

Project Title: 16th Street Retail Space - HVAC Replacement
 Project ID: 30206
 Project Manger: W.M.

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 Checked By: D.W.
 Sheet: 1 of 1
 Date: 2/4/2018

SMOKE PURGE AIRFLOW CALCULATION

Project: 2008 NYC BC Section 912: Postfire Smoke Purge Systems: (A) 1.0 CFM/SF or (B) 6 ACH, whichever is greater
 Basement Level - Room 334

Dimensions	Feet	Inches	Remarks
Room Length	30	7	From Dwg A-5
Room Width	20	4	
Room Height	8	2	

(A) Airflow Calc. Based on CFM/SF

$$Airflow = CFM / SF \times SF$$

Room Area =	621.86	SF	
Airflow Per Area	1.00	CFM/SF	2008 BC
Airflow =	622	CFM	

(B) Airflow Calc. Based on ACH

$$Airflow = \left(\frac{ACH}{60} \right) \times CF$$

Room Volume =	5,078.53	CF	
Air Change Per Hour	6.0	ACH	2008 BC
Airflow =	508	CFM	

Design Airflow =	622	CFM	Based on CFM/SF with greater CFM
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Notes:

1.0 CFM/SF requirement resulted in greater CFM. Used 1,000 CFM