City of Arts & Innovation

City Council Memorandum

TO: **HONORABLE MAYOR AND CITY COUNCIL** **DATE: SEPTEMBER 20, 2022**

FROM: **PUBLIC WORKS DEPARTMENT** **WARDS: ALL**

SUBJECT: **UPDATE ON TYPICAL STREET PAVING AND RESURFACING PROJECTS TO CONSIDER MODIFYING THE PAVING MORATORIUM FROM THREE YEARS TO FIVE YEARS**

ISSUES:

Receive an update on typical street paving and resurfacing projects and consider extending the paving moratorium from three years to five years to better support the Pavement Management Program.

RECOMMENDATIONS:

That the City Council:

1. Receive and file an update on typical street paving and resurfacing projects; and

2. Approved extending the paving moratorium from three years to five years to better support the Pavement Management Program.

BACKGROUND:

On May 12, 2022, the Mobility and Infrastructure Committee unanimously recommended to:

1. Receive and file the street paving and resurfacing projects update; and

2. Recommend that the City Council extend the paving moratorium from three years to five years to better support the Pavement Management Program.

On May 17, 2022, the City Council discussed the Fiscal Year 2022-24 Proposed Biennial Budget and reviewed the critical unfunded needs scoring results. One of the funding requests that received unanimous support was “Measure Z – Maximize Roads/Streets”. After discussion, the City Council supported ten critical unfunded requests, including an $8 million annual allocation for the Pavement Management Program to construct additional paving and restorative projects to improve and protect roadways. Subsequently, on June 21, 2022, the City Council unanimously approved the Fiscal Year 2022-24 Biennial Budget. The City Council values and has prioritized improved roads by allocating additional Measure Z funding and the Public Works Department

recommends extending the paving moratorium from three years to five years to protect this investment.

Many agencies have adopted paving moratoriums to help preserve streets after they are paved or receive a slurry treatment. Despite the best coordination efforts, utility companies often need to cut existing pavements to install, repair, and/or service underground utility facilities and some will wait to complete their work at the end of the moratorium period to reduce the paving requirements. On newly paved or resurfaced streets, utility trenching can have significant impacts in the following three ways:

1. Cutting a pavement structure creates an entry point for water, which can damage the underlying pavement layers.

2. Removing pavement layers creates a plane of weakness where the pavement structure may not be adequately supported.

3. Repaired sections may introduce roughness if the quality of the repair does not closely match the adjacent pavement structure. Rough roads can cause vehicles to bounce, leading to early deterioration of the road.

The City of Riverside has adopted Standard Drawing No. 453, dated May 2, 2019, that established a three-year restriction on trenching, cutting, potholing, grading, coring, and other street impacts to protect roadways that have been paved or resurfaced. If an applicant is permitted to work within the three-year moratorium to address emergency or other priority work, the contractor is required to extend the refurbishment of the asphalt and striping beyond the limits defined by Standard Drawing No. 453. On local roads, refurbishment of the asphalt may require a contractor to replace asphalt from curb to curb, while on arterial roadways the contractor may have to repave across multiple travel lanes and replace a wider longitudinal section of roadway to maintain a uniform ride and prevent early deterioration of the road. In recent years, the Public Works Department began to specify a rubberized asphalt membrane interlayer prior to resurfacing a roadway to create a barrier preventing water from penetrating into the subgrade and causing premature asphalt failure. The City adopted a Pavement Management Program to manage the roadway system and identify maintenance projects to maximize the benefits to the community and help extend the useful life of roads.

In September 2017, a consultant retained by the City, IMS, completed a pavement condition assessment of 875.4 centerline City miles that included alleys which determined a Pavement Condition Index (PCI) score for the City as a 61, with a score of 100 correlating to a newly paved street. The PCI provides a snapshot of the pavement health of a road and many factors affect the overall score. The PCI score is impacted by the pavement age, climate and precipitation, traffic loads, and maintenance intervals. The report presented to City Council on September 11, 2018, indicated that an annual maintenance budget of $24 million was needed to maintain the average network PCI of 61. The Public Works Department has operated with a lower annual budget and thus staff continues to explore ways to best protect roadways. In the recent past, staff recommended and adopted “4 or More Axle” restrictions on select roadways to discourage commercial trucks from cutting through City streets and shortening the life of the pavement. Staff have also engaged local agencies to assess paving moratorium policies to consider changes. Extending the paving moratorium from three years to five years may be a practical and feasible approach to minimize road damage and provide a more uniform, comfortable, and safer ride for motorists.

