

# VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY

BASED ON 2018 NC MECHANICAL CODE  
TABLE 403.3.1.1 MINIMUM VENTILATION RATES

ABBREVIATIONS  
 Az ZONE FLOOR AREA  
 Ez ZONE AIR DISTRIBUTION EFFECTIVENESS  
 Od OCCUPANT DENSITY  
 Pz ZONE POPULATION  
 Rp OUTDOOR AIRFLOW RATE PER PERSON  
 Ra OUTDOOR AIRFLOW PER UNIT AREA  
 Vbz BREATHING ZONE OUTDOOR AIRFLOW  
 Vol OUTDOOR AIR INTAKE FLOW (SINGLE ZONE)  
 Vuu UNCORRECTED OUTDOOR AIRFLOW  
 Vz DESIGN ZONE OUTDOOR AIRFLOW  
 Vpz ZONE PRIMARY AIRFLOW  
 Zp ZONE PRIMARY OUTDOOR AIR FRACTION

AIRFLOW SYSTEM	OCCUPANCY CATEGORY	Az (FT <sup>2</sup> )	Od (#/1000 FT <sup>2</sup> )	Pz (#)	Rp (CFM/#)	Ra (CFM/FT <sup>2</sup> )	Vbz (CFM)	Ez (%)	EXH RATE (CFM/UNIT)	EXH RATE (CFM/SF)	EXHAUST (CFM)	Vol (CFM)	TOTAL Vol (CFM)	BALANCE OUTDOOR AIRFLOW (CFM) TO:
AH-1	OFFICE	229	5	2	5	0.06	24	1.0	N/A	N/A	N/A	24	24	30
AH-2	CONFERENCE	312	50	12*	5	0.06	79	1.0	N/A	N/A	N/A	79	79	80 MAX, 0 MIN
AH-3	CORRIDOR	228	N/A	N/A	N/A	0.06	14	1.0	N/A	N/A	N/A	13	55	55
	LOBBY	360	10	4	5	0.06	42	1.0	N/A	N/A	N/A	42		
AH-4	LIBRARY	1673	10	17	5	0.12	285	1.0	N/A	N/A	N/A	285	285	285 MAX, 0 MIN
AH-5	CLASSROOM	522	35	25*	7.5	N/A	188	1.0	N/A	N/A	N/A	188	188	190 MAX, 0 MIN
AH-6	CONFERENCE	1000	50	50*	5	0.06	310	1.0	N/A	N/A	N/A	310	310	310 MAX, 0 MIN
AH-7	LOBBY	780	10	8	5	0.06	87	1.0	N/A	N/A	N/A	87	87	90
AH-8	OFFICE	564	5	3	5	0.06	49	1.0	N/A	N/A	N/A	49	49	50
AH-9	OFFICE	327	5	2	5	0.06	11	30	N/A	N/A	N/A	30	45	45
	CORRIDOR	249	N/A	N/A	N/A	0.06	15	1.0	N/A	N/A	N/A	15		
AH-10	OFFICE	719	5	4	5	0.06	64	1.0	N/A	N/A	N/A	64	64	65
AH-11	OFFICE	334	5	2	5	0.06	30	1.0	N/A	N/A	N/A	30	45	45
	CORRIDOR	280	N/A	N/A	N/A	0.06	15	1.0	N/A	N/A	N/A	15		

