

Bloomington GO Station

FEATURE PROJECT



Project Requirements

This GO Station, located at Bloomington Road and Highway 404 in the Town of Richmond Hill, brings much-needed expansion of rail services to commuters in Richmond Hill, Aurora, and Stouffville. The new station will extend the Richmond Hill GO line north from Gormley GO Station offering commuters living in York Region convenient, local access to GO Transit service.

This 29,288 m² flagship station has been designed to Metrolinx's new industry-leading standard of incorporating public spaces into commuter stations. The station includes an integrated three-storey, cast-in-place concrete, post-tensioned parking structure, to accommodate 760 vehicles. The parking facility will have a car-counting system, 32 EVCS (Electric Vehicle Charging Stations) spaces, 18 accessible spaces, and includes a bike lane with bike shelters that have direct access to the rail platform.

The station will be fully-accessible and showcase boutique-style finishes, such as exposed concrete columns within a feature atrium complete with pedestrian access ramps, and an 810 m² skylight. The east and west entrances, enclosed by a glass curtain wall, consist of four-storey slanted oblong cast-in-place architectural concrete columns, and a cast-in-place airplane-style architectural concrete canopy. The structure links to the platform and also includes a bus terminal. Construction will focus on reducing impact to the surrounding ecosystem with rooftop solar panels and environmentally-responsible building design. This project has been designed to achieve LEED Gold certification.

"The Bloomington GO Station is the new north terminus station on the Richmond Hill Corridor. The complexities of this large infrastructure project include a new integrated station building and multi-level parking structure being built in a greenfield site adjacent to provincially significant wetlands, realignment of three MTO highway ramps including widening of a regional road and associated ancillary infrastructure," said Carolien Dannrath, Manager, Corridor Infrastructure, Richmond Hill & Stouffville Corridor at Metrolinx.

"Kenaidan's experienced team have the knowledge and professionalism to deal with site challenges while maintaining the schedule's tight timelines. Right from the start they laid out the construction strategy and proactively identified risks and mitigation methods. Their commitment and dedication is prevalent in their work as they push the project forward. The team's enthusiasm and unwavering commitment are a large part the project's success and a testament to Kenaidan's capabilities of meeting and exceeding the project's expectations."

Outside, the station will feature a kiss & ride area, surface parking lot to provide an additional 238 spaces, and a bus loop which runs through the lower level of the structure. The surface site incorporates an extensive mixture of hard and soft landscaping surrounding environmentally sensitive wetlands.

Two access roads will be constructed to the south of Bloomington Road to accommodate buses and passenger vehicle accessibility to the station and parking structure. As part of this contract, Bloomington Road will be widened and ramps to Highway 404 constructed on the north and south sides of Bloomington Road to accommodate the commuters in this area, allowing for safe transitions and ramp speeds.

At track-level, work includes a rail platform with snow melting system, cast-in-place airplane style architectural concrete canopies, integrated heated shelters, designated waiting areas, and scooter parking.

Currently, ground improvements by Geo-Foundations are nearing completion, allowing Kenaidan's self-perform concrete operations to follow. The goal is to complete all concrete foundations by early summer 2018 to allow placement of slab-on-grade, which will allow for the commencement of the cast-in-place, post-tensioned suspended slab construction and all other mechanical, electrical, and architectural finishes.

The project was awarded December 21, 2016 and has a contractual substantial date of September 9, 2019.

Team Kenaidan

Project Director: Ian Smith
Construction Manager: Nick Sule
Assistant Project Manager: Andrea Mrezar
Senior Site Supervisor: Dave Ramberg
Assistant Site Supervisor: Nick Cacciaccaro
Site Foremen: Tony Correia, Ron Hamersma, Manuel Goncalves, Tony Melo, Luke Walsh, Carl Johnson
Senior Construction Surveyor: Claudiu Ban
Project Coordinator: Maurice Wong
Project Engineer: Katelyn Stack
Estimator: James Smith
Project Administrator: Shawna Sgro
Preconstruction Manager: Mark Nanfara
Health & Safety Advisor: Geoff Bernardi
Construction Designer: Dora Goncalves

Project Scope

Contract Services: Lump Sum

Concrete: 21,575 m³

Formwork: 66,353 m²

Key Challenges:

- Working in a live rail environment requires daily coordination not only with subcontractors but also with other contracts along the rail corridor
- Environmental protections/wetlands (frogs, birds nesting, etc.) requires dedicated personnel to ensure that weekly inspections and reporting adhere to all regulatory agencies
- Extensive architectural finishes require a very detailed QA/QC plan with all contractors to ensure high quality construction
- Very poor and varied soil conditions
- Unique ground improvement solutions required

Design Features:

- LEED Gold certification
- Integrated parking structure, station building, and bus loop
- Rooftop solar panels
- Environmentally designed to blend with the surrounding ecosystem
- Unique architectural features throughout

Roles & Responsibilities

Owner: Metrolinx / GO Transit

Consultant: AECOM

Design Consultant: IBI Group Architects

Concrete Formwork & Placement:

Kenaidan Contracting Ltd.

Mechanical: DNA Mechanical

Electrical: Montana Electrical

Excavation: Pall Con Construction Ltd.

Aggregate Piers: Geo-Foundations

Reinforcing Steel: Gilbert Steel

Structural Steel: United Structure Fabrication

Metal Fabrications: Brascon Stainless Steel Fabricators Inc.

Elevator: Kone Elevators

Landscaping: Lakeridge Contracting Ltd.

MTO Roadworks: Dagmar Construction Inc.,

Gazzola Paving

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Canada's Safest Employer – Going for Gold

SAFETY CORNER



By Samuel Livingstone
Health & Safety Advisor

In the last issue of our newsletter, we were proud to announce that Kenaidan was awarded '2017 Canada's Safest Employer, Silver winner in Construction'. This significant milestone recognizes the efforts that everyone at Kenaidan has made to one of our core values: Care Enough to Act (CETA). This award also recognizes that these are not simply words on a page but that safety is a fundamental value of Kenaidan.

Canada's Safest Employer (CSE) awards began as a way to recognize Canadian companies that are outstanding in their accomplishments promoting a healthy and safe workplace. There are 10 industry-specific categories, from hospitality to mining. There are also specific awards in Wellness, Psychological Safety, Young Workers, and a top prize for Best Health & Safety Culture.

Submitting for the CSE award required great efforts by the entire team. As part of our submission, we had to demonstrate that we are leaders in safety in 12 categories. Some of these included:

- Our Occupational Health & Safety (OHS) Management System – health and safety documentation, our commitment to CETA and on-site support, and through the CETA Community Program
- Effective employee engagement – an ongoing and productive part of our safety culture
- Communication within Kenaidan is both top down and bottom up, as well as robust and transparent
- Our health and wellness program is comprehensive and ensures everyone is healthy physically and mentally, both at work and at home
- Innovation – our use of leading edge technology to improve our safety systems and communication processes

We submitted our injury record to demonstrate that all the planning and processes we have in place show results in the

workplace. This involved participation from everyone in the company through a perception survey completed over the summer of 2017. This survey helped the award committee to see that Kenaidan's commitment to safety is real. It is something felt and believed in at all levels of the organization.

"This award recognizes the efforts of all employees in promoting and embracing a strong health and safety culture within Kenaidan." said David Kirkland, Kenaidan's President.

This award truly does belong to all members of Team Kenaidan – from the field workers to the President, everyone's efforts contributed to us receiving this award.

Since its inception, Kenaidan has continued to be a leader in the construction industry with a focus on building a strong health and safety culture. From the types of projects we pursue, the partnerships we form, our commitment to the quality of our work, and the safety of our employees.

Thank you Team Kenaidan for your ongoing commitment and dedication. As 2018 begins, we want to build on this great momentum as we continue to push further and strive for gold!

Guildwood GO Station – New Building & Platform Rehabilitation

PROJECT UPDATE

Project Requirements

The Guildwood GO Station is located in the historic Guildwood neighbourhood of Scarborough, Ontario and provides rail services to GO Transit passengers travelling on the Lakeshore East Corridor between Union Station and Oshawa. It is also a stop for VIA Rail passengers travelling between Toronto, Ottawa, and Montreal.

