



**November 1, 2021**

**To:** Regional Planning and Highways Committee

**From:** Darrell E. Johnson, Chief Executive Officer

**Subject:** Interstate 405 Improvement Project Update

### **Overview**

The Orange County Transportation Authority is currently underway with the implementation of the Interstate 405 Improvement Project. This report provides a project update.

### **Recommendation**

Receive and file as an information item.

### **Background**

The Orange County Transportation Authority (OCTA), in cooperation with the California Department of Transportation and the cities of Costa Mesa, Fountain Valley, Huntington Beach, Seal Beach, and Westminster, is implementing the Interstate 405 (I-405) Improvement Project between State Route 73 (SR-73) and Interstate 605 (I-605) (Project). The Project will add one general purpose lane in each direction from Euclid Street to I-605, consistent with Measure M2 Project K, and will add an additional lane in each direction that will combine with the existing high-occupancy vehicle lane to provide dual express lanes in each direction of I-405 from SR-73 to I-605, otherwise known as the 405 Express Lanes.

On November 14, 2016, the OCTA Board of Directors (Board) awarded the design-build (DB) contract to OC 405 Partners (OC405), a joint venture. OCTA executed the DB contract with OC405 and issued Notice to Proceed (NTP) No. 1 on January 31, 2017. NTP No. 1 was a limited NTP for mobilization, design, and administrative activities. On July 26, 2017, the Transportation Infrastructure Finance and Innovation Act (TIFIA) loan agreement was executed between OCTA and the United States Department of Transportation (USDOT). On July 27, 2017, OCTA issued NTP No. 2 to OC405. NTP No. 2 was a full NTP for all activities, including construction.

***Discussion***

A number of activities are ongoing as the construction work continues to advance. The following provides a more detailed status of Project activities.

**Financing and TIFIA Loan**

In July 2017, OCTA executed a TIFIA loan agreement with the USDOT's Build America Bureau (Bureau) for up to approximately \$629 million. In October 2020, OCTA staff received Board approval to pursue a reset of the interest rate on the TIFIA loan. After approximately one year of working with the Bureau, OCTA successfully executed a new TIFIA loan agreement with the Bureau on September 9, 2021, establishing OCTA as the first agency to close a rate reset loan for a TIFIA loan that had been drawn upon. As part of the new TIFIA loan, the interest rate was reset from 2.91 percent to 1.95 percent. The lower interest rate will result in a net present value savings of approximately \$158 million.

**Tolling Contracts**

On February 26, 2018, the Board selected Kapsch TrafficCom USA, Inc., (Kapsch) to provide toll lanes system integration services for design, installation, operation, and maintenance of the electronic toll and traffic management (ETTM) system on both the 405 and 91 Express Lanes. Kapsch is currently under contract and is working closely with the design-builder to deliver fully functional express lanes upon opening in 2023. Kapsch has received approval for the ETTM infrastructure final design to be used for the 405 Express Lanes, including equipment types and configurations. Kapsch continues to review the design-builder's plans and construction activities and has provided input on requirements for the Toll Operations Center (TOC) improvements. The TOC will be located at OCTA's Santa Ana Bus Base and will be staffed by Kapsch for 405 Express Lanes operations.

OCTA staff developed a request for proposals for the back-office system and customer service center operations for the 405 Express Lanes. The Board approved its release in June 2020, and the Board selection process is underway. Also in the next few months, OCTA staff will be presenting the Board options for a future customer service center and roadway services location. OCTA staff is evaluating various buy versus lease options and will be seeking Board direction on a future site to locate these services. This location is separate from the TOC location as it needs to be readily accessible to the public for customer and motorist service purposes.

## Design

The final design is substantially complete at this time. The DB process allows for design refinements, and that process will continue throughout the remainder of construction.

