

PROFESSIONAL SERVICES

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ENGINEERING EXPERIENCE AND SERVICES PROVIDED

New Drinking Water Source Approvals
Drinking Water Treatment Approvals
Monitoring Well Installation
Septic Designs & Inspections
Water Leakage Investigations
Dewatering / Seepage Controls

Groundwater Discharge Permits
Certified Soil Evaluations
Water Well Testing
Hydrogeologic Assessments
Fracture Trace Analyses
Water Supply Master Planning

Water Withdrawal Permits
Soil Borings / Test Pits
Irrigation Wells & systems
Transducers & Data Loggers
Wastewater Master Planning
Groundwater Recharge Analyses

FULL-SERVICE PERMITTING EXPERIENCE

Groundwater Discharge Permits (GWDP):

For new construction of large sites in rural areas without municipal sewer, a GWDP from the state's DEP or DES is required. In Massachusetts, the permit threshold is for on-site sewage generation in excess of 10,000 gallons per day. 133,000+ SF office parks, 500+ employee manufacturing plants, and residential developments exceeding 90 bedrooms are examples of developments requiring a GWDP. This permit requires design of an on-site wastewater treatment facility (WWTF), a soil absorption system (SAS) leach field, a witnessed soil evaluation, monitoring wells, soil borings, permeability testing, a hydrogeological evaluation, and a computer model to predict mounding effects to the groundwater surface, and quality effects to the groundwater environment from the subsurface recharge of the treated effluent.

New Source Approval (NSA) Permits for Public Drinking Water Wells:

The EPA considers on-site water supplies serving at least 25 people (including office buildings, restaurants, condominiums, residential communities, etc.), to be a public water supply, and requires a NSA prior to construction or expansion of an existing facility. A permit is required to site and drill a well, and conduct a pump test, followed by another permit to construct the system which typically includes a water treatment, storage, pumping, and distribution system.

Water Withdrawal Permits (Water Management Act – WMA):

The cumulative withdrawal of on-site water from a combination of groundwater or surface water exceeding an average of 100,000 GPD in Massachusetts and 57,600 GPD in New Hampshire requires a Water Withdrawal Permit from the state DEP or DES. This permit requires water supply and withdrawal master planning, water well installation, pump testing, monitoring of wells, wetlands, and water bodies, hydrogeologic analyses, and evaluation of impacts to sensitive receptors.

Drinking Water Treatment Approval:

Routine water quality sampling, new sources with known water contamination, and more stringent water quality requirements by EPA require design and approval of water treatment systems. Approvals of bench-top or on-site field pilot tests are occasionally required before construction and approval of the final treatment system. Treatment permits are required for treatment of natural contaminants, like hard water, radon, or Uranium, or man-made like road salt or gasoline.

Sewage Disposal Construction Permits (SDCP):

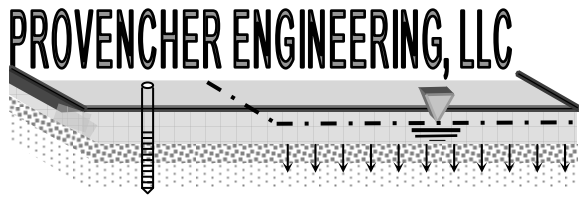
For on-site sewage disposal below the GWDP threshold, a SDCP is required from the local town or city Board of Health in Massachusetts, or from the NH DES. At a minimum, this permit requires a field investigation consisting of a soil evaluation with test pits and percolation testing, and design of a complete septic system integrated into the site design.

Sewer System Extension and Connection Permits:

New sites that will generate at least 50,000 GPD and are proposing to connect to an existing municipal sewer system, or for any connection which includes a pump station serving more than one single family dwelling, or for any construction, maintenance, or alteration of any sewer system extension or construction, requires a permit from the Massachusetts DEP.

