

11 Lakeside Drive, New Rochelle, NY 10801

### Project Information

For: Ryan  
 11 Lakeside Drive, New Rochelle, NY 10801

### Design Information

	Htg	Clg		Infiltration
Outside db (°F)	9	87	Method	Blower door
Inside db (°F)	71	73	Shielding / stories	3 (partial) / 3
Design TD (°F)	62	14	Pressure / AVF	50 Pa / 3025 cfm
Daily range	-	M		
Inside humidity (%)	43	50		
Moisture difference (gr/lb)	51	36		

#### HEATING EQUIPMENT

Make	
Trade	
Model	
AHRI ref	
Efficiency	80 AFUE
Heating input	0 Btuh
Heating output	0 Btuh
Low output baseboard	500 Btuh/ft
Total low baseboard	107 ft
High output baseboard	700 Btuh/ft
Total high baseboard	76 ft
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	938 cfm
Air flow factor	0.052 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.81

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Baseboard (ft)		Clg AVF (cfm)
				Low	High	
Downstairs	1118	27681	10849	55	40	560
Upstairs	835	18685	8011	37	27	414
Basement	1104	6938	1685	14	10	87
Entire House	3057	53304	18163	107	76	938
Other equip loads		0	0			
Equip. @ 0.92 RSM			16619			
Latent cooling			4281			
<b>TOTALS</b>	<b>3057</b>	<b>53304</b>	<b>20900</b>	<b>107</b>	<b>76</b>	<b>938</b>

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

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	Htg	Clg	Method	Infiltration
Outside db (°F)	9	87		Blower door
Inside db (°F)	55	77	Shielding / stories	3 (partial) / 3
Design TD (°F)	46	10	Pressure / AVF	50 Pa / 3025 cfm
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	12	27		

#### HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Low output baseboard	500 Btuh/ft
Total low baseboard	0 ft
High output baseboard	700 Btuh/ft
Total high baseboard	0 ft
Space thermostat	n/a

#### COOLING EQUIPMENT

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Baseboard (ft)		Clg AVF (cfm)
				Low	High	
PlayBoilerRoom	281	1449	946	3	2	49
Laundry Room	170	908	366	2	1	19
Future Bedroom	273	951	373	2	1	19
Garage	380	3631	0	7	5	0
Basement	1104	6938	1685	14	10	87
Other equip loads		0	0			
Equip. @ 0.92 RSM			1542			
Latent cooling			0			
<b>TOTALS</b>	<b>1104</b>	<b>6938</b>	<b>1542</b>	<b>14</b>	<b>10</b>	<b>87</b>

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	Htg	Clg		Infiltration
Outside db (°F)	9	87	Method	Blower door
Inside db (°F)	72	75	Shielding / stories	3 (partial) / 3
Design TD (°F)	63	12	Pressure / AVF	50 Pa / 3025 cfm
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	52	31		

#### HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Low output baseboard	500 Btuh/ft
Total low baseboard	0 ft
High output baseboard	700 Btuh/ft
Total high baseboard	0 ft
Space thermostat	n/a

#### COOLING EQUIPMENT

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Baseboard (ft)		Clg AVF (cfm)
				Low	High	
Office	80	2542	466	5	4	24
Turtle Room	224	4938	2231	10	7	115
Guest Bathroom	30	863	296	2	1	15
Family Room	154	5189	2307	10	7	119
Fourier	20	1065	253	2	2	13
Closet	15	1372	226	3	2	12
Living Room	391	9935	4764	20	14	246
Kitchen	204	1776	307	4	3	16

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Downstairs	1118	27681	10849	55	40	560
Other equip loads		0	0			
Equip. @ 0.92 RSM			9927			
Latent cooling			2163			
TOTALS	1118	27681	12090	55	40	560

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### Design Information

	Htg	Clg		Infiltration
Outside db (°F)	9	87	Method	Blower door
Inside db (°F)	70	70	Shielding / stories	3 (partial) / 3
Design TD (°F)	61	17	Pressure / AVF	50 Pa / 3025 cfm
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	48	42		

#### HEATING EQUIPMENT

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Low output baseboard	500 Btuh/ft
Total low baseboard	0 ft
High output baseboard	700 Btuh/ft
Total high baseboard	0 ft
Space thermostat	n/a

