



2009 WBA Remodeling Awards

**Project Category:
Room Additions over \$75,000**



DEGNAN
DESIGN BUILDERS
INC.

**“A Cut Above The Rest”
Award Winning Entry!**



This 3-season sunroom addition posed many challenges and many changes as it developed. The original home, located in a suburban neighborhood, had a full walk-out basement looking out toward a small river about 50 yards away. The homeowners wished to alleviate flooding concerns should the river overflow its banks further than in the past. After debating options such as building a 4-season addition or eliminating the patio doors and installing only windows, the customers decided that a sun porch was the best option.

Right: Before, the old patio and walk-out lower level are shown during previous years flooding.

Below : The foundation in-progress, with the waterproofing membrane shown in the bottom photo before the additional concrete wall was poured.



Siding was stripped from the lower portion of the back of the house, wood decking removed, and a new foundation poured for the porch addition. As a preventive measure, a new concrete wall was poured against the existing wood-framed wall of the house to just below the height of the windows. Before the concrete was poured, a waterproofing membrane was applied over the wood wall, and again, a waterproofing membrane was sprayed on over top of the new concrete and wrapped around the end, tying it into the original foundation. Thus, if water ever rises, it will be blocked by the new foundation and waterproofing membrane.





Left: The deck surface with Ditra prepped for tile installation.

Below: Two photos of the finished project with its glass deck railings, Mon-Ray windows, and masonry columns which also match interior masonry of the sun porch.

Furthermore, drain tile was installed on the interior of the new foundation and tied into the existing drain tile system. That original drain tile had drained to daylight and did not have a sump crock in the basement. The daylight drain was eliminated because in a high-water situation it would actually allow water to flow backward into the house. Instead, a crock was installed in the unfinished



basement with a pump draining to the side yard. This will relieve any water table pressure from underground and any water that may follow the foundation of the house in a heavy rain.

The existing deck structure was actually re-used to become the roof of the room below. The shape was modified to create octagonal corners to flow with the theme of the octagonal dinette on the existing home. The next challenge was to waterproof this deck roof. Degnan Design Builders elected to treat it much like a shower, using Schluter products, with an exterior



porcelain tile installed over a layer of cement board and $\frac{3}{4}$ " plywood. The multiple layers ensure stability to prevent tile or grout cracking and ensure a waterproof deck/roof surface for years to come. Meanwhile, the Lead Carpenter made repairs to the joist hangers and fasteners. He installed a new beam system and posts over the new foundation to slope the deck surface away from the house for proper drainage of rain and snowmelt.

The aesthetics were paramount— both from inside and outside. The full Mon-Ray Glasswalls windows preserve the views from the lower level of the home. The main level views have improved thanks to a glass railing from RailCraft. A small outdoor patio remains under the waterproofed deck, adjacent to the sun porch. The deck roof provides a small overhang to prevent excessive heat gain during summer months while still allowing for sun rays to penetrate deeply in the spring and fall. The ceiling was made into a “hot roof” with 10” of dense-packed cellulose insulation. Foam insulates the floor slab and foundation in case of a future conversion to a 4-season sunroom. These design and insulation techniques also help to ensure the room stays as comfortable as possible, for as long as possible.

In fact, the owners report that on sunny days, even when the outdoor



temperature is zero, the room warms to 55 degrees. Sunny

November days brought temperatures of 70 degrees! With two ceiling fans installed, the roof deck overhang and all the operable windows, the summer temperatures during construction allowed the sunroom to maintain a comfortable screened porch atmosphere, as well.

The interior has clear-finished knotty pine on the walls and ceiling over top of brick that covers the foundation. A cove for rope lighting tops the patio doors. Wiring for a TV is present if ever desired. Tile (an afterthought added by the owner) finishes the floor.

The spring thaw and rains will eventually affirm the original project goals, but we expect that the house will remain high & dry in the future. The aesthetic results and functional use of the room have already been confirmed — the owners love it, and it is a beautiful room. The deck is unique and stunning with its glass railing and tile surface. The 3-season sunroom adds diversity to the home, since it already has sunny 4-season living space on the main level. The clients are pleased!

