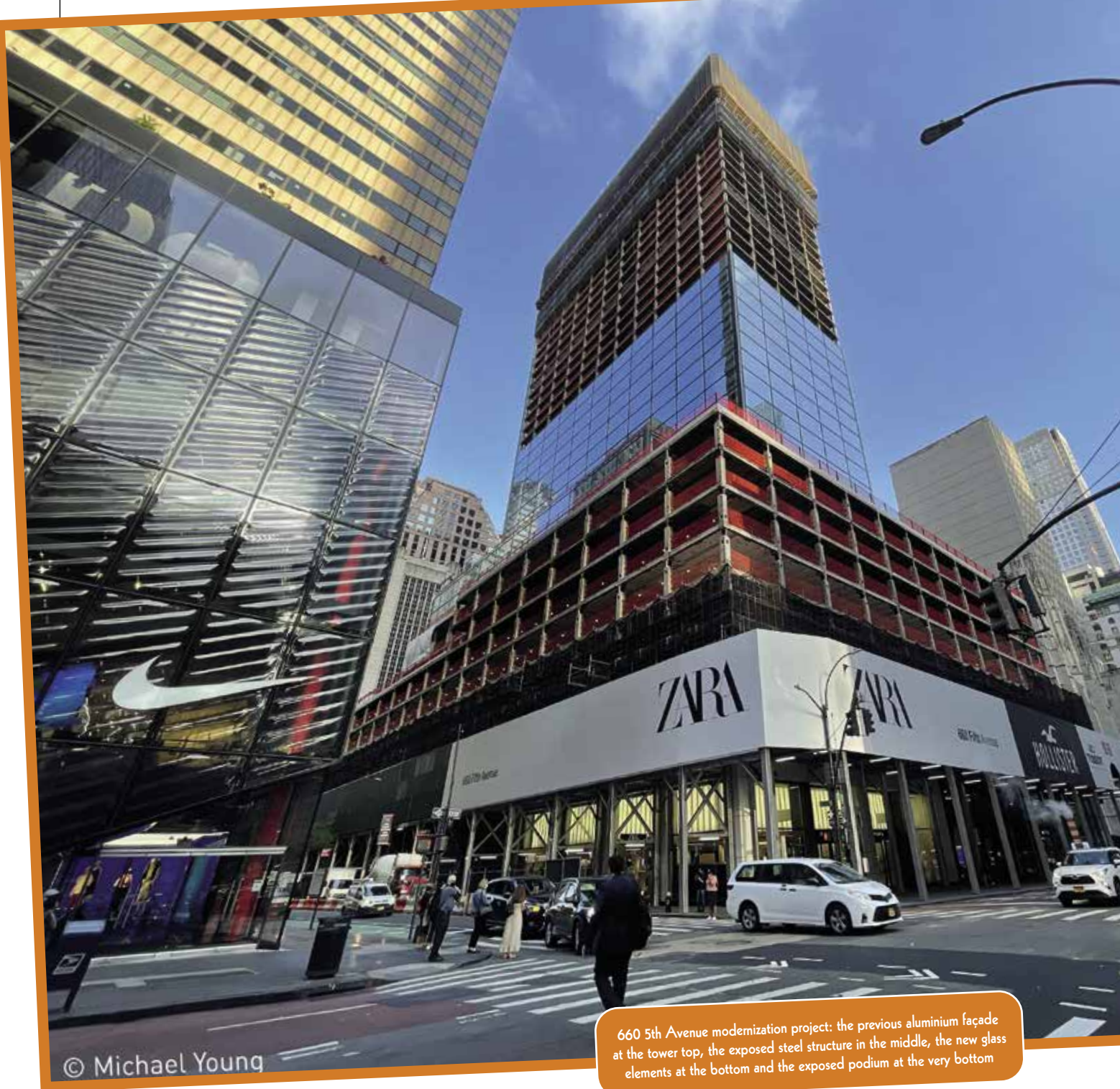


Energy saving in New York with **EDGE TECH**



© Michael Young

660 5th Avenue modernization project: the previous aluminium façade at the tower top, the exposed steel structure in the middle, the new glass elements at the bottom and the exposed podium at the very bottom

For insulating glass windows, Edgetech's spacer systems act as energy-efficient warm edge spacers. While significantly reducing energy loss to the outside, they also prevent condensation appreciably and will prolong a window's lifetime. All these winning features contributed to the recent success of three landmark insulating glazing projects in New York.

GUARANTEE OF EDGE SEAL WITH SILICONE SEALANT AND SUPER SPACER®

Whether it's launching new products or refurbishing those already within its portfolio, AGC INTERPANE's stream of New York projects remains ever constant. Here, for the high quality insulating glass manufacturer, part of the action always includes The Super Spacer® T-Spacer™ SG warm edge spacer system, which was specially developed for glass edge sealing with silicone sealants. Trophy assets at outstanding locations invariably generate high rental income and will attract the most affluent tenants. Luxurious floors with every comfort for fine dining as well as open-air terraces and rooms for flexible events and conferences such as those of the new One Vanderbilt are all emblematic of the modern generation of office towers in Manhattan. In New York, the best location also means the best skyline vista, with the result that ageing office buildings are being brought up-to-date to include fully-glazed façades at sums reaching the three-digit millions. For decades now, AGC

INTERPANE has been among Europe's top locations for large-area insulating glazing that's both superb in quality and multifunctional. Here, beyond its value in coating expertise and outstanding insulation, the high quality of its insulating glass is a decisive benefit as well. "There are no complaints with us. Anything other than delivering 100 per cent quality without exception is inconceivable in our business," says Daniel Bruckelt, head of insulating glass production at AGC INTERPANE. A company based in Plattling, it enjoys pride of place within an illustrious circle of those first in line for glazing requests in megaprojects the world over. Yet besides new construction, glass for energy-related façade renovation and modernization also contributes a large sales share. Here's why two exclusive office locations in Manhattan that are owned by Brookfield Properties have just been reglazed with AGC INTERPANE insulating glass.

660 5TH AVENUE: TRANSVERSE INSTEAD OF LONGITUDINAL GLAZING

First there's the 39-storey former Tishman Building on 5th Avenue, built in

1957 on the site where William K. Vanderbilt's Petit Chateau once stood. The tower, redesigned and gutted according to the designs of Kohn Pedersen Fox, will bear once again the number 660 instead of 666 following its renovation. A glass floor-to-ceiling façade together with horizontally-arranged insulating glass panes currently replaces the previous, non-insulating façade of embossed aluminium.

Around 2000 panes of 6 x 3.2-metre glass were supplied to North America by AGC INTERPANE, each equipped with 20 mm Super Spacer® T-Spacer™ SG as spacers – totalling circa 25,000 square metres of insulating glass. As Daniel Bruckelt explains: "In the past, floors were built lower. Today, façades of high-rise buildings worldwide have a span of 1.5 to 3.0 metres in width and 3.5



to 4.5 metres in height. The existing building at 660 5th Avenue had a grid dimension of 5.8 metres in width and 3.2 metres in height. Therefore, in this particular case, the panes could be installed horizontally. The façade view makes the building unique among the other glass façades in New York.” Here, the amount of glass in the façade will nearly triple. Indeed, according to Brookfield, these are the largest, elemental windows in North America.

TWO BRYANT PARK'S CRYSTAL CLEAR, ELEGANT STRUCTURAL GLAZING FAÇADE

Completed recently, the second modernization project is that of Two Bryant Park. Former HBO headquarters at the corner of 1100 Avenue of the Americas (formerly 6th Avenue) and 42nd Street, it was remodeled to a design by New York firm MdeAS. The iconic Grace Building with its curved lower edge rises directly adjacent and is connected to Two Bryant Park on the north side by Grace Plaza, also redesigned, complete with seating, trees, retail and dining areas. World-class jazz trumpeter Till Brönner reportedly named an original composition after the intersection of ‘42nd & 6th’ with the affirmation ‘there’s absolutely nothing going on.’ In fact, the loca-

tion opposite Bryant Park and the New York Public Library is among the quieter corners in Manhattan, though ‘dining al fresco’ in the greenery will hardly come as the worst idea on a hot summer day.

