

 Manual S Compliance Report
Entire House
AMS of Indiana, Inc.

3933 E. Jackson Blvd., Elkhart, IN 46516 Phone: 574-293-5526 Email: eng-ams@comcast.net

Project Information

For: Deer Valley Homebuilders
SVM-9407(SVM-7602)

Cooling Equipment

Design Conditions

Outdoor design DB:	97.7 °F	Sensible gain:	28489	Btuh	Entering coil DB:	76.1 °F
Outdoor design WB:	79.8 °F	Latent gain:	7968	Btuh	Entering coil WB:	63.6 °F
Indoor design DB:	75.0 °F	Total gain:	36458	Btuh		
Indoor RH:	50%	Estimated airflow:	1205	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split AC		
Manufacturer:	Generic	Model:	SEER 14.0
Actual airflow:	1205	cfm	
Sensible capacity:	29259	Btuh	103% of load
Latent capacity:	12539	Btuh	157% of load
Total capacity:	41798	Btuh	115% of load SHR: 70%

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY



Const. Type: VB-unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 160 MPH Vult. 124 MPH Vasc.
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT10186-SVM-9407
Allow. Floor Load: 40 PSF
Approval Date: 2/23/2021
Manufacturer: Deer Valley Homes

Heating Equipment

Design Conditions

Outdoor design DB:	23.8 °F	Heat loss:	33273	Btuh	Entering coil DB:	67.7 °F
Indoor design DB:	70.0 °F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Elec furnace		
Manufacturer:	NORDYNE	Model:	E7E()-010
Actual airflow:	1205	cfm	
Output capacity:	35000	Btuh	105% of load
			Temp. rise: 0 °F



Meets all requirements of ACCA Manual S.

2/22/2021



Load Short Form
Entire House
AMS of Indiana, Inc.

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB-unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 160 MPH Vult. 124 MPH Valt.
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MET10186-SVM-9407
Allow. Floor Load: 40 PSF
Approval Date: 2/23/2021
Manufacturer: Deer Valley Homes

Page 12 of 74
Job: SVM-9407(SVM-7602)
Date: 2/9/21
By: AMS of Indiana, Inc.

3933 E. Jackson Blvd., Elkhart, IN 46516 Phone: 574-293-5526 Email: eng-ams@comcast.net



2/22/2021

Project Information

For: Deer Valley Homebuilders
SVM-9407(SVM-7602)

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	24	98	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	46	23	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	18	61		

HEATING EQUIPMENT

Make	NORDYNE
Trade	
Model	E7E()-010
AHRI ref	
Efficiency	100 AFUE
Heating input	10.0 kW
Heating output	35000 Btuh
Temperature rise	26 °F
Actual air flow	1205 cfm
Air flow factor	0.040 cfm/Btuh
Static pressure	0.30 in H2O
Space thermostat	

COOLING EQUIPMENT

Make	Generic
Trade	
Cond	SEER 14.0
Coil	
AHRI ref	
Efficiency	12.2 EER, 14 SEER
Sensible cooling	29259 Btuh
Latent cooling	12539 Btuh
Total cooling	41798 Btuh
Actual air flow	1205 cfm
Air flow factor	0.045 cfm/Btuh
Static pressure	0.30 in H2O
Load sensible heat ratio	0.78

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
UTL	132	2576	1225	102	55
KIT/DIN	356	5153	6255	205	279
LIV	410	6008	6126	239	273
M BED	278	5090	4657	203	208
MBA / MCL	177	2884	1625	115	72
B 4	180	2954	2242	118	100
B 3	160	1787	1793	71	80
B 2	180	1851	1846	74	82
BATH	63	713	498	28	22
HALL	44	0	0	0	0
WIC	101	785	514	31	23
PTY	46	480	236	19	11

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



Right-Suite® Universal 2021 21.0.03 RSU02009

2021-Feb-09 09:08:17

Page 1

... Valley Homebuilders\SVM-9407(SVM-7602)OVHD.rup Calc = MJ8 Front Door faces: W

Entire House	2126	30279	27018	1205	1205
Other equip loads		2994	1471		
Equip. @ 1.03 RSM			29258		
Latent cooling			7968		
TOTALS	2126	33273	37227	1205	1205

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY



Const. Type: VB-unprotected

Occupancy: Single Family Dwelling

Allowable No. of Floors: 1

Wind Velocity: 160 MPH Vult. 124 MPH Vapc

Fire Rating of Ext. Walls: 0 Hr

Plan No.: MET10186-SYM-9407

Allow. Floor Load: 40 PSF

Approval Date: 2/23/2021

Manufacturer: Deer Valley Homes

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



Project Summary
Entire House
AMS of Indiana, Inc.

