

GENERAL ELECTRICAL NOTES

- FURNISH ALL MATERIALS AND LABOR NECESSARY TO PROVIDE COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEMS. FURNISH ALL MATERIALS AND LABOR NECESSARY TO DEMONSTRATE TO THE OWNER AND TO THE ENGINEER THAT ALL SYSTEMS ARE OPERATING PROPERLY AND AS SPECIFIED. WARRANTY ALL WORK AND ALL MATERIALS, EQUIPMENT AND DEVICES FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE.
- WORK SHALL CONFORM TO THE LATEST EDITION OF:
 - ANSI/NFPA 70 (NATIONAL ELECTRICAL CODE)
 - NECA STANDARD OF INSTALLATION
 - INTERNATIONAL BUILDING CODE (IBC)
 - NFPA 101 (LIFE SAFETY CODE)
 - ALL FEDERAL, STATE AND LOCAL CODES AND ORDINANCES
 - LOCAL UTILITY COMPANY REGULATIONS
- ALL MATERIALS, EQUIPMENT AND DEVICES SHALL, AS A MINIMUM, MEET THE REQUIREMENTS OF U.L. WHERE U.L. STANDARDS ARE ESTABLISHED FOR THOSE ITEMS, AND THE REQUIREMENTS OF NFPA 70. ALL ITEMS SHALL BE CLASSIFIED BY U.L. AS SUITABLE FOR THE PURPOSE USED.
- COORDINATE LOCATION OF ELECTRICAL DEVICES AND ELECTRICAL WORK WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES.
- PROVIDE THE INTERCONNECTING POWER WIRING AND CONDUIT, CONTROL WIRING RATED 120 VOLTS (NOMINAL) AND CONDUIT, AND THE ELECTRICAL POWER CIRCUITS FOR ALL EQUIPMENT PROVIDED BY OTHER TRADES.
- COORDINATE WITH AND OBTAIN PERMITS AND INSPECTIONS FROM THE AUTHORITY HAVING JURISDICTION, AND INCLUDE ALL FEES IN BID.
- PROVIDE A LAMINATED PLASTIC NAMEPLATE FOR EACH MAJOR ITEM OF ELECTRICAL EQUIPMENT (E.G. PANELBOARDS, DISCONNECT SWITCHES, TRANSFORMERS, ETC.). ATTACH WITH SCREWS, BOLTS OR RIVETS.
- PROVIDE ALL PANELS WITH TYPED DIRECTORIES SHOWING AS-BUILT CONDITIONS AND LABEL ALL CIRCUITS.
- THE NEUTRAL AND GROUND BUS SHALL BE BONDED TOGETHER AT THE SERVICE EQUIPMENT ONLY. THE GROUNDING CONDUCTOR SHALL BE BONDED TO THE GROUNDING ELECTRODE SYSTEM, WHICH SHALL BE COMPRISED OF A 3/4" X 10' DRIVEN GROUND ROD, METALLIC PIPING, BUILDING STEEL, ETC. ALL SUBPANELS SHALL HAVE INSULATED NEUTRALS PER N.E.C. ARTICLE 250.
- ALL WIRING SHALL BE COPPER, 600 VOLT, WITH THHN/THWN INSULATION UNLESS NOTED OTHERWISE. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG FOR POWER AND LIGHTING CIRCUITS AND #16 AWG FOR CONTROL CIRCUITS UNLESS NOTED OTHERWISE. ALL WIRING SHALL BE INSTALLED IN CONDUIT UNLESS NOTED OTHERWISE.
- UNLESS NOTED OTHERWISE, CONDUITS SHALL BE:
 - ELECTRICAL METALLIC TUBING (EMT) FOR INTERIOR LOCATIONS.
 - SCHEDULE 40 PLASTIC CONDUIT (PVC) FOR EXTERIOR LOCATIONS.
 - RIGID GALVANIZED STEEL (RGS) CONDUIT WHERE EXPOSED TO PHYSICAL DAMAGE.
- ALL CONDUIT ABOVE CEILING SHALL BE SUPPORTED FROM BUILDING STRUCTURAL MEMBERS OR CONCRETE DECKING, NOT FROM CEILING GRID OR GRID HANGER WIRES.
- PROVIDE ALL MOUNTING BRACKETS, HANGERS, CLIPS, ETC. AS NECESSARY TO MOUNT AND SECURE LIGHT FIXTURES IN LOCATIONS SHOWN AND AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INTENDED.
- WHERE CONDUIT PENETRATES FIRE RATED BARRIERS (WALLS, FLOORS AND CEILINGS), SEAL THE OPENING AROUND THE CONDUIT WITH U.L. LISTED FIRE STOPPING MATERIAL TO MAINTAIN THE FIRE RATING OF THE BARRIER.
- ROUTE CONDUIT THROUGH ROOF OPENINGS FOR PIPING AND DUCTWORK WHERE POSSIBLE; OTHERWISE, PROVIDE ROOF JACK WITH PITCH POCKET.
- MAKE ARRANGEMENTS WITH THE POWER COMPANY TO OBTAIN PERMANENT ELECTRICAL SERVICE TO THE PROJECT. PROVIDE SERVICE ENTRANCE AND PROVISIONS FOR METERING IN ACCORDANCE WITH THE POWER COMPANY'S REQUIREMENTS. INCLUDE ALL FEES IN BID.
- MAKE ARRANGEMENTS WITH THE POWER COMPANY AND PROVIDE TEMPORARY ELECTRICAL SERVICE TO THE PROJECT FOR CONSTRUCTION POWER. INCLUDE ALL FEES IN BID.

