



**March 4, 2024**

**To:** Regional Transportation Planning Committee

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

**Subject:** Amendment to Agreement for Additional Design Services for the Interstate 5 Improvement Project Between Yale Avenue and State Route 55

### **Overview**

On November 9, 2020, the Orange County Transportation Authority Board of Directors authorized an agreement with TranSystems Corporation for the preparation of plans, specifications, and estimates for the Interstate 5 Improvement Project between Yale Avenue and State Route 55. An amendment to the existing agreement is required for additional design services.

### **Recommendation**

Authorize the Chief Executive Officer to negotiate and execute Amendment No. 2 to Agreement No. C-0-2371 between the Orange County Transportation Authority and TranSystems Corporation, in the amount of \$1,194,527, for additional design services for the Interstate 5 Improvement Project between Yale Avenue and State Route 55. This will increase the maximum cumulative obligation of the agreement to a total contract value of \$14,653,412.

### **Discussion**

The Interstate 5 (I-5) Improvement Project between Yale Avenue and State Route 55 (SR-55) (Project) is part of Project B in the Measure M2 (M2) freeway program. In the updated Next 10 Delivery Plan, adopted by the Orange County Transportation Authority (OCTA) Board of Directors (Board) in November 2023, the Project is listed as one of the M2 freeway projects to be implemented through construction.

The Project will add one general purpose lane in both directions on I-5 between Yale Avenue and SR-55. The Project will reestablish existing auxiliary lanes, provide new auxiliary lanes where necessary, and provide continuous access to the high-occupancy vehicle lanes. The plans, specifications, and estimates (PS&E) for the Project are currently being prepared.

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Additional project scope has been identified, which requires further effort to complete the design on schedule. An amendment to the project design agreement is recommended for the following additional services:

**Drainage Design at Myford Creek and Central Irvine Channel**

The impacts of the highway improvements on two of the drainage facilities were not included in the project report approved in the environmental phase. The four-sided precast concrete box culvert at Myford Creek needs to be lengthened to accommodate a wider freeway. This will necessitate extending the multiple cell-reinforced concrete box culvert, and constructing a new drainage inlet connection, new apron, and rock slope protection at the extended box culvert. Design-level surveys show that the proposed northbound bridge improvement will impact the roof of the reinforced concrete box culvert at the Central Irvine Channel. The box culvert will be redesigned to allow for the permanent removal of a portion of the roof while not impacting the integrity of the box culvert.

**Intelligent Transportation Systems (ITS), Temporary Fiber Optic Communication, and Additional Lighting**

The Project will replace or modify existing ITS communication systems at certain locations and provide temporary communication required to keep traffic moving on the freeway and on city streets during construction. At two locations, the existing ITS needs to be replaced so that newer components can continue to provide needed data and to function properly. In addition, as construction will impact existing communication systems, temporary communication needs to be provided during construction. Finally, the California Department of Transportation (Caltrans) has requested that at locations where the distance between on- and off-ramps is less than required, which effectively reduces the length of time for traffic in auxiliary lanes to merge on and off the freeway, additional safety lighting needs to be incorporated into the Project to mitigate this issue.

**Soundwalls**

As the design progressed, it was discovered that ramp realignment will cause previously unknown impacts to an existing soundwall. This soundwall needs to be demolished and reconstructed, thus the need for additional design services. This also requires additional geotechnical tests, analyses, and a log of test borings. In addition, ongoing cooperation between Caltrans and the design team on the Supplemental Noise Study Report identified additional benefits to noise receptors that can be provided by a higher soundwall in the City of Irvine. This soundwall now requires redesign to ensure it provides sufficient noise mitigation while still adhering to the state's reasonableness and feasibility criteria.

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Caltrans Multi-Asset Project (MAP)

Within the I-5 corridor, including this project segment from Yale Avenue to SR-55, Caltrans is developing the PS&E for a MAP which includes pavement rehabilitation, safety device upgrades, lighting and electrical/ITS conduit replacements, and striping. Caltrans began designing the MAP in mid-2023 and requested that OCTA combine the MAP scope of work into the M2 project's final PS&E. Including all improvements in one construction bid package will ensure efficient construction of all improvements and will minimize disruption to the traveling public, construction fatigue, potential construction conflicts, and redundant work. TranSystems Corporation (TranSystems) began their work in May 2021 and now needs to coordinate and combine the new Caltrans MAP scope of work and ensure compatibility of a single PS&E package for construction. The combining efforts would be shared by Caltrans and TranSystems; however, this amendment includes only additional efforts required from TranSystems. Coordination meetings and communication with Caltrans are needed to ensure the combined deliverables will be completed within the project schedule. The Caltrans MAP construction phase cost is funded by Caltrans' State Highway Operation and Protection Program.

This proposed amendment also includes funds for additional project management, coordination, and quality assurance/quality control needed to deliver the final design package on schedule.

***Procurement Approach***

The original procurement was handled in accordance with OCTA's Board-approved procedures for architectural and engineering services, which conform to both state and federal laws. The original firm-fixed price agreement was issued on May 6, 2021, in the amount of \$12,474,713. This agreement has been previously amended as shown in Attachment A. It has become necessary to amend the existing agreement to add funds for additional design services.

OCTA staff negotiated the required level of effort with TranSystems to provide the additional design services. Staff found TranSystems' cost proposal, in the amount of \$1,194,527, to be fair and reasonable relative to the negotiated level of effort and the independent cost estimate prepared by the OCTA project manager. Proposed Amendment No. 2 to Agreement No. C-0-2371 will increase the total contract value to \$14,653,412.

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**Fiscal Impact**

The additional funding for the Project is included in OCTA's Fiscal Year 2023-24 Budget, Capital Programs Division, Account No. 0017-7519-FB103-1OD. The source of additional funding is M2.

**Summary**

Staff requests Board of Directors' approval to authorize the Chief Executive Officer to negotiate and execute Amendment No. 2 to Agreement No. C-0-2371 between the Orange County Transportation Authority and TranSystems Corporation, in the amount of \$1,194,527, for additional design services for the Interstate 5 Improvement Project between Yale Avenue and State Route 55.

**Attachment**

- A. TranSystems Corporation, Agreement No. C-0-2371 Fact Sheet

**Prepared by:**



Niall Barrett, P.E.  
Program Manager  
(714) 560-5879

**Approved by:**



James G. Beil, P.E.  
Executive Director, Capital Programs  
(714) 560-5646



Pia Veesapen  
Director, Contracts Administration and  
Materials Management  
(714) 560-5619