

E-WING MECHANICAL PENTHOUSE - REMOVAL 1
1/4" = 1'-0"

GENERAL NOTES:

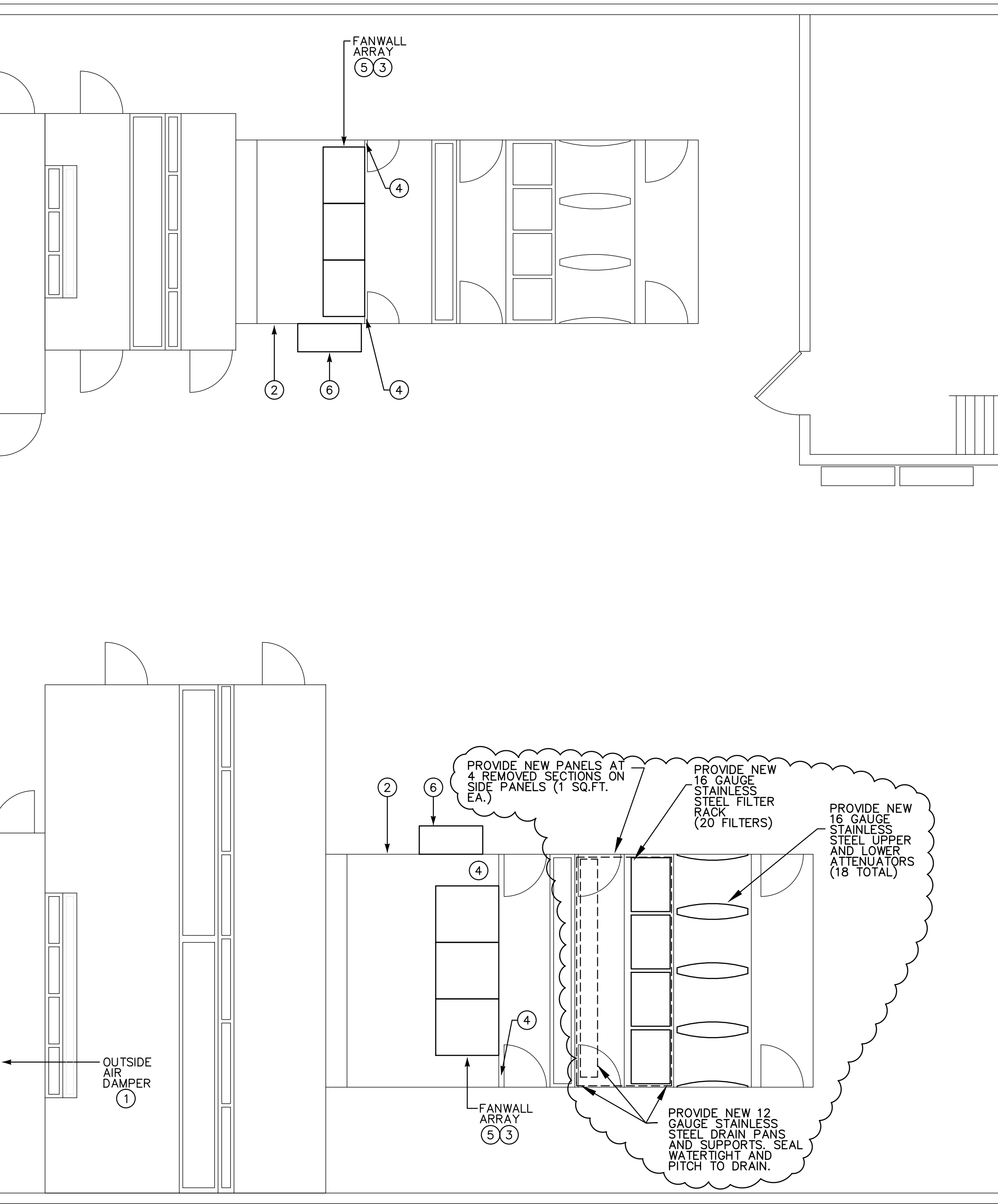
- IT IS RECOMMENDED THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS WITHIN THE BUILDING PRIOR TO COMMENCEMENT OF ALL DEMOLITION AND NEW WORK. CONTRACTOR IS REQUIRED TO MAKE A MINIMUM OF ONE (1) SITE VISIT PRIOR TO BIDDING TO VERIFY FIELD CONDITIONS, REPORT ANY DISCREPANCIES TO THE ENGINEER.
- DEMOLITION DRAWINGS SHOW IN GENERAL MAJOR EQUIPMENT, PIPING AND DUCTWORK REMOVALS. THE INTENT IS NOT TO IDENTIFY ALL MISCELLANEOUS PIPING, PIPING ACCESSORIES, DUCTWORK ACCESSORIES, SUPPORTS, CONTROLS, CONTROL ACCESSORIES, CONTROL WIRING AND CONDUIT, AND PNEUMATIC CONTROL TUBING AND ACCESSORIES TO BE DISCONNECTED AND REMOVED BUT IS THE REQUIREMENT UNDER THIS CONTRACT. NO EQUIPMENT, PIPING OR DUCTWORK SHALL BE ABANDONED IN PLACE, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- EXISTING PIPING, DUCTWORK AND OTHER UTILITIES HAVE NOT BEEN SHOWN FOR CLARITY.

