NTA INC.

ENGINEERS
PLANNERS
CONSULTANTS

305 NORTH OAKLAND AVENUE • P.O. BOX 490 • NAPPANEE, INDIANA 46550
WEB: WWW.NTAINC.COM
PHONE: 574-773-7975
FAX: 574-773-2732

November 7, 2018

Deer Valley Homebuilders
205 Carriage St.
Guin, AL 35563

RE: DEER VALLEY HOMEBUILDERS
NTA JOB NUMBER: MFT-10186-SVM-7012B-R1

Dear Shawn Posey:

The referenced manufactured building has been reviewed and approved. NTA, Inc. certifies this plan is in compliance with 2017 Florida Codes - 6th Edition as referenced in the approved drawings. This approval covers the factory build structure only. Any alterations to the factory built structure, on site, voids the approval. This plan is subject to the following limitations:

1. This plan is NOT approved for High Velocity Hurricane Zone (i.e. Broward and Dade Counties).
2. Signed and sealed plans are on file with NTA, Inc.
3. The Chapter 633 Plan Review and Inspection shall be conducted by the local fire safety inspector.
4. Items installed on site are subject to review and approval by the local authority having jurisdiction. Please reference the list of site installed items on the approved plans.
5. This review included products for compliance with 553.8425 or FAC Chapter 61G20-3.

If you have any additional questions or comments regarding this matter please contact me at your convenience at (574) 773-7975.

Respectfully,

Charles A. Osterday, Jr.

Charles A. Osterday, Jr
Director, Code Administration
NTA, Inc.

RANCH STRUCTURAL SYSTEM

MODEL: SVM-7012B

SUN VALLEY HOMEBUILDERS

2 BEDROOM - 2 BATH
NOMINAL SIZE 32'-0"x 70'-0"
ACTUAL SIZE 30'-0" x 66'-0"
TOTAL AREA: 1980 Sq. Ft.

DATE 11-7-2018 CERT. NO SMP-015
PLAN NUMBER MFT10186-SVM-7012B-R1
APPROVED BY Charles A. Osterday, JR.

Charles A. Osterday Jr
(signature)

STATE CODES FLORIDA

2014 National Electrical Code
6TH EDITION (2017Florida Energy Effciency Code for Building Construction
FAC-61-41 MANUFACTURED BUILDINGS
6TH EDITION (2017) Florida Residential Code
THESE PLANS COMPLY WITH RULE 61G20-3.006 FOR PRODUCT APPROVAL

DWELLING IS NOT SPRINKLED

CEILING HEIGHT: 9'-0" Max
MEAN ROOF HEIGHT: 20 FT

CLIMATE ZONE: 2

EXPOSURE FACTOR: C
SEISMIC ZONE D0

DESIGN CRITERIA

OCCUPANCY GROUP	1 & 2 FAMILY DWELLING
CONSTRUCTION TYPE	WOOD FRAME UNPROTECTION
RISK CATEGORY	2

LOAD REQUIREMENTS

FLOOR LIVE LOAD	40 PSF
FLOOR DEAD LOAD	10 PSF
WIND SPEED	(VULT-142MPH)(VASD-110MPH)

16" O.C. TRUSSES THROUGHOUT HOME

ROOF LIVE LOAD	23.1 PSF TC, 20 PSF BC
ROOF DEAD LOAD	15 PSF TC, 15 PSF BC

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult 110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

SPECIAL CONDITIONS & REQUIREMENTS:

1. Any site added structures must be independent of the factory building unless the entire building is re-evaluated by the site engineer.

2.Typical foundation layout shown in this package is to aid the site engineer/architect for locations of required supports. Actual foundation must be designed to site conditions for all applicable loads. This includes but is not limited to construction of the foundation, seismic design and attaching the home to the foundation, along with the resistance to lateral, longitudinal shear, uplift and downward forces in both directions. Refer to bracing page for applicable bracing / seismic loads for attaching the home to foundations.

3. Engineer seal applies ONLY to FACTORY MANUFACTURED BRACING portion of the building. Seal does not apply to site installed elements or portions built on site such as, but not limited to; foundation, bracing tie down to foundation, exterior steps, or other site works. Site work must be designed BY OTHERS for site conditions, under local jurisdiction.

STRUCTURAL SPECIFICATIONS INDEX

SITE INSTALLED ITEMS:

NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL.

1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
3. PORTABLE FIRE EXTINGUISHER(S).
4. BUILDING DRAINS, CLEANOUTS, AND HOOK-UP TO PLUMBING SYSTEM.
5. ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING.
6. THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS.
7. CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATING LINE(S) - (MULTI-UNITS ONLY).
8. STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI-UNITS ONLY).
9. EXTERIOR GLAZING PROTECTION.
10. GUTTERS & DOWN SPOUTS WHEN REQUIRED.
11. HVAC EQUIPMENT AND CONNECTIONS.
12. WASHER AND DRYER.
13. FIREPLACE FLUE.
14. MATELINE DOORS.
15. BUILDING SHALL BE OVER 5' AWAY FROM ALL PROPERTY LINES.
16. ALL PLUMBING BELOW FLOOR SYSTEM
17. SINGLE RIDGE CAP AND SET-UP OF FOLD DOWN TRUSS IF APPLICABLE
18. DRYER VENT TO BE RAN TO EXTERIOR
19. RETURN AIR SIZE MUST BE CHECKED FOR PROPER SIZE WITH HEAT PUMP INSTALLATION PROTECTION OF OPENINGS: REF. R301.2.1.2 (IRC) PROVIDED ON-SITE BY OTHERS
19. HOME MUST BE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE.

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

Wind Importance Factor: 1.0
Internal Pressure Coefficient: 0.18
Wind Exposure: C
Seismic Design Category: D0
Electrical Service Panel Size: 200 AMPS
Permissible Gas Type: Natural /LP
Thermal Climate Zone: 2
Degree Days: 1617
Minimum Furnace Output: 27273
Thermal Transmittance Values: 30 Floor* 19 Wall* 30 Roof*
WINDOW RATING DP 50 (ASD)

* "R" or "U" as required by State

FLORIDA BUILDING MAT.

.01 SIMPSON LTS & LSTA & CS14
A. SIMPSON LTS- FL-10456.7-R4
B. SIMPSON CS14- FL-10852.2-R4
C. SIMPSON LSTA- FL-13872.8-R3
.03 OWENS CORNING SHINGLES
A. FL- 10674-R13
.04 MFM SHINGLE STARTER
A. FL- 11842.1-R4
.05 CROFT WINDOWS
A. FL- 16082.1-R3
.06 DUNBARTON DOORS
A. FL- 15362 R2 (9-LITE)
B. FL- 15362.1 R2 (6 PANEL)
C. FL- 15362.3 R2 (ATRIUM)
.07 CEMPLANK LAP SIDING
A. FL- 13192 -R5
.09 CEMPLANK SIDING
A. FL- 13223 R4
.09 CEMPLANK PANELS
A. FL- 13265.1-R3

ADDITIONAL SPECIAL CONDITIONS AND/OR LIMITATIONS AND/OR ITEMS SUBJECT TO LOCAL

A. ELECTRICAL
1. INTERCONNECTION BETWEEN MODULES.
2. SERVICE ENTRANCE AND GROUNDING ELECTRODE CONDUCTORS.
3. FIRE WARRING EQUIPMENT IS TO BE TESTED FOR PROPER OPERATION SEE EQUIPMENT INSTRUCTIONS.

B. PLUMBING
1. ALL PIPING CROSSOVER CONNECTIONS BELOW FLOOR.
2. WITNESS LEAKAGE TEST OF GAS, DWG AND WATER SUPPLY SYSTEMS.
3. CONNECTION TO GAS, SEWER AND WATER UTILITIES.
4. WITH HINGE ROOF PLUMBING MUST BE FINISHED ON SITE BY OTHERS.
5. OFF FRAME HOUSE ALL GAS APPLIANCE WILL HAVE TO BE PLUMBED ON SITE BY OTHERS.

C. HEATING
1. CROSS-OVER CONNECTION BETWEEN UNITS..
2. RETURN AIR CONNECTION HAVE TO BE HOOKED UP IF REQUIRED .
3. A DUCT TIGHTNESS TEST IS REQUIRED TO BE PERFFORMED ON SITE AND SHALL BE VERIFIED BY EITHER OF THE FOLLOWING : POST-CONSTRUCTION TEST: LEAKAGE TO OUTDOORS SHALL BE LESS THEN OR EQUAL TO 8CFM(226.5lmin) PER 100 ft2 (9.29m2 OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFRENTIAL OF TOTAL LEAKAGE LESS THEN OR EQUAL TO 12 cfm (12 Min) PER 100/FT2 (9.29 M2 OF CONDITIONED FLOOR ARE WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. (25Pa) ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURERS AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.

DATA SHEET AND THE STATE (DBPR) INSIGNIA SHALL BE PERMANENTLY MOUNTED TO OR ABOUT THE ELECTRICAL PANEL

D. STRUCTURAL
1. THE DESIGN AND CONSTRUCTION OF THE FOUNDATION SYSTEM.
2. COMPLETION OF EXTERIOR SIDING AT END WALLS.
3. INSTALLATION OF GABLE OR RIDGE VENTS.
4. CONNECTION OF FLOOR SYSTEM.
5. CONNECTION OF ROOF SYSTEM @ RIDGE.
6. CONNECTION OF GROUND ANCHORS.
7. PORCH RAILS ON SITE BY OTHERS PER THE (IRC R312).
8. TRUSS OVER THE INTERIOR SHEAR WALL ARE TO BE SHEATHED WITH HINGED ROOFS SHEATHED HAS TO BE FINSHED ON SITE BY OTHERS.
9. SIDING FOR ENDS IS SHIPPED LOOSE FOR ON SITE INSTALLATION BY OTHERS.
10. HANDRAILS, STOOPS, STAIRS, GUTTERS, DOWNSPOUTS, STORM SHUTTERS OR REMOVABLE TYPE COVERINGS, AND SPLASH BLOCKS ARE FURNISHED AND INSTALLED BY OTHERS IN ACCORDANCE WITH STATE AND LOCAL CODES.

FL : NOTES

A. RAISED SET OF PLANS ARE ON FILE IN THE 3rd PARTY AGENCY'S OFFICE AS DIRECTED BY THE DBPR

B. THIS BUILDING HAS NOT BEEN DESIGNED OR APPROVED FOR PLACEMENT IN HVHZ (i.e. DADE OR BROWARD)

C. THIS BUILDING IS SUBJECT TO REVIEW AND APPROVAL OF THE FIRE INSPECTOR ON SITE WITH COMPLIANCE WITH CH. 633 FIRE SAFETY CODE

D. THIS STRUCTURE HAS BEEN DESIGNED FOR ERECYION OR INSTALLATION ON A SITE BUILT PERMANENT FOUNDATION AND IS NOT DESIGNED TO BE MOVED ONCE SO ERECTED OR INSTALLED

E. SITE ADDRESS PER FRC R 319.1 ON SITE BY OTHERS

	REVISIONS

CUSTOMER:

APPROVAL STAMP:

NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

APPROVED BY: J.WALLACE	SCALE: NTS
PRINT DATE: 04/30/18	REV:
TITLE: COVER SHEET	
MODEL: SVM-7012B	DWG. NO: A.01
MODEL: MFT10186-SVM-7012B-R1	

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult.110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approvals Date:	11/7/2018
Manufacturer:	Deer Valley Homes

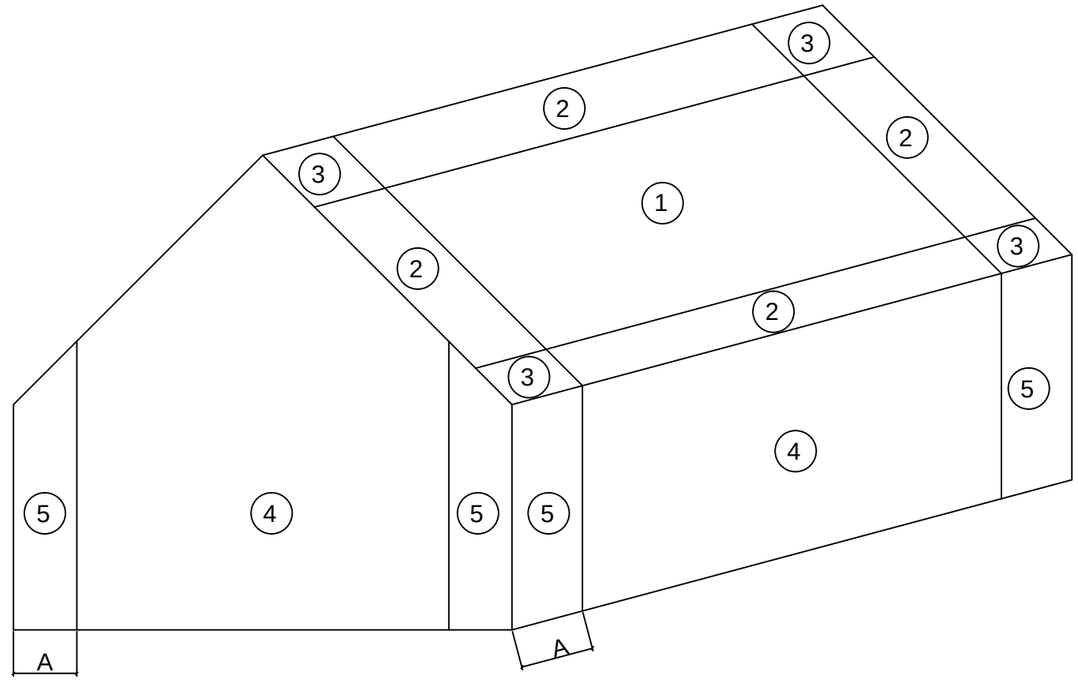
SITE INSTALLED ITEMS:

NOTE THAT THIS LIST DOES NOT NECESSARILY LIMIT THE ITEMS OF WORK AND MATERIALS THAT MAY BE REQUIRED FOR A COMPLETE INSTALLATION. ALL SITE RELATED ITEMS ARE SUBJECT TO LOCAL JURISDICTION APPROVAL.

1. THE COMPLETE FOUNDATION SUPPORT AND TIE DOWN SYSTEM.
2. RAMPS, STAIRS AND GENERAL ACCESS TO THE BUILDING.
3. PORTABLE FIRE EXTINGUISHER(S).
4. BUILDING DRAINS, CLEANOUTS, AND HOOK-UP TO PLUMBING SYSTEM.
5. ELECTRICAL SERVICE HOOK-UP (INCLUDING FEEDERS) TO THE BUILDING.
6. THE MAIN ELECTRICAL PANEL AND SUB-FEEDERS.
7. CONNECTION OF ELECTRICAL CIRCUITS CROSSING OVER MODULE MATING LINE(S) - (MULTI-UNITS ONLY).
8. STRUCTURAL AND AESTHETIC INTERCONNECTIONS BETWEEN MODULES (MULTI-UNITS ONLY).
9. EXTERIOR GLAZING PROTECTION.
10. GUTTERS & DOWN SPOUTS WHEN REQUIRED.
11. HVAC EQUIPMENT AND CONNECTIONS.
12. WASHER AND DRYER.
13. FIREPLACE FLUE.
14. MATELINE DOORS.
15. BUILDING SHALL BE OVER 3' AWAY FROM ALL PROPERTY LINES.
16. ALL PLUMBING BELOW FLOOR SYSTEM
17. SINGLE RIDGE CAP AND SET-UP OF FOLD DOWN TRUSS IF APPLICABLE
18. DRYER VENT TO BE RAN TO EXTERIOR
19. RETURN AIR SIZE MUST BE CHECKED FOR PROPER SIZE WITH HEAT PUMP INSTALLATION

NOTES:

1. THESE PLANS COMPLY WITH RULE 61G20-3.006 FOR PRODUCT APPROVAL
2. THE RAISED SEAL SET OR ELECTRONIC SEALED SET) OF PLANS ARE ON FILE IN THE 3 RD PARTY AGENCY'S OFFICE AS DIRECTED BY THE DBPR
3. THIS BUILDING IS SUBJECT TO REVIEW AND APPROVAL OF THE FIRE INSPECTOR ON SITE WITH COMPLIANCE WITH CH.633 FIRE SAFETY CODE.
4. THIS STRUCTURE HAS BEEN DESIGNED FOR ERECTION OR INSTALLATION ON SITE BUILT PERMANENT FOUNDATION AND IS NOT DESIGNED TO BE MOVED ONCE SO ERECTED OR INSTALLED.
5. BUILDING ADDRESS AS REQUIRED BY FRC R319.1 TO BE INSTALLED ON SITE BY OTHERS
6. BUILDING HAS NOT BEEN DESIGNED OR APPROVED FOR PLACEMENT IN HIGH VELOCITY HURRICANE ZONES (HVHZ).



