

Repair Fenley Ryther Dam Lake Tobesofkee Macon-Bibb County Georgia

Statement of Work

Existing Situation: The existing dam is a Tainter Gate dam with two existing approximately 40' wide by 40' vertical height steel gates. See attached drawings. Each gate has a side seal on each side made up of adjustable metal angles and a J-bulb seal. The side seals were reinstalled in 2013 but apparently have been installed with too much pressure on the adjacent abutment faces resulting in excessive friction between the bulb side seal and the abutment. Because of this friction, the gates will not lower properly but must be pulled down with come-alongs to close.

Additionally, the west gate bottom seal is experiencing excessive water loss in the west corner. This may indicate the impending failure of the west gate bottom seal. The seal is currently being held in place by the west gate.

Preparatory Requirements: We expect the contractor to procure a replacement bottom seal and have it on site before beginning any work. Provide a submittal for the seal for approval. Once the bottom seal is in the contractor's possession, we plan to open the west gate prior to bulkhead installation and let water discharge for a few days to see if the seal will blow out. If not, we expect the contractor to begin bulkhead installation. Once the bulkheads are in place, we will examine the bottom seal and make a determination as to whether or not to replace it. If the bottom seal is not replaced, we will require the contractor to deliver the new bottom seal to a storage location of our choosing in Bibb County.

Requirements

Side Seals: Existing bulkheads are stored in the open approximately 800' from the dam. Install bulkheads in front of each gate and adjust the side seals so that the gates raise and lower smoothly through the range of motion of the gates. See attached for a drawing of the existing side seal. There are approximately 15 side seal adjusters per side seal that will require adjustment. The adjustment may be outside of the range of the adjustment capability so the side seals may have to be loosened and re-bolted to the gates. The adjustment will require the balancing of the need to seal the dam as effectively as possible with the need for the seals to not cause excessive friction. We anticipate that there will be some leakage around the side seals when the adjustment is complete.

Bulkhead Repair: We anticipate that some of the rubber seals on the existing bulkheads may be damaged. We have included an estimated quantity line item in the bid schedule to accommodate the unknown requirements for replacement. Full replacement of an entire seal is not required, only the damaged portion, or as allowed by the engineer. The seal is a 2 1/2" X 3/8" rubber

gasket. Provide an adhesive recommended by the manufacturer to adhere the seal to the bulkhead. When all work is complete, clean the bulkheads and store them in their storage site as they were previously stored. Note that the contractor will be required to fill the area between the bulkhead and the gate from time to time to test the work. The top bulkhead has an approximately 12" diameter fill pipe for that purpose. However, a cover is bolted to flanges on that pipe with approximately 8 bolts. The contractor will be required to perform testing using this or some other means of filling the space.

When moving the bulkheads to or from the West gate, the contractor will have to move the bulkheads through Gates Rd, Columbus Rd, Pineworth Rd and Stapleton Rd. He should arrange for a local sheriff escort or other approved escort during the transport of the bulkheads. Provide a spotter to ensure that electrical lines over the transport route are avoided. Be especially careful on Stapleton Rd near the dam.

Bottom Seal: Install a 60-70 durometer rubber seal of the configuration shown on the attached detail, or as subsequently agreed to in writing. Remove any remaining existing seal and thoroughly clean the cavity to receive the new seal. On the bottom of the seal, use Scotch-Weld DP-190 B/A gray by 3M Company. The sealant should be placed so as to provide thorough and uniform coverage. Use enough workers to apply the material and install the seal within the allowable material working time. Prior to finalizing the seal installation, check the bottom of the gate and the seal for parallel and adjust as needed. Use metal shims under the seal for any adjustments that are required. Provide uniform adhesive coverage of the metal shim on both the top and bottom of the shim. This work is included in the bid price for installing the seal. On the sides of the seal and under the holding bracket, use Sikaflex 2c NS by Sika Corp. Follow all manufacturers' instructions for preparing the surface, including any primers required and any curing time. The temperature of the adhesive governs curing time, so the time must be adjusted to conform to the ambient temperature or contractor artificially controlled environment. After installing the metal Z-bar holder, grout the spillway cavity with non-shrink concrete grout and cure to 3,000 psi. Do not allow water pressure on the bottom seal until the adhesive is fully cured.

Contract Price: The contractor will be awarded for all bid items. This is to ensure that no contract modification is required to effect the bottom seal installation if required. However the amount for the seal installation will be deducted from the contract and not paid if the seal is not installed. The contractor, in that case, will only be paid for the cost of the seal.

Performance Period: The performance period is established as follows:

Order and receive seal	30 calendar days
Adjust side seals on West Gate	30 calendar days
Adjust side seals on East Gate	30 calendar days

Install bottom seal West Gate (If Required) 30 calendar days

The above times include installing and removing bulkheads, repairing bulkheads, and storing the bulkheads in their storage location. Note that the time for installing the bottom seal will be subtracted from the contract schedule if that work is not done.