

VALUE ENGINEERING CHANGE PROPOSAL  
MISSOURI DEPARTMENT OF TRANSPORTATION

Conceptual Proposal       Final Proposal      Date 2/14/2011  
Contract ID \_\_\_\_\_ Job No. BRM-4989 (606)  
County St. Louis      Original Bid Cost \$1,262,456.00  
Contractor L. Krupp Construction, Inc.      By Sean Kilian  
Designed By Michael Banashek      Phone (314) 280-0353  
VECP# 11-07 (to be completed by C.O.)      VECP  or PDVECP

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

We are proposing to replace end bent #1 with a concrete wall cast around pile that have been prebored and grouted 6' into rock. We will also replace end bent #2 with a traditional pile and cap setup in lieu of the pile, footing, and wall setup currently planned. Finally, we will be utilizing a spread box beam superstructure with precast concrete panels and a concrete deck.

2. Estimate of reduction in construction costs. \$63,304.50

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

Due to the spread box beam design and deletion of expansion joint in the deck, the maintenance costs in the future for this project should be reduced.

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

3/3/2011  
(date)

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

\_\_\_\_\_ (date)      \_\_\_\_\_ (effect)

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

1/19/2011  
(date and/or dates)





CDG Engineers Architects Planners, Inc.

One Campbell Plaza  
St. Louis, Missouri 63139  
T. 314 781 7770 F. 314 781 9075

[www.cdgenengineers.com](http://www.cdgenengineers.com)

February 15, 2011

Mr. Dave Simmons  
Senior Construction Inspector  
**MISSOURI DEPARTMENT OF  
TRANSPORTATION (MoDOT)**  
**St. Louis Metro. District 6**  
1590 Woodlake Drive  
Chesterfield, Missouri 63017-5712

**RE: City of Fenton, Missouri  
Old 141 over Fenton Creek Project  
Contractor VE Proposal  
Project No. BRM-4989(605)  
CDG Project No. 10147**

Dear Mr. Simmons:

On behalf of the City of Fenton, CDG Engineers hereby requests MoDOT approval of the discussed major Value Engineering (VE) proposal by Krupp Construction so the re-design can begin.

CDG Engineers remains the project designers of record and is also supplementing City of Fenton staff with part-time construction observation. The proposed bridge was designed by Woolpert, Inc. and inserted into the road/site plans and specifications by CDG Engineers. The estimated cost savings for this VE proposal is \$63,304.50 AFTER subtracting an allowance of \$14,000 for CDG Engineers' time to review the future revised plans. This is a preliminary estimate and will be revised as the re-design is completed and construction begins. As we understand, Krupp Construction will receive fifty percent (50%) of the savings. The remaining 50% of the proposed savings will be split between FHWA and the City of Fenton. (Please reference the February 8, 2011 CDG Engineers' email listing a summary of this project's cost).

CDG Engineers recommends this VE proposal be conceptually approved and further developed with detailed engineering and plan preparation by Horner & Shifrin, Inc. (designer selected by Krupp Construction). CDG has reviewed and attached a copy of the below listed documents which further conceptually describes the Krupp Construction VE proposal:

- February 14, 2011 Krupp letter addressing CDG Engineers' questions from a January 21, 2011 email. This email was discussed at a January 27, 2011 meeting with MoDOT, Fenton, Krupp, Horner & Shifrin and CDG Engineers.
- February 14, 2011 Krupp VE proposal with attachments:
  - a. Conceptual MoDOT VE form dated February 14, 2011.
  - b. Conceptual estimated Pay Item description of savings by Krupp.
  - c. Conceptual Horner & Shifrin VE recommendation.



Mr. Dave Simmons  
Senior Construction Inspector  
MoDOT – District 6  
February 15, 2011  
Page 2

Please review and provide MoDOT with conceptual approval so the re-design can begin. Do not hesitate to call or email regarding any questions or if we can meet to discuss.

