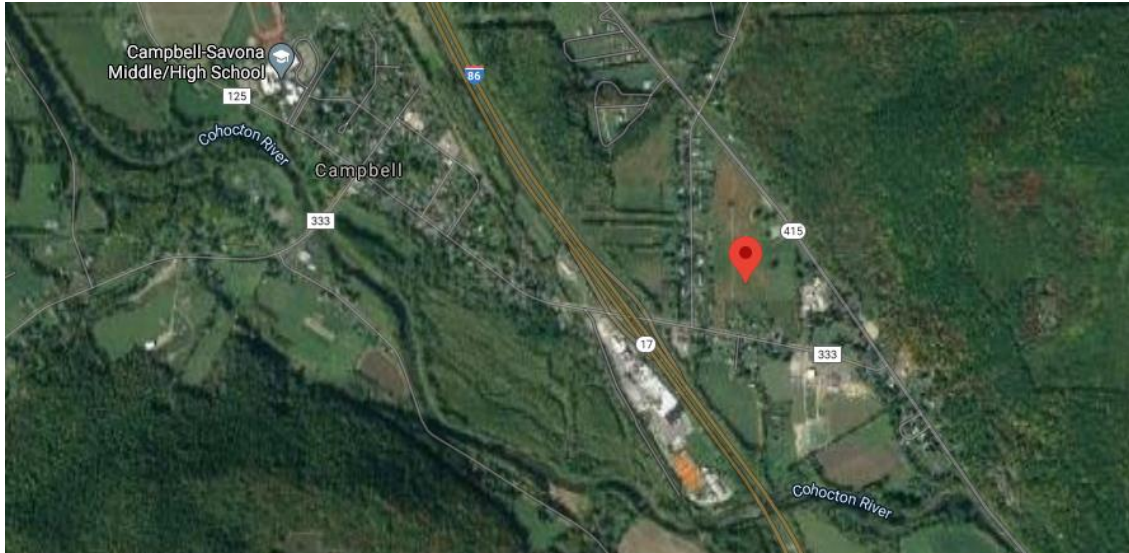
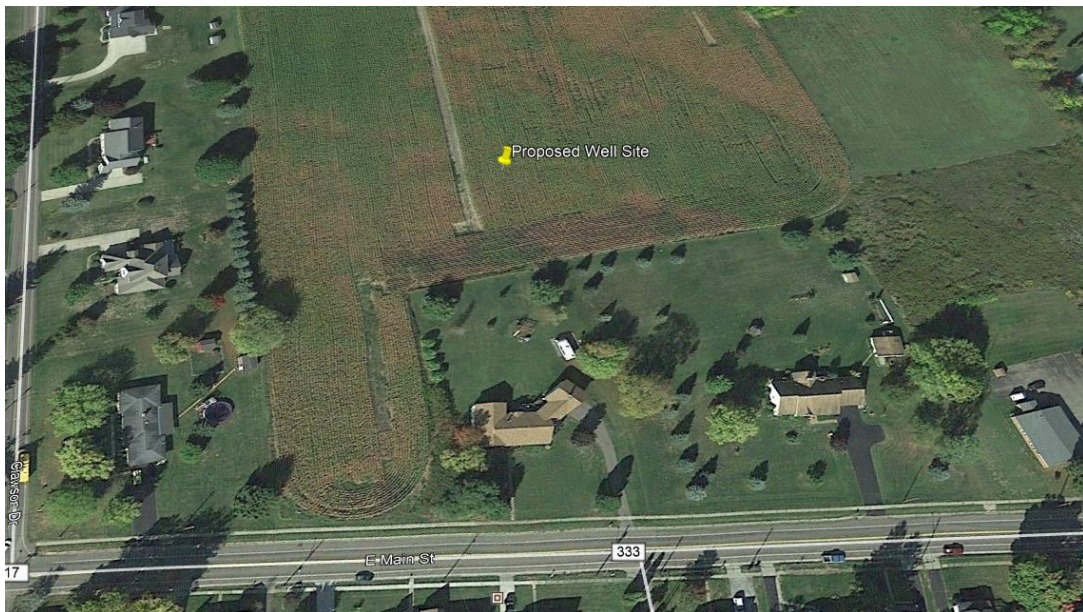


**Town of Campbell Test Well  
Construction, Sampling & Preliminary Capacity Assessment  
Request for Proposal  
October 2020**

The Town of Campbell is interested in developing a new groundwater supply well located on Tax Map Parcel243.09-01-002.100 behind 8737 E Main St, Campbell New York at the location shown in the maps below.



