#### **Mobile Home Permit Worksheet**

Installer : Kyle John	sonLicense #_IH11266571		
Address of home being installed 3746 SW Pinemount Road Lake City, FL			
Manufacturer Dest	iny Length x width 60X32		
if home I understand Late	e is a single wide fill out one half of the blocking plan is a triple or quad wide sketch in remainder of home ral Arm Systems cannot be used on any home (new or used) Il ties exceed 5 ft 4 in.  Installer's initials  Show locations of Longitudinal and Lateral Systems (use dark lines to show these locations)		
1 7			
$-\Pi$	<del></del>		
	See factory blocking Plan		
	<del></del>		
	marriage wall piers within 2' of end of home per Rule 15C		
<del></del>	<del></del>		
	Plans Reviewed for Code Compliance		
	UR of Florida		

pplic	ation	Numbe	r:			Date		
N	lew Ho	ome	Х	Used Home				
	Home installed to the Manufacturer's Installation Manual Home is installed in accordance with Rule 15-C							
S	Single wide			Wind Zone II	х	Wind Zon	e III 🔲	
D	Double wide x		х	Installation Decal# 1159u+				
Т	Triple/Quad		Serial#					
PIER SPACING TABLE FOR USED HOMES								
bea	oad aring bacity	Footer size (sq in)	16" x 16" (256)	18 1/2" x 18 1/2" (342)	20" x 20" (400)	22" x 22" (484)*	24" X 24" (576)*	26" x 26" (676)
	1000	psf	3'	4'	5'	6'	7'	8'
	1500		4' 6"	6'	7'	8'	8'	8'
	2000		6'	8'	8'	8'	8'	8' 8'
_	2500		7' 6"	8'	8' 8'	8' 8'	8' 8'	8'
_	3000 3500		8' 8'	8' 8'	8,	8'	8'	8'
* in						0	0	- 0
	* interpolated from Rule 15C-1 pier spacing table.  PIER PAD SIZES  POPULAR PAD SIZES							
I-beam pier pad size 23 x 3 Pad Size Sq In								
	16 x 16 256							
. Р	Perimeter pier pad size 17 5 k 7 5 . 5 16 x 18 288							
Goors + Windows intil have alwer 18.5 x 18.5   34			342					
Other pler pad sizes				.13	6 x 22.5	360		
(1	require	ed by th	e mfg.)	001	-1149 cr		7 x 22	374
				<b>19</b>	45 P		/4 x 26 1/4	348
("				mate locations			0 x 20 6 x 25 3/10	400 6 441
Ĺ.	Ш.)			oot or greater.	use inis		$\frac{6 \times 25 \times 10}{2 \times 25 \times 12}$	446
symbol to show the piers.			io snow t	ile biels.			24 x 24	576

List all marriage wall openings greater than 4 foot and their pier pad sizes below.

Pier pad size Opening blocking + Manua Plan

#### TIEDOWN COMPONENTS

Longitudinal Stabilizing Device (LSD) Manufacturer .

ANCHORS	]