#### COOLING EQUIPMENT

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

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Baseboard (ft)		Clg AVF (cfm)
				Low	High	
Guest Bedroom	154	4016	1461	8	6	75
Master Bathroom	60	907	616	2	1	32
Perls Bedroom	140	3550	1411	7	5	73
Guest Closet	16	547	144	1	1	7
Hall Closet	8	14	16	0	0	1
Master Clst	6	12	10	0	0	1
Master Fourier	48	315	111	1	0	6
Kids Bath	62	2065	610	4	3	31
Master Bedroom	240	6868	3459	14	10	179
Hallway	101	392	174	1	1	9

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Upstairs	835	18685	8011	37	27	414
Other equip loads		0	0			
Equip. @ 0.92 RSM			7330			
Latent cooling			2153			
TOTALS	835	18685	9483	37	27	414

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## Project Information

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## Design Conditions

### Location:

Westchester Co, NY, US  
Elevation: 397 ft  
Latitude: 41°N

### Outdoor:

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

### Heating

9  
-  
-  
15.0

### Cooling

87  
17 ( M )  
72  
7.5

### Indoor:

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

### Heating

71  
62  
43  
50.8

### Cooling

73  
14  
50  
35.6

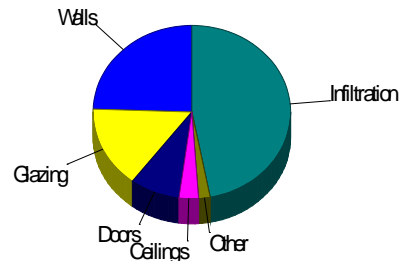
### Infiltration:

Method  
Shielding / stories  
Pressure / AVF

Blower door  
3 (partial) / 3  
50 Pa / 3025 cfm

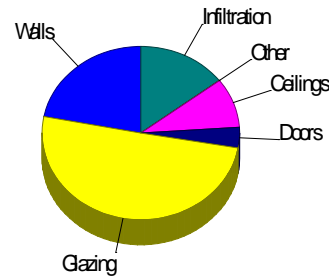
## Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.8	13029	24.4
Glazing	24.3	8129	15.3
Doors	27.3	4389	8.2
Ceilings	1.3	1681	3.2
Floors	0.9	1017	1.9
Infiltration	10.9	25059	47.0
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>53304</b>	<b>100.0</b>



## Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.2	3988	22.0
Glazing	27.3	9132	50.3
Doors	4.3	699	3.8
Ceilings	1.3	1683	9.3
Floors	0.0	5	0.0
Infiltration	1.2	2656	14.6
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>18163</b>	<b>100.0</b>



Latent Cooling Load = 4281 Btuh  
Overall U-value = 0.082 Btuh/ft²-°F

Data entries checked.

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**Project Information**

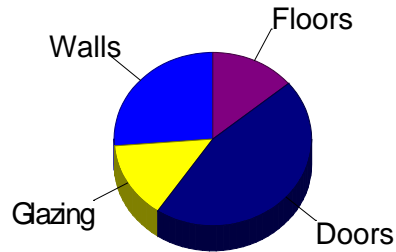
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**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Westchester Co, NY, US		Indoor temperature (°F)		55	77
Elevation: 397 ft		Design TD (°F)		46	10
Latitude: 41°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		12.4	26.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Drybulb (°F)	9	87	Method	Blower door	
Daily range (°F)	-	17 ( M )	Shielding / stories	3 (partial) / 3	
Wet bulb (°F)	-	72	Pressure / AVF	50 Pa / 3025 cfm	
Wind speed (mph)	15.0	7.5			

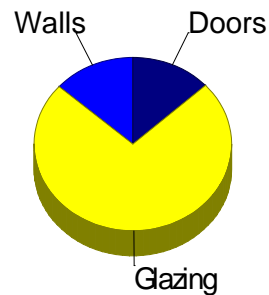
**Heating**

Component	Btuh/ft²	Btuh	% of load
Walls	1.3	1822	26.3
Glazing	22.0	992	14.3
Doors	26.5	3159	45.5
Ceilings	0	0	0
Floors	0.9	965	13.9
Infiltration	0	0	0
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>6938</b>	<b>100.0</b>



**Cooling**

Component	Btuh/ft²	Btuh	% of load
Walls	0.2	227	13.5
Glazing	27.5	1237	73.4
Doors	1.9	222	13.1
Ceilings	0	0	0
Floors	0	0	0
Infiltration	0	0	0
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>1685</b>	<b>100.0</b>



Latent Cooling Load = 0 Btuh  
Overall U-value = 0.068 Btuh/ft²-°F

WARNING: window to floor area ratio = 4.1% - less than 5%.



