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January, 2025



# LINES & POINTS

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On The Cover

VACATION FIND  
PHOTO BY  
Cody Schatz, PELS

## CONTENTS

- Page 3 ● PRESIDENT'S MESSAGE
- Page 5 ● ANNOUNCEMENTS
- Page 10 ● THOUGHTS ON PROFESSIONAL PRACTICE AND EDUCATION  
ARTICLE 8: STATE SPECIFIC EXAMS  
by: Knud E. Hermansen, P.L.S., P.E., Ph.D., Esq.
- Page 11 ● A FINAL POINT REMEMBRANCE OF Bruce Hughes, PLS  
by: Thomas A. Johnson, P.L.S., CFedS
- Page 13 ● LINES OF SIGHT- SCULPTING THE ANTIQUE TRANSIT  
Reprint from the Wyoming Board of PE and PLS Bulletin with credit to: Carol Ryczek, Laramie Boomerang
- Page 15 ● OBITUARY: JOHN BEREMAN, PELS

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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

Hello members of PLSW,

Thank you for electing me your 45th President of the Profession Land Surveyors of Wyoming. Can you believe that PLSW has been around since 1980? What a great forethought our past (and some still with us today) surveyors had to create this organization to help better our profession and help the general public understand the work that we do.

Well, summer has come and gone already. We had a true fall in most parts of Wyoming this year. I know we worked outside until December (and some cold days in December). But fall has come and gone also. Hopefully, as you read this, you have slowed down to a reasonable pace and have had a chance to spend some quality time with family and friends over the holidays. As I write this, Fall Tech is in the rearview mirror. We had over 130 folks attend this year's event. Thank you, Tony Nettleman, for your teaching on Boundary Retracement Evidence and Limiting the Liability of Your Survey Business. We learn a lot about different types of ways to handle survey evidence, but most surveyors don't get to see the business side of running the company unless they own the company. It is a great reminder to always get a signed contract before you start work. Thank you, Karyl Tully with the Wyoming State Engineer's Office, for her discussion about Wyoming Water Rights. Water is so important in Wyoming. Like the old saying, whiskey is for drinking, and water is for fighting. I have experienced both of them this year! I am excited to see the new and improved SEO website to help us with water right documents when it gets rolled out this year.



Speaking about Fall Tech, thank you to all the donors and to all who bought scholarship items and raffle tickets. We brought in over \$4000 for the scholarship fund. That was great news since we currently had 12 different students request scholarships this past year. I can remember sitting in PLSW meetings and not having any requests. Great job to all of you for getting new surveyors into this program. Looking at the licensed Professional Surveyors in Wyoming, we need all the new surveyors we can get. A quick look at the last newsletter from The Wyoming Professional Engineers and Land Surveyors shows that Wyoming has only 116 resident Land Surveyors



(LS) and 35 resident Professional Engineers and Land Surveyors (PELS). That is compared to 1111 resident Professional Engineers (PE). We need to continue to keep getting new surveyors into our profession and work on keeping them in our state.

I am excited to see what our PLSW group is doing, and I plan to reach out to each chapter to see how we can continue to move forward. Thank you to Jack Studley for serving as our secretary/treasurer for the last 5 years. I am excited to be working with Brad Neumiller as our current secretary/treasurer. We have some new and improved thoughts to help with our website coming up.

In closing, I leave you with an interesting corner that I have found. I don't think I am the only one who when we as surveyors are "out and about" we look for corners (even on vacation). This is sometimes a deterrent to my wife; in that we just need to get over that hill to the next corner or a simple hike of 18 miles (you should ask her about it, she loved that one). I found this corner on a family vacation to Niagara Falls last year, just walking down the street to see the falls.



Hope to see most of you at our upcoming 105th WESS convention in Cheyenne on February 5-7.

Cody A. Schatz, PE&LS

President,  
Professional Land Surveyors of Wyoming.

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# ANNOUNCEMENTS

## HERBERT W STOUGHTON, PEPLS, HONORED BY THE NEW YORK STATE BOARD



Photograph of Herbert Stoughton and his wife meeting with the New York State Board for Professional Engineers, Professional Land Surveyors, Architects, and Geologists. The occasion was to celebrate his 50th anniversary of the appointment to that Board by the state of New York Regents on 13 December 1974!

At the time of his appointment, the terms were for five years. Near the end of that first term, the Board Secretary casually asked him if he was interested in a second term. Herb indicated that he was interested, and the appointment was 'automatic' in that he did not have to file any forms.

### CUMULATIVE INDEX FOR LINES AND POINTS

The Cumulative index has been prepared by Herbert W. Stoughton, PEPLS for Lines and Points and is complete as an index of all the Lines and Points issues and very professional. However, the actual assembly of all the available Lines and Points issues is incomplete and is planned to be available by the end of the coming summer to be included in the PLSW Website under the Lines and Points heading.

### "Journeys: One Individual's Excursions into the Surveying and Mapping Professions: Volume I"

by Herbert W. Stoughton  
Price: \$30.00 (includes S&H)  
Proceeds from the sale will be invested in  
the PLSW Scholarship fund.

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2821 Carey Avenue, Cheyenne, WY 82001

### LINES AND POINTS ARTICLE ROTATION SUBMISSION SCHEDULE BY CHAPTER

Responsible Chapter	First Call Date	Last Call Date	Publication Date
Central Chapter	THANK YOU! (SEE "A FINAL POINT REMEMBRANCE" IN THIS ISSUE)		
South Central Chapter	March 1	March 15	April 1, 2025
Southeast Chapter	June 1	June 15	July 1, 2025
Southwest Chapter	September 1	September 15	October 1, 2025
Northeast Chapter	December 1	December 15, 2025	January 1, 2026
Northwest Chapter	March 1	March 15	April 1, 2026
West Chapter	June 1	June 15	July 1, 2026

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.





**Join the Wyoming Department of Transportation (WYDOT) as a Professional Land Surveyor!**

Are you ready to take the lead in shaping Wyoming’s infrastructure? WYDOT is seeking a skilled and dedicated **Professional Land Surveyor for Right of Way** to join our team in **Cheyenne, Wyoming**. This pivotal role offers the opportunity to be the **lead surveyor** overseeing **contract administration** for exciting and impactful highway projects across the state.

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Cheyenne is a steadily growing community along the Front Range but still true to the history of the Old West. The city offers nearby mountain biking, skiing, hiking, fishing, hunting, and other outdoor activities. Wyoming is one of only nine states with no state income tax.

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(Reference: LRSU10 Professional Land Surveyor 2024-03106)

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**Release Date:** October 10<sup>th</sup>, 2024

## PLSS Foundation Unveils New Website, PDH Courses

*Further Mission of Educating the Land Surveying Profession*

**Frederick, Maryland – October 10<sup>th</sup>, 2024** — On the eve of the release of the 2009 Manual of Surveying Instruction for the Survey of the Public Lands of the United States, the Public Land Survey System Foundation (PLSSF) was created through a partnership between the Bureau of Land Management (BLM) and the National Society of Professional Surveyors (NSPS). Then and now, the foundation's guiding purpose was to support the education of the survey profession in the proper legal procedures associated with retracing PLSS surveys and other Federal boundaries.

Additional goals include:

- \*The creation of a single point of contact for surveyors in the United States for knowledge and information about the PLSS;*
- \*To fund educational opportunities, scholarships, and other training for the improvement of the survey profession as it relates to PLSS issues;*
- \*To fund projects for research or special efforts related to PLSS issues; and*
- \*To publish additional BLM materials which are of interest to the private and public sector surveying community but for which BLM has no budget to produce.*

Via <https://plssfoundation.org>, the foundation has made available (for a fee) three initial professional development courses, including *Accretions, Avulsions and Relictions in the Public Land Survey System*. The courses, previously available only to Certified Federal Surveyors (CFedS), are now available to anyone that wishes to further their understanding of water boundaries within the PLSS.

Glen Thurow, Certified Federal Surveyor (CFedS) program liaison, remarked: *"It is my belief that professional land surveyors nationwide will find this material interesting. After all, it is an excellent example of the kind of training CFedS receive and enjoy on an ongoing basis"*.

### About the PLSS Foundation Panel

Made up of nine volunteer surveyors, the PLSSF panel is committed to preserving the United States' unique cadastral infrastructure through the support and study of the PLSS. To contact the panel or suggest an idea, please visit <https://plssfoundation.org/contact/>

Please help us showcase <https://plssfoundation.org> by sharing this message with your organization.




