



City of Beaumont Wastewater Treatment Plant Salt Mitigation Upgrade Project Change Order No. 13

Dec 16, 2019

		Amount	Calendar Days	Comp. Date
Contractor:	W.M. Lyles Co.	Original Contract:	\$ 53,312,000.00	820 1/26/2021
Project Name:	Wastewater Treatment Plant Salt Mitigation Upgrade Project	Previous Approved Changes:	\$1,223,585.46	95 5/1/2021
Contract No.:	C18-80	This Change: Amount	\$404,821.33	0
CO Number:	13	Revised Contract:	\$54,940,406.79	915 5/1/2021
		Previous Phase 1 Completion Date		4/26/2020
		Revised Phase 1 Completion Date		4/26/2020


This change order covers changes to the subject contract as described herein. The Contractor shall supply all labor, equipment and materials to complete the Change Order items for the lump sum price agreed upon herein. All Change Order items must be submitted to the City for approval prior to fabrication.


Item No.	PCO No.	Description of Changes	Amount	Phase 1 Time Extension (CD*)	Phase 2 / Project Completion Time Extension (CD*)
1	28	DCM-13, CLAR-16, WML COP-028R2 Plant Effluent Chemical Area Changes	\$404,821.33	0	0
2			\$0.00	0	0
3			\$0.00	0	0
4			\$0.00	0	0
NET CHANGE IN CONTRACT AMOUNT – INCREASE (OR-DECREASE)			\$404,821.33	0	0

*Calendar Days

The amount of the Contract will be increased/decreased by the amount of Four Hundred Four Thousand Eight Hundred Twenty-One Dollars and thirty-three cents (\$404,821.33). The Contract Time will be increased by zero (0) calendar days.

The Contractor agrees to furnish all labor, equipment and materials and to perform all other necessary work, inclusive of the directly or indirectly related work, within the approved time extension required to complete the above Change Order items. The undersigned Contractor approves the foregoing Change Order as to the changes, if any, in the Contract Price specified for each item including any and all supervision costs and other miscellaneous costs relating to the change in Work, and as to the extension of time allowed, if any, for the completion of the entire Work on account of said Change Order. The City and the Contractor hereby agree that this Change Order constitutes full mutual accord and satisfaction for all time, all costs, and all impacts related directly or indirectly to this Change Order. The Contractor hereby agrees that this Change Order represents the full equitable adjustment owed under the Contract, and further agrees on behalf of himself and all subcontractors to waive all right to file any further claims or request for equitable adjustment arising out of or as a result of this Change Order or the cumulative effect of this Change Order on the performance of the overall Work under the Contract. This document will become a supplement of the contract and all provisions will apply hereto. It is understood that the Change Order shall be effective when approved by the City.

Recommended: , Date: 12-16-2019
MWH Constructors, Senior Resident Engineer

Accepted: , Date: 12-16-19
W.M. Lyles Co., Contractor

Approved: _____, Date: 12-16-2019
Albert A. Webb Associates, Program Manager

Approved: _____, Date: _____
City of Beaumont, City Manager



Technical Justification:

PCO-28	
Design Adjustment: CLAR-16 / DCM-13 WML COP-028R2	Plant Effluent Chemical Area Changes
<p><u>Owner Requested Change:</u></p> <p>These requested changes are necessary to further condition treated effluent to meet new permit discharge requirements. Also further discussion with Beaumont Cherry Valley Water District it was decided that any chemical conditioning required for reuse discharge would be performed by BCVWD and the chemical system in the original design would be deleted.</p> <p><u>Design and Scope Changes:</u></p> <p>This clarification addresses the changes in the chemical area near the recycled water pump station. These changes consist of deleting the sodium hypochlorite chemical storage #2 as shown on drawings C-37 and C-38 (and associated dosing connection point for the recycled water line) and modifying the existing septage receiving station northwest of the Recycled Water Pump Station to function as a chemical containment area for one sodium bisulfite chemical tank and one caustic soda chemical tank. This area will also include the chemical dosing pumps for each system. The sodium bisulfite will be dosed over the effluent weir of the Recycled Water Pump Station and the caustic soda will be dosed in the influent box upstream of the UV channels. The dosing at the UV influent box will include a mechanical mixer (<i>Phase 2 Final Completion</i>). The dosing system at the Recycled Water Pump Station will be a static system but will include chlorine and pH analyzers and a combined controller connected to plant SCADA.</p> <p>The modifications also include grading and yard piping changes associated with the chemical piping from the chemical storage area to the UV influent box and recycled water pump station. Updated P&ID and Electrical and instrumentation drawings are also included. In addition to drawings following specification sections are included:</p> <ul style="list-style-type: none"> • Specification 409113 – Chemical Properties Process Measurement Devices – The addition of chlorine and pH instruments. • Specification 463344 – Peristaltic Pump – The addition of a sampling pump at the recycled water pump station. • Specification 466250 – Vertical Shaft Turbine Mixer – The addition of a vertical shaft mixer at the UV influent box, <u>which is to be installed in the early stage of Phase 2.</u> • Note that the packaged chemical feed system specification (Section 433269) shall apply for both the sodium bisulfite and caustic soda applications. • Note that the HDXLP Chemical Storage Tanks specification (434143) that was reissued with Clarification 12 is applicable to this clarification. <p><u>Cost Impact:</u></p> <p>The contractor’s initial quote in the amount of \$428,003.24 was amended by the contractor and increased to \$437,543.31 after the electrical contractor realized that cost of new area lighting requested in the design change was not included in the first quote. MWHC evaluated the extra cost proposal by the Contractor and requested labor and equipment adjustments from the contractor be resulting a cost decrease. MWHC also discussed with the City and Design Engineer the use of existing area lighting and the use of an existing good condition electrical distribution panel that is to be demolished in Phase 1 be repurposed at the new chemical storage area.</p> <p>MWHC recommends a contract cost increase of \$404,821.33 to be executed in a change order for changes to the Plant Effluent Chemical Bulk Storage Tank Area.</p>	



Technical Justification:

PCO-28	
Design Adjustment: CLAR-16 / DCM-13 WML COP-028R2	Plant Effluent Chemical Area Changes
<p><u>Owner Requested Change:</u></p> <p>These requested changes are necessary to further condition treated effluent to meet new permit discharge requirements. Also further discussion with Beaumont Cherry Valley Water District it was decided that any chemical conditioning required for reuse discharge would be performed by BCVWD and the chemical system in the original design would be deleted.</p> <p><u>Design and Scope Changes:</u></p> <p>This clarification addresses the changes in the chemical area near the recycled water pump station. These changes consist of deleting the sodium hypochlorite chemical storage #2 as shown on drawings C-37 and C-38 (and associated dosing connection point for the recycled water line) and modifying the existing septage receiving station northwest of the Recycled Water Pump Station to function as a chemical containment area for one sodium bisulfite chemical tank and one caustic soda chemical tank. This area will also include the chemical dosing pumps for each system. The sodium bisulfite will be dosed over the effluent weir of the Recycled Water Pump Station and the caustic soda will be dosed in the influent box upstream of the UV channels. The dosing at the UV influent box will include a mechanical mixer (<i>Phase 2 Final Completion</i>). The dosing system at the Recycled Water Pump Station will be a static system but will include chlorine and pH analyzers and a combined controller connected to plant SCADA.</p> <p>The modifications also include grading and yard piping changes associated with the chemical piping from the chemical storage area to the UV influent box and recycled water pump station. Updated P&ID and Electrical and instrumentation drawings are also included. In addition to drawings following specification sections are included:</p> <ul style="list-style-type: none"> • Specification 409113 – Chemical Properties Process Measurement Devices – The addition of chlorine and pH instruments. • Specification 463344 – Peristaltic Pump – The addition of a sampling pump at the recycled water pump station. • Specification 466250 – Vertical Shaft Turbine Mixer – The addition of a vertical shaft mixer at the UV influent box, <u>which is to be installed in the first 60-day of Phase 2.</u> • Note that the packaged chemical feed system specification (Section 433269) shall apply for both the sodium bisulfite and caustic soda applications. • Note that the HDXLP Chemical Storage Tanks specification (434143) that was reissued with Clarification 12 is applicable to this clarification. <p><u>Cost Impact:</u></p> <p>The contractor’s initial quote in the amount of \$428,003.24 was amended by the contractor and increased to \$437,543.31 after the electrical contractor realized that cost of new area lighting requested in the design change was not included in the first quote. MWHC evaluated the extra cost proposal by the Contractor and requested labor and equipment adjustments from the contractor be resulting a cost decrease. MWHC also discussed with the City and Design Engineer the use of existing area lighting and the use of an existing good condition electrical distribution panel that is to be demolished in Phase 1 be repurposed at the new chemical storage area.</p> <p>MWHC recommends a contract cost increase of \$404,821.33 to be executed in a change order for changes to the Plant Effluent Chemical Bulk Storage Tank Area.</p>	

CITY OF BEAUMONT WWTP SALT MITIGATION UPGRADE PROJECT

**CHANGE ORDER PROPOSAL (COP) # 028.3
(By Contractor)**

To (Engineer/CM): MWH Constructors Attention: Charles Reynolds Phone: 702-497-8024 Email: Charles.w.reynolds@mwhconstructors.com	From (Contractor): W.M. Lyles Co. Attention: Juan C. Ahumada Phone: 951-972-2056 Email: jahumada@wmlylesco.com
PCO/DCM No.: DCM#13	
Subject: Plant Effluent Chemical Area Changes	
Reference Documents: Clarification no. 16	
DESCRIPTION	
<p>This change order proposal addresses the changes in the chemical area near the recycled water pump station. These changes consist of deleting the sodium hypochlorite chemical storage #2 as shown on drawings C-37 and C-38 (and associated dosing connection point for the recycled water line) and modifying the existing septage receiving station northwest of the Recycled Water Pump Station to function as a chemical containment area for one sodium bisulfite chemical tank and one caustic soda chemical tank. This area will also include the chemical dosing pumps for each system. The sodium bisulfite will be dosed over the effluent weir of the Recycled Water Pump Station and the caustic soda will be dosed in the influent box upstream of the UV channels. The dosing at the UV influent box will include a mechanical mixer. The dosing system at the Recycled Water Pump Station will be a static system but will include chlorine and pH analyzers and a combined controller connected to plant SCADA.</p> <p>The modifications also include grading and yard piping changes associated with the chemical piping from the chemical storage area to the UV influent box and recycled water pump station</p> <p>This change order is no longer valid after January 7th, 2020.</p>	
COST ESTIMATE	
Total Cost \$ 404,821.33 – see attached breakdown	
SCHEDULE IMPACT	
<p>The change order results in no delay to the schedule contingent upon the following:</p> <ol style="list-style-type: none"> 1. Executed change order by no later the January 7th, 2020. 2. All new work associated with the existing UV influent box (vertical shaft mixer, piping, electrical, etc.) will be completed as part of Phase 2. 	
Received by MWH Constructors (Date):	

RESPONSE

Response By:

Date:

Final Distribution: Juan C. Ahumada, W.M. Lyles Co.
Brian Knoll, Webb Associates
MWH Inspector

W. M. Lyles Co.
 42142 Roick Drive
 Temecula, CA 92590

Date: 12-Dec-19

Reference #: Clar. 16

Attention: Charles W. Reynolds

JOB LOCATION: City of Beaumont WWTP Salt Mitigation Upgrade Project

DESCRIPTION: Effluent Chemical Area Changes

Item:		Unit	Total MH	Total MH Cost	Eq. Cost	Material	Subcont.	Total Cost
1	Chemical Storage Area #2	1 LS	669	\$ 52,917.04	\$ 13,936.73	\$ 117,734.33	\$ 43,132.71	\$ 227,720.81
2	Recycled Water Lift Station	1 LS	69	\$ 5,221.99	\$ 1,063.24	\$ 18,726.64	\$ 41,243.83	\$ 66,255.70
3	UV Disinfection Area	1 LS	70	\$ 5,473.76	\$ 1,931.26	\$ 35,997.82	\$ 20,252.00	\$ 63,654.84
		1 LS	0	\$ -	\$ -	\$ -	\$ -	\$ -
Total Costs			808	\$ 63,612.79	\$ 16,931.23	\$ 172,458.79	\$ 104,628.54	\$ 357,631.35

Subtotal	\$	357,631.35
Mark-up - Labor	15%	\$ 9,541.92
Mark-up - Equipment	15%	\$ 2,539.68
Mark-up - Materials	15%	\$ 25,868.82
Mark-up - Subcontractor	5%	\$ 5,231.43
Bond	1.0%	\$ 4,008.13
Total This Change Order	\$	404,821.33

Comments:

City of Beaumont WWTP Salt Mitigation Upgrade Project
Chemical Storage Area #2

A. Labor

Description	Lab Pipe FM			Lab Pipe			Operator			Carp FM			Carp			Lab			Cement Mason		
	ST	PT	DT	ST	PT	DT	ST	PT	DT	ST	PT	DT	ST	PT	DT	ST	PT	DT	ST	PT	DT
Buried Chem & PW Pipe Ex/BF - Credit - 105 LF	(24)			(45)			(24)														
Buried Chem & PW Pipe Ex/BF - 320 LF	72			144			72														
Install Buried Chem & PW Pipe - Credit - 105 LF	(6)			(12)			(6)														
Install Buried Chem & PW Pipe - 320 LF	18			36			18														
AC Paving Demo - 345 SF	8			16			8														
Sawcutting AC Paving	4			4																	
Seplage Receiving Concrete Demo - 13 CY	16			32			16														
Chem Storage #2 concrete form/strip credit										(16)			(32)			(6)					
Chem Storage #2 place concrete 14 cy credit																(6)					
Chem Storage #2 finish, cure, etc credit										(6)			(12)			(6)					
Concrete Mods - form/strip										14			14			14					
Concrete Mods - Drill & Epoxy Dowels										16			16			16					
Concrete Mods - place concrete																					
Concrete Mods - finish, cure, etc.										10			10								10
Install leak detection system	4			8																	
Install tanks, trim, ladder, restraints & Heat Trace/Insulation	48			96			8														
Chem Storage #2 pipe & tank install credit	(16)			(32)			(4)														
Chem tank area pipe, supports, pumps	32			64																	
Install Pump Skid - Credit	(3)			(6)																	
Install Pump Enclosure, FRP Stand	8			16																	
Install Dynarail FRP safety ladder rails										8			8								
Install Heat Tracing	8			16																	
Cut and cap existing trench drain pipe	4			4			4														
	###	0	0	338	0	0	92	0	0	26	0	0	4	0	0	26	0	0	10	0	0

