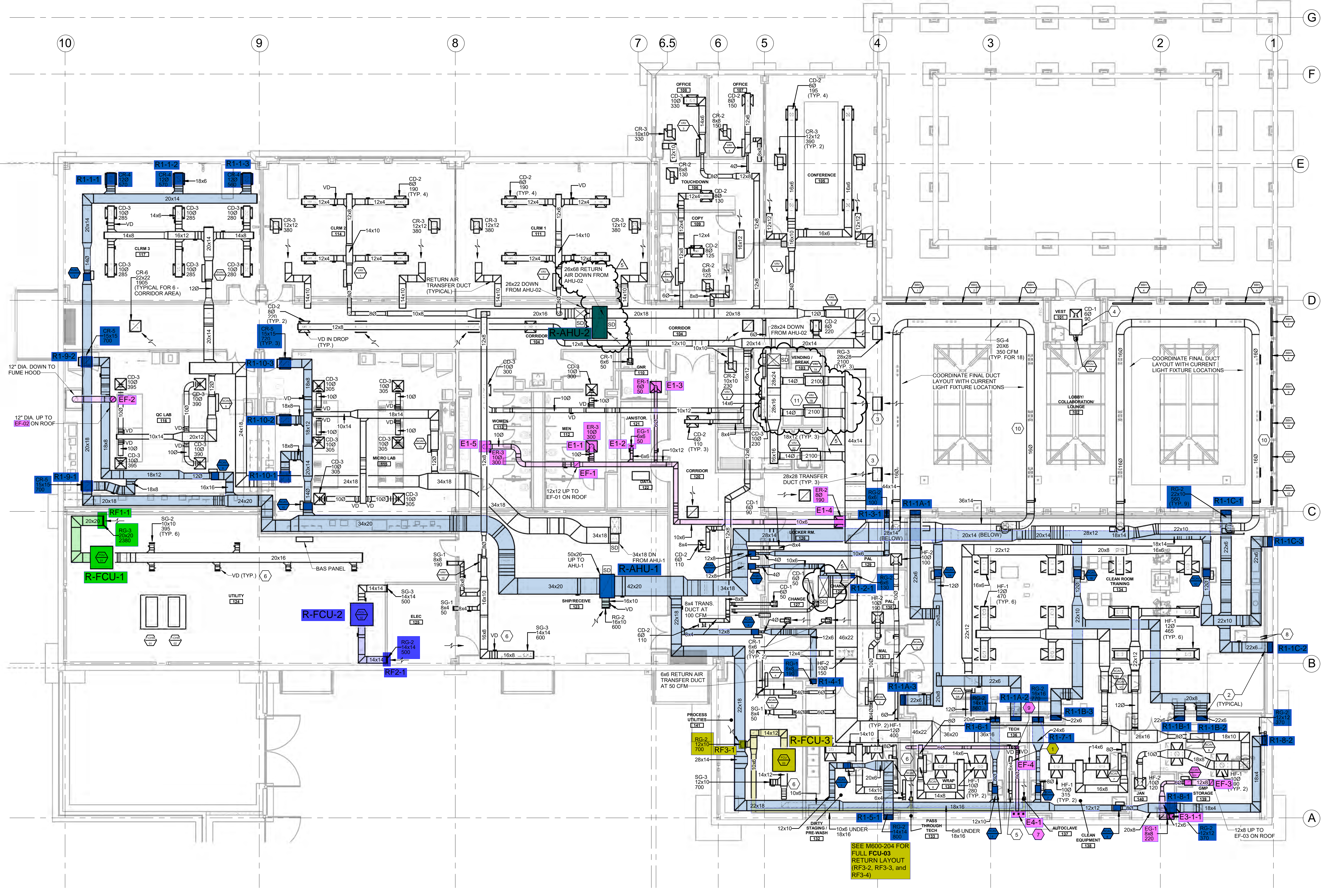


D

C

B

A



A DUCTWORK PLAN - FIRST FLOOR OVERALL
 M300-001 SCALE: 1/8" = 1'-0"

SHEET NOTES

6. ROUTE DUCT TO WITHIN 6" OF EQUIPMENT LOCATION (PARTS WASHER). FINAL CONNECTION AND THIMBLE LOCATION TO BE FIELD VERIFY WITH SELECTED PROCESS EQUIPMENT. ROUTE EXHAUST TO THE ROOF AND CONNECT TO EF-4 BALANCE THE EXHAUST TO 75 TO THE PARTS WASHER. REFER TO THIMBLE CONNECTION DETAIL ON DRAWING JM-700-100 DETAIL NO. 12
7. ROUTE DUCT TO WITHIN 6" OF EQUIPMENT LOCATION (AUTOCLAVE). IF THERE IS AN EXHAUST CONNECTION REQUIRED IT WILL NEED TO BE MADE VIA THIMBLE CONNECTION. COORDINATE IN THE FIELD AND VERIFY WITH SELECTED EQUIPMENT. ROUTE EXHAUST TO THE ROOF AND CONNECT TO EF-4 BALANCE THE ROOM OR THIMBLE EXHAUST TO 75 TO THE AUTOCLAVE. REFER TO THIMBLE CONNECTION DETAIL, IF REQUIRED, ON DRAWING JM-700-100 DETAIL NO. 12
8. PROVIDE (2) 1" DIAMETER VENT LINES FROM SIP. EXTEND VENTS 6'-0" ABOVE ROOF. COORDINATE FINAL LOCATION WITH PROCESS EQUIPMENT AND MECHANICAL DUCTWORK. REFER TO SHEET Z200-703 FOR CONNECTION DETAILS.
9. 6" EA UP TO EF-4 ON ROOF.
10. EXPOSED DUCTWORK TO BE DOUBLE-WALL SPIRAL WITH PAINT GRIP FINISH
11. COORDINATE TERMINAL BOX AND CONTROL PANEL LOCATIONS WITH FINAL APPLIANCE AND EQUIPMENT LOCATIONS TO PROVIDE CODE REQUIRED SERVICE CLEARANCES.

