

Volume 33: Issue 4
October, 2022



LINES & POINTS

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On The Cover

ANOTHER YEAR OF OPUS SHARED
COLLECTING COMES TO AN END.

Photos By:
Michael Flaim, PELS

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Digital-ready, full-color advertising with payment should be mailed to Lines & Points, P.O. Box 8, Cheyenne, WY 82003.

Advertising rates are as follows:	Year	Issue
Full Page	\$810	\$210
Half Page	\$540	\$140
Quarter Page	\$310	\$80
Business Card	\$40	\$10
Employment	Free	Free

Special Rates apply for PLSW Chapters and cover placements.

For more information please contact Jack Studley.

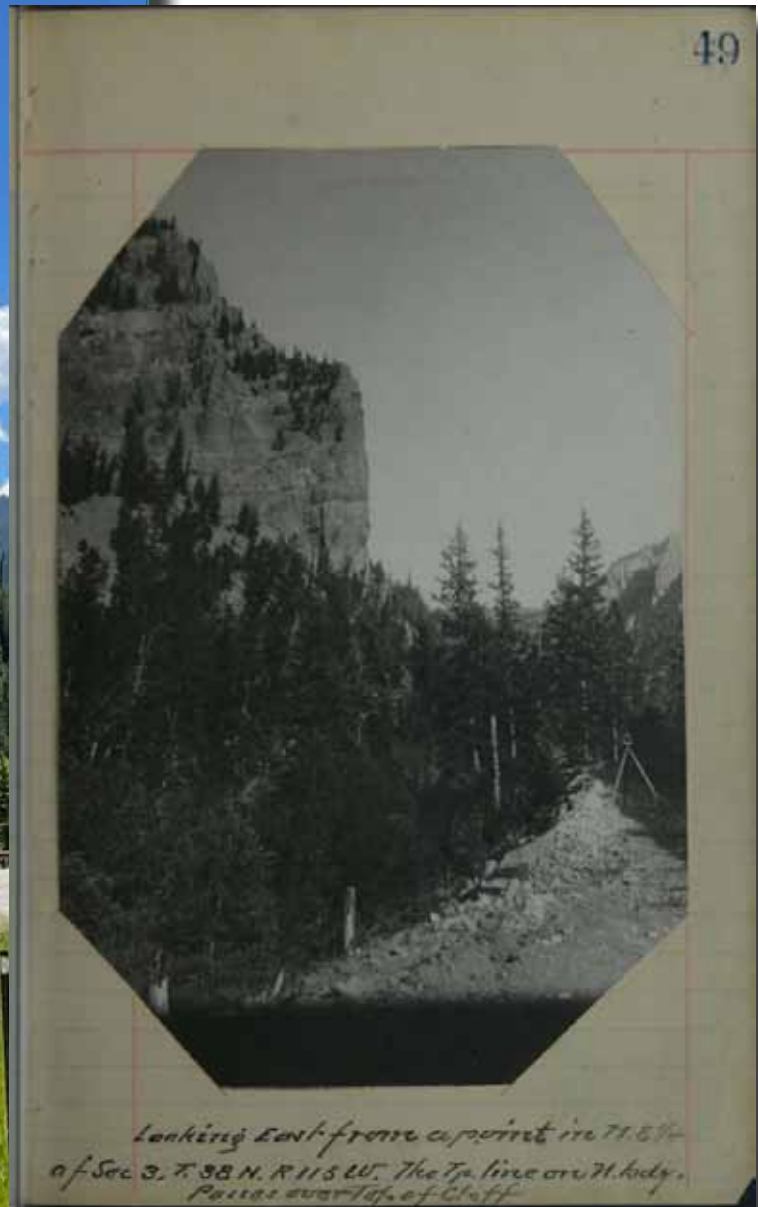
PLSW (Professional Land Surveyors of Wyoming; PO Box 8, Cheyenne, WY 82003) is a statewide organization of Land Surveyors registered to practice in the Equality State of Wyoming. PLSW is dedicated to improving the technical, legal, and business aspects of surveying in the State of Wyoming. PLSW is affiliated with the National Society of Professional Surveyors (NSPS) and the Western Federation of Professional Land Surveyors (WestFed).

