

BROWARD COUNTY ENGINEERING EXAMINING BOARD EXAM DESCRIPTIONS

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BUSINESS PROCEDURES

Tests a candidate's knowledge of payroll taxes, workers' compensation, unemployment compensation, lien laws and other laws or subjects that will affect their daily operations as contractors.

Number of Questions	50
Time allowed (hours)	2
Subject Area	# Quest.
Business Organization	2
Licensing	3
Lien laws	3
Tax Laws	4
Safety OSHA	3
Labor Laws	6
Contract Management	6
Project Management	5
Estimating & Bidding	5
Financial Management	5
Risk Management	4
Broward County Municipal Code Chapter 9	4

References

- **Broward County Code Chapter 9 Contractors**, 2016. ISBN: No ISBN. Board of County Commissioners of Broward County, Broward, FL. <https://www.municode.com>
- **FLORIDA - NASCLA Contractors Guide to Business, Law and Project Management**, 1st. ISBN: 1-934234-92-3 OR 978-1-934234-92-1. NASCLA, 23309 N. 17th Drive, Building 1, Unit 110, Phoenix, AZ 85027. Available at www.nascla.org or www.provbookstore.com.

DREDGING

Dredging Maintenance (Canals, Lakes, Waterways Class "4C." The scope of work of a Class "4C" engineered earthwork builder shall be limited to the dredging of canals, lakes, waterways, and other bodies of water and the removal therefrom of debris and vegetation to reinstate the design cross section, in compliance with all environmental laws and other applicable codes and regulations. In order to be eligible to be certified as a Class "4C" engineered earthwork builder by the board, the applicant shall have at least three (3) years of experience in the class.

Number of Questions	40
Time allowed (hours)	2
Subject Area	# Quest.
Dredging Principles & Practices	14
Dredging Equipment	14
Municipal Codes	4
Safety	8

References

- **Broward County Administrative Code, CH 27, Pollution Control**, 2020. Municipal Code Corporation, P.O. Box 2235, Tallahassee, FL 32316. https://library.municode.com/fl/broward_county/codes/code_of_ordinances?nodeId=PTIICOOR_CH27POCO
- **Broward County Code Chapter 9 Contractors**, 2016. ISBN: No ISBN. Board of County Commissioners of Broward County, Broward, FL. <https://www.municode.com>
- **Code of Federal Regulations, Title 29, Labor, Pt. 1926, Revised as of July 1, 2019**, 2019. National Archives and Records Administration, College Park, MD. <https://bookstore.gpo.gov/products/cfr-title-29-pt-1926-code-federal-regulations-paper-2019>
- **Fundamentals of Hydraulic Dredging**, 1996. ISBN: 9780784401477. American Society of Civil Engineers, 1800 Alexander Bell Drive, Reston, VA 20191. <https://www.asce.org/templates/publications-book-detail.aspx?id=7971>
- **Trade Knowledge**. Prov, 13614 Progress Blvd., Alachua, FL 32615. This reference is not a book for purchase. This reference represents the general knowledge that a candidate gains through experience in their trade.

EXCAVATION CONTRACTOR

Excavating (Canals, Lakes, Levees)--Class "A." The scope of work of a Class "A" engineered earthwork builder shall include the clearing of land of surface debris and vegetation, grubbing of roots, removal of debris, and leveling of the surface lands, and the removal of muck, rock, gravel, and sand to construct or excavate canals, lakes, and levees, in compliance with all environmental laws and other applicable codes and regulations. In order to be eligible to be certified as a Class "A" engineered earthwork builder by the board, the applicant shall have at least four (4) years of practical experience in the class.

Number of Questions 50
Time allowed (hours) 2

Subject Area	# Quest.
General Knowledge	10
Plan Reading & Estimating	6
Survey & Layout	5
Excavating	7
Grading	8
Clearing & Grubbing	4
Dewatering	3
Safety	7

