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THE EQUALITY STATE SURVEYOR

LINES & POINTS

PROFESSIONAL LAND SURVEYORS OF WYOMING
AFFILIATE — AMERICAN CONGRESS ON SURVEYING AND MAPPING
MEMBER — WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

JAMES CLAFLIN, VICE-PRESIDENT | CHRIS HAMILTON, PRESIDENT | RICK HUDSON, SEC.-TREAS.

VOLUME 6, NO. 1 | APRIL 1994

CONVENTION 1994 ISSUE

APPROVED_____ REJECTED_____ DATE_____

MEMBERSHIP APPLICATION

NAME_____ WY REG. NO. _____

(Please indicate preferred mailing address) DATE_____

HOME ADDRESS: _____

STREET OR BOX _____

TOWN/CITY_____ STATE_____ ZIP _____

TELEPHONE:_____

BUSINESS ADDRESS: _____

STREET OR BOX _____

TOWN/CITY_____ STATE_____ ZIP _____

EMPLOYER_____

YOUR TITLE _____

States other than Wyoming in which you are registered: _____

Additional information or comments (optional): _____

CLASS OF MEMBERSHIP APPLIED FOR: (check one only and please submit dues with application, prorated for the remainder of the calendar year)

_____ MEMBER, ANNUAL DUES $75 (Persons duly registered, PLS or PE&LS, in Wyoming.)

AFFILIATE MEMBER

_____ Associate Member, annual dues $50. (Persons employed under the direction of a PLS and working toward PLS registration in Wyoming.)

_____ Special Member, annual dues $50. (Not meeting above qualifications but with a particular interest in, or association with, the profession of land surveying.)

_____ Special Member, student, annual dues $15. (Pursuing a post secondary academic course of study, and currently enrolled.)

_____ Sustaining Member, annual dues $100. (Persons, institutions or corporations desiring to assist PLSW financially.

I AGREE TO OBSERVE THE CONSTITUTION AND BY-LAWS OF THE PROFESSIONAL LAND SURVEYORS OF WYOMING AND THE CHAPTER TO WHICH I WILL BELONG AND TO SUPPORT SAID ORGANIZATIONS IT THEIR ENDEAVORS.

_____ _____

(APPLICANT'S SIGNATURE) SPONSOR'S SIGNATURE
(For Affiliate Member applicants only.)

NOTE: All portions of the state have chapters. Chapter dues or assessments may vary in amount. Applications are considered by the Board of Di

1994 PLSW COMMITTEES

A. REQUIRED COMMITTEES (Reguired by the BY-LAWS)

1). Audit - Finance (Past President-once removed)
Becky J. Braman
5801 Osage Ave., Cheyenne, WY 82009

2). Membership
Co-Chairman: Stanton J. Abell, Jr.
P.O. Box 261, Worland, WY 82401
Member: James D. Claflin, Vice President
1901 Energy Court,Ste 160, Gillette, WY 82717
Member: R.L. Hudson, Secretary/Treasurer
P.O. Box 784, Thermopolis, WY 82443

3). Nominations and Elections (Past Pres. & Teller)
Co-Chairman: Robert L. St.Clair, Past President
P.O. Box 2366, Gillette, WY 82717
Co-Chairman: Stanton J. Abell, Jr.
P.O. Box 261, Worland, WY 82401

4). Standards, Ethics and Professional Practice
Chairman: Dr. Herbert W. Stoughton
2821 Carey Avenue, Cheyenne, WY 82001
Member: Stanton J. Abell, Jr.
P.O. Box 261, Worland, WY 82401
Member: J. Harvey Copeland
P.O. Box 883, Cody, WY 82414
Member: Peter J. Hutchison
209 Lakeshore Dr., Cheyenne, WY 82009

5). Education/Convention
Chairman: Dr. Herbert W. Stoughton
2821 Carey Avenue, Cheyenne, WY 82001
Member: Chris D. Hamilton
P.O. Box 309, Hudson, WY 82515
Member: James D. Claflin,
1901 Energy Court,Ste 160, Gillette, WY 82717

6). Legislative
Chairman: John A. Steil
P.O. Box 2073, Cheyenne, WY 82003
Member: Chris D. Hamilton, President
P.O. Box 309, Hudson, WY 82515
Member: Robert L. St.Clair, Past President
P.O. Box 2366, Gillette, WY 82717
Member: Peter J. Hutchison
209 Lakeshore Dr., Cheyenne, WY 82009
Member: Dr. Herbert W. Stoughton
2821 Carey Avenue, Cheyenne, WY 82001

7). By-Laws
Chairman: John I. Dolinar
P.O. Box 820,Green River,WY 82935
Member: Dr. Herbert W. Stoughton
2821 Carey Avenue, Cheyenne, WY 82001

B. STANDING COMMITTEES

8). Professional Awards (President & Vice President)
President: Chris D. Hamilton
P.O. Box 309, Hudson, WY 82515
Vice-Pres.: James D. Claflin
P.O. Box 3992, Gillette, WY 82717

9). Public Relations and Publications
Chairman: Andy Shauers
P.O. Box 261, Worland, WY 82401
Member: Peter J. Hutchison
209 Lakeshore Dr., Cheyenne, WY 82009
Member: Scott A. Scherbel
P.O. Box 751, Big Piney, WY 83113
Member: Raymond E. Connin
4732 Hickory Place, Cheyenne, WY 82009

10). Scholarship
Chairman: Martin A. Pedersen
P.O. Box 1104, Rawlins, WY 82301
Member: R.L. Hudson, Secretary/Treasurer
P.O. Box 784, Thermopolis, WY 82443
Member: Alan B. Cormier
1044 Road 11, Worland, WY 82401

C. SPECIAL COMMITTEES

11). History
Chairman: William D. Braman
1816 Central Avenue, Cheyenne, WY 82001
Member: John P. Lee
9901 Carbine Trail, Cheyenne, WY 82009
Member: Bruce L. Hughes
1024 Lincoln Avenue, Riverton, WY 82501

12). Certified Land Corner Recordation
Chairman: J. Harvey Copeland
P.O. Box 883, Cody, WY 82414
Member: R.L. Hudson, Secretary/Treasurer
P.O. Box 784, Thermopolis, WY 82443
Member: Stanton J. Abell, Jr.
P.O. Box 261, Worland, WY 82401
Member: Sherman Allred
P.O. Box 201, Basin, WY 82410
Member: Paul A. Blough
P.O. Box 1748, Cody, WY 82414
Member: Paul R. Campbell
P.O. Box 758, Cody, WY 82414
Member: Alan B. Cormier
1044 Road 11, Worland, WY 82401
Member: William H. Greever
2008 Stampede Ave, Cody, WY 82414
Member: Roy R. Holm
P.O. Box 1748, Cody, WY 82414
Member: Richard W. Olson
106 East 10th St., Lovell, WY 82431
Member: Kevin D. Jones
P.O. Box 1900, Cody, WY 82414

13). Manual Of Professional Practice
Chairman: Dr. Herbert W. Stoughton
2821 Carey Avenue, Cheyenne, WY 82001
Member: Robert L. St.Clair, Past President
P.O. Box 2366, Gillette, WY 82717

14). PLSW Handbook
Chairman: Scott R. Pierson
P.O. Box 1143, Jackson, WY 83001
Member: Richard W. Greenwood
P.O. Box 130, Wilson, WY 83014
Member: Don A. Davis
3430 Brookview Dr., Casper WY 82604

15). Election Tellers
Chairman: Stanton J. Abell, Jr.
P.O. Box 261, Worland, WY 82401
Member: Linda M. Abell
P.O. Box 261, Worland, WY 82401

16). S.O.S (Corner Recordation Award)
Chairman: Peter J. Hutchison
209 Lakeshore Dr., Cheyenne, WY 82009
Member: Paul A. Reid
1533 Pinion Drive, Cheyenne WY 82001
Member: Chris D. Hamilton
P.O. Box 309, Hudson, WY 82515

