

STATE OF COLORADO
Specifications Cover Sheet
FACTORY BUILT RESIDENTIAL APPLICATION

Jan-2018

Name of Manufacturer: BonnaVilla **Plant I.D. Number:** 3276

Complete Address: PO Box 127, 111 Grant Street, Aurora, NE 68818

Contact Name: Kevin Gartner **Contact Number:** (308) 389-8318

Contact Email address: kevin.gartner@chiefind.com

Third Party Inspection Agency: Nebraska Public Service Commission, Housing Division

For more detailed information on this plan approval please contact the Division of Housing

Model Name/No.: PID4813

Type of Approval		Code	
New	<u>X</u>	IBC:	<u>N/A</u>
Revision	<u> </u>	IRC:	<u>2018</u>
Renewal	<u> </u>	IECC:	<u>2015</u>
		NEC:	<u>2017</u>

Sq. Footage Finished:	<u>1662.000</u>	Fee:	<u>\$0.25</u>	=	<u>\$415.50</u>
Sq. Footage Unfinished:	<u>238.000</u>	Fee:	<u>\$0.10</u>	=	<u>\$23.80</u>
		Total Fee:		=	<u>\$439.30</u>

State of Colorado
Division of Housing

April 16, 2020

Approval Stamp



PLANS APPROVED
Subject to field inspection

516061

EXPIRES: December 1, 2020

MANUFACTURER CERTIFIES that only approved equipment and materials will be used and the installations shall be made in accordance with approved plans. and applicable codes and provisions of the Colorado Division of Housing.. Manufacturer agrees to in-plant inspection of units manufactured under the above plan approval. Application shall be made for and insignias affixed to each factory built unit that is subject to Colorado statues and which is manufactured or is to be sold, offered for sale, or occupied for sale, or occupied in the State of Colorado.

Transmittal Letter

BonnaVilla® Homes

111 Grant Street
 P.O. Box 127
 Aurora, NE 68818
 Phone: 402.694.5250 Fax: 308.389.6749
 www.bonnavillahomes.com



Date: 3/31/2020 To: Colorado Division of Housing Plan Approval Department 1313 Sherman Street, Rm 320 Denver, Colorado 80203	Attention: Greg Ardrey Re: Modular Plan Approval Job Number: PID4813
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We are sending you:			
<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> Under Separate Cover via: _____ the following:		
<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Prints	<input checked="" type="checkbox"/> Plans	<input type="checkbox"/> Other:
<input type="checkbox"/> Copy of Letter	<input type="checkbox"/> Change Order	<input type="checkbox"/> Samples	
<input type="checkbox"/> Total Quantity	<input type="checkbox"/> Reproducible	<input checked="" type="checkbox"/> Specifications	

Qty	Date	Dwg. #	Rev.	Description
1	3/31/20			Colorado Factory Built Residential Application
1	3/31/20			BonnaVilla Letter of Transmittal
1	3/31/20			PID Electrical Load Calculation
1	3/31/20			PID REScheck Calculation
1	3/31/20			PID Heat Loss/Gain Calculation
1	3/31/20			Truss prints
1	3/31/20	00A		PID Cover Sheet
1	3/31/20	PSW		PSW Sheet
1	3/31/20	01		PID Floor Plan

See second page for additional Transmittal items.

These are transmitted as checked below:		
<input checked="" type="checkbox"/> For Approval	<input checked="" type="checkbox"/> Approved as Submitted	<input type="checkbox"/> Resubmit for copies for Approval
<input type="checkbox"/> For Your Use	<input type="checkbox"/> Approved as Noted	<input type="checkbox"/> Submit [#] copies for distribution
<input type="checkbox"/> As Requested	<input type="checkbox"/> Returned for Corrections	<input type="checkbox"/> Return [#] corrected prints
<input type="checkbox"/> For Review and Comment	<input type="checkbox"/> Revised and Resubmit/Work May Not Proceed	
<input type="checkbox"/> FOR BIDS DUE:		<input type="checkbox"/> PRINTS RETURNED AFTER LOAN

Comments:
 Greg, Please find enclosed drawings and specifications for the approval of model PID. If you should have any questions, please feel free to let me know. I can be reached at (308) 389-8318 or kevin.gartner@chiefind.com.

Copy to:	
Signature	



BONNAVILLA® HOMES
 RESIDENTIAL ELECTRICAL LOAD CALCULATION
 (Reference 2017 NEC Article 220.5)

Model: PID4813
 Serial No.: _____
 Type of Structure: Residential

Date: 3/31/2020
 Small Appliance: 3 Circuits
 General Lighting: 3 Volt-amperes/Sf

Prepared by: SE
 Length: 56.000 Ft.
 Width: 29.667 Ft.

Heating/Cooling Loads

Air conditioning: Model: Generic (30 Amp)
 Air conditioning (@ 100%) 6000.00 Volt-amperes 1 Number of units = 6000.00 Volt-amperes

Electric heating: Model: Colman 23 KW
 Electric heating (@ 65%) 23000.00 Volt-amperes 0 Number of units = 0.00 Volt-amperes

Enter the larger of the Air-conditioning load or the diversified demand of the Electric heating load: 6000.00 Volt-amperes

Other Loads

Item	Volt-	Qty	Demand	Code Ref	
General lighting	3.00	1661.35	100.00%	NEC Art 220.42	4984.06 Volt-amperes
Small appliance	1500.00	3	100.00%	NEC Art 220.42	4500.00 Volt-amperes
Laundry	1500.00	1	100.00%	NEC Art 220.52(B)	1500.00 Volt-amperes
Refrigerator	1020.00	1	100.00%	NEC Art 220.52(B)	1020.00 Volt-amperes
Range	10100.00	0	100.00%	NEC Art 220.55	0.00 Volt-amperes
Range - dual fuel	3500.00	1	100.00%	NEC Art 220.55	3500.00 Volt-amperes
Dryer	5600.00	1	100.00%	NEC Art 220.54	5600.00 Volt-amperes
Water Heater	6000.00	1	100.00%	NEC Art 220.82(B)(3)	6000.00 Volt-amperes
Exhaust fan	276.00	2	100.00%	NEC Art 430.245	552.00 Volt-amperes
Exhaust fan - heated	1536.00	0	100.00%	NEC Art 430.245	0.00 Volt-amperes
Ceiling fan	75.00	3	100.00%	NEC Art 220.14(A)	225.00 Volt-amperes
Range hood	60.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Smoke detector	4.80	3	100.00%	NEC Art 220.14(A)	14.40 Volt-amperes
Smoke/CO detector	10.80	1	100.00%	NEC Art 220.14(A)	10.80 Volt-amperes
Furnace	471.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Cooktop	7700.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Wall oven - single	3400.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Wall oven - double	6800.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Wall oven & microwave	4600.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Microwave	1200.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Microwave - spacesaver	1000.00	1	100.00%	NEC Art 220.14(A)	1000.00 Volt-amperes
Whirlpool	800.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Electrical fireplace	1500.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Tankless water heater	28800.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Dishwasher	1512.00	1	100.00%	NEC Art 220.14(A)	1512.00 Volt-amperes
Disposal	701.50	1	100.00%	NEC Art 220.14(A)	701.50 Volt-amperes
Trash Compactor	780.00	0	100.00%	NEC Art 220.14(A)	0.00 Volt-amperes
Total of Loads:					31119.76 Volt-amperes
1st <u>10.00</u> Kw at <u>100.00%</u> :					10000.00 Volt-amperes
Remainder of other loads at <u>40.00%</u> :					8447.90 Volt-amperes
Larger of heating or air conditioning loads:					6000.00 Volt-amperes
Total calculated load of structure (Volt-amperes):					24447.90 Volt-amperes
Total ampere rating of structure (Volt-amperes ÷ 240):					101.87 Ampere

