

Faculty

ALTA Standards, Public Land Survey Systems and Other Must-See-Matters

J. Cole Helfrich

Principal Land Surveyor with Craig R. Knoche & Associates, P.C., Geneva, Illinois

Mr. Helfrich first picked up a plumb bob in 1971 for Webster & Associates. From tape-and-transit to GPS, mortgage surveys, and shopping centers, he has his seal on well over a billion dollars of commercial, residential and institutional developments and transactions in 22 counties in Illinois. Mr. Helfrich has enjoyed working with countless prominent developers, attorneys and other professionals in the field and the office. His specialties include real estate law, boundaries and boundary law, easements, rights-of-way and other encumbrances and servitudes, statutory and common-law plats, ALTA surveys, topography, building and site layout, construction- and project-management as well as land development consulting. Mr. Helfrich is a member of the National Society of Professional Surveyors and the Illinois Professional Land Surveyors Association. For the last 23 years he has been principal land surveyor with Craig R. Knoche & Associates, P.C. in Geneva, Illinois.

GNSS Surveying: Principles and Practices

Thomas Meyer *University of Connecticut*

Dr. Meyer is a professor in the Department of Natural Resources and the Environment at UConn's College of Agriculture, Health and Natural Resources (CAHNR). He is a member of the American Society of Civil Engineers and the American Society for Photogrammetry and Remote Sensing, and he is a fellow and current president (2019) and twice past president (2016, 2019) of the American Association for Geodetic Surveying. Dr. Meyer is a past president (2006-2007) of the Geomatics Society of New England (previously known as the New England Section ACSM) and a member of the editorial boards of the Journal of Surveying Engineering and Surveying and Land Information Science. Dr. Meyer earned his Ph.D. degree from Texas A&M University (College Station, 1998) where he was a research associate in the Mapping Sciences Laboratory. He was named a UConn Teaching Fellow (2015), and he has taught geomatics courses at the graduate and undergraduate levels in geodesy, geographic information science, digital terrain modeling, spatial statistics and global navigation satellite system surveying. Dr. Meyer has authored an undergraduate-level geodesy textbook and numerous peer-reviewed papers about surveying and mapping and he teaches professional education seminars for surveyors throughout New England and the United States.

Boundaries and Easements

Wendy Lathrop, PLS, CFM *President and Owner of Cadastral Consulting, LLC*

Ms. Lathrop is licensed as a professional land surveyor in New Jersey, Pennsylvania, Delaware, and Maryland, and as a professional planner in New Jersey. She holds a master's degree in Environmental Policy, and has been involved in surveying since 1974 in projects ranging from construction to boundary to environmental land use disputes. Ms. Lathrop is also a certified floodplain manager through the Association of State Flood Plain Managers (ASFPM). A former adjunct instructor at Mercer County College in New Jersey, she has also taught as part of the team for the licensing exam review course at Drexel University in Pennsylvania. Ms. Lathrop has been teaching seminars for surveyors since 1986 and has been writing articles for surveyors since 1983. She is a contributing editor for *The American Surveyor* magazine, and she has four articles included in the American Bar Association's text, *Land Surveys: A Guide for Lawyers and Other Professionals*. She and Stephen V. Estopinal, PLS, PE co-authored a book entitled *Professional Surveyors and Real Property Descriptions: Composition, Construction, and Comprehension*, published by John Wiley & Sons, Inc. in 2011. She is also on the faculty of GeoLearn, a web-based educational provider. Ms. Lathrop is a past president of the New Jersey Society of Professional Land Surveyors and of the National Society of Professional Surveyors, and she has served on the Board of Directors for the American Association for Geodetic Surveying.

December Land Webinars

For Engineers, Surveyors and Other Professionals

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December Land Webinars

ALTA Standards, Public Land Survey Systems and Other Must-See-Matters

- Monday, November 30, 2020 | 11:00 am - 2:30 pm CST
- Tuesday, December 1, 2020 | 11:00 am - 2:30 pm CST

GNSS Surveying: Principles and Practices

- Wednesday, December 2, 2020 | 9:30 am - 5:00 pm CST

Boundaries and Easements

- Wednesday, December 2, 2020 | 11:00 am - 2:30 pm CST
- Thursday, December 3, 2020 | 11:00 am - 2:30 pm CST

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ALTA Standards, Public Land Survey Systems and Other Must-See-Matters

A Two-Day Webinar Series Tuition: \$299 per registrant, \$199 per registrant for three or more

Credits: Land Surveyors: 6.0 PDHs, excluding KS, NJ, TN, TX
Professional Engineers: 6.0 PDHs in all states

Monday, November 30, 2020 | 11:00 am - 2:30 pm CST (including a 30-min. break)

- ALTA Survey Basics**
- 2016 ALTA Survey basics
 - 2016 Table A requirements
 - Proposed 2021 ALTA Survey basics
 - Proposed 2021 Table A requirements

