



MEMORANDUM

TO: City Council

FROM: Bill Robeson, Assistant City Manager/Public Works Director

BY: Steve Kahn, Acting Capital Improvement Project Manager

SUBJECT: Consider Approval of 2022 Pavement Management Program

DATE: November 22, 2022

SUMMARY OF ACTION:

Approval of the updated recommended treatments and streets will allow the City to prepare construction documents for the entirety of the 2022 Pavement Management Program (PMP) and approve a Budget Adjustment Request.

IMPACT ON FINANCIAL AND PERSONNEL RESOURCES:

The total funds available for the PMP is \$5,676,497 and is broken down in Table 1 below:
Table 1

Revenue Source	FY 2021-22 Anticipated			FY 2021-22 Actuals	FY 2021-22 Carryover	FY 2022-23 Budget	Budget Adjustment	Total
	FY 2021-22 Budget	to Complete or Carryover						
USHA	131,000	131,000	131,000	131,000	-	68,900		68,900
General Fund	1,751,000	982,315	982,315	982,315	-	768,685		768,685
SB 1	468,072	468,072	540,280	540,280	-	307,200	81,540	388,740
Sales Tax Fund	1,717,837	982,315	361,165	361,165	621,150	3,641,763	187,259	4,450,172
Total	4,067,909	2,563,702	2,014,760	2,014,760	621,150	4,786,548	268,799	5,676,497

A budget adjustment totaling \$268,799 (\$81,5400 of SB 1 Funds and \$187,259 of Sales Tax Funds) is requested to provide the total budget for the PMP.

RECOMMENDATION:

1) Approve the 2022 Pavement Management Program (PMP); 2) Appropriate the funds and approve the budget adjustment listed in Table 1 for the PMP; and 3) Review and approve the recommended treatments and streets as listed in Strategies 1 through 4.

BACKGROUND:

In order to stretch the available budget and slow the deterioration of certain streets to help avoid near-term reconstruction (complete rebuilding of an existing street) for the 2021 Street Repairs project, staff and the City’s pavement engineer recommended to Council

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in April 2021 that the City continue to correct base failures (digouts) and alligator cracking on streets found to be in the most urgent condition up to the amount of the budget available. On July 27, 2021, Council reviewed alternatives for appropriating funds in excess of the 20% Fund Balance Goal Limit and elected to invest \$1.75 million of excess reserves into the City's infrastructure, specifically pavement maintenance. As a result, additional street segments that had been evaluated and identified in the April 27, 2021 staff report were added to the 2021 Street Repairs project utilizing the excess reserves.

The proposed 2022 PMP was presented to the City Council on August 23, 2022, and was developed with City's pavement engineer. The proposed 2022 PMP consists of a combination of four pavement maintenance strategies that are used based on the condition of the existing asphalt paving and base. This multi-pronged strategy maximizes the lane miles of road that can be repaired based on the funding that is available. The four strategies are:

1. Preventive Maintenance
2. Pavement Rehabilitation
3. Hot Spot Repairs on key city streets
4. Value Engineering

Strategy 1: Preventative Maintenance (Slurry Seal)

Pavement maintenance treatments are designed to slow the pavement aging process. Mainly, the treatments are designed to protect the pavement from the adverse effects of water and to some extent vehicle traffic. For this year's program, it is recommended that some preventative maintenance be accomplished due to the additional funding available. Twelve areas within the City have been identified that would benefit from receiving a slurry seal preventative maintenance treatment at this time. A slurry seal helps to preserve and protect the underlying pavement structure, provides a new wearing surface, protects it from sun damage, and most importantly seals the pavement, thus preventing the infiltration of water, which is the most frequent cause of pavement failure. At the August 23rd City Council Meeting this Strategy was approved. A list of the streets are presented in Attachment 1; a map of the locations are presented in Attachment 2.

Strategy 2: Pavement Rehabilitation (Overlay)

Pavement rehabilitation consists of treatments used to restore the existing pavement or to add additional structural support to the pavement. An asphalt overlay is a layer of new asphalt applied over the existing base layer of asphalt on a road. An overlay is a treatment that can significantly extend the useful life of the road when the base of the pavement is in good shape.

