Engineer Estimate

	Adjust Manhole Ring	Adjust Manhole	Removal of Hot Bitu. Pavement HBP only	Removal of Hot Bitu. Pavement	Change Order 2: 10 June 15	27 Expoxy Paint Pymt Mk - 4 in Line	26 Expoxy Paint Pymt Mk - 6 in Line	25 Performed Patterned ymt Mk - 24 in Line Grooved	24 Preformed Patterned Paymt Mk-Message Grooved	23 Temporary Striping	22 Adjust Gate Valve Box	Adjust Manhole Ring	21 Adjust Manhole	20 Remove & Replace Gate Valve Casting	19 Remove & Replace Catch Basin Casting 7 Grate	17 Rehab Sanitary Manhole	16 Cl. 41 M Aggregate	15 CRS-2P Bituminous Seal	14 Crack Sealing - Non Routed	Cl. 29 Hot Bituminous Pavement Patch w/PG-58 Asphalt Cement	13 Cl. 29 Hot Bituminous Pavement Overlay w/PG-58 Asphalt Cement	12 Cl. 13 Aggregate Surface	11 Cl. 5 Aggregate Base	Removal of Aggregate Surface	Edge Mill Hot Bituminous Pavement	10 Mill Hot Bituminous Pavement	Removal of Hot Bituminous Pavement HBP Only	9 Removal of Hot Bituminous Pavement	9 Remove & Replace Concrete Patch	8 Conrete Valley Gutter	7 Remove & Replace Concrete Valley Gutter	6 Remove & Replace Curb & Gutter	5 Material Testing	4 Flagging	3 Traffic Control	2 Mobilization	1 Contract Bond	Item No. Description	
						두	두	뉴	ΕA	rs	ΕA		ΕA	ΕA	ΕA	ş	SY	Gal	뉴	Ton	Ton	Ton	ťon	SY	SY	SY		SΥ	ςγ	SY	SY	౼	ᅜ	ᅜ	ᅜ	ᅜ	S	Unit	
	60	-60	2200	-2200		17360	220	490	4	\vdash	15		71	10	∞	430	109600	43840	9740	0	17060	960	470	2960	0	96230		1710	58	13	113	3640	در	<u>د ــ</u>		Ь	ъ	Qty	
	\$150.00	\$300.00	\$6.00	\$6.00		\$3.00	\$5.00	\$36.00	\$400.00	\$4,000.00	\$200.00	\$150.00	\$300.00	\$1,000.00	\$1,000.00	\$350.00	\$1.75	\$8.00	\$1.00	\$120.00		\$35.00	\$30,00	\$3.00		\$6.00	\$6.00	\$6.00	\$120.00	\$100.00	\$115.00	\$40.00	\$15,000.00	\$5,000.00	\$50,000.00	\$125,000.00	\$50,000.00	Unit Price	Confidence of the Confidence o
-\$9,000.00	\$9,000.00	-\$18,000.00	\$13,200.00	-\$13,200.00		\$52,080.00	\$1,100.00	\$17,640.00	\$1,600.00	\$4,000.00	\$3,000.00		\$21,300.00	\$10,000.00	\$8,000.00	\$150,500.00	\$191,800.00	\$350,720.00	\$9,740.00		\$2,047,200.00	\$33,600.00	\$14,100.00	\$8,880.00		\$577,380.00		\$10,260.00	\$6,960.00	\$1,300.00	\$12,995.00	\$145,600.00	\$15,000.00	\$5,000.00	\$50,000.00	\$125,000.00	\$50,000.00	Subtotal	

Change order two reflects changes in quantities. Based on the engineer's estimate the reduction would be (\$9,000) change order is for an (\$18,000). This is considered reasonable.





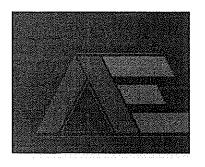
Engineer's Opinion of Probable Costs - Preliminary 95% Flood Inundated Areas Street Rehab - Section 2, Minot Project 3873.2 Minot, North Dakota

Item No.	Description	Unit	Quantity	Unit Price	Subtotal
		LS	1	\$50,000.00	\$50,000.00
1	Contract Bond	LS	1	\$125,000.00	\$125,000.00
2	Mobilization	LS	i	\$50,000.00	\$50,000.00
3	Traffic Control	LS	1	\$5,000.00	\$5,000.00
4	Flagging	LS	1	\$15,000.00	\$15,000.00
5	Material Testing	LF	3640	\$40,00	\$145,600.00
6	Remove & Replace Curb & Gutter	SY	113	\$115.00	\$12,995.00
7	Remove & Replace Concrete Valley Gutter	SY	13	\$100.00	\$1,300.00
8	Concrete Valley Gutter	SY	58	\$120.00	\$6,960.00
9	Remove & Replace Concrete Patch	SY	1710	\$6.00	\$10,260.00
10	Removal of Hot Bituminous Pavement	SY	96230	\$6.00	\$577,380.00
11	Mill Hot Bituminous Pavement	SY	2960	\$3.00	\$8,880.00
12	Removal of Aggregate Surface	Ton	470	\$30.00	\$14,100.00
13	Cl. 5 Aggregate Base	Ton	960	\$35.00	\$33,600.00
14	Cl. 13 Aggregate Surface	Ton	17060	\$120.00	\$2,047,200.00
15	Cl. 29 Hot Bituminous Pavement w/ PG 58-28 Asphalt Cement	LF	9740	\$1.00	\$9,740.00
16	Crack Sealing - Non Routed	Gal	43840	\$8.00	\$350,720.00
17	CRS-2P Bituminous Scal	SY	109600	\$1.75	\$191,800.00
18	Cl. 41M Aggregate	VF	430	\$350.00	\$150,500.00
19	Rehab Sanitary Manhole	EA	8	\$1,000.00	\$8,000.00
20	Remove & Replace Catch Basin Casting & Grate	EA	10	\$1,000.00	\$10,000.00
21	Remove & Replace Gate Valve Casting	EA	71	\$300.00	\$21,300.00
22	Adjust Manhole	EA	15	\$200.00	\$3,000.00
23	Adjust Gate Valve Box	LS	1	\$4,000.00	\$4,000.00
24	Temporary Striping	EA	4	\$400,00	\$1,600.00
25	Preformed Patterned Pvmt Mk - Message Preformed Patterned Pvmt Mk - 24in Line	LF	490	\$36.00	\$17,640.00
26		LF	220	\$5.00	\$1,100.00
27	Epoxy Paint Pyrnt Mk - 6in Line	LF	17360	\$3.00	\$52,080.00
28	Epoxy Paint Pvmt Mk - 4in Line		1.500	District 2 Subtotal	\$3,924,755.00
Theringeric	opinions of probable construction cost are made on the basis of Engineer's		CONST	RUCTION TOTAL	\$3,924,755.00
experience qualified p Engineer b others, or market cor	and qualifications and represent Engineer's best judgment as an experienced and professional generally familiar with the construction industry. However, since has no control over the cost of labor, materials, equipment, or services furnished by over contractors' methods of determining prices, or over competitive bidding or additions, Engineer cannot and does not guarantee that proposals, bids, or actual ion Cost will not vary from opinions of probable Construction Cost prepared by			Contingency (12%)	\$470,970.60
Commence				TOTAL	\$4,395,725.60
					R1409



