

BYRON H. JEFFERSON, P.E.

Engineering Services

P.O. Box 161
Lincoln, DE 19960

Telephone 302-422-9568
email: b.jefferson@att.net

November 20, 2024

State of Delaware – DNREC
Attn: Residential Services (Derrick Caruthers)
89 Kings Highway
Dover, DE 19901

RE: Application for Holding Tank Permit
Commercial - Temporary
Delaware Electric Coop

Gentlemen:

The following items are enclosed for the above referenced septic permit application:

Application Form page 1
Application Form page 2
Additional Drawing Sheets
Catalog info for Alarm, Sensor Switch
Contract with Waste Hauler

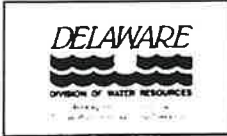
Please contact us with any questions or problems.

Sincerely yours,

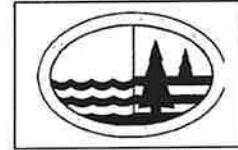


Byron H. Jefferson

email copy to: Steve Perry - for info



APPLICATION - PERMIT
ON-SITE WASTEWATER SYSTEM



(Please Type or Print Legibly)

OWNER'S NAME: Delaware Electric Cooperative PHONE: 855-332-9090

ADDRESS: 14198 Sussex Highway, Greenwood, DE 19950

PROJECT LOCATION: same as above

TAX/MAP #: 5-30-14-13.00

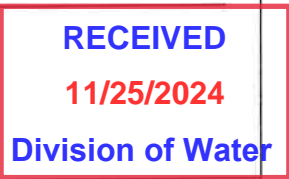
APPLICATION PREPARER: Byron H. Jefferson DNREC LICENSE #: 2160

PREPARER'S ADDRESS: P.O. Box 161 Lincoln, DE 19960

PHONE: (302) 422-9568

I hereby affirm that the information provided on this document is accurate and complete.

Preparer's Signature: Byron H. Jefferson Date: 11/20/2024



SEPTIC DESIGN CRITERIA-

(Please check all boxes that apply)

System Type: (CF = Cap & Fill / FD = Full-Depth)

- Gravity (FD) Permanent Holding Tank
- Gravity (CF) Elevated Sand Mound
- Pressure Dose (FD) Wisconsin At-Grade
- Pressure Dose (CF) Subsurface Micro Irrigation
- Low Pressure Pipe (FD) Peat Bio- Filter
- Low Pressure Pipe (CF) Other _____
- Temporary Holding Tank

- Bed or Trench
- Gravelless Chamber Stone/Gravel Tire Chips lined Yes No

Existing System Malfunctioning Yes No N/A

Pre-Treatment Units

- Septic Tank
- Other _____

Central Water Available Yes No
(If yes, please state Utility Name: _____)

Type of Construction:

- Replacement
- New Construction

Component Replacement

Component: _____

- Repair to Existing System

Reason: _____

Authorization to Use Existing System

Permit #: _____

Present Condition: _____ Sand-

Structure to be connected: _____

of Bedrooms: n/a

Avg. Percolation Rate: n/a

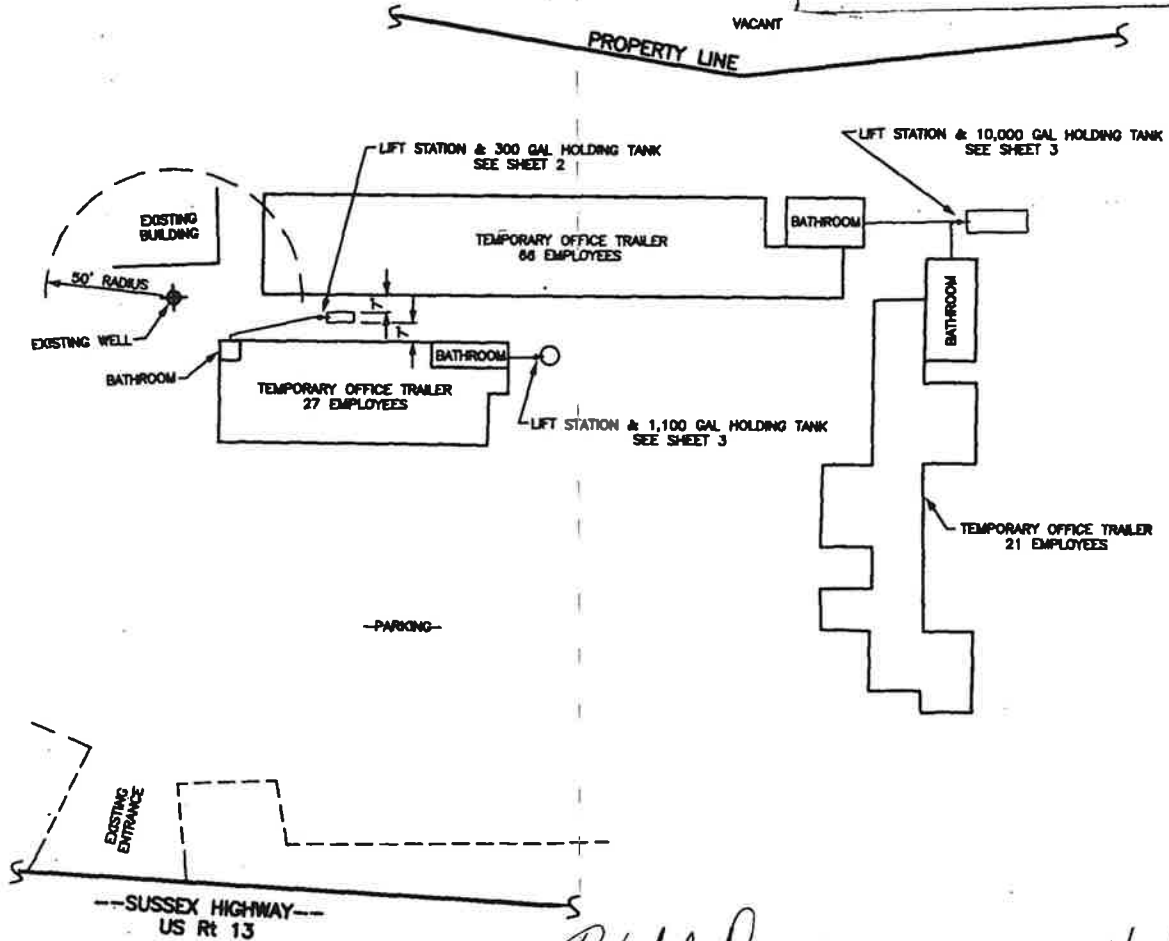
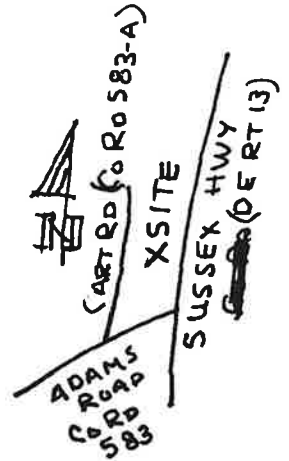
Gallons Per Day Flow: _____

