



PUMPCON

ABOVE GROUND VALVE
ACCESS STATION



Complete Pumping Systems from ONE
Dependable Source Since 1973.

Integral Pump Station

The **A**bove **G**round **V**alve **A**ccess **S**tation from PumpCon is a premium pre-packaged pump station unit that eliminates the need for a below ground valve vault. The PumpCon **AGVAS** protects the station, valves, and control panel in an attractive, insulated, and corrosion resistant fiberglass enclosure located above ground.



Heavy Duty Design

- ◆ FRP equipment house rated for 125 MPH winds
- ◆ 30 lb/ft sq. snow loading
- ◆ AMORCOTE® 991 series gel coat
- ◆ Insulation K-factor of .14 BTU in/hr/ft/° F, R7.2 per inch
- ◆ Stainless steel hardware and lifting eyes
- ◆ Orange safety grate with 300 P.S.F. load rating



Quality Construction

- ◆ Polymer concrete base with aggregate and fiberglass reinforcing rods
- ◆ Class 125 lb. ductile iron pipe
- ◆ Stainless steel transition plate
- ◆ Serviceable check valves
- ◆ Epoxy paints



Flexible Options

- ◆ Discharge bypass piping with hinged access door
- ◆ Suction bypass piping with hinged access door
- ◆ Manual air release line or automatic valve
- ◆ Heaters, lighting, ventilation and electrical options



Standard Features and Options

- Quick and easy installation for new pump stations or existing pump station retrofit
- Available for stations with 3", 4" and 6" discharge piping (Larger piping available on request.)
- Pre-assembled with valves and flanged fittings
- Stainless steel, adjustable manifold support stands
- Insulated and weather resistant fiberglass enclosure
- Two sets of full size access doors, each with 3-point latch and hold open latches
- Corrosion resistant polymer concrete station base, no protective coating required



- Aluminum wetwell access door, with or without safety grate
- Pipe penetrations are sealed from the wetwell
- Sealed stainless steel transition plate with aluminum pump and level control cord grips
- PVC wetwell vent
- Either swing type or ball type check valves available
- Visual and audible alarms available
- Pressure gauge(s) with isolation valve available
- Additional custom options available upon request

Does your system work for you?
Call us Today!

PumpCon
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PUMPCON

SPECIFICATION

DUPLEX ABOVE GROUND VALVE ACCESS STATION

GENERAL

The duplex, above ground valve access station shall be as described in these specifications and accompanying drawings, and shall consist of (but not be limited to), the following:

- Equipment Base
- Fiberglass Equipment Housing
- Discharge Check Valves
- Discharge Plug Valves
- Discharge Fittings
- Aluminum Access Hatch
- Ventilating Fan
- Station Heater

VALVES AND PIPING

The piping shall be standard Class 125 lb. ductile iron pipe, size as noted on the drawings. Flanged fittings shall be used throughout. Discharge piping shall include two flanged, full body lever & spring check valves with replaceable stainless steel seats and lever operated 2-way plug valves. The valves shall be located above the wetwell inside a fiberglass equipment enclosure. The piping shall terminate with plain end piping approximately 6" below the polymer concrete station base, which will span the wetwell. Pass through sleeves shall be incorporated into the equipment base and link seals shall be supplied to seal around the discharge pipes where they pass through the station base. Fittings to connect the station piping to the wetwell piping shall be supplied and installed by others.

DISCHARGE BY-PASS PIPING (Optional)

The station header pipe shall incorporate a 2-way plug valve to permit emergency access to the pump station force main after isolation of the pumps. The by-pass line shall terminate with an OPW, male camlock type quick connect fitting with a cap. The by-pass line shall terminate inside the fiberglass station enclosure. A hinged door shall provide access to the by-pass connection.

SUCTION BY-PASS PIPING (Optional)

The station shall incorporate an emergency suction pipe that will extend into the wetwell. The by-pass line shall terminate inside the fiberglass station enclosure. A hinged door shall provide access to the by-pass connection. The by-pass pipe shall terminate with plain end piping approximately 6" below the polymer concrete station base, which spans the wetwell. A pass through sleeve shall be incorporated into the equipment base and link seals shall be supplied to seal around the by-pass pipe where it passes through the station base. The fittings to connect the by-pass piping to the wetwell piping shall be supplied and installed by others.

PRESSURE GAUGES (Optional)

A 4" diameter, glycerin-filled pressure gauge shall be installed on each discharge line. The gauge shall be graduated 0 – 100 feet of water column minimum. The necessary hoses and fittings with a 1/4 turn ball valve shall be installed between the discharge piping and the gauges, so that the gauges can be isolated.

MANUAL AIR RELEASE LINE (Optional)

An air release line with a manually operated bronze ball valve shall be installed at the high point of the manifold to allow trapped air to be released from the discharge manifold. The air release line shall drain back into the wetwell.

AUTOMATIC AIR RELEASE VALVE (Optional)

An automatic air release valve shall be installed at the top of the discharge manifold. The air release valve will allow trapped air to escape the discharge lines. The valve body shall be cast iron with a 1" outlet piped back to the wetwell. A 1/4 turn ball valve shall be installed between the discharge line and the air release valve.

STATION BASE

The station base shall be of the dimensions as shown on the drawings. The equipment base shall be polymer concrete consisting of aggregate and fiberglass reinforcing rods bonded together with isophalic resin to form a highly corrosion resistant station base. Removable lifting eyes shall be furnished with the station base to aid handling of the station at the jobsite. The station base shall incorporate the wetwell access hatch, wetwell vent and the cable transition plate.

