INSTALLATION OF ELECTRIC VEHICLE
CHARGING EQUIPMENT



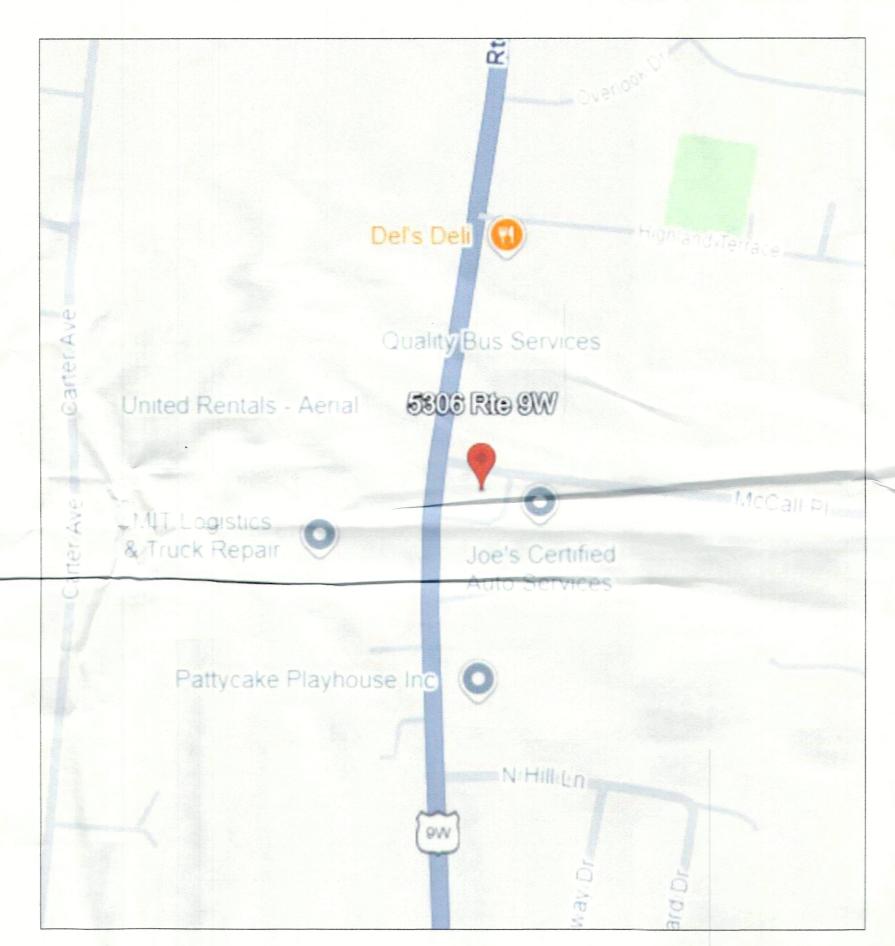
INSTALLATION OF ELECTRIC VEHICLE CHARGING EQUIPMENT 5306 RTE 9W, NEWBURGH, NY 12550

E-801

E-802

E-803

E-900



INSTALL CONDUITS AND ELECTRICAL WIRING INSTALL NEW DUAL PORT DISPENSER MOV SHEET SHEET NAME NUMBER **COVER SHEET GENERAL NOTES** E-200 **GENERAL NOTES** E-201 EXISTING CONDITIONS SITE PLAN E-300 E-301 PROPOSED SITE PLAN E-302 ELECTRICAL SITE PLAN E-400 **DEMOLITION PLAN** ELECTRICAL RISER DIAGRAM E-600 POWER DISTRIBUTION DIAGRAM EV CHARGER DETAILS E-701 LIGHTING DETAILS DETAILS E-800

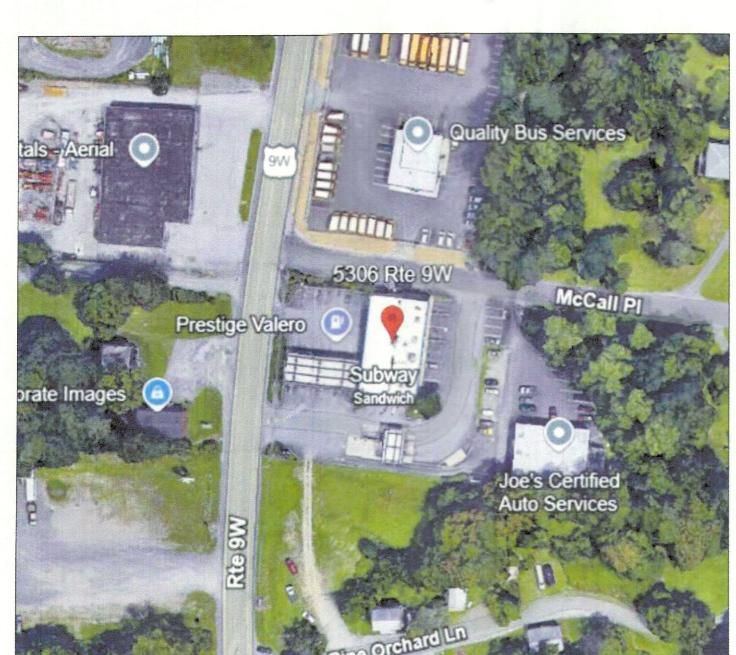
DETAILS

DETAILS

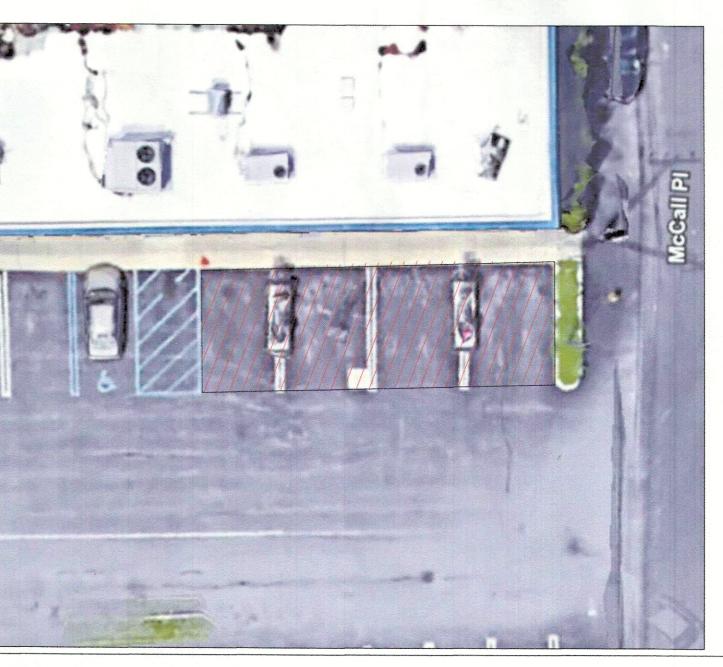
DETAILS

APPROVED SITE PLAN

PROJECT DESCRIPTION







CLIENT, PROPERTY OR OWNERS INFORMATION

PRESTIGE PETROLEUM 289 N. PLANK RD SUITE 2 NEWBURGH, NY 12550

DESIGN CONSULTANT:

CONTRACTOR or VEND

Woodhollow Contracting Corp.

103 School St, Lindenhurst, NY 11757

LEGAL NOTES:

unless he or she is acting under the direction of a licensed professional engineer to alter an item in anyway, on this drawing and/or in this specification in anyway. If any such item is altered, the altering engineer shall affix to the item his or her seal and the notation "altered by" followed by his or her signature and the date of such alteration, and a specific description of the alteration."

- Any errors and omissions in the drawing are to be checked by the general contractor and relayed to the
- Do not scale drawings
 All work shall comply with the least building.
- All work shall comply with the local building code(s)
 and with requirements of local AHI.

KEY PLAN:

REV	DATE	DESCRIPTION
1.0	06.11.2025	INITIAL DESIGN LAYOUT
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PROJECT NAME

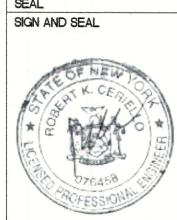
ELECTRIC VEHICLE
CHARGING STATIONS
INSTALLATION AT

5306 RTE 9W NEWBURGH, NY 12550

SHEET TITLE

COVER SHEET

E-100



PROJECT NO: 2025-19
TAX MAP DATA: 23 - 2 - 1
SCALE: AS NOTED
DRAWN BY: KS
KSUAREZ@WOODHOLLOWDESIGNS.COM
CHECKED BY:

WITHOUT ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK WITH ITS COMPLETION AND FINAL ACCEPTANCE AND SHALL REPLACE ANY OF SAME, WHICH MAY BE DAMAGED, LOST OR STOLEN, WITHOUT ADDITIONAL COSTS TO THE OWNER. SPECIFICATIONS, IN GENERAL, DESCRIBE QUALITY AND CHARACTER OF MATERIALS AND EQUIPMENT. THE ACCOMPANYING DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT AND EXTENT OF WORK TO BE PERFORMED. THE LOCATIONS FOR EQUIPMENT AND MATERIAL AS SHOWN ON THE DRAWINGS ARE APPROXIMATE. IT SHALL BE UNDERSTOOD THAT THEY ARE SUBJECT TO SUCH MODIFICATION AS MAY BE FOUND NECESSARY TO MEET JOB CONDITIONS, SUCH CHANGES SHALL BE MADE BY THIS CONTRACTOR AT NO ADDITIONAL CHARGE.

SCALED AND INDICATED DIMENSIONS ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. BEFORE PROCEEDING WITH WORK, CHECK AND VERIFY ALL DIMENSIONS. ALL METHODS OF WORKMANSHIP AND CONSTRUCTION AND DETAILS OF SAME NOT SPECIFICALLY DESCRIBED HEREIN SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER OR HIS REPRESENTATIVE. k. MAKE ADJUSTMENTS THAT MAY BE NECESSARY OR REQUESTED IN ORDER TO RESOLVE SPACE PROBLEMS. PRESERVE

HEADROOM, AND AVOID ARCHITECTURAL OPENINGS, STRUCTURAL MEMBERS AND WORK OF OTHER TRADES. TYPICAL DETAILS, WHERE SHOWN ON THE DRAWINGS, APPLY TO EACH AND EVERY ITEM OF THE PROJECT WHERE SUCH ITEMS ARE APPLICABLE. TYPICAL DETAILS ARE NOT REPEATED IN FULL ON THE PLANS, AND ARE DIAGRAMMATIC ONLY, BUT WITH THE INTENTION THAT SUCH DETAILS SHALL BE INCORPORATED IN FULL m. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO PROVIDE A COMPLETE WORKABLE SYSTEM READY FOR THE

OWNER'S OPERATION. ANY ITEM NOT SPECIFICALLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS, BUT NORMALLY REQUIRED TO CONFORM TO THE INTENT, ARE TO BE CONSIDERED A PART OF THE CONTRACT. n. IF ANY PART OF SPECIFICATIONS OR DRAWINGS APPEARS UNCLEAR OR CONTRADICTORY, CONSULT THE ARCHITECT/DESIGN PROFESSIONAL FOR INTERPRETATION AND DECISION AS EARLY AS POSSIBLE DURING BIDDING PERIOD. DO NOT PROCEED WITH WORK WITHOUT THE ARCHITECT/DESIGN PROFESSIONAL'S DECISION. 0. UNLESS SPECIFIED OTHERWISE HEREIN, CONTRACTOR SHALL BASE HER/HIS BID PROPOSAL WITH ALL WORK TO BE PERFORMED

ON A STRAIGHT TIME NORMAL WORKING DAY. D. ANY QUESTIONS OR DISAGREEMENTS ARISING AS TO THE TRUE INTENT OF THIS SPECIFICATION OR THE DRAWINGS OR THE KIND AND QUALITY OF WORK REQUIRED THEREBY SHALL BE DECIDED BY THE ARCHITECT/DESIGN PROFESSIONAL, WHOSE INTERPRETATIONS THEREOF SHALL BE FINAL, CONCLUSIVE, AND BINDING ON ALL PARTIES.

q. IN CASE OF DISAGREEMENT BETWEEN DRAWINGS AND SPECIFICATIONS, OR WITHIN EITHER DOCUMENT ITSELF, THE BETTER QUALITY, GREATER QUANTITY OR MORE COSTLY WORK SHALL BE INCLUDED IN THE CONTRACT PRICE AND THE MATTER REFERRED TO THE ARCHITECT/DESIGN PROFESSIONAL'S ATTENTION FOR DECISION AND/OR ADJUSTMENT. . IF DIRECTED BY THE ARCHITECT/DESIGN PROFESSIONAL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK. s. ALL WORK SHOWN IN THE DRAWINGS AND SPECIFICATIONS SHALL BE INCLUDED UNDER THE BASE BID, EXCEPT WHERE THERE IS SPECIFIC REFERENCE TO EXCLUSIONS AND INCORPORATED IN OTHER QUOTATIONS.

