

INPUT/OUTPUT SUMMARY FOR AIR HANDLING UNITS AH-01 & AH-02

Table with columns: SYSTEM APPARATUS OR AREA POINT DESCRIPTION, ANALOG (MEASURED, CALCULATED), BINARY, DIGITAL, ANALOG, ALARMS, PROGRAMS, GENERAL, SUPPLEMENTARY NOTES. Rows include: OUTSIDE TEMPERATURE, OUTSIDE RELATIVE HUMIDITY (H), PREHEAT COIL, HC-07, AIR FILTER, AF-01 (TYP 2), MIXING AIR DAMPER 01, COOLING COIL, CC-01, SUPPLY FAN, SF-01, ROOM TEMPERATURE (TYPICAL 6 ZONES), SPACE AVERAGE RELATIVE HUMIDITY (LVEA), ZONE DUCT HEATERS (TYPICAL 5 ZONES), LVEA, SMOKE DETECTOR (SD-01), AIR COMPRESSORS (TYP 2), ROOM PRESSURE (LVEA), AIR FLOW DIAGRAM, HEPA FILTER, RETURN & OUTSIDE AIR DAMPERS (TYP 5), FLOOR PLANS.

NOTES:

- 1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES SEE SHEETS LA-H-001 AND LA-H-002.
2. SMOKE DETECTORS SHALL BE HARD WIRED TO THE SUPPLY FANS SF-01 & SF-02 MOTOR STARTER TO STOP FANS WHEN SMOKE IS DETECTED IN THE RETURN AIR STREAM. ALSO SMOKE DETECTORS WILL BE SOFTWARE CONNECTED TO DDC CONTROL PANEL AND THE FACILITY CONTROL ROOM.
3. CONTROL SYSTEM SHALL BE STAND ALONE TYPE AND CONNECTED TO THE MAIN CONTROL AND MONITORING SYSTEM AT THE FACILITY CONTROL ROOM IN THE CORNER STATION BUILDING.
4. LVEA ROOM SHALL BE PROVIDED WITH MULTIPLE TEMPERATURE SENSORS TO CONTROL THE RESPECTIVE DUCT HEATER. SYSTEM MAY AVERAGE THE READING OF THE ROOM TEMPERATURE SENSORS OR SELECT ANY SENSOR TO CONTROL THE DUCT HEATER. SEE FLOOR PLANS FOR LOCATION AND NUMBER OF SENSORS FOR EACH ZONE.

SEQUENCE OF OPERATION:

- I. CHILLED WATER PLANT: UPON A SIGNAL FROM THE CENTRAL CONTROL SYSTEM THE PACKAGED CONTROLS PROVIDED WITH THE WATER CHILLER WILL START TO ESTABLISH STEADY WATER FLOW THROUGH THE SYSTEM.
II. AIR HANDLING SYSTEM OF LVEA (AH-01 & AH-02): UPON A SIGNAL FROM THE CENTRAL CONTROL SYSTEM THE SUPPLY AIR FANS (SF-01, SF-02, SF-03, SF-04) WILL START TO ESTABLISH A STEADY AIR FLOW THROUGH THE SYSTEM. THE DDC CONTROLS WILL PERFORM THE FOLLOWING:
III. AIR HANDLING SYSTEM OF OSB(AH-03): UPON A SIGNAL FROM THE CENTRAL CONTROL SYSTEM THE SUPPLY AIR FANS (SF-05 & SF-06) SHALL START TO ESTABLISH A STEADY AIR FLOW THROUGH THE SYSTEM. THE DDC CONTROLS WILL PERFORM THE FOLLOWING:
IV. AIR HANDLING SYSTEM OF OSB(AH-04): UPON A SIGNAL FROM THE CENTRAL CONTROL SYSTEM THE AIR HANDLING UNIT AH-04 SHALL START TO ESTABLISH A STEADY AIR FLOW THROUGH THE SYSTEM. THE DDC CONTROLS SHALL PERFORM THE FOLLOWING:
V. OPTICS LAB & VACUUM PREPARATION ROOMS PRESSURIZATION:
VI. FUME HOODS OF OPTICS LAB & VACUUM PREPARATION:
VII. EQUIPMENT START UP:

INPUT/OUTPUT SUMMARY FOR WATER CHILLERS CH-01, CH-02, & CH-03

Table with columns: SYSTEM APPARATUS OR AREA POINT DESCRIPTION, ANALOG (MEASURED, CALCULATED), BINARY, DIGITAL, ANALOG, ALARMS, PROGRAMS, GENERAL, SUPPLEMENTARY NOTES. Rows include: WATER CHILLER, CH-01, WATER CHILLER, CH-02, WATER CHILLER, CH-03, CHILLED WATER PUMP, WP-01, CHILLED WATER PUMP, WP-02, CHILLED WATER PUMP, WP-03, CHILLED WATER RETURN TEMP, CHILLED WATER SUPPLY TEMP, CHILLED WATER FLOW DIAGRAM, FLOOR PLANS, CHILLED WATER BOOSTER PUMP.

FLOOR PLAN GRAPHICS WILL SHOW ALL EQUIPMENT LOCATION, CONTROL PANELS AND CONTROL COMPONENTS SUCH AS DAMPER, VALVES, TEMPERATURE SENSOR, PRESSURE SENSORS, ... ETC.

ISSUED FOR CONSTRUCTION
DRAWN CLP 11-15-96
CHECKED MV 10-25-96
ENGINEER AA 1-23-96
PROJ TDM 11-15-96

AS-BUILT DRAWINGS



100 WEST WALNUT STREET
PASADENA, CALIFORNIA



CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

LIGO-D960977-01-0

LASER INTERFEROMETER
GRAVITATIONAL-WAVE OBSERVATORY
SITE NO. 2 - LIVINGSTON, LOUISIANA
HVAC CORNER STATION SEQUENCES OF OPERATION & I/O SUMMARY SHEET I
SCALE: NONE
CONTRACT NUMBER: PP150969
PROJECT NUMBER: 8094
SHEET NUMBER: LA-H-141

This document and the design it covers are the property of PARSONS. They are loaned only with the borrower's expressed written agreement that they will not be reproduced, copied, loaned, exhibited, or used in any other way, except by written consent from PARSONS to the borrower.