FRAME TIES

within 2' of end of home spaced at 5' 4" oc

OTHER TIES

Sidewall Longitudinal Marriage wall Shearwall

Number

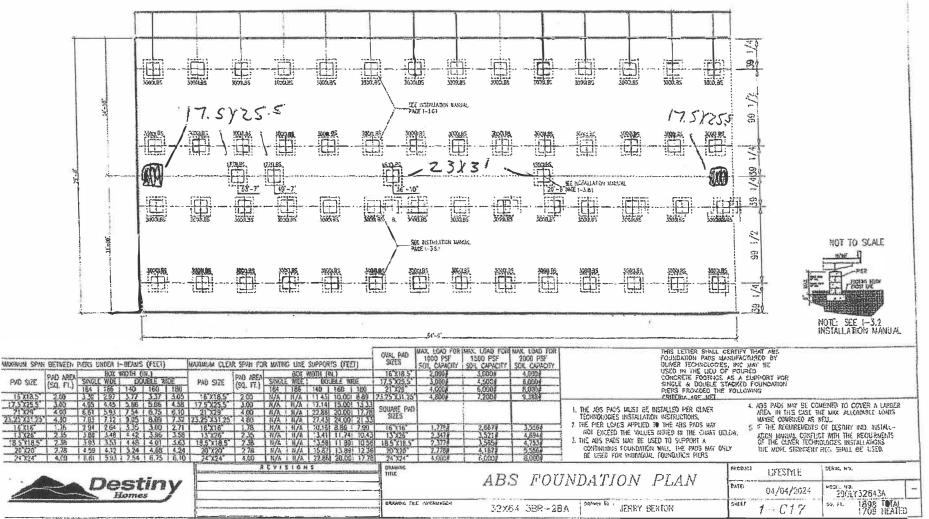
#### **Mobile Home Permit Worksheet**

	Application Number: Date:
	Site Preparation
POCKET PENETROMETER TEST	
	Debris and organic material removed
The pocket penetrometer tests are rounded down to psf or check here to declare 1000 lb. soil without testing.	Water drainage: Natural Swale Pad Other
1-0	Fastening multi wide units
x <u>100</u> 0 x x	
	Floor: Type Fastener: 1945 Length: 7 Spacing: 20 Walls: Type Fastener: 1945 Length: 4 Spacing: 10
POCKET PENETROMETER TESTING METHOD	Walls: Type Fastener: 145 Length: 4 Spacing: 10 Roof: Type Fastener: 145 Length: 7 Spacing: 20
	For used homes a min. 30 gauge, 8" wide, galvanized metal strip
Test the perimeter of the home at 6 locations.	will be centered over the peak of the roof and fastened with galv.
Z. Take the reading at the depth of the footer.	roofing nails at 2" on center on both sides of the centerline.
2. Take the reading at the depth of the footer.	Gasket (weatherproofing requirement)
Using 500 lb. increments, take the lowest	
reading and round down to that increment.	I understand a properly installed gasket is a requirement of all new and used homes and that condensation, mold, meldew and buckled marriage walls are
1000	a result of a poorly installed or no gasket being installed. I understand a strip
X X X	of tape will not serve as a gasket.
	Installer's initials
TORQUE PROBE TEST	Type gasket factor Installed:
TORROSE TROSE TEST	Pa. KII Between Floors Yes
The results of the torque probe test is inch pounds or check	Between Walls Yes
here if you are declaring 5' anchors without testing A test showing 275 inch pounds or less will require 5 foot anchors.	Bottom of ridgebeam Yes
showing 273 men pounds of less will require 3 loot anonors.	Weatherproofing
Note: A state approved lateral arm system is being used and 4 ft.	
anchors are allowed at the sidewall locations. I understand 5 ft anchors are required at all centerline tie points where the torque test	The bottomboard will be repaired and/or taped. Yes Pg Siding on units is installed to manufacturer's specifications. Yes
reading is 275 or less and where the mobile home manufacturer may	Fireplace chimney installed so as not to allow intrusion of rain water. Yes
requires anchors with 4000 lb holding capacity.	
Installer's initials	Miscellaneous
ALL TESTS MUST BE PERFORMED BY A LICENSED INSTALLER	Skirting to be installed. Yes No
	Drver vent installed outside of skirting. Yes N/A
Installer Name Kyle Johnson	Range downflow vent installed outside of skirting. YesN/A
Date Tested ASSUMED OLIVERILULU USES 455' Anchors	Drain lines supported at 4 foot intervals. Yes Electrical crossovers protected. Yes
Bale residu AMMAN Dittotilo Mac 9 4 2 9 11 com	Other:
Electrical	
Connect electrical conductors between multi-wide units, but not to the main power	
source. This includes the bonding wire between mult-wide units. Pg	Installer verifies all information given with this permit worksheet
Plumbing	is accurate and true based on the
	manufacturer's installation instructions and or Rule 15C-1 & 2
Connect all sewer drains to an existing sewer tap or septic tank. Pg	
Connect all notable water cumply nining to an existing water mater water ton an existing	Installer Signature Koli Julian Date
Connect all potable water supply piping to an existing water meter, water tap, or other independent water supply systems. Po.	mistalier digitature Date

**Application Number:** 

SOL BEARING LOAD 1000LBS 1500LBS=16"x16" ABS FOOTER 3000LBS=17.5"x25.5" ABS FOOTER

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		(Check Size of Home)
Homeowner:	Year Model:	Single
Address:	Length & Width:	Double
4	¥	Triple
City/State/Zip:	Type Longitudinal System:	HUD Label #:
Phone #:	Type Lateral Arm System:	Soil Bearing / PSF:
Date Installed:	New Home: Used Home:	Torque Probe / in-lbs:
Installed Wind Zone:	Data Plate Wind Zone:	Permit #:

## STATE OF FLORIDA INSTALLATION CERTIFICATION LABEL 115964

113307

LABEL#

DATE OF INSTALLATION

KYLE JOHNSON

NAME

IH / 1126657 / 1

6429

LICENSE # ORDER # CERTIFIES THAT THE INSTALLATION OF THIS MOBILE HOME IS IN ACCORDANCE WITH FLORIDASTATUTES 320.8249, 320.8325 AND RULES OF THE HIGHWAY SAFETY AND MOTOR VEHICLES.

#### **INSTRUCTIONS**

PLEASE WRITE DATE OF INSTALLATION AND AFFIX LABEL NEXT TO HUD LABEL. USE PERMANENT INK PEN OR MARKER ONLY. COMPLETE INFORMATION ABOVE AND KEEP ON FILE FOR A MINIMUM OF 2 YEARS. YOU ARE REQUIRED TO PROVIDE COPIES WHEN REQUESTED.



467 Swan Ave ● Hohenwald, TN 38462 ● (800) 284-7437 ● www.olivertechnologies.com ● Fax (931) 796-8811

# OLIVER TECHNOLOGIES, INC. INSTALLATION INSTRUCTIONS FOR FLORIDA MODEL 1101 "V" SERIES ALL STEEL FOUNDATION SYSTEM PAN & CONCRETE (revision 5/18)

PATENT# 6634150 & OTHER PATENT PENDING





467 Swan Ave ● Hohenwald, TN 38462 ● (800) 284-7437 ● www.olivertechnologies.com ● Fax (931) 796-8811

## OLIVER TECHNOLOGIES, INC. FLORIDA INSTALLATION INSTRUCTIONS FOR THE \_MODEL 1101 "V" SERIES ALL STEEL FOUNDATION SYSTEM\_

MODEL 1101"V" (Steps 1-14)
LONGITUDINAL ONLY: Follow Steps 1-9
LATERAL ONLY: Follow Steps 1-3 and Steps 10-14
FOR CONCRETE APPLICATIONS: Follow Steps 15-18

**ENGINEERS STAMP** 

**ENGINEERS STAMP** 

1.50"

Tubalanath

#### 1. SPECIAL CIRCUMSTANCES: If the following conditions occur - STOP! Contact Oliver Technologies at 1-800-284-7437:

- a) Pier height exceeds 48"
- c) Roof eaves exceed 16"
- e) Location is within 1500 feet of coast

b) length of home exceeds 76'

PIER HEIGHT

d) Sidewall height exceed 96"

#### **INSTALLATION OF GROUND PAN**

2. Remove weeds and debris in an approximate two foot square to expose firm soil for each ground pan (C).

1.50"

3. Place ground pan (C) directly below chassis I-beam. Press or drive pan firmly into soil until flush or below soil then install pier per manufacturer's instructions or per Florida Regs.

**SPECIAL NOTE:** The longitudinal "V" brace system may also serve as a pier under the home and should be loaded as any other pier. It is recommended that after leveling piers, and one-third inch (1/3") before home is lowered completely on to piers, complete steps 4 through 9 below then remove jacks.

