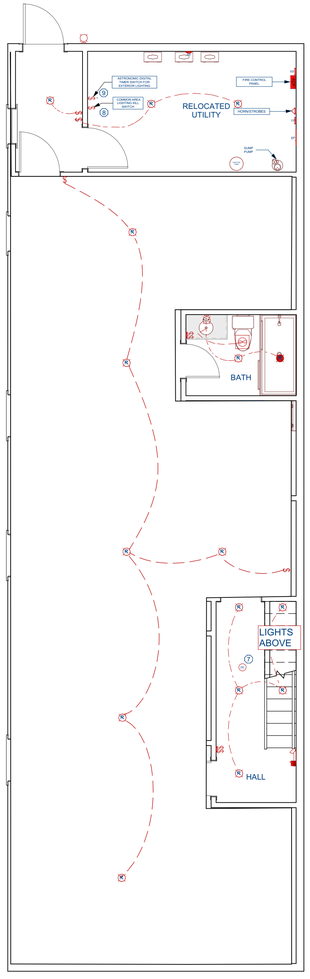

5 ELECTRICAL REFLECTED CEILING PLAN - CELLAR

SCALE: 3/8" = 1 FT.

- ELEC.

170 JERSEY CITY, NJ 07305 AVE,

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5 THE US NATIONAL ELECTRICAL CODE, SECTION 210.52, STATES THAT THERE SHOULD BE AN ELECTRICAL OUTLET IN EVERY KITCHEN, BEDROOM, LIVING ROOM, FAMILY ROOM, AND ANY OTHER ROOM THAT HAS DEDICATED LIVING SPACE. THEY MUST BE POSITIONED AT LEAST EVERY SIX FEET MEASURED ALONG THE FLOOR LINE & INSTALLED IN EACH WALL SPACE 2 FT. OR MORE IN LENGTH.

6 ALL LIGHT SWITCHES TO BE AT 48" TO BTTM. (50" O.C.) UNLESS OTHERWISE NOTED. *KITCHEN SWITCHES ABOVE CABINETS TO BE @ 46" O.C.

7 CLOSETS:

- DISTANCES BETWEEN FIXTURES AND STORAGE ITEMS- FOR SURFACE-MOUNTED INCANDESCENT OR LED LIGHT FIXTURES, THERE MUST BE A MINIMUM DISTANCE OF 12 INCHES BETWEEN THE FIXTURE AND ANY ITEMS STORED IN THE CLOSET. FOR RECESSED INCANDESCENT OR LED LIGHT FIXTURES, THIS DISTANCE MUST BE AT LEAST 6 INCHES. FOR FLUORESCENT LIGHT FIXTURES, THE MINIMUM DISTANCE IS 6 INCHES.

- NO BARE BULBS ALLOWED. EXPOSED OR PARTIALLY EXPOSED INCANDESCENT OR LED LAMPS (BULBS) ARE NOT ALLOWED IN CLOSETS. WHILE UTILITY LIGHT FIXTURES WITH BARE BULBS IN A SOCKET WERE ONCE COMMON IN CLOSETS AND OTHER STORAGE AREAS, THESE ARE NO LONGER ALLOWED. ALL LIGHT BULBS MUST BE FULLY ENCLOSED IN A GLOBE OR OTHER HOUSING.

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REF. NEC, 210.8(A): DWELLING UNITS. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(A)(1) THROUGH (A)(11) AND SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL.

(1) BATHROOMS - MIN. 1 GFCI OUTLET AND WITHIN 3 FT. OF SINK.

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(3) SINKS — WHERE RECEPTACLES ARE INSTALLED WITHIN 1.8 M (6 FT) FROM THE TOP INSIDE EDGE OF THE BOWL OF THE SINK

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(5) LAUNDRY AREAS

EXCEPTION TO (1) THROUGH (3), (5) THROUGH (8), AND (10): LISTED LOCKING SUPPORT AND MOUNTING RECEPTACLES UTILIZED IN COMBINATION WITH COMPATIBLE ATTACHMENT FITTINGS INSTALLED FOR THE PURPOSE OF SERVING A CEILING LUMINAIRE OR CEILING FAN SHALL NOT BE REQUIRED TO BE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTED. IF A GENERAL-PURPOSE CONVENIENCE RECEPTACLE IS INTEGRAL TO THE CEILING LUMINAIRE OR CEILING FAN, GFCI PROTECTION SHALL BE PROVIDED.

(6) INDOOR DAMP AND WET LOCATIONS

- SD TO BE INSTALLED INSIDE OF EACH SEPARATE SLEEPING AREA AND OUTSIDE EACH DOOR IN THE IMMEDIATE VICINITY OF THE BEDROOMS. (R315.3) CO MUST BE INSTALLED OUTSIDE EACH BEDROOM WITHIN 15' OF EACH ROOM.

-LAUNDRY AREAS REQUIRE A 20 AMP BRANCH CIRCUIT TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET. THIS CIRCUIT SHALL SERVE ONLY RECEPTACLE OUTLETS LOCATED IN LAUNDRY AREA.

- HARDWIRED APPLIANCES ARE **REQ**. TO HAVE A DISCONNECT WITHIN SIGHT OR A LOCKABLE MEANS AT CIRCUIT BREAKER.

ARC FAULT CIRCUIT INTERRUPTERS (AFCI), PER NEC, REQUIRED IN ALL LIVING AREAS

SMOKE/CO ALARMS:

SD/CO - PER NFPA CODE - SMOKE ALARMS IN NEWLY CONSTRUCTED OR RENOVATED DWELLINGS ARE REQUIRED TO BE HARDWIRED WITH A BATTERY BACK-UP, INTERCONNECTED, AND UL-LISTED.

1. SMOKE ALARMS ARE REQUIRED IN EVERY RESIDENTIAL DWELLING OR SLEEPING UNIT, INCLUDING SINGLE-FAMILY HOMES.
2. EVERY MULTI-FAMILY RESIDENTIAL FACILITY IS REQUIRED TO HAVE SMOKE ALARMS, WHETHER BATTERY-OPERATED OR HARD-WIRED WITH BATTERY BACKUP.
3. SMOKE ALARMS ARE REQUIRED IN EVERY BEDROOM, OUTSIDE EACH SLEEPING AREA, AND ON EVERY LEVEL OF THE HOME INCLUDING THE BASEMENT.
4. CO DETECTORS SHALL BE PLACED ON EACH LEVEL OF THE HOME INCLUDING THE BASEMENT IF THERE IS ONE.
5. GC TO F.V. THAT SMOKE ALARMS AND CARBON MONOXIDE DETECTORS ARE PLACED AND INSTALLED PER REGULATIONS AND CODE.

VIDEO:

1 LOCATE JACKS AS REQUESTED BY CUSTOMER/OWNER - INSTALL DATA / CABLE PANEL IN LOCATIONS SPECIFIED BY CUSTOMER. SYSTEM TO BE APPROVED BY HOME OWNER. IF NO JACKS ARE INDICATED IN PLAN, CONTRACTOR TO PLACE IN ACCORDANCE WITH OWNERS REQUESTED LAYOUT

DATA / CABLE:

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(P) RCP NOTES

1. MOUNT LIGHT SWITCHES AT 48" A.F.F. TO CENTER. COORDINATE FINAL LOCATIONS W/OWNER. PROVIDE DIMMER SWITCHES FOR BATHROOM VANITY, DINING ROOM, LIVING ROOM, AND BEDROOM LIGHTING.
2. ALL SMOKE AND CARBON MONOXIDE DETECTORS TO BE HARD WIRED W/ BATTERY BACKUP AND INTERCONNECTED WITHIN EACH DWELLING UNIT.
3. PROVIDE LOW-VOLTAGE PUSH-BUTTON "BOOST" SWITCHES IN BATHROOMS FOR ERV VENTILATION SYSTEM CONTROL.
4. ENSURE LIGHTING IN DAMP OR WET AREAS (SHOWERS, BATHROOMS, OUTDOORS) ARE RATED FOR SUCH LOCATIONS PER NEC 410.10.
5. ALL LIGHT FIXTURES TO BE LED TYPE. CLOSET FIXTURES MUST BE FULLY ENCLOSED AND MAINTAIN CLEARANCE FROM STORAGE AREAS PER NEC 410.16 (12" FOR SURFACE MOUNT, 6" FOR RECESSED).
6. COMMON AREA INTERIOR LIGHTING (HALLS/STAIRS) SHALL BE CONTROLLED BY CEILING-MOUNTED OCCUPANCY SENSORS (AUTO-ON/AUTO-OFF). SENSORS SHALL BE DUAL-TECHNOLOGY (PIR/ULTRASONIC) TO ENSURE COVERAGE AROUND STAIR CORNERS. DO NOT INSTALL MANUAL WALL SWITCHES IN PUBLIC HALLWAYS.
7. COMMON AREA LIGHTING ZONES SHALL BE WIRED INDEPENDENTLY PER FLOOR. MOTION ON ONE FLOOR SHALL NOT ACTIVATE LIGHTING ON ADJACENT FLOORS.
8. PROVIDE (1) SINGLE-POLE MASTER SWITCH IN BASEMENT UTILITY ROOM TO DISCONNECT ALL COMMON LIGHTING CIRCUITS FOR MAINTENANCE.
9. ALL EXTERIOR BUILDING LIGHTING SHALL BE CONTROLLED BY AN ASTRONOMIC DIGITAL TIMER LOCATED IN THE LANDLORD UTILITY ROOM (PROGRAMMED FOR SUNSET/SUNRISE). DO NOT USE PHOTOCELLS DUE TO STREET LIGHT INTERFERENCE.
10. PROVIDE UL-LISTED LED EXIT/EMERGENCY LIGHT COMBO UNITS WITH 90-MINUTE BATTERY BACKUP AT ALL EXTERIOR EXIT DOORS AND STAIRWELL LANDINGS. ALL UNITS TO BE HARD-WIRED TO THE HOUSE PANEL ON A NON-SWITCHED CIRCUIT. FIXTURES SHALL BE MOUNTED ABOVE DOORS OR ON CEILING ADJACENT TO THE PATH OF EGRESS

GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR CONTINUED CONSTRUCTION AND SCOPE, DOCUMENTATION, DIMENSIONS AND LOCATIONS OF NEW DEVICES, APPLIANCE OPENING SIZES. IF ANY CONFLICTS BETWEEN DRAWINGS OCCUR, PLEASE CONTACT THE ENGINEER OR ARCHITECT FOR CLARIFICATION.
2. CONTRACTOR TO COORDINATE FINAL KITCHEN APPLIANCES WITH KITCHEN EQUIPMENT PROVIDER, CUSTOMER AND DESIGN TEAM PRIOR TO FINAL INSTALL AND ROUGH IN. FINAL LAYOUTS OF APPLIANCES MAY CHANGE AND COORDINATION WILL BE REQUIRED WITH DESIGN TEAM AND CONTRACTORS FOR ANY MADE CHANGES.
3. ARC FAULT CIRCUIT INTERRUPTERS (AFCI), PER NEC, REQUIRED IN ALL LIVING AREAS (BEDROOMS, LIVING ROOMS, HALLWAYS, KITCHENS, LAUNDRY, ETC.).
4. LIGHTING FIXTURE TYPES SHOWN ON PLAN (E.G., 4" RECESSED) ARE FOR QUANTITY AND LAYOUT PURPOSES ONLY. FINAL FIXTURE SELECTIONS, STYLES, AND TRIMS TO BE SELECTED BY OWNER/INTERIOR DESIGNER PRIOR TO ROUGH-IN.
5. CONTRACTOR SHALL COORDINATE ROUGH-IN REQUIREMENTS (JUNCTION BOX TYPE, CUT-OUT SIZE, MOUNTING BRACKETS) WITH THE FINAL FIXTURE SCHEDULE PROVIDED BY OWNER/DESIGNER. ADJUST BOX LOCATIONS AS REQUIRED BY FIXTURE DIMENSIONS.

