



**DATE:** February 16, 2021

**TO:** Mayor and City Council

**FROM:** Director of Public Works

**SUBJECT:** Adopt a Resolution Approving Plans and Specifications and Call for Bids for the FY21 Pavement Improvement Project

## **RECOMMENDATION**

That the Council adopts the attached resolution (Attachment II) approving the plans and specifications and calls for bids to be received for the FY21 Pavement Improvement Project (PIP).

## **SUMMARY**

The FY21 PIP calls for the rehabilitation of fifty-eight street sections and preventive maintenance of twenty-nine street sections for a total of eighty-seven street sections. (Attachments III and IV). The proposed improvements will repair failed pavement sections and improve street surfaces.

The project budget of \$10,465,000 is funded via Gas Tax, Measure B, Measure BB, Vehicle Registration Fees, anticipated Road Repair and Accountability Act (RRAA) (SB1) funds, and potential grant funding from the Department of Resources Recycling and Recovery (CalRecycle).

## **BACKGROUND**

On May 26, 2020<sup>1</sup>, Council adopted a resolution approving a project list for the SB1 FY21 PIP Funding. The resolution was required to be submitted with an application to the California Transportation Commission (CTC) to receive \$2,750,000 in funding for pavement improvement.

On June 2, 2020<sup>2</sup>, staff recommended Council adopt a resolution authorizing the City Manager to execute Amendment No. 2 to the Professional Services Agreement (PSA) with Pavement Engineering, Inc., (PEI) for engineering services associated with the FY21 PIP. The scope of work for PEI is limited to engineering review, pavement evaluation, measurement of field quantities, curb ramp design, and construction support.

---

<sup>1</sup> <https://hayward.legistar.com/LegislationDetail.aspx?ID=4544075&GUID=F617FA6F-C198-474E-B133-26C761043039&Options=&Search=>

<sup>2</sup> <https://hayward.legistar.com/LegislationDetail.aspx?ID=4548864&GUID=6506EE24-A2C3-455B-92E1-8A42B60887B1&Options=&Search=>

Subsequent to the actions stated above, at the public hearing held on February 2, 2021, a tabulation of the property-owner ballots resulted in the approval and establishment of the Old Highlands Benefit Assessment (OHHA) District, which imposes assessments for street improvements within the OHHA area. City Staff, the OHHA Board, and property owners have agreed to share costs to include one or two streets in the annual pavement improvement projects for a period of five to six years until all roads in the benefit district are improved. Cotati Street and Tribune Avenue have been selected to be included in the FY21 PIP.

At the October 28, 2020<sup>3</sup> Council Infrastructure Committee (CIC) meeting, staff presented the FY21 PIP, including street selection criteria, treatment types, and budget allocations. The PIP involves one of four types of treatments:

#### Pavement Rehabilitation:

- 1) Standard overlay of the existing street pavement with new Rubberized Hot Mix Asphalt (RHMA) surfacing.
- 2) Cold-In-Place Recycling (CIR), which involves removing the top layer of asphalt, mixing the removed aggregates with a recycling agent and other additives on-site, replacing this pavement material onto the same roadway, and then applying a RHMA overlay.
- 3) Full Depth Reclamation (FDR), which consists of pulverizing and mixing distressed asphalt and underlying pavement materials with or without the addition of stabilizing agents; using the resulting material as a base for the renewed pavement structure and adding a new RHMA cap.

#### Preventive Maintenance:

- 4) Varying combinations of crack sealing, 6" spot repair, and micro-surfacing.

Street selection for the PIP is based on staff's analysis using several criteria described below:

- **Technology** – The Pavement Management Program (PMP)<sup>4</sup> evaluates current and predicts future roadway conditions. It provides logical and efficient methods of identifying street rehabilitation needs. It also determines the most cost-effective allocation of funds to the street segments needing preventive maintenance, rehabilitation or reconstruction. Staff utilized the PMP to compile an initial list of recommended streets. This list is then revised to consider other criteria and project budget allocation parameters.
- **Social Equity** – Whether the area of town has received its fair share of improvements in the past.

---

<sup>3</sup> <https://hayward.legistar.com/LegislationDetail.aspx?ID=4677681&GUID=269B1B10-A818-456B-A7FC-26BD649B71EA&Options=&Search=>

<sup>4</sup> The PMP is a Metropolitan Transportation Commission (MTC) recommended software program.

- **Internal Reports** - Reports from the City’s Maintenance Services staff on streets needing repair were considered.
- **Council Member Input** – Council member requests for selecting streets were considered.
- **Public Input** - Public requests for selecting streets were considered.
- **Geographic Location** – Selecting streets in close vicinity to help lower construction bids was considered.
- **Funding Availability** – Available funding and potential for obtaining outside grant funding was evaluated.

The Pavement Condition Index (PCI) is an overall rating of road conditions. The PCI of each arterial and collector street segment is evaluated by an independent third-party every other year, and each residential street segment is evaluated every five years.

<u>PCI Rating</u>	<u>Description</u>
100	This rating is given to newly constructed or rehabilitated roadways.
85 - 99	Highly functional roadway. No action required.
70 - 85	Roadway can be maintained ("preventive maintenance") with crack sealing, slurry seals, micro-surfacing, and some minor, localized pothole repairs. As the roadway pavement ages, preventive maintenance may not be effective after a few maintenance cycles.
40 - 70	Extensive "dig-outs," grinding, fabric, or asphalt overlays may be required to maintain (or "rehabilitate") roadway.
0 - 40	Roadway requires complete reconstruction using full depth reconstruction, cold in place recycling, or hot in-place recycling methods. If a street deteriorates beyond certain points, it becomes progressively more expensive to bring that street back to the desired standard.

