

steel quiz

This month's Steel Quiz takes a look at the 2016 AISC *Code of Standard Practice for Buildings and Bridges*.

- 1 **True or False:** The AISC *Code of Standard Practice* now refers to "design documents," not "design drawings."
- 2 When design drawings and design models are both provided, who is responsible for indicating which document is the governing contract document?
- 3 A new term added to the *Code*, "Approval Documents," refers to:
 - a. Shop Drawings
 - b. Erection Drawings
 - c. Embedment Drawings
 - d. Fabrication and Erection Models
 - e. All of the above
- 4 **True or False:** If the owner's designated representative for design, typically the engineer of record (EOR), is delegating, to the licensed engineer working for the fabricator, the design of column stiffeners, web doubler plates, beam bearing stiffeners and all other member reinforcement required to satisfy strength and equilibrium of forces through the connection, then the EOR needs to provide a bidding quantity of items required for member reinforcement at connections.
- 5 Continuing on from Question 4, if the EOR provides a bidding quantity, what happens if the actual quantity differs from the bidding quantity?
- 6 The *Code* requires the fabricator to permanently mark protected zones that are designated on the structural design documents. If the marking is obscured in the field, such as after the application of fire protection, who is responsible for re-marking the protected zone?
- 7 **True or False:** Per the *Code*, when a tolerance is absent from the code or the contract documents, that tolerance shall not be considered zero by default.
- 8 The *Code of Standard Practice* Committee worked with the _____ to revise tolerances for anchor rod placement in the *Code*.
 - a. ACI 318 Committee
 - b. ACI 117 Committee
 - c. ACI 301 Committee
 - d. ACI 336.1 Committee
- 9 The *Code* updated requirements in Section 10 on architecturally exposed structural steel (AESS) and now defines _____ categories that should be used when referring to AESS.
 - a. Two
 - b. Three
 - c. Four
 - d. Five
- 10 **True or False:** Like the 2016 AISC *Specification* (ANSI/AISC 360), available at www.aisc.org/standards, the 2016 *Code* is an ANSI-accredited standard.

TURN PAGE FOR ANSWERS

- 1 **True.** The term “design documents” was added to the *Code* as part of updates made to reflect the growing use of design models. Design documents can refer to design drawings, design models or both if both are used in a project.
- 2 Per Section 1.4 of the *Code*, it is the owner’s designated representative for design that needs to specify which document is the governing contract document.
- 3 **e.** All of the above.
- 4 **True.** Section 3.1.2 states that the EOR must provide a bidding quantity. These quantities will be relied upon for bidding purposes. Note that if no quantities or conceptual configurations are shown, member reinforcement at connections will not be included in the bid.
- 5 Per Section 3.1.2, when the actual quantity differs from the bidding quantity, the contract price shall be adjusted equitably per Sections 9.4 and 9.5 of the *Code*.
- 6 Per Section 1.11, the owner’s designated representative for construction is responsible for re-marking the protected zones.
- 7 **True.** A similar statement was made in the commentary of the 2010 *Code*. The statement is now made directly in the standard (Section 1.10).
- 8 **b.** ACI 117 Committee. The revisions made in Section 7.5.1 of the 2016 *Code* were done to provide consistency between the tolerance provided for anchor rod placement and the hole sizes recommended in the AISC *Steel Construction Manual* (available at www.aisc.org/publications).
- 9 **d.** Five. Section 10 of the *Code* contains five categories that should be used when referring to AESS:
 - AESS 1: Basic elements
 - AESS 2: Feature elements viewed at a distance greater than 20 ft
 - AESS 3: Feature elements viewed at a distance less than 20 ft
 - AESS 4: Showcase elements with special surface and edge treatment beyond fabrication
 - AESS C: Custom elements with characteristics described in the contract documents
- 10 **True.** The 2016 version of the AISC *Code of Standard Practice for Steel Buildings and Bridges* (ANSI/AISC 303-16) represents the first time this standard is ANSI-accredited. It is available at www.aisc.org/standards.

