Form C-104
Rev. 2/01

CONSTRUCTION VALUE ENGINEERING CONCEPT PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Date 04/17/2008

Contract ID 080229-608 **Job No.** J6I2055

County St. Louis City **Route** I-44 **Original Bid Cost** $1,164,914.10

Contractor L. Krupp Construction, Inc. **By** Scott Kutter

Designed By Hanson Professional Services **Phone** (636) 391-8844

VE 08-34

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

See attachment

2. Estimate of reduction in construction costs. $13,782.20

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

See advantage and disadvantage responses listed under question #1.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

04/25/2008
(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

05/02/2008 (date)

time: none except for entering into a subcontract with a material supplier (effect)

6. Dates of any previous or concurrent submission of the same proposal.

(date and/or dates)

Additional Comments:

***** Portion Below This Line To Be Filled Out by MoDOT *****

Comments: Reviewed with Pat Martins, I/Ked the Idea. By pouring B2 to the Top, eliminates any future overlays within this area. Also, the B2 (extra conc) will allow for the extra protection against salt water almost as equivalent to ~~micro silica~~ Low slump. I Approve.

4/24/08

Submitted By Resident Engineer — Date

5/6/08 - Based on designers comments, UC will need to be rejected Due to Concrete thickness above steel in tension areas which will develop cracks.

Comments: AS NOTED ABOVE.

☐ **Approval Recommended**

☑ **Rejection Recommended**

5-13-08

District Engineer — Date

Comments: Bridge designers state that the additional concrete thickness above steel in tension areas will cause premature cracking to occur. This would defeat the purpose of the overlay.

☐ **Approval**

☑ **Rejection**

RIM for Dave Ahlvers

5/14/08

State Operations Engineer — Date

Distribution: Resident Engineer, District Operations Engineer, State Operations Engineer
*Value Engineering Administrator - *MoDOT, P.O. Box 270, Jefferson City, MO 65102

Attachment
Response to question #1:

Br #A23264 is an existing voided slab structure that will be widened; it currently has two wearing surfaces upon it, a low slump and an ultrathin. These wearing surfaces are also planned to be placed upon the widening. We are proposing to eliminate the low slump wearing surface on the widening and will account for the grade difference when placing the B2 concrete (widening & closure pour). If the proposal is accepted the existing +/-16" parapet wall will be removed by horizontally saw cutting an inch below the existing B2 elevation. The 16" area will then be treated as a half sole repair area and the concrete for it will be placed simultaneously with the closure pour. The depth of the concrete within the 16" area will be approximately 3".

Advantages: Elimination of a horizontal cold joint for entire width of widening- this will minimize/ eliminate any future maintenance concerns and costs associated with the debonding of materials.
Disadvantages: none

17,476.80
- (concrete cost)
$13,782.20

David B Nichols/SC/MODOT
05/13/2008 02:40 PM

To Randy C Hitt/SC/MODOT@MODOT
cc David D Ahlvers/SC/MODOT@MODOT, Matthew J Budd/D6/MODOT@MODOT, Patrick L McDaniel/SC/MODOT@MODOT
bcc
Subject Re: VE Rejection

Randy, I don't know that I by the reasoning for rejecting the VE proposal, but for the amount of savings Krupp offers, I support rejecting the proposal.
Thanks,
Dave
Randy C Hitt/SC/MODOT

Randy C Hitt/SC/MODOT
05/13/2008 12:57 PM

To David B Nichols/SC/MODOT@MODOT
cc David D Ahlvers/SC/MODOT@MODOT, Patrick L McDaniel/SC/MODOT@MODOT, Matthew J Budd/D6/MODOT@MODOT
Subject VE Rejection

Dave,

Krupp had submitted a VE on J6I2055 Rte. I-44 for $13,000. The VE was to replace the low slump overlay on a bridge deck with a thicker B2 concrete overlay. Bridge designers say the additional concrete thickness above steel in tension areas will cause cracking to occur. This would defeat the purpose of protecting the existing deck. We therefore recommend rejection of this proposal.

Randy Hitt

Missouri
Department
of Transportation

MoDOT

Hampton
6138 Wilson Ave
Bldg. A
St. Louis, MO 63139
314-877-0330
Fax 314-877-0137
Toll free 1-888 ASK MoDOT

Robert Gummersheimer, Resident Engineer

Missouri Quality Award 2007 Missouri Quality Award Winner

May 7, 2008

RECEIVED
MAY - 9 2008
BY:

Mr. Scott Kutter
L. Krupp Const, Inc.
415 Old State Rd.
Ellisville, MO 63021

Dear Mr. Kutter:

Subject: Value Engineering Concept Proposal
Job No. J6I2055, Route I-44
St. Louis City

We are rejecting the attached Value Engineering Proposal for the elimination of the low slump wearing surface and accounting for the grade difference with B2 concrete, the entire width of widening. This is based on the comments from the consultant that increasing the thickness of the cover above the reinforcing steel could cause a cracking problem in the deck to develop. We have decided to construct the slab as shown in the plans.

Sincerely,

Robert Gummersheimer
Resident Engineer

Copy: File
Matthew Budd-d6co
Kurt Gribble-CO
Brad Cunningham, Hanson Prof. Engr.

jdl/ck

MEMORANDUM

Missouri Department of Transportation

Construction
Hampton

TO: [redacted]

CC: File

FROM: Robert Gummersheimer
Resident Engineer

DATE: April 28, 2008

SUBJECT: Value Engineering Concept Proposal
J6I2055
St. Louis City

We are submitting the attached Value Engineering Proposal for the elimination of the low slump wearing surface and account for the grade difference with B2 concrete the entire width of widening. This will minimize/eliminate any future maintenance concerns and cost associated with the debonding of materials.

Attachment

Copies: Gregory Sunde
Brad Cunningham(Hanson Prof. Engr.)

jdl

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- [x] Bridge/Structure/Footings
- [ ] Drainage Structures (RCP, RCB, CMP's ect)
- [ ] TCP/MOT
- [ ] Paving (PCCP, ect.)
- [ ] Grading/MSE Walls
- [ ] Signal/Lighting/ITS
- [ ] Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

Replace the low slump overlay on a bridge deck with a thicker B2 concrete overlay.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

All.