

# Introduction to CORGAL® Tanks



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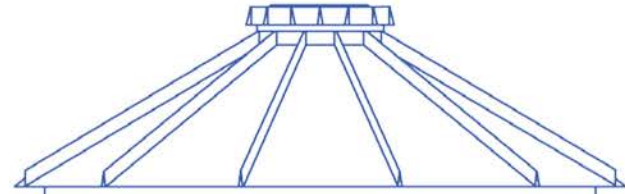
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# YES, WE CAN!

Bring us your fire protection  
water problem and we will solve it





**Water Storage Tanks, Inc.**

[www.waterstoragetanksinc.com](http://www.waterstoragetanksinc.com)

# Outstanding Customer Service

Our experienced team will help plan, design, and install high-quality, engineered tanks





# What We Do Well

- Engineering
- Customization
- Service and Support

# Why CorGal<sup>®</sup>?

Importance of Readily Available  
Emergency Water





# CorGal<sup>®</sup> Tanks Can Help Save Lives

Engineered to be Fire Protection Tanks to hold reserved water for active or passive fire protection systems





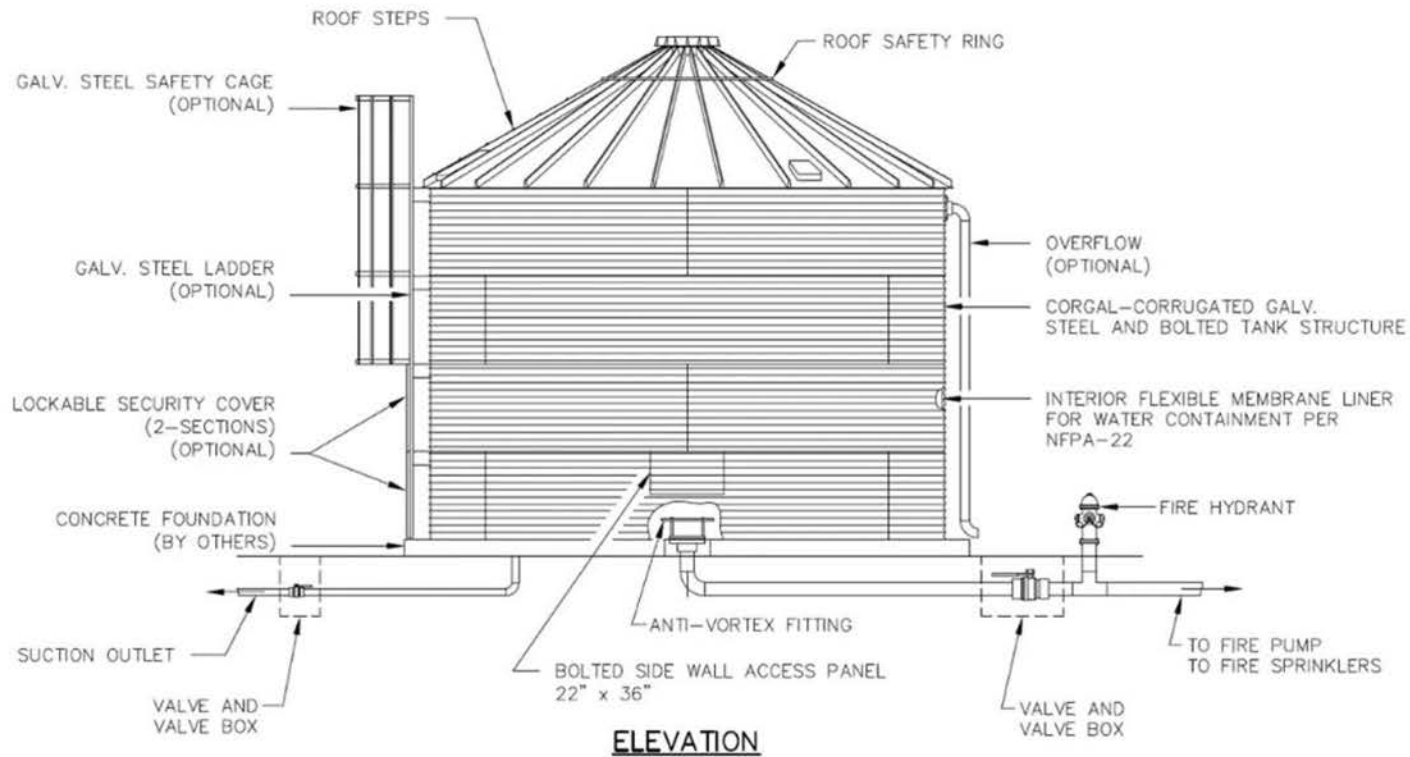
# NFPA 22, 25 and 1142 Compliant

**NFPA 22:** Water Tanks for Private Fire Protection

**NFPA 25:** Inspection, Testing and Maintenance of Water-Based Fire Protection Systems

**NFPA 1142:** Water Supplies for Suburban and Rural Fire Fighting





# NFPA 22 Compliant

Fire protection tanks feature the following upgrades:

- Higher gauge sidewall
- Long-lasting anti-vortex fittings (not painted metal)
- Roof vents
- Premium water level indicators
- OSHA compliant ladders with security cover





# Engineered to Meet Requirements

- Fire Flow Requirements
- International Fire Code



# Fire Flow Requirements

What are your fire flow requirements?

CorGal® Tanks meet those requirements





# Will Not Experience Negative Pressure

- Vent, anti-vortex fitting, and thicker wall sheets
- Engineered properly for this application and site location



# Fire Protection Piping



# Fire Hydrant Connection



# Premium Materials

CorGal® meets the following minimum standards:

- G-115 hot dipped galvanization
- 20-gauge steel sidewalls
- 24-gauge steel roof panels
- Designated bottom panels to better distribute weight
- Full tank geotextile preliner
- 24 mil PVC flexible membrane liner
- Schedule 80 PVC flanges or hot-dipped galvanized steel flanges



# Exceptional Design

Meets the International Building Codes (IBC) 2013 standards:

- 115 mph Wind Load
- Seismic Design Category 2B
- Site-Specific Live Loading

Equipped with a preliner and a flexible membrane liner

An engineered concrete floor or foundation is required





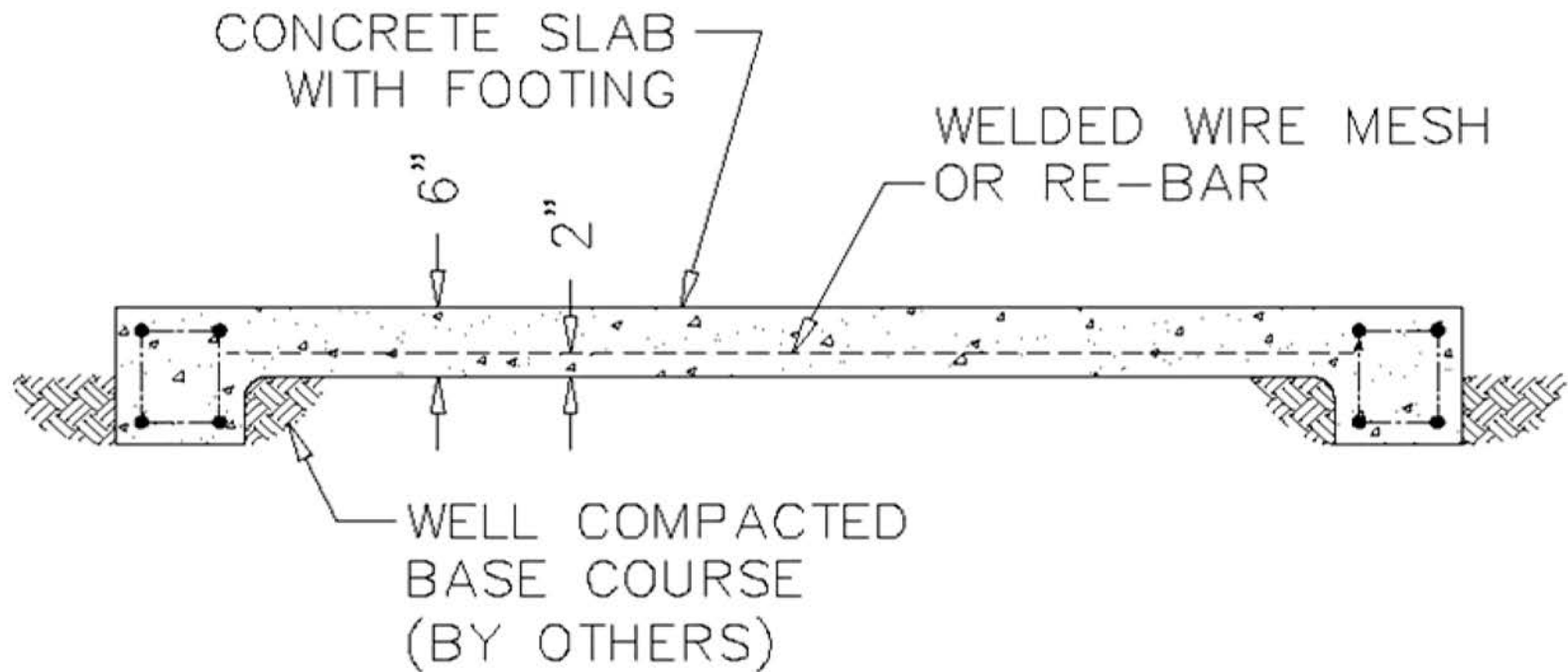
# Superior Custom Engineering

Having a thorough, site specific structural design calculation package (SDCP), stamped by a professional engineer licensed in your state, is very important

Ensures tank is built to the location's requirements and complies with local ordinances and laws







# Concrete Foundation

Stabilizes tank position and limits movement during extreme weather or natural disasters

State licensed structural engineer for the project must:

- Design the foundation
- Specify the type, size and embedment depth of the anchor



# Quick & Safe Assembly Process

- Tank arrives unassembled and built on location
- Can be erected on difficult-to-access project sites
- Can be disassembled and relocated, if necessary





# Fire Training Academy

Location: Tampa, FL

Model #: CorGal® 2703-WT-CHR

Nominal Capacity: 45,000 Gallons

Acts as a Passive Fire Protection System  
and used for fire training purposes





# Commercial Facility

Location: Dixon, CA

Model #: CorGal® 2406-WT-CHR

Nominal Capacity: 72,000 Gallons

Connected to an active fire protection system





# Winery

Location: Healdsburg, CA

Model #: CorGal® 3606-WT-CHR

Nominal Capacity: 162,000 Gallons

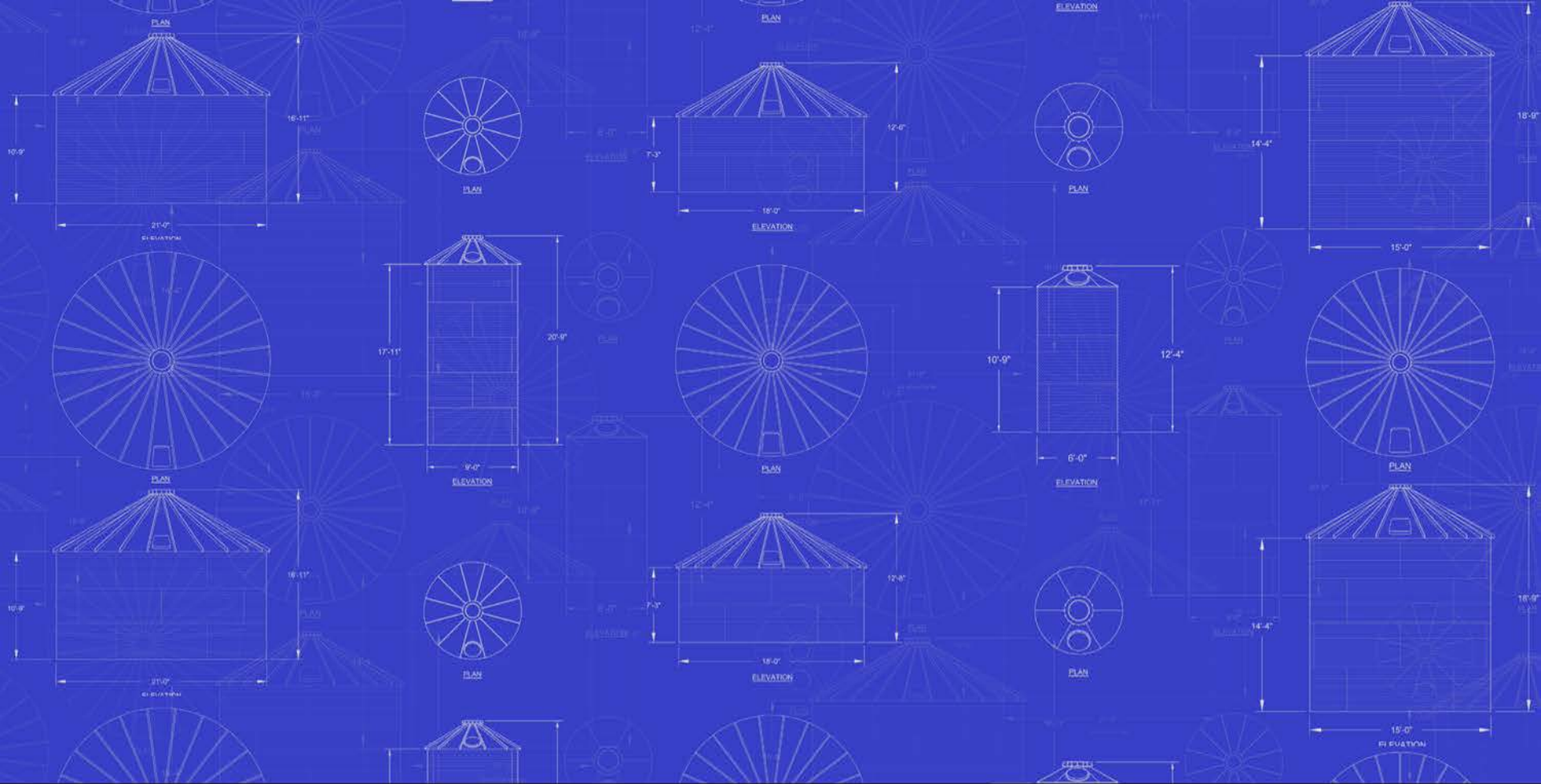
Connected to an active fire protection system





# Reduction in Infrastructure Costs

- Do not need to bury municipal lines
- Could reduce tap fees
- Faster project completion



# Drawings & Specifications

Standard Tank Models are available at:

[www.CorGalTanks.com](http://www.CorGalTanks.com)





## Most Popular Roof Types

- 30° Flat Seam Roof
- 10° High Rib Roof
- 30° High Rib Roof (also available in oversized)
- Open Top as a Reservoir





# Roof Raftering

Engineering is the ultimate factor in deciding structural raftering

As a general rule, a low profile roof tank larger than 36' in diameter will require rafters and beyond 39' may also require a center pole





# Easily Attachable Safety Features

CorGal® Tanks are designed to accommodate mandatory fire safety feature additions





# Roof Safety Ring & Roof Ladder

OSHA Compliant





# Wind Ring/ Tension Hoop



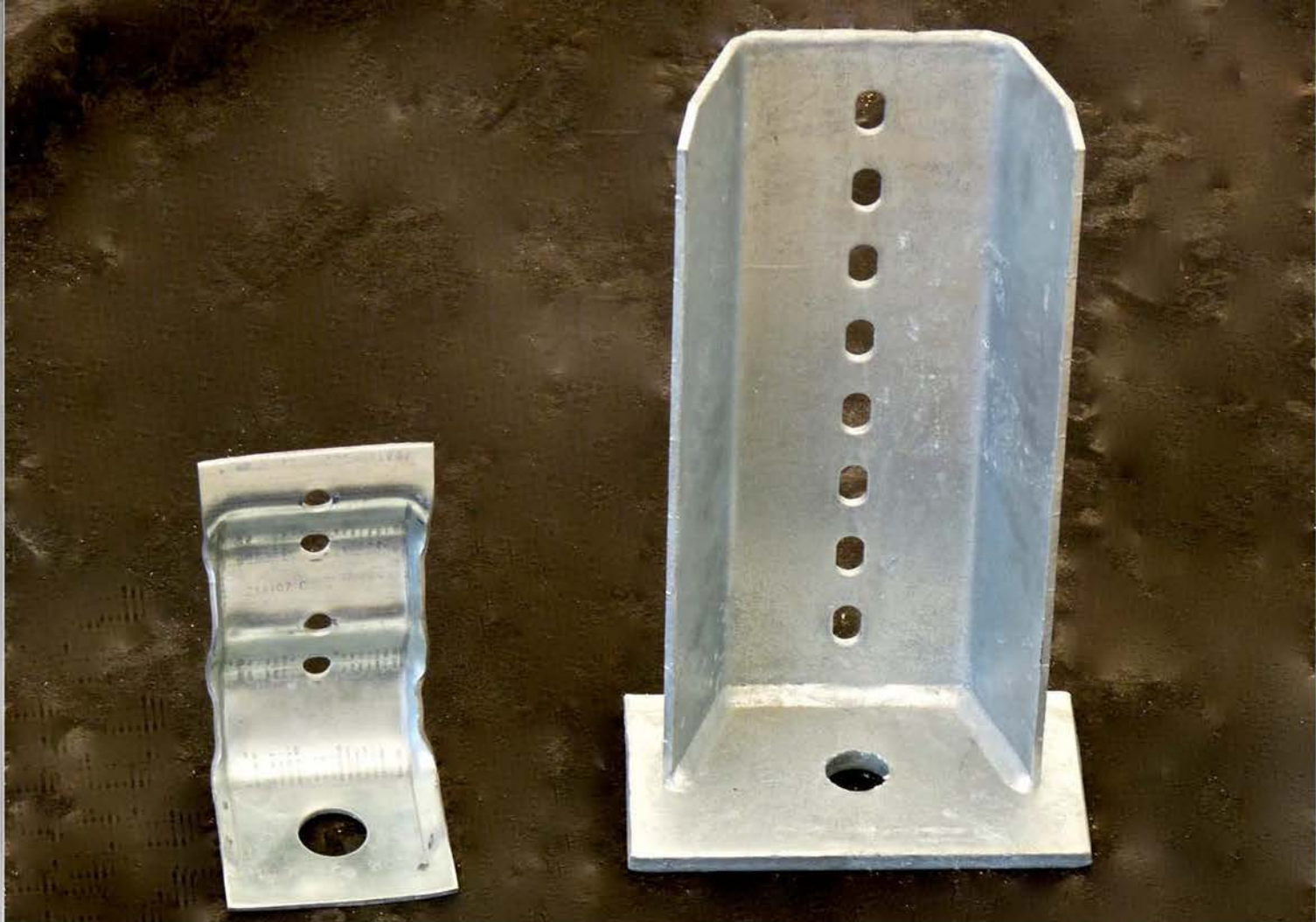
# Side Ladder with Security Cover

OSHA Compliant



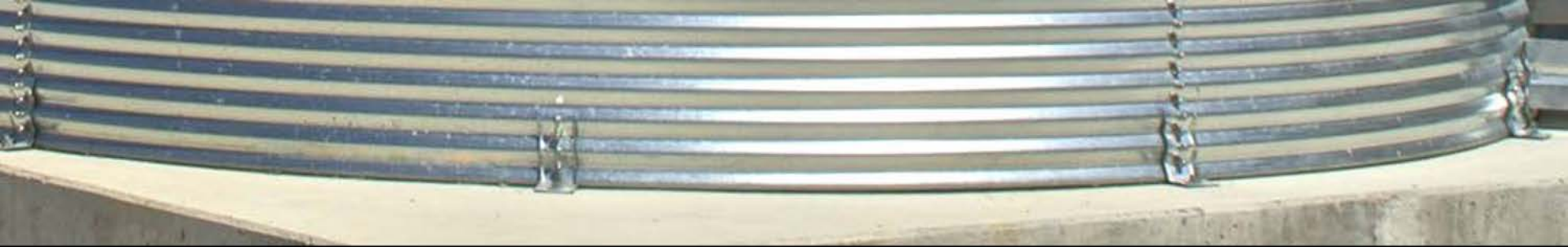


# Water Level Indicator



# Anchoring Systems

Standard Anchor • Seismic Anchor



# Different Anchor Options

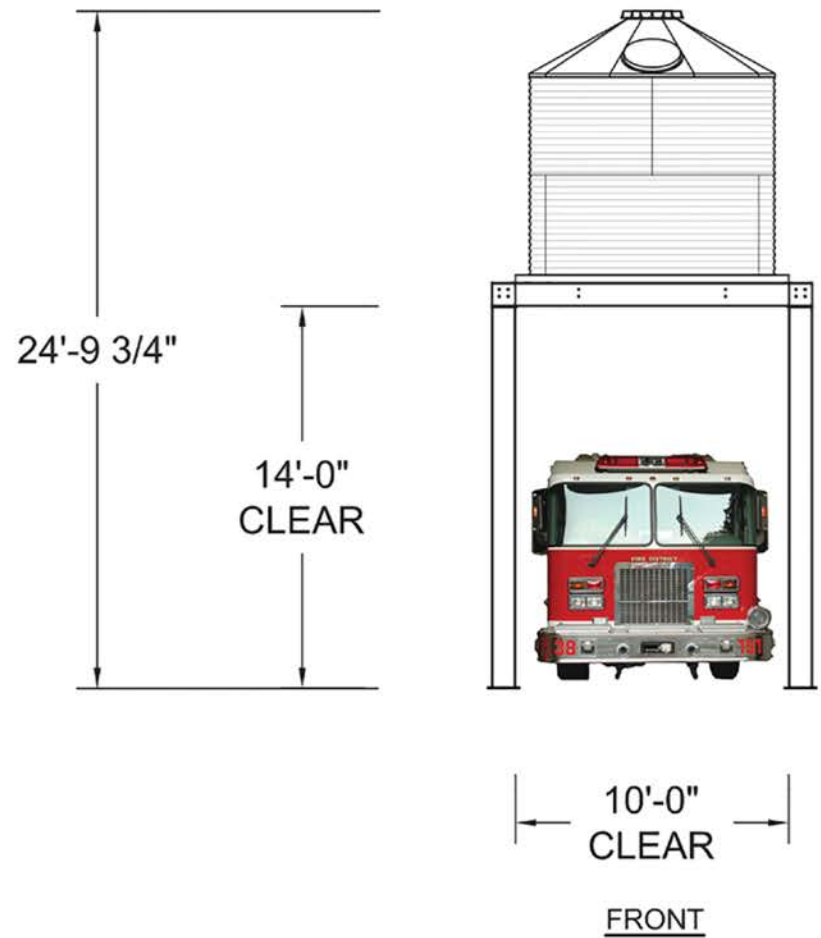
- Standard Anchors
- Seismic Anchors
- Seismic Stiffener Anchors





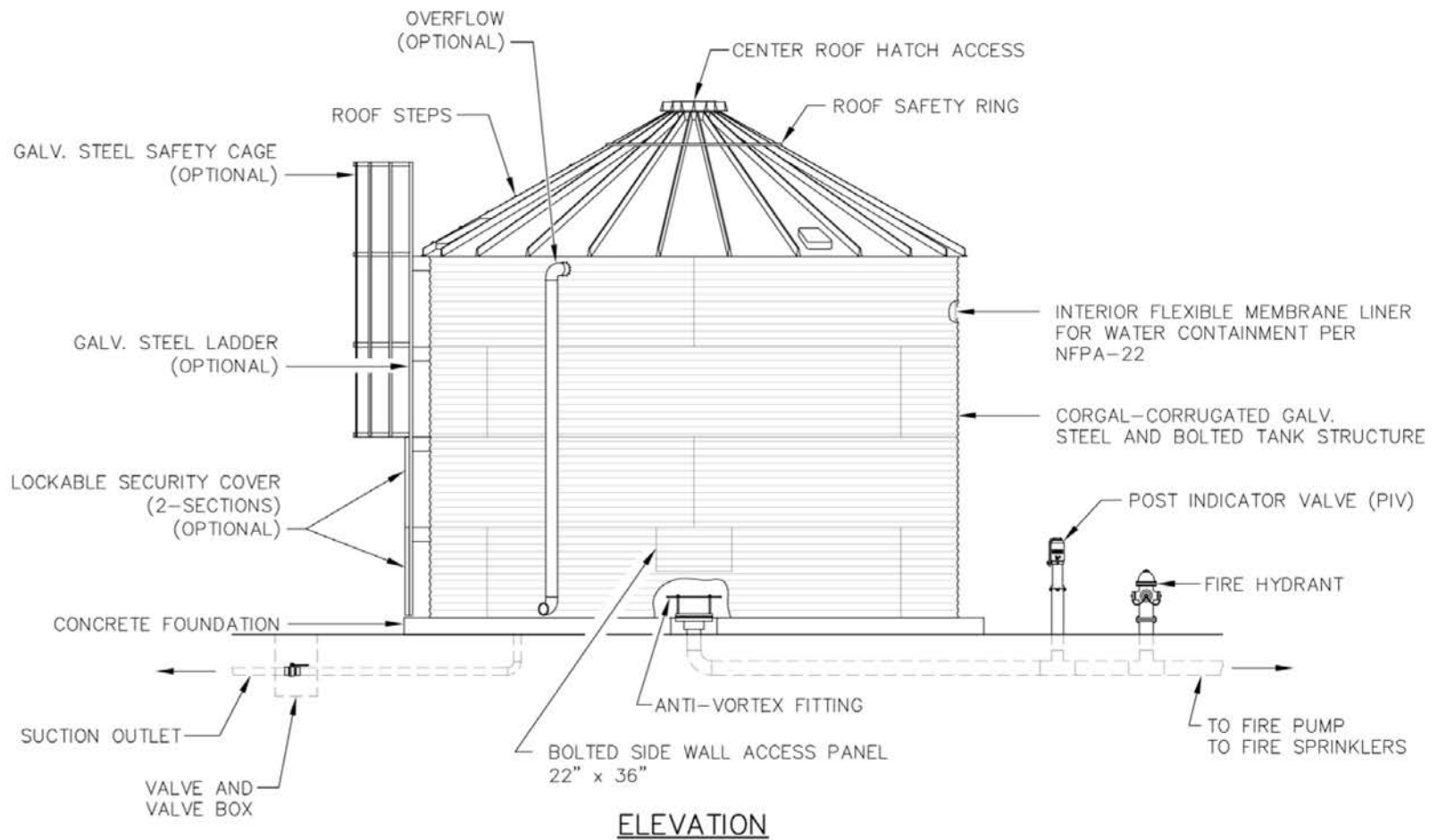
## Exterior Ideas

- Masonry
- Patina
- Painted
- Wood



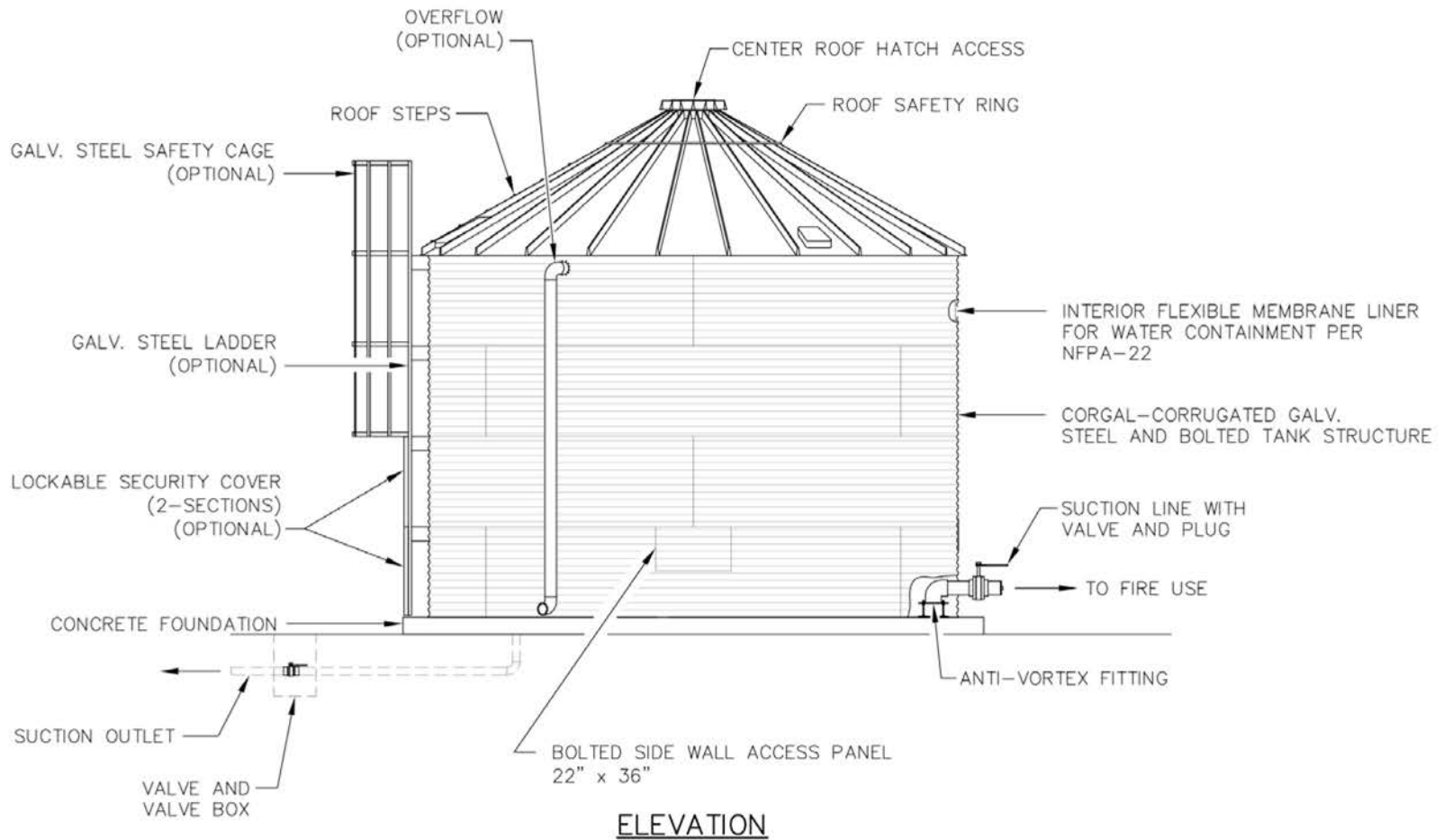
# Multiple Steel Tower Options

- Round, square, or octagonal platform
- Straight or slant leg
- Straight legs allow for fire truck access



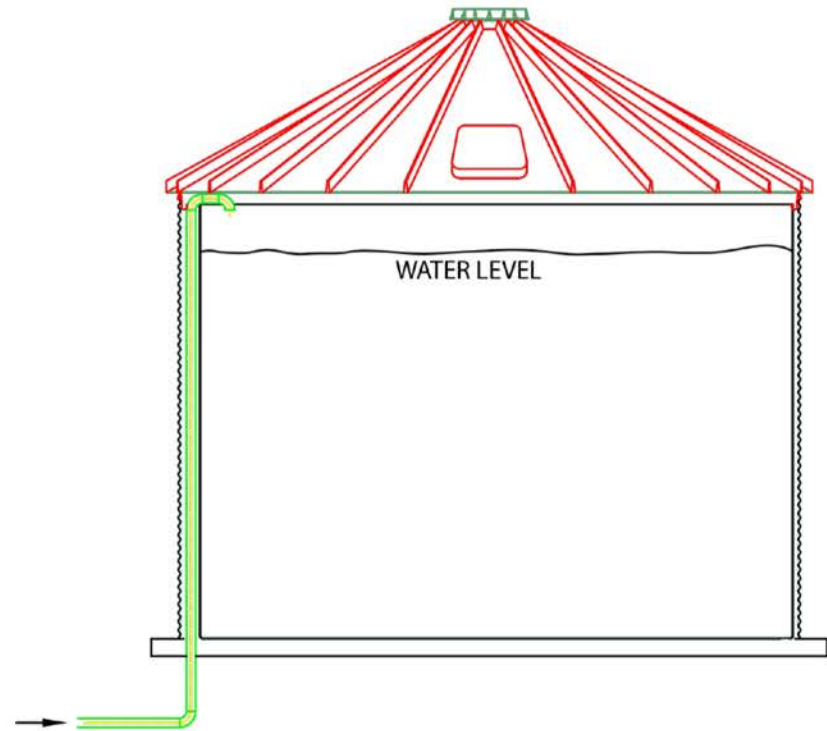
# Plumbing and Fire Fitting Options

Fire Hydrant Connection with Anti-Vortex



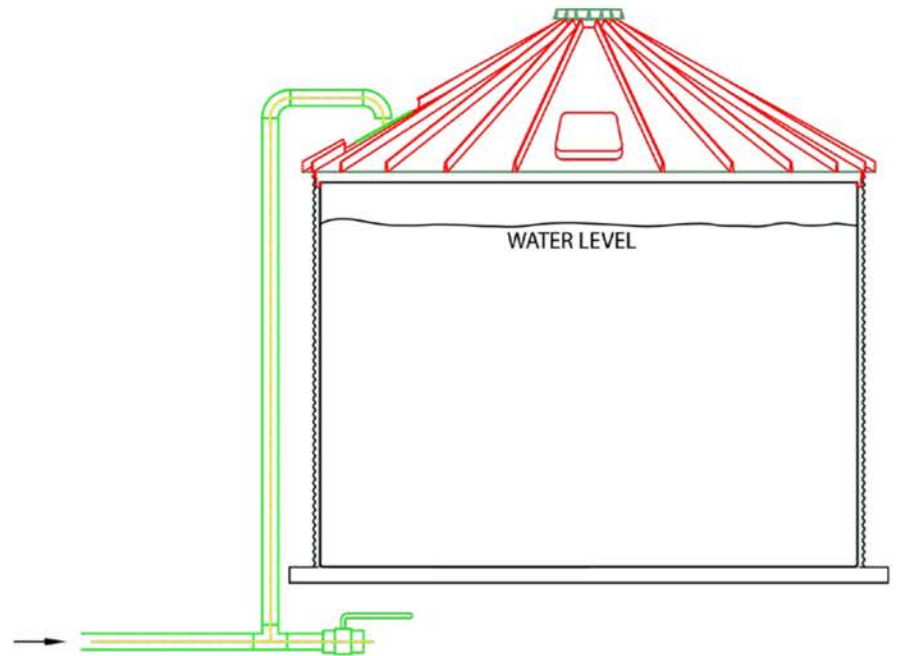
# Plumbing and Fire Fitting Options

Fire Department Connection with Anti-Vortex



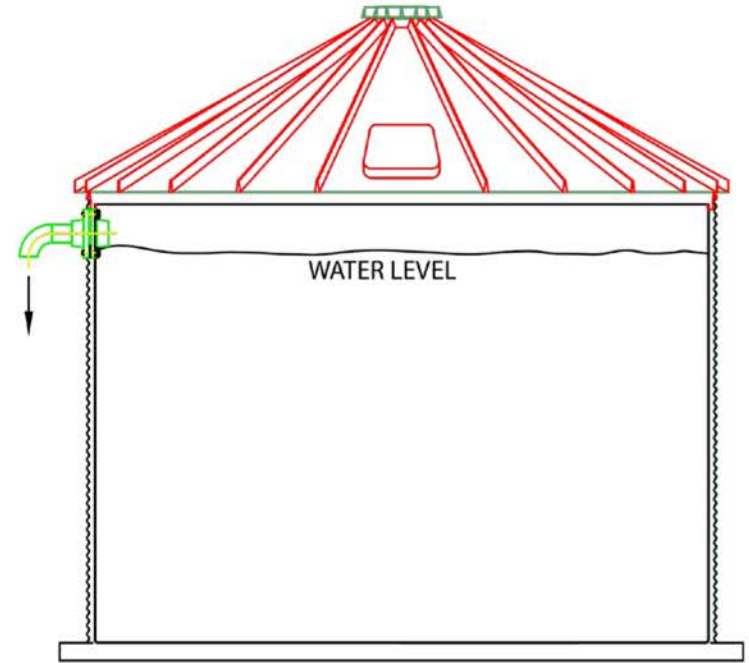
# Makeup Water Pipe

Interior Sidewall  
between Liner and Structure



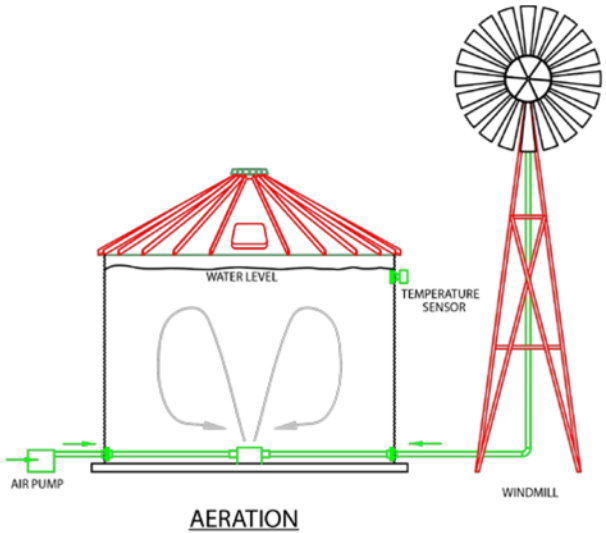
# Water Supply Pipe

In-Ground to Roof

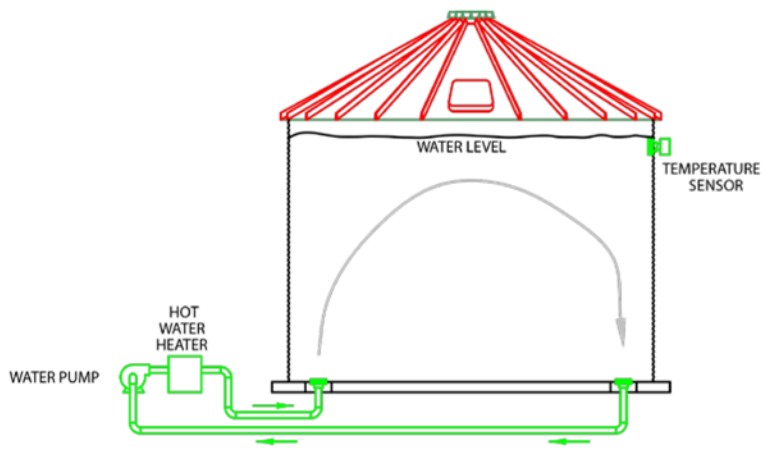


# External Overflow Pipe

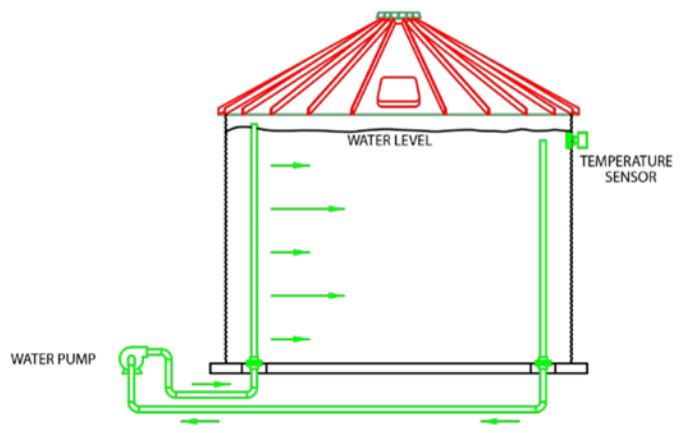
Exterior Sidewall



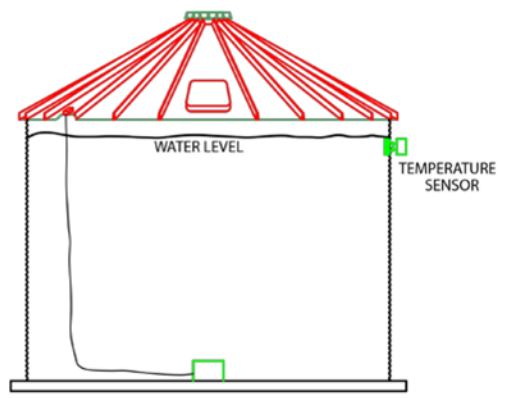
**AERATION**



**HOT WATER CIRCULATION**



**WATER CIRCULATION**



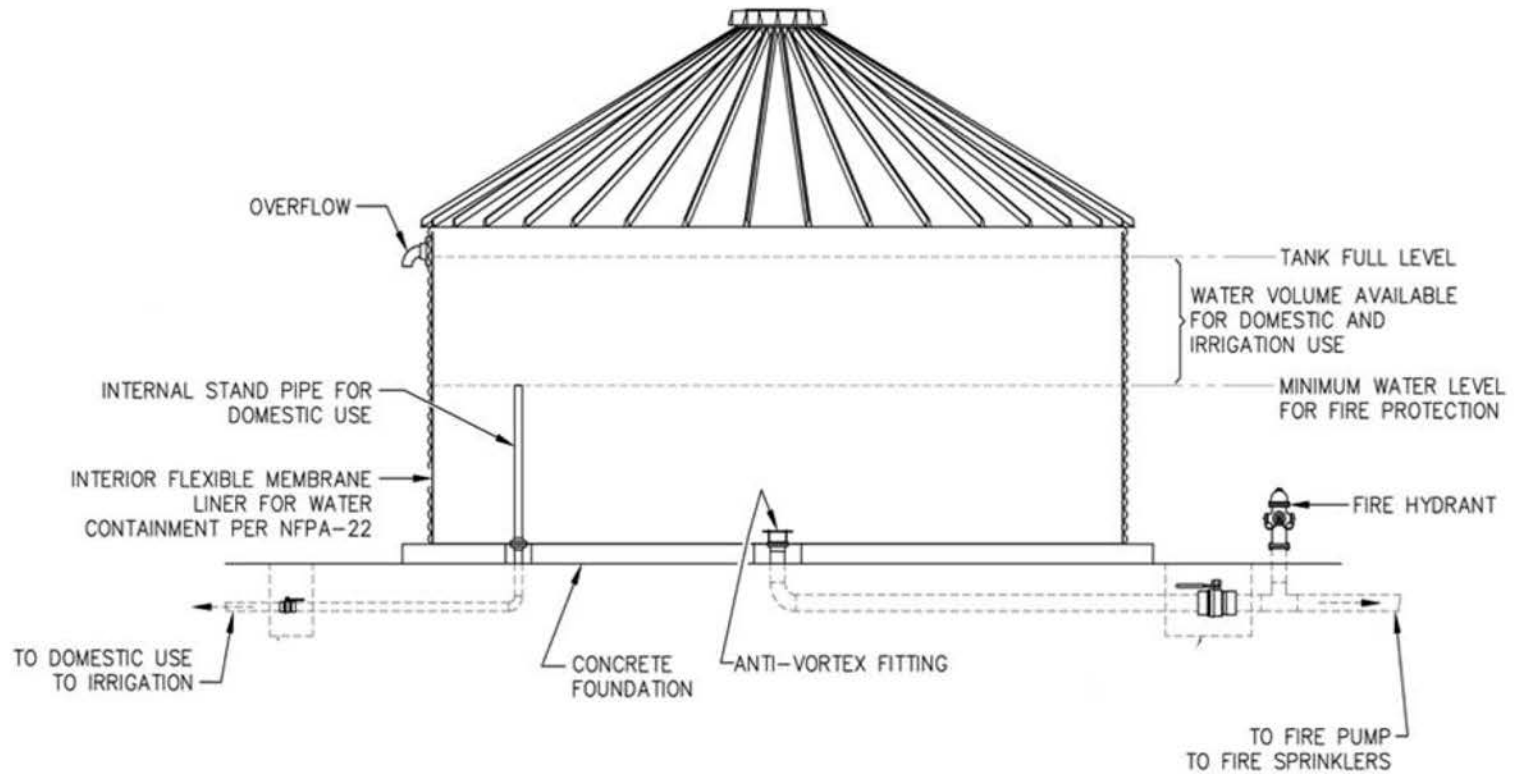
**IMMERSION HEATER  
(LEAST DESIRABLE)**

# Anti-Freeze Options





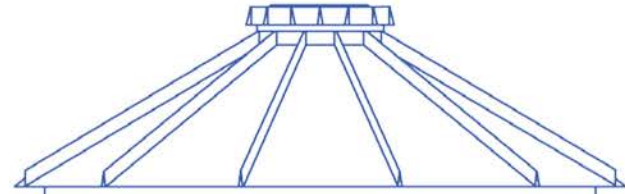
# Insulation Options



# Dual-Use Tank

## Examples of a Dual-Use Tank's Applications:

- Fire Protection Water Storage and Domestic Water Storage
- Fire Protection Water Storage and Process Water Storage
- Fire Protection Water Storage and Irrigation Water Storage
- Stormwater Detention/Retention and Irrigation Water Storage



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# Thank you for your time



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