WALL & ROOF COMPONANTS & CLADDING DESIGN LOAD SCHEDULE (7<D>30.26 DEGREES)			OVERHANG COMPONANTS & CLADDING DESIGN LOAD SCHEDULE (7<D>30.26DEGREES)		
EXPOSURE FACTOR: C			EXPOSURE FACTOR: C		
	ASCE 7-05			ASCE 7-05	
ZONE	(+)	(-)	ZONE	(+)	(-)
1	31.6	-34.6			
2	31.6	-40.4	2	31.6	-40.4
3	31.6	-63.9	3	31.6	-63.9
4	34.6	-37.5			
5	34.6	-46.3			

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

REVISIONS	CUSTOMER:	APPROVAL STAMP:		APPROVED BY: J.WALLACE	SCALE: NTS
		NADER TOMASBI,PE 58665 GLENRIVER DR GOSHEN, IN. 46528 574-370-3419	RANCH STRUCTURAL SYSTEM Deer Valley Homebuilders DEER VALLEY HOMEBUILDERS, INC. 205-468-8400 P.O. Box 310 / 205 Carriage St. Guin, Alabama 35563	PRINT DATE: 04/30/18	REV:
				TITLE: COVER SHEET	
				MODEL: SVM-7012B	DWG. NO: A.01
				MODEL: MFT10186-SVM-7012B-R1	

NOTES:

1. LIGHT AND VENTILATION PROVIDED WILL BE IN ACCORDANCE WITH 8% OF THE ROOM AREA FOR LIGHT AND 4% OF THE ROOM AREA FOR VENTILATION.
   ROOMS: DINING ROOMS, FAMILY ROOMS, DENS, BEDROOMS,
2. FOR DOOR AND WINDOW SIZES SEE SPEC. (SEE PAGE A.4.)
3. INDIVIDUAL COMPONENTS IN WHOLE OR IN PART SUCH AS LIVING LINEN AND CLOTHES CLOSETS, UTILITY AREAS, STAIRWELLS, BATHS, KITCHENS, ETC. MAY BE INTEGRATED WITH ANY FLOOR PLAN. THEY MAY BE ROTATED 90 DEGREES AND/OR REVERSED IN ANY DIRECTION, IN PART OR IN THEIR ENTIRETY.
4. ALL FLOOR PLANS MAY BE ROTATED 180 DEGREES AND/OR REVERSED IN ANY DIRECTION, IN PART OR IN THEIR ENTIRETY.
5. ALL INDIVIDUAL FLOOR PLANS WILL BE WITHIN THE DIMENSIONAL LIMITS SHOWN ON THIS DRAWING.
6. OVERALL DIMENSIONS OF HOME WILL VARY ACCORDING TO THICKNESS OF SHEATHING MATERIAL INSTALLED TO THE EXTERIOR SURFACE OF EXTERIOR WALLS AND TO EXTERIOR SURFACE OF THE MARRIAGE WALLS OF EACH HOME SECTION.
7. EGRESS WINDOWS SHALL HAVE A MIN. CLEAR WIDTH OF 20" AND A MIN. CLEAR HEIGHT OF 24" WITH A TOTAL CLEAR OPENING OF 5.7 SQ.FT. WINDOW GUARDS ARE PROVIDED AND INSTALLED BY OTHERS WHEN NEEDED PER THE IRC REF.(R312.2.)
8. MINIMUM ROOM SIZE IS 70 SQ.FT. WITH A 7'-0" MIN. DIMENSION AND 1 ROOM AREA OF AT LEAST 120 SQ.FT.
9. LABELS SHALL BE LOCATED AS FOLLOWS: STATE INSIGNIA, DATA PLATE, AND THIRD PARTY LABELS SHALL BE LOCATED ON THE WALL BELOW THE KITCHEN SINK. ADDITIONAL THIRD PARTY LABELS TO BE LOCATED IN SECONDARY BEDROOM CLOSET.
10. OPTIONAL FIREPLACES MAY BE ADDED, PROVIDING THEY MEET ALL REQUUIREMENTS OF IRC/MECHANICAL CODE AND INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
11. EXTERIOR DOORS MAY BE RELOCATED IN SAME ROOM TO DIFFERENT AREA
12. WINDOWS MAY BE REARRANGED OR A WINDOW MAY BE ADDED PER IECC
13. CLOTHS DRYER EXHAUST ON SITE BY OTHERS.
14. ALL EXHAUST AIR FROMRANGE HOODS AND BATHROOM VENTS SHALL BE VENTED TO THE EXTERIOR.
15. ATTIC ACCESS OPENING SHALL BEAR A MINIMUM DIMENSION OF 22" X 30" WITH A VERTICAL HEIGHT OF 30". (R807.1). THE ACCESS HOLE MUST BE INSULATED TO THE SAME R-VALUE AS REQUIRED FOR THE ROOF/CEILING CONSTRUCTION(402.1.3 OF THE 2015 IECC)
16. ALL SOURCES OF POSSIBLE AIR INFILTRATION ARE REQUIRED TO BE CAULKED, GASKETED, WEATHERSTRIPPED, WRAPPED , OR OTHERWISE SEALED TO LIMIT AIR MOVEMENT.
17. COSTRUCTION DOUMENTS TO BE KEPT ON JOB SITE
18. SMOKE-DEVELOPED INDEX. WALL AND CEILING FINISHES SHALL HAVE A SMOKE-DEVELOPED INDEX OF NOT GREATER THAN 450
    CARBON MONOXIDE DETECTORS CO SHALL BE UL 2034 COMPLIANT
    (SECTION R315.3 AND 325.3, 2013 KRC
    (APPLIES TO KENTUCKY ONLY)
19. ALL DRILLING AND NOTCHING SHALL BE IN ACCORDANCE WITH SECTION 502.8 AND 602.6 OF THE 2013 KENTUCKY RESIDENTIAL CODE
    (SECTION R502.8 AND R602.6, 2007 KRC)
20. RECESSED LUMINARY LIGHTING, FAN MOTERS AND OTHER HEAT PRODUCING DEICES SHALL HAVE THE COMBUSTIBLE INSULATION SPACED A MINIMUM OF 3 INCHES FROM THE HEAT SOURCE. (SECTION R302.13, 2013 KRC)
21. MAXIMUM FLAME SPREAD TO 200 AND MAXIMUM SMOKE DEVELOPMENT OF 450 FOR ALL WALL AND CEILING FINISHES.
    MAXIMUM FLAME SPREAD OF 25 AND MAXIMUM SMOKE DEVELOPMENT OF 450 FOR INSULATION.
    UNLESS SPECIFIED ALL FASTENING PER TABLE R602.3(1). ALL DRILLING AND NOTCHING PER R502.8 AND R602.6

KITCHEN				100
MBA				50
BATH 2				50
BATH 3				50

CROFT WINDOWS(SERIES 20) LIGHT & VENT CHART

WINDOW SCHEDULE SAVANNAH (LOW-E) SG (SAFTY GLAZE)
WINDOW SERIES # 2000 RESIDENTIAL E (EGRESS)

DESCRIPTION	LIGHT	VENT	R.O.	SF-(MAX)	U-FACTOR	SHGC
30 X 40	5.64	2.69	8.33	66 SF	.38	.21
36 X 40	6.80	3.24	10	81 SF	.35	.20
48 X 40	7.96	3.94	13.3	98 SF	.38	.21
24 X 72	8.09	3.95	12	98.5 SF	.35	.20
36 X 72	13.49	7.14	18	164 SF	.35	.20
48 X 72	16.18	7.9	24	197 SF	.35	.20
36X72(BRONZE ALUM.)	1.28	N/A	3	N/A	.42	.21
36X40(BRONZE ALUM.)	1.00	N/A	2.5	N/A	.42	.21
30X40(BRONZE ALUM.)	2.250	N/A	5	N/A	.38	.21
30 X 30 (Glass Block)		N/A	6.35	N/A	N/A	N/A
40 X 40 (Glass Block)		N/A	11.25	N/A	N/A	N/A
34 X 42 (Glass Block)		N/A	10.31	N/A	N/A	N/A
12 X 36 (TRANSOM)	1.28	N/A	3	N/A	.31	.27
12 X 30 (TRANSOM)	1.00	N/A	2.5	N/A	.31	.27
12 X 60 (TRANSOM)	2.25	N/A	5	N/A	.34	.27

CROFT WINDOWS(SERIES 30) LIGHT & VENT CHART

3040	5.43	2.72	8.33	70SF	.38	.21
3640	6.78	3.39	10	87SF	.36	.27
3660	10.98	5.48	15	143SF	.36	.27
3612(TRANSOM)	1.31	N/A	3	NA	.31	.27

DUNBARTON DOORS LIGHT & VENT CHART

ALL EXTERIOR DOOR W/GLASS REQUIRED SAFETY GLAZE SG (SAFTY GLAZE)

DP-RATING
EXP-B 47.2
EXP-C 61.0

DESCRIPTION	LIGHT	VENT	R.O.	SF-(MAX)	U-FACTOR	SHGC.
* 3680 (STORM w/OPEN SLIDER)	11.9	5.7	21.10	142 SF		
3680 (6 PANEL)	N/A	N/A	21.10		.16	.00
3680 (9 LITE & ROUNDTOP)	5.50	N/A	21.10			
3680 (15 LITE)	9.78	N/A	21.10		.31	.24
3680 (3/4 OVAL)	3.78	N/A	21.10		.24	.16
3680 (FULL OVAL)	7.78	N/A	21.10		.30	.27
3680 (STORM)	17.18	N/A	21.10		N/A	N/A
13 X 80 (FULL or 1/2 SIDELITE)	4.00/2.00	N/A	7.50			
TOP PANEL	5.92	N/A	5.92			
BOTTOM PANEL	5.92	5.7	5.92			
75 x 80 (ATRUIM DOOR) w/SCREEN	19.6	20.0	43.11	245 SF	.31	.24
72 X 76 (SGD) W/SCREEN	32.00	16.30	38.00	400 SF	.31	.27

ELECTRIC CIRCUIT SCHEDULE

** GFI CIRCUIT PROTECTION **** PER MANUFACTURERS RECOMENDATION/APPLIANCE DEMAND PLUS 125% CONTINUOUS AND/OR MOTOR LOAD FACTOR
FOR 2014 NEC CODES, KITCHEN, DISWAHSER, FREEZER & WASHER, CIRCUITS MUST BE GFI & ARC FAULT PROTECTED
ALL NEC CODES REQUIRE 15A & 20A 120V CIRCUITS TO BE ARC FAULT PROTECTED
ALL CIRCUITS 125V, 15A & 20A MUST BE TAMPER -RESISTANT.

CIR. NO.	PURPOSE	AMPS (POLES)	VOLTS	WIRE SIZE	CIR. NO.	PURPOSE	AMPS (POLES)	VOLTS	WIRE SIZE
1	SMALL APPLIANCES	20 (1)	120	12	20	LAUNDRY (WASHER)	20 (1)	120	12
2	BATHS	20 (1)	120	12	21	DRYER	30 (2)	240	10
3	SMALL APPLIANCES	20 (1)	120	12	22	SMOKE DETECTORS	15 (1)	120	14
4	SMALL APPLIANCES	20 (1)	120	12	23	WATER HEATER	25 (2)	240	10
5	OPT. DISHWASHER	20 (1)	120	12	24	EXTRA FURNACE	****	****	****
6	GENERAL PURPOSE	20 (1)	120	12	25	GENERAL PURPOSE	20 (1)	120	12
7	WATER HEATER	25 (2)	240	10	26	GENERAL PURPOSE	20 (1)	120	12
8	GENERAL PURPOSE	20 (1)	120	12	27	GENERAL PURPOSE	20 (1)	120	12
9	MICROWAVE	20 (1)	120	12	28	GENERAL PURPOSE	20 (1)	120	12
10	GENERAL PURPOSE	20 (1)	120	12	29	GENERAL PURPOSE	20 (1)	120	12
11	FURNACE	****	****	****	30	GENERAL PURPOSE	20 (1)	120	12
12	GENERAL PURPOSE	20 (1)	120	12	31	EXTRA	20 (1)	120	12
13	OPT. UTILITY	20 (1)	120	12	32	EXTRA	20 (1)	120	12
14	RANGE/COOKTOP	40 (2)	240	8	33	EXTRA	20 (1)	120	12
15	WALL OVEN	40 (2)	240	8	34	EXTRA	20 (1)	120	12
16	GENERAL PURPOSE	20 (1)	120	12	35	EXTRA	20 (1)	120	12
17	FREEZER	20 (1)	120	12	36	EXTRA	20 (1)	120	12
18	GENERAL PURPOSE	20 (1)	120	12	37	EXTRA	20 (1)	120	12
19	EXTRA	15 (1)	120	12	38	SMALL APPLIANCES	20 (1)	120	12

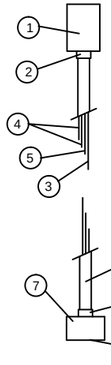
NOTE:
1) RECEPT REQ'D IN HALLWAYS OVER 10' MIN. IN LENGTH.
2) ALL ELECTRICAL WIRING TO BE IN COMPLIANCE WITH N.E.C. PER STATE REQUIREMENT.
3) TWO EXTERIOR G.F.I./WP RECEPTS REQUIRED. ONE LOCATED ON THE FRONT OF THE HOME, AND ONE LOCATED ON THE REAR OF THE HOME.
4) ALL BRANCH CIRCUITS THAT SUPPLY 125 VOLT, SINGLE PHASE 15-20 amp OUTLETS INSTALLED IN DWELLING UNIT BEDROOMS SHALL BE PROTECTED BY AFCI LISTED TO PROVIDE PROTECTION OF THE ENTIRE BRANCH CIRCUIT.
5) KITCHEN COUNTERTOP SWITCHES AND RECEPTS ARE TO BE DIRECTLY ABOVE OR WITHIN 12" OF COUNTERTOP.
6) ALL BOX SIZING IN COMPLIANCE WITH N.E.C. PER STATE REQUIREMENT.
7) SMOKE DETECTORS SHALL BE INSTALLED OUTSIDE OF EACH SEPERATE SLEEPING AREA AND MUST BE INSTALLED IN EACH BEDROOM. AT LEAST ONE (1) SMOKE DETECTOR MUST BE INSTALLED ON EACH LEVEL, INCLUDING BASEMENTS. ALL SMOKE DETECTORS WITHIN A DWELLING UNIT SHALL BE AC/DC AND INTERCONNECTED TO PROVIDE SIMULTANEOUS ACTIVATION, AND SHALL RECEIVE POWER FROM A BATTERY WHEN PRIMARY POWER INTERRUPTED.
8) ALL ELECTRICAL CONDUCTORS AND EQUIPMENT SHALL BE LISTED OR LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY AND IN COMBINATION WITH LISTING AND LABELING, CONDUCTORS AND EQUIPMENT SHALL BE SUITABLE FOR LOCATION AND USE.
9) IN MODELS WITHOUT UPSTAIR UTILITY AREA, APPLIANCES SUCH AS WATER HEATERS, WASHERS, AND DRYERS ARE LOCATED IN BASEMENT AND FIELD WIRED BY OTHERS.
10) WHEN PANEL BOX IS NOT LOCATED ON OR DIRECTLY ADJACENT TO EXTERIOR WALL OF HOME, A SERVICE DISCONNECT MUST BE INSTALLED ON SITE AT THE NEAREST POINT OF ENTRANCE OF SERVICE CONDUCTORS. THIS INFORMATION MUST OCCUR ON THE DATA PLATE OF HOMES WHERE SUCH CONDITIONS EXIST.
11) BUILDER/DEALER TO SUPPLY AND INSTALL ALL MATERIALS NOT PROVIDED BY MANUFACTURERS FOR COMPLETE ELECTRICAL HOOK-UP.
12) ALL RECEPTS IN BATHROOMS AND EXTERIOR OF HOME SHALL BE PROTECTED BY G.F.I. WHIRLPOOL TUBS ON A SEPERATE BREAKER AND GFI PROTECTED.
13) ALL RECEPTS ABOVE COUNTERTOPS TO BE PROTECTED BY G.F.I.
14) ELECTRICAL SERVICE TO BE GROUNDED IN FIELD BY OTHERS AFTER CIRCUITS HAVE BEEN COMPLETED ACCORDING TO LOCAL REQUIREMENTS.
15) NON-METALIC SHEATHED CABLE SHALL BE SECURED IN PLACE AT INTERVALS NOT EXCEEDING 4 1/2" AND WITHIN 12" FROM EVERY CABINET, BOX OR FITTING.
16) NON-METALIC SHEATHED CABLE PASSING THRU FRAMING MEMBER WITHIN 1 1/4" OF THE EDGE OF SUCH FRAMING MEMBER ARE PROTECTED WITH A 1/16" THICK STEEL BUSHING. CABLE PASSING THRU NOTCHES ARE PROTECTED WITH 1/16" THICK STUD STEEL PLATES.
17) SURFACE MOUNTED INCANDESCENT FIXTURES INSTALLED ON THE WALL ABOVE THE DOOR OR ON THE CEILING PROVIDED THER IS A MINIMUM CLEARANCE OF 12" BETWEEN THE FIXTURE AND THE NEAREST POINT OF A STORAGE AREA. NEC-410-8(d)(1)
18) ANY LIGHT LOCATED IN A WET LOCATION MUST BE OF THE ENCLOSED & GASKETED TYPE LISTED FOR WET LOCATIONS.
19) CARBON MONOXIDE ALARMS SHALL BE INSTALLED OUT SIDE OF SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM IN DWELLING UNITS WITHIN WHICH FUEL-FIRED
20) APPLIANCES ARE INSTALLED AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES.(R315.1) RECESSED LUMINARY LIGHTS, FAN MOTERS AND OTHER HEAT PRODUCING DEVICES SHALL HAVE COMBUSTIBLE INSULATION SPACED A MINIMUM OF 3" FROM HEAT SOURCE

LEGEND

- S SWITCH LEG
- (CL) LISTED AND APPROVED FOR OVER TUB
- LIGHT (FLUORESCENT)
- SERVICE PANEL
- S SWITCH JB JUNCTION BOX
- RECEPTACLE
- RECEPTACLE 20 AMP
- WEATHER PROOF RECEP
- (A) NM CONNECTOR
- RECEPTACLE 220 V
- LIGHT (INCANDESCENT)
- (T) PROGRAMMABLE THERMOSTAT
- (F) FAN EXHAUST FAN
- EXHAUST FAN & LIGHT EXHAUST FAN
- (SA) SMOKE ALARM (CO SA) SMOKE ALARM CARBON MONOXIDE
- (WH) WATER HEATER
- FURNACE (F)

LOAD CALCULATION		Worst Case 30'-0" x 86'-0"
	2580 SF x 3 Watts / 1000	7.74 KW
3	APPL. CIRCUITS	4.5 KW
1	RANGE CIRCUIT	12.0 KW
1	LAUNDRY CIRCUIT	1.5 KW
1	WATER HEATER CIRCUIT	4.5 KW
1	DRYER CIRCUIT	5.0 KW
1	WASHER CIRCUIT	1.5 KW
1	GAS FURNACE MOTOR	1.0 KW
1	DISHWASHER	1.4 KW
1	RANGE HOOD VENT FAN	.25 KW
4	BATHROOM VENT FAN	.40 KW
1	HYDRO-MASSAGE TUB	2.0 KW
	TOTAL LOAD:	41.79 KW
1	HEATING EQUIPMENT: 24 kw (@ 65%)	15.6 KW
1	COOLING EQUIPMENT: 10.5 kw (@ 100%)	10.5 KW
	10 kVA X 100%	10.0
	(41.79- 10.0) = 31.79 X 40%	12.72
	HVAC EQUIPMENT (MAX. Heating or Cooling)	15.6
	DESIGN TOTAL:	38.32 kVA
	(38.32 / 240-Volts) x 1000	
	TOTAL AMPS:	159.66 Amps
	Install 200 Amp (MIN), 120/240-Volt, Single Phase, Ele. Service Panel	

11/6/2018



FEEDER ASSEMBLY DETAILS
200 AMP UNDERGROUND

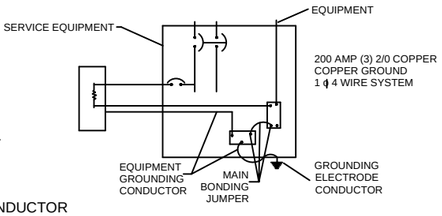
MANUFACTURERS SPECIFICATIONS

1) SERVICE PANEL 200 AMP
2) SET CONNECTOR FOR CONDUIT
3) NEUTRAL CONDUCTOR-WHITE NO. 2/0 THW-COP.
4) MAIN CONDUCTOR-RED AND BLACK 2/0 MCM-THW-CU.
5) GROUND CONDUCTOR-GREEN NO. 4 THW-COP.
6) 2" CONDUIT-EMT PVC OR EQUAL.
7) 12 x 12 x 4 WEATHER PROOF BOX-SCREW COVER.
8) SOLDERLESS CONNECTORS
9) #4 GROUNDING ELECTRODE CONDUCTOR

NOTE:
SERVICE CONNECTION TO POWER SOURCE SHALL BE PROVIDED BY OTHERS.

MODULAR GROUNDING DETAIL
200 MAIN SERVICE ENTRANCE

GROUNDING FOR GROUNDED SYSTEMS. SHOWING CONNECTION OF EQUIPMENT GROUNDING BUS TO THE ENCLOSURES AND THE GROUNDED CONDUCTOR.
ALL EXPOSED METAL PARTS TO BE GROUNDED TO MAIN BONDING JUMPER (METAL FRAME, GAS LINE, HEAT DUCT, ETC.)