- Public Land Survey Systems Basics**
- Establishment of the PLSS
 - Northwest Ordinance
 - PLSS today

Tuesday, December 1, 2020 | 11:00 am - 2:30 pm CST (including a 30-min. break)

- Statutory Plat basics in PLSS States**
- Statutes in PLSS states
 - Types of plats
 - Requirements for a typical statutory plat
 - What is not a statutory plat
 - Changes to statutory plats

- Easement Basics**
- Types of easements
 - Creation of easements
 - Extinguishment of easements

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GNSS Surveying: Principles and Practices

Tuition: \$299 per registrant, \$199 per registrant for three or more

Credits: Land Surveyors: 6.5 PDHs, excluding KS, NJ, TN, TX
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Wednesday, December 2, 2020 | 9:30 am - 5:00 pm CST (including a 30-min. break)

- Development of Global Navigation Satellite System (GNSS) Surveying**
- Development of GNSS technology
 - Application to surveying
 - Benefits and drawbacks

- GNSS Fundamentals and Real Time Kinematic (RTK) Methods**
- Understanding GNSS science
 - Mechanics of GNSS data collection and processing

- GNSS Surveying Methods and Best Practices**
- GNSS satellites
 - Data collection process
 - Accuracy versus precision
 - Redundancy
 - Multipath
 - Position dilution of precision (PDOP)
 - Root-mean square (RMS)
 - Site localizations/calibrations
 - Latency
 - Signal-to-noise ratio
 - Float and fixed solutions
 - Elevation mask
 - Geoid model
 - Understanding errors

- Using GNSS Data Successfully**
- Applying datum transformations
 - Improving field practices
 - Using Online Positioning User Service (OPUS)
 - Managing data

GNSS Surveying Case Studies

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Continuing Education Credit Information

See each course listing for the type and amount of each continuing education credit available. Individual courses for engineers and land surveyors are not subject to pre-approval. HalfMoon Education does not apply for landscape courses in FL, NC, and NJ or land surveyor courses in FL, KS, NJ, TN and TX, unless expressly stated.

- HalfMoon Education Certifying Entities**
- American Institute of Architects Continuing Education System (No. J885)
 - International Code Council (No. 1232)
 - Landscape Architect Continuing Education System
 - American Institute of Certified Planners (APA)
 - Boards of Engineering: Florida (No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina (No. S-0130), and North Dakota.
 - Course-by-Course Providers:
 - Association of State Floodplain Managers
 - American Planning Association/AICP

HalfMoon Education is deemed a New York-approved continuing education provider for engineers, architects, and landscape architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2), §69.6(i)(2), and §79-1.5(i)(2)).

Completion certificates will be awarded to participants who complete this event, respond to prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Boundaries and Easements

A Two-Day Webinar Series Tuition: \$299 per registrant, \$199 per registrant for three or more

Credits: Land Surveyors: 6.5 PDHs, excluding KS, NJ, TN, TX
Professional Engineers: 6.5 PDHs in all states

Wednesday, December 2, 2020 | 11:00 am - 2:30 pm CST (including a 15-min. break)

- Locating Land Boundaries on Paper (And on the Ground)**
- What a deed tells us about real property interests and their locations – or doesn’t
 - Common kinds of land descriptions
 - Metes and bounds
 - Reference to a subdivision
 - Reference to a tax parcel
 - “Strip” descriptions
 - 3-D descriptions (condominiums, split estates)
 - Blanket easements
 - Reading a description to find evidence of location
 - The work involved in writing a description
 - Tying the paper deed to the ground: What is evidence of a boundary?
 - Why paper and ground may not match
 - When the paper and the ground don’t match: The hierarchy of evidence in descriptions
 - Summary: elements of a good description

- Physical Evidence and Boundaries**
- The difference between a corner and a monument
 - Retracement surveys versus new or independent surveys
 - Discrepancies between the written record and what is on the ground
 - Types of discrepancies
 - Causes of discrepancies
 - The hierarchy of evidence revisited

Thursday, December 3, 2020 | 11:00 am - 2:30 pm CST (including a 15-min. break)

- Easements: Understanding Possessive Rights in Lands of Others**
- Distinctions between ownership and possession
 - Easements distinguished from other possessory rights
 - Types of easements and distinctions between them: appurtenant, in gross, affirmative, negative and others
 - Methods of easement creation
 - Clues in documents to determine if interests are fee or easement
 - The effect of the Statute of Frauds on possessory rights
 - Methods of easement termination
 - What happens after termination?

- Disputes: Boundaries, Shared Spaces, and Split Estates**
- Distinctions between trespass, adverse possession, and prescriptive rights
 - Maintaining adverse claims
 - Statute of limitations
 - Elements of a claim
 - “Lost grant” claims
 - Quiet title actions
 - Acquiescence, laches, estoppel, and equity
 - Less litigious approaches to settling land interest disputes
 - Practical location and boundary line agreements
 - Boundary line commissions

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