

## Design-Build

# Building Inside an Operating Facility



**Tolmar:**

**Assembly & Packaging Suite**

1201 Cornerstone Drive  
Windsor, CO 80550

**Construction:**

Start: August 2022  
Completed: April 2023

**Contract Price:**

Initial: \$4,460,000  
Final: \$4,455,000

**Change Order Amount /**

**Description:**

\$5,000 (Anticipated)  
Final GMP credit pending additional  
owner requested equipment  
connections.

**Delivery Method:**

Design-Build

**Reference:**

Jane Monroe, Project Engineering  
Manager  
Tolmar  
269.998.5551

Tucker Palmer, Project Engineer III

Tolmar  
970.212.5801

**Design Team:**

Page Architects  
ProCraft Mechanical  
Dyna Electric  
Bauer & Associates

**Key Staff:**

Ryan Brenneman, Pre-Con Manager  
& Project Executive  
Corey Flanigan, Superintendent  
Jared Prideaux, Project Manager  
Alex Cervantes, Project Engineer

### Project Description

Tolmar Inc. is a dermatology products manufacturing company in northern Colorado. Their existing manufacturing suite was to be redesigned and repurposed to provide new cleanroom manufacturing suites for syringe assembly/package production and sterility laboratory.

The assembly and packaging suites owner-provided, fully automated production equipment. The syringe assembly machine conveyed directly into the tray packer, both of which were located in a large Hygiene Zone (HZ) 4 production room. Additionally, a carton case palletizer system was located in a HZ 5 room adjacent to the main warehouse.

Other areas consisted of HZ 3 and HZ4 rooms and washrooms with USP purified water. Both assembly and packaging suites as well as the syringe production suites required access and gowning through Personnel Airlocks (PAL) and Material Airlocks (MAL). High speed roll up doors were also incorporated as part of the work.

The sterility laboratory consisted of a HZ 4 lab with a sterile isolator, laboratory work stations, material storage, and an airlock passageway to a laminar flow hood. Incubators were located and accessed from the HZ 5 corridor near the airlock entry into the sterility laboratory suite. Epoxy covered flooring, wall protection, metal lab casework, phenolic resin counter tops, and HEPA filters were also provided within the space.

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### Project Challenges

Procurement challenges in construction today presented many potential problems for this project. One missed step in the planning portion of this project could have created scheduling, sequencing, and financial problems. Incubator chambers, overhead speed doors, RTU's, HEPA filters, and lab case work were a few of the long lead items the Sun Project Team had to plan and account for in the schedule. Teamwork, communication, and planning all resulted in successful on time delivery of all of the materials and equipment needed for this Project.

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### Project Accomplishments

A major accomplishment for this project was effectively working within the Tolmar Inc. environment while it remained operational. Building inside an existing, operational facility can be very challenging for the owner and its employees. The Sun Project Team overcame this challenge through diligent daily communication over the with Tolmar ownership and staff over the course of a year to coordinate all aspects of the project including schedule, utility shutdowns, deliveries, and general construction traffic to ensure minimal disruption to their daily routines and activities.



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### Cost Control Strategies

Sun Construction believes in value engineering early and throughout the design phase rather than upon completion. Sun's years of experience and established relationships with industry-best trade partners mean we can bring value decision options to project owners. At Sun Construction we firmly believe in providing accurate and realistic budgets. Lastly, we believe in the delivery of information in a timely manner, leading to early decisions that result in lower costs.

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### Design Strategies

Because this was a design-build project, we understood the trust that was being placed upon us. We also know the value of assembling a team of experts. We believe the foundation of our success with this project was the coupling of an experienced builder with design excellence.

The Sun/Page team has extensive and specific expertise in the design and construction of pharmaceutical production spaces, including complex renovations in operating facilities. We assemble a knowledgeable, creative, and adaptable team to lead and guide the design process in an efficient and comprehensive manner. We begin with validation of owner-provided conceptual project requirements, then document accordingly. We subsequently validate through early and ongoing budgeting of those requirements with an owner targeted value budget, understanding that guiding the design towards both need and budget is essential.