THIS SECTION OF THE SPECIFICATIONS COVERS THE ELECTRICAL SYSTEMS OF THE PROJECT. IT INCLUDES WORK PERFORMED BY THE ELECTRICAL TRADES AS WELL AS TRADES NOT NORMALLY CONSIDERED AS ELECTRICAL TRADES. u. PROVIDE ALL INCIDENTALS, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, SUPERVISION. LABOR CONSUMABLE ITEMS, FEES, LICENSES, ETC., NECESSARY TO PROVIDE COMPLETE SYSTEMS. PERFORM START-UP AND CHECKOUT ON EACH ITEM AND SYSTEM TO PROVIDE FULLY OPERABLE SYSTEMS. EXAMINE AND COMPARE THE ELECTRICAL DRAWINGS AND SPECIFICATIONS WITH THE DRAWINGS AND SPECIFICATIONS OF

OTHER TRADES, AND REPORT ANY DISCREPANCIES BETWEEN THEM TO THE ARCHITECT/DESIGN PROFESSIONAL AND OBTAIN FROM HIM WRITTEN INSTRUCTIONS FOR CHANGES NECESSARY IN THE WORK, AT TIME OF BID, THE MOST STRINGENT REQUIREMENTS MUST BE INCLUDED IN SAID BID. W. INSTALL AND COORDINATE THE ELECTRICAL WORK IN COOPERATION WITH OTHER TRADES INSTALLING INTERRELATED WORK. BEFORE INSTALLATION, MAKE PROPER PROVISIONS TO AVOID INTERFERENCES IN A MANNER APPROVED BY THE

ARCHITECT/DESIGN PROFESSIONAL, ALL CHANGES REQUIRED IN THE WORK OF THE CONTRACTOR, CAUSED BY HIS NEGLECT TO

DO SO, SHALL BE MADE BY HIM AT HIS OWN EXPENSE x. ALL SPECIAL AND SUPPLEMENTARY CONDITIONS AND OTHER DOCUMENTS SUCH AS DELINEATED UNDER THE "OWNER-CONTRACTOR AGREEMENT" ARE HEREBY MADE A PART OF THESE SPECIFICATIONS.

LAWS, ORDINANCES, PERMITS AND FEES a. ALL INDICATED AND SPECIFIED INSTALLATION SHALL BE PERFORMED IN COMPLIANCE WITH LOCAL APPLICABLE GOVERN CODES, THE AMERICANS WITH DISABILITIES ACT (ADA), STANDARDS AND EQUIPMENT/MATERIAL MANUFACTURER INSTALLATION MANUAL. b. ALL ELECTRIC WORK IS TO BE PERFORMED BY ONLY BY A LICENSED ELECTRICIAN WITH VALID LICENSED FOR AREA WHERE

THIS CONTRACTOR IS REQUIRED PREPARE ALL NECESSARY PERMIT FILING DOCUMENTS AND FILED THOSE WITH LOCAL AUTHORITY HAVING JURISDICTION. ALL FILING DOCUMENTS (DRAWINGS, FORMS, etc.) SHALL BE PREPARED IN FULL COMPLIANCE WITH THE LOCAL AHJ REQUIREMENTS. ALL COST ASSOCIATED WITH THE FILING PROCESS IS THIS CONTRACTOR RESPONSIBILITY d. NO INSTALLATION WORK SHALL START, UNTIL PERMIT IS OBTAINED AND CLEARANCE IS RECEIVED FROM THE RELEVANT LOCAL

BUILDING DEPARTMENT (AHJ) OR OTHER GOVERN BODY. SHOULD ANY CHANGE IN DRÁWINGS OR SPECIFICATIONS BE REQUIRED TO COMPLY WITH GOVERNMENTAL REGULATIONS, THE CONTRACTOR SHALL NOTIFY ARCHITECT/DESIGN PROFESSIONAL PRIOR TO EXECUTION OF THE WORK. THE WORK SHALL BE CARRIED OUT ACCORDING TO THE REQUIREMENTS OF SUCH CODE IN ACCORDANCE WITH THE INSTRUCTION OF THE RCHITECT/DESIGN PROFESSIONAL AND AT NO ADDITIONAL COST TO

THE PROVISIONS OF STANDARDS, CODES, LAWS, ORDINANCES, ETC., SHALL BE CONSIDERED MINIMUM REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THEIR PUBLISHED REQUIREMENTS, THE ARCHITECT/DESIGN PROFESSIONAL SHALL DETERMINE WHICH IS TO BE FOLLOWED AND HIS DECISION SHALL BE BINDING. SPECIFIC REQUIREMENTS OF THIS SPECIFICATION OR THE DRAWINGS. WHICH EXCEED THE PUBLISHED REQUIREMENTS, SHALL TAKE PRECEDENCE OVER THEM. g. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS OF THE ISSUE IN EFFECT ON DATE OF THE INVITATION FOR BIDS

SHALL FORM A PART OF THIS SPECIFICATION, UNLESS THEY CONFLICT WITH LOCAL CODES. h. ALL MATERIALS FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE RULES OF LOCAL APPLICABLE CODES AND RECOMMENDATIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION, WITH ALL REQUIREMENTS OF LOCAL UTILITY COMPANIES, WITH THE RECOMMENDATIONS OF THE FIRE INSURANCE RATING ORGANIZATION HAVING JURISDICTION, AND WITH THE REQUIREMENTS OF ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.

AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL SECURE AND DELIVER TO THE ARCHITECT/DESIGN PROFESSIONAL, "CERTIFICATE OF APPROVAL" FROM THE VARIOUS LOCAL VILLAGE, TOWN, COUNTY, CITY, STATE BUREAUS, FIRE MARSHAL, FIRE UNDERWRITERS, LOCAL BUILDING DEPARTMENT AND ALL DEPARTMENTS HAVING JURISDICTION. INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS, (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS) IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS, WHETHER OR NOT SHOWN ON DRAWINGS AND/OR SPECIFIED.(7) GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS AND PAY ALL GOVERNMENTAL TAXES, FEES, AND OTHER COSTS IN CONNECTION WITH THE WORK; FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS, AND OBTAIN ALL NECESSARY APPROVALS OF ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION; OBTAIN ALL REQUIRED CERTIFICATES OF INSPECTION FOR THE WORK AND DELIVER TO

THE ARCHITECT BEFORE REQUEST FOR ACCEPTANCE AND FINAL PAYMENT FOR THE WORK. THE CONTRACTOR SHALL ESTABLISH, ENFORCE AND IMPLEMENT ALL SAFETY, HEALTH AND ENVIRONMENTAL PROTECTION MEASURES DURING PERFORMANCE OF THE WORK CONSISTENT WITH THE REQUIREMENTS OF THE WILLIAMS-STEIGER OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (LATEST REVISION), OTHER RULES, LAWS, STATUTES, CODES, ORDINANCES, REGULATIONS AND OTHER REQUIREMENTS OF ANY AND ALL GOVERNMENTAL OR QUASI-GOVERNMENTAL AUTHORITIES HAVING JURISDICTION OVER THE WORK, THE PROJECT OR THE PROJECT SITE.

EQUIPMENT, FIXTURES, MATERIAL AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING DEPARTMENT, THE SERVING UTILITY COMPANIES, THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, LIFE SAFETY CODE, STATE BUILDING CODE, OCCUPATIONAL SAFETY AND HEALTH ACT, AMERICANS WITH DISABILITIES ACT AND APPLICABLE NATIONAL, STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS. m. ALL ELECTRICAL WORK AND MATERIALS SHALL COMPLY WITH THE OWNER'S STANDARDS AND ELECTRICAL SYSTEMS

n. ALL LOCAL FEES, PERMITS, AND SERVICES OF INSPECTION AUTHORITIES SHALL BE OBTAINED AND PAID FOR BY THIS CONTRACTOR. THE CONTRACTOR SHALL COOPERATE FULLY WITH LOCAL COMPANIES WITH RESPECT TO THEIR SERVICES. CONTRACTOR SHALL INCLUDE IN HIS BID ANY COSTS TO BE INCURRED RELATIVE TO POWER SERVICE (PRIMARY AND/OR SECONDARY) AND TELEPHONE SERVICE.

EXAMINATION OF EXISTING CONDITIONS a. VISIT AND CAREFULLY EXAMINE THOSE PORTIONS OF THE SITE AND/OR PRESENT BUILDINGS AFFECTED BY THIS WORK SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL ATTEND THE EXECUTION OF THE WORK, BEFORE SUBMITTING PROPOSALS. CONTRACTOR SHALL CAREFULLY EXAMINE THE PRESENT LIGHTING AND RECEPTACLE INSTALLATION METHODS WHICH ARE TO BE EXTENDED FOR THE NEW WORK.

SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD SUCH EXAMINATION BEEN MADE, WILL NOT BE RECOGNIZED.

TIME AND MANNER OF EXECUTION OF WORK a. ALL WORK SHALL BE DONE AS EXPEDITIOUSLY AS POSSIBLE AND IN SUCH A MANNER AS NOT TO CAUSE INTERFERENCE OR INTERRUPTION TO THE BUSINESS OF THE OWNER. SUBMIT SCHEDULE FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT OBSTRUCT ENTRANCES OR PASSAGES ON THE OWNER'S PREMISES. TRANSPORTATION OF MATERIAL INTO AND THROUGH THE BUILDING WILL BE SUBJECT TO REVIEW AND APPROVAL OF THE

OWNER AND MAY BE LIMITED TO RESTRICTED TIMES. THE OWNER WILL MAKE AVAILABLE TO THE CONTRACTOR AN ELEVATOR FOR HANDLING MATERIALS. RUBBISH, ETC. AT SUCH TIMES WHEN IT IS CONVENIENT TO THE OCCUPANTS OF THE BUILDING. THE CONTRACTOR SHALL PROTECT THE INTERIOR OF THE CAB AGAINST DAMAGE AND PROVIDE LABOR TO HANDLE MATERIALS IN AND OUT OF THE ELEVATOR AND OUT OF THE

ALL MATERIALS TO BE REMOVED ARE TO BE LEGALLY DISPOSED OF, OFF SITE, EACH DAY EXCEPT WHERE OTHERWISE NOTED. EXTREME CARE IS TO BE TAKEN TO AVOID SPILLAGE OF DEBRIS THIS WORK IS TO BE PERFORMED TO PROTECT ADJOINING AREAS, EQUIPMENT, AND OCCUPANTS FROM DAMAGE AND HARM AND TO PRODUCE MINIMUM DISTURBANCE TO OPERATIONS, PROVIDE ALL PROTECTIVE METHODS AND SCHEDULE WORK WITH

