

GENERAL ELECTRICAL NOTES

- G1. COMPLETE SYSTEMS: PROVIDE LABOR, MATERIALS, EQUIPMENT, AND TRANSPORTATION TO RECEIVE, INSTALL, ADJUST, AND PUT INTO OPERATION COMPLETE ELECTRICAL SYSTEMS IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. PROVIDE PRODUCTS NOT MENTIONED BUT OBVIOUSLY NECESSARY AND INCIDENTAL TO THE COMPLETION OF THIS WORK.
- G2. SCOPE: WORK SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING MECHANICAL WORK AS REQUIRED FOR COORDINATION, POWER DISTRIBUTION AND INSTALLATION OF MATERIALS.
- G3. UTILITIES: COORDINATE WITH ALL UTILITY SERVICES AND TOWN OF ADDISON.
- G4. PERMITS: OBTAIN ALL NECESSARY PERMITS TO BEGIN AND CONTINUE WITH WORK. PAY ALL ASSOCIATED FEES FOR PERMITS AND OTHER MUNICIPAL AND GOVERNING REQUIREMENTS.
- G5. EXPERIENCE: ALL WORK DONE SHALL BE PERFORMED BY QUALIFIED ELECTRICIANS, UNDER THE SUPERVISION AND DIRECTION OF A SUPERINTENDENT HAVING SUCCESSFUL EXPERIENCE INSTALLING AND SUPERVISING EQUIPMENT AND SYSTEMS OF SIMILAR TYPE AND SIZE AS INDICATED BY CONTRACT DOCUMENTS.
- G6. REGULATIONS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT RULES, REGULATIONS, AND INDUSTRY STANDARDS OF THE NATIONAL ELECTRICAL CODE, UL, IPCEA, NEMA, NFPA, OSHA, NATIONAL ELECTRICAL SAFETY CODE, ADA, AND ANY LOCAL CODES, LAWS, OR ORDINANCES. IN THE EVENT THAT A DISCREPANCY IS FOUND IN THE CONTRACT DOCUMENTS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
- G7. COSTS AND CONDITIONS: EXAMINE AND BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS IN THEIR ENTIRETY. SURVEY THE PROJECT AND BECOME FAMILIAR WITH EXISTING CONDITIONS AND SCOPE OF WORK. ALL COSTS SUBMITTED SHALL BE BASED ON A THOROUGH KNOWLEDGE OF ALL WORK AND MATERIALS REQUIRED. ANY ADDITIONAL COSTS DUE TO FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- G8. SPECIFICATIONS: BECOME FAMILIAR WITH ALL SPECIFICATIONS, DESIGN CRITERIA, AND EQUIPMENT REQUIREMENTS PRIOR TO ANY EQUIPMENT PURCHASE OR INSTALLATION. REFERENCE SPECIFICATIONS FOR DEVICES, MATERIALS AND WORKMANSHIP REQUIREMENTS. ADDITIONAL REQUIREMENTS ARE GIVEN IN THESE NOTES AND THE DRAWINGS. THERE SHALL BE NO DEVIATION FROM SPECIFICATIONS WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- G9. COORDINATION: COORDINATE WORK WITH ALL OTHER TRADES.
- G10. PRODUCTS: ALL PRODUCTS SHALL BE NEW, SPECIFICATION GRADE. PRODUCTS OF A SIMILAR NATURE SHALL BE OF THE SAME TYPE AND MANUFACTURER. PROVIDE THE STANDARD PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SPECIFIED PRODUCTS, UNLESS OTHERWISE REQUIRED BY DRAWINGS. ALL PRODUCTS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH NATIONALLY RECOGNIZED AND ACCEPTED STANDARDS AND PROCEDURES.
- G11. COMPATIBILITY: ALL NEW ELECTRICAL DISTRIBUTION EQUIPMENT SHALL MATCH AND BE COMPATIBLE WITH EXISTING EQUIPMENT, BY MANUFACTURER, TYPE, APPLICATION, AND SHORT CIRCUIT RATING.
