

# WHY SPECIFY THE CPCI CERTIFICATION PROGRAM

The Canadian Precast/Prestressed Concrete Institute (CPCI) Precast Concrete Certification Program was born of necessity in early 2007. This was in response to a relaxing of the audit requirements, scope and frequency of plant visits at that time, by the program certifier.



The other precast concrete certification program operator has recently announced that they are introducing more stringent enhancements to their program, but upon review by CPCI these changes fall short of equivalence to CPCI's more stringent requirements.

CPCI understands that the precast concrete industry needs a strong audit based certification program that not only reviews the entire precast manufacturing operation with a pass or fail mechanism (something CPCI has been doing since the start of our program), but a program that audits to all of the relevant North American standards and manuals of quality control. CPCI has been auditing to the more stringent requirements of US and Canadian standards for over seven years and we are the only program that will continue to do this.



The CPCI certification program is the only program in Canada designed to qualify manufacturers who fabricate architectural, structural and specialty precast concrete products to meet the requirements of both CSA Standard A23.4-09, including Annexes A and B, together with (United States - Precast/Prestressed Concrete Institute) PCI MNL-116 and 117 and CPCI certification requirements. Manufacturers are evaluated on their quality system, documentation, production procedures, engineering, personnel, equipment, and

finished products. Plants are audited twice annually, on the more stringent requirements of either program, on a clause-by-clause basis. All CPCI audits are two days, regardless of the size of the plant and regardless of the type of product. The other certification program's enhancements only consider some prestressed bridge and commercial products as "advanced" to warrant two annual two-day audits. CPCI considers all product categories and precast facilities unique to warrant two-day audits for all.



### CPCI Certification Commitment to Public Safety

**Through the certification process public safety is CPCI's prime objective.** CPCI auditor's personnel monitor each stage of manufacturing including quality control procedures, set-up, batching, production, placement, consolidation, casting, curing, stripping, testing, and storage and handling of product.

The audit process concludes with an exit interview with plant personnel. The exit interview addresses what extent the plant satisfies Canadian Precast/Prestressed Concrete Institute certification program criteria. It addresses deficiencies, identifies areas for improvement, offers general observations, notes areas of excellence, and pinpoints personal growth opportunities. Following the audit, CPCI auditors prepare a written report for the plant, including a narrative of each audit criterion with suggestions for improvement and citing specific deficiencies as they relate to the CPCI certification program. The report describes the

basis for any deficiency finding, the reason for its importance, and suggested remedies as they specifically relate to the CPCI Quality Control Manual. The report also includes benchmarking information comparing a plant's overall performance and selected attributes with those of other plants enrolled in the program.

CPCI Certification raises the bar on public safety assuring that the quality production and performance of precast products is crucial for not only a successful project outcome but for maintaining the highest quality standards and commitment to public safety.

Many precast concrete products are the glue that holds the Canadian Infrastructure Network together. Whether designed for motorists, pedestrians, cyclists, or the Canadian public at large, these structures must convey safety to all that use them across the Nation's varied landscapes.

The Canadian Precast/Prestressed Concrete Institute certification program is committed to delivering safe and cost-effective infrastructure products to support Canada's growing infrastructure demands. To meet these demands CPCI along with our North America partners Precast/Prestressed Concrete Institute (PCI) and National Precast Concrete Association (NPCA) are involved in many robust and aggressive research and technology (R&T) programs to preserve the aging and deteriorating North America infrastructure and **advance the use of new technologies for designing stronger, longer-lasting infrastructure products to keep Canadians SAFE.**





### Canadian Precast/Prestressed Concrete Institute (CPCI)

The Canadian Precast/Prestressed Concrete Institute (CPCI) has been leading the development of technical standards and innovation for over 50 years. CPCI is a non-profit corporation founded in 1961 for the purpose of advancing the design, manufacture and use of structural, architectural and specialty precast/prestressed concrete throughout Canada. Participants in the CPCI certified plant program do not pay their certification fees to CPCI! Fees are paid to the auditing firm, and CPCI only recoups a small administration fee of \$200 annually per plant. CPCI's aim is not to make a profit; rather, it is our sole aim to ensure a system of continual improvement that gives the owner, architect, and engineer of record the best assurance of quality precast products in the marketplace.

### Accredited Certification Organization for CPCI Certification Program

Kassian Dyck & Associates (KDA) is an Accredited Certification Organization for certifying CPCI precast concrete plants across Canada. Kassian Dyck & Associates are independent professional engineers that are experienced with precast concrete design, and who have a minimum of four years experience.

#### Unique Advantages about KDA Auditors:

- KDA auditors possess diverse precast knowledge by auditing plants in all areas of the country while other auditors only audit regionally. KDA auditors have both PCI Level I and PCI Level II

Certified Technician accreditation, and ACI Concrete Field Testing Technician—Grade I qualifications.

- KDA auditors are experienced Structural and Professional Engineers. **Engineers in Training (EIT) are not permitted to audit a plant.**





- KDA audits start as early as 4 am, or sometimes even earlier, to ensure early morning plant activities are observed. KDA auditors stay late, and come back in the evenings if there are evening shifts at the plant. (No limits on audit period duration)

#### **Unique Advantages about KDA President, Wayne Kassian P. ENG**

- Wayne Kassian is a former Chapter Editor (of Chapter 2 - Analysis and Design of Structures) for the CPCI Design Manual 4, and is an editor for the Fifth Edition that is in progress. As an editor, Wayne Kassian presented seminars on the Fourth Edition Manual across Canada.
- Wayne Kassian is a former editor of the Prestressed Concrete portion of the Cement

Association of Canada (CAC) Concrete Design Handbook, Third Edition.

