**ELECTRICAL SUB-CONTRACTOR RESPONSIBILITIES:**

1. **INSTALL 2" X 4" X 1-1/2" SINGLE-GANG OUTLET BOX FOR REQUEST-TO-EXIT (REX) MOTION SENSOR.**
   - Horizontal mount on secure side of door above door frame.
2. **INSTALL 2" X 4" X 1-1/2" SINGLE-GANG OUTLET BOX FOR CARD READER.**
   - Mount on un-secure side of door at ADA compliance height.
3. **INSTALL 4" X 4" X 2-1/8" DUAL-GANG OUTLET BOX FOR DOOR MANAGEMENT ALARM.**
   - Mount on secure side of door @ 48" AFF.
4. **INSTALL 4" X 2-1/8" OCTAGON BOX FOR CAMERA IN CEILING OR WALL LOCATION AS SPECIFIED BY THE ARCHITECT.**
5. **INSTALL CONDUITS AS REQUIRED:**
   - 1-1/4" CONDUIT FROM SECURITY JUNCTION BOX TO ACCESSIBLE PATHWAY TO TR.
   - 3/4" CONDUIT FROM SECURITY JUNCTION BOX TO DOOR MANAGEMENT ALARM OUTLET BOX.
   - 1/2" CONDUIT FROM SECURITY JUNCTION BOX TO SINGLE-GANG OUTLET BOX FRAME/WALL (REX).
   - 1/2" CONDUIT FROM SECURITY JUNCTION BOX TO DOOR FRAME (DOOR CONTACT).
   - 1/2" CONDUIT FROM SECURITY JUNCTION BOX TO SINGLE-GANG OUTLET BOX (CARD READER).
   - 1/2" CONDUIT FROM SECURITY JUNCTION BOX TO OCTAGON OUTLET BOX (CAMERA).
   - IF REX, CARD READER AND/OR DOOR MANAGEMENT ALARM ARE LOCATED ON/IN THE DOOR FRAME ASSEMBLY, RUN CONDUIT(S) TO THE DOOR FRAME ASSEMBLY LOCATIONS AS REQUIRED.
6. **THE WIRELESS ADA DOOR OPERATOR BUTTON APPLICATION REQUIRES A MINIMUM OF ONE HARD-WIRED BUTTON INTO THE DOOR OPERATOR AND MUST BE EQUIPPED WITH A DOUBLE-PULL, DOUBLE-THROW RELAY OR A DUAL CHANNEL RECEIVER FOR CONTROL BY THE ACCESS CONTROL SYSTEM.**
7. **DO NOT EXCEED MORE THAN 2 90-DEGREE BENDS IN CONDUIT RUNS OR MORE THAN 180 DEGREES TOTAL. IF EXCEEDED, INSTALL INTERMEDIATE PULL BOXES.**
8. **USE OF FLEX CONDUIT, FROM ITS JUNCTION BOX TO THE CONTACT, REX, STRIKE, OR HANDLE.**

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**GENERAL NOTE:**

1. Door components and other support structures, conduits and boxes shown in dotted lines can be installed without installation of the access control system.
2. The wireless ADA door operator button application requires a minimum of one hard-wired button into the door operator and must be equipped with a double-pull, double-throw relay or a dual channel receiver for control by the access control system.
3. Do not exceed more than 2 90-degree bends in conduit runs or more than 180 degrees total. If exceeded, install intermediate pull boxes.
4. Use of flex conduit from its junction box to the contact, REX, strike, or handle must be pre-approved by the owner/facility engineer.