DISCUSSION:

Southern California is “car-centric” and the importance of the local transportation system cannot be over-emphasized. Residents rely on bicycle, bus, rail, and trucks, but the personal vehicle is the primary mode of transportation to reach employment, schools, leisure, and other destinations. Residents expect a reliable and well-maintained local street and road system, and the Pavement Management Program is tasked with managing the needs, funding, and systematically recommending projects to improve the overall network. When funding cannot keep pace with the maintenance demands, agencies may seek policies or practices to reduce early wear and tear of roads and paving moratoriums provide a means to preserve investment in this critical system.

Staff reached out to local agencies to assess paving moratorium policies and Table 1 reflects the current practices.

Table 1- Paving Moratorium Practices at Local Agencies

Agency	Paving Moratorium	Slurry Moratorium
Riverside	3 Years	3 Years
County of Riverside	NA	NA
Corona	3 Years	3 Years
Moreno Valley	3 Years	3 Years
Norco	5 Years	3 Years
Eastvale	5 Years	NA
City of San Bernardino	5 Years	3 Years
Ontario	3 Years	3 Years
Rancho Cucamonga	5 Years	2 Years
Anaheim	3 Years	1 Years
San Diego	5 Years	3 Years

Of the ten agencies having paving moratoriums, half adopted a five-year paving moratorium and seven of the 10 agencies have a three-year slurry moratorium. The Public Works Department is recommending increasing its Paving Moratorium from three to five years and leaving the slurry moratorium at three years. Additionally, contractors impacting roadways that have a rubberized asphalt interlayer, would be required to either replace the interlayer material or construct a four-inch thick asphalt replacement section within the impacted area to mitigate this potential weak area. If approved, staff would update the respective standard drawings and communicate the change with utility companies to encourage utility purveyors to better coordinate with the Public Works Department to complete underground utility work prior to paving/resurfacing projects.

The Public Works Department conducts extensive outreach to utility companies including Riverside Public Utilities (RPU) and provides a list of planned paving projects so the respective companies can plan ahead. Adopting a five-year paving moratorium provides additional incentive to utility purveyors to work with staff to upgrade/repair systems prior to paving operations. Otherwise, those same upgrades/repairs conducted during the moratorium would be more extensive and expensive to complete since additional roadway improvements would be required. Even though the City’s approach to paving would not change, some contractors and utility companies may be financially burdened when conducting repairs or trenching in roads during the moratorium and thus the difference in policies reflected in Table 1.

The Pavement Degradation Curve (Figure 1) illustrates that pavement deterioration is non-linear.

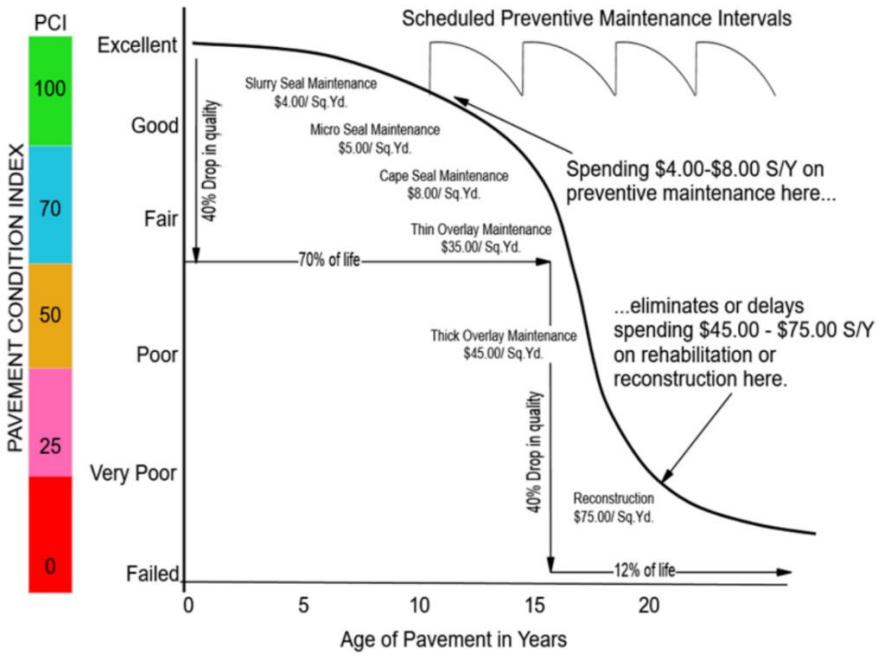

Figure 1: Pavement Degradation Curve

After paving a roadway, agencies can expect the road to remain in excellent condition for the following 10 years unless the street is impacted by utility cuts. Trenching in the roadway can have varying impacts but they all contribute to premature pavement deterioration. Multiple utility cuts on the same street within a small area can magnify this impact and therefore agencies coordinate with utility purveyors to complete such underground work before paving operations.

Figure 2 provides a visual illustration of how roadways are impacted by trenching operations and water infiltration.

