Montgomery County Public Schools Facilities Guide

DIVISION 16 – ELECTRICAL

SECTION 16131 CONDUITS

PART 1 – GENERAL

A. Provide electric metallic tubing (EMT) for all feeders, lighting and power branch circuits.

B. For conduits to be installed outside, concrete slab on grade, or in the ground, provide schedule 40 PVC conduit with galvanized steel (RGS) elbow in slab deck. For above grade slab provide EMT with concrete proof connections.

C. Flexible conduit must be used for connections to from transformer to panelboard.

D. All empty conduits must be provided with pull cord and bushed end.

E. Minimum size of conduit is ½ “.

F. MC cable:

1. MC cables may not be used in inaccessible ceilings.
2. MC cables may not be used in masonry walls.
3. MC cables may not be for feeders or home runs.

G. For data systems; provide empty boxes, empty junction boxes and empty conduits with pull cords and bushings into nearest accessible ceiling for each system.

H. Provide the Command Center with emergency power receptacle, telephone outlet, data outlet and PA system microphone. Command Center to be located by MCPS

I. Provide empty sleeves with bushings in walls to allow data/telephone cables ONLY a path back to main equipment. Consult with Art Funk of MCPS for location and size of sleeves required.

J. Provide in each classroom a surface mounted, two section raceway (Wiremold 4000) at the five station student computer area with two data outlets and five duplex receptacles on one 20 amp circuit. See Standard Detail E-6.0 on the following pages.

K. Provide for all computer labs, surface mounted, two section raceways (Wiremold 4000) on two walls with duplex receptacles and data outlets. See Standard Detail E-7.0 on the following pages.

L. Provide empty boxes for card readers, door release and automatic door power at Main Entrance, Main Office and at Courtyards.

M. Provide four direct buried 4” PVC conduits from the property line to the MDF room one for CATV service and two for telephone service. Stub up conduits 6” above floor. Coordinate the location of the service with MCPS.

M. For all new and modernization projects provide two 4" (verify with MCPS) empty conduits (preferably underground) from main electrical room to 5’-0” outside building for future portable classroom location.

N. Provide a 1” empty conduit with pull cord from future exterior sign location with a flush mounted, waterproof junction box to the nearest accessible ceiling space.

O. Athletic Fields for Football – Provide (2) 2” empty conduits with pull cords from the concession’s building to future locations for the four light standards. One conduit for future power to lights and the other is for the future sound system.

P. Provide a note on Power Drawings: Provide a recessed empty outlet box, 48”AF, interior painted (color selected by MCPS at each thermostat location with a ¾” empty conduit up into the nearest accessible ceiling and with pull cord and bushed end (for ATC).

Q. Fire Hydrant Supervision (within property line): Provide one ¾” conduit with three #14 THW wires to the nearest accessible ceiling where the security contractor shall complete the wiring to the MDF room. Final connections will be by MCPS. See Standard Detail E-13.0 on the following pages.

