Form C-104
Rev. 02/2009

VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

☐ Conceptual Proposal ☒ Final Proposal Date 8/26/11

Contract ID 100205-601 Job No. J6U0807

County St. Louis 141 Original Bid Cost $54,889,970.33

Contractor Fred Weber, Inc. By Justin Brooks

Designed By N/A Phone (314)792-6931

VECP# 11-64 (to be completed by C.O.) VECP ☐ or PDVECP ☒

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

2. Estimate of reduction in construction costs. $75,000

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.
   None

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

   8/26/11
   (date)

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

   9/23/11 (date) — No effect on overall project schedule if CO processed by this date (effect)

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

   N/A
   (date and/or dates)

Additional Comments:

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

Comments: GOOD CONSTRUCTION PRACTICES ALLOWED FOR THIS SAVINGS. I RECOMMEND APPROVE AS DOES THE CORE TEAM

8-26-11

Submitted By Resident Engineer — Date

Comments: Approval is recommended and contingent on satisfactory results achieved in the field and acknowledgement by the contractor that they are responsible for the consequences including unanticipated impacts or delays.

[X] **Approval Recommended**

[ ] **Rejection Recommended**

Digitally signed by Matthew Budd
DN: cn=Matthew Budd, o=MoDOT, ou=D6 Construction and Materials, email=Matthew.Budd@modot.mo.gov, c=US
Date: 2011.08.29 08:38:59 -05'00'

District Engineer — Date

Comments: Approval recommended based on MoDOT's recommendations.

[X] **Approval Recommended**

[ ] **Rejection Recommended**

Digitally signed by Dawn Perkins
DN: cn=Dawn Perkins, o=FHWA, ou=MO Division, email=dawn.perkins@dot.gov, c=US
Date: 2011.09.12 15:25:59 -05'00'

Federal Highway Administration — Date
Required for FHWA Full Oversight Projects

Comments:

[X] **Approval**

[ ] **Rejection**

Digitally signed by John P Donahue
DN: cn=John P Donahue, o=MoDOT, ou=3H35, email=john.donahue@modot.mo.gov, c=US
Date: 2011.09.12 13:37:23 -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

Missouri
Department
of Transportation

Jesse Jonas, Resident Engineer

Chesterfield Project Office
601 Salt Mill Rd.
Chesterfield, MO 63017
(314) 340-4285
Fax (314) 340-4287
Toll free 1-888-ASK-MODOT

TRANSMITTAL LETTER

To: Ron Morris	**Date:** August 26, 2011
	Route: 141 **County:** St. Louis
	Contract ID: 100205-601
	Job No. J6U0807
	Subject: PDVECP No. 5
Attention:	Eliminate Temp. Shoring MSE Wall 004

We are sending you

- Herewith
- ☐ Under separate cover
- ☐ As requested
- ☐ _____

For your

- ☒ Approval
- ☐ Use
- ☐ Records
- ☐ Information
- ☐ Review & comments
- ☐ Revision & resubmittal
- ☐ Further handling
- ☐ _____

The following

- ☐ Plans and/or Prints
- ☐ Copy of letter(s)
- ☐ Specifications
- ☐ Change Order(s) _____
- ☒ PDVECP No. 5
- ☐ _____

Copies:	**Description:**
Remarks:	
Copies to:	

FRED WEBER INC.

TRANSMITTAL
No. 00138

DATE: August 25, 2011

TO: Missouri Dept. of Transportation
601 Salt Mill Road
Chesterfield, MO 63017

RE: Job # J6U0807/J6U0807D
Route 141 (29)
St. Louis County
FWI Job #410504
PDVECP - Wall 004 Temp Shoring

ATTN: Jesse Jonas, P.E.

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit 0 copies for approval
☐ Plans		☐ Submit 0 copies for distribution
☐ Samples	SENT VIA:	☐ Returned 0 corrected copies
☐ Specifications	☑ Attached	☐ Returned for Corrections
☑ Other: PDVECP	☐ Separate Cover Via:	☐ Due date:

ITEM NO.	COPIES	DATE	ITEM NUMBER	REV. NO.	DESCRIPTION	STATUS
0001	1	8/26/2011			Final PDVECP - Eliminate Temporary Shoring at MSE Wall 004	NEW

REMARKS:

COPY TO:

SIGNED: Justin L. Brooks

Justin L. Brooks, P.E.
Senior Project Manager

2320 Creve Coeur Mill Road · P.O. Box 2501 · Maryland Heights, Missouri 63043-8501
314.344.0070 · 314.344.0970 Fax
www.fredweberinc.com

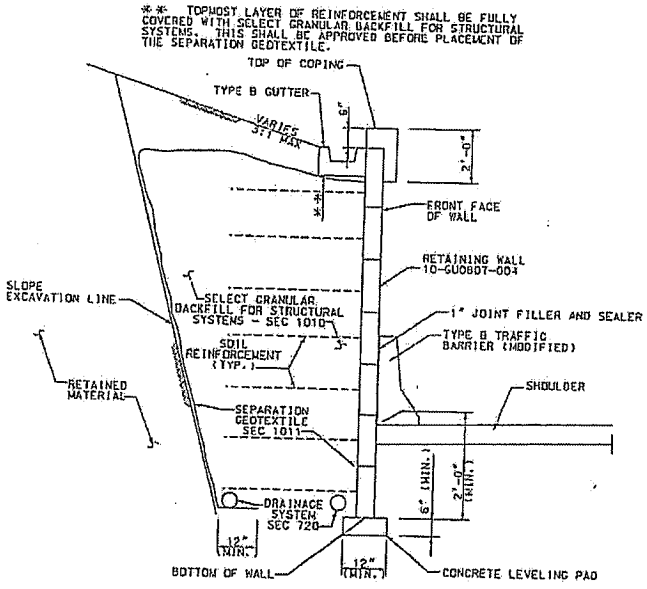
Existing Requirements/Proposed Changes:
Install temporary shoring at ROW behind MSE Wall 004 to enable construction of MSE wall (see attached sketch).

Proposed Change:
Eliminate the temporary shoring behind Wall 004. Excavation for the wall straps can be sloped at a 1:1, which eliminates the need for temporary shoring (see attached sketch).

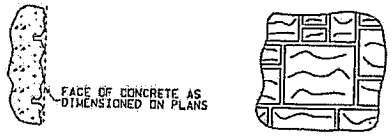
Advantages:
Eliminating the temporary shoring would reduce the total cost of the project. In addition, the time saved by eliminating the installation and removal of the temporary shoring will be greater than the proposed increase in wall construction time.

Disadvantages:
By sloping the excavation, the width of the bottom of the excavation between the fill face of the wall and the toe of the slope will be too narrow to back trucks behind the wall to dump select granular backfill. The trucks will have to dump in front of the wall, and a hydraulic excavator will bail the select granular backfill behind the wall. This will slow wall construction, since the select granular backfill must be double handled. This additional construction cost, however, will be offset by FWI's portion of the savings. The proposed increase in construction time will be far less than the time required to install and remove the temporary shoring.

Proposed PDVECP



TYPICAL SECTION THRU RETAINING WALL



FORM LINER DETAIL
(SEE SPECIAL PROVISIONS)

Form Liner Data Table	
MANUFACTURER	TYPE

FORM LINER DATA TABLE TO BE COMPLETED BY MoDOT CONSTRUCTION PERSONNEL TO RECORD THE MANUFACTURER AND TYPE OF FORM LINER THAT WAS USED.

DATE

DATE PREPARED 16-DEC-2009
DATE 111
STATE MO
DISTRICT 6
SHEET NO. 3
COUNTY ST. LOUIS
JOB NO. J6U0807
CONTRACT NO.
PROJECT NO.
ORIGINAL NO. 10-6U0807-004

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65101
1-888-ASK-MODOT (1-888-275-6636)

JACOBS
JACOBS ENGINEERING GROUP
8700 STANDISH PLACE
ROCKVILLE, MD 20855-2762
COMPANY OF PROCEDENCE

REV.

