

TO: Regional Transportation Commission

FROM: Kim Shultz, Senior Transportation Planner

REGARDING: Highway 1 HOV Lane Project – Contract Amendment with Nolte Associates

RECOMMENDATIONS

Staff recommends that the Regional Transportation Commission:

1. Approve the attached resolution (Attachment 1) authorizing Contract Amendment No. 4 with Nolte Associates to increase the contract value by \$1,475,000 for a total amount not to exceed \$8,000,000, consistent with funds programmed and available in the *2006 State Transportation Improvement Program (STIP)*, and to extend the duration of the contract to June 30, 2010; and,
 2. Consider programming an additional \$1,375,000 in the *2008 Regional Transportation Improvement Program (RTIP)* for the Highway 1 HOV Lane Project to address the remaining funding shortfall for consulting services estimated at \$895,000 (for a total estimated need from Nolte Associates of \$8,895,000, see Attachment 2) and \$390,000 in associated project support costs.
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BACKGROUND

The 1986 Regional Transportation Plan (RTP) identified the widening of Highway 1 as a high priority project to address growing congestion along the corridor. In 2002, following completion of a Project Study Report by Caltrans, the RTC authorized release of a Request For Proposals for consultant services to complete the preliminary design and environmental assessment process (referred to as Project Approval/Environmental Documentation – PA/ED) to add high occupancy vehicle (HOV) lanes to Highway 1 from Morrissey Boulevard in Santa Cruz to Larkin Valley Road in Aptos. A Consultant Evaluation Committee was created consisting of RTC Commissioners, staff, on-call consultants, and Caltrans staff. The Committee selected Nolte Associates Inc. as the most qualified consultant team. However, the cost of Nolte’s original scope of services was nearly \$9 million, considerably more than the available funding at that time.

Reducing the Original Contract Budget

With direction from the RTC, key members of Nolte’s project team met with Caltrans and RTC staff and on-call consultants to develop strategies to reduce costs while maintaining the integrity of the PA/ED process. Major cost savings were accomplished by reducing the engineering design work, originally proposed at the 35% level, to the 15% level considered the minimum necessary to satisfy PA/ED requirements. Significant estimated cost savings were achieved by this one

change; measured in labor hours, the engineering work was reduced from approximately 26,000 hours to 14,500 hours in the revised scope.

Additional, though more modest, savings were realized in the environmental work, particularly in the biological and cultural resource areas. A key consideration was the use of existing surveys for the Santa Cruz Long Toed Salamander that indicated the presence of the salamanders south of the Rio Del Mar Interchange in the Valencia Lagoon. Although costs were reduced somewhat by this approach, the key difference was savings in the overall time for completion of the environmental review process.

As a result of these refinements in the original project scope, the budget for consultant services was reduced from approximately \$9 million to \$6.525 million, with an estimated completion date of late 2007. These changes were made in the consultant contract without compromising the thoroughness of environmental study and opportunity for community input. In late Spring 2003, a Notice to Proceed was issued to the consultant team lead by Nolte Associates, Inc. to begin the PA/ED phase on the Highway 1 HOV Lane project.

Project Delays and Cost Increases

Within the first 18 months of initiating the PA/ED process, the Project Development Team was confronted with a number of setbacks, and unexpected changes in the scope of services and schedule. Principal among these changes were the following:

- survey monuments for the central section of Highway 1 needed to be updated to current standards; and,
- release of the updated Regional Travel Demand Model was delayed over one year from the original commitment date of November 2003; and,
- reassessment of the location of three proposed bike/pedestrian crossings of Highway 1 for inclusion in the preliminary design and environmental document; and,
- protocol was adopted that buried cultural resources could not be disturbed unless absolutely necessary, forcing a delay of any necessary archaeological excavation until after a preferred alternative has been selected, thereby extending the project schedule and management activities.

To address these unexpected developments, changes to the project scope and transfers between task budgets have been made through formal contract amendments and the administrative authority provided and exercised by staff to maintain progress on the project.

DISCUSSION

For over a year, as reported in the Highway 1 Quarterly Progress Reports, it has been apparent that additional funding authority would need to be amended into the consultant contract with Nolte Associates, Inc. to complete the PA/ED phase of the Highway 1 HOV Lane project. In March 2007, in conjunction with the 2006 STIP Augmentation, Nolte Associates submitted a memorandum with a preliminary estimate of \$1.535 million needed to complete the project. The estimate provided by Nolte combined with an estimate of additional agency support costs served

as the basis for the RTC requesting \$2 million for the Highway 1 HOV Lane project in the 2006 STIP. Ultimately, a total of \$1.784 million was approved by the California Transportation Commission to address both consultant services and support costs.

Efforts to Contain Project Costs

Since that time, RTC staff and consultant team have continued to strategize on methods to contain project costs, particularly engineering costs. Reducing engineering design costs was the principle motivation for combining the “best” aspects of the previous Standard Design and Reduced Width HOV project alternatives into a single HOV Build Alternative to reduce engineering design work. The new HOV Build Alternative includes standard inside median and outside shoulders where there is sufficient right-of-way width (generally in the southern section of the project), but would seek design exceptions for a narrower inside median and/or outside shoulders and would incorporate retaining walls and other design techniques to minimize impacts where the right-of-way is narrow.

The consultant team has also been working with Caltrans to gain approval of “conceptual” design exceptions of the two project alternatives based on a minimum of engineering design detail. The goal is to avoid costly engineering work on a project alternative that would ultimately be abandoned upon selection of the preferred project alternative. In this approach formal approval of design exceptions would be pursued only after the selection of the preferred project alternative when the full “Geometric Approval Drawings” are submitted to Caltrans in early 2009, as part of the draft Project Report. To date, Caltrans engineering staff has been reluctant to embrace this approach.

Additional Funds Needed to Complete PA/ED Process

While some cost savings have been realized through the efforts identified above, in the course of the past 9 months it was apparent that additional funding would be needed to complete the PA/ED process. Nolte Associates have updated their assessment of the funding needs to complete the PA/ED process as presented in a memorandum dated December 20, 2007 (Attachment 2).

Chris Metzger, Nolte Project Manager, will review the proposed funding needs at the RTC meeting. In overview, the total proposed increase in the consultant contract is \$2.46 million for a total contract value of \$8.985 million, with \$250,000 (approximately 10% of the proposed increase) set aside as contingency to compete the PA/ED process. Slightly over one half of this amount or \$1.315 million represent adjustments to the current task budgets due to project delays and/or reallocation of the original task budgets to address new or additional work items discussed above in the Background section. Item 3 in the memorandum (Attachment 2) expands an existing task to support “fundable project” discussions for future consideration by the RTC.

An additional \$744,200 is related to the level of engineering design detail needed to process design exceptions, review environmental documents, and respond to changes in state storm water regulations. Continuing outstanding issues in the engineering area include the design and ramp configuration of the Soquel Avenue Interchange and median width particularly through the

northern section of the highway and at the railroad over-crossings. This budget request also includes \$100,000 to expand an existing task to assess and document sustainable design elements for inclusion in the project development process. This effort includes community outreach and creation of a Sustainability Implementation Report to guide final design engineering and construction activity on the project.

Finally, there is a contingency fund established in the amount of \$250,000, approximately 10% of the total additional funds requested for the Nolte contract. The contingency would only be used if there were subsequent increases in the items above or unforeseen cost increases such as enhanced public outreach efforts with the release of the draft environmental document or additional response to questions/comments on the environmental documents beyond what is budgeted. Approval from the RTC would be required to authorize the transfer of these funds into a task budget in the consultant contract.

Should the project duration, currently estimated to be completed in February 2010, be shortened there would be an overall consultant cost savings, particularly in the Project Management work task. Similarly, cost savings may be realized in the proposed budget for archaeological subsurface excavation given the reduced footprint of the refined HOV Lane Alternative or if the Transportation System Management (TSM) Alternative were chosen as the preferred project alternative.

Associated Project Support Costs

In addition to the cost increases identified by Nolte Associates above, staff has identified a current outstanding need for an additional \$390,000 in associated project support costs to complete the PA/ED process. The outstanding funding need is in large part a product of the \$216,000 shortfall in requested funds in the 2006 STIP, and the inclusion in the FY 07-08 budget activities that were unforeseen earlier in the year, including the on-call right of way consultants (\$150,000) and the value analysis study (\$35,000).

