

CASE STUDY:

BJC - St. Peters, MO



**TJ WIES
PREFAB**
Safety. Efficiency. Certainty.

PROJECT OVERVIEW

Project Name: BJC St. Peters Clinic Prefab

Project Manager: Jake Moyers

General Contractor: Impact Strategies

Location: St. Peters, MO

Building Type: Medical Office Building (MOB)

Size: 6,000 sq ft

Construction Timeline

(Fabrication & Install): 4 weeks

Approximate Time Saved: 3 weeks



BACKGROUND & OVERVIEW

The BJC St. Peters Clinic renovation was a commercial healthcare project focused on delivering a modern, efficient Medical Office Building. With a tight overall schedule and the complexity of in-wall medical gas and piping systems, prefabrication was selected as a strategic solution.

Prefabricated headwalls became the focal point of the approach, addressing one of the most time-intensive components of MOB interior fit-outs. The decision to utilize prefab methods was driven by the need to improve speed, reduce overall project costs, enhance quality, and minimize on-site disruptions.

DESIGN & PLANNING

The project utilized **prefabricated, drywalled headwall units** specifically designed for Pre/Post Bay areas. From the outset, the project team incorporated:

- **BIM coordination and modeling**
- **Standardized component design**
- **Advanced logistics planning**

Early collaboration with MEP partners ensured that all systems were fully coordinated prior to fabrication, allowing for a seamless transition from design to production.

FABRICATION & ASSEMBLY

All prefabricated components were manufactured off-site at the **TJ Wies Prefab facility** and transported to the jobsite via Negwer Materials.

On-site installation followed a highly organized sequence:

- Palletized headwall units were delivered in installation order
- Units were staged and installed efficiently by trade coordination
- Minimal field modification was required due to precise preplanning

This streamlined process significantly reduced jobsite congestion and improved installation speed.

SCHEDULE & EFFICIENCY

Prefabrication had a major impact on the project timeline:

- **~3 weeks** saved compared to traditional construction methods
- No delays encountered during fabrication or installation
- Reduced trade stacking and workflow efficiency

By shifting labor off-site and front-loading coordination efforts, the team was able to accelerate installation while maintaining schedule certainty.



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COST IMPLICATIONS

While prefabrication can involve upfront planning investment, the project realized meaningful cost benefits through:

- **Reduced labor hours on-site**
- **Minimized material waste**
- **Less rework due to pre-coordinated systems**
- **Overall project cost savings driven by schedule acceleration**

The efficiency gains ultimately translated into strong financial value for the project.

CHALLENGES & SOLUTIONS

Primary Challenge:

Ensuring all MEP systems were fully coordinated and approved early in the process.

Solution:

- Intensive BIM coordination with all trade partners
- Early design alignment and approvals
- Continuous collaboration using shared digital platforms

This proactive approach eliminated downstream conflicts and ensured fabrication accuracy.

SUSTAINABILITY & QUALITY

Prefabrication contributed significantly to both sustainability and quality goals:

- **Reduced material waste**
- **Lower on-site environmental impact**
- **Improved energy efficiency through streamlined workflows**

Additionally, TJ Wies Prefab's strict **QA/QC processes** ensured consistent, high-quality assemblies, reducing the risk of defects and rework.

STAKEHOLDER COLLABORATION

Collaboration was a key driver of success. The project team utilized **Autodesk ACC** alongside BIM and CAD-based layout tools to maintain alignment across all stakeholders.

- Real-time information sharing
- Coordinated model integration with MEP partners
- Accurate placement of prefab components aligned with as-built conditions

This digital-first approach enabled a high level of transparency and coordination throughout the project lifecycle.

"WORKING WITH TJ WIES PREFAB STREAMLINED OUR BJC PROJECTS IN A BIG WAY. THEIR PREFABRICATED HEADWALLS AND MULTI-TRADE ASSEMBLIES IMPROVED QUALITY, REDUCED INSTALL TIME, AND HELPED US STAY AHEAD OF SCHEDULE—MAKING DELIVERY FASTER AND MORE EFFICIENT."

— TRAVIS SCHWARTZ, IMPACT STRATEGIES



OUTCOMES & LESSONS LEARNED

The use of prefabrication delivered measurable results:

- **Significant schedule savings (~3 weeks)**
- **Reduced costs through efficiency gains**
- **Enhanced quality and consistency**

The project team confirmed they would use prefabrication again and identified an opportunity for even greater success through **earlier engagement with design and MEP partners** in future projects.

