

ELECTRICAL SPECIFICATIONS DIVISION 1600

<p>1.0 SCOPE</p> <p>1.1 THE COMPLETE INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH THE LANDLORD'S REQUIREMENTS. CONSULT LANDLORD'S DESIGN CRITERIA.</p> <p>1.2 THE DRAWINGS AND THE SPECIFICATIONS SHALL BE CONSIDERED ADDITIONAL TO ARCHITECT AND MECHANICAL ENGINEER'S SPECIFICATIONS. ANY DISCREPANCY OR CONTRADICTION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.</p> <p>1.3 ARCHITECT'S GENERAL REQUIREMENTS ARE PART OF THIS CONTRACT. AND THEY SHALL BE APPLIED BY THE GENERAL CONTRACTOR AND SUBCONTRACTORS (ELECTRICAL, ETC.).</p> <p>1.4 ONCE ONSITE GENERAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ANY CONDITIONS THAT MAY AFFECT HIS WORK IN ANY MANNER PRIOR TO START OF CONSTRUCTION. (MEASUREMENTS - PARTICULAR CONDITIONS, ETC.) GENERAL CONTRACTOR SHALL NOTIFY TENANT REPRESENTATIVE AND ARCHITECT OF ANY SUCH CONDITIONS PRIOR TO COMMENCEMENT OF WORK.</p> <p>1.5 GENERAL CONTRACTOR SHALL MAKE ALL NECESSARY CHECKING AND ADJUSTMENTS TO COMPLY WITH THE INTENT OF SPECIFICATIONS.</p> <p>1.6 THE DRAWINGS SHOW THE APPROXIMATE LOCATION OF THE EQUIPMENT. EACH SUBCONTRACTOR SHALL VERIFY THESE LOCATIONS BEFORE INSTALLATION.</p> <p>1.7 GENERAL CONTRACTOR'S TENDER SHALL INCLUDE THE COST OF ALL NECESSARY PERMITS AND CERTIFICATES. ALL DRAWINGS APPROVAL COSTS AND ALL INSPECTION COSTS REQUIRED BY ALL AUTHORITIES HAVING JURISDICTION.</p> <p>1.8 EACH SUBCONTRACTOR SHALL COMPLETE THE WORK IN EVERY DETAIL. EVEN THOUGH NOT SHOWN ON DRAWINGS OR CALLED FOR IN THIS SPECIFICATION.</p> <p>1.9 THE ELECTRICAL TRADE SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY FOR A COMPLETE AND OPERATING ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS. THE TRADE SHALL ALSO PROVIDE ANY ITEMS AND/OR LABOR THAT ARE OBVIOUSLY NECESSARY OR REASONABLY IMPLIED TO COMPLETE ALL WORK.</p> <p>1.10 ALL ELECTRICAL WORK TO BE DONE IN ACCORDANCE WITH CURRENT EDITIONS AND AMENDMENTS OF THE NATIONAL ELECTRICAL CODE (NEC), NFPA AND ALL LOCAL CODES ADOPTED BY THE LOCAL JURISDICTION HAVING AUTHORITY.</p> <p>1.11 ALL RUBBISH'S AND GARBAGE SHALL BE REMOVED FROM THE JOB SITE AT THE END OF EVERY WORKDAY. AT THE CONTRACT COMPLETION, ALL TOOLS AND EQUIPMENT SHALL BE REMOVED AND THE JOB SITE SHALL BE LEFT IN A CLEAN CONDITION.