

# Faculty

## Land Description Systems

**J Cole Helfrich** *Craig R. Knoche & Associates, P.C.*

Mr. Helfrich first picked up a plumb bob in 1971 for Webster & Associates. From tape-and-transit to GPS, mortgage surveys to 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.

## Floodplain Modeling, Mapping and Regulation

**Gene L. Rovak, P.E. CFM, F.ASCE** *Senior Project Manager at Horner & Shifrin*

Mr. Rovak is a professional engineer and certified floodplain manager with over 40 years of experience in all aspects of floodplain management. His work requires understanding of FEMA regulations and interpretation of FEMA Flood Maps (FIRMs) and Flood Insurance Studies (FIS). Mr. Rovak has extensive experience in Letters of Map Changes (LOMCs), particularly Letters of Map Revisions (LOMRs), which have ranged from single reaches along a channel to large areas affecting many map panels. Related studies have ensured that infrastructure improvements such as bridges or docking facilities would not cause increase in flood heights ("no-rise" studies).

Mr. Rovak's experience has covered riverine flooding (river and creek channels) as well as level-pool environments (lakes and landlocked floodwater storage). He has performed hydraulic and hydrologic analysis of these systems working with a variety of computer models in the public domain such as Corps of Engineers and EPA, as well as proprietary programs such as ICPR and XP-SWMM. Mr. Rovak's experience includes steady, unsteady, and network flow simulations.

## Tracking the Railroads

**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 1985. 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.

# September Land Webinars For Engineers, Surveyors and Other Professionals

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## HalfMoon Education Live Webinars

### Land Description Systems

- Tuesday, September 22, 2020 | 11:00 am - 2:15 pm CDT
- Wednesday, September 23, 2020 | 11:00 am - 2:15 pm CDT

### Floodplain Modeling, Mapping and Regulation

- Tuesday, September 22, 2020 | 10:00 am - 2:00 pm CDT
- Wednesday, September 23, 2020 | 11:00 am - 2:15 pm CDT

### Tracking the Railroads

- Wednesday, September 30, 2020 | 11:00 am - 4:00 pm CDT

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## HalfMoon Education Online Learning September Land Webinars for Engineers, Surveyors and Other Professionals



### Land Description Systems in Land Survey States

- Tuesday, September 22, 2020 | 11:00 am - 2:15 pm CDT
- Wednesday, September 23, 2020 | 11:00 am - 2:15 pm CDT
- 6.0 Continuing Education Hours

### Floodplain Modeling, Mapping and Regulation

- Tuesday, September 22, 2020 | 10:00 am - 2:00 pm CDT
- Wednesday, September 23, 2020 | 11:00 am - 2:15 pm CDT
- 6.0 Continuing Education Hours

### Tracking the Railroads

- Wednesday, September 30, 2020 | 11:00 am - 4:00 pm CDT
- 4.0 Continuing Education Hours
- (See inside for details)



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# Land Description Systems in Land Survey States

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

**Credits:** Professional Engineers: 6.0 PDHs Land Surveyors: 6.0 PDHs  
Certified Planners: 6 | CM

**Tuesday, September 22, 2020 | 11:00 am - 2:15 pm CDT** (including a 15-min. break)

## Working with Metes and Bounds Descriptions

Basic land description concepts: distances, directions, circular curves, mathematical closure, state plane coordinates  
Reading a metes and bounds description  
Writing a description  
Drawing a description  
Software for mapping, drawing and locating described lands

## Working with the U.S. Public Land Survey System (PLSS)

PLSS basics: meridians, baselines, ranges, townships, sections  
Public Land Survey System (PLSS)  
Aliquot parts  
“Part of” descriptions  
Reading a PLSS description  
Writing a description  
Drawing a description  
Software/websites for mapping, drawing and locating described lands

**Wednesday, September 23, 2020 | 11:00 am - 2:15 pm CDT** (including a 15-min. break)

## Statutory Plats in Land Survey States

Duties under Plat Act  
Certification and recording  
Affidavits and exceptions  
Reading and locating platted descriptions  
Writing a description  
Drawing a description  
Software/websites for mapping, drawing and locating described lands

## Describing Rights to Access Land

Private easements Utility easements  
Utility rights-of-way Public rights-of-way

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## Can't Attend? Order the Webinar as a Self-Study Package!

Recordings of this webinar are available for purchase. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

# Floodplain Modeling, Mapping and Regulation

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

**Credits:** Professional Engineers: 7.0 PDHs Architects: 7.0 HSW CE Hours  
AIA: 7.0 HSW LU|HSW Land Surveyors: 7.0 PDHs  
Floodplain Managers: 7.0 ASFPM CECs Certified Planners: 7 | CM

**Tuesday, September 22, 2020 | 10:00 am - 2:00 pm CDT** (including a 30-min. break)

## Understanding Floods, Floodplains and Floodplain Management

Flood facts and figures Causes and types of floods  
Types of floodplains Understanding floodways  
History and development of flood maps, flood insurance and flood plain management  
Role of the National Flood Insurance Program (NFIP)  
Role of state agencies and local municipalities

## Federal, State and Local Floodplain Regulation

Reviewing NFIP regulations Understanding permit requirements  
Analyzing encroachments Complying with state regulations

## Examining Flood Insurance and Flood-Related Claims

National Flood Insurance Program (NFIP)  
• NFIP public/private partnership  
Determining when insurance is required and when it is recommended  
Flood insurance coverage and exclusions  
• Residential and commercial coverage  
Understanding the claims process

**Wednesday, September 23, 2020 | 10:00 am - 2:00 pm CDT** (including a 30-min. break)

## Obtaining and Interpreting Flood Maps

Development of flood maps  
• Understanding FEMA flood zone designations  
• Examining Flood Insurance Rate Maps (FIRMs)  
• Digital flood map implementation policy  
• Flood map modernization and previous stumbles  
• Multi-year flood hazard identification plan  
Reading and interpreting flood maps  
Examining the impact of flood designating and mapping  
Reviewing FEMA flood hazard determinations  
Requesting flood hazard determination review  
Understanding Letters of Map Change (LOMC)  
Software for mapping, drawing and locating described lands

## LOMR Model Requirements

Differences between Letters of Map Amendments (LOMAs) and Letters of Map Revisions (LOMRs), and types of LOMRs  
Navigating the submission and review processes - engineering and administrative procedures

## Modeling Floodplains

Selecting and using FEMA-accepted models  
Hydrologic methods—which to use for your location  
Floodplain modeling with HEC-RAS Modeling bridges and culverts  
Floodways—encroachment analyses Common modeling issues  
Processes and cautions Using data obtained from the model

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# Tracking the Railroads

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

**Credits:** Professional Engineers: 4.0 PDHs Land Surveyors: 4.0 PDHs  
Certified Planners: 4 | CM

**Wednesday, September 30, 2020 | 11:00 am - 4:00 pm CDT** (including a 30-min. break)

## What is a “Railroad” by Law? (And Why Does It Matter?)

Highway or utility – public rights and railroad responsibilities  
The effects of railroads on development of the US  
The evolution of the regulatory framework affecting railroads in the US

## Railroad Records and Regulation

Finding information about physical, legal, and historical railroad aspects  
The birth of Rails to Trails  
Railroad abandonment  
• What “abandonment” means, physically and legally  
• The process for abandonment

## Examining the Extent, Type, Location and Time/Duration of Railroad Rights

Deciphering if railroads acquired ownership or easement or other rights  
The extent of railroad rights, and significance to landowners and railroads  
Shared uses of the railroad corridor  
Decisions relating to Rails to Trails conversions

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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 architects 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).