

SOLANO COMMUNITY COLLEGE HVAC AND EMS EFFICIENCY PROJECT IMPLEMENTATION

4000 SUISUN VALLEY ROAD
FAIRFIELD, CALIFORNIA. 94534

GENERAL NOTES.

- ACCESS PANELS SHALL BE PROVIDED IN INACCESSIBLE CEILINGS TO ACCESS NEWLY INSTALLED REHEAT COILS, VAV BOXES AND BALANCING DAMPERS.
- THE DRAWING SHOWN THE ORIGINAL DESIGN LAYOUT FOR DUCTWORK AND LOCATION OF REHEAT COILS. WHERE THERE IS A VAV DISCHARGE CLEARANCE ISSUE REDESIGN BRANCH DUCTWORK TO ACCOMMODATE THE NEW VAV BOXES AND REHEAT COILS.
- REDESIGN REHEAT BRANCH PIPING AS NECESSARY TO ACCOMMODATE NEW VAV BOXES AND REHEAT COIL LOCATIONS.
- ENSURE THAT THE MANUFACTURERS DISCHARGE AIR DISTRIBUTION LENGTHS ARE MAINTAINED ON THE VAV BOXES BEFORE ELBOWS AND /OR DIFFUSERS. THIS MAY NECESSITATE THE RELOCATION OF ELBOWS AND DIFFUSERS TO MAINTAIN THE APPROPRIATE LENGTHS.
- PROVIDE NEW VOLUME DAMPERS IN ALL NEW DUCT BRANCHES AND COORDINATE ACCESS PANELS AS NECESSARY.
- ALL VFD'S SHALL BE PROVIDED WITH A BY-PASS.
- LOCATE STATIC PRESSURE SENSORS 2/3 OF THE WAY DOWN THE MAIN DUCTWORK. DESIGN BUILDER TO VERIFY THE OPTIMUM LOCATION TO PROVIDE CONTROL OF THE VFD.
- THE MAIN DUCT-BOARD RISER TO THE AIR HANDLING UNITS SHALL BE REPLACED AS CLOSE AS POSSIBLE TO THE OUTLET FROM AIR HANDLING UNIT WITHOUT THE REMOVAL OF THE AIR HANDLING UNIT. IF NECESSARY PROVIDE A TRANSITION PIECE FROM WITHIN THE AIR HANDLING UNIT TO CONNECT TO THE NEW GALVANIZED DUCTWORK BELOW.
- THE DRAWINGS SHOW THE LOCATION OF THE FIRE RATED WALLS AND CEILINGS. ANY PENETRATIONS WILL REQUIRE FIRE SMOKE DAMPERS AND CONNECTION TO THE EXISTING FIRE ALARM SYSTEM.
- ANY NEW CONTROL DEVICES WILL REQUIRE NEW CONTROL WIRING.
- ALL THERMOSTATS TO INDICATE TEMPERATURE, CO2 & MOTION.



Capital Expenditure Managers
2750 Gateway Oaks Drive
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(916) 648-9700

BRIDGING DOCUMENTS

SHEET INDEX

| SHEET NO. | SHEET TITLE |
|---------------|------------------------------------------------------------------|
| COVER SHEET | COVER SHEET |
| GO.0 | COVER SHEET |
| BLDG 100 | MECHANICAL FLOOR PLAN - BUILDING 100 |
| BR-100-1-FP | MECHANICAL MEZZANINE FLOOR PLAN & REHEAT SCHEDULE - BUILDING 100 |
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| BR-100-3-SC | FIRE RATED WALLS & CEILINGS PLAN - BUILDING 100 |
| BR-100-4-FRW | REFLECTED CEILING PLAN - BUILDING 100 |
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| BLDG 500 | MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 500 |
| BR-500-1-FP | MECHANICAL ROOF PLAN & SCHEDULE - BUILDING 500 |
| BR-500-2-RP | HVAC CONTROLS DIAGRAM - BUILDING 500 |
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| BR-500-4-FRW | REFLECTED CEILING PLAN - BUILDING 500 |
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| BLDG 700 | MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 700 |
| BR-700-1-FP | MECHANICAL ROOF PLAN & SCHEDULE - BUILDING 700 |
| BR-700-2-RP | HVAC CONTROLS DIAGRAM - BUILDING 700 |
| BR-700-3-SC | FIRE RATED WALLS & CEILINGS PLAN - BUILDING 700 |
| BR-700-4-FRW | REFLECTED CEILING PLAN - BUILDING 700 |
| BR-700-5-RCP | |
| BLDG 800 | MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 800 |
| BR-800-1-FP | MECHANICAL ROOF PLAN & SCHEDULE - BUILDING 800 |
| BR-800-2-RP | HVAC CONTROLS DIAGRAM - BUILDING 800 |
| BR-800-3-SC | FIRE RATED WALLS & CEILINGS PLAN - BUILDING 800 |
| BR-800-4-FRW | REFLECTED CEILING PLAN - BUILDING 800 |
| BR-800-5-RCP | |
| BLDG 1400 | MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 1400 |
| BR-1400-1-FP | MECHANICAL ROOF PLAN & SCHEDULE - BUILDING 1400 |
| BR-1400-2-RP | HVAC CONTROLS DIAGRAM - BUILDING 1400 |
| BR-1400-3-SC | FIRE RATED WALLS & CEILINGS PLAN - BUILDING 1400 |
| BR-1400-4-FRW | REFLECTED CEILING PLAN - BUILDING 1400 |
| BR-1400-5-RCP | |
| BLDG 1500 | MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 1500 |
| BR-1500-1-FP | MECHANICAL ROOF PLAN & SCHEDULE - BUILDING 1500 |
| BR-1500-2-RP | HVAC CONTROLS DIAGRAM - BUILDING 1500 |
| BR-1500-3-SC | FIRE RATED WALLS & CEILINGS PLAN - BUILDING 1500 |
| BR-1500-4-FRW | REFLECTED CEILING PLAN - BUILDING 1500 |
| BR-1500-5-RCP | |
| BLDG 1600 | MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 1600 |
| BR-1600-1-FP | MECHANICAL ROOF PLAN & SCHEDULE - BUILDING 1600 |
| BR-1600-2-RP | HVAC CONTROLS DIAGRAM - BUILDING 1600 |
| BR-1600-3-SC | FIRE RATED WALLS & CEILINGS PLAN - BUILDING 1600 |
| BR-1600-4-FRW | REFLECTED CEILING PLAN - BUILDING 1600 |
| BR-1600-5-RCP | |
| BLDG 1700 | MECHANICAL FLOOR PLAN - BUILDING 1700 |
| BR-1700-1-FP | MECHANICAL ROOF PLAN - BUILDING 1700 |
| BR-1700-2-RP | HVAC CONTROLS DIAGRAM & SCHEDULE - BUILDING 1700 |
| BR-1700-3-SC | |
| BLDG 2000 | MECHANICAL FLOOR PLAN - BUILDING 2000 |
| BR-2000-1-FP | MECHANICAL & PIPING FLOOR PLAN - POOL BUILDING |
| BLDG POOL | |
| BR-POOL-1-FP | |

SOLANO COMMUNITY COLLEGE
HVAC AND EMS EFFICIENCY PROJECT IMPLEMENTATION
BRIDGING DOCUMENTS

SOLANO COMMUNITY COLLEGE
4000 SUISUN VALLEY ROAD
FAIRFIELD, CA 94534

RFP/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

COVER SHEET

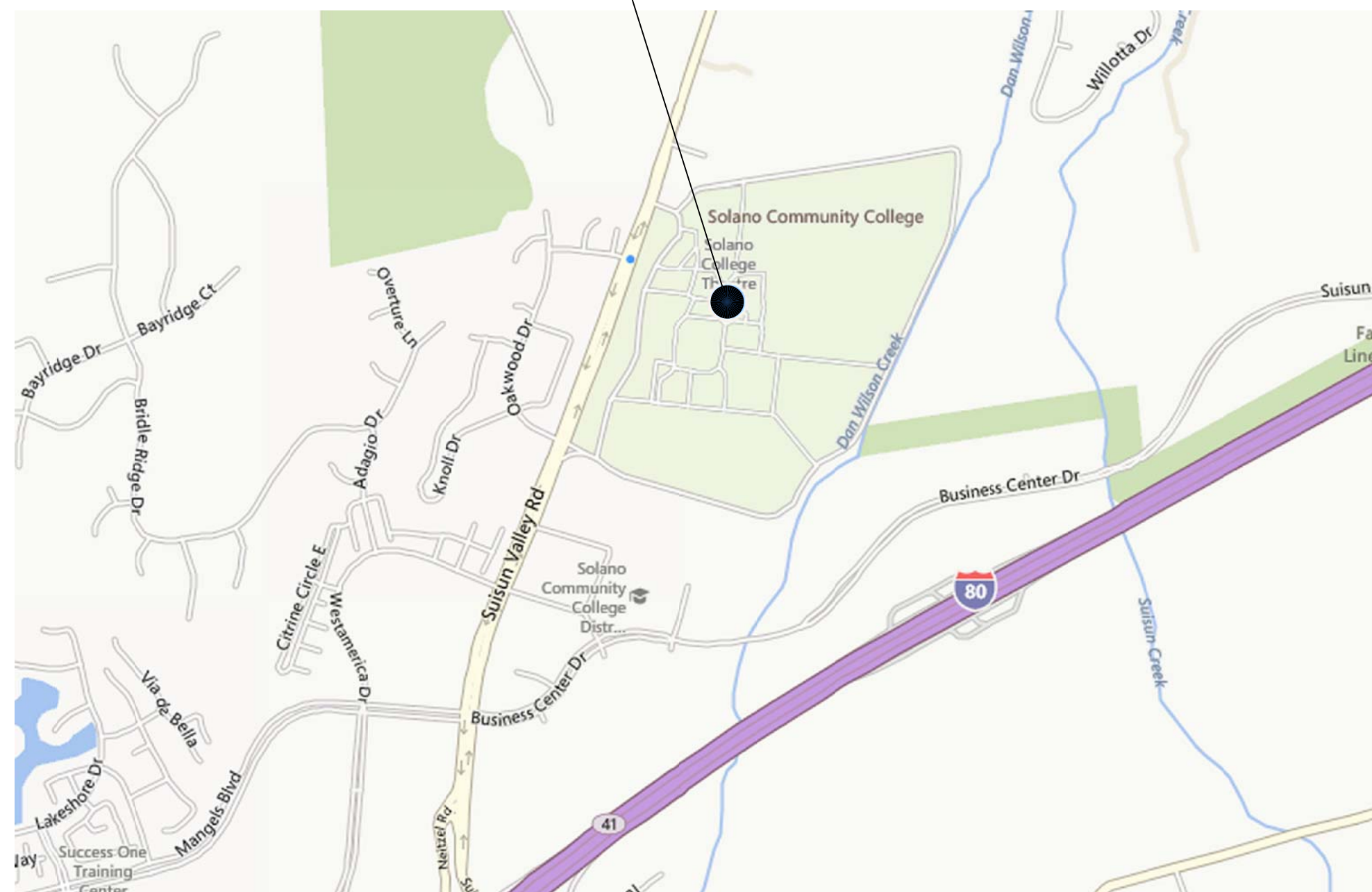
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REVISIONS

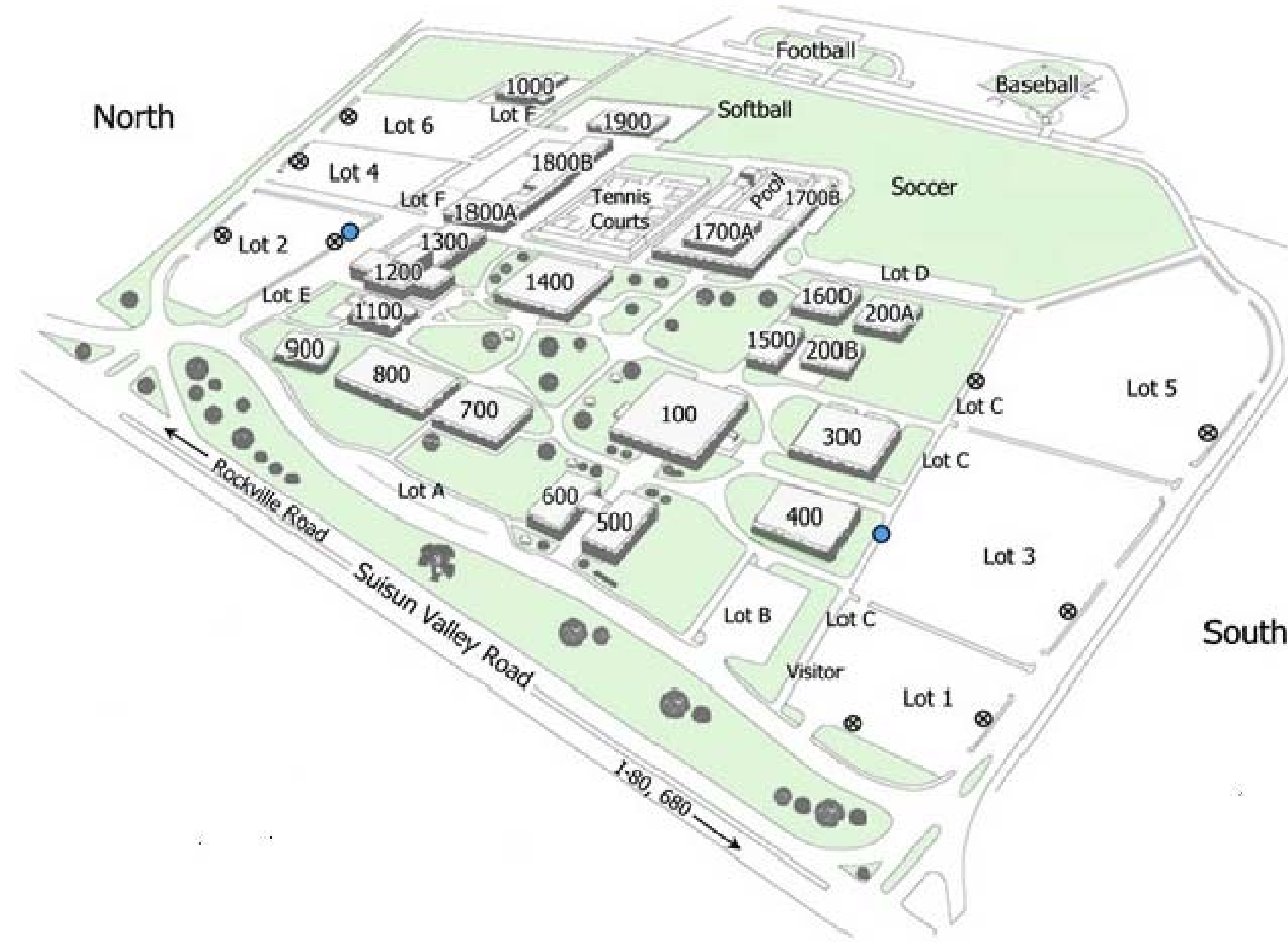
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JOB NO. 3060E4 SHEET GO.0
DATE 2/07/14

PROJECT SITE



VICINITY MAP
NTS



LOCATION MAP
NTS



- | | |
|---------------------------------------|---------------------------------|
| 100 Library/Learning Center | 1400 Student Center |
| 200 Children's Programs Center | 1500 Math/Engineering |
| 300 Science | 1600 Home Ec/Cosmetology |
| 400 Student Center | 1700 Physical Education |
| 500 Business/Computer Sci. | 1800 Career Technical Education |
| 600 Administration | 1900 Warehouse/Maintenance |
| 700 Social 800 Nursing/Public Service | |
| 900 Faculty Offices | |
| 1000 Horticulture | |
| 1100 Special Services/Police | |
| 1200 Little Theater/Music | |
| 1300 Fine Arts | |

PLOT SCALE

| EXISTING HEATING COIL SCHEDULE | | | | | | | | | |
|--------------------------------|-------|----------------|---------------------|----------|----------|----------------------|------------|-----------------|-----------|
| MARK | MODEL | AIR FLOW (CFM) | FACE AREA (SQ. FT.) | EAT (DB) | LAT (DB) | CAPACITY (MBH) SENS. | FLOW (GPM) | CONN. SIZE (IN) | REMARKS |
| RH 01 | | 9600 | 15 | 59 | 83 | 250.0 | 16.7 | 1 1/2 | 1,2,3,4,5 |
| RH 02 | | 3500 | 6 | 59 | 83 | 91.0 | 6.1 | 1 | 1,2,3,4,5 |
| RH 03 | | 2100 | 3 | 59 | 85 | 51.0 | 3.4 | 3/4 | 1,2,3,4,5 |
| RH 04 | | 300 | 0.5 | 59 | 82 | 7.5 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 05 | | 700 | 1.5 | 59 | 81 | 16.7 | 1.1 | 3/4 | 1,2,3,4,5 |
| RH 06 | | 700 | 1.5 | 59 | 81 | 16.7 | 1.1 | 3/4 | 1,2,3,4,5 |
| RH 07 | | 3000 | 5 | 59 | 96 | 120.0 | 8 | 1 1/4 | 1,2,3,4,5 |
| RH 08 | | 4000 | 7 | 59 | 96 | 160.0 | 10.7 | 1 1/4 | 1,2,3,4,5 |
| RH 09 | | 1600 | 3 | 59 | 88 | 50.0 | 3.4 | 3/4 | 1,2,3,4,5 |
| RH 10 | | 350 | 0.75 | 59 | 81 | 8.3 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 11 | | 2600 | 5 | 59 | 82 | 73.0 | 5 | 1 1/4 | 1,2,3,4,5 |
| RH 12 | | 400 | 0.75 | 59 | 81 | 9.5 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 13 | | 3160 | 5.25 | 59 | 85 | 84.0 | 5.6 | 1 1/4 | 1,2,3,4,5 |
| RH 14 | | 1000 | 2 | 59 | 82 | 25.0 | 1.7 | 3/4 | 1,2,3,4,5 |
| RH 15 | | 900 | 1.5 | 59 | 94 | 34.0 | 2.3 | 3/4 | 1,2,3,4,5 |
| RH 16 | | 400 | 0.75 | 59 | 80 | 9.1 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 17 | | 1700 | 3 | 59 | 85 | 46.0 | 3.2 | 3/4 | 1,2,3,4,5 |
| RH 18 | | 4000 | 7 | 59 | 83 | 104.0 | 6.9 | 1 | 1,2,3,4,5 |
| RH 19 | | 1000 | 2 | 59 | 81 | 23.8 | 1.6 | 3/4 | 1,2,3,4,5 |
| RH 20 | | 450 | 0.75 | 59 | 83 | 11.7 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 21 | | 350 | 0.75 | 59 | 89 | 11.3 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 22 | | 1500 | 2.5 | 59 | 85 | 42.0 | 2.8 | 3/4 | 1,2,3,4,5 |
| RH 23 | | 450 | 1 | 59 | 94 | 17.0 | 1.2 | 3/4 | 1,2,3,4,5 |
| RH 24 | | 2600 | 4.5 | 59 | 82 | 65.0 | 4.5 | 1 | 1,2,3,4,5 |
| RH 24A | | 2600 | 4.5 | 59 | 82 | 65.0 | 4.5 | 1 | 1,2,3,4,5 |

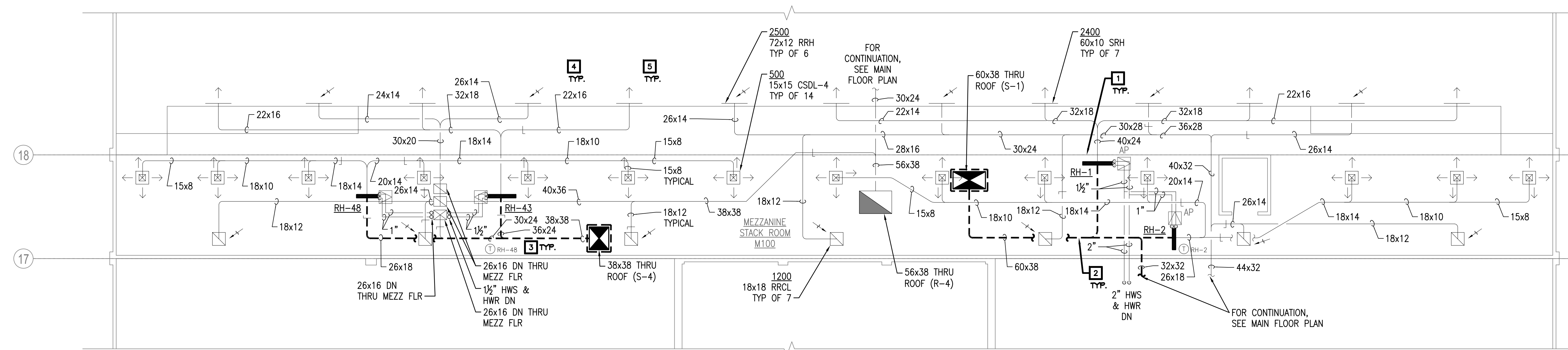
REMARKS:
 1. REPLACE COIL WITH NEW SINGLE DUCT VAV BOX WITH HOT WATER COILS.
 2. WATER TEMPERATURE DROP 180F - 150F
 3. ALL NEW THERMOSTATS
 4. MAX FACE VELOCITY 600FPM
 5. MAX SP DROP 0.10 (IN. WC)

| EXISTING HEATING COIL SCHEDULE | | | | | | | | | |
|--------------------------------|-------|----------------|---------------------|----------|----------|----------------------|------------|-----------------|-----------|
| MARK | MODEL | AIR FLOW (CFM) | FACE AREA (SQ. FT.) | EAT (DB) | LAT (DB) | CAPACITY (MBH) SENS. | FLOW (GPM) | CONN. SIZE (IN) | REMARKS |
| RH 25 | | 1200 | 1.5 | 59 | 93 | 29.40 | 2 | 3/4 | 1,2,3,4,5 |
| RH 26 | | 350 | 0.75 | 59 | 83 | 9.10 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 27 | | 1400 | 2.5 | 59 | 96 | 66.00 | 3.7 | 1 | 1,2,3,4,5 |
| RH 28 | | 4000 | 7 | 59 | 80 | 61.00 | 6.1 | 1 1/4 | 1,2,3,4,5 |
| RH 29 | | 4000 | 7 | 59 | 80 | 61.00 | 6.1 | 1 1/4 | 1,2,3,4,5 |
| RH 30 | | 250 | 0.5 | 59 | 83 | 6.60 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 31 | | 600 | 1.13 | 59 | 82 | 16.00 | 1 | 3/4 | 1,2,3,4,5 |
| RH 32 | | 500 | 1.13 | 59 | 82 | 12.50 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH 33 | | 4000 | 7 | 59 | 82 | 100.00 | 6.7 | 1 1/4 | 1,2,3,4,5 |
| RH 34 | | 4500 | 8 | 59 | 85 | 126.00 | 8.4 | 1 1/4 | 1,2,3,4,5 |
| RH 35 | | 1350 | 2.5 | 59 | 82 | 33.50 | 2.3 | 3/4 | 1,2,3,4,5 |
| RH 36 | | 1000 | 2 | 59 | 96 | 40.00 | 2.7 | 3/4 | 1,2,3,4,5 |
| RH 37 | | 1500 | 2.5 | 59 | 89 | 49.00 | 3.3 | 3/4 | 1,2,3,4,5 |
| RH 38 | | 3250 | 6 | 59 | 84 | 88.00 | 5.9 | 1 1/4 | 1,2,3,4,5 |
| RH 39 | | 950 | 2 | 59 | 92 | 33.80 | 2.3 | 3/4 | 1,2,3,4,5 |
| RH 40 | | 3000 | 5.25 | 59 | 96 | 120.00 | 8 | 1 1/4 | 1,2,3,4,5 |
| RH 41 | | 4000 | 7 | 59 | 96 | 160.00 | 10.7 | 1 1/2 | 1,2,3,4,5 |
| RH 42 | | 3000 | 5.25 | 59 | 96 | 120.00 | 8 | 1 1/4 | 1,2,3,4,5 |
| RH 43 | | 7200 | 13.75 | 59 | 83 | 187.00 | 12.5 | 1 1/2 | 1,2,3,4,5 |
| RH 44 | | 800 | 1.5 | 59 | 83 | 20.80 | 1.4 | 3/4 | 1,2,3,4,5 |
| RH 45 | | 600 | 1.13 | 59 | 83 | 16.80 | 1.1 | 3/4 | 1,2,3,4,5 |
| RH 46 | | 700 | 1.5 | 59 | 83 | 18.20 | 1.2 | 3/4 | 1,2,3,4,5 |
| RH 47 | | 1000 | 2 | 59 | 90 | 33.50 | 2.3 | 3/4 | 1,2,3,4,5 |
| RH 48 | | 3500 | 6 | 59 | 83 | 61.00 | 6.1 | 1 1/4 | 1,2,3,4,5 |

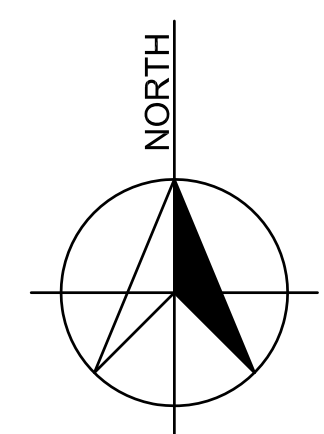
REMARKS:
 1. REPLACE COIL WITH NEW SINGLE DUCT VAV BOX WITH HOT WATER COILS.
 2. WATER TEMPERATURE DROP 180F - 150F
 3. ALL NEW THERMOSTATS
 4. MAX FACE VELOCITY 600FPM
 5. MAX SP DROP 0.10 (IN. WC)

2 BLDG 100 - EXISTING REHEAT SCHEDULE

- KEYNOTES:
- SCOPE
 - REMOVE ALL EXISTING REHEAT COILS AND ASSOCIATED VALVES/PIPING/DUCTWORK AND INSTALL NEW VAV BOXES WITH NEW VALVES AND REHEAT COILS TO TURN CONSTANT VOLUME SYSTEM INTO A VAV SYSTEM. INTERFACE WITH EMS.
 - REPLACE EXISTING SUPPLY AIR DUCT BOARD UPSTREAM OF THE NEW VAV BOXES WITH GALVANIZED SHEET METAL.
 - PROVIDE NEW THERMOSTATS AT EXISTING LOCATIONS. INTERFACE WITH EMS.
 - REMOVE CEILINGS AS REQUIRED FOR REMOVAL AND REPLACEMENT OF HVAC COMPONENTS. PATCH AND REPAIR ANY FLOORS, WALLS AND CEILINGS THAT ARE DAMAGED AS A RESULT OF THIS WORK. FINISHED WORK SHOULD MATCH EXISTING IN STYLE AND COLOR.
 - REBALANCE HVAC SYSTEM.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION



1 BLDG 100 - FLOOR PLAN MEZZANINE



1/8" = 1'-0"

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RFF/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:
 MECHANICAL
 MEZZANINE FLOOR
 PLAN & REHEAT
 SCHEDULE - BUILDING
 100

SCALE: AS SHOWN

| REVISIONS | | | |
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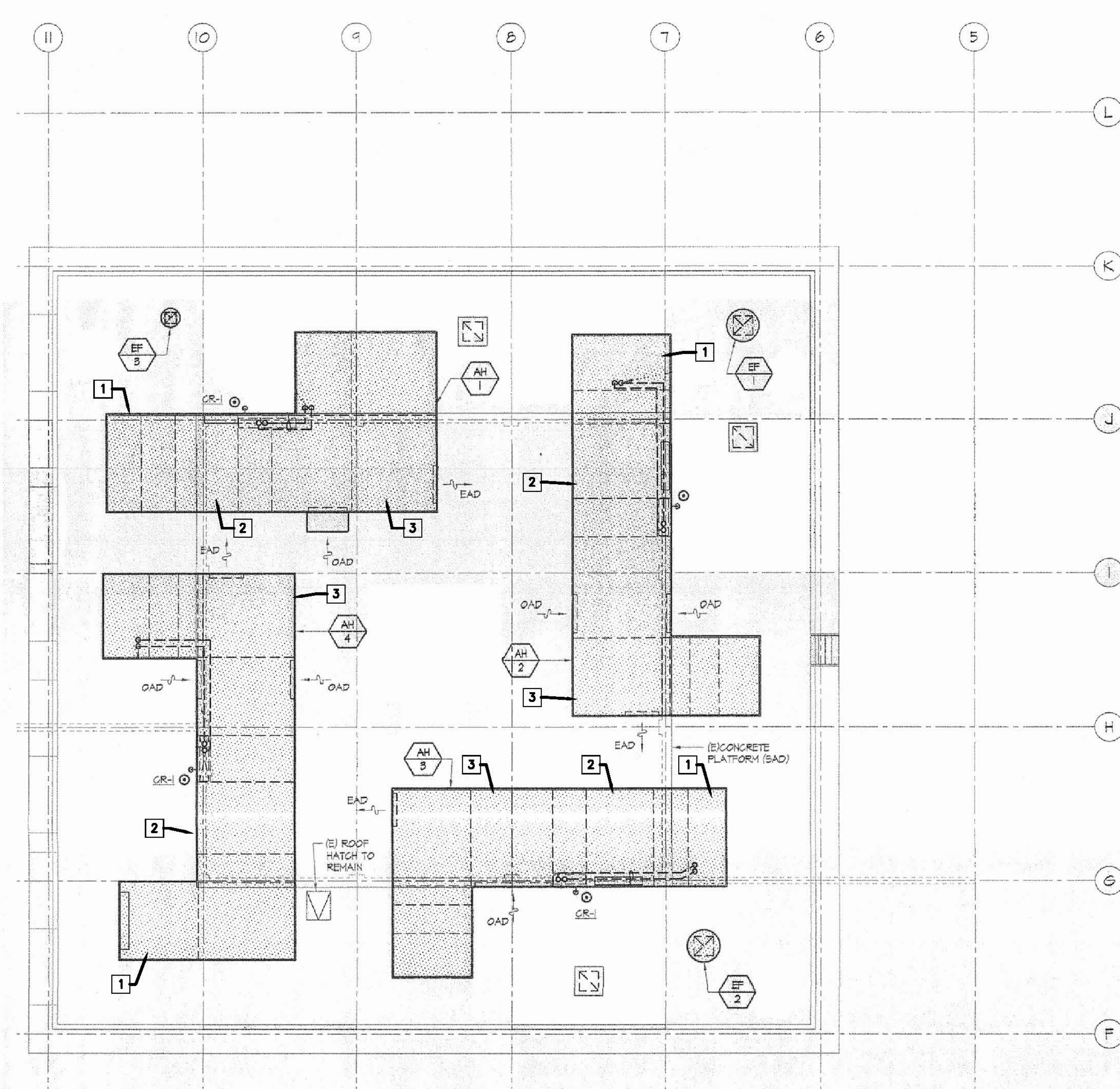
JOB NO. 3060E4 SHEET BR-100-1-MZ
 DATE 2/07/14

EXISTING AIR HANDLER UNIT SCHEDULE

MANUFACTURER: GOVERNAIR

| MARK | SUPPLY FAN | | | | | | | | RETURN FAN | | | | | | | | CLG. COIL | HTG. COIL | OA CFM | FILTERS (30% ASHRAE PLEATED) | | WEIGHT (LBS) | REMARKS |
|-------|-----------------|-------|------------|--------|-----|-------------|------------|-------|-----------------|-------|------------|--------|-----|-------------|------------|-------|-----------|-----------|--------|------------------------------|-----------------------|--------------|-----------|
| | MODEL | CFM | TSP " W.C. | BHP HP | RPM | VOLTS-PH-Hz | WHEEL DIA. | CLASS | MODEL | CFM | TSP " W.C. | BHP HP | RPM | VOLTS-PH-Hz | WHEEL DIA. | CLASS | | | | NO. & SIZE (THROW AWAY) | INITIAL AIR PD " W.C. | | |
| AHU 1 | PF-44 SWSI PLUG | 23100 | 3.5 | 21/25 | 858 | 460-3φ-60 | 44.5 | II | PF-49 SWSI PLUG | 21100 | 1.5 | 8.3/10 | 536 | 460-3φ-60 | 49 | II | CC-1 | - | 2600 | (16) 24" x 24" x 2" | 0.15 | 29000 | BLDG. 100 |
| AHU 2 | PF-44 SWSI PLUG | 26300 | 3.5 | 24/25 | 900 | 460-3φ-60 | 44.5 | II | PF-49 SWSI PLUG | 22200 | 1.5 | 8.9/10 | 550 | 460-3φ-60 | 49 | II | CC-2 | - | 4100 | (24) 24" x 24" x 2" | 0.15 | 27000 | BLDG. 100 |
| AHU 3 | PF-49 SWSI PLUG | 27500 | 3.5 | 24/25 | 766 | 460-3φ-60 | 49 | II | PF-44 SWSI PLUG | 19500 | 1.5 | 8/10 | 625 | 460-3φ-60 | 44.5 | II | CC-3 | - | 8000 | (24) 24" x 24" x 2" | 0.15 | 25000 | BLDG. 100 |
| AHU 4 | PF-44 SWSI PLUG | 23800 | 3.5 | 21/25 | 858 | 460-3φ-60 | 44.5 | II | PF-44 SWSI PLUG | 21800 | 1.5 | 8.7/10 | 545 | 460-3φ-60 | 44.5 | II | CC-4 | - | 2000 | (16) 24" x 24" x 2" | 0.15 | 33000 | BLDG. 100 |

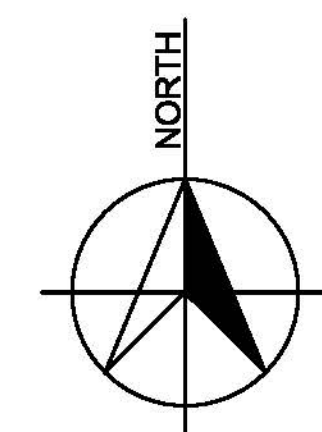
2 BLDG 100 - EXISTING AHU SCHEDULE



- KEYNOTES:**
- # SCOPE
 - 1 NEW STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
 - 2 NEW VFD ON (4) EXISTING 25 HP SUPPLY FAN MOTORS. CONTROL THROUGH MODIFIED EMS.
 - 3 NEW VFD ON (4) EXISTING 10 HP RETURN FAN MOTORS. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION

1 BLDG 100 - ROOF PLAN

1/8" = 1'-0"



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 BUILDING:

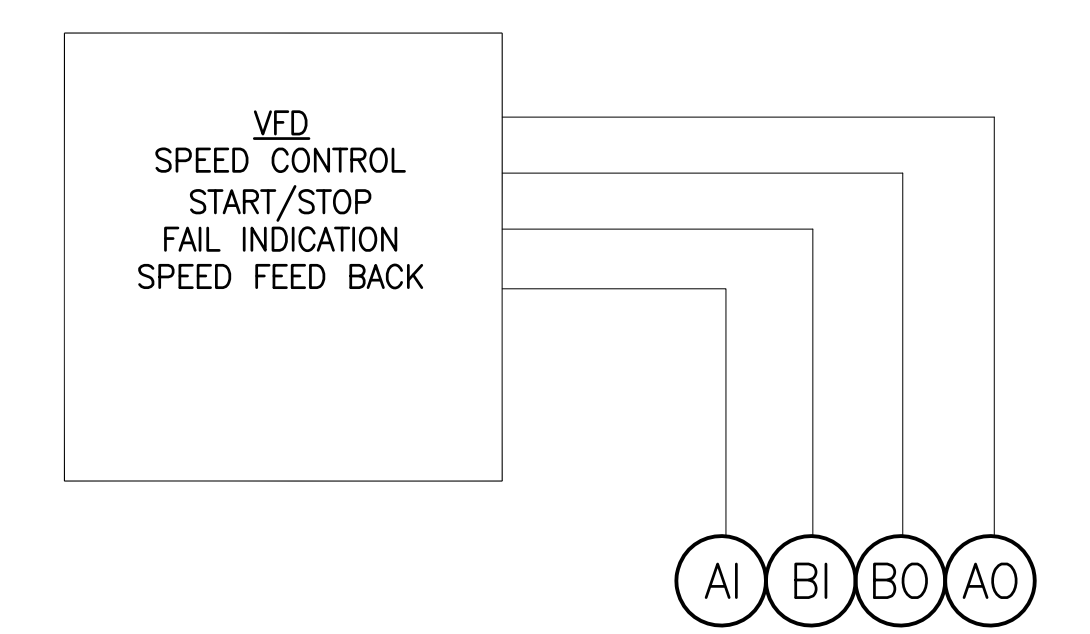
SHEET TITLE:
 MECHANICAL ROOF
 PLAN & SCHEDULE -
 BUILDING 100
 SCALE: AS SHOWN
 IF BAR IS NOT ONE INCH DRAWING IS NOT TO SCALE

| REVISIONS | | | |
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JOB NO. 3060E4 SHEET BR-100-2-RP
 DATE 2/07/14

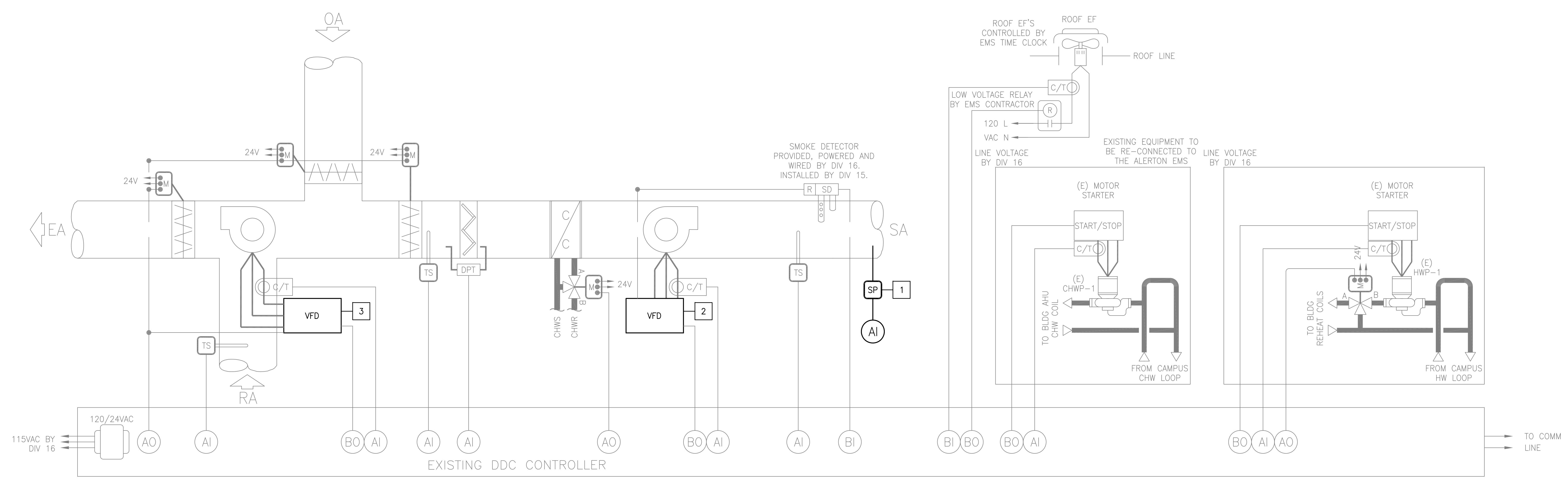
PLOT SCALE

- KEYNOTES:**
- # SCOPE
 - 1 NEW STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
 - 2 NEW VFD ON (4) EXISTING 25 HP SUPPLY FAN MOTORS. CONTROL THROUGH MODIFIED EMS.
 - 3 NEW VFD ON (4) EXISTING 10 HP RETURN FAN MOTORS. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION



2 VFD CONTROL DIAGRAM

NTS



1 BLDG 100 - EXISTING HVAC CONTROL DIAGRAM

NTS

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 BRIDGING DOCUMENTS

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 FAIRFIELD, CA 94534

RFP/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

HVAC CONTROLS
 DIAGRAM - BUILDING
 100

SCALE: AS SHOWN

IF MAP IS NOT ON SCALE, DRAWING IS NOT TO SCALE

REVISIONS

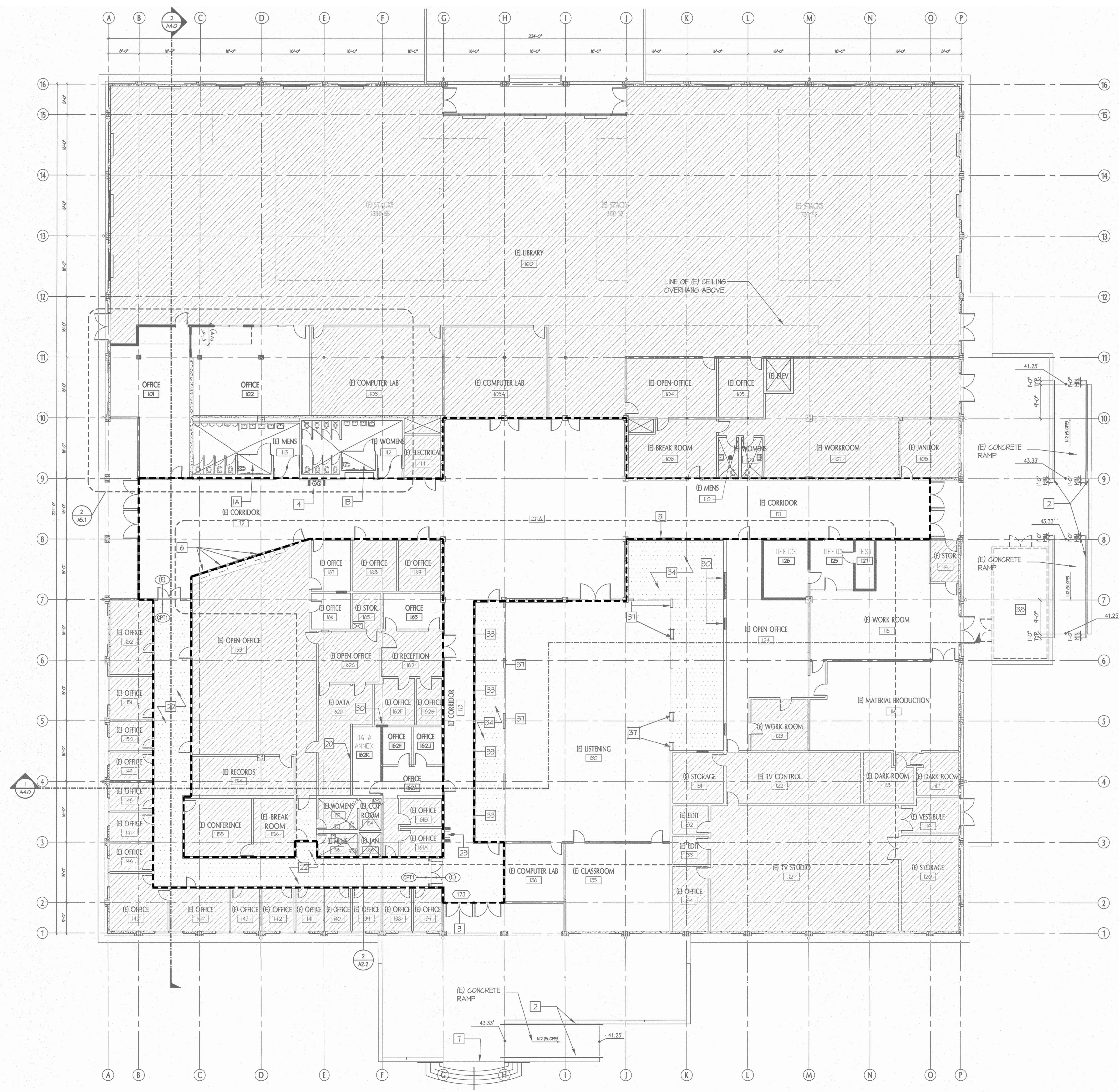
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JOB NO. 3060E4 SHEET BR-100-3-SC

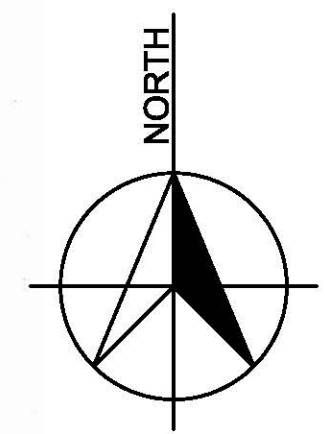
DATE 2/07/14

LAST REVISION

PLOT SCALE



LEGEND:
 - - - - - EXISTING 1 HOUR FIRE RATED WALLS & CEILINGS.



