



LET'S BUILD A BETTER FUTURE

 **PROJECT SPECIFIC
AND CUSTOM SOLUTIONS**

The portfolio of Aluprof, a member company of the Kęty S.A. Capital Group, as one of the leading European distributors of aluminum systems, includes eye-catching projects that admired by the pedestrians because of their unique appearance. The Contemporary architecture poses a great challenge for the contractors. Complex structures, original shapes or very large surfaces often require developing a tailored solution designed for a particular facility. For the purposes of modern appearance characteristics, Aluprof has prepared special systems, materials and designs, thanks to which buildings have a magnificent appearance. Owing to the use of spectacular aluminum components, glass buildings thrill and are highly recognized. The robust structure of the profiles and the glittering glass provide a unique effect, which is further enhanced by the building's original architecture that draws attention.

The Aluprof aluminum systems are used in many commercial projects. It was possible thanks to the confidence gained from many project owners, architects and general contractors. Because the performance of certain undertakings involves thinking outside the box, the company often markets systems comprised of custom solutions.

'The creation of certain facilities involves meeting atypical requirements as to the appearance, size or functionality of façade systems. Therefore, we decided to develop individual structure designs, which are prepared jointly with the designers of the given building. Owing to that the things unattainable for architects have become realistic now.'

*Tomasz Grela,
– General Director, CEO of Aluprof*

"The foundations underlying the relationship between a project on the one hand, and technology and material on the other are key to understanding the architecture. Project "is expressed" by brick, steel, glass, wood and aluminum. The latter material brings lightness, slenderness, stiffness of form, and shapes the glazing. Many of our buildings look at the outside world through the windows framed by Aluprof. Simply, working jointly with Aluprof, you can transform your concepts into reality, whilst not losing much from the dream ideas. An architect receives from Aluprof support during his creation efforts and professional advice."

*Ewa Kuryłowicz, D.Sc., Professor of Architecture
– Kuryłowicz & Associates sp. z o. o .*



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UNITIZED FAÇADE

MB-SE98 SG



The skyscraper at 125 Greenwich is 278m (912 feet) high, and has 88 floors. As provided for in the architectural design, the external wall has rounded corners, providing the apartment dwellers with a magnificent panoramic view to the city. 125 Greenwich Street-dedicated unitized curtain wall system MB-SE98 SG enables to build fully glazed constructions from the outside, and the glass is attached by means of structural sealant using the SSG technology. Typical dimensions for this structure are as follows: width of mullions & transoms 98mm (3.85"), vertical expansion joint 16mm (0.62"), horizontal expansion joint 42mm (1.65"). Horizontal expansion joint has a large movement tolerance range – up to ± 27.4 mm (1.08"). The MB-SE98 SG system has two types of mullions that provide the ability to fabricate basic types of façade segments plus the segments with a special vertical profile for maintenance platform (BMU). Also, the system has two types of parallel opening windows.



125 Greenwich Street

Location: New York

Project: Rafael Viñoly Architects PC

Mullion with track for maintenance platform and parallel opening window - cross section

Technical parameters:

Air infiltration:

6.24 psf (standard: ASTM E283)

Water tightness:

15 psf; 5 gph/ft² 15 min

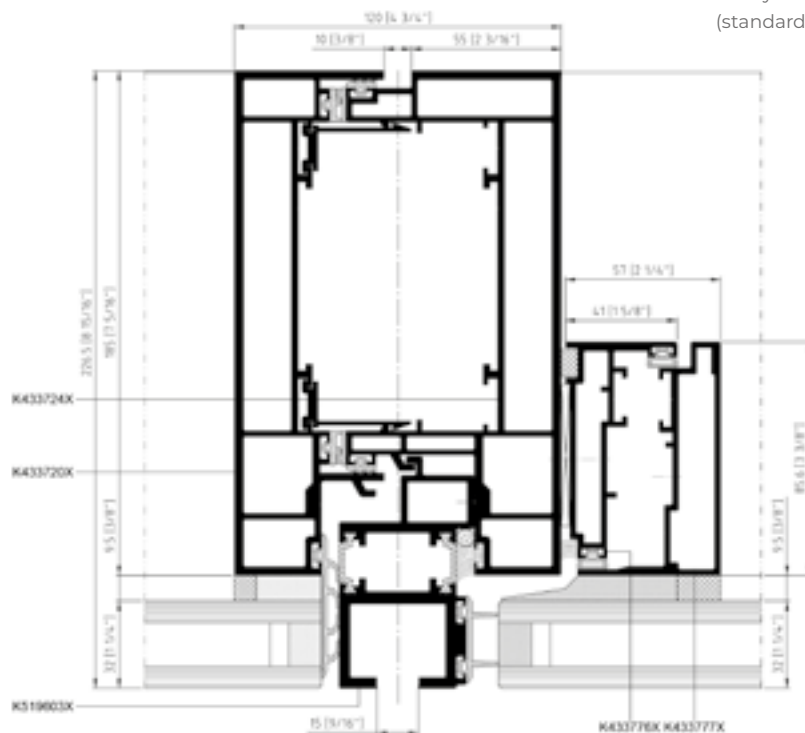
(standard: ASTM E331 and AAMA 501.1)

Wind load resistance:

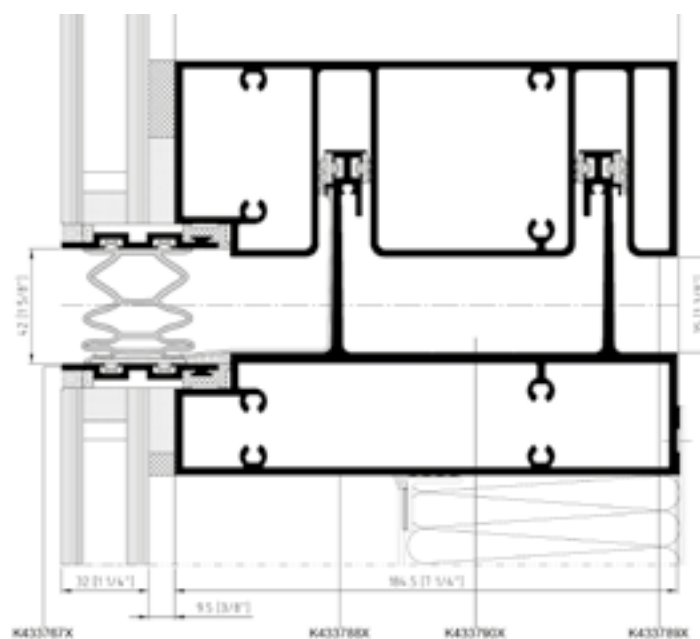
+32 psf, -58 psf (standard: ASTM E 330)

Safety test – +48 psf, -87 psf

(standard: ASTM E 330)

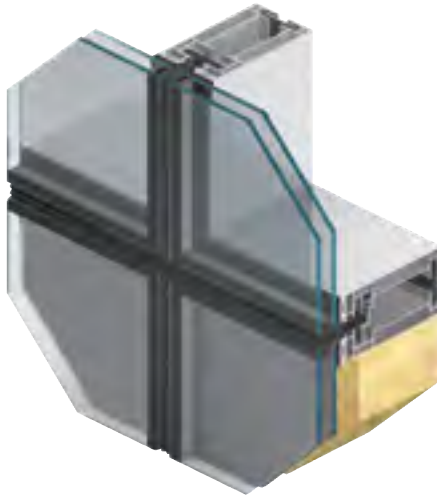


Stack joint - cross section



STRUCTURAL UNITIZED FAÇADE

MB-SE80 SG



325 LEX, this typical New York skyscraper is yet another American project which uses Aluprof systems. The custom, MB-SE80 SG unitized façade system meets individual needs both in terms of aesthetic appearance and design criteria. It allows for fast installation of unitized panels. In terms of glazing technology, it is a fully structurally glazed system, with awning operable windows. Podium units were fabricated with a cementitious material infills instead of traditional spandrel glass units to create warmer look between neighbor masonry buildings. The MB-SE80 SG system has been tested at the National Certified Testing Laboratories in York in compliance to the standards applicable in the USA.

