

# **COMPETITION INFORMATION & SUBMITTAL REQUIREMENTS**

## 1) Design Challenge:

This section provides a textual overview of project data/description and valuable information about facilities, program, area summary, and building issues.

## 2) Site Photographs, Topography, and Climatic Data:

This section provides a look at valuable site images and site plan (.dwg and .jpg formats are available for download).

## 3) Competition Guidelines:

This section provides an overview of faculty responsibilities, competitor eligibility, and competition schedule.

## 4) Submission Form:

This section provides a submission form that needs to be completed for each entry.

## 5) Presentation:

This section provides information on presentation requirements—required drawings and project submission requirements.

## 6) Evaluation:

This section provides information on design criteria, internal evaluation, and the jury.

## 7) Resources:

This section provides online resources, valuable research information, and help on how to access these resources.

## 8) Awards:

This section provides a look at competition awards categories and amounts assigned to specific competitors and competitor sponsors.

# 1. DESIGN CHALLENGE

This year's PCI Total-Precast Design Challenge is the design of a new middle school to be located at the designated site in the Charlotte-Mecklenburg area. The project will address the vision that PCI has for a new middle school, in addition to showcasing a **total-precast concrete solution** (defined as 100% of structural and architectural elements).

In this year's competition we are following the consideration of sustainable building practices. The potential for precast/prestressed concrete as a green building material is significant, and innovative applications may contribute to greater performance in several areas of sustainable building.

**Successful entries will be characterized by innovative use of precast/prestressed concrete as an agent in sustainable design.** A minimum potential Silver LEED rating is required to be integrated into the design. Students may participate in the site-specific competition, or opt to enter in the non-site-specific category and work with a local school district where plans for a school are in progress.

## Total-Precast Middle School

### Tentative Building Specifications

#### Spaces

General Classrooms -----	36 Rooms @ 800 ft <sup>2</sup> (Each)
• Core Curriculum Classrooms (grades 6–8)	
• Mathematics	
• Communication	
• Social Studies	
Science Classrooms -----	9 Rooms @ 1100 ft <sup>2</sup> (Each)
• Lecture/Discussion	
• Student Lab Stations	
Prep -----	3 Rooms @ 400 ft <sup>2</sup> (Each)
• Teacher Materials Prep	
• Supplies Storage	
Art Rooms w/ Storage -----	1 Room @ 1400 ft <sup>2</sup>
• Creative Activities w/ Various Media	
Music Rooms -----	2 Rooms @ 1500 ft <sup>2</sup> (Each)
• Study Performance Techniques	
• Small Ensemble/Individual Instruction	
• Acoustical	
Computer Rooms -----	2 Rooms @ 1000 ft <sup>2</sup> (Each)
• Group Computer Instruction	
• Individual Work	
• Teacher Training	
Technical Education -----	3 Rooms @ 1200 ft <sup>2</sup> (Each)
• Design/Problem Solving	
• Technical Drawing/Sketching	
• Video Production and Electronics	
• Vocational Classes	
Dance Classroom -----	1 Room @ 1800 ft <sup>2</sup>
• Movement for Dancing	
• Listening & Viewing	
• Lecture	
Drama Classroom -----	1 Room @ 1800 ft <sup>2</sup>
• Large- & Small-Group Assignments	

