



Crystal Windows supplies sound reduction windows for 2044 Westchester Ave., Bronx

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Bronx, NY A recently completed multifamily mixed-use project selected Crystal Window & Door System's new AC85 Sound Reduction Window to control the location's unwanted urban noise problem. Located at 2044 Westchester Ave., the 11-story Westchester Mews – Building A sits on a major commercial thoroughfare and only a few dozen feet from a busy MTA elevated subway rail line. The AC85 aluminum window product line features a dual sash configuration with a deep master frame capable of delivering very significant acoustic sound transmission reductions, an impressive feature for demanding high-noise locations near highways, airports, railways, or busy urban streets.

The Crystal AC85 window's sound control capability allows profitable development of properties which formerly were hampered by their noisy locations. Similarly, existing buildings renovated with the Crystal AC85 window offer improved comfortable sound environments for occupants, greatly improving the value of the property.

“The selection of the Crystal AC85 window for the Westchester Mews project was a great choice,” said Jimmy Zhou, Crystal’s account executive. “Located so close to an elevated subway line and a busy street, the residents of the new building are benefiting greatly from the noise reduction properties of the Crystal AC85 casement and fixed windows.”

The Westchester Mews project consists of two buildings. The A-Building, situated on Westchester Ave., utilized a total of 459 windows. The front façade, which faces the busy street and elevated train tracks, was specified with 243 AC85 dual window systems with casement and fixed panels. A majority of the Crystal window systems were assembled in large, mullied arrangements combining several AC85 units and an HVAC aluminum louver.

The Crystal AC85 Acoustic Casement and Fixed Window 7.875” master frames are thermally broken using an insulated strut system. The heavy-duty dual sash windows deliver thermal performance of either $U=0.29$ or $U=0.28$, depending on which of the two glass packages specified for the project were used.

The AC85 window combinations were specially configured for the project. Crystal crafted mock-ups early in the project for independent acoustic lab testing, field installation, and approvals from the developer, architect, and installer. Independent lab testing certified an outstanding Outdoor-Indoor Transmission Class (OITC) sound reduction rating of 42 for the Crystal window mock-up. OITC ratings more appropriately emphasize the lower frequencies typical of urban environments. The rating indicates the decibel sound reduction from an outdoor source to the indoor environment.

For the rear courtyard-facing façade of the Westchester Mews A-Building, a sound attenuation window was not necessary. To provide continuity for the overall building façade, this part of the project took advantage of the design characteristics and appearance of the Crystal 8500 Casement and 8510 Fixed Aluminum Windows which are similar to the AC85 Acoustic Window. Crystal supplied 216 of these standard windows, utilizing a continuous master frame option and mullion systems to combine window arrangements with PTAC louvers. Both front and rear façade windows were finished in a durable AAMA 2604 powder coat simulated anodized silver paint, resulting in a consistent aesthetically pleasing overall appearance for the building.

The 203 PTAC louvers facilitating the use of individual room HVAC units for Westchester Mews A-Building were the AEL-42 model from Reliable of Geneva, AL and were sourced and factory installed in the window frames by Crystal. The dual-sash AC85 windows were configured to accommodate an extra deep PTAC sleeve and Crystal outfitted them with an insulated “blank off” panel on the interior window sash frame.

All the Crystal windows for Westchester Mews feature 1.25” insulated glass units (IGUs) with Vitro SB60 glass and Argon filling for energy efficiency. Where needed for code compliance or other reasons, some IGUs were specified with tempered or laminated glass. All the glass outswing casement sashes are operated by decorative European-style satin chrome handles and feature New York City approved limit opening devices. Accessories to facilitate quick, efficient, quality installation

of the window systems included aluminum subsills, receptors, sill covers, mullions, and anchor clips and trim covers from Crystal.

Crystal also supplied windows for a second separate new building of the Westchester Mews project, located at 2047 Newbold Avenue. The B-Building has its front façade situated on a quiet residential street. With the rear façade facing the courtyard between the two Westchester Mews buildings, the B-Building has no need for ultra-high-end sound attenuating windows. Crystal provided 1,217 Magnus 4500 Commercial Vinyl Window uPVC Inswing Turn Only and Fixed Panels as well as 305 Reliable AEL-42 PTAC louvers combined within large Magnus 4500 master frames for this building's 332 openings.

Westchester Mews, LLC was the project developer and Procida Construction Corp. acted as general contractor. Architectural design was by Magnusson Architects and Planners, and Marvel Contracting Service was the fenestration installer. Financing for the project was coordinated in part through the New York City Housing Development Corp.

The two buildings of Westchester Mews offer 289 one-, two-, and three-bedroom apartments for defined income categories. Residents enjoy on-site common rooms, laundry facilities, bike storage, outdoor terraces and green spaces, and proximity to public transportation and commercial shopping districts. A new medical office for family and internal medicine is located on the ground floor of 2044 Westchester Ave., convenient for residents of the building and community.

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