As part of the 2018 Capital Improvement Program (CIP) agenda item at the November 26, 2017<sup>5</sup> CIP meeting, Council reviewed and agreed to the following budget allocations for annual pavement improvement projects:

- Minimum 20% for preventive maintenance (streets with PCI of 70-85).
- Minimum 10% for deteriorated streets (streets with PCI of 0-30).
- Minimum 15% for streets located in Industrial Hayward as recommended by the Economic Development Strategic Plan in 2014.

## DISCUSSION

Based on staff's analysis using the criteria described above, the project parameters are as follows:

<b>Project Budget Allocation</b>	<b>Goal</b>	<b>Current Performance</b>	<b>Difference</b>
Preventive Maintenance Treatment	20% minimum	10%	-10%
Street with PCI Less than 30	10% minimum	39%	29%
Streets Located in Industrial Hayward	15% minimum	22%	7%

The project budget allocation is skewed towards streets in very poor condition (PCI less than 30) and less towards preventive maintenance due to various reasons:

- Including streets in very poor condition with high number of resident requests in order to improve and increase equity in distribution of City services (Roxanne Ave, Tulip Ave, Hermes Ct, Medinah St, and Arden Rd).
- Focus on selecting streets in neighborhoods adjacent to the Mission Blvd Corridor Phase 2 project. These streets have a high number of deteriorated streets and may have been further impacted by drivers using them as traffic detour routes for the Mission Blvd Corridor Phase 2 project.
- The establishment of the OHHA Assessment District requires the inclusion of streets from the area (Cotati St and Tribune Ave).

This selection requires both judgement and experience. PEI has confirmed the selection of streets sections, the approximate level of treatment for each, and provided engineering support services.

7.2 miles of bike lane striping will be installed at the following locations:

- Arden Rd, from Eden Landing Rd to Baumberg Ave (2.4 miles)
- Arrowhead Wy, Industrial Pkwy to Mission Blvd (1.5 miles)
- Clawiter Rd, from Industrial Pkwy to Winton Ave (1.8 miles)

<sup>5</sup> <https://hayward.legistar.com/LegislationDetail.aspx?ID=3162145&GUID=271A23E5-9011-4B2B-9B73-99C315A0FDD1&Options=&Search=>

- Gresel St, Brae burn Ave to Mission Blvd (0.6 miles)
- Pulaski Dr, Revere Ave to City Limits (0.9 miles)

The FY21 PIP will be using rubberized hot mix asphalt (RHMA), which is a more environmentally friendly treatment using grinded recycled tires. RHMA is similar to HMA overlay with the added benefits of not requiring pavement reinforcement fabric and reduces noise from vehicles driving on the pavement. City staff will apply for the Rubberized Pavement Grant Program by CalRecycle.

**ECONOMIC IMPACT**

Improved streets and roads add to the economic vitality of the City by increasing productivity and land values.

**FISCAL IMPACT**

The estimated project funding sources are as follows:

• 210 - Gas Tax	\$1,050,000
• 212 - Measure BB – Local Transportation	\$2,340,000
• 215 - Measure B – Local Transportation	\$3,050,000
• 218 – Vehicle Registration Fee	\$1,025,000
• 211 – RRAA (SB1)	\$2,750,000
• CalRecycle Rubberized Pavement Grant Program	\$250,000*

*Total:* \$10,465,000

*\*City Staff will apply for the CalRecycle grant valued up to \$250,000*

The project will be subject to the requirements of the citywide Community Workforce Agreement.

**STRATEGIC ROADMAP**

This agenda item supports the Strategic Priority of Improve Infrastructure. Specifically, this item relates to the implementation of the following project(s):

- Project 5, Part 5a: Maintain Pavement Condition Index (PCI) at 70.
- Project 5, Part 5c: Construct various OHHA Pavement Improvements

**SUSTAINABILITY FEATURES**

The project requires the contractor to recycle all construction and demolition debris generated from the project.

This project is consistent with City’s Complete Streets Policy and improves travel for all users including:

- Improved pavement for motorists
- Additional bike lanes and sharrows for bicyclists
- More visible pavement markings for pedestrians, including near school zones
- New or upgraded curb ramps to meet the recently revised Caltrans standards for pedestrians
- Use of recycled tires in RHMA pavement

The project satisfies the following General Plan policies:

- PFS-7.10 Recycled Products or Processes for Capital Projects
- HQL-2.5 Safe Routes to School
- HQL-2.6 Education on Sharing the Road
- M-1.7 Eliminate Gaps (in pedestrian networks)
- M-3.1 Serving All Users
- M-5.1 Pedestrian Needs
- M-5.6 Safe Pedestrian Crossings
- M-6.2 Encourage Bicycle Use

**PUBLIC CONTACT**

Immediately after the construction contract is awarded, a preliminary notice explaining the project will be posted and distributed to all residents and businesses along the affected streets. After the construction work has been scheduled, signs on barricades will be posted seventy-two hours prior to commencement of work indicating the date and time of work for each street. Residents will be advised to park their vehicles on side streets outside of the work area during the period when the streets are being treated.

**NEXT STEPS**

March 23, 2021	Bid Opening
April 2021	Award of Contract
May 2021	Start of Construction
September 2021	End of Construction

*Prepared by:* Kathy Garcia, Deputy Director of Public Works

*Recommended by:* Alex Ameri, Director of Public Works

Approved by:




---

Kelly McAdoo, City Manager