



Office of the Town Manager

MEMORANDUM

TO: Mayor Collins and Members of the Town Council

FROM: Kevin Burke, Town Manager
Paul Mood, Town Engineer
Brent Skoglund, Public Works Director
Duncan Miller, Town Clerk

DATE: November 30, 2017

SUBJECT: **Impact of Trash Trucks on Town Roads**

Throughout the discussion on the Quality of Life topic of trash collection, there has been questions regarding the impact of multiple trash trucks on Town streets. In April of 2016, then Public Works Director Jim Shano crafted the attached memo. In his research he found several studies regarding the impact. None of them gave a good formula for calculating the financial impact of multiple haulers on Paradise Valley streets. However, the question has persisted. Consequently, we offer the following additional information.

Further research confirms that a single trash truck is the equivalent of 1,000-1,450 single axle vehicles (see references). In the Town of Paradise Valley, five trash haulers are licensed. Of those, one (Scott Waste) has a very narrow constituency of several homeowner associations. The other four (Area Disposal, RAD, Republic, and Waste Management) offer their services throughout the Town. Of those four, Area Disposal and RAD offer only once-a-week pick up of trash and once-a-week pick up of recycling. They use the same trucks for both services. So conceivably, they each make two trips down Town roads per week. The other haulers offer twice-a-week pick up of trash and once-a-week pick up of recycling thereby each making three trips down Town roads per week. Cumulatively, there are approximately 10 trips per week or 520 trips per year by trash haulers down Town streets. Using the finding above, that is the equivalent to at least 520,000 single axle cars a week on Town roads each year. The movement to a single trash hauler offering twice-a-week pick up of trash and once-a-week pick up of recycling would reduce this to 156,000 equivalent trips. A reduction of 70%.

The next logical question is how does that translate in terms of financial impact to the Town budget. This has been harder to quantify. There are companies who will quantify this for a price (R3 Consulting Group did this for the City of Fort Collins, Colorado). Using some references from the Shano memo, staff attempts to quantify below. The Shano memo references a community (Falcon Heights, MN) who found that limiting trash collection to a single hauler could save approximately 5-10 years of pavement life. Using that model, the Town spends approximately \$1.5 million a year on pavement preservation (not including Lincoln and Tatum) in order to keep Town streets on a 25-year life-cycle. Extending that to 30 years would save approximately \$250,000 a year. Now there are a couple of disclaimers to this extrapolation.

First, the weather conditions in Minnesota are vastly different than those in Paradise Valley. Rain, snow and freeze-thaw cycles play an important factor in pavement life-cycle. Second, we do not know the condition of the road base either in Falcon Heights or, for that matter, many of the roads in Paradise Valley. We know we have some residential roads that were simply inch-and-a-half of asphalt on natural conditions. This would be an extremely poor base from which to work from and result in much more severe impact from heavier vehicles.

A third reference in the Shano study (City of Roseville, MN) identified that garbage trucks are responsible for \$20-\$40 per year per household in pavement damage. Again, extrapolating that finding to Paradise Valley is fraught with comparison concerns. But for argument sake, using that range against the approximately 5,500 residential structures in Paradise Valley, that would result in \$110,000 - \$220,000 in damage per year. If a single hauler reduced the number of trips by 70%, the argument would proceed that damage could be reduced by 70% which would present a range of \$77,000 - \$154,000 per year in savings for the Town.

Again, extrapolating from these other studies is difficult and the best way to get a more accurate dollar amount would be to contract with a consultant who specializes in this work. As noted above, the comparisons have various factors that need to be taken into consideration such as weather, construction of the original road, condition of the existing road, traffic counts on each road, etc. Perhaps the safest conclusion staff can draw from its research is that Paradise Valley residential roads were not built for these heavier trucks and trash trucks do have an impact on their condition. To what extent is less certain.