

INNOVATIVE SOLUTION FOR FORT CAMPBELL'S ICF WALLS

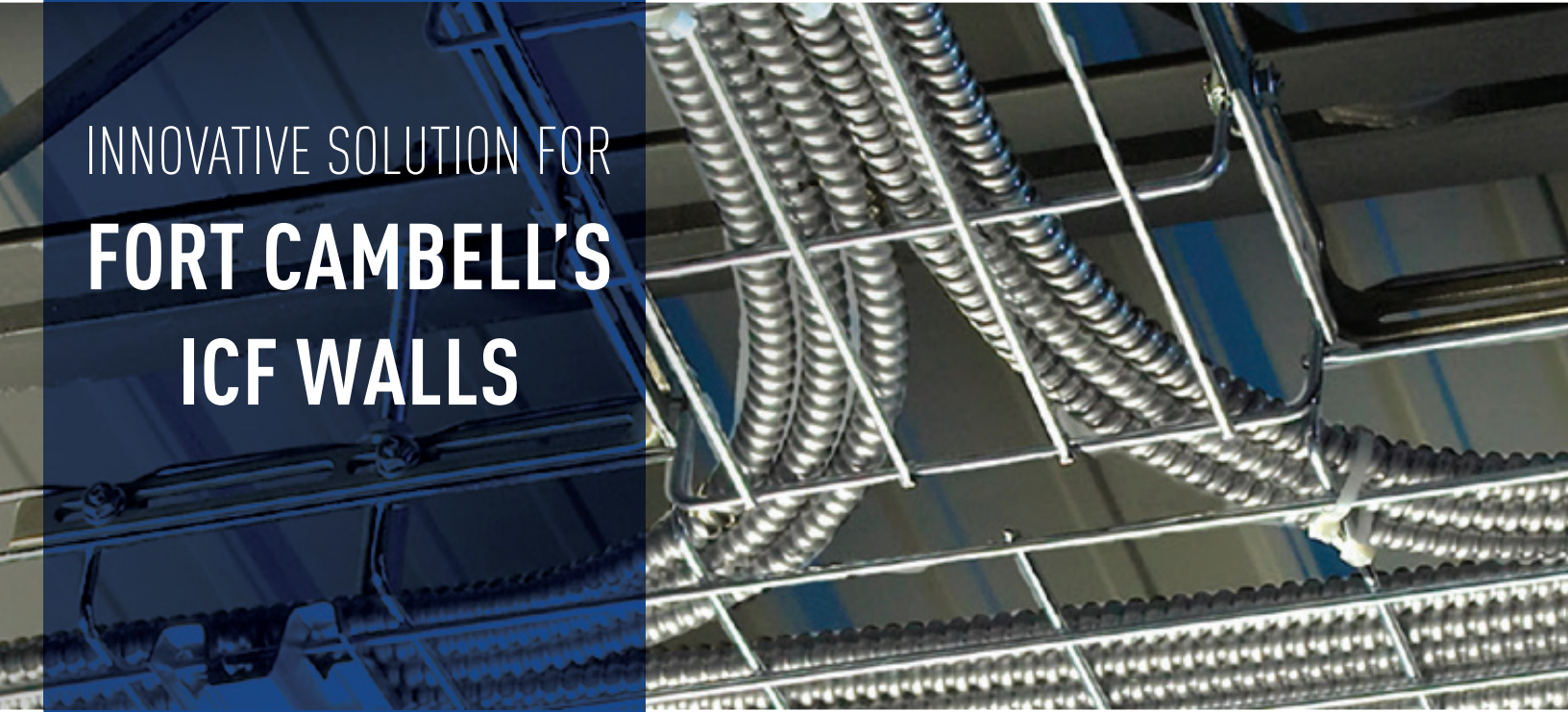
U.S Army and Stansel Electric
Face Multiple Challenges

THE CHALLENGE:

The U.S. Army was looking for a contractor to provide electrical services to their new 716th Military Police Battalion Headquarters, located in Fort Campbell, Kentucky. They turned to Stansell Electric of Nashville, Tennessee to complete the job.

The project was on a tight deadline and was quite far from Stansell's home location. Additionally, there were no onsite storage facilities available. To deal with these hurdles, Stansell needed to find an end-to-end solution that could be installed quickly and cut down on labor costs.

Stansell also found that the headquarters used insulating concrete form, or ICF, construction. ICFs hold fresh concrete and remain in place permanently to provide insulation for the structure they enclose. These stay-in-place concrete forms are becoming more common for low rise commercial construction projects, and they present a challenge for electrical contractors as the installation of outlet boxes can often require non-standard plastering.



PROVIDING THE ANSWERS:

Stansell wanted a partner that was knowledgeable with different types of applications so that they could recommend a solution that would work with the productivity concerns and ICF construction. They turned to Legrand, who was known for inventive engineering and strategic thinking on challenging jobs.

To speed installation and enhance contractor productivity, the Legrand team recommended running MC cable in Cablofil wire mesh tray with junction boxes attached that feed FAS Power manufactured wiring assemblies. For the open spaces in the building, they specified Wiremold floor boxes and poke-thru devices. Where in-wall wiring was not practical, Wiremold perimeter raceway came into play.

With Cablofil wire mesh tray, you can create fittings onsite. This gives you freedom in routing, plus incredibly fast installation. Pre-manufactured components like homerun junction boxes require zero onsite assembly and easily attach to the cable tray, cutting labor in half.

FAS Power floor brackets and wall brackets were both used. These floor brackets slide under the sill plate with no need for vertical measuring. Wall brackets quickly attach to the stud with switches and outlets in place. These wiring assemblies arrive in boxed kits by area quickly to the jobsite, reducing material handling and shrinking the size of the crew needed for installation.

Stansell could also lean on Legrand to provide numbered assembly details and color-coded floor-by-floor drawings, which were then submitted to the Corps of Engineers. Legrand also provided onsite training for contractors that needed to learn how to cut the tray and use couplings.

To address the ICF walls, Legrand provided a standard FAS Power wall bracket. To install a box into the foam-and-concrete walls of ICF, you must cut 2 ½ inches into the rigid foam with a hot knife, set the box into this opening and seal the open edges. However, the outlet boxes supplied by the wall manufacturer were only 2 1/8 inches deep, which would not fit. In addition, some of the walls had two more layers of drywall. This would have required non-standard plastering.

However, Legrand offered the Stansell team a standard FAS Power wall bracket. After cutting into the foam, you can set the assembly and screw the bracket to an attachment channel on the wall. This allows the box to be mounted to the outward face of the wall instead of the back, creating a solution so well-suited that a Stansell supervisor thought it was a system made specifically for ICF construction.

Using these solutions, the project was completed successfully and quickly, earning a rating of "Outstanding" by the U.S. Army Corps of Engineers. According to the Stansell Senior Project Manager, this success was largely due to Legrand's attention to detail, care and commitment.

“The project was completed successfully and quickly, earning a rating of 'OUTSTANDING.'”

ABOUT LEGRAND

Legrand is a global specialist in electrical and network infrastructure solutions, delivering access to power, light and data that transforms millions of spaces where people live and work around the world.



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