REMOVAL NOTES:

- REMOVE SUPPLY FAN AS SHOWN IN ITS ENTIRETY. REMOVE ALL ASSOCIATED MOUNTING HARDWARE AND SUPPORT COMPONENTS IN THEIR ENTIRETY. PROPERLY DISPOSE OF ALL REMOVED EQUIPMENT.
- REMOVE 116" x 120" OUTSIDE AIR DAMPER AND ACTUATOR IN THEIR ENTIRETY.
- REMOVE SECTION OF UNIT CASING BETWEEN FAN SECTION AND ACCESS SECTION.
- REMOVE SECTION OF UNIT CASING AND ACCESS DOOR AS SHOWN.
- CONTRACTOR SHALL PRE-TEST THE AIR FLOW OF THE EXISTING AIR HANDLING UNIT BY PERFORMING A TRAVERSE OF THE SUPPLY MAIN, AND REPORT THE FINDINGS TO THE ENGINEER OF RECORD AND THE VA PROJECT MANAGER.
- FOR REFERENCE INTERIOR DIMENSIONS OF FAN SECTION 132"X112"X142"D.
- FOR REFERENCE INTERIOR DIMENSIONS OF FAN SECTION 105"X66"X102"D.

DRAWING NOTES:

- PROVIDE 116" (W) x 120" (H) OUTSIDE AIR DAMPER AS SHOWN. PROVIDE DAMPER ACTUATOR. RECONNECT EXISTING POWER.
- PROVIDE UNIT CASING REPLACEMENT AS SHOWN AFTER INSTALLATION OF REPLACEMENT SUPPLY FANS. CASING SHALL BE MINIMUM 18 GAUGE PER THE SPECIFICATION. INSTALL CASING AIR TIGHT.
- CONTRACTOR SHALL BALANCE THE FAN ARRAY TO MATCH THE AIRFLOW MEASURED DURING THE PRE-TEST OF THE EXISTING SYSTEM.
- PROVIDE 16 GAUGE BLANK OFF SECTION ABOVE, BELOW, AND ON EACH SIDE OF THE FANWALL ARRAY. SECURE BLANK OFF PANELS TO UNIT CASING AND TO FANWALL ARRAY FRAME.
- PROVIDE FANWALL ARRAY WITHIN UNIT CABINET AS SHOWN. INSTALL PER THE MANUFACTURER'S RECOMMENDATIONS.
- INSTALL ELECTRIC PANEL FURNISHED BY THE FANWALL ARRAY MANUFACTURER AS SHOWN. FASTEN SECURELY TO THE AHU CASING.



