

Life-Cycle Cost Analysis Appendix O-O Form Example

Brief project description:

Widen the median of I-80 in Sacramento County from PM 0.3 to 10.4 to add one HOV lane in each direction.

Alternative 1 (Pavement alternative identified to program project cost or Prefer Alternative).

Briefly describe the pavement strategy and other unique features.

Widen the median with 1.15' JPCP / 0.35' LCB / 0.55' CI 2 AS

Pavement Design Life:	40 Years	
Initial Construct Costs:		\$100,000,000
Future Maintenance & Rehabilitation Costs:		\$ 50,167,000
TOTAL AGENCY COSTS:		\$150,167,000
TOTAL USER COSTS:		\$ 12,171,000
TOTAL LIFE CYCLE COSTS:		\$162,338,000

Alternative 2

Briefly describe the pavement strategy and other unique features.

Widen the median with 1.00' JPCP / 0.35' LCB / 0.55' CI 2 AS

Pavement Design Life:	20 Years	
Initial Construct Costs:		\$96,800,000
Future Maintenance & Rehabilitation Costs:		\$ 53,367,000
TOTAL AGENCY COSTS:		\$150,167,000
TOTAL USER COSTS:		\$ 12,171,000
TOTAL LIFE CYCLE COSTS:		\$162,338,000

Alternative 3

Briefly describe the pavement strategy and other unique features.

Widen the median with 0.1' RHMA-O / 0.75' HMA / 1.05' CI 2 AB

Pavement Design Life:	20 Years	
Initial Construct Costs:		\$114,500,000
Future Maintenance & Rehabilitation Costs:		\$ 45,607,000
TOTAL AGENCY COSTS:		\$160,107,000
TOTAL USER COSTS:		\$ 29,191,000
TOTAL LIFE CYCLE COSTS:		\$189,298,000

Is the lowest life cycle cost option selected as the recommended alternative? If not, why?

Alternative 1 agency, user and total life cycle cost (agency + user cost) is less than Alternative 2 and 3. Base on the analysis, it is recommended that Alternative 1, 40-year JPCP, is the recommended pavement design alternative.