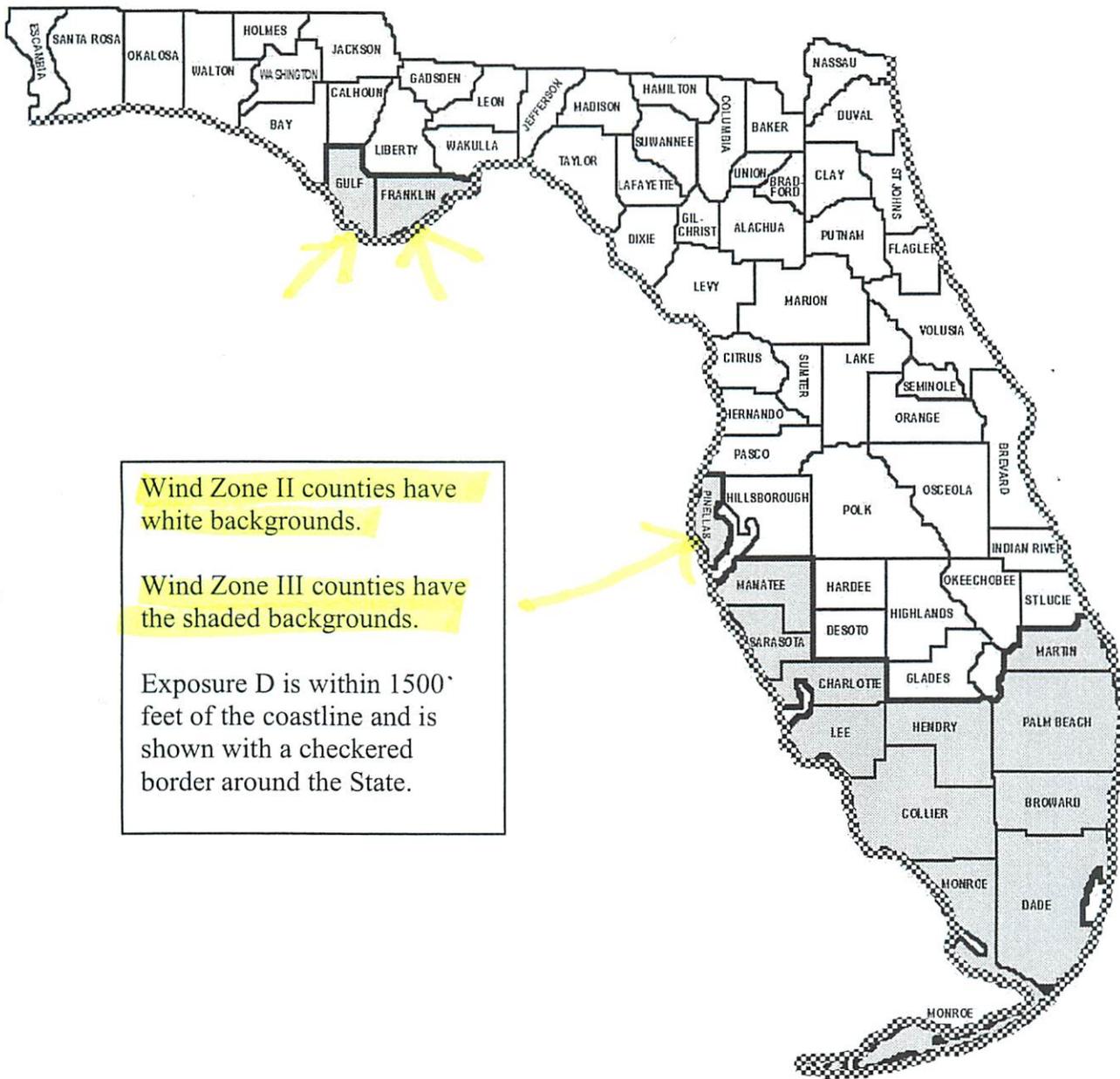


# Wind Zones for manufactured homes, continued...

## Homes with an Exposure D rating.

Exposure D is a rating given to the manufactured home industry for those homes that will be located within 1500 feet of the coast line. HUD has interpreted exposure D as just the coastline and does not include bays, rivers and lakes. All HUD manufactured homes and park trailers constructed after July 13, 1994, that are located in Exposure "D", Wind Zone II or Wind Zone III, shall have a data plate affixed in the home by the manufacturer as proof that the home meets the design standards.