Built in 1906 in the Beaux-Arts style, the original building had been raised from six to 15 storeys in several stages. Already in 1984, Kohn Pedersen Fox had completely restructured the building, cladding it with a curtain wall of dark green glass and aluminium. At that time, colour-neutral solar control glass was still unavailable. Only in 1995 would AGC INTERPANE introduce

ipasol Natura as a world premiere. With ipasol Platin 46/31, a highly selective ‘descendant’ with an elevated daylight transmission was used in the building’s new all-glass façades.

AGC INTERPANE produced 9,000 square metres of insulating glass for the project in two different variants. The main type had the structure 10 mm Clearlite™ (TVG) outside and 6 mm Clearlite™ (TVG) inside. For the podium, around 1,000 square metres of glass with the structure 1010.4 white glass (TVG) and ipasol coating Platinum 46/31 was installed on the outside and 1010.4 white

glass (ESG+HST) on the inside. The latter had dimensions of up to 3.20 x 4.60 metres with a weight of around 1,500 kilos. All in all, AGC INTERPANE delivered 450 tons of glass in overseas containers to the façade builder W&W Glass. The glass is installed with a light grey Super Spacer® T-Spacer™ SG spacer and is sealed with gray silicone.

SPECIAL SPACER WITH SILICONE SEALANT PROCESSING

The Super Spacer® T-Spacer™ SG is the latest product from Edgetech and was



Two Bryant Park after rehabilitation: an elegant, light-filled glass block

One Vanderbilt with AGC INTERPANE glazing for the four floors of 'The Summit' observation deck

specifically developed in close coordination with AGC INTERPANE for structural glazing and XXL glazing. "Quality manufacturers like AGC INTERPANE provide long warranties on insulating glass units. This means no visible ageing, no thermal breakage, no water vapour diffusion, no relevant gas loss, no migration of the butyl seal," explains Christoph Rubel, European Technical Manager at Edgetech Europe. "The refurbishing projects in New York used a UV-resistant and a gas-permeable silicone secondary sealant. So, the primary sealant bears the brunt of keeping the edge seal gas-tight," he continues.

For this reason, the lateral areas of the Super Spacer® T-Spacer™ SG are enlarged for application of the polyisobutylene as compared with the Super Spacer® T-Spacer™ Premium Plus. The spacer design also supports millimetre-precise application of the spacer in the automatic ISO line. "The parallelism of the spacer to the glass edge and minimal tolerances are not only optical criteria for large panes with narrow joints to which architects and façade construction customers explicitly pay attention, since these properties contribute to the stability of the entire element," says Daniel Bruckelt. "The decision to use Super Spacer as spacer is also a strategic one. We

know from experience that we can use it without hesitation to give assurances for edge seal service life, even in silicone applications," continues Bruckelt.

ONE VANDERBILT: FOURTH TALLEST TOWER IN THE CITY

Completed in summer 2021, another AGC INTERPANE project in Midtown Manhattan offers a perfect view of Two Bryant Park. Just a few buildings away, right next to Grand Central Station, One Vanderbilt rises 77 storeys and 427 metres high, ranking it the fourth tallest tower in the city. Here, at a height of 335 metres, AGC INTERPANE supplied the glazing for the four floors of 'The Summit' observation deck. Cantilevered glass boxes, a digital art installation by Kenzo, a restaurant flanked by a bar and, above all, glazed elevators that rise up from Grand Central on the outside of the building to the platform all characterize New York's latest spectacular attraction. The tower was designed by KPF, Snøhetta designed the interior of The Summit and Permasteelisa Group was responsible for the com-

plete façade construction. To ensure that the view of Madison and Vanderbilt Avenue is not only safe but also completely clear, LSG panes of 4 x 10 millimetre Clearvision white glass with SGP interlayers and Clear-Sight™ layers were installed at positions 1 and 8 for the terrace area and cantilevered glass boxes. For the interior areas of the four floors the double-insulating glass units consist of laminated safety glass 1010.4 with Sentry interlayer and have dimensions of up to 2 x 5.3 metres.

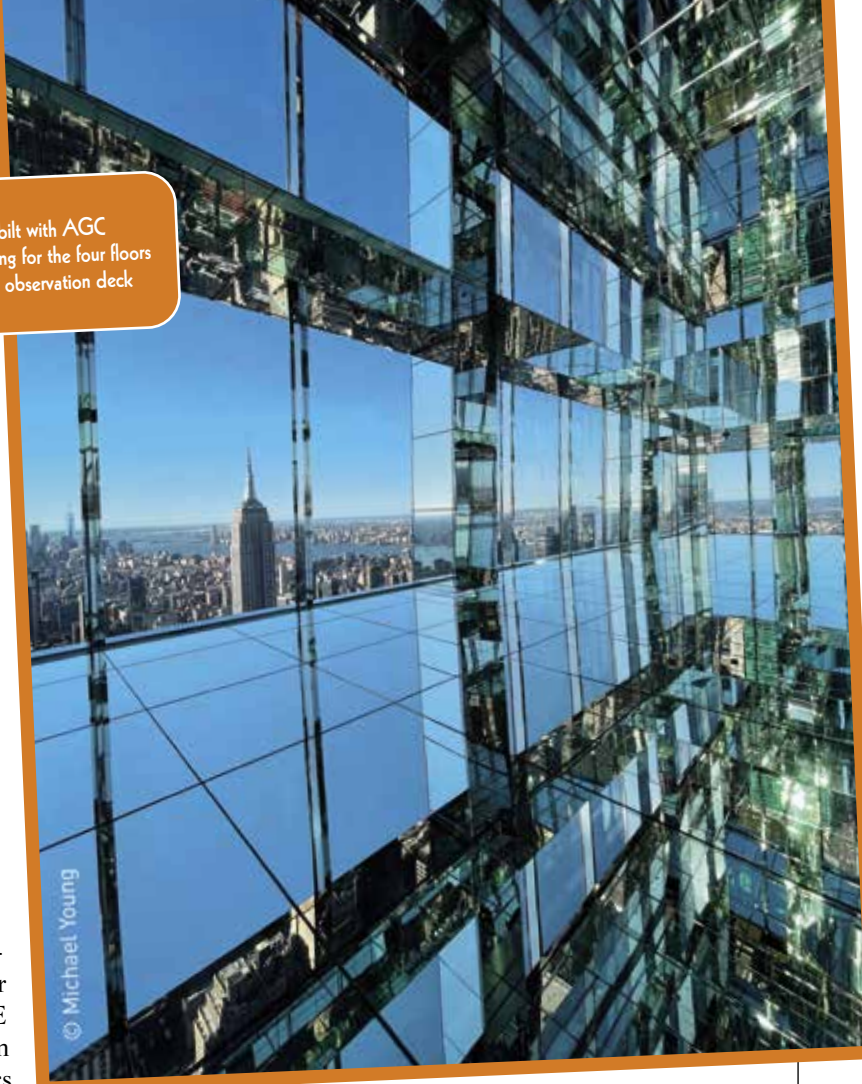
As proudly affirmed by Joachim Stoss, Managing Director of Edgetech Europe GmbH and Vice President International Sales at Quanex: "Our Silicone Glazing Spacer is a prime example of how suc-

cessful customer-supplier relationships are based on much more than product reliability and quality. Developing custom-fit solutions together with the customer is the supreme discipline in any business. We are naturally honoured by the trust placed in our work."

Edgetech Europe GmbH

Edgetech
A Quanex Building Products Company

Gladbacher Strasse 23
52525 Heinsberg - Germany
Tel.: +49-2452-964910
Fax: +49-2452-9649111
E-mail: info@edgetech-europe.com
www.superspacer.com



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