

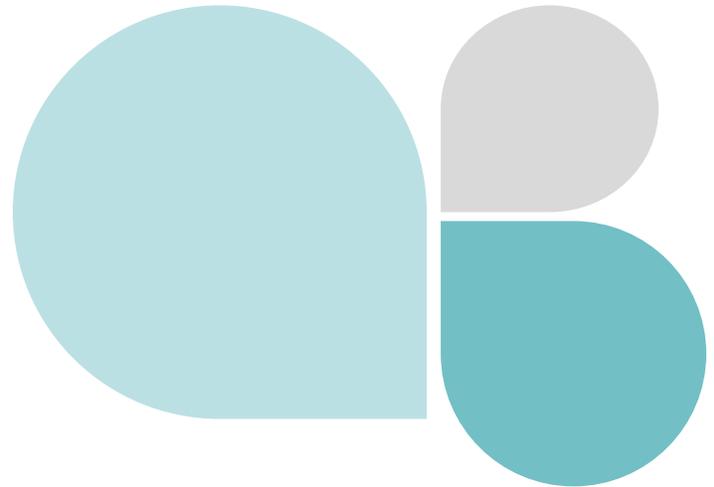
CASE STUDY:

West District and Upper Brays WWTP HOUSTON, TEXAS, USA

In the summer of 2012, Headworks International received an order from LEM Construction Company for two Headworks Bar Screens, a Headworks Shaftless Conveyor, and a Headworks Screwpacker for the West District and Upper Brays project. This treatment plant is situated directly within an upper middle class neighborhood in West Houston, so the two main concerns for both the consultant and client were odor control and minimizing any disturbance to several nearby homes.

The equipment were started up in the fall of 2013. The setup is in quite an interesting arrangement: the two screens discharge into a shaftless screw conveyor which then moves the screenings into a shafted screw compactor. A ninety degree elbow off the discharge pipe of the screw compactor then transports the screenings over the elevated platform and drops them into a 30 yard roll off container. All of these connections are sealed for odor-control, and the solids container itself is completely enclosed. Additionally, there is another odor control system connected to the container. Inside the container, there is also a screw conveyor mounted under the cover to ensure the screenings are evenly distributed over the full length of the container, while several level sensors mounted onto the cover are monitoring that the container does not become overloaded. When the container is full and needs to be exchanged, the cover is lifted off and the container can be removed and replaced with an empty one.

Each screen must be rated for a maximum flow of 47.5 mgd (2 cubic meters/second.) Each screen has an overall length of 20.5 feet (6.2 meters) and the channel width is 5.5 feet (1.7 meters.) The required bar spacing is 0.6 inch (16 mm.)



Mr. Francisco Estrada, the senior plant operator, stated that “the Bar Screens have been running without issue since installation. We have had to do little maintenance since then. This plant receives large amounts of rags and debris daily, and the Bar Screens have been able to handle the extreme conditions that arise. **Headworks’ Bar Screens are much better than any that we’ve had in the past.**”

Recently, Headworks also hosted a visit of a school class to this site as part of an all-day tutorial to teach a group of their fifth graders more about Houston’s public works system, how wastewater is treated, how the machines are designed and fabricated, environmental consciousness and responsibility.