APEY

Association of Professional Engineers of Yukon

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SPRING 2013

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Outgoing President's Message

I am very proud of the progress of the Association of Professional Engineers of Yukon (APEY) in the past 24 months. I believe that we have solidified APEY to a point where we are now performing more of the responsibilities that we are mandated to perform. The effort to get to this stage has been a result of excellent leadership from Past Presidents and Councils having taken APEY from a relatively small organization to an organization that I believe all Yukon Engineers can be proud of.

That said, our most recent internal Strategic Planning Review indicated some areas where we still need attention. Those focus items as prepared for Council reviews are:

Internal Governance

- Review internal governance model in an attempt for Council to become more efficient.
- Executive position succession method improvement
- Registrar succession and Deputy Registrar position to be designed and implemented
- Volunteer levels - need to somehow improve.

Standards

- Need to seriously get started on analysis of what this may entail

Public Profile

- Need to increase and better support outreach programs

Continuing Professional Development

- More activities
- Need resources, staff and volunteers

- Need better monitoring and use of membership reporting of CPD hours

The new council will be reviewing these ideas and move forward as they see fit.

The success of the organization is mostly due to the hard work of Council, Staff, Officers, Committee members and other volunteers, some of whom are named below:

Our APEY Staff are performing at a consistently high level so APEY day to day is in good hands.
Executive Director – Laura Markle
Registration/Accounting – Kim King

Our APEY Officers are rock solid and have performed their duties at the highest level.
Registrar – Richard Trimble, PEng, FEC
Secretary/Treasurer – Chris Dixon, PEng
Engineers Canada Director – Catherine Harwood, PEng, FEC

The various committees and their chairs or representatives are:
Audit– Elden Pfeiffer, PEng
Awards – Ryan Martin, PEng
Board of Examiners –Richard Trimble, PEng, FEC
Bridge Building – Catherine Harwood, PEng, FEC
Communication – Chris Dixon, PEng (incoming Jon Dixon, PEng)
Continuing Professional Development – Rod Savoie, PEng
Discipline – Phil Borgel, PEng
History Task Force – Jack Cable, PEng
Nomination – Ryan Martin, PEng
Social – Sarah Sternbergh, PEng
Women in Engineering Advisory Group Representative (EC) – Katie Munroe, PEng

Last year was a transitional year where we had many new faces on staff and as officers. I can report that due to the high caliber of those people the transition was essentially without a bump. As well many of our committee chairs have continued on so all in all the year was very steady and productive.

This year there will also be a somewhat smaller transition. The transitions are; end of my 2 year term as President, Ryan Martin's term as Past President, Paul Murchison term as Vice President and the end of the 2 terms of Councillors Dick Stilwell and Kirn Dhillon. However, that said, our Nomination Committee has put form a slate of excellent candidates with experience with APEY. I believe that APEY will be in excellent hands.

I would like to note Ryan Martin's leaving Council. Ryan has been a stalwart of Council for many years and his calm voice and good reason at the Council table will be sorely missed.

I wish to thank Paul Murchison for his work as VP during my tenure. Paul has been a fully participating VP and we wish him success in his new role as Director of Transportation Engineering.
As well we will be losing Councillor Dick Stilwell. His contributions at Council, his efforts and volunteer time certainly are an example for future Councillors.

While Kirn Dhillon is at the end of his term, he is kindly offered to run for a second term so we look forward to having him contribute to APEY for the next 2 year.

I believe that APEY is near where I had hoped it would be at the end of my term as President and we have accomplished the following:

- Executive Director position now full time giving APEY a significant increase in staff resources.
- Act Review being driven by the involvement of Geoscientists has been shelved; this was a drag on the organization dating back to 2000.
- Strategic Planning was implemented and forms a part of our governance.
- Discipline committee is fully functional and has the flushed out and published guidelines under which to handle complaints; as well the roles and guidelines for Council and the Registrar are also completely flushed out.
- Discipline Committee membership has been increased to be a level where there are sufficient members in waiting to handle a discipline case
- Council now sets the budget and does so at the appropriate time of year.
- Council has the responsibility to set the level of the membership dues; this allows Council to function in the best interests of the organization; however dues have yet to be increased due to council use of an unnecessary high level of reserve funds.
- Increased involvement in outreach; we are now participating annually in the Yukon's Remembrance Day Ceremony and the National Day of Remembrance and Action on Violence Against Women (1989 École Polytechnique).
- Historic Committee is generating significant historic documents and publications which enhance APEY as an organization while preserving our past accomplishments.
- There has been an increased focus of the organization on domestic issues while maintaining an appropriate level of involvement in Engineers Canada.
- New solid replacements made in key positions have been done successfully, being Executive Director, Secretary/Treasurer, Engineers Canada Director and now we have an excellent slate for incoming Executive and Council positions.

