

HPAC BUILDING AHU REPLACEMENT SC STATE PROJECT #H34-9534-JM

UNIVERSITY OF SOUTH CAROLINA UPSTATE

Spartanburg, South Carolina

DESIGN TEAM

OWNER

UNIVERSITY OF SOUTH CAROLINA UPSTATE
800 UNIVERSITY WAY
SPARTANBURG, SC 29303 (864) 503-5538

MECHANICAL/PLUMBING ENGINEER

PERITUS ENGINEERS & ASSOCIATES, INC.
10 E. DORCHESTER BLVD.
GREENVILLE, SC 29605 (864) 277-8287
JODY C. PARKER, P.E.

ELECTRICAL ENGINEER

BURDETTE ENGINEERING, INC.
102 PILGRIM ROAD
GREENVILLE, SC 29607 (864) 297-8717
DON BURDETTE, P.E.

HUMANITIES & PERFORMING ARTS CENTER (HPAC)





VICINITY MAP

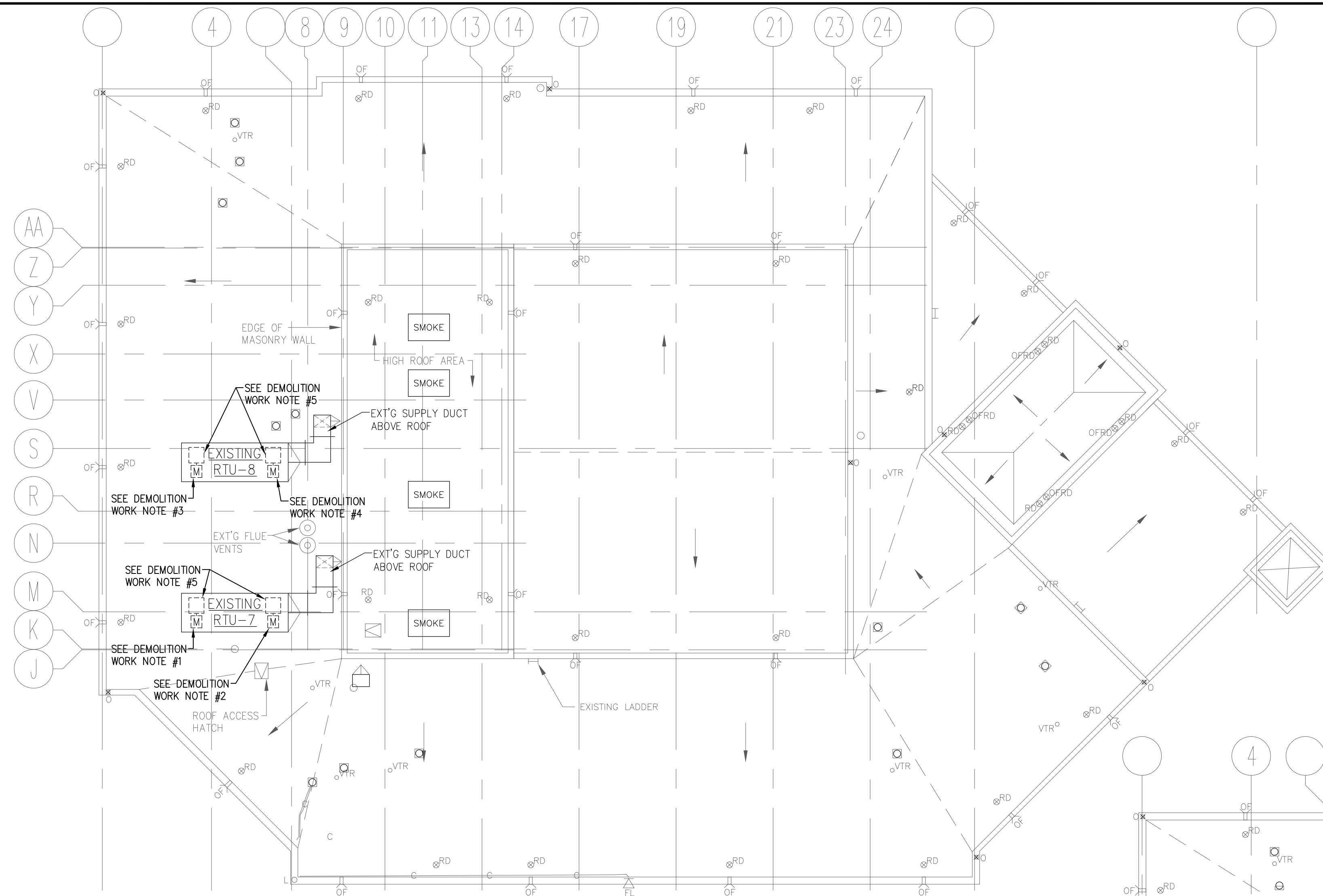
INDEX OF DRAWINGS

DWG. #	SHEET TITLE
T-1	PROJECT TITLE SHEET
MECHANICAL DRAWINGS	
M-1	MECHANICAL ROOF PLANS, GENERAL NOTES & SCHEDULE - BASE BID
M-2	BASEMENT LEVEL PARTIAL HVAC PLANS, GENERAL NOTES & SCHEDULE - ALTERNATE #1
ELECTRICAL DRAWINGS	
E-1	ELECTRICAL PLANS, LEGEND, AND SCHEDULE - ALTERNATE #1
E-2	ELECTRICAL PLANS - ROOF - BASE BID

This drawing is the property of Peritus Engineers & Associates, Inc. and shall not be used or reproduced without their written permission. © 2012 PERITUS ENGINEERS & ASSOCIATES, INC.

 <p>Peritus ENGINEERS & ASSOCIATES, INC. P. O. BOX 16998 SPARTANBURG, SOUTH CAROLINA 29303 864-277-8287 FAX: 864-277-8287 E-MAIL: peritus@peritusengineers.com</p>	 <p>BURDETTE ENGINEERING, INC. 102 PILGRIM ROAD GREENVILLE, SC 29607 (864) 297-8717 www.burdetteengineering.com</p>
<p>HPAC BUILDING AHU REPLACEMENT SC STATE PROJECT #H34-9534-JM SPARTANBURG, SOUTH CAROLINA</p>	
<p>DESIGN: JCP / DRAWN: TMI</p> <p>CHECKED: JCP / DATE: 4/16/12</p> <p>PERITUS #111212</p>	<p>ISSUED FOR BID: JCP</p> <p>DATE: 07/06/12</p> <p>BY: JCP</p> <p>DESCRIPTION: REVISIONS</p>
<p>T-1</p> <p>1 OF 1 SHEETS</p>	

This drawing is the property of Peritus Engineers & Associates, Inc. and shall not be used or reproduced without their written permission. © 2012 PERITUS ENGINEERS & ASSOCIATES, INC.



DEMOLITION - MECHANICAL ROOF PLAN - BASE BID

SCALE: 1/8" = 1'-0"

DEMOLITION WORK NOTES:

1. DISCONNECT ELECTRICAL FROM EXISTING 30 HP RETURN FAN MOTOR. REMOVE AND DISPOSE OF EXISTING RETURN FAN MOTOR FROM WITHIN AHU-7 CASING. REMOVE AND DISPOSE OF EXISTING DRIVE BELTS.
2. DISCONNECT ELECTRICAL FROM EXISTING 40 HP SUPPLY FAN MOTOR. REMOVE AND DISPOSE OF EXISTING SUPPLY FAN MOTOR FROM WITHIN AHU-7 CASING. REMOVE AND DISPOSE OF EXISTING DRIVE BELTS.
3. DISCONNECT ELECTRICAL FROM EXISTING 15 HP RETURN FAN MOTOR. REMOVE AND DISPOSE OF EXISTING RETURN FAN MOTOR FROM WITHIN AHU-8 CASING. REMOVE AND DISPOSE OF EXISTING DRIVE BELTS.
4. DISCONNECT ELECTRICAL FROM EXISTING 25 HP SUPPLY FAN MOTOR. REMOVE AND DISPOSE OF EXISTING SUPPLY FAN MOTOR FROM WITHIN AHU-8 CASING. REMOVE AND DISPOSE OF EXISTING DRIVE BELTS.
5. REMOVE AND DISPOSE OF EXISTING INLET GUIDE VANE ASSEMBLY ATTACHED TO FAN HOUSING INLETS, ALONG WITH EXISTING OPERATOR. CAP & SECURE EXISTING PNEUMATIC TUBING AWAY FROM FAN.