Name	Rate			Hours			Extension
	ST	PT	DT	ST	PT	DT	
Lab Pipe FM	\$77.80		\$103.90	\$129.98	173	0	\$13,460.13
Lab Pipe	\$75.19		\$99.97	\$124.75	338	0	\$25,413.61
Operator	\$96.33		\$128.99	\$161.66	92	0	\$8,862.75
Carp FM	\$85.03		\$115.33	\$145.63	26	0	\$2,210.80
Carp	\$81.11		\$109.45	\$137.79	4	0	\$324.43
Lab	\$71.72		\$94.78	\$117.82	26	0	\$1,864.77
Cement Mason	\$78.05		\$102.25	\$126.45	10	0	\$780.55
0	\$0.00		\$0.00	\$0.00	0	0	\$0.00
0	\$0.00		\$0.00	\$0.00	0	0	\$0.00
					669	0	
							Total Labor = \$82,917.04

B. Equipment

Description	17.12	32.037	31.028	30.048	20.041	77.02	14.037
Buried Chem & PW Pipe Ex/BF - Credit - 105 LF	(24)			(24)			
Buried Chem & PW Pipe Ex/BF - 320 LF	72			72			
Install Buried Chem & PW Pipe - Credit - 105 LF	(6)			(6)			
Install Buried Chem & PW Pipe - 320 LF	18			18			
AC Paving Demo - 345 SF	8			8			
Sawcutting AC Paving & Concrete	4			4			
Seplage Receiving Concrete Demo - 13 CY	16			16			
Chem Storage #2 concrete form/strip credit			(6)				
Chem Storage #2 place concrete 14 cy credit			(3)				
Concrete Mods - form/strip	14		14				
Concrete Mods - Drill & Epoxy Dowels	16		4				
Concrete Mods - place concrete							
Concrete Mods - finish, cure, etc.	12		2				
Install leak detection system	4						
Install tanks, trim, ladder, restraints & Heat Trace/Insulation	48		8				
Chem Storage #2 pipe & tank install credit	(16)		(4)				
Chem tank area pipe, supports, pumps	32						
Install Pump Skid - Credit	(3)						
Install Pump Enclosure, FRP Stand	8						
Install Dynarail FRP safety ladder rails							
Install Heat Tracing	16						
Cut and cap existing trench drain pipe	4			4			
	231	9	4	92	0	0	0

Number	Description	Rate	Hours	Extension
17.12	Foreman Truck	\$29.60	231	\$6,837.60
32.037	ReachitXtremeXR1055	\$58.61	9	\$527.49
31.028	Hydro Crane - 80 Ton Link BelRTC-8080 II 80 Ton	\$164.01	4	\$656.04
30.048	Loader Backhoe 410 John Deere 410L	\$64.30	92	\$5,915.60
20.041	Excavator John Deere 390GLC	\$151.12	0	\$0.00
77.02	Scissor Lift JLG 2646ES	\$20.04	0	\$0.00
17	Foreman Truck	\$29.60	0	\$0.00
			336	
				Total Equipment = \$13,938.73

C. Materials

	Quantity	Unit	Price	Extension
Concrete 7add, minus 14 credit	-7	CY	\$150.00	-\$1,050.00
Form, waterstop, sealant, chamfer etc	1	LS	\$2,019.00	\$2,019.00
Demo Dump Fees	4	lds	\$250.00	\$1,000.00
Sodium Hypo Chem Metering pump credit	1	EA	(\$14,365.00)	-\$14,365.00
New Chemical metering pump skids	2	EA	\$15,865.00	\$31,730.00
Dynarail FRP Safety Ladder	2	EA	\$1,408.00	\$2,816.00
Chem Tank Credit	1	LS	(\$21,040.00)	-\$21,040.00
New Chem Tanks - Poly Processing	1	LS	\$50,188.00	\$50,188.00
New Radar Units	2	EA	\$2,590.00	\$5,180.00
Grout	1	LS	\$100.00	\$100.00
Leak detection system	1	LS	\$9,498.00	\$9,498.00
Heat Tracing Material	1	LS	\$10,554.00	\$10,554.00
FRP enclosure w/fan + 3/4" FRP plate	2	EA	\$8,298.00	\$16,596.00
PVC pipe, Fittings, tubing & HDPE - Underground	1	LS	\$2,812.80	\$2,812.80
PVC pipe, Fittings, Supports, Valves, Etc - Aboveground	1	LS	\$5,930.10	\$5,930.10
Misc items and consumables	669	MHF	\$3.50	\$2,341.50
Additional Gravel Material	1	LS	\$450.00	\$450.00
				\$0.00
Tax	7.750%			\$8,118.93
Commissioning, Schedule Support				\$1,475.00
Freight	1		3380	\$3,380.00
				Total Material = \$117,734.33

D. Subcontractor

	Quantity	Unit	Price	Extension
Rebar	1	LS	-\$6,127.00	-\$6,127.00
Concrete Pumping	-7	CY	\$20.00	-\$140.00
Electrical & Instrumentation	1	LS	\$37,972.71	\$37,972.71
Pipe coating	86	LF	\$6.00	\$516.00
Pipe Insulation	1	LS	\$8,361.00	\$8,361.00
Seismic Calcs Engineering	1	LS	\$750.00	\$750.00
Concrete sawcutting	12	HR	\$150.00	\$1,800.00
				\$0.00
				\$0.00
				Total Subcontract = \$43,192.71



Southern Contracting Company
P.O. Box 445 San Marcos, CA 92079-0445
Tel 760-744-0760 Fax 760-744-6475
website: www.southerncontracting.com
email: info@southerncontracting.com

Change Order Request

103801 — Wastewater Treatment Plant Salt Mitigation Upgrade

COR Subject: DCM-013 CLAR-016 Eff Chem Changes No. 2

To Juan C. Ahumada
W.M. Lyles
42142 Roick Drive
Temecula, CA 92590
951-973-7393

Contract No: 55.1173
COR Number: 103801-COR#013
COR Revision Number: 0

COR Date: 10/18/2019
Work Type: Price / Do Not Proceed

Return To Dan Alcantar
Southern Contracting Company
760-744-0760x621
619-778-0681
DAlcantar@southerncontracting.com

Other Reference No: DCM-013 CLAR-016
Days Valid: 5

Scope Of Work / Time Extension Request

The work associated with DCM13 CLAR 16 Effluent Chem Area changes No.2 is a change to Southern Contracting Company's scope of work in which a change in Contract Price and Time is to be considered.

Accordingly, Southern Contracting Company requests a Contract Change Order in the amount of \$97,596.54

Scope of Work is as follows:

- Provide Materials and labor to complete the electrical work as depicted in CLAR-016. We will install duct bank/ concealed conduit, exposed conduit, wire and cable, supports, wire, wire terminations as depicted in the document. Further, we will provide one 30amp breaker, overloads and a timer relay and labor to modify one MCC Started bucket in existing MCC-UV for MX-6103, Relocate Panel LP-HW1 (Existing), Heat Trace Controllers, Instrument controllers and control panels. Loop documentation is included. Relocate Existing Light Pole.

Exclusions:

- Heat Trace cable, Heat Trace cable installation is not included.
- Electrical equipment procurement of LP-RW
- duct bank concrete encasement and rebar.
- Pipe, Tubing, Process pipe fittings, Digging, Backfill, Concrete formed or poured, Dry packing, Surface restoration, Permits, Fee's, Inspections.
- New Lighting Fixtures

Change in time: addition 10 working days to install.
14 weeks for procurement after executed change Order.

Southern Contracting reserves all rights to additional costs and time for changes not identified in the documents furnished, and is not responsible for additional costs or time for work which is not part of our contract scope of work, unless stipulated above. Should additional information or clarification be required, please

contact me at your convenience.

Summary

Total: \$97,596.54

Reservation of Rights

This COR does not include any amount for impacts such as interference, disruptions, rescheduling, changes in the sequence of work, delays and/or associated acceleration. We expressly reserve the right to submit our request for any of these items.

Signed By:



Daniel Alcantar

PM

Dated: 10/18/2019

Bid Summary Report

103801 Beaumont Chang Orders Estimator: Dan Alcantar

Job #2336

Job Name: 103801 Beaumont Chang Orders

Contractor:

Estimator: Dan Alcantar

Notes:

Bid Date:

Summary Description	Material			Labor		
	Extended	%	Adjusted	Extended	%	Adjusted
COR#013 DCM-013 CLAR-016 Effluent Chem Tank Area	\$8,926.08	100.00%	\$8,926.08	294.40	100.00%	294.40

Top Sheet

Raw Cost	\$83,424.75	Sales per Month	\$0.00
Tax	\$691.77	Return per Month	\$0.00
Raw Cost with Tax	\$84,116.52	Price per Square Foot	\$0.00
Overhead	\$12,513.71	Hours per Square Foot	0.00
Profit	\$0.00	Square Feet	0.00
Total Return Amount	\$12,513.71	Job Months	0.00
Total Return %	12.82%	Hours per Week	0.00
Price	\$96,630.23	Workers per Day	0.00
Bond	\$966.30	Total Hours	294.40
Sell Price	\$97,596.54	Mark Up Sales Tax	Yes
Adjusted Sell ()	\$0.00	Use Bond Table	Yes
Adjusted Sell Return	0.00 %		\$0.00

Labor

Class Description	Percent of Total	Hours Distributed	Hourly Rate	Burden		Labor Cost
				Rate	Percent	
General Foreman	10.00%	29.44	\$90.37	\$0.00	0.00%	\$2,660.52
Journeyman	50.00%	147.20	\$78.19	\$0.00	0.00%	\$11,509.69
Appr-85%	40.00%	117.76	\$68.10	\$0.00	0.00%	\$8,019.54
Totals	100.00%	294.40	\$75.37	\$0.00	0.00%	\$22,189.75

Mark Ups

	OVERHEAD		PROFIT		
	Total	%	Amount	Amount	
Materials	\$8,926.08	+ 15.00%	\$10,265.00	+ 0.00%	\$10,265.00
Labor	\$22,189.75	+ 15.00%	\$25,518.21	+ 0.00%	\$25,518.21

Bid Summary Report

103801 Beaumont Chang Orders Estimator: Dan Alcantar

Job #2336

Supplier Quotes	\$49,610.00	+	15.00%	\$57,051.50	+	0.00%	\$57,051.50
SubContractors	\$0.00	+	5.00%	\$0.00	+	0.00%	\$0.00
Direct Job Expense	\$2,698.92	+	15.00%	\$3,103.76	+	0.00%	\$3,103.76
Equipment Rental	\$0.00	+	15.00%	\$0.00	+	0.00%	\$0.00
Totals	\$83,424.75		15.00%	\$95,938.46		0.00%	\$95,938.46

Tax Report

	Taxed Amount	Tax Rate %	Tax Amount
Materials	\$8,926.08	7.75%	\$691.77
Labor	\$22,189.75	0.00%	\$0.00
Supplier Quotes	\$1,650.00	0.00%	\$0.00
SubContractors	\$0.00	0.00%	\$0.00
Direct Job Expense	\$0.00	0.00%	\$0.00
Equipment Rental	\$0.00	0.00%	\$0.00
		Total Tax:	\$691.77

Supplier Quotes

Name	Supplier	Tax (0.0 %)	Unit Cost	Multiplier	Amount
Intrumentation and controls		No	\$47,960.00	1.00	\$47,960.00
Add to existing MCC		Yes	\$1,650.00	1.00	\$1,650.00
			Total:		\$49,610.00

Direct Job Expense

Name	Supplier	Tax (0.0 %)	Unit Cost	Multiplier	Amount
Site Truck		No	\$18.36	147.00	\$2,698.92
			Total:		\$2,698.92

Scope Letter: 2 pages



Technical
Systems
Incorporated

October 21, 2019

Quote Number: CO#03R1

To: Southern Contracting

Attn: Dan Alcantar

Project: Beaumont WWTP Salt Mitigation
Beaumont Wastewater Treatment Plant

Reference: **CLAR-16 Effluent Chem Area Changes**

2303 196th Street SW
Lynnwood, WA 98036
Tel: (425) 775-5696
Fax: (425) 775-9074
info@tsicontrols.com

Bid Date: N/A

Bid Time: N/A

Technical Systems, Inc. (TSI) is pleased to provide a quote for the above referenced project. Material for this project will be shipped FOB Lynnwood WA, complete, ready for field termination by others. TSI's price includes CA sales tax and does not include the cost to bond TSI's portion of the project.

TSI's price for the scope of work detailed on the following pages:

Change Order Proposal Pricing:

~~\$60,400.00~~

\$47,960.00

Change Scope as Follows:

(Per RFI 092 response, CLAR-16 is being quoted with a Hach SC4200 instead of the referenced Hach SC200)

- Complete Analyzer Instrument panel per RWM-4:
 - o 60"Hx36"Wx16"D 304SS enclosure with 12"H Floor Mount Leg Kit
 - Freestanding Stainless Steel enclosure with full backpan
 - Note: 304SS panel is recommended over the part number given on RWM-4 for this location and application
 - Drip Kit SCE-DS36SS
 - Breather Vent SCE-BVK
 - Replaces need for separate strut support shown on RWM-4
 - Engineering Seismic Calculations Included
 - o AIT-7472 – Hach SC4200c, 2-channel transmitter
 - External USB Box (required for Ethernet Connection)
 - USB to Ethernet Adapter (required for Ethernet Connection)
 - M12 to RJ45 Network Adapter
 - Hach Configuration and Provisioning of SC4200c
 - NOTE: Per Hach, Subscription fees are required for the Hach SC4200 system and are to be purchased by the owner from Hach. This is not specific to CLAR-16.
 - o AE-7472 – Hach pH probe
 - 1" NPT Flow Cell Assembly (CPVC Only)
 - o AE-7473 – Hach CL17sc Chlorine Analyzer
 - Includes CL-17 Installation kit with pressure regulator
 - Spares as noted in spec:
 - Y-Mesh strainer and 2 spares
 - o Note Hach recommends 40 Mesh
 - 6 Tubing kits for recommended bi-annual maintenance for 3 years

- 36 Cell cleaning kits, monthly maintenance for 3 years
 - 36 Total Chlorine Reagent Sets, monthly for 3 years
- Supply Local Control Panels:
 - LCP-P-7471 – Sample Pump Panel per PI-19 and schematic E-26
 - 304SS enclosure
 - LCP-7410 & LCP-7511 – Sodium Bisulfite Pump and Sodium Hydroxide Pump
 - Design baased on E-26 Chem Pump Schematic without Valve Control
 - 304SS Enclosures, 24x24x12
 - NEMA 0 Starter with SSOLR
 - 20 main CB, 10A CB each pump
 - DI/DO and AI/AO as shown on PI-19
 - Pass-Through terminals only for the analogs
 - 120VAC System per drawings
 - Add I/O to PLC Panel Drawings as shown (No added material quoted)

Terms: Net 30
 FOB: Lynnwood WA
 Freight: Prepaid

This quote is valid for 90 days.