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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult 110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

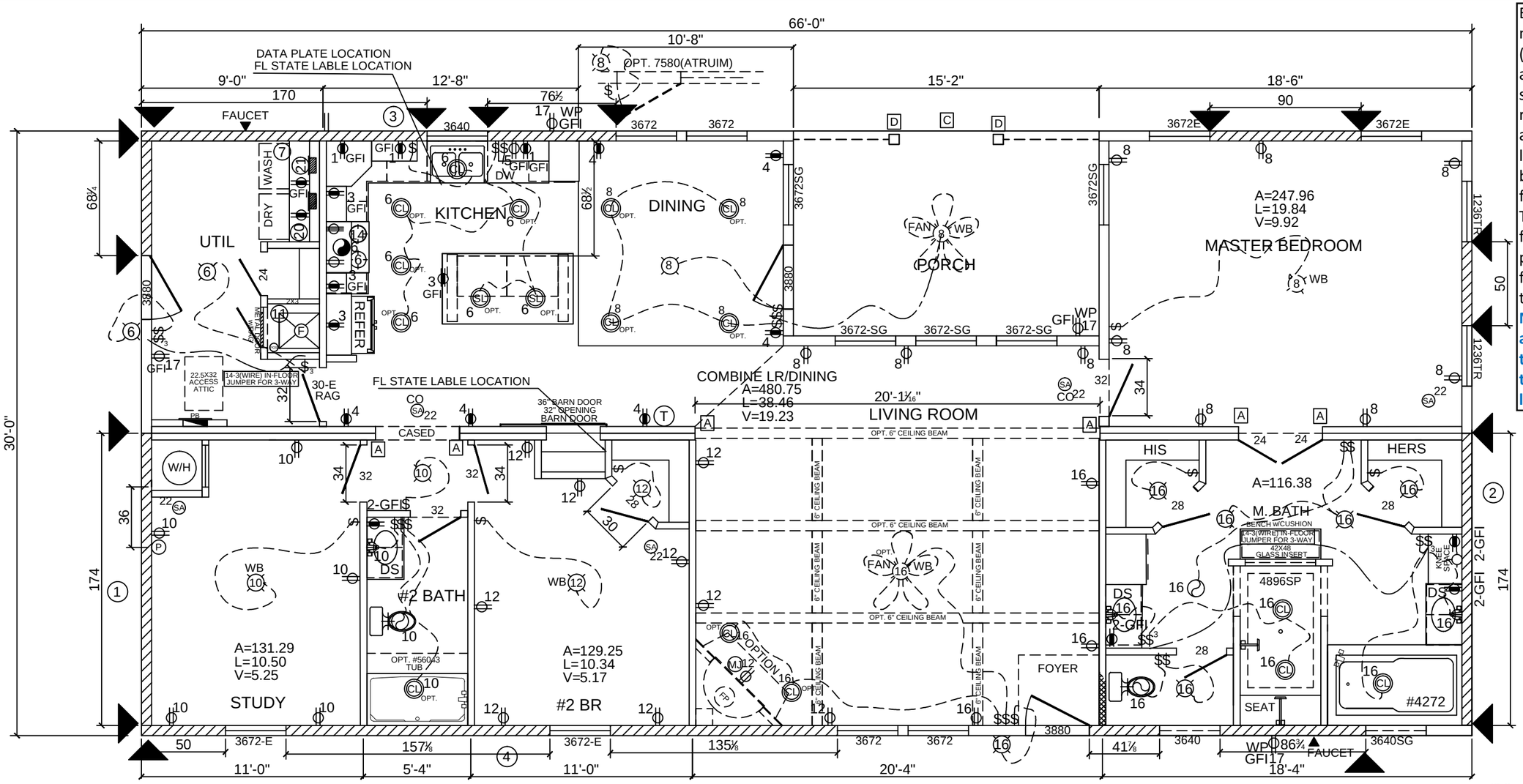
REVISIONS

--	--

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

APPROVED BY: J.WALLACE	SCALE: NTS
PRINT DATE: 10/24/18	REV: --
TITLE: TYPICAL NOTES	
MODEL: SVM-7012B	DWG. NO: A.02
MODEL: MFT10186-SVM-7012B-R1	



Each bracing wall in this page is marked with a horizontal load (PLF). Bracing walls must be attached to the foundation for the specified horizontal PLF load & racking loads (as specified in the attached bracing calcs) at noted locations. Racking tie downs must be designed to extend from foundation to bracing wall studs. Tie down connections from foundation wall to rim joist are not permissible unless proper fastening from bracing wall studs to rim joist is provided.

NOTICE: Foundation for this home and connection of the home to the foundation must be designed to site conditions for all applicable loads by site engineer/architect.

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

110 MPH REF. TO SHEAR WALL MANUAL			REF. MODULAR STRUCTURAL SYSTEM FOR FASTENING OPT.									SYP LUMBER	110MPH
			SIDE 1				SIDE 2					TRUSS OVER THE INTERIOR SHEAR WALL ARE TO BE SHEATHED	
NO.	LENGTH	SPLIT	LOADS	MATERIAL	FASTENER	SPACING	# OF CS14 STRAPS	MATERIAL	FASTENER	SPACING	JOIST	NOTES/FASTENING:	
1	242"	174+ 68	382 PLF	7/16" OSB	.131" X 2 1/2" NAILS	4" OC	2 PER ▲	1/2" GYP	#6X1 5/8" SCREWS (GLUED & SCREWED)	6" OC EDGE 12" OC FEILD	2	1. (w7/16" OSB ONE. SIDE) MAY BE USED ASSUMING ALL SHEARWALLS GO FROM FLOOR TO	
2	224"	174+50	413 PLF	7/16" OSB	.131" X 2 1/2" NAILS	4" OC	2 PER ▲	1/2" GYP	#6X1 5/8" SCREWS (GLUED & SCREWED)	6" OC EDGE 12" OC FEILD	2	CEILING, AND BACKED BY A TRUSS OR OTHER MEANS (2X BACKER).	
3	336"	170+76+90	215 PLF	7/16" OSB	.131" X 2 1/2" NAILS	4" OC	1 PER ▲	1/2" GYP	#6X1 5/8" SCREWS (GLUED & SCREWED)	6" OC EDGE 12" OC FEILD	2	2. #10 X 4" SCREWS - TOE SCREWED 2" O.C. FROM TOP PLATE/BACKER TO BOTTOM CHORD OR CEILING JOIST.	
4	469"	50+157+135+41+86	143PLF	7/16" OSB	.131" X 2 1/2" NAILS	4" OC	1 PER ▲	1/2" GYP	#6X1 5/8" SCREWS (GLUED & SCREWED)	6" OC EDGE 12" OC FEILD	2	3. #10 X 4" SCREWS - 2" O.C. FROM BOTTOM PLATE TO FLOOR JOIST.	
												4. 2" O.C. FASTENING REQUIRES DOUBLED FRAMING AT ADJOINING EDGES AND STAGGERED FASTENERS.	

FOR DEATILS ON LAP SHEATHINNG SEE PAGE A.09 (OFF FRAME) & A09.1 (ON FRAME)

- A 1.5"X16" LVL EACH HALF W/ (2) CS14 STRAPS WITH FULL NAIL QUOTA
- C ATTACH TRUSS TO PORCH HEADER W/(1) LTS12 STRAP PER TRUSS
- D ATTACH POST TO HEADER AND POST TO FLOOR W/(2) CS18 EA

SYP LUMBER NOTES/FASTENING:	SHEAR JOIST NOTES:	CEILING DIAPHRAGM NOTES:	ROOF DIAPHRAGM NOTES:
1. ALL SHEARWALL SHEATHING MAY CONTAIN HORIZONTAL SEAMS PROVIDED THE SEAMS ARE BLOCKED USING THE SAME SIZE, GRADE AND SPECIES OF LUMBER AS THE REQUIRED SHEAR WALL FRAMING.	SHEAR JOISTS SHALL BE SIZED & CONNECTED TO THE GIRDER BEAM AND PERIMETER JOISTS SHEAR JOIST SHALL BE SUPPORTED AT EACH END BY COLUMN SUPPORTS, MATE LINE LOCKING OR PERIMETER FOUNDATION WALLS.	DIAPHRAGM SHALL BE 7/16" GYPSUM BOARD	SHALL BE 7/16" RATED SHEATHING (MIN.)
2. FASTENING ALONG THE SEAMS SHALL BE THE SAME AS THE REQUIRED EDGE FASTENING.	FOR DETAILS ON LAP SHEATHING SEE PAGE A.09 (OFF FRAME) & A09.1 (ON FRAME)	FASTEN TO ROOF FRAMING WITH:	FASTEN SHEATHING TO ROOF FRAMING WITH:
3. (w/3/8" OSB ONE. SIDE) MAY BE USED ASSUMING ALL SHEARWALLS GO FROM FLOOR TO CEILING, AND BACKED BY A TRUSS OR OTHER MEANS (2X BACKER).	NOTES/FASTENING:	#6 X 1- 1/4" (TYPE S OR W) DRYWALL SCREWS, OR	7/16" X 1-3/4" X 15 GA. STAPLES (MIN) SUPPORTED AT 6" O/C EDGE.
4. FASTEN SHEAR WALL TO ROOF TRUSSES WITH: #10 X4" WOOD SCREWS TOE SCREWED 2" O.C. FROM TOP PLATE/BACKER TO BOTTOM CHORD OR CEILING JOIST.	WHEN SINGLE WIDE TRUSS ATTACH TO DOUBLE TRUSS FASTEN AREA WITH 0.131X2.5 NAILS AT 4" O.C.	ALPHA SEAL S200 NY ALPHA SYSTEMS, INC.	
5. TRUSS OVER THE INTERIOR SHEAR WALL ARE TO BE SHEATHED		MINIMUM BEAD SIZE: WIDTH= 7/8" X HEIGHT =3/8" (PER PEI PEPORT PER 05006)	0.131X2.5" NAILS AT 6" oc EDGES, 6" oc BOUNDARY
			SINGLE WIDE DIAPHRAM OVER THE UTILITY AREA TO

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult.110 vasd Exp.C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

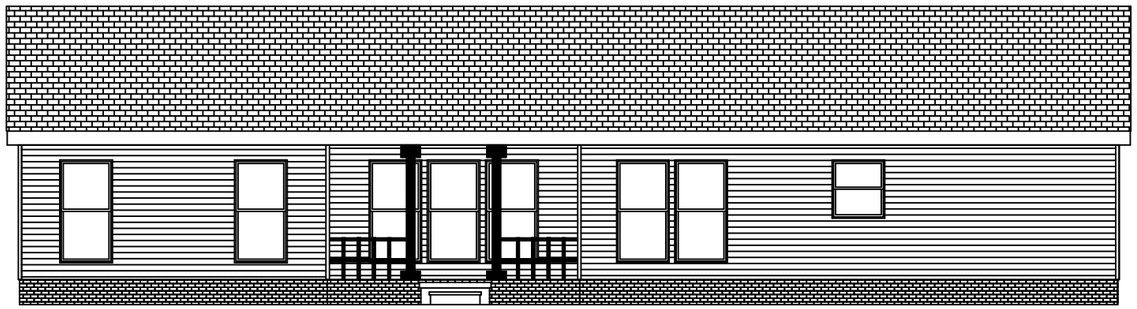
REVISIONS

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

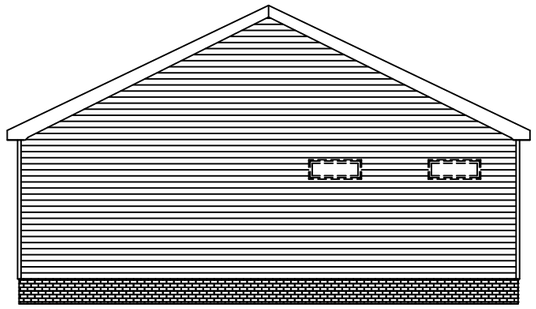
APPROVED BY:	J.WALLACE	SCALE:	NTS
PRINT DATE:	10/24/18	REV:	--
TITLE:	TYPICAL FLOOR PLAN		
MODEL:	SVM-7012B	DWG. NO:	A.03
MODEL:	MFT10186-SVM-7012B-R1		

ELEVATIONS SHOWN ON THIS PAGE REPRESENT BASIC COMPONENTS AND ARE NOT INTENEDED TO BE ALL INCLUSIVE, NOR DO THESE ELEVATIONS DETAIL EVERY CODE REQUIRED ASPECT OF THIS BUILDING. SITE BUILT STOOPS, STEPS, DECKS, PORCHES, HANDRAILS AND/OR SIMILAR ITEMS MUST BE PROVIDED BY OTHERS ON SITE FOR COMPLIANCE WITH APPLICABLE CODES. COMPLIANCE WITH ALL APPLICABLE CODES PER LOCAL AUTHORITY HAVING JURISDICTION, WHETHER DETAILED IN THIS SET OR NOT, MUST BE MET.

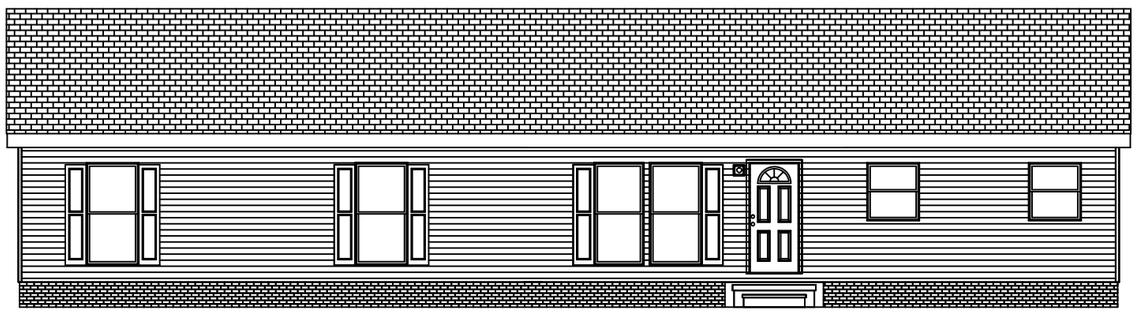


REAR ELEVATION

LEFT ELEVATION



RIGHT ELEVATION



FRONT ELEVATION

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult.110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

NOTES

1. ALL ITEMS ARE COMPLETED IN THE MANUFACTURING FACILITY UNLESS NOTED OTHERWISE.
* 2. SIDING FOR ENDS IS SHIPPED LOOSE FOR ON SITE INSTALLATION BY OTHERS.
* 3. HANDRAILS, STOOPS, STAIRS, GUTTERS, DOWNSPOUTS, STORM SHUTTERS OR REMOVABLE TYPE COVERINGS, AND SPLASH BLOCKS ARE FURNISHED AND INSTALLED BY OTHERS IN ACCORDANCE WITH STATE AND LOCAL CODES.
4. ALL ELEVATIONS ARE SHOWN WITH 2.16 TO 7/12 ROOF PITCH.
5. WINDOWS ARE SIZED PER WINDOW SCHEDULE AND VARY FROM FLOORPLAN TO FLOORPLAN.
* 6. ALL FOUNDATION WORK IS COMPLETED ON SITE BY OTHERS.
7. ALL DRAIN, AND WASTE VENTS SHALL TERMINATE A MINIMUM OF 12" ABOVE THE ROOF LINE.
8. PATIO DOORS ARE AVAILABLE PER FLOOR PLAN.
9. SIDING SHOWN IS 4", OTHER SIZES ARE AVAILABLE.
10. SHUTTERS ARE STANDARD ON THE FRONT AND RIGHT SIDE OF THE HOME, AND MAY BE OPTIONED FOR THE REAR AND LEFT SIDE.
11. TERMINATION HEIGHT OF METAL CHIMNEYS SHALL BE A MIN. 3'-0" ABOVE THE HIGHEST POINT WHERE THEY PASS THRU THE ROOF AND A MINIMUM OF 2'-0" HIGHER THAN ANY PORTION OF A BUILDING WITHIN 10'-0". THE CHIMNEY IS TO BE SITE INSTALLED.
12. ATTIC ROOF SPACE VENTILATION SHALL BE 1/300 OF ROOF AREA WITH UPPER HALF PROVIDING MIN.50%-MAX 80% OF THE VENTILATION.
1/300 OF ATTIC AREA.
1/150 AT ROOF VENTS.
1/150 AT EAVE.
13. ROOF COVERING (SHINGLES) SHALL MEET THE REQUIREMENTS OF ASTM D 3161.
14. Crawlspace Access min. 18" x 24" location may vary.
15. Minimum crawlspace ventilation required must be 1/150 of crawlspace and within 3' of each corner and must meet all local code requirements. Access min. 18" x 24".

* ITEMS INSTALLED ON SITE BY OTHERS
For future garage siding to be removed and the garage shall be completely separated from the adjacent interior spaces and attic by means of 5/8" gypsum board or equiv. applied to the garage by owner.
⋆ A 1 3/8" steel door W/A 20 min. fire rating shall be used between garage and residence. The sills for these doors shall be raised not more than 4" above the garage door.

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

REVISIONS

APPROVED BY:	J.WALLACE	SCALE:	NTS
PRINT DATE:	10/24/18	REV:	--
TITLE:	EXTERIOR ELEVATIONS		
MODEL:	SVM-7012B	DWG. NO:	A.05
MODEL:	MFT10186-SVM-7012B-R1		

KENTUCKY	
DRAIN SIZE	TRAP ARM LENGTH PER 1/4" SLOPE
1-1/4"	2'-6"
1-1/2"	3'-6"
2"	'5-0"
3"	'6-0"
4"	'10-0"

2015 IRC	
DRAIN SIZE	TRAP ARM LENGTH PER 1/4" SLOPE
1-1/4"	5'-0"
1-1/2"	6'-0"
2"	'8-0"
3"	'12-0"
4"	'16-0"

IRC (2015) TABLE(P3105.1)		
DRAIN SIZE	TRAP SIZE	TRAP ARM LENGTH PER 1/4" SLOPE
1-1/4"	1/4"	5'-0"
1-1/2"	1/4"	6'-0"
2"	1/4"	8'-0"
3"	1/8"	'12-0"
4"	1/8"	'16-0"

ILLINOIS	
DRAIN SIZE	DISTANCE TRAP TO VENT
1-1/4"	2'-6"
1-1/2"	3'-6"
2"	'4-0"
3"	'5-0"
4"	'6-0"

NOTES:

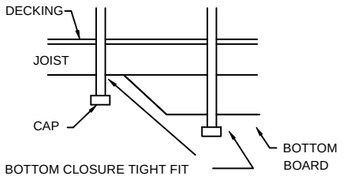
(A) = INLET WITH CAP & CHAIN.

(B) = 3/4 RELIEF DRAIN THRU FLOOR.

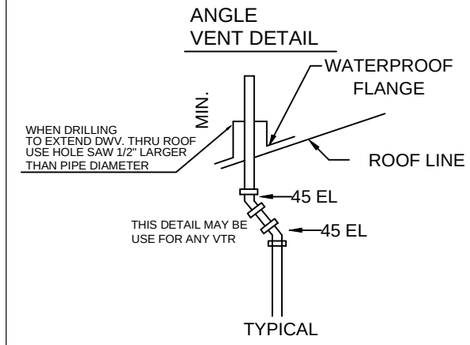
ALL WATER LINES 1/2" UNLESS OTHERWISE SHOWN.