RE-WORK NOTES:

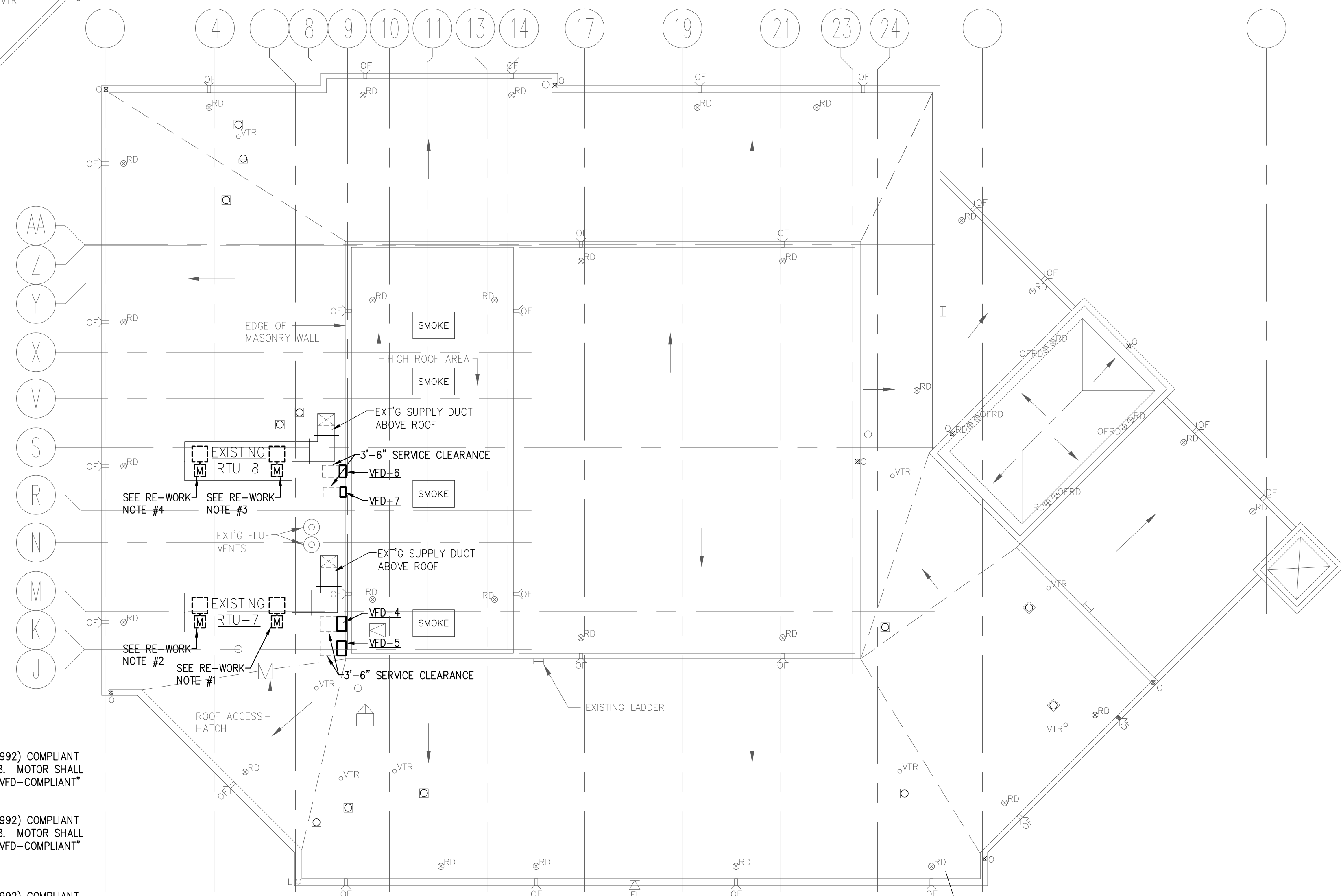
1. INSTALL NEW 40 HP FAN MOTOR ON EXISTING MOTOR BASE. MOTOR SHALL BE EPACT(1992) COMPLIANT AND SHALL MEET OR EXCEED NOMINAL EFFICIENCIES PER ASHRAE 90.1-2007 TABLE 10.8. MOTOR SHALL BE PREMIUM EFFICIENCY OPEN DRIP-PROOF TYPE, NOMINAL 1800 RPM, AND SHALL BE "VFD-COMPLIANT" PER MOTOR MANUFACTURER. INSTALL REPLACEMENT DRIVE BELTS.
2. INSTALL NEW 30 HP FAN MOTOR ON EXISTING MOTOR BASE. MOTOR SHALL BE EPACT(1992) COMPLIANT AND SHALL MEET OR EXCEED NOMINAL EFFICIENCIES PER ASHRAE 90.1-2007 TABLE 10.8. MOTOR SHALL BE PREMIUM EFFICIENCY OPEN DRIP-PROOF TYPE, NOMINAL 1800 RPM, AND SHALL BE "VFD-COMPLIANT" PER MOTOR MANUFACTURER. INSTALL REPLACEMENT DRIVE BELTS.
3. INSTALL NEW 25 HP FAN MOTOR ON EXISTING MOTOR BASE. MOTOR SHALL BE EPACT(1992) COMPLIANT AND SHALL MEET OR EXCEED NOMINAL EFFICIENCIES PER ASHRAE 90.1-2007 TABLE 10.8. MOTOR SHALL BE PREMIUM EFFICIENCY OPEN DRIP-PROOF TYPE, NOMINAL 1800 RPM, AND SHALL BE "VFD-COMPLIANT" PER MOTOR MANUFACTURER. INSTALL REPLACEMENT DRIVE BELTS.
4. INSTALL NEW 15 HP FAN MOTOR ON EXISTING MOTOR BASE. MOTOR SHALL BE EPACT(1992) COMPLIANT AND SHALL MEET OR EXCEED NOMINAL EFFICIENCIES PER ASHRAE 90.1-2007 TABLE 10.8. MOTOR SHALL BE PREMIUM EFFICIENCY OPEN DRIP-PROOF TYPE, NOMINAL 1800 RPM, AND SHALL BE "VFD-COMPLIANT" PER MOTOR MANUFACTURER. INSTALL REPLACEMENT DRIVE BELTS.

VARIABLE FREQUENCY DRIVE SCHEDULE - BASE BID

TAG	SERVICE	ABB MODEL No.	H.P.	OUTPUT AMPS	VOLTAGE	REMARKS
VFD-4	RTU-7-SF	ACH550-CC-114A-2+B058	40	114	208/3/60	SEE NOTES #1 & #2
VFD-5	RTU-7-RF	ACH550-CC-088A-2+B058	30	88	208/3/60	SEE NOTES #1 & #2
VFD-6	RTU-8-SF	ACH550-CC-075A-2+B058	25	74.8	208/3/60	SEE NOTES #1 & #2
VFD-7	RTU-8-RF	ACH550-CC-046A-2+B058	15	46.2	208/3/60	SEE NOTES #1 & #2

NOTES:

1. VERTICAL "E-CLIPSE-BYPASS", CIRCUIT BREAKER DISCONNECT, NEMA 1 UL TYPE 1 ENCLOSURE, N2 COMMUNICATIONS BUS, WITH INPUT/OUTPUT CARDS FOR START/STOP, SPEED CONTROL INPUT AND GENERAL ALARM/FAULT OUTPUT.
2. COORDINATE INSTALLATION OF DRIVES & CONNECT TO "JCI" EXISTING METASYS SYSTEM.



