April 7, 2015

To: **Mayor Bemrich and City Council**

From: **David Fierke, City Manager**

Subject: **Water and Waste Water System Improvements**
North Central Ag Park Expansion – Water System Improvements 2011, Phase B: Water Treatment Plant Section 1: High Service Pumps and Stand-by Power – Change Order #5 – Rice Lake Construction

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ACTION: **For vote Monday, April 13, 2015**

Brief History

The City is currently under order from the Iowa Department of Natural Resources (IDNR) to install stand-by power of adequate capacity at City wells and the John W. Pray Water Treatment Plant to pump and treat average day water demand. The City contracted with Stanley Consultants, Inc. in 2009 for design and bidding of the stand-by power project. The scope of the Stanley project included stand-by power at Wells 14, 16, 17, and the water treatment plant. The budgeted amount for the stand-by power project is $3,000,000 and is planned to be financed using the SRF loan program and paid back through water utility rates.

The current proposal is to re-design the electrical improvements to provide 480V service and bid the stand-by power project with the water treatment plant project associated with the Ag-Park expansion. The scope of the electrical improvements in this project would include the following:

- 480V, 3 phase stand-by power system for Water Treatment Plant
- 480V, 3 phase service entrance equipment for Water Treatment Plant (not included in Stanley scope)
- 480V, 3 phase variable frequency drives (VFD) for four new high service pumps and motors in Water Treatment Plant (not included in Stanley scope)
- Chlorine feed metering and chlorine residual monitoring improvements (not included in Stanley scope)
- 480V, 3 phase standby power system for Airport Water Tower Booster Station (not included in Stanley scope)

On March 26, 2012 Council approved an agreement with Krishna Engineering Consultants for the design of the electrical improvements at the Water Treatment Plant. They will work closely with McClure Engineering. The cost of these services will be a lump sum of $300,000.00.

Stanley's contract was amended to complete the stand-by power project at Wells 14, 16, and 17, per the original agreement.

A contract was awarded to Rice Lake Construction on June 11, 2012 in the amount of $2,438,600.00. Change Order #1 was necessary to revise original contract to include replacement of pump control valves and additional thermo-protection. The cost of Change Order #1 was $155,483.00 and was approved on January 28, 2013. $65,000 of that amount came from the contingency fund. The contract price increased $90,483.00. Change Order #2 was approved in the amount of $6,356.00 and included the relocation of existing plumbing hot water lines in the treatment plant basement. Change Order #3 was necessary to add drain pans installed below the water piping to prevent potential leaks from dripping into VFD's. The cost of Change Order #3 was $3,520.00

The Contractor, Rice Lake Construction has completed the work specified in the contract documents. McClure Engineering submitted the Statement of Substantial Completion, which was approved on October 28, 2013.

Pay Estimate #11 Sub-final was approved for payment to Rice Lake Construction in the amount of $74,754.36 on December 16, 2013.

On June 23, 2014, Council approved Pay Estimate #12 Sub-final in the amount of $32,184.04 to Rice Lake Construction, as well as Change Order #4 which was an increase of $33,877.94 to the contract, which totals $2,572,836.94.

Analysis of Issue

Change Order #5 includes a number of changes which are described in the attached document and will result in a $166,308.00 increase to the contract. The total contract is now $2,739,144.94.

Budget Impact

These services will be paid by Water SRF Loans and will be paid for by water funds. It will be part of the larger Ag Park Expansion loan.

Strategic Plan Impact

Policy D.4.2: Advanced planning for all infrastructure facilities shall be supported and routinely updated. Facilities benefited by advanced planning shall include, at minimum, schools, health care, residential areas, roads, water, sewer, storm water management, parks, recreation, and greenways.

Policy D.4.1: Recognizing that infrastructure has a powerful influence on growth and development, the availability of infrastructure (along with other factors) should determine where development will occur in the city, rather than the other way around.

Impact on Existing Plans

None

Committee Review / Recommendation
This project has been discussed at several council meetings and workshops.

Staff Conclusions / Recommendations
It is our recommendation to approve Change Order #5.

Alternatives
No practical alternatives are suggested to stay on schedule with this project.

Implementation and Accountability
McClure Engineering will be responsible for overseeing this project.

Signed

Tony Trotter, PE
Project Engineer

Approved

David Fierke
City Manager

McCLURE	**Contract Change Order**	**Change Order Number:**	**Five (5)**
		MEC Project Number:	**FTD 1311016-02**
		Contract Date:	**6/11/2012**
For Contracted Project:	**Water System Improvements 2011, Fort Dodge, Iowa, Phase B: Water Treatment Plant, Section 1: High Service Pumps and Stand-by Power SRF Project No. FS-94-12-DWSRF-025**	**Date of Issuance:**	**3/2/2015**
		Effective Date:	
		Original Contract Price:	**$ 2,438,600.00**
Owner:	**City Of Fort Dodge, Iowa**	**Current Contract Price:**	**$ 2,572,836.94**
Contractor:	**Rice Lake Construction Group, 22360 County Road 12, PO Box 517, Deerwood, MN 56444**	**Current Contingency Allowance:**	**$ -**
		Current Final Completion Date:	**9/27/2013**

You are hereby requested to comply with the following changes below from the original contracted plans and specifications.

