



## Taking Control: How Offsite Prefabrication Transforms Construction Projects.

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## **Efficiency is the name** of the game in construction.

Unfortunately, many project teams often fall short of the goal – nearly 90 percent of large-scale projects are delivered late, and nearly 60 percent up to two months late, according to a recent analysis by New Civil Engineer magazine.



Infinite Facade being craned into place; complete with window, frame, insulation and weather barrier.

For those and other reasons, taking **work off-site** is becoming an **increasingly attractive solution** to the efficiency problem, as it provides project teams with greater control over labor, quality, safety, schedule and ultimately cost while supporting owners with accelerated occupancy.

Many architects and engineers are incorporating prefabricated components into their designs since offsite prefabrication is a "lean" process and offers significantly more control over quality and productivity than the typical jobsite. In fact, these manufacturing facilities, incorporate multiple layers of quality control into their



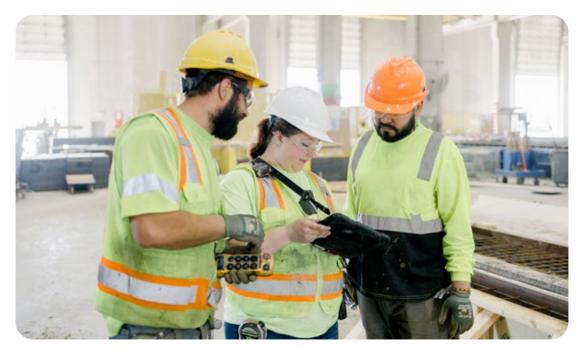
Work happens in a factory setting with safer working conditions.

## **Prefab Innovation:** Infinite Facade.

Additionally, technology has enabled prefabricators to significantly **expand their design** palettes and integrate a **variety of finishes** such as metal, brick, stone, terracotta, accent colorations, exotic stains or other architectural features previously performed by other trades.

One of the **latest advancements** in prefabrication are integrated scope cladding solutions, like **Infinite Facade**<sup>™</sup> – blending architectural capabilities of a thin, lightweight precast exterior with a steel frame, insulation, and pre-installed glazing, arriving on-site as a complete unit, resulting in an immediate enclosure on the building, significantly **expediting project schedules.** 

With more work falling under the prefabricator's "umbrella," it provides the project team with a single point of contact rather than having to juggle multiple subcontractors and suppliers, ultimately reducing risk. Giving project teams **greater control** while **improving project outcomes.** 



Quality control check points are set up through the manufacturing process

## Why project teams are **making the shift to offsite** prefabrication.

The increasing popularity of prefabricated building envelope systems is grounded in partnerships that have evolved over time, where the prefabricator, owner, designer, and contractor work collaboratively and transparently to find opportunities to succeed together.

To be most effective, prefabricators are getting involved earlier in a project's timeline, helping architects and engineers optimize their designs to fit their budget and aesthetic vision.



Infinite Facade being lifted off the truck and ready to be erected on the building.

They are suggesting efficient timesaving alternatives to ensure that designs are compatible with their manufacturing equipment and methodologies – long before changes become costly.

And by incorporating an integrated prefabricated facade, designs, submittals, and approvals are completed much earlier in a project's timeline. That enables prefabricators to be proactive rather than reactive to supply chain issues and other costly delays that are so prevalent today.

The schedule benefits, as only panels that are scheduled to be installed that day are delivered via just-in-time delivery, significantly reducing onsite storage needs. These panels are then installed and detailed by the prefabricator's trained labor force/field crews. That reduces clutter at the jobsite, which is a particularly beneficial attribute when there is limited space for laydown and maneuvering. Crew sizes are also typically reduced from 30 to 40 for a typical cast-in-place superstructure to just 4-8 for prefabrication installation.

Safety is another beneficiary. The prefabricator performs daily safety walks at the production facility, and tightly manages the movement of materials. As a result, it reduces site impact making for increased visibility and safety on site, while effectively minimizing delays.



Prefabrication allows for just-in-time delivery, no lay down area is required.

Ultimately, prefabricated building envelope systems that are manufactured off-site provide certainty when it comes to concerns with schedule, quality, and execution.



Concrete being poured in a building envelope form.



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