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Date: February 17, 2023

To: Angela Calvillo
Clerk of the Board of Supervisors

Through: Carla Short, Interim Public Works Director
DiJaida Durden, Deputy Director for Operations

From: Matthew T. Naclerio, Superintendent
Bureau of Building and Street Repair

Subject: Report on Recommendations from Budget Audit - San Francisco Public Works
Pothole Repair Services

Dear Ms. Calvillo and San Francisco Board of Supervisors:

In June 2021, the San Francisco Budget and Legislative Analyst submitted a Performance Audit of the Department of Public Works' Resurfacing and StreetTreeSF Programs. The audit included a recommendation to consider reinstating proactive pothole sweeps and to submit a report on the effectiveness of the pilot. Attached is the Report on San Francisco Public Works' Implementation of a Proactive Pothole Sweep Pilot Program.

Should you have questions or require additional information, please contact Matt Naclerio at matthew.naclerio@sfdpw.org or at (415) 695-2090.

c: London Breed, Mayor
Carmen Chu, City Administrator

Attachment: Report on the Department of Public Works' Implementation of a Proactive Pothole Sweep Pilot Program



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Report on San Francisco Public Works' Implementation of a Proactive Pothole Sweep Pilot Program

BACKGROUND:

In June 2021, the San Francisco Budget and Legislative Analyst (BLA) prepared a Performance Audit of San Francisco Public Works' Resurfacing and StreetTreeSF Programs. The audit included a review of the department's pothole and patch-paving services. The audit acknowledged that prior to SF311, Public Works had a formal pothole sweep program; however, due to the high volume of 311 calls for services and to meet the department's performance goal, the program was scaled back. The revised program conducts pothole sweeps for major citywide events and as requested by the department's Director's Office. In addition, staff repairs potholes that are close to the 311-reported locations and documents this work through a field-initiated service order (FISO). While the BLA report concluded that the department consistently exceeded its goal to complete 90% of potholes repairs reported through SF311 within 72 hours, it questioned whether relying primarily on 311 calls provided geographical equity for street repairs citywide. To address the geographical equity concern, the audit recommended implementing a dedicated proactive pothole sweep program and reporting back to the Board of Supervisors' Government Audit and Oversight Committee on the effectiveness of the pilot program.

DISCUSSION:

The BLA Audit recommendation is as follows:

As a pilot, consider reinstating proactive pothole sweeps to assess the impact, if any, on the Public Works' Bureau of Street and Sewer Repair's (now known as the Bureau of Building and Street Repair) response time to 311 requests and the overall distribution of pothole repair and patch-paving services. Further, report back to the Board of Supervisors' Government Audit and Oversight Committee no later than June 30, 2022, on (a) future plans for use of proactive pothole sweeps, (b) the impacts to Public Works' response time with the use of proactive pothole sweeps, and (c) whether funding requirements are needed to meet both the responsiveness goal and proactive sweep recommendation.

The department implemented a pilot pothole sweep program on January 10, 2023. A two-person crew was created from the existing pothole crews and this crew was assigned to rotate through each of the supervisorial districts. The crew drives all the residential streets and low-traffic volume commercial two-lane streets within the district and fills all the potholes they encounter. For efficiency, the crew also addresses any 311 requests received within the assigned district. Once all the residential and low-traffic volume commercial streets have been driven and repaired, the crew moves on to the next district.

Although the BLA report recommended providing the report by June 30, 2022, this timeframe would have provided less than six months of data and would not have included information for each district, making it difficult to assess geographical equity. To provide a comprehensive analysis that included all districts, preparation of the report was delayed so a full year of data could be analyzed. This report covers the period from January 10, 2022, to January 31, 2023.

Exhibit 1 compares the total number of potholes repaired by the pothole sweep crew with the total number of potholes completed by the standard pothole crews. There are several months, March and August in particular, where the pothole sweep crew completed more potholes than the average number completed by the standard pothole crews. This is attributed to a couple of factors: The sweep crew focuses mainly on the repair of potholes along residential and low-traffic volume streets, while the standard pothole crews fill potholes and complete asphalt-patch repairs on all streets, including high-volume and multi-lane roads. The patch-repair work takes longer to complete than potholes, and completing repairs on high-volume and multi-lane roads, whether for pothole or patch repairs, may require additional time to provide adequate traffic control so work can be performed safely.

