

GENERAL ELECTRICAL NOTES:

- BRING ALL EXISTING PANEL DIRECTORIES UP TO DATE FOR ALL CIRCUITS, INCLUDING SPARES. PROVIDE NEW TYPEWRITTEN PANEL DIRECTORIES.
- ALL CONDUITS SHALL BE CONCEALED WHEREVER POSSIBLE IN EXISTING OR NEW CONSTRUCTION, LAY-IN ACCESSIBLE CEILINGS, ETC. PERMIT. USE SURFACE MOUNTED STEEL RACEWAY WHERE CONDUIT MUST BE EXPOSED.
- THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL APPLICABLE TRADES.
- BRANCH CIRCUIT WIRING IN EXCESS OF 75 FEET FOR 120V CIRCUITS SHALL BE #10 FROM PANEL TO MIDPOINT OUTLET OF THE CIRCUITS.
- PROVIDE COVERPLATES FOR ALL JUNCTION BOXES, USED AND UNUSED, NEW OR EXISTING, FOR THIS WORK.
- MAKE NECESSARY MODIFICATIONS AND ADJUSTMENTS TO ALL ELECTRICAL ITEMS AND EQUIPMENT, BOTH NEW AND EXISTING, AS MAY BE REQUIRED BY THESE ALTERATIONS. THE OWNER RESERVES THE RIGHT TO RELOCATE ANY ELECTRICAL EQUIPMENT OR CONNECTION WITHIN FIVE FEET FROM THAT SHOWN ON THE DRAWINGS AT NO EXTRA COST TO THE OWNER.
- ALL ELECTRICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND ALL OTHER DRAWINGS RELATED TO THE PERFORMANCE OF THE WORK.
- COORDINATE WITH ARCHITECTURAL DRAWINGS AND ALL APPLICABLE TRADES AND EXISTING CONDITIONS PRIOR TO INSTALLING CONDUITS, PANELS, SURFACE MOUNTED STEEL RACEWAY, WIRING DEVICES, JUNCTION BOXES, ETC.
- CONDUIT RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC ONLY. ACTUAL FIELD CONDITIONS SHALL BE VERIFIED AND CONDUITS SHALL BE ROUTED ACCORDINGLY.
- THIS CONTRACTOR SHALL VISIT PROJECT SITE TO VERIFY ACTUAL SCOPE OF WORK PRIOR TO SUBMITTING HIS/HER BID PROPOSAL.
- PERFORM ALL CUTTING, CORING, AND PATCHING REQUIRED TO COMPLETE THE WORK. PERFORM ALL DEMOLITION AND REMOVAL OF DEBRIS RESULTING THEREFROM AND REQUIRED TO COMPLETE THE WORK. PATCH AND PAINT EXISTING FINISHED SURFACES AND BUILDING COMPONENTS USING NEW MATERIALS MATCHING EXISTING MATERIALS AND TEXTURE USING EXPERIENCED INSTALLERS. RESTORE TO ORIGINAL CONDITION AFTER INSTALLATION.
- ALL MEASUREMENTS AND DIMENSIONS SHALL BE FIELD VERIFIED BY THIS CONTRACTOR.
- THIN WALL FITTINGS SHALL BE OF THE COMPRESSION TYPE. THE USE OF CRIMPING TYPE FITTINGS SHALL NOT BE ACCEPTABLE.
- THE LOCATION OF ALL FIXTURES AND DEVICES ARE SHOWN DIAGRAMMATICALLY. THE EXACT LOCATION SHALL BE DETERMINED BY ACTUAL FIELD CONDITIONS. IF CONFLICT OCCURS WITH THE PLACEMENT OF FIXTURES AND DEVICES SHOWN ON DRAWINGS AND EXISTING STRUCTURES AND APPURTENANCES, CONTRACTOR SHALL COORDINATE WITH DESIGN ENGINEER BEFORE FINAL INSTALLATION. CONTRACTOR SHALL OBTAIN AND VERIFY ALL DIMENSIONS AND CONDITIONS AT JOB SITE AND BE FULLY RESPONSIBLE FOR SAME.
- THE CONTRACTOR SHALL FURNISH, INSTALL, AND PERFORM ALL WORK IN ACCORDANCE WITH LOCAL BUILDING CODE. AFTER EACH WORK DAY, CONTRACTOR SHALL CLEAN ALL WORK AREAS AND REMOVE ALL DEBRIS.
- BUILDING SYSTEMS OPERATIONS AND UTILITY SERVICES SHALL CONTINUE IN SERVICE WITHOUT INTERRUPTION. ANY MANDATORY INTERRUPTION OF ANY SERVICE OR UTILITIES SHALL BE ARRANGED WITH THE BUILDING ENGINEER. CONTRACTOR SHALL INFORM THE BUILDING ENGINEER 10 DAYS IN ADVANCE PRIOR TO ANY BUILDINGS SERVICE INTERRUPTION. ANY ADDITIONAL EXPENSE RESULTING FROM TEMPORARY SERVICE INTERRUPTIONS SHALL BE PAID BY THE CONTRACTOR.
- ALL CUTTING, PATCHING, REPAIRING, REPLACEMENT, PAINTING, AND REFINISHING OF EXISTING BUILDING MATERIALS, AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK AND/OR DEMOLITION IN ALL AREAS INTERIOR AND EXTERIOR OF THE BUILDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR WHOSE SPECIFIC WORK IS INVOLVED. ALL PATCHING, REPAIRING, REPLACEMENT, PAINTING, AND CAULKING SHALL MATCH THE EXISTING CONSTRUCTION AS NEARLY AS POSSIBLE.
- ALL ELECTRICAL WORK SUPPLIED BY THE CONTRACTOR SHALL BE IN COMPLIANCE WITH THE CHICAGO ELECTRICAL CODE AND OTHER LOCAL AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL BE RESPONSIBLE FOR DRAWING SUBMITTALS TO THE ELECTRICAL INSPECTORIAL SERVICES IN COMPLIANCE WITH CHICAGO ELECTRICAL CODE.
- FURNISH AND INSTALL ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND APPURTENANCES FOR A COMPLETE ELECTRICAL SYSTEM. WHERE THERE IS NO MENTION OF THE RESPONSIBLE PARTY FOR A SPECIFIC ITEM TO BE FURNISHED, INSTALLED, OR WIRED ON THE ELECTRICAL DRAWINGS, THIS CONTRACTOR SHALL BE RESPONSIBLE COMPLETELY FOR A COMPLETE AND OPERATING SYSTEM FOR THIS ITEM.
- LOCATION OF ITEMS NOT FIXED BY DIMENSIONS ARE APPROXIMATE ONLY AND EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS SHALL BE DETERMINED AT THE SITE AND SHALL BE SUBJECT TO REVIEW.
- ANY MENTION OF A SPECIFIC VOLTAGE ON THE ELECTRICAL DRAWINGS SHALL NOT RELIEVE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY THE VOLTAGE PRIOR TO PURCHASING OR ROUGH-IN WORK. THE CONTRACTOR SHALL SUBMIT A VOLTAGE COORDINATION FORM TO ALL PARTIES FURNISHING EQUIPMENT FOR VERIFICATION.
- DO NOT SCALE FROM THESE DRAWINGS.
- ALL 120V RECEPTACLES SHALL BE OF THE GROUNDING TYPE AND BE IN COMPLIANCE WITH THE APPLICABLE BUILDING CODE.
- DISCONNECT, RELOCATE, OR REMOVE ELECTRICAL EQUIPMENT AS INDICATED ON DRAWINGS AND AS REQUIRED BY CHANGES IN CONSTRUCTION.
- PENETRATIONS OF FIRE RATED WALL AND FLOOR ASSEMBLIES SHALL BE PROTECTED WITH AN APPROVED THROUGH-PENETRATION SYSTEM AND SHALL BE A TESTED ASSEMBLY IN ACCORDANCE WITH ASTM E119. ALL CONDUIT PENETRATIONS THROUGH FLOORS AND WALLS SHALL BE FIRE SEALED. SEALANT RATING SHALL MEET OR EXCEED THE FIRE RATING OF FLOOR AND WALL CONSTRUCTION.
- THE CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THIS WORK SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT SPECIFICATIONS BEFORE COMMENCING ANY WORK. THE PROJECT SPECIFICATIONS AND DRAWINGS FORM THE BASIS OF THIS CONTRACT REQUIREMENTS AND INCLUDE THE TYPE AND GRADE OF MATERIALS TO BE INSTALLED. EQUIPMENT TO BE FURNISHED, THE MANNER BY WHICH TO BE INSTALLED AND WHERE TO BE LOCATED. IN THE EVENT OF A CONFLICT BETWEEN THE PROJECT SPECIFICATIONS AND DRAWINGS, SPECIFICATIONS GOVERN UNLESS THE ARCHITECT/ENGINEER DIRECTS OTHERWISE.
