# STATE OF WEST VIRGINIA BOARD OF PROFESSIONAL SURVEYORS

# WEST VIRGINIA SURVEYING EXAMINATION CANDIDATE HANDBOOK



SEPTEMBER 2018

# **INTRODUCTION**

The West Virginia Board of Professional Surveyors (WVBPS) is responsible for developing and administering the West Virginia Surveying Examination for candidates seeking licensure as Professional Surveyors. The WVBPS devotes substantial time and effort in developing a state-specific examination that is a valid measure of competency related to the practice of surveying. Public protection is enhanced in that competent candidates have a greater chance of passing the examination.

The WVBPS Examination is a 60 question, closed-book, multiple-choice exam. The examination is given in April and October and is the result of careful preparation by the WVBPS with input from many Professional Surveyors. These surveyors supply the content expertise essential in developing a fair and impartial examination for measuring entry level competency in the profession.

In addition, the WVBPS requires that candidates pass the Fundamentals of Surveying (FS) and the Principles and Practice of Surveying (PS) Examinations prepared by the National Council of Examiners for Engineering and Surveying (NCEES).

This candidate handbook is designed to help you prepare for the WVBPS Examination. We hope you find the information useful. Additional reference material is listed in this handbook. We extend our best wishes for success on this examination and in the practice of surveying.

# **DESCRIPTION OF EXAMINATION**

# **Examination Content**

The following knowledge areas will be the principal areas from which examination questions will be obtained. Questions from other areas may occasionally appear on the examination.

# **West Virginia Land Surveying Test Blueprint**

- A. West Virginia Statutes www.legis.state.wv.us > WV Code
  - 1. General Provision Respecting Officers County Surveyor Chapter 6-2 & 7-3
  - 2. Land Use Planning Subdivisions Chapter 8A-5 & 6
  - 3. Roads & Highways Roads & Right-of-Ways Chapter 17-1 & 4
  - 4. Environmental Resources Oil & Gas Chapter 22
  - 5. Miners' Health, Safety and Training Mines & Minerals Chapter 22A
  - 6. Professions and Occupations Licensing Chapter 30-13A (Land Surveyors)
  - 7. Uniform Common Interest Ownership Act Chapter 36B-2-109 through 114
  - 8. Real Property Chapter 37-5-2 (Adjoining Owners)
    Chapter 37-12-1 & 2 (Magnetic Meridian)
  - 9. Liens Chapter 38
  - 10. Records and Papers Chapter 39
  - 11. Acts Void as to Creditors and Purchasers Recording Chapter 40-1-9
  - 12. Actions, Suits, and Arbitration Chapter 55-2 & 4
  - 13. Crimes and Their Punishment Chapter 61-3B-1 (Trespass)
    Chapter 61-3-30 (Destruction)
  - 14. The State and its Subdivisions West Virginia Coordinate System Chapter 1-1-5

# B. West Virginia Code of State Rules - Title 23 - www.sos.wv.gov -or- www.wvbps.wv.gov

- 23CSR1 Examination and Licensing of Professional Surveyors in West Virginia, (2014)
- 23CSR2 Mandatory Continuing Education for Land Surveyors, (2004)
- 23CSR3 Disciplinary and Complaint Procedures for Professional Surveyors, (2011)
- 23CSR4 Fees for Surveyors and Surveying Firms in West Virginia, (2008)
- 23CSR5 Standards for the Practice of Surveying in West Virginia, (2008)

# C. Retracement Procedures & Practices

- 1. Magnetic Bearings
- 2. Magnetic Declination
- 3. Secular Change
- 4. Conversion for Different Meridians (Meridian Rotation)
- 5. Slope and Horizontal Distances
- 6. Historical Practices & Procedures
- 7. Research & Records
- 8. Monument Identification
- 9. Description Interpretation
- 10. Dendrology and Wood Identification

# D. Case Law

- 1. Retracement of Rural Boundaries
- 2. Retracement of Subdivision Lot Boundaries
- 3. Rivers and Streams
- 4. Roads and Streets
- 5. Rights-of-way and Easements
- 6. Establishment of Boundaries by Unwritten Methods

# E. West Virginia Court System

- 1. Structure of Court System
- 2. Judicial Proceedings

# F. Land Development

- 1. Hydrology and Drainage
- 2. Flood Plains and Wetlands
- 3. Regulatory Permits

# **TEST DEVELOPMENT / REVIEW**

Sample questions for the WVBPS Examination are presented on page 8 that illustrate the general format and should be helpful in your preparation for the examination.

A committee of Professional Surveyors carefully review each question in the examination before, as well as after, they are used on a test. This process ensures the quality and fairness of the examination. These surveyors represent the current practicing profession in West Virginia.

# **Scoring Procedures**

Scores are calculated by summing the number of correct responses within an examination. Credit is given for correct responses while no points are received for incorrect responses. Consequently, candidates should answer each question. Only one response should be marked for each question. Answers that contain two or more marked responses or are all blank (i.e., omitted questions) are scored as incorrect. Candidates are <u>not</u> graded on a curve. The total number of correct responses is converted to a percentage (42 correct responses = 70%). Candidates receiving a score of 70% or higher pass the WVBPS Examination.

#### TAKING THE EXAMINATION

#### Distribution

Proctors will distribute the test booklet and answer sheet. Listen to all instructions carefully. Special attention should be given to the information on the front of the booklet.

Copying, reproduction, or any action taken to reveal the contents of the examination in whole or part is unlawful. Copying questions or removing test booklets from the examination room is prohibited.

#### **Answer Sheets**

To ensure proper scoring of your examination, it is imperative that you listen to the proctor's instructions and read the instructions printed on the answer sheet. Use only pencils provided by the proctors. For proper scoring, the answer spaces must be blackened completely.

Select the <u>best</u> answer from the four choices. No credit is given for multiple answers. If you decide to change an answer, erase the first answer completely. Incomplete erasures and stray marks may be read as intended answers.

The only items allowed on your workspace is the exam booklet, answer sheet, pencil, and NCEES approved calculator. All sketches and calculations are NOT considered to be part of your answer and are not inspected or graded.

# References

The WVBPS state-specific exam is a closed-book examination; no references are permitted. Calculators are permitted, but must be on the NCEES approved calculator list (<u>www.ncees.orq</u>). Remember that you have 60 multiple-choice questions to complete within 2 hours. Familiarity with the reference material should allow sufficient time to complete the examination.

The examination questions are primarily developed from the references listed below. It is to your advantage to spend time learning and reviewing current, relevant material.

West Virginia Code, <a href="http://www.leqis.state.wv.us/WVCODE/Code.cfm">http://www.leqis.state.wv.us/WVCODE/Code.cfm</a>

West Virginia Code of State Rules – Title 23, Series 1,2,3,4,5 http://apps.sos.wv.gov/adlaw/csr/index.aspx

<u>Evidence and Procedures for Boundary Location</u>, Brown, Robillard, and Wilson, John Wiley & Sons, Inc., New York, NY.

<u>Brown's Boundary Control and Legal Principles</u>, Brown, Robillard, and Wilson, John Wiley and Sons, Inc., Hoboken, NJ.

<u>Writing Legal Descriptions in Conjunction with Survey Boundary Control</u>, Gurdon H. Wattles, Wattles Publications, Tustin, CA.

<u>Black's Law Dictionary</u>, Bryan A. Garner, West & Thomson, St. Paul, MN, <u>http://west.thomson.com</u>.

Erosion and Sediment Control Handbook for Developing Areas (West Virginia),

U.S. Department of Agriculture, Soil Conservation Service,

P.O. Box 865, Morgantown, WV 26505.

