MEMORANDUM

Date: August 20, 2021

To: The Honorable Chair and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

Re: **Update of Pavement Preservation and Road Repair Program**

As indicated to the Board of Supervisors, an additional $50 million investment in the Pavement Preservation and Road Repair Pay-As-You-Go (PAYGO) allocation for Fiscal Year (FY) 2022/23 will be made to accelerate road repair. This additional allocation will increase the Network Pavement Condition Index to 76. The original plan would not have increased the Network Pavement Condition Index until FY 2027/28 or six years later.

This acceleration also will require additional interim treatments to ensure pavements improved early in the program remain in good condition throughout the term of the 10-year plan. Such will require an additional allocation of PAYGO funds at an average of $9.8 million per year beginning in FY 23/24. The total additional General Funds during the period to accelerate the Network Pavement Condition Index is approximately $69 million.

Adding these funds to the PAYGO fund allocation indicates that the total General Funds contributed to Pavement Preservation Road Repair Program would be approximately $285 million, still less than the $298 million contributed to City or Town projects from the 1997 HURF Bond Program.

Attached is an August 18, 2021 memorandum from Assistant County Administrator Yves Khawam that outlines this issue in more detail.

CHH/mp

Attachment

c: Jan Lesher, Chief Deputy County Administrator
Carmine DeBonis, Jr., Deputy County Administrator for Public Works
Francisco García, MD, MPH, Deputy County Administrator & Chief Medical Officer, Health and Community Services
Yves Khawam, PhD, Assistant County Administrator for Public Works
Ana Olivares, Director, Transportation Department

MEMORANDUM

Date: August 18, 2021

To: C.H. Huckelberry
County Administrator

From: Yves Khawam
Assistant County Administrator
for Public Works

Re: **Fiscal Analysis of the Accelerated Road Repair Program**

Per your request, I have worked with Transportation Director Ana Olivares to develop road repair funding scenarios based on projected cash flow through FY 30. This was performed both for currently approved funding levels as well as accelerating an additional $50 million of work in FY 23. The funding scenarios were modeled to determine how much additional funding would be necessary to achieve an average PCI of 80 by FY 30.

Table 1 shows the results of the analysis based on the currently projected funding level and Table 3 shows the same with an additional $50 million General Fund advancement in FY 23.

Table 1

FY22 Approved PAYGO Funding Scenario					
Year	**Transportation Department Funding**	**General Fund PAYGO Allocation**	**Funding Deficit**	**Total Funding Needed**	**Network Pavement Condition Index**
FY19/20	21,000,000	15,000,000	0	36,000,000	57
FY20/21	3,000,000	53,000,000	0	56,000,000	64
FY21/22	35,500,000	50,000,000	0	85,500,000	71
FY22/23	16,763,143	536,857	0	17,300,000	70
FY23/24	19,998,662	3,971,338	0	23,970,000	71
FY24/25	24,089,410	3,920,590	0	28,010,000	72
FY25/26	26,196,170	3,880,830	21,000,000	51,077,000	73
FY26/27	36,300,000	13,890,000	8,000,000	58,190,000	75
FY27/28	32,000,000	25,000,000	0	57,000,000	77
FY28/29	37,280,000	25,000,000	12,000,000	74,280,000	79
FY29/30	37,900,000	25,000,000	10,000,000	72,900,000	80
TOTAL	**290,027,385**	**219,199,615**	**51,000,000**	**560,227,000**	

The acceleration of $50 million of PAYGO funding in FY 21 and FY 22, as well as delays in DOT implementation of productivity initiatives have resulted in a pavement repair and preservation funding deficit of $51 million when compared to the original plan approved by the Board of Supervisors with the PAYGO policy on November 5, 2019 shown in Table 2. The primary reason for the cost increase relates to financing to cover $50 million advancements in both FY 21 and FY22, as well as funding treatments to maintain those newly repaired roads during the ten years of the plan.

Table 2
November 5, 2019 Road Repair Plan Approved with PAYGO Policy

Year	Transportation Department Funding	PAYGO Allocation	Total Funding	Network Pavement Condition Index	Network Pavement Condition Index Improvement From FY18/19
FY19/20	21,000,000	5,000,000	26,000,000	42	10%
FY20/21	16,000,000	10,000,000	26,000,000	43	12%
FY21/22	16,000,000	15,000,000	31,000,000	45	16%
FY22/23	21,000,000	20,000,000	41,000,000	48	24%
FY23/24	23,000,000	25,000,000	48,000,000	52	33%
FY24/25	29,000,000	25,000,000	54,000,000	57	44%
FY25/26	30,000,000	25,000,000	55,000,000	62	56%
FY26/27	31,000,000	25,000,000	56,000,000	67	68%
FY27/28	35,000,000	25,000,000	60,000,000	71	79%
FY28/29	38,000,000	25,000,000	63,000,000	77	94%
FY29/30	41,000,000	25,000,000	66,000,000	80	99%
TOTAL	**301,000,000**	**225,000,000**	**526,000,000**		

