**TYPICAL MDF DESIGN REQUIREMENTS**

**POWER:**
- All Communications Room receptacles shall be fed from dedicated IT panel and tied into emergency power system.
- Power receptacles (convenience):
  1. (2) 20 amp duplex receptacle on normal power, centered on each wall, and
  2. (1) 20 amp duplex receptacle per wall mounted equipment.
- Power receptacles (rack mounted):
  1. (2) dedicated, NEMA 5-20R 20A/120V receptacles at each side of center rack within backside of vertical wire manager.
  2. Where emergency power is available:
    1. (1) dedicated, NEMA 5-20R 20A/120V receptacle at each side of center rack within backside of vertical wire manager.
    2. (1) dedicated, NEMA 5-20R 20A/120V quad receptacle at each side of center rack within backside of vertical wire manager.
- Where emergency power is not available:
  1. (2) dedicated, NEMA 5-20R 20A/120V quad receptacle at each side of center rack within backside of vertical wire manager.
- HVAC:
  1. Provide 10,000 BTU/HR sensible cooling per equipment rack.
- LIGHTING:
  1. Fixtures shall be placed running parallel with equipment racks.
  2. Provide min. 50 FC at 3'-0" AFF. Provide min. 1 lamp on emergency power.

**MEP COORDINATION NOTES:**
- Provide min. 50 FC at 3'-0" AFF. Provide min. 1 lamp on emergency power.
- Fixtures shall be placed running parallel with equipment racks.
- Provide 10,000 BTU/HR sensible cooling per equipment rack.

**DESCRIPTION:**
- 1/2" = 1'-0"
- 11/3/2017
- www.brplusa.com
tel 617.254.0016 fax 617.924.9339
10 Guest St., 4th Floor
Consulting Engineers, LLC
Bard, Rao + Athanas

**PROJECT:**
- DUKE UNIVERSITY OIT COMMUNICATIONS ROOM

**REV. DWG:**
- RW
- RWMT
- LAYOUT

**SCALE:**
- RW

**DATE:**
- 11/3/2017

**DRAWN:**
- RW

**CHECKED:**
- RW

**JOB NO.:**
- DP

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**1. TYPICAL IC ROOM - EMERG./STANDBY POWER**
COMMUNICATIONS

TR RACK ELEVATION

RACK #1
RACK #2
RACK #3

TYPICAL 24-PORT 2U PATCH PANEL DETAIL

3/4" = 1'-0"

1. RACK ELEVATION - FRONT OF RACKS
   3/4" = 1'-0"

2. SECTION THRU WIRE MGR
   3/4" = 1'-0"
POWER RECEPTACLES REAR OF RACKS - EMERGENCY POWER

1. AVAILABLE
   1" = 1'-0"

2. NOT AVAILABLE
   1" = 1'-0"

SIMPLEX RECEPTACLE
NEMA 5-20R 20A/120V
TO NORMAL POWER (BLACK)
EMERG./STANDBY POWER (RED)
SIMPLEX RECEPTACLE
NEMA 5-20R 20A/120V
TO NORMAL POWER (BLACK)
SIMPLEX RECEPTACLE
NEMA 5-20R 20A/120V
EMERG./STANDBY POWER (RED)
QUAD RECEPTACLE
NEMA 5-20R 20A/120V
TO NORMAL POWER (BLACK)

1U TRANSFER SWITCH
EATON STS 1400
BY OWNER
(6) 5-15 INPUTS
(1) NORMAL POWER OUT
(1) EMERG. POWER OUT

VERTICAL WIRE MANAGER

Bard, Rao + Athanas Consulting Engineers, LLC
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Boston, MA 02135
tel 617.254.0016    fax 617.924.9339
www.brplusa.com
USE SNAP IN LABELING KIT TO LABEL BLOCK WITH ORIGINATION MDF ROOM

USE SNAP IN LABELING KIT TO LABEL MDF ROOM

USE SNAP IN LABELING KIT TO LABEL BLOCK WITH DESTINATION IDF ROOM

Siemon S110A(X)2-100FT Labeling at IDF

Siemon S110AA2-300FT Labeling at MDF

Siemon S110A(X)2-100FT Labeling at IDF

Siemon S110AA2-300FT Labeling at MDF

Siemon #S110AA2-300FT

300 PAIR FIELD TERMINATION KIT

Siemon #S110A(X)2-100FT

100 PAIR FIELD TERMINATION KIT

Superior Essex #18-789-33 (Riser)

T502 3

24 PORT ANALOG PP

24 PORT ANALOG PP

RACK 2 RACK 1 RACK 3

RACK 2 RACK 1 RACK 3

RACK 2 RACK 1 RACK 3

25 PAIR x 50 FT. TIE CABLE WITH 90 DEGREE FEMALE AMP CONNECTOR (TYP. IN EACH IDF)

50 PAIR TIE CABLE FROM MDF TO EACH IDF

SUPERIOR ESSEX #18-789-33 (RISER)

6" = 1'-0"

Typical Copper Riser Diagram - Duke University

PROJECT:

DESCRIPTION:

CHECKED:

SCALE:

DRAWN:

DATE:

JOB NO.:

SKETCH:

REV. DWG:

6" = 1'-0"
ROOM# FACEPLATES WITHIN EACH ROOM TO BE LABELED NUMERICALLY STARTING AT POINT "1" AND THEN CLOCKWISE

PORTS WITHIN FACEPLATE TO BE LABELED WITH PATCH PANEL PORT #

"TYPICAL OUTLET LABELING DETAIL"

N.T.S.

"TYPICAL FACEPLATE LABELING"

12" = 1'-0"