

**AGENDA:** August 3, 2006

**TO:** Regional Transportation Commission/Rail Trail Authority

**FROM:** Luis Pavel Mendez, Deputy Director

**RE:** Santa Cruz Branch Rail Line Acquisition Project – Peer Review of the *Santa Cruz Industrial Lead Supplemental Structural Assessment Report*

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**RECOMMENDATIONS**

Staff recommends that the Regional Transportation Commission accept the peer review (Attachment 2) produced by Biggs Cardosa Associates, Inc. of the *Santa Cruz Industrial Lead Supplemental Structural Assessment Report* produced by HNTB Corporation.

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**BACKGROUND**

The Regional Transportation Commission (RTC) has been working on acquisition of the Santa Cruz Branch Rail Line for five years. In December 2004, the RTC approved entering into a non-binding Letter of Intent with Union Pacific to purchase the Santa Cruz Branch Rail Line for \$19 million. A number of reports and steps must be completed before the RTC can make a final decision on acquisition of the Branch Line and obtain the necessary approvals from the relevant funding and regulatory agencies.

A Structural Assessment report prepared by Biggs Cardosa Associates and Systra Consulting was presented to the RTC in August 2005. The report recommended additional structural analysis for structures at six crossings and for three retaining walls. The RTC contracted with HNTB Corporation to produce the supplemental structural analysis and with Biggs Cardosa and Associates to provide peer review of HNTB’s work.

The *Santa Cruz Industrial Lead Supplemental Structural Assessment Report* produced by HNTB was presented to the RTC at its June 29, 2006 Transportation Policy Workshop (TPW) meeting.

**DISCUSSION**

Structures Assessment Reports

In 2005, Biggs Cardosa and Associates and Systra Consulting performed a visual inspection and produced a structural assessment report for all the bridges, trestles, and some culverts, on the Santa Cruz Branch Rail Line. The *Santa Cruz Branch Line Structural Assessment* provided a condition rating, potential capital costs and potential maintenance costs for the structures inspected and recommended more detailed analysis for some structures.

HNTB presented the *Santa Cruz Industrial Lead Supplemental Structural Assessment Report* at the RTC's June 29, 2006 meeting. The report provides the detailed analysis recommended in the 2005 report and included service load analysis based on review of all available information for the structures and field investigations, a seismic vulnerability analysis of the San Lorenzo River trestle, recommended repair work along with costs, optional repair work and maintenance costs.

The estimated capital and annual maintenance costs provided by the two reports are listed in Attachment 1. Potential capital costs are estimated between \$2.86 million and \$3.97 million. Annual maintenance costs range from \$78,200 to \$116,300. The reports are available on the RTC website at <http://www.sccrtc.org/transit.html>.

#### *Santa Cruz Industrial Lead Supplemental Structural Assessment Report Peer Review*

As contracted, Biggs Cardosa and Associates conducted peer review for the Santa Cruz Industrial Lead Supplemental Structural Assessment Report. Biggs Cardosa and Associates engineers reviewed all of the materials available to HNTB, the work done by HNTB engineers including load analysis calculations and the draft report. Biggs Cardosa and Associates provided a list of comments and HNTB issued responses to those comments. The peer review comments and responses are included as Attachment 2.

The cover letter from Biggs Cardosa and Associates states that they are in general agreement with HNTB's work. However, there are two manuals that are used for railroad engineering and both are considered recommended practice. For most of the analysis, HNTB used the 2005 American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual for Railway Engineering. For the longitudinal loading criteria HNTB used the 1996 American Railway Engineering Association (AREA) Manual for Railway Engineering. Biggs Cardosa considers it more prudent to use the 2005 AREMA Manual to analyze longitudinal forces. According to Biggs Cardosa's comments, using the more conservative 2005 AREMA manual could affect the results for the La Selva Beach Structure and states, "It appears that switching to the 2005 AREMA values will affect only a few additional bracings elements and associated connections for a minimal increase in rehabilitation costs." In their response HNTB states, "The use of these current recommendations for longitudinal force will not affect the estimated cost of repairs to the structures as stated in the report."

#### *Comments on Santa Cruz Industrial Lead Supplemental Structural Assessment Report*

Staff has fielded several comments and questions received orally on the Supplemental Structural Assessment Report. In addition, staff received some written comments (Attachment 3). The written comments are very technical; therefore, staff forwarded the comments to HNTB to produce written responses. The responses are also included in Attachment 3. There may be additional comments and questions received but soon HNTB will no longer be under contract to produce written responses to any additional comments.

## Right of Entry Agreement and Union Pacific Participation

Union Pacific (UP) agreed to contribute 50% of the cost of the additional structural analysis of the La Selva Beach Trestle, up to \$30,000. The right of entry agreement with UP was amended to extend the term and establish the terms for UP's financial participation. As established in the right of entry agreement the Supplemental Structures Assessment Report was presented to the RTC before June 30, 2006. All of the other requirements in the right of entry agreement were also met. RTC staff invoiced UP for \$29,562 in structures assessment work on the La Selva Beach trestle. Thus far UP has reimbursed the RTC \$19,448. Payment for the last invoice, which was submitted to UP on June 29, 2006 is expected soon.

## Project Timeline

Throughout the Branch Line acquisition project, the RTC has maintained and updated the project timeline as needed. The most current timeline estimated that the RTC would be considering several items in this month including hazardous materials insurance, title insurance, application to the Surface Transportation Board (STB), selection of a shortline operator, a comprehensive financial plan and a draft purchase agreement. The timeline also estimated that the acquisition could close in December 2006. However, the hazardous materials investigation has not been completed because an extension to the right of entry agreement is needed. Also, the structures assessment work has brought up some issues that must be discussed with Union Pacific before proceeding with a request for proposals for a shortline operator, and work on the appraisal continues. These three tasks must be completed before the RTC can consider the five items listed above. The negotiating consultant and staff continue to communicate with Union Pacific regarding the right of entry agreement, the structures assessment and other items. Once there is some resolution of these items with Union Pacific and new dates can be estimated for the completion of work items, staff will prepare a revised draft timeline for your consideration.

## **SUMMARY**

HNTB's *Santa Cruz Industrial Lead Supplemental Structural Assessment Report* was presented to the RTC at its June 29, 2006 meeting. Biggs Cardosa and Associates produced a peer review of HNTB's work and is included as Attachment 2. HNTB also responded to written public comments. UP was invoiced for 50% of the structures assessment work on the La Selva Beach Trestle and the final payment is expected soon.

Attachment 1: Santa Cruz Branch Rail Line Structures Assessments Summary of Estimated Capital and Annual Maintenance Costs (Enclosed Separately)

Attachment 2: *Santa Cruz Industrial Lead Supplemental Structural Assessment Report* Peer Review

Attachment 3: Written Comments and Responses on the *Santa Cruz Industrial Lead Supplemental Structural Assessment Report*