

The **CONSTRUCTOR** 2007

Featuring projects in
The Heart of the New West



Official publication of the
Calgary Construction Association

The CONSTRUCTOR

2007

- 6 CCA 2007 EXECUTIVE
- 7 CCA 2007 BOARD OF DIRECTORS
- 11 TAKE GOOD CARE
Calgary's major health care facilities are experiencing multi-million dollar renovations
- 25 CHILD DEVELOPMENT RESEARCH CENTRE
To be a nurturing, child-friendly environment
- 26 TO DUMP, OR NOT TO DUMP?
Construction waste comes of age in Calgary
- 32 ON THE TRAIL TO A RING ROAD
A ring road for burgeoning Calgary was declared a top priority in 2003
- 36 CCA PRESIDENT'S MESSAGE
Barry Cousins, Arpi's Industries Ltd.
- 38 BOB HILDENBRANDT
CCA salutes the recipient of the 2007 Ted Walden Award
- 40 IS AN "INTERIM CERTIFICATE FOR PAYMENT" EQUIVALENT TO "REAL MONEY"?
W. Donald Goodfellow
- 44 THE CALGARY COURTS CENTRE:
A showcase of efficiency and effective collaboration
- 48 CCA EXECUTIVE VICE PRESIDENT'S MESSAGE
Dave Smith, CCA
- 52 EMPLOYING STRATEGY FOR RECRUITMENT AND RETENTION
Central focus should be retention.
- 55 NEW ON-LINE PLANS ROOM
BENEFITS EVERYONE
COOLNet
- 56 APPRENTICE SHORTAGE A GRAVE, BUT NOT INSURMOUNTABLE, PROBLEM IN ALBERTA
- 61 IT'S NOT JUST A JOB, IT'S A CAREER
YEP gives today's young people a fresh start and the opportunity to turn their job into a lifelong career in construction
- 64 A MADE-IN-ALBERTA APPROACH TO BUILDING SCHOOLS
Public private partnerships
- 68 BIM GETTING HESITANT EMBRACE
- 72 BETTER, FASTER, CHEAPER
CCA and its members team with researchers to improve construction productivity
- 76 CANADIAN CONSTRUCTION ASSOCIATION
Here is what your National Association has done for you lately!
- 78 A NEW ERA DAWNS FOR CALGARY'S CHANGING SKYLINE
Five impressive new projects currently underway will transform the downtown skyline
- 92 NEW RONALD McDONALD HOUSE WELCOMES FAMILIES
- 94 GOLD SEAL CERTIFICATION
- 95 GOLD SEAL CERTIFICATE HOLDERS
- 96 CCA GOLD SEAL CERTIFICATE HOLDERS
- 102 MOVE ON DOWN THE LINE
Calgary expands its Light Rail Transit to meet increased demand
- 108 CCA DOCUMENT PRICE LISTS
- 112 CONSTRUCTION COSTS CLIMB
- 114 CCA ANNUAL CONSTRUCTION PRICE INDEX
- 117 CCA MEMBERSHIP LISTINGS
- 149 ALBERTA CONSTRUCTION ASSOCIATION MESSAGE
Associations serve members in meeting new challenges
- 152 HISTORIC LOUGHEED BUILDING RECAPTURES ITS GLORIOUS PAST
- 154 THE CALGARY WATER CENTRE
Going green to celebrate the worth of water
- 158 AMBROSE UNIVERSITY COLLEGE PROJECT REINFORCES CORE VALUES
- 160 NAKODA ENTERTAINMENT CENTRE
Hi-tech water systems are part of Stoney Nakoda First Nation entertainment centre
- 165 RESIDENTIAL BLOCK TO BE TALLEST IN ALBERTA
A pair of 42-storey residential towers is set to change Calgary's skyline for the better
- 168 DISTINCTIVE SPACE
Freeport Business Condominiums go beyond basic
- 170 THE NEW CCDC 2 INSURANCE PROVISION
- 174 HIGH-SPEED SOIL NAILING PROCESS HONOURED
- 178 FOCUS ON SAFETY IS KEY IN TIMES OF ECONOMIC BOOM
Keeping Calgary's commercial construction work sites safe and sound
- 180 UNDERSTANDING "WITHOUT PREJUDICE" COMMUNICATIONS
- 172 THE DANGERS OF HIRING UNINSURED CONTRACTORS AND SUBCONTRACTORS

Published by:

DEL
Communications Inc.

211 Hespeler Avenue
Winnipeg, Manitoba
Canada R2L 0L5

President
David Langstaff

Publisher
Jason Stefanik

Managing Editor
Katrina A.T. Senyk

Contributing Writers
Dawn Barker
Mark Edwards
Lisa Fattori
John Hurst
Beryl Paintin
Carly Peters
Tom Philp
Mike Stimpson

Sales Manager
Dayna Oulion

Advertising Account Executives
Gary Barrington
Gladwyn Nickel
Arlene Nowicki
Andrew Pattison
Michelle Raike

Production services provided by:
S.G. Bennett Marketing Services
Unit 7, 414 Westmount Drive
Winnipeg, Manitoba R2J 1P2
Tel: (204) 895-2223
www.sgbennett.com

Layout & Design
Kathy Cable

Advertising Art
Debbie Dunmall
Mark Simpson

© Copyright 2007,
DEL Communications Inc.
All rights reserved. The contents of this publication may not be reproduced by any means, in whole or in part, without prior written consent of the publisher.

While every effort has been made to ensure the accuracy of the information contained in and the reliability of the source, the publisher in no way guarantees nor warrants the information and is not responsible for errors, omissions or statements made by advertisers. Opinions and recommendations made by contributors or advertisers are not necessarily those of the publisher, its directors, officers or employees.

Publications mail agreement #40934510
Return undeliverable
Canadian addresses to:
DEL Communications Inc.
211 Hespeler Avenue, Winnipeg, Manitoba
Canada R2L 0L5
Email: david@delcommunications.com

PRINTED IN CANADA

The inaugural CCA magazine titled The CONSTRUCTOR reflects upon the group of settlers that commenced to build Fort Calgary in 1875 to the new era of contractors who have constructed today's impressive structures, a symbol of the City's progress. The members of the Calgary Construction Association are proud of their collective accomplishments in the building of Calgary.

Employing strategy for recruitment and retention

By Dawn M. Barker

The construction field is constantly changing. It makes sense, then, that so too is the process of recruitment and retention evolving.