3/32" = 1'-0"

KITCHELL
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RFI/O DOCUMENTS
NOT FOR CONSTRUCTION
 BUILDING:

SHEET TITLE:
**FIRE RATED WALLS &
 CEILINGS PLAN -
 BUILDING 100**
 SCALE: AS SHOWN 0 1/2" 1"
IF BAR IS NOT ONE INCH DRAWING IS NOT TO SCALE

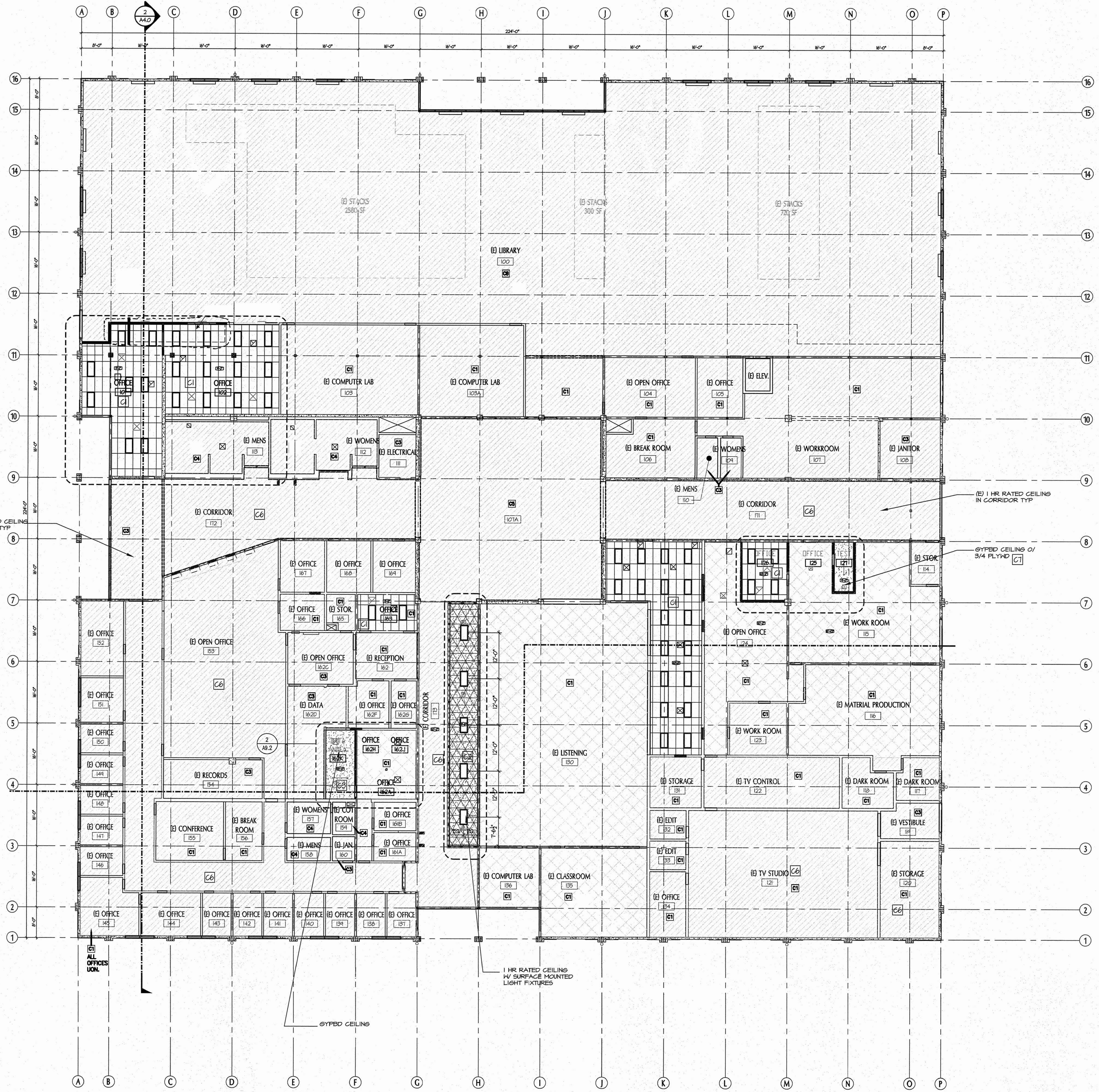
REVISIONS

| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4 SHEET
 DATE 2/07/14 **BR-100-4-FRW**

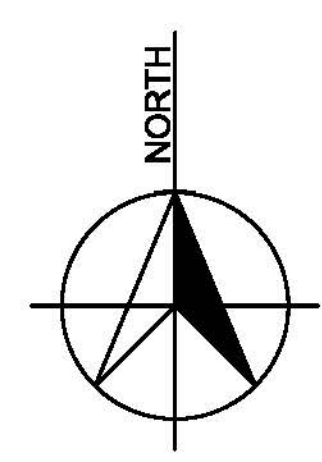
1 BLDG 100 - FIRE RATED WALLS & CEILINGS

LAST REVISION: 1



- CEILING PLAN LEGEND**
- GYP. BOARD CEILING
 - 2x4 CEILING GRID CENTERED ON CORRIDOR
 - 1HR CEILING ASSEMBLY
 - RATED EXISTING G.I.P. PARTITION
 - 1 HR. RATED WALL ASSEMBLY
 - 2 HR. RATED WALL ASSEMBLY

- KEYNOTES:**
- # SCOPE
- C1 2x4 SUSPENDED CEILING
 - C2 (N) 1-HR RATED GYPBD CEILING (SHAFT WALL)
 - C3 GYPBD CEILING
 - C4 GYPBD CEILING W/ GLUE ON TILE
 - C5 WAFFLE CONCRETE
 - C6 2x4 SUSPENDED CEILING 1 HR RATED
 - C7 GYPBD CEILING OVER 3/4" PLYWD SHEATHING
 - C8 GYPBD CEILING TEXTURED



1 BLDG 100 - REFLECTED CEILING PLAN

3/32" = 1'-0"

KITCHELL
 Capital Expenditure Managers
 2750 Gateway Oaks Drive
 Suite 300
 Sacramento, CA 95833
 (916) 648-9700

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 HVAC AND EMS EFFICIENCY PROJECT IMPLEMENTATION
 BRIDGING DOCUMENTS
SOLANO COMMUNITY COLLEGE
 4000 SUSUN VALLEY ROAD
 FAIRFIELD, CA 94534

RFP/O DOCUMENTS

NOT FOR CONSTRUCTION

SHEET TITLE:
 REFLECTED CEILING
 PLAN - BUILDING 100

SCALE: AS SHOWN

REVISIONS

| NO. | DATE | NO. | DATE |
|-----|------|-----|------|
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JOB NO. 3060E4 SHEET BR-100-5-RCP
 DATE 2/07/14

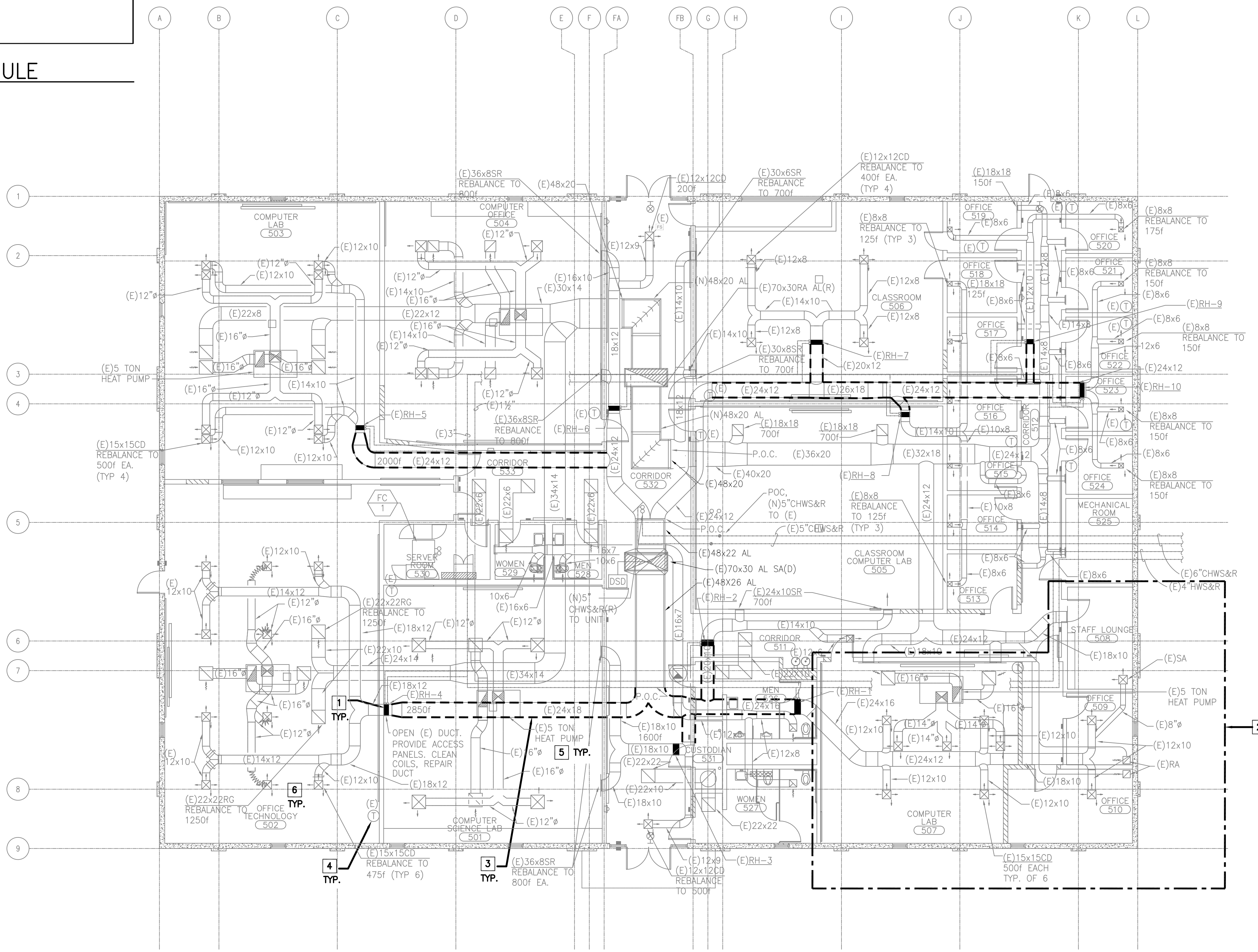
| EXISTING HEATING COIL SCHEDULE | | | | | | | | | |
|--------------------------------|-------|----------------|---------------------|----------|----------|----------------|------------|-----------------|-----------|
| MARK | MODEL | AIR FLOW (CFM) | FACE AREA (SQ. FT.) | EAT (DB) | LAT (DB) | CAPACITY (MBH) | FLOW (GPM) | CONN. SIZE (IN) | REMARKS |
| | | | | | | SENS. | | | |
| RH-01 | | 3000 | 6 | 60 | 90 | 94.00 | 6.3 | 1-1/4 | 1,2,3,4,5 |
| RH-02 | | 1700 | 3 | 60 | 85 | 37.00 | 3.1 | 1 | 1,2,3,4,5 |
| RH-03 | | 2300 | 4.5 | 60 | 90 | 75.00 | 5 | 1 | 1,2,3,4,5 |
| RH-04 | | 2850 | 6 | 60 | 90 | 94.00 | 6.3 | 1-1/4 | 1,2,3,4,5 |
| RH-05 | | 2000 | 3.5 | 60 | 95 | 72.00 | 4.8 | 1 | 1,2,3,4,5 |
| RH-06 | | 2100 | 3.5 | 60 | 92 | 71.00 | 4.8 | 1 | 1,2,3,4,5 |
| RH-07 | | 1600 | 3 | 60 | 90 | 52.50 | 3.5 | 1 | 1,2,3,4,5 |
| RH-08 | | 750 | 1.5 | 60 | 85 | 24.00 | 1.6 | 3/4 | 1,2,3,4,5 |
| RH-09 | | 625 | 1.5 | 60 | 100 | 26.50 | 1.7 | 3/4 | 1,2,3,4,5 |
| RH-10 | | 600 | 1.5 | 60 | 102 | 27.30 | 1.8 | 3/4 | 1,2,3,4,5 |

REMARKS:
 1. REPLACE COIL
 2. WATER TEMPERATURE DROP 180F - 150F
 3. ALL NEW THERMOSTATS
 4. MAX FACE VELOCITY 600FFM
 5. MAX SP DROP 0.10 (N.WC)

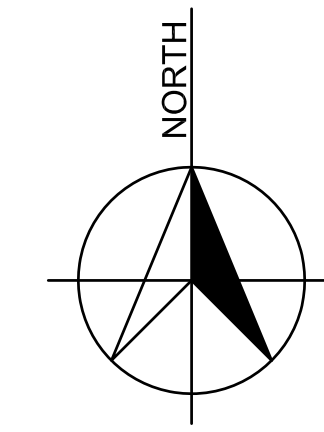
2 BLDG 500 - EXISTING REHEAT SCHEDULE

PLOT SCALE

LAST REVISION



- KEYNOTES:**
- # SCOPE
 - 1 REMOVE ALL EXISTING REHEAT COILS AND ASSOCIATED VALVES/PIPING/DUCTWORK AND INSTALL NEW VAV BOXES WITH NEW VALVES AND REHEAT COILS TO TURN CONSTANT VOLUME SYSTEM INTO A VAV SYSTEM. INTERFACE WITH EMS.
 - 2 REDESIGN HVAC IN THIS AREA SO THAT THE COMPUTER LAB 507, OFFICE 510 AND OFFICE 509 AND STAFF LOUNGE 508 HAVE THEIR OWN VAV BOXES, REHEAT COILS AND THERMOSTATS. MODIFY DUCTWORK AND PIPING ACCORDINGLY.
 - 3 REPLACE EXISTING SUPPLY AIR DUCT BOARD UPSTREAM OF THE NEW VAV BOXES WITH GALVANIZED SHEET METAL.
 - 4 PROVIDE NEW THERMOSTATS AT EXISTING LOCATIONS. INTERFACE WITH EMS.
 - 5 REMOVE CEILINGS AS REQUIRED FOR REMOVAL AND REPLACEMENT OF HVAC COMPONENTS. PATCH AND REPAIR ANY FLOORS, WALLS AND CEILINGS THAT ARE DAMAGED AS A RESULT OF THIS WORK. FINISHED WORK SHOULD MATCH EXISTING IN STYLE AND COLOR.
 - 6 REBALANCE HVAC SYSTEM.



1/8" = 1'-0"

1 BLDG 500 - FLOOR PLAN

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RFF/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

MECHANICAL FLOOR
 PLAN & REHEAT
 SCHEDULE - BUILDING
 500

SCALE: AS SHOWN

REVISIONS

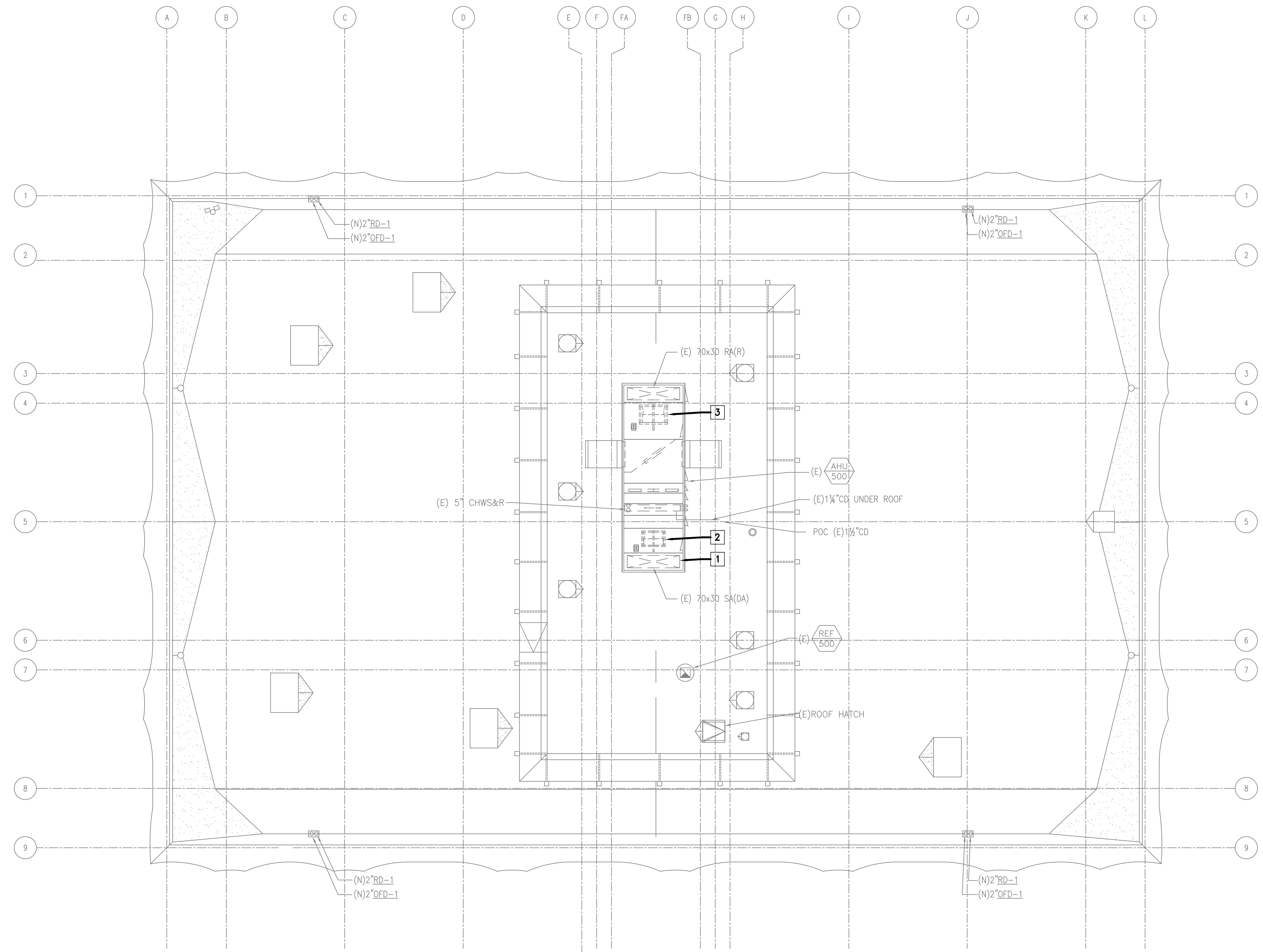
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JOB NO. 3060E4
 DATE 2/07/14
 SHEET BR-500-1-PP

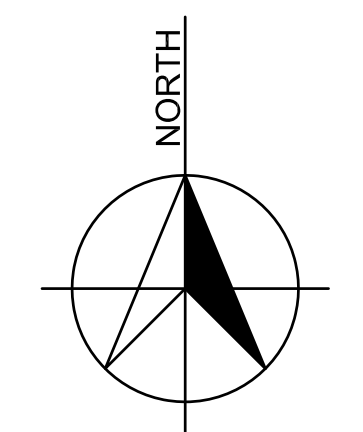
EXISTING AIR HANDLER UNIT SCHEDULE

| SYMBOL | MANUFACTURER | MODEL | COOLING COIL | | | | | | | | | | | SUPPLY FAN | | | | | RETURN FAN | | | | | ELECTRICAL | | | OUTSIDE AIR CFM | OPERATING WEIGHT LBS. | FILTER EFFICIENCY | | | | | | |
|---------|--------------|------------------|------------------|------|--------------|------|--------------|-----------|----------|------|-------|-----|------|------------|----------|-------------|----------|-----|-------------|-------------|-------|-----|--------|------------|--------|------|-----------------|-----------------------|-------------------|-----|--------------|-------|--------|--------------------------|----------------------|
| | | | COOLING CAPACITY | | AIR ENT COIL | | AIR LVG COIL | | SIZE HXW | EWT | LWT | GPM | ROWS | FPI | WPD (FT) | APD (IN WG) | TCV TYPE | CFM | TSP (IN WG) | ESP (IN WG) | TYPE | BHP | HP | CFM | ESP | TYPE | | | | BHP | HP | MOTOR | | | CONTROL/LIGHTS VOLTS |
| | | | BTU/H | TON | BTU/H | TON | BTU/H | TON | | | | | | | | | | | | | | | | | | | | | | | | VOLTS | PH | HZ | |
| AHU 500 | YORK | XTO-66X102597B40 | 665,000 | 82.5 | 62.0 | 52.9 | 50.5 | (2) 33x86 | 45°F | 55°F | 99.50 | 6 | 8 | 10.96 | 0.34 | 3 WAY | 17,525 | 4.3 | 2.5 | PLENUM | 19.63 | 25 | 17,525 | 1.80 | PLENUM | 8.28 | 10.0 | 460 | 3 | 60 | 120V/1Ø/60HZ | 4800 | 10,800 | 40% (16) 24x24x4 FILTERS | |

2 BLDG 500 – EXISTING AHU SCHEDULE



KEYNOTES:
SCOPE
1 INSTALL STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
2 INSTALL NEW VFD ON EXISTING 25 HP SUPPLY FAN MOTOR. MODIFY POWER SUPPLY AS REQUIRED. INTERFACE WITH EMS.
3 INSTALL NEW VFD ON EXISTING 10 HP RETURN FAN MOTOR. MODIFY POWER SUPPLY AS REQUIRED. INTERFACE WITH EMS. CONTROL OF RETURN FAN VFD TO TRACK SUPPLY VFD.
SEE SCHEDULE FOR ADDITIONAL INFORMATION



1/8" = 1'-0"

1 BLDG 500 – ROOF PLAN

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BUILDING:

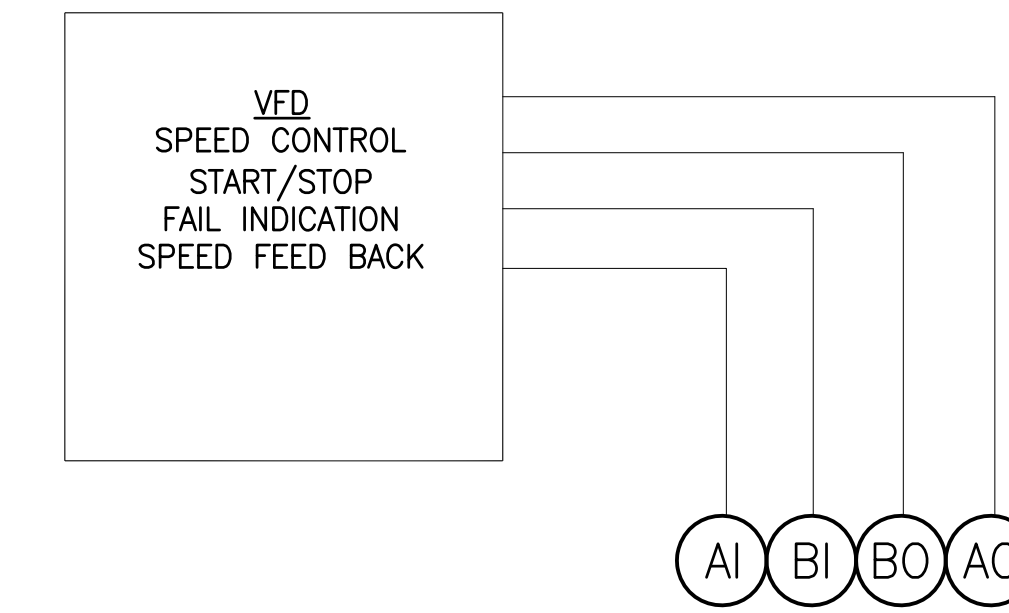
SHEET TITLE:
MECHANICAL ROOF PLAN & SCHEDULE – BUILDING 500
SCALE: AS SHOWN

| REVISIONS | | | |
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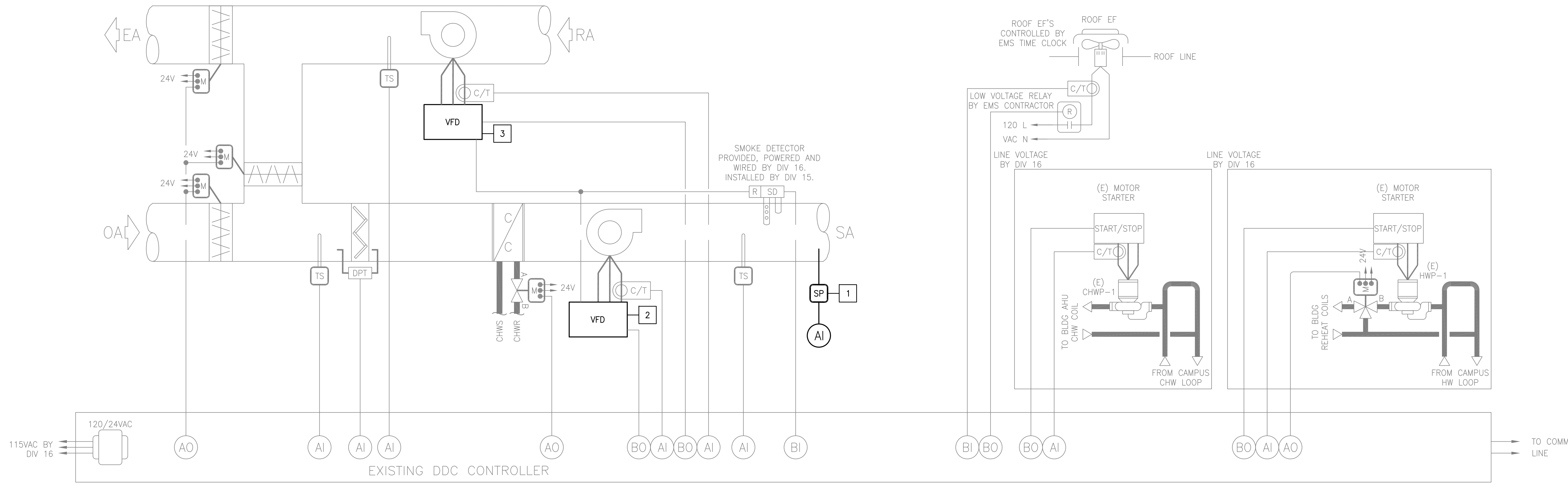
JOB NO. 3060E4 SHEET BR-500-2-RP
DATE 2/07/14

KEYNOTES:

- # SCOPE
 - 1 NEW STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
 - 2 NEW VFD ON EXISTING 25 HP SUPPLY FAN MOTOR. CONTROL THROUGH MODIFIED EMS.
 - 3 NEW VFD ON EXISTING 10 HP RETURN FAN MOTOR. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION



2 VFD CONTROL DIAGRAM NTS



1 BLDG 500 - EXISTING HVAC CONTROL DIAGRAM NTS

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Capital Expenditure Managers
2750 Gateway Oaks Drive
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Sacramento, CA 95833
(916) 648-9700

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FAIRFIELD, CA 94534

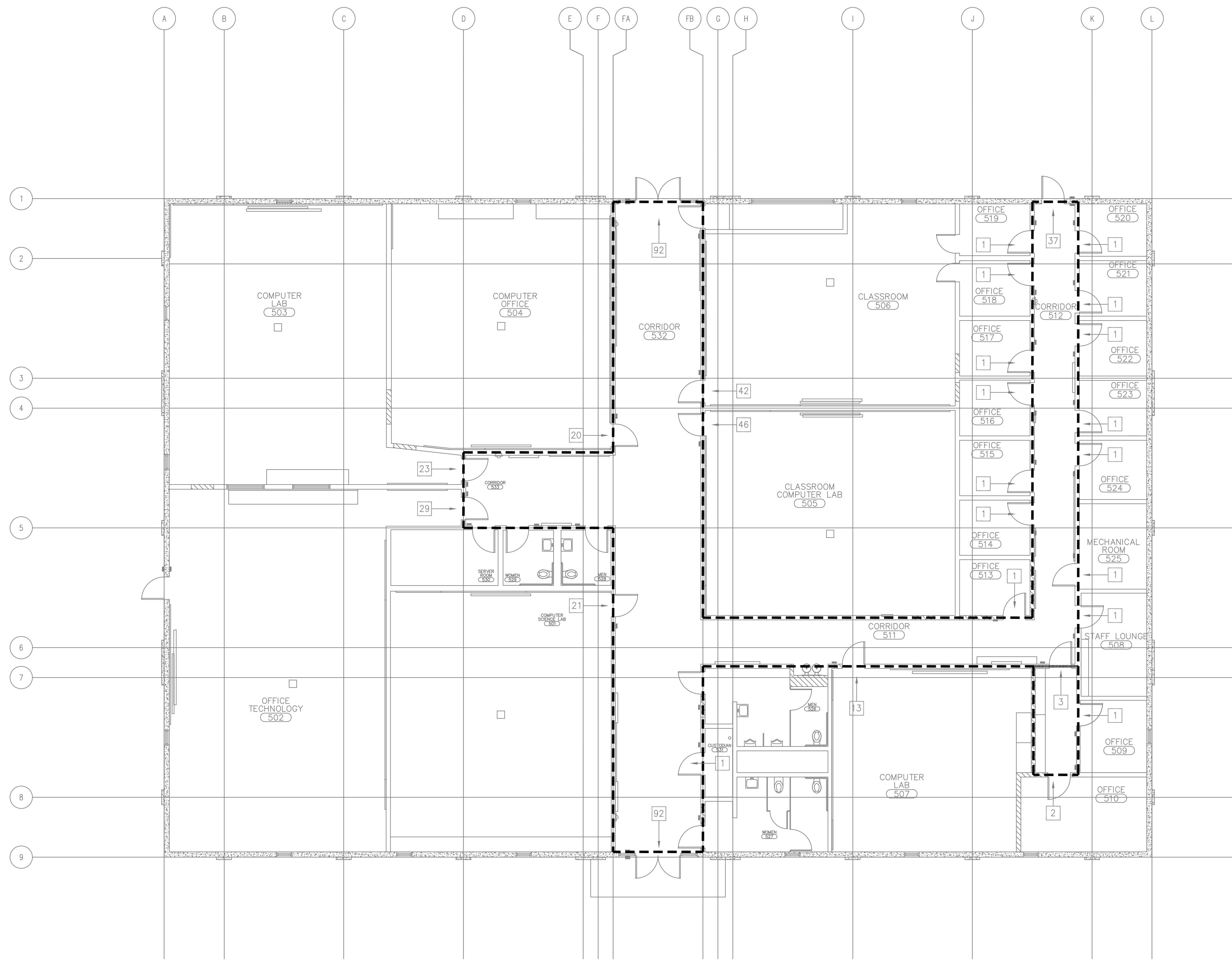
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NOT FOR CONSTRUCTION
BUILDING:

SHEET TITLE:
HVAC CONTROLS
DIAGRAM - BUILDING
500
SCALE: AS SHOWN
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

REVISIONS

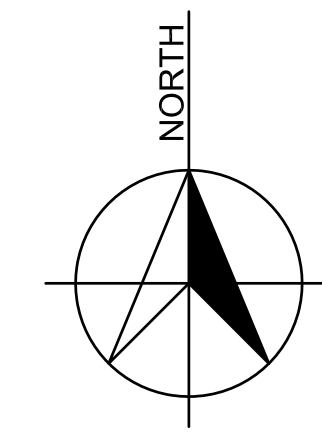
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JOB NO. 3060E4 SHEET BR-500-3-SC
DATE 2/07/14



LEGEND:

--- EXISTING 1 HOUR FIRE RATED WALLS & CEILINGS.