</p> <p>2.0 GUARANTEE</p> <p>2.1 EACH SUBCONTRACTOR SHALL GUARANTEE HIS WORK AND INSTALLATION REGARDING HIS CONTRACT. THE ELECTRICAL CONTRACTOR SHALL REPAIR OR REPLACE, AT HIS OWN EXPENSE, ALL DEFECTS AND THIS DURING A TWELVE MONTHS PERIOD, STARTING AT THE PROVISIONAL ACCEPTANCE BY THE TENANT. AS LONG AS THE DEFECTS IS NOT DUE TO A BAD USE OR NORMAL WEAR.</p> <p>3.0 TAXES</p> <p>3.1 EACH SUBCONTRACTOR SHALL PAY ALL APPLICABLE TAXES, FOR LABOR AND MATERIAL INCLUDED IN HIS TENDER</p> <p>4.0 TEMPORARY SERVICES</p> <p>4.1 ALL TEMPORARY LIGHTING (MIN. 200LUX WITH MH HALIDE FIXTURE) AND POWER DURING CONSTRUCTION SHALL BE BY GENERAL CONTRACTOR AFTER AGREEMENT WITH ELECTRICAL CONTRACTOR AND SHALL BE TAKEN FROM EXISTING PANEL SERVING THE SPACE. SUPPLY VOLTAGE AND AMPS AS REQUIRED.</p> <p>5.0 SHOP DRAWINGS</p> <p>5.1 PRIOR TO ORDERING OR INSTALLING ANY EQUIPMENT SUBMIT TO ENGINEER FOR APPROVAL A MINIMUM OF TWO (2) COPIES OF SHOP DRAWINGS FOR EACH ITEM OF EQUIPMENT.</p> <p>6.0 ALTERNATE EQUIPMENT</p> <p>6.1 PROPOSAL SHALL BE BASED ON SPECIFIED EQUIPMENT AND MATERIAL.</p> <p>6.2 PROPOSAL FOR ALTERNATE TO SPECIFICATION SHALL INCLUDE MANUFACTURER NAME, MODEL AND COST MODIFICATION.</p> <p>6.3 COST OF ANY CHANGE REQUIRED TO OTHER TRADES WORK DUE TO SUBSTITUTION OF ALTERNATE EQUIPMENT, SHALL BE INCLUDED IN THE SUBCONTRACTOR'S PROPOSAL CALLING FOR THIS SUBSTITUTION. EVEN IF THESE CHANGES APPEAR AFTER THE DEMAND FOR SUBSTITUTION.</p> <p>6.4 ALTERNATE PROPOSALS WILL BE ACCEPTED OR REJECTED BEFORE CONTRACTS ARE AWARDED. NO CHANGES WILL BE ALLOWED AFTER THE CONTRACT IS SIGNED.</p> <p>7.0 IDENTIFICATION</p> <p>7.1 ALL ELECTRICAL EQUIPMENT (SWITCHES, PANELS, CIRCUITS ETC...) MUST BE PROPERLY IDENTIFIED WITH LAMICOID NAME PLATES SCREWED ON PANELS AND HAVE A TYPED DIRECTORY AND INDICATE LOAD ON EACH CIRCUIT.</p> <p>8.0 GROUND</p> <p>8.1 THE GROUND SHALL BE CONTINUOUS AND SHALL BE CONFORM TO NATIONAL ELECTRICAL CODE.</p> <p>9.0 PULLING AND JUNCTION BOXES</p> <p>9.1 TRADE WILL PROVIDE PULLING AND JUNCTION BOXES WITH SCREWED PLATED COLOR MATCHED FOR WALL AND CEILING FINISHES.</p> <p>9.2 ALL BOXES SHALL BE ACCESSIBLE.</p> <p>9.3 BACK TO BACK BOXES WILL NOT BE ACCEPTED.</p> <p>9.4 PULL BOXES SHALL BE LOCATED EVERY 100 FEET (30m) AND EVERY TWO 90 DEG. ELBOW.</p> <p>9.5 ALL SURFACE MOUNTED BOXES FOR JUNCTION, SOCKETS, SWITCHES, FIXTURES ETC... SHALL BE F.S. TYPE.</p> <p>10.0 DRILLING</p> <p>10.1 ELECTRICAL CONTRACTOR SHALL DRILL OR CHIP THE FLOOR WHERE REQUIRED. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES IN CONCRETE SLAB, WHERE REQUIRED.