Panel-board used: 1 Phase 240 Volts 200 amps 40 breaker openings



REScheck Software Version 4.6.5 Compliance Certificate

Project **McMANUS**

Energy Code: **2015 IECC**
 Location: **Calhan, Colorado**
 Construction Type: **Single-family**
 Project Type: **New Construction**
 Conditioned Floor Area: **1,661 ft²**
 Glazing Area: **18%**
 Climate Zone: **5 (7222 HDD)**
 Permit Date:
 Permit Number:

Construction Site:
 McMANUS
 PEYTON, CO

Owner/Agent:
 McMANUS
 SEEGER
 PEYTON, CO

Designer/Contractor:
 Sue Eckert
 BonnaVilla
 111 Grant St
 Aurora, NE 68818
 308-389-8328
 sue.eckert@chiefind.com

Compliance: Passes using UA trade-off

Compliance: **0.9% Better Than Code** Maximum UA: **221** Your UA: **219**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules.
 It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Ceiling 1: Flat Ceiling or Scissor Truss	1,661	21.0	19.0	0.025	42
Front wall: Wood Frame, 16" o.c.	448	19.0	0.0	0.060	23
Window 1: Vinyl/Fiberglass Frame:Double Pane with Low-E	70			0.320	22
Right wall: Wood Frame, 16" o.c.	237	19.0	0.0	0.060	12
Window 2: Vinyl/Fiberglass Frame:Double Pane with Low-E	36			0.320	12
Rear wall: Wood Frame, 16" o.c.	448	19.0	0.0	0.060	23
Door 1: Solid	20			0.140	3
Door 2: Glass	40			0.320	13
Left wall: Wood Frame, 16" o.c.	237	19.0	0.0	0.060	9
Window 3: Wood Frame:Double Pane with Low-E	75			0.320	24
Door 3: Glass	20			0.270	5
Crawl 1: Solid Concrete or Masonry Wall height: 4.0' Depth below grade: 3.0' Insulation depth: 4.0'	685	0.0	14.0	0.060	31

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2015 IECC requirements in REScheck Version 4.6.5 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Sue Eckert
Name - Title

Eckert, Sue
Signature

Digitally signed by
Eckert, Sue

3/31/2020
Date



2015 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	19.00
Below-Grade Wall	14.00
Floor	0.00
Ceiling / Roof	40.00
Ductwork (unconditioned spaces):	<u>8.00</u>

Glass & Door Rating	U-Factor	SHGC
Window	0.32	
Door	0.32	

Heating & Cooling Equipment	Efficiency
Heating System: <u>Guardian MG9S060</u>	<u>95.5%</u>
Cooling System: <u>OSBO</u>	<u> </u>
Water Heater: <u>State WH EN640DORT</u>	<u>91.0%</u>

Name: Sue Eckert **Date:** 3/31/2020

Comments

Project Information

For: PID4813
PEYTON, CO

Design Conditions

<p>Location: Colorado Springs, CO, US Elevation: 6171 ft Latitude: 39°N</p> <p>Outdoor:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Heating</td> <td style="text-align: center;">Cooling</td> </tr> <tr> <td>Drybulb (°F)</td> <td style="text-align: center;">0</td> <td style="text-align: center;">87</td> </tr> <tr> <td>Daily range (°F)</td> <td style="text-align: center;">-</td> <td style="text-align: center;">25 (M)</td> </tr> <tr> <td>Wet bulb (°F)</td> <td style="text-align: center;">-</td> <td style="text-align: center;">58</td> </tr> <tr> <td>Wind speed (mph)</td> <td style="text-align: center;">15.0</td> <td style="text-align: center;">7.5</td> </tr> </table>		Heating	Cooling	Drybulb (°F)	0	87	Daily range (°F)	-	25 (M)	Wet bulb (°F)	-	58	Wind speed (mph)	15.0	7.5	<p>Indoor:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Indoor temperature (°F)</td> <td style="text-align: center;">72</td> <td style="text-align: center;">75</td> </tr> <tr> <td>Design TD (°F)</td> <td style="text-align: center;">72</td> <td style="text-align: center;">12</td> </tr> <tr> <td>Relative humidity (%)</td> <td style="text-align: center;">30</td> <td style="text-align: center;">50</td> </tr> <tr> <td>Moisture difference (gr/lb)</td> <td style="text-align: center;">38.5</td> <td style="text-align: center;">-39.2</td> </tr> </table> <p>Infiltration:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 30%;">Method</td> <td colspan="2" style="text-align: center;">Simplified</td> </tr> <tr> <td>Construction quality</td> <td colspan="2" style="text-align: center;">Tight</td> </tr> <tr> <td>Fireplaces</td> <td colspan="2" style="text-align: center;">1 (Average)</td> </tr> </table>	Indoor temperature (°F)	72	75	Design TD (°F)	72	12	Relative humidity (%)	30	50	Moisture difference (gr/lb)	38.5	-39.2	Method	Simplified		Construction quality	Tight		Fireplaces	1 (Average)	
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Construction descriptions

	Or	Area ft ²	U-value Btuh/ft ² -°F	Insul R ft ² -°F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Clg HTM Btuh/ft ²	Gain Btuh
Walls 12E-0sw: Frm wall, wd ext, 3/8" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x6" wood frm, 16" o.c. stud	n	385	0.068	19.0	4.90	1885	0.81	313
	e	201	0.068	19.0	4.90	986	0.81	164
	s	378	0.068	19.0	4.90	1851	0.81	307
	w	141	0.068	19.0	4.90	692	0.81	115
	all	1106	0.068	19.0	4.90	5413	0.81	898
ConWallBgR14Cont: Bg wall, light dry soil, concrete wall, r-14 ins, 8" thk, 1/2" gypsum board int fnsh	n	224	0.029	14.0	2.11	473	0	0
	e	119	0.029	14.0	2.11	251	0	0
	s	224	0.029	14.0	2.11	473	0	0
	w	119	0.029	14.0	2.11	251	0	0
	all	685	0.029	14.0	2.11	1447	0	0

Partitions (none)

Windows

WinNDPSh: Windsor Next Dimension Pro, Single hung, Vinyl frame, Low E glass, Argon; NFRC rated (SHGC=0.36); 50% blinds 45°, medium; 50% outdoor insect screen; 1.33 ft overhang (3 ft window ht, 1.33 ft sep.); 6.67 ft head ht	6	0.310	0	22.3	134	30.1	180
WinNDPSh: Windsor Next Dimension Pro, Single hung, Vinyl frame, Low E glass, Argon; NFRC rated (SHGC=0.36); 50% blinds 45°, medium; 50% outdoor insect screen; 1.33 ft overhang (5 ft window ht, 1.33 ft sep.); 6.67 ft head ht	w	75	0.310	0	22.3	1674	30.1
	s	135	0.310	0	22.3	3013	25.9
	all	20	0.320	0	23.0	461	8.43
	s	20	0.320	0	23.0	461	8.43
WinNDPFx: 2 glazing, clr low-e outr, argon gas, vnl frm mat, clr innr, 1/2" s gap, 1/4" thk; NFRC rated (SHGC=0.22); 50% blinds 45°, medium; 50% outdoor insect screen; 1.33 ft overhang (5 ft window ht, 1.33 ft sep.); 6.67 ft head ht	s	20	0.320	0	23.0	461	8.43

Doors

ThermaTru6PnlFiberglass: Therma Tru fiberglass core, wood frame, 6 panel solid	n	21	0.140	7.1	10.1	212	2.95	62
ThermaTruSwingPatioDr: Therma Tru Swing Patio Door, wd sc type, low-e, argon filled	n	42	0.320	3.1	23.0	968	6.74	283
ThermaTruFiberglassGlass-Blind: Therma Tru fiberglass core, wood frame, full glass interior blind	w	21	0.320	3.1	23.0	484	6.74	141

Ceilings

CeilVntR40: Attic ceiling, asphalt shingles roof mat, r-40 ceil ins, 1/2" gypsum board int fnsh		1661	0.025	40.0	1.83	3039	1.13	1881
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Floors

Crawlspace Floor: Crawlspace floor, Below grade, light dry soil, 4' depth		1661	0.011	0	0.81	1343	0	0
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Project Information

For: PID4813
 PEYTON, CO

Notes:

Design Information

Weather: Colorado Springs, CO, US

Winter Design Conditions

Outside db	0 °F
Inside db	72 °F
Design TD	72 °F

Summer Design Conditions

Outside db	87 °F
Inside db	75 °F
Design TD	12 °F
Daily range	M
Relative humidity	50 %
Moisture difference	-39 gr/lb

Heating Summary

Structure	21864 Btuh
Ducts	0 Btuh
<i>Central vent (60 cfm)</i>	<i>3784 Btuh</i>
<i>Outside air</i>	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	25648 Btuh

Sensible Cooling Equipment Load Sizing

Structure	10664 Btuh
Ducts	0 Btuh
<i>Central vent (60 cfm)</i>	<i>631 Btuh</i>
<i>Outside air</i>	
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.92
Equipment sensible load	10391 Btuh

Infiltration

Method	Simplified
Construction quality	Tight
Fireplaces	1 (Average)

Latent Cooling Equipment Load Sizing

Structure	-605 Btuh
Ducts	0 Btuh
<i>Central vent (60 cfm)</i>	<i>-1273 Btuh</i>
<i>Outside air</i>	
Equipment latent load	0 Btuh

	Heating	Cooling
Area (ft ²)	3323	3323
Volume (ft ³)	13291	13291
Air changes/hour	0.35	0.35
Equip. AVF (cfm)	78	78

Equipment Total Load (Sen+Lat)	10391 Btuh
Req. total capacity at 0.85 SHR	1.0 ton

Heating Equipment Summary

Make	Coleman, Unitary Products Group
Trade	COLEMAN BY JOHNSON CONTROLS
Model	MG9S060B12MP11
AHRI ref	2017052

Efficiency	95.5 AFUE
Heating input	60000 Btuh
Heating output	58000 Btuh
Temperature rise	109 °F
Actual air flow	609 cfm
Air flow factor	0.028 cfm/Btuh
Static pressure	0.10 in H2O
Space thermostat	

Cooling Equipment Summary

Make	
Trade	
Cond	
Coil	
AHRI ref	
Efficiency	0 SEER
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	609 cfm
Air flow factor	0.057 cfm/Btuh
Static pressure	0.10 in H2O
Load sensible heat ratio	1.00

Bold/italic values have been manually overridden

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

111 Grant Street, Aurora, NE 68818-0127 Phone: 308-389.8353 Fax: 308.389.6749 Email: kimberla.eastman@chiefind.com Web: www.BonnaVillaHomes.com License: 3276

1		Room name		Entire House				Morning Room						
2		Exposed wall		6.0 ft				23.5 ft						
3		Room height		342.7 ft				8.0 ft						
4		Room dimensions		3322.7 ft²				8.7 x 14.8 ft						
5		Room area						128.6 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	4.90	0.81	448	385	1885	313	69	27	134	22
	D	ThermaTru6PnlFibergl	0.140	n	10.08	2.95	21	21	212	62	0	0	0	0
	D	ThermaTruSwingPatioD	0.320	n	23.04	6.74	42	42	968	283	42	42	968	283
	W	ConWallBgR14Cont	0.063	n	2.11	0.00	224	224	473	0	0	0	0	0
11	W	12E-0sw	0.068	e	4.90	0.81	237	201	986	164	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	6	0	134	180	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	30	0	670	902	0	0	0	0
	W	ConWallBgR14Cont	0.063	e	2.11	0.00	119	119	251	0	0	0	0	0
	W	12E-0sw	0.068	s	4.90	0.81	448	378	1851	307	0	0	0	0
	G	WinNDPFx	0.320	s	23.04	8.43	20	9	461	169	0	0	0	0
	G	WinNDPSh	0.310	s	22.32	11.49	30	13	670	345	0	0	0	0
	G	WinNDPSld	0.320	s	23.04	8.43	20	9	461	169	0	0	0	0
	W	ConWallBgR14Cont	0.063	s	2.11	0.00	224	224	473	0	0	0	0	0
	W	12E-0sw	0.068	w	4.90	0.81	237	141	692	115	119	68	331	55
	G	WinNDPSh	0.310	w	22.32	30.07	75	0	1674	2255	30	0	670	902
	D	ThermaTruFiberglassG	0.320	w	23.04	6.74	21	21	484	141	21	21	484	141
	W	ConWallBgR14Cont	0.063	w	2.11	0.00	119	119	251	0	0	0	0	0
	C	CeilVntR40	0.025	-	1.83	1.13	1661	1661	3039	1881	129	129	235	146
	F	Crawspace Floor	0.011	-	0.81	0.00	1661	1661	1343	0	0	0	0	0
6	c) AED excursion									444				271
	Envelope loss/gain								16975	7729			2821	1820
12	a) Infiltration								4889	815			671	112
	b) Room ventilation								0	0			0	0
13	Internal gains:			Occupants @	230		4			920	2			460
				Appliances/other						1200				0
	Subtotal (lines 6 to 13)								21864	10664			3492	2392
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								21864	10664			3492	2392
15	Duct loads						0%	0%	0	0	-0%	0%	0	0
	Total room load								21864	10664			3492	2392
	Air required (cfm)								609	609			97	137