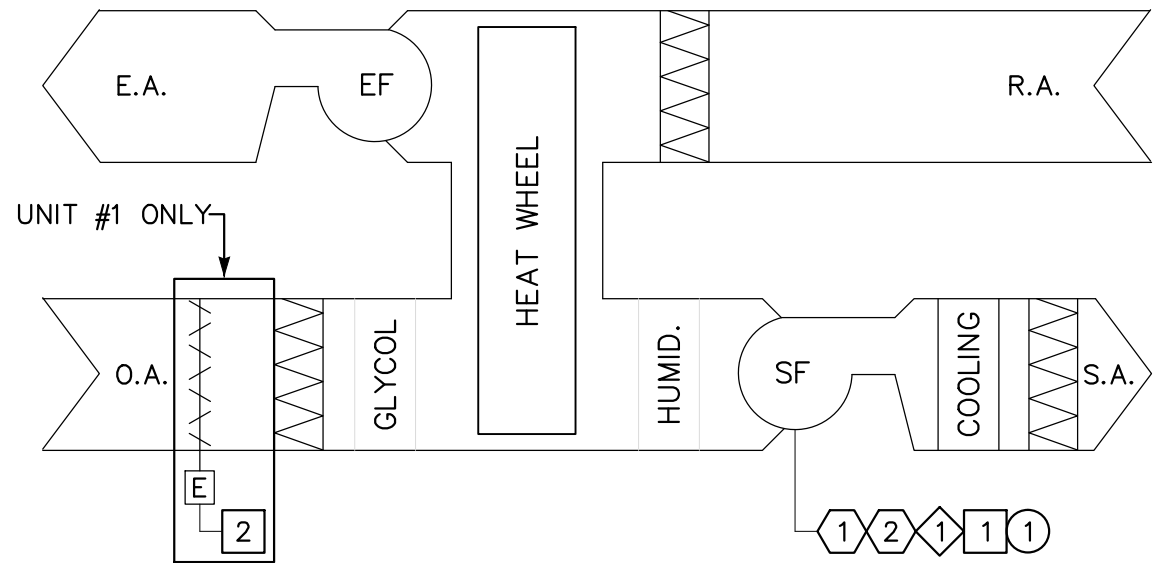
E-WING MECHANICAL PENTHOUSE - NEW WORK 2
1/4" = 1'-0"

REPLACEMENT FAN ARRAY

| A/H TAG | SERVICE | CFM | FANWALL ARRAY | | | | | CELL DIMENSIONS | | | ELECTRICAL | | | |
|---------|-------------|--------|---------------|--------|--------|--------|-----|-----------------|-------|--------|------------|----|-------|---------|
| | | | QUANTITY | FAN HP | FAN HP | VFD HP | ESP | RPM | WIDTH | HEIGHT | VOLT | PH | FLA | STARTER |
| UNIT 1 | VENTILATION | 39,250 | 9 | 10 | 90 | 100 | 9.7 | 3554 | 32" | 352" | 460 | 3 | 100.8 | VFD |
| UNIT 2 | VENTILATION | 15,000 | 6 | 5 | 30 | 30 | 6.8 | 4329 | 32" | 282" | 460 | 3 | 34.2 | VFD |

NOTE:

- EACH FAN ARRAY SHALL BE PROVIDED WITH AN ELECTRICAL PANEL WHICH CONTAINS A SINGLE DISCONNECT SWITCH FOR EACH FAN CELL AND A VFD FOR EACH FAN ARRAY FROM THE MANUFACTURER. FAN ARRAY SHALL BE MODULATED FROM A SINGLE VFD.



INPUTS (ANALOG)

- SUPPLY FAN VFD FEEDBACK

OUTPUTS (ANALOG)

- SUPPLY FAN SPEED CONTROL (TYP. PER FAN CELL)

INPUTS (BINARY)

- SUPPLY FAN STATUS (TYP. PER FAN CELL)
- SUPPLY FAN VFD ALARM

OUTPUTS (BINARY)

- SUPPLY FAN ENABLE/DISABLE (TYP. PER FAN CELL)