These good things have happened to APEY

largely due to the many wonderful and committed volunteers. Having so many good voices at the table makes it difficult to make mistakes. I urge all members to find the time to volunteer to this organization as it is very rewarding. As well, my term has been a real pleasure. I have enjoyed working with all of the Staff, Officers, Councillors and volunteers.

I thank all of members of APEY for their faith in me and I hope that I lived up to your expectations. As Past President I intend to make the effort to assist the new Council as well as my Past President Ryan Martin has assisted me.

Carl Friesen, PEng

Incoming President's Message

As the incoming President of APEY my goal is to build on all the good work that has been achieved over the last 24 months under Carl's term of duty. As a very brief update, I am pleased to advise that the Strategic Plan that was developed by the last Council has recently been adopted. The plan sets out goals and objectives for Council to work toward. A clean copy is being finalized and will be sent electronically to members. Council continues its work to support Engineers Canada's Canadian Framework on Licensure (CFL). This initiative is developing best practice guidelines as a tool for all Canadian Engineering Associations to utilize for such issues as CPD, code of ethics, complaints, investigations and discipline.

APEY is fortunate to have many active committees and a task force. Volunteers are the backbone of APEY and without these dedicated members we simply could not offer all the services that we are currently able to. We have been very fortunate over the years to have many long-serving volunteers on Council and committees however, the need remains and we continue to seek new committee members. Joining a committee is an excellent opportunity to connect with other members of the Association and also serves as learning and professional development opportunity.

At this time, APEY is especially in need of volunteers for the Communications Committee, the CPD Committee and the newly created Outreach Committee. I encourage you to consider joining one of these committees. For information about the committee or to volunteer, please contact:

- **Communication – Jon Dixon, Acting Chair jdixon@eba.ca**
- **Continuing Professional Development – Geoff Quinsey, Geoff.quinsey@stantec.ca**
- **Outreach – Katie Munroe, Acting Chair Katie.munroe@gov.yk.ca**

In the upcoming year I look forward to carrying on the tradition of excellent leadership through working with Staff; Council, Committees and Members in fulfillment of APEY goals with the result being an association that all Yukon Engineers can be proud of.

Brian Crist, P. Eng. - President APEY (2013-14)

CLOSING THE LOOP ON Roundabouts

It's a debate that goes in circles. Does Whitehorse need roundabouts, or why not?

Whitehorse now has nine roundabouts, with more planned in the future. They are part of the City's broader concern with calming traffic, improving accessibility for all, and providing safe streets that accommodate all types of users.

Some citizens are vocally opposed to circular intersections because they claim they are expensive and dangerous. In fact, cost and safety are two of the main benefits of roundabouts.

The key characteristics of roundabouts are that they slow down traffic while enabling traffic to keep flowing in all directions.

Because of the slower speeds, roundabouts will reduce the frequency and severity of vehicle crashes. This increases safety for motorists. It also increases safety for pedestrians and cyclists. Roundabouts allow bicycles to enter the flow of traffic safely. For pedestrians, slower vehicles make crossing safer, but in addition, roundabouts narrow the distances to be crossed, often through the use of refuges midway through the crossing.

Roundabouts are also beneficial because they reduce traffic delays while increasing capacity. Conventional intersections typically stop traffic in at least one direction at a time while roundabouts keep traffic moving and avoid unnecessary stops.

Constantly moving traffic not only reduces delays, it reduces the pollution associated with stopping, idling, starting, and accelerating. This can benefit both the environment, and the motorist who sees better fuel efficiency.

Finally, roundabouts have few operational costs unlike conventional signal-controlled intersections which require electricity and maintenance.

Perhaps the biggest barrier to the success of roundabouts is driver education and awareness. If the operation of roundabouts is not understood, their benefits may be overshadowed by other problems such as drivers who elect to stop when stopping is not required.

streets. As well, if you hear an emergency vehicle approaching, do not stop inside the roundabout: proceed through and stop once you are through the circle.

So, drivers of Whitehorse: SLOW down and smell the roses. They're right there, in the centre of the roundabout.

