

Load Short Form
Entire House
Savoy Engineering Group

Job:
 Date:
 By: Tracy Savoy

Phone: (303) 955-2114 Web: www.load-calculations.com

Project Information

For: Example 2 - Bldg A

Design Information

	Htg	Clg		Infiltration
Outside db (°F)	17	91	Method	Simplified
Inside db (°F)	70	73	Construction quality	Semi-tight
Design TD (°F)	53	18	Fireplaces	1 (Semi-tight)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	22	38		

HEATING EQUIPMENT

Make	
Trade	
Model	
GAMA ID	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	880 cfm
Air flow factor	0.030 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	
Trade	
Cond	
Coil	
ARI ref no.	
Efficiency	0 EER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	880 cfm
Air flow factor	0.047 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.93

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bldg A	992	29787	18855	880	880
Entire House	992	29787	18855	880	880
Other equip loads		1115	369		
Equip. @ 0.96 RSM			18455		
Latent cooling			1388		
TOTALS	992	30903	19843	880	880

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Project Information

For: Example 2 - Bldg A

Notes:

Design Information

Weather: Washington National AP, DC, US

Winter Design Conditions

Outside db 17 °F
 Inside db 70 °F
 Design TD 53 °F

Summer Design Conditions

Outside db 91 °F
 Inside db 73 °F
 Design TD 18 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 38 gr/lb

Heating Summary

Structure 28369 Btuh
 Ducts 1418 Btuh
 Central vent (19 cfm) 1115 Btuh
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 30903 Btuh

Sensible Cooling Equipment Load Sizing

Structure 17957 Btuh
 Ducts 898 Btuh
 Central vent (19 cfm) 369 Btuh
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.96
 Equipment sensible load 18455 Btuh

Infiltration

Method Simplified
 Construction quality Semi-tight
 Fireplaces 1 (Semi-tight)

	Heating	Cooling
Area (ft ²)	992	992
Volume (ft ³)	9923	9923
Air changes/hour	0.47	0.21
Equiv. AVF (cfm)	77	35

Latent Cooling Equipment Load Sizing

Structure 895 Btuh
 Ducts 0 Btuh
 Central vent (19 cfm) 493 Btuh
 Equipment latent load 1388 Btuh
 Equipment total load 19843 Btuh
 Req. total capacity at 0.70 SHR 2.2 ton

Heating Equipment Summary

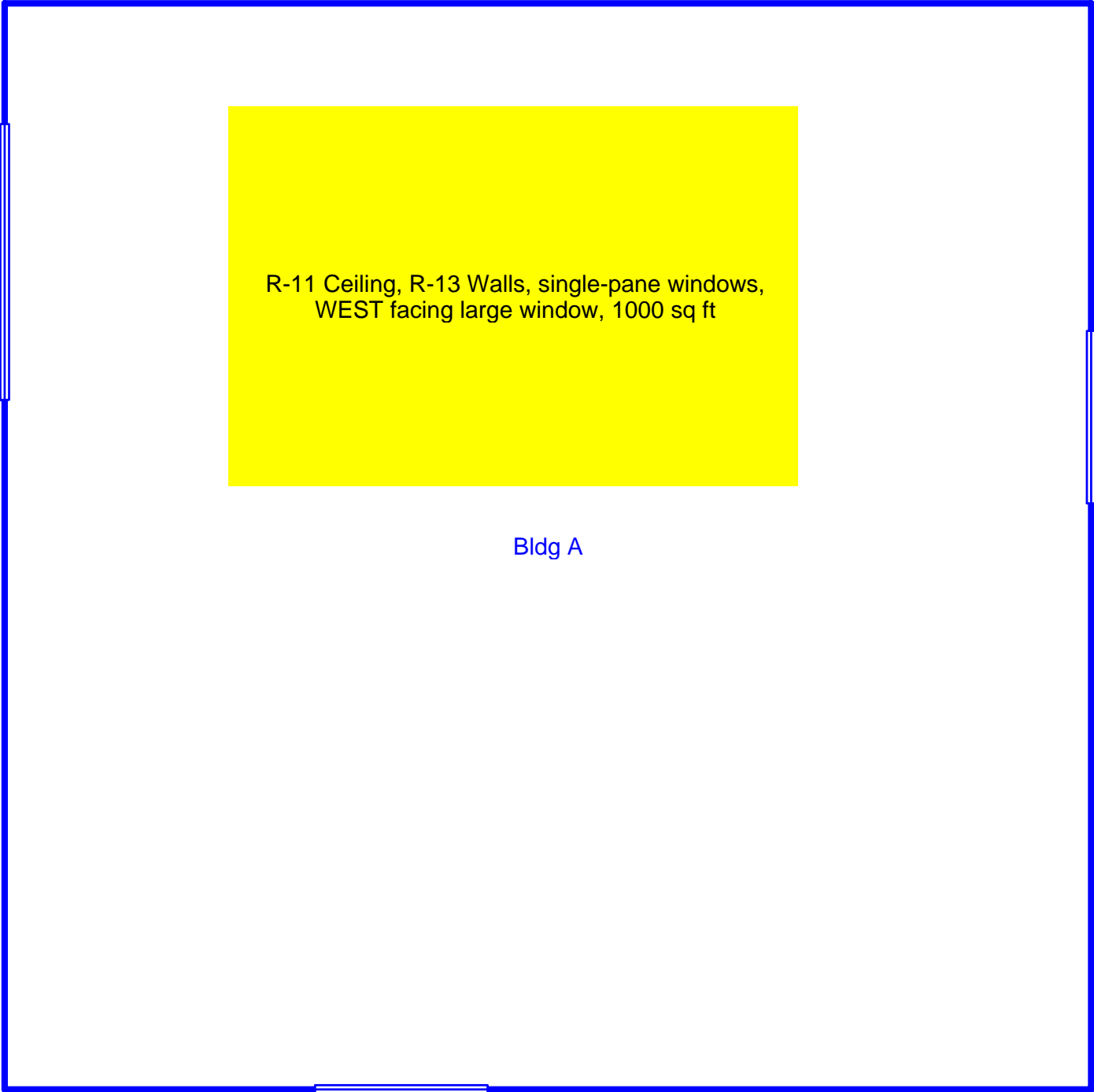
Make
 Trade
 Model
 GAMA ID
 Efficiency 80 AFUE
 Heating input 0 Btuh
 Heating output 0 Btuh
 Temperature rise 0 °F
 Actual air flow 880 cfm
 Air flow factor 0.030 cfm/Btuh
 Static pressure 0 in H2O
 Space thermostat