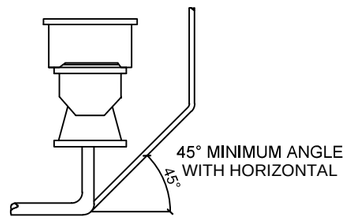
PIPING SUPPORT	
HOT & COLD FLEXIBLE	MAX. SPACING HORZ.&VERT.
3/4" & 1"	2'-8"

* WATER DISTRIBUTION PIPE PEX WATER LINES AND FITTINGS (OPT. COPPER WATER LINES TYPE M)



FLOOR DETAIL





STOOL VENTING DETAIL

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult.110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

< SPECIFY IF NOTE APPLIES TO MANUFACTURER

NOTE:

1) MAXIMUM FLOW RATE TO BE 2.2 GPM FOR FAUCETS @60 PSI AND 2.5 GPM FOR SHOWERS @ 80 PSI.
2) DRAINWASTE AND VENT LINES PVC SHALL MEET ASTM D2665-89a REQUIREMENTS.
3) WATER DISTRIBUTION SYSTEM PIPING MAY BE POLYBUTYLENE, CPVC, COPPER, GALV. STEEL OR PEX
4) DRAIN LINE SLOPE TO BE 1/4" MIN./FT.
5) VACUUM BREAKS TO BE INSTALLED ON HOSE BIBBS, AND FROST FREE SILLOCKS.
6) AN ADEQUATELY RATED PRESSURE AND TEMPERATURE RELIEF VALVE IS TO BE PROVIDED FOR WATER HEATER.
7) FOR EACH DWELLING, MIN (1) 3" MAIN VENT UNDIMINISHED IN SIZE THRU ROOF
8) ALL VENT STACKS LESS THAN 3" I.D. WHICH PASS THROUGH ROOF SHALL INCREASE TO 3' I.D. AT A POINT 12" MIN. BELOW ROOF LINE AND EXTEND TO A POINT 12" MIN. ABOVE ROOF LINE. 3" I.D. CONTINUOUS STACKS SHALL TERMINATE 12" MIN. ABOVE ROOF LINE IN FROST PRONE AREAS.
9) TUBS MAY NOT BE WET VENTED DOWNSTREAM OF WATER CLOSET.
10) HEIGHT OF WATERPROOFING IN TUB AND SHOWER SPACE 6-0 MIN. ABOVE FLOOR
11) PLASTIC PIPE SHALL BE SUPPORTED EVERY 4-0 HORIZONTALLY AND VERTICALLY
12) BATH TUBS AND SHOWERS ARE LISTED BY AN APPROVED AGENCY
13) MODELS WITH BASEMENTS MAY LOCATE WASHER IN BASEMENT TO BE CONNECTED ON SITE BY OTHERS.
14) HORIZONTAL TO VERTICAL CONNECTION TO BE WITH SANITARY TEES
15) HORIZONTAL TO HORIZONTAL AND VERTICAL TO HORIZONTAL CONNECTIONS TO BE MADE WITH LONG TURN OR TEE WYE FITTINGS.
16) PRESSURE TEMPERATURE RELIEF VALVE SHALL PIPE TO A VISIBLE AIR GAP AT FLOOR IN THE SAME SPACE AS WATER HEATER . WHEN WATER HEATER IS ON FIRST OR SECOND FLOOR A PAN SHALL BE PROVIDED & ITS DRAIN SHALL PIPE BELOW FIRST FLOOR. DRAIN SHALL PIPE & DISCHARGE INDIRECTLY TO A HAZARD FREE POINT.
17) MAX. DISTANCE OF FIXTURE TRAP TO VENT 1 1/2 IS 3-6, 2" IS 5-0, 3" IS 6-0
18) AIR ADMITTANCE VALVES ARE PERMITTED WHEN INSTALLED ACCORDING TO THEIR LISTING. LA, KY, IL, DOESN'T ALLOW AIR ADMITTANCE
19) ALL HORIZONTAL VENT BRANCH PIPING SHALL BE LOCATED A MINIMUM OF SIX (6) INCHES ABOVE THE FLOOD LEVEL OF THE HIGHEST FIXTURE SERVED IN THAT BRANCH.
20) FIXTURES HAVING CONCEALED CONNECTIONS SHALL BE ARRANGED TO MAKE THE CONNECTIONS ACCESSIBLE FOR INSPECTION AND REPAIR.
21) ALL PLUMBING SHALL BE TESTED IN PLANT AND NO PLUMBING SHALL BE COVERED OR CONCEALED BEFORE BEING TESTED.
22) WATER CLOSET SHALL BE 1.6 GALLONS PER FLUSH (MAXIMUM)
23) PLASTIC PIPING SHALL BE PROTECTED WITH A STEEL PLATE (18 GA. MIN.) WHEN PIPE PASSES THROUGH WOOD MEMBERS LESS THAN 1-1/4 INCH FROM THE EDGE OF MEMBERS.
24) ANTI-SCALD DEVICES REQUIRED ON ALL TUB/SHOWER DIVERTERS. (DELTA #R1300-IP-TP, ASME A112.18.1M, ASSE 1016).
25) PIPING SHALL BE FIRE STOPPED WHERE REQUIRED WITH MATERIALS EQUIVALENT TO CONSTRUCTION WHICH IT PENETRATES AND BE SUITABLE TO PIPE MATERIAL.
26) CONCEALED PIPING IN UNHEATED AREAS INCLUDING OUTSIDE WALLS SHALL BE PROTECTED AGAINST FREEZING IN PLANT.
27) IN-PLANT FIXTURE DRAINS AND ALL OPEN PIPE SHALL BE PROTECTED (CAPPED) AND LABELED FOR TRANSPORT
28) JOIST NOTCHES SHALL NOT EXCEED 1/6 OF JOIST DEPTH AND SHALL NOT OCCUR IN MIDDLE 1/3 OF SPAN HOLES SHALL NOT EXCEED 1/3 DEPTH OF JOIST AND MUST OCCUR 2" FROM EITHER EDGE

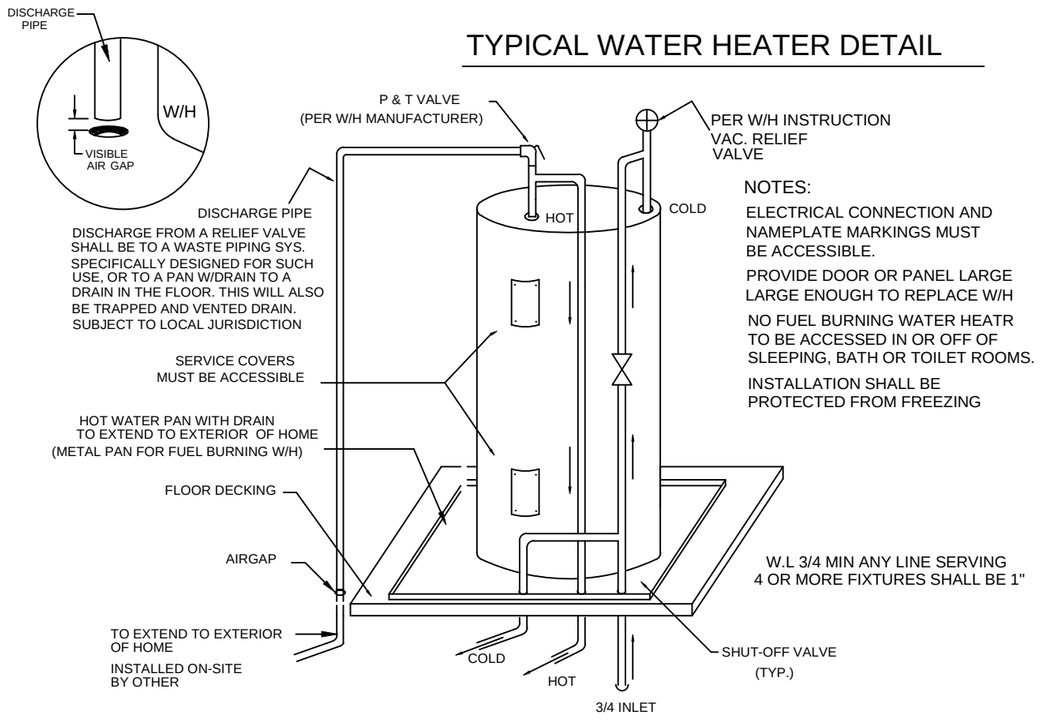
< 29) SHUT OFF VALVES ON ALL FIXTURES (OPTIONAL)

< 30) ALL PLUMBING IS TYPICALLY INSTALLED FOR EACH MODULE AT THE TIME OF MANUFACTURE. CERTAIN CICJ/RCUMSTANCES MAY NECESSITATE SOME FIXTURE DRAINS TO BE STUBBED THROUGH FLOOR IN WHICH CASE HOOK-UP AND MATERIALS ARE PROVIDED ON SITE BY OTHERS. FLOOR SYSTEMS WHICH DO NOT ALLOW FOR PLANT INSTALLED PLUMBING, ARE MANUFACTURED WITH ALL PLUMBING RISERS STUBBED THROUGH FLOOR IN WHICH CASE ALL MATERIALS FOR COMPLETION AND INSTALLATION ARE PROVIDED ON SITE BY OTHERS. NOTE: STUB-THROUGH PLUMBING IS AVAILABLE ON ALL FLOOR SYSTEMS.

< 31) WATER HEATER IN BASEMENT TO BE FIELD INSTALLED BY OTHERS

< 32) A WATER HAMMER ARRESTOR SHALL BE INSTALLED WHERE QUICK CLOSING VALVES ARE UTILIZED. THE ARRESTOR SHALL BE LOCATED WITHIN AN EFFECTIVE RANGE OF THE QUICK CLOSING VALVE. ACCESS SHALL BE PROVIDED TO THE WATER HAMMER ARRESTORS.

TYPICAL WATER HEATER DETAIL



NOTES:

ELECTRICAL CONNECTION AND NAMEPLATE MARKINGS MUST BE ACCESSIBLE.

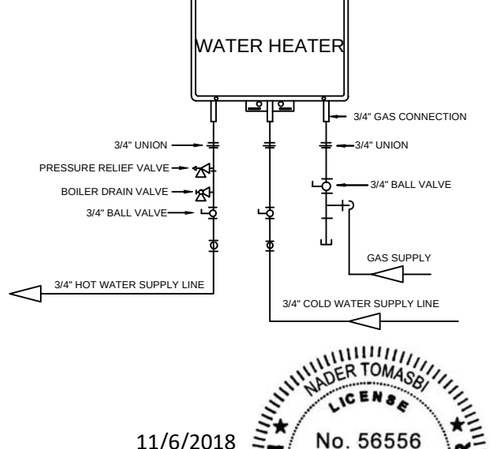
PROVIDE DOOR OR PANEL LARGE LARGE ENOUGH TO REPLACE W/H

NO FUEL BURNING WATER HEATR TO BE ACCESSED IN OR OFF OF SLEEPING, BATH OR TOILET ROOMS.

INSTALLATION SHALL BE PROTECTED FROM FREEZING

SHOWN FOR MAIN OR FIRST OR SECOND FLOOR APPLICATION
WATER LINE BASED ON PRESSURE RANGE 50 TO 60PSI

OPT. GAS TANKLESS WATER HEATER



11/6/2018

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVISIONS

NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

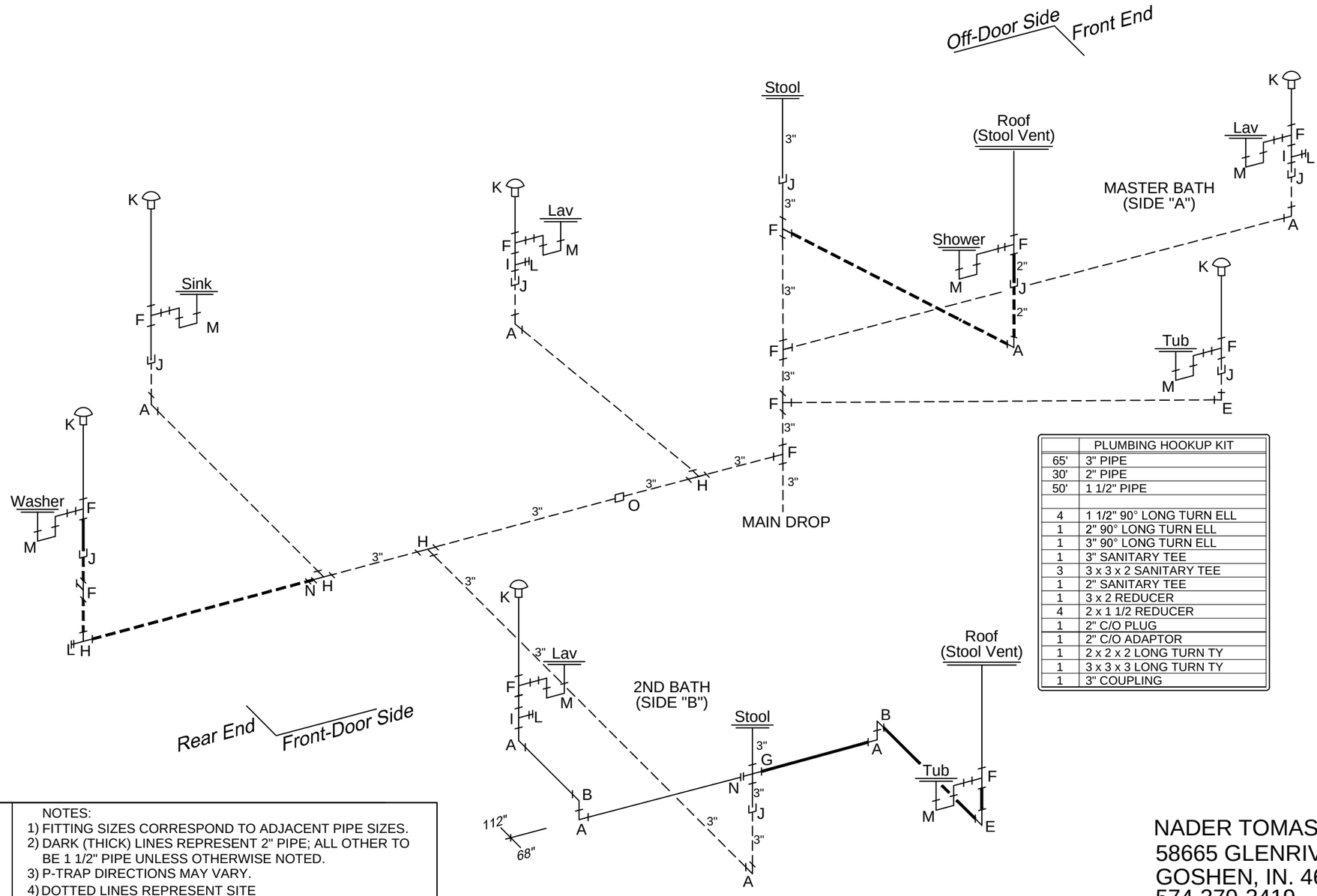
DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

APPROVED BY: J.WALLACE		SCALE: NTS	
PRINT DATE: 10/24/18	REV:	REV. DATE:	
TITLE: TYPICAL PLUMBING LAYOUT			
MODEL: SVM-7012B		DWG. NO: A.6	
MODEL: MFT10186-SVM-7012B-R1			

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult 110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes



	PLUMBING HOOKUP KIT
65'	3" PIPE
30'	2" PIPE
50'	1 1/2" PIPE
4	1 1/2" 90° LONG TURN ELL
1	2" 90° LONG TURN ELL
1	3" 90° LONG TURN ELL
1	3" SANITARY TEE
3	3 x 3 x 2 SANITARY TEE
1	2" SANITARY TEE
1	3 x 2 REDUCER
4	2 x 1 1/2 REDUCER
1	2" C/O PLUG
1	2" C/O ADAPTOR
1	2 x 2 x 2 LONG TURN TY
1	3 x 3 x 3 LONG TURN TY
1	3" COUPLING

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

NOTES:
1) DOTTED LINES REPRESENT SITE INSTALLED PLUMBING.
2) ALL FITTINGS AND PIPE NECESSARY FOR PROPER CONNECTION OF THE DWV SYSTEM ARE INCLUDED IN THIS KIT. ANY VARIATION FROM THIS DESIGN RESULTING IN A SHORTAGE OF MATERIAL SHALL BE THE INSTALLER'S RESPONSIBILITY.
3) ALL PIPING MUST BE SUPPORTED AT INTERVALS NOT EXCEEDING 4'-0".
4) DRAIN PIPES MUST HAVE A MIN. SLOPE OF 1/4" PER FOOT (1/8" PER FOOT WITH CLEAN-OUT).
5) AIR GAPS ARE REQUIRED FOR ALL DISHWASHERS.
6) AIR ADMITTANCE VALVES ARE NOT REQUIRED IN ILLINOIS.
7) ANY PLUMBING ON THE HINGED ROOF AREA WILL HAVE TO BE EXTENDED THROUGH THE ROOF ON- SITE BY OTHERS.

