

## Pine Valley North Sewage Pumping Station

FEATURE PROJECT



### Project Requirements

The Pine Valley North Sewage Pumping Station is located in the City of Vaughan within the valley lands on the east side of Purpleville Creek, Central Branch, close to Pine Valley and Major Mackenzie.

Construction of the pumping station is required to accommodate major residential development that is currently underway in the surrounding area.

The project consists of:

- Wet well / dry well sewage pumping station
- Emergency storage tank
- Dry pit submersible pumps
- Odour control unit
- Standby diesel generator

### Project Scope

**Contract Services:** Stipulated Lump Sum

**Concrete:** 1,134 m<sup>3</sup>

**Formwork:** 2,192 m<sup>2</sup>

**Design Features:**

- Pump station building complete with wet / dry well and emergency storage tank configuration
- 248 L/s pumping capacity
- Concrete substructure complete with masonry walls above grade
- Metal roof supported by wood trusses
- 9 m x 4 m x 7.4 m deep, cast-in-place wet well
- 9 m x 9 m x 7.4 m deep, cast-in-place dry well
- 18 m x 14 m x 6 m deep, cast-in-place emergency storage tank
- Three 125 horsepower VFD controlled pumps
- SCADA programmed instrumentation
- Odour control unit
- 300 kW diesel generator

**Key Challenges:**

- Working adjacent to a residential neighbourhood and an environmentally sensitive area
- Sharing site access/egress road with contractors working on an adjacent site
- Construction of the pumping station without utilities
- Phased approach to accommodate multi-discipline activities within the same area

Kenaidan will also install the access road and provide all grading, pavement, and landscaping. Within the access road there will be a 400 mm diameter PVC sanitary force main, 250 mm PVC sanitary piping, and 600 mm concrete pipe approximately 2-5 m below grade, including all appurtenances and manholes. A valve chamber for flushing and bypass will be installed outside of the station on the pumping station site and an overflow manhole will measure overflow into the adjacent Purpleville Creek.

"The Pine Valley North Sewage Pumping Station is being constructed to support developments in Block 40/47 and facilitate future growth within the City of Vaughan. Ultimately, the station will be able to reach a peak sanitary wet weather flow of 251.5 L/s," said Vince Marchese, Inspector / Contract Administrator of The Municipal Infrastructure Group. "Although still in the early stages of construction, we have seen professionalism from Kenaidan and are pleased with their effort and commitment to date. It is evident that Kenaidan has the necessary resources to meet all project expectations."

### Roles & Responsibilities

**Owner:** Delta Urban / City of Vaughan (Delta Urban is the owner and will hand over the facilities to the City of Vaughan at contract completion)

**Consultant:** The Municipal Infrastructure Group (TMIG)

**Formwork and Mechanical:** Kenaidan Contracting Ltd.

**Excavation:** Ragno Excavating Limited

**Shoring:** HC Matcon Inc.

**Yard Piping:** Pall-Con Construction Ltd.

**Concrete Reinforcement:** Gilbert Steel Limited

**Electrical:** Selectra Inc.

**HVAC:** Teslin Contractors 2008 Limited

**Fuel Oil:** Western Oil Services Ltd.

**Asphalt Pavement & Concrete Curb Work:** Ashland Paving Ltd.

**Masonry:** Burling Ranger Company Inc.

**Metal Roofing:** Comsteel Building Solutions Inc.

**Dewatering:** Insitu Contractors Inc.

**Misc. Metals:** Weld Right Corp.

Construction began in the spring of 2016 and is scheduled to be complete by fall 2017.

### Team Kenaidan

**Project Director:** David Murray

**Project Manager / Site Supervisor:** Steven Radencich

**Project Engineer:** Ryan De Jesus

**Project Administrator:** Shawna Sgro

**Team Leader - Field Engineer:** Claudiu Ban

**Senior Field Engineer:** Igor Melnik

**3D Construction Modeler:** Patrick Stewart

**Estimators:** Valeriy Kukovskyy, Barry Bince

**Foreman:** Tom Butler

**Business Development:**

Marisa Nardini (Prequalification)



The Kenaidan New Office Building was awarded the 2016 Mississauga Urban Design Award of Merit for Building Design and Execution

This state-of-the-art, 3-storey building serves as the headquarters for Kenaidan's construction operations and is a showcase for our self-perform concrete capabilities. Kenaidan is pleased to share this prestigious award with our design build partner, IBI Group. Thank you to our subcontractors, suppliers, and the Team Kenaidan crew for your hard work and dedication to this project.

