12 COST ESTIMATES

Kleinfelder and its subcontractors conducted a planning level analysis of costs associated in support of demolition and removal, replacement and/or rehabilitation of existing systems, improvements and unacceptable environmental conditions. We considered factors derived from the condition assessment, engineering feasibility analysis, evaluation of natural site conditions and understanding of constraints and opportunities as the basis for preparing our cost analysis.

The analysis included reasonable costs that would be associated in meeting redevelopment objectives, engineering recommendations using accepted standards, health and safety codes and protection of resource values. The analysis for improvements such as roads, parking lots and shoreline developments were estimated based on current rates.

The cost analysis included estimated costs to remove shoreline improvements and to rehabilitate those sites to a near original condition. The cost analysis included costs associated with the removal and disposal of a representative sample of trailers and mobile homes on long-term sites.

The cost estimate matrix is summarized for each resort and presented in Table D-1 (Appendix D). Representative costs associated with each resort are summarized individually and presented in Tables D-2 through D-8 (Appendix D).

12.1 Waste Water/Potable Systems

The planning level cost analysis included treatment facility upgrades, lift stations, demolition of existing facilities, pond upgrades, and storage tanks. These costs are summarized in Table D-1.

12.3 Roads/Parking Lots

Tables D-9 through D-15 in Appendix D, contain our cost estimates of construction costs to bring pavements into minimum compliance with the recommendations that are contained in this report. Costs are based on our recent experience with paving projects as well as with conversations with local paving contractors. These estimates reflect the cost of grading, paving, striping and signing. They do not include any costs associated with survey or design of street improvements. They do not include any costs associated with reducing housing density or construction of new off-street parking. They also do not include the cost of improvements to potentially unstable slopes, if future geologic studies reveal that such repairs are necessary. Finally, these costs are based on very approximate estimates of the total quantities of work involved. More detailed surveys and engineering designs would be required to improve the accuracy of these estimates.

For the purposes of our estimates the following unit prices were used.

Item	Unit Cost	Extended Unit Cost
Asphalt Pavement	$42/ton	$27,500 per mile per inch of thickness (20' wide) $16,500 per mile per inch of thickness (12' wide)
Aggregate Base	$12/ton	$7,800 per mile per inch of thickness (20' wide)
Repair of failed areas and surface preparation prior to paving		$10,000 per mile (20' wide) $6,000 per mile (12' wide)
Grading to reduce sharp curves, not including pavement		$1000 each
Construction of fire truck turnarounds, including pavement		$2000 each
Striping & Signing		$1000 per mile of road
Retaining Wall		$25/square foot of wall

12.4 Electrical Systems

The planning level cost analysis for the electrical systems includes those costs necessary to upgrade the existing electrical systems to meet current code standards. The cost matix summary is presented in Tables D-1 and D-16 and summarized in Tables D-17 through D-23, Appendix D.

12.5 Boat Launch Facilities

The planning level cost analysis for the boat launch facilties included surface repair, slope protection, new courtesty docks and signage. The cost estimates are based on present day labor rates plus material cost estimates for the required upgrades. The cost matrix summary for these facilities is presented in Table D-1 and summarized in Tables D-2 through D-8, Appendix D.

12.6 Marinas and Fuel Systems

The planning level cost analysis for the marinas and fuel systems included the removal of nonretainable docks, new floating docks, electical utilities, fire protection, waster pumpout systems, removal of fueling facilities, and construction of new fueling facilities. The cost matrix summary for these facilities is presented in Table D-1 and summarized in Tables D-2 through D-8, Appendix D.

12.7 Miscellaneous Costs (Trailers, Shorelines, etc)

This cost estimate includes demolition of all trailer homes (including capping utilities, removing concrete pad, and driveway), demolition and removal of all material (retaining walls made out of concrete wood, rubbish, cable, and etc) on the edge of the water, and demolition and removal of roads. The demolition of the trailer homes would be performed using excavators with grapples.

Demolition of trailer homes includes trailer home, utilities below grade, removal of the concrete pads, retaining walls (associated with trailer home) and driveways. Approximately 90% of the material from the demolition of trailer homes would be taken to landfill. Approximately 5% of the material would be recycled. The other 5%, including concrete that would come from concrete pad below trailer home, would also be recycled. The planning level costs do not include any abatement of asbestos or lead based paint. The following breakdown is as follows:

12.7.1 Mobile Home Trailer Removal

Demolition of trailer homes including restrooms, information booths, store/restrooms averaging around 200 units per resort (there are a total of seven resorts):

- $9,800,000 (total), or approximately $7,000 per unit

12.7.2 Shoreline Development/Retaining Wall Removal

Demolition and removal of all material (retaining walls made out of concrete wood, rubbish, cable, and etc) on the edge of the water:

- $2,100,000 (total) or approximately $300,000 per resort

12.7.3 Demolition and Removal of Roadways

Demolition and removal of roads:

- $3,500,000 (total) or approximately $500,000 per resort.

Total cost would be approximately $15,400,000.

Cost estimate includes equipment, labor, transportation, and dump fees. Excludes removing trees, bonds, insurance, asbestos or lead abatement.