

DIVISION OF MANUFACTURED HOUSING

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May 22, 2003

Mr. Scott Oliver
Oliver Technologies, Inc.
P.O. Box 9
Hohenwald, TN 38462

Dear Mr. Oliver:

The Texas Department of Housing and Community Affairs (TDHCA), Division of Manufactured Housing (DMH) approves the following stabilizing components produced by Oliver Technologies, Inc. for the installation of manufactured homes in Texas.

- Model = OTCAW - Wet Set "J" Bolt Concrete Anchor has a 0.625 inch diameter rod embedded 5 inches in 2500 psi concrete. See Tri-State Testing Services, Inc. Certification Report Number: LO-27241-1, sealed May 14, 2003 by Mr. Glenn R. Harbour, Jr. P.E. The report expires February 3, 2013.
- Model = OTSFT - Swivel Frame Tie is a clamp over the top of the I-beam and a strap perpendicular to the I-beam. See Tri-State Testing Services, Inc. Certification Report Number: LO-27241-3, sealed May 14, 2003 by Mr. Glenn R. Harbour, Jr. P.E. The report expires February 3, 2013.
- Model = OTQC - Quick Connector is attached to brackets installed on the home by the home manufacturer. See Tri-State Testing Services, Inc. Certification Report Number: LO-27241-4, sealed May 14, 2003 by Mr. Glenn R. Harbour, Jr. P.E. The report expires February 3, 2013.
- Model = OT 36CDP - Cross Drive Rock Anchor has 24 inch long rods which are inserted in holes drilled into solid rock and the rods must be embedded into the solid rock at least 20 inches. See Tri-State Testing Services, Inc. Certification Report Number: LO-27716(26037-4), sealed May 14, 2003 by Mr. Glenn R. Harbour, Jr. P.E. The report expires March 11, 2013.

Evidence Submitted

The previously described certification reports substantiate the components.

Descriptions of Components

The substantiating certification reports contain descriptions of the stabilizing components.

Conditions for Uses of Components

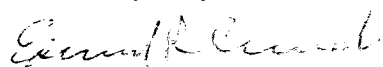
Each stabilizing component must be installed in accordance with the installation instructions in the applicable certification report. The Model = OT 36CDP Cross Drive Rock Anchor with only 20 inches of available rod embedment shall not be used when an installer follows the DMH generic Rule 10 TAC §80.55(d)(4) after discovering a difficult soil at the home site. DMH Rule 10 TAC §80.55(d)(4) requires at least 24 inches of available rod embedment and states:

When approved auger anchors cannot be inserted into a difficult soil after moistening, such as mixed soil and rock or caliche (heavily weathered limestone) that is not solid rock, approved cross drive rock anchors may be used in accordance with the values and notes for Table 4A in paragraph (2) of this subsection modified as follows:

- (A) since the ultimate anchor pull out in the difficult soil will be reduced, the maximum spacing for diagonal ties per side is one half the spacing allowed by Table 4A which will require adding one additional cross drive rock anchor for each anchor specified for the sides and ends;*
- (B) the rods of the approved cross drive rock anchors must be fully inserted, have at least 24 inches of the rod lengths embedded in the difficult soil, and be restrained from horizontal movement, when feasible, by a stabilizer plate between the rods and the home; and*
- (C) each cross drive rock anchor is connected to one diagonal tie and is not connected to a vertical tie.*

Unless renewed, this approval letter and the TDHCA approval stamps on the enclosed certification reports will expire on the previously described expiration dates. The DMH Executive Director has the authority to withdraw approval of these components on an earlier date, if any of the conditions described by Rule 10 TAC §80.62(g) exist.

Yours very truly,



Edward R. Cervenka, P.E.
Chief Engineer

Enclosures: Certification Reports

TEXAS DEPARTMENT OF LICENSING AND REGULATION



Policies and Standards Division

P.O. Box 12157 Austin, Texas 78711 (512)463-7354 FAX (512)463-1376

August 1, 1995

Mr. Lon Larson
Mobile Home Safety Products
1990 N. McCulloch Blvd. # 110-D
Lake Havasu City, Arizona 86403

Subject: ABS Plastic Footing Pads
MH-EREV-M-5077

Dear Mr. Larson:

The Texas Department of Licensing and Regulation approves the following 3/4 inch thick ABS Plastic Foundation Pads for use under approved manufactured home support piers:

PAD AREA	APPROVED TYPE OF PIER	IDENTIFICATION
16 " X 16 "	METAL AND CONCRETE BLOCK	ID # LISTING 4148-5
18.5" X 18.5"	METAL AND CONCRETE BLOCK	ID # SPA-264-1
TWO - 13.25" x 26.25" PADS UNDER ONE 18.5" X 18.5" PAD	DOUBLE TIER CONCRETE BLOCK	ID # LISTING 4148-4 (13" X 26")

SUBSTANTIATING EVIDENCE

The substantiating evidence is as follows: Job No. 1055, dated July 24, 1995, by Preferred Construction Inspections for ABS foundation pads loaded in compression with concrete blocks and metal piers; plastic footing pad and metal pier friction tests by Preferred Construction Inspections on June 6, 1995; plastic footing pad and concrete block friction tests by Preferred Construction Inspections on report dated July 31, 1995; drawing for 16" x 16" inch pad dated 3-23-95; drawing on page 5 of 5 showing the 13.25" x 26.25" and 18.5" and 18.5" pads; and weatherometer exposure tests by CRT Laboratories on February 8, 1995.

