

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: John Ristow

SUBJECT: 2019 PAVEMENT MAINTENANCE
PROGRAM DELIVERY UPDATE

DATE: July 3, 2019

Approved



Date

July 3 2019

INFORMATION

This memorandum provides updated information regarding construction bid results, delivery strategy, outreach efforts, and other planned maintenance activities in the 2019 pavement maintenance program.

BACKGROUND

Following resolution of the lawsuit challenging VTA 2016 Measure B, the Department of Transportation (DOT) planned to maintain 284 miles of streets in the 2019 construction season, as outlined in information memoranda provided to the City Council in December 2018 and March 2019. As DOT transitions from the planning to construction phase of the 2019 season, there are several noteworthy updates to this prior information, as described below.

A total of 11 construction contracts have been awarded by the City Council, and as shared in recent staff reports, construction costs have increased due to the price of material and labor. Despite the increase in construction costs, DOT will deliver maintenance on nearly 280 miles of streets in the 2019 season. This mileage represents a nearly 300% increase from the 2018 construction season. Of significance is that this includes 196 miles of work on the Local and Neighborhood Street Network which has not received any substantial maintenance since the 2011 construction season.

DOT has increased its outreach efforts to external and internal stakeholders. Public cooperation and education are critical to successful street maintenance in 2019 and beyond, as similarly high levels of maintenance are expected on the street network in each of the next nine years.

Lastly, DOT will continue to perform its "Corrective Maintenance Plan" initiated in the 2018 construction season to provide large area patching. This plan was successfully implemented as a stop-gap measure for approximately 5 miles of local and neighborhood streets in 2018, resulting in positive resident feedback and eliminating repeat trips by DOT maintenance crews to fill potholes and perform repairs in those areas.

ANALYSIS

Pavement Program Contract Cost Results & Analysis

All 11 pavement projects have been awarded by City Council and, collectively, bids came in approximately 9% over the engineer's estimates as summarized in *Attachment A*. The engineer's estimate is obtained during the planning phase of a project by accounting for expected quantities of bid items and estimated costs based on historical trends, annual changes to the Consumer Price Index, and the best approximation of current market conditions. Further, DOT conservatively plans and budgets its annual work in case of larger-than expected price increases, and collectively bids are only 2% over the allocated budget for the 2019 pavement season contracts.

Combined, the three street-sealing project bids were 30% above estimates due to a larger-than-anticipated increase in materials and labor costs for surface sealing and the installation of roadway striping and markings, which can be primarily attributed to prevailing wage increases and a large demand for striping contractors. Bid items directly related to sealing the streets with new asphalt were 56% over the engineer's estimate and 81% above the 2018 low-bid, while the roadway striping and markings bid items were 34% over the engineer's estimate.

2019 Pavement Program Delivery Plan

Despite the higher-than-anticipated bids, to reduce costs and enable DOT to deliver nearly 280 miles of streets, the following two strategies will be implemented:

Cost Reduction Strategy #1 – In-house Striping-Related Work:

The striping-related bid items are listed in the surface sealing contract as "revocable" in the project specifications. Per City Standard Specifications, revocable items can be reduced entirely or partly at the discretion of the City. DOT will revoke green bike lane pavement enhancements and bike marking items on the 2019 Major Streets Sealing Project and instead complete the work by the DOT's Roadway Striping and Markings team. This action will save the City up to \$750,000.

Cost Reduction Strategy #2 – Deferral of Sealing Streets:

Under the Standard Specifications, DOT can reduce a contract item of work by up to 25% without changing the quantity unit price. Using this provision, DOT identified approximately 5 miles of street sealing to be deferred from the 2019 Major Streets Sealing Project. The following streets are strong candidates for deferral to a future pavement year for reasons related to project efficiency, best management practices, current pavement condition. This action will save the City up to \$400,000.

