

District
Copy

CONTRACT DOCUMENTS

ARKANSAS RIVER
GRADE CONTROL STRUCTURE AND
WHITEWATER BOAT CHUTE

PUEBLO CONSERVANCY DISTRICT

McLAUGHLIN WATER ENGINEERS
2420 ALCOTT STREET
DENVER, COLORADO 80211

NOVEMBER, 1985

83-113.00

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS
P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET
544-6823
PUEBLO, COLORADO

MAILING ADDRESS:
P. O. BOX 234
PUEBLO, COLO. 81002

June 25, 1986

I N V O I C E

City of Pueblo
Department of Public Works
Pueblo, Colorado

Attention: Tom Cvar
Purchase Order K-01040 - Engineering

PROGRESS BILLING:

For Engineering Services purchased for the Design of the
SANITARY SEWER MAIN REPLACEMENT of two-12" pipes
at the Arkansas River:

McLaughlin Water Engineers, Ltd.	\$1,011.00
	1,874.00
	408.59
K L H Engineering Consultants	<u>664.16</u>

TOTAL THIS INVOICE = \$3,957.75

Copies of Invoices enclosed

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS
P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET
544-6823
PUEBLO, COLORADO

MAILING ADDRESS:
P. O. BOX 234
PUEBLO, COLO. 81002

June 25, 1986

I N V O I C E

City of Pueblo
Department of Public Works
Pueblo, Colorado

Attention: Tom Cvar
Purchase Order K-01040 - Construction

PROGRESS BILLING:

For construction of Change Order No. 2 (Bassett Construction Co.)
of SANITARY SEWER MAIN REPLACEMENT of two-12" pipes
at the Arkansas River:

Bassett Construction Co.
Change Order No. 2
(P.E. No. 5) = \$31,274.81
Less 10% withheld by District = \$3,127.48

TOTAL THIS INVOICE = \$28,147.33

Copy of Invoice enclosed

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS
P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET
544-6823
PUEBLO, COLORADO

MAILING ADDRESS:
P. O. BOX 234
PUEBLO, COLO. 81002

June 16, 1986

McLaughlin Water Engineers, Ltd.
2420 Alcott Street
Denver, CO 80211

Attn: John M. Pflaum

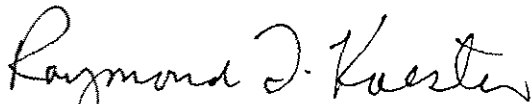
Dear John,

On behalf of the District, I have reviewed the letter from Bassett Construction Company of June 9, 1986, and your letter of June 11, 1986, and would have these comments and direction:

1. Your recommendations (as Engineer for this District's contract) are acceptable and should be proposed to Bassett for negotiation.
2. Just what the figure to be used for the cost of maintaining inspection during the period June 4 thru July 7th needs to be determined, but perhaps actual costs the District will be billed by McLaughlin for inspection services from June 10th (the day after Bassett decision was made to suspend operations) and the date re-evaluation of the suspension is done (thought to be July 7th) or any time in between that Bassett wants to suspend all construction activity, awaiting the re-evaluation date.
3. The North bank erosion damage is truly another concern of the Districts, and the evaluation and eventual course of remedy to the loss of embankment and trees should be indeed addressed and the Board informed of that review and recommended solution.

Please keep the District advised of your progress in these matters.

Very truly yours,

By 
Raymond F. Koester, Engineer/Administrator

rn

CHANGE ORDER

Order No.: Two

Date : April 23, 1986

Agreement Date : December 30, 1985

NAME OF CONTRACT: ARKANSAS RIVER GRADE CONTROL STRUCTURE
OWNER : THE PUEBLO CONSERVANCY DISTRICT
CONTRACTOR : BASSETT CONSTRUCTION CO.

The following changes are hereby made to the CONTRACT DOCUMENTS:

Add to the contract documents the 2 sheets of plans and specifications, to install (pipe supplied by the City of Pueblo) approximately 576 lineal feet of 24 inch ductile iron pipe and build 2 sewer manholes, with appurtenances, as extra work, additional and not adding to or diminishing any of the work under the main contract.

JUSTIFICATION:

The City of Pueblo is contracting with the PCD to install a new 24 inch polylined ductile iron sewer pipeline, as a replacement for the twin 12 inch pipe across the Arkansas River adjacent to the Grade Control Structure. Installation must be made immediately to coincide with construction of the Grade Control Structure, Phase I (south side of the river bed) and, in turn, Phase II (construction on the north portion of the river bed after the river is moved over). This work can be done simultaneously with work being accomplished in the main contract work.

CHANGE OF CONTRACT PRICE:

Install 24" D.I.P., including restrained joints, polywrap, bedding, type "H" rip rap, manholes and surveying	\$50,803.00
De-watering, river diversion, etc.	10,250.00
	Sub-total
Bond/Insurance	1,627.00
	Sub-total
OH&P @ 10%	6,268.00
	TOTAL

ORIGINAL CONTRACT PRICE \$840,680.81

CURRENT CONTRACT PRICE, adjusted to previous CHANGE ORDER \$844,382.06

THE CONTRACT PRICE due to this CHANGE ORDER will be increased by: \$ 68,948.00

THE NEW CONTRACT PRICE, including this CHANGE ORDER: \$913,330.06

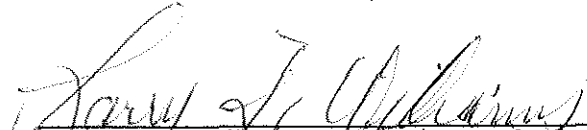
CHANGE TO CONTRACT TIME: The CONTRACT TIME will be increased by this CHANGE ORDER by 30 calander days. This change order further provides that:

Should water events on the Arkansas River expand the River beyond the limits where it is mutually agreed by Bassett and the PCD that work must be

suspended, extensions of time will be granted equal to the time of suspension. This will assure that Bassett will not be liable to the PCD for liquidated damage until after the total time span allotted under "completion of work" (180 calendar days) plus regular extensions of time granted by the PCD, AND the time extensions granted during suspension(s) due to River water events, (an interpretation of the administration of "Liquidated Damages" paragraph 21, on page GC-16 and paragraph 3 on page SCP-1), are used.

The DATE FOR COMPLETION of all work will be August 6, 1986.

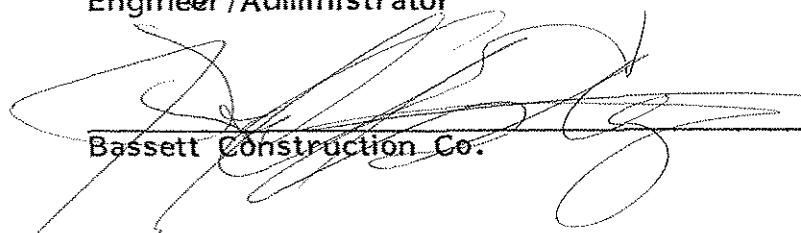
RECOMMENDED BY:


McLaughlin Water Engineers, Ltd.

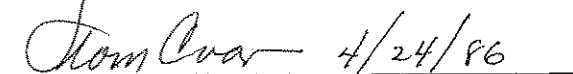
AGREED TO BY:


Raymond F. Koester, PCD
Engineer/Administrator

ACCEPTED BY:


Bassett Construction Co.

APPROVED BY:

 4/24/86
Tom Cvar, Bureau of Public Works
City of Pueblo

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS

P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET

544-6823

PUEBLO, COLORADO

MAILING ADDRESS:

P. O. BOX 234
PUEBLO, COLO. 81002

May 15, 1986

INVOICE

City of Pueblo
Department of Public Works
Pueblo, Colorado

Attention: Tom Cvar
Purchase Order K-01040

PROGRESS BILLING:

For Engineering Services purchased for the Design of the SANITARY SEWER
MAIN REPLACEMENT of two - 12" pipes at the Arkansas River:

McLaughlin Water Engineers, Ltd. \$ 799.20

K L H Engineering Consultants, Inc. 2319.64

(Copies enclosed)

TOTAL THIS INVOICE = \$3118.84

Void

Rose
Joe Conservancy
Dib

acct. 107

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS
P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET
544-6823
PUEBLO, COLORADO

MAILING ADDRESS:
P. O. BOX 234
PUEBLO, COLO. 81002

I N V O I C E

June 3, 1986

TO : ST. CHARLES MESA WATER ASSOCIATION
1397 SOUTH ASPEN ST.
PUEBLO, COLORADO 81006

INVOICE : Regarding Letter of Understanding dated December 16, 1985.

