



NEWSLETTER

Gunnell Engineering Ltd.

SepticDesign.ca

Volume V, Issue I

Special points of interest:

- Profiles
- New Code Requirement
- OOWA News

Check out our new website!!
www.septicdesign.ca

Fall...Winter...

The new 2012 Building Code came into effect this year, and we all have been working hard to ensure that as designers, installers and manufacturers, we adopt and familiarize ourselves with these changes. This year, we have had the privilege of introducing these Code amendments at various venues including the Plumbing Advisory Committee, Simcoe Homebuilders Association, City of Brampton and at the 2014 OOWA Annual Conference.

The second OOWA Central Ontario Regional meeting will be held at the municipal office in Innisfil on November 17. Eric will be speaking about the implementation of the Code changes

and its effects in the industry to date.

One of the new requirements is subsurface metal detection of the headers and distribution pipes. There have been different methods used, but we have found, what we believe the most cost effective and easiest way to meet this requirement. Find out in our article on Page 2 by Tom.

During the past, decentralized sewage systems or communal systems have not been optimal choices for residential subdivision applications. Several reasons include the Provincial Planning Act and the reluctance of municipalities to enter into a Municipal Responsibility Agreement. Eric explains how this is now changing with help from

the involvement of OOWA and other stakeholders who are working with the Province and municipalities to understand how decentralized sewage systems can be a practical and less costly option.

This edition also features the FauxRock Canada and meet septic installer and OOWA Board Member Bill Robinson.

As many of you may know, our new website went live this past spring. It is still being upgraded, and we will be keeping you up to date with industry news.

We always welcome your comments and feedback. *Elizabeth Lew*, Editor

Decentralized Sewage Systems for Small Communities by Eric Gunnell, P. Eng

Inside this issue:

- Decentralized Sewage Systems 1
- Robinson Enterprises 2
- FauxRocks 3
- Subsurface Detection 3

There are upcoming opportunities for sewage system installers, designers and treatment manufacturers and service providers.

From a sewage system spectrum, we generally service individual rural homes and commercial businesses with on-site sewage systems. The majority of these sewage systems have daily design sewage flows less than 10,000 litres / day, and are therefore permitted by the local Municipality, Health Unit or Conservation Authority, who issue an appropriate building permit. For sewage systems with daily design sewage flows greater than 10,000 litres per day, the approval authority is the Ministry of Environment (MOE), who will issue an Environmental Compliance Approval (ECA) [formerly known as a Certificate of Approval, or C of A].

ECA approvals are regularly issued for commercial projects, restaurants, campgrounds, with some residential rental properties, and only rarely for large sewage systems servicing residential 'subdivision' projects or condominium buildings.

The simple reason as why very few residential projects are serviced with 'communal' sewage systems, or as we will now refer to 'Decentralized Sewage Systems', is our Provincial Planning Act, and specifically the Provincial Policy Statement (PPS), which sets out the hierarchy for servicing residential homes. The first selection has traditionally been the 'big pipe' for servicing, discharging to a 'municipal treatment plant'. The other major stumbling block, or 'perceived' stumbling block is the MOE requirement that the

project developer must enter into a 'Municipal Responsibility Agreement' (MRA), with the local municipality for these large residential projects. The MRA includes a number of financial provisions, as well as a clause that states in the event of default in the operation or maintenance of the sewage system by the developer / condominium / homeowner association, the municipality must step up and assume ownership and operation of the sewage system. Municipalities have an unfound fear in this regard. Proper planning and preparation of an MRA will provide the necessary 'protection' to all parties, as well as assuring safe water and a safe environment.

.....(Continued on page 2)

NEWSLETTER

Decentralized Sewage Systems ...continued

(Continued from page 1)

Our Ontario Onsite Wastewater Association (OOWA - www.oowa.org) lobbied for changes to the PPP, and progress was made to allow for increased use of decentralized sewage systems. Refer to the new Provincial Policy Statement, 2014 (<http://www.mah.gov.on.ca/Page10679.aspx>).

The era of low cost municipal sewage treatment plants and expansions is over. Government grants and funding for municipal servicing of residential development is drastically reduced.