- **Landess Ave** (between I-680 and Piedmont Rd) – This road segment is shared with the City of Milpitas. In discussions with the City of Milpitas, staff has conceptually agreed to enter into a cost-sharing agreement to maintain the entire width of the street in 2021. A potential joint project will also allow both cities to collaborate in implementing complete streets designs for increased mobility and safety.
- **San Antonio Rd** (between 17th St and Jackson Ave) – This roadway received One Bay Area Grant (OBAG) funding for the completion of pedestrian and bicycle safety concrete island improvements. The OBAG project is in the process of obtaining federal approvals, with construction expected to be completed in Spring 2020. Given construction activities with this project will involve some demolition of pavement, pavement maintenance will be deferred to follow the completion of the OBAG project.
- **Santa Clara St** (101 overpass) – This road segment is part of the Better Bikeway Network that will bridge the bike network gap over the 101 overpass. Deferral of this street segment to the 2020 pavement maintenance season will provide DOT time to solve design challenges related to pedestrian & bicycle safety, including geometric design, accessible curb ramps, and signal detection; and to obtain the necessary Caltrans encroachment permits.

With these strategies, DOT will still be able to deliver all of the 196 miles of streets on the Local & Neighborhood Streets Network projects as originally planned, and 83 miles of the 88 planned miles on the Major Streets Network, for a total of 279 miles in 2019.

Pavement Project Outreach Activities

A pavement maintenance program of this magnitude requires a thorough outreach campaign both to communicate the responsible use of taxpayer funds and to prepare the public for road work, traffic delays, and parking restrictions. To this end, DOT has vastly expanded community outreach efforts, developed plain-language outreach materials in three languages, and improved digital communications. Outreach progress to date includes:

- Publication of an interactive map of current pavement projects on the DOT pavement web page which is also linked to the DOT home page and can be found here: <http://www.sanjoseca.gov/index.aspx?nid=4677>.
- Publication of program information memos in December 2018 and March 2019.
- Distribution of a news release in March 2019.
- Creation of a new fact sheet and FAQ that describes the 2019 paving program and the nine-year plan. This has been translated into Spanish and Vietnamese and distributed at DOT meetings, community meetings, and public events.

- Presentations at 14 leadership councils, neighborhood associations, town halls, and other community meetings since April 2019. Over 340 community leaders have attended these presentations and were encouraged to share the content with their neighbors.
- Weekly pavement updates on the DOT web page, which began in 2018 (an example is shown in *Attachment B*). Readers can use the City's Notify Me page to subscribe.
- Increased use of Nextdoor, Facebook, and Twitter to share pavement updates.
- Earned media in print, television, and online news outlets.
- Use of the Department of Public Works Cone Zone online project map.

With construction activities planned on more than 10% of all city streets this Summer, staff foresees that there will be challenges around parking restrictions, traffic delay concerns, and disruption to residents. Council offices and residents are encouraged to report concerns to ensure quick response.

Pavement Corrective Maintenance Plan

In addition to the approximate 280 miles of streets to be contractually maintained in 2019, DOT maintenance crews perform pothole repairs and small-scale stamp patching on streets with severe deterioration and safety concerns. In 2018, DOT initiated a "Corrective Maintenance Plan", to provide more extensive stamp-patching work on a limited number of local and neighborhood streets that require frequent pothole repair and patching and are not planned to receive pavement maintenance. Stamp patching consists of a thin overlay of asphalt (1 to 1.5 inches) covering failed areas and conforming to the existing street.

The stamp-patching work will immediately provide a smoother and safer ride for residents and provides a stop-gap measure until the street is properly resurfaced or rehabilitated. As mentioned above, stamp patching also significantly reduces repeat trips by maintenance crews to fill potholes and perform repairs. *Attachment C* identifies the streets that were selected for stamp-patching during 2019 based on the following criteria:

- Streets in "Poor" to "Very Poor" condition
- Numerous return visits by maintenance staff to patch or repair potholes
- No imminently planned resurfacing

Future Program Delivery Assessment

The 2019 pavement maintenance season will be the largest on record for the City of San José. Staff are excited to deliver this ambitious workload but are also aware that the 2019 season will provide many learning opportunities as a program that maintained 29 miles as recently as 2013 delivers 10 times that number in 2019. Looking forward to the 2020 construction season, which will include the first annual allocation of Measure T funds, DOT staff will analyze:

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- Number of projects needed when factoring cost, locations, and project efficiency
- Bidding environment and bidding patterns to determine if bidding projects at a different time of year, or multi-year scopes of work could realize lower costs
- Potential for long term in-house striping of various items across pavement projects
- Increased collaboration with neighboring agencies and Department of Contract Compliance to better anticipate changes in the market that could affect cost estimates

DOT has provided an update each January with a tentative maintenance plan for the subsequent construction season. With steady annual allocations of Measure T, and more stability with Senate Bill 1 (SB1) Gas Tax and VTA 2016 Measure B funding sources, DOT will include a three-year tentative plan with the January updates. This extended information will provide residents a better understanding of when to expect street maintenance, provide developers and utility stakeholders more advanced notification with which to coordinate new projects and maintenance, and further strengthen current coordination efforts between city departments. DOT will also provide its annual "Pavement Maintenance Conditions and Program Delivery Strategy" to the Transportation and Environment Committee in March of 2020. This report will detail the impact of 2019 construction on the street network, discuss lessons learned, and project future pavement conditions based on estimated funding levels in coming years.

The City will face challenges that will require adaptability, resilience, and innovation in this substantial pavement maintenance season. To meet these challenges, the pavement maintenance team has promoted strong leaders, implemented new project management and quality assurance tools, hired new members, sought training and input from internal and external stakeholders, and met with community members and groups. The inconveniences felt by residents and lessons learned by staff will not be inconsequential but are critical components of the first year of the nine-year maintenance plan that, for the first time in recent memory, will result in improved citywide pavement condition and a reduced maintenance backlog.

/s/

JOHN RISTOW
Director of Transportation

For questions please contact Rick Scott, Deputy Director, at (408) 794-1925.

Attachments

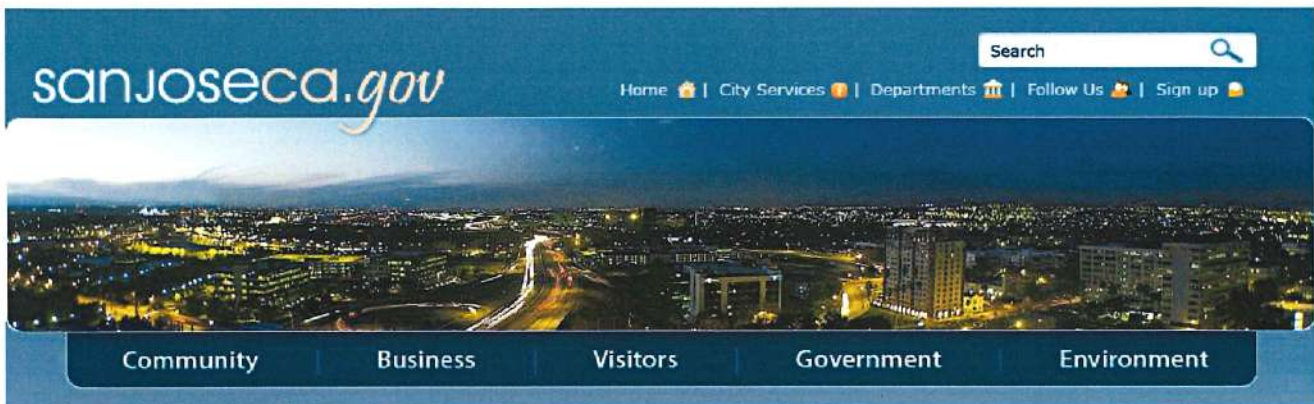
Attachment A

Summary of Bid Results

Award Date	Project	Miles	Low Bidder	
			Contractor	Engineer's Estimate Variance
26-Feb	Concrete and ADA Ramps # 1 (Sealing Prep)		Rosas Brothers	-17.72%
5-Mar	Concrete and ADA Ramps # 2 (Sealing Prep)		Spenco Construction, Inc.	-11.69%
26-Mar	Asphalt Concrete Remove Replace (Sealing Prep)		G. Bortolotto & Company, Inc.	-2.52%
9-Apr	Arterial Resurfacing # 1	16	DeSilva Gates Construction LP	3.77%
23-Apr	Arterial Resurfacing # 2	14	MCK Services Inc.	2.51%
14-May	Street Sealing	58	VSS International, Inc.	34.76%
14-May	Concrete and ADA Ramps (Sealing Prep)		FBD Vanguard Construction Inc	26.95%
14-May	Local Streets Rubberized Slurry Seal	73	Pavement Coatings Co	20.10%
4-Jun	Local Streets Microsurfacing	97	Graham Contractors	13.63%
4-Jun	Local Streets Resurfacing (South)	12	Granite Construction	5.84%
11-Jun	Local Streets Resurfacing (North)	14	MCK Services Inc.	-0.60%
Miles		284	Total Variance	9%