NOTES:
1) FITTING SIZES CORRESPOND TO ADJACENT PIPE SIZES.
2) DARK (THICK) LINES REPRESENT 2" PIPE; ALL OTHER TO BE 1 1/2" PIPE UNLESS OTHERWISE NOTED.
3) P-TRAP DIRECTIONS MAY VARY.
4) DOTTED LINES REPRESENT SITE INSTALLED PLUMBING.
5) KENTUCKY METAL WATER LINE FITTINGS REQ. @ CONCEALED FAUCETS
6) ILLINOIS WATER LINES TO BE WRAPPED W/R-3 INSULATION

DWV FITTING LEGEND				
90° LONG TURN ELL	A	B	45° ST. ELL
DOUBLE ELL	C	D	90° CLOSET ST. ELL
90° LONG TURN ST. ELL	E	F	SANITARY TEE
DOUBLE SANITARY TEE	G	H	LONG TURN TY
45° Y	I	J	CAP & CHAIN
MECHANICAL VENT	K	L	CLEAN OUT PLUG
P-TRAP	M	N	REDUCER BUSHING
COUPLING	O	P	

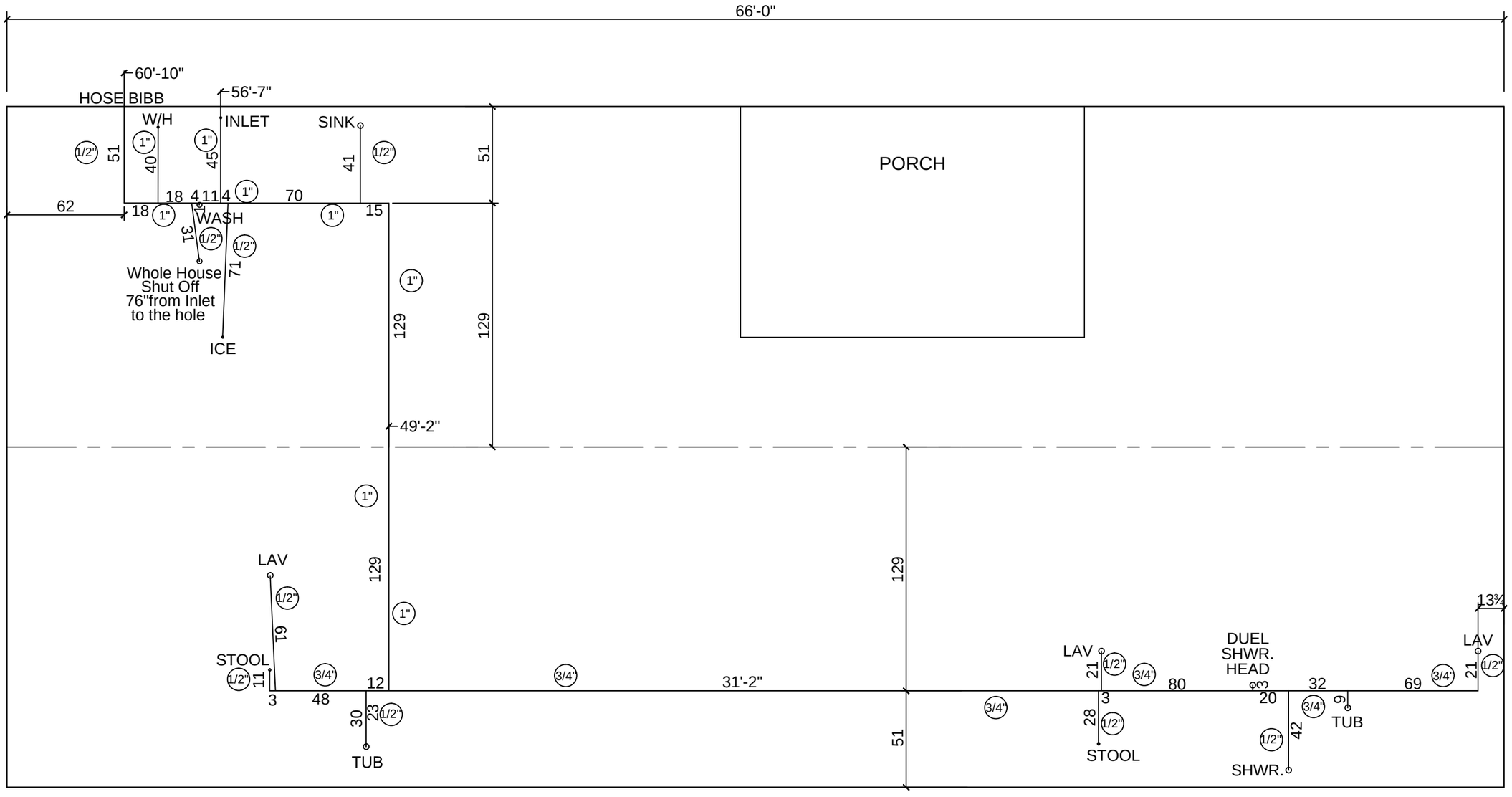
REVISIONS

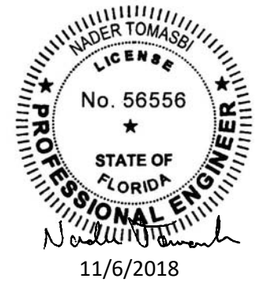
NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

APPROVED BY: J.WALLACE	SCALE: NTS
PRINT DATE: 10/24/18	REV. DATE:
TITLE: DRAIN LINE PLUMBING LAYOUT	
MODEL: SVM-7012B	DWG. NO: A.6.1
MODEL: MFT10186-SVM-7012B-R1	





11/6/2018

NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity: Fire Rating of Ext. Walls:	142mph vult 110 vasd Exp C 0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	30 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

NOTES:

1) FITTING SIZES TO CORRESPOND TO ADJACENT PIPE SIZES.
2) COPPER, CPVC, OR OTHER APPROVED OR LISTED MATERIAL MAY BE USED.
3) ALL SIZING OF PIPE + OR -, MUST MEET OR EXCEED ANY APPLICABLE CODES.
4) PEX LINES MUST BE SUPPORTED 32" OC MAXIMUM.
5) COLD AS SHOWN, HOT THE SAME EXCEPT DROP STOOL, ICE & INLET.
6) BASED ON PRESSURE RANGE 50 TO 60 PSI
7) KENTUCKY METAL WATER LINE FITTINGS REQ. @ CONCEALED FAUCETS
8) ILLINOIS WATER LINES TO BE WRAPPED W/R-3 INSULATION
9) SHOWER (SINGLE HEAD) 3/4" W/PEX.

CUSTOMER

LEGEND

HOT — — — — 1/2" LINE
HOT ▬ ▬ ▬ ▬ 3/4" LINE
COLD ——— 1/2" LINE
COLD ▬▬▬ 3/4" LINE

REVISIONS

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

APPROVED BY: J.WALLACE	SCALE: NTS
PRINT DATE: 01/24/18	FOR TN.ONLY:
TITLE: WATER LINE PLUMBING LAYOUT	
MODEL: SVM-7012B	DWG. NO: A.6.2
MODEL: MFT10186-SVM-7012B-R1	

Engineer seal applies ONLY to FACTORY MANUFACTURED portions of the building. Seal does not apply to site installed elements or portions built on site such as, but not limited to; foundation, connections to foundation, exterior steps, or other site works. Site work must be designed BY OTHERS for site conditions, under local jurisdiction.

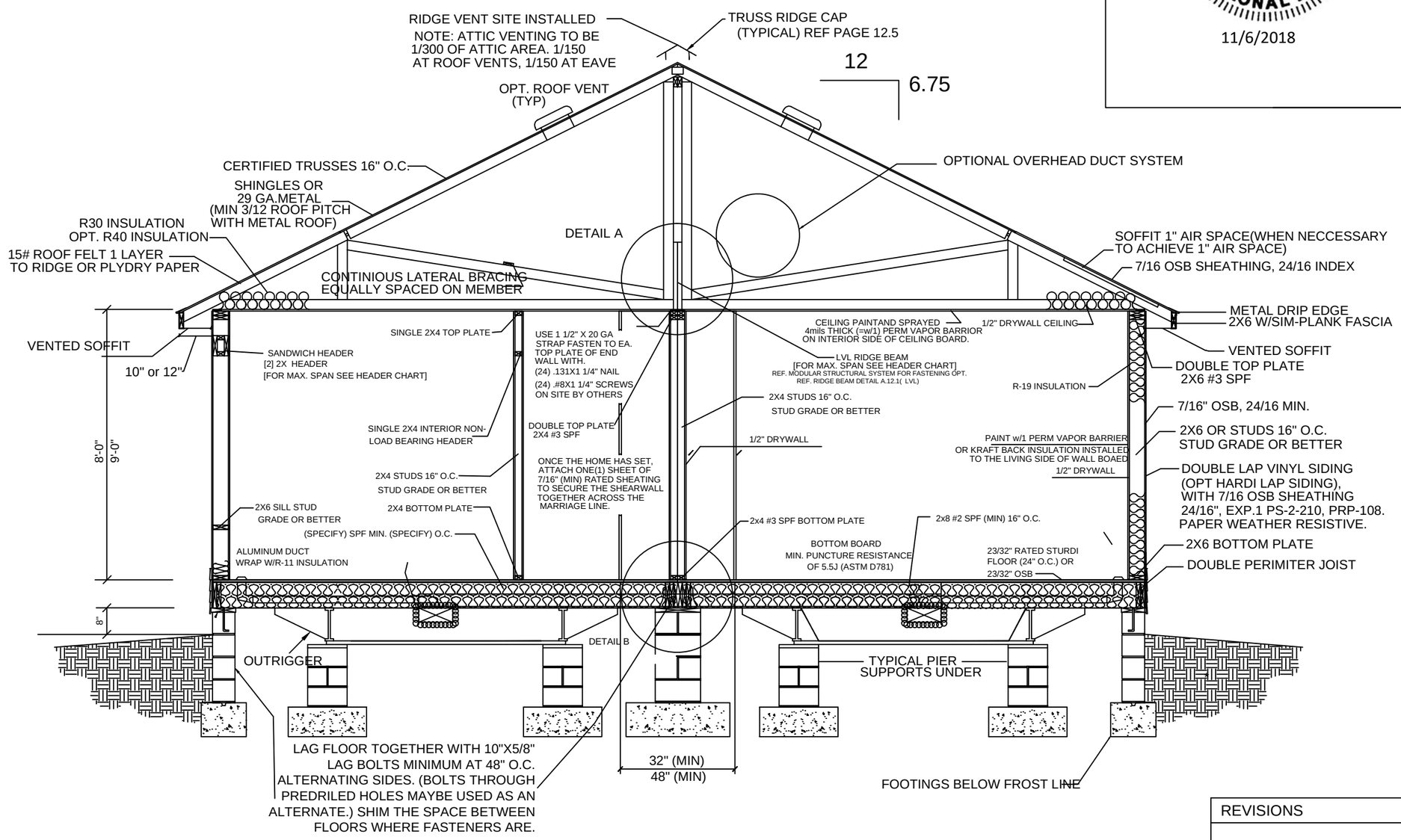
These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult 110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

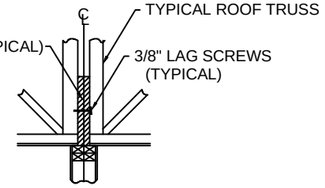
NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018



DETAIL A

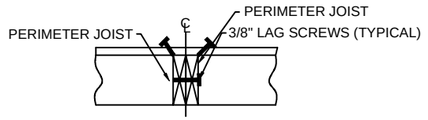
INTER-CONNECTION BETWEEN HALVES OF THE ROOF SYSTEM



USE: ONE(1) 3/8" X 3-1/2" LAG SCREW AT 24" O/C (180 WIDE 26" O/C - MAX E) (156 WIDE 29" O/C-MAX)
TO CONNECT THE RIDGE BEAMS FOR EACH HALF OF THE HOME TOGETHER ALONG THE MARRIAGE LINE OF THE ROOF SYSTEM.

DETAIL B

INTER-CONNECTION BETWEEN HALVES OF THE FLOOR SYSTEM



USE: ONE(1) 3/8" X 7-0" LAG SCREW AT 16" O/C (180 WIDE 20" O/C - MAX) (156 WIDE 22" O/C - MAX)
TO CONNECT THE PERIMETER JOIST FOR EACH HALF OF THE HOME TOGETHER ALONG THE MARRIAGE LINE OF THE FLOOR SYSTEM.

FOUNDATION FOR THIS HOME MUST BE DESIGNED BY OTHERS TO THE SITE CONDITIONS PER APPLICABLE CODES. THIS INCLUDES ATTACHING HOME TO THE FOUNDATION, ALONG WITH THE RESISTANCE TO LATERAL, LONGITUDINAL SHEAR, UPLIFT AND DOWNWARD WIND FORCES IN BOTH DIRECTIONS AND THE SEISMIC DESIGN.REFER TO BRACING PAGE FOR APPLICABLE DESIGN LOADS.

Typical foundation layout shown is to aid the site engineer/architect for locations of required supports. Actual foundation must be designed to site conditions for all applicable loads. This includes but is not limited to construction of the foundation, seismic design and attaching the building to the foundation, along with the resistance to lateral, longitudinal shear, uplift and downward forces in both directions. **Refer to bracing page for applicable bracing / seismic loads for attaching the home to foundations.**

NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

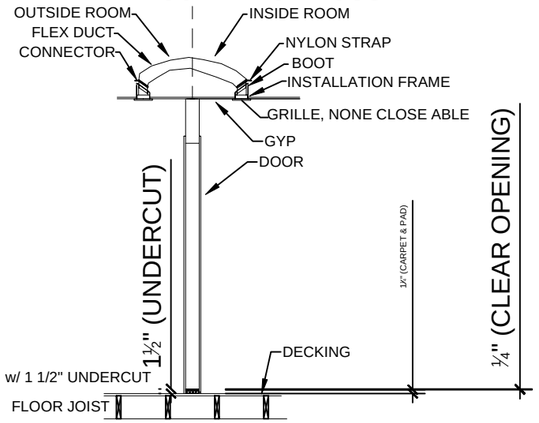
REVISIONS

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

APPROVED BY: J.WALLACE	SCALE: NTS
PRINT DATE: 10/24/18	REV:
TITLE: TYPICAL CROSS SECTION (ON FRAME)	
MODEL: SVM-7012B	DWG. NO: A.9.1
MODEL: MFT10186-SVM-7012B-R1	

JUMPER PERPENDICULAR TO TRUSS



NOTE:
ONE (1) SQUARE INCH OF FREE RETURN AIR SHALL BE PROVIDED FOR EACH FIVE (5) SQUARE FEET OF ROOM AREA.
SEE 3280.715(B) (4) AND B LETTER 80-8-25 FOR MAX. ROOM SIZE.

FREE RETURN AIR

DOOR SIZE	2 1/2" UNDER CUT, 1 1/4" (CLEAR OPENING)	
	MAX. SQ. IN. RETURN	MAX. SF ROOM SIZE
24" (23 1/4)	29.06	145 SF
28" (27 1/4)	34.06	170 SF
30" (29 1/4)	36.56	183 SF
32" (31 1/4)	39.06	195 SF
36" (35 1/4)	44.06	220 SF
48" (47 1/4)	59.06	295 SF

DUCT SIZE	FLEX DUCT	
	MAX. SQ. IN. RETURN	MAX. SF ROOM SIZE
5"	19.6	98.1 SF
6"	28.26	141.3 SF
7"	38.46	192.3 SF
8"	50.24	251.2 SF
9"	63.58	317.9 SF
10"	78.5	392.5 SF
12"	113.04	565.2 SF
14"	153.86	769.3 SF

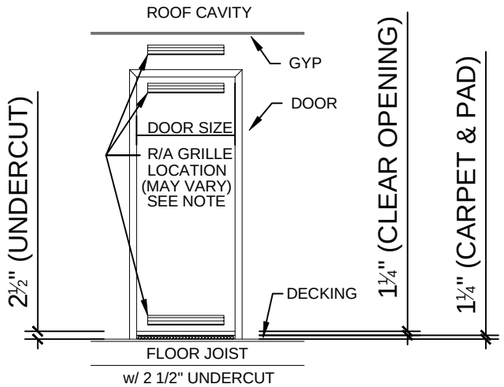
GRILLE SIZE	GRILLE, DOOR / WALL / CEILING	
	MAX. SQ. IN. RETURN	MAX. SF ROOM SIZE
24 X 4	63.36	316.8 SF
10 X 6	40.32	201.6 SF
12 X 6	47.52	237.6 SF
12 X 8	63.36	316.8 SF
14 X 20	164.16	820.8 SF
20 X 25	322.56	1612.8 SF

CFM

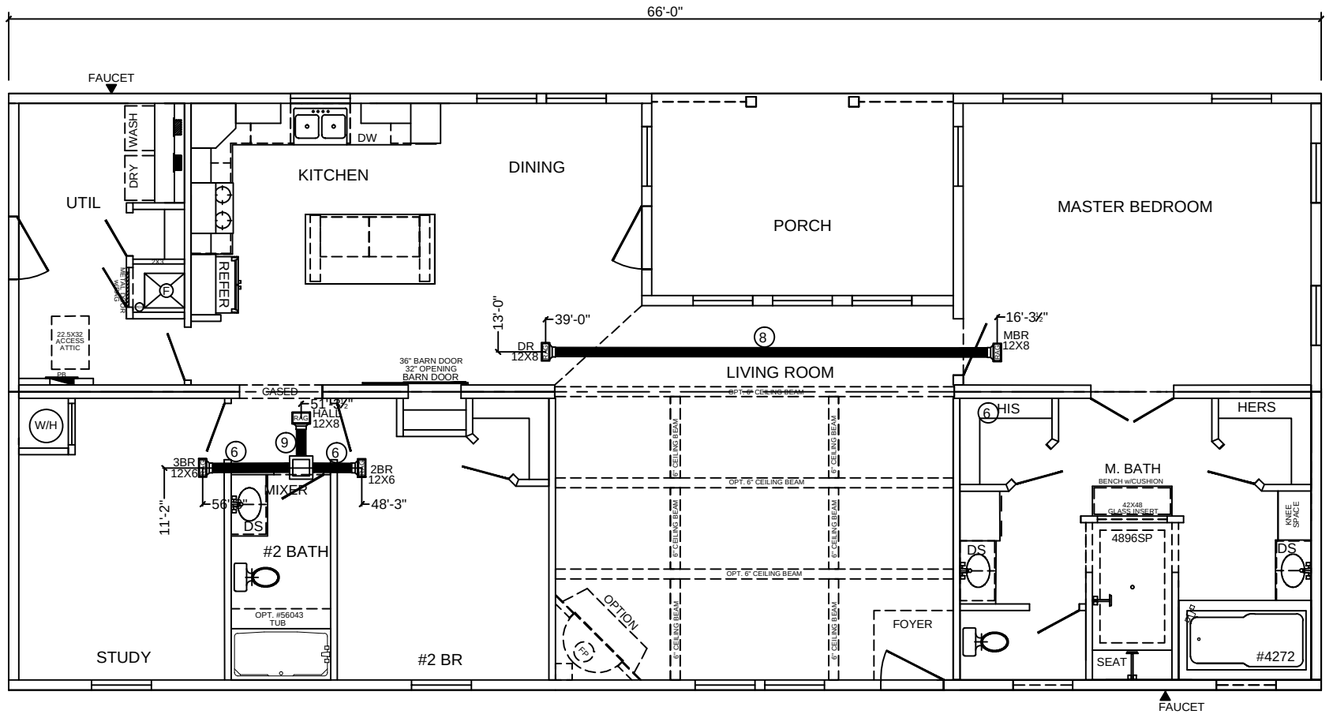
5" = 70 CFM
6" = 110 CFM
7" = 170 CFM
8" = 240 CFM
9" = 320 CFM
10" = 420 CFM
12" = 700 CFM
14" = 1000 CFM
16" = 1400 CFM

REGISTER SIZE

5 = 8x4
6 = 10x6
7 = 12x6
8 = 12x 8



NOTE:
WHEN MAXIMUM ROOM SIZE HAS EXCEDDED THE FREE RETURN AIR PROVIDED BY THE DOOR'S UNDERCUT AREA, ONE OF THE FOLLOWING SHALL BE INSTALLED TO PROVIDE ADDITIONAL FREE RETURN AIR.
1. LOUVERED GRILLE MAY BE INSTALLED IN THE DOOR . OR IN THE HEADER ABOVE THE DOOR.
2. FLEX DUCT JUMPER / GRILLE MAY BE INSTALLED IN THE CEILING EA. SIDE OF ROOM (INTERIOR / EXTERIOR) GRILLE SHALL NOT BE CLOSE ABLE.



	REVISIONS
--	--

CUSTOMER

NADER TOMASBI,PE
58665 GLENRIVER DR
GOSHEN, IN. 46528
574-370-3419

LEGEND:

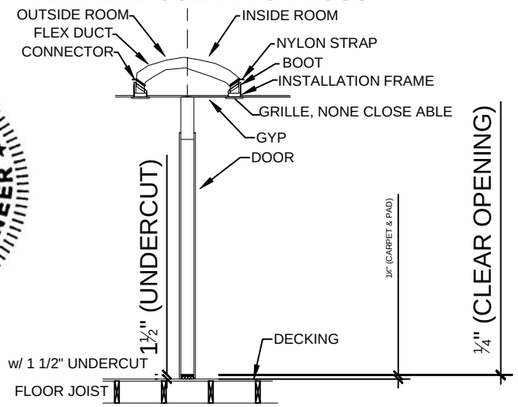
MIXER — MAIN MIXER BOX (16 X 20 X 72)
SPLICE COLLAR SAME SIZE AS FLEX DUCT
MIXER BOX (10 X 10 X 8 X 1) OR OTHERWISE NOTED
FLEX DUCT (SIZE NOTED)
UPFLOW AIR REGISTER GRILLE (SIZE NOTED)
CEILING RETURN AIR GRILLE / JUMPER (SIZE NOTED) - REF. DU-18

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult.110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

JUMPER PERPENDICULAR TO TRUSS



NOTE:
ONE (1) SQUARE INCH OF FREE RETURN AIR SHALL BE PROVIDED FOR EACH FIVE (5) SQUARE FEET OF ROOM AREA.
SEE 3280.715(B) (4) AND B LETTER 80-8-25 FOR MAX. ROOM SIZE.