</p> <p>10.2 NO ELECTRICAL OR PNEUMATIC HAMMER SHOULD BE USED.</p> <p>10.3 EXISTING CONCRETE COLUMNS ARE NOT TO BE CHANNLED OR NOTCHED.</p> <p>11.0 WIRING AND CONDUIT</p> <p>11.1 ALL WIRING, WILL BE COPPER TYPE, No.12 AWG MINIMUM, UNLESS OTHERWISE NOTED.</p> <p>11.2 ALL SURFACE WIRING, SHALL BE THWN TYPE IN E.M.T. CONDUIT. ALL COUPLINGS TO BE RAIN TIGHT OR GALVANIZED SET CREW TYPE.</p> <p>11.3 ALL WIRING AND CONDUIT, WILL BE RECESSED IN WALL OR CEILING (INCLUDING EXISTING ARCHITECTURAL ELEMENTS) UNLESS APPROVED BY LOCAL INSPECTOR AND JHA. ELECTRICAL CONTRACTOR TO VERIFY.</p> <p>11.4 ALL WIRING SHALL BE PARALLEL WITH ARCHITECTURAL LINES AND DESIGN.</p> <p>11.5 FOR SUSPENDED CEILING, MC CABLE FOR 15 FEET (4.5m) IS ACCEPTED. MAIN WIRING TO BE THWN IN E.M.T. CONDUIT.</p> <p>11.6 ALL EMPTY CONDUIT SHALL INCLUDE A PULLING WIRE No.12 AWG, - MAX. 6'-0" FLEXIBLE CONDUIT MAY BE USED FOR FIXTURE AND EQUIPMENT CONNECTIONS ONLY. PLASTIC CONDUIT IS NOT ACCEPTED.</p> <p>12.0 FIRE BARRIER</p> <p>12.1 IN CASE OF CROSSING A FIRE BARRIER (FLOOR, WALL, OR CEILING) FILL GAP WITH APPROPRIATE MATERIAL. THIS MATERIAL SHALL BE EFFICIENT BARRIER FOR FLAME, FUME AND GAS. SEAL AT SMOKE WALL.</p>	<p>13.0 EXPANSION JOINT</p> <p>13.1 EACH TIME ELECTRICAL CONDUIT PASS THROUGH AN EXPANSION JOINT OF THE BUILDING USE GALVANIZED STEEL SLIDING TYPE EXPANSION JOINT WITH CONTINUOUS COPPER GROUNDING. FLEXIBLE AT THESE LOCATIONS.</p> <p>14.0 FIXTURES AND LAMPS</p> <p>14.1 COMPLETE LIGHTING PACKAGE IS OWNER (OR LANDLORD) FURNISHED (REFER TO LEASE AGREEMENT), GC INSTALLED. ELECTRICAL CONTRACTOR SHALL INSTALL ALL FIXTURES, LAMPS AND CONTROLS PER MANUFACTURER SPECS AND EDSS (ENERGY DESIGN SERVICE SYSTEMS) INSTALLATION INSTRUCTIONS.</p> <p>15.0 FIELD CONDITIONS</p> <p>15.1 ENGINEER CAN RELOCATE ALL EQUIPMENT (FIXTURES, OUTLETS, ETC.,) AT NO COST, IF DISPLACEMENT IS LESS THAN 10 FEET (3m), AND WRITTEN NOTICE IS SENT TO CONTRACTOR PRIOR TO INSTALLATION.</p> <p>15.2 CONFER WITH ALL OTHER TRADES AND ARRANGE EQUIPMENT IN PROPER RELATION WITH OTHER APPARATUS, DUCTS, PIPES, ETC. AND WITH BUILDING CONSTRUCTION AND ARCHITECTURAL FINISHES.</p> <p>16.0 EXISTING CONDITIONS</p> <p>16.1 ELECTRICAL CONTRACTOR WORK AFFECTING OTHER TENANT SHALL BE DONE OFF BUSINESS HOURS (NIGHT OR WEEK-END). COORDINATE WITH THE LANDLORD.</p> <p>16.2 ELECTRICAL CONTRACTOR SHALL REMOVE AND DISPOSE ANY UNUSED MATERIAL.