Please call with any questions you may have concerning pricing or any technical questions.

Sincerely,

Colin Dightman-Kovak

Colin Dightman-Kovak
 Technical Systems, Inc.
 1-425-678-4116

Scope of Work

Misc Equipment:

Including:

1. Hardware Procurement
2. Required Testing
3. O&M, drawings updates

GENERAL

1. TSI supplies a bill of materials, CAD-based drawings, and Operations and Maintenance Manuals for all equipment furnished by TSI.
2. TSI supplies the required field startup services for this project.

3. Panels fabricated by TSI are UL 508 labeled.

STANDARD INCLUSIONS

We provide the following unless specifically excluded on our bill of material:

- 1) Equipment shipped FOB factory with freight allowed, tailgate, destination.
- 2) Field wiring diagrams showing interconnection of field instruments and instrumentation panels.
- 3) Instruction manuals as required.
- 4) All necessary field start-up and calibration of the equipment we supply.

STANDARD EXCLUSIONS

We do **NOT** include the following unless specifically included in our bill of material:

- 1) Pipe, tubing, valves or fittings between the instrument and the process.
- 2) Conduit, wire or cable not an integral part of the instrument.
- 3) Mounting brackets, stanchions, supports or mounting pads not an integral part of the instrument.
- 4) Labor to install the equipment.
- 5) The Cost, (if due to local union regulations), to have local craftsman make adjustments or wiring modifications to our equipment during start-up and calibration.
- 6) Any material or services not in our quoted sections.
- 7) This proposal is based on award of a supply purchase order and does not include any of the costs associated with bonding or subcontract administration. If bonding or a subcontract is required they can be provided for additional cost.

SPECIFIC EXCLUSIONS

- 1) Installation of Panels.

Beaumont WWTP Salt Mitigation

TSI Project No. 7781

TSI Change Order No.: 3R1		Description: Effluent Chem Area Changes			Notes
Category	Amount	Units	Rate		
Project Management - design/fabrication	8	Hours	\$160.00/Hr		Management, Design Review
Project Management - programming/commissioning	0	Hours	\$160.00/Hr		
Engineering	48	Hours	\$150.00/Hr		24 for inst panel, 8 each for 3 others - Panel Design
Programming	0	Hours	\$150.00/Hr		
Field Engineering	40	Hours	\$135.00/Hr		16hrs panel shop testing plus 24 Start-Up
Travel Time (Field Engineering)	9	Hours	\$135.00/Hr		3 hr travel each for 3 days
Fabrication	132	Hours	\$110.00/Hr		60 for inst panel, 24 each for others
Engineering Support (O&Ms, submittals)	8	Hours	\$65.00/Hr		Submittal, O&M
CAD	20	Hours	\$75.00/Hr		CAD
Labor Total	\$31,635.00				
Travel Expenses	\$300.00				by car. 3 days SU @ 100/day gas/meals
Freight Expenses	\$571.60				Two shipments - LCP's and Instrument pnl
Subcontractors Cost	\$0.00				
Materials	\$24,087.57				
SUBTOTAL:	\$56,594.17				
Bonding @ % of Subtotal:	\$0.00	0.00%			Bond Rate (if applicable)
Tax:	\$3,805.84	7.75%			Tax Rate (if taxable)
TOTAL COST:	\$60,400.00				

Notes:

MATERIAL COST ESTIMATE					
Quantity	Cost	Ext. Cost	Part #	Description	
0	\$0.00	\$0.00		HACH EQUIPMENT PANEL	
1	\$3,108.87	\$3,108.87	SCE-60EL3616SSLPLP	saginaw 304ss enclosure 60x36x16 wall mount (USE WITH FLOOR KIT)	
1	\$226.00	\$226.00	SCE-60P36F1	full backpan	
1	\$2,095.25	\$2,095.25	8573000	Chlorine Analyzer - CL17 or equal	
1	\$2,020.40	\$2,020.40	LXV524.99.011120 + acc	Controller 2 channel sc4200 plus accessories (items 1-5 on Hach quote)	
1	\$926.50	\$926.50	DPD1P1	pH sensor	
1	\$294.95	\$294.95	9180100	pH flow cell	
1	\$3,211.95	\$3,211.95		additional reagents items 9-12	
1	\$170.98	\$170.98		hach shipping, 2% of total Hach equip	
1	\$500.00	\$500.00		Fittings, ball valves, 316ss	
1	\$600.00	\$600.00		seismic calcs	
1	\$496.72	\$496.72	SCE-FK1216SS	304ss Floor Kit	
0	\$0.00	\$0.00		Panel LCP-P-7471 (Sheet PI-19)	
1	\$1,218.22	\$1,218.22	SCE-24EL2410SSLPLP	saginaw 304ss 24x24x10 w/ handle	
1	\$53.18	\$53.18	SCE-24P24	backpan	
1	\$25.00	\$25.00		20A circuit breaker	
1	\$50.00	\$50.00		Fuse blocks, fuses	
1	\$100.00	\$100.00		terms, wire, nameplates	
1	\$100.00	\$100.00		Starter overload	
1	\$120.00	\$120.00	T02CN13G7	NEMA 0 starter	
1	\$25.00	\$25.00		2 position switch	
1	\$50.00	\$50.00		yellow light, LED	
1	\$200.00	\$200.00		Current Switch - estimated cost	
1	\$20.00	\$20.00		Relay, Socket, and Diode/MOV	
0	\$0.00	\$0.00		Panel LCP-7511 and LCP-7410 (Sheet PI-19A)	
2	\$1,218.22	\$2,436.44	SCE-24EL2410SSLPLP	saginaw 304ss 24x24x10 w/ handle	
2	\$53.18	\$106.36	SCE-24P24	backpan	
4	\$35.00	\$140.00		HOR switch	
2	\$50.00	\$100.00		Fuse blocks, fuses	
2	\$50.00	\$100.00		Terms, wire, nameplates	
2	\$500.00	\$1,000.00		2x NEMA 0 Starter with SSOLR, 1x 20A CB, 2x IOW CB	
0	\$0.00	\$0.00		DRIP Shield as requested - EQUIPMENT PANEL	
1	\$129.14	\$129.14		breather vent - EQUIPMENT PANEL	
1	\$20.75	\$20.75		Misc Components - 550 inst panel, 250x3 ea LCPs	
1	\$1,300.00	\$1,300.00		FSH-7406 - eyewash flow switch PI-19A (REMOVED - Qty 0)	
0	\$0.00	\$0.00	V6EPS-S-4-S-RV		
0	\$0.00	\$0.00	Materials Cost Subtotal		
		-\$20,945.71			
		\$0.00		Materials Cost Inflation (for parts to be purchased more than 6-months out)	
		\$20,945.71		Materials Cost + Inflation (if applicable)	
		\$3,141.86		Markup	
		\$24,887.57		TOTAL Material Cost + Markup	
				\$19,622.35	



Bid

Quote Number: 100498777v3
 Use quote number at time of order to ensure that you receive prices quoted

Hach
 PO Box 608
 Loveland, CO 80539-0608
 Phone: (800) 227-4224
 Email: quotes@hach.com
 Website: www.hach.com

Quote Date: 10/16/2019

Quote Expiration: 12/15/2019

Technical Systems, Inc.
 2303 196TH Street SW Suite B
 Lynnwood, WA 98036-7071

Name: Colin Dightman-Kovak
 Phone: 425-678-4168
 Email: Colind@tsicontrols.com

Customer Account Number : 112896
 Customer Quote Reference: City of Beaumont, CLAR-16 Items, CA

Sales Contact: Devin Locke Email: devin.locke@hach.com Phone: 909-264-0560

PRICING QUOTATION

Line	Part Number	Description	Qty	Net Unit Price	Extended Price
CLAR-16 Items					
1	LXV524.99.01120	SC4200c Controller, w/o plug, 3G/4G US ATT, mA outputs, 2 Digital Sensors Inputs, Hach	1	1,190.45	1,190.45
2	LXZ524.99.00016	SC4200c External USB Box V2	1	135.15	135.15
3	LZY990	Network Cable, M12 to RJ45	1	58.39	58.39
4	LZY472-01	USB 2.0 Ethernet-Adap. for SC Service Port	1	44.41	44.41
5	MSM-STARTUP	SC4200c Controller - Configuration and provisioning of the MSM-enabled controller and connected sensors. Charges are per controller.	1	592.00	592.00
6	DPD1P1	pHD sc, Differential pH Digital Sensor, PEEK Body Material, Convertible Body Style, General Purpose Glass Electrode, 70 C (158 F) Maximum Temperature, 32.8' Cable, Hach	1	926.50	926.50
7	9180100	Flow Cell Assembly, 1" NPT Sensor (Note: This kit is only offered in a CPVC material.)	1	294.95	294.95
8	8573000	CL17sc Colorimetric Total Chlorine Analyzer, (1) Month Supply of Total Chlorine Reagents, Pressure Regulator Installation Kit, User Manual (Hach sc Controller is required for operation and sold separately.)	1	2,095.25	2,095.25
		Note: The required yearly subscription fees are required and will need to be			

Line	Part Number	Description	Qty	Net Unit Price	Extended Price
		purchased prior to use of the instrumentation. It is the understanding that the software subscriptions will be purchased directly by the end user upon release of the instrumentation.			
Subtotal					\$ 5,337.10
Spare Parts					
9	5418300	Strainer Y-Body, 40 Mesh Screen	3	107.95	323.85
10	8560400	Tubing Kit, CL17sc	6	79.05	474.30
11	8573100	Cell Cleaning Kit, CL17sc	36	13.34	480.24
12	2557000	Total Chlorine Reagent Set, DPD (includes indicator and buffer. For Rapid Liquid Method, CL17 Process Analyzer, and bulk analytical methods)	36	53.71	1,933.56
Subtotal					\$ 3,211.95
Grand Total					\$ 8,549.05

NOTES

****NOTE: FREIGHT IS NOT INCLUDED IN THE GRAND TOTAL PRICE****

See attached freight schedule for estimated charges

Hach is providing a quotation for the instrumentation above. Hach is not responsible for any other requirements outside of the instrumentation quoted above. The instrumentation is based on the written specifications provided.

For further clarification, see attached document, project clarifications.

Project Clarifications

As an instrument manufacturing company Hach can only be responsible for supplying the pertinent analytical instrumentation as well as any required manufacturer startup services or training. All other project requirements will be the responsibility of the contractor/integrator.

Pricing has been offered based on the instrument specifications provided to Hach Company. It will be the responsibility of the requestor to verify that all instrumentation and quantities offered are accurate. If it is found there are any discrepancies it will be the responsibility of the requestor to obtain revised pricing as required from Hach Company.

Listed below are the required project clarifications that need to be reviewed and verified by the requestor. It is the responsibility of the requestor to ensure all instrumentation requirements for the project have been addressed.

PART 1 – GENERAL PROJECT REQUIREMENTS:

Hach Company was not supplied actual instrument specifications for the instrumentation being offered, since actual instrument specifications were not provided it will be the responsibility of the requestor to verify that the instrumentation being offered will meet all application and project requirements.

If there is other pertinent project information, it is the responsibility of the requestor to supply Hach Company with the additional sections containing the information related to the products and services quoted.

Standard Hach Company submittal packages, O&M manuals, and drawings can be supplied at the request of the customer. Custom formatting of any submittal packages, data sheets, manuals, or drawings is not available. Documentation can be supplied electronically via email. Documentation cannot be downloaded to any type of FTP or 3rd party site.

One (1) copy of the standard Operation & Maintenance Manual is supplied with the instrumentation at time of shipment. Additional copies can be downloaded at www.hach.com for no additional charge.

The instrumentation has been offered with standard warranty terms. Extended warranties for up to a (3) year warranty term can be purchased for an additional charge if required. All warranties go into effect the day the instrumentation ships from the factory.

Standard lead time for instrumentation is (30) days ARO.

PART 2 – PRODUCT:

GENERAL REQUIREMENTS:

The instrumentation is supplied with the necessary fuses; however, it will be the responsibility of the contractor/integrator to supply any required surge or lightning protection as Hach Company cannot supply these items.