Attachment B

Sample Weekly Pavement Update



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Transportation > Pavement

Posted on: June 10, 2019

Pavement update week of 6/10/19

Striping begins on Santa Teresa Boulevard, asphalt work wraps up on Blossom Hill Road, and major paving activities continue on San Carlos Street:

- Striping will begin this Wednesday on Santa Teresa Boulevard.
- Cold-in-place recycling has wrapped up on Blossom Hill Road. A new layer of asphalt will be applied this week.
- Cold-in-place recycling will begin on San Carlos Street late this week and continue into next week.



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Activity	M	Tu	W	Th	F	Sa	Su	M	Tu	W	Th	F
	6/10	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21
Santa Teresa Boulevard (Cottle Rd - Dunn Av) - CD 2												
Striping			x	x	x			x	x			
Blossom Hill Road (Meridian Av - Almaden Ex) - CD 9, 10												
Asphalt Overlay	x	x	x									
Striping											x	x
San Carlos Street (Leigh Av - Lincoln Av) - CD 6												
Wedge Cut/Conform				x	x			x				
4" CIR					x			x	x	x		
Asphalt Overlay											x	x

Glossary

Asphalt overlay: Adding hot asphalt back to the street as part of the resurfacing process.

Cold-in-place (CIR) recycling: The process of removing the existing asphalt surface, mixing the crushed asphalt with a recycling agent, and reapplying the mixture back on the street surface.

Micro milling: The process of removing a thin top layer of failing asphalt.

Remove and replace: The process of cutting segments of damaged, warped, or collapsed asphalt out of the roadway and filling them back in before resurfacing or sealing begins.

Wedge cut/Conform cut: Removing the thin portion of the street adjacent to the curb line in order to allow for the smooth application of pavement material to the edge of the street.

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- Planning
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Attachment C

List of Streets Receiving Stamp Patching

CD	Miles	Street Name	From	To	PCI*
1	0.30	Riddle Rd	Eden Av	Winchester Bl	20
1	0.26	Williamsburg Dr	Eden Av	Winchester Bl	17
2	0.09	Danze Dr	Bendorf Dr	E End	29
2	0.30	Roundtable Dr	Roeder Dr	Bendorf Dr	16
3	0.26	Wooster Av	Eggo Wy	E Julian St	22
4	0.25	Poplarwood Wy	Muirwood Wy	Trimble Rd	21
4	0.04	Trimble Ct	Trimble Rd	N End	3
4	0.19	Via Encinitas	Berryessa Creek	Rosario Dr	18
5	0.45	Bambi Ln	S. Jackson Av	S. Capitol Ave	39
5	0.21	Murtha Dr	Candler Av	White Rd S	16
6	0.05	Britton Av	Cherry Av	Glenn Ave	47
6	0.19	Cheryl Wy	Georgetta Dr	Curtner Av	7
6	0.17	Laurie Av	Newport Av	Lincoln Av	18
6	0.27	Potrero Dr	Quinto Wy	Dumbarton Av	27
8	0.47	Delta Rd	Ruby Av	Pinot Blanc Wy	56
9	0.29	Clarkson Dr	Heppner Ln	Pearl Av	47
9	0.23	Upton Wy	Haines Av	Pearl Av	34
10	0.37	Albion Dr	Narvaez Av	Bluefield Dr	39
Total	4.39				

*** Pavement Condition Index (PCI) Categories:**

70-100 Good to Excellent
 50-69 Fair and at Risk
 26-49 Poor to Very Poor
 0-25 Failed