

ELECTRICAL SYMBOLS - DIAGRAM

- ⊗ MOTOR, THREE-PHASE  
⊙ JUNCTION BOX  
⌋ MOLDED CASE CIRCUIT BREAKER  
⌋ COMBINATION STARTER MOLDED CASE CIRCUIT BREAKER  
⌋ DISCONNECT SWITCH, FUSED  
⌋ DISCONNECT SWITCH, UNFUSED  
VFD VARIABLE FREQUENCY DRIVE

ELECTRONIC SAFETY AND SECURITY SYMBOLS

- ☹ DETECTOR, SMOKE, FOR DUCT  
—FA FIRE ALARM LINE = FA  
F RELAY; LETTER INDICATES RELAY TYPE  
F = FIRE ALARM RELAY  
ALARM, FIRE, PANEL; LETTERS INDICATE AS FOLLOWS:  
FACC = CENTRAL CONSOLE FACP = CONTROL PANEL  
MFACP = MASTER CONTROL PANEL FAAP = ANNUNCIATOR PANEL

ELECTRICAL SYMBOLS - POWER PLAN

- ⊗ MOTOR, THREE-PHASE  
— BRANCH CIRCUIT HOMERUN. LINES INDICATE NUMBER OF CIRCUITS, NEUTRAL, AND SWITCH-LEG CONDUCTORS. ONE SEPARATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN; NOT SHOWN  
— PANELBOARD CABINET, SURFACE MOUNTED  
⊙ JUNCTION BOX  
— MOTOR CONTROL CENTER

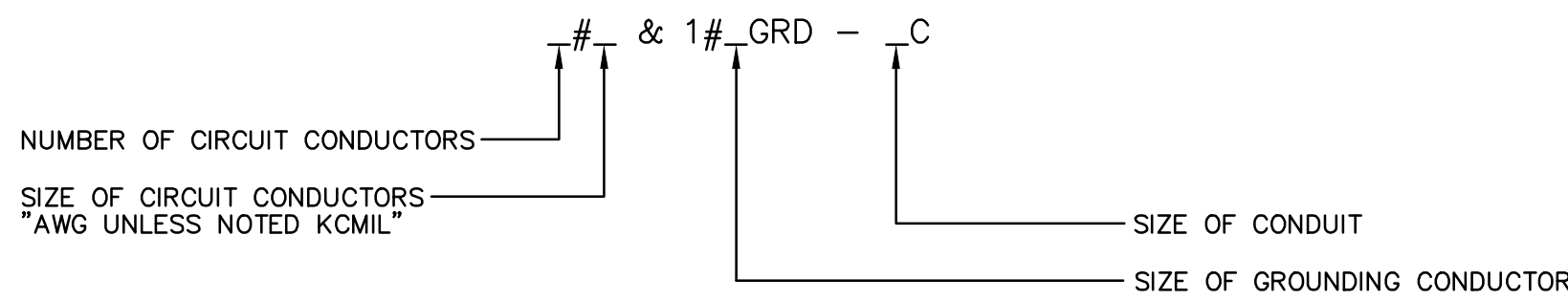
ELECTRICAL SYMBOLS - POWER PLAN

- ☑ MOTOR STARTER  
☑ COMBINATION MOTOR STARTER AND DISCONNECT SWITCH  
☑ DISCONNECT SWITCH, FUSED  
☑ DISCONNECT SWITCH, UNFUSED  
VFD VARIABLE FREQUENCY DRIVE

ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE	FA	FIRE ALARM	SD	SMOKE DETECTOR
1P	SINGLE POLE	FAAP	FIRE ALARM ANNUNCIATOR PANEL	SPEC	SPECIFICATION
2/C	TWO-CONDUCTOR	FACP	FIRE ALARM CONTROL PANEL	SURF	SURFACE
3/C	THREE-CONDUCTOR	FLA	FULL LOAD AMPS	SWBD	SWITCHBOARD
3PH	THREE-PHASE	FP	FIRE PROTECTION	SWGR	SWITCHGEAR
4/C	FOUR-CONDUCTOR	GRD	EQUIPMENT GROUND CONDUCTOR	SLD	SEE SINGLE LINE DIAGRAM
4W	FOUR-WIRE	HWP	HOT WATER PUMP	SFLX	SEALTIGHT FLEXIBLE METALLIC CONDUIT
AFF	ABOVE FINISHED FLOOR	J-BOX	JUNCTION BOX	TYP	TYPICAL
AFO	ABOVE FINISHED GRADE	KV	KILOVOLT	V	VOLT
AMP	AMPERE	KVA	KILOVOLT AMPERE	VA	VOLT AMPERE
AWG	AMERICAN WIRE GAUGE	KVAH	KILOVOLT AMPERE PER HOUR	VAR	VOLT AMPERE REACTIVE
BFF	BELOW FINISH FLOOR	KVAR	KILOVOLT AMPERE REACTIVE	VFD	VARIABLE FREQUENCY DRIVE
C	CONDUIT	KW	KILOWATT	VLT	VOLTAGE
CHWP	CHILLED WATER PUMP	KWH	KILOWATT HOUR	W	WATT
CKT	CIRCUIT	KWHM	KILOWATT HOUR METER	WH	WATER HEATER
CLG	CEILING	MCA	MINIMUM CIRCUIT AMPS	WP	WEATHERPROOF
DEMO	DEMOLITION	MCC	MOTOR CONTROL CENTER	XFER	TRANSFER
DS	DISCONNECT SWITCH	ML	MAIN LUG	XFMR	TRANSFORMER
EC	EMPTY CONDUIT	NEC	NATIONAL ELECTRICAL CODE		
EG	EQUIPMENT GROUND	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION		
EXIST	EXISTING	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION		
FLEX	FLEXIBLE METALLIC CONDUIT	NS	NO SCALE		
		NTS	NOT TO SCALE		
		PB	PANELBOARD, PULL BOX, OR PUSHBUTTON		
		PH	PHASE		
		PNL	PANEL		
		PWR	POWER		