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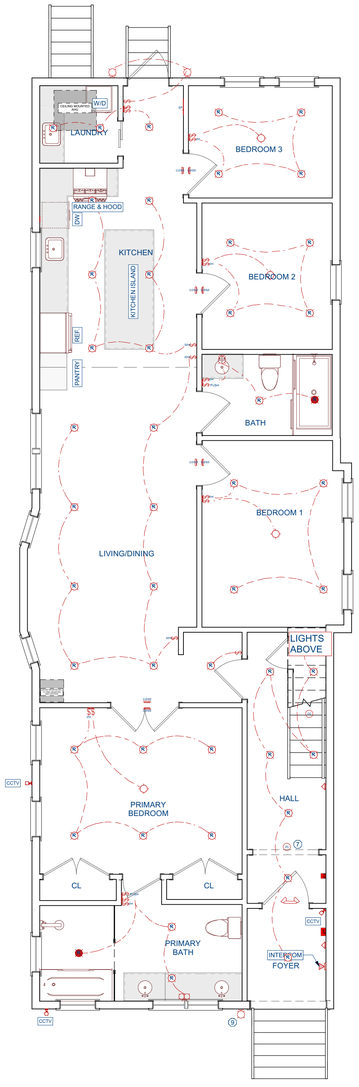

6 ELECTRICAL REFLECTED CEILING PLAN - FLOOR 01

SCALE: 3/8" = 1 FT.

- ELEC.

170 AVE,
JERSEY CITY, NJ 07305

DRAWN BY:

CHECKED BY:

REVISIONS:

No.	DESCRIPTION	DATE

ISSUE RECORD:

No.	DESCRIPTION	DATE

SCALE:

SHEET CONTENTS:

PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.: **E3.1**

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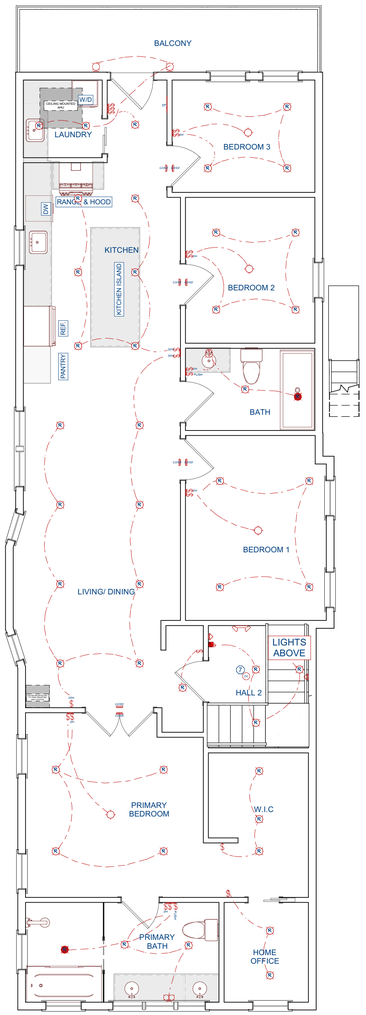

7 ELECTRICAL REFLECTED CEILING PLAN - FLOOR 02

SCALE: 3/8" = 1 FT.

- ELEC.

170 AVE,
JERSEY CITY, NJ 07305

DRAWN BY:

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REVISIONS:

No.	DESCRIPTION	DATE

ISSUE RECORD:

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SCALE:

SHEET CONTENTS:

PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.: **E3.2**

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SD/CO - PER NFPA CODE - SMOKE ALARMS IN NEWLY CONSTRUCTED OR RENOVATED DWELLINGS ARE REQUIRED TO BE HARDWIRED WITH A BATTERY BACK-UP, INTERCONNECTED, AND UL-LISTED.

1. SMOKE ALARMS ARE REQUIRED IN EVERY RESIDENTIAL DWELLING OR SLEEPING UNIT, INCLUDING SINGLE-FAMILY HOMES.
2. EVERY MULTI-FAMILY RESIDENTIAL FACILITY IS REQUIRED TO HAVE SMOKE ALARMS, WHETHER BATTERY-OPERATED OR HARD-WIRED WITH BATTERY BACKUP.
3. SMOKE ALARMS ARE REQUIRED IN EVERY BEDROOM, OUTSIDE EACH SLEEPING AREA, AND ON EVERY LEVEL OF THE HOME INCLUDING THE BASEMENT.
4. CO DETECTORS SHALL BE PLACED ON EACH LEVEL OF THE HOME INCLUDING THE BASEMENT IF THERE IS ONE.
5. GC TO F.V. THAT SMOKE ALARMS AND CARBON MONOXIDE DETECTORS ARE PLACED AND INSTALLED PER REGULATIONS AND CODE.

<u>VIDEO:</u>

1 LOCATE JACKS AS REQUESTED BY CUSTOMER/OWNER - INSTALL DATA / CABLE PANEL IN LOCATIONS SPECIFIED BY CUSTOMER. SYSTEM TO BE APPROVED BY HOME OWNER. IF NO JACKS ARE INDICATED IN PLAN, CONTRACTOR TO PLACE IN ACCORDANCE WITH OWNERS REQUESTED LAYOUT

<u>DATA / CABLE:</u>

- LOCATE DATA JACKS EQUIPMENT IN SPECIFIED LOCATION BY AND APPROVED BY HOME OWNER.

RCP NOTES

1. MOUNT LIGHT SWITCHES AT 48" A.F.F. TO CENTER. COORDINATE FINAL LOCATIONS W/OWNER. PROVIDE DIMMER SWITCHES FOR BATHROOM VANITY, DINING ROOM, LIVING ROOM, AND BEDROOM LIGHTING.
2. ALL SMOKE AND CARBON MONOXIDE DETECTORS TO BE HARD WIRED W/ BATTERY BACKUP AND INTERCONNECTED WITHIN EACH DWELLING UNIT.
3. PROVIDE LOW-VOLTAGE PUSH-BUTTON "BOOST" SWITCHES IN BATHROOMS FOR ERV VENTILATION SYSTEM CONTROL.
4. ENSURE LIGHTING IN DAMP OR WET AREAS (SHOWERS, BATHROOMS, OUTDOORS) ARE RATED FOR SUCH LOCATIONS PER NEC 410.10.
5. ALL LIGHT FIXTURES TO BE LED TYPE. CLOSET FIXTURES MUST BE FULLY ENCLOSED AND MAINTAIN CLEARANCE FROM STORAGE AREAS PER NEC 410.16 (12" FOR SURFACE MOUNT, 6" FOR RECESSED).
6. COMMON AREA INTERIOR LIGHTING (HALLS/STAIRS) SHALL BE CONTROLLED BY CEILING-MOUNTED OCCUPANCY SENSORS (AUTO-ON/AUTO-OFF). SENSORS SHALL BE DUAL-TECHNOLOGY (PIR/ULTRASONIC) TO ENSURE COVERAGE AROUND STAIR CORNERS. DO NOT INSTALL MANUAL WALL SWITCHES IN PUBLIC HALLWAYS.
7. COMMON AREA LIGHTING ZONES SHALL BE WIRED INDEPENDENTLY PER FLOOR. MOTION ON ONE FLOOR SHALL NOT ACTIVATE LIGHTING ON ADJACENT FLOORS.
8. PROVIDE (1) SINGLE-POLE MASTER SWITCH IN BASEMENT UTILITY ROOM TO DISCONNECT ALL COMMON LIGHTING CIRCUITS FOR MAINTENANCE.
9. ALL EXTERIOR BUILDING LIGHTING SHALL BE CONTROLLED BY AN ASTRONOMIC DIGITAL TIMER LOCATED IN THE LANDLORD UTILITY ROOM (PROGRAMMED FOR SUNSET/SUNRISE). DO NOT USE PHOTOCELLS DUE TO STREET LIGHT INTERFERENCE.
10. PROVIDE UL-LISTED LED EXIT/EMERGENCY LIGHT COMBO UNITS WITH 90-MINUTE BATTERY BACKUP AT ALL EXTERIOR EXIT DOORS AND STAIRWELL LANDINGS. ALL UNITS TO BE HARD-WIRED TO THE HOUSE PANEL ON A NON-SWITCHED CIRCUIT. FIXTURES SHALL BE MOUNTED ABOVE DOORS OR ON CEILING ADJACENT TO THE PATH OF EGRESS

GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR CONTINUED CONSTRUCTION AND SCOPE, DOCUMENTATION, DIMENSIONS AND LOCATIONS OF NEW DEVICES, APPLIANCE OPENING SIZES. IF ANY CONFLICTS BETWEEN DRAWINGS OCCUR, PLEASE CONTACT THE ENGINEER OR ARCHITECT FOR CLARIFICATION.
2. CONTRACTOR TO COORDINATE FINAL KITCHEN APPLIANCES WITH KITCHEN EQUIPMENT PROVIDER, CUSTOMER AND DESIGN TEAM PRIOR TO FINAL INSTALL AND ROUGH IN. FINAL LAYOUTS OF APPLIANCES MAY CHANGE AND COORDINATION WILL BE REQUIRED WITH DESIGN TEAM AND CONTRACTORS FOR ANY MADE CHANGES.
3. ARC FAULT CIRCUIT INTERRUPTERS (AFCI), PER NEC, REQUIRED IN ALL LIVING AREAS (BEDROOMS, LIVING ROOMS, HALLWAYS, KITCHENS, LAUNDRY, ETC.).
4. LIGHTING FIXTURE TYPES SHOWN ON PLAN (E.G., 4" RECESSED) ARE FOR QUANTITY AND LAYOUT PURPOSES ONLY. FINAL FIXTURE SELECTIONS, STYLES, AND TRIMS TO BE SELECTED BY OWNER/INTERIOR DESIGNER PRIOR TO ROUGH-IN.
5. CONTRACTOR SHALL COORDINATE ROUGH-IN REQUIREMENTS (JUNCTION BOX TYPE, CUT-OUT SIZE, MOUNTING BRACKETS) WITH THE FINAL FIXTURE SCHEDULE PROVIDED BY OWNER/DESIGNER. ADJUST BOX LOCATIONS AS REQUIRED BY FIXTURE DIMENSIONS.

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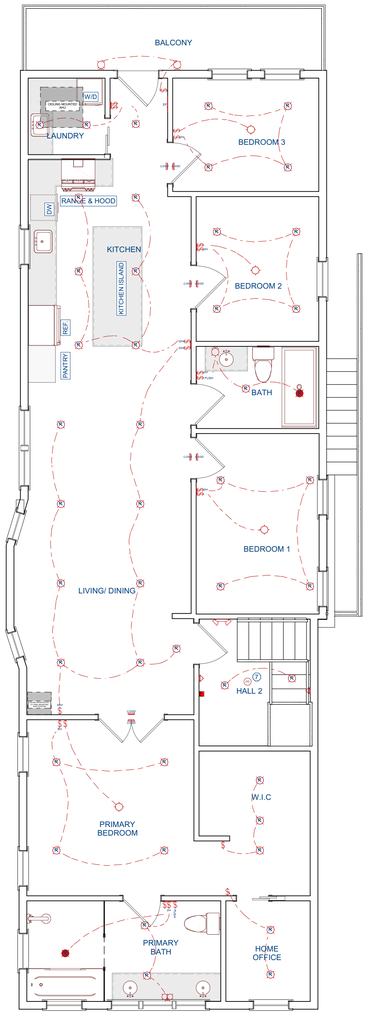
2. CERTIFIED ELECTRICIAN TO INSTALL PER NEC 2020 CODE.
3. CERTIFIED ELECTRICIAN TO NOTIFY ENGINEER W/ ANY CHANGES.
4. ALL ELECTRICAL LAYOUTS ARE SCHEMATIC IN NATURE
5. SERVICE DISCONNECTING MEANS SHALL BE INSTALLED AT A READILY ACCESSIBLE LOCATION
6. SERVICE DISCONNECT MEANS SHALL NOT BE INSTALLED IN BATHROOMS
7. ALL SERVICES SHALL MEET OR EXCEED THE NEC 2020 CODES AND REQS.



8 ELECTRICAL REFLECTED CEILING PLAN - FLOOR 03

SCALE: 3/8" = 1 FT.

- ELEC.

