

VALUE ENGINEERING CHANGE PROPOSAL  
MISSOURI DEPARTMENT OF TRANSPORTATION

Conceptual Proposal       Final Proposal      Date 06/22/10

Contract ID 090626-601      Job No. J6I1830B

County St. Louis      Original Bid Cost \$34,815,241.53

Contractor Fred Weber, Inc.      By Brian J. Carlson

Designed By URS      Phone (314) 792-6784

VECP# 10-21 (to be completed by C.O.)      VECP  or PDVECP

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages  
 Existing: Ramp 3 connection from NB I-270 to WB Rte. 364, requires extensive MSE walls, a longer bridge, impacts traffic on I-270 and Rte. 364 to install bridge piers in the median and impacts two ramps that must be reconstructed.  
 Proposed: Change the location of Ramp 3 to allow 90 degree bridge crossings on Rte. 364 and I-270 which eliminates the need for center piers and eliminates the traffic impacts on Rte. 364 and I-270, eliminates the need to reconstruct Ramps 4 & 5 and saves the associated traffic impacts caused by closing/detouring these ramps and (Continued on attached page)

2. Estimate of reduction in construction costs. \$3,000,000

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.  
 Long term maintenance will be lower on the proposed Ramp 3 bridges and eliminates the bridge on Ramp 2.

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

06/22/10  
(date)

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

07/01/10      Need to know for ordering material.  
(date)      (effect)

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

N/A  
(date and/or dates)

Additional Comments:

PLAN SHEETS ARE HERE, REVISIONS ALSO:

V:\Contract Information Archive\DO6\GDP\090626-601\HYBRID DESIGN PLANS(REC)

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Comments:

FINAL APPROVAL RECOMMENDED: After thorough review by the design Project Manager, the consultant designer, project core team, District Management, Division of Construction & Materials and Design Division this concept was approved. FHWA approved the concept on the condition that the AJR be modified and approved by FHWA. On March 10, 2010, FHWA approved the modified AJR. On March 26, 2010, FHWA signed Form C-104 for conceptual approval. The design is now complete and I recommend approval of this VE based on cost savings, reduced number of design exceptions and the fact that it is more compatible with future plans for improvements in the area.

Matthew N. Jansson Submitted By Resident Engineer (JANSSON) 06-23-10 Date

Comments:

- Approval Recommended
Rejection Recommended

Digitally signed by Sheryl Noller
DN: cn=Sheryl Noller, o=MoDOT, ou=D6 Construction & Materials, email=Sheryl.Noller@modot.mo.gov, c=US
Date: 2010.06.30 12:50:20 -05'00'

District Engineer Date

Comments:

Approval is offered contingent upon final design plans for the proposed revisions being sent to FHWA for final review.

- Approval Recommended
Rejection Recommended

Jeffrey R. Bull Federal Highway Administration Required for FHWA Full Oversight Projects 7/7/10 Date

Comments:

Approved based on district's review and concurrence of interested parties. Denis Glascock 6/30/2010

- Approval
Rejection

David D. Glascock Digitally signed by Denis Glascock
DN: cn=Denis Glascock, c=US, o=MoDOT, ou=3H35, email=Denis.Glascock@modot.mo.gov
Date: 2010.06.30 13:50:54 -05'00'

State Construction and Materials Engineer Date

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, FHWA Value Engineering Administrator - MoDOT, P.O. Box 270, Jefferson City, MO 65102.

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

Proposed: eliminates the bridge on Ramp 2. The decreased traffic interference should result in reduced backups on I-270 and Rte. 364 which will provide a positive impact on the public's perception of the project and provide a safer work zone for both the traveling public and the construction workers.



MEMORANDUM

Missouri Department of Transportation
Design
Central Office

TO: Greg Budd - Fhwa
CC: Lee Hillner
Transportation Project Manager - D6
FROM: Jim Smith
Design Liaison Engineer
DATE: January 26, 2010
SUBJECT: St. Louis County, Route 364
I-270 and Rte. 364 (Page Ave.) Interchange
Value Engineering Change Proposal
Job No. J6I1045B
Modified Access Justification Report

Attached please find one copy of the Modified Access Justification Report (MAJR) for the above noted interchange project for your review and approval. The original Access Justification Report (AJR) for this Project was approved on April 14, 2005. The Project was let in July 2009 and awarded to Fred Weber, INC. (FWI).

FWI has since submitted a Value Engineering Change Proposal (VECP) to revise the interchange configuration from what was previously designed and approved. The FWI proposed modifications to the interchange were of significant scope to warrant the preparation of a Modified Access Justification Report for MoDOT and FHWA review and approval prior to acceptance of the VECP. The Modified Access Justification Report has been revised based on input from your office. We request your immediate attention to the review of this revised document and your timely approval. If you have any questions please give me a call. My phone number is 751-2843.

Attachments

EXAMINED & RECOMMENDED
FOR APPROVAL 3/10/10
Date

Gregory L. Budd
Federal Highway Administration

EXAMINED AND APPROVED 3/10/10
DATE

Ed Steyer
402 DIRECTOR ADMINISTRATOR
FEDERAL HIGHWAY ADMINISTRATION

Concurred
Ed Steyer
ADA FHWA
3-10-10

Form C-104  
Rev. 2/2009

VALUE ENGINEERING CHANGE PROPOSAL  
MISSOURI DEPARTMENT OF TRANSPORTATION

<input checked="" type="checkbox"/> Conceptual Proposal	<input type="checkbox"/> Final Proposal	Date <u>July 14, 2009</u>
Contract ID <u>090626-601</u>		Job No. <u>J6U1045B</u>
County <u>St. Louis</u> Route <u>Rt. 364</u>		Original Bid Cost <u>\$34,815,241.53</u>
Contractor <u>Fred Weber, Inc.</u>		By <u>Thomas E. Hayes</u>
Designed By <u>URS</u>		Phone <u>314-316-6154</u>

VECP# 10-21 (to be completed by C.O.) VECP  or PDVECP

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages  
Existing: Ramp 3 connection from NB I-270 to WB Rt. 364, requires extensive MSE walls, longer bridge, impacts traffic on I-270 and Rt. 364 to install bridge piers in the median, impacts two ramps that must be reconstructed, and requires the relocation of Basston.

Proposed: Change the location of ramp 3 to allow 90 degree bridge crossing on Rt. 364 and I-270 which eliminates the need for center piers and eliminates the traffic impacts on Rt. 364 and I-270, eliminates the need to reconstruct ramps 4 & 5 and saves the associated traffic impacts caused by closing/detouring these ramps, eliminates the bridge on Ramp 2, and eliminates the need to relocate Basston. The decreased traffic interference should result in reduced backups on I-270 and Rt. 364 which will provide a positive impact on the public's perception of the project and project a safer work zone for both the traveling public and the construction workers.

- 2. Estimate of reduction in construction costs. \$4,000,000.00
- 3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations. Long term maintenance will be lower on the proposed Ramp 3 bridges and eliminates the bridge on Ramp 2.
- 4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.  
July 17, 2009  
(date)

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

August 1, 2009 (date)      Extensive redesign required needs to be started ASAP to avoid impacting the construction schedule and to secure materials, particularly long lead time items such as structural steel  
(effect)

6. Dates of any previous or concurrent submission of the same proposal.  
NA  
(date and/or dates)

JUL 17 2009

*THH*

Additional Comments:

ADDITIONAL DATA ON V-DRIVE

V -> CONTRACT INFORMATION ARCHIVE -> DOG -> GPP -> 090626-601 ->  
VALUE ENGINEERING -> VE NUMBER 2

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Comments:  
 CONCEPTUAL APPROVAL RECOMMENDED: After thorough review by the design Project Manager, the consultant designer, project core team, District Management, Division of Construction & Materials, Design Division and FHWA, the concept is approved and the design of this proposal is proceeding. The Access Justification Report (AJR) has been modified and was approved by FHWA on March 10, 2010. This VB is referred to as VE No. 2 and "The Hybrid Design". It has been determined that this design will function as well, if not better, than the original design and will cause less impact to the travelling public during construction. It is also provide savings and increase operating efficiency for the future, yet unfunded, phase 2.

*Matthew M. Jansson* 03-22-10  
 Submitted by Resident Engineer JANSSON Date

Comments: Approval is recommended as noted above.

Approval Recommended  
 Rejection Recommended

*Ed. Glascock* 3-22-10  
 District Engineer Date

Comments: Approval recommended in accordance w/ the AJR modification given on 3/10/10.

Approval Recommended  
 Rejection Recommended

*Regina R. Bull* 3/26/10  
 Federal Highway Administration Date  
 Required for FHWA Full Oversight Projects

Comments: This is approved following the issues being resolved to the satisfaction of all parties. Denis Glascock. 03/22/2010.

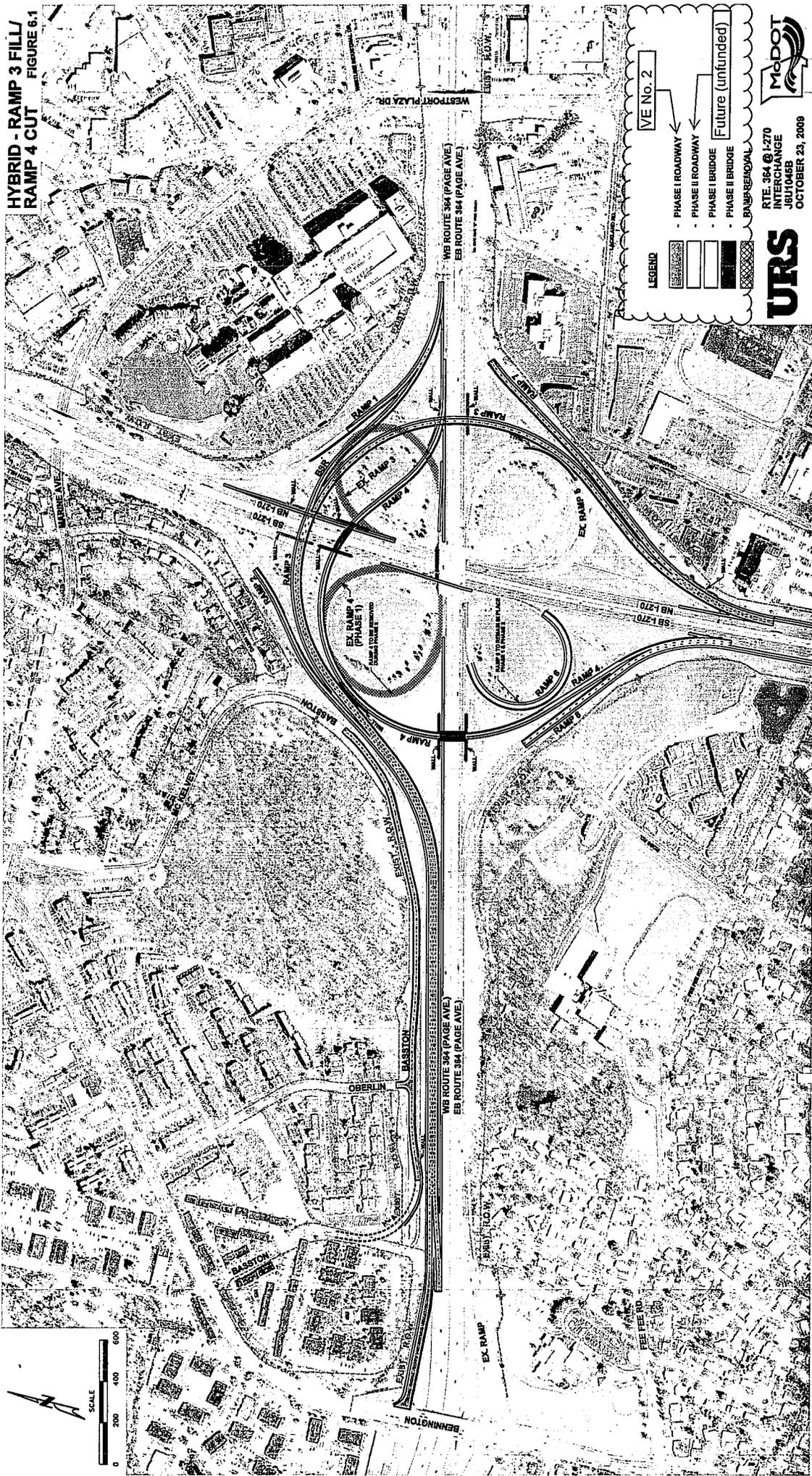
Approval  
 Rejection

*David D. Glascock*  
 State Construction and Materials Engineer Date

Digitally signed by Denis Glascock  
 DN: cn=Denis Glascock, o=US, ou=MoDOT,  
 email=Denis.Glascock@moDOT.mo.gov  
 Date: 2010.03.22 16:10:12 -0500

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, FHWA Value Engineering Administrator - MoDOT, P. O. Box 270, Jefferson City, MO 65102

**HYBRID - RAMP 3 FILL /  
RAMP 4 CUT** **FIGURE 6.1**



**LEGEND**

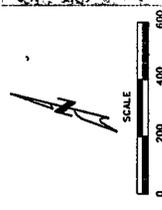
- PHASE I ROADWAY
- PHASE II ROADWAY
- PHASE I BRIDGE
- PHASE II BRIDGE
- BRIDGE REMOVAL

**VE No. 2**

**Future (unfunded)**

**URS**

RTE. 384 @ I-270  
 INTERCHANGE  
 J8170468  
 OCTOBER 23, 2008



# VALUE ENGINEERING CHECK SHEET

## **TYPE OF WORK**

(Check one that applies)

- Bridge/Structure/Footings
- Drainage Structures (RCP, RCB, CMP's, ect.)
- TCP/MOT
- Paving (PCCP, ect.)
- Grading/MSE Walls
- Signal/Lighting/ITS
- Misc. Redesign of interchange layout, grading, structures, etc.

## **SUMMARY OF PROPOSAL**

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

This VE involves changing the layout of the interchange to reduce the distance spanned by bridges and to reduce disruption to traffic during construction.

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## **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.

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