



Detroit Medical Center Detroit, Michigan



A working hospital. A need for an observation unit. A savvy team.

The Detroit Medical Center was looking for a way to better monitor patients arriving at their emergency department with undefined and relatively mild symptoms. These patients were being cared for and observed while taking up medical/surgical beds. This was neither economical nor helpful to the clinical staff already tending to patients with confirmed health concerns.

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John Miller, architect and senior program manager



The answer was a dedicated observation unit where these specific patients could stay for up to 24 hours under the watchful eyes of healthcare professionals. The hospital had an underutilized space available, being used as a physical therapy overflow and rough storage. Still, the thought of construction for a 29-bed observation unit while the rest of the hospital was tending to patients, was not something the facilities team was looking forward to.

“There’s drywall dust and there’s noise in assembly in cutting and grinding and all that fabrication in the stick built arena,” said John Miller, architect and senior program manager at the Detroit Medical Center. DIRT™’s Distribution Partner pitched the idea of using custom prefab construction for the project. “I sat down initially as a skeptic,” said John. He correctly noted that the modular walls of the past were always sold on the idea of ‘move it once and it’s free.’ But he listened to benefits that spoke strictly to the initial construction and said, “Well, it only can work if we can make it work on first costs.”

John put together a set of documents for his construction manager to price out. He wanted an apples-to-apples comparison between the DIRT™ and conventional construction. The key to getting an accurate appraisal was capturing the labor savings of manufactured construction and knowing where the hand-offs would be on-site. The CM delivered the results: “We were 5% less on using DIRT™ than using a stick built comparison,” said John.

However, even with the lower cost, all bets were off if the timeline couldn’t be met. The project already had been shortened by 18 months.

The Detroit Medical Center team expected the schedule with DIRT™ to match conventional construction. They were delighted to find they actually saved 30 much-needed days. “We started schematics June 2nd,” said John, “around the same time DIRT™ engaged with us. We moved in Halloween.”

Both the design team and other sub-trades were initially anxious about this new ‘manufactured’ construction method. Both felt there would be more work on their part. The DIRT™ team took the time to teach and support the design team and trades. Quickly it was discovered that rather than more work there was in fact less labor required. “They stayed in control of the functionality and stayed in control of the aesthetics,” John said of the architects’ experience. “There wasn’t a diminishing of the things that were important to them but there was a diminishing of some of the documentation that was required in that process, and the trades were very happy with how easy it was.”

The performance and look of the space is welcomed by the patients and staff in the unit. “We’ve got great aesthetics,” said John. “We’ve got this natural light coming into the unit. We also integrated some wall sconces into each of the patient care areas so that after hours we have non-clinical, low level, comfortable light in there for these patients and staff. So it’s a cool unit.”

The patients in the observation unit are not typical hospital patients. They are awake and fairly active, and mostly do not wish to be there. “We get hard use of the space,” explained John. “These patients are fidgety. They’re not home. They don’t have all the stuff around them that they’re used to having, but we need to keep an eye on them before we can say, ‘You really do need to be admitted for something.’”

With such activities, changing out damaged DIRT™ wall tiles should be a regular occurrence. It is part of the benefit of having a flexible space. Yet, after all this time, they still have not had to change out a DIRT™ tile, even in areas where you would typically find a bed locator designed to protect the wall. The Detroit facilities team decided the durability of DIRT™ tiles, which is Medium Density Fiberboard wrapped with a 3D laminate, meant they could forgo the age old bed locator. John Miller was thinking part of the tours he gives would include a discussion about the ease of repair, but he is quite happy this part of the story is not required. “There’s been a fair amount of attention to the project so I’ve kept looking to be able to say, ‘Yeah we’ve got a bump or we have a dent and sent it back to DIRT™ to be fixed’ but we haven’t had an issue.” The same could not be said of the parts of the space in drywall. “We have had to repair and protect drywall regularly,” said John.

