

For Information Only

Tender for Winter Operations Snow Plowing Services Specifying New Equipment

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Recommendation

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Background

Staff was requested by Council to provide further information on the requirement to provide new plows for tender ISD12-18 Winter Operations Snow Plowing Services. The five-year contract required the successful Contractors to provide pricing for plowing services from November 15, 2013 through March 31, 2018 with option for an additional two single year extensions. The contract was split into two parts, Part A for plowing services in the South and Southwest Sections, and Part B for plowing services in the Northeast, Northwest and Southeast Sections. The specifications required the successful Contractors to purchase twenty-one (21) new plows (ten units for Part A, eleven units for Part B). The tender closed on March 26, 2013 with Pioneer Construction Inc. and R.M. Belanger Limited being the lowest tendered prices for Part A and Part B respectively. On April 23, 2013, Council by resolution CC2013-136 approved award of the contract.

In preparing the contract specifications Staff used the lessons learned from past winter control contracts, discussions with other municipalities and current best practices. In specifying new plows consideration was given to the following factors:

- Type of Equipment
- Availability of Used Equipment
- Reliability of Equipment
- Service Delivery Risks
- Technological Advancements

The previous snow plow contract started in November 2007 and expired in March 2013 was also a five year contract with two option years. This contract also specified the purchase of twenty-one

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(21) new plows.

Type of Equipment

A plow is a very specialized piece of equipment. While its appearance may be that of a common tandem truck, it is required to have a reinforced front axle, frame and spring system as well as additional hydraulic capacity among other improvements. It is built with specialty attachments, and with a box designed specifically for hauling and spreading material. These vehicles take several months to prepare once they are ordered. It is not economically feasible to convert a common tandem truck to a plow.

The City's service delivery model is to have City plows on the Class 1 to 3 (arterial and collector) roads until there is approximately 8 cm of snow accumulation. At this accumulation, City plows are rerouted to Class 4 to 6 (local) roads, and Contractor plows are deployed on the Class 1 to 3 roads.

Plows similar to those operated by the City for plowing snow were specified for the plowing of Class 1 to 3 roads. These are able to carry more material, which results in less time returning to the depots to refill and more time on the road.

The contract specified the need for brine tanks on the new plows, which allows the City to reduce the amount of material being spread resulting in operational savings. The contract also required end dump capabilities or slide-in sanders to minimize unloading time and providing operational efficiencies. The City's new plows are also equipped with these capabilities.

Availability of Used Equipment

Staff had discussions with Contractors, Equipment Vendors and other Municipalities when considering whether to specify new or used equipment for this contract. As plows are made to order, the majority of them are purchased for a specific contract or long-term purpose. There is not a large market of used plows less than five years old, and due to the limited availability the prices typically are not significantly reduced from new plows.

In addition, some of the modifications to the plows that were specified by the City may not be available on the used plows, and the operational efficiencies would not be realized.

Reliability of Equipment

Even with the specially designed and reinforced plow, the act of plowing is very hard on the equipment. On both City and Contractor plows there is increased maintenance and breakdowns as the plow ages. The increased maintenance and breakdowns result in the plow being unavailable for parts of a storm or for long periods of time, depending on the nature of the mechanical issue. Therefore, the age of the plow is directly related to the availability of the plow.

Service Delivery Risks

There are many ways to transfer service delivery risks to a Contractor, with the goal of finding the most cost beneficial approach to the City to share the risk. The current contract allows the City to apply a penalty if the Contractor's plow is not available and it allows the Contractor's driver to use a spare City plow at the driver rate.

The penalty rate could be increase to further encourage the availability of equipment. However due

to the harsh working conditions faced by the plow equipment it was determined that increased penalties would result in higher bid prices. This would not be a cost effective approach.

Alternatively, the contract could have specified that the Contractor carry a fixed number of spare plows for the duration of the contract. Again, this would have resulted in a higher bid price.

By specifying new plows to start the contract the average age of the plows will be 2.5 years for the life of the contract, and 3.5 years if the option years are exercised. At the end of the option years the Contractor's fleet will be seven years old. Contractors would have to replace plows through the life of the contract due to the number of years, and the length of the contract was chosen to provide sufficient time for the plows to be amortized and provide a cost effective rate to the City.

Equipment breakdowns have a direct correlation with the ability to deliver plowing at current service levels. When Contractors experience a breakdown Staff reroute a City plow from the Class 4 to 6 roads to the Contractor's route on a Class 1 to 3 roads. This impacts the service level until another plow can be rerouted to backfill the vacant route.

If the plows are not available, then the City risks not being able to meet the current service level. The City's liability increases when service levels are not met.

Technological Advancements

Staff specified that the Contractor's fleet be equipped with spreader controllers similar to City plows so that when integrated with the new AVL system, detailed information about application rates will be provided. Standardized technology will lead to effective monitoring of application rates, efficient use of material and ultimately cost savings. The information captured off of the spreader controllers will also help demonstrate due diligence when defending liability claims.

Conclusion

The provision of snow plowing to the City is a very important service. It affects all residents, it is readily apparent, it is heavily followed by local media, and it creates liability for the City if not done properly.

When staff considered all the factors discussed above in combination with the costs to achieve the service level objectives, it was concluded that the best approach was to specify new plows to provide snow plowing services for the Class 1 to 3 roads. The new contract provides the City with firm pricing plus fuel adjustment for the entire five year contract plus two option years.