Category 4: Best Building Project – Specialty Contractor (Under $2M)

Specialty Contractor: Weifield Group Contracting

Project Name: Verizon NEC2A Data Center

For Weifield's client, Verizon Wireless – one of the largest wireless telecommunications providers in the United States – having their critical IT servers suffer even a blip of downtime could result in the loss of tens of thousands of dollars, per second. And so, when they needed a highly qualified electrical partner to install new equipment within their Colorado Springs active data center, Verizon needed to ensure this partner could fit into their highly-developed process culture and execute exactly the way they needed them to. This partner was Weifield.

Ensuring the continuous uptime of the servers within this 122,000 sq. ft. data center was critical. In response to Verizon's stringent protocols, Weifield's engrained focus on pre-planning, detailed procedures, and precise execution proved to be the winning combination to accomplish this project successfully. Weifield performed our work at night to install 12 new remote power panels (RPPs) within the data center and the team's steps were guided by comprehensive Methods of Procedure (MOPs), developed by Weifield and The Martin Group (General Contractor). These MOPs detailed the 'what' and 'where' for the nightly work as well as the associated hazards involved – and required multiple levels of approvals from Verizon management before work could begin.

Despite our best plans, a major unexpected hurdle presented itself early on in the project that made our ability to adapt and innovate equally – and perhaps more – important than our procedure focus and near-surgical execution had been, up to that point. Weifield rose to the challenge, finding a solution and shaving nearly two months off of the project's completion date while absorbing the more than 900 hours of unexpected problem resolution time into the existing schedule.

Solutions of Special Projects

Weifield, along with the owner's representative and the site operations crew, held a MOP review meeting at the beginning of every night shift – where each MOP step was reviewed and signed off on as the team completed each task. Weifield led these reviews and encouraged conversation from the holistic team to ensure work was done safely.

When the RPP equipment arrived, Weifield quickly uncovered what would be our focus for the remainder of the project: all twelve RPP's were supposed to be built with an internal trend point box – but when they arrived, all had external boxes, instead. This was GC-ordered equipment that would take months to reorder—so we knew then we had to install connection terminals for every RPP. This would require us to absorb 897 additional hours into the existing schedule.

Additionally, the current transducers (CT wires) resided within each RPP to monitor the load of each cabinet's branch circuit – but Verizon didn't want to shut down an entire cabinet just to service the CTs. Therefore, Weifield needed to pull everything out of the RPP's, run field pipe to two new junction boxes, and set the RPP modules under-floor so that Verizon could service the modules, there, without taking down power to the servers. This required Weifield to change over 4,000 CT terminations and move the modules out, extend their wires from 12 feet to 35 feet, and get them back to their new home.

According to Tim Cordova, Weifield Superintendent, working under the floor was a challenge as it involved tasks like putting in 116-foot wire runs and working cautiously with 2.5" conduit so it wouldn't damage data center cabinets or walls.

"We brought material in, piece by piece, and worked one floor tile at a time, popping it up and installing a 2' x 2' section at a time," said Cordova. "It was complex – but despite the project starting six weeks late and even with this additional phase, we were able to shave two months off of the overall schedule."

Said Salvatore Diecidue, Director of Project Management for The Martin Group: "Even with the trend point obstacle, Weifield did what they needed to do to get it done. They had very tight

spaces to work in and there were incomplete design drawing challenges – but Weifield's communication and staffing made all the difference on this labor-intensive project."

Excellence in Project Execution and Management / Team Approach

Weifield's manpower included a team of four – all highly experienced with data centers and technical projects – which was bumped up to nine at the peak. The team completed over 3,200 man hours on the project.

The Martin Group's Superintendent worked nights with our team and Weifield's Project Manager handled behind-the-scenes issues via nightly phone calls with our team, weekly meetings with the GC, and calls with The Martin Group PM during the days. In addition to the full-staff MOP reviews, Cordova conducted nightly pre-shift huddles with Weifield's team to outline the plans — as well as an end-of-shift huddle each morning to review our team's progress and discuss where to start, the next shift. The team also attended weekly MOP meetings, subcontractor meetings, and numerous other ad hoc meetings for power shutdowns and other critical tasks.

Said Gregory Delmotte, Verizon Wireless Construction Engineering Specialist: "We have a unique way of doing things at Verizon, and most contractors find us the worst people to work for due to our extremely high process focus and expectations. Weifield rapidly adjusted and was excellent. I would personally fly in to inspect the work and Weifield was always well-prepared."

