

## CONSTRUCTION CHANGE AUTHORIZATION

**TO:** Mr. Steve Davis  
Project Manager  
Klewit Water Facilities South  
4405 International Blvd., NW,  
Suite C-101  
Norcross, Georgia 30093  
(770) 940-8044

**FROM:** CDM Smith  
3715 Northside Parkway NW  
Building 300, Suite 400  
Atlanta, GA 30327  
(404) 720-1400

**DATE:** November 20, 2018

**PROJECT:** City of Franklin, Tennessee  
Franklin WRF Modifications & Expansion Project

**CCA NUMBER:** 003 **CDM SMITH PROJ. NO.:** 14915-231666

**SUBJECT:** Structural Aluminum Stair Support **CITY PROJECT NO.:** 2017-0264

**REFERENCE:** S-13

**DESCRIPTION:** At the request of the Contractor per RFI No. 008, item 1, the I14 x 16.0 aluminum support beams shown on Sections 1 and 2, Sh. S-13 may be revised to I12 x 14.3 with spacers per attached Figures SK-1 and SK-2.

**ATTACHMENTS:** Fig. SK-1, SK-2

**CDM SMITH:**

By: 

Date: 2/6/19

**CONTRACTOR:**

By: 

Date: 2/25/2019

**City of Franklin:**

By: 

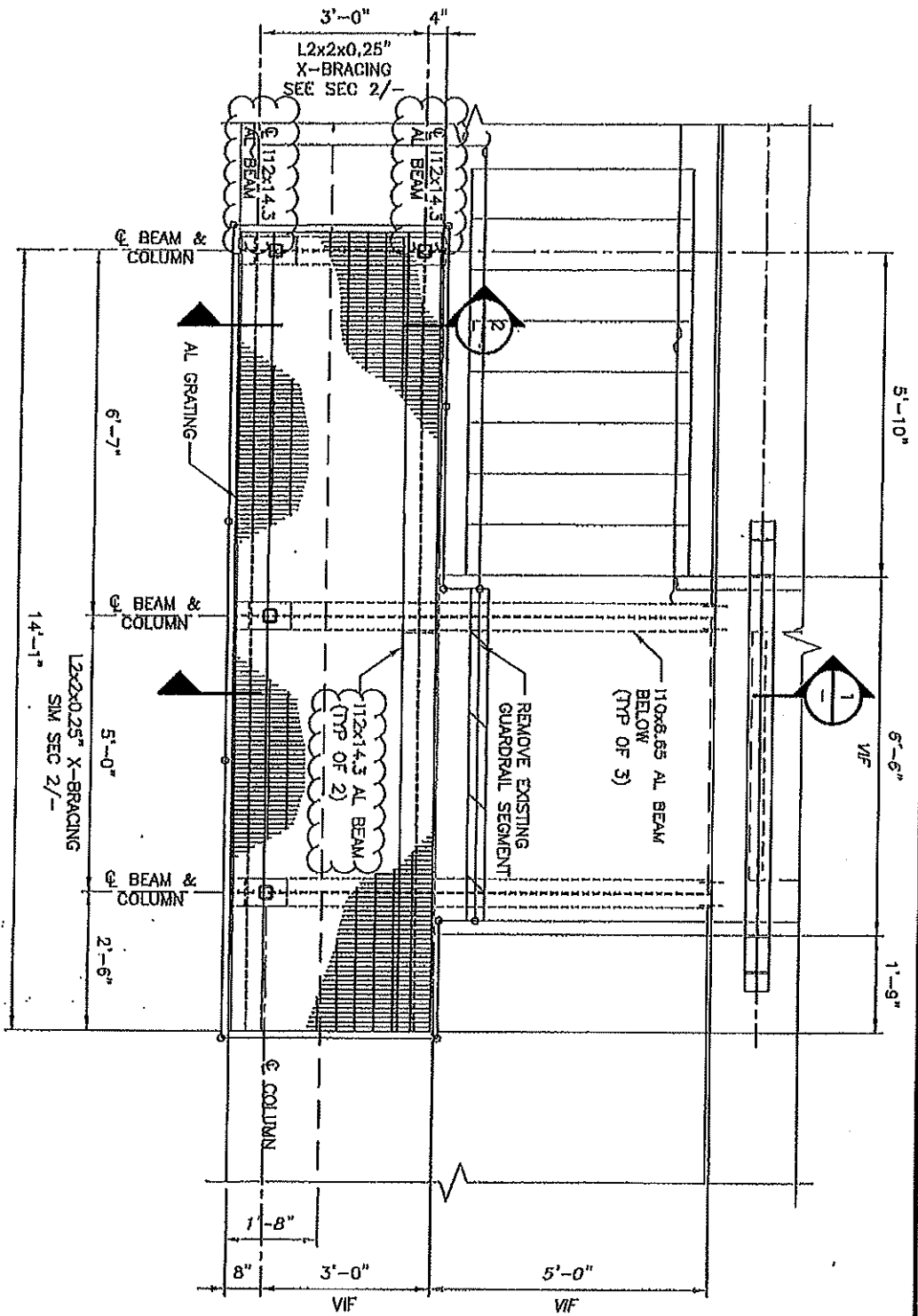
Date: 2/6/19

**CDM  
Smith**

ENLARGED PLAN

PLAN

1/2" = 1'-0"



DATE JAN 2019

SHEET NO. LOCATION

APPENDIX NO.

FIGURE NO.

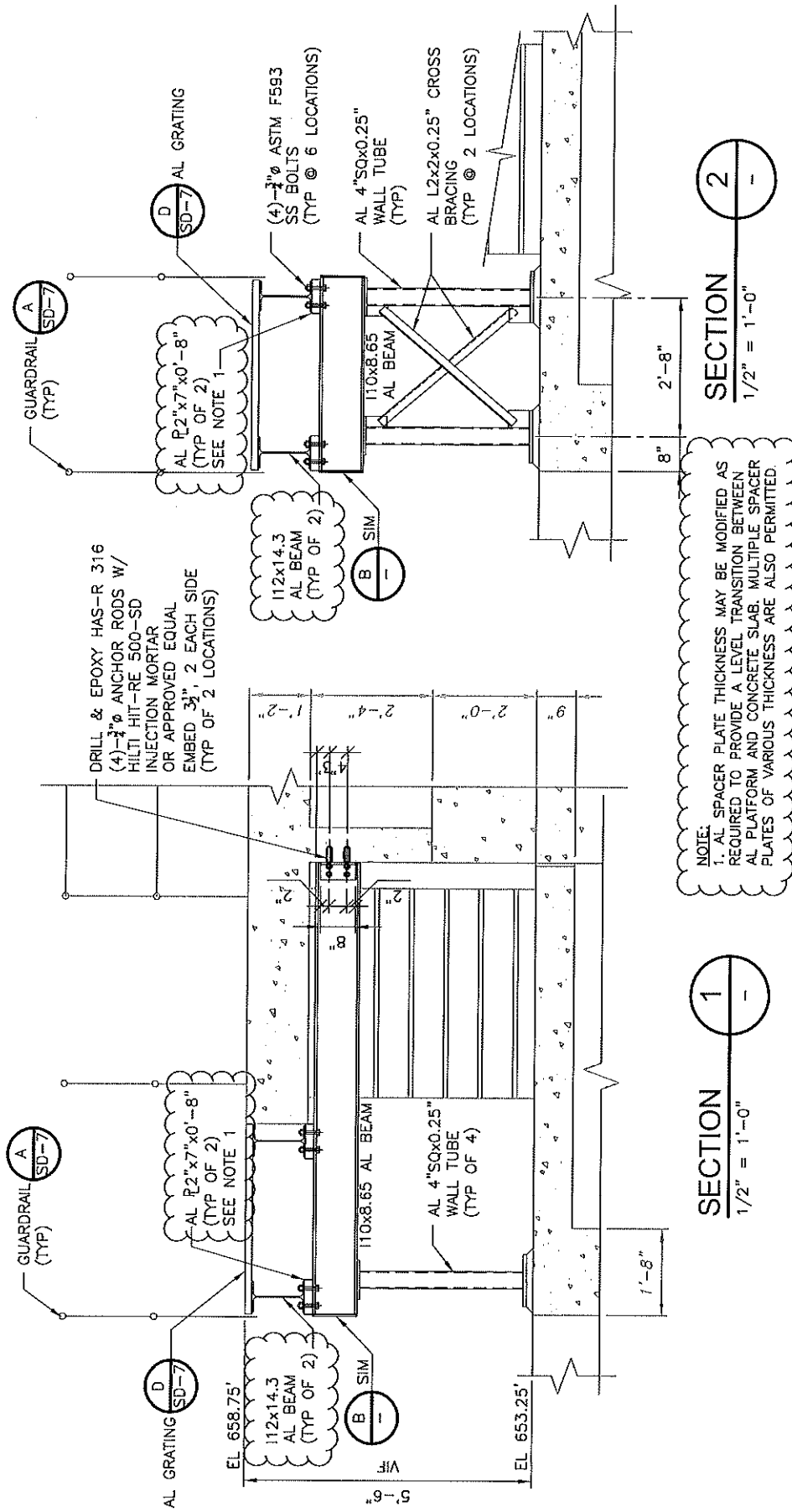
SK-1



# PLAN

$$\underline{1/2'' = 1'-0''}$$

DATE <u>JAN 2019</u>			APPENDUM NO.	FIGURE NO.
	SHEET NO.	LOCATION		







# Kiewit

Kiewit Infrastructure South Co.  
4405 International Blvd., NW, Suite C-101  
Norcross, GA 30093

