Form C-104
Rev. 03/2012

VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

☐ **Conceptual Proposal** ☒ **Final Proposal** **Date** 6-29-12

Contract ID **110722-H01** **Job No.** **J0P2159**

County **St. Francois** **Route** **67** **Original Contract Amount** **$3,344,748.12**

Contractor **Emery Sapp & Sons** **By** **Josh Doerhoff**

Designed By **MoDOT** **Phone** **573-445-8331**

VECP# 12-40 **(to be completed by C.O.)** **VECP** ☒ **or** **PDVECP** ☐

1. **Description of existing requirements and proposed change(s). Advantages/Disadvantages**
   The existing design calls for the removal and remplacement of sound pavment in several areas on the above referenced project. We believe we can provide a higher quality final product at a lower price if allowed to leave quality pavement in place while also replacing short sections of A3 Shoulder with full depth PCCP. A detailed descriptions of all proposed changes are included in the attached letter along with a complete breakdown of the cost savings.

2. **Estimate of reduction in construction costs.** $32,843.70

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.**

   6-29-12
   (date)

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

   7-10-12 (date) — Pavement operations will take place in these areas (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:

The contractor's VE proposal reduces overall construction time, while maintaining the quality of the project. I recommend items 1, 3, 4, and 5 be approved as a PDVECP (25/75 split) as they are straight underruns of contract quantities. I recommend item 2 be approved as a VECP (50/50 split) as it provides an improvement in quality (i.e., full-depth concrete shoulders).

Digitally signed by Jason Wiliams
DN: cn=Jason Wiliams, o=MoDOT, ou=SE, email=Jason.Williams@modot.mo.gov, c=US
Date: 2012.07.16 10:03:46 -05'00'

Submitted By Resident Engineer | Date

Comments: I agree with Resident Engineer's comments.

☒ **Approval Recommended**

☐ **Rejection Recommended**

Digitally signed by Andrew Meyer
DN: cn=Andrew Meyer, o=MoDOT, ou=SE Construction and Materials, email=andrew.meyer@modot.mo.gov, c=US
Date: 2012.07.20 08:00:33 -05'00'

District Engineer | Date

Comments:

☐ **Approval Recommended**

☐ **Rejection Recommended**

Federal Highway Administration
Required for FHWA Full Oversight Projects

Date

Comments:

Digitally signed by John P Donahue
DN: cn=John P Donahue, o=MoDOT, ou=3H35, email=john.donahue@modot.mo.gov, c=US
Date: 2012.07.20 09:33:59 -05'00'

X20162 6Paving

☒ **Approval**

☐ **Rejection**

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**

EMERY SAPP & SONS, INC

June 29, 2012

Mr. Jason Williams, R.E.
Missouri Dept. of Transportation
105 Industrial Dr.
Park Hills, MO 63601

RE: Value Engineering Proposal,
Rt 67 St Francois Cty,
Job No J0P2159

Mr. Williams:

As we discussed previously we have several design changes which we believe will increase the quality and overall value of the paving on the above referenced project. Many of these modifications involve the elimination of removal and replacement of good quality pavement and shoulders. Listed below is a breakdown of each of our proposed modifications.

1. Between Stations 771+00 RT and 772+82 RT the existing plans call for the removal and replacement of 2 FT wide Asphalt shoulders. The replacement of this shoulder will take place across two entrances for a local gas station. We do not believe that the replacement of existing sound asphalt through this shoulder area and across these entrances with 3.75 IN of asphalt is beneficial to the project.
2. Between Stations 794+70 RT and 800+30 RT the existing asphalt shoulder is approximately 14 IN thick and of good quality. We suggest we leave the existing 8 FT wide shoulder in place while pouring the remaining 9 IN Concrete widening and new A3 shoulder monolithically 9 IN thick. This will make the new widening approximately 6 FT wide and full depth concrete. In addition to the elimination of the 3.75 IN A3 Shoulder between Stations 794+70 and 800+30 we suggest to pour the remaining 200 LF of A3 Shoulder along Ramp 3 in full depth concrete. This will provide a full depth concrete shoulder along the entire length of Ramp 3 and Rt 221 between stations 794+00 and 800+30.
3. The existing entrance at Station 797+18 RT calls for complete removal and replacement. We believe this entrance can be salvaged in conjunction with the work referenced in item 2 detailed above. The existing concrete entrance is of good quality and does not need replaced.
4. Between Stations 794+45 LT and 795+54 LT the existing asphalt pavement is approximately 14 IN thick and in good condition. We recommended leaving the existing pavement in place in lieu of full depth replacement.

