



# TOWNSHIP OF PLAINSBORO

## Building Division

### COMBUSTION AIR CALCULATION FORM (Please read this form entirely)

1. Calculate the required amount of combustion air for all fuel-fired appliances located on the floor in question. The result is the required amount of air in cubic feet. (BTU input ratings are listed on the equipment label on or in the appliance). Fuel fired appliances are oil or gas furnaces, water heaters, gas fireplaces or dryers that are located on the same floor or same space.

Fuel-fired #1 + Fuel-fired #2 + Fuel-fired #3 + Fuel-fired #4  
BTU                    BTU                    BTU                    BTU

$[(\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}})] \times 0.05 = \underline{\hspace{1cm}}$  cubic ft.

2. Calculate the cubic amount of air available from rooms and/or adjoining spaces. If transfer grills are used, (one located no more than 12 inches from the top of the room and another located no more than 12 inches from the bottom of the room) they must be provided for each area to be connected (see step 3 below). The total amount of air available must be equal to or exceed the required amount determined on step 1 above.

LENGTH	X	WIDTH	X	HEIGHT	=	CUBIC FEET
Area #1	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	=	<u>  </u> cubic feet
Area #2	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	=	<u>  </u> cubic feet
Area #3	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	=	<u>  </u> cubic feet
Area #4	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	=	<u>  </u> cubic feet
Area #5	<u>  </u>	<u>  </u>	<u>  </u>	<u>  </u>	=	<u>  </u> cubic feet
						Total cubic ft.

3. Calculate the unobstructed area of one transfer grill or louvered opening in square inches. this opening must be equal to one square inch per 1,000 BTU's of combined appliance input. because two openings are required, one within 12 inches of the ceiling and one within 12 inches of the floor, the calculation below is only for one of the required opening not both.

LENGTH	X	WIDTH	X <u>(see below)</u>	=	Unobstructed area
<u>  </u>	<u>  </u>	<u>  </u>	X .75	=	<u>  </u> (A METAL OPENING)
<u>  </u>	<u>  </u>	<u>  </u>	X .25	=	<u>  </u> (A WOOD OPENING)

Please note that these openings can be located in any wall or door opening. The transfer grills do not need to be in line with each other but only located so that the air will freely move from one space to the other. It is important to consider furniture layouts when locating the grills so that these openings will not be blocked.