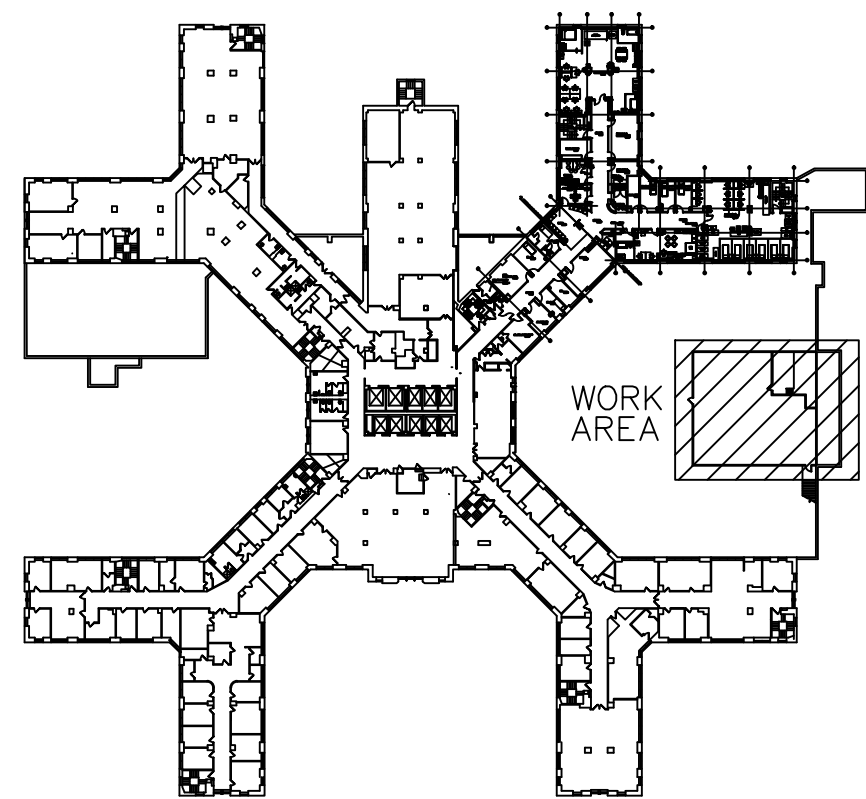
AIR HANDLING UNIT SCHEMATIC 3
NO SCALE

NOTES:

- POINTS NOT INDICATED ON THE DIAGRAM ARE TO BE EXISTING TO REMAIN. ONLY POINTS ASSOCIATED WITH THE FAN REPLACEMENT SHALL BE MODIFIED.
- NEW CONTROL POINTS SHALL BE AN EXTENSION OF THE EXISTING ANDOVER BUILDING CONTROL SYSTEM. CONTACT DAN PAUL AT U&S SERVICES AT (716) 693-4490. U&S SERVICES SHALL PROVIDE CONTROL DIAGRAMS AS PART OF THE SUBMITTAL PROCESS.
- THE PROVIDED SEQUENCE OF OPERATION BELOW IS NOT INTENDED TO SUPERCEDE THE EXISTING OPERATION OF THE ENTIRE AIR HANDLING SYSTEM. SEQUENCE BELOW ONLY MODIFIES THE INTENDED SEQUENCE OF OPERATION OF THE SUPPLY FAN SECTION OF EACH AHU. REMAINING SEQUENCES OF THE UNIT SHALL REMAIN UNCHANGED.

SEQUENCE OF OPERATION:

- SUPPLY FAN OPERATION: THE SUPPLY FAN ARRAY SHALL OPERATE AT A CONSTANT AIRFLOW RATE AS SET BY THE BALANCER AT THE VFDs.
- A CURRENT SWITCH IS INSTALLED IN THE SUPPLY FAN ARRAY STARTER. THE DDC SYSTEM USES THIS SWITCH TO CONFIRM THE FAN(S) ARE IN THE DESIRED STATE (IE ON OR OFF) AND GENERATED AN ALARM IF STATUS DEVIATES FROM DDC START/STOP CONTROL.
- INTERLOCK THE VFD ENABLE TO CIRCUIT TO THE OUTSIDE AIR DAMPER END SWITCH. COMPLETION OF THE DAMPER END SWITCH SHALL ALLOW THE FAN ARRAY TO ENABLE.



KEYPLAN
NO SCALE

| | |
|----------------|----------|
| AMENDMENT No.1 | 2/24/14 |
| ISSUE FOR BID | 11/06/13 |
| Revisions | Date |

VA WESTERN NEW YORK HEALTHCARE SYSTEM
3495 BAILEY AVENUE
BUFFALO, NEW YORK 14215

| | | | |
|----------------------|------|---------------------|------|
| CLINICAL ENGINEERING | DATE | ENGINEERING MANAGER | DATE |
| INFECTION CONTROL | DATE | CARELINE MANAGER | DATE |
| SAFETY OFFICER | DATE | CHIEF OF STAFF | DATE |

Drawing Title
E-WING MECHANICAL
PENTHOUSE PLAN -
REMOVAL & NEW WORK

Project Title
E-WING FANWALL
INSTALLATION

Date
SEPTEMBER 27, 2013

Station No.
528

MEDICAL CENTER DIRECTOR
DATE

Building Number
1

Checked
JWM

Drawn
JWM

14-S04-H100

ASSOCIATE MEDICAL CENTER DIRECTOR
DATE

Location
V.A.M.C. BUFFALO, NEW YORK