The key principle to remember is that vehicles already in the roundabout have the right-of-way. SLOW down as you approach the intersection and watch also for pedestrians and cyclists. Yield to vehicles already in the circle, but not to vehicles approaching the circle. Yield to cyclists who may join in the travel lane with vehicles. Enter the circle when safe, and use your right signal light before exiting the circle.

If you have to stop your vehicle because of traffic congestion, do not block the use of the round-about lanes by vehicles coming in from the side

For more information on roundabouts, visit www.whitehorse.ca/roundabouts.

The BC Ministry of Transportation also has an excellent web site on round-abouts: http://www.th.gov.bc.ca/roundabouts/.

CPD UPDATE

Continuing Professional Development

The CPD committee is happy to report a successful start to 2013. On March 26th, ahead of the APEY AGM, Robert Goatham of Calleam Consulting Ltd. delivered his project management master class: "Why Projects Fail". We are looking forward to the presentation of this summer's educational opportunities.

We are always happy to receive suggestions for CPD events. We typically focus on events with a broad appeal across the membership, but we are interested in producing specialized courses too. What event would you like to see?

Coming-Up Soon: Summer is the busiest season for our membership. We have some exciting short-term offerings, and will be following-up with a busy fall.

Short Course: In late April or early May, we intend to offer a short course presentation (approximately 3 hours) on LiDAR and its benefits to civil and mining works. The intent is to open this up beyond the APEY membership. The date and location will be confirmed as soon as possible.

Lunch-and-Learn: We are expecting a short presentation on geomatics . To be confirmed.

Culvert Design: We are developing a significant event in the fall on this subject and will be soliciting interest from our membership as well as others to test the economic feasibility.

Engineers Canada Continuing Competence Committee – The APEY CPD committee will again partake in a meeting in May/June of this Engineers Canada committee and report back to council.

Have an idea for a CPD event? Want to join the committee?

Please don't hesitate to contact us:

The CPD Committee is:

Rod Savoie - Rod.Savoie@stantec.com

Paul Murchison - Paul.Murchison@gov.yk.ca

Geoff Quinsey – gquinsey@gmail.com

APEY office contact for CPD events:

Kim King - staff@apey.yk.ca

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ENGINEERS CANADA NAMES KARAKATSANIS 2012/2013 PRESIDENT

Engineers Canada is pleased to announce the election of Catherine Karakatsanis, M.E.Sc., FEC, FCAE, P.Eng., as its president for 2012-2013. Ms. Karakatsanis will lead the Engineers Canada Board as it works with the engineering profession's constituent associations across Canada, representing the over 250,000 members of the engineering profession. Engineers Canada will continue collaborating with the profession's leadership to build a stronger engineering profession and to increase Canadian's awareness of the role of engineering and engineers in society.

Ms. Karakatsanis has had a diversified career with extensive engineering and management experience. She joined the consulting engineering and management firm Morrison Hershfield in 1989, and is currently the executive vice-president of the Building, Technology and Energy Global Business Unit and has been a director on the firm's Board since 2005.

Ma. Karakatsanis obtained her undergraduate and master's degree at the University of Western Ontario. She has actively volunteered in the engineering community for over two decades, serving as president and chair of Professional Engineers Ontario and president and chair of the Ontario Society of Professional Engineers. She is currently on the Board of Engineers Without Borders, and strongly believes in the importance of engineering students and young engineers being involved in the profession. She brings her passion for ensuring the next generation of engineers are equipped to face the engineering challenges of the future through her involvement on the Board of the Canadian Engineering Memorial Foundation and as the chair of the University of Western Ontario's Faculty of Engineering Advisory Council.

Catherine Karakatsanis will be joined by the following members of the Executive Committee: President-Elect Jim Beckett, FEC, P.Eng. (APEGA); Past-President Brent Smith, FEC, P.Eng. (Engineers and Geoscientists New Brunswick); Zaki Ghavitian, FIC, ing. (OIQ); Digvir Jayas, FEC, P.Eng. (APEGM); Diane Freeman, FEC, P.Eng. (PEO); and Engineers Canada's Chief Executive Officer Kim Allen FEC, P. Eng. and Chief Operating Officer Marie Carter, FEC, P.Eng. They, along with the other Board directors and advisors, will be supported by the Engineers Canada staff in Ottawa.