For the Association's commitment to the construction of the GRADE CONTROL STRUCTURE and the WATER INTAKE STRUCTURE at Santa Fe Avenue on the ARKANSAS RIVER (Construction contract between Bassett Construction Co., and The Pueblo Conservancy District):

Total Grade Control Structure Contract = \$840,680.81

Association's Portion = 50,000.00

At 5/27/86 contract was 67% complete: 67% of \$50,000. is \$33,500.00 \$33,500.00
(See copy Estimate No. 4)

For Water Intake Structure which Association will own:

<u>Bid Items in Bassett Contract</u>	<u>Cost of Item to Construct</u>	<u>% Complete @ 4/29/86</u>	<u>Amount Paid Contractor-</u>
(2) Intake	\$23,605.57	96%	\$22,661.35
(15) 36" Pipe (44.35' @ \$79.94)	3,545.78	100%	\$ 3,545.78
(36) Handrail	848.65	0%	\$ 00.00
	<u>\$28,000.00</u>		

TOTAL COMPLETE ON INTAKE = \$26,207.13 \$26,207.13

AMOUNT PAID THRU 5/22/86 = 54,228.13 \$59,707.13
- 54,228.13

TOTAL DUE THIS INVOICE = \$ 5,479.00

REMIT TO: The Pueblo Conservancy District
111 E. 5th Street
P. O. Box 234
Pueblo, Colorado 81002

#9756
6/18/86
5479.00

106

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS
P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET
544-6823
PUEBLO, COLORADO

MAILING ADDRESS:
P. O. BOX 234
PUEBLO, COLO. 81002

May 1, 1986

Bassett Construction Co.
P. O. Box 173
Pueblo, CO 81002

Enclosed is a copy of Periodic Estimate No. Four, executed as approved for payment by the District Board on April 30, 1986, and Check No. 17249 in the amount of \$61,541.61.

THE PUEBLO CONSERVANCY DISTRICT

By:


Raymond F. Koester,
Engineer/Administrator

rh

Encl.

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS
P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET
544-6823
PUEBLO, COLORADO

MAILING ADDRESS:
P. O. BOX 234
PUEBLO, COLO. 81002

April 3, 1986

I N V O I C E

City of Pueblo
Department of Public Works
Pueblo, Colorado

Attention: Tom Cvar
Purchase Order K-01040

PROGRESS BILLING:

for Engineering Services purchased for the Design of the SANITARY SEWER
MAIN REPLACEMENT of two - 12" pipes at the Arkansas River:

McLaughlin Water Engineers, Ltd.	\$ 211.80
K L H Engineering Consultants, Inc.	1386.70
(copies enclosed)	

TOTAL THIS INVOICE = \$1598.50

McLAUGHLIN WATER ENGINEERS, Ltd.
ENGINEERING CONSULTANTS

COMPLETE ENGINEERING SERVICES IN:

WATER RIGHTS AND RESOURCES
WATER TREATMENT AND DISTRIBUTION
SEWAGE COLLECTION, TREATMENT AND RE-USE
STORM DRAINAGE AND FLOOD CONTROL
SUBSURFACE DRAINAGE
IRRIGATION
RIPARIAN HABITAT
INDUSTRIAL WASTES
FIRE PROTECTION
SPECIALTY HYDRAULICS