**Figure 1: Site location map**



**Figure 2: Aerial Photograph**

However, prior to completing the development of a new municipal groundwater supply well, the Town desires to complete a test well in the area to determine subsurface conditions and perform cursory pump testing in an effort to determine the potential yield and water quality of the well.

Below is information on two wells in the general area (see figure 3 below):

- Colonial Coach V: Well drilled to bedrock at ~185 - 190 ft. The well encountered clay from approximately ~81 - 190ft. The finished well was developed in a confined or semi-confined aquifer between ~65 - 81ft.
- Upstate Niagara Cooperative, Inc. (formerly Kraft-Heinz and Pollio Dairy): The well encountered clay at ~45 - 50 feet all the way to bedrock. The finished well was developed in an unconfined aquifer at ~40 - 50 feet.
- It is assumed from these wells and from institutional knowledge that there is a shallow aquifer less than 50 feet deep and possibly a confined or semi-confined aquifer below ~65 feet.

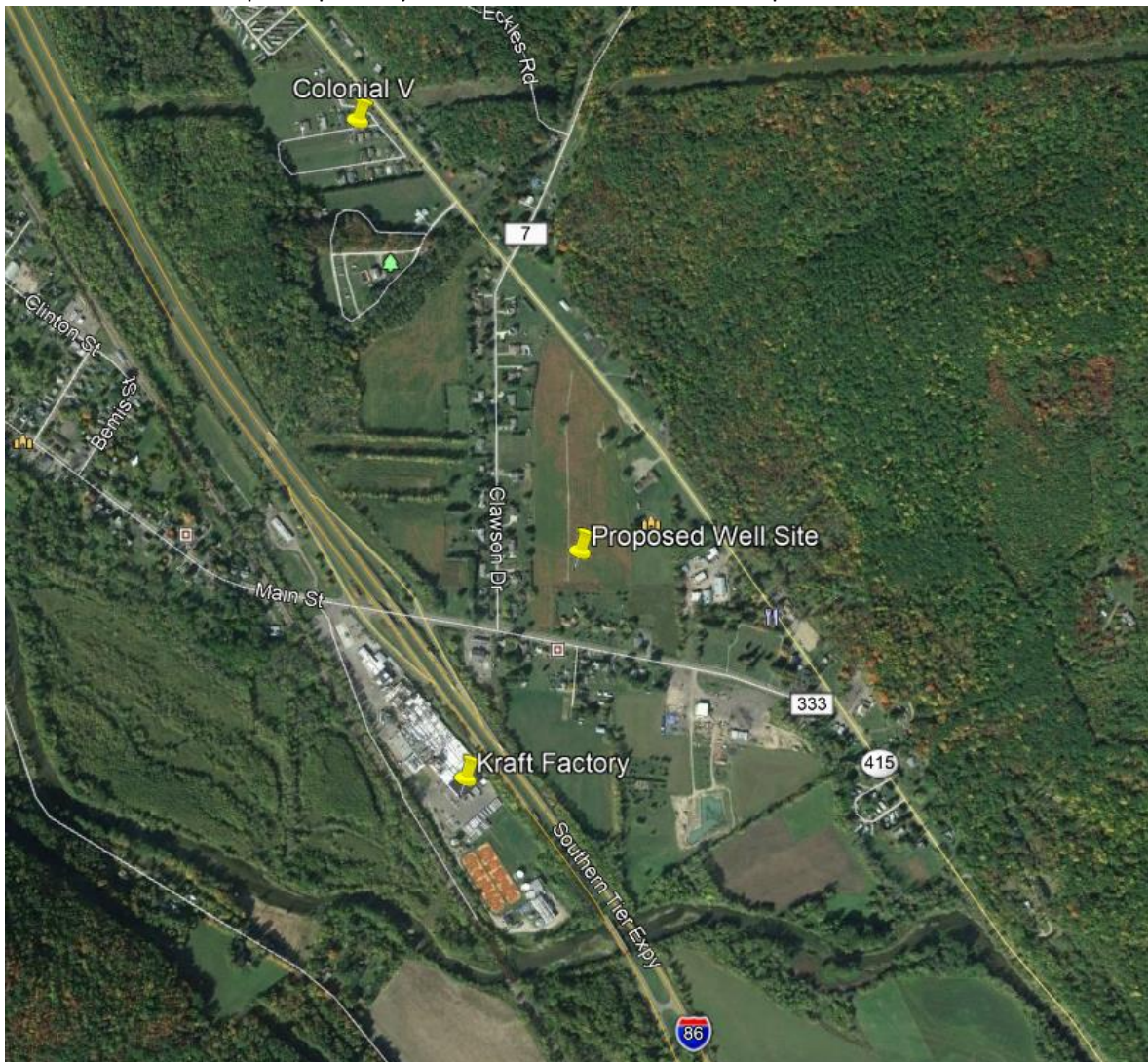


Figure 3: Nearby wells

The Town desires to duplicate these efforts at the new location using the following scope of services:

- The Driller shall meet all requirements of the New York State Departments of Environmental Conservation and Health for well drilling and shall observe prevailing wage rates.
- The Driller shall provide proof of \$1M liability insurance and name the Town of Campbell as an additional insured.
- Mobilize and use new 6" steel casing at a location agreed to by Town officials and their representative, Hunt EAS. It should be noted that the site is currently being used as an agricultural cornfield and is anticipated to be accessible for conventional well drilling equipment. The Driller shall be responsible for visiting the site prior to providing a quote. The new steel casing pipe shall meet AWWA Standard A-100, ASTM or API specifications for water well construction. The casing and joints shall be of sufficient strength and construction to ensure the integrity, shape, and ability to properly function during and after installation. Solder containing more than 0.2 percent lead shall not be used in making joints and fittings.