### Inside This Issue



**POINT OF INTEREST**

The Lighthouse Program for Grieving Children - CETA Project



**PROJECT UPDATE**

Iona Island WWTP Solids Handling Upgrade - Screening, Degritting and Thickening



**ROAMING PHOTOGRAPHER**

2016 Team Building Challenge

# Environmental Update



By Derek Beharry

In January 2014, the Ministry of Environment and Climate Change (MOECC) accepted to undertake a review of excess soil management in Ontario in response to an Environmental Bill of Rights application in November 2013. The application for review requested "the need to establish a new comprehensive, province-wide policy to address the problem of compromised soil".

The issue has received media attention focusing on the illegal dumping of soil, site alteration, soil tracking, and quality of excess soil as it pertains to the protection of the environment, water, and agriculture. It is estimated that approximately 20 million cubic metres of excess soil is excavated annually from construction sites. However, the actual figures for the

movement and quality of excess soil in Ontario is unknown.

As part of the review, the MOECC convened a working committee consisting of municipal representatives, conservation authorities, aggregate industry leaders, the agricultural and rural community sectors, infrastructure, transit, and waste sectors. Sessions were conducted with selected conservation authorities and a number of associations, such as Ontario Environment Industry Association, Municipal Engineers Association, Professional Engineers Ontario, Residential and Civil Construction Ontario, as well as local communities and environmental groups. Based on their findings, the province of Ontario has developed a proposed Excess Soil Policy Framework with the intent to protect human health and the environment from inappropriate relocation of excess soil, and enhance opportunities for the beneficial reuse of excess soil.

Below is a summary of some of the key changes that may directly impact Kenaidan's sites going forward.

- Greater responsibility will be placed on the source sites of excess soil. Source sites will be responsible for characterizing their excess soil, tracking it and verifying that their excess soil reaches an appropriate receiving site. Reuse of excess soil, where

appropriate, will be encouraged in order to minimize the movement of the excess soil in the first place.

- For construction sites designated as "Larger" (based on volume) and/or classified as "Risk-based" (based on potential of impacted soils and risk of contamination) under the new regulation will be required to develop an excess soil management plan, to be prepared and/or approved by a qualified person for excess soil leaving the site. The plan will be required to address the following:
  - Quality, type, and volume of excess soil
  - Requirements for testing excess soil and potential contamination
  - Identifying and ensuring receiving sites are authorized to accept excess soil
  - Testing results are provided to the receiving site
  - Tracking to verify the excess soil arrives at the receiving site
- Clear guidelines will be established for testing and sampling excess soils in a variety of circumstances. They will also cover the use of interim sites (with a set of minimal requirements without approval) for situations when excess soil is removed from the site and stored off site at a temporary location before being brought back for reuse at a later date.
- Development of protocols for the management of soil from smaller projects which do not fall under the categories for "Risk-based" or within the volume thresholds for "Larger" sites.

Some of these proposed changes in the policy framework are long-term and may not come into effect for a few years, while others may become a requirement under the Environmental Protection Act by the end of 2016 or early 2017.

Once the policy becomes a regulation, a review of Kenaidan's applicable Environmental, Health & Safety procedures will be conducted and modified to ensure compliance to the new regulation. The requirements will be reviewed with the project teams during the project pre-planning phase to assess the impact of the new management of excess soil regulation for each new project going forward.

# The Lighthouse Program for Grieving Children – CETA Project

## POINT OF INTEREST

### Project Requirements

"Care Enough To Act" (CETA) is an integral part of Kenaidan's core values and is defined as: caring enough to act and reaching out to intervene with issues or potential problems. Simply put, CETA is making the extra effort to help someone else.

Kenaidan understands that supporting local programs and organizations that make a profound difference in everyday lives builds strong communities. For this reason, we established a charitable build initiative in 2010 through our CETA program.

Every year for the past 6 years, our CETA build initiative has supported numerous organizations and individuals by providing construction related services, as well as mobilizing volunteers and corporate partners to make a difference. For our 2016 project, we are very pleased to be involved with the Lighthouse Program for Grieving Children.

