AMEREN ENERGY CASE STUDY
DURATION: 1.5 YEARS

STERLING

CUSTOM ENGINEERING THAT GETS THE JOB DONE

HOW STERLING CREATED A MATTING SOLUTION FOR TWO FLOOD-PRONE ISLANDS

Ameren serves 2.4 million electric and 900,000 natural gas customers throughout Missouri and Illinois. Ameren builds and maintains infrastructure to generate nearly 10,200 megawatts of electricity across 7,500 circuit miles of transmission line on both sides of the Mississippi River.

With a large, diverse inventory of mats, Sterling engineered platforms that could support lattice tower construction and withstand the elements.

SITUATION

Ameren embarked on the enormous Illinois Rivers Project, covering 345 miles across Missouri, Illinois, and the Mississippi River. One year prior to work, Ameren brought Sterling and Midwest Access Solutions in to outline the need for a uniquely rare but necessary site access solution.

Ameren needed Sterling to create a matting solution that would safely allow the construction of two 400-foot lattice towers. Such towers aren't unusual, but this project's location — within the confines of the Mississippi River — posed tremendous challenges, as one tower each would be built on Fabius and Ward Islands. Each tower required a platform consisting of 168,000 square feet of three-ply access matting to stabilize building the foundational first 200 feet of each tower.

Combining vast experience in water crossings, temporary roads, and platforms, Sterling got the call.

CHALLENGE

The challenge was to create a construction staging area and platform on each island that could weather potential flood events. Even in the heaviest rains, the matting needed to remain on the islands and not float down river, potentially damaging levees and bridges in its path.

Sterling got to work, fully engineering a custom-manufactured mat that included mounted brackets and a cabling system, then linked these mats to 350 helical piers drilled 60 feet into the island. The result? One thousand five hundred mats joined together as one solid platform.

In addition to the islands' needs, Sterling was asked to create a similar-sized platform on the mainland for constructing the top 200 feet of tower that would be flown over by helicopter. Due to Sterling's large and diverse matting inventory, they used the right tool for the job and created a plastic matting solution for this particular platform.

WATCH THE VIDEO SterlingSolutions.com/ameren

RESULTS

Bringing Sterling in early allowed the team to create a workable, low-cost engineering feat that held, even when the heavy rains fell.

Sterling was uniquely positioned to fully design, manufacture, install, and restore a custom site access solution, with the right expertise for every phase of the project.

Sterling's engineered solution stayed exactly where it was designed to, withstanding the force of the river during two flood events in which the river rose as high as 13 feet above flood stage. Within 24 hours of the water receding, the crews were back to work and not a single mat was lost.

Sterling was then awarded nine out of 11 segments of the 345-mile, 345kv project because of their proven ability to perform as the leaders in site access solutions.

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