SPECIFICATION

DUPLEX ABOVE GROUND VALVE ACCESS STATION

TRANSITION PLATE/CORD CONNECTORS

A .25" 304 stainless steel plate shall be supplied to cover the opening in the station base that allows for the transition of the power and control cords from the wetwell to the station interior. 304 stainless steel couplings shall be welded into the transition plate for the installation of cord grips. The cord grips shall be sealing type connectors rated for CL. 1, DIV. 2, and Group D. Standard aluminum cord grip shall be installed in the bottom of the control panel to coordinate with the cords from the wetwell.

WETWELL VENT

A wetwell vent consisting of 4" schedule 40 PVC pipe and fittings with a mushroom cap with screen shall be supplied to allow for natural venting of the wetwell.

ALUMINUM ACCESS HATCH

An aluminum wetwell access hatch shall be installed into the station base. The access doors shall be aluminum .25" treadplate. The hatch shall be able to withstand a live load of 300 lbs per square foot. The hatch shall include type 316 stainless steel hinges, type 316 stainless steel slamlock with a keyway protected by a threaded plug, aluminum lifting handle, and padlock provisions. Each hatch door shall open to 90 degrees and lock automatically with a locking arm.

ALUMINUM ACCESS HATCH (With Safety Grate Option)

The pump station access hatch shall be installed into the station base. The hatch shall be Heavy Duty construction – 300 P.S.F. load rating in accordance with O.S.H.A. standard 1910.23 and the Safe Hatch confined space entry shall be in accordance with O.S.H.A. standard 1910.146. The hatch shall be the size shown on the drawings. The access hatch shall allow visual inspections, limited maintenance and level system adjustment while safety grate is left in place. The Safe Hatch shall be orange in color to promote a visual awareness of the hazard. The material of the access cover bars, angles and extrusions shall be 6061-T6. The diamond deck plate shall be constructed of 5086 aluminum. Each unit shall be equipped with a 316 stainless steel hold open arm and shall lock in 90 degree position. The aluminum lift handle shall be recessed and the slam lock assembly will be fitted to the deck plate. A special key for the slam lock will be provided.

EQUIPMENT HOUSING

A fiberglass reinforced plastic (FRP) equipment house designed for rapid and easy installation in areas of high humidity and corrosive chemicals shall be supplied. The FRP building shall be molded by a combination chopped spray technique hand lamination process and shall contain resin rich fiberglass containing 30% +/- 5% chopped roving fiberglass with 1" – 1.50" long glass fibers and 70% +/- resin. The exterior, coated with a white or beige exterior laminate is .180" thick consisting of 3 plies of 1 ½ ounce per foot chopped strand mat. The interior laminate is .125" thick consisting of 2 plies of 1 ½ ounce per foot chopped strand mat. The building shall be insulated with 1" thick modified polyisocyanurate rigid foam throughout. Insulation has a K-factor of .14 BTU in/hr/ft/F degrees, R-7.2 per inch. The insulation shall be completely encapsulated with fiberglass. The building shall be attached to the station base plate through a 2" flange on all wall sections. All gel-coats and surface coatings are a chemical resistant neopentyl glycol based polyester resin. Pigments are selected for their long term weatherability in normal corrosive applications. The exterior gel-coat shall be ARMORCOTE® 991 series gel coat with advanced technology polyesters developed for lower emissions, improved flexibility, and superior weathering resistance to surface yellowing and chalking. These gel coats have been formulated to be MACT compliant for the fiberglass industry. ARMORCOTE® 991 gel coats are designed to meet the critical requirements of the marine industry. Both accelerated and 45° South Florida exposure testing reveal less yellowing than standard gel coats, and considerably less loss of gloss. ARMORCOTE® 991 gel coats are formulated to meet the EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) for Boat Manufacturers. Gel coats in the ARMORCOTE® 991 series offer blister resistance comparable to ISO/NPG gel coat. The laminating resin is a DCPD polyester, suitable for use in normal corrosive atmospheric conditions. Two sides of the enclosure shall be provided with full size hinged double access doors to allow access to the discharge piping and to the control panel. When required, a smaller hinged door shall be supplied to allow access to each the discharge by-pass line and the suction by-pass line. Each set of double access doors shall be supplied with a latch to engage the enclosure in three places, a stainless steel continuous hinge and protected by a keyed lock. Stainless steel lifting eyes shall be provided for handling the enclosure during installation period and for removal without disassembly if required. The FRP equipment house is designed to withstand 125 mph winds and 30 lb/ft sq. snow loading.

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DUPLEX ABOVE GROUND VALVE ACCESS STATION

VENTILATING FAN

A thermostatically controlled, adequately sized exhaust blower shall be installed inside the equipment enclosure. The fan shall automatically operate at approximately 70 degrees F. The blower capacity shall be sufficient enough to change the station air once every two minutes. The exhaust opening shall be screened and covered with an aluminum gravity type damper so as to prevent foreign materials from entering the pump station. The ventilating fan shall be connected to the control panel by use of a plug-in type power cord with grounded plug.

STATION HEATER (Optional)

A 1500 watt, single phase, 115 vac portable space heater shall be supplied to provide climate control during winter months. The heater will have an integral thermostat and a plug-in type power cord with grounded plug.

HIGH WELL LEVEL ALARM

The station shall be provided with an alarm light, activated by a wetwell level control. This alarm shall signal a high water condition in the sump. The remote alarm light shall include a vapor tight fixture with a guard and red lexan lens. The light fixture shall be mounted on the exterior of the equipment house. The alarm light shall be connected to the control panel by use of a plug-in type power cord with a grounded plug.