Sincerely,

*CDG Engineers Architects Planners, Inc.*

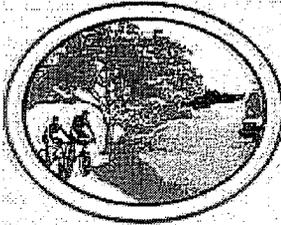
A handwritten signature in cursive script, appearing to read "Glenn A. Smith".

Glenn A. Smith, P.E.  
Project Manager

GAS/la

Attachments

cc: Mark Sartors and Dan Howard, City of Fenton  
Sean Killian, Krupp Construction  
Tim Nugent, CDG Engineers



**FENTON**  
CITY OF PARKS

February 15, 2011

Missouri Department of Transportation  
Attn: David Simmons  
1590 Woodlake Dr.  
Chesterfield, MO 63017-5712

RE: Fenton Creek Bridge Replacement  
Bridge #1420013  
Project No. BRM-4989(606)

Dear Mr. Simmons,

L. Krupp Construction has submitted for consideration, a Value Engineering proposal to the City of Fenton for the construction of the Fenton Creek Bridge, BRM-4989(606) over Fenton Creek located on Old 141. The Value Engineering as proposed will reduce the overall cost of the bridge construction and lessen the closure time of the bridge by two weeks.

Please accept this letter from the City of Fenton as support of the Value Engineering proposal as submitted.

If you should have any questions please contact me at 636-349-8110.

Sincerely,

Dan Howard  
Project Manager

PLANNING AND ZONING  
CODE ENFORCEMENT  
625 New Smizer Mill Road  
Fenton, MO 63026-2015  
(636) 349-8110  
Fax (636) 343-5657

# *L. Krupp Construction, Inc.*

February 14, 2011

Dan Howard  
City of Fenton  
625 New Smizer Mill Road  
Fenton, MO 63026

RE: Fenton Creek Bridge Replacement  
Old Highway 141; Bridge #1420013  
Project No. BRM-4989 (606)

Subject: **Value Engineering Proposal**

Dear Mr. Howard:

As per our meeting last Thursday, January 27<sup>th</sup>, 2011, I am submitting the following information and clarifications regarding the Value Engineering Proposal previously submitted. In addition, I have attached a revised MoDOT conceptual approval form and a letter from the designer, Horner & Shifrin, Inc.

As discussed and mentioned in previous correspondence, we plan to redesign both the substructure and superstructure of this bridge to maximize cost savings and reduce construction time. We have looked at numerous possibilities, but have arrived at the following preliminary design:

- Abutment #1 will be a cast-in-place concrete wall on top of rock that encases 12" H-pile that have been pre-bored and grouted 6' into rock.
- Abutment #2 will be a typical pile/cap design using 12" pile driven to rock with a cast-in-place cap.
- The proposed superstructure will consist of 7 spread IDOT 21" x 48" precast box beams with pre-stressed, pre-cast concrete panels between them and a 5.5" cast-in-place concrete deck.
- The guardrail design will not change.

Along with Horner & Shifrin, we believe that this redesign will offer an equal or better replacement to the current designed structure. There are numerous benefits that this new bridge will offer:

- Total cost savings of approximately \$63,304.50 (based on preliminary design). The revised cost includes \$33,000 for bridge design and \$14,000 for design review.
- The proposed superstructure will allow for a thicker slab, thus better protection for the box beams.

Asphalt Paving and Excavation

415 Old State Road • Ellisville, MO 63021  
(636) 391-8844 • FAX (636) 391-7544

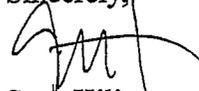
- The spread box beam design will allow for better post-construction inspection as both the inside, bottom, and outside of all beams will be visible. In addition, this layout also offers better protection from the corrosiveness of deicing salt.
- The proposed substructure at bent #1 will eliminate any possible scouring issues by taking the concrete wall all the way to rock.
- The redesign in the substructure eliminates the need for an expansion joint in the superstructure, thus reducing cost now and maintenance issues in the future.
- The substructure redesign will cut construction time by approximately two weeks, thus allowing for a considerably shorter bridge closure. This will benefit both the travelling public as well as adjacent businesses.
- Due to either no change or an increase in open cross sectional area beneath the bridge, there will be no change to the hydraulic analysis. This also means the no-rise certificate and Corps of Engineer permit will not be affected.