In addition, as shown in Exhibit 2, the number of 311 calls received during this past year is lower than pre-COVID-19 volumes. In fact, since the start of the COVID-19 pandemic, 311 calls have significantly decreased and are lower than what the standard pothole crew would typically address. Since there were fewer 311 calls for the standard pothole crews to repair, the overall count was lower and crews were redirected to other assignments, including the installation of SFMTA traffic control devices, curb ramp paving and other special paving projects. Exhibit 2 also indicates that for the month of February 2023, 311 pothole calls started to increase. Over the next year, staff expects 311 calls to continue to increase requiring more attention from the standard pothole crews.

Exhibit 2 also shows that 311 calls for services are highest during the winter months.

Since the objective of the BLA recommendation is focused on providing geographic equity for pothole repairs, staff compared the number of pothole repairs completed by internal sources with public requests by supervisorial district for a five-year period (2018 through 2022). Internal sources are repairs completed by the 2022 proactive pothole sweep crew and (prior to 2022) repairs completed by the ad hoc pothole sweeps and FISOs. This information is provided in Exhibit 3. As can be seen, four supervisorial districts had a greater number of pothole repairs completed in 2022 with the proactive pothole sweep crew and the two standard pothole crews than the average number of potholes completed over the five-year period. These districts are supervisorial districts 3, 6, 9 and, to a lesser extent, 8.

Looking more closely at the years prior to the start of the pandemic, the total number of potholes completed in District 6 is approximately the same, with a redistribution of public requests and internal sources. This implies that, in this case, the proactive pothole sweep isn't leading to more locations being identified, but is repairing potholes before SF311 is contacted.

Even when comparing pothole totals in 2022 with pre-pandemic year totals, Districts 3 and 9 showed an increase in the total number of potholes filled in 2022. The increase in District 3 could

be attributed to multiple pothole sweeps, not only the district-to-district rotational sweep but the sweeps in preparation for the Lunar New Year parade. The increase in District 9 is explained by the proactive pothole sweep performing well in that district.

While some districts showed an increase in total potholes repaired in 2022 when compared to the five-year average, Districts 1, 2, 4, and 5 saw a decline, and Districts 10 and 11 stayed approximately the same. To better assess why this was the case, staff compared the number of potholes completed by the proactive sweep with the standard pothole crews in each district for calendar year 2022. This information is included as Exhibit 4.

As expected, based on data previously presented and explained, District 3 saw more potholes filled by the proactive sweep crew. However, Districts 1 and 2, which saw a decline in total potholes completed in 2022 when compared to the five-year average (Exhibit 3), had more potholes filled by the proactive pothole sweep crew than the standard pothole crew. Therefore, one explanation for the decline in the 2022 pothole count shown in Exhibit 3 could be attributed to the overall pavement condition in those districts, which resulted in fewer 311 calls and required less attention from the proactive pothole sweep crew.

Exhibit 4 also shows that for Districts 4 through 11, more potholes were completed by the standard pothole crews than by the proactive pothole sweep. It is unclear whether this is because the proactive sweeps are less effective in these districts since it is focused on residential and low-traffic volume streets, or if the standard pothole crews are fixing a majority of the potholes in the district prior to that district coming up in the rotation for the proactive sweep crew to address.

CONCLUSIONS/RECOMMENDATION:

Based on the above analysis, the current pothole sweep crew is able to complete more repairs per month than the average number of potholes completed by the standard crew because they are focused on residential and low-traffic volume streets. The standard pothole crews currently are able to maintain the department's goal of completing 90% of 311 calls within 72 hours. However, as the report notes, 311 calls are lower than previously received and appear to be on the rise. Should 311 calls for service continue to increase, it is unclear whether the department's 72-hour goal can be sustained, especially if the call volume approaches pre-pandemic numbers. While some districts saw an increase in potholes repaired with the proactive pothole sweep pilot program, other districts saw a decline. Therefore, the current data is inconclusive as it relates to whether the pothole sweep program is effective at providing geographic equity.