ANY CONSTRUCTION TO BE LEFT IN PLACE THAT IS WEAKENED OR DAMAGED SHALL BE RESTORED TO THE CONDITION WHICH EXISTED PRIOR TO SUCH DAMAGE CONSTRUCTION THAT IS TO BE REPLACED AFTER REMOVAL WORK SHALL BE REPLACED WITH CONSTRUCTION OF EQUAL

GUARANTEE

ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THE INSTALLATION AND ANY PORTIONS OF THE WORK WHICH DEVELOP DEFECTS DURING THAT TIME SHALL BE REPLACED OR REPAIRED IN A MANNER SATISFACTORY TO THE OWNER. ALL MANUFACTURER'S WARRANTIES FOR EQUIPMENT EXTENDING BEYOND THE GUARANTEE PERIOD SHALL BE TURNED OVER

TO THE OWNER REPLACE OR REPAIR TO THE SATISFACTION OF THE OWNER ANY AND ALL DAMAGE DONE TO THE BUILDING OR ITS CONTENTS OR TO THE WORK OF OTHER TRADES IN CONSEQUENCE OF WORK PERFORMED IN FULFILLING GUARANTEE THIS ARTICLE IS GENERAL IN NATURE AND WILL NOT WAIVE STIPULATIONS OF OTHER CLAIMS THAT SPECIFY GUARANTEE

PERIODS IN EXCESS OF ONE (1) YEAR. IN THE EVENT DEFAULT ON THIS GUARANTEE, THE OWNER MAY HAVE SUCH WORK DONE AS REQUIRED & CHARGE THE COST TO THE CONTRACTOR. e. THE DATE OF ACCEPTANCE SHALL BE THE DATE OF FINAL PAYMENT BY THE OWNER OR NOTICE OF ACCEPTANCE BY THE OWNER WHICHEVER IS EARLIER

 ALL CUTTING AND PATCHING SHALL BE DONE UNDER ANOTHER SECTION. FURNISH THE SIZES AND LOCATIONS OF ALL CHASES AND OPENINGS REQUIRED FOR THE INSTALLATION FOR THIS WORK BEFORE THE WALLS, FLOORS AND PARTITIONS ARE BUILT. PROVIDE THE LABOR AND MATERIALS FOR ALL WORK INCLUDED UNDER THE CONTRACT OR SUBCONTRACT IN AMPLE TIME AND SUFFICIENT QUANTITIES SO THAT ALL OF THE WORK OF THE CONTRACT OR SUBCONTRACT MAY BE INSTALLED IN PROPER

SEQUENCE TO AVOID UNNECESSARY CUTTING OF THE FLOORS AND WALLS.

DAMAGE TO PROPERTY

ANY CUTTING AND PATCHING REQUIRED, DUE TO THE FAILURE TO COMPLY WITH THE ABOVE PROVISIONS, SHALL BE DONE AT NO EXTRA COST TO OWNER. SUCH CUTTING AND PATCHING SHALL BE DONE UNDER DIVISION ONE, AS APPROVED BY THE

THE WORK SHALL BE CAREFULLY LAID OUT IN ADVANCE. WHERE CUTTING, CHANNELING, CHASING OR DRILLING OF FLOORS. WALLS, PARTITIONS, CEILINGS OR OTHER SURFACES IS NECESSARY FOR THE PROPER INSTALLATION, SUPPORT OR ANCHORAGE OF RACEWAY, OUTLETS OR OTHER EQUIPMENT, THE WORK SHALL BE CAREFULLY DONE, ANY DAMAGE TO THE BUILDING, PIPING, EQUIPMENT OR DEFACED FINISH PLASTER, WOODWORK, METALWORK, ETC. SHALL BE REPAIRED BY SKILLED MECHANICS OF THE TRADES INVOLVED AT NO ADDITIONAL COST TO THE OWNER. THIS CONTRACTOR SHALL DO ALL CUTTING, CHASING AND ROUGH PATCHING FOR INSTALLATION OF HIS WORK.

PATCHING AND REPAIRS ALL CUTTING AND DRILLING SHALL BE MACHINE CUT WITH POWER DRIVEN TOOLS. CONDUIT PENETRATIONS SHALL BE CORE WHERE CONDUITS, MOUNTING CHANNELS, OUTLET, JUNCTION, OR PULL BOXES ARE MOUNTED ON A PAINTED SURFACE, OR A SURFACE TO BE PAINTED, THEY SHALL BE PAINTED TO MATCH THE SURFACE. WHENEVER SUPPORT CHANNELS ARE CUT, THE BARE METAL SHALL BE COLD GALVANIZED.

UNLESS ASSIGNED TO OTHER CONTRACTOR(S) AS PART OF CONTRACT AGREEMENT, THE GENERAL CONTRACTOR SHALL FINISH

 G. COORDINATION WITH OTHER TRADES a. PRIOR TO STARTING ANY WORK, PURCHASE OF EQUIPMENT, ETC., COORDINATE WORK WITH OTHER TRADES. CONFER WITH OTHER CONTRACTORS WHOSE WORK MIGHT AFFECT THIS INSTALLATION, AND ARRANGE ALL PARTS OF THIS WORK AND EQUIPMENT IN PROPER SEQUENCE AND RELATION TO THE WORK AND EQUIPMENT OF OTHERS, WITH THE BUILDING CONSTRUCTION AND WITH ARCHITECTURAL FINISH SO THAT IT WILL HARMONIZE IN SERVICE AND APPEARANCE. IN THE EVENT HERE IS A CONFLICT IN COORDINATION BETWEEN TRADES, THE OWNER OR HIS REPRESENTATIVE WILL RESOLVE IT.

 H. TRENCHING, EXCAVATING AND STRUCTURES PRIOR TO ANY TRENCHING EXCAVATION, SOIL BORINGS AND/OR UNDERGROUND EXPLORATION, THE CONTRACTOR SHALL NOTIFY ALL UTILITIES UNDER NEW JERSEY STATE INDUSTRIAL CODE

FOUNDATION, REBAR AND CONCRETE SLAB SHALL BE INSTALLED UNDER CONTROLLED INSPECTION. IT SHALL BE ASSUMED THAT THE EXISTING UTILITIES OR OTHER UNDERGROUND LINES IN AND ADJACENT TO THE CONSTRUCTION WORK ARE PRESENTLY IN PERFECT WORKING ORDER. IN THE EVENT OF THE EXISTING UTILITY OR LINES BREAKDOWNS IN THE CONSTRUCTION AREA, THIS CONTRACTOR SHALL MAKE IMMEDIATE REPAIRS WITHOUT COST TO THE

d. ALL FIELD WORK SHOULD PROCEED ONLY AFTER EACH EXISTING UNDERGROUND UTILITY OR SERVICE LINES IN CONSTRUCTION AREA ARE CLEARLY MARKED BY THIS CONTRACTOR. THEN WORK IS TO PROCEED W/ CONTROLLED EXCAVATION (WITH HAND DIGGING TO EXPOSE KNOWN UTILITIES) UNTIL THE AREA HAS BEEN OPENED SUFFICIENTLY TO UTILIZE MASS EXCAVATION. SHORING IS REQUIRED IF ANY EXCAVATION IS GREATER THAN 5 FT. DEEP AND SAFE SLOPE OF SIDE WALLS IS NOT POSSIBLE, OR

IF REQUIRED BY SOIL CONDITIONS. f. CONSTRUCTION BARRICADES WITH LIGHTS AND FLAGS ARE REQUIRED ALL AROUND OPEN EXCAVATIONS AND BE PROVIDED BY THIS CONTRACTOR.

a. RESTORE TO ITS ORIGINAL CONDITION, WITHOUT EXTRA PAYMENT, ANY OF THE OWNER'S PROPERTY THAT BECOMES DAMAGED DUE TO THE NEGLIGENCE OF EMPLOYEES OR AGENTS OF THE CONTRACTORS. SUCH REPAIRS SHALL BE ACCEPTABLE TO THE OWNER. INCLUDE ALL COSTS IN THE BID PRICE FOR PERFORMING SHUTDOWNS ON PREMIUM TIME, MODULES, ETC. SHUTDOWNS

a. WHEN THE INSTALLATION OF NEW WORK REQUIRES THE SHUTDOWN OF EXISTING OPERATING SYSTEMS, THE CONNECTION OF THE NEW WORK SHALL BE PERFORMED ONLY AFTER GIVING AT LEAST 72 HOURS NOTICE TO, AND OBTAINING THE WRITTEN AUTHORIZATION OF, THE OWNER. J. SHOP DRAWINGS

SUBMIT REQUIRED OR REQUESTED SHOP DRAWINGS OF ALL EQUIPMENT, DEVICES, COMPONENTS, CONDUCTORS, CONDUITS.

FITTINGS AND ASSEMBLY AND OBTAIN WRITTEN REVIEW COMMENTS FROM ENGINEER OF RECORD, BEFORE ORDERING OR INSTALLING ANY MATERIAL OR EQUIPMENT. ALL SUBMITTAL TO BE IN DIGITAL FORM (PDF FILE FORMAT). K. AS-BUILT DRAWINGS a. UPON COMPLETION OF INSTALLATION, THIS CONTRACTOR SHALL FURNISH "AS-BUILT" DRAWINGS CONSISTING OF A COMPLETE

SET OF AutoCAD AND PDF FORMAT DRAWINGS, INDICATING IN A NEAT AND ACCURATE MANNER, A COMPLETE RECORD OF ALL COMPLETE INSTALLATION WORK AND CHANGES TO THE ORIGINAL DESIGN OF THE WORK. FURNISH ADEQUATE LIABILITY INSURANCE AND BONDING AS REQUIRED BY THE OWNER, PRIOR ANY WORK.

a. WHERE NECESSARY THIS CONTRACTOR SHALL PROVIDE TEMPORARY LIGHT AND POWER FOR THE NEW CONSTRUCTION AREAS, IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND ACCEPTED STANDARDS ESTABLISHED BY O.S.H.A. ENERGY COSTS WILL BE BORNE BY THE OWNER.

ALL PARTS OF THE WORK AND ASSOCIATED EQUIPMENT SHALL BE TESTED AND ADJUSTED TO WORK PROPERLY AND BE LEFT IN PERFECT OPERATING CONDITION; THIS SHALL INCLUDE ELECTRICAL MEGGER TESTS BETWEEN PHASES AND BETWEEN EACH PHASE AND GROUND OF ALL FEEDERS AND SUB-FEEDERS. CORRECT DEFECTS DISCLOSED BY THESE TESTS WITHOUT ANY ADDITIONAL COST TO THE OWNER. REPEAT TESTS ON REPAIRED OR REPLACED WORK, ALL NEWLY INSTALLED EQUIPMENT SHALL BE TESTED PER APPLICABLE STANDARDS AND MANUFACTURER INSTALLATION MANUAL

a. ALL EQUIPMENT SHALL BE BOLTED TO STRUCTURE AND/OR TO GROUND TO ALLOW FOR MINIMUM 0.5G OF ACCELERATION. LIFE SAFETY EQUIPMENT, PIPS AND CONDUITS SHALL BE BOLTED TO STRUCTURE TO ALLOW FOR 1.0G OF ACCELERATION. BOLT POINTS AND DIAMETER OF INSERTS SHALL BE SUBMITTED AND VERIFIED AS PART OF THE CONTRACTOR'S SUBMISSION FOR EACH PIECE OF EQUIPMENT AND CERTIFIED BY A LICENSED CIVIL OR STRUCTURAL ENGINEER.

b. ALL STRUCTURALLY SUSPENDED OVERHEAD EQUIPMENT SHALL BE FOUR-POINT INDEPENDENTLY BRACED WITH TYPE II SEISMIC RESTRAINING SYSTEM NOTE: IF EQUIPMENT IS RIGIDLY FASTENED TO CONDUIT, DIAMETER AND DISTANCE REQUIREMENT FROM SUPPORT APPLIES. c. INSTALL SEISMIC RESTRAINING SYSTEM TYPE II: TAUT FOR OVERHEAD SUSPENDED UNISOLATED EQUIPMENT, AND SLACK WITH

CABLE DEFLECTION FOR ISOLATED SYSTEMS. SEISMICALLY RESTRAIN ALL CONDUITS WITH CENTER BRACING OR TYPE II RESTRAINING SYSTEM IN ACCORDANCE WITH SMACNA GUIDELINES TO COMPLY WITH THE LATEST ADDITION OF THE BOCA CODE. e. SEISMIC RESTRAINTS ARE NOT REQUIRED FOR THE FOLLOWING: e.a. CONDUIT IN MECHANICAL EQUIPMENT ROOM THAT IS LESS THAN 1-1/4" INTERNAL DIAMETER.

