

**Category: #5 Best Building Project—Specialty (\$2M-\$6M)**

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**Project Name: Woodward Headquarters Building**

**Project: \$2,500,000                      Schedule: 11/2014 – 3/2016**

### **Flex Space and Project Flexibility Go Hand-in-Hand for Woodward Campus Project**

If project flexibility were an Olympic event, the new Fort Collins' headquarters building for energy control technology manufacturer Woodward, Inc., would be a gold medal winner.

The three-story, 60,000-square-foot building masters the art of flexibility, with almost every space and element in the building designed for ease of reconfiguration at any future time. What started as a standard spec office design was transformed throughout the project process into a spectacular world headquarters building that is part of the company's \$220 million, 100-acre Fort Collins Lincoln Avenue campus located on the site of the former Link-N-Greens golf course.

Significant transformations require substantial flexibility, and Lakewood-based electrical contractor Dynaletric rose to the challenge with a can-do attitude to keep adaptability in the forefront and complete the project as efficiently and cost effectively as possible.

### **Solutions of Special Projects/Excellence in Project Management**

As a full design-build contract with considerable design changes, betterments, and scope additions after the start of installation, constant communication between Dynaletric, general contractor Mortenson Construction, Woodward, and electrical engineering subcontractor ME Group was vital to the project's success. In turn, Dynaletric project leads ensured the most current and accurate information was delivered to field supervisors and installing electricians via electronic notifications, secure FTP document share, and iPads for viewing changes on the run. Real-time communication was vital to avoiding wasted time on re-work and for controlling construction costs. While late design changes, scope additions and betterments increased electrical costs by 24 percent, Dynaletric managed to control the cost of the original specified electrical scope, limiting increases to only one percent above the original baseline budget.

Dynalectric teams were also working simultaneously on Woodward's adjacent manufacturing facility, so balancing manpower needs between the two projects required additional coordination and management to meet schedules that were aggressive even before design changes.

"From the start, Dynalectric was an integral part of the owner/architect/contractor design and construction team," said Woodward Program Manager, Jennifer Ray. "They provided design assistance and worked in a professional manner throughout the project to achieve occupancy for this complex development project while responding to many revisions by the team."

Construction started in November, 2014, which is when Dynalectric installed underground conduits and electrical rough-in within the CMU cores. The last design was issued in August, 2015, though finishes and enhancements were not finalized until November 2015. Dynalectric ramped up manpower, working through the winter of 2015 in a building that was not enclosed until late in the project, requiring schedule re-sequencing while facing unexpected weather challenges.

Design changes to both technology and finishes happened along the way, and Dynalectric, nimble in this dynamic environment, adjusted on the fly to provide the highest value for electrical systems and finishes that were no longer spec grade as originally estimated. Wherever possible, the company utilized CAD and pre-fab in completing work that included installing switchgear, cable tray, telecom systems, and light fixtures and controls throughout the building. Precise coordination with fire alarm, security, acoustics and testing subcontractors presented additional challenges within an often-fluctuating project schedule.

### **Construction Innovations**

The Woodward headquarters building brings new meaning to the words "flex space," with every aspect of the building designed to allow for reconfiguration to meet the company's needs as it grows. The project's unique design called for innovation in the electrical design and installation as well. Pre-engineered modular walls, instead of standard drywall structures, were utilized throughout the open office space, which required Dynalectric to install all power runs and data lines under the raised floor instead of through walls. Since the building construction used raised

flooring for additional flexibility, Dynalectric utilized Metal Clad cable to group conductors running under the floors.

### **Environmental/Safety**

The City of Fort Collins has some of the country's most aggressive Green building codes, which played into the design and installation of the project's mechanical and lighting systems.

Dynalectric designed and installed lighting to meet or exceed these energy codes and to make the best use of daylight. LEED principles were used in the design of the campus' manufacturing facility and Dynalectric installed a robust, cutting-edge lighting control system to facilitate energy efficiency and achieve lighting levels desirable to maximize employee creativity and production.

As the Woodward campus is bordered on one side by the Cache la Poudre River, special considerations were required during the construction of both the Woodward headquarters building and its adjacent ITS manufacturing facility. As always, Dynalectric paid careful attention to job site cleanliness and took extra care to ensure there was no run-off to the river.

