U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Window Retrofit: Long Island, NY

Builder Profile

United Way of Long Island
Deer Park, Long Island, NY
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Project Home

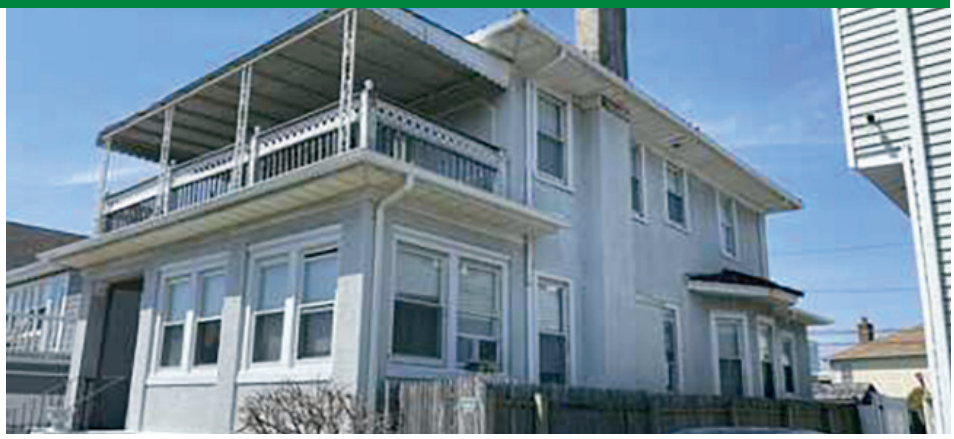
- Name: Nassau County Stucco
- Location: Long Beach, NY
- Layout: two-story duplex, 2-bdrm 1 bath per floor; 2,120 ft²
- Climate: IECC 4A mixed–humid
- Year Built: 1920s
- Retrofit Completed: not done

Long Island – Windows

Pre-Retrofit (1949)	Post-Retrofit (2022)
All double pane	Add exterior low-e storm windows

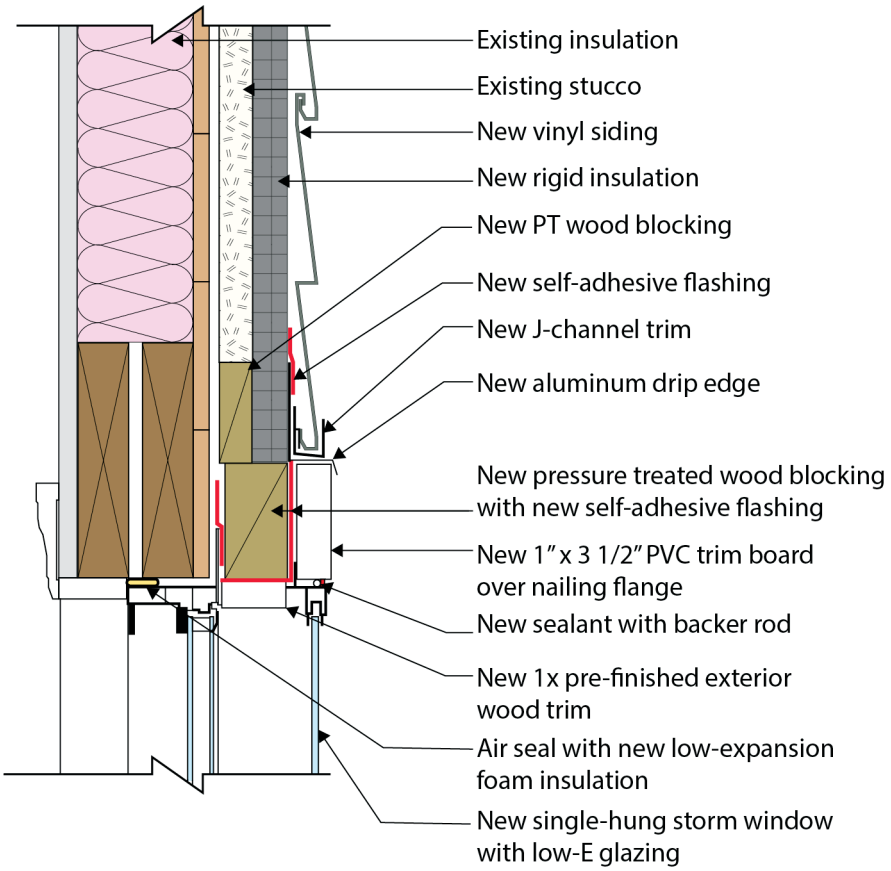
Long Island Project	Windows
Upgrade	Install 32 exterior storm windows ($350/window)
Number of Windows Upgraded	32
Planned Material Cost	
Planned Labor Cost	
Total Planned Cost	
Added Upgrade Material Cost	$6,400
Added Upgrade Labor Cost	$4,800[1]
Upgrade Incremental Cost	$11,200
Total Project Cost with Upgrades	$11,200

[1] Materials and labor costs are estimates. Retrofit was not completed.