Description of Changes	ADJUSTMENT to Contingency Allowance	DECREASE in Contract Price	INCREASE in Contract Price
1. Replacement of All 4 High Service Pump Casings Assemblies with Mechanical Seals Laser Aligned and All Certified Performance, Certified Hydrostatic, and Vibration Testing	$ -	$ -	$ 84,408.00
2. Modifications to Existing Piping Layout to Improve Water Plant Hydraulics, Removal of Existing Pumps and Install of New Pumps	$ -	$ -	$ 81,900.00
Totals:	$ -	$ -	$ 166,308.00
Contingency Allowance Remaining:	$ -		
Net Change to Contract Price:		$	166,308.00
Updated Contract Price:		$	2,739,144.94

Justification: See attached item summary and revised drawings (HS-01, HS-02, HS-03, HS-04).
SPECIAL NOTE: Assignment of payment responsibility has yet to have been fully determined and will be worked out prior to final project closeout.

The Amount of the Contingency Allowance will be UNCHANGED by the Sum of:	$0.00
Zero and 00/100 Dollars	
The Total Remaining Contingency Allowance including this and previous Change Orders will be:	$0.00
Zero and 00/100 Dollars	
The Amount of the Contract will be INCREASED by the Sum of:	$166,308.00
One Hundred Sixty-Six Thousand Three Hundred Eight and 00/100 Dollars	
The Total Contract Price including this and previous Change Orders will be:	$2,739,144.94
Two Million Seven Hundred Thirty-nine Thousand One Hundred Forty-four and 94/100 Dollars	
The Contract Period provided for Final Completion will be INCREASED:	To Be Completed By May 1, 2015

This Document will become a Supplement to the Contract dated June 11, 2012, and all Provisions will apply hereto.

Requested By:	Matt Korpach		3/11/15
	Contractor:	Rice Lake Construction Group	Date
Recommended By:			3/15/15
	Engineer:	McClure Engineering Co.	Date
Accepted By:			
	Owner:	City of Fort Dodge, Iowa	Date
Approved by Funding Agency: (if applicable)			
			Date

This information will be used as a record of any changes to the Original Construction Contract.

WATER SYSTEM IMPROVEMENTS 2011, FORT DODGE, IOWA,
PHASE B: WATER TREATMENT PLANT, SECTION 1: HIGH SERVICE PUMPS AND STAND-BY POWER
CONTRACTOR: RICE LAKE CONSTRUCTION GROUP

SUMMARY OF CHANGE ORDER #5

Rice Lake Request: $ 84,408.00 (see attached)

Replacement of all 4 Aurora 10" x 12" x 18" Model 411 of bronze fitted, low lead construction for potable, chlorinated water; ASTM B48 casing, ASTM B148 C95800 alpha nickel aluminum bronze full trim impeller, AISI C1045 shaft, 316 SS shaft sleeve. For use with existing 500HP motors.

Total net price for each above pump will be quoted at the price of a casing assembly only, which is $12,813.00 each. Addition of Chesterton model 442 split mechanical seal (as originally specified) at $4,940.00 per pump, certified performance test at $800.00 per pump, certified hydrostatic test at $454.00 per pump and vibration test at $845.00 per pump.

Item	Quantity	Cost	Total Cost
New Replacement Pump Casing Assembly	4 EA	$12,813.00	$51,252.00
Chesterton Model 442 Split Mechanical Seal	4 EA	$4,940.00	$19,760.00
Certified Performance test	4 EA	$800.00	$3,200.00
Certified Hydrostatic Test	4 EA	$454.00	$1,816.00
Vibration Test	4 EA	$845.00	$3,380.00
Laser Alignment of All 4 Pumps	1 LS	$5,000.00	$5,000.00
Grand Total			$84,408.00

Rice Lake Request: $ 81,900.00 (see attached)

Contractor's cost to furnish all new materials and equipment, salvage existing materials and equipment, and labor to modify the current existing piping layout of the Water Treatment Plant to improve the hydraulics of the plant.

ORIGINAL PROJECT CONTRACT PRICE	$ 2,438,600.00
CHANGE ORDERS	
- Change Order #01	$90,483.00
- Change Order #02	$6,356.00
- Change Order #03	$3,520.00
- Change Order #04	$33,877.94
- Change Order #05	$166,308.00
CURRENT PROJECT CONTRACT PRICE	**$ 2,739,144.94**

PROJECT NAME Water System Improvements 2011
Phase B: Water Treatment Plant
Section 1: High Service Pumps & Stand-by Power

RLCG PROJECT NO. 12-28

Change Order Proposal NA
Date: 1/7/2015
Reference: REPLACING (4) CASINGS AND PIPING

RICE LAKE CONSTRUCTION GROUP

CONSTRUCTION ESTIMATE

DESCRIPTION	QTY	UNIT	LABOR				MATERIAL		SUB	EQUIP.	LINE
			RATE	HOURS	$ RATE	TOTAL	RATE	TOTAL	TOTAL	TOTAL	TOTAL
Replacing (4) Pumps with Chesterton Seals	1.0	LS		0.00	$0.00	$0.00	$84,408.00	$84,408.00	$0.00	$0.00	$84,408.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
Replacing Piping (Labor/Material/Subs)	1.0	LS		0.00	$0.00	$33,500.00	$38,400.00	$38,400.00	$10,000.00	$0.00	$81,900.00
	1.0	LS		0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
										TOTAL	$166,308.00

PROJECT NAME	**Water System Improvements 2011** **Phase B: Water Treatment Plant** **Section 1: High Service Pumps & Stand-by Power**
RLCG PROJECT NO.	12-25
Change Order Proposal	**NA**
Date:	**1/7/2015**
Reference:	**REPLACING ALL (4) CASINGS**