In addition to these benefits, I have come across one major item that could substantially increase the cost and duration of this project. The current design has the footing for abutment #1 sitting on top of 15' pile at elevation 395.55. The available borings for this project show the top of rock at 406.8 approximately 45' southeast of abutment #1 and at 391.2 approximately 100' northwest of abutment #1. Interpolation based upon these borings and the creek channel would place top of rock above elevation 395.55, thus necessitating Class 2 Excavation in Rock, Prebore for Piling, along with a possible redesign once the bridge has already been removed and the top of rock field located. The possible cost additions associated with this would be great. However, the time required to solve this issue or redesign the substructure would add weeks, if not longer, to the bridge closure.

I have calculated approximate total cost savings for this redesign at around \$63,304.50, based on the actual final design. As per MoDOT specifications, this would be split 50/50, meaning a \$31,652.25 savings for the City of Fenton/FHWA. As mentioned before, this total does not take into account additional savings that might be seen in regards to how the redesign would take into account the 66" RCP. If we are not required to dig footings, it's possible the 66" RCP may only need a new section and flared end. Also, I have taken some savings in the Class 1 Excavation, but there could be additional savings which would be determined by the final design. Attached is a revised bid tabulation of the bridge items for your review.

Please review this information and let me know if you have any question or comments. I can be reached at (314) 280-0353.

Sincerely,



Sean Kilian  
Project Manager

# L. Krupp Construction, Inc.

February 14, 2011

Dan Howard  
City of Fenton  
625 New Smizer Mill Road  
Fenton, MO 63026

RE: Fenton Creek Bridge Replacement  
Old Highway 141; Bridge #1420013  
Project No. BRM-4989 (606)

Subject: **Value Engineering Proposal Answers**

Dear Mr. Howard:

As per the request of Glenn Smith, the following is a list of answers to questions submitted via e-mail on 1/24/2011:

- 1. CDG COMMENT: What is the estimated total design cost for the revisions? Does that come from the estimated \$70,000 to \$90,000 savings? What is the City's estimated share of the savings? Is that guaranteed?**  
*KRUPP ANSWER: The estimated total design cost for this project is \$33,000. This is included in the revised contract cost, so is already accounted for in the project savings. The City/FHWA share of the savings is 50%, which is guaranteed. Any items that may overrun will reduce the cost share portion proportionally.*
- 2. CDG COMMENT: This is a Unit Price construction contract but none of the information in this VE proposal is associated with the bid prices making a review nearly impossible. Can Krupp please provide more background with estimated quantities at the bid unit prices used to determine the estimated savings. Some new pay items and unit prices will be required.**  
*KRUPP ANSWER: The revised bid tabulation for the bridge items only is attached for review.*
- 3. CDG COMMENT: What impact will the proposed change have on the completed hydraulic analysis, No Rise certificate and Corps of Engineer permit already acquired?**  
*KRUPP ANSWER: Due to the use of smaller beams and the existing planned slopes and rock blanket, there will actually be a greater cross sectional area for hydraulics, thus not affecting the existing hydraulic analysis, No Rise certificate, or Corps of Engineer permit.*
- 4. CDG COMMENT: Because of its size and location, we need to discuss the impact Krupp believes this change will have on the existing 66" MSD**

Asphalt Paving and Excavation

415 Old State Road • Ellisville, MO 63021  
(636) 391-8844 • FAX (636) 391-7544

RCP located under the "south" end bent # 1. This revision could negatively affect the cost savings.

*KRUPP ANSWER: The proposed revision eliminates the footings and takes the wall down to top of rock. Due to this, we will be staying further away from the 66" RCP in the area where it would need possible adjustments. Although this won't be determined until the final design, I believe that there will be less work associated with the 66" RCP, thus positively affecting the cost savings.*

5. **CDG COMMENT: What is the estimated bottom elevation of the cast-in-place pile encasement wall at proposed End Bent # 1? It needs to be low enough to prevent future scour.**

*KRUPP ANSWER: We are planning on pouring the wall at End Bent #1 directly on top of rock, thus eliminating any possible scour issues. In addition, the current plans show rock blanket along the base of this wall, which we plan to keep in the new design. This would help prevent scour and erosion as well.*

6. **CDG COMMENT: Will the steel piles be exposed at End Bent 2 or will the rock blanket shown on the contract plans be installed as shown to protect them?**

*KRUPP ANSWER: The steel piles will not be exposed on bent #2. This will be a typical pile/cap design will all pile underground protected by both the existing material and the proposed rock blanket.*

7. **CDG COMMENT: The potential expansion/contraction of the revised bridge should be reviewed in the re-design to insure the expansion joint can be deleted at End bent # 2.**

*We believe that due to the substructure redesign, this expansion joint can be deleted. This will save money now and will reduce future maintenance costs.*

8. **CDG COMMENT: What is the estimated thickness of the proposed revised superstructure? Will the profile grade remain the same? We assume the proposed prestressed deck panels and 5.5" slab will be designed in accordance with MoDOT details? What type of railing is propose don the bridge?**

*KRUPP ANSWER: In the proposed superstructure, we plan on utilizing a 5.5" cast-in-place concrete deck atop 3" pre-stressed pre-cast concrete panels. We do intend to design both the deck and panels in accordance with typical MoDOT standards. At this time, we do not intend on changing the railing design (it is currently guardrail attached to the exterior concrete beams).*

9. **CDG COMMENT: It seems the majority of the estimated savings will come from the revised substructure but the VE proposal says most of the estimated savings are from the superstructure. Please explain.**

*KRUPP ANSWER: As you can see on the attached revised bid tabulation, the revised total for the Pre-stressed Concrete Spread Box Beam is \$98,000.00. The original bid price for this item was \$150,000.00, thus saving approximately \$52,000, or nearly 70% of the total savings. While there is also approximately \$23,000 savings in the substructure, the reduced construction time of two weeks comes primarily from the substructure redesign. I am not including the expansion*

*joint in the superstructure savings due to the fact that its removal is a product of the redesigned substructure.*

10. **CDG COMMENT:** What guarantee or assurance, if any, does the City of Fenton have that these revisions will not actually cost MORE than the price bid for this project? When is the VE proposal finalized into "firm" numbers? On a BRM project like this one, how are the contractor savings paid to the contractor? Will MoDOT/FHWA pay 80% of those savings like any other pay item? Need to investigate with Dave Simmons of MoDOT.

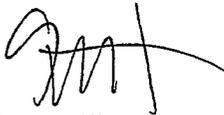
*KRUPP ANSWER: As mentioned earlier, if there are overruns based upon differing field conditions or any other issue that might arise, the total cost would be added to the contract. However, the cost savings would also be recalculated and reduced based upon the revised prices or quantities. Similarly, if a contract item or items would underrun, the same thing would happen but the cost savings would increase for both the City and Krupp. The VE proposal is finalized into a firm contract once the change order with revised items and prices has been signed by the City and Krupp. Unfortunately, I am not familiar with the savings being shared between MoDOT/FHWA and the City of Fenton, so that will have to be addressed by Dave Simmons.*

11. **CDG COMMENT:** A reduced bridge closure time during construction will benefit the City of Fenton and the residents/businesses that use Old 141 and could be another benefit with this VE proposal.

*KRUPP ANSWER: I believe that we could save two weeks or more on the bridge closure by utilizing this new design. This would have obvious benefits to the travelling public, local residents, and nearby businesses.*

If you have any additional questions, please contact me at (314) 280-0353.

Sincerely,



Sean Kilian  
Project Manager

City of Fenton  
 Old Highway 141 Bridge Value Engineering Proposal  
 Preliminary Quantities  
 2/14/2011

Pay Item	Description	Units	Plan Qty	Plan Unit Price	Plan Total Price	Revised Qty	Revised Unit Price	Revised Total	Savings
206-10.00	Class 1 Excavation	CY	759	\$25.00	\$18,975.00	500	\$25.00	\$12,500.00	(\$6,475.00)
216-05.00	Removal of Bridge	LS	1	\$10,000.00	\$10,000.00	1	\$10,000.00	\$10,000.00	\$0.00
503-10.10	Bridge Approach Slab ( Bridge )	SY	267	\$205.00	\$54,735.00	267	\$205.00	\$54,735.00	\$0.00
603-99.99	66" Precast Concrete Pipe Storm Sewer Adjustment	LS	1	\$4,500.00	\$4,500.00	1	\$4,500.00	\$4,500.00	\$0.00
702-10.12	Structural Steel Piles ( 12" )	LF	1245	\$50.00	\$62,250.00	1032	\$60.00	\$61,920.00	(\$330.00)
702-60.00	Pre Bore for Piling	LF	0	\$0.00	\$0.00	228	\$194.00	\$44,232.00	\$44,232.00
702-70.00	Pile Point Reinforcement	EA	83	\$105.00	\$8,715.00	6	\$105.00	\$630.00	(\$8,085.00)
703-20.03	Class B Concrete ( Substructure )	CY	371	\$385.00	\$142,835.00	175	\$516.00	\$90,300.00	(\$52,535.00)
703-42.13	Slab on Concrete I-Girder	SY	0	\$0.00	\$0.00	302	\$111.00	\$33,522.00	\$33,522.00
703-42.14	Class B-2 Concrete ( Superstructure )	CY	56	\$500.00	\$28,000.00	0	\$0.00	\$0.00	(\$28,000.00)
705-60.50	Prestressed Concrete Box Beam ( 55 FT Span )	EA	12	\$12,500.00	\$150,000.00	7	\$14,000.00	\$98,000.00	(\$52,000.00)
710-00.00	Reinforcing Steel ( Bridges )	LB	35990	\$0.90	\$32,391.00	21875	\$0.90	\$19,687.50	(\$12,703.50)
710-00.00	Reinforcing Steel ( Epoxy Coated )	LB	10350	\$1.00	\$10,350.00	10350	\$1.00	\$10,350.00	\$0.00
711-01.00	Protective Coating-Concrete Benits ( Urethane )	LS	1	\$10,000.00	\$10,000.00	1	\$10,000.00	\$10,000.00	\$0.00
712-23.00	Bridge Guard Rail	LF	128.33	\$175.00	\$22,457.75	128.33	\$175.00	\$22,457.75	\$0.00
715-10.01	Vertical Drain at End Benits	EA	2	\$3,300.00	\$6,600.00	2	\$3,300.00	\$6,600.00	\$0.00
716-10.02	Laminated Neoprene Bearing Pad ( P/S Structures )	EA	48	\$275.00	\$13,200.00	28	\$320.00	\$8,960.00	(\$4,240.00)
717-10.01	Preformed Compression Expansion Joint Seal ( 1-5/8 In. )	LF	103	\$230.00	\$23,690.00	0	\$0.00	\$0.00	(\$23,690.00)
999-99.01	Bridge Design (Hornor & Shifrin)	LS	0	\$0.00	\$0.00	1	\$33,000.00	\$33,000.00	\$33,000.00
999-99.02	Bridge Design Review (CDG)	LS	0	\$0.00	\$0.00	1	\$14,000.00	\$14,000.00	\$14,000.00
	<b>TOTALS</b>				<b>\$598,698.75</b>			<b>\$535,394.25</b>	<b>(\$63,304.50)</b>

# L. Krupp Construction, Inc.

February 15, 2011

Dan Howard  
City of Fenton  
625 New Smizer Mill Road  
Fenton, MO 63026

RE: Fenton Creek Bridge Replacement  
Old Highway 141; Bridge #1420013  
Project No. BRM-4989 (606)

**Subject: Value Engineering Proposal Answers**

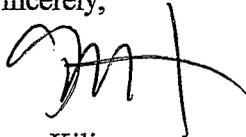
Dear Mr. Howard:

As per the request of Glenn Smith, the following is an explanation of why contract unit prices need to be adjusted in the VE proposal:

1. **Structural Steel Piles:** The original plans called for driven pile. The new plans call for prebored pile grouted into rock in one of the abutments. This results in an increased cost. Additionally, the quantity has been decreased.
2. **Class B Concrete:** The retaining wall work is more labor intensive and doesn't have the high production, high quantity footing work involved as in the original bid. Due to this, the cost per cubic yard needs to be increased.
3. **Prestressed Concrete Box Beams:** The quantity has been decreased, the boxes have been changed, and we are adding concrete panels. Due to these items, the cost for this has increased.
4. **Laminated Neoprene Bearing Pad:** Previously, these were adjacent due to adjacent precast box beams. Now that they have been spread, it takes longer to lay them out properly, thus resulting in increased cost.

If you have any additional questions, please contact me at (314) 280-0353.

Sincerely,



Sean Kilian  
Project Manager

Asphalt Paving and Excavation

415 Old State Road • Ellisville, MO 63021  
(636) 391-8844 • FAX (636) 391-7544



5200 Oakland Ave.  
St. Louis MO 63110-1490  
(314) 531-4321 • Fax: (314) 531-6966

640 Pierce Blvd., Suite 200  
O'Fallon, IL 62269-2579  
(618) 622-3040 • Fax: (618) 622-3070

February 14, 2011

Mr. Sean Kilian  
L. Krupp Construction, Inc.  
415 Old State Road  
Ellisville, MO 63021

**Re: Value Engineering of Fenton Creek Bridge Replacement  
Project No. BRM-4989(606), Bridge No. 1420013**

Dear Mr. Kilian:

In conjunction with our preliminary investigation of redesign options for the Old Highway 141 Bridge over Fenton Creek, performed per our contract agreement with L. Krupp dated December 29, 2010, we offer the following summary regarding proposed revisions.

The current plans indicate adjacent precast concrete box beams with a 6" concrete topping. Our proposed change includes the use of spread box beams with a full depth (8 1/2") concrete slab comprised of a 3" precast concrete panel and 5 1/2" cast-in-place concrete topping. The proposed superstructure offers the benefit of a thicker slab than the current plans and will provide better protection to the box beams from corrosive roadway salts. In addition, the proposed configuration allows for better inspection of the structure as the underside of the slab and sides of the beams will be visible. The service life of the proposed superstructure should be equal or better than that shown on the current plans.

The current plans show use of concrete wall abutments and footings supported by steel H-piles for both end bents. We propose revising End Bent 1 to an integral pile cap bent. No footing will be required for this bent where it supports the bridge and the piles will be encased in concrete to form a wall which functions as the south edge of creek. The encasement will extend down to rock to eliminate concerns about scour. For End Bent 2, we propose utilizing a standard MoDOT integral pile cap abutment. This bent also eliminates the need for a footing. A rip-rap protected slope similar to that shown on the current plans will protect this abutment from scour. Both proposed bents will function similarly to those shown on the current plans with no change to expected service life. The proposed substructure offers the added benefit of eliminating the need for an expansion joint in the deck. These joints require regular maintenance which can be expensive.

As noted above, in our opinion, the proposed changes to the Fenton Creek Bridge will provide the City of Fenton with a structure of equal or better functionality and expected service life than the structure shown in the current plans dated April 7, 2010.