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

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1 Room name		Kitchen 16.7 ft 8.0 ft heat/cool						Utility 7.7 ft 8.0 ft heat/cool						
2 Exposed wall		16.7 x 14.8 ft						7.7 x 14.8 ft						
3 Room height		247.2 ft²						113.7 ft²						
4 Room dimensions														
5 Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	4.90	0.81	133	133	653	108	61	40	197	33
	D	ThermaTru6PnlFibergl	0.140	n	10.08	2.95	0	0	0	0	21	21	212	62
	D	ThermaTruSwingPatioD	0.320	n	23.04	6.74	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	n	2.11	0.00	0	0	0	0	0	0	0	0
11	W	12E-0sw	0.068	e	4.90	0.81	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	e	2.11	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	4.90	0.81	0	0	0	0	0	0	0	0
	G	WinNDPFx	0.320	s	23.04	8.43	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	s	22.32	11.49	0	0	0	0	0	0	0	0
	G	WinNDPSld	0.320	s	23.04	8.43	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	s	2.11	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	4.90	0.81	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	w	22.32	30.07	0	0	0	0	0	0	0	0
	D	ThermaTruFiberglassG	0.320	w	23.04	6.74	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	w	2.11	0.00	0	0	0	0	0	0	0	0
	C	CeilVntR40	0.025	-	1.83	1.13	247	247	452	280	114	114	208	129
	F	Crawlspace Floor	0.011	-	0.81	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									-214				-33
	Envelope loss/gain								1105	175			617	190
12	a) Infiltration								476	79			219	36
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @		230		0			0	0			0
			Appliances/other							1200				0
	Subtotal (lines 6 to 13)								1581	1454			836	227
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								1581	1454			836	227
15	Duct loads								0	0	-0%	0%	0	0
	Total room load								1581	1454			836	227
	Air required (cfm)								44	83			23	13

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

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1 Room name		Main Bath						Master Bedroom						
2 Exposed wall		5.7 ft						32.2 ft						
3 Room height		8.0 ft heat/cool						8.0 ft heat/cool						
4 Room dimensions		84.1 ft ² 5.7 x 14.8 ft						257.1 ft ² 17.3 x 14.8 ft						
5 Room area														
	Ty	Construction number	U-value (Btuh/ft ² -°F)	Or	HTM (Btuh/ft ²)		Area (ft ²) or perimeter (ft)		Load (Btuh)		Area (ft ²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	4.90	0.81	45	45	222	37	139	139	679	113
	D	ThermaTru6PnlFibergl	0.140	n	10.08	2.95	0	0	0	0	0	0	0	0
	D	ThermaTruSwingPatioD	0.320	n	23.04	6.74	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	n	2.11	0.00	0	0	0	0	0	0	0	0
11	W	12E-0sw	0.068	e	4.90	0.81	0	0	0	0	119	89	434	72
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0	30	0	670	902
	W	ConWallBgR14Cont	0.063	e	2.11	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	4.90	0.81	0	0	0	0	0	0	0	0
	G	WinNDPFx	0.320	s	23.04	8.43	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	s	22.32	11.49	0	0	0	0	0	0	0	0
	G	WinNDPSld	0.320	s	23.04	8.43	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	s	2.11	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	4.90	0.81	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	w	22.32	30.07	0	0	0	0	0	0	0	0
	D	ThermaTruFiberglassG	0.320	w	23.04	6.74	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	w	2.11	0.00	0	0	0	0	0	0	0	0
	C	CeilVntR40	0.025	-	1.83	1.13	84	84	154	95	257	257	470	291
	F	Crawspace Floor	0.011	-	0.81	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									-20				159
	Envelope loss/gain								376	112			2253	1537
12	a) Infiltration								162	27			918	153
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @		230		0			0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								537	139			3171	1690
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								537	139			3171	1690
15	Duct loads								-0%	0%			0	0
	Total room load								537	139			3171	1690
	Air required (cfm)								15	8			88	96

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1		Room name				Master Bath 24.2 ft				3rd Bedroom 11.3 ft				
2		Exposed wall				8.0 ft				8.0 ft				
3		Room height				9.3 x 14.8 ft				11.3 x 14.8 ft				
4		Room dimensions				138.4 ft²				168.1 ft²				
5		Room area												
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	4.90	0.81	0	0	0	0	0	0	0	0
	D	ThermaTru6PnlFibergl	0.140	n	10.08	2.95	0	0	0	0	0	0	0	0
	D	ThermaTruSwingPatioD	0.320	n	23.04	6.74	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	n	2.11	0.00	0	0	0	0	0	0	0	0
11	W	12E-0sw	0.068	e	4.90	0.81	119	113	552	92	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	6	0	134	180	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	e	2.11	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	4.90	0.81	75	75	366	61	91	76	370	61
	G	WinNDPFx	0.320	s	23.04	8.43	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	s	22.32	11.49	0	0	0	0	15	6	335	172
	G	WinNDPSld	0.320	s	23.04	8.43	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	s	2.11	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	4.90	0.81	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	w	22.32	30.07	0	0	0	0	0	0	0	0
	D	ThermaTruFiberglassG	0.320	w	23.04	6.74	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	w	2.11	0.00	0	0	0	0	0	0	0	0
	C	CeilVntR40	0.025	-	1.83	1.13	138	138	253	157	168	168	308	190
	F	Crawspace Floor	0.011	-	0.81	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									-6				17
	Envelope loss/gain								1304	483			1013	441
12	a) Infiltration								690	115			323	54
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								1994	598			1336	495
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								1994	598			1336	495
15	Duct loads								-0%	0%			0	0
	Total room load								1994	598			1336	495
	Air required (cfm)								56	34			37	28

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1		Room name				2nd Bedroom				Living Room				
2		Exposed wall				14.8 ft				35.3 ft				
3		Room height				8.0 ft				8.0 ft				
4		Room dimensions				14.8 x 14.8 ft				20.5 x 14.8 ft				
5		Room area				220.0 ft²				304.1 ft²				
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	4.90	0.81	0	0	0	0	0	0	0	0
	D	ThermaTru6PnlFibergl	0.140	n	10.08	2.95	0	0	0	0	0	0	0	0
	D	ThermaTruSwingPatioD	0.320	n	23.04	6.74	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	n	2.11	0.00	0	0	0	0	0	0	0	0
11	W	12E-0sw	0.068	e	4.90	0.81	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0	0	0	0	0
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	e	2.11	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	4.90	0.81	119	104	508	84	164	124	607	101
	G	WinNDPFx	0.320	s	23.04	8.43	0	0	0	0	20	9	461	169
	G	WinNDPSh	0.310	s	22.32	11.49	15	6	335	172	0	0	0	0
	G	WinNDPSld	0.320	s	23.04	8.43	0	0	0	0	20	9	461	169
	W	ConWallBgR14Cont	0.063	s	2.11	0.00	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	4.90	0.81	0	0	0	0	119	74	361	60
	G	WinNDPSh	0.310	w	22.32	30.07	0	0	0	0	45	0	1004	1353
	D	ThermaTruFiberglassG	0.320	w	23.04	6.74	0	0	0	0	0	0	0	0
	W	ConWallBgR14Cont	0.063	w	2.11	0.00	0	0	0	0	0	0	0	0
	C	CeilVntR40	0.025	-	1.83	1.13	220	220	403	249	304	304	556	344
	F	Crawlspace Floor	0.011	-	0.81	0.00	0	0	0	0	0	0	0	0
6	c) AED excursion									4				267
	Envelope loss/gain									1245	510			3450 2462
12	a) Infiltration									423	71			1008 168
	b) Room ventilation									0	0			0 0
13	Internal gains:		Occupants @	230			0			0	2			460 0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)									1668	580			4458 3090
	Less external load									0	0			0 0
	Less transfer									0	0			0 0
	Redistribution									0	0			0 0
14	Subtotal									1668	580			4458 3090
15	Duct loads									0	0			0 0
	Total room load									1668	580			4458 3090
	Air required (cfm)									46	33			124 176