RICE LAKE CONSTRUCTION GROUP

CONSTRUCTION ESTIMATE

DESCRIPTION	QTY	UNIT	LABOR				MATERIAL		SUB	EQUIP.	LINE
			RATE	HOURS	$ RATE	TOTAL	RATE	TOTAL	TOTAL	TOTAL	TOTAL
(4) New Casings	1.0	LS		0.00	$0.00	$0.00	$51,252.00	$51,252.00	$0.00	$0.00	$51,252.00
Vibration/Certified Performance/Certified Hydrostatic Testing	4.0	EA		0.00	$0.00	$0.00	$2,099.00	$8,396.00	$0.00	$0.00	$8,396.00
Laser Alignment	1.0	LS					$5,000.00	$5,000.00	$0.00	$0.00	$5,000.00
Chesterton Model 442 Seals	4.0	EA					$4,940.00	$19,760.00	$0.00	$0.00	$19,760.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
										TOTAL	$84,408.00

PROJECT NAME	**Water System Improvements 2011** **Phase B: Water Treatment Plant** **Section 1: High Service Pumps & Stand-by Power**
RLCG PROJECT NO.	**12-25**
Change Order Proposal	**NA**
Date:	**2/25/2015**
Reference:	**PLUMBING MODIFICATIONS**

RICE LAKE CONSTRUCTION GROUP

CONSTRUCTION ESTIMATE

Removing/Replacing Pipe and Pumps

DESCRIPTION	QTY	UNIT	LABOR				MATERIAL		SUB	EQUIP.	LINE
			RATE	HOURS	$ RATE	TOTAL	RATE	TOTAL	TOTAL	TOTAL	TOTAL
RLCG Material	1.0	LS		0.00	$0.00	$0.00	$38,400.00	$38,400.00	$0.00	$0.00	$38,400.00
RLCG Labor	1.0	LS		0.00	$0.00	$33,500.00		$0.00	$0.00	$0.00	$33,500.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
Mongan Painting	1.0	LS		0.00	$0.00	$0.00		$0.00	$10,000.00	$0.00	$10,000.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
										Total	$81,900.00

Removing/Replacing Pipe ONLY

DESCRIPTION	QTY	UNIT	LABOR				MATERIAL		SUB	EQUIP.	LINE
			RATE	HOURS	$ RATE	TOTAL	RATE	TOTAL	TOTAL	TOTAL	TOTAL
RLCG Material	1.0	LS		0.00	$0.00	$0.00	$37,900.00	$37,900.00	$0.00	$0.00	$37,900.00
RLCG Labor	1.0	LS		0.00	$0.00	$24,500.00		$0.00	$0.00	$0.00	$24,500.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
Mongan Painting	1.0	LS		0.00	$0.00	$0.00		$0.00	$8,000.00	$0.00	$8,000.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
										Total	$70,400.00

Removing/Replacing Pumps ONLY

DESCRIPTION	QTY	UNIT	LABOR				MATERIAL		SUB	EQUIP.	LINE
			RATE	HOURS	$ RATE	TOTAL	RATE	TOTAL	TOTAL	TOTAL	TOTAL
RLCG Material	1.0	LS		0.00	$0.00	$0.00	$500.00	$500.00	$0.00	$0.00	$500.00
RLCG Labor	1.0	LS		0.00	$0.00	$9,000.00		$0.00	$0.00	$0.00	$9,000.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
Mongan Painting	1.0	LS		0.00	$0.00	$0.00		$0.00	$2,000.00	$0.00	$2,000.00
				0.00	$0.00	$0.00		$0.00	$0.00	$0.00	$0.00
										Total	$11,500.00

PROPOSAL

December 23, 2014

Attention: Rice Lake Construction Group
Project Name: Water System Improvements 2011 Phase B
Project Location: Fort Dodge, Iowa

QTY DESCRIPTION

HORIZONTAL SPLIT CASE PUMPS

4 Aurora 10x12x18 model 411of bronze fitted, low lead construction for potable, chlorinated water; ASTM B48 casing, ASTM B148 C95800, alpha nickel aluminum bronze full trim impeller, AISI C1045 shaft, 316 SS shaft sleeve, John Crane type1 mechanical seal. For use with existing 500HP motors.

List price for each above pump is $42,025.00. Total net price for each above pump will be quoted at the price of a casing assembly only, which is $12,813.00 each.

TOTAL NET PRICE for QUANTITY FOUR of above pump is $51,252.00

ADDERS FOR MECHANICAL SEAL

Alternate 1 - John Crane type 1 Hi-Wear mechanical seal B30P661D1	$973.00 per pump
Alternate 2 - Chesterton model 442 split mechanical seal (originally specified)	$4,940.00 per pump

ADDERS FOR TESTING – test descriptions included with submittal data

Certified performance test	$800.00 per pump
Certified hydrostatic test	$454.00 per pump
Vibration test	$845.00 per pump

TERMS & CONDITIONS

Up to two days of start-up is included. If further start-up and owner training are required, Hutcheson will provide these services at the rate of $1,000 per day. Prices are valid for thirty days. FOB: origin location. Freight is included in net total. Sales tax has not been added to this proposal; purchaser must pay applicable taxes imposed by authorities. Installation labor or supervision is not included. Fasteners, oil/lubricants, controls, wiring, piping accessories, etc. are not included unless specifically mentioned above.

WARRANTY

Manufacturer's standard one year warranty against defects in materials and workmanship.