Page 14 of 74
Job: SVM-9407(SVM-7602)
Date: 2/9/21
By: AMS of Indiana, Inc.

3933 E. Jackson Blvd., Elkhart, IN 46516 Phone: 574-293-5526 Email: eng-ams@comcast.net

Project Information

For: Deer Valley Homebuilders
SVM-9407(SVM-7602)

Notes:

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:

APPROVED BY
NIA INC.

Const. Type: VB-unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 160 MPH Valt. 124 MPH Vasc
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MET10186-SVM-9407
Allow. Floor Load: 40 PSF
Approval Date: 2/23/2021
Manufacturer: Deer Valley Homes



Design Information

Weather: Jacksonville Intl, FL, US

Winter Design Conditions

Outside db 24 °F
Inside db 70 °F
Design TD 46 °F

Summer Design Conditions

Outside db 98 °F
Inside db 75 °F
Design TD 23 °F
Daily range M
Relative humidity 50 %
Moisture difference 61 gr/lb

Heating Summary

Structure 23014 Btuh
Ducts 7266 Btuh
Central vent (59 cfm) 2994 Btuh
Outside air
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 33273 Btuh

Sensible Cooling Equipment Load Sizing

Structure 20411 Btuh
Ducts 6607 Btuh
Central vent (59 cfm) 1471 Btuh
Outside air
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 1.03
Equipment sensible load 29258 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 1 (Average)

Latent Cooling Equipment Load Sizing

Structure 3312 Btuh
Ducts 2215 Btuh
Central vent (59 cfm) 2441 Btuh
Outside air
Equipment latent load 7968 Btuh

	Heating	Cooling
Area (ft²)	2126	2126
Volume (ft³)	19136	19136
Air changes/hour	0.38	0.16
Equiv. AVF (cfm)	122	51

Equipment Total Load (Sen+Lat) 37227 Btuh
Req. total capacity at 0.70 SHR 3.5 ton

Heating Equipment Summary

Make NORDYNE
Trade
Model E7E()-010
AHRI ref
Efficiency 100 AFUE
Heating input 10.0 kW
Heating output 35000 Btuh
Temperature rise 26 °F
Actual air flow 1205 cfm
Air flow factor 0.040 cfm/Btuh
Static pressure 0.30 in H2O
Space thermostat

Cooling Equipment Summary

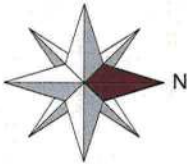
Make Generic
Trade
Cond SEER 14.0
Coil
AHRI ref
Efficiency 12.2 EER, 14 SEER
Sensible cooling 29259 Btuh
Latent cooling 12539 Btuh
Total cooling 41798 Btuh
Actual air flow 1205 cfm
Air flow factor 0.045 cfm/Btuh
Static pressure 0.30 in H2O
Load sensible heat ratio 0.78

