

January 31, 2025
Project No. 210262

Adam Smith
City Manager
City of Grand Ledge
310 Greenwood Street
Grand Ledge, MI 48837

Change Order 13 – City of Grand Ledge Iron Removal Plant, Description, and Impact

The following is a description of the items for Change Order 13 of the Grand Ledge Iron Removal Plant Project:

Contract Modifications from Change Order:

- Original Contract Price – \$17,338,148.00
- Contract Price following previous Change Orders – \$17,385,811.74
- Modification to Contract Price from Change Order 12 – \$32,898.25
- Modification to Contract Price from all Change Orders – \$80,561.99
- Revised Contract Price with current Change Order – \$17,418,709.99
- Change Order as percentage of original Contract Price (without Value Engineering) – 1.73%

Table 1 – Change Order 13 Monetary Impact Breakdown

Item No.	Item Description	Contract Modification	Cumulative Contract Price
1	Conduit between Water Tower and Well 7 Building	\$32,898.25	\$17,418,709.99

Narrative Description of Change Order

Change Order 13 includes the installation of control wire for Water Tower level monitoring between the Water Tower and Well 7 Building in order to run the signal to the new Iron Removal Plant (IRP). The cost item includes the wire, conduit and a protective concrete cap. A temporary signal wire will be installed until the permanent installation can be placed in the spring. This will allow the startup of the IRP to be completed. It should be noted that this item will add 14 days to the Contractor’s final schedule, shifting substantial completion from January 16, 2025 to January 30, 2025

The items are as follows:

ITEM NO. 1

- Conduit between Water Tower and Well 7 Building
 - This item includes providing conduit wire and protective concrete cap between Water Tower and Well 7 Building to bring the Water Tower Level signal to spare Analog Input in WELL7-CP. This will allow the new IRP to operate off of the Water Tower Level. The design intent was to have this as part of the project as it was shown and described in the control intent, but the conduit was omitted from the Electrical Site Plan where this type of work would typically be shown.
 - As part of this item, due to the current weather conditions, a temporary feed will need to be provided to allow the new IRP to be started up and brought into service. Given this temporary feed would not have been required as part of the project if the associated item was not omitted, Fishbeck will cover these costs as the Design Engineer. This temporary feed represents \$5,230.57 of the cost indicated above which will be deducted from Fishbeck’s fees or paid directly to the City, whichever is preferred.
 - The other portion of the item (placing conduit underground with a concrete cap) is recommended for longevity of the control signal which will be used in the operation of the new IRP.

Impact to Project

The item within this Change Order adds cost but is recommended as being necessary to the project. It adds a total of \$32,898.25 to the project. Fishbeck is offering to cover \$5,230.57 of this cost as this portion is for a temporary measure, which would not have been necessary to the project if not omitted in the initial Contract Documents. It should also be noted that this Change Order adds 14 days to the substantial completion date for the Contractor, shifting it from January 16, 2025 to January 30, 2025.

If you have any questions or require additional information, please contact me at 616.464.3825 or cmccorkle@fishbeck.com.

Sincerely,



Colin G. McCorkle, PE

Senior Water and Wastewater Engineer

Attachments

By email

Copy: David Pawley – City of Grand Ledge
Kurt Ristow – City of Grand Ledge
Dave Baar, PE – Fishbeck
John Willemin, PE – Fishbeck

CHANGE ORDER
 PAGE 1 OF 2

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
ATTACHMENTS:	Bulletin 12 Pricing Response

Contractor shall indicate approval of Change Order through signing of this document and returning to Engineer. Engineer will forward to Owner, who shall indicate approval of Change Order through signing of this document and returning to Engineer. Upon receipt of fully executed (all signatures) Change Order, Engineer will distribute to all parties.

YOU ARE DIRECTED TO MAKE THE FOLLOWING CHANGES IN THE CONTRACT DOCUMENTS:

The following items changing the contract documents were chosen by the Owner for execution:

ITEM NO. 1: Conduit between Water Tower and Well 7 Building.
 Sheet: E003 – Electrical Site Plan

- A. Provide conduit and wire between Water Tower and Well 7 Building.
- B. Wire Water Tower Level signal to spare Analog Input in WELL7-CP.