NOTES:  
 \* MAXIMUM POPULATION PROVIDED BY OWNER

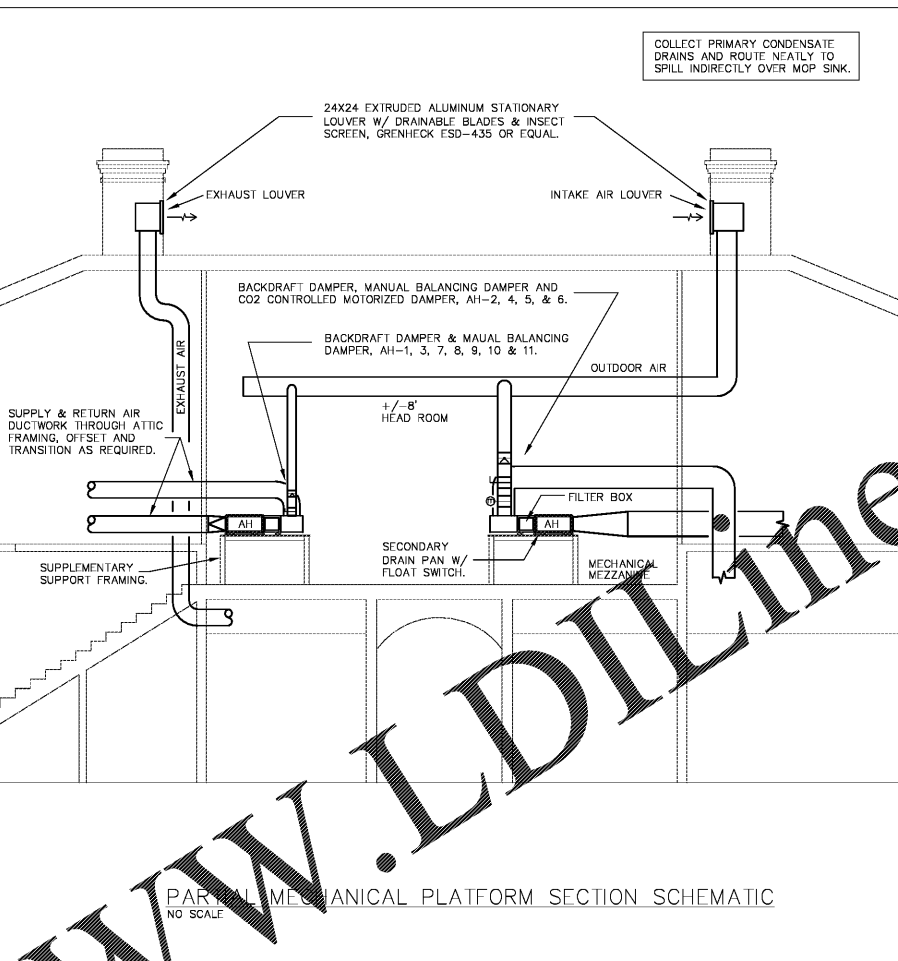
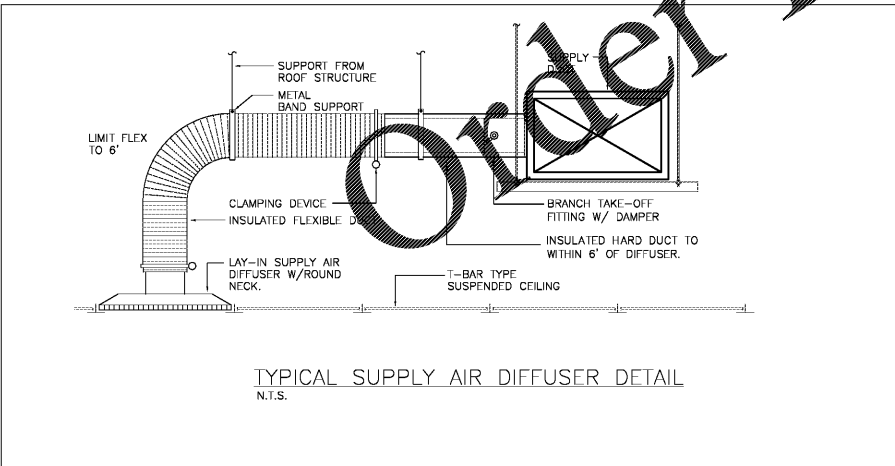
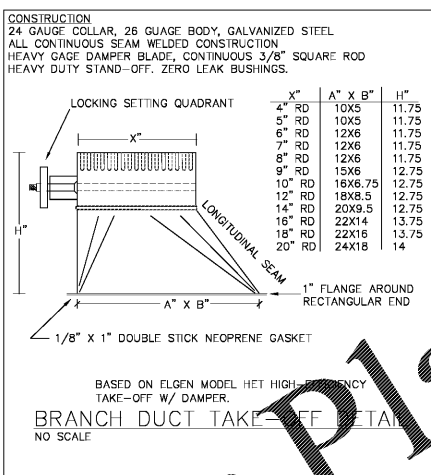
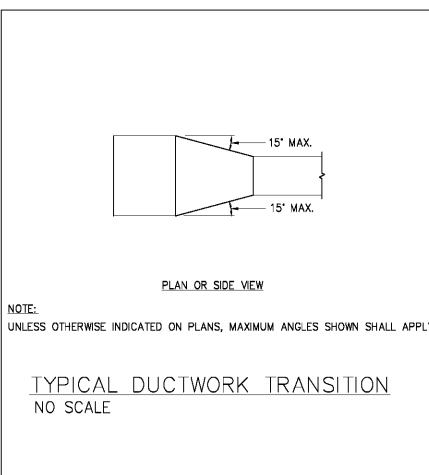
## AIR DEVICE SCHEDULE

