

Volume 35: Issue 3  
July, 2024



# LINES & POINTS

[www.plsw.org](http://www.plsw.org)



THE EQUALITY STATE SURVEYOR  
PROFESSIONAL LAND SURVEYORS OF WYOMING





# HIXON

Mfg. & Supply Co.

[www.hixonmfg.com](http://www.hixonmfg.com)

Two convenient retail locations

Surveying, Construction,  
Engineering, Drones,  
and Machine Control

Equipment and Supplies

Sales - Service - Rentals

Largest GNSS RTK Reference  
Network in Colorado & Wyoming



Leica  
**AP20  
AutoPole**

It's about  
pole position.



## **FORT COLLINS, CO**

1001 Smithfield Dr.  
Fort Collins, CO 80524  
970.482.0111

## **DENVER, CO**

7154 S Dillon Court  
Englewood, CO 80112  
303.694.0012



- President ● Doug Boyd, PLS
- President Elect ● Cody Schatz, PELS
- Secretary/Treasurer ● John "Jack" Studley, PLS



● Cotton Jones, PLS  
Area Director



● John Lee, PLS  
Wyoming Delegate

### PUBLICATIONS COMMITTEE

- Committee Chair-Chief Editor ● Steven "Dennis" Dawson, PLS  
dennieandbarb@gmail.com
- Designer ● Michael Flaim, PELS  
mike.flaim@bresnan.net
- Treasurer & Advertising ● John "Jack" Studley, PLS  
jklz0318@gmail.com
- Circulation ● Joel Ebner, PLS  
jvebner@bresnan.net
- Copy Editor ● Herbert W. Stoughton, PhD, PELS, CP  
hws.geod.egr@gmail.com
- Website ● Sonja "Suzie" Sparks, PLS  
sasparks7@gmail.com
- Emeritus Member ● Pete Hutchison, PELS  
petehpels@gmail.com



On The Cover

VIEW OF SOUTHEAST  
CORNER OF WYOMING

PHOTO BY  
Cody Schatz, P.E., P.L.S.

### CONTENTS

- Page 3 ● PRESIDENT'S MESSAGE
- Page 4 ● ANNOUNCEMENTS
- Page 5 ● SANBORN MAPS IN WYOMING  
by: R.L. "Rick" Hudson, P.L.S.
- Page 11 ● WYOMING'S FOUR CORNERS  
by: Cody Schatz P.E., P.L.S.
- Page 17 ● OBITUARIES

### 2024 PLSW SUSTAINING MEMBERS

- Jennifer Dibona - That CAD Girl
- Jason Dysthe - Frontier Precision Inc.
- John Baffert - Surv-KAP, LLC
- Kelly Goff - Underground Consulting Solutions
- Susan Hall - Trimble
- Tim Klaben - Berntsen International Inc.
- Troy Langston - Monsen Engineering

### Advertising Information

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).

Lines and Points is published by the Professional Land Surveyors of Wyoming. Lines and Points is not copyrighted and permission is hereby granted to reprint articles with appropriate credit. The Professional Land Surveyors of Wyoming assume no responsibility for statements made or opinions expressed in this publication. The articles and opinions as put forth in this journal are not necessarily those of PLSW or the Editorial staff of this journal.



# PRESIDENT'S MESSAGE



## PRESIDENT'S MESSAGE

Summer work season is here! I hope you all are enjoying a busy and interesting summer full of warm days, good weather and lost corners found! I know that the search for lost corners is my favorite task of any season, but mountain jobs in August are some of the best days we can hope for!

Summer is also the most stressful of seasons for many of us due to construction. It often falls upon the Professional Surveyor to not only support contractors, with deadlines that are beginning to creep up on them, but also to educate a new generation of technicians and equipment operators. I will be the first to cheer the accolades of machine control, however it is important that we as a profession do not forget methods and techniques that were the standard in years past.

A good example of this was a recent staking project we completed for a quarter mile of rough road. The contractor requested staking for this short section of road, less than a quarter mile. They did not have a piece of equipment for that project

with machine control. I had discussion with the contractor ( an intense gentleman of comparable age to myself) and we agreed to stake 100 foot stations for the road. Story stakes were to be set at "daylight" at the back of ditch and marked to centerline on both sides of the road. We knocked that out late in the afternoon and off we went on our merry way to other tasks, or so I thought.

A cry for help in the form of a call early in the morning from a young operator had me headed back out to the site. The young man in question was totally confused with all the "numbers and letters" on these stakes and wanted to know what he was supposed to do with them! I just had to smile. It took about half an hour with a pocket rod, hand level and a tape and the said young operator was totally amazed at what he could complete without a digital surface in his machine controller!

The technology we have available to us today enables us to complete large-scale tasks faster and more efficiently than ever before in history. The results of those historic methods are what the routines our software attempts to replicate. I encourage you all to take the time, when you have the opportunity to instruct the next generation of surveyors and operators in the methods and procedures utilized by past generations. That background knowledge can often help trouble shoot issues encountered in the field resulting in time saved and projects completed.

Best Wishes to all,  
 Doug Boyd, PLS  
 President,  
 Professional Land Surveyors of Wyoming

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

<b>Responsible Chapter</b>	<b>First Call Date</b>	<b>Last Call Date</b>	<b>Publication Date</b>
Northwest Chapter	THANK YOU! (SEE "SANBORN MAPS" & "WYO 4 CORNERS" IN THIS ISSUE)		
West Chapter	September 1	September 15	October 1, 2024
Central Chapter	December 1	December 15, 2024	January 1, 2025
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

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.