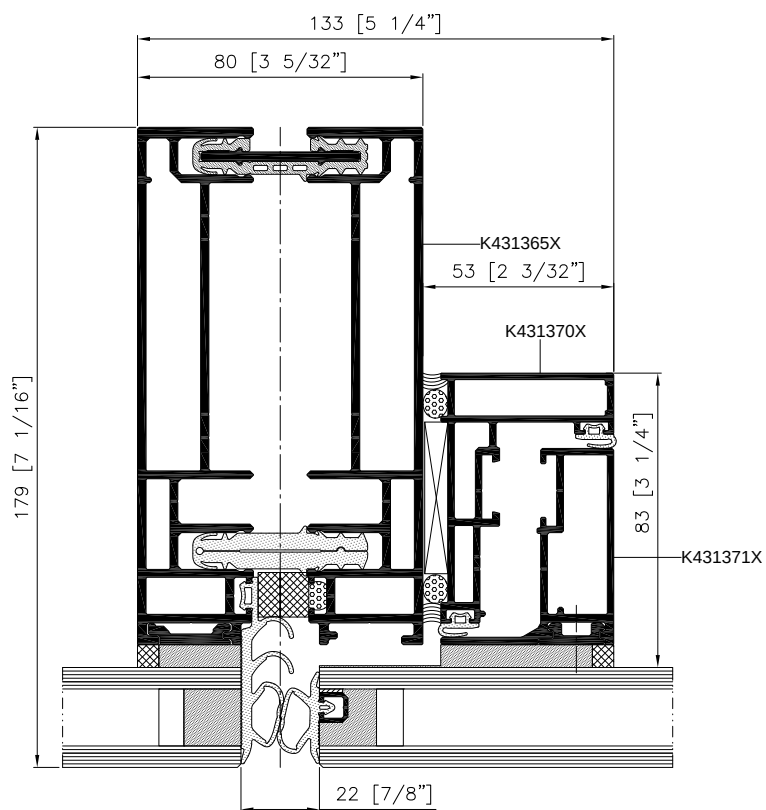


325 LEX

Location: New York

Project: Time Square Development

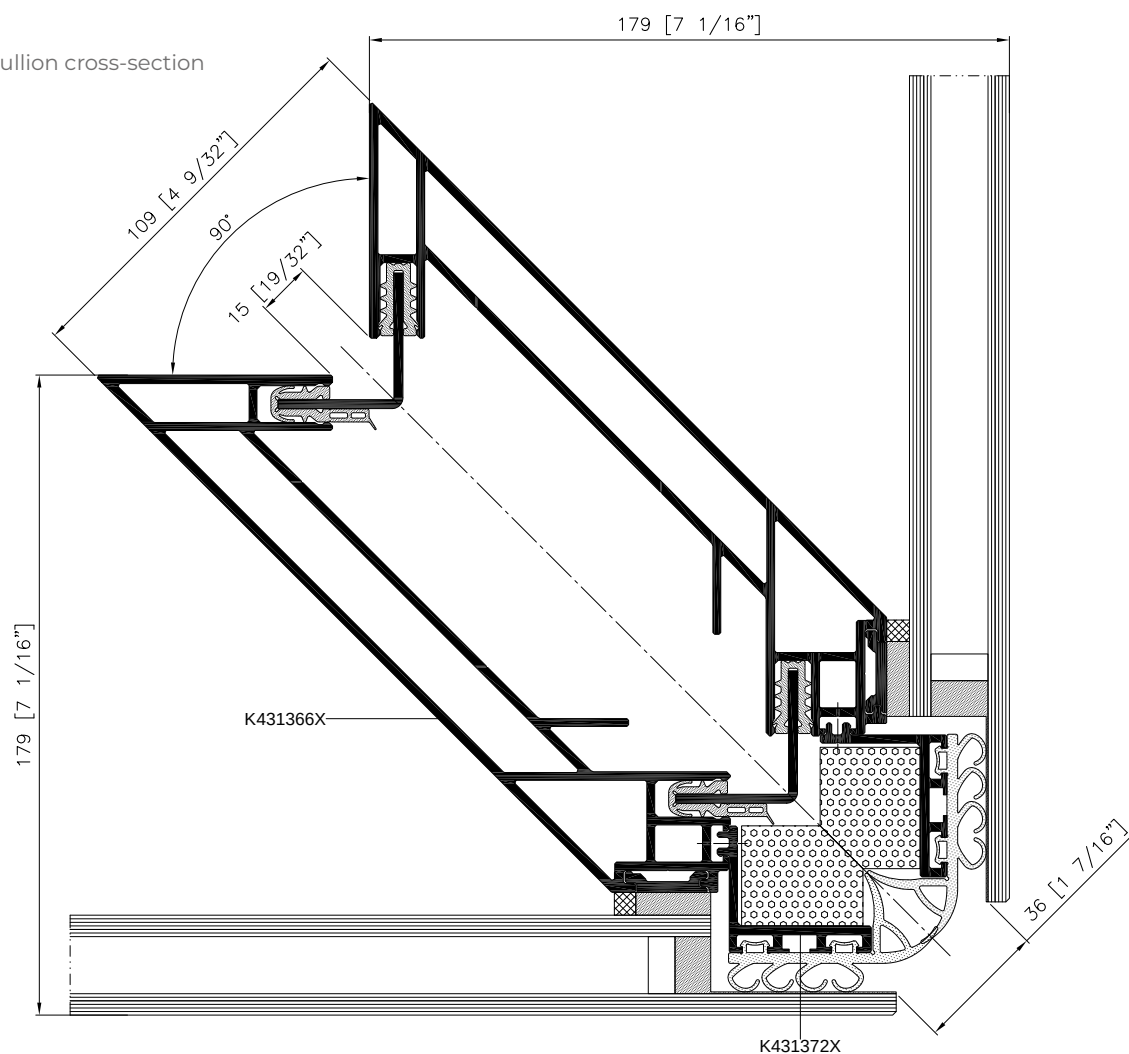
Mullion cross-section



Performance:

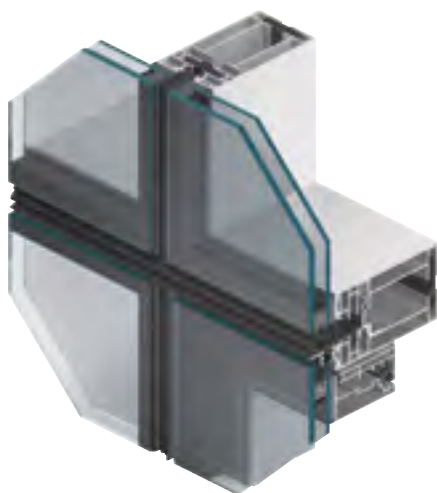
Structural Performance Testing - design load:
 ± 20 psf (ASTM E330-02(10) standard)
 Air Infiltration Testing:
 6,24 psf (ASTM E283-04(12) standard)
 Water Penetration Resistance Testing:
 15 psf (ASTM E331-00(09) standard)
 Dynamic Water Penetration Resistance Testing:
 15 psf (AAMA 501.1-05 standard)
 Vertical Inter-Story Movement Testing:
 1/4" (AAMA 501.7-11 standard)
 Horizontal Movement Testing:
 3/8" (AAMA 501.4-09 standard)