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PRESIDENT'S MESSAGE

I'm writing this on the last day of summer...hard to believe how fast time goes by. But that's one of the wonderful things about surveying; though our tools have changed, much of what we do has not, despite the passage of time.

Earlier this summer, a colleague of mine came across a couple of different photos in the front pages of GLO field notes in Teton County. One of the photos was taken in August, 1907 at the north end of the Hoback Canyon along what is now Highway 189/191. We immediately knew the spot as the cliff in the photo is very prominent as you enter the canyon heading southeast and I was able to take a photo from a similar vantage point this summer, 115 years later.



Looking East from a point in T. 5 N. of Sec. 3, T. 38 N. R. 115 W. The T. line on H. body. Passes over Top of Cliff

In an associated set of notes is another photo of the Snake River. The caption is cut off and I have not been able to track down the original (I think its in the National Archives in Washington, D.C.), but I believe the photo was taken near the south entrance of Yellowstone. The next time I pass through there, I plan to stop for a similar photo-op.

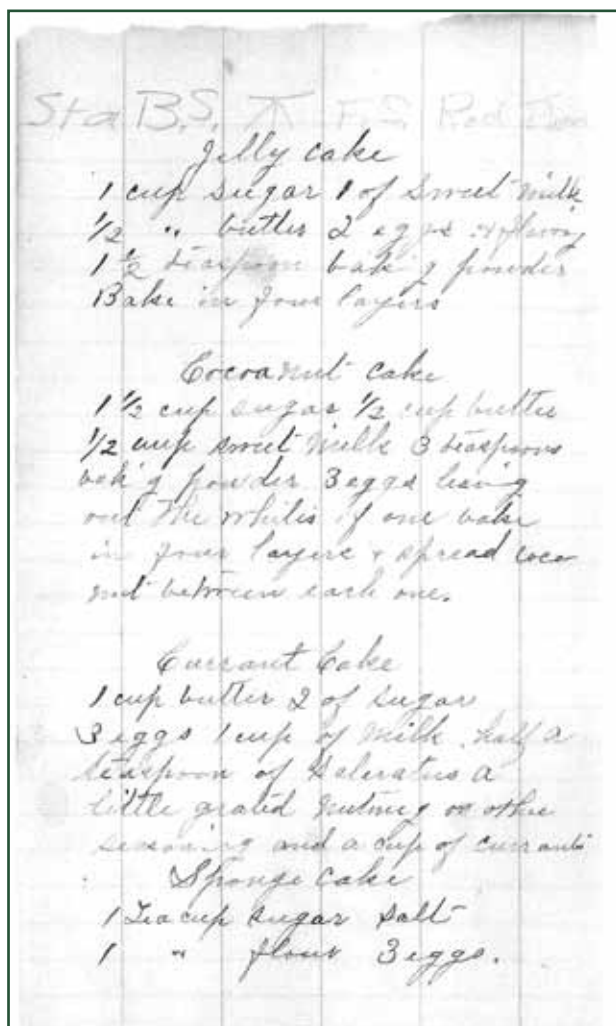
These little trips back in time reminded me of some recipes I once saw in level books on file with the Register of Deeds in Mecosta County, Michigan. The spare pages of the book (which is dated 1893) were filled with recipes for cakes, pies, and other desserts. These additions add some color the historical records and remind me that those surveyors, whose footsteps we are charged with following, were not just a name on the page of some old document, but humans too, wowed by the beauty of a mountain river, or wanting to remember a recipe so it could be shared with his family when he returned home.

This year's Fall Tech Session is just around the corner. We're fortunate to have Dennis Mouland coming out of retirement to present a topic he's calling "Advanced Cadastral Academy". We're trying something new this year in response to feedback we've received and are adding three more hours of seminar on Friday afternoon to provide a full 15 CEUs. We hope that you will attend Fall Tech and stick around for the additional credits.