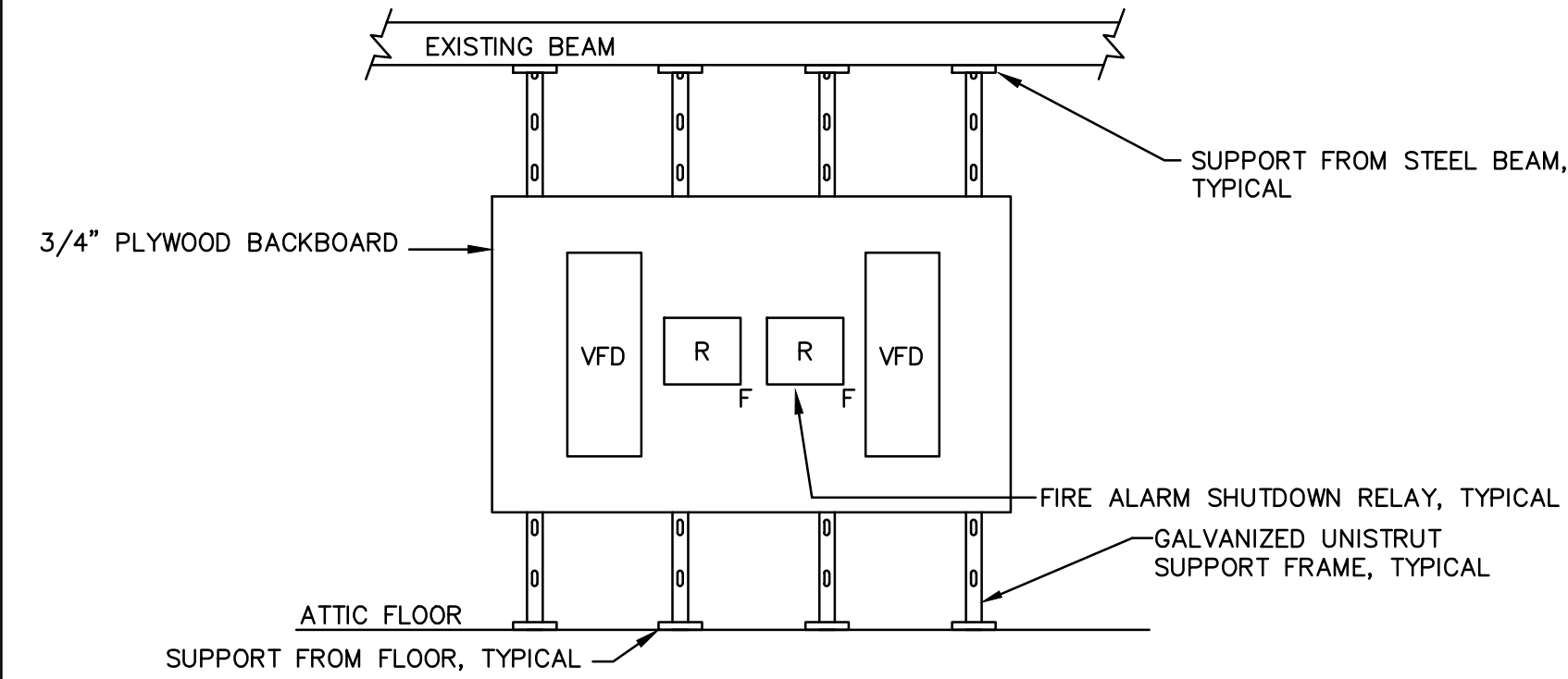
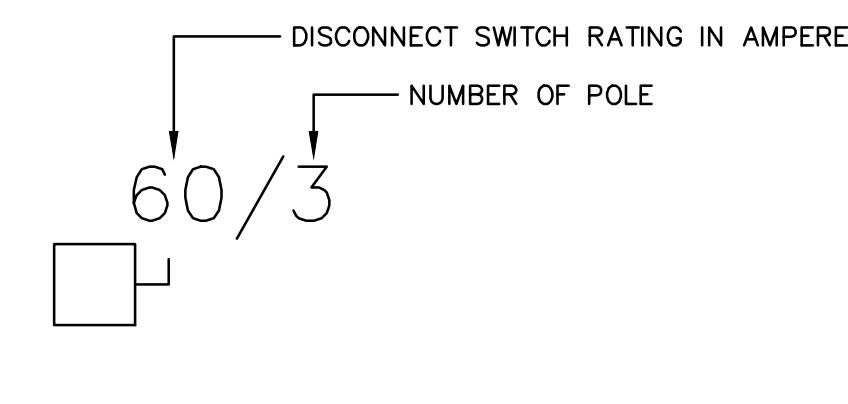
TYPICAL FEEDER DESIGNATION



