

# Window Retrofit: Jackson, MS

## Builder Profile

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## Project Home

- Name: Railroad Renovation
- Location: Jackson, Mississippi  
Layout: 3 bdrm, 1 bath, 1 fl, 820 ft<sup>2</sup>
- Climate: IECC 3A, hot-humid
- Year Built: 1955
- Retrofit Completed: June 2022

## Jackson – Windows

### Pre-Retrofit (1955)

A mix of aluminum-framed single- or double-pane and single-pane wood-framed windows

### Post-Retrofit (2022)

ENERGY STAR Most Efficient triple-pane vinyl-framed windows



This 1950's bungalow in Jackson, Mississippi, needed extensive renovation throughout, including the windows, which were a mix of single-hung wood-framed and fixed metal-framed single-pane clear-glass windows. Some were missing glass, none of the framing was true, and extensive water damage was evident around the frames and sills of most of the windows. The U.S. Department of Energy-supported retrofit included replacing the old windows with ENERGY STAR Most Efficient triple-pane windows. The new windows have vinyl frames, an argon gas fill between the panes, and two layers of low-emissivity coating which together provide an insulation value of  $U=0.20$  and a solar heat gain coefficient of 0.18. The windows came with tempered glass, which the big box supplier recommended given the possibility of hurricane-related storms in the region. In addition to the significant improvement in energy efficiency, the windows will also provide significant sound abatement, an important benefit given that the home is located 100 yards from an active railroad track.