NEW WORK - MECHANICAL ROOF PLAN - BASE BID

SCALE: 1/8" = 1'-0"

ALL NEW WORK SHOWN IN **BOLD**

VFD-4, VFD-5, VFD-6 & VFD-7 SHALL BE MOUNTED ON TO EXTERIOR MASONRY WALL.

NO.	DATE	BY	DESCRIPTION	REVISIONS
0	07/06/12	JCP	ISSUED FOR BID	

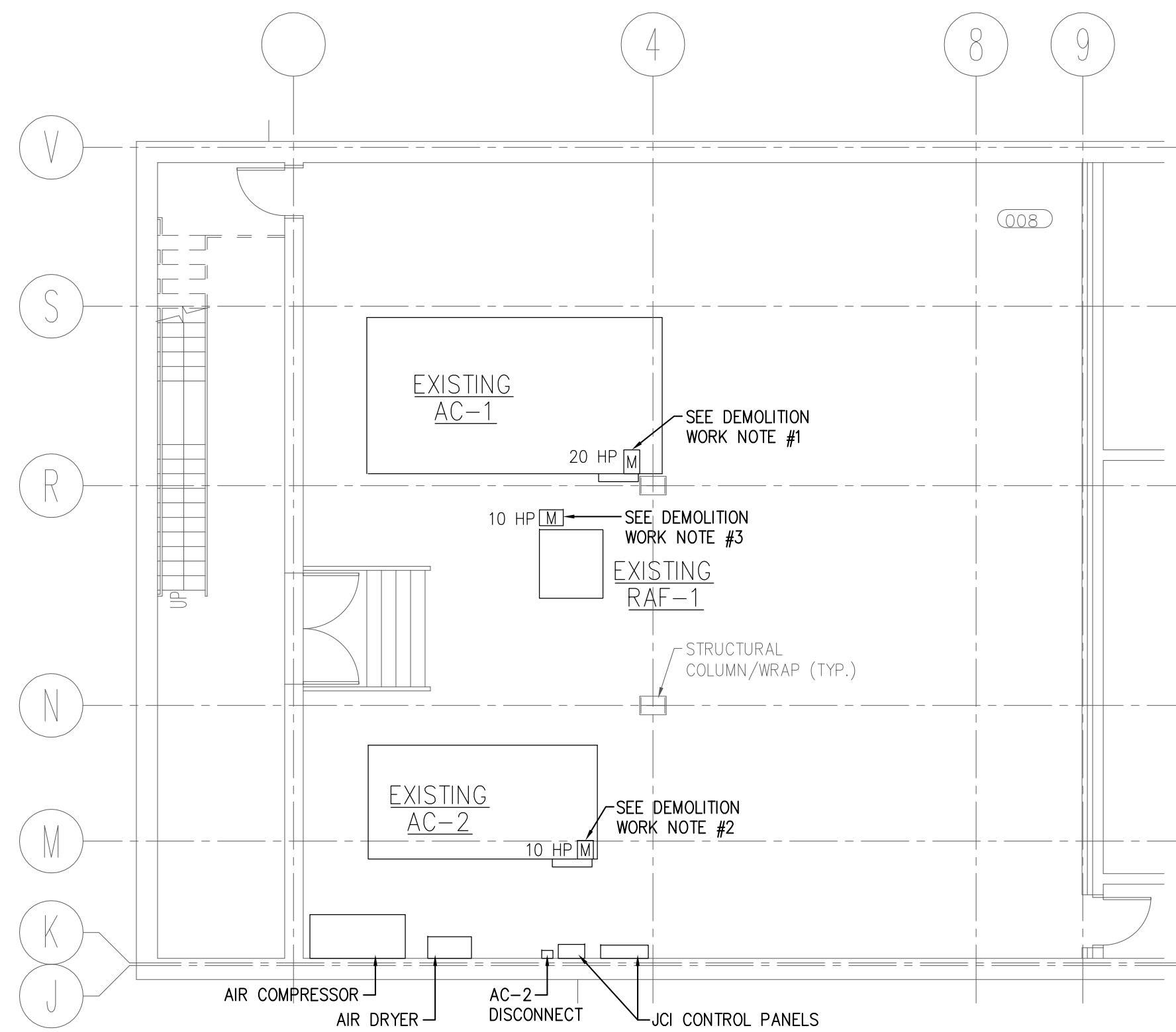


Peritus
ENGINEERS & ASSOCIATES, INC.
P. O. BOX 16998
SPARTANBURG, SOUTH CAROLINA
29164-2727
C-STATE: peritus@peritusengineers.com
© 2012 PERITUS ENGINEERS & ASSOCIATES, INC.

**HPAC BUILDING
AHU REPLACEMENT
SC STATE PROJECT #H34-9534-JM
SPARTANBURG, SOUTH CAROLINA**

DESIGN JCP	DRAWN TMI
CHECKED JCP	
DATE 4/16/12	
PROJECT NO. PERITUS #111212	
SHEET M-1	
1 OF 2 SHEETS	

This drawing is the property of Peritus Engineers & Associates, Inc. and shall not be used or reproduced without their written permission. © 2012 PERITUS ENGINEERS & ASSOCIATES, INC.



**DEMOLITION - BASEMENT LEVEL
PARTIAL HVAC PLAN - ALTERNATE #1**

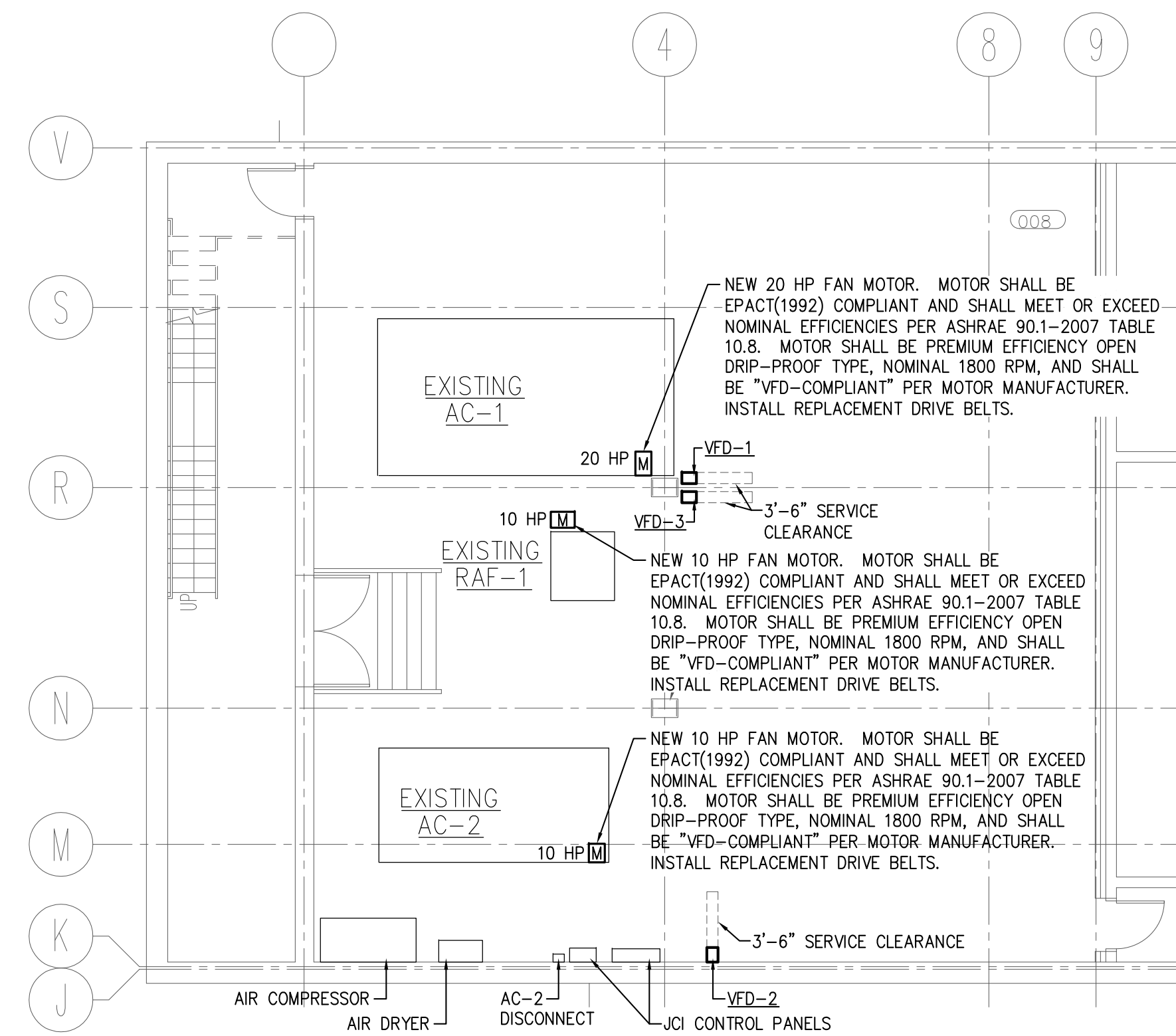
SCALE: 1/8" = 1'-0"

