



Safety & Buildings Division
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Approval # **New Product #**
201111-O
Replaces 200611-OI
File No. 20119011

Wisconsin

Building Products Evaluation

Material

Waterguard™
Sub-Floor Drainage System

Manufacturer

Basement Systems, Inc.
60 Silvermine Rd.
Seymour, CT 06483

SCOPE OF EVALUATION

GENERAL: The Waterguard™ sub-floor drainage system, manufactured by Basement Systems, Inc., has been evaluated for use as a partial footing/foundation drainage system.

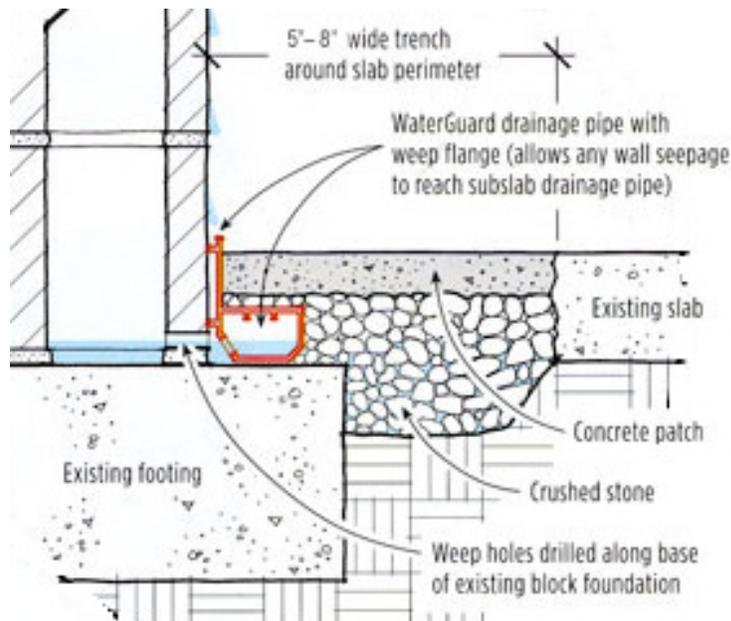
The SPS requirements below in accordance with the current **Wisconsin Uniform Dwelling Code for 1- and 2-family dwellings:**

- **Drain Tiles:** The Waterguard™ sub-floor drainage system, manufactured by Basement Systems, Inc., has been evaluated for use as a partial footing/foundation drainage system, as allowed under **ss. SPS 321.17(1)(b)** and **SPS 321.17(2) (b) and (c)**.

DESCRIPTION AND USE

The Waterguard™ sub-floor drainage system, consists of polyvinyl chloride (PVC) drain pipe, PVC outlet drains, crushed stone and an optional sump pump. The system is located below the interior concrete slab of a below grade story or basement floor and on top of the foundation wall footing.

The Waterguard™ sub-floor drainage system is intended for use with foundation walls of concrete masonry units, rubble stone, brick or cast-in-place concrete construction. See Figure for use at a masonry unit wall.



The Waterguard™ sub-floor drainage system, when used with a masonry unit foundation wall, functions by collecting water or moisture permeating through the wall assembly or through weep holes placed on the inside face of the wall. The water is then discharged from the system by gravity or mechanical means.

The Waterguard™ sub-floor drainage system can also be used with rubble stone, brick or cast-in-place concrete foundation wall: the drainage system. In applications where water permeates through the rubble stone, brick or cast-in-place concrete foundation wall, the drainage system is intended to discharge the water as described above for concrete masonry unit foundation walls, except without the placement of weep holes.

Waterguard™ Sub-floor Drainage System Components:

1. Drain Channel: Extruded solid polyvinyl chloride (PVC), 0.1 inch thick, with drainage holes 0.75 inch in diameter and 3-inches on center, located at the base of the channel on the side facing the foundation wall. The component cross section is a 3.13 x 1.85-inch rectangle with a 2.43 inch flange on top. Two 0.35-inch long spacers are attached to the flange on the side facing the foundation wall. The spacers are intended to provide a means of directing the flow of moisture that penetrates the foundation wall.
2. Drain Outlet: Molded solid polyvinyl chloride (PVC), 0.1 inch thick, 0.1 inch thick, that is friction fitted to the drain channel component. The component cross section is a 3.13 x 1.85- inch rectangle with a 2.43-inch flange on top. The component extends at the base to accommodate a 4-inch diameter drain opening. The drain opening is intended to be located at the point where the Waterguard™ Sub-floor Drainage System is attached to a drain or sump.
3. Crushed Stone: Minimum 0.5-inch diameter crushed stone shall be placed on the interior side of the drain channel, with the side facing the footing left free of stone to allow an air space to exist between the footing and channel.

TESTS AND RESULTS

The extruded solid polyvinyl chloride (PVC) used in the Waterguard™ Sub-floor Drainage System is in accordance with ASTM D4216, a general standard for all PVC building materials.

LIMITATIONS OF APPROVAL

The SPS limitations below in accordance with the current **Wisconsin Uniform Dwelling Code for 1- and 2-family dwellings**

- **Drain Tiles:** The Waterguard™ sub-floor drainage system is approved for use as a **partial** footing/foundation drainage system, and shall be installed in accordance with the applicable drain tile requirements of **s. SPS 321.17**.

Other aspects of the sump and drainage system shall comply with s. SPS 382.36 of the Wisconsin Administrative Uniform Plumbing Code.

The Waterguard™ sub-floor drainage system is not approved as a replacement for a complete drain tile where required by the local code authority.

This approval will be valid through December 31, 2016, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Approval Date: March 15, 2012

By: _____

Tom Kasper
Section Chief
Division of Safety & Buildings