Septic System Approvals with DEP approved Innovative / Alternative Systems:

For new developments requiring on-site septic systems, for repairs of existing failed septic systems, or for development in Nitrogen Sensitive Areas, a group of permits issued by the DEP or DES result in potential costs savings to property owners and developers. These savings are mostly attributed to reduced leaching area size and increased development densities with the use of small on-site Innovative and Alternative (I/A) wastewater treatment systems. Additional benefits, such as prolonging the life of a septic system, and additional environmental protection, result from the use of I/A technology.



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EXPERIENCE AND EDUCATION

In 1989 I was graduated from the **University of New Hampshire** with a **Bachelor of Science in Civil Engineering**. Two weeks later, I began employment with Beals and Thomas, Inc. performing classic civil engineering tasks such as sewer, stormwater, roadway, and site design. I also assisted geologists and engineers in field testing, such as test pits, perc tests, soil borings, monitoring well installation, permeability testing, groundwater analyses and groundwater contouring.

In the early 1990's, as the real estate boom yielded to the environmental site assessment market, I became actively involved with environmental research, field investigation, groundwater and surface water sampling, hazardous waste investigation, and remediation. In 1991, I decided to return to academia (part time) to pursue a **Master Degree in Geo-environmental Engineering** at the **University of Massachusetts** in Lowell. I remained employed full-time through this successful five-year masters degree program, receiving a master degree in 1996 in Civil (geo-environmental) engineering.

I became a **registered professional civil engineer** in 1994 in **New Hampshire** and in **Massachusetts**. I soon began to perform geo-environmental engineering tasks, such as septic system design, slope stability analyses, and hydrogeology, using my geo-environmental engineering education. I became a certified **Soil Evaluator, Septic Designer, and Inspector** in MA & NH. I instructed over a dozen civil engineers to become certified Soil Evaluators for my past employer.

Following graduation from U-Mass in 1995 with a Master Degree, I educated myself to the requirements of MA & NH **Groundwater Discharge, New Source Approval, and Water Withdrawal** permits. I was responsible for my past employers expansion of professional services to include geo-environmental and groundwater engineering services. I successfully **received six state permits** and was **directly responsible** for all phases of on-site **water supply and wastewater** projects at my previous position, including proposals, design, engineering, management, and permitting.

Using that experience, **PROVENCHER ENGINEERING, LLC** was established in March 2000 with a focus of providing professional engineering / permitting services for new and existing private and public water supply / treatment and wastewater treatment / disposal facilities. Projects have included wastewater treatment plant design, hydrogeologic investigations for large-scale treated effluent disposal systems, and testing and design of numerous public water supply wells for New Source Approvals. Additional projects have included water treatment designs for new and existing public water systems for corrosion control, and radionuclide and radon mitigation. Services include master planning water supply and wastewater systems, coordinating and conducting field investigations, well and stream gage transducer monitoring, hydrogeologic analyses, designs, engineering reports, project management, project team meetings and public hearings.

CLIENT / PEER TESTIMONIALS

"Don designed a large state-of-the-art wastewater treatment and effluent disposal system beautifully integrated into our site. He performed all of the field testing and groundwater modeling and successfully secured a Groundwater Discharge Permit from the DEP. He was very effective in addressing DEP issues and dealing with all members of the design team."

-Robb Hewitt, Vice President, Trammell Crow Residential

"Don was instrumental in obtaining two critical permits for our site: a Groundwater Discharge Permit and a New Source Approval. He coordinated and performed field work; and he composed, designed and stamped reports, plans, and specs for both permits, allowing us to successfully move forward with Phase 1 construction of our project!"

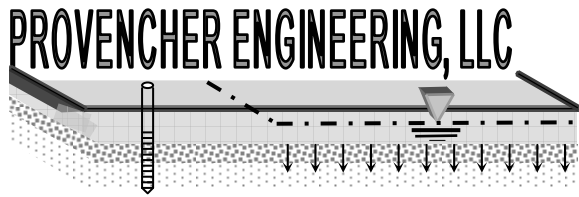
-Matthew Senie, General Manager, Riverbridge North, LLC

"A new on-site drinking water supply / treatment system, including a uranium removal system, and two wastewater disposal systems were permitted by Don. These permits were based on field testing and designs prepared exclusively by Don. His design creativity and attention to regulating authorities got our new clubhouse up and running on time."