In an industry where a company's people define its successes or failures, and where the labour market is at a premium, employers are finding themselves having to use creative new ways to attract and keep the caliber of workers they need.

The central focus of a strong business should be retention, says Bob Robinson of Westcor.

"That way, recruiting activities can be limited to address the growth of your business, rather than to fill holes left from unnecessary employee turnover. This becomes even clearer once you factor in all of the tangible and non-tangible costs associated with recruiting a new employee.

"These costs can be five to 10 times more than the cost of retaining an existing employee," he said, citing recruitment and retention expert Dr. Denis Cuvier's statis-

tic that hiring the "wrong" employee can potentially cost a business between \$150,000 and \$350,000.

In order to retain employees, companies must realize that the new generation of workers have a new generation of priorities, more complex and certainly more challenging for employers than the "pay-check and basic benefit plan" that was previously considered standard.

Such priorities may include additional training, a clearly laid out escalation of responsibilities and promotion, a flexible schedule, group RSP plans, mentoring programs, two-way communication and increased feedback, or more company involvement.

Salaried employees with PCL are definitely "involved" – the company, which has been recognized as one of Canada's

top 100 employers and as a platinum member of the 50 Best Private Managed Companies, is 100 per cent employee owned.

"It's a great way to ensure that each employee is doing everything they can to create an efficient and excellent workplace," said Mark Alton, Joint Venture Manager at PCL.

Coram Construction, a company which provides construction craftspeople in western Canada for a number of general contractors, puts a great deal of emphasis on career development for its employees, including career development initiatives and career reviews in which employees are given the chance to provide feedback to the company on their interests, their supervisors and their workplaces. In this way, Coram is able to provide beneficial training to keep workers engaged and retain them for the long term.

Employees are attracted by companies that put their health and safety foremost, therefore the implementation of an encompassing and efficient health and safety program is also crucial to retention.

"It is important to recognize that personal training, career development and growth are key components to help motivate employees," Robinson said.

"Especially with young workforces, this focus on safety shows them the company is concerned with their health and wellbeing," Alton said. "It's definitely a factor for employees in making career choices."

"An example of this is the Alberta Registered Apprenticeship Program. Westcor participates in, and strongly endorses, this as a necessary contribution to help develop tradespeople for the future."

INTER-MAN CANADA
International Human Resources

911
for labour shortage
From Apprentices to Journeymen
WE CAN HELP!

Specialists in Commercial, Residential and
Industrial Construction Industries.

Suite 1010, 833-4th Avenue S.W., Calgary, Alberta T2P 3T5 Canada
Tel: +1 403 532 4850 Fax: +1 403 532 4179
e-mail: Inter-ManCanada@inter-man.com
www.inter-man.com

CALGARY CONSTRUCTION ASSOCIATION
MEMBER

He noted that this program sometimes involves the provision of additional financial support for apprentices as they proceed through the education portion of their apprenticeships.

"The underlying message sent to employees is that you are there to help, when needed, by actively supporting the personal development of your employee's construction career," Robinson said.

Another key enhancement for employees is the process of mentoring, where a company's past experience and values are passed along from veteran workers to newcomers.

Coram encourages mentorship between supervisors, lead hands and newer workers in order to build strong teams with good communications skills who are able to support each other and pass along valuable knowledge. Also, Coram has a 'shadowing' program where new employees follow experienced coworkers, learning about procedures and safety issues.

By being actively involved in industry associations such as the Calgary Construction Association, employers can pass along opportunities such as training, scholarships and networking to their workers, as well as keeping abreast of

changes and additions to regulations, wage trends and innovations in materials and practices.

"Most employees enjoy the aspect of working for a company that operates as a team and encourages family values," Robinson said, whether it as social, supportive, or reward functions.

"Such things as birthday cards, Family Fun Day barbeques, Family Bowling Days, and Employee Night Out are appreciated greatly by employees. Other suggestions are to organize company-wide flu shots, hand out perfect attendance gift certificates, and offer company vehicle buy backs – geared towards the employees that might be struggling with personal finances and can't afford to purchase vehicles through traditional means."

Recognition of important retention "milestone bonus dates" (i.e. 6-month; 1-year) discourage early turnover and allow new employees to develop a pride in, and connection with, their new company, he added.

One avenue of recruiting which should not be ignored is "word of mouth".

"The positive endorsements from 'goodwill ambassadors' (employees) throughout the organization, and eventu-

ally through the local construction industry network, makes recruiting a much easier task," Robinson said.

Blaine Maciborsky, district manager for PCL's southern Alberta region, agrees. "Often, after just a short period of time with us, many of our newer employees who have just recently graduated refer their school mates to us," he said. "Also, PCL's family roots have been embedded into our culture since the inception of our company over 100 years ago by the Poole family. PCL continues to promote family involvement and as PCL continues to grow so has this family involvement."

Of course, given the demographic reality today, with the imminent retirement of baby boomers, it is anticipated that the current labour shortage is to continue for at least 15 years. Companies facing this need may look to Human Resources and Social Development of Canada (HRSDC) has created the Temporary Foreign Workers Program, or seek a qualified recruitment agency to help them find skilled workers from outside of Canada, such as Build Your Work Force (www.buildyourworkforce.ca).

In order to take part in the HRSDC program, employers must first make a dedi-



WESTCOR
CONSTRUCTION LTD.

Construction Management & General Contracting



*New Work & Renovations
Commercial & Retail Projects
Hospitals & Schools
Churches & Recreational Buildings
New Office Space & Build-Outs*

"Quality People ... Producing Quality Projects!"

13, 2010 30th Avenue N.E.
Calgary Alberta T2E 7K9
Email: mail@westcor.net



Phone : (403) 663-8677
Fax: (403) 663-6678
www.westcor.net



cated effort to recruit Canadian workers. The effort should include posting a free ad with the Service Canada JobBank website. Employers who have kept a record of advertising and interviews conducted may ask the agency to submit a Labour Market Opinion (LMO) request, after which HRSDC will evaluate the company's need for foreign workers and its employment practices. A period of several months will ensue as the prospective employees must apply for worker permits in their country of origin. The Philippines, Mexico and China are among the most popular countries for importing skilled workers. Employers having gone through the process may apply for a "bulk pre-approval", thus saving time in future requests. Compulsory certified trades such

as plumbers or electricians face an additional step.

"Alberta Apprenticeship and Training must grant a permit, the worker pays \$450 for testing and must pass within two tries or go home. Union employees should get prior consent from the local," said Ken Hantman, president of Build Your Work Force.