Minimum Sq. Ft. Rcq'd: n/a

Sq. Ft. Proposed: n/a

- SITE PLAN & CROSS SECTION -
 (INDICATE DIRECTIONS OF NORTH & SCALE OF SITE PLAN)

Draw a general location map of project location and give distance to nearest road junction.



OWNER'S/AUTHORIZED AGENT SIGNATURE:

Kurt Dennis

DATE: 11/14/24

- A copy of this page must be submitted with both septic system and well construction report(s)

GENERAL NOTES

1. DESIGN DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND ALL RULES AND REGULATIONS THERETO APPURTENANT.
2. THE CONTRACTOR SHALL LOCATE ALL BURIED UTILITIES PRIOR TO EXCAVATION. NOTIFY "MISS UTILITY" THREE (3) WORKING DAYS PRIOR TO EXCAVATION @ 1-800-282-8555. RELOCATE UTILITIES AS NECESSARY TO CLEAR ALL SEPTIC COMPONENTS. REPAIR ANY UTILITIES DAMAGED DURING CONSTRUCTION.
3. THIS PERMIT DOES NOT CONSTITUTE A PERMIT FOR CONSTRUCTION IN WETLANDS. IF SUCH CONSTRUCTION IS ANTICIPATED, OWNER SHOULD OBTAIN NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES PRIOR TO CONSTRUCTION.
4. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL LAY-OUT ENTIRE SYSTEM ON SITE TO ENSURE THAT ALL COMPONENTS CAN BE INSTALLED IN ACCORDANCE WITH PERMIT CONDITIONS. SHOULD ANY SITE CHANGES OR PROBLEMS AFFECTING PERMIT CONDITIONS BE NOTED, INCLUDING BUT NOT LIMITED TO SOILS COMPACTION IN DISPOSAL AREAS, THE CONTRACTOR SHALL NOTIFY DNREC (302-739-9947 OR 856-4561) AND THE ENGINEER (BYRON JEFFERSON 302-422-9568) BEFORE PROCEEDING WITH CONSTRUCTION.
5. ALL TANKS ARE TO BE RATED BY THE MANUFACTURER FOR ADEQUATE STRUCTURAL STRENGTH AT THE ACTUAL DEPTH OF INSTALLATION.
6. ALL ELECTRICAL WORK SHALL BE COMPLETED BY A LICENSED ELECTRICIAN IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE - LATEST EDITION.
7. THIS DESIGN LAYOUT IS BASED ON INFORMATION REPORTED IN THE SITE EVALUATION, STATEMENTS BY OWNER AND OTHER INTERESTED PARTIES, AND OUR OWN PRE-DESIGN SITE OBSERVATIONS AND MEASUREMENTS. ALL INFORMATION IS BELIEVED TO BE CORRECT AND ACCURATE, HOWEVER NO PROPERTY SURVEY, TITLE SEARCH, OR PROPERTY LINE STAKEOUT HAS BEEN PERFORMED AS PART OF THIS DESIGN WORK. THIS DESIGN MAY NO LONGER BE VALID IF SITE CONDITIONS OR LAYOUTS CHANGE.
8. WHERE ANY PORTIONS OF AN EXISTING SEPTIC SYSTEM ARE ENCOUNTERED DURING THE EXCAVATION FOR THIS INSTALLATION - THE EXISTING DRAINFIELD MATERIALS SHALL BE EXCAVATED, WITH THE EXCAVATED MATERIALS TOTALLY REMOVED FROM SITE AND DISPOSED OF IN ACCORDANCE WITH REGULATORY REQUIREMENTS.