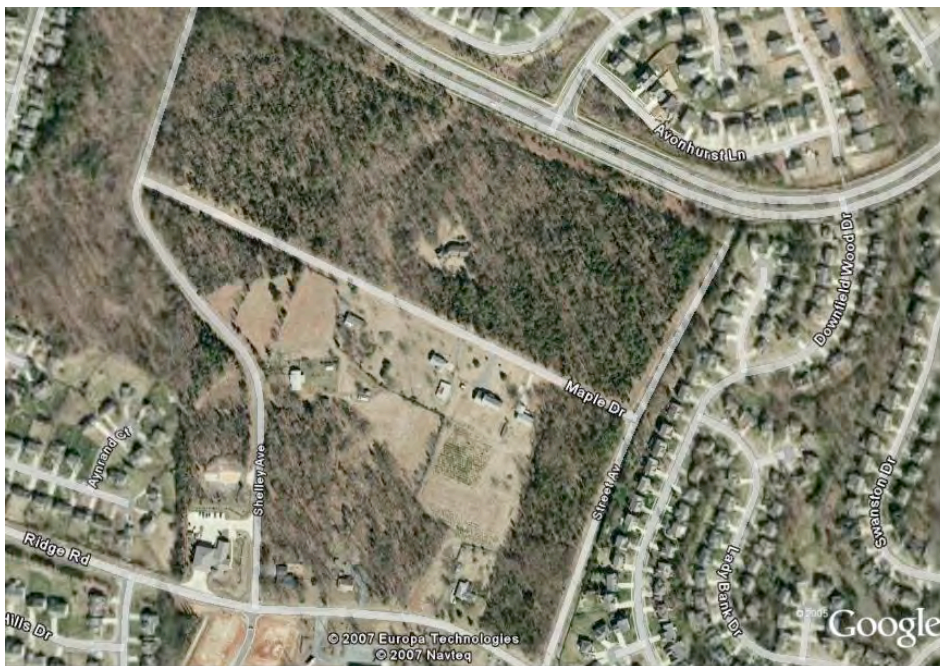
<ul style="list-style-type: none"> <li>• Creating/Producing Original Scripts</li> <li>• Acting Skills and Speech Concepts</li> </ul>	
Gymnasium -----	
<ul style="list-style-type: none"> <li>• 2 Teachers/Period</li> <li>• Development of Team Sport Skills</li> <li>• Individual &amp; Dual Sports</li> <li>• 2 Classes/Period or 3 (if aux. gym included)</li> <li>• Locker Rooms</li> <li>• Accessible to Playing Field</li> </ul>	1 Room @ 12000 ft <sup>2</sup>
Auxiliary Gym -----	
Administration -----	
<ul style="list-style-type: none"> <li>• Principal's Office (near main reception, adj. to conference room)</li> <li>• Asst. Principal's Office (capacity 2–6 people)</li> <li>• Reception/Secretarial Area (proximity to principal &amp; main entrance, adj. health room, capacity 8–10 people)</li> <li>• Workroom/Storage (2–4 people, school supplies, copy materials, clerical tasks)</li> <li>• Finance Office</li> <li>• Faculty Lounge (15–20 people)</li> <li>• Health Room (first-aid supplies, resting area, nurse/student counseling)</li> <li>• In-School Suspension (up to 15 students)</li> <li>• Student Services</li> <li>• Parent Center (one counselor per grade level)</li> </ul>	1 Room @ 5000 ft <sup>2</sup> 1 Room @ 5000 ft <sup>2</sup>
Café/Kitchen -----	
<ul style="list-style-type: none"> <li>• Eating (Dining Area, Serving Area, Food Prep, Dishwashing Area, Manager's Office, Employee Restroom, Storage Area)</li> <li>• Assemblies</li> <li>• Performances</li> <li>• Rehearsals</li> <li>• Community Activities</li> </ul>	1 Room @ 12000 ft <sup>2</sup>
Media (Library) -----	
<ul style="list-style-type: none"> <li>• Circulation</li> <li>• Catalog/Referencing</li> <li>• Large-Group Instruction</li> <li>• Study</li> <li>• Conference Area</li> <li>• Offices</li> </ul>	1 Room @ 7000 ft <sup>2</sup>
<b>SUBTOTAL</b> -----	
<ul style="list-style-type: none"> <li>• Circulation, etc. 40%</li> </ul>	
<b>TOTAL</b> -----	
	<b>94,500 ft<sup>2</sup></b>
	37,800 ft <sup>2</sup>
	<b>132,300 ft<sup>2</sup></b>

- 1200 STUDENTS
- NOT LIMITED TO SINGLE STORY
- CORE CURRICULUM CLASSROOMS SHOULD BE CLUSTERED AND HAVE DIRECT ACCESS TO MEDIA CENTER

*Entry/Lobby areas, elevators, stairs, corridors, toilets, mechanical spaces, and duct shafts are required by design.*

## **2. SITE PHOTOGRAPHS AND DATA**

**All but Category III** are site specific with detailed plans and numerous photos depicting the landscape.





### **3. COMPETITION GUIDELINES:**

#### **ELIGIBILITY:**

There are two design award categories for the competition.

#### **Category I: Student [SITE-SPECIFIC]**

The competition is open to students in architecture or in architecture-related programs.

Competition entries may be the work of an individual student or can be submitted as a team from a school. Student organizations may enter the competition as a possible fundraiser for the organization. Each entry must have a faculty advisor.

#### **Category II: Student [NON-SITE-SPECIFIC]**

The competition is open to students in architecture or in architecture-related programs. This category is intended to encourage universities to provide regional community service to local school districts.

Competition entries may be the work of an individual student or can be submitted as a team from a school. Student organizations may enter the competition as a possible fundraiser for the organization. Each entry must have a faculty advisor.

#### **SCHEDULE:**

##### **Friday, May 23, 2008 @ 5:00 p.m. Central Standard Time**

Deadline for reception of competition entries (see page 9 for shipping instructions).

##### **June 2008**

Design Competition Jury.

##### **July 2008**

Design Winners Announced.

##### **October 5-8, 2008**

Awards Presented at the PCI Annual Convention & Exhibition in Orlando, FL.

**4. SUBMISSION FORM:**

**Seventh Annual PCI Architectural Student Design Competition 2008**

- Please complete this form and place it in an unsealed envelope attached to the back of the first board of the entry (photocopies are acceptable). See schedule for receipt of competition entry on the previous page.
- Please note that, due to the number of entries, PCI will not send acknowledgement of receipt of submission. Entries cannot be returned under any circumstances. Upon receipt, each entry becomes the property of PCI. Student competition entrants submitting original materials for this competition should obtain adequate reproductions before submitting their work.

**Name of Student (Team) Participant(s):** \_\_\_\_\_

**Category Selection**

SELECT YOUR CATEGORY:

**Category I: Student Category [SITE-SPECIFIC]**

**Category II: Student Category [NON-SITE-SPECIFIC]**

*Refer to Competition Guidelines for detailed requirements for each category.*

**Name of School:** \_\_\_\_\_

**Complete Mailing Address of Entrant:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Contacts**      Phone: \_\_\_\_\_  
                    Fax: \_\_\_\_\_  
                    E-mail: \_\_\_\_\_

**Student Level of Study (year and degree program):** \_\_\_\_\_

**Name(s) of Faculty Advisor(s):** \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

## 5. **PRESENTATION:**

### **PRESENTATION REQUIREMENTS:**

- A. Required Drawings**
- B. Design Concept Statement**
- C. LEED Scorecard** (<https://www.usgbc.org/DisplayPage.aspx?CMSPageID=220>)
- D. Project Submission Form**

### **A) REQUIRED DRAWINGS:**

**Drawings must be firmly mounted or drawn directly on no more than four 20" x 30" illustration or foam-core boards.**

Graphics should be sufficient to explain the design solution. Each presentation must include the title of the project. Individual drawings and plans are to be titled. Photographs may be mounted to boards. All drawings should be drawn at a scale appropriate to the design solution and include a graphic scale, a north arrow on all plans, and elevation markers on all sections and elevations.

#### **Each presentation must include (minimum requirements):**

- Site plan showing the relationship of surrounding development, landscaping, circulation patterns, and parking solutions.
- Site and building sections (2): transverse and longitudinal with respect to the facility, showing physical and visual relationships as appropriate.
- Exterior perspectives, axonometric drawings, or photographs of the project model.
- Floor plans as required (all levels).
- Minimum of **one** interior perspective illustrating the character of the principal space(s) and materials.
- At least one large-scale detail drawing, illustrating the architectural and structural total-precast concrete design solution.
- Highlights of strategies used to achieve environmentally sustainable solutions with precast/prestressed concrete.

#### **Important Details for Board Presentations**

Category I: Student [SITE-SPECIFIC] AND Category II: Student [NON-SITE-SPECIFIC]

The entrant's name, school, faculty advisor, and image must **not** appear on the front of the board. A sheet of paper listing the entrant's name, school, and faculty advisor should be firmly affixed to the back of each board; all boards should be numbered on the back (1 of 4, 2 of 4, etc.)

**Presentations submitted on materials such as wood, metal, or glass will be disqualified. Unmounted or oversized materials will not be accepted. Participants should keep in mind that, due to the number of entries, preliminary review does not allow for the handling of end-to-end display of presentation boards. Accordingly, text or graphics that cross over from board to board should not be used.**

Entries may be originals or high-contrast reproductions. Photographs of models are encouraged.

**B) DESIGN CONCEPT STATEMENT:**

A brief design concept statement describing the most important concepts/features of the design project should appear as part of the presentation boards. Keep in mind that the presentation should graphically convey the design solution and context as much as possible and therefore it should **not** rely upon the design concept for a basic understanding of the project. Enclose a copy of the design concept with the project submission form.

**C) LEED-NC v2.2 SCORECARD**

A quick summary of which LEED Credits are projected to be obtained by the design should be outlined on the LEED Checklist made available by the United States Green Building Council at: <https://www.usgbc.org/DisplayPage.aspx?CMSPageID=220>

**D) PROJECT SUBMISSION FORM + DIGITAL COPIES:**

Each project must be accompanied by a completed **Project Submission Form** and **Digital Copies** (.jpg, .pdf) of all submitted boards on a CD. Additional images or data should NOT be included on this CD and will not be viewed. The CD should be clearly labeled and all digital files should be organized and clearly named for easy reference.

Both the Form and CD should be placed in an unsealed envelope and taped to the back of the first board along with a copy of the design concept.

