Addendum

Florida Gateway College
New Building 102 – STEM Two
FGC ITB # ST-24-01-06
Lake City, Florida
Project

ST-24-01-06	May 17, 2024
FGC Project Number	Date
2314	Page 1 of 1 and 1 Attachment
Architect's Project Number	Pages and Attachments
03	
Addendum Number	

This Addendum is considered part of the Contract Documents and is incorporated integrally into them. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum takes precedence. Bidders are to acknowledge receipt of this Addendum on their Bid Form.

1. **PROJECT MANUAL, SECTION 07 4243 – COMPOSITE WALL PANEL:** Refer to Paragraph 2.4, Subparagraph A, Item 4. In lieu of the rigid wall insulation specified, provide Rockwool or Mineral wool insulation.

2. **DRAWINGS, SHEET M502 – HVAC CONTROLS:** Refer to the attached reissued Sheet. Revisions are indicated by revision triangle and clouding.

3. **DRAWINGS, MECHANICAL – GENERAL:** For clarification, the basis of design for the HVAC systems is Trane as indicated on the HVAC schedule sheets. Acceptable alternate manufacturers for the HVAC equipment are Carrier and Daikan. The controls system will be an extension of the existing Siemens system.

4. **DRAWINGS, FIRE ALARM – GENERAL:** Add (3) addressable relay outputs to Building 102 Fire Alarm system. The outputs shall operate based on the status of three Building 102 Fire Alarm Panel conditions: Alarm, Trouble and Supervisory. The associated relay hardware for these outputs shall be located in the first floor I.T. room and labeled. Future connection of these output relays to other campus monitoring system will be by others.

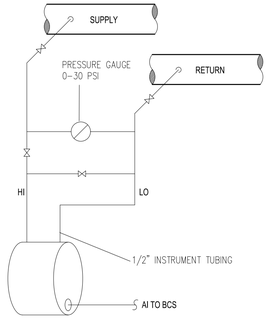
END OF ADDENDUM 03

ATTACHMENTS INCLUDE REISSUED SHEET M502

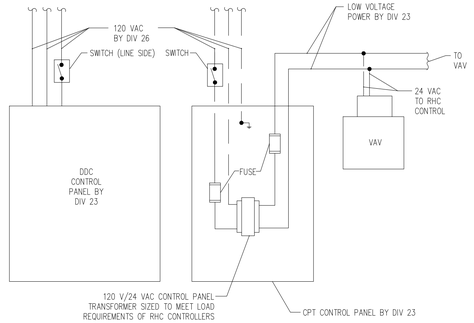
ALL NEW CONTROL POINTS SHALL BE CONNECTED TO THE EXISTING SIEMENS BUILDING AUTOMATION SYSTEM AND SHALL BE FULLY MONITORABLE AND ADJUSTABLE FROM THE EXISTING FRONT END LOCATED IN EXISTING ENGINEERING OFFICE. SIEMENS SHALL BE UTILIZED FOR THE CONTROLS CONTRACTOR FOR THE PROJECT. CONTROLS CONTRACTOR SHALL ADD NEW CHILLED WATER AIR HANDLING UNITS TO THE EXISTING SIEMENS DEMAND FLOW SYSTEM AND UPDATE GRAPHICS / ADJUST PLANT BASED ON THE NEW FACILITY.

EXISTING/NEW BAS CONTROL REQUIREMENTS — NTS — 5

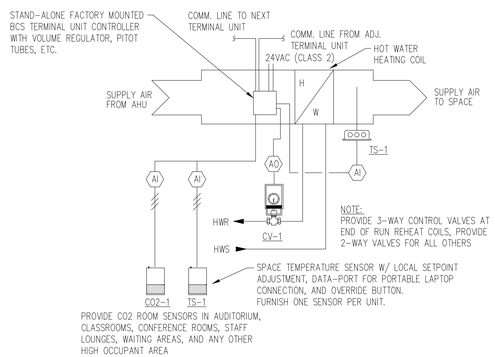
2



D/P TRANSMITTER DETAIL — NTS — 2



DDC PANEL CONTROL POWER TRANSFORMER — NTS — 3



VAV TERMINAL UNIT W/ HW — NTS — 4

SEQUENCE OF OPERATIONS – AIR HANDLING UNIT

START/STOP:

WHEN THE AHU IS INDEXED TO OPERATE BY OPERATOR COMMAND THE ASSOCIATED ASSOCIATED EXHAUST FANS SHALL START. AFTER AN ADJUSTABLE TIME DELAY (SET AT TD RELAY LOCATED IN STARTER), THE AHU SUPPLY FAN SHALL START AND ALL SAFETIES AND INTERLOCKS SHALL OPERATE THROUGH THE STARTER AND BYPASS CONTACTOR.

NIGHT TIME SETBACK:

AIR HANDLER AHU-3-1 SHALL REDUCE DOWN TO A MAXIMUM OF 30% SPEED DURING UNOCCUPIED HOURS (7:00 PM – 5:00 AM) (ADJ.). ALL T-STATS SHALL HAVE A BUTTON TO OVERRIDE THE NIGHT SETBACK FOR THE REMAINDER OF THE NIGHT. ADDITIONALLY, IF THE RETURN AIR HUMIDITY EXCEEDS 60%, THE AHU SHALL RETURN TO NORMAL OPERATION.

TEMPERATURE AND HUMIDITY CONTROL:

DDC CONTROLLER SHALL MODULATE N.C. CHILLED WATER VALVE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE AT 54°F (ADJUSTABLE) AT TEMPERATURE SENSOR IMMEDIATELY AFTER COOLING COIL. WHEN RETURN AIR HUMIDITY IS <60% AND 90% OF HVAC ZONES PER AIR HANDLER ARE SATISFIED, SUPPLY AIR DISCHARGE TEMPERATURE SHALL AUTOMATICALLY INCREASE LINEAR TO 60°F (ADJ). CONTROL VENDOR PREFERRED DISCHARGE AIR TEMPERATURE RESET MAY BE USED IN LIEU OF PROPOSED DESIGN.

STATIC PRESSURE CONTROL:

IF THE DISCHARGE STATIC PRESSURE RISES ABOVE THE SETPOINT AS MEASURED BY HIGH STATIC LIMIT THE AIR HANDLER UNIT SHALL BE DE-ENERGIZED & AN ALARM INITIATED. AIR HANDLER SHALL NOT BE ALLOWED TO RUN UNTIL AN OPERATOR MANUALLY RESETS THE SENSOR AT THE UNIT.

AHU SHALL AUTOMATICALLY INCREASE/DECREASE IN SPEED WITH FILTER LOADING BASED UPON STATIC PRESSURE SENSOR SETPOINT (AS DETERMINED BY T&B CONTRACTOR) OF SENSOR LOCATED 2/3 DOWNSTREAM OF SUPPLY DUCT RUN.

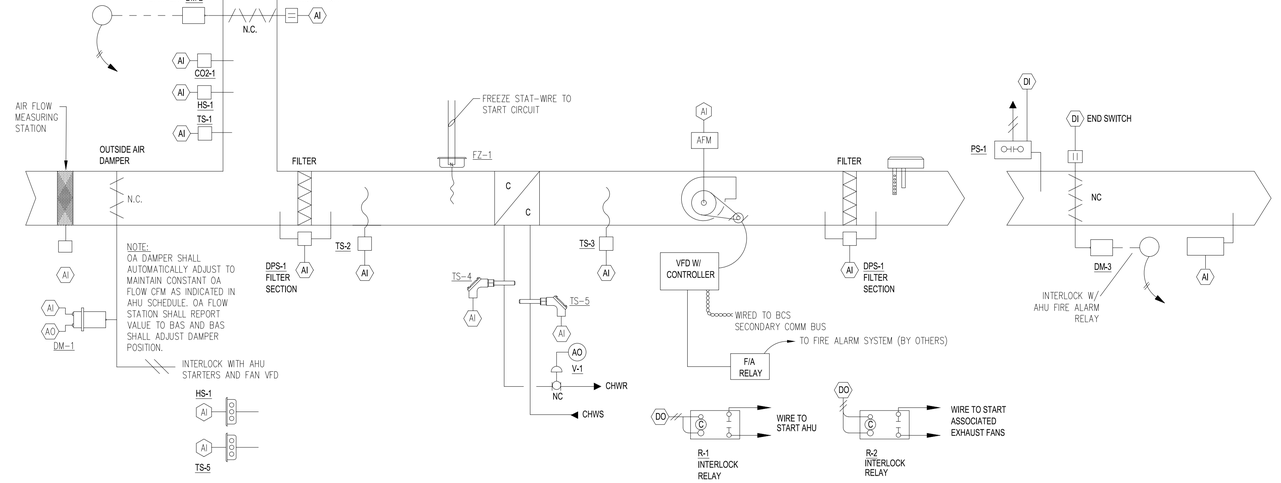
STATIC PRESSURE SETPOINT SHALL AUTOMATICALLY RESET BASED ON VAV BOX POSITION. A MINIMUM OF 5% OF VAV BOXES PER AHU SHALL BE REQUIRED TO BE 95% OPEN AT ALL TIMES.

OUTSIDE AIR CONTROL:

CONSTANT OA FLOW RATE SHALL BE MAINTAINED TO EACH AIR HANDLER. EBTRON OA FLOW STATION WITH INTEGRAL MODULATING DAMPER SHALL REPORT FLOW RATE TO BAS. BAS SHALL MODULATE OA DAMPER POSITION TO MAINTAIN CONSTANT OA FLOW RATE. UPON OA FLOWRATE DIFFERENTIATING GREATER THAN 10% OF DESIGN FLOW RATE, BAS SHALL ALARM AT OPERATOR WORKSTATION. VARIABLE VOLUME AIR HANDLING UNITS SHALL BE PROVIDED WITH A RETURN AIR DAMPER; RETURN AIR DAMPER SHALL MODULATE CLOSED UNTIL OUTDOOR AIR SETPOINT HAS BEEN MET UPON OUTDOOR AIR DAMPER BEING OPENED 100% AND THE SETPOINT NOT BEING MET.

TERMINAL VAV WITH REHEAT CONTROL:

INDIVIDUAL SPACES ARE SERVED BY VARIABLE AIR VOLUME REHEAT BOXES WITH HYDRONIC COILS. ON A RISE IN SPACE TEMPERATURE AS MEASURED BY THE SPACE THERMOSTAT, TERMINAL UNIT CONTROLLER WILL MODULATE REHEAT VALVE CLOSED AND OPEN DAMPER LINEARLY TO MAXIMUM AIRFLOW SETPOINT. ON A DROP IN SPACE TEMPERATURE AS MEASURED BY THE SPACE THERMOSTAT, TERMINAL UNIT WILL LINEARLY REDUCE AIRFLOW TO MINIMUM SETPOINT TO MAINTAIN SPACE TEMPERATURE. IF TERMINAL UNIT IS AT MINIMUM AIRFLOW SETPOINT AND SPACE TEMPERATE IS BELOW SETPOINT, CONTROLLER WILL MODULATE REHEAT VALVE OPEN TO MAINTAIN REHEAT COIL DISCHARGE AIR TEMPERATURE SETPOINT 90° (ADJ)–. VAV AND CV BOX MOTORIZED DAMPERS SHALL BE PRESSURE INDEPENDENT AND OPEN AND CLOSE AUTOMATICALLY TO MAINTAIN FLOW SETPOINT AT TERMINAL BOX.



VAV AIR HANDLING UNIT CONTROLS DIAGRAM — NTS — 1

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FLORIDA GATEWAY COLLEGE

NEW BUILDING 102 - STEM TWO
FGC ITB # ST-24-01-06
LAKE CITY, FLORIDA

#	Date	Note
2	05/17/2024	ADD#03

Revisions

HVAC CONTROLS

CONSTRUCTION DOCUMENTS

DATE
3/25/2024

2314

M502