




October 3, 2022

To: Executive Committee

From: Darrell E. Johnson, Chief Executive Officer 

Subject: Measure M2 Next 10 Delivery Plan: Market Conditions Key Indicators Analysis and Forecast

Overview

At the direction of the Board of Directors, the Orange County Transportation Authority monitors construction market conditions. Annually, a report on Market Conditions Key Indicators Analysis and Forecast is presented to the Board of Directors to provide insight into potential project delivery cost drivers that could affect the Measure M2 Next 10 Delivery Plan. The last effort was presented to the Board of Directors on October 11, 2021. An updated forecast has been prepared and a presentation on the results of this effort is provided.

Recommendation

Continue to monitor market conditions key indicators and provide updates to the Board of Directors as appropriate.

Background

On November 7, 2006, Orange County voters approved the renewal of Measure M, the one-half-cent sales tax for transportation improvements. The Orange County Transportation Authority (OCTA) Board of Directors (Board) continues to advance the implementation of Renewed Measure M (M2) commitments by adopting delivery plans. The delivery plans are designed to validate the ability to implement all projects and programs through 2041 as promised to the voters, ensure fiscal sustainability, and implement projects and programs effectively and expeditiously.

In 2016, the Board directed staff to acquire better insight into the construction market outlook. The intent was to provide an analysis of trends for near-term construction market conditions in tandem with the annual sales tax revenue update to assist with prudent project delivery decisions.

OCTA retained the Orange County Business Council (OCBC), led by Dr. Wallace Walrod, Chief Economic Advisor to OCBC, and Dr. Marlon Boarnet, Professor and Chair of the Department of Urban Planning and Spatial Analysis at the University of Southern California to provide this analysis.

The results of the initial analysis were presented to the Board in September 2017. The report identified several near-term cost indicators that could influence the construction market and, by extension, M2 project delivery. These included the pace of transportation construction programs in the neighboring counties (resulting in the strained supply of materials and construction labor), construction wage pressures, sustained low statewide unemployment, and residential construction demand. Overall, OCBC's analysis identified a strong potential that OCTA could experience an increasing cost environment in the near term.

Following this presentation, the Board directed staff to continue to work with OCBC to monitor and track the indicators and provide the Board with updates to cost risk factors for project delivery. In response, OCBC spent early 2018 analyzing trends and creating an Infrastructure Construction Cost Pressure Index (ICCPI) model. On September 10, 2018, OCBC presented its ICCPI model, and its forecast for 2018, 2019, and 2020 cost fluctuation ranges, to the Board.

Discussion

OCBC continues to monitor trends in material costs, labor costs, and general economic conditions. Relevant data for each model component is analyzed to determine a range of potential cost impacts to update the forecast biannually. The fall 2022 update provides a three-year forecast through 2025. Attachment A summarizes the fall 2022 forecast and also includes prior forecasts for reference. The full report on the ICCPI model update is included in Attachment B.

The ICCPI model is a forecasting tool, with scores indicating a forecast of fluctuations in public construction costs expressed in ranges. Index scores of two and three indicate somewhat low to normal inflationary environments in the range of one to four percent. Conversely, a score of four is a high inflation environment in the range of six to 11 percent. Extreme index values of zero and five correspond to the unusual conditions observed in Orange County immediately before and during the Great Recession and the high-cost inflation environment that occurred in the building boom years of the early 2000s.

Using the ICCPI model, OCBC forecasts a score of four in 2023 and 2024, which represents a potential range of higher cost fluctuation of six to 11 percent. The forecast for 2025 drops to a score of two, which anticipates a tempering of economic conditions.

OCBC Orange County Transportation ICCPI Score, 2023-2025		
Year	Index Score	Range of Cost Fluctuation
2023	4	Six percent to 11 percent
2024	4	Six percent to 11 percent
2025	2	One percent to two percent

The fall update predicts continued volatile market conditions forecasted in spring 2022 as cost pressures remain high. Major drivers include low unemployment rates coupled with high inflation rates, which could result in rising labor and material prices. Despite the Federal Reserve raising interest rates to curb inflation, the national and regional labor market remains strong. Additionally, some material prices saw large increases, specifically, Portland Cement Concrete pavement, aggregate base, and steel bar. Since full 2022 data is not yet available, the percentages calculated in the report are subject to change. As in prior forecasts, OCBC indicates that OCTA will also need to be aware and ready to respond to cost pressures that cannot be modeled. Examples of such forces include:

- Pace of Federal Reserve interest rate hikes largely unknown and subject to rapid changes,
- Lingering impacts of the pandemic, zero-tolerance policy in China, and
- General political uncertainty both domestically and internationally.

Overall, OCBC's analysis identifies a potential that in 2023 and 2024, OCTA may experience a high inflationary cost environment. To mitigate potential cost pressures, OCTA's Project Controls department monitors and adjusts project cost escalation assumptions according to market trends. Project Controls' cost estimating process uses historical information, as well as current trends in the market, and follows a consistent and defined process. Looking back at the last 20 years, OCTA's cost estimates have included a three percent escalation, which, on average during this timeframe, provided the appropriate escalation to deliver projects successfully. Currently, using 3.5 percent for construction escalation, as well as incorporating contingency based on the project type and complexity, is staff's preferred approach to cost estimating. Given the continued high market fluctuations in the current year, staff recommends continuing this effort to monitor key indicators to inform OCTA's delivery plans.

Summary

OCBC has prepared an update on construction market conditions to help OCTA with M2 project delivery planning. The update considers fluctuations in material costs, labor costs, and general economic conditions and trends. The Market Conditions Key Indicators Analysis and Forecast conclude that OCTA may experience a high inflationary cost environment in 2023 and 2024, with a tempering of cost pressures in 2025.

Attachments

- A. Orange County Business Council, Orange County Transportation ICCPI Score, Fall 2018 through Fall 2022 Forecasts
- B. Orange County Business Council, Orange County Transportation Infrastructure Construction Cost Pressure Index, Fall 2022, Prepared for the Orange County Transportation Authority

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