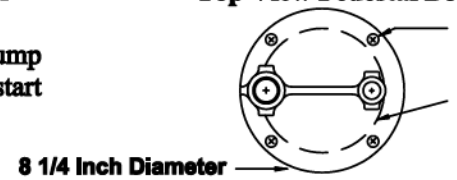
WEIL Mechanical Lever Alternator Switch 8211

Alternating Level Control - Horsepower Rated Duplex

The 8211 Mechanical Alternator controls two pumps. The 8211 alternates pumps on each successive start. Should it be required, the alternator switch starts the second or standby pump when the liquid level rises one or two inches above the lead start pump.

Top View Pedestal Bottom Plate

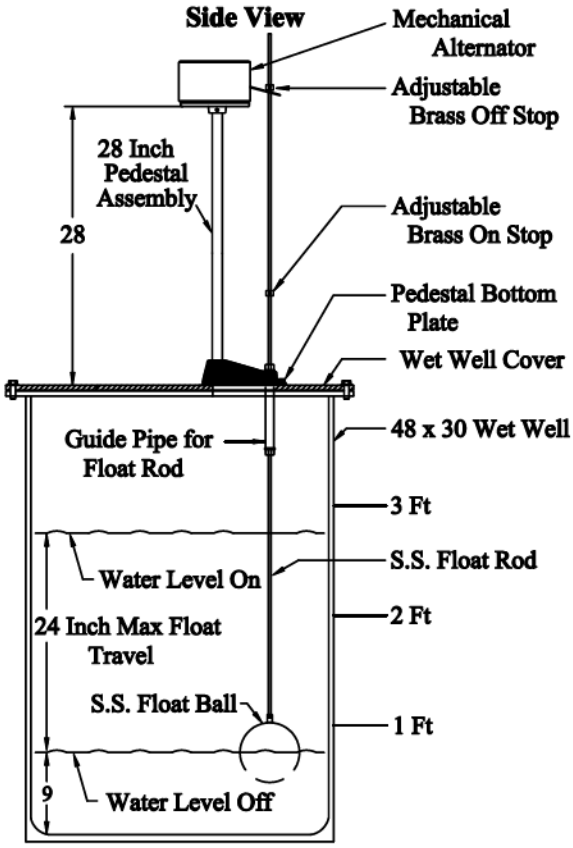


Pump Operation

- The 8211 alternator is actuated by adjustable stops on the float rod, which is moved by the stainless steel float ball.
- The "on" stop rises and pushes the lever up which starts the lead pump.
- If the liquid level rises 2 inches higher, the second or standby pump will start.
- The pumps operate on a first-on first-off sequence.
- Both pumps will stop when the "off" stop pushes the lever down.
- On the next level rise, the standby pump will become the lead pump.

The system is designed for easy installation and removal through the 6 1/4-inch hole in the wet well cover.

Side View



8211 Mechanical Lever Switch Includes:

- Mechanical Alternator
  - Two, two-pole switches
- Stainless Steel Float Rod
- Guide Pipe for Float Rod
- Stainless Steel Float Ball
- Two Adjustable Brass Stops
- Pedestal Assembly with bottom plate. Plate mounts over the level control hole in the wet well cover.

Option

HWA Contact

- Auxiliary contact for remote alarm. If the liquid level continues to rise after the second, or standby pump starts the contact will close when the float ball rises higher. Contact will open when the "off" stop pushes the lever down.

Horsepower Ratings

Horsepower ratings are for direct motor control. Use a duplex 8155 control panel for higher horsepowers.

Single-Phase		Three-Phase
115 Volt 2 HP MAX	230 Volt 3 HP MAX	Requires Starter

28-inch High Switch Pedestal - 24-inch Max. Travel

Model Number	NEMA Type	Wet Well Depth Max. Ft.	Approx. Wt. Lbs.
8211K2012	1	4	35
8211K2013	1	6	35
8211K2014	1	8	35
8211K2015	1	10	35
8211K2017	4	4	40
8211K2018	4	6	40
8211K2019	4	8	40
8211K2020	4	10	40
8211K2022	7	4	40
8211K2023	7	6	40
8211K2024	7	8	40
8211K2025	7	10	40

8211 Option

Option	Description
8211K7015	HWA (High Water Alarm) Contact - Auxiliary Contact for Remote Alarm

How to order: Specify Model Number and Wet Well Depth.
F. O. B. Cedarburg (Milwaukee), Wisconsin

Engineered Equipment Sales

Division of Debco Equipment Company, Inc.

