

Contract Change Order # 1

Project Name:	City Wide SCADA System	Project Number:	155425
Project Location:	City Wide - Various Locations	Date of Application:	Wednesday, October 31, 2018
Contractor:	Prime Controls	Submitted By:	Ricky Ellis

Summary of Change in Scope of Work

The following scope of work consisting of work location, work description, established quantities, and timeline for completion has been reviewed and agreed upon by the contractor, the origin funding department, and the Engineering and Construction Department.

Change of Work Items Included in this Change Order:

The contractor is to install a new fully assembled enclosure with an M221 CPU and OIT assembly at the Greenbriar Pump Station. This change is due to a requested upgrade to the existing PLC for the pump station that will not be compatible with the new system being

- 1) installed. This work was summarized and directed through RFI#17 of the project and is attached within. The below costs is inclusive of materials, labor, insurance & bonds, and all applicable markups such to produced a complete in place product.

Due to conflicts of the installation of new PLC in CO1-1 as well as some field adjustments required by Utilities department, the contractor is to remove and relocate the previously installed electrical/controls rack at the Greenbriar Pump Station. The location of the revised

- 2) placement of the rack is to be directed by the project CA. The below costs are inclusive of materials, labor, insurance & bond, and all applicable markups such to produce a complete in place product.

During construction it was discovered that the specified Cradlepoint 1150 radios are no longer available for purchase and have been discontinued. In lieu of this item, the contractor is to purchase and implement in its place the newer model Cradlepoint IBR9000 system.

- 3) This work was summarized and directed through RFI#18 of the project and is attached within. The below costs is inclusive of the increased differential costs between the original system and the newer upgraded system.

Change in Contractual Project Time:

In response to the noted unforeseen project related issues in CO1-1, CO1-2, & CO1-3, the contract is to be extended by 45 days due to rework, lead-times on materials, and additional work/labor. The revised contract time shall be increased from 420 days to 465 days.

Plan Sheets or Additional Documents Attached: ☒ Yes ☐ No ☒ Other: Prime Controls Cost Proposals & RFI's

Work Order Quantities

Item#	(Spec)	Item Description	Units	Price	Quantity	Total Amount
CO1-1	NA	Greenbriar PLC Replacement	LS	\$ 15,777.37	1	\$ 15,777.37
CO1-2	NA	Greenbriar Rack Relocation	LS	\$ 1,520.73	1	\$ 1,520.73
CO1-3	NA	Cradlepoint System Upgrade	LS	\$ 8,794.93	1	\$ 8,794.93

Total Change Cost: \$ 26,093.03

Summary of Project Costs

Total Previous Change Orders:	\$ -	Original Contract Amount:	\$ 1,559,028.00
Current Change Order:	\$ 26,093.03	Amended Contract Amount:	\$ 1,585,121.03
Total Cost of Change Orders:	\$ 26,093.03	Percent Change in Contract:	1.67%
Total Cost Applicable to CBA:	\$ 26,093.03	Percent Change Applicable to CBA:	1.67%

**Public Contract
Application for
Contractual Changes**

Engineering and Construction Department
485 N. Poplar, Broken Arrow, OK 74012
Fax: 918-259-8453 Office: 918-259-7000

Change Order Authorization

Change Order # <u>1</u>	in the sum of: \$ <u>26,093.03</u>	has been reviewed by all parties and is recommended for approval by:	
Contractor Submitting Change Order:	<u>Ricky Ellis</u> Name	<u>R. Ellis</u> Signature	<u>10/31/18</u> Date
Construction Division Manager:	<u>Timothy S Robins, PE</u> Name	<u>[Signature]</u> Signature	<u>10/31/18</u> Date
Director of Engineering & Construction:	<u>Alex Mills, PE</u> Name	<u>[Signature]</u> Signature	<u>10/31/18</u> Date
Assistant City Manager - Operations:	<u>Kenneth D Schwab, PE</u> Name	<u>Kenneth D. Schwab</u> Signature	<u>11-02-18</u> Date
City Manager:	<u>Michael Spurgeon</u> Name	<u>[Signature]</u> Signature	<u>[Blank]</u> Date

This Change is Executed Through:

- ☐ This change to the contract documents is authorized by the City Manager's authority in accordance with the applicable state statutes and COBA Code of Ordinances.
or
☒ This change to the contract documents was approved at the City Council BAMA meeting held on Tuesday, November 6, 2018



1725 Lakepointe Drive, Lewisville TX 75057
(972) 221-4849 Phone
(972) 420-4842 Fax

Change Order Request

Date: September 10, 2018

To: City of Broken Arrow
Attn: Tim Robins
Project Name: City of Broken Arrow SCADA Replacement
Contract No.: 155425
Subject: Pump Station 3 (Greenbriar) PLC
Change Order Request No.: 1851009-01

Source: RFI # 17 Response

Tim,

Prime Controls is pleased to offer our cost proposal for a new fully assembled enclosure with M221 CPU & OIT as RFI # 17 response (attached).

Scope of Work

1. Provide & install a fully assembled enclosure with M221 CPU & OIT

Sub-Total Cost Breakdown

Materials	\$	5,376.25
Labor	\$	8,966.80
Markup (10%)	\$	1,434.31
Total		\$15,777.37

Clarifications

1. Prior to commencement of work, Prime Controls requests an executed copy of this change order request. We expect this change will be accepted in a timely manner. Prime Controls is not liable for schedule delays associated with this change in the scope of work.

Schedule

Number of additional calendar days requested for this change proposal from the date of notice to proceed.

20

Proposal Approval

Approved By: _____ Date: _____

Should you have any questions regarding this change order request please feel free to contact us.

Sincerely,
Prime Controls, LP

Project Manager



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(972) 221-4849 Phone
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Change Request Proposal

Itemized Breakdown

Date Submitted:..... 9/10/2018
 Project Name:..... City of Broken Arrow SCADA Replacement
 Contract or Subcontract Number:..... 155425
 PC Change Request Proposal Number:..... 1851009-01

Source of Change

RFI # 17 Response

<u>Material</u>	<u>QTY</u>	<u>Unit Price</u>	<u>Ext Price</u>
Hoffman CSD483616SSR-W	1	\$ 1,881.40	\$ 1,881.40
Schneider OIT # HMISTU855	1	\$ 556.60	\$ 556.60
Hoffman CP4836	1	\$ 103.50	\$ 103.50
Modicon M221 # TM221CE40R	1	\$ 570.40	\$ 570.40
Modicon M221 # TMC2AI2	1	\$ 36.80	\$ 36.80
Power Supply Phoenix Contact 2866750	1	\$ 215.05	\$ 215.05
Misc	1	\$ 575.00	\$ 575.00
Panel Material	1	\$ 1,437.50	\$ 1,437.50
		Tax Rate	\$ -
Subtotal Material Cost:			\$ 5,376.25

<u>Labor (Rates include Payroll Taxes & Insurance Costs)</u>	<u>QTY (Hrs)</u>	<u>Ext Price</u>
Project Manager	4	\$ 352.73
Assistant Project Manager	1	\$ 65.32
Subtotal Labor:		\$ 8,966.80

<u>Travel Expenses</u>	<u>QTY</u>	<u>Unit Price</u>	<u>Ext Price</u>
Subtotal Travel Cost:			\$ -

<u>Subcontractor Charges</u>	<u>QTY</u>	<u>Unit Price</u>	<u>Ext Price</u>
Subtotal Subcontractor Cost:			\$ -

<u>Direct Jobsite Costs</u>	<u>QTY</u>	<u>Unit Price</u>	<u>Ext Price</u>
Subtotal Jobsite Cost:			\$ -

<u>Equipment</u>	<u>QTY</u>	<u>Unit Price</u>	<u>Ext Price</u>
Subtotal Equipment Cost:			\$ -