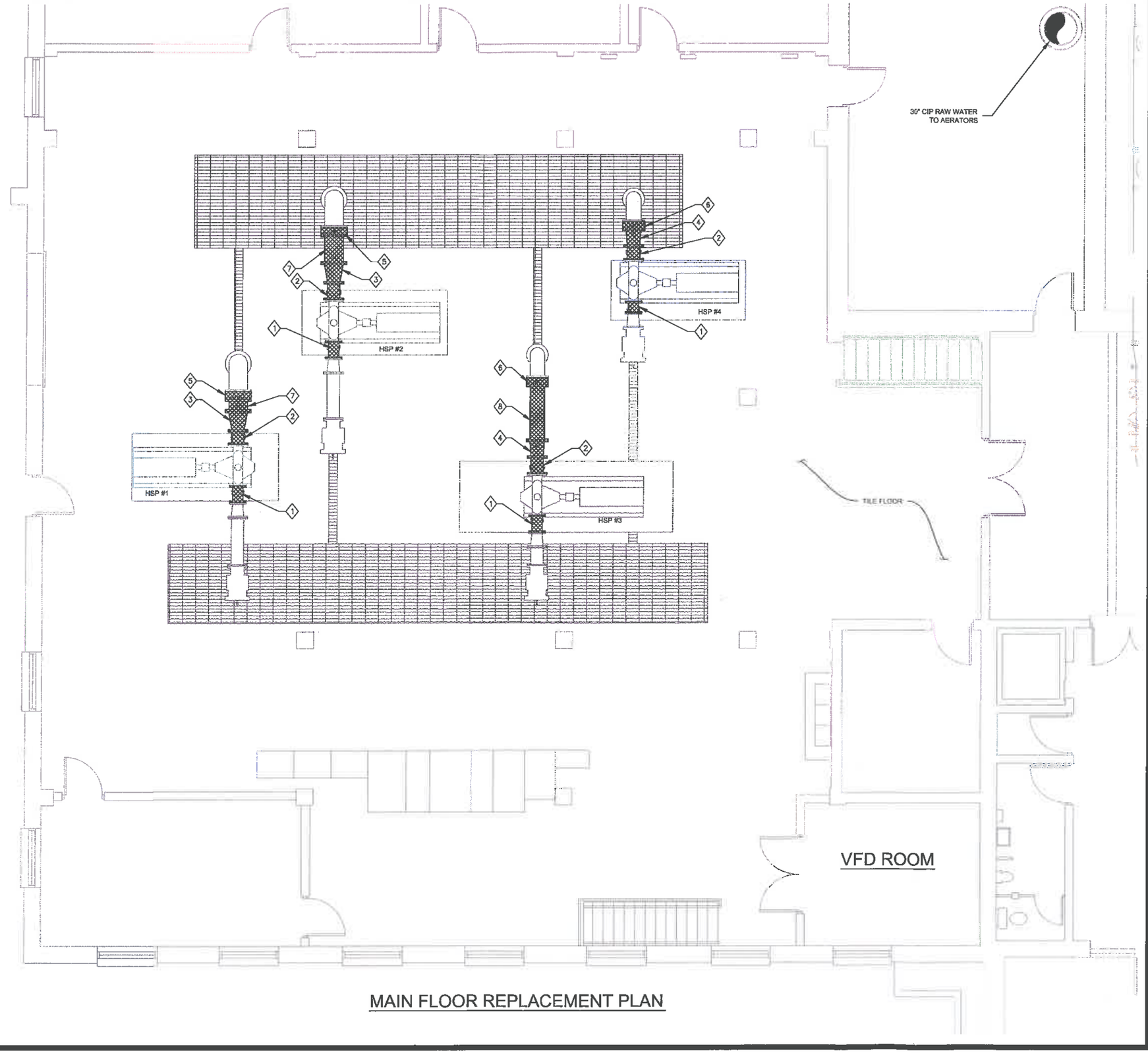
PURCHASE ORDER TO:
Hutcheson Engineering Products, Inc.
6405 John J. Pershing Drive
Omaha, NE 68112

Becki Murabito

Contractor Sales

DIAMOND NOTES

1. REMOVE EXISTING 10" FLANGED COUPLING ADAPTER. SAVE FOR RE-USE.
2. REMOVE EXISTING 12" FLANGED COUPLING ADAPTER.
3. REMOVE EXISTING 18"x12" CONCENTRIC REDUCER.
4. REMOVE EXISTING 14"x12" CONCENTRIC REDUCER.
5. REMOVE EXISTING 18" BUTTERFLY VALVE. SAVE FOR RE-USE.
6. REMOVE EXISTING 14" BUTTERFLY VALVE. SAVE FOR RE-USE.
7. KEEP EXISTING 18" DI PIPE WITH TAPS. FOR RE-USE.
8. KEEP EXISTING 14" DI PIPE WITH TAPS. FOR RE-USE.



MAIN FLOOR REPLACEMENT PLAN

NORTH

0 2 4 8

SCALE: 1/4" = 1'-0" (24x36)
SCALE: 1/8" = 1'-0" (11x17)

McCLURE™
ENGINEERING CO.
building strong communities
705 First Avenue North
Fort Dodge, Iowa 50501
515-576-7155
fax 515-576-4235