EMERY SAPP & SONS, INC

5. Each of the four ramps call for ¾ IN concrete milling for the Ultrathin Bonded Wearing Surface on approximately 150 LF of the ramps. We recommend reducing the concrete milling to a 37.5 FT long transition mill to tie into the planned ending station on each ramp in lieu of milling the entire section of the ramp. Each of the widening areas adjacent to the top of these ramps will need to have the grades adjusted to accommodate for the ¾ IN grade change.

It is our belief that all of these pavement modifications will improve the overall quality of the project while providing a final product at a lower price. Please review our recommended design changes and let me know if they are acceptable as soon as possible. If you need any additional information, please don't hesitate to call.

Sincerely,

Emery Sapp & Sons, Inc.

Josh Doerhoff
Project Manager P.E.

St. Francois Cty J0P2159

Value Engineering to leave Existing Pavement in Place and Replacing A3 Shoulders with Full Depth Concrete

Stations 771+00 RT to 772+82 RT Elimination of Removal and Replacment of Sound Shoulders

1	X	A3 Shoulders	40.45	SYS	X	$	31.90	/ SY	$ 1,290.36
-1	X	Coldmilling Bituminous Pavement	40.45	SYS	X	$	5.50	/ SY	$ (222.48)
-1	X	Ultrathin Bonded Wearing Surface	40.45	SYS	X	$	5.10	/ SY	$ (206.30)
1	X	Type 5 Agg Base	40.45	SYS	X	$	6.30	/ SY	$ 254.84
1	X	Class A Excavation	13.50	CY	X	$	5.25	/ CY	$ 70.88

SUBTOTAL = $ 1,187.30

Stations 794+70 RT to 800+30 RT and Replacment of A3 Shoulders on Ramp 3 and 221 with Full Depth Concrete

1	X	A3 Shoulders	291.64	SYS	X	$	31.90	/ SY	$ 9,303.32
-1	X	Coldmilling Bituminous Pavement	66.70	SYS	X	$	5.50	/ SY	$ (366.85)
-1	X	Ultrathin Bonded Wearing Surface	291.64	SYS	X	$	5.10	/ SY	$ (1,487.36)
1	X	Class A Excavation	179.00	CY	X	$	5.25	/ CY	$ 939.75
-1	X	Concrete Pavement (8 IN Non Reinforced)	95.67	SYS	X	$	42.85	/ SY	$ (4,099.46)
1	X	Concrete Pavement (9 IN Non Reinforced)	302.03	SYS	X	$	45.00	/ SY	$ 13,591.35

SUBTOTAL = $ 17,880.74

Leave Entrance in Place 797+18 RT

1	X	Misc 7 IN Conc Pavt Non Rein for DW	89.97	SYS	X	$	46.75	/ SY	$ 4,206.10
1	X	Type 5 Agg Base	98.30	SYS	X	$	6.30	/ SY	$ 619.29
1	X	Linear 2 Grading	0.30	STA	X	$	2,050.00	/ STA	$ 615.00

SUBTOTAL = $ 5,440.39

Stations 794+45 LT to 795+54 LT Elimination of Removal and Replacment of 14 IN Thick Sound Shoulders

1	X	Class A Excavation	32.80	CY	X	$	5.25	/ CY	$ 172.20
1	X	Type 5 Agg Base	90.83	SYS	X	$	6.30	/ SY	$ 572.23
1	X	Concrete Pavement (9 IN Non Reinforced)	90.83	SYS	X	$	45.00	/ SY	$ 4,087.35

SUBTOTAL = $ 4,831.78

Reduction in Concrete Coldmilling due to adjusting Grades of New PCCP on Widening of Hwy 221

1	X	Coldmilling Concrete Pavement 37.5 FT Transition	637.00	SYS	X	$	5.50	/ SY	$ 3,503.50

SUBTOTAL = $ 3,503.50

Total Savings = $ 32,843.70