# Wind Zones for manufactured homes

## Hurricane Resistant



Prior to June 15, 1976, the term hurricane resistant applied to Florida built mobile homes, which were built to the ANSI A-119.1 Standard. Wind zones were not designated until HUD took control of the industry.

## Wind Zone II



June 15, 1976, HUD takes over the regulation and construction of the mobile home industry nationwide. All mobile homes built in or to be shipped into Florida were designated as Wind Zone II.

## Wind Zone II & III



July 13, 1994, HUD added Wind Zone III after a two year study of Hurricane Andrew. The following counties in Florida are designated as in Wind Zone III; Broward, Charlotte, Collier, Dade, Franklin, Gulf, Hendry, Lee, Martin, Manatee, Monroe, Palm Beach, Pinellas and Sarasota.

Wind Zone II homes shall only be located in Wind Zone II counties. Wind Zone III homes may be located in any county since they are built to stronger criteria.

**Division of Motorist Services**

**Manufactured Housing Section**

**Section Headquarters**

**2900 Apalachee Parkway  
Rooms A 139 & A 129, MS66  
Neil Kirkman Building  
Tallahassee, FL 32399**

**Phone 850-617-3004**

**Fax 850-617-5191**

**Bureau Website**

**[www.flhsmv.gov/mobilehome/](http://www.flhsmv.gov/mobilehome/)**

**Mobile Home Consumer Complaints  
against**

**(Installers)**

**813-612-7150**

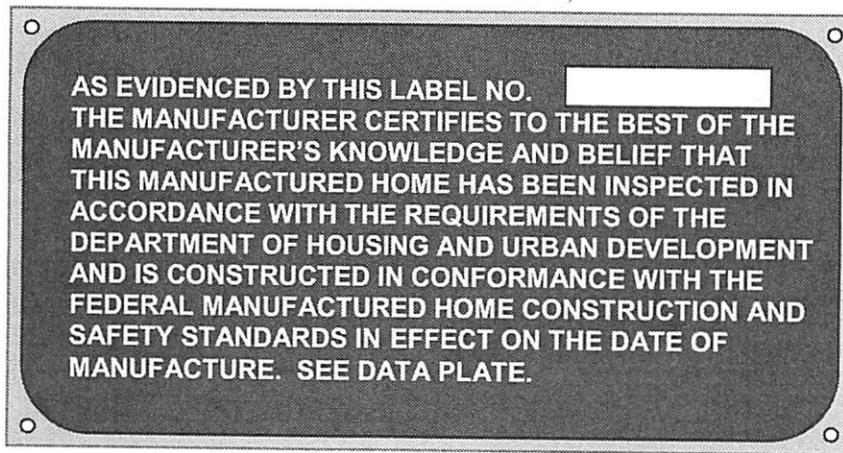
**(Dealers and/or Manufacturers)**

**813-612-7140 ext. 7116**

# Labels and Identification

## Labels on the home

Each section of a home manufactured under the federal manufactured home construction and safety standards shall bear a label issued by the inspection agency. A single wide home would have one label; a double wide would have two labels, etc. The label is commonly referred to as the "HUD label" and is approximately 2" by 4" in size and is generally located on the rear of each unit and is required to be affixed in a permanent manner. The label indicates that the manufacturer has certified that the home meets the applicable standards and that the construction process has been monitored by an inspection agency.



Each home will bear a State of Florida installation decal. These labels are a light green color and are approximately 2 3/4" by 3 7/8". The decal shall be placed on the home prior to installation and shall be affixed adjacent to the HUD label. If the mobile/manufactured home is a pre-HUD home or if the HUD seal has been removed or concealed, the decal shall be affixed to the lower left corner of the end of the home opposite the hitch (tail light).