PORTABLE SERVICE LIGHT (Optional)

One (1) 75 watt, vapor tight hand held service light shall be supplied. The service light assembly shall include A 25 foot long cord with a grounded plug. A mounting bracket shall be installed inside the fiberglass enclosure for hanging the service light when not in use. The service light shall be connected to the control panel by use of a plug-in type power cord with grounded plug.

INSTALLED SERVICE LIGHT (Optional)

A vapor tight 75 watt service light with a clear glass globe with guard shall be installed inside the station equipment enclosure. The service light shall be mounted above the enclosure door that provides access to the control panel. The service light shall be connected to the control panel by use of a plug-in type power cord with grounded plug.

LOW TEMPERATURE THERMOSTAT (Optional)

A thermostat shall be installed inside the fiberglass station enclosure to monitor the temperature. If the temperature drops to a set point a signal shall be sent to the alarm system. The low temperature circuit shall wired to the breaker box.

PAINTING

All factory fabricated steel items (other than the equipment base), piping and valves shall be thoroughly cleaned of all rust, mill scale and weld flux. Immediately following cleaning, the station shall be painted as follows:

PRIMER COAT:

1-1/2 to 2 mils, dry film thickness, of rust-inhibitive rapid dry epoxy primer.

FINISH COAT:

6 to 8 mils, dry film thickness, of DFT Hi-Build epoxy. Finish shall be extremely colorfast and shall have excellent ability to withstand condensation, moisture and immersion in seawater.

SPECIFICATION

DUPLEX ABOVE GROUND VALVE ACCESS STATION

STATION INSTALLATION

It shall be the installing contractor's responsibility to secure from the station manufacturer station installation instructions at least one (1) week prior to the scheduled shipment of the station to the job site. The contractor shall study the instructions and direct any questions he has to the station manufacturer representative for answers before proceeding with the station installation. The contractor shall then install the station in complete conformance with the manufacturer's recommendations.

WORKMANSHIP AND EXPERIENCE

All workmanship and materials throughout shall be of the highest quality. The station shall be the product of a supplier who has been actively engaged in research, development and has supplied proven field installations of complete sewage pumping system for not less than five (5) years. A list of ten (10) separate sewage pumping systems shall be provided on request.

PACKAGING AND MARKING

Installation instructions shall be furnished with the station.

GUARANTEE

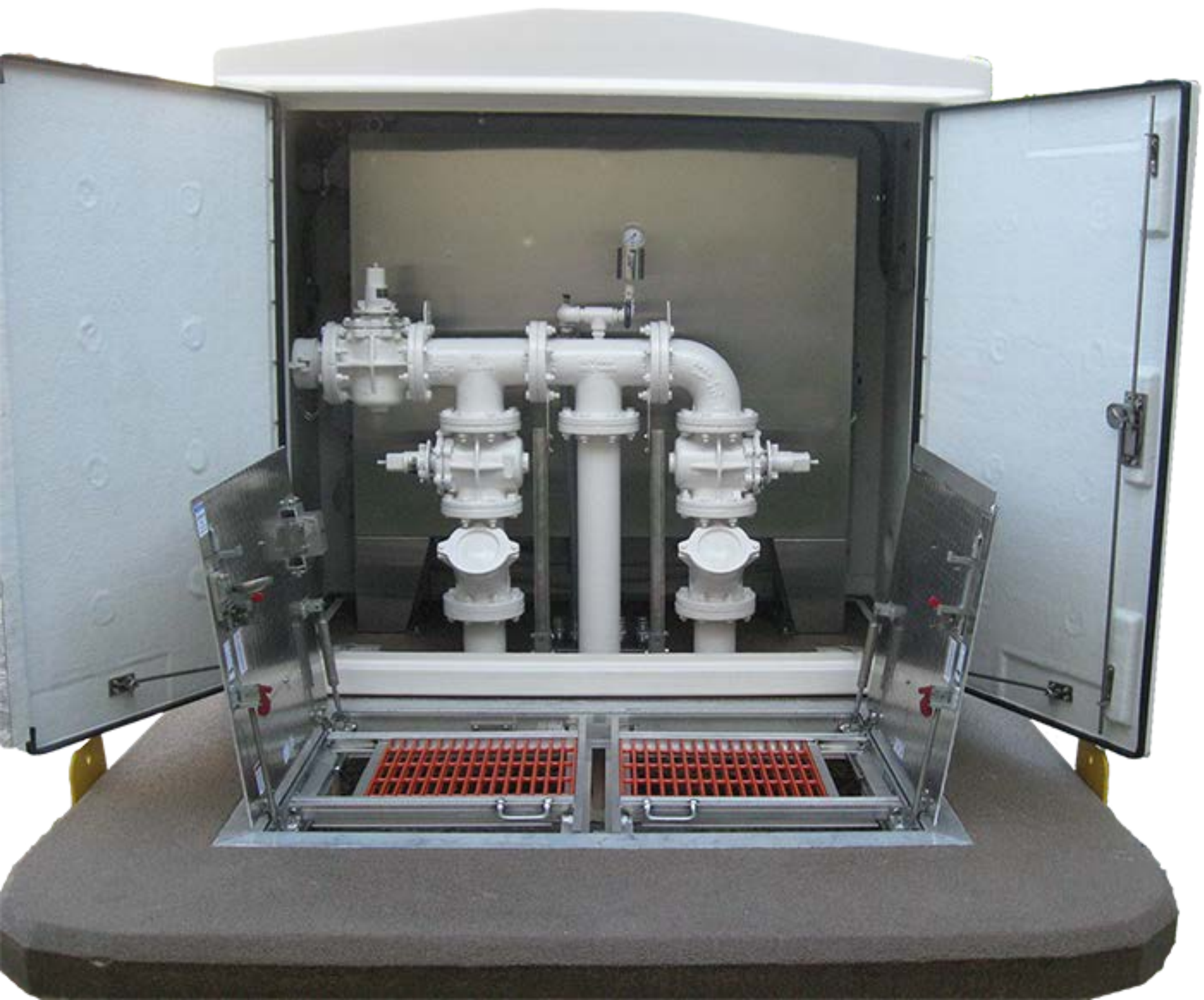
The manufacturer of the lift station shall furnish a limited warranty for 18 months from the date of shipment or 12 months from start-up (whichever occurs first), that all equipment shall be free from defects in design, materials and workmanship. The lift station manufacturer shall furnish replacement parts for any component proven defective, whether of his or other manufacturer during the warranty period, excepting only those items which are normally consumed in service, such as (but not limited to), light bulbs, oil, grease, packing, etc.









