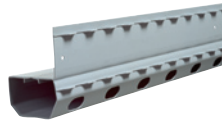


## Installation Training Worksheet and Notes

### WaterGuard® BASEMENT WATERPROOFING SYSTEM



The three most important things when installing WaterGuard are –

- 1 Sump in the low spot
- 2 Backfill with clean stone to the top of the WaterGuard.
- 3 Proper drain outlet to the sump.

WaterGuard XL is 1/4” taller and 1” wider than WaterGuard, and should be used most of the time.

WaterGuard XL has 47% more drainage area than WaterGuard.

Before re-concreting over the WaterGuard, you should install the strip of vapor barrier over the stone.

When it comes to mixing concrete, the less water the better.

You can put up to 140 feet of WaterGuard in with a single drain outlet.

Finished walls must be cut away so the WaterGuard can be installed against the foundation wall.

WaterGuard doesn't prevent the walls from leaking.

For situations with iron Ochre, a WaterGuard I O S system should be installed, and the homeowner told that maintenance would be necessary as necessary, and is not included in the warranty.

Notes on WaterGuard \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### TrenchDrain Surface Drainage System



Whenever your drainage system crosses a doorway or stairway to the exterior, you must install TrenchDrain.

The top of the TrenchDrain should be 1/8” to 1/4” below the floor.

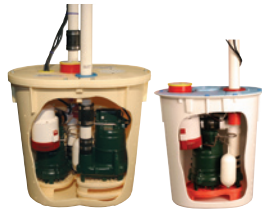
The grate must go past the doorway or to the foundation wall on both sides completely.

For a garage, a larger TrenchDrain can be used and must be surrounded by concrete on three sides.

The best place to put a TrenchDrain for a garage is inside, 24” back from the door, so it doesn't freeze or clog.

Notes on TrenchDrain \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Sump Systems



The check valve can be welded shut by dripping glue down the pipe.

The primary pump is a 1/3 hp Zoeller M 53 and pumps 2200 gallons per hour at an 8 foot head.

The secondary pump in a TripleSafe is a Zoeller M 98 and pumps 3900 gallons per hour at an 8 foot head.

An even bigger pump for very special situations is a 1/2 hp M137, which pumps 5900 gallons per \_\_\_\_\_ at an 8 foot head.

The higher you pump the water, the less goes out the pipe.

Most discharge lines are ended with a LawnScape Outlet in the yard.

The “condensation indicator strip” should be stuck to the discharge line about 6” above the sump lid.

An UltraSump will not guarantee the homeowner never has a problem, only give them a window of time to act when the pump or power fails.

Discharge lines should always go outside to the surface, never to a sewer, septic system, or an existing underground downspout.

A SmartSump will tell the homeowner there is a plumbing leak, where the SuperSump and TripleSafe will not.

When installing a SmartSump, the lid must be bolted down tight so water does not get under the lid, but has to go down the floor drain instead.

If a customer has more than one pump in the house, they should be on separate electric circuit dedicated only to that pump.

Never tee two 1½” discharge lines together.

You can double the amount of water an UltraSump will pump by adding a second battery and an UltraSump switcher, for an extra \$500.

An UltraSump will pump about 12,000 total gallons before the 120 amp battery goes dead.

Notes on Sump Systems \_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# DryTrak®

Basement Water Control System



DryTrak should only be used when the floor can not be jack hammered.

The floor must be solid and in good condition for DryTrak to work.

DryTrak will not prevent wall or floor cracks from leaking.

The key to a DryTrak system working is good surface preparation and cleaning.

Mix DryTrak epoxy thoroughly for 3 minutes before using it.

When DryTrak crosses a floor crack a stop hole must be drilled into the floor crack and filled with epoxy to prevent water from leaking out along the floor crack.

Notes on DryTrak \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# ZENWall™

BASEMENT PANELING SYSTEM



ZenWall fasteners do not show when the job is done.

ZenWall looks the best, is easy to install, but don't waste or damage it because it costs a lot of \_\_\_\_\_!