DEMOLITION WORK NOTES:

1. DISCONNECT ELECTRICAL FROM EXISTING 20 HP MOTOR. REMOVE AND DISPOSE OF EXISTING EXTERNALLY MOUNTED MOTOR ON TOP OF AHU-1. REMOVE AND DISPOSE OF EXISTING DRIVE BELTS.
2. DISCONNECT ELECTRICAL FROM EXISTING 10 HP MOTOR. REMOVE AND DISPOSE OF EXISTING EXTERNALLY MOUNTED MOTOR ON TOP OF AHU-2. REMOVE AND DISPOSE OF EXISTING DRIVE BELTS.
3. DISCONNECT ELECTRICAL FROM EXISTING 10 HP MOTOR. REMOVE AND DISPOSE OF EXISTING EXTERNALLY MOUNTED MOTOR ON THE SIDE OF RAF-1. EXISTING RAF-1 IS SUSPENDED FROM STRUCTURE ABOVE.

MECHANICAL GENERAL NOTES

1. ALL SCHEDULES SHOWN ARE THE PURPOSE OF AIDING THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORRECT TOTALS.
2. CO-ORDINATE HVAC INSTALLATION WITH ALL OTHER TRADES, INCLUDING ELECTRICAL.
3. REFER TO ELECTRICAL DRAWINGS FOR POWER CONNECTION POINTS.
4. ALL PIPING INSULATION SHALL COMPLY WITH SECTION 503 OF THE INTERNATIONAL ENERGY CONSERVATION CODE, 2006 EDITION.
5. ALL ELECTRICALLY POWERED EQUIPMENT SHALL BE LISTED AND LABELED PER NATIONAL ELECTRICAL CODE, AND INTERNATIONAL MECHANICAL CODE, 2009 EDITION, CHAPTER 3.
6. ALL EQUIPMENT SHALL BE ACCESSIBLE PER INTERNATIONAL MECHANICAL CODE 2009 EDITION, CHAPTER 3.
7. ALL PIPING ARRANGEMENT AND ROUTING AS SHOWN IS DIAGRAMMATIC AND MAY REQUIRE ALTERATIONS DIFFERENT FROM THAT SHOWN IN ORDER TO ACCOMMODATE STRUCTURE/ARCHITECTURAL FEATURES. CONTRACTOR SHALL FIELD VERIFY AND MAKE ALTERATIONS OR REVISIONS AS REQUIRED.
8. THE HORSEPOWERS SHOWN ARE MIN. REQUIRED FOR PRESENT AND/OR FUTURE GROWTH/OPERATION. IN NO CASE WILL ANY MOTOR H.P. REDUCTION FROM THAT SPECIFIED BE ACCEPTED.



**NEW WORK - BASEMENT LEVEL
PARTIAL HVAC PLAN - ALTERNATE #1**

SCALE: 1/8" = 1'-0"

ALL NEW WORK SHOWN IN **BOLD**

NOTES:

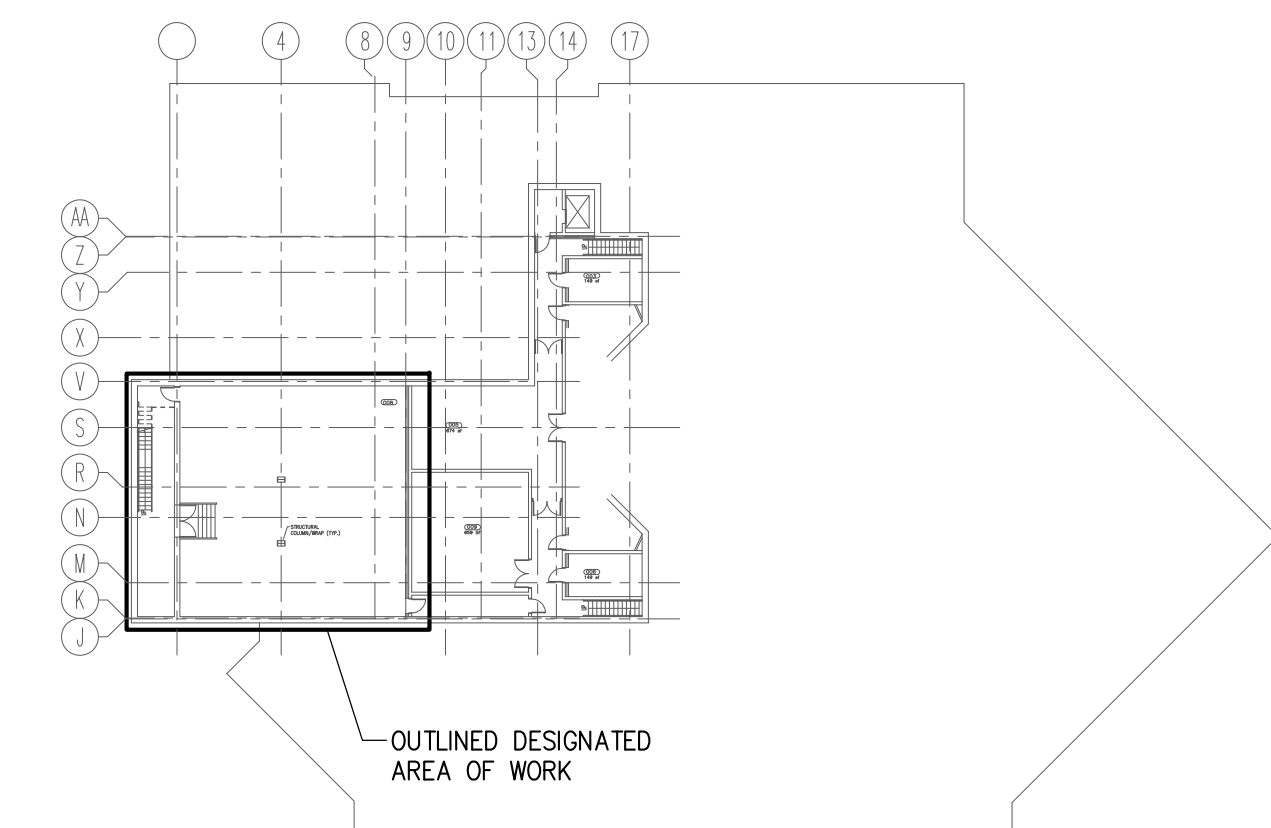
1. VFD-1 & VFD-3 SHALL BE STRUT MOUNTED TO EXISTING STRUCTURAL COLUMN.
2. VFD-2 SHALL BE WALL MOUNTED.