</p> <p>16.3 ANY NON REUSED MATERIAL SHALL BE GIVEN BACK IN GOOD CONDITION TO LANDLORD</p> <p>16.4 ANY DAMAGED WALL, FLOOR, CEILING, FINISHES SHALL BE REPAIRED BY GENERAL CONTRACTOR THOSE REPAIRS SHALL MATCH EXISTING FINISHES.</p> <p>17.0 COMMUNICATIONS</p> <p>17.1 TENANT IS IN CHARGE FOR ANY COMMUNICATIONS SYSTEMS.</p> <p>17.2 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL, IF REQUIRED, TELEPHONE TERMINAL BOARD, 24"x24" PLYWOOD 3/4" THICK, AND CONDUIT AS INDICATED ON DRAWINGS.</p> <p>17.3 ALL WIRING, INCLUDING INSTALLATION AND CONNECTION TO EQUIPMENT SHALL BE PERFORMED BY A SPECIALIZED CONTRACTOR, IN CHARGE OF THE TENANT.</p> <p>18.0 FIRE ALARMS</p> <p>18.1 EXISTING FIRE ALARM TO BE KEPT. TENANT'S FIRE ALARM CONTRACTOR TO RELOCATE IF REQUIRED ANY EQUIPMENT AT NO COST.</p> <p>18.2 ALL REQUIRED WORK RELATED TO LIFE SAFETY SYSTEMS SHALL BE DONE AT NO EXTRA COST. RETAIN THE SYSTEM MANUFACTURER'S FORCES TO PERFORM FINAL CONNECTIONS, MODIFICATIONS AND PROVISION OF NEW INTERFACING DEVICES IN THE SYSTEM PANELS, ETC.</p> <p>18.3 ENSURE FULL COMPATIBILITY OF ALL NEW DEVICES WITH EXISTING LIFE SAFETY SYSTEMS.</p> <p>18.4 TENANT'S FIRE ALARM CONTRACTOR SHALL HAVE SYSTEM MANUFACTURER TEST AND CERTIFY LIFE SAFETY SYSTEMS FOR PROPER OPERATION AT COMPLETION OF WORK.</p> <p>19.0 COLOR CODE</p> <table border="1"> <tr> <td></td> <td>120/208V</td> <td>120/240V HIGH LEG 3P 4W</td> <td>277/480V</td> </tr> <tr> <td>PHASE A</td> <td>BLACK</td> <td>BLACK</td> <td>BROWN</td> </tr> <tr> <td>PHASE B</td> <td>RED</td> <td>ORANGE</td> <td>ORANGE</td> </tr> <tr> <td>PHASE C</td> <td>BLUE</td> <td>BLUE</td> <td>YELLOW</td> </tr> <tr> <td>NEUTRAL</td> <td>WHITE</td> <td>WHITE</td> <td>GREY</td> </tr> <tr> <td>GROUND</td> <td>GREEN</td> <td>GREEN</td> <td>GREEN</td> </tr> </table> <p>20.0 SPECIAL NOTES</p> <p>20.1 ELECTRICAL CONTRACTOR TO PROVIDE UNDERGROUND CONDUIT TO EC PROVIDED SURFACE MOUNTED J-BOXES. OWNER FURNISHED RECESSED FLOOR BOXES AND OWNER FURNISHED POKE-THRU BOXES AS INDICATED AND PROVIDE APPROVED FLEX CONNECTION ASSEMBLY. LEAVE FLEX CONNECTION ASSEMBLY COILED AND TAPED AS REQD UNTIL FIXTURE INSTALLATION. AFTER FIXTURE INSTALLATION EC TO INSTALL POWER RECEPTACLES IN PRE-INSTALLED BLANK BOXES INSIDE FIXTURE. PROVIDE POWER CIRCUIT FROM PANEL TO RECEPTACLES AND CONNECTION POWER SOURCE. EC TO PROVIDE PULL STRING FROM TELEPHONE BOARD TO ALL FIXTURE DESIGNATIONS FOR CAT5E DATA CABLE AND RJ45 JACKS BY OWNER'S VENDOR. SEE WIRING DETAILS ON SHEETS E501, E502, E503 AND E511 FOR ADDITIONAL INFORMATION.