

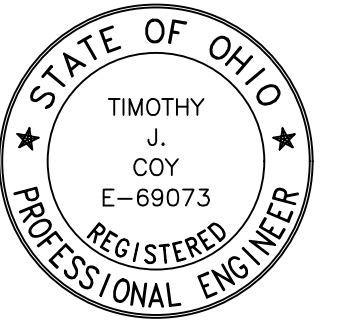
GENERAL SPECIFICATIONS

- THE INTENT OF THESE SPECIFICATIONS AND NOTES IS FOR THE CONTRACTOR TO PROVIDE ALL LABOR, MATERIAL, SUPERVISION, AND EQUIPMENT NECESSARY FOR A COMPLETE ELECTRICAL INSTALLATION AS DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS FOR A FULLY OPERATIVE ELECTRICAL SYSTEM.
- THE ELECTRICAL INSTALLATION OF EQUIPMENT AND OTHER WORK SHALL COMPLY WITH OR EXCEED ALL REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE AND ALL STATE AND LOCAL CODES AND ORDINANCES APPLICABLE TO THIS PROJECT.
- THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS REQUIRED BY LAWS, REGULATIONS, CODES OR ORDINANCES, NECESSARY TO FURNISH AND INSTALL ALL WORK INDICATED ON THE PLANS OR HEREIN SPECIFIED.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE IN COMPLIANCE WITH OR EXCEED THE REQUIREMENTS OF THE LATEST EDITION OF:
 - THE NATIONAL ELECTRICAL CODE, NFPA 70
 - THE NATIONAL FIRE ALARM CODE, NFPA 72
 - STATE, COUNTY OR LOCAL CODES AND ORDINANCES HAVING JURISDICTION
- ALL RACEWAYS SHALL BE GRC OR IMC OR EMT. PROVIDE AN INSULATED GROUND WIRE IN EACH CONDUIT. ALL RACEWAYS SHALL BE CONCEALED UNLESS NOTED OTHERWISE.
- ALL WIRE SHALL BE TYPE THHN/THWN 600V INSULATION RATED FOR 90 DEGREE CELSIUS DRY AND 75 DEGREE CELSIUS WET. MINIMUM WIRE SIZE SHALL BE #12 THHN/THWN. ALL CONDUCTORS TO BE 98% CONDUCTIVITY COPPER. ALL WIRES SHALL BE IN INSTALLED IN RACEWAYS.
- COLOR CODE FEEDERS AND BRANCH CIRCUIT CONDUCTORS AS FOLLOWS:

208Y/120 VOLTS	PHASE	480Y/277 VOLTS
BLACK	A	BROWN
RED	B	ORANGE
BLUE	C	YELLOW
WHITE	NEUTRAL	GRAY
GREEN	GROUND	GREEN
- ALL BOXES AND ENCLOSURES SHALL BE METAL AND NEMA TYPE AS NOTED OR REQUIRED.
- WIRING DEVICES SHALL BE AS PER THE SYMBOL SCHEDULE. ALL MOUNTING HEIGHTS PER CODES AND ADA.
- GROUNDING:
 - FURNISH AND INSTALL ALL GROUNDING FOR THE ELECTRICAL SERVICE IN STRICT ACCORDANCE TO THE NATIONAL ELECTRICAL CODE SPECIFICALLY ARTICLE 250 AND ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
 - GROUNDING ELECTRODE CONDUCTOR SHALL BE COPPER BARE WIRE, SIZE AS NOTED.
 - ALL SOLDERLESS OR COMPRESSION TYPE GROUND CONNECTORS SHALL BE COPPER.
 - ALL CONDUCTORS SHALL BE UL LISTED 98% CONDUCTIVITY COPPER.
 - ACCEPTABLE GROUND CLAMPS AND CONNECTOR MANUFACTURERS ARE AS FOLLOWS:
 - BURNDY CORPORATION
 - PENN-UNION
 - THOMAS & BETTS
 - PROVIDE ALL BONDING AND BONDING JUMPERS AT SERVICE AS REQUIRED BY ARTICLE 250.
 - EQUIPMENT GROUND CONDUCTORS SHALL BE COPPER SIZED AS PER TABLE 250-95 NATIONAL ELECTRIC CODE. CONDUCTORS SHALL BE GREEN AND NO. 6 AND LARGER SHALL BE MARKED WITH GREEN COLORED TAPE OR GREEN ADHESIVE LABELS. PROVIDE AN INSULATED N.E.C. CODE SIZED CONDUCTOR IN ALL CONDUITS.
- EQUIPMENT CONNECTIONS:
 - ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL MOTOR STARTERS, FUSED SAFETY SWITCHES, FUSES, AS REQUIRED AND SHOWN ON DRAWINGS FOR ALL EQUIPMENT.
 - THE ELECTRICAL CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DIVISIONS WHICH REQUIRE ELECTRICAL CONNECTIONS AND/OR ARE SHOWN ON ELECTRICAL DRAWINGS. COORDINATE ALL ELECTRICAL WORK WITH THESE OTHER DIVISIONS.
 - THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL CORDS, RECEPTACLES, JUNCTION BOXES, FLEXIBLE WIRING AS REQUIRED TO CONNECT EQUIPMENT.
- DISTRIBUTION APPARATUS SHALL BE UL LISTED AND TESTED AND RATED FOR SERVICE ENTRANCE AS REQUIRED OR SHOWN ON THE DRAWINGS. SERIES RATING NOT ACCEPTABLE. ACCEPTABLE MANUFACTURERS ARE:
 - SQUARE D
 - CUTLER HAMMER
 - GENERAL ELECTRIC
 - OR APPROVED EQUAL
- FUSES SHALL BE BUSSMAN LOWPEAK CLASS RK-1 600 AMPS AND BELOW; CLASS L 601 AMPS AND ABOVE.
- CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING AND POWER FOR THE PROJECT. ALL TEMPORARY WIRING MUST COMPLY WITH OSHA REGULATIONS, AND STATE AND LOCAL REGULATIONS.