ALL OTHER ELECTRICAL CONDUIT LESS THAN 2-1/2" INTERNAL DIAMETER. ALL CONDUIT SUSPENDED BY INDIVIDUAL HANGERS 12" IN LENGTH OR LESS FROM THE TOP OF THE PIPE TO THE BOTTOM OF THE STRUCTURAL SUPPORT FOR THE HANGER. SEISMICALLY SUPPORT ALL NON-ISOLATED FLOOR AND WALL MOUNTED EQUIPMENT, INCLUDING TRANSFORMERS, SWITCHGEAR,

g. ALL CEILING-MOUNTED LIGHTING FIXTURES AND DEVICES ARE TO BE INDEPENDENTLY HUNG AND CABLE BRACED UTILIZING S.R. TYPE III CABLES. FIXTURE, PART OF LIGHTING GRIDS SHALL MEET LOCAL CODES FOR SUSPENSION AND BE FOUR-POINT INDEPENDENTLY CABLE BRACED TO DECK UNLESS A.T.C. CEILING MEETS SEISMIC ZONE II REQUIREMENTS. IF THIS IS MET, EARTHQUAKE CLIPS SHALL SECURE FIXTURE TO T-BAR CONSTRUCTION.

PERFORM ALL WORK WHEN AND AS DIRECTED. SUBMIT SCHEDULE TO OWNER FOR ACCEPTANCE. REMOVE ALL EQUIPMENT SHOWN TO BE REMOVED.

MAINTAIN CONTINUOUS SERVICE ON FEEDERS, CIRCUITS OR PARTIAL CIRCUITS, AND OUTLETS AFFECTED BY THIS WORK, EXCEPT WHERE OWNER GIVES WRITTEN PERMISSION FOR OUTAGE FOR SPECIFIED TIME. ALL WORK REQUIRING SHUT DOWN OF EXISTING SYSTEMS SHALL BE PERFORMED ON OVERTIME AT HOURS AS APPROVED BY THE OWNER AND AT NO ADDITIONAL COST TO THE OWNER. SUBMIT SCHEDULE OF REQUIRED OUTAGES TO THE OWNER FOR APPROVAL. PERFORM WORK IN A MANNER TO MINIMIZE

PROVIDE RECONNECTIONS AND TEMPORARY INSTALLATIONS AS REQUIRED; REMOVE ALL AT JOB COMPLETION. TAKE POSSESSION AND REMOVE FROM THE PREMISES ALL ABANDONED MATERIALS AND EQUIPMENT UNLESS SPECIFIED AS RETURNABLE TO THE OWNER; IN WHICH CASE, REMOVE WITHOUT DAMAGE ALL SUCH EQUIPMENT AND TURN OVER AND DELIVER TO OWNER AT LOCATION DESIGNATED BY THE OWNER. ALL REQUIREMENTS OF GOVERNING AUTHORITIES SHALL BE COMPLIED WITH IN THE REMOVING AND DISPOSING OF ALL AND ANY MATERIALS ENCOUNTERED, INCLUDING BALLASTS, LAMPS, SMOKE DETECTORS, BATTERIES AND ANY OTHER MATERIALS WHICH REQUIRE RECYCLING OR SPECIAL HANDLING AND DISPOSAL CUT BACK TO FLOOR, WALL, OR CEILING AND PLUG ENDS OF CONCEALED CONDUITS MADE OBSOLETE BY ALTERATIONS TO PERMIT

REFINISHING SURFACES. REMOVE EXPOSED CONDUITS, WIREWAYS, OUTLET BOXES, HANGERS AND DEVICES MADE OBSOLETE BY THIS WORK UNLESS DESIGNATED SPECIFICALLY TO REMAIN. EXISTING CONCEALED CONDUITS NOT INTERFERING WITH THE WORK OF THIS OR ANY OTHER TRADE MAY REMAIN; HOWEVER, WIRING SHALL BE REMOVED FROM PANELBOARDS OR SOURCE OF POWER AND ENDS TAPED. NO UNUSED LIVE WIRING SHALL BE

H. ALL EXISTING PANELS AFFECTED SHALL HAVE THEIR DIRECTORIES CORRECTED FOR NEW WORK, AND EXISTING REMAINING CIRCUITS VERIFIED. NEW TYPEWRITTEN DIRECTORIES SHALL BE PROVIDED.

A. EXTEND AND RECONNECT EXISTING ELECTRIC SERVICES AS INDICATED ON THE DRAWINGS, IN TIME SEQUENCE AS DIRECTED BY COORDINATED WITH THE OWNER.

PROVIDE FIXED IDENTIFICATION OF ALL DISTRIBUTION EQUIPMENT (NAMEPLATES) AND CONDUCTORS.

B. UNLESS OTHERWISE NOTED, NAMEPLATES SHALL BE BLACK BAKELITE PLATES WITH WHITE ENGRAVED UPPER CASE LETTERS ENCLOSED BY WHITE BORDER ON BEVELED EDGE C. ALL NAMEPLATES MUST BE ENGRAVED AND MUST BE SECURED WITH RIVETS, BRASS OR CADMIUM PLATE SCREWS. THE USE OF DYMO TYPE OR THE LIKE IS UNACCEPTABLE.

ALL WIRING SHALL BE RUN IN CONDUIT. MINIMUM SIZE CONDUIT SHALL BE 3/4", EXCEPT AS OTHERWISE INDICATED. B. CONDUIT SHALL BE MADE OF STANDARD RIGID PIPE, AND SHALL BE ALUMINUM WHERE PERMITTED BY CODE. WHERE ALUMINUM IS NOT PERMITTED BY CODE, USE RIGID STEEL OR IMC CONDUIT. ELECTRIC METALLIC TUBING (EMT) MAY BE USED IN DRY LOCATIONS FOR BRANCH CIRCUITING AND/OR IT DATA RACEWAYS.

D. TYPE AC (BX) OR MC WITH GREEN INSULATED GROUND WIRING MAY BE USED CONCEALED IN DRY LOCATIONS FOR BRANCH CIRCUIT WORK ONLY WHERE PERMITTED BY CODE. FOR UNDERGROUND ELECTRICAL INSTALLATIONS, USE FIBERGLASS (RTRC) CONDUIT AND/OR PVC SCHEDULE 80 WITH LISTED FITTINGS AND CONNECTIONS. THESE SHALL BE CHANGED TO RMC WHILE TRANSITIONING FROM UNDERGROUND TO ABOVE GRADE.

THE CONDUITS SHALL BE BURIED DEPTH EXCEEDING NEC REQUIREMENTS, UNLESS OTHERWISE INDICATED ON DRAWINGS. F. WIRING FOR LIFE SAFETY INSTALLATION, INCLUDING EMERGENCY LIGHTING, EMERGENCY COMMUNICATION, ALARMS, etc. SHALL BE WIRE IN RIGID METAL CONDUIT. G. MAKE FINAL CONNECTION FROM MOTOR STARTING SWITCHES TO MOTOR BY MEANS OF CONDUCTORS IN FLEXIBLE STEEL CONDUIT. USE "SEALTITE" IN WET OR DAMP LOCATIONS ONLY.

H. HANGERS, SUPPORTS AND SLEEVES SHALL BE AS ACCEPTABLE TO GOVERN CODES. SUPPORT RISER CONDUIT AT EACH FLOOR. AND ALL OTHER CONDUIT ON EACH SIDE OF BENDS AND NOT GREATER THAN 8'-0" ON CENTERS. DO NOT SUPPORT COMMUNICATIONS. SIGNALING AND SIMILAR TYPE WIRING FROM CONDUITS. COORDINATE CONDUIT RUNS WITH EXISTING AND NEW WORK. CONCEAL ALL CONDUIT AND OUTLET BOXES IN FINISHED AREAS.

UNLESS NOTED OTHERWISE J. RUN CONDUITS CLEAR OF SHAFTS, OPENINGS, CABLE SLOTS AND TELEPHONE RACKS. DO NOT SUPPORT CONDUITS OR RACEWAYS

FROM TELEPHONE FRAMES, CABLE RACKS OR SUPERSTRUCTURES. K. TERMINATE EACH CONDUIT WITH TWO LOCKNUTS, ONE INSIDE AND ONE OUTSIDE AND A BUSHING. USE ALUMINUM LOCKNUTS FOR ALUMINUM CONDUIT, AND MALLEABLE IRON OR GALVANIZED OR CADMIUM PLATED STEEL FOR STEEL CONDUITS. BUSHINGS SHALL BE INSULATED PLASTIC TYPE, RATED AT NOT LESS THAN 150 °C, T&B SERIES 510 OR AS ACCEPTABLE, WHERE CONDUITS LARGER THAN 1" SIZE ARE TERMINATED, LOCKNUTS SHALL BE THE BONDING TYPE T&B SERIES 106, OR AS ACCEPTABLE. IF ALUMINUM BONDING LOCKNUTS ARE NOT AVAILABLE, USE A BONDING WEDGE IN ADDITION UNDER THE INTERIOR ALUMINUM LOCKNUT.

WHERE CONDUITS LARGER THAN 1" SIZE TERMINATE IN ECCENTRIC OR CONCENTRIC KNOCKOUTS AND WHERE ALL OF THE KNOCKOUT RINGS HAVE NOT BEEN REMOVED, INSULATED GROUNDED BUSHINGS SHALL BE USED. INSULATED GROUNDED BUSHINGS SHALL BE CAST, THREADED TYPE EQUIPPED WITH A LUG FOR GROUNDING, UPPER EDGE SHALL HAVE A NYLON RING OR A BAKELITE RING WHICH IS MOLDED INTO THE BUSHING. SIZE GROUND LUG TO TAKE CONDUCTOR SIZED ACCORDING TO CODE WITH A MINIMUM SIZE OF NO. 12.

M. WHERE ELECTRICAL METALLIC TUBING IS INSTALLED, THE CONNECTORS AND COUPLINGS SHALL BE THE NYLON INSULATED THROAT TYPE AS MANUFACTURED BY THE THOMAS & BETTS CO., SERIES 5120 AND 4123 RESPECTIVELY, OR AS ACCEPTABLE. ON TUBING LARGER THAN 1" USE BONDING LOCKNUTS AS DESCRIBED ABOVE FOR RIGID CONDUIT. N. WHERE FLEXIBLE METALLIC CONDUIT OR TYPE AC OR MC CABLE IS INSTALLED, CONNECTORS SHALL BE THE "TITE BITE" TYPE WITH

NYLON INSULATED THROATS AS MANUFACTURED BY THE THOMAS & BETTS CO., SERIES 3110 OR AS ACCEPTABLE. FOR AC OR MC CABLE, INSTALL ANTI-SHORT BUSHINGS AND TERMINATE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. SUPPORT CABLES PER NEC O. WHERE TERMINATING LIQUID TIGHT FLEXIBLE STEEL CONDUIT (SEALTITE), FITTING ASSEMBLY SHALL BE SEALING TYPE CONSISTING

OF STEEL GLAND, NYLON RING AND GROUND CONE ON THE OUTSIDE AND A NYLON INSULATED THROAT FITTING ON THE INSIDE. FITTINGS SHALL BE THOMAS & BETTS CO., SERIES 5331 OR AS ACCEPTABLE. P. WHERE PASSING THROUGH FIRE RATED FLOORS OR WALLS USE U.L. LISTED FIRE RATED FITTINGS WHICH WILL PREVENT THE SPREAD OF FIRE OR PRODUCTS OF COMBUSTION, NELSON "FLAMESEAL" OR AS ACCEPTABLE OR UL APPROVED FIRE STOP SYSTEM.