LIGHT FIXTURE SCHEDULE (UNLESS NOTED OTHERWISE EQUALS WILL BE ACCEPTED)

TYPE	DESCRIPTION	LAMP(S)	MANUFACTURER
A	DECORATIVE WALL SCONCE, U.L. LISTED FOR WET LOCATIONS WHITE FINISH, 277V	2-9W CF	LOUIS POULSEN-SATURN WALL SERIES SAW - 776
B	HID INGRADE SPOT LIGHT, SPECULAR REFLECTOR, 15" INTERNAL LAMP TILT, TEMPERED GLASS LENS, U.L. LISTED FOR WET LOCATIONS, 277V	1-70W MH	HYDREL-9100 SERIES
C	4' FLUORESCENT STRIP, ELECTRONIC BALLAST	2-F32T8 3500K	LITHONIA-C SERIES
C2	2' FLUORESCENT STRIP, ELECTRONIC BALLAST	2-F17T8 3500K	LITHONIA-C SERIES
D	FLUORESCENT RECESSED CAN DOWNLIGHT, 8" DIAMETER APERTURE, CLEAR ALZAK REFLECTOR, DAMP RATED.	1-26W TRI-TUBE	LITHONIA-AF SERIES
E	INDUSTRIAL INCANDESCANT WITH GLASS GLOBE	1-100W A-19	CANLET - 6802 SERIES
FEM	4' FLUORESCENT WALL BRACKET, ACRYLIC LENS FOR UPLIGHT AND DOWNLIGHT, ELECTRONIC BALLAST, EMERGENCY INVERTER	2-F32T8 3500K	LITHONIA-WP SERIES
G	4' NARROW FLUORESCENT STRIP, 2 3/4"W ELECTRONIC BALLAST	1-F32T8 3500K	LITHONIA-S SERIES
G2	2' NARROW FLUORESCENT STRIP, 2 3/4"W ELECTRONIC BALLAST	1-F17T8 3500K	LITHONIA-S SERIES
H	HID WALL MOUNT FIXTURE, MITERED EXTRUDED ALUMINUM FRAME.	METAL HALIDE 1-70W	ELLIPTIPAR -151 SERIES
⊗	LED EXIT SIGN, PLASTIC HOUSING, WHITE FINISH, STENCIL FACE, RED LETTERS AND DIFFUSER, INTEGRAL BATTERY AND CHARGER, UNIVERSAL MOUNTING ADAPTER	LED'S PER CODE	LITHONIA-LQM SERIES
⊠	EMERGENCY LIGHTING UNIT, PLASTIC HOUSING, WHITE FINISH, INTEGRAL BATTERY AND CHARGER, MOUNT 1' BELOW CEILING BUT NO HIGHER THAN 12' A.F.F.	2-7.2W INCAND	LITHONIA-6ELM2 SERIES
⊠	EMERGENCY LIGHTING UNIT, CUSTOM COLOR SELECTED BY ARCHITECT, 90 MINUTE BATTERY, COMPLETELY FLUSH IN NORMAL MODE, POP OUT IN EMERGENCY MODE.	2-20W HALOGEN	CONCEALITE-5000 SERIES
⊠	EMERGENCY LIGHTING UNIT, PLASTIC HOUSING, WHITE FINISH, INTEGRAL BATTERY AND CHARGER, MOUNT 1' BELOW CEILING BUT NO HIGHER THAN 12' A.F.F. SIZE BATTERY TO OPERATE 2 INTEGRAL AND 2 REMOTE HEADS.	2-7.2W INCAND	LITHONIA-ELM4 SERIES
⊠	REMOTE EMERGENCY BATTERY AND CHARGER, RECESSED HOUSING, WHITE FINISH, MOUNT FLUSH IN CEILING, UNIT SHALL OPERATE 2-10W LAMPS FOR 90 MIN.	NO INTEGRAL LAMPS	LITHONIA-ELR RO SERIES
⚡	2 HEADED OUTDOOR MINI CYLINDER, BRONZE FINISH, 10 WATT AND 12 VOLTS PER HEAD, POWERED FROM REMOTE EMERGENCY BATTERY, MOUNT ABOVE EXIT DOOR.	1-MR11 HALOGEN PER HEAD	LITHONIA ELAOMC SERIES