Notes on ZenWall \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# BrightWall

PANELING SYSTEM



On average, use 3 vertical rows of four fasteners per sheet.

Notes on BrightWall \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# CleanSpace® Wall System



CleanSpace is mainly used on \_\_\_\_\_ **stone** \_\_\_\_\_ walls.

You'll have to get \_\_\_\_\_ **fasteners** \_\_\_\_\_ in wherever you can.

Install the \_\_\_\_\_ **top** \_\_\_\_\_ row first, so the two 4' rows are overlapped watertight, and tape the joint.

If a basement is going to be \_\_\_\_\_ **finished** \_\_\_\_\_, it really should have some sort of vapor barrier on the walls tucked into a drainage system to prevent wall leaks from becoming a problem later.

Notes on CleanSpace Wall \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# ThermalDry WALL System



ThermalDry is best for basement walls that are going to be \_\_\_\_\_ **finished** \_\_\_\_\_.

The ThermalDry WALL System reflects \_\_\_\_\_ **heat** \_\_\_\_\_, something the other wall systems don't do.

Notes on ThermalDry Wall \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# CleanSpace® Crawl Space Encapsulation System®



There are four keys to fixing a crawl space right:

- 1) Fix the \_\_\_\_\_ **groundwater** \_\_\_\_\_ problem.
- 2) Isolate the house from the \_\_\_\_\_ **earth** \_\_\_\_\_.
- 3) Seal all outside \_\_\_\_\_ **air** \_\_\_\_\_ leaks.
- 4) De-**humidify** \_\_\_\_\_.

CleanSpace fasteners should be put along the \_\_\_\_\_ **top** \_\_\_\_\_ edge, but also towards the bottom of the wall, in the footing, or anywhere they will help hold the CleanSpace in place and prevent stress on the \_\_\_\_\_ **taped** \_\_\_\_\_ seams.

\_\_\_\_\_ **spikes** \_\_\_\_\_ should be used into the dirt floor every 8 feet or more to hold the CleanSpace in place forever and help hold seams closed.

Air spaces under the sill plate, around pipes and wires to the outside, and anywhere outside air can get in should be sealed with caulk, foam, or whatever is necessary.

All organic debris must be removed from the crawl space before CleanSpace is installed.

CleanSpace Drainage Matting is recommended on every job, but not necessary.

In crawl spaces with concrete floors, drainage matting should be used for sure.

Notes on CleanSpace \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## CleanSpace™ Vent Cover



All vents must be sealed.

The newer insulated vent covers are bigger than the flatter ones.

Add foam or whatever is needed around the vent cover to seal up odd size openings.

Notes on CleanSpace Vent Covers \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## EverLast™ Access Well



EverLast Access Wells are stackable.

Notes on EverLast Access Well \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



### Turtl Crawl Space Access System

The Turtle is water tight and air tight, so it should be sealed to the foundation.

Notes on The Turtl \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



CleanSpace WallCap seals off unconditioned air from coming out of the top of the block walls.

WallCap should be caulked to the sill plate.

WallCap comes in clear or white. White is useful as a large trim for BrightWall installations.

Notes on CleanSpace WallCap \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



SmartDrain is for crawl spaces that don't have a sump system.

SmartDrain is important to tell the customer there is a plumbing leak and to drain the water away.

Backfill the SmartDrain with stone and bolt the lid down tight.

Notes on SmartDrain \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# EverLast™ Crawl Space Door



Everlast Door is important to keep \_\_\_\_\_ **unconditioned** \_\_\_\_\_ air out of the crawl space – so getting it airtight is important!

The panel comes 2 ½' by 4', and you can cut it to \_\_\_\_\_ **size** \_\_\_\_\_.

You can use 2 or 4 knobs. Drill ½" holes in the \_\_\_\_\_ **door** \_\_\_\_\_ first, then drill ½ holes through the door holes into the \_\_\_\_\_ **foundation** \_\_\_\_\_ for the anchors.