GENERAL PROJECT NOTES

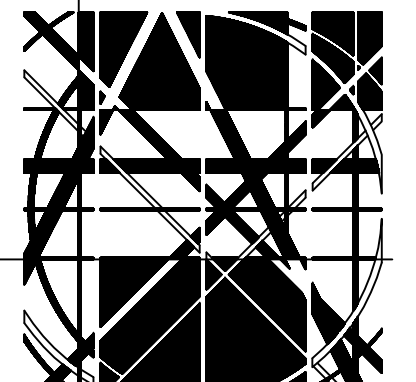
- ALL WORK IN AREAS OUTSIDE OF DESIGNATED CONSTRUCTION AREAS SHALL BE SCHEDULED IN ADVANCE WITH THE OWNER. THE WORK SHALL BE PERFORMED AT TIMES AND DAYS AS DICTATED BY THE OWNER.
- FOR ALL DEMOLITION ITEMS, VERIFY WHICH ITEMS AND/OR EQUIPMENT THE OWNER DESIRES TO RETAIN AND PLACE SUCH ITEMS ON THE PROPERTY AS LOCATED BY THE OWNER. ALL OTHER ITEMS AND/OR EQUIPMENT SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.
- IT IS NOT INTENDED THAT THE PLANS INDICATE ALL THE NECESSARY BENDS, OFFSETS, PULL BOXES AND OBSTRUCTIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL HIS WORK TO CONFORM TO THE STRUCTURE, MAINTAIN HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- IT IS NOT INTENDED THAT THE PLANS INDICATE ALL CONDUIT ROUTES, PULL BOXES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL CONDUIT ROUTING, QUANTITY AND LOCATION OF PULL BOXES WITHIN ACCESSIBLE LOCATIONS. PROVIDE SCREW-COVER PULL BOXES IN CONDUIT RUNS AS REQUIRED TO LIMIT THE NUMBER OF BENDS TO NO MORE THAN THREE (3) OR 270 DEGREES TOTAL. SIZE PULL BOXES IN ACCORDANCE WITH NEC, ARTICLE 314.28. DOCUMENT ON RECORD DRAWINGS, SIZE AND LOCATION OF PULL BOXES USED IN FEEDER CONDUIT RUNS.
- ALL CONDUITS SHALL BE CONCEALED, EXCEPT IN ELECTRICAL OR MECHANICAL ROOMS.
- VERIFY LOCATIONS OF ALL ELECTRICAL EQUIPMENT WITH ARCHITECTURAL DRAWINGS AND INTERIOR DETAILS AND FINISHES. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS, AND MECHANICAL EQUIPMENT, VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE, AND CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
- PROVIDE REQUIRED EXPANSION/DEFLECTION FITTINGS AT LOCATIONS WHERE CONDUIT PASSES THRU EXPANSION JOINTS. FITTINGS SHALL ALLOW SEISMIC MOVEMENT REQUIRED BY STRUCTURAL ENGINEER.
- PROVIDE ALL CUTTING AND PATCHING WHICH MAY BE REQUIRED FOR THE PROPER INSTALLATION OF THE NEW ELECTRICAL WORK. ALL PATCHING SHALL BE OF THE SAME MATERIALS, WORKMANSHIP, AND FINISH AND SHALL ACCURATELY MATCH ALL ADJACENT WORK.
- PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING WORK TO INSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. ALL SYSTEM SHUTDOWNS AFFECTING OTHER AREAS SHALL BE COORDINATED WITH BUILDING OWNER. ALARM, EMERGENCY AND LIFE SAFETY SYSTEMS SHALL NOT BE INTERRUPTED OR COMPROMISED. ALL SHUTDOWNS/INTERRUPTIONS SHALL BE DURING PREMIUM TIME.
