Mobile Home Permit Worksheet

Application Number: TBA Date: 12-2-24

Installer: Richard Ransom License # IH1025436

Address of home being installed: 5W Mount Hope Dr Fort White FL

Manufacturer: Live Oak Length x width: 32/66 14x28Tag

New Home ☐ Used Home ☒

Home installed to the Manufacturer's Installation Manual ☒
Home is installed in accordance with Rule 15-C

Single wide ☐ Wind Zone II ☒ Wind Zone III ☐

Double wide ☒ Installation Decal # TBA

Triple/Quad ☒ Serial # TBA

NOTE: ***if home is a single wide fill out one half of the blocking plan***
if home is a triple or quad wide sketch in remainder of home

I understand Lateral Arm Systems cannot be used on any home (new or used) where the sidewall ties exceed 5 ft 4 in.

Installer's initials

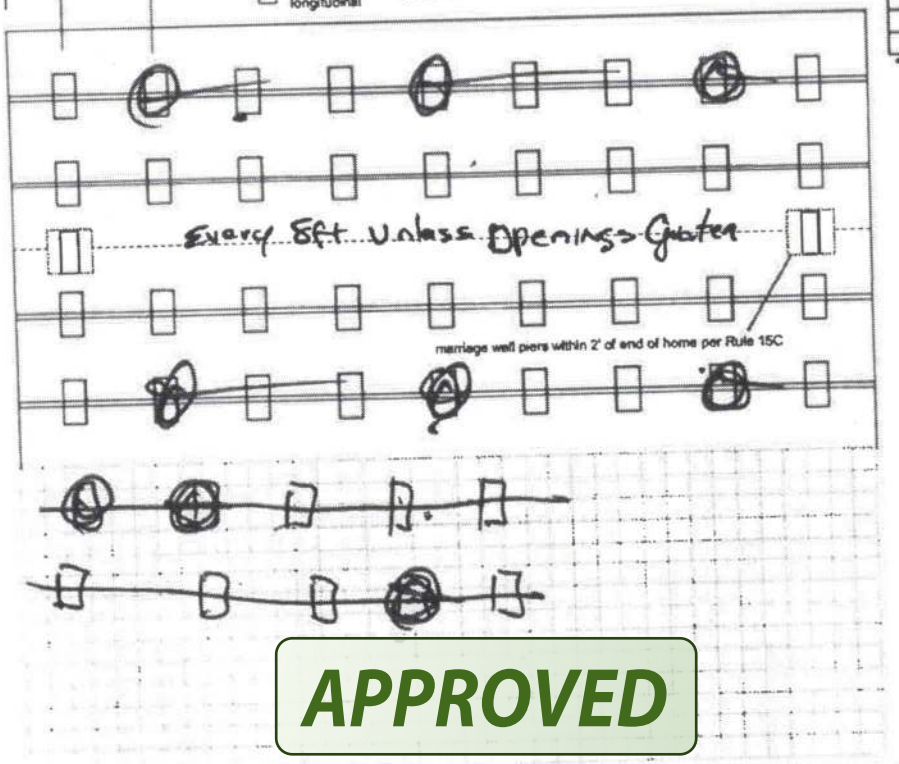
Typical pier spacing

2' 6

Lateral

Longitudinal

Show locations of Longitudinal and Lateral Systems (use dark lines to show these locations)



APPROVED

PIER SPACING TABLE FOR USED HOMES

Load bearing capacity	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 psf		4' 6"	6'	7'	8'	8'	8'
2000 psf		6'	8'	8'	8'	8'	8'
2500 psf		7' 6"	8'	8'	8'	8'	8'
3000 psf		8'	8'	8'	8'	8'	8'
3500 psf		8'	8'	8'	8'	8'	8'

* interpolated from Rule 15C-1 pier spacing table.

PIER PAD SIZES

I-beam pier pad size 17x25

Perimeter pier pad size

Other pier pad sizes (required by the mfg.)

Draw the approximate locations of marriage wall openings 4 foot or greater. Use this symbol to show the piers.

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

Opening	Pier pad size
doors	16x16

POPULAR PAD SIZES

Pad Size	Sq In
16 x 16	256
16 x 18	288
18.5 x 18.5	342
16 x 22.5	360
17 x 22	374
13 1/4 x 26 1/4	348
20 x 20	400
17 3/16 x 25 3/16	441
17 1/2 x 25 1/2	446
24 x 24	576
26 x 26	676

ANCHORS

4 ft 5 ft

FRAME TIES

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

OTHER TIES

	Number
Sidewall	
Longitudinal	
Marriage wall	
Shearwall	

TIEDOWN COMPONENTS

Longitudinal Stabilizing Device (LSD)
Manufacturer

Longitudinal Stabilizing Device w/ Lateral Arms
Manufacturer OLIVER

Mobile Home Permit Worksheet

Application Number: TBA Date: 12-2-24

POCKET PENETROMETER TEST

The pocket penetrometer tests are rounded down to 1500 psf or check here to declare 1000 lb. soil without testing.

x 1500 x 1500 x 1500

POCKET PENETROMETER TESTING METHOD

1. Test the perimeter of the home at 6 locations.
2. Take the reading at the depth of the footer.
3. Using 500 lb. increments, take the lowest reading and round down to that increment.

x 1500 x 1500 x 1500

TORQUE PROBE TEST

The results of the torque probe test is 285 inch pounds or check here if you are declaring 5' anchors without testing 4ft. A test showing 275 inch pounds or less will require 5 foot anchors.

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 reading is 275 or less and where the mobile home manufacturer may requires anchors with 4000 lb holding capacity.

Installer's initials

ALL TESTS MUST BE PERFORMED BY A LICENSED INSTALLER

Installer Name Richard Raysor

Date Tested 12-2-24

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. 3

Plumbing

Connect all sewer drains to an existing sewer tap or septic tank. Pg. 3

Connect all potable water supply piping to an existing water meter, water tap, or other independent water supply systems. Pg. 3

Site Preparation

Debris and organic material removed Yes
Water drainage: Natural ✓ Swale Pad Other

Fastening multi wide units

Floor:	Type Fastener:	lag	Length:	6	Spacing: 18
Walls:	Type Fastener:	lag	Length:	6	Spacing: 18
Roof:	Type Fastener:	lag	Length:	6	Spacing: 18

For used homes a min. 30 gauge, 8" wide, galvanized metal strip will be centered over the peak of the roof and fastened with galv. roofing nails at 2" on center on both sides of the centerline.

Gasket (weatherproofing requirement)

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 a result of a poorly installed or no gasket being installed. I understand a strip of tape will not serve as a gasket.

Installer's initials

Type gasket foam
Pg. 3

Installed:
Between Floors Yes
Between Walls Yes
Bottom of ridgebeam Yes

Weatherproofing

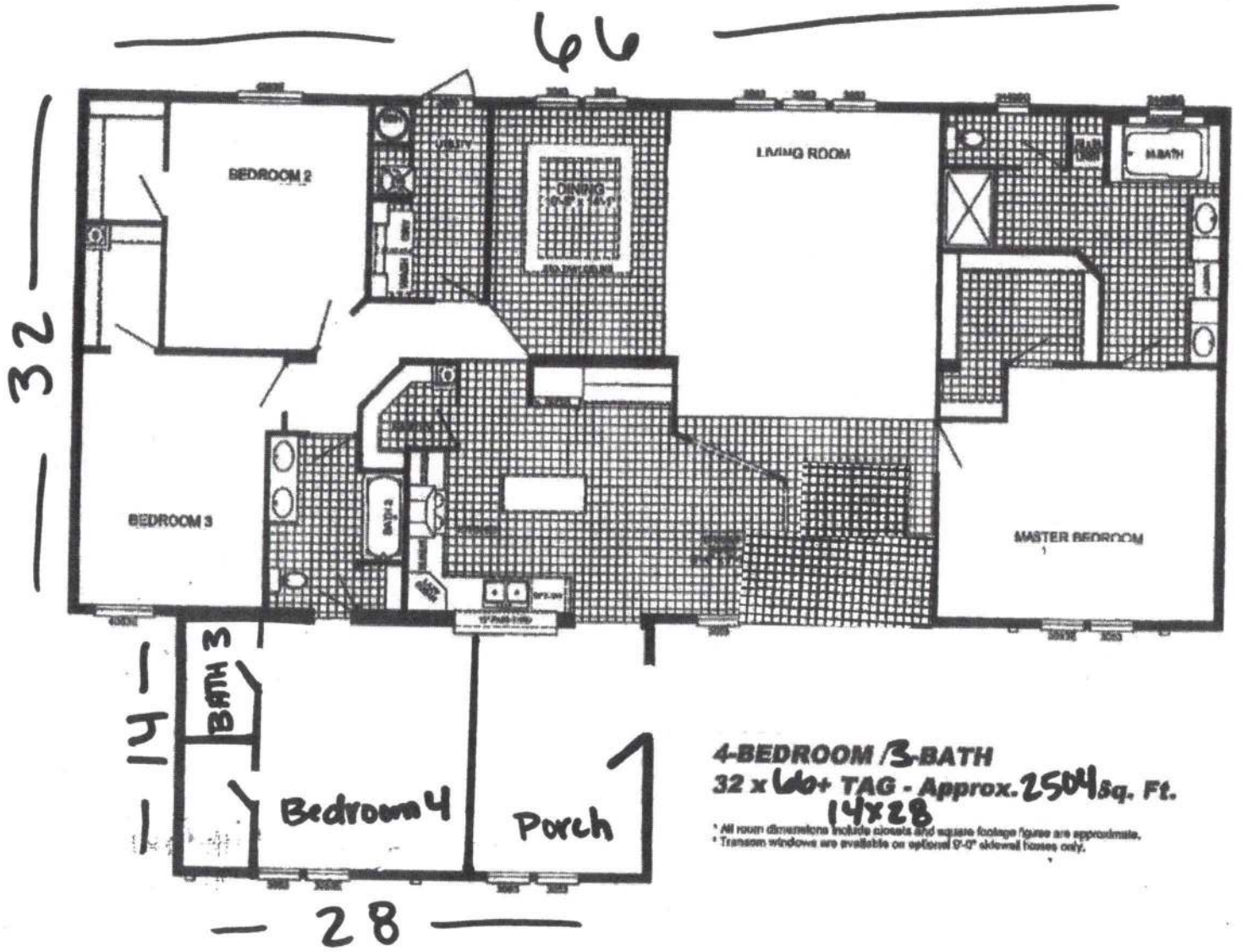
The bottomboard will be repaired and/or taped. Yes Pg. 3
Siding on units is installed to manufacturer's specifications. Yes
Fireplace chimney installed so as not to allow intrusion of rain water. Yes

Miscellaneous

Skirting to be installed. Yes No
Dryer vent installed outside of skirting. Yes N/A
Range downflow vent installed outside of skirting. Yes N/A
Drain lines supported at 4 foot intervals. Yes
Electrical crossovers protected. Yes
Other :

Installer verifies all information given with this permit worksheet is accurate and true based on the manufacturer's installation instructions and or Rule 15C-1 & 2

Installer Signature Date 12-2-24



4-BEDROOM /3-BATH
32 x 66+ TAG - Approx. 2504 Sq. Ft.
14x28

* All room dimensions include closets and square footage figures are approximate.
* Transom windows are available on optional 9'-0" sidewall homes only.

