## Case Study: 1906 Clapboard House

This 1906 house was cold even though the walls had blown-in insulation. The old drafty single pane windows were painted shut. The interior of the house was in pristine condition: the period moldings and wood floors were intact. Gutting the interior to insulate with spray foam was not an option. InSoFast provided an energy retrofit with major results.

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The other big issue was the lead paint on the exterior. The homeowner decided to bypass the costly siding tear off and abatement process. In less time than it would have taken to tear off and clean up the old clapboard siding, InSoFast was installed over top of the existing exterior.



There was no disruption to the exterior siding, window trim, or corners. Nothing was removed or cut. Tearing off the wood siding would have removed over 10% of the existing wall's R-value.

Before the InSoFast panels were installed, critical areas of air infiltration were sealed with spray foam such as the foundation skirt boards. Windows were replaced and weight pockets were insulated. Although there is no down side to using weather resistant barrier, the homeowner chose not used a WRB since the entire exterior was still weather tight. Other projects may benefit from a WRB.

The continuous insulation of the InSoFast panels doubled the performance of the existing wall assembly, cutting heating bills and adding comfort.

To address a high heat loss area, the top two feet of the foundation was insulated. The panels were adhered to the foundation wall with expanding spray foam and then screwed to the skirt board through the InSoFast studs.

The area between the dirt and the start of the siding was covered with a durable fiberglass foundation protection board.



The existing skirt board, corner posts, and freeze board protruded 1/2" past the siding.

To account for that difference, the contractor used strips of the UX 2.0 panels (2" thick) to cover those areas.



The EX 2.5 panels (2-1/2" thick) were then used to cover the siding. The result was a smooth, flat surface to start the new siding.

The freeze board is being covered by the UX 2.0 panel and the siding is covered the with EX 2.5 panels. It is important to line up the studs in both panels. The EX 2.5 has indicator lines to indicate where the studs are below the surface of the foam.





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The old back porch addition had been set back 3/4" from the main house. Instead of jogging the siding, furring strips were screwed to the InSoFast embedded studs to flush out for the siding attachment.

Instead of boxing out for the electrical mast, the InSoFast panels were butted up to the metal conduit which flushed out the surface for siding. This greatly cleaned up the look of the back of the house.













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Replacement windows were installed. Window weights were removed and the weight pockets were insulated. None of the existing window trim was cut or removed. A solid sill extension was screwed to the existing window sill.

Scraps of EX 2.5 panels were cut into strips and installed directly over the existing trim.

The crown molding was left in place. Panels were trimmed on the back side of the foam to accommodate the crown molding.

Use spray foam to seal around all windows/openings before installing siding and trim.













Plywood was used as a solid backer for the PVC covered coil stock. The plywood was extended 3/4" past the foam strips. This was done to incorporate the "J" channel into the window trim when the coil stock was bent up.

The windows could have been trimmed out with standard trim boards.











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