Cooling Equipment Summary

Make
 Trade
 Cond
 Coil
 ARI ref no.
 Efficiency 0 EER
 Sensible cooling 0 Btuh
 Latent cooling 0 Btuh
 Total cooling 0 Btuh
 Actual air flow 880 cfm
 Air flow factor 0.047 cfm/Btuh
 Static pressure 0 in H2O
 Load sensible heat ratio 0.93

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1st Floor



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Performed by Tracy Savoy for:
Example 2 - Bldg A

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Entire House
Savoy Engineering Group

Job:
 Date:
 By: Tracy Savoy

Phone: (303) 955-2114 Web: www.load-calculations.com

Project Information

For: Example 2 - BLDG B

Design Information

	Htg	Clg		Infiltration
Outside db (°F)	17	91	Method	Simplified
Inside db (°F)	70	73	Construction quality	Semi-tight
Design TD (°F)	53	18	Fireplaces	1 (Semi-tight)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	22	38		

HEATING EQUIPMENT

Make	
Trade	
Model	
GAMA ID	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	1000 cfm
Air flow factor	0.025 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	
Trade	
Cond	
Coil	
ARI ref no.	
Efficiency	0 EER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	1000 cfm
Air flow factor	0.046 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.94

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bldg A	1000	40096	21535	1000	1000
Entire House	d 1000	40096	21535	1000	1000
Other equip loads		1127	373		
Equip. @ 0.96 RSM			21032		
Latent cooling			1400		
TOTALS	1000	41223	22432	1000	1000

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Project Information

For: Example 2 - BLDG B

Notes:

Design Information

Weather: Washington National AP, DC, US

Winter Design Conditions

Outside db 17 °F
 Inside db 70 °F
 Design TD 53 °F

Summer Design Conditions

Outside db 91 °F
 Inside db 73 °F
 Design TD 18 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 38 gr/lb

Heating Summary

Structure 38187 Btuh
 Ducts 1909 Btuh
 Central vent (19 cfm) 1127 Btuh
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 41223 Btuh

Sensible Cooling Equipment Load Sizing

Structure 20510 Btuh
 Ducts 1025 Btuh
 Central vent (19 cfm) 373 Btuh
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.96
 Equipment sensible load 21032 Btuh

Infiltration

Method Simplified
 Construction quality Semi-tight
 Fireplaces 1 (Semi-tight)

	Heating	Cooling
Area (ft²)	1000	1000
Volume (ft³)	10000	10000
Air changes/hour	0.47	0.21
Equiv. AVF (cfm)	78	35

Latent Cooling Equipment Load Sizing

Structure 902 Btuh
 Ducts 0 Btuh
 Central vent (19 cfm) 498 Btuh
 Equipment latent load 1400 Btuh
 Equipment total load 22432 Btuh
 Req. total capacity at 0.70 SHR 2.5 ton

Heating Equipment Summary

Make
 Trade
 Model
 GAMA ID
 Efficiency 80 AFUE
 Heating input 0 Btuh
 Heating output 0 Btuh
 Temperature rise 0 °F
 Actual air flow 1000 cfm
 Air flow factor 0.025 cfm/Btuh
 Static pressure 0 in H2O
 Space thermostat

Cooling Equipment Summary

Make
 Trade
 Cond
 Coil
 ARI ref no.
 Efficiency 0 EER
 Sensible cooling 0 Btuh
 Latent cooling 0 Btuh
 Total cooling 0 Btuh
 Actual air flow 1000 cfm
 Air flow factor 0.046 cfm/Btuh
 Static pressure 0 in H2O
 Load sensible heat ratio 0.94

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1st Floor

R-11 Ceiling, R-13 Walls,
single-pane windows,
WEST facing large
window, 1000 sq ft

Bldg A

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Example 2 - BLDG B

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