My term as president will come to a close at the business meeting during the Fall Tech Session. It has been an honor to serve you all. Keep up the good work and please continue your participation in PLSW!

Matt Gotham, PLS

President - Professional Land Surveyors of Wyoming



HINTS TO AUTHORS



Dear Readers:

The editors of Lines & Points wish to convey our gratitude to the numerous authors who have contributed photographs, technical and professional articles, and other information to be incorporated into the quarterly journal. In recent years, the assembly and redaction of the submitted materials has taken on considerable technical application of the various English language compilers, office suites, and "publishing suites". This means that the communication and transfer of information and materials arrive at the editors' desktops in a multitude of formats and styles, which sometimes are not compatible with the PLSW personal computers.

We, the editors, are setting forth some simple rules for submitting materials which, hopefully will simplify your efforts and make the transition to the published version simpler and less time consuming.

1. If you have any questions or comments, please contact S. Dennis Dawson, Publications Comm. Chm., (dennieandbarb@gmail.com) or Michael A. Flaim, Editor-in-Chief (mike.flaim@bresnan.net).

2. If an article contains any illustrations, photographs, graphs, or other graphics, please transmit them as separate individual files. You may also include the illustrations within your manuscript, but the image integrity/quality is degraded seriously when attempting to extract them from the manuscript to create a published digital image. The Editor-in-Chief states that a much better digital resolution is obtained from the separate, individual illustrations submitted.

3. All submissions (electronic and snail mail) should be sent to S. Dennis Dawson (4005 Snyder Avenue; Cheyenne 82001). It is recommended a second copy be sent to Mike Flaim (1212 Southwest Drive; Cheyenne 82007).

4. It is strongly recommended that all submissions be transmitted six weeks prior to the publication deadline. The publication deadlines are: 1 January; 1 April; 1 July; and 1 October, annually.

5. Lines & Points is the official publication for the Professional Land Surveyors of Wyoming. Therefore, hence forth there will be incorporated in the publication all formal announcements pertaining to official business of the organization and other announcements. This includes announcements for the Annual Meeting; state-wide membership meetings; seminars; and the Fall Technical Session. These announcements are to be submitted to the PLSW Secretary/Treasurer John J. Studley (PLSW; Attn.: Mr. Jack Studley; P.O. Box No. 8; Cheyenne 82003) (jklz0318@gmail.com), at least four weeks prior to the publication deadline in which the announcement will appear. The PLSW Secretary/Treasurer will circulate the announcements to the Publication Comm. Chm.; the Editor-in-Chief; and the PLSW Board of Directors.

6. Advertisers and prospective advertisers should communicate directly with PLSW Secretary/Treasurer Studley about any advertisements and modifications.

LINES AND POINTS ARTICLE ROTATION SUBMISSION SCHEDULE BY CHAPTER

Responsible Chapter	First Call Date	Last Call Date	Publication Date
West Chapter	THANK YOU!! (SEE "CORNER HOPPIN'" IN THIS ISSUE)		
Central Chapter	December 1	December 15, 2022	January 1, 2023
South Central Chapter	March 1	March 15	April 1, 2023
Southeast Chapter	June 1	June 15	July 1, 2023
Upper Platte Chapter	September 1	September 15	October 1, 2023
Southwest Chapter	December 1	December 15, 2023	January 1, 2024
Northeast Chapter	March 1	March 15	April 1, 2024
Northeast Chapter	June 1	June 15	July 1, 2024

As the Board of Directors discussed, any four page article (with pictures) may be from within the particular chapter membership (survey stories, or technical experiences) or after acquiring permission to use an article from another professional society publication or which provides information of interest to the PLSW members. The Board also approved assigning the responsibility for the article development and submission to each chapter's vice president. **If a Chapter does not provide an article that same Chapter shall be obligated to provide an article for the next publish date.**

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PLSW.org WEBSITE REQUEST

As you the reader may or may not know, PLSW is in the process of developing a new website to serve the organization and it's membership. Edge Marketing Design is developing the new website and has requested that we the members submit videos and photos to be used in the Website. The more of that digital information that we can provide, the better our final Website will be. Please submit your contributions to my personal email and I will forward the data to Edge Marketing Design. They will be needing this information beginning in early October. The development process will be relatively short so the deadline will be November 1, 2022.

Every contribution that you make will make our Website better.

Thanks!"

Dennis Dawson, PLS

My Email is: dennieandbarb@gmail.com

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Presenters: Dane Courville, PLS and Knud Hermansen, PLS, PE, Ph.D.



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Mr. Surveyor, would you please tell me how high my property boundary goes? To be clear, to what extent does airspace come with land ownership?

This complicated question isn't new but was recently stirred up by a group of hunters using BLM checkerboard land to "corner hop" the adjoining corners of private land and continue their quest onto more public land. The group, crossing the now famous corner common to Sections 13, 14, 23, and 24 of Township 20 North, Range 82 West, in Carbon County, scaled a ladder spanning from Section 14 to Section 24, intending to not touch the ground within Sections 13 and 23.

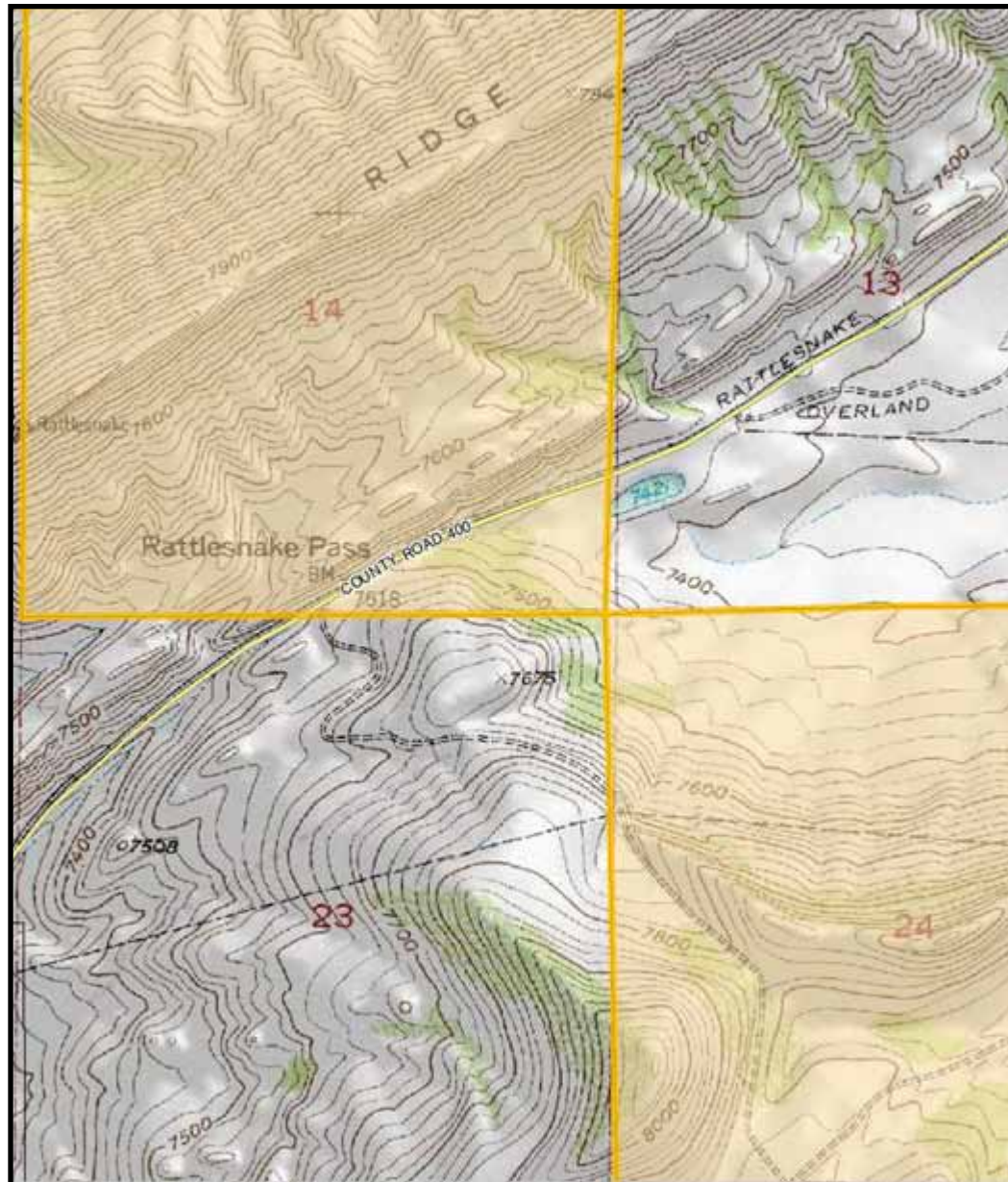
A valiant effort, you might say, but the landowner was not impressed and promptly contacted the local Sheriff who issued citations to each hunter for criminal trespass. Rather than accepting the charge for accessing their public land and paying the fines, the hunters all pled "not guilty." On April 29, 2022 all criminal charges were dismissed. The four hunters still face a civil lawsuit filed by the landowner which will be heard in federal court.