</p> <p>20.2 ON ALL OUTLETS LOCATED IN POS COUNTERS, ETC., ELECTRICAL TRADE SHALL ATTACH ALL CONDUITS TO THE FLOOR WITH APPROPRIATE CONNECTORS. GC MUST OBTAIN WRITTEN APPROVAL FROM THE LANDLORD PRIOR TO ANY TRENCHING OR CORE DRILLING.</p> <p>20.3 RECEPTACLES, OUTLETS, ETC... LOCATED AT THE CASH COUNTERS SHALL BE INSTALLED IN COMMON BOXES. USE 1 GANG, 2 GANG, 3 GANG OR 4 GANG, ETC... BOXES C/W SEPARATIONS AS PER CODE, AS REQUIRED. BOXES SUPPLIED, INSTALLED AND CONNECTED BY THE ELECTRICAL CONTRACTOR.</p> <p>21.0 DEMOLITION</p> <p>21.1 REMOVE AND TRANSPORT OUT OF THE CONSTRUCTION SITE ALL EQUIPMENT MADE OBSOLETE CONSECUTIVE TO THE WORK, INCLUDING WIRING, CONDUITS, BOXES, OUTLETS, SWITCHES, LIGHTING FIXTURES, DISTRIBUTION EQUIPMENT, SUPERVISORY AND COMMUNICATION EQUIPMENT. ALL ACCESSORIES BEING PART OF THE ELECTRICAL INSTALLATION.</p> <p>21.2 REMOVE THE WIRING AND THE CONDUIT UP TO THE LAST PANEL OR BOX KEPT IN THE NETWORK.</p> <p>21.3 PUT BACK IN SERVICE ALL FEEDERS, CONTROL OR COMMUNICATION CABLES WHEN THE CONTINUITY OF THOSE SERVICES IS INTERRUPTED BY THE WORK.</p> <p>22.0 SPECIFICATIONS</p> <p>22.1 DISCONNECT AS PER CUTLER-HAMMER</p> <table border="1"> <tr> <td>MODEL</td> <td>FUSE</td> <td>INSTALLATION</td> </tr> <tr> <td>HD</td> <td>WITH</td> <td>INTERIOR</td> </tr> <tr> <td>HD</td> <td>WITHOUT</td> <td>INTERIOR</td> </tr> <tr> <td>RD</td> <td>WITH</td> <td>EXTERIOR</td> </tr> <tr> <td>RD</td> <td>WITHOUT</td> <td>EXTERIOR</td> </tr> </table> <p>22.2 FUSES AS PER GOULD</p> <table border="1"> <tr> <td>GAGE</td> <td>MODEL</td> <td>SPARE QTY.</td> </tr> <tr> <td>0-500A</td> <td>AJT</td> <td>10% (MINIMUM 6)</td> </tr> </table> <p>22.3 SPLITTER BOXES AND TROUGHS, AS PER BEL, 14 GA STEEL WITH HINGED COVER CLOSED WITH SCREWS, TINNED COPPER BUS BARS, COMPLETE WITH SOLDERLESS TERMINALS. BARS SUPPORTED BY ISOLATORS.</p> <p>22.4 TRANSFORMERS AS PER DELTA, DT (TRIPLE PHASE).</p> <p>22.5 PANELS C/W DOORS AND LOCKS, AS PER CUTLER-HAMMER</p> <table border="1"> <tr> <td>USAGE</td> <td>VOLTAGE</td> <td>MODEL</td> </tr> <tr> <td>LIGHTING</td> <td>120/208V 3PH</td> <td>PR1-1</td> </tr> <tr> <td colspan="3">BREAKERS WITH 10,000 A SYMMETRICAL INTERRUPTING CAPACITY, UNLESS OTHERWISE NOTED.</td> </tr> </table> <p>22.6 OUTLETS AS PER LEVITON, MODEL NO. 5262, WHITE.