Hantman said that employers should plan for teams which will bypass any language barriers – for example, employing a crew of three men, one of whom is bilingual to translate, and the other two of whom understand basic safety phrases.

The good news is that skilled workers recruited may extend their two year work visa as long as the employer indicates there is work for them, and after a year in Canada, the workers can apply for perma-

nent residency. Unskilled workers must go home after two years for four months prior to being allowed to return to Canada. It is the employer's responsibility to cover inbound and return airfare for unskilled labourers.

"Out of country workers have a superb work ethic. The feedback we've received from client companies underlines this," Hantman said.

In the ever-evolving workplace, employers must embrace the changing needs of their workforce, and revise key recruitment and retention strategies to both reflect individual company values and fulfill employee priorities, or they will find themselves falling behind their more adaptive competitors. Luckily, by understanding and attending to employee needs, this is a very achievable practice. ■

Across Town *or* Across the Country



OLYMPIA IS THE PREFERRED MANUFACTURER OF RIGID STEEL BUILDINGS

- Steel mill-backed 25-year warranty
- Factory direct prices save you up to 60% off conventional construction
- Easier and less expensive to erect



Suite #2, 104 4808-50th Street
Red Deer Alberta Canada T4N 1X5
403-346-5654 • 866-857-3767
olympiasteelbuildings.ca

You build your business...

...We'll build your work force.

Imagine being able to build a stable workforce of employees who are already skilled and who have an ethic of working hard and being proud of their craftsmanship. **Build Your Work Force** global recruiting experts will locate skilled workers. Our immigration attorneys will obtain visas, specific to your company.

We can provide workers in any job category:

Call: Jay 403.819.3865

- construction trades
- engineers
- factory workers
- machinists
- equipment operators
- ...and whatever else you require.

Build Your Work Force

Bringing you the best workers in the world
e-mail: jay@buildyourworkforce.ca

www.buildyourworkforce.ca



Apprentice shortage a grave, but not insurmountable, problem in Alberta

By Dawn M. Barker



Les LaRocque, CCA's industry representative from Calgary on the Alberta Apprenticeship Industry Training Board of Directors.

The shortage of skilled tradespeople is the single most pressing concern in Canada's construction industry today. Only with commitment and innovation from people within the industry, and industry partners, can there be hope that in the future, the wheels of industry will turn more smoothly as more people turn to the trades as a viable and long-term career opportunity.

Les LaRocque, President of Botting and Associates, is the CCA's industry representative from Calgary on the Alberta Apprenticeship Industry Training Board of Directors. He strongly encourages tradespeople to grow their industry from within.

"I firmly believe more contractors have to be prepared to hire people new to the trades, and become trainers of apprentices. Too many contractors do not view themselves as the solution to the shortage of tradespeople, and believe the government will provide the solution when it requires action by both industry and government to make progress on this issue," he said.

Along with tradespeople themselves, the Alberta Apprenticeship and Industry Training Board have worked to accommodate increasing numbers of apprentices working in the province.

"I believe that the [Training Board] has done an excellent job of meeting the large increase to the numbers of apprentices that have been registered, and is working hard along with the technical institutions to meet the increasing demand for technical training seats at the institutions," LaRocque said.

"In addition, they - along with other organizations like Careers The Next Generation, as well as construction associations from across the province - have done an excellent job of getting the message out that a career in the trades should be a first choice selection by young people in the province as they make their career decisions."

Dr. Larry Rosia, Dean of the School of Construction at SAIT Polytechnic, notes that the growing demand for skilled labour is placing great demand on training institutes to produce more graduates.

"SAIT has turned away approximately 4,000 qualified applicants in each of the last three years," he said. "This is not a record of which we are proud, nor does it serve the employers of this province who are crying out for skilled workers."

"We have been able to increase the number of applicants in several energy and construction related programs, but have reached the limits of space and funding."

At the same time, he noted, apprentice enrollment over the past five years has doubled. This year, approximately 10,600 apprentices are being trained at SAIT,

an increase which he calls "extraordinary", and which he said is forcing the polytechnic to operate beyond capacity.

"We have taken several measures to accommodate this explosive growth within existing facilities," Dr. Rosia said.

"Classes begin earlier in the day, teaching is scheduled for longer hours, and an additional session in the summer - generally a time when apprentices are busiest in their workplaces - has been added. These measures are placing a great strain on facilities, with back-to-back scheduling and additional wear and tear on training equipment and less time for maintenance and repair.

"SAIT will be reassigning some instructors to explore the possibility of converting curriculum to an online learning format. Apprentices will be able to take some courses online from home or work, allowing them to earn more in a given year and reducing their annual school and travel expenses. Delivering courses online will significantly reduce stress on labs and shops at SAIT, and free up class time for other training purposes.

SAIT Polytechnic is also planning a world-class facility to accommodate thousands of additional students in the trades and technology. The proposal for the complex is currently before government, awaiting approval.

"This new complex will allow us to train individuals for employment in the construction, energy, transportation and manufacturing sectors," said Dr. Rosia.

"Classes will be delivered in an integrated learning environment, where diploma, applied degree and apprentice students will learn together, just as they will work together in the work-

place. This is a new approach to technical education in Alberta."

The proposed complex will be a step toward SAIT's goal of doubling the number of seats available in energy, construction, manufacturing and automation, and transportation.

"Annually, we will be able to train an additional 2,735 students in certificate, diploma and applied degree programs, and almost 6,000 more apprenticeship students. These are significant increases and will certainly benefit Alberta companies," Rosia said.

"I'm pleased to tell you that the Government of Alberta has granted SAIT \$1 million towards planning and design of the complex."

In addition, SAIT alumnus Keith McPhail, President and CEO of Bonavista Energy Trust, has donated \$10 million toward the Trades and Technology Complex, the largest personal donation SAIT has ever received. The new project has also generated SAIT's largest corporate gift ever: Enerplus Resources Fund has also announced a \$5 million investment to establish the Enerplus Innovation Centre as part of the complex.

"The Enerplus Innovation Centre will be the industry's link for accessing the Institute's expertise, state-of-the-art facilities, and resources to engage in innovative applied research and development projects," Rosia said.

PCL Constructors has contributed a \$500,000 investment, designating \$350,000 of that to the Trades and Technology Complex, and the remainder to establishing an endowed scholarship fund.



CALGARY
#C122, 2726-45 Avenue SE
Calgary, Alberta
T2B 3M1

Phone: 403-243-7567
Fax: 403-287-8187

1-877-TOTALR1

locations in Edmonton, AB
and Langley, BC

www.total-r.com



Volker Stevin Contracting Ltd.



