Building Challenges and Solutions

When the project was announced in 2009, this 1965 building had never undergone a major upgrade of its systems or finishes. Over the years there were maintenance projects for MEP systems and large tenant improvement; however, the "bones" of the building had never been touched. Some of the project’s challenges and some solutions:

CHALLENGES

Building orientation was a major factor in excessive heat gain and glare.

The tall vertical windows are not ideal for providing natural daylight deep into the space.

The GSA’s P-100 design guidelines did not support high-performance building systems—floor by floor AHUs was the standard and would take significant floor space and use more energy. However, GSA’s project-specific energy reduction goals ultimately overruled those P-100 requirements.

It was necessary that the adjacent Federal Courthouse remain fully operational: all power, chilled/heating water, and domestic water supplies were supplied by the Federal Building’s systems.

To reduce energy costs for GSA, it was necessary to remove the building from the city supplied steam.

The building was not a productive or enjoyable place to come to work. It was drafty, cold/hot at the wrong times, worn, and an uninspired place to work every day.

The central core reflected male/female workplace roles of the time of construction. Men’s toilets were in the central core, while women’s toilet rooms were pushed to the far ends of the building.

Upper floor elevator lobby designs were inconsistent from floor to floor, disorienting and in need of a facelift.

SOLUTIONS

One of the primary goals of the project was to create a unified building design that equaled a Class A office space and was inspiring, comfortable, flexible and allowed natural daylight and views from every space in the building.

The visitor and staff entry sequence was redesigned to be contemporary, yet reminiscent of, the original mid-century design detailing and interior design.

A strong, consistent and dignified design vocabulary at all elevator and main circulation spaces on each floor was developed.

The building envelope and windows were significantly upgraded to provide a stable interior environment. The opaque exterior walls achieved an effective (average) R-20, while the windows achieved an effective (average) R-3.7). An integrated team of architects, engineers, contractors, installers and material suppliers developed the solution.

A tenant space planning module and a lighting rhythm across all floors that was visible from the exterior was designed.

An active chilled beam mechanical system that is quieter and uses slower air movement than other standard air systems was implemented.

For energy efficiency, the chilled water and heating water temperatures in the building are not the standard temperatures—the chilled water is warmer than normal, and the heating water is cooler than normal.