GREENLITE GLASS SYSTEMS

CASE STUDY | COMMERCIAL

JPMorgan Chase 270 Park Ave

Exterior walkable 2-hour fire-rated skylight with LITEFLAM XT 120

LOCATION
New York, NY

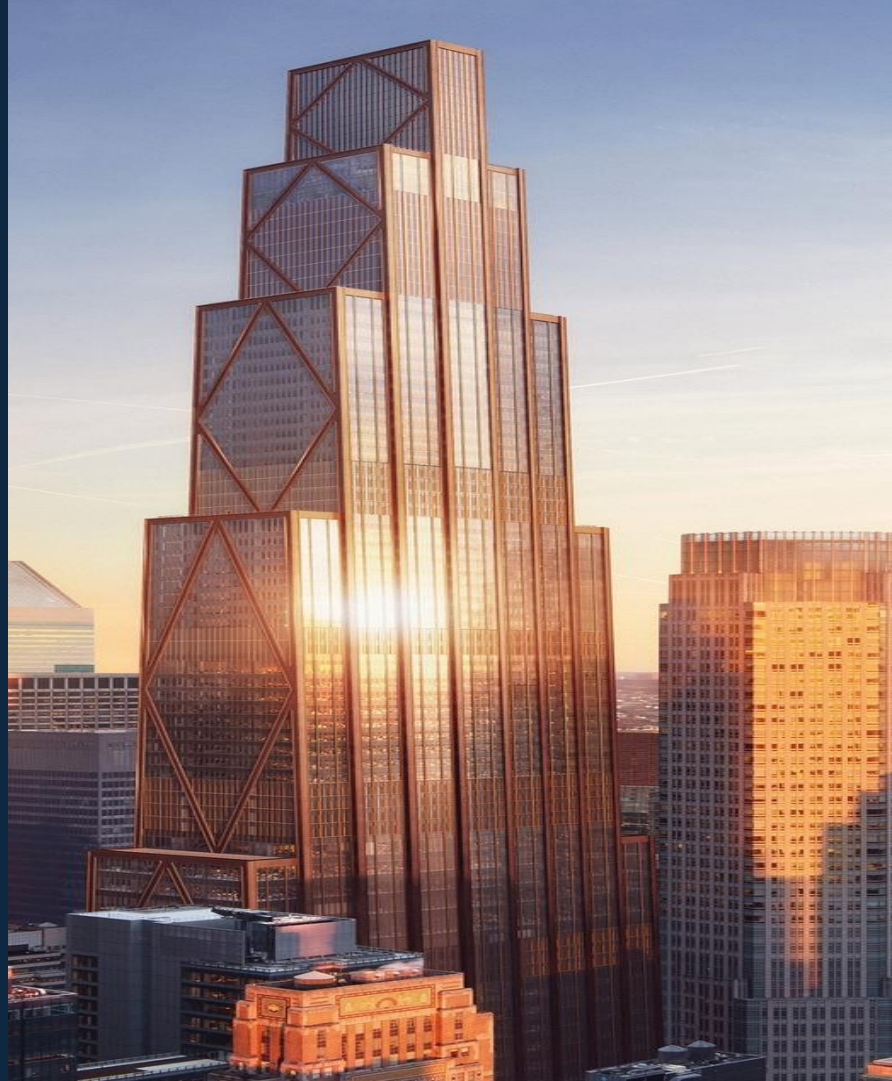
YEAR
2025

SYSTEM
LITEFLAM XT 120

OWNER
JPMorgan Chase

DESIGN GROUP
Foster + Partners

CONTRACTOR
New Hudson Facades



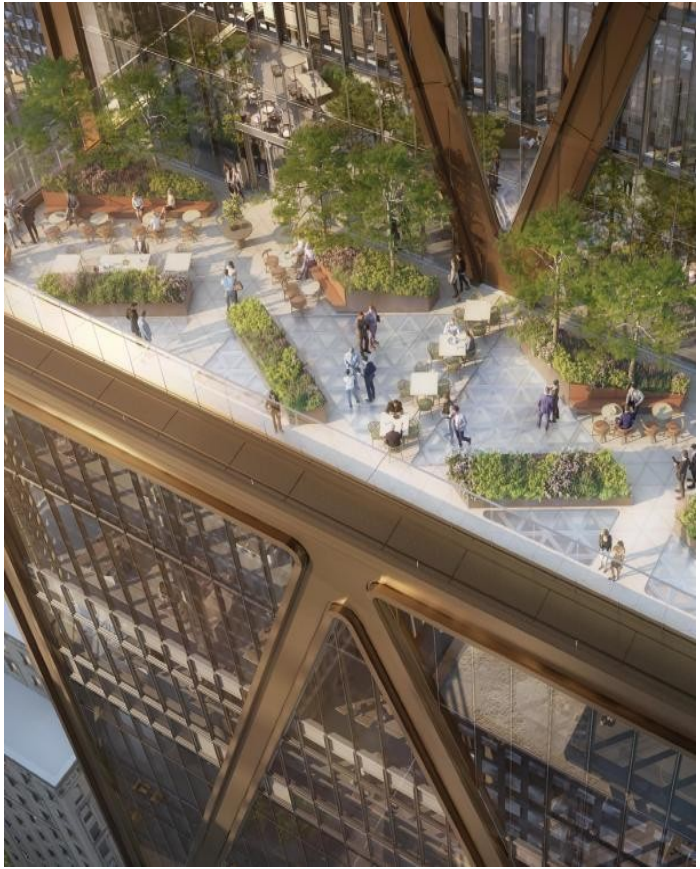
ABOUT THE PROJECT

A 60-Story Supertall Headquarters in Midtown Manhattan

JPMorgan Chase Global Headquarters is one of Manhattan's most significant commercial developments. The 60-story, 1,388-foot supertall tower was designed by Foster + Partners and occupies a full city block in Midtown, New York. Greenlite Glass Systems provided the exterior walkable 2-hour fire-rated skylight on Level 17 using the LITEFLAM XT 120 system.

The LITEFLAM XT 120 system incorporates an insulated glass unit (IGU) configuration with a structural laminated walking surface, Low-E coated glass for solar control, and fire-resistive intumescent interlayers, delivering fire resistance, thermal performance, and structural capacity in a single assembly. A slip-resistant ceramic frit pattern allows natural light from upper floors to filter down to lower floors while providing a safe walkable surface.

The system underwent multiple performance mockups (PMU) as required by the building owner, including structural, air, water, impact, snow load, and glass breakage safety testing.



CHALLENGES & SOLUTION

Engineering a Walkable Fire-Rated Skylight for a Supertall Tower

THE CHALLENGE

Meet the design intent for a Class A commercial supertall tower

- Engineer a walkable fire-rated skylight system to meet the architectural design intent for a Class A commercial supertall tower.
- Deliver a 2-hour exterior walkable fire-rated skylight, the highest level of fire resistance.
- Achieve watertight, insulated, and load-bearing performance for pedestrian foot traffic.