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I began thinking about this article as an update on Engineering Canada activities from your Director on the Board. Then I paused and put myself in your shoes, and realized that it might be worthwhile to step back a little and ask myself a couple of questions. Why is Engineers Canada important? What would life be like without Engineers Canada? What is interesting about Engineers Canada and what they are doing right now? How does the work of Engineers Canada affect me?

The original organization that is now known as Engineers Canada was established by Letters Patent. (This has a very impressive ring to it, much better than "Patent Letters", which reminds me of patent leather shoes.)

Without Engineers Canada, there would not be one national body holding the trademark on the words "Professional Engineer" and "engineering" in Canada. Perhaps without realizing it in our day-to-day lives, we are fortunate to have our "brand" protected from possible dilution of the understanding of and value inherent in the word "engineering".

Without Engineers Canada it is difficult to imagine who would take care of national accreditation of engineering degrees. Engineers Canada's accreditation program is robust, flexible and cost-effective (mainly fuelled by volunteer work). Without the accreditation program engineers would have no certainty of consistent quality of engineering degrees across the country. It might negatively affect national mobility.

Without Engineers Canada there would be no single presence at the federal level to represent the engineering perspective on Canadian infrastructure and immigration of foreign-trained engineers.

Without Engineers Canada there would be no Canadian Framework for Licensure (CFL). The CFL allows provinces and territories to move towards a common approach to licencing as they see fit and at their own pace. The CFL provides guidance about how to licence professional engineers. This guidance has been researched and vetted among all associations before being presented to the country for voluntary adoption. This framework exists in the absence of a national licence, or a model Act for associations to follow.

Ongoing challenges for Engineers Canada include addressing its relevance and importance to its members (the provincial and territorial associations) and engineers across Canada.

Engineers Canada also continually looks at ensur-

ing an appropriate focus of its activities.

In addition, Engineers Canada is continually responding to the changing world in a pro-active and timely way.

All of the above challenges are reflected in the work that Engineers Canada is doing to overhaul its policies and improve its internal governance methods.

I am proud to be APEY's representative and a Director of the Board of Engineers Canada. The work is interesting and challenging. The staff and volunteers of Engineers Canada are committed and skilled, as we would expect from Professional Engineers!

If you have any questions about Engineers Canada, please send them to me, care of APEY, and I will do my best to answer them. If they are of general interest, I may address them in the next APEY newsletter.

Catherine Harwood, FEC, P.Eng.

DISCIPLINE

Discipline Committee Update

Last fall Jack Cable P. Eng. stepped down as Chair of the Discipline Committee. The committee's Vice-Chair, Phil Borgel, P. Eng. was appointed by Council for a three year term as the new Chair.

Bruce Underhill, former APEY Executive Director, was appointed for a three year term as Vice-Chair of the Discipline Committee. Jack Cable, P. Eng., will continue to be a committee member along with Gord deBruyn, P. Eng. Catherine Harwood FEC, P. Eng., Tim Koepke, P. Eng. and John Maissan, P. Eng.

Borgel, Trimble Earn Queen Elizabeth Diamond Jubilee Commemorative Medals

The Queen Elizabeth Diamond Jubilee commemorative medal was created to mark the 2012 celebrations of the 60th anniversary of Her Majesty Queen Elizabeth II's accession to the Throne as Queen of Canada. The Queen Elizabeth II Diamond Jubilee Medal is a way for Canada to honour Her Majesty for her service to this country, while it also serves to honour significant contributions and achievements by Canadians. The Queen Elizabeth II Diamond Jubilee Medal was a way to recognize outstanding Canadians of all ages and from all walks of life, who have built and continue

to build this caring society and country through their service and achievements. During the year of celebrations, 60,000 deserving Canadians were recognized; including two local engineers and APEY members.

Engineers Canada invited APEY to provide two nominations for this medal to be presented to deserving recipients nominated by the professional engineering associations across Canada. Following a nomination and selection process, APEY council nominated two of our members to receive this prestigious medal: Mr. Richard Trimble, P.Eng., FEC and Mr. Phil Borgel, P.Eng. A brief description of each of our recipients' contributions to the engineering profession and community are provided below.

Richard Trimble's volunteering experience related to the Engineering Profession includes: APEY Registrar/ Board of Examiners Chair (14 years); as well as VP/President/Past President/Councillor/ and Committee member. Richard also founded the Consulting Engineers of Yukon. Other volunteer experience includes Yukon minor soccer (20 years). Richard twice received Sport Yukon Volunteer Award.