Sheet 3 of 3

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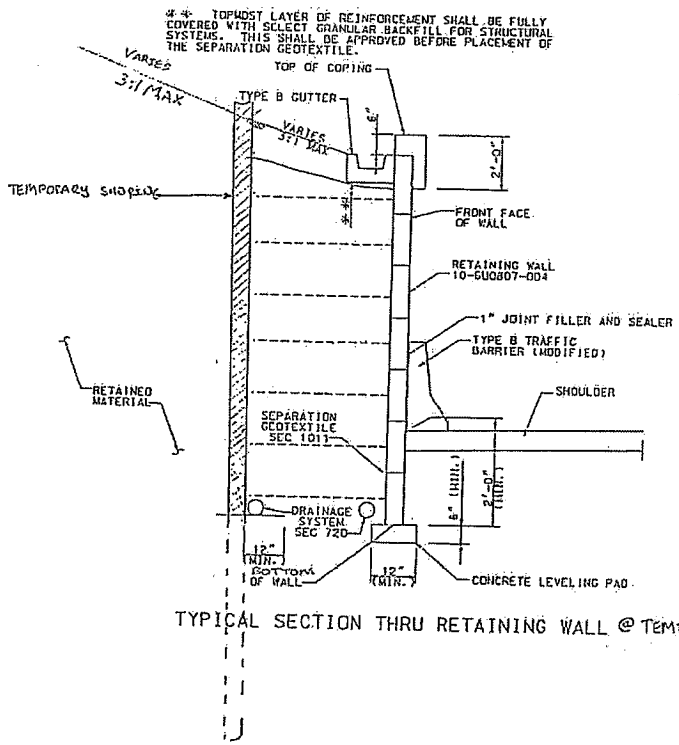
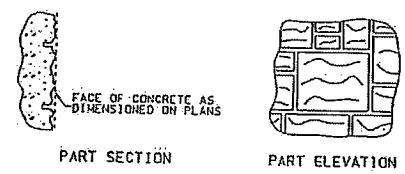
Design



TYPICAL SECTION THRU RETAINING WALL @ TEMPORARY SHORING



FORM LINER DETAIL
(SEE SPECIAL PROVISIONS)

Form Liner Data Table	
MANUFACTURER	TYPE

FORM LINER DATA TABLE TO BE COMPLETED BY MoDOT CONSTRUCTION PERSONNEL TO RECORD THE MANUFACTURER AND TYPE OF FORM LINER THAT WAS USED.

DATE

DATE PREPARED 16-DEC-2009
ROUTE 141 STATE MO
DISTRICT 6 SHEET NO. 3
COUNTY ST. LOUIS
JOB NO. J6U0807
CONTRACT ID.
PROJECT NO.
BRIDGE NO. 10-6U0807-004

DATE | DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65101
1-888-JSK-MODOT (1-888-275-6636)

JACOBS

Sheet 3 of 3

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12:51 16-DEC-2009

FRED WEBER INC.

Rte. 141 Daily Planner

8/26/2011

	Personnel or Sub	Equipment	Trucking	QC Inspection
Excavate @ Rt. 141 210+00	D. Shebaum	400 Hoe	4 Side Dumps	M. Powelson
Work Fill From Rt. 141 240+00 - 250+00	P. Jensen R. Schremp R. Riley	JD Blade 750 Dozer 815 Compactor		M. Powelson
Load Tandems for Kuesel	D. Shebaum	400 Hoe	3 Tandems	
Excavate for Maryville Creek Relocation	A. Steggemann	330 Hoe	4 Tandems	M. Powelson
Fill @ Stock Pile for Channel Fill	J. Helms	550 Dozer		M. Powelson
Doze @ Berm Area 220+00	O. Wymer	D6 Dozer		M. Powelson
Doze in Cut @ 210+00	O. Wymer	D6 Dozer		M. Powelson
Stone Columns near Box Culvert 85-01	Subsurface	Crane		M. Powelson
~~Place Deck Steel @ A7808~~	PJR			M. Powelson
~~Build Diaphrams @ Br. A7808~~	R. Barks & Crew			M. Powelson
~~Install Overhang @ Br. A7808~~	R. Barks & Crew			M. Powelson
~~Wreck A7813 Approaches~~	J. Coleman & Crew			M. Powelson
~~Tie Barrier Steel @ A7813~~	C. Todall & Crew			M. Powelson
Set Panels/Backfill @ Wall A7805	T. Helfrich & Crew	Skid Loader, Roller, 777 Crane		M. Powelson
Set Panels/Backfill @ Wall A7839	T. Helfrich & Crew	Skid Loader, Roller, 300 Hoe		M. Powelson
~~Tie Steel Sections 2 & 3 of Bent 2 @ Bent 2 A7815~~	PJR			M. Powelson
Close up Sections 2 & 3 @ ~~of Bent 2 Bridge A7815~~	R. Barks & Crew			M. Powelson
Storm Sewer @ Ladue Rd.	Castle			M. Powelson

Material Deliveries:	Upcoming Plans/Needs:
Concrete will called @ 9:30am for Bent 2 of Bridge A7815	
	Pre-Activity Meetings:

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

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

SUMMARY OF PROPOSAL

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

Contractor will cut the slope behind MSE Wall #4 at 1:1 and leave slope unreinforced rather than install temporary shoring prior to placement of MSE wall and material back fill. Material back fill shall require more volume and be more labor intensive, but overall construction cost and time of MSE Wall #4 will be reduced.

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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