Hach Company is an instrument manufacturer and is unable to supply any type of instrument enclosures such as, but not limited to: NEMA 4X Stainless Steel, any type of Stainless Steel Enclosure, Enclosures with Heating or Cooling elements, or Enclosures with Condensers, instrument back panels, or



HACH COMPANY

Headquarters
 P.O. Box 389
 5600 Lindbergh Drive
 Loveland, CO 80539-0389

Purchase Orders
 PO Box 608
 Loveland, CO 80539-0608

WebSite: www.hach.com

U.S.A.
 Phone: 800-227-4224
 Fax: 970-669-2932
 E-Mail: orders@hach.com
 quotes@hach.com
 techhelp@hach.com

Export
 Phone: 970-669-3050
 Fax: 970-461-3939
 Email: intl@hach.com

Remittance
 2207 Collections Center Drive
 Chicago, IL 60693

Wire Transfers
 Bank of America
 231 S. LaSalle St.
 Chicago, IL 60604
 Account: 8765602385
 Routing (ABA): 071000039

Quotation Addendum

ADVANTAGES OF WORKING WITH HACH

<p>Hach Service</p> <p><i>Protect your investment & peace of mind</i></p> <ul style="list-style-type: none"> ✓ A global partner who understands your needs ✓ Delivers timely, high-quality service you can trust ✓ Provides team of unique experts to help you maximize instrument uptime ✓ Ensure data integrity ✓ Maintain operational stability ✓ Reduce compliance risk <p>www.hach.com/service-contracts</p>	<p>Pick&Ship™</p> <p><i>Pick&Ship™ Program offers a better way to keep your supplies in stock</i></p> <ul style="list-style-type: none"> ✓ Convenience of one purchase order for the entire year ✓ Flexibility to change, cancel or create new orders ✓ Savings from locking in prices & thus avoiding price surges and rush charges ✓ Peace of mind with automatic, reliable shipments just as you need them <p>www.Hach.com/pickandship</p>	<p>Technical Support</p> <p><i>Provides post-sale instrumentation and application support</i></p> <ul style="list-style-type: none"> ✓ Hach's highly skilled Technical Support staff is dedicated to helping you resolve technical issues before, during and after the sale. ✓ Available via phone, e-mail, or live online chat at Hach.com! ✓ Fast access to answers at https://support.hach.com ✓ Toll-free phone: 800-227-4224 ✓ E-mail: techhelp@hach.com <p>www.Hach.com</p>
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ADVANTAGES OF SIMPLIFIED SHIPPING AND HANDLING

<p>Safe & Fast Delivery</p> <ul style="list-style-type: none"> ✓ Receive tracking numbers on your order acknowledgement ✓ Hach will assist with claims if an order is lost or damaged in shipment 	<p>Save Time – Less Hassle</p> <ul style="list-style-type: none"> ✓ No need to set up deliveries for orders or to schedule pickup ✓ Hach ships order as product is available, at no additional charge, when simplified shipping and handling is used. 	<p>Save Money</p> <ul style="list-style-type: none"> ✓ No additional invoice to process – save on time and administrative costs ✓ Only pay shipping once, even if multiple shipments are required
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STANDARD SIMPLIFIED SHIPPING AND HANDLING CHARGES ^{1, 2, 3}						Collect ⁴ Handling Fee Effective 8/31/19
Total Price of Merchandise Ordered	Standard Surface (Mainland USA)	Second Day Delivery (Mainland USA)	Next Day Delivery (Mainland USA)	Second Day Delivery (Alaska & Hawaii)	Next Day Delivery (Alaska & Hawaii)	
\$0.00 - \$49.99	\$11.99	\$29.99	\$55.93	\$48.14	\$91.51	\$8.98
\$50.00 - \$149.99	\$19.06	\$56.18	\$106.00	\$80.56	\$153.15	\$9.23
\$150.00 - \$349.99	\$33.48	\$89.32	\$181.94	\$112.71	\$219.36	\$9.81
\$350.00 - \$649.99	\$46.63	\$121.94	\$242.50	\$152.43	\$295.17	\$10.32
\$650.00 - \$949.99	\$58.77	\$127.42	\$266.65	\$157.77	\$297.40	\$10.69
\$950.00 - \$1,999.99	\$73.94	\$157.23	\$332.46	\$187.11	\$362.04	\$11.68
\$2,000.00 - \$3,999.99	\$85.36	\$167.09	\$342.29	\$194.36	\$369.69	\$13.48
\$4,000.00 - \$5,999.99	\$98.96	\$173.55	\$358.82	\$195.26	\$380.35	\$16.60
\$6,000.00 - \$7,999.99	\$116.93	\$197.60	\$408.56	\$215.38	\$415.24	\$19.36
\$8,000.00 - \$9,999.99	\$133.43	\$224.55	\$438.79	\$240.27	\$455.68	\$22.34
Over \$10,000	2% of Net Order Value	4% of Net Order Value	6% of Net Order Value	4% of Net Order Value	6% of Net Order Value	\$34.56

- Shipping & Handling charges shown are only applicable to orders billing and shipping to U.S. destinations. Shipping & Handling charges will be prepaid and added to invoice. Shipping & Handling for the Pick&Ship Program is charged on each shipment release and is based on the total price of each shipment release. Shipping & Handling charges are subject to change without notice.
- Additional Shipping & Handling charges will be applied to orders containing bulky and/or especially heavy orders. Refrigerated and all weather Samplers do not qualify for simplified Shipping & Handling charges, and are considered heavy products. Dissolved Oxygen Sensors can be damaged if exposed to temps below freezing, causing sensor failure. Must be shipped over night or 2nd day air during the cold weather months.
- Orders shipping to Alaska or Hawaii: Additional Shipping & Handling charges may be applied at time of order processing. Second Day and Next Day delivery is not available to all destinations.
- Hach Company will assess a collect handling fee on orders with collect shipping terms. This handling fee covers the additional costs that Hach Company incurs from processing and managing collect shipments.

SALES TAX

Sales Tax is not included in the attached quotation. Applicable sales and usage taxes will be added to your invoice, at the time of order, based on U.S. destination of goods, unless a valid resale/exemption certificate for destination state is provided to the above address or fax number, attention of the Tax Dept.



Detail Bill of Material

Page 1 of 1

Project Name:	City of Beaumont Salt Mitigation	Negotiation No:	LA280626X8K2
General Order No:	MLA0009343	Alternate No:	0011

Item No.	Qty	Product	Description
	1	Panelboards	42 Circuits, 100A, Fully Rated, 208Y/120V 3Ph 4W, Tin Plated Copper Bus, 22k AIC, 40A, 3P FD Main Breaker[Bolton Fed], Surface Mounted
		Catalog No	P1A100BB42TH4X
		Designation	LP-RW
	Qty	List of Materials	
	1	40A, 3P FD Main Breaker	
	17	20A, 1P QBHW Branch Breaker	
	1	30A, 1P QBHW Branch Breaker	
	24	1P QBHW Branch Provision Only	
	1	Tin-Plated Copper Main Bus, 100 Amps	
	1	Std. Bolted Cu Ground Bar (Cu Cable Only)	
	1	Panel Nameplate - White with Black Letters	
	1	Type 4X Enclosure, Stainless Steel: N4X2448N	

Total \$3,568.00

Eaton Selling Policy 25-000 applies.

All orders must be released for manufacture within 90 days of date of order entry. If approval drawings are required, drawings must be returned approved for release within 60 days of mailing. If drawings are not returned accordingly, and/or if shipment is delayed for any reason, the price of the order will increase by 1.0% per month or fraction thereof for the time the shipment is delayed.

Blank Cover
4 inches

1	QBHW1030	QBHW1020	2
3	QBHW1020	QBHW1020	4
5	QBHW1020	QBHW1020	6
7	QBHW1020	QBHW1020	8
9	QBHW1020	QBHW1020	10
11	QBHW1020	QBHW1020	12
13	QBHW1020	QBHW1020	14
15	QBHW1020	QBHW1020	16
17	QBHW1020	QBHW1020	18
19	PROV	PROV	20
21	PROV	PROV	22
23	PROV	PROV	24
25	PROV	PROV	26
27	PROV	PROV	28
29	PROV	PROV	30
31	PROV	PROV	32
33	PROV	PROV	34
35	PROV	PROV	36
37	PROV	PROV	38
39	PROV	PROV	40
41	PROV	PROV	42

Main Breaker 40A
FD3040, Vert Mtd.

General Information

(Section 1 of 1)

Service Voltage: 208Y/120V 3Ph 4W Enclosure: Type 4X
 Bus Rating & Type: 100A Tin Plated Copper Neutral Rating: 100A
 Ground Bar: Std. Bolted Copper, Cu cable only
 S.C. Rating: 22k A.I.C. Fully Rated

Main Device Type: Main Breaker - Bottom Cable Entry
 Main Terminals: Mechanical - (1) #14-1/0 (Cu/Al)
 Neutral Terminals: Mechanical - (1) #14-1/0 (Cu/Al)
 None: -
 Box Catalog No.: N4X2448N
 Trim: Complete Enclosure (WP2448T)

Surface Mounted

Box Dimensions: 48.00" [1219.2mm]H x 24.00" [609.6mm]W x 6" [152.4mm]D
 Min. Gutter Size: Top = 5.5" [139.7mm] Bottom = 5.5" [139.7mm]
 Left = 8.0" [203.2mm] Right = 8.0" [203.2mm]

Panel ID Nameplate: (1) LP-RW
 Type: Plastic, adhesive-backed (2) 208Y/120V 3Ph 4W
 Color: White with Black Letters (3)

UL ***Non-Interchangeable Main Device***

Trim Lock: Padlockable Hasp
 Circuit Directory: Plastic Sleeve with Card
 Main Circuit Breaker Trip Type: Thermal-Magnetic.
 Heat Loss - Watts (Est.) = 51
 Weight - lbs (Est.) = 103

Device Modifications:
 Ref # Description

Branch Devices						
Qty	Poles	Trip	Frame	Amps	kAIC	
17	1	20	QBHW	100	22	
1	1	30	QBHW	100	22	
24	1		PROV			
Sub-Feed Devices						
Qty	Poles	Trip	Frame	Amps	kAIC	
2	0	N/A			22	
Main Devices						
Qty	Poles	Trip	Frame	Amps	kAIC	
1	3	40	FD	100	22	

Notes:

The information on this document is created by Eaton Corporation. It is disclosed in confidence and it is only to be used for the purpose in which it is supplied.

PREPARED BY TAP V PHAM	DATE 10/24/2019	Eaton			
APPROVED BY	DATE	JOB NAME City of Beaumont Salt Mitigation	DESIGNATION LP-RW		
VERSION 1.0.0.30		TYPE PRL1a	DRAWING TYPE Customer Approval		
NEG-ALT Number LA28062X8K2-0011	REVISION 0	DWG SIZE A	G.O. MLA0009343	ITEM	SHEET 1 of 1



PACIFIC STEEL GROUP

Contractor: WM Lyles

Date: 10/4/2019

Job Name: Salt Mitigation WWTP Upgrades

PSG Job #: L18161

Extra No.: 10

Description: Deduct Material and Labor for Clarification #006 for Chemical Storage #2.

Deduct Slab on Grade per contract drawings - -6,750 Lbs.

Add new walls and mechanical pads per drawing C2S-2 - 805 Lbs.

Please see attached correspondence.

Material:	Quantity:	Unit:	Unit Price:	Comments:	Extended Price:
Rebar	(5,945)	LB	\$ 0.60		\$ (3,567.00)
Specialty Rebar	-	LB	\$ 1.50		\$ -
Mesh	-	SQFT	\$ 0.35		\$ -
Couplers	-	Each	\$ 1.75		\$ -
Other	-	Each	\$ -		\$ -
					\$ (3,567.00)

Labor Impact:	Quantity:	Unit:	Unit Price:	Comments:	Extended Price:
Rebar	(20)	Hours	\$ 84.27		\$ (1,685.00)
Specialty Rebar	-	Hours	\$ 84.27		\$ -
Mesh	-	Hours	\$ 84.27		\$ -
Couplers	-	Hours	\$ 84.27		\$ -
Other	-	Hours	\$ 84.27		\$ -
					\$ (1,685.00)

FWA Labor:	Quantity:	Unit:	Unit Price:	Comments:	Extended Price:
Ironworker	-	Hours	\$ 84.27	Regular Base Pay	\$ -
Overtime	-	Hours	\$ 22.68	Premium Portion Only	\$ -
Doubletime	-	Hours	\$ 46.26	Premium Portion Only	\$ -
					\$ -

Other:	Quantity:	Unit:	Unit Price:	Comments:	Extended Price:
Engineering	-	Hours	\$ 70.00		\$ -
Crane	-	Hours	\$ 300.00		\$ -
Delivery	-	Each	\$ 550.00		\$ -
Other	-	Each	\$ -		\$ -
					\$ -

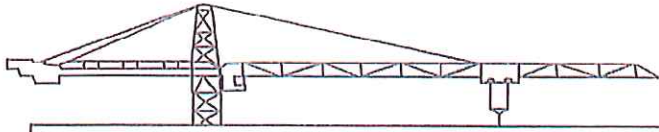
Sub Total = \$ (5,252.00)

Overhead & Profit @ 10% & 5% = \$ (814.00)

Sub Total = \$ (6,066.00)

Bond Fee = \$ (61.00)

Total Extra To Contract = \$ (6,127.00)



ALLIED STEEL CO., INC.

Structural Steel & Miscellaneous Metal Fabricators



September 26, 2019

W.M. Lyles Company
42142 Roick Dr.
Temecula, CA 92590

Attn: Mr. Matt Cain, PE

Re: City of Beaumont

This letter will confirm our quote to furnish, fabricate, and deliver F.O.B. jobsite the galvanized steel framing and stainless steel hardware for the Mixer Support steel at the UV Disinfection Structure for the above referenced project.

Our quote for this material including required shop drawings is \$ 3,490.00

Please issue Allied Steel a change order if you wish for us to proceed with this extra work.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. P. Chapman".

Brian P. Chapman
President



Juan Ahumada
 W.M. Lyles Company
 42142 Roick Drive
 Temecula, CA 92590
 951-973-7393 ext
jahumada@wmlylesco.com

Quote # DSN1183Q1

Dear Juan,

Thank you for the opportunity to provide the following quote. We quoted the tanks and all of the accessories per the specification noted. We also included pricing for the radar level control units.

