

APPENDIX D

REPAIR OF DAMAGED HOMES AND HOMES SOLD FOR SALVAGE

In the aftermath of Hurricane Floyd, the Manufactured Building Division, acting in its capacity as staff to the North Carolina Manufactured Housing Board and as the State Administrative Agency (SAA) for HUD, issued documentation intended to provide guidance to manufactured home consumers, manufacturers, dealers, contractors, and local inspectors regarding the procedures for the repair of homes damaged during the storm. This documentation was published in the form of frequently asked and anticipated questions from interested parties. This Appendix summarizes the information from this documentation, and is divided into Sections D.1 and D.2, which will deal primarily with manufacturers and dealers (D.1) and consumers (D.2).

D.2 DAMAGED HOMES OWNED BY CONSUMER – LOCATED ON CONSUMER'S LOT

D.2.1 Repair of Damaged or Sold for Salvage Homes Located on Consumer's Lot

The consumer's decision as to whether to have repairs made will depend on many factors such as the extent of the damage and the cost of getting the home repaired and inspected.

The *State of North Carolina Regulations for Manufactured Homes* (Section 1.3.4) requires that all repairs made to manufactured homes be inspected by either an independent third party inspection agency approved by HUD, an NC Professional Engineer, an NC registered Architect, or by your local building inspector.

When the repairs have been completed, an inspection certification must be submitted to the local jurisdiction (unless they performed the inspections) indicating that the repairs have been properly made before a Certificate of Occupancy can be issued.

D2.2 Determination of Whether Home Can Be Repaired

It is recommended that the local building official be contacted first. The local official can quickly determine if the home is safe to enter. If unsafe, the inspector will have power disconnected from the home and will notify the consumer of specific safety concerns.

The local inspector will also be able to provide information as to whether the local department is willing to take responsibility for inspecting any repairs that are made to the home.

Manufactured homes are built under a Federal inspection program which is not under the jurisdiction of local inspectors. Because of this, the local inspector may decide that it will be necessary to contract with either a third party inspection agency approved by HUD, an NC Professional Engineer, or an NC registered Architect for getting the repairs to the home inspected. When the repairs are complete, an inspection certification must be submitted by the third party agency, engineer, or architect to the local jurisdiction indicating that the repairs have been properly made before a Certificate of Occupancy can be issued.

D2.3 Building Code and Construction Standard to which Repairs Must Comply

Manufactured homes are constructed to meet the requirements of *Part 3280, Manufactured Home Construction and Safety Standards*. This Federal Standard is not readily available to local jurisdictions in North Carolina. Most local engineers, architects and inspectors in North Carolina have little if any experience working with this Federal Standard. Section 1.3.4 of the *State of North Carolina Regulations for Manufactured Homes* allows repairs to be made in accordance with the North Carolina Residential Code. It is recognized that it would be impractical in many cases to repair a significantly damaged manufactured home to meet the requirements of the North Carolina Residential Code. For this reason, repairs to a USED manufactured home which utilize materials and construction methods which are equal to or better than those used when the home was originally constructed shall be accepted.

D2.4 Where Repairs Can Be Made

Repairs may be made at any location found to be suitable to the individual or agency that is going to conduct the inspection of the repairs.

D2.5 Purchase of a Damaged NEW Home from a Dealer

A consumer may purchase a damaged NEW home from a dealer. However, the dealer must bring the home back into compliance with *Part 3280, Manufactured Home Construction and Standards* before it can be sold, in accordance with the provisions of Section D.1 above.

D2.6 Inspection of Repairs by Other Than Local Jurisdiction

In some cases, the local jurisdiction may decide not to inspect the repairs to a home, and will instruct the consumer to contract with a third party inspection agency, an NC Professional Engineer, or an NC registered architect to conduct the inspections. Information regarding these alternate means of inspection is as follows:

D2.6 (cont'd.)

A list of approved third party inspection agencies can be obtained from Housing and Building Technology (HBT) at 703-437-0100 or from the Manufactured Building Division of the NC Department of Insurance at 919-661-5880. North Carolina professional engineers in a particular area may be located by contacting the NC Board of Examiners for Engineers and Surveyors (919-841-4000), or the NC Board of Architecture (919-733-9544). A list of engineers and architects may also be found in the yellow pages of local phone directories.

D2.7 Items to Consider in Inspecting Damaged Homes

The following list was prepared specifically for flood damaged homes, but should provide useful guidelines for assessing significant damage from any cause. It is highly recommended that someone *with extensive knowledge of manufactured home construction and set-up requirements* be used to inspect the extent of damage. At a very minimum the following is recommended:

General:

Wear protective clothing.

Electrical:

Make sure electrical service is disconnected if the flood water marks are above electrical devices, services, etc.

Building:

Locate water marks on the home to make an initial determination of the extent of damage.

Look for the following:

- Major structural problems
- Undercut footings
- Leaning, fallen or missing pier supports
- Broken, undercut, loose or missing ground anchors
- Broken, loose or missing anchor straps
- Home moved off foundation
- Home twisted or racked
- Buckled floor/roof/wall sheathing
- Check for damaged finishes
- Ceiling/floor/wall covering
- Roofing/siding have some damaged finishes removed.
- Check for wet ductwork, insulation, wiring/electrical devices

D2.8 Safety of Electrical Systems in Flood Damaged Homes

Some homes are subject to significant depths of water within the home during floods. The question as to whether the electrical system will be safe after drying out is important. With regard to this question, the following is recommended:

Guidelines for Handling Water Damaged Electrical Equipment

A publication that provides guidelines on how to handle electrical equipment that has been exposed to flooding is available from the National Electrical Manufacturers Association (NEMA). This publication may be found at:

<http://www.nema.org/engineering/papers/waterdam.html>

Due to the highly polluted nature of the recent floodwaters, extra care should be used in determining if re-energizing the electrical system is safe. Some things to consider are:

NM Cables - When Type NM cable has been submerged in water, especially if the ends of the cable have been submerged, it should be replaced.

Wiring Devices - Sediments and contaminants contained in floodwaters are difficult to remove from the internal parts even if washed with clean water or solution and dried. Such submerged devices should be replaced.

Circuit Breakers and Panelboards - It may be possible to recondition some of this type of equipment when done by trained personnel in consultation with the manufacturer. This equipment should not be energized until it has been reconditioned or replaced