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December 9, 2022

To: City Council

- CC: Mayor Ruthanne Fuller Mauren Lemieux, CFO Jonathan Yeo, COO Sustainable Materials Committee
- From: Nicole Banks, Commissioner
- Re: City waste receptacle plan

Dear City Councilors,

I am writing to you with an update on our community waste and recycling receptacle replacement effort. During the spring and summer seasons, people started using our pilot of open-style waste containers more heavily. The increased use resulted in cleanliness and odor concerns, containers not being able to accommodate the heavier volume resulting in overflows, increased calls from the public and disruptions to our routes as additional dispatches to empty these receptacles were required.

Given these challenges, our Assistant Superintendent of Beautification in Parks, Recreation and Culture, Phil Arpino, and Director of Sustainable Materials Waneta Trabert undertook two tasks. They reassessed the piloted open container waste system and further reviewed product improvements that have been implemented in the Big Belly compacting and non-compacting models that we currently use. Phil and Waneta assessed the Big Belly product upgrades to determine if challenges with our current models have been addressed satisfactorily. As part of this review, the team visited locations with the newer models and assessed the updated design features and technology. Phil also accompanied a waste collection crew in another municipality to observe their operation and talk with their workers about the newly designed compactor waste units.

Compactors

The number one issue with our current Big Belly compacting units was our inability to utilize the full benefits as the compacted waste was simply too heavy to manage for our staff. The newly designed liner system within the compactor units have wheels which allow the carts to be easily pushed to the packer truck. An additional design enhancement now enables our truck grappling arms to pick up the barrel for tipping. These significant improvements will allow our staff to empty the containers in a safe manner.

We have also had concerns about overflowing and jammed Big Bellies. For example, in Newtonville on Bram Way, even with our waste collection team picking up waste twice a day, 6 days a week from the Newtonville village center, we still had overflowing receptacles.

The compaction capability of the newly designed Big Belly units is a significant benefit in terms of community service and operational efficiency. The compactor units will allow us to keep up with waste handling with our twice daily collection schedule. Not using compactors would require more frequent servicing (very difficult operationally) or the addition of more non-compactor barrels (a fully utilized compactor is equivalent to 3 non-compactor barrels) which is difficult due to space constraints.

Big Belly System Upgrades

Since the initial implementation of the Big Belly receptacles over 6 years ago, the technology on new units has advanced such that new receptacles will alleviate most issues we have been experiencing.

Problem	Solution Offered by Big Belly
Any items that are a little too big get jammed in the hopper, so	New wider neck units allow larger items to drop into the unit
the receptacle looks full although it is not.	easily, therefore they are less likely to get jammed.
City staff only learning of a hopper door being stuck open only	New hopper sensors provide alerts to staff as soon as a hopper is
when it is reported, typically after an overflow issue has occurred.	jammed/left in the open position; staff can address this issue
	quickly and prevent overflows.
Squirrels/rodents occasionally get stuck inside units after learning	New hopper knobs prevent animals from entering the units.
how to open the hopper with the pulldown handles; squirrels	
cause damage inside the unit trying to get out.	
Trash bins inside units cannot be lifted with the trucks barrel	New telescopic trash bins with wheels can be wheeled to the
tipper; required manual maneuvering of the bins, thus posing a	truck and tipped with the barrel tipper on the truck.
safety risk for staff.	
People do not want to touch the handles on the hoppers, which	Foot pedals are now standard on all units for touch-free use
can lead to littering instead of using the units or contamination in	option. Knobs on all doors will also be standard.
recycling if the recycling door has an opening without a handle.	
Cleanliness inside of hoppers is difficult to maintain, sometimes	New replaceable hopper liners can be swapped out, cleaned, and
leading to odors and unsightly appearance.	replaced.

Finding

The newly designed compacting units have fully addressed the key challenges that our staff faced in working with them. We will also implement operational changes to address other issues including odor.

Contract

The Big Belly Company was the sole bidder on our recent trash receptable <u>contract</u>. We evaluated their proposal closely and determined that their product works well for Newton. We reviewed their proposed pricing. Despite being the sole bidder, our evaluation determined that we have received their most competitive and best offer. The new Big Belly plan, which includes a mixture of compactor and non-compactor models, is anticipated to equal approximately the cost of going with a different style non-compacting system.

Our new inventory of receptacles will include compactor models at our highest-use locations while non-compactor units will be placed at lower traffic locations. The barrels will be equipped with a fullness-monitoring capability so that we may strategically and efficiently plan collection routes each morning.

Phil and Waneta's careful and comprehensive review of the waste container system options and the feedback of our work crews on their experience in handling waste in the different systems were invaluable.

Respectfully,

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Nicole Banks, Commissioner