Staff recommends that the current pothole sweep crew continue for another year. This will enable staff to collect additional data on the impact to response time as 311 calls increase and to further assess the program's effectiveness on providing geographic equity. This additional data will allow staff to more reliably determine whether the sweeps should continue. The report will also provide an analysis of any additional funding requirements for maintaining or expanding the sweep program.

EXHIBIT 1

Pothole Repair: Public Response vs. Proactive Sweep by Month

Proactive sweeps have been done in each district.

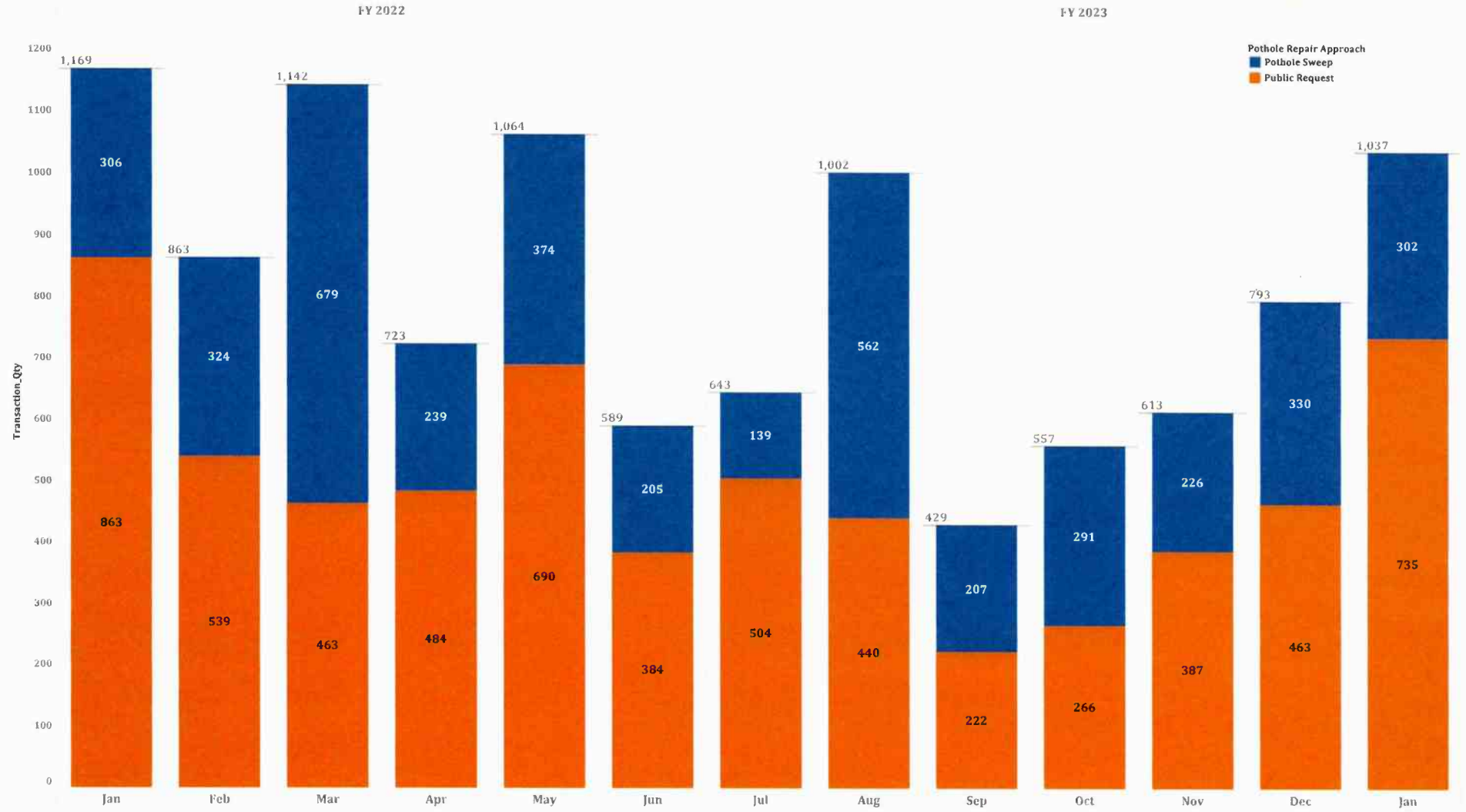


Exhibit 2: Comparison of 311 potholes completed from 2019 to 2022

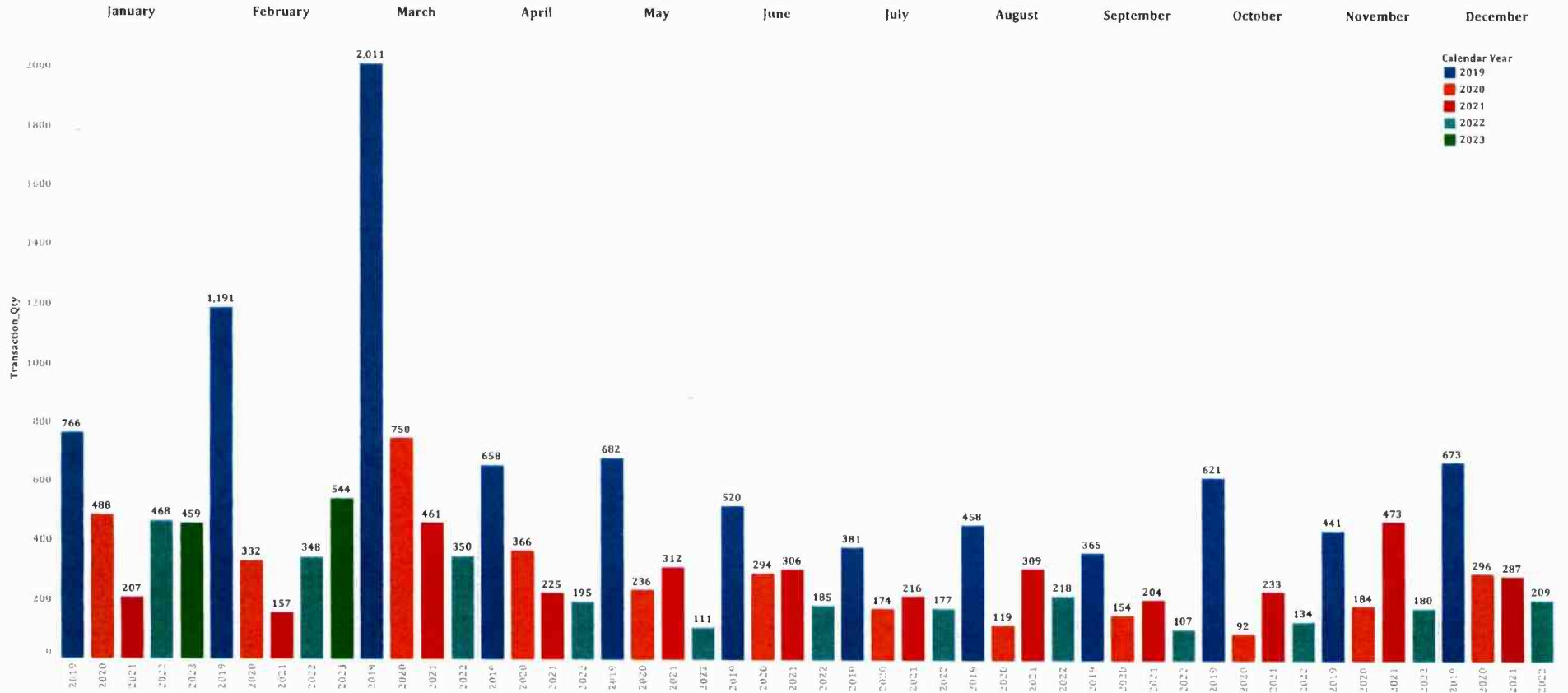


EXHIBIT 3

Comparison of work by district -- before and after advent of the pothole sweep program in January 2022

Date Range: January 1, 2018 to December 31, 2022

Full calendar years only. Multi-district and undefined districts omitted.