**SHIPPING:** Entries must be shipped in boxes or sturdy wrapping. All entries must be **received** at or brought in person to the Precast/Prestressed Concrete Institute headquarters in Chicago, Ill., by 5:00 p.m. Central Standard Time, **May 23, 2008**.

**SHIP TO:**

Michael Potts  
Director of Education  
Precast/Prestressed Concrete Institute  
209 West Jackson Boulevard, Suite 500  
Chicago, IL 60606-6938

Phone: (312) 583-6784  
Fax: (312) 786-0353  
E-mail: [mpotts@pci.org](mailto:mpotts@pci.org)

**QUESTIONS:** Additional questions concerning the competition should be directed to Mr. Potts.

**IMPORTANT NOTE:** Entries cannot be returned under any circumstances. Upon receipt they become the property of the PCI. Participants submitting original material for this competition should obtain adequate reproductions for their own portfolios before submitting their work.

**6. EVALUATION:**

The evaluation is separated into four sections as follows:

- Design Criteria
- Innovation / Sustainability
- Internal Evaluation
- Jury

#### **DESIGN CRITERIA:**

In evaluating the competition submissions, the jury will seek submissions that demonstrate:

- Ability to creatively design and technically integrate architectural and structural total-precast concrete systems.
- Use of the many forms of precast concrete in building design and site development.
- Elegant and expressive use of precast concrete as a material.
- Response to specific architectural concepts of the program such as contextual response, site planning, climatic considerations, sustainable design, structural integrity, and human activity.
- Landscape architecture, lighting, coherence of architectural vocabulary, etc.
- Level of attention paid to preserving and enhancing the surrounding environment.
- Effectiveness of the solution in meeting the stated goals of the program.
- Ability to integrate functional aspects of the challenge in an appropriate manner.

#### **INNOVATION / SUSTAINABILITY:**

The innovative use of precast/prestressed concrete as an agent in environmentally sustainable design will characterize successful entries. A *minimum* potential Silver LEED rating is required of all designs.

#### **INTERNAL EVALUATION:**

- Each school is expected to carefully evaluate the work of its students, using the criteria set forth in program documents. The faculty advisor is expected to develop a system of evaluation, encouraging students to critically scrutinize their own work.
- Faculty advisors should also be included as an integral part of the design process.

#### **JURY:**

- The jury will be composed of three prominent architects/engineers representing design expertise in the field of total-precast concrete design, sustainable design, landscape planning, and/or the presentation/evaluation of architectural competition.
- The jury will convene in June 2008 in Chicago, Ill.
- Student winners will be notified by mail, with acknowledgement also sent to the faculty advisor and school administration. Other entrants will be notified by means of a press release sent to the faculty advisor.
- Results will also be posted on the PCI website at the time of the press release.

## 7. **RESOURCES:**

### **BACKGROUND RESEARCH:**

A major goal of this precast concrete design competition is to make students and interns aware that background research is a fundamental element in approaching any design project. There is a continuous process of evolving technologies, and new information is always available to the designer.

Students should consult examples of similar total-precast structures for ideas and approaches that have been tested in the past.

Participants are encouraged to contact PCI Regional Offices (<http://www.pci.org/about/regional/>) or consult with their local/regional precaster and professional PCI members in their area. Names and addresses of these individuals are provided in the PCI directory or at [www.pci.org/find/](http://www.pci.org/find/).

In addition, participants may consult:

- PCI main website: [www.pci.org](http://www.pci.org)
- [www.pci.org/education](http://www.pci.org/education)
- PCI Designer's Knowledge Bank
- PCI Image Library
- PCI Journal
- PCI Accent Magazine

## 9. **AWARDS:**

Previous Architectural Student Design Competitions have awarded up to \$25,000 in monetary awards. The total monetary sponsorship for this year's competition is to be determined.

At the discretion of the jury, prizes may be awarded in each of the following two categories:

### **Category I: Student Category [SITE-SPECIFIC]**

- **First Prize:**  
Student  
Faculty Advisor
- **Second Prize:**  
Student  
Faculty Advisor
- **Third Prize:**  
Student  
Faculty Advisor

## Category II: Student Category [NON-SITE-SPECIFIC]

- **First Prize:**  
Student  
Faculty Advisor
  - **Second Prize:**  
Student  
Faculty Advisor
  - **Third Prize:**  
Student  
Faculty Advisor
- The winning entries may be exhibited at the 2008 PCI Annual Convention. In addition, winning entries may be published in the *PCI Journal* and *Ascent Magazine*.
  - A limited number of honorable mention citations may also be awarded at the discretion of the jury.
  - PCI reserves the right to publish photographs of all entries and names of entrants without compensation.