<b>STATE OF FLORIDA INSTALLATION CERTIFICATION LABEL</b>	
_____ LABEL _____	_____ DATE OF INSTALLATION _____
NAME _____	
LICENSE # _____	ORDER # _____
CERTIFIES THAT THE INSTALLATION OF THIS MOBILE HOME TO BE IN ACCORDANCE WITH FLORIDA STATUTES 320.8249, 320.8325 AND RULES OF HIGHWAY SAFETY AND MOTOR VEHICLES, BUREAU OF MOBILE HOME AND RECREATIONAL VEHICLE CONSTRUCTION.	

# Labels and Identification, continued...

## Data Plate

Each manufactured home will have identification inside the home known as a data plate. The data plate is usually a single piece of 8 1/2 by 11 piece of paper with information about the home. The name of the manufacturer, the date of manufacture, HUD label number(s), serial number, engineering company, appliance and model numbers, wind, roof load, and thermal zones. Homes built before June 15, 1976 do not have Data Plates or HUD labels.

Manufacturer Address		
Plant Number		
Date of Manufacture	HUD Label No. (s)	
Manufacturer's Serial Number and Model Unit Designation		
Design Approval by (D.A.P.L.A.)		
<p>This manufactured home is designed to comply with the federal manufactured home construction and safety standards in force at time of manufacture. (For additional information, consult owner's manual.)</p>		
The factory installed equipment includes:		
Equipment	Manufacturer	Model Designation
For heating	_____	_____
For air cooling	_____	_____
For cooking	_____	_____
Refrigerator	_____	_____
Water Heater	_____	_____
Washer	_____	_____
Clothes Dryer	_____	_____
Dishwasher	_____	_____
Garbage Disposal	_____	_____
Fireplace	_____	_____

<p><b>HOME CONSTRUCTED FOR</b>    <input type="checkbox"/> Zone I    <input type="checkbox"/> Zone II    <input type="checkbox"/> Zone III</p> <p>This home has not been designed for the higher wind pressure and anchoring provisions required for coastal areas and should not be located within 1500' of the coastline in Wind Zones II and III, unless the home and its anchoring and foundation system have been designed for the increased requirements specified for Exposure D in ANSI/ASCE 7-88.</p> <p>This home has _____ been equipped with storm shutters or other protective coverings for windows and exterior door openings. For homes designed to be located in Wind Zones II and III, which have not been provided with shutters or equivalent covering devices, it is strongly recommended that the home be made ready to be equipped with these devices in accordance with the method recommended in manufacturers printed instructions.</p>		
<p><b>BASIC WIND ZONE MAP</b></p>		
<p><b>DESIGN ROOF LOAD ZONE MAP</b></p> <p>North 40 PSF    Middle 30 PSF    South 20 PSF</p>		
<p><b>U/O VALUE ZONE MAP</b></p>		

**COMFORT HEATING**

This manufactured home has been specially insulated to conform with the requirements of the federal manufactured home construction and safety standards for all locations within U/O value Zone \_\_\_\_\_ (See map at bottom). Heating equipment manufacturer and model (see list at left). The above heating equipment has the capacity to maintain an average 70° F temperature in this home at outdoor temperatures of \_\_\_\_\_° F. To maximize furnace operating economy, and to conserve energy, it is recommended that this home be installed where the outdoor winter design temperature (7° F/2%) is not higher than \_\_\_\_\_ degrees Fahrenheit. The above information has been calculated assuming a maximum wind velocity of 16 mph at standard atmospheric pressure.

**COMFORT COOLING**

Air conditioner provided at factory (Alternate I)

Air conditioner manufacturer and model (see list at left). Certified capacity \_\_\_\_\_ B.T.U./Hour in accordance with the appropriate air conditioning and refrigeration Institute standards. The central air conditioning system provided in this home has been sized ensuring an orientation of the front (back) end of the home facing \_\_\_\_\_. On this basis the system is designed to maintain an indoor temperature of 75° F when outdoor temperatures are \_\_\_\_\_° F dry bulb and \_\_\_\_\_° F wet bulb. The temperature to which this home can be cooled will change depending upon the amount of exposure of the windows of this home to the sun's radiant heat. Therefore, the home's heat gains will vary dependent upon its orientation to the sun and any permanent shading provided. Information concerning the calculation of cooling loads at various locations, window exposures and shading are provided in Chapter 22 of the 1989 edition of the ASHRAE Handbook of Fundamentals.