In August 2022, staff recommended completing the James Way digout and overlay rehabilitation project as part of the 2022 PMP. The project would consist of overlaying the

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pavement on James Way from Equestrian Way to Tally Ho Road where digouts were previously performed. The project was also proposed to include upgrading twenty-four non-compliant curb ramps within the project limits as an overlay is considered an alteration of a street under the Americans with Disabilities Act (ADA) and triggers the City's obligation to provide ADA compliant curb ramps where pedestrian walkways intersect the resurfaced street. At the August 23rd City Council Meeting this strategy was approved. Since that meeting staff has found a road that is in greater need of rehabilitation and the rehabilitation cost better fits the budget. This will be discussed in more detail in the "Analysis of Issues" section.

Strategy 3: Hot Spot Repairs (Digouts)

Digouts are small areas of deteriorated pavement which are removed and replaced with new asphalt concrete to correct base failures and to help slow the deterioration of a street and avoid near-term reconstruction. This approach is a "stop-gap" measure to keep important streets safe and help reduce the need for the road crew's immediate attention. The City has successfully used this approach over the past several years to address important, well used streets throughout the City. At the August 23rd City Council Meeting this Strategy was approved. A list of streets proposed to include digout repairs is presented in Table 2 on the following pages.

Strategy 4: Value Engineering (Overlay)

Staff recommended using the remaining funds in this year's budget to address residential streets that are in poor condition in the Equestrian Way neighborhood, which are listed in Table 3 below. These streets have a PCI between 27 and 49. Residential streets are typically low volume roads that were constructed with a thin layer of asphalt concrete ranging between 2 and 3 inches. Poor roads with low PCIs do not always require reconstruction. Sometimes these roads look bad but are still structurally adequate. The intent is to test these pavements, using non-destructive deflection testing to determine the structural adequacy of the pavement. If it is determined that the pavement is structurally adequate, then value engineering methods can be applied. Value Engineering is defined as the art of providing the most cost-effective pavement treatments without sacrificing quality or longevity. Value engineering approaches used in the past by other agencies include TMOs (thin maintenance overlays), cape seals with or without a leveling course, or fiberized slurry seals.

At the August 23rd City Council Meeting, the City Council directed staff to proceed with deflection testing and coring on these streets and to use the information for value engineering. Staff would then return to Council to present the findings and recommendations and to request approval with the plans and specifications for the 2022 Street Repairs project.

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Available Budget

As part of the August 23, 2022 staff report and presentation to Council, staff reported that the available budget for the 2022 PMP totaled \$6,264,665. This included an estimated \$5,119,880 in Sales Tax Fund money; however, \$4,450,170 is actually available from the Sales Tax Fund due to a miscalculation in the amount of funds available to carryover from the last fiscal year. In total, \$5,676,497 is available for the 2022 PMP. This includes \$68,900 of Urban State Highway Account (USHA) funds, \$768,685 of General Fund money, \$388,740 of Senate Bill 1 (SB1) funds, and \$4,450,172 of Local Sales Tax funds. A budget adjustment in the amount of \$268,799 is necessary to reach the total anticipated budget for the project of \$5,676,497, as discussed in more detail below.

ANALYSIS OF ISSUES:

Based on City Council direction at the August 23, 2022 Meeting on the 2022 PMP, the City's pavement engineer and staff completed the following:

- Evaluation of selected residential streets with value engineering to determine the most cost-effective asphalt treatment for the street surface.
- Produced a 2022 PMP based on using the multi-pronged treatment approach and total funds available.

Listed below are staff's recommendations for 2022 PMP using the four strategies, value engineering results, and available construction funds.

Strategy 1: Preventative Maintenance

It is recommended that slurry seal treatments be applied to the streets listed in Attachment 1. At the August 23, 2022 Council meeting, the preliminary estimated cost of this Strategy was \$1,683,000. Since that time, field pavement testing has allowed staff to refine projected costs for this component of the 2022 PMP, which are now estimated to be \$1,423,100.

Strategy 2: Pavement Rehabilitation

During the August 23, 2022 Council meeting, the 2022 PMP proposed an overlay rehabilitation and curb ramps project for James Way, from Equestrian Way to Tally Ho Road, at an estimated cost of \$1,580,000. At this time, it is recommended that the cost for the overlay and curb ramps could be spent better on streets with a more immediate/higher rehabilitation need and a lower cost. This would allow better use of funds when applying the multi-pronged strategy. In the meantime, the digouts previously completed on this street are holding up well and conditions are expected to remain stable over the coming year.