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6	Room name				Crawlspace										
	Exposed wall				171.3 ft										
	Room height				4.0 ft				heat/cool						
Room dimensions				56.0 x 29.7 ft											
Room area				1661.3 ft²											
6	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load		
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12E-0sw	0.068	n	4.90	0.81	0	0	0	0					
	D	ThermaTru6PnlFibergl	0.140	n	10.08	2.95	0	0	0	0					
	D	ThermaTruSwingPatioD	0.320	n	23.04	6.74	0	0	0	0					
	W	ConWallBgR14Cont	0.063	n	2.11	0.00	224	224	473	0					
11	W	12E-0sw	0.068	e	4.90	0.81	0	0	0	0					
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0					
	G	WinNDPSh	0.310	e	22.32	30.07	0	0	0	0					
	W	ConWallBgR14Cont	0.063	e	2.11	0.00	119	119	251	0					
	W	12E-0sw	0.068	s	4.90	0.81	0	0	0	0					
	G	WinNDPFx	0.320	s	23.04	8.43	0	0	0	0					
	G	WinNDPSh	0.310	s	22.32	11.49	0	0	0	0					
	G	WinNDPSld	0.320	s	23.04	8.43	0	0	0	0					
	W	ConWallBgR14Cont	0.063	s	2.11	0.00	224	224	473	0					
	W	12E-0sw	0.068	w	4.90	0.81	0	0	0	0					
	G	WinNDPSh	0.310	w	22.32	30.07	0	0	0	0					
	D	ThermaTruFiberglassG	0.320	w	23.04	6.74	0	0	0	0					
	W	ConWallBgR14Cont	0.063	w	2.11	0.00	119	119	251	0					
	C	CeilVntR40	0.025	-	1.83	1.13	0	0	0	0					
	F	Crawlspace Floor	0.011	-	0.81	0.00	1661	1661	1343	0					
6	c) AED excursion									0					
	Envelope loss/gain								2790	0					
12	a) Infiltration								0	0					
	b) Room ventilation								0	0					
13	Internal gains: Occupants @ 230						0			0					
	Appliances/other									0					
	Subtotal (lines 6 to 13)								2790	0					
	Less external load								0	0					
	Less transfer								0	0					
	Redistribution								0	0					
14	Subtotal								2790	0					
15	Duct loads						-0%	0%	0	0					
	Total room load								2790	0					
	Air required (cfm)								78	0					

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Project Information

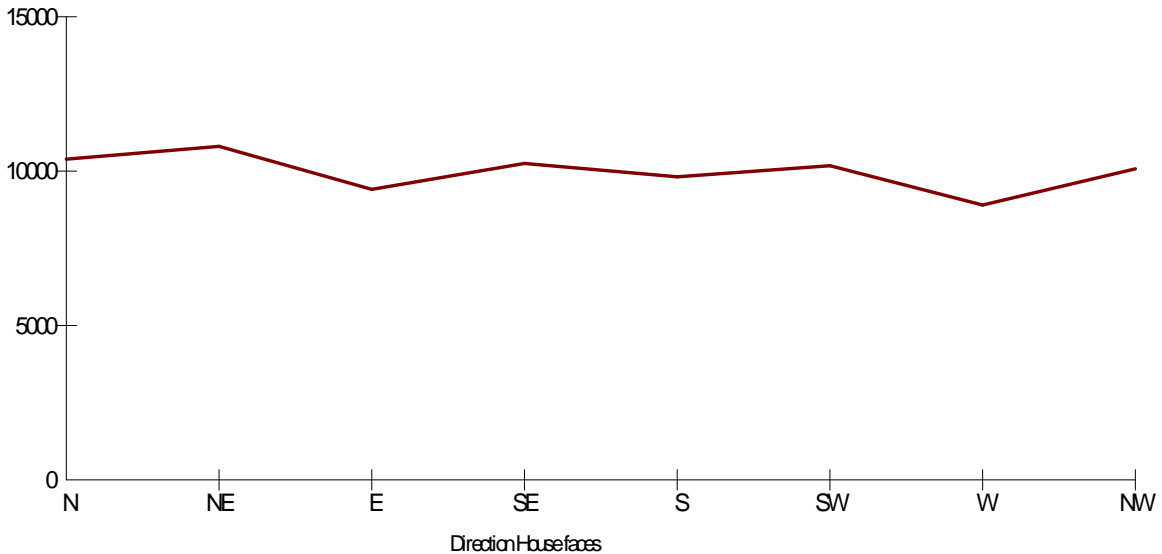
For: PID4813
 PEYTON, CO

Design Conditions

Location:		Indoor:		Heating	Cooling
Colorado Springs, CO, US		Indoor temperature (°F)		72	75
Elevation: 6171 ft		Design TD (°F)		72	12
Latitude: 39°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		38.5	-39.2
Outdoor:	Heating	Cooling	Infiltration:		
Dry bulb (°F)	0	87			
Daily range (°F)	-	25 (M)			
Wet bulb (°F)	-	58			
Wind speed (mph)	15.0	7.5			

House	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	10391	10803	9415	10252	9815	10182	8905	10075
Latent Load (Btuh)	0	0	0	0	0	0	0	0
Total Load (Btuh)	10391	10803	9415	10252	9815	10182	8905	10075
Heating AVF (cfm)	609	634	548	600	573	596	517	589
Cooling AVF (cfm)	609	634	548	600	573	596	517	589