17). Newsletter "LINES & POINTS"
Co-Chairman: John H. Hibsman, Jr.
Co-Chairman: Don A. Davis
Co-Chairman: Steven J. Strang
P.O. Box 904, Casper, WY 82601

D. REPRESENTATIVES

18). ACSM/NSPS Director
Area 7 John A. Steil
P.O. Box 2073, Cheyenne, WY 82003

19). NSPS Governor
Wyoming: Becky J. Braman
5801 Osage Ave., Cheyenne, WY 82009

20). WFPS Delegates:
Paul A. Reid
1533 Pinion Drive, Cheyenne WY 82001
Scott R. Pierson
P.O. Box 1143, Jackson, WY 83001

EDITORIAL POTPOURRI

• NEW PLSW MEMBERS - The following are new members and affiliates approved at the February board meetings:

Douglas Elgin	Burns, WY	Member
Corey St Claire	Gillette, WY	Associate Member
Lynn Forbes	Newcastle, WY	Associate Member
Troy Barry	Jackson, WY	Associate Member
Paul Voge	Jackson, WY	Associate Member
Justin Rothe	Jackson, WY	Associate Member
David Default	Jackson WY	Associate Member
Cevin Imus	Gillette, WY	Special Member

Congratulations and welcome to PLSW.

• PLSW MEMBERSHIP - If you are not a member of PLSW, join now. We need your support. An application is included in this issue. If you are a member, recruit a new member.

• SUPPORT OUR ADVERTISERS - Advertisers help make this publication possible. Please support them.

• LOCAL PLSW NEWS - Send us a summary of your chapters activities or other related activities for publication. The deadline for the next issue of Lines and Points will be 15 JUN 1994.

• PLSW BOARD MEETINGS - The next meeting of the Board of Directors will held at Rawlins in May. Contact your director for the date, time and place.

• LINES AND POINTS FAX - The Lines and Points fax number is 307-235-5604.

• CONTINUING EDUCATION - In our last issue we reported that NCEES and NSPE see " no compelling justification for any jurisdiction to adopt a continuing professional competency requirement as a prerequisite to renewal of a registered professional engineer's or land surveyor's license."

Since the last issue, we learned that NCEES has reversed it's position. That is, they now support mandatory continuing education. The reversal must have occurred late in 1993. We find it very disturbing that there seems to be significant instability at NCEES. Curious too, we note, that our registration board president was installed as NCEES council president in August of 1993.

• LSIT & EIT EXAMS - The registration board announced that beginning in October 1993, the LSIT and EIT examinations will be administered at the University of Wyoming on Saturdays.

Land Corner Recordation Update

On Wednesday, 2 February 1994, PLSW met with the land surveyor members of the State Board of Registration for Professional Engineers and Professional Land Surveyors to finalize the Corner Record Form. This is the final version approved by the PLSW Board of Directors and the State Board of Registration. The form can be used immediately. The older version of the form may be used through, but no later than 31 December 1994.

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 assumes no responsibility for statements made or opinions expressed in this publication.

PLSW (Professional land Surveyors of Wyoming) is a statewide organization of Registered Land Surveyors licensed 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 American Congress on Surveying and Mapping and the Western Federation of Professional Land Surveyors.

Editorial Staff: John Hibsman, Steve Strang, Don Davis.

Lines and Points subscription $50/year

Advertising Information

Camera ready advertisements with payment should be mailed to *Lines & Points,* PLSW, Box 904, Casper, WY 82602

Advertising rates are as follows:

	Year	Issue
Full page	$300	$80
Half page	$175	$50
Quarter page	$100	$30
Business card	$ 30	$10
Classified	40¢ per word/issue	
Employment	Free	

Special Rates for PLSW Chapters

Deadline for next issue — 15 JUN 1994

MESSAGE FROM THE PRESIDENT

CHRIS HAMILTON, PLS

I thank you for the honor to serve as your next President. I will strive to fill the shoes of our past presidents and keep the organization of Professional Land Surveyors of Wyoming truly professional and growing. Thank you, Bob St. Claire, for providing the PLSW quality leadership as our past President.

Thank you, Rick Hudson, for your continued support, providing the PLSW with exceptional records as our Secretary/Treasurer. Also, thank you to all of our past chapter directors and committee members. Congratulations to the new State Vice President, Jim D. Claflin, and our new directors. I welcome comments from all members concerning our organization, and please contact your directors also. Each year we need to evaluate our goals; the following will be my goals for this year.

The handbook or as Paul Scherbel has dubbed it "THE BIG RED BOOK" continues to be a project that needs more attention. I am asking for assistance and priorities from you members regarding our handbook. We need to develop priorities of uncompleted chapters within the handbook. Let's set our goal to one chapter, complete that chapter and move to the next. This should prevent chapters that are partly completed then dropped because the entire work load was dumped onto one member who burned out. I hope we can complete more chapters of our handbook this year. I want to thank Scott Peirson, Rich Greenwood, Don Davis, Dr. Herbert Stoughton and other members for their past assistance, and hope they will continue to work on "THE BIG RED BOOK".

Sponsoring seminars - should the P.L.S.W. continue to direct or support seminars? The seminar that you attended at the last convention is an example of what I would like to see continued. The convention is a prime time to offer continuing education. February is normally the less active time in our business and a prime time to attend the convention. It gives us the opportunity to visit with old friends and to see the latest in technology. Discussions of project complications, seeing the available technology, and combined with a good seminar is truly continuing education. Some members have expressed mixed thoughts about combining the seminar and the convention. Several members have said that they cannot attend all the functions during the conventions because of the many groups attempting to meet as well. Please contact your director or myself regarding your desire for the 1995 convention. We will need to begin our planning now to confirm a speaker for the next convention, if that is our desire.

Continuing education - I support continuing education, but I have reservation about our state board mandating this. Sadly, this has been the only alternative they have to rectify workmanship of a few fellow surveyors. Our state historically has resented any thing that requires governmental involvement. Our membership has responded typically. I also resent this mandate, yet what are we doing to correct below standard practice of our profession. This is a gray area that will not stand, and should not, in a court hearing. Therefore, either we police our standard or we allow the legal system to do it for us. I believe our board is hoping the continuing education program will do two things; one, bring those individuals up to our standard or, two, those individuals will not have their license renewed. Comparing the two alternatives; one, mandated continuing education or, two, more governmental statutes concerning our profession to correct below standard practice, continuing education gives a little of our individualism to the control of the board compared to the alternative. Most importantly, we all benefit by increasing our knowledge of this profession. W.E.S. vs P.L.S.W. - An item that has become heated lately deals with our association with the WYOMING ENGINEERING SOCIETY. Some members expressed concern and felt that we should sever our association with the W.E.S. The P.L.S.W. will not benefit from the separation. After being involved with this year's convention and working with the vendors, it has become evident. VENDORS are the financial source for a convention. Those vendors have said that Wyoming has been a top group they support because we have both engineering and land surveying professions attend. Remember, the W.E.S. is an organization of both professions, not just engineering. We can work with the W.E.S. to provide surveying programs at these conventions. The W.E.S. is going through a transition internally; some members want the convention more educational and others prefer the social parties. Conventions should not be all class room; we need to relax and enjoy social events also. The P.L.S.W. should provide support during this transition. I will strive to negotiate an equal time and space for our P.L.S.W. organization at the 1995 convention.

The Professional Land Surveyors of Wyoming established PRIMA FACIE evidence concerning professionalism of land surveying within this state. Professionalism and fortitude of this organization will be our assets to enlarge membership to the entire Wyoming Professional Land Surveying registrants. I believe the P.L.S.W. leadership has been the backbone to our success and growth. I ask that all members continue to encourage other registrants to join the P.L.S.W. I also request that our new Board of Directors continue the example of our past leadership by being solid in your views, honest and faithful to the members and yourself. Thank you for the honor to serve as your next president and I will strive to keep the leadership solid, fair and honest.