</p> <p>22.7 SWITCH</p> <table border="1"> <tr> <td>TYPE</td> <td>MODEL</td> </tr> <tr> <td>UNIPOLAR</td> <td>5401001</td> </tr> <tr> <td>BIPOLAR</td> <td>54502001</td> </tr> <tr> <td>THREE WAY</td> <td>54503001</td> </tr> <tr> <td>FOUR WAY</td> <td>54504001</td> </tr> </table>		120/208V	120/240V HIGH LEG 3P 4W	277/480V	PHASE A	BLACK	BLACK	BROWN	PHASE B	RED	ORANGE	ORANGE	PHASE C	BLUE	BLUE	YELLOW	NEUTRAL	WHITE	WHITE	GREY	GROUND	GREEN	GREEN	GREEN	MODEL	FUSE	INSTALLATION	HD	WITH	INTERIOR	HD	WITHOUT	INTERIOR	RD	WITH	EXTERIOR	RD	WITHOUT	EXTERIOR	GAGE	MODEL	SPARE QTY.	0-500A	AJT	10% (MINIMUM 6)	USAGE	VOLTAGE	MODEL	LIGHTING	120/208V 3PH	PR1-1	BREAKERS WITH 10,000 A SYMMETRICAL INTERRUPTING CAPACITY, UNLESS OTHERWISE NOTED.			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SYMBOLS LEGEND

NOTE: NOT ALL SYMBOLS LISTED BELOW ARE SHOWN ON PLANS					
SWITCHING		POWER DISTRIBUTION DEVICES		GENERAL WIRING	
	SWITCH BANK		PANELBOARD SURFACE MOUNTED MAXIMUM 72" TO TOP OF OVERCURRENT PROTECTION		HOMERUN - CONDUIT SYSTEM TO PANEL AS NOTED ON DRAWINGS
	SWITCH		TRANSFORMER		CONDUIT SYSTEM UNDER FLOOR
	DIMMER SWITCH		DISCONNECT SWITCH		CONDUIT UP
	OCCUPANCY SENSOR - CEILING MOUNTED		METER		TELEPHONE TERMINAL BOARD SEE DETAIL ON SHEET E4
	OCCUPANCY SENSOR - WALL MOUNTED		DUPLEX RECEPTACLE - 20A 18" AFF UNO		JUNCTION BOX
	PHOTOCELL - CEILING MOUNTED		QUADPLEX RECEPTACLE - 20A 18" AFF UNO		RECESSED FLOOR BOX
	LCP - LIGHTING CONTROL PANEL		RECEPTACLE WITH GROUND FAULT INTERRUPTER	ABBREVIATIONS	
	MINI-INVERTER		WEATHERPROOF RECEPTACLE 18" AFF UNO	BOH	BACK OF HOUSE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR		SHOW WINDOW RECEPTACLE	CB	CIRCUIT BREAKER
TAGS			JUNCTION BOX	DL	DAYLIGHT
	DETAIL DESIGNATION: AA - DETAIL NUMBER BB - SHEET NUMBER		DATA / COMMUNICATION	EC	ELECTRICAL CONTRACTOR
	SHEET NOTE		TELEPHONE / DATA - RJ45 JACK W/ CAT5e WIRES. CONDUIT WITH PULLWIRE TO ABOVE ACCESSIBLE CEILING. CABLE IS BY OWNER.	EM	EMERGENCY
	SECTION DESIGNATION: AA - DETAIL NUMBER BB - SHEET NUMBER		OVERHEAD AP CABLING	GC	GENERAL CONTRACTOR
		SECURITY / COMMUNICATION		IG	ISOLATED GROUND
			ROUGH-IN FOR ADT KEY PAD @ 48"A.F.F.	JB	JUNCTION BOX (J-BOX)
			THERMOSTAT	JHA	JURISDICTION HAVING AUTHORITY
				LL	LANDLORD
				MLO	MAIN LUG ONLY
				MCB	MAIN CIRCUIT BREAKER
				OR	ORANGE
				SW	SHOW WINDOW
				TGC	TENANT GENERAL CONTRACTOR
				WH	WHITE

GENERAL ELECTRICAL NOTES

- FIELD VERIFY ALL CONDITIONS.