Change Order

No. 2 Date of Issuance: June 10, 2015 Effective Date: June 5, 2015 Project: Flood Inundated Areas Street Rehab - Section 2 Owner: City of Minot Owner's Contract No.: 3873.2 Contract: Date of Contract: 04-16-2015 Contractor: Bechtold Paving Engineer's Project No.: R14090 The Contract Documents are modified as follows upon execution of this Change Order: Description: Addition of the following items & unit prices to the contract: Removal of Hot Bituminous Pavement (HBP Only) = \$19.25/SY Adjust Manhole (Adjusting Ring) = \$300.00/EA The above items will be used as an alternative when appropriate. The application of these items is intended to result in an equal or better finished product to the original, and a cost savings to the project. Attachments: (List documents supporting change): Contractor's proposed unit prices for the above items (email) Contract Price Change Spreadsheet **CHANGE IN CONTRACT PRICE: CHANGE IN CONTRACT TIMES:** Original Contract Price: Original Contract Times: ■ Working days Calendar date Substantial completion (days or date):): October 16, 2015 \$ 2,472,030.60 Ready for final payment (days or date):): November 2, 2015 [Increase] [Decrease] from previously approved Change [Increase] [Decrease] from previously approved Change Orders Orders No.____0___ to No.____1___: __0___ to No.___ 1_ Substantial completion (days): 0 \$ 262,535.70 Ready for final payment (days): 0 Contract Price prior to this Change Order: Contract Times prior to this Change Order: Substantial completion (days or date): October 16, 2015 \$2,734,566.30 Ready for final payment (days or date): November 2, 2015 [Increase] [Decrease] of this Change Order: [Increase] [Decrease] of this Change Order: Substantial completion (days or date): 0\$-18,000.00 Ready for final payment (days or date): 0 Contract Price incorporating this Change Order: Contract Times with all approved Change Orders: Substantial completion (days or date): October 16, 2015 \$ 2,716,566.30 Ready for final payment (days or date): November 2, 2015 RECOMMENDED ized Signature) Owner (Authorized Signature) Approved by Funding Agency (if applicable):





1907 17th Street Southeast Minot, ND 58701 701.837.8737 www.ackerman-estyold.com

MEMORANDUM

To: City of Minot, Ben Cofell

From: Ackerman-Estvold, Sunil Jeboo

Date: June 16, 2015

Re: Change Order 2 Analysis and Justification of Proposed Costs

3873.2 Flood Inundated Areas Street Rehab - Section 2

City of Minot, North Dakota

The contractor submitted the following bid items and unit prices to replace a portion of the original bid items and quantities:

Proposed bid items

- Removal of Hot Bituminous Pavement (HBP Only) = \$19.25/SY
- 2. Adjust Manhole (Adjusting Ring) = \$300.00/EA

Original bid items

- 1. Item #9: Removal of Hot Bituminous Pavement = \$19.25/SY
- 2. Item #20: Adjust Manhole = \$600.00/EA

The proposed changes are expected to reduce the time required to complete the items to half of the original time and still provide a product with equal or better quality as originally planned. With half the time expected, the submitted price for the adjust manhole item is favorable as it's half the original cost. While the removal of bituminous pavement does not offer a cost savings, the original price is less than the proposed cost of @24.00/SY submitted as a cost savings for the same item on project 3873.0. The estimated cost savings to the project is \$18,000.00 and detailed on the attached sheet.

Base on a favorable comparison with the amount of time required to complete the revised work for the manhole item and that the removal of bituminous pavement is already less than a similar project, it is recommended that the proposed bid items be authorized via change order to Bechtold Paving as the most time and cost effective option.



Change Order 2 Changes Flood Inundated Areas Street Rehab - Section 2 Minot, North Dakota

Item No.	Item No. Description	Unit	Unit Unit Price Quantity Subtotal	Quantity	Quantity Subtotal	Price	Quantity	Quantity CO2 Change Quantity Final Subtotal	Quantity	Final Subtor
10	Removal of Hot Bituminous Pavement	SY	\$19.25	2280	\$43,890.00	\$19.25	-2200	-\$42,350.00	80	\$1,540.0
10A	Removal of Hot Bituminous Pavement (HBP Only)	SY				\$19.25	2200	\$42,350.00	2200	\$42,350.0
24	Adjust Manhole	EA	\$600.00	64	\$38,400.00	\$600.00	-60	-\$36,000.00	4	\$2,400.0
24A	Adjust Manhole (Adjusting Ring)	ΕA				\$300.00	60	\$18,000.00	60	\$18,000.00