BEAUMONT WWTP SALT MITIGATION UPGRADE- TANKS

Spec Section	Title and Description
<p>434143 Change Package #1</p>	<p>3 HIGH DENSITY CROSS-LINKED POLYETHYLENE STORAGE TANKS</p> <ul style="list-style-type: none"> • (2) 1,150 Gallon (1) 4,600 Gallon Poly Processing Tanks • Safe Surge Manways • FRP Ladders • SST Seismic Restraints with CA Wet Stamped Job Specific Calculations • Float Level Indication • Fittings per specification • PTFE Flexi Joints • Material and Tank Testing • 3.2 B, C,D,E Field Service Technician one person one day included • Hastelloy for <u>tank fittings</u> only are Included on NaOCl Tank Drawing C-36 note 7 <p>No Exceptions taken to specification 434143 Part 1 through 3.1C and 3.2 B-E</p>
<p>434143 Package #2</p>	<p>2 HIGH DENSITY CROSS-LINKED POLYETHYLENE STORAGE TANKS</p> <ul style="list-style-type: none"> • (2) 1,550 Gallon Poly Processing Tanks • Poly Wrap Insulation Panels • Heat Tracing • Safe Surge Manways • FRP Ladders • SST Seismic Restraints with CA Wet Stamped Job Specific Calculations • Float Level Indication • Fittings per specification

	<ul style="list-style-type: none"> • PTFE Flexi Joints • Material and Tank Testing • 3.2 B, C,D,E Field Service Technician one person one day included • Hastelloy for <u>tank fittings</u> only are included on NaOCl Tank Drawing C-36 note 7 <p>No Exceptions taken to specification 434143 Part 1 through 3.1C and 3.2 B-E</p>
2.6 B Radar Level	<p>Flowline Echo Pulse LR20 Radar Liquid Level Transmitter with 316L Antenna and PTFE inner shield-</p> <p>No Exceptions to the spec</p>

Pricing

(3) Poly Processing Tanks and Accessories noted above Package #1	FOB: Factory	63,212
Tank Freight		8,000.
(2) Poly Processing Tanks and Accessories noted above Package #2	FOB: Factory	50,188
Tank Freight		5,200.
(5) Radar Units noted above \$2,590. Ea (Transmitter only)	FOB: Factory	12,950
Radar Freight		300.

Notes & Exceptions

Spec Section	Comment
3.2 A and 3.3	Field Testing and Installation by Others (1 day site inspection/ training is included)
General	Anchor bolts by others
General	Piping beyond vessel connections is not included
Standard Terms	25% with order / balance 70% N20 after shipment / 5% retention 90 days
Sales Tax	Sales tax will be billed at the rate in effect at the time of shipment and not included above
Disclosure	Items not specifically identified within proposal are not included

Credits

WM Lyles PO # 55.1173-4010 (2) 4,400 Gallon Safe Tanks and Accessories

Tax <4,028.45>

Freight <4,240.00>

Tanks <\$42,080>

Total Credit Amount.....\$50,348.45

Thank you,

Doug Roughen

Doug Roughen | 3300 E. 19th Street | Signal Hill, CA 90755 | 562-986-5238 FAX 562-986-5246
Cell 949-633-9499 Preferred

2.0 Terms and Conditions

Shipment	4-5 weeks
Manufacturer's Warranty	3 years and 5 years per specification
FOB Point	Poly Processing Factories
Prices Effective	30 days
Freight	Quoted as an option
Sales Tax	Not included unless otherwise indicated
Sales Tax	Will be charged unless a resale card is on file (CA & AZ)
Freight Billing	To be by purchaser specified at time of order placement
Terms	25% with order, balance net 20 days after shipment - OAC
Cancellation Charges	100% after fabrication commences
Damaged Freight	Must be noted on the freight bill to establish liability
Off-Loading / Installation	By others
Anchor Bolts	Not included unless otherwise indicated
Flange Gaskets / Bolt Kits	Not included unless otherwise indicated
Flexible Connections	Required for most connections to preserve tank warranty
Missing Parts	Claims must be made within 30 days of delivery

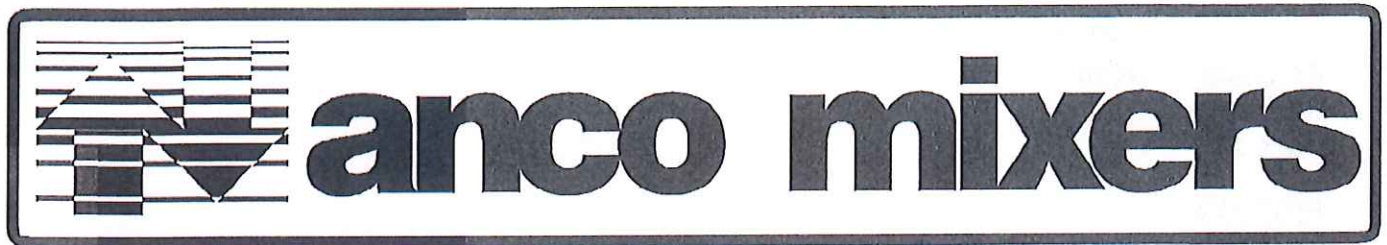
Juan Ahumada

From: Michael Hardy <mhardy@miscowater.com>
Sent: Friday, August 30, 2019 1:25 PM
To: Matt Cain
Subject: beaumont mixer
Attachments: EP-4164 Proposal.pdf

Matt

Mixer scope is attached. Price of the scope is \$19,100.

Mike



MANUFACTURED BY ENVIROPAX, INC. • SALT LAKE CITY, UTAH

PROPOSAL

TO: W. M. Lyles Co.
42412 Roick Dr.
Temecula, CA 92590

Attn: Matt Cain

Project Name: Beaumont, CA WWTP

Proposal Date: 8/30/2019

Proposal No: EP-4164

Bid Date: Open

Engineer: Webb / Aqua Engineering

Delivery: 10-14 weeks

Terms: Net Thirty (30) days

We are pleased to offer the following equipment in accordance with the terms of this proposal

SPECIFICATION SECTION 466250 – Vertical Shaft Turbine Mixer

A – One (1) ANCO MIXERS Model 3342E-7.5 heavy duty rapid mixer with 7 ½ HP, 1750 RPM, 460 volt, 3-phase, 60 cycle TEFC, severe duty, cast iron, motor rated for inverter duty. The mixer shall be furnished with a flat mounting base that is provided with a hot dipped galvanized coating. The mixer drive is a helical, parallel shaft gearbox, splash lubricated with a 3.2 service factor and a minimum AFBMA L₁₀ bearing life of 100,000 hours on the main gear reducer bearings and 300,000 hours on the output bearings. The reducer input shaft is driven by a flexible coupling and the output shaft is equipped with a rigid, register fit flanged coupling to maintain impeller shaft alignment. The impeller shaft is designed to operate at less than 70% of the first critical speed and combined shaft stress is less than 8,000 psi. The shaft rotates at 96.3 RPM. The impeller is a 29" diameter, 6-blade radial flow disc type with the blades welded to the impeller hub disc. The impeller position is non-adjustable and is driven by a safety hook key. The shaft and impeller material is 316 SS.

PRICING

The prices quoted are FOB factory with freight allowed to the jobsite and includes only those items detailed above and in accordance with the terms and conditions noted in the proposal:

ITEM A Rapid Mixer \$ _____

ITEMS NOT INCLUDED

The following have not been included unless specifically called out above:

- Variable frequency drives and controls
- Electrical motor controls, starters, or wiring
- Anchor bolts or imbedments
- Support beams, walkways
- Anti-vortex baffling
- Unloading, hauling or storage
- Erection, installation or testing
- Concrete, grouting or sealant
- Field paint or touch-up painting
- Protection against rusting or deterioration due to unprotected storage
- Service to include supervision of erection, installation, inspection or start-up
- Federal, State or Local Taxes, Permits or Fees

SERVICE

One (1) day and one (1) trip service of a factory representative has been included in the above pricing for inspection, supervision or start-up assistance. Additional service is available at a rate of \$1,000.00 per day plus travel and living expenses from Salt Lake City, Utah.

SHIPMENT

Estimated shipment time is 10-14 weeks after receipt of final complete approved submittal drawings, if required. Drawing submittal is estimated to be 2-3 weeks after receipt of purchase order and complete engineering information.

TERMS AND CONDITIONS

Prices are firm for a period of sixty (60) days from proposal date. Invoices are due and payable within thirty (30) days of any deliveries made to the jobsite and in accordance with the standard terms and conditions attached.

Beaumont, CA WWTP
Proposal EP-4164
8/30/2019
Page 3

For pricing and additional information, please contact our local representative at the following address:

MISCOWater
17101 Burbank Suite B
Foothill Ranch, CA 92610
Mike Hardy
Office: 949-458-5555
Fax: 949-458-5500

Respectfully submitted,

ENVIROPAX, INC.

Brett Lees



GENERAL TERMS AND CONDITIONS

1. **Scope:** Enviropax, Inc.'s acceptance of Purchaser's purchase order is conditioned upon the following:
 - (a) All the terms and conditions set forth herein;
 - (b) Return to Enviropax, Inc. a signed copy of this proposal with Purchaser's purchase order;
 - (c) A copy of any payment and performance bond on this project setting out name and address of Bonding Company and Local Agency being forwarded to Enviropax, Inc.;
 - (d) Acceptance in writing of Purchase Order by Enviropax.
2. **Prices:** Prices are quoted F.O.B. factory with a freight allowance only, unless specifically noted on the proposal. Prices do not include Federal, State or Local taxes of any whatsoever. Applicable taxes will be added to the quoted price unless a valid exemption certificate has been provided to Enviropax, Inc. Quoted prices are subject to change prior to acceptance of purchase order by Enviropax.
3. **Payment and Credit:** Terms of Payment are Net 30 days from invoicing. All past due amounts shall accrue interest at the rate of 2% per month until paid in full. Purchaser shall be responsible to pay all costs of collection, including reasonable attorneys fees, whether or not a lawsuit is filed. If it should become necessary to file legal action for collection or interpretation of the terms of this agreement, parties hereby agree that venue of such action is proper in the County District Courts in and for the County of Salt Lake, Utah. All orders are subject to the continuing approval of Enviropax Credit department. If Purchaser is in default on any payment due hereunder, Seller may declare all payments for work completed to be immediately due and payable, stop all further work until payments are brought current and require advance payment for future shipments under this agreement.
4. **Items Included:** Each sale includes only those items specifically described and set forth in this proposal. This agreement cannot be amended or modified except by written agreement of the parties.
5. **Security Interest:** Enviropax retains a security interest in and the rights of repossession of the equipment furnished hereunder until the full purchase price has been paid. Purchaser will not encumber nor permit others to encumber said equipment by any liens or security instruments, until Enviropax has been paid in full. In the event of any default under this agreement, Enviropax shall be entitled to exercise any and all legal remedies granted to it under applicable law.
6. **Shipments and Delivery:** Enviropax shall use reasonable efforts to meet specified delivery dates, but such dates are estimated only and are not guaranteed and Enviropax shall have no liability, directly or indirectly for delays in delivery. Enviropax may not be declared in breach of contract or shall the order be subject to cancellation so long as Enviropax is making a bona fide effort to complete the manufacture and delivery of the equipment. Delivery times are based upon the effective date of the order and subject to prompt receipt by Enviropax of all necessary information, instructions and approved shop drawings from purchaser. Shipments shall be by surface freight.
7. **Risk of Loss:** All shipments are F.O.B. Enviropax factory and all claims for damage, delay or shortage arising from any shipment shall be made directly with the carrier by the purchaser. Purchaser shall inspect the equipment, and shall notify Enviropax of any damage or shortage within one week of delivery. Failure to so notify Enviropax shall constitute acceptance by purchaser and release of Enviropax of any liability for damage or shortage.
8. **Limited Warranty:** Enviropax warrants all products manufactured by it against defects in materials and workmanship for a period of one year from delivery. If a defect exists, Enviropax shall, at its option, either repair or replace the defective item at a location to be designated by Enviropax or repay the purchase price of any defective item, provided it receives prompt written notice of the defect claimed, but in no event shall notice be received later than thirty (30) days after the end of the one-year warranty period. This warranty shall not apply to any products altered or repaired outside Enviropax's factory or with other than Enviropax

replacement parts, unless such repair was authorized in writing by Enviropax and further, shall not apply to products or parts which have been subject to misuse, abuse, neglect or accident or damage by improper installation or application by others. In no event shall Enviropax be liable for normal wear and tear, nor for any incidental or consequential damages due to the inoperability of its products. THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

9. **Cancellation, Suspension or Delay:** If purchaser requests or causes a cancellation, suspension or delay, Purchaser shall pay Enviropax all appropriate charges incurred up to the date of such cancellation, suspension or delay, plus Enviropax overhead and reasonable profit. Additionally, all charges related to and risks incident to, storage, deposition, and/or resumption of work shall be born solely by Purchaser.
10. **Limitation of Liability:** Enviropax shall not be liable to purchaser or anyone claiming through Purchaser for any incidental or consequential damages of any nature for any reason whatsoever. Responsibility for proper operation of equipment if not installed by Enviropax or in accordance with Enviropax's instructions, shall rest entirely with Purchaser. Enviropax shall not be responsible for compliance with State or local safety and/or health statutes unless it has accepted such responsibility in writing. Any cost of compliance shall be born by Purchaser.
11. **Changes, Orders and Backcharges:** Enviropax shall not be obligated to make changes in or additions to the scope of the work or the equipment furnished unless prior to such changes or additions, Enviropax receives a written change order setting forth the additions or changes desired, the adjustments in the contract price and time of delivery, all of which must be accepted by Enviropax in writing. Enviropax will not be responsible or liable for returns or backcharges for labor, materials or other costs incurred in modification, adjustment, service or repair of equipment unless previously approved in writing by an authorized agent of Enviropax.
12. **Changes in Design:** Enviropax reserves the right to modify the design and construction of equipment in order to incorporate improvements or to substitute material equal or superior to that originally specified. No charge shall be made to Purchaser for modifications made at Enviropax's option.
13. This contract is a complete integration of the agreements of the parties and supercedes all prior oral or written agreements of any nature, and may not be modified except in writing signed by both parties. This contract shall be binding upon and shall insure to the benefit of the parties hereto and their successors and assigns.