Q. HIGH AND LOW TENSION FLOOR FITTINGS SHALL MATCH EXISTING FITTINGS, USE NEMA 5-20 CONFIGURATION WIRING DEVICE IN HIGH TENSION OUTLET. L ALL WIRES AND CABLE SHALL BE COPPER TYPE THHN-THWN FOR FEEDERS AND FOR BRANCH CIRCUITS IN CONDUIT, NO WIRE

SMALLER THAN #12 AWG SHALL BE USED FOR BRANCH CIRCUITS, ALL CONTROL CONDUCTORS SHALL BE #14 AWG, B. CONNECTIONS FOR WIRE #8 AND SMALLER SHALL BE MADE WITH T&B "PIGGY PIGTAILS" OR AS ACCEPTABLE. TERMINATE STRANDED CONDUCTORS #10 AND SMALLER IN SPADE LUGS. C. MAXIMUM NUMBER OF HOME RUNS IN A COMMON CONDUIT SHALL BE 3. A DEDICATED NEUTRAL SHALL BE RUN FOR EACH BRANCH

CIRCUIT (SHARE NEUTRAL IS NOT ALLOWED). D. ALL WIRES AND CABLES IN PULL, SPLICE AND CABLE SUPPORT BOXES, IN PANELS AND POINTS OF TERMINATION SHALL BE BUNDLED AND LACED BY CIRCUITS AND TAGGED USING NYLON TIEWRAP MATERIAL AND USING FLAME RESISTING TAGS OF ADHESIVE MATERIAL. TAGS SHALL IDENTIFY CABLES AND PIECES OF EQUIPMENT SERVED. TAGS SHALL BE T&B "TY-RAP" OR "E-Z-CODE" OR AS ACCEPTABLE

E. ALL WIRING AND CABLE SHALL BE COLOR CODED AS FOLLOWS:

PHASE COLOR 208/120V 480/277V BLACK BROWN BOR 2 RED ORANGE COR3 BLUE YELLOW WHITE OR GRAY EQUIP GROUND GREEN GREEN

F. ALL POWER CABLES SHALL BE TERMINATED, SPLICED AND TAPPED WITH COLOR-KEYED, CIRCUMFERENTIAL COMPRESSION CONNECTORS AS MANUFACTURED BY THE THOMAS & BETTS CO., SERIES 54000 OR AS ACCEPTABLE, EXCEPT IN MOTOR CONTROLLERS, SWITCHES AND PANELBOARDS WHERE LUGS CANNOT BE CHANGED. USE MANUFACTURER'S RECOMMENDED TOOLING TO APPLY

G. LUGS SHALL BE THE TWO-HOLE TYPE. INSULATE ALL SPLICES AND TAPS WITH HEAT SHRINKABLE INSULATION, RAYCHEM OR THOMAS & BETTS OR AS ACCEPTABLE. FURNISH AND INSTALL LUGS WHERE NOT FURNISHED WITH EQUIPMENT, H. WHERE CABLES PASS THROUGH FIRE RATED, FIRE RESISTANT AND/OR FIRE STOPPED FLOORS, WALLS, AND ABOVE CEILING SMOKE BARRIERS USE CABLE SLEEVES THAT PREVENT THE SPREAD OF FIRE OR PRODUCTS OF COMBUSTION, SLEEVES SHALL BE NELSON ELECTRIC "MULTI-CABLE TRANSIT", NELSON "FLAMESEAL" OR AS ACCEPTABLE.

A. PROVIDE COMPLETE PANELS OR PANELBOARDS PER CONTENT INDICATED ON THIS DRAWINGS PACKAGE PROVIDE TWO (2) KEYS FOR EACH CABINET LOCK.

SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE CIRCUIT BREAKERS COMPATIBLE WITH EXISTING PANELS. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING MANUFACTURERS: SQUARE D, SIEMENS, GENERAL ELECTRIC, EATON, OR LOCAL MANUFACTURER PROVIDING LISTED PRODUCT.

PROVIDE PANEL CONSISTING OF AN ASSEMBLY OF BRANCH CIRCUITS SWITCHING AND PROTECTIVE DEVICES (CIRCUIT BREAKERS, SWITCH AND FUSE UNITS, OR COMBINATION THEREOF) MOUNTED INSIDE A DEAD FRONT ENGLOSURE. PROVIDE THE NUMBER AND SIZE OF THESE BRANCH CIRCUIT DEVICES AS INDICATED BY THE CIRCUITING, ON THE DRAWINGS, AND IN THE SCHEDULES. LOCATIONS OF CIRCUIT BREAKERS SHALL BE AS INDICATED IN THE SCHEDULES. F. POWER AND DISTRIBUTION PANELBOARDS - CIRCUIT BREAKER TYPE

a. SHALL BE OF THE VOLTAGE AND AMPERAGE SHOWN, 3 PHASE, 4 WIRE, 44,000 AMPS AIC MINIMUM, UNLESS SHOWN OTHERWISE. DEAD FRONT, CIRCUIT BREAKER TYPE, WITH MAIN CIRCUIT BREAKER OR MAIN LUGS ONLY AS SHOWN, COPPER BUS, FULLY RATED NEUTRAL AND GROUND BARS, NEMA TYPE 1 (INDOOR INSTALL) OR NEMA 3R (OUTDOOR INSTALL) ENCLOSURE AND SURFACE TRIM, BLANK CIRCUIT BREAKER SPACES SHALL BE FULLY BUSED AND READY TO ACCEPT FUTURE CIRCUIT BREAKERS. G. LIGHTING AND RECEPTACLE PANELS - CIRCUIT BREAKER TYPE

a. PANELS SHALL BE OF THE VOLTAGE, AMPERAGE AND NUMBER OF POSITIONS SHOWN, 3 PHASE, 4 WIRE, 22,000 AIC MINIMUM, UNLESS SHOWN OTHERWISE, WITH MAIN CIRCUIT BREAKER OR MAIN LUGS ONLY AS SHOWN, COPPER BUS, FULLY RATED NEUTRAL AND GROUND BARS, NEMA TYPE 1 (INDOOR INSTALL) OR NEMA 3R (OUTDOOR INSTALL) ENCLOSURE AND SURFACE OR FLUSH TRIM AS SHOWN. IN MAIN CIRCUIT BREAKER PANELS, THE MAIN CIRCUIT BREAKER SHALL BE SEPARATE FROM AND NOT MOUNTED IN FEEDER BREAKER POSITIONS. H. PANELS CONSTRUCTION

RIGID REMOVABLE ASSEMBLY OF COPPER BUS BARS AND INTERCHANGEABLE BOLTED BRANCH CIRCUIT DEVICES. b. BUS BARS SIZED IN ACCORDANCE WITH UL STANDARDS TO LIMIT TEMPERATURE RISE ON ANY CURRENT CARRYING PART TO A MAXIMUM OF 65 DEGREES C ABOVE AN AMBIENT OF 40 DEGREES C MAXIMUM. BUS BARS DRILLED TO PERMIT BRANCH CIRCUIT DEVICES OF ALL SIZES AND NUMBER OF POLES TO BE INTERCHANGEABLE AND INSTALLED IN ANY SPARE SPACE OF SUFFICIENT SIZE, WITHOUT DISTURBING ADJACENT UNITS; WITHOUT REMOVING MAIN BUS

OR BRANCH CIRCUIT CONNECTORS AND WITHOUT MACHINING, DRILLING, OR TAPPING IN THE FIELD. d. ARRANGE BUS IN SEQUENCE OR DISTRIBUTED PHASING SO THAT MULTI-POLE CIRCUIT BREAKER CAN REPLACE ANY GROUP OF SINGLE CIRCUIT BREAKERS OF THE SAME SIZE. FULL-SIZE (100%-RATED) INSULATED NEUTRAL BARS SHALL BE INCLUDED FOR PANELBOARDS SHOWN WITH NEUTRAL. NEUTRAL BUSING SHALL HAVE A SUITABLE LUG FOR EACH OUTGOING FEEDER REQUIRING A NEUTRAL CONNECTION. 200%-RATED NEUTRALS SHALL BE SUPPLIED FOR PANELS DESIGNATED ON DRAWINGS WITH OVERSIZED NEUTRAL CONDUCTORS AND PANELS

SERVED FROM K-RATED TRANSFORMERS. f. PROVIDE MINIMUM 50% RATED NON-INSULATED GROUND BUS IN EACH PANELBOARD, CONNECT TO GROUND LUG, GROUND BUS SHALL HAVE SUFFICIENT CAPACITY FOR ALL BRANCH CIRCUITS. PROVIDE AN ADDITIONAL ISOLATED GROUND BUS WHERE ENCLOSURE - CODE GAUGE STEEL BOX GALVANIZED.

PROVIDE A WELDED GROUND CONNECTOR TO INSIDE OF ENCLOSURE. FLUSH MOUNTED IN FINISHED AREAS AND WHERE INDICATED. SURFACE MOUNT ELSEWHERE. ALL CABINETS SHALL INCLUDE AMPLE CONCENTRIC KNOCKOUTS ON TOP, BOTTOM, SIDES, AND BACK. DOORS MUST BE PROVIDED FOR ALL PANELS. HEAVY CODE GAUGE STEEL AS REQUIRED TO MAINTAIN PANEL FACE FLAT DOORS SHALL BE HINGED ON EITHER THE LEFT OR RIGHT AND EQUIPPED WITH A 110 DEGREE DOORSTOP OR A CONTINUOUS

PIANO-TYPE HINGE WITH A MAXIMUM OPENING OF 160 DEGREES. DOORS SHALL BE DOOR IN DOOR TYPE m. THE CABINET SHALL BE ELECTROSTATIC POWDER-COATED OVER A RUST INHIBITOR OR A BAKED ENAMEL FINISH. THE COLOR SHALL BE ANSI 61 LIGHT GRAY n. PROVIDE CYLINDER LOCK, ALL PANELS KEYED ALIKE, PROVIDE FOUR (4) OF EACH PANEL KEY. WELDED ANGLE REST AT THE BOTTOM OF THE DOOR TO FACILITATE COVER INSTALLATION.

p. DOORS OVER 48" IN HEIGHT SHALL HAVE AUXILIARY FASTENERS AT TOP AND BOTTOM OF DOOR IN ADDITION TO LOCK AND q. METAL BLANK FILLERS (PLASTIC FOR RETROFITS) SHALL BE PROVIDED FOR EACH UNUSED CIRCUIT POSITION. TERMINAL LUGS - BOLTED TYPE, LABELED FOR EITHER COPPER OR ALUMINUM CONDUCTORS.