Phil Borgel has served our profession through volunteering of his time on the APEY Bridge Building Committee (11 years), Discipline Committee (4 years), and Council (2 years). He has also previously taken on leadership roles in his Church, community association, and has volunteered for Heart and Stroke campaigns, and Habitat for Humanity.

Richard and Phil were presented the Diamond Jubilee Awards by the Commissioner of Yukon at the New Year's Day Levee in front of the community, their friends, family and colleagues, where this award and several other public service awards were presented. They were among about 30 other Yukoners to be presented this award. Congratulations and thanks to Richard and Phil for their years of service to our profession and the community.

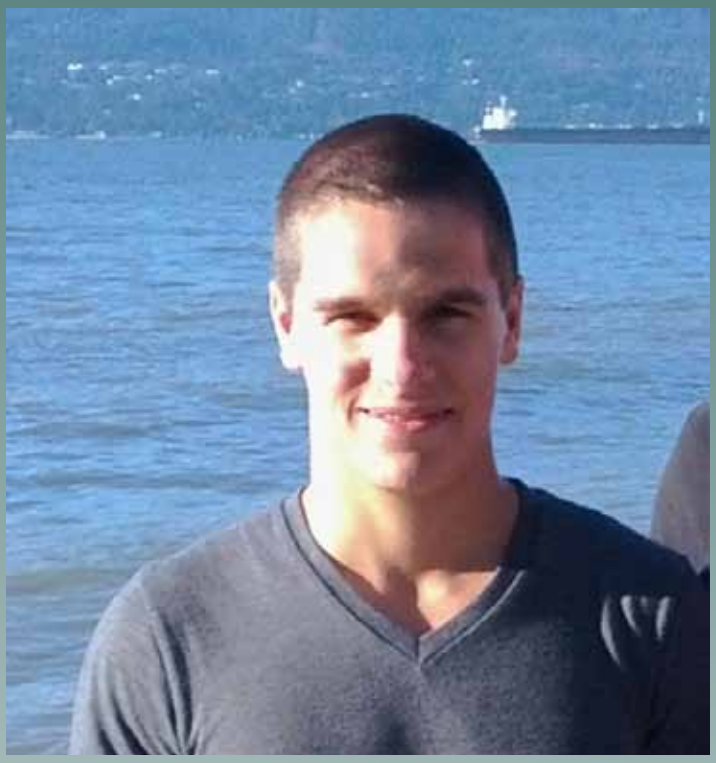
APEY Community Outreach Update

APEY participated in the November 11 Remembrance Day ceremony organized by the Royal Canadian Legion 254. The ceremony was held at the Canada Games Centre. APEY President Carl Friesen laid a wreath on behalf of the Association.

Members of Council also participated in the National Day of Remembrance marking the 23rd anniversary of the murder of 14 female engineering students at École Polytechnique in Montreal.

APEY EDUCATION

APEY Education Award Recipients



Robin Stacey,
Recipient of Jim Y.C. Quong Memorial Award Recipient

Ryan O'Donovan,
John D. Scott Memorial Award Recipient

Each year, APEY presents up to two Education Awards to Yukon students entering into the second, third or fourth year of a Canadian Engineering Accreditation Board approved university engineering program. These awards are named in the memory of two important engineers in Yukon history; and include a monetary award of $2,000 to assist the recipient student with their school expenses. APEY is pleased to announce that the 2012 John D. Scott Memorial Educational Award and the Jim Y.C. Quong Memorial Educational Award were presented to two outstanding Yukon engineering students: Robin Stacey (Jim Y.C. Quong Memorial Award) and Ryan O'Donovan (John D. Scott Memorial Award).

Robin is a Civil Engineering student at Thompson Rivers University in Kamloops and Ryan is a Building Engineering student at Concordia University in Montreal. These students, and others like them, represent a bright future for the engineering profession here in the Yukon. For information about the annual APEY Educational Awards visit the APEY website at apey.yk.ca.

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BIOGRAPHY:
Biography

ENGINEERS CANADA CEO, KIM ALLEN, FEC, P. ENG.

Kim Allen, FEC, P.Eng., is chief executive officer of Engineers Canada, the national organization of the 12 provincial and territorial regulatory associations that license the country's professional engineers. One of Mr. Allen's top priorities is to enhance collaboration between Engineers Canada and its constituent associations, governments and other organizations. He recognizes Engineers Canada's unique opportunity to make a difference for both the profession and society through the development and implementation of innovative policies and programs.

