

VALUE ENGINEERING TEAM STUDY
SUMMARY OF RECOMMENDATIONS

Sixty-one ideas for ways to improve the project or reduce costs were generated during the Speculation Phase of this study. The Analysis Phase reduced the number of ideas to 55 for development of which 23 ideas were designated as design comments and are included in this report. Of all the ideas from the Analysis and Development Phases, 14 ideas became proposals which can result in significant savings for this \$58.4 million project as listed below:

<u>PROPOSAL NO.</u>	<u>DESCRIPTION</u>	<u>POTENTIAL LIFE CYCLE COST SAVINGS</u>
O-1	Provide Spare Gates to Maintain Navigation Reliability	(\$3,125,000)
P-1	Designate 110-ft Wide Lock as Recommended Plan	(\$6,500,000)
S-1	Eliminate Emergency Bulkheads	\$4,157,960
S-2	Eliminate Emergency Bulkheads and Use Existing Leland Bowman Emergency Bulkheads	\$4,157,960
S-3	Specify Alternate High Density Synthetic for Lock Wall Armor ..	\$3,535,472
S-4	Reduce Guidewall Length	\$3,177,600
S-5	Eliminate Dewatered Condition from Lock Design and Use T-Wall Design with Struts	\$2,718,038
S-6	Eliminate Dewatered Condition from Lock Design	\$1,079,730
S-7	Use a Precast Post Tensioned Concrete Star Pile	\$964,000
S-8	Use Composite Piles for Chamber Foundation	\$600,000
S-9	Use Modular Lock Control Houses	\$250,000
S-10	Move Control House Off Lock Wall, Reduce Lock Wall Thickness	\$466,570
S-11	Reduce Number of Control Houses	\$468,750
S-12	Use 35 Ft Diameter Guard Dolphins for Upstream and Downstream Approach Walls	\$193,464
S-13	Reduce Lock Chamber Armor	\$3,179,000

(\$ _____) denotes added cost.