VARIABLE FREQUENCY DRIVE SCHEDULE - ALTERNATE #1

TAG	SERVICE	ABB MODEL No.	H.P.	OUTPUT AMPS	VOLTAGE	REMARKS
VFD-1	AC-1	ACH550-VCR-059A-2	20	59.4	208/3/60	SEE NOTES #1 & #2
VFD-2	AC-2	ACH550-VCR-031A-2	10	30.8	208/3/60	SEE NOTES #1 & #2
VFD-3	RAF-1	ACH550-VCR-031A-2	10	30.8	208/3/60	SEE NOTES #1 & #2

NOTES:

1. "CLASSIC BYPASS", CIRCUIT BREAKER DISCONNECT, NEMA 3R ENCLOSURE, N2 COMMUNICATIONS BUS, WITH INPUT/OUTPUT CARDS FOR START/STOP, SPEED CONTROL INPUT AND GENERAL ALARM/FAULT OUTPUT.
2. COORDINATE INSTALLATION OF DRIVES & CONNECT TO "JCI" EXISTING METASYS SYSTEM.



KEY PLAN
NO SCALE

NO.	DATE	BY	DESCRIPTION
0	07/06/12	JCP	ISSUED FOR BID



Peritus
ENGINEERS & ASSOCIATES, INC.
P. O. BOX 16998
SPARTANBURG, SOUTH CAROLINA
864-277-8287
FAX: 864-277-8287
E-MAIL: peritus@peritusengineers.com
© 2012 PERITUS ENGINEERS & ASSOCIATES, INC.

**HPAC BUILDING
AHU REPLACEMENT
SC STATE PROJECT #H34-9534-JM
SPARTANBURG, SOUTH CAROLINA**

DESIGN JCP	DRAWN TMI
CHECKED JCP	
DATE 4/16/12	
PERITUS #111212	
SHEET	
M-2	
2 OF 2 SHEETS	

REVISIONS

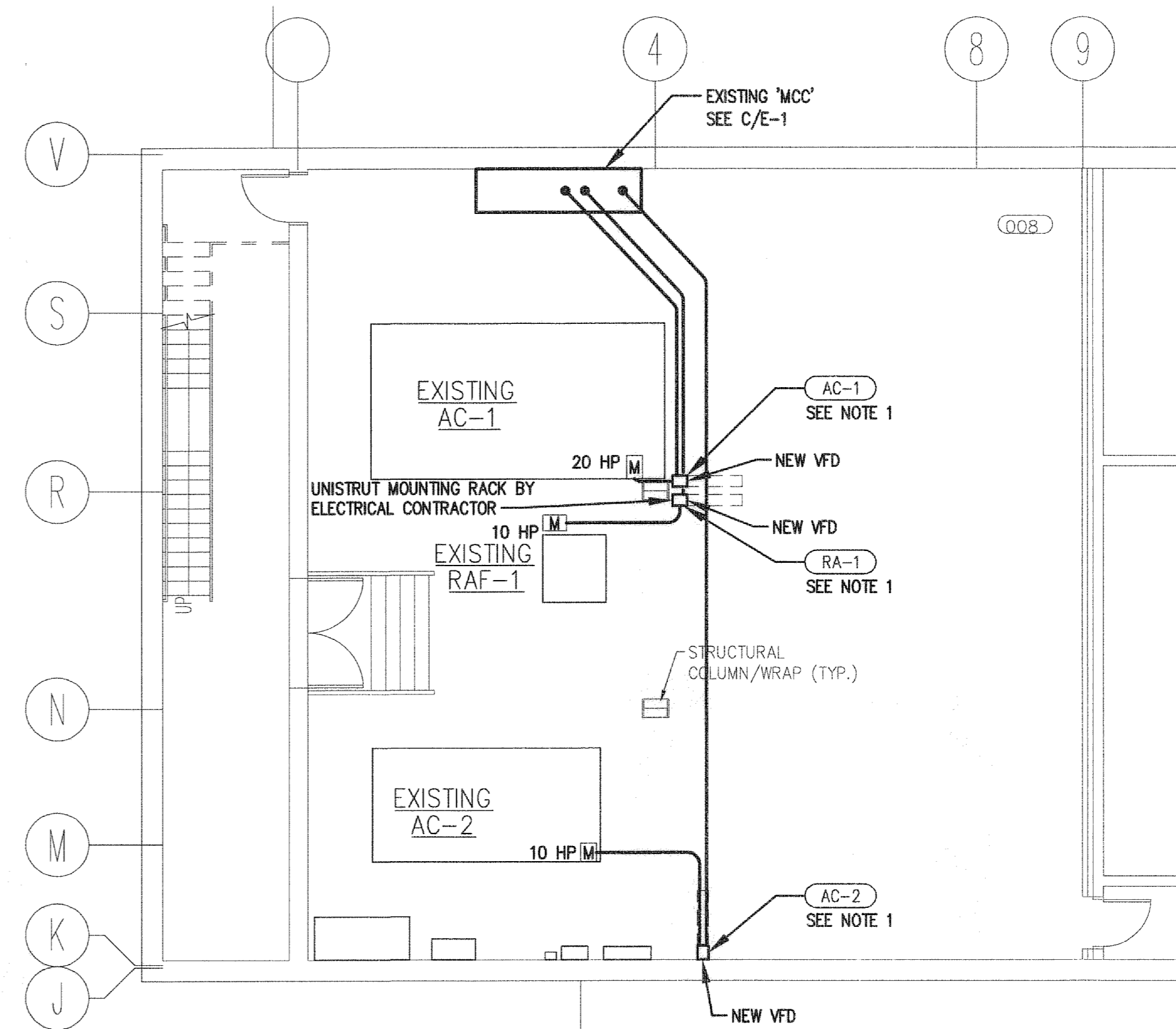
SYMBOL	DESCRIPTION
	HOME RUN TO LIGHTING/SERVICE PANEL. HASH MARKS, WHEN SHOWN, INDICATE NUMBERS OF CONDUCTORS. "/> INDICATES HOT WIRE, "N" INDICATES NEUTRAL CONDUCTOR, "/> INDICATES GROUND CONDUCTOR. HOME RUN NOTE INDICATES PANEL NAME AND CIRCUIT NAME OR FEEDER TAG. CONDUCTORS SHALL BE #12 AWG IN 3/4" CONDUIT UNLESS NOTED OTHERWISE. ANY HOME RUN OR CONDUIT WITHOUT HASH MARKS IS TO CONTAIN 3 CONDUCTORS; 1 HOT, 1 NEUTRAL, AND 1 EQUIPMENT GROUND, EACH HOT CIRCUIT SHALL BE PAIRED WITH A SEPARATE NEUTRAL CONDUCTOR. SHARING OF NEUTRAL CONDUCTORS BETWEEN CIRCUITS IS NOT ALLOWED.
	EXPOSED CONDUIT
	CONDUIT RUN IN SLAB OR UNDERGROUND.
	CONDUIT RUN CONCEALED ABOVE CEILING OR IN WALLS, UNLESS NOTED OTHERWISE.
	CONDUIT JUNCTION IN CONDUIT OR JUNCTION BOX.
	FLEXIBLE CONDUIT
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	JUNCTION BOX STEM INDICATES WALL MOUNTED
	JUNCTION BOX FLOOR MOUNTED
	SAFETY DISCONNECT SWITCH. "30" INDICATES AMP RATING, "20" INDICATES FUSE SIZES, "3P" INDICATES NUMBER OF POLES, ENCLOSURE TO BE NEMA 1 UNLESS NOTED OTHERWISE (3R, 4X, ETC.) SQUARE D H300 SERIES HEAVY DUTY SAFETY SWITCH
WIRING DEVICES	
NOTE: ALL WIRING DEVICES TO BE IVORY, WITH #302 STAINLESS STEEL COVERPLATE (FLUSH MOUNTED) UNLESS NOTED OTHERWISE ON THE DRAWING OR SPECIFICATIONS.	
STRAIGHT BLADE DEVICE SYMBOLS	
20A, 125V, 2P, 3W, NEMA 5-20R, DUPLEX RECEPTACLE. HUBBELL 5362-1 OR EQUAL. STANDARD POWER. "WP" DENOTES WATERPROOF COVER PLATE. "GFI" DENOTES GFI TYPE.	