Mr. Allen was the chief executive officer and registrar of Professional Engineers Ontario for nearly a decade. He also has twenty-years of accomplishment as a chief executive in the public, private and association sectors. A past member of the Ontario Minister of Citizenship and Immigrations Roundtable; director with Yves Laundry Foundation; and chair of the Licensing and Occupations Bridging Working Group of the Toronto Region Immigrant Employment Council, Mr. Allen currently sits on the boards of the Certified Management Accountants, Ontario Energy Network and the Fairness Commissioner's Advisory Committee.

A University of Ottawa electrical engineering graduate, Mr. Allen holds a master of business administration from the University of Toronto's Rotman Business School.

REGISTRAR'S REPORT

Registrar's Report

P. ENG.

Saad Abassi
Irshad Ahmad
Steven Aiken
Todd Baker
Lawrence Benjamin
Gerd Birkle
Joseph Bogdanic
Hans Boge
Steven Bonder
Jaime Cathcart
Michael Chin
Raymond Chin
Sylvain Cote
Mathieu Courchesne
Andrew Crosson
Mickey Davachi
Louis De Lange
Simeon Dee
Lorenzo Dimalanta
Corry Edgar
Mark Epp
Alexander Evans
James Ewert
Daniel Frank
Mario Gignac
Amy Gill
Brian Granfield
Phat Han
James Heninger
Rhonda Hewko
Stephen Horsman
Charles Hunt
Johan Kerkhoff

Branden Kidd
Nadine King
Alessandro Kodama
Graham Lancaster
Clement Larouche
Barry Laviolette
Mark Lawton
Yanhua (Joe) Liu
David Lokhorst
Honman (Steve) Mah
Randall Marks
Corry Martin
Pooya Mohseni
Stuart Nash
Michael Neron
Garry Ng
John-Paul Nywening
Kevin Orpen
Colleen O'Toole
Michael Patterson
Matthew Paznar
Steven Perrett
Rasvan Petanca
Justin Pigage
Caius Priscu
Erin Rainey
Sylvain Raymond
Carlito Redoblado
Karl Reimer
Joanne Slazyk
Ernest (Steve) Sorochan
Andrew Stringer
Humam Tamimi
William Tessler
Atulkumar Thakkar
James Theriault

REGISTRAR'S REPORT

Registrar's Report

P. ENG.

Stanley Timler
Sebastien Tolgyesi
Alan Towers
Tuan Tran
Richard Visscher
Dave Wolfe
Sun Wong
Wilbert Yang
Hai Yong
Shipeng Zheng

EIT

Andrea Badger
Kyle Jansson
Kathleen Jarvis
Jaswinder Kaushal
Alison Maksymchak
John Mooney
Dean Serelo
Brendan Zrum