LOCATE MAIN LUGS PROPERLY AT TOP OR BOTTOM, DEPENDING WHERE MAIN FEEDER ENTERS. ELECTRICAL RATINGS ALL CIRCUIT BREAKERS SHALL BE FULLY-RATED UNLESS THE DRAWINGS SPECIFICALLY INDICATE SERIES RATED, WHEN SERIES RATINGS ARE APPLIED WITH INTEGRAL OR REMOTE UPSTREAM DEVICES, A LABEL OR MANUAL SHALL BE PROVIDED. IT SHALL

STATE THE CONDITIONS OF THE UL SERIES RATINGS INCLUDING: a.a. SIZE AND TYPE OF UPSTREAM DEVICE a.b. BRANCH DEVICES THAT CAN BE USED UL SERIES SHORT-CIRCUIT RATING.

b. WHERE INDICATED, PROVIDE PANELBOARDS HAVING A "SERVICE ENTRANCE" TYPE UL LABEL WITH NEUTRALS FACTORY BONDED O FRAME OR ENCLOSURE. c. ALL PANELBOARDS SHALL INCLUDE LABELS WITH FOLLOWING INFORMATION: "DANGER OF ELECTRICAL SHOCK" LABEL; UL LISTING; MANUFACTURER'S NAME; DATE OF MANUFACTURE; # OF PHASES; VOLTAGE RATING; CURRENT RATING; SHORT-CIRCUIT

N. UNLESS OTHERWISE SPECIFIED SHALL BE EQUIPPED WITH PLASTIC DESIGNATION PLATE. O. CIRCUIT BREAKER DEVICES a. PLASTIC MOLDED CASE, COMPLETELY SEALED ENCLOSURE, TOGGLE TYPE OPERATING HANDLE, TRIP AMPERE RATING AND ON/OFF INDICATION CLEARLY AND VISIBLE.

 THERMAL-MAGNETIC TRIP-FREE, TRIP-INDICATING, QUICK-MAKE, QUICK-BREAK, WITH INVERSE TIME DELAY CHARACTERISTICS. SINGLE-HANDLE AND COMMON TRIPPING MULTIPOLE BREAKERS. SILVER ALLOY CONTACTS WITH AUXILIARY ARC-QUENCHING DEVICES. d. PANELBOARD MUST BE OF THE TYPE WHICH WILL ACCEPT THE FIELD INSTALLATION OF SHUNT TRIP DEVICES OF 60 AMPERES OR

 CIRCUIT BREAKERS FOR POWER AND DISTRIBUTION PANELBOARDS SHALL HAVE A MINIMUM INTERRUPTING RATING OF 44,000 AMPS RMS AT 240 VOLTS AC. f. CIRCUIT BREAKERS FOR LIGHTING AND RECEPTACLE PANELBOARDS SHALL HAVE A MINIMUM INTERRUPTING RATING OF 22,000 AMPS RMS AT 240 VOLTS AC BOLTED TYPE TERMINALS U.L. LISTED FOR EITHER ALUMINUM OR COPPER 75 DEGREES C CABLES.

PROVIDE MAIN BREAKERS IN PANELS, WHICH ARE FED (SERVED) FROM TRANSFORMERS UNLESS SEPARATE TRANSFORMER SECONDARY PROTECTION IS PROVIDED. SHUNT TRIP BREAKERS SHALL BE SUPPLIED WITH 120 VOLT COILS. PROVIDE 120 VOLT CIRCUIT FROM NEAREST 120 VOLT PANEL TO COIL. WHERE SHUNT TRIP BREAKERS ARE IN EMERGENCY PANELS PROVIDE EMERGENCY 120 VOLT SOURCE FOR SAME FROM NEAREST 120 VOLTEMERGENCY PANEL

PROVIDE LOCKING DEVICE FOR DESIGNATED BREAKERS. FOR HVAC EQUIPMENT PROVIDE UL LISTED "HACR" TYPE DEVICES. P. GROUND FAULT INTERRUPTERS

LESS ON THE BRANCH DEVICES.

a. GROUND FAULT INTERRUPTER BRANCH CIRCUIT BREAKERS SHALL BE AS INDICATED ON THE DRAWINGS, CB's SHALL BE CIRCUIT INTERRUPTING WHICH WILL OPERATE MANUALLY FOR NORMAL SWITCHING FUNCTIONS AND AUTOMATICALLY UNDER OVERLOAD. SHORT CIRCUIT, AND 0.005 AMP LINE-TO-GROUND FAULT CONDITIONS. THE OPERATING MECHANISM SHALL BE ENTIRELY TRIP-FREE SO THAT CONTACT CANNOT BE HELD CLOSED AGAINST AN ABNORMAL OVERCURRENT, SHORT CIRCUIT, OR GROUND FAULT CONDITION. THE DEVICE SHALL BE BOLT-ON TYPE AND SHALL BE INTERCHANGEABLE WITH STANDARD 1P CB UTILIZED IN THE PANEL BOARD MOUNT ALL PANELS AT A MAXIMUM HEIGHT OF 6 FEET 6 INCHES TO TOP UNLESS OTHERWISE NOTED.

NEATLY ARRANGE BRANCH CIRCUIT WIRES AND TIE TOGETHER IN EACH GUTTER WITH THOMAS & BETTS NYLON "TY-RAPS", OR APPROVED EQUAL AT MINIMUM 4 INCH INTERVALS. PLUG ALL KNOCKOUTS REMOVED AND NOT UTILIZED e. PROVIDE NAMEPLATE AND FILL OUT PANEL DIRECTORY. FOR REMODEL WORK OR CHANGES, TRACE CIRCUITS TO DETERMINE

WHERE FLUSHED MOUNTED, THE FIRE INTEGRITY OF THE WALL IN WHICH IT IS INSTALLED MUST BE MAINTAINED,

LOADS AND PROVIDE NEW UPDATED DIRECTORY.

PROVIDE GROUNDING AND BONDING JUMPERS PER SECTION 16140 AND AS INDICATED ON THE DRAWINGS.

a. ALL BRANCH CIRCUITS SHALL BE BALANCED AT THEIR RESPECTIVE PANEL TO WITHIN 10 PERCENT FULL LOAD APPLIED.

A. FURNISH AND INSTALL ALL BOXES, FITTINGS, DEVICES, RACEWAYS, CONDUCTORS, CONNECTIONS, MOUNTING ACCESSORIES, ADAPTERS AND ALL OTHER MATERIALS, EQUIPMENT AND LABOR NECESSARY FOR A COMPLETE ELECTRICAL INSTALLATION. B. INSTALL ELECTRIC OUTLETS VERTICALLY UNLESS NOTED TO THE CONTRARY AT HEIGHTS AS NOTED. THOSE LOCATED ON INTERIOR COLUMNS SHALL BE CENTERED LATERALLY

C. MOUNTING HEIGHT OF CONVENIENCE RECEPTACLES SHALL BE 20" A.F.F., UNLESS OTHERWISE NOTED. D. USE CAST BOXES FOR EXPOSED WORK, AND WHERE INSTALLED FLUSH IN FLOORS. ALL OTHER OUTLET BOXES SHALL BE SHEET STEEL AND GALVANIZED. FLOOR BOXES SHALL BE ADJUSTABLE TYPE,

ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE, DECORATOR TYPE SHALL BE PROVIDED IN FINISHED AREAS, DECORATOR TYPE SHALL BE PROVIDED WITH MATCHING PLATES. HEAVY DUTY DEVICES SHALL CONFORM TO NEMA STANDARD WD-1. F. ALL LOCAL SWITCHES EXCEPT AS OTHERWISE INDICATED SHALL BE TOGGLE TYPE 20 AMPERE, 120-277V CAPACITY WITH FULLY ENCLOSED COMPOSITION CASES. SWITCHES SHALL BE LEVITON 5621-2 FOR DECORATOR TYPE AND HUBBELL HBL 1221 FOR

COMMERCIAL TYPE, OR AS DESIGNATED BY ARCHITECT. G. ALL RECEPTACLES SHALL BE 20 AMP, 2-POLE, 3-WIRE, NEMA 5-20R, UNLESS SHOWN OTHERWISE ON DRAWINGS. DECORATOR TYPE SHALL BE HUBBELL STYLE LINE HBL 2162; COMMERCIAL TYPE SHALL BE HUBBELL HBL 5462 OR AS APPROVED ACCEPTABLE. H. RECEPTACLES IN UNDERFLOOR BOXES SHALL BE INSTALLED AND PRE-WIRED AT THE FACTORY IN ACCORDANCE WITH THE

EXISTING BUILDING STANDARDS. NEW WIRING DEVICE PLATES SHALL COORDINATE WITH ARCHITECT AND OWNER TO MATCH EXISTING BUILDING STANDARDS, USE ONLY ALUMINUM TAP, SUPPORT AND PULL BOXES WITH ALUMINUM CONDUIT. ALL STEEL BOXES SHALL BE PRIMED AND FINISHED IN GRAY ENAMEL.

8. <u>DISCONNECTS</u>
A. <u>DISCONNECTS</u> SHALL CONFORM TO NEMA AND U.L. STANDARDS, AND BE INSTALLED WHERE SHOWN ON DRAWINGS OR REQUIRED DISCONNECTS SHALL CONFORM TO NEMA AND U.L. STANDARDS, AND BE INSTALLED WHERE SHOWN ON DRAWINGS OR REQUIRED DATED LIMITS TO MAYIMUM SIZES LISTED BY I.L. SWITCHES USED FOR SERVICE BY CODE. DISCONNECTS SHALL BE HORSEPOWER RATED UNITS TO MAXIMUM SIZES LISTED BY U.L. SWITCHES USED FOR SERVICE

ENTRANCE SHALL BE APPROVED FOR SERVICE AND PROVIDED WITH NEUTRAL CONNECTION.

IN WET AND DAMP LOCATIONS SHALL HAVE NEMA 3R RATING.

B. PROVIDE QUICK-MAKE, QUICK-BREAK MECHANISM, SINGLE THROW WITH EXTERNAL OPERATING HANDLE MECHANICALLY INTERLOCKED WITH ENCLOSURE COVER TO PROVIDE NORMAL ACCESS TO INSIDE OF ENCLOSURE WHEN DISCONNECT IS IN OFF POSITION ONLY AND WITH MEANS TO BYPASS THE MECHANICALLY INTERLOCKED DOOR AND HANDLE. PROVIDE MEANS TO LOCK THE OPERATING HANDLE IN THE OPEN AND CLOSED POSITION. DESIGNATE ON THE ENCLOSURE THE

OPEN AND CLOSED POSITION OF THE OPERATING HANDLE. SWITCHES SHALL BE HEAVY DUTY TYPE. SWITCHES SHALL BE OF THE DOUBLE STATIONARY CONTACT TYPE WITH ARC-QUENCHING DEVICE ON EACH POLE FOR

DISCONNECTS RATED ABOVE 250 VOLTS. SWITCHES SHALL BE FUSIBLE OR UNFUSIBLE AS SHOWN ON THE DRAWINGS AND/OR AS REQUIRED. FUSED SWITCHES SHALL BE COMPLETE WITH CLASS "RK-5" OR "L" FUSES AS REQUIRED. H. ALL SWITCHES IN INDOOR, DRY LOCATIONS SHALL BE MOUNTED IN NEMA TYPE I ENCLOSURES, SWITCH ES INSTALLED OUTDOOR OR

... ALL GROUNDING AND BONDING AND THEIR INSTALLATION SHALL BE IN COMPLIANCE WITH ARTICLE 250 IF APPLICABLE VERSION OF

B. CONNECT SYSTEM COMPONENTS MECHANICALLY AND ELECTRICALLY TO PROVIDE AN INDEPENDENT RETURN PATH TO GROUND ELECTRODE. C. ALL FEEDERS AND BRANCH CIRCUITS SHALL HAVE A DEDICATED EQUIPMENT GROUNDING CONDUCTOR SEIZED PER NEC TABLE 250.122

USE EXOTHERMIC WELDING PROCESS FOR INACCESSIBLE CONNECTIONS EXTEND EXISTING SYSTEM GROUND TO INCLUDE ALL THE ELECTRICAL WORK IN THE SCOPE OF THIS ALTERATION. GROUND EACH TRANSFORMER AND/OR OTHER SEPARATELY DERIVED POWER SYSTEM BY RUNNING A CONDUCTOR FROM NEUTRAL

TO A LUG WELDED OR BRAZED TO THE INTERIOR OF THE ENCLOSURE. G. RUN GROUNDING CABLE TO NEAREST BUILDING MAJOR STRUCTURAL MEMBER; OR, IF NOT READILY AVAILABLE, TO THE NEAREST 1-1/2" OR LARGER COLD WATER PIPE. USE ONLY A SINGLE PIPE CLAMP. H. IN RAISED FLOOR AREAS, ALSO GROUND TO RAISED FLOOR. WHERE FLEXIBLE METALLIC CONDUIT IS USED, INSTALL AN INTERNAL

BONDING CONDUCTOR, WHERE AN ISOLATED GROUND SYSTEM IS USED, RUN AN ADDITIONAL CONDUCTOR FOR THE ISOLATED AND GROUND MOTORS BY CONNECTING A CONDUCTOR FROM A GROUNDING BUSHING IN THE STARTER TO THE MOTOR FRAME. INSTALL CONDUCTOR IN THE CONDUIT WITH THE CIRCUIT CONDUCTORS AND TERMINATED IN THE MOTOR CONNECTION BOX PROVIDING THE TERMINAL IS MECHANICALLY CONNECTED TO THE FRAME.

J. RUN ADDITIONAL GROUND CONDUCTOR IN PRIMARY AND SECONDARY CONDUITS TO TRANSFORMERS AND TO ALL EQUIPMENT

A. PROVIDE TRANSFORMERS DRY-TYPE DISTRIBUTION TRANSFORMERS WITH PRIMARY AND SECONDARY VOLTAGES OF 600V AND LESS AND CAPACITY RATINGS THROUGH 1000 kVA. REFER TO DRAWING FOR SPECIFIC TRANSFORMER RATING REQUIREMENTS.

WHERE INDICATED, PROVIDE WALL-MOUNTING AND STRUCTURE-HANGING SUPPORTS INCLUDING VIBRATION ISOLATION. REFERENCES; NFPA 70, NEMA ST20, UL 1561, UL 250, EPA OF 2005 PUBLIC LAW 109-58-AUG. 8, 2005 COMPLY WITH ALL RULES FROM DEPARTMENT OF ENERGY CONTAINED IN THE LATEST REVISIONS OF 10 CFR 429 AND 10 CFR 431. D. IEEE C57.12.91 -LOW-SOUND-LEVEL REQUIREMENTS: MINIMUM OF 3 DBA LESS THAN NEMA ST 20 STANDARD SOUND LEVELS WHEN

FACTORY TESTED ACCORDING TO BASE BID ACCEPTABLE MANUFACTURERS; SQUARE D, EATON, SIEMENS, GENERAL ELECTRIC TRANSFORMERS FOR NON-CRITICAL LOADS: 15 kVA AND LARGER SHALL BE 150°C TEMP RISE ABOVE 40°C AMBIENT WITH 4

CONNECTED BY FLEXIBLE CONDUIT TO IMPROVE GROUNDING OF FLEXIBLE CONDUIT.

TRANSFORMERS FOR CRITICAL LOADS: TEMPERATURE RISE 115 °C RISE (OR 80°C AND IF SPECIFICALLY NOTED ON CONTRACT DOCUMENTS) WITH 9 K-FACTOR.

H. THE MAXIMUM TEMPERATURE OF THE TOP OF THE ENCLOSURE SHALL NOT EXCEED 50°C RISE ABOVE A 40°C AMBIENT. MANUFACTURER MARKINGS: EACH TRANSFORMER SHALL BE PROVIDED WITH A NAMEPLATE GIVING THE FOLLOWING INFORMATION; NAME OF MANUFACTURER, RATED KILOVOLT-AMPERES, FREQUENCY, PRIMARY AND SECONDARY, VOLTAGE, IMPEDANCE OF

TRANSFORMERS 25 KVA AND LARGER, REQUIRED CLEARANCES FOR TRANSFORMERS WITH VENTILATING OPENINGS, AMOUNT AND KIND OF INSULATING LIQUID WHERE USED, FOR DRY-TYPE TRANSFORMERS, TEMPERATURE CLASS FOR THE INSULATION SYSTEM CONSTRUCTION SHALL BE: FACTORY-ASSEMBLED AND -TESTED, AIR-COOLED UNITS FOR 60-HZ SERVICE, CROSS: GRAIN-ORIENTED, NON-AGING SILICON STEEL, COILS: TRANSFORMER COILS SHALL BE OF THE CONTINUOUS WOUND CONSTRUCTION AND SHALL BE IMPREGNATED WITH NONHYGROSCOPIC, THERMOSETTING VARNISH. COILS SHALL BE WITHOUT SPLICES, EXCEPT FOR TAPS.

K. COIL INTERNAL CONNECTIONS: BRAZED OR PRESSURE TYPE, COPPER AND SHALL BE OF THE CONTINUOUS WOUND CONSTRUCTION AND SHALL BE IMPREGNATED WITH NON-HYGROSCOPIC, THERMOSETTING VARNISH, CONSTRUCTED WITH LOW HYSTERESIS AND EDDY CURRENT LOSSES. MAGNETIC FLUX DENSITIES ARE TO BE KEPT WELL BELOW THE SATURATION POINT TO PREVENT CORE THE COMPLETED CORE AND COIL SHALL BE BOLTED TO THE BASE OF THE ENCLOSURE BUT ISOLATED BY MEANS OF RUBBER

VIBRATION-ABSORBING MOUNTS. THERE SHALL BE NO METAL-TO-METAL CONTACT BETWEEN THE CORE AND COIL AND THE ENCLOSURE EXCEPT FOR A FLEXIBLE SAFETY GROUND STRAP. SOUND ISOLATION SYSTEMS REQUIRING THE COMPLETE REMOVAL OF ALL FASTENING DEVICES WILL NOT BE ACCEPTABLE.

M. THE CORE OF THE TRANSFORMER SHALL BE VISIBLY GROUNDED TO THE ENCLOSURE BY MEANS OF A FLEXIBLE GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH APPLICABLE UL AND NEC STANDARDS. N. ALL TERMINALS, INCLUDING THOSE FOR CHANGING TAPS, MUST BE READILY ACCESSIBLE BY REMOVING A FRONT COVER PLATE.

O. TAPS SHALL HAVE A 5% FCAN AND 10% FCBN O.a. 2.5% STEPS ON ALL VOLTAGES 350 V AND ABOVE, 15 TO 225KVA O.b. 5% STEPS ON ALL VOLTAGES BELOW 350 V, 15 TO 225KVA

P. TRANSFORMERS SHALL HAVE PROVISIONS FOR BONDING NEUTRAL TO GROUND

Q. TRANSFORMERS VENTILATION SHALL NOT BE LOCATED IN WIRE ACCESS AREAS DEFINED ON DRAWINGS J. TRANSFORMER ACCESS AREAS SHALL ALLOW FOR NEC BENDING RADIUS

K. TERMINALS SHALL BE SIZE TO HANDLE CABLES FOR THE FOLLOWING WIRE RANGE INDICATED ON THE CONTRACT DOCUMENTS. L. THE TRANSFORMER ENCLOSURES SHALL BE VENTILATED AND BE FABRICATED OF HEAVY GAUGE, SHEET STEEL CONSTRUCTION. THE ENTIRE ENCLOSURE SHALL BE FINISHED UTILIZING A CONTINUOUS PROCESS CONSISTING OF DEGREASING, CLEANING AND PHOSPHATIZING, FOLLOWED BY ELECTROSTATIC DEPOSITION OF POLYMER POLYESTER POWDER COATING AND BAKING CYCLE TO PROVIDE UNIFORM COATING OF ALL EDGES AND SURFACES. THE COATING SHALL BE UL RECOGNIZED FOR OUTDOOR USE. THE COATING COLOR SHALL BE ANSI 49.

L.A. MINIMUM CLEARANCE FROM REAR AND SIDES 1/2" L.B. UNITS 75KVA AND SMALLER SHALL HAVE KITS TO CONVERT TO WALL MOUNTED L.C. UNITS 150KVA AND SMALL SHALL HAVE PROVISIONS TO BE TRAPEZE MOUNTED

N.B. CEILING MOUNTING BRACKETS FOR UNITS [UP TO 150KVA MAX.]

L.D. ALL ENCLOSURES SHALL HAVE KIT TO CONVERT FROM TYPE 1 OR 2 TO TYPE 3R M. SOUND LEVELS SHALL BE WARRANTED BY THE MANUFACTURER NOT TO EXCEED THE FOLLOWING: 15 TO 50KVA - 39DB; 51 TO 112.5 KVA - 44 DB; 150KVA - 47DB; 151 TO 300KVA - 49 DB; 301 TO 500KVA - 54DB; 501 TO 700KVA - 56DB; 701 TO 1000KVA - 58 DB

N. OPTIONAL ACCESSORIES - PROVIDE THE FOLLOWING WHERE INDICATED ON CONTRACT DRAWINGS AND AS APPLICABLE TO THE N.A. ALL MOUNTING BRACKETS FOR UNITS [UP TO 75KVA MAX.]

TO CONCRETE BASES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, SEISMIC CODES AT PROJECT.

O. INSTALLATION; UNLESS OTHERWISE INDICATED, TRANSFORMERS SHALL BE FLOOR MOUNTED, INSTALL WALL-MOUNTING TRANSFORMERS LEVEL AND PLUMB WITH WALL BRACKETS FABRICATED BY TRANSFORMER MANUFACTURER, INSTALL FLOOR-MOUNTING TRANSFORMERS LEVEL ON CONCRETE BASES. CONSTRUCT CONCRETE BASES OF DIMENSIONS INDICATED, BUT NOT LESS THAN 4 INCHES LARGER IN BOTH DIRECTIONS THAN SUPPORTED UNIT AND 4 INCHES HIGH AND ANCHOR TRANSFORMERS

P. GROUNDING; TRANSFORMERS SHALL BE GROUNDED IN ACCORDANCE WITH THE NEC ARTICLE 250. Q. TESTS Q.A. VISUAL AND MECHANICAL INSPECTION: INSPECT FOR PHYSICAL DAMAGE, MECHANICAL AND ELECTRICAL CONNECTIONS. CHECK TIGHTNESS OF ACCESSIBLE BOLTED JOINTS BY CALIBRATED TORQUE METHOD, CHECK FOR COLLECTION OF DIRT IN THE WINDINGS AND COMPARE EQUIPMENT NAMEPLATE INFORMATION WITH LATEST SINGLE LINE DIAGRAM AND REPORT

DISCREPANCIES. INSULATION RESISTANCE (MEGGER) TEST WINDING-TO-WINDING AND WINDING-TO-GROUND. RECORD TRANSFORMER SECONDARY VOLTAGE AT EACH UNIT FOR AT LEAST 48 HOURS OF TYPICAL OCCUPANCY PERIOD.

ADJUST TRANSFORMER TAPS TO PROVIDE OPTIMUM VOLTAGE CONDITIONS AT SECONDARY TERMINALS. OPTIMUM IS DEFINED AS NOT EXCEEDING NAMEPLATE VOLTAGE PLUS 10 PERCENT AND NOT BEING LOWER THAN NAMEPLATE VOLTAGE MINUS 5 PERCENT. SUBMIT RECORDING AND TAP SETTINGS AS TEST RESULTS. Q.D. MANUFACTURER'S FIELD TECHNICIAN SHALL PROVIDE A CERTIFIED TEST REPORT. R. NAMEPLATES; PROVIDE ENGRAVED NAMEPLATE AFFIXED AT FRONT OF THE TRANSFORMER. IT SHALL CONTAIN ALL NECESSARY

ELECTRICAL CHARACTERISTICS AND RATING OF THE TRANSFER. END OF WRITTEN SPECIFICATION CLIENT, PROPERTY OR OWNERS INFORMATION

PRESTIGE PETROLEUM 289 N. PLANK RD SUITE 2 NEWBURGH, NY 12550 jmc7174@aol.com

DESIGN CONSULTANT

CONTRACTOR or VENDOR:

Contracting Corp

103 School St, Lindenhurst, NY 11757

LEGAL NOTES:

t is a violation of the state education law for any person, unless he or she is acting under the direction of a licensed professional engineer to alter an item in anyway, on this drawing and/or in this specification in anyway. If any such item is altered, the altering engineer shall affix to the item his or her seal and the notation "altered by" followed by his or her signature and the date of such alteration, and a specific description of the alteration."