SHEET NOTES

1. REFER TO FAN COIL AIR FLOW DIAGRAM FCU-03 DWG. M600-204 FOR SUPPLY AND RETURN AIR CFMS.
2. LOW WALL RETURN REGISTERS TO BE MOUNTED 24" ABOVE FINISHED FLOOR. LOW WALL RETURNS TO BE COORDINATED WITH ARCHITECTURAL BACKGROUNDS AND NOT TO INTERFERE WITH PROCESS EQUIPMENT WITHIN THAT ROOM.
3. INSTALL AND MOUNT (3) RG-3 28"x28" RETURN AIR TRANSFER GRILLES AT 13'-0" ABOVE FINISHED FIRST FLOOR LEVEL IN ENTRY/COLLABORATION LOUNGE 102.
4. MOUNT FCU ABOVE CEILING IN THE VESTIBULE. FCU WILL PULL AIR FROM THE ENTRY LOUNGE. FCU HAS ELECTRIC HEAT ONLY.
5. PROVIDE MANUAL VOLUME DAMPERS ON ALL SUPPLY, RETURN AND EXHAUST DUCTWORK BRANCH TAKE-OFFS, AND ADD VOLUME DAMPERS TO ALL AIR DEVICES IN DROP.

GENERAL NOTES

1. FOR SYMBOLS, ABBREVIATIONS & GENERAL NOTES, SEE DWG M000-001.
2. FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLUTION.
3. HEAT TRACE ALL CHILLED WATER AND OTHER HVAC PIPING SYSTEMS EXPOSED TO OUTDOOR WEATHER TEMPERATURES. HEAT TRACE ANY FILL OR MAKE-UP WATER PIPING SYSTEMS IF NOT HEAT TRACED UNDER PLUMBING CONTRACTOR'S SCOPE OF WORK.

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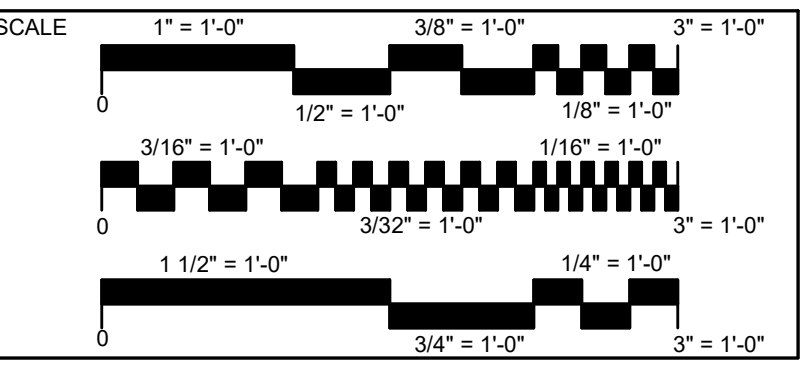


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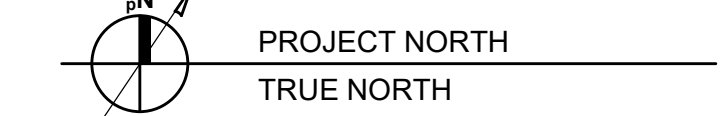
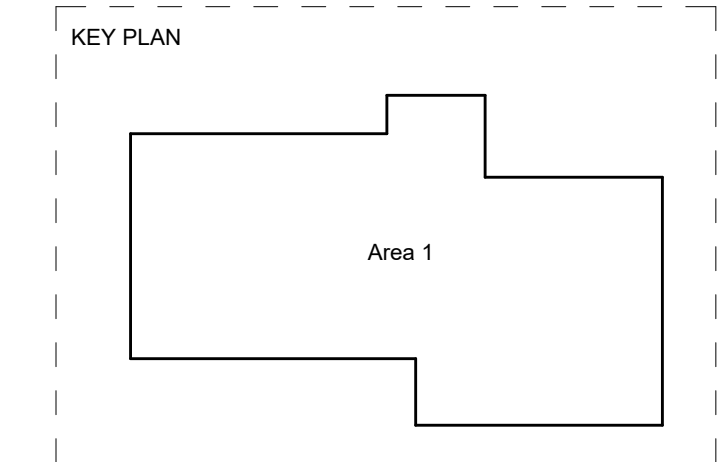
SPCC Aseptic Training Facility

TAG	DESCRIPTION	SCO ID: 20-22676-02A	DATE
F	100% OWNER REVIEW ISSUE		02MAY2024
0	100% CONSTRUCTION DOCUMENTS SCO ISSUE		04JUN2024
3	SCO RESPONSE #1 ISSUE		23SEP2024
5	SCO RESPONSE #2 ISSUE		15OCT2024



IPSPROject: NCD23106
 Project: 23SPC680
 Drawn By: GPB
 Checked By: EWW
 Date: 24SEP2024

DUCTWORK PLAN - FIRST FLOOR OVERALL



100% CONSTRUCTION DOCUMENTS SCO ISSUE

M300-001

Autodesk Docs://23SPC680 ASEPTIC TRAINING FACILITY/SPCC_Aseptic_Facility_Mech.rvt

SHEET NOTES

1. PROVIDE 6" DIAMETER VENT LINE FROM PARTS WASHER (AUTOCLAVE). COORDINATE FINAL LOCATION WITH PROCESS EQUIPMENT AND MECHANICAL DUCTWORK.