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

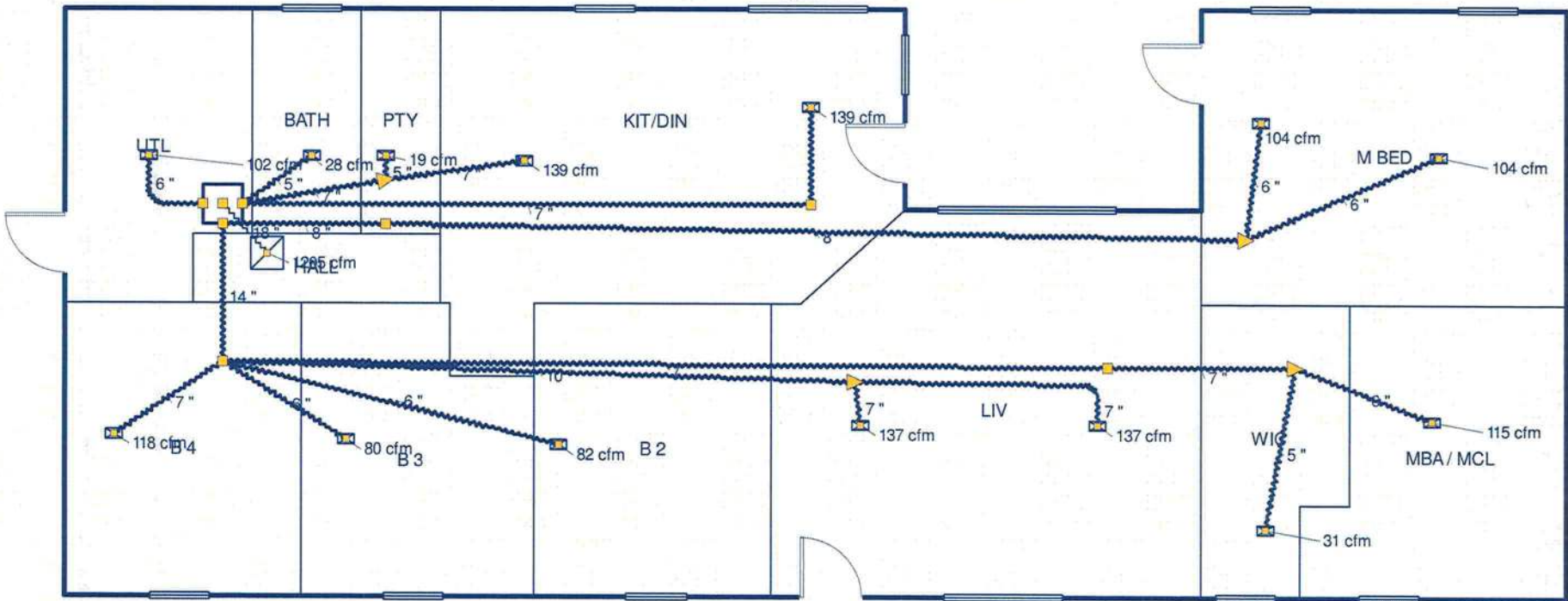


Right-Suite® Universal 2021 21.0.03 RSU02009
... Valley Homebuilders\SVM-9407(SVM-7602)OVHD.rup Calc = MJ8 Front Door faces: W

2021-Feb-09 09:08:17
Page 1



Sheet 1



These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:



Const. Type: VB-unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 160 MPH Vult. 124 MPH Vasc
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MET10186-SVM-9407
Allow. Floor Load: 40 PSF
Approval Date: 2/23/2021
Manufacturer: Deer Valley Homes

Job #: SVM-9407(SVM-7602)
Performed by AMS of Indiana, Inc. for:
Deer Valley Homebuilders
SVM-9407(SVM-7602)

AMS of Indiana, Inc.
3933 E. Jackson Blvd.
Elkhart, IN 46516
Phone: 574-293-5526
eng-ams@comcast.net

Scale: 1 : 127
Page 1
Right-Suite® Universal 2021
21.0.03 RSU02009
2021-Feb-09 09:08:20
...lders\SVM-9407(SVM-7602)OVH...



Duct System Summary
Entire House
AMS of Indiana, Inc.

Page 16 of 74
Job: SVM-9407(SVM-7602)
Date: 2/9/21
By: AMS of Indiana, Inc.

3933 E. Jackson Blvd., Elkhart, IN 46516 Phone: 574-293-5526 Email: eng-ams@comcast.net

Project Information

For: Deer Valley Homebuilders
SVM-9407(SVM-7602)

	Heating	Cooling
External static pressure	0.30 in H2O	0.30 in H2O
Pressure losses	0.06 in H2O	0.06 in H2O
Available static pressure	0.24 in H2O	0.24 in H2O
Supply / return available pressure	0.187 / 0.053 in H2O	0.187 / 0.053 in H2O
Lowest friction rate	0.083 in/100ft	0.083 in/100ft
Actual air flow	1205 cfm	1205 cfm
Total effective length (TEL)	288 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
B 2-A	c 1846	74	82	0.134	6.0	0x 0	VIFx	24.5	115.0	st4
B 3	c 1793	71	80	0.145	6.0	0x 0	VIFx	14.4	115.0	st4
B 4	h 2954	118	100	0.146	7.0	0x 0	VIFx	13.7	115.0	st4
BATH-A	h 713	28	22	0.189	5.0	0x 0	VIFx	4.3	95.0	
KIT/DIN	c 3128	103	139	0.145	7.0	0x 0	VIFx	14.4	115.0	st1
KIT/DIN-A	c 3128	103	139	0.126	7.0	0x 0	VIFx	33.8	115.0	
LIV	c 3063	120	137	0.106	7.0	0x 0	VIFx	41.3	135.0	st8
LIV-A	c 3063	120	137	0.097	7.0	0x 0	VIFx	53.4	140.0	st8
M BED	c 2329	101	104	0.097	6.0	0x 0	VIFx	57.8	135.0	st5
M BED-A	c 2329	101	104	0.095	6.0	0x 0	VIFx	62.4	135.0	st5
MBA / MCL	h 2884	115	72	0.084	6.0	0x 0	VIFx	68.7	155.0	st7
PTY	h 480	19	11	0.151	5.0	0x 0	VIFx	8.6	115.0	st1
UTL	h 2576	102	55	0.178	6.0	0x 0	VIFx	5.3	100.0	
WIC	h 785	31	23	0.083	5.0	0x 0	VIFx	69.6	155.0	st7