Information necessary to calculate cooling loads at various locations and orientations is provided in the special comfort cooling information provided with this manufactured home.

Air conditioner not provided at factory (Alternate II)

The air distribution system of this home is suitable for the installation of central air conditioning. The supply air distribution system installed in this home is sized for a manufactured home central air conditioning system of up to \_\_\_\_\_ B.T.U./hr. rated capacity which are certified in accordance with the appropriate air conditioning and refrigeration Institute standards, when the air circulators of such air conditioners are rated at 0.3 inch water column static pressure or greater for the cooling air delivered to the manufactured home supply air duct system. Information necessary to calculate cooling loads at various locations and orientations is provided in the special comfort cooling information provided with this manufactured home.

Air conditioning not recommended (Alternate III)

The air distribution system of this home has not been designed in anticipation of its use with a central air conditioning system. To determine the required capacity of equipment to cool a home efficiently and economically, a cooling load (heat gain) calculation is required. The cooling load is dependent on the uniting heat sources and the structure of the home. Central air conditioners operate most efficiently and provide the greatest comfort when their capacity closely approximates the calculated cooling load. Each home's air conditioner should be sized in accordance with Chapter 22 of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Handbook of Fundamentals 1989 edition, since the location and orientation are known.

**INFORMATION PROVIDED BY THE MANUFACTURER NECESSARY TO CALCULATE SENSIBLE HEAT GAIN**

Walls (without windows and doors) \_\_\_\_\_ °F

Ceilings and roofs of light color \_\_\_\_\_ °F

Ceilings and roofs of dark color \_\_\_\_\_ °F

Floors \_\_\_\_\_ °F

Air ducts at floor \_\_\_\_\_ °F

Air ducts in ceiling \_\_\_\_\_ °F

Air ducts installed outside the home \_\_\_\_\_ °F

The following are the duct areas in the home:

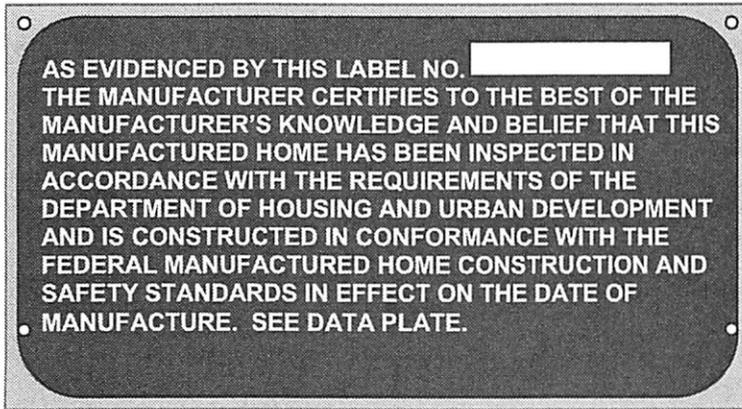
Air ducts at floor \_\_\_\_\_ sq. ft.

Air ducts in ceiling \_\_\_\_\_ sq. ft.

Air ducts outside the home \_\_\_\_\_ sq. ft.

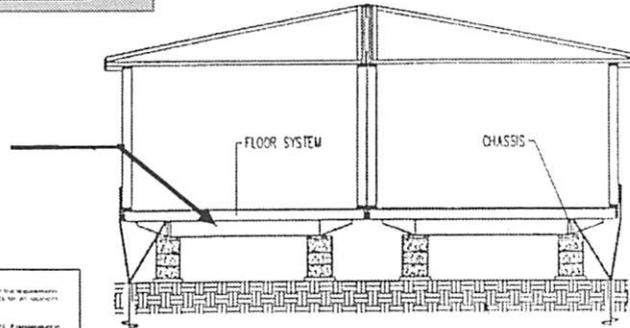
# Labels and Identification, continued...

