


Memorandum

To: BRIAN SIMON
DISTRICT 1
North Region Design E-1

Date: May 7, 2021

File: 01-MEN-1-43.74
01-401100
01 00000154
Albion River Bridge

From: DANIEL SESSIONS 
Bridge Design Branch 1
Office of Bridge Design North
Structure Design
Division of Engineering Services

Subject: Advance Planning Study BLCCA Transmittal

Shown in the tables below are the Bridge Life-Cycle Cost Analysis (BLCCA) for the selected rehab/widening and replacement alternatives for the Albion River Bridge per the e-mail request from Cody Long dated January 29, 2021, and the subsequent request on March 3, 2021, to update the widening shoulder widths for the rehab/widening alternative (Alt B).

Please reference the Advance Planning Study Alternative B Update Transmittal dated May 7, 2021, for the Alt B rehab/widen alternative assumptions, plans and forecast cost/working day estimate. Please reference the Advance Planning Pricing Update Transmittal dated November 4, 2020, for the Alt 1C and 1F replacement assumptions, plans and forecast cost/working day estimates.

Bridge Life-Cycle Cost Analysis (Level 2) Summary:

Alternative	Structure Cost – Present Value
Alt B – Rehab/Widen	\$75,090,000
Alt 1C – Replace	\$27,207,390

Alternative	Structure Cost – Present Value
Alt B – Rehab/Widen	\$82,856,000
Alt 1F - Replace	\$44,151,000

The BLCCA is based on a life-cycle period of 75 years and a real discount rate of -0.30%. It's a Level 2 BLCCA, which takes into account the remaining service life of the existing structure, future maintenance needs and remaining service life

BRIAN SIMON – District 1

May 7, 2021

Page 2

value as shown on the attached BLCCA spreadsheet. It does not include roadway, right-of-way, support or user costs. If the alternatives have considerably different roadway costs, the PDT should consider a total project life-cycle cost analysis.

If you have any questions or if you need additional information regarding this study, please contact Kevin Harper at (916) 227-8156 or Daniel Sessions at (916) 227-5663

Attachments

c: KToke, Project Liaison Engineer
DAdams, Chief, Office of Bridge Design North
RStiltz, Technical Liaison Engineer
EKaslan, Chief, Structure Maintenance & Investigations - North
TFujioka, Structure Maintenance & Investigations Program Advisor
CLong, District Project Engineer
FDemling, District Project Manager