MASONRY

2011 Alberta Masonry Design Awards

2011 ALBERTA MASONRY DESIGN AWARDS

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ARCHITECTURE
IN MASONRY

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2011 ALBERTA MASONRY DESIGN AWARDS

CELEBRATING ARCHITECTURE IN MASONRY

ACKNOWLEDGEMENTS

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Jesse Douglas	Gracom
Bob Driedger	Brock White Canada
Serena Holbrook	Pockar Masonry Ltd.
Richard Lindseth	Richard Lindseth Architecture
Fraser Powell	Cast Supply Inc.
Les Pruden	Gracom
Fred Woodlock	Lafarge

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Robert G. Lemon	Robert Lemon Architect Inc.
Gary Sturgeon	BBStek Design Ltd.

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TABLE OF CONTENTS

ON THE COVER:
NAIT HP CENTRE FOR INFORMATION AND COMMUNICATIONS TECHNOLOGY

2007 Masonry Design Awards
Presidential Winner

The new HP Centre for Information and Communications Technology is the largest building to date in NAIT's expansion of its main campus.

The Centre is organized around a three-storey interconnected and naturally-lit internal street with public elements on one side facing the City and quieter learning spaces and courtyards on the other, facing what will eventually become a green space at the heart of the campus.

Learning spaces are organized into three identical wings, turned inside out, with circulation spaces on the exterior and computer labs, which typically require that natural light be excluded, on the interior. Externalizing the circulation animates the courtyards and provides unimpeded flexibility for future reconfiguration of the labs.

Masonry cladding is used inside and out to help ground the building and recall the original 1950s campus. Curtain wall and metal panel re-interpret its classic modernist aesthetic in keeping with the Centre's high tech program.

Chairman's Message

How fast time flies. It seems like only a few weeks ago that we had the last masonry design awards but it has been 4 years already. I want to welcome you to the 2011 Alberta Masonry Design Awards. Your support has been much appreciated. Design submissions were almost double vs. 2007 with some very interesting projects. From a pair of legs constructed of masonry to beautiful residential projects to well designed buildings, there is a wide variety of projects highlighted in this magazine. It illustrates the excellent and creative talent that is out there.

I hope you enjoyed this memorable event "Celebrating Architecture in Masonry". Congratulations to all the companies that entered projects. This event is our way of showing appreciation for those that choose to design with masonry.

To the judges who had the daunting task of picking the winners – Thank You. It was not an easy job but somebody had to do it. Your involvement was much appreciated.

A big "thanks" to the Masonry Design Awards committee. The many hours of thankless volunteer time obtaining sponsorships, marketing and getting the judges together was not easy. Without your help this great event would not have been possible.

The Masonry Contractors Association of Alberta is very appreciative of the design community and its support of the masonry industry. I encourage you to continue designing with masonry and taking advantage of our incredibly talented trades people. You will not be disappointed. I look forward to seeing the 2015 submissions and am confident that we will be amazed again.

Bob Driedger
Chairman, 2011 Alberta Masonry Design Awards

MASONRY CONTRACTORS ASSOCIATION OF ALBERTA

We are a group of contractors, suppliers and manufacturers involved in the Alberta masonry trade to support the use of masonry. We are also part of a larger national group – the Canadian Masonry Contractors Association.

The Masonry Contractors Association of Alberta (MCAA) was first incorporated in January of 1965. Our main goal was to establish a forum to discuss industry issues and provide direction for masonry initiatives and promotion. Over the past 45 years we have dedicated our time and efforts to increase the use of masonry. It is a timeless material and has enhanced the beauty of many buildings and projects in Alberta. A few items that the association has been involved with over the years:

- apprenticeship – training new masons as they take up the trade (just recently finished designing and writing a new masonry textbook)
- codes and standards
- supporting masonry research at major universities and colleges across Canada (including University of Alberta and University of Calgary)
- creating a masonry software program to aid professionals in designing with masonry
- Alberta Masonry Design Awards
- The two associations in Calgary and Edmonton will be continuing to support the use of masonry in Alberta. The two groups have collaborated to create a Masonry Promotions Committee. Made up of individuals from contractor and supplier companies in both the north and south it has a clear mandate "To increase the awareness of the unique benefits of masonry products resulting in greater product usage and an increase in market share".

To ensure this happens the committee will be educating target audiences and increasing the awareness of both the value and benefits of masonry. A new website has been produced which will be a focal point for education, research, upcoming events, members and other links. The committee also plans to:

- create a series of educational seminars
- get involved in trade fairs
- create a quarterly newspaper

A firm source of funding has been secured which will ensure a stable and long lasting future. The group is excited about where the industry is heading and looking forward to more projects being designed and constructed with masonry. The projects will be there for many more years to come and for many more generations to enjoy. Our congratulations to all the winners of the Masonry Design Awards, a job well done.

For more information, please check our website – www.mca-canada.com

PRESIDENTIAL AWARD

ROYAL CANADIAN PACIFIC RAILWAY PAVILION

Owner:	Canadian Pacific Railway
Architect:	DIALOG
General Contractor:	Centron Construction Group
Masonry Contractor:	G & M Stone Masonry
Engineer:	DIALOG

The inspiration for the Royal Canadian Pacific Entry Pavilion is the image of an historic steel trestle bridge. The trestle sets up the primary public space – the grand foyer or Galleria - which links directly to the existing Royal Canadian Pacific train pavilion. A three-storey wall of cable and spider fitting glass faces the Palliser Hotel and fills the Galleria with natural light. The full height interior west wall features large module limestone masonry, as does the exterior cladding at both the front entrance and building base along 1st Street S.W. In addition to being a durable and highly attractive building material, the use of limestone masonry is consistent with the existing train pavilion and is sympathetic to the adjacent historic sandstone clad Palliser Hotel and neighbouring Grain Exchange building. Other materials include black plate steel and glass. The facility embraces the history and contemporary values of the current day Canadian Pacific company. Oversized heavy steel members emulate the traditional trestle bridge and the large module limestone masonry reflects the heavy nature of the Rocky Mountains.

AWARD OF EXCELLENCE

RUSTIC ART

Owners: Aldeene & Paul Gianellia
Artist: Shayne Sas
Masonry Contractor: Rushing River Masonry
Other Team Member: Rundle Rock Building Stone

Rustic Art is a custom design with a vision to bring the beauty and authentic feel of nature indoors. A total of nine months was required to mould each hand picked stone to re-create an exquisite mountain effect. This majestic fireplace creates a focal point and gives a visual presence and luxurious feel. A waterfall appears then disappears into a channel that cascades over a rock and disappears into a water basin. Each of the 1200-pound lintels spans the entrance into the library and bedroom giving the semblance of an inverted pre-historic lakebed. The firebox was created to look like a cave, with a mosaic of rock. The extravagant mantel, also hand picked, was selected to complement the quality of stone, which recreates the feel of the entire house. This project of heart and soul devoted an immense amount of character to this home. This piece of Rustic Art deserves to be recognized in the masonry industry.

AWARD OF MERIT

IMMENSE MODE

Owner: City of Edmonton
Designer: Voyager Art & Tile
General Contractor: Voyager Art & Tile
Masonry Contractor: Voyager Art & Tile
Engineer: Stantec
Other: Absolute Fusion

Our piece Immense Mode is a 20' tall whimsical sculpture of legs in striped socks. This sculpture stands, in sturdy decorative shoes amongst those waiting for the bus while greeting arrivals. It relates to the local shopping centre with its fashionable sense and to the commuting members who work in and out of the city. The scale gives this piece a humorous feel with an unforgettable impact. Ending just below the knee this sculpture gives one a feeling of standing next a giant while the shoes toe acts as a sturdy place to rest, lean or sit upon. The striped stockings are stylish and have an industrial rhythm that leads you skyward while the leather like shoe with it's sparkly glass mosaic draws you in for a tactile experience. From an artistic standpoint, the use of masonry bricks, especially in their green stage, allows us to carve and form three-dimensional sculptures of any size. Using thousands of bricks, a sculpture can be formed, taken apart, fired in our kilns and placed back together unlike any other ceramic process.

HONOURABLE MENTION

MOUNT ROYAL UNIVERSITY ENTRY SIGNS

Owner: Mount Royal University
Architect: Goodfellow Architecture Inc.
General Contractor: Clark Builders Ltd.
Masonry Contractor: Gracom
Engineer: Wiebe Forest Engineering Ltd.

In anticipation of Mount Royal becoming a full fledged University, it was decided to create a new entry feature to signify the coming of this historic event. Mount Royal University provided the landscape design and installation services. Both the structure and substrate for the Glacier Buff, Minnesota Dolomitic Limestone cladding were constructed of preserved wood, while the steel sign blades were supported by an internal steel frame. A split faced random ashlar pattern, interspersed with ribbons of smooth cut faced stone and capped with a smooth cut capstone of the same material was chosen because it complimented the yellow buff brick and precast cladding used elsewhere on the Campus. The result is an iconic announcement of the University's new found place in the community.

14112 60 AVE RESIDENCE

Architect: ATB
General Contractor: Rescom
Masonry Contractor: Gracom

This custom built 2 story with walkout home is a complete masonry exterior. The artistic use of Tyndall stone and brick create an old world feel to a new modern home. Designed by ATB with Rescom as the Prime Contractor and Gracom as the Masonry contractor. The use of Tyndall and brick was carried through the steps and driveway.

ARRIVA PHASE 1 AND 1A

Owner: Victoria Park Holdings
Architect: BKDI Architects
General Contractor: ITC Canada (Alta) Ltd.
Masonry Contractor: Pockar Masonry Ltd.

Arriva, as the name implies, has arrived. This stunning project is perhaps the most spectacular landmark in the redevelopment of Stampede Park. The use of large dimensionally cut; rock faced and smooth faced Adair Limestone enhances the entire building facade. The use of masonry arches, a strategically placed keystone over the front entrance and traditional clay brick along with pre-cast concrete coping caps and stone soffits provide a soothing contrast against the modern residential tower.

BONAVENTURE RESIDENCE

Architect: McDowell & Associates
General Contractor: Rocky Point Custom Homes
Masonry Contractor: Am-Can Masonry

The Bonaventure Residence was designed and built for a couple who wanted a home that captured the spirit of Frank Lloyd Wright architecture. Masonry was used on the exterior of the house to create a foundation that grounds the structure giving a solid base to the house, creating the impression that it is growing from the site. The stone was carried up through the roof in the center of the home to visually draw ones attention to that area. The type and color of stone that was selected gives the building an 'organic architecture' that is characteristic of Frank Lloyd Wright design. The use of masonry continues inside the home to add texture and interest to the walls and living space. The stone was used in areas to successfully bring the 'outside in'. The extensive use of stone provides a sense of permanence to the structure that no other material can.

CALGARY HUMANE SOCIETY

Owner: Calgary Humane Society
Architect: Kasian
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Read Jones Christoffersen Ltd.

Attempting to understand the world from the point of view of a dog, cat and bird became the catalyst for this design. The facility is a centre of interpretation, education, adoption, and outreach for Calgary's companion animals. The building is cleanly subdivided to produce the most efficient, organized and sanitary environment for both people and the animals who inhabit the spaces. All parts are joined along a central axis which bisects the site from north to south. The building form is derived by separating the basic program elements into rectilinear cubes and applying a specific material to each. Brick was chosen as a façade for the areas where staff and volunteers work. Aside from its inherent beauty, brick was chosen because it signifies durability, strength and reliability, in parallel to the hard work and dedication of the staff. It also is a counter point to the other materials on the building, such as diamond shaped aluminum shingles and cedar slats, which correspond to the programmatic areas involving the animals and their care.

ARTISTIC USE OF MASONRY

ELBOYA RESIDENCE

Designer: McDowell & Associates
General Contractor: Taradar Fine Homes
Masonry Contractor: Bow Valley Masonry

This client was interested in a Tudor style home with contemporary massing and extensive masonry detailing. Combining full face 5" stone veneer with intricately cut stone window surrounds, and buttress details give this residence its old-world charm. The cladding stone was selected to compliment the copper detailing evident around the residence, while the cut stone was selected to contrast with the cladding stone. This draws viewer attention to the architectural details. Stone was extensively used throughout the landscaping process to better place the residence in its environment.

ELFAR COUNTRY HOUSE

Owner: Hesham Elfar (at time of construction)
Architect: A&E Architectural & Engineering Group Inc.
General Contractor: Hesham Elfar
Masonry Contractor: Bond Masonry Ltd.
Engineer: A&E Architectural & Engineering Group Inc.

Situated on a narrow lot, the home is reminiscent of the European country chateau which in this case, is actually a collection of components Architecturally and Artistically linked together as seen in many European Country Estates. This collection of components and a large feeling site is accomplished by rotating the main entrance 45 degrees and connecting the main house to the children's wing and carriage house. The use and relationship of materials like cedar roofing and masonry cladding speaks the vernacular of materials of a French country chateau. These relationships have fostered a cooperative design approach to this unique and grand European country mansion.

FOLLY IN THE DEVONIAN BOTANIC GARDEN

Owner: University of Alberta, Devonian Botanic Garden
Architect: the marc boutin architectural collaborative Inc.
General Contractor: Scorpio Masonry (Northern) Inc.
Masonry Contractor: Scorpio Masonry (Northern) Inc.
Engineer: Grant Structural Engineering

The Folly in the Devonian Botanic Garden is a memorial, a gateway and a place to look out over one of Alberta's best landscapes. Commissioned in honour of a life-long patron of the Garden, the design of the Folly is based on memories of Gothic cathedrals and picturesque follies that the Client had visited as a child in Scotland. Emerging out of the top of the hill, the Black Granite base of the folly is materially solid and rooted to the site. Upon climbing the sloped approach, visitors enter the Folly by moving through large Gothic Arches. Layers of Ashlar coursing draw visitors in and features contrasting Tyndall Stone. Rather than incorporating overt signage, the client's family crest is carved into the stone structure. As a gateway in the garden, the Folly's vertical lines are emphasized through slot windows and the Folly's crenelated top course. Situated at a high point in the garden, the climb up the steep approach rewards visitors with dramatic views over a formal rose garden, a nearby lake and distant vistas.

I-XL MASONRY CALGARY

Owner: I-XL Masonry Supplies Ltd.
General Contractor: Spacemakers Construction Services Inc.
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Quinn Saretsky Structural Engineers Inc.
Other Team Member: Comtech Drafting and Design Services

I-XL Masonry being the premier supplier of masonry products had a vision for the Design and Architecture of their new Calgary Headquarters. The choice to use traditional red brick and buff brick was a natural fit as the red brick is one of I-XL's biggest sellers and depicts the essence of the owner's bread and butter business. The design team spent many hours with the owner creating and reviewing every minute detail to ensure the "Georgian" theme was accurate and reflected the attention to detail that the I-XL team gives to all their products / projects. The architectural masonry was used in a rain screen method of applying a Wythe of masonry to the exterior of a steel stud, batt insulation, exterior grade Gypsum board and building paper with an air space system.

MEWATA ARMOURY MASONRY REHABILITATION ASC

Owner: Defence Construction Canada
Architect: Simpson Roberts Architecture Interior Design Inc.
General Contractor: Westcor Construction Ltd.
Masonry Contractor: Gracom

This historical building built in 1917 has a combination of locally quarried Paskapoo sandstone and historic red brick. It was the first phase of a masonry restoration which required skillful masons to carefully clean, repoint, replace and carve to match existing details created by the original masons. This project required a great deal of care and attention to ensure that all historical aspects were maintained.

MORIMANNO RESIDENCE

Owner: Claudio and Diana Morimanno
General Contractor: San Rufo Homes
Masonry Contractor: Scorpio Masonry (Northern) Inc.

The Morimanno Residence is located in a newly developed area on the Northwest side of Edmonton. The corner lot allowed this full brick wrap to be viewed from three sides of this bi-level. The Brick veneer features brick and Tyndall stone accents. The arch at the front entrance and the flat arches over all windows and doors compliment the brick design.

OXFORD

Architect: Wildman & Associates
General Contractor: Beattie Homes Ltd.
Masonry Contractor: Am-Can Masonry
Other Team Member: I-XL Masonry Supplies

The use of clay brick was based on the desire to apply naturally derived product versus a manufactured product and to showcase our homes in a market and subdivision area where this product have been relatively unused. The exterior location of clay brick bond coursing was thoughtfully placed to appear both as structural and integral parts of the exterior instead of strictly cosmetic. The contrasting colour clay brick banding, lintel details and sill details were also integrated for contrast throughout the exterior facades. Within those contrasting elements are also the inclusion of alternating soldier and rowlock coursing for additional subtle detailing. The contrasting colours and coursing have created a strong, prominent and successful exterior in an area where homes are primarily clad in manufactured stone.

QUEENS PARK MAUSOLEUM - PHASE 3 ADDITION

Owner: City of Calgary
Architect: J.C. Milne Construction Co. (Canada) Inc.
General Contractor: J.C. Milne Construction Co. (Canada) Inc.
Masonry Contractor: Gracom
Engineer: J.C. Milne Construction Co. (Canada) Inc.

The requirements of this project and nature of the surroundings combined with the needs of this client required the use of subtle masonry features to compliment and match the existing building. The use of stone feature walls on the interior stairwell and waterfall feature were meant to provide architectural enhancement and natural calming atmosphere keeping with the beauty of the Rocky Mountains.

ARTISTIC USE OF MASONRY

RIVERSIDE QUAYS

Owner:	Statesman Group
Architect:	NORR Architects Planners
General Contractor:	Statesman Group
Masonry Contractor:	Aurora Masonry
Engineer:	Hemisphere Engineering

We selected masonry for Riverside Quays because of the aesthetic appeal and superior low maintenance qualities of the product. Masonry expresses an architectural timelessness of permanence and quality. It also displays notions of craftsmanship and skill in execution and is scaled to a human dimension. We can produce this quality façade at little or no cost extra to other similar rain screen cladding materials with less maintenance issues. In addition the historical character of Calgary's oldest neighborhood is enhanced by the use of clay brick in this project. Many of Calgary's oldest buildings are along Atlantic Avenue in Inglewood and are constructed of load bearing brick masonry.

ROYAL ALEXANDRA HOSPITAL – ROBBINS PAVILION

Owner:	Alberta Health Services
Architect:	DIALOG
General Contractor:	EllisDon Construction Services Inc.
Masonry Contractor:	Scorpio Masonry (Northern) Inc.
Engineer:	DIALOG

The new Robbins Pavilion is the largest addition to the Royal Alexandra Hospital campus in a decade, and will be instrumental in helping to attract leading experts to the field of women's health and cardiology. Materials for the Robbins Pavilion both repeat the existing campus palette as well as compliment it. Buff yellow brick matching the existing campus for the main mass of the inpatient unit wings and administration block. Subtle patterning occurs in the brickwork through the use of coursing, size and texture changes. Horizontal angled seam zinc metal cladding and glazed curtain wall are used within the masonry wall design as accent material and to provide visual relief from the brick mass of the lower wings. At the building's interior, smooth stacked bond brick is used to anchor the elevator/vertical circulation core. The use of this brick reinforces the relationship between the interior and exterior. The buff colour selected compliments the interior use of wood providing warmth in contrast to the stainless steel and exposed concrete finishes.

ROYAL CANADIAN PACIFIC RAILWAY PAVILION

Owner:	Canadian Pacific Railway
Architect:	DIALOG
General Contractor:	Centron Construction Group
Masonry Contractor:	G & M Stone Masonry
Engineer:	DIALOG

The inspiration for the Royal Canadian Pacific Entry Pavilion is the image of an historic steel trestle bridge. The trestle sets up the primary public space – the grand foyer or Galleria - which links directly to the existing Royal Canadian Pacific train pavilion. A three-storey wall of cable and spider fitting glass faces the Palliser Hotel and fills the Galleria with natural light. The full height interior west wall features large module limestone masonry, as does the exterior cladding at both the front entrance and building base along 1st street S.W. In addition to being a durable and highly attractive building material, the use of limestone masonry is consistent with the existing train pavilion and is sympathetic to the adjacent historic sandstone clad Palliser Hotel and neighbouring Grain Exchange building. Other materials include black plate steel and glass. The facility embraces the history and contemporary values of the current day Canadian Pacific company. Oversized heavy steel members emulate the traditional trestle bridge and the large module limestone masonry reflects the heavy nature of the Rocky Mountains.

SAWRIDGE EDMONTON SOUTH - CREATIONS DINING ROOM

Owner:	Sawridge Group of Companies
General Contractor:	Petrocom Construction Ltd.
Masonry Contractor:	Deutsch Masonry

Sheffield Design's concept was to give the client, Sawridge Edmonton South, a space that reflected their company's mission to provide their guests with a warm, natural and inviting environment. The designer used natural materials and colours with a variety of textures to create a warm and dramatic space. A large scaled fireplace and water feature wall were incorporated to give intimacy to an existing large cold space. Large overhead faux timber beams were added to give a sense of privacy to restaurant and lounge guests as well as give an interesting view for hotel guests looking down into the new atrium from above. Saratoga Rustic Ledgestone from Eldorado Stone was selected for this renovation as the stone material of choice as it was lightweight and an easy install in an existing space. It was used on both the massive fireplace and water feature walls as well as on a number of over scaled columns throughout. The Ledgestone set off the natural environment beautifully and added the drama and warmth the client was looking for.

SILVERTIP RESIDENCE

Architect: Richard Lindseth Architecture Inc.
General Contractor: Sterling Timberframe Homes
Masonry Contractor: Boulderworks
Engineer: KTA Structural Engineers Ltd.

Masonry elements comprise the most significant element of this contemporary mountain residence in Canmore Alberta. Using local Rundle Stone from nearby Thunderstone Quarries on strong vertical planes of varying heights, contrasted with horizontal timber structures, the stonework becomes the unifying element on both the exterior and interior design. The project was designed with the same custom linear coursing of varying heights, without jumpers, throughout the residence to give a crisp linear palette this provides a modern interpretation of traditional stone laying techniques. On the exterior, principle structural vertical elements are clad with the selected stone which is mirrored in the interior fireplaces and Dining Pavilion columns juxtapose with timber frames. The medium hued sand grout lines, recessed $^1/_2$" to make the individual stone 'punch', with a clean, contemporary aesthetic highlighting a colour blend of 80% black to 20% oxidized natural variance. On the lowest level genuine stone floors and sandblasted concrete walls in the private art gallery complement the effect. The overall effect achieves a muted and elegant architecture combining traditional materials in modern ways.

SPRINGBANK HILL ENTRANCE SIGN

Owner: Spring Valley Estates Inc.
Architect: Wiseman Associates
General Contractor: Legend Developments
Masonry Contractor: Pockar Masonry Ltd.

The Client expressed to us his desire to have an entrance that spoke to the quality and richness of materials and finishes he was proposing for this exclusive community in Southwest Calgary. We responded to his vision with a pair of extensively landscaped 'gates' utilizing the uniquely regional look of Tyndall stone laid in a classic ashlar pattern and finished with pre-cast concrete caps and dark copper accent pieces. In combination with brass lettering done in a script font, the image is of understated elegance supported by a solid masonry backdrop that anchors the whole effect.

SPRINGBANK RESIDENCE

Designer: McDowell & Associates
General Contractor: Taradar Fine Homes
Masonry Contractor: Castelli Masonry

This French Country Residence was designed to incorporate stone, brick, stucco and timber detailing from its inception. The cladding, used as the primary material, includes stone sourced from three different locations and mixed together in the correct proportion to achieve this charming old world appearance. To lighten the overall appearance of the residence, brick was introduced in a herringbone pattern, between the half timbering details on the turrets. Sliced brick was applied to the cantilevered structure on the south elevation for weight reduction. The chimneys have a stone chase with brick uppers to reduce the overall vertical scale. The variation of these materials has a stunning effect on the overall appearance.

ST. JAMES CATHOLIC CHURCH OKOTOKS

Owner: St. James Parish (Roman Catholic Bishop of the Diocese of Calgary)
Architect: S2 Architecture
General Contractor: Golden Triangle Construction Management Ltd.
Masonry Contractor: Pockar Masonry Ltd.

St. James Catholic Church in Okotoks, Alberta stands as a beacon on the prairie landscape symbolizing honour and pride in its faith and in its community. The 'typology of entrance' is extremely important in religious architecture, forming not only a building entry and a foil against the elements, but more importantly it symbolizes a transition from earthly mortality to a more spiritual reality. It represents a point at which we move from human beings to being in the presence of something more. And for this physical and spiritual transition, stone masonry was selected as the perfect material to grace St. James' entry. St. James' design is a deliberate play of simple traditional masonry forms (wall and arch) used with contemporary mannerisms to evoke the grandeur of the bigger contemporary concept counterpointed to the detail and small scale of stone materials and our humanity. It truly is the embodiment of Catholicism itself for when seen from afar one feels the power and might of the form yet as one approaches, the tactile and humane scale and complexity of the detail offers a warm and rich experience – a simple idea with a deep message.

ARTISTIC USE OF MASONRY

ST. VLADIMIR'S UKRANIAN ORTHODOX CHURCH

Owner:	St. Vladimir's Ukranian Orthodox Congregation
Architect:	Pakarnyk Architecture
Masony Contractor:	Sas-Can Masonry
Engineer:	HMB Consulting
Other Team Member:	I-XL Brick Supplies

Masonry was used on this project for it's long lasting, durable and beautifying properties. The well thought out design of the detailed corbelled arches and coloured band courses make the building visually appealing and stand out to the public The dental work at the top of the walls was incorporated to give the building a historic look.

STAMPEDE CASINO

Owner:	Calgary Stampede
Architect:	S2 Architecture
General Contractor:	Ledcor Construction
Masonry Contractor:	Pockar Masonry Ltd.
Engineer:	Wiebe Forest Engineering

Standing as a homage to the history of Canada's West, and a symbol of the future of the Calgary Stampede, the Stampede Casino is the premier building designed and constructed as part of a 20-year masterplan that will completely redevelop the grounds. Envisioned as an exceptional entertainment destination, the Casino provides tourists and locals with a signature Stampede experience, all within Calgary's largest gaming area. Reflecting on the resilience and strength latent in Calgary's architecture after the great fire of 1886, the Casino's utilization of brick and masonry helps to project an iconic image of the permanence and stability of the world's largest outdoor rodeo and exposition.

STEPHENSON RESIDENCE

General Contractor:	Vintage Fine Homes
Masonry Contractor:	Am-Can Masonry
Design Firm:	Inertia Corporation

For some curb appeal in a recently developing area the customers requested some stone accents throughout the front and rear. The masonry was applied to columns, walls, detached garage, outdoor planters, retaining wall, built-in BBQ, and outdoor gas burning fireplace. The stone was selected to compliment Stucco finish and cedar trim. To accent the craftsman style of the home a lighter colored stone was selected for a contrast. Outdoor living spaces were designed for entertainment purposes on a Front veranda, Rear Elevated Deck and Lower covered patio. The stone added a warm ambiance to these areas in a year round format.

STREU RESIDENCE

Architect:	Beattie Homes Ltd.
General Contractor:	Beattie Homes Ltd.
Masonry Contractor:	Am-Can Masonry
Other Team Member:	Montana Rockworks

The use of real stone veneer was incorporated with two additional exterior materials to create a harmonious balance of natural materials mimicking the environment which the house sites. The usage of real stone veneer versus full bed depth stone was an attractive option as it helped to manage budget costs, eliminated the need for angle iron and helped to satisfy the developer's suggested exterior scheme. The real stone veneer was also incorporated into the interior design of the dwelling in both fireplace and continuous stone feature wall applications. The ability to use the real stone veneer on the exterior fireplace surround, hearth, mantel and chase unified the exterior treatment on all sides and on both floor levels. The usage of the matching stone sills was a successful completion to the exterior treatment.

THE HASKAYNE MERCANTILE BLOCK AT HERITAGE PARK

Owner:	Heritage Park
Architect:	Gowling and Gibb Architects
General Contractor:	Stuart Olson Dominion Construction Ltd.
Masonry Contractor:	Pockar Masonry Ltd.
Engineer:	David C. Woodall Structural Engineering
Landscape Architects:	IBI Group / Landplan

Heritage Park's "New Town Square" includes a total of nine historic buildings that were replicated and morphed into three primary structures to form an inviting town square (circa 1930). The rich masonry palette, attention to detail, and lively colors form a vibrant and impressive backdrop evocative of those early days. To the north of the plaza, the Haskayne Mercantile building features four building facades tied together to create a retail block of five stores and a second storey administration centre. Faithful reproduction of the Turpin Tweed Building from Medicine Hat, Alberta creates the majority of the main facade, featuring a combination of a limestone starter, red brick walls, sandstone highlights, and authentic wood windows and awnings in twelve different historic colours. On the north east corner the building is anchored by the #7 fire hall clad in dark brown brick, and complete with a clock tower in place of the original hose tower. It is the detailing of the original brickwork and the craftsmanship of the masons that gives the building it's unique charm and character.

THE OSCAR AT EAU CLAIRE

Owner:	The Eden Group of Companies
Architect:	Steven Ho Architecture Incorporated
General Contractor:	Innova Development Coordination Inc.
Masonry Contractor:	Gracom
Engineer:	Grant Structural Engineering Ltd.
Other Team Member:	PricewaterhouseCoopers

At the design stage, we want The Oscar to be an iconic building but yet blend with the surroundings. Our design philosophy focuses on durability, maintenance free, timeless classic and incorporating local materials. The chosen Arriscraft Renaissance Stone fully reflects its characteristics. It gives this boutique building a strong and solid base. The careful placement of masonry bricks and smooth stones break up the large facade of the podium. We ran the Mutual Imperial Red Smooth brick from the base all the way to the top emphasized the verticality of this mid-rise structure. The use of masonry brick connects the upper and lower parts of the building and literally brings your eye down to the main entrance. Another highlight to the building is the fundamental contrast between modern and classic, and smooth and rough.

THE RAILWAY CAFE AND ORIENTATION CENTRE AT HERITAGE PARK

Owner:	Heritage Park
Architect:	Gowling and Gibb Architects
General Contractor:	Stuart Olson Dominion Construction Ltd.
Masonry Contractor:	Pockar Masonry Ltd.
Engineer:	David C. Woodall Structural Engineering
Landscape Architects:	IBI Group / Landplan

Heritage Park's new arrivals plaza includes a total of nine historic buildings that were replicated and morphed into three primary structures to form an inviting town square (circa 1930). The Railway Cafe, on the south side, is a restoration and faithful reproduction of Calgary's first sandstone railway terminal built in 1893. With its sandstone face, red timber highlights and low prairie style cedar shake roof, the recreated Canadian Pacific Railway station is the jewel of the arrivals plaza. Authentic in every detail the hand laid stone veneer walls consist of; a smooth faced 150mm limestone starter; a primary wall of 100mm pillow faced sandstone in a random ashlar pattern; a 150mm smooth faced sandstone water table; and various specialty sandstone pieces including cap stones, sills and bracket supports. Even the dormers and chimneys were carefully clad with the pulvinated sandstone. Authentic double hung windows and over sized entrance doors complete the look of this beautiful sandstone restoration.

WENTWORTH BROWNSTONES - BERKSHIRE A

Architect:	Wildman & Associates / Beattie Homes Ltd.
General Contractor:	Beattie Homes Ltd.
Masonry Contractor:	Am-Can Masonry
Other Team Member:	Gillis Quarries / I-XL Masonry Supplies

The design objective to loosely mimic true English Brownstones made way for the appropriate usage of clay brick with Tyndall Stone accents. The direction was to use naturally derived products versus manufactured products in an attempt to manage budget costs as well as showcase our homes in a market where these products have been relatively unused. The usage of each product type was specifically chosen to be both structural and integral parts of the exterior instead of appearing as strictly cosmetic applications. Tyndall stone was incorporated for the contrasting properties to clay brick as well as the structural properties required for the front entry arch. Lintel and sill details were also integrated for continuity of design which resulted in tasteful contrast throughout.

ARTISTIC USE OF MASONRY

WENTWORTH BROWNSTONES - BERKSHIRE B

Architect:	Wildman & Associates / Beattie Homes Ltd.
General Contractor:	Beattie Homes Ltd.
Masonry Contractor:	Am-Can Masonry
Other Team Member:	Gillis Quarries / I-XL Masonry Supplies

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WENTWORTH BROWNSTONES - BERKSHIRE C

Architect:	Wildman & Associates / Beattie Homes Ltd.
General Contractor:	Beattie Homes Ltd.
Masonry Contractor:	Am-Can Masonry
Other Team Member:	Gillis Quarries / I-XL Masonry Supplies

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WESTMOOR

Architect:	Wildman & Associates
General Contractor:	Beattie Homes Ltd.
Masonry Contractor:	Am-Can Masonry
Other Team Member:	I-XL Masonry Supplies

The use of clay brick was based on the desire to apply naturally derived product versus a manufactured product and to showcase our homes in a market and subdivision area where this product have been relatively unused. The exterior location of clay brick bond coursing was thoughtfully placed to appear both as structural and integral parts of the exterior instead of strictly cosmetic. The contrasting colour clay brick banding, lintel details and sill details were also integrated for contrast throughout the exterior facades. Within those contrasting elements are also the inclusion of alternating soldier and rowlock coursing for additional subtle detailing. The contrasting colours and coursing have created a strong, prominent and successful exterior in an area where homes are primarily clad in manufactured stone.

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AWARD OF EXCELLENCE

THE WATER CENTRE

Owner: City of Calgary
Architects: Sturgess Architecture and Manasc Isaac Architects
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Read Jones Christoffersen Structural Engineers

The Water Centre is Calgary's first Civic office building to exceed the City of Calgary's minimum LEED Silver standard, achieving LEED Gold. Masonry was used in the Water Centre to ground the building to the landscape, in juxtaposition to the steel and glass that form the major element of the building. The building marries the aspects of environmental fit and functional program into an iconic form that is symbolic of both its user and of its context. Located on a former industrial brownfield site, the design provides a finished boundary to improve the connection between the established residential neighbourhood and the re-development of the City's industrial park. The building is aligned to a major road on the North side of the site and the building's form establishes and protects the garden to the South. With a total area of 16,000m^2, The Water Centre houses 460 administrative staff and 360 operational staff in open office stations (irrespective of status), meeting and quiet rooms, conference facilities, crew changing and gathering areas. The Water Centre has improved the surrounding neighbourhood, presenting a beautiful and urban edge to the former industrial site.

AWARD OF MERIT

STAMPEDE STATION - PHASE 1

Architect: Gibbs Gage Architects
General Contractor: OPUS Development
Masonry Contractor: Pockar Masonry Ltd.

Located between 13 and 15 Ave SE, Stampede Station is a nine storey office tower with ground floor retail space and an atrium along with a three level underground parkade. The project is presented as an intelligent response to the warehouse district, incorporating heavy masonry and lighter curtain wall materials expressed in such a manner as to establish itself as being time. The overall affect on all elevations are buildings which give the impression of much smaller structures that have been built next to each other. All facades are highly articulated elevations that incorporate the brick masonry with other materials for dynamic effect.

HONOURABLE MENTION

CITY OF EDMONTON, FIREHALL NO. 11 (CAPILANO)

Owner: The City of Edmonton
Architect: The Workun Garrick Partnership Architecture and Interior Design Inc.
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: K. Hansen Masonry
Engineer: BPTEC-DNW Engineering Ltd.

The City of Edmonton Fire Hall No. 11 (Capilano) a pending LEED® Silver facility contains three double-deep apparatus bays and houses eight (8) fire fighters per shift. It includes offices, a space for classroom training, fitness area and a living quarters. The 1,100 m^2 facility is located on a triangular shaped city boulevard bordered on three sides by City of Edmonton roadways . This irregular shaped site deeply influenced the floor plan as well as informing the angular roof lines. Natural light through numerous clerestory windows augments the LEED design. The use of masonry in the interior was due to its durability in high traffic areas and walls could be used structurally. Early on in the design stages the owner group was clear they wanted the traditional red brick fire station around our modern form. The use of Splitface block and clay brick blended well with the glass, composite panel and wood that fits within the Capilano community.

ALBERTA TREASURY BRANCH - WINDERMERE

Owner: ATB Financial
Architect: Stantec Architecture Ltd.
General Contractor: Reed Atwood Builders Inc.
Masonry Contractor: K Hansen / Park Brick and Block
Engineer: Stantec Consulting Ltd.

Alberta Treasury Branch developed a vision that the design of all new branches will respond and support the communities in which they are located. For the Windermere location, clay brick was selected to emphasize and articulate internal programming of the branch to the exterior. The philosophy was to highlight the most secure areas of the branch to the exterior elevations as an architectural feature. The ATM machines and the day vault where treated with the masonry brick in stark contrast to the very transparent curtain wall system. The masonry units were detailed with a stack bond pattern to emphasis the structured order of the masonry. As part of the architectural guidelines imposed by the developer, an external tower element was required for the branch. The tower element was also clad in the same masonry units to reinforce its importance, and provide it with a strong material stature.

ALBI HOMES HEAD OFFICE

Owner: Albi Homes
Architect: IBI Group
General Contractor: Clark Builders
Masonry Contractor: Gracom
Engineer: MMP Structural Engineering Ltd.

Albi Homes, a prestigious home builder in Calgary, engaged IBI Group to design a new head office building that reflected the Italian heritage of the owner within an industrial set of design guidelines. The program called for 25,000 sq.ft. of office as well as a warehouse component and an interactive design centre. The result was a Tuscan vernacular of arch and column rhythm along the main facades. The primary materials are Tyndall stone and metal panel. The materials were detailed to reflect the arches and geometry prevalent in the Italian hill towns of Tuscany. The main Arched Tower functions as the focal point of the building much in the same way as the bell towers of the hill towns.

ALTALINK

Owner: Atlas Properties
Architect: SSE
General Contractor: Opus Building Corp.
Masonry Contractor: Sas-Can Masonry
Engineer: HMS Engineers
Other Team Member: I-XL Brick Supply

For the Altalink building the brick design was made of three strategically placed colours to give the building a 3D visual look. Masonry veneer was chosen for this project to increase the buildings longevity. The cavity of this building consists of peel and stick air vapor membrane and a rigid insulation held in place with a tie system that keeps the masonry structurally sound.

AMA KINGSWAY CENTRE

Owner: Alberta Motor Association
Architect: Architecture Arndt Tkalcic Bengert
General Contractor: Carlson Projects
Masonry Contractor: Scorpio Masonry (Northern) Inc.
Engineer: RJC Consulting Engineers
Other Team Member: I-XL Masonry Supplies and Brock White Company

AMA Kingsway is the Edmonton regional office for the Alberta Motor Association with retail operations on the main floor. The exterior incorporated horizontal accented brick masonry to accentuate the horizontality of the architecture and provides for a timeless look and finish. At the entry, Alberta Rundle stone was incorporated as a feature to celebrate Alberta stone and provide for a textured look on the exterior.

BEARSPAW WATER TREATMENT RESIDUALS FACILITY AND PRE-TREATMENT FACILITY

Owner: The City of Calgary
Architect: Goodfellow Architecture Ltd.
General Contractor: PCL Construction Management Inc.
Masonry Contractor: Gracom
Engineer: Associated Engineering Alberta

The Bearspaw Water Treatment Plant Facility has been constructed to increase the plants finished water production rate as well as improving water quality and the robustness of the system. The architectural treatment for the Pretreatment Facility utilizes a linear massing and structural expression in keeping with the functional requirements of the new process engineering. A central element topped with a butterfly roof and a protective canopy over the main entry is flanked by two metal clad piers that visually separate the entry from the two adjoining wings. The roof design breaks up the large expanses of flat roof and reflects the different functional elements within the plant. Sloped metal roofings re-collects elements of the earlier plant buildings and allows clerestory lighting to enter the facility. Dark brown brick that matches the original facility is complimented by a lighter coloured brick which provides detail and accent. Similarly, natural coloured aluminum panels are used to provide definition to the larger fields of brick and roofing elements.

BERGSTROM BLOCK

Owner: Christl Bergstrom
Architect: David Murray Architect
General Contractor: Ernest Keller Construction
Masonry Contractor: Park Brick and Block
Engineer: E.B. Jacobsen and Associates
Other Team Member: SCL Engineering

The Bergstrom Block is constructed on the last remaining commercially-zoned property in the block, previously undeveloped. The purpose of the project was to develop an infill commercial/residential building that would make a satisfactory transition between the small commercial zone and the adjoining residential buildings that fill the remainder of the block. This project provided the opportunity to enhance the main street, pedestrian character of Whyte Avenue and to offer a precedent for thoughtful infill development throughout the city. A walled garden was created in the ground floor side yard setback that softens the transition to the apartment block to the west. Brick was used on the facade of the building to create a sense of permanence and a strong edge for the rest of the block to the east. The design of the building is intended to invoke the modern post-war era and illustrate how a modern building can fit into the eclectic streetscape of east Whyte Avenue. The building houses the architect's office and his residence on the second floor. There is a roof-top garden on the third floor.

BLACKFOOT MOTO SPORTS

Owner: Blackfoot Moto Sports
Architect: Archiasmo
General Contractor: Elan Construction Design Build
Masonry Contractor: Sas-Can Masonry
Engineer: Grant Structural Engineers
Other Team Member: Calgary Masonry Supplies

This project's exterior walls were constructed of three colours of split face 20 centimetre structural block - charcoal, buff and red were the three chosen colours (charcoal and buff being the main colours, with red accent block). All block were filled with loose fill Zonolite insulation. The masonry on this building has all steel trusses and floor plates imbedded in the walls. Masonry was chosen for this project to assist with the buildings fire proofing, to protect the valuable merchandise inside.

BMO CENTRE

Owner: Calgary Stampede
Architect: Gibbs Gage Architects
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Ib Jensen Masonry Ltd.

Calgary Exhibition and Stampede is an organization deeply rooted in its 100 year past, rich in western heritage and values. They are committed to sharing these values and heritage with the Calgary community and the world. The Image for the expansion is based on the 1999 Roundup Centre Expansion, also designed by Gibbs Gage Architects. This image was developed with Calgary Exhibition and Stampede in early master planning for the Roundup Centre and the park and derived it's inspiration from several sources including turn of the century exhibition and train station architecture, and local turn of the century buildings in the Victoria Park and beltline areas. Brick and stone are the primary materials, conveying a sense of permanence and quality.

CALGARY HUMANE SOCIETY

Owner: Calgary Humane Society
Architect: Kasian
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Read Jones Christoffersen Ltd.

Attempting to understand the world from the point of view of a dog, cat and bird became the catalyst for this design. The facility is a centre of interpretation, education, adoption, and outreach for Calgary's companion animals. The building is cleanly subdivided to produce the most efficient, organized and sanitary environment for both people and the animals who inhabit the spaces. All parts are joined along a central axis which bisects the site from north to south. The building form is derived by separating the basic program elements into rectilinear cubes and applying a specific material to each. Brick was chosen as a façade for the areas where staff and volunteers work. Aside from its inherent beauty, brick was chosen because it signifies durability, strength and reliability, in parallel to the hard work and dedication of the staff. It also is a counter point to the other materials on the building, such as diamond shaped aluminum shingles and cedar slats, which correspond to the programmatic areas involving the animals and their care.

CANADA SAFEWAY

Owner: Canada Safeway
Architect: DIALOG
General Contractor: Bird Construction
Masonry Contractor: Sas-Can Masonry
Engineer: Cohos Engineering
Other Team Member: I-XL Brick Supply

Calgary's downtown Safeway used red brick with a grey accent feature brick to make this location stand out. The triple segmental arch over the entrance way is the key featured detail within this project. All columns were clad in brick to give the building a mild European look.

CAST SUPPLY HEADQUARTERS

Owner: Cast Supply Inc.
Masonry Contractor: Bond Masonry

This project involved extensive renovations to an existing concrete block warehouse to serve as the new headquarters of Cast Supply. Brick and Cast stone masonry was utilized as the feature elements to transform this ordinary industrial building into a modern office/ retail space. Large format black clay brick were contrasted with natural buff cast stone to create a dramatic street presence.

CCIS

Owner: Board of Governors of the University of Alberta
Architect: ONPA
General Contractor: PCL Construction Management Inc.
Masonry Contractor: Gracom
Engineer: Read Jones Christoffersen Ltd.

The centennial centre for interdisciplinary science was an extremely large masonry project. Staying with the traditional University of Alberta masonry exterior, this project was a complete brick wrap. The masonry construction schedule was approximately two years.

CECIL PLACE

Owner:	Clark Builders
Architect:	Architecture Arndt Tkalcic Bengert
General Contractor:	Clark Builders
Masonry Contractor:	Scorpio Masonry (Northern) Inc.
Engineer:	Read Jones Christoffersen Ltd, Kroening Consultants Ltd, Wasnea Mah Engineering Ltd, Focus Intec
Other Team Member:	I-XL, Arriscraft International

Cecil Place consists of a main floor grocery store with two storeys of commercial office space above. The building is located at the entry into a street with heritage character, and together with the historic Birks building, forms an important gateway. Masonry was used on Cecil Place to mimic the Birks building's curved decorative masonry facade, as well as to reflect its texture and rhythms of openings, bays, and datum lines with a more modern treatment. Precast concrete masonry accentuate the parapet, sills, and lintels, while the contrast between smooth and textured brick, complemented by two different mortar joint treatments and coursing, create a subtle pattern on the facade. Together with the use of curtain wall glazing and aluminum panels, masonry was used to sensitively address the rich and varied urban context of the site, and lend a sense of "celebration" at this street intersection.

CN WALKER OFFICE ADDITION

Owner:	Canadian National Railway Company
Architect:	Kasian
General Contractor:	EllisDon Construction
Masonry Contractor:	Scorpio Masonry (Northern) Inc.
Engineer:	Protostatix Engineering Consultants Inc.

Prior to the expiration of CN's 50-year lease at Edmonton's downtown CN Tower in April 2008, CN planned the construction and relocation of 300 employees from the CN Tower, to new office space located on railway property at CN's Walker Railway Yard. The local firm of Kasian Architecture & Interior Design was contracted to design a new 3-storey office building of 76,000 sq.ft. that would blend with and enhance the adjacent 5-storey precast concrete office building. The existing 50,000 sq.ft. building was constructed in 1982, and lacked the amenities that were to be provided by a full height interconnecting glass atrium with the new building. The architect chose a random 3-colour brick pattern that compliments the existing structural concrete and lends itself to the horizontal elements of the building. The color palette works nicely as a background for projections of steel panels colored in CN's corporate Red.

CRYSTALRIDGE - CALGARY ALBERTA FOOTHILLS STAKE

Owner:	The Latter Day Saints
Architect:	Labelle, Gerald Architect
General Contractor:	Westcor Construction Ltd.
Masonry Contractor:	Gracom
Engineer:	Labelle, Gerald Architect

This institutional building required a low maintenance high quality exterior finish. This was accomplished by using different types of clay brick masonry with specialized shaped units to enhance the quality and overall visual appearance. The use of masonry on this building has been repeated in recent years on many buildings built by this client and is a testament of the overall quality of what masonry brings to the table.

FOX HOTEL & SUITES

Owner:	Banff Caribou Properties Ltd.
Architect:	E J Darch Architect Ltd
General Contractor:	K. W. Hines Contracting Ltd
Masonry Contractor:	Apex Stoneworks Inc.
Engineer:	Grant Structural Engineering Ltd.
Other Team Member:	Kamenka Quarry Ltd

This project is located on the hotel section of Banff Avenue in the Banff Townsite. It consists of four buildings arranged around a courtyard and placed on an underground parking structure and spa facility. The opening in the courtyard visually connects the cave portion of the spa to the outdoors. Dividing the project into smaller segments reduces the overall scale of the building making it more appropriate to a town. Around the streetside perimeter of the building are verandas which give access to individual suites adding a residential character to the elevations. Historically, significant architecture in the mountains, such as the Banff Springs Hotel and the Banff Administration Building, have been designed with stone facades. This gives the buildings a feeling, both substantive and visual, of timelessness and durability. Here we have attempted to carry on the expressive strength of the stone facade. This building was constructed as a private enterprise commercial venture and while stone has a higher cost than other materials it has proven to be appreciated by guests and has become a signature of The Fox Hotel and Suites.

I-XL MASONRY CALGARY

Owner: I-XL Masonry Supplies Ltd.
General Contractor: Spacemakers Construction Services Inc.
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Quinn Saretsky Structural Engineers Inc.
Other Team Member: Comtech Drafting and Design Services

I-XL Masonry being the premier supplier of masonry products had a vision for the Design and Architecture of their new Calgary Headquarters. The choice to use traditional red brick and buff brick was a natural fit as the red brick is one of I-XL's biggest sellers and depicts the essence of the owner's bread and butter business. The design team spent many hours with the owner creating and reviewing every minute detail to ensure the "Georgian" theme was accurate and reflected the attention to detail that the I-XL team gives to all their products / projects. The architectural masonry was used in a rain screen method of applying a Wythe of masonry to the exterior of a steel stud, batt insulation, exterior grade Gypsum board and building paper with an air space system.

JACOBS CANADA CORPORATE OFFICE BUILDING - QUARRY PARK

Owner: KanAm Grundinvest Fonds
Architect: Riddell Kurczaba Architecture Engineering
Interior Design Ltd.
General Contractor: Remington Development Corporation
Masonry Contractor: Thibeault Masonry Ltd.

This project aspires to be a "building in a landscape", serving as a prominent counterpoint to the "box on flatness" outcome that is typical in our prairie environment. Architectural character is derived not just from the prairie context where the horizontal nature of the landscape is expressed, but also from the vertical material expression of the historical stone quarry on site. The building is based on timeless traditional design principles, specifically the classical tripartite ordering of base, middle, and top which creates both an appropriate sense of grounding and a connected response to sky in its silhouette. A strong sill base exists composed of Tyndall stone at the principal plane of elevation as well as the vertical pilasters that carry the roof expression. Three-storey wings provide the base to four-storey wings with more expressive modern overhangs capping the building. The fourth storey and entry areas contrast curtain wall glass expression with the more traditional masonry base pilaster and masonry stair towers. The result is a pleasing sense of tension.

KEYNOTE

Owner: Balboa Land
Architect: Gibbs Gage Architects
General Contractor: PCL Construction Management Inc.
Masonry Contractor: Pockar Masonry Ltd.

Located between 11th and 12th ave. S.E. and fronting onto 1st Street S.E., this site plays a significant role in the continued resurgence of the Beltline District. As the Beltline district is the transitional zone between the Historic Warehouse district and the Downtown Urban Hub, it was the intent to incorporate elements of Warehouse Scale and Materiality into our project. A varied mixture of street level massing, incorporating traditional brick masonry and warehouse proportions, is melded into a contemporary, pedestrian friendly environment that exceeds the planning directives as highlighted in the newly formed Beltline ARP. The three towers that emerge from the masonry base are an elegant combination of metal and glass forms that step up in height. Each of these towers is visually rotated at 45 degrees to the street grid to improve sunlight penetration within and around the block, to create clear unimpeded sight lines from within each of the towers past the next, and to create a dynamic, powerful collection of angled forms, reflective of the importance of this transitional site from the Downtown to the Beltline.

LAKEWOOD DEVELOPMENTS

Owner: Westlake Developments Inc.
Architect: A&E Architectural & Engineering Group Inc.
General Contractor: Everest Builders Ltd.
Masonry Contractor: Custom Stone Creations Ltd.
Engineer: Janto Engineering Inc.

A jewel at the eastern gateway to Spruce Grove, the Lakewood complex is a new 6 phase commercial development project on Century Road and Highway 16 West. The $15 million complex is built through the use of rock, stucco and planking, creating a mountain village ambience with close proximity to major recreation destinations on the Yellowhead Highway. The surrounding neighbourhood is comprised of new and mature single family homes. Lakewood Commercial Development consists of 6 single storey buildings constructed in masonry and stucco cladding creating a mountain chalet theme sympathetic to the scale of its surrounding neighbourhood. The complex contains a level of finishing that is not seen in other surrounding projects. The buildings themselves boast chalet type windows, decorative peaks and feature stone chimneys. The first two buildings are completed and occupied. Subsequent phases are expected to be completed by 2012. Developing a project of this magnitude that would appeal to everyone was a challenge which required special care in selecting every element that went into construction. The idea was to make the complex both charming and timeless.

LEGER TRANSIT CENTRE

Owner:	City of Edmonton
Architect:	A&E Architectural & Engineering Group Inc.
General Contractor:	Balon Construction Ltd.
Masonry Contractor:	Park Brick & Block Ltd.
Engineer:	A&E Architectural & Engineering Group Inc.

With its roof wings, masonry and reflective claddings, the Leger Transit Centre celebrates transportation in the new millennium; it creates visual interest and enhances the identity of its surroundings. This project houses three waiting areas, complete with a concession behind a curved glass block wall. It encompasses 195m^2 of protected space. The building is constructed of steel and masonry, with aluminum composite panels indicative of 21st century transportation. Glazing on all four sides provide a full view of the area. Two distinctive brick masonry towers anchor the almost transparent building to the passenger platform. The towers, through the use of masonry, offer a sense of human scale, tactile but durable material and an interesting profile to the sky. We focused on making the Transit Centre a connecting element, joining the 23rd Avenue corridor and the whole neighbourhood to the new adjacent Recreation Complex. Bike and hiking paths begin to connect and merge together at the Transit Centre creating an "electrical hub" where the bike paths, streets and driveways are "plugged in".

MEADOWS TRANSIT CENTRE

Owner:	City of Edmonton
Architect:	DIALOG
General Contractor:	Jen-Col Construction
Masonry Contractor:	Mudslinger Masonry Inc.
Engineer:	Aecom

The Meadows Transit Centre was designed out of brick and block. With the structure of the building being built out of block for a strong, long lasting structure, then being wrapped in a peal and stick air vapor barrier, with 3 inch rigid foam insulation to increase the R-value of the building. The exterior of the building was wrapped in two types of brick. The main brick was the Sundance Matt, produce by Hanson Brick and Supplied by Cast Supplies. The accent band was the Sable Smooth, I-XL Brick supplied by I-XL Brick. Using the two types of brick from two suppliers made the project come together.

METRO OFFICE BUILDING

Owner:	Metro Paving Ltd.
Architect:	Jackson Baker McCormick Design Group
Masonry Contractor:	Aurora Masonry Ltd.
Other Team Member:	Farnum Construction Management & Consulting Ltd.

2 Storey, 6506 sq.ft., Steel & Concrete Construction. Combination of aluminum panels, steel cladding, and brick masonry units were used for exterior cladding to achieve modern contemporary appearance. To achieve this look, a unique brick size: Norman Titans (11$^1/_2$" L) were used on this project.

OPUS 8

Owner:	Opus
Architect:	Stantec Consulting Ltd.
General Contractor:	Opus Building Canada Inc.
Masonry Contractor:	Gracom
Engineer:	Stantec Consulting Ltd.

In this downtown location it was important to keep exterior masonry detailing simple yet defined with large natural stone masonry units. The high scale nature of this location required the use of larger sized units to accent other building products used on this building while maintaining high quality and low maintenance products.

PRINCETON GRAND WATERFRONT AND CITYVIEW

Owner: Pauls Properties
Architect: BKDI Architects
General Contractor: Graham Construction and Engineering
Masonry Contractor: Gracom
Engineer: RJC Consulting Engineers

This high rise and low rise condominium complex sits at the heart of the Bow River. With its spectacular views and breath taking surroundings,this building was made with a combination of Arriscraft and red brick. The use of radius band masonry and smooth and rock face detailing was in keeping with the nature of the river valley.

QUARRY PARK WEST, REMINGTON HEAD OFFICE BUILDING

Owner: Remington Development Corp.
Architect: IBI Group
General Contractor: Remington Development Corp.
Masonry Contractor: Don's Stone Masonry Ltd.

Remington Development Corporation is the developer of Quarry Park, a 3 storey 8,320 m^2 office building in Calgary, AB, and has relocated their head office to the third floor of this prime location building at the entry of Quarry Park. The remaining space is leasable office space. As the developer for Quarry Park, Remington undertook to convert an old gravel pit to a state-of-the-art mixed use community. Quarry Park West is the conversion of a 315 acre gravel pit in southeast Calgary to a state-of-the-art mixed-use development including retail, office, industrial and residential uses. The master plan setting is anchored by a series of water features connecting to the Bow River. Throughout the development, the use of natural stone is a consistent element that pays homage to the site's origin as a quarry. The head office building continues this use of natural stone as accent pieces on the building exterior including natural stone bands and vertical stone elements. The pond feature walls as well as the stair and ramp walls are all clad in the same natural stone. On the interior, the stone is brought into some of the more public spaces of Remington's office space including the lobby and reception area. Stone is also used in some of the larger offices and meeting areas.

RIBTOR - PHASE II

Owner: Ronmor
Architect: Gibbs Gage Architects
Masonry Contractor: Pockar Masonry Ltd.

Ribtor East is a new brick office building which completes the corner of a redevelopment site within the Warehouse District that includes a number of historic buildings, including the first phase to the West of this site which was constructed in 1912 and recently redeveloped for office use. The brick bays and masonry details are an appropriate response to the context of the historic site and the district. The brick bays provide continuity of the urban fabric and both rhythm and texture that are important for this building along the street and while providing for large areas of glazing for the office use. The use of brick provides the necessary historic continuity of both detail and colour.

RONA HOME GARDEN

Owner: Rona
Architect: Riddel Kurczaba Architectural Engineering
General Contractor: Graham Construction & Engineering a JV
Masonry Contractor: Gracom
Engineer: Riddel Kurczaba Architectural Engineering

A large retail building developed in Creekside district at the Symons Valley area in Calgary. We used a combination of different textured concrete masonry units and brick panels to provide more upscale architectural detailing. The extensive use of masonry was necessary at keeping long term maintenance costs to a minimum to satisfy this large national clients needs.

ROYAL CANADIAN PACIFIC RAILWAY PAVILION

Owner: Canadian Pacific Railway
Architect: DIALOG
General Contractor: Centron Construction Group
Masonry Contractor: G & M Stone Masonry
Engineer: DIALOG

The inspiration for the Royal Canadian Pacific Entry Pavilion is the image of an historic steel trestle bridge. The trestle sets up the primary public space – the grand foyer or Galleria - which links directly to the existing Royal Canadian Pacific train pavilion. A three-storey wall of cable and spider fitting glass faces the Palliser Hotel and fills the Galleria with natural light. The full height interior west wall features large module limestone masonry, as does the exterior cladding at both the front entrance and building base along 1st street S.W. In addition to being a durable and highly attractive building material, the use of limestone masonry is consistent with the existing train pavilion and is sympathetic to the adjacent historic sandstone clad Palliser Hotel and neighbouring Grain Exchange building. Other materials include black plate steel and glass. The facility embraces the history and contemporary values of the current day Canadian Pacific company. Oversized heavy steel members emulate the traditional trestle bridge and the large module limestone masonry reflects the heavy nature of the Rocky Mountains.

SANJEL

Owner: MacBain Properties Ltd.
Architect: Coupland Kraemer
General Contractor: Devitt & Forand Contractors Ltd.
Masonry Contractor: Gracom

The Sanjel Professional Park in Calgary, Alberta is a facility that incorporates their office, laboratory, and large machine mechanic shop requirements to help support all of their service lines globally. With experience and creative flair, Sanjel's scientists and technical specialists use this facility to translate their world-class technical resources into quality products and superior field performance. Sanjel has an enviable reputation for technical innovation, short development cycles and customized solutions. As well as significant in-house initiatives, ideas and innovations are generated through synergistic relationships with chemical suppliers, consultants, professional organizations, independent laboratories and local universities. Sanjel interacts with organizations ranging from small, research-oriented companies to global chemical firms, constantly refreshing and invigorating their technical base. Coupland Kraemer Architecture + Interior Design, based in Calgary, designed this facility for Sanjel with the variety of uses in mind while allowing the translation of the industrial machine shop and office components to mesh seamlessly through the use of material and design.

SASSO AND VETRO TOWERS AT STAMPEDE STATION

Owner: Cove Properties Ltd.
Architect: Abugov Kasper Architecture Engineering
General Contractor: Cove Properties Ltd.
Masonry Contractor: Gracom
Engineer: TRL & Associates

In this intercity high profile location, we decided to use a combination of exterior Tyndall stone with a red brick facade to compliment historical aspects of local surroundings while maintaining high end quality exterior products. The products used were keeping with the high scale nature of the property and were low maintenance and high valued providing maximum efficiency for perspective buyers.

SAWRIDGE EDMONTON SOUTH - CREATIONS DINING ROOM

Owner: Sawridge Group of Companies
General Contractor: Petrocom Construction Ltd.
Masonry Contractor: Deutsch Masonry

Sheffield Design's concept was to give the client, Sawridge Edmonton South, a space that reflected their company's mission to provide their guests with a warm, natural and inviting environment. The designer used natural materials and colours with a variety of textures to create a warm and dramatic space. A large scaled fireplace and water feature wall were incorporated to give intimacy to an existing large cold space. Large overhead faux timber beams were added to give a sense of privacy to restaurant and lounge guests as well as give an interesting view for hotel guests looking down into the new atrium from above. Saratoga Rustic Ledgestone from Eldorado Stone was selected for this renovation as the stone material of choice as it was lightweight and an easy install in an existing space. It was used on both the massive fireplace and water feature walls as well as on a number of over scaled columns throughout. The Ledgestone set off the natural environment beautifully and added the drama and warmth the client was looking for.

SOUTHGATE CENTRE EXPANSION

Owner: Susan Brisby
Architect: Stantec Architecture Ltd.
General Contractor: PCL Construction Management Inc.
Masonry Contractor: Scorpio Masonry (Northern) Inc.
Engineer: Frank Cavaliere
Other Team Member: Pappas Design Studio Inc.

In its latest expansion, Southgate Centre aimed to augment its upscale shopping experience by adding up to 34 new retail units and developing an exterior façade that incorporates two levels of parking above the retail. Early in the design phase, the use of brick masonry was an obvious choice to root the building in its site and connect it with the existing mall. The roman-size brick, characterized by a long and narrow profile, reflects the horizontality of the main facade, yet avoids monotony by offering subtle variations in its golden tones. The brick is also strategically directed upward as it wraps around the vertical fire exits, expressing the material on the two floors above, which was developed as additional parking area. The concrete structure is prominent on these two floors, and the selection of the brick with its golden color was selected to help users quickly locate the closest fire exit. The use of masonry on this project not only provides a strong connection to the existing building, but also draws citizens in with its warmth, connecting them to a timeless and enduring building material.

STAMPEDE CASINO

Owner: Calgary Stampede
Architect: S2 Architecture
General Contractor: Ledcor Construction
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Wiebe Forest Engineering

Standing as a homage to the history of Canada's West, and a symbol of the future of the Calgary Stampede, the Stampede Casino is the premier building designed and constructed as part of a 20-year masterplan that will completely redevelop the grounds. Envisioned as an exceptional entertainment destination, the Casino provides tourists and locals with a signature Stampede experience, all within Calgary's largest gaming area. Reflecting on the resilience and strength latent in Calgary's architecture after the great fire of 1886, the Casino's utilization of brick and masonry helps to project an iconic image of the permanence and stability of the world's largest outdoor rodeo and exposition.

STEELS INDUSTRIAL PRODUCTS EDMONTON OFFICE AND WAREHOUSE BUILDING

Owner: Steels Industrial Products Ltd.
Architect: BCW Architects
General Contractor: Integrated Construction Concepts Ltd.
Masonry Contractor: Gracom
Engineer: Krahn Engineering
Other Team Member: Arriscraft International

The new office, showroom and warehouse for Steels Industrial Products Ltd. provides a larger and more efficiently modern home for this major products supplier. In addition, the building showcases some of their product line by artful delineation of masonry volumes. The use of masonry was both a showcase for products carried by the company and a durable, sustainable finish material. It is used to show the warmth of the product when highlighted by sunlight, and the way that it can be manipulated in volumes to build visual interest through light, shadow, and texture. The sawtooth facade creates interest out of simple geometry, and the texture of the stone gives richness of texture to the volumes.

THE HASKAYNE MERCANTILE BLOCK AT HERITAGE PARK

Owner: Heritage Park
Architect: Gowling and Gibb Architects
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Pockar Masonry Ltd.
Engineer: David C. Woodall Structural Engineering
Landscape Architects: IBI Group / Landplan

Heritage Park's "New Town Square" includes a total of nine historic buildings that were replicated and morphed into three primary structures to form an inviting town square (circa 1930). The rich masonry palette, attention to detail, and lively colors form a vibrant and impressive backdrop evocative of those early days. To the north of the plaza, the Haskayne Mercantile building features four building facades tied together to create a retail block of five stores and a second storey administration centre. Faithful reproduction of the Turpin Tweed Building from Medicine Hat, Alberta creates the majority of the main facade, featuring a combination of a limestone starter, red brick walls, sandstone highlights, and authentic wood windows and awnings in twelve different historic colours. On the north east corner the building is anchored by the #7 fire hall clad in dark brown brick, and complete with a clock tower in place of the original hose tower. It is the detailing of the original brickwork and the craftsmanship of the masons that gives the building it's unique charm and character.

COMMERCIAL BUILDING

THE VENTO

Owner:	Acqua-Vento Development Ltd
Architect:	Busby, Perkins and Will
General Contractor:	Stuart Olson Dominion Construction Ltd.
Masonry Contractor:	Pockar Masonry Ltd.

Masonry was selected for the Vento for four key reasons The City of Calgary developed architectural control and design guidelines for the site which included the requirement to incorporate masonry brick into the architecture of the project. Sustainability: brick is a product of raw materials borrowed from the environment. The combination of earth, water, fire and air produces one of the greenest cladding materials available. Brick is also reusable and recyclable, and will likely outlast the Vento itself. Durability: brick is virtually maintenance free and is better at withstanding the erosion that a building normally experiences at grade. It is also a long lasting material that is expected to never require replacement. Appeal: brick has an aesthetically attractive cladding material, and because it requires virtually no maintenance, it is appealing to the retailers who depend on clean and tidy storefronts to help attract customers. The coursing of the brick is deliberately stack bond to give it a contemporary appearance. Brick demonstrates style and substance while showcasing time honoured quality and strength.

WEST CANADIAN GRAPHICS

Owner:	Homer Investments c/o West Canadian Graphics
Architect:	DIALOG
General Contractor:	Charter Construction Ltd.
Masonry Contractor:	Gracom
Engineer:	Read Jones Christoffersen Ltd.

This project completed in the historical Inglewood district in Calgary required the use of materials to compliment the surroundings. Located close to the old Calgary Brewery meant it was necessary to keep the old to match the new. The use of historic red brick and extensive Tyndall detailing was a client requirement to satisfy this need. The use of radius detailing and subtle brick and stone accents helped give this building it's distinctive look matching it's historic surroundings.

XL BEEF COOLER EXPANSION

Owner:	XL Foods
Architect:	Stantec Consulting Ltd
General Contractor:	Stuart Olson Dominion Construction Ltd.
Masonry Contractor:	Gracom
Engineer:	Earth Tech Canada Inc.

This job consisted of 101 red brick veneer and Tyndall stone detailing providing a low maintenance exterior. The use of masonry detailing was to soften the appearance of the office portion of the building's exterior.

MASONRY RESEARCH AND EDUCATION IN CANADA

Masonry is probably the oldest building material used by man; and yet, there is still much we need to learn about it. Right now, thanks to the support of the industry, professors in universities around Canada are working on research projects that will improve the way masonry is designed and built.

Setup – In-plane shear behaviour of reinforced concrete masonry.

Photo: Dr Shelley Lissel, University of Calgary

UNIVERSITY OF CALGARY (CALGARY, AB)

Dr. Nigel Shrive and Dr. Shelley Lissel

Dr. Shrive obtained his graduate degrees from the University of Oxford (UK). He has been engaged in researching and teaching masonry since 1975.

Dr. Lissel completed her graduate studies under Dr. Shrive's supervision. In 2003, she established a masonry research centre at the U of C. She teaches the Structural Masonry course to undergrad and graduate students.

Currently, Dr. Shrive and Dr. Lissel have seven graduate students carrying out the following research in masonry at the U of C:

- Shear of concrete masonry walls
- The mechanism of failure of the walls of the Prince of Wales Fort (Manitoba, built in the early 18th Century)
- Cross-wall ties for improving the seismic resistance of historic masonry
- Shear resistance of partially grouted block masonry (using widely spaced reinforcement)
- Shake table testing of heavily-reinforced concrete masonry walls
- In-plane shear behaviour of reinforced concrete masonry
- Investigation of the bond shear strength of a mortar joint at the micro-level

Photo: Dr Nigel Shrive, University of Calgary

Photo: Dr Shelley Lissel, University of Calgary

Typical wall crack pattern (outer and middle cores reinforced 15M bars, joint reinforcement every 2nd course)

UNIVERSITY OF ALBERTA (EDMONTON, AB)

Dr. Yasser Korany

Dr. Korany completed his graduate studies in Egypt, and obtained a PhD from McMaster University. He is the Chair in Masonry Systems at the University of Alberta (MCAA-Northern Region), and co-author of the 3rd edition of the Canadian textbook "*Masonry Design for Engineers and Architects*".

Currently, Dr. Korany has four graduate students performing research in masonry at the U of A. The research topics include:

- Re-establishing the correlation between masonry compression strength and unit strength
- Design and analysis of masonry infill shear walls using finite element method
- Reliability analysis of masonry buildings under seismic load
- Reassessing the validity of Table 4 (concrete masonry compression stress) in the design standard S304

MCMASTER UNIVERSITY (HAMILTON, ON)

Dr. Wael El-Dakhakhni and Dr. Robert (Bob) Drysdale

Dr. El-Dakhakhni completed his graduate studies at Drexel University (US). He is the Martini, Mascarin and George Chair in Masonry Design at McMaster. He teaches three masonry courses (one for undergrads, and two for graduate students) at McMaster.

Dr. Drysdale obtained his graduate degrees from the University of Toronto. He is an active Professor Emeritus at McMaster, and co-author of the textbook "*Masonry Structures: Behaviour and Design Canadian Edition*".

In 2010, Dr. El-Dakhakhni had 16 graduate students carrying out research in the following topics:

- Seismic response of reduced-scale reinforced masonry buildings
- Performance of arching unreinforced masonry walls under blast
- Ductility of reinforced masonry walls with boundary elements
- Performance-based seismic design of reinforced masonry buildings
- Hardening of masonry structures against blast loads
- Characterization of reduced-scale concrete block wall components and assemblages
- Structural modeling and similitude of reduced-scale reinforced masonry shear walls
- Behaviour of a two-story reinforced masonry building under simulated seismic loading
- Effects of expansive soils on unreinforced masonry single-story buildings
- Shake table testing of nominally-reinforced masonry shear walls
- Comparison between reinforced concrete and reinforced masonry shear wall seismic performances
- Quantifying the seismic response parameters of coupled masonry shear walls
- Fragility functions for unreinforced masonry buildings in developing countries
- Mixed modelling approach for masonry structures under blast loading
- Innovative multi-purpose reinforcement technique for low-cost masonry houses
- Design guidelines for masonry blast-walls in Canadian nuclear power plants

UNIVERSITY OF SASKATCHEWAN (SASKATOON, SK)

Dr. Bruce Sparling and Dr. Lisa Feldman

Dr. Sparling completed his graduate studies at the U of S, and obtained a PhD from the University of Western Ontario. He is the Director of the Saskatchewan Centre for Masonry Design at the U of S. He teaches the Design in Masonry course at the undergrad and graduate levels.

Dr. Feldman obtained her PhD from the University of Western Ontario. She is the Principal Investigator of the Saskatchewan Centre for Masonry Design.

Currently, there are four graduate students performing research in masonry. The corresponding research topics are as follows:

- Testing double pullout and wall splice specimens with contact and non-contact lap splices
- Development length and splices provisions for reinforced masonry construction
- Cold weather masonry construction
- Realistic wind loading of unreinforced masonry walls

CARLETON UNIVERSITY (OTTAWA, ON)

Dr. Edward Sherwood and Dr. Khaled Ibrahim

Dr. Sherwood obtained his PhD from the University of Toronto. He teaches masonry design at the undergrad level.

Dr. Ibrahim obtained his MSc and PhD from the Carleton University, under Dr. Gary Suter. He is an Adjunct Professor at Carleton, and teaches masonry design at the graduate level.

Currently, Dr. Sherwood has three graduate students carrying out research in the following topics:

- Effective shear design of reinforced masonry beams
- Strut-and-tie modeling of shear in masonry structures
- Rational shear design of reinforced masonry walls

Photo: Dr Shelley Lissel, University of Calgary

Left: Effects of the different parameters affecting the shear resistance of concrete masonry walls. Wall with no joint reinforcement (vertically reinforced outer and middle cores)

UNIVERSITY OF BRITISH COLUMBIA (VANCOUVER, BC)

Dr. Kenneth Elwood and Dr. Donald (Don) Anderson

Dr. Elwood completed his undergrad studies at UBC, and obtained his PhD from the University of California. He is actively involved in research related to the seismic response of buildings.

Dr. Anderson is an active Professor Emeritus at UBC. He obtained a PhD from Stanford University. His research work has been on the seismic testing of reinforced concrete and masonry, and nonlinear analysis of structures. He is co-author of the "*Seismic Design Guide for Masonry Buildings*".

Currently, Dr. Elwood has two graduate students performing research in masonry. Selected research topics include:

- Seismic rehabilitation of existing concrete and masonry buildings
- Stability of reinforced masonry shear walls under seismic loading (NSERC CRD project with support of CCMPA and MIBC, and the collaboration of Prof. Svetlana Brzev at BCIT)

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY (BURNABY, BC)

Dr. Svetlana Brzev and Dr. Rishi Gupta

Dr. Brzev completed her graduate studies in Serbia, and obtained a PhD from the Indian Institute of Technology (India). She teaches courses related to design of masonry structures at BCIT. She is co-author of the "*Seismic Design Guide for Masonry Buildings*".

Dr. Gupta completed his undergrad studies in India, and his graduate studies at UBC. He has been part of the UBCIT faculty since 2007.

In 2010, Dr. Brzev had eight undergraduate students carrying out research projects in masonry:

- Stability of reinforced masonry columns under reverse cyclic loading
- Comparison of mechanical properties of Haitian and Canadian concrete masonry
- Material properties of concrete block masonry for reinforced masonry columns
- Compressive strength of masonry prisms using scaled concrete blocks
- Testing the flexural capacity of masonry walls with polyurethane foam
- Compression and shear properties of concrete masonry with polyurethane foam
- Testing the effect of polypropylene fibres on bond strength and flowability of masonry mortar
- Research the bond strength of mortar containing fly ash

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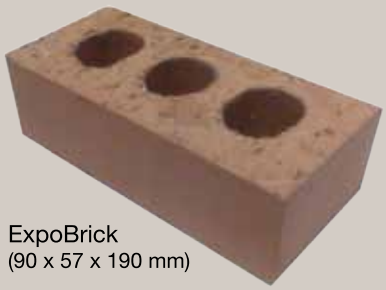

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DALHOUSIE UNIVERSITY (HALIFAX, NS)

Dr. Yi Liu

Dr. Liu obtained an MSc from Xi'an University (China), and a PhD from the University of New Brunswick, under Dr. John L. Dawe. She teaches the Special Topics in Structural Systems course, where design of masonry is covered. Currently, Dr. Liu has three graduate students performing research in masonry. The research topics include:

- In-plane behaviour and capacity of concrete masonry infilled steel frames, with the focus on the behaviour of infill walls
- Assessment of available design equations in the current design standards, and proposed by various researchers, concerned with the design of masonry infilled steel frames

CONCORDIA UNIVERSITY (MONTREAL, QC)

Dr. Khaled Galal

Dr. Galal obtained an MSc from Ain Shams University (Egypt), and a PhD from McMaster University. He teaches the Structural Design II course, where undergraduate student are introduced to masonry structures. Dr. Galal's research topics include:

- Strengthening of unreinforced masonry walls with openings using carbon fibre-reinforced polymer strips to resist extreme out-of-plane cyclic loads
- Seismic behaviour of reinforced concrete walls subjected to far- and near-field earthquake ground motions

UNIVERSITY OF MANITOBA (WINNIPEG, MB)

Dr. Aftab Mufti and Dr. Fariborz Hashemian

Dr. Mufti completed his undergrad studies in Pakistan, and obtained a PhD from McGill University. In 2010, Dr. Mufti was awarded the Order of Canada, for his contributions to and leadership in the field of civil engineering.

Dr. Hashemian completed his undergrad and graduate studies at the U of M. He is now in charge of all the academic activities on masonry materials. He also collaborates in research projects at the Centre for Architectural Structures and Technology (C.A.S.T.).

In 2010, Dr. Mufti won a research grant from NSERC:

- Compatibility of anchors in heritage masonry structures

In addition, Dr. Mufti's latest research topics (in collaboration with Dr. Shrive at the U of C) include:

- In-plane seismic behaviour of historic stone masonry
- Dynamic behaviour of strengthened stone masonry walls

UNIVERSITY OF WINDSOR (WINDSOR, ON)

Dr. Sreekanta Das

Dr. Das completed his undergrad in India, his MSc in Australia, and obtained a PhD from the University of Alberta. He teaches the Design in Timber and Masonry courses. His current research topics include:

- Reduction in strength of concrete masonry due to web interruption

MCGILL UNIVERSITY (MONTREAL, QC)

Dr. Yixin Shao

Dr. Shao completed his graduate studies in China, and obtained a PhD from Northwestern University (US). He is an Associate Professor at McGill, and his area of expertise includes environment-friendly building materials. His current research related to masonry includes:

- Recycling carbon dioxide into concrete: a feasibility study (supported by CCMPA)

ATHABASCA UNIVERSITY (CALGARY, AB)

Athabasca University, Canadian leader in online and distance education, is working with the Royal Architectural Institute of Canada (RAIC) to develop the Bachelor of Science in architecture and Graduate Diploma in Architecture programs. CCMPA is contributing with $250,000 over five years to the initiative.

AWARD OF EXCELLENCE

PINE CREEK WASTEWATER TREATMENT PLANT

Owner: City of Calgary
Architect: GEC Architecture
General Contractor: Graham Construction
Masonry Contractors: Pockar Masonry Ltd., Gracom and Thibeault Masonry Ltd.
Engineer: Stantec Consulting Ltd.
Prime Consultant: CH2M HILL

A highly visible location in the Bow River valley required a strategy for a coordinated, single design to address the "industrial" appearance of the Pine Creek Wastewater Treatment Plant. The design aims to integrate the buildings and structures into the natural landscape of the site through the use of natural materials such as zinc cladding and river stone gabions, and as part of the demonstration of sustainable design practices. Careful placement of earth berms and green roofs provide naturalized visual screening to reduce the apparent size of the plant both from the river and the escarpment above. Masonry was the first choice in meeting these criteria – it provides the natural appearance and civic aesthetic to meet the design needs, while also providing the performance, durability and life cycle to successfully function in a demanding industrial environment. The Pine Creek Wastewater Treatment Plant is designed as a campus with the site incorporating LEED criteria. The Operations, Maintenance & Administration Building has achieved LEED Gold accreditation.

AWARD OF MERIT

ROYAL ALEXANDRA HOSPITAL – ROBBINS PAVILION

Owner: Alberta Health Services
Architect: DIALOG
General Contractor: EllisDon Construction Services Inc.
Masonry Contractor: Scorpio Masonry (Northern) Inc.
Engineer: DIALOG

The new Robbins Pavilion is the largest addition to the Royal Alexandra Hospital campus in a decade. Materials for the Robbins Pavilion both repeat the existing campus palette as well as compliment it. Buff yellow brick matching the existing campus for the main mass of the inpatient unit wings and administration block. Subtle patterning occurs in the brickwork through the use of coursing, size and texture changes. Horizontal angled seam zinc metal cladding and glazed curtain wall are used within the masonry wall design as accent material and to provide visual relief from the brick mass of the lower wings. At the building's interior, smooth stacked bond brick is used to anchor the elevator/vertical circulation core. The use of this brick reinforces the relationship between the interior and exterior. The buff colour selected compliments the interior use of wood providing warmth in contrast to the stainless steel and exposed concrete finishes.