Live Oak Homes

2875 Fulford Road

Waycross, GA 31503

912-287-9015

Plant Number 1

Date of Manufacture	HUD No. GEO1538287/
4/29/2017	GEO1538288-GEO1538289

Manufacturer's Serial Number and Model Unit Designation

LOHGA11718113ABC P-7663A

Design Approval by (D A P I A)

NTA, Inc.

[illegible] manufactured home is designed to comply with the federal manufactured home construction and safety standards in force at time of manufacture [illegible] consult owner's manual

The factory [illegible] equipment includes:

Equipment	Manufacturer	Model Designation
Heating	N/A	N/A
Cooking	N/A	N/A
Refrigerator	FRIGIDAIRE	FFTR1814LB
Water Heater	STATE	SHN40DHMSE3
Dishwasher	N/A	N/A
Fireplace	N/A	N/A
Wall Oven	FRIGIDAIRE	FFEW3025LB
Microwave	N/A	N/A

HOME CONSTRUCTED FOR WIND ZONE 2

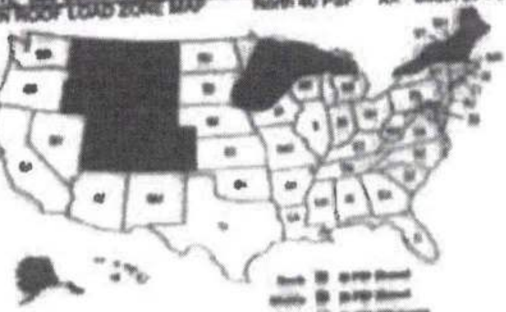
This home has not been designed for the higher wind pressure and anchoring provisions required for [illegible] areas and should not be located within 1500' of the coastline in Wind Zone II and III unless the home and its anchoring and foundation system have been designed for the increased requirements specified for Exposure D in ANSI/ASCE 7-88.

This home has __________ has not XXX been equipped with storm shutters or other protective covering for windows and exterior door openings. For homes designed to be located in Wind Zone 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 manufacturer's printed instructions.

BASIC WIND ZONE MAP

NOTE: See Section 3280.305(c) (2) for areas included in each Wind Zone

DESIGN ROOF LOAD ZONE MAP North 40 PSF XX South 20 PSF



COMFORT HEATING

This manufactured home has been thermally insulated to conform with the requirements of the federal manufactured home construction and safety standards for all locations within climatic zone 1

Heating equipment manufacturer and model (see list at left)

The above heating equipment has the capacity to maintain an average 70 degree temperature in this home at an outdoor temperature of N/A

To maximize furnace operating economy and to conserve energy, it is recommended that this home be installed where the outdoor winter temperature (97½%) is not higher than N/A degrees F

The above information has been calculated assuming a maximum wind velocity of 15 mph at standard atmospheric pressure

COMFORT COOLING

☐ Air conditioning provided at factory (alternate I)

Air conditioner manufacturer and model (see list at left)

Certified capacity __________ B T U / hr in accordance with the appropriate air conditioning and refrigeration institute standards

The central air conditioning system provided in this home has been sized assuming an orientation of the front (hitch end) of the home facing __________ on this basis the system is designed to maintain an indoor temperature of 75 degrees F when outdoor temperatures are __________ F dry bulb and __________ 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 shadings are provided in Chapter 22 of the 1967 edition of the ASHRAE Handbook of Fundamentals. Information necessary to calculate cooling loads at various locations & orientations is provided in the special comfort cooling information provided with this home.

☒ Air conditioning 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 37,000 B T U /hr rated capacity which are certified in accordance with the appropriate air conditioning & 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 & 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

INFORMATION PROVIDED BY THE MANUFACTURER NECESSARY TO CALCULATE SENSIBLE HEAT GAIN

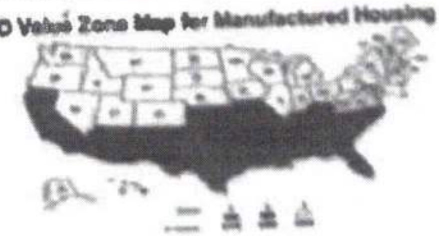
Walls (without windows & doors)	"U"	.083
Ceilings and roofs of light color	"U"	.047
Ceilings and roofs of dark color	"U"	.047
Floors	"U"	.078
Air ducts in floor	"U"	N/A
Air ducts in ceiling	"U"	.144
Air ducts installed outside the home	"U"	.48

The following are the duct areas in this home

Air ducts in floor	N/A	square feet
Air ducts in ceiling	338.84	square feet
Air ducts outside the home	271.32	square feet

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 of the orientation, location & the structure of the home. Central air conditioners operate most efficiently & provide the greatest comfort when their capacity closely approximates the calculated cooling load. Each home 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 once the location & orientation are known.

U/O Value Zone Map for Manufactured Housing



OLIVER Technologies, Inc.

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

ENGINEERS STAMP

ENGINEERS STAMP

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

a) Pier height exceeds 48"
b) length of home exceeds 76'
c) Roof eaves exceed 16"
d) Sidewall height exceed 96"
e) Location is within 1500 feet of coast

INSTALLATION OF GROUND PAN

2. Remove weeds and debris in an approximate two foot square to expose firm soil for each ground pan (C) .
3. Place ground pan (C) directly below chassis I-beam . Press or drive pan firmly into soil until flush with or below soil.
SPECIAL NOTE: The longitudinal "V" brace system serves 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.

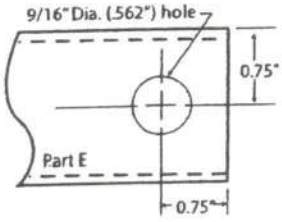
INSTALLATION OF LONGITUDINAL "V" BRACE SYSTEM

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.

PIER HEIGHT (40° Min. - 45° Max.)	1.25" Tube Length	1.50" 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"

Diagram A



PIER HEIGHT (40° Min. - 60° Max.)	1.50" Tube Length
14" to 18"	20"
18" to 25"	28"
24" to 35"	39"
30" to 40"	44"
36" to 48"	54"

Diagram B

5. Install (2) of the 1.50" square tubes (E {18" tube)) 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 x 3/4" self-tapping screws in pre-drilled holes.)

Aug 24, 2018

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")

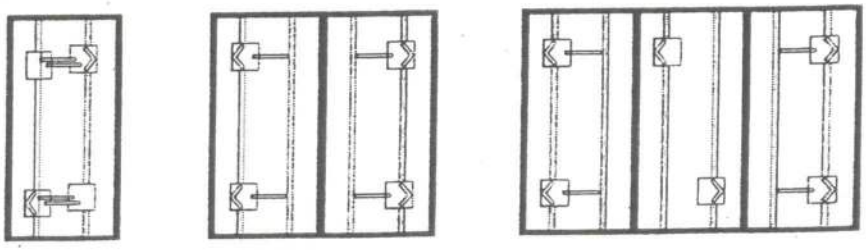
16. When using Part# 1101-W-CPCA (wetset) simply install the bracket in runner/footer **OR** When installing in cured concrete use Part# 101-D-CPCA (dryset). The 1101 (dryset) CA bracket is attached to the concrete using (2) 5/8"x3" concrete wedge bolts (Simpson part # S162300H 5/8" X 3" or Powers equivalent). 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 drilled holes, then place 1101 (dry set) CA bracket onto wedge bolts and start wedge bolt nuts. 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). The sleeve of concrete wedge bolt needs to be at or below the top of concrete. Complete by tightening nuts.

LATERAL: (Model 1101 TC "V")

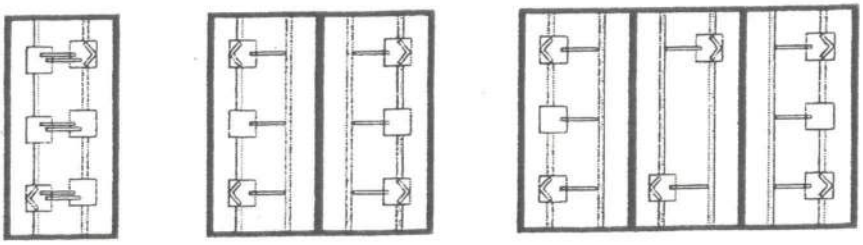
17. For wet set (part # 1101-W-TACA) installation simply install the anchor bolt into runner/footer. For dry set installation (part # 1101-D-TACA) mark bolt hole locations, then using a 5/8" diam. masonry bit. drill a hole to a minimum depth of 3". Make sure all dust and concrete is blown out of the 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 nut. The sleeve of concrete wedge bolt needs to be at or below the top of concrete.
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. **= TRANSVERSE AND LONGITUDINAL LOCATIONS**

ALL WIDTHS AND LENGTHS UP TO 52'

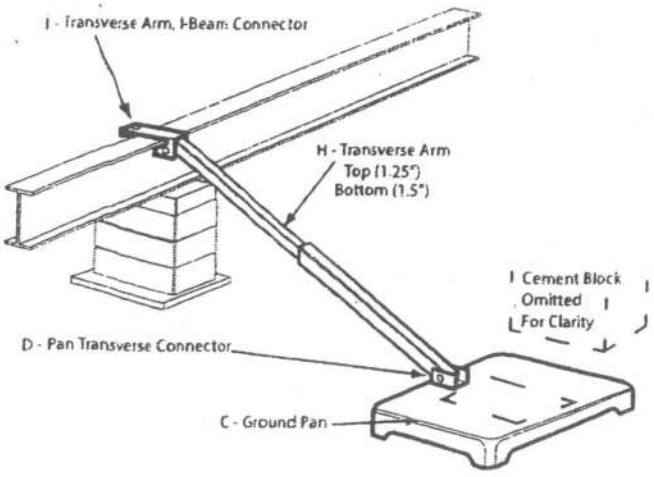


ALL WIDTHS AND LENGTHS OVER 52' TO 80"

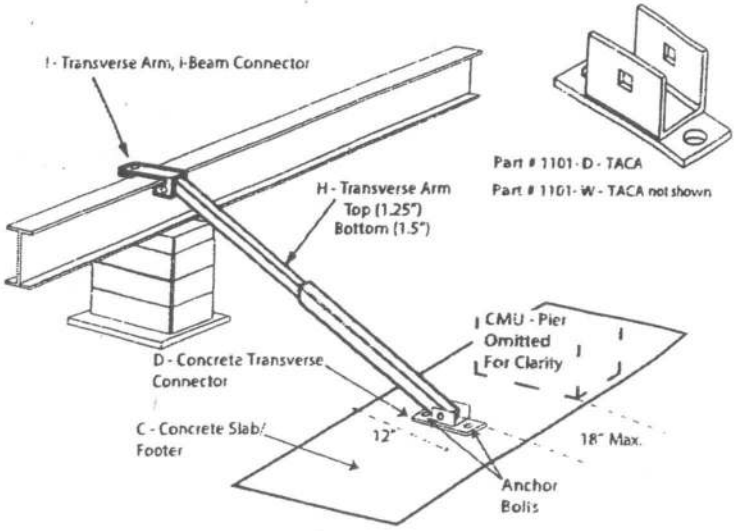


HOMES WITH 5/12 ROOF PITCH REQUIRE: PER FLORIDA REGULATIONS
6 systems for home lengths up to 52' and 8 systems for homes over 52' and up 80'.

