When PCL entered the United States in 1975, it was unclear whether we would simply complete one project for Oxford Development Group or go on to develop and grow in this new market, but it didn’t take long for that question to be answered. What began as a small office project in Colorado Springs, Colorado, thirty-five years ago, has turned into a national, multibillion-dollar organization fueled by our employee owners.

“The recent challenging economic times in the US have taken a toll on the entire construction industry,” says Peter Beaupré, US president and chief operating officer. “However, PCL has been implementing strategies to geographically expand operations to locations that offer growth potential and future returns for our shareholders.” We continue to develop our expertise and pursue projects in various market sectors such as renewable energy, military, and healthcare, as well as expand our Special Projects division. Our geographically diverse and flexible market sector operations afford us the opportunity to serve all clients’ needs, just like we have been doing in the US for the past thirty-five years.

Geographic Expansion

Just as PCL followed the Oxford Development Group to build Colorado Square in Colorado Springs, we continue to follow clients wherever their projects may take us. Owing to our building expertise, and our desire to meet the needs of our clients, we currently have offices in fifteen cities across America and have built projects in forty-five states. One of the most recent examples of such growth at PCL is the work performed by our industrial company, Teton Industrial, for Southern Company. The relationship with Southern Company began when we were awarded the Plant Bowen Flue Gas Desulfurization (FGD) Project, Units 3 and 4, located in Georgia. Based on our strong performance, Southern Company negotiated the remaining FGD work on Units 1 and 2 with us. The success at Plant Bowen with our client, Southern Company, has opened up additional bidding opportunities in Alabama and Mississippi.

The American Recovery and Reinvestment Act (ARRA) of 2009 has provided stimulus money to repair and expand America’s aging infrastructure. PCL’s civil infrastructure divisions in the US have positioned themselves to capitalize on megaproject opportunities, in many cases by partnering with other contractors. Our offices in Florida and Arizona have built solid foundations of expertise, allowing them to take strategic steps to expand into other geographic regions across the US.

Our civil infrastructure group based in Tempe, Arizona, has grown its market presence by establishing offices in California and Florida to pursue water and wastewater projects. The state of California will be spending over $6 billion to construct and update their water facilities. PCL is currently constructing two water projects in this state. The $82-million Tesla Treatment Facility located in Tracy, California, will be the second-largest water treatment facility in the United States. In San Diego, construction is underway on the $91-million South Bay International Wastewater Treatment Plant.

PCL’s Tampa office, which specializes in road and bridge building, has also experienced growth due to ARRA stimulus money. We have expanded our geographic footprint into Connecticut and Virginia with the recent awards of the $417-million joint venture Pearl Harbor Memorial (Q) Bridge in Connecticut, the $133-million Gilmerston Bridge in Virginia, and the $31-million Ben Sawyer Swing Bridge in Charleston, South Carolina.

We are also exploring additional avenues for expansion, including joint-venture relationships and strategic acquisitions in new markets.
**Sector Expansion**

PCL has a long track record of adapting to market needs to provide top-quality construction. We continue to expand our operations into sectors that offer growth potential.

**Renewable Energy**

Renewable energy is an important component of North America’s energy future, and PCL is responding quickly to this increasing demand by developing our expertise in renewable energy project construction. Although we have been building renewable energy projects for over a decade, new tax incentives and legislation are leading to a dramatic increase in planned renewable energy projects. PCL is currently constructing projects in solar, geothermal, biomass, and wind manufacturing facilities throughout the United States, a trend that will not diminish anytime soon.

**Healthcare**

Hospital and clinic construction in the US is projected to be near $100 billion for 2010. “PCL is aggressively pursuing both public and private healthcare opportunities in selected growth geographies, and we are developing close relationships with clients across the country,” says Deron Brown, vice president and district manager, PCL Construction Services, Inc. (Orlando). A close relationship was developed between our Los Angeles office and Kaiser Permanente, which led to our recent completion of the $39-million Kaiser Anaheim Medical Office Building (MOB). In Orlando, construction is currently underway on the Orlando Regional Medical Center roadwork and infrastructure package. This package is the first phase of construction that will allow the long-term expansion laid out in the Orlando Health Campus master plan.

**Military**

Military facilities construction continues to be a significant component within the Department of Defense (DoD) budget allocations. Active contracts (including the Air Force Reserve facility in Colorado, the Marine Air Wing Headquarters in North Carolina, and the Warrior in Transition Complex in Alaska) continue to strengthen PCL’s resume of military facility projects. The availability of ARRA funding from the government is a further testament that military projects will continue to be sufficiently funded for years to come. Senior vice president Shaun Yancey says, “PCL is actively pursuing DoD project opportunities across the United States for multiple branches of the military.” PCL’s recent introduction and implementation of Doing Business with US Governments Policy, an internal training program, demonstrates our commitment to ensuring that all our employees understand the unique requirements in building for US governments.

