Legislation Details (With Text)

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On agenda:	1/15/2019	**Final action:**	
Title:	2018 Pavement Management Program Final Report (Public Works Director Katsouleas). RECEIVE AND FILE		
Sponsors:			
Indexes:			
Code sections:			
Attachments:	1. 2018 Pavement Management Program Final Report, 2. Current PCI Map		

Date	Ver.	Action By	Action	Result
1/15/2019	1	City Council Regular Meeting		

TO:
Honorable Mayor and Members of the City Council

THROUGH:
Bruce Moe, City Manager

FROM:
Stephanie Katsouleas, Public Works Director
Prem Kumar, City Engineer
Mo Estepa, Jr., Associate Engineer

SUBJECT:
2018 Pavement Management Program Final Report (Public Works Director Katsouleas).
RECEIVE AND FILE

RECOMMENDATION:
Staff recommends that City Council receive and file the final report for the 2018 Pavement Management Program update as attached.

FISCAL IMPLICATIONS:
There are no fiscal implications with receiving and filing this report. However, the report does provide an emphasis on future funding for street rehabilitation projects through the capital improvement budget process in order to maintain or improve the overall condition of the streets and alleys in Manhattan Beach.

BACKGROUND:
The City of Manhattan Beach is responsible for the repair and maintenance of approximately 100.1 centerline miles of streets, of which 8.0 miles are arterials, 7.6 miles are collectors, and 84.5 miles are residential roadways. Street pavement is considered the City's most valuable asset, with a

replacement value estimated to be approximately $87.1 million. This is calculated by combining each street section's projected reconstruction cost, excluding the value of other non-pavement street components such as curb and gutters, sidewalks, drainage, etc.

Similar to assessing the maintenance needs of a building, a Pavement Management Program (PMP) is a planning tool that utilizes engineering software to assess and forecast pavement maintenance needs and assist in budgeting for street rehabilitation work. In essence, the PMP provides the qualitative information needed to assess the condition of all City streets so that staff can prioritize roadway repairs that maximize preservation of this infrastructure in the most cost effective manner.

The California Street and Highway Code Section 2108.1 mandates that every city receiving funding under the State Transportation Improvement Program to develop a PMP to manage its local streets. Los Angeles County Metropolitan Transportation Authority (Metro) Proposition C Local Return Guidelines also require each City to assess its pavement condition every three years in order to remain eligible for funding. The City's last update was conducted in 2015.

DISCUSSION:

Nichols Consulting Engineers (NCE) was selected by the City of Manhattan Beach earlier this year to perform an update of its PMP. For the 2018 PMP update, the City's entire vehicular street network was inspected via a walking inspection method as outlined in ASTM D6433-16 (American Society for Testing and Materials Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys). The walking inspection method generally produces a more accurate representation of the pavement condition when compared to the semi-automated inspection method, and hence is the preferred approach for assessing roadways. The 2018 inspection work was completed in May 2018 and a report was submitted to the City in September 2018 for final review and approval. The report included a complete inventory of the Pavement Condition Index (PCI) for every street in Manhattan Beach.

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100, with 100 being best. The following categories are typically used in within the standard PCI range:

0-25	Very Poor: reconstruction may be needed
26-50	Poor - thick overlays used
50-70	Fair - thin overlays used
70-100	Good - preventive maintenance used (e.g., slurry)

Pavement condition is primarily affected by climate, traffic loads and volumes, construction materials used and age. A newly constructed street will have a PCI of 100, and in general streets with PCI above 70 are considered in Good condition and show little surface distress. PCI scores of 51 - 70 are considered in Fair condition and show medium levels of distress that include longitudinal and/or transverse cracks, minor rutting and raveling with signs of weathering and the pavement structure progressively becoming deficient. PCI scores of 26 - 50 are considered Poor and include pavements exhibiting moderate to severe surface distress, including alligator cracking, rutting, and potholes. PCI scores of 0 - 25 are considered Very Poor, with pavement exhibiting severe distress as it nears the end of its service life.

The City's average weighted (by area) PCI is 67; this is considered to be in a "Fair" condition and is slightly higher than the statewide average of 65. The color-coded map attached depicts the Street

PCI Ratings for all streets in Manhattan Beach. The overall goal of the City is to: 1) maintain an average PCI above 80 and 2) clear the backlog of low-rated streets. This is accomplished by balancing the need to address failing streets while also ensuring sufficient funds are allocated to preserving streets in the “Good” range.

The City’s projected paving budget for the upcoming 5-Year Capital Improvement Plan (CIP) is approximately $1.585 million annually, which includes allocations of $500,000 for residential street rehabilitation, $700,000 for arterial street rehabilitation, and $385,000 allocated for preventive maintenance work such as slurry seal. At this funding level, the network PCI is projected to increase to 72 and be maintained at that level for the next seven years. Similarly, deferred maintenance costs will decrease from $18.8 million (present value cost of streets to be rehabilitated) to $14.1 million in FY 2024/25. Reaching the City’s goal of achieving an average PCI of 80 (or above) will require an annual 5-year paving budget of approximately $2.8 million, which is $1.2 million more than the current annual allocation.

For the upcoming FY 2019/20 CIP year, staff will propose to City Council that street rehabilitation efforts continue to focus on: 1) the streets depicted in red in the attached Street PCI Ratings Map (except Rosecrans Ave.), and 2) continuation of the annual rotation of the slurry seal program to help maintain higher PCI values. Fixing these “red” streets, which are predominantly located west of Liberty Village, will dramatically increase the City’s overall average PCI ratings within the next 3 years.

It is worth noting that City Council recently awarded construction contracts to rehabilitate Marine Ave. (Sepulveda Blvd. to Aviation Blvd.) and all the streets in Liberty Village, with work starting in earnest in January. These planned improvements will help raise the City’s average PCI and remove a significant portion of “red” on the attached map.

PUBLIC OUTREACH/INTEREST:
No public outreach was conducted in preparing the PMP Report. However, as CIP street resurfacing projects are designed and constructed, the public is engaged through outreach notification materials and public meetings.

ENVIRONMENTAL REVIEW
The City has reviewed the proposed activity for compliance with the California Environmental Quality Act (CEQA) and has determined that the activity is not a “Project” as defined under Section 15378 of the State CEQA Guidelines; therefore, pursuant to Section 15060(c)(3) of the State CEQA Guidelines the activity is not subject to CEQA. Thus, no environmental review is necessary.

LEGAL REVIEW
No review is required for this report.

Attachments:
1. 2018 Pavement Management Program Final Report
2. Current PCI Map