

# The Digital Pipe Digest



Canadian Concrete Pipe Association  
Association des Canadienne de Fabricants de Tuyaux de Béton  
Editor: A. Grant Lee, MCIP, RPP, FCIInst.M April 2003

## CCPA/ACTB welcomes new member

GCI Castings, Inc. was established in 1987. by Kiran P. Giri, a mechanical engineer with over 20 years experience in foundry and machining technology. The company manufactures and supplies precision castings to six countries including Canada and the United States.



Since 1995, over 16,000 pallets and headers have been shipped. GCI has over 30,000 square feet of manufacturing and warehouse facilities in multiple locations. Its main office is located at 4013 Bonner Industrial Drive, Shawnee Kansas. For more information about GCI, see [www.gcicastings.com](http://www.gcicastings.com) or call Robert Trump at 913-441-8707

GCI Castings, Inc. was sponsored by member Dominico Miceli of Miceli & Frères Ltée.

## Pre-launch announcement

This month the new members only area of the CCPA/ACTB Web site will be beta-tested. The area includes correspondence to and from the Association, reports, annual general meeting documents and a discussion forum to debate and exchange information among members. The members area will be administered by the manager, Grant Lee.



Final programming is underway for the discussion forum.

Use of the Web site continues to grow. A statistical report will be presented in an upcoming issue.

Stay tuned...

## ACPA publishes Design Data 25

The American Concrete Pipe Association has released Design Data 25, which discusses the methods of Life Cycle Analysis.

Selecting pipe materials best suited for service as a storm sewer, culvert, sanitary sewer, or small bridge replacement is of primary importance to the design engineer. Selection is based on hydraulic efficiency, structural integrity, durability and cost. On many projects when alternate materials are bid, selection is too often based on the initial cost. However, the pipe material with the lowest first cost may not be the most economical selection for the design life of the project.



Contact the ACPA at [info@concrete-pipe.org](mailto:info@concrete-pipe.org) for details.

---

## **North America's Largest Installation of Earth Tube Technology**

---

The Earth Rangers Centre in Kleinburg, Ontario, just north of Toronto, is utilizing concrete "earth tubes" as a key element in its construction and will be the most energy efficient building of its kind in Canada.

The Centre, which will use 61% less energy than a similar building designed to the Model National Energy Code of Canada, is currently under construction, with a planned completion date of September 2003. The Ontario Concrete Pipe Association has made an in-kind donation of concrete pipe that will serve as an important component of the HVAC system for this environmentally innovative building.



This building sets a new standard for sustainable design in Canada. Designed by J. Buttner and Internorth Architects, and constructed by Internorth Construction Company, this \$18 million facility will house the most advanced wildlife hospital in the world.

The concrete earth tubes were specified by Enermodal Engineering Ltd. to reduce energy requirements associated with heating and cooling the facility. The 900 mm diameter by 20-metre length pipe will provide for heat transfer in an area covering 1200 square metres of surface area. The earth's temperature 2 m below the ground is relatively constant at 10-12° C year round; as a result, air moving through the concrete

earth tubes will be pre-heated or pre-cooled depending upon the season.

Fresh air will be delivered to all areas of the building by "displacement ventilation." Air is supplied at floor level, which rises naturally and is exhausted through ceiling vents. Displacement ventilation provides superior indoor air quality and occupant comfort while requiring less fan power for air circulation, contributing to the energy efficiency of the building.

The Ontario Concrete Pipe Association is joined in their support of the Earth Rangers project by the Cement Association of Canada (CAC), who has made a five-year funding commitment in addition to ongoing promotional support. The Centre, built almost entirely of concrete, is a model demonstration of the environmental and sustainable benefits of choosing concrete as a building material.

Contact Sally Moore of the CAC for information at [smoore@cement.ca](mailto:smoore@cement.ca)

---

## **Concrete Pipe Insights – Compaction Equipment and Construction Loads**

---

The OCPA has worked with the Ministry of Transportation Ontario for several years to encourage the Ministry to develop and implement a Gravity Pipe Design Guidelines manual for new pipe installations. The statement of work to develop the manual is to *prepare a gravity pipe design guidelines manual that used life cycle costing and cost-benefit methodologies and other risk factors to determine the situations where the various types of gravity pipes are most cost effective.*

The first real evidence of the MTO commitment to this program came in late October 2002 with the release of two new special provisions, on a trial basis, that introduced quality standards for the acceptance of drainage pipe into the drainage product specifications.

Highlights of the quality standards include the requirement of only bell and spigot HDPE pipe for Ministry contracts and for that pipe to be certified under the appropriate CSA specifications. Furthermore, as a minimum quality control procedure for the pipe products, the contractor shall now inspect the pipe received at the job site and complete a comprehensive checklist.

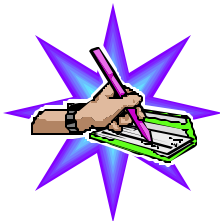
These changes introduced to MTO contracts are monumental in terms of recognizing the inconsistency of the contract specifications with regard to QA and QC. The concrete pipe industry looks forward to the increased attention these changes will put on the manufacturing of concrete pipe and competitive pipe materials.

Contact Paul Smeltzer at the OCPA for information, [paul.smeltzer@ocpa.com](mailto:paul.smeltzer@ocpa.com)

---

## **Concrete Pipe Industry Billboard**

---



### **2003**

#### **Ontario Water Works Association Conference and Trade Show**

Hamilton, Ontario  
May 5 to 6

#### **Ontario Environmental Tradeshow and Environmental, Compliance & Engineering Conference & Workshops**

Toronto, Ontario  
May 14 to 15

#### **Federation of Canadian Municipalities 66<sup>th</sup> AGM and Municipal Expo**

Winnipeg, Manitoba  
May 30 to June 2

#### **ACPA CPU 101 – Concrete Pipe University**

The Harvey Hotel – Irving, Texas  
June 12 to 13 (tentative)

#### **Canadian Society for Civil Engineering Annual Conference**

Moncton, New Brunswick  
June 4 to 7

#### **AWWA Conference & Exposition**

Anaheim, California  
June 15 to 19

#### **ASCE Pipelines 2003 Conference**

Baltimore Marriott Waterfront Hotel  
July 13 to 15

#### **ACPA Committee Week & CPU 301**

Renaissance Worthington Hotel (downtown)  
Fort Worth  
July 20 to 23

#### **APWA Conference & Exposition**

San Diego  
August 24 to 27

#### **WEFTEC 2003**

Los Angeles Convention Center  
October 11 to 15

#### **ACPA Fall Marketing Short Course School**

Las Vegas, Nevada  
November 4 to 6

#### **Construct Canada**

Toronto, Ontario  
TBA

#### **Canadian Public Works Expo**

December  
TBA

### **2004**

#### **TRB 83<sup>rd</sup> Annual Meeting**

Washington, DC  
January 11 to 15

### **World of Concrete 2004**

Orlando, Florida  
February 16 to 19

### **CCPA/OCPA Annual General Meetings**

TBA

### **Production Short Course School/MCPX 2004**

Atlanta, Georgia  
February 4 to 6

### **96<sup>th</sup> Annual Meeting of the ACPA**

Ritz-Carleton Half Moon Bay, San Francisco  
March 19 to 22

### **Ontario Good Roads Association Conference**

Toronto, Ontario  
March 7

### **Water Environment Association of Ontario**

TBA

### **International NO-DIG 2004**

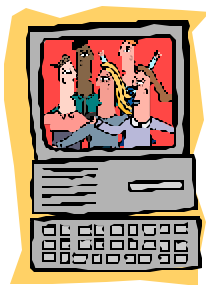
TBA

---

## ***Get set for a new computer term***

---

The technology is here, and the acceptance of on-line seminars and debates is quickly coming to the office environment. For associations, these are ideal services for members, especially international associations, or those with memberships located in distant provinces and states. Get ready for the webinar.



A **webinar** is a web-driven seminar or workshop. It is "asynchronous", meaning that it does not take place in real time. Instead, you can participate when you have the time, not when the speaker is ready. Because webinars occur over the Internet, you can take part in a webinar from your desk – no need to travel to participate in one. All the content is easily archived. You can retain any handouts as computer files to look at whenever you need them. Long after the webinar is over, you can still refer back to the discussions, the lectures, the resources, and other webinar features.

If you have an opportunity to participate in a webinar, give it a try. It is another effective way to use the Internet.

---

## ***NRC/IRC starts strategic planning***

---

The National Research Council's Institute for Research in Construction (NRC/IRC) is a major performer of R&D for the construction industry and as such, is embarking on a strategic planning exercise to align its future programs with industry needs and challenges.

Industry personalities are being invited to participate in an IRC organized industry consultation forum in Toronto on May 21. The CCPA/ACTB will be present.

The Digital Pipe Digest is published by the Canadian Concrete Pipe Association through AGL Marketing Limited. The Digest is being distributed via Internet technology and the World Wide Web. Information is believed to be correct at time of publication. The CCPA shall not be liable for any error or omission. It is published and distributed monthly, and is intended to provide general information, with contacts.