

TESTED BELOW GROUND SHELTERS

**National Wind Institute
Texas Tech University**

The National Wind Institute (NWI) at Texas Tech University performs debris impact tests on storm shelters, shelter components, and building materials to evaluate their ability to resist various types of projectiles propelled at different speeds in accordance to accepted and proposed test protocols as follows:

Protocols for Debris Impact Testing²

Protocol 1	Hurricane envelope impact by a 9 lb. wood 2"x4" propelled at 34 mph. In accordance to the Florida Building Code, the International Code Council, and the Texas Dept. of Insurance Windstorm Resistant Construction.
Protocol 2	Hurricane Shelter Speed impact by a 9 lb. wood 2"x4" propelled at 0.40 x the design wind speed (mph) for horizontal impacts and 0.10 x the design wind speed (mph) for vertical impacts, in accordance to the proposed ICC 500 ¹ – ICC/NSSA Standard for the Design and Construction of Storm Shelters.
Protocol 3	Hurricane Shelter Speed impact by a 9 lb. wood 2"x4" propelled at 0.50 x the design wind speed (mph) for horizontal impacts and 0.33 x design wind speed (mph) for vertical impacts, in accordance with FEMA 320, "Taking Shelter from the Storm," 2008 edition and FEMA 361 "Design and Construction Guidance for Community Saferooms," 2008 edition.
Protocol 4	Tornado shelter speed impact by a 15 lb. wood 2"x4" propelled at 100 mph for horizontal impacts and 67 mph for vertical impacts, in accordance with FEMA 320, "Taking Shelter from the Storm," 2008 edition, and FEMA 361, "Design and Construction Guidance for Community Saferooms," 2008 edition.
Protocol 5	Department of Energy (DOE) impact standards.

¹ – The ICC 500 – ICC/NSSA Standard for the Design and Construction of Storm Shelters is scheduled for inclusion in the 2009 editions of the International Residential Code and the International Business Code. This is a Life Safety Standard which will use an Extreme Wind Map for Hurricanes with wind speeds starting at 225 mph and with contours along the Atlantic and Gulf Coast stepping inland in 10mph increments to 160 mph.

² – All impact tests are consistent with the Debris Impact Requirement of ICC-500.

Note: Listing does not imply product endorsement or warranty by TTU, FEMA or NSSA. *Unless otherwise noted, the following listings have been tested to Protocol 4, the Tornado Standard Protocol.*

Below Ground Shelter Manufacturers Completing Debris Impact Testing

Company	Product Tested
2nd Chance Shelters Ron Vanderslice 5004 E. 110 th Street Tulsa, OK 74137-7262 Ph: (918) 296-0929	<i>Date Tested 08/10</i> Steel below ground shelter, Model 99
D&D Design & Manufacturing Robin Davidson P. O. Box 129 Wheatland, OK 73097 Ph: (405) 745-2126	<i>Date Tested: 01/13</i> In-Garage floor steel below ground shelter
Down Under Shelter Milton Odom 38 E. 44 th Street Tulsa, OK 74105 Ph: (918) 857-4380	<i>Date Tested: 04/14</i> Below-ground shelter
Express Shelters, LLC 5240 Sinai Road Mason, TN 38048 Ph: (901) 692-3804	<i>Date Tested: 05/14</i> Below-ground shelter
F5 Storm Shelters Matt Hilburn 1767 North Deffer Drive Nixa, MO 65714 Ph: (417) 886-3825	<i>Date Tested: 08/13</i> Below ground/in-garage floor steel shelter
F5 Storm Shelters of Louisiana Robert Taylor 348 Delmus McMurray Road Baskin, LA 71219 Ph: (318) 248-2994	<i>Date Tested: 04/12</i> Below ground shelter door
Flatsafe Tornado Cliff Vaughn PO Box 467 Ponca City, OK 74066 Ph: (866) 520-3528	<i>Date Tested: 11/03</i> 7'x3.5'x5' steel below ground shelter www.flatsafe.com



GFS Storm Shelters Chad Godwin 3404 South Broadway Edmond, OK 73013 Ph: (405) 702-8080	<i>Date Tested: 10/13</i> Below ground shelter
Good Shelters, Inc. Cesar Flores 11117 E. 63 rd Street Tulsa, OK 74133 Ph: (918) 951-8715	<i>Date Tested: 07/13</i> In-garage floor shelter
Hatteras Pools Mr. Ken McNeil 182 Airport Lane Cameron, South Carolina 29030 Ph: (803) 823-2300	<i>Date Tested: 06/15</i> <i>Below-Ground Shelter</i>
Heartland Tornado Shelters Jerry Shoemaker 330 Wintergreen Court Weatherford, TX Ph: (940) 453-0393	<i>Date Tested: 02/14</i> Panel shelter
M&J Industries Carlton Guyse 1021 Brooks Street SE Decatur, AL 35601 Ph: (256) 340-1620	Date Tested: 02/15 Below-ground In-Garage Floor Shelter Door
Missouri Storm Shelters Jeff Olsen 4983 Hwy 60 Rogersville, MO 65714 Ph: (417) 725-0055	<i>Date Tested: 03/07</i> Steel below ground shelter
Native Storm Shelter Shawn Metcalf 3167 Platter Road Platter, OK 74753 Ph: 405-514-5836	<i>Date Tested: 03/2015</i> Below-ground In-garage Shelter 3' X 6' Rolling Door Assembly



