

## ARIZONA REGISTRAR OF CONTRACTORS

### A-12 (CR-80) SEWERS, DRAINS AND PIPE LAYING (COMMERCIAL)

#### SCOPE OF WORK

Installation and repair of any project involving sewer access holes, the laying of pipe for storm drains, water and gas lines, irrigation and sewers. Includes connecting sewer collector lines to building drains and the installation of septic tanks, leaching lines, dry wells, and all necessary connections, and related excavation and backfilling.

Examination	# of Questions	Minimum Passing Score	Time Allowed
A-12	80	70%	210 Minutes

#### CONTENT OUTLINE

Subject Area	# of Items
Water Piping	10
Gas Piping	10
Sewers and Storm Drain Systems	20
General Piping	5
Septic Systems	5
Excavation and Backfilling	20
Safety	5
Welding	5

#### REFERENCE LIST

To find reference materials, you may use the link provided or search for the material online via a search engine such as Google. You may also go to PSI's online store at [www.psionlinestore.com](http://www.psionlinestore.com).

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

**The following reference material is allowed in the examination center:**

*Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or [www.access.gpo.gov/nara/cfr/cfr-table-search.html](http://www.access.gpo.gov/nara/cfr/cfr-table-search.html)

OR

*Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI*, with latest available amendments, 3210 E Tropicana, Las Vegas, NV 89121, (800) 733-9267, [www.psionlinestore.com](http://www.psionlinestore.com) (See order form at the end of the Candidate Information Bulletin).

*International Plumbing Code 2009*, International Code Council, (800) 786-4452, [www.iccsafe.org](http://www.iccsafe.org) Starting 3/1/2019 the 2018 code will be used

*NFPA 30 - Flammable and Combustible Liquids Code, 2003*, National Fire Protection Association, [www.nfpa.org](http://www.nfpa.org) Starting 3/1/2019 only the 2015 code will be used.

*AWWA Standard for Installation of Ductile Iron Water Main and their Appurtenances, C600-99, 1999 Edition*, American Water Works Association, [www.awwa.org](http://www.awwa.org)

*ASME B31.8 - Gas Transmission and Distribution Systems, 2007*, American Society of Mechanical Engineers, [www.asme.org](http://www.asme.org)

*On-site Wastewater Treatment Facility Provisions in Unified Water Quality Permit Rule, Arizona Administrative Code Title 18, Chapter 9, 2006*, Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, AZ 85007, [www.azdeq.gov](http://www.azdeq.gov)

**The following reference material is not allowed in the examination center:**

*Excavation and Grading Handbook*, Revised Second Edition, 1987, Craftsman Book Company, [www.craftsman-book.com](http://www.craftsman-book.com)

*Installation Guide for Ductile Iron Pipe*, 2002 Edition, Ductile Iron Pipe Research Association, [www.dipra.org](http://www.dipra.org)

*Modern Welding*, 2004 Edition, Goodheart-Willcox Company, Inc., [www.g-w.com](http://www.g-w.com)

*Pipefitter's Handbook*, 1967, 3rd Edition, Forest R. Linsey, Industrial Press, Inc., [www.industrialpress.com](http://www.industrialpress.com)

*Concrete Pipe Installation Manual*, 1995, American Concrete Pipe Association, [www.concretepipe.org](http://www.concretepipe.org)

*Concrete Pipe and Box Culvert Installation Manual*, 2007, American Concrete Pipe Association, [www.concretepipe.org](http://www.concretepipe.org)

*Pipe Welding Procedures*, Hoobasar Rampaul, 1973, Industrial Press, [www.industrialpress.com](http://www.industrialpress.com)

*IPT's Pipe Trades Handbook*, Robert A. Lee, 1991, IPT Publishing and Training, Ltd., [www.iptbooks.com](http://www.iptbooks.com)

*Pipe and Excavation Contracting*, Dave Roberts, 1987, Craftsman Book Company, [www.craftsmanbook.com](http://www.craftsmanbook.com)

*Arizona 811 - Arizona Blue Stake Brochure*, 2010, Arizona Blue Stake, (800) 782-5348, [www.azbluestake.com](http://www.azbluestake.com)

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, annotated and/or indexed prior to the examination session. However, references may not be written in during the examination session. Any candidate caught writing, highlighting, underlining and/or indexing in the references during the examination will be reported to the Arizona Registrar of Contractors. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. (permanent tabs are defined as tabs that would tear the page if removed). Temporary tabs, (defined as Post-It notes, or other tabs that may be removed without tearing the page) are not allowed and must be removed from the reference before the exam will begin. If you are downloading from the Internet, you may bring this reference into the testing center with you as long as it is bound. You can have it spiral bound or you may hole-punch it and put it in a binder.