- Underground Utilities • Roads & Highway Maintenance
- Special Projects & Design/Build Projects • Project Management
- Equipment • Asphalt & Aggregates



*Congratulations to the Calgary Construction Association Magazine
on it's Inaugural (2007) Publication*

*Volker Stevin is Proud to be Part of Calgary & Alberta's
"Booming" Construction Industry & Overall Growth*

*A Leading Edge General Contractor & Leader in Safety Excellence
Serving the Public & Private Sectors for 30 Years*

Courier Address:
4540 - 54th Avenue SE
Calgary, AB T2C 2Y8
(403) 571-5800



Mailing Address:
Box 5850, Station A
Calgary, AB T2H 1Y3
(403) 571-5800

www.volkerstevin.ca

"And the Calgary Construction Association has contributed \$100,000 toward SAIT's School of Construction," he said.

"The CCA has been a very strong supporter of SAIT. They continue to provide a large number of scholarships on an annual basis to our construction grads. These personal and corporate donations symbolize the confidence and esteem in which SAIT is held. They will also ensure SAIT's leadership as Canada's premiere polytechnic, dedicated to serving the needs of business while meeting the career aspirations of our students."

When asked to comment on the new complex, Mr. LaRocque noted "Improvements, expansion and updating of technical training facilities in the province are required to meet the growing demands for trades post secondary education. Facilities like the new Center of Excellence at SAIT will provide the quality of education that skilled trades and industry require."

The Calgary Construction Association's affiliated national association in Ottawa, The Canadian Construction Association, has also been proactive in encouraging trades training through lobbying for increased apprenticeship funding, as well as the creation of the Apprenticeship Incentive Grant, the Apprenticeship Job Creation Tax Credit, and the Tradespersons Tool Deductions. In April, 2007, the Federal government approved the establishment of these three incentives.

After completing their first or second level (year) of training, registered apprentices may apply for a taxable cash grant of \$1,000 per year (to a maximum of \$2,000), in order to help with the cost of training, travel and tools, and to encourage the accomplishment of completing the programs.

The Apprenticeship Job Creation Tax Credit (AJCTC) is a non-refundable tax credit which lets employers claim 10% of eligible wages paid to qualified apprentices, up to a maximum \$2,000 credit per year per apprentice employed after May 1, 2006. There is a three year carry back, and employers may move the credit up to 20 years forward if they do not have enough taxes payable in the deduction year to use the total amount.

Tradespeople in Canada are also eligible to claim \$500 per year to help offset the cost of tools required for their trade.

Yet another element of assistance for apprentices is the availability of more than 675 scholarships available annually to qualified applicants through the Alberta Apprenticeship and Industry Training Board, in partnership with industry and the Government of Alberta. This group of scholarships includes the Alberta Apprenticeship and Industry Training Scholarship and



the Registered Apprenticeship Program (RAP) Scholarships, both of which recognize excellence and encourage the completion of programs. For more information on eligibility and application process, visit the website at: http://www.tradesecrets.gov.ab.ca/-scholarships_awards/pdf/AIT_scholarship_app_form.pdf.

What might Mr. LaRocque say to a group of young people considering the trades as a career option?

"A career in construction as a skilled tradesperson should be considered a first choice for young people making their career decision. The opportunities and options within the construction industry are as lucrative and satisfying as any other industry in the province, so pick your path and your trade, and get started," he enthused.

In addressing 'non-participant' companies (those who are non-CCA members or who don't support the industry through providing apprenticeship opportunities), LaRocque stated, "Being a member of your local association is critical for ALL in the industry, as a strong association is the best vehicle for coordinating action on issues like the skilled trade shortage.

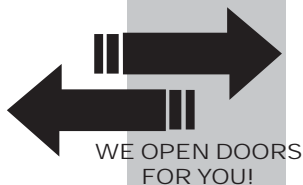
"The larger the membership base is, the more influence the association has in directing public policy and resources from government to help address the issue." ■

AUTOMATED ENTRANCES

4548 - 14th Street, NE
Calgary, AB T2E 6T7

Steve Petersen

Toll Free: 1-866-219-3206
Phone: 403-219-3206
Fax: 403-219-3256
Email: steve@automatedentrances.com



Geotextile | Erosion Control | Liners
Secondary Containment | HDPE Piping, etc.

Gerry Lamontagne
General Manager

1106-33rd Street West
Saskatoon, SK S7L 0W8
Email: gerry@greenearthenvironmental.ca

Phone: 306-931-8014
Cell: 306-260-9676
Fax: 306-931-8412

CANADIAN OWNED & OPERATED

A new era dawns for Calgary's changing skyline

Calgary skyline including
The Bow, courtesy of Foster & Partners.

By Dawn M. Barker

Five impressive new projects currently underway will transform the downtown skyline of Calgary in the coming years, and the contributions of labour and design by Calgarians will reflect the city's wealth of talent for decades to come.

CENTENNIAL PLACE, THE Keynote Center, the Bow Tower, Eighth Avenue Place and Jamieson Place will house an impressive array of office spaces, residences and retail and entertainment venues, helping balance the disparity between the rapidly escalating demand and the currently limited availability.

With a nod of respect to Calgary's rich past and a clear vision toward the future, Calgarians are accomplishing what their forefathers have done for hundreds of years - using their capacity to improve today's situation for future generations to enjoy.

CENTENNIAL PLACE – marking 100 years of progress

In order to go 'up', a building must first go 'down', and Oxford Properties Group's Centennial Place, located in the Eau Claire district of the city, is nearing the completion of the excavation portion of construction for its East Tower, and work has begun on the structural concrete work which will bring it back up to grade.

Mark Taylor, senior construction manager at PCL Construction Management Inc. said that the 10,000 cubic meter raft slab which will support the tower was done in one continuous pour lasting 50 hours.

"We believe this to be the largest continuous pour ever in Calgary, and indeed, Alberta," he said.

Bordered by 2nd and 3rd Avenue SW, the first phase of this project will stand 42 stories high, measure 165 meters with a spire extending a further 17 meters over this, and will



Centennial Place
rendering,
courtesy of
WZMH Architects.





incorporate a total area (including the parkade) of 1.2 million square feet.

It's not your 'average' office tower. The west face of the rectilinear building slopes inward at 1.5 degrees, and incorporates a spire detail the full height of the building. Each floor will have six corner offices - an innovation made possible by cutting away two corners of the building to make these additional desirable office spaces.