Any errors and omissions in the drawing are to be checked by the general contractor and relayed to the architect/EOR

Do not scale drawings All work shall comply with the local building code(s) and with requirements of local AHJ

KEY PLAN:

1.0 06.11.2025 INITIAL DESIGN LAYOUT

REV DATE DESCRIPTION

PROJECT NAME

ELECTRIC VEHICLE CHARGING STATIONS INSTALLATION AT

5306 RTE 9W

NEWBURGH, NY 12550

E-200

SHEET TITLE

GENERAL NOTES

SIGN AND SEAL

PROJECT NO: 2025-19 TAX MAP DATA: 23 - 2 - 1 SCALE: AS NOTED DRAWN BY: KS (SUAREZ@WOODHOLLOWDESIGNS.COM CHECKED BY:

NEWBURGH, NY 12550 jmc7174@aol.com

DESIGN CONSULTANT:

103 School St.

- Any errors and omissions in the drawing are to be architect/EOR
- Do not scale drawings
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KEY PLAN:

PRESTIGE PETROLEUM 289 N. PLANK RD SUITE 2

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- checked by the general contractor and relayed to the

ADA

AFF

AHJ

AIC

AT

AWG

BLDG

BMS

CAT

CB

CD

CFSD

CKT

CLG

CO

CU

DACS

DACT

DGP

DIFF

DISC

DN

DWG

ELEC

EMR

ABBREVIATIONS

AMPERE

AMPERE FRAME

AMPERE TRIP

BUILDING

CONDUIT

CATALOG

CANDELA

CIRCUIT

CEILING

COPPER

DIFFERENTIAL

DISCONNECT

DOWN

DRAWING

ELECTRICAL

CONDUIT ONLY

DATA GATHERING PANEL

ELEVATOR MACHINE ROOM

GROUND BAR

CIRCUIT BREAKER

ABOVE FINISH FLOOR

AMERICANS WITH DISABILITIES ACT

AUTHORITY HAVING JURISDICTION

AMPS INTERRUPTING CAPACITY

AUTOMATIC TRANSFER SWITCH

BUILDING MANAGEMENT SYSTEM

COMBINATION FIRE/SMOKE DAMPER

DIGITAL ALARM COMMUNICATION SYSTEM

DIGITAL ALARM COMMUNICATION TERMINAL

AMERICAN WIRE GAUGE

1. ALL WORK SHALL BE INSTALLED CONCEALED UNLESS OTHERWISE NOTED. 2. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS OF FINISHED CONSTRUCTION PRIOR TO FABRICATION

3. MOUNTING HEIGHTS OF EQUIPMENT AND DEVICES SHALL BE AS INDICATED ON THE DRAWINGS. WHERE MOUNTING HEIGHTS ARE NOT GIVEN ON THE DRAWINGS, UTILIZE THE FOLLOWING MOUNTING HEIGHTS UNLESS OTHERWISE NOTED (ALL DIMENSIONS TO CENTERLINE OF BOX): A. RECEPTACLES (WALL MOUNTED) - 18 A.F.F.

4. ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE TO MAKE HIMSELF AWARE OF EXISTING CONDITIONS BEFORE SUBMITTING HIS PRICE.

5. THE MINIMUM RATING OF DISCONNECT SWITCHES SHALL BE EQUAL TO OR GREATER THAN THE RATING OF THE PROTECTIVE DEVICE ON THE SUPPLY SIDE OF THE DISCONNECT SWITCH. ALL RATINGS OF DISCONNECT SWITCHES AND OR FUSES/ OVER-CURRENT DEVICES SHALL BE SIZED IN ACCORDANCE WITH CODE FOR THE LOADS SERVED PER DESIGN DRAWINGS.

6. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS LINE VOLTAGE POWER WIRING.

7. ALL JUNCTION OR OUTLET BOXES SHALL BE INSTALLED SO AS TO ALLOW ACCESS TO PROVIDE APPROVED ACCESS DOORS OR PLATES AS REQUIRED IN AREAS WHERE UNOBSTRUCTED ACCESS TO BOX OR OUTLET IS NOT POSSIBLE.

8. AT ALL EMPTY CONDUITS PROVIDE BUSHINGS AT ENDS AND DRAG WIRES.

ELECTRICAL GENERAL NOTES

AND INSTALLATION OF FIXTURES AND EQUIPMENT.

9. ELECTRICAL CONTRACTOR SHALL PROVIDE AN ELECTRICAL INSPECTION APPROVAL CERTIFICATE TO OWNER UPON COMPLETION OF WORK.

10. CIRCUIT ASSIGNMENTS FOR, RECEPTACLES, WIRING DEVICES, AND ELECTRICAL EQUIPMENT ARE DESIGNATED BY THE NUMBER SHOWN ADJACENT TO THESE DEVICES / EQUIPMENT. PROVIDE CONDUITS, WIRES AND BOXES REQUIRED TO ENERGIZE THE EQUIPMENT AS SHOWN.

11. CIRCUIT NUMBERS ARE FOR REFERENCE ONLY. CIRCUIT NUMBERS ARE INTENDED TO BE USED FOR QUANTITIES AND FOR DESIGNATING WHAT OUTLETS (FIXTURES, EQUIPMENT, ETC.) WILL BE ON THE SAME CIRCUIT. CONTRACTOR SHALL REARRANGE CIRCUITS PER FIELD CONDITIONS SO THAT LOAD VALUES FOR EACH PHASE DO NOT EXCEED CODE REQUIREMENTS AND TO BALANCE THE LOADS AT THE PANELS PER SPECIFICATIONS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUITS WITH PROPER PHASE SEQUENCES FOR EVERY REQUIRED NEUTRAL WIRE THAT IS SHARED. ELECTRICAL CONTRACTOR SHALL DOCUMENT ALL AFFECTED CIRCUITS, LABEL EACH OUTLET COVER WITH ACTURAL PANEL DESIGNATION AND CIRCUIT NUMBER, AND PROVIDE AS-BUILT PANEL DIRECTORIES AND DRAWINGS PER SPECIFICATIONS.

12. ALL WORK SHALL COMPLY WITH REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE, LOCAL BUILDING CODE AND BUILDING MANAGEMENT RULES AND REGULATIONS.

13. 3/4" (21MM) SHALL BE THE MINIMUM CONDUIT INSTALLED.

POWER AND SIGNAL DEVICE LEGEND

SYMBOL	DESCRIPTION
Φ #	UON, 20A, 125V, 2P, 3W, GROUNDED WALL MOUNTED DUPLEX AND DOUBLE DUPLEX RECEPTACLES, NEMA 5-20R. (COLOR PER ARCHITECT). ALL OUTLETS SHALL BE LABELED WITH ITS SOURCE PANEL AND BREAKER # ID. "WP" - INDICATES WEATHERPROOF (TYP FOR WIRING DEVICES) "C" - INDICATES COUNTER HEIGHT (TYP FOR WIRING DEVICES)
•	SHADING FOR DUPLEX OR DOUBLE DUPLEX PER ABOVE INDICATES DEDICATED CIRCUIT
I	UON, 20A, 125V, 2P, 3W, GROUNDED WALL MOUNTED DUPLEX AND DOUBLE DUPLEX RECEPTACLES WITH GROUND FAULT CIRCUIT INTERRUPTER, NEMA 5-20R. WEATHER PROOF (COLOR PER ARCHITECT). ALL OUTLETS SHALL BE LABELED WITH ITS SOURCE PANEL AND BREAKER # ID.
	ELECTRICAL JUNCTION BOX FOR HARDWIRED EQUIPMENT.
	(2) INDICATES DOUBLE-GANG BOX. (F) INDICATES FLOOR RECESSED. (CE) INDICATES CEILING RECESSED. (AFC) INDICATES ABOVE FINISHED CEILING, SURFACE MTD.
C 3	SURFACE MOUNTED PANELBOARD - SOLID INDICATES NEW, UNSHADED/DASHED INDICATES EXISTING
T	DRY TYPE TRANSFORMER - SIZE AS INDICATED ON THE DRAWINGS
	ELECTRICAL METER OR SUB-METER AS IDENTIFIED ON THE DRAWINGS
1 CKT PNL-(#) 2 CKT PNL-(#),(#) 3 CKT PNL-(#),(#),	ONE, TWO, OR THREE HOME RUNS TO ELECTRICAL PANEL 'PNL' - INDICATED PANEL NAME '#' - INDICATES CIRCUIT NUMBER, U.O.N.
non.	ODOLIND DAD

ONE LINE/RISER DIAGRAM LEGEND

NEUTRAL

NUMBER

POLE

PANEL

PHASE

RG, RAG RETURN AIR GRILLE

SWITCH

TYPICAL

SWITCHBOARD

TELEPHONE

ULTRAVIOLET

APPARATUS

WEATHER PROOF

VOLTAGE

RETURN AIR

SOLID NEUTRAL

CONTROL PANEL

STAIR PRESSURIZATION

UNLESS OTHERWISE NOTED

UNDERWRITERS LABORATORIES

VERY EARLY SMOKE DETECTION

DIRECT CURRENT VOLTAGE

VARIABLE FREQUENCY DRIVE

STAIR PRESSURIZATION SYSTEM

NOT TO SCALE

OVERLOAD DEVICE

NORMALLY CLOSED

NC

NO

NTS

OL

PNL

SN

STP

SW

SWBD

TEL

TYP

UON

UL

UV

VFD

SPCP

ELECTRICAL METAL TUBING

FUSE CUTOUT BOX

FIRE COMMAND STATION

FIRE SMOKE DAMPER

GENERAL CONTRACTOR

GROUND FAULT INTERRUPTER

HIGH INTENSITY DISCHARGE

HEATING, VENTILATING &

INTERRUPTING CAPACITY

MAIN CIRCUIT BREAKER

MECHANICAL EQUIPMENT ROOM

LOCAL EMERGENCY CONTROL SYSTEM

FUSE

FLOOR

GAUGE

GROUND

G, GRD

LTG

FLEXIBLE

FEET OR FOOT

HORSEPOWER

HERTZ

LIGHTING

MINIMUM

MOUNTED

MECHANICAL

MAIN LUGS ONLY

AIR CONDITIONING

JUNCTION BOX

FIRE ALARM CONTROL PANEL

FURNISH BY OTHER DIVISION OF WORK

DESCRIPTION	
CIRCUIT BREAKER "##A" - INDICATES AMPERAGE RATING "#P" - INDICATES NUMBER OF POLES	
FUSED DISCONNECT SWITCH "##AS" - INDICATES SWITCH SIZE "##AF" - INDICATES FUSE SIZE	
NON-FUSED DISCONNECT SWITCH "#A" - INDICATES SWITCH SIZE "#P" - INDICATES NUMBER OF POLES	
TRANSFORMER, 480V INDICATES PRIMARY VOLTAGE, 120/208V INDICATES SECONDARY VOLTAGE	
GROUNDING CONNECTION	
PANELBOARD - REFER TO PANELBOARD SCHEDULES FOR ADDITIONAL INFORMATION	

1.0 | 06.11.2025 | INITIAL DESIGN LAYOUT DESCRIPTION REV DATE

PROJECT NAME

ELECTRIC VEHICLE CHARGING STATIONS INSTALLATION AT 5306 RTE 9W

NEWBURGH, NY 12550

SHEET TITLE

E-201

GENERAL NOTES

PROJECT NO: 2025-19 TAX MAP DATA: 23 - 2 - 1 SCALE: AS NOTED DRAWN BY: KS KSUAREZ@WOODHOLLOWDESIGNS.COM CHECKED BY:

