

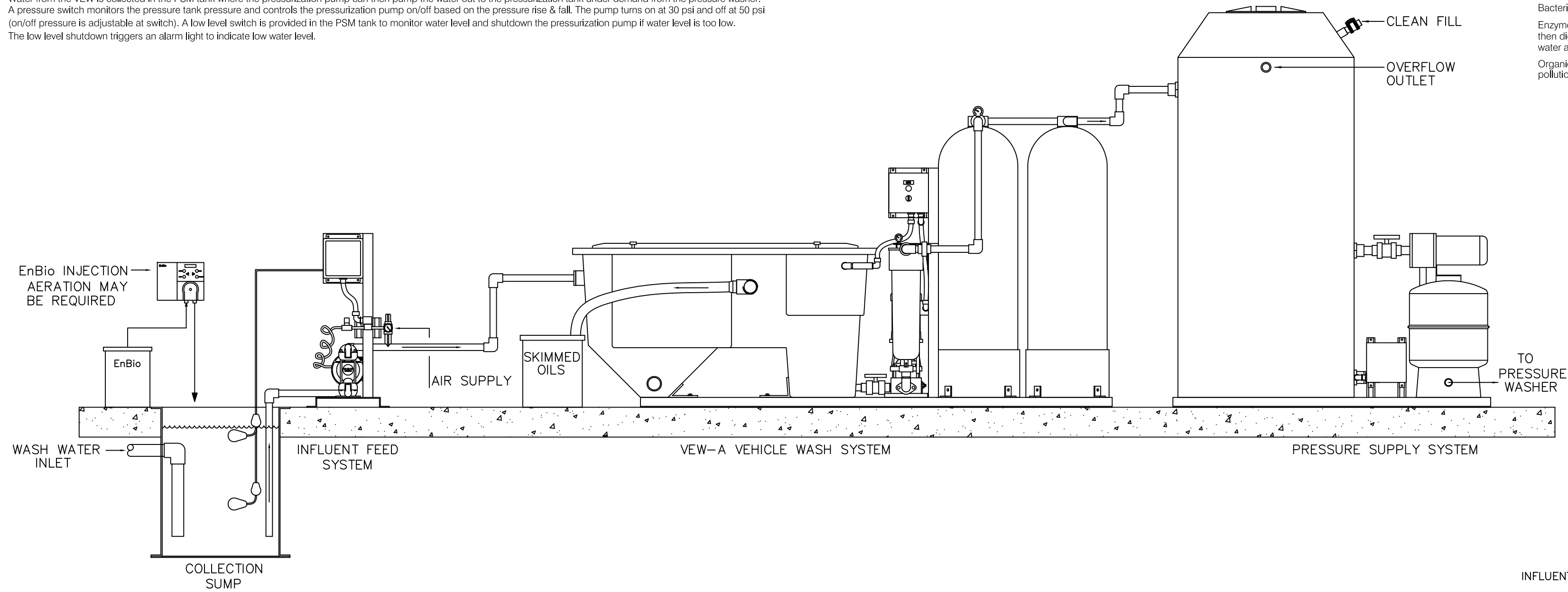
OPERATION DESCRIPTION

VEW-A

The two level switches in the sump monitor the water level and determine automatic on/off of feed pump based on water level. The EnBio system automatically doses bacteria on a timed basis throughout the day. The water is treated by the oil water separator and collects in the effluent chamber. Two level switches in this chamber automatically control the effluent pump on/off based on water level. A third, high-high level switch monitors for a high water condition indicating there is a backup in the ows or something down stream from the effluent pump has plugged or stopped the pump. If the backup condition occurs the high-high float switch will shutdown the feed pump and trigger an alarm light.

PSM

Water from the VEW is collected in the PSM tank where the pressurization pump can then pump the water out to the pressurization tank under demand from the pressure washer. A pressure switch monitors the pressure tank pressure and controls the pressurization pump on/off based on the pressure rise & fall. The pump turns on at 30 psi and off at 50 psi (on/off pressure is adjustable at switch). A low level switch is provided in the PSM tank to monitor water level and shutdown the pressurization pump if water level is too low. The low level shutdown triggers an alarm light to indicate low water level.



Biological Treatment

EnBio REFERENCE

To complete the recycle system capability the EnBio bacterial injection for biological treatment is recommended. This system consists of a chemical metering pump, automatic timing controls, liquid injector and the EnBio bacterial liquid. When provided with the VEW system it is integrated into the system skid.

Bacterial Treatment

Bacterial digestion is the process of bacteria consuming organic matter.

Enzymes act to break the organic matter into water soluble nutrients, which the bacteria then digest. Using complex chemical reactions, the bacteria metabolize the organic waste down to water and carbon dioxide providing the bacteria with energy for growth and reproduction.

Organic waste is consumed by bacteria and is no longer present to produce odor, sludge, pollution or biological growth.

ELECTRICAL REFERENCE

	Amps: / HP / Electrical power req'd
VEW-2	11 1/3 115V/1PH/60HZ.
VEW-4	15 1/2 115V/1PH/60HZ.
VEW-8	24 1.0 115V/1PH/60HZ.
VEW-12	10 1.5 230V/3PH/60HZ.
VEW-16	10 1.5 230V/3PH/60HZ.

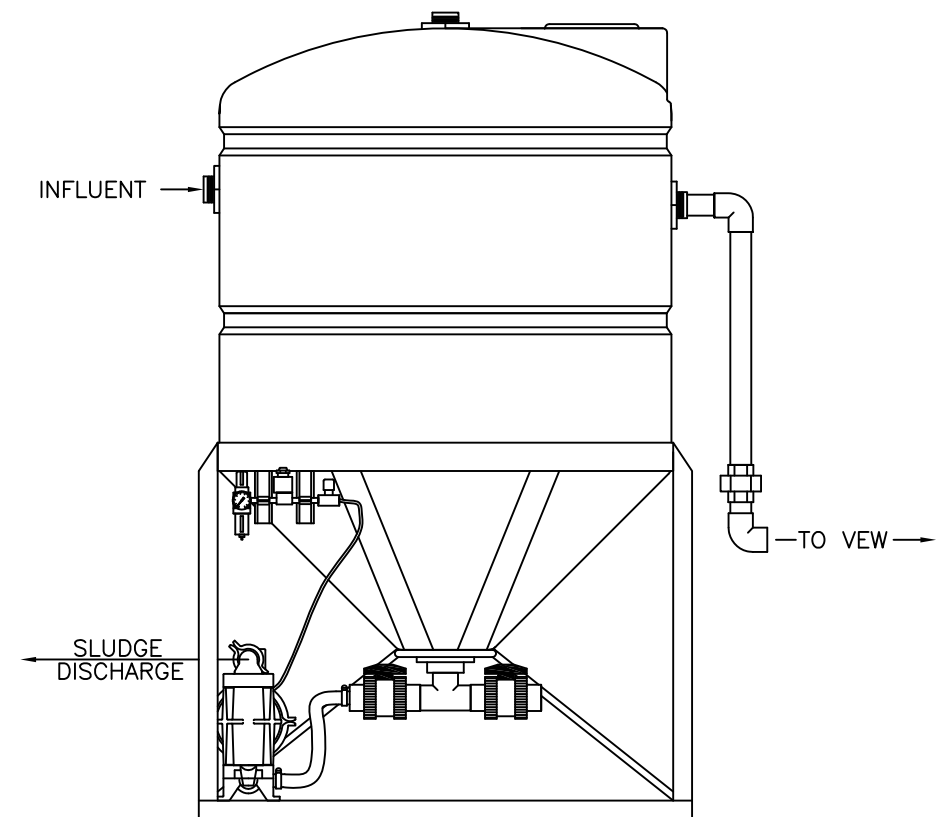
*Voltage and amp load is based on the VEW system only without any of the options added to the system.

NOTES

A FULL RECYCLE SYSTEM CONSISTS OF THE FOLLOWING SUB-SYSTEMS:

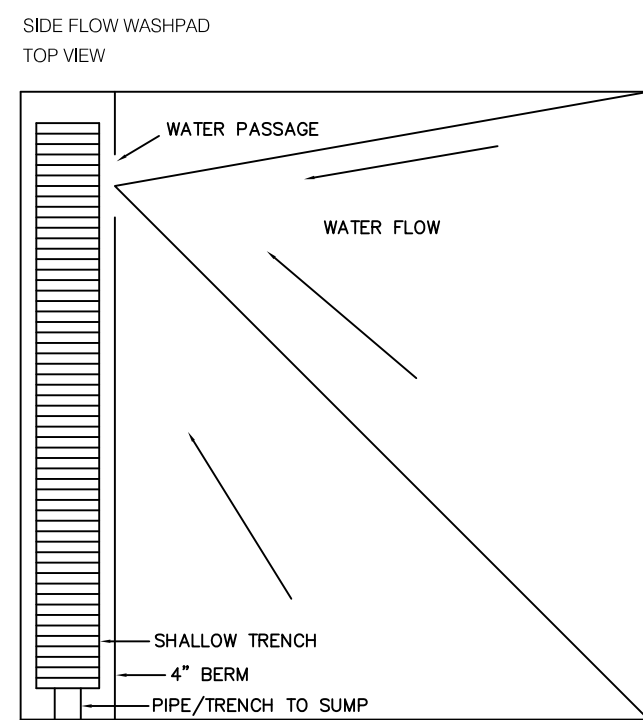
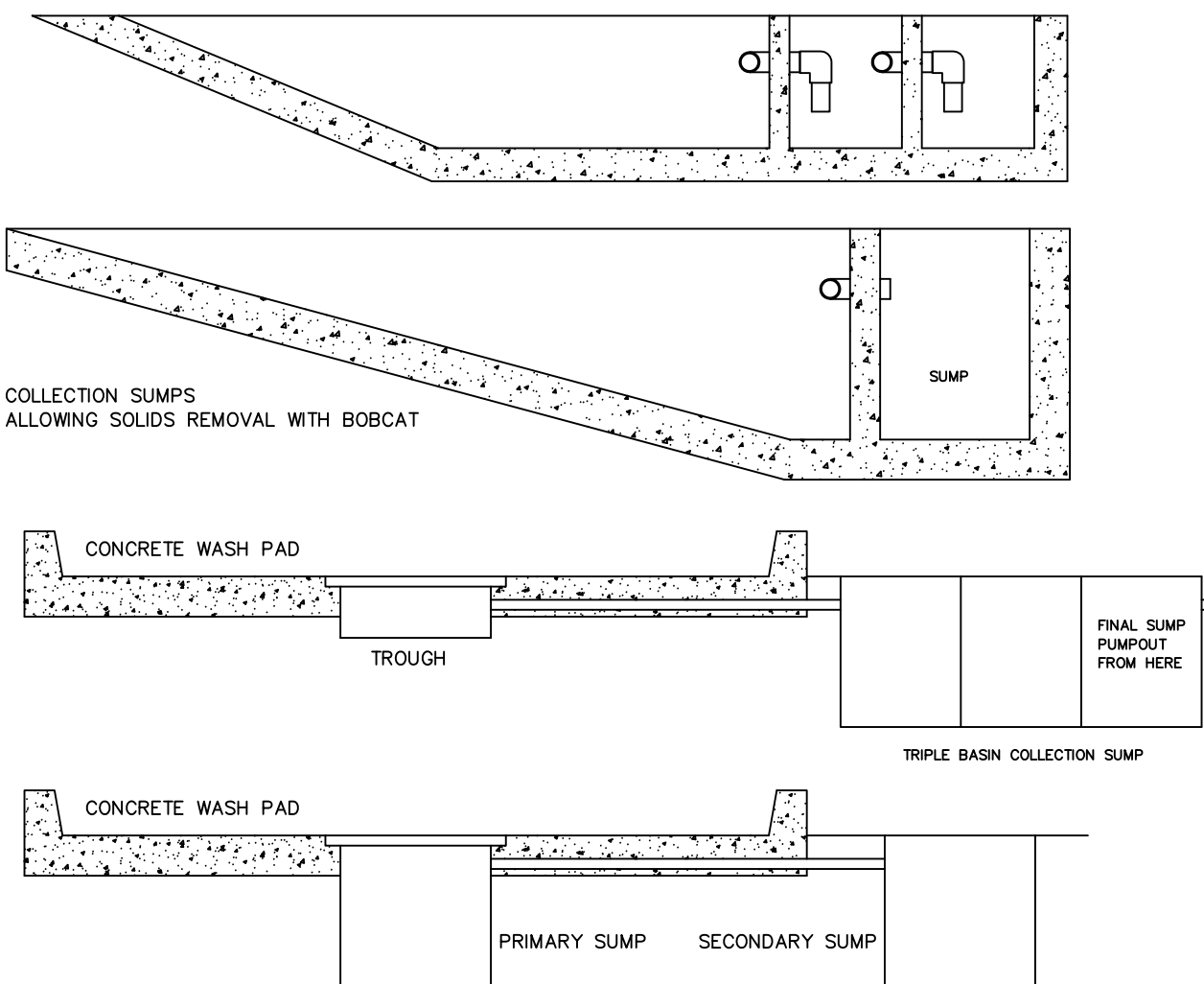
- VEW-A SYSTEM
- INFLUENT FEED SYSTEM
- EnBio BIO-TREATMENT OR BIO-REACTOR SYSTEM
- AERATION SYSTEM TO SUPPLY EnBio BACTERIA WITH OXYGENATION
- PSM SYSTEM OR CLEAN WATER HOLDING TANK
- WASHPAD
- COLLECTION SUMP

HIGH SOLIDS PRESETTLER



PRE-SETTLING TANK WITH SLUDGE PUMP/OUT
WHEN SOLIDS CONCENTRATION ARE HIGH A PRESETTLER PRIOR TO THE VEW IS RECOMMENDED.

WASHPAD CONCEPTS

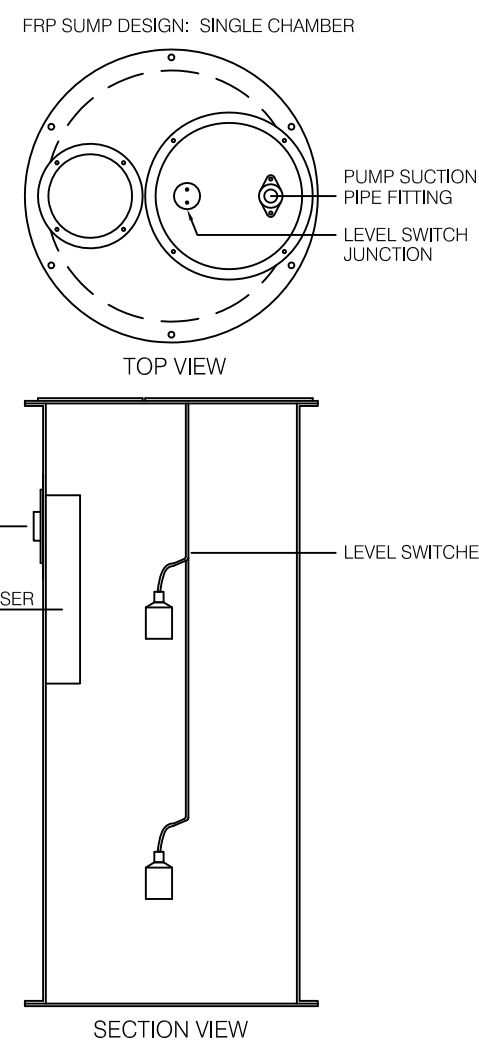


TYPES OF WASHPAD DESIGN

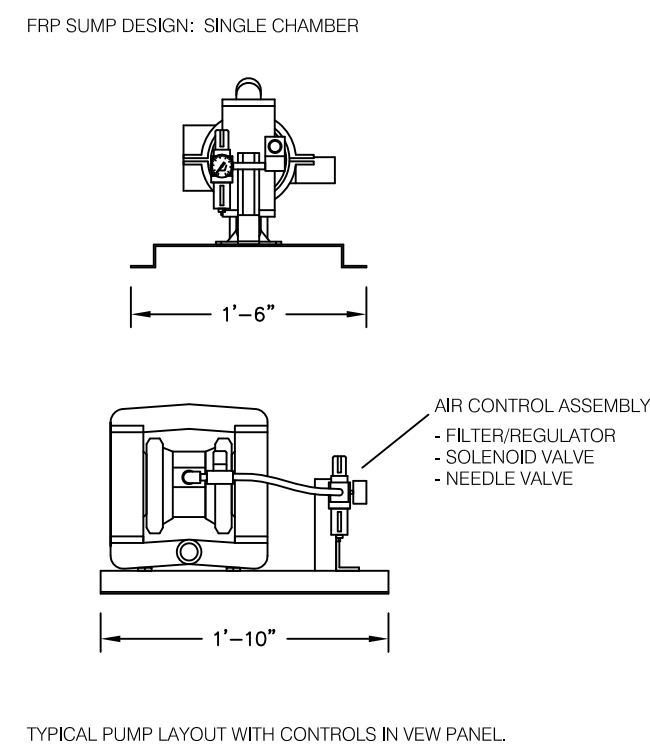
THE WASHPAD DESIGN CAN BE DESCRIBED IN THREE WATER FLOW PATHS:
1. SIDE FLOW: WHERE THE WATER FLOWS TO ONE SIDE OF THE PAD.
2. END FLOW: WHERE THE WATER FLOWS TO ONE END OF THE PAD.
3. CENTER FLOW: WHERE THE WATER FLOWS TO THE CENTER OF THE PAD.

FOR EACH OF THESE THE PAD HAS TO BE DESIGNED SUCH THAT THE WATER EASILY FLOWS TO A COLLECTION/TRANSPORT TRENCH OR GRATED DRAIN LINE. SEE THE VEW BROCHURE FOR MORE DISCUSSION ON THE PAD DESIGN.

STANDARD SUMP DESIGN



FEED PUMP



REVISION	REVISION DESCRIPTION	ENGR.	DATE
EQUIPMENT & PLANS BY:			
 Pan America Environmental Industrial Wastewater Treatment Systems			
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CLIENT NAME:		STANDARD	
DRAWING TITLE: VEW-A SYSTEM LAYOUT REFERENCE			
DESIGNED BY: K.W.	DATE: 3/21/06	SCALE: NONE	
CHECKED BY:	DATE:	SHEET 1 OF 1	
JOB NUMBER:	DRAWING NUMBER: VEW-A SYSTEM LAYOUT		