#### INSTALLATION OF LONGITUDINAL "V" BRACE SYSTEM (Model 1101 L "V")

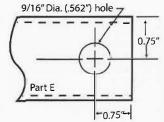
NOTE: WHEN INSTALLING THE LONGITUDINAL SYSTEM ONLY, A MINIMUM OF 2 SYSTEMS PER FLOOR SECTION IS REQUIRED. SOIL TEST PROBE SHOULD BE USED TO DETERMINE CORRECT TYPE OF ANCHOR PER SOIL CLASSIFICATION. IF PROBE TEST READINGS ARE BETWEEN 175 & 275 A 5 FOOT ANCHOR MUST BE USED. IF PROBE TEST READINGS ARE BETWEEN 276 & 350 A 4 FOOT ANCHOR MAY BE USED. USE GROUND ANCHORS WITH DIAGONAL TIES AND STABILIZER PLATES EVERY 5'4". VERTICAL TIES ARE ALSO REQUIRED ON HOMES SUPPLIED WITH VERTICAL TIE CONNECTION POINTS (PER FLORIDA REG.).

4. Choose one of the approved longitudinal tube installations; either Diagram A or B. Then select the correct square tube (E) length from the diagram for appropriate pier height at support location or cut and drill 1.5" square tube to achieve appropriate length.

(40° Min 45° N	Max.) Tube Leng	gth Tube Length
7 3/4" to 25	" 22"	18"
24 3/4" to 32 1	/4" 32"	18"
33" to 41"	44"	18"
40" to 48"	54"	18"

1.25"

Diagram A



rube Length	
20"	
28"	
39"	
44"	
54"	
֡֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	

(100 Min 600 Max)

Diagram B

- 5. Install (2) of the 1.50" square tubes (E) into the "U" bracket (J), insert carriage bolt and leave nut loose for final adjustment.
- 6. Place I-beam connector (F) loosely on the bottom flange of the I-beam.
- 7. (For Diagram A installation) Slide the selected 1.25" tube (E) into a 1.50" tube (E) and attach to I-beam connectors (F) and fasten loosely with bolt and nut. (For Diagram B installation) Attach the selected 1.5" tubes (E) to the I-beam connectors (F) and fasten loosely with bolts and nuts.
- 8. Repeat steps 6 through 7 to create the "V" pattern of the square tubes loosely in place.
- 9. Using standard hand tools tighten all nuts and bolts. (For Diagram A installation only, secure 1.25" and 1.50" tubes using four(4) 1/4"- $14 \times 3/4$ " self-tapping screws in pre-drilled holes.)

#### <u>INSTALLATION OF LATERAL TELES COPING TRANSVERSE ARM SYSTEM</u> (Model 1101 T "V")

THE MODEL 1101 "V" (LONGITUDINAL & LATERAL PROTECTION) ELIMINATES THE NEED FOR STABILIZER PLATES & FRAME TIES.

NOTE: THE USE OF THIS SYSTEM REQUIRES VERTICAL TIES SPACED AT 5'4".

FOUR FOOT (4') GROUND ANCHOR MAY BE USED EXCEPT WHERE THE HOME MANUFACTURER SPECIFIES DIFFERENT.

- 10. Install remaining vertical tie-down straps and 4' ground anchors per home manufacturer's instructions. NOTE: Centerline anchors to be sized according to soil torque condition. Any manufacturer's specifications for sidewall anchor loads in excess of 4,000 lbs. require a 5' anchor per Florida Code.
- 11. Select the correct square tube brace (H) length for set-up lateral transverse at support location. The lengths come in either 60" or 72" lengths. (With the 1.50" tube as the bottom tube, and the 1.25" tube as the inserted tube.)
- 12. Install the 1.50 transverse brace (H) to the ground pan connector (D) with bolt and nut.
- 13. Slide 1.25" transverse brace into the 1.50" brace and attach to adjacent I-beam connector (I) with bolt and nut.
- 14. Secure 1.50" transverse arm to 1.25" transverse arm using four (4) 1 /4" 14 x 3/4" self-tapping screws in pre-drilled holes.