Additionally, the 2019 plan projected DOT revenue available funding of $301 million in lieu of the $290 million reflected in Table 1. The 2019 amount assumed department savings associated with productivity gains related to automating maintenance and operations work scheduling, routing of crews, equipment, materials logistics and customer request management. It also assumed gains in the early years of the plan would be held in reserve to allow for larger disbursements near the end of the plan based on need to maximize return-on-investment and allow the department to entirely fund pavement maintenance following FY 30. A conservative gain of at least 10 percent was anticipated and included in the Table 1 DOT contributions for each year of the plan based on a similar implementation in Development Services field inspection operations, where a gain of 20 percent was achieved.

This gain was predicated on implementation of new technology platforms and functionality, the core of which was to be provided by GIS tools linked to the Maximo enterprise platform. The first phase of this functionality was originally scheduled to be completed in December 2019, to include the Maximo upgrade requisite to enabling the new GIS tools. To date, however, the Maximo upgrade has not occurred and full implementation with DOT asset functionality is presently not anticipated to complete until end of FY 23 at the earliest. As a result and per your approval, we have started a review of cloud-based technology alternatives to manage DOT assets. However, and in the interim, the lack of ability to implement DOT strategies has resulted in a minimum projected loss of four years of productivity gains. Based on $30.9 million budgeted for maintenance and operations in FY 22, the amount of productivity loss is conservatively estimated at $12.4 million (30.9 x 0.1 x 4). DOT has the capacity to absorb $1.4 million of this shortfall, which leaves $11 million unavailable to fund the 10-year road repair plan.

The 2019 plan projected a total need of $526 million through FY 30. Table 1 total funding need exceeds the 2019 plan by $34.2 million. However, the total funding deficit when compared to the 2019 plan is presently $51 million due to:

- A reduction of $11 million in DOT funding availability.
- Financing cost increase of $6.5 million associated with advancing $50 million in both FY 21 and FY 22.
- $33.5 million for one or more preservation treatments applied to pavements repaired earlier in the program which would otherwise not have been needed during the plan period.

The scenario comprising an additional $50 million PAYGO advancement in FY23 is shown in Table 3. This scenario increases the road repair program cost by $48.2 million from the 2019 total displayed in Table 2 resulting in a total funding deficit of $68.9 million. This deficit comprises:

- The same reduction of $11 in DOT funding availability.
- Financing cost increase of an additional $3.3 million over that in Table 1 to cover the additional $50 million advancement for a total of $9.8 million.
- An increase of $14.6 million over that in Table 1 for one or more preservation treatments applied to pavements repaired earlier in the program which would not otherwise been needed during the plan period. This results in a total treatment increase of $48.1 million over the 2019 Table 2 plan.

Table 3

Scenario with $50M additional in FY 23					
Year	**Transportation Department Funding**	**General Fund PAYGO Allocation**	**Funding Deficit**	**Total Funding Needed**	**Network Pavement Condition Index**
FY19/20	21,000,000	15,000,000	0	36,000,000	57
FY20/21	3,000,000	53,000,000	0	56,000,000	64
FY21/22	35,500,000	50,000,000	0	85,500,000	71
FY22/23	16,763,143	50,036,857	0	66,800,000	76
FY23/24	19,998,662	1,338	0	20,000,000	75
FY24/25	24,089,410	10,590	8,400,000	32,500,000	75
FY25/26	26,196,170	303,830	8,000,000	34,500,000	76
FY26/27	36,300,000	200,000	4,000,000	40,500,000	77
FY27/28	32,000,000	0	26,000,000	58,000,000	77
FY28/29	37,280,000	21,720,000	13,000,000	72,000,000	79
FY29/30	37,900,000	25,000,000	9,500,000	72,400,000	80
TOTAL	**290,027,385**	**215,272,615**	**68,900,000**	**574,200,000**	

The Table 3 scenario creates a total General Fund need of $284.2 million, including the deficit amount. This total is, however, still less than the $298.3 million contributed to municipal projects by the 1997 HURF Bond Program, thereby still not creating a road taxation inequity with the municipalities.

Securing pavement preservation funding is important to ensuring the continued preservation of the major investment made on our pavements since 2019. Delaying preservation treatments on repaired pavement will reduce pavement longevity and result in a significant loss of investment made to date. It is therefore requested that an additional General Fund allocation of $68.9 million be made to the road repair program as shown in Table 3 if an additional $50 million of work is advanced next fiscal year, or $51 million if it is not. Even though DOT funding has been prioritized to support pavement repair and preservation, there remains a large need to allocate funding for other important transportation elements such as gravel road betterments, guardrail improvements, smart mobility initiatives, bridge improvements as well as new capital projects.

Thank you for your consideration.

c: Carmine DeBonis, Jr., Deputy County Administrator for Public Works
Ana Olivares, Director, Transportation Department