- THIS CONTRACTOR SHALL CHECK CAREFULLY ALL CONSTRUCTION DRAWINGS AND SPECIFICATIONS THAT ARE PART OF THIS PROJECT TO INSURE THAT NO FIXTURE, OUTLET, ALARM STATION OR CONTROL AND POWER WIRING IS OMITTED. THIS CONTRACTOR SHALL CONSULT ALL TRADES FURNISHING EQUIPMENT AND OBTAIN FROM THEM ALL DATA. IN SOME CASES EQUIPMENT, FIXTURES AND DEVICES ARE SHOWN ONLY. ASCERTAIN AND PROVIDE THE WIRING AND CONTROL STATIONS REQUIRED FOR THE PROPER FUNCTION OF BUILDING EQUIPMENT.
- CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL DEVICES WITH THE ARCHITECTURAL PLANS, INCLUDING BUT NOT LIMITED TO ARCHITECTURAL DETAILS AND ELEVATIONS.
- ALL EQUIPMENT AND MATERIALS IN PLENUM CEILINGS AND PLENUM SPACES SHALL BE APPROVED FOR THE PURPOSE BY THE APPLICABLE CODE AUTHORITY.
- WHERE NEW CIRCUIT BREAKERS ARE INSTALLED IN EXISTING PANELS, CONTRACTOR TO USE BREAKERS THAT ARE COMPATIBLE WITH PANELS THEY ARE TO BE INSTALLED IN.
- WALL PLATES FOR ELECTRICAL WIRING DEVICES (SWITCHES AND RECEPTACLES) SHALL BE PLUMB AND LEVEL. ALL COVERPLATES AND DEVICES IN APARTMENT DWELLINGS SHALL BE WHITE COLOR EXCEPT AS NOTED OTHERWISE (VERIFY WITH ARCHITECT).
- ALL AUDIO/VISUAL (A/V) FIRE ALARM DEVICES SHALL BE SYNCHRONIZED AND SHALL BE COMPATIBLE WITH EXISTING BASE BUILDING FIRE ALARM SYSTEM.
- EXIT DIRECTIONAL SIGNS - EXIT SIGNS SHALL BE WIRED TO SEPARATE AND INDEPENDENT DEDICATED CIRCUITS (#10) #10 WIRE, INSTALLED IN A SEPARATE CONDUIT SYSTEM. CONNECT TO EXISTING BUILDING EMERGENCY PANEL. ALL EXIT SIGNS SHALL BE SUPPORTED INDEPENDENTLY OF THE OUTLET BOX.
- EMERGENCY LIGHTING. PROVIDE #10 WIRE. PROVIDE A SEPARATE CONDUIT SYSTEM. CONNECT TO EXISTING BUILDING EMERGENCY PANEL.
- CONNECT NEW LIGHTING FIXTURES TO EXISTING LIGHTING CIRCUITS IN EXISTING PANEL UP-E SERVING THOSE AREAS. PROVIDE ALL NEW CONDUIT AND WIRING. VERIFY EXACT LOCATIONS OF ALL LIGHTING FIXTURES WITH ARCHITECTURAL DRAWINGS.
- CONTRACTOR SHALL PROVIDE GROUND FAULT PROTECTION WHERE REQUIRED BASED ON CODE REQUIREMENTS PROXIMITY OF EQUIPMENT TO WATER, AND MANUFACTURER'S REQUIREMENTS.
- PROVIDE CODE REQUIRED CITY OF CHICAGO "USER SWITCHES" FOR ALL ELECTRIC HEATING EQUIPMENT.
- CONTRACTOR SHALL PROVIDE ALL POWER AND CONTROL WIRING FOR MOTORIZED SLIDING DOOR INCLUDING ALL FINAL CONNECTIONS. COMPLETE IN PLACE. READY FOR OPERATION. MOTORIZED SLIDING DOOR SHALL BE WIRED IN CONFORMANCE TO THE APPLICABLE CODE IN ACCORDANCE WITH THE MANUFACTURER'S WIRING DIAGRAMS AND INSTRUCTIONS. VERIFY EXACT OF MOTORIZED SLIDING DOOR OPERATOR PRIOR TO ROUGH-IN. WIRE DOOR LIMIT SWITCHES.
- PROVIDE ELECTRICAL CONNECTIONS TO AUTOMATIC POWER DOOR. VERIFY OVERCURRENT PROTECTION AND BRANCH CIRCUIT REQUIREMENTS WITH SYSTEM SUPPLIER, AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, CONTROLS, AND SERVICES FOR ROOF DRAINS HEAT TRACING SYSTEM COMPLETE IN PLACE READY FOR OPERATION.
- PROVIDE ELECTRICAL CONNECTIONS TO FIREPLACE. PROVIDE SERVICE DISCONNECT SWITCH AS REQUIRED AND MAKE ALL FINAL CONNECTIONS.