EQUIVALENT DEVICES MAY BE PROVIDED. ACCEPTABLE MANUFACTURER'S ARE METALAIR, NAILOR & TITUS.

### DEVICE PLAN KEY

AIR DEVICE MARK ---ABC###--- NECK SIZE AIRFLOW (CFM)

MARK	MFG	MODEL	LISTED SIZE (CONNECTION)	AIRFLOW (CFM)	DESCRIPTION	NOTES
CD	PRICE	SCD	SEE PLAN	SEE PLAN	24X24 SQUARE CONE SUPPLY DIFFUSER	WHITE
SG	PRICE	520	SEE PLAN	SEE PLAN	DOUBLE DEFLECTION STEEL SUPPLY GRILLE	WHITE
RAG	PRICE	PDDR	SEE PLAN	SEE PLAN	24X24 LAY-IN PERFORATED FACE RETURN AIR GRILLE	WHITE
RG	PRICE	530	SEE PLAN	SEE PLAN	FIXED LOUVER STEEL GRILLE, 1/2" BLADE SPACING	WHITE
EF1	PANASONIC	FV-0511VK2	SEE PLAN	SEE PLAN	EXHAUST FAN W/ INTEGRAL BDD, 80 CFM AT 0.1 S.P.	WHITE
EF2	PANASONIC	FV-30VQ3	SEE PLAN	SEE PLAN	EXHAUST FAN W/ INTEGRAL BDD, 257 CFM AT 0.25 S.P.	WHITE



## HVAC SCHEDULES & DETAILS

NO SCALE



**EUBANKS ENGINEERING P.C.**  
**HUMPHREY**  
 102 Hilday St., Suite 200  
 Greensboro, NC 27401  
 Phone: 336.379.0653  
 Fax: 336.379.0653

NC FIRM LICENSE: C-2272



FREYALDENHOVEN  
 FREYALDENHOVEN  
 ARCHITECTS & PLANNERS, LLP

100 NORTH GREENE STREET  
 SUITE 1001  
 GREENSBORO  
 NORTH CAROLINA 27401  
 TEL. 336.273.0101  
 FAX. 336.273.0141

CANTERBURY SCHOOL  
 P. DAVID BROWN LIBRARY AND  
 ADMINISTRATION BUILDING  
 5400 OLD LAKE JEANETTE RD  
 GREENSBORO, NORTH CAROLINA

DATE: 30JAN20  
 EHEPC PROJECT #: 1969  
 REVISIONS:

THIS DRAWING IS THE PROPERTY OF EUBANKS ENGINEERING P.C. AND SHALL BE KEPT IN CONFIDENCE. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN CONSENT OF EUBANKS ENGINEERING P.C.

SHEET  
**M-4**  
 OF 6