NOTE:

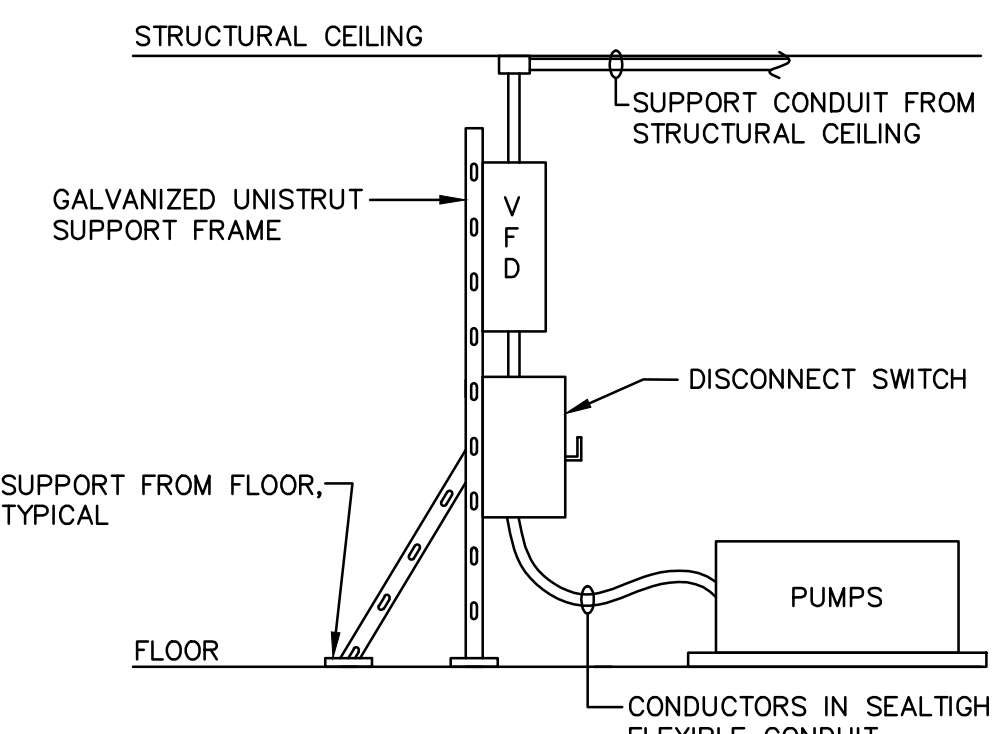
1. CONDUCTOR INSULATION TO BE 600V UNLESS OTHERWISE INDICATED.

