

Category: 4 - Best Building Project – Specialty Contractor (Under \$2 Million)

Contractor: Duro Electric

Project Name: Longmont High School Remodel & Addition

In the construction industry school work is pretty common and straight forward. The Longmont High School remodel and addition however was non-typical for this type of work. In addition to the condensed schedule and scope of work, Duro Electric had to overcome the challenge of unique architectural and engineering designs, a retrofit of the existing stadium lighting while minimizing the impact to the surrounding community, and the Coronavirus pandemic.

Duro Electric partnered with Fransen Pittman to build and upgrade the Longmont High School for the Saint Vrain School District. The project contract was for \$1,219,013 and involved the building of a new administration area, a remodel of the school throughout the building including a new lighting package and control systems, and various mechanical upgrades. In addition to the Longmont High School, supplementary work included retrofitting the existing stadium light poles at the Everly Montgomery Field to new Musco LED lighting fixtures with a special effects Show-Light entertainment package. The architect and engineering firm for the school project was World Architects and Engineers. The Longmont High School project was scheduled to begin May 28-2019 and work is expected to be completed August 20-2020. The total project manhours as of July 31st were 6,787 and consisted of an average of 8 Duro employees working 40 hours a week with occasional overtime. The Duro team worked closely with Fransen Pittman and the many other subcontractors on site to ensure that project schedules and deadlines were met or addressed appropriately as issues came up.

This project was broken up into 5 different phases to include a new entry to the school, a remodel of the counseling offices, and the cafeteria, all of which incorporated multiple changes in the electrical and mechanical scope. The new main entrance posed a challenge as there were a variety of ceiling types, elevations, and pathways between the existing structure and the new structural beams and framing. The Duro team had to be creative in their design and installation of the various electrical systems and components. Design changes in the roof structure also required the team to re-evaluate the design of the conduit layout and mounting of fixtures.

Ceiling heights were also raised in the main corridors which left little room for the new electrical and mechanical systems that had to be installed. With all of these changes and challenges in design, Duro rose to the occasion and implemented a solid plan of attack to get the job done.

The Duro prefabrication department was instrumental in helping to keep this project on schedule and on budget. One of the greatest time-saving benefits for prefabrication came in the assembly of the lighting poles and Musco LED light heads. Pre-assembly of these fixtures to the pole, complete with pre-determined positioning and alignment, ensured a safe and quick install that saved countless hours of field assembly at heights and public road closure delays. It took 3 people 2 days to assemble all of the lights on the mounting arms. The light poles were assembled in the Duro prefab office where quality and safety could be strictly maintained and controlled. The prefabrication department also assisted in building the fire alarm splice boxes, wall rough boxes, and data stubs. All of these efforts from the prefab team did not go un-noticed.

The effort put forth by the prefab department saved us a lot of time when we had to move the fire alarm panel to its new location. - James Wakefield, Duro Project Superintendent

One of the greatest challenges during the Musco light pole retrofit was the closure and control of vehicular traffic on Francis Street, a major thoroughfare for traffic in the area. Extensive planning with the local authorities and the school district detailed the road closure and detour routes. Duro partnered with W.S. Barricades to create a site-specific traffic control plan for the city to approve. There were challenges with getting the permit approved and Dante Horn, Duro Assistant Project Manager, had to go to the city administration building to submit the required documentation. Once the permits were approved, the city would only allow operations to be conducted between the hours of 8:00 a.m. and 3:00 p.m.. Since the street was anticipated to be closed for 3 days, Duro had to go door-to-door for all homes that lined Francis Street to notify them of the closure. Additional staff was brought in to assist W.S. Barricade to help control pedestrian traffic along the sidewalks during crane operations.

DURO did an outstanding job controlling car and pedestrian traffic. They also completed some complicated crane hoisting and rigging without any safety issues. The final install

*and outcome of the field lighting was great, and the school district was happy with the project and the aptitude that it was completed in. – Ryan Tedford, Fransen Pittman
Project Superintendent*

With all of the typical and expected project delays and challenges, the COVID-19 pandemic added an extra level of complexity to an already demanding project. In addition to the protection of workers on the project and the general public, communication was critical to ensuring the project remained safe and on target. Employees were provided with the necessary personal protective equipment and cleaning supplies to ensure workers safety and health as well as weekly communications from the safety and human resources department to ensure everyone knew what was going on in an ever-changing global environment. The Duro project leadership team worked diligently to improve project coordination schedules and daily updates to keep all trades on task and productive.

Safety is always a critical part of all operations at Duro and one of the company's core values. With the added challenges of this project and the complexity of the light pole installations, Duro took extra safety precautions to ensure the safety of all workers and the general public. Weekly toolbox meetings and daily safety briefings helped to identify potential safety concerns and address methods of control or hazard mitigation. Employees were given the opportunity to voice concerns or identify and address hazards with the project management team, the Safety Manager, or HR department. All employees involved in the field lighting retrofit were also given additional training on the 125' extensible boom lift, all-terrain forklift, traffic control measures, public safety, and cranes and rigging specific to the light pole set-up as per the Musco guidelines. James's commitment to worker safety and his understanding of the electrical system resulted in a project that went without incident or worker injury.











