

Andover Referendum for Purchase of Equipment for the Department of Public Works

The Town of Andover is sending two spending proposals to fund the purchase of equipment for the Public Works Department to town-wide referendum for the 2019 budget cycle.

Wheeled Loader

The Public Works Department (PWD) was in dire need of a machine to replace a 25-year old John Deere 710 backhoe loader that was worn out and unrepairable. The Capital Improvement Planning (CIP) committee worked with the PWD to find a replacement for this machine, and determined that the best choice for functionality and long-term reliability was a Volvo 60H series wheeled loader. The loader will be used to load salt-sand mix into plow trucks, move snow when needed, and perform other tasks outside the winter season.

Equipment of this type has a typical usable lifespan of 15 to 20 years, and the PWD had been requesting a replacement for the John Deere unit for 4 years. Although the CIP committee was planning to request that this expenditure be placed in the capital budget for next year, it became necessary to act on an emergency basis because the machine, which suffered its terminal breakdown this past fall, is necessary for snow removal operations.

The CIP committee, working with the PWD, solicited and evaluated proposals from Cat, John Deere, and Volvo, three of the major manufacturers of wheel loaders. The Volvo loader was chosen because it met the needs of the PWD, had the lowest price among the competing machines, and had a good reputation for reliability and low maintenance costs. The Town is currently renting the loader from Volvo, and may apply the cost of the rental to the purchase price at the end of the 6-month rental period.

The loader was bid through Sourcewell, a government cooperative buying service used by federal, state, and municipal entities to obtain equipment at very competitive prices. The total cost of the loader is \$143,108, which was reduced to \$136,108 by trading in the old backhoe loader and a 45-year-old bulldozer that was in decrepit condition. At the end of the rental period, the Town may purchase the loader for \$123,003. The Board of Finance has elected to finance it with a 4-year fixed-interest rate loan through Volvo Financial Services, with an initial payment of \$32,614.61. If the referendum fails, and the town does not make the purchase at the end of the rental period, it will be necessary to solicit bids for another machine, to which the credit for the rental cost of the Volvo loader will not apply.

Plow Truck

The second request is for a new plow truck. Andover currently has 3 plow trucks, which are 5, 14, and 21 years old. The oldest truck is well beyond the typical age of 9 to 14 years at which most states and municipalities retire such vehicles, which wear out quickly because of mechanical stress and the corrosiveness of the environment in which they operate. The PWD has informed the CIP committee that this truck is becoming unreliable and should be retired as soon as possible.

In past years the Town operated three plow trucks on a ten-year replacement cycle, with an older truck kept as a spare. In the last 20 years, though, trucks have been kept in service for 20 or more years until they were no longer repairable, and there is currently no spare truck. The CIP committee researched the life cycle of these vehicles and learned that the Town's current practice costs taxpayers more than does replacing the vehicles at shorter intervals. Once the vehicles age beyond a certain point, yearly maintenance and repair costs increase to a point at which it makes economic sense to replace them rather than continuing to repair them.

With two plow trucks in service at or beyond their recommended service lives and no spare vehicle, the decreased reliability of the fleet makes it increasingly likely that the Public Works crew will not be able to clear the roads in a timely fashion following a storm, and that the Town will be faced with significant expenses to keep the older vehicles in service. The Town can decrease the average yearly operational cost of the plow fleet, and improve its reliability, by making prudent investments that enable vehicles to be replaced on a 15-year cycle rather than the current cycle of more than 20 years.

The CIP committee and the Public Works Department worked together to solicit and evaluate bids for a new plow truck. These trucks are custom-built vehicles composed of a chassis cab unit from a truck manufacturer to which a purpose-built body is added by a vehicle upfitter. A 2019 model year Peterbilt model 348 chassis cab was chosen as the base of the requested vehicle because our research revealed that these units offer the best combination of initial cost, reliability and long term maintenance costs compared to units from the competing manufacturers Freightliner and International.

We solicited and evaluated bids for upfitting the chassis cab from W.B. Rose, Equipment Services Inc, and Viking Cives. From those upfitters we considered dump/sander bodies made of Corten (a corrosion-resistant steel alloy), Hardox 450 (a wear and corrosion-resistant steel alloy), stainless steel, and combinations of materials. We chose a body made of Hardox alloy in the high-wear areas and stainless steel in the sander and other high-corrosion areas, to be installed by Equipment Services Inc. This body, which should last as long as the chassis cab, gave a combination of high durability and low long-term maintenance cost compared to the Corten bodies that the Town has previously purchased, which suffered from severe corrosion and needed to be replaced after 11 to 13 years at a cost of approximately \$40,000.

The total cost of the chassis cab, body, plow, and upfitting charges is \$200,000 as bid through Sourcewell. This combination of chassis cab and body was chosen because it offers maximum reliability and lowest total yearly cost for the operation and maintenance of the vehicle. Because the truck is custom-built, the interval between order and delivery is 6 or more months. Making the purchase now ensures that the truck will be ready for service next winter.

Summary

The Town PWD crew has been doing their best to provide critical services with equipment that is beyond its peak economical service life. The Town can save taxpayer money by investing in the replacement of this equipment at shorter time intervals rather than the current practice of holding on to equipment until it requires expensive repairs and becomes unreliable.

Both of these proposals were brought up and discussed at a recent town meeting, wherein they were voted on and overwhelmingly approved. We hope that you will support the purchase of this equipment so the Town may make wise, money-saving investments in its capital equipment, and the Public Works Department can more efficiently provide critical services to the residents of Andover.

The CIP Committee

Fred Oliver, chair

Eric Anderson, at large

Curtis Dowling, Fire Department

Shannon Loudon, Board of Education

Jeff Maguire, Board of Selectmen

Adrian Mandeville, Board of Finance