1/8" = 1'-0"

1 BLDG 500 - FIRE RATED WALLS & CEILINGS

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 4000 SUISUN VALLEY ROAD
 FAIRFIELD, CA 94534

RFF/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

FIRE RATED WALLS & CEILINGS PLAN - BUILDING 500

SCALE: AS SHOWN

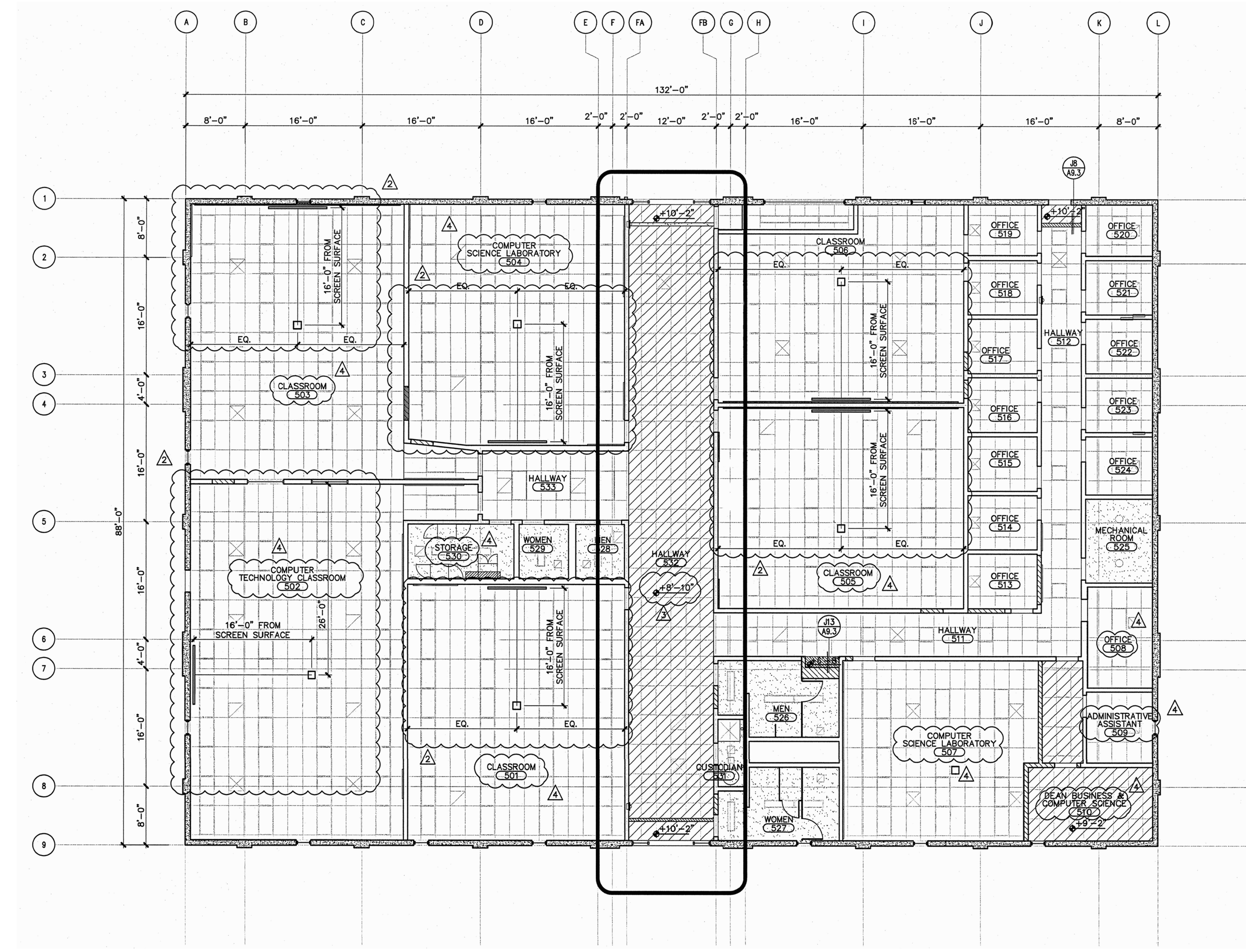
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JOB NO. 3060E4 SHEET BR-500-4-FRW

DATE 2/07/14

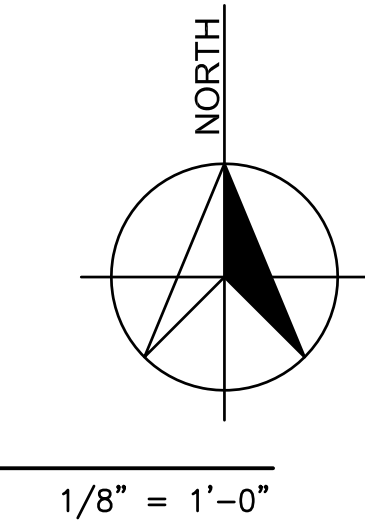
PLOT SCALE

LAST REVISION



- LEGEND:**
- + 9'-0" CEILING HEIGHT
 - (E) GYP. BOARD CEILING.
 - (E) GYP. BOARD CEILING, GLASSMAT WATER RESISTANT GYPSUM BOARD AT WET SPACE
 - (E) SUSPENDED CLG. GRID, LAY-IN 2'x4' LAY-IN ACOUSTICAL TILE.
 - (E) SUSPENDED CLG. GRID W/ (E) 2'x4' LAY-IN ACOUSTICAL TILES.
 - (E) CONCRETE CEILING
 - (E) LIGHT FIXTURE
 - (E) LIGHT FIXTURE
 - (E) SUPPLY AIR DIFFUSER
 - (E) RETURN AIR GRILL
 - (E) EXIT LIGHT

1 BLDG 500 - REFLECTED CEILING PLAN



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NOT FOR CONSTRUCTION
 BUILDING:

SHEET TITLE:
 REFLECTED CEILING
 PLAN - BUILDING 500
 SCALE: AS SHOWN

REVISIONS

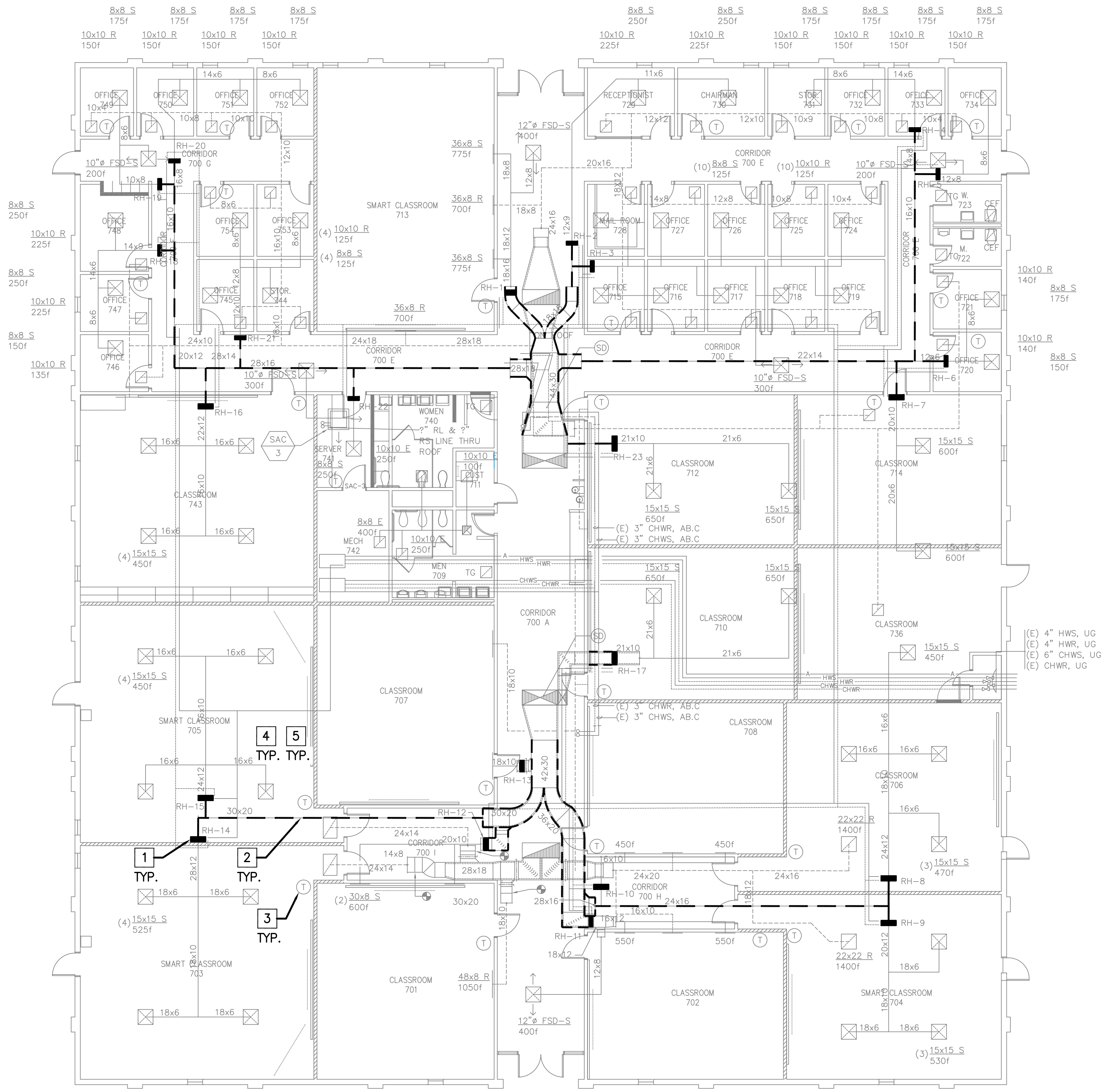
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JOB NO. 3060E4 SHEET BR-500-5-RCP
 DATE 2/07/14

| EXISTING HEATING COIL SCHEDULE | | | | | | | | | |
|--------------------------------|-------|----------------|---------------------|----------|----------|----------------|------------|-----------------|-----------|
| MARK | MODEL | AIR FLOW (CFM) | FACE AREA (SQ. FT.) | EAT (DB) | LAT (DB) | CAPACITY (MBH) | FLOW (GPM) | CONN. SIZE (IN) | REMARKS |
| | | | | | | SENS. | | | |
| RH-01 | | 1950 | 3.75 | 60 | 86 | 54.80 | 3.7 | 1 | 1,2,3,4,5 |
| RH-02 | | 500 | 1.5 | 60 | 97 | 20.00 | 1.4 | 3/4 | 1,2,3,4,5 |
| RH-03 | | 1550 | 3.75 | 60 | 85 | 42.00 | 2.8 | 1 | 1,2,3,4,5 |
| RH-04 | | 525 | 1.5 | 60 | 96 | 20.40 | 1.4 | 3/4 | 1,2,3,4,5 |
| RH-05 | | 375 | 1 | 60 | 104 | 17.80 | 1.2 | 3/4 | 1,2,3,4,5 |
| RH-06 | | 325 | .75 | 60 | 95 | 12.30 | 0.9 | 3/4 | 1,2,3,4,5 |
| RH-07 | | 1200 | 3 | 60 | 86 | 33.80 | 2.3 | 1 | 1,2,3,4,5 |
| RH-08 | | 1860 | 3.75 | 60 | 88 | 50.2 | 3.4 | 1 | 1,2,3,4,5 |
| RH-09 | | 1590 | 3.75 | 60 | 90 | 51.5 | 3.5 | 1 | 1,2,3,4,5 |
| RH-10 | | 900 | 1.5 | 60 | 65 | 24.2 | 1.6 | 3/4 | 1,2,3,4,5 |
| RH-11 | | 1500 | 3.75 | 60 | 87 | 43.7 | 2.9 | 1 | 1,2,3,4,5 |
| RH-12 | | 1200 | 3 | 60 | 88 | 36.40 | 2.5 | 1 | 1,2,3,4,5 |
| RH-13 | | 1100 | 3 | 60 | 85 | 29.60 | 2.0 | 1 | 1,2,3,4,5 |
| RH-14 | | 2100 | 3.75 | 60 | 91 | 70.40 | 4.7 | 1 | 1,2,3,4,5 |
| RH-15 | | 1800 | 3.75 | 60 | 87 | 52.50 | 3.5 | 1 | 1,2,3,4,5 |
| RH-16 | | 1800 | 3.75 | 60 | 85 | 48.60 | 3.3 | 1 | 1,2,3,4,5 |
| RH-17 | | 1300 | 3 | 60 | 85 | 35.00 | 2.4 | 1 | 1,2,3,4,5 |
| RH-18 | | 650 | 1.5 | 60 | 91 | 8.40 | 0.8 | 3/4 | 1,2,3,4,5 |
| RH-19 | | 375 | 1 | 60 | 104 | 17.80 | 1.2 | 3/4 | 1,2,3,4,5 |
| RH-20 | | 525 | 1.13 | 60 | 96 | 20.40 | 1.4 | 3/4 | 1,2,3,4,5 |
| RH-21 | | 500 | 1.13 | 60 | 93 | 17.80 | 1.2 | 3/4 | 1,2,3,4,5 |
| RH-22 | | 550 | 1.13 | 60 | 85 | 14.80 | 1.0 | 3/4 | 1,2,3,4,5 |
| RH-23 | | 1300 | 3 | 60 | 85 | 35.00 | 2.4 | 1 | 1,2,3,4,5 |

REMARKS:
 1. REPLACE COIL
 2. WATER TEMPERATURE DROP 180F - 150F
 3. ALL NEW THERMOSTATS
 4. MAX FACE VELOCITY 600FPM
 5. MAX SP DROP 0.10 (IN. WC)

2 BLDG 700 - EXISTING REHEAT SCHEDULE



1 BLDG 700 - FLOOR PLAN

- KEYNOTES:
- SCOPE
 1 REMOVE ALL EXISTING REHEAT COILS AND ASSOCIATED VALVES/PIPING/DUCTWORK AND INSTALL NEW VAV BOXES WITH NEW VALVES AND REHEAT COILS TO TURN CONSTANT VOLUME SYSTEM INTO A VAV SYSTEM. INTERFACE WITH EMS.
 - REPLACE EXISTING SUPPLY AIR DUCT BOARD UPSTREAM OF THE NEW VAV BOXES WITH GALVANIZED SHEET METAL.
 - PROVIDE NEW THERMOSTATS AT EXISTING LOCATIONS. INTERFACE WITH EMS.
 - REMOVE CEILINGS AS REQUIRED FOR REMOVAL AND REPLACEMENT OF HVAC COMPONENTS. PATCH AND REPAIR ANY FLOORS, WALLS AND CEILINGS THAT ARE DAMAGED AS A RESULT OF THIS WORK. FINISHED WORK SHOULD MATCH EXISTING IN STYLE AND COLOR.
 - REBALANCE HVAC SYSTEM.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION

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 4000 SUSUN VALLEY ROAD
 FAIRFIELD, CA 94534

RFP/O DOCUMENTS
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SHEET TITLE:
 MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 700

SCALE: AS SHOWN

| REVISIONS | | | |
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| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4 SHEET BR-700-1-1P
 DATE 2/07/14

1/8" = 1'-0"

PLOT SCALE:

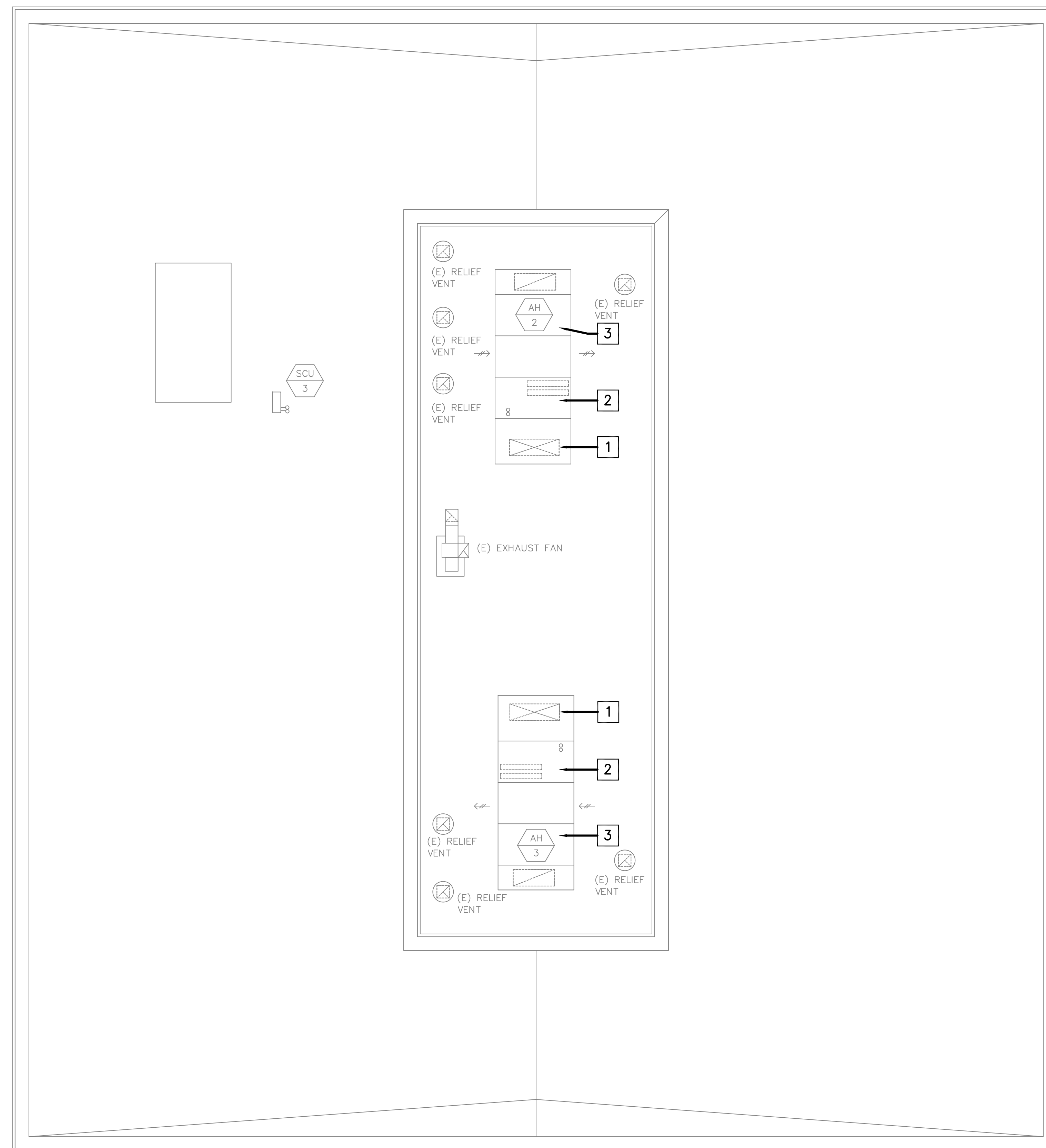
LAST REVISION:

EXISTING AIR HANDLER UNIT SCHEDULE

| UNIT | LOCATION | GOVERNOR MODEL SIZE | SUPPLY FAN | | | | | | COOLING COIL | | | | | | | | | | HEATING COIL | | | | | | RETURN FAN | | | | | ELECTRICAL DATA | OPER. WT. (LBS) | MOUNTING DETAIL | CONTROL DIAGRAM | NOTES | | |
|-------|----------|---------------------|------------|----------------|---------------|---------------|------------|------------------|-------------------|-------------|-------------|-----------------------------|------------------|------------------|------------------|------|-------|------------------|--------------|-------|-------------|------|------------------|------------------|------------|-----|---------|-------------|----------|-----------------|-------------------|-----------------|--------------------------|--------------|--------------|----------|
| | | | CFM | MIN. OSA (CFM) | ESP (IN. WG.) | TSP (IN. WG.) | BHP/HP | FAN RPM | TYPE | TOTAL (MBH) | SENS. (MBH) | COIL | EDB/EWB (DEG. F) | LDB/LWB (DEG. F) | EWL/LWT (DEG. F) | ΔT | GPM | WPD (F) | CNTRL VALVE | CV | TOTAL (MBH) | COIL | EAT/LAT (DEG. F) | EWL/LWT (DEG. F) | ΔT | GPM | WPD (F) | CNTRL VALVE | CV | | | | | | S&R QTY/SIZE | CFM |
| AHU 2 | BLDG 700 | RSA-03-E | 11975 | 2240 | 1.5 | 3.5 | 10.85/15.0 | 1318 1805 MAX | PF02-30 NYB-12 | 376.26 | 319.84 | 5 ROWS 7 FPI 23.75 SF | 79.4/63.9 | 54.8/53.4 | 45.0/55.0 | 10.0 | 75.10 | 7.61 3.42 FPS | 2-WAY NC | 33.58 | N/A | | | | | | 9735 | 1.25 | 2.89/5.0 | 744 850 MAX | PF02-33 NYB-12 | 460v, 3ø, 60Hz | 12,300 UNIT 1200 CURB | (11) M5.1 | (1) M6.2 | 2 THRU 7 |
| AHU 3 | BLDG 700 | RSA-03-E | 12400 | 3725 | 1.5 | 3.50 | 10.98/15.0 | 1342 805 MAX | PF02-30 NYB-12 | 423.0 | 376.8 | 5 ROWS 7 FPI 25.0 SF | 82.7/64.5 | 54.7/53.2 | 45.0/55.0 | 10.0 | 84.5 | 9.09 3.69 FPS | 2-WAY NC | 37.8 | N/A | | | | | | 8675 | 1.25 | 2.52/3.0 | 705 850 MAX | PF02-33 NYB-12 | 460v, 3ø, 60Hz | 12,400 UNIT 1200 CURB | (11) M5.1 | (2) M6.2 | 2 THRU 7 |

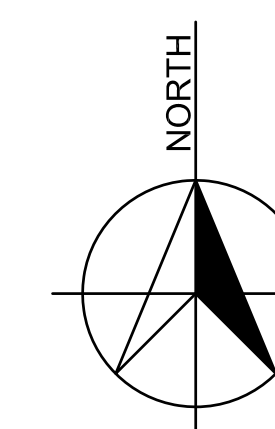
1. PROVIDE WITH FACTORY MOUNTED VFD W/ BYPASS FOR SUPPLY AND EXHAUST FANS.
2. PROVIDE WITH SINGLE 460V/3ø POWER CONNECTION WITH DISCONNECT.
3. SMOKE DETECTOR TO SHUT DOWN UNIT AND ACTIVATE FIRE ALARM SYSTEM UPON DETECTION OF SMOKE PER CMC 609.
4. PROVIDE FACTORY INSTALLED OUTSIDE AIRFLOW MONITOR.
5. PROVIDE SEPERATE J BOX FOR LIGHTING CIRCUIT. DEDICATED 120V CIRCUIT PROVIDED BY DIVISION 16.
6. PROVIDE 120 VOLT GFI AT SUPPLY FAN SECTION. DEDICATED 120V CIRCUIT PROVIDED BY DIVISION 16.
7. DEDICATED 120V CIRCUIT FOR EMCS AHU CONTROLLER PROVIDED BY DIVISION 16.

2 BLDG 700 – EXISTING AHU SCHEDULE



KEYNOTES:

- # SCOPE
- 1 NEW STATIC PRESSURE SENSOR TO CONTROL EXISTING SUPPLY VFD.
 - 2 EXISTING VFDs ON EXISTING 15 HP SUPPLY FAN MOTORS. CONTROL THROUGH MODIFIED EMS.
 - 3 EXISTING VFD ON EXISTING 5 HP AND 3 HP RETURN FAN MOTOR. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION



1/8" = 1'-0"

1 BLDG 700 – ROOF PLAN

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 4000 SUISSUN VALLEY ROAD
 FAIRFIELD, CA 94634

RFP/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

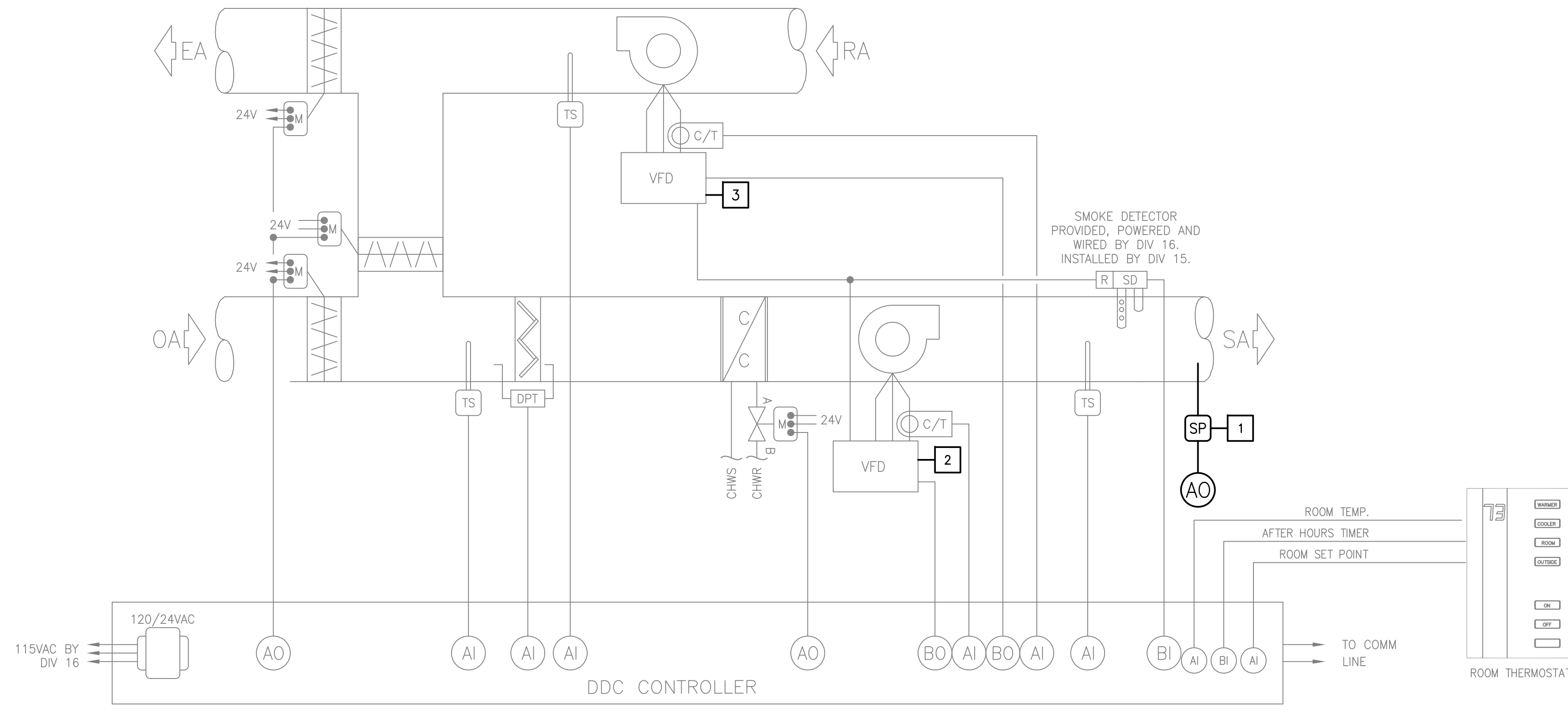
MECHANICAL ROOF
 PLAN & SCHEDULE –
 BUILDING 700

SCALE: AS SHOWN

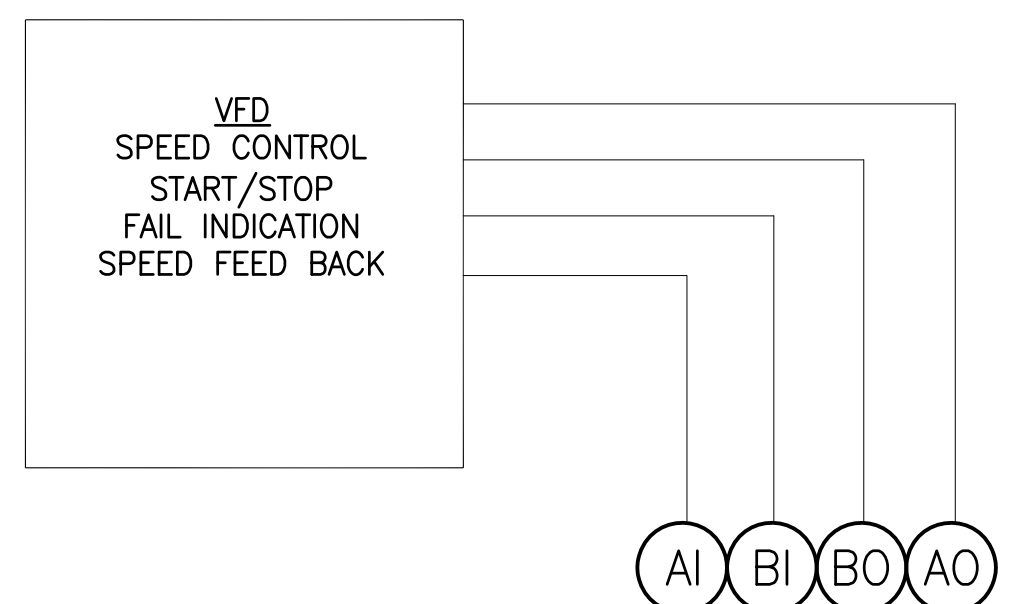
REVISIONS

| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4 SHEET BR-700-2-RP
 DATE 2/07/14

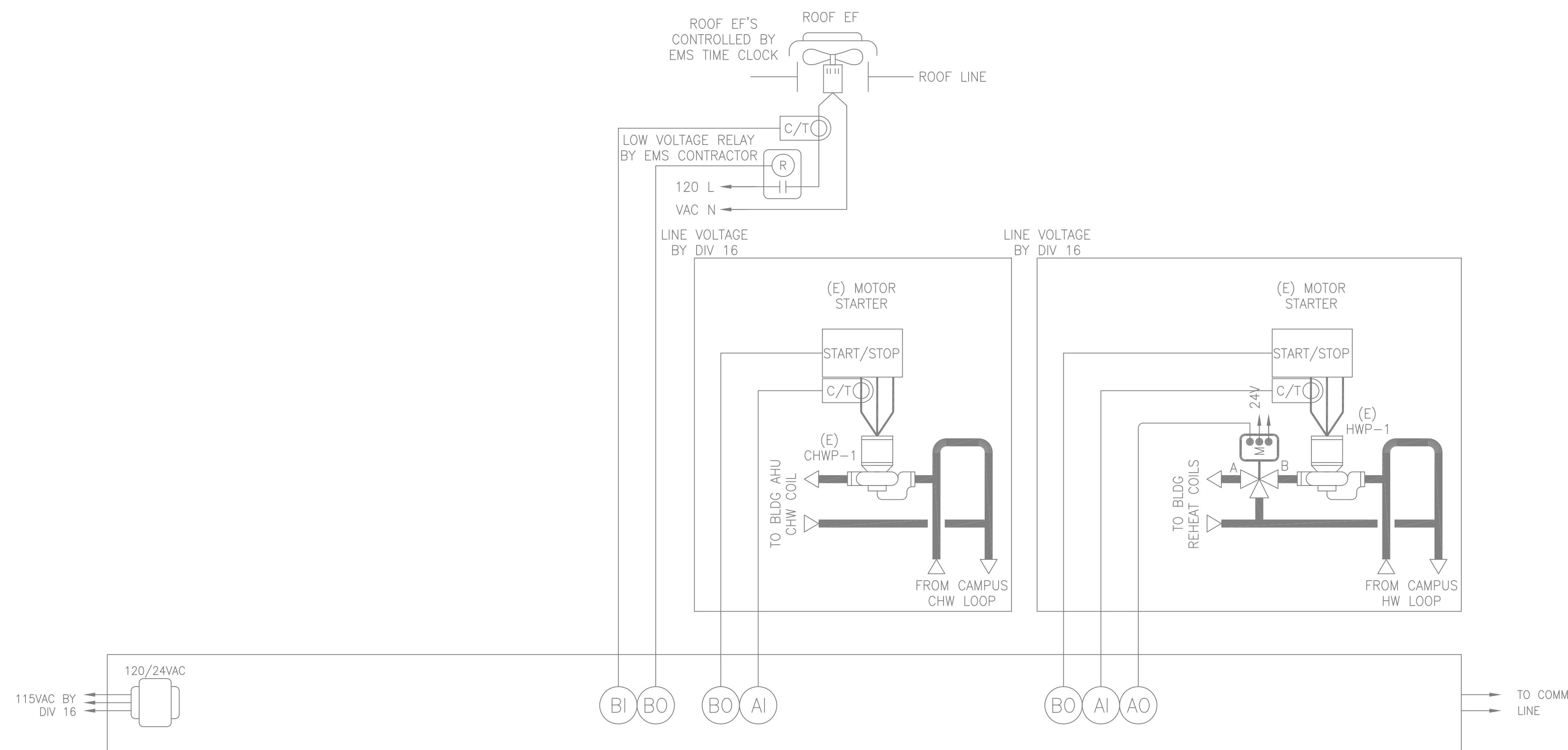


- KEYNOTES:**
- # SCOPE
 - 1 NEW STATIC PRESSURE SENSOR TO CONTROL EXISTING SUPPLY VFD.
 - 2 EXISTING VFD ON EXISTING 15 HP SUPPLY FAN MOTOR. CONTROL THROUGH MODIFIED EMS.
 - 3 EXISTING VFD ON EXISTING 5 HP AND 3 HP RETURN FAN MOTOR. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS. SEE SCHEDULE FOR ADDITIONAL INFORMATION



1 BLDG 700 - EXISTING HVAC CONTROL DIAGRAM (AHU-2) & (AHU-3) NTS

3 VFD CONTROL DIAGRAM NTS



2 BLDG 700 - HOT & CHILLED WATER PUMPS NTS

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RFP/O DOCUMENTS

NOT FOR CONSTRUCTION

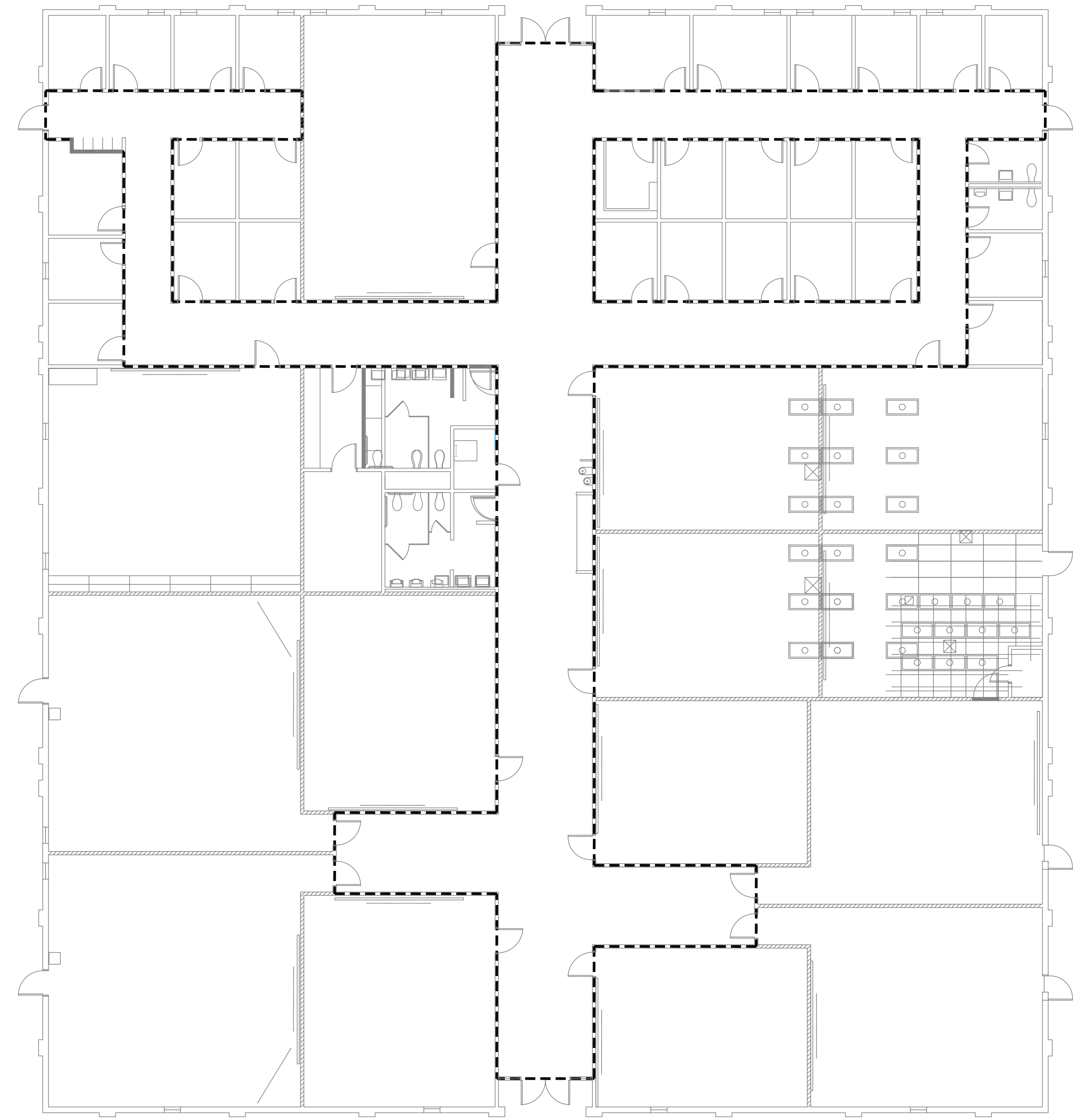
SHEET TITLE:
 HVAC CONTROLS
 DIAGRAM - BUILDING
 700
 SCALE: AS SHOWN

| REVISIONS | | | |
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JOB NO. 3060E4 SHEET BR-700-3-SC
 DATE 2/07/14

PLOT SCALE

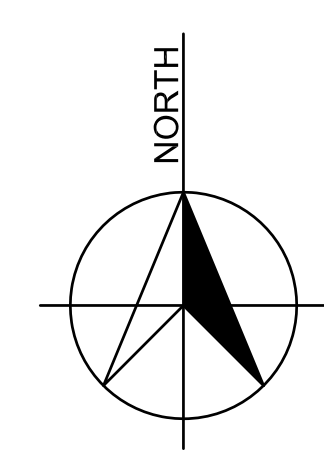
LAST REVISION



LEGEND:
 - - - - - EXISTING 1 HOUR FIRE RATED WALLS & CEILINGS.