MAIN FLOOR REMOVAL PLAN

WATER SYSTEM IMPROVEMENTS 2011
PHASE B - SECTION 1
FORT DODGE, IOWA
FTD 1311016-02

DATE
MAY 2012

REVISIONS

ENGINEER	DRAWN BY
NWC	JJB
CHECKED BY	FIELD BOOK NO.
MFT	-
DRAWING NO.	SHEET NO.
HS-01	01 / 04

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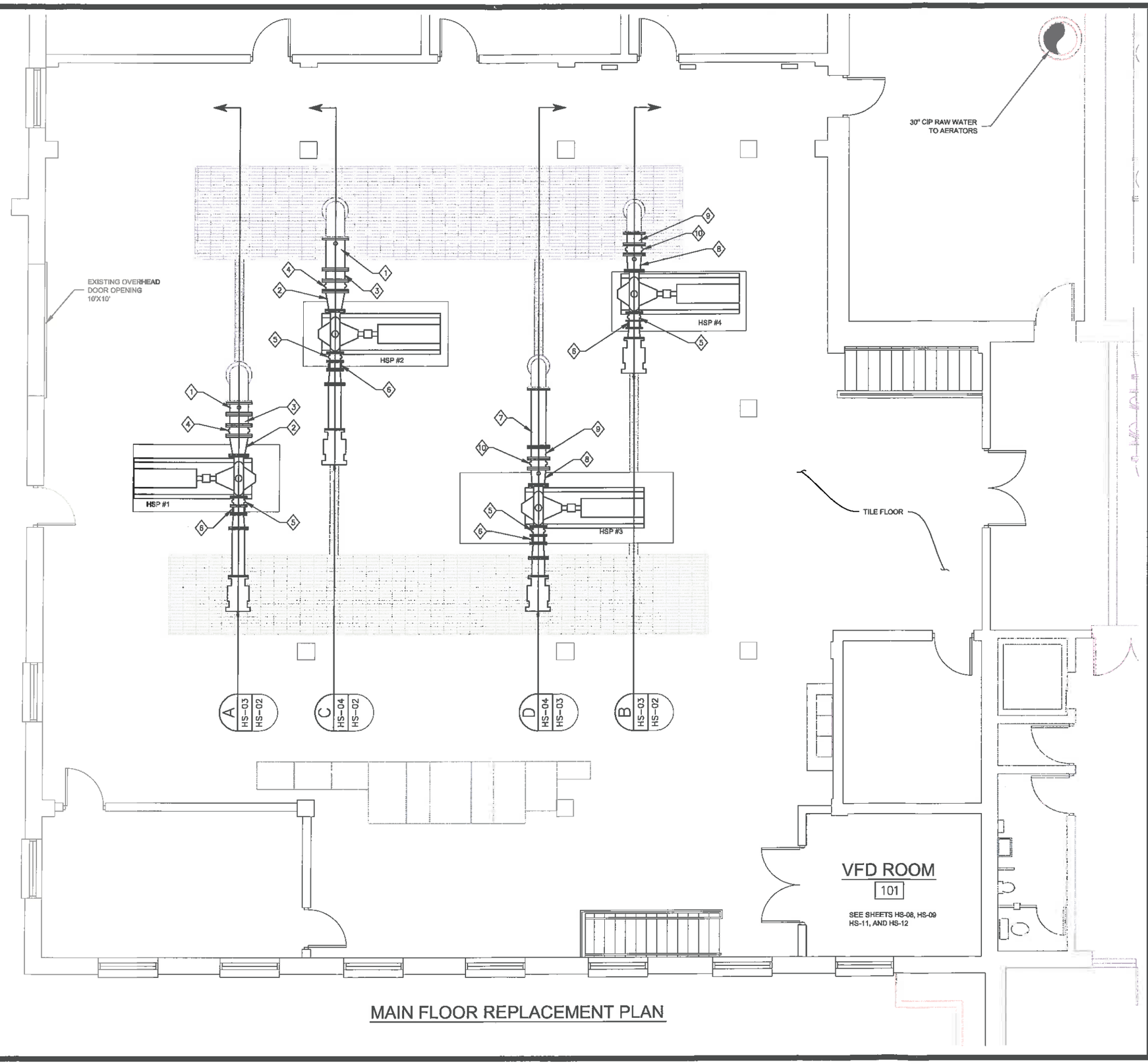
DIAMOND NOTES

1. EXISTING 18" DI PIPE WITH THREADED TAPS. RE-INSTALLED DIRECTLY TO 18" 90° BEND.
2. 18"x12" ECCENTRIC REDUCER.
3. NEW 18" DI SPOOL
4. 18" RUBBER EXPANSION JOINT. PROCO STYLE 231 FA, OR EQUAL. (TYP. OF 2)
5. 10" RUBBER EXPANSION JOINT. 250# BOLT PATTERN. PROCO STYLE 231 FA, OR EQUAL. (TYP. OF 4)
6. RE-INSTALL EXISTING 10" FLANGED COUPLING ADAPTER AT REDUCED LENGTH.
7. EXISTING 14" DI PIPE RE-INSTALLED DIRECTLY TO 14" 90° BEND.
8. 14"x12" ECCENTRIC REDUCER WITH 3/4" THREADED TAPS ON SIDE AND TOP. RE-INSTALL EXISTING PRESSURE GAUGE AND AIR RELEASE VALVE.
9. NEW 14" DI SPOOL
10. 14" RUBBER EXPANSION JOINT. PROCO STYLE 231 FA, OR EQUAL. (TYP. OF 2)



NORTH

0 2 4 8

SCALE: 1/4" = 1'-0" (24x36)
SCALE: 1/8" = 1'-0" (11x17)

MAIN FLOOR REPLACEMENT PLAN

McCLURE ENGINEERING CO.