With the many changes that occurred throughout the project, Dynalectric was especially attentive to safety, dedicating an average of 60 minutes per day, per electrician, to safety measures. To address changes in design, schedule and work flow, the crews prepared and reviewed job task hazard analyses as many as three times each day to ensure each change in activity was carried out efficiently and safely. A full-time, onsite safety manager had the Dynalectric project team attending daily safety meetings, participating in daily stretch and bend exercises, and adhering to exceptionally tight safety procedures. Ultimately, the effort paid off in zero injuries during construction of the headquarters.

### **Contribution to the Community**

Even with aggressive schedules, design changes, and manpower coordination challenges, Dynalectric made it a priority to give back to the community. In spite of tight scheduling and a high demand for manpower, Dynalectric team members made time to collaborate with

Mortenson and Poudre High School to participate in building a Habitat for Humanity home in the Fort Collins area.

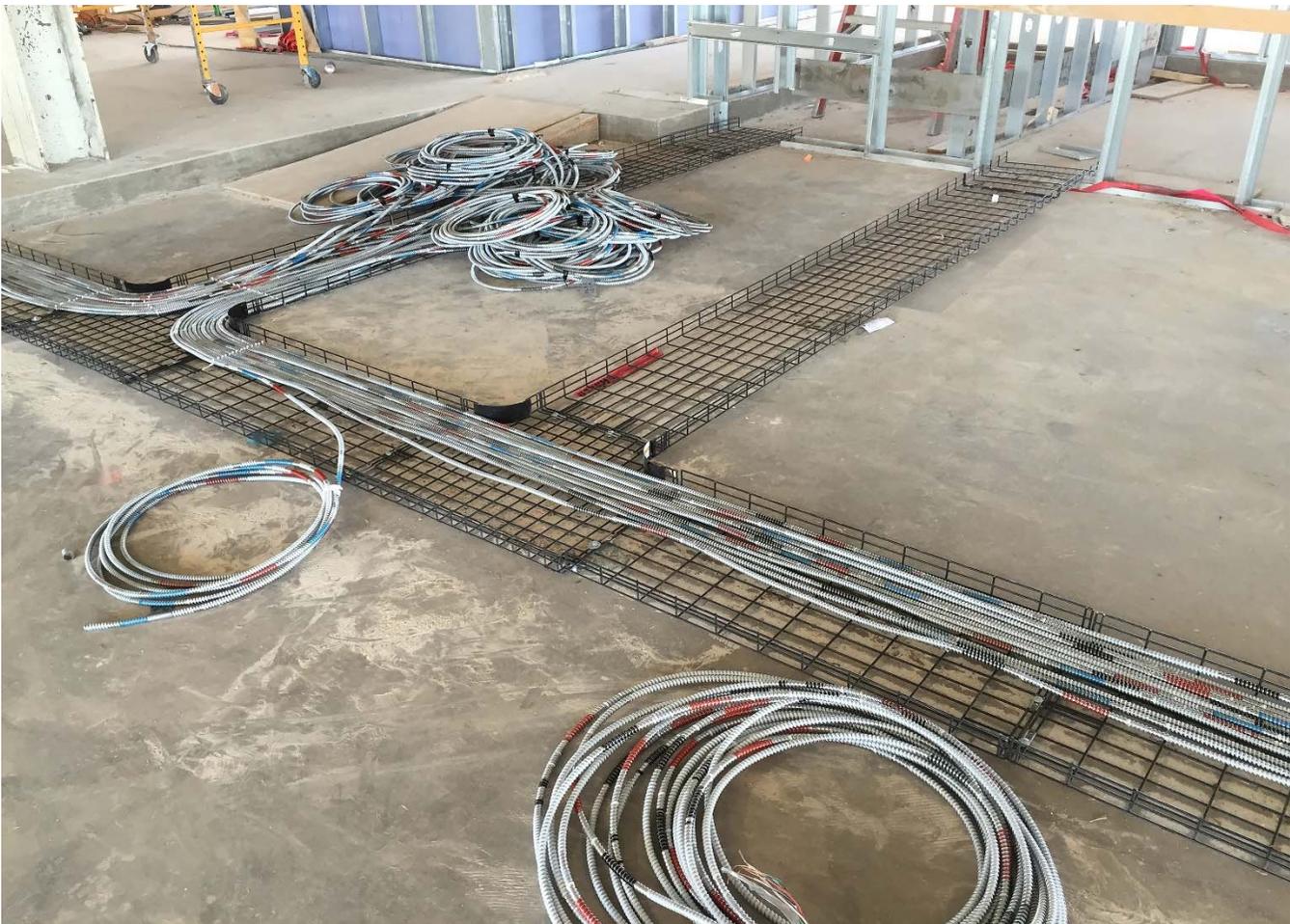
The Woodward campus project itself is also contributing to the Fort Collins community. According to estimates, the campus is expected to employ as many as 1,700 workers and generate an estimated \$30 million more in property tax revenue than the golf course that previously occupied the site. What's more, the Woodward campus lies within the Poudre River district, which is considered a "catalyst area" for the City's future vision for the site.