HONOURABLE MENTION

GASOLINE ALLEY AT HERITAGE PARK

Owner: Heritage Park
Architect: Gowling and Gibb Architects
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Pockar Masonry Ltd.
Engineer: David C. Woodall Structural Engineering
Landscape Architects: IBI Group / Landplan

The feature building of Heritage Park's "New Town Square" is the 74,000 square foot "Gasoline Alley" transportation museum and interpretive centre. The building is composed of six buildings combined into one to form a continual streetscape circa 1930. The main complex, and exposed east facade, is modeled on the original Calgary Public Market Building (circa 1914) a "Greek Revival Style" featuring red brick and stucco. The south east corner is a reproduction of a 1900 "Boom Town Style" in beautifully crafted yellow brick, and contrasting burgundy trim and awnings. On the long south facade the 1920s General Supply Limited building is featured with its "Edwardian Commercial Style", classic red brick and sandstone highlights. The West facade of full sandstone veneer clads the founders lounge inspired by McDougall School in Calgary and the Empress Lounge in Victoria.

ALBERTA HEALTH SERVICES' PETER LOUGHEED CENTRE (PLC)

Owner:	Alberta Health Services
Architect:	HOK
General Contractor:	Stuart Olson Dominion Construction Ltd.
Masonry Contractor:	Pockar Masonry Ltd.
Engineer:	Stantec
Other Team Member:	Marshall Tittemore Architects

The extensive 398,265 sq.ft. expansion of the Peter Lougheed Centre, completed in March 2008, provides Calgary's rapidly growing population with an innovative and highly efficient facility that can accommodate more patients and aid in their recovery time, while offering staff a comfortable environment to carry out their complex and stressful responsibilities; great space for patients and a workplace of choice. The design assists with attracting/retaining staff and the reduction of patient recovery times by creating an environment that expresses a 'home away from home'. Strong horizontal lines, expansive glazing and patterns – inspired by fields and crop arrangements – were used to echo the Calgary foothills and prairie landscape. And to provide continuity with the existing hospital the addition was clad in matching brick masonry that was locally sourced. The project is a LEED® Certificate Candidate and has many sustainable design strategies; operable windows, access to natural light, PVC free and low VOC materials, highly efficient mechanical systems, and green roofs.

BOW VALLEY COLLEGE REDEVELOPMENT & EXPANSION - PHASE 1

Owner:	Bow Valley College
Architect:	GEC Architecture
General Contractor:	Stuart Olson Dominion Construction Ltd.
Masonry Contractor:	George & Asmussen Masonry
Engineer:	Read Jones Christoffersen

GEC Architecture was hired to lead a major redevelopment of the existing building as part of a two-phase expansion. Approximately 7,500 m² of new space was created by 'reclaiming' areas in favour of an appropriately scaled, pedestrian and user friendly urban building. The choice of brick was key to our strategy of creating a building that is welcoming, warm, open, and scaled for users and passersby. All three street faces have generously glazed brick bays that correspond to the larger structural rhythm of the original precast clad building. These bays were kept simple in their form and detail to reinforce the structural logic of the building when viewed from a distance, while creating a pleasing, pedestrian scaled cadence at street level. Coursing was deliberately kept simple to reinforce this larger structural rhythm, while the red colour was chosen to provide a sense of warmth and approachability to the building. Precast caps also serve to integrate the brick with the precast original. Through careful selection, we were able to choose a brick colour that closely matches many of the aggregates in the precast producing a contrasting yet complementary result.

CALGARY ZOO NORTH GATE DEVELOPMENT PROJECT

Owner:	The Calgary Zoological Society
Architect:	DIALOG
General Contractor:	Stuart Olson Dominion Construction Ltd.
Masonry Contractor:	Ib Jensen Masonry Ltd.
Engineer:	Reid Jones Christoffersen Engineering - Structural

The concepts developed for The North Gate Pavilion and Plaza drew their inspiration from the southern Alberta landscape. Building forms were tectonic and were characterized by dramatic folded planes and transparent skins; direct references to the local geography. Robust natural materials, such as natural stone and board-form concrete were contrasted with lightweight steel structures and glass. Framed views from within the building and outside in the plaza were used to enhance one's experience of site and landscape. The direct correlation between building, landscape, and material were intentional. The entry sequence begins with the reconfigured plaza on the north side of the public transit tunnel. The plaza incorporates local art, local materials, ticketing, and public seating. A Rundle stone wall that houses weathering steel sculptures of animals is the opening gesture in the plaza, captivating children and adults, while leading the visitor from the curb towards the new ticketing stations. The northern edge of the plaza is defined by a low Rundle stone walls that act as seating for visitors.

CCIS

Owner:	Board of Governors of the University of Alberta
Architect:	ONPA
General Contractor:	PCL Construction Management Inc.
Masonry Contractor:	Gracom
Engineer:	Read Jones Christoffersen Ltd.

The centennial centre for interdisciplinary science was an extremely large masonry project. Staying with the traditional university of Alberta masonry exterior, this project was a complete brick wrap. The masonry construction schedule was approximately two years.

EDUCATIONAL/INSTITUTIONAL

CONNAUGHT SCHOOL

Owner: Bentall Lp for CBE
Architect: Gibbs Gage Architects
General Contractor: EllisDon Construction Services Inc.
Masonry Contractor: Pockar Masonry Ltd.

Built in 1911, Connaught School is one of the oldest operating schools in Calgary. Its multicultural approach to excellence serves the community through unique programs and corporate partnerships. The restoration included modernization of an existing four storey sandstone school including new windows, finishes and all new mechanical and electrical systems. The expansion includes a gymnasium and change facilities as well as a new public atrium. Masonry was used to preserve the heritage of the building while maintaining a sense of permanence and quality to the community and surrounding areas.

ENTERPRISE SQUARE, UNIVERSITY OF ALBERTA DOWNTOWN CAMPUS

Owner: University of Alberta
Architect: Stantec Architecture Ltd.
General Contractor: Clark Builders
Masonry Contractor: Scorpio Masonry (Northern) Inc.
Engineer: Read Jones Christoffersen
Other Team Member: Stantec Architecture Ltd.

Stantec provided architectural and interior design services for the redevelopment of the former Hudson's Bay Building to serve as the University of Alberta new Downtown Campus. The renovation and addition of a new fourth floor preserved the existing building's historic elements that included the entries and the first two levels of the exterior façade that is clad with Manitoba Tyndall stone from 1939. The third level of the Hudson's Bay Building which was a latter addition in 1948, did not have a historical designation, and only had a limited amount of fenestration that would not be sufficient for academic repurposing of the space. The design team decided to remove the existing Manitoba Tyndall stone and provide new window openings along the third level, treating this as a new complimentary language to the building. Zinc panels with horizontal reveals were incorporated, which emphasized and picked up on the existing architectural language.

FOOTHILLS MEDICAL CENTRE McCAIG TOWER

Owner: Alberta Health Services - Foothills Medical Centre
Architect: DIALOG
General Contractor: EllisDon Construction Services
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Stantec - Structural

The FMC McCaig Tower project is a nine story acute care tower addition to the Foothills Medical Centre site. This project will provide state of the art tertiary acute care, education and research facilities. The design aesthetic of the tower is suggestive of the work that goes on inside. It provides an image of health care delivery that is up to the minute, and on the forefront of scientific research, using advanced technology, clean, and efficient. But the exterior and interior image should also reflect the caring and healing environment within. The white and grey metal panels and green glass on the exterior of the building reference the crisp, state of the art care delivery. Tyndall stone masonry is used to clad a portion of the exterior of the building at the lower levels. It runs into the interior of the building and up the elevator core. Its use references the personal, human scale, human touch in care that is so much a part of a high quality patient care experience.

LILLIAN OSBORNE HIGH SCHOOL

Owner: Edmonton Public Schools
Architect: DIALOG
General Contractor: Binder Construction
Masonry Contractor: Park Brick & Block
Engineer: DIALOG
Other Team Member: Carlyle & Associates

Lillian Osborne High School is an 8,988 square meter secondary school located in the Riverbend/Terwillegar region of Edmonton, Alberta. The plan evolves around two key program elements, the Academic Support Centre and the Gymnasium. These spaces sustain and support academic excellence, wellness and community. Key design parameters were adaptability, flexibility and sustainability. These parameters influenced the layout and massing of the building and the selection of the materials and finishes. Durability and attractiveness go hand in hand when designing a high school. The material palette, both interior and exterior, of Lillian Osborne is a combination of masonry, glass and metal. These materials were selected not only for their sustainability and durability but also as materials that embody both permanence and transparency. The Gymnasium is clad in charcoal masonry, expressing strength and solidity. The flanking classrooms and administration suite are clad in yellow masonry and wraps from outside to in, tying the building to its site and to nature. The Academic Support Centre, with its glass and wood detailing, expresses lightness and openness. The project is the final stages of applying for LEED Silver Certification with the Canadian Green Building Council.

MOUNT ROYAL UNIVERSITY ENTRY SIGNS

Owner: Mount Royal University
Architect: Goodfellow Architecture Inc.
General Contractor: Clark Builders Ltd.
Masonry Contractor: Gracom
Engineer: Wiebe Forest Engineering Ltd.

In anticipation of Mount Royal becoming a full fledged University, it was decided to create a new entry feature to signify this coming of this historic event. A design concept was created by Gottschalk + Ash International. Goodfellow Architecture Ltd, in association with subconsultants David C Woodall Structural Engineers and SNC Lavalin Wiebe Forest Engineering were then engaged to refine the concept, prepare construction documents and perform site review services. The General Contract was awarded to Clark Builders with Gracom providing masonry services. Mount Royal University provided the landscape design and installation services. Both the structure and substrate for the Glacier Buff, Minnesota Dolomitic Limestone cladding were constructed of preserved wood, while the steel sign blades were supported by an internal steel frame. A split faced random ashlar pattern, interspersed with ribbons of smooth cut faced stone and capped with a smooth cut capstone of the same material was chosen because it complimented the yellow buff brick and precast cladding used elsewhere on the Campus. The result is an iconic announcement of the University's new found place in the community.

NAIT - SPARTAN CENTRE & PETROCANADA CENTRE

Owner: NAIT
Architect: DIALOG
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Scorpio Masonry (Northern) Inc.
Engineer: Walters Chambers Associates Ltd.

The NAIT Spartan Centre for Instrumentation Technology + PetroCanada Centre for Millwright Technology was conceived as a single building with two centres primarily consisting of millwright shops and instrumentation labs. The Centre's main entries occur at the ends of a masonry clad building spine. The spine is an interconnected space lit with natural light from the clerestory above. It contains the Centre's main circulation, main services, and main socialization spaces. These programmatic elements and the spine connect the two centres and help build an active and integrated collegial environment. The design, its details and chosen materials are robust in character, reflecting the industrial nature of the program. Brick masonry was a deliberate choice and is used both externally and internally on the buildings spine and vertical circulation points. The brick masonry anchors this spine, the point from which lighter and transparent building components are cantilevered. The choice of charcoal coloured brick as a unifier is in keeping with NAIT's campus roots. NAIT's original buildings feature charcoal coloured brick, as does its recently built neighbor – the NAIT HP Centre.

NOSE CREEK ELEMENTARY SCHOOL

Owner: Rocky View School District 41
Architect: Graham Edmunds Architecture
General Contractor: Bird Management Limited
Masonry Contractor: Gracom

This project provided the client with a low life cycle cost material. The masonry used on this project was to compliment other materials used within the building.

SOUTHGATE TRANSIT CENTRE

Owner: City of Edmonton
Architect: Stantec Architecture Ltd.
General Contractor: PCL Construction Management Inc.
Masonry Contractor: K. Hansen / Park Brick and Block
Engineer: Stantec Consulting Ltd.

Built as part of the south expansion of Edmonton's light rail transit (LRT) system the Southgate Transit Centre, with its proximity to commuter arteries and a regional shopping centre, makes it a major transit hub. The desire was to create a transit centre that the public encounters; a building that is tactile, visual and experiential. This desire coupled with the need to ensure durable, easily maintained materials led to the decision to use masonry extensively on the exterior and interior of the project. The lower levels of all the buildings exteriors are clad in a tan Alberta stone split face masonry block. This ensures that at the pedestrian level we have both a durable and tactile material that discourages vandalism but adds character to public realm. The interior partitions are constructed of a dark grey burnished block. The polished block exposes the internal aggregate colours giving the utilitarian spaces warmth. The interior block is stack bonded with the interior vertical joints flush and the horizontals racked to emphasize the horizontal and force the perspective within the stair wells.

ST. JAMES CATHOLIC CHURCH OKOTOKS

Owner:	St. James Parish, (Roman Catholic Bishop of the Diocese of Calgary)
Architect:	S2 Architecture
General Contractor:	Golden Triangle Construction Management Ltd.
Masonry Contractor:	Pockar Masonry Ltd.

St. James Catholic Church in Okotoks, Alberta stands as a beacon on the prairie landscape symbolizing honour and pride in its faith and in its community. The 'typology of entrance' is extremely important in religious architecture, forming not only a building entry and a foil against the elements, but more importantly it symbolizes a transition from earthly mortality to a more spiritual reality. It represents a point at which we move from human beings to being in the presence of something more. And for this physical and spiritual transition, stone masonry was selected as the perfect material to grace St. James' entry. St. James' design is a deliberate play of simple traditional masonry forms (wall and arch) used with contemporary mannerisms to evoke the grandeur of the bigger contemporary concept counterpointed to the detail and small scale of stone materials and our humanity. It truly is the embodiment of Catholicism itself for when seen from afar one feels the power and might of the form yet as one approaches, the tactile and humane scale and complexity of the detail offers a warm and rich experience – a simple idea with a deep message.

STRATHCONA ENERGY CENTRE

Owner:	Strathcona County
Architect:	Stantec Architecture Ltd.
General Contractor:	Carlson Projects
Masonry Contractor:	Scorpio Masonry (Northern) Inc.
Engineer:	Stantec Consulting Ltd.
Other Team Member:	FVB Energy Inc.

FVB Energy Inc was the prime consultant on the Strathcona Energy Centre and Stantec provided architecture, structural, electrical, and urban land engineering services for this boiler plant facility. One of the new Centre's key features is a community energy system that supplies heat through hot water piped underground from a central source. The system will serve existing County buildings in the area, as well as new buildings being constructed in Centre in the Park, with potential for others to be added in the future. The material palette includes split-face concrete block masonry units for the base of the building and for a feature wall within the public gathering space. The masonry units were selected because of their durability that could be relied upon for both the exterior and interior finish. These units were detailed to be installed in a stack bond pattern to enforce the grid pattern detailed for the metal paneling. A masonry feature wall was also incorporated within the interior as a backdrop where the boiler supply and return piping is showcased.

SUNCHILD SCHOOL EXPANSION

Owner:	The Sunchild First Nation
Architect:	The Workun Garrick Partnership Architecture and Interior Design Inc.
General Contractor:	Krawford Construction Inc.
Masonry Contractor:	InLine Masonry Inc.
Engineer:	Protostatix Engineering Consultants Inc.

The Sunchild Reserve is located approximately 70km from Rocky Mountain House, Alberta. The Sunchild Nation administers their own education program for the community and has a greater than 70% course completion rate and graduates 80% of its students. This statistic sharply contrasts with graduation / completion figures provided by Indian and Northern Affairs Canada for those attending on-reserve schools: only 4% graduate and a less than 20% course completion rate. Their success led to the need for expansion. The project saw a new classroom wing to house grades 6-12, new secondary entry, new main entrance canopy, and a 2 storey multi-purpose space to join the existing school and the new classroom wing. The existing split face exterior wall became an interior wall of the multi-purpose space which informed the material & color for the rest of the expansion. A mix of smooth & split face block was chosen for the interior and exterior for its durable nature and was installed in colored patterns to continue the existing theme of the school insuring a consistency between the existing and the new.

TA-OTHA COMMUNITY SCHOOL

Owner:	Stoney Tribal Administration
Architect:	The Workun Garrick Partnership Architecture and Interior Design Inc.
General Contractor:	Krawford Construction Inc.
Masonry Contractor:	K. Hansen Masonry
Engineer:	Protostatix Engineering Consultants Inc.

The Bighorn First Nation Reserve is located approximately 111 km west of Rocky Mountain House, Alberta. The new 2400m^2 Bighorn school is a contemporary interpretation of the culturally significant aspects of the Stoney First Nation and the surrounding mountain context. The main entrance is flanked by a translucent "Cultural Room" in the form of a Teepee and curtain walls broken up by angular forms similar to the uplifted surrounding mountains. The exterior finishes of the school are a blend of Rundle stone similar to rock found at the site, coloured split face concrete block and brightly coloured stucco to the upper clerestory wall areas. Masonry was chosen as our main building material because of its durability and its natural connection to the surroundings. The Bighorn school committee wanted a building that looked at home in their wilderness and could stand up to the tests of time. The interior walls are made up primarily of concrete block, chosen again because of durability but they also support the majority of the schools structure.

VALLEY RIDGE FIRE AND EMS STATION

Owner:	City of Calgary
Architect:	S2 Architecture
General Contractor:	Devitt and Forand
Masonry Contractor:	G&A Masonry
Engineer:	TRL & Associates Ltd.

Traditional characteristics, typically associated with masonry design and construction, parallel the principles that are embodied within emergency services. The concepts of permanence, safety, sustainability and durability, which have been embedded in the soul of the masonry block for thousands of years, establish the Valley Ridge Fire and EMS Station as pillar of strength projecting civic pride as the recognizable heart of the community. Strategically positioned as the proverbial gateway to the neighborhood, the Valley Ridge station, adorned in fire red brick and shimmering clearstory glazing, stands as a comforting beacon, recognizable to citizens during times of both fortune and despair.

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The University of Calgary, meanwhile, is conducting seismic testing of the Parliament Buildings in Ottawa, helping to make certain that in the event of another earthquake, the masonry that supports the buildings remains structurally sound.

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Affair WITH MASONRY

Masonry is the art of master building. An industry of great and coveted tradition, even surrounded by mystery, the legacy of masonry and its contribution to humanity is as strong and lasting as the materials they represent.

History is filled with examples of great masonry. While the Egyptians used brick for everyday use, they used stone in mega projects to symbolize eternity. The Greeks used stone to build temples, again as symbols of the unchallenged power of the gods. But it was the Romans who maximized the use of stone and brick. They used stone for lasting infrastructure projects and dazzling engineering works such as roads and aqueducts, and they combined stone and brick in magnificent edifices such as circuses, palaces, and baths. Older traditions of ancient stone workers such as the Celtic traditions of northern Europe blended with Roman traditions during the Romanization period in the beginning of our era. All over Europe, the Romans cleverly created structures made out of brick or other composite masonry from irregular stones and used expensive stone veneers to cover it. This is a tradition we still use today.

For Douglas Cardinal, stone and brick, masonry in general, is the ultimate material for building. Brought right from the bosom of mother earth, it is the strongest, most natural and noble material we humans can build with. The value of masonry as the prime building material is relegated not only to its physical attributes – mainly its beauty, sturdiness and ability to withstand time – but also the labour involved in cutting the stone. Mr. Cardinal especially appreciates the evolution of this ancient tradition as today's modern technologies can cut stone exactly to his drawing dimensions. He used this technique for many curved key stones in the Canadian Museum of Civilization.

In contrast with other modern materials such as steel, masonry offers a multidimensional value to buildings. Masonry structures are imposing, but they are also inviting. There is a scale that is human, indeed that reconnection to manufacturing with traditions that links us with the evolution of human history. But there is also another dimension: stone connects us deeper to nature as one can see the history of earth itself in it. Tyndall stone, for example, exposes the very origins of the planet's life forms, showing many fossils that were part of the sedimentary layers. When one touches stone, one feels the warmth of mother earth, the strength of its generosity, and the longevity of its legacy. Indeed there are cultures that believe stone is an organic life entity in itself, alive, much like a tree. They talk of "grandfather rocks" reminding us of a time when humans just started becoming aware of their ability to work tools out of stone and start thus harvesting natural resources for their thriving evolution.