Sincerely,

Michael A. Banashek, P.E.  
Structural Department Manager



**Re: Fw: BRM 4989(606) Local Roads Project Contractor Initiated VE Proposal**

**David M Koenig** to: Richard T Miller

02/16/2011 04:11 PM

Cc: Andrew T Mueller, David J Simmons, david.morris, James E Smith,  
Jeffrey J Aholt

Bridge Division is okay with the conceptual proposal as specified in the attached documents. The contractor will need to address the items listed below for approval of the final proposal by Bridge Division. The contractor will also have to address any concerns of the engineer of record for the project as well as the city of Fenton. The updated deliverables for Items 1, 2, 3, and 4 will need to be submitted to Bridge Division. They can be submitted in an electronic PDF format provided that all of the documents are signed and sealed in accordance with State law.

1. A new Structure Inventory & Appraisal Sheets (SI&A) sheet will have to be submitted for the changed structure. The majority of the items will remain the same, but the engineer for the contractor will have to review the SI&A for the structure based on the original plans and update it accordingly.
2. Because of the change in the structure, a new load rating will be required.
3. Updated plans will need to be submitted that reflect all of the changes resulting from the VE proposal. This should include updated quantities and pay items.
4. If the specifications are updated because of this VE study, an updated version of the specifications will need to be submitted.
5. The consultant for the contractor will have to design the updates and changes in accordance with all of the requirements in the Local Public Agency Manual, which is Section 136 in the EPG. This would include meeting appropriate hydrological requirements and permits for this site as well as other issues or permits that would apply such as environmental requirements.

Richard T Miller

Gentlemen, Below and attached is a value engin...

02/16/2011 10:17:09 AM

From: Richard T Miller/SC/MODOT  
To: James E Smith/SC/MODOT@MODOT, david.morris@dot.gov, David M Koenig/SC/MODOT@MODOT  
Cc: David J Simmons/D6/MODOT@MODOT, Andrew T Mueller/D8/MODOT@MODOT  
Date: 02/16/2011 10:17 AM  
Subject: Fw: BRM 4989(606) Local Roads Project Contractor Initiated VE Proposal

Gentlemen,

Below and attached is a value engineering change proposal for a local project. Please let me know your thoughts and if you feel I should share this with anyone else. Your prompt attention to this matter is greatly appreciated,

R. Todd Miller, P.E., A.V.S.  
Innovations Engineer  
(573) 522-9731

----- Forwarded by Richard T Miller/SC/MODOT on 02/16/2011 10:13 AM -----

From: David J Simmons/D6/MODOT  
To: Richard T Miller/SC/MODOT@MODOT  
Cc: Gregory A Wilhelm/D6/MODOT@MODOT, Andrew T Mueller/D8/MODOT@MODOT  
Date: 02/16/2011 08:29 AM

Subject: BRM 4989(606) Local Roads Project Contractor Initiated VE Proposal

---

Todd,

Per our conversation this morning. Attached is the proposed Value Engineering for the Federally Funded Old 141 City of Fenton Bridge Project.

The sponsor has asked for our promptness in this review due to the time sensitivity of the project construction. Please give me a call if there are any questions I can answer.

The City of Fenton Contact is:

Dan Howard Project Manager 625 New Smizer Mill Rd; Fenton, MO 63026  
dhoward@fentonmo.org 636-349-8110

The Engineer of Record/Bridge Inspector is:

Glen Smith, P.E. Structural Engineer One Campbell Plaza, St. Louis, MO 63139  
gsmith@cdgengineers.com 314-781-9075



BRM4989\_606\_VEProposal.pdf

Sincerely,

Dave  
**David J. Simmons P.E.**  
**Senior Construction Inspector**  
**Local Roads Division**  
314-220-6621

# 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

## ***SUMMARY OF PROPOSAL***

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

This VE involves use of a wall in lieu of a bent cap, use of a bent cap in lieu of a wall, and use of a spread box beam superstructure.

---

---

---

---

## ***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.

---

---

---