Centennial Place will be connected to two other Oxford signature buildings, Canterra Tower and the Ernst & Young Tower via the +15 network.

Built in accordance with Leadership in Energy and Environmental Design (LEED®) guidelines, Centennial Place will meet a high standard of indoor environmental quality.

"It is an industry recognized rating system for Green Buildings that incorporate environmentally friendly and energy efficient systems and techniques through the design, construction and life cycling of the building," Taylor said.

With its very contemporary design, the exterior is enveloped in a glass and metal curtain wall. By using light-reflective low-E



coated glass in the oversize windows, both energy efficiency and occupant comfort are at a maximum. The building's systems, including HVAC, electrical and communications, were all carefully chosen to reduce energy consumption and increase efficiency.

In its initial press release, David Routledge, Vice President, Real Estate Management for Oxford in Calgary said, "Oxford has a rich history in Calgary with past developments including numerous downtown locations; TD Square, Canterra Tower, TD Canada Trust Tower and Ernst & Young Tower. We are proud of Oxford's history in the city, and equally proud of the history of the City of Calgary and the Province of Alberta."

The east tower's inaugural tenants include Borden Ladner Gervais LLP, and Divestco Inc.



Tower Crane Sales & Rentals

Across Alberta & Canada

**Proud to
soon be a part of:
The Encana
Tower Project!**

403.203.8101

www.rapicon.ca



CF WIRELESS SERVICES LTD.

your local TELUS authorized dealer.

- Proud Supplier of TELUS PCS, MIKE, BLACKBERRY & DATA products to the Calgary Construction Industry & Trades
- We embrace change and initiate opportunity
- We believe in spirited teamwork
- We respect the integrity of every client relationship
- We take pride in our business partnership with Calgary Fasteners & Tools Ltd. (403) 287-5340




Phone: (403) 287-5377
1288 42 AVE SE, Unit 1, Calgary AB T2G 5P1

How has the CCA positively impacted the project? "Many of our subtrades are members of the CCA, as is PCL itself," Taylor said.

"The CCA has assisted the project in general terms through their representation of the overall industry in the community, as well as their programs to bring more workers and young people into the industry."

KEYNOTE DEVELOPMENT –

harmony in office, retail and residential development

As of the end of August, PCL Construction was approximately eight months into a scheduled 40 month construction duration on the Keynote Development building, nested between 11th and 12th Avenue SE, and the north/southbound Macleod Trail.

When the last of the three towers forming the complex is completed in the summer of 2010, there will be four levels of underground parking, two levels of retail space and amenities, a 14 story office tower, a 26 story residential tower and another residential tower consisting of 34 stories. With a blue-green glazed exterior, the building silhouettes, and especially the angular rooflines, will enhance Calgary's downtown horizon.

A representative from PCL Construction Management Inc. said that Keynote Development draws on the musical theme in its name. Musical inspirations are married into the suite names, landscaping and exterior features.

The Keynote will make beautiful music for the ears of those concerned with the environment, as many central construction aspects have been chosen for their sustainability, including floor coverings of wool carpet and rapidly renewable cork, the use of recycled underlay, and low consumption plumbing fixtures and electronic lavatory faucets. Innovative, environmentally-friendly measures continue in the Sarnafil roofing, which has reflective properties for energy efficiency, the addition of 30 per cent flyash in the concrete used, and DDC controls providing superior control of the HVAC system.

"The Association makes all its contractors and subcontractor members aware of what's going on in the marketplace, of new developments and new materials, and that awareness that they bring allows the industry to move along on the leading edge."

"In addition, the Urban Village concept Keynote encompasses promotes pedestrian travel," notes Susan Campbell, project manager at PCL.

"Keynote's close proximity to the C-train also provides easy access to public transportation.

Even the roofs are "green" at Keynote - during the value engineering process, the elevated terraces were transformed into landscaped roofs.

"The second level garden terrace is one of several found throughout the project," Campbell said.

"Both the commercial and residential occupants will have access to this area. The architectural design for the project took into consideration sunlight and rotated all the buildings on a 45 degree bias to the grid, thereby maximizing sunlight for the public spaces. The focal point of the second level terrace is a large natural stone fountain located on the northwest corner."

One of the special features that will make Keynote stand out

and add appeal to Calgary's skyline for years to come is the uniquely shaped floor plates and the distinct shape and geography of the roof lines. The glass curtainwall construction technique will provide an expansive view for the residential tower occupants, with ceiling-to-floor windows.

"With the incorporation of the internal street, the urban fabric is brought through the project," states one of PCL's informational sheets. "The terms 'Live, Work,

Play' describe the opportunities offered within this mixed use Urban Village."

While the project is still in its early stages, and trade contractors are still being selected, PCL realizes that construction of any sort will disrupt the regular flow of traffic nearby, and this structure is no exception. It has worked closely with the City of Calgary Traffic Engineering Division to minimize the impact to motorists and pedestrians. Construction lanes have been minimized, and where possible, sidewalks remain open to pedestrian traffic.

In terms of the long-term effect Keynote is likely to have on



North Star
EXCAVATING INC.

6155 - 6th Street SE
Calgary, Alberta
T2H 1L9



Steve Skiba President

office **403-228-3421**

cell: 403-862-4614
fax: 403-228-3481
sskiba@northstarex.com

WESTEND ELECTRICAL CONTRACTING LTD.

ELECTRICAL CONTRACTORS

COMMERCIAL • INDUSTRIAL • RENOVATIONS



5321 1A STREET S.W.
CALGARY, ALBERTA
T2H 0E5

Bus. 258-0272
Fax. 253-7726
Email. westendelectric@shaw.ca



the city of Calgary and its residents, PCL said, "The Keynote project presents a role model for continued development in the Beltline and elsewhere in the city. Mixed-use design and planning is not a new concept, but one that has been implemented to this extent before in Calgary. As urban sprawl and traffic congestion increase in the city, living close to downtown provides a viable environmentally responsive opportunity."

Campbell credits the CCA with assisting the construction industry through its initiatives such as the Registered Apprenticeship Program.

"Our project has been fortunate to participate (in RAP)," she said.

"High school students get an early jumpstart on their trade apprenticeships. This program benefits both PCL and the RAP students. PCL can employ eager tradespeople early in their careers while the students earn a wage, plus high school credits."

THE BOW TOWER –
tallest in western Canada

Towering above all the other structures in Calgary's new skyline will be the crescent-shaped Bow Tower located on both sides of 6th Avenue S between Centre Street and 1st Street E, which will cover the majority of two city blocks and stand 775 feet (236 meters) tall, earning it the status of the 149th tallest skyscraper in the world.

The Bow, owned by H&R Reit, is considered the start of redevelopment in the downtown East Village. It will house the new headquarters for leading North American gas producer EnCana Corporation. Designed by Foster +

Partners with both a glance toward the future and a nod to Calgary's history, The Bow will incorporate parts of the façade of the historic York Hotel into its structure.

"Once it had been determined that the Hotel façade was in such poor shape that it could not be held in place, but had to be dismantled, the brick removal and evaluation was fairly straightforward," said David Jeffries, Zeidler Partnership.

"Samples of limited amounts of the new replacement brick will need to be created. It was anticipated that cutting the frieze off the façade might cause some difficulties but the concrete was in good shape, and it came off like clockwork. Cleaning and repainting will be the next challenge, as there are about six coats of paint of varying colours. Putting the façade back in place will involve a conventional insulated rain screen principle installation, with control joints and ledger support angles."

During the envisioning process, shadowing concerns caused changes to the initial plans. Designed under the existing land use bylaw, which includes regulations limiting shadow impact no closer than 20 meters from the bank of the Bow River up to 4:00 p.m. on September 21st, the building's preliminary plans did have a limited shadow which partially crossed into this zone, albeit for less than an hour between 3:00 and 4:00 p.m. for roughly three days in the month of September.

"Even with this very limited impact, the design team made changes that met the needs of the project while achieving all of the zoning requirements," said Jeffries. As a result, the building was



Rendering of The Bow,
courtesy of Foster & Partners.

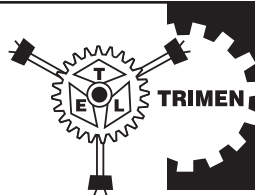


ABM ALBERTA BOLT MAKERS

*Specializing in the Manufacturing of
Large Threaded Products*

5004 20 Avenue SE
Calgary, AB
T2B 2S8

Bus: 403-272-7082
Fax: 403-235-5944
Toll Free: 1-866-ABM-BOLT



TRIMEN Electric Ltd.



#11, 4351 - 104 Avenue S.E.,
Calgary, Alberta T2C 5C6

Office (403) 723-0003
email trimen@trimenelectric.com Fax (403) 201-1418



The Bow, courtesy of Foster & Partners.

shortened by 11 meters, while still retaining the original number of floors it contained.

"The building received enthusiastic and unanimous approval of the Calgary Planning Commission.

Other major construction challenges facing the developers have arisen from The Bow's innovative shape, including issues with delivery, positioning and testing.

"The all steel frame construction is a rapid installation and will take place in advance of the below-grade parking garage. The steel node lifts are very large - in the range of 50-60 tons each. This requires that the trucks delivering the steel must be brought close up to the face of the building edges. The lifts cannot simply be made from the edge of the excavation," Richard Tucker of Matthews Development said.

"As a result, the tower and the plaza areas will be erected on concrete filled steel pipe columns extending six stories from the mass pad foundation at the bottom excavation up to the grade. An 'umbrella' of steel framing will extend to the edge of the excavation to the pipe columns so that trucks can drive up to the edges of the building. The concrete parking slabs will be formed and poured in place on the levels below grade at the



Please come visit us
at our new location:

235062 Wrangler Rd
RR5 SE
Calgary, AB T2P-2G6

Phone: 403-720-5565
Fax: 403-720-5567

Detailing
Estimating
Fabricated Rebar
Installation
Welded Wire Mesh
Stainless Steel
Accessories
(tie wire, chairs, etc.)



Reinforcing the Future

same time as the tower is erected above. Essentially, the tower is being erected while standing on 'stilts' held in place with temporary bracing."

Another challenge facing the construction of the 1.7 million square foot structure is that steel framing lengths will change dimensionally throughout the year, depending on Calgary's extreme weather temperatures. By bolting the connections securely, positioning accuracy will be able to be controlled, and once the building's 'footprint' has been placed, the vertical positioning will be checked by laser.

A portion of The Bow's diagrid steel, constructed of triangular shaped tubes, is exposed. "These will be protected from exposure to fire by intumescent paint that expands to control steel temperature under extreme heat," said Tucker.

"Since current ratings for intumescent paint are on round, square and rectangular steel columns, the triangular sections are currently being tested to establish the thickness of coating required to achieve the required two-hour fire rating."

The building was designed to maxi-

mize available daylight through its innovative shape and south-southwest facing atrium, which buffers the intense prairie sun before it reaches the office spaces. This buffer area allows for the building's control and recirculation system to utilize the heat generated, either by supplementing the heating system in cold months, or redirecting the heat outside before it reaches the office space, in warm seasons. The atrium has operable exterior ventilation, which permits natural ventilation of the space when outside conditions allow.

"The shape of The Bow reduces wind resistance from the predominant summer and winter winds that come from the west through north directions, resulting in less overall wind resistance, reduced downdraft, and the 'Venturi' effect (wind gusts created by channeling airflow through smaller spaces)," said Jeffries.

"This enhances the quality of the walking environment at the pedestrian level."

He also noted that the low profile of the south block building will mean that sunlight will be able to reach the extensive plaza during most daylight hours.

"It should be noted that there are

numerous other details such as extensive below-grade bicycle parking facilities and sustainable landscaping practices that also form part of the overall design," Jeffries said.

The raised floor of the building, an innovation seldom found in North America, creates an extremely efficient system for heating and cooling the office spaces than the standard top-fed systems. The design-engineered glass and steel used in The Bow make the building about 30 per cent lighter than others of its size. "The building employs a robust exterior 'diagrid' structure that permits a large percentage of the vertical and horizontal forces to be absorbed on the exterior. Therefore, there are reduced loads transmitted to an interior elevator core. The net effect is that there is no central concrete elevator core as is found on many buildings," said Tucker.

When finished, The Bow will hold two retail floors, three floors of sky gardens spaced approximately every 18 floors (served by express elevators), 53 office floors, four mechanical floors, and 1400 parking stalls in the six level parkade.





NEED TO RENT EQUIPMENT?

Leavitt Machinery has over
1,900 pieces of rental
equipment in inventory













PARTS * SERVICE * SALES * RENTALS

11330 70th St. S.E., Calgary, AB T2C 4Y3 Phone: 403.723.7555 Fax: 403.723.7575	11015 - 186th Street Edmonton, AB T5S 2V5 Phone: 780.451.7200 Fax: 780.451.7224	148A McMillan Road Fort McMurray, AB T9H 5L4 Phone: 780.790.9387 Fax: 780.790.9413	8614 112th Street Grande Prairie, AB T8V 5X4 Phone: 780.513.6205 Fax: 780.513.1370
-----------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------

www.leavittmachinery.com



Rendering of Eighth Avenue Place, courtesy of Gibbs Gage Architects.

Pedestrians will be able to access the +15 skywalk connections to several neighbouring buildings.

Currently, the project is in an early stage, with the site undergoing excavation. The Bow Tower is anticipated to be completed by 2011.

EIGHTH AVENUE PLACE –
a unique reflection on the Rockies

The past and the future will come together in Calgary's new Eighth Avenue Place, located in the central downtown financial core, in the 500 block of 8th Ave. SW, stretching along 5th Street to 9th Ave. SW, including the site of the former historic Penny Lane Mall.

In what is being described as a "landmark office development", Eighth Avenue Place has envisioned a 50 story east tower standing 212 meters tall, and a 39 story west tower measuring 166 meters tall, both of which will contain office and retail venues. The towers - designed by a world class design team led by internationally recognized architectural firms Pickard Chilton and Kendall Heaton Architects, who join Gibbs Gage Architects, the architect of record - will have a uniquely chiseled profile reminiscent of the Rocky Mountains. The buildings will have a lightly reflective neutral gray colour glazing. As the light changes throughout the day, so too will the appearance of Eighth Avenue Place.

"The towers are uniquely chiseled to provide a contemporary architectural expression on the Calgary skyline, and complement the rich interplay of our dramatic skies," said J.W. Smith, Vice President of 20VIC Management Inc, the owners' representative.

"Calgary is the land of changing skies and these towers will celebrate the constantly changing diversity, at times subtle, others dramatic. The towers' varied and sloped surfaces will animate downtown with a constantly shifting palette of light reflection and urban colour."

WHISSELL
CONTRACTING CALGARY LTD.

**Innovative
Infrastructure
Solutions**

Construction

Heavy civil construction and project management, specializing in underground utility installations, including infrastructure projects, subdivisions and commercial development

Hauling

Transportation of heavy equipment, machinery, modules, compressors, supplies and materials for the construction and oil and gas industries.



T 403.236.2200 | F 403.236.8834 | info@whissell.ca | www.whissell.ca



TOOLE PEET
INSURANCE

Pioneers in
Insurance and Bonding
since 1897

**Celebrating
110 years
in business!**



CONTACT

Dirk C. Moerkens, Rob Johnson, Neil Hogg, Dan Eveson
1135 - 17th Avenue S.W., Calgary, Alberta T2T 5R5
Phone (403) 245-1177 Fax: (403) 228-0231

www.toolepeet.com

Located between the two towers will be a sparkling three story atrium winter garden, which will provide a welcoming four-season public gathering place for both tenants and citizens in general, and a two story podium.

The past hasn't been forgotten, however. Select pieces of sandstone were carefully extracted from the Penny Lane buildings, and will be incorporated into an interpretive panel celebrating the history of the site. They will be prominently displayed on the +15 podium.

"We have also salvaged a large number of pieces of sandstone façade and old growth timbers which will be incorporated in future historical building restorations," Smith said.

It makes sense that such a unique structure would incorporate environmentally innovative, sustainable systems and materials. The project has applied for LEED® accreditation under the U.S. Green Building Council for a Core and Shell designation, with the target being gold accreditation.

"We are seriously looking at providing a green roof to the podium level, as well," Smith said.

Although construction hasn't yet begun on the development, all parties involved are looking forward to the day when the available office spaces are brought to fruition.

"These will be the highest quality office and retail service facilities for a vibrant, expanding downtown business and residence community," Smith said, noting that although the two buildings will be interconnected, each office and retail venue will have its own individual street and/or +15 access point, allowing



Eighth Avenue Place, courtesy of Gibbs Gage Architects.

each to be completely autonomous from the others.

Furthermore, he said, the central location and design will allow outstanding pedestrian, bus, LRT and vehicular trans-



ROYAL & SUNALLIANCE

Growing business is your focus. Insuring business is ours.

Our experts will work with you and your broker to develop a custom insurance solution to fit your needs.

Contact your broker to learn more, or visit our website to find a broker near you.

www.royalsunalliance.ca





© Copyright 2007 Royal & Sun Alliance Insurance Company of Canada. "Royal & Sun Alliance" and the Royal & Sun Alliance logo are trademarks owned by Royal & Sun Alliance Insurance Group plc. All rights reserved. Not sold by Royal & Sun Alliance Insurance Company of Canada.



portation access routes. Eighth Avenue Place will be connected directly by three bridges to the +15 network.

One of the world's largest private real estate developers, Hines, is the project's developer, and EllisDon Construction is in charge of construction. At present, EllisDon has begun the process of tendering the trades, and Construction Manager Martyn Wesley said that tendering of the curtain wall structure will be done this fall, with construction planned to begin in early December.

"We'd like to mobilize fairly quickly," he said.

"We've met the tendering dates thus far, and are on track for the demolition portion of the project, which was scheduled for the end of September."

Wesley said that EllisDon hopes to utilize Calgary's excellent array of tradespeople for the project wherever possible.

"There are a few areas where the magnitude of the work is such that we will have to tender outside of the province - the curtain-wall, for instance - but in terms of the finishing trades particularly - mechanical and electrical and so on - these will be CCA members, possibly from out of town, but I doubt there will be many from out of province.

"It's a matter of getting people interested. We've been quite thorough in the tendering process. We don't want to leave anybody out who can do the work. It's a huge project, second only to the Bow Tower, and we'll need quality tradespeople and excellent workmanship."

During the anticipated 38 month duration of the construction, Wesley said that some degree of disruption of traffic in the area is regrettably one of the interim issues Calgarians will have to weather.

"Any time you put a major structure up in downtown Calgary, you're going to interrupt traffic," Wesley said. "We'll need to take some traffic lanes out of service for an indeterminate amount of time, until the tower portion of the structure is up, unfortunately."

Another challenge for the builders will be reconnecting the +15 overhead network on 8th Avenue and the west side of 5th Street, at the earliest possible time, to provide pedestrian traffic flow through the area, while maintaining the safety of workers and pedestrians.

He added that the biggest challenge EllisDon will face in the coming months is the task of meeting the owners' schedule, which he describes as "very tight", noting that the owner's commitment to the tenants makes the timing very important.