- G12. IDENTIFICATION: ALL ELECTRICAL DISTRIBUTION EQUIPMENT, TRANSFORMERS, PANELBOARDS, AND OTHER ENCLOSED EQUIPMENT SHALL BE IDENTIFIED AS INDICATED IN THE CONTRACT DOCUMENTS. SAID IDENTIFICATION SHALL CONSIST OF PERMANENTLY ATTACHED ENGRAVED LAMINATED PLASTIC NAMEPLATES. EACH BRANCH CIRCUIT OVERCURRENT PROTECTION DEVICE SHALL BE IDENTIFIED BY CIRCUIT NUMBER AND SCHEDULED INSIDE PANEL DOOR. EACH BRANCH CIRCUIT SPLICE OR TERMINATION SHALL BE IDENTIFIED BY PANEL AND CIRCUIT DESIGNATION SHOWN ON THE JUNCTION OR OUTLET BOX, OR UPON INDIVIDUAL WIRES IN CASES WHERE MORE THAN ONE OF EACH PHASE CONDUCTOR OCCUR.
- G13. WIRING: ALL CONDUCTORS CARRYING GREATER THAN 50 VOLTS SHALL BE MINIMUM #12 AWG, SOLID, CU, SOFT DRAWN OF 98% CONDUCTIVITY, UNLESS NOTED OTHERWISE.
- INSULATION: PROVIDE TYPE THW, THWN, THHN, OR XHW TYPE INSULATIONS. COORDINATE INSULATION TYPES WITH CONDITIONS, NEC REQUIREMENTS, AND CONDUIT FILL REQUIREMENTS. ALL WIRING SIZES ARE BASED ON 60 C OR 75 C INSULATION, ACCORDING TO CURRENT RATING, REGARDLESS OF ACTUAL INSULATION USED. TYPE "AC" OR "MC" CABLE IS NOT ACCEPTABLE.
- HOME RUNS: PROVIDE MINIMUM # 10 AWG WIRING ON ALL HOMERUNS GREATER THAN 100 FEET.
- NEUTRALS: SIZE ALL NEUTRALS FULL UNLESS SPECIFICALLY REDUCED ON PLANS.
- G14. GROUNDING: ALL CIRCUITS SHALL BE RUN WITH A #12 AWG INSULATED GREEN COPPER GROUND WIRE, UNLESS OTHERWISE NOTED. USE OF CONDUIT AS A GROUND IS UNACCEPTABLE.
- AT TRANSFORMERS: PROVIDE GROUNDING ELECTRODE CONDUCTORS FROM ALL SEPARATELY DERIVED SYSTEMS. GROUND TO BUILDING STEEL, EARTH, OR METALLIC COLD WATER PIPE, PER NEC.
- G15. CONDUIT: ALL WIRING SHALL BE IN CONDUIT, MINIMUM 3/4" (E.M.T. IS ACCEPTABLE WITH COMPRESSION FITTINGS ONLY). FLEXIBLE METAL CONDUIT IS ACCEPTABLE ONLY WITH SEPARATE INSULATED GROUND WIRE, AND ONLY FOR SWITCH DROPS OR LIGHTING FIXTURE WHIPS. ENT, ALUMINUM CONDUIT, NM ("ROMEX"), NMC, AND SNW ARE NOT ACCEPTABLE.
- RIGID CONDUIT: CONDUIT OVER 2" IN DIAMETER, OR EXPOSED TO WEATHER, OR EXPOSED TO POTENTIAL DAMAGE, OR USED FOR SERVICE ENTRANCE SHALL BE GALVANIZED RIGID STEEL TYPE.
- PVC CONDUIT: PVC CONDUIT, MINIMUM SCHEDULE 40, IS ACCEPTABLE ONLY FOR USE BELOW GRADE, AND ONLY WHEN INSTALLED WITH WIDE RADIUS RIGID STEEL TURNS.
- ROUTING: CONDUIT ROUTING SHOWN IS SYMBOLIC AND DIAGRAMMATIC. INSTALL CONDUIT TO FIT ACTUAL FIELD CONDITIONS.