ELECTRICAL GENERAL NOTES:

- INSPECT SITE PRIOR TO SUBMITTING BID. DRAWINGS ARE INTENDED TO COVER THE REQUIRED ELECTRICAL SYSTEMS. DRAWINGS MAY NOT SHOW COMPLETE OR ACCURATE DETAILS OF THE BUILDING OR SYSTEM IN EVERY CASE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY ADDITIONAL INFORMATION AS REQUIRED.
- CONFORM TO THE NATIONAL ELECTRICAL CODE (2008), IBC (2009), APPLICABLE NEMA, ANSI AND IEEE PUBLICATIONS, U.L. AND ADA STANDARDS AND OSHA REQUIREMENTS. COMPLY WITH LOCAL, COUNTY, STATE AND NATIONAL CODES HAVING JURISDICTION.
- FURNISH AND INSTALL ALL MATERIALS IN A NEAT AND WORKMANLIKE FASHION. ALL MATERIALS SHALL BE NEW, WITH FIRST QUALITY AND UL LABEL.
- VERIFY ALL DIMENSIONS AND CLEARANCES PRIOR TO INSTALLATION OF EQUIPMENT AND RACEWAYS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF WORK WITH THAT OF ALL OTHER TRADES AS REQUIRED.
- CONDUIT SHALL BE EMT FOR BRANCH CIRCUIT WIRING AS ALLOWED BY NEC, EXCEPT THAT SET SCREW OR CRIMP FITTINGS ARE NOT ALLOWED. WHERE EXPOSED TO PHYSICAL DAMAGE CONDUITS SHALL BE RIGID GALVANIZED STEEL. MINIMUM CONDUIT SIZE SHALL BE 3/4". ALL CONDUCTORS SHALL BE TYPE THHN/THWN, STRANDED 800V COPPER BUILDING WIRE. MINIMUM SIZE SHALL BE #12 AWG COPPER UNLESS NOTED.
- PROVIDE GROUNDING FOR ALL EQUIPMENT IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- ALL ENCLOSURES SHALL BE OF THE NEMA TYPE WHICH IS SUITABLE FOR THE APPLICATION.
- ALL WORK SHALL HAVE PROPER LABELING AND NAMEPLATES. ALL CIRCUITS SHALL BE LABELED AT PANELS AND BOXES AS INDICATED. ALL PANELS AND DISCONNECTS ARE TO BE PERMANENTLY MARKED WITH NAME OR EQUIPMENT SERVED. ALL PANELS ARE TO BE PROVIDED WITH TYPED PRINTED PANEL SCHEDULES.
- THOROUGHLY CLEAN ALL EQUIPMENT AND SYSTEMS BEFORE PLACING IN OPERATION. RESTORE FINISHED SURFACES IF DAMAGED AND DELIVER THE ENTIRE INSTALLATION IN AN APPROVED CONDITION. INSTRUCT THE OWNERS' PERSONNEL IN THE PROPER OPERATION AND MAINTENANCE OF THE SYSTEMS. FURNISH TO THE OWNER THREE SETS OF OPERATION AND MAINTENANCE MANUALS FOR EACH SYSTEM.
- GUARANTEE THE WORK INSTALLED FOR A PERIOD OF ONE YEAR AFTER DATE OF FINAL ACCEPTANCE. DEFECTS WHICH APPEAR AS A RESULT OF NORMAL USAGE SHALL BE REMEDIED BY THE CONTRACTOR TO THE COMPLETE SATISFACTION OF THE OWNER WITHOUT COST TO THE OWNER.
- CONTRACTOR SHALL KEEP CURRENT A SET OF PLANS FOR THE DURATION OF CONSTRUCTION WITH ALL CHANGES TO WORK NEATLY AND ACCURATELY MARKED IN RED AND SHALL TURN OVER TO OWNER AT COMPLETION OF PROJECT.
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED TO MEET SEISMIC REQUIREMENTS OF 2009 IBC.

ABBREVIATIONS:

- CU COPPER
- DWG DRAWING
- EC ELECTRICAL CONTRACTOR
- FU FUSE
- LTG LIGHTING (L)
- MCC MOTOR CONTROL CENTER
- NTS NOT TO SCALE
- PH PHASE
- PNL PANEL
- RECPT RECEPTACLE (R)



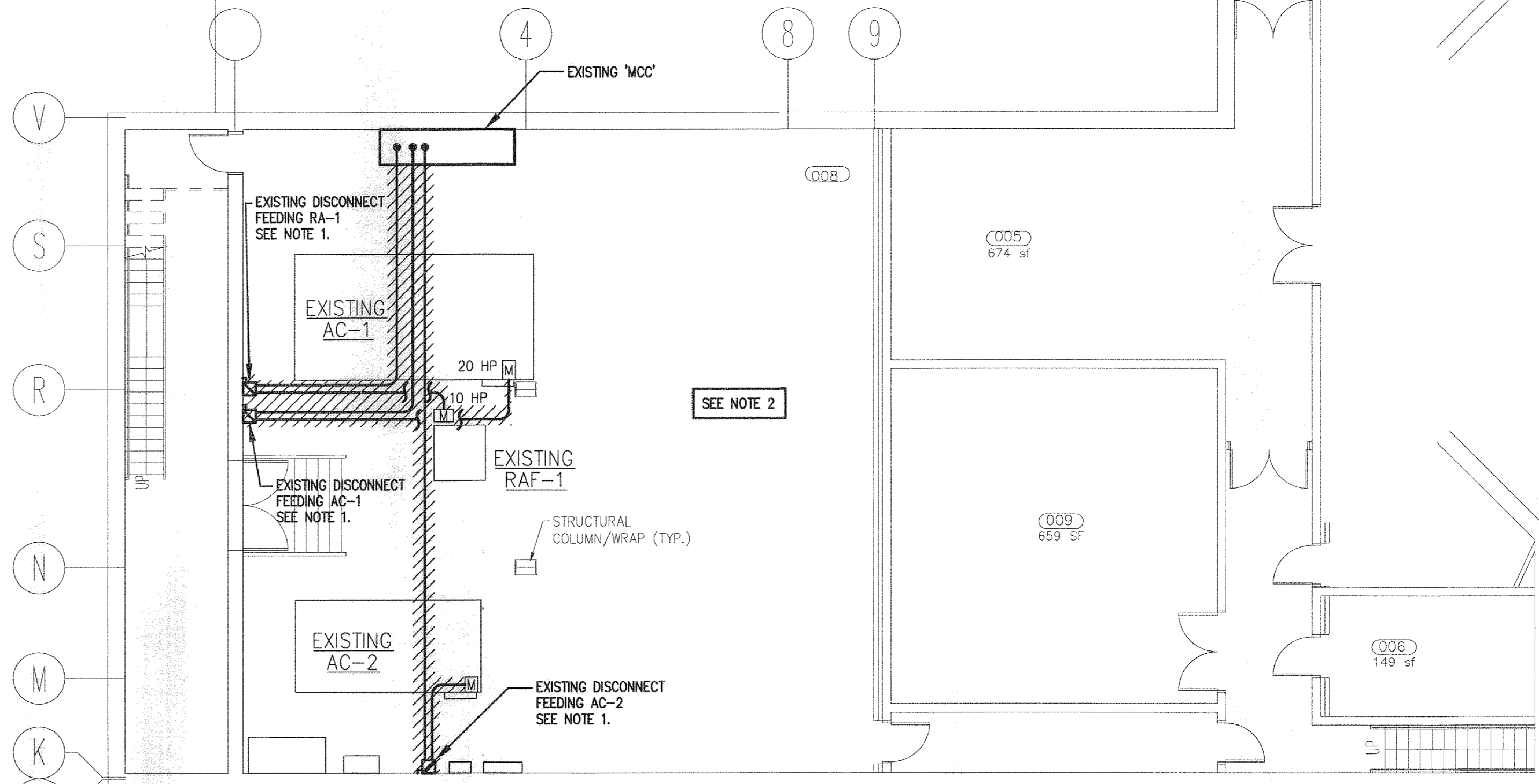
ELECTRICAL BASEMENT PARTIAL POWER PLAN - ALTERNATE #1
E-1 SCALE: 1/8" = 1'-0"

POWER PLAN NOTES:

- ROUTE FEEDER CONDUIT AND WIRING BACK TO EXISTING STARTER BUCKET WITHIN EXISTING 'MCC'. REMOVE STARTER AND CONTROLS. REUSE EXISTING DISCONNECT TO FEED NEW VFD SHOWN. EXISTING STARTER BUCKET SHALL BE VERIFIED PRIOR TO ROUGH-IN. SEE EXISTING MCC LAYOUT C/E-1.