Established in 1999, the Lighthouse offers facilitated peer support groups to help children, teens, and their families recover and readjust after a death in the family. The death of an immediate family member during childhood and adolescence is a life-altering experience, affecting a young person forever. At the Lighthouse, families find and create a community of understanding, stability, and support during this difficult time.

To meet increased demand for their services, the Lighthouse purchased a new property located at 2522 Rebecca Street in Oakville. This former church required much needed renovations to turn it into a functional space for the 250+ children, youth, and adults that the Lighthouse currently supports per year, as well as accommodate future growth. The new facility offers double the space compared to Lighthouse's previous location and will also be used for training other individuals and organizations on how to adapt the Lighthouse concept to the needs in their community.

"The Lighthouse is hugely grateful to Kenaidan for choosing to invest in our once-in-a-lifetime renovation project. Contributions like Kenaidan's are more than a gift: they are an investment in growth that allows us to enhance the well-being of many Lighthouse families, today and in future years," said Britta Martini-Miles, Executive Director, the Lighthouse Program for Grieving Children. "Supported families knit strong communities, the basic building blocks of a healthy and connected society."

With contributions from various trades and suppliers, Kenaidan constructed a 16' x 28', 2-storey addition on the back of the church. The scope of work included demolition to allow for tie-in excavation, forming and

concrete, waterproofing, backfill, framing, roofing, insulation, cladding, and drywall. The last step was painting, which was completed on a weekend by a volunteer team consisting of Kenaidan office and crew staff.

To learn more about the Lighthouse, please visit [www.grievingchildrenlighthouse.org](http://www.grievingchildrenlighthouse.org).

### Kenaidan would like to acknowledge and thank the following sponsors and donors:

- Algoma Paints
- Barben & Interline Hardware
- Battlefield Equipment
- Bothwell-Accurate
- Chouinard Bros. Roofing
- Cirrus Contracting
- Commercial Drywall Systems
- DSM Aluminum Ltd.
- Dufferin Aggregate
- Ernie Contracting
- Gilbert Steel Ltd.
- Graff Cutting & Coring
- H & S Equipment
- Loewen Windows
- Mammoet Cranes
- MJR Contractors
- Oakdale Drywall
- Ontario Redimix
- Peto MacCallum Ltd.
- Prestressed Systems Inc.
- Priestly Demolition
- Starlite Graphics & Sign
- Tamarak Lumber Inc.
- The Graff Company
- Torsteel Co. Limited
- Turkstra Lumber

### Team Kenaidan

- Site Supervisor:** Marcello Zanon
- Project Coordinator:** Fred Ogden
- Lead Hand:** Don Pletch
- Field Engineer:** Claudio Ban
- Project Administrator:** Elisa Lui
- Health & Safety:** Patricia Pereira
- Estimator:** Steve Burt



(L to R): John Trout (H&S Equipment), Mike Van Meyl, Marcel Gagnon, Don Pletch, and Marcello Zanon





# Iona Island WWTP Solids Handling Upgrade – Screening, Degritting and Thickening

## PROJECT UPDATE

### Project Requirements

Kenaidan was awarded the contract for the Iona Island Wastewater Treatment Plant Solids Handling Upgrade project, located near the North Arm of the Fraser River on Sea Island in the City of Richmond, British Columbia. Due to the proximity of the project to the Fraser River, implementation and maintenance of environmental protection measures are required throughout the construction period.

The scope of work includes construction of a new sludge screening and degritting facility, building mechanical installations, electrical distribution, and instrumentation and controls systems.

As part of the expansion to the wastewater treatment plant, the contract includes:

- Soil densification
- Dewatering
- Excavation (including removal of 27,000 m<sup>3</sup> of preload)
- Site services
- Underground piping and utilities
- Storm water controls
- Piping connection to the existing primary sludge pumping, thickeners, and digester facilities

Significant progress has been made since construction began in October 2015. The team has mitigated delays including slower than anticipated piling installations, overlapping concrete operations with piling installations, and design delays with the manufacturing of the motor control centres (MCCs).

The screening and degritting facility is now fully enclosed and equipment installations are well under way. The primary sludge pump building is also enclosed with process and electrical installations ongoing. As of mid-October, all major equipment has been delivered to the site and work is progressing towards commencing operational testing in the facilities on February 14<sup>th</sup>, 2017, with completion scheduled for March 2017.