PATENT# 6634150 & OTHER PATENT PENDING



Model # 1101 T "V"



Model # 1101 TC "V"

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)

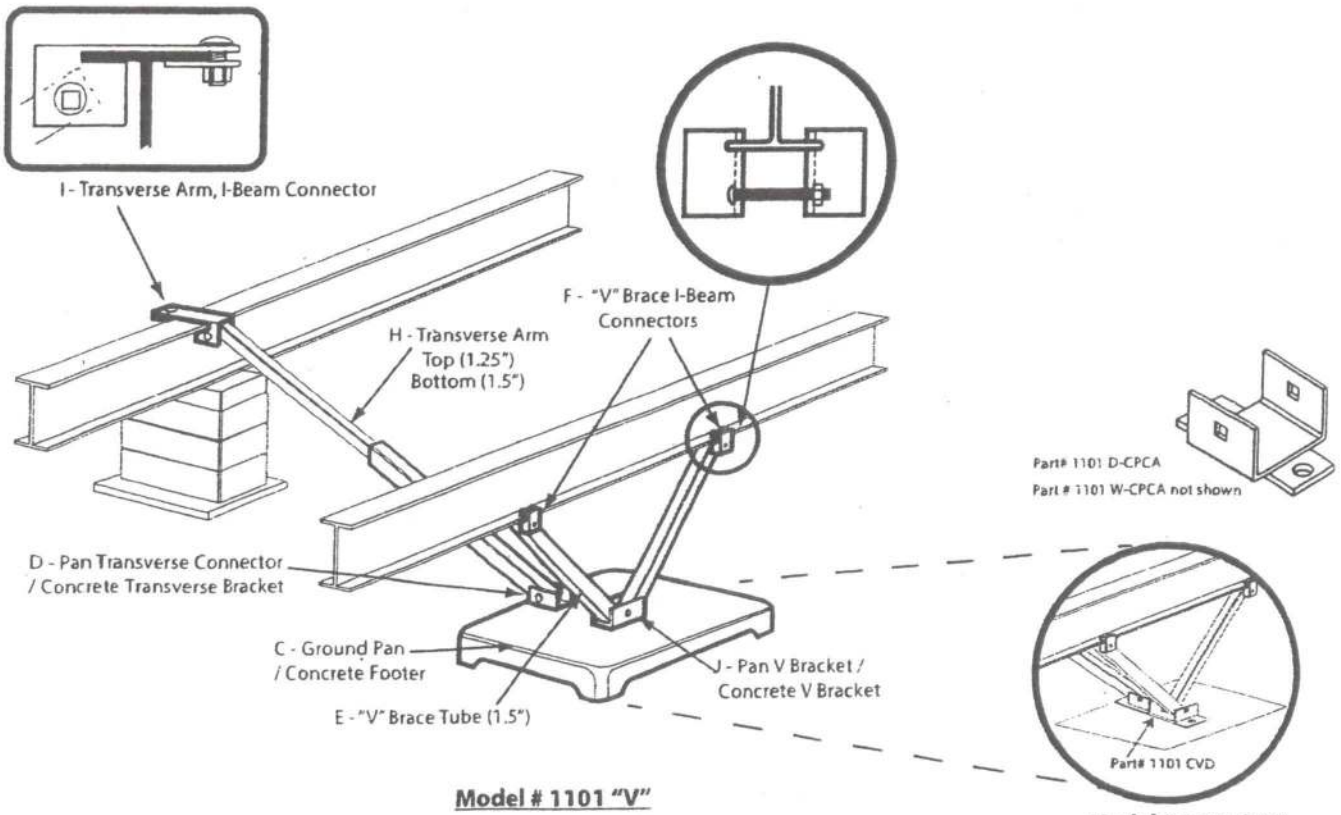
E = TELESCOPING V BRACE TUBE ASSEMBLY (1.5" TUBE BOTTOM AND 1.25" TUBE INSERT) OR 1.5" TUBE

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)



Model # 1101 "V"

Model # 1101 C "V"

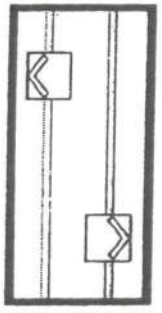
PATENT# 6634150 & OTHER PATENT PENDING

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

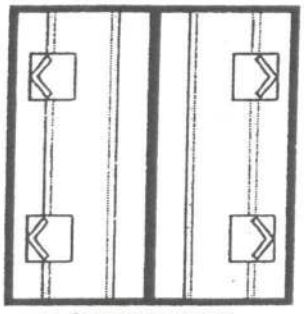
REQUIRED NUMBER AND LOCATION OF MODEL 1101 L "V" BRACES FOR UP TO 4/12 ROOF PITCH

Notes:
1. **LENGTH OF HOUSE IS THE ACTUAL BOX SIZE**
2. ▭ **= LOCATION OF LONGITUDINAL BRACING ONLY**

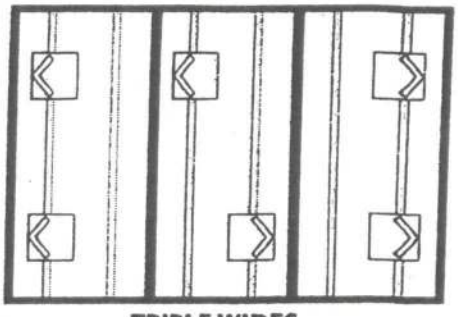
ALL WIDTHS AND LENGTHS UP TO 80'



SINGLE WIDES



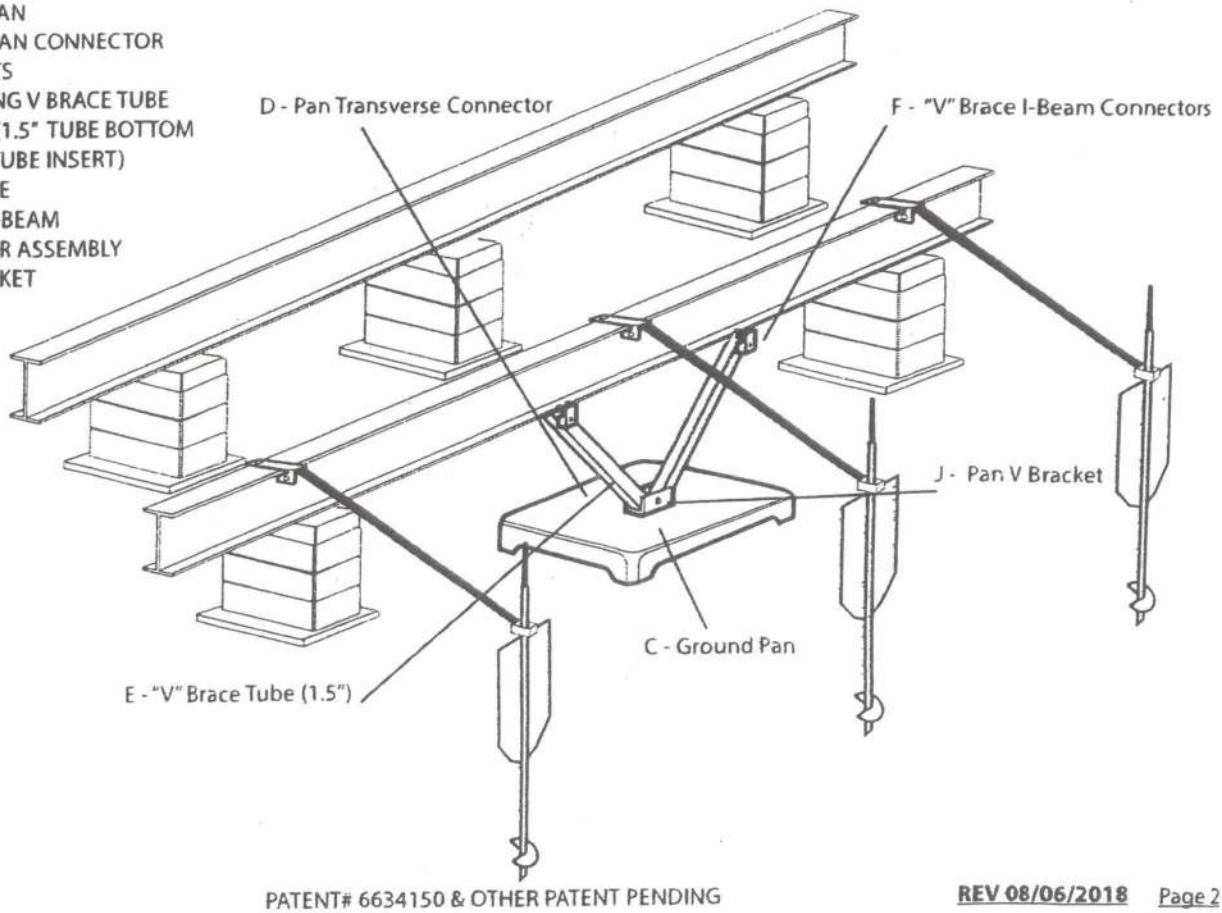
DOUBLE WIDES



TRIPLE WIDES

THIS SYSTEM ELIMINATES THE NEED FOR ALL LONGITUDINAL ANCHORS, STRAPS AND STABILIZER PLATES

C = GROUND PAN
D = GROUND PAN CONNECTOR U BRACKETS
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
J = V PAN BRACKET



PATENT# 6634150 & OTHER PATENT PENDING

State of Florida
DEPARTMENT OF
HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III
Executive Director

March 20, 2002

Mr. Bert A. Moore, Financial Manager
Manufactured Housing Foundation Systems
Oliver Technologies, Inc.
Post Office Box 9 (467 Swan Avenue)
Hohenwald, Tennessee 38462

Dear Mr. Moore:

We wish to acknowledge receipt of your specifications and test results certifying that your Longitudinal Stabilizing and Lateral Bracing System, 1101 V, listed below complies with the specifications and regulations set by the Department of Highway Safety and Motor Vehicles, Rules 15C-1.0105, 15C-1.0107 and 15C-1.0108, Florida Administrative Code.

Installation instructions must be available at the installation site.

MODEL #	DESCRIPTION
1101 V	Longitudinal Stabilizing and Lateral Bracing System

NOTE: This system is for replacement of longitudinal anchors. This system can only be used with sidewall anchor spacing of 5'4". Maximum strut angle 45°.

If you have any questions, please advise at (407) 623-1340.

Sincerely,

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PRB:srb

State of Florida
DEPARTMENT OF
HIGHWAY SAFETY AND MOTOR VEHICLES

April 26, 2007

ELECTRA THEODORIDES-BUSTLE
Executive Director

Mr. John Lower
Oliver Technologies, Inc.
P. O. Box 9
Hohenwald, Tennessee 38462

Dear Mr. Lower:

We wish to acknowledge receipt of your specifications and test results, certifying your mobile home Transverse and Longitudinal System – Wet Set and Dry Set Concrete Brackets, listed below, complies with the specifications and regulations set by the Department of Highway Safety and Motor Vehicles, Rules 15C-1.0105 and 15C-1.0107, Florida Administrative Code.

Based on the information submitted to this bureau, the following products are listed for sale and use in Florida when instructions are provided at the jobsite.