1814 South Third Street
Saint Louis, MO 63104-4040

314.646.0074 Phone
314.646.0078 Fax

Submittal

May 11, 2016

To: Ferguson

Project: Webster University Science

We are pleased to submit the following equipment for your approval:

SP-1 & 2

Two (2) Weil 2224 vertical 4" wastewater pumps. The pumps will be capable of handling 2-1/2" solids, will have a capacity of 350gpm at 25tdh, and will be powered by a 5hp, 1750rpm, TEFC, 460/3 motor. The pumps will be suitable for installation in a 108" deep basin. The pumps will be controlled off/on/lag by a Weil 8211K2014 pedestal switch. An auxiliary switch 8211K7015 will activate the high water alarm in the panel. The Weil 8155T-100 control panel will be in a NEMA 1 enclosure with a high water horn and dome lamp. The basin will be fiberglass and will be 36" in diameter and 108" deep. We will provide a H600R ringer grommet for the 6" inlet pipe (field installed). The basin cover will be a Weil 8805K1316S.

Sincerely,

Mike Busse

Michael D. Busse

This proposal incorporates our standard terms and conditions by reference. If you do not have a copy contact us immediately.

Subject to Factory Standard Warranty ***Proposals good for 30 days***

SP-1		**SP-1 / SP-1 SUMP PUMP**
W2224	WEIL	TWO (2) WEIL 2224 VERTICAL 4” WASTEWATER PUMPS. THE PUMPS WILL BE CAPABLE OF HANDLING 2- 1/2” SOLIDS, WILL HAVE A CAPACITY OF 350GPM AT 25TDH, AND WILL BE POWERED BY A 5HP, 1750RPM, TEFC, 460/3 MOTOR. THE PUMPS WILL BE SUITABLE FOR INSTALLATION
M	WEIL	IN A 108” DEEP BASIN. THE PUMPS WILL BE CONTROLLED OFF/ON/LAG BY A WEIL 8211K2014 PEDESTAL SWITCH. AN AUXILIARY SWITCH 8211K7015 WILL ACTIVATE THE HIGH WATER ALARM IN THE PANEL. THE WEIL 8155T-100 CONTROL PANEL WILL BE IN A NEMA 1 ENCLOSURE
M	WEIL	WITH A HIGH WATER HORN AND DOME LAMP. THE BASIN WILL BE FIBERGLASS AND WILL BE 36” IN DIAMETER AND 108” DEEP. WE WILL PROVIDE A H600R RINGER GROMMET FOR THE 6” INLET PIPE (FIELD INSTALLED). THE BASIN COVER WILL BE A WEIL 8805K1316S.

WM TAO & ASSOCIATES
CONSULTING ENGINEERS

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: June 3, 2016

Attention: **stl-cac@cannondesign.com**

Contact Person / WTA Field Inspector: Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Mike Whitworth (WES)

Project No. WT 14127.01
WES 607

[ ] UPS [ ] Courier [X] **Email**

Copies	No.	Description
1 PDF	221429P01	(Submittal No.'s:
		(Cannon #-22 1429-003) - (Paric #15051-) – (WES #607)
		➢ Sump Pumps Product Data:
		• Sump Pumps SP-1, SP-2 & SP-3
		• Elevator Sump Pumps ESP-1 & ESP-2

*Remarks: See Submittal Review from Webb Enginnering.

c: **Kevin Patel**
Kpatel@cannondesign.com

[X] ***Reviewed**

[X] ***No Exception Taken -**

[ ]

[X] ***Make Corrections as Noted, No Resubmittal Required**

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

WEBB
ENGINEERING
SERVICES INC.

1400 S. 3rd Street, Suite 201
St. Louis, Missouri 63104
Phone: (314) 588-0600
Fax: (314) 588-0604

Letter of Transmittal

To: wtashop@wmtao.com

From: Mike Whitworth

Date: June 03, 2016

Re: Webster University ISB

WES No: 607

☐ For your Files ☐ For Review ☐ Please Comment ☐ Please Reply

Item No.	Description	No. of Copies	Date
1	Shop Drawing Review – 22 1429-003 Sump Pumps	1	06-03-2016

•Signature: Mike Whitworth

WES
WEBB ENGINEERING SERVICES INC.
1400 S. 3rd Street, Suite 201 • St. Louis, Missouri 63104 • 314.588.0600 • *fax* 314.588.0604
www.webb-engineering.com

The review of this submittal is limited to the general conformance with the designated design concept and intent of this project and with the general compliance of the information provided in the contract documents. All comments, remarks and notations made on the submittal(s) as a result of this review do not relieve the contractor from full compliance with requirements of the contract documents. Approval for a specific item shall not include approval of an assembly of which the item is not a component. The contractor is solely responsible for rough-in and installation confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordination of this work with that of other trades on this project; and in a safe and satisfactory manner. All work shall be installed in full compliance with the manufacturer's recommendation Federal, State and Local rules and regulation and the Authority Having Jurisdiction (AHJ) and applicable adopted codes and standards.

