

The School District of palm Beach County

Project Name:

SDPBC Project No:

SECTION 26 05 40
ELECTRICAL CONNECTIONS OF RELOCATABLE CLASSROOMS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A All work shall comply with applicable codes, FBC, FFPC, NEC, etc.

PART 2 PRODUCTS

2.1 NOT USED

PART 3 EXECUTION

3.1 ELECTRIC POWER

- A Install conduit, wiring, and equipment to provide necessary power.
- B Adjust wire and conduit size to compensate for voltage drop and derating factors.
- C Conductors shall be copper.
- D Limit splices below grade.
- E Use listed underground splice kits where necessary.

3.2 INTERCOM SYSTEM

- A Install conduit and wiring necessary to make a fully functional intercom system, with callback, connected to the existing system in the school.
- B Connect every portable, under the scope of work, to the system.
- C Verify that the system has the capacity to handle the additional load at the point of connection.
 - 1 Notify the owner if additional wiring or equipment is required to keep the system fully functional.
- D Record the color code identification for each wire used and provide as part of the close out documents.
- E Certify that the alterations to the system are fully functional and do not adversely affect the complete system.

3.3 COMMUNICATIONS SYSTEM (Data and Voice)

- A Install conduit and boxes as indicated for an empty raceway system.
- B Install an 8" x 8" junction box beside the existing system junction boxes on the portable, if a data junction box does not exist.
- C Install a 2" conduit from indicated location to a hand hole (Brooks 1325).
 - 1 From the hand hole, run one 1" conduit to each portable junction box, up to six portables.
 - 2 Conduits shall turn up in the hand hole and end a minimum of 8" from the underside of the cover.
- D Maximum distance between pulls points not to exceed 200'.

3.4 ITV SYSTEM

- A Install conduit, wiring, and equipment necessary to make a fully functional ITV system in the school.
- B Install a TV outlet, if it does not exist, in every portable under the scope of work.
- C Verify that the system has the capacity to handle the additional loads at the point of connection.
 - 1 Notify the owner if additional wiring or equipment is required to keep the system fully functional.
- D Use RG6 digital ready inside the portable.
- E Install splitter or coupling in the junction box on the outside of the portable only.

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- F Certify that the alterations to the system are fully functional and do not adversely affect the complete system.
- 3.5 TELEPHONE SYSTEM
 - A Install conduit and boxes as indicated for an empty raceway system per Section 27 10 00.
- 3.6 FIRE ALARM SYSTEM
 - A Install conduit, wiring, and equipment necessary to make a fully functional fire alarm system, connected to the existing system in the school.
 - 1 Install a horn/strobe, pull-station in every portable under the scope of work.
 - B Install additional smoke detectors, heat detectors and pull stations where indicated.
 - C Verify that the system has the capacity to handle the additional loads at the point of connection.
 - 1 Notify the owner if additional wiring or equipment is required to keep the system fully functional.
 - D A contractor certified to work on fire alarm systems shall do all work.
 - E All new equipment shall match the existing and be of the same manufacturer as the existing.
 - F Fire alarm system wiring class (Class A or Class B) shall match the facility's fire alarm system.
 - 1 Wire the relocatables as Class A if the facility's fire alarm system is Class A.
 - 2 Wire the relocatables as Class B if the facility's fire alarm system is Class B.
 - G Match existing wire color-coding.
 - 1 Generally, the color-coding will be brown & orange for the annunciation circuit and blue & purple for the initiation circuit.
 - H Use #10 to the systems rack and #12 from the rack to the portable(s) for the annunciation circuit and #14 for the initiation circuit.
 - I Install a green insulated copper equipment-grounding conductor in all fire alarm raceways.
 - J Certify that the alterations to the system are fully functional and do not adversely affect the complete system.
 - K Provide a 24" x 24" x 8" weatherproof junction box on rack to house a fire alarm system NAC panel.
 - L Install heat detector/smoke detector in every portable as required by NFPA 72, Florida Building Code and 4A-58.
- 3.7 SECURITY SYSTEM
 - A Install conduit and boxes as indicated, for an empty raceway system per Section 28 16 00.
- 3.8 RACEWAYS
 - A Use RGC or PVC for underground raceways.
 - B Outdoor and wet locations, above grade:
 - 1 Use rigid steel conduit.
 - 2 PVC schedule 80 is permitted for a maximum of 10'-0" above finished grade.
 - C Underground raceways shall have a minimum of 30" cover.
 - D Do not run raceways on top of the ground.
 - E Install a burial warning tape at 6" to 8" below grade, for underground raceways.
 - F Install a 200 lb. pull string in all empty raceways.
- 3.9 GROUNDING
 - A Install a green insulated copper equipment-grounding conductor in all power and fire alarm raceways.
 - B Install a #6 (minimum) conductor from the ground bar in the panel in the portable, (through the sleeve, if provided), to bond each junction box on the outside, the copper water pipe stubbed out under the portable and a new 10' x 3/4" copper clad ground rod.

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1 If the sleeve from the panel is metallic, bond the open end under the portable with a bonding bushing or fitting.

C Bond the equipment-grounding conductor for power and fire alarm to the outside junction boxes.

D Bond the ITV coax to the outside junction box with a grounding block.

3.10 GENERAL

A Return the site to its original condition.

B Conductors shall be copper.

C Existing systems are to remain functional, except when making scheduled for connections.

D Limit splices below grade.

E Have all work inspected before it is covered up.

F Exceptions to these specifications must be in writing from owner.

G Correct all work not meeting these specifications at no additional cost to the Owner's representative.

END OF SECTION