The upgraded facility will consist of:

- A new and expanded station building
- Rehabilitation of both train platforms
- Two pre-cast pedestrian tunnels with elevator and stair access at each end
- Snow melting system
- Canopies with integrated heated shelters
- Fare systems
- Utility building
- Storm drainage and structures
- LED lighting
- CCTV & PA systems
- North and south surface parking lot improvements

These upgrades will support two-way, all-day service for GO Transit patrons on non-shared, dedicated tracks by including provisions for the addition of a fourth track. The station, designed to achieve LEED Silver certification, has remained fully operational throughout construction.

Construction began in January 2016 with the east phase of construction reaching a milestone on September 11th, 2017, allowing station patrons to utilize a new tunnel entrance, two new elevators and associated platform, stairs, and shelters. Installation of the snow-melting system for the east half of both platforms is also complete. The HVAC, controls, sump pumps, and boiler room for this phase of the project are currently in progress.

Prior to this milestone, the project team successfully completed two 53-hour weekend shutdowns in July and August 2016 to remove the existing railway tracks and install pre-cast tunnel segments as part of the overall tunnel construction.

By December 2017, the station building was weather tight. Underground drainage and mechanical rough-ins inside the station building and west tunnel are in progress. Once completed, the west tunnel will connect the new station building to the platform with elevator and stair access at each end for a fully renovated platform. Work is anticipated to be completed by fall 2018.

Kenaidan is self-performing 5,131 m³ of concrete, 14,049 m² of formwork, and various mechanical installations.



Project Scope

Contract Services: Unit Rate Contract

Concrete: 5,131 m³

Formwork: 14,049 m²

Design Features:

- LEED Silver certification
- New station building servicing Metrolinx and VIA Rail patrons
- Installation of pre-cast tunnel segments coupled with cast-in-place elements for two new patron access points
- Construction of five new elevators
- Installation of new hydro services, gas, and communications for station upgrades
- Parking lot upgrades, including revision to storm sewer system and re-paving of re-configured areas
- Reconstruction of the train platforms includes:
 - Demolition of the north and centre platforms
 - Two stair and elevator buildings for access between tunnels and platforms
 - New curbs and asphalt paving complete with

snow-melting system installation

- Custom and pre-fabricated shelters for patron refuge from the elements

Key Challenges:

- Staged/phased work to maintain unimpeded access for customers; maintain uninterrupted GO Transit, VIA Rail, and freight trains passage at all times
- High daily train volume requiring detailed coordination and consideration for track safety
- Shoring work completed during nightshifts and weekends has a limited work window due to train operations
- Coordination of two 53-hour continuous shutdowns, complete with track blocks in order to install the two pre-cast pedestrian tunnels. Shutdown work included:
 - Removal of existing tracks
 - Excavation to founding elevation
 - Pre-cast tunnel component installation
 - Backfilling and track rail installation

Roles & Responsibilities

Owner: Metrolinx

Prime Consultant: WSP Canada Inc.

Excavation & Backfilling: H&S Heavy Equipment

Caisson Wall Shoring System & Platform Caissons: Blackrock Foundation Solutions Inc.

Formwork & Concrete Finishing: Kenaidan Contracting Ltd.

Concrete Placing & Finishing: Patterned Concrete Ontario Inc.

Concrete Supply: Ontario Redimix, A Division of CRH (Canada) Inc.

Precast Tunnel Supply: Armtec Limited Partnership (by its General Partner, Armtec Holdings Limited)

Reinforcing Steel: Gilbert Steel Limited

Steel Grillage & Concrete Precast Tunnel

Installation: Western Mechanical Electrical Millwright Services Ltd.

Waterproofing: Bothwell-Accurate Co. Inc.

Exterior Soffit, Metal Siding, Composite Panels: Exterior Wall Systems Limited, carrying on business as Ontario Panelization

Electrical: Duplex Electrical Ltd.

CCTV System: Quinn Digital Asset Protection Inc.

Structural Steel & Metals: Akal Steel (2005) Inc.

Miscellaneous & Metal Fabrications: Architectural Metalcraft Industries Limited

Mechanical Contractor: Kenaidan Contracting Ltd.

HVAC Contractor: Black & McDonald Limited

HVAC Equipment & Controls: HTS Engineering Ltd.

Team Kenaidan

Project Director: Ian Smith

Site Supervisor: Scott Brazeau

Mechanical Project Manager: Donny DiZio

Assistant Project Manager: Andy McLellan

Project Engineers: Zainab Heddokheel, Jeff Mottashed, Courtney Quinton, Erik Baker (Mechanical)

Foremen: Byron Estrada, Jacek Schabowski, Chris Cormier, Rubin Intia (Mechanical)

Project Administrator: Elisa Lui

Estimator: James Smith

Health & Safety Advisor: Geoff Bernardi

Duffin Creek WPCP Stages 1 & 2 Influent Pump Station and Headworks

RECENTLY COMPLETED

Greg Stack Retires

OUR MESSAGE



Having fun in San Francisco, 2008

After nearly 35 years with Kenaidan, Greg Stack retired on January 31st, 2018.

Greg attended York University with Kenaidan's founders Aidan and Ken in the mid 1970's. This was when the company first started as a snow removal service, and Greg subcontracted work from them plowing snow for a few seasons. After graduating, Greg went on to work for a brief period in the land development and insurance industries,

until a recession hit and he found himself unemployed. Needing to get back into the workforce quickly, he approached Aidan looking for some temporary work until he found his next career opportunity. In 1983 he began work on his first project, a concrete restoration contract at an apartment building in North York, where he worked as a labourer. Little did he know that his career had started.

Obviously, he ended up staying with the company on a permanent basis and eventually moved into the office to perform the functions of an Estimator/Project Manager. Coming in at the ground level at that time, with the company being very small and with no one having previous general contracting experience, meant that everyone had to learn and gain experience very quickly. Back then, if you were successful estimating the project, you automatically became the Project Manager.

After several successful years working as a Project Manager, Greg assumed the responsibility of Vice President, Business Development and Design Build. Since 1987, he has been an esteemed member of the executive management committee and involved in several aspects of the business operations at Kenaidan.

As Vice President, Greg was responsible for marketing, business development, and the Quality Services department. His contributions were integral to our success and the continuity of our strong brand. He championed Kenaidan's Quality Management System and its registration and maintenance to the ISO 9001 in 2000, and then the OHSAS 18001, and ISO 14001 standards.

In 1988, Greg was involved in our first corporate design build project, and became responsible for the company's design build portfolio since that time.

In 1996, one of Kenaidan's founders, Ken Smith, passed away. This was a watershed moment for the company having to deal with the shock of Ken's sudden death and continue to build on the successes that had been realized to that point. This is when employee ownership was initiated at Kenaidan, which assisted in laying the roots for continued growth. Along with others, Greg became a shareholder, a moment in time that he remembers with pride.

Greg has also been known for his enthusiastic commitment to fitness and has participated in every company triathlon (5k run, 10k bike, 5k row) for the past 25 years. He placed first an incredible 22 times – an inspirational record that we are sure will be long-standing.

"For the past 35 years, we have benefited from Greg's hard work and leadership; he has been a valuable asset to help make Kenaidan what we are today. We are all saddened to see him go, but we are confident that he will find the same success and happiness in retirement that he experienced here at Kenaidan," said Aidan Flatley, co-founder of Kenaidan.

"When Greg first joined the company in 1983, we were a small and inexperienced group. Slowly and together, we built on our knowledge, adapted to market changes, and persevered through many challenges. This shared growth experience created a unique working environment and established strong working bonds, as well as friendships. I'm glad to have worked alongside Greg for the past 35 years, and happy to call him a friend. I wish him all the best as he starts a new chapter in his life."

Friends, family, and colleagues gathered on February 7th to celebrate Greg's career and thank him for his many years of service and dedication. Over these years, Greg also contributed to Kenaidan's growth and success through mentorship to our Leadership College Students as well as members of the leadership team.

"I am grateful to have spent the past 35 years with this great company, Kenaidan is an amazing place. I am deeply honoured to have had the opportunity to work with so many wonderful people and am very proud of what I have accomplished here, both the successes and challenges," said Greg. *"It's now time to move on and transfer Kenaidan's helm to a new generation of leadership. I strongly believe in our future success."*

Although we all will miss Greg, he now deserves time for family and to pursue personal interests. It is with tremendous gratitude and admiration that we bid a fond farewell to Greg and we wish him all the best for his retirement.



