

PUBLIC WORKS DEPARTMENT

DATE: JUNE 21, 2022

TO: HONORABLE MAYOR AND MEMBERS OF THE CITY COUNCIL

FROM: JAMIE LAI, P.E., DIRECTOR OF PUBLIC WORKS / CITY ENGINEER

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SUBJECT: APPROVAL OF RESOLUTION NO. 2022-5810 CONCERNING THE

STATUS AND UPDATE OF THE CITY OF YORBA LINDA'S PAVEMENT

MANAGEMENT PLAN FOR THE MEASURE M2 (M2) PROGRAM

RECOMMENDATION

It is recommended that the City Council adopt Resolution No. 2022-5810 concerning the status and update of the Pavement Management Plan for the Measure M2 (M2) Program.

BACKGROUND

The City of Yorba Linda has a Pavement Management Program (PMP) in place that allows for the planning and programming of street maintenance throughout the City's entire roadway network. The PMP update includes an assessment of the current roadway conditions and forecasts roadway deterioration. The report also accounts for the funds invested to maintain the roadways and provides various scenarios of repair and their corresponding costs.

The PMP is also a requirement of the Orange County Transportation Authority (OCTA) for the City to remain eligible for Measure M local fair share and competitive grant funds. The adoption of the attached OCTA-provided template resolution (Attachment 1) is required as part of the PMP eligibility requirement. Per OCTA guidelines, arterial streets require reinspection every two years and residential streets every six years. OCTA requires a minimum PCI of 75 or the ability to show an increase of one PCI point above the previous report in order to take advantage of a reduced match requirement from OCTA for any competitive funding grants.

For 2022, the City was required to inspect all of its arterial roadways in addition to the residential streets in Maintenance Zones 1-5 that had not been inspected in the last six years. Since Zones 6 and 7 were last inspected during the 2020 report cycle, these streets are incorporated using projections of projected deterioration through 2022.

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DISCUSSION

As a result of implementing the PMP through ongoing investment in the City's roadway network, the overall 2022 Pavement Management Program Report (Attachment 2) highlights that the City's street network has been maintained in "Good" condition since the last report. The roadways are assessed based upon a 100-percentage point scale called the Pavement Condition Index (PCI). Based on the latest report, the City's overall network PCI is 79 which is 1 point higher than the prior assessment performed in 2020. The increase in PCI can be attributed to the increase in budget expenditures for the Annual Pavement Preservation Project which have been able to reduce overall deferred maintenance. maintenance consists of pavement maintenance that is needed but cannot be implemented due to lack of funding. Almost all cities have a significant backlog of deferred maintenance. This PMP process allows the Cities to evaluate funding scenarios to obtain an ideal PCI while also planning on how to decrease future deferred maintenance. The projected deferred maintenance for the City at the end of FY 28/29 is \$58.9M based on existing budget. While slurry seals have prolonged the life of the roadway network, pavement conditions do tend to steadily deteriorate and require substantial investment in approximately 20-30 years. With the additional funding, the City has been able to begin addressing the more deteriorated roadway sections with more overlays and localized inlays and other more cost-efficient technologies such as micro milling.

In order to achieve the City's Strategic Plan Goal of an overall network PCI of 80, the roadway expenditures from the City's CIP standalone roadway projects, along with the annual street maintenance funds recommended below, will be necessary. Based on historical PCI, the zones scheduled for treatment in FY 22/23 and FY 23/24 (Zones 5 and 6), had the lowest PCI ratings out of the entire city. Consequently, the budget needed to address these zones is anticipated to be much higher than in subsequent years. A majority of the streets in these zones have not had extensive treatment for almost 40 years.

Pursuant to Table 1 below, the existing budget scenario will maintain a PCI of 80-83 thru FY 24/25. However, additional annual expenditures would be needed to maintain the PCI of 80 thru the end of the 7-year budget cycle. There are several dynamics that factor into the annual cost of treatments and the program that models and forecasts the network PCI will allow for refinements in future year forecasting. This will require additional efforts to optimize the use of funds towards target areas which may be able to achieve improved PCIs at reduced costs. Staff will be investigating this further during the next report cycle to determine how to achieve the 80 PCI at the end of the 7-year cycle with better cost efficiency. Efforts may include treating low PCI streets network/citywide vs. by zone. Due to the transition to a GIS based pavement software this year, staff will be able to identify these streets much more efficiently to determine where to find efficiencies. It should be noted that all of the forecasted annual budgets have accounted for significant escalation of construction material and labor costs. The unit costs used in these budget scenarios are based on recent construction bids from within the last 45 days and the future years have been escalated accordingly.

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Table 1 – Existing and Proposed Budget Scenarios*

	FY	Total						
	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Existing Budget	\$8.2M	\$8.8M	\$4.5M	\$5.0M	\$5.4M	\$5.7M	\$6.0M	\$43.6M
Network PCI	82	83	81	80	79	79	78	

^{*}Note: These budgets may be advanced to align with CIP.

The overall network PCI consists of an arterial component and a residential component. The latest report yielded a PCI of 82 for the arterial roadways and a PCI of 78 for the residential component. While the arterial roadway PCI remained unchanged at 82 compared to the 2020 report, the residential network improved by 3 PCI points to 78. The overall network PCI is obtained as a weighted average since there are more centerline miles of residential streets than arterial roadways. In total, the City has 215 centerline miles of roadway, which includes 64 miles of arterial roadways and 151 centerline miles of residential roadways.

The City is divided into seven maintenance zones per the attached exhibit (Attachment 3). Pavement maintenance is generally performed on an annual basis, and the goal is to provide a maintenance treatment throughout the entire City at the end of the seven-year cycle. In addition to the annual street maintenance program, funding the various standalone street improvement projects under the City's Capital Improvement Program are essential to maintaining the long-term goal of PCI 80. The fund sources for these efforts are typically from transportation funds such as Gas Tax, Measure M funds, federal or state grants, or bond funds as they have become available. SB1 funds are also being applied towards the City's annual street maintenance program.

FISCAL IMPACT

There is no direct fiscal impact with the adoption of the proposed OCTA-provided template resolution (Attachment 1).

ALTERNATIVES

Do not adopt the resolution. However, this will result in the City not meeting OCTA eligibility requirements for future Measure M local fair share and competitive grant funds.

ATTACHMENTS

- 1. Resolution No. 2022-5810
- 2. 2022 Pavement Management Program Update
- 3. Map of city-wide street maintenance zones