PERMIT TO PRACTICE

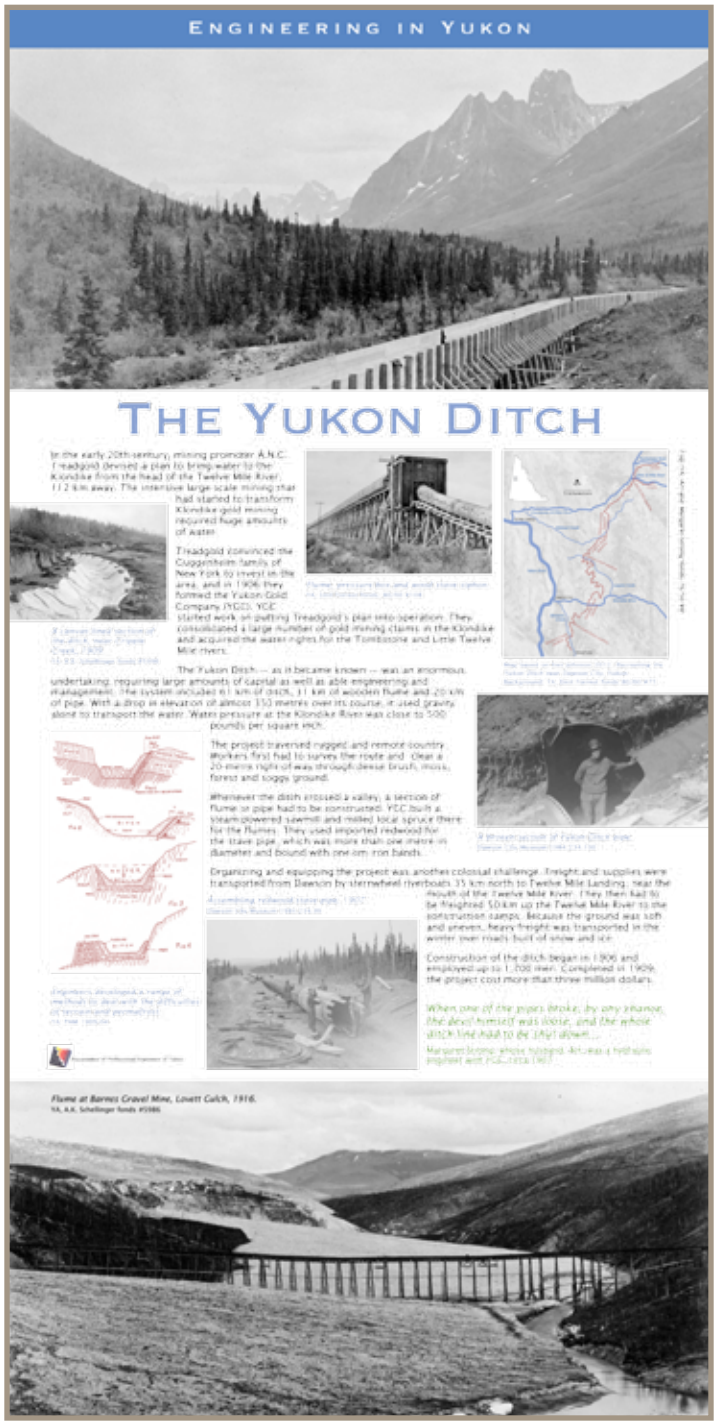
32884 Yukon Inc.
Above Ground Engineering
Alan Towers Engineering Inc.
Argus Consulting, Inc.
Belisle Civil Consulting Inc.
Boge & Boge (1980) Ltd.
Boulevard Transportation Group Ltd.
COH Inc
Delcan Corporation
GECAN, a Division of Canadian Road Builders Inc.
Innovative Civil Constructors Inc.
Jenmar Compressors Inc.
Kidd Structural Solutions Inc.
Laviolette Engineering Ltd.
Minto Explorations Ltd.
Omega Joists - a Div. of The Roll Form Group of Samuel
Pelly Construction Ltd.
Poncho Wilcox Engineering Inc.
Quantum Consulting Engineers, LLC
Quantum Engineering Ltd.
ROV Consulting Inc.
SB Engineering Ltd.
Sonterlan Corporation
Wenck Associates, Inc.
Westman Steel Industries o/a Canada Culvert

HISTORY

History Task Force

The History Task Force recently completed several projects. Thanks to the support of the APEY Council and the Government of Yukon Historic Resources Fund, the Task Force has been able to complete three display panels celebrating Yukon Engineering Achievements, a 30 page photo album of these early works and biographies of five prominent engineers in early Yukon. The first of the three panels, the Yukon Ditch, was on display at the Christmas Social along with the biographies of Ken Baker, Warren McFarland, John Phelps, James Quong, and John Scott. The newest display panels, The Whitehorse Rapids Dam and Keno Silver Mining, were unveiled at the recent AGM.

With renewed support of APEY Council, the History Task Force is continuing to build on the momentum of the previous year. The first of the new projects was an electronic display of Yukon bridge engineering for display at the April 6th Bridge Building Competition. Additional areas of research for 2013 are: early electrical generation in Yukon and the Venus Mine aerial tramway. The Task Force welcomes suggestions from the membership for topics and individuals that celebrate the history of engineering in Yukon.



Keno Silver Mining and Whitehorse Dam panels on next page....

ENGINEERING IN YUKON

KENO SILVER MINING

In 1903 prospector Jake Davidson made an important discovery of silver-lead ore in the Keno area, although a decade elapsed before its potential was realized. In 1913 more than 500 claims were staked, and from the 1920s until the early 1980s the Keno silver mining industry was one of the pillars of the territorial economy.

Mining companies and their engineers had to be resourceful in the face of many challenges. Severe weather included hot summers and cold winters; north-facing slopes had no sun for ten weeks each winter.

Wood for mine timbers and heat had to be hauled up the steep mountainsides and water was frozen much of the year. Permafrost underlay most of the ground.

Because the area was so remote, transportation costs were high. Horses hauled ore in doubled up cut sacks in the early years, but were replaced by caterpillar tractors and trucks. A year's worth of supplies — as well as all ore shipments — had to be shipped via stern-wheelers during the short summer season. In the early years, the ore was handled up to ten times before it reached the smelter.

