



City of Huntington Beach Pavement Management Plan (PMP) Overview

City Council Study Session
August 2, 2022

SUPPLEMENTAL
COMMUNICATION

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Meeting Date: 8/2/2022

Agenda Item No.: SS #1 (22-598)

Background

- The City's largest asset with an estimated replacement cost of \$1B
- Pavement Maintenance Inventory
 - 99,273,000 SF of pavement throughout City
 - Arterial network – 167 miles
 - Local network – 315 miles
 - Alley network – 33 miles
 - Bicycle and pedestrian paths – 739,000 SF
 - 4,430,000 SF of AC Parking Lot



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Factors That Effect Pavement Life

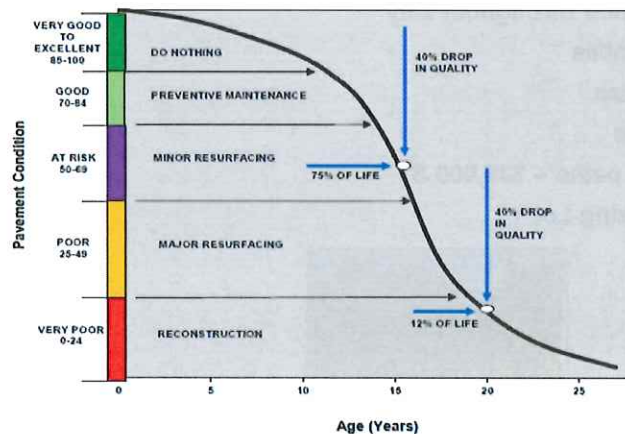
- Traffic volume and loads
- Weather (rain, extreme heat, freezing)
- Type of pavement
- Age of pavement
- Soil and base material under pavement
- Preventative maintenance efforts and available funding



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What is a Pavement Condition Index (PCI)?

- The PCI is a visual condition rating that ranges from 0 to 100
- Citywide Weighted Average PCI = $\text{Sum of pavement section PCI} \times \text{its area} / \text{the total area of the network}$



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PCI = 85 to 100 (Very Good to Excellent)
Action → Preventative/Stop Gap



PCI = 65 to 85 (Good)
Action → Surface Treatment (Slurry Seal)



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PCI = 25 to 65 (Poor to At-Risk)
Action → 2-3" Overlay



PCI = 0 to 24 (Very Poor to Poor)
Action → 4"- 6" Thick Overlay or Reconstruction



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Huntington Beach Street Network

- The weighted average PCI for Arterials is 81.6 (Good)
- The weighted average PCI for the Local streets is 81.4 (Good)
- The overall citywide average PCI is 81.5 (Does not include alleys)



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PCI Comparison

Average Comparison PCI's

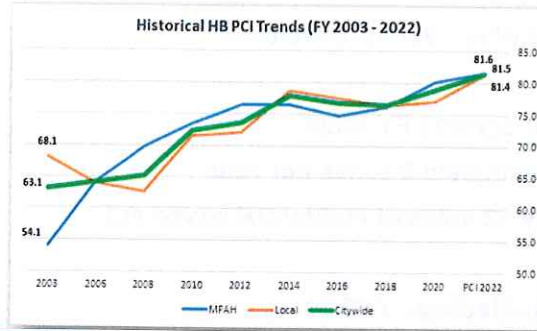
- | | |
|-----------------------|----|
| • State of California | 66 |
| • Orange County | 79 |
| • LA County | 68 |
| • San Diego County | 70 |



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Historic Performance

Rank	Mi.	SF	PCI 2022	2020	2018	2016	2014	2012	2010	2008	2006	2003
MPAH	168.7	34,423,330	81.6	80.2	76.1	74.7	76.5	76.4	73.4	69.7	64.2	54.1
Local	318.0	62,397,119	81.4	77.2	76.5	77.6	78.7	72.1	71.6	62.6	64.0	68.1
Citywide	486.7	96,820,449	81.5	78.9	76.4	76.7	77.9	73.5	72.3	65.1	64.1	63.1

