



October 4, 2021

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 November 9, 2020. 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 a series of delivery plans. The delivery plans are designed to validate the ability to implement all projects and programs through 2041 as promised to the voters. The delivery plans consider the cost and timing of the transportation improvements, fluctuations in sales tax revenue projections, access to external revenue, and the use of bonding when necessary.

In 2016, the Board directed staff to acquire better insight into the construction market outlook. The intent was to provide insight into near-term construction market conditions in tandem with the revenue outlook 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.

The results of the initial analysis were presented to the Board in September 2017. The analysis 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 workers), 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 the 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 and trends. Relevant data for each model component is analyzed to determine a range of potential cost impacts to update the forecast biannually. The fall 2021 update provides a three-year forecast through 2024. Attachment A summarizes the fall 2021 forecast and also includes prior forecasts for reference. The full report on the ICCPI model update is included as Attachment B.

The ICCPI model is designed to be a forecasting tool, with scores indicating public construction forecast cost fluctuation ranges. Index scores of two and three indicate somewhat normal inflationary environments. An index score of one is a low inflation/deflationary environment and, conversely, a score of four is a high inflation environment. Values of zero and five correspond to the extreme 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 from 2022 through 2024, which represents a potential range of cost fluctuation of six to 11 percent.

OCBC Orange County Transportation ICCPI Score, 2022-2024		
Year	Index Score	Range of Cost Fluctuation
2022	4	6 percent to 11 percent
2023	4	6 percent to 11 percent
2024	4	6 percent to 11 percent

The updated forecast points to more volatile market conditions compared to the spring 2021 forecast as cost pressures have increased in the most recent data available. Major drivers include increases in building permits and, by correlation, the cost of materials. From 2018 through 2020, building permits in the State declined, but that trend has reversed and there was a sharp increase in 2021. Also, in previous updates, the pattern of material prices were mixed. More recent data reflect a more uniform trend of all material prices increasing due partly to market disruptions and those impacts to many industries as well as overall demand. Another factor that contributes to these inflationary pressures is unemployment. The spring 2021 update captured the sharp increase in unemployment due to the coronavirus (COVID-19) pandemic starting in 2020, which has since declined pointing to a potential additional cost pressure in the future. As in prior forecasts and especially with COVID-19, 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:

- Pent up demand may continue to drive costs higher,
- Shifting regulatory environment due to COVID-19, and
- Future potential economic shutdowns related to the COVID-19 spread and other variants.

Overall, OCBC's analysis identifies a potential that from 2022 through 2024, OCTA may experience a high inflation 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 best estimate using industry standards on cost estimating. With extreme market fluctuations in the past year, staff recommends continuing this effort to monitor key indicators.


Summary

OCTA has prepared an update on construction market conditions to help 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 concludes that OCTA may experience a high inflation cost environment from 2022 through 2024.

Attachments

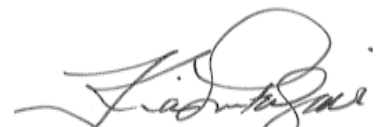
- A. Orange County Business Council, Orange County Transportation ICCI Score, Fall 2018 through Fall 2021 Forecasts
- B. Orange County Business Council, Orange County Transportation Infrastructure Construction Cost Pressure Index, Fall 2021, Prepared for the Orange County Transportation Authority

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