Facing page: Grande Prairie College

Right: St. Albert Place

Insert: Douglas Cardinal

Grande Prairie College

Douglas Cardinal's love affair with masonry started with St. Mary's church, where Father Marx, an oblate priest from Germany, commissioned a church made completely of masonry, as his last church had burned down. The budget was a mere $356,000 so Mr. Cardinal had to be very creative in the use of masonry in order to create the shape and form directed by the unique vision of the church. He used brick structurally, as the Romans did. Unable to afford scaffolding, he allowed the strength of masonry to withstand itself as the layers kept topping each other, creating the sinuous walls. This done, he used the form to create a roof that would span the whole perimeter. Since an amorphous roof was required for the acoustics, he devised a further innovative solution: an oculus in the center to light the altar would allow post-tension cables so that 250 tons of concrete could be elevated and be fixed in the air. This required some ingenuity since it would have taken seven men 100 years to work out the mathematics of 81,000 simultaneous equations. But we live in magical times, Douglas Cardinal maintains, and in 1965, he found a computer with floors of tubes in Chicago where

Douglas Cardinal

MCAA Lifetime Achievement Award Recipient

The Masonry Contractors Association of Alberta is pleased to announce the creation of the MCAA Lifetime Achievement Award. This award is intended to recognize an individual who has made significant contributions to the masonry industry in Alberta. These contributions must have had a lasting impact either through a single innovative achievement or a body of work.

The Masonry Contractors Association of Alberta is pleased to present the inaugural 2011 Lifetime Achievement Award to Mr. Douglas Cardinal. Mr. Cardinal began his distinguished career in Alberta and has consistently featured masonry as his primary architectural material. His innovative designs have challenged many engineers and masonry contractors to use masonry in ways and in places few had envisioned it going before. Many Cardinal projects around the province of Alberta have become iconic structures that have brought international recognition to the masonry industry in Alberta. Please join us in honoring Mr. Douglas Cardinal and expressing our gratitude for his unwavering commitment to designing in masonry and for a career filled with exceptional masonry projects.

Left: St. Mary's Church detail

Below: Detail of interior St. Albert Place

they could make the required calculations.

The sculptural wonder that St. Mary's church became is there for all to see. Having gained much national and international acclaim, Douglas Cardinal was commissioned to create more buildings in masonry, mainly brick. Mr. Cardinal loved the ability that brick had to melt itself into the curves of his buildings. When he asked one of his suppliers: "Why do you always get the jobs?" the tradesman replied, "Oh, we say to everyone how complicated and hard work it is to lay the bricks for Cardinal's buildings, while in actuality it is much easier than doing a straight building." "How is that so?" Mr. Cardinal enquired mystified. "You see, in laying the brick one can allow six inches out when it curves, but in a straight row we can only have one quarter inch variants in 25 feet!"

No matter when or where, the inherent character of masonry is that it symbolizes greatness. Stone lasts; it will last as long as the earth lasts, and the human erections made from stone and brick will represent precisely that: long standing legacies. It is the permanence of the stone, its inherent beauty as well as the cost of harvesting it that makes masonry so suggestive as a symbol of power. Side by side is the more humble, if not more popular, brick. In Europe, almost all buildings are built with brick and mortar. In Canada, there are abundant examples of its popularity during the Victorian era in both residences and industrial structures. Brick is warm, versatile and more affordable and Mr. Cardinal believes that it is precisely brick's gracefulness and versatility that makes it to be a material of such a strong eloquence.

Indeed, Douglas Cardinal loves to work with masonry. He feels that not only the buildings became lasting and majestic representations of his client's visions, but somehow the building itself is able to speak its greatness with its own voice. It is the ultimate natural material for organic architecture, one he continues to recommend for his buildings. This is a tradition he hopes to continue for many years to come.

CITY OF EDMONTON, FIREHALL NO. 11 (CAPILANO)

Owner: The City of Edmonton
Architect: The Workun Garrick Partnership Architecture and Interior Design Inc.
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: K. Hansen Masonry
Engineer: BPTEC-DNW Engineering Ltd.

The City of Edmonton Fire Hall No. 11 (Capilano) a pending LEED® Silver facility contains three double-deep apparatus bays and houses eight (8) fire fighters per shift. It includes offices, a space for classroom training, fitness area and a living quarters. The 1,100 m² facility is located on a triangular shaped city boulevard bordered on three sides by City of Edmonton roadways . This irregular shaped site deeply influenced the floor plan as well as informing the angular roof lines. Natural light through numerous clerestory windows augments the LEED design. The use of masonry in the interior was due to its durability in high traffic areas and walls could be used structurally. Early on in the design stages the owner group was clear they wanted the traditional red brick fire station around our modern form. The use of Splitface block and clay brick blended well with the glass, composite panel and wood that fits within the Capilano community.

LILLIAN OSBORNE HIGH SCHOOL

Owner: Edmonton Public Schools
Architect: DIALOG
General Contractor: Binder Construction
Masonry Contractor: Park Brick & Block
Engineer: DIALOG
Other Team Member: Carlyle & Associates

Lillian Osborne High School is an 8,988 square meter secondary school located in the Riverbend/Terwillegar region of Edmonton, Alberta. The plan evolves around two key program elements, the Academic Support Centre and the Gymnasium. These spaces sustain and support academic excellence, wellness and community. Key design parameters were adaptability, flexibility and sustainability. These parameters influenced the layout and massing of the building and the selection of the materials and finishes. Durability and attractiveness go hand in hand when designing a high school. The material palette, both interior and exterior, of Lillian Osborne is a combination of masonry, glass and metal. These materials were selected not only for their sustainability and durability but also as materials that embody both permanence and transparency. The Gymnasium is clad in charcoal masonry, expressing strength and solidity. The flanking classrooms and administration suite are clad in yellow masonry and wraps from outside to in, tying the building to its site and to nature. The Academic Support Centre, with its glass and wood detailing, expresses lightness and openness. The project is the final stages of applying for LEED Silver Certification with the Canadian Green Building Council.

THE WATER CENTRE

Owner: City of Calgary
Architects: Sturgess Architecture and Manasc Isaac Architects
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Read Jones Christoffersen Structural Engineers

The Water Centre is Calgary's first Civic office building to exceed the City of Calgary's minimum LEED Silver standard, achieving LEED Gold. Masonry was used in the Water Centre to ground the building to the landscape, in juxtaposition to the steel and glass that form the major element of the building. The building marries the aspects of environmental fit and functional program into an iconic form that is symbolic of both its user and of its context. Located on a former industrial brownfield site, the design provides a finished boundary to improve the connection between the established residential neighbourhood and the re-development of the City's industrial park. The building is aligned to a major road on the North side of the site and the building's form establishes and protects the garden to the South. With a total area of 16,000m², The Water Centre houses 460 administrative staff and 360 operational staff in open office stations (irrespective of status), meeting and quiet rooms, conference facilities, crew changing and gathering areas. The Water Centre has improved the surrounding neighbourhood, presenting a beautiful and urban edge to the former industrial site.

VALLEY RIDGE FIRE AND EMS STATION

Owner: City of Calgary
Architect: S2 Architecture
General Contractor: Devitt and Forand
Masonry Contractor: G&A Masonry
Engineer: TRL & Associates Ltd.

Traditional characteristics, typically associated with masonry design and construction, parallel the principles that are embodied within emergency services. The concepts of permanence, safety, sustainability and durability, which have been embedded in the soul of the masonry block for thousands of years, establish the Valley Ridge Fire and EMS Station as pillar of strength projecting civic pride as the recognizable heart of the community. Strategically positioned as the proverbial gateway to the neighborhood, the Valley Ridge station, adorned in fire red brick and shimmering clerestory glazing, stands as a comforting beacon, recognizable to citizens during times of both fortune and despair.

AWARD OF EXCELLENCE

RIVERSIDE QUAYS

Owner:	Statesman Group
Architect:	NORR Architects Planners
General Contractor:	Statesman Group
Masonry Contractor:	Aurora Masonry
Engineer:	Hemisphere Engineering

We selected masonry for Riverside Quays because of the aesthetic appeal and superior low maintenance qualities of the product. Masonry expresses an architectural timelessness of permanence and quality. It also displays notions of craftsmanship and skill in execution and is scaled to a human dimension. We can produce this quality façade at little or no cost extra to other similar rain screen cladding materials with less maintenance issues. In addition the historical character of Calgary's oldest neighborhood is enhanced by the use of clay brick in this project. Many of Calgary's oldest buildings are along Atlantic Avenue in Inglewood and are constructed of load bearing brick masonry.

AWARD OF MERIT

FIVE WEST

Owner: The LaCaille Group
Architect: NORR Architects Planners
General Contractor: Clark Builders
Masonry Contractor: Pockar Masonry Ltd.
Engineer: MMP Structural Engineering Ltd.

Five West provides 49,202 m^2 of gross built area over two 26 storey residential towers with a shared retail podium. Masonry was selected for this project because of the enduring aesthetic appeal and superior low maintenance qualities of the product. Masonry expresses a timeless permanence and speaks of quality. It also expresses the notion of craftsmanship and skill in execution and is scaled to a human dimension. We also were surprised to learn that on larger scale projects masonry proved to be as cost effective as other forms of higher end building cladding. Operationally, the building skin also takes on additional thermal qualities over and above the popular choice for high rises which is a glass system. The combination of these factors made it an obvious choice.

HONOURABLE MENTION

XENEX

Owner: Bucci Developments
Architect: NORR Architects Planners
General Contractor: ITC Construction Group
Masonry Contractor: Pockar Masonry Ltd.
Engineer: Glotman Simpson Consulting Engineers

Xenex Tower is a 19 storey urban high rise with condominium units overtop of a "live-work" podium base. The 15,334 m^2 building was complete in 2008. NORR selected masonry for this project because of the enduring aesthetic appeal and superior low maintenance qualities of the product. Masonry expresses a timeless permanence and speaks of quality. It also expresses the notion of craftsmanship and skill in execution and is scaled to a human dimension. We also were surprised to learn that on larger scale projects masonry proved to be as cost effective as other forms of higher end building cladding. Operationally the building skin also takes on additional thermal qualities over and above the popular choice for high rises which is a glass system. The combination of these factors made it an obvious choice.

AESIE HOUSE

Owner: Delmar Homes
General Contractor: Delmar Homes
Masonry Contractor: Pockar Masonry Ltd.

Masonry was selected for this project for several reasons. I did not want the building to appear tall and narrow so I chose masonry to ground it. A maintenance free exterior was also an important requirement so I chose Calcium Silicate Stone. I also wanted the building facade to reflect the old world charm of Europe. I believe this goal was accomplished through the use of Calcium Silicate Stone in a rough cut Laurier pattern together with a smooth faced Renaissance pattern which created traditional elegance with modern appeal. The embedded pre-cast medallions complete the building facade.

ARBOUR LAKE APARTMENTS

Owner: Stonecroft Properties
Architect: Points West Architecture
General Contractor: Stonecroft Arbour Lake Developments Inc.
Masonry Contractor: Gracom
Engineer: Tabet Engineering

This 92 unit condominium was designed to optimize an unusually shaped site with difficult slopes and exceptional views. The two wings of the building are joined by a circular core. Brick masonry was selected as the finish material for the curved wall to emphasize this feature and enhance the aesthetic. Brick was also used on the first floor walls because of the high quality and durability desired for this building. These walls provide an excellent rainscreen detail that ensures a long life cycle and low maintenance for the occupants.

ARRIVA PHASE 1 AND 1A

Owner: Victoria Park Holdings
Architect: BKDI Architects
General Contractor: ITC Canada (Alta) Ltd.
Masonry Contractor: Pockar Masonry Ltd.

Arriva, as the name implies, has arrived. This stunning project is perhaps the most spectacular landmark in the redevelopment of Stampede Park. The use of large dimensionally cut; rock faced and smooth faced Adair Limestone enhances the entire building facade. The use of masonry arches, a strategically placed keystone over the front entrance and traditional clay brick along with pre-cast concrete coping caps and stone soffits provide a soothing contrast against the modern residential tower.

COPPERWOOD PROJECT

Owner: Sandlewood Developments Ltd.
Architect: Gibbs Gage
General Contractor: Sandlewood Development
Masonry Contractor: Sas-Can Masonry
Engineer: MMP Structural Engineering Ltd.
Other Team Member: Mutual Materials

This project consists of five - four storey buildings and one nine storey multi family condo with brick and stucco exterior. The first three storey's are wrapped in brick to give the building a European accent. The brick planters and fence columns are a beautiful accent to this project.

KEYNOTE

Owner: Balboa Land
Architect: Gibbs Gage Architects
General Contractor: PCL Construction Management Inc.
Masonry Contractor: Pockar Masonry Ltd.

Located between 11th and 12th ave. S.E. and fronting onto 1st Street S.E., this site plays a significant role in the continued resurgence of the Beltline District. As the Beltline district is the transitional zone between the Historic Warehouse district and the Downtown Urban Hub, it was the intent to incorporate elements of Warehouse Scale and Materiality into our project. A varied mixture of street level massing, incorporating traditional brick masonry and warehouse proportions, is melded into a contemporary, pedestrian friendly environment that exceeds the planning directives as highlighted in the newly formed Beltline ARP. The three towers that emerge from the masonry base are an elegant combination of metal and glass forms that step up in height. Each of these towers is visually rotated at 45 degrees to the street grid to improve sunlight penetration within and around the block, to create clear unimpeded sight lines from within each of the towers past the next, and to create a dynamic, powerful collection of angled forms, reflective of the importance of this transitional site from the Downtown to the Beltline.

METRO POINTE HIGH RISE - VANTAGE

Owner: Pointe of View Developments
Architect: S2 Architecture
General Contractor: Pointe of View Developments
Masonry Contractor: Pockar Masonry Ltd.

Located in the Beltline District of Calgary, Vantage Pointe embodies the principles of urban design in addressing the street level pedestrian scale of quality and texture. This 22 storey residential tower is reflective of a building which defines and articulates the building base, body, and top to address project scale at street level as well as within the city skyline. The podium is designed and detailed with various masonry materials to establish permanence, durability, and elegance within the public realm. Careful attention is paid to delineating proportional openings around windows and decks. On the western facade facing the open parking area, the scale of openings is increased to address the larger open space scale between buildings. The other three facades front onto city streets which have been designed to respond to the scale and quality of the surrounding neighbourhood.

PONTIFENO 1 & 2

Owner: Sandlewood Developments Ltd.
Architect: Gibbs Gage
General Contractor: Sandlewood Development Ltd.
Masonry Contractor: Sas-Can Masonry
Engineer: MMP Structural Engineering Ltd.
Other Team Member: I-XL Brick Supply

The brick was used on the first two floors of this building to be the main visual feature of this project. The surrounding fence and columns were also clad in brick for this project to add to both the building and the neighborhoods charm.

PRINCETON GRAND WATERFRONT AND CITYVIEW

Owner: Pauls Properties
Architect: BKDI Architects
General Contractor: Graham Construction and Engineering
Masonry Contractor: Gracom
Engineer: RJC Consulting Engineers

This high rise and low rise condominium complex sits at the heart of the Bow River. With its spectacular views and breath taking surroundings,this building was made with a combination of Arriscraft and red brick. The use of radius band masonry and smooth and rock face detailing was in keeping with the nature of the river valley.

SASSO AND VETRO TOWERS AT STAMPEDE STATION

Owner:	Cove Properties Ltd.
Architect:	Abugov Kasper Architecture Engineering
General Contractor:	Cove Properties Ltd.
Masonry Contractor:	Gracom
Engineer:	TRL & Associates

In this intercity high profile location, we decided to use a combination of exterior Tyndall stone with a red brick facade to compliment historical aspects of local surroundings while maintaining high end quality exterior products. The products used were keeping with the high scale nature of the property and were low maintenance and high valued providing maximum efficiency for perspective buyers.

THE BRIDGES

Owner:	Bucci Bella Luss Project Ltd.
Architect:	Hywell Jones Architect
General Contractor:	Bucci Developments Ltd.
Masonry Contractor:	Pockar Masonry Ltd.

Masonry was selected for the Bridges for several reasons Architectural control and design guidelines for the site included the requirement to incorporate masonry brick into the architecture of the project. Brick is a sustainable product and is one of the greenest building materials available. Brick is reusable, recyclable and virtually maintenance free. Brick is a long lasting material that is expected to never require replacement. Finally, Brick has an aesthetic appeal that cannot be duplicated by other building materials.

THE OSCAR AT EAU CLAIRE

Owner:	The Eden Group of Companies
Architect:	Steven Ho Architecture Incorporated
General Contractor:	Innova Development Coordination Inc.
Masonry Contractor:	Gracom
Engineer:	Grant Structural Engineering Ltd.
Other Team Member:	PricewaterhouseCoopers

At the design stage, we want The Oscar to be an iconic building but yet blend with the surroundings. Our design philosophy focuses on durability, maintenance free, timeless classic and incorporating local materials. The chosen Arriscraft Renaissance Stone fully reflects its characteristics. It gives this boutique building a strong and solid base. The careful placement of masonry bricks and smooth stones break up the large facade of the podium. We run the Mutual Imperial Red Smooth brick from the base all the way to the top emphasized the verticality of this mid-rise structure. The use of masonry brick connects the upper and lower parts of the building and literally brings your eye down to the main entrance. Another highlight to the building is the fundamental contrast between modern and classic, and smooth and rough.

THE POINTE AT PRESTWICK

Owner :	Prestwick Pointe Partnership
Architect:	S2 Architecture
General Contractor:	Pointe of View Developments
Masonry Contractor:	Pockar Masonry Ltd.

This four building residential development, located in McKenzie Towne, has been designed to fit in with the scale and character of the surrounding single family neighbourhood. Specific design guidelines were established to create a unified "towne" concept through the use of both materials and scale. The lower level of the buildings have been detailed to incorporate masonry products to define both the base of the buildings as well as create a sense of permanence and quality. The main floor of all buildings evoke a sense on individuality and expression for each of the building entrances as well as the residential units themselves. Each entry has been designed and detailed to reflect this individuality. The masonry is used to create a more human scale to the project, having the front doors treated similar to the adjacent single family homes. The color palette and masonry unit sizes are reflective of this scale with attention being towards the pedestrian.

VICTORY POINT IN THE VILLAGE OF GRIESBACH

Owner:	Victory JV Ltd.
Architect:	E.F. Gooch Architects Inc.
General Contractor:	Abbey Lane Homes
Masonry Contractor:	Gracom
Engineer:	Protostatix Engineering Consultants Inc.
Other:	Terry Bourque Photography

Victory Point is a stately, V-shaped building designed in a colonial style. Inspiration for the project came from the history of the areas military base which has been carried forward as the theme of the re-development, yet still providing a fresh modern look. The V-shape is a tribute to the victory sign made famous after WWII. The clean lines of the exterior draw attention to the building and the red brick creates a warm welcome. Constructed with steel and concrete, finished in brick, Tyndall stone and stucco, it's an intelligent combination of strength and charm. Tremendous detailing, from the archways, Tyndall stone columns to the brick chimneys and dormer windows at the roof are true to the colonial design. Nestled in the centre of the V is a charming courtyard complete with gazebo, an outdoor fireplace, granite benches and is landscaped within exposed aggregate planters. This is the perfect spot for quiet reflection or entertaining.

ZEN CONDOMINIUM

Owner:	BCM Developments Ltd.
Architect:	GMH Architects
General Contractor:	BCM Developments
Masonry Contractor:	Remo's Masonry
Engineer:	Williams Engineering
Other Team Member:	Fortis LGS Structures

Zen is a light gauge steel, non combustible, panelized 6 storey condominium. We chose to finish the exterior with a variety of cladding to create interest. Due to the restrictions posed by the EIFS system, we were unable to use full brick. We successfully incorporated in a thin brick veneer. We are very happy with the result.

AWARD OF EXCELLENCE

COACH HOUSE

Architect: Richard Lindseth Architecture Inc.
General Contractor: Hassell Construction
Masonry Contractor: Ib Jensen Masonry Ltd.

Originally the "Coach House" was the stables and consequently the garage of the now historically designated Coste residence; it was built at the turn of the century by Eugene Coste, the founder of the Alberta natural gas industry. The original estate comprised 3 distinct architectural elements including the "Manor house", the residence of Mr. Coste, the "Coach House", which included staff accommodations and the "Dower House", a residence for Mr. Coste' mother in law. Each was constructed in a different architectural style. In subsequent years each of the buildings were subdivided in separate properties. More recently permission was granted for a new residence to be constructed on the coach house site, mindful of its historical context and restoring the coach house to its original use albeit now serving the newly constructed building. The challenge for the architects was to insert a new residence into this context of differing styles whereby the differing architectural languages of the properties would be united by the new design which would draw on elements from each of the buildings.

AWARD OF MERIT

CONNAUGHT SCHOOL

Owner: Bentall Lp for CBE
Architect: Gibbs Gage Architects
General Contractor: EllisDon Construction Services
Masonry Contractor: Pockar Masonry Ltd.

Built in 1911, Connaught School is one of the oldest operating schools in Calgary. Its multicultural approach to excellence serves the community through unique programs and corporate partnerships. The restoration included modernization of an existing four storey sandstone school including new windows, finishes and all new mechanical and electrical systems. The expansion includes a gymnasium and change facilities as well as a new public atrium. Masonry was used to preserve the heritage of the building while maintaining a sense of permanence and quality to the community and surrounding areas.

ENTERPRISE SQUARE, UNIVERSITY OF ALBERTA DOWNTOWN CAMPUS

Owner:	University of Alberta
Architect:	Stantec Architecture Ltd.
General Contractor:	Clark Builders
Masonry Contractor:	Scorpio Masonry (Northern) Inc.
Engineer:	Read Jones Christoffersen
Other Team Member:	Stantec Architecture Ltd.

Stantec provided architectural and interior design services for the redevelopment of the former Hudson's Bay Building to serve as the University of Alberta new Downtown Campus. The renovation and addition of a new fourth floor preserved the existing building's historic elements that included the entries and the first two levels of the exterior façade that is clad with Manitoba Tyndall stone from 1939. The third level of the Hudson's Bay Building which was a latter addition in 1948, did not have a historical designation, and only had a limited amount of fenestration that would not be sufficient for academic repurposing of the space. The design team decided to remove the existing Manitoba Tyndall stone and provide new window openings along the third level, treating this as a new complimentary language to the building. Zinc panels with horizontal reveals were incorporated, which emphasized and picked up on the existing architectural language.

MEWATA ARMOURY MASONRY REHABILITATION ASC

Owner:	Defence Construction Canada
Architect:	Simpson Roberts Architecture Interior Design Inc.
General Contractor:	Westcor Construction Ltd.
Masonry Contractor:	Gracom

This historical building built in 1917 has a combination of locally quarried Paskapoo sandstone and historic red brick. It was the first phase of a masonry restoration which required skillful masons to carefully clean, repoint, replace and carve to match existing details created by the original masons. This project required a great deal of care and attention to ensure that all historical aspects were maintained.

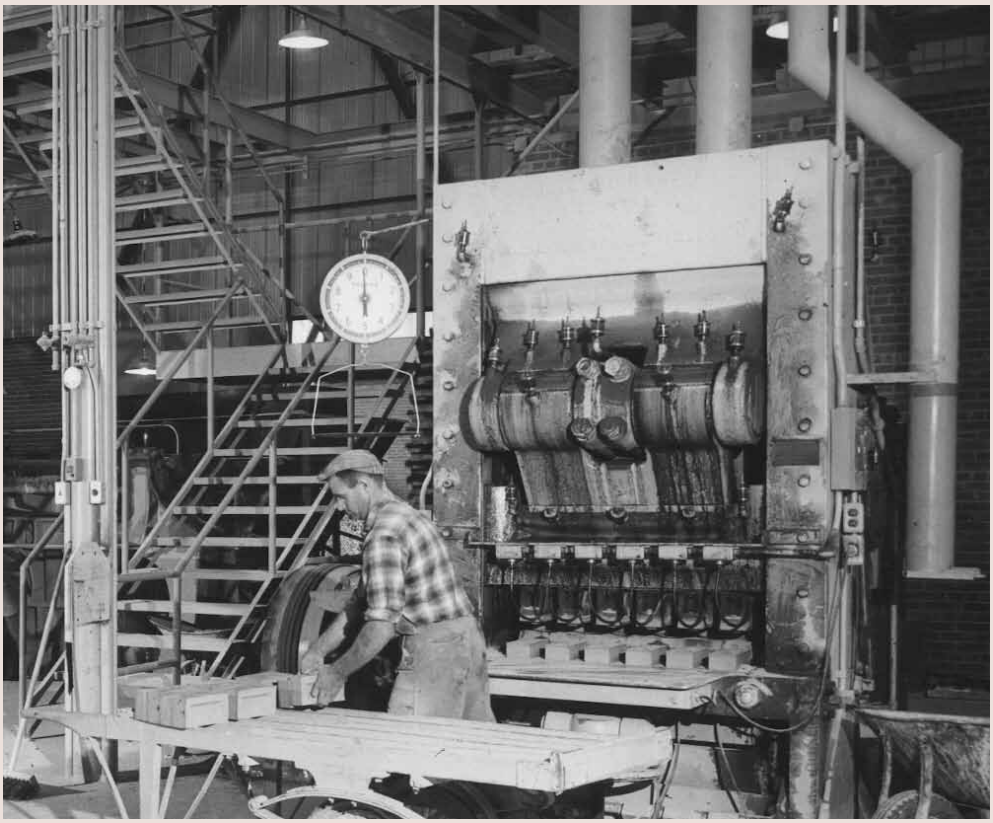
THE RAILWAY CAFE AND ORIENTATION CENTRE AT HERITAGE PARK

Owner:	Heritage Park
Architect:	Gowling and Gibb Architects
General Contractor:	Stuart Olson Dominion Construction Ltd.
Masonry Contractor:	Pockar Masonry Ltd.
Engineer:	David C. Woodall Structural Engineering
Landscape Architects:	IBI Group / Landplan

Heritage Park's new arrivals plaza includes a total of nine historic buildings that were replicated and morphed into three primary structures to form an inviting town square (circa 1930). The Railway Cafe, on the south side, is a restoration and faithful reproduction of Calgary's first sandstone railway terminal built in 1893. With its sandstone face, red timber highlights and low prairie style cedar shake roof, the recreated Canadian Pacific Railway station is the jewel of the arrivals plaza. Authentic in every detail the hand laid stone veneer walls consist of; a smooth faced 150mm limestone starter; a primary wall of 100mm pillow faced sandstone in a random ashlar pattern; a 150mm smooth faced sandstone water table; and various specialty sandstone pieces including cap stones, sills and bracket supports. Even the dormers and chimneys were carefully clad with the pulvinated sandstone. Authentic double hung windows and over sized entrance doors complete the look of this beautiful sandstone restoration.

Alberta's Brick History

By Malcolm Sissons



Brick-making is one of humankind's oldest industries. The earliest technology flowed from the discovery that clay, in contact with fire, hardened and changed colour. From there, clay moulded into shapes and fired became a useful product and many early civilizations are traced by their pottery and brick. The Romans were masters of brick masonry and spread this technology throughout their empire but at the same time similar expertise developed elsewhere as well, such as in China.

The Pioneer Brickyards

In our part of the world, the real beginning of the Alberta brick industry arrived with the Canadian Pacific Railway and subsequent settlement. From about 1883 until 1905, supply was dominated by local soft mud brickyards operating on a seasonal basis. The earliest of these brickyards was probably Humberstone in Edmonton (1881). Many more started up in the years that followed, including the J.B. Little brickyard in Edmonton in 1893, which continued to make soft mud brick up until 1956. In the Medicine Hat area, Corbin and McCord started a brickyard in 1886 on the site of the Medicine Hat Brick and Tile.

The requirements of this early industry were quite simple: a demand for brick, a source of clay and fuel, somebody who knew the basics and some very simple equipment. The trick was to know what type of clay would work for brick; too sticky and the bricks would crack on drying, too sandy and they would fall apart on drying.

Although natural gas came to be used as the main fuel for firing the brick in the early twentieth century, the original options were wood and coal. Wood was readily available further north, but the calorific content was relatively low and firewood sources were quickly consumed. Therefore coal was often the fuel of choice for making brick. Seams of coal are often interspersed with seams of clay and more than one operation was based on exploiting both: brick-making in summer and heating coal supply in winter.

At its simplest, a soft mud brickyard would operate in the open, usually near its source of clay and coal (or wood). Clay was mined with shovels and moved with horse drawn carts. The main piece of equipment was a mixer (called a pugmill), typically a cylinder in which a central shaft with blades on it was turned by horse power. Water was added to clay to get the moisture content in the clay up to about 20%.

"Pugged" clay was then drawn out of an opening at the bottom of the mixer and moved by shovel to the moulding table, where wooden brick moulds had been sprinkled with water and sand. The pugged clay was pushed or thrown into the moulds and the excess struck off with a board. The mould was then upended onto a board and the sand allowed the brick to release from the mould. After drying for a period (depending on the weather), the bricks were turned on edge and then stacked up with air space in between for further drying. It was important to cover the top of these drying "hacks" of brick to keep a sudden rainstorm from turning the bricks back into a mud puddle!

The dried bricks were eventually stacked up into a kiln, mudded over, and a fire set into openings along the base. The heat would rise up unevenly, depending on the distance from the flames, and escape through the roof of the kiln (an "updraft" kiln). Firing went on for a number of days, after which the kiln was allowed to cool and taken apart, and the bricks sorted into many grades ranging from underfired "insiders" to "face" to overfired "clinkers" (glassy deformed brick).

Mechanization and Consolidation

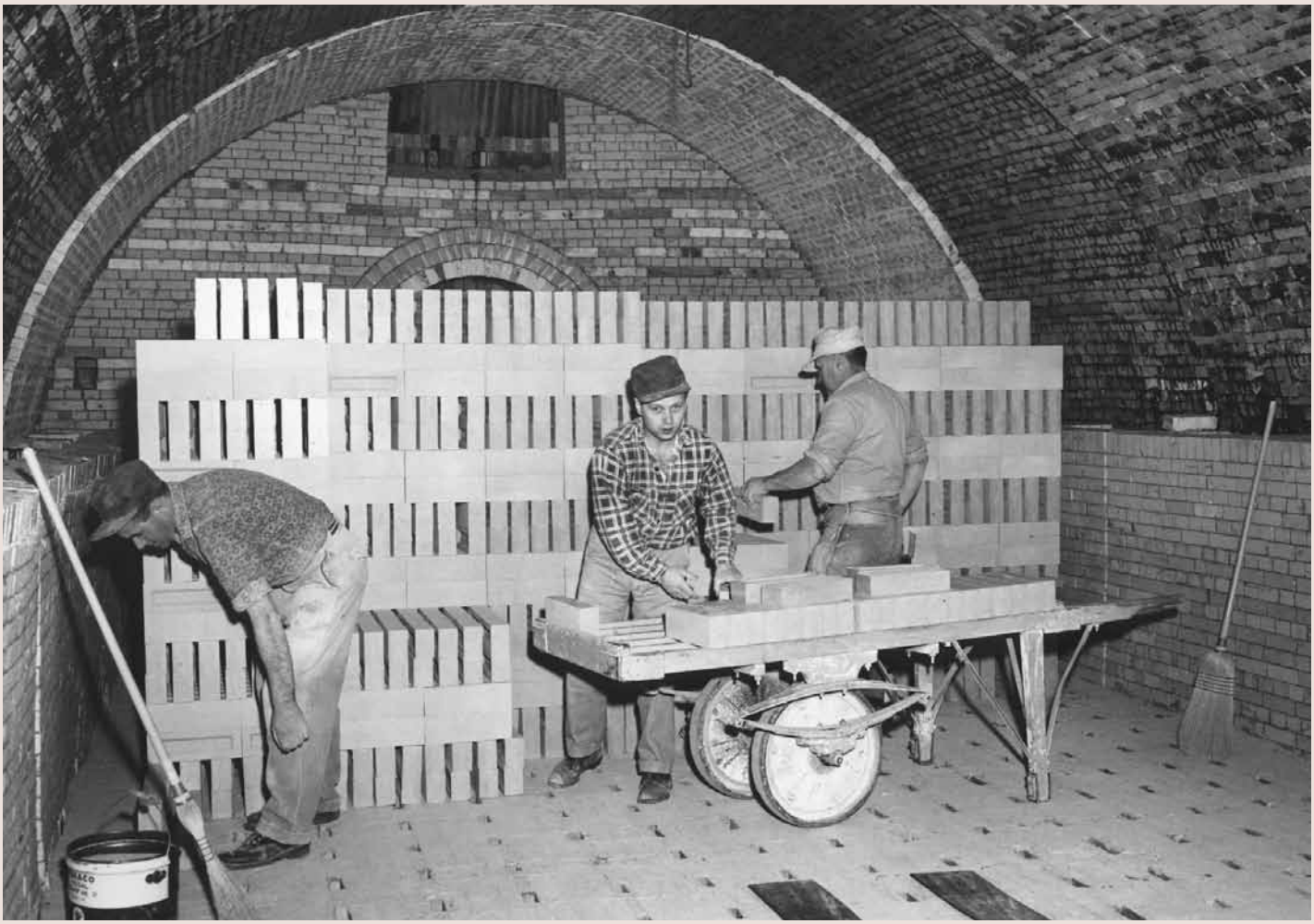
Often considered the heyday of brick-making in Alberta, 1905 to 1914 saw the establishment of many more permanent brick companies and these gradually replaced most of the early brickyards. The main changes involved moulding machines and permanent kiln structures. Moulding machines were of three main types: a soft mud machine that mechanized the hand moulding process, a dry-press that also moulded brick but with less water and more pressure, and an extruder that would auger a column of clay that was subsequently cut into bricks with wires.

The dry press method came to dominate in this period of history. It had the advantage of producing bricks that were essentially ready to fire, thus eliminating extensive drying and handling. Less added water meant less shrinkage and better size control. By using steel moulds the finish and tolerances were of much higher quality. This quality product was greatly appreciated by architects and often the front of a commercial building would be of pressed brick while the sides, back and insider brick might be soft mud or extruded brick.

These brick were often fired in periodic, down-draft kilns (often called beehive kilns, which could also be rectangular in shape), permanent structures built of brick with steel stays and lined with firebrick. Firing was through ports in the side of the kiln, from where the heat would rise to the vaulted ceiling and then be drawn back down through the perforated floor to an exterior chimney. Once the draft was established, the heat would flow and be mixed up in the kiln, providing for a much more uniformly-fired load.

Extrusion involved a horizontal pugmill feeding an auger extruder (somewhat like a meat grinder). This method had the advantage that many geometric shapes were possible, allowing for the extrusion of drain tile, hollow building tile, and flue tile.

These three methods of manufacturing co-existed in many communities in Alberta although the First World War caused many brickyards to close due to manpower shortages, and



they did not reopen after the war. Although the twenties were boom times for construction, the depression years caused many more operations to fail.

The Modern Period

In the post war period, the handful of remaining brickyards faced the challenge of significant capital investment. At this time, other than the Acme Brick company northwest of Edmonton, most of the brick making was now concentrated in the Medicine Hat area. The biggest investment in the 1950s was in tunnel kiln technology, which involved a rail system inside the plant, a long tunnel drier paired with a tunnel kiln and rail cars with refractory decks. The volume increase was such that a constant flow of formed brick was required. The only tunnel kilns built were at the Acme plant, and at two of the I-XL plants in Medicine Hat area. The lower costs of production of these tunnel kiln operations made it inevitable that old periodic kiln operations would not survive, and the last of these closed in 1965.

Investment in modern brick manufacturing methods continued with automated setting and unloading equipment in the 1960s and 1970s, mainly at the Northwest Brick and Tile plant (formerly Acme) and at the Medicine Hat Brick and Tile plant. The most recent modernization in 2004 included robotic setting of pressed brick at the Medicine Hat Brick and Tile plant, which, as of June 2010, was the only remaining brick manufacturing operation in the province.

The I-XL Story

In 1883, fur trader James Hargrave arrived in Medicine Hat and became a rancher and businessman. He teamed up with a young businessman from Montreal, Herb Sissons, to build another brick works in the town of Redcliff, established in 1912 as the Redcliff Pressed Brick Company Ltd. In 1916, Sissons married one of Hargrave's daughters, Lissa.

The First World War years were difficult for the company as the economy slowed and men went off to fight in Europe. In 1920, the famous I-XL trademark was adopted and imprinted into the frog of the pressed brick. I-XL means "I excel or do well", an early commitment to quality.

A booming construction market in the 1920s led to the purchase, in 1929, of the Medicine Hat Brick and Tile plant. Established in 1886, it was the oldest of the local brickyards and until 2010 was the oldest continuously-operating industrial site in Alberta. After its early start as a soft mud brickyard, it had switched by 1913 to the extrusion process and made wire-cut common brick and hollow building tile in updraft kilns.

The dirty thirties were difficult years for the plants, with long periods of shut down. Herb Sissons would travel from town to town, visiting lumberyards, trying to scrape together enough orders to fire up the kilns. The Second World War revived demand and soon the plants were humming again.

Discovery of new clay resources in the Cypress Hills led to development of the first buff colour brick in the late '40s and Edmonton's Aberhardt Hospital was the first big project. In 1949, at the same time as this important technical development, Herb Sissons died unexpectedly, and it was left to his sons Gordon, Tom and Jack to take over the company and enter a new era in brick-making.

The '50s, '60s and '70s were a period of unprecedented expansion in the western economy and the demand for building materials grew at a steady rate. The company responded by adding tunnel kilns and automatic handling equipment to increase capacity. In 1980, another generation was added to the family enterprise as Clayton, Graham and Malcolm Sissons joined their fathers in managing the business. Some difficult times followed in the '80s as an economic downturn coincided with the introduction of prefabricated metal fireplaces.

With its traditional markets under attack, the company responded by consolidating production facilities, integrating distribution of its products in key markets, and diversifying into new clay businesses.

I-XL produced a wide variety of high quality brick sizes, colours, textures and distributed products widely, even as far away as Asia. I-XL brick came to be used on buildings from New York to Seattle, and from Montreal to Vancouver. It has even found its way to the slopes of Mount Fuji.

On June 19, 2010, record precipitation in the Cypress Hills of south-east Alberta caused a 1 in 200 year flood in the Ross Creek basin. This creek bends around the plant site of the Medicine Hat Brick and Tile plant and at about 1 a.m. spilled over the levee that had been constructed around the plant after the South Saskatchewan River flood of 1995. Approximately one metre of silty water entered the plant and office, causing considerable damage to electrical equipment and the kiln. The company could not justify the cost of rebuilding and thus the historic Medicine Hat Brick and Tile plant, in operation since 1886, no longer produced brick. However, I-XL as a company has other operating divisions, including I-XL Masonry Supplies, which will source and supply brick from other manufacturers to ensure continued brick availability in Western Canada.

AWARD OF EXCELLENCE

SILVERTIP RESIDENCE

Architect: Richard Lindseth Architecture Inc.
General Contractor: Sterling Timberframe Homes
Masonry Contractor: Boulderworks
Engineer: KTA Structural Engineers Ltd.

Masonry elements comprise the most significant element of this contemporary mountain residence in Canmore Alberta. Using local Rundle Stone from nearby Thunderstone Quarries on strong vertical planes of varying heights, contrasted with horizontal timber structures, the stonework becomes the unifying element on both the exterior and interior design. The project was designed with the same custom linear coursing of varying heights, without jumpers, throughout the residence to give a crisp linear palette this provides a modern interpretation of traditional stone laying techniques. On the exterior, principle structural vertical elements are clad with the selected stone which is mirrored in the interior fireplaces and Dining Pavilion columns juxtapose with timber frames. The medium hued sand grout lines, recessed $^1/_2$" to make the individual stone 'punch', with a clean, contemporary aesthetic highlighting a colour blend of 80% black to 20% oxidized natural variance. On the lowest level genuine stone floors and sandblasted concrete walls in the private art gallery complement the effect. The overall effect achieves a muted and elegant architecture combining traditional materials in modern ways.