-Tim Gordon, General Manger, Hopkinton Country Club

"Don was successful in coordinating and conducting a 12-day long simultaneous pumping test on five bedrock irrigation water supply wells for our golf course. He secured a Water Withdrawal Permit from the Massachusetts DEP for withdrawal of over 210,000 gallons per day at a very cost-effective price. He was very effective in communicating with the DEP and providing the required information asked of him, without requiring engineering cost over runs."

-Michael Gordon, President, Blackstone National Golf Club



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PROJECT EXPERIENCE

▪ RIVERBRIDGE MIXED-USE VILLAGE – 65 RIVER ROAD WEST, Berlin, Massachusetts

Provencher Engineering was contracted by the site's civil engineer / site designer, Waterman Design Associates, Inc. of Westborough, Massachusetts to coordinate, design, and secure permits for a public water supply and wastewater treatment and disposal system for a proposed 66,000 gallons per day mixed-use commercial, residential, retail, and senior care planned community. Master planning of four public water supply wells and a wastewater treatment and disposal facility was initially conducted, followed by coordination and direction of the well installation, pump testing, and field monitoring to determine impacts to streams and wetlands from pumping the wells. Groundwater modeling of the effluent disposal location was also conducted as part of a Hydrogeologic Evaluation. The field work, modeling, and designs were compiled and submitted to DEP and a Groundwater Discharge Permit was secured for the wastewater treatment and disposal system. A report on the wells pump tests and field monitoring was submitted to DEP with our design of the water supply pumping, storage, and distribution systems, and a New Source Approval for the construction of the water supply was granted.

▪ CODMAN HILL CONDOMINIUMS – CODMAN HILL ROAD, Boxborough, Massachusetts

Codman Hill Condos was mandated by DEP to upgrade their water supply pump station, two storage tanks (10K & 5K gals), and to install manganese treatment. Provencher Engineering secured a Distribution Modification Permit from Mass DEP. Space limitations in their existing concrete block pump station building required us to design a building expansion in place of the removed 5K tank. The expansion housed the new manganese "green sand plus" filters, the chlorine oxidation injection system, and the filter backwash holding tank and backwash pump which pumps the backwash water up into an on-site sewer. On the opposite side of the building, we replaced the 10K tank with one new 15K gallon tank with its end penetrating through the wall. The pump was replaced in the one source well, two new booster pumps controlled by variable frequency drives (VFDs) replaced the old booster pumps, allowing constant pressure at variable demand; and all of this was done while maintaining water supply to the Condos! The system is complete and functioning well!

▪ SAINT BENEDICT ABBEY – 252 STILL RIVER ROAD, Harvard, Massachusetts

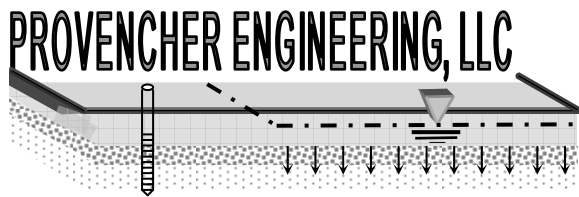
Saint Benedict Abbey, which houses roughly 30 permanent monks, and holds many large social functions including weddings and overnight retreats, experienced diminished yield from their three existing wells, particularly during, and therefore impacting, their social functions. We secured a New Source Approval for one new well, and designed a new above-ground pump station building and underground 15,000 gal concrete water storage tank, to collect and treat water from their four wells for arsenic removal, and then store the treated water so it is available to be pumped during peak demand periods. They have never run low on water ever since!

▪ SUNSET RIDGE CONDOMINIUMS – WATTAQUADOCK HILL ROAD, Bolton, Massachusetts

Sunset Ridge is a new 45± unit condo development that relies on three bedrock wells for drinking water, and one bedrock irrigation well. A 5-day long simultaneous pumping test was conducted on all 4 wells to conservatively simulate worse than worst-case pumping! The well water contained naturally-occurring Radon and Radium (a potentially radioactive radionuclide). We designed a cathedral ceiling wood-framed pump station building with treatment for the Radium, and we raised the radon aeration tank inside the elevated building, so that the treated water flowed out of the aeration tank by gravity flow, through an ultra-violet disinfection unit, and into a 15,000 gallon underground concrete storage tank directly behind the pump station. This avoided the need to pump the water from the aerator to the storage tank. Booster pumps draw water from storage and pressurize the site's distribution system, with a make-up water feed into the site's fire cistern. The site's irrigation system is controlled from the pump station and uses a separate irrigation distribution system and irrigation well. The site is fully built and functional.

▪ CONCORD MEWS – ONE NATHAN PRATT DRIVE, Concord, Massachusetts

Working for Trammell Crow Residential, Mill Creek Residential, and West Concord Development, LLC, along side the site's landscape architect and civil engineer, Beals Associates, Inc., we provided wastewater master planning for this 70,000 GPD multi-unit residential development. We conducted field work & engineering design of an on-site wastewater treatment & disposal system, and secured a Groundwater Discharge Permit (GWDP) by MA DEP for discharge of treated effluent into a Zone 2 of a Town public water well. This included our satisfactory responses to a peer review by Woodard & Curran, Inc. for the Zoning Board of Appeals, as well as DEP and other private interest groups providing comments through the GWDP process. We also provided construction administration for the construction of the wastewater systems. The site is fully-built out and continues to be a great success!



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▪ **BOWERS BROOK APARTMENTS – 196 AYER ROAD, Harvard, Massachusetts**

Working for L.D. Russo, Inc., this multi-unit housing development included a shared community water supply with office buildings and a Dunkin Donuts. An entire new water system with 4 new bedrock wells, pump station, storage tanks, and distribution system was engineered by us and permitted by MA DEP. This project had a twist with a complete underground concrete pump station and water storage tanks, which required creative ways of preventing groundwater from impacting these facilities. This infrastructure was also designed to accommodate additional future commercial development, and has been a great success for L. D. Russo!

▪ **APPLEWOOD CONDOMINIUMS – APPLEWOOD DRIVE, Boxborough, Massachusetts**

Working directly for the Applewood Condo Association, we master planned and designed a new 27,000 GPD water pump station with 54,000 gallons of underground concrete water storage tanks. This included navigating through a DEP ACO process, and securing a DEP Distribution Modification permit for this upgrade. We also provided inspections & certifications required for DEP activation approval.

▪ **BOXBOROUGH HOLIDAY INN – (FORMER HOST HOTEL) – ONE ADAMS PLACE, Boxborough, Massachusetts**

Provencher Engineering was contracted by Fine Hotels Corp. of Wellesley to coordinate public water supply permitting for a proposed 60-room hotel expansion. A complete review of the permitting history of the five on-site bedrock wells was performed at local Boards of Health and Worcester DEP. This most comprehensive assessment ever conducted of the hotel's approved withdrawal resulted in the granting of a DEP permit for expansion of the water supply without requiring additional well installation or pump testing. In March 2002, Provencher Engineering successfully completed final water quality analyses on an aeration system designed and permitted with the DEP to raise the hotel's drinking water pH (under mandate from DEP) to reduce corrosivity and elevated lead and copper concentrations. This treatment technology has been implemented on other sites as a result of its success at the Holiday Inn.

▪ **HOPKINTON HIGHLANDS II – CEDAR STREET EXTENSION, Hopkinton, Massachusetts**

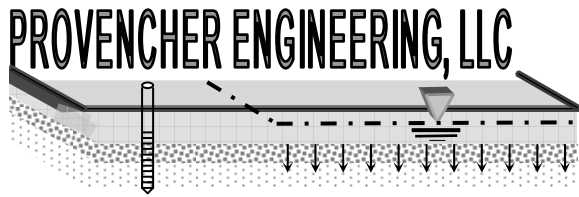
Provencher Engineering was contracted by Toll Brothers, Inc., of Milford, Massachusetts to coordinate drilling and conduct pump testing of three new bedrock water supply wells for a 40,000 GPD proposed public water supply for a new 39-lot residential subdivision. Coordination of pumping equipment, pump testing, permanent well water level monitoring with transducers, water quality sampling, as well as design of a storage, pumping, radionuclide treatment and distribution systems were tasks successfully completed by Provencher Engineering. Other tasks included a Groundwater Budget Analysis and a Groundwater Recharge Analysis to confirm that regional groundwater depletion would not result from the proposed development, and that recharge of groundwater to individual wetland and vernal pools would not be impacted by construction. Artificial recharge measures, underdrains, and seepage collars were designed by Provencher Engineering and approved by the Hopkinton Conservation Commission. These analyses were also included in the site's EIR filing for the Massachusetts EOE.

▪ **HOPKINTON COUNTRY CLUB – SADDLE HILL ROAD, Hopkinton, Massachusetts**

Provencher Engineering was contracted by the Hopkinton Country Club to coordinate and conduct a pump test of a new bedrock water supply well for a 10,000 GPD proposed public water supply for a new clubhouse and golf course expansion. A water storage, treatment, and pump station was designed and permitted with the Worcester DEP. Other tasks included soil evaluations, design, and permitting of two separate Title 5 septic systems. The drinking water supply radionuclide removal system was the first system placed on line in the state of Massachusetts to treat for uranium removal. The larger Title 5 septic system was a three tier pressure distribution leaching system, which included groundwater mounding studies and presentations to the Hopkinton Board of Health. All systems are operating. More recently, a permanent transducer was installed in the supply well, and in a stream gage for compliance with a permit from the Conservation Commission. Both transducers were read, graphed, and interpreted on a quarterly basis.

▪ **SIMRAH GARDENS – CENTRAL STREET, Hudson, Massachusetts**

Provencher Engineering was the lead engineer in successfully obtaining a Groundwater Discharge Permit from the Worcester DEP for a new residential apartment building complex generating 36,000 GPD of wastewater. Engineering included conceptual designs, followed by witnessed soil evaluations, soil borings and monitoring well installation, permeability testing, and development of a groundwater model. The model was used to predict mounded groundwater elevations beneath the leaching field, and was used to design the leaching field and a surrounding retaining wall, which was required to reduce off-grading and to prevent breakout of the treated effluent.



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PROJECT EXPERIENCE (continued)

▪ **DeMOULAS MARKETBASKET / KOHLS DEPT STORE – ROUTE 125, Plaistow, New Hampshire**

Provencher Engineering was engaged by RMD, Inc. of Tewksbury, Massachusetts to design a new public drinking water treatment, storage, and pumping station. This new system was required to replace an old problematic substandard underground system previously in operation for 15 – 20 years. The site's source well remained unchanged, and continues to supply the site with water, albeit moderately contaminated by a regional MTBE groundwater plume from leaking off-site gasoline tanks. In addition, an existing water softener system was located inside the store building, taking up valuable space. The new design included a partially underground 10,000-gallon atmospheric water storage tank and an above ground booster pump and water treatment station. The treatment system, as approved by the New Hampshire Department of Environmental Services, included activated carbon for MTBE removal, a softener, and disinfection, and allowed removal of the old softener from the store, freeing up floor area. Provisions were also made for future treatment for radon and arsenic removal, should lower thresholds be implemented by EPA, as currently proposed.