Neither federal nor Wyoming law directly address the practice of corner crossing. The entire legal understanding has been based on judicial and agency opinions, leading to decades of uncertainty.

The Unlawful Inclosures Act of 1885 states "No person, by force, threats, intimidation, or by any fencing or inclosing, or any other unlawful means, shall prevent or obstruct, or shall combine and confederate with others to prevent or obstruct, any person from peaceably entering upon or establishing a settlement or residence on any tract of public land..."

CORNER HOPPIN'

by Ryan Wells, PLS, EI



Map credit: <https://maps.greenwoodmap.com/>

In the 1979 U.S. Supreme Court case *Leo Sheep Co. vs. United States*, the justices stated that the government does not have an implied easement to build a road across private land to access public land. Their decision did not address whether an individual could step from one piece of public land to another.

U.S. vs. Causby was a 1946 Supreme Court Case applying to air space ownership. In this case, Causby owned a chicken farm near a municipal airport that was used by the military during World

War II. He sued for damages, claiming the constant noise of the military air traffic over his property disrupted his business. The Court found that the Government had taken an easement over his property, but it made no finding as to the precise nature or duration of the easement.

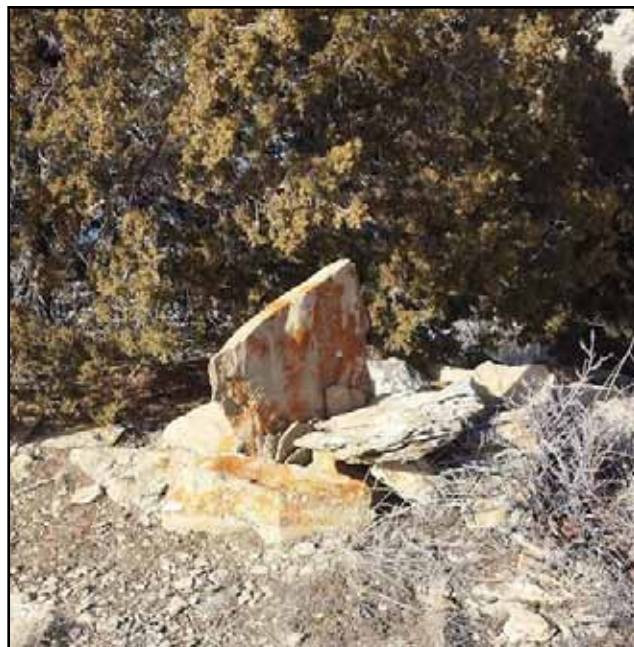
These hunters should be commended for doing their homework and knowing that an actual corner monument needs to be crossed, not just a handheld GPS position of the GIS linework. Still, it is fortunate that this corner was a re-monumented iron pipe brass cap that couldn't be mistaken and didn't happen to have the letters WC inscribed. How many other section corners have we seen that wouldn't be this clear?