EXISTING CONDITION NOTES:

- VERIFY EXISTING CONDITIONS AND LOCATIONS OF FIXTURES, DEVICES, ETC. IN FIELD PRIOR TO SUBMITTING BID PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE THIS CONTRACTOR FROM PERFORMING THE WORK UNDER THIS CONTRACT.
- MAKE NECESSARY MODIFICATIONS AND ADJUSTMENTS TO ALL ELECTRICAL ITEMS AND EQUIPMENT, BOTH NEW AND EXISTING, AS MAY BE REQUIRED BY THESE ALTERATIONS AND ADDITIONS.
- DISCONNECT AT SOURCE AND REMOVE EXISTING ELECTRICAL MATERIALS AND EQUIPMENT, INCLUDING BUT NOT LIMITED TO LIGHTING FIXTURES, WIRING DEVICES, JUNCTION BOXES, AND ALL OTHER ELECTRICAL ITEMS WHICH ARE RENDERED OBSOLETE BY THESE ALTERATIONS AND ADDITIONS. THESE ARE THE PROPERTY OF THE OWNER AND SHALL EITHER BE REMOVED FROM THE SITE LEGALLY OR RETURNED TO THE OWNER'S STOCK AT THE DISCRETION OF THE OWNER.
- DISCONNECT, REMOVE, AND REINSTALL EXISTING ELECTRICAL MATERIALS AND EQUIPMENT INCLUDING BUT NOT LIMITED TO LIGHTING FIXTURES, WIRING DEVICES, JUNCTION BOXES, AND ALL OTHER ELECTRICAL ITEMS WHICH ARE INTERFERED WITH, OBSTRUCTED OR ARE OBSTRUCTED BY, THESE ALTERATIONS AND ADDITIONS. PERMANENTLY REINSTALL SUCH ITEMS. PROVIDE NEW OUTLETS, CONDUITS, WIREMOLD, WIRING, ETC., AS REQUIRED TO EXTEND SERVICE TO NEW LOCATIONS. RECONNECT SUCH ITEMS IN PROPER OPERATING CONDITION AT NEW OR EXISTING LOCATIONS AS REQUIRED.
- ANY EQUIPMENT THAT IS TO BE REINSTALLED AND RECONNECTED SHALL BE CAREFULLY EXAMINED FOR ANY DEFECTS AND TESTED FOR ELECTRICAL CONTINUITY AND PROPER OPERATION PRIOR TO REMOVAL. ANY DEFECTS OR MALFUNCTIONS DETECTED SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND OWNER. AFTER EQUIPMENT HAS BEEN CERTIFIED TO BE IN GOOD ELECTRICAL/MECHANICAL CONDITION, THE EQUIPMENT MAY BE REMOVED, BOXED, STORED, AND PROTECTED BY THE CONTRACTOR. CONTRACTOR SHALL BEAR ALL EXPENSES FOR ANY EQUIPMENT REINSTALLED THAT IS NOT OPERATING PROPERLY. CONTRACTOR SHALL REPLACE WITH NEW EQUIPMENT OR PROPERLY REPAIR ANY DAMAGED OR NON-WORKING EQUIPMENT TO THE SATISFACTION OF THE OWNER.
- WHERE EXISTING CONDUITS HAVE BEEN MADE OBSOLETE BY THESE ALTERATIONS AND ADDITIONS AND IT IS IMPRACTICAL TO REMOVE SAME, THIS CONTRACTOR SHALL:
 - PULL OUT ALL WIRE AND CABLE.
 - CUT CONDUIT OFF AT SLAB OR WALL LINE.
 - BLANK-UP ALL OBSOLETE CONDUIT ENTRIES INTO EXISTING JUNCTION BOXES, PANELBOARD, PULL BOXES, ETC.
 - CAP CONDUIT AND PATCH SURFACE TO MATCH EXISTING.
- REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR ADDITIONAL ELECTRICAL DEMOLITION/REMOVAL WORK REQUIRED.
- WHERE THE CONTINUITY OF CIRCUITS OR CONDUITS SERVING ANY EXISTING ELECTRICAL EQUIPMENT IN AREAS OF THE EXISTING BUILDING NOT BEING ALTERED IS INTERFERED WITH, THIS CONTRACTOR SHALL REROUTE AND RECONNECT ALL SUCH CIRCUITS OR CONDUITS.
- REMOVE ALL WIRING BACK TO OVERCURRENT DEVICES FOR RECEPTACLES, MOTORS, AND WIRING DEVICES WHICH ARE RENDERED OBSOLETE BY THESE ALTERATIONS AND ADDITIONS.
- COORDINATE ELECTRICAL WORK WITH OTHER TRADES TO AVOID CONFLICTS AND DELAYS.
- REMOVE ALL CONDUITS INCLUDING ALL CONDUITS ABOVE THE CEILING, IN DEMOLISHED WALL PARTITIONS, ALL EXPOSED CONDUITS AND ASSOCIATED HANGERS AND MISCELLANEOUS AND INCIDENTAL HARDWARE WHICH ARE RENDERED OBSOLETE BY THESE ALTERATIONS AND ADDITIONS.
- WALL RECEPTACLES. REMOVE RECEPTACLES, BACKBOXES, COVERPLATES, WIRING, CONDUITS, WHERE CONTINUITY OF THE CIRCUIT IS INTERRUPTED BY RECEPTACLE REMOVAL. REWIRE EXISTING RECEPTACLES TO REMAIN TO THE NEAREST ACTIVE RECEPTACLE. MAKE ALL FINAL CONNECTIONS.
- LIGHT FIXTURES. REMOVE LIGHT FIXTURES, LAMPS, SUPPORTS, JUNCTION BOXES, CONDUITS AND WIRING. WHERE PARTIAL LIGHTING IS REMOVED, REWIRE EXISTING LIGHTING TO REMAIN TO THE EXISTING CIRCUIT OR OVERCURRENT DEVICE.
- HVAC MOTORS. REMOVE EXISTING MOTORS, MOTOR STARTERS, PUSH BUTTONS, DISCONNECT SWITCHES, CONDUITS, WIRING, FITTINGS, AND BOXES. REMOVE ALL WIRING BACK TO OVERCURRENT DEVICES.
- LIGHTING FIXTURES, SWITCHES, RECEPTACLES, MISCELLANEOUS DEVICES, AND MISCELLANEOUS WIRING DEVICES TO BE REMOVED ARE NOT SHOWN. CONTRACTOR SHALL PROVIDE FOR THE FOLLOWING:
 - REMOVE ALL EXISTING LIGHT FIXTURES WHERE NEW LIGHTING IS SHOWN AND SPECIFIED. MAINTAIN CONTINUITY OF ALL EXISTING LIGHTING FIXTURES TO REMAIN.
 - REMOVE ALL EXISTING WIRING DEVICES IN EXISTING WALL PARTITIONS SHOWN TO BE REMOVED. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR LOCATION OF PARTITIONS TO BE REMOVED. MAINTAIN CONTINUITY OF EXISTING WIRING DEVICES TO REMAIN.
 - REMOVE ALL UNUSED WIRING BACK TO OVERCURRENT DEVICE.
- CAREFULLY REMOVE AND REINSTALL EXISTING CEILING OR WALL MOUNTED EQUIPMENT AS REQUIRED FOR INSTALLATION OF NEW WORK, INCLUDING DISCONNECTING, REMOVAL, REINSTALLATION AND RECONNECTING OF EXISTING CEILING OR WALL MOUNTED DEVICES.
- ALL EXISTING CONDUIT AND WIRE INTERFERING WITH THE NEW WORK SHALL BE REROUTED AND CONCEALED IN THE NEW CONSTRUCTION WHERE POSSIBLE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN CLEANUP THROUGHOUT THE COURSE OF THE DEMOLITION WORK.
- EXISTING ELECTRICAL EQUIPMENT NOT SHOWN ON THIS DRAWING; HOWEVER, REQUIRED TO BE REMOVED AND/OR RELOCATED BY DEMOLITION, SHALL BE INCLUDED BY THIS CONTRACTOR IN BID PROPOSAL.
- PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND SERVICES FOR DISCONNECTION AND REMOVAL OF ALL RELATED ELECTRICAL EQUIPMENT AND SERVICES INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
 - REMOVE ALL WIRING BACK TO OVERCURRENT DEVICES.
 - REMOVE ALL CONDUITS, HANGERS, BOXES, ANCHORS, CHANNELS, ETC. FOR A COMPLETE REMOVAL.
 - REMOVE DISCONNECT MEANS.
 - DISCONNECT MOTORS FROM SUPPLY SOURCE.