April 26, 2019

To: Attn: Mr. Dan Harris

GC-KIEWIT-00011.00

CDM Smith, Inc.  
210 25<sup>th</sup> Avenue North  
Suite 1102  
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project  
COF Contract No. 2017-0264

Subject: CCA-003 Structural Aluminum Stair Support

Dear Mr. Harris,

Kiewit has received **Construction Change Authorization (CCA) 003** regarding the **Structural Aluminum Stair Support**. Upon further evaluation of this CCA, Kiewit has determined that the changes identified in this CCA will result in **no cost or schedule impact** to the above referenced contract.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis  
Project Manager

cc: File  
Michelle Hatcher

## CONSTRUCTION CHANGE AUTHORIZATION

**TO:** Mr. Steve Davis  
Project Manager  
Kiewit Water Facilities South  
4405 International Blvd., NW,  
Suite C-101  
Norcross, Georgia 30093  
(770) 940-8044

**FROM:** CDM Smith  
3715 Northside Parkway NW  
Building 300, Suite 400  
Atlanta, GA 30327  
(404) 720-1400

**DATE:** March 7, 2019

**PROJECT:** City of Franklin, Tennessee  
Franklin WRF Modifications & Expansion Project

**CCA NUMBER:** 004

**CDM SMITH PROJ. NO.:** 14915-231666

**SUBJECT:** Electrical Building

**CITY PROJECT NO.:** 2017-0264

**REFERENCE:** N/A

**DESCRIPTION:** Sheets S-38A, S-38, S-39, S-40 and S-41 are reissued to correct a drafting error in the Conformed Drawings.

**ATTACHMENTS:** Rev. Sh. S-38A, S-38, S-39, S-40, S-41

**CDM SMITH:**

By: \_\_\_\_\_

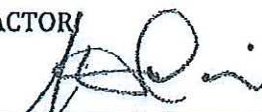
Date: \_\_\_\_\_

  
4/25/19

**CONTRACTOR:**

By: \_\_\_\_\_


Date: \_\_\_\_\_

  
April 2, 2019

**City of Franklin:**

By: \_\_\_\_\_

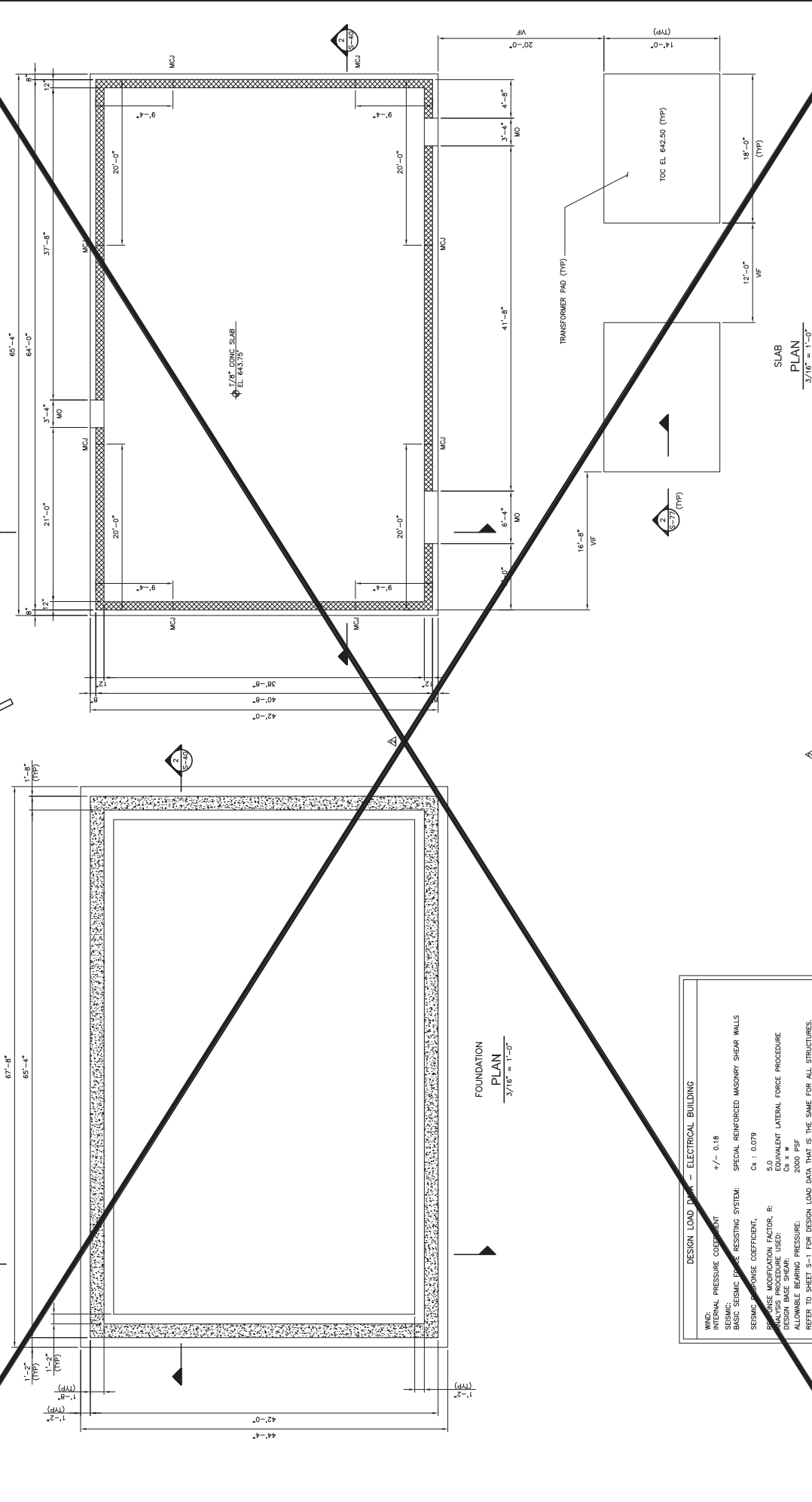
Date: \_\_\_\_\_

  
4/26/19



CONFIRMED DRAWING - AUGUST 2018

# NOT IN CONTRACT<sup>A</sup>



DESIGN LOAD DATA – ELECTRICAL BUILDING	
WIND:	
INTERNAL PRESSURE COEFFICIENT	+/- 0.18
SUSSEISMIC	
BASE SEISMIC FORCE RESISTING SYSTEM:	SPECIAL REINFORCED MASONRY SHEAR WALLS
SEISMIC RESPONSE COEFFICIENT,	C <sub>s</sub> = 0.079
BASE MODIFICATION FACTOR, R:	5.0
ANALYSIS PROCEDURE USED:	EQUIVALENT LATERAL FORCE PROCEDURE
ALLOWABLE BEARING PRESSURE:	2000 PSF
REFER TO SHEET S-1 FOR DESIGN LOAD DATA THAT IS THE SAME FOR ALL STRUCTURES.	



