



BRIEFING: MARCH 20, 2018 BOARD MEETING AGENDA ITEM #3

TO: Chairman Richard and Board Members

FROM: Terry Ogle, Interim Director of Infrastructure Delivery

DATE: March 20, 2018

RE: Consider Adding Additional Funds to the Design-Build Contract for Construction Package 1

Summary of Recommended Action

Staff requests authorization by the Board to augment the contingency fund by an additional \$20,000,000 to administer critical contract change orders. With the increase, the amended total Construction Package (CP) 1 contract contingency would be \$207,000,000.

Background

In August 2013, the California High-Speed Rail Authority (Authority) awarded Agreement No. HSR 13-06 for the design and construction of CP 1 to the design-build joint venture team consisting of Tutor Perini/Zachry/Parsons (TPZP).

In August 2013, the Board approved Resolution #HSRA 13-20, which established the Board's Design-Build risk-based management policy and approach. In September 2013, the Board approved Resolution HSRA #13-21, which approved the Contingency Fund for CP 1 at a value of \$160M.

In September 2017, the Board augmented the contingency fund for CP 1 with funds from previously allocated provisional sums, allowing work to continue (Resolution #HSRA 17-16).

Staff has proceeded under the existing Board authorizations and continues to progress the work on CP 1. The Board action recommended today is necessary due to insufficient funds remaining in the CP 1 contract contingency.

Prior Board Action

In June 2013, the Board approved Resolution #HSRA 13-12 to Award the Contract for Design-Build Services for CP 1 to TPZP.

In August 2013, the Board approved Resolution #HSRA 13-20, which establishes the Board's Design-Build risk-based management policy and approach.

In September 2013, the Board approved Resolution #HSRA 13-21, for Approval of the Contingency Fund for CP 1, #HSRA 13-22, Approval for Relocation of Utility Facilities with AT&T, and #HSRA 13-23, Approval for Relocation of Utility Facilities with PG&E.

In March 2016, the Board approved Resolution #HSRA 16-09 for Approval to Negotiate and Execute a Northern Extension of the Design-Build Contract for CP 1.

In January 2017, the Board approved Resolution #HSRA 17-02 for Approval of a Contract Amendment with AT&T. In February 2017, the Board approved Resolution #HSRA 17-04 for a CP 1 Contract Amendment.

In September 2017, the Board approved Resolution #HSRA 17-16 for Approval to Augment the Contingency Fund for Construction Package 1 from Utility and Construction contract work Provisional Sum balances.

Discussion

This adjustment to the contingency reserve is to augment the CP 1 contract for the "Herndon Area" Change Order to advance work and maintain construction progress. Augmenting the contingency fund by \$20,000,000 allows the Authority to execute the proposed change order, which has an estimated total value of approximately \$50,000,000. This March 2018 request for the CP 1 contingency augmentation has not gone through the risk-informed analysis as described in Board policy (#HSRA 13-20), but will be appropriately adjusted as part of a future risk-based analysis to estimate the required increase in the CP 1 contract amount necessary to complete the contract work. These additional funds are now necessary and do not require a risk-based analysis since the certainty (probability) of the contract change order need is 100%. CP 1 contingency requests are vetted through the risk-based Monte Carlo process and will be presented to the Board in a future contingency augmentation approval request.

Description of Scope

The changes in the "Herndon Area" include all changes within the limits of an Alternative Technical Concept (ATC) between Avenue 8 in Madera County and the Herndon Canal in the City of Fresno (roughly 5.5 miles total). As explained below, the decision to utilize the ATC was primarily driven by a major utility conflict, third-party requirements and the avoidance of project schedule delays. This concept reduced the overall length of the San Joaquin River Viaduct by lowering the profile of the high-speed rail tracks to grade across Herndon Avenue instead of continuing the viaduct further south towards the Herndon Canal. Lowering the profile in this area requires that Herndon Avenue cross the high-speed rail alignment and existing Union Pacific Railroad (UPRR) tracks as an underpass.

This alternative concept offered multiple benefits including:

- Eliminated relocation of approximately 1.25 miles of a major PG&E gas transmission line

- Removed an at-grade railroad crossing with a high incident/accident rate (originally planned to stay below high-speed rail infrastructure)
- Favored by the City of Fresno and UPRR because it improved traffic circulation and traffic safety
- Accelerated the start of construction in this area

Initially, this concept was proposed by one of the unsuccessful bidders for CP 1 as an ATC that offered a potential overall reduction in the contract price in addition to the benefits described above. In general, the concept assumed that the cost of reducing the length of the viaduct would outweigh the cost of expanding the scope of work to include grade separating Herndon Avenue as an underpass. However, the scope of the ATC during the procurement process was limited and preliminary.

The Authority first directed the Design-Build Contractor to develop the original alignment and this ATC design change in parallel in order to evaluate the risks and benefits of both. As design progressed, the limits of the alternative expanded beyond what was initially expected. Additionally, third party agreements with UPRR and the City of Fresno that were executed after the contract was awarded resulted in new requirements for the Herndon Avenue Grade Separation and adjacent roadway reconfigurations, utility relocations and railroad intrusion protection.

The ATC was preferred because it improved operational safety and traffic circulation and accelerated execution of third-party agreements and early start of construction. Implementation of the ATC design change avoided several risks including:

1. The original alignment was in direct conflict with a major gas transmission line attached to the State Route 99. Resolution of this conflict would have been both costly and opposed by environmental regulatory agencies and other third parties.
2. Project delays caused by the relocation of the PG&E gas transmission line were avoided by implementing this ATC design change, because the relocation would have been performed by PG&E and would likely have resulted in major delays at an area with the longest construction durations on the project schedule critical path.
3. Project delays caused by third-party approvals were greatly reduced by implementing this ATC design change. This concept was preferred by the City of Fresno and the UPRR and was a major contributor in executing agreements with both of these third-parties.

Legal Approval

The Chief Counsel and legal staff have confirmed that augmenting the contingency fund by \$20,000,000, as proposed in this memorandum, complies with all applicable Board policies and Authority regulations, and state and federal law.

Budget and Fiscal Impact

This request has two impacts, one to the current year funding allocation and two to the Total Program Budget. This item proposes to shift \$20,000,000 from the 2017-18 fiscal year funding

allocation for CP 1 Design-Build Contract Work (\$447,500,268 in fiscal year 2017-18), which is forecasted to underspend for this fiscal year, to address the “Herndon Area” Change Order. The \$20,000,000 will be shifted from CP 1 DB Contract Work to CP 1 DB contingency resulting in a new CP 1 contingency balance of \$63,876,591.

2017-18 Fiscal Year Budget Impact

Contract Name	Contract/Activity Number	Current FY Contract/Activity Budget	Budget Change	Funding Source
TPZP	HSR13-06/DB Contract Work	\$447,500,268	(\$20,000,000)	State Funding
TPZP	HSR13-06/Board Approved Contingency	\$43,876,591	\$20,000,000	State Funding

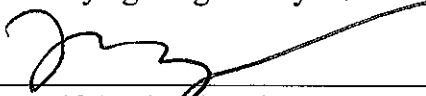
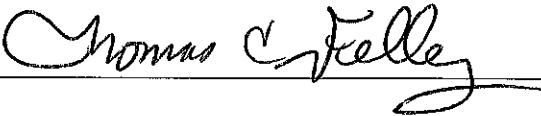
In addition, in order to balance out the Total Program Budget, this item proposes to reduce the CP 5 Design-Build Contract Work budget by \$20,000,000. The result of this action will reduce the CP 5 Design-Build Contract Work budget to \$327,096,000 (\$347,096,000 - \$20,000,000) and increase the CP 1 Design-Build contract to \$1,515,207,844 (\$1,495,207,844 + \$20,000,000), resulting in a net-zero overall Total Program Budget change.

This budget reallocation is a short-term solution needed to facilitate work on CP 1, and the CP 5 budget and the CP 1 contingency balance will need to be reassessed for total funding needs. CP 5 is the anticipated contract to build the track and systems associated with CP’s 1-4.

Authority staff will manage the increased costs of the pending contract change with this revised budget through the end of the 2017-18 fiscal year with no additional augmentation of the CP 1 budget, unless a Board action occurs.

Total Program Budget Impact

Contract Name	Contract/Activity Number	Current Total Program Contract/Activity Budget	Budget Change	Funding Source
TPZP	HSR13-06/CP 1 DB Contract Work	\$1,495,207,844	\$20,000,000	State Funding
N/A	CP 5 Design-Build Contract Work	\$347,096,000	(\$20,000,000)	State/Federal Funding

REVIEWER INFORMATION	
Reviewer Name and Title: Russell Fong Chief Financial Officer	Signature verifying budget analysis: 
Reviewer Name and Title: Thomas C. Fellenz Chief Counsel	Signature verifying legal analysis: 

Recommendations

Staff recommends that the Board approve an increase of \$20,000,000 to CP 1 contract contingency fund, bringing the CP 1 contract contingency to a total of \$207,000,000. The \$20,000,000 coupled with remaining contingency funds would be utilized to address the Herndon Area Changes and avoid delaying key critical activities within the contractor's schedule.

Attachments

- Draft Resolution #HSRA 18-02
- Resolution #HSRA 17-16
- Resolution #HSRA 17-04
- Resolution #HSRA 17-02
- Resolution #HSRA 16-09
- Resolution #HSRA 13-23
- Resolution #HSRA 13-22
- Resolution #HSRA 13-21
- Resolution #HSRA 13-20
- Resolution #HSRA 13-12