HVAC SCHEDULE							
TAG	ELECTRICAL CHAR.			PANEL	WIRE/COND.	DISCONNECT NOTES	
	AMPS	KW	HP V/P				
AC-1	.	.	20	208/3	EXISTING 'MCC'	3 #3, 1 #8; 1 1/4"C	VFD FURNISHED BY MECHANICAL CONTRACTOR
AC-2	.	.	10	208/3	EXISTING 'MCC'	3 #5, 1 #10; 1"C	VFD FURNISHED BY MECHANICAL CONTRACTOR
RA-1	.	.	10	208/3	EXISTING 'MCC'	3 #5, 1 #10; 1"C	VFD FURNISHED BY MECHANICAL CONTRACTOR

- NOTES:**
- VFD'S FURNISHED BY MECHANICAL CONTRACTOR, MOUNTED AND WIRED BY ELECTRICAL CONTRACTOR.



ELECTRICAL BASEMENT PARTIAL DEMOLITION PLAN - ALTERNATE #1
E-1 SCALE: 1/8" = 1'-0"

DEMOLITION NOTES:

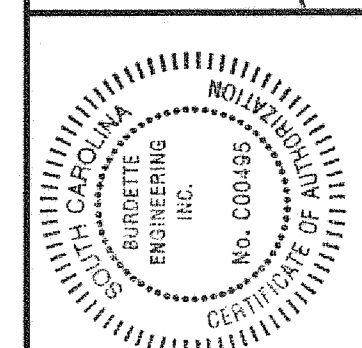
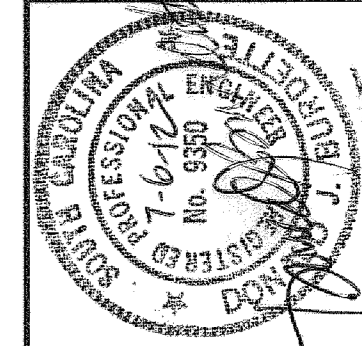
- REMOVE EXISTING DISCONNECT, WIRING AND CONDUIT BACK TO EXISTING MOTOR CONTROL CENTER. TURN DISCONNECT OVER TO OWNER.
- EXISTING FIRE ALARM DEVICES SHALL REMAIN AS IS.

	SECTION NO.1 WIREWAY	SECTION NO.2 WIREWAY	SECTION NO.3 WIREWAY	SECTION NO.4 WIREWAY	SECTION NO.5 WIREWAY
A					
B	INCOMING LINE	BLANK	AC-3 "ROOF"	AC-6 AIR HANDLER UNIT	
C		RA-1 RETURN AIR FAN	AC-4 "ROOF"	P-3 HOT WATER	
D					
E			2ND FLOOR CUSTOMER ROOM	P-4 HOT WATER	
F		RA-7			
G	RA-8				
H					
J			CHILL WATER P-1	CHILL WATER P-2	JOCKEY PUMP
K		AC-7 AT AIR HANDLING UNIT			
L	ORCHESTRA LIFT BREAKER ONLY		AC-8 AIR HANDLING UNIT	AC-1 AIR HANDLING UNIT	AC-2 AIR HANDLING UNIT
M					
	WIREWAY	WIREWAY	WIREWAY	WIREWAY	WIREWAY

EXISTING MCC LAYOUT
E-1 NOT TO SCALE

BURDETTE ENGINEERING, INC.
102 Pilgrim Road
Greenville, SC 29607
(864) 297-8717
(864) 297-8719 (FAX)
EMAIL: Bei@BurdetteEng.com
REG. JOB NO. 12808

NO.	DATE	BY	DESCRIPTION
0	07/06/12	DJB	ISSUED FOR BID



Peritus ENGINEERS & ASSOCIATES, INC.
P. O. BOX 16908
GREENVILLE, SOUTH CAROLINA
FAX: 864-277-0200
E-MAIL: peritus@peritusengineers.com

HPAC BUILDING
AHU REPLACEMENT
SC STATE PROJECT #H34-9534-JM
SPARTANBURG, SOUTH CAROLINA

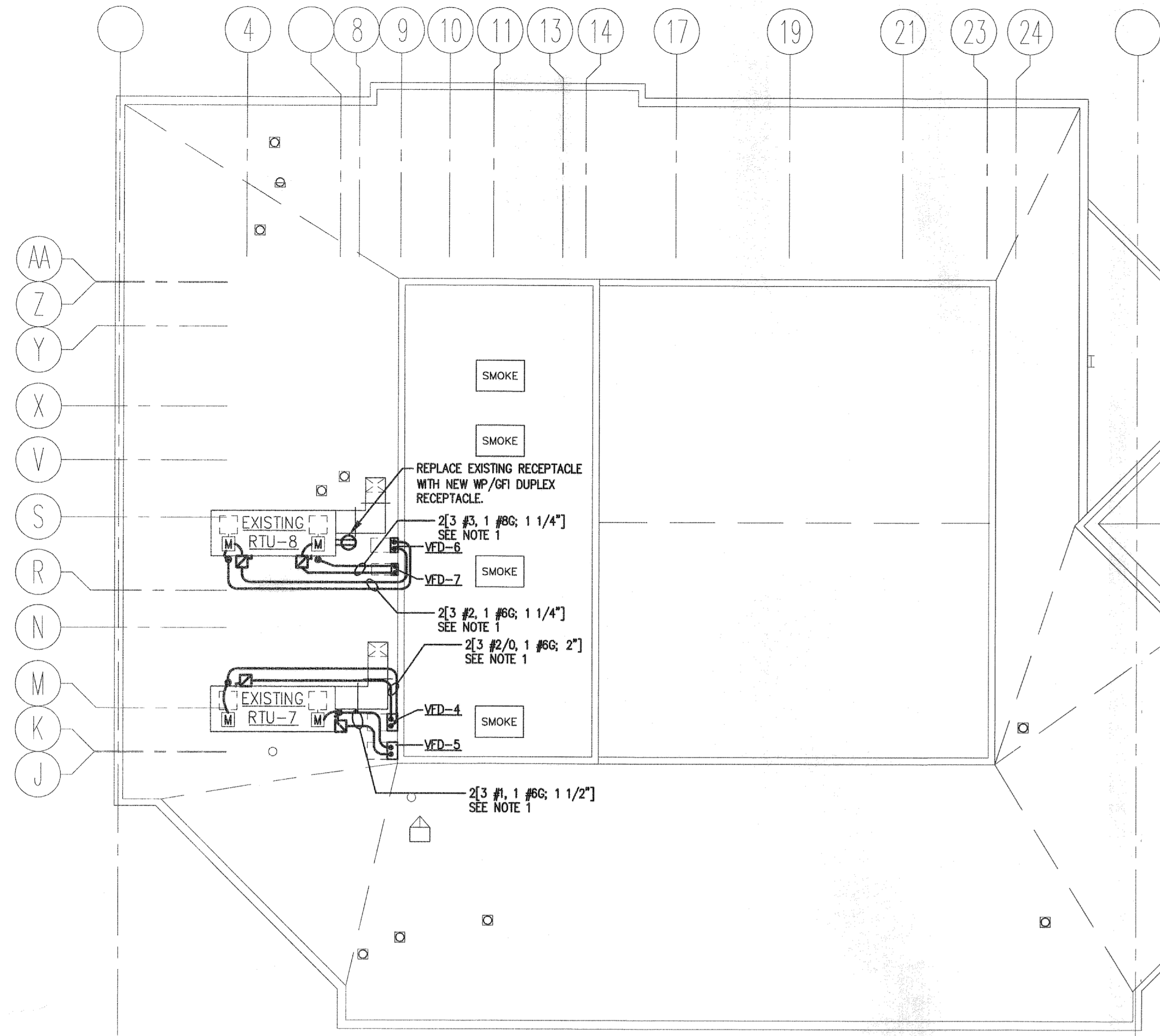
DESIGN: DJB / DRAWN: TMP
CHECKED: DJB
DATE: 4/16/12
JOB NO: PERITUS #111212
SHEET: **E-1**
1 OF 2 SHEETS

