



**Manual S Compliance Report**  
*Entire House*  
**Rockview Designs**

Job:  
 Date: September 16th, 2018  
 By:

**Project Information**

For: Sample Manual J  
 890 E Myrtle Street, Fort Collins, Co

**Cooling Equipment**

**Design Conditions**

|                    |        |                    |       |      |                   |        |
|--------------------|--------|--------------------|-------|------|-------------------|--------|
| Outdoor design DB: | 90.0°F | Sensible gain:     | 20977 | Btuh | Entering coil DB: | 76.3°F |
| Outdoor design WB: | 62.0°F | Latent gain:       | 0     | Btuh | Entering coil WB: | 61.9°F |
| Indoor design DB:  | 75.0°F | Total gain:        | 20977 | Btuh |                   |        |
| Indoor RH:         | 50%    | Estimated airflow: | 1059  | cfm  |                   |        |

**Manufacturer's Performance Data at Actual Design Conditions**

|                    |          |        |                             |                  |
|--------------------|----------|--------|-----------------------------|------------------|
| Equipment type:    | Split AC |        |                             |                  |
| Manufacturer:      | Amana    | Model: | ASX130301C*+CA*FCAPF3137*6B |                  |
| Actual airflow:    | 1059     | cfm    |                             |                  |
| Sensible capacity: | 25320    | Btuh   | 121%                        | of load          |
| Latent capacity:   | 0        | Btuh   | 0%                          | of load          |
| Total capacity:    | 25320    | Btuh   | 121%                        | of load SHR: 0k% |

**Heating Equipment**

**Design Conditions**

|                    |        |            |       |      |                   |        |
|--------------------|--------|------------|-------|------|-------------------|--------|
| Outdoor design DB: | 5.6°F  | Heat loss: | 43118 | Btuh | Entering coil DB: | 67.1°F |
| Indoor design DB:  | 72.0°F |            |       |      |                   |        |

**Manufacturer's Performance Data at Actual Design Conditions**

|                  |             |        |              |         |
|------------------|-------------|--------|--------------|---------|
| Equipment type:  | Gas furnace |        |              |         |
| Manufacturer:    | Amana       | Model: | AMSS920603BN |         |
| Actual airflow:  | 927         | cfm    |              |         |
| Output capacity: | 49128       | Btuh   | 114%         | of load |
|                  |             |        | Temp. rise:  | 58 °F   |

Meets all requirements of ACCA Manual S.





# Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

Form  
RPER 1  
15 Mar 09

## Header Information

|  |                                   |  |  |
|--|-----------------------------------|--|--|
| Contractor:  | Rockview Designs                  | REQUIRED ATTACHMENTS                             | ATTACHED   |
| Mechanical license:                                |                                   | Manual J1 Form (and supporting worksheets):      | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Building plan #:                                   |                                   | or MJ1AE Form* (and supporting worksheets):      | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| Home address (Street or Lot#, Block, Subdivision): | 890 E Myrtle Street, Entire House | OEM performance data (heating, cooling, blower): | Yes <input type="checkbox"/> No <input type="checkbox"/> |
|  |                                   | Manual D Friction Rate Worksheet:                | Yes <input type="checkbox"/> No <input type="checkbox"/> |
|  |                                   | Duct distribution sketch:                        | Yes <input type="checkbox"/> No <input type="checkbox"/> |

## HVAC LOAD CALCULATION (IRC M1401.3)

### Design Conditions

#### Winter Design Conditions

Outdoor temperature: 6 °F  
 Indoor temperature: 72 °F  
 Total heat loss: 43118 Btuh

#### Summer Design Conditions

Outdoor temperature: 90 °F  
 Indoor temperature: 75 °F  
 Grains difference: -23 gr/lb @50% RH  
 Sensible heat gain: 20977 Btuh  
 Latent heat gain: 0 Btuh  
 Total heat gain: 20977 Btuh

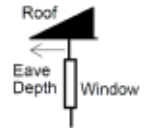
### Building Construction Information

#### Building

Orientation: Front Door faces South  
North, East, West, South, Northeast, Northwest, Southeast, Southwest  
 Number of bedrooms: 3  
 Conditioned floor area: 2592 ft<sup>2</sup>  
 Number of occupants: 4

#### Windows

Eave overhang depth: 0 ft  
 Internal shade: none  
Blinds, drapes, etc.  
 Number of skylights: 0



## HVAC EQUIPMENT SELECTION (IRC M1401.3)

### Heating Equipment Data

Equipment type: Gas furnace  
Furnace, Heat pump, Boiler, etc.  
 Model: Amana  
 AMSS920603BN  
 Heating output capacity: 49128 Btuh  
Heat pumps - capacity at winter design outdoor conditions  
 Aux. heating output capacity: 0 Btuh

### Cooling Equipment Data

Equipment type: Split AC  
Air Conditioner, Heat pump, etc.  
 Model: Amana  
 ASX130301C\*+CA\*FCAPF3137\*6B  
 Total cooling capacity: 0 Btuh  
 Sensible cooling capacity: 0 Btuh  
 Latent cooling capacity: 0 Btuh

### Blower Data

Heating cfm: 927  
 Cooling cfm: 1059  
 Static pressure: 0.80 in H2O  
Fan's rated external static pressure for design airflow

## HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

|   |                    |                                      |                       |                     |                               |
|---|--------------------|--------------------------------------|-----------------------|---------------------|-------------------------------|
| Design airflow:                         | 1059 cfm           | Longest supply duct:                 | 361 ft                | Duct Materials Used |                               |
| Equipment design ESP:                   | 0.80 in H2O        | Longest return duct:                 | 382 ft                | Trunk duct:         | Sheet metal                   |
| Total device pressure losses:           | -0.4 in H2O        | <b>Total effective length (TEL):</b> | <b>743 ft</b>         | Branch duct:        | Sheet metal, Round flex vinyl |
| <b>Available static pressure (ASP):</b> | <b>0.43 in H2O</b> | <b>Friction rate:</b>                | <b>0.058 in/100ft</b> |                     |                               |

Friction Rate = ASP ÷ (TEL × 100)

I declare the load calculation, equipment, equipment selection and duct design were rigorously performed based on the building plan listed above. I understand the claims made on these forms will be subject to review and verification.

Contractor's printed name: \_\_\_\_\_

Contractor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Reserved for County, Town Municipality or Authority having jurisdiction use.

\*Home qualifies for MJ1AE Form based on Abridged Edition Checklist