<u>Page</u>

## OLIVER Technologies, Inc.



467 Swan Ave ● Hohenwald, TN 38462 ● (800) 284-7437 ● www.olivertechnologies.com ● Fax (931) 796-8811

#### **INSTALLATION USING CONCRETE RUNNER/ FOOTER**

- 15. A concrete runner, footer or slab may be used in place of the steel ground pan.
  - a) The concrete shall be minimum 2500 psi mix
  - b) A concrete runner may be either longitudinal or transverse, and must be a minimum of 8" deep with a minimum width of 16 inches longitudinally or 18 inches transverse to allow proper distance between the concrete bolt and the edge of the concrete (see below).
  - c) Footers must have minimum surface area of 441 sq. in. (I.e. 21" square), and must be a minimum of 8" deep.
  - d) If a full slab is used, the depth must be a 4" minimum. Special inspection of the system bracket installation is not required. Footers must allow for at least 4" from the concrete bolt to the edge of the concrete.

**NOTE:** The bottom of all footings, pads, slabs and runners must be per local jurisdiction.

#### LONGITUDINAL: (Model 1101 LC "V")

16. When using Part# 1101-W-CPCA (wetset) simply install the bracket in runner/footer **OR** When installing in cured concrete use Part# 101-D-CPCA (dryset}. The 1101 (dryset) CA bracket is attached to the concrete using (2) 5/8"x3" concrete wedge bolts (Simpson part # S162300H 5/8" X 3" or Powers equivalent). Place the CA bracket in desired location. Mark bolt hole locations, then using a 5/8" diameter masonry bit, drill a hole to a minimum depth of 3". Make sure all dust and concrete is blown out of the holes. Place wedge bolts into drille holes, then place 1101 (dry set) CA bracket onto wedge bolts and start wedge bolt nuts. Take a hammer and lightly drive the wedge bolt down by hitting the nut (making sure not to hit the top of threads on bolt). The sleeve of concrete wedge bolt needs to be at or below th top of concrete. Complete by tightening nuts.

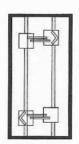
#### LATERAL: (Model 1101 TC "V")

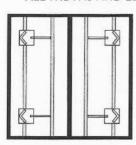
- 17. For wet set (part # 1101-W-TACA) installation simply install the anchor bolt into runner/footer. For dry set installation (part # 1101-D-TAC/ mark bolt hole locations, then using a 5/8" diam. masonry bit. drill a hole to a minimum depth of 3". Make sure all dust and concrete is blown out of the hole. Place wedge bolts (Simpson part #S162300H 5/8" X 3" or Powers equivalent) into (D) concrete dry transverse connector and into drilled hole. If needed, take a hammer and lightly drive the wedge bolts down by hitting the nut (making sure not to hit the top of threads on bolt), then remove the <u>nut. The sleeve of concrete wedge bolt needs to be at or below the top of concrete.</u>
- 18. When using part# 1101 CVW (wetset) or 1101 CVD (dryset), install per steps 17 & 18.

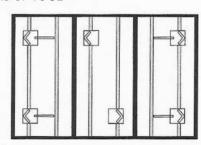
#### Notes:

- 1. LENGTH OF HOUSE IS THE ACTUAL BOX SIZE
- 2. -= LOCATION OF TRANSVERSE BRACING ONLY
- 3 🖺 = LOCATION OF LONGITUDINAL BRACING ONLY
- 4. F= TRANSVERSE AND LONGITUDINAL LOCATIONS

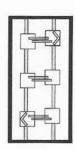
#### ALL WIDTHS AND LENGTHS UP TO 52'

