



MEMORANDUM

DATE: March 11, 2005

TO: Silicon Valley Rapid Transit Policy Advisory Board (PAB)

FROM: Jack J. Collins
Chief Construction Officer

SUBJECT: Silicon Valley Rapid Transit Project
Value Engineering Proposals - March 2005

Recommendation

There are a number of value engineering refinements to the Locally Preferred Alternative (LPA) for the Silicon Valley Rapid Transit Corridor being evaluated during Preliminary Engineering. As staff develops these proposals over the following months we will forward recommendations for adoption by the Policy Advisory Board (PAB). Approved Value Engineering proposals will eventually be included in a Supplemental Environmental Impact Report as needed. The following value engineering recommendations for adoption by the Policy Advisory Board (PAB) at this meeting are summarized below.

1. Extend Bored Tunnels at East Portal in San Jose
2. Dixon Landing Road Grade Separation in Milpitas

Background

The Federal Transit Administration encourages grantees seeking New Rail Starts funding to conduct formal Value Engineering Studies at the conceptual engineering (10% design) and preliminary engineering (30% design) phases of the project. VTA selected the firm of Value Management Systems (VMS) to conduct these studies on the conceptual engineering submittals for the line and tunnel segments, stations, and yard and shops. As well, as design development progresses through Preliminary Engineering, project participants identify and explore other potential value engineering opportunities. Project staff has evaluated these studies and VE proposals and over the next months will recommend implementation of the most feasible VE proposals and associated cost savings. As VE proposals are approved, VTA will schedule public

outreach and Community Working Group meetings as required, especially for those proposals that differ from the approved Final Environmental Impact Report (FEIR) dated December 9, 2004.

Discussion of Value Engineering Proposals

There are currently 2 Value Engineering proposals recommended for implementation and further design development during Preliminary Engineering. The reasoning behind these proposals and the estimated cost savings are as follows.

VE Item 1: Extend Bored Tunnels at East Portal in San Jose

Recommendation: Extend the length of bored tunnels to replace approximately 510 ft. of cut-and-cover structure near the East Portal.

Reasoning: The Final Environmental Impact Report included 670 ft. of underground structure at the East Portal using cut-and-cover construction before transitioning to bored tunnel construction. The VE concept would extend the less costly bored tunnels to replace approximately 510 ft. of the cut-and-cover structure. The bored tunnel method would also eliminate the need to acquire a parcel of private property and would allow Marburg Way to be kept open during construction, thus reducing traffic and other surface disruptions in the immediate area.

Costs: Savings are estimated at \$7 million (2003\$).

VE Item 2: Grade Separation of Dixon Landing Road in Milpitas

Recommendation: Depress Dixon Landing Road to pass underneath an at-grade BART alignment and existing UPRR tracks.

Reasoning: The Final Environmental Impact Report included the BART alignment in a retained cut section with Dixon Landing Road crossing over the alignment on a bridge structure and with Dixon Landing Road crossing the UPRR track at a level crossing. The VE concept would depress Dixon Landing Road so it will pass beneath both an at-grade BART alignment and the UPRR tracks. While the VE concept is less costly and safer due to the elimination of the level crossing of the UPRR, the VE concept will require the temporary closing of Dixon Landing Road during construction and some disruption to the access for some adjacent properties.

Costs: Savings are estimated at \$7 million (2003\$).

Table 1: Summary of Current Value Engineering Proposals:

Item	Description	Potential Change (2003\$ in Millions)
1	Extend Bored Tunnels at East Portal	-\$7
	Replace approximately 510 ft. of cut-and-cover structure with bored tunnels at East Portal	
2	Dixon Landing Grade Separation	-\$7
	Depress Dixon Landing Road below an at-grade BART alignment.	
	Total Value Engineering Savings This Report	-\$14
	Previously Approved VE Proposals	-\$76
	Total VE Proposals to Date	-\$90

Note:

The estimates and information contained in these reports are preliminary. Continuing review and design development will change these estimates.

Next Steps

Other Value Engineering proposals are being reviewed and will be presented at future PAB meetings. The FEIR/FEIS documents will be updated to reflect significant changes as necessary.