

# MAX RHOADS

## CASE STUDY



BUILDING NAME

**Max Rhoads**

OWNER

**Regional Water Resource Agency**

LOCATION

**Owensboro, KY**

MARKET SECTOR

**Municipal**

APPLICATION

**Wastewater Treatment**

SIZE

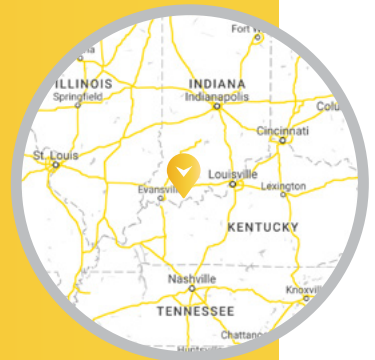
**136 ft x 112 ft (15,232 sq ft)**

SPECIAL FEATURES

**Installed over existing tanks**

INSTALLATION

**Legacy in-house crews**



### THE REGIONAL WATER RESOURCE AGENCY

of Daviess County, Kentucky, is responsible for treating wastewater for all residents and businesses in the county. In 2016, they began the process of installing UV disinfection facilities and equipment.

“Removing chemicals from our process is better for the environment in terms of the runoff, and more cost effective for our community,” said Victor Cernius, Director of Operations at RWRA. The new process will run most effectively when solids, including algae, are not able to build up in the settling tanks. Exposure to sunlight will cause algae growth, so keeping the tanks covered is critical.





Before making a purchase, the RWRA investigated several options for covering the tanks – including using two separate covers or several types of buildings. “One of the considerations we had was resistance to a highly corrosive water treatment environment,” said Cernius. “There’s high hydrogen sulfide, so metal quickly degrades.”

After considering options for a building that met the corrosion-resistance criteria and could be erected over settling tanks already in place, RWRA chose Legacy Building Solutions as their basis of design. “We didn’t have any experience with fabric buildings, but they were a cost-effective solution for our needs,” said Cernius.

Legacy designed and installed a pavilion structure 136 feet wide by 112 feet long. The building has a covered roof and gable ends, along with four open walls. The cover keeps sunlight off the settling tanks, while the open walls allow a constant flow of fresh air in. Rooftop exhaust vents push warm, moist air out the top of the building, preventing moisture build-up and another source of corrosion.

**“Protecting this equipment helps it run more efficiently. So far building is doing the job of providing protection for the new equipment.”**

Fabric has non-corrosive properties that extend the longevity of the structure when exposed to hydrogen sulfide. The solid steel frame and steel framing members are all hot dip galvanized to protect against corrosion. Rather than bracing cables that are vulnerable to corrosion, solid steel bracing rods withstand the rigors of daily use and exposure to corrosion.

Legacy crews traveled to Owensboro to install the building around the existing tanks. Keeping the system running during installation meant no downtime for RWRA – further enhancing the efficiency of the new tanks. “Protecting this equipment helps it run more efficiently,” said Cernius. “So far the building is doing the job of providing protection for the new equipment.”