MODEL #	DESCRIPTION
1101CVW	Concrete full system wet bracket
1101CVD	Concrete full system dry set bracket
1101-W-CPCA	Concrete longitudinal system wet set bracket
1101-D-CPCA	Concrete longitudinal system dry set bracket
1101-W-TACA	Concrete transverse system wet set bracket
1101-D-TACA	Concrete transverse system dry set bracket

If you have any questions, please advise at (407) 445-7408

Sincerely

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PB/cb

A SAFER
FLORIDA
HIGHWAY SAFETY AND MOTOR VEHICLES

Terry L. Rhodes
Executive Director

2900 Apalachee Parkway
Tallahassee, Florida 32399-0500
www.flhsmv.gov

MEMORANDUM

TO: All Steel Telescoping Lateral Arm Manufacturers

FROM: Wayne Jordan, Operations Services Manager, Manufactured Housing Section
Florida Department of High Safety and Motor Vehicles

DATE: August 6, 2018

SUBJECT: Elimination of Requirement for Supplemental Frame Ties and Stabilizer Plates at All Steel Telescoping Lateral Arm Locations

The Department has reviewed some concerns expressed by several of the steel telescoping lateral arm manufacturers regarding the Department's requirement to install supplemental frame ties and stabilizer plates on the steel telescoping lateral arm systems.

In an abundance of caution, the Department required supplemental frame ties /stabilizer plates at each lateral arm location in June of 2002. After researching data from storm reports, the Department has found no evidence of the need for these supplemental frame ties/stabilizer plates. With this information in mind, the Department will discontinue the requirement for the supplemental frame ties/stabilizer plates at each lateral arm location.

Manufacturers who wish to change their installation instructions to remove this requirement, must resubmit their last engineering report showing the whole house test without the use of supplemental frame ties/stabilizer plates. Upon receipt and review of the engineering report, the Department will remove the requirement for supplemental frame ties/stabilizer plates. Each manufacturer will be notified within two weeks of receipt of the engineering report. These reports must be sent to my attention at 5701 East Hillsborough Ave, Suite 2228, Tampa, Florida 33610.

If the need arises in the future, the Department may impose additional requirements to the steel telescoping lateral arm systems with a change to Florida Administrative Code Rule 15C-1.

Brian Valente

From: Jordan, Herbert <HerbertJordan@flhsmv.gov>
Sent: Friday, August 24, 2018 11:38 AM
To: Brian Valente
Subject: RE: Oliver Technologies Revised Installation Instructions

Brian,
The department has received Oliver Technologies engineering report showing Oliver Technologies All steel Foundation Brace System Model 1101V was tested without frame ties/stabilizer plates. Pursuant to the departments memorandum of July 23, 2018, Oliver Technologies may start offering the Model 1101V All Steel Foundation Brace System without the frame tie/stabilizer plate at each lateral arm location. In order to avoid any confusion to building departments, Oliver should send the new installation instructions to your suppliers who sell the Model 1101V System.

Wayne Jordan
Operations Services Manager
Manufactured Housing Section
herbertjordan@flhsmv.gov
813-302-5032

From: Brian Valente <b.valente9@gmail.com>
Sent: Thursday, August 23, 2018 12:53 PM
To: Jordan, Herbert <HerbertJordan@flhsmv.gov>
Subject: Oliver Technologies Revised Installation Instructions

Hi Wayne, please see the attached Installation Instructions that reflect the changes we spoke about on Tuesday. If you have any questions or notice any errors, please let me know.
Thank you for all of your help,
Brian Valente
Oliver Technologies
FL Sales
678-574-0946

R. F. TUCKER CERTIFICATE No. 15896 STATE OF FLORIDA PROFESSIONAL ENGINEER
ENGINEERS STAMP

OLIVER TECHNOLOGIES, INC.
FLORIDA INSTALLATION INSTRUCTIONS FOR THE
MODEL 1101 "V" SERIES ALL STEEL FOUNDATION SYSTEM
MODEL 1101"V" (STEPS 1-15)
MODEL 1101-L"V" LONGITUDINAL ONLY:
FOLLOW STEPS 1-9
FOR ADDING LATERAL ARM :
Follow Steps 10-15

ENGINEERS STAMP

1. SPECIAL CIRCUMSTANCES: If the following conditions occur - *STOP! Contact Oliver Technologies at 1-800-284-7437* :
   a) Pier height exceeds 48" b) Length of home exceeds 76' c) Roof eaves exceed 16" d) Sidewall height exceed 96"
   e) Location is within 1500 feet of coast

INSTALLATION OF GROUND PAN

2. Remove weeds and debris in an approximate two foot square to expose firm soil for each ground pan (C) .
3. Place ground pan (C) directly below chassis I-beam . Press or drive pan firmly into soil until flush with or below soil.
   SPECIAL NOTE: The longitudinal "V" brace system serves as a pier under the home and should be loaded as any other pier. It is recommended that after leveling piers, and one-half inch (1/2") before home is lowered completely on to piers, complete steps 4 through 9 below.

INSTALLATION OF LONGITUDINAL "V" BRACE SYSTEM

NOTE: WHEN INSTALLING THE *MODEL # 1101-L"V" 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. Select the correct square tube brace (E) length for set - up (pier) height at support location. (The 18" tube is always used as the bottom part of the longitudinal arm). Note: Either tube can be used by itself, cut and drilled to length as long as a 40 to 45 degree angle is maintained.

PIER HEIGHT (Approx. 45 degrees Max.)	1.25" ADJUSTABLE Tube Length	1.50" ADJUSTABLE 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"

5. Install (2) of the 1.50" square tubes (E {18" tube)) 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. 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.
8. Repeat steps 6 through 7 to create the "V" pattern of the square tubes loosely in place. The angle is not to exceed 45 degree and not below 40 degrees.
9. After all bolts are tightened, secure 1.25" and 1.50" tubes using four(4) 1/4"-14 x 3/4" self-tapping screws in pre-drilled holes.

INSTALLATION OF LATERAL TELESCOPING TRANSVERSE ARM SYSTEM

THE MODEL 1101 "V" (LONGITUDINAL & LATERAL PROTECTION) ELIMINATES THE NEED FOR MOST 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.

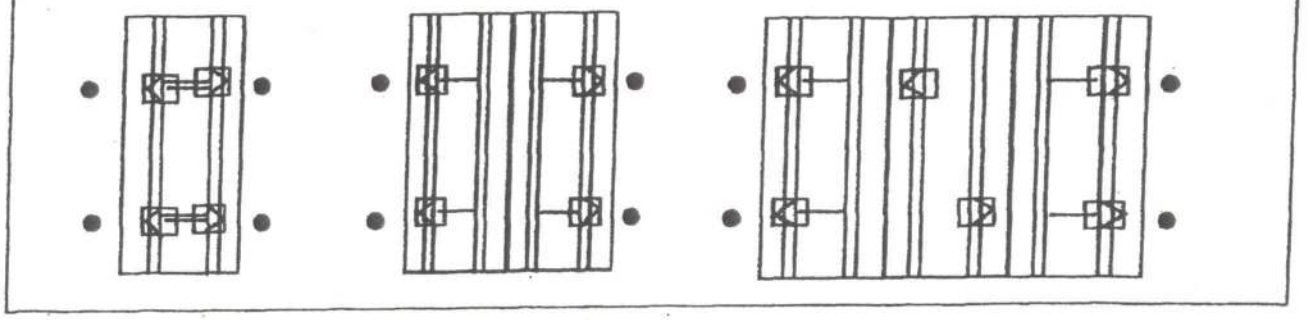
10. Install remaining vertical tie-down straps and 4' ground anchors per home manufacturer's instructions. **NOTE:** Centerline anchors to be sized according to soil torque condition. Any manufacturer's specifications for sidewall anchor loads in excess of 4,000 lbs. require a 5' anchor.
11. **NOTE:** Each system is required to have a frame tie and stabilizer attached at each lateral arm stabilizing location. This frame tie & stabilizer plate needs to be located within 18" from of center ground pan.
12. 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.)
13. Install the 1.50 transverse brace (H) to the ground pan connector (D) with bolt and nut.
14. Slide 1.25" transverse brace into the 1.50" brace and attach to adjacent I-beam connector (I) with bolt and nut.
15. 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.

MANUFACTURED HOUSING FOUNDATION SYSTEMS
A DIVISION OF OLIVER TECHNOLOGIES, INC.
1-800-284-7437

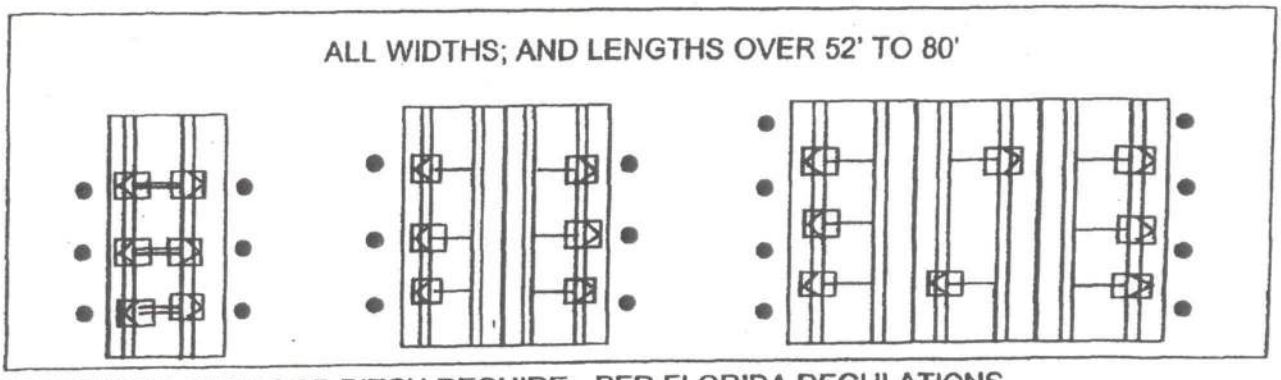
Telephone: 931-796-4555
Fax: 931-796-8811
www.olivertechnologies.com

REQUIRED NUMBER AND LOCATION OF MODEL 1101 "V" BRACES FOR UP TO 4/12 ROOF PITCH

ALL WIDTHS; AND LENGTHS UP TO 52'

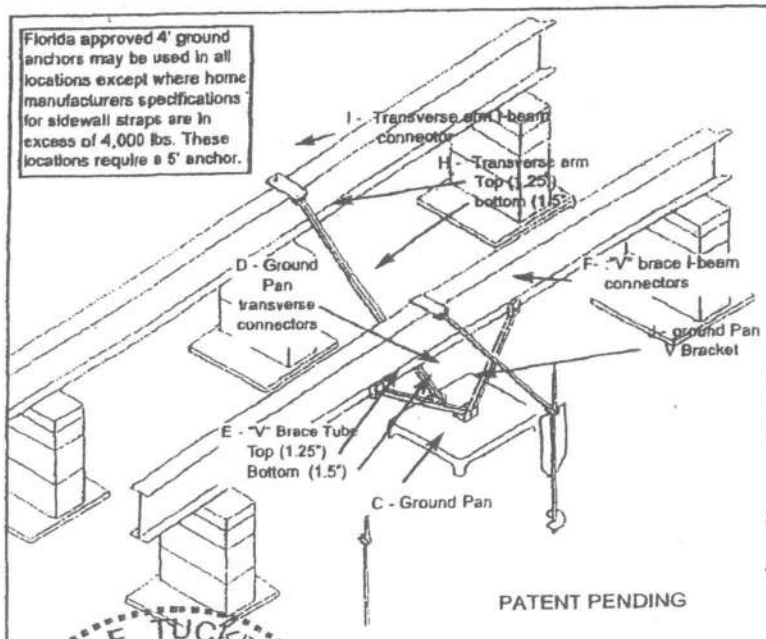


ALL WIDTHS; AND LENGTHS OVER 52' TO 80'



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'. One stabilizer plate and frame tie required at each lateral bracing system.