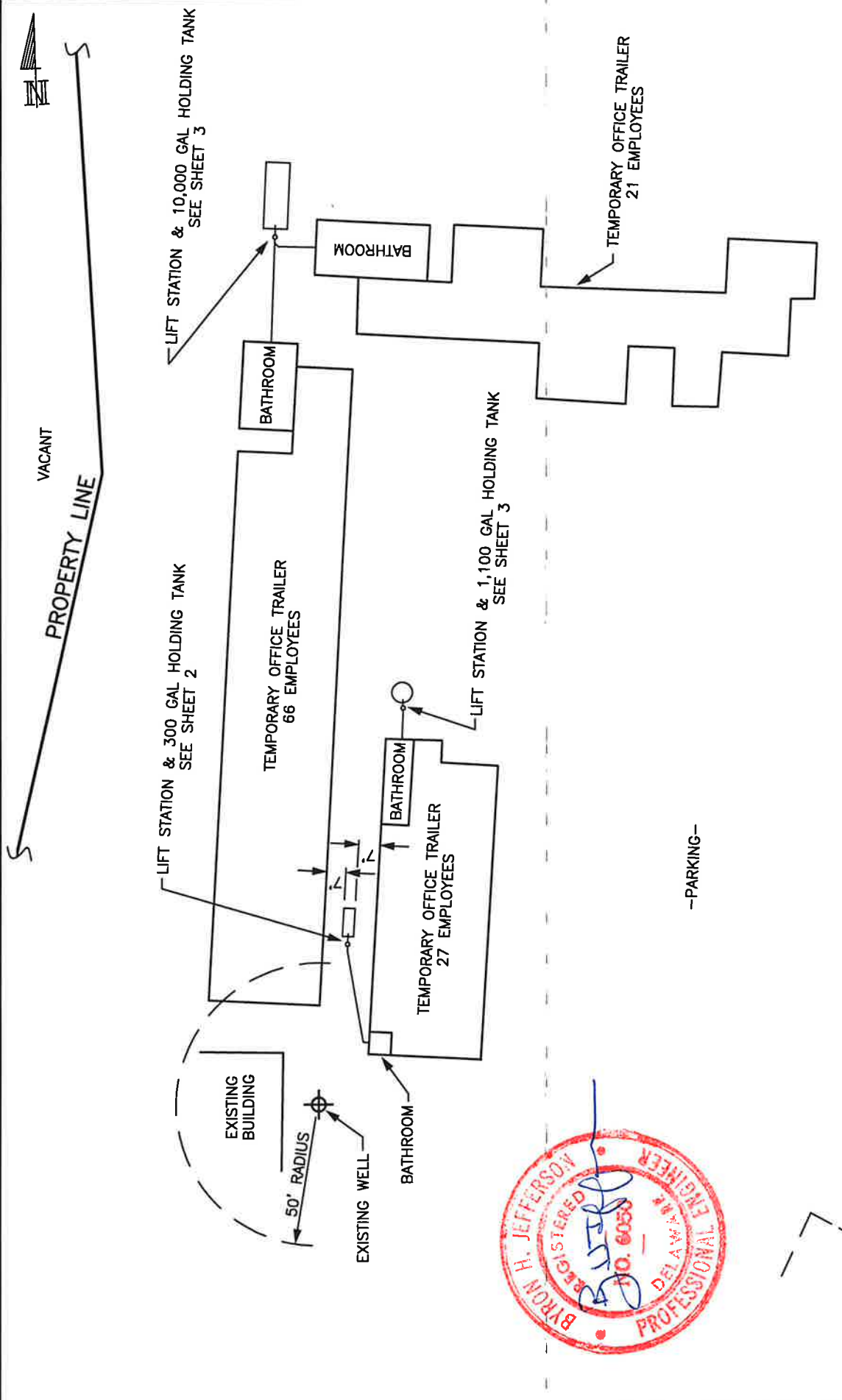


DRAWING INDEX

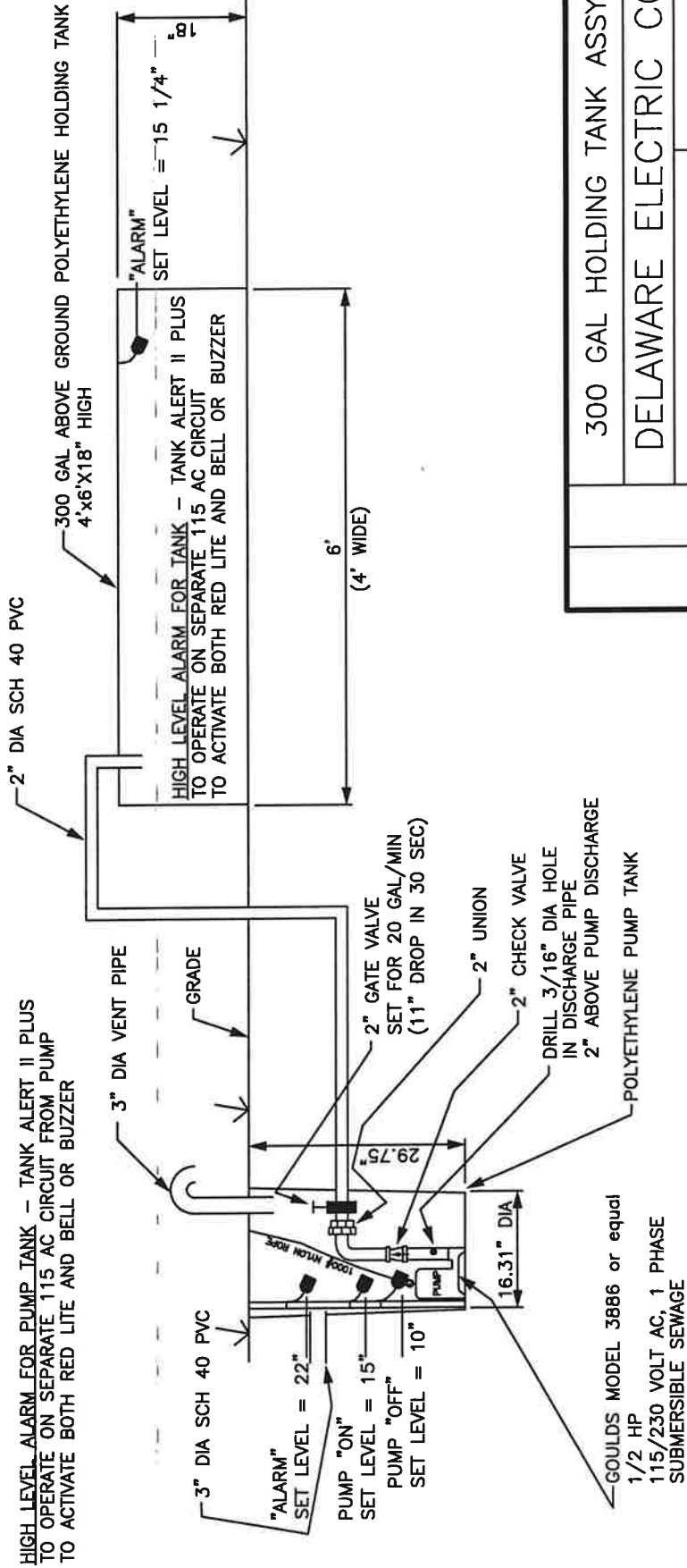
SHEET NO.	REV. NO.	TITLE
1	0	SEPTIC PLOT PLAN
2	0	300 GAL HOLDING TANK ASSY
3	0	1,100 GAL HOLDING TANK ASSY
4	0	10,000 GAL HOLDING TANK ASSY

DRAWING INDEX & GENERAL NOTES	
DELAWARE ELECTRIC COOP	
BYRON H. JEFFERSON P.O. BOX. 161 LINCOLN, DE 19960	DATE: 11/20/24
(302) 422-9568	SCALE: NTS
	SHEET: 0

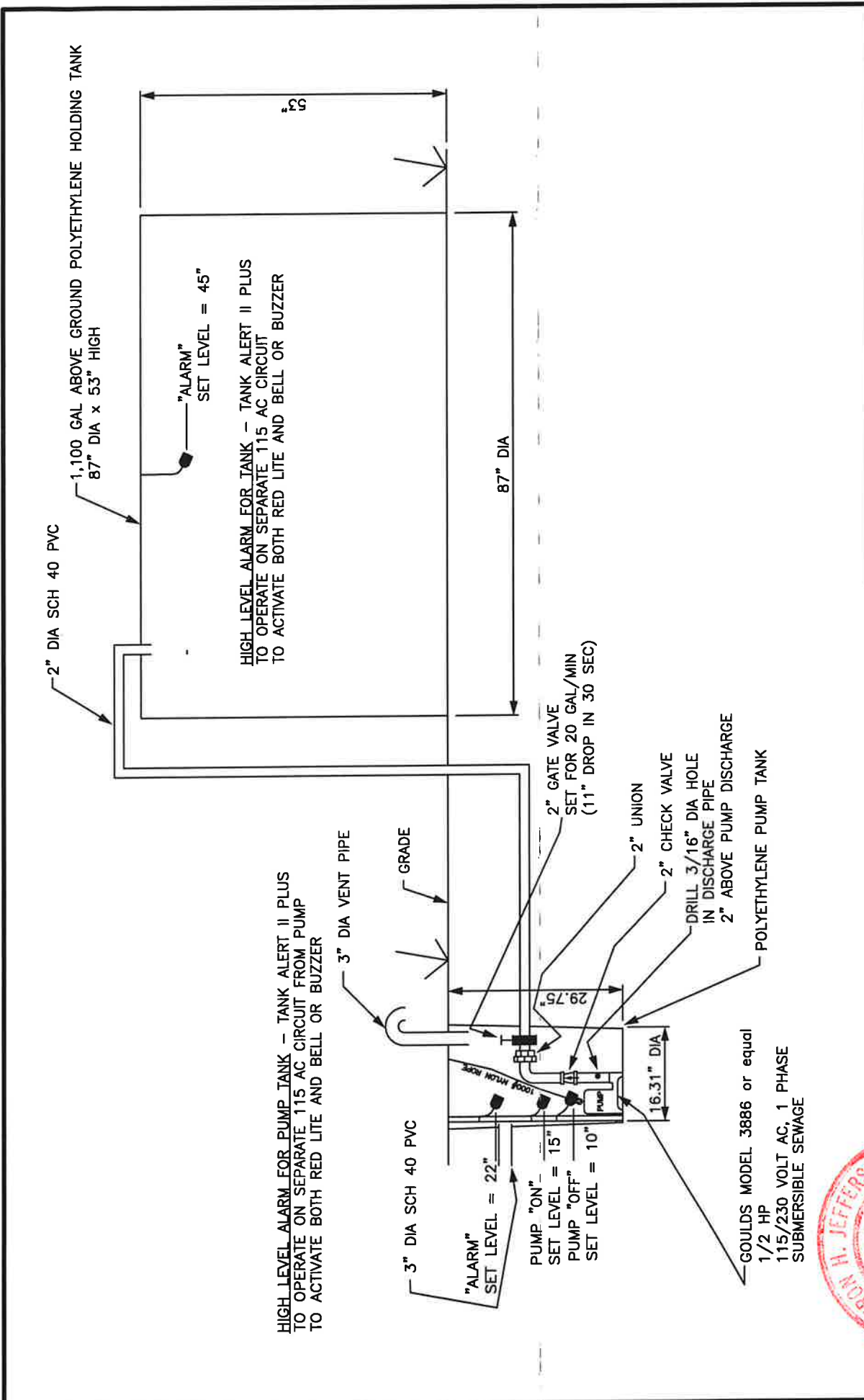
▲ DENOTES A REVISED ITEM.



SEPTIC PLOT PLAN		DATE: 11/20/24	
		SCALE: 1"=50'	
DELAWARE ELECTRIC COOP		BYRON H. JEFFERSON	
		P.O. BOX. 161	
		LINCOLN, DE 19960	
		(302) 422-9568	
		SHEET: 1	



300 GAL HOLDING TANK ASSY	
DELAWARE ELECTRIC COOP	
BYRON H. JEFFERSON P.O. BOX. 161 LINCOLN, DE 19960 (302) 422-9568	DATE: 11/20/24
	SCALE: 1' = 2'
	SHEET: 2



1,100 GAL HOLDING TANK ASSY	
DELAWARE ELECTRIC COOP	
BYRON H. JEFFERSON P.O. BOX. 161 LINCOLN, DE 19960 (302) 422-9568	DATE: 11/20/24
	SCALE: 1"=2'
	SHEET: 3



HIGH LEVEL ALARM FOR PUMP TANK - TANK ALERT II PLUS TO OPERATE ON SEPARATE 115 AC CIRCUIT FROM PUMP TO ACTIVATE BOTH RED LITE AND BELL OR BUZZER

HIGH LEVEL ALARM FOR TANK - TANK ALERT II PLUS TO OPERATE ON SEPARATE 115 AC CIRCUIT TO ACTIVATE BOTH RED LITE AND BELL OR BUZZER

"ALARM" SET LEVEL = 22"
PUMP "ON" SET LEVEL = 15"
PUMP "OFF" SET LEVEL = 10"

GOULDS MODEL 3886 or equal
1/2 HP
115/230 VOLT AC, 1 PHASE
SUBMERSIBLE SEWAGE

1,100 GAL ABOVE GROUND POLYETHYLENE HOLDING TANK
87" DIA x 53" HIGH

2" DIA SCH 40 PVC

3" DIA VENT PIPE

3" DIA SCH 40 PVC

GRADE

2" GATE VALVE
SET FOR 20 GAL/MIN
(11" DROP IN 30 SEC)

2" UNION

2" CHECK VALVE

DRILL 3/16" DIA HOLE
IN DISCHARGE PIPE
2" ABOVE PUMP DISCHARGE

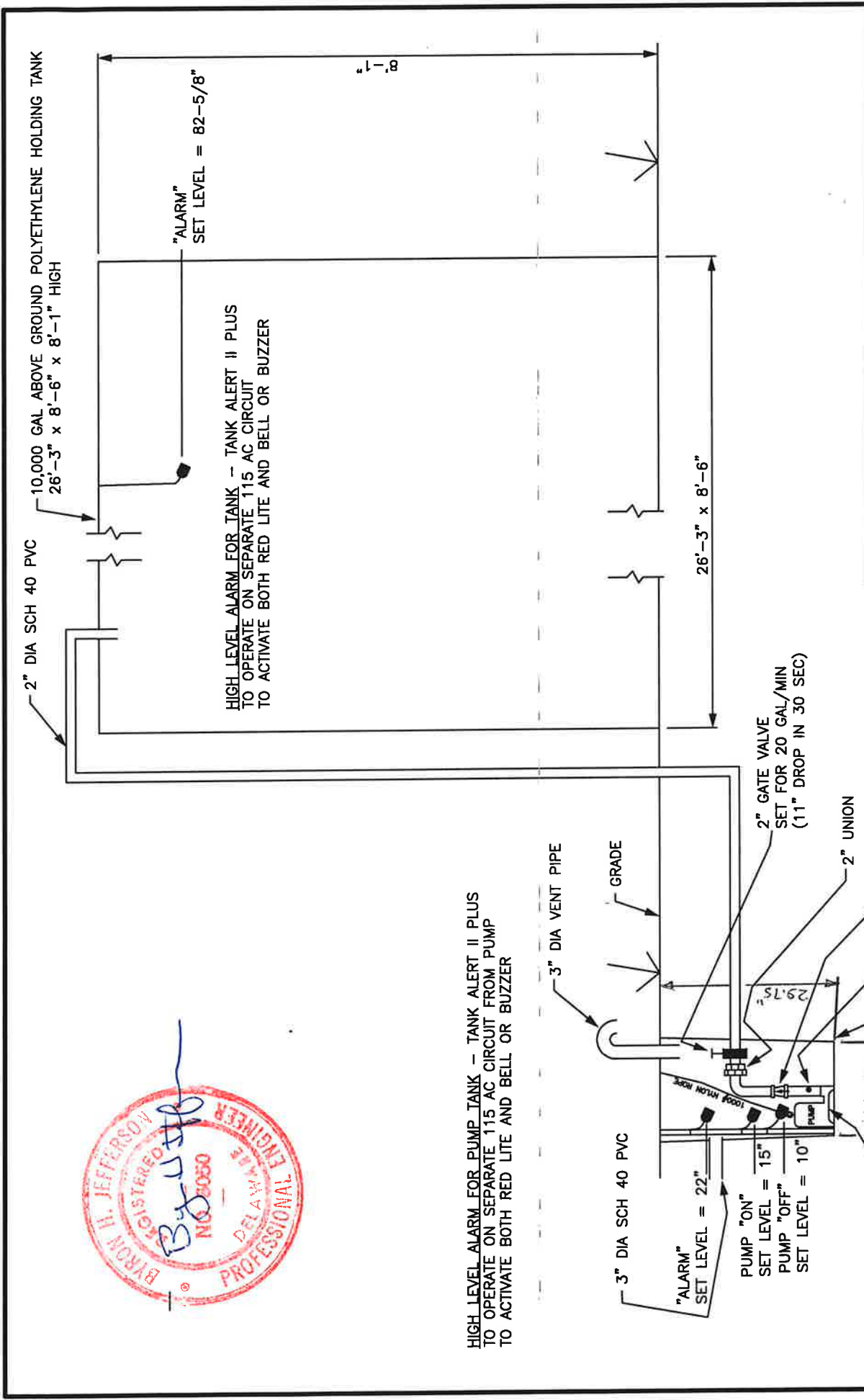
POLYETHYLENE PUMP TANK

"ALARM"
SET LEVEL = 45"

87" DIA

16.31" DIA

29.75"



HIGH LEVEL ALARM FOR PUMP TANK - TANK ALERT II PLUS TO OPERATE ON SEPARATE 115 AC CIRCUIT FROM PUMP TO ACTIVATE BOTH RED LITE AND BELL OR BUZZER

3" DIA VENT PIPE

GRADE

3" DIA SCH 40 PVC

"ALARM" SET LEVEL = 22"

PUMP "ON" SET LEVEL = 15"

PUMP "OFF" SET LEVEL = 10"

2" GATE VALVE SET FOR 20 GAL/MIN (11" DROP IN 30 SEC)

2" CHECK VALVE

DRILL 3/16" DIA HOLE IN DISCHARGE PIPE 2" ABOVE PUMP DISCHARGE

POLYETHYLENE PUMP TANK

GOULDS MODEL 3886 or equal
1/2 HP
115/230 VOLT AC, 1 PHASE
SUBMERSIBLE SEWAGE

10,000 GAL HOLDING TANK ASSY	
DELAWARE ELECTRIC COOP	
BYRON H. JEFFERSON P.O. BOX. 161 LINCOLN, DE 19960	DATE: 11/20/24
(302) 422-9568	SCALE: 1"=2'
	SHEET: 4

MODELS

Order No.	HP	Phase	Volts	Max Amps.	RPM	Wt. (lbs.)	Heaters	
WS0311B	1/2	1	115	9.8	1750	63	N/A	
WS0318B			208	5.5				
WS0312B	230	4.9						
WS0511B	115	14.5						
WS0518B	208	8.0						
WS0512B	230	7.3						
WS0538B	3/4	3	200	3.8		65	K34	
WS0532B			230	3.3			K32	
WS0534B	460	1.7	K23					
WS0718B	1	1	208	11.0			85	N/A
WS0712B			230	9.4				N/A
WS0738B	3/4	3	200	4.1				85
WS0732B			230	3.6	K33			
WS0734B	460	1.8	K23					
WS1018B	1	1	208	14.0	85	N/A		
WS1012B			230	12.3		N/A		
WS1038B	3	3	200	6.2		85	K42	
WS1032B			230	5.8			K41	
WS1034B	460	2.9	K29					

Submersible Sewage Pump

MODEL

3886

1/2 HP

APPLICATIONS

Specifically designed for the following uses:

- Homes
- Sewage systems
- Dewatering/Effluent
- Water transfer

SPECIFICATIONS

Pump:

- Solids handling capabilities: 2" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 185 GPM.
- Total heads: up to 38 feet TDH.
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

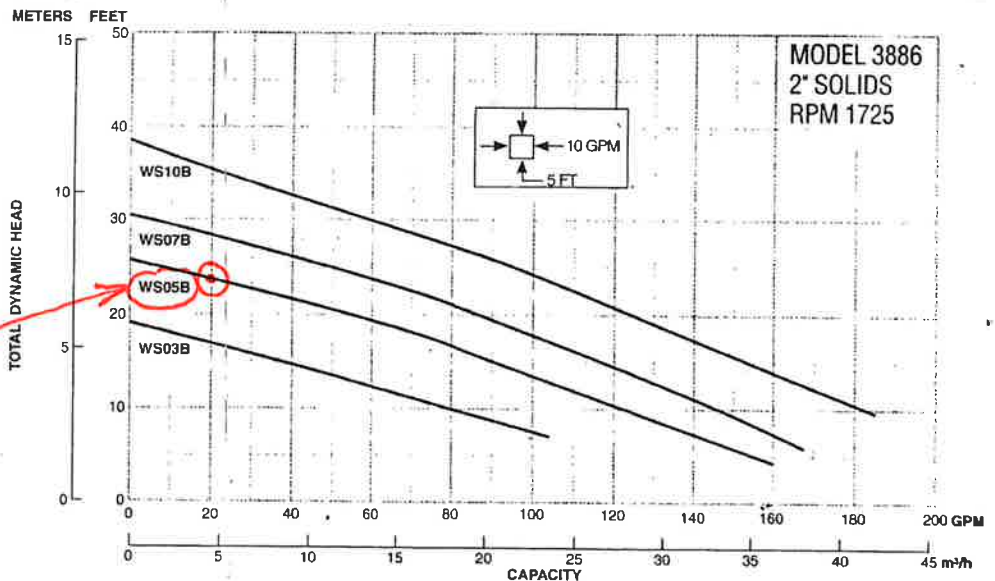
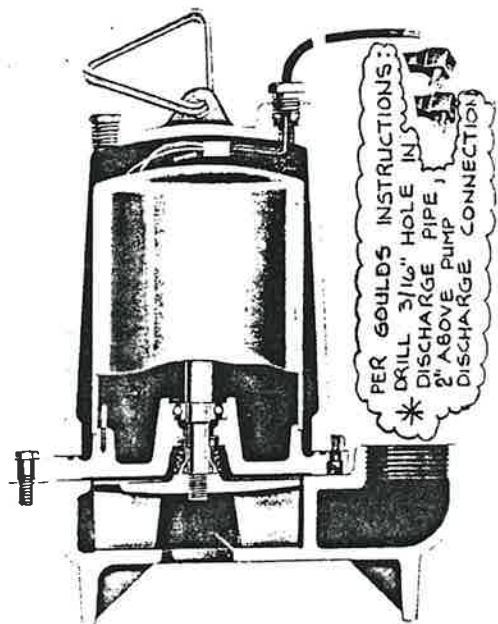
FEATURES

- **Impeller:** Cast iron, semi-open, dynamically balanced, non-clog with pump out vanes for mechanical seal protection. Optional Silicon bronze impeller available.
- **Casing:** Cast iron volute type for maximum efficiency. Designed for easy installation on A10-20 slide rail.
- **Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE** sealing faces for superior abrasive resistance, stainless steel metal parts, BUNA-N elastomers.
- **Shaft:** Corrosion-resistant stainless steel. Threaded design. Locknut on three phase models to guard against component damage on accidental reverse rotation.
- **Fasteners:** 300 series stainless steel.
- Capable of running dry without damage to components.
- Designed for continuous operation, when fully submerged.

MOTORS

- Fully submerged in high grade turbine oil for lubrication and efficient heat transfer. All ratings are within the working limits of the motor.
- **Class B insulation. Single phase (60 Hz):**
 - All single phase models feature capacitor start motors for maximum starting torque.
 - Built-in overload with automatic reset.
 - 1/2 and 3/4 HP - 16/3 SJTOW with 115V or 230V three prong plug.
 - 1 and 1 HP - 14/3 STOW with bare leads.
- **Three phase (60 Hz):**
 - Overload protection must be provided in starter unit.
 - 1/2-1 HP - 14/4 STOW with bare leads.
- **Bearings:** Upper and lower heavy duty ball bearing construction.
- **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.

- **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. 20 foot standard with optional lengths available.
- **Motor Cover O-ring:** Assures positive sealing against contaminants and oil leakage.
- Consult factory for information on 575 V models.



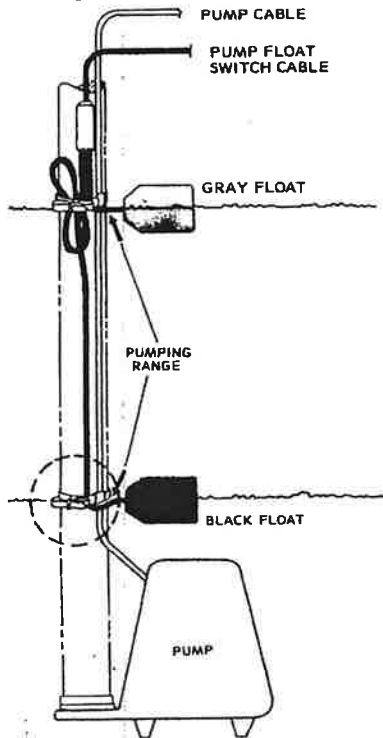
Goulds Pumps

TANK ALERT® II PLUS INSTALLATION OPTIONS

DOUBLE FLOAT PUMP SWITCH

- Very accurately measures liquids in a wide pump range: 1" (2.54 cm) - 48" (121.92 cm).
- May be used with large or small pump chambers.
- Not sensitive to turbulence.

Figure A



DESCRIPTION

The Double Float pump switch consists of two floats ("on" float and "off" float), two cables, and two releasable mounting straps. The sealed floats contain heavy-duty mercury fill switches with a holding relay sealed inside one float.

ELECTRICAL: 120V MODEL: 120V 60 Hz 1 HP-single phase
230V MODEL: 230V 60 Hz 2 HP-single phase

WARNING:

Connect 120V Double Float controls to 120 Volts only.
Connect 230V Double Float controls to 230 Volts only.

When ordering Double Float pump switch, specify 120V or 230V Model.

INSTALLATION

1. Decide the pumping range for your installation. (See Figure A). The distance between the float straps is the pumping range. Securely strap the float cables to the discharge pipe for the pump range you desire. The gray float must be the top float.
2. Allow the pump to cycle once to check your installation. (Float straps are releasable which permits readjustment.)

U.S. Patent Numbers 4262216 and 4291261

FOR ALARM

Mercury Float Switch



A2-3

- Mercury Fluid Contacts
- Normally Open Design
- 150°F (65°C) Max. Temp.
- Includes:
 - Polyurethane Foam Float
 - 15', SJO, Neoprene Cord
 - Lead Weight and Mounting Strap
- Suitable for Pilot Control; Duty up to 230V Max.

CHECK VALVES

PLASTIC CHECK VALVES

- Compression Seal Connection for Easy Installation
- Swing Design Flapper Prevents Clogging
- Available for Pipe Size 1 1/4", 2", 3"

Pipe Size

1 1/4"
2"
3"

Order No.

A9-12P
A9-2P
A9-3P



TANK ALERT® II PLUS

ALARM SYSTEM/PUMP CONTROL

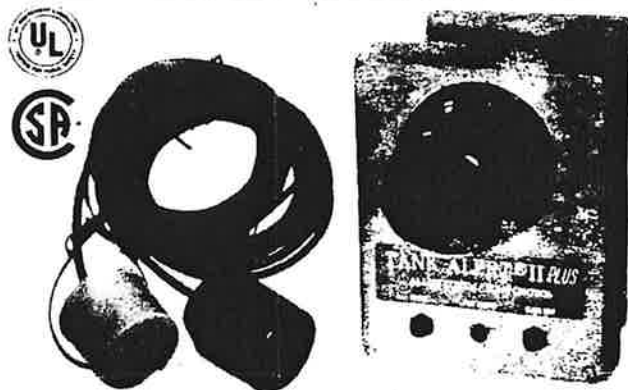
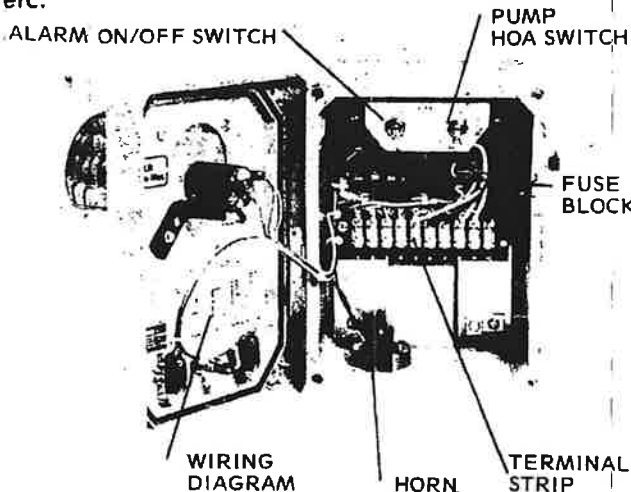
An economical, quality indoor or outdoor liquid level alarm system/pump control.

ADVANTAGES

- * Controls your pump and warns of high or low liquid level.
- * If pump should fail, pulsating horn and flashing red light are activated by a reliable alarm float!
- * The pump float assures of correct pump on-off level.
- * Mounting straps for both alarm float and pump float included with unit.
- * Both alarm float and pump float come standard with twenty feet of cable.
- * HOA switch allows for Hand (manual), Off, or Automatic pump operation.
- * Alarm on/off switch controls power to the float circuitry. This and the pump HOA switch provide an additional safety feature when servicing.
- * Green pump run light.
- * Horn silence switch has automatic reset feature.
- * Push-to-test switch assures of proper horn and light alarm operation.
- * NEMA 4X non-metallic enclosure—exposed parts are corrosion, wind and rain resistant.
- * Simple terminal strip and wiring diagram also provides for Double Float pump switch installation. (Double Float pump switch may be substituted for Super Single pump switch at a nominal extra cost. See page 4.)
- * **ENTIRE UNIT** UL Listed and CSA Certified.
- * **Two-year limited warranty.**

APPLICATION

A single control panel, plus two easily installed floats, provides residential and commercial customers with a reliable means of controlling simplex (one pump) systems in a water or sewage installation. Common applications include pump chambers, sump pump basins, irrigation systems, etc.



DESCRIPTION

The Tank Alert® II Plus consists of a control panel, a pump float, and an alarm float.

CONTROL PANEL EXTERIOR: The non-corrosive, indoor and/or outdoor enclosure comes preassembled. The green pump run light, silence switch (with automatic reset feature), and alarm test switch are conveniently accessible on the front of the panel.

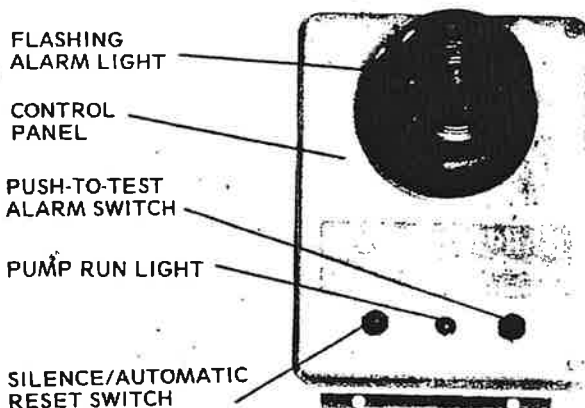
CONTROL PANEL INTERIOR: The interior alarm system consists of a high-quality alarm relay, a solid-state flasher, a weather-proof horn, and a standard light bulb that are all fuse protected.

A handy HOA switch allows for either Hand (manual), Off, or Automatic pump operation. A second switch is provided as an on/off for control panel alarm system. These switches are located inside the panel to protect against activation by unauthorized personnel.

PUMP FLOAT: SJE's Super Single pump switch model 20SS WOP.

ALARM FLOAT: SJE's Sensor Float model 20PC.

A terminal strip with easy-to-follow wiring diagram provides for simple installation of both alarm and pump floats.



Delaware

Arrow Leasing Corp t/a
Arrow Sanitary Service
1772 Pulaski Highway
Bear, DE 19701
(302) 834-4546

Maryland

New Jersey

arrowsanitary@juno.com

Pennsylvania

HOLDING TANK MAINTENANCE CONTRACT

Licensed Class F Waste Hauler: ARROW LEASING CORP
Address: 1772 Pulaski Highway, Bear, DE 19701
Telephone: 302-834-4546 License#: WH9

This is an agreement between the above and Delaware Coop/CBS.
That the above licensed waste hauler will routinely empty (3) 300/1000/ 10,000-gallon holding tanks
located at 14198 Sussex Hwy, Greenwood, DE 19950
Parcel tax map, Sussex County DE.

Following are terms of this contract:

- Pumping frequency will be such that the waste level is maintained to prevent overflowing.
- The Tank located @ the above address will be emptied TBD.
- This contract is valid for a period of 24 months.
- Equipment available: (6) pump trucks.
- Emergency response capability within (4) hours.
- Tank contents will be disposed of at Delcora WWTP Chester PA, Kent County WWTP, City of Laurel disposal site.

Signed: Herbert Dennis Date: 11/14/24

Print: Herbert Dennis

Title: Manager of Property

Signed: Albert T. Sammons Jr Date: November 14, 2024

Print: Albert T. Sammons, Jr.

Title: President

Account # _____