- Wayne Kassian is a long standing member of the CPCI Technical Committee, actively participating in advancing the Institute's technical direction. He also holds one of the highest honorary distinctions bestowed by the industry, the John Fowler Award of Distinction.
- Wayne Kassian is a member of Precast/Prestressed Concrete Institute (PCI) Technical Activities Council (TAC) which oversees all of PCI's 20 different technical committees. As a member of this council, Wayne Kassian acts as liaison to the CPCI Technical committee.
- Wayne Kassian actively participates in PCI's Architectural Precast Concrete and the Plant Certification Committees.
- Wayne Kassian assisted with the development of the Construction Specifications Canada (CSC) Precast Concrete Tek Aid documents for Architectural and Structural Precast Concrete, and is a former editor for the Canadian Master Specifications related to precast concrete.
- Wayne Kassian is a long time member of the Canadian Society for Civil Engineers (CSCE), and recently received recognition for 25 years of service from the American Concrete Institute (ACI).





### Technology

CPCI members are committed to developing innovative solutions to meet the needs of the construction industry. Technical and Sustainability committee meetings are held three times per year, with an aim to develop, collect and disseminate knowledge, statistics, ideas and information relating to the design, manufacture, and use of precast prestressed concrete. Findings are published by CPCI, in the CPCI Design Manual, the PCI Journal and throughout the many CPCI Technical Publications. New engineering processes are established to improve product design and quality through investigations and research.

### Affiliate Partners

The Canadian Precast/Prestressed Concrete Institute (CPCI), National Precast Concrete Association (NPCA) and the Precast/Prestressed Concrete Institute (PCI) have developed an important and critical strategic partnership. The three distinct organizations together hold the largest Body of Technical Knowledge on precast concrete production, erection and certification in North America. The partnership involves the sharing of technical information and related research to advance both the certification and production of precast concrete in North America.

### Professional Development

CPCI professional development seminars, such as our annual Pathways to Our Future, allow CPCI members to study systems and procedures to improve the coordination and dissemination of information and, among

other things, to streamline member manufacturing processes. The seminars help to improve management of precast manufacturing and marketing through education and professional development. Our aim is to continuously improve the efficiency and effectiveness of the precast industry as a whole.

### Client Education

CPCI works with and provides educational seminars and/or technical paper presentations with these associations: Architecture Canada, Construction Specifications Canada, Canadian Parking Association, Transportation Association of Canada, Canadian Society of Civil Engineers and the Canadian Green Building Council.





#### Educational seminars include:

- CPCI Design Manual seminars which are also taught in Universities across the country.
- Infrastructure for Life Seminars
- Accelerated Bridge Construction Seminars
- New Sustainable Parking Garage Seminars
- Precast Parking Structure Seminars
- High Performance Building Enclosures Seminars
- Total Precast Concrete Seminars
- Life Cycle Assessment Seminars

#### CPCI Sustainable Plant Program

CPCI has positioned itself as the leader in precast sustainability in North America. The goal of the CPCI Sustainable Plant program is to continuously improve the environmental impact at the manufacturing level while creating a culture of sustainability within the industry. The benefits of sustainable business practices

are well documented. As the leading technical resource for the precast concrete industry in Canada, CPCI provides the tools for its member plants to measure and implement changes that will make a measurable improvement in their environmental and economic performance using a unique software tracking program developed by the Athena Sustainable Materials Institute (ASMI).

#### Overview

Environmental performance is determined based on the intent of all applicable government environmental policies. Sustainability performance builds on the Canadian Precast Concrete LCA research previously conducted by CPCI, and published in 2012. Participating facilities submit confidential benchmark reports on a Quarterly basis. The aggregated results of the program are communicated to the public through the Canadian Precast/Prestressed Concrete Institute Sustainability Report.





### The CPCI Difference

CPCI members are precast professionals; capable and willing to help you complete your next project. Involve a CPCI Certified member at the early stages of project planning. Whether the challenges are structural, aesthetic, timing or economic, CPCI members can provide invaluable input. You will find CPCI members to be competent, dedicated and committed individuals willing to contribute to the realization of the standards you have set for your projects. They will be there to advise and assist you from conceptual design to completion of your project.

**CPCI members are up to date and have timely and intimate knowledge on current research, technical advancements, and production practices.**

**As the leader in the industry, CPCI mandates that all of its members are certified by CPCI – CPCI does not recognize other precast certification bodies in Canada.**

### Don't choose imitations! CHOOSE CPCI Certified Plants!

#### HOW TO SPECIFY CPCI CERTIFICATION?

03 45 00 Architectural Precast Concrete and 03 41 00 Structural Precast/ Prestressed Concrete shall contain the following Clause Quality Assurance:

- .2 Manufacturer: certified to the Canadian Precast/Prestressed Concrete Institute (CPCI) Certification Program in the appropriate products category(s) at the start of production and for the entire duration of the precast manufacturing process.
- .1 Manufacturer must meet requirements of CSA A23.4, including Appendices A and B, together with PCI MNL-116 and 117 and CPCI certification requirements.

For current information: <https://secure.spex.ca/index.php?page=packages/view/index.php&indid=291>

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**FOR MORE INFORMATION ON  
CPCI CERTIFICATION:**

Call CPCI at: 1 877.937.2724  
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