

# **Water Well (642) Requirements**

## **Environmental Quality Incentives Program (EQIP) 2016**

**Purpose:**

Water supply for livestock or irrigation

**Eligibility:** Only when a resource concern will be addressed by one of the following:

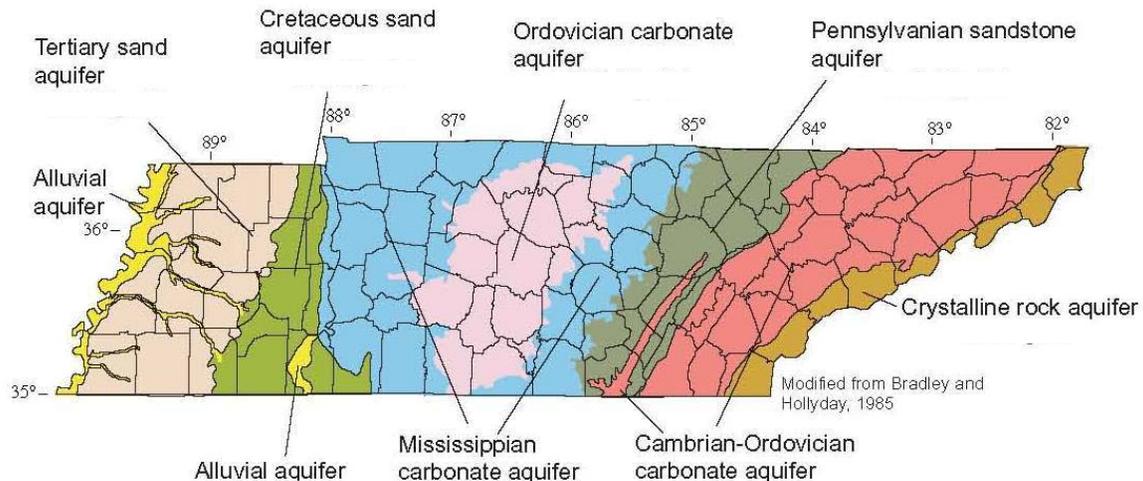
1. Rotational grazing.
2. Access control of sensitive areas.
3. Alternative water supply for certified organic operations only when converting from a public water supply.

**Specifications:**

1. Install water well in accordance with:
  - a. Water Well Conservation Practice Standard No. 642;
  - b. Tennessee Department of Environment and Conservation (TDEC) Water Well Licensing and Well Construction Standards Chapter 0400-45-09.
2. Install a concrete pad; dimensions -minimum 1-foot wide measured from the outer diameter of the well casing and 4-inches thick. See attached design.
3. Well depth not to exceed 50 feet past the water bearing zone that yields sufficient quality and quantity of water to meet the design requirement. General well depth, yield, and water quality problems per aquifer are presented below.
4. Well depth not to exceed the typical well range on the attached table unless otherwise approved by the NRCS geologist.

**Producer Requirements for Payment:** Provide NRCS with a copy of the Tennessee Water Well Drillers Report. See the attached example.