NOT IN CONTRACT<sup>A</sup>

**CDM  
Smith**

DESIGNED BY: BALAJI S.  
DRAWN BY: P. DOUGLAS  
CHECKED BY: T. VERWEY  
CROSS CHECKED BY: P. COUSINS  
APPROVED BY: J. BOGGS  
DATE: APRIL 2018

[illegible]

PROJECT NO 14915-98594-WRF  
FILE NAME: S040EBPL.DWG

SHEET NO.  
S-40

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## Δ ALTERNATE ELECTRICAL BUILDING SECTION AND DETAILS

CITY OF FRANKLIN, TENNESSEE  
FRANKLIN WRF  
MODIFICATIONS AND EXPANSION PROJECT  
COF CONTRACT NO. 2017-0264

**CDM  
Smith**

Parkway Towers  
210 2305 Avenue North, Suite 1102  
Nashville, TN 37203  
Tel: (615) 320-5161

DESIGNED BY: BALAJI S.  
DRAWN BY: P. DOUGLAS  
CHECKED BY: T. VERWEY  
CROSS CHECKED BY: P. COUSINS  
APPROVED BY: J. BOGGS  
DATE: APRIL 2018

[illegible]

CONFORMED DRAWING - AUGUST 2018



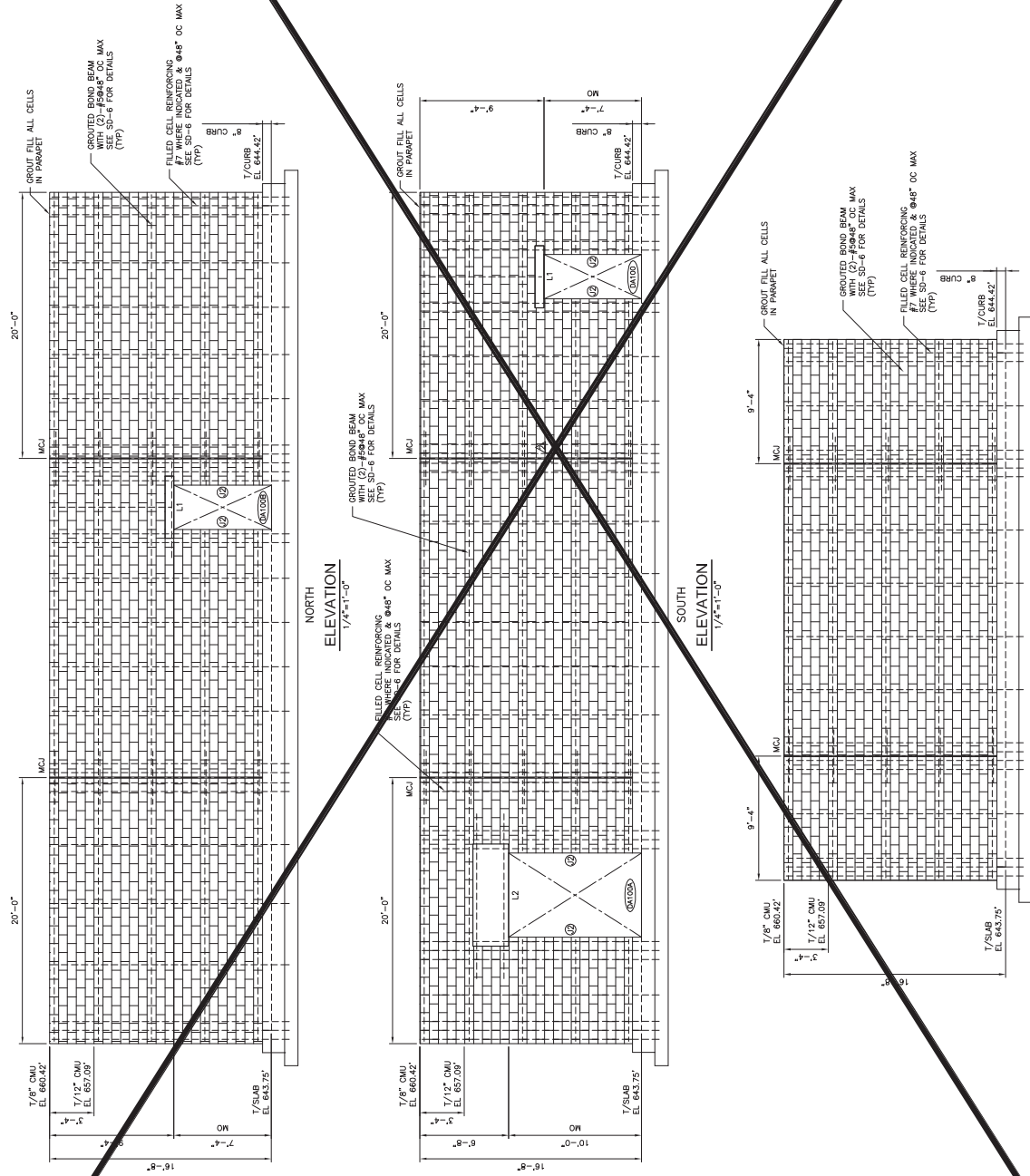
2012 INTERNATIONAL BUILDING CODE SECTION 1603.11.5			
COMPONENTS AND JOINTING WIND PRESSURES (PSF)			
OPENING LABEL	MAXIMUM PERMITTED PRESSURE	MAXIMUM PERMITTED SUCK	MAXIMUM PERMITTED DIFFERENTIAL PRESSURE
DL100A	24.6	-23.2	24.6
DL100B	24.6	-23.2	24.6

NOTES:

1. REFER TO SD-6 FOR STANDARD MASONRY DETAILS.
2. REINFORCING DEPICTED IN ELEVATIONS IS FOR ILLUSTRATION PURPOSES. PROVIDE REINFORCING FOR CORNERS, INTERSECTIONS, UNITS, SILLS, JAMBS & MASONRY CONTROL JAMBS PER THE DETAILS ON SD-4.

LEGEND

- LX UNIT TYPE, DETAIL K/SD-6
- ② JAMB TYPE, DETAIL L/SD-6
- DL100B OPENING LABEL



NOT IN CONTRACT

PROJECT NO. 14815-0604-RRS FILE NAME: S-41.DWG SHEET NO. S-41		CITY OF FRANKLIN, TENNESSEE FRANKLIN WRF MODIFICATIONS AND EXPANSION PROJECT COF CONTRACT NO. 2017-0264		CONFIRMED DRAWING - AUGUST 2018	
DESIGNED BY: B. J. BROWN DRAWN BY: P. J. BROWN CHECKED BY: P. J. BROWN APPROVED BY: P. J. BROWN DATE: APRIL 2018		REVISIONS NO. DATE DESCRIPTION 1. 3/20/18 FOR BIDDING 2. 4/10/18 FOR BIDDING		REMARKS	
REVISIONS NO. DATE DESCRIPTION 1. 3/20/18 FOR BIDDING 2. 4/10/18 FOR BIDDING		REMARKS		REVISIONS NO. DATE DESCRIPTION 1. 3/20/18 FOR BIDDING 2. 4/10/18 FOR BIDDING	



# Kiewit

Kiewit Infrastructure South Co.  
4405 International Blvd., NW, Suite C-101  
Norcross, GA 30093

April 26, 2019

To: Attn: Mr. Dan Harris

GC-KIEWIT-00012.00

CDM Smith, Inc.  
210 25<sup>th</sup> Avenue North  
Suite 1102  
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project  
COF Contract No. 2017-0264

Subject: CCA-004 Electrical Building

Dear Mr. Harris,

Kiewit has received **Construction Change Authorization (CCA) 004** regarding the **Electrical Building sheets S-38A, S-38, S-39, S-40, and S-41**. Upon further evaluation of this CCA, Kiewit has determined that the changes identified in this CCA will result in **no cost or schedule impact** to the above referenced contract.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis  
Project Manager

cc: File  
Michelle Hatcher



## CONSTRUCTION CHANGE AUTHORIZATION

**TO:** Mr. Steve Davis  
Project Manager  
Kiewit Water Facilities South  
4405 International Blvd., NW,  
Suite C-101  
Norcross, Georgia 30093  
(770) 940-8044

**FROM:** CDM Smith  
Parkview Towers  
210 25<sup>th</sup> Ave. N., Suite 1102  
Nashville, TN 37203  
(615)-771-2466

**DATE:** March 18, 2019

**PROJECT:** City of Franklin, Tennessee  
Franklin WRF Modifications & Expansion Project

**CCA NUMBER:** 005 **CDM SMITH PROJ. NO.:** 14915-231666


**SUBJECT:** Bid Alternate D **CITY PROJECT NO.:** 2017-0264

**REFERENCE:** N/A

**DESCRIPTION:** City of Franklin accepts Contractor proposal dated January 18, 2019 to construct landscaping berms with excess fill material in lieu of removing materials from the site in exchange for proposed credit of (\$80,000.00)

**ATTACHMENTS:** Kiewit Proposal Letter dated 18 Jan 2019


**CDM SMITH:**

By:   
Date: 3/18/19

**CONTRACTOR:**

By:   
Date: April 2, 2019

**City of Franklin:**

By:   
Date: 3/18/19



# Kiewit

Kiewit Infrastructure South Co.  
4405 International Blvd., NW, Suite C-101  
Norcross, GA 30093

January 18, 2019

To: Attn: Mr. Dan Harris

LET-KIEWIT-00006.00

CDM Smith, Inc.  
210 25<sup>th</sup> Avenue North  
Suite 1102  
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project  
COF Contract No. 2017-0264

Subject: Proposal for Construction of Landscaping Berms

Dear Mr. Harris,

The following proposal is in reference to the construction of the landscape berms which were provided for in the Franklin WRF Modifications & Expansion Project Bid Documents and specifically on the Bid Form as Deductive Alternate D - Construct Berms Instead of Hauling Excess Material.