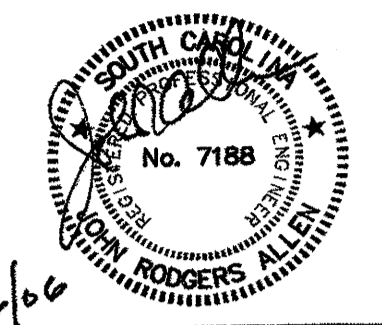
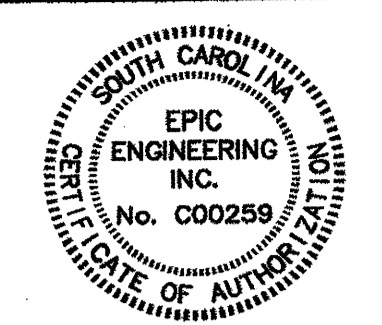
NOTES:

EACH FLUORESCENT ELECTRONIC BALLAST SHALL BE SOUND RATED A, AND SHALL HAVE A TOTAL HARMONIC DISTORTION LESS THAN 20%, A BALLAST FACTOR OF .85 OR GREATER, A POWER FACTOR OF .95 OR GREATER, AND A MAXIMUM ANSI INPUT WATTS AS FOLLOWS:

- 1-F32T8 LAMPS - 32 WATTS
- 2-F32T8 LAMPS - 62 WATTS
- 1-F17T8 LAMPS - 22 WATTS
- 2-F17T8 LAMPS - 34 WATTS

LEGEND

- ⊠ A ENCLOSED FLUORESCENT FIXTURE, LETTER INDICATES TYPE, APPROXIMATE DIMENSIONS AS INDICATED.
- ⊠ A LIGHT FIXTURE PROVIDED WITH EMERGENCY BATTERY INVERTER TO OPERATE 1 LAMP WHEN NORMAL POWER FAILS, CONNECT INVERTER TO UNSWITCHED CIRCUIT CONDUCTOR.
- ⊠ A OPEN FLUORESCENT FIXTURE, LETTER INDICATES TYPE.
- ⊕ A CEILING MOUNTED FIXTURE, LETTER INDICATES TYPE.
- ⊕ A WALL MOUNTED FIXTURE, LETTER INDICATES TYPE.
- ⊗ EXIT SIGN, BLACKENED AREA(S) INDICATE FACE(S), DIRECTIONAL ARROWS AS INDICATED.
- ⊠ EMERGENCY LIGHTING UNIT WITH NUMBER OF HEADS INDICATED.
- ⊠ SWITCH, 20 AMP, 120-277V, AC (48" A.F.F. UNLESS NOTED OTHERWISE).
SUBSCRIPT: NONE - SINGLE POLE
3 - 3 WAY
- ⊠ DISCONNECT SWITCH, UNLESS NOTED OTHERWISE RATING SHALL BE 30 AMP/2 POLE/NEMA 1/NON FUSED (30/2/1/NF). 20AF - INDICATES 20 AMP FUSE. (FUSES SHALL BE DUAL ELEMENT, TIME DELAY, CURRENT LIMITING).
- ⊠ ELECTRIC MOTOR, NUMBER, WHERE INCLUDED, INDICATES HORSEPOWER (PROVIDED UNDER DIVISION 15 - WIRED UNDER DIVISION 16).