GENERAL NOTES

1. FOR SYMBOLS, ABBREVIATIONS & GENERAL NOTES, SEE DWG M300-001.
2. FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLUTION.
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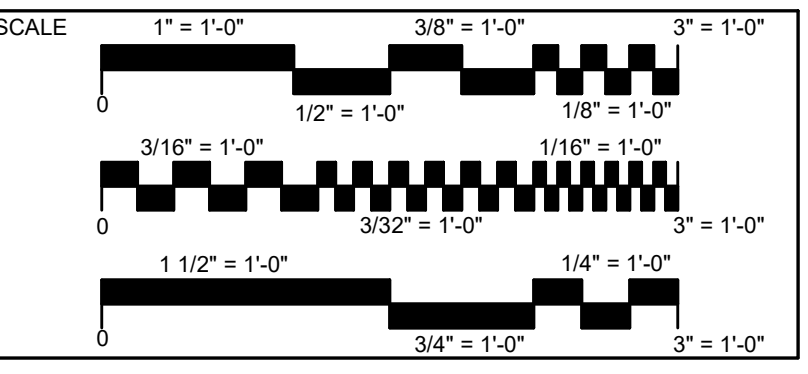
SOUTH PIEDMONT COMMUNITY COLLEGE

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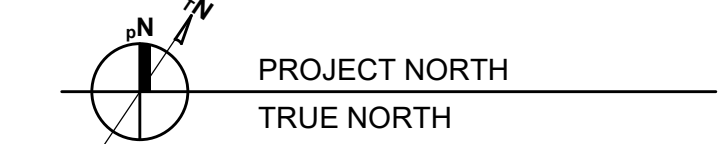
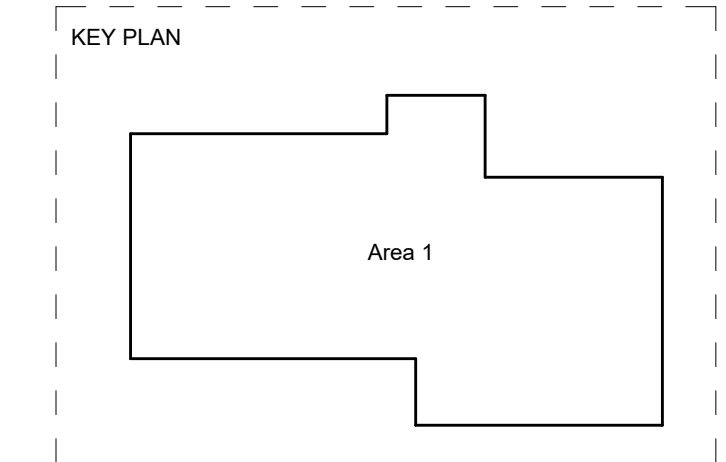
SCO ID: 20-22676-02A

TAG	DESCRIPTION	DATE
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0	100% CONSTRUCTION DOCUMENTS SCO ISSUE	04JUN2024
3	SCO RESPONSE ISSUE	23SEP2024
5	SCO RESPONSE #2 ISSUE	15OCT2024



IPSPROJECT: NCD23106
 PROJECT: 23SPC680
 DRAWN BY: GPB
 CHECKED BY: EWW
 DATE: 24SEP2024

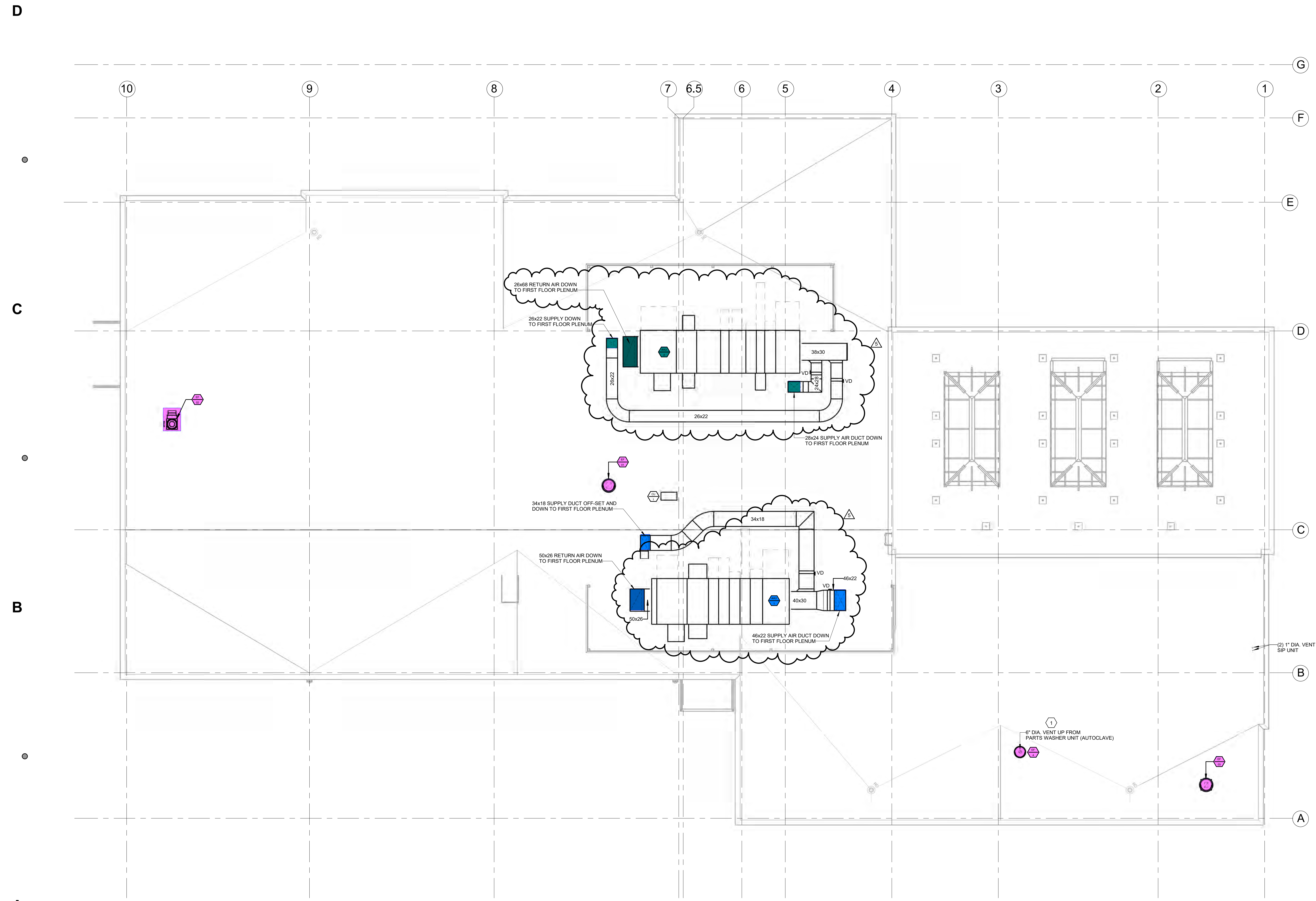
DUCTWORK PLAN - ROOF OVERALL



100% CONSTRUCTION DOCUMENTS SCO ISSUE

M300-002

Autodesk Docs://23SPC680 ASEPTIC TRAINING FACILITY/SPCC_Aseptic_Facility_Mech.rvt



A DUCTWORK PLAN - ROOF OVERALL
 M300-002 SCALE: 1/8" = 1'-0"

GENERAL NOTES

- FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES, SEE DRAWING M600-001.
- REFER TO THE CONTROL DIAGRAMS FOR INSTRUMENTATION.
- AIRFLOW QUANTITIES SHOWN FOR RETURN/EXHAUST ARE ESTIMATED VALUES FOR INITIAL BALANCING. BALANCING AND CONTROLS CONTRACTOR SHALL WORK TOGETHER DURING COMMISSIONING AND START-UP TO DETERMINE ACTUAL AIRFLOW SETPOINT FOR PRESSURIZATION CONTROL.
- EVERY BRANCH DUCT SHALL HAVE A BALANCING DAMPER. DAMPERS ARE NOT SHOWN FOR CLARITY.

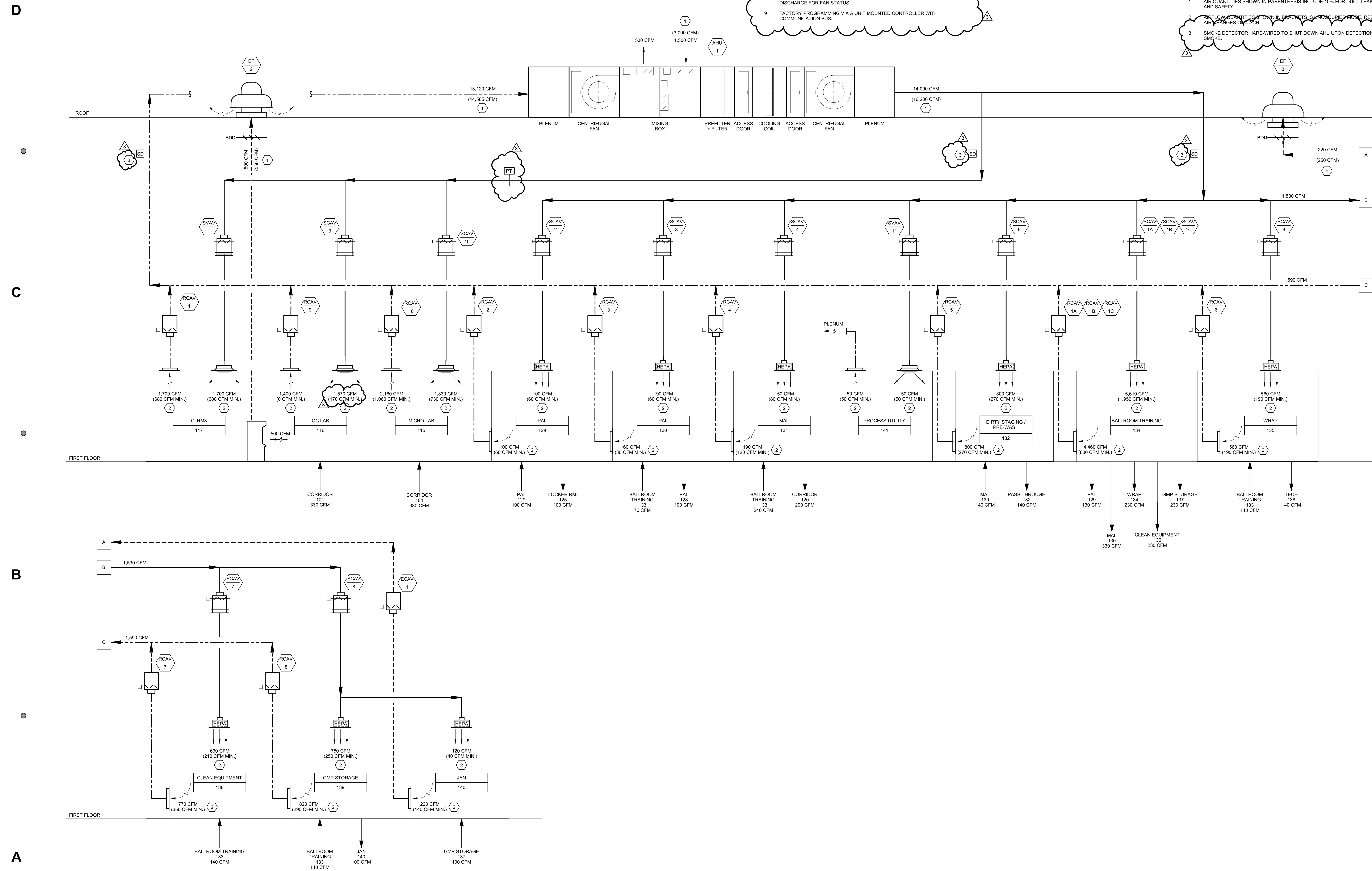
SHEET NOTES

- AIR QUANTITIES SHOWN IN PARENTHESIS INCLUDE 10% FOR DUCT LEAKAGE AND SAFETY.
- AIRFLOW QUANTITIES SHOWN IN BRACKETETS IS MINIMUM SUPPLY FLOW. REDUCE AIR FLOW RANGES BY 4 ACH.
- SMOKE DETECTOR HARD-WIRED TO SHUT DOWN AHU UPON DETECTION OF SMOKE.

PRE-PURCHASED AHU

MANUFACTURER PROVIDED CONTROLS INCLUDE:

- VARIABLE FREQUENCY DRIVES: 1 PER SUPPLY FAN AND ONE PER RETURN FAN.
- FACTORY PACKAGED AND MOUNTED VAV CONTROLS SYSTEM
- TRAO DAMPERS WITH INTEGRAL AIRFLOW MONITORING STATIONS AND CONTROL.
- UNIT MOUNTED DAMPERS SHALL MODULATE OUTDOOR, RETURN AND EXHAUST AIR FLOW.
- FACTORY-MOUNTED ECONOMIZER SEQUENCING CONTROLS.
- SSR CONTROL FOR AHU-2 HEATER.
- SERPENTINED AVERAGING TEMPERATURE SENSORS.
- AIRFLOW DIFFERENTIAL PRESSURE SWITCHES ACROSS FAN SUCTION AND DISCHARGE FOR FAN STATUS.
- FACTORY PROGRAMMING VIA A UNIT MOUNTED CONTROLLER WITH COMMUNICATION BUS.



24SEP2024
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SCO ID: 20-22676-02A

TAG	DESCRIPTION	DATE
F	100% OWNER REVIEW ISSUE	02MAY2024
0	100% CONSTRUCTION DOCUMENTS SCO ISSUE	04JUN2024
3	SCO RESPONSE ISSUE	23SEP2024

IPSProject: NCD23106
Project: 23SPC680
Drawn By: JMW
Checked By: EW
Date: 24SEP2024

AIR FLOW DIAGRAM - AHU-1

100% CONSTRUCTION DOCUMENTS SCO ISSUE

M600-200

1 AIR FLOW DIAGRAM - AHU-1
SCALE: NONE



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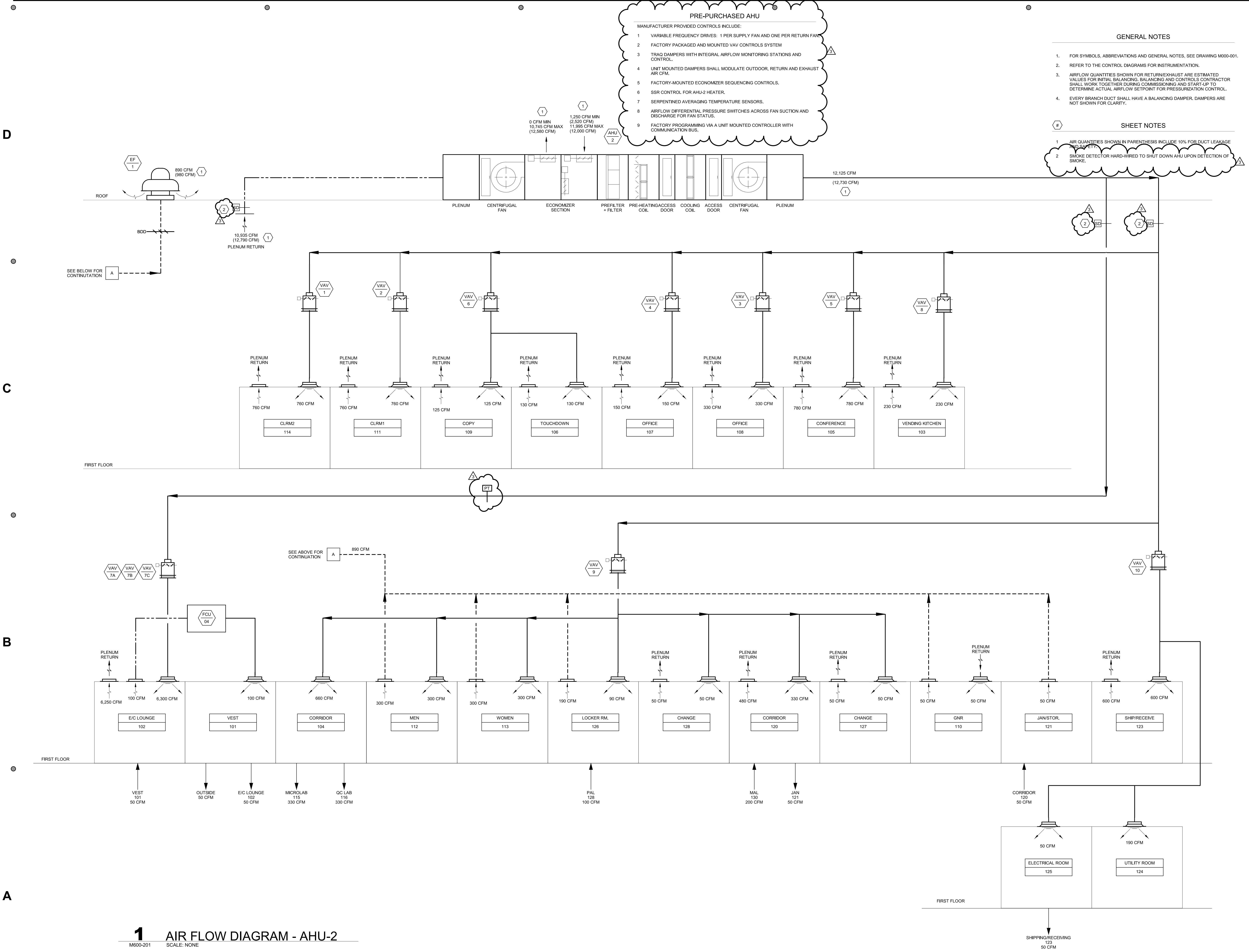
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AIR FLOW DIAGRAM - AHU-2

100% CONSTRUCTION DOCUMENTS SCO ISSUE

M600-201



1 AIR FLOW DIAGRAM - AHU-2
M600-201 SCALE: NONE



06/04/2024

04JUN2024

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TAG	DESCRIPTION	DATE
E	90% CONSTRUCTION DOCUMENTS ISSUE	04APR2024
F	100% OWNER REVIEW ISSUE	02MAY2024
O	100% CONSTRUCTION DOCUMENTS SCO ISSUE	04JUN2024

IPSPROJECT: NCD23106
Project: 23SPC680
Drawn By: JMW
Checked By: EW
Date: 04JUN2024

**AIR FLOW
DIAGRAM - FCU-1**

**100% CONSTRUCTION
DOCUMENTS SCO ISSUE**

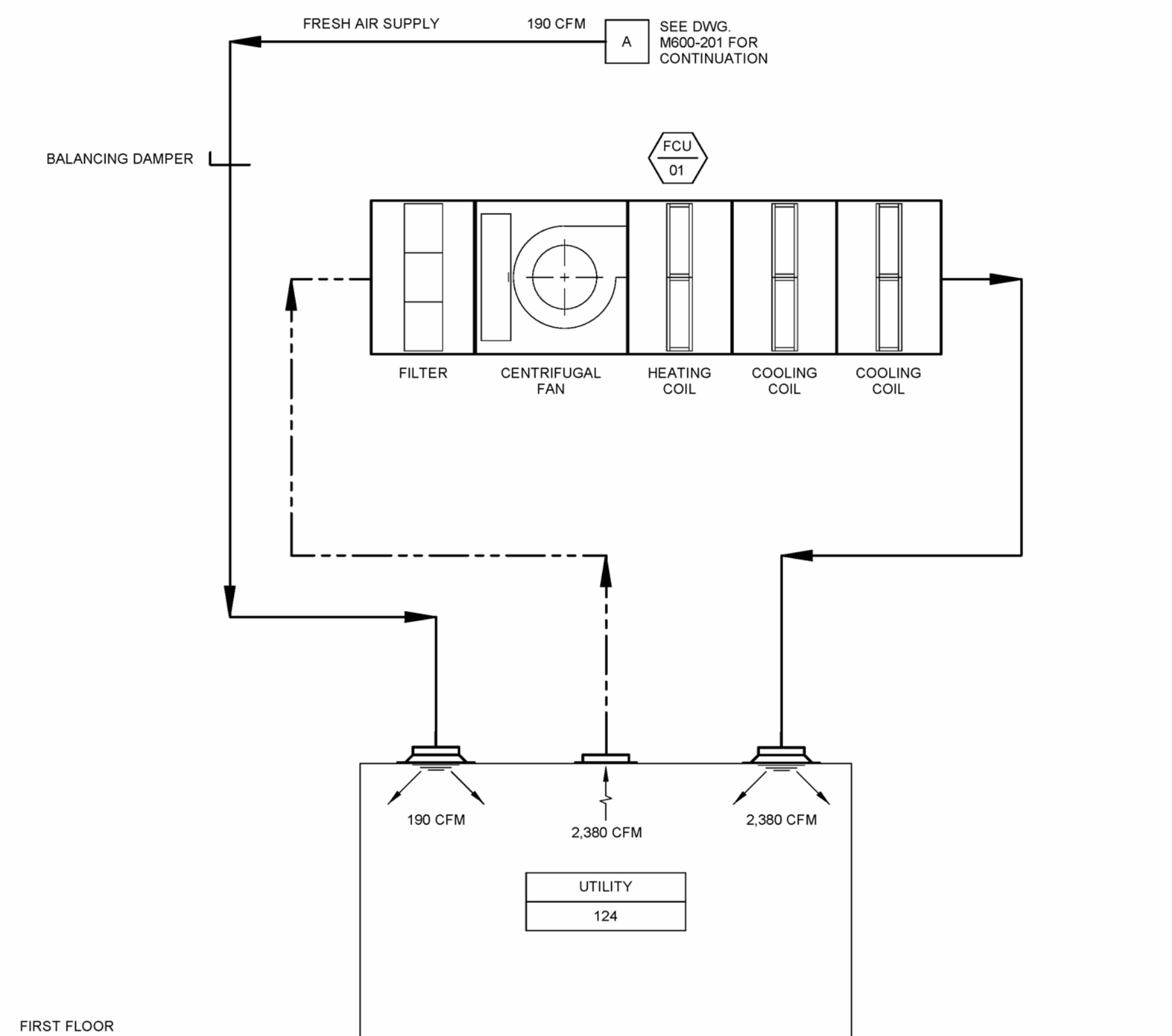
M600-202

GENERAL NOTES

1. FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES, SEE DRAWING M600-001.
2. REFER TO THE CONTROL DIAGRAMS FOR INSTRUMENTATION.
3. AIRFLOW QUANTITIES SHOWN FOR RETURN/EXHAUST ARE ESTIMATED VALUES FOR INITIAL BALANCING. BALANCING AND CONTROLS CONTRACTOR SHALL WORK TOGETHER DURING COMMISSIONING AND START-UP TO DETERMINE ACTUAL AIRFLOW SETPOINT FOR PRESSURIZATION CONTROL.