Pinnacle Storm Shelters Julio Aguilar 5209 S 62nd Street Rogers, AR 72758 Ph: (479)-586-5966	<i>Date Tested: 10/14</i> <i>Below ground shelter</i>
Precision Shelters, LLC Johnathon Epps 1601 N. Robinson Street Suite A Oklahoma City, OK 73114 Ph: (580) 402-4441	<i>Date Tested: 03/12</i> Steel <i>below ground</i> garage shelter
Precon Precast, LLC. Mr. Frank Phillips 6865 FM 730 South Azle, TX 76020 Ph: (817) 401-0588	<i>Date Tested: 05/15</i> <i>Below ground</i> shelter door <i>In-Ground</i> Floor Shelter
Preferred Shelters, LLC Tyler Doolittle 2501 SW 15 th Oklahoma City, OK 73108 Ph: (405) 488-4149	<i>Date Tested:</i> <i>Below-ground</i> /in-garage floor shelter door
Quality Built Tornado Shelters Glen Nolan PO Box 842 Farmington, AK 72730 Ph: (479) 601-2070	<i>Date Tested: 05/12</i> <i>Below ground</i> shelter door, in-garage floor shelter
SafePorch Storm Shelter Mark Pile P. O. Box 40 Lowell, AR 72745 Ph: (479) 659-8830	<i>Date Tested: 09/13</i> <i>Below ground</i> shelter door
Safehaven Storm Shelters Joshua King 2517 Station Master Road Jones, OK 73049 Ph: (405) 517-1669	<i>Date Tested: 08/08</i> 8'x3.5'x5' steel <i>below ground</i> shelter



Smart Shelters. Inc. Brian Routt 4000 S. Prospect Ave. Oklahoma City, OK 73129 Ph: (405) 417-8676	<i>Date Tested: 06/11</i> Steel garage underground shelter
Safe Home Shelters Inc. Mr. Lance Oakley 4251 Antler Drive Greenwood, AR 72936 Ph: (479) 414-1947	<i>Date Tested: 03/15</i> Below-ground steel door
Sooner Storm Shelter/RHC Inc. Rod Henry P.O. Box 1080 Oolagh, OK 74053 Ph: (918) 371-1203	<i>Date Tested: 06/12</i> Concrete in-ground storm shelter with steel door
Steel Safe Shelters Chris Wood 114 Stewart Street Albertville, AL 35950 Ph: (256) 506-9449	<i>Date Tested: 06/11</i> Steel garage door of underground shelter Steel Below Ground Garage Shelter Revised Steel Below Ground Garage Shelter
Steel Standing Shelters Christina Allen 81 Park Street Geradline, AL 35974 Ph: (256) 659-5242	<i>Date Tested: 05/13</i> In-ground garage floor shelter
Storm Chaser Shelters, Inc. Trey Thompson 1200 Lawson Road Fort Worth, TX 76131 Ph: (817) 847-9000	<i>Date Tested: 09/98</i> Steel underground shelter
Storm Shelter Systems Jack McElwain 5922 Cane Ridge Road Antioch, TN 37013 Ph: (615) 941-2319	<i>Date Tested: 05/01</i> Steel underground shelter



<p>Storm Shield Shelters Chase Shadid 1141 SE Grand Blvd. Suite 117 Oklahoma City, OK 73129 Ph: (405) 633-0769</p>	<p><i>Date Tested: 07/13</i> In-garage floor steel shelter</p>
<p>Supercell Shelters Carlton Guyse 1021 Brooks Street SE Decatur, AL 35601 Ph: (256) 340-1620</p>	<p><i>Date Tested: 02/15</i> Below-ground In-Garage Floor Shelter Door</p>
<p>Survive-A-Storm Shelters, Harbor Homes Lucas Stewart 1207 Sunset Drive Thomasville GA 31792</p>	<p><i>Date Tested: 11/13</i> Below-ground/in-garage floor shelter</p>
<p>Thunderground Storm Shelters, Inc. Mr. Garrett Howerton Mr. Marty Winters 1839 Atchinson Dr. Norman, OK 73069 (405) 835-2531</p>	<p><i>Date Tested: 09/14</i> Below-ground shelter</p>
<p>Titus Construction J. W. Peters 7801 North Robinson Ave J-2 Oklahoma City, OK 73116 Ph: (405) 936-0000</p>	<p><i>Date Tested: 10/13</i> In-garage floor shelter (3'x6'x4.5' 10 gauge box)</p>
<p>TornadoSafe Shelters Darrin Humphery 7800 S. Western Ave. Oklahoma City, OK 73139 Ph: (405) 570-5049</p>	<p><i>Date Tested:</i> <i>01/14</i> Below ground In-garage floor shelter <i>01/16/2015</i> Below ground shelter</p>
<p>Tornado Tech, LLC 1212 West Liberty Ponca City, OK 74601</p>	<p><i>Date Tested: 01/11</i> Below ground steel shelter (7'x3'x5', 10 gauge box w 1/4" sliding lid)</p>
<p>Valley Storm Shelters, LLC Kateri Linahan</p>	<p><i>Date Tested: 05/13</i> Below ground in-floor steel plate shelter</p>



14628 US Hwy. 72 Scottsboro, AL 35768 Ph: (256) 259-0944	
Vault Shelters Shane Malone and Danny Jester 5100 Eldorado Park Suite 102 #327 McKinney, TX 75070 Ph: (972) 562-7997	<i>Date Tested: 07/13</i> In-ground/In-garage floor steel shelter
Worst Case Shelters Jason Turner 2006 LaSalle Ave., 305C Lubbock, TX 79407 Ph: (806) 241-5066	<i>Date Tested: 08/14</i> In-garage Shelter