Montgomery County Public Schools

DIVISION OF CONSTRUCTION
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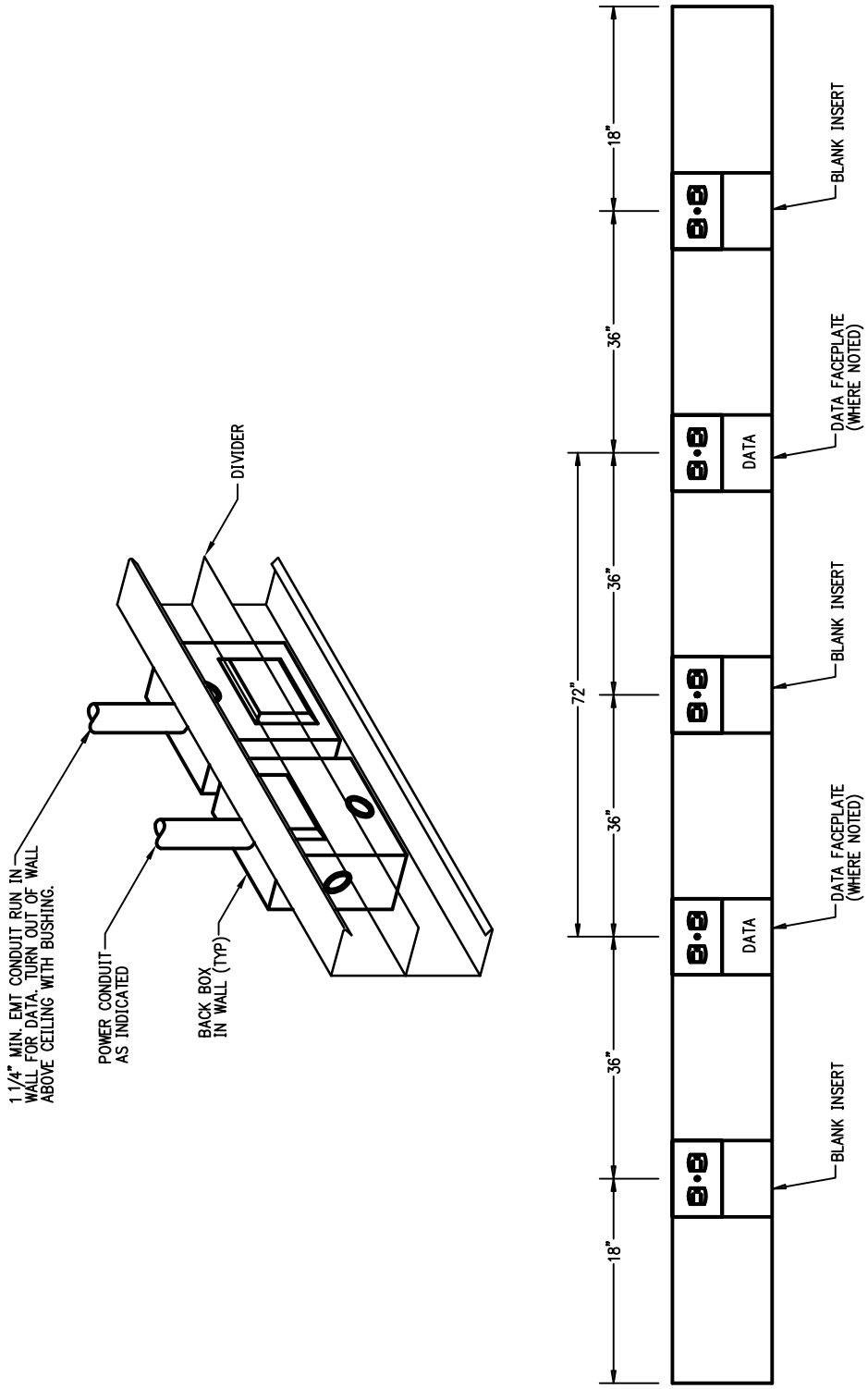
2096 Gaither Road, Suite 203, Rockville, MD 20850 240-314-1000 (FAX) 240-314-1036

TYPICAL FIVE-STUDENT MULTI-OUTLET ASSEMBLY INSTALLATION

DESIGNED BY:	LRM
APPROVED BY:	MCPS
DATE	02/06/09
REV	04/17/09
STANDARD NO.	E-6.0



MOA ASSEMBLY

ACCEPTABLE MANUFACTURER:

WIREMOLD TYPE V 4000	
BASE:	V4000 B-10
COVER:	V4000 C
DIVIDER:	V4000 D
DIVIDER CLIP:	4001D
DEVICE BRACKET:	4050-IVORY
DUPLEX COVER:	5507D
FLAT 90° ANGLE:	V4011 FO
BLANK COVER:	5507B