AERIAL TRAMWAY

ENGINEERING IN YUKON

THE WHITEHORSE DAM

The Whitehorse Rapids hydro-electric facility was built by the Northern Canada Power Commission (NCPC) at a cost of $7.2 million. The project was approved in the summer of 1956, and construction began in November of 1957.

W.I. Lowe, an electrical engineer with the Montreal Engineering Company, designed the facility in 1957 for the company's client, NCPC. In addition to supervising the construction of the dam, Lowe trained the commission's staff to operate the facility.

Poole Construction, which built the facility, employed approximately 80 people on the project. Before construction could begin, timber had to be cleared from 130 hectares surrounding the dam site. Cofferdams were built to divert the river during construction. The dam, 14 metres high, created Schwatka Lake, which is almost ten metres deep and one km wide.

The reinforced concrete spillway was built with two 12-metre openings. These are closed by two large steel gates that are approximately 13 metres deep. The gates were shipped to Whitehorse in 15 ton sections and assembled on site. Each opening allows 762 cubic metres of water per second through the spillway. A smaller regulating gate later became the intake for the fourth wheel.

When it was built, the dam had two 7,500 horsepower turbines, together capable of generating 11.2 megawatts (MW). In 1969 a third turbine was added, which increased the dam's capacity to 20 MW. In 1983 a 20 MW turbine — known as the fourth wheel — doubled the capacity of the plant to 40 MW, at a cost of $14 million.

A fish ladder was required at the dam under the terms of an agreement with the Federal Department of Fisheries. Montreal Engineering Company carried out hydraulic studies to determine the most effective design for the fishway, which diverts migrating salmon away from the dam to reach their spawning grounds upriver.

In 1987 the NCPC assets were purchased by the Government of Yukon. The government then created the Yukon Energy Corporation to manage the assets on its behalf.

ASSOCIATION OF PROFESSIONAL ENGINEERS OF YUKON

APEY SOCIAL

Social Committee Update

APEY Best Ball Tournament

APEY hosted a summer social consisting of a best ball golf tournament and steak dinner on August 22, 2012 at the Meadow Lakes Golf Course.

Thanks to Kirn Dhillon for organizing and hosting the tournament during the busy summer season.

A total of about 30 people came out for the golf tournament.

COMMUNITY

Community Outreach

2012 Volunteer & Career Fair

In October APEY hosted a table at the Volunteer and Career Fair that was held at the Kwanlin Dun Cultural Centre. Several members volunteered their time to promote the engineering profession.

Thank you to Phil Borgel, Carol Campbell, Tim Green, Kim King, Allen Lee, Cathy MacDonald, Laura Markle, Ryan Martin, Paul Murchison, Sandra Orban, John Streicker, Rod Savoi, Zoe Friesen and Carl Friesen for the use of his truck.

Top, right photo: **Carol Campbell, P.Eng. at the APEY Career Fair table**

Middle, left photo: **Carol Campbell, P.Eng., Ryan Martin P.Eng. and John Streicker, P.Eng.**

Bottom, right photo: **Paul Murchison P.Eng. and Rod Savoie, P.Eng.**

APEY SOCIAL

Social Committee Update

APEY Christmas Social

The 2012 Christmas Social occurred November 22, 2012 at the Mount MacIntyre Recreation Facility.

Special thanks to Kisa Elmer, Cathy MacDonald and Kathleen Jarvis for their assistance in putting this together.

Annual General Meeting Photos 2013

Cord Hamilton, FEC, P.Eng. presenting to the out-going Past President Ryan Martin, P.Eng. with a plaque in appreciation of his 6 years on Council.

Leah Lawrence, P.Eng. APEGA President

Brian Crist, P.Eng., incoming President addresses the AGM after his election. Seated on the left is Rod Savoie, P.Eng., incoming Vice-President and on the right is Carl Friesen, P.Eng., out-going President.

Carl Friesen, P.Eng. thanking out-going Vice President Paul Murchison, P.Eng. for his two years on Council.

Kim Allen, P.Eng. CEO Engineers Canada (centre) attended the APEY AGM.

2012-13 Councillors L-R: Drew Pearson (public member), Jon Dixon, P. Eng., Ryan Martin, P. Eng., Kirn Dhillon, P. Eng. and Yesh Sharma L.L.(Eng.)