As previously mentioned, Kiewit included the construction of the landscaping berms in the base bid, in lieu of hauling excess material off site, to lower the pricing for the project. By allowing Kiewit to proceed with construction of the landscaping berms, with on-site excess material, in accordance with the Bid Documents, Kiewit hereby offers a credit of Eighty Thousand Dollars (\$80,000.00) for consideration by the City of Franklin.

Kiewit greatly appreciates the consideration of this proposal with hopes it will be found acceptable.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis  
Project Manager

cc: File  
Michelle Hatcher



# Kiewit

Kiewit Infrastructure South Co.  
4405 International Blvd., NW, Suite C-101  
Norcross, GA 30093

January 18, 2019

To: Attn: Mr. Dan Harris

LET-KIEWIT-00006.00

CDM Smith, Inc.  
210 25<sup>th</sup> Avenue North  
Suite 1102  
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project  
COF Contract No. 2017-0264

Subject: Proposal for Construction of Landscaping Berms

Dear Mr. Harris,

The following proposal is in reference to the construction of the landscape berms which were provided for in the Franklin WRF Modifications & Expansion Project Bid Documents and specifically on the Bid Form as Deductive Alternate D - Construct Berms Instead of Hauling Excess Material.

As previously mentioned, Kiewit included the construction of the landscaping berms in the base bid, in lieu of hauling excess material off site, to lower the pricing for the project. By allowing Kiewit to proceed with construction of the landscaping berms, with on-site excess material, in accordance with the Bid Documents, Kiewit hereby offers a credit of **Eighty Thousand Dollars (\$80,000.00)** for consideration by the City of Franklin.

Kiewit greatly appreciates the consideration of this proposal with hopes it will be found acceptable.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis  
Project Manager

cc: File  
Michelle Hatcher



## CONSTRUCTION CHANGE AUTHORIZATION

<b>TO:</b>	Mr. Steve Davis Project Manager Kiewit Water Facilities South 4405 International Blvd., NW, Suite C-101 Norcross, Georgia 30093 (770) 940-8044	<b>FROM:</b>	CDM Smith 210 25 <sup>th</sup> Ave. N. Suite 1102 Nashville, TN 37203 (615) 320-3161
<b>DATE:</b>	July 18, 2019		
<b>PROJECT:</b>	City of Franklin, Tennessee Franklin WRF Modifications & Expansion Project		
<b>CCA NUMBER:</b>	014	<b>CDM SMITH PROJ. NO.:</b>	14915-231666
<b>SUBJECT:</b>	Grit Classification Equipment	<b>CITY PROJECT NO.:</b>	2017-0264
<b>REFERENCE:</b>	(See Below)		

**DESCRIPTION:** Provide battery powered auto-lubrication equipment for grit classifiers per the Engineer's comments to submittal D-11325-001-B and a credit of (\$5,031) per Change Proposal No. 7 dated June 21, 2019.

CDM SMITH:

By: [Signature]  
Date: 8/13/19

**CONTRACTOR:**

By: [Signature]  
Date: 8/12/2019

**City of Franklin:**

By: Mallik Hebbar  
Date: 8/13/19



# Kiewit

Kiewit Infrastructure South Co.  
4405 International Blvd., NW, Suite C-101  
Norcross, GA 30093

---

June 21, 2019

To: Attn: Mr. Dan Harris

CP-KIEWIT-00002.01

CDM Smith, Inc.  
210 25<sup>th</sup> Avenue North  
Suite 1102  
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project  
COF Contract No. 2017-0264

Subject: Revised Change Proposal - Grit Classification Equipment – Lubricator - Submittal D-11325-001-B  
Reviewer Comments

Dear Mr. Harris,

In response to comment one of D-11325-001-B Reviewer Comments on Grit Classification Equipment submittal, Kiewit hereby proposes to perform the following lump sum revisions to the Work as described in the attached proposals dated June 7, 2019 from Envirodyne Systems Inc. and May 22, 2019 from Wayne J. Griffin Electric, Inc. (WJGEI) for a total credit of **Five Thousand Thirty-One Dollars and Zero Cents (\$5,031.00)**.

This credit includes substituting Trico single point lubricators in lieu of electrically driven for the classification equipment as well as the deletion of conduit, wire and disconnects for three units and one future unit.

Kiewit has also included a wage burden rate breakdown from WJGEI in response to CDM Smith's letter dated June 3, 2019 regarding CCA No. 008 and WJGEI's labor rate.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis  
Project Manager

cc: File  
Michelle Hatcher  
Brian Goodwin



Parkview Towers  
210 25<sup>th</sup> Avenue North, Suite 1102  
Nashville, Tennessee 37203  
tel: 615-771-2466  
fax: 615-778-9733

June 5, 2019

Mr. Steve Davis  
Kiewit Infrastructure South Co.  
4405 International Blvd NW, Suite C-101  
Norcross, GA 30093

Subject: Franklin WRF Expansion Project  
Change Proposal (CP) No. 7 – Grit Classification Equipment

Dear Mr. Davis;

We have received CP 7 in response to the Engineer's comments to submittal D-11325-001-B and respond with the following comments;

1. The pdf markup from EnviroNyne Systems, Inc. indicating a proposed credit of (\$300) will not satisfy SRF documentation requirements. Please provide a proposal from the manufacturer indicating the actual "sell cost" of the originally specified equipment and that of the proposed new equipment.
2. Regarding labor rates for Wayne J. Griffin Electric, Inc., please refer to our June 3, 2019 letter in response to your proposal for Construction Change Authorization (CCA) No. 8.
3. The City has opted to keep the originally required MCC buckets for use as spares.

Please revise per the above, and feel free to contact me if you have questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Harris".

Daniel A. Harris, PMP, CCM, LEED GA  
Project Manager  
CDM Smith

cc: Brian Goodwin, City of Franklin



## Grit Classification Lubricators



ISO 9001:2015 CERTIFIED

# ENVIRODYNE SYSTEMS INC.

Custom Water & Wastewater Treatment Equipment - Since 1971

75 Zimmerman Drive Camp Hill, PA, USA 17011

Phone: (717) 763-0500 | Fax: (717) 763-9308 | [www.envirodyne.com](http://www.envirodyne.com)

June 7, 2019

Stephen Reid  
KIEWIT WATER FACILITIES SOUTH CO.  
135 Claude Yakes Dr.  
Franklin, TN 37064

VIA EMAIL

Subject: Franklin, TN  
Franklin WRF Modification & Expansion Project  
Material Contract No. 103925-MC-029  
Our Job No. 9234  
CHANGE PROPOSAL (CP) NO. 7 - GRIT CLASSIFICATION EQPT.

Dear Mr. Reid:


Below is a credit proposal for the substitution of single point lubricators as opposed to electrically driven for the grit classification equipment (Section 11325). This is in response to submittal D-11325-001-B.

<i>Price of electrically driven lubricator</i>	<i>= \$440.00 x 3 units = \$1,320.00</i>
<i>Price of proposed single point lubricator</i>	<i>= \$170.00 x 3 units = \$ 510.00</i>
<i>Credit (price difference)</i>	<i>= \$270.00 x 3 units = \$ 810.00</i>

Envirodyne proposed credit = \$300 x 3 units = \$900.00 total.

Yours very truly,

ENVIRODYNE SYSTEMS INC.



Eric Bushey, P.E.  
Vice President

EAB:syb





WAYNE J.  
**GRIFFIN ELECTRIC**  
INC.

May 22, 2019

VIA EMAIL ONLY: [Steven.Davis1@kiewit.com](mailto:Steven.Davis1@kiewit.com)

Mr. Steven Davis, Project Manager  
Kiewit  
135 Claude Yates Drive  
Franklin, TN 37064

RE: Job #6198 - Franklin WRF Mods and Exp., Franklin, TN  
Proposal #5

Dear Mr. Davis:

Wayne J. Griffin Electric, Inc. ("WJGEI") proposes to modify our contract to perform the following lump sum revisions to our work per our enclosed detailed backup:

**DESCRIPTION OF WORK:**

This credit is to delete the Auto Lube Pumps for the Grit Classification Equipment. The credit includes the deletion of four (4) MCC Buckets and the conduit, wire, and disconnects for the three (3) pumps and one (1) Future.

Material	\$	<del>(4,018.75)</del>	(1,944.75)
Labor		(2,037.07)	
Total	\$	<del>(6,055.82)</del>	(3,981.82)

This is a lump sum forward looking estimate of the above-noted change to our scope of work. This estimate represents a price we are willing to accept to assume the cost risk of this change to our ongoing work given the information provided to us. The labor and material prices contained in this proposal are based upon vendor/subcontractor quotes (if noted) and/or electrical industry pricing guides such as NECA, Trade Service, or R.S. Means, which guides are widely used and accepted in the construction industry to facilitate timely and consistent change order pricing. This estimate is offered for your review, approval and acceptance.

**Corporate Headquarters:**

116 Hopping Brook Road  
Holliston, MA 01746  
Phone: (508) 429-8830  
Fax: (508) 429-7825

**Regional Offices:**

296 Cahaba Valley Parkway  
Pelham, AL 35124  
Phone: (205) 733-8848  
Fax: (205) 733-8107

1950 Evergreen Boulevard  
Suite 300  
Duluth, GA 30096  
Phone: (678) 417-9377  
Fax: (678) 417-9373

2310 Presidential Drive  
Suite 101  
Durham, NC 27703  
Phone: (919) 627-9724  
Fax: (919) 627-9727

9801-C Southern Pine Boulevard  
Charlotte, NC 28273  
Phone: (704) 522-3851  
Fax: (704) 522-3856

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175, or [troberson@wjgei.com](mailto:troberson@wjgei.com).

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson  
Project Manager

TRR/kam

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: \_\_\_\_\_ Authorized Signature: \_\_\_\_\_

cc: Corbin Coker, Engineer, Kiewit, [Corbin.Coker@Kiewit.com](mailto:Corbin.Coker@Kiewit.com)  
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.  
Sarah Moore, Project Engineer, Wayne J. Griffin Electric, Inc.



116 Hopping Brook Road, Holliston, MA 01746  
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0005, Credit for Grease Pumps in MCC 3 and  
Date: 5/20/2019  
Project Name: Franklin WRF Mods and Exp  
Project Number: 06198-00-18  
Page Number: 1

## Work Description

This credit is to delete the Auto Lube Pumps for the Grit Classification Equipment. The credit includes the deletion of 4 MCC Buckets and the Conduit, Wire, and disconnects for the (3) pumps and (1) Future.

### Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Builts	0.00	0.0000	HRS	0.000	0.000	0.000
Cleanup	0.00	0.0000	HRS	0.000	0.000	0.000
Tools	0.00	0.0000	HRS	0.000	0.000	0.000
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	0.000
Supervision	0.00	0.0000	HRS	0.000	0.000	0.000
Project Controls	0.00	0.0000	HRS	0.000	0.000	0.000
<del>EATON CREDIT FOR AUTO LUBE BUCKETS</del>	<del>-1.00</del>	<del>2,074.0000</del>	<del>EO</del>	<del>-2,074.000</del>	0.000	0.000
3/4" PVC SCHEDULE 40	-100.00	0.3103	FT	-31.030	0.045	-4.500
3/4" RIGID PVC COATED CONDUIT 40MIL	-10.00	7.1180	FT	-71.180	0.080	-0.800
3/4" ALUMINUM CONDUIT	-15.00	4.3407	FT	-65.110	0.055	-0.825
3/4" PVC COUPLING SCHEDULE 40	-8.00	0.1538	EA	-1.230	0.160	-1.280
3/4" PVC FEMALE ADAPTER	-24.00	0.3058	EA	-7.340	0.160	-3.840
3/4" PVC/GRC COUP 40MIL	-6.00	5.2667	EA	-31.600	0.350	-2.100
3/4" LIQUIDTITE CONDUIT	-9.00	3.0800	FT	-27.720	0.050	-0.450
3/4" LIQUID TIGHT STEEL STRAIGHT CONNECTOR	-6.00	2.9950	EA	-17.970	0.180	-1.080
#12 XHHW COPPER WIRE	-600.00	0.1884	FT	-113.040	0.007	-4.200
30A 600V 3P NF NEMA 4X	-3.00	475.3000	EA	-1,425.900	2.000	-6.000
3/4" SEALING FITTING FEM HUB	-6.00	25.4383	EA	-152.630	0.600	-3.600
Totals				<del>-4,018.75</del>		-28.68
Tax				0.00		
Materials with				<del>-4,018.75</del>		

### Summary

	Itemized Breakdown Total		<del>-4,018.75</del>	<del>-1,944.75</del>
Elect. Journeyman	(-28.6750 hrs @ \$71.04 / hr)	-2,037.07		
			-2,037.07	
Total			<del>-\$6,055.82</del>	<del>-3,981.82</del>



## Timothy Roberson

**From:** David Collis <dcollis@inlineelectric.com>  
**Sent:** Friday, May 17, 2019 11:26 AM  
**To:** Timothy Roberson  
**Subject:** FW: lvmcc c/n for deletion of starter buckets FW: [EXTERNAL] 6198 - Credit proposal for Auto Lubricator Pumps in MCC-3/4 - GO# MNV0009366 (VISTA Change Notice Request)  
**Importance:** High

*Note: This email originated outside Wayne J. Griffin Electric. Use caution with replies, links and attachments. Please forward any suspicious looking email to spamcatcher@wjgei.com.*

## David Collis

**Inline Electric Supply Co., Inc.**

2600 2nd Ave South | Birmingham, AL 35233  
Office: 205-322-2600 | Fax: 205-949-0786  
Direct: 205-949-9231 | Cell: 256-318-0338

### MCC Order Review and Change Notice Form

**Note: Lead time impacts may apply**

Date: 5/15/2019

GO Number: MNV0009366

Job Name:

Sales Contact



Powering Business Worldwide

Item Number (Enter Items)		Cost	Total
<a href="#">Sheet1</a>	ITEM 029 MCC-3	\$ (1,037)	
<a href="#">Sheet2</a>	ITEM 030 MCC-4	\$ (1,037)	
		\$ (2074)	

**GO Number:**  
MNV0009366

**Item Number:** ITEM 029 MCC-3

5/15/2019

Issue #	Issue Description	Qty	List Price	Price Per Issue
1	UNITS 5K & 4J: DELETE S1 FVNR ("AUTO LUBRICATOR)	2		
<b>Note: Lead time impacts may apply</b>		Parts Total:		
		Eng & Shop Total:		
		<b>TOTAL: -\$1037</b>		

<b>GO Number:</b> <b>MNV0009366</b> <b>Item Number: ITEM 030 MCC-4</b>					5/15/2019
Issue #	Issue Description	Qty	List Price	Price Per Issue	
1	UNITS 5C & 4F: DELETE S1 FVNR ("AUTO LUBRICATOR)	2			
<b>Note: Lead time impacts may apply</b>		Parts Total:			
		Eng & Shop Total:			
		<b>TOTAL: -\$1037</b>			

**From:** Timothy Roberson [<mailto:troberson@WJGEI.com>]

**Sent:** Monday, May 06, 2019 3:53 PM

**To:** Jackson, dave; Banner, Scott

**Cc:** McLeod, Russ C; David Collis

**Subject:** [EXTERNAL] 6198 - Credit proposal for Auto Lubricator Pumps in MCC-3/4

Dave

The engineers are asking for a credit proposal for the Auto Lubricator Pumps in MCC-3 and 4, because the pump manufacturer submitted some battery control pumps instead of what was shown in the drawings. I have highlighted the buckets in MCC-3 and 4 one lines. Could you please provide a credit price for deleting these (4) buckets?