▪ **DEERFIELD ESTATES – LUMBER STREET, Hopkinton, Massachusetts**

Provencher Engineering was contracted by Capital Group Properties and Rosewood Construction of Southborough, Massachusetts to perform a well siting analysis and permitting of a new community public water supply for a 46-unit senior housing development. A sophisticated pump testing program, which far exceeded the requirements of the Massachusetts DEP, was developed and implemented, as a result of concerns from abutters about potential impacts to their private drinking water wells as well as concern about drawdown impacts to vernal pools and wetlands, as voiced over several planning board and conservation commission meetings. Seven Provencher Engineering owned data logger transducers were installed in operating private wells, as well as in monitoring wells in a vernal pool and in the location of the proposed wastewater disposal leaching field. Several weeks of baseline data was collected prior to and then during a pumping test on the water supply well, which was followed by an additional week of data collection after pumping. The data was evaluated and was determined not to indicate any drawdown interference from pumping. Accordingly, water treatment, storage, and pumping systems were then designed by Provencher Engineering and approved by DEP. In addition, Provencher Engineering conducted a Soil Evaluation and design of a pressure dosed septic system, which was subsequently approved by the Board of Health for the site.

▪ **BENCHMARK ESTATES – CARDINAL LANE, Tyngsborough, Massachusetts**

Elevated radon and uranium in drinking water wells at this public water supply prompted the DEP to require treatment to reduce these levels. Provencher Engineering, after corresponding with water treatment system component manufacturers, prepared calculations, design plans, and specifications, approved by DEP, for a new distribution system, filtration, radon removal, water storage, ultra-violet disinfection, and booster pumps to fit within existing superstructures. The project is currently and successfully in operation.

▪ **CAMP YOUNG JUDAEA – CAMP & BABOOSIC LAKE ROADS, Amherst & Merrimack, New Hampshire**

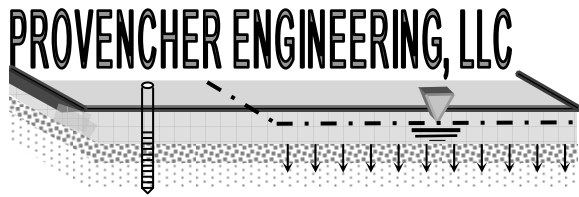
Low water pressure and loss of water were problems encountered by the camp during their summer operations. An evaluation and cost estimates of three alternatives was conducted: (1) a new storage tank and booster pump system using their one existing well, (2) connecting to the municipal water supply, and (3) siting and drilling a second well. A fracture trace analysis identified a location for a new public water supply well, which was successfully drilled, pump tested, and permitted at a lower cost than the other two alternatives. The new system as designed by Provencher Engineering now successfully meets the camp's peak flow demands. Immediate short-term engineering solutions were first evaluated and implemented consisting of upgrading the well pump capacity and connecting dead-end water mains to create a looped system. This provided some immediate relief during the permitting process.

▪ **LUCENT TECHNOLOGIES – 300 BAKER AVE., Concord, Massachusetts**

Provencher Engineering was contracted by Rizzo Associates, Inc., of Framingham, Massachusetts to perform a Soil Evaluation and provide recommendations on the potential for the site to support the subsurface disposal of treated wastewater effluent under the DEP Groundwater Discharge Permit program. Although results indicated acceptable soil conditions, a preliminary cost estimate indicated that a municipal sewer tie-in was a more feasible alternative, and was therefore pursued.

▪ **THE HARRINGTON FARM – 178 WESTMINSTER ROAD, Princeton, Massachusetts**

This existing public water supply, unnoticed by the DEP, was required to contract with an engineer to coordinate and perform a pumping test and water quality analysis to the requirements of the DEP. Provencher Engineering corresponded with the DEP to plan, to conduct a pumping test, and ultimately to submit a permit application and gain approval of the existing well for a public water supply.