INSTALLATION INSTRUCTIONS

All pads are to be installed flat side down, ribbed side up. The ground under the pads should be leveled as smooth as possible with all vegetation removed. Pier and pad spacing will be determined by the home manufacturer's installation instructions. Piers shall be centered on the pads. The metal pier bases shall be 7.25" x 7.25" or larger. The two 13.25" x 26.25" x 3/4" pads shall be placed side by side and one 18.5" x 18.5" x 3/4" pad shall be centered on top of the other two pads at a diagonal angle. Pins and ABS glue may be used to assemble the pads together.

Mr. Lon Larson
Mobile Home Safety Products
August 1, 1995
Page 2

CONDITIONS FOR USE

The home manufacturer's installation instructions shall be followed concerning rain, A/C condensed water, and lawn irrigation water drainage away from the underside of the home. The department reserves the right to withdraw approval if the law or adopted standards change or evidence is received that the pads fail to perform.

Yours very truly,



Edward R. Cervenka, P.E.
Chief Engineer
Rules, Policies, and Codes



DIVISION OF MANUFACTURED HOUSING

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August 22, 2002

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Mr. Scott Oliver
Sales & Marketing Representative
Oliver Technologies, Inc.
P.O. Box 9
Hohenwald, TN 38462

RE: DMH Review Number M-02-022

Dear Mr. Oliver:

The Texas Department of Housing and Community Affairs (TDHCA), Division of Manufactured Housing (DMH) approves the following stabilizing components produced by Oliver Technologies, Inc. for the installation of manufactured homes in Texas:

- Model # OT 3044 BP - Auger Anchor has a 3/4 inch diameter rod, 30 inches long, with two helices that are 4 inches in diameter for use in soil that is 350 inch-pounds or more at the bottom of the helix depth. When used with a stabilizer plate, the anchor must be in soil that is 276 inch-pounds or more at the stabilizer plate depth and is also 350 inch-pounds or more at the bottom of the helix depth. See Tri-State Certification Report Number: LO-26037-1.
- Model # OT MSP2 - Stabilizer Plate, 12 inches wide, is for use in soil 276 inch-pounds or more at the stabilizer plate depth. See Tri-State Certification Report Number: LO-26037-2.
- Model # OT CAP 1 - Stabilizer Cap, 6 inches in diameter, is for use in soil that is 350 inch-pounds or more at the stabilizer cap depth. See Tri-State Certification Report Number: LO-26037-3.
- Model # OT 36CDP - Cross Drive Rock Anchor with two 36 inch long rods, 3/4 inch diameter, is for use in solid rock. See Tri-State Certification Report Number: LO-26037-4.
- Model # OT CAWP - Wet Set "L" Bolt Concrete Anchor, 0.625 inches diameter embedded 5 inches, is for use in 2500 psi concrete. See Tri-State Certification Report Number: LO-26037-5.
- Model # OT CADP - Dry Set Concrete Expansion Anchor, 0.625 inches diameter embedded 3 inches, is for use in 2500 psi concrete. See Tri-State Certification Report Number: LO-26037-6.

- Model # OT FT 1- Frame Tie is connected to the strap with a crimp seal by OTI. See Tri-State Certification Report Number: LO-26037-7.
- Model # OT ST 1- Buckle is connected to the strap with a crimp seal by OTI. See Tri-State Certification Report Number: LO-26037-9.
- Model # OT ST 1 - Buckle is connected to a strap by the home installer by weaving the strap through slots in the buckle. See Tri-State Certification Report Number: LO-26037-8.
- Model # OTI - Galvanized Strapping. See Tri-State Certification Report Number: LO-26037-10.
- Model # OT - Split Bolt and Nut. See Tri-State Certification Report Number: LO-26037-11.

Evidence Submitted

The substantiating certification reports are bound together in a notebook with an August 16, 2002 cover letter from Tri State Testing Services, Inc.

Descriptions of Components

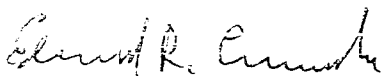
The substantiating certification reports contain descriptions of the stabilizing components.

Conditions for Uses of Components

Each stabilizing component must be installed in accordance with the associated installation instructions. The August 16, 2002 cover letter from Tri State Testing Services, Inc. must be provided with each set of installation instructions shipped to installers. Concerning corrosion protection, this cover letter says that the components may not be installed within 1500 of a coastline.

Unless renewed, this approval letter and the TDHCA approval stamps on the enclosed certification reports will expire on July 10, 2012. The DMH Executive Director has the authority to withdraw approval of these components on an earlier date, if any of the conditions described by Rule 10 TAC §80.62(g) exist.

Yours very truly,



Edward R. Cervenka, P.E.
Chief Engineer

Enclosures: Certification Reports by Tri-State Testing Services, Inc.



