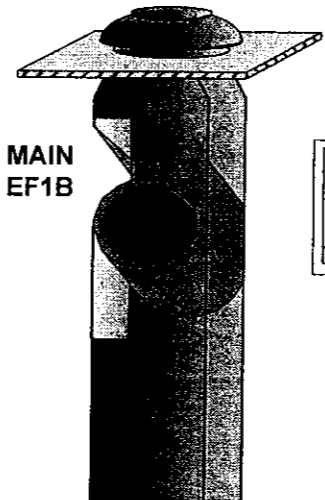
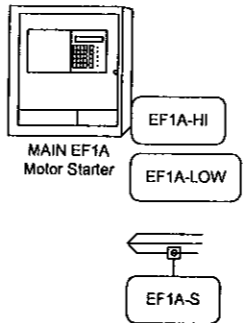
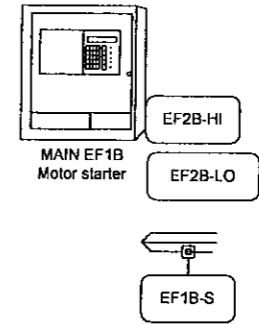


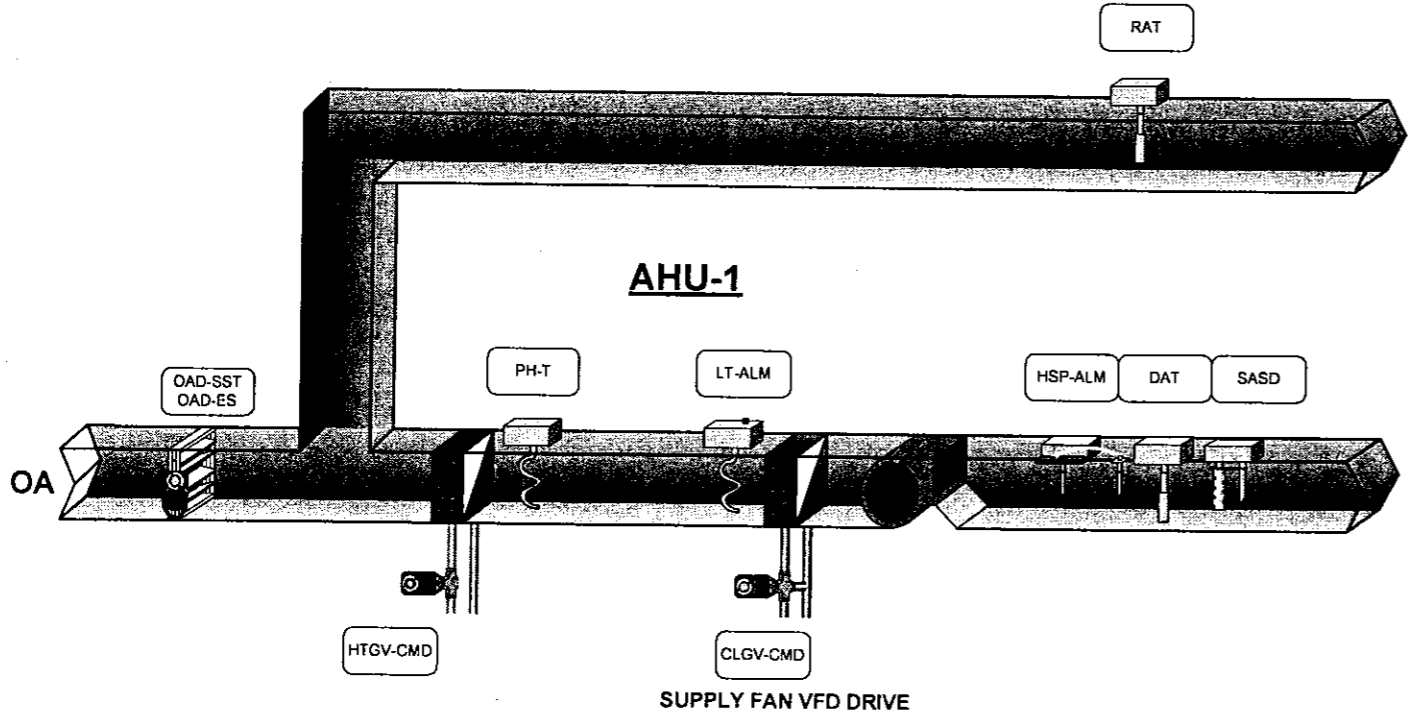
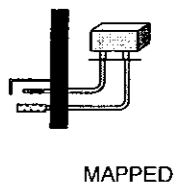
MAIN EF1A



MAIN EF1B

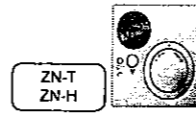


outside air temperature



AHU-1

SUPPLY FAN VFD DRIVE



SEQUENCE OF OPERATIONS:

SUPPLY FAN CONTROL: FAN SHALL BE ENABLED TO RUN CONTINUOUSLY DURING OCCUPIED PERIODS, AND WILL CYCLE ON AND OFF DURING UN-OCCUPIED PERIODS TO MAINTAIN NIGHT SETBACK SETPOINTS.