Building Orientation Cooling Load

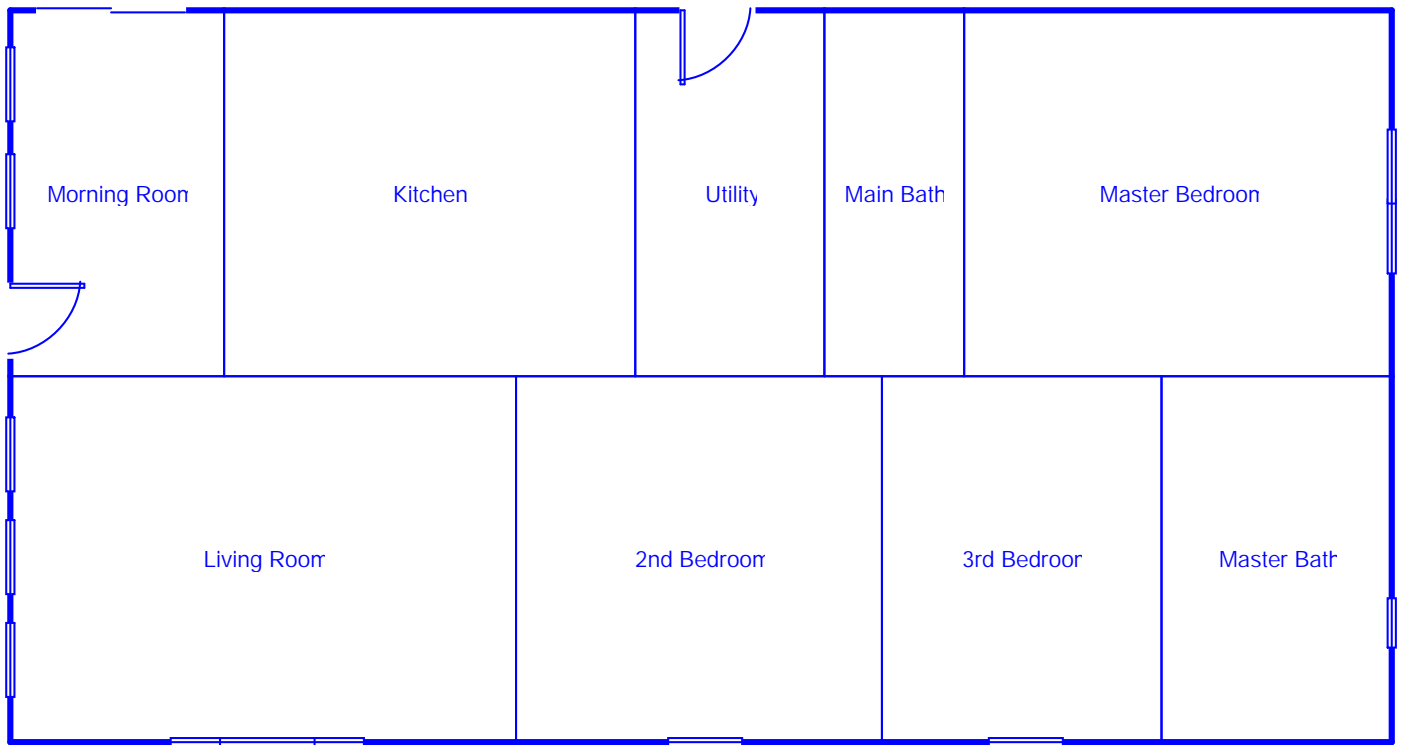


Current Orientation: House faces North
 Highest Cooling Load: House faces Northeast

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



Main Floor



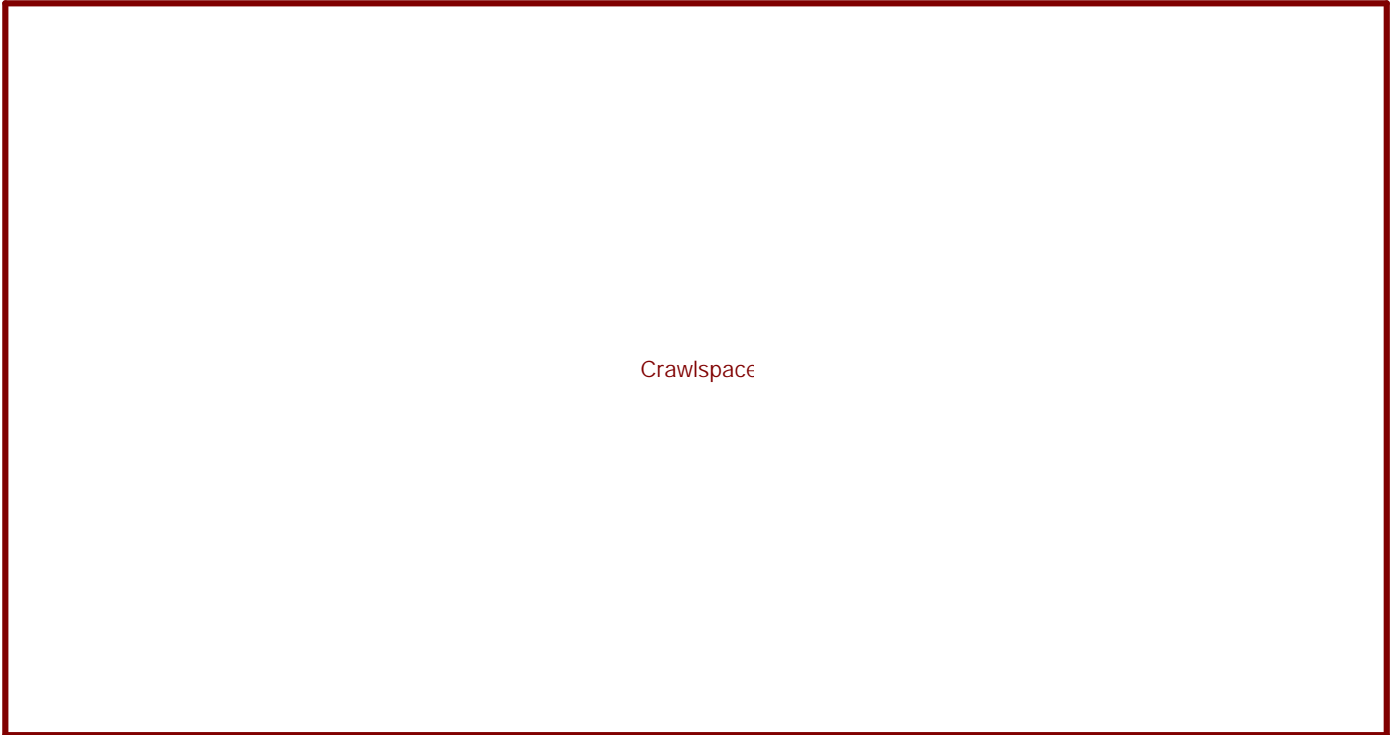
Job #: PID4813
Performed by Kimberla Eastman for:
PID4813
PEYTON, CO