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## Design Conditions

### Location:

Westchester Co, NY, US  
Elevation: 397 ft  
Latitude: 41°N

### Outdoor:

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

### Heating

9  
-  
-  
15.0

### Cooling

87  
17 ( M )  
72  
7.5

### Indoor:

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

### Heating

72  
63  
50  
52.3

### Cooling

75  
12  
50  
31.4

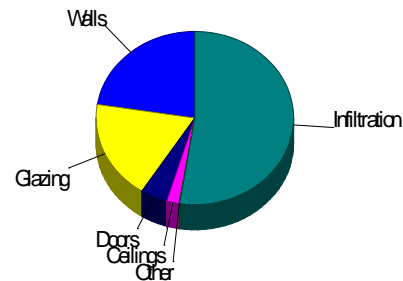
### Infiltration:

Method  
Shielding / stories  
Pressure / AVF

Blower door  
3 (partial) / 3  
50 Pa / 3025 cfm

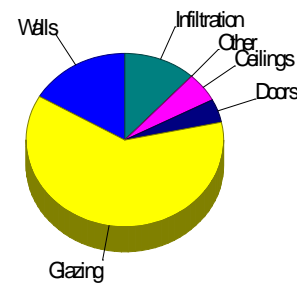
## Heating

Component	Btuh/ft²	Btuh	% of load
Walls	5.6	6223	22.5
Glazing	25.9	5117	18.5
Doors	29.3	1230	4.4
Ceilings	1.2	560	2.0
Floors	1.8	25	0.1
Infiltration	11.0	14526	52.5
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>27681</b>	<b>100.0</b>



## Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.6	1800	16.6
Glazing	33.8	6693	61.7
Doors	11.4	478	4.4
Ceilings	1.2	593	5.5
Floors	0.3	5	0.0
Infiltration	1.0	1280	11.8
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>10849</b>	<b>100.0</b>



Latent Cooling Load = 2163 Btuh  
Overall U-value = 0.113 Btuh/ft²-°F

Data entries checked.

**Project Information**

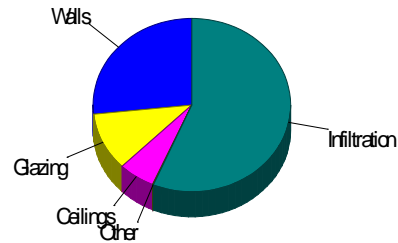
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**Design Conditions**

<b>Location:</b>		<b>Indoor:</b>		<b>Heating</b>	<b>Cooling</b>
Westchester Co, NY, US		Indoor temperature (°F)		70	70
Elevation: 397 ft		Design TD (°F)		61	17
Latitude: 41°N		Relative humidity (%)		50	50
		Moisture difference (gr/lb)		48.5	41.8
<b>Outdoor:</b>	<b>Heating</b>	<b>Cooling</b>	<b>Infiltration:</b>		
Drybulb (°F)	9	87	Method	Blower door	
Daily range (°F)	-	17 ( M )	Shielding / stories	3 (partial) / 3	
Wet bulb (°F)	-	72	Pressure / AVF	50 Pa / 3025 cfm	
Wind speed (mph)	15.0	7.5			

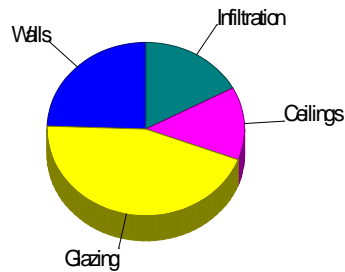
**Heating**

Component	Btuh/ft²	Btuh	% of load
Walls	5.5	4984	26.7
Glazing	22.0	2020	10.8
Doors	0	0	0
Ceilings	1.3	1121	6.0
Floors	1.3	27	0.1
Infiltration	10.7	10533	56.4
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
<b>Total</b>		<b>18685</b>	<b>100.0</b>



**Cooling**

Component	Btuh/ft²	Btuh	% of load
Walls	2.2	1961	24.5
Glazing	39.0	3585	44.7
Doors	0	0	0
Ceilings	1.3	1090	13.6
Floors	0	0	0
Infiltration	1.4	1376	17.2
Ducts		0	0
Ventilation		0	0
Internal gains		0	0
Blower		0	0
Adjustments		0	0
<b>Total</b>		<b>8011</b>	<b>100.0</b>

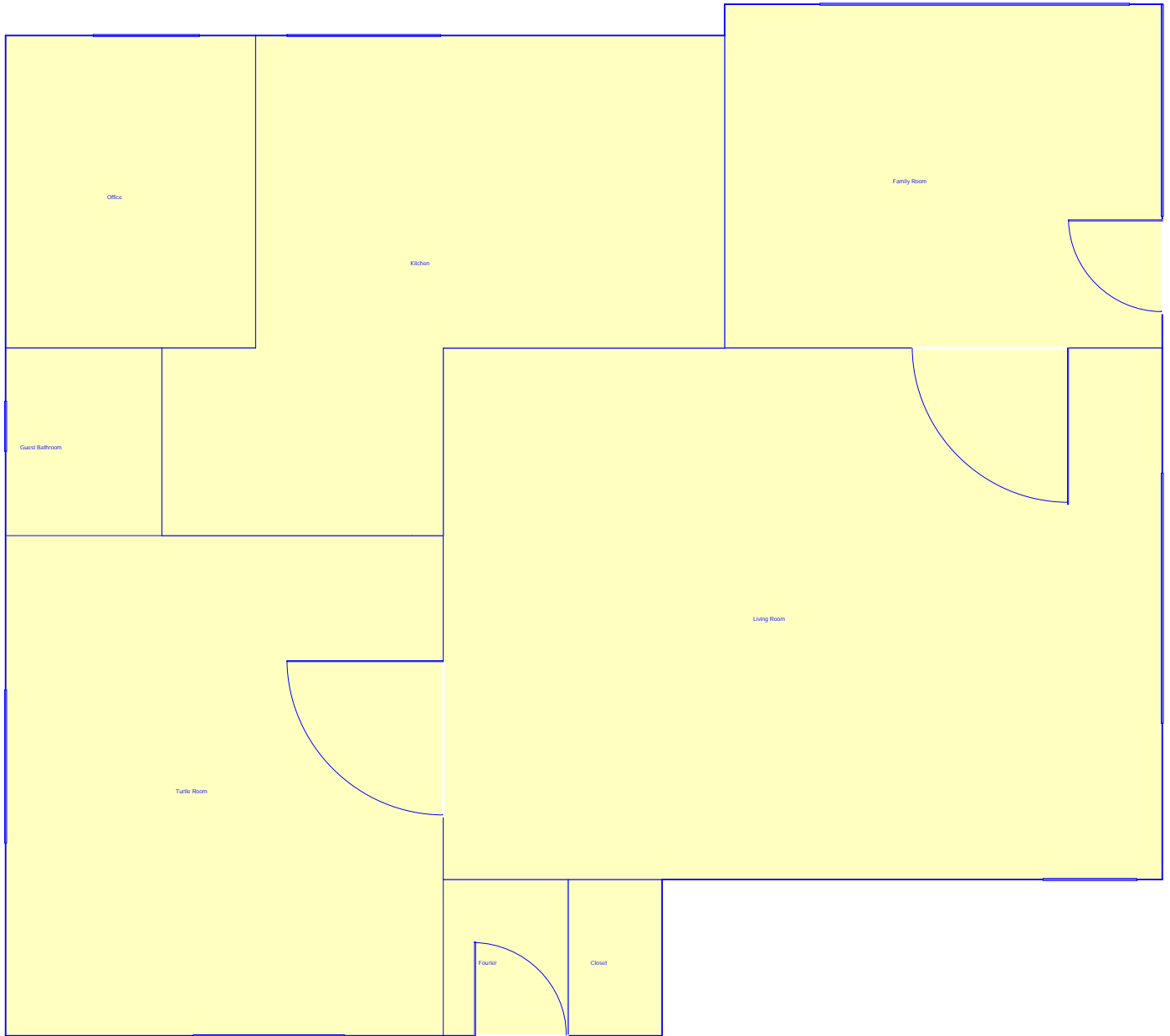


Latent Cooling Load = 2153 Btuh  
Overall U-value = 0.071 Btuh/ft²-°F

Data entries checked.