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# WES - Fall 2024

The 105th Annual Wyoming Engineering and Surveying Society  
Convention - February 5-7, 2025, in Cheyenne, WY



We'd like to encourage you to block out February 5-7, 2025, on your calendar as we prepare to gather in Cheyenne for the annual convention and social event of the year. The convention will be held at the Little America Hotel and Resort. The Board, convention committee, standing committees, and executive director are working hard to make this year's convention an exciting and successful event.

A block of rooms has been reserved at Little America at \$119-\$139 per night. Please make your arrangements now by calling Little America directly at 1-800-235-6396 and letting them know you are with the Wyoming Engineering & Surveying Society or use the following link to book online: <https://reservations.travelclick.com/4651?groupID=4371965>

#### Tentative list of presentation topics include:

- Lead Service Line Inventory
  - Alternative PM and Economy of Scale
  - QGIS for Land Records Management
  - Sage-Grouse Reclamation & Restoration
  - Cybersecurity and Infrastructure
  - Internships and UW Students
  - Hard Hats to Safety Helmets
  - How to be an Expert Witness
  - Harney Street Corridor Study
  - Coal-Derived Construction Materials
  - Federal Funding for Rural Communities
  - The Cost of Bad Surveys & Mapping
  - On-Site Sodium Hypochlorite Generation
  - Smart Tanks in Distribution Water Quality
  - Expanding Structural Polyurethanes
  - Defining Capacity Development
  - Engineers Week 2025
  - **Keynote** - Wyoming Corner-Crossing Case
- Field Trip is planned at the Laramie County Community College to tour the facilities and learn about the current state of community colleges and some lessons learned on recent construction projects.

*Please join us with appreciation to recognize Chris Lovas of Lovas Engineering (Cheyenne) for recently volunteering to serve as the Convention Chair for the 105th Convention!*

As always, we need volunteers to keep the WES Committees and Conventions viable for years to come! We encourage YOU to get involved. We need help for the registration table and room moderators. As we continue to move forward with providing a live session and recording presentations for viewing at a later date, we need volunteers to help with setting up the virtual component of each presentation. Please reach out to any WES Board member or by using the contact form on the website.

As has been done during past events, we will include:

ASCE engineering professional development classes on Friday February 7<sup>th</sup>, and

A Scholarship and Awards Ceremony Luncheon to celebrate and recognize the achievements of the students that WES scholarships help to support, WES Outstanding Student Engineer of the Year awards, WES Presidential Project of the Year, WES Honorary Members, Outstanding Engineer of the Year and ASCE Life Members.

The WES Board and Project of the Year Committee have started discussions on how we can improve the Project of the Year program. The goal is to increase the number of submittals by streamlining the application process and leveling the playing field for the various projects we execute across the state. Initial concepts include simplifying the application (i.e., less time and effort), creating multiple award categories, and aligning the process to allow seamless submittals for national recognition. If you have any input or ideas to improve this program, please reach out to any Board member or our committee chair, Keith Fulton.

**Respectfully submitted by:**

**Bryce Dorr —WES President**





## 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 Michael A Flaim (1212 Southwest Drive; Cheyenne 82007). It is further recommended a third copy be sent to Dr. Herbert W. Stoughton (2829 Carey Avenue: Cheyenne 2001. Dr. Stoughton has spent over two decades as a technical review editor of two national surveying journals, and will provide editorial/redactory review for grammatical presentation and punctuation format. The criteria for acceptable conformity to grammatical usage and punctuation shall be governed by the U.S. Government Printing Office Style Manual (any edition is acceptable).

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.



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# Thoughts on Professional Practice and Education

## Article 8: State Specific Exams

by: Knud E. Hermansen, P.L.S., P.E., Ph.D., Esq. <sup>†</sup>

This is the eighth article I have prepared in the series offering thoughts on professional practice and education. In this article, I wish to discuss state specific exams.

Most states require the applicant for licensure in the state pass an exam on surveying topics the state board of licensure believes is important for surveying practice in the state. Even surveyors applying by reciprocity or comity that have already passed NCEES exams must take and pass the state specific exam to be licensed.

I have had or hold surveying licenses in six different states. In all but one state, I had to take a state specific exam. I have also aided in the preparation and grading of state specific exams. Based on my experiences, I have opinions on state specific exams that I will share with the reader. Without question, I am going to stir up some controversy. Take heart for those that disagree with me. I have absolutely no influence other than these words to change any policies. Furthermore, to date, my words have had no influence in modifying a licensing board's policy. I will also add that I have never shown a proficiency to predict the future. If a reader does not agree with me, fear not. My arguments will likely not persuade members of licensing boards. Go to bed believing you will prevail, despite my arguments, and sleep in peace.

