MODULAR MEDICAL BUILDINGS

MODULAR PET/CT SCANNER EXAMPLE

Technical Information:

Our PCL Agile modular approach combines the best of off-site construction and modular insight to provide a full turnkey solution for any Healthcare Diagnostic or Clinical functionality application, MRI Suite, PET/CT Scanner Suite, Dialysis Centre, Clinical Examination Centre, Testing Labs and Surge capacity units. PCL Agile & GE have partnered with experienced design and engineering firms that are heavily engaged in the Healthcare sector. GE Healthcare brings their healthcare portfolio, that combines their equipment supply breath with their integration knowledge and systems which enhances the offsite construction means and methods and brings great value to the execution of any project.

The benefit of our modular approach is that it provides a much faster unit to service timetable than conventional construction. Modular construction provides multiple execution streams to accelerate the deployment of any new Healthcare suite and its accompanying services, therefore reducing the full construction schedule to meet the needs of an expedited client base.

Our unique holistic approach to modular design ensures minimal interruption during the construction process. We are mindful of the hospitals ‘good neighbor’ approach within the community. The offsite modular approach not only reduces on-site durations but also reduces the impact of construction (noise, dust, traffic, etc.) to the surrounding neighborhood. Our modular healthcare units provide a fully equipped facility fully outfitted and tested for turnkey operation once placed on its final location.

Our approach entails a base building structure, fabricated from structural steel members and W200x46 truss system to minimize the exterior height and create a rigid structure: both for transportation and long-term durability. The approach can involve a single modular unit, for singular functionality, or multiple modular units combined to create a diagnostic center.

Our floor structures are composed of W200x22 and W200x33 floor cross members, Roxul insulation R-24, G90 protective under pan, 8” to 12” of floor isolation and 5” of concrete. Finished with an epoxy floor finish and base cove to match the existing hospital finish. Our wall structures are comprised of steel interior studs, gypsum wallboard, 1/8” lead shielding, insulation, 6mm vapor barrier, air barrier and exterior insulated sandwich panel to complete the exterior of the module. All finishes and specifications are coordinated with the hospital and maintenance staff to maintain consistency with existing finishes (within the standard range) for the new Healthcare modules. Our roof structures are based on a steel-reinforced roof system with W200x19 cross members, concrete slab, insulation, and roofing membrane. The roofs also support the independent mechanical and ventilation units for the Healthcare modules.

All independent mechanical, electrical and medical gases requirements are incorporated within the module and connected to exiting hospital facilities, where available. All systems are tested and commissioned before the modules are set on site. Final testing is completed once final connections are completed. Radioactive waste line tie-ins are also installed where required.

We analyze and recommend power, mechanical and environmental requirements based on the module’s application and the clients operating procedures. As part of our modular design approach, we are mindful to incorporate as much of the operating and process systems with the modules, i.e. electrical rooms, medical gasses, process stations. We are cognizant to minimize the module's footprint to its most efficient space for deployment and operating efficiency.

This holistic modular approach emphasizes our experience, commitment, and execution for a quick-to-service Healthcare deployment module or medical surge support.