

# Agenda

***Presented by: Harry A. Gleich, PE, FACI, FPCI  
and Forrest N. Hibbard, PE, LLC***

## **Functional Design of Parking Garages**

Parking structure classification  
Determining parking occupancy type  
Site design  
Parking structure planning

- Layout
- Circulation
- Vertical communication

Drainage  
Fire prevention and protection  
Vehicle and pedestrian egress

## **Precast Parking Structure System Design**

Structural requirements for parking garages

- Seismic design
- Wind load resistance

Use of shear walls  
Horizontal vs. vertical walls  
Simplified stiffness analysis  
Resistance to overturning  
Moment-resisting frames  
Diaphragm design

## **Connection Design Considerations**

Horizontal components:

- Double tees, inverted tee beams, spandrel beams, slabs and stairs

Vertical components:

- Columns, ramp walls, shear walls, stair walls

Lessons from design experience

## **Precast Garage Maintenance**

Why does a precast garage need maintenance?  
Maintenance manual and schedule  
Sealant maintenance and repair  
Common maintenance repairs

**Precast Concrete Parking Structure  
Design and Maintenance**  
Atlanta, GA - Thursday, August 9, 2018

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# Learning Objectives

## ***You'll be able to:***

**Learn** about the functional design of parking garages including site design, layout and vehicle/pedestrian egress.

**Explore** structural requirements for parking garages, including wind load resistance and seismic design.

**Study** connection design considerations for horizontal and vertical components.

**Discuss** fire prevention and protection.

**Review** precast garage maintenance.



# Precast Concrete Parking Structure Design and Maintenance

*Atlanta, GA - Thursday, August 9, 2018*



**Learn** about the functional design of parking garages including site design, layout and vehicle/pedestrian egress

**Explore** structural requirements for parking garages, including wind load resistance and seismic design

**Study** connection design considerations for horizontal and vertical components

**Examine** lessons from design experience

**Discuss** precast garage maintenance

## **Continuing Education Credits**

### **Professional Engineers**

6.5 PDHs

### **Contractors**

Non-Credit Continuing Ed.

### **Architects**

6.5 Public Protection PDUs

6.5 AIA Learning Units



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# Faculty

**Harry A. Gleich, PE, FACI, FPCI**  
Mr. Gleich is vice president of engineering for Metromont Corporation. He is responsible for all engineering designs for the company, including: developing new design techniques and improving quality and efficiency in manufacturing or erection through design, supervising areas of drafting and project engineering, and providing technical support to quality control and sales. Metromont has built more than 750 parking structures across the Southeast under Mr. Gleich’s supervision. Previously he worked for two precast/prestress manufacturers, advancing from design engineer to chief engineer. Professional awards include The Norman L. Scott Professional Engineer Award (2018), Titan of the Precast/Prestressed Concrete Industry (2014), Life Member of PCI (2013), ACI Fellow (2005), PCI Fellow (1999), and Piedmont Chapter NSPE Engineer of the Year (1997).

**Forrest N. Hibbard, PE, LLC**  
Mr. Hibbard is a parking planning and design specialist with expertise in functionality and operational flexibility. Mr. Hibbard is skilled in parking programming for phased mixed-use projects and master planning for municipal, university, healthcare, hospitality, corporate campus and airport clients. He is experienced in coordinating parking requirements with developers; owners; design consultants; and planning, zoning, and building departments. His technical strengths include sustainable parking design strategies, barrier-free design, parking geometrics, pedestrian and vehicular traffic flows, signage and graphics, parking access and revenue control equipment, and “smart parking” technology design integration. Mr. Hibbard is a graduate of the Georgia Institute of Technology and is a registered professional engineer in Georgia (License No. 15029). He is a contributing author of *The Dimensions of Parking, 5th Edition, 2010*, a collaborative effort of the Urban Land Institute (ULI) and the National Parking Association (NPA). As a past-member of NPA’s Parking Consultants Council, Mr. Hibbard has been a committee member contributor to several publications, including *Parking Studies, 2006*; *Parking Garage Maintenance Manual, 2004*; and *Guidelines for Parking Geometrics, 2002*. Mr. Hibbard is a member of the International Parking Institute (IPI) and has been an active member of the Parking Association of Georgia (PAG) for 30 years.

# Seminar Information

**Hyatt House/Cobb Galleria**  
3595 Cumberland Blvd. SE  
Atlanta, GA 30339  
(770) 541-2960

Registration  
8:00 - 8:30 am  
Morning Session  
8:30 am - 12:00 pm  
Lunch (On your own)  
12:00 - 1:00 pm  
Afternoon Session  
1:00 - 4:30 pm

**Tuition**  
**\$279** for individual registration  
**\$259** for three or more registrations.  
*Each registration includes a complimentary continental breakfast and printed seminar manual.*  
**Receive a reduced tuition rate of \$101** by registering to be our on-site coordinator for the day. For availability and job description, please visit [www.halfmoonseminars.org](http://www.halfmoonseminars.org).

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• Mail-in or fax the attached form to 715-835-6066  
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**Cancellations:** Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

## Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to Georgia professional engineers and 6.5 Public Protection PDUs to Georgia architects. Educators and courses are not subject to preapproval in Georgia.

This seminar is approved by the American Institute of Architects for 6.5 Learning Units (Provider No. J885). Only full attendance can be reported to the AIA/CES.

Architects and engineers seeking continuing education credit in other states will be able to apply the hours earned at this seminar. HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota. HalfMoon Education is deemed an approved architect continuing education sponsor in New York.

This course offers contractors a non-credit continuing education opportunity.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

# Additional Learning

## Webinar Series

**Solar Photovoltaic Project Design and Development**  
• **Solar Photovoltaic Project Design and Development Part 1**  
Thurs., July 5, 2018, 11:00 AM - 2:15 PM CDT  
• **Solar Photovoltaic Project Design and Development Part 2**  
Fri., July 6, 2018, 11:00 AM - 2:15 PM CDT

**AutoCAD 3D**  
• **Using Key Commands and Tools**  
Part I: Wed., July 11, 2018, 11:00 AM - 2:15 PM CDT  
Part II: Thurs., July 12, 2018, 11:00 AM - 2:15 PM CDT  
• **Building a Solid Model**  
Part I: Wed., July 18, 2018, 11:00 AM - 2:15 PM CDT  
Part II: Thurs., July 19, 2018, 11:00 AM - 2:15 PM CDT

**Septic Systems Series**  
• **Onsite Wastewater Treatment Technologies, Regulations and Contaminant Removal**  
Thurs., July 19, 2018, 11:00 AM - 12:30 PM CDT  
• **Evaluating Sites, Setting Treatment Goals and System Design**  
Thurs., July 19, 2018, 1:00 - 2:30 PM CDT  
• **Alternative and Sustainable Treatment Technologies**  
Fri., July 20, 2018, 11:00 AM - 12:30 PM CDT  
• **Management Programs for Onsite Wastewater Treatment Systems**  
Fri., July 20, 2018, 1:00 - 2:30 PM CDT

**Retaining Walls and Slope Stabilization**  
• **Retaining Wall Basics**  
Thurs., July 26, 2018, 11:00 AM - 12:00 PM CDT  
• **Geosynthetics and Retaining Walls**  
Thurs., July 26, 2018, 12:30 - 3:00 PM CDT  
• **Slope Stability and Geosynthetics**  
Fri., July 27, 2018, 11:00 AM - 12:30 PM CDT  
• **Slope and Retaining Wall Failures, Fixes and Prevention**  
Fri., July 27, 2018, 1:00 - 3:00 PM CDT

For more information visit:  
[www.halfmoonseminars.org/webinars/](http://www.halfmoonseminars.org/webinars/)

**Can’t Attend? Order the CD/Manual Package:**  
An audio recording of this seminar is available for \$289 (including shipping). Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

# Registration

## Precast Concrete Parking Structure Design and Maintenance

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| <b>Complete the entire form.</b> Attach duplicates if necessary.                         | Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred. |
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**Tuition**  
( ) **I will be attending the live seminar.** Single Registrant - **\$279.00**. Three or more registrants from the same company registering at the same time - **\$259.00** each.  
( ) **I am not attending.** Please send me the CD manual package for **\$289.00**. (S&H included. Please allow five weeks from seminar date for delivery)

**Checks:** Make payable to HalfMoon Education Inc.

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