WM Lyles
Attn: Juan Ahumada
Re: Leak Detection System – clarification 16

Juan,

Here is the pricing

Leak Detection system probes and Panel

2ea Leak Detection Probes	\$1999	\$3,998
1ea Leak detection control station	\$5500	\$5,500

Please issue PO to JPR Systems

Thank you

John Hamilton
909-660-1022
John.hamilton@jprsystems.com



W M Lyles
Juan Ahumada
Re: PO 55.1173 revisions

Juan,

Here are the revisions:

Sodium Hypo Skid	(\$17,365)
Panel	\$1,500
Engineering	\$1,500
Total Credit:	(\$14,365)

Additions

2 ea Pump skids (Sodium bisulfate/Caustic)	\$31,730
Chem Skid Covers with FRP plate (2ea)	\$16,596
Heat Trace System all components(3 areas)	\$10,554
Panel Mount cover for chlorine SCE	\$1,680

Thank you

John Hamilton
909-660-1022
John.hamilton@jprsystems.com

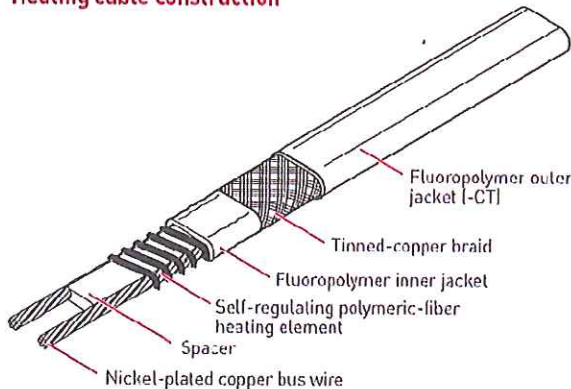
Raychem XTV

HIGH-TEMPERATURE SELF-REGULATING HEATING CABLES



Electrical freeze protection and process-temperature maintenance for both nonhazardous and hazardous locations

Heating cable construction



PRODUCT OVERVIEW

The XTV family of self-regulating heating cables provides solutions for industrial freeze protection and process-temperature maintenance applications requiring high power output. XTV heating cables can withstand temperatures up to 482°F (250°C) and provide process temperature maintenance to 250°F (121°C).

The heating cables are configured for use in nonhazardous and hazardous locations, including areas where corrosives may be present.

The power output of self-regulating heating cable depends on the heating cable temperature, and can provide up to 20 W/ft at 50°F (10°C).

Raychem XTV cables meet the requirements of the U.S. National Electrical Code and the Canadian Electrical Code. For additional information, contact your Pentair Thermal Management representative or call (800) 545-6258.

APPLICATION

Area classification	Nonhazardous and hazardous locations
Traced surface type	Metal
Chemical resistance	Organic and aqueous inorganic chemicals and corrosives

SUPPLY VOLTAGE

XTV1	100–130 Vac
XTV2	200–277 Vac

TEMPERATURE RATING

Maximum maintain or continuous exposure temperature (power on)	250°F (121°C)
Maximum intermittent exposure temperature, 1000 hours (power on or off)	482°F (250°C)*
Minimum installation temperature	-40°F (-40°C)

*The 250°C rating applies to all products printed "MAX INTERMITTENT EXPOSURE 250C"

TEMPERATURE ID NUMBER (T-RATING)


T2C: 446°F (230°C)	T2D: 419°F (215°C)	T3: 392°F (200°C)
Temperature ID numbers are consistent with North America National Electrical Codes.		
20XTV2-CT-T2 20XTV1-CT-T2	15XTV1-CT-T2	5XTV1-CT-T3, 5XTV2-CT-T3, 10XTV1-CT-T3, 10XTV2-CT-T3 15XTV2-CT-T3


Based on systems approach* T3-T6

* Raychem XTV heating cables are approved for T3 – T6 temperature classes when stabilized or controlled designs are used according to the requirements of applicable national and international approvals standards. Use TraceCalc Pro design software or contact Pentair Thermal Management.


APPROVALS


IECEX IECEx BAS 06.0044X
Ex e IIC T* Gb
Ex tD A21 IP66 T*+30C

Hazardous Locations
 Class I, Div. 2, Groups A, B, C, D
 Class II⁽¹⁾, Div. 2, Groups F, G
 Class III⁽¹⁾

Zone Approvals
 CLI, ZNI, AEx e II T3 (T2)

⁽¹⁾ Applications must be reviewed by the manufacturer.
⁽²⁾ For maximum surface temperature, see heating cable, design documentation or schedule

 Class I, Div. 1 and 2, Groups A, B, C, D
 Class II, Div. 1 and 2, Groups E, F, G
 Class III

 Ex e II T3 (T2)

XTV heating cables also have many other approvals, including Baseefa, PTB, DNV, and ABS.

 09-IEEx-0005X
 Ex e IIC T* Gb

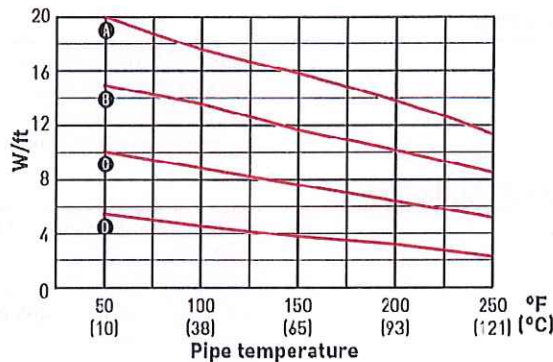
DESIGN AND INSTALLATION

For proper design and installation, use TraceCalc Pro design software or the design section of the Advanced Industrial Solutions Heat-Tracing Products & Services Catalog (H56550). Also, refer to the Industrial Heat-Tracing Installation and Maintenance Manual (H57274). Literature is available via the Pentair Thermal Management web site, www.pentairthermal.com.

NOMINAL POWER OUTPUT RATING ON METAL PIPES AT 120 V / 240 V

	Adjustment factors	
	Power output	Circuit length
208 V		
5XTV2	0.87	0.99
10XTV2	0.88	0.99
15XTV2	0.88	0.98
20XTV2	0.86	1.00
277 V		
5XTV2	1.07	1.08
10XTV2	1.08	1.06
15XTV2	1.08	1.06
20XTV2	1.07	1.08

- Ⓐ 20XTV-CT
- Ⓑ 15XTV-CT
- Ⓒ 10XTV-CT
- Ⓓ 5XTV-CT



Note: To choose the correct heating cable for your application, use the Design section of the Advanced Industrial Solutions Heat-Tracing Products & Services Catalog (H56550). For more detailed information, use TraceCalc Pro design software.

MAXIMUM CIRCUIT LENGTHS BASED ON CIRCUIT BREAKER SIZES

	Ambient temperature at start-up	Maximum circuit length (in feet) per circuit breaker									
		120 V					240 V				
		15 A	20 A	30 A	40 A	50 A	15 A	20 A	30 A	40 A	50 A
5XTV-CT	50°F (10°C)	180	240	360	385	385	360	480	720	765	765
	0°F (-18°C)	160	210	320	385	385	315	420	625	765	765
	-20°F (-29°C)	150	200	305	385	385	295	395	595	765	765
	-40°F (-40°C)	145	195	290	385	385	285	380	570	760	765
10XTV-CT	50°F (10°C)	110	145	220	270	270	220	295	440	540	540
	0°F (-18°C)	95	130	195	260	270	195	260	385	515	540
	-20°F (-29°C)	95	125	190	250	270	185	245	370	495	540
	-40°F (-40°C)	90	120	180	240	270	175	235	355	470	540
15XTV-CT	50°F (10°C)	75	100	150	200	220	150	200	300	400	445
	0°F (-18°C)	65	90	135	180	220	130	175	265	355	440
	-20°F (-29°C)	65	85	130	170	215	125	165	250	335	420
	-40°F (-40°C)	60	80	125	165	205	120	160	240	320	405
20XTV-CT	50°F (10°C)	60	80	120	160	190	115	150	230	305	380
	0°F (-18°C)	50	70	105	140	180	100	135	205	275	345
	-20°F (-29°C)	50	65	100	135	170	100	130	200	265	330
	-40°F (-40°C)	50	65	100	130	165	95	125	190	255	320

PRODUCT CHARACTERISTICS

Minimum bend radius	@68°F (20°C): 0.5 in (12.7 mm)
Weight (lb per 10 ft, nominal)	1.1
Bus wire size	14 AWG
Outer jacket color	Red
Heating cable dimensions	0.46 in x 0.3 in (11.7 mm x 7.6 mm)

ORDERING DETAILS

	DESCRIPTION	PART NUMBER
	5XTV1-CT-T3	P000001668
	5XTV2-CT-T3	P000001669
	10XTV1-CT-T3	P000001671
	10XTV2-CT-T3	P000001672
	15XTV1-CT-T2	P000001674
	15XTV2-CT-T3	P000001675
	20XTV1-CT-T2	P000001676
	20XTV2-CT-T2	P000001677

CONNECTION KITS

Pentair Thermal Management offers a full range of connection kits for power connections, splices, and end seals. These connection kits must be used to ensure proper functioning of the product and compliance with warranty, code, and approvals requirements.

GROUND-FAULT PROTECTION

To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of Pentair Thermal Management, agency certifications, and national electrical codes, ground-fault equipment protection must be used on each heating cable branch circuit. Arcing may not be stopped by conventional circuit protection. Many Raychem control and monitoring systems meet the ground-fault protection requirement.



WWW.PENTAIRTHERMAL.COM

NORTH AMERICA

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Fax: +1.800.527.5703
Tel: +1.650.216.1526
Fax: +1.650.474.7711
thermal.info@pentair.com

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Fax: +86.21.5426.2937
cn.thermal.info@pentair.com

LATIN AMERICA

Tel: +1.713.868.4800
Fax: +1.713.868.2333
thermal.info@pentair.com

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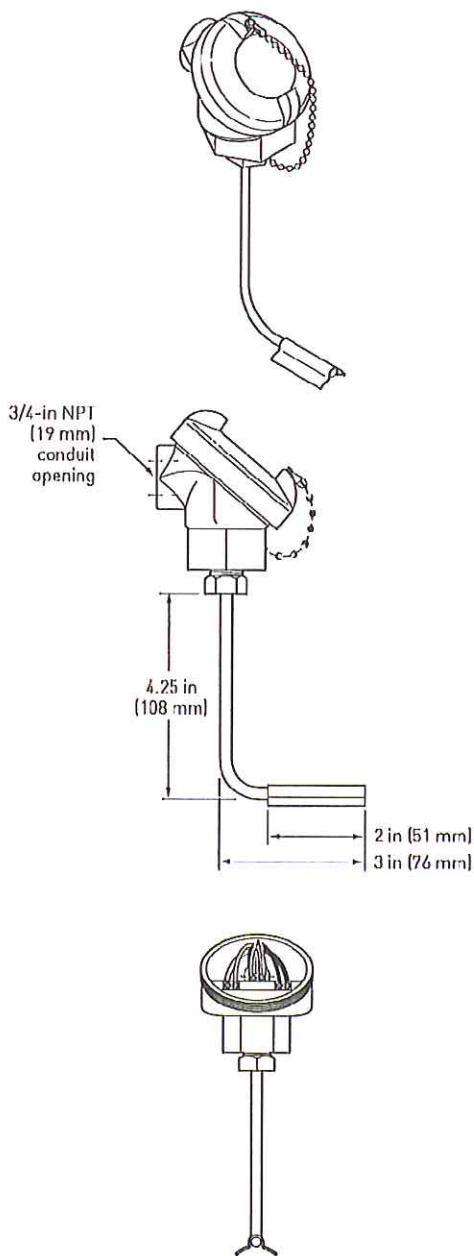
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DigiTrace RTD4AL

RTD TEMPERATURE SENSOR

For temperature measurement up to 900°F (482°C)



PRODUCT OVERVIEW

The DigiTrace RTD4AL is a three-wire platinum RTD (resistance-temperature detector) typically used with monitoring and control systems that require accurate temperature control. The RTD4AL kit can be used with a wide variety of DigiTrace monitoring and control systems.

SPECIFICATIONS

Sensor housing	Aluminum; NEMA 4X
Sensor sheath	316 stainless steel
Range	-100°F to 900°F (-73°C to 482°C) maximum
Accuracy	±1°F (0.5°C) at 32°F (0°C)
Resistance	100 ohms at 0°C $\alpha = 0.00385$ ohms/ohm/°C
Connection	3/4-in (19 mm) NPT conduit hub Note: The length of RTD extension wires is determined by the wire gauge used. To reduce the likelihood that electrical noise will affect temperature measurement, keep RTD extension wires as short as possible. Use shielded instrument cable such as DigiTrace MONI-RTD-WIRE (22 AWG, PVC insulation, -30°F to 140°F, -20°C to 60°C) or Belden 83553 (22 AWG, FEP insulation, -95°F to 395°F, -70°C to 200°C).

ADDITIONAL MATERIALS REQUIRED


Pipe strap, conduit, 16-22 AWG shielded instrument cable

KIT CONTENTS

One RTD temperature sensor

APPROVALS

The RTD4AL is CSA certified to U.S. and Canadian standards.

 Class I, Div. 2, Groups A, B, C, D
Class II, Div. 2, Groups F, G



WWW.PENTAIRTHERMAL.COM

NORTH AMERICA

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cn.thermal.info@pentair.com

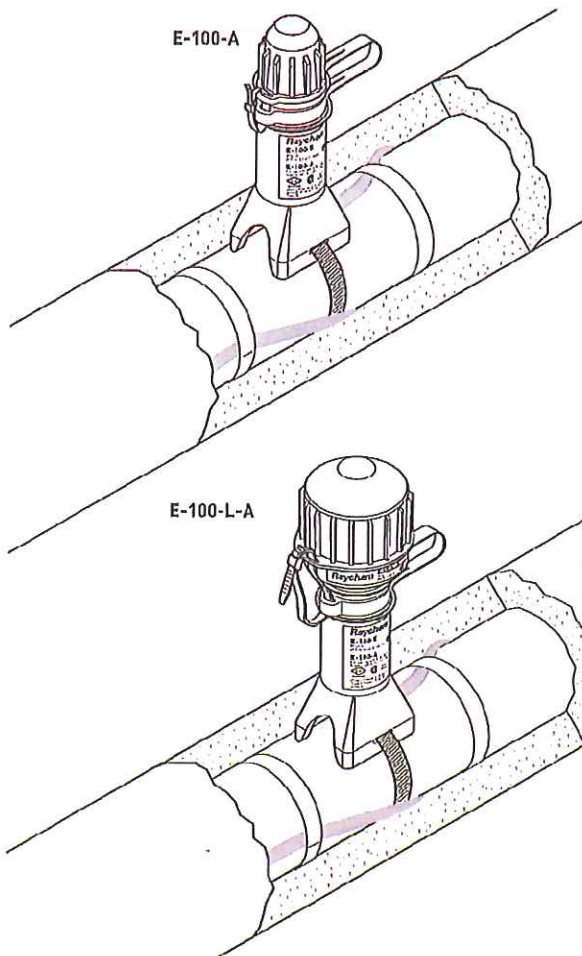
LATIN AMERICA

Tel: +1.713.868.4800
Fax: +1.713.868.2333
thermal.info@pentair.com

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Raychem E-100-A AND E-100-L-A END SEAL AND LIGHTED END SEAL KITS



PRODUCT OVERVIEW

The E-100-A and E-100-L-A serve as above-insulation end seal kits for Raychem brand BTV, QTVR, XTV, KTV, or VPL heating cables. They are approved by FM and CSA for use in hazardous locations.