Colorado Gov. John Hickenlooper, who participated in the Woodward campus groundbreaking, summarized its significance when he said, "Woodward's headquarter expansion in Fort Collins is a legacy project for this community. The new campus will further revitalize a growing downtown area and provide Woodward access to one of the country's most talented workforces, in one of the state's most beautiful areas, as they grow their operations."



Photo courtesy of Woodward, Inc.





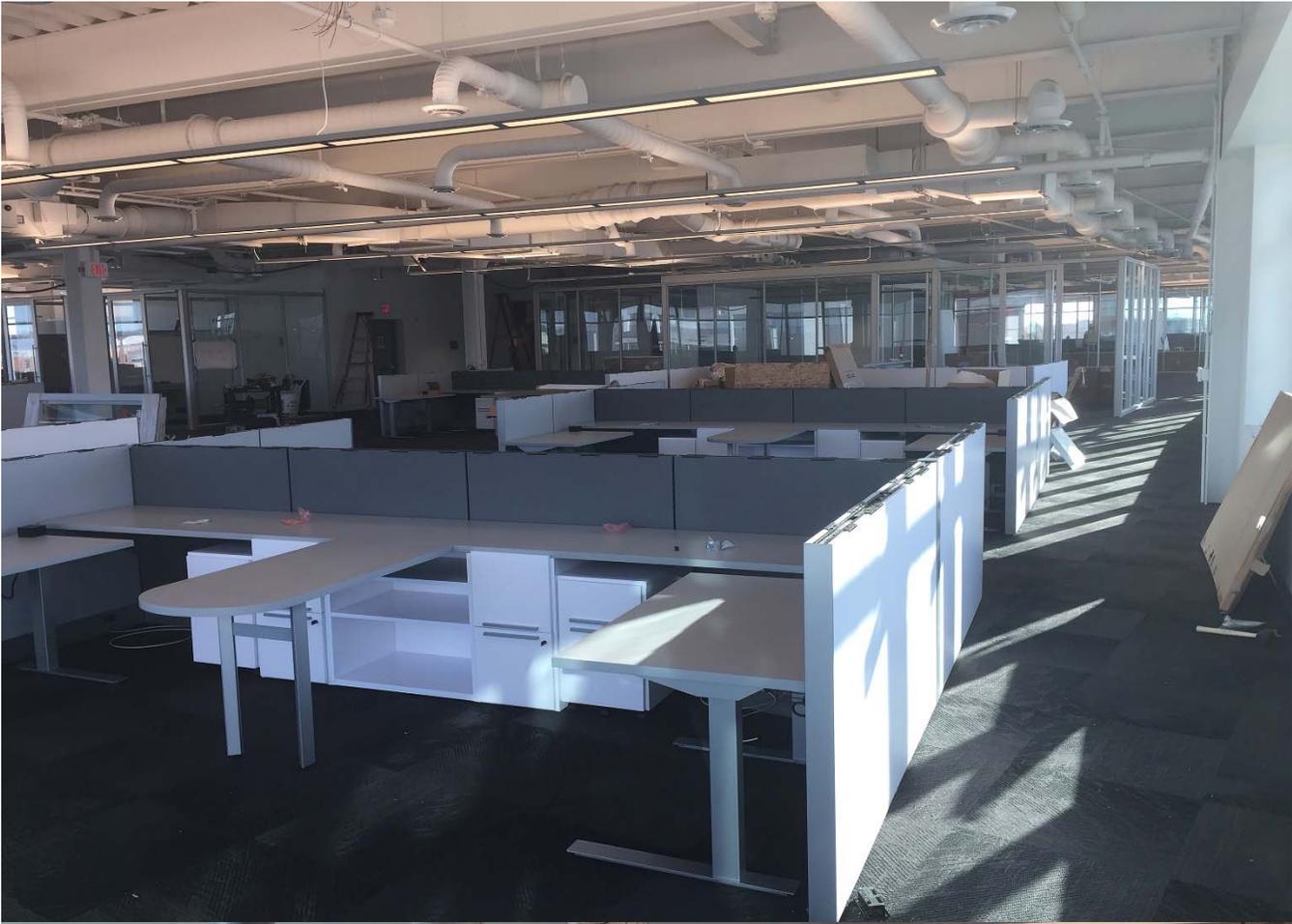




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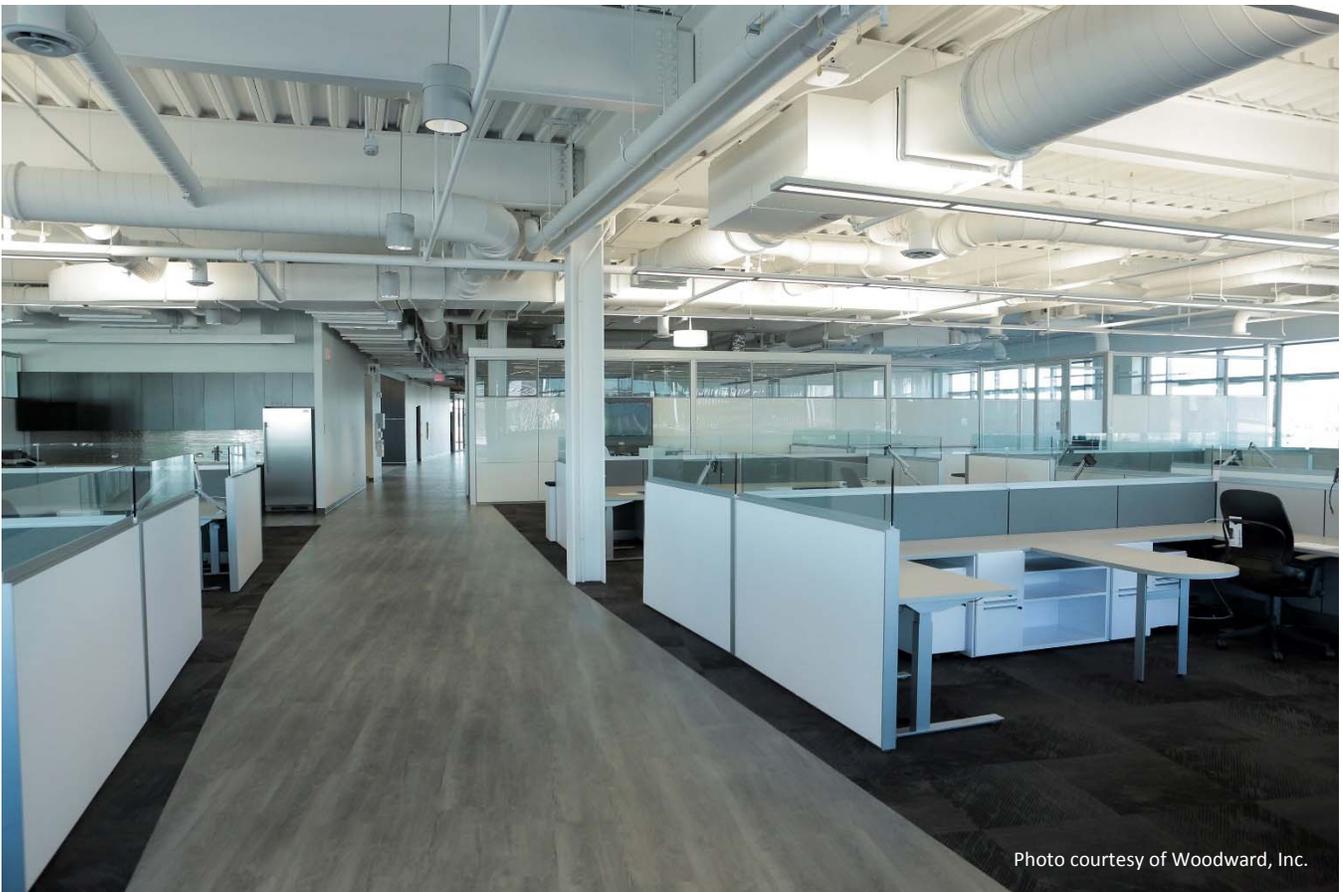


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