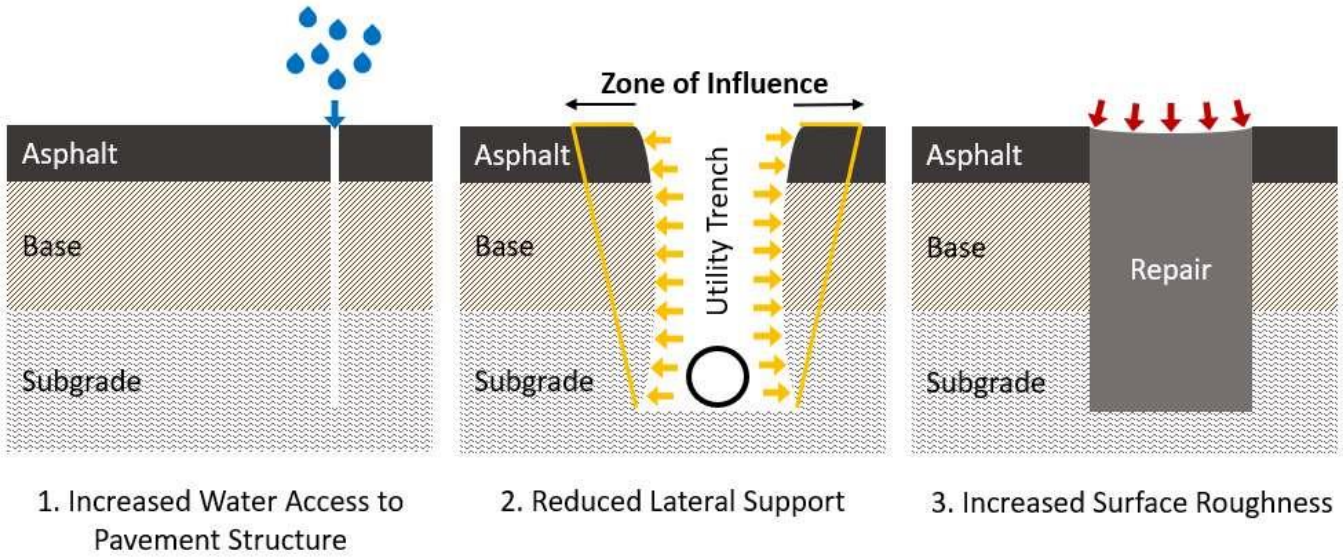

Figure 2: Utility Cut Damage Mechanisms

The Public Works Department continues to explore practical and feasible ways to extend the useful life of roads, and extending the paving moratorium from three to five years would help get

closer to that goal. If a five-year paving moratorium is adopted, staff would incorporate standard plans for the various trenching repair scenarios (example in Attachment 2).

STRATEGIC PLAN ALIGNMENT:

This item contributes to **Strategic Priority 6 – Infrastructure, Mobility & Connectivity**, and the following goals:

> **Goal 6.1** – Provide, expand and ensure equitable access to sustainable modes of transportation that connect people to opportunities such as employment, education, healthcare, and community amenities.
>
> **Goal 6.2** – Maintain, protect and improve assets and infrastructure within the City's built environment to ensure enhance reliability, resiliency, sustainability, and facilitate connectivity.
>
> **Goal 6.4** – Incorporate Smart City strategies into the planning and development of local infrastructure projects.

This item also aligns with the Cross-Cutting Threads:

1. **Community Trust:** Extending the paving moratorium will better protect the roadway network and reduce utility cuts/trenching on newly paved roads.

2. **Equity:** If approved, the extended paving moratorium would impact all utility purveyors including the Riverside Public Utilities. The Public Works Department would share the planned paving projects to better coordinate underground utility work prior to the construction of paving projects to best protect City roads.

3. **Fiscal Responsibility:** Extending the paving moratorium would have a direct correlation on the prolonged useful life of roads and thus decrease the financial burden on the Public Works Department.

4. **Innovation:** This item is neutral towards this cross-cutting thread.

5. **Sustainability & Resiliency:** Extending the paving moratorium will better protect the roadway network thus improving the quality, structure, and resiliency of our roads especially for the initial 5 years after it has been paved.

FISCAL IMPACT:

There is no fiscal impact associated with this report.

Prepared by:	Gilbert Hernandez, Public Works Director
Certified as to availability of funds:	Edward Enriquez, Interim Assistant City Manager/Chief Financial Officer/City Treasurer
Approved by:	Kris Martinez, Assistant City Manager

Approved as to form: Phaedra A.Norton, City Attorney

Attachments:

1. Public Works Department Standard Drawing No. 453 - Trench Backfill
2. City of Anaheim Standard Detail 132 – Pavement Moratorium, Trench Replacement
3. Presentation