# **MAKING AN IMPACT THROUGH INNOVATIVE DESIGN-BUILD**



Texas Health Resources Recovery and Wellness Center is located in Mansfield, TX. It is a voluntary-admission, addiction recovery facility where evidence-based alcohol and drug rehab services are provided. Texas Health Resources (THR) envisioned a facility that didn't look or feel like a traditional treatment center: one with luxurious, high-end finishes, and aesthetics that evoke a feeling of calmness and wellness.

## **The Situation**

Design-build projects require, by their very nature, intense collaboration, efficiency, and flexible technologies. TDIndustries and other project partners used all three requirements to great effect. THR chose this method to produce a luxurious facility on a fast-track schedule starting with a simplified, shorter design period with continuous value engineering throughout.

## **The Solution**

TDIndustries served as both the engineer of record and mechanical contractor. Onsite offices for The Beck Group, Beck Architecture, electrical contractor Morley Moss, and TD encourage corroborative communication, and weekly meetings allowed for new ideas and improvements to the building information model. The completed 3D BIM layouts of the project reduced errors, minimized re-work and increased the overall efficiency of the construction teams.

#### Awards Earned by TD for THR Wellness

- ABC EIC Eagle
- AGC Outstanding Construction
- ASA Platinum
- TEXO Distinguished Building



## **COMPLEX COLLABORATION AND LUXURY**



The engineering and VDC departments helped find solutions for several challenges. These include:

- A variable refrigerant flow heat recovery system to increase energy efficiency
- Connecting multiple buildings to necessary systems
- High ceilings in the lobby area with glass for natural light and high-end wood finishes
- Tight corridors and ceiling spaces
- Breezeway plumbing and beams
- Almost invisible air distribution systems in the lobby
- Guest room pods: Two of the four situated above the breezeway on the second floor
- Underground angles in relation to the unique structure shape
- Subsoil drainage that resulted in \$50,000 savings
- Proactive efforts to reduce exposed ductwork in the indoor gym

Lean construction methods were equally important. The entire project was pull-planned from start to finish, and TD's Lean experts conducted an onsite class for every trade involved. This substantially increased the efficiency of the project. Each team also performed 1-week plans and 6-week lookaheads to stay on top of upcoming tasks on the job.

#### **The Success**

Collaboration, building information modeling, and Lean processes are prime examples of a design-build project done correctly.

"This project required intensive collaboration with our group, the owner, and key subcontractors," Beck senior project manager Mike Kraase wrote in a letter to TDIndustries. "TD's expertise and dedication to utilizing Lean principles aligns very well with our philosophy and we are grateful for having TD as a true partner for keeping jobs on track."

"Using design-build and the strength of our engineering team, we were able to provide the most efficient and cost-effective mechanical system design to meet THR's stringent requirements," Project Manager Richard Bain said. "We used Lean processes to stay organized and keep the project on schedule, and our engineers' healthcare experience brought added value to THR."

At the 70,000 square-foot facility, guests have access to various amenities including a yoga studio, swimming pool, fitness center, massage studio, indoor sports court, and a café with an in-house chef.