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Margulies Perruzzi Architects designs 15,000 s/f facility for Fallon Clinic

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Margulies Perruzzi Architects (MPA) has completed the design of a 15,000 s/f "medical home" family practice facility for Fallon Clinic. Margulies Perruzzi Architects utilized the lean design process and Building Information Modeling (BIM) software.

FW Madigan was the general contractor for the project.

"Fallon Clinic completed studies of its processes before and after redesign, and determined that as a result of MPA's design using the lean method, the total wait time was cut from 33 minutes to just 9 minutes," said John Duggan, director of real estate operations and retail subsidiaries at Fallon Clinic.

"This process improvement and increase in efficiency will enable the practice to increase throughput of patients by 31%, providing a more efficient environment of care for our patients."

After designing multiple facilities for Fallon, MPA was tasked with designing a pilot "medical home" family practice for Fallon Clinic. The term "medical home" refers to an innovative healthcare delivery method that provides a team of healthcare professionals, rather than one doctor, who offer a wide range of services with four main functions: educate, monitor, guide and reach out. The medical home approach provides continuous and coordinated care throughout a patient's lifetime to maximize health outcomes, and emphasizes pro-active outreach by practitioners, group education, and electronic access to healthcare staff from patients' homes.

In a medical home family practice, efficiency and flexibility of both space and healthcare professionals are crucial. MPA's design goal for the facility, which includes rehabilitation and medical specialties, was to use lean design and BIM to create the most efficient, organized, and streamlined atmosphere. Lean design is the collaborative effort by all involved in any process to reduce waste, increase efficiency, eliminate redundancy, and increase value. The advantages of using BIM during the design process include reducing the number of costly changes during construction, enhancing communication and coordination between project team members, and providing better 3D visualization of the project design.

MPA used the lean process to analyze and simplify the daily functions of the facility. Because of the unique nature of the medical home practice, the lean process was not of a singular office such as surgery or primary care, but rather it was a comprehensive and exhaustive experience and process improvement with impressive results for patients and staff. Examples of how MPA used lean design to improve the medical home practice include:

- * Rather than having designated separate areas for check-in and check-out, MPA and Fallon designed a system where all stations could perform both intake and output processes. This prevents the "bottle-neck" effect and significantly cuts down on waiting time.
- * All exam rooms are identical to facilitate "standard work." Every exam room and its contents are in

the exact same place so that no matter which room staff is in, they will be able to find what they need immediately.

- * All exam rooms have color-coded tabs on the outside so that the rest of the team is aware of wait time, clean-up time, supplies needed, and availability.

- * "Visual management" is an important part of efficiency, and doctors, nurses, and medical assistants must all be able to see each other, as well as see which rooms are currently occupied. MPA designed glass front offices at the core to give doctors the most efficient access to the rest of the area while providing the rest of the team easy access to the doctor.

Margulies Perruzzi Architects previously designed Fallon's ReadyMED, a physician-staffed, walk-in medical care clinic in Shrewsbury, offering convenient, non-emergency medical services for adults, infants and children, as well as New England Scope, a wholly-owned subsidiary of Fallon Clinic located in Worcester, that provides outpatient endoscopic services.

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