## General Water Supply Well Characteristics

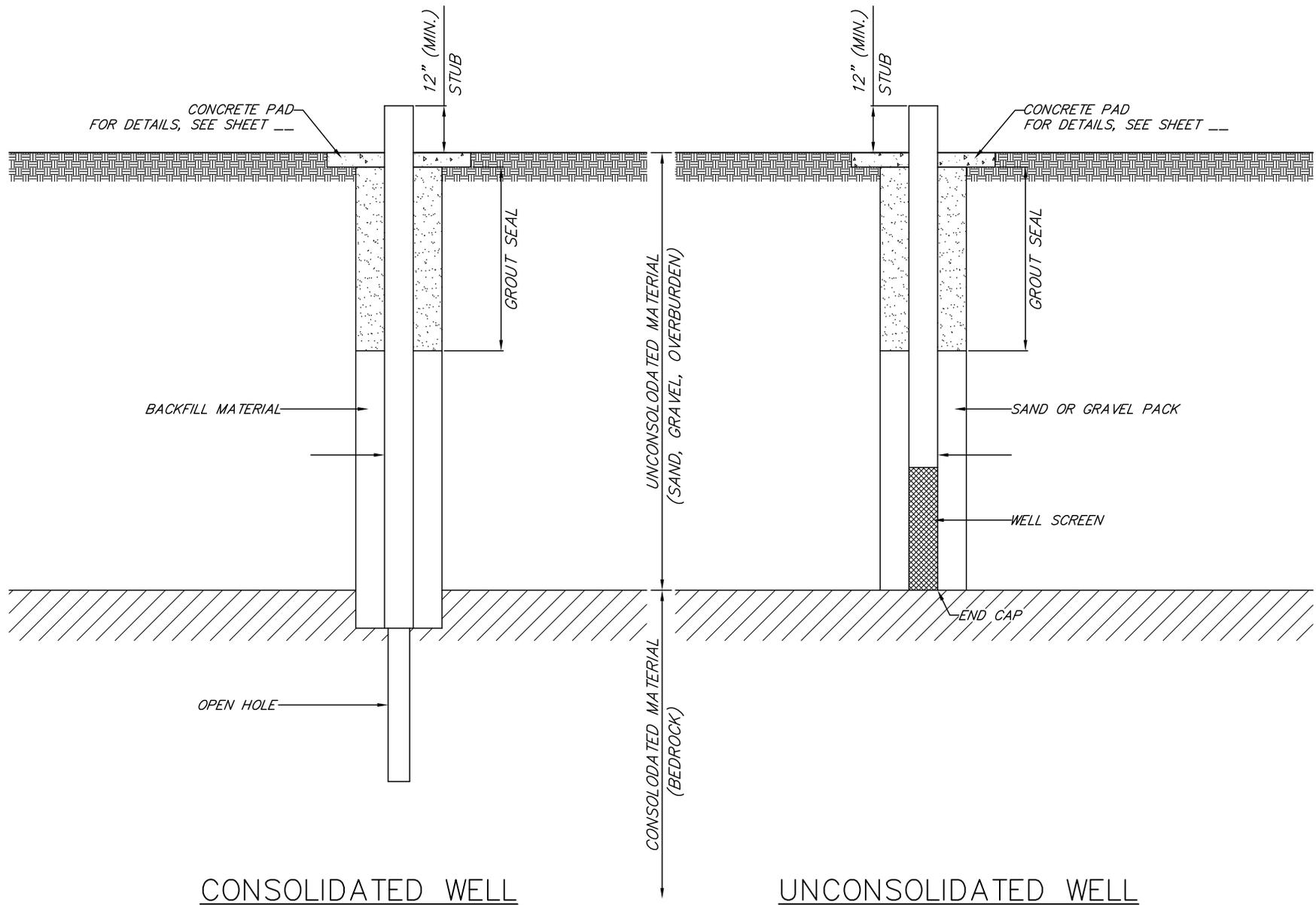


Modified from Carmichael and Bennett, 1993

Aquifer Name	General Water Supply Well Characteristics				General Water Quality Problems
	Depth (feet)		Yield (gallons per minute)		
	Typical Range	May Exceed	Typical Range	May Exceed	
Alluvial	10 - 75	100	20 - 50	1,500	High iron concentrations in some areas.
Tertiary Sand	100 - 1,300	1,500	200 - 1,000	2,000	High iron concentrations in some areas.
Cretaceous Sand	100 - 1,500	2,500	50 - 500	1,000	
Pennsylvanian Sandstone	100 - 200	250	5 - 50	200	High iron concentrations in some areas.
Mississippiian Carbonate	50 - 200	250	5 - 50	400	Water generally hard; high iron, sulfide, or sulfate concentrations in some areas. Aquifer susceptible to contamination.
Ordovician Carbonate	50 - 150	200	5 - 20	300	Water generally hard; high iron, sulfide, or sulfate concentrations in some areas. Aquifer susceptible to contamination.
Cambrian-Ordovician Carbonate	100 - 300	400	5 - 200	2,000	Water generally hard.
Crystalline Rock	50 - 150	200	5 - 20	1,000	Low pH and high iron concentrations in some areas.

List of Tennessee Licensed Well Drillers: call 1-800-523-4873 or

[https://www.tn.gov/assets/entities/environment/attachments/permit\\_water\\_drillers-installers.pdf](https://www.tn.gov/assets/entities/environment/attachments/permit_water_drillers-installers.pdf)

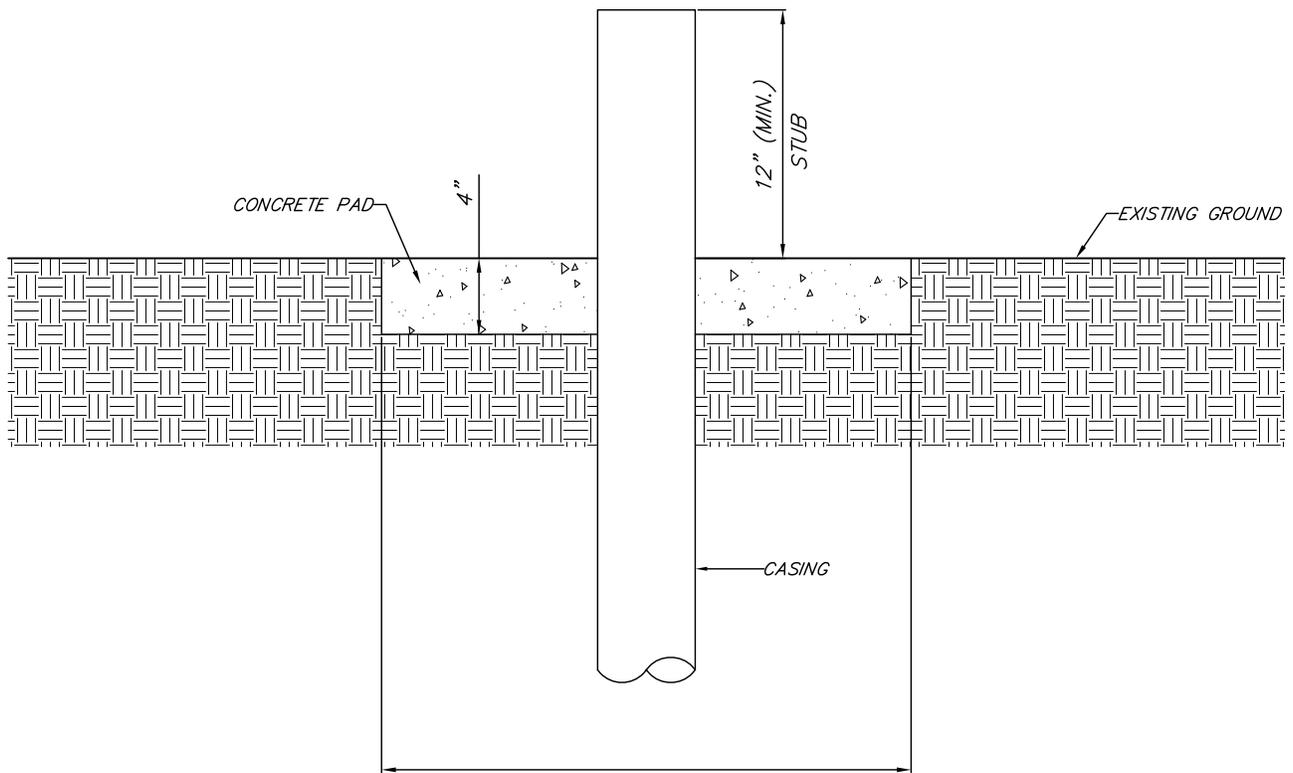


TYPICAL WELL CONSTRUCTION

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*NOTE:  
IF APPLICABLE, INSTALL PITLESS ADAPTER  
PRIOR TO PAD INSTALLATION.*

CONCRETE PAD DETAIL

*DRAWING NOT TO SCALE*



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