Please give me a call if you have any questions. Also I don't know how likely this proposal is to be accepted, so no changes to the MCC's will be required unless this gets approved.

Thanks,

Timothy Roberson  
Project Manager

Wayne J. Griffin Electric, Inc.  
(774)-292-1614



This email has been checked for viruses by AVG antivirus software.  
[www.avg.com](http://www.avg.com)

**Wayne J. Griffin Electric, Inc.**  
**Hourly Rates (Confidential)**  
**2018 Private Wage Burden Rate**

Breakdown of Hourly Rates

Job Name: Franklin WRF Mods & Expansion - Franklin TN

Job Number: 6198

Workers Title: Blended

		Straight Time	1 1/2 Time	Double Time
Base Wage Rate		\$ 38.49	\$ 57.74	\$ 76.98
F.I.C.A.	7.65%	2.94	4.43	5.89
F.U.T.A.	0.60%	0.23	0.35	0.46
S.U.T.A.	0.01%	0.00	0.01	0.01
Worker's Comp Ins.	6.09%	2.34	2.34	2.34
Gen. Liability Ins.	1.00%	0.38	0.38	0.38
Health/Dental/Life Insurance	14.52%	5.59	5.59	5.59
Pension	3.00%	1.15	1.73	2.31
Performance Compensation	1.77%	0.68	1.02	1.36
Vacation Pay	6.36%	2.45	2.45	2.45
Sick Pay	2.12%	0.82	0.82	0.82
Holiday Pay	3.81%	1.47	1.47	1.47
Apprentice / Training	3.95%	1.52	1.52	1.52
Supplementary Health and Welfare Benefits	1.61%	0.62	0.62	0.62
Company Required Uniforms (Safety Program)	0.48%	0.18	0.18	0.18
IT/MIS Infrastructure	4.97%	1.91	1.91	1.91
Travel & Subsistence		10.25	10.25	10.25
Total		\$ 71.04	\$ 92.80	\$ 114.55

## CONSTRUCTION CHANGE AUTHORIZATION


<b>TO:</b>	Mr. Steve Davis Project Manager Kiewit Water Facilities South 4405 International Blvd., NW, Suite C-101 Norcross, Georgia 30093 (770) 940-8044	<b>FROM:</b>	CDM Smith 210 25 <sup>th</sup> Ave. N. Suite 1102 Nashville, TN 37203 (615) 320-3161
<b>DATE:</b>	July 18, 2019		
<b>PROJECT:</b>	City of Franklin, Tennessee Franklin WRF Modifications & Expansion Project		
<b>CCA NUMBER:</b>	015	<b>CDM SMITH PROJ. NO.:</b>	14915-231666
<b>SUBJECT:</b>	Alum Tanks	<b>CITY PROJECT NO.:</b>	2017-0264
<b>REFERENCE:</b>	(See Below)		

**DESCRIPTION:** Provide single-wall polyethylene Alum Tanks in lieu of specified double-wall per the Engineer's response to Request for Information (RFI) No. 91 and a credit of (\$19,572) per Change Proposal (CP) No. 10 dated June 18, 2018.

CDM SMITH:

By: \_\_\_\_\_

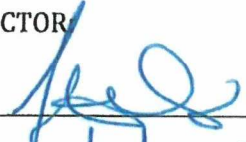
Date: \_\_\_\_\_

  
8/13/19

CONTRACTOR

By: \_\_\_\_\_

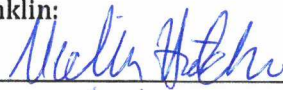
Date: \_\_\_\_\_

  
8/12/2019

City of Franklin:

By: \_\_\_\_\_

Date: \_\_\_\_\_

  
8/13/19





# Kiewit

Kiewit Infrastructure South Co.  
4405 International Blvd., NW, Suite C-101  
Norcross, GA 30093

June 18, 2019

To: Attn: Mr. Dan Harris

CP-KIEWIT-00004.00

CDM Smith, Inc.  
210 25<sup>th</sup> Avenue North  
Suite 1102  
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project  
COF Contract No. 2017-0264

Subject: Polyethylene Storage Tanks – Alum Feed and Storage

Dear Mr. Harris,

This letter is in response to RFI 91 to change the Polyethylene Storage Tanks from a double-wall tank to a single-wall tank to meet the specifications capacity of 9,100 gal. The largest double-wall tank made by PolyProcessing has a capacity of 8,700 gal, which does not meet the specifications for the tanks. After email correspondence with CDM Smith, it was suggested to change to the single-wall tanks to meet the specified capacity. The single-wall tank is manufactured and shipped from French Camp, CA despite being original shipped from Monroe, LA, where the double-wall tank is manufactured and shipped. The increase in cost can shown on the cost breakdown in this credit proposal for the change in freight.

Kiewit is submitting the attached credit proposal for the changing from a Double-Wall Polyethylene Storage Tank to a Single-Wall Storage Tank in the amount of **Nineteen Thousand Five Hundred Seventy-Two Dollars and Zero Cents (\$19,572.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis  
Project Manager

cc: File  
Michelle Hatcher



Carl Eric Johnson, Inc.  
1725 Q MacLeod Drive  
Lawrenceville, GA 30043  
(678) 377-3100  
(678) 377-2021 -fax

## Sales Order

Page: 1



**Sales Order** 0050760

**Order Date** 3/11/2019

**Salesperson** AT1

**Customer** 0491105

**Confirm To:** STEVE DAVIS- KIEWIT

Cust Fax:

STEVEN.DAVIS1@KIEWIT.COM

**Sold To:**

KIEWIT INFRASTRUCTURE SOUTH CO  
4405 INTERNATIONAL BLVD  
SUITE C-101  
NORCROSS, GA 30093

**Ship To:**

KIEWIT C/O CITY OF FRANKLIN, TN  
WRF MOD & EXPAN PRJ  
135 CLAUDE YATES DRIVE  
TAG: JOB NO 103925  
FRANKLIN, TN 37064

Customer P.O.		Ship VIA	F.O.B.	Terms	
103925-MC-035		OTHER PPD/ADD	FACTORY	Net 30	
Item Number	Item Description	Ordered	Price	Amount	
ZPOLY	POLYPROCESSING	1	12,930.30	12,930.30	
	10% WITH SUBMITAL APPROVAL				
ZPOLY	POLYPROCESSING	3	38,790.90	116,372.70	
	POLY PROCESSING 9100 GAL VERT PER CEJ REVISED QUOTATION # 066214-DER-18 RE-BID				
ZCJSF	FIELD SERVICE	1	650.00	650.00	
	FIELD SERVICE FOR INSPECTION, STARTUP AND TRAINING (1 DAY)				

POINT OF CONTACT: STEVE DAVIS - PROJECT MANAGER: 678-794-2121, steven.davis1@kiewit.com

PAY TERMS: NET 30 WITH EACH MILESTONE: 10% WITH SUBMITTAL APPROVAL/ RELEASE FOR FABRICATION/  
BALANCE LESS RETENSION DUE NET 30 ON SHIPMENT; 5% RETAINAGE PERMITTED FOR START-UP, BUT NTE  
NET 90.

\*\*\*\*NOTE: RELEASE OF LIEN FORM REQUIRED WITH ALL INVOICES\*\*\*\*

REFERENCE CEJ JOB # PPC 428

\*\*\* ORDER ACKNOWLEDGEMENT \*\*\*

PLEASE CONTACT US WITH ANY DISCREPANCIES ASAP

Net Order:	129,953.00
Freight:	24,500.00
Sales Tax:	0.00
<b>Order Total:</b>	<b>154,453.00</b>

**CARL ERIC JOHNSON, INC**

1725 Q Macleod Drive,  
Lawrenceville, GA 30043  
Phone: 678-377-3100  
Fax: 678-377-2021  
www.cejco.net



June 18, 2018

**CEJ Quote 066214-DER-18 Re-Bid**

Att: Estimators  
All Bidding Contractors

Number of Pages: THREE

Sub: Franklin WRF Modifications & Expansion  
Franklin, Williamson County, TN

BIDS: 06/18/18 @ 2:00 PM CST

Ref: Section 11244 Polyethylene Storage Tanks  
Addendums 1 -11, Drawings M-41, M-42, I-56  
Double Walled Safe Tanks® by Poly Processing

**REVISION 1:**

Revised to include deduct for  
9100 Gallon tanks, 5 Year  
Warranty, and to provide  
For Final Bid Pricing

Dear Estimator:

In response to the subject specification section, we are pleased to provide the following quotation for Poly Processing's Cross-Link Polyethylene Safe Tank® Double Walled Containment Systems as specified.

