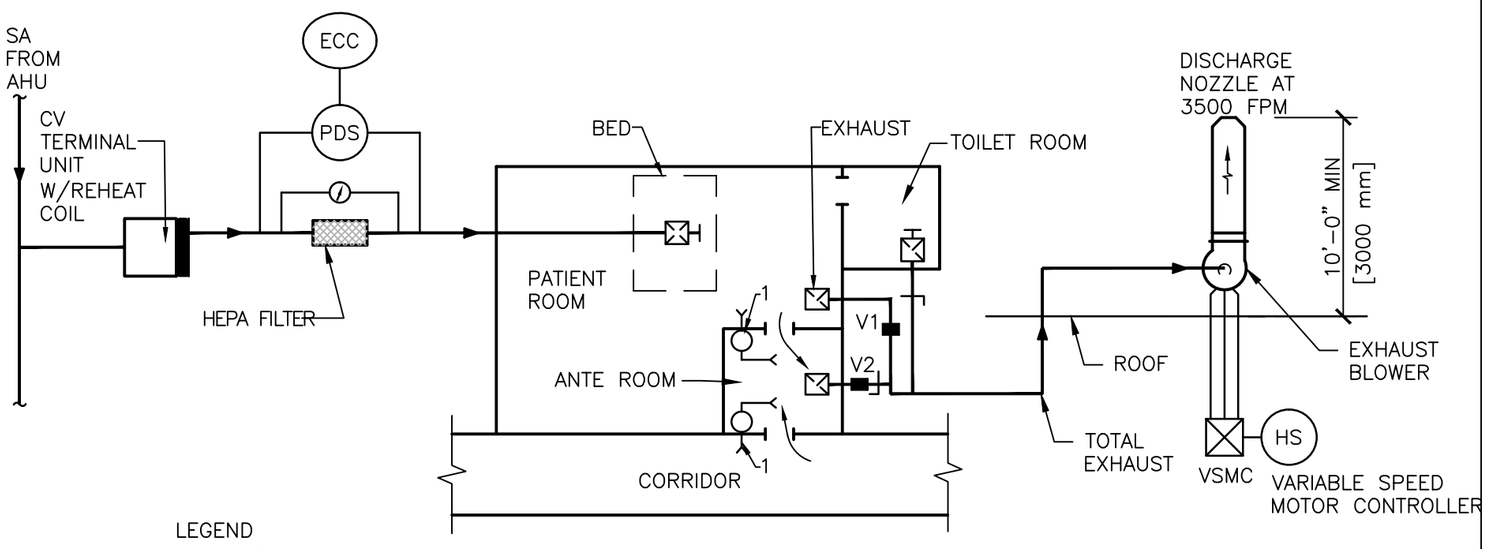

LEGEND

V1 AND V2 AIR FLOW CONTROL VALVES PRESSURE INDEPENDENT TYPE

GENERAL NOTES:

1. ANTEROOM SHALL BE MAINTAINED AT A NEGATIVE PRESSURE (0.01 INCH WATER COLUMN [2.5 PASCAL] WITH RESPECT TO BOTH AII/PE ROOM AND THE CORRIDOR OR ANY ADJOINING SPACE BY MODULATING VALVE V2. VALVE V1 IS USED TO MAINTAIN A POSITIVE PRESSURE BETWEEN THE PATIENT ROOM AND THE ANTE ROOM. COMBO ROOMS SHALL HAVE PERMANENTLY INSTALLED DEVICES AND/OR MECHANISMS TO CONSTANTLY MONITOR THE DIFFERENTIAL AIR PRESSURE BETWEEN THE PATIENT ROOM AND ANTE ROOM AND THE CORRIDOR AND THE ANTE ROOM. A LOCAL VISUAL MEANS SHALL BE PROVIDED TO INDICATE WHENEVER POSITIVE DIFFERENTIAL PRESSURE IS NOT MAINTAINED IN THE PATIENT ROOM WITH RESPECT TO THE ANTE ROOM (STROBE LITE).A LOCAL VISUAL MEANS SHALL BE PROVIDED TO INDICATE WHENEVER NEGATIVE DIFFERENTIAL PRESSURE IS NOT MAINTAINED IN THE ANTE ROOM WITH RESPECT TO THE CORRIDOR (STROBE LITE).