As a professional land surveyor, I often find myself attempting to explain to lay people the relationship between monuments and boundaries and all the complexities involved.

To boil this down into a straightforward explanation, I would say it like this: "Whatever airspace you are using as a landowner is the airspace you have a right to claim as your private property." We have all seen zero-setback commercial buildings, condominium plats, and skyscrapers, for example. Conversely, in Wyoming we are blessed with vast wide-open spaces with nothing more than an occasional 4-strand barbed-wire fence to cast a shadow. To use a one-size-fits-

all airspace ownership height in the wide-open spaces just doesn't seem right. Hunters ought to have access to public land if they can accurately step from one piece of public land to the next. On the other hand, allowing people to "corner cross" unconditionally would impose on private property rights because, as we all know, if you give an inch, they will take a mile and people will be taking the easy route around that section corner. Either way, it is a reminder to us as Professional Land Surveyors the importance of perpetuating monuments at every opportunity.

Photo credit: <https://www.gofundme.com/f/corner-crossing-legal-fee-fundraiser>



Thoughts on Professional Practice and Education

Article 3: Eliminate Experience Requirement for Licensing

by Knud E. Hermansen P.L.S., P.E., Ph.D., Esq.

This is the third article I have prepared in a series giving thoughts on professional practice and education. This topic, I have no doubt, will leave blood on the walls – a metaphor only. I will have good friends that take issue with some of my thoughts. Old age allows opinions to be expressed in a manner that youth cannot do or does so inappropriately. When I was young, I often cared what people thought of my opinions. Having reached an old age, I have come to realize another person's opinion about me has never paid a single bill I owed. Living to an old age allows friends to mature and enemies to be cultivated.

I will not give a long discourse on my experience, education, and practice. Suffice to say my first of many survey licenses was achieved in 1978 before many that will read this article were born. I will even surmise that my last professional license, that of an attorney, was achieved before many readers of this article were born. I have seen and experienced much in my life that allows for many opinions.

In this missive I will touch the often-sensitive topic of experience requirements for the surveying program graduate. I will begin by stating I am not so much advocating for change as I am suggesting the profession consider changes. As is so often the case, the way a person did things in their past causes them to feel that way is the best way to do things in the future. I had six years of experience

before obtaining my survey license based entirely on my experience. That is my story. Why isn't my way the best way in this case? Old age has taught me there is often a wide chasm between what was done and what should be done - what is wanted is not always what is needed.

I hoist the target as I once did fifty years ago as a young Marine working the 'butts' at the rifle range. Here is the target: I suggest that experience not be required for licensing of a graduate of an accredited surveying program. There I have made my statement and shown the target. I can already hear the shots and bullets passing through my hoisted target from readers. Some reader is already writing to the editor stating in so many words, with heated passion, that my unsolicited advice is meddling and is not welcome. What is present, works. Perhaps that thought will be the consensus of most of the individuals that read this article.

Why would I make such a statement? Surely as old as I am, I must recognize that experience has taught me far more than four years of surveying education, if not more. I must have learned important knowledge that was never available through education. My answer to both statements is a resounding 'yes.'

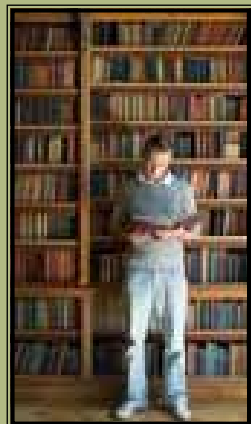
I must emphasize that important knowledge, complete knowledge, or extensive knowledge is not the purpose of licensing. Licensing's purpose is to protect the public. Licensing is to ensure the licensee has attained the minimum level of knowledge, established by the profession that is thought necessary for competent practice.

Let us not fool ourselves in thinking two or four years of experience is a constant learning process for an individual. It is not. In many cases, experience is merely the repetition of a limited number of survey tasks repeated over many years. An individual that has spent four years surveying urban lots has probably gained the extent of new knowledge after only three months of employment and after surveying one or two of their first urban lots.