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.



PATENT PENDING

C = GROUND PAN
D = GROUND PAN CONNECTOR U BRACKETS
E = TELESCOPING V BRACE TUBE ASSEMBLY W/ 1.5 BOTTOM TUBE AND 1.25 TUBE INSERT
F = "V" BRACE I-BEAM CONNECTORS ASSEMBLY
H = TELESCOPING TRANSVERSE ARM ASSEMBLY
I = TRANSVERSE ARM I-BEAM CONNECTOR
J= V PAN BRACKET

REVISED INSTRUCTIONS 4/23/03

NOTES:
1. LENGTH OF HOUSE IS THE ACTUAL *BOX SIZE*
2. • = STABILIZER PLATE AND FRAME TIE LOCATION (needs to be located within 18" from center of ground pan)
3. ⊠ = LOCATION OF ASF MODEL 1101"V" (LATERAL & LONGITUDINAL BRACING).
4. ⊠ = LOCATION OF MODEL 1101-L"V" (LONGITUDINAL BRACING ONLY).

R. F. TUCKER
CERTIFICATE
15896
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

MANUFACTURED HOUSING FOUNDATION SYSTEMS
A DIVISION OF OLIVER TECHNOLOGIES, INC.
1-800-284-7437

Telephone: 931-796-4555
Fax: 931-796-8811
www.olivertechnologies.com

State of Florida
DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III
Executive Director

March 20, 2002

Mr. Bert A. Moore, Financial Manager
Manufactured Housing Foundation Systems
Oliver Technologies, Inc.
Post Office Box 9 (467 Swan Avenue)
Hohenwald, Tennessee 38462

Dear Mr. Moore:

We wish to acknowledge receipt of your specifications and test results certifying that your Longitudinal Stabilizing and Lateral Bracing System, 1101 V, listed below complies with the specifications and regulations set by the Department of Highway Safety and Motor Vehicles, Rules 15C-1.0105, 15C-1.0107 and 15C-1.0108, Florida Administrative Code.

Installation instructions must be available at the installation site.

MODEL #	DESCRIPTION
1101 V	Longitudinal Stabilizing and Lateral Bracing System

NOTE: This system is for replacement of longitudinal anchors. This system can only be used with sidewall anchor spacing of 5'4". Maximum strut angle 45°.

If you have any questions, please advise at (407) 623-1340.

Sincerely,

Phil Bergelt

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PRB:srb

State of Florida
DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III
Executive Director

November 22, 1999

Mr. Lon Larson, General Manager
Manufactured Housing Foundations Systems, Inc.
A Division of Oliver Technology
562 Glenheather Drive
San Marcos, CA 92069

Dear Mr. Larson:

We wish to acknowledge receipt of your specifications and test results certifying that your ABS Pad listed below, comply with the rules and regulations set by the Department of Highway Safety and Motor Vehicles, Chapter 15C-1.0103.

Based on the information submitted to this bureau, the following products are listed for use in Florida when the installation instructions are provided:

			MAXIMUM PIER LOADS, IN LBS. Soil Bearing Capacity PSF					
Type	Pad configuration 1055-14	Pad Area (sq.ft)	1000	1500	2000	2500	3000	Remarks
1	15.98" x 15.98" w/2 CMU'S single column stacked	1,773	1,778	2,660	3,547	4,433	5,320	MAX = 5,320 lbs.
1	15.98" x 15.98" w/2 CMU'S double column stacked	1,773	1,778	2,660	3,547	4,433	5,320	MAX = 5,320 lbs

If you have any questions, please advise,

Sincerely,

Phil Bergelt

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PB/bsc

State of Florida
DEPARTMENT OF
HIGHWAY SAFETY AND MOTOR VEHICLES
TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III
Executive Director

February 18, 2000

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

Dear Mr. Larson:

We wish to acknowledge receipt of your specifications and test results certifying that your ABS Pads listed below, complies with the rules and regulations set by the Department of Highway Safety and Motor Vehicles, Florida Administrative Code, Rule 15C-1.0103.

Based in the information submitted to this Bureau, the following products are listed for use in Florida when the installation instructions are provided at the job site.

Foundation Pad Capacity Chart

Pad Configuration	Pad Area (Sq.Ft.)	MAXIMUM PIER LOADS, IN POUNDS Soil Bearing Capacity PSF			
		1,000	2,000	3,000	Remarks
One pad 17.5" x 25.5"	3.0	3,000	6,000	9,000	MAX = 9,000
Pad Configuration using (3) three 17.5" x 25.5"	6.0	6,000	12,000	N/A	MAX = 12,000

NOTE: All Pad configurations are approved for single and double blocked columns. Single block column not to exceed 8,000 pounds.

Sincerely,

Phil Bergelt

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PB:bsc
Revised March 17, 2000

State of Florida
DEPARTMENT OF
HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

June 17, 2002

FRED O. DICKINSON, III
Executive Director

Mr. Lon Larson, General Manager
Manufactured Housing Foundation Systems, Inc.
A Division of Oliver Technologies
Post Office Box 9
Hohenwald, Tennessee 38462

Dear Mr. Larson:

We wish to acknowledge receipt of your specifications and test results certifying that your 1055-20 Flex Free ABS Plastic Pad listed below complies with the specifications and regulations set by the Department of Highway Safety and Motor Vehicles, Rules 15C-1.0105, 15C-1.0107 and 15C-1.0108, Florida Administrative Code.

Based on the information submitted to this bureau, the following product is listed for sale and use in Florida when the installation instructions showing the way the pads were tested, are provided.

MODEL #	IDENTIFICATION	DESCRIPTION	AREA
1055-20	Flex Free ABS Plastic Pad	23.25" x 31.25"	4.698 sq. ft.

MAXIMUM PIER LOADS IN POUNDS BASED ON SOIL VALUES

PAD CONFIGURATION	PAD AREA	LOAD
Pad 1	4.698 sq. ft.	1000 lb. soil – 4,698 2000 lb. soil – 9,396

NOTES: 1) INSTALLER IS RESPONSIBLE FOR DETERMINING SOIL BEARING CAPACITY.
2) THE PAD WAS TESTED FOR SINGLE AND DOUBLE BLOCK CONFIGURATION.
3) 8,000 LB. LOAD AND ABOVE REQUIRE DOUBLE BLOCK CONFIGURATION.

If you have any questions, please advise at (407) 623-1340.

Sincerely,

Phil Bergelt

Phil Bergelt, Program Manager
Bureau of Motor Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PRB:srb

State of Florida
DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III
Executive Director

April 2, 2001

Mr. Lon Larson, General Manager
Manufactured Housing Foundation Systems, Inc.
A Division of Oliver Technologies
Post Office Box 9
Hohenwald, Tennessee 38462

Dear Mr. Larson:

We wish to acknowledge receipt of your specifications and test results certifying that your anchor products listed below, comply with the rules and regulations set by the Department of Highway Safety and Motor Vehicles, Chapter 15-C1.0103.

Based on the information submitted to this bureau, the following products are listed for sale and use in Florida, when the installation instructions are provided: (Strap and bolt may be used with Type I and Type II Anchors)

MODEL #	IDENTIFICATION	DESCRIPTION
OT486B	Auger Anchor	3/4"x 48" rod w/single 6" disc/ thickness 0.169" steel, dbl bolt head
OT	Strapping	1 1/4"x0.0399" galvanized flat strapping .60 oz per sq. ft.
OT	Galvanized Split Bolt	5/8"x3"x5/8" sq. shoulder with hexagon head, standard national thread, shaft saw cut

If you have any questions, I can be reached at (850) 413-7600.

Sincerely,

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PRB:srb

State of Florida

DEPARTMENT OF HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III
Executive Director

December 20, 2000

Mr. Lon Larson, General Manager
Manufactured Housing Foundation Systems, Inc.
A Division of Oliver Technologies
Post Office Box 9
Hohenwald, Tennessee 38462

Dear Mr. Larson:

We wish to acknowledge receipt of your specifications and test results certifying that your anchor products listed below, comply with the rules and regulations set by the Department of Highway Safety and Motor Vehicles, Chapter 15-C1.0103.

Based on the information submitted to this bureau, the following products are listed for sale and use in Florida, when the installation instructions are provided: (Strap and bolt may be used with Type I and Type II Anchors)

MODEL #	IDENTIFICATION	DESCRIPTION
OT607B	Auger Anchor	3/4"x60" rod w/single 7.50" disc/ thickness 0.171" steel, dbl bolt head
OT	Strapping	1 1/4"x0.0399" galvanized flat strapping .60 oz per sq. ft.
OT	Galvanized Split Bolt	5/8"x3"x5/8" sq. shoulder with [illegible] thread, shaft saw cut

If you have any questions, I can be reached at (850) 413-7600.

Sincerely,

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PRB:srb

OLIVER

[illegible]

For use on all Mobile and Manufactured Homes, including HUD approved Homes and Modular Building Patent #5503500 and other patents pending

GENERAL INSTRUCTIONS:

1. All pads are to be installed flat side down, ribbed side up.
2. The ground under the pads should be leveled as smooth as possible with all vegetation and debris removed. Pads to be placed on evenly compacted soil, at or below the frost line unless otherwise protected from frost by controlling the temperature and/ or moisture content of the soil underneath the home.
3. Pier & pad placement will be determined by the manufactured homes' written set-up instructions or any local or state codes.
4. Center blocks on ABS pad and complete pier.
5. The open cells between the ribbing on the upper side of the pads may be filled with soil or sand after installation to prevent any accumulation of stagnant water in the pads.
6. A pocket penetrometer may be used to determine the unconfined compressive strength of the soil. If no soil testing equipment is available – use an assumed soil value of 1000 lbs. / square foot.

NOTES:

1. All pad sizes shown are nominal dimensions and may vary up to 1/8".
2. The maximum deflection in a single pad is 5/8" measured from the highest point to the lowest point of the top face. (NOTE: Actual test results were less than 5/8")
3. Pad loads are the same when using single stack or double stack blocks.
4. The maximum load at any intermediate soil value may be interpolated between the next lower and next higher soil values given in the table below.
5. Any ABS pad configuration may be used to replace a home manufacturer's recommended concrete or wood base pad.
6. Steel Piers: All pads are tested with steel piers on 1000 PSF soil density unless otherwise noted. If required, attach with 2" #12 x ½" hex tech screws. Minimum Pier Base 7 1/4". Multi-Pad configurations require a minimum 9 1/4" pier base.
7. Available pads tested on 2000 PSF soil capacity using steel piers are: ID #1055-14, 1055-9, 1055-7 and 1055-13.
8. If soil capacities exceed 3000 psf, use the 3000 psf soil values from the table.
9. Any pad may be stacked directly on top of an identical pad. The second pad should also be installed flat side down. Such a configuration provides the same allowable load capacity as the single pad.