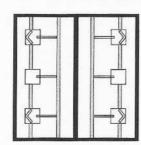


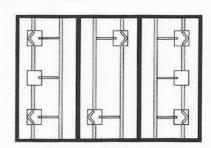




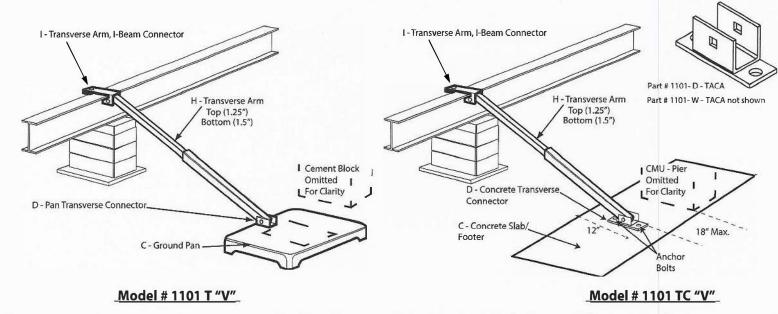
#### ALL WIDTHS AND LENGTHS OVER 52' TO 80"







HOMES WITH 5/12 ROOF PITCH REQUIRE: PER FLORIDA REGULATIONS 6 systems for home lengths up to 52' and 8 systems for homes over 52' and up 80'.



Florida approved 4' ground anchors may be used in all locations except where home manufacturers specifications for sidewall straps are in excess of 4,000 lbs. These locations require a 5' anchor. Per Florida code.

C = GROUND PAN / CONCRETE FOOTER OR RUNNER

D = GROUND PAN / CONCRETE U BRACKETS TRANSVERSE CONNECTOR (connects with grade 5 - 1/2" x 2" 1/2" carriage bolt and nut)

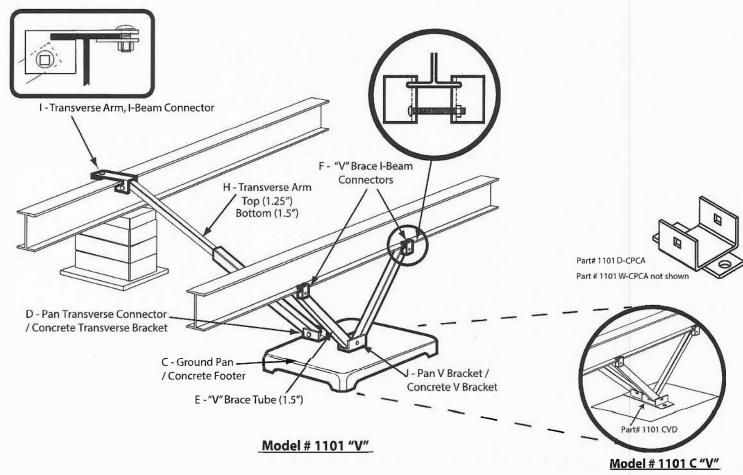
E = TELESCOPING V BRACE TUBE ASSEMBLY (1.5" TUBE BOTTOM AND 1.25" TUBE INSERT) OR 1.5" TUBE

F = "V" BRACE I-BEAM CONNECTOR ASSEMBLY

H = TELESCOPING TRANSVERSE ARM ASSEMBLY

I = TRANSVERSE ARM I-BEAM CONNECTOR (connects with grade 5 - 1/2" x 2" 1/2" carriage bolt and nut)

J = V PAN BRACKET (connects with grade 5 - 1/2" x 2" 1/2" carriage bolt and nut)





### State of Florida

### DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III
Executive Director

October 27, 1999

Mr. Lon Larson, General Manager
Manufactured Housing Foundation Systems
A Division of Oliver Technologies
562 Glenheather Drive
San Marcos, California 92069

Dear Mr. Larson:

We wish to acknowledge receipt of your print specifications and test results certifying your Adjustable Outrigger listed below complies with the Federal Manufactured Construction and Safety Standards, § 3280.305 and § 3280.401 and with the rules and regulations set forth by the Department of Highway Safety and Motor Vehicles, Florida Administrative Rule Code 15C-1.01105.