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER
11/6/2018

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

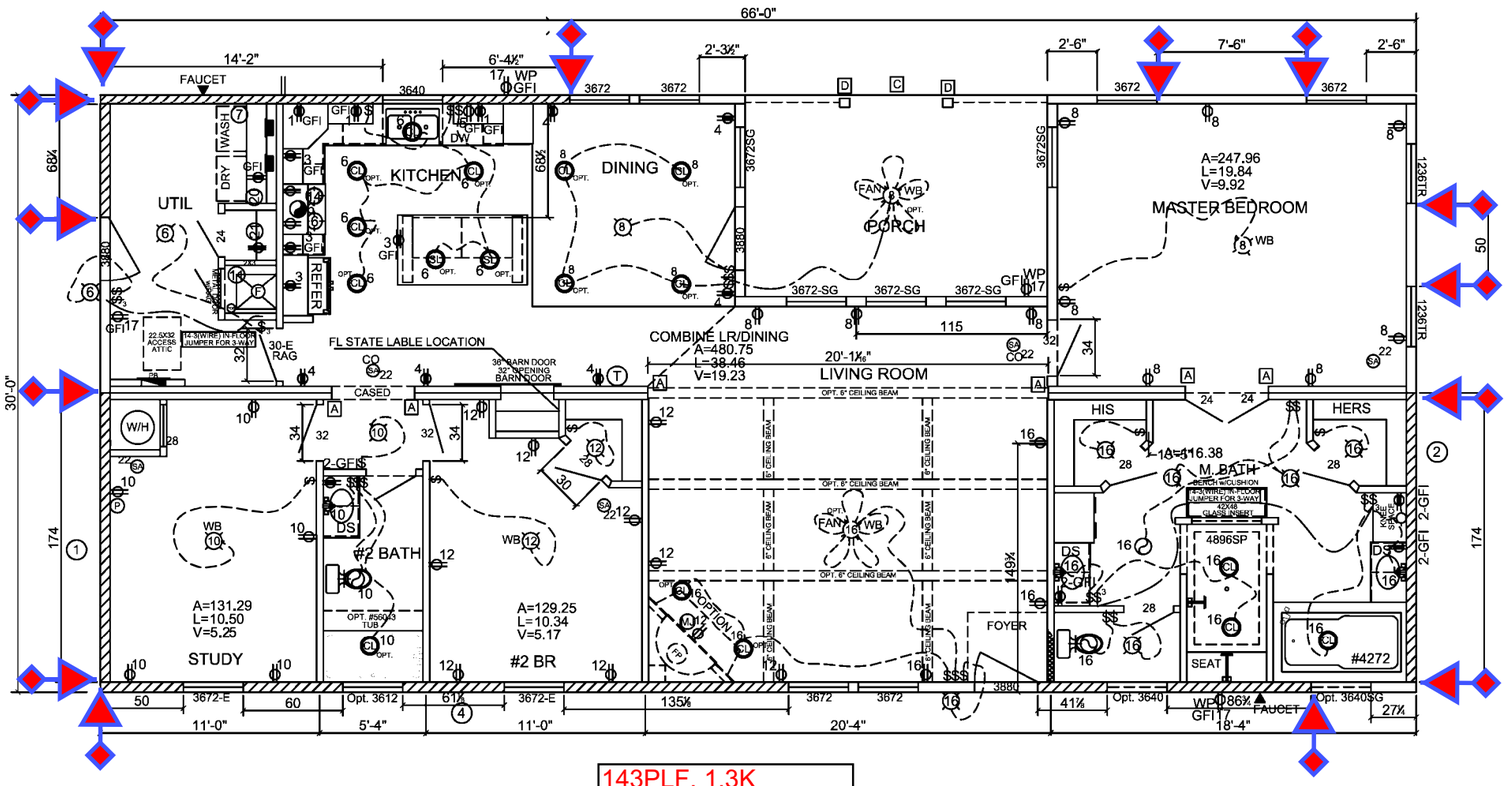
DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

APPROVED BY: J.WALLACE	SCALE: NTS
PRINT DATE: 10/24/18	REV: --
TITLE: HVAC FREE RETURN AIR	
MODEL: SVM-7012B	DWG. NO: A.13.2
MODEL: MFT10186-SVM-7012B-R1	

215PLF, 1.9K
1-CS14 per location

382PLF, 3.4K
2-CS14 per location

413PLF, 3.7K
2-CS14 per location



143PLF, 1.3K
1-CS14 per location

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult 110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MET10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

Each bracing wall in this page is marked with a horizontal load (PLF). Bracing walls must be attached to the foundation for the specified horizontal PLF load & racking loads (as specified in the attached bracing calcs) at noted locations. Racking tie downs must be designed to extend from foundation to bracing wall studs. Tie down connections from foundation wall to rim joist are not permissible unless proper fastening from bracing wall studs to rim joist is provided.

NOTICE: Foundation for this home and connection of the home to the foundation must be designed to site conditions for all applicable loads by site engineer/architect.

110mph asd/ 140mph ult max speed

SYP LUMBER

NOTES/FASTENING:

1. ALL SHEARWALL SHEATHING MAY CONTAIN HORIZONTAL SEAMS PROVIDED THE SEAMS ARE BLOCKED USING THE SAME SIZE, GRADE AND SPECIES OF LUMBER AS THE REQUIRED SHEAR WALL FRAMING.
2. FASTENING ALONG THE SEAMS SHALL BE THE SAME AS THE REQUIRED EDGE FASTENING.
3. (w/3/8" OSB ONE. SIDE) MAY BE USED ASSUMING ALL SHEARWALLS GO FROM FLOOR TO CEILING, AND BACKED BY A TRUSS OR OTHER MEANS (2X BACKER).
4. FASTEN SHEAR WALL TO ROOF TRUSSES WITH: #10 X4" WOOD SCREWS TOE SCREWED 2" O.C. FROM TOP PLATE/BACKER TO BOTTOM CHORD OR CEILING JOIST.
5. TRUSS OVER THE INTERIOR SHEAR WALL ARE TO BE SHEATHED

SHEAR JOIST NOTES:

SHEAR JOISTS SHALL BE SIZED & CONNECTED TO THE GIRDER BEAM AND PERIMETER JOISTS SHEAR JOIST SHALL BE SUPPORTED AT EACH END BY COLUMN SUPPORTS, MATE LINE LOCKING OR PERIMETER FOUNDATION WALLS.
FOR DETAILS ON LAP SHEATHING SEE PAGE A.09 (OFF FRAME) & A09.1 (ON FRAME)

NOTES/FASTENING:

WHEN SINGLE WIDE TRUSS ATTACH TO DOUBLE TRUSS FASTEN AREA WITH 0.131X2.5 NAILS AT 4" O.C.

CEILING DIAPHRAGM NOTES:

DIAPHRAGM SHALL BE 7/16" GYPSUM BOARD FASTEN TO ROOF FRAMING WITH: #6 X 1- 1/4" (TYPE S OR W) DRYWALL SCREWS, OR ALPHA SEAL 5200 NY ALPHA SYSTEMS, INC.
MINIMUM BEAD SIZE: WIDTH= 7/8" X HEIGHT =3/8" (PER PEI PEPORT PER 05006)

ROOF DIAPHRAGM NOTES:

SHALL BE 7/16" RATED SHEATHING (MIN.)
FASTEN SHEATHING TO ROOF FRAMING WITH: 7/16" X 1-3/4" X 15 GA. STAPLES (MIN) SUPPORTED AT O/C EDGE,
0.131X2.5" NAILS AT 6" oc EDGES, 6" oc BOUNDARY
SINGLE WIDE DIAPHRAM OVER THE UTILITY AREA TO

REVISIONS

RANCH STRUCTURAL SYSTEM
Deer Valley Homebuilders

DEER VALLEY HOMEBUILDERS, INC.
205-468-8400
P.O. Box 310 / 205 Carriage St.
Guin, Alabama 35563

APPROVED BY:	J.WALLACE
SCALE:	NTS
PRINT DATE:	10/24/18
REV:	--
TITLE:	TYPICAL BRACING PLAN
MODEL:	SVM-7012B
DWG. NO:	A.03.1
MODEL:	

Bracing Tributary Length Determination

No Interior Walls | ASCE 7-10 | Deer Valley Homes SVM-7954

Endwall Length =	30	ft		
Sidewall Length =	66	ft		
Porch Length (Left) =	0	ft		
Porch Length (Right) =	0	ft	**Left Endwall Trib From Wall:**	**33 ft**
Wall Height =	9	ft	**Left Endwall Trib From Roof:**	**33 ft**
Heel Height of Truss =	6	in	**Right Endwall Trib From Wall:**	**33 ft**
Seismic category =	D0		**Right Endwall Trib From Roof:**	**33 ft**
Wind speed =	**110**	mph	141	
Wind Exposure =	C			
Roof pitch =	6.75	/12		
Mean Roof Height =	20	ft		

Transition from Perforated to Segmented: **327** PLF

Left Endwall - Bracing #1

Perforated or Segmented: **S**
PLF: 382 plf
Height of Tallest Opening = 7 ft
Wall length when perforated = 30 ft

Segment length - ft	Effective wind	Effective seismic
14.5	14.5	14.5
5.708333	5.708333	5.708333
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
Total :	20.20833	20.20833

Right Endwall (hitch end) - Bracing #2

Perforated or Segmented: **S**
PLF: 413 plf
Height of Tallest Opening = 7 ft
Wall length when perforated = 30 ft

Segment length - ft	Effective wind	Effective seismic
14.5	14.5	14.5
4.166667	4.166667	3.858025
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
Total :	18.66667	18.35802

Top Sidewall - Bracing #3

Perforated or Segmented: **P**
PLF: 215 plf
Height of Tallest Opening = 7 ft
Wall length when perforated = 66 ft

Segment length - ft	Effective wind	Effective seismic
14.17	14.17	14.17
6.33	6.33	6.33
7.5	7.5	7.5
2.5	0	0
0	0	0
0	0	0
0	0	0
0	0	0
	0	0
	0	0
	28	28

Bottom Sidewall - Bracing #4

Perforated or Segmented: **P**
PLF: 143 plf
Height of Tallest Opening = 7 ft
Wall length when perforated = 66 ft

Segment length - ft	Effective wind	Effective seismic
4.166667	4.166667	3.858025
13.08333	13.08333	13.08333
11.25	11.25	11.25
3.416667	3.416667	2.594136
7.166667	7.166667	7.166667
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
Total :	39.08333	37.95216

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MET10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

One Story Shear Wall Wind/Seismic Analysis - No Interior Shearwalls

Deer Valley Homes SVM-7954

Wind Loads

ASCE 7-10

MWF

wind speed =	110	mph			
ASCE 7-10 Cat. 2 Ultimate Wind Speed =	141	mph			
Exposure =	C				
Mean Roof Height =	20	ft			
Wind load Areas	A	B	C	D	
(psf)	28.1	17.2	22.1	13.9	

A = End zone of Wall
B = End zone of Roof
C = Interior zone of Wall
D = Interior zone of Roof

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

Building Values

Roof pitch =	6.75 /12	Sidewall Length =	66 ft
Roof angle =	29.4 ^{o}		
Wall Height =	9 ft	Endwall Length =	30 ft
Heel Height of Truss =	6 in	a =	3.00 ft
		2a =	6.00 ft
		Porch Length (Left) =	0 ft
Height of Roof =	8.94 ft	Porch Length (Right) =	0 ft

Left Endwall Shear Values

Area of End Zone of Sidewall =	27.0 ft^2 /side	Total Shear =	760 lbs
Area of End Zone of Roof =	53.6 ft^2 /side	Total Shear =	920 lbs
Area of Interior Zone of Sidewall =	121.5 ft^2 /side	Total Shear =	2683 lbs
Area of Interior Zone of Roof =	241.3 ft^2 /side	Total Shear =	3348 lbs
Total Shear Force to Endwalls =	**7711 lbs**		

Right Endwall Shear Values

Area of End Zone of Sidewall =	27.0 ft^2 /side	Total Shear =	760 lbs
Area of End Zone of Roof =	53.6 ft^2 /side	Total Shear =	920 lbs
Area of Interior Zone of Sidewall =	121.5 ft^2 /side	Total Shear =	2683 lbs
Area of Interior Zone of Roof =	241.3 ft^2 /side	Total Shear =	3348 lbs
Total Shear Force to Endwalls =	**7711 lbs**		

Sidewall Shear Values

Area of End Zone of Wall =	27 ft^2 /side	Total Shear =	760 lbs
Area of End Zone of Roof =	10 ft^2 /side	Total Shear =	285 lbs
Area of Interior Zone of Wall =	41 ft^2 /side	Total Shear =	894 lbs
Area of Interior Zone of Roof =	57 ft^2 /side	Total Shear =	1257 lbs
Total Shear Force to Sidewalls =	**3196 lbs**		

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

Seismic Loads

Seismic category = D0
S_{DS} = 0.67

Wall DL = 10 psf
Roof DL = 12 psf

Total W for seismic shear walls = 32400 lbs
R = 6.5
C_s = 0.12885

F_x = 4174.62 lbs F_x = 0

shear on endwalls = 2087 lbs/wall
shear on sidewalls = 2087 lbs/wall

Compare Wind vs Seismic for shear walls

	Seismic	Wind	Wind with 1.4 reduction
Endwall	2087	7711	5508
Sidewall	2087	3196	2283

Controlling factors for shear wall panels
Endwall ----------> Wind
Sidewall ----------> Wind

Controlling factors for Uplift/Shear Forces
Endwall ----------> Wind
Sidewall ----------> Wind

Determination of shear wall panel loads

Left Endwall - Bracing #1

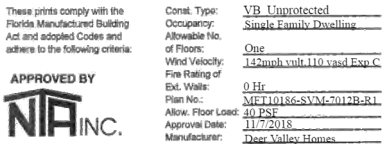
Perforated or Segmented: S
Wall length when perforated = 30 ft
Wall Height = 9 ft

Length of Full Height Sheathing (3.5:1) = 20.2083 ft
Length of Full Height Sheathing (2:1) = 20.2083 ft

11/6/2018

C_o (3.5:1) = 1 from table in IBC
C_o (2:1) = 1 from table in IBC

Total Force (wind) = 7711 lbs
Total Force (seismic) *1.4 = 2922 lbs
Load Taken to Shear Wall Segments = 382 plf <==
Uplift Force at End of Wall = 3434 lbs



Right Endwall (hitch end) - Bracing #2

Perforated or Segmented:	S	
Wall length when perforated =	30	ft
Wall Height =	9	ft
Length of Full Height Sheathing (3.5:1) =	18.6667	ft
Length of Full Height Sheathing (2:1) =	18.358	ft
C_o (3.5:1) =	1	from table in IBC
C_o (2:1) =	1	from table in IBC
Total Force (wind) =	7711	lbs
Total Force (seismic) *1.4 =	2922	lbs
Load Taken to Shear Wall Segments =	413	plf <==
Uplift Force at End of Wall =	3718	lbs

Top Sidewall - Bracing #3

Perforated or Segmented:	P	
Wall length when perforated =	66	ft
Wall Height =	9	ft
Height of Tallest Opening =	7	ft
Height Ratio =	0.77778	
Length of Full Height Sheathing (3.5:1) =	28	ft
Length of Full Height Sheathing (2:1) =	28	ft
Percent Full Height Sheathing (3.5:1) =	42%	
Percent Full Height Sheathing (2:1) =	42%	
C_o (3.5:1) =	0.53	from table in IBC
C_o (2:1) =	0.53	from table in IBC
Total Force (wind) =	6029	lbs
Total Force (seismic) *1.4 =	5514	lbs
Load Taken to Shear Wall Segments =	215	plf <==
Uplift Force at End of Wall =	1938	lbs

Bottom Sidewall - Bracing #4

Perforated or Segmented:	P	
Wall length when perforated =	66	ft
Wall Height =	9	ft
Height of Tallest Opening =	7	ft
Height Ratio =	0.77778	
Length of Full Height Sheathing (3.5:1) =	39.0833	ft
Length of Full Height Sheathing (2:1) =	37.9522	ft
Percent Full Height Sheathing (3.5:1) =	59%	
Percent Full Height Sheathing (2:1) =	58%	
C_o (3.5:1) =	0.57	from table in IBC
C_o (2:1) =	0.57	from table in IBC
Total Force (wind) =	5606	lbs
Total Force (seismic) *1.4 =	5127	lbs
Load Taken to Shear Wall Segments =	143	plf <==
Uplift Force at End of Wall =	1291	lbs

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult 110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

Wind Load Determination Worksheet

MWF Low-rise building Method 2 ASCE 7-10

Wind Speed =	110 mph	Roof Slope =	6.75 /12
Exposure =	C		29.36 °
Mean Roof Height =	20 ft		
K_d =	0.85	α =	9.5
K_{zt} =	1	z_g =	900 ft
K_z =	0.90		
I =	1	**q_h =**	**23.70 psf**

Building Class = Enclosed Building GC_{pi} = 0.18
-0.18

* Gc_{pi} cancels-out on total building calcs

11/6/2018

Load A - End Zone of Wall

1E =	0.70	GC_{pf} =	1.19
4E =	-0.49		
A =	**28.14 psf**		

Load C - Interior Zone of Wall

1 =	0.56	GC_{pf} =	0.93
4 =	-0.37		
C =	**22.08 psf**		

Load B - End Zone of Roof

2E =	0.18	2E load =	4.36
3E =	-0.54	3E load =	-12.80
Horz 2E load =	2.14		
Horz 3E load =	-6.28	**B =**	**17.16 psf**

Load D - End Zone of Roof

2 =	0.152198	2E load =	3.61
3 =	-0.43321	3E load =	-10.27
Horz 2E load =	1.77		
Horz 3E load =	-5.03	**D =**	**13.87 psf**

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MET10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

One Story Shear Wall Design

Deer Valley Homes SVM-7954
Summary of Forces

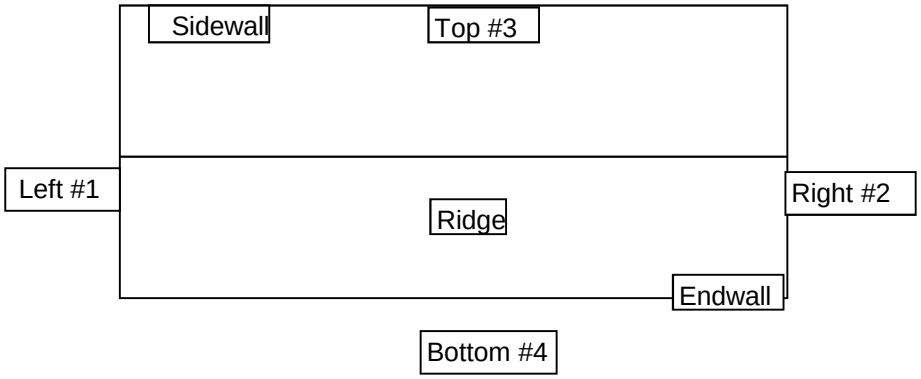
Shear Walls

Brace wall	PLF-Load	CONSTRUCTION
Left endwall - Segmented	382	7/16 in sheathing One Side with .131 pd nail (studs at 16" o/c) at 4 in o/c edge spacing
Right endwall - Segmented	413	7/16 in sheathing One Side with .131 pd nail (studs at 16" o/c) at 4 in o/c edge spacing
Top sidewall - Perforated	215	7/16 in sheathing One Side with .131 pd nail (studs at 16" o/c) at 4 in o/c edge spacing
Bottom sidewall - Perforated	143	7/16 in sheathing One Side with .131 pd nail (studs at 16" o/c) at 4 in o/c edge spacing

Overturning Forces

Total Shear Force to Endwalls = 7.7 Kips
Simpson CS14 strap capacity : 2.49 Kips
Total Shear Force to Sidewalls = 3.2 Kips

Racking Load Left endwall -	3.4 Kips	DLx0.6 = 0.47 kips	Net uplift:	**3.0** Kips	req.#	**1.2**
Racking load right endwall -	3.7 Kips			**3.2** Kips	req.#	**1.3**
Racking Load top sidewall -	1.9 Kips			**1.5** Kips	req.#	**1.0**
Racking Load bottom sidewall -	1.3 Kips			**0.8** Kips	req.#	**1.0**



Roof Diaphragm
At extended roof: 7/16 in sheathing with .131 pd nail at unblocked 6 in o/c edge spacing
-- --
See diaphragm page for alternate fastening.