PAD SIZE	ID NO.	PAD AREA	1000 PSF	1500 PSF	2000 PSF	2500 PSF	3000 PSF
Oval 16" x 18.5"	1055-23	288 sq. in.	2000 lbs.	3000 lbs.	4000 lbs.	5000 lbs.	6000 lbs.
Oval 17" x 22"	1055-16	360 sq. in.	2500 lbs.	3750 lbs.	5000 lbs.	6250 lbs.	7500 lbs.
Oval 17.5" x 22.5"	1055-21	384 sq. in.	2667 lbs.	4000 lbs.	5334 lbs.	6667 lbs.	8000 lbs. *
Oval 17.5" x 25.5"	1055-17	432 sq. in.	3000 lbs.	4500 lbs.	6000 lbs.	7500 lbs.	9000 lbs. *
Oval 21" x 29"	1055-22	576 sq. in.	4000 lbs.	6000 lbs.	8000 lbs. *	10000 lbs. *	12000 lbs. *
Oval 23.25" x 31.25"	1055-20	675 sq. in.	4688 lbs.	7032 lbs.	9376 lbs. *	11720 lbs. *	14064 lbs. *

PAD SIZE	ID NO.	PAD AREA	1000 PSF	1500 PSF	2000 PSF	2500 PSF	3000 PSF
Square 16" x 16"	1055-14	256 sq. in.	1778 lbs.	2664 lbs.	3556 lbs.	4445 lbs.	5333 lbs.
Square 18.5" x 18.5"	1055-9	342 sq. in.	2375 lbs.	3550 lbs.	4750 lbs.	5935 lbs.	7100 lbs.
Square 20" x 20"	1055-7	400 sq. in.	2750 lbs.	4125 lbs.	5500 lbs.	6875 lbs.	8250 lbs. *
Square 24" x 24"	1055-13	576 sq. in.	4000 lbs.	6000 lbs.	8000 lbs. *	8000 lbs. *	8000 lbs. *
Square 24" x 24"	1055-26	576 sq. in.	4000 lbs.	6000 lbs.	8000 lbs. *	10000 lbs. *	12000 lbs. *

* Indicates that Piers are required to be double blocked.

EXAMPLE: 16' x 80' section (Alabama only)

PAD SIZE	1000 PSF	2000 PSF
Oval 16" x 18.5"	3'8"	6'8"
Oval 17" x 22"	3'9"	7'6"
Oval 17.5" x 22.5"	4'0"	8'0"
Oval 17.5" x 25.5"	4'5"	8'0"
Oval 21" x 29"	6'0"	8'0"

W. C. FARISH
LICENSE
No. 50242
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Sep 23, 2020

Revised 07.01.2020

OLIVER

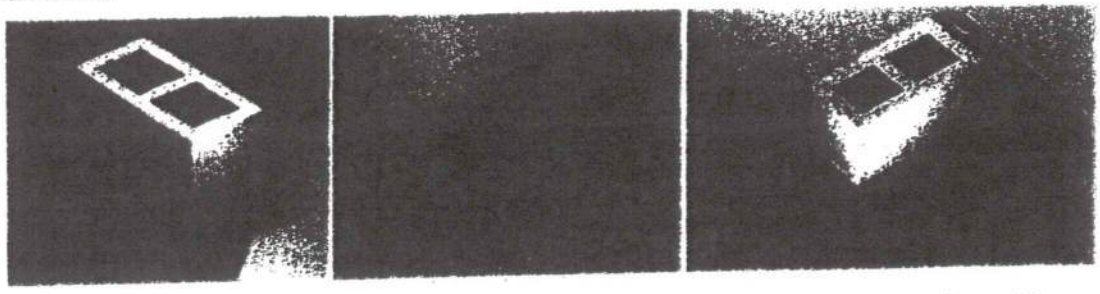
Multi-Pad Configurations

ABS Pad Types		
Oval 16" x 18.5" Pad Oval 32" x 18.5" Pad Configuration (03)	2.00 Square Feet 4.00 Square Feet	ID # 1055-23
Oval 17" x 22" Pad Oval 34" x 22" Pad Configuration (03)	2.50 Square Feet 5.00 Square Feet	ID # 1055-15
Oval 17.5" x 25.5" Pad Oval 35" x 25.5" Pad Configuration (03)	3.00 Square Feet 6.00 Square Feet	ID # 1055-17

	8" Cell Block	Soil Bearing Value	Maximum Load
32" x 18.5" Pad Configuration	Single Stack	1000 lbs. / sq. ft.	4000 lbs.
	Double Stack	2000 lbs. / sq. ft.	8000 lbs. *
34" x 22" Pad Configuration	Single Stack	1000 lbs. / sq. ft.	5000 lbs.
	Double Stack	2000 lbs. / sq. ft.	10000 lbs. *
35" 25.5" Pad Configuration	Single Stack	1000 lbs. / sq. ft.	6000 lbs.
	Double Stack	2000 lbs. / sq. ft.	12000 lbs. *

*Concrete blocks are only rated at 8000 pounds, 8001 pounds and higher must be double stacked.

PAD ASSEMBLY



STEP 1 - 17" x 22" ABS Pad **STEP 2 - (2) 17" x 22" ABS PADS (34" x 22" Configuration)** **STEP 3 - Complete Assembly 34" x 22" Multi-pad Configuration**

NOTES:

1. General instructions (on reverse) apply to all multi – pad configurations.
2. The 32" x 18.5" pad configuration is formed by using (3) 16" x 18.5" ABS Pads. Place (2) 16" x 18.5" side by side, and place (1) 16" x 18.5" on top, laid in the opposite direction to the bottom pads.
3. The 34" x 22" pad configuration is formed by using (3) 17" x 22" ABS Pads. Place (2)17" x 22" pads side by side, and (1) 17" x 22" pad on top. The top pad is laid in the opposite direction as the bottom pads.
4. The 35" x 25.5" pad configuration is formed by using (3) 17.5" x 25.5" ABS Pads. Place (2) 17.5" x 25.5" pads side by side, and (1) 17.5" x 25.5" pad on top. The top pad is laid in the opposite direction to the bottom pads

STATE SPECIFIC NOTES:

TEXAS: 17.5" x 22.5" ID #1055-21 and 23.25" x 31.25" ID #1055-20 may not be installed in the State of Texas. ID#1055-26 may not be used in conjunction with metal piers.

CALIFORNIA: Use an assumed value of 1000 lb/sq. ft. unless engineering and calculations are provided

ALABAMA : For the State of Alabama all ABS pads shall not have more than 3/8" deflection. See chart on page one for details on correct installation in Alabama. The 23.25" x 31.25" ID#1055-20 may not be installed in the State of Alabama

W. C. FARISH
LICENSED
No. 50242
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Sep 23, 2020

State of Florida
DEPARTMENT OF
HIGHWAY SAFETY AND MOTOR VEHICLES
TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON, III
Executive Director

FYI

June 7, 2000

Mr. Lon Larson
MFG. Housing Foundation Systems
Division of Oliver Technologies
P.O. Box 9, 467 Swan Avenue
Hohenwald, Tennessee 38462

Dear Mr. Larson:

We wish to acknowledge receipt of your specifications and test results certifying that your ABS Plastic Stabilizing Device listed below, complies with the rules and regulations set by the Department of Highway Safety and Motor Vehicles, Chapter 15-C1.0103.

Based on the information submitted to this bureau, the following products are listed for use in Florida using Type I and Type II anchors, when the installation instructions are provided:

MODEL #	IDENTIFICATION	DESCRIPTION
1055-19	Plastic Stabilizer Post	9.95 x 24 x .742 at top

If you have any questions, I can be reached at (850) 413-7600.

Sincerely,

Phil Bergelt

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PB:bsc

State of Florida
DEPARTMENT OF
HIGHWAY SAFETY AND MOTOR VEHICLES

TALLAHASSEE, FLORIDA 32399-0500

FRED O. DICKINSON
Executive Director

March 7, 2003

Mr. Lon Larson, General Manager
Manufactured Housing Foundation Systems, Inc.
A Division of Oliver Technologies
Post Office Box 9
Hohenwald, Tennessee 38462

Dear Mr. Larson:

We wish to acknowledge receipt of your specifications and test results certifying that your mobile home galvanized swivel frame clamp listed below, complies with the rules and regulations set by the Department of Highway Safety and Motor Vehicles, Rules 15C-1.0105, 15C-1.0107 and 15C-1.0108, Florida Administrative Code.

Based on the information submitted to this bureau, the following product is listed for sale and use in Florida, when the installation instructions are provided:

MODEL #	IDENTIFICATION	DESCRIPTION
OTSFT	Swivel Frame Clamp	Galvanized

If you have any questions, I can be reached at (407) 623-1340.

Sincerely,

Phil Bergelt, Program Manager
Bureau of Mobile Home and
Recreational Vehicle Construction
Division of Motor Vehicles

PRB:hwj

ESI Products

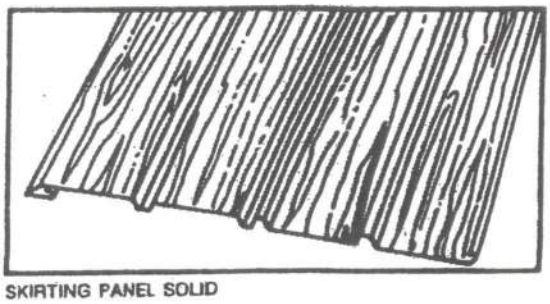
INSTALLATION INSTRUCTIONS
For
Solid Vinyl Skirting

Installation Details

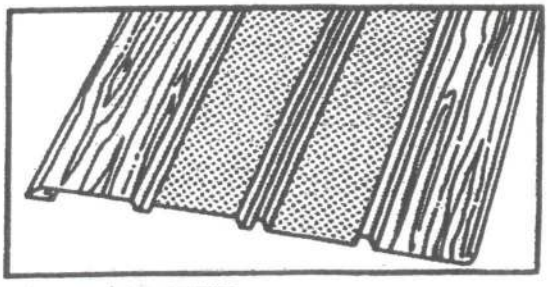
Careful attention to a few basic details will insure that your Solid Vinyl Skirting will provide a beautiful, easily installed, completely accessible exterior with a minimum of maintenance. Solid Vinyl Skirting is easily installed over any terrain, requires few special tools and never needs painting. Following these basic installation techniques will assure that your Solid Vinyl Skirting will contribute to the beauty of your home's exterior.