170 AVE,
JERSEY CITY, NJ 07305

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SHEET CONTENTS:

PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.: **E3.3**

ELECTRICAL GENERAL NOTES

REF NEC 2020 CODE FOR ELECTRICAL

1 GENERAL CONTRACTOR TO COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS CERTIFIED DRAWINGS AND/ OR DOCUMENTS. COORDINATE WITH AND PROVIDE ALL CONDUIT AND TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT.

2 ELECTRICAL RECEPTACLES IN BATHROOMS, KITCHENS AND GARAGES SHALL BE G.F.I. OR G.F.I.C. PER 2020 NATIONAL ELECTRICAL CODE REQUIREMENTS.

3 FIXTURES TO BE SELECTED BY THE GENERAL CONTRACTOR, ARCHITECT, OWNER OR OWNER REPRESENTATIVE.

4 - ALL FLOOR OUTLETS TO BE AT 12" TO BTTM. (14" OC), FROM F.F. UNLESS OTHERWISE NOTED. BATHROOM OUTLETS NEAR THE SINK(S) WHICH ARE TO BE 48" TO BTTM. (50" O.C.) FROM F.F. & RECEPTACLES ABOVE KITCHEN CABINETS TO BE AT 44" TO BTTM. (46 O.C.) FROM F.F.

5 THE US NATIONAL ELECTRICAL CODE, SECTION 210.52, STATES THAT THERE SHOULD BE AN ELECTRICAL OUTLET IN EVERY KITCHEN, BEDROOM, LIVING ROOM, FAMILY ROOM, AND ANY OTHER ROOM THAT HAS DEDICATED LIVING SPACE. THEY MUST BE POSITIONED AT LEAST EVERY SIX FEET MEASURED ALONG THE FLOOR LINE & INSTALLED IN EACH WALL SPACE 2 FT. OR MORE IN LENGTH.

6 ALL LIGHT SWITCHES TO BE AT 48" TO BTTM. (50" O.C.) UNLESS OTHERWISE NOTED. *KITCHEN SWITCHES ABOVE CABINETS TO BE @ 46" O.C.

7 CLOSETS:

- DISTANCES BETWEEN FIXTURES AND STORAGE ITEMS- FOR SURFACE-MOUNTED INCANDESCENT OR LED LIGHT FIXTURES, THERE MUST BE A MINIMUM DISTANCE OF 12 INCHES BETWEEN THE FIXTURE AND ANY ITEMS STORED IN THE CLOSET. FOR RECESSED INCANDESCENT OR LED LIGHT FIXTURES, THIS DISTANCE MUST BE AT LEAST 6 INCHES. FOR FLUORESCENT LIGHT FIXTURES, THE MINIMUM DISTANCE IS 6 INCHES.

- NO BARE BULBS ALLOWED. EXPOSED OR PARTIALLY EXPOSED INCANDESCENT OR LED LAMPS (BULBS) ARE NOT ALLOWED IN CLOSETS. WHILE UTILITY LIGHT FIXTURES WITH BARE BULBS IN A SOCKET WERE ONCE COMMON IN CLOSETS AND OTHER STORAGE AREAS, THESE ARE NO LONGER ALLOWED. ALL LIGHT BULBS MUST BE FULLY ENCLOSED IN A GLOBE OR OTHER HOUSING.

- GFCI PROTECTION:

REF. NEC, 210.8(A): DWELLING UNITS. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(A)(1) THROUGH (A)(11) AND SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL.

(1) BATHROOMS - MIN. 1 GFCI OUTLET AND WITHIN 3 FT. OF SINK.

(2) KITCHENS — WHERE THE RECEPTACLES ARE INSTALLED TO SERVE THE COUNTERTOP SURFACES

(3) SINKS — WHERE RECEPTACLES ARE INSTALLED WITHIN 1.8 M (6 FT) FROM THE TOP INSIDE EDGE OF THE BOWL OF THE SINK

(4) BATHTUBS OR SHOWER STALLS — WHERE RECEPTACLES ARE INSTALLED WITHIN 1.8 M (6 FT) OF THE OUTSIDE EDGE OF THE BATHTUB OR SHOWER STALL

(5) LAUNDRY AREAS

EXCEPTION TO (1) THROUGH (3), (5) THROUGH (8), AND (10): LISTED LOCKING SUPPORT AND MOUNTING RECEPTACLES UTILIZED IN COMBINATION WITH COMPATIBLE ATTACHMENT FITTINGS INSTALLED FOR THE PURPOSE OF SERVING A CEILING LUMINAIRE OR CEILING FAN SHALL NOT BE REQUIRED TO BE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTED. IF A GENERAL-PURPOSE CONVENIENCE RECEPTACLE IS INTEGRAL TO THE CEILING LUMINAIRE OR CEILING FAN, GFCI PROTECTION SHALL BE PROVIDED.

(6) INDOOR DAMP AND WET LOCATIONS

- SD TO BE INSTALLED INSIDE OF EACH SEPARATE SLEEPING AREA AND OUTSIDE EACH DOOR IN THE IMMEDIATE VICINITY OF THE BEDROOMS. (R315.3) CO MUST BE INSTALLED OUTSIDE EACH BEDROOM WITHIN 15' OF EACH ROOM.

-LAUNDRY AREAS REQUIRE A 20 AMP BRANCH CIRCUIT TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET. THIS CIRCUIT SHALL SERVE ONLY RECEPTACLE OUTLETS LOCATED IN LAUNDRY AREA.

- HARDWIRED APPLIANCES ARE **REQ**. TO HAVE A DISCONNECT WITHIN SIGHT OR A LOCKABLE MEANS AT CIRCUIT BREAKER.

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ROOF ELECTRICAL NOTES

1 WEATHER RESISTANCE: ALL OUTDOOR RECEPTACLES SHALL BE "WR" (WEATHER RESISTANT) TYPE LISTED FOR WET LOCATIONS.

2 IN-USE COVERS: ALL RECEPTACLES IN WET LOCATIONS SHALL BE INSTALLED WITH "EXTRA DUTY" WEATHERPROOF IN-USE COVERS (BUBBLE TYPE) PER NEC 406.9(B)(1).

3 GFCI PROTECTION: ALL RECEPTACLES ON ROOF DECK SHALL BE GFCI PROTECTED AT THE BREAKER PANEL OR AT THE FIRST DEVICE.

4 CONDUIT ROUTING: ALL CONDUIT AND WIRING ON ROOF DECK SHALL BE ROUTED BELOW THE FINISHED FLOOR SYSTEM (UNDER PAVERS OR DECKING). PENETRATIONS UP INTO CABINETRY SHALL BE SEALED WATERTIGHT.

5 LIGHTING RATINGS: ALL LIGHTING FIXTURES AND LED TAPE INSTALLED OUTDOORS SHALL BE LISTED FOR WET LOCATIONS (IP67 MINIMUM FOR STRIP LIGHTS).

6 DISCONNECTS: ELECTRICAL CONTRACTOR TO COORDINATE WITH HVAC CONTRACTOR TO PROVIDE SERVICE DISCONNECT SWITCHES FOR ALL ROOF-MOUNTED MECHANICAL EQUIPMENT WITHIN SIGHT OF THE UNIT.

KEYED NOTES

1. PROVIDE 120V DEDICATED RECEPTACLE TO UNDER COUNTER FOR DISHWASHER (GFCI PROTECTED).

2. PROVIDE 120V SWITCHED RECEPTACLE UNDER SINK FOR GARBAGE DISPOSAL. PROVIDE AIR SWITCH MOUNTED ON COUNTERTOP/SINK DECK.

3. PROVIDE 120V RECEPTACLE FOR REFRIGERATOR. G.C. TO F.V. FINAL LOCATION.

4. PROVIDE 120V RECEPTACLE FOR KITCHEN GAS RANGE (IGNITION).

5. PROVIDE 120V RECEPTACLE FOR RANGE HOOD EXHAUST FAN/CONTROL SYSTEM.

6. PROVIDE 120V DEDICATED GFCI RECEPTACLE FOR ELECTRIC WASHER / DRYER COMBO.

7. PROVIDE 120V RECEPTACLE FOR GAS WATER HEATER IN CELLAR FLOOR UTILITY ROOM. CIRCUIT SHALL BE FED FROM RESPECTIVE TENANT PANEL. PROVIDE LOCAL DISCONNECT SWITCH "WITHIN SIGHT" OF HEATER IF HARDWIRED

8. PROVIDE 208/230V HARDWIRED CONNECTION TO INDOOR AHU UNIT (AHU POWERED SEPARATELY FROM OUTDOOR UNIT). PROVIDE DISCONNECT WITHIN SIGHT.

9. PROVIDE 120V DEDICATED CIRCUIT FOR ERV UNIT. PROVIDE LOW-VOLTAGE CONTROL WIRING FROM ERV TO BATHROOMS FOR BOOST SWITCHES.

10. PROVIDE 120V GFCI "SERVICE RECEPTACLE" ON ROOF WITHIN 25 FT OF HVAC EQUIPMENT (REQUIRED BY NEC 210.63).

11. (N) 100A ELECTRICAL SUBPANEL. COORDINATE FINAL LOCATION WITH INSTALLER.

12. PROVIDE 120V WEATHERPROOF GFCI RECEPTACLES AT EXTERIOR OF THE HOUSE (FRONT & REAR).

13. PROVIDE 120V HARDWIRED CONNECTION FOR LOW VOLTAGE ELECTRIC FLOOR HEATING AT ALL BATHS.

14. PROVIDE 208/230V HARDWIRED CONNECTION TO OUTDOOR UNIT AT ROOF (AHU POWERED SEPARATELY FROM OUTDOOR UNIT). PROVIDE NON-FUSED DISCONNECT "WITHIN SIGHT" OF UNIT.

GENERAL NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR CONTINUED CONSTRUCTION AND SCOPE DOCUMENTATION, DIMENSIONS, AND LOCATIONS OF NEW DEVICES AND APPLIANCE OPENING SIZES. IF ANY CONFLICTS BETWEEN DRAWINGS OCCUR, PLEASE CONTACT THE ENGINEER OR ARCHITECT FOR CLARIFICATION.

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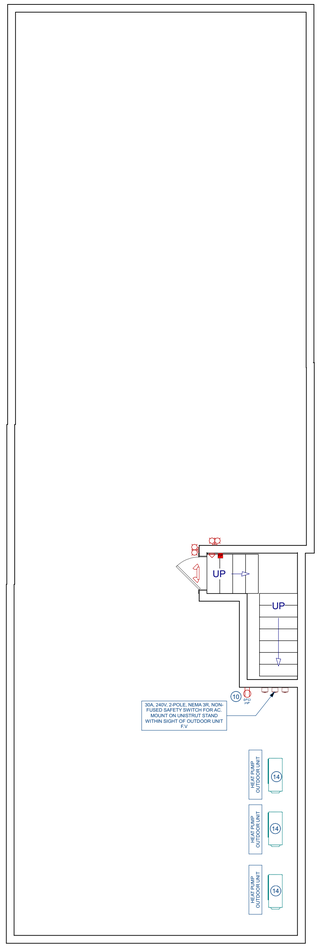
6. SERVICE DISCONNECT MEANS SHALL NOT BE INSTALLED IN BATHROOMS

7. ALL SERVICES SHALL MEET OR EXCEED THE NEC 2020 CODES AND REQS.



9 ELECTRICAL PLAN - ROOF

SCALE: 3/8" = 1 FT.

- ELEC.

170 JERSEY CITY, NJ 07305 AVE,

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SHEET CONTENTS:

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DATE: 3/22/2026

DRAWING NO.: **E3.4**

1. THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE DRAWINGS OF ALL TRADES WHOSE WORK RELATES TO OR IS DEPENDENT ON ELECTRICAL WORK TO BECOME FULLY INFORMED OF THE EXTENT AND CHARACTER OF THEIR SPECIFIED WORK AND BE ABLE TO COORDINATE IT WHILE AVOIDING POSSIBLE INTERFERENCE WITH THE ELECTRICAL WORK.

2. ALL EQUIPMENT, INCLUDING MECHANICAL, MOTORS AND CONTROLS SHALL BE FURNISHED, SET IN PLACE, AND WIRED. THE EXACT FURNISHING AND INSTALLATION OF THE EQUIPMENT SHALL BE COORDINATED BY THE CONTRACTORS INVOLVED.