Staff reviewed the streets in need of rehabilitation with a high traffic volume and a cost to construct with the remaining 2022 PMP funds. In 2021, digouts were completed on Corbett Canyon Road, from Route 227 to the north City limits. Completing an overlay of that segment as part of the 2022 PMP would increase the life of the road by 12-15 years.

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The estimated cost of an overlay of this segment is \$409,000. It is a medium volume arterial and at a southern entrance to the city, and there are no curb ramps needing replacement. Staff recommends postponing the James Way Pavement Rehabilitation portion of the project and replacing it with the Corbett Canyon Road segment described above for the 2022 PMP.

Strategy 3: Hot Spot Repairs (Digout)

At the August, 23, 2022 meeting, the preliminary estimated cost of hot spot repairs for the streets identified in Table 2 below was \$373,000. Following field design work, estimated costs for this Strategy have increased slightly to \$381,000. Table 2 includes a list of selected streets:

Table 2

List of Selected Streets	Estimated 08/23/2022 Costs	Updated Engineering Costs
Nevada Street - E. Branch Street to Le Point Street	15,000	22,000
Mason Street - E. Branch Street to Le Point Street	40,000	9,000
Traffic Way - Address Tree Roots between Fair Oaks Avenue and Bridge Street	10,000	49,000
Huasna Road - Callie Court to City Limit (After Strother Park)	300,000	260,000
California Street at Intersection of Fair Oaks Avenue	8,000	41,000
	373,000	381,000

Strategy 4: Value Engineering (Overlays)

Value engineering was performed on the streets list in Table 3. The streets were cored to investigate the condition and depth of the asphalt and base, and deflection testing was completed to determine the strength of the existing surface. From this information, the City's pavement engineer designed repair treatments using Value Engineering to provide the most cost-effective pavement treatments without sacrificing quality or longevity. The Value Engineering results showed that the streets do not need full reconstruction and that overlays will provide repair treatment using value engineering to restore the street segments. The estimated costs to provide the value engineered treatments total \$2,274,000 as shown in the table below:

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Table 3

Value Engineer Remaining Funds on the Following Street Segments	Actual Estimated Costs	Value Engineered Costs
Stevenson Drive - James Way to Hodges Road	\$ 99,000	\$ 221,000
Hodges Road - Equestrian Way to Cul De Sac	\$ 254,000	\$ 124,000
Equestrian Way - James Way to Noyes Road (11 Ramps)	\$ 1,230,000	\$ 114,000
Acorn Drive - Equestrian to Equestrian	\$ 523,000	\$ 827,000
Oak Leaf Circle - Equestrian Way to Cul De Sac	\$ 105,000	\$ 131,000
Scenic Circle - Equestrian Way to Cul De Sac	\$ 143,000	\$ 61,000
Mustang Circle - Equestrian Way to Cul De Sac	\$ 124,000	\$ 51,000
Vista Circle - Equestrian Way to Cul De Sac	\$ 144,000	\$ 33,000
Vista Drive - Equestrian Way to PCC S/O Los Ciervos Court	\$ 933,000	\$ 45,000
Arabian Circle - Vista Drive to Cul De Sac (2 Ramps)	\$ 241,000	\$ 55,000
Deer Trail Circle - Equestrian Way to Cul De Sac	\$ 189,000	\$ 191,000
Via Vaquero - Rancho Parkway to Via Bandolero (10 Ramps)	\$ 130,000	\$ 421,000
Estimated Cost if the Right Treatment was Used:	\$ 4,115,000	\$ 2,274,000

Table 4 below provides a summary of Strategies 1 through 4 for the recommended 2022 PMP.

Table 4

Total Construction Budget for Recommended 2022 PMP		
1 - Preventative Maintenance		
Area 1 thru Area 12		\$1,423,100
2 - Pavement Rehabilitation		
Corbett Canyon Route 227 to North City Limits		\$409,000
3 - Hot Spot Repairs		
Nevada Street	E Branch Street to Le Point Street	\$22,000
Mason Street	E Branch Street to Le Point Street	\$9,000
Traffic Way	Fair Oaks Avenue to Bridge Street	\$49,000
Huasna Road	Callie Court to City Limit	\$260,000
California Street	Intersection to Fair Oaks Avenue	\$41,000
		\$381,000
4 - Value Engineering		
Equestrian Way Neighborhood and Via Vaquero		\$2,274,000
Preliminary Construction Total:		\$4,487,100

Additionally, Attachment 2 is included to show a Map of Recommended Street Segments.