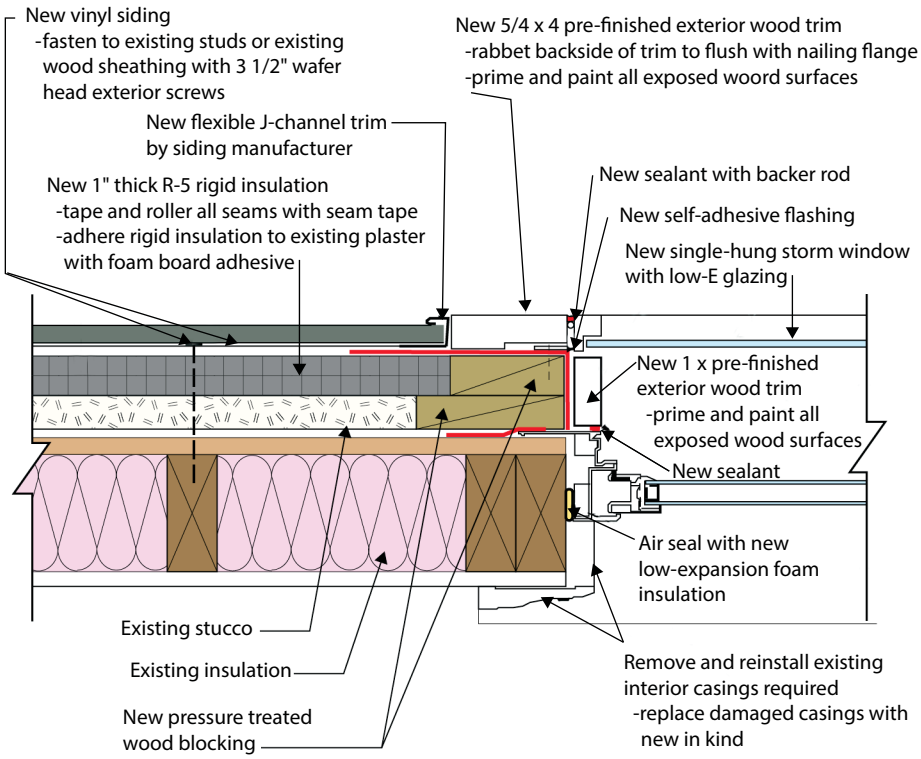


This 1920s stucco duplex home on Long Island is owned by a nonprofit agency and operated as transitional housing. When the home was assessed for upgrades to reduce utility bills, the builder/renovator decided to install rigid foam and vinyl siding over the existing stucco. Because the original single-pane windows had already been replaced with double-pane, vinyl-framed windows, the renovator decided to install low-emissivity storm windows rather than all new windows. The high-efficiency tight-fitting storm windows would provide both insulating and air sealing benefits at a reasonable cost of about $350 per window for labor and materials. The renovator had not installed high-efficiency low-emissivity storm windows before and was eager to try this retrofit measure to determine if it would be a desirable retrofit to recommend for his affordable housing agency clients.

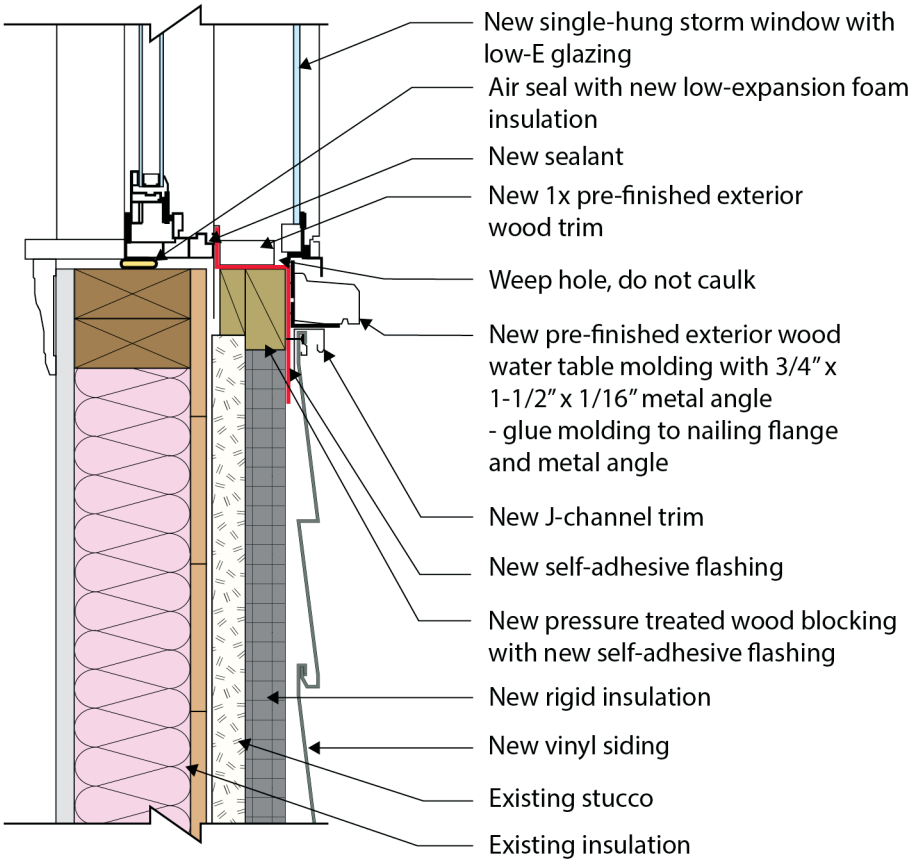
Head Detail



Jamb Detail



Sill Detail



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.

The two-story, 2,120 ft² duplex home had 32 windows that could benefit from the addition of high-efficiency storm windows to increase the performance of the double-pane windows, which had been installed decades earlier.

The deep frames of the existing windows would easily accommodate exterior low-e storm windows, which would help reduce both air leakage and heat transfer for lower energy bills and increased comfort along the exterior walls in the home. The low-emissivity coatings on the storm windows offer protection against both winter heat loss and summer heat gain for year-round benefits. Operable single-hung storm window models are available so the homeowner would not have to sacrifice the ability to open the windows once the storm windows were installed.

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