We will start with the premise that I believe to be true, that there is law in one state affecting surveyors or surveying practice that is unique to that state. It follows that a surveyor should know that law before practicing or offering services in that state. The relevant question I ask is whether a state specific exam is the method to assure the surveyor knows state specific law.

There are seven deficiencies I have observed with state specific exams.

First, contents of some state specific exams are not state specific. Some licensing boards test knowledge that is common to all or many states. In one state specific exam, I was tasked with

calculating coordinates and calculating the area of a parcel. Testing for this knowledge is done on the national exams.

Second, many exams ask questions that are state specific but are not required for competent practice within the state. For example, one state specific exam question I had to answer asked for the penalties imposed for certain infractions by a surveyor. I would suggest that a surveyor could perform services required in the state competently for their entire professional career in that state without knowing what the penalties are for certain infractions in surveying practice. Such knowledge, when necessary, can be addressed and found if and when the surveyor faces discipline. This is akin to asking drivers on their driving exam what the dollar fine is for speeding.

Third, it is not reasonable to test on topics that ordinarily require the surveyor investigate the law as a matter of course during practice. For an example of this deficiency, I saw a question requiring a surveyor to know, on a state specific test, what are the number of hours of continuing education allowed for writing an article. The surveyor can find this information when and if they decide to write an article. What is appropriate is to ensure the surveyor knows continuing education is required for renewing a license.

Fourth, testing should only focus on common and widespread knowledge to practice in that state. A state should not test on knowledge that most competent surveyors in the state do not know or need to know. I have seen a state specific exam composed of questions that the vast majority of competent surveyors currently practicing in the state would not be able to answer. If the knowledge is not necessary for current surveyors to competently practice, why is the knowledge necessary for new surveyors? These are 'gotcha' questions that have no place on a state specific exam. I would go so far as to claim the exam would not survive legal scrutiny if challenged by a test taker.

(Continued on Page 17)



## A FINAL POINT REMEMBRANCE

by, Thomas A. Johnson, PLS, CFedS

During the many years that I knew and worked with Bruce Hughes it was apparent that he thought about land surveying nearly 24 hours a day. It was not just his profession, it was his passion. In his free time he often studied everything from the public land survey system to spiral curves. He always had some tidbit of surveying history to share. He made it clear years ago that his license number, 557, was to be put on his headstone.

I would state that the NSPS "Final Point" program was created with surveyors like Bruce in mind.

I got word from my sister Karla early one May morning that Bruce had passed away the night before. The reason I was one of the first of his fellow surveyors to know, is that Bruce was also my brother-in-law. He and my (somewhat older) sister married when I was not quite 2 years old. This was sad news, and family and friends gathered, as one might expect, for the funeral.

It was at the funeral that I was approached by Jim Gores. Jim is a long tenured engineer in Riverton and a dear old friend of Bruce. Jim was just off the pulpit after delivering kind words of remembrance, and he had something important to visit with me about. Jim Gores pulled me aside and stressed that we must do a "Final Point" for Bruce. While one might have thought that I, being the only surviving land surveyor in the family, would have been the first to think of this, I was not. In fact, he had been approached by another deceased land surveyor's widow, who was also friends with Karla, to organize an effort to get this done. Jim provided me with some base information and I promised to look into it asap.

That base information was a printout of a concise article from a January 2015 issue of xyHt magazine (<https://www.xyht.com/professional-surveyor-archives/fieldnotes-the-final-point/>). The author of that piece found himself in a similar situation, wherein he had a colleague who he wished to honor. The Final Point process is to determine a geodetic position and go through NSPS to order



a monument which will be produced by Berntsen and delivered pre-stamped with the surveyor's name, license number(s) and the latitude and longitude presumably of the point measured, and where the brass disk will be installed.

The NSPS final point program is described on their website: <https://nsps.us.com/page/FinalPoint>. They provide a form to fill out to order the monument, specs on the monument, and other information about the scholarship fund this program is to support. The stem marker is \$135 with a portion of that cost going to the scholarship fund.

I did a little recon at the cemetery shortly after speaking with Jim to find the grave of Dick Shelton, who reportedly had a final point at his headstone.





I contacted the cemetery sexton to make sure there was no problem with my doing this. I then visited Bruce's grave and picked and marked a spot on what I believed to be concrete base under the stone. After one aborted attempt to occupy the point, due to sprinklers being run during my chosen time frame, I picked an afternoon after I finished an earlier field project and set a Leica GS16 base over my mark. This is where I would later drill into the base to set the marker.

I am not under any delusion that this would be a control monument of common use. Who is going to do that in the middle of a cemetery? Therefore, I determined that for the purposes of a decent position, but one that would not qualify for OPUS Share, I would occupy the mark for 2 hours. I left the receiver and tended to some other work at the office. I returned to the cemetery and spent a bit of time taking sideshots on the headstones of a few other deceased surveyors I know of in our local cemetery. These included my own father Karl Johnson (LS 303), I. D. Woodard (LS 174), Brad Shaw (LS 5301), Bill Heatley (LS 3510), Dick Shelton (LS 3121) and Dick Inberg (LS 488). Was I going to do anything with this data? Well no, but it did serve as a few moments of reflection.

I tore down my base and brought my data to the office. It was uploaded to OPUS for processing and (as is usually the case) momentarily I had the position. With this data I filled out the form and sent it with payment to NSPS. Though Bruce was licensed in numerous western states and was a Wyoming U.S. Mineral surveyor, he would only want his Wyoming number on the monument. So that is what I submitted. I believe I waited about two weeks for the monument to arrive. One sunny afternoon, joined only by my youngest daughter (a Wyoming PE), and when the cemetery was not sprinkling on Bruce, I gathered up a hammerdrill, generator to run it, some Rock Tite and went to my "Job Site". I now believe that the base was likely marble or a like stone to the headstone. The drill went through it quite well and soon I had a clean hole to mount the monument. I mixed up some Rock Tite to anchor the brass monument in place. The next day I revisited and wire brushed a little around the cap and felt pleased with the results. I have included pictures of the finished installation.

Now, a few months later, I have been approached by Bill Heatley's son Rob to aid him in doing a final point for his father. It will be my privilege to do so.





## LINES OF SIGHT- *Sculpting the Antique Transit*

Reprint with credit to: Carol Ryczek, Laramie Boomerang

A new sculpture in front of the Engineering Education and Research Building on the University of Wyoming campus has a big story to tell.

The sculpture "Lines of Sight" is a 14-foot, 6<sup>1/4</sup>-inch representation of an antique transit, a device used to measure horizontal and vertical angles to help surveyors record geographic details.

The artists who designed, produced and placed the sculpture talked about its meaning and construction Wednesday evening at a reception honoring them and the installation.

Laramie residents Ashley Hope Carlisle, a UW professor of sculpture and David Jones, an art instructional technician with the university's Department of Visual Arts described how their sculpture brought art and engineering together.

The \$90,000 installation is a project of The Wyoming Arts Council's Art in Public Buildings program.