2420 ALCOTT STREET
DENVER, COLORADO 80211
(303) 458-5550

March 14, 1986

RONALD C. McLAUGHLIN
HALFORD E. ERICKSON
DOUGLAS T. SOVERIN
WILLIAM C. TAGGART
ROBERT L. CARLEY
WILLIAM R. KENDALL
CHARLES L. HANDT
RALPH L. TORCH
JOHN T. McLANE
GENE A. BURRELL
MICHAEL E. MERCER
JOHN M. PFLAUM
MICHAEL R. GALUZZI
RONALD E. DVORAK
JON H. SORENSEN
SCOTT E. LEHMAN
KENNETH D. ZIEBART
J. HAROLD ROBERTS
JACK W. STEINMEYER
LIANDER L. URMY
TIMON A. PALMER

Mr. Raymond F. Koester
Pueblo Conservancy District
P.O. Box 234
Pueblo, CO 81002

STATEMENT

Engineering services for February 1986 regarding Review of Sewer Line Replacement across Arkansas River.

Sr. Principal Engineer	.3 hrs. @ 66.00	19.80
Sr. Project Engineer	4.0 hrs. @ 48.00	<u>192.00</u>

AMOUNT DUE THIS STATEMENT \$ 211.80

McLAUGHLIN WATER ENGINEERS, Ltd.

By William C. Taggart
William C. Taggart

Estimated Budget 2,000.00

83-113.03
Invoice #138

86 013 00

McLAUGHLIN WATER ENGINEERS, Ltd.
DENVER, COLORADO

McLAUGHLIN WATER ENGINEERS, Ltd.
DENVER, COLORADO

McLAUGHLIN WATER ENGINEERS, Ltd.
DENVER, COLORADO

McLAUGHLIN WATER ENGINEERS, Ltd.
DENVER, COLORADO

INVOICE

**KLH****ENGINEERING CONSULTANTS, INC.****ENGINEERING • SURVEYING • PLANNING • CONSTRUCTION MANAGEMENT**

- 111 East Fifth Street • Pueblo, Colorado 81003 • (303) 544-6823
- 206-208 Sutton Lane • Colorado Springs, Colorado 80907 • (303) 594-4200

Remit to: P. O. Box 234, Pueblo, Colorado 81002

INVOICE

Pueblo Conservancy District

DATE: April 3, 1986

INVOICE NO.: 60407

KLH: 86 013 00

Engineering work for time and materials work on SANITARY SEWER REPLACEMENT
AT SANTA FE AVE. PROJECT (Change Order #2)

Time and Materials work from 2/14/86 to 3/20/86:

Preparation for Field Work	3.0 hr. @\$30.00 = \$ 90.00
Survey Crew	6.0 hr. @\$70.00 = 420.00
Research & Design	9.0 hr. @\$35.00 = 315.00
Sewer Line Layout	2.0 hr. @\$20.00 = 40.00
	17.0 hr. @\$30.00 = 510.00
Blueprinting	Lump Sum = 11.70

TOTAL THIS INVOICE = \$1386.70

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS
P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET
544-6823
PUEBLO, COLORADO

MAILING ADDRESS:
P. O. BOX 234
PUEBLO, COLO. 81002

- INVOICE -

April 7, 1986

TO : City of Pueblo
City Finance Department
City Hall
Pueblo, Colorado

INVOICE

Re: City Manager Letter of 1/22/86

For the City of Pueblo commitment to the construction of the
GRADE CONTROL STRUCTURE on the Arkansas River at
Santa Fe Avenue. (Construction Contract between Bassett
Construction Co. and The Pueblo Conservancy District)

Total Grade Control Structure Contract = \$840,680.81

City of Pueblo Portion = \$145,000.00

Construction completed and Payment Due to
Contractor at 3/27/86: = \$437,961.02
(See Copy Estimate #2)

$$\frac{\$145,000.}{840,680.81} \times \$437,961.02 = \$75,539.19$$

Amount Paid on 3/5/86 Invoice: \$ 28,120.60

TOTAL THIS INVOICE = \$47,418.59

REMIT PAYABLE TO: The Pueblo Conservancy District
111 East 5th Street
P. O. Box 234
Pueblo, CO 81002

THE PUEBLO CONSERVANCY DISTRICT

BOARD OF DIRECTORS
P. KELLY
K. FARLEY
G. SANDSTROM

111 EAST FIFTH STREET
544-6823
PUEBLO, COLORADO

MAILING ADDRESS:
P. O. BOX 234
PUEBLO, COLO. 81002

I N V O I C E

April 7, 1986

TO : ST. CHARLES MESA WATER ASSOCIATION
1397 SOUTH ASPEN ST.
PUEBLO, COLORADO 81006

INVOICE: Re-Letter of Understanding dated December 16, 1985

For the Association's commitment to the construction of the GRADE CONTROL STRUCTURE and the WATER INTAKE STRUCTURE at Santa Fe Avenue on the ARKANSAS RIVER (Construction Contract between Bassett Construction Co., and The Pueblo Conservancy District):

Total Grade Control Structure Contract: = \$840,680.81

Association's Portion = 50,000.00

At 3/27/86 contract was 52% complete, 52% of \$50,000. is \$26,000.00
(See copy Estimate No. 2)

For Water Intake Structure which Association will own:

<u>Bid Items in Bassett Contract</u>	<u>Cost of Item to Construct</u>	<u>% Complete @ 3/27/86</u>	<u>Amount Paid Contractor</u>
(2) Intake	\$23,605.57	91%	\$21,481.07
(15) 36" Pipe (44.35 ft. @ \$79.94	3,545.78	100%	\$ 3,545.78
(36) Handrail	\$ 848.65	0%	\$ 00.00
	<u>\$28,000.00</u>		
	TOTAL COMPLETE ON INTAKE =		\$25,026.85
	AMOUNT PAID ON 3/18/86		\$33,610.51
	TOTAL DUE THIS INVOICE		= <u>\$17,416.34</u>

REMIT TO: The Pueblo Conservancy District
111 East Fifth Street
P. O. Box 234
Pueblo, Colorado 81002

CHANGE ORDER

Order No.: Two

Date : April 23, 1986

Agreement Date : December 30, 1985

NAME OF CONTRACT: ARKANSAS RIVER GRADE CONTROL STRUCTURE
OWNER : THE PUEBLO CONSERVANCY DISTRICT
CONTRACTOR : BASSETT CONSTRUCTION CO.

The following changes are hereby made to the CONTRACT DOCUMENTS:

Add to the contract documents the 2 sheets of plans and specifications, to install (pipe supplied by the City of Pueblo) approximately 576 lineal feet of 24 inch ductile iron pipe and build 2 sewer manholes, with appurtenances, as extra work, additional and not adding to or diminishing any of the work under the main contract.

JUSTIFICATION:

The City of Pueblo is contracting with the PCD to install a new 24 inch polylined ductile iron sewer pipeline, as a replacement for the twin 12 inch pipe across the Arkansas River adjacent to the Grade Control Structure. Installation must be made immediately to coincide with construction of the Grade Control Structure, Phase I (south side of the river bed) and, in turn, Phase II (construction on the north portion of the river bed after the river is moved over). This work can be done simultaneously with work being accomplished in the main contract work.

CHANGE OF CONTRACT PRICE:

Install 24" D.I.P., including restrained joints, polywrap, bedding, type "H" rip rap, manholes and surveying	\$50,803.00
De-watering, river diversion, etc.	10,250.00
Sub-total	\$61,053.00
Bond/Insurance	1,627.00
Sub-total	\$62,680.00
OH&P @ 10%	6,268.00
TOTAL	\$68,948.00

ORIGINAL CONTRACT PRICE \$840,680.81

CURRENT CONTRACT PRICE, adjusted to previous CHANGE ORDER \$844,382.06

THE CONTRACT PRICE due to this CHANGE ORDER will be increased by: \$ 68,948.00

THE NEW CONTRACT PRICE, including this CHANGE ORDER: \$913,330.06

CHANGE TO CONTRACT TIME: The CONTRACT TIME will be increased by this CHANGE ORDER by 30 calander days. This change order further provides that:

Should water events on the Arkansas River expand the River beyond the limits where it is mutually agreed by Bassett and the PCD that work must be

suspended, extensions of time will be granted equal to the time of suspension. This will assure that Bassett will not be liable to the PCD for liquidated damage until after the total time span allotted under "completion of work" (180 calendar days) plus regular extensions of time granted by the PCD, AND the time extensions granted during suspension(s) due to River water events, (an interpretation of the administration of "Liquidated Damages" paragraph 21, on page GC-16 and paragraph 3 on page SCP-1), are used.