Both the E-100-A and the E-100-L-A are mounted on the pipe and project through the thermal insulation and cladding for ease of maintenance. The E-100-L-A end seal with signal light uses an array of bright LEDs for exceptional visibility and long product life.

These rugged end seals are made from high-performance engineering polymer and resist impact, high temperature, and chemical and UV exposure. The stand allows for up to four inches (100 mm) of thermal insulation. The encapsulated light and boot reliably prevent moisture and dust ingress. The industrial-grade electronics used in the E-100-L-A are encapsulated.

Both the E-100-A and E-100-L-A are re-enterable, allowing easy access for testing. Voltage and continuity checks can be done by simply unscrewing the E-100-A cap and removing the reusable sealing boot. The E-100-L-A makes maintenance even easier by allowing for visual inspection of heating circuit continuity. The E-100-L-A is available in two voltages and can be retrofitted into previously installed E-100-A end seals. The light module is replaceable.

The kits contain all the necessary materials for a complete installation except for one pipe strap, which must be ordered separately.

	E-100-A	E-100-L-A
DESCRIPTION	Above-insulation end seal, cold-applied	Above-insulation end seal with red signal light, cold-applied *Not for use with 480 VVPL
KIT CONTENTS	1 end seal	1 end seal with red indicator light
Note: Order appropriate pipe strap separately (one per kit)		






E-100-A AND E-100-L-A

E-100-A

E-100-L-A

APPROVALS

Hazardous Locations

 Class I, Div. 2, Groups A, B, C, D
 Class II, Div. 1 and 2, Groups E, F, G
 Class III
 (I)
 CLI, ZN1, AEx e II T⁽¹⁾
 Ex e II T⁽²⁾
IECEX IECEx PTB 09.0038U
 Ex e II Ex tD A21 IP66
 09-IEEx-0004X
 Ex e IIC T⁺ Gb

(1) Except VPL
 (2) For T-rating, see heating cable or design documentation

Hazardous Locations

 Class I, Div. 2, Groups A, B, C, D
 Class II, Div. 1 and 2, Groups E, F, G
 Class III
 (I)
 CLI, ZN1, AEx em II T⁽²⁾
 Ex em II T⁽²⁾
IECEX IECEx PTB 09.0038U
 Ex emb II
 Ex tD mbD A21 IP66
 09-IEEx-0004X
 Ex e IIC T⁺ Gb

E-100-A

E-100-L-A

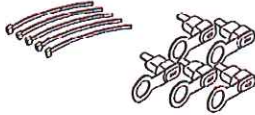
PRODUCT SPECIFICATIONS

Heating cable capability	BTV-CR, BTV-CT, QTVR-CT, XTV-CT, KTV-CT and VPL-CT	
Ingress protection	NEMA 4X (IP65)	NEMA 4X (IP65)
Minimum installation temperature	-40°F (-40°C)	-40°F (-40°C)
Minimum ambient temperature	-75°F (-60°C)	-40°F (-40°C)
Maximum ambient temperature	132°F (56°C)	104°F (40°C)
Maximum pipe temperature	500°F (260°C)	500°F (260°C)
Maximum operating voltage	480 Vac	120 / 277 Vac
Overall height	7 in (175 mm)	8 in (200 mm)
Outer diameter at insulation	2.0 in (50 mm) Usable with up to 4 in (100 mm) thermal insulation	3 in (75 mm)
Materials	High-performance glass-filled engineered polymer	High-performance glass-filled engineered polymer
Light source		Super-bright light-emitting diodes (LEDs), red
Light source power supply	Not applicable	Linear (nonswitching)
Power consumption	0 W	< 2 W

E-100-A AND E-100-L-A

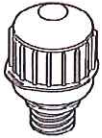
	E-100-A	E-100-L-A	
ORDERING DETAILS			
End seal			
Catalog number	E-100-A (100-480 Vac)	E-100-L1-A (100-120 Vac)	E-100-L2-A (200-277 Vac)
Part number	046567-000	583377-000	478767-000
Weight	0.6 lb (272 g)	1.3 lb (630 g)	1.3 lb (630 g)

Spare boot pack for E-100



Catalog number	E-100-BOOT-5-PACK
Part number	281053-000
Pack weight	0.25 lb (140 g)
Pack contents	Five sealant-filled boots and five cable ties

Replacement indicator light for E-100-LXX-A



Catalog number	E-100-LR1-A (100-120 Vac)	E-100-LR2-A (200-277 Vac)
Part number	552225-000	874485-000
Weight	0.9 lb (450 g)	0.9 lb (450 g)



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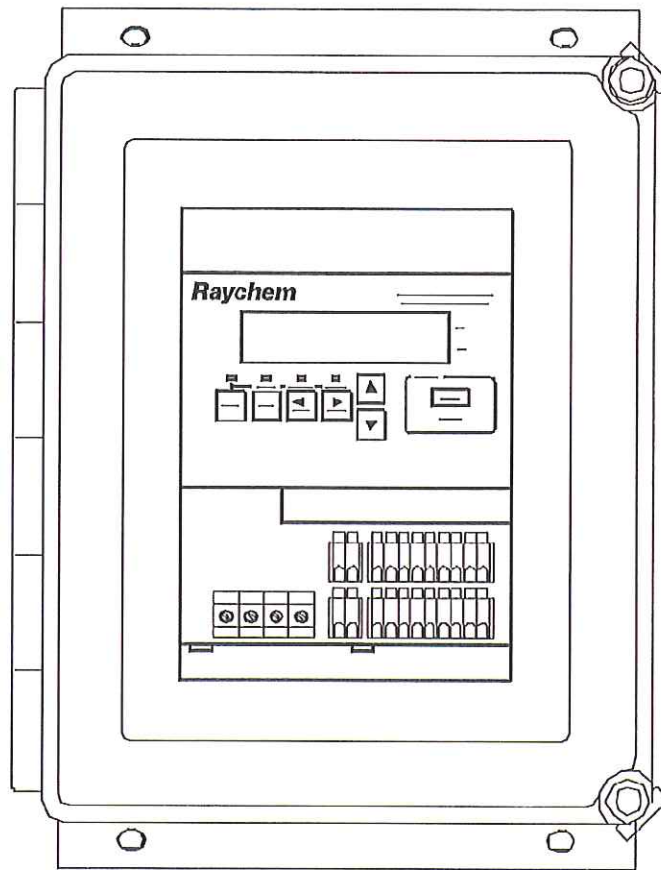
© 2001-2013 Pentair.



Raychem 910 Series Heat Trace Controller

INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS

Firmware versions up to V3.1x



In the event of a late price revision, only cover pages will be sent. Refer to the preceding revisions for details.

<p>Denny McCollum, 951-505-2634, denny@cortecheng.com; Greg Scott – greg.scott@cortecheng.com 1340 N. Jefferson Street, Anaheim CA 92807 Phone (714) 779-0911 · Fax (714) 693-1715 www.cortecheng.com</p>	 <p>Attention: WM Lyles Project: City of Beaumont – Salt Mitigation Upgrade Project Subject: Sample Pump Proposal Date: September 3, 2019</p>
--	--

Scope of supply is based on plans, specifications and addenda for the aforementioned project. Please note that service or materials not specifically listed as included in this proposal will not be supplied. Taxes are NOT included. FOB: Destination (Beaumont, CA). Standard Freight is Included.

Section 463344– Peristaltic Metering Pump\$7,782.00

Equipment Description:

Chlorine Sample Pump, Tags P-7471

- (Qty. 1) Verderflex Rapide R12 peristaltic metering pump with 5/8" x 3/16" tube, 1/4 HP @ 173 RPM, 3/60/230/460 VAC, IP55 Enclosure.

Factory/Field Services:

- Non-witnessed standard factory testing
- Field testing, startup & training per spec

Lead Times:

- Submittals: 1-2 weeks after receipt of formal purchase order
- Shipment: 3-4 weeks after approval of submittals & release to manufacturer

Comments/Exceptions:

- Spare parts requests a stack kit. A stack kit is for vertical multistage pumps and does not apply to the Verderflex pump. (Qty 5) replacement tubes will be provided as standard spare parts.

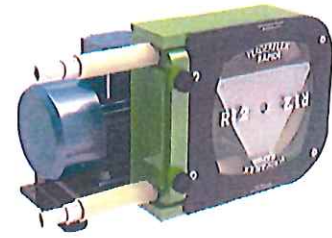
General Comments/Exceptions (Applicable to all sections unless specifically noted in sections above):

No discharge pipe, installation, offloading, onsite vibration monitoring, anchor bolts/nuts, instrumentation, piping, safety equipment, tools, VFDs/PLCs/MCCs, hardware etc., nor any items not specifically listed as included. Labor and installation by contractor. Startup is limited to verifying functionality and/or equipment calibration only. Extended-length operational tests are by others. Neither liquidated damages nor consequential damages of any type are accepted. Quote is valid for sixty (60) calendar days.

Best regards,

Greg Scott
Projects Team Manager
Cortech Engineering, LLC – A DXP Company
1340 N. Jefferson St., Anaheim, CA 92807
Phone: 714.779.0911 ext.1358
Cell: 714.293.4789
greg.scott@cortecheng.com

Verderflex Rapide R12



VERDERFLEX®

Verderflex Rapide R12 Specifications

Standard Speeds	115 & 173 RPM
Control	Inverter Optional
Rotor Assembly	Anodised Aluminium with Three Nylatron® Rollers
Voltage	265/460V 60Hz (Single Phase Available to special order)
Installed Motor Power	¼ HP 60Hz
Protection Class	IP55
Standard Tube Options	Verderprene, Silicone
Tube Size	5/8" x 3/16" (15.9 x 4.8 mm)
Weight	26.5 lbs

Flow Rates

Tube	RPM	Flow GPH	Flow GPM	Flow ml/min	Flow l/h
5/8" x 3/16"	115	182	3.03	11.470	688.2
5/8" x 3/16"	173	273	4.56	17.260	1035.6

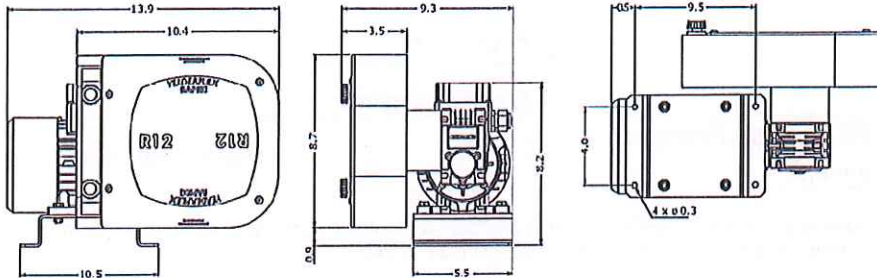
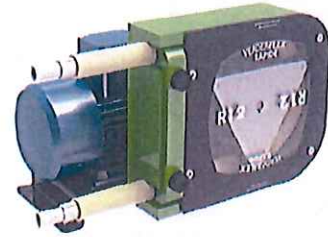
**actual speed and flow rates may vary depending on motor speeds, the medium being pumped and the actual application setup*

Nominal pump speed based on 60Hz operation

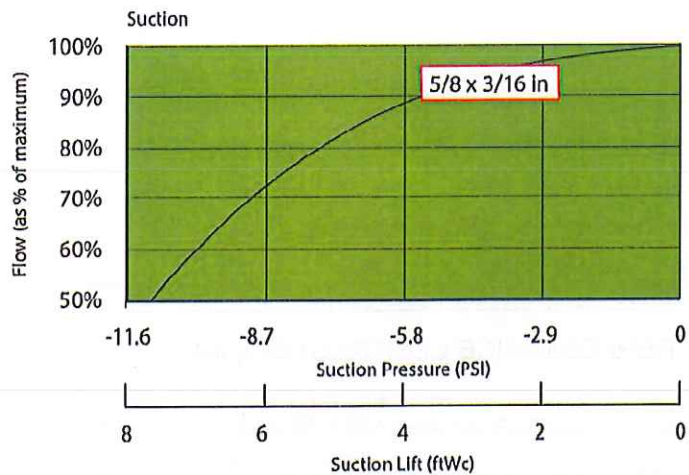
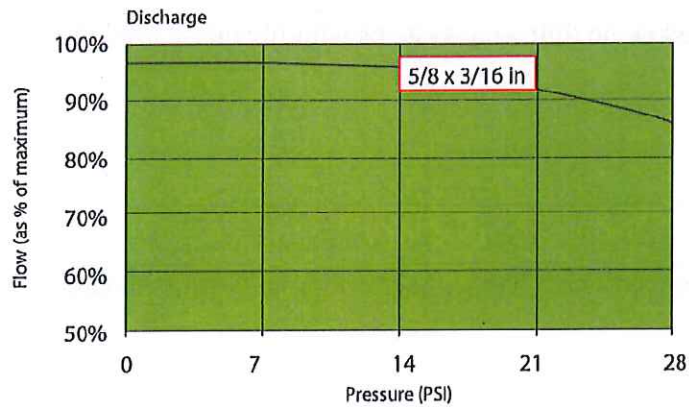
Flows are typical and were measured with water at 68°F with no suction lift or discharge pressure. Actual flows will vary according to suction conditions, discharge pressure, tube material and production tolerances.



Verderflex Rapide R12



All dimensions are in inches.
All dimensions and weights are for guidance only.