# ANNOUNCEMENTS

The following announcement: Land Surveyor GS-1373-5/7/9 FPL: 11, located in Worland, WY has been set to open on Tuesday, June 18, 2024 to Tuesday, July 9, 2024

The announcement number is WYPTHWYS-24-12444322-ERW, or you may access the job announcement through the following link:

<https://www.usajobs.gov/GetJob/ViewDetails/796180900>

This position is open to: Recent graduates, Career transition (CTAP, ICTAP, RPL)

NOTE - This announcement will be open from: Tuesday, June 18, 2024 to Tuesday, July 9, 2024\*\*\*

Incentives: The BLM may use certain incentives currently offered by the Federal Government to attract high quality applicants

Relocation expenses: Are not authorized

Here are a few reminders to pass along to any interested applicants so they don't inadvertently disqualify themselves from further consideration:

- Resumes should also include a month/year and hours per week worked, along with their relevant work experience underneath each period of employment. Their resume should contain enough details regarding their work experience for

us to determine whether they have the specialized experience or not.

- If they have current or prior federal service, they should list the grade levels. If this is left out, it won't necessarily get them rated out, but it may help them get rated in easier. Submitting copies of their SF-50's showing their current grade and series is also helpful OR if they were previously in the series, they should submit those SF-50's too.

- They MUST submit ALL required documentation prior to the announcement closing. All documents must be legible. Sometimes the documents submitted are blurry and really hard to read, or the file is corrupt, and we can't access their documents. We do NOT accept late documents.

- Please Note: The ABOVE information and much more can be found on the HELP section of the USAjobs site. It goes more into detail regarding the federal hiring process, proper resume format and covers some of what I've listed above in more detail. <https://www.usajobs.gov/Help/>

Please let me know if you have additional questions or concerns.

Thank you,  
Emanuel Williams



**Sundance**  
Unmanned Aerial Systems

UAV mapping services for oil and gas, construction planning, inspection and progress mapping

High resolution orthophotos and digital elevation maps

UAV flight and software training

 Dave Spurlock  
307-330-7777  
survey@wyoming.com



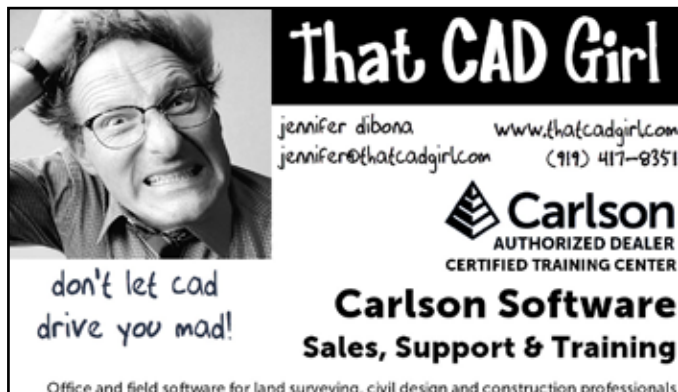
**SURVEY SUPPLY SERVICE COMPANY**

MANUFACTURER CUSTOM  
SURVEY STAKES, LATH, & BRASS CAPS  
FLAGGING - PIN FLAGS - FLUORESCENT PAINT

 **ROB SHOOK**


P.O. Box 51227  
Casper, WY 82605-1227  
307-234-9856

COMPLETE FIELD SUPPLIES SINCE 1969



**That CAD Girl**

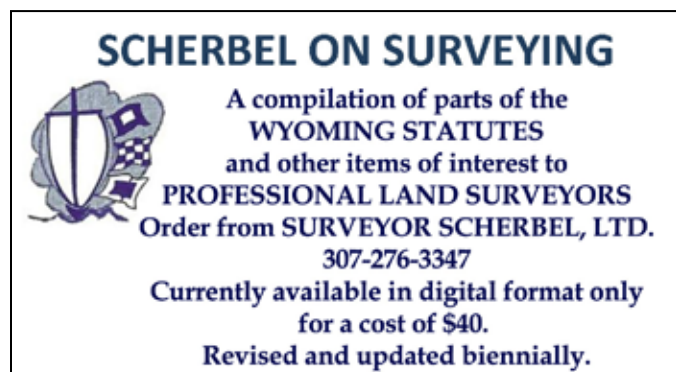
jennifer dibona www.thatcadgirl.com  
jennifer@thatcadgirl.com (919) 417-8351

 **Carlson**  
AUTHORIZED DEALER  
CERTIFIED TRAINING CENTER

**Carlson Software**  
Sales, Support & Training

don't let cad drive you mad!

Office and field software for land surveying, civil design and construction professionals



**SCHERBEL ON SURVEYING**

A compilation of parts of the WYOMING STATUTES and other items of interest to PROFESSIONAL LAND SURVEYORS

Order from SURVEYOR SCHERBEL, LTD.  
307-276-3347

Currently available in digital format only for a cost of \$40.

Revised and updated biennially.





## SANBORN MAPS IN WYOMING

By PLSW Northwest Chapter, R.L. "Rick" Hudson, L.S.

### INTRODUCTION

Our members were introduced to Sanborn maps at a chapter meeting in 2023 during which we learned of the availability of the maps for many towns and cities in Wyoming. The maps, for fire insurance purposes, were originally created by D. A. Sanborn in 1866 for Boston and published for thousands of cities and towns in North America through 1970. The peak period was in the 1930s and the firm employed more than 700 employees, including 300 surveyors in the field to make actual

measurements of buildings, including locations of water mains and hydrants. Building details are represented by a consistent legend, using color and text, throughout the numerous bound and loose-leaf volumes.

Most of the volumes were purchased by the U.S. Census Bureau in the 1940s and, in 1967, were transferred to the Library of Congress where they are maintained by the Geography and Map Division.

## AVAILABILITY

Copies of the available maps, indexed by location and date, can be downloaded from the Library of Congress website ([loc.gov/geomap/Sanborn](http://loc.gov/geomap/Sanborn)). Maps are available through this source for forty towns and cities within Wyoming, including some of the former (Carbon) and smaller (Manville), as well as larger (Cheyenne and Casper) with publication dates ranging from 1883 through 1939. A list of the available maps is appended to this text. Mapping for all larger cities is contained within multiple volumes and nearly all mapping contains what is described as “correction slips” applied to the original, large format, maps by “pasters” employed by the Sanborn Map Company. The downloaded versions are legible and maintain the original colors and annotations. Graphics attest to the cartographic style utilized by drafters of the bygone era.

The Library of Congress “Sanborn Maps Collection” provides detailed information explaining the colors and keys used for building materials, sizes and uses; special hazards for fire by specific uses; and notes and reports addressing fire protection, services and infrastructure. Most maps contain an index to streets, and some contain a special index listing building occupants. A Virtual Orientation ([loc.gov/item/webcast.1047/#7](http://loc.gov/item/webcast.1047/#7)) provides an excellent overview of the entire subject.

## HISTORIC AND DOCUMENTARY IMPORTANCE

Land surveyors, professional engineers, cartographers, architects, historians and writers can rely upon Sanborn Maps as an accurate source of documentation for a multitude of purposes in our modern world. They appear to be an early

### SANBORN MAPS LIST

Library of Congress ([loc.gov/geomap/Sanborn](http://loc.gov/geomap/Sanborn))

Location	Publication Dates	Location	Publication Dates
Basin	Aug. 1914	Lovell	May 1918
Buffalo	Oct. 1896/Aug. 1920	Lusk	Nov. 1919
Carbon	Jun. 1894	Manville	Dec. 1919
Casper	May 1894/Nov. 1921	Meeteetse	Aug. 1907/Oct. 1912
Cheyenne	Nov. 1883/Sep. 1923	Moorcroft	Oct. 1927
Cody	Sep. 1907/Oct. 1912	Newcastle	Aug. 1891/Jun. 1920
Cowley	Jun. 1918	Pine Bluffs	Aug. 1914
Diamondville	May 1907/Oct. 1920	Powell	Aug. 1914
Douglas	Jun. 1894/Aug. 1920	Rawlins	Nov. 1883/Jan. 1931
Evanston	Jan. 1887/Oct. 1920	Riverton	Jan. 1918
Frontier	May 1907	Rock Springs	Sep. 1890/Jan. 1931
Gillette	Oct. 1918	Saratoga	Jul. 1907/Jun. 1912
Glenrock	Sep. 1918/Aug. 1941	Sheridan	Oct. 1896/Aug. 1920
Grand Encampment	Mar. 1903/Jun. 1912	Shoshoni	Jun. 1918
Green River	Apr. 1894/Oct. 1920	South Superior	Sep. 1920
Greybull	May. 1918/July 1939	Sundance	Oct. 1885/Nov. 1912
Guernsey	May. 1903/Aug. 1912	Thermopolis	Aug. 1907/Jun. 1918
Kemmerer	May. 1907/Oct. 1920	Torrington	Aug. 1918
Lander	Aug. 1907/Oct. 1918	Wheatland	May 1903/Sep. 1918
Laramie	Nov. 1883/Sep. 1924	Worland	Oct. 1912/May 1918



# SURV-KAP®

THE LANDMARK NAME IN SURVEY PRODUCTS  
Exceptional Customer Service

- REBAR & PIPE CAPS
- CONCRETE MARKERS
- SURVEY MONUMENTS
- SECTIONAL ROD MONUMENTS
- ACCESS COVERS
- WASHERS & NAILS
- SUBSURFACE MAGNETICS
- STAMPING TOOLS
- SURVEY TOOLS & ACCESSORIES



CALL OR ORDER ONLINE!

520-622-6011 • 800-445-5320 • FAX 520-792-2030 • SURV-KAP.COM

Custom Survey Markers & Monuments • Signs & Witness Posts • Flagging & Targets • Nails & Washers

# SURVEY MARKING

Custom Survey Markers & Monuments • Signs & Witness Posts • Flagging & Targets • Nails & Washers

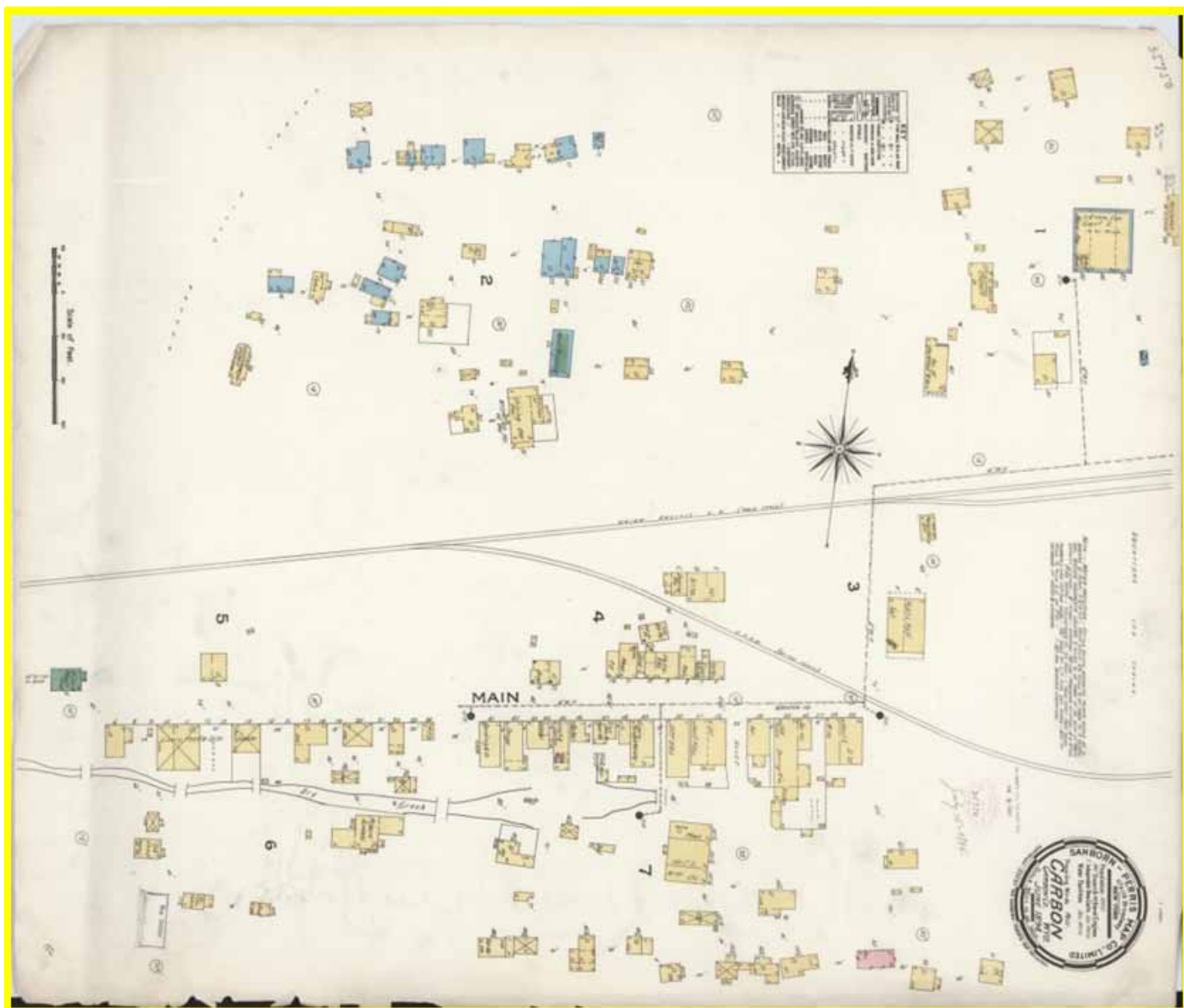


# Berntsen®

Marking the Infrastructure of the World™

877-686-8561 | www.berntsen.com





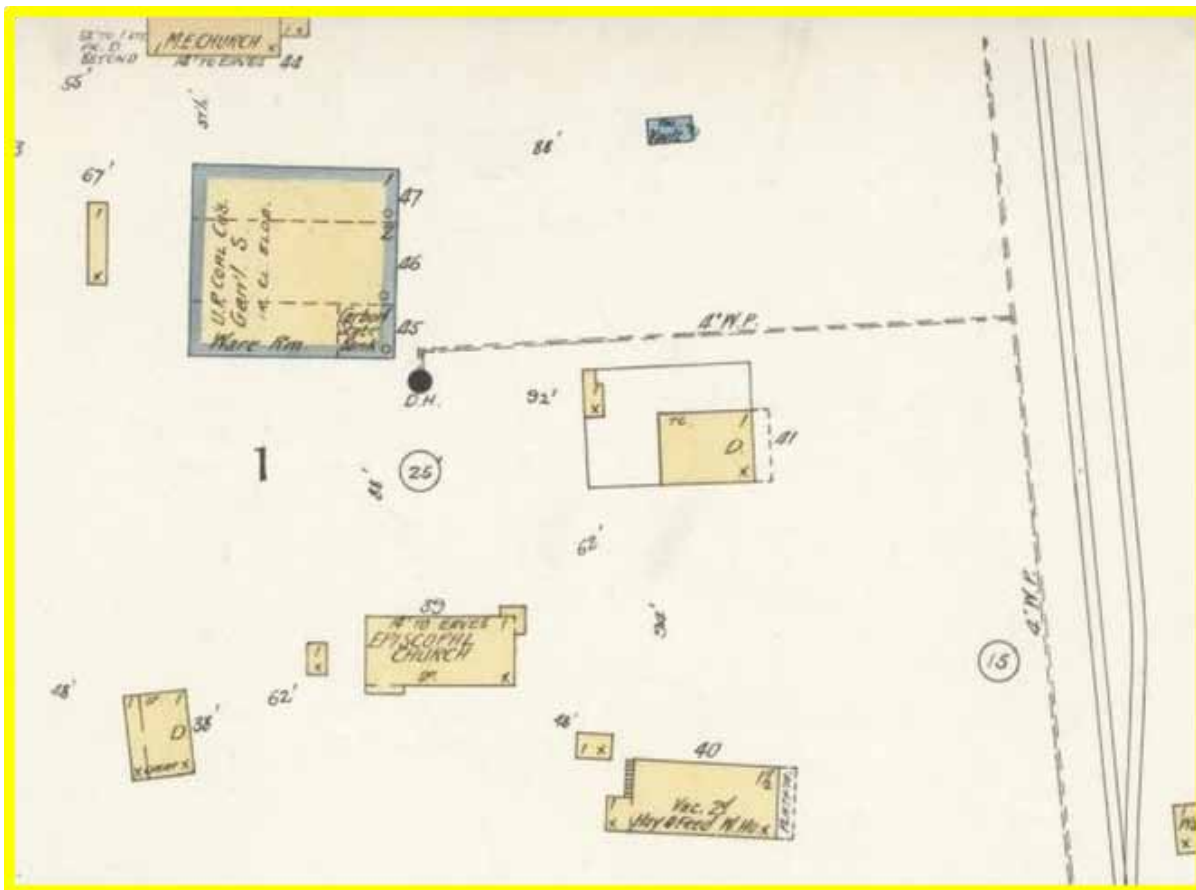
## SANBORN MAPS IN WYOMING, GRAPHICS

version of GIS mapping, with the added feature of detailed historical documentation. Using the graphics, and the written information appearing on the maps, we can obtain valuable insight into the activities and accomplishments of our predecessors. Combined with other sources of mapping information, such as land documents and satellite imagery, we can often accurately, and precisely, locate building remains long since abandoned but documented by Mr. Sanborn, his employees, and the staff of the Library of Congress.

### THE SANBORN MAP OF CARBON PUBLISHED IN JUNE, 1894

The town of Carbon was located along the original Union Pacific Railroad mainline, southwest of Medicine Bow and five miles south of Como along County Road 115, in Carbon County. Once a coal mining and water stop town, it was rebuilt after a fire and was later abandoned when the railroad was relocated in about 1899. Today most people might refer to it as a ghost town, and perhaps it does contain spirits of

former residents, but through the documentation provided by the Sanborn Map we can revisit it in 1894 when it had 1,000 residents. We see it had a railroad depot, company store, school, churches, boarding houses, restaurants, and of course, saloons; everything to make the town home to its residents. Of particular interest to we surveyors and engineers is the note titled "Water Facilities" giving a very detailed description of the "Rattle Snake Water Co." pump, wells and "25,000 gal. wooden reservoir located 2 miles n. of town. . ." and 25-man volunteer fire company.



### ADDITIONAL SOURCES OF DOCUMENTATION

By using Google Earth® satellite imagery dated 10/23/2023 we see the remains of several building foundations in the northeast part of town and can identify the largest of them as the U. P. Company Store, a frame building with stone foundation with the Carbon Bank in the southwest corner thereof. Other nearby foundations appear to be those of the Episcopal Church and the hay and feed warehouse. Following County Road 115 southwesterly on the imagery brings us to the

remains of Main Street, now just an overgrown two-track, north of Carbon Creek which is labeled as Dry Creek on our Sanborn map.

From BLM records we find the town was in Section 26 as shown on the GLO plat of the original survey of Township 22 North, Range 80 West, approved December 27, 1871.

From another source (wyohistory.org) we learn the town was founded in 1868, photographed in 1875, and partially destroyed by fire in 1890.



# ATTENTION!

## SAFETY MANUAL FOR SURVEYORS



NOW AVAILABLE FROM THE SW CHAPTER OF PROFESSIONAL LAND SURVEYORS OF WYOMING

**COMPREHENSIVE, AFFORDABLE, ADAPTABLE!**  
*Special Offer - Only \$50 + \$2 SHIPPING!*

CD CONTAINS ENTIRE 206 PAGE MANUAL IN BOTH "WORD" AND ADOBE ".pdf" FORMATS THAT CAN BE EDITED AND ADAPTED FOR YOUR PARTICULAR USE

Contact Secretary/Treasurer: Olian T. Shockley  
 Olian\_Shockley@msn.com or phone 307-875-0146

### From Wyoming's own W. A. Richards

★★★★★ "must-read"—Goodreads & Amazon

Join our future governor as he surveys for settlement of the West. Writing in camp, he vividly and often humorously records his hardships and challenges—

- As a fledgling surveyor laying out townships west of Omaha, 1869
- Surveying the rugged southern and western boundaries of Wyoming Territory, 1873 and 1874
- Exploring and homesteading in the Bighorn Basin, 1884 and 1885

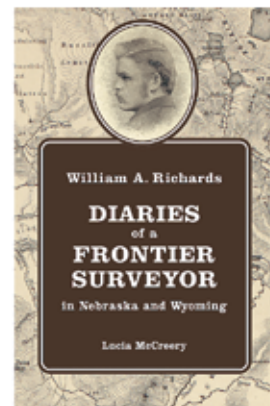
Plus technical explanations and essays by Dr. Herbert W. Stoughton and others

- An essay with maps of Richards's Nebraska surveys by Gene A. Thomsen, a Nebraska deputy state surveyor and historian
- Paul Scherbel's boundary corner remonumentation campaign
- Biographical articles including Dennis Bland's "W. A. Richards: Surveyor to Statesman"
- Richards's dramatic published hunting stories and his revealing letters

By Lucia McCreery **HB Red Bank Press®**

Paperback 6" x 9" 296 pages 55 illustrations and photos, 22 in full color  
 30 maps and diagrams Available at bookstores, libraries, and at a discount on WilliamARichards.com

Reviewed in the October 2023 issue of *Lines & Points*



- Digital Aerial Photography
- LIDAR
- Mobile Mapping
- Topographic Mapping
- Orthorectified Imagery



40 West Oakland Avenue, Salt Lake City, UT 84115 · PHONE: 801-487-3273 · FAX: 801-487-3313





NW Corner Remonumentation as we found it.

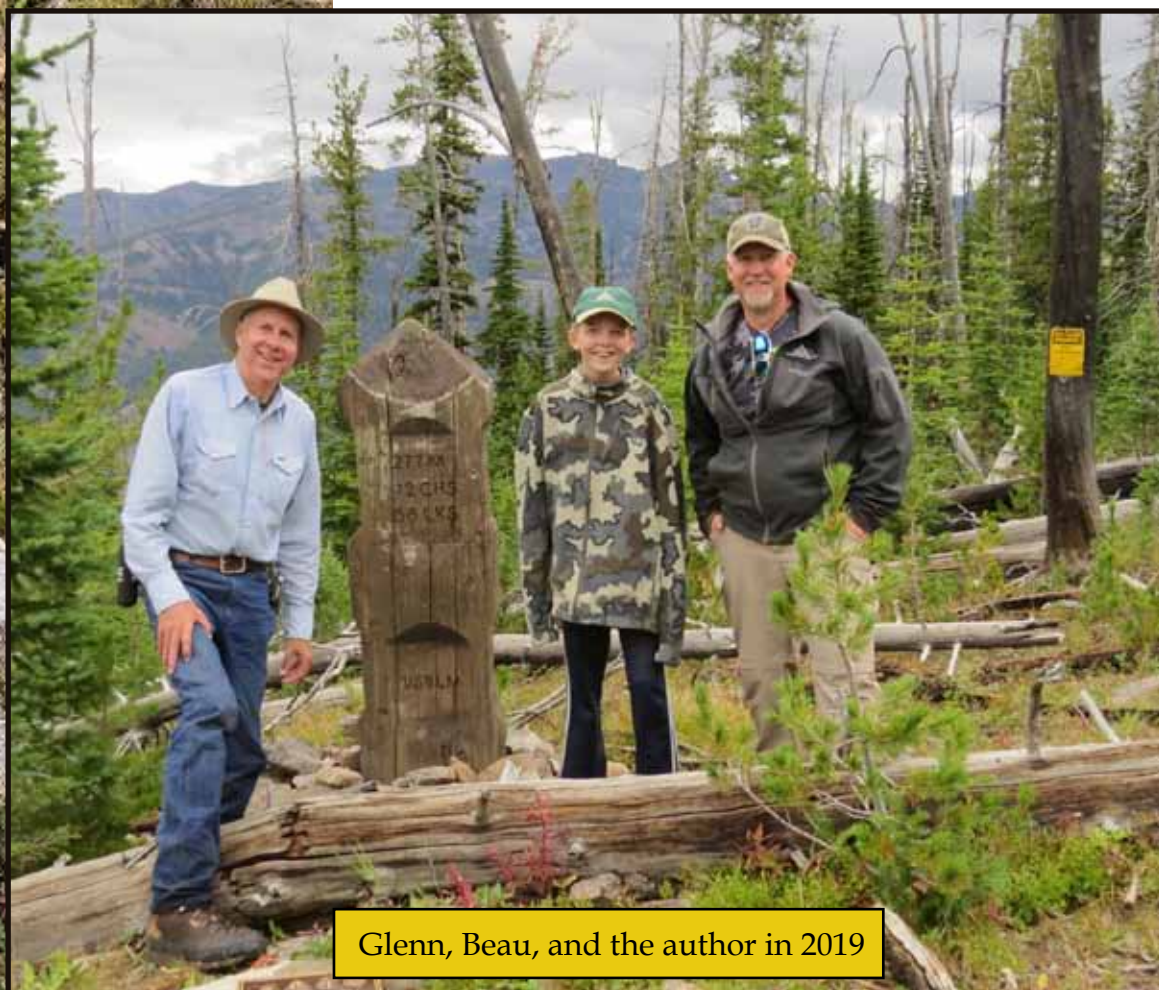


## WYOMING'S FOUR CORNERS

By PLSW Northwest Chapter,  
Cody Schatz, P.E.,P.L.S.

As I sit down to write this, spring in Wyoming has already sprung. We had rain, then a few days later it made it over 80 degrees, and then turned to snow. All in a period of a week. Living and surveying in Wyoming takes a special type of people. Just like the weather, we are all over the place at any given time. Sometimes we are surveying in a nice mountain area, and other days we are downtown at our local city/ town doing construction staking on a worksite crammed full of people and equipment.

Once the winter has passed (and the negative temperatures) all folks are excited to get outdoors to appreciate what Wyoming has to offer outside. We have special days like March 7th (307 Day) or special signs like "That's WY" all around our state. I have lived most of my life in Wyoming (except for a little while out of college in Colorado) and I never really understood what it meant to go and explore outside. But as most of



Glenn, Beau, and the author in 2019



us surveyors understand, we get to see land that most don't. Every time I am out camping or just exploring, my wife and kids really love it when I stop and point out some random survey corner that I found. Hopefully, some of you can relate.

In 2019, Glenn Borkenhagen invited our survey groups around the area to make the trek to visit the Northwest corner of Wyoming. This corner monument was surveyed and set by William A. Richards back in 1874. You can also find the story of W.A. Richards on how he surveyed the west line of Wyoming in Lucia McCreery's book, *William A. Richards Diaries of a Frontier Surveyor in Nebraska and Wyoming*. This book is a great read - it goes into depth about what the original surveyors had to deal with on a daily. The author, Lucia is W.A. Richards's great granddaughter. She did a great job using his diaries to paint a vivid picture of how surveying was done before the use of digital equipment.

Lines and Points also had an article on this corner in October 1994, when Glenn and a group of 35 individuals remonumented this corner, after the famous 1988 Yellowstone fires caused damage in the area of this corner. Knowing some of this information, Glenn talked my oldest son Beau, and me into going through Yellowstone, to Specimen Creek Trailhead, north of West Yellowstone along U.S. Highway 191, on September 7th, 2019. It was a little rainy, but the approximate 2-mile hike with a vertical elevation gain of approximately 1700 feet was well worth the trek.

After going to the Northwest corner, it made me want to go and see the remaining main corners of



SE Corner Remonumentation.



Wyoming. In September of 2020, my family and some cousins were camping in Glendo State Park. Since camping is sometimes slow, I researched how far it would be to get to the Southeast corner of Wyoming. It was only a 2-hour drive from where we were staying. Promising the kids that they could eat at a restaurant, and promising my wife that she could go shopping at some big stores in Scottsbluff, we made the drive down south of Pine Bluffs with the whole group. Once again it was raining, but the corner was cool to see. With having the whole family with me, the kids really liked that they could have their feet in Colorado and Nebraska, with their hands in Wyoming.

The plaque at the Southeast corner reads, "Oliver N. Chaffee, U.S. Astronomer and Surveyor, established this corner monument August 17, 1869, at the intersection of the forty-first parallel of North latitude with the twenty-seventh degree of West longitude (West of Washington D.C.), Art Henrickson and Howard Kieler rehabilitated the monument in 1981. Federal, State and Local organizations coordinated additional preservation in 1997."

Two corners down in two years. So, in 2021, I was wanting to go to another Wyoming Corner. My family went to Keyhole State Park in July of 2021, just east of Pine Haven. We went to Mount Rushmore and Devils Tower that weekend. We also did the drive north of Belle Fourche to go and see the Northeast corner of Wyoming. Once again, the kids were excited to be able to touch Montana, South Dakota, and Wyoming all at once. Attached are some pictures of that corner. At this corner monument, the plaque reads, "was established by Rollin J. Reeves, on July 31, 1877, under serious threat of Indian attack." There is also additional information on this corner that can be found in the January 2020 article in Lines and Points.



NE Corner Monument.





So, no surprise, this past September, my son Beau and I were going to a wedding in Salt Lake City, Utah. We decided to take the extra hour detour to go and check out the Southwest corner of Wyoming. This corner, like the others, takes a little planning since Wyoming doesn't have the best cell service, but we found the corner next to a county road. This corner monument was also set by W.A. Richards. The sandstone monument was carved in Wahsatch, Utah and set on November 14, 1873. More information on this corner can be found in the April 1996 issue of Lines and Points.

Both Beau and I now can say that we have been to the four corners of Wyoming. Being to all these locations gives me more respect for "following in the footsteps" of our past surveyors of this great state. In the day and age of plugging in a latitude and longitude coordinate, and also using our cell phone to help direct us, I don't think most of us understand what it took to get the original survey of Wyoming completed. They had to camp out on the plains, in the snow on the mountains, and build boats to cross rivers. They had to mostly hunt for fresh food or pack it from camps that they might only see in a month or two. They wouldn't hear from their family or loved ones for months at a time.



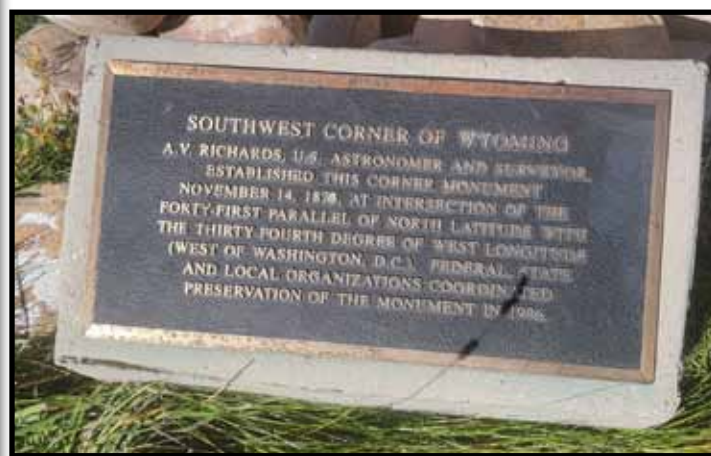




If a piece of survey equipment was broken (like sometimes happens when we survey) it could take months to get a replacement. They would have to find a telegraph, send a message, and then travel to Cheyenne or a different town months later to pick up the replacement. This helps me with thinking of my daily struggles, like when I go for a few days to survey out of town, and it snows or the weather is poor. I still know I can charge my GPS and get into my truck and complete surveys, which used to take months, in a matter of days. If something breaks, I am calling or emailing someone at Frontier Precision to get me the part

by the end of the week. (Jason – I want some free stuff for that comment.) The original surveyors didn't get paid until the plats were approved by the General Land Office. So maybe we are like the original surveyors in getting paid (some clients take a long time) but once we finally get paid, hopefully, it is more than a few dollars per mile.

I can't wait until I go and see the other corners of Wyoming: where it meets South Dakota and Nebraska, and where it meets Montana and Idaho. But it might take me a few more years. Like I stated at the beginning of this article, get out and see what Wyoming has to offer. If your family complains that they never see you, take them along. You will find some cool monuments and maybe learn some interesting things about surveying.





Bruce Hughes

Nov 13, 0194 - May 20, 2024

Bruce Hughes, 77, of Riverton, Wyoming passed away on Monday, May 20, 2024. A Vigil Service with a Rosary will be recited at 7:00 pm on, Tuesday, May 28, 2024, at Davis Funeral Home. A funeral mass will be at 10:00 am on Wednesday, May 29, 2024, at St. Margaret's Gym. Inurement will follow at Mountain View Cemetery.

Bruce Larry Hughes was born on November 13, 1946 in Greenville, South Carolina to Harry Lee and Ella Mae (Smith) Hughes. He graduated from Riverton High School with the class of 1966. He attended Central Wyoming College and ICS courses in surveying.

He was baptized into the Catholic faith and was a faithful member of St. Margaret's Catholic Church.

After graduating he married his high school sweetheart, Karla Marie Johnson, on August 27, 1966. They were married for over fifty-seven years and had two children, Leslie and Brian.

Bruce served six years in the Wyoming National Guard, attending basic training in Ft. Polk, Louisiana.

Bruce was a Registered Land Surveyor in Wyoming and several other Western states. He was appointed as a U.S. Mineral Surveyor. During his career he surveyed across the western United States working for R.D. Connell & Associates, Inberg Surveying, Company, City of Riverton, Inberg-Miller Engineers, Hughes Surveying Company, and High Plains Power, Inc. After retirement with High Plains Power, he worked part time with Apex Surveying and Engineering, Inc.

Bruce was dedicated to his family and adored his grandchildren taking them camping, fishing, and hunting. He also enjoyed learning computer programs, studying survey rules and regulations, and continuous learning.

He is survived by his wife, Karla Hughes; daughter, Leslie Bitaut and husband, Wally, of Henderson, Nevada; son, Brian Hughes and wife, Joy, of Riverton, Wyoming; grandsons, Eric Hughes and wife, Amanda, and Sean Hughes; brother, Ron Hughes of New Port News, Virginia; sister, Linda Wilson of Riverton, Wyoming; and brothers-in-law, Charlie Johnson, and Tom Johnson and wife, Kim, along with numerous nieces and nephews.

He was preceded in death by his parents, Harry and Ella Mae Hughes; sister, Brenda Hughes; parents-in law, Karl and Mary Johnson; sisters in-law, Judy Wilson and Patricia Hughes, and brothers-in law, Ray Wilson and Frank Johnson.

Bruce had a wonderful sense of humor. Memorials per Bruce "can be made for the More Fun for Bruce Foundation. He also wanted to assure everyone that Yes, Yes, there will be free food at St. Margaret's Gym for all the chow hounds."

The family has asked that memorial be made to St. Margaret's Catholic School or

Help for Health Hospice in care of Davis Funeral Home, 2203 West Main Street, Riverton, Wyoming 82501.

On-line condolences may be made at [TheDavisFuneralHome.com](http://TheDavisFuneralHome.com)

Services under the direction of Davis Funeral Home, Crematory, and Monuments.





Combining innovative technology with intuitive functionality, the Trimble® SX12 scanning total station saves time and maximizes efficiency. The SX12 collects high-quality, high-speed scan data, providing detailed site context in a seamless workflow that enables informed and faster project-based decisions.



Want more information? Contact:

**Jason Dysthe, Geospatial Sales Representative**  
jasond@frontierprecision.com  
720.214.3500 | 800.652.1522 [Toll Free]

**Frontier Precision**  
5480 West 60th Avenue, Unit A  
Arvada, CO 80003



# TRIMBLE SX12

## SCANNING TOTAL STATION

THE INDUSTRY'S MOST INNOVATIVE  
SOLUTION FOR SURVEYING, ENGINEERING,  
AND SCANNING PROFESSIONALS.

PRODUCTS | TRAINING | REPAIR  
RENTALS | TECHNICAL SERVICES

LEARN MORE [www.frontierprecision.com/product/trimble-sx12-scanning-total-station](http://www.frontierprecision.com/product/trimble-sx12-scanning-total-station)

**LINES AND POINTS**

**P.O. BOX 8**

**CHEYENNE, WY 82003**



Please Recycle

**SURVEY | ENGINEERING | PLANNING | NATURAL RESOURCE SERVICES**  
y2consultants.com 307 733 2999 offices in Jackson, Cheyenne, and Pinedale

**Y2**

**CONSULTANTS**

**LAND SURVEYING**

Boundary/Property Lines	Subdivision/Condominium Plats
Existing Conditions Surveys	Improvement Location Surveys
ALTA/NSPS Surveys	Trail, Wetland, Resource Mapping
Route Surveying	Water Rights Permitting
Topographic Mapping	Construction Staking
FEMA Elevation Certificates	Legal Descriptions
Certificates of Placement	Survey Control for Aerial Photos
As-Built Surveys/Drawings	

**GIS & MAPPING**

Web/App-based Mapping	Large-scale GeoDatabase Mgmt
Topographic Modeling	Aerial Imagery - Current/Historic
Spatial Analysis	Slope/Aspect Data Analysis

*(Y2 Consultants merged with Western Research & Development in 2020)*

**define design deliver**