Through the course of the project, overall project support costs are estimated to have increased \$699,000 over the original allocation of \$1.275 million for a total of \$1,974,000 million over the currently anticipated 7 ½ year project period.

The increase in project support costs are attributed to the following items: \$300,000 in staff oversight for the extended duration of the project, \$290,000 for on-call consultant support (predominately right-of-way consultants) and the required value analysis study, \$19,000 for public information and outreach expenses for the Speaker's Bureau and public meetings associated with the release of the draft environmental document this spring, and \$90,000 for contingency outside of the Nolte contract for unanticipated cost increases or project activities.

Available Revenues and Recommended Action

Staff's best estimate of the total funding needed to complete the PA/ED process, including consultant services, staff oversight, support services, and contingency is \$3.159 million. Of that

total, \$1.784 million was provided in the 2006 STIP, leaving an unfunded balance of \$1.375 million.

In the meantime, the unexpended balance of the contract with Nolte Associates is approximately \$400,000, reflecting activity through November 2007, barely sufficient to complete engineering and environmental work leading to release of the draft environmental document this spring. To ensure that PA/ED activities continue without costly delays, staff proposes that the contract value of the Nolte agreement be increased within the programming authority provided in the 2006 STIP.

Accordingly, **staff recommends that the Regional Transportation Commission approve the attached resolution (Attachment 1) authorizing the Executive Director to execute Contract Amendment No. 4 with Nolte Associates to increase the contract value by \$1,475,000 for a total amount not to exceed \$8,000,000, and to extend the duration of the contract to June 30, 2010.** Based on estimated expenditure rates, staff does not foresee a need to amend the existing FY 07-08 budget, to accommodate this contract amendment, but will continue to closely monitor expenditures.

Need for Additional Revenues

Staff proposes that the unfunded balance needed to complete the PA/ED process, estimated at \$1.375 million be considered in the *2008 Regional Transportation Improvement Program* (RTIP), also under consideration in this agenda, as the last known opportunity to provide project funding for the Highway 1 HOV Lane project within the current project schedule.

An overview of the current estimated costs to complete PA/ED activities for consultant services (Nolte Associates) and project support costs, is shown below.

	Nolte Associates	Project Support Costs	Total
Current Estimated Cost to Complete PA/ED Activities	\$8,985,000	\$1,974,000	\$10,959,000
Original Project Budget	\$6,525,000	\$1,275,000	\$7,800,000
Increase in Project Costs	\$2,460,000	\$699,000	\$3,159,000
2006 STIP Approved	\$1,475,000	\$309,000	\$1,784,000
Unfunded Need - Proposed 2008 RTIP Request	\$985,000	\$390,000	\$1,375,000

Accordingly, staff recommends that the RTC consider programming an additional \$1,375,000 in the 2008 RTIP for the Highway 1 HOV Lane Project to address the remaining funding shortfall for consulting services estimated at \$895,000 (for a total estimated need from Nolte Associates of \$8,895,000, per Attachment 2) and \$390,000 in associated project support costs.

SUMMARY

The original consultant proposal submitted by Nolte Associates to complete the PA/ED process for the Highway 1 HOV Lane project was nearly \$9.0 million. Reductions were made in the project scope to fit the available budget and a consultant contract was executed in the amount of \$6.525 million. Within the first 18 months of work an array of changes and setbacks were encountered in the original project scope. Actions have been taken to contain further cost increases, however, a total of \$3.159 million has been identified as needed to complete consultant services, staff oversight and ancillary activities, and provide a contingency reserve. An additional \$1.784 million in funds were programmed for the project through the 2006 STIP Augmentation, leaving an unfunded balance of \$1.375 for consideration as part of the 2008 RTIP, discussed as another item in this agenda. Within the programming balance provided by the 2006 STIP, staff recommends that the RTC approve the attached resolution (Attachment 1) authorizing the Executive Director to execute Contract Amendment No. 4 with Nolte Associates to increase the contract value by \$1,475,000 for a total amount not to exceed \$8,000,000, and to extend the duration of the contract to June 30, 2010.

Attachments:

1. Resolution authorizing the Executive Director to amend the contract with Nolte Associates for work on the Highway 1 HOV Lane Project.
2. Memorandum from Nolte Associates regarding consultant costs to complete the Highway 1 HOV Lane Project PA/ED process, dated December 20, 2007.

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