AWARD OF MERIT

COACH HOUSE

Architect: Richard Lindseth Architecture Inc.
General Contractor: Hassell Construction
Masonry Contractor: Ib Jensen Masonry Ltd.

Originally the "Coach House" was the stables and consequently the garage of the now historically designated Coste residence; it was built at the turn of the century by Eugene Coste, the founder of the Alberta natural gas industry. The original estate comprised 3 distinct architectural elements including the "Manor house", the residence of Mr. Coste, the "Coach House", which included staff accommodations and the "Dower House", a residence for Mr. Coste's mother-in-law. Each constructed in a different architectural styles. In subsequent years each of the buildings were subdivided in separate properties. More recently permission was granted for a new residence to be constructed on the coach house site, mindful of its historical context and restoring the coach house to its original use albeit now serving the newly constructed building.

HONOURABLE MENTION

BONAVENTURE RESIDENCE

Architect: McDowell & Associates
General Contractor: Rocky Point Custom Homes
Masonry Contractor: Am-Can Masonry

The Bonaventure Residence was designed and built for a couple who wanted a home that captured the spirit of Frank Lloyd Wright architecture. Masonry was used on the exterior of the house to create a foundation that grounds the structure giving a solid base to the house, creating the impression that it is growing from the site. The stone was carried up through the roof in the center of the home to visually draw ones attention to that area. The type and color of stone that was selected gives the building an 'organic architecture' that is characteristic of Frank Lloyd Wright design. The use of masonry continues inside the home to add texture and interest to the walls and living space. The stone was used in areas to successfully bring the 'outside in'. The extensive use of stone provides a sense of permanence to the structure that no other material can.

14112 60 AVE RESIDENCE

Architect: ATB
General Contractor: Rescom
Masonry Contractor: Gracom

This custom built 2 story with walkout home is a complete masonry exterior. The artistic use of Tyndall stone and brick create an old world feel to a new modern home. Designed by ATB with Rescom as the Prime Contractor and Gracom as the Masonry contractor. The use of Tyndall and brick was carried through the steps and driveway.

ELBOYA RESIDENCE

Designer: McDowell & Associates
General Contractor: Taradar Fine Homes
Masonry Contractor: Bow Valley Masonry

This client was interested in a Tudor style home with contemporary massing and extensive masonry detailing. Combining full face 5" stone veneer with intricately cut stone window surrounds, and buttress details give this residence its old-world charm. The cladding stone was selected to compliment the copper detailing evident around the residence, while the cut stone was selected to contrast with the cladding stone. This draws viewer attention to the architectural details. Stone was extensively used throughout the landscaping process to better place the residence in its environment.

ELFAR COUNTRY HOUSE

Owner: Hesham Elfar (at time of construction)
Architect: A&E Architectural & Engineering Group Inc.
General Contractor: Hesham Elfar
Masonry Contractor: Bond Masonry Ltd.
Engineer: A&E Architectural & Engineering Group Inc.

Situated on a narrow lot, the home is reminiscent of the European country chateau which in this case, is actually a collection of components Architecturally and Artistically linked together as seen in many European Country Estates. This collection of components and a large feeling site is accomplished by rotating the main entrance 45 degrees and connecting the main house to the children's wing and carriage house. The use and relationship of materials like cedar roofing and masonry cladding speaks the vernacular of materials of a French country chateau. These relationships have fostered a cooperative design approach to this unique and grand European country mansion.

LEGENDS SHOW HOME

Owner: Legend Developments Ltd.
Architect: J Randal Bell Architect Ltd.
General Contractor: Legend Developments Ltd.
Masonry Contractor: Pockar Masonry Ltd.

This home was built in a prestigious area of south west Calgary with over sized lots and an abundance of natural landscape. The use of Rundle stone and pre-cast sills allowed the home to blend in with the surrounding environment. In addition to creating a maintenance free, durable exterior the Rundle stone creates the feeling of mass and strength that is complimentary to the development and the surrounding area.

MELCOR KINGS HEIGHTS

Owner: City of Airdrie
Architect: Melcor Developments Calgary
General Contractor: Melcor Developments Calgary
Masonry Contractor: Gracom
Other Team Member: Bombini Bros. Masonry Ltd

The clients for this project required the use of a high durability product with visually pleasing natural elements. A combination of natural stone with precast detailing provided the residents of this newly developed residential area with a high end privacy fence.

MORIMANNO RESIDENCE

Owner: Claudio and Diana Morimanno
General Contractor: San Rufo Homes
Masonry Contractor: Scorpio Masonry (Northern) Inc.

The Morimanno Residence is located in a newly developed area on the Northwest side of Edmonton. The corner lot allowed this full brick wrap to be viewed from three sides of this bi-level. The Brick veneer features brick and Tyndall stone accents. The arch at the front entrance and the flat arches over all windows and doors compliment the brick design.

OXFORD

Architect: Wildman & Associates
General Contractor: Beattie Homes Ltd.
Masonry Contractor: Am-Can Masonry
Other Team Member: I-XL Masonry Supplies

The use of clay brick was based on the desire to apply naturally derived product versus a manufactured product and to showcase our homes in a market and subdivision area where this product have been relatively unused. The exterior location of clay brick bond coursing was thoughtfully placed to appear both as structural and integral parts of the exterior instead of strictly cosmetic. The contrasting colour clay brick banding, lintel details and sill details were also integrated for contrast throughout the exterior facades. Within those contrasting elements are also the inclusion of alternating soldier and rowlock coursing for additional subtle detailing. The contrasting colours and coursing have created a strong, prominent and successful exterior in an area where homes are primarily clad in manufactured stone.

POST HILL RESIDENCE

Architect: McDowell and Associates
General Contractor: Rocky Point Custom Homes
Masonry Contractor: Am-Can Masonry

Masonry was used on the exterior of this home to create a solid base and to give the impression that the home is extending out of the ground. A base of Tyndall Stone was used with a row of 45 degree canted stones and sills before a random ashlar pattern of Texas Buff Limestone was applied on top of the Tyndall. The amount of stone used really gives the structure a sense of permanence and 'heaviness'. Two 25 foot columns of the limestone creates a grand front entry, and the mass of the columns at the rear of the home creates a very private patio while incorporating a fireplace and bar-b-que on opposite sides. A brick ledge was incorporated into the foundation walls giving a solid support for the stone to rest. Any angle iron used was powder coated to match the colour of the stone, which makes these supports virtually disappear. The use of the same limestone was continued extensively inside of the home on all 3 levels. A stone archway was created leading from the kitchen into the great room in order to establish separation between the living spaces.

RUSTIC ART

Owners: Aldeene & Paul Gianellia
Artist: Shayne Sas
Masonry Contractor: Rushing River Masonry
Other Team Member: Rundle Rock Building Stone

Rustic Art is a custom design with a vision to bring the beauty and authentic feel of nature indoors. A total of nine months was required to mould each hand picked stone to re-create an exquisite mountain effect. This majestic fireplace creates a focal point and gives a visual presence and luxurious feel. A waterfall appears then disappears into a channel that cascades over a rock and disappears into a water basin. Each of the 1200-pound lintels spans the entrance into the library and bedroom giving the semblance of an inverted pre-historic lakebed. The firebox was created to look like a cave, with a mosaic of rock. The extravagant mantel, also hand picked, was selected to complement the quality of stone, which recreates the feel of the entire house. This project of heart and soul devoted an immense amount of character to this home. This piece of Rustic Art deserves to be recognized in the masonry industry.

RUTAR RESIDENCE

Owner: Oscar & Christina Rutar
Architect: Eugene Gyorfi
General Contractor: Abbey Lane Homes
Masonry Contractor: Gracom
Other: Terry Bourque Photography

This 3100 sq.ft. home which sits on the edge of the country yet is dramatically urban shows the classic beauty of stone and brick can be used to create a contemporary design.

- clean yet elegant lines, inspired by the simplicity of Japanese architecture are also reflective with the use of exterior finishes on the interior - the symmetrical design is enhanced by mixing the different elements.
- Tyndall stone, brick and stucco to create contrast which exemplifies the beauty of the materials.
- as a wheelchair accessible home, the spacious open concept design is both functional and necessary.
- the south facing expanse of windows was designed for passive solar heating.
- tiled floors, exposed concrete foundations and brick features provide the mass to absorb the solar heat during the day and then slowly release it during the night.
- a complementary address post is finished with both the Tyndall stone and brick.
- the brick was recycled leftovers from a previous custom run.
- masonry imbues a sense of permanence, an essential element of a home.

SPRINGBANK RESIDENCE

Designer: McDowell & Associates
General Contractor: Taradar Fine Homes
Masonry Contractor: Castelli Masonry

This French Country Residence was designed to incorporate stone, brick, stucco and timber detailing from its inception. The cladding, used as the primary material, includes stone sourced from three different locations and mixed together in the correct proportion to achieve this charming old world appearance. To lighten the overall appearance of the residence, brick was introduced in a herringbone pattern, between the half timbering details on the turrets. Sliced brick was applied to the cantilevered structure on the south elevation for weight reduction. The chimneys have a stone chase with brick uppers to reduce the overall vertical scale. The variation of these materials has a stunning effect on the overall appearance.

STEPHENSON RESIDENCE

General Contractor: Vintage Fine Homes
Masonry Contractor: Am-Can Masonry
Design Firm: Inertia Corporation

For some curb appeal in a recently developing area the customers requested some stone accents throughout the front and rear. The masonry was applied to columns walls, detached garage, outdoor planters, retaining wall, built-in BBQ, and outdoor gas burning fireplace. The stone was selected to compliment Stucco finish and cedar trim. To accent the craftsman style of the home a lighter colored stone was selected for a contrast. Outdoor living spaces were designed for entertainment purposes on a front veranda, Rear Elevated Deck and Lower covered patio. The stone added a warm ambiance to these areas in a year round format.

STREU RESIDENCE

Architect: Beattie Homes Ltd.
General Contractor: Beattie Homes Ltd.
Masonry Contractor: Am-Can Masonry
Other Team Member: Montana Rockworks

The use of real stone veneer was incorporated with two additional exterior materials to create a harmonious balance of natural materials mimicking the environment in which the house sits. The usage of real stone veneer versus full bed depth stone was an attractive option as it helped to manage budget costs, eliminated the need for angle iron and helped to satisfy the developer's suggested exterior scheme. The real stone veneer was also incorporated into the interior design of the dwelling in both fireplace and continuous stone feature wall applications. The ability to use the real stone veneer on the exterior fireplace surround, hearth, mantel and chase unified the exterior treatment on all sides and on both floor levels. The usage of the matching stone sills was a successful completion to the exterior treatment.

WENTWORTH BROWNSTONES - BERKSHIRE A

Architect: Wildman & Associates / Beattie Homes Ltd.
General Contractor: Beattie Homes Ltd.
Masonry Contractor: Am-Can Masonry
Other Team Member: Gillis Quarries / I-XL Masonry Supplies

The design objective to loosely mimic true English Brownstones made way for the appropriate usage of clay brick with Tyndall Stone accents. The direction was to use naturally derived products versus manufactured products in an attempt to manage budget costs as well as showcase our homes in a market where these products have been relatively unused. The usage of each product type was specifically chosen to be both structural and integral parts of the exterior instead of appearing as strictly cosmetic applications. Tyndall stone was incorporated for the contrasting properties to clay brick as well as the structural properties required for the front entry arch. Lintel and sill details were also integrated for continuity of design which resulted in tasteful contrast throughout.

WENTWORTH BROWNSTONES - BERKSHIRE B

Architect: Wildman & Associates / Beattie Homes Ltd.
General Contractor: Beattie Homes Ltd.
Masonry Contractor: Am-Can Masonry
Other Team Member: Gillis Quarries / I-XL Masonry Supplies

The design objective to loosely mimic true English Brownstones made way for the appropriate usage of clay brick with Tyndall Stone accents. The direction was to use naturally derived products versus manufactured products in an attempt to manage budget costs as well as showcase our homes in a market where these products have been relatively unused. The usage of each product type was specifically chosen to be both structural and integral parts of the exterior instead of appearing as strictly cosmetic applications. Tyndall stone was incorporated for the contrasting properties to clay brick as well as the structural properties required for the front entry arch. Lintel and sill details were also integrated for continuity of design which resulted in tasteful contrast throughout.

WENTWORTH BROWNSTONES - BERKSHIRE C

Architect: Wildman & Associates / Beattie Homes Ltd.
General Contractor: Beattie Homes Ltd.
Masonry Contractor: Am-Can Masonry
Other Team Member: Gillis Quarries / I-XL Masonry Supplies

The design objective to loosely mimic true English Brownstones made way for the appropriate usage of clay brick with Tyndall Stone accents. The direction was to use naturally derived products versus manufactured products in an attempt to manage budget costs as well as showcase our homes in a market where these products have been relatively unused. The usage of each product type was specifically chosen to be both structural and integral parts of the exterior instead of appearing as strictly cosmetic applications. Tyndall stone was incorporated for the contrasting properties to clay brick as well as the structural properties required for the front entry arch. Lintel and sill details were also integrated for continuity of design which resulted in tasteful contrast throughout.

WESTMOOR

Architect:	Wildman & Associates
General Contractor:	Beattie Homes Ltd.
Masonry Contractor:	Am-Can Masonry
Other Team Member:	I-XL Masonry Supplies

The use of clay brick was based on the desire to apply naturally derived product versus a manufactured product and to showcase our homes in a market and subdivision area where this product have been relatively unused. The exterior location of clay brick bond coursing was thoughtfully placed to appear both as structural and integral parts of the exterior instead of strictly cosmetic. The contrasting colour clay brick banding, lintel details and sill details were also integrated for contrast throughout the exterior facades. Within those contrasting elements are also the inclusion of alternating soldier and rowlock coursing for additional subtle detailing. The contrasting colours and coursing have created a strong, prominent and successful exterior in an area where homes are primarily clad in manufactured stone.

AWARD OF EXCELLENCE

FOLLY IN THE DEVONIAN BOTANIC GARDEN

Owner: University of Alberta, Devonian Botanic Garden
Architect: the marc boutin architectural collaborative Inc.
General Contractor: Scorpio Masonry (Northern) Inc.
Masonry Contractor: Scorpio Masonry (Northern) Inc.
Engineer: Grant Structural Engineering

The Folly in the Devonian Botanic Garden is a memorial, a gateway and a place to look out over one of Alberta's best landscapes. Commissioned in honour of a life-long patron of the Garden, the design of the Folly is based on memories of Gothic cathedrals and picturesque follies that the Client had visited as a child in Scotland. Emerging out of the top of the hill, the Black Granite base of the folly is materially solid and rooted to the site. Upon climbing the sloped approach, visitors enter the Folly by moving through large Gothic Arches. Layers of Ashlar coursing draw visitors in and features contrasting Tyndall Stone. Rather than incorporating overt signage, the client's family crest is carved into the stone structure. As a gateway in the garden, the Folly's vertical lines are emphasized through slot windows and the Folly's crenelated top course. Situated at a high point in the garden, the climb up the steep approach rewards visitors with dramatic views over a formal rose garden, a nearby lake and distant vistas.

AWARD OF MERIT

TA-OTHA COMMUNITY SCHOOL

Owner: Stoney Tribal Administration
Architect: The Workun Garrick Partnership Architecture and Interior Design Inc.
General Contractor: Krawford Construction Inc.
Masonry Contractor: K. Hansen Masonry
Engineer: Protostatix Engineering Consultants Inc.

The Bighorn First Nation Reserve is located approximately 111 km west of Rocky Mountain House, Alberta. The new 2400m^2 Bighorn school is a contemporary interpretation of the culturally significant aspects of the Stoney First Nation and the surrounding mountain context. The main entrance is flanked by a translucent "Cultural Room" in the form of a Teepee and curtain walls broken up by angular forms similar to the uplifted surrounding mountains. The exterior finishes of the school are a blend of Rundle stone similar to rock found at the site, coloured split face concrete block and brightly coloured stucco to the upper clerestory wall areas. Masonry was chosen as our main building material because of its durability and its natural connection to the surroundings. The Bighorn school committee wanted a building that looked at home in their wilderness and could stand up to the tests of time. The interior walls are made up primarily of concrete block, chosen again because of durability but they also support the majority of the schools structure.

BEARSPAW WATER TREATMENT RESIDUALS FACILITY AND PRE-TREATMENT FACILITY

Owner: The City of Calgary
Architect: Goodfellow Architecture Ltd.
General Contractor: PCL Construction Management Inc.
Masonry Contractor: Gracom
Engineer: Associated Engineering Alberta

The Bearspaw Water Treatment Plant Facility has been constructed to increase the plants finished water production rate as well as improving water quality and the robustness of the system. The architectural treatment for the Pretreatment Facility utilizes a linear massing and structural expression in keeping with the functional requirements of the new process engineering. A central element topped with a butterfly roof and a protective canopy over the main entry is flanked by two metal clad piers that visually separate the entry from the two adjoining wings. The roof design breaks up the large expanses of flat roof and reflects the different functional elements within the plant. Sloped metal roofings re-collects elements of the earlier plant buildings and allows clerestory lighting to enter the facility. Dark brown brick that matches the original facility is complimented by a lighter coloured brick which provides detail and accent. Similarly, natural coloured aluminum panels are used to provide definition to the larger fields of brick and roofing elements.

COUNTRY HILLS MULTI SERVICES

Owner: City of Calgary
Architect: DIALOG
General Contractor: Stuart Olson Dominion Construction Ltd.
Masonry Contractor: Gracom

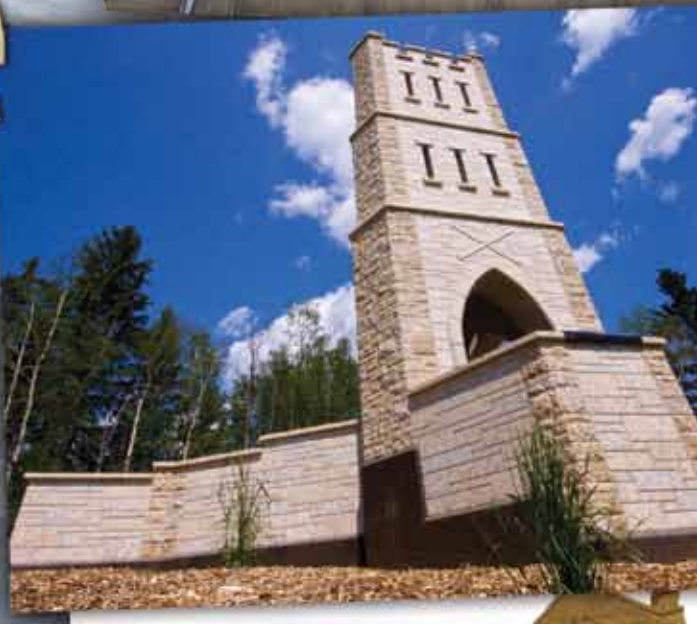
This building required a use of low maintenance and high esthetic value materials that are commonly used. The masonry detailing on this job was required to match the overall simplicity of the design. The client was a repeat client within our industry who recognizes the value that masonry has to offer.

SUNCHILD SCHOOL EXPANSION

Owner: The Sunchild First Nation
Architect: The Workun Garrick Partnership Architecture and Interior Design Inc.
General Contractor: Krawford Construction Inc.
Masonry Contractor: InLine Masonry Inc.
Engineer: Protostatix Engineering Consultants Inc.

The Sunchild Reserve is located approximately 70km from Rocky Mountain House, Alberta. The Sunchild Nation administers their own education program for the community and has a greater than 70% course completion rate and graduates 80% of its students. This statistic sharply contrasts with graduation / completion figures provided by Indian and Northern Affairs Canada for those attending on-reserve schools: only 4% graduate and a less than 20% course completion rate. Their success led to the need for expansion. The project saw a new classroom wing to house grades 6-12, new secondary entry, new main entrance canopy, and a 2 storey multi-purpose space to join the existing school and the new classroom wing. The existing split face exterior wall became an interior wall of the multi-purpose space which informed the material & color for the rest of the expansion. A mix of smooth & split face block was chosen for the interior and exterior for its durable nature and was installed in colored patterns to continue the existing theme of the school insuring a consistency between the existing and the new.

Laying the Foundation for the Future



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