

1975

CC3 Revised 1975 Emergency Flood Information...Care and Repair of Flooded Basements

E. A. Olson

Follow this and additional works at: <http://digitalcommons.unl.edu/extensionhist>

Olson, E. A., "CC3 Revised 1975 Emergency Flood Information...Care and Repair of Flooded Basements" (1975). *Historical Materials from University of Nebraska-Lincoln Extension*. 2977.
<http://digitalcommons.unl.edu/extensionhist/2977>

This Article is brought to you for free and open access by the Extension at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Historical Materials from University of Nebraska-Lincoln Extension by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

NRK1
5
544.3
NAC33X

EMERGENCY

FLOOD INFORMATION

CC 3
(Revised 1975)

CARE AND REPAIR OF
FLOODED BASEMENTS
UNIVERSITY OF NEBR.
LIBRARY

E. A. Olson
Extension Agricultural Engineer
JUN 03 1988

Do not pump out basements too soon or too fast

In many cases, basements flooded from surface water, seepage, or back-flow from sewer lines suffer little or no structural damage from the inflowing water. However, structural *damage* to walls and floors often *results* from pumping out the basement *too soon* or *too fast*.

Pumping *should not be started until* surrounding flood waters are below the basement floor level. Water inside the basement gives an outward force, bracing the walls against the pressure of water and waterlogged soil on the outside. Removing water from the basement too soon may result in walls being pushed in or floors heaving.

For best results, water should be pumped from the basement in stages. If the water is removed from the basement slowly, seepage through the walls may help relieve the pressure on the outside of the wall.

Be Safe

Before entering the basement be sure all electrical outlets are disconnected. Check natural gas or propane lines for leakage. Turn off gas supply if valves are accessible. Also, check around the building for possible evidence of cave-ins.

In general, damage will be either one or a combination of the following things: buckled walls, settled walls, or heaved floors. Proper corrective measures will vary with the cause of the damage. A few recommendations for repairing each of these failures are:

1. *Settled walls and footings.* This is noted by vertical cracking of the wall. It may be general throughout the structure or limited to certain small areas. Correction is very difficult without special equipment. In general, a recognized contractor or engineer should be contacted for repair work and suggestions.

2. *Shifting or buckled walls.* This is evidenced by horizontal cracking and wall moving out of plumb. Corrective measures will vary with the seriousness of the condition.

Where buckling has caused serious weakening of the wall, the best procedure is to rebuild all damaged parts. In less severe cases, immediate repairs may not be necessary. However, in any wall where noticeable buckling has occurred, normal ground pressures coupled with freezing and thawing may cause eventual failure of the wall. Therefore, it is advisable to rebuild parts of the wall that are damaged.

If pilasters were not built in the original wall, they should be added when the walls are rebuilt. Pilasters will increase the strength of the wall and should be used where wall lengths exceed 15 feet.

3. *Heaved basement floors.* If the floor does not return to its original level, it may be necessary to remove the floor and replace it. The following steps are suggested for basement floor construction. First, place six inches of gravel fill on the basement floor surface. Cover this with a vapor barrier. Then place a four-inch concrete floor with mastic joints between the floor and walls.

In cases where the floor returns to its original level, but objectionable cracks or a bad surface remains, and there is sufficient headroom, a new floor may be placed over the old one. A vapor barrier should be placed between the floors, and the new floor should not be less than two inches thick.

For more information on this subject, contact your county Extension agent, or write to the Department of Agricultural Engineering, Institute of Agriculture and Natural Resources, Lincoln, Nebraska, 68503.

The Cooperative Extension Service provides information and educational programs to all people without regard to race, color or national origin.