As a true benefit, Poly Processing tanks are constructed of cross linked high-density polyethylene (XLHDPE), which has five times more impact and tensile strength than linear HDPE, thus providing a stronger tank, with a longer life span.

**APPLICATION:** Alum Storage Tank No. 1, 2, & 3 **QTY: (3)**  
**TANK TYPE:** Safe Tank® Double Walled Containment System  
**CAPACITY:** 8,700 Gallons  
**DIMENSIONS:** 11'-11" Diameter X 14'-06" Height

**Each tank will consist of the following:**

COMPONENTS	QTY	DESCRIPTION
Primary Tank	1	8700 Safe-tank Inner, 1.6 Sg, XLHDPE, Natural Color
Containment	1	8700 Safe-tank Outer, 1.65 Sg, XLHDPE, Natural Color
Lid/Manway	1	24" Cover Assembly, 8-bolt
Fill	1	2" Universal Ball Dome, Bulkhead Fitting Style, pvc/epdm
Outlet/Drain	1	2" Bolted Flange fitting assy w/Bellows Style Flexi-Joint expansion transition fitting, 2x1-1/2 Bushing, pvc/ss/epdm/ptfe
Level Sensor	1	Ultrasonic Echotouch, and 4" Universal Ball Dome Flange Style fitting, pvc/ss/epdm
Float Switch Fitting	1	4" Universal Ball Dome Flange Style fitting, pvc/ss/epdm
Vent	1	6" U-Vent with Mesh Screen, pvc/pe
Level Gauge	1	Reverse Float Calibrated gauge, with 2" UBD fitting BHF Style, exterior and interior vertical pipe supports, gaskets, bolts, and reverse gallonage tape, pvc/epdm/pe
Heater System	1	Non-Hazardous, (8)sp420-16 (2) Control Boxes, Delta T = 100, 110 VAC, Outdoor

Insulation	1	2" Thick Polyfoam 650 with Mastic Coating
Ladder	1	12' FRP with Cage, 3'-6" Walk Thru, Platform, and Brackets
Restraint System	1	A6-10 SSMC Cables, Angles, and Anchor Rods, 316SS
Equalization (Tanks 1 & 3)	1	2" Bolted Flange fitting assembly, with (2) Bellows Style Flexi-Joint expansion joint transition fittings, pvc/ss/epdm/ptfe
Equalization (Tank 2)	2	2" Bolted Flange fitting assembly, with (3) Bellows Style Flexi-Joint expansion joint transition fittings, pvc/ss/epdm/ptfe
Restraint Calcs	1	Engineering Approval Stamp (with buoyancy)

#### SUMMARY:

**Qty (3) Poly Processing Safe Tanks®, outlined per above, TOTAL PRICE \$ 163,943.00**

**Qty (3) Poly Processing Vertical 9,100 Gallon Tanks, TOTAL DEDUCT \$ 30,342.00**  
Tank spec implies Safe Tanks with transition fittings but tank dimensions match our 9,100 gallon tank. Includes fittings except transitional.

Estimated Freight, based on Qty (3) tanks above, to Franklin, TN ADD \$ 8,500.00 \*  
\* Freight is estimated only. Actual freight charges will be invoiced at time of shipment.

Field Service, (1) Day as detailed herein, for Inspection, Startup and Training, ADD \$ 650.00 \*\*

**FIELD SERVICE:\*\*** Offered above is for one (1) day, or part thereof, for jobsite services consisting of installation inspection, field testing observation, start-up, and/or Owner personnel training. Please allow 10 days' notice to schedule field services. Additional days are \$650 per day.

#### COMMENTS, CLARIFICATIONS, AND/OR EXCEPTIONS:

Tank will include the following factory tests: 8-Hour Hydro, Visual, Impact, Gel, and actual Wall Thickness. Quality test report will also be provided along with Engineering Approval Stamp for Restraint Calculations with buoyancy.

2.03 A-a. 1 and 2: The tanks offer in our proposal are 8,700 gallon double walled tanks. The diameter is 11'-11" and the overall height is 14'-6".

2.04 A-3: Poly Processing is the only polyethylene tank manufacturer that can offer a double walled tank with bottom outlets that maintain complete containment integrity for the fitting and system containment. Poly Processing's Enhanced Bellow Transition outlet is the only outlet with a PTFE expansion joint built into the assembly.

2. 2.04 A.4(a): Poly Processing is the only tank manufacturer to off the PTFE Flexi-joint Expansion joint. The Flexi-Joint Expansion Joint will meet the exact specifications and requirements listed in this section.

2.04 A-6: Top mounted pump suction is not scheduled nor shown on the drawings thus is not included.

2.04 A-9: Identification label by contractor.

2.04 D: Precautionary Labels by contractor.

Page 3, Franklin WRF Modifications Re-Bid  
Section 11244 Polyethylene Storage Tanks  
Cross Link Double Walled Tank  
CEJ Poly Processing Qt #066214-DER-18

3.01 A, B, D & D: Installation by contractor.

3.01 D: Poly Processing does not recommend that tanks be installed on felt, grout or any other means of tank leveling. The tanks should be installed on a flat level concrete pad, free of debris, protrusions and divots. The use of felt or grout can create unsupported pockets below the tank that will weaken the tank at those points. In addition, the restraint system will not work as designed if felt or grout is included.

3.03: Field testing by contractor.

Handling, Storage, Field Testing, and Installation shall be by others. Specifications and drawings not referenced herein, and anything exterior to the tank fittings, are not included in our scope of supply. User has certified chemical compatibility with all items.

WARRANTY: Poly Processing's standard 5-year warranty applies. Specification left open to interpretations in terms of liability.

Please note the following applies to this quotation:

Pricing does not include freight, taxes, permits, or bonds of any kind. Terms: TBD.  
Shipped FOB factory, freight prepaid and added to the invoice unless otherwise requested.  
Approval drawings 2 to 3 weeks after receipt of order acceptance by Carl Eric Johnson, Inc.  
Shipment is 4 to 6 weeks after receipt of approved drawings and/or release to manufacture.

If this proposal should become an order, please address and forward to:

**CARL ERIC JOHNSON, INC.**  
1725-Q MacLeod Drive  
Lawrenceville, GA 30043  
**Fax 678-377-2021 or**  
**email: [croberts@cejco.net](mailto:croberts@cejco.net)**

If you have any questions or need additional information pertaining to this offering, please feel free to give me a call at 863-940-4832.

Thank you for your consideration of Poly Processing Safe Tanks® and Carl Eric Johnson. We look forward to the opportunity to work with you further on this project.

Regards,

*Carolyn Roberts*  
Carolyn Roberts

Cc: J Hunt / G Cox / CEJ

## CONSTRUCTION CHANGE AUTHORIZATION

**TO:** Mr. Steve Davis  
Project Manager  
Kiewit Water Facilities South  
4405 International Blvd., NW,  
Suite C-101  
Norcross, Georgia 30093  
(770) 940-8044

**FROM:** CDM Smith  
210 25<sup>th</sup> Ave. N.  
Suite 1102  
Nashville, TN 37203  
(615) 320-3161

**DATE:** July 18, 2019

**PROJECT:** City of Franklin, Tennessee  
Franklin WRF Modifications & Expansion Project

**CCA NUMBER:** 016 **CDM SMITH PROJ. NO.:** 14915-231666

**SUBJECT:** Mixing Valve **CITY PROJECT NO.:** 2017-0264

**REFERENCE:** (See Below)

**DESCRIPTION:** Delete redundant mixing valve SP-MXV-1 per the Engineer's comments to submittal 15450-002-A for a credit of (\$4,426) per Kiewit proposal dated July 18, 2019.

CDM SMITH:

By: 

Date: 8/13/19

CONTRACTOR:

By: 

Date: 8/12/2019

City of Franklin

By: 

Date: 8/13/19



# Kiewit

Kiewit Infrastructure South Co.  
4405 International Blvd., NW, Suite C-101  
Norcross, GA 30093

---

May 30, 2019

To: Attn: Mr. Dan Harris

CP-KIEWIT-00003.00

CDM Smith, Inc.  
210 25<sup>th</sup> Avenue North  
Suite 1102  
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project  
COF Contract No. 2017-0264

Subject: Change Proposal No. 03 – Mixing Valve SP-MXV-1 - Submittal D-15450-002-A Reviewer Comments

Dear Mr. Harris,

In response to comment No. 12 of D-15450-002-A Reviewer Comments on the plumbing equipment submittal, Kiewit hereby proposes to perform the following lump sum revisions to the Work as described in the attached proposal dated February 27, 2019 from John Bouchard & Sons Co. for a total credit of **Three Thousand Six Hundred Ninety-Four Dollars and Zero Cents (\$3,694.00)**.

