



Load Short Form
FC-1 First
 LoadCalcs.net, LLC

Job: 714 4th Street Residence
 Date: February 15, 2021
 By: Scott Pingleton
 Plan: 21-108

Lancaster, KY40444 Phone: 859-792-9798 Email: info@loadcalcs.net Web: www.loadcalcs.net

Project Information

For: 714 4th Street Residence
 714 4th Street, Secaucus, NJ 07094

Design Information

	Htg	Clg	Method	Infiltration
Outside db (°F)	13	94	Shielding / stories	Blower door
Inside db (°F)	70	75	Pressure / AVF	3 (partial) / 2
Design TD (°F)	57	19		50 Pa / 3220 cfm
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	46	32		

HEATING EQUIPMENT

Make	
Trade	
Model	
AHRI ref	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	583 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0.70 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	583 cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0.70 in H2O
Load sensible heat ratio	0.78

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bedroom 1	202	3107	1893	133	86
Dining Room	160	2961	1712	126	78
E Bath	60	495	266	21	12
E Clos	23	0	222	0	10
Entry	173	1610	1240	69	56
Kitchen	234	1332	2554	57	116
Living Room	398	3729	4632	159	211
Pantry	54	427	310	18	14

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2021 21.0.03 RSU29500

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...1-108\Working Dwgs\714 4th Street Residence.rup Calc = MJ8 Front Door faces: NW

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FC-1 First	1304	13662	12829	583	583
Other equip loads		5661	1910		
Equip. @ 1.00 RSM			14739		
Latent cooling			4100		
TOTALS	1304	19324	18839	583	583

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Load Short Form
FC-2 Second
 LoadCalcs.net, LLC

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Design Information

	Htg	Clg	Method	Infiltration
Outside db (°F)	13	94	Shielding / stories	Blower door
Inside db (°F)	70	75	Pressure / AVF	3 (partial) / 2
Design TD (°F)	57	19		50 Pa / 3220 cfm
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	46	32		

HEATING EQUIPMENT

Make	
Trade	
Model	
AHRI ref	
Efficiency	100 AFUE
Heating input	27334 Btuh
Heating output	27334 Btuh
Temperature rise	27 °F
Actual air flow	920 cfm
Air flow factor	0.034 cfm/Btuh
Static pressure	0.60 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	920 cfm
Air flow factor	0.040 cfm/Btuh
Static pressure	0.70 in H2O
Load sensible heat ratio	0.90

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Bath 2	67	1151	861	39	34
Bath 3	61	1093	488	37	19
Bedroom 2	266	4552	3982	153	158
Bedroom 3	245	5153	3633	173	145
Clos 2	67	176	367	6	15
Clos 3	47	258	361	9	14
Hall	138	0	0	0	0
Laundry	33	92	742	3	30
M Bath	120	1467	798	49	32
M Bedroom	388	6313	4761	213	189
M Clos	133	2337	731	79	29
Office	52	947	2017	32	80
Stairs 2	108	3773	4367	127	174

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...1-108\Working Dwg\714 4th Street Residence.rup Calc = MJ8 Front Door faces: NW

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FC-2 Second	1723	27313	23108	920	920
Other equip loads		0	0		
Equip. @ 1.00 RSM			23108		
Latent cooling			2465		
TOTALS	1723	27313	25573	920	920

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Load Short Form

U-1 Basement

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 Date: February 15, 2021
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 Plan: 21-108

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Project Information

For: 714 4th Street Residence
 714 4th Street, Secaucus, NJ 07094

Design Information

	Htg	Clg		Infiltration
Outside db (°F)	13	94	Method	Blower door
Inside db (°F)	70	75	Shielding / stories	3 (partial) / 2
Design TD (°F)	57	19	Pressure / AVF	50 Pa / 3220 cfm
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	46	32		

HEATING EQUIPMENT

Make
 Trade
 Model
 AHRI ref

Efficiency 0 HSPF

Heating input
 Heating output 0 Btuh @ 47°F
 Temperature rise 0 °F
 Actual air flow 263 cfm
 Air flow factor 0.017 cfm/Btuh
 Static pressure 0 in H2O
 Space thermostat
 Capacity balance point = 0 °F

COOLING EQUIPMENT

Make
 Trade
 Cond
 Coil
 AHRI ref

Efficiency 0 SEER

Sensible cooling 0 Btuh
 Latent cooling 0 Btuh
 Total cooling 0 Btuh
 Actual air flow 263 cfm
 Air flow factor 0.045 cfm/Btuh
 Static pressure 0 in H2O
 Load sensible heat ratio 0.82

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
B Bath	95	2468	719	41	33
B Stairs	108	0	0	0	0
Mech	63	0	0	0	0
Open Area	1146	13474	5068	222	230
U-1 Basement	1412	15942	5787	263	263
Other equip loads		0	0		
Equip. @ 1.00 RSM			5787		
Latent cooling			1304		
TOTALS	1412	15942	7091	263	263

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Project Information

For: 714 4th Street Residence
 714 4th Street, Secaucus, NJ 07094

Design Conditions

Location:

Newark Liberty Intl, NJ, US
 Elevation: 7 ft
 Latitude: 41°N

Outdoor:

Dry bulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

13
 -
 -
 15.0

Cooling

94
 16 (M)
 74
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 57
 50
 46.3

Cooling

75
 19
 50
 31.7

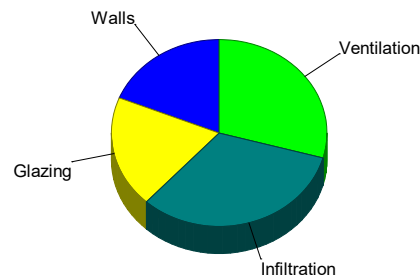
Infiltration:

Method
 Shielding / stories
 Pressure / AVF

Blower door
 3 (partial) / 2
 50 Pa / 3220 cfm

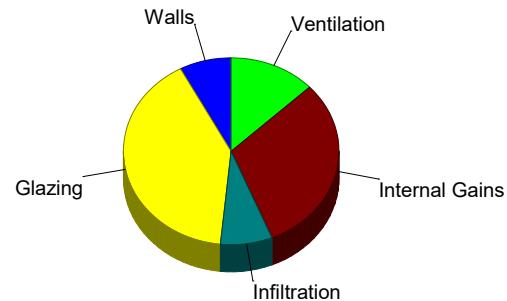
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.2	3645	18.9
Glazing	16.6	3736	19.3
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	5.0	6282	32.5
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		5661	29.3
Adjustments		0	0
Total		19324	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.0	1146	7.8
Glazing	26.6	5989	40.6
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0.9	1143	7.8
Ducts		0	0
Ventilation		1910	13.0
Internal gains		4550	30.9
Blower		0	0
Adjustments		0	0
Total		14739	100.0



Latent Cooling Load = 4100 Btuh
 Overall U-value = 0.093 Btuh/ft²-°F

Data entries checked.

Project Information

For: 714 4th Street Residence
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Design Conditions

Location:

Newark Liberty Intl, NJ, US
 Elevation: 7 ft
 Latitude: 41°N

Outdoor:

Dry bulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

13
 -
 -
 15.0

Cooling

94
 16 (M)
 74
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 57
 50
 46.3

Cooling

75
 19
 50
 31.7

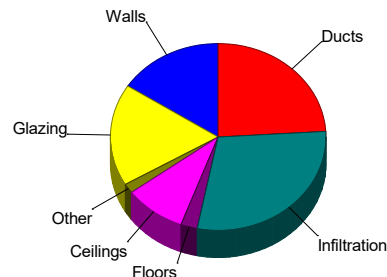
Infiltration:

Method
 Shielding / stories
 Pressure / AVF

Blower door
 3 (partial) / 2
 50 Pa / 3220 cfm

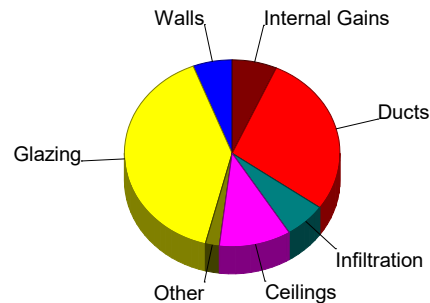
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.0	4326	15.8
Glazing	17.5	4816	17.6
Doors	22.3	448	1.6
Ceilings	1.5	2531	9.3
Floors	2.2	684	2.5
Infiltration	5.0	7945	29.1
Ducts		6563	24.0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		27313	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.0	1360	5.9
Glazing	33.7	9267	40.1
Doors	12.8	257	1.1
Ceilings	1.5	2489	10.8
Floors	0.7	231	1.0
Infiltration	0.9	1446	6.3
Ducts		6508	28.2
Ventilation		0	0
Internal gains		1550	6.7
Blower		0	0
Adjustments		0	0
Total		23108	100.0



Latent Cooling Load = 2465 Btuh
 Overall U-value = 0.061 Btuh/ft²-°F

Data entries checked.

Project Information

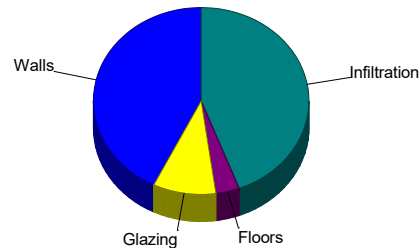
For: 714 4th Street Residence
 714 4th Street, Secaucus, NJ 07094

Design Conditions

Location: Newark Liberty Intl, NJ, US Elevation: 7 ft Latitude: 41°N	Outdoor: Dry bulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 13 - - 15.0	Cooling 94 16 (M) 74 7.5	Indoor: Indoor temperature (°F) Design TD (°F) Relative humidity (%) Moisture difference (gr/lb)	Heating 70 57 50 46.3	Cooling 75 19 50 31.7
				Infiltration: Method Shielding / stories Pressure / AVF	Blower door 3 (partial) / 2 50 Pa / 3220 cfm	

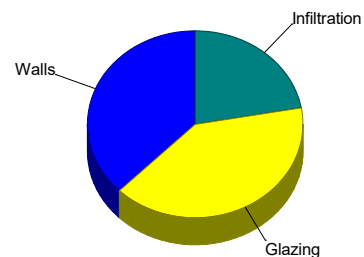
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	5.2	6814	42.7
Glazing	16.6	1507	9.5
Doors	0	0	0
Ceilings	0	0	0
Floors	0.4	565	3.5
Infiltration	5.0	7055	44.3
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		15942	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.7	2174	37.6
Glazing	25.6	2329	40.2
Doors	0	0	0
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0.9	1284	22.2
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
Total		5787	100.0



Latent Cooling Load = 1304 Btuh
 Overall U-value = 0.059 Btuh/ft²-°F

Data entries checked.