



## MEMORANDUM

DATE: February 12, 2020  
TO: Dan Duchniak  
FROM: Kelly Zylstra  
RE: Vacuum Excavator Purchase

In September of 2014, the Commission approved the purchase of a Ring-O-Matic 550 Vacuum Excavator to replace the 1999 Wachs vacuum excavator. The Ring-O-Matic has a 4" suction line, a 1,000cfm vacuum system, and 550-gallon (2.72cubic yards) spoils tank with an original purchase price of \$74,394. This piece of equipment is meant to decrease the size of the excavations and reduced the cost of street openings and landscaping restoration as the use of a backhoe would not be needed for every job.

However, the last four years have shown us that the suction line diameter and the spoils tank on the Ring-O-Matic are both too small for our jobs. The rocky soils that we encounter frequency plug the suction line and the spoils tank requires regular emptying during a job. These restrictions limit the locations and types of work that we can perform with this piece of equipment. For example, during the harvesting of the cast iron piping for the pipe loop apparatus we were not able to do a portion of the work with the backhoe due to the number of other utilities in the way, we tried the Ring-O-Matic but it became plugged. Luckily, we were able to call a contractor with a large vacuum excavator to come assist us that day. A similar situation existing during the search for our sanitary sewer lateral in December, the rocks were too large, and the hole was going to be too deep; here we had to wait a few days for the Contractor's schedule to open. These are only two examples, but more exist.

During the last several months operations staff (that will be using the equipment) did research on other vacuum excavators including comparing sizes, service locations, track records, and used equipment sales sites for manufacturers. It quickly became apparent that Mud Dogs are not found on the used equipment sites for a reason; their reliability causes customers to keep them for a very long time. An additional benefit to the Mug Dog for us is that training, service and parts are all available from their new location in Mukwonago. Following an on-site demonstration session in January, and verification that it will fit within the existing garages, staff recommended to me that we obtain pricing for a Mud Dog 1200.

The Mud Dog 1200 has a 18gpm water pump, a 1,500-gallon capacity water tank, a 12-yard debris tank, and 8" suction line. The rear-mounted boom system offers a large range of motion, to cover as much ground as possible. It is capable of 335° rotation around the unit, 19 to 27-foot reach at extension, 45° upward pivot and 25° downward pivot, able to reach a depth of 14 feet below grade. It is a very impressive piece of equipment that will allow us to decrease the size of excavations, thus reducing landscaping and street opening sizes. It will also increase our efficiency on some jobs.

Two bids were received for this piece of very specialized equipment. One bid was received using HGACBuy program and came in at \$480,096. The other bid was provided by Truck Country of Wisconsin and came

in at \$461,194. Either of these bids would be increased by approximately \$2,500 to upgrade the emergency lighting package.

Funds will be taken from Capital Equipment Account #3960 for this vehicle. The account has \$500,000 allocated for this purchase.

The Mud Dog will take 90 days to be delivered after purchase. During that time, we will continue to evaluate equipment that we can eliminate and propose the best method for resale of that equipment.

**Recommended Motion:** Move to approve the purchase of a Mud Dog 1200 from Super Products Alamo Group on the 2021 Freightliner Truck Chassis from Truck Country of Wisconsin in the amount of \$461,194, with an additional \$2,500 approved to address the emergency lighting upgrades.