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER
11/6/2018

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult 110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

Shear Wall Design

Deer Valley Homes SVM-7954

Left Shearwall

Shearwall Required Design = 382 plf
Thickness of Sheathing = 7/16 "
Fastener = .131 pd nail (studs at 16" o/c)
Edge Spacing of Fastener = 4 in o/c
Species of Framing = SPF
Sheathing on Both sides? One Side
Use 7/16 in sheathing One Side with .131 pd nail (studs at 16" o/c) at 4 in o/c edge spacing
Sheathing Capacity = 441.98 plf
Shear Wall **OK**

Right Shearwall

Shearwall Required Design = 413 plf
Thickness of Sheathing = 7/16 "
Fastener = .131 pd nail (studs at 16" o/c)
Edge Spacing of Fastener = 4 in o/c
Species of Framing = SPF
Sheathing on Both sides? One Side
Use 7/16 in sheathing One Side with .131 pd nail (studs at 16" o/c) at 4 in o/c edge spacing
Sheathing Capacity = 441.98 plf
Shear Wall **OK**

Top Shearwall

Shearwall Required Design = 215 plf
Thickness of Sheathing = 7/16 "
Fastener = .131 pd nail (studs at 16" o/c)
Edge Spacing of Fastener = 4 in o/c
Species of Framing = SPF
Sheathing on Both sides? One Side
Use 7/16 in sheathing One Side with .131 pd nail (studs at 16" o/c) at 4 in o/c edge spacing
Sheathing Capacity = 441.98 plf
Shear Wall **OK**

Bottom Shearwall

Shearwall Required Design = 143 plf
Thickness of Sheathing = 7/16 "
Fastener = .131 pd nail (studs at 16" o/c)
Edge Spacing of Fastener = 4 in o/c
Species of Framing = SPF
Sheathing on Both sides? One Side
Use 7/16 in sheathing One Side with .131 pd nail (studs at 16" o/c) at 4 in o/c edge spacing
Sheathing Capacity = 441.98 plf
Shear Wall **OK**

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

Roof Diaphragm Design

Deer Valley Homes SVM-7954

Roof Diaphragm — Diaphragm width : 30 ft

Top of BC of truss sheathed?[1] No

Diaphragm Required Design[2] = 257 plf

Thickness of Sheathing = 7/16 "

Fastener = .131 pd nail

Edge Spacing of Fastener[3,4,5] = unblocked 6 in o/c

Species of Framing[6] = SPF

Use 7/16 in sheathing with .131 pd nail at unblocked 6 in o/c edge spacing

Sheathing Capacity[7] = 264.04 plf

Shear Wall **OK**

Blocking only required at 0 ft

11/6/2018

1. Design assumes 19/32" min sheathing of at least 1/2 of BC of trusses with .131 pd nails at 6" o/c
2. Load increased by 1.4 if seismic loads control to compensate for 1.4 increase in diaphragm panel
3. Nail spacing at other panel edges to be as follows
   6" o/c if edge spacing is 6" o/c
   6" o/c if edge spacing is 4" o/c
   3" o/c if edge spacing is 2" o/c
4. Framing at adjoining panel edges shall be 3" nominal or wider & nails be staggard where nails are spaced 2" o/c
5. Roof sheathing is blocked unless stated unblocked
6. Diaphragm panels are reduced by 0.82 for SPF lumber
7. Per tables in ESR-1539

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

APPROVED BY NTA INC.

Const. Type: VB Unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: One
Wind Velocity: 142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MFT10186-SVM-7012B-R1
Allow. Floor Load: 40 PSF
Approval Date: 11/7/2018
Manufacturer: Deer Valley Homes

REScheck Software Version 4.6.5

Compliance Certificate

Project SVM-7012B

Energy Code:	**2017 Florida Building Code, Energy Conservation**
Location:	**White Springs (Hamilton), Florida**
Construction Type:	**Single-family**
Project Type:	**New Construction**
Conditioned Floor Area:	**1,980 ft2**
Glazing Area	**15%**
Climate Zone:	**2 (1317 HDD)**
Permit Date:	
Permit Number:	

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

Construction Site: Owner/Agent: Designer/Contractor:

Compliance: Envelope passes UA trade-off. Additional mandatory requirements apply. Complete the REScheck inspection

Compliance: **34.6% Better Than Code** Maximum UA: **517** Your UA: **338** Maximum SHGC: **0.25** Your SHGC: **0.20**

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	1,980	30.0	0.0	0.035	69
Wall 1: Wood Frame, 16" o.c.	1,728	19.0	0.0	0.060	84
Window 1: Vinyl Frame:Double Pane with Low-E SHGC: 0.20	264			0.350	92
Door 1 copy 1: Solid	63			0.160	10
Floor 1: All-Wood Joist/Truss:Over Unconditioned Space	1,980	22.0	0.0	0.042	83

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 2017 Florida Building Code, Energy Conservation requirements in RES*check* Version 4.6.5 and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Jordan Wallace — Name - Title

Jordan Wallace — Signature

11/2/18 — Date

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MET10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

RES*check* Software Version 4.6.5

Inspection Checklist

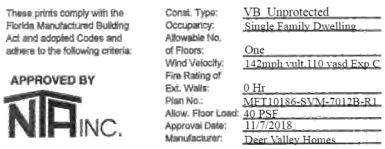
Energy Code: 2017 Florida Building Code, Energy Conservation

Requirements: 0.0% were addressed directly in the RES*check* software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1][1]	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
103.1, 103.2, 403.7, 403.8 [PR3][1]	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
302.1, 403.7 [PR2][2]	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr____ Cooling: Btu/hr____	Heating: Btu/hr____ Cooling: Btu/hr____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
302.1, 403.7 [PR2][2]	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official. Refer to R403.7.1 for full details.	Heating: Btu/hr____ Cooling: Btu/hr____	Heating: Btu/hr____ Cooling: Btu/hr____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

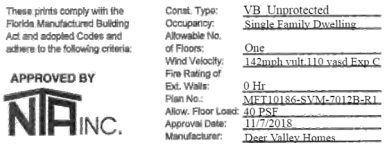
Additional Comments/Assumptions:



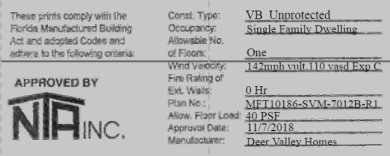
1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Foundation Inspection	Complies?	Comments/Assumptions
303.2.1.3 [FO11][2]	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.9 [FO12][2]	Snow- and ice-melting system controls installed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

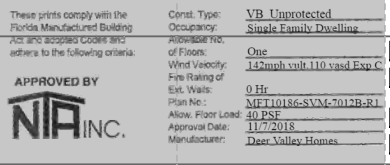


1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1.3 [FR4][1]	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.3.1, 402.3.3, 503.1.1.1 [FR2][1]	Glazing U-factor (area-weighted average).	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.1, 402.3.2, 402.3.3 [FR3][1]	Glazing SHGC value (area-weighted average).	SHGC:____	SHGC:____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.1, 402.3.4 [FR1][1]	Door U-factor.	U-____	U-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.3.5 [FR8][1]	Fenestration in thermally isolated sunrooms in Climate Zones 2-8 have maximum U-0.45.	U-____ ☐ Isolated ☐ Not Isolated	U-____ ☐ Isolated ☐ Not Isolated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.3.5 [FR9][1]	Skylights in thermally isolated sunrooms in Climate Zones 2-8 have a maximum skylight U-factor of 0.70. All other sunroom skylights must meet code requirements.	U-____ ☐ Isolated ☐ Not Isolated	U-____ ☐ Isolated ☐ Not Isolated	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.1 [FR23][1]	Air barrier and thermal barrier installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.3 [FR20][1]	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.	 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: One; Wind Velocity: 142mph vult 110 vasd Exp C; Fire Rating of Ext. Walls: 0 Hr; Plan No.: MFT10186-SVM-7012B-R1; Allow. Floor Load: 40 PSF; Approval Date: 11/7/2018; Manufacturer: Deer Valley Homes. APPROVED BY NTA INC.		☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.5 [FR16][2]	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.1 [FR12][1]	Supply and return ducts in attics insulated >= R-8 where duct is >= 3 inches in diameter and >= R-6 where < 3 inches. Supply and return ducts in other portions of the building insulated >= R-6 for diameter >= 3 inches and R-4.2 for < 3 inches in diameter.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.5 [FR15][3]	Building cavities are not used as ducts or plenums.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

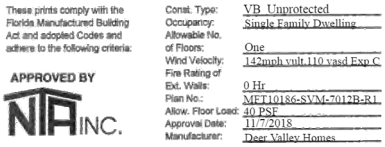
Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.4 [FR17][2]	HVAC piping conveying fluids above 105 ºF or chilled fluids below 55 ºF are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.4.1 [FR24][1]	Protection of insulation on HVAC piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.3 [FR18][2]	Hot water pipes are insulated to ≥R-3.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.5 [FR26][2]	Storage water heaters not equipped with integral heat traps and having vertical pipe risers have heat traps installed on both the inlets and outlets. External heat traps installed per code guildlines.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.6.1.1 [FR27][2]	Service water heating systems are equipped with automatic temperature controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.6.1.2 [FR28][2]	A separate switch permits the power supplied to electric service water systems to be turned off. A separate valve permits the energy supplied to the main burner(s) of combustion types of service water heating systems to be turned off.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.6.2 [FR29][2]	Water heating equipment meets minimum efficiencies of Table C404.2 in Chapter 4 of the Florida Building Code, Energy Conservation, Commercial Provisions. Equipment used to provide heating functions as part of a combination system satisfies all stated requirements for the appropriate water heating category.	Table 404.2 (required Ef):____	Table 404.2 (required Ef):____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.6.2.1 [FR30][2]	Solar systems for domestic hot water production satisfy energy factor requirements determined from the Florida Solar Energy Center Directory of Certified Solar Systems.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.6 [FR19][2]	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	



1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.6.2 [FR31][2]	Buildings designed to operate at positive indoor pressure or have mechanical ventilation meet the following criteria: 1) Maximum air-change-hour equal minimums from ASHRAE 62, Ventilation for Acceptable Indoor Air Quality, 2) No ventilation or air-conditioning system make-up air provided from attics, crawlspaces, attached enclosed garages or outdoor spaces adjacent to swimming pools or spas, and 3) Air drawn from enclosed space(s) have walls insulated >= R-11 and ceiling >= R-19, space permitting, or R-10 otherwise.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

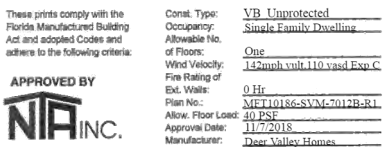
Additional Comments/Assumptions:



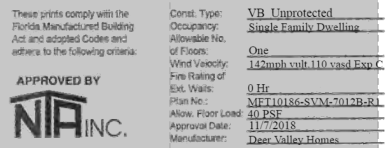
1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13][2]	All installed insulation is labeled or the installed R-values provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
303.2 [IN4][1]	Wall insulation is installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
303.2 [IN9][1]	Sunroom wall insulation installed per manufacturer's Instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
303.2 [IN11][1]	Sunroom ceiling insulation is installed per manufacturer's instructions.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
303.2, 402.2.7 [IN2][1]	Floor insulation installed per manufacturer's instructions and in substantial contact with the underside of the subfloor, or floor framing cavity insulation is in contact with the top side of sheathing, or continuous insulation is installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.5, 402.2.6 [IN3][1]	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-____ ☐ Wood ☐ Mass ☐ Steel	R-____ ☐ Wood ☐ Mass ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.1.1, 402.2.6 [IN1][1]	Floor insulation R-value.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.2.14 [IN14][2]	Walls, ceilings or floors common to separate conditioned tenancies are insulated to >= R-11, space permitting. Mass common walls are insulated to >= R-6.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

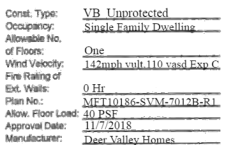
Additional Comments/Assumptions:



1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1.1.2.1, 303.2 [FI2][1]	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft².			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
303.3 [FI18][3]	Manufacturer manuals for mechanical and water heating systems have been provided.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
401.3 [FI33][2]	An energy performance level (EPL) display card must be completed and certified by the builder before final approval of the building for occupancy. Florida law (Section 553.9085, Florida Statutes) requires the EPL display card to be included as an addendum to each sales contract for both presold and nonpresold residential buildings. A copy of the EPL card form can be found in Appendix C of the "FBC, Energy Conservation".			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1][1]	Ceiling insulation R-value.	R-____ ☐ Wood ☐ Steel	R-____ ☐ Wood ☐ Steel	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
402.2.3 [FI22][2]	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.2.4 [FI3][1]	Attic access hatch and door insulation ≥R-value of the adjacent assembly.	R-____	R-____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
402.4.1.2 [FI17][1]	Blower door test @ 50 Pa. <=7 ach.	ACH 50 =____	ACH 50 =____	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.1 [FI9][2]	Each separate heating/cooling system has a thermostat			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.2 [FI9][2]	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.1.3 [FI10][2]	Heat pump thermostat installed on heat pumps.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.2 [FI26][2]	Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

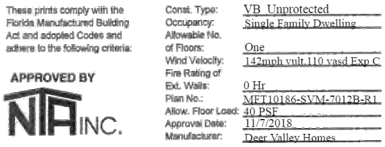
1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.3.2, 403.3.2.1 [FI24][1]	All ducts, air handlers, and filter boxes shall be constructed and sealed in accordance with Section C403.2.9.2 of the Commercial Provisions of this code. Air handler leakage designated by manufacturer at <=2% of design air flow.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.3 [FI27][1]	Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	____ cfm/100 ft^2	____ cfm/100 ft^2	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.4, 403.3.2 [FI4][1]	Duct tightness test result of <=4 cfm/100 ft2 across the system or <=3 cfm/100 ft2 without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection. Duct tightness verified by testing in accordance with ANSI/RESNET/ICC 380-2016 by either individuals as defined in Section 553.993(5) or (7), Florida Statutes, or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i), Florida Statutes, to be "substantially leak free" in accordance with Section R403.3.3.	____ cfm/100 ft^2	____ cfm/100 ft^2	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.3.6 [FI33][2]	Air handling units are not installed in attic.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1 [FI11][2]	Circulating service hot water systems have automatic or accessible manual controls.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.1.1 [FI28][2]	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos-syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable  	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.5.1.2 [FI29][2]	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.2 [FI30][2]	Water distribution systems that have recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe have a demand recirculation water system. Pumps have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to 104ºF.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.5.4 [FI31][2]	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
403.6.1 [FI25][2]	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1 [FI6][1]	75% of lamps in permanent fixtures or 75% of permanent fixtures have high efficacy lamps. Does not apply to low-voltage lighting.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
404.1.1 [FI23][3]	Fuel gas lighting systems have no continuous pilot light.			☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:



1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

wrightsoft®

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

Job: SVM-7012B(7954)
Date: 10/29/18
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-7012B(7954)

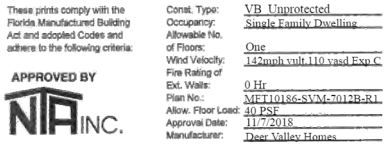
Cooling Equipment

Design Conditions

Outdoor design DB:	99.3 ℉	Sensible gain:	26171	Btuh	Entering coil DB:	75.8 ℉
Outdoor design WB:	80.0 ℉	Latent gain:	6537	Btuh	Entering coil WB:	63.3 ℉
Indoor design DB:	75.0 ℉	Total gain:	32708	Btuh		
Indoor RH:	50%	Estimated airflow:	1124	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split AC			
Manufacturer:	Generic		Model: SEER 13.0	
Actual airflow:	1124	cfm		
Sensible capacity:	27296	Btuh	104% of load	
Latent capacity:	11698	Btuh	179% of load	
Total capacity:	38994	Btuh	119% of load	SHR: 70%



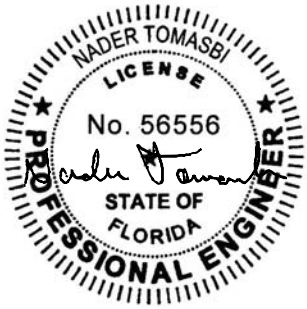
Heating Equipment

Design Conditions

Outdoor design DB:	26.9 ℉	Heat loss:	28539	Btuh	Entering coil DB:	68.5 ℉
Indoor design DB:	70.0 ℉					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Elec furnace			
Manufacturer:	Generic		Model: AFUE 100	
Actual airflow:	1124	cfm		
Output capacity:	28539	Btuh	100% of load	Temp. rise: 0 ℉



11/6/2018

Meets all requirements of ACCA Manual S.

Load Short Form
Entire House
AMS of Indiana, Inc.

Job: SVM-7012B(7954)
Date: 10/29/18
By: AMS of Indiana, Inc.

