



The **Monterey Bay Idea House** an **eco-friendly** showplace

The Situation

"The county wants to encourage going green," explains Tom Messenger, project manager. "The Monterey Bay House needed to be at least 70% green through environmentally-friendly features such as the use of sustainable products and reclaiming water."

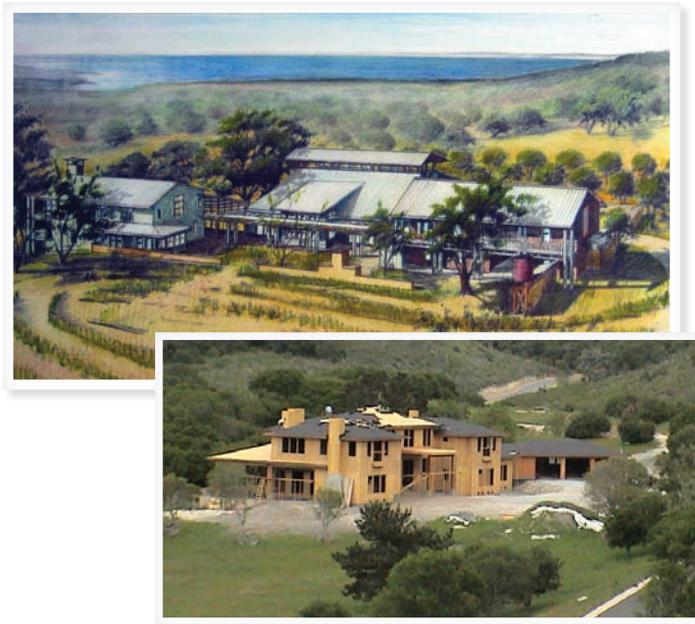
Built by Sunset magazine, and designed in cooperation with Monterey County, California, this house showcases new and exciting products, and presents a multitude of eco-friendly features in response to the need for energy efficiency, function and sustainability.

The home site presented tight access with three connected "farm buildings", courtyards enclosed with native stone walls, and allotted space for water collection under the motor court. Ongoing concerns about water supply shortages, and possible mandatory water rationing, created the need for more water detention capacity in a smaller space.

In addition the chosen water detention system had to be structurally strong enough to be rated for a fire truck.

"The Triton chambers and the way it works with a liner and manifold system — I was amazed at the simplicity of it but at the same time how efficient it is. I've worked with all kinds of cistern systems but I've never seen a system quite like this. It's a great product."

Tom Messenger, project manager



The Solution

Triton Stormwater Solutions was selected as the water detention solution provider for its unique system that has both the highest storage volume of any of the chamber systems, and the highest traffic load rating. This ability to put a large amount of water storage in a smaller area with less cover also makes Triton an economically competitive choice.

In addition, the system is designed for service and maintenance with the use of bottom pieces and sumps in addition to chambers and end pieces for easy access. Made of soy resin, the use of the product counts toward LEED certification as well.



All 65 chambers were placed in under 40 minutes.

The Installation

Site preparation included the excavation of the detention trench, installation and compacting of a base layer of rock, lining the trench with class 2 non woven geofabric, a custom made liner, and another layer of geofabric to help provide puncture protection from rocks during the backfill process.

The chambers, manifold and standpipe connection were then installed. All the chambers were placed in just under 40 minutes. A key feature of the chambers is that they weigh only 32 pounds apiece, enabling workers to carry two or three at a time. Their lightweight design, strong materials, and overlapping junctions, make Triton chambers easier to install.



Installers were able to carry three chambers at a time.

stone with a cover of just 8 inches, unlike the 24 inch cover required by other systems.

The total installation, including digging the excavation site, placing the chambers and covering with soil took two days. A similar installation in a region without the stringent California earthquake requirements is expected to be quicker.

Following the chamber installation, the embedment stone was backfilled to a consistent cover of 6", the finish grade fill was installed, leveled with a backhoe maintaining 8" of cover, and compacted.

A wheeled vehicle weighing over 31,000 pounds was able to drive over the chambers and dump a load of

Summary

The installed Triton detention system allows for the harvesting of rain and storm water to be re-used as a "gray water" source for toilet flushing, car washing and irrigation purposes. The 49' long x 34' wide excavation contains 65 chambers that holds 20,000 gallons — enough to water the entire half-acre landscape area for one year.

The Monterey House will be open to the public in August and featured in Sunset magazine's October issue. To view a video of this installation, visit www.tritonsws.com



Less embedment stone backfill is required than with other systems.



The Triton system supports more weight with less cover.

Triton Stormwater Solutions is the proven, comprehensive solution to stormwater management challenges. On your next project, turn to Triton Stormwater Solutions, the stronger, lighter, larger, greener, easier to install, cost-effective stormwater solution. Triton gives you Power Over Water.



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