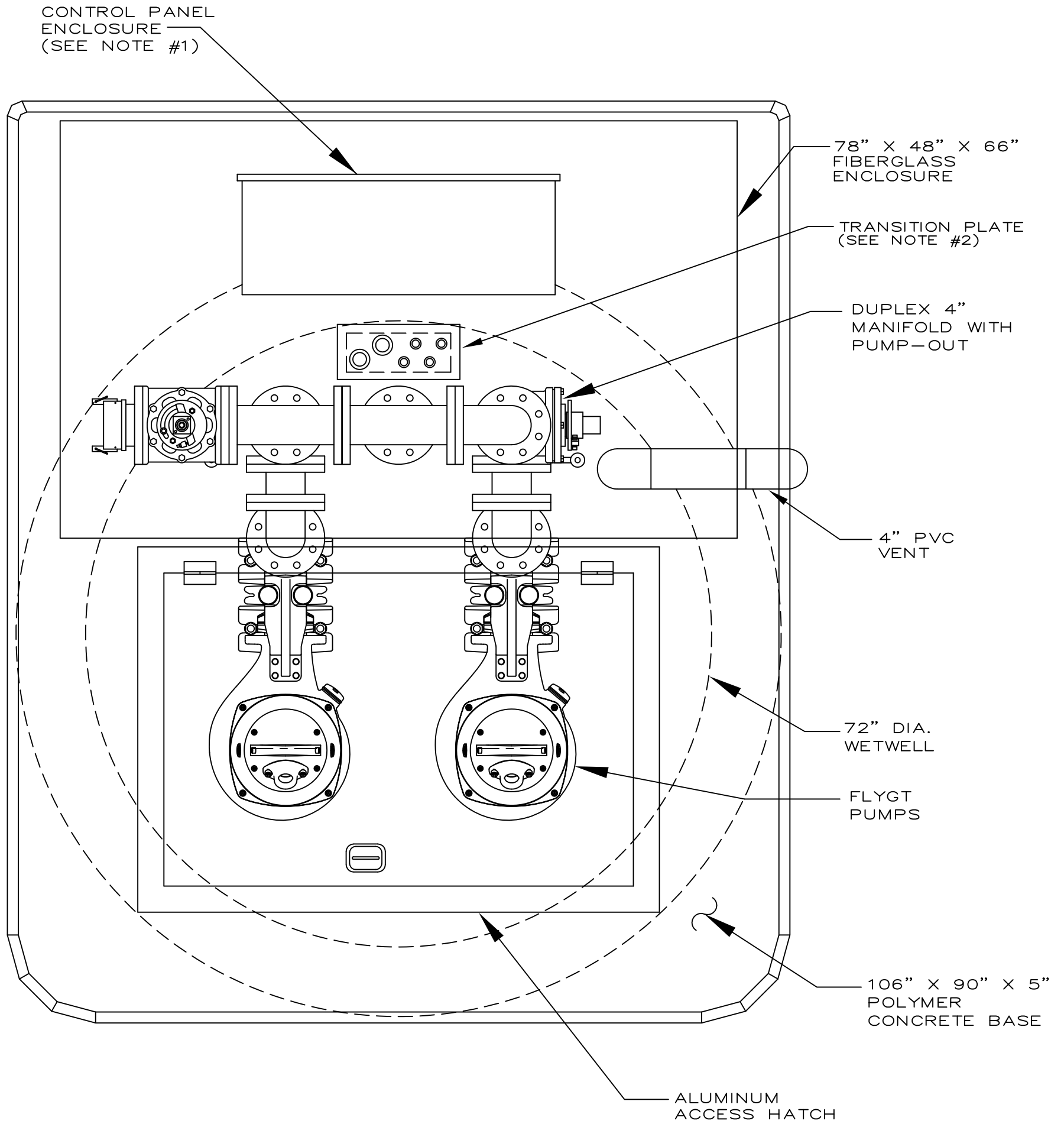








NOT TO SCALE



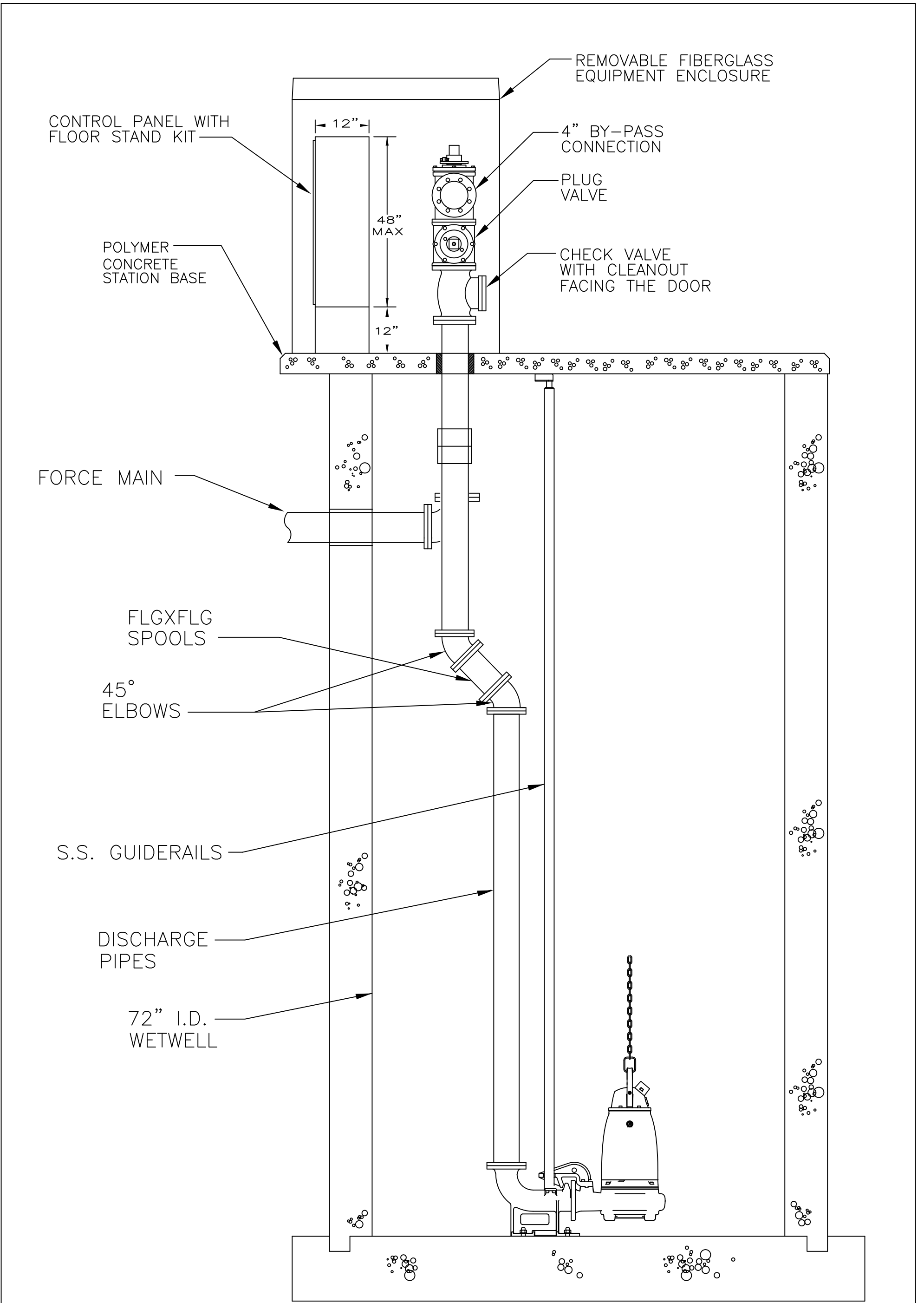
NOTE #1: THE MAXIMUM SIZE CONTROL PANEL ENCLSOURE THAT CAN FIT INTO THE FIBERGLASS ENCLOSURE IS 60" WIDE X 48" TALL WITH 12" FLOOR STAND KIT (OVERALL HEIGHT OF 60") X 12" DEEP

NOTE #2: THE TRANSITION PLATE SHALL CONTAIN CORD GRIPS FOR THE PUMP CORDS AND LEVEL CONTROL CORDS. WHEN REQUIRED THE AIR RELEASE SHALL DRAIN TO A 1" COUPLING WELDED TO THE PLATE



PUMPCON
274 HWY 65 N.
CONWAY, AR 72032
(501)336-8500

TITLE: DUPLEX ABOVE GROUND VALVE ACCESS STATION WITH DISCHARGE BY-PASS		DATE: 11-01-07
PROJECT:	JOB NO:	REVISED: 05-11-12
CUSTOMER: XYLEM, INC.	P.O. NO:	REVISED:
	DWG NO: AG4DBP72WW1	REVISED:



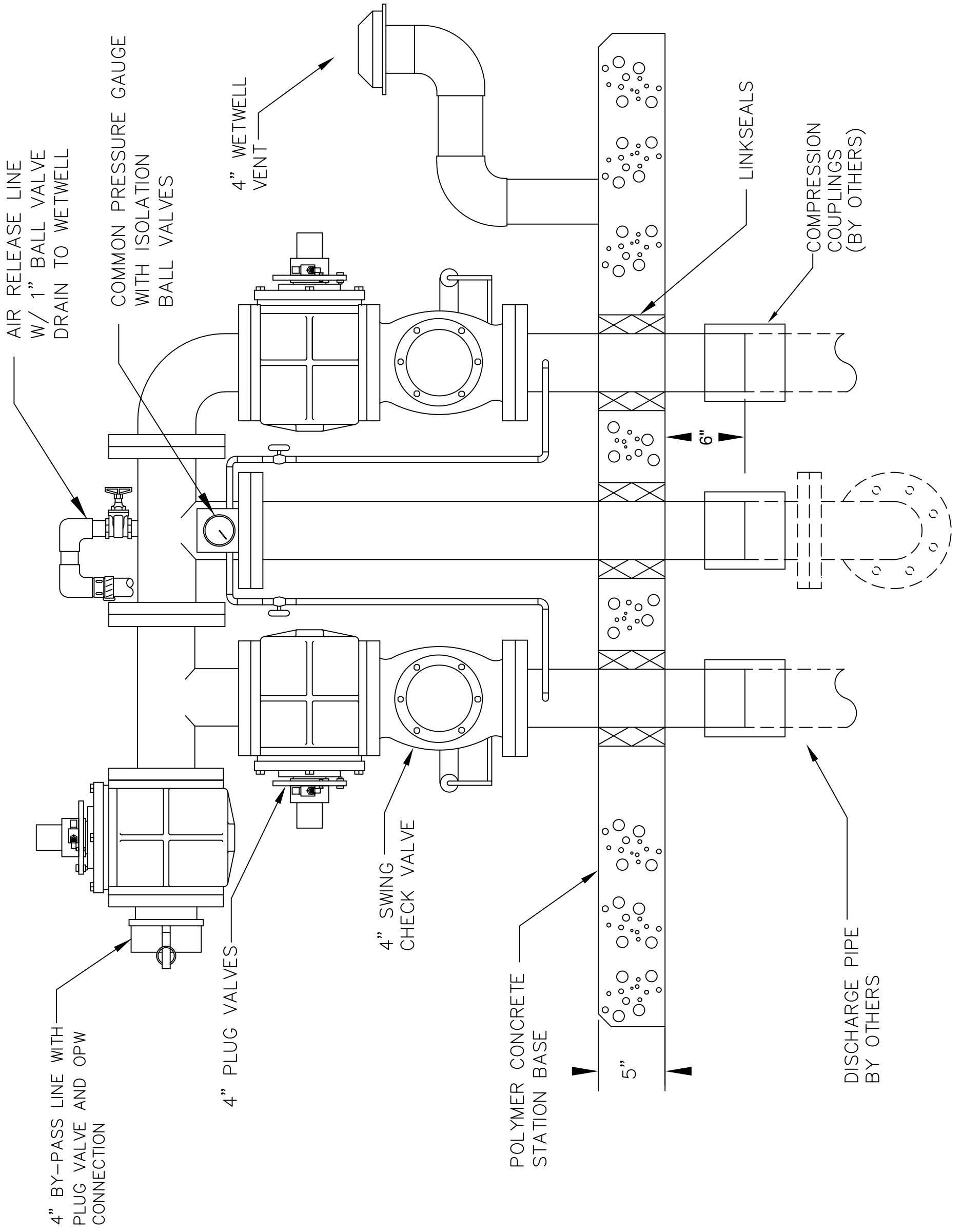
ALL PIPING AND GUIDERAILS
INSIDE WETWELL SUPPLIED BY OTHERS

NOT TO SCALE



PUMPCON
274 HWY 65 N.
CONWAY, AR 72032
(501)336-8500

TITLE: DUPLEX 4" ABOVE GROUND VALVE ACCESS STATION WITH DISCHARGE BY-PASS		DATE: 11-01-07
PROJECT:	JOB NO:	REVISED: 05-11-12
CUSTOMER: XYLEM, INC.	P.O. NO:	REVISED:
	DWG NO: AG4DBP72WW2	REVISED:



NOT TO SCALE



PUMPCON
 274 HWY 65 N.
 CONWAY, AR 72032
 (501)336-8500

TITLE: DUPLEX 4" ABOVE GROUND VALVE ACCESS STATION WITH DISCHARGE BY-PASS

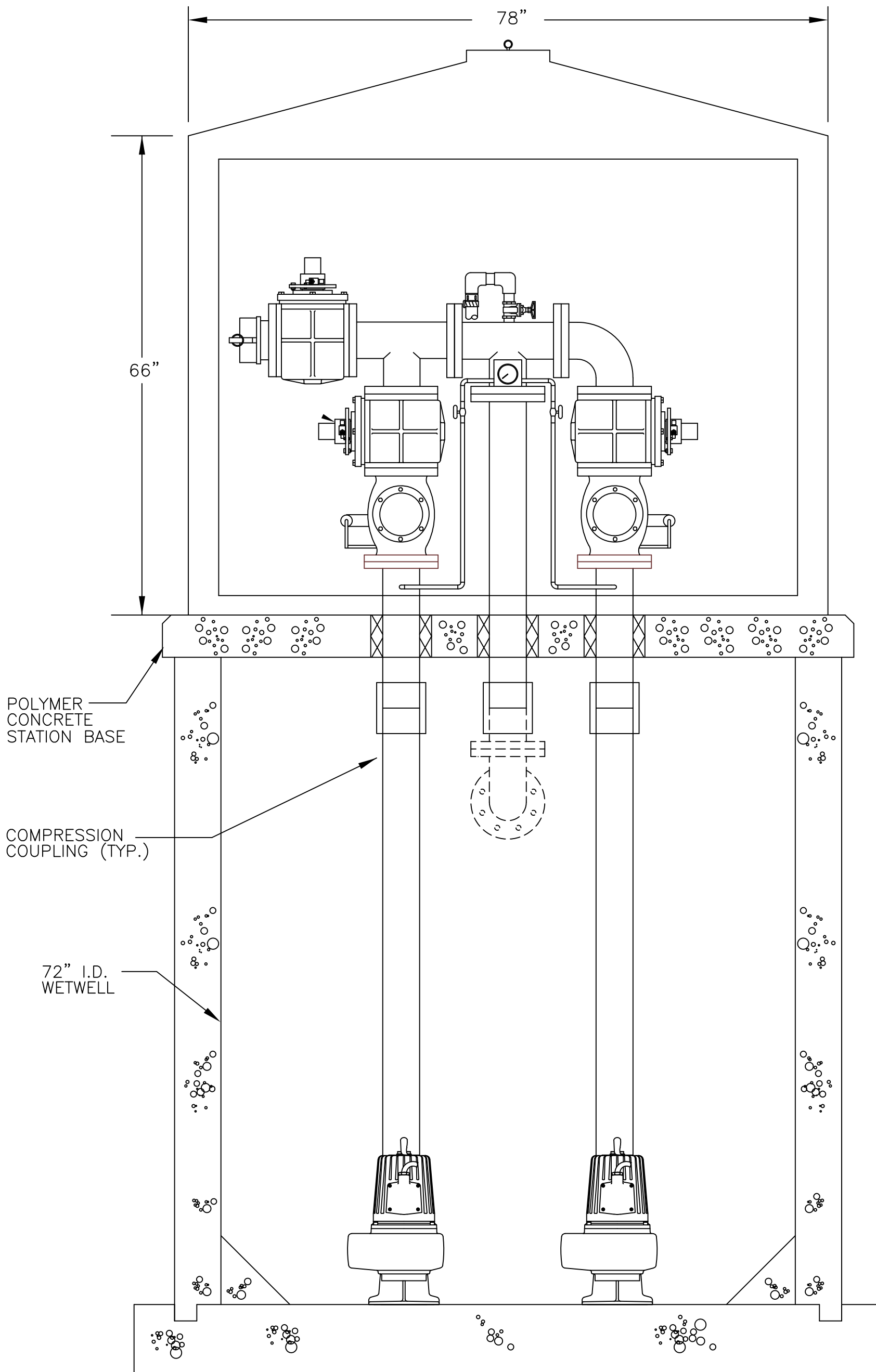
PROJECT:
 CUSTOMER: XYLEM, INC.

DATE: 11-01-07

JOB NO: REVISD: 05-11-12

P.O. NO: REVISD:

DWG NO: AG4DBP72WW3 REVISD:



NOTE #1: ALL PIPING AND GUIDERAILS INSIDE WETWELL SUPPLIED BY OTHERS

NOT TO SCALE



PUMPCON
 274 HWY 65 NORTH
 CONWAY, AR 72033
 (501)336-8500

TITLE: DUPLEX 4" ABOVE GROUND VALVE ACCESS STATION WITH DISCHARGE BY-PASS

DATE: 11-19-13

PROJECT: X

JOB NO: X

REVISED: 00-00-00

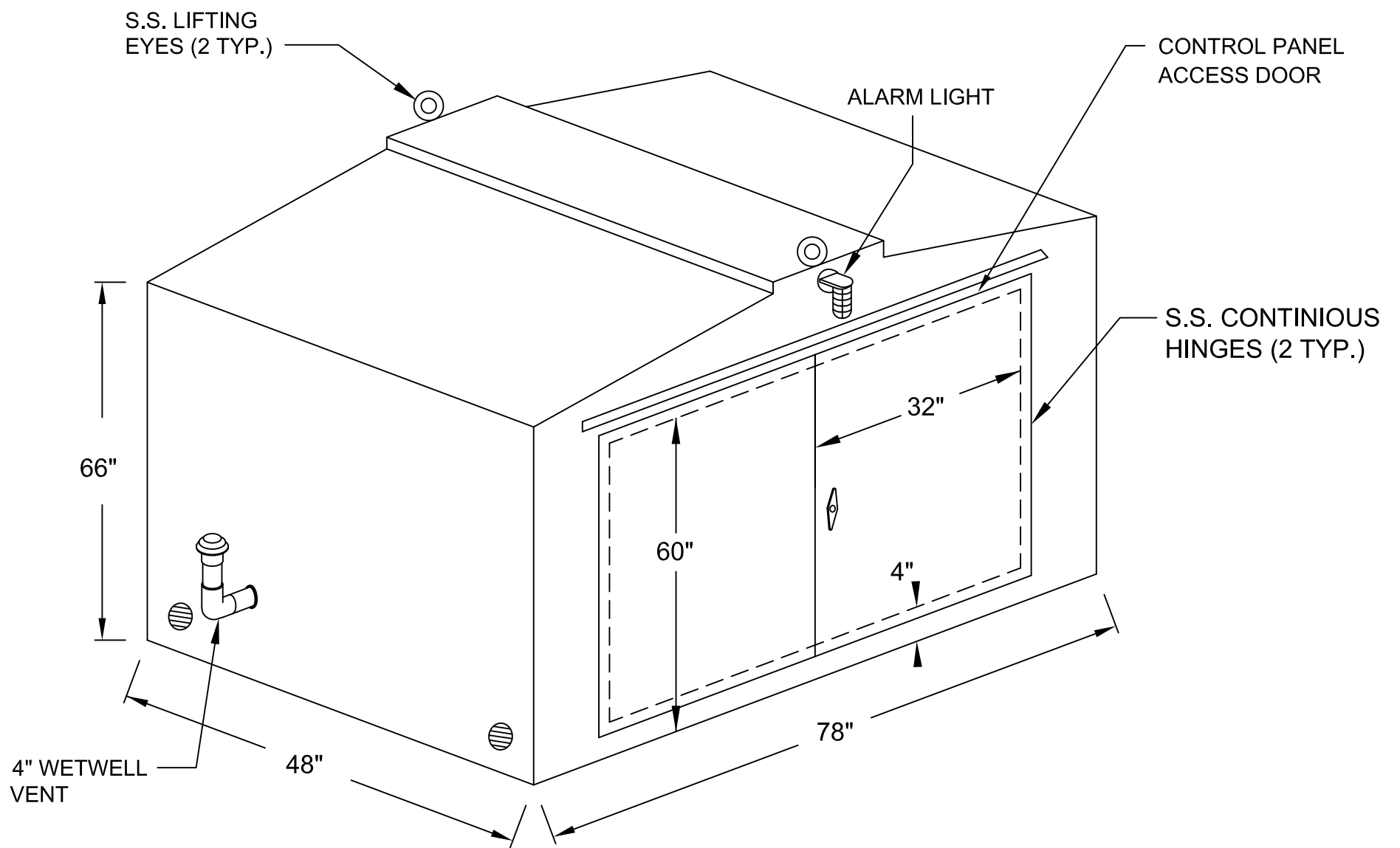
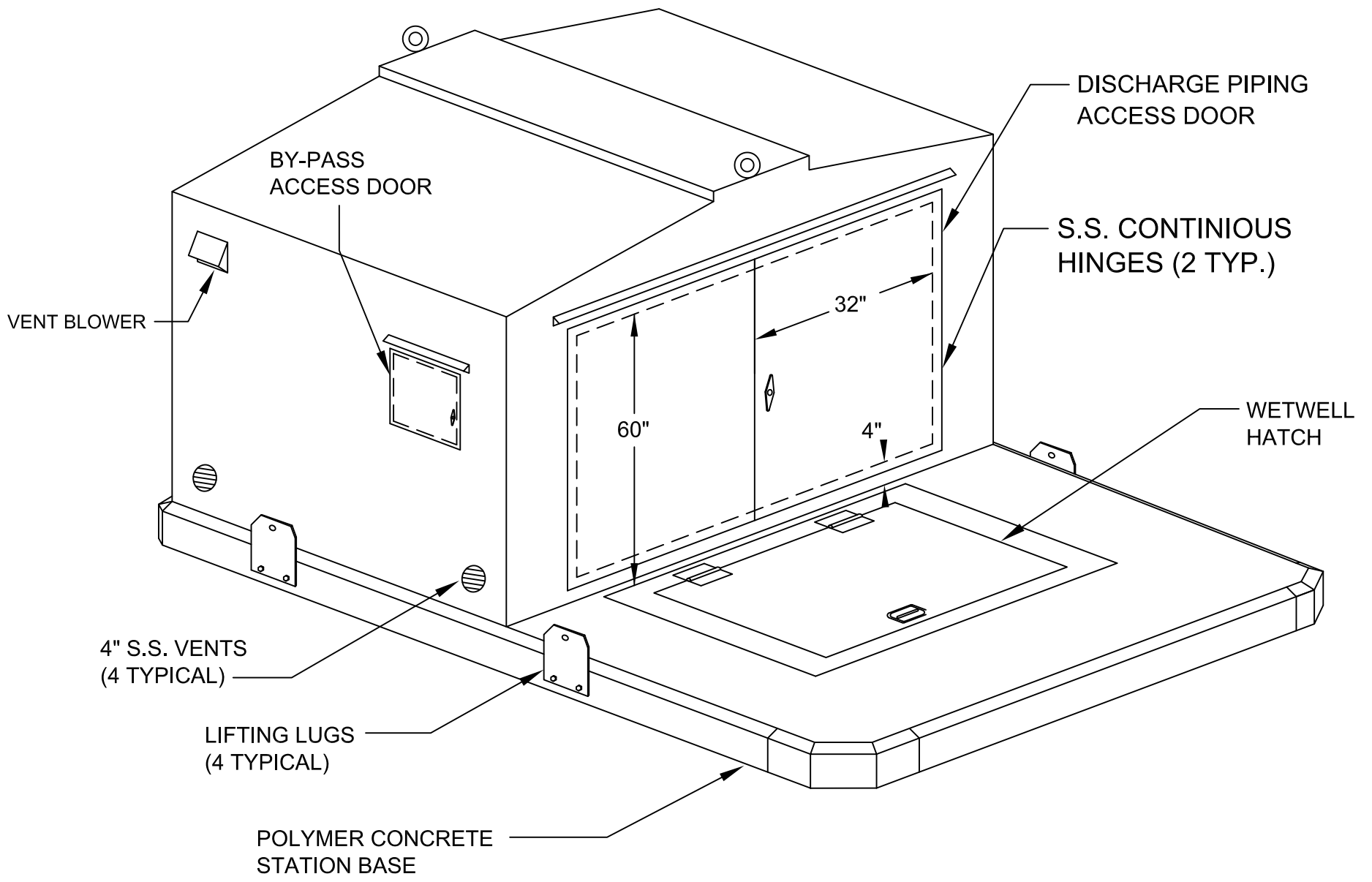
CUSTOMER: XYLEM, INC.

P.O. NO: X

REVISED:

DWG NO: AG4BP72WW4

REVISED:



NOTE # 1: DASHED LINES REPRESENT CLEAR OPENING

NOT TO SCALE



PUMPCON
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TITLE: FIBERGLASS EQUIPMENT ENCLOSURE FOR VALVE ACCESS STATION

PROJECT:

CUSTOMER: XYLEM WATER SOLUTIONS U.S.A., INC.

DATE: 11-01-07

JOB NO: REVISED: 05-11-12

P.O. NO: REVISED:

DWG NO: AG4DBP72WW5 REVISED: