DESIGN HEATING AND COOLING LOADS FOR BASE BUILDING

6/29/2010
Project Name: Russell

For: Russell

By: Todd

Date:

Primary Heating System:

Space Name	Load, Btu/Hr	Distribution CFM
First Floor	39261	800
Second Floor	30614	624

Required Heating Equipment Output Capacity: 95020 Btu/hr

Available Heating Equipment Output Capacity: 92820 Btu/hr

Total flow: 1760 CFM

Heating Equipment Efficiency: 78 %

Calculated Distribution Efficiency: 81%

Temperature Drop: 50 F

Heating Safety Factor: 1.10

Distribution Safety Factor: 1.10

HEATING SYSTEM IS UNDERSIZED AND DOES NOT MEET THE REQUIRED HEATING LOAD.

Notes:

1. The room heating/cooling loads do not include the equipment and distribution safety factor and distribution losses
2. The room distribution includes distribution safety factor.
3. The load on the room is the peak load for this room in a year.
4. Available equipment output capacity includes equipment efficiency.
5. Required equipment output capacity includes diversity, distribution losses and equipment safety factor.
6. Overall distribution CFM/GPM for heating/cooling includes equipment safety factor, distribution losses and diversity.

DESIGN HEATING AND COOLING LOADS FOR IMPROVEMENT PACKAGE 1

6/29/2010
Project Name: Higgins, Russell

For: Russell Higgins

By: Todd Pascarella

Date:

Primary Heating System:

Space Name	Load, Btu/Hr	Distribution CFM
First Floor	29136	594
Second Floor	21097	430

Required Heating Equipment Output Capacity: 66889 Btu/hr

Available Heating Equipment Output Capacity: 92820 Btu/hr

Total flow: 1239 CFM

Heating Equipment Efficiency: 78 %

Calculated Distribution Efficiency: 83%

Temperature Drop: 50 F

Heating Safety Factor: 1.10

Distribution Safety Factor: 1.10

Notes:

1. The room heating/cooling loads do not include the equipment and distribution safety factor and distribution losses
2. The room distribution includes distribution safety factor.
3. The load on the room is the peak load for this room in a year.
4. Available equipment output capacity includes equipment efficiency.
5. Required equipment output capacity includes diversity, distribution losses and equipment safety factor.
6. Overall distribution CFM/GPM for heating/cooling includes equipment safety factor, distribution losses and diversity.

DESIGN HEATING AND COOLING LOADS FOR IMPROVEMENT PACKAGE 2

6/29/2010
Project Name: Russell

For: Russell

By: Todd

Date:

Primary Heating System:

Space Name	Load, Btu/Hr	Distribution CFM
First Floor	29136	594
Second Floor	23051	470

Required Heating Equipment Output Capacity: 69486 Btu/hr

Available Heating Equipment Output Capacity: 92820 Btu/hr

Total flow: 1287 CFM

Heating Equipment Efficiency: 78 %

Calculated Distribution Efficiency: 83%

Temperature Drop: 50 F

Heating Safety Factor: 1.10

Distribution Safety Factor: 1.10

Notes:

1. The room heating/cooling loads do not include the equipment and distribution safety factor and distribution losses
2. The room distribution includes distribution safety factor.
3. The load on the room is the peak load for this room in a year.
4. Available equipment output capacity includes equipment efficiency.
5. Required equipment output capacity includes diversity, distribution losses and equipment safety factor.
6. Overall distribution CFM/GPM for heating/cooling includes equipment safety factor, distribution losses and diversity.

DESIGN HEATING AND COOLING LOADS FOR IMPROVEMENT PACKAGE 3

6/29/2010
Project Name: Russell

For: Russell

By: Todd

Date:

Primary Heating System:

Space Name	Load, Btu/Hr	Distribution CFM
First Floor	29141	594
Second Floor	25762	525

Required Heating Equipment Output Capacity: 73106 Btu/hr

Available Heating Equipment Output Capacity: 92820 Btu/hr

Total flow: 1354 CFM

Heating Equipment Efficiency: 78 %

Calculated Distribution Efficiency: 83%

Temperature Drop: 50 F

Heating Safety Factor: 1.10

Distribution Safety Factor: 1.10

Notes:

1. The room heating/cooling loads do not include the equipment and distribution safety factor and distribution losses
2. The room distribution includes distribution safety factor.
3. The load on the room is the peak load for this room in a year.
4. Available equipment output capacity includes equipment efficiency.
5. Required equipment output capacity includes diversity, distribution losses and equipment safety factor.
6. Overall distribution CFM/GPM for heating/cooling includes equipment safety factor, distribution losses and diversity.