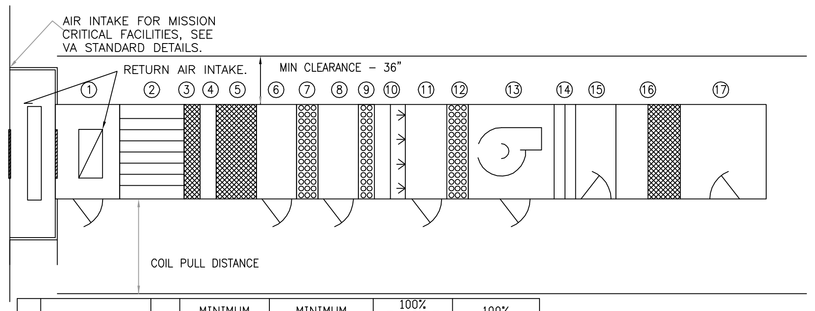


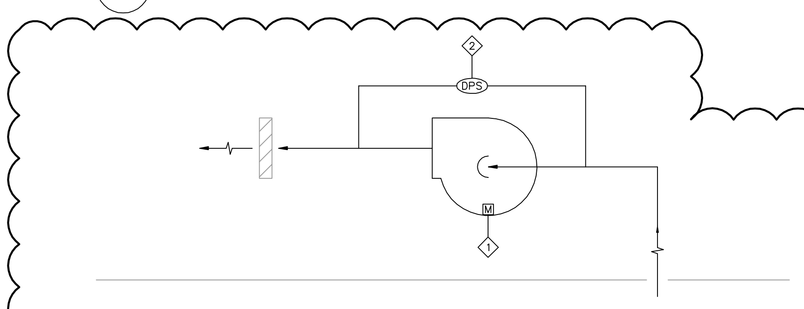
	AIR HANDLING UNIT	ITEM	MINIMUM OUTSIDE AIR TWO BEDS OF FILTERS VAV	MINIMUM OUTSIDE AIR THREE BEDS OF FILTERS CV	100% OUTSIDE AIR TWO BEDS OF FILTERS CV	100% OUTSIDE AIR THREE BEDS OF FILTERS CV
*	MIXING BOX	1	YES	YES	NO	NO
*	BLENDER SECTION	2	YES	YES	NO	NO
	PRE-FILTERS (SIDE ACCESS)	3	YES	YES	YES	YES
	INSPECTION SECTION, SMALL	4	YES	YES	YES	YES
	AFTER FILTER (SIDE ACCESS)	5	YES	YES	YES	YES
	ACCESS SECTION, MED-LARGE	6	YES	YES	YES	YES
*	HEAT RECOVERY COIL	7	NO	NO	YES	YES
*	ACCESS SECTION, MED-LARGE	8	NO	NO	YES	YES
*	PRE-HEAT COIL	9	YES	YES	YES	YES
*	INSPECTION SECTION,SMALL	10	YES	YES	YES	YES
	HUMIDIFIER	11	YES	YES	YES	YES
	COOLING COIL	12	YES	YES	YES	YES
	FAN	13	YES	YES	YES	YES
*	DIFFUSER PLATE	14	NO	NO	NO	YES
*	ACCESS SECTION,MED-LARGE	15	NO	NO	YES	YES
*	HEPA FILTER	16	NO	NO	NO	YES
NTS	DISCHARGE PLENUM (VERTICAL)	17	YES	YES	YES	YES

* AS REQUIRED

NOTE:

1. ACCESS DOORS SHALL BE GASKETED AND HINGED TO OPEN AGAINST FAN OPERATING PRESSURE TO PREVENT AIR LEAKAGE.
2. MINIMUM ACCESS DOOR WIDTH SHALL BE 24" [600mm].
3. ACCESS DOOR HEIGHT SHALL BE DETERMINED BY UNIT CASING BUT NOT TO EXCEED 6'-0" [1800mm].
4. ACCESS DOORS ON FAN SUCTION SHALL OPEN OUTWARD.
5. ACCESS DOORS ON FAN DISCHARGE SIZE SHALL OPEN INWARD.

3 ACCESS DOOR SWING DETAIL FOR AIR HANDLING UNITS

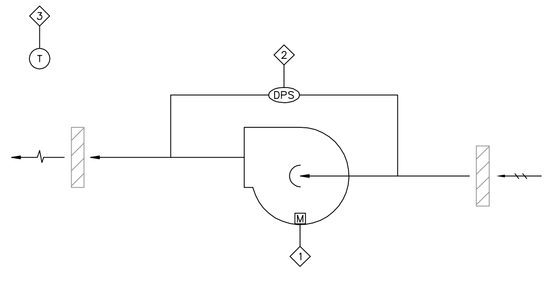


FAN SHALL NORMALLY RUN CONTINUOUSLY. A DIGITAL OUTPUT SHALL CONTROL START/STOP OPERATION. A DIGITAL INPUT (PRESSURE DIFFERENTIL SWITCH) ACROSS THE FAN INLET AND DISCHARGE SHALL MONITOR EACH FAN FOR PROPER OPERATION AND SEND A MAINTENANCE ALARM UPON LOSS OF AIRFLOW.