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PROJECT EXPERIENCE (continued)

- **HARVARD RIDGE CONDOMINIUMS – SWANSON ROAD, Boxborough, Massachusetts**
Provencher Engineering was engaged by Earth Tech, Inc. to perform hydrogeologic testing and analyses, and to prepare a Hydrogeologic Report for a Groundwater Discharge Permit. The site's failed septic systems are to be replaced by a wastewater treatment facility and a central soil absorption system (SAS) for effluent disposal. Provencher Engineering was selected as a result of previous experience in the area (Cisco project) with a previous employer. Provencher Engineering's services at Harvard Ridge included soil evaluation, monitoring well installation, hydraulic conductivity testing with transducers, computer modeling of the groundwater, and numerous proposed conditions SAS design refinement to arrive at the most optimal location for the new disposal area.
- **BOXBOROUGH COMMONS – 629 MASS. AVE, Boxborough, Massachusetts**
Provencher Engineering was retained by Micozzi Management of Allston to investigate a failing commercial septic system. Research was conducted at local Boards of Health, as well as the Littleton Water Department to obtain water quality information on the site's water supply well and groundwater monitoring wells. Assessment of historic monitoring well data has provided historic correlation for estimating seasonal high groundwater elevation in support of the design of a new soil absorption system. Water quality data has provided insight on the effect on local groundwater quality and existing drinking water from the septic tank effluent. A Bioclere system was designed, approved, and installed for nitrogen mitigation, required as part of the redesigned system, and has functioned successfully.
- **DUNKIN DONUTS / EXXON TIGER MART – 1425 MASS. AVE. (ROUTE 111), Boxborough, Massachusetts**
Provencher Engineering was contracted by Verc Enterprises of Duxbury, Massachusetts, to establish a new public water supply and a new wastewater treatment and effluent disposal system for an existing Dunkin Donuts, gasoline station, and convenience store. Due to the petroleum-contaminated soil and groundwater from a previous gasoline tank leak, and because of limited undeveloped on-site land area, an off-site well location and pump station was designed, permitted and developed, including oxidation and filtration for removal of very high iron from the well water. The treated water is stored in a 1,500 gallon atmospheric storage tank inside the pump station, and is re-pumped over 1,000 feet across Route 111 and into the existing building, resulting in a significant improvement in water supply, pressure, and quality. This same property also required design of a new Bioclere wastewater treatment unit and new pressure dosed irregularly-shaped effluent distribution system as a result of a significantly undersized previous design by others which failed in only 4 years. The new wastewater and water supply systems are currently complete and in operation.
- **BRIGHT HORIZONS DAYCARE – 20 CODMAN HILL ROAD, Boxborough, Massachusetts**
Contamination of the regional groundwater supply from a Mass Highway road salt deicing storage facility abutting Elizabeth Brook presented serious challenges in developing and permitting a new public water supply for a new daycare. Significantly elevated sodium, chloride, TDS, hardness, and calcium required a sophisticated water treatment system (carbon, softener, Reverse Osmosis, and UV), which was designed by us and permitted by DEP, to allow treatment of contaminated water to provide potable water for this site. The site also included a pump station, atmospheric storage tank, re-pressurization pumps, and likely includes the most sophisticated water purification system in Boxborough, and is fully functional.
- **REGENCY AT BOLTON – ROUTE 117, Bolton, Massachusetts**
Provencher Engineering was contracted by Toll Brothers to conduct a due diligence review in support of a pending land transaction of a previously approved community public water supply design by another consultant. Understanding that the design proposed by the other consultant was very different from and substandard compared to Toll's expectations, Provencher Engineering was contracted to re-design the water system, which included three source bedrock wells, two 10,000-gallon storage tanks, and an above-ground pump station which included iron / manganese treatment, radon reduction by aeration, ultraviolet disinfection, and a booster pumping system. The water supply system was permitted, constructed, and is presently functional.
- **VILLAGES AT LOUDON – FOSTER ROAD, Loudon, New Hampshire**
The Villages at Loudon (NH DES PWS ID# 996054) is a 20,000 gallon per day (GPD) 100-unit planned residential community public water supply with two bedrock wells, two 10,000 gallon atmospheric storage tanks, and a pump station building which includes water treatment and booster pumps to pressurize the site's distribution system. The wells were sited and pump tested, the water treatment, storage, pumping, and distribution system was designed by Provencher Engineering, approved by DES, and the wells and pump station treatment, pumping, and controls equipment were successfully installed and activated, and the system is presently in operation.