### Project Scope

**Contract Services:** Stipulated Lump Sum

**Concrete:** 1,500 m<sup>3</sup>

**Formwork:** 3,000 m<sup>2</sup>

**Key Challenges:**

- Aggressive schedule – removal of 27,000 m<sup>3</sup> of preload sand and installation of approximately 5,000 timber piles to achieve the design soil densification prior to starting construction
- Piling installations completed in unison with concrete operations – special vibration monitoring procedures were implemented to mitigate any damage to the structure from piling operations
- Coordination of mechanical and electrical work in existing tunnels is complex due to routing requirements – there is very limited space for new installations in the tunnels
- Process and electrical tie-ins – minimal downtime and specific coordination and planning was required with Metro Vancouver operations staff to eliminate or minimize interruption to existing operations
- Working above live sedimentation tanks – special fall protection and rescue procedures were required
- Aggressive and compressed commissioning schedule – requiring careful planning to ensure Metro Vancouver CDAC (Computerized Data Acquisition and Control) personnel are prepared to takeover

### Team Kenaidan

**Project Director:** Derek Steinke

**Project Manager:** Masashi Hasegawa

**Site Supervisor:** Lee Evans

**Mechanical Coordinator:** James Parco

**Project Engineer:** Simon Kirkland

### Roles & Responsibilities

**Owner:** Metro Vancouver

**Consultant:** Led by CH2M, the team consists of the following members:

- Associated Engineering
- Klohn Crippen Berger
- EIC Solutions Ltd.
- Dialog Design

**Timber Piling:** West Shore Constructors Limited

**Electrical:** Status Electrical Corporation

**Mechanical:** Trotter and Morton Building Technologies Inc.

**Reinforcing Steel:** Lower Mainland Steel (1998) Ltd.

**Concrete Formwork & Placement:** Butler Brothers Construction Inc.

**Landscaping:** Ivy League Landscaping & Nursery Inc.

**Chain Link Fence:** Safe-Guard Fence Ltd.

**Membrane Roofing:** Pacific Restorations (1994) Ltd.

**Painting:** Combined Painting (1985) Ltd.

**Miscellaneous Metals:** Westeel Fabrication Ltd.

**Pre-Engineered Building:** Liberty Contract Management Inc.

**Bird Netting:** Redden Net Custom Nets Limited

**Doors & Hardware:** McGregor & Thompson Hardware Ltd.

## Our Message: Waste Reduction



By Jacek Schabowski

In this edition of “Our Message”, I would like to discuss wood and wood waste management. As a result of the programs we have in place, we’ve become better at wood waste management over the years, but there is still room to improve.

Canada has 348 million hectares of forest land, which represents 9% of the world’s forests (Natural Resources Canada). We have so much wood around us that we take it for granted. I remember 26 years ago, having wood-cutting competitions on-site; wood was a material so abundant that we didn’t think twice about it. Waste wasn’t an issue.

Today, with high pressures of population growth, the demand for wood is incredible. Deforestation is a problem. So, you may ask: what can I do about it? You can do a lot! Every day on-site we waste a lot of wood; perfectly fine pieces which could have been used are being thrown out. One simple thing you can do on-site is to look around and take the time to scout what you need, and not what’s easiest to grab. Take only as much as you need, and think about wastage as you work. Take a piece of wood that’s already cut instead of a brand new one.

Now more than ever, I think about the future, and that’s probably because I have two granddaughters. We need to protect our resources. Not only for us, but for those who will come after us. That starts with you being mindful in your everyday activities. I believe we can – and will – improve in this area. After all, we are Kenaidan.

# Our Company, Our People

ROAMING PHOTOGRAPHER



Thank you Team Kenaidan for your overwhelming participation and support of our first ever Volunteer Week. Road Hockey crew pictured above.