Corner Mullion cross-section



STRUCTURAL UNITIZED FAÇADE

MB-SE80 SG



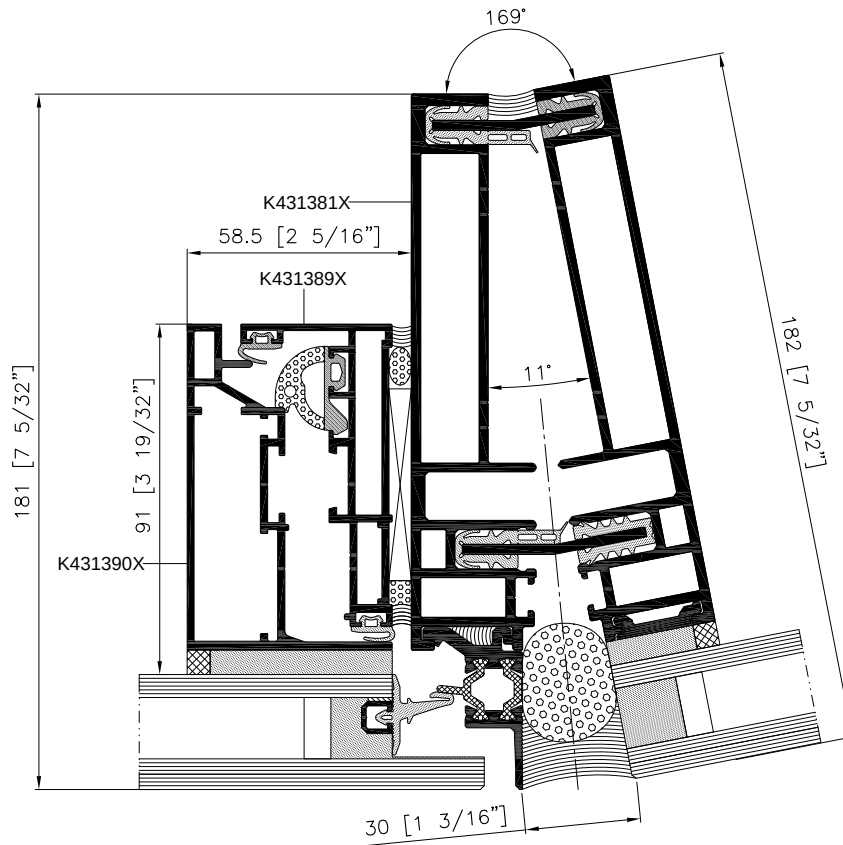
Courtyard Marrior and AURORA Residence is 348 ft. high, 31 stories mixed use building located in the heart of Long Island City. Designed with the MB-SE80 SG unitized façade, the building uses a fully structurally glazed system. System was modified and tested in the USA laboratory with very close cooperation with façade consultant. Awning operable windows with nearly 7' height allow for unobstructed view and ventilation requirement. As for compensation of tectonic movements, the design enables to enhance up to $\pm \frac{1}{2}$ " the tolerance of mutual vertical movements of the segments.



325 LEX

Location: Long Island City, New York
Project: Handel Architects LLP

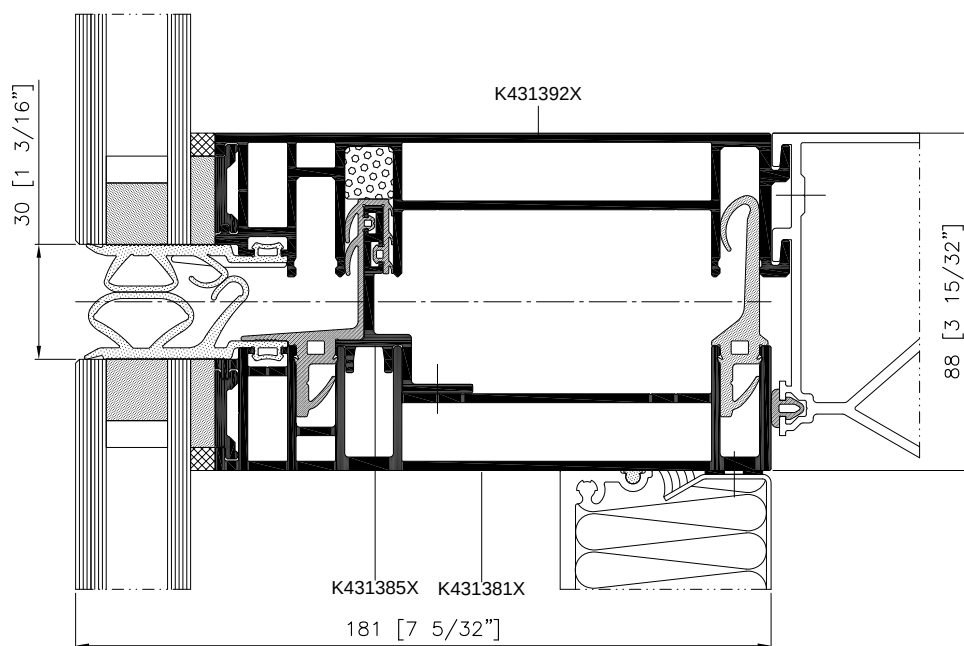
Mullion cross-section



Performance:

Structural Performance Testing - design load:
 ± 35 psf (ASTM E330-02(10) standard)
 Air Infiltration Testing:
 6,24 psf (ASTM E283-04(12) standard)
 Water Penetration Resistance Testing:
 12 psf (ASTM E331-00(09) standard)
 Dynamic Water Penetration Resistance Testing:
 12 psf (AAMA 501.1-05 standard)
 Vertical Inter-Story Movement Testing:
 7/16"(AAMA 501.7-11 standard)
 Horizontal Movement Testing:
 7/16"(AAMA 501.4-09 standard)
 Thermal Cycling Testing:
 -20o F to 180o F (AAMA 501.5-07 standard)
 Seismic Movement Testing:
 7/16"(AAMA 501.6-05 standard)