OCCUPANCY AND AUTOMATIC LIGHT LEVEL SENSOR NOTES:

- THE DELAYED-OFF TIME FOR ALL CEILING MOUNTED OCCUPANCY SENSORS SHALL BE SET AT 15-20 MINUTES AFTER THE LAST MOTION IS SENSED.
- PROVIDE ALL OCCUPANCY SENSORS WITH APPROPRIATE POWER PACKS AND/OR SLAVE PACKS.
- ALL OCCUPANCY SENSORS SHALL BE INSTALLED AS PER MANUFACTURER'S WIRING DIAGRAMS, RECOMMENDATIONS, AND ALL APPLICABLE CODES.
- ALL OCCUPANCY SENSORS SHALL BE LOCATED AT LEAST 6 FEET FROM AIR SUPPLY/RETURN REGISTERS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS AND MANUFACTURER'S RECOMMENDED PLACEMENT, FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS.
 - PROVIDE LEVITON OCCUPANCY SENSOR POWER PACK #OSP20-000 AS REQUIRED.
 - PROVIDE ONE POWER PACK FOR EACH CIRCUIT THAT IS TO BE CONTROLLED.
 - A MAXIMUM OF THREE SENSORS CAN BE WIRED IN PARALLEL TO A SINGLE POWER PACK DEPENDING ON THE TYPE OF SENSOR.
 - ALL POWER PACKS SHALL BE INSTALLED IN A JUNCTION BOX.
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND SERVICES REQUIRED TO INSTALL A COMPLETE AND OPERATING OCCUPANCY SENSOR TO CONTROL LIGHTING SYSTEM. THIS WORK SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO WIRING, CONDUIT, JUNCTION BOXES, BRACKETS, AND HARDWARE COMPLETE WITH ALL ACCESSORIES AND INCIDENTALS AND ALL FINAL CONNECTIONS FOR A COMPLETE INSTALLATION READY FOR OPERATION.
- ALL OCCUPANCY SENSORS SHALL BE MOUNTED ON A VIBRATION FREE SURFACE.
- OCCUPANCY SENSOR INSTALLATION SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, MANUFACTURER'S WIRING DIAGRAMS, MANUFACTURER'S RECOMMENDATIONS, AND ALL APPLICABLE CODES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MANUFACTURER FOR PROPER PLACEMENT AND ADJUSTING OF ALL OCCUPANCY SENSORS.
- DO NOT MOUNT SENSORS CLOSER THAN 10 FEET FROM EACH OTHER.
- ALL OCCUPANCY SENSORS SHALL BE MOUNTED A MINIMUM 3 FEET AWAY FROM ALL SUSPENDED FLOURESCENT LIGHT FIXTURES.
- ALL OCCUPANCY SENSORS SHALL BE MOUNTED A MINIMUM 2 FEET AWAY FROM ALL RECESSED FLOURESCENT LIGHT FIXTURES.
- IN ROOMS WHERE MULTIPLE SENSORS ARE SHOWN, ALL LIGHTING FIXTURES IN THE ROOM SHALL BE TURNED ON, UNLESS OTHERWISE NOTED.
- ALL OCCUPANCY SENSORS SHALL BE DUAL TECHNOLOGY PASSIVE INFRARED/ULTRASONIC FREQUENCY GREATER THAN 400HZ, DUAL SENSING VERIFICATIONS (REQUIRES BOTH TECHNOLOGIES TO ACTIVATE), EITHER TECHNOLOGY MAINTAINS ON STATUS, INTEGRATED AMBIENT LIGHT LEVEL SENSOR (2-200FC RANGE), ADJUSTABLE SENSITIVITY AND TIME DELAY, 5-YEAR WARRANTY. SENSOR SHALL CONTROL ALL CIRCUITS IN AREA, UNLESS NOTED OTHERWISE. INITIAL SETTINGS 10 MINUTES, AMBIENT SENSOR 40FC. CONTRACTOR SHALL SUBMIT MANUFACTURER SUPPLIED SENSOR COVERAGE DRAWING FOR SHOP DRAWING REVIEW.

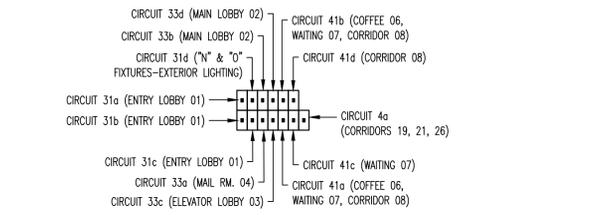
ELECTRICAL ABBREVIATIONS

600V A.F.F. AMP ARCH. ATCS C C/B CCT. CLG. COND. DISCON. DISC. E E.C. ELECT. EMER. EQUIP. EMC E/W FA FACP FCU FMT. FLUORESCENT G. GRD GFI GFP HC HD H/MCP HOA HDP HV INCAND. JB LTS. LTG. LV MCB MLO MTO. MTG. NO. N. # N. P N.L. PP PWR. RECP. SPEC. STA. SIG. SIBD. TRANSF. TEL. TTC UH V W/ WS WP	600V AC ABOVE FINISHED FLOOR AMPERE ARCHITECT OR ARCHITECTURAL AUTOMATIC TRANSFER SWITCH STEEL CONDUIT CIRCUIT BREAKER CIRCUIT CEILING CONDUCTOR DISCONNECT EXISTING ELECTRICAL CONTRACTOR ELECTRIC EMERGENCY EQUIPMENT ELECTRIC WATER COOLER EACH WITH FIRE ALARM FIRE ALARM CONTROL PANEL FAN COIL UNIT FIXTURE FLUORESCENT GROUND GROUND FAULT INTERRUPTER GROUND FAULT PROTECTION HANDICAPPED HEAVY DUTY MOTOR CIRCUIT PROTECTOR HAND-OFF-AUTO HORSEPOWER HIGH VOLTAGE INCANDESCENT JUNCTION BOX LIGHTS LOW VOLTAGE MAIN CIRCUIT BREAKER MAIN LUGS ONLY MOUNTED MOUNTING HEIGHT NUMBER NEUTRAL PULL BOX PANEL POWER PANEL POWER RECP. SPECIFICATIONS STATION SIGNAL SWITCH SWITCHBOARD TRANSFORMER TELEPHONE TELEPHONE TERMINAL CABINET UNIT HEATER VOLTAGE WITH WIRE GUARD WEATHERPROOF
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ELECTRICAL SYMBOL LIST
NOT ALL SHOWN ARE APPLICABLE

SYMBOL	DESCRIPTION	MTG. HT.
—S—	SINGLE POLE SWITCH	44" A.F.F.
3W—S—	THREE WAY SWITCH	44" A.F.F.
D—S—	DIMMER SWITCH	44" A.F.F.
—D—	DUPLEX CONVENIENCE OUTLET	15" A.F.F.
—D—	DUPLEX CONVENIENCE OUTLET MOUNTED ABOVE COUNTER BACKSPLASH	
—D—	QUADRUPLEX CONVENIENCE OUTLET	
—D—	GFI DUPLEX RECEPTACLE	
—D—	30A-2P-3W-208V GROUNDING TYPE RECEPTACLE.	38" A.F.F.
—D—	JUNCTION BOX	
—D—	MOTOR CONNECTION H.P. AS NOTED ON PLAN	
—D—	NON-FUSED DISCONNECT SWITCH	
—D—	FUSED DISCONNECT SWITCH	
T—S—	SINGLE POLE MANUAL MOTOR STARTER (TYPE T-T)	48" A.F.F.
P—S—	SINGLE POLE MANUAL MOTOR STARTER & PILOT LIGHT (TYPE T-T)	48" A.F.F.
—D—	MAGNETIC MOTOR STARTER	
—D—	POWER PANEL (DISTRIBUTION PANEL)	
—D—	ELECTRICAL PANEL (LIGHTING AND POWER)	
—D—	TELEPHONE PANEL MOUNTED ON PLYWOOD BACKBOARD	
EM	INDICATES FIXTURE ON EMERGENCY LIGHTING SYSTEM. FIXTURES TO CONTAIN INTEGRAL BATTERY PACK - BODINE #B50.	
W.P.	DENOTES WEATHERPROOF EQUIPMENT	
—D—	CONDUIT RUN CONCEALED IN WALL OR CEILING	
—D—	CONDUIT RUN EXPOSED	
—D—	THERMOSTAT	
—D—	TELEPHONE OUTLET	15" A.F.F.
—D—	DATA OUTLET	15" A.F.F.
—D—	TELEPHONE/DATA OUTLET	15" A.F.F.
W—D—	WALL MOUNTED TELEPHONE OUTLET	44" A.F.F.
—D—	TV OUTLET	15" A.F.F.
—D—	IMPLIES GROUND FAULT INDICATING DEVICE OR BREAKER	
—D—	SPECIAL OUTLET (VERIFY NEMA CONFIGURATIONS)	
—D—	JUNCTION BOX AND DISCONNECT FOR POWER FOR DISHWASHER.	
—D—	CONDUIT RUN CONCEALED IN FLOOR SLAB OR BELOW GRADE AS INDICATED.	
—D—	GREEN GROUND WIRE CONDUCTOR	
—D—	ADA VISUAL FIRE ALARM DEVICE	ADA HT.
—D—	ADA AUDIO/VISUAL FIRE ALARM DEVICE	ADA HT.
—D—	MANUAL FIRE ALARM PULL STATION	ADA HT.
FCCP	FIRE COMMAND PANEL	
—D—	SPEAKER (SOUND SYSTEM)	
—D—	VOLUME CONTROL (SOUND SYSTEM)	
—D—	MOTORIZED HANDICAP DOOR PUSH PLATE.	
—D—	ELECTRIC DOOR STRIKE	
—D—	CARD READER - PROVIDE 4" SQUARE EXTRA DEEP RECESSED BACKBOX WITH VERTICAL SINGLE GANG PLASTER RING. PROVIDE 3/4" CONDUIT FROM BACKBOX STUBBED UP TO A POINT ABOVE ACCESSIBLE CEILING. PROVIDE BLANK COVERPLATE. LOCATE BACKBOX ABOVE DOOR FRAME ON DOOR HANDLE SIDE.	VERIFY WITH ARCHITECT
—D—	ELECTRIC WATER COOLER	
—D—	FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR	
1-CCT	INDICATES OUTLET OR DEVICE ON DEDICATED CIRCUIT	
U.L.	UNDERWRITERS LABORATORY TESTED AND APPROVED	
—D—	MULTI-TECHNOLOGY CEILING-MOUNTED OCCUPANCY SENSOR - LEVITON #OSC20-MOW OR EQUIVALENT AS DETERMINED BY ENGINEER. REFER TO OCCUPANCY SENSOR NOTES ON THIS DRAWING. PROVIDE ALL ASSOCIATED EQUIPMENT AS REQUIRED. (2000 SQUARE FEET).	
—D—	OCCUPANCY SENSOR WITH OVERRIDE SWITCH.	
EM-2.5	INDICATES PANEL IDENTIFICATION-PANEL CIRCUIT NUMBER	
X	EXISTING EQUIPMENT TO REMAIN	
XR	EXISTING EQUIPMENT TO BE REMOVED	
XRR	EXISTING EQUIPMENT TO BE REMOVED, RELOCATED, REINSTALLED, REWIRED.	

NOTE: MOUNTING HEIGHTS ARE TO CENTERLINE OF EQUIPMENT OR DEVICE EXCEPT AS OTHERWISE INDICATED. REFER TO SPECIFICATIONS AND DRAWING FOR MORE INFORMATION.



LIGHTING CONTROL DETAIL

SCALE: N T S

LIGHTING FIXTURE SCHEDULE NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF LIGHT FIXTURES.
- ALL LIGHTING FIXTURES ARE TO BE LOCATED AS REQUIRED ON THE JOB TO CLEAR DUCTS, PIPING, EQUIPMENT, AND MECHANICAL UNIT HEATERS.



EXPIRES 11/30/2019
Here I certify that these plans were prepared under my supervision and that they comply to the best of my knowledge with all the building codes and ordinances of the city of Chicago, IL.

NO.	DATE	DESCRIPTION
1	12/21/17	PROGRESS SET
2	03/30/18	PERMIT SET

A. WILLIAM SEEGERS ARCHITECTS
Chicago, Illinois 60661
117 North Jefferson St., Suite LL3B
Phone 312-454-0089
E-mail: AWSeegers@aol.com

Drawing Title:
1st Floor Upgrade Repairs
2101 S. Michigan Avenue
Chicago, IL

DESCRIPTION:
ELECTRICAL NOTES, SCHEDULE, SYMBOL LIST & ABBREVIATIONS

JOB NO. 1701
DRAWN BY: -
CHECKED BY: -
DATE: 10-06-17
SHEET NO.

E0.00

2018 ELECTRICAL CODE