



**SLEEVES AND FIRESTOPPING**

USE PROSET "FIRESTOP PENETRATORS" U.L. CLASSIFIED IN THE BUILDING MATERIALS DIRECTORY, TESTED BY ASTM E-814. USE FOR ALL APPLICABLE PIPE PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS OR FLOOR/CEILING ASSEMBLIES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

**A. SYSTEM "A" PENETRATORS FOR WATER LINES, HEATING AND COOLING LINES, FIRE STANDPIPE AND SPRINKLER LINES, TEMPERATURE CONTROL, ACID WASTE GLASS PIPE AND ELECTRIC AND COMMUNICATION CONDUIT PENETRATING FLOORS OR WALLS.**

- CAST-IN-COULPING PENETRATORS FOR POURED-IN-PLACE CONCRETE ON STEEL OR WOOD FORMS IN FLOORS OR WALLS.
- CORED HOLE COUPLING PENETRATORS FOR CORED HOLES THROUGH PRECAST OR EXISTING CONCRETE IN FLOORS OR WALLS.
- SPLIT WALL SLEEVE PENETRATORS FOR PIPES PASSING THROUGH GYPSUM WALLS OR FLOOR/CEILING ASSEMBLIES.
- SLIP FLANGE CM COUPLING FOR POURED-IN-PLACE CONCRETE ON CORRUGATED METAL DECK.