- DESIGN DRAWINGS ARE SCHEMATIC. ONCE ONSITE GENERAL CONTRACTOR IS TO INSPECT EXISTING FIELD CONDITIONS. RFI SHALL BE SUBMITTED FOR ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.
- THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER ONCE ONSITE FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN INTENT PRIOR TO COMMENCEMENT OF WORK.
- BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.
- RFI SHALL BE SUBMITTED FOR ANY UNFORESEEN CONDITIONS THAT MAY EFFECT THE CONTRACTOR'S SCOPE OF WORK. MINOR VARIATIONS REQUIRED FOR ACCOMPLISHING THE INTENT OF THIS DESIGN SHALL BE INCLUDED IN THE RFI.
- PROVIDE ALL REQUIRED PERMITS. CONTRACTOR'S INSTALLATION SHALL CONFORM TO ALL LOCAL CODE REQUIREMENTS.
- VERIFY EXACT PLACEMENT OF ALL DEVICES SHOWN ON THE DOCUMENTS WITH ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS PRIOR TO FINAL PLACEMENT.
- BECOME FAMILIAR WITH REQUIRED DEMOLITION WORK PRIOR TO BIDDING AND START OF WORK. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL DEMOLITION AS REQUIRED FOR INSTALLATION OF NEW WORK.
- COORDINATE INSTALLATION OF ELECTRICAL WORK ABOVE THE CEILING TO PROVIDE THE GREATEST POSSIBLE CLEARANCE FOR INSTALLATION OF PLUMBING AND MECHANICAL. CONDUIT RUNS SHALL BE RUN THROUGH TRUSSES WHERE POSSIBLE.
- COORDINATE EXACT LOCATION OF DEVICES SERVING CASEWORK WITH FIXTURE CONTRACTOR.
- COORDINATE ALL LOW VOLTAGE CONDUIT AND ROUGH-IN REQUIREMENTS WITH LOW VOLTAGE CONTRACTORS.
- SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, TRANSFORMERS AND CONTACTORS SHALL BE "LISTED" AND "IDENTIFIED" AS RATED FOR A MINIMUM OF 75°C CONDUCTOR TERMINATION.
- INCLUDE A COPPER EQUIPMENT GROUND CONDUCTOR IN ALL RACEWAYS. SIZE RACEWAYS AS NECESSARY TO COMPLY WITH NEC.
- ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.
- ALL 20A BRANCH CIRCUITS BETWEEN 100' AND 150' IN LENGTH, #10 AWG COPPER WIRE SHALL BE USED. FOR ALL 20A BRANCH CIRCUITS OVER 150' IN LENGTH, #8 AWG COPPER WIRE SHALL BE USED.
- ALL 20A BRANCH CIRCUITS LESS THAN 100' IN LENGTH, SHALL BE #12 COPPER CONDUCTORS, #12 GND, 3/4" UNLESS NOTED OTHERWISE. TYPE MC CABLE MAY BE USED FOR BRANCH CIRCUITS ABOVE CEILINGS AND FOR FINAL FIXTURE CONNECTIONS. DO NOT USE TYPE MC EXPOSED UNLESS APPROVED BY LOCAL INSPECTOR AND JHA. ELECTRICAL CONTRACTOR TO VERIFY.