PROJECT NAME: WU-ISB
LOCATION: St. Louis, MO
CLIENT PROJ. NO.: NA
WES PROJ. NO.: 608
SPEC SECTION: 22 1429-003
SUBMITTAL ITEM: See Below -

CONTRACTOR: DeLuca Plumbing LLC
CTR. SUBMITTAL #: 221429-003.
SUBMITTAL DATE: May 25, 2016
DATE RECEIVED: May 26, 2016
RECEIVED VIA: E-Mail
RECEIVED FROM: WTA
DATE RETRNED: June 03, 2016
RETURNED VIA: E-Mail
RETURNED TO: wtashop@wmtao.com

STATUS KEY:

NO EXCEPTION TAKEN
MAKE CORRECTIONS NOTED, NO RESUBMITTAL IS REQUIRED:
AMEND AND RESUBMIT
REJECTED, SEE REMARKS:
REVIEWED ONLY

NEC	MCN	AAR	REJ	REV	ITEM	REMARKS
X					Sump Pump SP-1 and SP-2 Weil Pump Co. Model 2224 – 4 Inch Vertical Wastewater Pump Model 8211K2014 Pedestal Switch Model 8211K7015 Auxiliary Switch for High Water Alarm Model 8155T-100 Control Panel Fiberglass Basin – 36 x 108 Model 8805K1316S Basin Cover	
X					Sump Pump SP-3 Weil Pump Co. Model 1411 - 2 Inch Submersible Wastewater Pump Model 8341K1011 High Water Remote Alarm Panel Model 8233K1006 Tethered Float Fiberglass Basin – 36 x 108 Model 8805K1316K Basin Cover	
→	X				Elevator Sump Pumps ESP-1 and ESP-2 Weil Pump Co. Model 1411-OSS Elevator Pump System	There are two separate elevator sump pump systems required. One for each of the hoistway pits

REVIEWED BY: Mike Whitworth DATE: June 03, 2016

THESE COMMENTS ARE TO BE ATTACHED TO ALL COPIES OF THE SHOP DRAWING REFERENCED ABOVE.

CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

Joe Voypick
SUBMITTED BY

221429-003
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

221429
SPECIFICATION SECTION / PARAGRAPH

DeLuca Plumbing LLC
MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

◯ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ◯ Shop Drawings
- ◯ Samples (_____ copies)
- ◯ LEED Submittal
- ◯ Certification / Qualifications
- ◉ Record Documents
- ◯ Product Data
- ◯ Coordination Drawing
- ◯ Calculations
- ◯ Schedules
- ◯ O&M Manuals
- ◯ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ◯ Information Only ◯ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

Joe Voypick
REVIEWED BY

5/25/16
DATE

To be completed by Reviewer

22 1429-003
CANNON DESIGN SUBMITTAL NUMBER

5/25/16
RECEIVED DATE

- ◯ A. No Exceptions Taken
  No further review of submittal is required.
- ◯ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ◯ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ◯ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ◯ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ◯ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ◯ See attached sheet(s) for additional comments

REVIEWED BY

DATE

77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0051

Paric Corporation

PROJECT: Webster University Interdisciplinary Science Building

DATE: 05/25/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Sump Pumps Product Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☑ Approval	☑ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☑ Other: Product Data	☐ Separate Cover Via:	☐ Due Date:

Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		221429-003	1		05/25/2016	Sump Pumps Product Data	Submitted

NOTES:

CC: Paric Corporation, Kathy Bathe

Project Coordinator: Paric Corporation, Kathy Bathe

Signed: _____
Devin Gates

Shop Drawing Submittal

Project Name: WEBSTER ISB

Specification # **221429-01**

Specification Description: SUMP PUMPS
SP1-SP3 & ESP-1 – ESP-2

Date: 05-23-16

General Contractor / Construction Manager: PARIC

ARCHITECT: KWA

ENGINEER: William Tao

Contractor: DeLuca Plumbing, L.L.C.
8465 Delport Drive
St. Louis, MO 63114

Supplier: FERGUSON

Manufacturer: Various

Reviewed & Approved by: DeLuca Plumbing 05-23-16

Action: Forward to GC/CM for Review & Approval