References

- **Broward County Code Chapter 9 Contractors**, 2016. ISBN: No ISBN. Board of County Commissioners of Broward County, Broward, FL. <https://www.municode.com>
- **Code of Federal Regulations, Title 29, Labor, Pt. 1926, Revised as of July 1, 2019**, 2019. National Archives and Records Administration, College Park, MD. <https://bookstore.gpo.gov/products/cfr-title-29-pt-1926-code-federal-regulations-paper-2019>
- **Damage Prevention Guide**. Sunshine State One Call of Florida, Inc., 11 Plantation Road, DeBary, FL 32713. https://static1.squarespace.com/static/533db0bde4b0d9f7ba7f1ee7/t/5e0bc5998818570cab6da1d4/1577829789018/2019_DP_guide.pdf
Candidate printed versions permitted in testing room if exam is open book.
- **Excavation and Grading Handbook**, 3rd, 2006. ISBN: 978-1-57218-173-1. Craftsman Book Company, 6058 Corte Del Cedro, Carlsbad, CA 92009. <https://www.craftsman-book.com>
- **Minimum Standards Applicable to Public Right of Way Under Broward County Jurisdiction**, 2016. ISBN: No ISBN. Board of County Commissioners of Broward County, Broward, FL. <http://www.broward.org/Traffic/Documents/minstdsmanual%2010-25-05.pdf> (candidate printed copies will be allowed)
- **Trade Knowledge**. Prov, 13614 Progress Blvd., Alachua, FL 32615. This reference is not a book for purchase. This reference represents the general knowledge that a candidate gains through experience in their trade.

LIGHT MARINE

Light Marine (Seawalls, Retaining Walls, Davits, Boat Lifts, Small Docks) Class "2C." The scope of work of a Class "2C" engineered structural builder shall be limited to the construction, repair, alteration, extension, and excavation of seawalls, retaining walls, davits, boat lifts, and small docks serving less than six (6) recreational vessels and less than fifty feet (50') in length. A Class "2C" engineered structural builder may do such concrete work as may be necessary and incidental to the work, in compliance with applicable codes and regulations. In order to be eligible to be certified as a Class "2C" engineered structural builder by the board, the applicant shall have at least four (4) years of practical experience in the class.

Number of Questions 50
Time allowed (hours) 2

Subject Area	# Quest.
Carpentry	8
Concrete and Reinforcement	8
Florida Building Code	14
Plan Reading	4
Safety	8
Sitework and Soils	8

References

- **Broward County Code Chapter 9 Contractors**, 2016. ISBN: No ISBN. Board of County Commissioners of Broward County, Broward, FL. <https://www.municode.com>
- **Code of Federal Regulations, Title 29, Labor, Pt. 1926, Revised as of July 1, 2019**, 2019. National Archives and Records Administration, College Park, MD. <https://bookstore.gpo.gov/products/cfr-title-29-pt-1926-code-federal-regulations-paper-2019>
- **Florida Building Code 2017 - Building**, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- **Study Guide for General Engineering, 3rd edition**, 2014. ISBN: 978-1-269-78657-7. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com
- **The Dock Manual: Designing/Building/Maintaining**, 1999. ISBN: 978-1-58017-098-7. Storey Publishing, 210 MASS MoCA Way, North Adams, MA 01247. <https://www.storey.com/books/the-dock-manual/#>
- **The Florida Building Code Broward County Amendments**, 2018. Municipal Code Corporation, P.O. Box 2235, Tallahassee, FL 32316. <https://www.broward.org/CodeAppeals/Documents/Broward%20County,%20FL%20Building%20Code%20Repub.pdf>
- **Trade Knowledge**. Prov, 13614 Progress Blvd., Alachua, FL 32615. This reference is not a book for purchase. This reference represents the general knowledge that a candidate gains through experience in their trade.

MAJOR ROADS

Major Roads (Asphalt and Concrete Paving for Interstate, Primary, Secondary, and Arterial Roadways Within the Public Right-Of-Way, Bridges and Airports and Work Incidental Thereto)-- Class "A." The scope of work of a Class "A" engineered road builder shall include the construction of major roads, specifically, interstate, primary, secondary, and arterial roadways; repair, extension, surfacing, striping, pavement markings, and signage of roads, bridges, airport runways and aprons, parking lots, sidewalks, curbs, and gutters; and storm drainage facilities and any excavating, clearing, grading, milling, and concrete work necessary and incidental thereto, in compliance with applicable codes and regulations. A Class "A" engineered road builder may perform all work and activities of all other engineered road and surfacing builders. In order to be eligible to be certified as a Class "A" engineered road builder by the board, the applicant shall have at least six (6) years of practical experience in the category.