- ⊠ DUPLEX RECEPTACLE OUTLET, 20 AMP, 125V AC, 2 POLE, 3 WIRE, GROUNDING (18" A.F.F. UNLESS NOTED OTHERWISE).
SUBSCRIPT: WP - WEATHERPROOF
EWC - ELECTRIC WATER COOLER
- ⊠ DUPLEX RECEPTACLE OUTLET, SEE ABOVE, MOUNT 6" ABOVE COUNTER.
- ⊠ DUPLEX RECEPTACLE OUTLET, SEE ABOVE, GROUND FAULT CIRCUIT INTERRUPTER (GFCI).
- ⊠ DUPLEX RECEPTACLE OUTLET, SEE ABOVE, GFCI, MOUNT 6" ABOVE COUNTER.
- ⊠ QUADRUPLE RECEPTACLE OUTLET, SEE ABOVE.
- ⊠ SPECIAL RECEPTACLE OUTLET, RATING AS INDICATED, (18" A.F.F. UNLESS NOTED OTHERWISE).
- ⊠ JUNCTION BOX, COORDINATE WITH EQUIPMENT (18" A.F.F. UNLESS NOTED OTHERWISE).
- ▼ TELEPHONE OUTLET, 4"x4"x1 1/2" BOX WITH SINGLE GANG EXTENSION RING (18" A.F.F. UNLESS NOTED OTHERWISE).
SUBSCRIPT: W - 48" A.F.F. FOR WALL PHONE
- ⊠ P1 POWER PANEL "P1".
- ⊠ TB1 TELEPHONE BACKBOARD "TB1".
- ⊠ GROUNDING CONNECTION/DEVICE.
- ⊠ BRANCH CIRCUIT, ARROW INDICATES HOMERUN, CROSS LINES INDICATE NUMBER OF CONDUCTORS, GROUNDING CONDUCTOR IS NOT SHOWN BUT SHALL BE PROVIDED IN ALL CIRCUITS (2#12, 1#12G, 1/2"C UNLESS NOTED OTHERWISE).



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REVISIONS

NO.	DESCRIPTION	DATE

OFFICES AT BELLE HALL BUILDINGS 1 & 2
 LONG POINT ROAD
 MOUNT PLEASANT, SC
 PROJECT TITLE

NOTES, LEGEND, SCHEDULE
 DRAWING TITLE

SCALE: NONE
 DATE: 1/06/06

SHEET NUMBER
E001 OF 10

CAD FILE NAME:
05176E001

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