1 BLDG 700 - FIRE RATED WALLS & CEILINGS

1/8" = 1'-0"



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 BUILDING:

SHEET TITLE:
 FIRE RATED WALLS &
 CEILINGS PLAN -
 BUILDING 700

SCALE: AS SHOWN
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

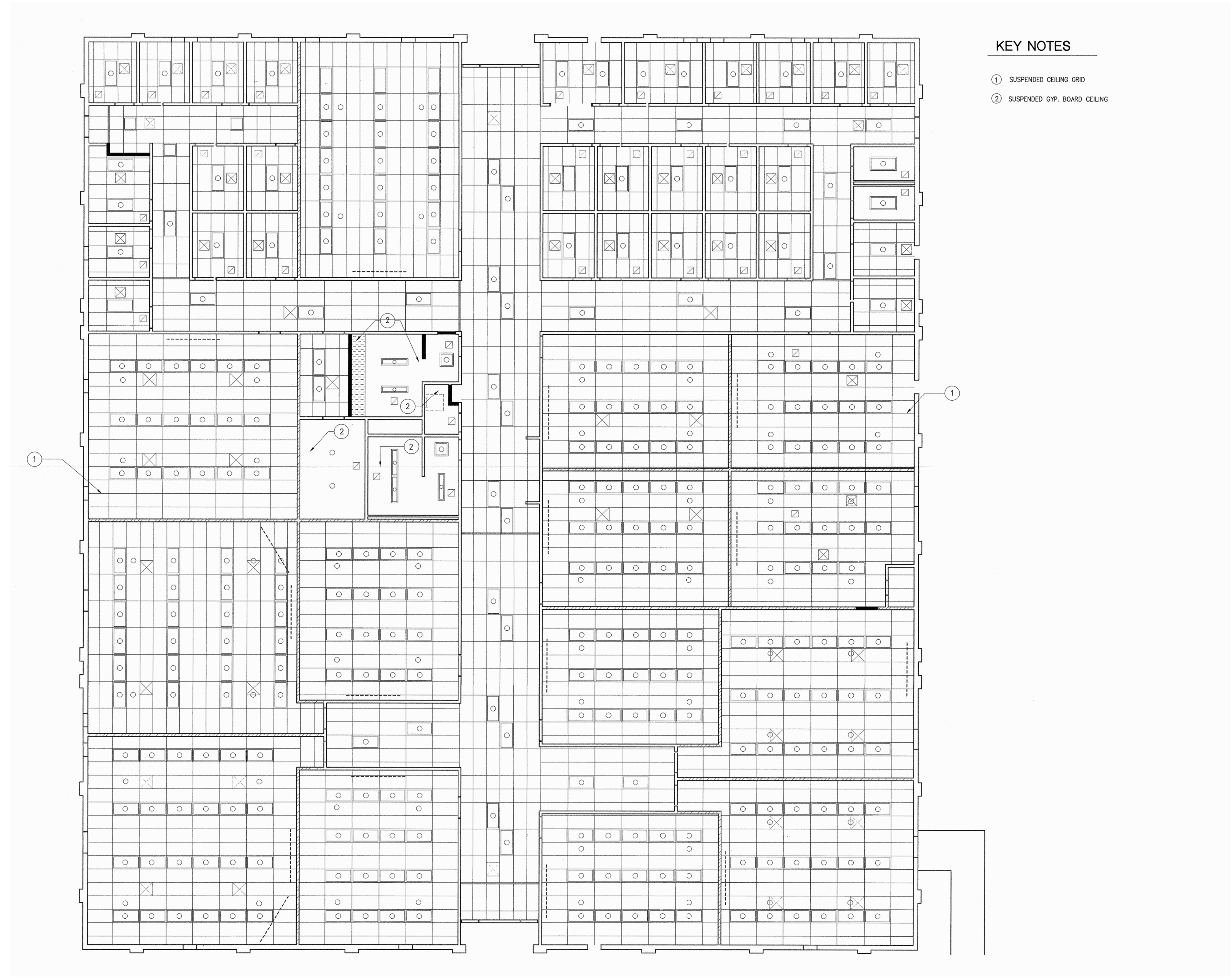
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| JOB NO. 3060E4 | SHEET BR-700-4-FRW |
| DATE 2/07/14 | |

PLOT SCALE

LAST REVISION

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KEY NOTES

- ① SUSPENDED CEILING GRID
- ② SUSPENDED GYP. BOARD CEILING

① BLDG 700 – REFLECTED CEILING PLAN

1/8" = 1'-0"

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SHEET TITLE:

REFLECTED CEILING
 PLAN – BUILDING 700

SCALE: AS SHOWN
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

REVISIONS

| NO. | DATE | NO. | DATE |
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| JOB NO. 3060E4 | SHEET BR-700-5-RCP |
| DATE 2/07/14 | |

RFI/O DOCUMENTS
NOT FOR CONSTRUCTION

SHEET TITLE:
MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 800

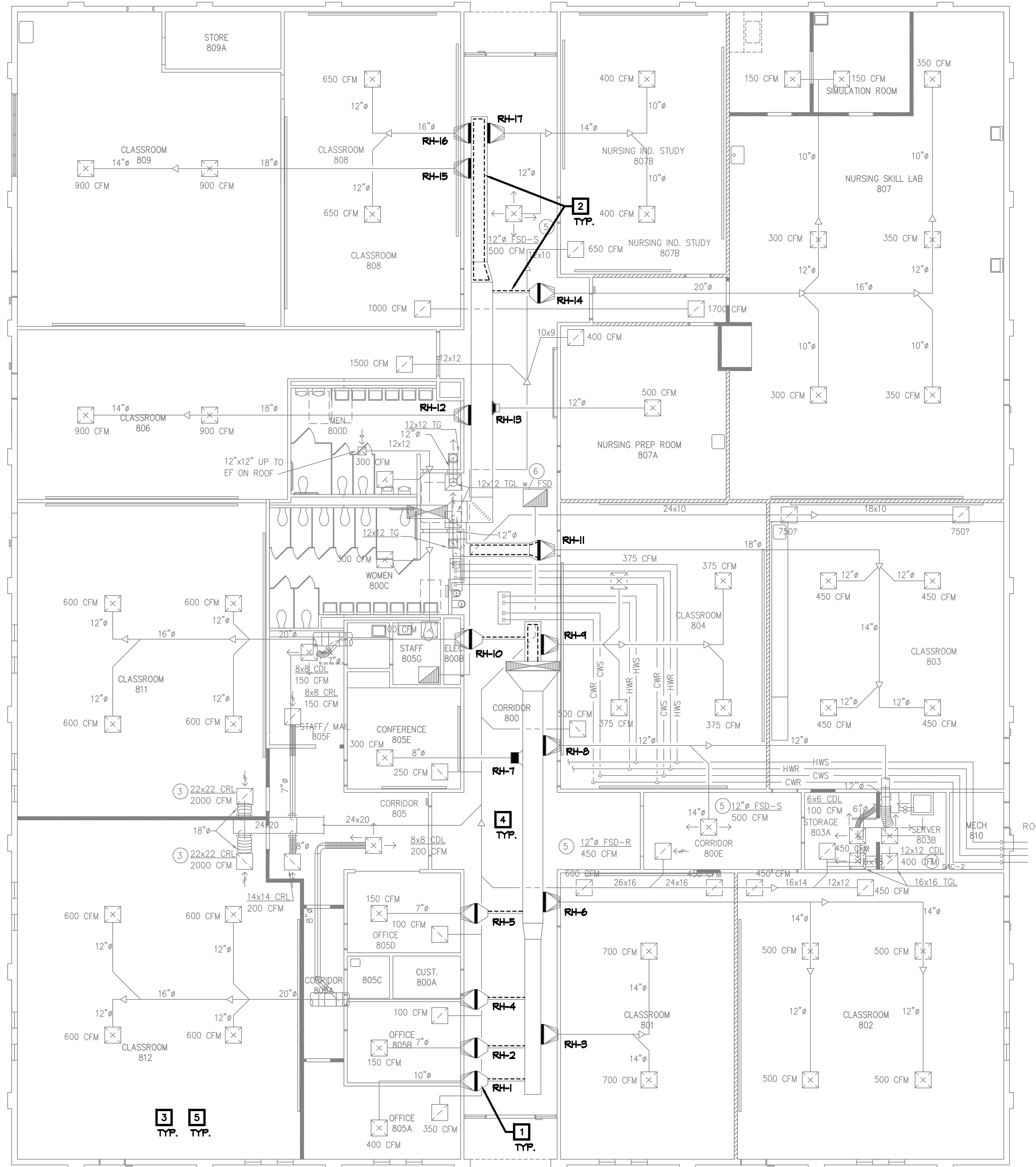
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| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4 SHEET BR-800-1-FP
 DATE 2/07/14

| EXISTING HEATING COIL SCHEDULE | | | | | | | | | |
|--------------------------------|-------|----------------|---------------------|----------|----------|----------------------|------------|-----------------|-----------|
| MARK | MODEL | AIR FLOW (CFM) | FACE AREA (SQ. FT.) | EAT (DB) | LAT (DB) | CAPACITY (MBH) SENS. | FLOW (GPM) | CONN. SIZE (IN) | REMARKS |
| RH 01 | | 400 | | 65 | 88 | 9.9 | 1 | | 1,2,3,4,5 |
| RH 02 | | 150 | | 65 | 77 | 1.9 | 0.2 | | 1,2,3,4,5 |
| RH 03 | | 1400 | | 65 | 80 | 22.7 | 2.3 | | 1,2,3,4,5 |
| RH 04 | | 2800 | | 65 | 84 | 53.4 | 5.4 | | 1,2,3,4,5 |
| RH 05 | | 150 | | 65 | 77 | 1.9 | 0.2 | | 1,2,3,4,5 |
| RH 06 | | 2000 | | 65 | 84 | 41.0 | 4.1 | | 1,2,3,4,5 |
| RH 07 | | 300 | | 65 | 77 | 3.9 | 0.4 | | 1,2,3,4,5 |
| RH 08 | | 1000 | | 65 | 77 | 13.0 | 1.3 | | 1,2,3,4,5 |
| RH 09 | | 1500 | | 65 | 78 | 21.1 | 2.1 | | 1,2,3,4,5 |
| RH 10 | | 2800 | | 65 | 82 | 47.7 | 4.8 | | 1,2,3,4,5 |
| RH 11 | | 1800 | | 65 | 80 | 29.2 | 2.9 | | 1,2,3,4,5 |
| RH 12 | | 1800 | | 65 | 80 | 29.2 | 2.9 | | 1,2,3,4,5 |
| RH 13 | | 500 | | 65 | 77 | 6.5 | 0.7 | | 1,2,3,4,5 |
| RH 14 | | 2000 | | 65 | 84 | 41.0 | 4.1 | | 1,2,3,4,5 |
| RH 15 | | 1800 | | 65 | 90 | 48.6 | 4.9 | | 1,2,3,4,5 |
| RH 16 | | 1300 | | 65 | 78 | 18.3 | 1.8 | | 1,2,3,4,5 |
| RH 17 | | 1300 | | 65 | 78 | 18.3 | 1.8 | | 1,2,3,4,5 |

REMARKS:
 1. REPLACE COIL
 2. WATER TEMPERATURE DROP 180F - 160F
 3. ALL NEW THERMOSTATS
 4. MAX FACE VELOCITY 600FFM
 5. MAX SP DROP 0.10 (IN WC)

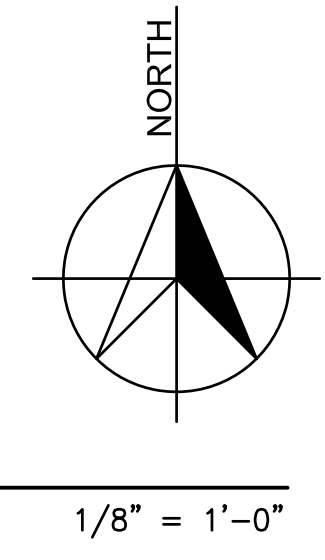
2 BLDG 800 - EXISTING REHEAT SCHEDULE



| # | SCOPE |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | REMOVE ALL EXISTING REHEAT COILS AND ASSOCIATED VALVES/PIPING/DUCTWORK AND INSTALL NEW VAV BOXES WITH NEW VALVES AND REHEAT COILS TO TURN CONSTANT VOLUME SYSTEM INTO A VAV SYSTEM. INTERFACE WITH EMS. |
| 2 | REPLACE EXISTING SUPPLY AIR DUCT BOARD UPSTREAM OF THE NEW VAV BOXES WITH GALVANIZED SHEET METAL. |
| 3 | PROVIDE NEW THERMOSTATS AT EXISTING LOCATIONS. INTERFACE WITH EMS. |
| 4 | REMOVE CEILINGS AS REQUIRED FOR REMOVAL AND REPLACEMENT OF HVAC COMPONENTS. PATCH AND REPAIR ANY FLOORS, WALLS AND CEILINGS THAT ARE DAMAGED AS A RESULT OF THIS WORK. FINISHED WORK SHOULD MATCH EXISTING IN STYLE AND COLOR. |
| 5 | REBALANCE HVAC SYSTEM. |

SEE SCHEDULE FOR ADDITIONAL INFORMATION

1 BLDG 800 - FLOOR PLAN



PLOT SCALE

LAST REVISION

PLOT SCALE

EXISTING AIR HANDLER UNIT SCHEDULE

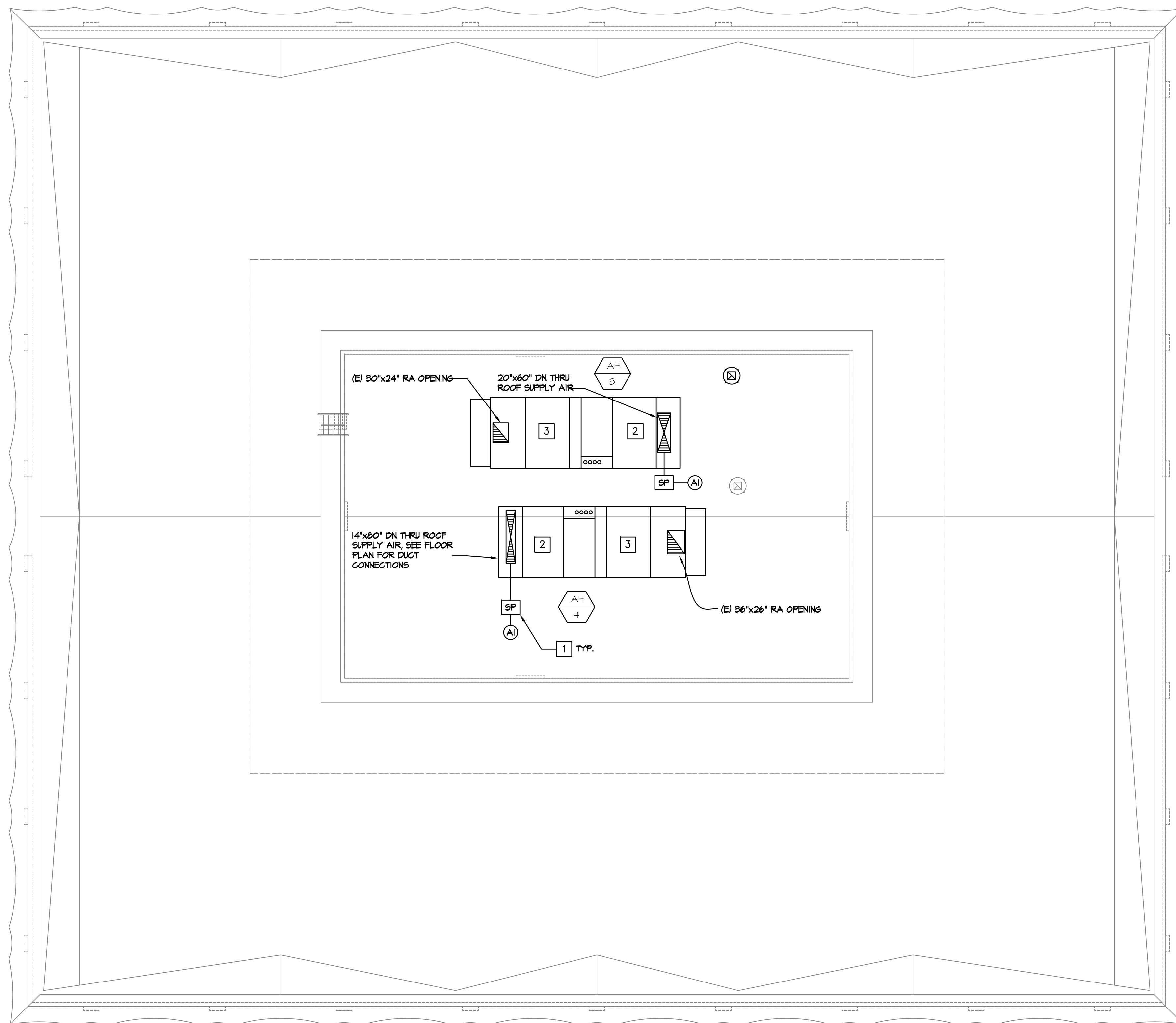
MANUFACTURER: GOVERNAIR

| MARK | SUPPLY FAN | | | | | | | | | RETURN FAN | | | | | | | CLG. COIL | HTG. COIL | OA CFM | FILTERS (30% ASHRAE PLEATED) | | WEIGHT (LBS.) | REMARKS |
|--------|----------------|--------|------------|-------------|------|-------------|------------|-------|--------------|------------|------------|------------|-----|-------------|------------|-------|-----------|-----------|--------|------------------------------|---------------|---------------|---------|
| | MODEL | CFM | TSP " W.C. | BHP HP | RPM | VOLTS-PH-Hz | WHEEL DIA. | CLASS | MODEL | CFM | TSP " W.C. | BHP HP | RPM | VOLTS-PH-Hz | WHEEL DIA. | CLASS | | | | NO. & SIZE (THROW AWAY) | AIR PD " W.C. | | |
| △ AH 1 | PFO2-33 NYB 12 | 12,100 | 4.11 | 11.34 15 | 1148 | 460/3 | 33.0 | II | FCO1-20 DWD1 | 10,000 | 1.92 | 5.4 7.5 | 696 | 460/3 | 20.0 | I | CC-2 | HC-2 | 2100 | 1 60h x 96w | 1.25 | 10,000 | 12 |
| △ AH 2 | PFO2-30 NYB 12 | 10,500 | 4.11 | 10.47 15 | 1300 | 460/3 | 30.0 | II | FCO1-18 DWD1 | 6,750 | 1.91 | 3.77 5 | 810 | 460/3 | 18.13 | I | CC-3 | HC-3 | 3750 | 1 60h x 96w | 1.25 | 9,200 | 12 |

1. PROVIDE DUCT SMOKE DETECTOR PER CMC 608.
2. DUCT SMOKE DETECTOR SUPPLIED BY ELECTRICAL CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR.

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2 BLDG 800 - EXISTING AHU SCHEDULE



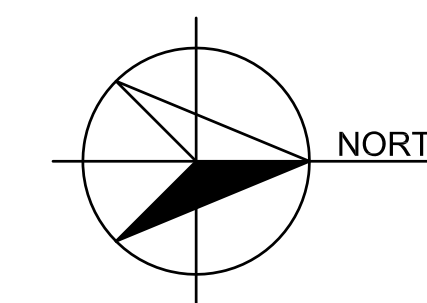
KEYNOTES:

SCOPE

- 1 NEW STATIC PRESSURE SENSOR TO CONTROL EXISTING SUPPLY VFD.
- 2 EXISTING VFDS ON EXISTING 15 HP SUPPLY FAN MOTORS. CONTROL THROUGH MODIFIED EMS.
- 3 EXISTING VFD ON EXISTING 7.5 HP AND 5 HP RETURN FAN MOTOR. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.

SEE SCHEDULE FOR ADDITIONAL INFORMATION

1 BLDG 800 - ROOF PLAN



1/8" = 1'-0"

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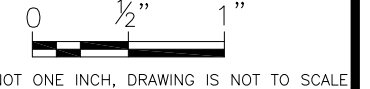
NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

MECHANICAL ROOF
PLAN & SCHEDULE
- BUILDING 800

SCALE: AS SHOWN



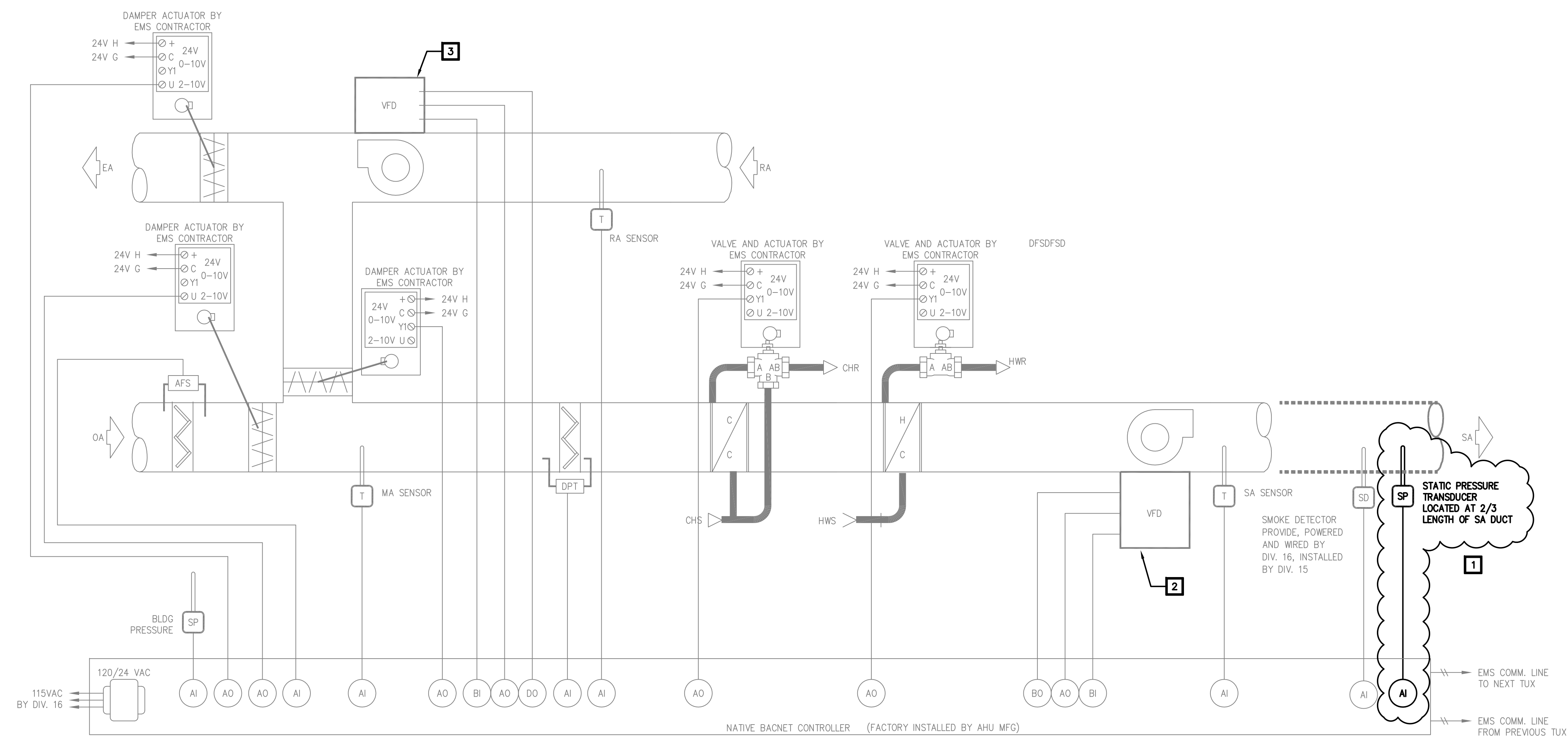
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| JOB NO. 3060E4 | SHEET BR-800-2-RP |
| DATE 2/07/14 | |

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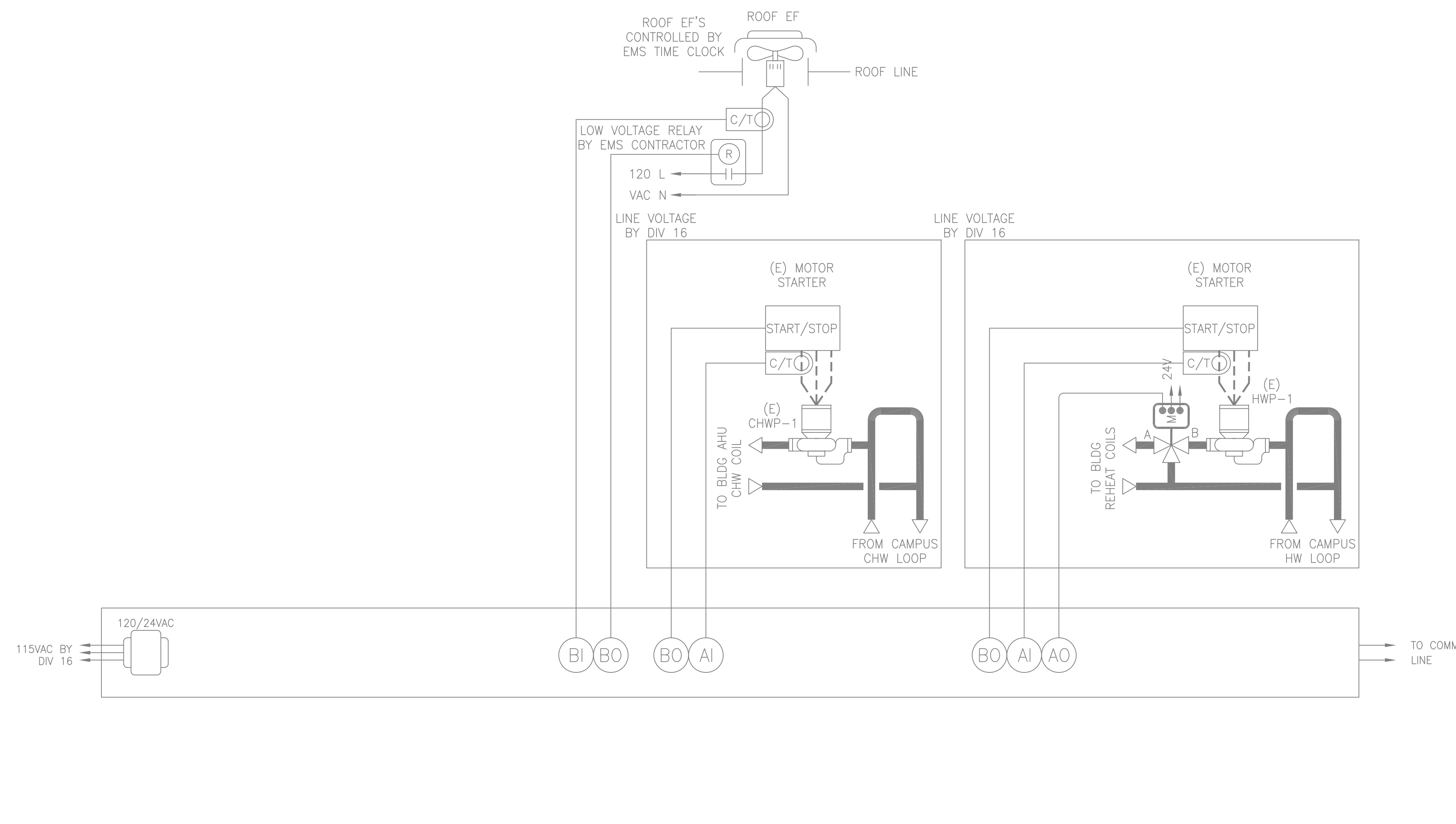
PLOT SCALE



1 BLDG 800 - EXISTING HVAC CONTROL DIAGRAM (AH-1 AND AH-2)

NTS

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2 VFD CONTROL DIAGRAM

NTS



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| # | SCOPE |
|---|-------------------------------------------------------------------------------------------------------------------|
| 1 | NEW STATIC PRESSURE SENSOR TO CONTROL EXISTING SUPPLY VFD. |
| 2 | EXISTING VFD ON EXISTING 25 HP SUPPLY FAN MOTOR. CONTROL THROUGH MODIFIED EMS. |
| 3 | EXISTING VFD ON EXISTING 10 HP RETURN FAN MOTOR. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS. |

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BUILDING:

SHEET TITLE:

HVAC CONTROLS
DIAGRAM -
BUILDING 800

SCALE: AS SHOWN 0 1/2" = 1'
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

REVISIONS

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JOB NO.

3060E4

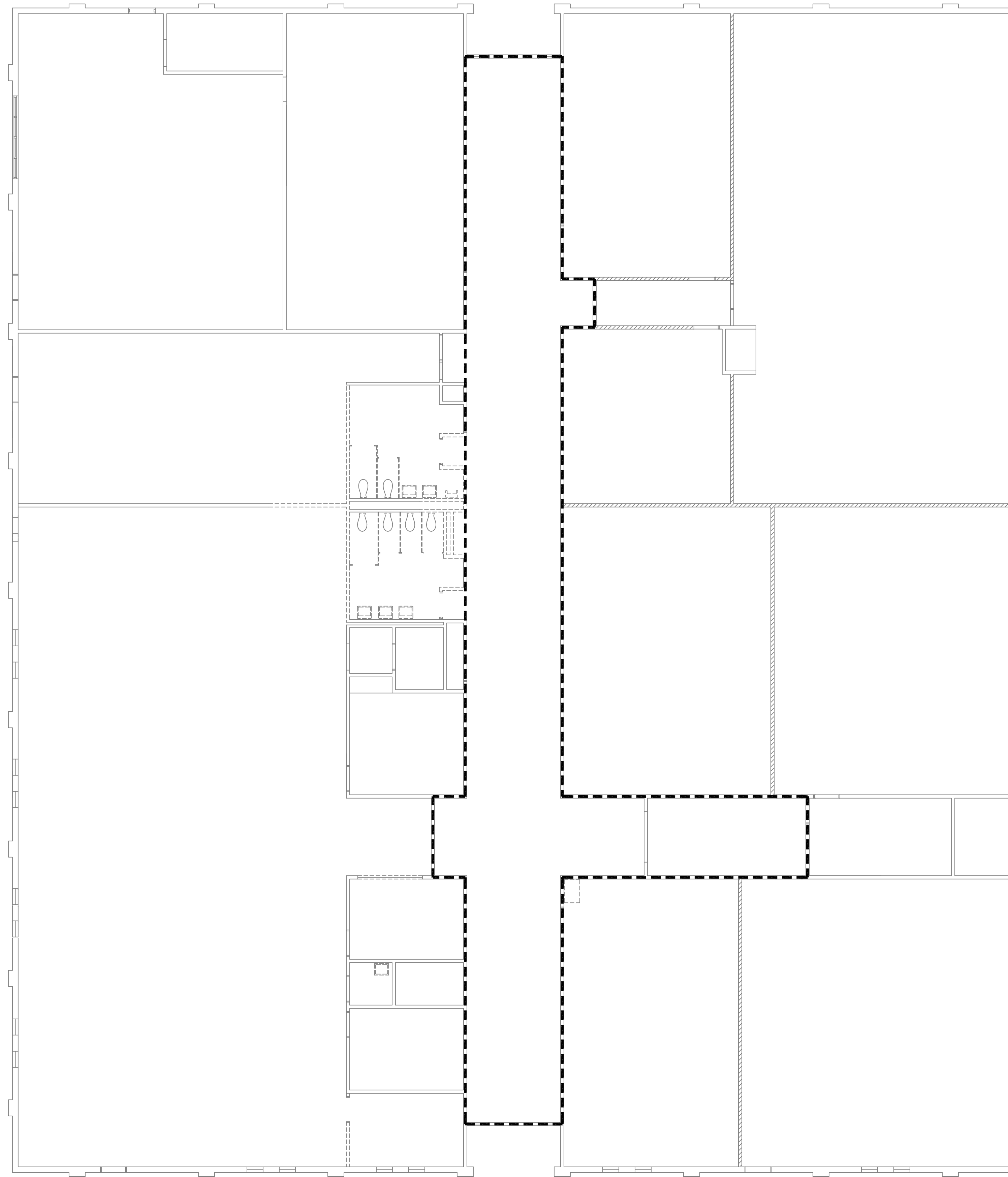
SHEET

BR-800-3-SC

DATE

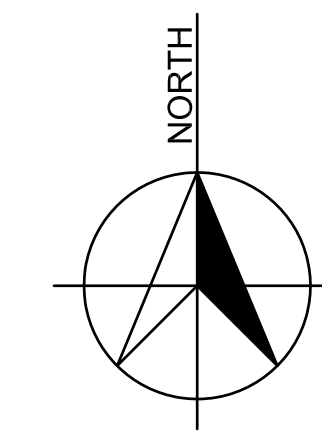
2/07/14

PLOT SCALE:



LEGEND:

----- EXISTING 1 HOUR FIRE RATED WALLS & CEILINGS.



1 BLDG 800 - FIRE RATED WALLS & CEILINGS

1/8" = 1'-0"

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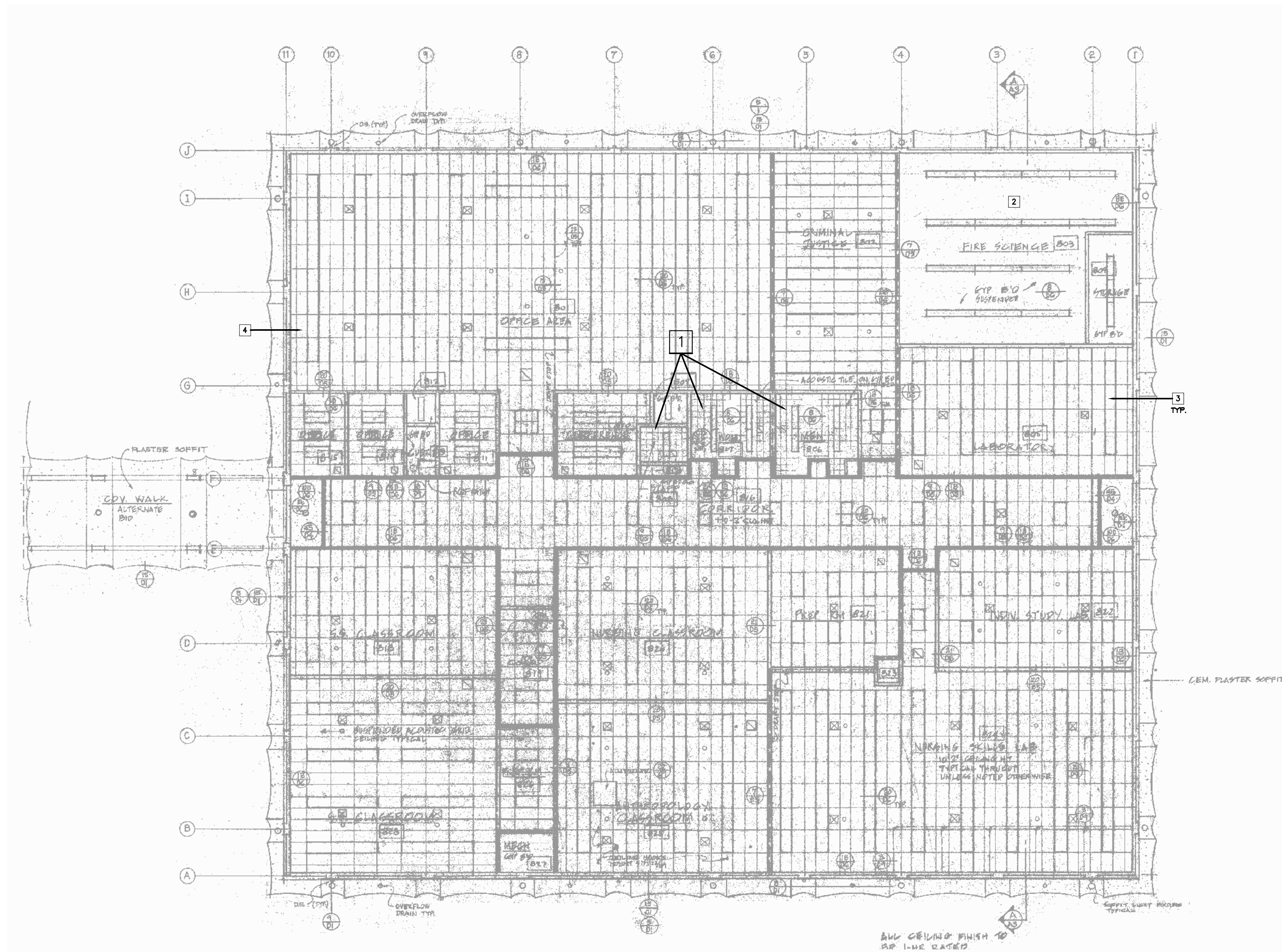
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NOT FOR CONSTRUCTION
 BUILDING:

SHEET TITLE:
 FIRE RATED WALLS
 & CEILINGS PLAN -
 BUILDING 800
 SCALE: AS SHOWN
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

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| JOB NO. 3060E4 | SHEET BR-800-4-FRW |
| DATE 2/07/14 | |

LAST REVISION:



KEYNOTES:

| # | SCOPE |
|---|-------------------------------------------|
| 1 | ACOUSTIC TILE ON GYP BOARD |
| 2 | SUSPENDED GYP BOARD |
| 3 | 2X4 SUSPENDED CEILING |
| 4 | FOR WALL CHANGES IN THIS AREA BR-800-1-FP |

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RFF/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

REFLECTED CEILING
PLAN - BUILDING
800

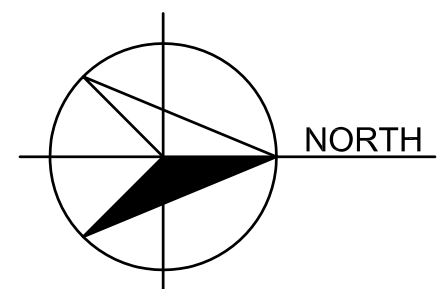
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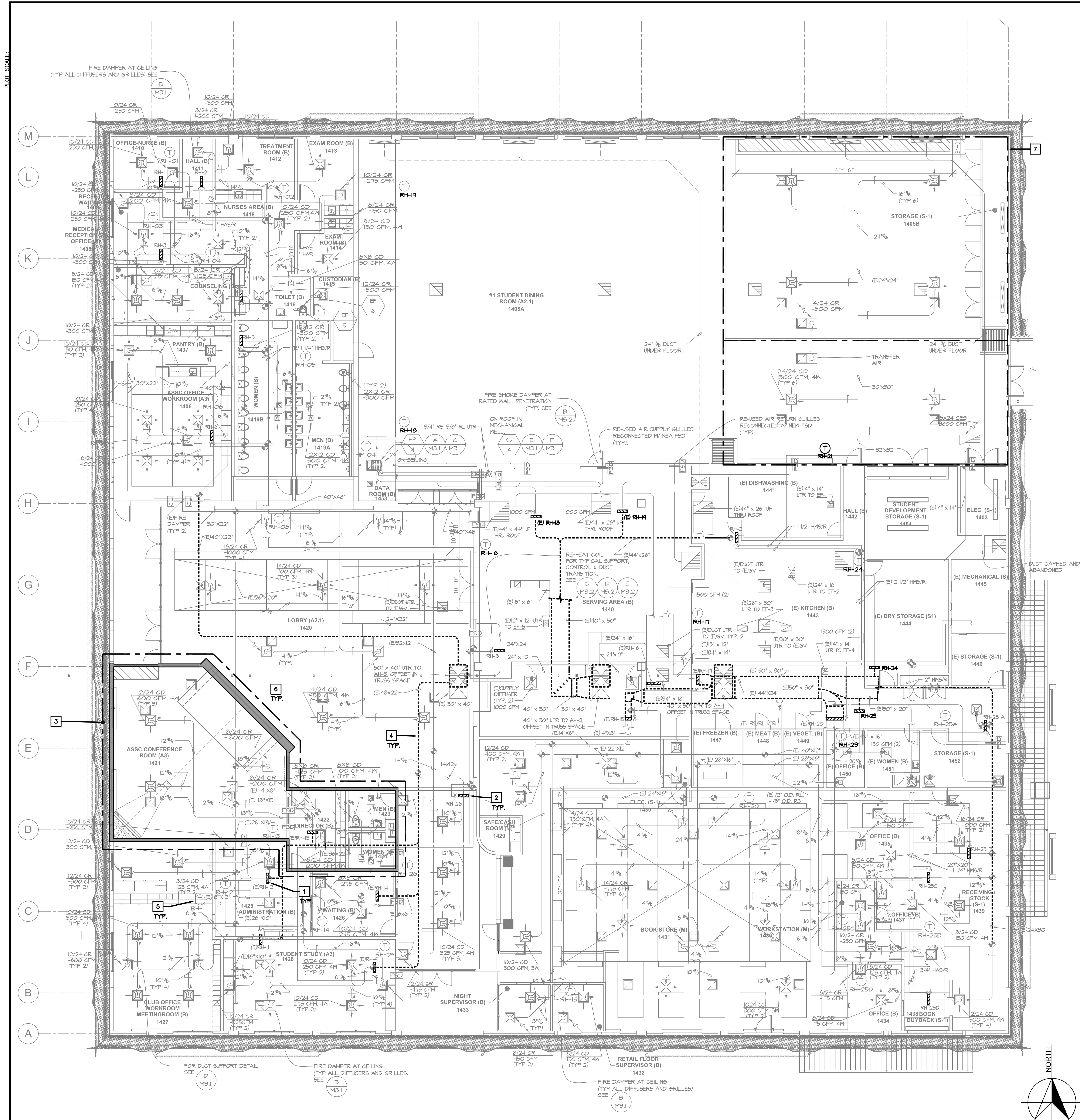
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| JOB NO. 3060E4 | SHEET BR-800-5-RCP |
| DATE 2/07/14 | |

1 BLDG 800 - REFLECTED CEILING PLAN



1/8" = 1'-0"



EXISTING HEATING COIL SCHEDULE

| MARK | MODEL | AIR FLOW (CFM) | FACE AREA (SQ. FT.) | EAT (WB/DB) | LAT (WB/DB) | CAPACITY (MBH) SENS. | FLOW (GPM) | CONN. SIZE (IN) | REMARKS |
|--------|--------------------------------------|----------------|---------------------|-------------|-------------|----------------------|------------|-----------------|---------------|
| RH 01 | Z10-A1-A12-12 HEATING COIL | 250 | 1.0 | 60 | 90 | 9.08 | 0.8 | | 2, 3, 4, 5, 6 |
| RH 02 | Z10-A1-A15-18 HEATING COIL | 775 | 1.88 | 60 | 91.5 | 26.4 | 2.5 | | 2, 3, 4, 5, 6 |
| RH 03 | Z8-A2-A12-12 HEATING COIL | 550 | 1.0 | 60 | 90 | 23.4 | 2.0 | | 2, 3, 4, 5, 6 |
| RH 04 | Z10-A1-A15-18 HEATING COIL | 825 | 1.88 | 60 | 90 | 27.2 | 2.5 | | 2, 3, 4, 5, 6 |
| RH 05 | Z10-A1-A18-18 HEATING COIL | 1000 | 2.25 | 60 | 90.3 | 32.8 | 2.8 | | 2, 3, 4, 5, 6 |
| RH 06 | Z10-A1-A18-18 HEATING COIL | 1000 | 2.25 | 60 | 90.3 | 32.8 | 2.8 | | 2, 3, 4, 5, 6 |
| RH 07 | REMOVED | | | | | | | | |
| RH 08 | SWC-6-31.5 X31.5X1-10AL HEATING COIL | 4000 | 6.89 | 60 | 90 | 132.4 | 10.1 | | 2, 3, 4, 5, 6 |
| RH 09 | REPLACE | 1125 | 3 | 60 | 95 | 42.5 | 2.8 | 1 | 1, 2, 3, 4, 5 |
| RH 10 | REMOVED | | | | | | | | |
| RH 11 | REPLACE | 1600 | 3 | 60 | 90 | 52 | 3.5 | 1 | 1, 2, 3, 4, 5 |
| RH 12 | REPLACE | 700 | 1.5 | 60 | 85 | 19 | 1.3 | 3/4 | 1, 2, 3, 4, 5 |
| RH 13 | REPLACE | 3000 | 6 | 60 | 90 | 100 | 6.7 | 1 1/4 | 1, 2, 3, 4, 5 |
| RH 14 | REPLACE | 600 | 1.2 | 60 | 98 | 26 | 1.7 | 3/4 | 1, 2, 3, 4, 5 |
| RH 15 | REPLACE | 575 | 1.13 | 60 | 85 | 15.5 | 1.1 | 3/4 | 1, 2, 3, 4, 5 |
| RH 16 | REPLACE | 4000 | 7 | 60 | 85 | 108 | 7.2 | 1 1/4 | 1, 2, 3, 4, 5 |
| RH 17 | REPLACE | 3000 | 6 | 60 | 85 | 81 | 5.4 | 1 1/4 | 1, 2, 3, 4, 5 |
| RH 18 | REPLACE | 5700 | 10 | 60 | 85 | 154 | 10.3 | 2 1/2 | 1, 2, 3, 4, 5 |
| RH 19 | REPLACE | 5175 | 8.75 | 60 | 89 | 162 | 10.8 | 2 1/2 | 1, 2, 3, 4, 5 |
| RH 20 | REPLACE | 5550 | 10 | 60 | 86 | 156 | 10.4 | 2 1/2 | 1, 2, 3, 4, 5 |
| RH 21 | SWC-6-43.5 X44X2-6AL HEATING COIL | 9100 | 13.29 | 60 | 97.2 | 366.7 | 25.2 | 1 1/4 | 2, 3, 4, 5, 6 |
| RH 22 | REPLACE | 300 | 0.75 | 60 | 85 | 8.1 | 0.6 | 3/4 | 1, 2, 3, 4, 5 |
| RH 23 | REPLACE | 3000 | 6 | 60 | 95 | 114 | 5.4 | 1 1/4 | 1, 2, 3, 4, 5 |
| RH 24 | REPLACE | 3000 | 6 | 60 | 95 | 114 | 5.4 | 1 1/4 | 1, 2, 3, 4, 5 |
| RH 25A | Z8-A2-A12-12 HEATING COIL | 600 | 1.0 | 60 | 103.5 | 28.3 | 6.6 | | 2, 3, 4, 5, 6 |
| RH 25B | SWC-6-22.5 X22X2-6AL HEATING COIL | 2000 | 3.44 | 60 | 98.8 | 84.1 | 5.5 | | 2, 3, 4, 5, 6 |
| RH 25C | Z8-A2-A12-12 HEATING COIL | 550 | 1.0 | 60 | 105.4 | 27 | 2.3 | | 2, 3, 4, 5, 6 |
| RH 25D | Z10-A1-A12-12 HEATING COIL | 175 | 1.0 | 60 | 105.4 | 8.6 | 1.5 | | 2, 3, 4, 5, 6 |
| RH 26 | Z10-A1-A18-18 HEATING COIL | 1000 | 2.25 | 60 | 90.3 | 32.8 | 2.8 | | 2, 3, 4, 5, 6 |

REMARKS:
 1. REPLACE COIL
 2. WATER TEMPERATURE DROP 180F - 150F
 3. ALL NEW THERMOSTATS
 4. MAX FACE VELOCITY 600FPM
 5. MAX SP DROP 0.10 (IN WG)
 6. REUSE EXISTING COIL

2 BLDG 1400 - EXISTING REHEAT SCHEDULE

KEYNOTES:

| # | SCOPE |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | REMOVE OLD REHEAT COILS 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 23, 24 AND ASSOCIATED VALVES/PIPING/DUCTWORK AND INSTALL NEW VAV BOXES WITH NEW VALVES AND REHEAT COILS TO CHANGE CONSTANT VOLUME SYSTEM TO VAV. INTERFACE WITH EMS. |
| 2 | INSTALL NEW VAV BOXES AT REHEAT COILS 1, 2, 3, 4, 5, 6, 8, 21, 25A, 25B, 25C, 25D, & 26 TO REMAIN. MODIFY PIPING/DUCTWORK AS NECESSARY TO INSTALL NEW BOXES. INTERFACE WITH EMS. |
| 3 | REDESIGN HVAC IN THIS AREA SO THAT THE CONFERENCE ROOM, DIRECTORS OFFICE AND RESTROOMS HAVE THEIR OWN VAV BOXES, REHEAT COILS AND THERMOSTATS. MODIFY DUCTWORK AND PIPING ACCORDINGLY. |
| 4 | REPLACE EXISTING SUPPLY AIR DUCT BOARD UPSTREAM OF THE NEW VAV BOXES WITH GALVANIZED SHEET METAL. |
| 5 | PROVIDE NEW THERMOSTATS AT EXISTING LOCATIONS. INTERFACE WITH EMS. |
| 6 | REMOVE CEILINGS AS REQUIRED FOR REMOVAL AND REPLACEMENT OF HVAC COMPONENTS. PATCH AND REPAIR ANY FLOORS, WALLS AND CEILINGS THAT ARE DAMAGED AS A RESULT OF THIS WORK. FINISHED WORK SHOULD MATCH EXISTING IN STYLE AND COLOR. |
| 7 | REDESIGN THIS AREA SO THAT THERE ARE 2 ZONES, 1 EACH EITHER SIDE OF THE FOLDING WALL. |

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 BRIDGING DOCUMENTS
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 4000 SUSUN VALLEY ROAD
 FAIRFIELD, CA 94534

RFI/O DOCUMENTS
NOT FOR CONSTRUCTION
 BUILDING:

SHEET TITLE:
MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 1400
 SCALE: AS SHOWN

REVISIONS

| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4
 DATE 2/07/14
 SHEET BR-1400-1-PP

1 BLDG 1400 - FLOOR PLAN

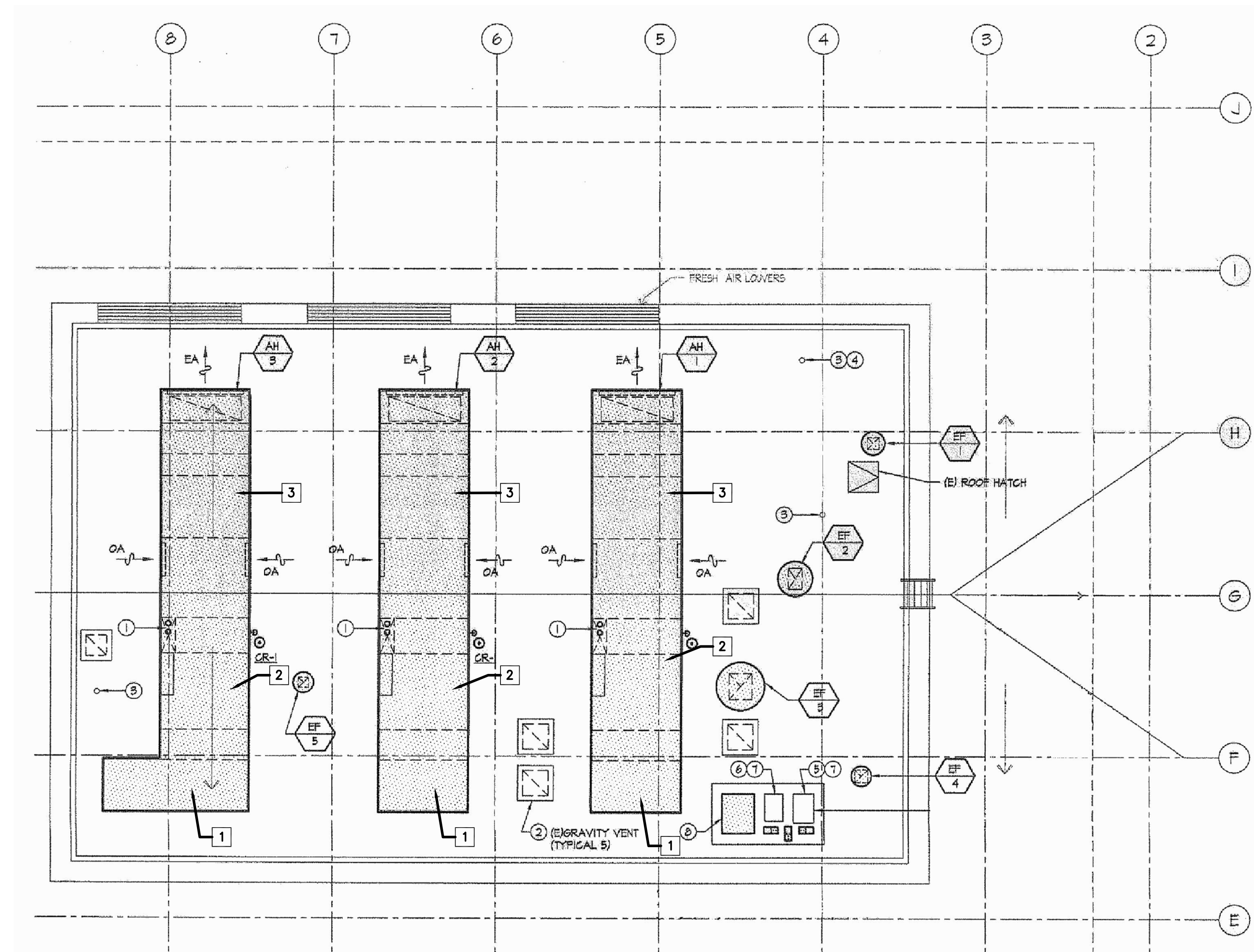
1/8" = 1'-0"

EXISTING AIR HANDLER UNIT SCHEDULE

MANUFACTURER: GOVERNAIR

| MARK | SUPPLY FAN | | | | | | | | RETURN FAN | | | | | | | | CLG. COIL | HTG. COIL | OA CFM | FILTERS (30% ASHRAE PLEATED) | | WEIGHT (LBS) | REMARKS |
|------|-----------------|-------|------------|----------|------|-------------|------------|-------|-----------------|-------|------------|------------|-----|-------------|------------|-------|-----------|-----------|--------|------------------------------|-----------------------|--------------|------------|
| | MODEL | CFM | TSP " W.C. | BHP HP | RPM | VOLTS-PH-Hz | WHEEL DIA. | CLASS | MODEL | CFM | TSP " W.C. | BHP HP | RPM | VOLTS-PH-Hz | WHEEL DIA. | CLASS | | | | NO. & SIZE (THROW AWAY) | INITIAL AIR PD " W.C. | | |
| AH 1 | PF-40 SWSI PLUG | 21000 | 2.75 | 17 20 | 1103 | 460-3Φ-60 | 40.25 | II | PF-36 SWSI PLUG | 9275 | 1.5 | 3.7 1.5 | 661 | 460-3Φ-60 | 36.5 | II | CC-1 | HC-1 | 11275 | (12) 24" x 24" x 2" | 0.15 | 22000 | BLDG. 1400 |
| AH 2 | PF-40 SWSI PLUG | 20000 | 3.75 | 18 25 | 1093 | 460-3Φ-60 | 40.25 | II | PF-30 SWSI PLUG | 1000 | 1.5 | 2.75 5 | 760 | 460-3Φ-60 | 30 | II | CC-2 | HC-2 | 13000 | (12) 24" x 24" x 2" | 0.15 | 22000 | BLDG. 1400 |
| AH 3 | PF-40 SWSI PLUG | 20350 | 3.0 | 14 20 | 1093 | 460-3Φ-60 | 40.25 | II | PF-44 SWSI PLUG | 17000 | 1.5 | 6.6 10 | 584 | 460-3Φ-60 | 44.5 | II | CC-3 | - | 3350 | (12) 24" x 24" x 2" | 0.15 | 22000 | BLDG. 1400 |

2 BLDG 1400 - EXISTING AHU SCHEDULE



KEYNOTES:

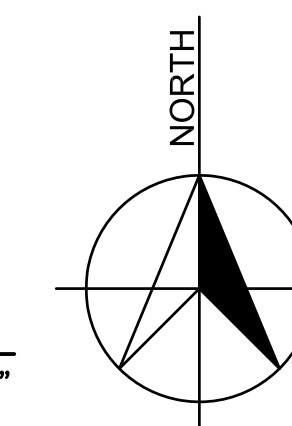
SCOPE

- 1 NEW STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
- 2 NEW VFD ON (3) EXISTING SUPPLY FAN MOTORS (20 HP, 25HP, 20 HP). CONTROL THROUGH MODIFIED EMS.
- 3 NEW VFD ON (3) EXISTING RETURN FAN MOTORS (7.5 HP, 5 HP, 10 HP). CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.

SEE SCHEDULE FOR ADDITIONAL INFORMATION

1 BLDG 1400 - ROOF PLAN

1/8" = 1'-0"



Capital Expenditure Managers
2750 Gateway Oaks Drive
Suite 300
Sacramento, CA 95833
(916) 648-9700

SOLANO COMMUNITY COLLEGE
HVAC AND EMS EFFICIENCY PROJECT IMPLEMENTATION
BRIDGING DOCUMENTS

SOLANO COMMUNITY COLLEGE
4000 SUISUN VALLEY ROAD
FAIRFIELD, CA 94634

RFP/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

MECHANICAL ROOF
PLAN & SCHEDULE -
BUILDING 1400

SCALE: AS SHOWN

REVISIONS

| NO. | DATE | NO. | DATE |
|-----|------|-----|------|
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JOB NO.

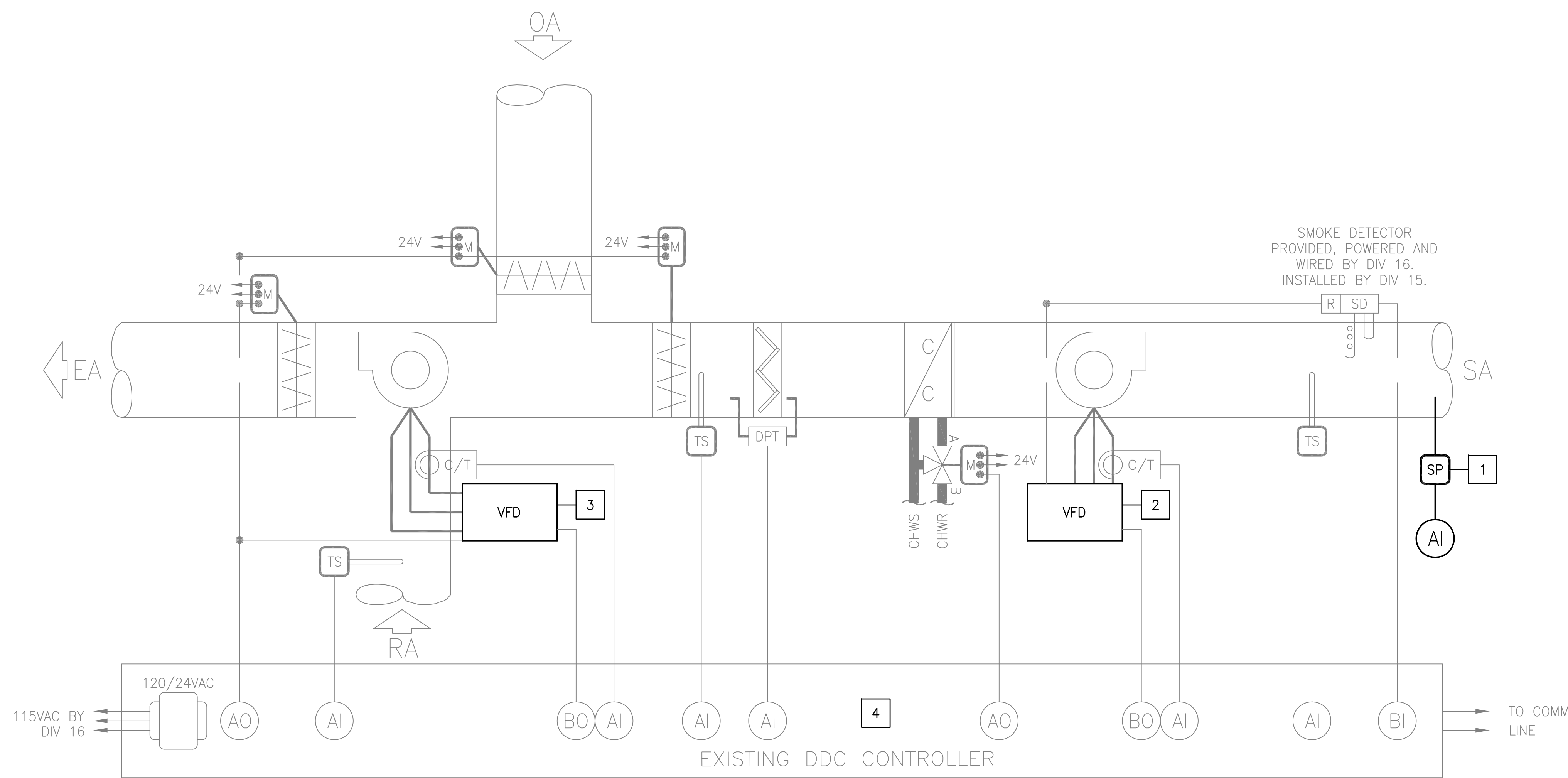
3060E4

SHEET

BR-1400-2-RP

DATE

2/07/14

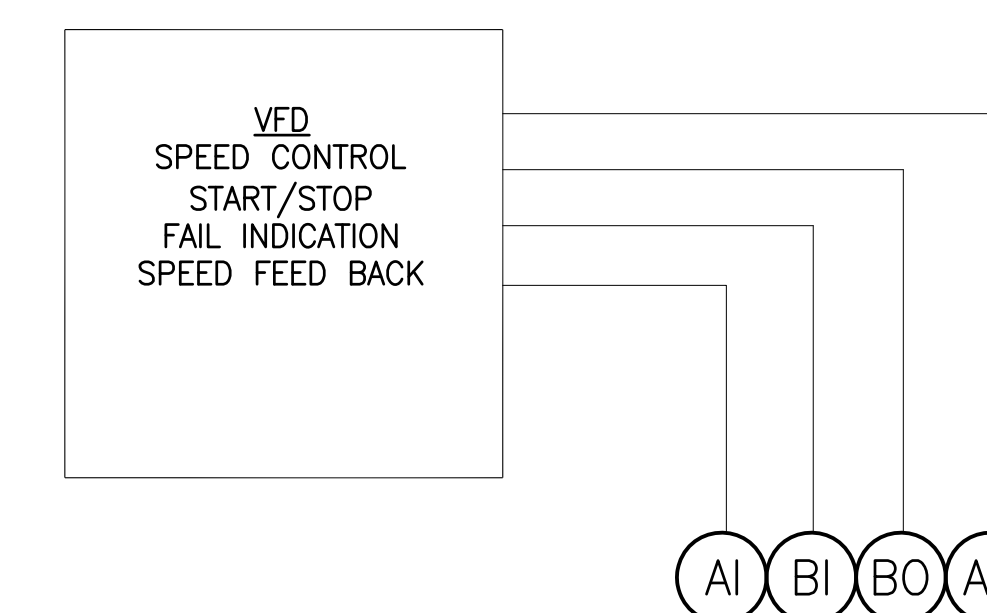


1 BLDG 1400 - EXISTING HVAC CONTROL DIAGRAM (AH3)

NTS

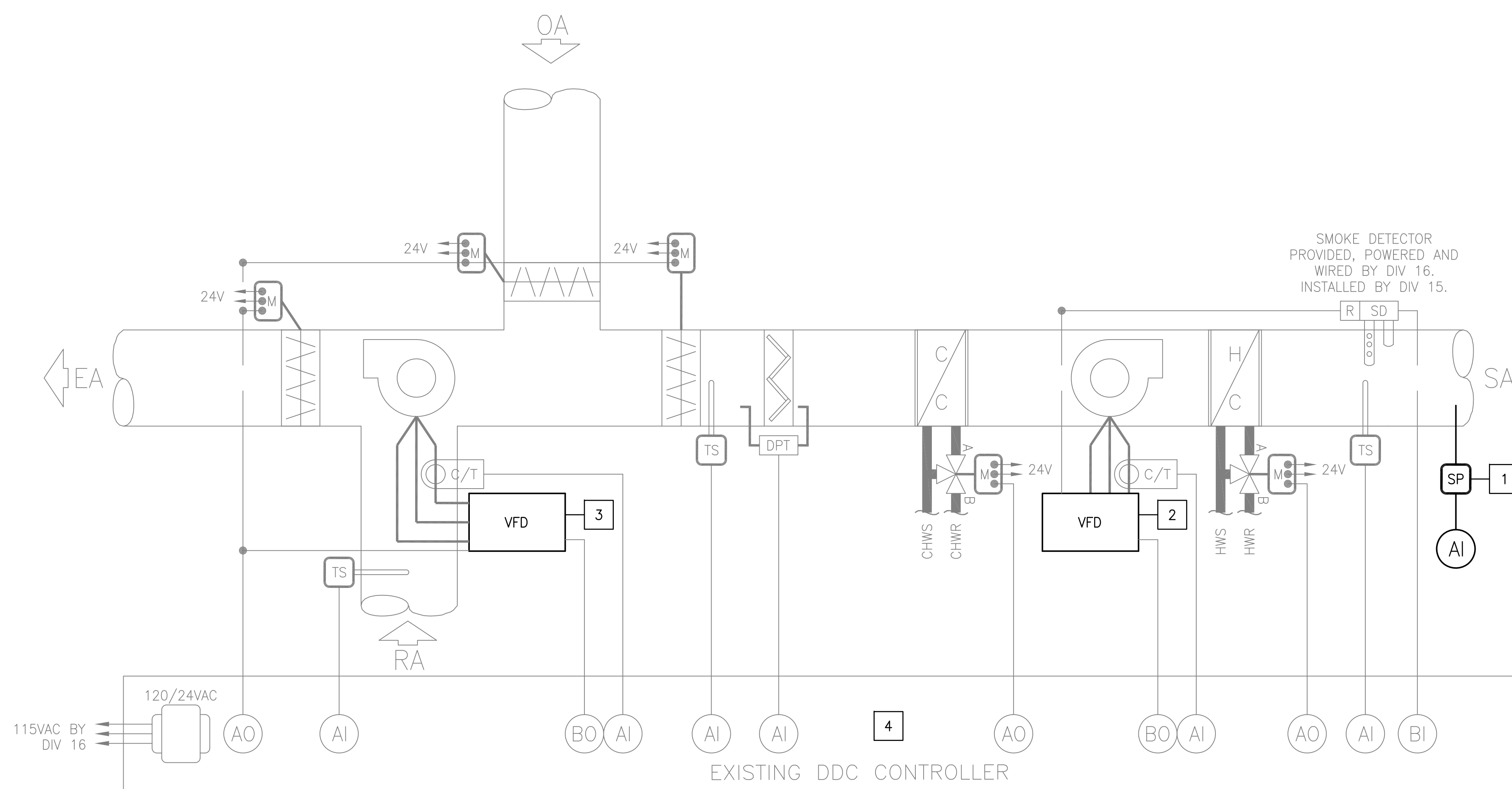
KEYNOTES:

- # SCOPE
 - 1 NEW STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
 - 2 NEW VFD ON (3) EXISTING SUPPLY FAN MOTORS (20 HP, 25HP, 20 HP). CONTROL THROUGH MODIFIED EMS.
 - 3 NEW VFD ON (3) EXISTING RETURN FAN MOTORS (7.5 HP, 5 HP, 10 HP). CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION



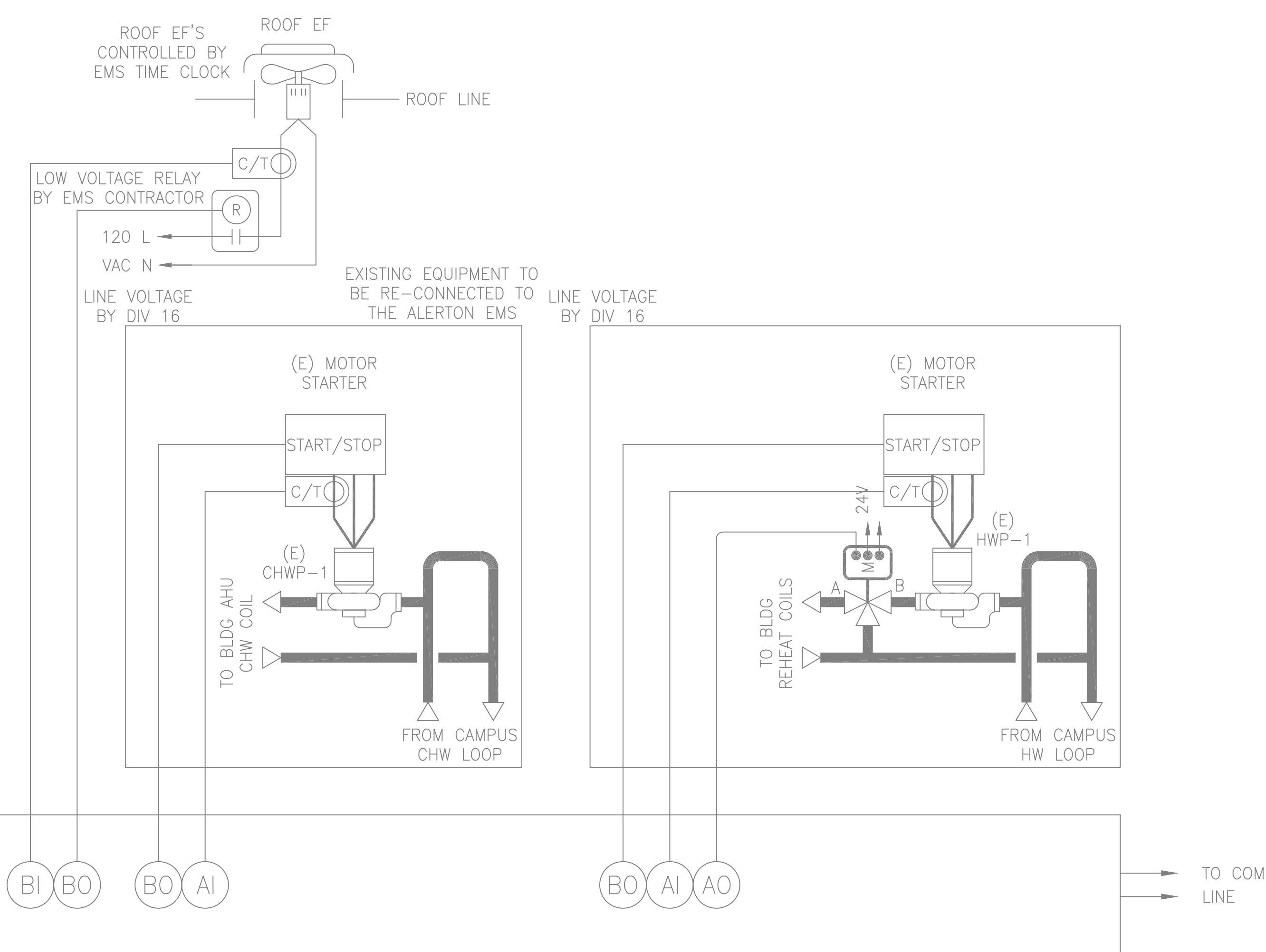
3 VFD CONTROL DIAGRAM

NTS



2 BLDG 1400 - EXISTING HVAC CONTROL DIAGRAM (AH1&AH2)

NTS



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RFF/O DOCUMENTS

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SHEET TITLE:
HVAC CONTROLS
DIAGRAM - BUILDING
1400

SCALE: AS SHOWN

REVISIONS

| NO. | DATE | NO. | DATE |
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JOB NO.
3060E4
DATE
2/07/14
SHEET
BR-1400-3-SC

PLOT SCALE



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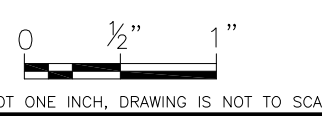
RFP/O DOCUMENTS

NOT FOR CONSTRUCTION

SHEET TITLE:

FIRE RATED WALLS
& CEILINGS PLAN -
BUILDING 1400

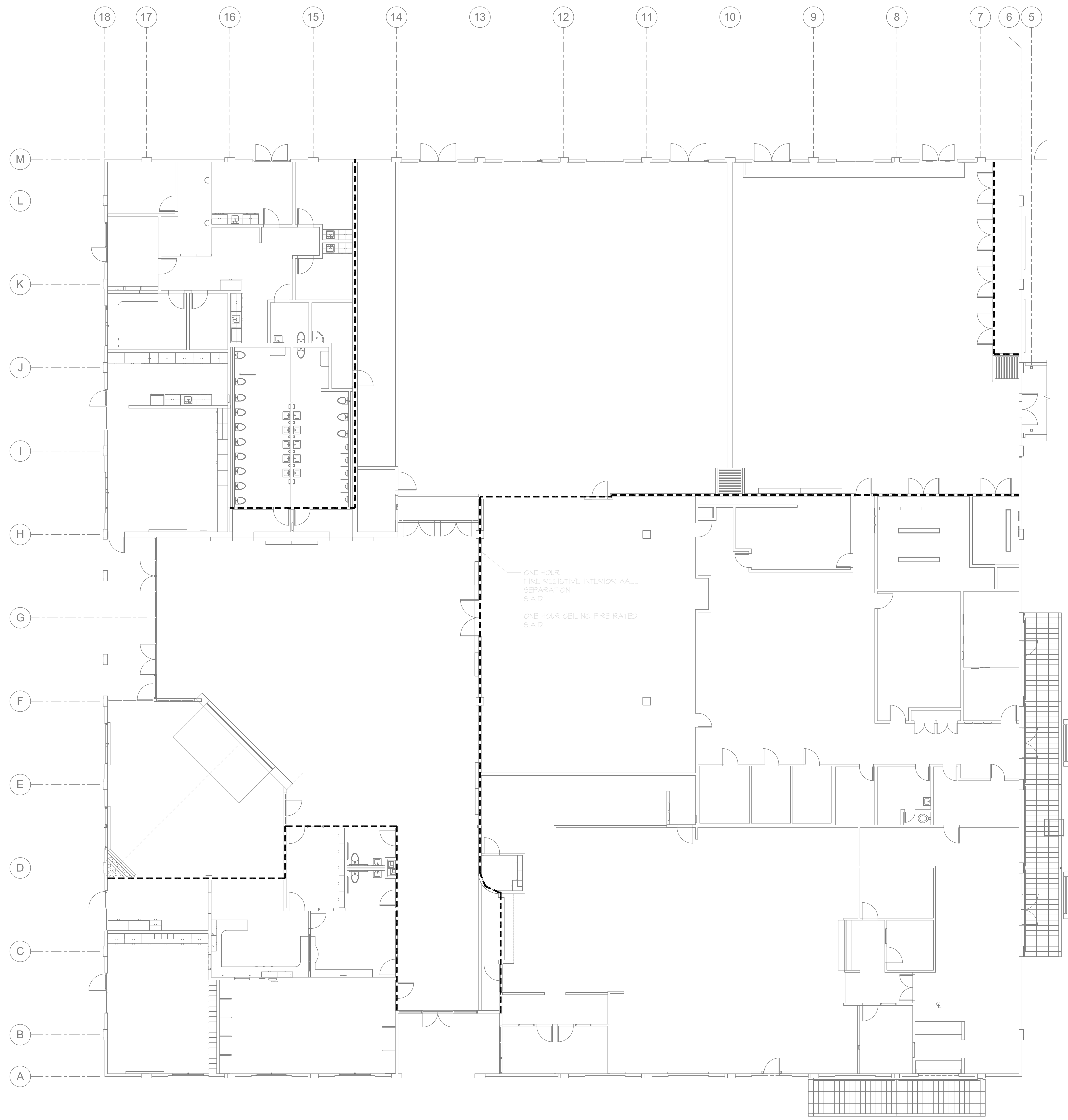
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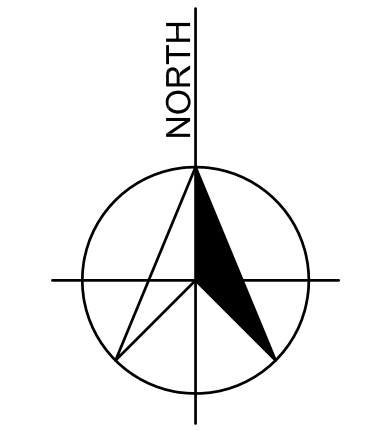
REVISIONS

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| JOB NO. 3060E4 | SHEET BR-1400-4-FRW |
| DATE 2/07/14 | |



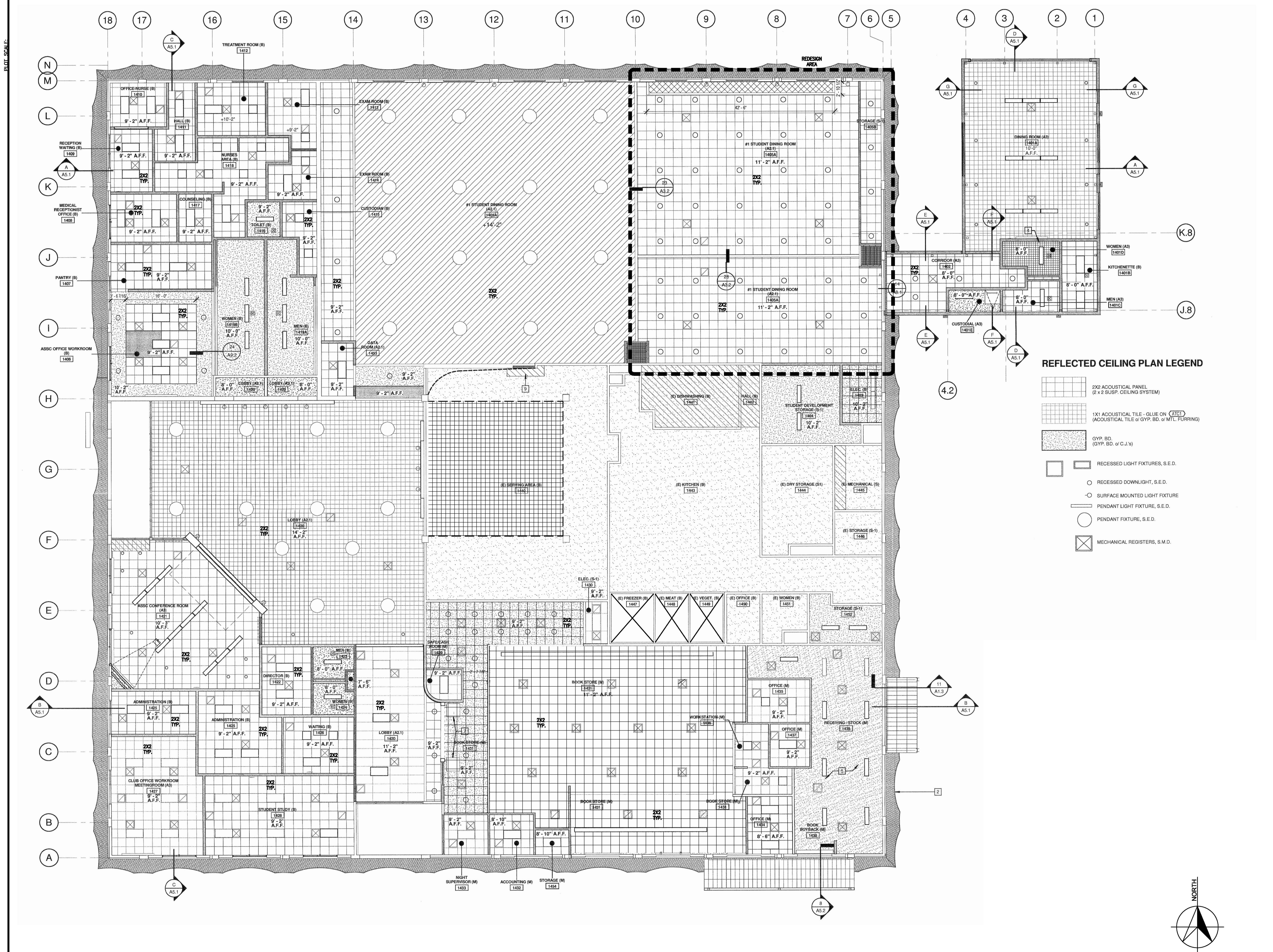
LEGEND:
- - - - - EXISTING 1 HOUR FIRE RATED WALLS & CEILINGS.



1/8" = 1'-0"

1 BLDG 1400 - FIRE RATED WALLS & CEILINGS

LAST REVISION:



REFLECTED CEILING PLAN LEGEND

- 2X2 ACOUSTICAL PANEL (2 x 2 SUSP. CEILING SYSTEM)
- 1X1 ACOUSTICAL TILE - GLUE ON (ATCT) (ACOUSTICAL TILE or GYP. BD. or MTL. FURRING)
- GYP. BD. (GYP. BD. or C.J.'s)
- RECESSED LIGHT FIXTURES, S.E.D.
- RECESSED DOWNLIGHT, S.E.D.
- SURFACE MOUNTED LIGHT FIXTURE
- PENDANT LIGHT FIXTURE, S.E.D.
- PENDANT FIXTURE, S.E.D.
- MECHANICAL REGISTERS, S.M.D.

1 BLDG 1400 - REFLECTED CEILING PLAN

1/8" = 1'-0"

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 FAIRFIELD, CA 94534

RFP/O DOCUMENTS

NOT FOR CONSTRUCTION

SHEET TITLE:
REFLECTED CEILING PLAN - BUILDING 1400

SCALE: AS SHOWN

REVISIONS

| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4 SHEET BR-1400-5-RCP
DATE 2/07/14

RFF/O DOCUMENTS

NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

**MECHANICAL FLOOR
PLAN & REHEAT
SCHEDULE - BUILDING
1500**

SCALE: AS SHOWN

REVISIONS

| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4 SHEET BR-1500-1-PP
DATE 2/07/14

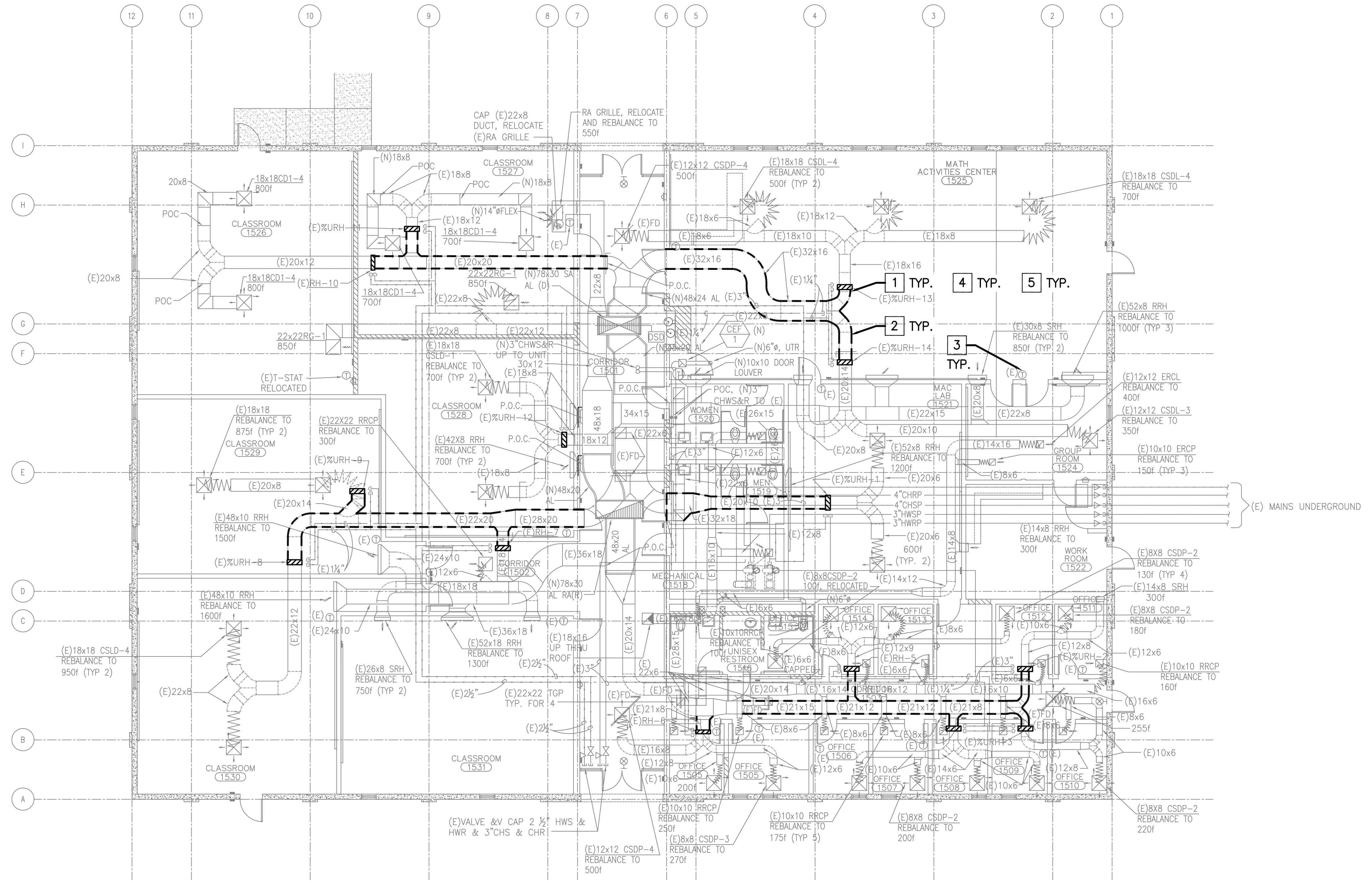
EXISTING HEATING COIL SCHEDULE

| MARK | MODEL | AIR FLOW (CFM) | FACE AREA (SQ. FT.) | EAT (DB) | LAT (DB) | CAPACITY (MBH) SENS. | FLOW (GPM) | CONN. SIZE (IN) | REMARKS |
|-------|-------|----------------|---------------------|----------|----------|----------------------|------------|-----------------|-----------|
| RH-01 | | 1200 | 2 | 60 | 85 | 32.40 | 2.2 | 1 | 1,2,3,4,5 |
| RH-02 | | 480 | 1.5 | 60 | 105 | 23.3 | 1.6 | 1 | 1,2,3,4,5 |
| RH-03 | | 475 | 1.5 | 60 | 100 | 20.8 | 1.4 | 1 | 1,2,3,4,5 |
| RH-04 | | 800 | 2 | 60 | 95 | 29.8 | 2 | 1 | 1,2,3,4,5 |
| RH-05 | | 520 | 1.13 | 60 | 85 | 14 | 1 | 3/4 | 1,2,3,4,5 |
| RH-06 | | 970 | 2 | 60 | 96 | 37.8 | 2.5 | 1 | 1,2,3,4,5 |
| RH-07 | | 1500 | 3 | 60 | 90 | 47 | 3.2 | 1 | 1,2,3,4,5 |
| RH-08 | | 1900 | 3.75 | 60 | 90 | 59.5 | 4 | 1 | 1,2,3,4,5 |
| RH-09 | | 1750 | 3.75 | 60 | 86 | 49 | 3.3 | 1 | 1,2,3,4,5 |
| RH-10 | | 1600 | 3 | 60 | 90 | 50 | 3.4 | 1 | 1,2,3,4,5 |
| RH-11 | | 1400 | 3 | 60 | 95 | 53 | 3.5 | 1 | 1,2,3,4,5 |
| RH-12 | | 1400 | 3 | 60 | 85 | 37.8 | 2.5 | 1 | 1,2,3,4,5 |
| RH-13 | | 2200 | 5 | 60 | 90 | 71.5 | 4.8 | 1-1/4 | 1,2,3,4,5 |
| RH-14 | | 2050 | 3.75 | 60 | 85 | 55 | 3.7 | 1 | 1,2,3,4,5 |

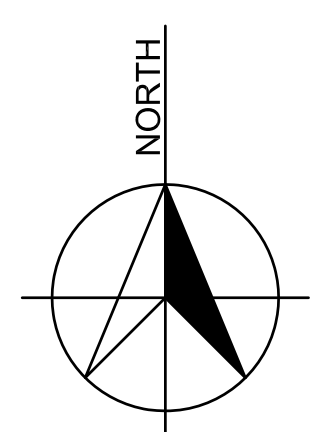
REMARKS:
1. REPLACE COIL
2. WATER TEMPERATURE DROP 180F - 150F
3. ALL NEW THERMOSTATS
4. MAX FACE VELOCITY 600FFM
5. MAX SP DROP 0.10 (IN. WC)

2 BLDG 1500 - EXISTING REHEAT SCHEDULE

1 BLDG 1500 - FLOOR PLAN



- KEYNOTES:**
- # SCOPE
 - 1 REMOVE ALL EXISTING REHEAT COILS AND ASSOCIATED VALVES/PIPING/DUCTWORK AND INSTALL NEW VAV BOXES WITH NEW VALVES AND REHEAT COILS TO TURN CONSTANT VOLUME SYSTEM INTO A VAV SYSTEM. INTERFACE WITH EMS.
 - 2 REPLACE EXISTING SUPPLY AIR DUCT BOARD UPSTREAM OF THE NEW VAV BOXES WITH GALVANIZED SHEET METAL.
 - 3 PROVIDE NEW THERMOSTATS AT EXISTING LOCATIONS. INTERFACE WITH EMS.
 - 4 REMOVE CEILINGS AS REQUIRED FOR REMOVAL AND REPLACEMENT OF HVAC COMPONENTS. PATCH AND REPAIR ANY FLOORS, WALLS AND CEILINGS THAT ARE DAMAGED AS A RESULT OF THIS WORK. FINISHED WORK SHOULD MATCH EXISTING IN STYLE AND COLOR.
 - 5 REBALANCE HVAC SYSTEM.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION



1/8" = 1'-0"

PLOT SCALE

LAST REVISION

PLOT SCALE:

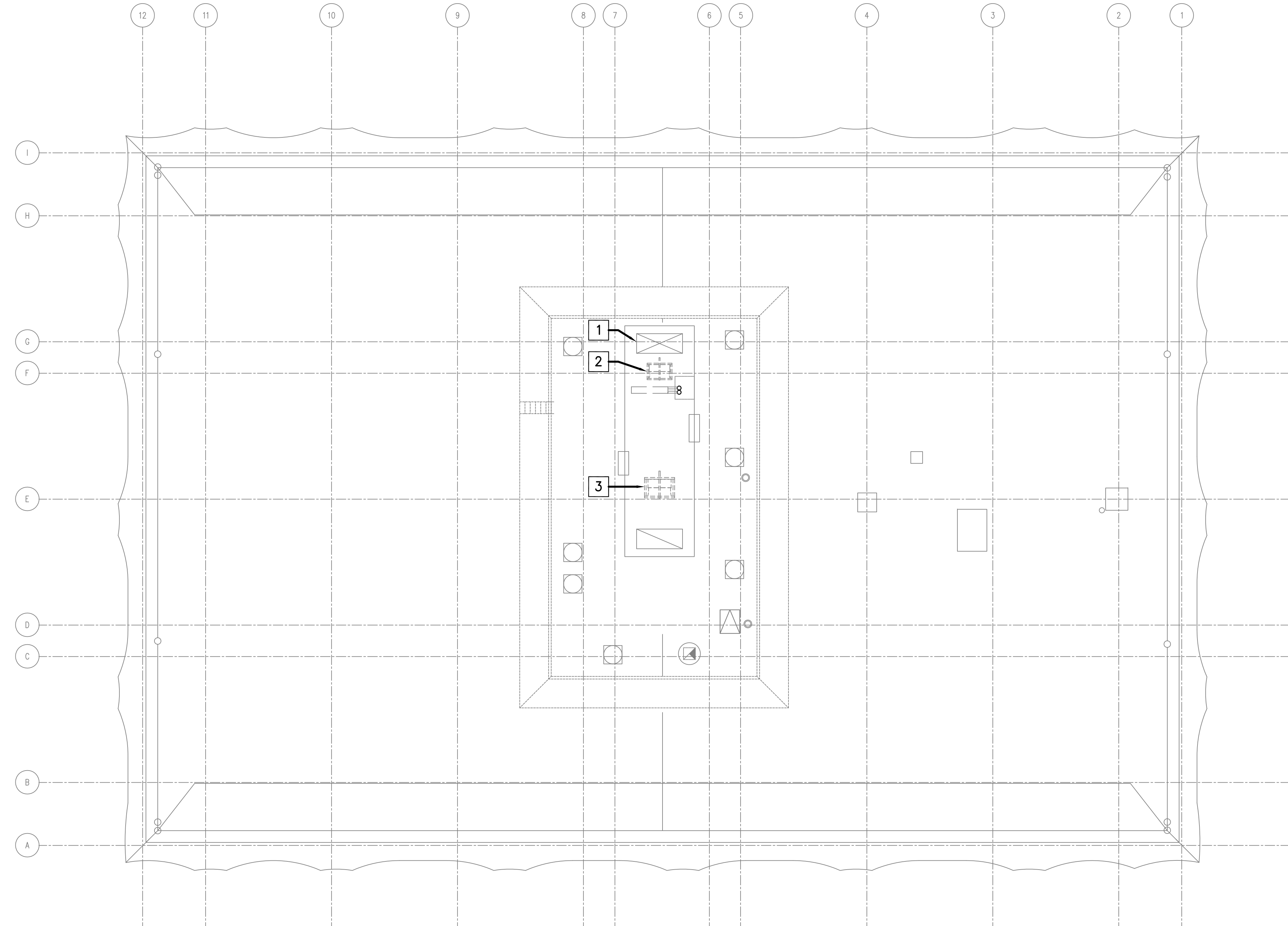
EXISTING AIR HANDLING UNIT SCHEDULE

| SYMBOL | MANUFACTURER | MODEL | COOLING CAPACITY | | | | AIR ENT. COIL | | | | AIR LVS. COIL | | | | COOLING COIL | | | | SUPPLY FAN | | | | RETURN FAN | | | | ELECTRICAL | | | OUTSIDE AIR CFM | OPERATING WEIGHT LBS. | FILTER EFFICIENCY | | | | |
|------------|--------------|------------|------------------|----------|------|------|---------------|------|----------|-----|---------------|-----|-------|-----|--------------|-------------|----------|-------|-------------|-------------|------|--------|------------|-----|--------|------|------------|------|-------|-----------------|-----------------------|-------------------|--------------|------|----------------------|--------------------------|
| | | | TOTAL | SENSIBLE | DB°F | WB°F | DB°F | WB°F | SIZE HxW | EMT | LWT | GPM | ROWS | FPI | WPD (FT) | APD (IN WG) | TCV TYPE | CFM | TSP (IN WG) | ESP (IN WG) | TYPE | BHP | HP | CFM | ESP | TYPE | BHP | HP | VOLTS | | | | PH | HZ | CONTROL/LIGHTS VOLTS | |
| ▲ AHU 1500 | YORK | XTO-66X102 | 597,840 | 565,000 | 82.5 | 62.0 | 52.9 | 50.5 | 33x80 | (2) | 45F | 55F | 99.50 | 6 | 8 | 10.96 | 0.34 | 3 WAY | 17,160 | 4.3 | 2.5 | PLENUM | 19.63 | 25 | 17,160 | 1.80 | PLENUM | 8.28 | 10.0 | 460 | 3 | 60 | 120V/1ø/60HZ | 4930 | 10,800 | 40% (16) 24x24x4 FILTERS |

PROVIDE:
 A. ROOF CURB
 B. SINGLE POINT ELECTRICAL CONNECTION
 C. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
 D. PER CMC 509 PROVIDE DUCT SMOKE DETECTOR FOR AUTOMATIC SHUT DOWN OF UNIT UPON DETECTION OF SMOKE - CONNECTED TO FIRE ALARM SYSTEM.

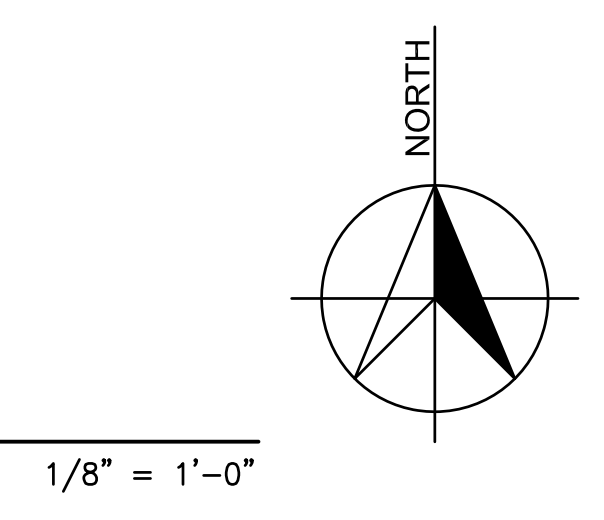
KITCHELL
 Capital Expenditure Managers
 2750 Gateway Oaks Drive
 Suite 300
 Sacramento, CA 95833
 (916) 648-9700

2 BLDG 1500 – EXISTING AHU SCHEDULE



- KEYNOTES:**
- # SCOPE
 - 1 INSTALL STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
 - 2 INSTALL NEW VFD ON EXISTING 25 HP SUPPLY FAN MOTOR. MODIFY POWER SUPPLY AS REQUIRED. INTERFACE WITH EMS.
 - 3 INSTALL NEW VFD ON EXISTING 10 HP RETURN FAN MOTOR. MODIFY POWER SUPPLY AS REQUIRED. INTERFACE WITH EMS. CONTROL OF RETURN FAN VFD TO TRACK SUPPLY VFD.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION

1 BLDG 1500 – ROOF PLAN



1/8" = 1'-0"

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 FAIRFIELD, CA 94634

RFF/O DOCUMENTS
NOT FOR CONSTRUCTION
 BUILDING:

SHEET TITLE:
 MECHANICAL ROOF
 PLAN & SCHEDULE –
 BUILDING 1500
 SCALE: AS SHOWN

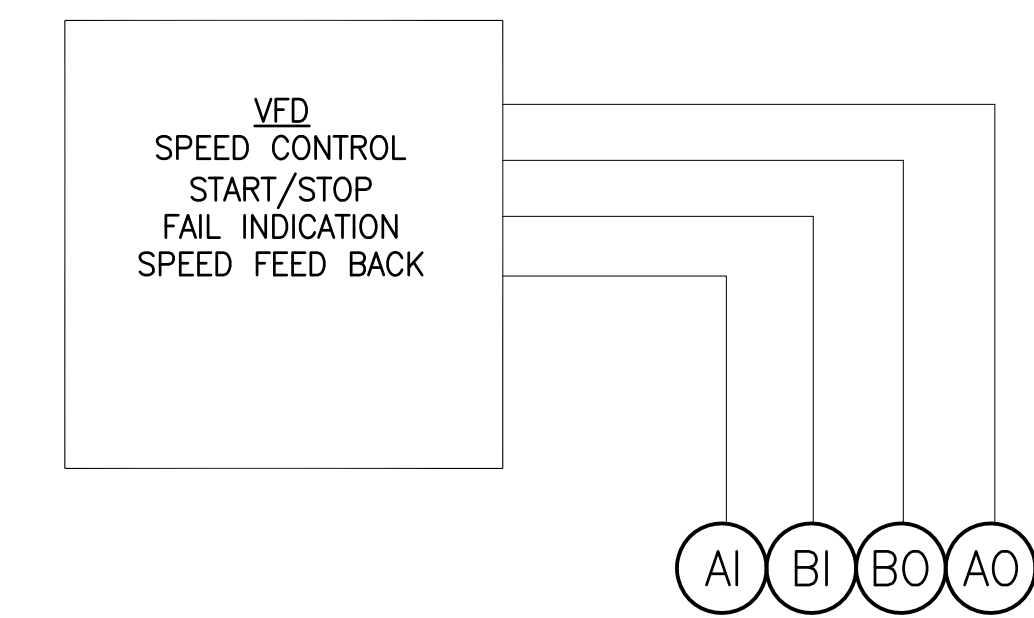
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JOB NO. 3060E4 SHEET BR-1500-2-RP
 DATE 2/07/14

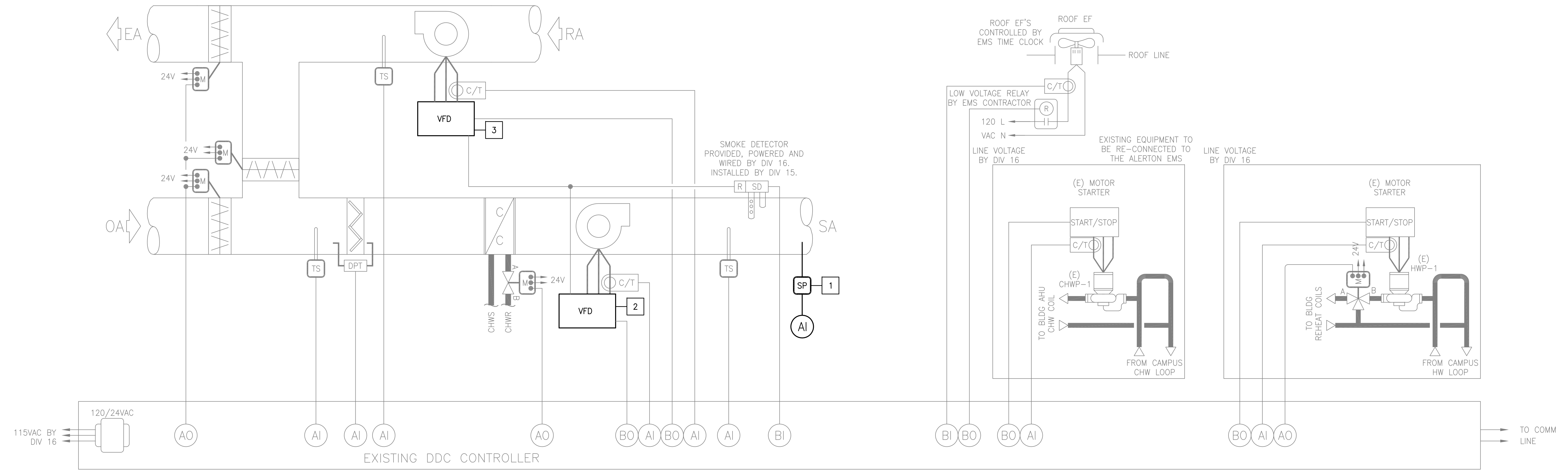
LAST REVISION:

KEYNOTES:

- # SCOPE
- 1 NEW STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
- 2 NEW VFD ON EXISTING 25 HP SUPPLY FAN MOTOR. CONTROL THROUGH MODIFIED EMS.
- 3 NEW VFD ON EXISTING 10 HP RETURN FAN MOTOR. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.



2 VFD CONTROL DIAGRAM NTS



1 BLDG 1500 - EXISTING HVAC CONTROL DIAGRAM NTS

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FAIRFIELD, CA 94534

RFF/O DOCUMENTS

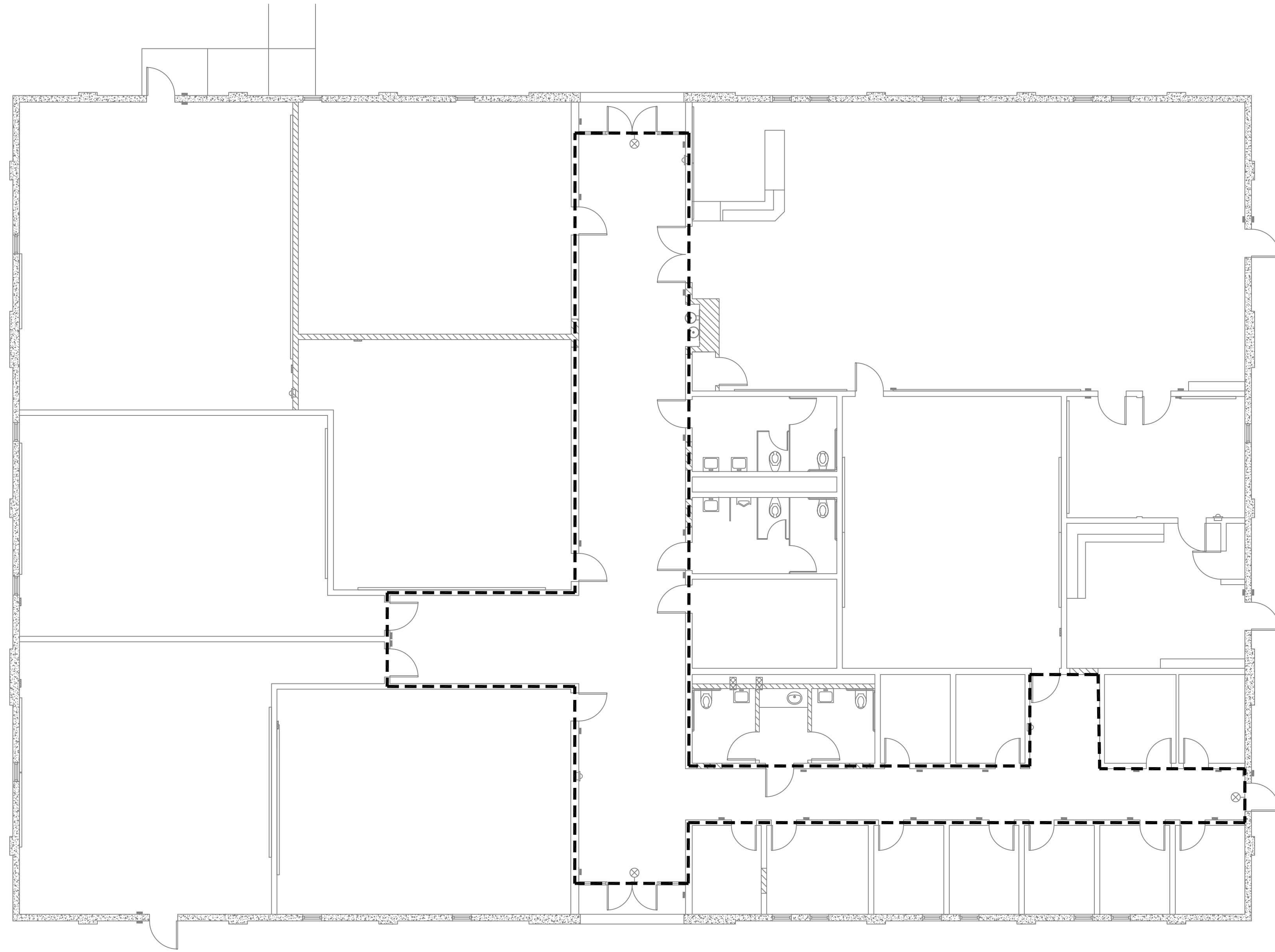
NOT FOR CONSTRUCTION
BUILDING:

SHEET TITLE:
HVAC CONTROLS
DIAGRAM - BUILDING
1500
SCALE: AS SHOWN

| REVISIONS | | | |
|-----------|------|-----|------|
| NO. | DATE | NO. | DATE |
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|-------------------|-----------------------|
| JOB NO. 3060E4 | SHEET BR-1500-3-SC |
| DATE 2/07/14 | |

PLOT SCALE

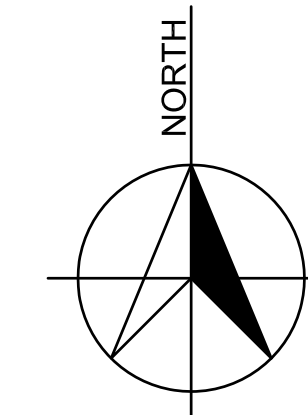


LEGEND:

----- EXISTING 1 HOUR FIRE RATED WALLS & CEILINGS.

1 BLDG 1500 - FIRE RATED WALLS & CEILINGS

1/8" = 1'-0"



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RFP/O DOCUMENTS
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 BUILDING:

SHEET TITLE:
 FIRE RATED WALLS &
 CEILINGS PLAN -
 BUILDING 1500

SCALE: AS SHOWN
IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

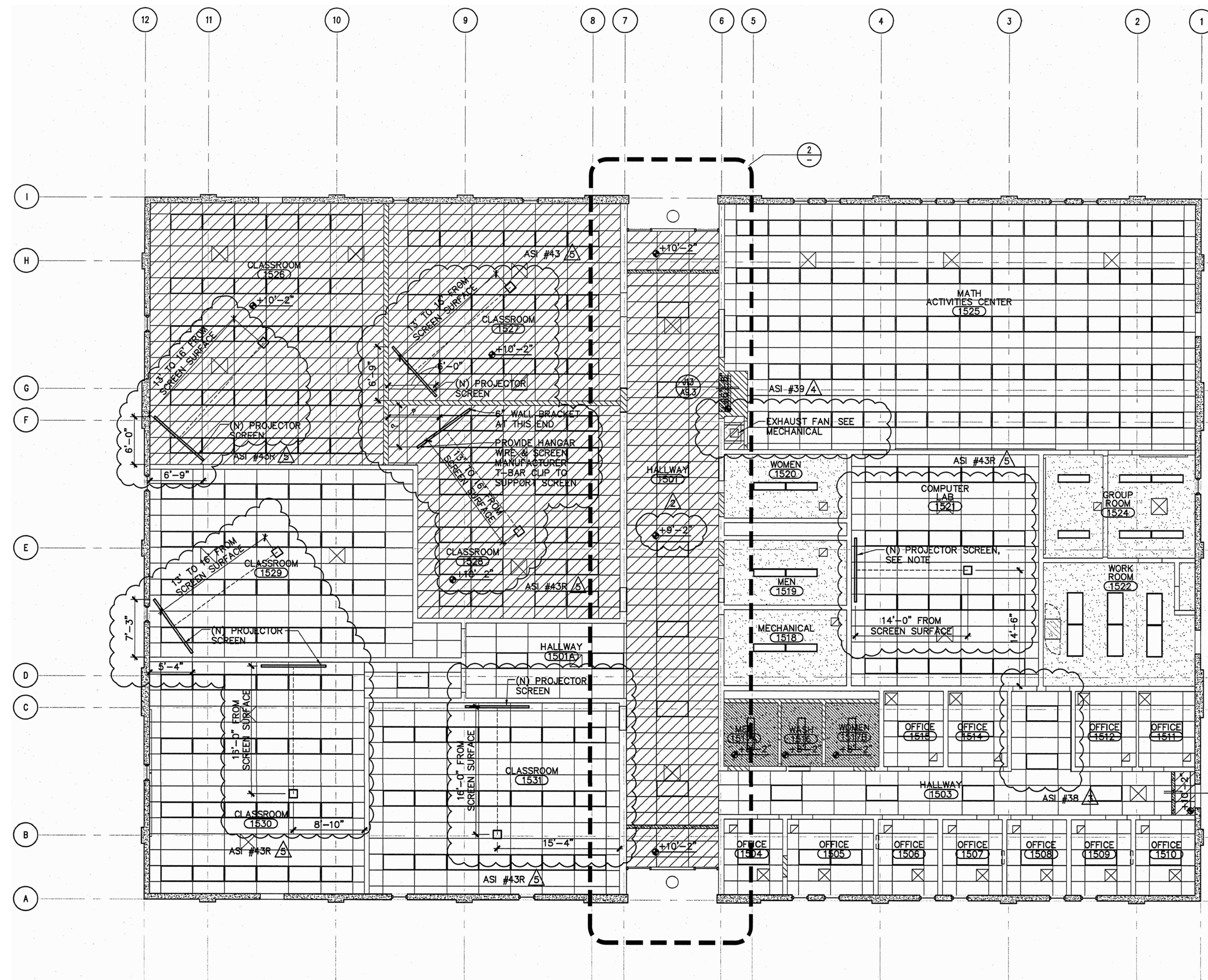
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| JOB NO. 3060E4 | SHEET BR-1500-4-FRW |
| DATE 2/07/14 | |

LAST REVISION:

PLOT SCALE

LAST REVISION



- LEGEND:**
- ▲ 9'-0" CEILING HEIGHT
 - (E) GYP. BOARD CEILING.
 - (E) GYP. BOARD CEILING, GLASSMAT WATER RESISTANT GYPSUM BOARD AT WET SPACE
 - (E) SUSPENDED CLG. GRID, LAY-IN 2'x4' LAY-IN ACOUSTICAL TILES.
 - (E) SUSPENDED CLG. GRID W/ (E) 2'x4' LAY-IN ACOUSTICAL TILES.
 - (E) CONCRETE CEILING
 - (E) LIGHT FIXTURE
 - (E) LIGHT FIXTURE
 - (E) SUPPLY AIR DIFFUSER
 - (E) RETURN AIR GRILL
 - (E) EXIT LIGHT

1 BLDG 1500 - REFLECTED CEILING PLAN

1/8" = 1'-0"

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 FAIRFIELD, CA 94534

RFP/O DOCUMENTS
NOT FOR CONSTRUCTION
 BUILDING:

SHEET TITLE:
 REFLECTED CEILING
 PLAN - BUILDING
 1500
 SCALE: AS SHOWN

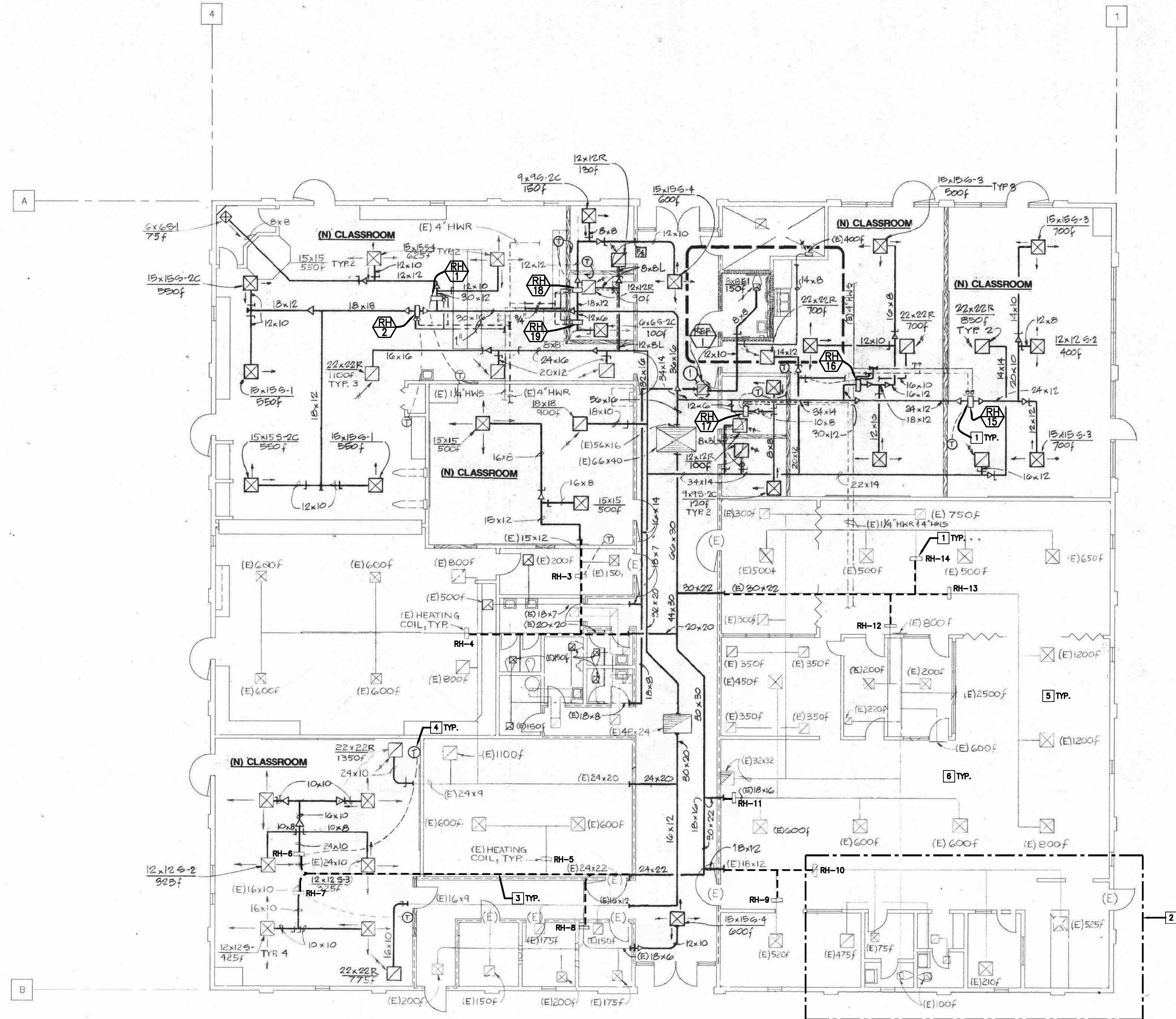
REVISIONS

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JOB NO. 3060E4 SHEET BR-1500-5-RCP
 DATE 2/07/14

1/8" = 1'-0"

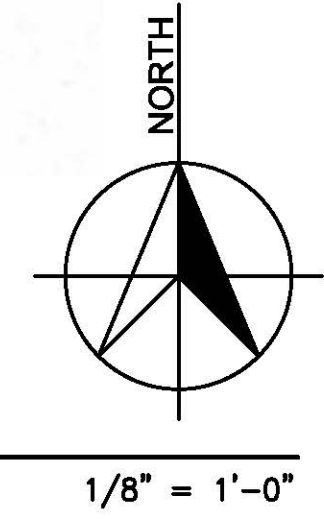
LAST REVISION:



| EXISTING HEATING COIL SCHEDULE | | | | | | | | | |
|--------------------------------|-------|----------------|---------------------|----------|----------|----------------------|------------|-----------------|-----------|
| MARK | MODEL | AIR FLOW (CFM) | FACE AREA (SQ. FT.) | EAT (DB) | LAT (DB) | CAPACITY (MBH) SENS. | FLOW (GPM) | CONN. SIZE (IN) | REMARKS |
| RH-01 | | 1325 | 2.5 | 60 | | 50.085 | 2.5 | 3/4 | 1,2,3,4,5 |
| RH-02 | | 2200 | 3.75 | 60 | | 83.16 | 4.2 | 3/4 | 1,2,3,4,5 |
| RH-03 | | 1050 | 2 | 60 | 85 | 28.3 | 1.7 | 3/4 | 1,3,4,5,6 |
| RH-04 | | 2400 | 5 | 60 | 87 | 68.7 | 4.5 | 1 1/4 | 1,3,4,5,6 |
| RH-05 | | 1200 | 2 | 60 | 85 | 32.4 | 2.2 | 1 | 1,3,4,5,6 |
| RH-06 | | 1500 | 2.5 | 60 | 85 | 40.5 | 2.7 | 1 | 1,3,4,5,6 |
| RH-07 | | 850 | 2 | 60 | 96 | 32.5 | 2.2 | 1 | 1,3,4,5,6 |
| RH-08 | | 1075 | 2 | 60 | 90 | 32.5 | 2.2 | 1 | 1,3,4,5,6 |
| RH-09 | | 520 | 1.13 | 60 | 95 | 19.7 | 1.3 | 3/4 | 1,3,4,5,6 |
| RH-10 | | 810 | 2 | 60 | 100 | 35 | 2.4 | 1 | 1,3,4,5,6 |
| RH-11 | | 2250 | 5 | 60 | 85 | 54.5 | 3.7 | 1 1/4 | 1,3,4,5,6 |
| RH-12 | | 400 | 1.13 | 60 | 85 | 10.8 | 0.8 | 3/4 | 1,3,4,5,6 |
| RH-13 | | 3200 | 6 | 60 | 85 | 77 | 5.2 | 1 1/4 | 1,3,4,5,6 |
| RH-14 | | 2150 | 5 | 60 | 85 | 58 | 3.9 | 1 1/4 | 1,3,4,5,6 |
| RH-15 | | 1800 | 1.13 | 60 | | 68.04 | 3.4 | 3/4 | 1,2,3,4,5 |
| RH-16 | | 1500 | 3 | 60 | | 56.7 | 2.8 | 3/4 | 1,2,3,4,5 |
| RH-17 | | 240 | 3 | 60 | | 9.080 | 0.5 | 3/4 | 1,2,3,4,5 |
| RH-18 | | 750 | 1.5 | 60 | | 28.350 | 1.4 | 3/4 | 1,2,3,4,5 |
| RH-19 | | 100 | 0.5 | 60 | | 3.780 | 0.2 | 3/4 | 1,2,3,4,5 |

2 BLDG 1600 - EXISTING REHEAT SCHEDULE

- REMARKS:**
1. REPLACE COIL
 2. WATER TEMPERATURE DROP 180F - 140F
 3. ALL NEW THERMOSTATS
 4. MAX FACE VELOCITY 600CFM
 5. MAX SP DROP 0.10 (IN. WC)
 6. WATER TEMPERATURE DROP 180F - 150F
- KEYNOTES:**
1. REMOVE ALL EXISTING REHEAT COILS AND ASSOCIATED VALVES/PIPING/DUCTWORK AND INSTALL NEW VAV BOXES WITH NEW VALVES AND REHEAT COILS TO TURN CONSTANT VOLUME SYSTEM INTO A VAV SYSTEM. INTERFACE WITH EMS.
 2. REDESIGN HVAC IN THIS AREA TO PROVIDE APPROPRIATE HEATING AND COOLING. MODIFY DUCTWORK AND PIPING ACCORDINGLY.
 3. REPLACE EXISTING SUPPLY AIR DUCT BOARD UPSTREAM OF THE NEW VAV BOXES WITH GALVANIZED SHEET METAL.
 4. PROVIDE NEW THERMOSTATS AT EXISTING LOCATIONS. THE LOCATION OF ALL THERMOSTATS IS NOT SHOWN. DESIGNER TO VERIFY ACTUAL LOCATIONS. INTERFACE WITH EMS.
 5. REMOVE CEILINGS AS REQUIRED FOR REMOVAL AND REPLACEMENT OF HVAC COMPONENTS. PATCH AND REPAIR ANY FLOORS, WALLS AND CEILINGS THAT ARE DAMAGED AS A RESULT OF THIS WORK. FINISHED WORK SHOULD MATCH EXISTING IN STYLE AND COLOR.
 6. REBALANCE HVAC SYSTEM.



