

CASE STUDY



# CDM Smith

BOSTON, MA

MANUFACTURED INTERIOR CONSTRUCTION

**DIRTT**  
Build better.™



**The construction schedule couldn't be met.  
The aesthetics, fit and finish wouldn't measure up.  
Privacy and acoustics would be an issue.**

These were just a few of the concerns raised when engineering/construction firm CDM Smith announced plans for a new Boston, MA, headquarters building that would use DIRTT. "I was concerned about the timing and of course the quality and yes, the money," Principal and Corporate Facilities Manager Mark Rogers recounts. "I said we had to maintain all three – that's a given, and without all three the project never gets off the ground."



## "You get both time and cost efficiencies."

But with DIRTT at the table early in the construction process and working closely with the client, architectural team and contractor, the skeptics readily and happily admit they were proven wrong.

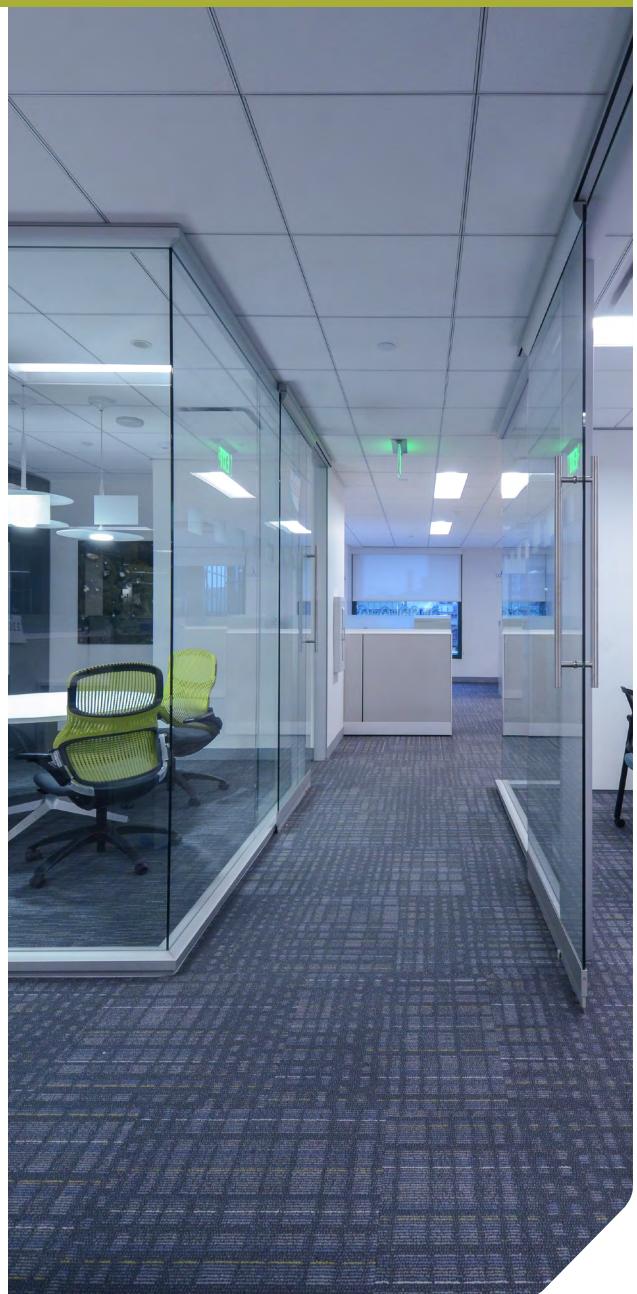
Six floors and 120,000 square feet of space were completed in 14 weeks. "There's not a chance we would have made the schedule without a major, different way of thinking about labor," Margulies Perruzzi Architects principal Dan Perruzzi says. "The contractor would have had to run at least double shifts, and I'm not even certain with the labor market they were facing that would have been possible."

"I was on site and there was a moment when we were pretty close to the end, and I was getting a little concerned," CDM Smith facilities planning specialist Amanda Rivall recalls. "It wasn't looking as much like a full-out office as you might expect at that point. But as soon as the walls came in they were put up very, very quickly and I think that over the span of a week my mind was changed. All of a sudden it was down to the details."

### **Early to the game**

Bringing DIRTT on board early was critical in terms of coordinating subtrades for the build, says Ryan Megeneddy, senior project manager for construction contractor StructureTone. "DIRTT was part of our meetings right from the beginning," he explains. "They helped us with our drywall layout; with our ceiling coordination; and it really led to the success of the project.

"The other subtrades love (manufactured construction). They love to come in and focus on their work in a free and clear space. They're not jumping in and out of rooms to pull electrical cable; the carpet vendor loves it because they have this wide-open space – they don't have to go in and out of rooms. So you get both definitely time efficiencies and cost efficiencies for the other subcontractors."



### Design considerations

Nick Borsetti, the project executive with DIRTT's local Distribution Partner Strategic Workspaces, emphasizes it was critical that the architect and designers understood DIRTT was not taking over their design, but rather interpreting their vision into the ICE® software to take advantage of its speed and ability to instantly update design and manufacturing data.

"Working with ICE was much more streamlined and faster than if we had done conventional drawings," says Margulies Perruzzi interior design Jenna Meyers. "Making on-the-spot changes, whether it was paint color or door placements, was much easier than it would have been otherwise."

"I think the preconceived notion about prefab systems is that they are very static, cheap, and they all look the same," Jenna adds. "(DIRTT's solution) definitely looks polished, looks clean. There's a lot you can do with the panels: the sizing, the materials – the creativity is endless."

### Changing perspectives

"It seems to me (DIRTT's approach) makes the construction industry more akin to the automotive industry," Dan Perruzzi says. "Parts are installed; they are not fabricated on site. We think about drywall and it really is fabricated on site. You screw it to studs, you put on compound, you sand it, you do all of those steps. It's messy, it's dirty and it has a cost."

"Colleagues throughout the business are a little undecided because they haven't completely bought into the idea of prefabrication," Dan continues. "They haven't seen the advantages it can bring; they haven't seen the level of quality it can bring. They also haven't seen that it can lead to less construction; that overall it's a better option for the environment. I don't think they have weighed all of those things."

"They are still tied to the stickbuilt world."