- REMOVE OR RELOCATE ANY EXISTING ELECTRICAL ITEM OR DEVICE NECESSARY FOR EXISTING OR NEW INSTALLATION BUT INTERFERING WITH NEW INSTALLATION. RECONNECT ANY ELECTRICAL ITEM THAT IS RELOCATED, SPLICE OR RE-ROUTE AND EXTEND EXISTING BRANCH CIRCUIT WIRING FROM THE ORIGINAL LOCATION OF THE DEVICE TO ITS NEW LOCATION. FOR ALL ELECTRICAL ITEMS THAT ARE REMOVED AND NOT RELOCATED, DISCONNECT AND REMOVE ALL ASSOCIATED WIRING BACK TO ITS SOURCE, JUNCTION BOX OR NEXT DEVICE TO REMAIN FOR FUTURE EXTENSION.
- CUT, CHANNEL OR FISH EXISTING WALLS SCHEDULED TO REMAIN AS REQUIRED TO INSTALL ELECTRICAL ITEMS AS SHOWN ON THE PLANS. WHERE EXISTING WALLS HAVE BEEN CUT, PATCH AND FINISH WALL SURFACE TO MATCH ADJACENT AREA AS DIRECTED BY ARCHITECT.
- PATCH EXISTING WALLS OR CEILINGS SCHEDULED TO REMAIN FOLLOWING REMOVAL OF ANY ELECTRICAL ITEM OR DEVICE THAT WILL NOT BE REPLACED DURING THE NEW CONSTRUCTION PHASE. MATCH EXISTING WALL OR CEILING SURFACE AND FINISH. RELATED WORK SHALL BE PERFORMED BY WORKERS SKILLED IN THAT TRADE.
- REMOVE AND RE-INSTALL CEILING TILES AS REQUIRED FOR ELECTRICAL WORK IN AREAS WHERE NO OTHER TRADES ARE INVOLVED. REPLACE ANY TILES THAT ARE DAMAGED DURING REMOVAL OR REINSTALLATION WITH NEW TILES TO MATCHING EXISTING.
- THE CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY EXAMINE THE EXISTING CONDITIONS AND THE EXISTING CONDITIONS IMPACT ON THE WORK TO BE PERFORMED. THE CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR WORK NECESSARY TO COMPLETE THE INTENDED INSTALLATION DUE TO EXISTING CONDITIONS.
- ALL BRANCH CIRCUITS MUST HAVE SEPARATE NEUTRALS.
- FOR ALL FLUORESCENT AND/OR LED FIXTURES, PROVIDE A DISCONNECTING MEANS TO DISCONNECT SIMULTANEOUSLY FROM THE SOURCE OF SUPPLY ALL CONDUCTORS OF THE BALLAST, INCLUDING THE GROUNDED CONDUCTOR, IF ANY. THIS REQUIREMENT SHALL BE IN STRICT ACCORDANCE WITH ARTICLE 410.73 (G) OF THE N.E.C.
- PROVIDE LOW VOLTAGE WIRING FOR ALL LED FIXTURES BETWEEN THE FIXTURES AND TO THE WALL SWITCH SWITCH/CONTROL PANEL FOR DIMMING.
- THE CONTRACTOR SHALL PROVIDE THE FOLLOWING ITEMS TO BE LOCATED IN THE FIELD. THESE ITEMS ARE IN ADDITION TO THOSE SHOWN ELSEWHERE ON THE DRAWINGS. ASSUME 80' OF WIRING FOR EACH RESPECTIVE DEVICE:
 - TWO 6FCI DUPLEX RECEPTACLES (Ⓢ) ⁶
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE ALARM VENDOR DRAWINGS PER OBC 907.1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT THE FIRE ALARM DRAWINGS TO ALL LOCAL AND STATE BUILDING DEPARTMENTS AS REQUIRED.



NEWPORT LIBRARY GARAGE ADDITION

YOUNGSTOWN, OHIO

NEWPORT BRANCH LIBRARY



FANIRO ARCHITECTS, INC.

217 1/2 WEST FEDERAL STREET YOUNGSTOWN, OHIO 44503

PHONE: 330 747 2800

FACSIMILE: 330 747 2802

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