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Crawlspace



Crawlspace

Job #: PID4813
Performed by Kimberla Eastman for:
PID4813
PEYTON, CO

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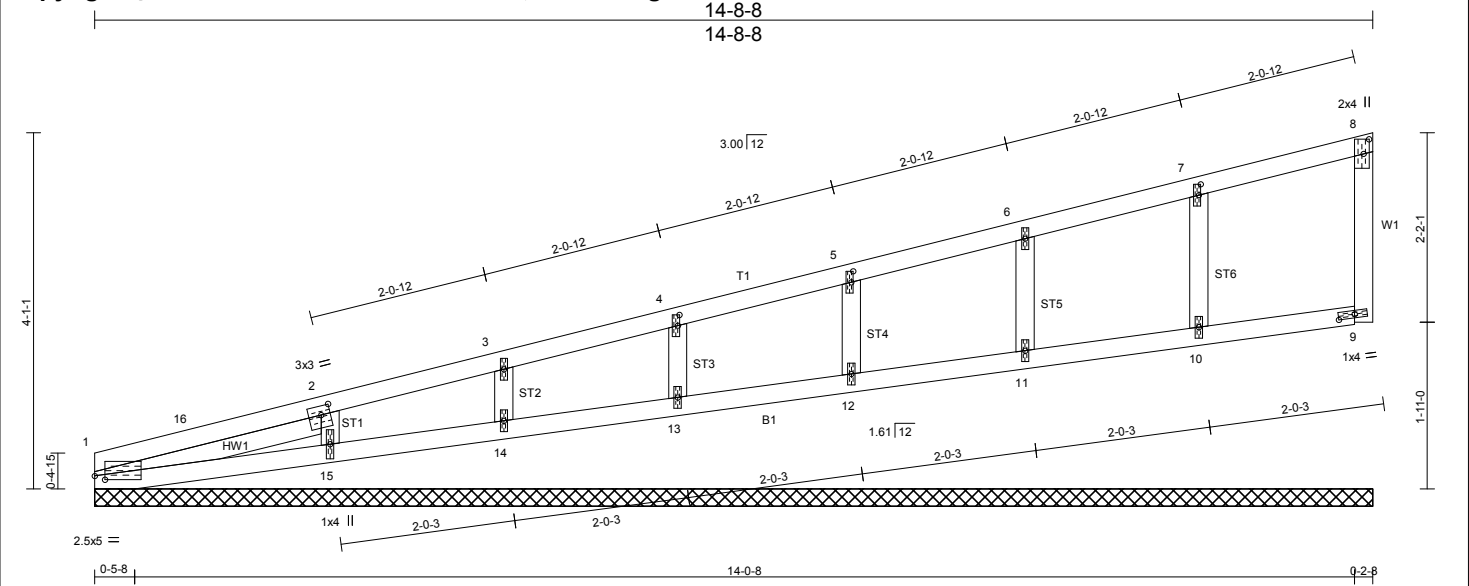


Plate Offsets (X,Y)-- [1:0-1-6,0-0-8], [2:0-1-5,0-1-4], [4:0-1-8,0-0-4], [5:0-1-8,0-0-4], [7:0-1-8,0-0-4], [8:0-2-0,0-0-12], [9:0-2-4,0-0-8]

LOADING (psf)		SPACING-	CSI.	DEFL.	PLATES		GRIP
TCLL	100.1	2-0-0	TC 0.52	in (loc) l/defl L/d	MT20	197/144	
(Ground Snow=130.0)		Plate Grip DOL 1.00	BC 0.15	Vert(LL) n/a - n/a 999			
TCDL	10.0	Lumber DOL 1.00	WB 0.26	Vert(CT) n/a - n/a 999			
BCLL	0.0 *	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 9 n/a n/a			
BCDL	10.0	Code IBC2018/TPI2014			Weight: 33 lb	FT = 0%	

LUMBER-
TOP CHORD 2x3 SPF No.2
BOT CHORD 2x3 SPF No.2
WEBS 2x3 SPF Stud
OTHERS 2x3 SPF Stud
SLIDER Left 2x3 SPF Stud 2-8-6

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end vertical
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=281/14-8-8 (min. 0-7-1), 9=203/14-8-8 (min. 0-7-1), 10=491/14-8-8 (min. 0-7-1), 11=479/14-8-8 (min. 0-7-1), 12=479/14-8-8 (min. 0-7-1), 13=489/14-8-8 (min. 0-7-1), 14=446/14-8-8 (min. 0-7-1), 15=633/14-8-8 (min. 0-7-1)
Max Horz 1=393(LC 7)
Max Uplift 9=-83(LC 7), 10=-178(LC 7), 11=-183(LC 7), 12=-180(LC 7), 13=-185(LC 7), 14=-168(LC 7), 15=-276(LC 7)
Max Grav 1=303(LC 13), 9=267(LC 13), 10=646(LC 13), 11=629(LC 13), 12=629(LC 13), 13=641(LC 13), 14=593(LC 13), 15=805(LC 13)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-558/67, 2-16=-555/107, 2-3=-418/51, 3-4=-341/44, 4-5=-259/43, 5-6=-178/43, 6-7=-100/44, 7-8=-105/31, 8-9=-240/132
BOT CHORD 1-15=-24/34, 14-15=-21/30, 13-14=-22/31, 12-13=-22/31, 11-12=-22/31, 10-11=-22/31, 9-10=-23/31
WEBS 7-10=-613/323, 6-11=-587/317, 5-12=-591/316, 4-13=-598/322, 3-14=-565/300, 2-15=-730/458

- NOTES-** (15-17)
- 1) Wind: ASCE 7-16; Vult=177mph (3-second gust) Vasd=140mph; TC DL=4.0psf; BCDL=4.0psf; h=30ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-5 to 3-0-5, Exterior(2N) 3-0-5 to 11-7-4, Corner(3E) 11-7-4 to 14-7-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Truss designed for wind loads in the plane of the truss only.
 - 3) TCLL: ASCE 7-16; Pg=130.0 psf, Ps=100.1 psf (Lum DOL=1.00 Plate DOL=1.00); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Roof design snow load has been reduced to account for slope.
 - 5) Unbalanced snow loads have been considered for this design.
 - 6) All plates are 1x3 MT20 unless otherwise indicated.
 - 7) Gable requires continuous bottom chord bearing.
 - 8) Gable studs spaced at 2-0-0 oc.
 - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 11) Bearing at joint(s) 1, 9, 10, 11, 12, 13, 14, 15 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 9, 178 lb uplift at joint 10, 183 lb uplift at joint 11, 180 lb uplift at joint 12, 185 lb uplift at joint 13, 168 lb uplift at joint 14 and 276 lb uplift at joint 15.
 - 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 10, 11, 12, 13, 14, 15.
 - 14) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
 - 15) This truss is designed in accordance with the 2012 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
 - 16) This truss is designed in accordance with the 2015 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
 - 17) Based on: C634205. Changes: Increased wind speed.



The professional engineering seal indicates that a licensed professional engineer has designed the truss under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.



Universal Forest Products®

Job	Truss	MFG	Customer
96177	C0634206	379	BONNAVILLA HOMES

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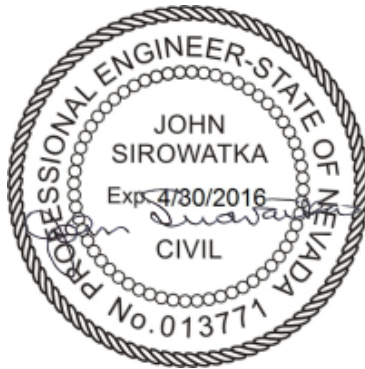


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRINT NAME: STUART WALTER

SIGNATURE: *Stuart J. Walter*

DATE: _____ LIC # 47774



Job 94453	Truss C0674506	Truss Type MONO SCISSOR	Qty 1	Ply 1	Bonavilla Homes - 379 3644-VLT
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Universal Forest Products Inc., Grand Rapids, MI 49525, Dustin Jones

8.220 s Aug 13 2018 MiTek Industries, Inc. Wed Dec 19 13:54:47 2018 Page 1

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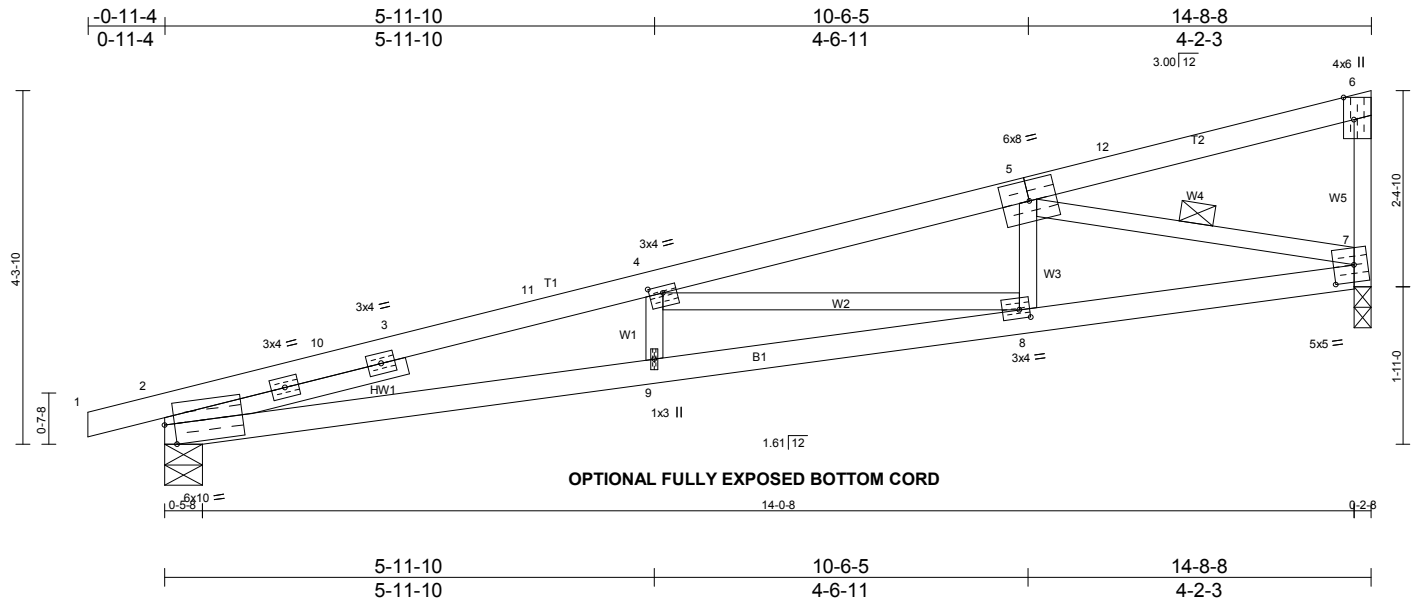


Plate Offsets (X,Y)-- [2:0-1-7,Edge], [4:0-2-0,0-1-0], [6:0-3-4,Edge], [7:0-3-0,0-2-8], [8:0-1-8,0-1-4]

LOADING (psf) TCLL 46.2 (Ground Snow=60.0) TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IBC2018/TPI2014	CSI. TC 0.81 BC 0.78 WB 0.88 Matrix-R	DEFL. in (loc) l/defl L/d Vert(LL) -0.32 8-9 >543 240 Vert(CT) -0.43 8-9 >409 180 Horz(CT) 0.08 7 n/a n/a	PLATES MT20 Weight: 48 lb	GRIP 197/144 FT = 0%
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LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E
WEBS 2x3 SPF Stud *Except*
W5: 2x3 SPF No.2
SLIDER Left 2x3 SPF Stud 3-0-9

BRACING- [MCT]
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-6-0 oc bracing.
WEBS 1 Row at midpt 5-7

REACTIONS. (lb/size) 2=1078/0-5-8 (min. 0-1-15), 7=961/0-2-8 (min. 0-1-8)
Max Horz 2=301(LC 12)
Max Uplift 2=-435(LC 8), 7=-427(LC 12)
Max Grav 2=1218(LC 19), 7=1229(LC 19)

OPTIONAL FULLY EXPOSED BOTTOM CORD
REACTIONS. (lb/size) 2=1078/0-5-8 (min. 0-1-15), 6=961/0-2-8 (min. 0-1-8)
Max Horz 2=367(LC 8)
Max Uplift 2=-697(LC 8), 6=-698(LC 8)
Max Grav 2=1218(LC 19), 6=1229(LC 19)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-30/0, 2-10=-4006/1453, 3-10=-3912/1454, 3-11=-3911/1461, 4-11=-3850/1467, 4-5=-2549/912, 5-12=-173/0, 6-12=-86/2, 6-7=-247/204
BOT CHORD 2-9=-1684/3769, 8-9=-1685/3777, 7-8=-1060/2456
WEBS 4-9=0/186, 5-8=-92/418, 5-7=-2423/1025, 4-8=-1318/624

NOTES- (12-14)

- 1) Wind: ASCE 7-16; Vult=155mph (3-second gust) Vasd=123mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E)-0-11-4 to 2-0-12, Interior(1) 2-0-12 to 11-7-4, Exterior(2E) 11-7-4 to 14-7-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg=60.0 psf; Ps=46.2 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Roof design snow load has been reduced to account for slope.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 46.2 psf on overhangs non-concurrent with other I loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Bearing at joint(s) 2, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surf.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 435 lb uplift at joint 2 and 427 lb uplift at joint 7.
- 11) This truss is designed in accordance with the 2018 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 12) This truss is designed in accordance with the 2012 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
- 13) This truss is designed in accordance with the 2015 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
- 14) Based on: C674505. Changes: Inner Web Dimensional Changes. Optional fully exposed bottom cord.



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12/19/2018

WARNING - Verify design parameters and READ NOTES

Truss shall not be cut or modified without approval of the truss design engineer.

This component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\lufp.tpe

Universal Forest Products, Inc. 2801 EAST BELTLINE RD, NE
PHONE (616)-364-6161 FAX (616)-365-0060 GRAND RAPIDS, MI 49525





Universal Forest Products®

Job	Truss	MFG	Customer
94453	C0674506	379	BONNAVILLA HOMES

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

PRINT NAME: STUART WALTER

SIGNATURE: *Stuart J. Walter*

DATE: _____ LIC # 47774

