# POST-TENSIONED CONCRETE BUILDING STRUCTURES - DESIGN FUNDAMENTALS

# **WEBINAR - PART 1 OF 2**

# HALF DAY, 4 HOURS (4 PDHs / 0.4 CEUs)

Who should attend: Engineers and architects new to post-tensioned concrete or anyone interested in fundamentals of post-tensioned concrete design.

## **Program Content:**

## INTRODUCTION TO PRESTRESSED POST-TENSIONED CONCRETE

- Prestressed concrete and how it is build
- Post-tensioning components
- Applications
- Advantages

#### PT DESIGN FUNDAMENTALS

- Application of prestressing force
- Loading balancing
- Balanced moments
- Primary moments
- Secondary moments and reactions

### **DESIGN FOR VERTICAL GRAVITY LOADS**

- Design procedure
- One-way system design
- Two-way system design
- Transfer member design

#### **CERTIFICATION AND PTI RESOURCES**

- Certification levels and workshops
- PTI resources

#### **OPEN Q&A**

## **Learning Objectives:**

- Identify components, applications and advantages of post-tensioning.
- Understand load balancing concepts and secondary forces due to post-tensioning.
- Understand basic design procedure and considerations for one-way, two-way and transfer members.
- Recognize applicable code sections and design resources.

#### Instructors:

PTI engineers and industry experts

#### **Related Documents:**

To expand attendees' knowledge, copies of related documents may be purchased at the PTI Store with a one-time special discount of 25% off the regular price. Contact pti.bookstore@post-tensioning.org for more details.

- Guide for Design of PostTensioned Buildings (DC20.9-11)
- Field Procedures Manual for Unbonded Single Strand Tendons