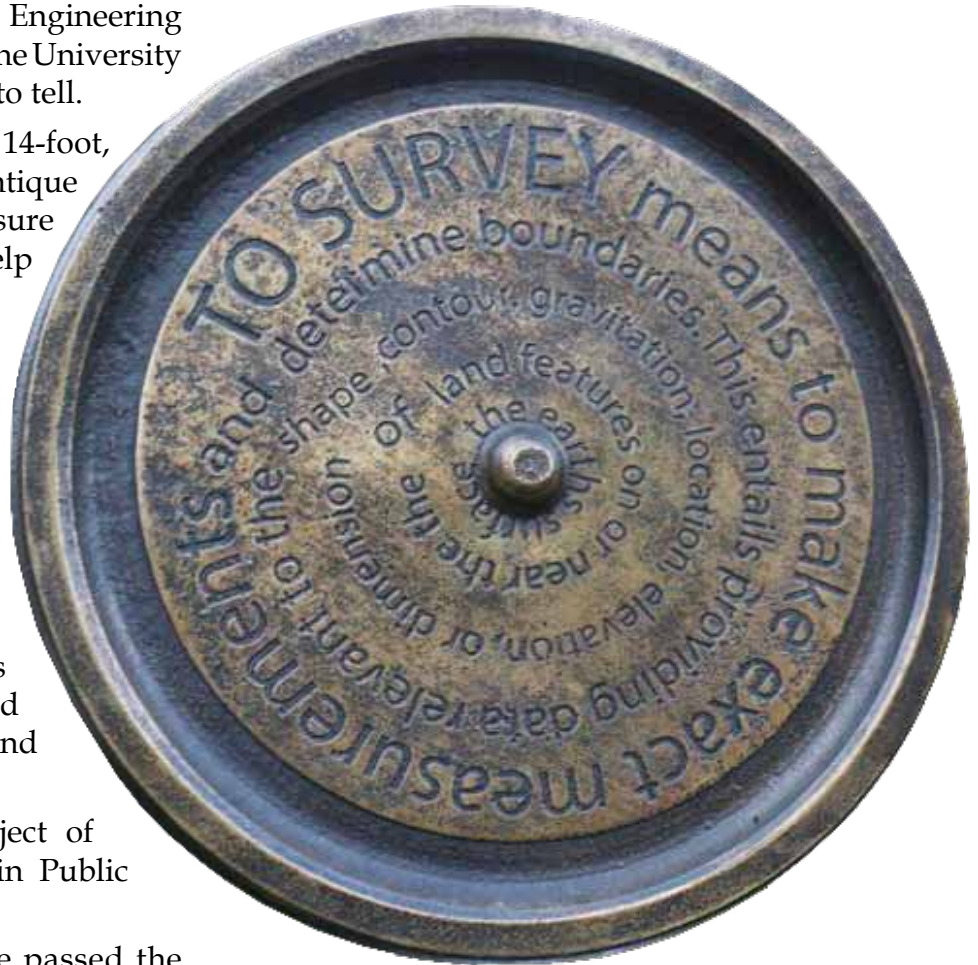
In 1991, the Wyoming Legislature passed the Art in Public Buildings legislation, requiring that 1% of the construction costs of new, state-owned buildings be used for placing art in the public setting.

Carlisle and Jones, who own Wind Driven Studios LLC, won a competitive bidding process to receive a grant from this program.

Carlisle acknowledged that engineering and art are not always imagined together.

"Engineering brings science and math together to find solutions to problems that need to be solved," Carlisle said. "Well-engineered objects are often beautiful objects and deserve to be admired and enjoyed. The engineering education and research building is so well-designed in every aspect of its function and aesthetics so we were really hoping to add to this artistically."

Making art, and sculpture in particular, is like writing a novel, she told the attendees in the building's atrium, "Instead of words



we use materials to tell a story, to connect to other humans."

Before they could even begin the design, Carlisle and Jones needed a story to tell. Charles Bellamy's accomplishments gave them what they needed.

A Wyoming engineer and surveyor, Bellamy received the state's, and nation's first professional engineering license on Aug. 8, 1907. Six years





later, he founded Bellamy and Sons Engineering. Bellamy also helped survey the Snowy Range for its water potential.

Before the program, Shannon Stanfill, executive director of the Wyoming Board of Professional Engineers & Land Surveyors, explained that Bellamy's work helped establish a standard for professionalism in engineering and surveying for the entire country.

### Inspiration for Lines of Sight

Before proceeding with a sculpture that would be installed in front of the Engineering Education and Research Building (EERB), artists Ashley Hope Carlisle and Dave Jones needed to create a concept. They researched many fields of engineering, but it was a fortuitous meeting with a descendant of the nation's first licensed professional engineer that led to the moment of inspiration. During a conversation between the artists and Troy Richardson, it was mentioned that Troy's family had the original mountain surveying transit used by his great-great-grandfather, Charles Bellamy who was issued PE #1 by the State of Wyoming in 1907. After viewing the well preserved transit, the artist team knew immediately that the transit would be the model for this piece.

The artists learned from Bellamy's great-great-grandson that the Bellamy family, with its five generations of engineers, had kept his transit. "Surveyors can be considered engineers of their field, examining a problem so that a solution can be provided that can possibly change the world around us," Carlisle said. "A beautiful instrument. That's the sculpture. We just knew it was a winner of an idea."

Carlisle and Jones see themselves as engineers as well as sculptors, making this project a "no-brainer for us."