TEXAS DEPARTMENT OF HOUSING AND COMMUNITY AFFAIRS

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June 14, 1999

Mr. Lon Larson
Manufactured Housing Foundation Systems, Inc
562 Glenheather Drive
San Marcos, CA 92069

Dear Mr. Larson:

The Texas Department of Housing and Community Affairs (TDHCA) approves the following Manufactured Housing Foundation Systems, Inc. footing models for the installation of manufactured homes in Texas:

- Listing I.D. Number 1055-7, 20 inch by 20 inch ABS plastic pad;
- Listing I.D. Number 1055-7, 20 inch by 20 inch ABS plastic pad which overlays two I.D. Number 4148-4, 13 inch by 26 inch ABS plastic pads;
- Listing I.D. Number 1055-9, 18.5 inch by 18.5 inch ABS plastic pad;
- Listing I.D. Number 1055-8, 16 inch by 18 inch ABS plastic pad, and
- Listing I.D. Number 1055-10, 16 inch by 16 inch ABS plastic pad.

Evidence Submitted

Product Testing, Inc. of Jacksonville, Florida certified the footings with Job #99-2128 and the May 18, 1999 Supplemental Report. The May 18, 1999 Supplemental Report describes the following documents which contain the initial qualifying test reports: Job #96-0723; Job #97-1028; Job #98-1758; Job #98-1759; and Job #98-1760.

Descriptions of Footings

The Manufactured Housing Foundation Systems, Inc. Installation Instructions for ABS Pads contained in the Product Testing, Inc. May 18, 1999 Supplemental Report describe the footing areas. The ABS plastic footings have a waffle or ribbed type of construction. The footings are marked with the listing I.D. numbers.

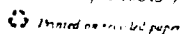
Conditions for Use of Footings

The footings must be installed in accordance with the Manufactured Housing Foundation Systems, Inc. Installation Instructions for ABS Pads.

Visit us on the world wide web at: www.tdhca.state.tx.us

MANUFACTURED HOUSING DIVISION

507 SABINE - SUITE 1000 • P. O. BOX 12489 • AUSTIN, TEXAS 78711-2489 • (512) 475-2200 • (800) 500-7074



Mr. Larson
June 14, 1999
Page 2 of 2

In accordance with the Product Testing, Inc. May 18, 1999 Supplemental Report, the certification of the ABS footings ends, if changes are made to the design or materials of construction. Unless renewed, this approval letter and the TDHCA approval stamps on the enclosed certification report documents expire on June 14, 2009. The TDHCA Executive Director has the authority to withdraw approval of these footings on an earlier date, if any of the conditions described in rule 10 TAC §80.62(g) exist.

Yours very truly,



Edward R. Cervenka, P.E.
Chief Engineer

Enclosures: Product Testing Inc. Job #99-2128, with TDHCA stamp
Product Testing Inc. May 18, 1999 Supplemental Report, with TDHCA stamp
Product Testing Inc. Job #96-0723, Job #97-1028, Job #98-1758, Job #98-1759, and Job #98-1760



DIVISION OF MANUFACTURED HOUSING

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October 7, 2002

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

RE: ABS Plastic Flex Free Pads, DMH Job Number MH-EREV-M-00-034

Dear Mr. Larson:

The Texas Department of Housing and Community Affairs (TDHCA), Division of Manufactured Housing (DMH), approves the following ABS pads produced by Manufactured Housing Foundations Systems (a division of Oliver Technologies, Inc.) for the installation of manufactured homes in Texas:

Pad Size	ID Number
24" x 24" (4.0 Square Feet)	1055-13
16" x 16" (1.78 Square Feet)	1055-14
17" x 22" (2.5 Square Feet)	1055-16
(3) 17" x 22" (5.0 Square Feet)	1055-16
17.5" x 25.5" (3.0 Square Feet)	1055-17
(3) 17.5" x 25.5" (6.0 Square Feet)	1055-17

Evidence Submitted

The reports issued April 17, 2001 and September 26, 2002 (Revised Job No. 02-3673) from Product Testing, Inc. are the substantiating certification reports.

Descriptions of Pads

Each pad is molded ABS black plastic having ribbed construction on top and flat on the bottom. The applicable certification reports contain drawings of the pads. The ID number is marked on each pad.

Conditions for Uses of Pads

The pads must be installed in accordance with the "Installation Instructions for ABS Pads" on pages 27 and 28 of revised Job #02-3673, September 26, 2002. These installation instructions also include instructions for previously approved pads.

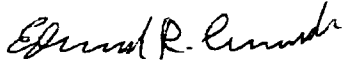
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Mr. Larson
October 7, 2002
Page 2 of 2

Unless renewed, this approval letter and the TDHCA approval stamps on the enclosed certification reports expire on October 21, 2009. The DMH Executive Director has the authority to withdraw approval of these pads on an earlier date, if any of the conditions described by Rule 10 TAC §80.62(g) exist.

Yours very truly,



Edward R. Cervenka, P.E.
Division of Manufactured Housing
Chief Engineer

Enclosures: Certification Reports