building strong

705 First Avenue North
Fort Dodge, Iowa 50501
515-576-7155
fax 515-576-4235

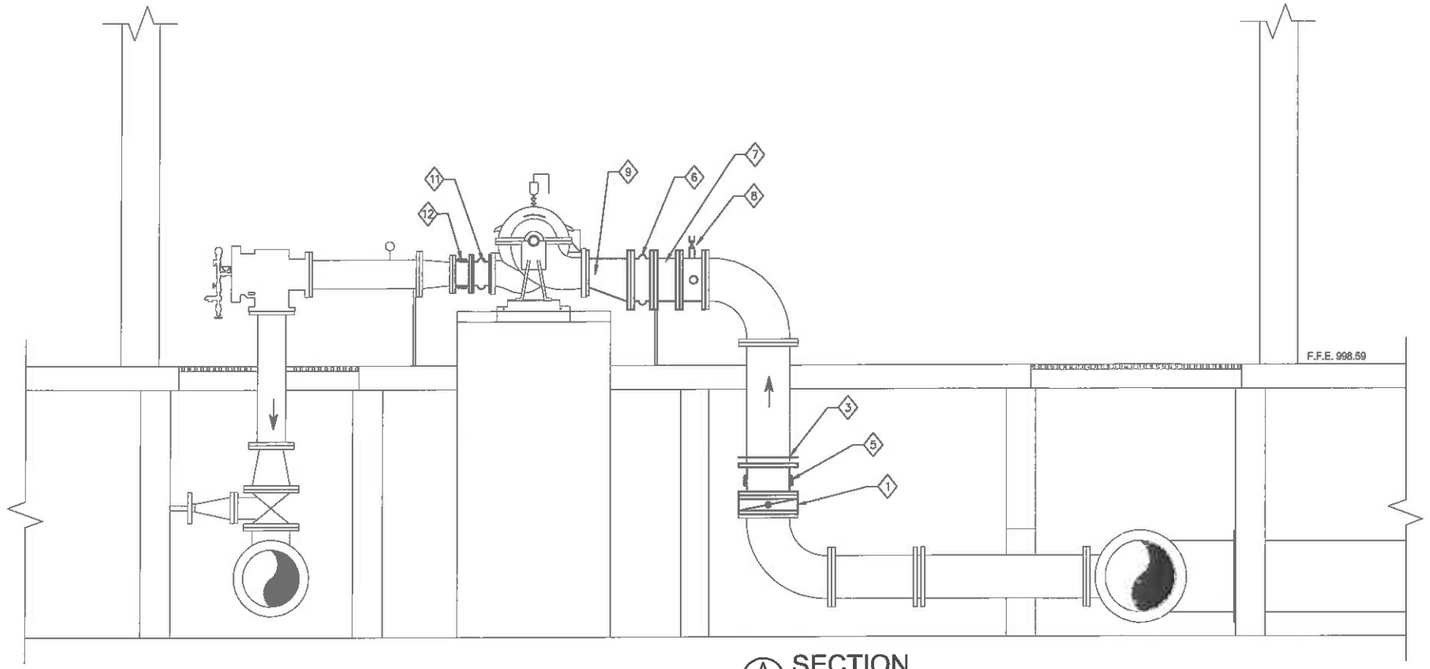
MAIN FLOOR REPLACEMENT PLAN

WATER SYSTEM IMPROVEMENTS 2011
PHASE B - SECTION 1
FORT DODGE, IOWA
FTD 1311016-02
DATE
MAY 2012

ENGINEER	DRAWN BY
NWC	JJB
CHECKED BY	FIELD BOOK NO.
MFT	
DRAWING NO.	SHEET NO.
HS-02	02 / 04

DIAMOND NOTES

1. RE-INSTALLED 18" BUTTERFLY VALVE. INSTALL WITH STEM PARALLEL TO N-S PLANE.
2. RE-INSTALLED 14" BUTTERFLY VALVE. INSTALL WITH STEM PARALLEL TO N-S PLANE.
3. CUT PIPE AT NECESSARY LOCATION TO INSTALL COUPLING.
4. 14" FLANGED COUPLING ADAPTER.
5. 18" FLANGED COUPLING ADAPTER.
6. NEW 18" RUBBER EXPANSION JOINT. PROCO STYLE 231 FA, OR EQUAL.
7. NEW 18" DI SPOOL.
8. EXISTING 18" DI PIPE WITH THREADED TOPS RE-INSTALLED DIRECTLY TO 18" 90° BEND.
9. 18"x12" ECCENTRIC REDUCER.
10. 14"x12" ECCENTRIC REDUCER WITH 3/4" TAPS ON TOP AND SIDE. RE-INSTALL EXISTING PRESSURE GAUGE AND AIR RELEASE VALVE.
11. 10" RUBBER EXPANSION JOINT. PROCO STYLE 231 FA, OR EQUAL. 250# BOLT PATTERN.
12. RE-INSTALL EXISTING 10" FLANGED COUPLING ADAPTER AT REDUCED LENGTH.
13. NEW 14" DI SPOOL
14. NEW 14" RUBBER EXPANSION JOINT. PROCO STYLE 231 FA, OR EQUAL.