**ELECTRICAL GENERAL NOTES**

- ALL WORK THIS DIVISION SHALL COMPLY WITH ALL LOCAL BUILDING CODES, LAWS, REGULATIONS, ORDINANCES, AND THE REQUIREMENTS OF THE 2017 NATIONAL ELECTRICAL CODE. ALL WORK SHALL COMPLY WITH BASE BUILDING SPECIFICATIONS. OBTAIN A COPY OF SPECIFICATIONS FROM BUILDING MANAGER IF NECESSARY.
- THE CONTRACTOR SHALL KEEP A RECORD OF THE CHANGES WHICH ARE IN CONFLICT WITH THESE DRAWINGS AND SPECIFICATIONS. AT THE COMPLETION OF HIS WORK HE SHALL SUBMIT "AS BUILT" PRINTS TO THE OWNER.
- DRAWINGS ARE GENERALLY DIAGNAMATIC AND DO NOT NECESSARILY SHOW EVERY FITTING AND DETAIL. ALL WORK SHALL BE INSTALLED SO THAT JUNCTION BOXES AND COMPONENTS WILL BE ACCESSIBLE FOR SERVICE.
- ALL SYSTEMS, EQUIPMENT, COMPONENTS, WORK, ETC. PROVIDED UNDER THIS DIVISION SHALL BE COVERED BY A ONE YEAR GUARANTEE STARTING AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER. ANY DEFECTS IN THE WORK, SYSTEMS, EQUIPMENT, OR COMPONENTS FOUND DURING THIS YEAR SHALL BE CORRECTED AT NO CHARGE. THE GUARANTEE SHALL INCLUDE PROVIDING ALL NECESSARY CUTTING, PATCHWORK, REPAIRING, ETC. TO MAKE THE WORK COMPLETE AND NEW.
- ALL CONDUIT MUST BE CONCEALED IN THE WALLS OR ABOVE THE CEILING UNLESS OTHERWISE NOTED. MINIMUM CONDUIT SIZE IS 1/2".
- ALL CONDUCTORS SHALL BE COPPER WITH TYPE "THM" OR "THHN" INSULATION AND THE MINIMUM WIRE SIZE SHALL BE #12 A.W.G. WITH A 167 DEGREE TEMPERATURE RATING.
- ALL WIRE MUST BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER ACCORDING TO GENERALLY ACCEPTED PRINCIPALS OF FIRST CLASS WORKMANSHIP.
- FASTEN ALL RECESSED LIGHTING FIXTURES TO STRUCTURE OR GRID PER N.E.C. 410.36.
- RECESSED INCANDESCENT FIXTURES SHALL BE SUPPORTED IN COMPLIANCE WITH N.E.C. 410.36.
- ALL PENETRATIONS THRU RATED WALLS, FLOORS AND CEILINGS SHALL BE FIRE STOPPED PER N.E.C. 900.21.
- PROVIDE ALL GROUNDING AS REQUIRED BY N.E.C.
- DEVICE MOUNTING HEIGHTS ARE TO BE MEASURED TO THE DEVICE CENTERLINE.
- ALL SWITCHES FOR FANS, LIGHTS, ETC. WHICH ARE SHOWN TO BE MOUNTED IN THE SAME GENERAL AREA SHALL SHARE A MULTI-GANG COVER PLATE AS REQUIRED.
- ALL CONDUIT SHALL BE 1/2" EMT WITH 2#12 #12G AWG CONDUCTORS UNLESS OTHERWISE NOTED.
- PROVIDE #12AWG GND. FOR ALL MECHANICAL EQUIPMENT UNLESS SHOWN OTHERWISE. ALL EQUIPMENT SHALL BE GROUNDED AT THE PANEL WHICH FEEDS THE EQUIPMENT.
- COORDINATE RECEPTACLE NEMA TYPE AND VOLTAGE WITH COPIERS AND EQUIPMENT.
- PROVIDE A NEW DIRECTORY FOR ALL PANELS. CORRECTLY LABEL ALL CIRCUITS, SPACES AND SPACES IN ACCORDANCE WITH N.E.C. 408.4(A).
- PROVIDE A SEPARATE GREEN, INSULATED, #12AWG EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH THE BRANCH CIRCUIT HOMERUN CONDUCTORS.
- WHERE WORK BY THE GENERAL CONTRACTOR (WALL REMOVAL, NEW OR RELOCATED WALL OPENING, ETC.) RESULTS IN THE REMOVAL, RELOCATION OR REFINISHING OF ELECTRICAL DEVICES OR LIGHTING FIXTURES, THE ELEC. CONTRACTOR SHALL DISCONNECT OR RECONNECT AS REQUIRED ALL ACTIVE DEVICES REMAINING ON THAT CIRCUIT SYSTEM.
- DEVICE BOXES IN RATED WALLS SHALL MEET STANDARD BUILDING CODE SECTION 706.4.
- ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY.
- DEDICATED RECEPTACLES TO RECEIVE VISUAL IDENTIFICATION.
- OUTLET BOX SHALL NOT BE MOUNTED BACK TO BACK.
- BLANK FACE RECEPTACLES ARE NOT ALLOWED. U.L. NO. "AM" EXISTING OUTLET OR TELE/DATA LOCATION NOT USED UNLESS SHOWN WITHIN THE SCOPE OF WORK IN THESE PLANS SHOULD BE REFINISHED AND REPAIRED.
- MULTI-WIRE BRANCH CIRCUITS SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS PER N.E.C. 210.4(B).
- MULTI-WIRE BRANCH CIRCUITS SUPPLYING POWER TO PERMANENTLY CONNECTED FREESTANDING PARKING LOTS SHALL BE PROVIDED WITH A MEANS TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS AT THE PANEL BOARD WHERE THE BRANCH CIRCUIT ORIGINATES PER N.E.C. 606.8.
- ARC-FLASH HAZARD WARNING SHALL BE PROVIDED ON ALL EQUIPMENT IN AFFECTED ELECTRICAL ROOMS PER N.E.C. 110.16.
- PROVIDE PLASTIC NAMEPLATE ON ALL PANELS (NEW AND EXISTING) INDICATING PANEL NAME AND SOURCE PER N.E.C. 408.4(B).
- ALL WIRING TERMINATIONS ARE ASSUMED TO BE 75DEG C RATED, UNLESS NOTED OTHERWISE. ALL WIRING UNDER 100A IS BASED ON A 90DEG C TERMINATION.
- PROVIDE HOUSE KEEPING CONCRETE PAD FOR ALL ELECTRICAL EQUIPMENT.

