

WINDOW RETROFITS

Improving building energy efficiency and occupant comfort



Cohen Federal Building
Washington, DC
400K sf facility
Built in 1939
1,000 employees onsite

The Wilbur J. Cohen Federal Building in Washington, DC is a historic structure designed to maximize natural light through multiple light courts and hundreds of windows. For historic buildings where the exterior can't be altered, replacing windows can be prohibitively expensive and challenging.

GPG is partnering with DOE national labs to test retrofit solutions that improve insulation, enhance occupant comfort, and reduce outside noise.

GPG Technologies Piloted at the Window Retrofits Learning Lab

ONGOING EVALUATION

Secondary Framing with Vacuum Insulated Glazing Provided by AIT and Vitro



- 2–4x energy savings from standard insulating glazing units (IGUs)
- More durable and insulating and lower embodied carbon than standard IGUs
- 2/3 thinner (8mm vs. 1 inch) and up to 2 lb/sf lighter than standard IGUs

ONGOING EVALUATION

Secondary Framing with Advanced Glazing by Indow, Pilkington, and 3E Nano



- Design minimizes cost and embodied carbon by shipping disassembled pieces that are assembled onsite
- Laser measurement facilitates precise fit
- Accommodates multiple glazing options

ONGOING EVALUATION

Advanced Glazing by Luxwall and NxLite



- Low-e vacuum insulated glazing (VIG) with insulating values between R-18 and R-21, fully-tempered to decrease safety risks and increase resilience
- Transparent coatings with improved solar and energy control, long lasting and open-air stable, made with earth-friendly materials