- BELOW GRADE: COVER METALLIC CONDUIT BELOW GRADE WITH ASPHALTUM OR BITUMASTIC TAPE. SEAL JOINTS AGAINST WATER.
- G16. CONDUIT FITTINGS: ALL FITTING SHALL BE COMPRESSION OR THREADED TYPE. USE OF SET SCREW FITTINGS IS NOT ACCEPTABLE.
- G17. CIRCUIT BREAKERS: ALL BRANCH CIRCUIT OVERCURRENT PROTECTION DEVICES SHALL BE 20 AMPERE INVERSE TIME TYPE CIRCUIT BREAKERS UNLESS NOTED OTHERWISE. 120/240 VOLT CIRCUIT BREAKERS SHALL BE RATED AT EXISTING AIC MINIMUM.
- G18. FUSES: ALL FUSES 600 AMPERES OR LESS SHALL BE UL LISTED, CLASS RK1 OR J, LOW-PEAK, DUAL ELEMENT, TIME DELAY, 600 VOLT, ACCEPTABLE MANUFACTURERS: BUSSMAN, GOULD SHAWMUT.
- G19. PENETRATIONS: COORDINATE FLOOR PENETRATIONS WITH STRUCTURAL ENGINEER. ALL PENETRATIONS THROUGH FIRE-RATED SLABS AND PARTITIONS SHALL BE FIRE PROOFED TO THE SAME OR GREATER RATING THAN THAT OF THE SLAB OR PARTITION. WHERE CONFLICTS OCCUR, NOTIFY ARCHITECT OR INTERIOR DESIGNER.
- G20. ALTERNATES & SUBSTITUTIONS: SUBMIT FOR APPROVAL, 10 DAYS PRIOR TO PRESENTATION OF BID TO OWNER. ALTERNATES OF ALL ITEMS SPECIFIED ON THESE DRAWINGS. ALTERNATES SUBMITTED LATER THAN 10 DAYS PRIOR WILL NOT BE CONSIDERED. THE CONTRACTOR SHALL BEAR THE BURDEN OF SHOWING PROOF THAT ALTERNATES REQUESTED FOR SUBSTITUTION PERFORM IN AN EQUAL OR SUPERIOR MANNER TO THE SPECIFIED ITEM. INFORMATION SUBMITTED FOR ENGINEER'S CONSIDERATION SHOULD INCLUDE PERFORMANCE CHARACTERISTICS, ILLUSTRATION OF FIELD APPLICATION, AND COMPARISON OF THE SPECIFIED ITEM TO THE INTENDED ALTERNATE.
- "ALTERNATE" REFERS TO A LUMINAIRE, FIXTURE, DEVICE, EQUIPMENT ITEM, OR MANUFACTURER OTHER THAN THAT SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS.
- G21. SHOP DRAWINGS & SUBMITTALS: SUBMIT MANUFACTURERS' STANDARD PRODUCT INFORMATION, PERFORMANCE SPECIFICATIONS, PHYSICAL DIMENSIONS, AND OTHER INFORMATION NECESSARY FOR ENGINEER TO INSURE COMPLIANCE WITH SPECIFICATIONS. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING AND INSTALLING ANY EQUIPMENT.
- G22. PROJECT RECORD DOCUMENTS: UPON COMPLETION OF WORK, PREPARE LIGHTING AND POWER PROJECT RECORD DOCUMENTS ("AS-BUILTS") ON A SUITABLY REPRODUCIBLE MEDIUM (MYLAR OR VELLUM). PRESENT COMPLETED DRAWINGS TO OWNER, AND TWO SETS OF PRINTS TO INTERIOR DESIGNER OR ARCHITECT. "AS-BUILT" DRAWINGS SHALL INCLUDE ALL BRANCH CIRCUIT WORK, ANY PANELBOARD INFORMATION AVAILABLE, FINAL SWITCHING, ETC.
- G23. WARRANTY: WARRANT ALL MATERIALS, EQUIPMENT, AND INSTALLATION FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER.