<u>Cost Recap</u>		
Subtotal Direct Costs		\$ 14,343.06
Total COR Amount:		\$ 15,777.37



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Change Request Proposal

Itemized Breakdown

Date Submitted:..... 9/10/2018
Project Name:..... City of Broken Arrow SCADA Replacement
Contract or Subcontract Number:..... 155425
PC Change Request Proposal Number:..... 1851009-01

RFI NO.	017
DATE:	06/26/2018

TO:	City of Broken Arrow	ATTENTION:	David Myers
CC:			

Subject:	Pump Station 3 (Greenbriar) PLC
Project Title:	City Wide SCADA Replacement
Owner / Location	City of Broken Arrow

REQUESTED INFORMATION:

During the initial site visit Prime Controls learned that Pump Station 3 (Greenbriar) did not have an Allen Bradley PLC. The site is controlled by a Carel PCO (exact module number cannot be confirmed until unit is removed). This controller is designed for air handling systems. In order to add the communication module to this controller it will have to be completely removed from the panel. The controller will have to be physically modified to include a communication card. The controller will then have to be reprogrammed to use Modbus TCP. Carel Technical Support said they cannot give assurances that steps can be taken to integrate the controller to the SCADA system because each controller is unique to the OEM who installed it. We may find that after the work is started that integration is impossible.

Prime Controls recommends replacing the controller with an M221 and a new OIT. This should reduce the number of complications during the installation process. In the future it will reduce complications with troubleshooting and maintenance. It will also reduce the number of PLC related software packages needed.

We will submit a cost estimate for this recommendation.

Response Requested By:	7/10/18	Signature:	Ricky Ellis
<input type="checkbox"/>	No Cost Change	<input type="checkbox"/>	No Schedule Impact
<input checked="" type="checkbox"/>	Potential Cost Change	<input checked="" type="checkbox"/>	Potential Schedule Impact

RESPONSE TO INFORMATION REQUEST:

Contractor shall provide a PCM for installation of a M221 and a OIT. The station acts as a in-line booster pump station, maintaining a set discharge pressure.

Person Replying:		Signature:	
Firm:		Date:	



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Change Order Request

Date: October 10, 2018

To: City of Broken Arrow
Attn: Tim Robins
Project Name: City of Broken Arrow SCADA Replacement
Contract No.: 155425
Subject: Pump Station 3 (Greenbriar) PLC
Change Order Request No.: 1851009-5

Source: LS23 ISSC III Rack Relocation

Tim,

Prime Controls is pleased to offer our cost proposal for cutting & removal of asphalt per the response of RFI # 5.

Scope of Work

1. Remove previously installed rack and move to new location as requested by BAMA.

Sub-Total Cost Breakdown

Labor	\$	176.36
Markup (15%)	\$	26.46
Subcontractor	\$	1,317.90
Total		\$1,520.73

Clarifications

1. Prior to commencement of work, Prime Controls requests an executed copy of this change order request. We expect this change will be accepted in a timely manner. Prime Controls is not liable for schedule delays associated with this change in the scope of work.
2. Our Proposal is valid for 15 days from the date of this letter. Pricing is subject to change based on approval date.

Schedule

Number of additional calendar days requested for this change proposal from the date of notice to proceed.

5

Proposal Approval

Approved By: _____

Date: _____

Should you have any questions regarding this change order request please feel free to contact us.

Sincerely,
Prime Controls, LP

Project Manager

September 25th, 2018
17-301 R1
Changer Order 1

Prime Controls
Ricky Ellis
972-221-4849
1725 Lakepointe Drive
Lewisville, TX. 75057



Re: City of Broken Arrow

Apple Electrical is pleased to provide your firm with a change order proposal for the above-mentioned project. The following is a description of our scope of work for this project.

Move rack locations for LS23

- Dig down below ground service approximately 5 – 7" and remove top surface of concrete.
- Cut 2" conduit below ground level.
- Top off with concrete to cover sharp edges of conduit exposed and cover with surface dirt to cover.
- Move rack location 3' away by digging new post holes and utilizing new 2" conduit. All other existing material will be used.
- Fabricate new rack and set with concrete.

The cost of this work is.....\$ 1,146.00

Additional moves are at \$800.00 each if crews have to come back to complete this work at a later date.

Exclusions: Hazardous material testing or removal, utility disconnect or relocation, cut/cap, temp barricades or traffic control, location and protection of public and private utility lines, soil backfill, erosion control or silt fence, asphalt repair or replacement, hydro vac, and all items not specifically listed above.

The terms and conditions outlined in this proposal are valid for 30 days. An authorized signature below constitutes acceptance of this offer by company. Company shall be responsible for any additional costs caused by changes.

Sincerely,

Signature: _____

Eddy Shelton
President

Print: _____

Title: _____

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1725 Lakepointe Drive, Lewisville TX 75057
(972) 221-4849 Phone
(972) 420-4842 Fax

Change Order Request

Date: October 3, 2018

To: City of Broken Arrow
Attn: Tim Robins
Project Name: City of Broken Arrow SCADA Replacement
Contract No.: 155425
Subject: Pump Station 3 (Greenbriar) PLC
Change Order Request No.: 1851009-03R1

Source: RFI # 18 Response

Tim,

Prime Controls is pleased to offer our cost proposal for replacing the original required Caradlepont 1150 which are no longer available, with the newer model Cradlepoint IBR9000 as RFI # 18 response (attached).

Scope of Work

1. Provide & install Cradlepoint IBR900 as RFI # 18 & discussed in most recent progress meeting where Prime Controls informed City personnel that the Cradlepoint 1150 is no longer available for purchase and made the recommendation to move forward with the IBR900.

Sub-Total Cost Breakdown

Materials	\$	7,326.56
Labor	\$	659.73
Markup (10%)	\$	798.63
Total		\$8,784.93

Clarifications

1. Prior to commencement of work, Prime Controls requests an executed copy of this change order request. We expect this change will be accepted in a timely manner. Prime Controls is not liable for schedule delays associated with this change in the scope of work.

Schedule

Number of additional calendar days requested for this change proposal from the date of notice to proceed.

20

Proposal Approval

Approved By: _____

Date: _____

Should you have any questions regarding this change order request please feel free to contact us.

Sincerely,
Prime Controls, LP

Project Manager

Ricky Ellis

From: Robins, Timothy <trobins@brokenarrowok.gov>
Sent: Monday, October 1, 2018 10:50 AM
To: Patrick Moseley Allan Plummer (pmoseley@apaienv.com); Ricky Ellis
Cc: Myers, David
Subject: FW: radio selection for SCADA project

See below for RFI18 response.

Thanks,

Timothy S. Robins, PE. CFM CWI | Construction Division Manager
Engineering and Construction Department
485 N. Poplar Avenue, Broken Arrow, OK 74012
Office: 918.259.7000 ext.7631 | Cell: 918.644.6494
Fax: 918.259.8453
Email: Trobins@Brokenarrowok.gov
[facebook](#) | [twitter](#) | [youtube](#)



From: Ketchum, Mark
Sent: Monday, October 1, 2018 10:26 AM
To: Robins, Timothy <trobins@brokenarrowok.gov>; Campbell, Barney <BCampbell@BrokenArrowOK.Gov>; Handy, David <dhandy@brokenarrowok.gov>; Vokes, Charles <CVokes@brokenarrowok.gov>
Cc: Myers, David <DMyers@BrokenArrowOK.Gov>
Subject: RE: radio selection for SCADA project

A IBR900 will work with the understanding that these are single LAN port for SCADA and if any components (cameras) are added in the future at a location, then a different model modem will have to be purchased.