DETAIL E6.0

TYPICAL FIVE-STUDENT MULTI-OUTLET ASSEMBLY INSTALLATION

MOUNT TOP OF ASSEMBLY 16" ABOVE FLOOR

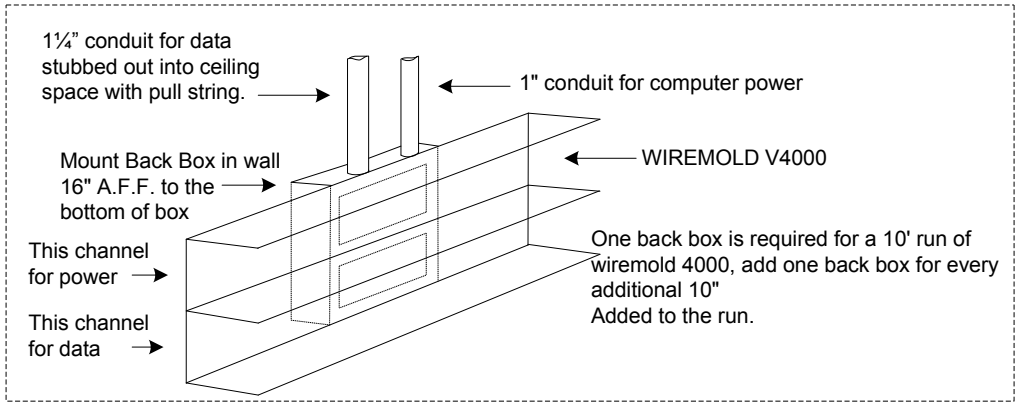
NOT TO SCALE

Date:
Oct. 22, 2008

Revised:
March 27, 2009

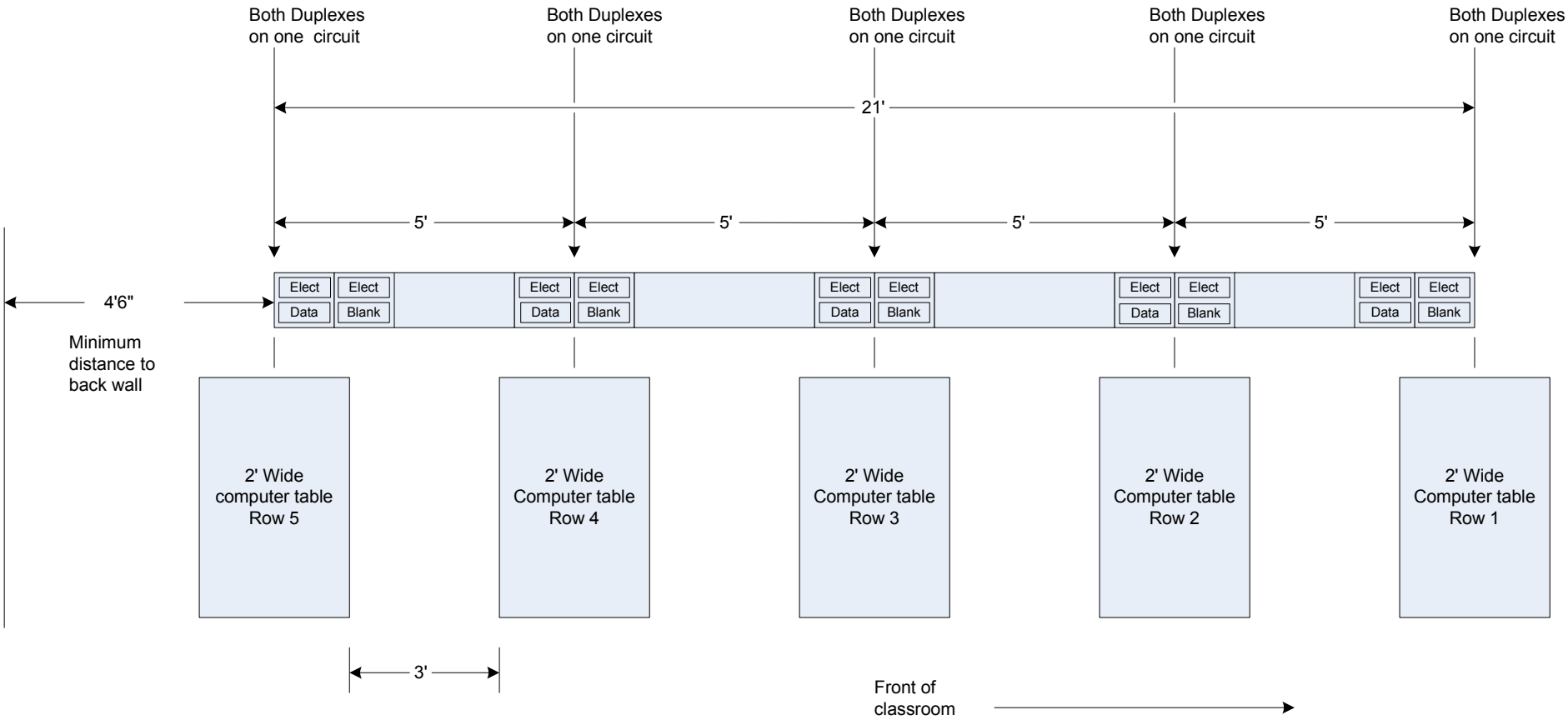
TYPICAL WIREMOLD 4000 INSTALLATION FOR COMPUTER ROOMS WITH ROWS FEEDING OFF THE WALL.