Municipalities are looking for lower cost solutions to service residential development and increase their tax base. Decentralized sewage systems now become an attractive alternative to the 'big pipe'.

This past October 8, 2014, OOWA organized a one day 'Decentralized and Small Communities Systems Symposium', held in Perth, Ontario. The agenda was developed to explore the options available to small communities,

towns and rural developments, to further improve the collective understanding of the benefits of Onsite and Decentralized infrastructure solutions as they aim to meet growing needs for redevelopment and new development. Across Ontario, small towns and municipalities are looking to meet their growth and redevelopment requirements with cost-effective, scalable and practical wastewater servicing solutions.

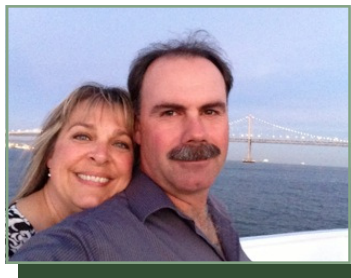
The symposium was well attended, and by all accounts was well received by the planners, municipal employees, engineers, contractors, treatment manufacturers, service providers and others, in attendance. A number of real life decentralized sewage system projects were discussed in detail. Education, training and the concept of 'protection of the home owners, municipalities, developers and the environment' are key elements in moving forward to the greater acceptance of Decentralized Wastewater Systems.

We all must be aware and supportive of this expanding direction for our

industry. In addition, we would highly recommend your involvement and support of OOWA, as our professional organization, with the ability to speak and seek support from all levels of government, and ministries.

The future success of Decentralized Wastewater Systems, will provide opportunities to enhance the businesses of our onsite industry, including septic system contractors, sewage system designers / engineers (non 'big pipe' / municipal treatment plant), treatment manufacturers, service providers, and suppliers.

Profile - Contractor / Installer – Robinson Enterprises



Diana and Bill Robinson in San Francisco

Robinson Enterprises was founded in 1990, by Bill Robinson, and is a small privately owned and operated company, specializing in custom home site servicing and septic installations. Located in Cookstown Ontario, they service a wide area including Simcoe County, York Region and the GTA. Bill is a second generation licensed septic installer and is certified with Waterloo Biofilter and Bionest. Bill has served as Trade Director, on the Board of Directors, for the Simcoe County Home Builders, since 2007. He is also on the

Board of Directors for the Ontario Onsite Wastewater Association, since 2012, just completing his first year as Membership Chair, in which he received an award, 'Volunteer of the year 2014!' He is currently working on a new venture, 'SepticCheck.ca,' a streamlined method for homeowners to maintain proper septic system records that will keep them in compliance with the Ontario Building Code; this is expected to be up and running by late spring 2014. His wife, Diana, a Certified Dental Assistant, left her position

10 years ago, to join his company full time, as Office Manager. She has recently accepted the position of President in their local Chamber of Commerce. Together they are their raising 3 teenagers. In his "spare time" Bill enjoys snowmobiling and together they enjoy to travel! You are welcome to contact Bill, or Diana, at their office (705)458-1522 or by email: info@robinsonenterprises.ca. Please visit their website: www.robinsonenterprises.ca

Profile - FauxRocks Canada

“Do You Have Something To Hide?”

FauxRocks Canada has been owned and operated by Jerry Bruce since 2005, from Barrie, Ontario and has grown to a network of over 30 dealers across the country. In the beginning the rock business was developed around the septic industry because of extensive connections and experience from a 35 yr career. Today, dealers have been strategically developed coast to coast to serve consumers looking for the ideal covering to hide their well heads, septic tank lids and other visual distractions in their landscape. FauxRocks are light, realistic and vary in size from the small model 106 to very large models like the 114 (L 63” x W 48” x H 61”).

These lightweight rocks have become the answer to landscaping a new septic system while still providing access for maintenance. An electrical box on a post above the ground which connects power to the septic system is one example of what home owners prefer to hide. A rock cover can be placed over the post and still allow access when needed.

In Ontario access to your septic tank and the septic tank effluent filter is required at grade by OBC 8.6.2.1.(3). This means the septic tank lid over the effluent filter needs to be accessible at grade and not buried. Covering the septic lid with a FauxRock model 111 or 112 has become a great answer to: “what to do with that septic lid that’s visible in the yard”. A small flower garden can be created over the septic tank with FauxRocks covering

the lids leaving a visually attractive landscape with easy access.

For cottages or homes that have seasonal water pumps and irrigation systems FauxRocks are ideal for hiding these items, making the property more attractive. Backflow preventers are used with irrigation systems in Ontario, and sometimes are visible in the landscape above grade. Model 116 is designed to cover the commercial backflow device and protect it from damage while leaving a much better visual finish to the site.

FauxRocks dealers can be found @ www.fauxrocks.ca under the *dealer locator* button on the home page. Contact a dealer to inquire about a trade price to supply your customer with a FauxRock.



Subsurface Detection of Distribution Piping for Septic Systems by Tom Keane

The renovation industry is consistently on the rise, as we see more owners choosing to renovate their properties by constructing new additions or renovating their existing homes to achieve an increase in living space. When these types of construction projects take place, one item that is often overlooked is the impact that the proposed work will have on the existing septic system.

During this past year, the new 2012 Ontario Building Code (OBC) has introduced a variety of changes that have been implemented into the design of new on-site sewage systems throughout the Province. One of these changes is the requirement to design and construct all new septic fields in such a way where the header line(s) and distribution pipes can be detected below the ground surface. The OBC stipulates that the septic distribution piping can be detected by magnetic means, 14 gauge solid copper tracer wire or another means of subsurface detection. Over the past year of designing both new sewage systems and expanding existing

sewage systems, we have experienced that the most cost effective and easiest ways to achieve the subsurface detection requirement is through the installation of individual steel rebar lengths at each of the four outside corners of the distribution pipe area (typically 20M rebar, 400mm long, bent at 90 degrees, and installed at the top of the stone layer). Although this method has satisfied the majority of septic / health / building inspectors, several regulatory authorities do require a steel bar to be located at the end of each distribution pipe run. Our interpretation of this new building code requirement is that the purpose of the subsurface detection is to locate the overall area of distribution piping, to ensure that new building additions, installation of swimming pools, new wells, landscaping, etc, can be installed while ensuring minimum setback / clearance distances are provided to the distribution piping.

Gunnell Engineering has completed many on-site investigations over the years. Our goal during these investigations is to record the size and condition of the existing septic system to determine if the system can continue to be used to adequately service the proposed upgrades of an existing building. One of the most important and more difficult parts of our investigation is accurately locating the existing distribution pipes within the existing septic field. These investigations usually take place many years after the installation of the existing septic system and often with limited information available, resulting in a time consuming and expensive process. The requirement for the installation of a means of subsurface detection will provide the client with a more cost effective and accurate solution in determining the size, location and condition of their septic system for any future renovation, expansion or necessary repairs.



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Industry News



COWI is now offering courses at various local colleges. For more information and schedule call Denis Orendt at 905-372-2722 or email info-cowi@cogeco.ca



Ontario Onsite Wastewater Association News

This year's attendance at the 2014 OOWA conference surpassed the previous year's numbers. New incoming president Rick Esselment has replaced past president Don Krauss after a successful two year term. The Board of Directors has been elected with new members Trish Johnson and Anne Egan. Check out OOWA's new website where you can find information on everything you need to know in the onsite sewage industry. OOWA is

currently preparing for the 2015 Annual Conference to be held again in Niagara Falls, March 23-25, 2015. Stay tuned for details.

We would also like to welcome Rachel Robichaud, who is the new Operations Co-ordinator. Rachel will be providing administration duties and support for OOWA members.

Not a member? Contact Rachel at 1-855-905-OOWA or op-

coordinator@oowa.org and ask Rachel about the benefits of becoming a member.



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Upcoming Events:

Camping in Ontario

CampEx
November 16 & 17, 2014
Blue Mountain Resort
Collingwood

OOWA
Central Ontario Regional Mtg
Innisfil Municipal Office
November 17, 2014

OOWA Annual Conference
March 23-25, 2015
Sheraton on the Falls,
Niagara Falls