3. IT IS THE INTENTION OF THESE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN, "FURNISH AND INSTALL COMPLETE AND READY FOR USE."

4. THE ARCHITECTURAL SPECIFICATIONS, GENERAL AND SPECIAL CONDITIONS FOR THE WORK OF THIS PROJECT SHALL BE EXAMINED BY ELECTRICAL CONTRACTOR BEFORE SUBMITTING A BID.

5. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE AND SATISFACTORY ELECTRICAL INSTALLATION IN ACCORDANCE WITH THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS. HE SHALL PROVIDE, WITHOUT EXTRA CHARGE, ALL INCIDENTAL ITEMS REQUIRED, AS A PART OF THIS ELECTRICAL INSTALLATION. THE INSTALLATION SHALL BE SO MADE THAT ITS SEVERAL COMPONENT PARTS WILL FUNCTION TOGETHER AS A WORKABLE SYSTEM, AND SHALL BE LEFT WITH ALL PARTS ADJUSTED AND IN WORKING ORDER.

6. SECURE AND PAY FOR ALL PERMITS, TAXES, ROYALTIES, LICENSES, AND INSPECTIONS IN ASSOCIATION WITH THE WORK SPECIFIED UNDER ELECTRICAL DIVISION AND INDICATED ON THE DRAWINGS. FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS, AND OBTAIN ALL NECESSARY APPROVALS REQUIRED BY ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL REMAIN EXPOSED TO VIEW UNTIL APPROVED BY THE INSPECTION AUTHORITY.

7. ALL WORK SHALL COMPLY WITH NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION CODES (NFPA), INTERNATIONAL CODE COUNCIL (ICC) CODES, INCLUDING INTERNATIONAL ENERGY CONSERVATION CODE (IECC), AND ALL APPLICABLE LOCAL, STATE, MUNICIPAL, AND CITY CODES, ORDINANCES AND REGULATIONS.

8. THE NAMING OF THE MANUFACTURER OR BRAND WITH CATALOG NUMBER OR OTHER PRODUCT IDENTIFICATION WITHOUT THE WORDS "OR EQUAL" IN THE SPECIFICATIONS OR NOTES SHALL INDICATE THAT IT IS THE ONLY PRODUCT APPROVED FOR PURCHASE. IF THE WORDS "OR EQUAL" ARE USED, THEY SHALL BE INTERPRETED AS ESTABLISHING A QUALITY OR PERFORMANCE STANDARD FOR THE MATERIAL OR PRODUCT TO BE PURCHASED. THIS SHALL INDICATE THAT THE ELECTRICAL CONTRACTOR IS NOT RESTRICTED TO THE USE OF THE NAMED AND IDENTIFIED PRODUCT IF A SUBSTITUTE APPROVED BY THE ARCHITECT/ENGINEER IS AVAILABLE; HOWEVER, WHERE A SUBSTITUTION IS REQUESTED, IT WILL BE PERMITTED ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER. NO SUBSTITUTE MATERIAL OR PRODUCT SHALL BE ORDERED, FABRICATED, SHIPPED, OR PROCESSED IN ANY MATTER PRIOR TO THE APPROVAL OF THE ARCHITECT/ENGINEER. THE ELECTRICAL CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ADDITIONAL EXPENSES, AS REQUIRED, MAKING CHANGES FROM THE ORIGINAL MATERIAL OR PRODUCT SPECIFIED.

9. THE TERM "AS REQUIRED" REFERS TO COMPONENTS THAT MAY BE REQUIRED TO COMPLETE THE NOTED SYSTEM INDICATED IN THE PROJECT DOCUMENTS.

10. THE TERM "VERIFY" REFERS TO A CONDITION WHICH MUST BE CONFIRMED PRIOR TO PROCEEDING WITH THE ORDERING OF MATERIAL OR THE FABRICATION AND INSTALLATION OF A COMPONENT.

11. ABBREVIATIONS THROUGHOUT THE DOCUMENTS COMPLY WITH DOCUMENT ABBREVIATION LIST ON LEGEND OR ARE THOSE IN COMMON USE. ENGINEER WILL DEFINE THE INTENT OF ANY IN QUESTION.

12. THE DRAWINGS ARE DIAGRAMMATIC IN CHARACTER. LOCATIONS SHOWN FOR ELECTRICAL EQUIPMENT, DEVICES, CIRCUITING, ETC., ARE APPROXIMATE. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK WITH THE ARCHITECTURAL, PLUMBING, HVAC, AND OTHER TRADE DRAWINGS FOR THE EXACT DIMENSIONS, CLEARANCES, AND ROUGHING-IN LOCATIONS. THE ELECTRICAL CONTRACTOR SHALL COOPERATE WITH THE OTHER TRADES IF FIELD ADJUSTMENTS ARE REQUIRED TO ACCOMMODATE THE WORK OF OTHERS.

13. DRAWINGS SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR USED AS SHOP DRAWINGS. WHERE DIMENSIONS ARE SHOWN ON PLANS OR DETAILS, THESE DIMENSIONS ARE TO BE FIELD-VERIFIED BY THE ELECTRICAL CONTRACTOR AGAINST EXISTING FIELD CONDITIONS, INSTALLATION REQUIREMENTS OF OTHER TRADES, AND THE MANUFACTURER'S SUBMITTALS FOR EQUIPMENT TO BE INSTALLED. SHOULD ANY CONFLICTS ARISE WHICH CANNOT BE EASILY RESOLVED IN THE FIELD WITHOUT CHANGING THE DESIGN INTENT, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

14. RECORD DOCUMENTS
   A. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL DEVIATIONS IN WORK AS INSTALLED FROM WORK SPECIFIED ON THE DRAWINGS, OR IN THE SPECIFICATIONS, AND IDENTIFY ORIGIN OF CHANGE.
   B. KEEP A COMPLETE SET OF RECORD DOCUMENT PRINTS IN CUSTODY DURING ENTIRE PERIOD OF CONSTRUCTION AT THE CONSTRUCTION SITE. ON COMPLETION OF THE PROJECT, TWO COMPLETE SETS OF MARKED-UP PRINTS SHOWING THESE DEVIATIONS SHALL BE DELIVERED TO GENERAL CONTRACTOR AND ARCHITECT/ENGINEER. THIS CONTRACT WILL NOT BE CONSIDERED COMPLETED UNTIL THESE RECORD DRAWINGS HAVE BEEN RECEIVED AND REVIEWED BY THE ENGINEER.
   C. THE FOLLOWING ITEMS ARE REPRESENTATIVE, BUT NOT ALL-INCLUSIVE, OF THE INFORMATION WHICH SHALL BE RECORDED ON THE AS-BUILT DRAWINGS:
      - POWER DISTRIBUTION SYSTEM, INCLUDING DISTRIBUTION EQUIPMENT AND EACH CONDUIT AND WIRE SIZE INSTALLED.
      - FINAL LAYOUT AND CIRCUITING FOR POWER AND LIGHTING, SURFACE RACEWAYS AND RELATED EQUIPMENT, INCLUDING EACH CONDUIT AND WIRE SIZE.
      - CHANGES IN PLAN, SECTIONS, ELEVATIONS, AND DETAILS, SUCH AS SHIFTS IN LOCATION OF WALLS, DOORS, AND WINDOWS.
      - LAST LOCATION AND ARRANGEMENT OF UNDERGROUND UTILITIES AND CONNECTIONS TO EXISTING UTILITIES, INCLUDING ELECTRICAL AND PHONE/TV.

17. BEFORE ANY EQUIPMENT IS INSTALLED, DETERMINE THAT SAID EQUIPMENT WILL PROPERLY FIT WITHIN THE SPACE ALLOCATED. INSTALL ALL EQUIPMENT AND MATERIALS IN SUCH A MANNER AS TO PROVIDE REQUIRED ACCESS FOR SERVICING AND MAINTENANCE. ALLOW AMPLE SPACE FOR REMOVAL OF ALL PARTS THAT REQUIRE REPLACEMENT OR SERVICING.

18. SUFFICIENT ACCESS AND WORKING SPACE SHALL BE PROVIDED AND MAINTAINED ABOUT ALL ELECTRICAL EQUIPMENT TO PERMIT READY AND SAFE OPERATION AND MAINTENANCE OF SUCH EQUIPMENT PER NEC ARTICLE 110 REQUIREMENTS.

19. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, UNDAMAGED, BEAR THE UL LABEL WHERE APPLICABLE, AND BE AS SPECIFIED FOR USE IN EACH SPECIFIC LOCATION. ANY INCIDENTAL ACCESSORIES NECESSARY TO COMPLETE THE WORK IN ALL RESPECTS AND MAKE IT READY FOR OPERATION, EVEN IF NOT SPECIFICALLY SPECIFIED, SHALL BE FURNISHED, DELIVERED, AND INSTALLED BY THE ELECTRICAL CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE CLIENT.

20. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF A SYSTEM OR EQUIPMENT, SHALL BE INCLUDED IN THE ELECTRICAL CONTRACTOR'S ESTIMATE, AS IF SPECIFIED OR SHOWN HEREIN.

21. COORDINATE THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT ABOVE AND BELOW CEILINGS WITH SUSPENSION SYSTEM, MECHANICAL EQUIPMENT, AND OTHER BUILDING COMPONENTS. ALL COMPONENTS SHALL BE LOCATED AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE CEILING CAVITY SPACE CAREFULLY WITH ALL TRADES.

22. THE CONTRACTOR SHALL PREPARE AN OPERATING AND MAINTENANCE MANUAL COVERING ALL SYSTEMS AND EQUIPMENT INSTALLED UNDER THIS DIVISION. SUBMIT AN OUTLINE OF A PREVENTATIVE MAINTENANCE PROGRAM FOR EACH SYSTEM.

23. WARRANTIES:
   A. PROVIDE COMPLETE WARRANTY INFORMATION FOR EACH ITEM, WHICH SHALL INCLUDE NAME OF PRODUCT OR EQUIPMENT, DATE OF BEGINNING OF WARRANTY OR BOND, DURATION OF WARRANTY OR BOND, AND NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF MANUFACTURING/SERVICING PERSONNEL, AS WELL AS PROCEDURES FOR FILING A CLAIM AND OBTAINING WARRANTY SERVICES.
   B. THE CONTRACTOR SHALL WARRANT ALL MATERIALS, WORKMANSHIP AND THE SUCCESSFUL OPERATION OF ALL EQUIPMENT AND APPARATUS INSTALLED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE ENTIRE WORK AS IDENTIFIED IN THE GENERAL CONDITIONS.

25. THE CONDUIT SYSTEM AND ELECTRICAL ENCLOSURES SHALL BE SECURELY BONDED TOGETHER AND SUPPORTED PER NEC REQUIREMENTS.

26. CONDUIT JOINTS SHALL BE CUT SQUARE AND REAMED SMOOTH. BENDS OR OFFSETS SHALL BE MADE WITH AN APPROVED BENDER OR HICKEY, OR HUB-TYPE CONDUIT FITTINGS. BENDS SHALL BE MADE SO THAT THE CONDUIT IS NOT DAMAGED AND ITS INTERNAL DIAMETER IS NOT EFFECTIVELY REDUCED. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360° TOTAL) BETWEEN PULL POINTS.

27. CONCEALED CONDUIT SYSTEMS SHALL BE RUN IN A DIRECT LINE WITH LONG SWEEP BENDS AND OFFSETS. EXPOSED CONDUIT RUNS SHALL BE PARALLEL TO AND AT RIGHT ANGLES TO BUILDING LINES, USING CONDUIT FITTINGS FOR ALL TURNS AND OFFSETS.

28. FEEDERS AND BRANCH CIRCUITS SHALL BE PROVIDED WITH APPROPRIATELY SIZED INSULATED EQUIPMENT GROUNDING CONDUCTOR, WHETHER SPECIFICALLY NOTED OR NOT. IF NOTED, THE ELECTRICAL CONTRACTOR IS REQUIRED TO USE THE SIZE OF GROUNDING CONDUCTOR INDICATED ON DRAWINGS. THIS CONDUCTOR SHALL BE CONNECTED FROM THE ELECTRICAL PANEL GROUND BAR TO THE DESIGNATED GROUNDING CONNECTION ON THE ELECTRICAL DEVICE SERVED. ENSURE LISTED GROUND BAR KITS HAVE BEEN INSTALLED PER NEC REQUIREMENTS IN THE ELECTRICAL PANELS.

29. FLOATING CONDUIT GROUNDS ARE NOT ACCEPTABLE. ENSURE ALL FEEDERS (NEW AND EXISTING) ARE PROVIDED WITH APPROPRIATELY-SIZED INSULATED GROUND WIRE, WHETHER NOTED OR NOT. IF NOTED, THE ELECTRICAL CONTRACTOR IS REQUIRED TO USE THE SIZE OF GROUND WIRE INDICATED ON DRAWINGS. THE GROUND WIRE SHALL BE CONNECTED FROM THE ELECTRICAL PANEL GROUNDED BUS BAR TO THE ELECTRICAL DEVICES. ENSURE FULL SIZE GROUND BUS HAS BEEN INSTALLED PER N.E.C. IN EXISTING ELECTRICAL PANELS. IF REQUIRED, PROVIDE GROUND BUS BAR KIT AND CONNECT AS REQUIRED PER N.E.C. ARTICLE 250.

30. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION AND PULL BOXES TO PROVIDE ACCESS POINTS FOR PULLING AND FEEDING CONDUCTORS INTO A RACEWAY SYSTEM. JUNCTION AND PULL BOXES AND THEIR COVERS SHALL BE FORMED FROM SHEET STEEL, AND SHALL BE BARE METAL OR FINISHED IN GRAY ENAMEL PAINT. BOXES SHALL BE IN INDUSTRY STANDARD SIZES.

31. OUTLET BOXES WITH THE CORRECT FITTING FOR THE APPLICATION SHALL BE LOCATED AT EACH CONDUCTOR SPLICE POINT, AT EACH OUTLET, SWITCH POINT, OR JUNCTION POINT, AND AT EACH PULL POINT FOR THE CONNECTION OF CONDUIT AND OTHER RACEWAYS. OUTLET BOXES FOR CONCEALED WIRING SHALL BE MADE FROM GALVANIZED OR CADMIUM-PLATED SHEET STEEL, AND THEY SHALL HAVE A DEPTH OF AT LEAST 1.5 INCHES, WHETHER SINGLE OR GANGED. THE BOXES SHALL BE LARGE ENOUGH SIZE TO ACCOMMODATE THE NUMBER OF WIRING DEVICES AND CONDUCTORS AS SPECIFIED IN THE FILL SCHEDULE OF THE CURRENT NEC. SECURE BOXES WITH MOUNTING BRACKET, BRACES, HANGER OR BOX MOUNTING SUPPORT.

32. REFER TO ARCHITECTURAL DRAWINGS FOR DEVICE INSTALLATION HEIGHTS PRIOR TO ROUGH-IN.

33. ELECTRICAL DEVICES (SWITCHES, RECEPTACLES, ETC.) SHALL BE 20A RATED UNLESS OTHERWISE SPECIFIED ON DRAWINGS. VERIFY DEVICE CONFIGURATION, COLOR, FINISH, AND MATERIAL REQUIREMENTS WITH ARCHITECT. DEVICES IN RESIDENTIAL UNITS SHALL BE A MINIMUM OF 15A RATED.

34. WIRING INSIDE THE BUILDING SHALL BE COPPER, INSULATION TYPE THHN/THWN, UNLESS OTHERWISE NOTED. THE MINIMUM CONDUCTOR SIZE SHALL BE 12 AWG. CONDUCTORS SIZED FROM #10 AWG AND LARGER SHALL BE STRANDED. WHERE MC TYPE FLEXIBLE CABLE IS INSTALLED IN LIEU OF WIRE AND CONDUIT, FULL-SIZE EQUIPMENT GROUNDING CONDUCTOR SHALL RUN WITH CURRENT CARRYING CONDUCTORS. NM TYPE CABLE MAY BE USED ONLY AS AUTHORIZED BY THE OWNER AND DESIGN ENGINEER, AND WITH APPROVAL OF LOCAL CODE AUTHORITY.

35. CONDUCTORS SIZES #6 AWG AND SMALLER SHALL BE FACTORY COLOR-CODED WITH AN INDUSTRYSTANDARD DESIGNATED COLOR FOR EACH PHASE AND A NEUTRAL CONDUCTOR. CONDUCTORS SIZES #4 AWG AND LARGER SHALL HAVE COLORS FIELD APPLIED USING THE COLOR MARKING TAPE OR BY PAINTING THE INSULATION. THESE COLORS SHALL BE USED CONSISTENTLY THROUGHOUT THE SYSTEM.

36. ALL JOINTS OR SPLICES FOR #10 AWG CONDUCTORS OR SMALLER SHALL BE MADE WITH UL-APPROVED WIRE NUTS, "IN-SURE" PUSH-IN CONNECTORS, OR COMPRESSION-TYPE CONNECTORS.

37. ALL JOINTS OR SPLICES FOR CONDUCTORS #8 AWG AND LARGER SHALL BE MADE WITH A MECHANICAL COMPRESSION CONNECTOR. AFTER THE CONDUCTORS HAVE BEEN MADE MECHANICALLY AND ELECTRICALLY SECURE, THE ENTIRE JOINT OR SPLICE SHALL BE COVERED WITH 3M SCOTCH BRAND NO. 33 TAPE, OR APPROVED EQUAL, TO MAKE THE INSULATION VALUE AT THE JOINT OR SPLICE EQUAL TO THE VALUE OF THE CONDUCTORS INSULATION. THE CONNECTORS SHALL BE UL APPROVED.

38. UNLESS OTHERWISE INDICATED, ALL WIRING FOR BRANCH CIRCUITS SHALL BE #12 AWG WHEN PROTECTED BY A 15- OR 20- AMP CIRCUIT BREAKER. IF DISTANCE FROM PANEL TO FIRST DEVICE IS 100 FEET OR GREATER FOR 120-VOLT CIRCUITS, OR 150 FEET OR GREATER FOR 277-VOLT CIRCUITS, #10 AWG WIRING SHALL BE INSTALLED.

39. FOR ALUMINUM CONDUCTOR TERMINATIONS, ALUMINUM BI-METALLIC PIN CONNECTORS ARE RECOMMENDED UNLESS COMPACT-TYPE CONDUCTORS ARE USED. THESE CONNECTORS SHALL BE UL LISTED PER UL486B, RATED FOR USE UP TO 600V AND TEMPERATURE UP TO 90°C. CONNECTORS SHALL BE INSTALLED WITH MANUFACTURER'S SPECIFIED CRIMPING TOOLS AND DIES.

40. INSTALLATION IN AREAS OF DRYWALL CEILING SHALL BE COORDINATED SUCH THAT ACCESS PANELS ARE NOT REQUIRED. ELEMENTS REQUIRING ACCESS SHALL BE LOCATED IN THE AREAS OF ACCESSIBLE CEILING, OR IN THE LOCATIONS COORDINATED WITH ARCHITECT. ACCESS PANELS REQUIRED WITHIN DRYWALL CEILINGS SHALL BE INSTALLED SYMMETRICALLY WITH OTHER PANELS OR DEVICES, AND SHALL BE MINIMUM SIZE REQUIRED, "MUD-IN" TYPE, AND FIRE RATED, IF REQUIRED. ACCESS PANELS IN FIRE-RATED WALLS AND CEILINGS SHALL HAVE PROPER UL LABEL AND FIRE RATING LISTING.

41. WALL AND CEILING ROUGH-IN INSTALLATIONS FOR LOW-VOLTAGE CONTROL WIRING OF ANY TYPE SUCH AS DATA/TELECOMMUNICATIONS WIRING, FIRE ALARM WIRING, HVAC CONTROL WIRING, SECURITY SYSTEMS WIRING, TV CABLING, OPTICAL FIBER CABLING, ETC., SHALL BE COMPLETE AND READY FOR INSPECTION AT THE TIME ELECTRICAL ROUGH-IN INSPECTIONS ARE REQUESTED. ALL SHARP EDGES, CONDUIT ENDS AND METAL STUDS, ETC., FOR LOW-VOLTAGE CABLING SHALL BE PROTECTED BY INSULATED BUSHINGS OR GROMMETS, AND SECURELY FASTENED IN THE OPENINGS FOR THE WALL ROUGH-IN INSPECTIONS. WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER (GROUPED CABLES ROUTED WITH SQUARE CORNERS AND PARALLEL TO BUILDING LINES.) CABLES SHALL BE INSTALLED PER NEC REQUIRED SEPARATIONS, AND SUPPORTED FROM THE BUILDING STRUCTURE. CABLE TIES USED IN DUCTS, PLENUMS, AND OTHER AIR-HANDLING SPACES ARE REQUIRED TO HAVE A TESTING LABORATORY LISTING NUMBER AND LABEL ON EACH UNOPENED PACKAGE AS BEING APPROVED FOR USE IN THESE LOCATIONS.

42. ELECTRICAL CABINETS AND ENCLOSURES LOCATED IN PUBLIC AREAS SHALL BE LOCKABLE TYPE.

43. PENETRATIONS THROUGH STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT SPECIFIC WRITTEN PERMISSION FROM STRUCTURAL ENGINEER AND ARCHITECT. SUBMIT REQUESTS FOR PENETRATIONS TO ARCHITECT FOR REVIEW AND DISPOSITION. PRIOR TO CORE DRILLING THROUGH FLOORS, VERIFY CLEARANCE OF BEAMS, DUCTWORK, ETC., IN CEILING SPACE BELOW, AND X-RAY FOR CONDUIT AND/OR REBAR IN SLAB.

44. ALL ROOF PENETRATIONS SHALL BE SEALED WATER TIGHT. PROVIDE FLASHING AND COUNTER FLASHING AS REQUIRED. COORDINATE ROOFING WORK WITH THE GENERAL CONTRACTOR.

45. RACEWAYS SHALL BE PROVIDED WITH EXPANSION FITTINGS WHERE NECESSARY TO COMPENSATE FOR THERMAL EXPANSION AND CONTRACTION, AND TO ALLOW FOR MINOR MOVEMENT OF THE STRUCTURAL ELEMENTS OF THE BUILDING. EXPANSION FITTINGS FOR METAL RACEWAYS SHALL BE MADE ELECTRICALLY CONTINUOUS BY EQUIPMENT BONDING JUMPERS OR OTHER MEANS.

46. PROVIDE TYPEWRITTEN PANELBOARD DOOR DIRECTORIES WITH ACCURATE BRANCH CIRCUIT DESTINATIONS. CLEARLY MARK JUNCTION BOXES IN CEILING SPACE WITH PANEL DESIGNATIONS AND CIRCUIT NUMBERS. PROVIDE ENGRAVED PLASTIC LABELS FOR ALL DISTRIBUTION EQUIPMENT. ATTACH THESE LABELS PERMANENTLY TO EQUIPMENT WITH RIVETS OR SCREWS. SELF ADHESIVE TYPE IS NOT ACCEPTABLE. LABEL OUTLET AND SWITCH COVER PLATES WITH PANEL DESIGNATION AND CIRCUIT NUMBERS.

47. REQUIREMENTS FOR MECHANICAL EQUIPMENT ELECTRICAL CONNECTIONS:
   A. ELECTRICAL CONTRACTOR SHALL REVIEW MECHANICAL AND PLUMBING DRAWINGS AND SCHEDULES FOR VERIFICATION OF THE EQUIPMENT USED, WIRING AND ADDITIONAL INSTALLATION REQUIREMENTS PRIOR TO PROVIDING REQUIRED STARTERS/DISCONNECT SWITCHES. WHEN EQUIPMENT DELIVERED TO JOB SITE, ELECTRICAL CONTRACTOR SHALL VERIFY THIS DATA WITH EQUIPMENT NAMEPLATES OR MANUALS. IF SIGNIFICANT DISCREPANCIES OCCUR CONTACT ELECTRICAL ENGINEER FOR REVISION OF THE CONSTRUCTION DOCUMENTS.
   B. PROVIDE SAFETY DISCONNECT SWITCHES FOR ALL MECHANICAL EQUIPMENT UNLESS PROVIDED BY MECHANICAL CONTRACTOR AS SPECIFICALLY DIRECTED ON MECHANICAL DRAWING OR SPECIFICATION REQUIREMENTS.
   C. ELECTRICAL WIRING IN CONNECTION WITH THE AUTOMATIC TEMPERATURE CONTROL SYSTEM, WHERE SHOWN ON THE ELECTRICAL DIVISION DRAWINGS, SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR. ALL OTHER WIRING, INCLUDING 120V REQUIRED FOR PROPER OPERATION OF THE AUTOMATIC TEMPERATURE CONTROL SYSTEM, SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR.