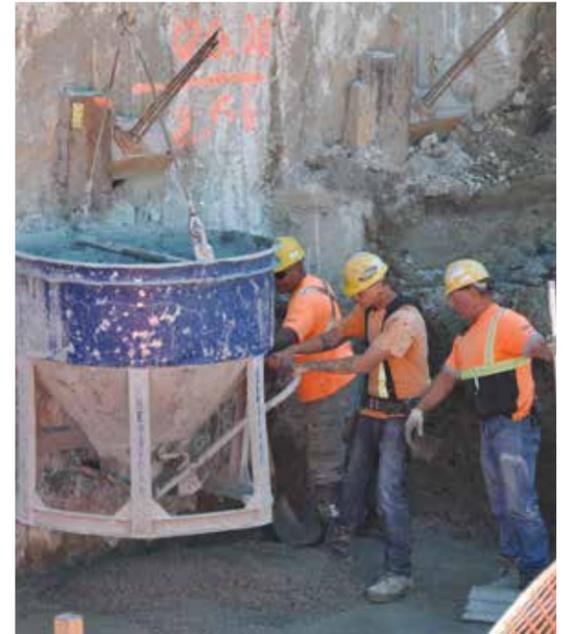
Team Kenaidan members enjoying ice cream treats while preparing for the 2016 Team Building Challenge.

## Trafalgar and Derry Road Feedermain and 30 ML Zone 4 Reservoir

FEATURE CREW



**Back row (L to R):** Garreth Barkey, Silvio Marinella, Bill Crawford, Roberto Melo, Roman Mierzwa, Ray Kowalik, Chris Phillips, Kunjan Mehta, Mike Van Meyl, Dave Pimpinella **Front row (L to R):** Harpreet Khachh, Gary Tripp, Bob Saunders, Michel Limoges, Cory Rodgers, Steve Skrtich, Norm Crawford, Kathleen Boyd, Mirek Chmielewski, Wayne Martin, Don Pletch **Absent:** Freeman Dunphy, Larry Dorman, Robert Pietka



Cecil Jadulal, Brian Searle, and Andy Thomson at the Guildwood GO Station.

**Contributing Editors:** Steve Radencich Ryan De Jesus Fred Ogden Marcello Zanon Simon Kirkland Alex Maini Yashinta Indrawata Marisa Nardini Andrea Howson

### Kenaidan Welcomes

Jane Wang, Mechanical Estimator  
Courtney Quinton, Project Engineer

### Volunteer Week

From October 3<sup>rd</sup> to 6<sup>th</sup>, Kenaidan employees were invited to participate in our first ever Volunteer Week benefiting a variety of local Canadian charities. The events and charities included:

- Walk/Run (2.5 and 5 K routes) to benefit Interim Place
- Food sorting for the Daily Bread Food Bank and Feed the Need Durham
- Staining fences, raking leaves, gardening & weeding at Nova's Ark
- Road Hockey to benefit CAMH (Centre for Addiction and Mental Health)

### Congratulations To

David Kirkland on his appointment as President and Chief Operating Officer

Gian Fortuna on his appointment as Senior Vice President, Major Projects

John Goffredo on his appointment as Vice President, Operations

Brian Jorge on his appointment as Vice President, Pre-Construction

Donny Di Zio on his promotion to Mechanical Project Manager

Maria Liotta for obtaining her Certified Human Resources Leader (CHRL) designation

Chris Stewart on his promotion to Assistant Project Manager

Simon Dolanay for obtaining his Project Management Professional Designation (PMP)

### Upcoming Events

Kenaidan's Annual Christmas Dinner, Dance and Awards, December 17<sup>th</sup>, 2016

### Corporate Sponsorship

Kenaidan recently made donations to:

- Golf for United Way
- Kids Up Front Foundation

### Charitable Matching Program

Kenaidan has recently matched employee donations to the following charities:

- Bereaved Family of Ontario
- Peel HIV/AIDS Network (PHAN)



### Kenaidan Integrated Management System Mission Statement:

- To provide responsible, quality construction services utilizing superior innovation and expertise.
- To develop and maintain long-term relationships with satisfied clients and suppliers.
- To create a safe, challenging and enjoyable work environment where employees share in corporate growth and success.
- To build on a sound financial base where future development is promoted over short-term gain.



### Kenaidan Contracting Ltd.

7080 Derrycree Drive,  
Mississauga, Ontario, Canada L5W 0G5  
Telephone 905.670.2660  
Facsimile 905.670.9172

### Kenaidan Contracting Ltd.

4311 Viking Way, Unit 240,  
Richmond, British Columbia, Canada V6V 2K9  
Telephone 604.270.7670  
Facsimile 604.270.7612



Kenaidan is committed to reducing its ecological footprint. This newsletter has been printed on FSC certified paper by an FSC certified supplier.



Kenaidan is a registered trademark of Kenaidan Contracting Ltd.

k e n a i d a n . c o m