PRE-HEAT COIL: STEAM PRE HEAT COIL SHALL MAINTAIN A MINIMUM OF 45 DEGREES AT THE PRE HEAT TEMPERATURE SENSOR IN ORDER TO PROTECT THE COOLING WATER COIL FROM A FREEZE CONDITION. THE 2 WAY PRE HEAT VALVE SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR SETPOINT, DISCHARGE SETPOINT WILL BE RESET BASED ON THE RETURN AIR TEMPERATURE. PREHEAT VALVE SHALL FAIL 100% TO HEATING. DURING A FREEZSTAT CONDITION OR UNOCCUPIED MODE THE PRE HEAT VALVE WILL MODULATE TO MAINTAIN MINIMUM PRE HEAT TEMPERATURE INSIDE AIR HANDLER CHAMBER (45 DEG F) ADJ.

COOLING COIL: 3 WAY COOLING VALVE WILL MODULATE TO MAINTAIN THE DISCHARGE SETPOINT (RESET BY RETURN AIR TEMPERATURE, MENTIONED ABOVE). VALVE SHALL FAIL TO BYPASS POSITION. DURING A FREEZE CONDITION THE VALVE SHALL FULLY CLOSE TO THE BYPASS POSITION.

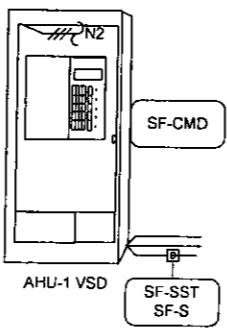
OUTSIDE AIR DAMPER CONTROL: DURING OCCUPIED MODES OUTSIDE AIR DAMPER SHALL BE SET TO ITS MINIMUM DAMPER POSITION. DURING UNOCCUPIED MODE THE DAMPER SHALL REMAIN CLOSED. DURING PERIODS WHERE OUTSIDE AIR CAN BE USED FOR FREE COOLING THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN TO UTILIZE THE COLDER OUTSIDE AIR,

EXHAUST FAN CONTROL: THE BUILDING EXHAUST FANS SHALL CYCLE TO THERE HIGH SPEED POSITION DURING ECONOMIZER MODE. WHEN AIR HANDLER OUTSIDE AIR DAMPER IS MORE THAN 75% OPEN (ADJ) THE BUILDING EXHAUST FANS SHALL CYCLE TO HIGH SPEED.

SAFTIES AND ALARMS: ALL ALARMS WILL REPORT TO EXISTING WEST HARTFORD JOHNSON CONTROLS HVAC SYSTEM LOCATED AT BRIXTON STREET. ALL SAFTIES ARE MANUAL RESET.

LIST OF ALARMS:

- FREEZESTAT:** SHALL TURN UNIT FAN OFF AND CLOSE OUTSIDE AIR DAMPER, CLOSE COOLING COIL , PRE HEAT COIL WILL MODULATE TO MAINTAIN MIN TEMPERATURE SETPOINT INSIDE AIR HANDLER CHAMBER.
- HIGH STATIC PRESSURE:** SENSOR SHALL BE SET TO 5" WC (ADJ) UNIT FAN SHALL SHUT DOWN DURING A HIGH STATIC CONDITION INSIDE OF THE AIR HANDLER SUPPLY AIR STREAM.
- SMOKE DETECTOR:** DUCT SMOKE DETECTOR (IF PROVIDED) SHALL ALARM AND SHUTDOWN UNIT FAN DURING A SUPPLY SMOKE CONDITION



AHU-1 VSD

Drawing Title									
new AHU replacement.vsd									
REFERENCE DRAWING		NO		REVISION/LOCATION		ECN		DATE	
By	Project Manager	Application Engineer	DATE	DATE	DATE	DATE	DATE	DATE	DATE
BY	AGF	DATE	11-4-08	BY	DATE	Branch Information			
Project Title		CONTRACT NUMBER		DRAWING NUMBER					
West Hartford Library AHU-6									