4. EVERY BRANCH DUCT SHALL HAVE A BALANCING DAMPER. DAMPERS ARE NOT SHOWN FOR CLARITY.

SHEET NOTES

1. AIR QUANTITIES SHOWN IN PARENTHESIS INCLUDE 10% FOR DUCT LEAKAGE AND SAFETY.



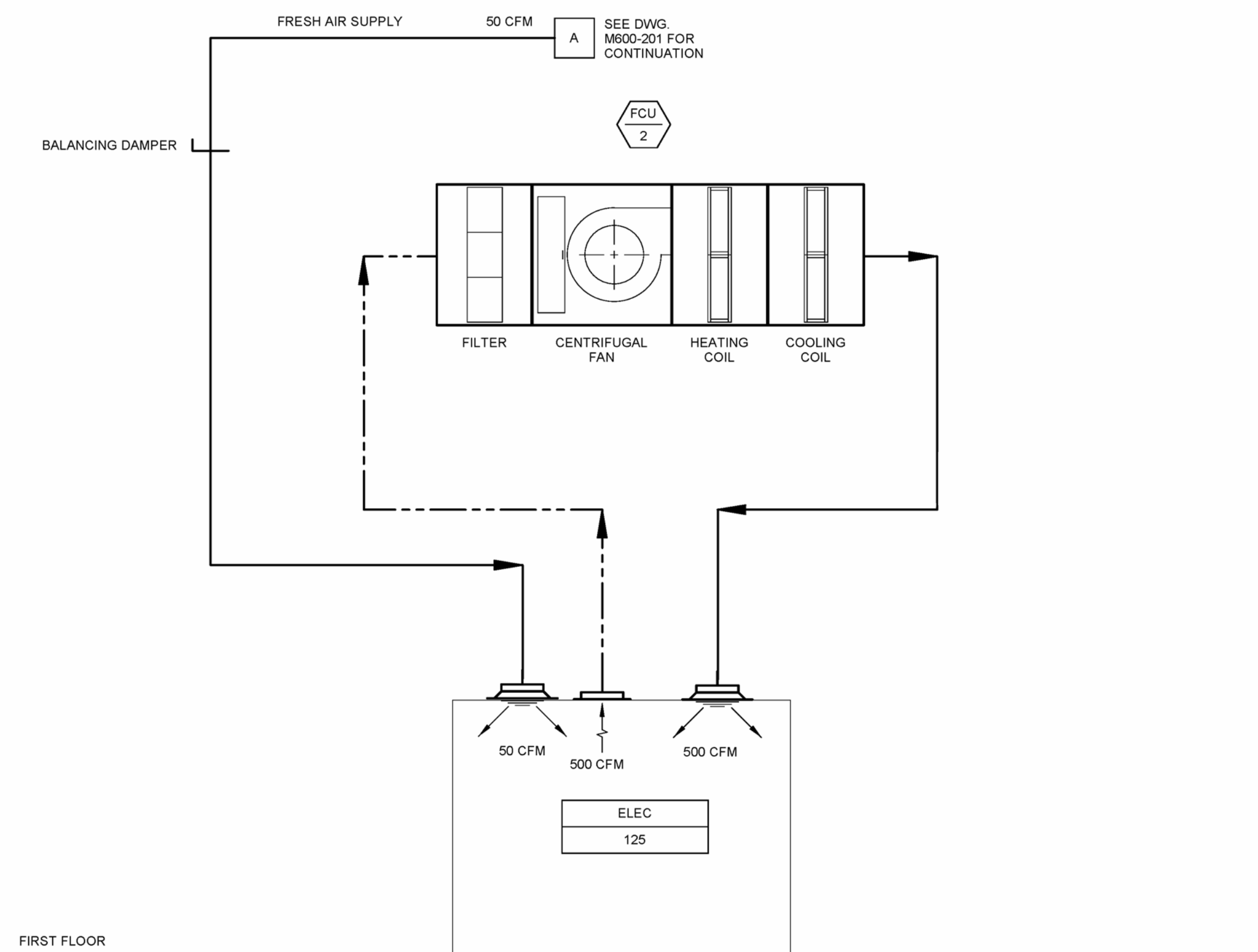
1 AIR FLOW DIAGRAM - FCU-1
M600-202 SCALE: NONE

GENERAL NOTES

- FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES, SEE DRAWING M600-001.
- REFER TO THE CONTROL DIAGRAMS FOR INSTRUMENTATION.
- AIRFLOW QUANTITIES SHOWN FOR RETURN/EXHAUST ARE ESTIMATED VALUES FOR INITIAL BALANCING. BALANCING AND CONTROLS CONTRACTOR SHALL WORK TOGETHER DURING COMMISSIONING AND START-UP TO DETERMINE ACTUAL AIRFLOW SETPOINT FOR PRESSURIZATION CONTROL.
- EVERY BRANCH DUCT SHALL HAVE A BALANCING DAMPER. DAMPERS ARE NOT SHOWN FOR CLARITY.

SHEET NOTES

- AIR QUANTITIES SHOWN IN PARENTHESIS INCLUDE 10% FOR DUCT LEAKAGE AND SAFETY.



1 AIR FLOW DIAGRAM - FCU-2
M600-203 SCALE: NONE



04JUN2024

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IPSPROJECT: NCD23106
PROJECT: 23SPC680
DRAWN BY: JMW
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**AIR FLOW
DIAGRAM - FCU-2**

**100% CONSTRUCTION
DOCUMENTS SCO ISSUE**

M600-203



06/04/2024

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PROJECT: 23SPC680
DRAWN BY: GPB
CHECKED BY: EW
DATE: 04JUN2024

**AIR FLOW
DIAGRAM - FCU-3**

**100% CONSTRUCTION
DOCUMENTS SCO ISSUE**

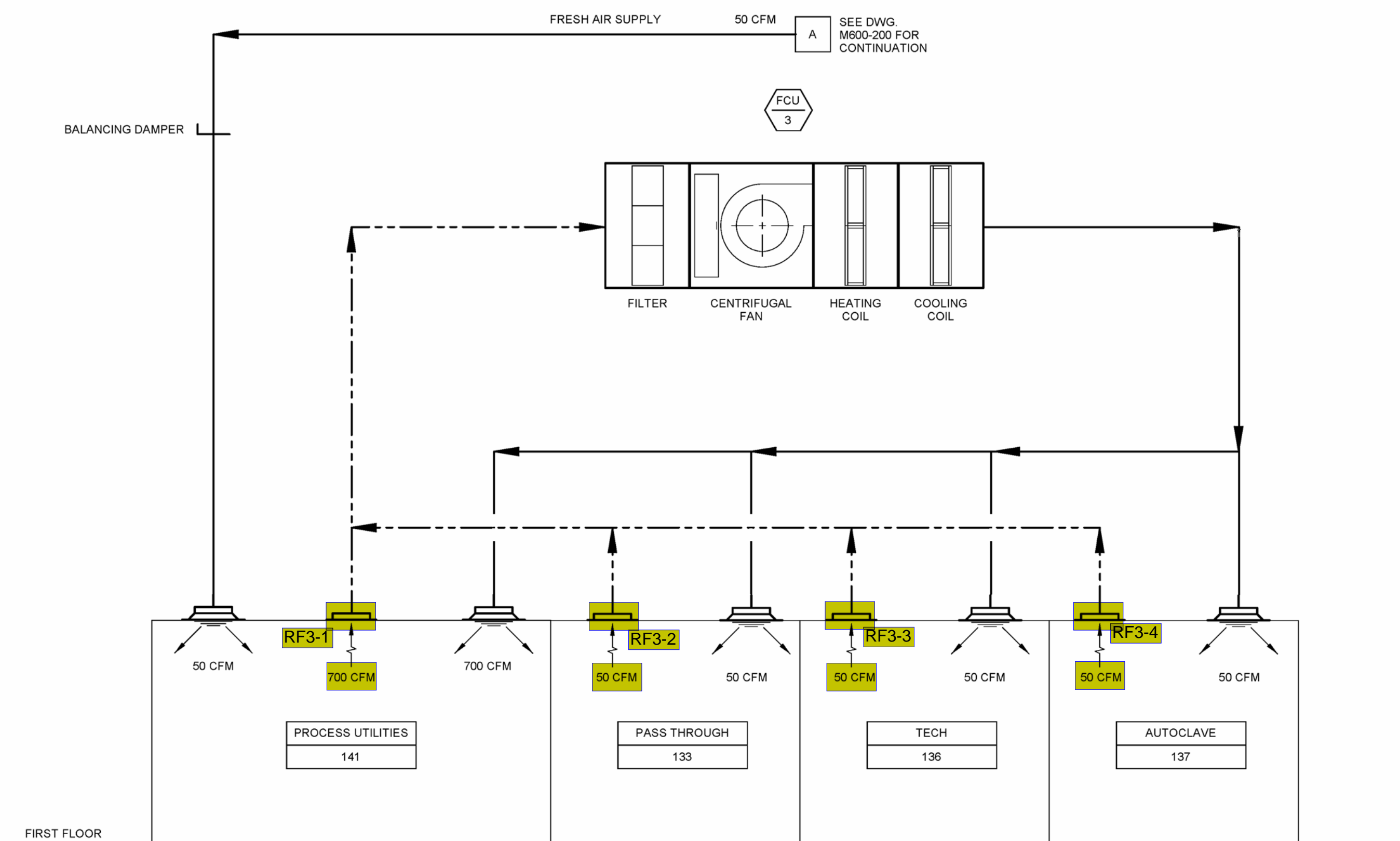
M600-204

GENERAL NOTES

- FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES, SEE DRAWING M000-001.
- REFER TO THE CONTROL DIAGRAMS FOR INSTRUMENTATION.
- AIRFLOW QUANTITIES SHOWN FOR RETURN/EXHAUST ARE ESTIMATED VALUES FOR INITIAL BALANCING. BALANCING AND CONTROLS CONTRACTOR SHALL WORK TOGETHER DURING COMMISSIONING AND START-UP TO DETERMINE ACTUAL AIRFLOW SETPOINT FOR PRESSURIZATION CONTROL.
- EVERY BRANCH DUCT SHALL HAVE A BALANCING DAMPER. DAMPERS ARE NOT SHOWN FOR CLARITY.

SHEET NOTES

- AIR QUANTITIES SHOWN IN PARENTHESES INCLUDE 10% FOR DUCT LEAKAGE AND SAFETY.



1 AIR FLOW DIAGRAM - FCU-3
M600-204 SCALE: NONE