Notes on EverLast Door \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# EverLast™ Windows



Windows should be measured ½" smaller in \_\_\_\_\_ **width** \_\_\_\_\_ and \_\_\_\_\_ **height** \_\_\_\_\_.

Windows must be installed right side up, and \_\_\_\_\_ **level** \_\_\_\_\_ and plumb.

You can fill in around the window with cement or \_\_\_\_\_ **caulk** \_\_\_\_\_, and they must be airtight.

Notes on EverLast Windows \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# SunHouse™ Basement Window Enclosure



SunHouses can not guarantee against windows \_\_\_\_\_ **leaking** \_\_\_\_\_, but they must be caulked on the sides to the foundation and the soil should be pitched away from them.

There are two size \_\_\_\_\_ **wells** \_\_\_\_\_, deep and shallow, and two size \_\_\_\_\_ **covers** \_\_\_\_\_, domed and flat.

If the soil is 12" or more above the bottom of the window sill, use the \_\_\_\_\_ **deep** \_\_\_\_\_ well, otherwise use the shallow one.

If the soil is 5" or less below the top of the \_\_\_\_\_ **window** \_\_\_\_\_, use the flat cover, other wise use the domed one.

If there is a water problem, a \_\_\_\_\_ **WellDuct** \_\_\_\_\_ must be installed to drain the water away from inside the SunHouse.

Notes on SunHouse \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# WellDuct

WINDOW WELL DRAIN



WellDuct drains a window well inside to a drainage system.

A 2" hole must be drilled through the wall a few inches below the window sill to let the water in.

A grate of some kind must be installed outside the hole.

If the wall is block, the hole must be sleeved with 1 1/2" PVC pipe, and caulked on the inside and outside surfaces.

Make sure the water can get out of the bottom of the WellDuct fast by cutting the spacers from behind the WaterGuard.

Notes on WellDuct \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Downspout Extensions



Downspouts should be extended on all houses whether it is on the proposal or not.

RainChute is best for where the lawn goes up to the foundation.

RainChute EZ is best for landscaped areas.

LawnScapes can be put on the end of a 3" or 4" pvc pipe to any length.

Notes on Downspout Extensions \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## FlexiSpan<sup>®</sup>

Wall Crack Repair System



FlexiSpan stops the water and provides a strategy if there is a small leak.

The crack needs to be sealed first with urethane caulk before the drainage foam goes on.

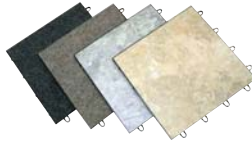
A drywell needs to be created below the FlexiSpan in the floor to drain some water from the foam.

Notes on FlexiSpan \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# ThermalDry<sup>®</sup>

Basement Floor Systems



ThermalDry Floor Matting comes in plain unfinished gray and in finished carpet or tile.

The plain tiles are covered by the homeowners carpeting.

The finished tiles take more care in installing because that is what the homeowner will see.

At the perimeter finished tiles must be cut tight to the baseboard.

No fasteners are used in the finished tiles.

The plain tiles must be fastened at the perimeter with one fastener in each tile.

The homeowner may have to have a molding added to the baseboard when you are done, but make sure they know that before you start the job.

Notes on ThermalDry Flooring \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



SaniDry is an air filter and dehumidifier, to keep odors down and mold from growing.

The switch on the SaniDry should be kept in the off position, which means the fan will only run when the dehumidifier does.

The dehumidistat knob should be kept in the middle range.

To duct the SaniDry you'll need two flex ducts, two sheet metal boots, two grilles, a round adapter for the exhaust side and a ducting hood for the top suction side.

Notes on SaniDry \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# Other

What matters is that the homeowner is \_\_\_\_\_ **happy** \_\_\_\_\_ and they get what they expect and a little \_\_\_\_\_ **more** \_\_\_\_\_.

Always \_\_\_\_\_ **explain** \_\_\_\_\_ the system and work you did to the homeowner when you are done with the job.

Safety is \_\_\_\_\_ **important** \_\_\_\_\_ at the job, at the shop, and in the truck.

Notes \_\_\_\_\_

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