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Some readers will counter by claiming that rather than less experience, more detailed experience is required in the licensing application. The application would have to show various complexities and scope of services for experience to count toward licensure. I would suggest that such specificity to experience qualifications will deny licensing for many individuals that work for small survey firms with limited clientele needs or individuals working for large firms that are slotted in specific services offered by the large firm. Such a move will further limit the number of licensees in our profession. The number of licensed surveyors is already declining from a lack of new and younger licensees.

Back to my days in the Marines, I have cause to look at the large target over my head. There is a new hole from the shooter. The shooter states that my suggestion would allow someone to graduate, be licensed, and provide services to the public soon after graduation. Valuable property rights will be in jeopardy because services will be entrusted to the licensed surveyor without any experience. Incompetence will run unchecked within the

profession. The professions' good reputation will collapse. Millions of dollars in property values will be jeopardized.

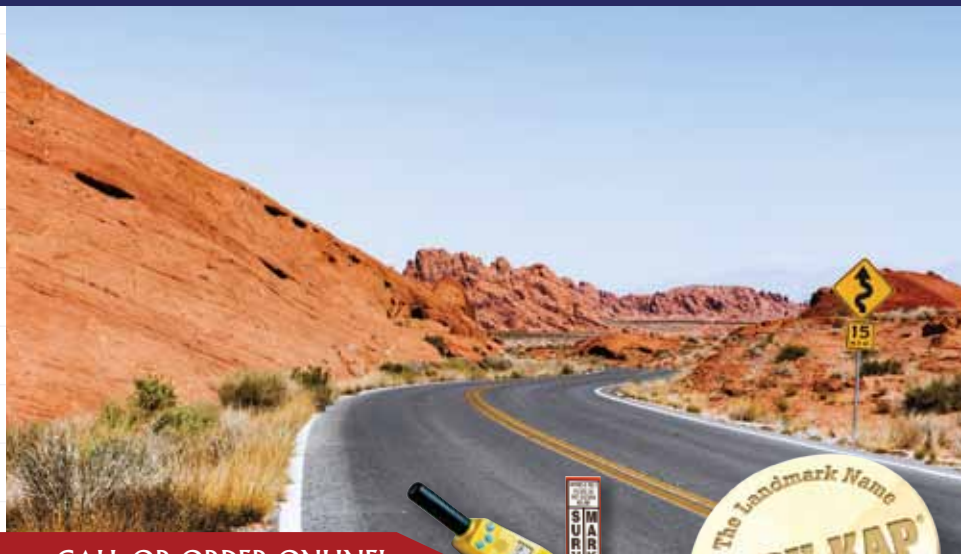
I think not. Over 34,000 lawyers graduate each year from law school. Every law school graduate can take the bar exam immediately following graduation. Within months of graduation every one that passes the bar exam can legally practice law without showing one single day of experience. These new, inexperienced lawyers can prepare deeds, write estate plans, argue for clients in court, and so much more. Do they? Of course not. A very few lawyers perhaps - but most work under the guidance of experienced practitioners. I expect the vast majority of surveyors licensed upon graduation after passing their exams will work for experienced surveyors. Very few would set up a practice on their own soon after graduation.

I could go on and shall do so only to beat this argument to reasonable size for some to swallow. There are over 14,000 pharmacists that graduate each year, are licensed after graduation, and dispense controlled and potentially dangerous and deadly drugs. There are over 155,000 nurses that

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PRE-REGISTRATION:

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\$100 PLSW Affiliate Members
\$225 Non-Members

A \$20 late registration fee will be added to all registrations received after October 12, 2022.

AGENDA

November 3rd

7^{am} - 8^{am} Registration
8^{am} - 12^{pm} Advanced Cadastral Acad.
12^{pm} - 1^{pm} Luncheon &
Annual PLSW Meeting
1^{pm} - 5^{pm} Advanced Cadastral Acad.
5^{pm} - 9^{pm} Social Hour

November 4th

7^{am} - 7:45^{am} Breakfast Buffet
8^{am} - 12^{pm} Advanced Cadastral Acad.
12^{pm} - 1^{pm} Lunch
1^{pm} - 4^{pm} Thinking Beyond Tech.