- Pass an extensive Performance Mockup (PMU) testing program as required by the building owner.

THE SOLUTION

LITEFLAM XT 120: Exterior Walkable Fire-Rated Skylight

- Engineered in collaboration with Foster + Partners and New Hudson Facades.
- Insulated glass unit (IGU) configuration with structural laminated walking surface.
- Low-E coated glass for solar control and energy performance.
- Fire-resistive intumescent interlayers providing 2-hour fire resistance.
- Slip-resistant ceramic frit walking surface for safe pedestrian traffic.
- Clear glass allowing natural light to filter from upper floors to lower floors.

PROJECT ACHIEVEMENTS

The Only Exterior Fire-Rated Glass Floor Assembly of Its Kind

2-Hour
Exterior fire rating

100 PSF
Foot traffic load

LEED Gold
Sustainability target

- Exterior 2-hour fire-rated walkable skylight.
- The only exterior fire-rated glass floor assembly of its kind.
- Met the design intent for Foster + Partners' architectural vision.
- Load-bearing for foot traffic at 100 PSF.
- Insulated glass unit contributing to USGBC LEED sustainability targets (LEED Gold).



PERFORMANCE MOCKUP TESTING

A Comprehensive PMU Testing Program

The assembly successfully completed every test required by the building owner, confirming it meets the most demanding performance criteria for a Class A commercial supertall tower.

Structural Performance
ASTM E330, design and 1.5× design loads

Air Infiltration
ASTM E283

Water Penetration
ASTM E331

Dynamic Water
AAMA 501.1

Concentrated Load
270 PSF

Impact Testing
Soft body and hard body

Snow Load
Snow load tests

Glass Breakage Safety
Glass breakage safety testing

GREENLITE GLASS SYSTEMS

Ready to Work With Us?

LITEFLAM fire-rated skylights and glass floors are engineered and supplied by Greenlite Glass Systems. Talk to our team about your next project.

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