Based on the information submitted to the bureau, the following product is listed for use in Florida when the installation instructions showing the way the outrigger was tested, are provided.

MODEL#	INDENTIFICATION	DESCRIPTION
1055-11	Adjustable Outrigger	Bracket, Pipe, & Screw Adjustment

NOTE: The outrigger was tested on September 19, 1999, for an allowable load of 1700 pounds.

If you have any questions, please advise at (850) 413-7600.

Sincerely,

Phil Bergelt, Program Manager

Bureau of Mobile Home and

Recreational Vehicle Construction

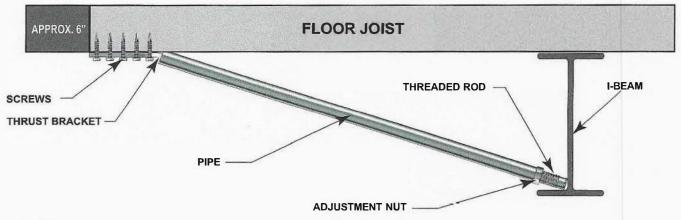
Division of Motor Vehicles

PB:bsc

#### **OLIVER TECHNOLOGIES, INC.**

### Adjustable Outrigger Installation Instructions MODEL # 1055-11

- 1. Locate the floor joist that requires support.
- 2. Mark the I-Beam directly under the floor joist to align the outrigger.
- 3. Adjust the nut on the threaded rod so it clears the frame flange for easy adjustment.
- 4. Set the threaded rod in the pipe and against the frame.
- 5. Set the notched end of the thrust bracket into the end of the pipe and secure it with 5 # 12 x 2" screws to the floor joist. The thrust bracket should be approximately 6" from the outside rim joist.
- 6. Bottom board and insulation should be between the bracket and the joist.
- 7. For minor adjustments align the door and window openings by tightening or loosening the adjustment nut. For all other adjustments use a hydraulic jack to raise the floor joist before installation of the outrigger.



#### NOTES:

\*REMOVE OUTRIGGER WHEN HOME IS BEING TRANSPORTED

\*SPECIFY WIDTH OF HOME WHEN ORDERING OUTRIGGER. PIPE MAY BE CUT TO FIT

\*THE ADJUSTABLE OUTRIGGERS SHALL ONLY BE USED ON HOMES FOR OPENINGS UP TO:

Listing # 1055-11 Patent # 6.334.279

6' ON 20 LB ROOF LOAD

4' ON 30 LB ROOF LOAD

3' ON 40 LB ROOF LOAD

\*WHEN ADJUSTABLE OUTRIGGERS ARE USED FOR DOOR AND WINDOW SUPPORTS, THEY MUST BE INSTALLED ON THE CLOSEST FLOOR
JOIST UP TO 16" FROM THE OUTSIDE EDGE OF THE OPENING

\*DO NOT INSTALL ADJUSTABLE OUTRIGGER AT LOCATIONS WHERE THE HOME MANUFACTURER INDICATES A LOAD IN EXCESS OF 1,700 LBS.
\*THE ADJUSTABLE OUTRIGGER MUST BE USED ON A MINIMUM 10" I-BEAM AND BE PLACED WITHIN 4' OF A MAIN FRAME SUPPORT PIER OR FRAME CROSSMEMBER.