48. PROVIDE FIRE STOPPING MATERIAL AND SYSTEMS, AS LISTED IN THE UL FIRE RESISTANCE DIRECTORY, EQUAL TO THE FIRE RESISTANCE RATING OF THE RESPECTIVE WALL OR FLOOR ASSEMBLY FOR ALL PENETRATIONS OF CONDUIT, SLEEVES, WIRING, CABLES AND OTHER ELECTRICAL ITEMS THROUGH FIRERATED CORRIDOR WALLS, FIRE RESISTIVE WALLS, FIRE RESISTIVE SHAFTS, AND FLOOR PENETRATIONS.

10 ELECTRICAL SERVICE - ELECTRICAL NOTES

SCALE: NO SCALE

- ELEC.

170 AVE,
JERSEY CITY, NJ 07305

DRAWN BY:

CHECKED BY:

REVISIONS:

No.	DESCRIPTION	DATE

ISSUE RECORD:

No.	DESCRIPTION	DATE

SCALE:

SHEET CONTENTS:

PROJECT NO.:

DATE: 3/22/2026

DRAWING NO.: **E4.0**

170 CARTERET AVE, JERSEY CITY, NJ

ELECTRICAL

Available Fault Current Calculation

Ver. 7.1
jmp1ds@comcast.net

Utility Fault Current: 29,800 amperes — kVA = ; E = 240

I = kVA x 1000 = trans. FLA / E — trans. FLA = 0

Isca = trans. FLA x 100 x PF / transformer Z = — PF = ; Z =

Isca = ampere short-circuit current RMS symmetrical. — Isca = 0 amperes

Point to Point Method — Single Phase 240/120

'f' factor = 2 x L x I / N x C x E L-N

Length (distance) FEET L = 130 — Copper in Nonmetallic Raceway

(ASC) Isca = 29,800

conductors per phase N = 1

Phase conductor constant C = 26,706 — Phase Conductor 500 kcmil

Volt Line to Line E L-L = 240 Volt

f = 1.209

Neutral conductor constant C = 26,706 — Neutral Conductor 500 kcmil

Volt Line to Neutral E L-N = 120 Volt

f = 3.626

Multiplier M = 1 / 1 + f

Line to Line M = 0.453

Line to Neutral M = 0.216

Fault Current at Service Equipment

Isca x M = fault current at terminals of main disconnect L-L = **13,491 amperes**

Isca x M = fault current at terminals of main disconnect L-N = **6,441 amperes**

Fault Current from Service Equipment to Sub Panel SP-1 — Copper in Nonmetallic Raceway — Single Phase

Single Phase Feeder — Length (distance) L = 20 — Phase 6,441 Neutral

'f' factor = 2 x L x I / N x C x E L-N — (ASC) Isca = 13,491

conductors per phase N = 1

Phase conductor constant C = 4,635 — Phase Conductor 3

Volt Line to Line E L-L = 240 Volt

f = 0.485

Neutral conductor constant C = 4,635 — Neutral Conductor 3

Volt Line to Neutral E L-N = 120 Volt

Multiplier f = 0.463

M = 1 / 1 + f — Line to Line M = 0.673 — Line to Neutral M = 0.683

Isca x M = fault current at terminal of the panel L-L: **9,085 amperes**

Isca x M = fault current at terminal of the panel L-N: **4,402 amperes**

Calculation does not include motor contribution

Fault Current from Service Equipment to Sub Panel SP-2 — Copper in Nonmetallic Raceway — Single Phase

Single Phase Feeder — Length (distance) L = 30 — Phase 6,441 Neutral

'f' factor = 2 x L x I / N x C x E L-N — (ASC) Isca = 13,491

conductors per phase N = 1

Phase conductor constant C = 4,635 — Phase Conductor 3

Volt Line to Line E L-L = 240 Volt

f = 0.726

Neutral conductor constant C = 4,635 — Neutral Conductor 3

Volt Line to Neutral E L-N = 120 Volt

Multiplier f = 0.695

M = 1 / 1 + f — Line to Line M = 0.579 — Line to Neutral M = 0.590

Isca x M = fault current at terminal of the panel L-L: **7,809 amperes**

Isca x M = fault current at terminal of the panel L-N: **3,801 amperes**

Calculation does not include motor contribution

Fault Current from Service Equipment to Sub Panel SP-3 — Copper in Nonmetallic Raceway — Single Phase

Single Phase Feeder — Length (distance) L = 40 — Phase 6,441 Neutral

'f' factor = 2 x L x I / N x C x E L-N — (ASC) Isca = 13,491

conductors per phase N = 1

Phase conductor constant C = 4,635 — Phase Conductor 3

Volt Line to Line E L-L = 240 Volt

f = 0.976

Neutral conductor constant C = 4,635 — Neutral Conductor 3

Volt Line to Neutral E L-N = 120 Volt

Multiplier f = 0.926

M = 1 / 1 + f — Line to Line M = 0.508 — Line to Neutral M = 0.519

Isca x M = fault current at terminal of the panel L-L: **6,848 amperes**

Isca x M = fault current at terminal of the panel L-N: **3,344 amperes**

Calculation does not include motor contribution

Fault Current from Service Equipment to Common load - House Panel — Copper in Nonmetallic Raceway — Single Phase

Single Phase Feeder — Length (distance) L = 25 — Phase 6,441 Neutral

'f' factor = 2 x L x I / N x C x E L-N — (ASC) Isca = 13,491

conductors per phase N = 1

Phase conductor constant C = 4,635 — Phase Conductor 3

Volt Line to Line E L-L = 240 Volt

f = 0.606

Neutral conductor constant C = 4,635 — Neutral Conductor 3

Volt Line to Neutral E L-N = 120 Volt

Multiplier f = 0.579

M = 1 / 1 + f — Line to Line M = 0.623 — Line to Neutral M = 0.633

Isca x M = fault current at terminal of the panel L-L: **8,399 amperes**

Isca x M = fault current at terminal of the panel L-N: **4,079 amperes**

Calculation does not include motor contribution

ENGINEERS NOTE:

1. ELECTRICAL DESIGN DONE WITH ALL EXISTING AVAILABLE INFORMATION FOR THE PROPERTY. CERTIFIED ELECTRICIAN TO VERIFY PANEL CONNECTIONS, SIZING AND LAYOUT.
2. CERTIFIED ELECTRICIAN TO INSTALL PER NEC 2020 CODE.
3. CERTIFIED ELECTRICIAN TO NOTIFY ENGINEER W/ ANY CHANGES.
4. ALL ELECTRICAL LAYOUTS ARE SCHEMATIC IN NATURE
5. SERVICE DISCONNECTING MEANS SHALL BE INSTALLED AT A READILY ACCESSIBLE LOCATION
6. SERVICE DISCONNECT MEANS SHALL NOT BE INSTALLED IN BATHROOMS
7. ALL SERVICES SHALL MEET OR EXCEED THE NEC 2020 CODES AND REQS.

SERVICE LOAD CALCULATION

NEC 220.84 (OPTIONAL METHOD - MULTIFAMILY)

LOAD DESCRIPTION	CONNECTED LOAD
SP - 1 (FLOOR 01)	22,000 VA
SP - 2 (FLOOR 02)	22,300 VA
SP- 3 (FLOOR 03)	22,600 VA
TOTAL DWELLING LOAD	66,900 VA
NEC 220.84 DEMAND FACTOR (x 0.45) 45%	(3-5 UNITS)
NET DWELLING DEMAND	30,105 VA
PLUS HOUSE LOADS: HOUSE PANEL '(DEMAND)	8,450 VA
TOTAL SERVICE DEMAND	38,555 VA
SYSTEM VOLTAGE	240 V
CALCULATED SERVICE AMPS	160 AMPS
SERVICE SIZE PROVIDED	400 AMPS

RESULT: PASSED (60% SPARE CAPACITY)

RISER DIAGRAM NOTES:

1. SERVICE SPECIFICATIONS:
SYSTEM SHALL BE 400A, 120/240V, 1-PHASE, 3-WIRE. SERVICE CONDUCTORS SHALL BE DETERMINED BY UTILITY COMPANY.

2. METERING EQUIPMENT:
FURNISH AND INSTALL (1) 5-GANG VERTICAL METER STACK, NEMA 3R OUTDOOR RATED. UNIT SHALL CONTAIN (5) INDIVIDUAL 100A MAIN BREAKERS WHICH SHALL SERVE AS THE "EMERGENCY DISCONNECTS" PER NEC 230.85. METER #5 IS "SPARE" FOR FUTURE USE.

3. SHORT CIRCUIT RATING:
ALL SERVICE EQUIPMENT, METER STACKS, AND PANELBOARDS SHALL BE FULLY RATED FOR A MINIMUM OF 22,000 AIC (RMS SYMMETRICAL). SERIES RATING OF EQUIPMENT IS NOT PERMITTED UNLESS APPROVED BY ENGINEER.

4. GROUNDING ELECTRODE SYSTEM (NEC 250.50):
A. WATER BOND: PROVIDE #1/0 AWG CU CONDUCTOR TO MAIN METALLIC WATER SERVICE PIPE WITHIN 5 FT OF ENTRANCE. JUMPER AROUND WATER METER.
B. SUPPLEMENTAL GROUND: PROVIDE (2) 5/8" X 8' COPPER-CLAD GROUND RODS DRIVEN 6 FT APART. CONNECT WITH #6 AWG CU.
C. INTERSYSTEM BOND: PROVIDE INTERSYSTEM BONDING TERMINATION (IBT) EXTERNAL TO METER ENCLOSURE FOR TELECOM/CABLE GROUNDING.

5. NEUTRAL-TO-GROUND BONDING:
BOND NEUTRAL AND GROUND BUS BARS **ONLY AT THE MAIN OUTDOOR METER STACK**. IN ALL DOWNSTREAM SUBPANELS (UNIT 1, 2, 3, HOUSE), THE NEUTRAL AND GROUND BARS MUST BE ELECTRICALLY ISOLATED (FLOATING NEUTRAL).

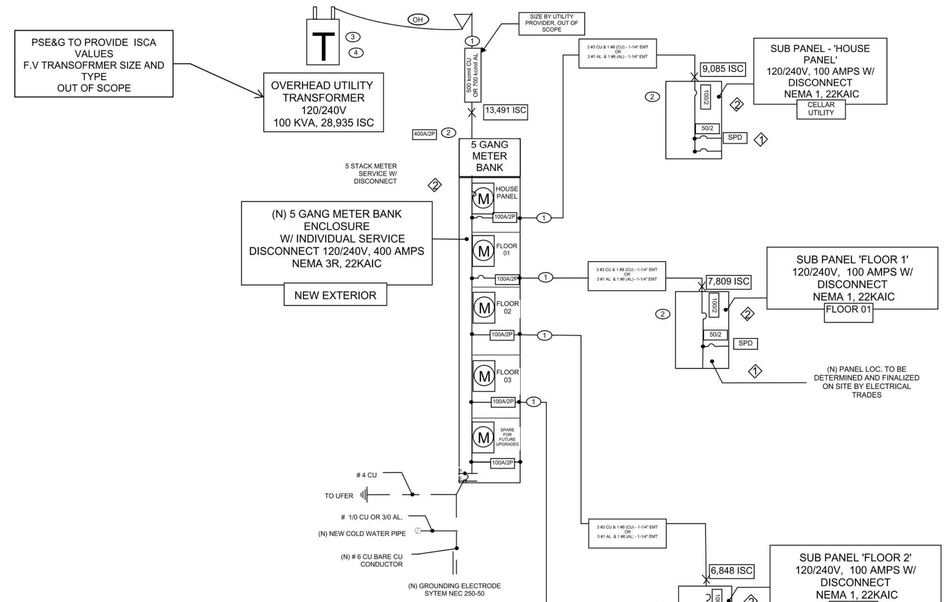
6. IDENTIFICATION (NEC 408.4):
ALL SERVICE DISCONNECTS AND PANELBOARDS SHALL BE LEGIBLY MARKED TO IDENTIFY THE SPECIFIC UNIT OR AREA SERVED (E.G., "UNIT 1", "HOUSE PANEL").