FEMA Floodplain Regulations, www.fema.gov

<u>Corps of Engineers Wetlands Delineation Manual</u>, U.S. Department of the Army, Vicksburg, MS, <u>www.wetlands.com/pdf/wdm0225e.pdf</u>.

<u>Forestry Handbook</u>, edited by Carl F. Wenger, John Wiley & Sons, Inc., <u>http://books.google.com/books</u>.

Peterson Field Guides: Eastern Trees, by George A. Petrides/Janet Wehr

NOAA Manual NOS NGS 5 – State Plane Coordinate System of 1983, James E. Stern, www.ngs.noaa.gov/PUBS LIB/ManualNOSNGS5.pdf.

<u>Technical Release No. 55 – Urban Hydrology for Small Watersheds</u>, NRCS, U.S. Department of Agriculture, Soil Conservation Service, <u>www.hydrocad.net/tr-55.htm</u>.

- <u>Drainage Manual</u>, West Virginia Department of Highways, Engineering Division,

  <u>www.transportation.wv.gov/highways/engineering/Manuals/Drainage/WVDOH</u>

  <u>2007 Drainage Manual.pdf</u>.
- <u>Erosion and Sediment Control Best Management Practice Manual</u>, West Virginia

  Division of Environmental Protection, Division of Water and Waste Mgmt.,

  <u>http://www.dep.wv.gov/WWE/Programs/stormwater/csw/Pages/ESC\_BMP.aspx</u>
- <u>Sewer Systems 64CSR9</u> West Virginia Code of State Rule, West Virginia Division of Health, <u>http://apps.sos.wv.gov/adlaw/csr/rule.aspx?rule-64-09</u>.
- \*Compass Land Surveying, F. Henry Sipe, McClain Printing Company, Parsons, WV.
- \*Examination Review Manual, prepared by WVSPS in conjunction with Glenville State College.
- \*<u>West Virginia Code</u> as Related to Professional Surveyors, prepared by Charles R. Sypolt, Professor, Glenville State College.
- \*Exploring the Old Turnpikes of West Virginia, published by WVSPS.
- \*Boundaries in West Virginia Roads and Streams, Knud E. Hermansen.
- \*Mechanics' Liens for Land Surveyors, Phillip A. Reale, Esq and Robert L. Coffield, Esq.

Note: \* Check availability through the West Virginia Society of Professional Surveyors:

West Virginia Society of Professional Surveyors c/o JulNet Solutins, LLC 1404 ½ Adams Avenue Huntington, WV 25704

(304) 208-8970 phone Email: wvsps@wvsps.org (304) 523-9701 fax Website: www.wvsps.org

Facebook: www.facebook.com/wvsps

# **Special Accommodations**

If you require special accommodations in the test-taking procedure because of a documented disability, communicate your need well before the examination to the:

West Virginia Board of Professional Surveyors Phone: 304-558-0350 Fax: 304-558-0352

1124 Smith Street, Suite B127C Email: wvbps@wv.gov Charleston, West Virginia 25301 Website: www.wvbps.wv.gov

# **Sample Questions**

1.

Which of the following terms correctly defines the Coordinate System in West Virginia based on the National Geodetic Survey's North American Datum of 1983?

- A) State Plane Coordinate System NAD83
- **<u>B</u>**) West Virginia Coordinate System of 1983
- C) Clark's Ellipsoidal Projection of 1866
- D) World Geographic System of 1983

2.

What type of survey in West Virginia requires the surveyor to prepare a plat and description?

- A) mortgage/loan inspection survey
- B) topographic survey
- **C**) any property boundary survey
- D) any cadastral survey

3.

When the deed calls of two adjoining properties are determined to overlap, senior rights are held by:

- **<u>A</u>**) the owner of the property whose title chain includes a grant or deed recorded earlier than any found in the title chain of the other owner.
- B) whichever of the present owners first acquired his land.
- C) the landowner who is the oldest.
- D) whichever of the landowners first has his/her property surveyed and properly records the plat of that survey.