Shaun London, Dave McDonald, Greg Stack, and James Stack at Kenaidan's 2014 Golf Tournament



Aidan Flatley presenting Greg with his 25-year Service Award in 2008



Greg with friends, family, and colleagues at his retirement celebration

Kenaidan Contributes to Innovation Award

POINT OF INTEREST

The Ontario Public Works Association (OPWA) recently presented York Region with the 2017 Technical Innovation Award for the West Richmond Hill (East Vaughan) Pumping Station and Watermain Project. Consulting Engineers and General Contractors involved with the project were recognized for their contributions. Kenaidan was responsible for construction of the pumping station and re-chloramination facility. Our team was recognized for collaborative development of the dewatering and shoring scheme.

Based on site conditions and experience, Kenaidan and our shoring and dewatering subcontractors proposed alternative methods to address high ground levels and uplift pressures. This provided for a shallower, 15 m caisson system and reduced 3 m thick concrete base which acted as a plug to seal groundwater seepage. These measures minimized the shoring depth, and reduced the sub-base thickness and excavated soil. Shallower depths also dramatically reduced dewatering gravities by more than 50%, a positive environmental benefit.

Congratulations to those who participated on this project and for making this award possible for the Region.



Our Company, Our People

ROAMING PHOTOGRAPHER



Back row (L to R): Mark Felix, Mike Boutilier, Prez Wisniowski, Ken Henning, Chris Cormier, Jonathan Peyton Middle: Jason King, Andy McLellan, Jacek Schabowski, Courtney Quinton, Jamie LaRoque, Rob Gagnon, Jeff Mottashed, Alan Macleod, Erik Baker Front: Zainab Heddokheel, Manuel Gutierrez, Byron Estrada, Scott Brazeau, Jan Wisniowski



Congratulations to the 2017 Leadership College Graduates!

(L to R): Zainab Heddokheel, Jeff Mottashed, and Alex Maini.

They completed their three-year program of study at the end of 2017, and were recognized on January 12th, 2018 at a ceremony held at our Head Office. This is the ninth graduating class since the college started in 2005.



Starting bright and early on December 15th, 2017, the Guildwood GO Station project team held a customer appreciation event outside of the east tunnel entrance. The event was to mark operation of the eastern half of the new station complex and to thank the patrons for their patience during construction. Along with Kenaidan staff, WSP, and several members of Metrolinx Senior Management Team, and Mitzie Hunter, MPP Scarborough-Guildwood attended.

Kenaidan Welcomes

David Rock, Construction Manager
Eliza Morra, Project Engineer

Upcoming Events

Kenaidan's Annual Triathlon,
April 19th & 20th, 2018

Congratulations To

John Goffredo on his promotion to Executive Vice President
Ian Smith on his promotion to Vice President Business Development
Shaun London on his promotion to Director, Business Development
Jesse House on his promotion to Chief Estimator
Orlando Gutierrez on obtaining his P.Eng designation
James Parco on obtaining his Gold Seal Certification for Mechanical Project Manager
Samuel Livingstone on obtaining his Canadian Registered Safety Professional designation
Madelaine Gallagher on obtaining her National Construction Safety Officer designation
Byron Estrada on obtaining his Red Seal Journeyman Construction Craft Worker Certification and on his promotion to Labour Foreman
Simon Kirkland on his promotion to Assistant Project Manager
Yvette Young on obtaining her Gold Seal Certification for Estimator
Acer Almassraf on obtaining his P.Eng designation
Anthony Clarke on his promotion to Mechanical Foreman

Corporate Donations

Kenaidan recently made donations to:

- Mackenzie Health Foundation
- CanadaHelps
- The Safehaven Project for Community Living
- Kids Up Front Foundation

Charitable Matching Program

Kenaidan has recently matched employee donations to the following charities:

- Movember Canada

Contributing Editors:

Samuel Livingstone	Andy McLellan
Ian Smith	Donny DiZio
Nick Sule	Marisa Nardini
Patricia Pereira	Andrea Howson
Ben Alves	



Kenaidan's 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



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