MONTGOMERY COUNTY PUBLIC SCHOOL STANDARD DETAIL E7.0



For a computer room requiring additional rows the Wiremold will be extended by 5' and if there are less rows required they will be reduced by 5'. Where data is not shown the Electrical Contractor will provide a blank insert.

WIREMOLD:	TYPE V4000
BASE:	V4000 B -10 - IVORY
COVER:	V4000 C - IVORY
DIVIDER:	V4000 D
DIVIDER CLIP:	V4001 D
RECEPTACLES:	4848 B
DEVICE BRACKET:	V4050
DUPLEX COVER:	5507 D - IVORY
FLAT 90% ANGLE:	V4011FO



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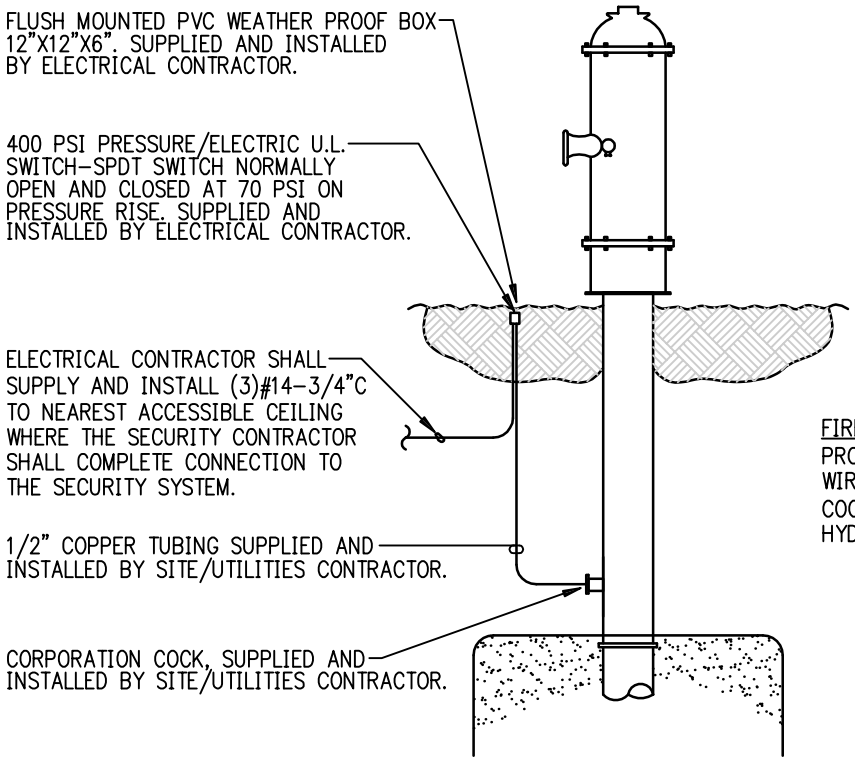
FIRE HYDRANT SUPERVISION	DESIGNED BY: LRM APPROVED BY: MCPS DATE 02/06/09	REV 04/17/09 STANDARD NO. E-13.0



FIRE HYDRANT SUPERVISION NOTE:
PROVIDE (1) 3/4" PVC CONDUIT W/3 #14 THW WIRES FROM EACH ON SITE FIRE HYDRANT. COORDINATE FINAL LOCATION & DETAIL W/FIRE HYDRANT INSTALLER PRIOR TO ROUGH-IN.

DIAGRAM E13.0

FIRE HYDRANT SUPERVISION

NOT TO SCALE