7. TORQUE REQUIREMENTS (NEC 110.14):
ALL TERMINATIONS SHALL BE TORQUED TO MANUFACTURER SPECIFICATIONS.

8. CONDUCTOR PROTECTION:
ALL CONDUCTORS PASSING THROUGH KNOCKOUTS OR CONDUIT ENDS SHALL BE PROTECTED BY APPROVED BUSHINGS OR FITTINGS TO PREVENT INSULATION DAMAGE.

SERVICE DISCONNECTS & SYSTEM GROUNDING POINT. NEUTRAL BONDED TO ENCLOSURE HERE.

PSE&G TO PROVIDE ISCA VALUES
F.V TRANSOFRMER SIZE AND TYPE
OUT OF SCOPE



GENERAL NOTES

1. EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC AND ALL AUTHORITY HAVING JURISDICTION.
2. FOLLOW MANUFACTURERS SUGGESTED INSTALLATION INSTRUCTIONS AND WIRING SPECIFICATIONS.
3. COORDINATE ALL UTILITY RELATED WORK WITH UTILITY PROVIDER PRIOR TO CONSTRUCTION
4. *SHORT-CIRCUIT CALCULATIONS ARE BASED ON COPPER

ELECTRICAL DETAIL NOTES

1. PROVIDE SURGE-PROTECTION DEVICE (SPD) FOR ALL DWELLING UNIT PANELBOARDS, PER NEC 230.67. VERIFY OCPD WITH SPD MANUFACTURER.
2. LABEL SERVICE AND EMERGENCY DISCONNECT.

310.12 Single-Phase Dwelling Services and Feeders

For one-family dwellings and the individual dwelling units of two-family and multifamily dwellings, service and feeder conductors supplied by a single-phase, 120/240-volt system shall be permitted to be sized in accordance with 310.12(A) through (D).

For one-family dwellings and the individual dwelling units of two-family and multifamily dwellings, single-phase feeder conductors consisting of two ungrounded conductors and the neutral conductor from a 208Y/120 volt system shall be permitted to be sized in accordance with 310.12(A) through (C).

(A) Services

For a service rated 100 amperes through 400 amperes, the service conductors supplying the entire load associated with a one-family dwelling, or the service conductors supplying the entire load associated with an individual dwelling unit in a two-family or multifamily dwelling, shall be permitted to have an ampacity not less than 83 percent of the service rating. If no adjustment or correction factors are required, Table 310.12(A) shall be permitted to be applied.

Table 310.12(A) Single-Phase Dwelling Services and Feeders

Service or Feeder Rating (Amperes)	Conductor (AWG or kcmil) Copper	Aluminum or Copper-Clad Aluminum
100	4	2
110	3	1
125	2	1/0
150	1	2/0
175	1/0	3/0
200	2/0	4/0
225	3/0	250
250	4/0	300
300	250	350
350	350	500
400	400	600

Note: If no adjustment or correction factors are required, this table shall be permitted to be applied.

(B) Feeders

For a feeder rated 100 amperes through 400 amperes, the feeder conductors supplying the entire load associated with a one-family dwelling, or the feeder conductors supplying the entire load associated with an individual dwelling unit in a two-family or multifamily dwelling, shall be permitted to have an ampacity not less than 83 percent of the feeder rating. If no adjustment or correction factors are required, Table 310.12(A) shall be permitted to be applied.

Table 250.66 Grounding Electrode Conductor for Alternating-Current Systems

Size of Largest Ungrounded Conductor or Equivalent Area for Parallel Conductors (AWG/kcmil) Copper	Size of Largest Ungrounded Conductor or Equivalent Area for Parallel Conductors (AWG/kcmil) Aluminum or Copper-Clad Aluminum	Size of Grounding Electrode Conductor (AWG/kcmil) Copper	Size of Grounding Electrode Conductor (AWG/kcmil) Aluminum or Copper-Clad Aluminum
2 or smaller	1/0 or smaller	8	6
1 or 1/0	2/0 or 3/0	6	4
2/0 or 3/0	4/0 or 250	4	2
Over 3/0 through 350	Over 250 through 500	2	1/0
Over 350 through 600	Over 500 through 900	1/0	3/0
Over 600 through 1100	Over 900 through 1750	2/0	4/0
Over 1100	Over 1750	3/0	250

Notes:
1. If multiple sets of service-entrance conductors connect directly to a service drop, set of overhead service conductors, or service lateral, the equivalent size of the largest service-entrance conductor shall be determined by the largest sum of the areas of the corresponding conductors of each set.
2. Where there are no service-entrance conductors, the grounding electrode conductor size shall be determined by the equivalent size of the largest service-entrance conductor required for the load to be served.
3. See installation restrictions in 250.64.

(A) Connections to a Rod, Pipe, or Plate Electrode(s)

If the grounding electrode conductor or bonding jumper connected to a single or multiple rod, pipe, or plate electrode(s), or any combination thereof, as described in 250.52(A)(5) or (A)(7), does not extend on to other types of electrodes that require a larger size conductor, the grounding electrode conductor shall not be required to be larger than 6 AWG copper wire or 4 AWG aluminum or copper-clad aluminum wire.

(B) Connections to Concrete-Encased Electrodes

If the grounding electrode conductor or bonding jumper connected to a single or multiple concrete-encased electrode(s), as described in 250.52(A)(3), does not extend on to other types of electrodes that require a larger size of conductor, the grounding electrode conductor shall not be required to be larger than 4 AWG copper wire.

(C) Connections to Ground Rings

If the grounding electrode conductor or bonding jumper connected to a ground ring, as described in 250.52(A)(4), does not extend on to other types of electrodes that require a larger size of conductor, the grounding electrode conductor shall not be required to be larger than the conductor used for the ground ring.

Ampacities of Not More Than Three Current-Carrying Conductors in Raceway, Cable or Earth. Based on Ambient Temperature of 30°C (86°F)

SIZE AWG OR kcmil	Copper Conductors 60°C TYPES	75°C TYPES	90°C TYPES	Aluminum Conductors 60°C TYPES	75°C TYPES	90°C TYPES	SIZE AWG OR kcmil
14**	20	20	25	-	-	-	-
12**	25	25	30	20	20	25	12**
10**	30	35	40	25	30	35	10**
8	40	50	55	30	40	45	8
6	55	65	75	40	50	60	6
4	70	85*	95*	55	65	75	4
3	85	100*	110*	65	75	85	3
2	95	115*	130*	75	90*	100*	2
1	110	130*	150*	85	100*	115*	1
1/0	125	150*	170*	100	120*	135*	1/0
2/0	145	175*	195*	115	135*	150*	2/0
3/0	165	200*	225*	130	155*	175*	3/0
4/0	195	230*	260*	150	180*	205*	4/0
250	215	255*	290*	170	205*	230*	250
300	240	285	320	190	230*	255*	300
350	260	310*	350*	210	250*	280*	350
400	280	335*	380*	225	270	305	400
500	320	380	430	260	310*	350*	500
600	355	420	475	285	340*	385*	600
700	385	460	520	310	375	420	700
750	400	475	535	320	385	435	750
800	410	490	555	330	395	450	800
900	435	520	585	355	425	480	900
1000	455	545	615	375	445	500	1000
1250	495	590	665	405	485	545	1250
1500	520	625	705	435	520	585	1500
1750	545	650	735	455	545	615	1750
2000	560	665	750	470	560	630	2000

11 ELECTRICAL SERVICE - ONE LINE DIAGRAM

SCALE: NO SCALE

- ELEC.

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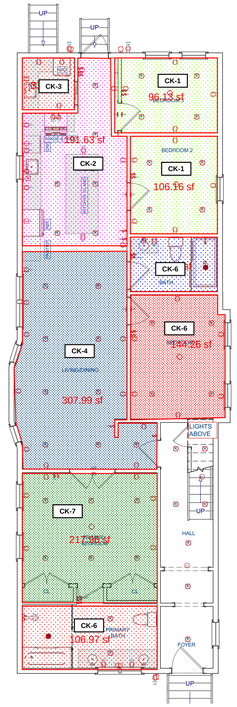
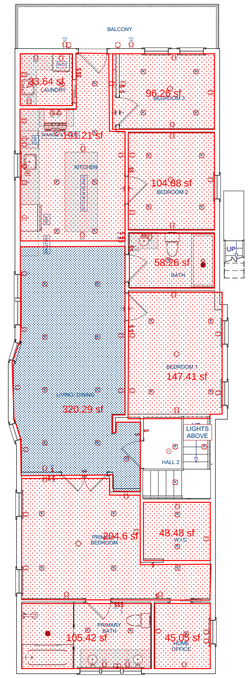


B FLOOR 01 PANEL ZONING

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



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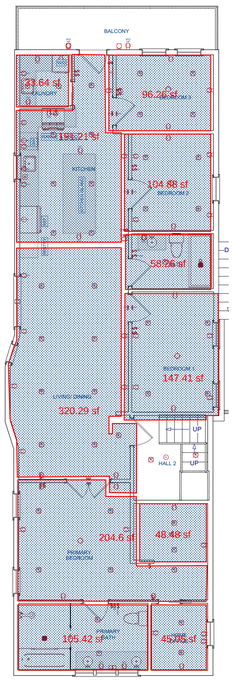
SCALE: 1/8"=1'-0"



D FLOOR 03 PANEL ZONING

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

12 ELECTRICAL PANEL ZONING

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

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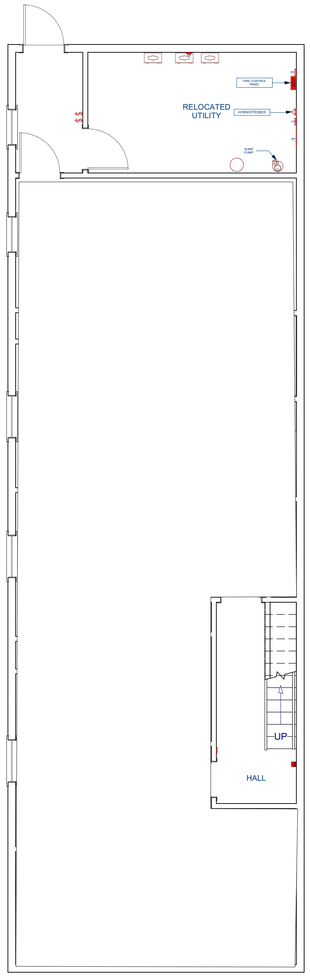
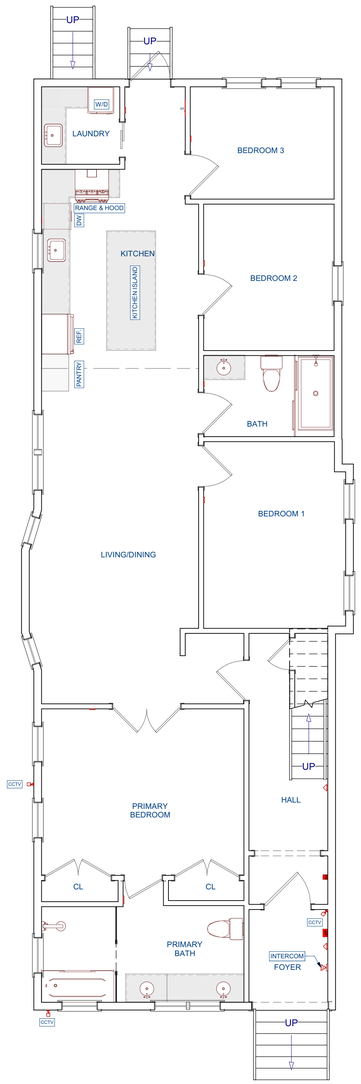


A CELLAR
SCALE: 3/16"=1'-0"



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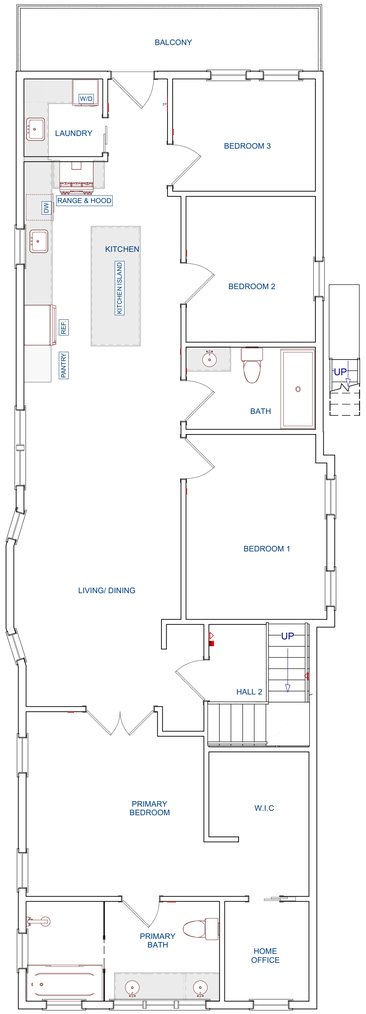

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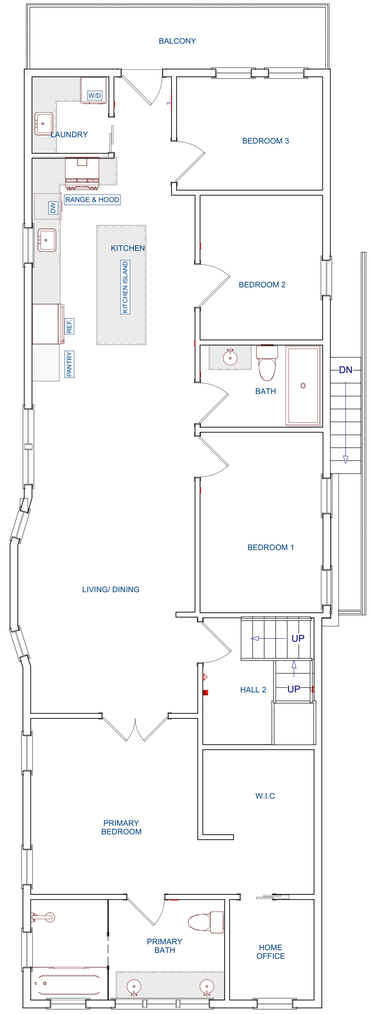

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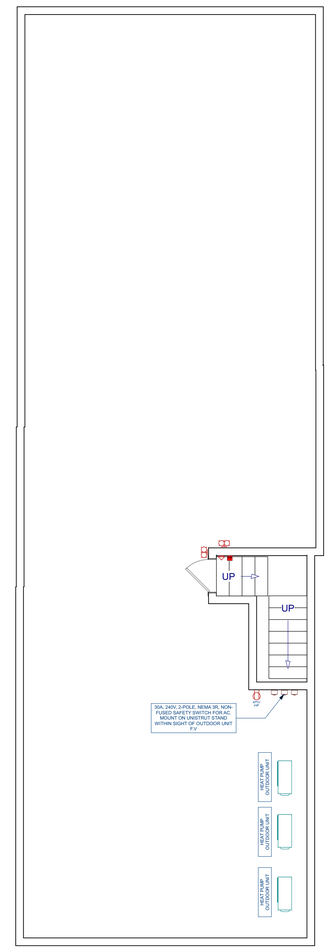

E ROOF
SCALE: 3/16"=1'-0"

FIRE ALARM NOTES

1 APPLICABLE CODES: ALL WORK SHALL COMPLY WITH THE 2021 NEW JERSEY EDITION OF THE INTERNATIONAL BUILDING CODE (NJ-IBC), THE NJ UNIFORM CONSTRUCTION CODE (NJAC 5:23), AND NFPA 72 (2019 EDITION).

2 SCOPE OF WORK: CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE, ELECTRICALLY SUPERVISED, MANUAL FIRE ALARM SYSTEM AS REQUIRED BY NJ-IBC SECTION 907.2.9 (GROUP R-2).

3 ACTIVATION OF ANY MANUAL PULL STATION OR AUTOMATIC FIRE DETECTOR SHALL INITIATE A GENERAL ALARM. THIS SHALL ACTIVATE ALL AUDIBLE AND VISUAL NOTIFICATION APPLIANCES THROUGHOUT THE BUILDING AND TRANSMIT A SIGNAL TO THE CENTRAL MONITORING STATION.

4 SYSTEM **CARBON MONOXIDE (CO) DETECTION SHALL BE PROVIDED IN ACCORDANCE WITH NJ-IBC SECTION 915 AND NJAC 5:70.** DETECTORS SHALL BE INSTALLED IN THE IMMEDIATE VICINITY OF FUEL-BURNING APPLIANCES (BASEMENT) AND CONNECTED TO THE FACP.

5 ALL FIRE ALARM WIRING SHALL BE TYPE FPLP (PLENUM RATED) INSTALLED IN CONDUIT OR APPROVED SUPPORT SYSTEMS (J-HOOKS). WIRING SHALL BE INDEPENDENT OF OTHER BUILDING WIRING AND COLOR-CODED PER SYSTEM SPECS.

6 DEVICE MOUNTING HEIGHTS (U.O.N.):
- MANUAL PULL STATIONS: 42" – 48" AFF TO OPERABLE HANDLE.
- HORN/STROBES: 80" AFF OR 6" BELOW CEILING (WHICHEVER IS LOWER).
- FACP: 60" AFF TO TOP OF DISPLAY.

7 AUDIBLE ALARMS SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15dBA ABOVE AVERAGE AMBIENT SOUND LEVEL IN ALL OCCUPIABLE SPACES PER NFPA 72.

8 THE FIRE ALARM CONTROL PANEL (FACP) SHALL BE CONNECTED TO AN APPROVED UL-LISTED CENTRAL STATION SERVICE VIA DUAL PATH COMMUNICATOR (CELLULAR/IP).

9 PROVIDE DEDICATED 120VAC / 20A CIRCUIT FOR FACP WITH BREAKER LOCK. CIRCUIT BREAKER SHALL BE PAINTED RED AND LABELED "FIRE ALARM".

FIRE ALARM SCHEDULE

2D SYMBOL	QTY	DESCRIPTION	COMMENTS
FP	4	FIRE ALARM PULL	SINGLE ACTION STATION. MOUNT 42"-48" AFF WITHIN 5'-0" OF EXIT
SD	1	SMOKE DETECTOR	PHOTOELECTRIC TYPE. LOCATE ABOVE FACP FOR PANEL PROTECTION.
CO	1	CO2 SENSOR	SYSTEM CARBON MONOXIDE DETECTOR. LOCATE IN BOILER ROOM.
	8	SIREN STROBE COMBO	WALL MOUNTED @ 80" AFF. RED FINISH WITH WHITE "FIRE" LETTERING. SYNCHRONIZED FLASH.
AP	1	FIRE ALARM ANNUNCIATOR	REMOTE LCD DISPLAY. LOCATE IN LOBBY VISIBLE FROM ENTRY. CONNECT TO FACP.
FCP	1	FIRE ALARM CONTROL PANEL	PROVIDE W/ 24HR BATTERY BACKUP. CONNECT TO DEDICATED 120V/20A CIRCUIT (RED BREAKER).
HD	1	HEAT DETECTOR	FIXED TEMPERATURE (135°F). LOCATE IN UTILITY ROOM. CONNECT TO SLC LOOP.

12 LIFE SAFETY SYSTEM - FIRE ALARM
SCALE: 3/16"=1'-0"

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RISER DIAGRAM NOTES

1 ALL SIGNALING LINE CIRCUITS (SLC) AND NOTIFICATION APPLIANCE CIRCUITS (NAC) SHALL BE WIRED AS CLASS B UNLESS OTHERWISE NOTED.

2 INSTALL END-OF-LINE (EOL) RESISTORS AT THE LAST DEVICE ON EACH ZONE OR CIRCUIT AS REQUIRED BY MANUFACTURER.

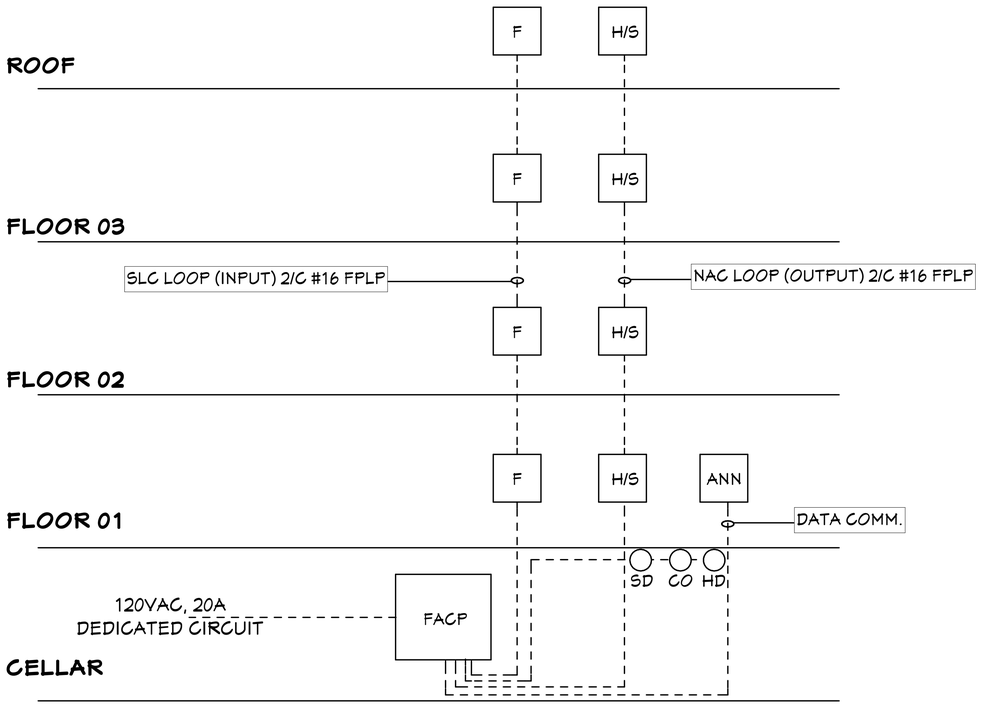
3 FACP SHALL BE EQUIPPED WITH SEALED LEAD-ACID BATTERIES SUFFICIENT TO OPERATE THE SYSTEM FOR 24 HOURS IN STANDBY MODE FOLLOWED BY 5 MINUTES OF ALARM.

4 SYSTEM SMOKE DETECTORS SHOWN ARE FOR COMMON AREA PROTECTION ONLY. **RESIDENTIAL DWELLING UNITS ARE EQUIPPED WITH INDEPENDENT SINGLE-STATION SMOKE ALARMS PER NJ-IBC 907.2.11.2 NOT CONNECTED TO THIS SYSTEM.**

5 PROVIDE ADDRESSABLE RELAY MODULE TO SHUT DOWN AIR HANDLERS UPON ALARM IF UNIT CAPACITY EXCEEDS 2,000 CFM PER NJ MECHANICAL CODE.

6 UPON COMPLETION, CONTRACTOR SHALL PROVIDE NFPA 72 RECORD OF COMPLETION AND CONDUCT A 100% SYSTEM TEST WITNESSED BY THE JERSEY CITY FIRE SUBCODE OFFICIAL.

7 FACP PANEL TO BE POWERED BY DEDICATED 120V BREAKER FROM" HOUSE PANEL"



13 FIRE ALARM RISER DIAGRAM
NTS

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