TYPICAL DISCONNECT SWITCH DESIGNATION



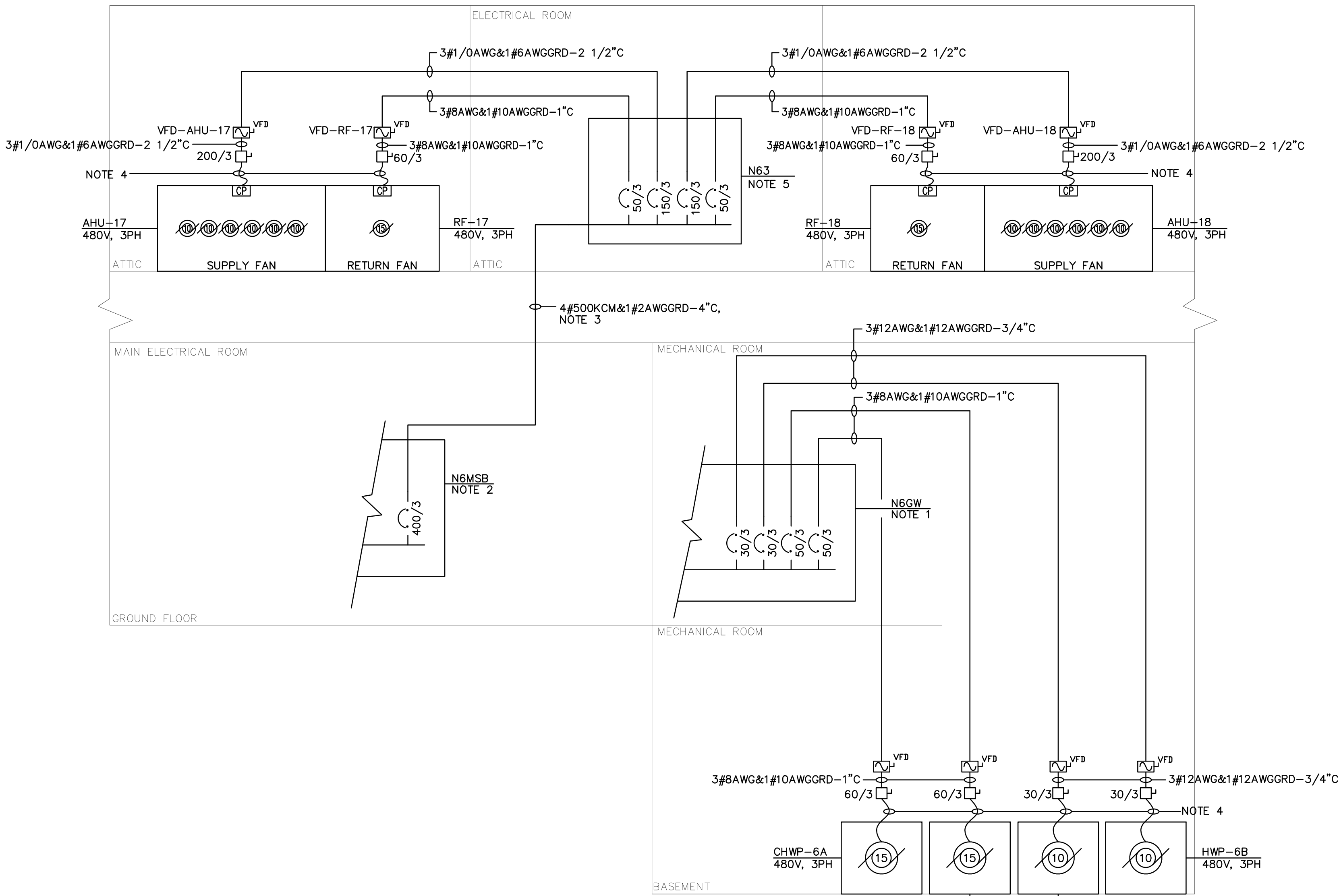
DETAIL

UNI-STRUT MOUNTING IN ATTIC FOR AHU & SF  
NOT TO SCALE



DETAIL

UNI-STRUT MOUNTING IN BASEMENT FOR CHWP & HWP  
NOT TO SCALE



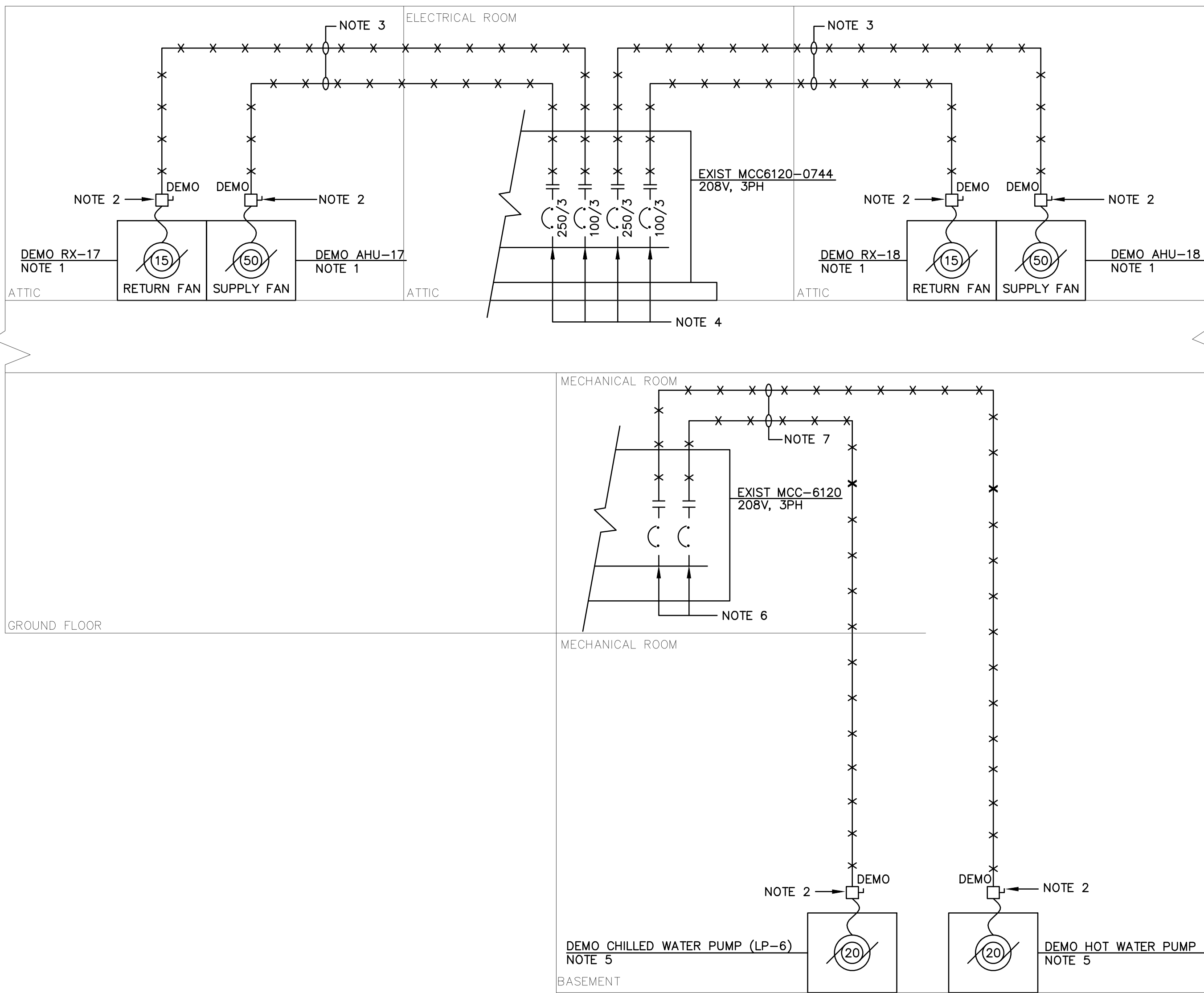
SINGLE LINE DIAGRAM

NEW (BUILDING 6)

NOT TO SCALE

SINGLE LINE DIAGRAM NOTES:

- PANELBOARD IS PROVIDED IN PHASE 3 OF CONSTRUCTION. REFER TO PHASE 3 ELECTRICAL DRAWINGS FOR LOCATION OF PANELBOARD.
- MAIN SWITCHBOARD IS PROVIDED IN PHASE 3 OF CONSTRUCTION. REFER TO PHASE 3 ELECTRICAL DRAWING FOR LOCATION OF MAIN SWITCHBOARD.
- REFER TO PHASE 3 ELECTRICAL DRAWINGS FOR ROUTING OF FEEDER.
- CONDUCTORS IN SEALTIGHT FLEXIBLE CONDUIT.
- SEE PANELBOARD LOAD SUMMARY ON SHEET 6-E5 FOR MORE INFORMATION.



SINGLE LINE DIAGRAM

DEMOLITION (BUILDING 6)

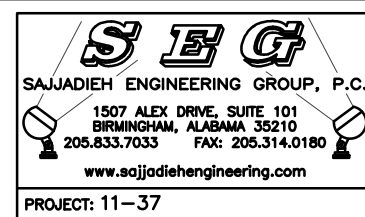
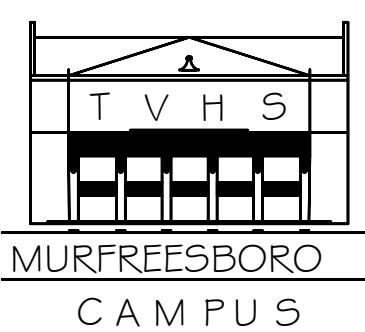
NOT TO SCALE

DEMOLITION SINGLE LINE DIAGRAM NOTES:

- REMOVE POWER TO SUPPLY AND RETURN FAN OF AIR HANDLING UNIT TO ALLOW REPLACEMENT OF AIR HANDLING UNIT BY MECHANICAL CONTRACTOR.
- REMOVE DISCONNECT SWITCH.
- REMOVE FEEDER FOR SUPPLY AND RETURN FAN OF AIR HANDLING UNIT.
- MARK COMBINATION STARTER CIRCUIT BREAKER "SPARE".
- REMOVE POWER CONDUCTORS AND CONDUIT TO CHILLED AND HOT WATER PUMP BACK TO SOURCE. MARK COMBINATION OF CIRCUIT BREAKER AND STARTER IN MOTOR CONTROL CENTER "SPARE".
- MARK COMBINATION CIRCUIT BREAKER/STARTER "SPARE".
- REMOVE FEEDER CONDUCTOR AND CONDUIT TO CHILLED WATER PUMP AND HOT WATER PUMP.



Tennessee Valley Healthcare System



Drawing Title  
GENERAL SYMBOLS  
AND SINGLE LINE DIAGRAMS

Project Title  
REPLACE ATTIC AHU'S-  
BLDG 6

Date  
01/20/2012

Project No.  
626A4-11-204

Building Number  
6

Checked  
JS

Drawn  
AL

DRAWING NO.  
6-E1

FILE NAME  
--

Location  
VAMC - MURFREESBORO

Approved: Director

Approved: Facility Manager

Approved: --

Approved: --

Revisions

Date

Veterans  
Administration