## IDENTIFYING A MANUFACTURED/MOBILE HOME



HUD LABEL

Serial Number stamped in the front crossmember.



**COMPLIANCE CERTIFICATE**

Manufacturer Address: \_\_\_\_\_ Plant Number: \_\_\_\_\_  
 Date of Manufacture: \_\_\_\_\_ HUD No: \_\_\_\_\_  
 Manufacturer's Serial Number and Model Unit Description: \_\_\_\_\_  
 Design Approval by (D.A.P.I.A.): \_\_\_\_\_

This manufactured home is designed to comply with the Federal Manufactured Home Construction and Safety Standards in force at the time of manufacture (for additional information, consult owner's manual).

The factory installed equipment includes:

Equipment	Manufacturer	Model Designation
For heating	_____	_____
For air-pooling	_____	_____
For cooking	_____	_____
Refrigerator	_____	_____
Water heater	_____	_____
Washer	_____	_____
Clothes dryer	_____	_____
Garbage disposal	_____	_____
Refrigerator	_____	_____

**HEATING AND COOLING DESIGN BASIS CERTIFICATE**

**EMERGENCY HEATING**  
 This manufactured home has been factory equipped to comply with the requirements of the Federal Manufactured Home Construction and Safety Standards for an emergency heating system.

The above heating equipment has the capacity to maintain an average 70° F temperature in the living area under the following conditions:  
 • No power or outdoor temperatures of \_\_\_\_\_  
 • Maximum furnace operating efficiency and to consume energy, it is recommended that the furnace be installed with the outdoor air intake temperature (BTU) is not higher than \_\_\_\_\_ degrees Fahrenheit.  
 The above information has been calculated assuming a maximum wind velocity of 18 mph at standard atmospheric pressure.

**EMERGENCY COOLING**  
 An emergency air conditioner is provided at factory (A/C Unit # \_\_\_\_\_)

The emergency air conditioner will maintain the living area at a temperature of \_\_\_\_\_ F when the outdoor temperature is \_\_\_\_\_ F and the indoor temperature is \_\_\_\_\_ F.

The emergency air conditioner will maintain the living area at a temperature of \_\_\_\_\_ F when the outdoor temperature is \_\_\_\_\_ F and the indoor temperature is \_\_\_\_\_ F.

**HEATING AND COOLING DESIGN BASIS CERTIFICATE**

The temperature in which this home can be occupied is based upon the design of the amount of insulation in the walls, ceiling and floor. The amount of insulation is based upon the amount of insulation in the walls, ceiling and floor. The amount of insulation is based upon the amount of insulation in the walls, ceiling and floor.

The amount of insulation in the walls, ceiling and floor is based upon the amount of insulation in the walls, ceiling and floor. The amount of insulation is based upon the amount of insulation in the walls, ceiling and floor.

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**INFORMATION PROVIDED BY THE MANUFACTURER NECESSARY TO CALCULATE DESIGNER WIND LOAD**

Walls (without windows and doors) \_\_\_\_\_  
 Ceilings and roofs of light color \_\_\_\_\_  
 Ceilings and roofs of dark color \_\_\_\_\_  
 Floors \_\_\_\_\_  
 Air ducts in floor \_\_\_\_\_  
 Air ducts in ceiling \_\_\_\_\_  
 Air ducts installed outside the home \_\_\_\_\_

The following are the duct areas in this home:  
 All ducts in this \_\_\_\_\_  
 All ducts in ceiling \_\_\_\_\_  
 All ducts outside the home \_\_\_\_\_

To determine the required capacity of equipment to cool a home properly and economically, a cooling load (heat gain) calculation is required. The cooling load is the amount of heat that must be removed from the home to maintain the indoor temperature at the desired level. Each home's air conditioning should be sized in accordance with Chapter 12 of the Manual for Designing and Constructing Mobile Homes (MCHM).