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The totals costs for the 2022 PMP are listed below in Table 5:

Table 5

Expenditures	Cost
Construction	4,487,100
Construction - Public Works	60,000
Construction Contingencies	603,395
Contract Admin	37,506
Testing	163,085
Design/Survey	321,911
Studies	3,500
Total	5,676,497

The following is more detailed information on the expenditures listed above:

- Construction – This amount is detailed further in Table 4 above and is limited to construction costs for the 2022 PMP.
- Construction - Public Works - This amount represents the costs for City staff to perform crack sealing and/or striping on City roads.
- Construction Contingencies – This amounts to 13.45% of the construction budget.
- Contract Admin – This amount will cover contract administration costs, advertising, printing and environmental fees.
- Testing – This amount will cover the costs of material testing.
- Design/Survey – This amount will cover costs of design and survey for the design and construction phases of the Project.
- Studies – This amount covers the costs of an update to the City’s Streetsaver update (Streetsaver is a software program used to analyze the condition of the roads in Arroyo Grande and help prioritize repair schedule and method).

Budget Adjustments

Staff is requesting a budget adjustment totaling \$268,799 for the PMP as shown in Table 6. The adjustment includes \$81,540 of SB 1 Funds and \$187,259 of Sales Tax Funds.

Table 6

Revenue Source	Budget Adjustment
SB 1	81,540
Sales Tax Fund	187,259
Total	268,799

The first part of the budget adjustment would increase the revenue budget and appropriate \$81,540 from SB1 revenues to the PMP. It is anticipated that the City will receive an additional \$81,540 in revenue of SB 1 – RMRA (Road Maintenance and

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Rehabilitation Account) Funds. The original budget was based on a conservative estimate of \$307,200. Updated estimates were obtained from a Revenue Finance Expert, Michael Coleman, showing an anticipated increase of \$81,540 in SB 1 funding that the City will receive this fiscal year. When including this additional revenue source, it is anticipated that a total of \$388,740 of SB 1 funds will be available for the PMP project.

The second part of the budget adjustment is to appropriate \$187,259 of Sales Tax Fund Balance to the PMP as shown in Table 7. In FY 2021-22, the City received an additional \$163,587 above the anticipated revenues that increased the Sales Tax Fund Balance and was not allocated in the FY 2022-23 Mid-Cycle Budget Update. Additionally, \$23,672 of unspent expenditures in the FY 2021-22 budget were returned to fund balance for future use.

Table 7

Sales Tax Fund	Budget Adjustment
Increased Revenues	163,587
Unspent Expenditures	23,672
	187,259

Next steps

If the Council approves the PMP, staff would move forward with completion of the Plans, Specifications, and Estimate (PS&E) and return to Council in early 2023 with a request to approve the PS&E and authorize solicitation of bids. Once bids are received and reviewed, staff will present Council with a Bid Award recommendation in winter of 2023. Construction is anticipated to begin in Spring of 2023 and is estimated to be completed by the end of 2023.

ALTERNATIVES:

The following alternatives are provided for the Council’s consideration:

1. Approve the 2022 Pavement Management Program (PMP); Appropriate the funds and approve the budget adjustment listed in Table 1 for the PMP; and Review and approve the recommended treatments and streets as listed in Strategies 1 through 4;
2. Do not approve staff’s recommendation;
3. Direct staff to investigate other potential treatments and streets and return to Council;
or
4. Provide other direction to staff.

ADVANTAGES:

The available pavement management program budget will be maximized by employing four different pavement management strategies. Slurry seals will help to preserve and protect the underlying pavement structure from sun and water. Overlays will significantly extend the useful life of the road when the pavement base is in good shape. Digouts will provide permanent repairs where the pavement is failing helping to extend the pavement life. Value engineering will determine the most cost-effective pavement treatments.

DISADVANTAGES:

Implementation of the proposed pavement maintenance strategies reduces available funding for other potential street maintenance projects.

ENVIRONMENTAL REVIEW:

The project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guideline Section 15301(c) covering the repair and maintenance of existing streets, sidewalks, gutters and similar facilities.

PUBLIC NOTIFICATION AND COMMENTS:

The Agenda was posted at City Hall and on the City's website in accordance with Government Code Section 54954.2.

Attachments:

1. Proposed Pavement Maintenance Streets List
2. Recommended Street Segment Map
3. August 23, 2022 Staff Report and Attachments