- GENERAL LIGHTING NOTES
- L1. FIXTURE TYPES: REFERENCE LANDSCAPE DRAWINGS FOR FIXTURE SCHEDULE.
- L2. SWITCHING CONTROL: PARKING LOT LIGHTING TO BE CONTROLLED THRU TIMECLOCK AND PHOTOCELL. PHOTOCELL ON, TIMECLOCK OFF.
- L3. FIXTURE LOCATIONS: REFERENCE LANDSCAPE DRAWINGS PLAN FOR EXACT LOCATIONS OF LIGHT FIXTURES. COORDINATE INSTALLATION IN FIELD WITH ARCHITECT.
- L4. INSTALLATION: WIRE FROM JUNCTION BOXES TO FIXTURES OR SWITCHES AS INDICATED. ADDITIONAL JUNCTION BOXES MAY BE REQUIRED BEYOND THOSE SHOWN.
- SUPPORT ALL FIXTURES PER DETAIL ON LANDSCAPE DRAWINGS.
- GENERAL POWER NOTES
- P1. GENERAL: VERIFY EXACT LOCATION OF OUTLETS AND DEVICES WITH ARCHITECT PRIOR TO INSTALLATION. PROVIDE OUTLET BOXES, DEVICES, COVERPLATES, AND FLANGES AS REQUIRED.
- P2. COORDINATION: MOUNT ALL OUTLETS AT 18" A. F. F. UNLESS NOTED OTHERWISE. VERIFY REQ. AND HEIGHT WITH OWNER.
- P3. CONVENIENCE OUTLETS: ALL CONVENIENCE OUTLETS SHOWN SHALL BE NEMA TYPE 5-20R, SPECIFICATION GRADE (HUBBELL #5352) DUPLEX RECEPTACLES WITH COVERPLATES TO MATCH EXISTING. VERIFY COLOR WITH ARCHITECT.
- P4. IG & GF1 RECEPTACLES: ALL ISOLATED GROUND DEVICES (IG) AND GROUND FAULT INTERRUPT (GF1) DEVICES SHALL BE RATED 20 AMPERES AND SHALL HAVE AN DEDICATED INSULATED GREEN GROUND WIRE. THE GROUND WIRE SHALL BE RUN CONTINUOUS AND UNSPLICED BETWEEN DEVICE AND PANEL GROUND BUS.
- GROUND FAULT RECEPTACLES SHALL BE UL LISTED, RATED 20 AMPERES (HUBBELL #GF-5362).
- P5. TIME CLOCKS: PROVIDE TORX OR INTERMATIC 24 HOUR TIME CLOCK TO CONTROL SIGNS, LIGHTING, AND OTHER CYCLIC LOADS IDENTIFIED BY OWNER'S REPRESENTATIVE. PROVIDE CONTACTORS AS REQUIRED. VERIFY EXACT LOCATION AND WIRING REQUIREMENTS.
- P6. INSTALLATION: DROP FROM JUNCTION BOXES TO DEVICES AS INDICATED. ADDITIONAL JUNCTION BOXES MAY BE REQUIRED BEYOND THOSE SHOWN.
- P7. EQUIPMENT EXPOSED TO WEATHER SHALL BE WEATHERPROOF.

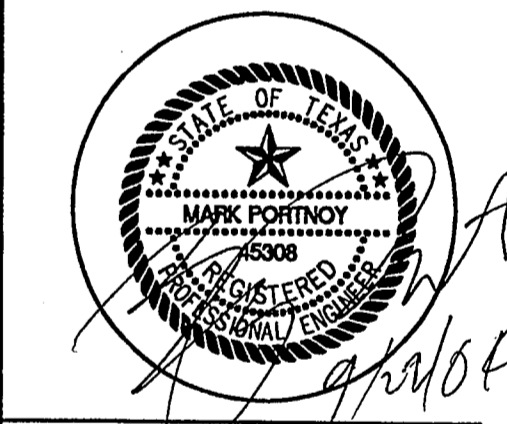
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