Stack joint cross-section



STRUCTURAL UNITIZED FAÇADE

MB-SE80 SG WW

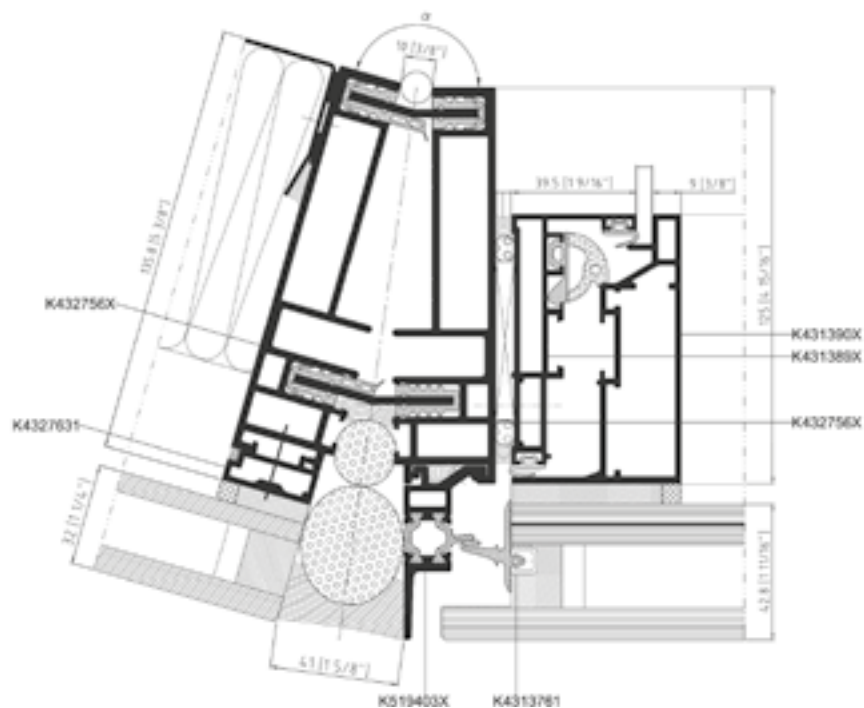


Sky View Parc is a complex of three apartment buildings, each of which is 17-storey high. The surface of the façade takes up 266,000 sq. ft. Two types of façade systems were designed for this project, in which majority of exterior façade was MB-SE80-SG WW. This solution allowed to install the system between concrete slab as the project features continuous balconies on longest facades and provide structurally glazed system with awning operable windows and door system MB-70HI. The overall dimension of vertical mullions is only 3-1/8". High sound insulation performance compliant with the requirements of the OITC 35 rating system is yet another characteristic feature of the structure.



Sky View Parc
Location: New York
Project: architectsAlliance

Angle mullion and outside opening window – cross section



Performance:

Structural Performance Testing - design load:

± 40 psf (ASTM E330-02(10) standard)

Air Infiltration Testing:

6,24 psf (ASTM E283-04(12) standard)

Water Penetration Resistance Testing:

12 psf (ASTM E331-00(09) standard)

Dynamic Water Penetration Resistance Testing:

12 psf (AAMA 501.1-05 standard)

Vertical Inter-Story Movement Testing:

7/16\" (AAMA 501.7-11 standard)

Horizontal Movement Testing:

3/5\" (AAMA 501.4-09 standard)

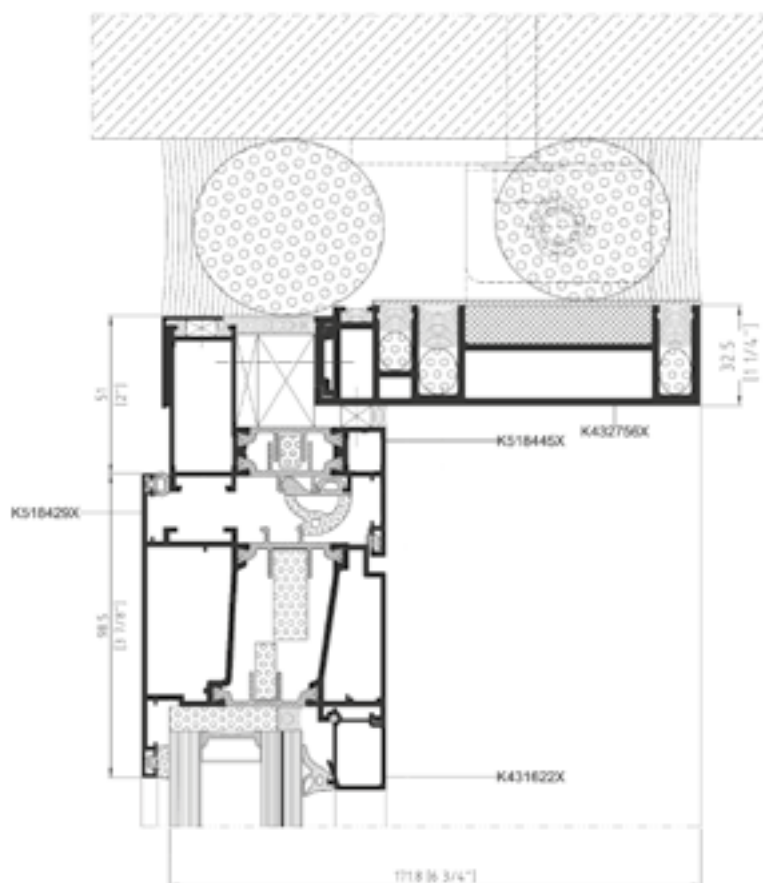
Thermal Cycling Testing:

-20o F to 180o F (AAMA 501.5-07 STANDARD)

Seismic Movement Testing:

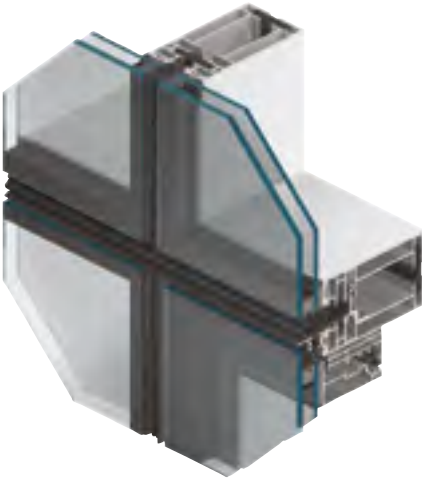
1/2\" (AAMA 501.6-05 standard)

Vertical section of the façade and balcony door



STRUCTURAL UNITIZED FAÇADE

MB-SE80 SG CW

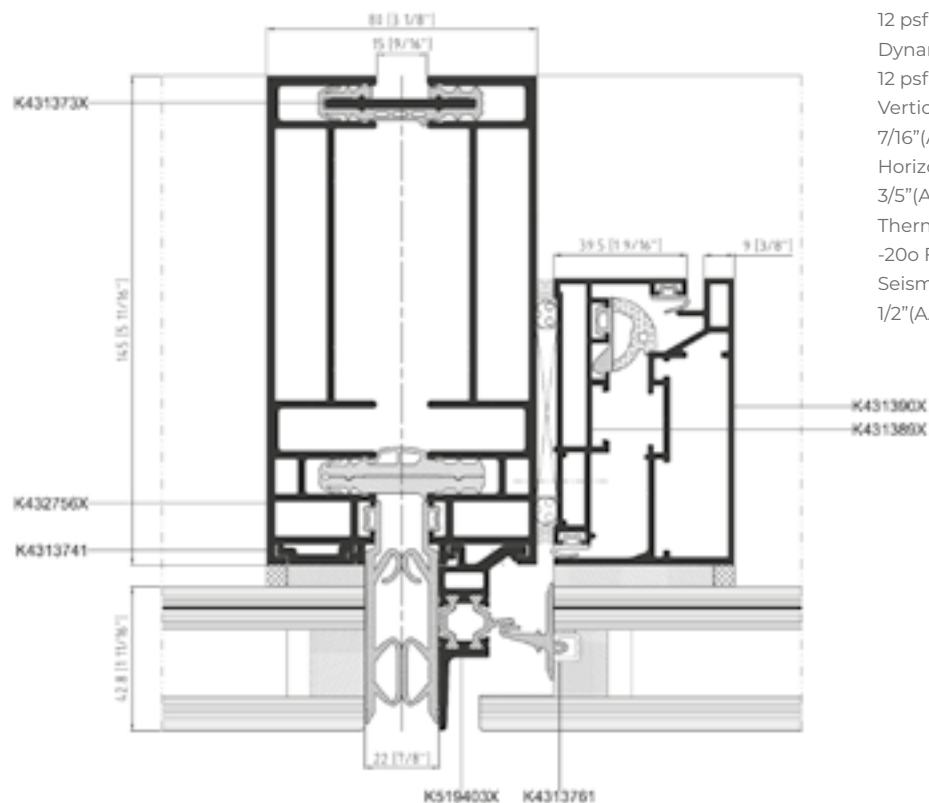


The MB-SE80 SG CW system, designed for the purpose of constructing Sky View Parc complex of apartment buildings, is intended for execution of curtain walls of suspended and filling type. This segment-based façade may be mounted without having to use any scaffolding outside, it gives the effect of a uniform glass surface, divided with $\frac{7}{8}$ in wide vertical gaps and $1\frac{3}{16}$ in wide horizontal gaps. Load-bearing sections are $3\frac{5}{32}$ in wide and glass panels are glued onto them with structural silicone in the SSG technology. The idea of independently joined segments of the façade resulted in forming vertical and horizontal expansion joints, which ensure proper performance of the structure. Built in the MB-SE80 SG CW system, the structure features appropriate tightness parameters, high thermal and acoustic performance.



Sky View Parc
Location: New York
Project: architectsAlliance

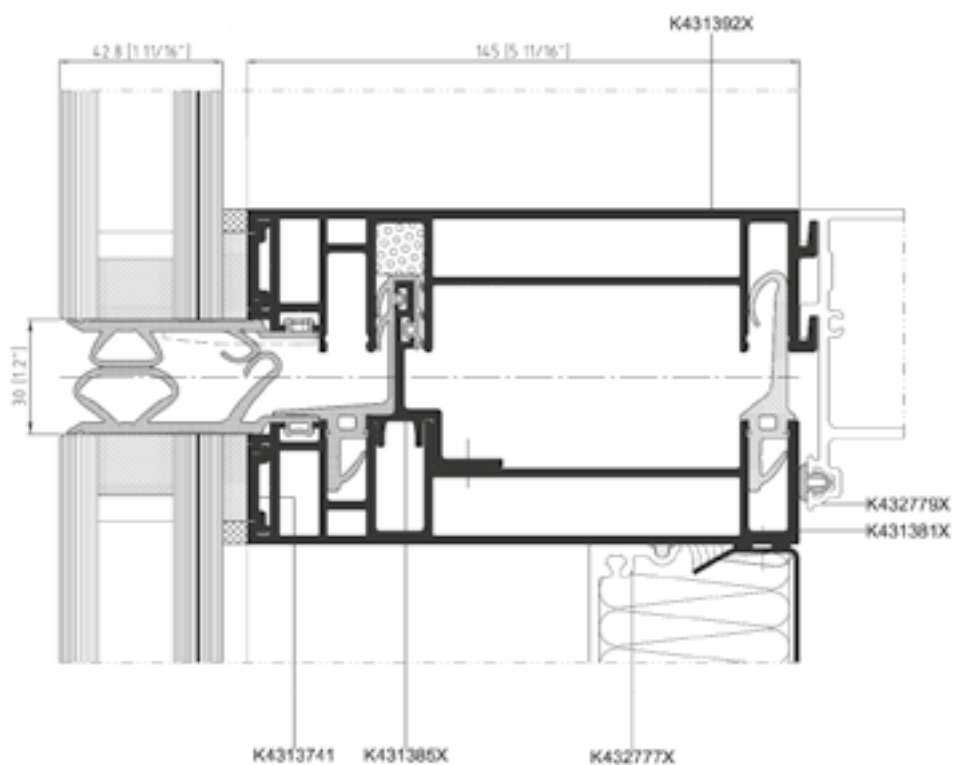
Mullion and outside opening window – cross section



Performance:

Structural Performance Testing - design load:
 ± 40 psf (ASTM E330-02(10) standard)
 Air Infiltration Testing:
 6,24 psf (ASTM E283-04(12) standard)
 Water Penetration Resistance Testing:
 12 psf (ASTM E331-00(09) standard)
 Dynamic Water Penetration Resistance Testing:
 12 psf (AAMA 501.1-05 standard)
 Vertical Inter-Story Movement Testing:
 7/16" (AAMA 501.7-11 standard)
 Horizontal Movement Testing:
 3/5" (AAMA 501.4-09 standard)
 Thermal Cycling Testing:
 -20o F to 180o F (AAMA 501.5-07 standard)
 Seismic Movement Testing:
 1/2" (AAMA 501.6-05 standard)

Stack joint – cross section



STRUCTURAL UNITIZED FAÇADE

MB-SE90 SG



The MB-SE90 SG system is a fully unitized system designed in line with the American market standards. The system allows installation of panels from the floor. Glass panels are structurally glazed using the SSG technology. The segment manufacturing technology makes it possible to apply the techniques most popular in the United States and allows for integration of an additional reinforcement screen systems, in this particular case HPCU panels.

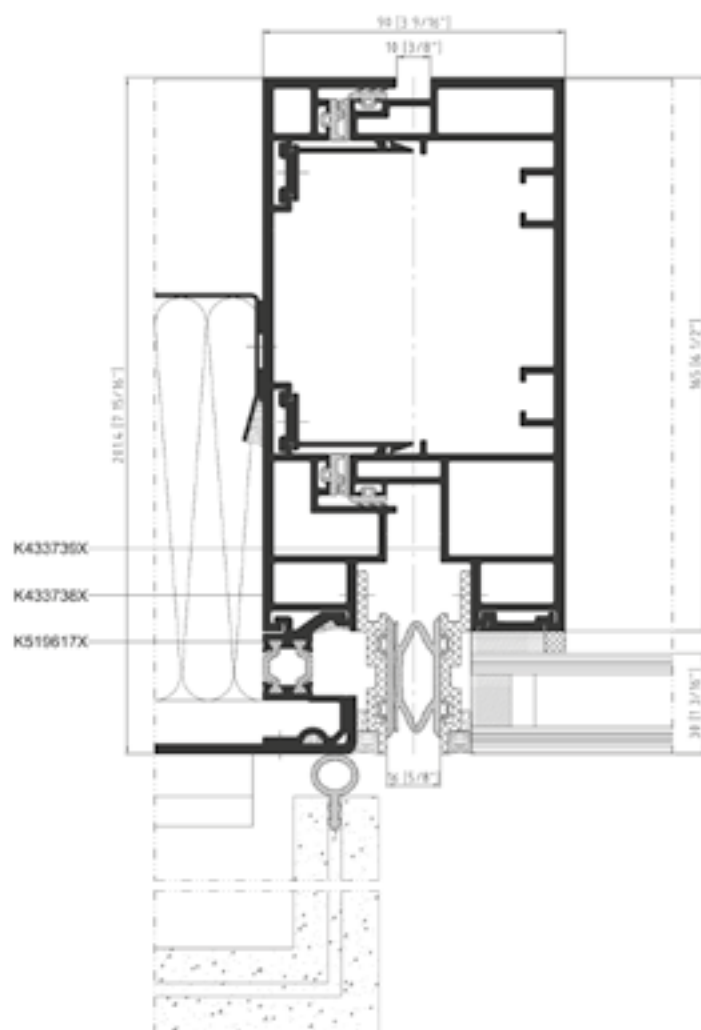


Brooklyn Navy Yard

Location: New York

Project: S9 Architecture and Engineering, PC

Mullion and concrete panel – cross section

**Performance:**

Structural Performance Testing - design load:

± 45 psf (ASTM E330-02(10) standard)

Air Infiltration Testing:

6,24 psf (ASTM E283-04(12) standard)

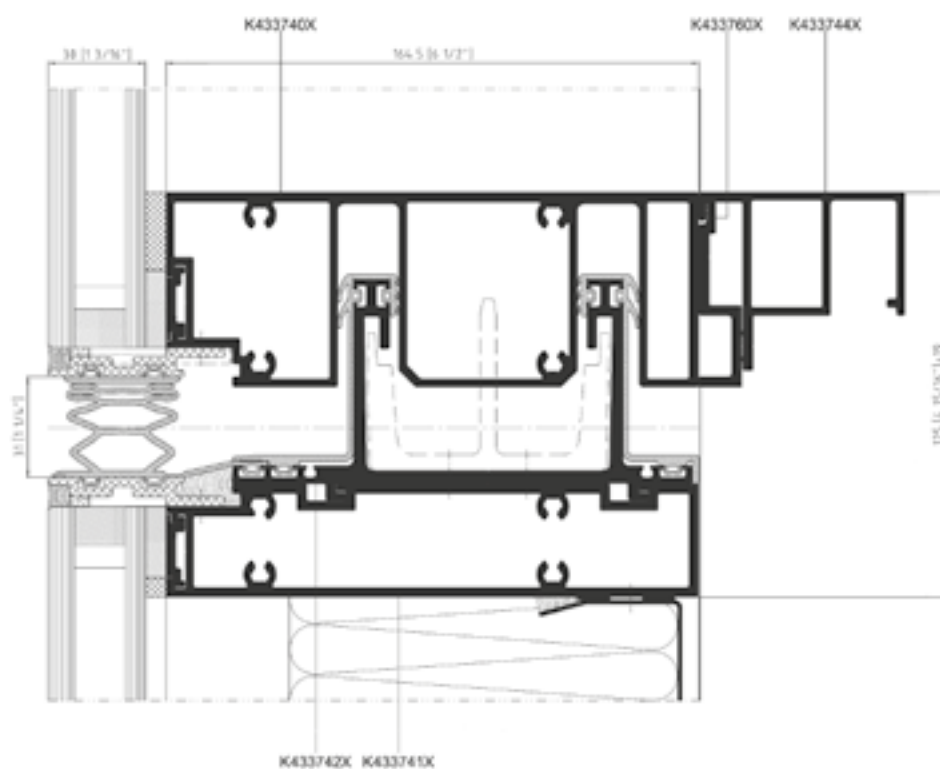
Water Penetration Resistance Testing:

12 psf (ASTM E331-00(09) standard)

Dynamic Water Penetration Resistance Testing:

12 psf (AAMA 501.1-05 standard)

Stack joint – cross section



UNITIZED FAÇADE

MB-SE155 SG



606 Broadway Project is a 6-storey commercial and office building located at a busy intersection, directly above the subway. A characteristic feature of this project is an eye-catching glass façade with projecting bay windows. For the purposes of the project Alupof designed customized solution MB-SE155 SG system. Fully unitized and structurally glazed system allows to achieve unique look and at the same time meet design criteria. The building structure allows to install modules even 20 ft. high and weight exceeding 2,205 lb. This allowed to reduce number of modules and the extent of installation, which is of utmost significance in view of the building location. The joints between modules allow for compensations of the inter-floor vertical displacement within the tolerance of $\pm 3/4"$ (± 19 mm) and $\pm 1/2"$ (± 12 mm) in the case of horizontal displacement, while retaining tightness, and allow for compensation of seismic movement $\pm 1"$ (25.4 mm). In view of shifted layout of segments on subsequent stores, especially dedicated horizontal sections have been used for the purpose of structure stabilization. All features of the MB-SE155 SG system allow to attain the assumed architectural effect, while retaining at the same time appropriate rigidity and resistance of the façade and securing its proper operation. The structure has been subjected to testing for compliance with the European and American standards, including static and dynamic tightness tests. The structure was also tested for resistance to design load (150% of the tested load) and seismic movements.

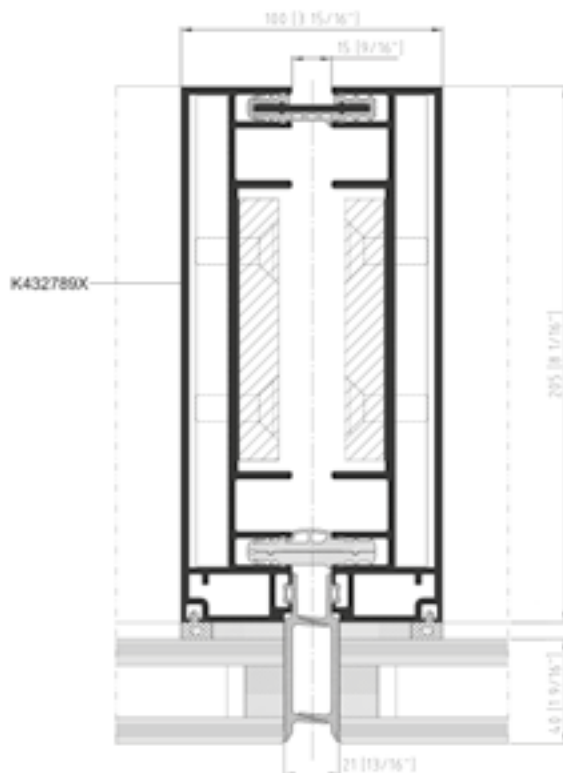


19 East Houston

Location: New York

Project: S9 Architecture and Engineering, PC

Mullion – cross section

**Performance:**

Structural Performance Testing - design load:

± 30 psf (ASTM E330-02(10) standard)

Air Infiltration Testing:

6,24 psf (ASTM E283-04(12) standard)

Water Penetration Resistance Testing:

15 psf (ASTM E331-00(09) standard)

Dynamic Water Penetration Resistance Testing:

15 psf (AAMA 501.1-05 standard)

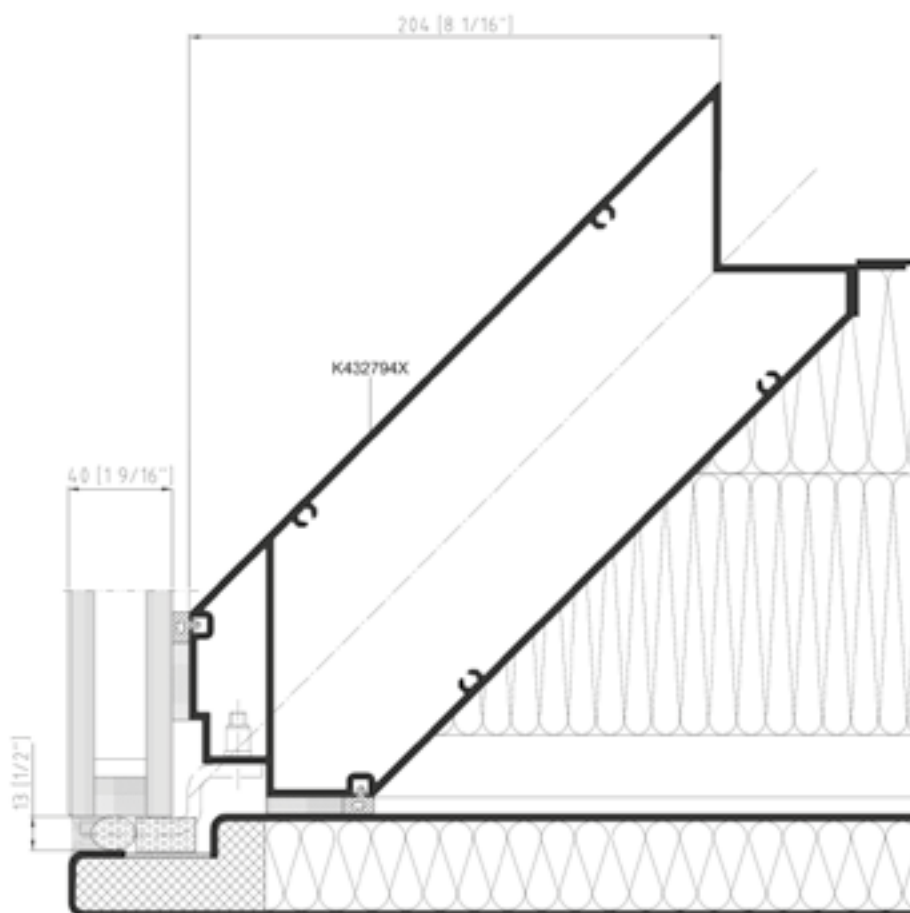
Vertical Inter-Story Movement Testing:

1/4" (AAMA 501.7-11 standard)

Horizontal Movement Testing:

1/2" (AAMA 501.4-09 standard)

Section across the edge of a glass module





MB-70HI Casement

Designed especially for the 325 LEX building, the MB-70HI Casement system is used to fabricate outward openable, highly insulated balcony doors. It features profiles of an appropriate stiffness that enables the fabrication of large-sized structures. Thanks to its shape, the door frame can be mounted to the façade. The MB-70HI Casement system includes both single and double leaf door with a "mobile mullion".



SILVER TOWER CENTER

Location: New York

Project: Time Square Development

Balcony door in MB-SE80 SG façade cross-section

Performance:

Structural Performance Testing - design load:

± 20 psf (ASTM E330-02(10) standard)

Air Infiltration Testing:

6,24 psf (ASTM E283-04(12) standard)

Water Penetration Resistance Testing:

15 psf (ASTM E331-00(09) standard)

Dynamic Water Penetration Resistance Testing:

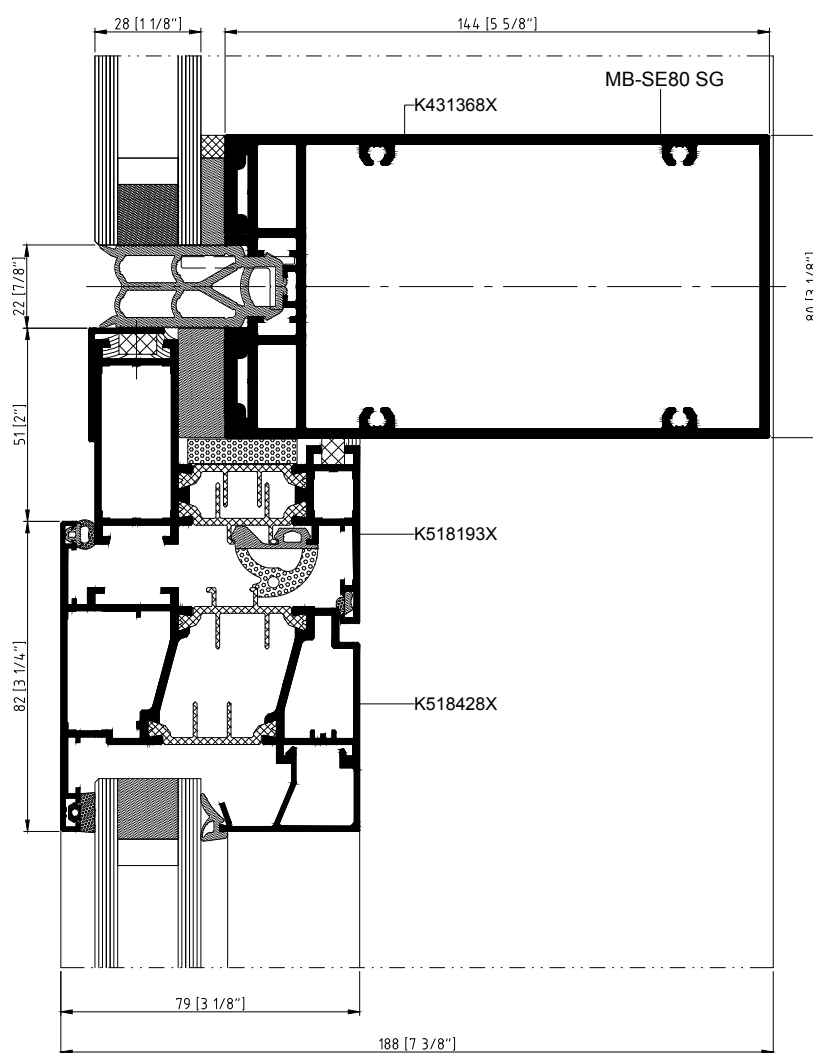
15 psf (AAMA 501.1-05 standard)

Vertical Inter-Story Movement Testing:

1/4" (AAMA 501.7-11 standard)

Horizontal Movement Testing:

3/8" (AAMA 501.4-09 standard)



WINDOW WALL SYSTEM

MB-70 SE



MB-70 SE window wall system has been designed specifically for the American market. It allows to fabricated and deliver lightweight units. Wall structure consist of modules (segments) fabricated entirely at the manufacturing plant. The infill wall is finished with mounting profile (sill and head receptor), the head receptor allows to accommodate movement up to 1"-. The window sashes are fabricated using the SSG technology in order to have larger glass panes, while the windows themselves are not visible known as "zero sightline window".

The first building to use MB-70 SE system is a residential building located at 56 Fulton Street in the South Street Seaport, NYC. The building is 272 feet high, has 23 floors and 128,500 square feet of usable floor area. It includes 120 housing units, commercial units on the ground floor, and amenities for the residents, such as rooftop club, fitness studio and bicycle storage room.

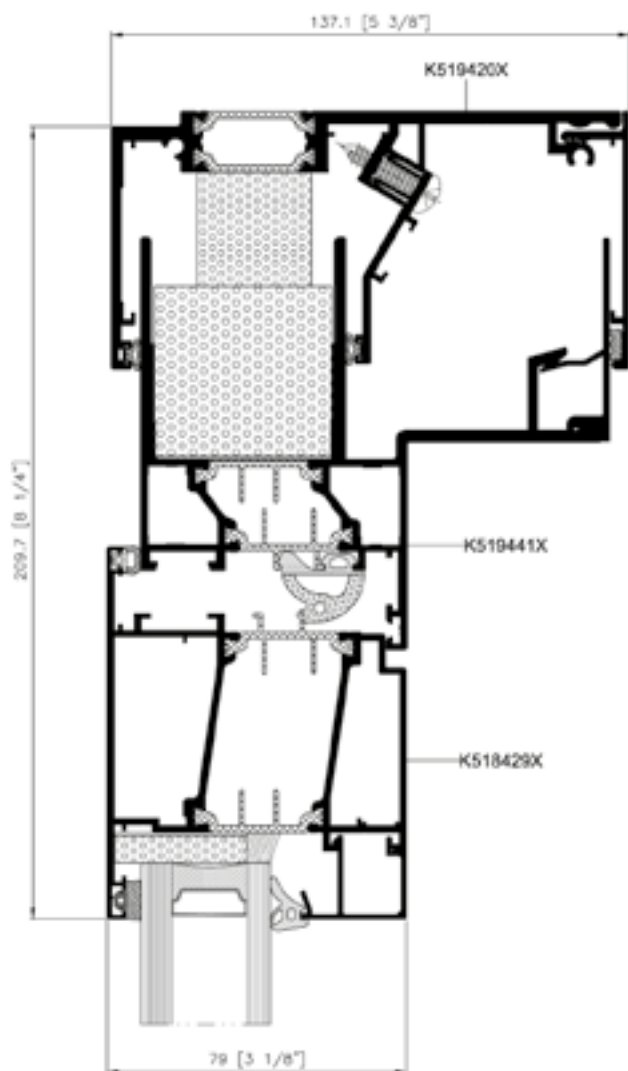


56 FULTON STREET

Location: New York

Project: Goldstein, Hill & West Architects

Outward opening balcony door, head receptor cross-section



Performance:

Structural Performance Testing - design load:

± 35 psf, -58 psf (ASTM E330-02(10) standard)

Air Infiltration Testing:

6,24 psf (ASTM E283-04(12) standard)

Water Penetration Resistance Testing:

12 psf (ASTM E331-00(09) standard)

Dynamic Water Penetration Resistance Testing:

12 psf (AAMA 501.1-05 standard)

Operable window SG, sill receptor cross-section



MULLION-TRANSOM WALL SYSTEM

MB-SR60NY



MB-SR60NY is a mullion and transom curtain wall system designed specifically for the American market. Insulating glass units are mechanically fixed with glazing toggles fixed to the supporting structure with screws. This façade is available both in the basic version and in the 60min fire rated version with UL certificate. Both versions can be combined without apparent differences in the façade. The design solutions of the façade allow to combine aesthetically the glazed walls with non-transparent panels finished with metal sheet, and with concrete panels. The system has been successfully tested at the National Certified Testing Laboratories.

The 61 Ninth Avenue is the first project to use MB-SR60NY system. The building has 12 floors and a surface area of over 67,800 sq. ft. Constructional solutions used in the structure will provide greater freedom in the arrangement of the building space, and numerous terraces will merge the inside with the outside. MB-SR60NY-based glazed aluminum curtain walls will have a surface area of 43,500 sq. ft, of which over 1/3 will be fire-rated façade.

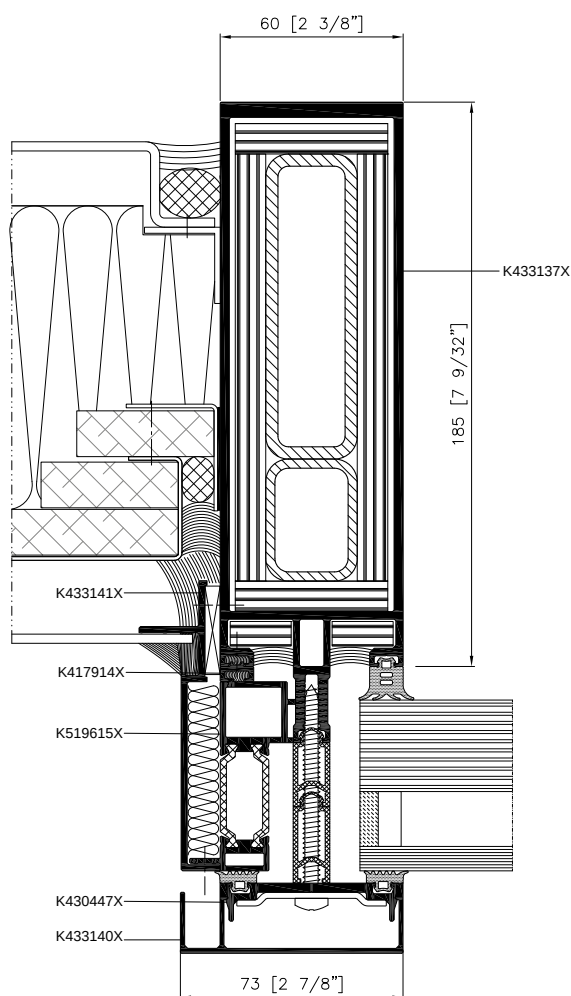


61 Ninth Avenue

Location: New York

Project: Rafael Vinoly Architects

Mullion cross section (EI60)



Performance:

Structural Performance Testing - design load:

± 32 psf (ASTM E330-02(10) standard)

Air Infiltration Testing:

6,24 psf (ASTM E283-04(12) standard)

Water Penetration Resistance Testing:

12 psf (ASTM E331-00(09) standard)

Dynamic Water Penetration Resistance Testing:

12 psf (AAMA 501.1-05 standard)

Vertical Inter-Story Movement Testing:

1/2"(AAMA 501.7-11 standard)

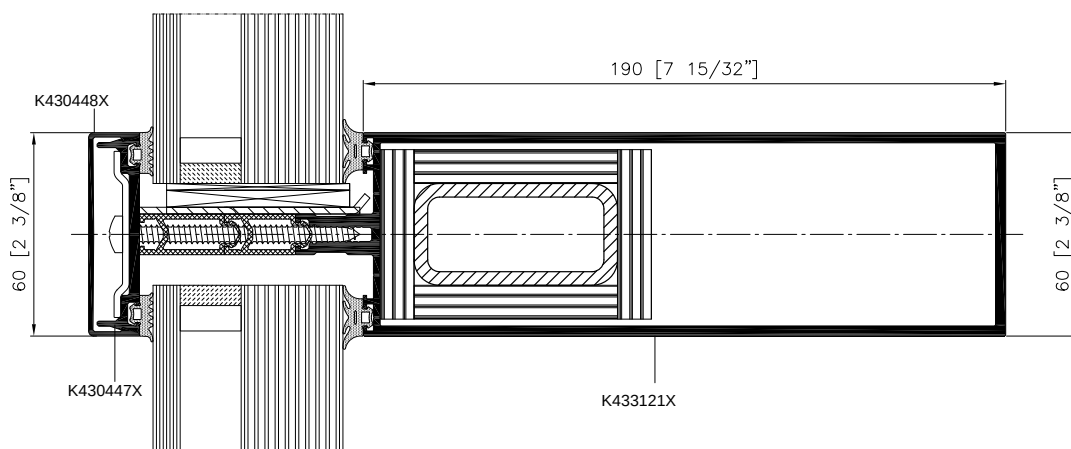
Horizontal Movement Testing:

1/2"(AAMA 501.4-09 standard)

Fire Resistance Ratings:

Non-Bearing Wall Rating - 1Hr (ANSI / UL 263 standard)

Transom cross-section (EI60)



To respond to the ever changing modern architectural design industry requirements, Aluprof keeps on delivering new and improved architectural aluminum systems fulfilling the requirements of high performance thermal insulation and water tightness, impact resistance and safety of use as well as design flexibility and contemporary looks. For many decades now it has stood for top expertise and outstanding service in its field.

'Having launched variety of innovative products and effectively promoted them across regions and channels, Aluprof continues to be the prime choice for many construction sites throughout Europe. Our systems were approved and successfully used in many leading projects, both in Poland and internationally, including, the Polish highest skyscraper Sky Tower, the Frederic Chopin Airport, Hilton Hotels, Euro 2012 stadia and London's Athletes Village.'

*Zbigniew Poraj,
– Large Size Projects Sales Director at Aluprof SA*

Note every design featuring specific requirements in respect of visual aspect and functionality requires individual approach to the system of the structure. A wider range of Aluprof aluminum systems provides for solutions which ensure considerable flexibility and, when appropriately supplemented, enable meeting requirements laid down for a particular project. Hence, we are in a position to offer within a short-time horizon a product perfectly suited to the project requirements, without having to design a number of new elements and details, which considerably shortens the lead time and enhances cost efficiency.

'Design flexibility and application rate of our systems are remarkably impressive. Only within one single year there are over 200 buildings erected with the application of our systems, from vehicle showrooms and in-store banks to universities, office facilities and high-rise skyscrapers.'

*Malgorzata Wojtasik,
– Sales Director, Board Member at Aluprof SA*



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