

**TO:** Regional Transportation Commission  
**FROM:** Sarah Christensen, P.E., Senior Transportation Engineer  
**RE:** Emergency Bridge Repair – Ballast Deck Timber Trestle at MP 4.87

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## **RECOMMENDATIONS**

Staff recommends that the Regional Transportation Commission (RTC) receive an update regarding the response to the emergency repair of the bridge at Milepost (MP) 4.87.

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## **BACKGROUND**

The railroad bridge at MP 4.87 is a ballast deck timber trestle over a seasonal drainage adjacent to Harkins Slough has 13 spans with a total length of 195 feet. The inspection of the bridge conducted in December 2018 by on-call structures engineering consultant, RailPros, put the bridge out of service due to scour damage to 3 foundation piles at bridge Bent 3.

In early January of 2020, the RTC was notified that a landslide had occurred at an adjacent agricultural field located upslope and west of the Santa Cruz Branch Rail Line, adjacent to the bridge at MP 4.87. The landslide was caused by agricultural and storm runoff and a failed drainage pipe. In February and March 2020 staff inspected the bridge at MP 4.87 and observed new severe scour damage at Bents 2, 7, 8, and 10 of the bridge, and worsening of existing scour at Bent 3 which required immediate attention in order to limit future damage which would lead to failed bents. Bent 3 had severe scour damage requiring replacement of the entire bent as an emergency repair. The damage appeared to be caused by the re-routed drainage course due to the recent storms and upslope failure.

At the March 19, 2020 Transportation Policy Workshop (TPW) meeting the Commission authorized the Executive Director to negotiate, enter into, and amend agreements for professional engineering services, environmental services, construction, and construction management for an amount not to exceed the available budget and programming capacity for the emergency repair of the timber trestle at MP 4.87.

## **DISCUSSION**

The Executive Director has the authority to issue emergency contracts as permitted by the RTC procurement policies under emergency circumstances as described in section 5.1 Authority and Approvals of the Fiscal Policy, sub-section B which reads:

*In the event of an emergency or urgent need, the Executive Director is authorized to take all necessary actions to prevent significant unnecessary loss to RTC, a shutdown of public services, or to address a situation threatening the health or safety of persons or property, including authorization to contract with a contractor or consultant on a sole source basis, consistent with applicable state or federal law without prior approval from the Board of Directors. In the event such an emergency or urgent need occurs, the Executive Director will consult with the Chair of the Board and submit a report to the Commission at its next regular meeting to obtain ratification for those actions.*

Staff entered into time and materials (T&M) contract with Industrial Railways Company on April 10, 2020 in the amount not to exceed \$50,000 to begin the initial earthwork activities to clear the access route, remove vegetation, and stabilize slopes, which was issued to begin construction while construction contractors had a chance to prepare bids for the remaining work. Staff ordered timber members needed for the replacement of Bent 3 due to long lead times on timber bridge members which take 4 to 6 weeks to cut, pre-treat, and deliver. Timber bridge members are not typically held by railroads or construction contractors as inventory and are commonly cut to order. Ordering direct from the material manufacturer avoids a mark-up of 10% to 15% that construction contractors typically charge for furnishing materials. The materials are scheduled to arrive in late May.

At the March 19, 2020 TPW meeting the Commission authorized the Executive Director to negotiate, enter into, and amend agreements for professional engineering services, environmental services, construction, and construction management for an amount not to exceed the available budget and programming capacity.

To date, the Executive Director has issued emergency sole-source contracts totaling \$193,099.60 for the following services and materials:

- Professional Engineering Services, to prepare a request for construction bids plans, details, and specifications for the emergency bridge repair with RailPros, Inc. (amendment to TP 1827-01 of \$17,551 and contract TP 2074 in the amount of \$20,801 for a combined value of \$38,352)
- Environmental Services, to assist with emergency environmental permits as needed with Harris & Associates (No. TP2077), for an amount not-to-exceed \$50,000
- Construction Management Services, to administer the construction contract, perform inspections, coordinate responses to Requests for Information (RFI's) and issue Contract Change Orders (CCO's) as necessary, with Rail Surveyors & Engineers, Inc. (RSE) (No. TP2073) for an amount not to exceed \$46,525

- Construction, to begin clearing and grubbing and earthwork activities to clear the access route, stabilize slopes, and restore drainage with Industrial Railways Company (No. TP 2081) for an amount not to exceed \$50,000
- Materials, timber members needed for the replacement of bent 3 were ordered from Gemini Forest Products in the amount of \$8,222.60.

For the remaining construction work, two bids were received from Stacy and Witbeck (\$589,500 as a lump sum contract) and Industrial Railways Company (as a T&M contract with an estimated cost of \$517,208). The bids excluded furnishing of timber materials for the replacement of Bent 3, since RTC purchased that material while securing the bids. Both bids exceeded the engineers estimate of \$330,000 and exceeds the total value of all contracts will exceed the amount reported at the March 19, 2020 TPW meeting. The bids were higher than the engineers estimate due to the challenges associated with access and availability of construction materials.

The Construction Manager, RSE, Inc. and Staff analyzed the two bids received. The two bids were similar but had differing work plans and contract types. The bid from Stacy & Witbeck was higher and they proposed a lump sum contract, which limits the risk to the RTC for cost overages. The bid from Industrial Railways Company was lower, but they proposed a T&M contract. RTC will assume the risk for cost overruns, if it accepts a T&M contract; however, if the construction is well-managed, there is a possibility for cost savings which could result in a lower overall cost to the RTC for the bridge repair.

Staff recommends entering into a construction contract with Industrial Railways Company, because they believe the higher bids were received to off-set the contractor's risk, which staff believes can be managed. In order to mitigate construction risk, staff and the construction manager plan to be on site every working day to monitor the activities, equipment used, and labor forces.

The combined contract values to-date, combined with the construction contract value of \$517,208 with Industrial Railways, Inc. totals \$710,307.60. This amount does not exceed the available budget or programming capacity in FY 19/20.

Under the authority provided at the TPW meeting, the Executive Director plans to finalize a construction contract with Industrial Railways Company this week so the work can be completed prior to starting the work for the 2017 storm damage repair sites 1 and 2 construction. Staff plans to recommend award of the construction contract for the repair of 2017 storm damage sites 1 and 2 at a future meeting, with construction beginning this summer.

## **FISCAL IMPACT**

The RTC's budget for the Santa Cruz Branch Rail Line provides funds to maintain and repair the railroad infrastructure for preservation as needed. RTC's approved Measure D Five-Year Program of Projects includes a total of \$2.2 Million for Railroad Bridge rehabilitation, with approximately \$1.7 Million of funding capacity remaining

for this work. Sufficient budget capacity exists in the FY 19/20 budget under Repairs & Maintenance to fund this construction contract.

**SUMMARY**

An emergency repair of the ballast deck timber trestle at MP 4.87 is underway. Under the authority provided at the TPW meeting, the Executive Director plans to finalize and enter into a construction contract with Industrial Railways Company for the remaining work to complete the emergency repair of the bridge. The total estimated cost of all contracts is \$710,307.60.