**ELECTRICAL SYMBOL LEGEND**

| SYMBOL | DESCRIPTION   | OR. CENTER MATG. HT. |
|--------|---|----------------------|
|        | COMPLETED CONDUIT IN CEILING (1" WALL)  |                      |
|        | COMPLETED CONDUIT IN FLOOR OR UNDERGROUND   |                      |
|        | CONDUIT REMAINING IN PANEL, EACH APPROXIMATE = 1 CIRCUIT  |                      |
|        | NO. OF CONDUCTORS IN CONDUIT, EACH CROSSMATCH = 1 WIRE  |                      |
|        | FLEXIBLE CONDUIT OR S.D. CONDUIT  |                      |
|        | EXPOSED CONDUIT   |                      |
|        | CONDUIT STUBBED UP OR TURNED DOWN   |                      |
|        | PLYWOOD BACKBOARD   |                      |
|        | SURFACE MOUNTED RACEWAY   |                      |
|        | MULTI OUTLET SURFACE MOUNTED RACEWAY  |                      |
|        | WALL MOUNTED SINGLE RECEPTACLE OUTLET   | 15"                  |
|        | WALL MOUNTED DUPLEX RECEPTACLE OUTLET   | 18"                  |
|        | WALL MOUNTED DUPLEX RECEPTACLE OUTLET - ABOVE CORNER  | 18"                  |
|        | WALL MOUNTED DUPLEX RECEPTACLE OUTLET - ABOVE DOOR  | AS SHOWN             |
|        | WALL MOUNTED D.U.P.L.X. DUPLEX RECEPTACLE OUTLET - WEATHER RESISTANT "WST" TYPE                   | 18"                  |
|        | WALL MOUNTED ISOLATED GROUND DUPLEX RECEPTACLE OUTLET   | 18"                  |
|        | WALL MOUNTED DOUBLE DUPLEX RECEPTACLE OUTLET  | 18"                  |
|        | WALL MOUNTED SPECIAL RECEPTACLE   | 15"                  |
|        | JUNCTION BOX  |                      |
|        | WALL MOUNTED COMBINATION DATA/VOICE RECEPTACLE  | 15"                  |
|        | JUNCTION BOX WITH 3/4" CONDUIT TO ABOVE CEILING   |                      |
|        | JUNCTION BOX WITH 3/4" CONDUIT TO ABOVE CEILING AND 1/4" CONDUIT TO ABOVE CEILING                 |                      |
|        | JUNCTION BOX WITH 1-1/2" CONDUIT TO ABOVE CEILING   |                      |
|        | JUNCTION BOX WITH 1-1/2" CONDUIT TO ABOVE CEILING AND 3/4" CONDUIT TO ABOVE CEILING               | 42"                  |
|        | DOME LIGHT (FURNISHED BY SECURITY CONTRACTOR)   |                      |
|        | RECESSED LIGHT FIXTURE  |                      |
|        | RECESSED LIGHT FIXTURE - CEILING MOUNTED BY OTHERS  |                      |
|        | POWER THRU DEVICES WITH POWER AND TELE/DATA PER PLANS (SEE DRAWINGS FOR MODELS)                   |                      |
|        | POWER THRU DEVICES WITH DUPLEX RECEPT & TELE/DATA/W OUTLETS (SEE DRAWINGS FOR MODELS)             |                      |
|        | 277/480 VOLT PANELBOARD   |                      |
|        | 120/208 VOLT PANELBOARD   |                      |
|        | RECESSED MOUNTED 120/208 VOLT PANELBOARD  |                      |
|        | TRANSFORMER   |                      |
|        | LIGHT FIXTURE   |                      |
|        | EXIT SIGN - CEILING/WALL MT.  |                      |
|        | LIGHT FIXTURE ON BATTERY BACK-UP (DIMMABLE, 1100 LUMEN)   |                      |
|        | WALL MOUNTED 3-P.S.F. TOGGLE SWITCH   | 42"                  |
|        | WALL MOUNTED 3-WAY TOGGLE SWITCH  | 42"                  |
|        | WALL MOUNTED 4-WAY TOGGLE SWITCH  | 42"                  |
|        | WALL MOUNTED DIMMER SWITCH (SWITCHAGE AS REQUIRED)  | 42"                  |
|        | WALL MOUNTED MANUAL OVERRIDE SWITCH (TO OVERRIDE CIRCUIT DESIGNATED AT LIGHTING CONTRACTOR PANEL) | 42"                  |
|        | MOTION DETECTOR SWITCH W/ MANUAL OVERRIDE - WALL MOUNTED  | 42"                  |
|        | MOTION DETECTOR - CEILING MOUNTED   |                      |
|        | DAYLIGHT SENSOR   |                      |
|        | MOTOR RATED DOUBLE SWITCH   | AS REQ'D.            |
|        | COMBINATION MOTOR STARTER/DISCONNECT SWITCH   |                      |
|        | DISCONNECT SWITCH (FRAME POLES/PHASE - IF REQUIRED)   |                      |
|        | MOTOR - NUMBER INDICATES HORSEPOWER (FRACTIONAL)  |                      |
|        | FIRE ALARM ADA APPROVED VISUAL ALARM - WALL MOUNTED   | 80" A.F.F.           |
|        | FIRE ALARM ADA APPROVED VISUAL ALARM - CEILING MOUNTED  |                      |
|        | FIRE ALARM ADA APPROVED AUDIO/VISUAL ALARM - WALL MOUNTED   | 80" A.F.F.           |
|        | FIRE ALARM ADA APPROVED AUDIO/VISUAL ALARM - CEILING MOUNTED                                      |                      |
|        | FIRE ALARM PULL STATION   | 48" A.F.F.           |
|        | SMOKE DETECTOR - CEILING MOUNTED  |                      |
|        | DUCT MOUNTED SMOKE DETECTOR   |                      |
|        | MAGNETIC DOOR HOLD DEVICE TO INTERLOCK WITH FIRE ALARM SYSTEM                                     |                      |
|        | TRANSFER SWITCH - FIRE ALARM  |                      |
|        | FLOW SWITCH - FIRE ALARM  |                      |
|        | HEAT DETECTOR - FIRE ALARM  |                      |
|        | FURNISHED BY OTHERS   |                      |
|        | ABOVE FINISHED FLOOR/ABOVE FINISHED GRADE   |                      |
|        | BELOW CEILING   |                      |
|        | ABOVE COUNTER   |                      |
|        | WEATHER PROOF   |                      |
|        | EXISTING/RELOCATED/NEW  |                      |
|        | GROUNDING TRACK INTERCONNECTING CONDUIT   |                      |
|        | EMPTY CONDUIT (PROVIDE PULLSTRING) OR ALL EMPTY CONDUIT   |                      |
|        | FUSE PER MANUFACTURER'S RECOMMENDATION  |                      |
|        | ISOLATED GROUNDING  |                      |

NOTES:  
1. COORDINATE LOCATION AND SPECIFIC MOUNTING HEIGHT WITH ARCHITECT.  
2. MOUNTING HEIGHTS SHALL BE AS INDICATED BY THE LEGEND UNLESS OTHERWISE NOTED ON THE PLANS.

**LIGHTING FIXTURE SCHEDULE**

| FIXTURE TYPE | MANUFACTURER AND CATALOG INFORMATION        | LAMPS |                      |       | BALLAST |              |       | TOTAL WATTS | INPUT VOLTAGE | DESCRIPTION  | MOUNTING     |
|--------------|---|-------|----------------------|-------|---------|--------------|-------|-------------|---------------|--|--------------|
|              |   | QTY.  | TYPE                 | WATTS | QTY.    | TYPE         | WATTS |             |               |  |              |
| F1           | CURRENT POWERED BY GE ALCS SERIES OR EQUAL  | -     | 80CRI 8500K 7800LUM  | 59W   | -       | DRIVER 0-10V | 59W   | 59W         | 120V          | 4' LED STRIP LIGHTING. PHASE 2: MOUNT @ 14' A.F.F. PHASE 4: MOUNT @ 9' A.F.F.  | SUSPENDED    |
| F1E          | CURRENT POWERED BY GE ALCS SERIES OR EQUAL  | -     | 80CRI 5000K 7800LUM  | 59W   | -       | DRIVER 0-10V | 59W   | 59W         | 120V          | 4' LED STRIP LIGHTING. PROVIDE WITH BATTERY BACKUP RATED FOR 90 MINUTES. PHASE 2: MOUNT @ 14' A.F.F. PHASE 4: MOUNT @ 9' A.F.F.  | SUSPENDED    |
| F2           | CURRENT POWERED BY GE LB22 SERIES OR EQUAL  | -     | 80CRI 3500K 4000LUM  | 32W   | -       | DRIVER 0-10V | 32W   | 32W         | 120V          | 2X2' LED FIXTURE.  | RECESSED     |
| F2E          | CURRENT POWERED BY GE LB22 SERIES OR EQUAL  | -     | 80CRI 3500K 4000LUM  | 32W   | -       | DRIVER 0-10V | 32W   | 32W         | 120V          | 2X2' LED FIXTURE. PROVIDE WITH BATTERY BACKUP RATED FOR 90 MINUTES.  | RECESSED     |
| F3           | CURRENT POWERED BY GE LB24 SERIES OR EQUAL  | -     | 80CRI 3500K 4800LUM  | 36W   | -       | DRIVER 0-10V | 36W   | 36W         | 120V          | 2X4' LED FIXTURE.  | RECESSED     |
| F4           | CURRENT POWERED BY GE LB24 SERIES OR EQUAL  | -     | 80CRI 3500K 6000LUM  | 45.5W | -       | DRIVER 0-10V | 45.5W | 45.5W       | 120V          | 2X4' LED FIXTURE.  | RECESSED     |
| F5           | CURRENT POWERED BY GE ALCS SERIES OR EQUAL  | -     | 80CRI 8500K 15600LUM | 118W  | -       | DRIVER 0-10V | 118W  | 118W        | 120V          | 8' LED STRIP LIGHTING. PHASE 3: MOUNT @ 15' A.F.F. PHASE 4: MOUNT @ 14' A.F.F.   | SUSPENDED    |
| F5E          | CURRENT POWERED BY GE ALCS SERIES OR EQUAL  | -     | 80CRI 5000K 15600LUM | 118W  | -       | DRIVER 0-10V | 118W  | 118W        | 120V          | 8' LED STRIP LIGHTING. PROVIDE WITH BATTERY BACKUP RATED FOR 90 MINUTES. PHASE 3: MOUNT @ 15' A.F.F. PHASE 4: MOUNT @ 14' A.F.F. | SUSPENDED    |
| F6           | CURRENT POWERED BY GE ALR2 SERIES OR EQUAL  | -     | 80CRI 5000K 16100LUM | 118W  | -       | DRIVER 0-10V | 118W  | 118W        | 120V          | 8' LED STRIP LIGHTING. UL LISTED WET LOCATION. PHASE 1: MOUNT @ 16' A.F.F.   | SUSPENDED    |
| F6E          | CURRENT POWERED BY GE ALR2 SERIES OR EQUAL  | -     | 80CRI 5000K 16100LUM | 118W  | -       | DRIVER 0-10V | 118W  | 118W        | 120V          | 8' LED STRIP LIGHTING. UL LISTED WET LOCATION. PROVIDE WITH BATTERY BACKUP RATED FOR 90 MINUTES. PHASE 1: MOUNT @ 16' A.F.F.     | SUSPENDED    |
| EX           | CURRENT POWERED BY GE EWS01 SERIES OR EQUAL | -     | 70CRI 5000K 1500LUM  | 12W   | -       | DRIVER 0-10V | 12W   | 12W         | 120V          | EXTERIOR WALL PACK. UL LISTED WET LOCATION. PROVIDE WITH PHOTO CELL FOR DUSK TO DAWN OPERATION. ALL PHASE: MOUNT @ 12' A.F.F.    | WALL         |
| EM           | LITHONIA AFN SERIES OR EQUAL                | -     | LED                  | 1.1W  | -       | DRIVER       | 1.1W  | 1.1W        | MVOLT         | EXTERIOR EMERGENCY LIGHT. PROVIDE WITH 90-MINUTE RATED BATTERY BACKUP. ALL PHASE: MOUNT @ 9' A.F.F.                              | WALL         |
| X            | INVERTER SYSTEMS P1NN SERIES OR EQUAL       | -     | -                    | 3W    | -       | DRIVER       | 3W    | 3W          | 120V          | LED EDGE LIT EXIT SIGN COORDINATE COLOR WITH ARCHITECT. PROVIDE WITH 90-MINUTE RATED BATTERY BACKUP.                             | WALL/CEILING |

LIGHT FIXTURE SCHEDULE NOTES:  
1. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION, LAYOUT, AND LOCATION OF LIGHT FIXTURES.  
2. ALL EXTERIOR FIXTURES TO BE LISTED FOR WET LOCATIONS.  
3. COORDINATE ALL FINISHES WITH ARCHITECT.  
4. COORDINATE ALL MOUNTING AND TRIMS WITH CEILING TYPE ON ARCHITECTURAL DRAWINGS.

**2 LIGHTING SCHEDULE**  
E-001 NOT TO SCALE

**Quail Hollow Club**

**MAINTENANCE BUILDINGS**

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**REVISIONS:**

| No. | Description             | Date     |
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| 01  | ISSUED FOR CONSTRUCTION | 06/19/20 |

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DRAWN BY: TT  
CHECKED BY: JSL

**LEGENDS, DETAILS, AND NOTES**

**E-001**