

AGENDA ITEM #: _____

DATE: October 5, 2020

CAR #: 2020-7057



CITY COUNCIL ACTION REPORT

SUBJECT: FY2021 Fall/Winter Pavement Management Projects

STAFF PRESENTER(S): Hugh Bigalk, PE, City Traffic Engineer
Brian Harvel, Pavement Management Coordinator

OTHER PRESENTER(S): None

Summary: Request City Council approve expenditures up to \$1,935,200 for FY2021 Fall/Winter pavement management projects.

Recommendation: Approve expenditures in the amount of \$1,935,200 for FY2021 Fall/Winter pavement management projects.

Fiscal Impact: The FY2021 pavement management budget includes \$3,316,600 in HURF funds in the Engineering operating budget.

Background and Previous Actions

On March 17, 2014 and August 25, 2014, the city's pavement management consultant, APT, presented an update on their pavement management project at which time treatment strategies and funding recommendations were discussed. During those presentations, the City's Pavement Condition Index (PCI) of 68.1 was presented to Council. Table 1 below shows the pavement condition in 2014 and the city's current overall pavement condition as well as the pavement condition for each classification of roadway.

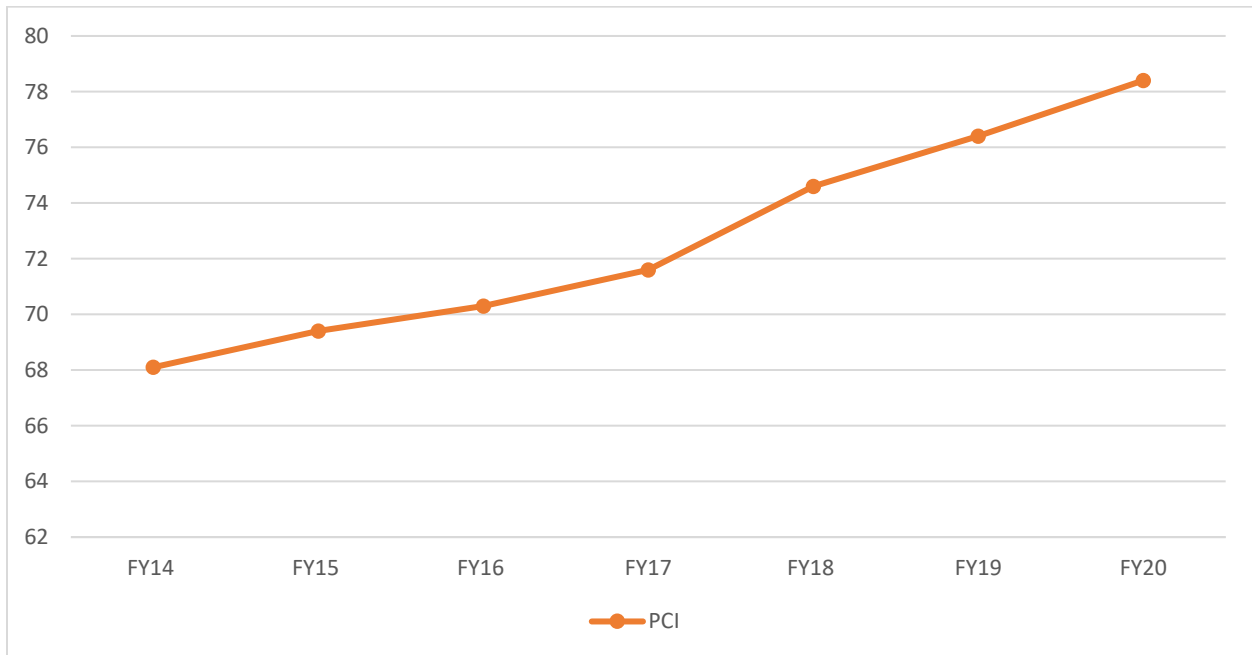
Figure 1 below identifies the average network PCI of the roadway network during the past seven fiscal years. The city's PCI has increased by over ten points to 78.4 during this time as a result of increased commitment to the pavement management program which demonstrates a significant increase in the overall health of the city's roadway network.

Table 1: 2014 and 2020 Pavement Condition Index (PCI) by Roadway Classification

Functional Class	PCI Targets	Current Condition			
		Average		%>X	
		2014	2020	2014	2020
Arterial	80 (with 90 percent > 70)	70.4	80.0	57.8	80.2
Collector	75 (with 90 percent > 65)	70.1	76.9	70.2	85.4
Industrial	70 (with 90 percent > 55)	55.0	74.5	40.0	92.0
Residential	70 (with 90 percent > 55)	66.6	77.3	84.0	92.3
Rural	65 (with 90 percent > 50)	67.2	68.1	78.1	80.0
2014 Network Average PCI		68.1			
2020 Network Average PCI		78.4			

Green Shading = At or above target value.
Yellow shading = Within 5 points of target value.

Figure 1: Seven Year Average Network Pavement Condition Index



Staff Analysis

Proposed FY2021 Fall/Winter pavement management projects total 25.4 lane-miles of pavement treatment projects that included both preservation and rehabilitation projects (Exhibit 1).

Identified in Table 1 below are the FY2021 Fall/Winter pavement management projects:

Table 1: FY2021 Fall/Winter Pavement Management Projects

Item	TOTAL
Roadway Preparation and ADA Ramps Repairs/Replacements	\$150,000
Crack Seal	\$250,000
Rainbow Valley Road Surface Preparation	\$118,300
Pavement Data Inventory	\$200,000
High Volume FAST with Scrub Seal	\$782,600
Low Volume Cape Seal	\$434,300
Total	\$1,935,200

A description of each preservation type is provided below, followed by a list of roadways or neighborhoods recommended for the designated pavement treatment:

- 1. High Volume Fractured Aggregate Surface Treatment (FAST) with Scrub Seal** – A FAST application preceded by an application of a scrub seal. A scrub seal is a thick rubber-based product scrubbed into the complete surface area of a road to seal cracks that are too numerous to be sealed with standard crack fill. Scrub aids in achieving the standard life expectancy of the FAST. High volume FAST applications are typically performed on arterial, collector and rural roadways where cracking is moderate to severe and provides structural assistance to the pavement. FAST applications typically last 5 to 7 years.
 - Rainbow Valley Road from Riggs Road to Ray Road
 - Willis Road from Rainbow Valley Road to Mountain Vista Drive
- 2. Low Volume Cape Seal** - Low Volume Cape Seal is a multi- layer surface treatment utilizing a low volume FAST as the first layer followed by the application of a rubberized slurry seal. Low volume cape seals are utilized on local streets where the cracking is moderate to severe and provides structural assistance to thin layer pavements. Low volume cape seals typically last 5 to 7 years.
 - Talon Terrace
 - Canyon Trails North
 - Valencia
 - Rancho Mirage

Existing City contracts with the following companies will be used for pavement treatments, crack sealing, and ADA ramp repairs and replacements:

VSS International, Inc.
Viasun Corporation
IMS Infrastructure Management Services, LLC
Bunney's Inc.

FY2021 Spring projects will be presented in early 2021 which will utilize the remaining Pavement Management Funds.

Attachments

Exhibit 1: FY2021 Fall/Winter Pavement Management Program Central & South Maps