Synopsis

Comprehensive Civil Engineering Coverage You Can Trust

The Civil Engineering Reference Manual is the most comprehensive textbook for the NCEES Civil PE exam. This book’s time-tested organization and clear explanations start with the basics to help you quickly get up to speed with common civil engineering concepts. Together, the 90 chapters provide an in-depth review of all of the topics, codes, and standards listed in the NCEES Civil PE exam specifications. The extensive index contains thousands of entries, with multiple entries included for each topic, so you’ll find what you’re looking for no matter how you search. Due to the changes in codes for the 2015 NCEES PE exam, there are some updates to this edition. Though not all of PPI’s products reflect the adopted editions of the new design standards, in most cases the principles change very little. While specific procedures, equations, or values may change gradually from one edition of a design or reference standard to the next, PPI’s books continue to provide an appropriate overview of the design concepts presented, and will prepare you for the upcoming exams. This book features:

- over 100 appendices containing essential support material
- over 500 clarifying examples
- over 550 common civil engineering terms defined in an easy-to-use glossary
- thousands of equations, figures, and tables
- industry-standard terminology and nomenclature
- equal support of U.S. customary and SI units

After you pass your exam, the Civil Engineering Reference Manual will continue to serve as an invaluable reference throughout your civil engineering career.

Topics Covered

- Construction: Earthwork Construction and Layout; Estimating Quantities and Costs; Construction Operations and Methods; Scheduling; Material Quality Control and Production; Temporary Structures; Worker Health, Safety, and Environment
- Geotechnical: Subsurface Exploration and Sampling; Engineering Properties of Soils and Materials; Soil Mechanics Analysis; Earth Structures; Shallow Foundations; Earth Retaining Structures; Deep Foundations
- Structural: Loadings; Analysis; Mechanics of Materials; Materials; Member Design; Design
- Transportation: Traffic Analysis; Geometric Design; Transportation Planning; Traffic Safety
- Water Resources and Environmental: Closed Conduit Hydraulics; Open Channel Hydraulics; Hydrology; Groundwater and Well Fields; Wastewater Treatment; Water Quality; Water Treatment; Engineering Economics

Book Information

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Customer Reviews

If you’re reading these reviews undoubtedly you know what this is and why you need this for the Civil PE exam. That said, as far as I can tell this is pretty much the only comprehensive reference available for the exam so rather than talk more about the CERM itself I wanted to break down some things that helped me use the manual to study and pass the PE exam the first time: 1) Download and print out a copy of the index for the CERM from the PPI website, bind it separately, and use that to look stuff up while studying and taking the exam to avoid constantly flipping around in the manual between the index and the chapters. Saves lots of time and aggravation working from multiple places in the CERM. I learned this from people in my review class and never would’ve thought of this on my own which is why I wanted to share it here. 2) For the most used equations, write the constants and such in the margins next to the equations. Highlight the equations to make them pop from the columns of text in the book. This did a few things for me: familiarize me again with the equations and constants, help me remember how to use the equations, and also save me time looking for constants in the back or whatever. I did this the month before my review class started, helped me find what’s in the manual too before I got into the heavy duty working of problems during my review class for hours on end. 3) Tab everything possible. The exam is all about speed (~5 min/question...) so make sure you can find what you need real fast. I used a combination of heavy duty tabs with paper inserts and the sticky flags. I color coded the tabs by topic and tabbed my manual as follows: tabs across the top for tables of data (e.g. Practice Problems for the Civil Engineering PE Exam: A Companion to the Civil Engineering Reference Manual, 14th Ed Civil Engineering Reference Manual for the PE Exam, 14th Ed Practice Problems for the Civil Engineering PE Exam: A Companion to the Civil Engineering...

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