

**CITY COUNCIL
COMMUNICATION:**

03-146

AGENDA:

MARCH 24, 2003

SUBJECT:

AUTOMATED
MUNICIPAL SOLID
WASTE CONTAINER
LEASE/PURCHASE

TYPE:

RESOLUTION
ORDINANCE
RECEIVE/FILE

SUBMITTED BY:

WILLIAM STOWE
PUBLIC WORKS
DIRECTOR

ITEM _____

**OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA**

SYNOPSIS —

In April 2001, the Public Works Department implemented a pilot automated solid waste collection program in Des Moines. The program was expanded in July 2002. Presently, approximately 11,500 households (or approximately 18 percent) receive automated solid waste collection. Customer satisfaction with the program remains high and further implementation is now recommended.

Automating solid waste has involved the procurement of vehicles and carts and a reduction of staff by attrition. Staff is now prepared, as an economic decision, to expand automated/semi-automated solid waste collection throughout the city. To implement city-wide automated/semi-automated solid waste collection, the following is required:

- Purchase and distribute carts to all residents effective July 2003.
- Implement a charge for solid waste items outside of carts.
- Transition from solid waste collection in alleys to curbside collection.

FISCAL IMPACT —

Funding for procurement of the carts, which is estimated to cost \$2,190,100, will be arranged for under lease/purchase agreement, paid for out of the Solid Waste Enterprise Account. Funding for the purchase is contingent upon a projected fee increase and final approval of the finance mechanism for the lease/purchase arrangements.

RECOMMENDATION —

Authorize Public Works Director to lease/purchase the necessary carts to expand the automated/semi-automated solid waste collection program to all Des Moines residences served by the City.

BACKGROUND —

On April 2, 2001, automated solid waste collection began for approximately 4,000 households in Des Moines. The program expanded to approximately 11,500 households in 2002. The Public Works Department first purchased carts under a competitive bid let by the Metro Waste Authority. The terms of the bid were extended to the City of Des Moines under a separate contract with Toter and approved by Council Roll Call No. 02-088 dated January 7, 2002. The contract has a ten-year term and guaranteed prices for carts.

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Based on the negotiations with City staff, Toter has reduced their price from \$43.16 plus \$2.45 for assembly and delivery for a total of \$45.61 to \$40 each for 96-gallon carts assembled and delivered to Des Moines residents. In addition, a price of \$36.70 was negotiated for partially assembled 64-gallon carts which will be provided to residents upon request. Under the terms of the contract, Toter would commence delivery of carts late spring, and residents would be allowed to commence using them upon delivery. Sixty-four gallon carts will be made available later to those residents desiring a slightly smaller unit. Absent a full fleet of automated trucks, the City's remaining rear load compaction trucks would be retrofitted with a device referred to as a "flipper" which would allow for the semi-automated handling of the carts until such time as the scheduled purchase of additional automated trucks is completed.

The Toter cart in use in the city of Des Moines is a rotationally molded unit produced using the same processes as that for liquid holding tanks, containers, boat hulls, and outdoor play equipment. In rotational molding, the motion of the mold distributes material under low force levels of gravity and centrifugal acceleration as the plastic material conforms to the geometric shape of the heated mold. This process creates moldings of low stress as opposed to other plastic processes such as injection molding where the plastic is driven under very high pressure through thin walls where the plastic is stretched under air pressure. The plastic used in rotational molding is low and medium density polyethylene, which has greater elongation and impact resistant qualities. This is important when using a hydraulic arm to grip and lift.

The alternate technology to rotational molding, injection molding, utilizes a high-density polyethylene wherein plastic is driven under very high pressure or blow molded wherein the plastic is stretched under air pressure. High-density polyethylene has less elongation capability. Based on the resin characteristics of low-density polyethylene, staff considers the rotational molded carts to be more compatible with current operations.

More important than the physical characteristics of the cart is the satisfaction of Des Moines customers currently using the Toter cart. A review of the actual survey cards completed earlier in the program revealed that 43 made specific reference to the cart provided. A follow-up call to those respondents resulted in 35 percent (the number we were able to reach) offering additional comments on the cart. They were asked about color, finish, and overall appearance. In response, all thought the color was satisfactory, ranging in comments from "fine," to "great," to "blends in with everything." One said, "don't care." In reference to the textured granite finish of Des Moines' current cart, the comments ranged from "fine" to "like this finish." Two stated "no preference." With respect to overall appearance, comments ranged from "really like it" to "I love it, it's great." Only one customer commented that the metal bar on their unit was damaged by our collector. In summary, customer satisfaction with the Toter cart was very high as it relates to color, texture, granite finish, and overall appearance. Additional anecdotal comments complement this high level of customer satisfaction with the current Toter carts.

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A resounding comment on the carts was their convenience in handling. The City's current cart has a smaller diameter wheel (10 inch rather than 12 inch on injection mold units), the cart's wider top opening (27 inches x 28 ½ inches deep versus injection molded carts which range from 23 ½ inches wide to 28 inches deep) and a total weight of 38 pounds versus injection carts which run from 41 to 46 pounds.

In summary, automation of the City's residential municipal solid waste is crucial to continued economic service. Through automation, staff efficiencies will be improved while employee injuries are reduced. Staff recommends the procurement of Toter, Inc. rotation molded solid waste carts for all Des Moines residents at this time. Staff further recommends that the carts be purchased under the current contract at the negotiated price of \$40 per 96-gallon unit assembled and delivered with instructions to Des Moines residences and \$36.70 per 64-gallon unit for a total cost of \$2,190,100.