Plan + CO1 Construction Total \$2,734,566.30

* Quantities are subject to changes from field measurements

Change Order 2 Adjustment -\$18,000.00

Updated Construction Total \$2,716,566.30

Sunil Jeboo

From:

Justin Ahmann

Sent:

Friday, June 05, 2015 1:26 PM

To:

'ben.cofell@minotnd.org'

Cc:

Tim Arens; Sunil Jeboo

Subject:

FW: Flood Inundated Areas - Change Order Prices

Ben,

Ackerman-Estvold accepts these cost savings changes as listed in the email below. Could I get an approval from the City, then we will include these prices in the first pay request and issue a Change Order to cover this change. Original bid prices are the following:

Section 1

Removal of Hot Bituminous Pavement = \$45.00/SY Adjust Manhole = \$600.00/EA

Section 2

Removal of Hot Bituminous Pavement = \$19.25/SY Adjust Manhole = \$600.00/EA

Thanks.

Justin Ahmann, PE Civil Engineer Ackerman-Estvold 1907 17th Street Southeast Minot, ND 58701 Ph: (701)837-8737

Fax: (701)837-1990

www.ackerman-estvold.com

Follow us on Facebook and Twitter!

From: Mac Kersten [mailto:macdk@minot.com] Sent: Wednesday, June 03, 2015 5:56 AM

To: Justin Ahmann Cc: Clary (Clary)

Subject: Flood Inundated Areas - Change Order Prices

Justin,

Here are the prices for the Flood Inundated Areas:

Section 1

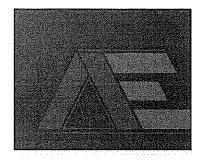
Removal of Hot Bituminous Pavement (Only) = \$24.00/SY Manhole Adjusting Ring (American Highway Products) = \$300.00/EA

Section 2

Removal of Hot Bituminous Pavem (Only) = \$19.25/SY Manhole Adjusting Ring (American Highway Products) = \$300.00/EA

West River Striping is getting us some numbers on Permanent Striping.

Mac Kersten Bechtold Paving Inc. Minot, ND







1907 17th Street Southeast Minot, ND 58701 701.837.8737 www.ackerman-estvold.com

MEMORANDUM

To: City of Minot, Ben Cofell

From: Ackerman-Estvold

Date: June 1, 2015

Re: Change Order 2 Justification and Independent Cost Analysis

3873.2 Flood Inundated Areas Street Rehab - Section 2

City of Minot, North Dakota

The contractor requested that an allowance be made in the way the following bid items were completed:

9 — Removal of Hot Bituminous Pavement; original contract unit price - \$19.25/SY

20 – Adjust Manhole; original contract unit price - \$600/EA

Bid item #9 requires the removal of the asphalt pavement and aggregate base. The contractor has proposed to only remove the asphalt and leave the aggregate base in place. This will be allowed assuming the actual condition of the existing aggregate material is in relatively good shape as determined by the engineer. As a result a cost savings should be realized due to less work.

Bid Item #20 requires the adjustment of the frame and cover of a manhole to account for the asphalt overlay. Typically work includes excavating the material (asphalt in this case) around the manhole frame and cover to raise it by adding adjusting rings. The contractor proposed to use a manufactured adjusting ring installed inside of the existing frame that allows the cover of the manhole to be set at a raised elevation to match the proposed asphalt overlay. There is an expected cost savings in this process as it will take less time to adjust the manholes with this method.

In order to realize the cost savings, new items should be added to the contract with reduced unit prices. The expected cost savings should be half the original unit bid items as it will require about half the time to complete the work and the material costs are offset or nonexistent.