The new sculpture matches Bellamy's surveyor's transit, at least as much as can be included in a 14-foot representation. The Aug. 8, 1907, date is forged into one of the pieces on the compass. The sculpture is made of steel, bronze and cast iron. The mirror at the bottom and the lens of the scope are stainless steel, polished to the point where one audience member said he still has trouble believing that no glass was used in the sculpture. The compass at the bottom points

to magnetic north and reflects the sky. The scope points toward the Snowy Range and reflects the buildings and landscape.

To scale the project, Carlisle and Jones spent months with fabricators making decisions on which parts of the original transit could be incorporated. The finished sculpture has more than 200 pieces.

"Most everything we were able to get into the design, and it was important to both of us that we were able to get as close to the original as possible," Carlisle said. "This was not a time to abstract it into something else. This was a time to pay homage to that family and to that beautiful instrument."

The sculpture was placed in May of 2024.





John S. Bereman died peacefully on November 15, 2024, six weeks shy of his 99th birthday. His daughter Kara was by his side. He had been residing in Georgetown, Texas, near his daughter Kara and daughter-in-law Vic and his son Michael. Born on January 1, 1926, John was Denver's New Year Baby, as reported in the Rocky Mountain News. He was raised there and he played the bass drum in the high school band. He joined the U.S. Marine Corps in 1943 and was assigned to the officer training program. WWII ended before the training was completed, so he was honorably discharged from the service. He graduated from Colorado University in 1947 with a degree in civil engineering and was commissioned as a 2nd Lt. in the Marine Corps Reserve. He moved to Cody, Wyoming, in August 1948 to work for Howard F. Bell in the practice of civil engineering and surveying. In January 1951 he was called to active duty with the Marine Corps and was sent to Korea as an infantry platoon commander. In his travels there, he visited a reserve unit which had also been called to active duty from Cody. They were surprised and pleased to see him there.

John returned to Cody in 1952 where he established the firm now named Engineering Associates, which is still operational today in Wyoming.

John was a strong leader in the Civil Engineering community where he served the State as chairman of the Board of Examining Engineers, the Interstate Streams Engineer, the Director of the Wyoming Water Planning Program and as a professional advisor to the Wyoming Water Development Commission. He was also the Park County Surveyor and the Greybull Valley Irrigation District Supervisor of Design and

Construction for the Lower Sunshine Reservoir and the Roach Gulch Reservoir. He was active in several professional organizations, and he served as president of the Wyoming Engineering Society, founding member and president of the Professional Engineers and Surveyors of Wyoming, president of the Wyoming Chapter of the American Society of Civil Engineers, life Member of the American Society of Civil Engineers and honorary member of the Professional Land Surveyors of Wyoming. John completed his engineering career as the Tribal Engineer for the White Mountain Apache Tribe in Whiteriver, Arizona. John supported fraternal organizations as Master Mason and Life Member of Cody Lodge A.F. and A.M. Life Member of Darius Chapter No. 10 of the Grand Chapter of Royal Arch Masons of Wyoming. He was a board member of the Cody Methodist Church where he sang in the church choir. He was the Co-Cub-Scout Master with Ken Bird for the Cody Presbyterian Church, and he was a member of the Meeteetse Episcopal Church. John was a Founding Director of the 1st State Bank (which later became Key Bank), President of the Cody Lions Club; President of the Cody Ski Club, and a member of the Cody Flying Club.

More important than all the above accomplishments, John loved and helped raise six children of his own, and two stepchildren. He was a master at puns that instilled a great sense of humor in the kids. Family road trips were filled with songs like the popular song in the 1930s about the Titanic and the Baptist Sunday School song. While on a pack trip on Ptarmigan Mountain in August 1967, he was struck by lightning and gave the kids quite a scare, but miraculously survived. Unfortunately, three of his daughters, two son-in-laws, and two grandsons died before him. John felt that the hard part of getting old was the increasing amount of loss to death of family and friends. John lived in Park County for 48 years, with 36 years in Cody and 12 years in Meeteetse on Wood River. He then spent 10 years in Pinetop Arizona, 8 years in Sierra Vista, Arizona, and after that 16 years in Texas. John was a sharp card player who preferred cribbage and gin rummy. He was still winning games against his family members into his late 90's. He encouraged precise dealing due to the importance of "The Intrinsic Order of the Cards!" He was preceded in death by



