

Sweeping Proposal

I have been tasked by Deputy Director Trower to investigate and evaluate the RFP proposal in regards to contracting out a certain amount of the sweeping that the City Street Department currently performs during the day. The initial intent of contracting out sweeping was three fold. First it was to better serve the constituency of the City. Second it was to save money, and lastly it was going to allow that team to repurpose their efforts to better serve their quadrant.

Three bids were received for the RFP. The bid from Bettis was just a line item bid for one sweeper and was not considered to be a legitimate bid. SCA came in at \$110 K and All Care came in at \$125K.

To better analyze this proposed project I had to investigate factors and costs.

Because the day crew that is sweeping would be actively doing other redirected to different tasks, their labor is a non-factor. Because dump trucks are year round equipment for a plethora of tasks, their maintenance costs cannot be considered.

There seemed to be some discussion that the annual replacement fund could be defunded as well. This fund is used to universally fund the Street fleet. Money from that fund could be repurposed within the Street Dept. but it most certainly couldn't be removed.

Therefore we are left with the maintenance cost of the machinery that is being used. Currently we have seven pieces of equipment that are in the sweeper fleet. However, three of those pieces have been red tagged and are going on the auction block.

There are three sweepers and a flush truck that constitute our active fleet at this time. The average yearly maintenance cost of these four pieces of equipment has been broken down individually but the total average cost of running these four machines is \$44,728.07.

We have three pieces of equipment that have been "tagged out" for removal from the fleet. Two of these are older machines that have passed their useful age. One is sixteen and the other is seventeen years old. The other machine has just been a lemon since it was purchased 8 years ago. The total average cost of these three pieces when they were in service was \$70,615.15 per year.

It is important to note that night sweeping of bridges and main streets will be continuing regardless of which direction we decide to go. Because the night crew sweeps a full shift and uses the machines as much as the day shift, I think it is plausible to assume that the maintenance costs will still be half of the average amount.

Therefore, in real time the maintenance costs could still be \$22,364.04 for the sweep fleet.

If we remain in house the costs moving forward for sweeping will be \$44,728.07. If we were to farm out the daytime sweeping the cost to the City will be $\$22,364.04 + \$110,000.00 = \$132,364.04$.

With that said, the numbers show that contracting out sweeping would not be as cost effective as we initially thought, since we would still continue to pay normal labor costs and reduced equipment maintenance. Fortunately, this assessment of our own sweeping program has helped us to identify ways we could greatly improve the efficiency and level of service for the citizens of Topeka. We are judging these areas by a curb miles per hour reading, since our sweepers can only sweep roads with curbing. After analyzing the data we have set a target of getting through each of the sweeping zones at a pace of

1.62 mph. Currently, areas with mature deciduous trees have slowed cleaning down to .66 mph. Giving these areas extra attention throughout the year would increase the speed of which we could sweep that area and then move on to the next one. We will continue to track the data and modify our sweeping efforts as we continue on. Modifications will continue to be made to our sweeping schedule as we identify more avenues for improvement.

Zone	C/G Miles	Days	Hours	Miles/Hour	WO ID
1	33.30	10	50	0.67	379975
2	10.50	1	5	2.10	374133
3	94.80	7	35	2.71	374134
4	110.70	9	45	2.46	376134
5	68.70	11	55	1.25	377828
6	43.80	9	45	0.97	379875
7	32.10	5	25	1.28	369124
8	35.50	11	55	0.65	381461
9	19.70	6	30	0.66	382837
10	25.80	5	25	1.03	382996
11	41.30	5	25	1.65	372481
12	28.90	4	20	1.45	373442
13	23.80				
14	28.30				
15	62.80				
16	62.00				
17A	34.30	3	15	2.29	382050
17B	35.80				
18A	5.60	2	10	0.56	381048
18B	5.00	3	15	0.33	381480
19A	3.40	3	15	0.23	382904
19B	28.00	5	25	1.12	375304
20	18.40				
21A	36.10	9	45	0.80	376299
21B	2.40				
ownTown/bridg	14.70				
TOTAL	905.70				

Averages 1.23

2021 Sweeping Schedule Zones 1-12

Zone	Days
1	10
8	11
9	6
2	1
3	7
4	9
1	10
8	11
9	6
5	9
6	9
7	5
1	10
8	11
9	6
10	5
11	5

Total Days

131