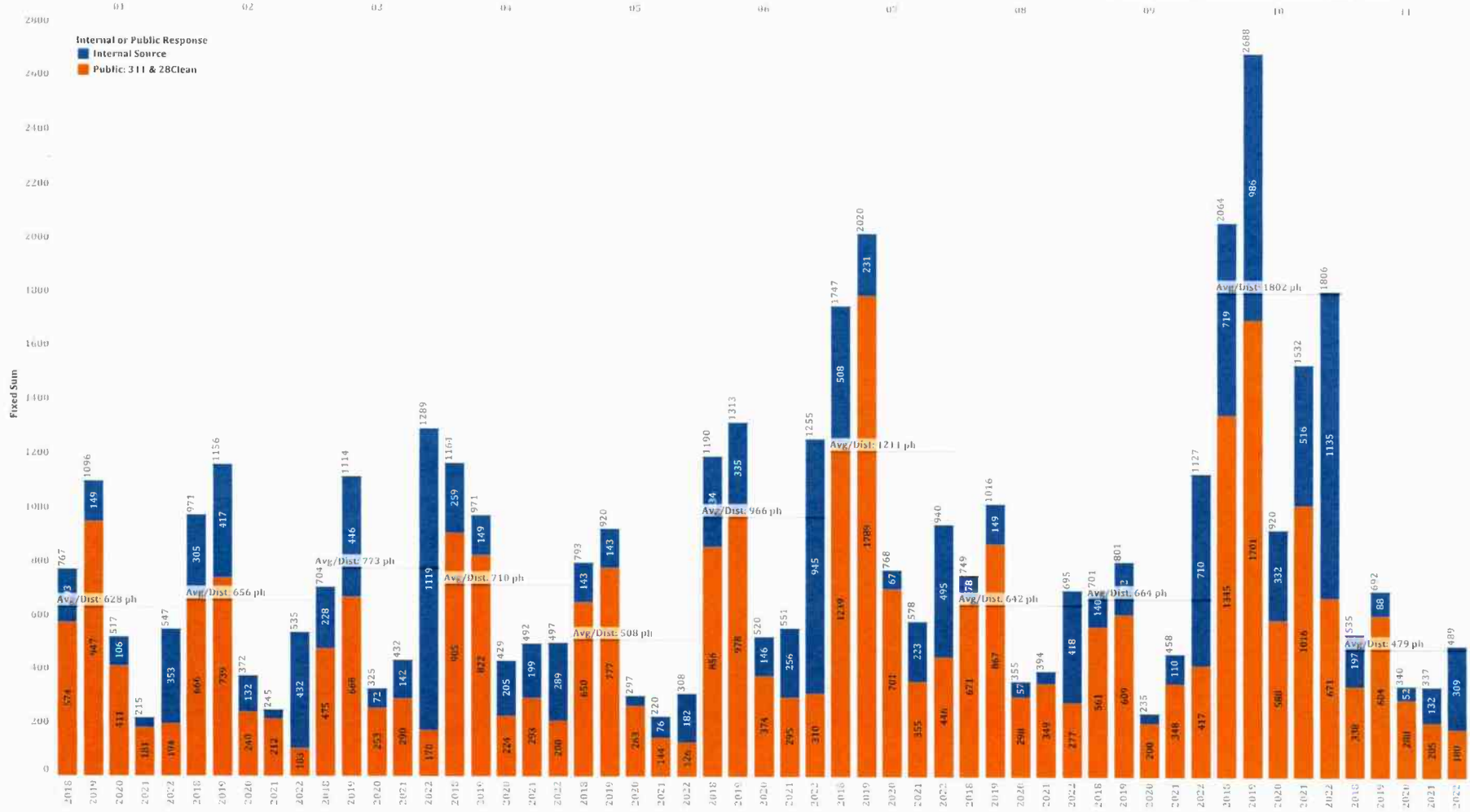


EXHIBIT 4

Calendar Year 2022: comparison of approaches to pothole repair -- by district

