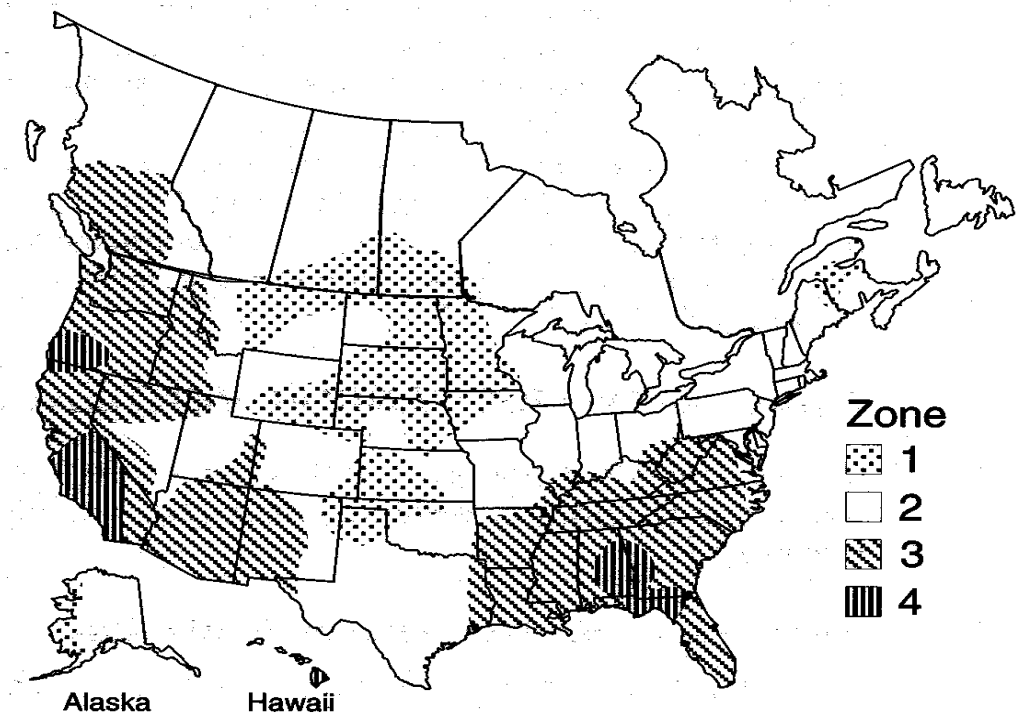
CONVERTING BETWEEN CFM 50 AND NATURAL AIRFLOW



LBL "N" FACTORS

Zone	N Factor
1	14-17
2	17-20
3	20-23
4	23-26

# of Stories	Height Correction Factor
1	1
1.5	0.89
2	0.81
2.5	0.76
3	0.72

To determine the correct multiplier, identify the N-factor for your region and multiply the result by the appropriate height correction factor.

CFM50/N = Natural Airflow (cfm)

HEIGHT-CORRECTED N-FACTORS FOR NEW YORK

Number of Stories	N-Factor
1	19
1.5	16.8
2	15.4
2.5	14.4
3	13.7

MINIMUM BUILDING AIRFLOW
STANDARD EXAMPLE CALCULATION
(ASHRAE 62-89)

BUILDING DATA (EXAMPLE):

Living Space Area = 1500 sq. ft.

Basement Area = 700 sq. ft.

# of Occupants = 4

# of Stories Above Grade = 2

Location = Albany, NY

Step 1: Calculate the Ventilation Required for the Building

AIRFLOW(b) = 0.35 x volume/60

Volume = 8 x (1500 + 700) = 17600 cubic feet

AIRFLOW(b) = 0.35 x 17600/60

AIRFLOW(b) = 102 cfm

Step 2: Calculate the Ventilation Required for the People

AIRFLOW(p) = 15 x occupants

AIRFLOW(p) = 15 x 4

AIRFLOW(p) =60 cfm

Step 3: Using the Higher Airflow Requirement, Convert to CFM50

MINIMUM_CFM50 = AIRFLOW x N

Where N is the LBL conversion factor (see chart)

MINIMUM_CFM50 = 102 x 15.4

MINIMUM_CFM50 = 1570 CFM50