



# HD ENGINEERING & DESIGN, INC.

SOLUTIONS FOR ALL OF YOUR ENGINEERING & DESIGN NEEDS

FIRST CHOICE CUSTOM HOMES  
1837 BLACKSTONE COURT, LEE'S SUMMIT, MO

Combustion Air			
Per IRC 2006 G2407.5.1			
Fuel Burning Appliance #1	Furnace	100000	Btu/h
Fuel Burning Appliance #2		50000	Btu/h
Fuel Burning Appliance #3		NA	Btu/h
Total Btu/h		150000	Btu/h
Area of Usable Space		345	sq. ft
Ceiling Height in Usable Space (no sheetrock)		9	ft
Required Volume of Air		$= \text{Total Btu/h} * (50 \text{ cu.ft./1000 Btu/h})$	
		=	7500 cu.ft.
Required Area of Usable Space		833	sq.ft.
Standard Method Work?		BAD	
Combustion Air Transfer Grille			
Per IRC 2006 G2407.5.3.1			
Required Opening Free Space = 1 sq.in./1000 Btu/h			
		=	160 in.sq.
Size of Grill(s) to be used		=	(2) 14"X8"
Note: If Fuel Burning Appliances are enclosed, (1) opening is required within 12" of floor and (1) opening is required within 12" of top of enclosure			

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