Sincerely,
Chris D. Hamilton, PLS
P.L.S.W. President

Northwest Corner Monumentation Date Set

BY PAUL SCHERBEL, PLS

1. A date has been set to remonument the northwest corner for Friday, 19 August 1994. Arrangements have been made to obtain a stainless steel pipe 4 inches diameter, 48 inches long with brass marker suitably inscribed. This to be set in the hole in the cairn in concrete. The concrete and water is to be prepositioned (sounds like the Marines) ready to be mixed and placed. Those of you who volunteered to carry a 80# bag of

—DILEMMA

(Continued from Page 16)

1 Rod, Pole	198.00000 inches
or Perch	25.00000 links
	16.50000 feet
	5.50000 yards
	0.250000 chain
	0.025000 furlong
	5.0292099 meters

The terms rod, pole, and perch are used in Linear Measure. The term perch also occurs under Square Measure.

During the Middle Ages, the length of a rod in Britain was determined by lining up 16 men and measuring the combined length of all their left feet.

A perch in Quebec equals 17.8 feet or 6.39 yards. The perche of Belgium equals 7.11 yards and 6.50 meters, and the perche of Switzerland equals 3.0 meters. A rod or chang in China equals 11.75 feet, and a chang in Mongolia equals 10.5 feet.

1 Rope	240.00000 inches
	20.00000 feet
	6.66667 yards
	6.0960120 meters

The rope, an old British unit, was probably another form of the rod in the measure of land. It varied in length from 5.5 to 7.0 yards.

1 Chain,	100.00000 links
Gunter's Chain	66.00000 feet
or Surveyor's	22.00000 yards
Chain	4.00000 rods
	0.100000 furlong
	0.012500 statute mile
	2.0116840 decameters

The engineer's chain or Ramden's chain also equals 100 links, but each link equals 1.0 foot.

1 Stadium	625.00000 Roman feet
	605.20867 feet
	403.47244 cubits
	201.73622 yards
	0.125000 Roman mile
	1.8446786 hectometers

The stadium, possibly also spelled stadian, probably originated with the length of a foot race in ancient Rome and is also considered to have equaled 202 yards.

1 Furlong	1,000.00000 links
	660.00000 feet
	220.00000 yards
	40.00000 rods
	10.00000 chains
	0.125000 statute mile
	2.0116840 hectometers

The furlong was derived from the length of an average plowed furrow, and the unit is also used in horse racing. The term furlong is also used in Surveyor's Measure.

1 Statute Mile	8,000.00000 links
or Land Mile	3,520.00000 cubits
	1,760.00000 yards
	320.00000 rods
	80.00000 chains
	8.00000 furlongs
	1.6093472 kilometers
	0.868978 meridian mile
	0.868976 international nautical mile
	0.868383 geographic mile
	0.216919 international geographic mile

The mile in England equaled 5,000 feet until the year 1500 when it was changed to 5,280 feet to make surveying easier. This way the furlong, the commonest land measure of the time, could be divided into a mile eight times. About 1575, Queen Elizabeth I established this new value by law.

The legal mile in Argentina is the milla. The mile in ancient Arabia equaled 7,093 feet. The term statute mile is also used in Surveyor's Measure.

1 Scottish	5,940.00000 feet
Mile	1,980.00000 yards
	360.00000 rods
	9.00000 furlongs
	1.12500 statute miles
	0.883929 Irish mile
	0.325643 international geographic mile
	1.8105156 kilometers
1 Meridian	6,076.10333 feet
Mile, or	2,025.36778 yards
French	1.15078 statute miles
Nautical Mile	0.999999 international nautical mile
	0.999315 geographic mile
	0.249622 international geographic mile
	1.8520046 kilometers

(TO BE CONTINUED IN OUR NEXT ISSUE)

Far South Sub-Chapter/South Central Chapter News

The proposed chapter met on 15 Feb. 1994 in Hanna, Wyoming. Fifteen prospective members were in attendance. Discussion centered around petitioning the PLSW Board of Directors to form a new chapter. After the discussion, 12 members toured the Cyprus/Shoshone Coal Mine in Hanna. The tour went 5,500 feet into the mine at 800 feet below the surface. Food and drink were had by all at the Whistle Stop. Martin Pedersen was railroaded into being designated driver. The next meeting is planned for 8 March 1994 in Rawlins with Dennis Bland of the BLM discussing the northeast corner of the state.

South Central Chapter News

A meeting of the South Central Chapter met in Casper on March 22, 1994. New officers were elected. They are as follows:

President ..... John H. Hibsman
Vice-President ..... Jim Jones

—DILEMMA

(Continued from Page 15)

Survey Foot	1.64141 links
	0.666667 cubit
	0.333333 yard
	0.060606 rod
	0.015152 chain
	0.001515 furlong
	3.0480060 decimeters

The foot, for purposes of surveying, also equals the engineer's link and Ramden's link.

The foot was originally derived from the length of a man's foot, and the term is also used in Mariner's Measure and Surveyor's Measure.

The foot is also known as a survey foot, used in mapping. In Canada the foot is called a pied; in Argentina, a pie; in Haiti, a pied anglais; in El Salvador, a tercia; and in Russia, a foute or fut, which also equals 1/7 sagene.

A pie in Paraguay equals 1/3 vara, 11.36 inches, and 28.85 centimeters; a pie in Spain equals 10.97 inches and 27.86 centimeters; a pie in Mexico equals 12.0 pulgadas and 10.992 inches.

A pied in Switzerland equals 11.81 inches and 30.0 centimeters; a pied in Belgium, a varying unit, usually equals 12.79 inches and 32.49 centimeters; and a pied de roi of old France equaled 12.0 pouces, 1.066 feet and 32.48 centimeters.

The pe of Portugal and Brazil equals 1.08 feet; the shaku of Japan equals 1/6 ken and 0.994 feet; and the voet of the Netherlands equals 11.14 inches.

A French foot equals 12.8 inches, 1.067 feet, and 3.2512064 decimeters. A fod in Denmark equals 1/2 alen, 1 .030 feet, and 31.38 centimeters; a fet in Iceland equals 12.36 inches, 31.39 centimeters and 37.67 centimeters; a fot in Sweden equals 1/10 stang, 11.69 inches, and 29.69 centimeters; and a fot in Norway equals 12.35 inches, 31.37 centimeters, and 37.643 centimeters.

The fuss in Austria equals 1.037 feet and 31.61 centimeters; a fuss in Bavaria equals 11.5 inches and 29.19 centimeters; a fuss or schun in Switzerland equals 11.81 inches; and a fuss or Rhine foot of old Prussia equaled 1.030 feet and 31.38 centimeters.

The stopa in Bohemia equals 11.65 inches; the stopa in Poland equals 11.34 inches; and the stopa in Yugoslavia equals 1/6 khvat and 12.44 inches.

The old standard foot equaled 3.048 decimeters while a foot equaled 12.5 inches in ancient Greece and 12.4 inches in old Prussia. The ancient and obsolete Roman foot equaled 11.62 inches or 2.9514858 decimeters, 11.64 inches, and 11.65 inches, and was also known as a pes or peda. The foot of ancient Arabia, Assyria, and Persia equaled 12.6 inches.

1 Cubit	18.000000 inches
	6.00000 palms
	4.5720090 decimeters

The cubit is an ancient and obsolete unit derived from the distance between the elbow and the tip of the middle finger. The cubit is also considered to have equaled 18.24 inches. The Bible cubit was 21.8 inches. In Assyria a cubit equaled 21.6 inches; in Egypt, 20.6 inches; in Israel, 17.6 inches; in Greece, 18.3 inches; in Rome, 17.5 inches. It was given many additional values during equal 18.0 inches, while the asta of Malacca equals 17.99 inches. The hasta of ancient India equaled 25.26 inches, and the cubito of Somaliland equals 1/7 top, 22 inches, and 56 centimeters.

