



**ROOSEVELT RIDGE**

P R I V A T E R E S E R V E

# Cistern Proposal & Notes

May 2019

Ted Bertele



- During the HOA Budget Discussion meeting on 12/18
  - BOD announced a new committee was formed (Wildfire Mitigation) to address this and other issues. It was led by Mike Wallace who was acting on behalf of the HOA.
  - The BOD disclosed: *Timbeline Fire Chief Paul Ondr recently recommended a 30,000 gal cistern on Roosevelt Ridge – expensive!*
- Mr. Nolan, working independently, filed a Colorado Open Records Request on the fire chief to gather numerous emails and information
- These two parallel efforts were not coordinated
- The conversation has now changed from “recommend” to “requires immediate action”
- Chief Ondr has also moved from informal discussions to consulting with legal counsel
- No member can obtain a building permit until the requirement is met
- The Fire Committee continues to discuss options with chief Ondr and we expect to find some common ground

## RE: Building Permits and Assignment of new Address

To All Roosevelt Ridge property owners and interested parties,


Your property has been identified as being within the Roosevelt Ridge subdivision, which was included into a fire protection district service area in 2006. The district that covers your area is the Timberline Fire Protection District (the “District”), legal successor in interest to the Colorado Sierra Fire Protection District (“Colorado Sierra”).

This letter is to inform you of a condition that affects all of the properties in Roosevelt Ridge and that requires immediate attention. Conditions were placed within the “ORDER OF INCUSION OF REAL PROPERTY IN THE COLORADO SIERRA FIRE PROTECTION DISTRICT” (dated January 29, 2006) (“Inclusion Order”). After extensive research, discussions with Gilpin County officials, and recommendations from our legal counsel, a process for compliance with the conditions must be created. **The District has determined that it will deny all future permit applications until conditions in the original inclusion order are resolved, a plan for compliance with the conditions is established, and there is evidence that the plan is followed.**

The following conditions were in the Inclusion Order:

1. Per Gilpin County, eight (8) property addresses have been issued within Roosevelt Ridge (plans have been submitted: they were reviewed, approved, and an address was issued). This number exceeds the 25% criteria established in the Inclusion Order requiring the Roosevelt Ridge subdivision to have installed a 30,000-gallon community cistern.
2. Research shows only one existing structure has installed the required 10,000-gallon cistern.
3. An easement has been recorded for an “apparatus garage. This condition is satisfied.

If the covenants and conditions of the Roosevelt Ridge homeowners’ association permit it, the homeowners’ association is an acceptable contact within your community to address these issues. However, if the homeowners’ association is no longer active or does not have this authority, a committee of community members may also be formed. When your community is ready to address these issues please contact Paul Ondr, Fire Chief at the Timberline Fire Protection District at 303-582-5768 x4, or email [PVONDR@timberlinefire.com](mailto:PVONDR@timberlinefire.com), to set up a community meeting.

  
Paul Ondr, Fire Chief  
Timberline Fire Protection District



# Basic Concept

- We do not have any specific requirements yet, this is just a primer
  - Tanks are typically Steel or Fiberglass / Plastic, concrete can be used as well.
  - Buried below the frost line or above ground, insulated with an immersion heater
  - May or may not require a manhole
  - 6 in NST dry hydrant, not likely required to have a pump
  - Vented
  - 30K gal tank is 12 ft x 40 ft
  - Smaller tanks chained together can be more economical (3x 10k gal)

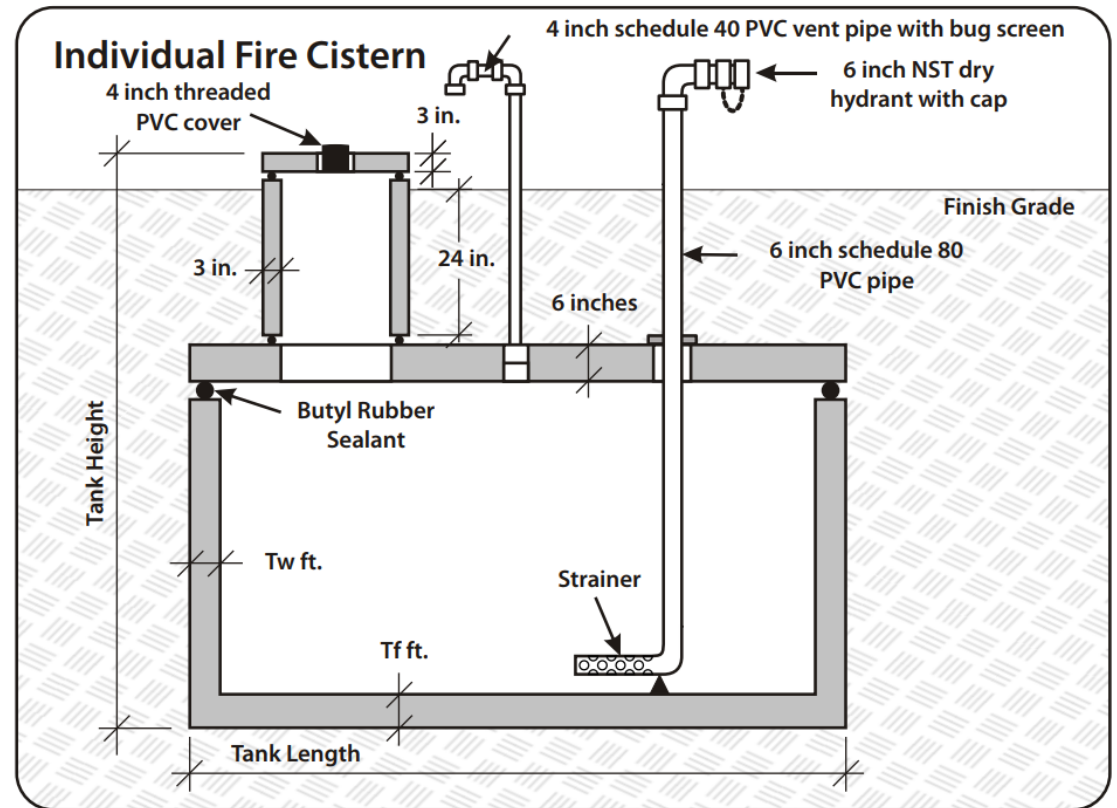


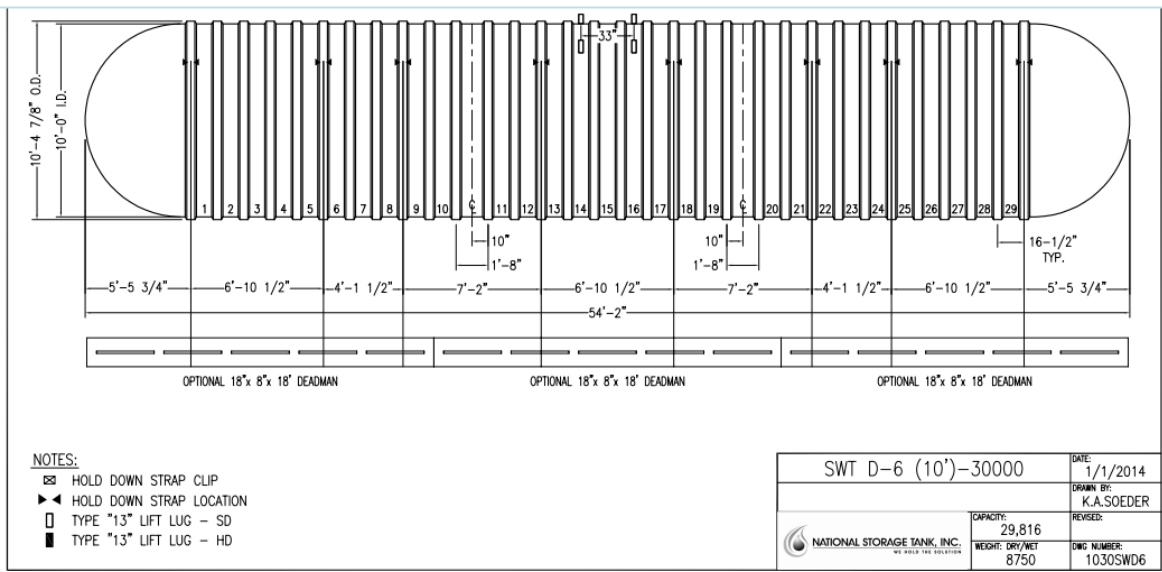
Figure 3: Individual Fire Cistern Elevation Drawing.

This is more applicable to a single home cistern consisting of a tank and lid, but close enough



- Tank Supplier – National Storage Tank, Inc.
  - 10’ 30,000 gallon tank
  - Fire set up with dry hydrant assembly and vent - \$48k to \$52k
  - Anchoring - \$13,500
  - Shipping (2 trucks) - \$8,400
  - Delivery est, 10 weeks ARO (EOM August)
  - Subtotal: \$71,900

- Installation estimate via Black Diamond
  - Excavation (12w x 14D x 48L / 300 yds) \$24K
  - Blasting or rock breaking \$10k (+/- \$5k)
  - 70+ yards of sand or other material sourced and delivered \$8k
  - Excavated Material Hauling (250 yds) \$6k
  - Road work to access site \$4k
  - Subtotal: \$52k



Water delivery 0.085 / gallon = \$2,550





# 6,000 gal tank installation



Gravel / Sand, typically 1 ft buffer around



Desert / warm climate install, frost line requirements not identical



Waiting for quotes



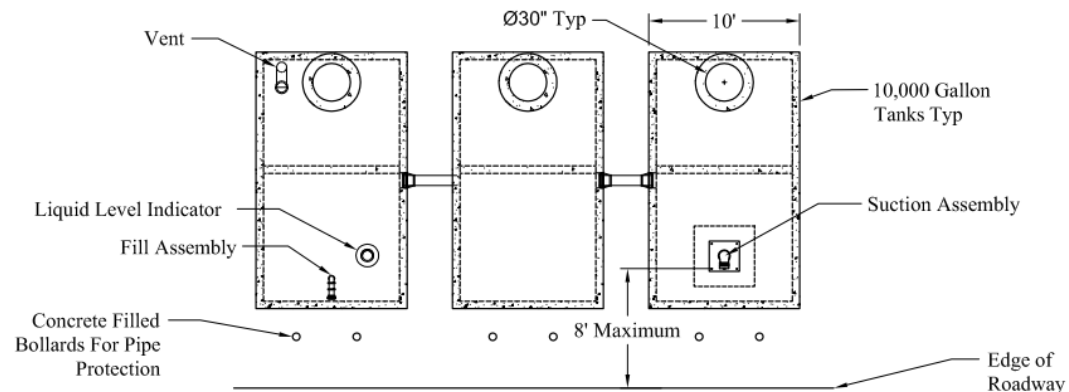
**General Notes:**

1. Concrete:  $f_c = 5,000$  psi @ 28 Days Minimum Type III Cement
2. Reinforcing Steel: ASTM-A615 Grade 60 Black Deformed Bars
3. Design Loading: AASHTO-HS20-44, ASTM C-890-06  
Design Specified As: ASTM C-1227-08, ASTM C-913-08
4. Butyl Rubber Joint Sealant Provided
5. Includes Exterior Dampproofing
6. Detail Drawings Provided Upon Request



**Foundation And Backfill Notes:**

1. Foundation Material Shall Be  $\frac{3}{4}$ " Crushed stone, Minimum 12" Thick, Compacted.
2.  $1\frac{1}{2}$ " Bank Run Gravel Shall Be Used For Backfill Operations Surrounding Tank. Backfill Shall Be Placed in Loose Lifts. All Compaction Shall Be Done With Hand Operated Equipment.
3. Tank Excavation Shall Be Kept Dewatered Throughout Installation and Backfill Operations.
4. All Area Between Tanks Shall Be Filled To A Minimum Of 12" Above Crown Of Interconnection Pipe With  $\frac{3}{4}$ " Crushed Stone.  $1\frac{1}{2}$ " Bank Run Gravel May Be Used Above This Elevation.



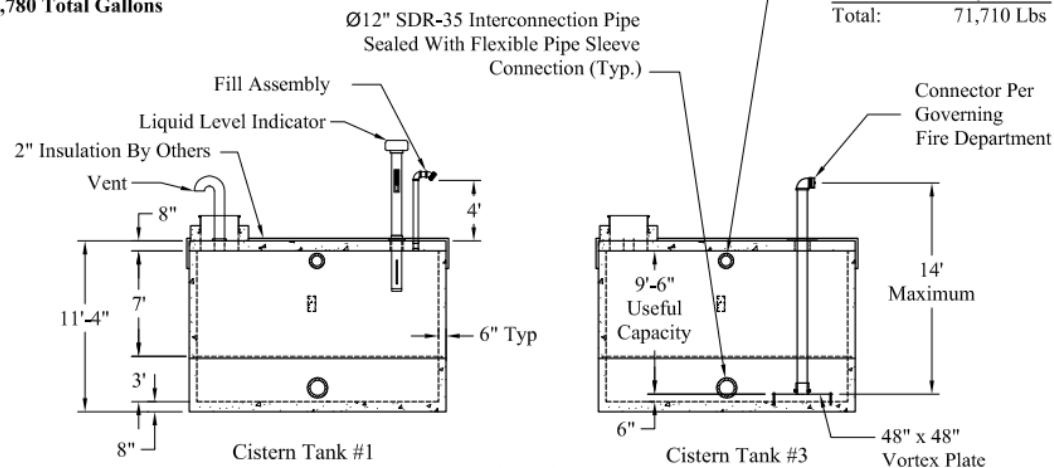
**Liquid Level:**  
9' x 16' = 1,080 Gals/VF  
9.5' = 10,260 Gallons Per Tank

**30,780 Total Gallons**

Ø8" SDR-35 Vent Sealed With Flexible Pipe Sleeve Connection (Typ.)

**Est Weights: (Each Tank)**

Top Slab:	16,400 Lbs
7' Riser:	26,960 Lbs
Base:	28,350 Lbs
<b>Total:</b>	<b>71,710 Lbs</b>



Note: Dimensions Typical For All Tanks



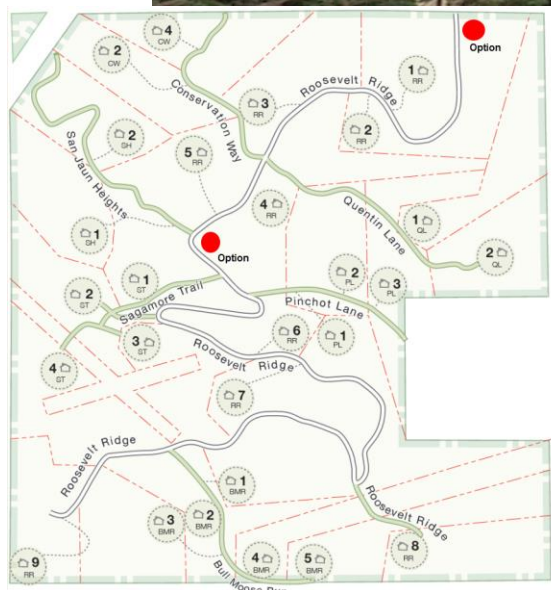
- Not aesthetically pleasant and may not be applicable for RR
- Requires immersion heater
- Insulation
- Concrete pad
- Certainly much cheaper, waiting on quotes





# Cistern Location

- Will require approval by Fire Chief
- There is a space up front, this may be a good spot, especially if we consider the second 30,000 system could be further up the road, decentralized.
- The HOA will need to review easements to see what other options are available.
- Vehicle access & site suitability is a major consideration



Trash slab is from a previous proposal, replace with "cistern"



# Budgeting

- Acting board, for numerous reasons, was unable to approve a new budget nor make changes to the HOA fees.
- HOA has insufficient reserves to fund this entire project
- The Declarant has made it clear that he will not be exercising discretionary funding of the cistern
- A special assessment will be required, current estimate is \$5,058 per lot

3:08 PM  
05/31/19  
Cash Basis

**Roosevelt Ridge Homeowners Association**  
**Balance Sheet**  
As of May 31, 2019

	May 31, 19
<b>ASSETS</b>	
<b>Current Assets</b>	
<b>Checking/Savings</b>	
1st Bank HOA Checking	11,203.36
1st Bank HOA Savings	6,540.64
<b>Total Checking/Savings</b>	17,744.00
<b>Accounts Receivable</b>	
Accounts Receivable	-910.00
<b>Total Accounts Receivable</b>	-910.00
<b>Total Current Assets</b>	16,834.00
<b>TOTAL ASSETS</b>	<b>16,834.00</b>
<b>LIABILITIES &amp; EQUITY</b>	
<b>Equity</b>	
Retained Earnings	11,577.05
Net Income	5,256.95
<b>Total Equity</b>	16,834.00
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>16,834.00</b>



## **Backup-up Slides**

From the 12/2018 meeting  
(for reference)



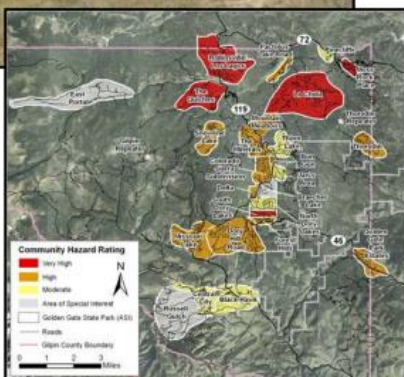
## GILPIN COUNTY, COLORADO

### Community Wildfire Protection Plan



Prepared for:  
Gilpin County, Colorado

Submitted By:  
Anchor Point  
Boulder, Colorado  
May 2009



- Recommend Reviewing literature and implementing a plan
- Individual home owners review their properties and create zones
- HOA to consider the edges / creating defensible spaces
- Magnolia Tree Service can provide consultation & quoting for specific projects
- Timbeline Fire Chief Paul Ondr recently recommended a 30,000 gal cistern on Roosevelt Ridge – expensive!



- Gilpin County has no rules in place to mandate any exterior fire suppression systems (yet)
- Boulder County has new construction guidelines which is consistent with the national standards
- National Standards notes:
  - Buried to prevent freezing / damage
  - Small community cisterns are > 10,000 Gal
  - Large community 30,000 gal / 3 miles of road
  - Individual cisterns are 1,800 to 2,400 gal
  - Requires other water sources to backfill
- RR HOA objectives to create defensible spaces



**Roosevelt Ridge Homeowners Association**  
**Balance Sheet**  
As of December 10, 2018

	Dec 10, 18
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
1st Bank HOA Checking	4,259.42
1st Bank HOA Savings	9,535.94
Total Checking/Savings	13,795.36
Accounts Receivable	
Accounts Receivable	-165.00
Total Accounts Receivable	-165.00
Other Current Assets	
Undeposited Funds	137.50
Total Other Current Assets	137.50
Total Current Assets	13,767.86
<b>TOTAL ASSETS</b>	<b>13,767.86</b>
<b>LIABILITIES &amp; EQUITY</b>	
Equity	
Retained Earnings	48,639.03
Net Income	-34,871.17
Total Equity	13,767.86
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>13,767.86</b>

Reserve Account

After 2019 road work project is complete, HOA reserves need to be rebuilt using tighter spending controls