First Floor



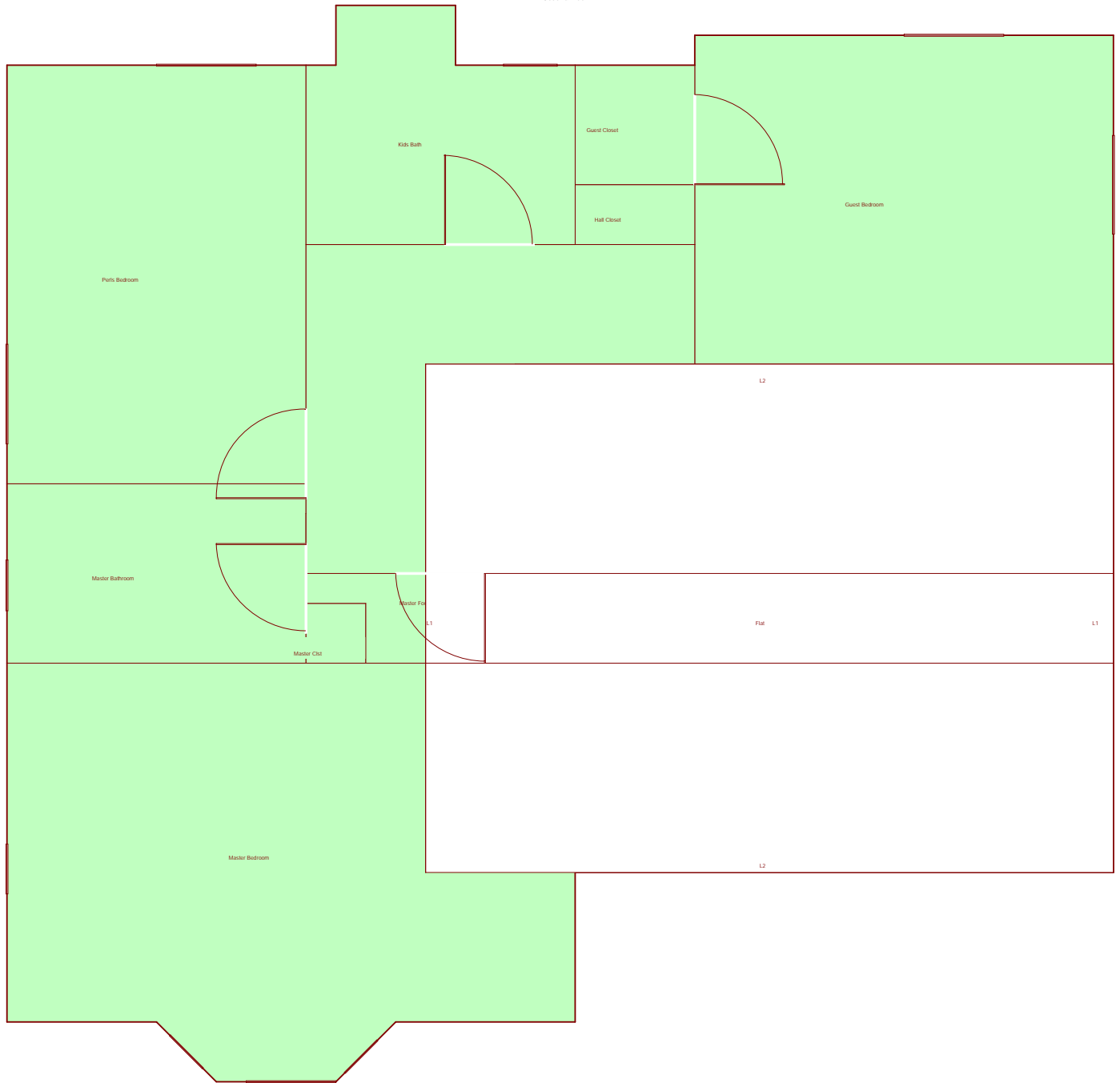
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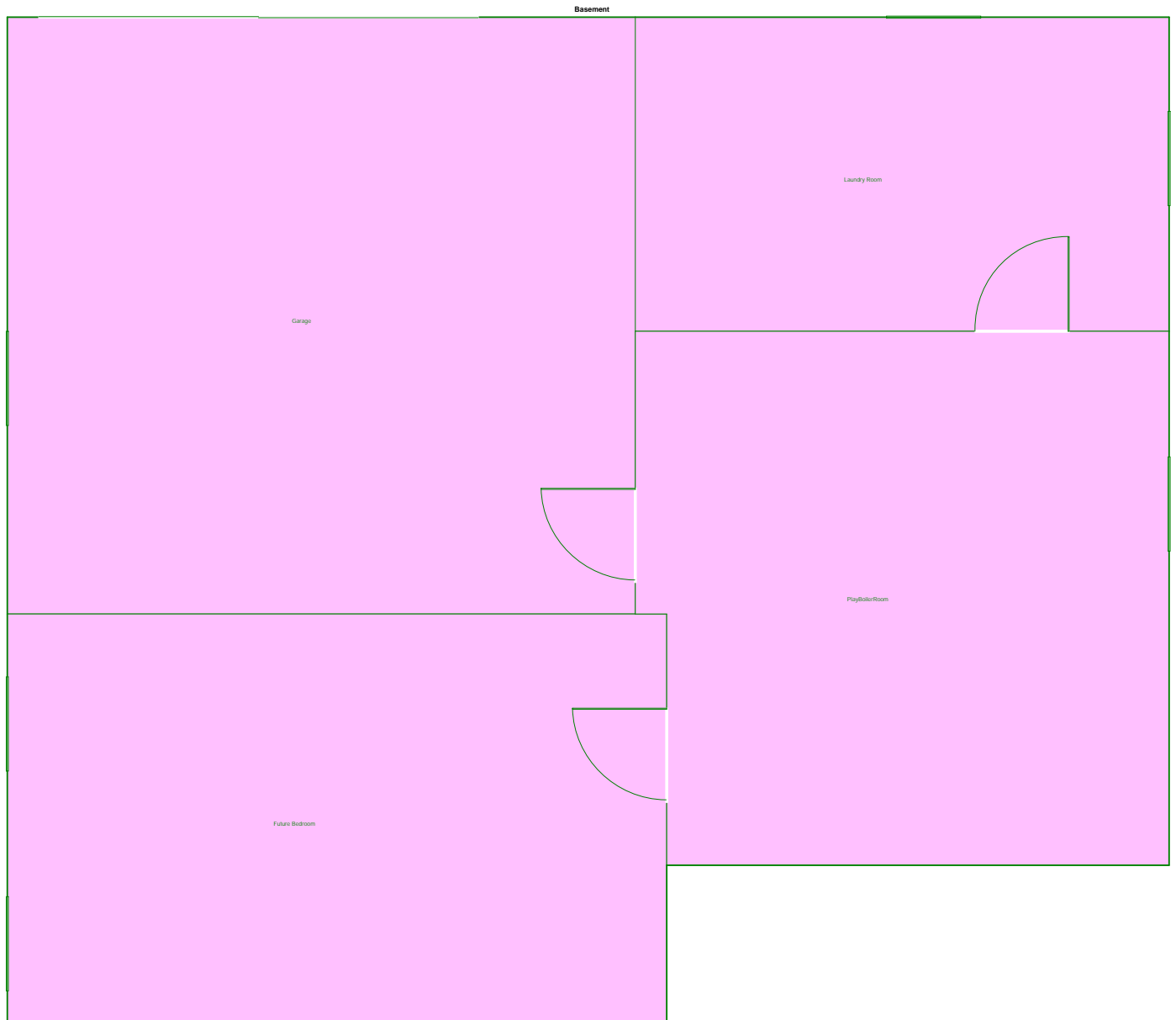
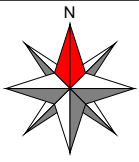
Second Floor



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