1 Vara	33.33333 inches
	2.7778 feet
	0.925926 yard
	8.4666667 decimeters

In Spanish and Portuguese, the word vara means "forked pole," or prop, staff, or wand.

By law in 1919, the vara in Texas was set to equal 33 1/3 inches or 36 varas in 100 feet , In Arizona it is defined as 33.00 inches. According to the United States Coast Survey (1850) (1 vara = 837.377 mm) or 32.96753 inches, the Standard from Mexico at the close of the Mexican War, in the Office of United States Coast Survey. (United States vs Perot, 98 United States 428 (1878)), 32.9682 inches. United States vs Perot, the Commissioner and the General Land Office Report (1854), 33.00 inches. In New Mexico, surveys of private claims; official recognition by court of private land claims, 33.00 inches. But in Colombia it equals 31.5 inches or 80 centimeters; in Honduras, 32.87 inches; in Spain, 32.88 inches and 32.913 inches; in Chile, Peru, Guatemala, and El Salvador, 32.913 inches; in Cuba, 33.39 inches and 33.386 inches in Uruguay, 33.63 inches; in Brazil, 43.31 inches and 43.308 inches; in Argentina, 34.094 inches; and in Paraguay, 34.08 inches. The uncertainty of the length of a vara as aforementioned requires a definite value used in any survey whose length was given as varas. An entire paper could be written on the length of a vara as used in every instance. The length varied at different time in the same areas and was defined differently in just about every province, state or country.

1 Yard	36.00000 inches
	3.00000 feet
	2.00000 cubits
	0.181818 rod
	0.004545 furlong
	9.1440180 decimeters
	4.92424 links
	0.045455 chain

There are three popular explanations for the origin of the yard: (1) in northern Europe, a yard equaled the length of the girdle the Anglo-Saxons wore; (2) in southern Europe, a yard equaled the length of a double cubit; and (3) in the twelfth century, Henry I of England fixed the yard as the distance between his nose and the thumb of his outstretched arm.

The standard for the yard described above, also known as a British yard or imperial yard, is 3,600,000/3,937,008 meters, as established in 1959, and replaces the old standard yard of 3,600,000/3,937,014 meters.

The yard is known as a war in Aden and a wari in Kenya. A yard in Mexico equals 83.8 centimeters. A yard in India is known as a guz and also equals 16 geerah or gireh and 144 jaob or jow. The guz of Calcutta also equals 1/2 danda; while the guz of Persia equaled 4.0 charac and 40.96 inches.

1 Pace or Step The pace for common measuring purposes equals 3.0 or 3.3 feet. In the United States military, a quick-time pace is 30.0 inches, and double time is 36.0 inches. An itinerary pace equals 5.0 feet, and a Roman pace or geometric pace equaled 58.1 inches and 50.0 Roman feet. The term pace is also used in

NATIONAL COUNCIL VERIFICATION PROGRAM

The NCEES Records Verification Program provides and serves as a verifying agency for the Professional Engineer or Professional Land Surveyor who is seeking multiple state registration and who meets the requirement of holding a current registration with at least one registration board. Through this program, the Council verifies and houses the Record Holder's file which contains their college transcripts, registration information, professional engineer references and employment verifications. When registration in additional states is needed, a copy of the NCEES Record can be transmitted to other registration authorities with a written release.

The intent of the program is to reduce the amount of paperwork required by the registrant at such time as they choose to become registered in another state.

Licensure is not guaranteed based on the Council Record, as this is a distinctive function of the registration board. NCEES merely functions as a centralized recordkeeping service for the convenience of the professional who seeks multiple state registration. The Council Record is designed to be a recognized and reliable source of information for review.

Further information concerning the program can be obtained by contacting the NCEES Records Department.

NCEES
P.O. Box 1686
Clemson, SC 29633-1686
Telephone: (803) 654-6824, ext. 223

BOARD OF DIRECTORS MEETING SUMMARY

The Board of Directors met in Riverton on Wednesday, February 2, 1994, at the Holiday Inn. This meeting followed a meeting between members of the Certified Land Comer Recordation CLCR Committee of PLSW and two of the three Land Surveyor members of the State Board of Registration for Professional Engineers and Professional Land Surveyors (SBRPEPLS).

President Bob St. Claire called the meeting to order at 4:20 p.m. with eight board members and eight other members present. All chapters, except South Central, were represented.

Minutes of the December 4, 1993, board meeting in Rock Springs, were presented by Secretary Rick Hudson, discussed and approved. The Treasurers Report was presented by Hudson and consisted of Itemized Expenses and Balance Sheet for 1993. Also presented was a chart indicating sources of income and expenses. Following a general discussion it was agreed that, beginning in 1994, "Scholarship Fund" will be a separate category. The report was accepted as presented.

The NSPS, WFPS (West Fed) and committee reports are to be presented at the annual state meeting tomorrow.

Old business carried over from the December board meeting, began with a report by Herb Stoughton, as chairman of the Professional Practice Committee. He stated he had attended the SBRPEPLS meeting in Cheyenne on December 21st representing PLSW on the matters of the Wyoming Land Surveyor's Council petitions and CLCR form revision. Written reports will be available at the annual state meeting.

Additional old business involved discussion of the letter to the Interstate Commerce Commission, written by Herb on behalf of PLSW, regarding the matter of railroad abandonment. Copies of this letter will also be available tomorrow.

The next item of old business concerned the "Survey Boundary Control and Legal Principles" course being offered this spring by the University of Wyoming. PLSW Member Ray Connin, the instructor, stated the (surveying) program may have been jeopardized because of criticism from PLSW. A general discussion indicated that PLSW has not issued any statement regarding the course or the instructor; the board deciding to continue discussion of the matter at the annual state meeting.

Additional old business included the distribution of the NSPS Articles of Affiliation, discussion of the "SOS" Honorarium and election matters.

The meeting was recessed to dinner and reconvened at 7:10 p.m.

Applications for new membership, one being member and three affiliates, were approved.

The balance of this meeting centered around discussion and approval of the 1994 Budget and finalization of the agenda for the annual state meeting tomorrow.

The meeting was adjourned at 9:38 p.m.

Dated this 12th day of March 1994.

R. L. Hudson Secretary/Treasurer

—MONUMENTATION

(Continued from Page 4)

to stay at the Branding Iron Hotel at West Yellowstone and meet at the MP26 or Specimen Creek at Jerry's trailhead at 0900. Our master mason Messick will arrange for trowels, etc. and will need some help packing them in and out. He promised to bring a wheelbarrow to pack me up the hill and transport the casualties out. You will need lunch and water and bear-guard though we didn't see any wildlife last year. Hopefully Tim A. Hudson will be with us and can be talked into telling us the history of the Yellowstone Park survey during our lunch break. I don't know if Jerry will let you place initials into the concrete but perhaps he would let PLSW and MARLS set a brass cap indicating that we were there. And don't forget to purchase your belt buckles and hopefully those sales will provide funds as needed.

Almost forgot that there will be an explanatory plaque placed. Details later.

2. For the Tristate corner we plan to go in from Island Park Lodge on Saturday, 20 August, leaving the lodge at 0900. Kendall Adams, Forest Surveyor for the Targhee National Forest, will lead the trek. The trip should not be rigorous as we will be walking along the Continental Divide through burnt timber. The line between Idaho and Montana has been marked with a 1 1/2 x 36 inch iron pipe with brass caps and Kendall indicates he readily finds them throughout the Park. The Tristate monument is a 3 x 48 inch iron pipe with brass cap suitably inscribed. Hopefully this will not need remonumentation but to be safe we will carry in a shovel and another monument.

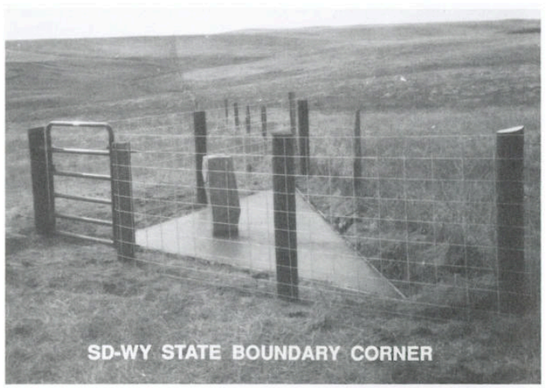
We had a memorable trek to the NW corner last year with

Corner Monument Dedication Set

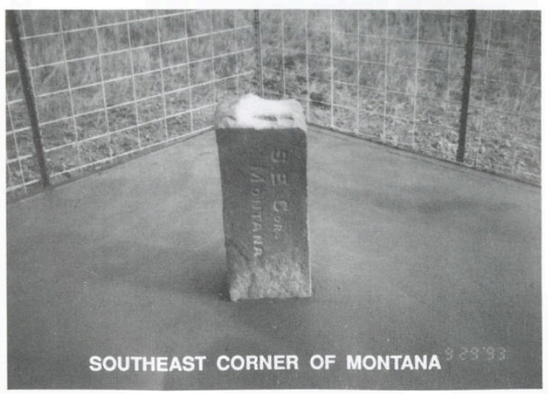
A joint dedication ceremony for the corner common to South Dakota and Wyoming on the Montana State Boundary and the Southeast corner of Montana will be held at 10:00 am, July 16, 1994.

The ceremony will occur at the South Dakota-Wyoming corner site, which is easily accessible by car. Agenda highlights include: a history of the Dakota-Wyoming Boundary survey; history of the Dakota-Montana Boundary survey; signing of the field notes and plat; history of settlement in the area; and the importance of boundary identification and land tenure system.

While in the Belle Fourche area, plan on visiting the scenic Black Hills and Deadwood, South Dakota. Further information may be obtained from Dennis Bland (307) 775-6219, PO Box 1828, Cheyenne, WY 82003.

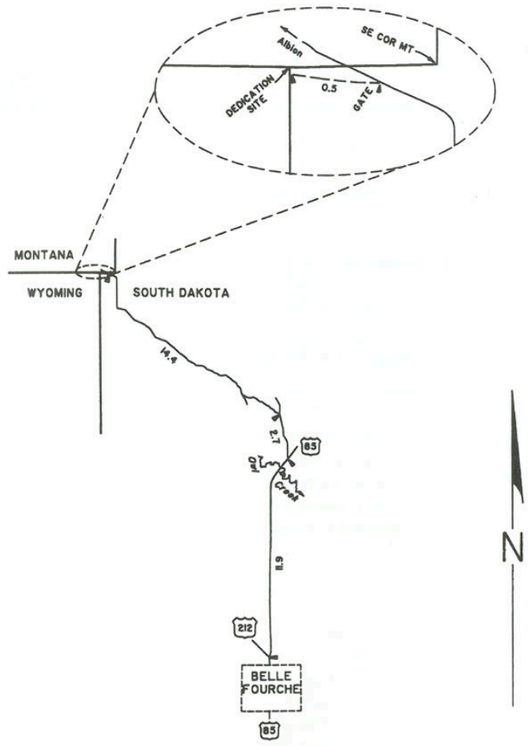


SD-WY STATE BOUNDARY CORNER



SOUTHEAST CORNER OF MONTANA 9 29 93

Front Cover Artwork by Ray Blaha — Casper



Belle Fourche SD - Dedication Site Route

THE DILEMMA OF DIMENSIONS

LARRY T. PERRY, PLS

With the signing and implementation of the Omnibus Trade and Competitiveness Act of 1988 - Public Law 100-418 as passed by the 100th Congress of the United States of America, the Metric System or SI (International System of Units) was mandated as the preferred system of business and trade. This act requires that SI be taught in our Nation's schools and that teachers and other appropriate personnel be properly educated and trained to teach this system to all students. On 25 July 1991, Executive Order 12770, Metric usage in Federal Government Programs was signed by the President. This order states that all federal agencies are to convert to SI (Metric), under the leadership of the Secretary of Commerce within a fixed period of time.

On 8 May 1990, the U. S. Department of Transportation issued Order 1020.lC which established policy and administrative procedures for the transition from the American Standard System to S.I. (Metric). After amendments were made this was reissued as Order 1020.lD on the 23rd day of March in the Year 1992.

These aforementioned acts will have a profound effect on all surveyors in the United States regardless of our personal feelings about these changes. I realize that there are some members of the profession that will try to portray Don Quixote de la Muncha and fight the inevitable.

Let's just step back a few paces and look at the whole picture before picking up arms for or against this change in our system. Exactly what is this system? Is there any precedent for the use of the meter and this system? Is this the first time that the system of measurement has been changed? This paper is not an in-depth history of the Metric System, but a quick overview of the system of measurement utilized in this Country and others.

The meter was originally defined as a unit of length equivalent to one ten millionth of the length of a quadrant of the meridian through Paris, from the equator to the North Pole. A unit was derived by this proportion from several arcs of triangulation became known as the French legal meter. The standard constructed to represent it became known as Metre des Archives.

In the Year 1805 an iron bar of one meter in length was brought to America by Ferdinand Hassler, the first superintendent of the U. S. Coast Survey. This was one of sixteen bars that were standardized by the Committee on Weights and Measures in Paris in the Year 1799. This bar served as the standard for Geodetic Surveys in this country until 1889, when it was replaced by the present standard, The National prototype Meter. In 1866, the U. S. Congress passed a law (U.S. Code 1952 Ed., Title 15, Chapter 6, Sections 204-205) legalizing the use of the metric system for commerce in the United States.

Under an international convention in 1873, the international meter was derived from the Metre des Archives, and the international prototype meter was adopted as the standard by the subscribing governments. Copies of this new standard were furnished to the governments which subscribed to the convention of 1875. The United States received two such copies in 1889. One of these was adopted as the national standard of length and is known as the National prototype Meter. These two copies are now in the custody of the National Bureau of Standards. The equivalence, one meter is equal to 39.37 inches exactly, was

The seventh General Conference on Weights and Measures was held in Paris in the Year 1927 and the following supplementary value of the meter was temporarily adopted: 1 meter = 1553164.13 wavelengths of the red ray of cadmium vapor, in dry air at a temperature of 15 degrees centigrade at a pressure of 760 millimeters of mercury and under normal conditions of gravity.

There was a small but significant difference between the American and the British units of length until 1959. The metric equivalent of the British inch was 2.539998 centimeters,; while the metric equivalent of the United States inch was 2.540009 centimeters. On 1 July 1959, in order to reconcile differences of this discrepancy, the directors of the National Standards laboratories of Australia, Canada, South Africa, the United States Bureau of Standards adopted the 2.54 centimeters for one inch. The standard yard was defined as 3,600,000/3,937,008 meters. Before the agreement of 1959, the British yard was equivalent to 3,600,000/3,937,014 meters. The U. S. yard was defined as 3600/3937 meters. The British mile was 1/30 of an inch shorter than the U. S. mile.

In 1960, the 11th General Conference of Weights and Measures in response to recommendations from various international scientific bodies, renamed the metric system as the International System of Units (SI). On 9 August 1968, Congress passed Public law 90-472 authorizing an intensive study on the advantages and disadvantages of adopting this system. This study, carried out by the Bureau of Standards, was completed in 1971. Congress enacted Public Law 94-168, the Metric Conversion Act of 1975 and was signed into law on 23 December 1975.

The New International Standard Meter is defined as 1650763.73 times the wavelength of orange light emitted when a gas consisting of pure Krypton Isotope of the mass number 86 is excited in an electrical discharge. From this meter as used in the United States, one foot was equal to 1200 meters divided by 3937. The foot obtained from this equation was referred to as the United States Foot. This unit was used until the NAD 1983 readjustment of the basic Geodetic Survey Network in the United States. When the new meter was adopted, the length of the American Foot changed to 0.3048 meters exactly.

So from looking at this data, it is quite obvious that this change in the measuring system has been well thought out and has been statutorily covered. One hundred and thirty years is long enough to study a problem and come up with a reasonable solution, even by the government.

The following linear and square measurements are just a few of the many that have been used by the surveying profession:

1 Shaftment,	6.00000 inches
or Shathmont	1.5240030 decimeters
1 Link,	7.92000 inches
Gunter's Link	0.660000 foot
or Surveyor's	0.220000 yard
Link	0.040000 rod
	2.0116840 decimeters

The link is attributed to the English mathematician Edmund Gunter (1581-1626), inventor of the sector and scale.

1 Foot or 12.00000 inches

—KITTY LITTER

(Continued from Page 13)

position. Now, note this! The news from the Wyoming registration board notes that in August of 1993, educator type, John Steadman was installed as president of the NCEES council. The readers may draw their own conclusions, but the author smells a ploy by educators and thinks that it stinks.

It is my opinion that the Wyoming registration board has acted in an arrogant and selfish manner by ignoring historical fact and the majority opinion of those that they should be serving. A mandate for continuing education is representative only of the Wyoming registrant minority.

With respect to the model law as presented, I have two concerns. The first is the word "shall" contained in the first sentence. This word makes continuing education mandatory and presents it in a negative light. For what reason I know not, but if it is absolutely necessary to force continuing education on the professions, why not do it in a positive light? For example, increase the renewal fee of each category of registration by say, $100.00. If a registrant meets the continuing education requirement, waive the $100.00 increase. Those who choose to play would derive the $100.00 benefit (positive for the registrant). Those who choose not to play would help fund the newly-created bureaucratic folly and the future legal defense fund (positive for the board).

The second is contained in section D. 5. which states "For teaching apply a multiple of 2. This, obviously, puts the icing on the cake for the educator types. Not only do they stand to benefit by personal pecuniary gain, but all they need do to meet the requirements is continue to show up at work and fill out a blank form every two years. The real world practitioner must work plus meet the requirements on his own time, at his own expense. It has been said that those who can't do, teach. Having been employed as a part-time undergraduate instructor for engineering and surveying courses in the late 1960's, I don't fully agree with that statement. Engineers and Surveyors, educator types or not, are usually out in front of the rest of the world "doing". My teaching experiences did, however, amplify one major difference between educator types and real world practitioners. That big difference centers around responsibility and liability with respect to the protection of the general public health, welfare and safety. This is the main purpose for the board's existence and the necessity of our registrations. It is my opinion that educator types have little or no responsibility or liability above that of the common man and that, real world practitioners are burdened with excessive responsibility and liability. (Maybe Doonesbury had a point when the cartoon student sued the professor when he didn't get an "A" in the course.) I believe that accepting that burden of responsibility and liability while serving the general public far outweighs the effort to teach or take a course.

In summary, it appears that Wyoming's registration board has learned little from history. They are attempting to reinvent a 20-year-old wheel. Continuing education should not be imposed on Wyoming registrants. The board should stop wasting time and state money on the issue.

Should the unthinkable happen and continuing education be forced on the author, he intends to receive credit for this article.

(The opinions in this article are those of the author and not necessarily those of PLSW or the Lines & Points *staff. Mr.*

Direct supervision

To what degree does a licensed land surveyor need to supervise a crew? Does the surveyor have to be present while all measurements are conducted?

In a recent appellate court decision (Lander and Company v Hare, 587 So 2d 387, 1991 [Ala. Civ. App]) it was stated that the surveyor owed the client the duty of being on the site. The facts presented to the court indicated that the licensed surveyor was in contact with the crew leader throughout the project. Further evidence was presented that the surveyor reviewed the notes including the distances and bearings measured and the monuments found. The crew leader and the surveyor also sat down and reviewed the notes before the surveyor certified and signed the plat. Yet, the court ruled that these actions did not meet the state statutes regarding direct supervision in fact or in spirit.

To counter this position, the surveyor displayed a knowledge of the general area and had been at the property on several other occasions. Evidence was also presented to indicate that the crew leader had many years of experience and had been in a leadership role with the survey firm approximately 10 years. The firm contented that the crew leader, along with the crew, only did the physical work and the licensed surveyor conducted the technical work and supervised the crew actions.

The trial court stated "... the court would ordinarily find in favor of the defendant (client) and not require the payment of any of the plaintiff's (survey firm) claim." In this case, the client did volunteer to pay the firm an amount equal to the hourly rate earned by the crew. This amount would not include any of the associated employer cost such as taxes, insurance, overhead, or operational expenses. Not only was there no profit on this job, the return did not even meet the firm's cost.

There are a few primary questions that arise from this case that every surveyor must address. Does this require a licensed surveyor on every survey crew? Must the surveyor be present during the actual measurement process? The decision of this case would indicate that these are reasonable conditions.

1994 ANNUAL STATE MEETING SUMMARY

The 1994 annual state meeting of the Professional Land Surveyors of Wyoming was held in conjunction with the 74th annual Wyoming Engineering Society convention in Riverton, Thursday and Friday, February 3 and 4,1994, at the Holiday Inn.

The meeting followed a day-long seminar titled "Corner Evidence Analysis" by Dennis J. Mouland, PLS, and was called to order by President Bob St. Claire at 4:25 P.M.

The signed attendance list indicates 34 members and 10 affiliates were present, including two honorary members.

The agenda was revised and business began with a report by Chairman Harvey Copeland of the Certified Land Corner Recordation Committee since Dr. John Steadman, president of the State Board of Registration for Professional Engineers and Professional Land Surveyors, was present at this time. Harvey reported that a three-hour meeting yesterday, moderated by Dr. Herbert Stoughton, has resulted in a "State of Wyoming Corner Record" form. Three "cut and paste" draft copies of the proposed form were distributed for inspection by the membership. Herb is requesting our Board of Directors approve this version and that it be presented to the SBRPEPLS in March.

Bob introduced the officers present and a "last call" for ballots was made by Teller Stan Abell.

The minutes of the 1993 annual state meeting were discussed by Secretary Rick Hudson and approved by voice vote .

Copies of the Treasurer's Report were distributed and discussed. A question was raised concerning the purchase of the GLO plat file. Background information was given by those who were involved in the purchase. The report was approved with no dissenting votes.

Copies of the 1994 Budget Worksheet were distributed, together with copies of a chart showing sources of income and expenses for the past year. After discussion, the budget, as previously approved by the Board of Directors, was approved.

Committee reports were presented orally and intentionally kept short. Written versions of the reports, as well as other information, were available during and after the meeting. Reports were presented by the following committees: Audit- Finance; Membership; GPS "Supernet"; Standards, Ethics and Professional Practice; Education; Legislative: Professional Awards; "SOS" Honorarium; and Newsletter "Lines & Points".

Highlights from this portion of the meeting included Chairman Herb Stoughton's request that the GPS "Supernet" Committee be retired since its mission has been completed now that the NGS field work has been completed; the various standards of practice drafts that are out for comment; the draft Code of Ethics and Policy on Control Surveys for Utilities also out for comment; and the new state plane coordinate legislation sponsored by PLSW.

Bob acknowledged Bryce E. Rumph as the 1993 Honorary Member and presented him with a plaque and certificate. Bob also acknowledged Cevin Imus and "Ike" Dolinar as recipients of scholarships from PLSW; Cevin, who was present, attending Sheridan College, and "Ike" completing his studies at the University of Wyoming.

Paul Reid, one of our two delegates to Western Federation of Professional Surveyors or "WestFed", related highlights from his written report of the meetings he had attended during the past year. The written report from Becky Braman, our National Society of Professional Surveyors (NSPS) governor, was available

Teller Stan Abell announced the results of the election of 1994 officers: Chris D. Hamilton, President; James D. Claflin, Vice-President; R. L. "Rick" Hudson, Secretary/Treasurer. Installation of the new officers was conducted by John Steil. Chris presented Bob with a plaque as acknowledgment of his leadership of PLSW for the past year.