4 GENERAL EXHAUST/TOILET EXHAUST FAN CONTROL DIAGRAM

(TYP. FOR EF-2, EF-3, & EF-5)
NTS

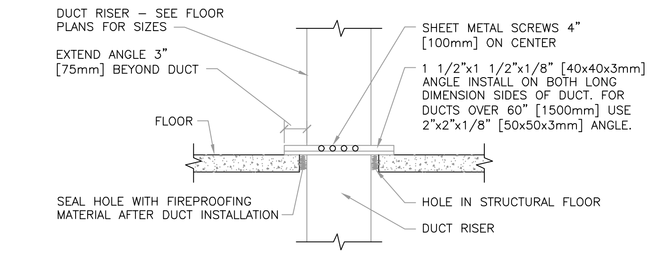
A



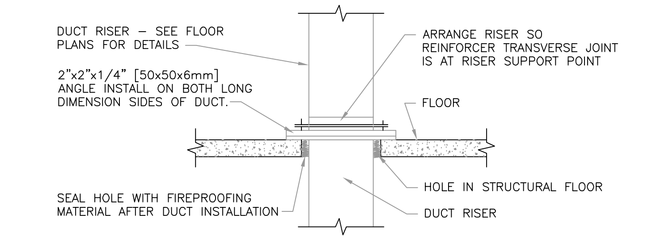
FAN SHALL BE CONTROLLED BY A DIGITAL OUTPUT FOR START/STOP OPERATION AND BY A DIGITAL INPUT (TEMPERATURE SENSOR WITH ADJUSTABLE SETPOINT) LOCATED IN THE ATTIC SPACE. UPON REACHING ITS SETPOINT BY INCREASING TEMPERATURE, THE DIGITAL INPUT SHALL SEND A SIGNAL TO START THE FAN. UPON DROPPING BELOW THE SETPOINT, THE FAN SHALL STOP. A DIGITAL INPUT (PRESSURE DIFFERENTIAL SWITCH ACROSS THE FAN INLET AND DISCHARGE) SHALL MONITOR EACH FAN FOR PROPER OPERATION AND SEND A MAINTENANCE ALARM UPON LOSS OF AIRFLOW WHEN COMMANDED ON.

5 ATTIC VENTILATION FAN CONTROL DIAGRAM

(TYP. FOR GX-27 & GX-38)
NTS



0.5 INCH WG [125Pa] TO 2 INCHES WG [500Pa] DUCT RISER SUPPORT

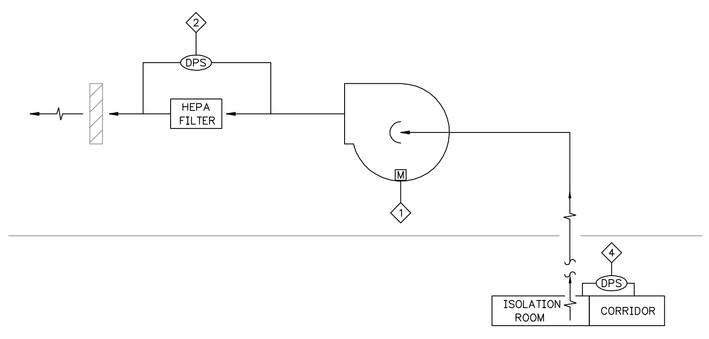


2 INCHES WG [500Pa] TO 4 INCHES WG [1000Pa] DUCT RISER SUPPORT

NOTE:
ALL DUCT WORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND FAN ROOM FLOORS SHALL BE PROVIDED WITH A 3" [75mm] HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

1 DUCT RISER SUPPORTS

NTS



FAN SHALL NORMALLY RUN CONTINUOUSLY. A DIGITAL OUTPUT SHALL CONTROL START/STOP OPERATION. A STATIC PRESSURE SENSOR WITH ADJUSTABLE SETPOINT LOCATED AT THE ISOLATION ROOM SHALL MONITOR DIFFERENTIAL PRESSURE BETWEEN THE ISOLATION ROOM AND THE ADJACENT CORRIDOR AND SHALL SEND A MAITENANCE ALARM UPON FALLING OUT OF RANGE. A DIFFENTIAL PRESSURE SWITCH WITH ADJUSTABLE SETPOINT SHALL MONITOR THE PRESSURE DROP ACROSS THE HEPA FILTER AT THE FAN DISCHARGE AND SEND A MAINTENANCE ALARM UPON REACHING ITS SETPOINT.

2 ISOLATION ROOM EXHAUST FAN CONTROL DIAGRAM

(TYP. FOR ISO FANS #1, #2, & #6)
NTS

CONTROL POINTS SCHEDULE (EXHAUST & VENTILATION FANS)		
POINT	DESCRIPTION	NOTES
1	START/STOP	
2	DIFFERENTIAL PRESSURE	ADJUSTABLE
3	ATTIC TEMPERATURE	
4	DIFFERENTIAL PRESSURE	ISOLATION ROOM

CONSTRUCTION DOCUMENTS

REVISION A – ADDENDUM NO. 1 – 3/21/12

Revisions	Date

TVHS NASHVILLE CAMPUS

Tennessee Valley Healthcare System

TVHS MURFREESBORO CAMPUS

	Drawing Title: MECHANICAL DETAILS	Project Title: REPLACE ATTIC AHU'S BUILDING 1	Date: 01/20/2012	
Approved: --	Approved: Facility Manager	Building Number: 1	Checked: TCT	Drawn: SVP	Project No.: 626A4-11-203	DRAWING NO.: 1 - M 13
Approved: --	Approved: Director	Location: TVHS – YORK CAMPUS			FILE NAME: 11026D02	

Veterans Administration