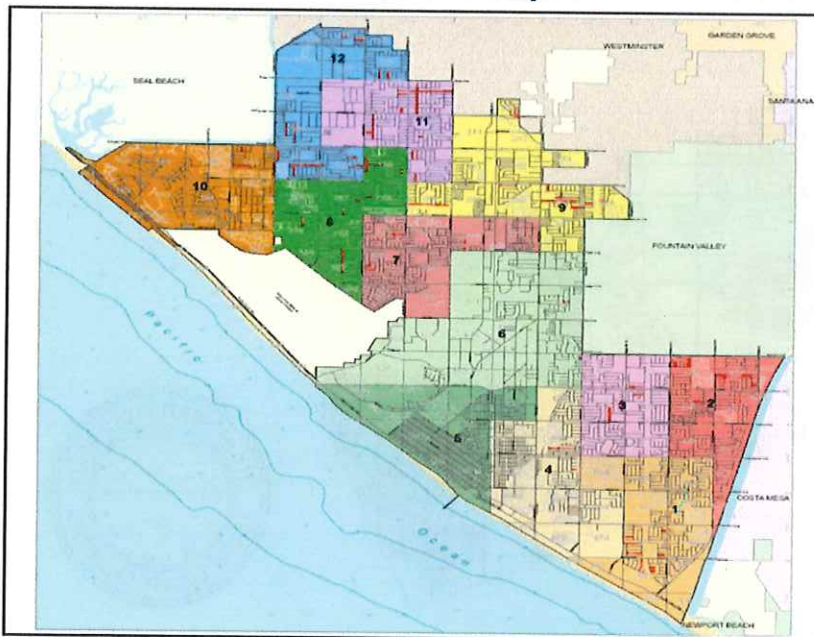


Condition	PCI Range	MPAH	Locals	Total Mi.	% of Network
Very Good	(86-100)	77.6	158.6	236.2	48.5%
Good	(75-85)	50.5	71.4	122.0	25.1%
Fair	(60-74)	26.3	46.7	73.0	15.0%
Poor	(41-59)	11.4	28.4	39.8	8.2%
Very Poor	(0-40)	2.8	13.0	15.7	3.2%
		168.7	318.0	486.7	



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Residential Maintenance Zone Map



Public Works Maintenance Zones

City of Huntington Beach



Maintenance Zone / Year

- Zone 1 / 2017-18
- Zone 2 / 2022-23
- Zone 3 / 2020-21
- Zone 4 / 2011-12
- Zone 5 / 2021-22
- Zone 6 / 2018-19
- Zone 7 / 2012-13
- Zone 8 / 2014-15
- Zone 9 / 2019-20
- Zone 10 / 2016-17
- Zone 11 / 2013-14
- Zone 12 / 2015-16



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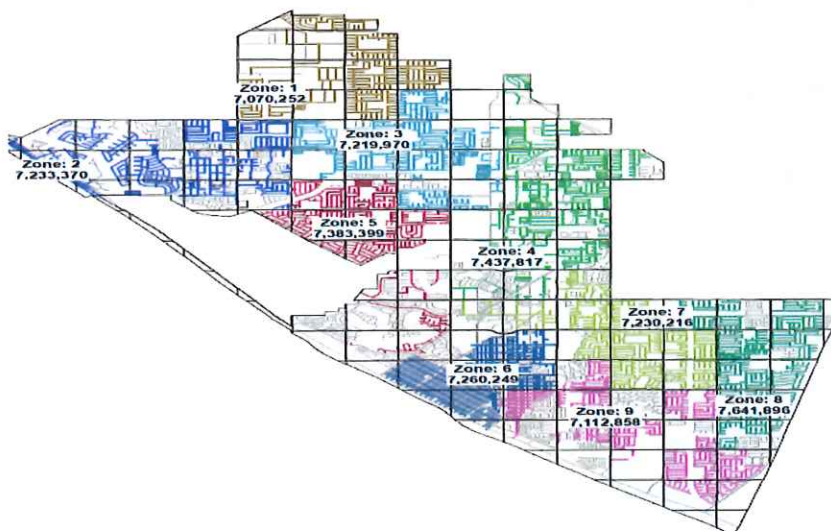
Maintenance Zones

- **Current 12 Zone Program**
 - The City is divided into 12 Maintenance Zones.
 - Each Zone has approximately 26 miles of residential pavement.
 - City wide there are 315 miles of residential pavement.
- **Alternate 6 Zone Program Option Starting FY 23/24**
 - Use same 12 Zone map and complete 2 zones per year
 - Each Zone has approximately 52 miles of residential pavement.
- **Alternate 9 Zone Program Option Starting FY 23/24**
 - The City would be divided into 9 Maintenance Zones.
 - Each Zone has approximately 35 miles of residential pavement.



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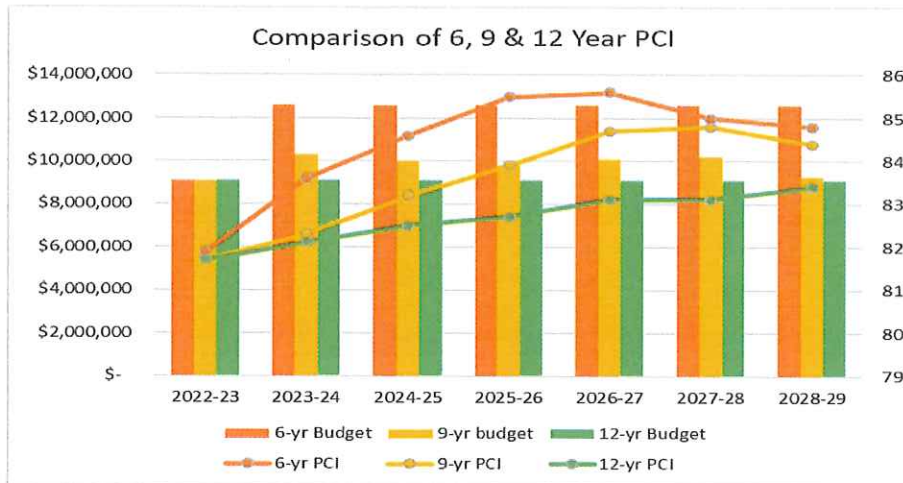
9-Year Zone Maintenance Map



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Funding Analysis for PMP and Recommendation

Future Projections: Current 12-yr vs 6-yr and 9-yr Options



Questions?