A HS-03 HS-02 SECTION

0 1.5 3 6

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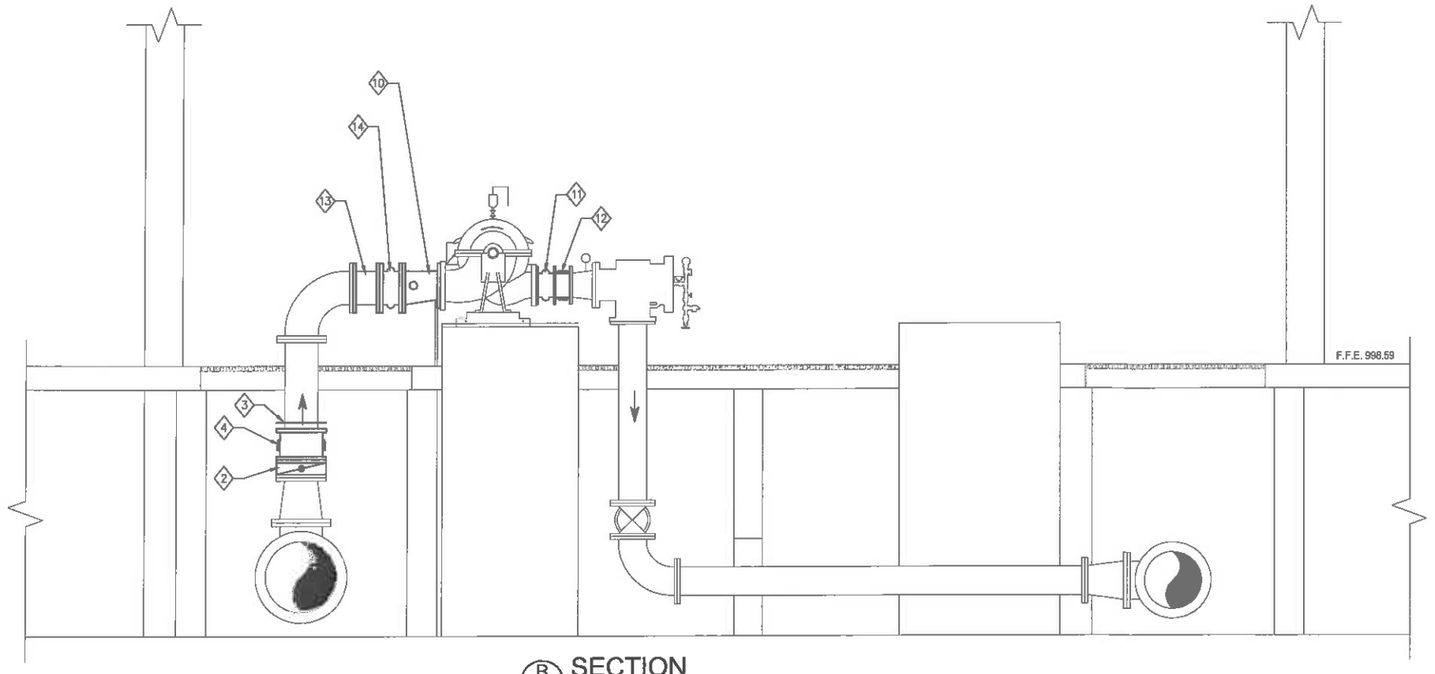
SCALE: 3/16" = 1'-0" (11x17)



B HS-03 HS-02 SECTION

0 1.5 3 6

SCALE: 3/8" = 1'-0" (24x36)
SCALE: 3/16" = 1'-0" (11x17)

McCLURE ENGINEERING CO.
building strong
705 First Avenue North
Fort Dodge, Iowa 50501
515-576-7155
fax 515-576-4235

REPLACEMENT SECTIONS

WATER SYSTEM IMPROVEMENTS 2011
PHASE B - SECTION 1
FORT DODGE, IOWA
FTD 1311016-02

DATE
MAY 2012

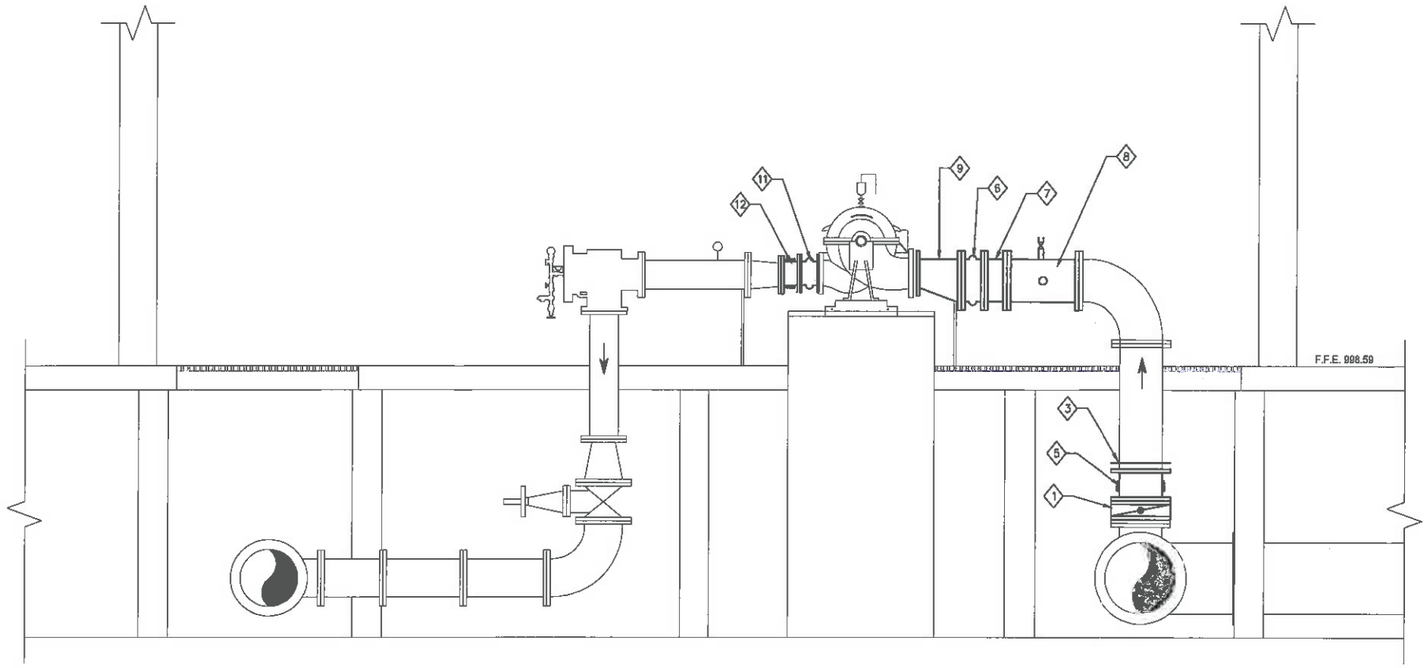
REVISIONS

DESIGNED BY NWC
DRAWN BY JJB
CHECKED BY MFT
FIELD BOOK NO.