## Jackson Project

## Windows

### Upgrade

Install triple-pane windows

### Number of Windows Upgraded

11

### Planned Material Cost

\$3,378

### Planned Labor Cost

\$800

### Total Planned Cost

\$4,178

### Added Upgrade Material Cost

\$3,524

### Added Upgrade Labor Cost

\$0

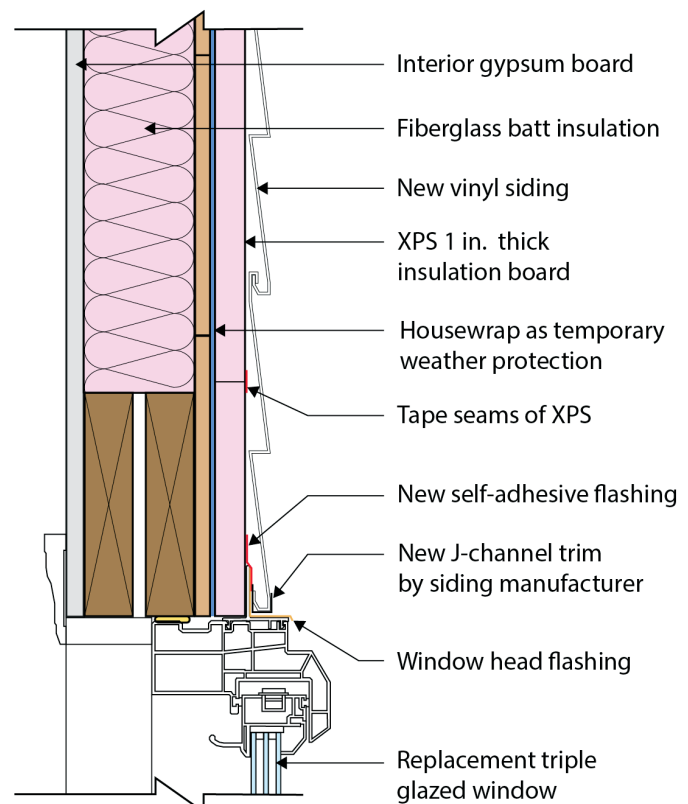
### Upgrade Incremental Cost

\$3,524

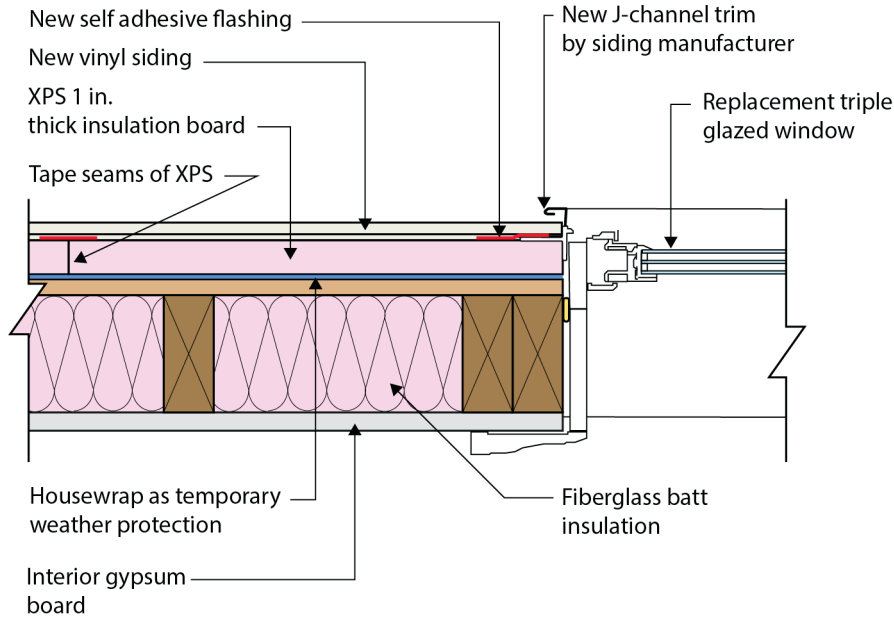
### Total Project Cost with Upgrades

\$7,702

## Head Detail

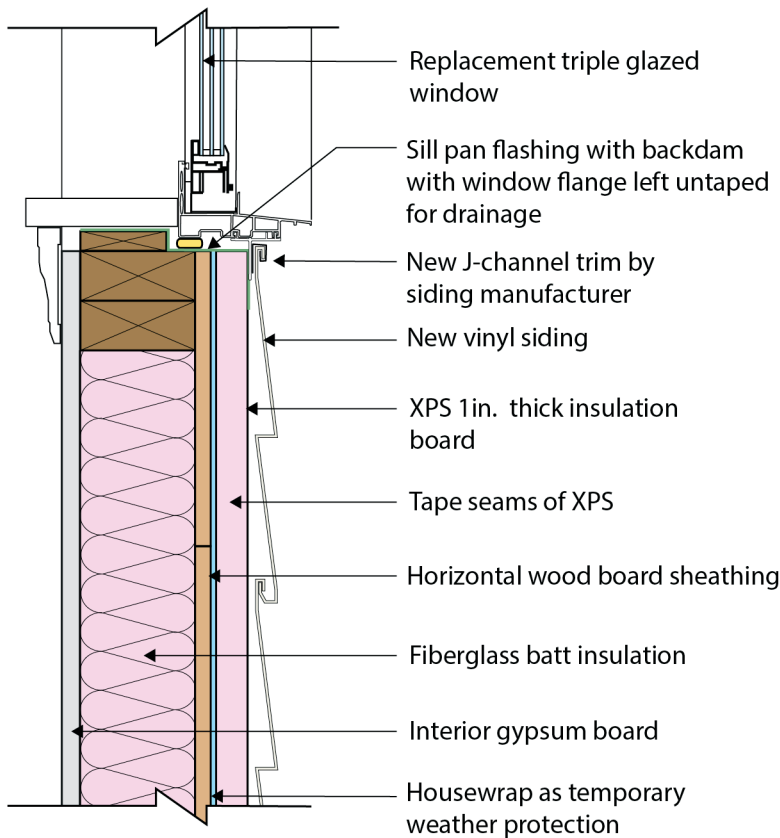


## Jamb Detail

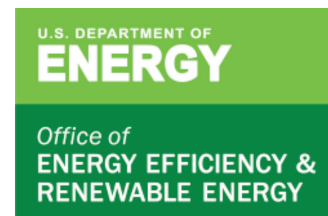


The original windows, an assortment of single- and double-pane metal- and wood-framed windows were in bad shape. All were replaced with triple-pane vinyl-framed windows for energy efficiency and sound abatement. Note, at the bottom of the window, pan flashing is typically installed beneath the sill but tape is not installed over the sill flange.

## Sill Detail



New vinyl siding was installed over the windows which were installed over new house wrap and 1 inch of rigid EPS.



For the head and sill details, the view is from the side and the interior of the home is to the left of the wall. For the jamb detail, the view is from the top and the interior of the home is below the wall.

For more information, visit:  
Building America Solution Center  
[bascc.pnnl.gov](http://bascc.pnnl.gov).

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