Date: 7/28/22

To: Municipal Facilities Committee

From: Deborah Weintraub, AIA, LEEDAP Chief Deputy City Engineer

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Subject: **FUNDING FOR CONSTRUCTION COST INFLATION**

Recommendations:

- 1. That the Bureau of Engineering (BOE) work with the office of the City Administrative Officer to develop a funding strategy for projects that are either in construction and/or starting construction in Fiscal Year 2022-23 due to construction cost inflation, and;
- 2. Reassess market conditions in January 2023 to adjust this strategy accordingly.

Introduction:

The BOE is submitting this report in order to alert our City Hall colleagues of significant price increases we are experiencing in construction cost bids. The construction cost increases have a variety of causes and are extraordinary. In order to deliver committed capital projects to the City residents, the funding allocations for construction projects may need to be augmented.

Background:

Non-residential building inflation between 2011 and 2020 on a national basis was on average 3.7% annually (Zarenski, 2021¹), and 2.4% in California (California Department of General Services). While the pandemic initially decreased construction activity in 2020, in 2021 there was a large increase in demand for construction materials. Unfortunately, this demand was met with serious supply chain challenges, and this resulted in a reduction in the availability of construction materials and higher construction costs.

Between January 2020 to July 2021, prices of all materials and services for new construction performed by contractors has gone up 26.3% on a national average (AGC, August 2021²), and 13% in California (California Department of General Services, 2022). The California Department of General Services also reported that new construction costs in California went up 15.22% from June 2021 to June 2022.

Through 2022, prices for construction materials have continued their ascent and in addition, skilled labor has become even more scarce than previous years. Construction project starts are also being delayed to account for supply chain challenges and labor shortages, and the

¹ Zarenski is a nationally recognized construction economics analyst, author, educator and presenter. Website:

https://edzarenski.com/ . Article: https://edzarenski.com/2022/02/11/construction-inflation-2022/

² AGC is an organization of qualified construction contractors and industry related companies dedicated to skill, integrity and responsibility. Website: <u>https://www.agc.org/</u>

time delays and the uncertainty in product pricing are also resulting in higher bids (Engineering News Record, 2021). Contractors are transferring these risks to the Owner at the time of bidding.

Forecast:

Market analysis is showing the construction cost escalation rate in Los Angeles is currently 7.99% per year (Rider Levett Bucknall (RLB), 2022³), however, RLB is using 8.04% per year in their cost estimate calculations, and HNTB⁴ is using 15%.

Below is a summary of some of the other market forces impacting construction costs. As of February 2022, diesel fuel, steel mill products, lumber, plywood, copper, brass, aluminum, plastic, gypsum, concrete, pavement, and roofing have all gone up drastically and forecasts are predicting that prices through 2022 will exceed peak prices of 2021 (Engineering News Record, 2022⁵). Interest rates are set to continue to rise, and the Russia-Ukraine war creates a lot of uncertainty and has market impacts. Supply chain and labor issues continue to cause a backlog of orders and an inventory shortage, indicating a supply-demand imbalance that will result in higher-priced goods and services. The anticipated pace of inflation is not likely to decelerate until 2023, with manufacturers potentially beginning to catch up to demand in late 2022, potentially with supply chains largely unclogged by late-2023 (CBRE, 2022⁶).

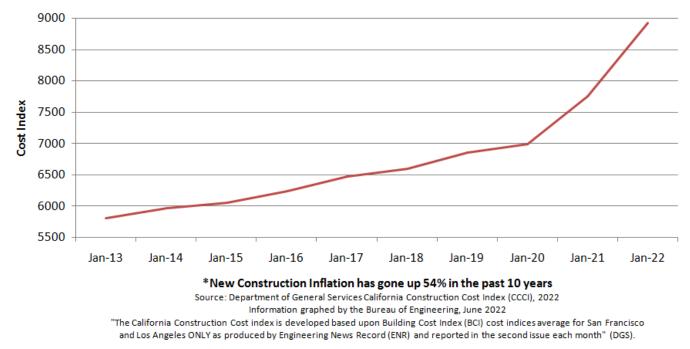
³ RLB is a global cost consultant partner and a nationally recognized project management and advisory firm. Website: <u>https://www.rlb.com/americas/</u>. Article: https://s31756.pcdn.co/americas/wp-content/uploads/sites/4/2022/03/City-Market-Insight-LOS-ANGELES-Q1-2022.pdf

⁴ HNTB is a national engineering consulting company, with a strong presence in Southern California. Website: https://www.hntb.com/

⁵ Engineering News Record is a national magazine that covers the engineering and construction industry. Website: https://www.enr.com/

⁶ CBRE is the world's largest commercial real estate services & investment company. Website: <u>https://www.cbre.com/about-us</u>. Article: <u>https://www.cbre.com/en/insights/reports/2022-fm-cost-trends-report</u>.

Data Analysis:



10-Year New Construction Inflation

BOE Bid Results:

In the past couple of years, there has been a wide range of cost changes with a general trend of higher than average cost increases. For example, BOE looked at price escalation data from City bids from 2021 to 2022 for two key construction scopes used on our projects that are typically bid on a unit price basis; concrete sidewalk/driveway and concrete pavement. In the past year the average unit cost of concrete sidewalk/driveway and concrete pavement increased by 79% and 21% respectively. We also found that there was a high variation on the cost changes in AC pavement.

In addition, we looked at 20 Municipal Facility project bids between 2017 to the present. These projects are typically bid on a lump sum basis. Our analysis was to look at the variance between the low bid and City Engineer's Estimate on a project-by-project basis. The average in the variance between the low bid price as compared to the City Engineer Estimate from 2017 through 2021 was that the low bid averaged 5.9% higher than the City Engineer's estimate. In 2022 this number increased dramatically to the low bids averaging 40.68% higher than the City Engineer's Estimate.

BOE Actions:

BOE is in the process of developing a draft cost inflation clause for City construction contracts, which would establish the mechanism for cost adjustments during construction for demonstrated inflationary cost increases and decreases. BOE intends to vet the proposed language with the local construction industry and with our City partners. This will help offset the perceived need by contractors to price risk into their bids.

Additionally, BOE is in the process of revising the suggested inflation rates for project budgeting. Since 2014, BOE suggested using 5% as the inflation rate for all new construction. The below chart is BOE's suggested inflation rates to use for future estimates:

Date	Annual Rate
July 1, 2022 - June 30, 2023	15%
July 1, 2023 - June 30, 2024	12%
July 1, 2024 - June 30, 2025	9%
July 1, 2025 - June 30, 2026	8%
July 1, 2026 - June 30, 2027	8%

The potential recession may cause changes in these inflation rates. Therefore, it is recommended to re-assess these rates in six months.

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cc: Mary Hodge, Deputy Mayor Aura Garcia, Board of Public Works Teresa Villegas, Board of Public Works Mike Davis, Board of Public Works Vahid Khorsand, Board of Public Works Susana Reyes, Board of Public Works. Gary Lee Moore, Bureau of Engineering Ted Allen, Bureau of Engineering Alfred Mata, Bureau of Engineering Julie Sauter, Bureau of Engineering Jose Fuentes, Bureau of Engineering Richard Louie, Bureau of Engineering