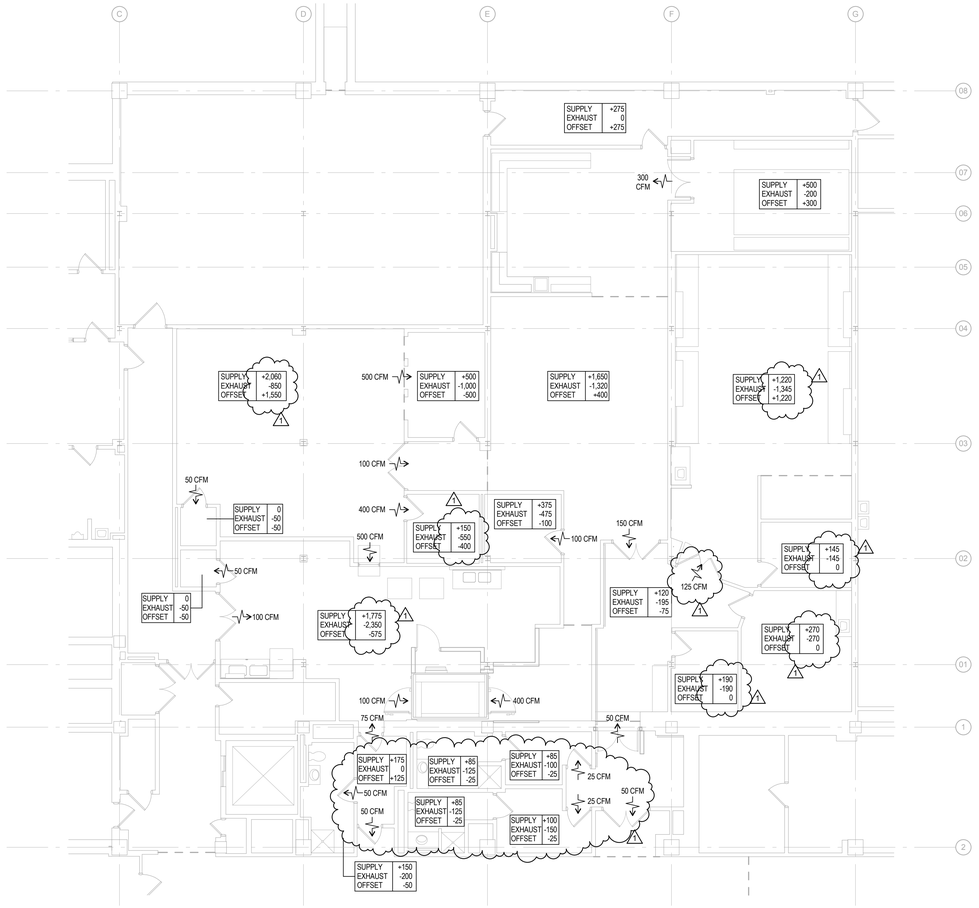

1 HVAC AIRFLOW
1/8" = 1'-0"

GENERAL NOTES

1. ROOMS NOT NOTED FOR PRESSURIZATION BALANCING ARE NEUTRAL TO THE SURROUNDING ROOMS.

Room Name	Room Size Area (Sq Ft)	Room Size Volume (Cu Ft)	Design Updated Airflow SA CFM	Design Updated Airflow EA CFM	Design Updated Airflow Calc ACH	Design Air Balance (+/-/0)	VA Requirements Required Room Airflow per VA Design Manual Min Total ACH	VA Requirements Required Room Airflow per VA Design Manual Min OA ACH	VA Requirements Air Balance (+/-/0)	Air Balance	
CS Lobby	290	2,441	270	195	6.6	75	-	-		1.38	(- -)
Bathroom & Locker Room	-	-	170	225	-	-55	-	-			
Bathroom & Locker Room	-	-	185	275	-	-90	-	-			
Office	89	749	190	190	15.2	0	4	4	(o)		
Break Room	223	1,877	270	270	8.6	0	6	4	(o)		
Biomed Office	100	842	145	145	10.3	0	4	4	(o)		
Biomed Workstations	809	6,809	1,220	1,320	11.6	-100	6	2			
North Back Corridor	347	2,921	275	0	5.6	275	-	-			
Sterile Storage	317	2,668	500	200	11.2	300	4	4	(o)	2.50	(+ +)
Clean Prep & Pack	791	6,658	1,650	1,320	14.9	330	4	4	(+)	1.25	(+ +)
Steam Maintenance Room	142	1,195	500	1,000	50.2	-500	10	10	(-)	0.50	(- -)
ETO Maintenance Room	88	734	375	475	30.4	-100	10	10	(-)	0.79	(-)
Prep Room	801	6,742	2,060	850	18.3	1,210	4	4	(+ +)	2.42	(+ +)
Clean Closet	-	-	0	50	-	-50	-	-			
ETO Sterilizer Room	85	715	150	550	46.1	-400	10	10	(-)	0.27	(- -)
Decontamination	758	6,380	1,775	2,350	22.1	-575	6	6	(- -)	0.76	(- -)
Decontamination Closet	-	-	0	50	-	-50	-	-	-		
Unisex Toilet	-	-	150	175	-	-25	-	-	-		
Corridor	-	-	125	0	-	125	-	-	-		
	4,840	40,737	10,010	9,640	-	370	68	62			

2 PRESSURIZATION CHART
NONE

6.4.2 AIR BALANCE

6.4.2.1 Definitions

In this Design Manual, volumetric air difference between the supply and return air volumes or supply and exhaust air volumes is characterized as positive air balance, negative air balance, or neutral air balance.

(a) Positive Air Balance

Positive air balance, designated as (+) in the Room Data Sheets, occurs when the supply air volume is 15% more than the return and/or exhaust air volumes. 15% supply air is used to pressurize the space.

(b) Double Positive Air Balance