**Special Projects Division**

PCL is not only a builder of large projects; we take pride in our expertise with smaller projects through our Special Projects division. This division was established to pursue small projects in a variety of market sectors such as hospitality, healthcare, retail, and specialty bridge work. The Special Projects division constructs jobs under $10 million in value.

PCL’s expansion into the US may have begun as a small office project, but for the past thirty-five years we have made our mark by focusing on our clients’ needs and following our founding values. We are poised for even greater future success as we expand our market sectors and geographic locations, and firmly establish ourselves as a US construction leader.
It's been seventeen years since a major office tower has been completed in downtown Toronto, and PCL has broken the silence with Cadillac Fairview’s forty-one-story RBC Centre, the first Triple A building over one million square feet in Canada to achieve LEED® Gold. The innovation, collaboration, synergy, and new construction technology that has gone into meeting our client’s needs has set a whole new bar for how PCL construction professionals build large, environmentally friendly office towers.

Collaborative Construction Creates Synergy

Collaboration among all stakeholders involved in the project created synergy that allowed the project to be delivered ahead of schedule and under budget.

HOW IT WORKED

• A construction agreement was drawn up that involved anchor tenants Royal Bank of Canada and RBC Dexia in the design and construction process.

• Having PCL professionals involved in the preconstruction phase allowed us to provide design assistance, address constructability issues, and ensure value-engineering opportunities, which translated to an assured schedule and considerable cost savings. For example, early involvement allowed us to challenge preliminary plans and evaluate solutions. As a result, we were able to pre-purchase all of the glass for the building at a savings of more than $10 per square foot.

“"The RBC Centre is a very important and high-profile project for Cadillac Fairview, and its success is due in large part to the strong leadership role PCL played at all stages—from planning through construction. A number of significant construction issues had to be addressed, and with the help of PCL’s strong management team, each was successfully resolved through teamwork, planning, and a very focused execution of their construction plan.” —David Handley, senior vice president of Project Management, Cadillac Fairview
Achieving LEED Gold in Sustainability

The original goal for the project was to work toward LEED® Silver, but as construction progressed, we saw that readjusting our target to LEED Gold was feasible and realistic.

Building to LEED Gold standards provided the PCL team with ample opportunity for innovation. These innovations did not necessarily come from re-jigging or refining existing methods of construction, but rather through addressing the construction of LEED design requirements. New ideas came in many forms, from a simple tool, to devising a methodology to achieve the high-performance standards for an exposed concrete ceiling, to coming up with a creative solution to work within limited space.

“As recently as five years ago in our industry, we saw that LEED certification would cost our clients three to four per cent above the overall building cost. LEED Silver would cost five to eight per cent, and LEED Gold, eight to ten per cent,” says Brad Nelson, president and chief operating officer of PCL’s Canadian Buildings division. “Today, we can construct a LEED certified building with little or no cost to the client above conventional building types. And, we can move into the Silver and Gold categories with relatively low costs above the overall building, and, in essence, provide clients with a large savings on the longevity and long-term maintenance of the facility.”

NURTURING THE NATIONAL CLIENT RELATIONSHIP

For more than twelve years, PCL has had a national agreement with Cadillac Fairview regarding additions and alterations to their shopping centers and office complexes across Canada, with over $660 million in projects currently underway.

HOW DOES THE RBC CENTRE MEASURE UP IN THE SIX KEY CATEGORIES OF LEED®?

1 DESIGN
• highly effective working environment that is healthy, comfortable, and energy efficient.

2 INDOOR ENVIRONMENTAL QUALITY
• individual control of ventilation;
• use of materials with low off-gassing;
• abundant natural light adjusted through the use of light shelves and blinds, and operable windows; and
• use of green housekeeping materials.

3 MATERIALS AND RESOURCES
• materials with a high-recycle content (concrete, steel, and gypsum board) were used;
• locally sourced materials reduced the impact of transportation;
• wood products came from sources that practice sustainable forestry; and
• over 95% of construction waste was diverted from landfill.

4 ENERGY EFFICIENCY
• deep lake water cooling instead of conventional air conditioning chillers;
• high-performance windows;
• CO₂ sensors that ensure optimal ventilation;
• occupancy sensors that turn off lights when spaces are not in use;
• daylighting sensors that adjust the amount of artificial light provided based on the amount of natural light available; and
• pendant light fixtures that reflect 92% of artificial light off the exposed concrete ceilings.

5 WATER EFFICIENCY
• uses 48% less water compared to a conventional high-rise of the same size;
• all plumbing fixtures are low flow; and
• rainwater cistern system is used for non-potable water such as toilet flushing.

6 SUSTAINABLE SITE DEVELOPMENT
• connected to the PATH system, Toronto’s 27-kilometer underground walkway, conveniently located near both municipal and interregional public transit services; and close to major residential developments within Toronto’s city core; and
• close proximity to a wide range of shops, restaurants, and personal and professional service providers.

In-depth knowledge, and designers and subcontractors that operate in most geographic regions of Canada are a great advantage in obtaining the most competitive service.

Consistent level of quality service from coast to coast.

Dedicated national account manager, national project manager, and project staff who understand the unique requirements of the client.
On a 23-acre site in Bakersfield, California, a 25,000-square-foot PCL vessel fabrication and module construction facility is home to one of the most versatile ASME pressure vessel design and fabrication outfits on the US west coast: PCL Industrial Services, Inc. Their unique in-house, build-to-suit design and fabrication facility helps clients save time and money, and eliminate risks.

One-stop Design Shop Saves Time and Money

Most unique about PCL Bakersfield’s products and services is that they offer a “one-stop shop” in the ASME pressure vessel business.

“We set ourselves apart by offering our clients a single source to manage their project right through from the planning and design stage to onsite installation,” says John Kerchinski, president of PCL Industrial Services, Inc. “We can do it all for our vessel clients, so they eliminate involving multiple suppliers.”

New Pressure Vessels

PCL Bakersfield can help clients with any combination of pressure vessel services. This flexibility makes for a valuable fabrication partner.

In-house Planning and Design

For clients who prefer a build-to-suit approach, PCL Bakersfield offers in-house design and engineering to meet unique engineering specifications and conditions. Clients may review and provide input to calculations and drawings at any time, as the team implements a collaborative approach to the development of the design and the fabrication schedule.
Repurposing Used Pressure Vessels

A less costly alternative to purchasing a new vessel (and one that ensures a faster turnaround time) is to change the service of an existing vessel. For example, we can convert a propane tank to a free water knockout, or re-rate a vessel to a new service condition. In many cases, we can optimize process performance by modifying vessel size and internals. These modifications are designed to improve inlet flow rates, based on temperature and viscosity of crude with water and gas.

One-stop Shop Reduces Risks

Adding to client value at the PCL Bakersfield facility is the team’s ability to do much of the prefabrication of process piping and structural steel.

Kerchinski explains how it works: “By performing much of the work on skids in our fabrication shop rather than in the field, we can control the environment, saving the client time and money, and reducing risks.”

Environmental elements, safety hazards, and other field-related costs and risks are contained or eliminated, while full access to the expertise and resources of the fabrication shop is maximized.

Find out more about PCL Industrial Services, Inc. by visiting www.pclindustrialservices.com or calling (661) 832-3995.
Quality Management:
Build it Right, Build it Once.

Our quality culture across PCL demonstrates our commitment to our clients, design partners, trade contractors, and our employees, positively differentiating us from our competition. In September of 2009, PCL launched a Quality Management Enhancement Initiative for its US operations. The vision of this initiative is to strengthen our quality culture and ensure we remain the construction leaders that we aspire to be in all aspects of our operations.

US Initiative Development

In an effort to continually enhance our current quality efforts, we began with a review of our existing operations and procedures across all our US operations to gather the “best of the best” quality practices. This review identified many innovative and unique quality practices being performed. A few examples are utilizing billboards noting quality concerns (similar to our safety program, which relays the message to the workers in the field), “drive to zero” punch list parties at the commencement of the inspection process, and quality incident trend analysis and action planning. These best practices assembled with key PCL resources across North America helped to develop the framework for our Quality Management Initiative. With the review of our operations complete and the key resources identified, PCL has developed a consistent approach and methodology to deliver quality on all our projects.

Committing to Quality

In the future, our formal quality audit process will be used to assist project teams on our jobsites to evaluate their quality performance on a regular basis. The monthly audit conducted by our district operations managers, along with other PCL employees not involved with the audited project, will identify any deficiencies in our quality procedures and correct any issue before a quality incident occurs. To stress the importance of our quality initiative, training programs and educational seminars are conducted routinely in all of our offices. To ensure quality improvement remains a core focus of our culture, each of our district operations will be competing for a Quality Achievement Award. This annual award will be presented for the first time in December 2011.

Building Results

By communicating with and training our people, and by measuring and tracking our quality performance, our teams consistently deliver quality projects to our clients, and continually strive to exceed expectations.

Terry Brickman was appointed the US national director of Quality Management and is responsible for leading this important effort. Terry brings to this initiative over twenty-two years of PCL experience from working across North America in four district offices. His passion and desire to constantly improve our current operations will lead to success in the programs that are implemented for this initiative.
The practice of directly procuring certain products from countries outside North America is well established at PCL. For decades, PCL has purchased architectural products such as tile and stone from overseas suppliers in European, Asian, and South American markets, but the total value of such products has not been significant, and the product range has been narrow. In recent years, the range of products sourced globally by PCL has steadily increased and, with the growth of global manufacturing and especially the emergence of China as a world industrial and engineering powerhouse, PCL’s offshore procurement efforts have become more focused.

Two Case Studies

The Seattle district’s success with the Bravern Residences contributed to PCL Calgary’s decision to consider Chinese suppliers for the curtain wall of the SAIT Trades and Technology Complex. Attractive pricing ($4.5 million in savings) was only part of the draw. According to Bruce White, project director for the SAIT Complex, the plants that the team toured in China rival any in North America. “The plants are larger and more technologically advanced, and quality control is world class,” he observes. “In one plant, there was a record sheet for every piece of aluminum that went into a panel. And every panel is numbered, so it can be tracked right back through the extrusion process if we have a concern.”

PCL’s global procurement group also helps to ensure a successful outcome by contracting independent advisors who live in target market areas throughout the world. These advisors provide PCL projects with local “boots on the ground” to support offshore purchasing at every stage of the process.

BRAVERN RESIDENCES
A manufacturer in the People’s Republic of China supplied and installed approximately $30 million of glazed curtain wall system and metal panels at the Bravern Signature Residences in Bellevue, Washington, to enclose the twenty-nine floors in each of the two towers.

Numerous risk mitigation strategies were put into place for the Bravern Residences that remain part of our process today. These include doing an initial factory audit and comprehensive background checks of suppliers, and securing performance and payment bonds. PCL hired an independent consultant to stay at the factory and perform continual quality assurance, supplemented by visits from the project team. Choosing a vendor from a low-cost market ultimately allowed us to save nearly $12 million dollars for the Owner, with no loss of quality. According to Aaron Wiehe, construction manager, “The project never would have met the Owner’s Proforma without the use of offshore curtain wall and the associated savings.”

SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY (SAIT) TRADES AND TECHNOLOGY COMPLEX

PCL is well positioned to buy materials and equipment offshore because of our global procurement program and the expertise of our independent advisors, whose knowledge stays within PCL and is shared among districts. “We are now able to tap into the additional 80% of the world’s manufacturing that occurs outside of the traditional North American supply base,” says Scott Logan, PCL’s global procurement specialist. “And because of the system we have in place, we can handle purchases from there just the same as from down the street.”

For more information on PCL’s global procurement capabilities, please contact the local PCL operation in your region.

CLIENT BENEFITS
• Real cost savings, not empty promises
• Quality control from the factory floor to your jobsite
• People working for you around the world
• The exotic is available
• Experience of other PCL purchases directly supporting your project
PCL employees across North America gave generously after a ruinous earthquake struck Haiti on January 12, killing and victimizing countless people in the city of Port-au-Prince and surrounding communities.

Employees donated more than $18,500 through payroll deduction and reported more than $28,000 in additional donations made outside of PCL.

When combined with our corporate donation of $200,000 and government matching in excess of $37,000, more than $280,000 was contributed toward earthquake relief in Haiti by the people of PCL.

Father and Son —Photo courtesy of the International Federation of the Red Cross
Experience and tradition

Our diverse and experienced group of construction professionals is pleased to be of service to you across Canada, the continental United States, Alaska, the Hawaiian Islands, and the Caribbean. The tradition continues as we introduce you to our 2009 PCL Quarter Century Club inductees, celebrating twenty-five years of service with PCL. There are now 497 members in PCL's Quarter Century Club.
The PCL family of companies is composed of a number of independent companies which operate in various construction markets or geographic areas.

Buildings

Our full-service buildings operations support the work of project sites across North America. This network of construction professionals rises to the challenges associated with our extensive buildings portfolio, bringing added value to every commercial, institutional, educational, and residential project. While we’re better known for our larger projects such as airports, sports facilities, and office towers, we also excel at smaller unique projects such as renovations, restorations, and repairs.

Heavy Industrial

Our industrial companies, which are located strategically throughout North America, respond to the unique construction needs of our clients in the petrochemical, oil and gas, refining and oilsands, mining, and power and cogeneration industries. In addition to offering Construction Management services, we offer a full range of general contracting services, specializing in mechanical, civil, and electrical construction; pipe and vessel fabrication and module assembly; and piping and plant shutdowns/turnarounds.

Civil Infrastructure

By nature, civil work is geographically diverse and extremely demanding. This has made us versatile civil builders—equally at home building on land or over water, in busy cities, or in remote areas. Our civil teams possess the ingenuity and the experience needed to undertake any civil structure imaginable—from bridges, overpasses, tunnels, and interchanges to water and wastewater facilities, pipelines, and light-rail transportation projects.