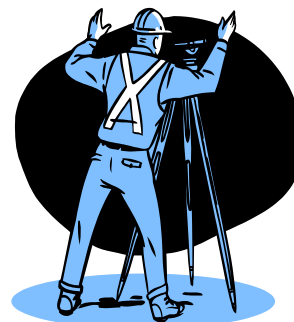
his former wives Donna Mae, Loujen and Sandra; by his daughters Becky, Bobbee and Bethany; by sons-in-law Jennings Ruffing and GL Powell; and by grandchildren Cole and Taylor Powell. He is survived by his children Hubert and Melody Bereman of Oklahoma, Michael and Fony Bereman of Texas, and Kara and Vic Bereman of Texas; stepdaughters Inge and Doug Lockwood of Colorado and Taimi Kuiva and Dave of Wyoming; sons-in-law John Hickey of Washington and Charlie Grimes of Wyoming; Granddaughter Susu and step-grandchildren-in-law Jessica, Jamie and Aliis.

Donations in honor of John S. Bereman can be made to the scholarship fund in memory of his late daughter Bethany through the Juneau Arts and Humanities Council. <https://www.juneauartsandhumanitiescouncil.org/>

Alternatively, John was an avid reader, and a donation to your local public library would be greatly appreciated.

A celebration of life will be held in Cody, Wyoming on the weekend of April 26, 2025. Details will be provided when available. Please email [tkuiva@gmail.com](mailto:tkuiva@gmail.com) to be placed on the list for further information.

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(Continued from Page 10)

Fifth, testing should only test on knowledge necessary for practice not knowledge useful for practice. Let me give an example what I mean by necessary versus useful knowledge. An example of useful knowledge would be the time period comprising the statute of limitation for the state. This is not necessary knowledge to practice surveying. The surveyor should not and cannot offer legal advice. Therefore, the surveyor cannot tell a landowner if adverse possession or prescription has occurred or not. It follows, while the surveyor may find the statute of limitations useful knowledge to know, knowing what the statute of limitation is for the state is not necessary knowledge for surveying practice.

Sixth, testing should be confined to fingertip knowledge versus lookup knowledge. Fingertip knowledge is knowledge that the surveyor must know without reminder when offering services. For example, fingertip knowledge would be the knowledge that a written contract is required for surveying services or there are mandatory standards that the surveyor must adhere to when providing typical surveying services. Lookup knowledge is what procedure is required to comply with a right of entry law. Using a non-survey related example, fingertip knowledge is the knowledge that a person must periodically renew car registration. Lookup knowledge is what procedure or paperwork is required to renew car registration.

Seventh, testing should focus on critical knowledge for common services, not unusual services that few surveyors provide. For example, if a state has survey standards for laying out solar envelopes and less than one percent of the surveyors in the state will ever attempt to lay out a solar envelope, questions on solar envelope standards are not appropriate. Knowledge of unusual services would be akin to a person seeking a driver's license in order to drive their Ford 150 pickup being asked on their driver's exam how many hours a commercial truck driver is allowed to drive before resting.

I would offer the opinion that if a licensing board eliminated from their state specific exams the deficiencies I have noted, the licensing board

would substantially reduce the contents of the exam or even eliminate the state specific exam altogether - perhaps go with an on-line study course and test.

I will focus the remainder of this article discussing the future of state specific exams by suggesting three options. One option is to eliminate state specific exams. The second option is to offer alternatives to examination. The third option is to modify the testing procedures of a state specific exam to be more flexible and in line with NCEES testing.

Eliminating a state specific exam may be appropriate where there are few topics left after filtering them as previously noted or for licensing in cases of comity. In cases of comity, if a surveyor has practiced in one state for a long period of time without fault or discipline, experience and logic suggest the surveyor will practice competently in another state when licensed.

Alternatives to testing for state specific knowledge would require surveyors watch a video explaining state specific law or be sent a fact sheet on state specific law a surveyor should be aware of. Another option is to require attendance at a seminar or viewing videos where speakers explain state specific law.

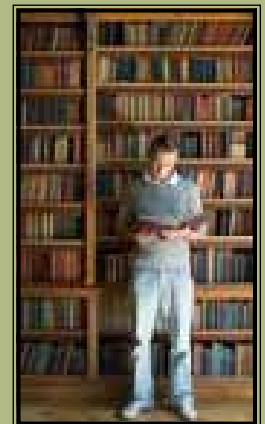
The final option is to modify the state specific testing procedure. Provide references for the test questions that an applicant can study and allow on-line testing at test centers that can be taken by applicants anywhere and during any reasonable day and time.

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

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