DRAWING NO. HS-03
SHEET NO. 03 / 04

DIAMOND NOTES

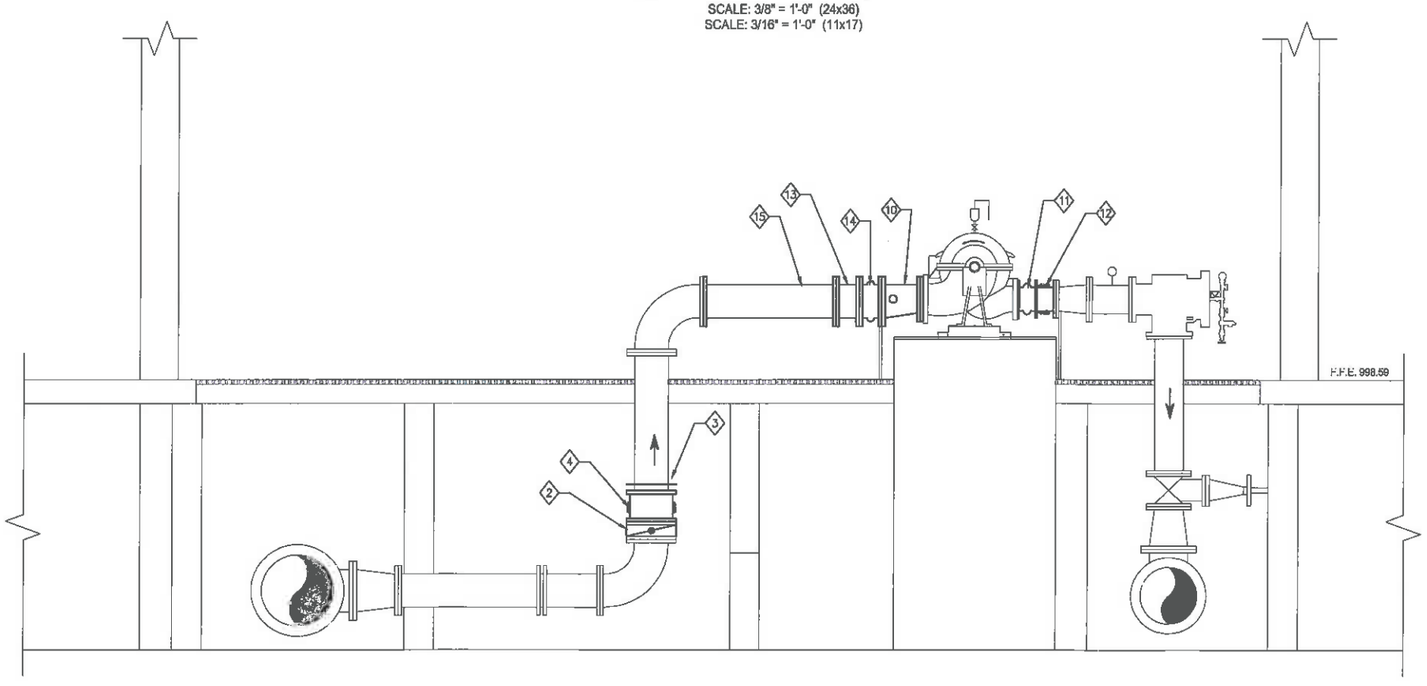
1. RE-INSTALLED 18" BUTTERFLY VALVE. INSTALL WITH STEM PARALLEL TO N-S PLANE.
2. RE-INSTALLED 14" BUTTERFLY VALVE. INSTALL WITH STEM PARALLEL TO N-S PLANE.
3. CUT PIPE AT NECESSARY LOCATION TO INSTALL COUPLING.
4. 14" FLANGED COUPLING ADAPTER.
5. 18" FLANGED COUPLING ADAPTER.
6. NEW 18" RUBBER EXPANSION JOINT. PROCO STYLE 231 FA, OR EQUAL.
7. NEW 18" DI SPOOL.
8. EXISTING 18" DI PIPE WITH THREADED TOPS RE-INSTALLED DIRECTLY TO 18" 90° BEND.
9. 18"x12" ECCENTRIC REDUCER.
10. 14"x12" ECCENTRIC REDUCER WITH 3/4" TAPS ON TOP AND SIDE. RE-INSTALL EXISTING PRESSURE GAUGE AND AIR RELEASE VALVE.
11. 10" RUBBER EXPANSION JOINT. PROCO STYLE 231 FA, OR EQUAL. 250# BOLT PATTERN.
12. RE-INSTALL EXISTING 10" FLANGED COUPLING ADAPTER AT REDUCED LENGTH.
13. NEW 14" DI SPOOL
14. NEW 14" RUBBER EXPANSION JOINT. PROCO STYLE 231 FA, OR EQUAL.
15. EXISTING 14" DI PIPE WITH THREADED TOPS RE-INSTALLED DIRECTLY TO 18" 90° BEND.



C HS–04 HS–02 SECTION

0 1.5 3 6

SCALE: 3/8" = 1'-0" (24x36)
SCALE: 3/16" = 1'-0" (11x17)



D HS–04 HS–02 SECTION

0 1.5 3 6

SCALE: 3/8" = 1'-0" (24x36)
SCALE: 3/16" = 1'-0" (11x17)

McCLURE™ ENGINEERING CO.
building strength
705 First Avenue North
Fort Dodge, Iowa 50501
515-576-7155
fax 515-576-4235

REPLACEMENT SECTIONS

WATER SYSTEM IMPROVEMENTS 2011
PHASE B - SECTION 1
FORT DODGE, IOWA
FTD 1311016-02
DATE
MAY 2012
REVISIONS

ENGINEER	DRAWN BY
NWC	JJB
CHECKED BY	FIELD BOOK NO.
MFT	-
DRAWING NO.	SHEET NO.
HS-04	04 / 04