"We'll have to control the project very tightly, which means we will depend on our trades."

JAMIESON PLACE –
as individual as its namesake

The final, but certainly not the least in this string of city-changing structures is Jamieson Place, located at 4th Avenue and 2nd St. SW.

Jamieson Place, too, gives a nod to the city's proud past, named as it is after Alice Jamieson, the first woman appointed to any judiciary in the British Empire, who came to Calgary in 1902 with her husband. She helped found Calgary's Local Council of Women in 1912 and served as president of this council for six years. In 1913 she was appointed judge of a juvenile court in Calgary, and in 1916 Jamieson rose to become the sec-

Ambrose University College project reinforces core values



By Dawn M. Barker

AMBROSE UNIVERSITY COLLEGE is pulling back to its core values of providing education through a wholistic community life - moving from its current state as a dispersed office tower campus to a unified campus on 40 acres southwest of Calgary; a move which offers a 30,000 square foot library able to sustain more than 140,000 volumes and significant future growth, a traditional student residence building measuring 30,000 square feet which will house 134 students, a 50,000 square foot academic building serving over 1,000 full time equivalent students, and a 20,000 square foot gymnasium/performing arts building to accommodate sporting activities, music and assemblies of up to 1,000 people.

Central to the project will be the academic building, with its central meeting area designed in the shape of the Christian symbol of a fish. The building will house a biology lab, computer lab, classrooms for classes ranging from 12-120 students, lecture theatres, faculty and administration offices, a student lounge, a cafeteria and places for group and individual study.

*We are proud to
have been selected for
the mechanical contract
on the Ambrose Project*



**PETRIN
MECHANICAL
(ALBERTA) LTD.**

6445 - 10 Street S.E.
Calgary, Alberta T2H 2Z9
Phone: **279-6881**
Fax: 279-6898
dan@pmlcalgary.com

A project of such magnitude begins with a dream, and follows through only with the skill and dedication of qualified individuals. Elan Construction Ltd. was contracted to complete the construction of the full campus by the deadline August 1, 2008 in order that classes may begin there in September of next year. Construction began in mid-May, and Gregg Aicken of Elan said that the project is currently on schedule to meet the completion date.

As of the end of September, the structural steel for the library and breezeway were completed, and progress on steel installation for the academic building had begun. The gymnasium/performing arts centre foundation wall has been completed, and steel rebar has been placed to form footings and the foundation.

The parking lots and walkways are underway. The light standard bases are being drilled and set up, and the sub-base for the asphalt is being prepared so that the first base may be installed prior to winter to provide a solid base for spring thaw. The final application of asphalt will be laid after construction is complete.

"The residence block wood framing is underway and should be complete by the end of October as well," Aicken said.

"The underground utilities are installed and we are starting the driveway and parking lot construction this week."

The library, academic building, gym and residence block represent only the first phase of Ambrose University College's plans. Phase two includes a second residence block, and is tentatively scheduled to begin construction by August, 2008, Aicken said.

New campus owners' representative Greg Needham said the project is exciting on many levels.

"It's pretty rare to have a green space with a new university campus starting from scratch," Needham said.

"It's a very special project - a breath of fresh air after the five year hiatus [during which the college has operated from the city's downtown core]. It was a great facility, but all the elements were very dispersed. To have a full service college in one cohesive spot is going to be fantastic."

Needham outlined the environmentally sustainable aspects of the project, which range from the retention of a considerable acreage of native aspen grove on the 40 acre campus site to the incorporation of existing LEED® technology as possible.

While the project itself is not designated as a LEED® project, as many environmentally sensitive elements as possible were incorporated, including low-flow toilets and showers, a high grade envelope for the building with a high R-value, and shading on the windows in the library area.

Crestview Electric is another subcontractor working on the project. Tim Engel of Crestview described the new campus as



"definitely a fast track, fairly major project", and said that he is confident that Elan is doing an excellent job with it.

"The group of people they've got on board are really the best, or in some cases, the only ones who could do this project," he said.

"Pretty much everyone who is involved is topnotch, and it looks like everything's going to fall in place as planned." In addition, Engel extended his and Crestview's congratulations to everyone involved in the project, from the owners on down to Elite Construction and the subcontractors, all of whom are making the project come to fruition.

Crestview too is a proud member of the CCA. Engel said that among the major benefits membership affords his company is the industry information it provides.

"Being involved (in the CCA) benefits everyone in the construction industry," he said.

"The services they offer help out everyone, in all areas, whether it be helping with hiring people, providing the knowledge of what's happening in the industry or whatever," he said.

Other CCA member subcontractors involved in the project include Kang Construction Ltd., Rubydale Asphalt Works, Harris Rebar, George & Asmussen Ltd., Igloo Erectors, Thyssen Krupp Elevator (Canada) Ltd and Triangle Steel.

Although the campus will be open to

the public and any students worldwide who meet the entrance requirements, as well as its target audience of Ambrose students, no government funding is available for capital projects such as this, since they are privately owned and governed by Ambrose. With a total cost estimated at \$38.4 million, an intensive fundraising campaign has been instituted. Current annual lease payments of the campus' former downtown location will be used to build equity, help meet new campus operating costs and fund further academic program development. \$17.5 million has already been raised, but college officials hope to raise \$21.5 million more from major donors, foundations and corporations. More information on the new campus and the fundraising campaign can be found at the college's website at

<http://www.ambrose.edu/newcampus>.

"We are very pleased with the growing level of support that Calgary donors are giving to this legacy project. Prospective donors interested in investing in the development of a new generation of young people schooled in integrity, compassion and service will find the Ambrose capital campaign a great opportunity for their charitable giving," said Gordon Dirks, Vice President of External Relations at Ambrose.

Once completed, the campus will allow Ambrose to expand the depth of its currently offered programs (both in Ministry, and Arts and Science), as well as to offer new areas of study including degrees in Biology, Philosophy and an after-degree Education program. ■



**SPECIALIZING IN
DEEP UTILITY WATER &
SEWER INSTALLATIONS.**

P.O. Box 88039
#105, 3716 - 61st Avenue S.E.
Calgary, Alberta
T2C 2V9



Tel: 403.274.1991
Fax: 403.274.1925

www.peakcontracting.ca



On Behalf of the Labour
Relations Committee
www.ecaa.ab.ca



IBEW
Local Union 424
www.ibew424.net



**Powering
Alberta's Future**

**Working in partnership
to service the needs
of our valued customers.**