"What I appreciated about Weifield was their ability to focus on solutions – they didn't complain and say, 'That's not my job' – instead, they just knew what needed to be done and found ways to do it," said Brendan O'Reilly, The Martin Group Superintendent. "They were truly collaborative and were always looking for ways to improve."

Construction Innovations / State-of-the-Art Advancement

In order to achieve the underfloor phase successfully, Weifield needed our in-house Prefabrication division's help in building special assemblies. Specifically, Prefab built 130+ twist-lock receptacles which were put under the floor in order to save time with pulling the wire

for the CT's (each CT was 35-feet long and had to be unraveled individually). These special brackets preloaded with the CTs were delivered as a complete system to our job site – so that our site team could focus on pulling wires and doing the terminations.

"That was a key part of our success; we only had to tell Prefab what we needed and when, and they came through in a big way for us," added Cordova.

Environmental / Safety

Weifield followed our project-specific safety plan for the project – which outlined all safety and health requirements for each project phase. We also held weekly safety toolbox talks for our team and completed Job Hazard Analysis forms each day, detailing task-specific hazards and risks. There was a detailed safety section included in every MOP to keep everyone aware of the safety issues and potential plans for mitigation.

Verizon's stringent procedures detailed safety processes a bit above the norm in areas such as protective gear (wearing a hot suit before turning off a 20-amp breaker), lockout / tagout procedures, and other measures.

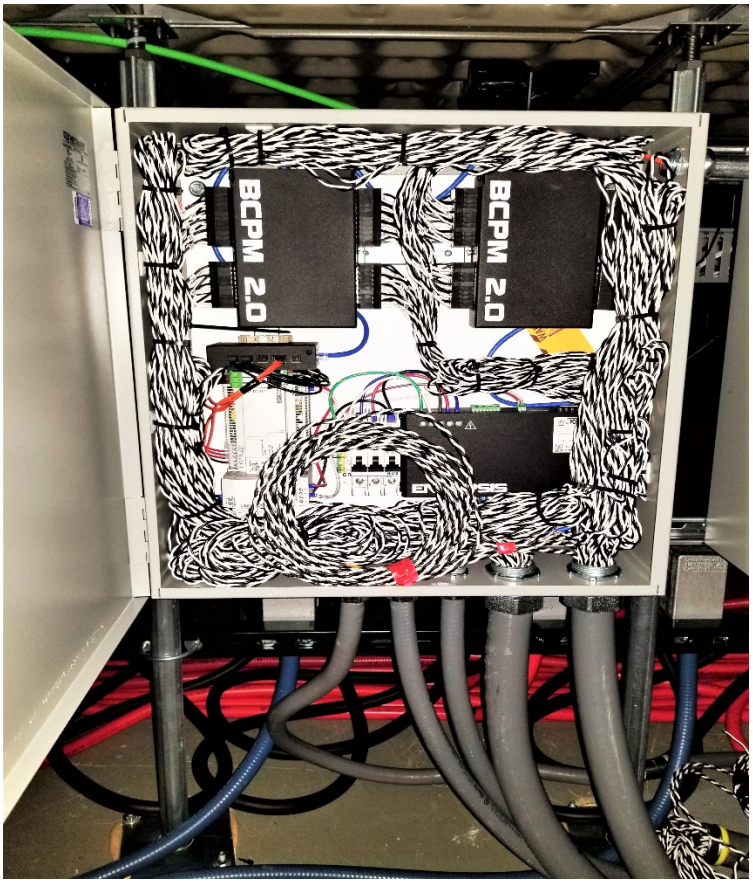
As a combined team, Weifield's safety focus reinforced by the additional client safety protocols ensured we experienced no accidents or lost time on this project.

Excellence in Client Service and/or Contribution to the Community

Weifield's performance on this project helped Verizon to meet their goal of being substantially complete with this project by the end of 2018. Visual appeal of the data center was important to Verizon and they were pleased with Weifield's pipe runs with respect to aesthetics, spacing, and precise execution.

Said O'Reilly: "Weifield's collaboration with the other contractors, the GC, and the client made the difference on this project. The quality of their installation was very good – and they were always transparent. Verizon appreciated that we took weeks out of the schedule and got through everything with no safety or quality issues."

“Verizon is a tough place to work – I do most of my work in Texas and in Colorado Springs, we have a hard time with getting qualified subcontractors to work with. But I couldn’t be happier with Weifield; I am a brutally honest person – so if I felt otherwise, you’d know it. I am hoping Weifield can do more work with Verizon in the future,” said Delmotte.


BCPM 2.0
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PANEL A
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