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

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

Project Information

For: Deer Valley Homebuilders
SVM-7012B(7954)

11/6/2018

Design Information

	Htg	Clg
Outside db (°F)	27	99
Inside db (°F)	70	75
Design TD (°F)	43	24
Daily range	-	M
Inside humidity (%)	30	50
Moisture difference (gr/lb)	16	60

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

HEATING EQUIPMENT

Make	Generic
Trade	
Model	AFUE 100
AHRI ref	

Efficiency	100 AFUE	
Heating input	8.4	kW
Heating output	28539	Btuh
Temperature rise	23	°F
Actual air flow	1124	cfm
Air flow factor	0.042	cfm/Btuh
Static pressure	0.30	in H2O
Space thermostat		

COOLING EQUIPMENT

Make	Generic
Trade	
Cond	SEER 13.0
Coil	
AHRI ref	

Efficiency	11.6 EER, 13 SEER	
Sensible cooling	27296	Btuh
Latent cooling	11698	Btuh
Total cooling	38994	Btuh
Actual air flow	1124	cfm
Air flow factor	0.045	cfm/Btuh
Static pressure	0.30	in H2O
Load sensible heat ratio	0.80	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
UTILITY	139	2477	1426	104	64
STUDY	169	2745	2477	115	111
BATH	55	602	469	25	21
BEDROOM 2	169	1701	2017	72	90
KIT/DIN/LIVING	745	10555	11615	444	519
MASTER BEDROOM	274	5000	4332	210	194
MASTER BATH	274	3657	2819	154	126

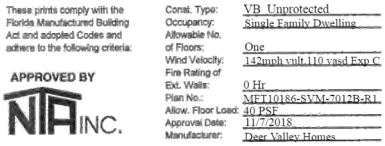
These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

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

Entire House	1824	26738	25155	1124	1124
Other equip loads		1801	1016		
Equip. @ 1.04 RSM			27296		
Latent cooling			6537		
TOTALS	1824	28539	33833	1124	1124



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

Project Summary
Entire House
AMS of Indiana, Inc.

Job: SVM-7012B(7954)
Date: 10/29/18
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-7012B(7954)

Notes:

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult.110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MET10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

Design Information

Weather: Jacksonville NAS, FL, US

Winter Design Conditions

Outside db	27	℉
Inside db	70	℉
Design TD	43	℉

Summer Design Conditions

Outside db	99	℉
Inside db	75	℉
Design TD	24	℉
Daily range	M	
Relative humidity	50	%
Moisture difference	60	gr/lb

Heating Summary

Structure	20748	Btuh
Ducts	5990	Btuh
Central vent (38 cfm) Outside air	1801	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	28539	Btuh

Sensible Cooling Equipment Load Sizing

Structure	19339	Btuh
Ducts	5816	Btuh
Central vent (38 cfm) Outside air	1016	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	1.04	
Equipment sensible load	27296	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	1 (Average)

	Heating	Cooling
Area (ft²)	1824	1824
Volume (ft³)	16413	16413
Air changes/hour	0.45	0.20
Equiv. AVF (cfm)	124	55

Latent Cooling Equipment Load Sizing

Structure	3214	Btuh
Ducts	1785	Btuh
Central vent (38 cfm) Outside air	1539	Btuh
Equipment latent load	6537	Btuh
Equipment Total Load (Sen+Lat)	33833	Btuh
Req. total capacity at 0.70 SHR	3.2	ton

Heating Equipment Summary

Make	Generic
Trade	
Model	AFUE 100
AHRI ref	

Efficiency	100	AFUE
Heating input	8.4	kW
Heating output	28539	Btuh
Temperature rise	23	℉
Actual air flow	1124	cfm
Air flow factor	0.042	cfm/Btuh
Static pressure	0.30	in H2O
Space thermostat		

Cooling Equipment Summary

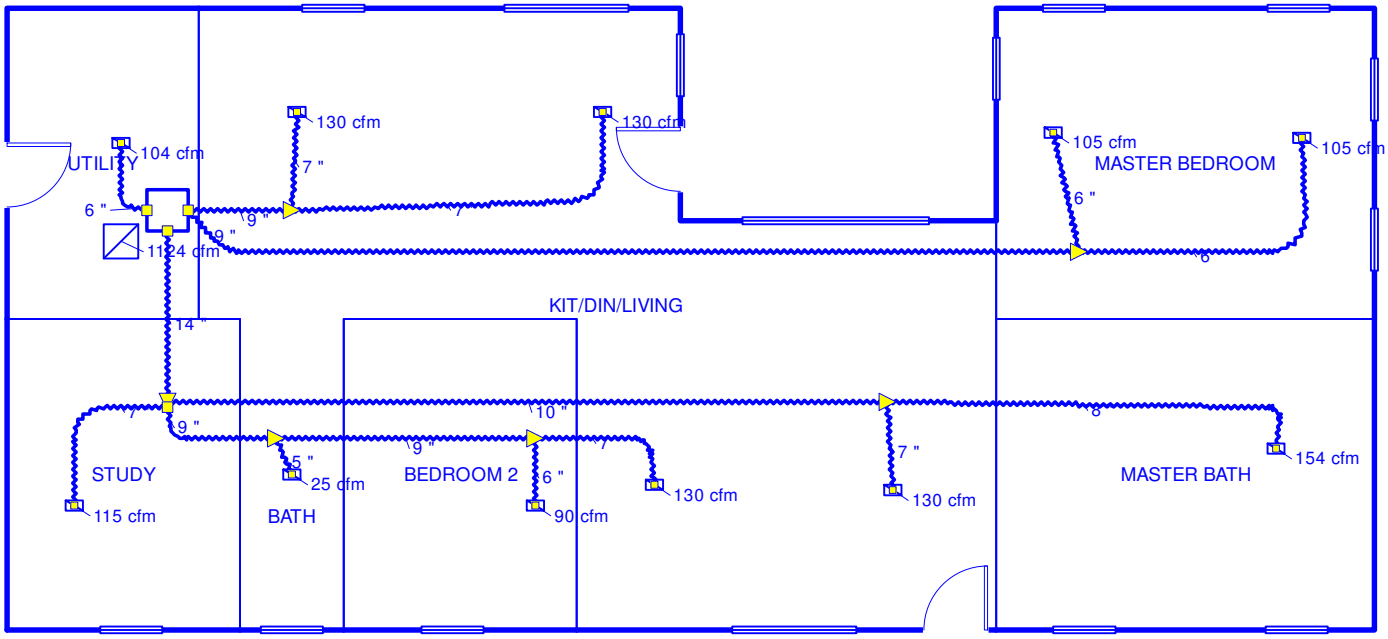
Make	Generic
Trade	
Cond	SEER 13.0
Coil	
AHRI ref	

Efficiency	11.6 EER, 13 SEER	
Sensible cooling	27296	Btuh
Latent cooling	11698	Btuh
Total cooling	38994	Btuh
Actual air flow	1124	cfm
Air flow factor	0.045	cfm/Btuh
Static pressure	0.30	in H2O
Load sensible heat ratio	0.80	

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

N

Sheet 1



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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

Job #: SVM-7012B(7954)
Performed by AMS of Indiana, Inc. for:
Deer Valley Homebuilders
SVM-7012B(7954)

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

Scale: 1 : 111

Right-Suite® Universal 2018
18.0.25 RSU02009
2018-Nov-02 09:26:14
...builders\SVM-7012B(7954)OVHD.r...

Duct System Summary
Entire House
AMS of Indiana, Inc.

Job: SVM-7012B(7954)
Date: 10/29/18
By: AMS of Indiana, Inc.

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

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

Project Information

For: Deer Valley Homebuilders
SVM-7012B(7954)

11/6/2018

	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	0.120 / 0.120 in H2O	0.120 / 0.120 in H2O
Lowest friction rate	0.109 in/100ft	0.109 in/100ft
Actual air flow	1124 cfm	1124 cfm
Total effective length (TEL)	220 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
BATH	h 602	25	21	0.136	5.0	0x 0	VlFx	16.9	160.0	st4
BEDROOM 2	c 2017	72	90	0.114	6.0	0x 0	VlFx	30.8	180.0	st5
KIT/DIN/LIVING-A	c 2904	111	130	0.166	7.0	0x 0	VlFx	24.3	120.0	st2
KIT/DIN/LIVING-B	c 2904	111	130	0.109	7.0	0x 0	VlFx	35.3	185.0	st5
KIT/DIN/LIVING-C	c 2904	111	130	0.132	7.0	0x 0	VlFx	47.3	135.0	st6
KIT/DIN/LIVING-D	c 2904	111	130	0.192	7.0	0x 0	VlFx	9.8	115.0	st2
MASTER BATH	h 3657	154	126	0.118	8.0	0x 0	VlFx	64.0	140.0	st6
MASTER BEDROOM	h 2500	105	97	0.141	6.0	0x 0	VlFx	49.8	120.0	st1
MASTER BEDROOM-A	h 2500	105	97	0.129	6.0	0x 0	VlFx	60.4	125.0	st1
STUDY	h 2745	115	111	0.152	7.0	0x 0	VlFx	17.8	140.0	st3
UTILITY	h 2477	104	64	0.230	6.0	0x 0	VlFx	4.3	100.0	

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st3	Peak AVF	588	607	0.109	568	14.0	0 x 0	VinlFlx	
st6	Peak AVF	265	256	0.118	485	10.0	0 x 0	VinlFlx	st3
st5	Peak AVF	182	220	0.109	498	9.0	0 x 0	VinlFlx	st4
st4	Peak AVF	208	241	0.109	545	9.0	0 x 0	VinlFlx	st3
st1	Peak AVF	210	194	0.129	476	9.0	0 x 0	VinlFlx	
st2	Peak AVF	222	259	0.166	587	9.0	0 x 0	VinlFlx	

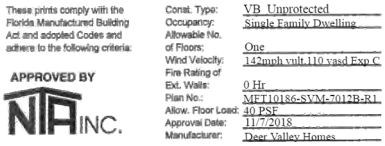
These prints comply with the Florida Manufactured Building Act and adopted Codes and adhere to the following criteria:

APPROVED BY NTA INC.

Const. Type: VB Unprotected
Occupancy: Single Family Dwelling
Allowable No. of Floors: One
Wind Velocity: 142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls: 0 Hr
Plan No.: MET10186-SVM-7012B-R1
Allow. Floor Load: 40 PSF
Approval Date: 11/7/2018
Manufacturer: Deer Valley Homes

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	1124	1124	0	0	0	0	0x 0		VlFx	



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

Job: SVM-7012B(7954)
Date: 10/29/18
By: AMS of Indiana, Inc.

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

NADER TOMASBI LICENSE No. 56556 STATE OF FLORIDA PROFESSIONAL ENGINEER

11/6/2018

Project Information

For: Deer Valley Homebuilders
SVM-7012B(7954)

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	0
Measured length of trunk	28	0
Equivalent length of fittings	185	0
Total length	220	0
Total effective length		220

Friction Rate

	Heating (in/100ft)		Cooling (in/100ft)	
Supply Ducts	0.109	OK	0.109	OK
Return Ducts	0.109	OK	0.109	OK

Fitting Equivalent Length Details

Supply 11M=20, 4AD=60, 11G=5, 11M=20, 11M=20, 11G=5, 11M=20, 1A=35: TotalEL=185

Return TotalEL=0

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

Value Set: 13B (Effective 6/1/2013)

Top chord 2x4 SP #2 :T1 2x4 SP #1: :T2 2x6 SP #2:
Bot chord 2x4 SP #1
Webs 2x3 SPF Stud :W3 2x4 SP #1:
:W9 2x4 SP #2:
:Lt Slider 2x4 SP #1: BLOCK LENGTH = 1.500'

Lumber value set "13B" uses design values approved 1/30/2013 by ALSC

(a) Continuous lateral restraint equally spaced on member.

Bottom chord checked for 10.00 psf non-concurrent live load.

Deflection meets L/240 live and L/240 total load. Creep increase factor for dead load is 1.50.

CIRCLED NUMBERS INDICATE TYPE OF FIELD CONNECTION REQUIRED- SEE SCHEDULE FOR CONNECTION LOADS AND REQUIREMENTS. TIGHT FIT IS REQUIRED BETWEEN ALL MEMBERS AT THE JOINT. CONTACT ITWBCG FOR ALTERNATE JOINT CONDITIONS (TO ACCOMMODATE NAILERS AND PLATES AT MEMBER ENDS, ETC.) AND ALL FIELD CONNECTIONS SHALL BE DESIGNED BY THE PROJECT ENGINEER AND CONFORM TO THE HOME MANUFACTURER'S INSTALLATION DETAILS.
WARNING: FAILURE TO PROVIDE PROPER FIELD CONNECTIONS MAY RESULT IN INADEQUATE STRUCTURAL PERFORMANCE.

FIELD CONNECTION SCHEDULE:

TYPE	MAXIMUM LOAD(lbs) AXIAL	SHEAR	NOTES:
1	487T / 439C	---	-T=TENSION LOAD.
2	125T / 126C	250	-C=COMPRESSION LOAD.
			-DESIGN CONNECTION FOR COMBINED AXIAL + SHEAR LOAD SHOWN.

(F) NO GAP AT HINGED CONNECTION, PROVIDE A MINIMUM OF 2" WOOD TO WOOD CONTACT WHEN HINGED SECTION IS RAISED.

(L) THE PROJECT ENGINEER OR BUILDING DESIGNER SHALL PROVIDE LATERAL STABILITY AT TOP OF VERTICAL WEB.

(D) BEAM, COLUMN AND CONNECTION TO TRUSS FOR REACTIONS SHOWN SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER.

REFER TO DRWG HINGPL161014, HINGPL781014, SHEARPLT1014 FOR HINGE AND SHEAR PLATE DETAILS.

NOTE: THE PROJECT ENGINEER SHALL DESIGN THE SUPPORTS (WALL AND/OR BEAMS, CONNECTIONS, AND BUILDING SYSTEM TO ACCOMODATE HORIZONTAL REACTIONS ("Rh & RL") WHERE SHOWN.

TRUSS COMPLIES WITH HUD CODE SECTION 3280.303(C)
3280.304(B) (3)
3280.305(C) (1)(I)

ATTIC IS NOT DESIGNED OR TO BE USED FOR STORAGE.
ACCESS IS PROVIDED FOR SERVICE OR INSPECTION ONLY AND HOUSE MUST BE PLACARDED PER HUD CODE. IF NO ATTIC ACCESS IS PROVIDED, NO PLACARD REQUIRED.

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

APPROVED BY NTA INC.

Const. Type:	VB Unprotected
Occupancy:	Single Family Dwelling
Allowable No. of Floors:	One
Wind Velocity:	142mph vult,110 vasd Exp C
Fire Rating of Ext. Walls:	0 Hr
Plan No.:	MFT10186-SVM-7012B-R1
Allow. Floor Load:	40 PSF
Approval Date:	11/7/2018
Manufacturer:	Deer Valley Homes

(**) 1 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements.

Vult=140 mph wind @ 24" o.c, 30.00 ft mean hgt, ASCE 7-10, PART._ENC. bldg, Located anywhere in roof, RISK CAT II, EXP D, wind TC DL=5.0 psf, wind BC DL=5.0 psf. GCpi(+/-)=0.55

Vult=171 mph wind @ 16" O.C., 30.00 ft mean hgt, ASCE 7-10, PART._ENC. bldg, Located anywhere in roof, RISK CAT II, EXP D, wind TC DL=7.5 psf, wind BC DL=7.5 psf. GCpi(+/-)=0.55

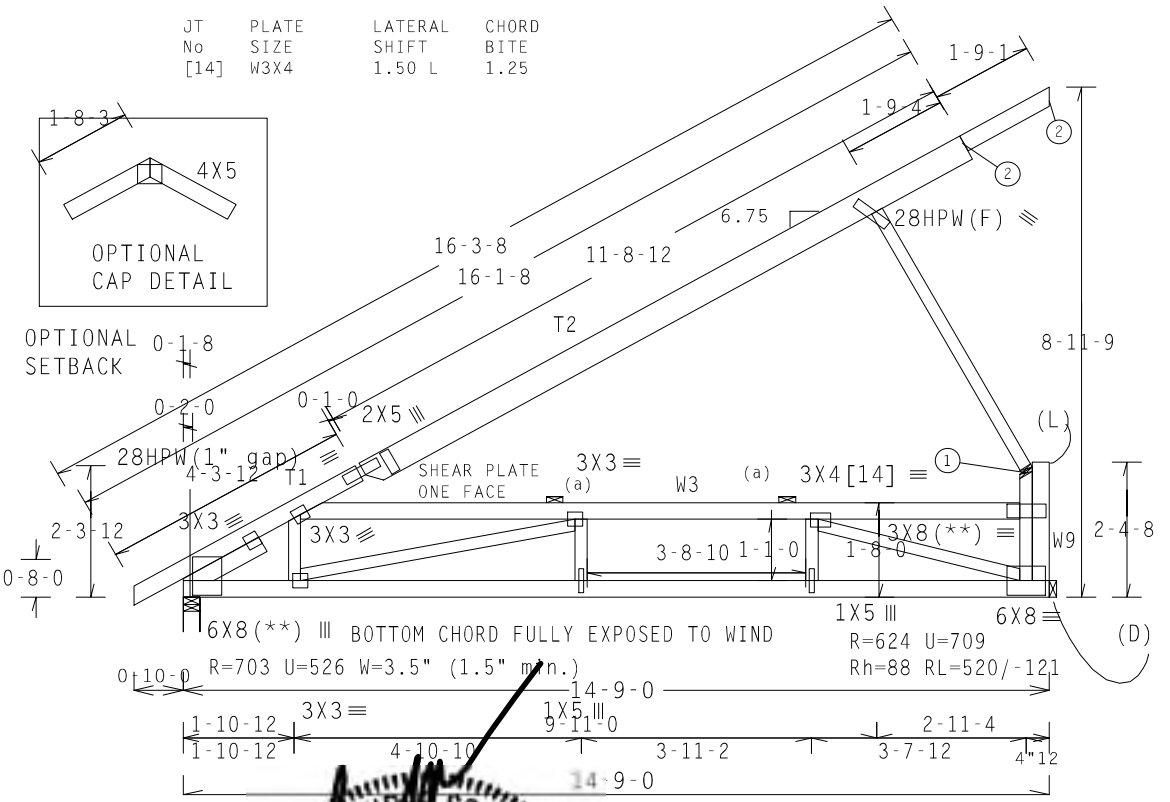
Vasd=108 mph @ 24" O.C.
Vasd=132 mph @ 16" O.C.

Truss designed for 39.00 psf GROSS uplift wind pressure along top chord with 5.00 psf TC DL and 5.00 psf BC DL.

Wind loads and reactions based on MWFRS with additional C&C member design.

Lanai/Porch Loading : 32.9 PLF wind pressure applied to the bottom chor

JT No	PLATE SIZE	LATERAL SHIFT	CHORD BITE
[14]	W3X4	1.50 L	1.25



TOT.LD. 53.1 PSF
PLT TYP. HP288,WAVE

Design Crit: FBC2017/HUD/TPI-2014(STD)
FT/RT=0%(0%)/0(0)

SUPPORTS FL/-/1/-/-/R/-

Scale =.3"/Ft.

TC LL	20.0 PSF	REF	R9130- 32778
TC DL	10.0 PSF	DATE	04/10/18
BC DL	10.0 PSF	DRW	MOUSR9130 18100001
BC LL	0.0 PSF		MO-ENG DLD/BAF
TOT.LD.	40.0 PSF	SEQN-	19029
DUR.FAC.	1.15		
SPACING	24.0"	JREF-	1WA09130Z02

Fabrication by: UFP Haleyville LLC, #317

ALPINE AN ITW COMPANY

13723 Riverport Dr, Suite 200
Maryland Heights, MO 63043
FL COA #0 278

WARNING! READ AND FOLLOW ALL NOTES ON THIS DRAWING!
IMPORTANT FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and WTCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; WTCA: www.sbcindustry.com; ICC: www.iccsafe.org

SCOTT LINDSEY SCHURMAN 31867 STATE OF FLORIDA PROFESSIONAL ENGINEER