

WESTINGHOUSE ELECTRIC

nuclear engineering headquarters



pittsburgh, pennsylvania | daniel aughenbaugh | mechanical

+project team

Owner– Wells REIT II
CM at Risk–
Turner Construction
Joint Venture Designers–
IKM Inc./LLI Engineering

+project facts

Campus size– 844,595 SF
Project cost– \$240 Million
Feb.2008– May 2010
Largest single-tenant building
in Pennsylvania

+mechanical

Four main gas-fired Air Handling Units ventilate Building 1 with 40% outdoor air and 293,600CFM. Three 450 tons chillers and cooling towers condition the building. Electric re-heating is the primary heating sources. VAV system conditions the office spaces while CRAC units condition the Data Center.

+lighting/electrical

Building 1 is supplied with secondary distribution of 480Y/277V, 3-phase, 4-wire power. Two 3000A main distribution switch-gears and a 500KW emergency generator are located in the basement. The majority of office space is illuminated by recessed 1x4 florescent parabolic fixtures. Daylighting is designed to reduce lighting power within the office areas.



+structural

The foundation of Building 1 is Drilled Concrete Piers that range from 7 to 31 ft deep. The superstructure is primarily steel frame. The columns range in size from W14x61 to W14x233. The primary lateral support in the office areas is from steel girders and beams that are typically W24x68 and W18x40 respectively. The floor system is slab on deck that is 4" of LW concrete on a composite deck.

+architecture

A Post-modern Corporate style of architecture. Buildings 1, 2, and 3 are connected by a first floor corridor and are angled in plan to create a subtle "V" shape. Building 1 is 5-stories and primarily office space. The façade is a combination of aluminum curtainwalls and windows, metal paneling, brick, and polished concrete block. The roofing is a white thermoplastic membrane system.