© 2012 PERITUS ENGINEERS & ASSOCIATES, INC. and shall not be used or reproduced without their written permission.

C:\C-AD\12850 USC UPSTAIR HEALTH BUILDING DIFFERED MAINTENANCE\12808\FD01.dwg 7/7/2012 11:07:18 AM

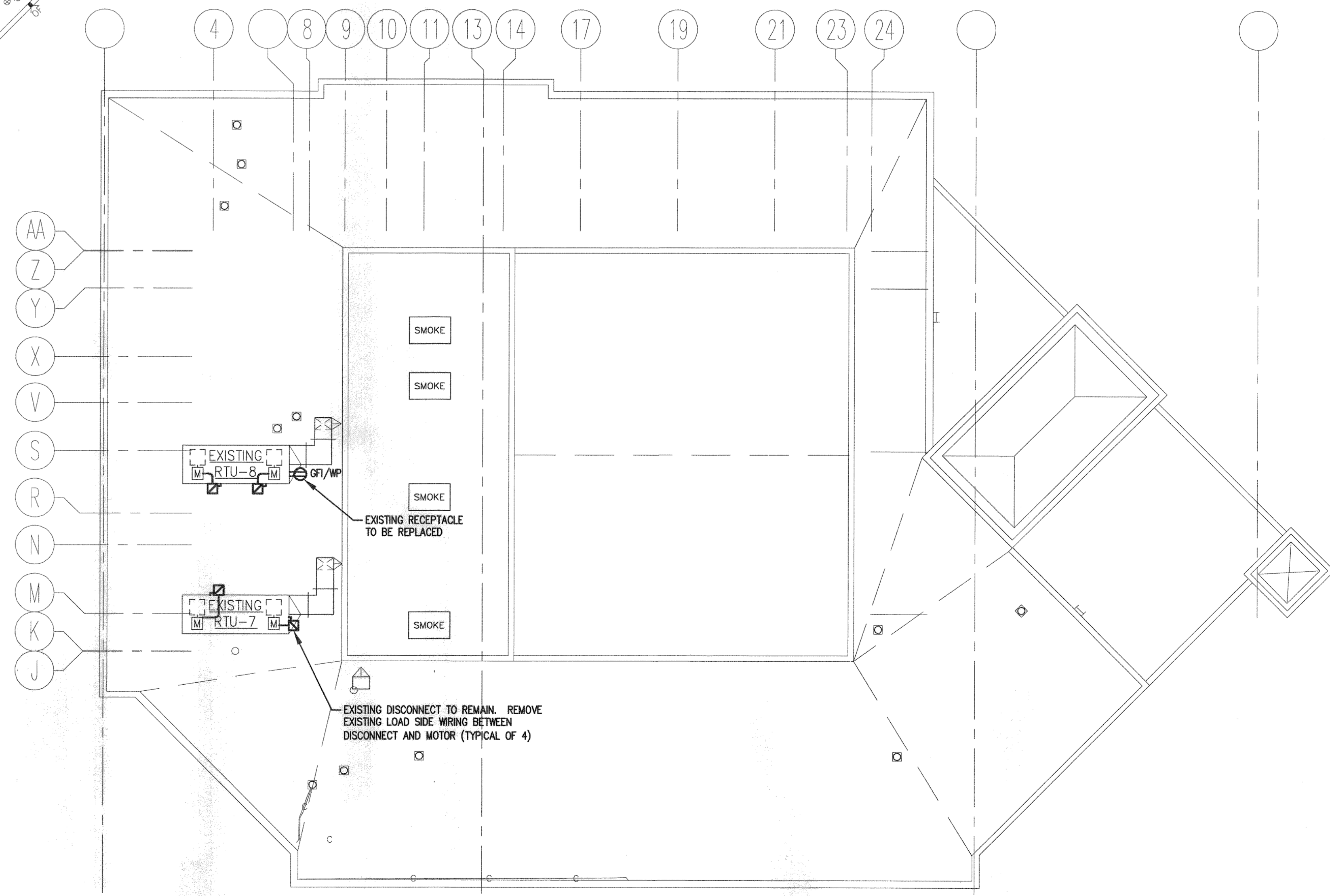
This drawing is the property of Peritus Engineers & Associates, Inc. and shall not be used or reproduced without their written permission. © 2012 PERITUS ENGINEERS & ASSOCIATES, INC.

B
BURDETTE
ENGINEERING, INC.
 102 Pilgrim Road
 Greenville, SC 29607
 (864) 297-8717
 (864) 297-8719 (FAX)
 EMAIL: Bei@BurdetteEngr.com
 BEI JOB NO. 1280B



A ELECTRICAL POWER PLAN -- ROOF -- BASE BID
 E-1 SCALE: 1/16" = 1'-0" 16 32 48
 PROJECT NORTH
 1/16" = 1'-0"

- POWER PLAN NOTES:**
1. RUN CONDUIT AND WIRE FROM LOAD SIZE OF DISCONNECT TO NEW VFD MOUNTED ON WALL. SUPPORT CONDUIT ON EXISTING ROOF CURBING AND DUCT SUPPORT RACKING TO NEW VFD LOCATION. ALL CONDUIT TO BE RIGID GALVANIZED AND SUPPORTED TO BE OFF THE ROOF. SUPPLY UNISTRUT RACKING ON BUILDING WALL SURFACE. RUN FEEDER FROM VFD THRU ROOF CURB TO NEW FAN MOTOR. SEAL CURB PENETRATIONS WATERTIGHT. COORDINATE EXACT PENETRATION LOCATIONS WITH MECHANICAL CONTRACTOR.
 2. PROTECT EXISTING DUCT DETECTORS FROM DAMAGE. VFD'S PROVIDED BY MECHANICAL CONTRACTOR, INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.



B ELECTRICAL DEMOLITION PLAN -- ROOF -- BASE BID
 E-2 SCALE: 1/16" = 1'-0" 16 32 48
 PROJECT NORTH
 1/16" = 1'-0"

ISSUED FOR BID		DATE		BY	
07/06/12		DJB			
NO.		DATE		BY	
0					
Peritus ENGINEERS & ASSOCIATES, INC. P. O. BOX 18098 GREENVILLE, SOUTH CAROLINA FAX: 864-277-8200 E-MAIL: peritus@peritusengineers.com © 2012 PERITUS ENGINEERS & ASSOCIATES, INC.					
HPAC BUILDING AHU REPLACEMENT SC STATE PROJECT #H34-9534-JM SPARTANBURG, SOUTH CAROLINA					
DESIGN	DRAMA				
DJB	TMP				
CHECKED	DATE				
DJB	4/16/12				
PERITUS #111212					
E-2					
REVISIONS					

C:\CADD\1280B USC UPSTAT HPAC BUILDING DEFERRED MAINTENANCE\1280BHPAC.dwg, 7/27/2012 11:02:11 AM