

<b>COUNTY OF SONOMA AGENDA ITEM SUMMARY REPORT</b>		Clerk of the Board Use Only Meeting Date _____ Held Until _____ Agenda Item No: _____ Agenda Item No: _____	
<b>Department:</b> Transportation and Public Works		[ ] <b>4/5 Vote Required</b>	
<b>Contact:</b> Levi Gurule	<b>Phone:</b> (707) 565-2231	<b>Board Date:</b> 09/01/09	<b>Deadline for Board Action:</b>
<b>Agenda Short Title:</b>  Geotechnical and Civil Engineering Services For Intersection Improvements At Hwy 116 and Mirabel Road			
<b>Requested Board Action:</b>  Approve and authorize the Chair to sign First Amendment to Agreement for Engineering Consulting Services with Kleinfelder, Inc., to increase contract amount by \$16,450 for geotechnical and civil engineering services for the design of a shotcrete soil-nail wall for the State Highway 116 and Mirabel Road intersection project (C04000) (Fifth Supervisorial District).			
<b>CURRENT FISCAL YEAR FINANCIAL IMPACT</b>			
<b><u>EXPENDITURES</u></b>		<b><u>ADD'L FUNDS REQUIRING BOARD APPROVAL</u></b>	
Estimated Cost	\$16,450	Contingencies (Fund Name: _____ )	\$ _____
Amount Budgeted 035030-9400	\$16,450	Unanticipated Revenue (Source: _____ )	\$ _____
Other Avail. Approp (Explain below)	\$ _____	Other Transfer(s)	\$ _____
<b>Additional Requested</b>	\$ -0-	<b>Add'l Funds Requested:</b>	\$ _____
Explanation (if required):			
<b>Prior Board Action(s):</b> 07/03/07: Board Action No. 7 approved agreement for preparation of a geotechnical investigation for the project to Signalize/Channelize State Highway 116 intersection with Mirabel Road.			
<b>Alternatives - Results of Non-Approval:</b> Transportation and Public Works staff would have to hire another geotechnical engineer or postpone this work until a later date.			

**Background:**

The Board approved the project to signalize/channelize the intersection of State Highway 116 and Mirabel Road on July 3, 2007. Since that time, the Department of Transportation and Public Works (TPW) has been working with Caltrans to develop a project in accordance with Caltrans design criteria. At the request of local interest groups in Forestville, TPW proposed a roundabout be studied as an alternative to a signal. Caltrans required the County to prepare a conceptual analysis report to confirm a roundabout as technically feasible. The analysis concluded that the anticipated performance of the roundabout will provide higher traffic flow, lower fuel use, a lower accident rate, and lower construction and maintenance costs than a multilane signalized intersection by a significant margin. It is the preferred alternative from an engineering standpoint plus it received a higher level of public acceptance at an information meeting in Forestville earlier this year.

The roundabout option has a number of specific design elements that are required by Caltrans, one of which is maximum grade on the approaches. The approach to the intersection from the west exceeds this maximum slope; therefore, the hill must be cut down to an acceptable level which will require a wall of about twelve feet tall on the north side of the road to satisfy this criteria. Caltrans staff and a number of the attendees to the public meeting in Forestville asked for the visibility of the wall to be mitigated by making it appear to be natural rock and perhaps use a stepped two wall system to support the maximum twelve feet of vertical cut. This First Amendment to the Agreement for Consulting Engineering Services with Kleinfelder, Inc. is to have the Consultant design a shotcrete (concrete applied under pressure to a wire frame) soil-nail wall that can be constructed as the excavation of the road proceeds. This approach will both reduce construction costs and facilitate the maintenance of traffic during construction. The finish on the wall will be a sculpted rock finish similar to other retaining wall systems Caltrans has constructed on State Highway 116 between Monte Rio and Guerneville.

The Department requests that the contract with Kleinfelder be amended by the amount of \$16,450 to add the design of a shotcrete soil-nail wall. The requested amendment represents a 30.4% increase over the original contract amount of \$54,145.

**Recommendation:**

Approve and authorize the Chair to sign First Amendment to Agreement for Engineering Consulting Services with Kleinfelder, Inc., to increase contract amount by \$16,450 for geotechnical and civil engineering services for the design of a shotcrete soil-nail wall for the State Highway 116 and Mirabel Road intersection project (C04000) (Fifth Supervisorial District).

**Attachments:** Location Map

**On File With Clerk:** First Amendment

**CLERK OF THE BOARD USE ONLY**

**Board Action (If other than "Requested")**

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Vote: