Good Neighbor

The MultiCare Medical Center Central Utility Plant
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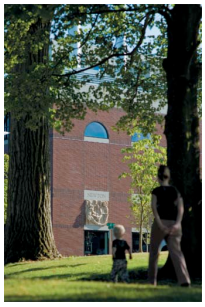


It's not often one gets to see a medical center's central utility plant on proud display. Usually, with any luck, the plant is tucked away somewhere on campus and resembles the main facility in overall appearance, but with little done to disguise the fact that the building's main purpose is to house the mechanical and power generating guts of the medical center.

And then there's the MultiCare Medical Center Central Utility Plant in Tacoma, Washington. A stunning composite of brick, concrete, metal, and glass, featuring sculpted reliefs of famous technological innovators giving it a neoclassical look, you are hard put to recognize it for what it is. It is no accident that it fits in well with a popular public park across the street and a neighborhood of Georgian churches and apartment houses-and all this for a building housing steam boilers, emergency power generators, electrical distribution equipment, medical gas storage, and offices and shops for engineers.

MultiCare invited the community living in the area to weigh in on with the design features they wanted to see in the building. “The community wanted something that more resembled the neighborhood and be a good neighbor to Wright Park, which the city had spent many years and a lot of money renovating,” recalls David Pugh, Principal-in-Charge for GBJ Architecture, based in Portland, Oregon.

“We had meetings with residents, store owners, historic preservation groups, and others, and it was a challenge to make it all come together and be a cohesive structure. We listened and what we ended up with was aesthetically pleasing.”

One of the signature design elements is the set of sculpted reliefs of famous “technological inventors.” These terra cotta panels were installed by Washington-based Henderson Masonry surrounding an embedded brick “Newton's apple tree” on the north façade. The work of Portland, Oregon artist Lee Hunt, the 8 x 8 terra cotta relief panels, each consisting of sixteen 18 x 24 inch parts, were assembled on-site. The relief panels ended up giving the building both striking eye-appeal and educational information for passersby.

“MultiCare wanted a structure capable of withstanding a 2,500-year earthquake,” explains Fred Russell, Project Manager for C. B. Richard Ellis, the owner's construction management representative firm. “The hospital needs to be there and functioning in case of such an event and you want your boiler plant and emergency power to be operational.” The structural engineers-PCS Structural Solutions, Tacoma, Washington-addressed the seismic resistance goal principally by the sheer weight and mass of concrete and steel, he said, involving 50-foot-high, two-foot-thick walls with additional rebar.

There was an additional benefit from the artist's terra cotta panels, Pugh notes: a feeling of pride

among the masons who assembled them. “They did this with a high degree of enthusiasm,” he says. “You may not see the handcrafted drawings of years ago, but if someone prepares detailed computer drawings, the master masons are not afraid to step up and do an excellent job. I've seen this increasingly on some recent projects,” Pugh adds. “Anytime you can give someone in the field a project they can take pride in and have a sense of ownership, they step up to the challenge. They really get excited about doing something that is unique and fun, and that they can be proud of.”

The final piece of the terra cotta panel installation puzzle was provided, Pugh says, by the structural engineer who developed tie-back details with the masons for the panels that were sufficient to anchor them to the building.

The brightly colored interior-the pipes and machinery flashing all the bright colors of the rainbow-while, eye-catching, is strictly functional. The color coding allows engineers and maintenance personnel to rapidly trace sections of the system in need of attention or repair. Of course, with the façade offering passersby a look inside through generous windows, the combination of the exterior historical references and view of power plant machinery in all its multihued glory should be educational for viewers who put it all together.

How were the design team members themselves educated by this project? Both Pugh and Russell note that collaborating with the community in the design process was an eye-opening experience for them. “The process confirmed for me the importance of seeking buy-in from everyone affected,” says Pugh, “and although challenging at times, it was a very satisfying experience.”

Russell, for his part, says he learned a great deal from the complexities of rerouting utilities from the old power plant a block away to the new structure. “We got the piping and the feeders done, and then the utilities came in one-by-one to run their wires and so forth, each taking about a day. The hospital was able to backfeed its main power from alternative power substations through the back part of the pole for about six hours each time. Meanwhile we opened a lot of sidewalks in the area to install the underground steam piping, and ran these pipes through sometimes complicated routes to get them where they needed to be. All in all, it was a six-month process that took place before most of the structural got started. It taught me a lot about the logistics of something like this.”

In the end, MultiCare's Central Utility Plant, which has garnered several design awards, successfully performs its crucial role as the mechanical heart of the Medical Center's vascular system, while honoring a pleasant natural setting and presenting a friendly face to the neighborhood. HBI