- CIRCUITING INDICATED ON PLAN IS DIAGRAMMATIC FOR CLARITY. CIRCUITING SHALL BE "THRU-WIRING" WHERE/WHEN POSSIBLE. MULTI-CONNECTIONS TO A SINGLE LIGHT FIXTURE FOR FIELD CONDITIONS OR VOLTAGE DROP FACTORS MAY BE REQUIRED (FIXTURES SHALL BE MANUFACTURED TO ACCOMMODATE "THRU-WIRING"), AND RELATED COSTS SHALL BE INCLUDED IN BID.
- MAKE ALL FINAL ELECTRICAL CONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.
- WHERE DRYWALL CEILINGS ARE USED, CONTRACTOR SHALL ARRANGE CIRCUITING SO THAT JUNCTIONBOXES ACCESS PANELS ARE NOT INSTALLED IN THESE DRYWALL CEILING AREAS. (THE USE OF JUNCTION BOXES IN THESE DRYWALL CEILINGS IS NOT PERMITTED, ARRANGE CIRCUITS TO AVOID THIS SITUATION). FIELD COORDINATE WITH TENANT'S CONSTRUCTION MANAGER PRIOR TO ROUGH-IN TO AVOID CONFLICTS. JUNCTION BOXES MAY BE PLACED ABOVE LAY-IN CEILINGS.
- FIELD VERIFY EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF ALL HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR, PRIOR TO ORDERING RELATED ELECTRICAL EQUIPMENT.
- PLACEMENT OF ALL RECEPTACLES SHALL BE INTENTIONAL (I.E. CENTERED ON COLUMNS OR WALL FEATURES, OR TIGHT TO CORNER). IF RECEPTACLE IS NOT SHOWN IN A DESIRABLE LOCATION, FIELD VERIFY EXACT PLACEMENT OF RECEPTACLE WITH TENANT'S CONSTRUCTION MANAGER PRIOR TO ROUGH-IN.
- PROVIDE ALL NECESSARY COMPONENTS TO MAKE A COMPLETE WORKING SYSTEM. VERIFY ROW LENGTHS, FEED POINT AND MOUNTING REQUIREMENTS PRIOR TO ORDERING.
- TAKE ADEQUATE CARE TO CORRECTLY LOCATE ALL ELECTRICAL STUBOUTS, FLOOR BOXES, J-BOXES, TRACK, ETC. PRECISE LOCATIONS OF FLOOR OUTLETS AND J-BOXES IS VERY IMPORTANT.
- NO PIPING, DUCTS OR EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE ELECTRICAL EQUIPMENT. NEC 110.34(f).
- FUSES SHALL BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS. NEC 240.60B.
- PROVIDE LOCK-ON DEVICE FOR CIRCUITS SUPPLYING EMERGENCY UNIT EQUIPMENT. NEC 700.18.
- AA. ATTAIN EXISTING BUILDING LOAD INFORMATION AND VERIFY AMPACITY AND DEMAND FOR BUILDING TO ENSURE THAT ALL LOADS (EXISTING AND NEW) DO NOT EXCEED THE AMPACITY OF THE SERVICE FEEDER(S) OR RATING OF THE SERVICE, PER NEC 220.40.
- AB. ALL DEDICATED RECEPTACLES SHALL BE RATED TO NOT LESS THAN THE RATING OF THE BRANCH CIRCUIT SERVING THE RECEPTACLE.
- AC. SUPPORT VERTICAL CABLE RUNS PER NEC 300.19.

Firm's License #

State License #

#	DESCRIPTION	DATE
1	BUILDING DEPARTMENT	7/26/17

**US HWY 50 & CLUB MANOR DR
908 W US HWY 50
PUEBLO, CO 81008**

ELECTRICAL SPECIFICATIONS

**MDC
CORPORATE - RELO
686
DESIGN DEVELOPMENT**

DATE:	12/21/2017
SCALE:	NO SCALE
DRAWN BY:	XXX
PROJECT No.:	TMO364
SHEET:	