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Note: This year PLSW is offering a full 2 day seminar. This will provide 15 professional development hours.

LOCATION AND LODGING

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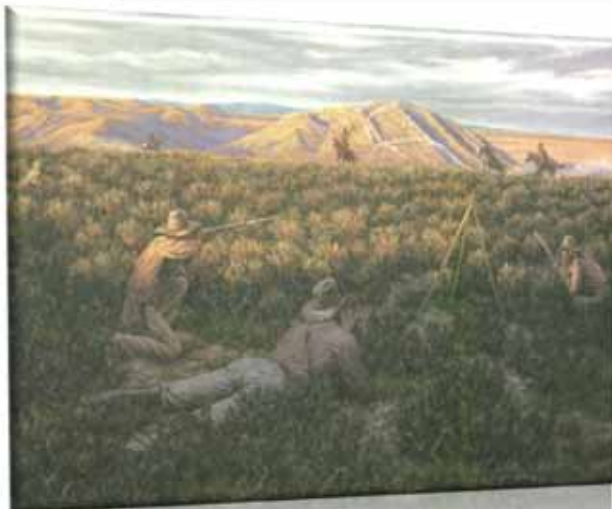
Dennis J Mouland

Dennis J. Mouland is a PLS licensed in Arizona, California, New Mexico, and Colorado. His 50 years in the profession are evenly mixed between private sector firms and federal employment with the US Forest Service and the Bureau of Land Management. He has conducted hundreds of seminars across the US and has had a total of 150,000 students attend. He teaches all the boundary-related courses at the University of Wyoming and has taught at several other universities over the years.

PLSC (Colorado) awarded Dennis with a lifetime membership in 1998 and APLS (Arizona) gave him a lifetime achievement award in 2005. Also in 2005, he was named one of the top 25 surveyors in the country in the previous 25 years by Professional Surveyor magazine.

Due to major health issues with his wife he has recently relocated to Greeley, Colorado where he continues to write and set up seminars for surveying associations across the country.

~ GRENVILLE DODGE AND PARTY AT THE GANGPLANK ~



A signed and numbered reprint of Dave Paulley's original oil painting of UP Rail Road's survey party finding a route over the Laramie Mountains after being forced there by an Indian war party.

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graduate each year and become licensed RNs mere weeks after graduation and make life and death health decisions for patients, dispensing drugs, taking care of injuries, and so on. There are over 10,000 officers commissioned each year without any prior experience in combat leadership that are placed in charge of soldiers, sailors, airmen, and marines or multi-million-dollar airplanes and make decision affecting lives in combat. (The Lord knows as a Marine sergeant I had my concerns about some new 2nd lieutenants.) I could go on with statistics and facts about ministers, doctors, dentists, cosmetologists, teachers, and other professions that allow graduates to have licenses soon after graduation. I believe I have made my point. Surveying and engineering are in a small minority of professions that continue to require experience in addition to their education before licensing.

So, what is wrong with requiring experience before licensing? I believe it hinders efforts to attract new members to our profession. For an eighteen-year-old high school graduate, the time required to obtain a four-year surveying degree along with four-

years of relevant experience to become licensed as a surveyor is a long commitment. The high school graduate can be a licensed engineer in the same time, or become a teacher, nurse, military officer, accountant, forester, electrician, and plumber four years sooner or a lawyer, doctor, dentist, pharmacists, minister, veterinarian, occupational therapist, and architect in one year less. Must the surveying profession erect barriers upon roads that few choose to travel anyway?

Having given my opinion, I now offer advice by suggesting the NCEES model law be changed to allow licensing with a four-year degree and state legislatures adopt this option. At the very least, states should allow graduates to take both their fundamentals of surveying and professional surveying exams near graduation allowing licensing as soon as experience has been achieved. Some licensing boards have already adopted this option. I will speak more on this latter option in a subsequent article.

† Other books and articles by Knud can be found at <https://umaine.edu/svt/faculty/hermansen-articles/>

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