2. MAINTAIN THE ATTACHED TOILET, IF ANY, AT NEGATIVE AIR PRESSURE WITH RESPECT TO THE AII/PE ROOM. HOWEVER, THE DESIGN NEED NOT INCLUDE A PRESSURE DIFFERENTIAL SENSOR FOR VERIFICATION.

3. LOCATE THE SUPPLY AIR OUTLET OVER THE PATIENT BED ON THE CEILING WITHOUT CREATING A DRAFT CAUSING PATIENT DISCOMFORT. LOCATE EXHAUST AIR INLET NEAR THE PATIENT ROOM DOOR.

TYPICAL AIR BALANCE EXAMPLE:

1. THE PATIENT BEDROOM IS KEPT UNDER POSITIVE PRESSURE BY ENSURING AIR MOVEMENT FROM THE BEDROOM SPACE TO THE ANTE ROOM BY MODULATING VALVE V1. THE ANTE ROOM IS KEPT AT NEGATIVE PRESSURE WITH RESPECT TO THE CORRIDOR BY MODULATING VALVE V2.

2. THE SUPPLY AIR SYSTEM SHALL CONSIST OF THE CONSTANT VOLUME AIR DELIVERY FROM A DEDICATED AIR TERMINAL UNIT WITH REHEAT COIL TO THE ISOLATION SUITE AS FOLLOWS:

A – PATIENT BEDROOM	MINIMUM 12 ACPH SUPPLY AIR (ASHRAE STANDARD 170 2008). INCREASE SUPPLY AIR VOLUME, IF REQUIRED, TO MEET THE INSIDE DESIGN CONDITIONS IN COOLING AND/OR HEATING MODES. EXAMPLE: 400 CFM [190 L/S]
B – ANTE ROOM	SUPPLY AIR IS NOT REQUIRED FOR THIS SPACE. EX–FILTRATE PATIENT ROOM AIR AND CORRIDOR AIR TO EXHAUST MINIMUM 10 ACPH (ASHRAE STANDARD 170) AS MEASURED AND CONTROLLED BY VALVE V–2. FOR THIS EXAMPLE INFILTRATE 100 CFM [47 L/S] FROM CORRIDOR INTO THE ANTEROOM + 60 CFM [28 L/S] FROM THE AII/PE ROOM. THIS WILL ENSURE THE ANTE ROOM IS NEGATIVE WITH RESPECT TO THE AII/PE ROOM AND WITH RESPECT TO THE CORRIDOR.
C – PATIENT TOILET	DO NOT SUPPLY AIR INTO THE TOILET. DRAW MAKE–UP AIR FROM THE PATIENT'S BEDROOM AND EXHAUST AT THE RATE OF 10 ACPH OR 60 CFM [28 L/S]. EXAMPLE: 60 CFM [28 L/S]

3. THE DEDICATED EXHAUST AIR SYSTEM SHALL BE BALANCED AS FOLLOWS:

A – PATIENT BEDROOM	400 CFM [190 L/S](SUPPLY) – 60 CFM [28 L/S](TOILET) – 40 CFM [19 L/S] (ANTE ROOM). 300 CFM [140 L/S] AII/PE ROOM EXHAUST. 100 CFM [47 L/S] INFILTRATED FROM CORRIDOR INTO ANTE ROOM + 40 CFM [19 LS] EXFILTRATE FROM AII/PE ROOM INTO ANTE ROOM, 140 CFM [65 L/S] EXHAUST, TOTAL EXHAUST 500 CFM [240 L/S]

4. COORDINATE DOORS UNDER CUTS FOR DOOR BETWEEN ANTE ROOM AND PATIENT (1")[2.54 CM], DOOR TO CORRIDOR.

AIR SYSTEM FOR COMBINATION AIRBORNE INFECTION ISOLATION (AII)/PROTECTIVE ENVIRONMENT (PE) ROOM WITH NEGATIVE ANTEROOM

#

NTS NEGATIVE PRESSURE

DESIGNER'S NOTE:

1. ENSURE FINAL DESIGN REFLECTS PROJECT SPECIFIC REQUIREMENTS AND MEETS ASHRAE 170, LATEST EDITION WITH **ALL** ADDENDUMS.

Department of Veterans Affairs

DETAIL TITLE / AIR SYSTEM FOR COMBINATION AIRBORNE INFECTION ISOLATION/ PROTECTIVE ENVIRONMENT ROOM W/ NEGATIVE ANTE ROOM

SCALE :NONE

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