Number of Questions **50**
Time allowed (hours) **2**

Subject Area	# Quest.
Plans & Specifications	3
Survey & Layout	5
Earthwork, Compaction & Stabilization	5
Asphalt Paving Procedures	7
Asphalt Properties and General Uses	6
Use & Application of Asphalt Emulsions	6
Asphalt Preservation & Maintenance	6
Concrete and Reinforcement	6
Municipal Codes	3
Safety	3

References

- **Broward County Administrative Code, CH 25, Exhibit 25.A Minimum Standards Applicable to Public Rights of Way Under Broward County Jurisdiction**, 2020. Municipal Code Corporation, P.O. Box 2235, Tallahassee, FL 32316.
https://library.municode.com/fl/broward_county/codes/administrative_code?nodeId=CH25OPPOPUWO_EXHIBIT_25.AMISTAPPURI-WUNBRCOJU
- **Broward County Code Chapter 9 Contractors**, 2016. ISBN: No ISBN. Board of County Commissioners of Broward County, Broward, FL. <https://www.municode.com>
- **Code of Federal Regulations, Title 29, Labor, Pt. 1926, Revised as of July 1, 2019**, 2019. National Archives and Records Administration, College Park, MD. <https://bookstore.gpo.gov/products/cfr-title-29-pt-1926-code-federal-regulations-paper-2019>
- **Highway/Heavy Construction Level 1**. ISBN: 978-0-13-061611-1. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at <http://nccer.pearsonconstructionbooks.com>.
- **MS-16 Asphalt in Pavement, Preservation & Maintenance**, 4th edition, 2009. ISBN: 978-1-934154-58-8. The Asphalt Institute, 2696 Research Park Drive, Lexington, KY 40511-8480. Available at www.asphaltinstitute.org.
- **MS-22 Construction of Quality Asphalt Pavements**, 3rd Ed.. ISBN: 978-1-9341547-79-3. Asphalt Institute, 2696 Research Park Drive, Lexington, KY 40511.
- **Trade Knowledge**. Prov, This reference is not a book for purchase. This reference represents the general knowledge that a candidate gains through experience in their trade.

PILE DRIVING

Pile Driving--Class "D." The scope of work of a Class "D" engineered structural builder shall be limited to the construction of piling systems, including sheet piling and the construction, formation, and excavation for foundations, the placing of reinforcing steel therein, and all concrete work necessary and incidental thereto, in accordance with the plans and specifications therefor, and in compliance with the building code and other applicable codes and regulations. In order to be eligible to be certified as a Class "D" engineered structural builder by the board, the applicant shall have at least four (4) years of practical experience in the class.

Number of Questions **51**
Time allowed (hours) **2**

Subject Area	# Quest.
Sitework and Soils	5
Excavating	5
Foundations & Piling	10
Concrete Forming, Reinforcement & Placing	8
Pile Installation	10
Estimating and Plan Reading	6
Municipal Codes	3
Safety & Rigging	4

References

- **Basic Rigging**, 2009. ISBN: 978-0-13-609916-1. NCCER MATS Testing, 13614 Progress Blvd, Alachua, FL 32615. <http://nccer.pearsonconstructionbooks.com>
- **Broward County Code Chapter 9 Contractors**, 2016. ISBN: No ISBN. Board of County Commissioners of Broward County, Broward, FL. <https://www.municode.com>
- **Code of Federal Regulations, Title 29, Labor, Pt. 1926, Revised as of July 1, 2019**, 2019. National Archives and Records Administration, College Park, MD. <https://bookstore.gpo.gov/products/cfr-title-29-pt-1926-code-federal-regulations-paper-2019>
- **Concrete Finishing Level One**, 1998. ISBN: 978-0-13-010246-1. Prentice Hall, P.O. Box 11071, Des Moines, IA 50336. Available at <http://nccer.pearsonconstructionbooks.com>.
- **Damage Prevention Guide**. Sunshine State One Call of Florida, Inc., 11 Plantation Road, DeBary, FL 32713. https://static1.squarespace.com/static/533db0bde4b0d9f7ba7f1ee7/t/5e0bc5998818570cab6da1d4/1577829789018/2019_DP_guide.pdf
Candidate printed versions permitted in testing room..
- **Florida Building Code 2017 - Building**, 2017. ISBN: 978-1-60983-687-0. International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478. www.iccsafe.org
- **Pile Design and Construction Practice**, 5th. ISBN: 978-0415385824. Taylor and Francis, 270 Madison Avenue, New York, NY 10016. Available at www.Contractors-books.com
- **Standard Specifications for Road & Bridge Construction 15**, 2015. State of Florida, 2600 Blair Stone Road M.S. 3500, Tallahassee, FL 32399. Available at www.dot.state.fl.us. Candidate printed versions allowed if exam is open book.
- **Study Guide for Excavation Contractors, 2nd edition**, 2014. ISBN: 978-1-269-78572-3. Pearson, 501 Boylston Street, Suite 900, Boston, MA 02116. Available at www.provbookstore.com
- **Trade Knowledge**. Prov, 13614 Progress Blvd., Alachua, FL 32615. This reference is not a book for purchase. This reference represents the general knowledge that a candidate gains through experience in their trade.

