NCEES
advancing licensure for engineers and surveyors

Structural Bridges Depth—Vertical Forces (Gravity/Other) and Incidental Lateral Exam Specifications

Effective Beginning April 2027

- The exam is computer-based. It is closed book with electronic references. The NCEES *PE Structural Engineering Reference Handbook* is included in the exam along with the design standards shown on the last page of the specifications.
- Examinees have 6.5 hours to complete this exam, which contains 5 scenarios with a total of 48 questions. The 6.5-hour appointment time includes a tutorial and a scheduled break. The exam will contain scored and unscored (pretest) questions.
- The exam uses the US Customary System (USCS) of units.
- The exam includes alternative item types (AITs) as well as multiple-choice questions.
- All questions are equally weighted.

	Number of Questions
1. Concrete Superstructure	**8–12**
A. General Design and Location Features	
B. Material Properties	
C. Structural Loading	
D. Structural Analysis	
E. Structural Design (e.g., strength, service)	
F. Structural Detailing	
2. Prestressed Concrete Superstructure	**9–14**
A. General Design and Location Features	
B. Material Properties	
C. Structural Loading	
D. Structural Analysis	
E. Structural Design (e.g., strength, service)	
F. Structural Detailing	
3. Other Structure Types (e.g., culverts, retaining walls, barriers)	**4–6**
A. General Design and Location Features	
B. Site Properties	
C. Structural Loading	
D. Structural Analysis	
E. Structural Design (e.g., strength, service, extreme event)	
F. Structural Detailing	

4. Steel Superstructure **10–15**

A. General Design and Location Features
B. Material Properties
C. Structural Loading
D. Structural Analysis
E. Structural Design (e.g., strength, service, fatigue)
F. Structural Detailing

5. Substructures **9–14**

A. General Design and Location Features
B. Site Properties
C. Structural Loading
D. Structural Analysis
E. Structural Design (e.g., strength, service)
F. Structural Detailing

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Structural Bridges Depth—Vertical Forces Design Standards

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In addition to the NCEES *PE Structural Engineering Reference Handbook*, the following codes and standards will be supplied in the exam as searchable, electronic pdf files with links for easy navigation. Solutions to exam questions that reference a standard of practice are scored based on this list and the revision year shown. Solutions based on other standards will not receive credit. All questions use the US Customary System (USCS) of units.

NCEES does not sell design standards or printed copies of the NCEES handbook. The NCEES handbook is accessible from your MyNCEES account.

ABBREVIATION	DESIGN STANDARD TITLE
AASHTO	*AASHTO LRFD Bridge Design Specifications*, 10th edition, American Association of State Highway & Transportation Officials, Washington, DC.
AISC	*Steel Construction Manual*, 16th edition, American Institute of Steel Construction, Chicago, IL.