It should be noted that only the temporary line for the water tower level signal is required for substantial completion. The line would be trenched in for a permanent installation when the weather is warmer allowing for excavation on the site.

ADD: \$32,898.25

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES: N/A
Original Contract Price:	Original Contract time: <u>March 7, 2023</u>
<u>\$17,338,148.00</u>	Substantial Completion: <u>January 16, 2025</u>
	Ready for final payment: <u>February 17, 2025</u>
Net Change from Previous Change Orders: 1-12	Net change from previous Change Orders:
<u>\$47,663.74</u>	<u>0 Days</u>
Contract Price prior to this Change Order:	Contract Time prior to this Change Order:
<u>\$17,385,811.74</u>	Substantial Completion: <u>January 16, 2025</u>
	Ready for final payment: <u>February 17, 2025</u>
Net increase of this Change Order:	Net change of this Change Order:
<u>\$32,898.25</u>	<u>14 Days</u>
Contract Price with all approved Change Orders:	Contract Time with all approved Change Orders:
<u>\$17,418,709.99</u>	Substantial Completion: <u>January 30, 2025</u>
	Ready for final payment: <u>March 3, 2025</u>

CHANGE ORDER
PAGE 2 OF 2

RECOMMENDED

By: Colin McCorkle
Engineer

Colin G. McCorkle, PE
Senior Water/Wastewater Engineer

Date: January 22, 2025

APPROVED

By: Peter C. Elzinga
Contractor

Peter C. Elzinga, P.E., Project Manager
Name and Title of Signatory

Date: January 23, 2025

APPROVED

By: Adam Smith
Owner

Adam Smith, City Manager
Name and Title of Signatory

Date: 02/15/2025

END OF CHANGE ORDER

BULLETIN
 PAGE 1 OF 2

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B12
ISSUED HEREWITH:	
	SPECIFICATION SECTIONS: 23 09 00
SHEETS:	A301, C201, E003, E505, M801
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Steve Johnson, PE – Fishbeck John Willemin, PE – Fishbeck

The items below are being considered as possible changes to the Contract Documents for this Project. Contractor is requested to submit changes in cost, if any, for each item and indicate whether it is an addition to or deduction from the Contract Price. Costs are requested as lump sums unless otherwise noted as a unit cost. Include all labor, materials, overhead and profit, trades, subcontractors, and related costs. After reviewing the effects of those changes in the Work, Owner may issue a Change Order specifying which changes are to be incorporated in the Work, if any.

This Bulletin is not a Change Order and is not to be deemed authorization to proceed with the changes listed.

Additional work or materials, where proposed, shall meet the requirements of the Contract Documents, except where noted.

Contractor is responsible for notifying Engineer, in writing, concerning any revision or clarification which causes a change in the Contract Documents, but not specifically mentioned as a cost item in this Bulletin.

Return one completed and signed copy of the Bulletin to Engineer on or before the due date noted above.

Each proposed change has been described briefly with additional information provided concerning detailed changes required for the major trades concerned. Only one total cost figure has been requested for each item on the Bulletin; however, a complete breakdown is required for each item as supporting documentation. This will allow Owner to more easily evaluate the proposed cost changes. Each Bulletin item is an all-inclusive item and may concern work from several trades or Subcontractors. It is Contractor's responsibility to ensure that all work for each item has been included in the total cost figure provided to Owner.

ITEM NO. 1: NO2 and CO Monitoring for AHU-1 RA and OA Ductwork and Additional Safety Features.

Sheet: A301 – Exterior Elevations (reissued)
 M801 – Controls (reissued)
 E505 – Electrical Details (reissued)
 Section: 23 09 00 (reissued)

- A. Added NO2 and CO monitoring in AHU-1 RA and OA ductwork.
- B. Added AHU-1 control requirements for elevated NO2 and CO levels.
- C. Added NO2 and CO sensor information to control specification.
- D. Provide wall mounted sign where indicated adjacent to Door A102A. Refer to Elevation B – North Elevation on Sheet A301 and Keynote 33.

ADD/DEDUCT: \$ No Quote

BULLETIN
PAGE 2 OF 2

ITEM NO. 2: Conduit between Water Tower and Well 7 Building.
Sheet: E003 – Electrical Site Plan (reissued)

- A. Provide conduit and wire between Water Tower and Well 7 Building.
- B. Wire Water Tower Level signal to spare Analog Input in WELL7-CP.

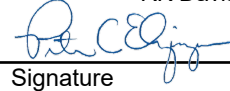
ADD/DEDUCT: \$ 32,898.25

ITEM NO. 3: Wall Mounted Signage.
Sheet: C201 – Site Layout Plan (reissued)

- A. Add pavement hatch and “No Parking” pavement markings directly north of overhead door at Iron Removal Plant.

ADD/DEDUCT: \$ No Quote

Contractor: RK Davis, Inc



Signature

Peter C. Elzinga, P.E., Project Manager

Name and Title of Signatory

January 10, 2025

Date

END OF BULLETIN

BULLETIN
 PAGE 1 OF 2

CONTRACT FOR:	City of Grand Ledge Iron Removal Plant
OWNER:	City of Grand Ledge 310 Greenwood Street Grand Ledge, MI 48837
CONTRACTOR:	RK Davis, Inc. 4457 40th Street, SE Kentwood, MI 49512
ENGINEER:	Fishbeck 1515 Arboretum Drive, SE Grand Rapids, MI 49546
DRAWING REVISION NO.:	B12
ISSUED HEREWITH:	
SPECIFICATION SECTIONS:	23 09 00
SHEETS:	A301, C201, E003, E505, M801
DISTRIBUTION:	Kurt Ristow – City of Grand Ledge Peter Elzinga – RK Davis, Inc. Rob Kaliniak – RK Davis, Inc. Steve Johnson, PE – Fishbeck John Willemin, PE – Fishbeck

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ITEM NO. 1: NO2 and CO Monitoring for AHU-1 RA and OA Ductwork and Additional Safety Features.

Sheet: A301 – Exterior Elevations (reissued)
 M801 – Controls (reissued)
 E505 – Electrical Details (reissued)
 Section: 23 09 00 (reissued)

Not Included

- A. Added NO2 and CO monitoring in AHU-1 RA and OA ductwork.
- B. Added AHU-1 control requirements for elevated NO2 and CO levels.
- C. Added NO2 and CO sensor information to control specification.
- D. Provide wall mounted sign where indicated adjacent to Door A102A. Refer to Elevation B – North Elevation on Sheet A301 and Keynote 33.
- E. Tie gas detection sensors into fire alarm system. Not exceeding 4 sensors.

Type text here

ADD/DEDUCT: \$ 15,903.00

BULLETIN
PAGE 2 OF 2

ITEM NO. 2: Conduit between Water Tower and Well 7 Building.
Sheet: E003 – Electrical Site Plan (reissued)

- A. Provide conduit and wire between Water Tower and Well 7 Building.
- B. Wire Water Tower Level signal to spare Analog Input in WELL7-CP.

ADD/DEDUCT: \$ \$25,003.00

ITEM NO. 3: Wall Mounted Signage.

Sheet: C201 – Site Layout Plan (reissued) Temporary adder if frost is a factor \$4,920.00

- A. Add pavement hatch and “No Parking” pavement markings directly north of overhead door at Iron Removal Plant.

ADD/DEDUCT: \$ N/A

Contractor: Centennial Electric

Tracy Sears
Signature

Tracy Sears PM

Name and Title of Signatory

12/20/2024

Date

NOTE: Bulletin #12 adds 4-weeks to our schedule for item #2

END OF BULLETIN

O 517.543.9900
F 517.543.9911



PO BOX 490
POTTERVILLE, MI 48876

12/20/2024

RK Davis
ATTN: Peter Elzinga
4457 40th St SE
Kentwood, MI 49512

RE: Grand Ledge Iron Removal Plant- Bulletin 12 Quote

Dear Peter Elzinga,

Centennial Electric, LLC, is pleased to quote you for the above-mentioned project based off the Bulletin 12 summary and drawings issued 12/10/2024. We have included the following:

No. 1 - NO2 and CO Monitoring for AHU-1 RA and OA Ductwork -

Included

- Installation of (4) fire alarm devices to tie gas detection
- Conduit and wire for fire alarm only
- Termination of wires
- Revised engineering of fire alarm system
- Bonds

Excluded

- Power and conduit to gas detection devices
- Power and conduit to gas detection panels

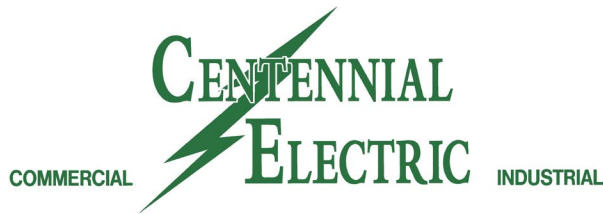
Total \$15,903.00

No. 2 - Conduit between Water Tower and Well 7 Building.

Included

- Trenching
- Locating existing utilities
- Installation of conduit and wire
- Ground penetrating radar for foundation of water tower
- Coring water tower base
- Terminations of SCADA wiring
- Concrete cap over conduit
- Bonds

O 517.543.9900
F 517.543.9911



PO BOX 490
POTTERVILLE, MI 48876

Excluded

- Overtime and shift premiums
- Winter conditions
- Site restoration including final grade and seed
- All repair of unmarked customer owned utilities

Total \$25,003.00

No. 2 - Conduit between Water Tower and Well 7 Building Frost Temporary Install

*****If frost levels exceed 2in and Centennial Electric is unable to trench for SCADA conduit and wire. This install is for temporary above ground operation until abandonment of frost*****

Included

- PVC conduit above ground for temporary SCADA connection
- Coring through water tower foundation (pricing is included in permanent installation)
- Coring and firestopping building 7 (pricing is included in permanent installation)
- Upon abandonment of frost levels, underground installation will occur
- Bonds

Excluded

- Overtime and shift premiums
- Site restoration

Total \$4,920.00

Please do not hesitate to contact me with any questions.

Sincerely,

Tracy Sears
Project Manager

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
Bulletin 12 Gas Detection	\$2,176.08	100.00%	\$2,176.08	34.28	100.00%	34.28

Top Sheet

Raw Cost	\$13,215.96	Sales per Month	\$0.00
Tax	\$562.56	Return per Month	\$0.00
Raw Cost with Tax	\$13,778.53	Price per Square Foot	\$0.00
Overhead	\$1,982.39	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$1,982.39	Job Months	0.00
Total Return %	12.47%	Hours per Week	0.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	100.35
Price	\$15,760.92	Workers per Day	0.00
Bond	\$141.85	Total Hours	34.28
Sell Price	\$15,902.77	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	Yes

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	97.08%	33.28	\$99.62	\$0.00	0.00%	\$3,315.35
Foreman Local 665	0.00%	0.00	\$114.56	\$0.00	0.00%	\$0.00
Project Manager Time	2.92%	1.00	\$124.53	\$0.00	0.00%	\$124.53
Totals	100.00%	34.28	\$100.35	\$0.00	0.00%	\$3,439.88

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT	
	Total	%	Amount	%	Amount	
Materials	\$2,176.08	+ 15.00%	\$2,502.49	+ 0.00%	\$2,502.49	
Labor	\$3,439.88	+ 15.00%	\$3,955.87	+ 0.00%	\$3,955.87	
Supplier Quotes	\$7,200.00	+ 15.00%	\$8,280.00	+ 0.00%	\$8,280.00	
SubContractors	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
Direct Job Expense	\$400.00	+ 15.00%	\$460.00	+ 0.00%	\$460.00	
Equipment Rental	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
Fixtures Quotes	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
Totals	\$13,215.96	15.00%	\$15,198.36	0.00%	\$15,198.36	

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	\$2,176.08	6.00%	\$130.56
Labor	\$3,439.88	0.00%	\$0.00
Supplier Quotes	\$7,200.00	6.00%	\$432.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	6.00%	\$0.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	\$562.56

Supplier Quotes					
Name	Supplier	Tax (6.0%)	Unit Cost	Mult	Amount
Fire Alarm	JCI	Yes	\$7,200.00	1.00	\$7,200.00
Totals:					\$7,200.00

Direct Job Expense					
Name	Supplier	Tax (0.0%)	Unit Cost	Mult	Amount
As Builts		No	\$400.00	1.00	\$400.00
Totals:					\$400.00

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: Bulletin 12 Gas Detection

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
Label Set: Combined, Combined, Combined, Combined, Combined					<u>\$2,176.08</u>			<u>33.28</u>		<u>100%</u>	<u>100%</u>
CCode: <none>					<u>\$16.00</u>			<u>2.00</u>		<u>0.74%</u>	<u>6.01%</u>
	60,064 Drill 1.5" Wall & Fire Stop	2.00	\$8.00 E		<u>\$16.00</u>	<u>1.00</u> E		<u>2.00</u>			
CCode: <undefined>					<u>\$40.00</u>			<u>8.00</u>		<u>1.84%</u>	<u>24.04%</u>
	60,200 Sensor Termination	4.00	\$10.00 E		<u>\$40.00</u>	<u>2.00</u> E		<u>8.00</u>			
CCode: Branch Rough					<u>\$1,904.19</u>			<u>19.24</u>		<u>87.51%</u>	<u>57.81%</u>
	1,262 3/4 GRC	100.00	\$602.50 C		<u>\$602.50</u>	<u>6.00</u> C		<u>6.00</u> cb			
	1,276 3/4 GRC 90 ELBOW	16.00	\$32.70 E		<u>\$523.20</u>	<u>0.40</u> E		<u>6.40</u> cb			
	5,489 1/2 FLEX WP	40.00	\$194.42 C		<u>\$77.77</u>	<u>4.00</u> C		<u>1.60</u> cb			
	5,501 1/2 FLEX WP CONN	8.00	\$2,126.91 C		<u>\$170.15</u>	<u>0.15</u> E		<u>1.20</u> cb			
	5,549 1/2 FLEX WP 90 CONN	8.00	\$3,474.13 C		<u>\$277.93</u>	<u>0.18</u> E		<u>1.44</u> cb			
	15,578 3/4 FS BOX 2 GANG	4.00	\$63.16 E		<u>\$252.64</u>	<u>0.65</u> E		<u>2.60</u> cb			
CCode: Straps					<u>\$165.29</u>			<u>1.50</u>		<u>7.6%</u>	<u>4.51%</u>
	60,202 3/4 GRC CLAMP BACK	25.00	\$661.16 C		<u>\$165.29</u>	<u>6.00</u> C		<u>1.50</u> cs			
CCode: Communication/Signal					<u>\$50.60</u>			<u>1.98</u>		<u>2.33%</u>	<u>5.95%</u>
	18,515 FA 18/2 RED CABLE	165.00	\$306.66 M		<u>\$50.60</u>	<u>12.00</u> M		<u>1.98</u> mc			
CCode: Lugs/Termination/Ground					<u>\$0.00</u>			<u>0.56</u>		<u>0%</u>	<u>1.68%</u>
	5,767 20A WIRE TERMINATION	4.00	\$0.00 X		<u>\$0.00</u>	<u>0.14</u> E		<u>0.56</u> sl			
					<u>\$2,176.08</u>			<u>33.28</u>			

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
Bulletin 12 Water Tower SCADA	\$8,858.88	100.00%	\$8,858.88	85.39	100.00%	85.39

Top Sheet

Raw Cost	\$21,085.16	Sales per Month	\$0.00
Tax	\$531.53	Return per Month	\$0.00
Raw Cost with Tax	\$21,616.69	Price per Square Foot	\$0.00
Overhead	\$3,162.77	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$3,162.77	Job Months	0.00
Total Return %	12.65%	Hours per Week	0.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	100.50
Price	\$24,779.47	Workers per Day	0.00
Bond	\$223.02	Total Hours	85.39
Sell Price	\$25,002.48	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	Yes

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	96.49%	82.39	\$99.62	\$0.00	0.00%	\$8,207.69
Foreman Local 665	0.00%	0.00	\$114.56	\$0.00	0.00%	\$0.00
Project Manager Time	3.51%	3.00	\$124.53	\$0.00	0.00%	\$373.59
Totals	100.00%	85.39	\$100.50	\$0.00	0.00%	\$8,581.28

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT	
	Total	%	Amount	%	Amount	
Materials	\$8,858.88	+ 15.00%	\$10,187.71	+ 0.00%	\$10,187.71	
Labor	\$8,581.28	+ 15.00%	\$9,868.47	+ 0.00%	\$9,868.47	
Supplier Quotes	\$1,895.00	+ 15.00%	\$2,179.25	+ 0.00%	\$2,179.25	
SubContractors	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
Direct Job Expense	\$1,750.00	+ 15.00%	\$2,012.50	+ 0.00%	\$2,012.50	
Equipment Rental	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
Fixtures Quotes	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
Totals	\$21,085.16	15.00%	\$24,247.94	0.00%	\$24,247.94	

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	\$8,858.88	6.00%	\$531.53
Labor	\$8,581.28	0.00%	\$0.00
Supplier Quotes	\$0.00	6.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	6.00%	\$0.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	\$531.53

Supplier Quotes					
Name	Supplier	Tax (6.0%)	Unit Cost	Mult	Amount
Instrumentation/SCADA	Perceptive	No	\$1,895.00	1.00	\$1,895.00
Totals:					\$1,895.00

Direct Job Expense					
Name	Supplier	Tax (0.0%)	Unit Cost	Mult	Amount
Fuel, Oil & Gas		No	\$200.00	1.00	\$200.00
As Builts		No	\$400.00	1.00	\$400.00
Cleanup		No	\$750.00	1.00	\$750.00
Equipment Mobilization		No	\$400.00	1.00	\$400.00
Totals:					\$1,750.00

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: Bulletin 12 Water Tower SCADA

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
Label Set: Combined, Combined, Combined, Combined, Combined					<u>\$8,858.88</u>			<u>82.40</u>		<u>100%</u>	<u>100%</u>
CCode: <none>					<u>\$1,720.98</u>			<u>14.34</u>		<u>19.43%</u>	<u>17.4%</u>
	60,143 24" Trench	95.61	\$18.00	E	<u>\$1,720.98</u>	0.15	E	<u>14.34</u>			
CCode: <undefined>					<u>\$4,476.21</u>			<u>35.62</u>		<u>50.53%</u>	<u>43.22%</u>
	60,190 Locating	1.00	\$500.00	E	<u>\$500.00</u>	4.00	E	<u>4.00</u>			
	60,191 TSP #16/2	194.01	\$1,800.00	M	<u>\$349.21</u>	14.00	M	<u>2.72</u>			
	60,192 GPRS	1.00	\$1,500.00	E	<u>\$1,500.00</u>	3.00	E	<u>3.00</u>			
	60,193 Foundation Core	2.00	\$150.00	E	<u>\$300.00</u>	3.00	E	<u>6.00</u>			
	60,194 Core Wall	3.00	\$35.00	E	<u>\$105.00</u>	1.00	E	<u>3.00</u>			
	60,195 Concrete Per Yard	2.00	\$250.00	E	<u>\$500.00</u>	3.00	E	<u>6.00</u>			
	60,196 Short Load Charge	1.00	\$500.00	E	<u>\$500.00</u>	0.00	E	<u>0.00</u>			
	60,199 Hand Dig	3.00	\$50.00	E	<u>\$150.00</u>	2.00	E	<u>6.00</u>			
	60,201 Sand	2.00	\$250.00	E	<u>\$500.00</u>	2.00	E	<u>4.00</u>			
	60,202 Sammy Anchors	6.00	\$12.00	E	<u>\$72.00</u>	0.15	E	<u>0.90</u>			
CCode: Pull/Junction Boxes					<u>\$140.84</u>			<u>1.25</u>		<u>1.59%</u>	<u>1.52%</u>
	15,670 10X12X4" NEMA 1 S/C J-BOX	1.00	\$140.84	E	<u>\$140.84</u>	1.25	E	<u>1.25</u>	bp		
CCode: Branch Rough					<u>\$2,194.06</u>			<u>25.60</u>		<u>24.77%</u>	<u>31.07%</u>
	1,263 1 GRC	100.24	\$1,064.86	C	<u>\$1,067.46</u>	7.00	C	<u>7.02</u>	cb		
	1,277 1 GRC 90 ELBOW	10.00	\$51.09	E	<u>\$510.90</u>	0.50	E	<u>5.00</u>	cb		
	1,366 1 GRC COUPLING	4.00	\$15.23	E	<u>\$60.92</u>	7.00	C	<u>0.28</u>	cb		
	2,399 1 GRC LB BODY	3.00	\$34.81	E	<u>\$104.43</u>	0.80	E	<u>2.40</u>	cb		
	4,999 1 PVC 40	194.03	\$226.61	C	<u>\$439.68</u>	5.25	C	<u>10.19</u>	cb		
	5,186 1 PVC FEMALE ADPT	4.00	\$266.72	C	<u>\$10.67</u>	0.18	E	<u>0.72</u>	cb		
CCode: Hangers/Anchors					<u>\$262.39</u>			<u>4.54</u>		<u>2.96%</u>	<u>5.51%</u>
	3,315 1/4-20 X 3/4 RH MACH SCREW	10.03	\$8.08	C	<u>\$0.81</u>	2.75	C	<u>0.28</u>	ch		
	3,696 1/4 FLAT STL WASHER	10.03	\$282.75	C	<u>\$28.36</u>	0.70	C	<u>0.07</u>	ch		
	3,769 3/8" X 2 1/4 STUD ANCHOR	6.00	\$45.53	C	<u>\$2.73</u>	18.00	C	<u>1.08</u>	ch		
	3,774 1/4 MACHINE BOLT ANCH	10.03	\$27.49	C	<u>\$2.76</u>	16.00	C	<u>1.60</u>	ch		
	3,876 3/8" SADDLE WASHER	6.00	\$17.85	C	<u>\$1.07</u>	0.70	C	<u>0.04</u>	ch		
	3,880 3/8" WASHER	12.00	\$220.10	C	<u>\$26.41</u>	0.70	C	<u>0.08</u>	ch		

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: Bulletin 12 Water Tower SCADA

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
3,888	3/8" NUT	18.00	\$39.85	C	\$7.17	2.00	C	0.36	ch		
3,895	3/8" ALL THREAD	12.00	\$917.00	C	\$110.04	5.50	C	0.66	ch		
3,944	1 5/8 strut	3.00	\$2,767.92	C	\$83.04	12.00	C	0.36	ch		
CCode: Straps					\$64.40			0.49		0.73%	0.6%
3,093	1 GRC 1H MAL STP	10.03	\$468.64	C	\$47.01	4.00	C	0.40	cs		
3,131	1 GRC CHNL STRAP	3.00	\$579.61	C	\$17.39	3.00	C	0.09	cs		
CCode: Lugs/Termination/Ground					\$0.00			0.56		0%	0.68%
5,767	20A WIRE TERMINATION	4.00	\$0.00	X	\$0.00	0.14	E	0.56	sl		
					\$8,858.88			82.40			

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Job Name: Grand Ledge Iron Plant

Contractor:

Estimator: Mike

Notes:

Bid Date: 12/1/2022

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
Bulletin 12 Frost Temp Install	\$1,027.32	100.00%	\$1,027.32	19.78	100.00%	19.78

Top Sheet

Raw Cost	\$4,165.11	Sales per Month	\$0.00
Tax	\$85.64	Return per Month	\$0.00
Raw Cost with Tax	\$4,250.75	Price per Square Foot	\$0.00
Overhead	\$624.77	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$624.77	Job Months	0.00
Total Return %	12.70%	Hours per Week	0.00
Remaining Labor Hours	0.00	Average Hourly Rate w/ Burden	100.50
Price	\$4,875.52	Workers per Day	0.00
Bond	\$43.88	Total Hours	19.78
Sell Price	\$4,919.40	Markup Sales Tax (Overhead)	No
Adjusted Sell	\$0.00	Markup Sales Tax (Profit)	No
Adjusted Sell Return 0.00%	\$0.00	Use Bond Table	Yes

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
Journeyman Local 665	96.49%	19.09	\$99.62	\$0.00	0.00%	\$1,901.25
Foreman Local 665	0.00%	0.00	\$114.56	\$0.00	0.00%	\$0.00
Project Manager Time	3.51%	0.69	\$124.53	\$0.00	0.00%	\$86.54
Totals	100.00%	19.78	\$100.50	\$0.00	0.00%	\$1,987.79

Bid Summary Report

Grand Ledge Iron Plant Estimator: Mike

Job #2187

Mark Ups	OVERHEAD				PROFIT	
	Total	%	Amount	%	Amount	
Materials	\$1,027.32	+ 15.00%	\$1,181.42	+ 0.00%	\$1,181.42	
Labor	\$1,987.79	+ 15.00%	\$2,285.96	+ 0.00%	\$2,285.96	
Supplier Quotes	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
SubContractors	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
Direct Job Expense	\$750.00	+ 15.00%	\$862.50	+ 0.00%	\$862.50	
Equipment Rental	\$400.00	+ 15.00%	\$460.00	+ 0.00%	\$460.00	
Fixtures Quotes	\$0.00	+ 15.00%	\$0.00	+ 0.00%	\$0.00	
Totals	\$4,165.11	15.00%	\$4,789.88	0.00%	\$4,789.88	

Tax Report	Taxed Amount	Tax Rate %	Tax Amount
Materials	\$1,027.32	6.00%	\$61.64
Labor	\$1,987.79	0.00%	\$0.00
Supplier Quotes	\$0.00	6.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$400.00	6.00%	\$24.00
Fixtures Quotes	\$0.00	6.00%	\$0.00
		Total Tax:	\$85.64

Direct Job Expense					
Name	Supplier	Tax (0.0%)	Unit Cost	Mult	Amount
Cleanup		No	\$750.00	1.00	\$750.00
Totals:					\$750.00

Equipment Rental					
Name	Supplier	Tax (6.0%)	Unit Cost	Mult	Amount
Jack Hammer		Yes	\$400.00	1.00	\$400.00
Totals:					\$400.00

Job Name: Grand Ledge Iron Plant
 Job Number: 2187
 Extension Name: Bulletin 12 Frost Temp Install

Item #	Item Name	Quantity	Book Price	U	Ext Book Price	NECA 1	U	Labor 1 Ext	CCode	% of Extended Price	% of Extended Hours
Label Set: Combined, Combined, Combined, Combined, Combined					<u>\$1,027.32</u>			<u>19.78</u>		<u>100%</u>	<u>100%</u>
CCode: <undefined>					<u>\$460.00</u>			<u>10.80</u>		<u>44.78%</u>	<u>54.6%</u>
60,191	TSP #16/2	200.00	\$1,800.00	M	\$360.00	14.00	M	2.80			
60,203	Hand Dig Frost	1.00	\$100.00	E	\$100.00	8.00	E	8.00			
CCode: Feeder Rough					<u>\$567.32</u>			<u>8.42</u>		<u>55.22%</u>	<u>42.57%</u>
5,000	1 1/4 PVC 40	100.00	\$343.39	C	\$343.39	6.00	C	6.00	cf		
5,033	1 1/4 PVC 40 90 ELBOW	1.00	\$974.44	C	\$9.74	0.32	E	0.32	cf		
5,187	1 1/4 PVC FEMALE ADPT	1.00	\$397.37	C	\$3.97	0.20	E	0.20	cf		
5,250	1 1/4 PVC LB BODY	1.00	\$3,705.62	C	\$37.06	0.60	E	0.60	cf		
5,492	1 1/4 FLEX WP	10.00	\$750.27	C	\$75.03	10.00	C	1.00	cf		
5,504	1 1/4 FLEX WP CONN	1.00	\$9,812.61	C	\$98.13	0.30	E	0.30	cf		
CCode: Lugs/Termination/Ground					<u>\$0.00</u>			<u>0.56</u>		<u>0%</u>	<u>2.83%</u>
5,767	20A WIRE TERMINATION	4.00	\$0.00	X	\$0.00	0.14	E	0.56	sl		
					<u>\$1,027.32</u>			<u>19.78</u>			