Double positive air balance, designated as (+ +) in the Room Data Sheets, occurs when the supply air volume is 30% more than the return and/or exhaust air volumes. 30% supply air is used to pressurize the space. This arrangement is used to aid in the isolation of patients from the environment for applications such as Bone Marrow Transplant (BMT) or Orthopedic Patients or the Burn Unit.

(c) Negative Air Balance

Negative air balance, designated as (-) in the Room Data Sheets, occurs when the supply air volume is 15% less than the return and/or exhaust air volumes. 15% make-up air is introduced into the space from adjoining areas. This arrangement involves the introduction of supply air and removal of exhaust and/or return air for applications such as Locker Rooms, Dining Hall etc.

Make-up air to maintain negative air balance shall be admitted by door undercut, door grille, or transfer grille. For noise sensitive areas provide acoustic transfer grille with lined transfer duct.

(d) Double Negative Air Balance

Double negative air balance, designated as (- -) in the Room Data Sheets, occurs when the supply air volume is 30% less than the return and/or exhaust air volumes. 30% make-up air is introduced into the space from the adjoining areas. This arrangement may involve introduction of supply air and removal of exhaust and/or return air or it may involve 100% make-up air without any supply air. Spaces such as, HAC's, Soiled Utility Rooms, Private Toilets are examples of double negative spaces without supply air.

(e) Neutral Air Balance

Neutral air balance, designated as (o) in the Room Data Sheets, occurs when the air supplied to the space equals return and/or exhaust air volumes. Air is not exchanged between adjoining spaces.

NORTH

FULLY SPRINKLERED CONSTRUCTION DOCUMENTS

Revisions:	Date
Addendum 01	05/14/15

CONSULTANTS:

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AE Works Project Number: 13037

Drawing Title: HVAC AIRFLOW

Approved: Project Director

Project Title: ERIE VAMC - UPGRADE SPS

Location: 135 EAST 38TH STREET, ERIE, PA, 16504

Date: January 9, 2015 | **Checked:** SPL | **Drawn:** CJC

Project Number: 562-14-114

Building Number: 01

Drawing Number: 01-H602

Dwg. 17 **of** 21

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231