Presidential Citations, from now Past President Bob St. Claire, were presented to Herb Stoughton, Paul Scherbel, John Steil and Dick Kohler. Herb Stoughton, representing the other past presidents, presented Presidential Citations to Stan Abell, Sherman Allred, John Dolinar, Dave Hammond, Pete Jorgensen, Larry Perry, Wes Reed, Paul Reid, Paul Scherbel, Robert Jack Smith, John Steil and Herb Stoughton.

A motion to recess until 7:00 A.M. tomorrow was carried at 6:35 P.M.

The meeting was reconvened at 7:15 A.M. on Friday, February 4, 1994, in the Council Room of the Holiday Inn by President Chris Hamilton.

The signed attendance list indicates 26 members and 3 affiliates present.

The first item of new business was an announcement by John Steil concerning input from PLSW members for the WES Project of the Year competition during 1994.

The next item of business concerned the alleged PLSW criticism, to the University of Wyoming, of the "Survey Boundary Control and Legal Principles" course and the instructor Ray Connin. Martin Pedersen stated that he had inquired as an individual Land Surveyor, not as a representative of PLSW. Ray stated that perhaps Martin should be a co-instructor. Following a lengthy general discussion, Chris summarized the situation and a motion was carried wherein PLSW will send a letter to the University of Wyoming restating (our) support for its surveying program and continuing education efforts.

The next item to be discussed concerned the PLSW response to the Wyoming Land Surveyor's Council petitions to the SBRPEPLS as requested by WLSC President Ray Connin. That written response was presented to the board of registration by Herb Stoughton at its December meeting in Cheyenne, copies being available at this meeting. Ray stated that some petition items are "testing the waters" and submitted to get "action and reaction"; and further stated that several of the items had been brought up at PLSW meetings over the past two years with no action being taken. When directly asked "who are you?", Ray responded by stating that the WLSC membership is not public at this time and declined comment regarding even the number of members. Ray did state, however, that WLSC will support candidates for the SBRPEPLS and will sponsor legislation.

Also discussed were the three vacancies, in 1995, on the state board of registration and the need to begin work on this matter. It was agreed that a notice, informing PLSW members of the vacancies, will appear in upcoming editions of our newsletter "Lines & Points".

Member Paul Campbell asked how chapter members can assist the Legislative Committee regarding our continuing efforts for "Recording of Surveys" legislation. Chairman John Steil stated that direct contact with title industry personnel and legislators is the most effective method.

Following announcements regarding PLSW raffle items at the convention, the meeting was adjourned at 8:35A.M.

BOARD OF DIRECTORS MEETING SUMMARY

Following the annual state meeting and as required by our by-laws, the Board of Directors met on Saturday, February 5, 1994.

The meeting was held on the bus trip from Riverton to the initial point near Ethete on the Wind River Indian Reservation.

President Chris Hamilton called the meeting to order at 8:30 a.m. with a quorum present. All chapters were represented with the exception of South Central. A total of fourteen members were present.

Discussion of an honorarium in memory of Carl R. Oslund, LS, was finalized whereas PLSW will donate $250.00 from our scholarship fund to the Wyoming Engineering Society scholarship fund. Mr. and Mrs. Oslund were long-time members of WES and Carl passed away Thursday night at Riverton at this year's convention. A matching amount has been pledged by Selby's, Nikon, and various PLSW members.

The meeting was recessed at 8:45 a.m. upon arrival at the access road to the initial point at the Wind River Meridian.

Additional PLSW members joined those present at the meeting, as well as Bill Ladd of Trimble Navigation. Preston Smith and Lloyd Brown of the Shoshone and Arapahoe Tribal Office. Tribal Water Engineer, escorted the group to the initial point site where Bill provided a GPS demonstration. Paul Scherbel noted that the stone monument marking the initial point some thirty years ago, when he and Chuck Spurlock had last visited the site, appears to have been removed. The GLO brass cap monument, set alongside the stone in 1913, was recovered as was USC&GS station "Ethete" atop a nearby hill.

Upon returning to the bus for the return trip to Riverton, the meeting was reconvened at 10:45 a.m.

Additional business included the approval of membership applications of four new associate members.

The final matter to be discussed at this meeting was the formation of an Executive Committee. It was agreed that this would require an amendment to our by-laws and should appear as an agenda item at the November meeting in Cody.

The meeting was adjourned at 10:55 a.m.

Dated this 12th day of March 1994

R. L. Hudson Secretary/Treasurer

SAVE OUR SURVEYOR

The first Save Our Surveyor Land Corner Recordation Certificate Honorarium is now history. There were seven entries in the historic category and five in the (1993) current category. Because of the quality of entries, it's too bad all couldn't have won a part of this initial competition.

The winner of the historic Land Corner Recordation Certificate honorarium was nearly unanimous for Stanton J. Abell's entry. It was the neat hand drawn sketch of the bearing tree for the corner between Sections 35 and 36, T. 43N., R. 110W. of the 6th P.M., Fremont County, Wyoming.

The 1993 recorded Land Corner Recordation Certificate was a very close vote with Rick Hudson's corner form being the winner of the $100.00 stipend. His LCRC was for the USC & GS triangulation station "Hamilton" located in the southeast ¼ of the northeast ¼ of Section 28, T. 44N., R. 98W., of the 6th P.M., Hot Springs County, Wyoming.

If there are any comments which would improve this initial award process, please call or send them to Pete Hutchison, Intermountain Professional Services, Inc., 5801 Osage Ave., Cheyenne, WY 82009, 632-3138.

THE PLSW HANDBOOK IS NOW AVAILABLE ON DISK

Digital Precision Imagery, Inc. donated its scanning and Optical Character Recogniton (OCR) services to the PLSW. Four chapters of the Handbook are currently, available: PLSW Bylaws, Wyoming State Statutes pertaining to surveyors, Rules and Regulations, and Guidelines for Professional Practice. Future updates of these chapters will be much easier. You can now look for a key word or phrase using a word processor's search function.

John Lee has also significantly eased searching the State Statutes by expanding the index.

The Handbook is in WordPerfect 5.1 DOS for Windows format, but it can easily be converted to other word processor formats. if you would like a copy contact Rich Greenwood 733-0203.

Digital Precision Imagery, Inc. deserves your support. If you have a scanning or OCR project, please contact Bob Scott, Digital Precision Imagery, Inc., 2953 Bunker Hill Lane, Suite 104, Santa Clara, CA 95064 (408) 980-3500.

KONTINUING EDUKATION KITTY LITTER

J. H. HIBSMAN, P.E. & L.S.

In the 1970s, your author was chairman of Pennsylvania's ACSM chapter when the concept of continuing education reared it's ugly head. The issue was presented and heavily promoted by a group of educator type, engineers and surveyors. At about the same time, a society of land surveying educators was formed and enrollments at our institutions of higher learning were dropping off. This led the observer to believe that the educator types were attempting to create long term work for themselves at the expense of the real world practitioners. At that time, the Pennsylvania registration board, with the assistance of the technical societies, researched, debated, cussed and discussed the issue of continuing education. The issue boiled down to mandatory continuing education versus voluntary continuing education. Very few doubted the value of education, but the small minority educator types demanded mandatory continuing education. The majority real world practitioners, abhorred the idea. Today, Pennsylvania has no continuing education requirements.

Some of the arguments against continuing education are as follows:

- Mandatory continuing education is simply a ploy by educators to perpetuate their own interests, through bureaucratic rules and regulations, at the expense of others.
- Mandatory continuing education is a tax on registrants wherein the costs far outweigh the benefits.
- Educators acknowledge that the majority of what people learn takes place without a teacher or formal education. And, they acknowledge that people do not always learn from a teacher. The real world practitioners learn (continue their education) every day they practice. What then is the purpose of mandatory continuing education? Perhaps it should be mandatory for the educator types to practice "X" number of hours in the real world, at their cost, in order to keep their registration.
- The imposition of continuing education on other true professions has proven to be less than successful and without benefit to the public. Registrants do not take the requirements seriously and ultimately find ways to beat the system as evidenced by the TV documentary on medical types.
- State registration boards were established to protect the public interests. Mandatory continuing education does not guarantee improved protection of the public interest and history does not show that it does anything in the public interest.
- The costs of establishing and defending another level of bureaucracy and, more specifically, costs to the registrant, outweigh the benefits to the public.
- The real world practices of engineering and land surveying are, in themselves, a continuing education process. These professions are highly competitive, qualifications-based, businesses that carry significant responsibility and liability with their practices. The nature of the businesses already makes continuing education necessary.
- There may be major legal ramifications to promulgating rules and regulations that would deprive a person of his or her established livelihood.

Since continuing education was first proposed, all states and jurisdictions have addressed the issue at some level. Today, only three states have mandatory continuing education. They are Iowa, West Virginia, and Alabama. It is interesting to note that our most populated states, the majority, have no continuing education requirements. (See article in JAN 94 *Lines & Points*)

An unabridged dictionary offers a definition of the true, or learned, professions. The definition includes law, theology, medicine and engineering as true professions. One key requirement of that definition is that the true profession is self-governing; that is, in the United States at least, the majority of practitioners of a profession makes the laws, rules and regulations that govern the profession. An overwhelming majority of respondents to the continuing education proposal of Wyoming's registration board and an overwhelming majority of those present at the 9 SEP 1991 hearing in Cheyenne were opposed to continuing education requirements.

In December of 1993, Wyoming's registration board, led by educator type John Steadman and in opposition to the majority, voted to begin making rules and regulations for mandatory continuing education. Recently, Wyoming registrants received news from the registration board that contained a model law on mandatory continuing education prepared by the National Council of Examiners for Engineering and Surveying (NCEES) . The NCEES was originated by and is comprised mainly of educator types. It is a state registration board organization and, Wyoming was one of the last states to join.

In 1993, NCEES and the National Society of Professional Engineers NSPE adopted an opposing position to mandatory continuing education. (See quote in *Potpourri* this issue). Sometime late in 1993 or early 1994, NCEES reversed its

(Continued on Page 14)

BLM NEWS

This letter is to inform you of official cadastral surveys in Wyoming that have been accepted from January 1, 1994 through March 31, 1994, and are now available in the Survey Records Office, Wyoming State Office, Bureau of Land Management, 2515 Warren Avenue, Cheyenne, Wyoming 82001.

The accepted surveys are listed below by township, range, type of survey, meridian, and acceptance date.

SIXTH PRINCIPAL MERIDIAN, WYOMING

Township and Range	Type of Survey	Meridian	Accepted
T. 49 N., R. 60 W.	Metes and Bounds	6 P.M.	03/02/1994
T. 19 N., R. 93 W.	Corrective Dep. Res.	6 P.M.	03/02/1994
T. 51 N., R. 95 W.	Dependent Resurvey	6 P.M.	03/02/1994
T. 30 N., R. 118 W.	Remonumentation	6 P.M.	03/02/1994
T. 49 N., R. 105 W.	Dependent Resurvey	6 P.M.	03/02/1994
T. 50 N., R. 105 W.	Dependent Resurvey	6 P.M.	03/02/1994
T. 52 N., R. 105 W.	Dependent Resurvey	6 P.M.	03/02/1994
T. 48 N., R. 106 W.	Dependent Resurvey	6 P.M.	03/02/1994
T. 49 N., R. 106 W.	Dependent Resurvey	6 P.M.	03/02/1994
T. 38 N., R. 112 W.	Corrective Dep. Res.	6 P.M.	03/02/1994

As other surveys are completed, I will advise you of their acceptance. You may circulate this letter among the membership of the Professional Land Surveyors of Wyoming.

Dennis D. Bland, Acting Chief,
Branch of Cadastral Survey

P.L.S.W. MEMBERSHIP QUESTIONNAIRE

1. Indicate your priorities for the PLSW Handbook Chapters by numbering the items below according to your preference. Number first choice with No. 1 and continue through No. 9.

History of PLSW .....# _____
Associated Organizations .....# _____
List of Resources & Publications .....# _____
Guidelines for Survey Procedures .....# _____
Photogrammetric Surveying .....# _____
GIS-LIS AM/FM .....# _____
Global Position System (GPS) .....# _____
Wyoming State Plane Coordinates .....# _____
Other .....# _____
Please describe other if used above _____

Comment: _____

2. Do you prefer the PLSW continuing to assist or direct seminars similar to the 1994 convention program?
☐ Yes ☐ No

Comment: _____

3. Are you satisfied with the seminar program that was presented at the 1994 convention?
☐ Yes ☐ No ☐ Somewhat

Comment: _____

4. Are you willing to pay a fee for these seminars and if so what range?
☐ Yes ☐ No
☐ $10-$50; ☐ $50-$90; ☐ $90-$100
(please remember good programs are expensive)

5. Should the convention be an educational or social function?
☐ Educational ☐ Social ☐ Both

6. Should the PLSM continue our association with the Wyoming Engineering Society by having conventions with the W.E.S.?
☐ Yes ☐ No

Comment: _____

7. Please describe changes you would favor during our conventions. _____

8. Please describe problems you find with our PLSW organization and solutions you may have. _____

Wyoming Engineering Society Awards Project of the Year

The Wyoming Engineering Society's "President's Project of the Year Award" for 1993, was awarded to James Gores and Associates of Riverton for their work on the Lander Main Street Construction Project.

The project included installing decorative street lamps, sandstone colored and brick patterned sidewalk, trees and benches. The project also replaced all water and sewer lines, Main Street pavement, curb and gutter and signal system for eight full city blocks. The project was completed one month ahead of schedule and 1/2 million dollars under budget. and has resulted in a revitalization of downtown Lander. Reiman Corp was the prime contractor.

James and Gores and Associates was involved in the conceptual design, formulating funding, forming a Special Improvement District, public meetings to explain the project design, bidding assistance, construction monitoring, and tracking the project budget and schedule.

Other entries in the competition were:

TSP Two, Inc., a private engineering firm in Sheridan and the Wyoming Department of Transportation for their joint project of the Story Banner Road, Wyoming State Highway 193, Story, Wyoming replacing a 67 year old 2.2 miles picturesque section of road which had become a safety hazard resulting in 27 accidents and three fatalities from 1982 to 1987;

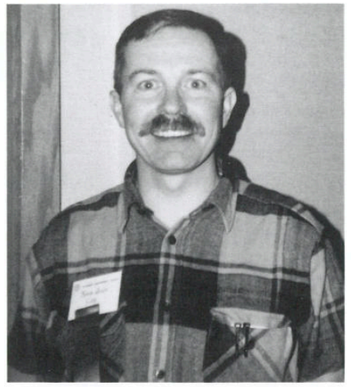
Robert D. Clary, P.E. P.C., Cheyenne, co-designer, structural engineer and prime consultant for the Fassett-Nickel Toyota Sales and Service Facility on Westland Road in Cheyenne, meeting the owner's goals of a first class facility with cost-effective operation, low maintenance, and environmentally sound. It is rated among the top 1% of all Toyota facilities in the U.S.;

The Wyoming Transportation Department of the GAZ.EX avalanche control facilities on Mount Glory west of Jackson, a new and promising solution to the perennial wintertime problem of reducing avalanche potential along WYO 22 below Teton pass using a gas explosion, activated by radio telemetry, to trigger slides of unstable masses of snow;

And Surveyor Scherbel, Ltd., of Big Piney, for his work in locating the initial point and actual state corner where the States of Idaho, Utah and Wyoming meet.

Wyoming Engineering Society President Sally Steadman said, "Every project entered in this competition is exemplary. The projects show the diversity of work done by engineers, and the contributions engineers make to an improved quality of life."

For further information on the Lander Main Street Project, contact James Gores at 856-2444.



1994 PLSW CONVENTION Riverton