The DATE FOR COMPLETION of all work will be August 6, 1986.

RECOMMENDED BY:

McLaughlin Water Engineers, Ltd.

AGREED TO BY:

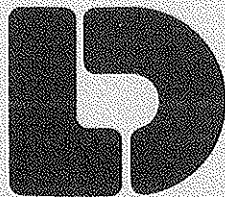
Raymond F. Koester, PCD
Engineer/Administrator

ACCEPTED BY:

Bassett Construction Co.

APPROVED BY:

Tom Cvar, Bureau of Public Works
City of Pueblo



Lincoln DeVore, Inc.
Geotechnical Consultants

1000 West Fillmore St.
Colorado Springs, CO 80907
(303) 632-3593

March 20, 1986
(revised March 31, 1986)

Pueblo Conservancy District
P.O. Box 234
Pueblo, CO 81002

Re: Arkansas River Grade Control Structure and
Whitewater Boat Chute, Sheet Pile and Driven
Pile Observation

Gentlemen:

On February 26 and March 3 and 4, 1986, the sheet pile and driven pile installation at the above mentioned site were observed by representatives of Lincoln DeVore. The six H-piles for the center pier of the pedestrian bridge were observed. Also, the two abutments piers on the west side were observed. It is our opinion that these piles were driven to refusal on bedrock. In the last 3 to 4 ft., the driving was relatively difficult and approximately 6 to 8 blows with a 30,000 ft./lb. hammer was required to drive the piles 1 inch. Refusal was encountered when approximately 10 to 15 blows were required to drive the pile less than 1 inch. The two abutment piles on the west side of the creek drove relatively easily until refusal was encountered. It is our opinion that there were some rather large cobbles present in the center of the channel which made the last 3 to 4 ft. of driving difficult.

The sheet piling installation for the grade control dam structure was also observed. These sheet piles were driven with a vibratory hammer. They were driven to a bottom elevation varying from approximately 28 to 29. This elevation was provided by Larry Williams of McLaughlin Water Engineers. Once practical refusal with the vibratory hammer was encountered, the 30,000 ft. lb. diesel hammer was used. No additional penetration could be obtained with the diesel hammer and it is our opinion that practical pile refusal was encountered with the equipment on site at this time. The anticipated depth of bedrock, determined from the depth of the H-piles and the previous subsurface borings, is approximately 23 to 26 feet. Based on these elevations, it is our opinion that these sheet piles were not driven to the bedrock contact. Practical refusal, in our opinion, was encountered in the cobbly materials overlying the bedrock. Based on the drilling information and the difficulties encountered driving the H-piles, it is our opinion that these sheet piles cannot be driven to a greater depth with the equipment currently on site.

Arkansas River Grade Control Structure
March 20, 1986 (revised March 31, 1986)
Page -2-

It should be noted that Lincoln DeVore did not observed the installation of all of the sheet piles. Lincoln DeVore observed only the installation of a portion of these piles. Larry Williams of McLaughlin Water Engineers informed us that, based on our interpretation of practical refusal, he could observe the remaining piles and determine when refusal was encountered.

This opportunity to be of professional service is sincerely appreciated. If any questions arise or if further information is required, please feel free to contact the undersigned at your convenience.

Respectfully Submitted,

LINCOLN-DEVORE, INC.

Robert J. Huzjak
By: Robert J. Huzjak
Project Engineer

Reviewed by: *George D. Morris*
George D. Morris, P.E.

RJH/sc

Job No. 56496-P

cc: 3-McLaughlin Water Engineers

2420 Ellicott Street

Denver, CO 80221

2-Lincoln DeVore, Inc., Pueblo Office