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:



Const. Type: VB-unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 160 MPH Vult. 124 MPH Vasc
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MET10186-SVM-9407
Allow. Floor Load: 40 PSF
Approval Date: 2/23/2021
Manufacturer: Deer Valley Homes



Bold/italic values have been manually overridden

2/22/2021



Right-Suite® Universal 2021 21.0.03 RSU02009

2021-Feb-09 09:08:17

... Valley Homebuilders\SVM-9407(SVM-7602)OVHD.rup Calc = MJ8 Front Door faces: W

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	122	150	0.145	561	7.0	0 x 0	VinlFlx	st4 st6 st3
st6	Peak AVF	146	95	0.083	546	7.0	0 x 0	VinlFlx	
st7	Peak AVF	146	95	0.083	546	7.0	0 x 0	VinlFlx	
st5	Peak AVF	203	208	0.095	595	8.0	0 x 0	VinlFlx	
st3	Peak AVF	203	208	0.095	595	8.0	0 x 0	VinlFlx	st4
st4	Peak AVF	647	631	0.083	606	14.0	0 x 0	VinlFlx	
st8	Peak AVF	239	273	0.097	501	10.0	0 x 0	VinlFlx	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb1	0x 0	1205	1205	63.4	0.083	682	18.0	0x 0		VIFx	

These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY

NIA INC.

Const. Type: VB-unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 160 MPH Veloc, 124 MPH Vasc
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MET10186-SVM-9407
Allow. Floor Load: 40 PSE
Approval Date: 2/23/2021
Manufacturer: Deer Valley Homes

Bold/italic values have been manually overridden



Static Pressure and Friction Rate
Entire House
AMS of Indiana, Inc.

Page 18 of 74
Job: SVM-9407(SVM-7602)
Date: 2/9/21
By: AMS of Indiana, Inc.

3933 E. Jackson Blvd., Elkhart, IN 46516 Phone: 574-293-5526 Email: eng-ams@comcast.net



2/22/2021

Project Information

For: Deer Valley Homebuilders
SVM-9407(SVM-7602)

Available Static Pressure

	Heating (in H2O)	Cooling (in H2O)
External static pressure	0.30	0.30
Pressure losses		
Coil	0	0
Heat exchanger	0	0
Supply diffusers	0.03	0.03
Return grilles	0.03	0.03
Filter	0	0
Humidifier	0	0
Balancing damper	0	0
Other device	0	0
Available static pressure	0.24	0.24

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	8	3
Measured length of trunk	61	0
Equivalent length of fittings	155	60
Total length	225	63
Total effective length		288

Friction Rate

	Heating (in/100ft)		Cooling (in/100ft)	
Supply Ducts	0.083	OK	0.083	OK
Return Ducts	0.083	OK	0.083	OK

Fitting Equivalent Length Details

Supply	4AD=60, 11M=20, 11M=20, 11A=20, 1A=35: TotalEL=155
Return	6M=20, 5D=40: TotalEL=60

These prints comply with the
Florida Manufactured Building
Act and adopted Codes and
adhere to the following criteria:



Const. Type: VB-unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: 1
Wind Velocity: 160 MPH Vult. 124 MPH Vapc
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MET10186-SVM-9407
Allow. Floor Load: 40 PSF
Approval Date: 2/23/2021
Manufacturer: Deer Valley Homes



Right-Suite® Universal 2021 21.0.03 RSU02009

... Valley Homebuilders\SVM-9407(SVM-7602)OVHD.rup Calc = MJ8 Front Door faces: W

2021-Feb-09 09:08:17

Page 1