This credit includes elimination of the Eliminate SP-MXV-1 domestic water mixing valve and cabinet, elimination of piping, valves, and fittings associated with SP-MXV-1, as detailed on P-16, continue with 1-1/2" HW piping out of SP-GWH-1 and directly through system as shown on PD-1, Detail H.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis  
Project Manager

cc: File  
Michelle Hatcher  
Brian Goodwin



PCO NO.: CP No. 03 SP-MXV-1 mixing valve and associated piping

**PREPARED BY: Steve Davis**

[illegible]



**JOHN BOUCHARD & SONS CO.**  
**1024 Harrison Street**  
**Nashville, TN 37203**  
**615-256-0112**

February 27, 2019

Mr. Andy McMillen  
Kiewit Water Facilities South Co.  
135 Claude Yates Drive  
Franklin, TN 37064

**RE: Change Order #1: Credit Proposal to Eliminate SP-MXV-1**

Dear Mr. McMillen,

Pursuant to CDM Smith's request on submittal response D-15450-002-A, plumbing comment #12, we have prepared this credit proposal for eliminating the SP-MXV-1 mixing valve from the Solids Processing Building associated with the GWH-1 water heater:

**Plumbing Scope Elimination:**

- Eliminate SP-MXV-1 domestic water mixing valve and cabinet.
- Eliminate piping, valves, and fittings associated with SP-MXV-1, as detailed on P-16.
- Continue with 1-1/2" HW piping out of SP-GWH-1 and directly through system as shown on PD-1, Detail H.

**Credit Proposal for Deletion of SP-MXV-1                      \$ 3,518.00**

**Details of Credit:**

JBS SP - MXV - 1 Credit Proposal			
Qty	Material	Price Per	Total
15	1.5" sch80 CPVC pipe	\$2.65	\$39.75
3	1.5" valves - Apollo 77CLF	\$83.00	\$249.00
3	1.5" sch80 CPVC 90s	\$5.00	\$15.00
1	1.5 sch80 CPVC Tee	\$12.50	\$12.50
9	1.5" sch80 CPVC male adapters	\$5.70	\$51.30
1	SP-MXV-1	\$3,000.00	\$3,000.00
	Labor for Installation		\$150.00
<b>Total Credit</b>			<b>\$3,517.55</b>

Accepted On: \_\_\_\_\_ 2019

By: \_\_\_\_\_  
SIGNATURE

Print Name: \_\_\_\_\_

**JOHN BOUCHARD & SONS CO.**

BY: David Proctor IV  
SIGNATURE

Print Name David Proctor



## SHOP DRAWING REVIEW COMMENTS

City of Franklin  
Water Reclamation Facility Modifications & Expansion  
COF Project No. 2017-0264

Submittal No: D-15450-002-A  
Title: Product Data for Plumbing Equipment  
Reviewer: Paul Pouliot (Plumbing) and John Sanchez (Electrical)

This submittal is being returned with a review code of: **APPROVED AS NOTED/ RESUBMIT**

### Plumbing Comments:

1. Contractor shall confirm all quantities and sizes.
2. Note that wash hose stations and caution signs are shown on the Process Mechanical (M) drawings and will be provided by others. Engineer acknowledges that these items are not in the Plumbing Contractor's scope of work.
3. Engineer acknowledges that water hammer arrestors will be submitted under a separate heading.
4. Confirm that pressure gauge ranges will be selected so that the expected normal pressure will be read at or slightly above the mid-point of the range as specified (15450 2.08.D).
5. Confirm that pressure gauges will be provided with a stop cock or ball valve as specified (2.08.E).
6. Confirm that all tank type water heaters (electric and gas) will be provided with heat traps and auxiliary drain pans per Details A/P-12 and H/PD-1.
7. Method of sizing for hot water heater expansion tanks is for residential/domestic applications only and is not acceptable. Expansion tanks shall be sized based on the total volume of hot water in the system, including the water heater and hot/tempered/tepid water piping as applicable to each system.
8. Provide data sheet for proposed stand for water heater AL-EWH-1.
9. Building gas pressure for the Solids Processing Building and Digester Building is 3 PSI. Contractor shall provide additional regulator at all gas fired water heaters per Detail H/PD-1 to reduce pressure from 3 PSI to the 14-inches water column required inlet pressure for the gas fired water heaters. Refer to the Natural Gas Riser Diagram 1 on Sheet H-13 for additional information.

10. Confirm that all gas fired water heaters will be provided with vertical/through-the-roof terminations as shown on Sheets P-8 (Solids Processing Building) and P-11 (Digester Building), and Detail H/PD-1. Cross-out sidewall termination included in the submittal.
11. Maintain a minimum 10-foot clearance from the gas fired water heater vent terminations and the air intake hoods for the roof mounted make up air units at the Solids Processing Building (Refer to Sheet H-13 for locations), and the Digester Building (Refer to Sheet H-14 for locations) as shown on Note 7 on Sheet P-8 (Solids Processing Building) and Note 6 on Sheet P-11 (Digester Building).
12. Domestic water mixing valve SP-MXV-1 is not required. Provide credit proposal for eliminating mixing valve and associated piping.
13. Confirm that check valves will be provided in the recirculation piping downstream of the recirculation pumps in lieu of integral flow checks.
14. Confirm that 3-valve full size bypass will be provided around each recirculation pump as specified.
15. Proposed recirculation pump for SP-RP-3 is acceptable.
16. Coordinate installation of the deck mounted emergency eyewash with the Laboratory casework supplier.
17. Provide green color for the powder coated finish on the emergency shower/eyewash units.
18. Corrosion resistant powder coating shall be provided on all freeze-proof emergency shower/eyewash units (FP-ES/EW) as specified. Engineer has confirmed with Haws that this is available as a custom option to the specified unit.
19. Proposed method of heat tracing tepid water piping to the FP-ES/EW units is acceptable to the Engineer. Confirm that heat tracing will be provided on any exposed exterior tepid water recirculation piping in addition to any exposed exterior tepid water piping.
20. Proposed top inlet FP-ES/EW units are acceptable to the Engineer for the units located at the exterior west wall of the Solids Processing Building.
21. Confirm that all emergency fixtures will be provided with emergency identification signs as specified.
22. Confirm that the backflow preventer models submitted meet the approval of the authority having jurisdiction as specified. Provide a copy of the authority's "acceptable device list" or written approval.

Electrical Comments:

1. The electrical data sheets are missing for Gas Water Heater SP-GWH-1, SP-GWH-2, SP-GWH-3, and DB-GWH-1. Submit the electrical data.
2. For Sump Pump SP-SP-1, all data for the control panel is missing. Submit complete master power and control wiring diagrams, elementary or control schematics, suitable outlining drawings of the control schematics and suitable outline drawings of the control panel (interior and exterior). Include bill of materials and product data sheets for all control panel components. The completed control panel shall be UL certified per Section 16000 and have a minimum overall short-circuit withstand rating of 65,000 amperes RMS symmetrical at 480 volts, 3-phase per Section 16191, Paragraph 2.03.B.31.

General Comments:

1. Provide AIS certification for the Leonard cabinet assembly.

End of Comments

## SHOP DRAWING REVIEW

ENGINEER'S REVIEW	RESPONSE REQUIRED OF CONTRACTOR
<input type="checkbox"/> Approved <input type="checkbox"/> Comments Attached <input checked="" type="checkbox"/> Approved as Noted <input type="checkbox"/> Not Approved	<input type="checkbox"/> Confirm <input checked="" type="checkbox"/> Resubmit
<input type="checkbox"/> Receipt Acknowledged (Not subject to Engineer's Review or Approval)	

The Engineer's review of this shop drawing is limited to the review of dimensions, equipment and materials as presented in the Contract plans, specifications, and for design concept. This review does not relieve the Contractor from errors or omissions in the submittal or from the Contractor's responsibility of addressing any deviations from the Contract Documents. The Contractor is responsible for the details and dimensions of fabrication and manufacture, the means, methods, techniques, sequences or procedures of construction and performing its work in a safe manner.

**CDM Smith** By Jon Allen Date 2/21/2019