- Drill a plumb well to a suitable water-bearing formation less than 125 feet deep. If available, the well should be terminated in a confined or semi-confined aquifer greater than 50 feet deep. The well casing shall extend at least 18 inches above grade and be fitted with a locking, water-tight cap. The Driller shall install a temporary screen of suitable length and slot size to transmit sufficient water during pump testing to determine an estimated safe yield of a production well in that location. The Town desires a safe yield of at least 125 - 200 gpm from the future production well.
- If a confined or semi-confined aquifer is not encountered, this event shall initiate a discussion between the driller and the Town of Campbell regarding abandonment of the test well and selection of an alternate location. The driller may be instructed by the Town of Campbell to fill the well bore with swelling or non-brittle, non-shrink grout up to the bottom of the unconfined aquifer or to within three (3) feet of the ground surface (where the well casing shall be cut and capped).
- Sample through any water-bearing formations to the bottom of the assumed confined or semi-confined second aquifer (assume maximum of 125 feet). Collect aquifer material samples in 2-foot intervals through the aquifer(s) and at 5-foot intervals everywhere else. Ensure that samples are taken at top, middle, and bottom of any found aquifers. Bail the samples into a containment device. Collect everything that represents the sample, including some water and all fines. Bag the samples in one-gallon zip lock bags and label with well identifier and depth interval. It is especially important that the samples and depths be accurate. A dry standard sieve analysis shall be completed on the samples collected through the aquifer only after verification of a successful pump test and sign off by the Town of Campbell.
- Develop the test well by horizontal jetting with simultaneous air lift pumping or by surging and bailing to remove sediment (silts, clays, fine sand, drilling mud, etc.). The well shall be pumped to waste until the water is as clear as reasonably possible. Assume up to approximately 20 hours for development.