Tools You Will Need (not included)

1. Hammers
2. Screwdriver
3. Snips
4. Plumb Bob or Level
5. Tape Measure
6. Power Saw with Fine Tooth Blade
7. SL-8P Modified Super Punch Tool (for panel tabs)
8. Chalk Line
9. Utility Knife



SKIRTING PANEL SOLID



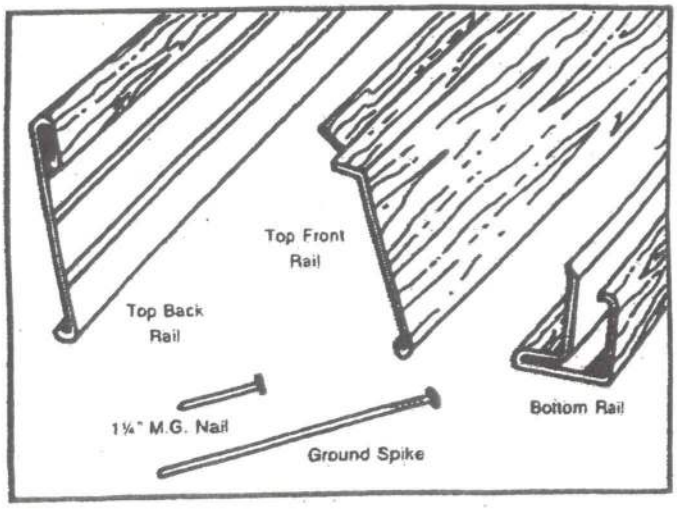
SKIRTING PANEL VENTED

IMPORTANT !!!

1. Use either a power saw with a fine tooth blade mounted with reverse rotation, a large paper cutter, or aviation snips to cut skirting components.

2. To allow for normal expansion and contraction, fasten Top Back Rail in the center of the nailing slots. Fasten positively to the surface of the unit at every other slotted hole, leaving ½" between lengths. Do not butt the ends. Allow ½"-1" between pieces of Top Front Rail. Allow ½" between pieces of the Bottom Rail when installing.

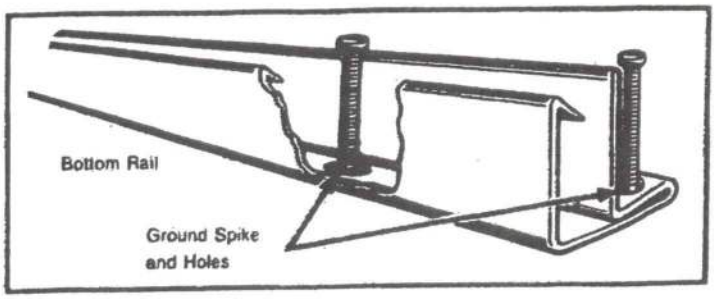
3. Do not drive nails too tightly. The 1¼" M.G. nails provided offer excellent holding power, but if driven too tightly, the vinyl can, under normal expansion and contraction, become distorted. These special nails should be driven in the middle of the nailing slot just short of touching the Top Back Rail.



STEP 1 LAYING THE BOTTOM RAIL

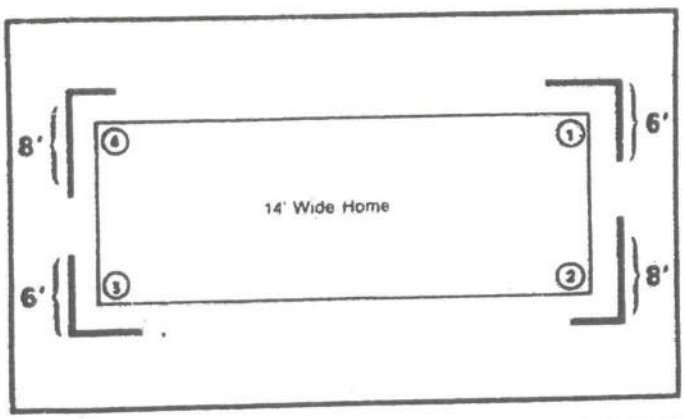
NOTE: To prevent grass from growing around the base of the skirting and provide a non-shifting base for the ground spikes, 9" asphalt roof starter should be installed around the home. The roof starter also reduces the possibility of the vinyl skirting panels from being damaged from the use of a powered string trimmer (weed eater).

Using a Plumb Bob, mark a point on the ground or slab at each corner of the mobile home. Then snap a chalk line between these points to determine position of Bottom Rail.

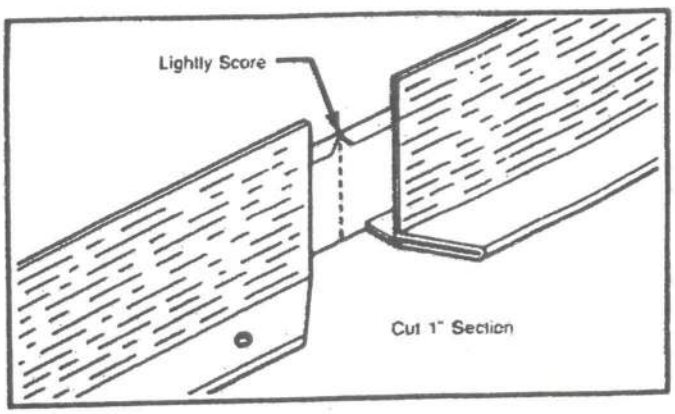


Position Bottom Rail with the back leg on the chalk line. Secure to the ground with 7" ground spikes, at each end of the Bottom Rail and in between as needed. Holes for the ground spikes are in both the back leg and the center. Use either or both sets of holes. Drive spikes approximately every 24 inches. SEE ILLUSTRATION ABOVE. In soft or sandy soil drive a surveying stake into the ground, then secure Bottom Rail to ground with 7" ground spike driven into stake. When securing to concrete, use masonry nails or concrete adhesive.

CORNERS – 4 prenotched Bottom Rails are included in each rail kit. Two Bottom Rails are punched at 6 feet and two at 8 feet. Use one 6' and one 8' Bottom Rail on each end of the home. On a 14' wide home, the 6' and 8' Bottom Rails should meet with little cutting.

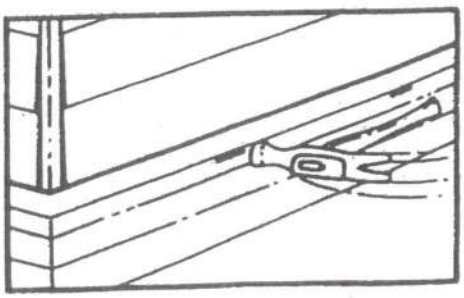


Additional corners can be formed with the Bottom Rail by cutting out a 1" section in the Rear Vertical Panel and cutting a 1" section out of the back leg. Lightly score the back of the Front Vertical Panel with a nail or pocket knife. The Bottom Rail is then bent at the desired angle.



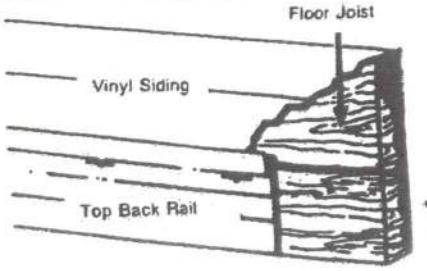
STEP 2 INSTALLING THE TOP BACK RAIL

Beginning ½" from the corner of the mobile home, position Top Back Rail with the bottom edge flush with the bottom of the mobile home. Secure to mobile home with M.G. nails making sure to nail in the center of the nail slot. Drive nails snug but not tight. (After nailing, Top Back Rail should be able to move from side to side when force is applied to it.) Continue around mobile home, always leaving ½" at the corner and ½" between any two pieces.



Special Attention

Due to different expansion / contraction rates of skirting and vinyl siding when installing Solid Vinyl Skirting to a home with vinyl siding, the Top Back Rail should be nailed to a furring strip which is nailed to the bottom of the floor joist. DO NOT ATTACH TOP BACK RAIL TO THE SIDING.



Optional Method: Drill 1" diameter hole in the siding. Install screw nail of Top Back Rail Rail in the middle of 1" hole. This allows for expansion in both siding and skirting.

STEP 3 CUTTING THE PANELS

A

First, determine the distance between the bottom of the Top Back Rail and the ground. Cut Panels 1" longer in warm weather and 2" longer in cold weather. Make several measurements to determine the degree of variance. Should you find the ground slopes, you should take a measurement every 16" (net exposure of Panel) and cut the bottom of Each Panel on the same angle as the ground. It is imperative that the top of each Panel piece be cut square and leveled both vertically and horizontally.

Panels can be cut with tin snips, large paper cutters, or a power handsaw with a fine toothed blade mounted in the reverse position. See Figure 1.

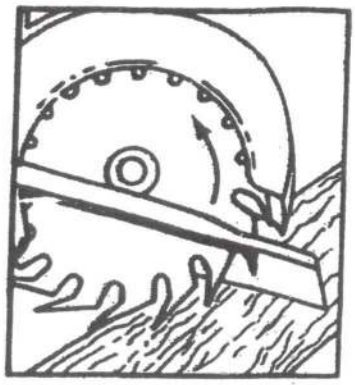


Figure 1

B

Starting at the lowest corner, cut the panel to fit the corner after determining the length as described in Step A. Form the corner by lightly scoring the back side of the Panel with a nail or pocket knife. Be careful not to cut too deeply. After scoring the Panel, bend over a sharp edge to the desired angle. In cold weather, warm Panel to room temperature before forming corner. See Figure 2.

To remove scratches on brown, heat with heat gun and rub heated area.

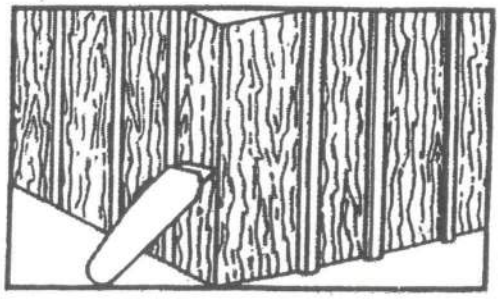


Figure 2

C

Using only a Super Punch SL-8P Modified, dimple each section of Panel with the raised dimple to outside (away from) of mobile home. Be sure dimple is next to supporting rib — not centered between ribs. Repeat dimpling operation on top edge of Panel. When inserted into top and bottom rails, these dimples will lock the Panel in place. See Figure 3.

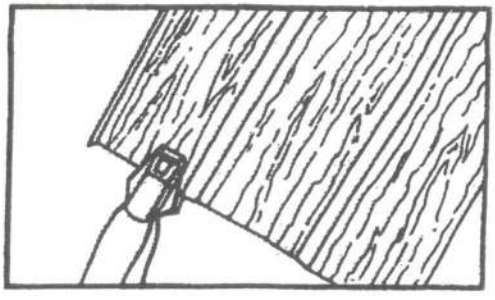


Figure 3

D

Insert dimpled Panel into Bottom Rail. Let it rest against Top Back Rail. Work your way around the mobile home from the first corner Panel installed. Cut each Panel to fit, as detailed in Step A. Connect each new Panel with the preceeding one by sliding from the top. Continue to slide the Panel down until completely inserted in the Bottom Rail. See Figure 4. DO NOT FORGET to punch each new Panel as outlined in Step C. Continue to add panel pieces in this manner until next corner is reached. Then it will be necessary to form another corner Panel as detailed in Step B. Continue around the mobile home until you come to the last Panel. It may be necessary to cut the last Panel to fit. When cutting, be sure to overlap the adjoining Panel. Secure last Panel to overlap Panel with a series of #44 (1/8) rivets.

When installing in windy areas or when Panels are 36" or more high, use the optional 24" windguard steel rod, or install a 3/16 pre-cut steel rod from the Bottom Rail to the top of the Panel. See Figure 5. (Contact your dealer for more details.)

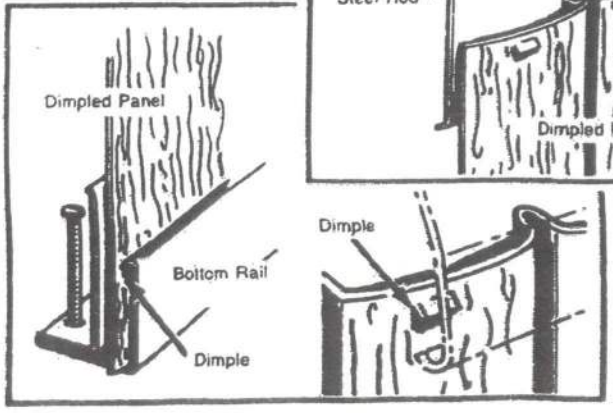


Figure 4

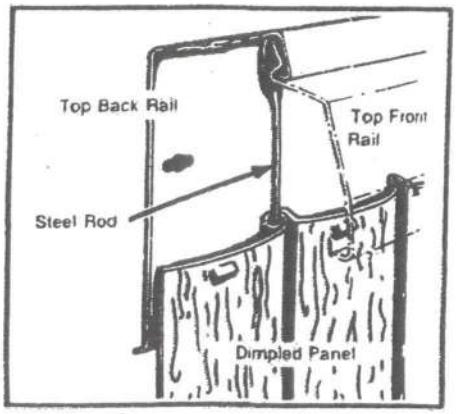
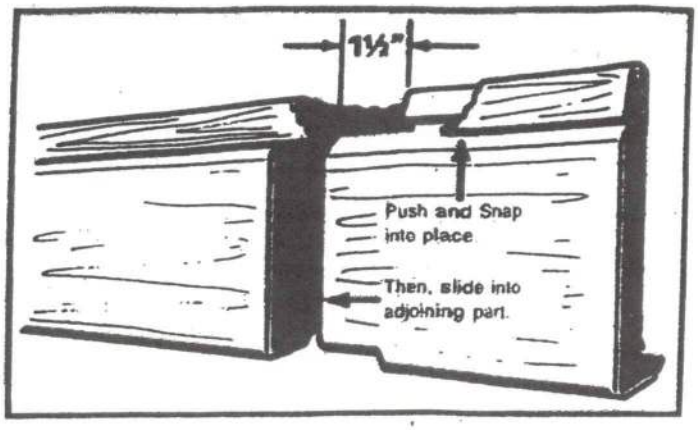


Figure 5

STEP 4 INSTALLING THE TOP FRONT RAIL

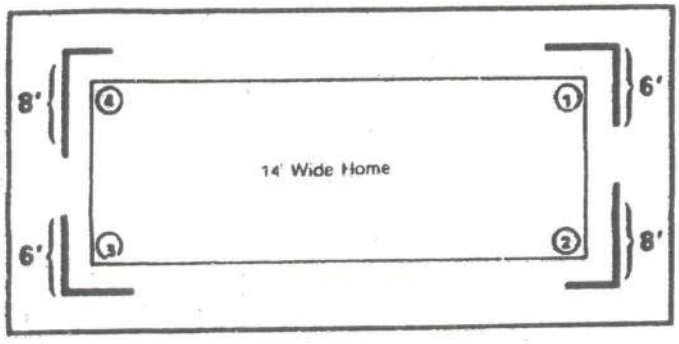
The Top Front Rail installs easily by snapping the top edge of its spring lock into the Top Back Rail. Be sure to push the Top Front Rail all the way into the Top Back Rail until it "snaps" into place.



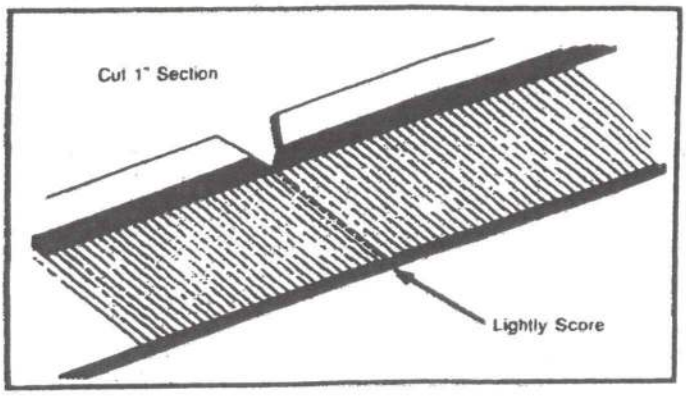
Remaining Top Front Rail – Snap Top Front Rail into Top Back Rail. Each Top Front Rail is end notched 1½" on one end. This end notch overlaps 1" where the ends of Top Front Rails meet.

Due to expansion, do not butt ends together.

CORNERS – 4 prenotched Top Front Rails are included in each rail kit. Two Top Front Rails are punched at 6 feet and two at 8 feet. Use one 6' and one 8' Top Front Rail on each end of the home. On a 14' wide home, the 6' and 8' Top Front Rails should meet with little cutting.



Additional corners can be formed by cutting a 1" notch out of the top lip and cutting a "V" on the beveled edge.

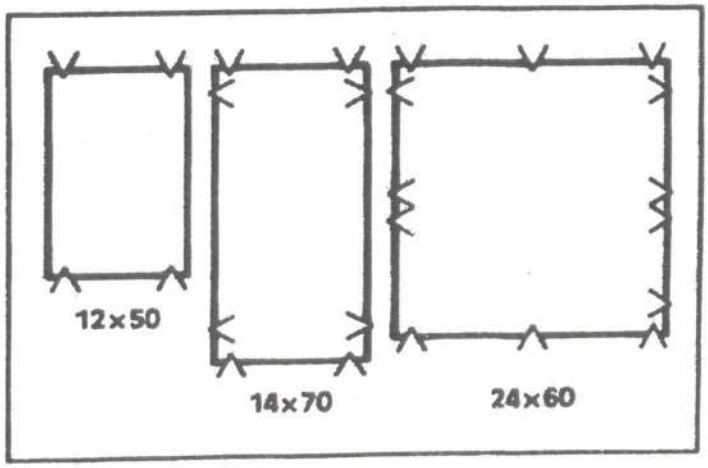


Ventilation

Where ventilation codes apply there should be a minimum of four (4) ventilated openings from under floor space to the exterior. One at or near each corner.

Ventilation codes vary by community and manufacturer. Contact your dealer to determine amount of vented panels needed to meet your code.

SUGGESTED PLACEMENT OF VENTILATED OPENINGS



Easy Access

Access can be gained at virtually any point by simply lifting the Top Front Rail and sliding out the desired number of panels. Accessibility to the area under the unit is available wherever desired.

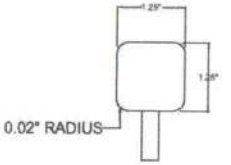
For More Information, Call: ESI Products
303-530-1566 • 1-800-843-3336
6676 GunPark Drive, Suite F • Boulder, CO 80301
FAX 303-530-3820

STAIR DETAIL

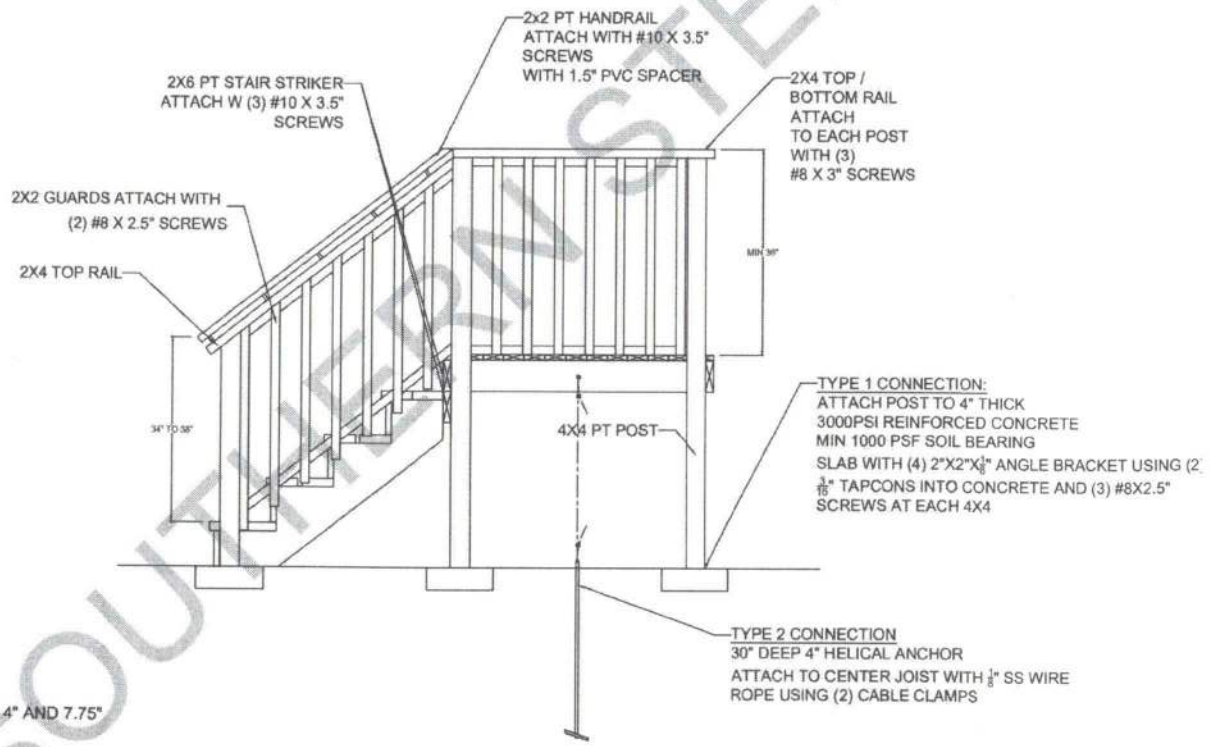
SOUTHERN STEPS
ALWAYS TAKING STEPS TO SATISFY OUR CUSTOMERS

2023 FLORIDA BUILDING CODE 8TH EDITION.
RESIDENTIAL SECTIONS R311 AND 312.

R311.7.2	HEADROOM
R311.7.5.	RISER HEIGHT
R311.7.5.2	TREAD DEPTH
R311.7.8.2	HANDRAILS
R311.7.8.3	CONTINUITY
R311.7.8	HANDRAIL GRIP SIZE
R312.1.2	-GUARDS
R312.1.3	GUARD OPENING LIMITS



HANDRAIL THAT IS NOT CIRCULAR MUST HAVE A PERIMETER OF 4.0" MIN AND 6.25" MAX WITH A CROSS SECTION DIMENSION OF 2.25"



NOTES

STEP HAS A MIN 40"X40" LANDING
STEP HAS A RISER HEIGHT OF BETWEEN 4" AND 7.75"
HANDRAIL HEIGHT 36"
2"X2" HANDRAIL " RADIUS ALL SIDES
GUARDRAIL TO BE 36"
OPENING WILL REJECT 4" SPHERE

TYPICAL HANDRAIL
CONSTRUCTION DETAILS

REVISIONS

PROJECT INFORMATION

CLIENT NAME
ADDRESS
ADDRESS

DRAWING TITLE
STAIR DETAIL

SCALE: N/A

SHEET #
1