## Right-of-Way (ROW) Acquisition

Construction of the Project impacts 288 properties, including 179 residential properties, 71 commercial/industrial properties, 37 public properties, and one railroad property. There are 287 properties identified as partial acquisitions and one property identified as a full acquisition at the owner's request. The ROW required to construct the Project is comprised of a combination of fee acquisitions, permanent easements, temporary construction easements, permanent and temporary ground lease reductions, and access control rights. This ROW is required for roadway and bridge construction, soundwalls and retaining walls, drainage systems, and for the installation of above ground and underground facilities, including electrical, telecommunication, water, sewer, gas, and storm drain systems.

The ROW acquisition program is on schedule. As of July 2020, OCTA has possession of the required property rights needed for all 288 property impacts, which retires a significant risk to OCTA. The overall ROW process continues as OCTA works with certain property owners to finalize remaining agreements on costs related to certain acquisitions. As this is a DB project, minor additional ROW needs may become necessary in the future as construction continues. Of the 288 total properties impacted, 288 offers were presented and the ROW is in OCTA's possession for construction. There were 60 resolutions of necessity (RON) approved by the Board and no additional RONS are anticipated.

## Utility Relocations

There are currently 130 utilities that require relocation to accommodate the Project. OCTA is coordinating with 22 impacted utility owners to identify and resolve conflicts and relocation issues. To date, OCTA has executed 92 percent of the necessary utility relocation agreements and is in the process of finalizing the remaining utility agreements. There are several remaining potential utility relocation risks, including various Southern California Edison (SCE) facilities, for which staff continues to develop and implement mitigation plans, as utilities are a shared risk between OCTA and OC405. Many critical utility relocations that had once been considered to pose some risk, such as facilities owned by Frontier Communications, Chevron USA, Crimson Pipeline, and SCE have been

successfully completed. Additionally, a major Southern California Gas (SCG) pipeline relocation within the United States Navy property that posed a significant risk to the Project schedule has been successfully completed on schedule. However, OC405 recently identified a new conflict along a different section of the same existing SCG gas line near Bolsa Chica Road that requires relocation. OCTA has taken an active role in coordinating this relocation with both OC405 and SCG, including developing a construction schedule to ensure that SCG's construction activities are completed in a timely manner to mitigate any potential risks to the project schedule.

#### Roadway and Wall Construction

OC405 began construction in March 2018. Initial construction activities included restriping portions of the freeway and setting up concrete barriers on the outside of the freeway to protect work areas for activities such as tree removals and grading. These initial construction activities are complete. Clearing and grubbing, including tree and ground cover removal, and rough grading activities are also substantially complete at this time.

Significant roadway construction activities, including installation of drainage systems, retaining walls and soundwalls, and paving operations began in earnest in 2019, and will continue through the end of the Project. Improvements have been initiated on all Orange County Flood Control District facilities which require improvements associated with the Project, including Bixby, East Garden Grove Wintersburg, Fountain Valley, Gisler, Greenville Banning, Milan, Montecito, Newland, Ocean View, and Santa Ana River channels. Work on these flood control facilities is at various stages of construction and is anticipated to be substantially complete by the end of 2022. Additionally, over half of the retaining walls and soundwalls needed for the Project are currently under construction or complete. A majority of the walls needed for the Project are anticipated to be complete by the end of 2021.

#### Bridge Construction

Bridges that are being replaced as part of the Project are being reconstructed in either one or two stages. Bridges being built in one stage are closed to traffic on both sides of I-405 during demolition and reconstruction of that bridge, and traffic is detoured to other adjacent bridges crossing the freeway. The first one-stage bridge completed was the Slater Avenue bridge, which opened to traffic in fall 2019. Opening the Slater Avenue bridge allowed for demolition and construction activities to commence on Bushard Street and Talbert Avenue.

The Bushard Street bridge was completed and opened to traffic in October 2020, and the Talbert Avenue bridge construction was recently completed and opened to traffic in April 2021. After the opening of the Talbert Avenue bridge, demolition and construction activities were able to commence on Ward Street. Further north within the Project limits, the McFadden Avenue bridge was opened to traffic in October 2020. The Edinger Avenue bridge is also under construction and anticipated to be opened to traffic late this year. Lastly, the Edwards Street bridge was recently opened to traffic in September 2021. Opening the Edwards Street bridge allowed for demolition and construction activities to recently commence on Springdale Street.

Bushard Street, Edinger Avenue, Edwards Street, McFadden Avenue, Slater Avenue, Springdale Street, Talbert Avenue, and Ward Street are all one-stage bridges. The last one-stage bridge replacement at Newland Street is anticipated to begin construction late this year after the Edinger Avenue bridge is opened to traffic.

Bridges being built in two stages maintain traffic on a portion of the bridge while the new bridge is being constructed. Significant bridge construction progressed at the two-stage bridges at the Bolsa Avenue, Bolsa Chica Road, Brookhurst Street, Fairview Road, Goldenwest Street, Magnolia Street, Warner Avenue, and Westminster Boulevard bridges. The first half of the new Magnolia Street bridge opened last year, and the full Magnolia Street bridge was the first two-stage bridge to be opened to traffic in May. Opening the Magnolia Street bridge allowed for the demolition and construction activities to commence on Warner Avenue. The first halves of the new Bolsa Chica Road and Goldenwest Street bridges opened last summer, and the full bridges are anticipated to be opened late this year and the spring of next year, respectively. The first halves of the new Fairview Road and Westminster Boulevard bridges opened earlier this year, and the full bridges are anticipated to be opened in spring next year. The first half of the Bolsa Avenue bridge recently opened in June 2021, and the full bridge is anticipated to be opened late next year. The last two-stage bridge to start construction was at Brookhurst Street, which began construction late last year. The first half of the Brookhurst Street bridge is anticipated to open in early 2022.

Lastly, the Heil pedestrian overcrossing bridge was demolished last fall and a new pedestrian overcrossing is under construction at this location, and is anticipated to open to pedestrian traffic late this year.

Following is a tabular summary of the anticipated openings of the Project's 18 bridges that cross over the freeway and require replacement:

Overcrossing Bridge	Number of Stages	Anticipated Opening Date			
		Open	2021	2022	2023
Bolsa Chica Road	Two		X		
Springdale Street	One				X
Westminster Boulevard	Two			X	
Edwards Street	One	X			
Goldenwest Street	Two			X	
Bolsa Avenue	Two			X	
McFadden Avenue	One	X			
Edinger Avenue	One		X		
Newland Street	One				X
Heil Avenue (pedestrian)	One		X		
Magnolia Street	Two	X			
Warner Avenue	One				X
Bushard Street	One	X			
Slater Avenue	One	X			
Brookhurst Street	Two				X
Talbert Avenue	One	X			
Ward Street	One			X	
Fairview Road	Two			X	

In addition to the bridge replacements noted above, the widening of four existing freeway bridges and construction of three new on-ramp bridges continued over Beach Boulevard, Bolsa overhead railroad crossing, Harbor Boulevard, Santa Ana River, and an old United States Navy railroad crossing. Lastly, the construction of the new connector between the medians of I-405 and SR-73 that will connect the 405 Express Lanes to SR-73 commenced this past summer.

Looking ahead, the remainder of 2021 and 2022 will remain busy related to bridge, wall, and pavement construction.

#### Project Challenges

As would be expected on a project of this magnitude, certain challenges have been encountered, including the following:

- Oversight and approvals from many different agencies and third parties
- Cost and availability of construction resources in this active construction market
- Dispute resolution and change management

- Minimizing impacts and disruptions to the public
- Timely performance of third-party utility work
- Project schedule impacts and mitigations

Additionally, in September 2019, there was a discovery of archaeological resources within the project site. OCTA continues to follow established state procedures for this type of discovery, and is working with the responsible parties to ensure appropriate and respectful procedures are followed. This discovery impacted construction at a specific location; however, construction at that location has since resumed.

OCTA has worked closely with its partners and OC405 to mitigate schedule delays when identified. Significant schedule mitigations have been implemented during the course of construction. These include expediting construction of several key bridges and extended overnight and daytime freeway lane closures to take advantage of the significantly reduced traffic volumes on the freeway at certain times in the past 18 months related to the coronavirus (COVID-19) pandemic. The objectives of the schedule mitigations are to minimize schedule delay impacts while balancing the minimization of traffic impacts.

#### **Risks Remaining**

Many of the Project risks have been realized during the design phase and the first half of construction and have since been retired. However, there are risks that remain for the second half of construction moving forward. The COVID-19 pandemic continues to be a risk as the effects and duration of the pandemic remain unknown. OCTA, its partners, and OC405 remain vigilant in taking the appropriate safety measures to minimize impacts to the workforce and construction progress. Additional archaeological discoveries also continue to be a risk as excavation in certain areas of the Project will take place in the next year. OCTA has taken a proactive approach with the appropriate stakeholders to minimize impacts if there are future discoveries. Contaminated soils have been found during certain excavation operations and are a risk that will remain until excavations for Project improvements are complete. The timely relocation of utilities is always a risk and the team will remain very focused on these efforts. Lastly, the coordination near the end of the Project when Kapsch will be installing and testing the tolling equipment, concurrent with the completion of construction by OC405, is key to remaining on schedule. Coordination efforts to plan for this timeframe at the end of the Project are ongoing and have been effective to date.

### Project Cost and Schedule

The overall Project cost is \$2,080,234,000. The Project milestones for substantial completion and opening of the 405 Express Lanes remain on schedule and are planned for late 2023.

### Public Outreach

The Outreach team has conducted more than a dozen virtual meetings during the past year with residents, business owners, and key stakeholders. The meetings drew more than 3,300 people who either participated live or viewed recordings afterward on OCTA's YouTube channel. Participation in these meetings has outpaced that of in-person meetings by more than five to one, and community members have consistently indicated they would like to see virtual meetings in the future for construction updates.

For the past year, the Outreach team responded to an average of about 100 comments and questions from the public each month, consistent with the previous year. These calls and emails typically center on construction activities, schedule questions, upcoming closures and detours, and maintenance concerns.

Meanwhile, the team continues to use Project emails and call and text alerts to highlight major activities as well as closures and detours. In addition, Outreach has ramped up the use of flyers, with more than 650,000 canvassed in the past year, to ensure the community is aware of demolition, pile driving, ramp reconstruction, and soundwall work.

Also, location-based advertising on mobile devices and tablets has become a key communications tool for project activities. This cost-effective, targeted digital approach allows the team to reach constituents in specific geographic areas with short messages about upcoming work.

All these tools combined to drive up the number of visitors to the Project's revamped project webpage as well as increase the number of subscribers to the Project's email database by nearly 1,000 people. The webpage, with more than 1,300 views each month, is easy to navigate and highlights key activities at every major interchange along the Project corridor. It also features the 405 Forward Program, a business support program designed to encourage communities to eat at local restaurants, shop at local retailers, and use local services. Nearly 120 businesses from the cities of Fountain Valley, Garden Grove, Huntington Beach, and Westminster participate in the free program, which will soon be expanded to the cities of Costa Mesa and Seal Beach.



Looking to 2022, the team anticipates holding at least a dozen virtual meetings, which will focus on the status of activities at several bridges, as well as the remaining walls and ramps being reconstructed to accommodate the freeway widening.

In addition, the team will be producing a video series to highlight accomplishments to date on the Project, such as finished bridges and on- and off-ramps, as well as dozens of miles of completed paving. The series also will feature in-language updates for Vietnamese and Latinx communities and highlight key Project benefits.

***Summary***

Construction continues to advance. Currently, utility relocations, public outreach, and other activities are in process to continue the construction phase of the Project.

***Attachment***

None.

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