1 BLDG 1600 - FLOOR PLAN

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 2750 Gateway Oaks Drive
 Suite 300
 Sacramento, CA 95833
 (916) 648-9700

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 SOLANO COMMUNITY COLLEGE
 4000 SUSUN VALLEY ROAD
 FAIRFIELD, CA 94534

RFP/O DOCUMENTS
NOT FOR CONSTRUCTION
 BUILDING:

SHEET TITLE:
MECHANICAL FLOOR PLAN & REHEAT SCHEDULE - BUILDING 1600
 SCALE: AS SHOWN 0 1/2" = 1'

| REVISIONS | | | |
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| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4 SHEET BR-1600-1-FP
 DATE 2/07/14

PLOT SCALE

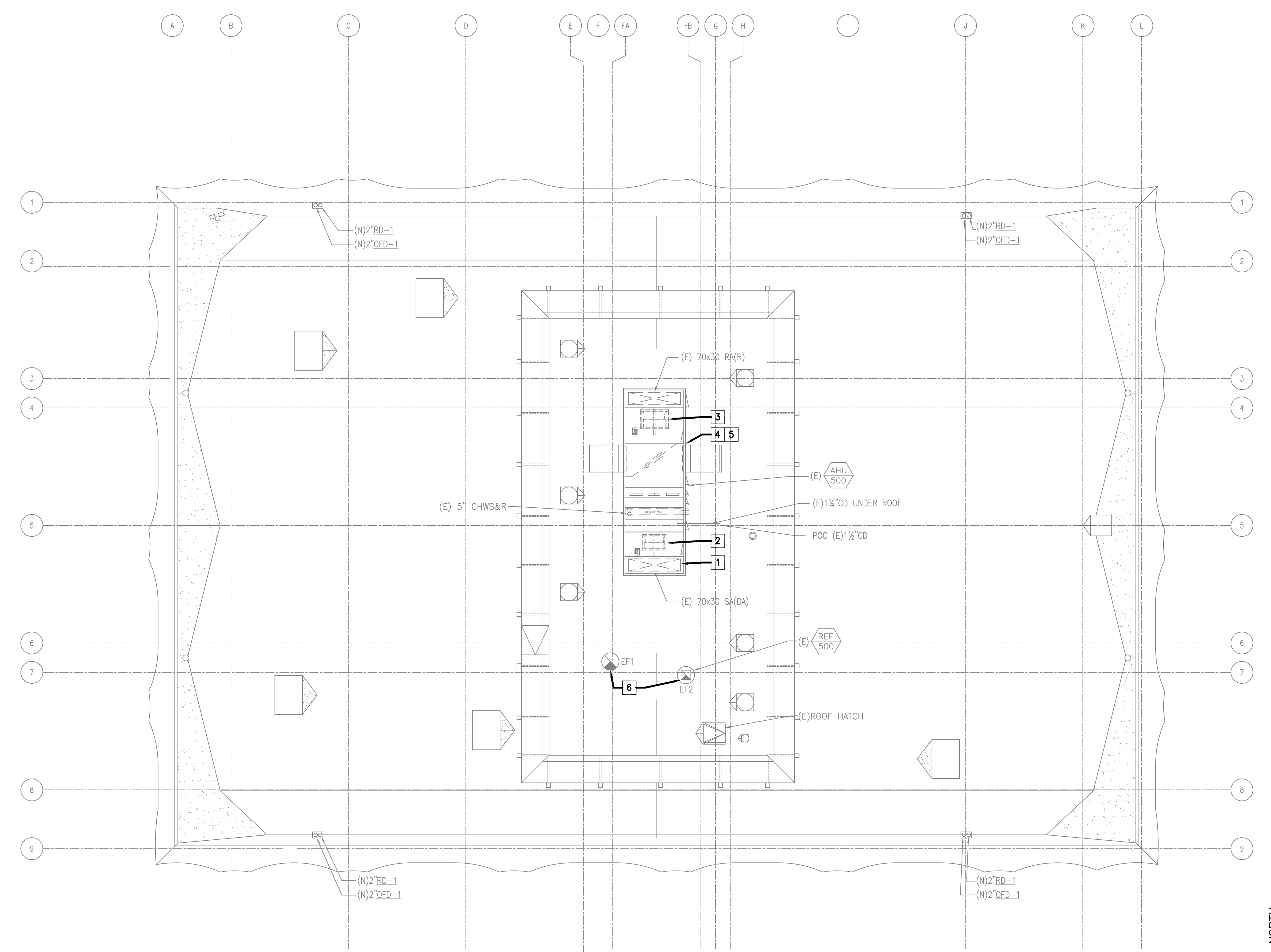
EXISTING AIR HANDLER UNIT SCHEDULE

| SYMBOL | MANUFACTURER | MODEL | COOLING COIL | | | | | | | | | | SUPPLY FAN | | | | | RETURN FAN | | | | | ELECTRICAL | | | OUTSIDE AIR CFM | OPERATING WEIGHT LBS. | FILTER EFFICIENCY | | | | | | | |
|-------------|--------------|-------|------------------|---|--------------|------|--------------|----|---------------|------|------|-----|------------|-----|----------|-------------|----------|------------|-------------|-------------|------|-----|------------|------|------|-----------------|-----------------------|-------------------|------|-----|----|--------------|----|----|----------------------|
| | | | COOLING CAPACITY | | AIR ENT COIL | | AIR LVG COIL | | SIZE HXW | EWT | LWT | GPM | ROWS | FPI | WPD (FT) | APD (IN WG) | TCV TYPE | CFM | TSP (IN WG) | ESP (IN WG) | TYPE | BHP | HP | CFM | ESP | | | | TYPE | BHP | HP | MOTOR | | | CONTROL/LIGHTS VOLTS |
| | | | MBH | | DB | WB | DB | WB | | | | | | | | | | | | | | | | | | | | | | | | VOLTS | PH | HZ | |
| AHU 1600 | CARRIER | - | 1020 | - | 86.1 | 66.5 | 54 | 53 | (2) 33x108 | 44°F | 56°F | 110 | - | - | 13.75 | - | - | 25200 | - | 2.75 | - | - | 20 | 9650 | 0.75 | - | - | 5.0 | 460 | 3 | 60 | 120V/1Ø/60HZ | - | - | - |

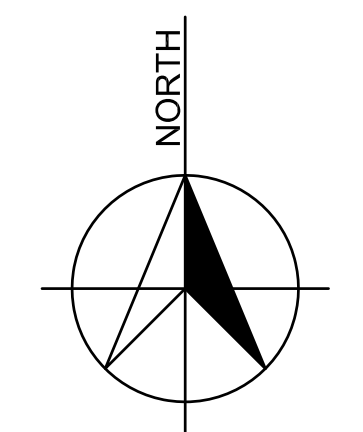
2 BLDG 1600 – EXISTING AHU SCHEDULE

| SYMBOL | CFM | S.P. | HP |
|--------|------|------|----|
| EF1 | 5200 | 0.5 | 1 |
| EF2 | 9450 | 0.5 | 2 |

3 BLDG 1600 – EXISTING EXHAUST FAN SCHEDULE



- KEYNOTES:**
- # SCOPE
 - 1 INSTALL STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
 - 2 INSTALL NEW VFD ON NEW 20 HP SUPPLY FAN MOTOR. MODIFY POWER SUPPLY AS REQUIRED. INTERFACE WITH EMS.
 - 3 INSTALL NEW VFD ON NEW 5 HP RETURN FAN MOTOR. MODIFY POWER SUPPLY AS REQUIRED. INTERFACE WITH EMS. CONTROL OF RETURN FAN VFD TO TRACK SUPPLY VFD.
 - 4 REMOVE EXISTING HVAC UNIT.
 - 5 INSTALL NEW HVAC UNIT.
 - 6 REMOVE EXISTING EF1 & EF2. INSTALL NEW EF1 & EF2. VERIFY ACTUAL LOCATION OF EF1 & EF2.
SEE SCHEDULE FOR ADDITIONAL INFORMATION AND COMPLETE AS REQUIRED.



1/8" = 1'-0"

1 BLDG 1600 – ROOF PLAN

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 BUILDING:

SHEET TITLE:
MECHANICAL ROOF PLAN & SCHEDULE – BUILDING 1600
 SCALE: AS SHOWN

| REVISIONS | | | |
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| NO. | DATE | NO. | DATE |
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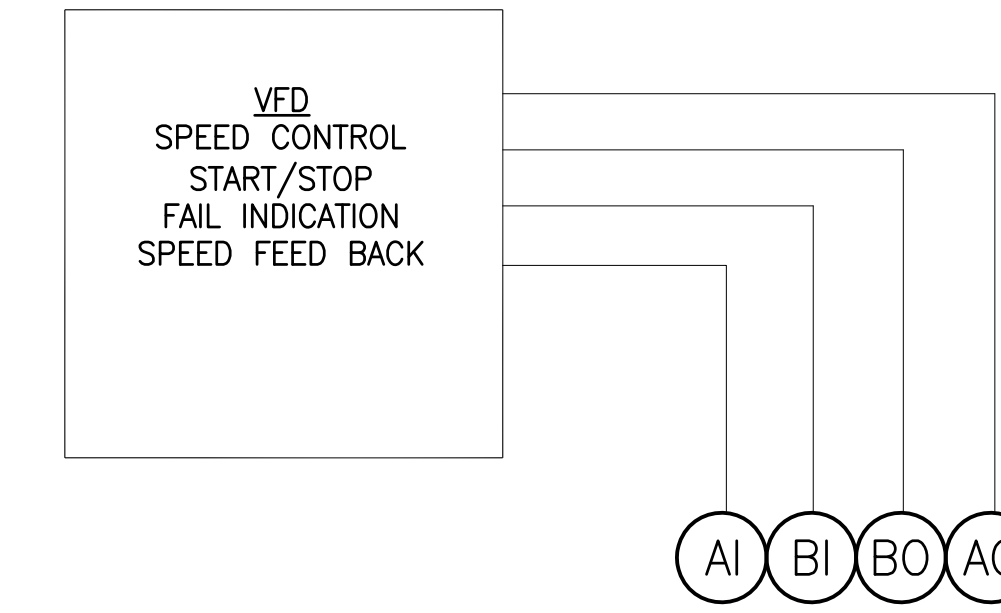
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| JOB NO. 3060E4 | SHEET BR-1600-2-RP |
| DATE 2/07/14 | |

LAST REVISION:

KEYNOTES:

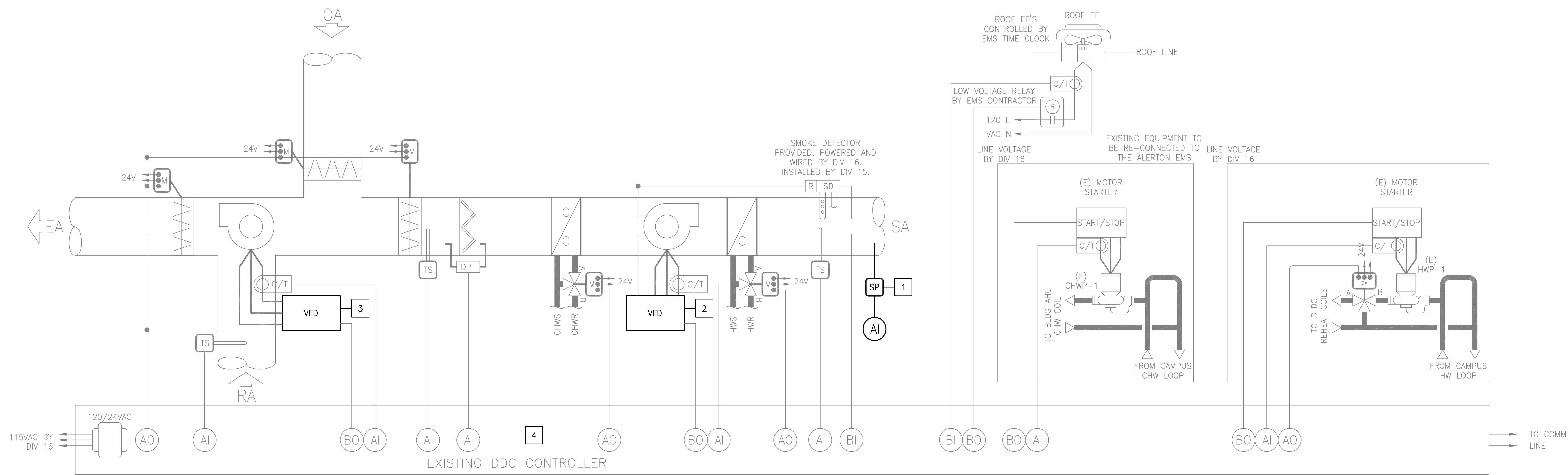
- # SCOPE
- 1 NEW STATIC PRESSURE SENSOR TO CONTROL NEW SUPPLY VFD.
- 2 NEW VFD ON NEW 20 HP SUPPLY FAN MOTOR. CONTROL THROUGH MODIFIED EMS.
- 3 NEW VFD ON NEW 5 HP RETURN FAN MOTOR. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.
- 4 PROVIDE NEW SENSORS AND CONTROLS ON NEW HVAC UNIT AND CONNECT TO EXISTING EMS.

SEE SCHEDULE FOR ADDITIONAL INFORMATION



2 VFD CONTROL DIAGRAM

NTS



1 BLDG 1600 - EXISTING HVAC CONTROL DIAGRAM

NTS

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NOT FOR CONSTRUCTION

BUILDING:

SHEET TITLE:

HVAC CONTROLS
 DIAGRAM - BUILDING
 1600

SCALE: AS SHOWN

REVISIONS

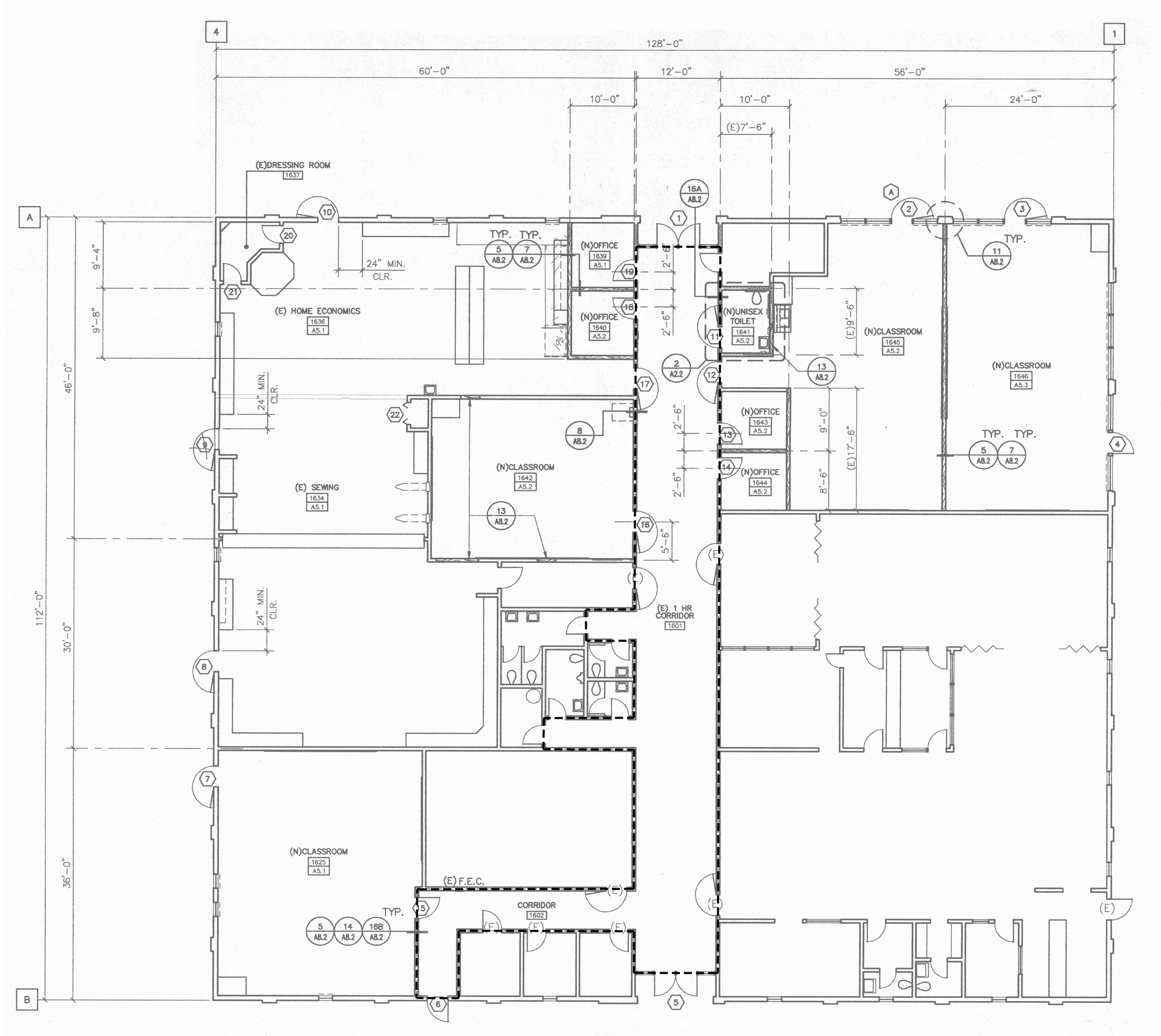
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JOB NO. 3060E4 SHEET BR-1600-3-SC
 DATE 2/07/14

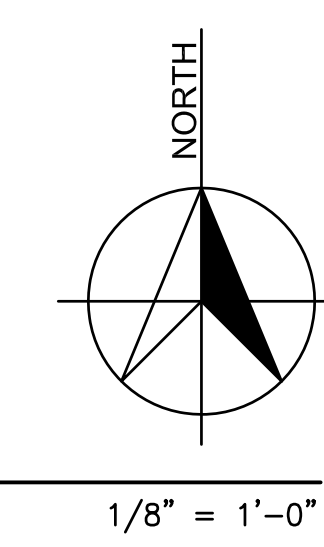
PLOT SCALE



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2750 Gateway Oaks Drive
Suite 300
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(916) 648-9700



LEGEND:
- - - - - EXISTING 1 HOUR FIRE RATED WALLS & CEILINGS.



1/8" = 1'-0"

1 BLDG 1600 - FIRE RATED WALLS & CEILINGS

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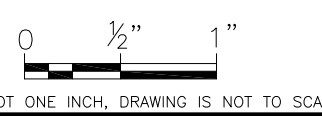
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BUILDING:

SHEET TITLE:

FIRE RATED WALLS &
CEILINGS PLAN -
BUILDING 1600

SCALE: AS SHOWN



REVISIONS

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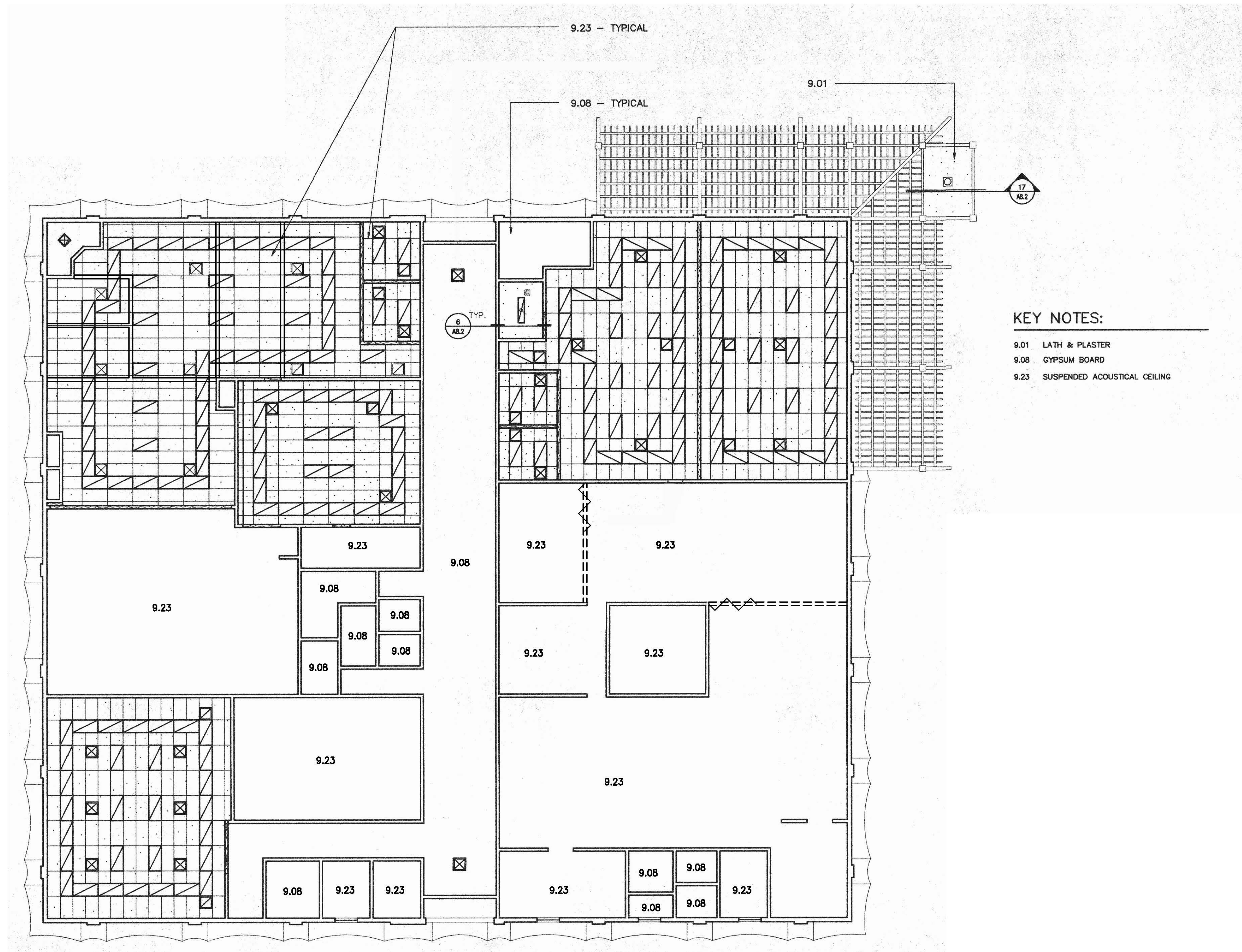
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BR-1600-4-FRW

DATE

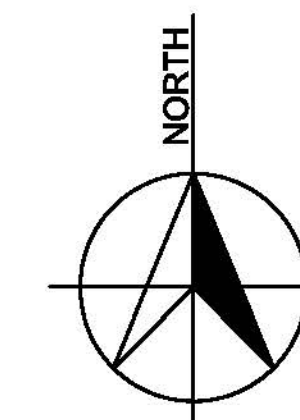
2/07/14

LAST REVISION:



KEY NOTES:

- 9.01 LATH & PLASTER
- 9.08 GYPSUM BOARD
- 9.23 SUSPENDED ACOUSTICAL CEILING



1 BLDG 1600 - REFLECTED CEILING PLAN

1/8" = 1'-0"

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BUILDING:

SHEET TITLE:

REFLECTED CEILING
 PLAN - BUILDING
 1600

SCALE: AS SHOWN
IF SHIP IS NOT ONE INCH DRAWING IS NOT TO SCALE

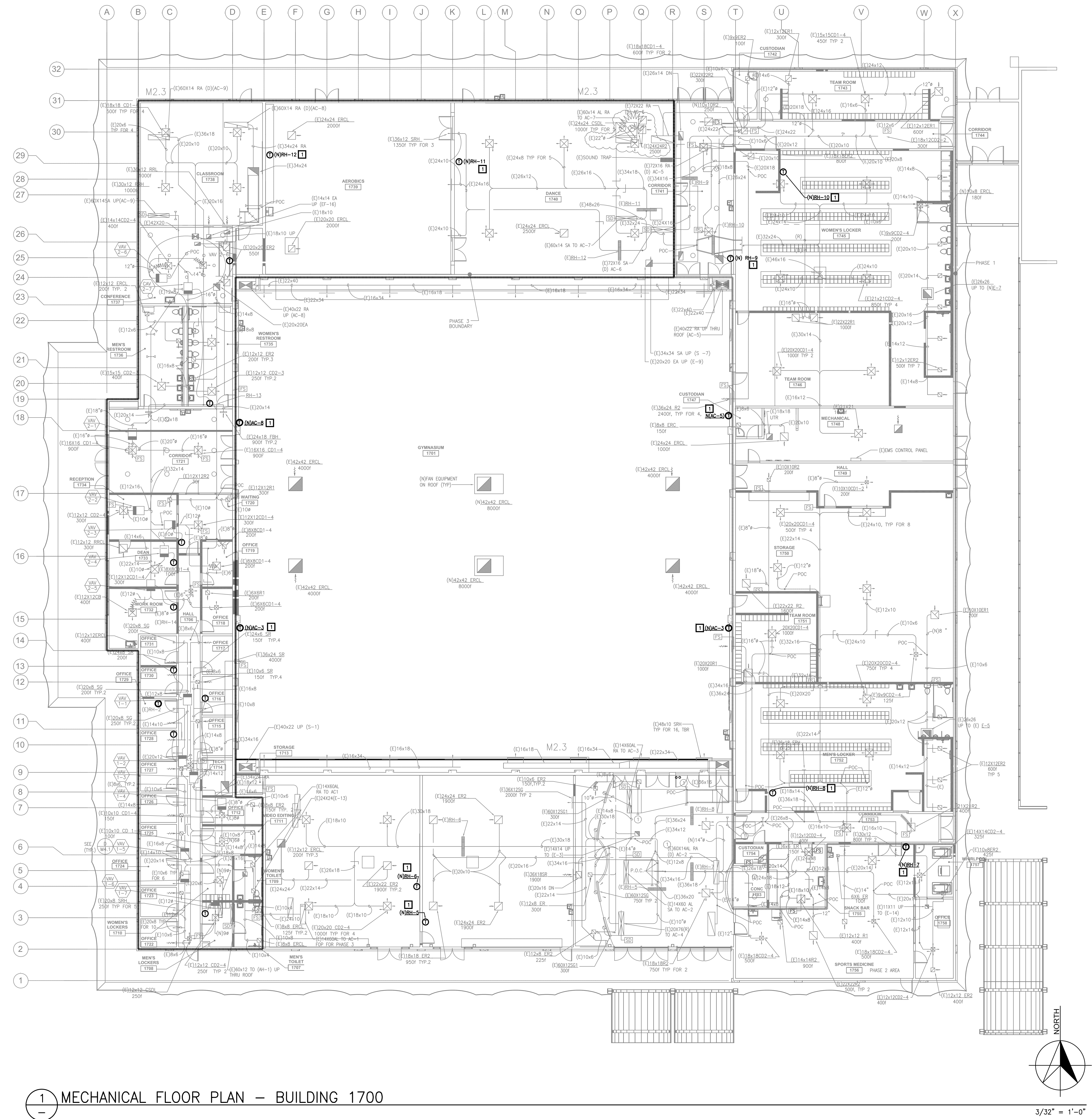
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| JOB NO. 3060E4 | SHEET BR-1600-5-RCP |
| DATE 2/07/14 | |

PLAT SCALE

LAST REVISION



KEYNOTES:
 # SCOPE
 1 ADD NEW THERMOSTATS

1 MECHANICAL FLOOR PLAN – BUILDING 1700

3/32" = 1'-0"

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BUILDING:

SHEET TITLE:
 MECHANICAL FLOOR PLAN – BUILDING 1700

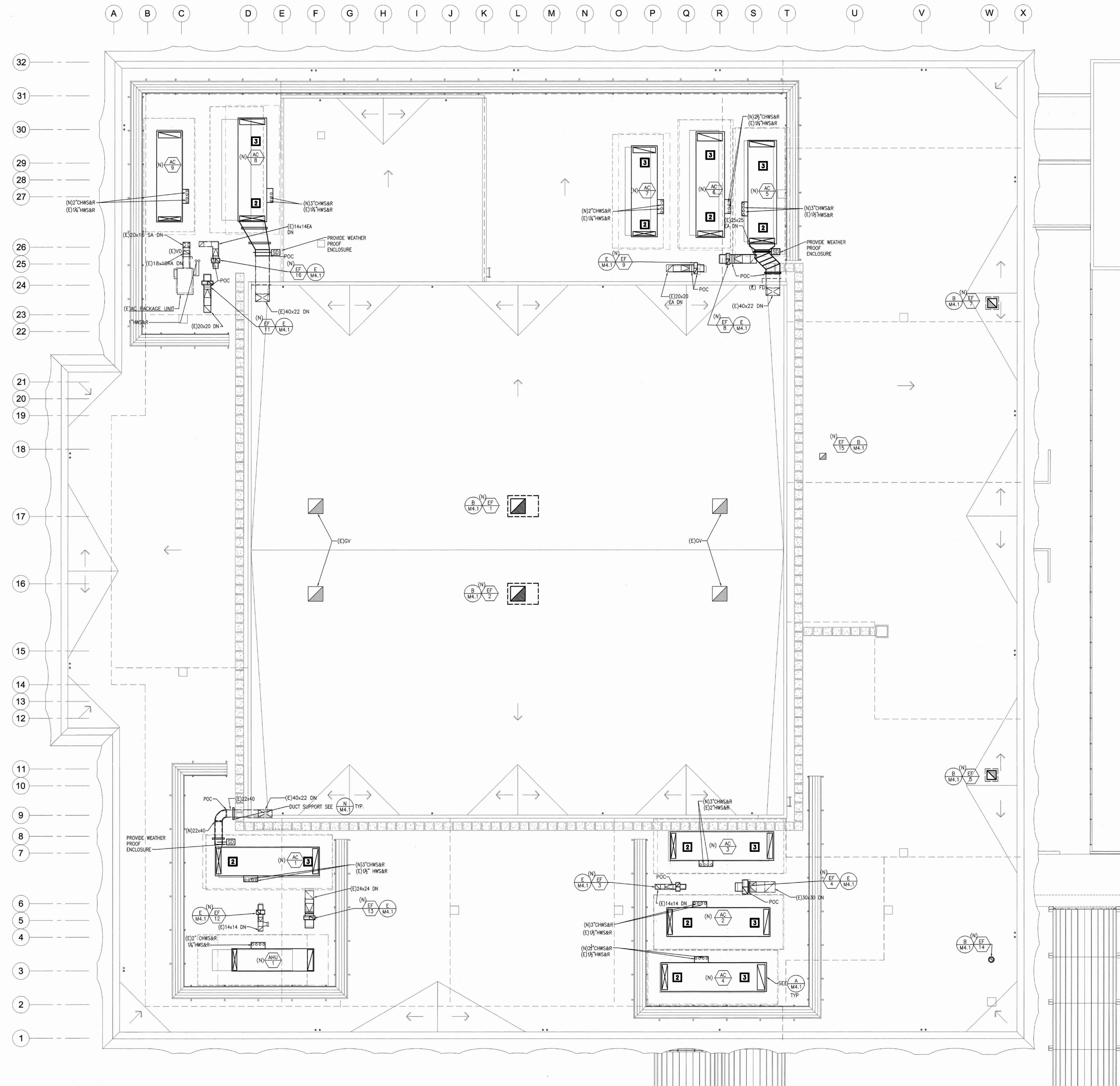
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REVISIONS

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JOB NO. 3060E4 SHEET BR-1700-1-FP
 DATE 2/07/14

PLOT SCALE



- KEYNOTES:**
- # SCOPE
 - 1 NEW VFD'S SHALL BE CONSTANT VOLUME DURING COOLING SEASON AND CONTROLLED AS EXISTING. DURING THE SWING SEASON AND HEATING SEASON THE VFD SHALL BE AT 50%. THE THERMOSTATS SHALL MODULATE THE HEATING AND/OR REHEAT COILS TO MAINTAIN TEMPERATURE. IF TEMPERATURE CAN NOT BE MAINTAINED INCREASE THE SPEED OF THE FAN UNTIL TEMPERATURE SATISFIED.
 - 2 NEW VFD ON (8) EXISTING AC1-AC6 & AC8, 10 HP & AC7, 7.5 HP SUPPLY FAN MOTORS. CONTROL THROUGH MODIFIED EMS.
 - 3 NEW VFD ON (8) EXISTING 6 HP RETURN FAN MOTORS. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.
- SEE SCHEDULE FOR ADDITIONAL INFORMATION

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BUILDING:

SHEET TITLE:

**MECHANICAL ROOF
 PLAN - BUILDING
 1700**

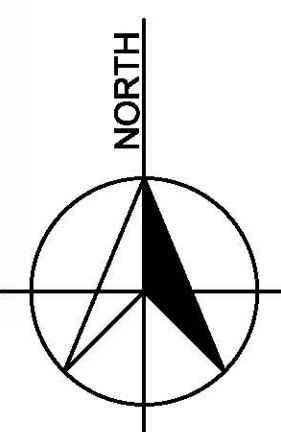
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IF BAR IS NOT ONE INCH, DRAWING IS NOT TO SCALE

REVISIONS

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JOB NO. 3060E4 SHEET BR-1700-2-RP
 DATE 2/07/14

1 BLDG 1600 - ROOF PLAN



1/8" = 1'-0"

LAST REVISION:

PLOT SCALE

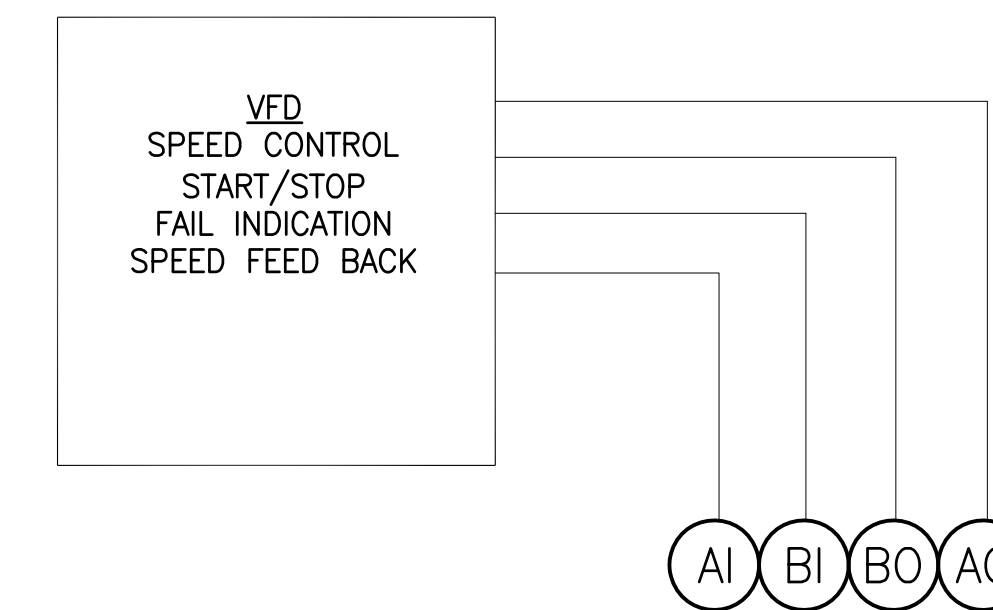
EXISTING AIR HANDLING UNIT SCHEDULE

| SYMBOL | MANUFACTURER | MODEL | COOLING CAPACITY | | AIR ENT COIL | | AIR LVG COIL | | COOLING COIL | | | | | | HEATING COIL | | | | | | SUPPLY FAN | | | SUPPLY MOTOR | | RETURN FAN | | RETURN MOTOR | | ELECTRICAL | | | OUTSIDE AIR CFM | OPERATING WEIGHT LBS. | 4" FILTER EFFICIENCY | REMARKS | | | | | |
|--------|--------------|---------|------------------|--------------|--------------|------|--------------|------|--------------|------|------|--------|------|-----|--------------|------|--------|-----|-----|-----|------------|------|-----|--------------|------|------------|------|--------------|------|------------|--------|-----|-----------------|-----------------------|----------------------|---------|-----|------|-------|-----|---------------|
| | | | TOTAL MBH | SENSIBLE MBH | DB°F | WB°F | DB°F | WB°F | EWT | LWT | GPM | CFM | ROWS | FPI | WPD | APD | CFM | EWT | LWT | GPM | MBH | ROWS | FPI | WPD | APD | CFM | TSP | ESP | BHP | HP | CFM | ESP | | | | | BHP | HP | VOLTS | PH | HZ |
| AC 1 | MCQUAY | OAH-018 | 326.2 | 302 | 84.0 | 64.0 | 59.2 | 54.7 | 45.0 | 55.1 | 70 | 8,500 | 6 | 7 | 5.7 | 0.42 | 8,500 | 180 | 160 | 32 | 330 | 2 | 6 | 0.9 | 0.12 | 8,500 | 3.24 | 2.0 | 7.3 | 10 | 8,500 | 1.5 | 3.0 | 5 | 460 | 3 | 60 | 3750 | 6500 | 65% | A,B,C,D,E,F,G |
| AC 2 | MCQUAY | OAH-018 | 336.2 | 314 | 84.0 | 64.0 | 59.2 | 54.7 | 45.0 | 55.1 | 71 | 9,000 | 6 | 7 | 5.7 | 0.42 | 9,000 | 180 | 160 | 32 | 330 | 2 | 6 | 0.9 | 0.12 | 9,000 | 3.24 | 2.0 | 8.1 | 10 | 5,475 | 1.5 | 3.3 | 5 | 460 | 3 | 60 | 3525 | 6500 | 65% | A,B,C,D,E,F,G |
| AC 3 | MCQUAY | OAH-018 | 326.2 | 302 | 84.0 | 64.0 | 59.2 | 54.7 | 45.0 | 55.1 | 70 | 8,500 | 6 | 7 | 5.7 | 0.42 | 8,500 | 180 | 160 | 32 | 330 | 2 | 6 | 0.9 | 0.12 | 8,500 | 3.24 | 2.0 | 7.3 | 10 | 8,500 | 1.5 | 3.0 | 5 | 460 | 3 | 60 | 3750 | 6500 | 65% | A,B,C,D,E,F,G |
| AC 4 | MCQUAY | OAH-021 | 322.4 | 310.6 | 84.0 | 64.0 | 59.2 | 54.7 | 45.0 | 55.1 | 61.4 | 10,000 | 6 | 7 | 5.7 | 0.42 | 10,000 | 180 | 160 | 32 | 335 | 2 | 6 | 0.9 | 0.12 | 10,000 | 3.24 | 2.0 | 8.3 | 10 | 10,000 | 1.5 | 3.1 | 5 | 460 | 3 | 60 | 4000 | 6800 | 65% | A,B,C,D,E,F,G |
| AC 5 | MCQUAY | OAH-018 | 326.2 | 302 | 84.0 | 64.0 | 59.2 | 54.7 | 45.0 | 55.1 | 70 | 8,500 | 6 | 7 | 5.7 | 0.42 | 8,500 | 180 | 160 | 32 | 330 | 2 | 6 | 0.9 | 0.12 | 8,500 | 3.24 | 2.0 | 7.3 | 10 | 8,500 | 1.5 | 3.0 | 5 | 460 | 3 | 60 | 3750 | 6500 | 65% | A,B,C,D,E,F,G |
| AC 6 | MCQUAY | OAH-021 | 322.4 | 310.6 | 84.0 | 64.0 | 59.2 | 54.7 | 45.0 | 55.1 | 61.4 | 10,000 | 6 | 7 | 5.7 | 0.42 | 10,000 | 180 | 160 | 32 | 335 | 2 | 6 | 0.9 | 0.12 | 10,000 | 3.24 | 2.0 | 8.3 | 10 | 5200 | 1.5 | 3.1 | 5 | 460 | 3 | 60 | 4800 | 6800 | 65% | A,B,C,D,E,F,G |
| AC 7 | MCQUAY | OAH-014 | 193.3 | 184.4 | 84.0 | 64.0 | 59.2 | 54.7 | 45.0 | 55.1 | 38 | 6,700 | 6 | 7 | 5.7 | 0.42 | 6,700 | 180 | 160 | 18 | 57.9 | 2 | 6 | 0.9 | 0.12 | 6,700 | 3.24 | 2.0 | 6.16 | 7.5 | 6,700 | 1.5 | 3.2 | 5 | 460 | 3 | 60 | 1500 | 5000 | 65% | A,B,C,D,E,F,G |
| AC 8 | MCQUAY | OAH-018 | 326.2 | 302 | 84.0 | 64.0 | 59.2 | 54.7 | 45.0 | 55.1 | 71 | 8,500 | 6 | 7 | 5.7 | 0.42 | 8,500 | 180 | 160 | 32 | 330 | 2 | 6 | 0.9 | 0.12 | 8,500 | 3.24 | 2.0 | 7.3 | 10 | 8,500 | 1.5 | 3.0 | 5 | 460 | 3 | 60 | 3750 | 6500 | 65% | A,B,C,D,E,F,G |

KEYNOTES:

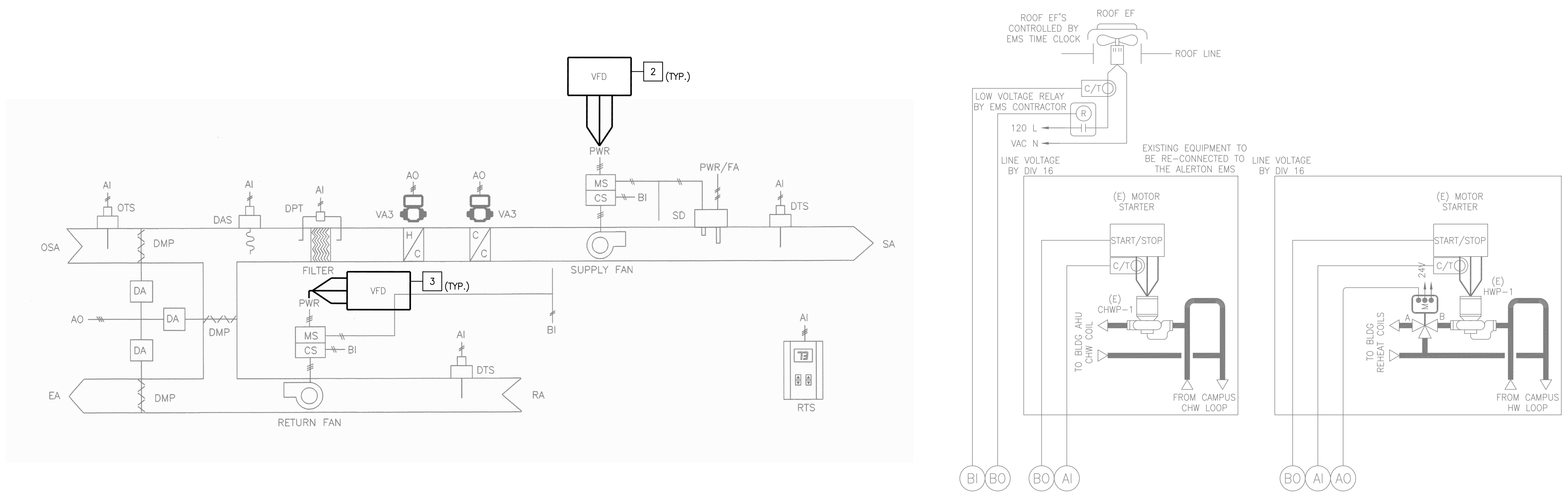
- # SCOPE
- 1 NEW VFD'S SHALL BE CONSTANT VOLUME DURING COOLING SEASON AND CONTROLLED AS EXISTING. DURING THE SWING SEASON AND HEATING SEASON THE VFD SHALL BE AT 50%. THE THERMOSTATS SHALL MODULATE THE HEATING AND/OR REHEAT COILS TO MAINTAIN TEMPERATURE. IF TEMPERATURE CAN NOT BE MAINTAINED INCREASE THE SPEED OF THE FAN UNTIL TEMPERATURE SATISFIED.
- 2 NEW VFD ON (8) EXISTING AC1-AC6 & AC8, 10 HP & AC7, 7.5 HP SUPPLY FAN MOTORS. CONTROL THROUGH MODIFIED EMS.
- 3 NEW VFD ON (8) EXISTING 5 HP RETURN FAN MOTORS. CONTROL RETURN FAN VFD TO TRACK SUPPLY VFD THROUGH MODIFIED EMS.

SEE SCHEDULE FOR ADDITIONAL INFORMATION



2 VFD CONTROL DIAGRAM

NTS



1 BLDG 1700 - EXISTING HVAC CONTROL DIAGRAM (AC-1 THRU AC-8)

NTS

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 (916) 648-9700

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RFF/O DOCUMENTS
NOT FOR CONSTRUCTION
 BUILDING:

SHEET TITLE:
 HVAC CONTROLS
 DIAGRAM & SCHEDULE
 - BUILDING 1700
 SCALE: AS SHOWN

| REVISIONS | | | |
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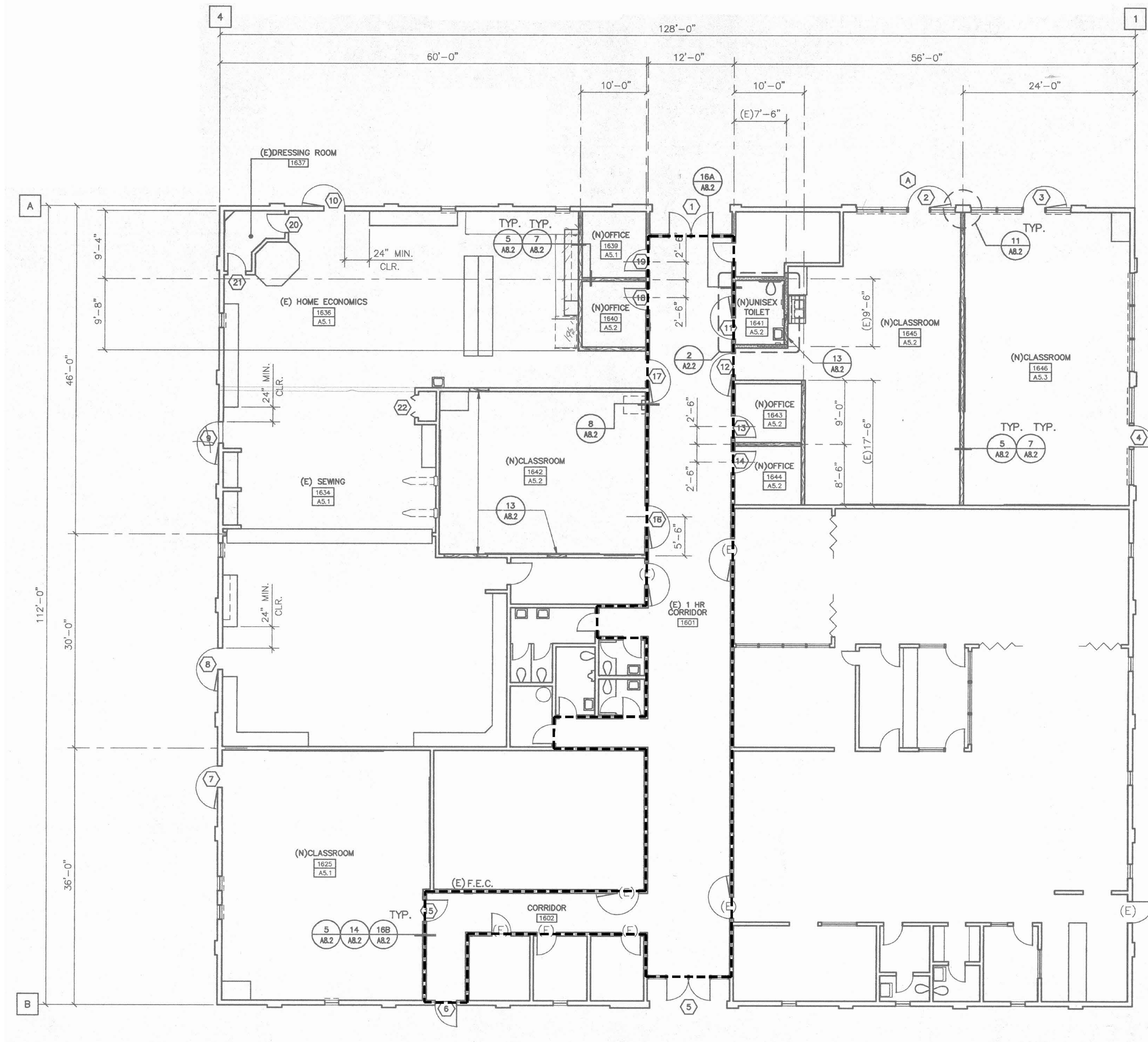
JOB NO. 3060E4 SHEET BR-1700-3-SC
 DATE 2/07/14

LAST REVISION:

PLOT SCALE



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2750 Gateway Oaks Drive
Suite 300
Sacramento, CA 95833
(916) 648-9700



LEGEND:
- - - - - EXISTING 1 HOUR FIRE RATED WALLS & CEILINGS.

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HVAC AND EMS EFFICIENCY PROJECT IMPLEMENTATION
BRIDGING DOCUMENTS

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4000 SUSAUN VALLEY ROAD
FAIRFIELD, CA 94634

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SHEET TITLE:

FIRE RATED WALL &
CEILING PLAN -
BUILDING 1700

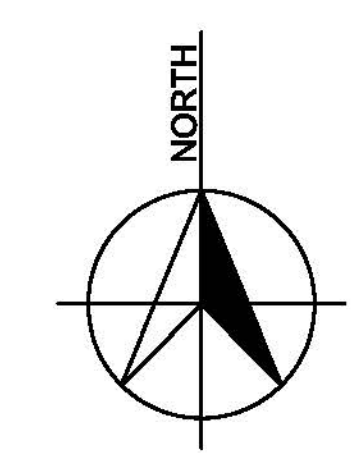
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IF DIM IS NOT ONE INCH DRAWING IS NOT TO SCALE

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JOB NO.
3060E4
DATE
2/07/14
SHEET
BR-1700-4-FRW

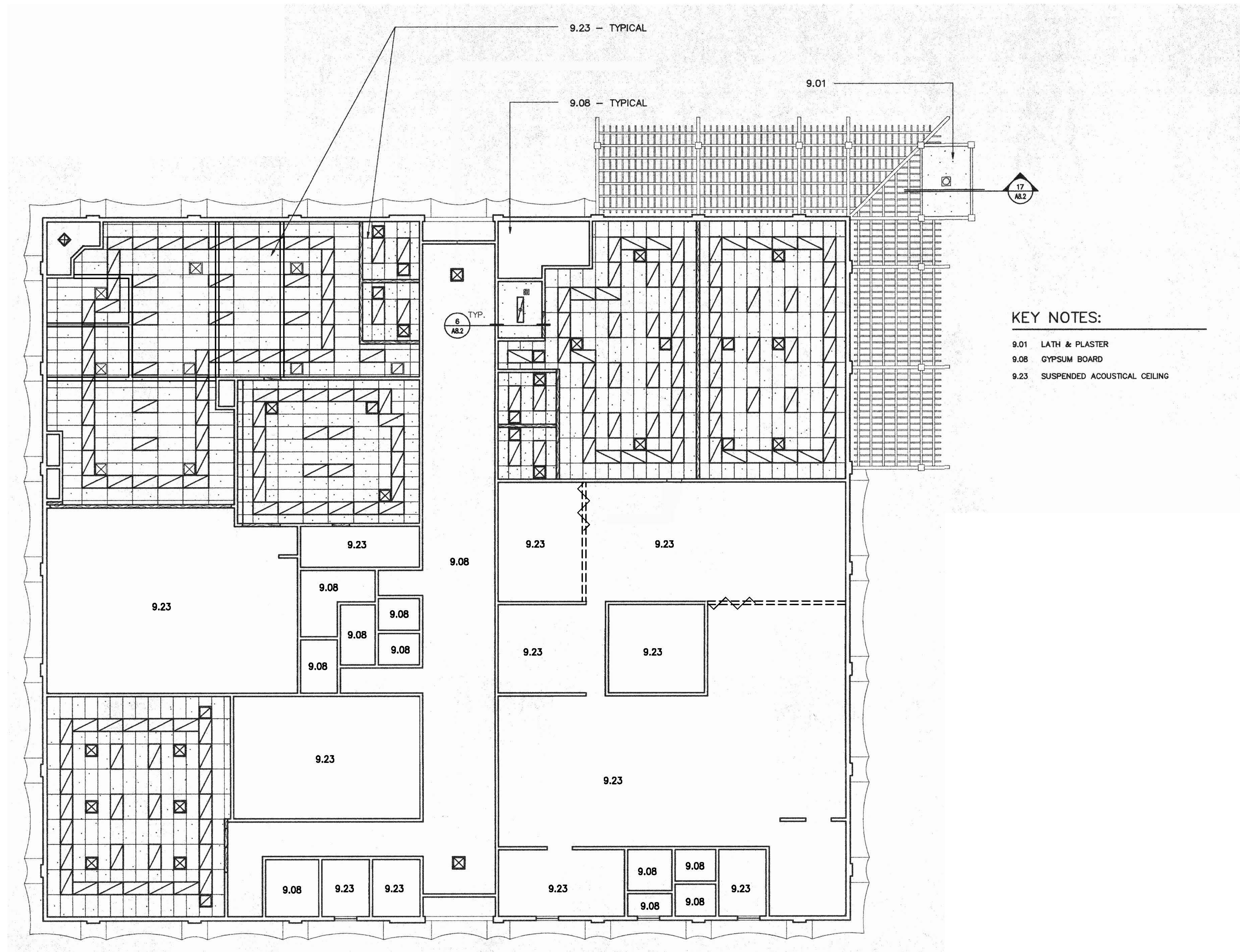
1 BLDG 1600 - FIRE RATED WALLS & CEILINGS



1/8" = 1'-0"

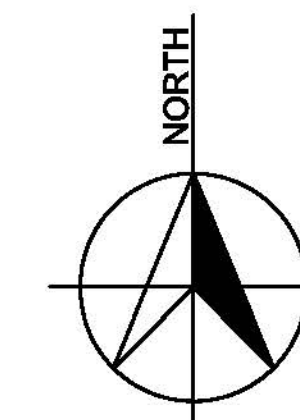
LAST REVISION:

PLOT SCALE:



KEY NOTES:

- 9.01 LATH & PLASTER
- 9.08 GYPSUM BOARD
- 9.23 SUSPENDED ACOUSTICAL CEILING



1 BLDG 1600 - REFLECTED CEILING PLAN

1/8" = 1'-0"

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 BUILDING:

SHEET TITLE:
 REFLECTED CEILING
 PLAN - BUILDING
 1700

SCALE: AS SHOWN 0 1/2" 1"
IF SHG IS NOT ONE INCH DRAWING IS NOT TO SCALE

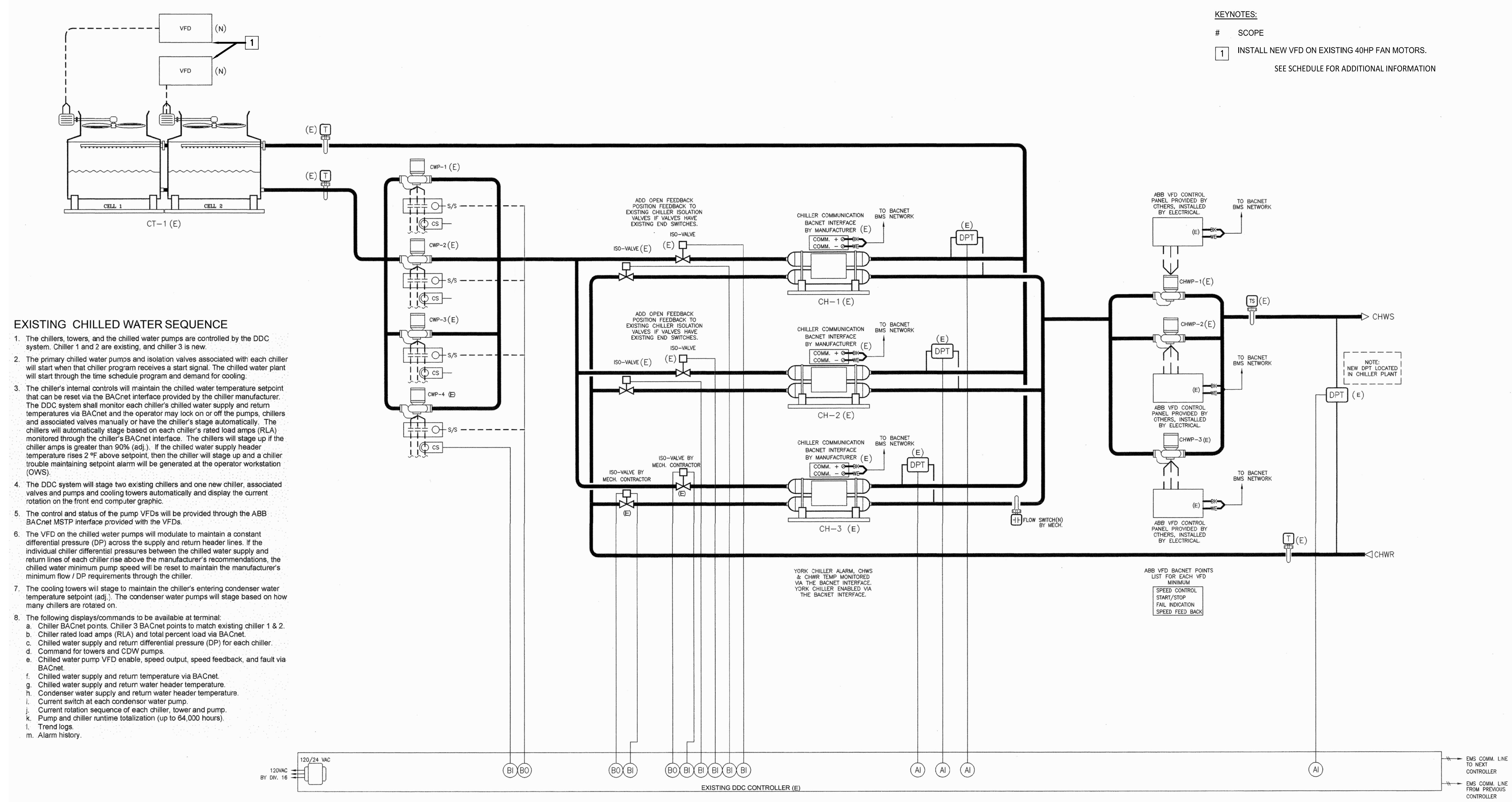
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| JOB NO. 3060E4 | SHEET BR-1700-5-RCP |
| DATE 2/07/14 | |

LAST REVISION:

PILOT SCALE



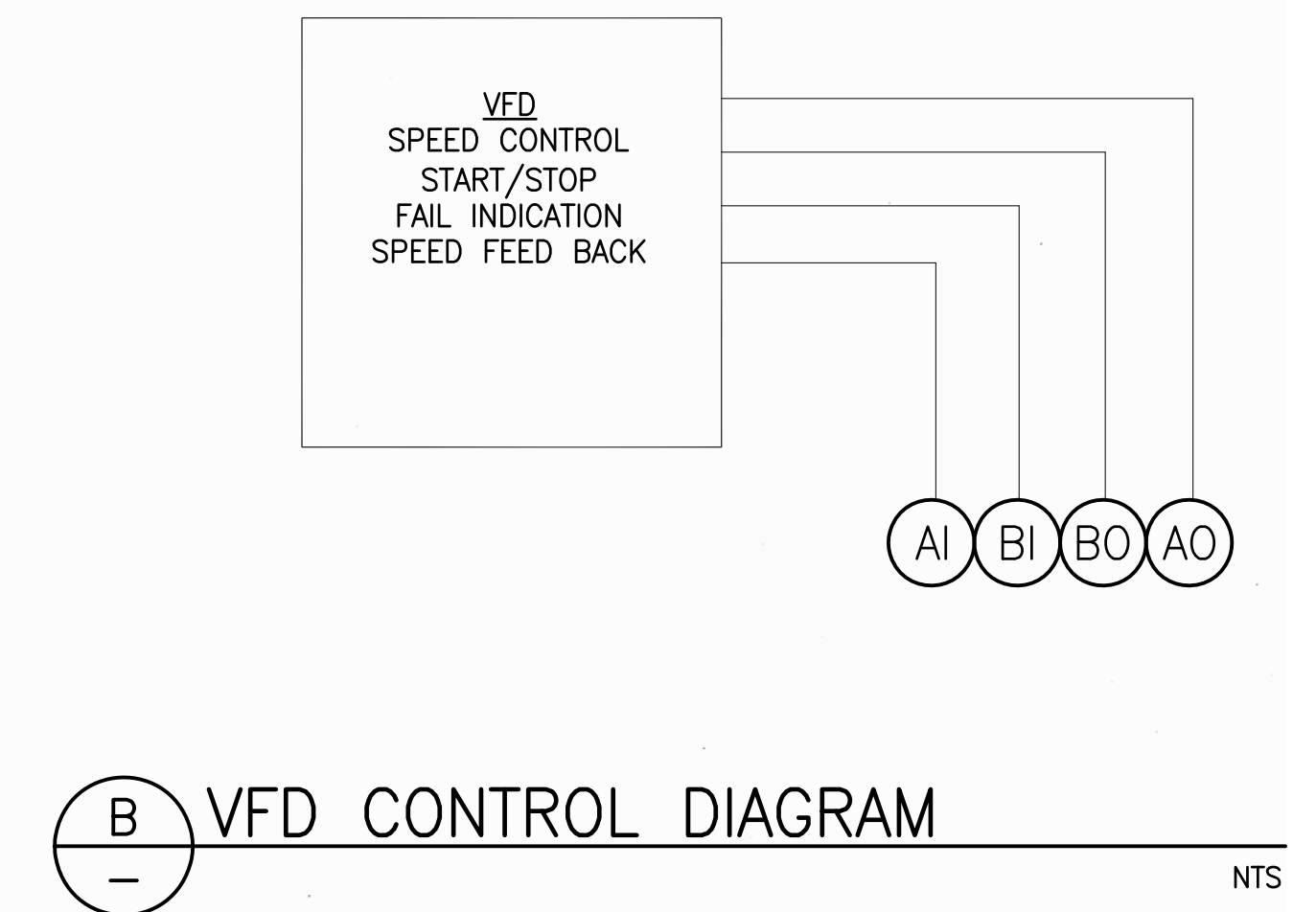
EXISTING CHILLED WATER SEQUENCE

- The chillers, towers, and the chilled water pumps are controlled by the DDC system. Chiller 1 and 2 are existing, and chiller 3 is new.
- The primary chilled water pumps and isolation valves associated with each chiller will start when that chiller program receives a start signal. The chilled water plant will start through the time schedule program and demand for cooling.
- The chiller's internal controls will maintain the chilled water temperature setpoint that can be reset via the BACnet interface provided by the chiller manufacturer. The DDC system shall monitor each chiller's chilled water supply and return temperatures via BACnet and the operator may look on or off the pumps, chillers and associated valves manually or have the chiller's stage automatically. The chillers will automatically stage based on each chiller's rated load amps (RLA) monitored through the chiller's BACnet interface. The chillers will stage up if the chiller amps is greater than 90% (adj.). If the chilled water supply header temperature rises 2°F above setpoint, then the chiller will stage up and a chiller trouble maintaining setpoint alarm will be generated at the operator workstation (OWS).
- The DDC system will stage two existing chillers and one new chiller, associated valves and pumps and cooling towers automatically and display the current rotation on the front end computer graphic.
- The control and status of the pump VFDs will be provided through the ABB BACnet MSTP interface provided with the VFDs.
- The VFD on the chilled water pumps will modulate to maintain a constant differential pressure (DP) across the supply and return header lines. If the individual chiller differential pressures between the chilled water supply and return lines of each chiller rise above the manufacturer's recommendations, the chilled water minimum pump speed will be reset to maintain the manufacturer's minimum flow / DP requirements through the chiller.
- The cooling towers will stage to maintain the chiller's entering condenser water temperature setpoint (adj.). The condenser water pumps will stage based on how many chillers are rotated on.
- The following displays/commands to be available at terminal:
 - Chiller BACnet points. Chiller 3 BACnet points to match existing chiller 1 & 2.
 - Chiller rated load amps (RLA) and total percent load via BACnet.
 - Chilled water supply and return differential pressure (DP) for each chiller.
 - Command for towers and CDW pumps.
 - Chilled water pump VFD enable, speed output, speed feedback, and fault via BACnet.
 - Chilled water supply and return temperature via BACnet.
 - Chilled water supply and return water header temperature.
 - Condenser water supply and return water header temperature.
 - Current switch at each condenser water pump.
 - Current rotation sequence of each chiller, tower and pump.
 - Pump and chiller runtime totalization (up to 64,000 hours).
 - Trend logs.
 - Alarm history.

A EXISTING CHILLER SYSTEM
CHILLER 3 ADDITION
ALL VFD'S MUST BE ABB WITH BACNET MSTP INTERFACE

DESIGN BUILDER TO ADD SEQUENCE FOR CONTROL OF COOLING TOWER VFD'S.

| EXISTING EQUIPMENT SCHEDULE | |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (E) CH 3 | CHILLER-3 YORK® MODEL YKADADA4-CJF, 350 TONS, 14.4 EER, 85°F/95°F CONDENSER WATER, 45" LWI, 55" EWT, CHILLED WATER 11.8 FT. WPD, 840 GPM, 11.7 FT. HD CONDENSER W/P @ 1050 GPM, 460 VOLTS, 3PH, 60 HZ, 180 KW Y DELTA START, 324 MCA, 300 MAX. FUSE, (2) COMPRESSORS 85 RLA EACH, 522 LRA EACH, 115 VOLT SEPARATE CONTROL CIRCUIT, 1250 LBS HCFC-R134A REFRIGERANT, CONDENSER WATER TEMPERATURE SENSORS, POWER DISCONNECT SWITCH, NEOPRENE ISOLATORS, WATER REGULATING VALVES, FLOW SWITCHES, PART LOAD PERFORMANCE 80% 280 TONS, 50% 175 TONS, 20% 70 TONS. |
| (E) CHWP 3 | CHILLED WATER PUMP - 1 CHILLED WATER DISTRIBUTION PUMP * BELL & GOSSETT MODEL HSC1 44C 840 GPM @ 140H HD 50HP 460V/3P/60HZ 1750 RPM |
| (E) CWP 4 | CONDENSER WATER PUMP - 1 CONDENSER WATER CIRCULATION PUMP * BELL & GOSSETT MODEL HSC1 6XB 1050 GPM @ 60H HD 30HP 460V/3P/60HZ 1765 RPM |
| (E) CH 1 & 2 | CHILLER-1&2 YORK® MODEL YKHCGBH0-CSE, 750 TONS, 14.4 EER, 85°F/95°F CONDENSER WATER, 45" LWI, 55" EWT, CHILLED WATER 24.6 FT. WPD, 2000 GPM, 11.7 FT. HD CONDENSER W/P @ 2000 GPM, 460 VOLTS, 3PH, 60 HZ, 367 KW Y DELTA START, 628 MCA, 1000 MAX. FUSE, (2) COMPRESSORS 85 RLA EACH, 522 LRA EACH, 115 VOLT SEPARATE CONTROL CIRCUIT, 2235 LBS HCFC-R134A REFRIGERANT, CONDENSER WATER TEMPERATURE SENSORS, POWER DISCONNECT SWITCH, NEOPRENE ISOLATORS, WATER REGULATING VALVES, FLOW SWITCHES, PART LOAD PERFORMANCE 80% 600 TONS, 50% 375 TONS, 20% 150 TONS. |
| (E) CT 1 & 2 | COOLING TOWER-1&2 BALTIMORE® AIR COIL MODEL 33935-2PM, 5178 GPM @ 88/78, 71" FWB WITH (2) 40 H.P. FAN MOTORS, 460V/3P, STAINLESS STEEL BASIN, 120 VOLTS, ELECTRIC WATER LEVEL CONTROL, STAINLESS STEEL BASIN, 120 VOLTS, ELECTRIC WATER LEVEL CONTROL, 460V W/ DISCONNECT SWITCH, 3-CONTRACTOR BT-PASS, NEMA 3R ENCLOSURE. |
| (E) CHWP 1 & 2 | CHILLED WATER PUMPS - 1&2 CHILLED WATER DISTRIBUTION PUMP * PACIFIC® MODEL KPS88B, 2000 GPM @ 140H HD 100HP 460V/3P/60HZ 1750 RPM |
| (E) CWP 1 & 2 | CONDENSER WATER PUMPS - 5,6, & 7 CONDENSER WATER CIRCULATION PUMP * PACIFIC® MODEL KPS5AM 1350 GPM @ 60H HD 30HP 460V/3P/60HZ 1765 RPM |



B VFD CONTROL DIAGRAM

KITCHELL
Capital Expenditure Managers
2750 Gateway Oaks Drive
Suite 300
Sacramento, CA 95833
(916) 648-9700

SOLANO COMMUNITY COLLEGE
 HVAC AND EMS EFFICIENCY PROJECT IMPLEMENTATION
 BRIDGING DOCUMENTS
 SOLANO COMMUNITY COLLEGE
 4000 SUSUN VALLEY ROAD
 FAIRFIELD, CA 94534

RFI/O DOCUMENTS
NOT FOR CONSTRUCTION
BUILDING:

SHEET TITLE:
MECHANICAL FLOOR PLAN - BUILDING 2000
SCALE: AS SHOWN

| REVISIONS | | | |
|-----------|------|-----|------|
| NO. | DATE | NO. | DATE |
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JOB NO. 3060E4 SHEET BR-2000-1-FP
DATE 2/07/14

LAST REVISION:

SOLANO COMMUNITY COLLEGE
HVAC AND EMS EFFICIENCY PROJECT IMPLEMENTATION
BRIDGING DOCUMENTS

SOLANO COMMUNITY COLLEGE
4000 SUI SUN VALLEY ROAD
FAIRFIELD, CA 94534

RFF/O DOCUMENTS

NOT FOR CONSTRUCTION

SHEET TITLE:

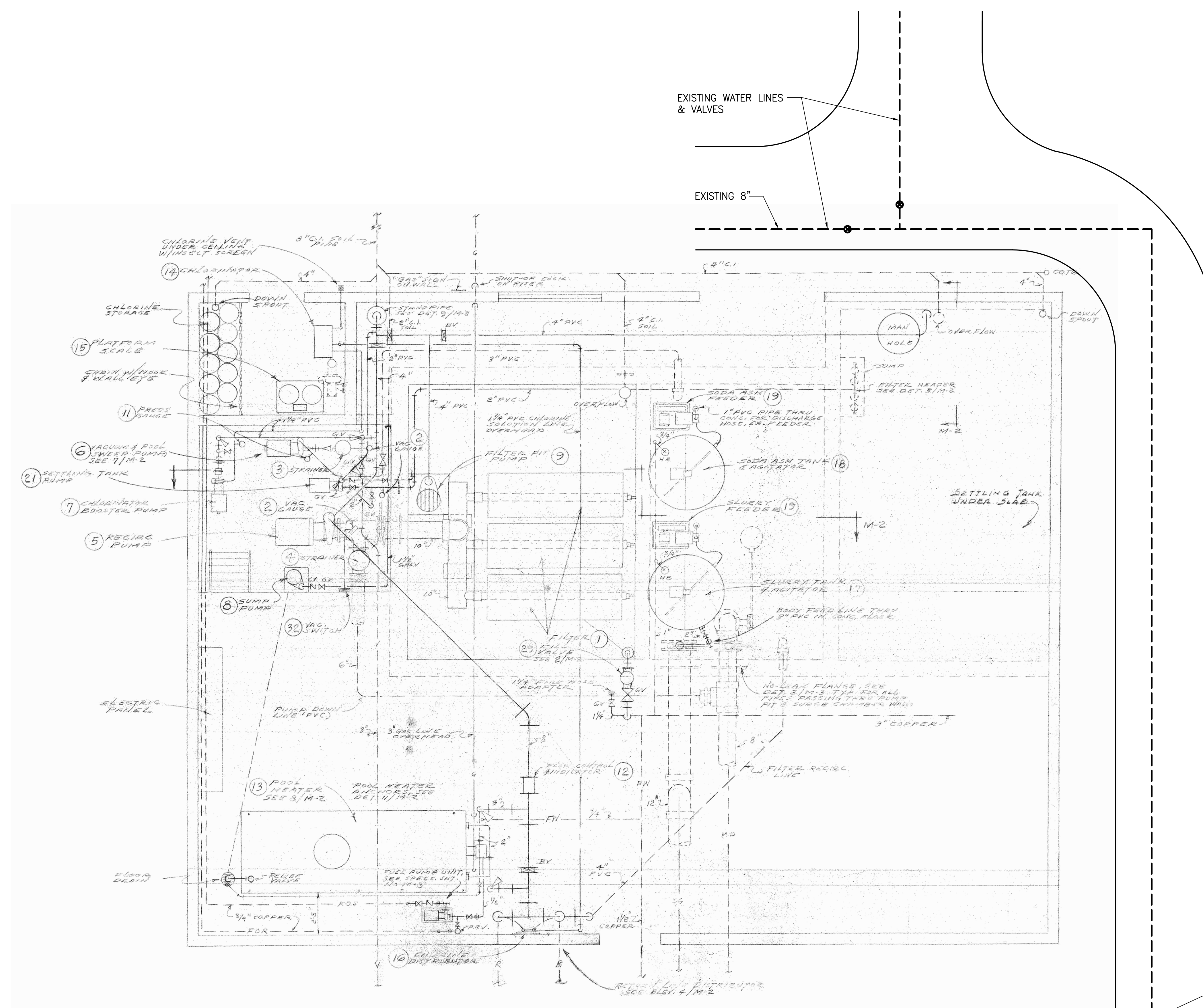
MECHANICAL & PIPING
FLOOR PLAN - POOL
BUILDING

SCALE: AS SHOWN

REVISIONS

| NO. | DATE | NO. | DATE |
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| JOB NO. 3060E4 | SHEET BR-POOL-1-FP |
| DATE 2/07/14 | |



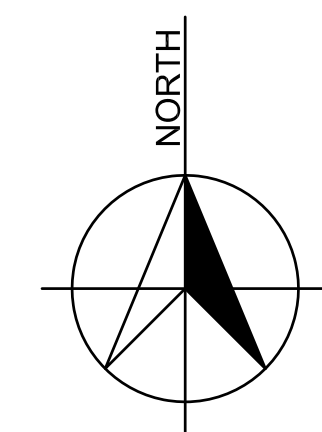
EXISTING WATER LINES & VALVES

EXISTING 8"

CONTACT U.S.A. TO LOCATE ACTUAL LOCATION OF STUBOUT FROM MAIN TO THE POOL HOUSE.

INSTALL (N) ISOLATING VALVE IN WATER LINE. PLACE IN CRISTI BOX WITH VANDAL-PROOF LID

EXISTING 6"



3/8" = 1'-0"

1 MECHANICAL & PIPING FLOOR PLAN - POOL BUILDING