Mark Ketchum
Communications Systems Manager
Phone: 918-259-2400 ext. 5362
Cellular Phone: 918-697-1980
Fax: 918-251-6642
MKetchum@BrokenArrowOK.Gov



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dissemination, distribution or copying of this message. If you have received this communication in error, please notify the sender immediately and destroy the transmitted information immediately.

From: Robins, Timothy
Sent: Monday, October 1, 2018 10:08 AM
To: Ketchum, Mark <MKetchum@BrokenArrowOK.Gov>; Campbell, Barney <BCampbell@BrokenArrowOK.Gov>; Handy, David <dhandy@brokenarrowok.gov>
Cc: Myers, David <DMyers@BrokenArrowOK.Gov>
Subject: radio selection for SCADA project

See attached for radio RFI, please advise.

Thanks,

Timothy S. Robins, PE. CFM CWI | Construction Division Manager
Engineering and Construction Department
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Email: Trobins@Brokenarrowok.gov
[facebook](#) | [twitter](#) | [youtube](#)



Robins, Timothy

From: Ricky Ellis <r.ellis@prime-controls.com>
Sent: Wednesday, October 3, 2018 8:49 AM
To: Robins, Timothy
Cc: Myers, David; Kyle Jones
Subject: RE: radio selection for SCADA project
Attachments: CO-03R1 RFI-18.pdf

Tim,

I have attached a revision to Change Order # 3. The original change order had deleting/adding 27 Cradlepoints to the new IBR900, the correct # is 32 Cradlepoints.

I also noticed my descriptions on the email below was incorrect, the correct description is as follows:

- Have attached change order # 3R1 in response for RFI # 18 response.
- Have attached change order # 2 in response for RFI # 17 response.

Ricky Ellis

214.842.9191

From: Ricky Ellis
Sent: Monday, October 1, 2018 1:49 PM
To: 'Robins, Timothy' <trobins@brokenarrowok.gov>
Cc: Myers, David <DMyers@BrokenArrowOK.Gov>; Kyle Jones <k.jones@prime-controls.com>
Subject: RE: radio selection for SCADA project

Tim,

Have attached change order # 2 in response for RFI # 18 response.

Also attached change order # 1 in response for RFI # 17 response.

Ricky Ellis

214.842.9191

From: Robins, Timothy <trobins@brokenarrowok.gov>
Sent: Monday, October 1, 2018 10:50 AM
To: Patrick Moseley Allan Plummer (pmoseley@apaienv.com) <pmoseley@apaienv.com>; Ricky Ellis <r.ellis@prime-controls.com>
Cc: Myers, David <DMyers@BrokenArrowOK.Gov>
Subject: FW: radio selection for SCADA project

See below for RFI18 response.

Thanks,

Timothy S. Robins, PE. CFM CWI | Construction Division Manager
Engineering and Construction Department
485 N. Poplar Avenue, Broken Arrow, OK 74012
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Cc: Myers, David <DMyers@BrokenArrowOK.Gov>
Subject: RE: radio selection for SCADA project

A IBR900 will work with the understanding that these are single LAN port for SCADA and if any components (cameras) are added in the future at a location, then a different model modem will have to be purchased.

Mark Ketchum
Communications Systems Manager
Phone: 918-259-2400 ext. 5362
Cellular Phone: 918-697-1980
Fax: 918-251-6642
MKetchum@BrokenArrowOK.Gov



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From: Robins, Timothy
Sent: Monday, October 1, 2018 10:08 AM
To: Ketchum, Mark <MKetchum@BrokenArrowOK.Gov>; Campbell, Barney <BCampbell@BrokenArrowOK.Gov>; Handy, David <dhandy@brokenarrowok.gov>
Cc: Myers, David <DMyers@BrokenArrowOK.Gov>
Subject: radio selection for SCADA project

See attached for radio RFI, please advise.

Thanks,

Timothy S. Robins, PE. CFM CWI | Construction Division Manager

Engineering and Construction Department

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