Horida Building Code

Residential Section

R311 and R312

#### STAIR DETAIL

R311.7.2 Headroom

R311.7.5.1 Riser Relate

R311.7.5.2 Tread Depth

R311.7.8 Handralls

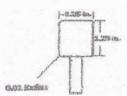
R311.7.6.2 Continuity

R311.7.8.3 Handrafl Grip Size

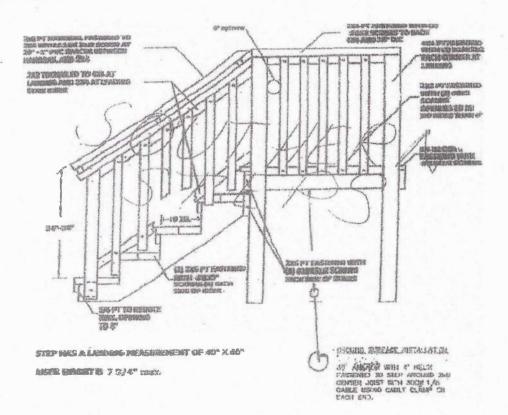
R312.1.2 Guards

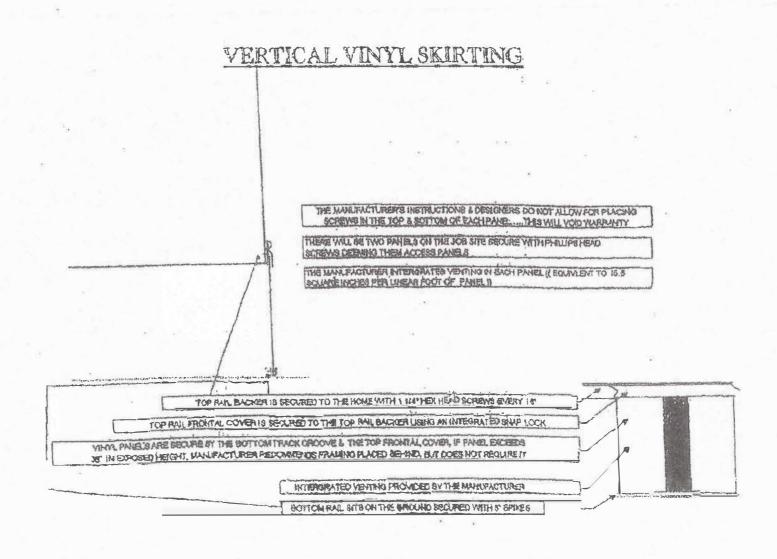
R312.1.3 Guard Opening Limits

#### Nenciscolar Handoni

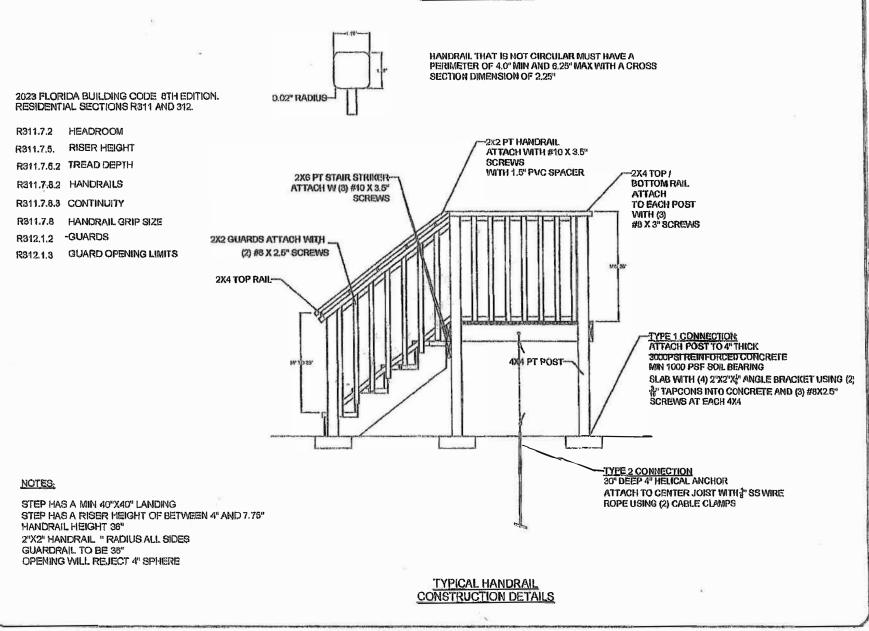


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### INSTALLATION VERTICAL SKIRTING (WALL SECTION)