VF_Techno_Rev06_2019_(us)_Rapide

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 Fax: (714) 701-0168

PROPOSAL INSULATION SERVICES DIVISION

To: WM Lyles Attn: Matt Cain	Date: September 6th, 2019
	Page One
	Architect/Engineer:
Job Name Beaumont WWTP Caustic Piping Insulation Extra work	Location Beaumont, CA

Performance Contracting, Inc. (hereinafter designated as "CONTRACTOR") proposes to furnish all materials and labor required for the application of the following (hereinafter designated as the "Work") for the amount stated below:

Insulation & Jacketing Proposal

Supply labor and material to insulate and jacket the following systems with fiberglass insulation:

1. Caustic Piping

Our lump sum cost to complete the above-mentioned work is eight thousand three hundred sixty-one dollars (\$8,361.00)

- Price **includes** Sales Tax.
- Price does not include furnishing of bonds. If bonds are required, add 1% to the base price.

In the event CONTRACTOR's price is included within your bid, then CONTRACTOR's bid will be deemed to have been accepted.
 This proposal is subject to change and will be withdrawn if not accepted within 30 days of the above date; It is subject to and includes all terms and conditions described herein (and such other terms as may be mutually agreed upon).

Contract Price \$ See above	PERFORMANCE CONTRACTING, INC.
Acceptance Date: _____	By: Nicholas Naretta
By: _____	Title: Project Engineer
Customer Name: _____	By: _____
Title: _____	Approval Date: _____





MFG CONSTRUCTION & WATER PRODUCTS

Date: August 29, 2019

To: Misco
Reference: Beaumont Baffles
Attn: Mike

Fax #:
Phone #:

MFG IS QUOTING:

Two (2) FRP baffles consisting of the following: 1 baffle 3' high x 8' long, 1 baffle 4' high x 7' long, FRP wall angles, 1/2x4-1/2 anchors and 1/2x2 HHMB. All h/ware to be type 316 SS.

Price is: \$5780.00 Delivered

NOTE: If any calculations are required for this project add \$4000.00 to the price above.

NOTE: The price quoted does not provide for a payment retainer and is for material only. This quote does not include any operating or mechanical equipment and does not require any site services.

NOTE: MATERIAL QUOTED ISOPHTHALIC POLYESTER RESIN

EXCLUSIONS: 1) Taxes; 2) Installation; 3) Painting/Coating; 4) Field Measurements; 5) Any item not specifically included above; 6) Field service & Start-up certification

Terms: Net 30 days with no retainer

Price good for 90 days

MFG Construction & Water Products

Mike Sjoström
Business Manager

BEAUMONT (55.1173)
EXTENDED PROJECT COST

	Monthly Total Cost	Days/Month	Daily Cost
Extended Project Management	\$ 63,805.71	31	\$ 2,058.25
<small>See Attached Table I</small>			
Extended Project Facilities	\$ 18,197.17	31	\$ 587.01
<small>See Attached Table II</small>			
Extended Labor Manhour	\$ -	31	\$ -
<small>See Attached Table III</small>			
Southern Contracting	\$ -	31	\$ -
Sub Total:	\$ 82,002.88	31	\$ 2,645.25
Markup 15%:	\$ 12,300.43	31	\$ 396.79
Total:	\$ 94,303.31		\$ 3,042.04
 Total Days Delayed:		 45	 \$ 136,891.90

TABLE I - BEAUMONT (55.1173)

EXTENDED PROJECT MANAGEMENT - MONTHLY DURATION EQUATES TO 22 WD - 31 CD

ITEM NO.	TITLE	NAME OF INDIVIDUAL	HOURLY RATE	DAILY RATE	TOTAL WEEKLY RATE	REMARKS
1	Assistant Engineer	Armando Cayama	\$ 47.69	\$ 381.52	\$ 1,907.60	Full time at jobsite
2	Project Engineer	Adam Hickman	\$ 68.23	\$ 545.84	\$ 2,729.20	Full time at jobsite
3	Senior Project Manager	Juan Ahumada	\$ 90.44	\$ 723.52	\$ 723.52	One day a week
4	Project Manager	Oscar Mendoza	\$ 79.24	\$ 633.92	\$ 1,267.84	Two days a week
5	Division Manager	Pat Saleen	\$ 106.27	\$ 850.16	\$ 1,700.32	Two days a month
6	Project Superintendent	Robert Beck	\$ 118.65	\$ 1,067.85	\$ 5,339.25	Full time at jobsite
7	Clerk	Wendy Saleen	\$ 32.70	\$ 261.60	\$ 261.60	One day per week
8	Yardman	Brandon Chew	\$ 41.97	\$ 335.76	\$ 335.76	One day per week
9						
10		Total Amount Per Week:			\$ 14,265.09	
TOTAL COST PER MONTH INCLUDING BOND					\$ 63,805.71	

TABLE II - BEAUMONT (55.1173)
EXTENDED PROJECT FACILITIES AND SERVICES - DURATION IS 22 WD - 31 CD

ITEM NO.	DESCRIPTION	QTY.	DURATION	COST OR RATE	EXTENDED COSTS	REMARKS
1	Storage Containers	1	1 month	\$ 135.00 per month	\$ 135.00	
2	PM Office Trailer	1	1 month	\$ 925.00 per month	\$ 925.00	
3	CM/Owner Trailer	1	1 month	\$ 925.00 per month	\$ 925.00	
7	Internet service at project	1	1 month	\$ 500.00 per month	\$ 500.00	
8	Copier service at project	1	1 month	\$ 1,800.00 per month	\$ 1,800.00	
11	Drinking water at project	1	1 month	\$ 120.00 per month	\$ 120.00	
12	Construction water	1	0 month	\$ - per month	\$ -	
13	Janitorial Service for Offices	1	1 month	\$ 400.00 per month	\$ 400.00	
14	Sanitation Services for Field	1	1 month	\$ 600.00 per month	\$ 600.00	
15	Waste disposal services for project	1	1 month	\$ 800.00 per month	\$ 800.00	
18	Jobsite security (Bastion)	1	1 month	\$ 2,500.00 per month	\$ 2,500.00	
19	Builder's Risk	1	1 month	\$ 8,312.00 per month	\$ 8,312.00	
20	Scheduler	1	1 month	\$ 1,000.00 per month	\$ 1,000.00	
TOTAL COST PER MONTH INCLUDING BOND \$ 18,197.17						

City of Beaumont Waste Water Treatment Plant
Salt Mitigation Upgrade Project



Time Impact Analysis 04.1



WM Lyles Co.

INTRODUCTION

The following narrative outlines the Time Impact Analysis procedure and findings relating to Unforeseen Event 04 – RW/UV and Chemical Area Changes.

IDENTIFICATION OF SCHEDULE:

Schedule Update Base File: COB_UP10
Schedule Analysis File: COB_TIA04

TIME IMPACT ANALYSIS METHODOLOGY

The methodology used in this analysis follows a retroactive, “forward-looking” Time Impact Analysis (TIA) procedure. It compares the last approved schedule prior to the first impact event being analyzed to a copy of the same schedule with the addition of modeled schedule impact(s).

The modeled schedule impact events used in the analysis, herein are referred to as “Unforeseen Events” (UFEs), represent events that may impact the schedule and could not have been reasonably foreseen at the time of submitting the original bid for construction. These events are beyond the control, and without fault or negligence of the General Contractor.

The October 2019 schedule progress update was chosen as schedule of comparison to be used in our analysis as it is latest approved schedule update prior to the start of the first delay event being analyzed. A subsequent informal analysis had determined that had the Plant Effluent Chemical Area change order been executed on or before November 20, the schedule would not have been impacted.

WM Lyles is relying on the assumption that the change order for the Plant Effluent Chemical Area will be approved during the next board meeting scheduled for January 7, 2020.

Analysis procedure for TIA04:

1. The last submitted schedule (As-Planned Schedule) prior to the start of the first UFE is the October 2019 schedule progress update (UP10).
2. The As-Planned schedule was copied to create the Impacted Schedule of Comparison (TIA04)
3. UFE(s) being analyzed were logically inserted into the Impacted Schedule of Comparison.
4. The affected Project Milestone(s) in the As-Planned schedule were compared to the affected Project Milestone(s) in the Impacted Schedule of Comparison to quantify any impacts resulting from UFE(s).

UNFORESEEN EVENTS

An Unforeseen Event (UFE) is defined herein as an impact and/or change to the project schedule could not have been reasonably foreseen at the time of submitting a bid for construction and which is beyond the control and without fault or negligence of the General Contractor. As described in clarifications #16, the following changes have been made to the project:

Unforeseen Event 04 – RW/UV and Chemical Area Changes

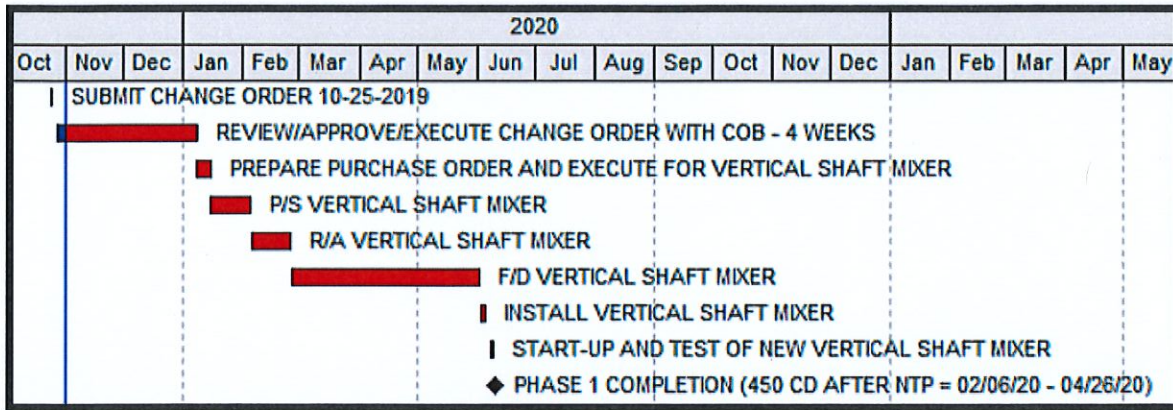
This change order proposal addresses the changes in the chemical area near the recycled water pump station. These changes consist of deleting the sodium hypochlorite chemical storage #2 as shown on drawings C-37 and C-38 (and associated dosing connection point for the recycled water line) and modifying the existing septage receiving station northwest of the Recycled Water Pump Station to function as a chemical containment area for one sodium bisulfite chemical tank and one caustic soda chemical tank. This area will also include the chemical dosing pumps for each system. The sodium bisulfite will be dosed over the effluent weir of the Recycled Water Pump Station and the caustic soda will be dosed in the influent box upstream of the UV channels. The dosing at the UV influent box will include a mechanical mixer. The dosing system at the Recycled Water Pump Station will be a static system but will include chlorine and pH analyzers and a combined controller connected to plant SCADA.

The modifications also include grading and yard piping changes associated with the chemical piping from the chemical storage area to the UV influent box and recycled water pump station

The vertical shaft mixer is driving the critical path of the delay. The current forecast for the fabrication and delivery of the vertical shaft mixer is 14 weeks. Activities representing the steps necessary to implement this change order have been logically added to the schedule. These activities replaced the existing activities in the schedule representing the scope of work being modified / replaced by this change order.

Schedule Delay Fragment

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float
UFE04.01	SUBMIT CHANGE ORDER 10-25-2019	1	0	25-Oct-19 A	25-Oct-19 A	
UFE04.02	REVIEW/APPROVE/EXECUTE CHANGE ORDER WITH COB - 4 WEEKS	18	48	28-Oct-19 A	07-Jan-20	-34
UFE04.03	PREPARE PURCHASE ORDER AND EXECUTE FOR VERTICAL SHAFT MIXER	5	5	08-Jan-20	14-Jan-20	-34
UFE04.04	P/S VERTICAL SHAFT MIXER	15	15	15-Jan-20	04-Feb-20	-34
UFE04.05	R/A VERTICAL SHAFT MIXER	15	15	05-Feb-20	25-Feb-20	-34
UFE04.06	F/D VERTICAL SHAFT MIXER	70	70	26-Feb-20	02-Jun-20	-34
UFE04.07	INSTALL VERTICAL SHAFT MIXER	3	3	03-Jun-20	05-Jun-20	-34
UFE04.08	START-UP AND TEST OF NEW VERTICAL SHAFT MIXER	2	2	08-Jun-20	09-Jun-20	-34
MS01	PHASE 1 COMPLETION (450 CD AFTER NTP = 02/06/20 - 04/26/20)	0	0		10-Jun-20*	-48



Milestone Comparison

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float
COB WWTP Salt Mitigation Upgrade Project_OCT 2019						
MS01	PHASE 1 COMPLETION (450 CD AFTER NTP = 02/06/20 - 04/26/20)	0	0		02-May-20*	-10
MS01.1	PROJECT SUBSTANTIAL COMPLETION (4 WKS PRIOR TO MS02)	0	0		12-Apr-21	-8
MS02	PHASE 2 COMPLETION (820 CD AFTER NTP = 02/13/21 - 05/01/21)	0	0		10-May-21*	-9
COB WWTP Salt Mitigation Upgrade Project_TIA04						
MS01	PHASE 1 COMPLETION (450 CD AFTER NTP = 02/06/20 - 04/26/20)	0	0		10-Jun-20*	-48
MS01.1	PROJECT SUBSTANTIAL COMPLETION (4 WKS PRIOR TO MS02)	0	0		17-May-21	-43
MS02	PHASE 2 COMPLETION (820 CD AFTER NTP = 02/13/21 - 05/01/21)	0	0		15-Jun-21*	-45

The Phase 1 Completion and Phase 2 Completion Milestones were impacted by UFE04 as follows:

MS01: 48 Calendar Days
MS02: 45 Calendar Days

NOTE: The schedule is being concurrently impacted by the MBR CHEMICAL AREA AND MISC CHANGES – CLARIFICATIONS #12 / #13.

CONCLUSION

WM Lyles is relying on the assumption that the change order for the Plant Effluent Chemical Area Changes will be approved during the next board meeting scheduled for January 7, 2020.

ATTACHMENTS

P6 Schedule Analysis File: COB_TIA04_Impacted Schedule
11x17 PDF: COB_TIA04_Impacted Longest Path