**OUTDOOR WINTER DESIGN TEMP ZONE**

Zone 1 \_\_\_\_\_  
 Zone 2 \_\_\_\_\_  
 Zone 3 \_\_\_\_\_

**DESIGN WIND ZONE MAP**

Zone 1: Coastal Wind 15 PSF Hurricane Resistant 25 PSF Hurricane 15 PSF Cyclone  
 Zone 2: Hurricane Resistant 25 PSF Hurricane 15 PSF Cyclone  
 Zone 3: Hurricane Resistant 25 PSF Hurricane 15 PSF Cyclone

**DESIGN ROOF LOAD ZONE MAP**

Zone 1: North 45 PSF South 55 PSF  
 Zone 2: North 55 PSF South 65 PSF  
 Zone 3: North 65 PSF South 75 PSF

**STRUCTURAL DESIGN BASIS CERTIFICATE**

Zone 1: North Middle South  
 Zone 2: North Middle South  
 Zone 3: North Middle South

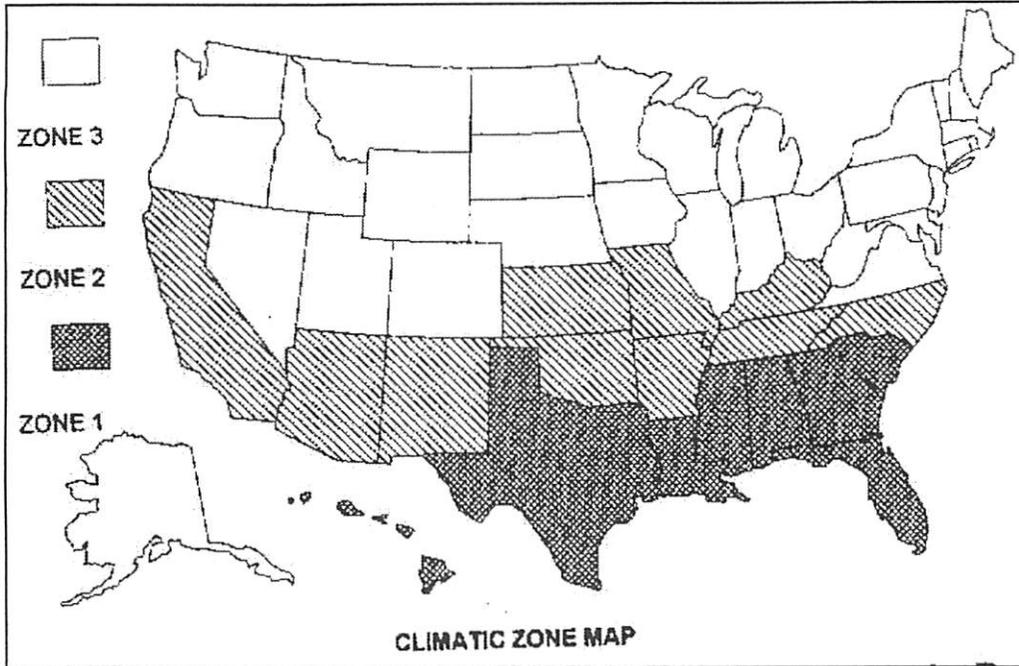
REV 4/88

DATA PLATE  
Never remove a data plate for any reason.

# Florida's Roof and Climate Zones

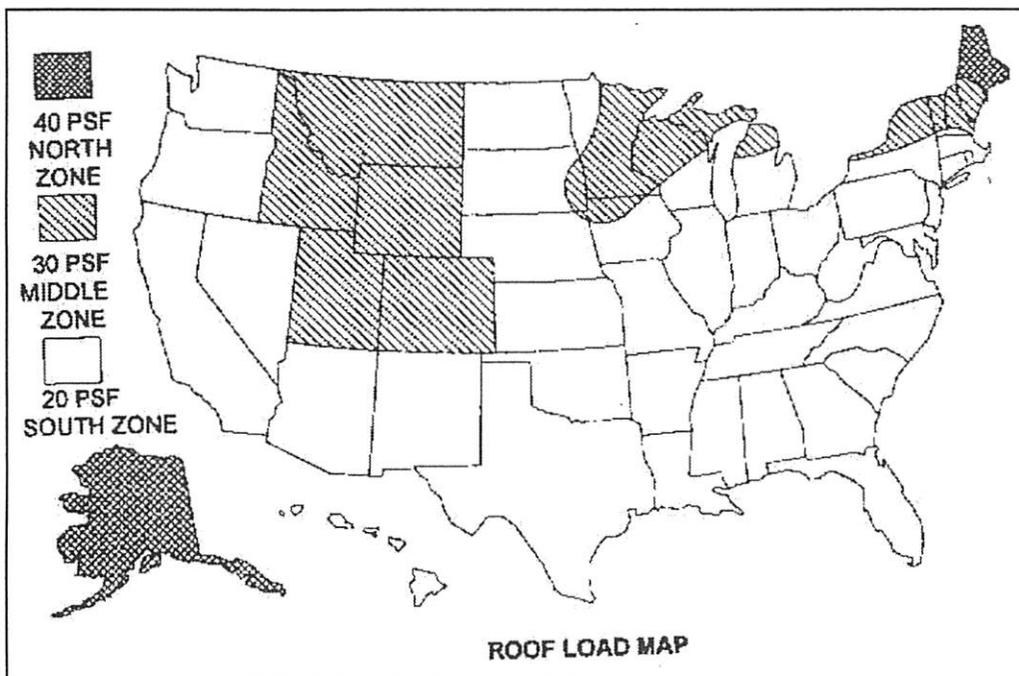
## Florida is located in Climate Zone 1

Climate zones are used to figure heating and air conditioning needs.



## Florida's Roof Load is 20 psf

The roof load map is one indicator to installers of weight on piers.



## SITE PREPARATION

F.A.C. Rule 15C-1.0102(1) requires the installation of all new and when available used homes to be installed to the manufacturer's installation instructions.

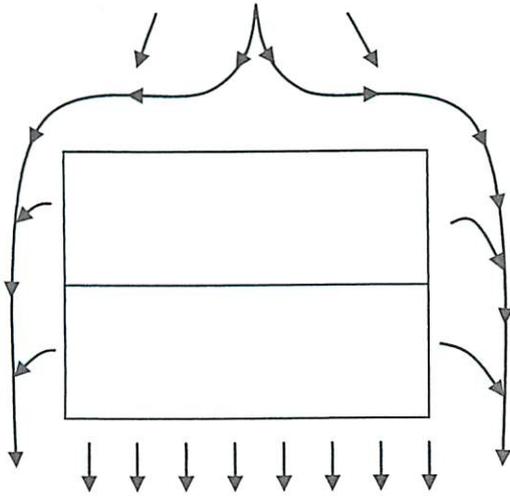
### Site prep and site drainage

#### Used Homes

F.A.C. Rule 15C-1.0102(3) - The area beneath and around the home shall be graded, sloped or properly drained so that water will not accumulate under the home. Vegetation and organic materials must be removed.

New Homes - To help prevent settling or sagging, the foundation must be constructed on firm, undisturbed soil or fill compacted to at least 90 percent of its maximum relative density. All organic material such as grass, roots, twigs and wood scraps must be removed in areas where the footing are to be placed. Drainage must be provided to direct surface water away from the home to protect against erosion of foundation supports and to prevent water build-up under the home. The home site must be graded or other methods, such as a drain tile and automatic sump pump systems must be provided to remove any water that may collect under the home. All drainage must be diverted away from the home and must slope a minimum of one-half inch per foot away from the foundation for the first ten feet. Where property lines, walls, slopes or other physical conditions prohibit this slope, the site must be provided with drains or swales or otherwise graded to drain water away from the structure. The home, where sited, must be protected from surface runoff from the surrounding area. If gutters and downspouts are installed the runoff must be directed away from the home.

The installer is responsible for site preparation even when a homeowner pulls the permit. You must never install any home where water may run under or accumulate under the home. Rain water must be channeled away from the home. A dirt pad is the best way to be assured of rain water being properly channeled away from the home.



Rain water must be diverted away from the home.