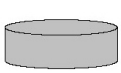
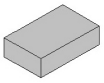
Tideflex® Mixing System (TMS) for Water Storage Tanks & Reservoirs Design Data Form


Circular


Rectangular


Standpipe


Elevated

I. GENERAL INFORMATION

Reservoir/Tank Name:		☐ Advertises On:	☐ Bids On:
Project Location:			

Water Utility/Owner Name:			
Owner Contact:			
Email:			
Address:			
City:		State:	
Zip:		Country:	
Phone:		Fax:	

Consulting Engineering Firm:			
Engineer Contact:			
Email:			
Address:			
City:		State:	
Zip:		Country:	
Phone:		Fax:	

II. SYSTEM INFORMATION

INSTALLATION:
☐ New Tank
☐ Existing Tank

SCADA:
Tank on SCADA?
☐ Yes ☐ No

WATER SOURCE:
☐ Surface Water ☐ Reclaimed Water
☐ Ground Water ☐

OPERATION:
☐ Distribution System Reservoir
☐ Clearwell
☐ Combination

MODE:
☐ Fill-then-draw
☐ Simultaneous Fill and Draw

PRIMARY DISINFECTION:
☐ Chlorine ☐ UV ☐ Chlorine Dioxide
☐ Chloramine ☐ Ozone ☐ None
☐

HIGH WATER LEVEL SHUTOFF:
☐ By Altitude Valve ☐ None, Floats on System
☐ By Pressure Switch ☐

SECONDARY DISINFECTION:
☐ Chlorine ☐ Chloramine ☐ None
☐ Chlorine Dioxide ☐

III. RESERVOIR / TANK DATA *(Provide tank drawings if available. See nomenclature on page 4.)*

TYPE OF RESERVOIR / TANK:		Tank Manufacturer or Basis of Design:
☐ Circular Reservoir ☐ Irregular Shape ☐ Rectangular Reservoir		☐ At Grade ☐ Semi-buried ☐ Buried
☐ Standpipe		
☐ Elevated Tank	☐ Dry Riser	☐ Sphere/Spheroid ☐ Composite ☐ Hydropillar ☐
	☐ Wet Riser	Wet Riser Diameter ☐ ft ☐ in ☐ m

TANK DETAILS: *(Provide tank drawings if available.* ***See nomenclature on page 4.)***

VOLUME: ☐ MG ☐ Gallons ☐ m^3 ☐ Megaliters

Circular Reservoir / Standpipe		**Elevated Tank**		**Rectangular Reservoir**	
	☐ ft ☐ m		☐ ft ☐ m		☐ ft ☐ m
Tank Diameter		Bowl Diameter		Length x Width	x
Depth to Maximum Operating Level		Head Range		Depth to Maximum Operating Level	
Depth to Overflow		Height from Foundation to Overflow		Depth to Overflow	
		Height from Foundation to Maximum Operating Level		Number of Cells	
Bottom Elevation		Foundation Elevation		Bottom Elevation	

TANK MATERIAL: *(Select multiple if alternates for new tank.)*

☐ Welded Steel ☐ Bolted Steel (Concrete Floor) ☐ Bolted Steel (Steel Floor) ☐ Riveted Steel
☐ Prestressed Concrete ☐ Post-tensioned Concrete ☐ Cast-in-place Concrete
☐ Composite (Elevated) ☐ Earthen Lined ☐

TYPE OF ROOF / COVER:

☐ Fixed Roof → Internal Roof Supports? ☐ Yes ☐ No ☐ Floating Cover ☐ None, Open Reservoir

IV. INLET / OUTLET PIPING *(For new tanks that operate in fill-then-draw and for existing tanks that have a common inlet/outlet pipe, complete the "Inlet" pipe data. The TMS separates inlet/outlet inside the tank.)*

☐ Common Inlet/Outlet Pipe ☐ Separate Inlet and Outlet Pipes

Inlet Diameter	☐ in ☐ mm	Material:	Penetration: ☐ Bottom ☐ Sidewall ☐ Top	
Outlet Diameter	☐ in ☐ mm	Material:	Penetration: ☐ Bottom ☐ Sidewall	
Outlet have Silt Stop? ☐ Yes ☐ No →			☐ Fixed Pipe Extension ☐ Removable	
Does tank have a dedicated drain pipe? ☐ Yes ☐ No				

V. HYDRAULIC DATA

Minimum **Fill** Rate:		☐ gpm ☐ lps ☐	☐ Pumped ☐ Gravity
Maximum **Fill** Rate:			
Maximum **Draw** Rate: Peak Demand + Fire Flow (If Applicable)		☐ gpm ☐ lps ☐	☐ Pumped ☐ Gravity

VI. TANK FLUCTUATION / TURNOVER DATA *(With one of the methods below, provide data on the typical, or expected, daily fluctuation of tank levels in summer and winter, if different.* ****See nomenclature, page 4)***

	Method 1				***Method 2***	***Method 3***	
	Maximum Operating Level*		Minimum Operating Level*		**%** (Percent)	Volume Exchange	
Summer		☐ ft		☐ ft			☐ Gallons/Day
Winter		☐ m		☐ m			☐ Liters/Day

VII. REFROFIT INFORMATION

Year Tank Constructed:	
Date of Last Inspection:	
Date of Last Rehab/Repaint:	
Next Scheduled Rehab:	
Internal Baffles?	☐ Yes ☐ No
Ice Formation?	☐ Yes ☐ No
Water Temperature Range	Minimum
☐ °F ☐ °C	Maximum
Size of Largest Roof Hatch	☐ Dia. ☐ Sq.
Size of Largest Shell Hatch	☐ Dia. ☐ Sq.
Rechlorination/recirculation sytems installed?	☐ Yes ☐ No
Are sampling taps installed?	☐ Yes ☐ No
Samples been taken at different locations/depths inside the tank?	☐ Yes ☐ No
Has a tracer study, CFD, or scale model been done?	☐ Yes ☐ No

VIII. WATER QUALITY ISSUES

Identify Water Quality Issues
☐ Loss of Residual
☐ Disinfection By Products > ☐ TTHM ☐ HAA5
☐ Coliform Bacteria
☐ Nitrification
☐ Elevated Heterotrophic Plate Count (HPC)
☐ Biofilms
☐ Taste and Odor
☐ Increased pH
☐ Color
☐ Turbidity
☐

Identify Known/Suspected Causes:
☐ Poor Mixing
☐ Short-circuiting
☐ Poor Turnover / Tank Fluctuation
☐ Long Detention Time
☐ Thermal Stratification
☐ High Levels of Organics
☐

IX. OVERFLOW PIPE PROTECTION

Check method used to prevent birds, rodents, cold drafts, etc., from entering tank through overflow pipes.

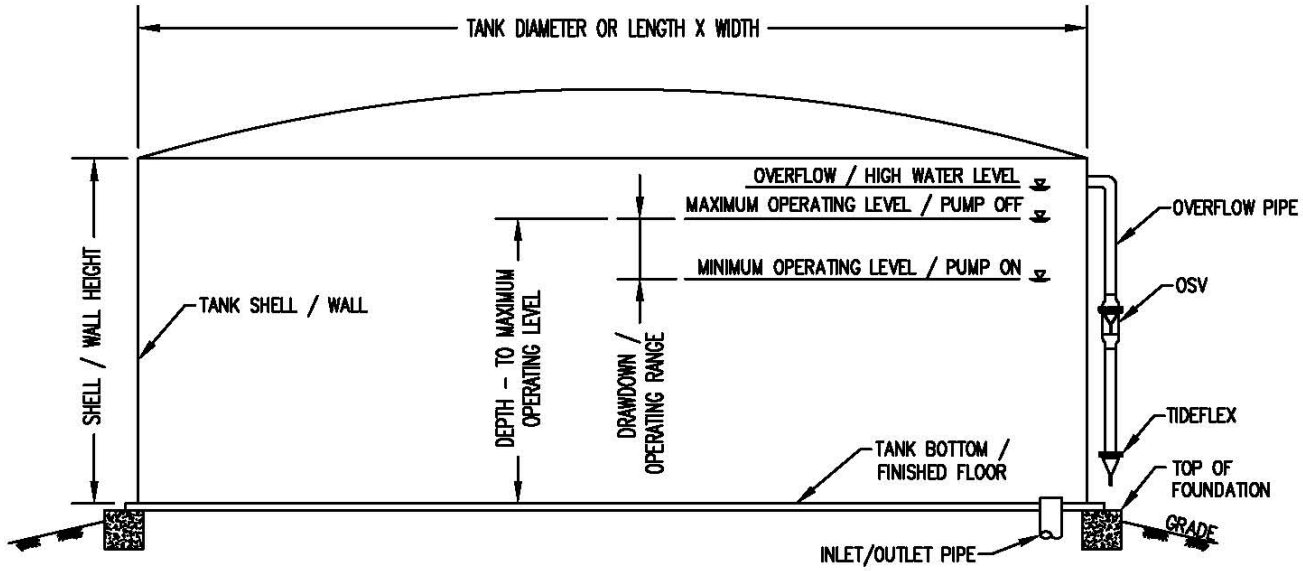
Overflow Pipe Size:		☐ in	☐ mm

☐ **Dechlorinating Overflow Security Assembly (DOSA)** ☐ **Tideflex Valve** ☐ **Overflow Security Valve (OSV)** ☐ **Screen** ☐ **Flap Valve**

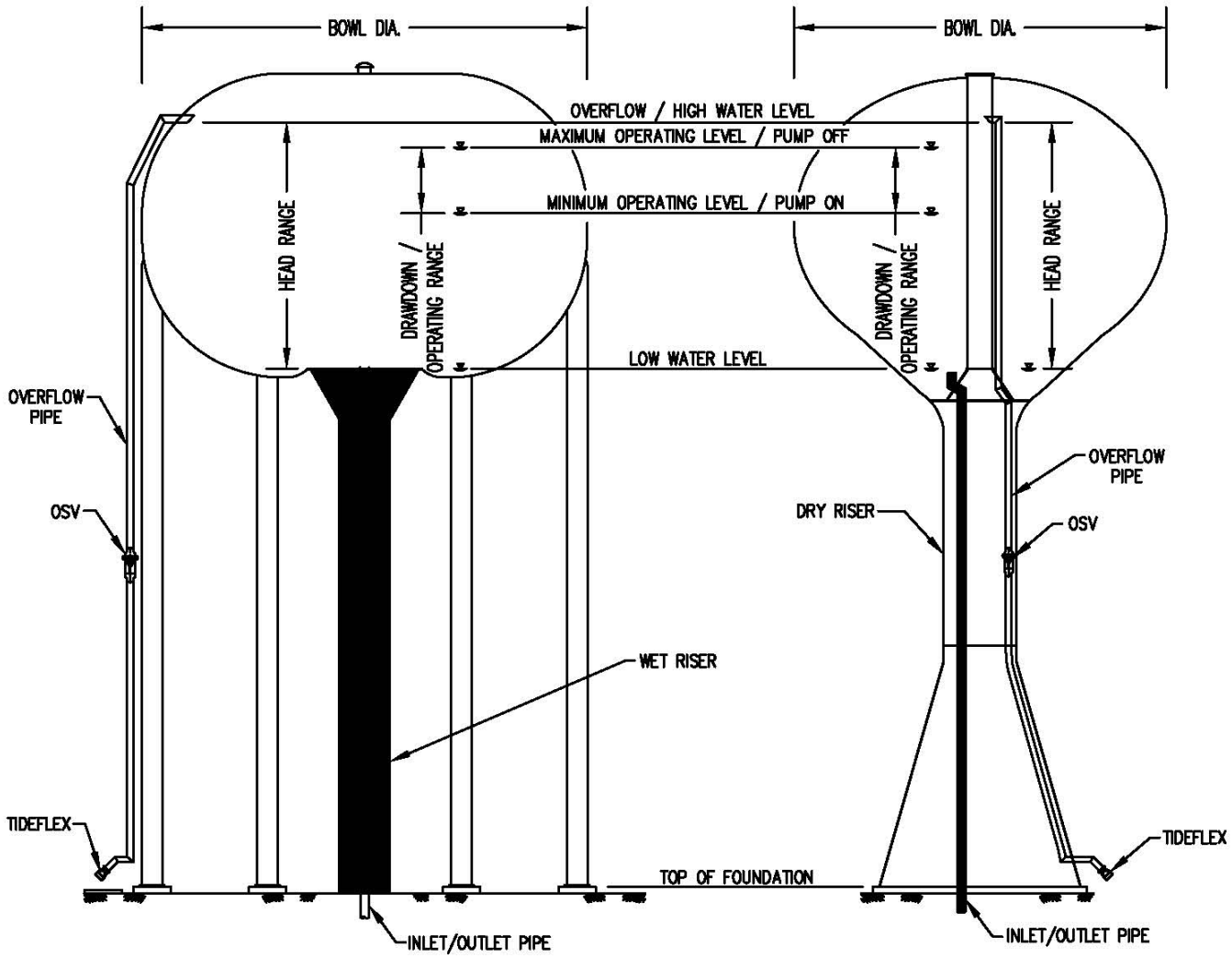
X. COMMENTS

PLEASE E-MAIL OR MAIL COPIES OF TANK DRAWINGS AND INSPECTION REPORTS/PHOTOS TO:

XI. TANK NOMENCLATURE



CIRCULAR AND RECTANGULAR RESERVOIRS AND STANDPIPES



WET RISER ELEVATED TANK

DRY RISER ELEVATED TANK