- Install a submersible test pump and related appurtenances capable of pumping up to approximately 200+ gallons per minute. A generator, calibrated flow meter or orifice, valve assembly and sample port shall also be provided. The pumping test shall be performed for sufficient time and at an appropriate pumping rate to adequately quantify the well yield, preferably for a minimum of eight (8) hours at stabilized drawdown while pumping at a constant flow rate. Water level and flow rate measurements shall be made and recorded before the start of the pumping test, periodically (preferably continuously) during pumping, immediately upon cessation of pumping, and during the recovery period. The water level during the recovery period shall be observed from cessation of pumping until the water level has recovered to 90 percent of the initial water level. Water level measurements shall be determined by a pressure transducer, electric sounder, steel tape, or calibrated pressure gauge attached to an airline terminating at least five feet above the pump level.
- At the end of the pumping test, the Driller shall collect water quality samples for the analytical parameters shown on attached Appendix A. The samples shall be submitted to and analyzed by a NYS Department of Health ELAP-certified laboratory using analytical methods complying with the New York State Sanitary Code, Subpart 5-1, Appendix 5C (Acceptable Methods for Analysis of Contaminants in Water). If the water testing component of the proposal is not accepted by the Town of Campbell, the Driller shall turn the collected water samples over to a representative of the Town of Campbell Water Department for testing by a NYS Department of Health ELAP-certified laboratory as referenced above.
- The Driller shall coordinate with the Town regarding collection and disposal of drillings by Town personnel. The Driller shall be responsible for disposing of any garbage or other material generated during installation of test well. The Driller shall conduct all activities in a manner that is protective of the environment and underlying aquifer(s).
- If the Driller has “false starts” or a failed drill, the Driller shall fill the bore hole with swelling or non-brittle, non-shrink grout and properly seal and abandon the well in accordance with NYS Departments of Environmental Conservation and Health standards. The Driller shall not bill the Town for any failed attempts or “false starts”.
- The Driller shall provide a summary report to the Town and Hunt EAS documenting the well construction log, pumping test records, the estimated safe yield/well capacity, and the water quality analyses. A dry standard sieve analysis shall also be incorporated into the summary report if the pump test was successful triggering completion of such analysis.
- The Town reserves the right to terminate/eliminate the pumping test and/or water quality testing if a suitable aquifer is not encountered in drilling for reasons including, but not limited to, too shallow an unconfined aquifer (<50 feet) or inadequate well yield (<100 gpm). If the Driller does not encounter a suitable aquifer in drilling, the well shall be properly sealed and abandoned in accordance with the NYS Departments of Environmental Conservation and Health standards.

All interested well drillers shall complete the attached Bid Sheet and either deliver in a sealed envelope marked "Campbell Test Well Proposal" to the physical address below or email to [chall1@stny.rr.com](mailto:chall1@stny.rr.com). Proposals must be received prior to 4pm, October 26, 2020 and will be publicly reviewed at the Town Hall Public Meeting at 7:00 P.M. on the due date.

Town of Campbell Town Hall  
8529 Main Street  
Campbell, NY 14821

**Proposals shall include an approximate project schedule and individual costs for the items below. All scope items are to be completed within 45 days of receiving a Notice to Proceed. A completed BID SHEET as found below must accompany the proposal.**

1. Drilling and development of a 6" test well as defined above
2. Test pumping of the drilled 6" test well as defined above
3. Dry standard sieve analysis (to be completed after verification of a successful pump test and sign off by the Town of Campbell).
4. Water quality testing as defined above
5. Proper abandonment of a test well with a depth of up to <125'
6. The quote shall also identify a unit price (\$/foot) to drill beyond 125' below the ground surface.

Proposers shall complete any needed site visits. If accompaniment by Town personnel is desired, they shall contact Thomas Austin at (607) 769-5123. All other questions should be directed toward John Shields, P.E. at Hunt Engineers at (585) 337-4026 or [shieldsj@hunt-eas.com](mailto:shieldsj@hunt-eas.com).

Town of Campbell Test Well Construction, Sampling & Preliminary Capacity Assessment  
Request for Proposal October 2020  
**BID SHEET**

Name of Bidder: \_\_\_\_\_

Address of Bidder: \_\_\_\_\_  
 \_\_\_\_\_

Phone Number of Bidder: \_\_\_\_\_

Signature of Bidder: \_\_\_\_\_

Description	Units	Unit Price (\$)
1. Drilling and development of a 6" test well as defined above	LS	
2. Test pumping of the drilled 6" test well as defined above	LS	
3. Dry standard sieve analysis (to be completed after verification of a successful pump test and sign off by the Town of Campbell).	LS	
4. Water quality testing as defined above	LS	
5. Proper abandonment of a test well with a depth of up to <125'	LS	
6. Drilling depth exceeding 125' below the ground surface.	LS	

\*List deviations or exceptions as applicable: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Appendix A  
**Water Quality Testing Parameters**

- Field pH
- Field temperature
- Total coliform bacteria
- Escherichia coli
- Arsenic
- Iron
- Manganese
- Nitrate
- Total hardness
- Alkalinity
- Conductivity
- Total dissolved solids
- Calculated Corrosivity
- Odor
- Color
- Turbidity
- Sodium
- Chloride
- Hydrogen sulfide
- Principal organic chemicals (USEPA Analytical Method 502.2 or 524.2)
- Glyphosate (USEPA Analytical Method 547)