February 2013

# SIDE SHOTS

**Professional Land Surveyors of Colorado** 

Volume 44, Issue 1



**Geoffrey Anderson** 



Bryan Baker



**Randy Fortuin** 



Pamela Fromhertz



**Bob Green** 



**Earl Henderson** 



**Wayne Lorenz** 



Jeff Lucas



Kim Malville



Ken Martinez



**Rickard Miksad** 



**Gaby Neunzert** 



Dave Pehr



**Larry Phipps** 



Marcus Reedy



Warren Ruby



Dean Ruybal



**Harold Schuch** 



Dave Siddle





**Mark Smirnov** 



**Alison Walls** 



Luke Wildfire



Ken Wright

Feb. 28 - Mar. 2, 2013
Arvada Center for the Arts
and Humanities

Prst std U.S. Postage PAID Denver, CO Permit No. 1222 Becky Roland Executive Director PLSC, Inc. PO Box 460022 Denver, CO 80246



SALES - SERVICE - RENTAL

TWO CONVENIENT RETAIL LOCATIONS

SURVEY, CONSTRUCTION, AND ENGINEERING INSTRUMENTS AND SUPPLIES

LARGEST GNSS RTK REFERENCE NETWORK IN COLORADO AND WYOMING

LOCAL SUPPORT, TRAINING, AND SERVICE

24/7 WEB STORE - www.hixonmfg.com

Your Vision: Flexibility and Performance

Introducing Leica Viva GS14 Your Tool for All GNSS Applications

The Leica GS14 is the most compact and powerful GNSS receiver. The integrated mobile communications and UHF modem means it is suited for any measuring task. With its convenient, integrated design, the Leica G514 is easy to use. Together with the leading GNSS RTK, the Leica GS14 meets the highest standards for measurement technology.

Your benefit: professional reliability with the highest degree of accuracy.

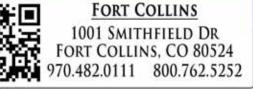
Built on years of knowledge and experience, the Leica GS14 delivers the hallmarks of Leica GNSS - reliability and accuracy.

Call Hixon Mfg. & Supply Co. today to find out more.

### Leica Viva GS14

Designed for Performance







#### DENVER

8775 E ORCHARD RD. #807 GREENWOOD VILLAGE, CO 80111 303.694.0012 800.475.3422



Let your measu Visions come

# Professional Land Surveyors of Col orado, Inc.

AFFILIATE—NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS MEMBER—COLORADO ENGINEERING COUNCIL MEMBER—WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

#### OFFICERS (2013)

Roger Nel son President 2450 South Peoria Street . Aurora, Colorado 80014 O: (303) 353-3916

Micheal Bouchard *Vice President* 4755 Forge Road, Suite 150 . Colorado Springs, CO 80907 O: (719) 590-9194

Terry Maw Secretary/Treasurer 8055 E. Tufts Avenue, Suite 850 . Denver, CO 80237 O: (719) 590-9194

Becky Rol and
Executive Director
Becky Roland
PO Box 460022 . Denver, CO 80246
Phoenix AMC O: (303) 551-3266 F: (720) 230-4846

# 2013 PLSC CHAPTER ORGANIZATION

#### CENTRAL COLORADO PROFESSIONAL SURVEYORS

President: Chris Raml

Vice President, David Kuxhausen; Secretary, (vacant); Treasurer, Aaron Willis Directors: Shawn Clarke, George Robinson, John Wilhelm, Kevin Kucharczyk, Terry Pickering, Ken Baker

#### NORTHERN CHAPTER - PLSC, INC.

President: Kayce Wohlman

President-elect: Laine Landau; Secretary/Treasurer, Rob Hintz Directors: Paul Bacus, Bob Edmonds, Steve Varriano, Douglas Ritter President Emeritus: Ron Perkins

#### NORTHWEST 1/4 COLORADO LAND SURVEYORS

President: Brian T. Kelly

Vice President, William Whelan; Secretary/Treasurer, Jeff Gustafson; Gordon Dowling, Immediate Past President and Director Directors: Thomas H. Effinger, Skidge Moon, Walter Magill, Lloyd Powers, Peter Epp

# SOUTHERN COLORADO PROFESSIONAL LAND SURVEYORS

President: Joe Alessi

Vice President: Steve Parker; Secretary: Bill Brooks; Treasurer: Dan Hanten Directors: Nathan Lira, Jon Tessin, Steve McAnally, Lyle Bissegger, Don Hulsey

#### SOUTHWESTERN CHAPTER - PLSC, INC.

President: Joshua Casselberry

Vice President, Robert L. Trudeaux; Secretary, Parker Newby Treasurer, Ed Young

#### WESTERN COLORADO LAND SURVEYORS

President: Richard Bullen

Vice President: Jonathan Kobylarz; Sec'y-Treas.: Brian Bowker Directors: Leslie Doehling, Patrick Green, Scott Thompson, Peter Krick, Tom Sylvester, Ben Elliott, Mark Wagner

#### COLORADO SPATIAL REFERENCE NETWORK

President: Jan Sterling

Vice President, Eric Carson; Secretary, (vacant); Treasurer, Chris Duda Directors: Jon Doty, Larry Rector, Harold Schuch, Kayce Wohlman, Brian Dennis

# SIDE SHOTS

February	Journal	2013
Volume 44		Number 1

■ President's Letter	4
■ From the Editor	5
■ 3rd Annual Rocky Mountain Sureyors Summi	t7
■ 2013 Colorado Land Surveying Refresher Course	9
■ Letter from the Bureau of Land Management	11
■ Control Points – Torrens Title	12
■ Longest Serving Members of the PLSC	14
■ Sunset Review Update	15
■ PLSC Membership – It Is Worth the Price of Admission!	17
■ What Direction Are You Going?	19
■ PLSC Board of Directors Meeting Minutes September 25, 2012	21
■ Employees: Assets with an Inherent Risk	22
■ State Board Update	23
■ Chapter News	24
■ Sustaining Members	25

Side Shots is the official publication of the Professional Land Surveyors of Colorado, Inc.
and is published quarterly for the betterment of the surveying profession.

Roger Nelson

President

Vice President

For Editorial Correspondence, contact: John B. Guyton

Editor: Side Shots 5385 Centennial Trail, Boulder, CO 80303

303-443-7001 • jguyton@flatsurv.com

This publication is not copyrighted and articles may be reprinted with due credit.

Statements made and opinions expressed are from the contributors and do not necessarily

express the official views of the Professional Land Surveyors of Colorado, Inc.

Deadlines for editorials, articles, pictures and advertising are January 1, April 1,

July 1 and October 1. All material received after the current deadline will appear

in the next issue of Side Shots.

We would like to invite anyone who is interested to advertise in Side Shots.

Do you have something you want to sell, trade or buy? Why not use Side Shots for your next ad? We can also reproduce business cards for advertising. Ad space reservation must be arranged with Diana Askew, PO Box 704 Conifer, CO 80433; 303-838-7577. Ad copy may be sent to: diana.askew@plsc.net before the editorial deadline (January 1, April 1, July 1 and October 1).

#### Current Advertising Rates:

Business card size or less - Member \$25.00; Non-member \$30.00 One-Half Page - Member \$115.00; Non-member \$150.00 Full Page - Member \$225.00; Non-member \$300.00 Color advertisements — add 33 percent



MICHEAL BOUCHARD VICE PRESIDENT O: (719) 590-9194 mbouchard@f-w.com

#### PROFESSIONAL LAND SURVEYORS OF COLORADO, INC.

P.O. Box 704 Conifer, CO. 80433

AFFILIATE – NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS MEMBER- WESTERN FEDERATION OF PROFESSIONAL SURVEYORS

#### OFFICERS (2011-2012)

TOM ADAMS PAST PRESIDENT O: (719) 546-5454 tom.adams@plsc.net

**ROGER NELSON PRESIDENT** O: (303) 353-3916 roger.nelson@merrick.com

**TERRY MAW** SECRETARY/ **TREASURER** O: (719) 590-9194 tmaw@f-w.com

**BECKY ROLAND EXECUTIVE DIRECTOR** O: (303) 551-3266 broland@plsc.net

#### **DIRECTORS (2011-2014)**

**TODD BEERS** O: (720) 225-4646

PETER KRICK O: (970) 256-4003

WILLIAM BUNTROCK O: (303) 829-4047

PARKER NEWBY O: (970) 247-1705

BRIAN DENNIS (ex-officio) O: (719) 268-8537

BRIAN T. KELLY (ex-officio) O: (970) 879-0045

KAYCE WOHLMAN (ex-officio) O: (303) 443-3282

#### **DIRECTORS** (2009-2012)

PETER KENT O: (720) 865-3116

GARY D. GABLE O: (303) 882-0161

PATRICK GREEN O: (970) 245-4099

STAN VERMILYEA O: (303) 796-4640

#### WFPS DELEGATES (2011-2012)

JOHN B. GUYTON O: (303) 443-7001

MICHEAL BOUCHARD O: (719) 590-9194

#### **NSPS GOVERNOR (2011-2012)**

WARREN D. WARD O: (970) 725-3347

Brian Kelly, NW 1/4 Chapter President, extended an invitation to me to attend their November 12, 2012, NW 1/4 Chapter meeting. The meeting was well attended and the topic of using base radio repeaters stimulated an exchange of useful survey information. The NW 1/4 is also working to expand the Mesa County VRN by adding a station in Steamboat. I enjoyed meeting this enthusiastic group of surveyors that are employing the intent of our professional organization, exchanging useful survey information, procedures.



and techniques to better serve the public. I also learned that we have a ways to go with our communication from the PLSC to the respective chapters. One of our NW 1/4 members questioned why the PLSC was experiencing financial difficulties when there is over \$100K shown in some of our accounts. This is a valid question that deserves explanation. Some of the PLSC accounts have limitations of use placed upon them by those that donated the funds. In this case the funds have been earmarked for funding education and can only be used for that purpose. By attending this meeting I have accomplished my goal of attending a meeting or event for each PLSC Chapter and can say that I better understand the diversity of challenges each chapter faces. I am confident that freely sharing information in the future will strengthen these relationships and our organization.

Alan Blair and the PLSC Legislative Committee will be working with our lobbyists, Peg Ackerman and Steve Balcerovich, to attempt to remove "fishing" from the Sunset Bill. Our first opportunity will be in a State Legislature Committee hearing, so the PLSC testimony will have to be persuasive. If you have any well thought out arguments against "fishing," please contact Alan so that the PLSC can consider and prepare for both proponents and opponents at this hearing.

Over the month of November 2012, the PLSC leadership worked to compile a database of the membership tenure from 1978 thru 2012. This was a labor intensive process as most of the rosters were hard copies that required inspection of each entry to translate into an electronic database for tabulation of member tenure. It was very rewarding to see the number of longstanding continued membership of our organization and to see individuals progress from student member to associate member to voting member. We will be honoring our members' dedication in this issue of Side Shots (see page 14) as well as at our upcoming "2013 Surveyors Summit."

This is my last President's letter for my two-year term. It has been an honor to serve our organization over this term. We have accomplished several goals over the past two years and I appreciate the trust that the PLSC membership placed in me. If elected for a second term, I will continue working toward our common goals.

> Sincerely, Roger D. Nelson, PLS, CFedS

## FROM THE EDITOR



I am looking forward to the biggest event of the year for the PLSC, and hope that you are too – the Third Annual Rocky Mountain Surveyors Summit. Last year's

conference was one of the best attended and most successful ever, an encouraging sign that our membership is taking advantage of the courses, the workshops, the networking opportunities, the Chapter Summit meeting, the meals and the camaraderie. Most of the instructors were able to supply photographs of themselves, which are featured on the cover of this issue. They have a wealth of knowledge to share with you – be sure to sign up, show up, and take advantage of it.

We have also included a list in this issue of some of the members who have been with the PLSC for the longest time, including an astonishing 34 years! If you are not quite in that category, take a look at this list and see if you find a name of someone who mentored you, or was influential in your career development.

I received several interesting submissions that appear in this issue, including a Sunset Review update from Alan Blair, and an article that could help you justify your membership dues for 2013 if you are still on the fence for some reason, by the dedicated and enthusiastic Todd Beers, Earl Henderson writes about the fundamental differences between original and retracement land surveys, and Scott Sorensen wrote another article about litigation risks from hiring employees, and how you can insure against them. And the always dependable Warren Andrews wrote an interesting Control Points article on Torrens Title, including the story of why counties have an officer with the dual title of "Clerk and Recorder."

And, as always, representatives from each of the regional chapters have provided news from their parts of the state. Thanks to the contributors: Chris Raml (CCPS), Brian Dennis (CSRN), Kayce Wohlman (NC), Brian T. Kelly (NW 1/4), Joe Alessi (SC), Josh Casselberry (SW) and Richard Bullen (WC). Our readers always enjoy hearing the latest news from each of you.

If you read this before February 8th and have not yet completed a ballot for new officers for 2013, you can do so very quickly on line at https://www.surveymonkey.com/s/PLSC2013.

I enjoy my role of bringing *Side Shots* to our membership, and via the PLSC website, the rest of the world. New and interesting articles on surveying topics are always welcome. See you at the Summit!

JB Guyton, Editor, Side Shots





FOR MORE INFORMATION CALL YOUR TRIMBLE DEALER

Frontier Precisior Denver, CO 800-652-1522

Denver, CO 303-283-0343

#### PROFESSIONAL LAND SURVEYORS OF COLORADO, INC.

(In conjunction with the Northern, Central, Southern and CSRN Chapters)

# 2013 3rd ANNUAL ROCKY MOUNTAIN SURVEYORS SUMMIT "CLOSING THE HORIZON"

WHEN: FEBRUARY 28, MARCH 1 & 2, 2013

Registration begins at 7:00 a.m. and classes start at 7:30 a.m.

WHERE: ARVADA CENTER FOR THE ARTS & HUMANITIES

6901 WADSWORTH BOULEVARD, ARVADA, COLORADO 80003

CONFERENCE HOTEL: DOUBLETREE HOTEL (DENVER NORTH)

8773 YATES DRIVE, WESTMINSTER, COLORADO 80031

303-427-4000 MENTION PLSC CONFERENCE FOR SPECIAL RATES

**SPEAKERS:** Jeff Lucas, Mark Smirnov, Larry Phipps, Warren Ruby, Randy Fortuin, Dave Pehr, Dean Ruybal, Ken Wright, Wayne Lorenz, Richard Miksad, Kim Malville, Luke Wildfire, Gaby Neunzert, Dave Siddle, Mitch Tweedy, Dan Walsh, Marcus Reedy, Harold Schuch, Bryan Baker, Earl Henderson, Pamela Fromhertz, Ken Martinez, Alison Walls, Brian Hailey, Geoffrey Anderson, Bob Green and two new sessions "Roundtable Discussion on Colorado Surveying" and the "Survey Symposium"

Courses and schedule subject to changes; please go to www.plsc.net for updated information and to register online.

#### PROGRAM:

# THURSDAY, FEBRUARY 28TH PROFESSIONAL TRACK 1

7:30 a.m. – 5:30 p.m. **Mr. Jeff Lucas, PLS**, "The Pincushion Effect"

#### **PROFESSIONAL TRACK 2**

- 7:30 a.m. 9:30 a.m. **Mr. Warren Ruby, PLS**, "A Brief History of Surveying in the City of Denver: The First 200 Years"
- 10:00 a.m. 11:30 a.m. **Mr. Earl Henderson, PLS** "Roundtable Discussion on Colorado Surveying"
- 1:00 p.m. 5:30 p.m. **Mr. Randy Fortuin, PLS**, "Surveying the City and County of Denver"

#### **BUSINESS & GENERAL TRACK**

- 7:30 a.m. 11:30 a.m. **Mr. David Pehr, Esq.**, "Where to Find the Sources of Colorado Survey Law"
- 1:00 p.m. 3:00 p.m. **Mr. Dean Ruybal**, "Working With the Title Insurance Industry"
- 3:30 p.m. 5:30 p.m. **Survey Symposium**, "Panel discussion of Improvement Location Certificates (ILC) in Colorado"

#### TECHNICAL\GIS RELATED TRACK

7:30 a.m. – 5:30 p.m. Dave Siddle, Mitch Tweedy & Dan Walsh, Compass Tools, "Trimble's MGIS "high" accuracy options: 30cm, 10cm and 1cm" and "Techniques for loading Imagery and Raster data onto Trimble MGIS handhelds".

**LUNCH:** PLSC Business Meeting, Introduction of PLSC Board of Directors, Exhibitor Introduction

EXHIBITOR SOCIAL 5:30 p.m. - 7:00 p.m.

PLSC CHAPTER SUMMIT MEETING 7:00 p.m. – 9:00 p.m.

#### FRIDAY, MARCH 1ST PROFESSIONAL TRACK

7:30 a.m. – 5:30 p.m. **Mr. Jeff Lucas, PLS**, "What Went Wrong? (A Study in Surveyor Errors and Omissions)"

#### **TECHNICIAN TRACK**

- 7:30 a.m. 11:30 a.m. **Mr. Larry Phipps, PLS**, "Traverse Analysis and Adjustment"
- 1:00 p.m. 5:30 p.m. Mr. Kenneth Wright, Mr. Wayne Lorenz, Mr. Richard Miksad, Dr. Kim Malville, Mr. Luke Wildfire

"Introduction to Paleohydrology", "Surveying of Pompeii's Water Distribution System", "Ancient Astronomy Revealed", "Inca Grade Control at Ollantaytambo", "Surveying Machu Picchu"



#### **TECHNICAL TRACK**

- 7:30 a.m. 9:30 a.m. **Marcus Reedy, PLS,**"Introduction of Mapping on Multiple Recording
  Platforms (3D Terrestrial LiDAR, Mobile LiDAR and GeoAutomation®)"
- 10:00 a.m. 11:30 a.m. **Mr. Harold Schuch, PE, CP, BSc. MSc. PhD** "Introduction to Geodesy"
- 1:00 p.m. 3:00 p.m. **Mr. Earl Henderson, PLS** "The Kinks & the Corners, A Brief History of the original surveys of the South and West lines of Colorado and the Four Corners Monument"
- 3:30 p.m. 5:30 p.m. **Mr. Bryan Baker, Frontier Precision** "GNSS Constellation update, New RTX Technology & FCC Narrow Banding Issues"

#### **BUSINESS & GENERAL TRACK**

- 7:30 a.m. 11:30 a.m. **Mr. David Pehr, Esq.**, "Case Studies That Have Shaped Boundary Location in Colorado"
- 1:00 p.m. 5:30 p.m. **Mr. Larry Phipps, PLS**, "ALTA\ACSM: New Standards & How to Apply Them"

**LUNCH:** PLSC Awards, Trig Star Winner, Scholarship Winner

# SATURDAY, MARCH 2ND PROFESSIONAL TRACK

7:30 a.m. – 5:30 p.m. **Mr. Mark Smirnov, PLS, BLM**, "Rocky Mountain Riparian Boundaries"

#### **TECHNICIAN TRACK**

- 7:30 a.m. 11:30 a.m. **Mr. Gaby Neunzert, PLS**, "Instrument Errors and Adjustments"
- 1:00 p.m. 5:30 p.m. **Mr. Larry Phipps, PLS**, "Ethics for Land Surveyors"

#### **TECHNICAL TRACK**

- 7:30 a.m. 11:30 a.m. Ms. Pamela Fromhertz, NGS Colorado State Geodetic Advisor "Latest Developments in NGS"
- 1:00 p.m. 3:00 p.m. **Mr. Ken Martinez, Comm Tech** "Civil 3D, Tips & Tricks for the Surveyor"
- 3:30 p.m. 5:30 p.m. **Ms. Alison Walls, Frontier Precision, Mr. Brian Hailey, PE, CAD-1** "Automate your drafting using feature codes. From Field to finish using Trimble Access, TBC and exporting to Civil 3D"

#### **BUSINESS & GENERAL TRACK**

- 7:30 a.m. 11:30 a.m. **Mr. Larry Phipps, PLS**, "Implementing Value Pricing"
- 1:00 p.m. 3:00 p.m. **Mr. Geoffrey Anderson**, "Real Estate Litigation: Where the Surveyor Fits In".
- 3:30 p.m. 5:30 p.m. **Mr. Robert Green, PLS**"Getting the most out of Office Software with Unique Kinematic and Post Processed Solutions"

**LUNCH:** Survey Olympics Winners, Plat Contest Winners

# FEE SCHEDULE 2013 (same pricing as 2008 and adding full day)

PLSC MEMBER: \$ 200 One Day - \$ 375 Two Days - \$550 Three Days

NON-MEMBER: \$ 300 One Day - \$ 475 Two Days-\$650 Three Days (2013 PLSC Members save \$100) STUDENT: \$ 75 One Day - \$ 125 Two Days- \$200

Three Days

**EXHIBITORS:** \$ 400 3 Days + \$230 for 2013 Sustaining Membership

An additional \$25.00 will be added to registrations received after February 18th, 2013. Catered breakfasts & lunches will be provided on all days. Online registration will be available at the PLSC web site (www.plsc.net).

#### **GENERAL INFORMATION**

#### **SILENT AUCTION**

We will be holding a silent auction during the conference. If your equipment room is cluttered up by equipment you are no longer using, please consider donating an item or two to the PLSC silent auction.

#### **EXHIBITORS**

In keeping with our traditional practice, our Sustaining Members and other exhibitors have been invited to display their latest products and services. Exhibits will be in the Arvada Center entrance hall adjacent to the classrooms. Please visit their displays and show our appreciation for their continued support.

#### TRANSPORTATION TO\FROM CONFERENCE HOTEL

There will be a shuttle bus to and from the conference hotel each day. Pick up and drop off times will be announced prior to and at the conference.









#### 2013 Colorado Land Surveying Refresher Course

The Professional Land Surveyors of Colorado are offering a comprehensive Land Surveying Refresher Course beginning January 9, 2013. This course offers a review and self-study plan for those taking the National Council of Examiners for Engineering and Surveying (NCEES) **Fundamentals of Surveying (FS)** and **Principles and Practice of Surveying (PS)** examinations. The course is designed to aid candidates in developing and expanding exam-taking proficiencies. The Wednesday evening classes will be 3 hours in length, starting promptly at 6:00 PM.

Fundamentals of Surveying
---------------------------

Session	<u>Date</u>	<u>Topic</u>	
1	Wed., Jan. 9	Overview of NCEES Examination Use of Calculator/Basic Calculations	Alan Blair Gaby Neunzert
2	Wed., Jan. 16	Fundamental Survey Calculations I	Gaby Neunzert
3	Wed., Jan. 23	Fundamental Survey Calculations II	Dr. Jan Van Sickle
4	Wed., Jan. 30	GIS, State Plane, Geodesy	Dr. Jan Van Sickle
5	Wed., Feb. 6	Public Land Survey System I	Randy Bloom
6	Wed., Feb. 13	Boundary Law I	Ed T. Bristow, Esq.

#### **Principles of Practice and Colorado Specific**

7	Wed., Feb. 20	Boundary Law II	Ed T. Bristow, Esq.
8	Wed., Feb. 27	Public Land Survey System II	Randy Bloom
9	Wed., Mar. 6	Colorado Survey Law I	Roger Nelson, Todd Beers
10	Wed., Mar. 13	Colorado Survey Law II	Todd Beers, Roger Nelson
11	Wed., Mar. 20	Ethics, Professional Practices	Alan Blair
12	Wed. Mar. 27	Mock PS and FS Examinations	Gaby Neunzert, Randy Bloom

The Wednesday evening classes will be 3 hours in length, starting promptly at 6:00 PM.

#### Registration, Fee, Location

The fee for the entire course is \$400, or \$75 per 3-hour block taken individually. Online Registration will begin November 1, 2013. Visit http://www.plsc.net/ to register for further information. Classes will be held in one of the conference rooms at the Jefferson County Courts and Administration Building (The Taj Mahal), 100 Jefferson County Parkway, Golden, CO. Use the parking lot and main door on the east side of the Admin and Courts building. Signage will lead you to the classroom. Contact Randy Bloom, 303-239-3856 for questions.



Planning the 2013 Refresher Courses, are, from left: Becky Roland, Alan Blair, Gaby Neunzert, Randy Bloom, Todd Beers and Ed Bristow. Present but not pictured: Mike Greer, Jan Van Sickle and John B. Guyton.

# Does Your Software Work FOR You? Or AGAINST You?

## hardware



### software and subscription



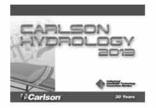
#### implementation and lost productivity

# Why Not Consider Carlson Software?

- Receive FREE technical support from Carlson's home office no subscription required
- Runs with any 2004-current AutoCAD®-based program OR with IntelliCAD®, a program that looks & acts just like AutoCAD
- · Receive a FREE copy of IntelliCAD with every purchase and a FREE copy of Esri ArcMap when using Carlson with IntelliCAD
- Take advantage of the ever-expanding integration with Esri GIS solutions
- Carlson's data flow solutions can't be beat from data collection, to mapping, to design and back to the field for construction
- Work with standard AutoCAD entities No more proxy objects or saving for others who don't have the same version of Civil 3D®
- Upgrade your software or hardware when YOU are ready Carlson with IntelliCAD can run on most off-the-shelf computers.
- Automate lot layout using area, frontage, setback & footprint and your lots, labels & setbacks update when the road does!
- · Update your surface model by sketching a new location for your contours.
- Easily design AND GRADE a network of roads in minutes—including fine grading intersections and cul-de-sacs Yes, Easily!









# That CAD Girl offers...

- Best prices on Carlson Software, SurvCE, Data Collection and GPS including Carlson upgrades and maintenance renewals
- Competitive upgrade pricing from Land Desktop®, Eagle Point®, Terra Model® or Civil 3d® - only \$2,500 for Civil Suite which includes Survey, Civil, Hydrology & GIS
- Pre-Employment skills evaluations
- · CAD standards development & implementation
- · Customized, online training for Carlson & Autodesk products

# Carlson Self Study Manuals

Carlson Configure & CAD Settings

Getting Started with Points For Carlson Survey & Civil

Field to Finish with Carlson Survey

Books can be purchased separately or as a bundle. 3 books provide approximately 10 hours of instruction

Introductory pricing through our Online Store







# United States Department of the Interior

#### BUREAU OF LAND MANAGEMENT

Colorado State Office 2850 Youngfield Street Lakewood, Colorado 80215-7210 www.co.blm.gov



CO-956 9655.2

December 14, 2012

Mr. John B. Guyton, Editor Side Shots 3825 Iris Ave. Boulder, Colorado 80301

Dear Mr. Guyton:

This letter is to inform you of official BLM cadastral surveys in Colorado that have been accepted from August 17, 2012, through October 25, 2012. These surveys were filed in the Public Room, Bureau of Land Management, Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado, 80215, and are available at http://www.glorecords.blm.gov.

The accepted original surveys, resurveys, supplemental plats or remonumentations are listed below by township, range, meridian, group number, type, approval date and number of plats.

Township	Range	Meridian	Group #	<b>Type</b>	<b>Approved</b>	<b>Plats</b>
T. 12 S.	R. 69 W.	Sixth	1496	Plat & Notes	8/17/12	1
T. 7 S.	R. 72 W.	Sixth	1529	Plat & Notes	8/22/12	1
T. 7 S.	R. 73 W.	Sixth	1529	Plat & Notes	8/22/12	1
T. 12 S.	R. 71 W.	Sixth	1503	Plat & Notes	8/29/12	1
T. 13 S.	R. 71 W.	Sixth	1510	Plat & Notes	8/29/12	1
T. 28 S.	R. 73 W.	Sixth	1580	Plat & Notes	9/05/12	1
T. 10 S.	R. 70 W.	Sixth	1388	Plat & Notes	9/12/12	1
T. 42 N.	R. 5 W.	NMPM	1500	Notes Only	9/19/12	0
T. 43 N.	R. 5 W.	NMPM	1500	Notes Only	9/19/12	0
T. 16 S.	R. 70 W.	Sixth	1528	Plat Only	9/26/12	1
T. 6 N.	R. 98 W.	Sixth	1500	Plat Only	10/03/12	1
T. 16 S.	R. 71 W.	Sixth	1500	Notes Only	10/10/12	0
T. 35 N.	R. 2 W.	NMPM	1589	Suppl. Plat	10/17/12	1
T. 5 N.	R. 91 W	Sixth	1577	Plat Only	10/25/12	1

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 Colorado.

Sincerely yours,

Chief Cadastral Surveyor for Colorado

## **Control Points – Number 19**

By Warren Andrews, PLS

# **Torrens Title**

Relative to Control Points No. 18 (the previous article on the Maxwell Land Grant), the diagram of the grant should be dated 1893, not 1983!

This article, Control Points No. 19, will start out with who Torrens was and who came up with the title system. Then a description of what that system is and does will follow for those readers who are unfamiliar with it as are most surveyors.

Robert Richard Torrens was born at Cork, Ireland, in 1814 and went through Trinity College in Dublin for his education. He moved to South Australia in 1840 just before the gold rush there and was appointed Collector of the Customs. In 1852 he was a member of the legislative council and became Treasurer and Registrar General. Then he was the first Territorial Governor of South Australia. As a representative from Adelaide in the first Australian colonial government he introduced his famous Real Property Act in 1857.

This system was rapidly adopted in the other colonies and elsewhere. Torrens went back to England and from 1868 to 1874 represented Cambridge in the House of Commons. He was knighted for his work by Queen Victoria in 1872 and lived until August 31, 1884.

What is Torrens Title? In American usage, Black's Law Dictionary defines it as "A system under which, upon the landowner's application the court may, after appropriate proceedings [a quiet title suit], direct the issuance of a certificate of title. With exceptions, this certificate is conclusive as to applicant's estate in land." In Brown and Eldridge, "Evidence and Procedures for Boundary Location," Curtis Brown says that historically a similar system was used in Bohemia in the thirteenth century. In the Encyclopedia Britannica the article on "Title to Land" mentions that Torrens modeled his system after an old English merchant ship registry system.

Torrens Title Registration starts essentially from a clean slate of ownership of a piece of real estate after a court has gone through a quiet title action to "quiet" any other claims that might exist against the property. The court then issues a certificate to the real estate owner listing and describing the property with anything currently encumbering it. This certificate is then filed with the clerk of the County whose dual function then comes into play as County Clerk and Recorder. All other records filed in the office are filed with the County Recorder. This is where the odd dual designation of "Clerk and Recorder" comes from.

In Colorado, Alamosa County uses some Torrens Title registration, but few people know this distinction. If the court misses something there is an insurance fund to pay a valid claim but the claim can no longer affect the property owner.

The article, "Torrens Title," in Wikipedia reiterates the three principles of the Torrens system: Namely,

1) The Certificate of Title accurately and completely

gives the current facts about a person's title. If a person sells his piece of real property, then the new title has to be identical to the old one in terms of description of property except for the owner's name (or if the listed mortgage has been paid off).

2) A person does not have to go behind the Certificate of Title as it contains all of the information about the title. Ownership need not be proven by long and complicated documents as in the Private Conveyancing system by means of a chain-of-title.

3) Any errors made by the court or by the Registrar of Titles (the County Clerk) are taken care of by an insurance system and the landowner is not affected.

The beauty of the system is that if something is not listed on the certificate then it cannot affect the property, except in very rare cases. The disadvantage is the expense to the landowner for the initial quiet title suit in court, which can get quite expensive. The title insurance companies hate the system because it cuts them out completely when a new Torrens Registration Certificate is issued by the County Clerk to a new buyer of real estate.



Robert Richard Torrens, creator of the Torrens Title registration system.

# Service Solutions Provider



# Wagner Equipment Co. is now your service solution for Trimble surveying equipment.

With the most experienced service department in the region, we have the resources to fulfill our commitment to total customer satisfaction. Wagner repair services the complete line of Trimble surveying solutions.

- GPS field surveying systems
- GPS infrastructure solutions
- · Robotic and servo-driven total stations
- Digital levels
- Trimble Data Controllers





call: 1-866-903-2335

Your authorized dealer for Machine Control Solutions www.wagnerequipment.com

# **Longest Serving Members of the PLSC**

The PLSC leadership, having recently compiled membership data from 1978 to 2012, would like to recognize and honor those who have maintained their membership for the longest periods of time. Look for your own name, or better yet, look for someone who may have been a mentor to you early in your career, and thank them for their professional service and support.

Disclaimer: Information was compiled from digital and paper-copy rosters, and may not be accurate or up to date. The editor apologizes for any inaccuracies or omissions.

#### 34 Years

J. Loren Adams Warren H. Alloway James Warren Andrews Charles T. Brown Lawrence G., Jr. (Gus) Chambers Peter Epp Allan W. Fredenburg Daniel R. Hanten Robert F. Harrison Roger C. Head Robert A. Jackson Seabron T. King Bernard F., Jr. Kochevar Joseph W. Manatos John G. Moos Alan C. Morganfield Gerard H. Pesman Steven C. Steinberger Robert D. Thomas Oliver E. Watts Kenneth D. Witt

#### 33 Years

Louis H. Buetner Paul S. Kellogg John S. Lambert G.M. (Gaby) Neunzert William R., II Sandifer Stanley F. Versaw

#### 32 Years

Fred L. Adams
David C. DiFulvio
Wilhelm J. Dougherty
Louis A. Gaz
Patrick R. Green
Dale V. Greer
Virginia G. Hite
Nathan L. Lira
Thomas O. Livingston
Jon S. McDaniel
William J. Stengel

#### 31 Years

Henry A., Dr. Babcock Michael W. Drissel Ronald T. Ellis Homer L. Gilson John B. Guyton Randall C. Hilton Dennis H. Koch John D. Krieschel Kevin F. Lloyd Steven R. McLaughlin Wallace C. Muscott Carl F. Nagy Scott R. Pierson

#### 30 Years

James B. Ackerman Bryan M. Clark Dean F. Glorso Ira L. Hardin Michael J. Hettle Gerald W. Jefferies Robert E. Kinsall Donald D. Knapp Richard C. Lange Sydney K. Lincicome Jan R. Pyle Andrew K. Reed James W. Rogers John A. Schofield John A. Steil Geoffrey F. Stephenson Thomas M. Stockslager K. Scott Thompson Leroy E. Tobler **Timothy Wagner** David S. White

#### 29 Years

Dr. Albert H. Barnes Richard A. Baur George R. Buckey Dan Corcoran Jack A. Eaves

Frederick R. Woodcock

Steve L. Ehlers
David L. Forde
Steven L. Hagedorn
James W. Joy
Marlin G. Livermore
Robert A. Orthman
Daniel M. Russell
Graham M. Russell
Steven K. Scott
Dennis R. Shellhorn
John E. Walker

#### 28 Years

Terry C. Barnes Richard F. Barton Richard E. Brooks Thomas M. Carpenter Robert A. Chichester Merrit P. Dismant Jeffrey M. Drabing Robert L. Feroldi Michael D. Heimbuck Kevin C. Hoffman Steven D. Lister Janelle D. Lund Greg J. Pettibone Robert E. Port Roy A. Rush William G. Van-Horn William D. Wiley

#### 27 Years

Alan D. Blair
Dexter M. Brinker
William J. Gibbs
Larry W. Hagan
Jeffrey G. Halverson
Donald D. Hansen
Ray Harpin
Howard S. Miller
Leslie J. Nichols
Jerald W. Richmond
Robert W. Saulmon
Duane A. Senn
Russell A. Waring

#### 26 Years

Willis C., II Andrews Michael L. Bouchard Fred R., II Bowden Christopher Brewer Thomas L. Burnett Dean E. Cates Michael C. Cregger Michael J. Dedecker James R. Finley Author A. Hehnke Robin D. Herring Ronald E. Ilk Brian T. Kelly Michael J. Lasater Ridgeway C. Moon Greogory S. Neitzke Philip L. Petersen Randy G. Reeves Robert A. Short Robin D. Weathers M. Darrell White

#### 25 Years

A. John Buri
Stephan B. Cragg
Richard A. Gossett
Jerome W. Hannigan
Kent A. Kreihn
Marcus P. Lang
Stephen L. McAnally
David G. Nicewicz
Marqus Paige
Christopher L. (Kit) Shy
Charles M. Tucker
Wayne H. Valentine
Steven L. Wemlinger

# **Sunset Review Update**

By Alan D Blair, PLS

Over the past year, the laws that regulate the professions of architecture, engineering and land surveying have undergone a sunset review that is a requirement of all regulatory programs in the State of Colorado. The review has been completed and the recommendations of the analyst have been presented. The recommendations can be downloaded from the Department of Regulatory Agencies (DORA) website by searching the site with a keyword of "sunset".

Your PLSC was active throughout 2012 to influence the recommendations from the analyst to promote the continued regulation of the profession and maintain those regulations that protect the public from substandard practitioners.

Members of the PLSC Board of Directors (BOD) and the Legislative Committee met with a coalition of professional organizations of engineers and architects to monitor the sunset process and form, as much as practical, united positions to present to the DORA analyst. The efforts were largely successful and the final report reflects few recommendations for changes to the statutes and only one of which will be opposed by the coalition in the next legislative session.

A position paper, endorsed by the PLSC BOD was presented to the DORA analyst last spring which outlined the positions of the PLSC on the current statutes. Roger Nelson, Diana Askew and I met with the DORA analyst to present the position paper and answer questions he had about the surveying profession.

DORA wrote the recommendations over the summer months and the report was released on October 15, 2012.

There were 14 recommendations listed and explained in the report. The first and most significant was that the analyst agreed that the three professions should continue to be regulated by DORA.

Another recommendation affecting surveyors regards Improvement Location Certificates and suggests adding wording to the ILC disclaimer. From the report:

To avoid any confusion and harm to consumers, the ILC disclaimer should be amended by this addition placed at the end of the first paragraph, "This certificate is valid for use only by ... (individual or firm) ... and describes the parcel appearance on (insert date)."

# UNDERGROUND UTILITY LOCATING



**Diversified Underground** is a Denver Based DBE-certified Company providing Subsurface Utility Engineering (SUE), Utility Locating, Hydro Vacuum Excavation throughout Colorado and the surrounding states.



# SUBSURFACE UTILITY ENGINEERING (SUE)

Diversified Underground combines utility locating, hydro vacuum excavating and data research / management to produce an accurate map depiction of existing underground utilities.

#### **UTILITY LOCATING**

Diversified Underground offers complete utility locating services for the identification and marking of privately and publicly owned underground utilities.



Phone: (303) 636-9999 • Fax: (303) 671-8728 • www.diversifiedunderground.com

The PLSC BOD does not intend to oppose the addition of this language.

The PLSC BOD does intend to oppose recommendation 2 in the report which would, according to the report:

Allow professional engineers and land surveyors licensed in other states to offer services in Colorado.

Extending the ability to "fish," as the practice is commonly known, for work in Colorado to the two other professions regulated by the Board will present more options for the consumer. In this age of mobility and portability of expertise it opens opportunities for different opinions, styles, and individual creativity. Still, all work that is begun will be performed under the provisions of Colorado law because the person ultimately responsible would be a Board-licensed professional.

The PLSC BOD is of the opinion that this provision has the potential of harming the public. Colorado has unique, esoteric historic practices of which a person licensed in another state may be unaware. Though a surveyor licensed in the state may ultimately stamp the plans, the critical element of the surveyor in responsible charge may be clouded. The possibility of "plan stamp-

ing" without providing due diligence could be heightened.

The draft redline of the sunset bill has been drafted. DORA suggested numerous changes to the wording of the statute to remove or replace language that was unclear, outdated and would allow more documents to be submitted digitally. For example, the National Council of Examiners for Engineering and Surveying (NCEES) will be transitioning to Computer-Based Testing (CBT) in 2014 to involve only the Fundamentals of Engineering (FE) and Fundamentals of Surveying (FS) exams, so DORA is requesting changes to the statute to accommodate that and other changes to processes in the digital age.

PLSC has reviewed the draft redline to assure that any changes to the language do not negatively affect the profession. In 2013, your PLSC will be working with the coalition of professional societies of engineers and architects and a paid lobbyist to track the progress of this and other bills through the legislative process. The PLSC is prepared to provide information to legislators to assist them to make good decisions with regard to surveying to protect the profession and the public. (Cue the National Anthem).

# Complete Photogrammetric Services MAP WORKS

Contact: Ralph Vomaske, Certified Photogrammetist, ASPRS 7625 W. 5th Ave. #203E • Lakewood, CO 80226

Phone: 303-445-1856

E-mail: mapworks@qwestoffice.net

# PLSC Membership — It Is Worth The Price of Admission!

#### By Todd Beers, PLS

Over this past year I have had the opportunity to attend several Chapter board meetings and\or functions that proved to be very educational and beneficial. At times the meetings would have a guest speaker presenting a topic of interest to the surveying community. However, most of the meetings involved just the chapter BOD discussing problems they may have encountered, technology, or issues affecting their geographical area.

This type of information related to technology issues (availability of VRN's or user base stations in the area), problems with radio or cell phone coverage, level of services provided by firms (niche services, specialized technology, etc.), experience and local knowledge of surveying issues from companies that we may be able to team up with on projects, etc. has provided me with a tremendous amount of insight. The contacts made at these meetings also provide opportunities to team with others since they also know what services we may be able to provide as well. Without being a member of the PLSC I would not have been able to take advantage of this business networking.

The 3rd Annual Rocky Mountain Surveyors Summit is fast approaching and provides just one of the many "values" that PLSC membership affords. The Summit boasts a full slate of 3 days and four tracks (Professional, Technical, Business\General and Technician) of presentations, seminars and discussions for professional land surveyors and non-surveyors alike. There will be nationally recognized surveying experts such as Jeff Lucas, PLS, speaking on "The Pincushion Effect," Larry Phipps, PLS speaking on traverse analysis and adjustment, 2011 ALTA\ACSM standards and how to apply them, ethics for land surveyors, and implementation of value pricing for projects, and Mark Smirnov, PLS, speaking on the Rocky Mountain Riparian boundaries, as well as local Colorado speakers touching on a wide range of subjects, and National Geodetic Survey representatives. Exhibitors, who are also PLSC sustaining members, will be on hand to display a variety of products and services useful to the surveying industry. In addition, we will be having a Chapter Summit where the 7 PLSC Chapter representatives will have a forum to interact with each other and indicate to the PLSC leadership what issues and\or items of concerns they would like to have addressed in the coming year. This year we will be returning to the Arvada Center for the Performing Arts, in Arvada, Colorado.

We received many positive comments from attendees and exhibitors from last year's conference, including, "Parking is no longer a hassle," "There were several seminars that were presented at the same time and it was difficult to choose which to attend," "The food was terrific and plentiful," "A wide variety of speakers and tracks provided something of value for everyone." A sig-

nificant reduction in cost is offered for the attendees to the conference who are PLSC members, which nearly offsets the cost of a yearly membership. We set a record for attendees at last year's conference and hope to repeat that feat this year. Please see the program lineup of speakers and presentations in this issue of *Side Shots*. For additional information and registration for the conference, please visit the PLSC website at www.plsc.net.

This year we are introducing a "Surveyors Symposium" with the intent of discussing "Improvement Location Certificates" in order to potentially task the PLSC Legislative Committee with proposed new legislation regarding this hot topic for surveyors in the state. This is an opportunity to join in the discussion that may affect your industry in the state! We hope to repeat this event for future years on subjects that are of interest to the surveyors in Colorado.

The PLSC actively participated in the Sunset Review Process with the State Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors. The PLSC employs a lobbyist whose services can involve the monitoring of the State of Colorado legislature regarding upcoming proposed laws that can affect the surveying profession, to securing bill sponsorship of proposed association legislation, drafting of legislation, coordinating committee presentation, lobbying for passage of the legislation and securing gubernatorial approval.

The PLSC has a designated National Society of Professional Surveyors (NSPS) representative who attends the meetings throughout the year. This organization is dedicated to the Surveying professional and serves as our representative organization on a national scale. The PLSC is also a member of and has representatives who attend the Western Federation of Professional Surveyors meetings throughout the year.

The PLSC is a member of the Qualifications Based Selection (QBS) Board of Directors. This organization is dedicated to the goal of basing selections by state and local governments for Architectural, Engineering and Surveying contracts upon qualifications and not only on fees.

PLSC sponsors educational opportunities for members and future land surveyors: The annual LSIT and PLS Refresher Course at the Jefferson County Administration Complex (for 2013), designed to help prepare survey interns to take their fundamentals and professional land surveying exams. Scholarships in surveying, GIS or other mapping-related programs are available through the PLSC and the associated chapters.

The PLSC, over the past several years, has coordinated a speaker track at the annual "GIS In The Rockies" conference, further extending our profession into



#### DISTANCE DELIVERY OF COURSES FOR

#### LAND SURVEYORS

Now it is possible to pursue or advance a career in land surveying via distance delivery.

- Select courses individually or as part of the degree completion program.
- Enroll year-around; take six months to complete a course.
- Take exams close to home or work.
- Communicate with your instructor by e-mail or telephone.

#### **Twelve Self-Paced DVD Lecture Courses**

SUR 1510-4 Surveying I
SUR 2520-4 Surveying II
SUR 2530-4 Route Surveying
SUR 2550-3 Surveying Computations
SUR 3100-3 Survey Data Adjustment/Analysis I
SUR 3150-2 Astronomy for Surveyors
SUR 3220-2 Real Property Descriptions
SUR 3300-3 Photogrammetry
SUR 3540-3 Boundary Law I
SUR 3700-3 Geodesy I
SUR 4510-3 Map Projections and Coordinate Systems
SUR 4540-3 Boundary Law II

#### **On-line Course**

COM 3615-3 Technical Writing for Surveyors and Engineers

For more information and registration visit our web site: www.mscd.edu/surdd or send an email to mscd\_surdd@mscd.edu or call Extended Campus at 303-721-1313.

other related industries. This event provides an opportunity for GIS professionals to interact with, and understand more about, the surveying profession and leads to a better understanding of the similarities and differences between the two professions.

The PLSC journal, *Side Shots*, is an award-winning, quarterly publication that keeps members up to date on important activities of the PLSC, the latest legislative information, articles of interest written primarily by Colorado professionals, and listings of upcoming events of interest to surveyors.

However, all these benefits and services do not completely convey why a PLSC membership is so important to Land Surveyors in Colorado. Perhaps the most important benefit is the dissemination of information, including news of what is going on in our profession, data on the latest technologies, trends in and development of rules and legislation and government regulations, and the list goes on.

Finally, there is the benefit of active participation in the future of our profession. Surveying is rapidly changing - LIDAR, GIS and land information systems, GPS, CAD, new standards for surveys (2011). How many were involved in these just a few years ago? We are truly in the digital age. These new technologies are revolutionizing the way we do our work! We are facing higher educational standards, stricter requirements for financial responsibility and a mutual responsibility for competence. Beyond all of this lies the ability to help shape the future, in cooperation with other surveyors, doing collectively that which we cannot do ourselves. PLSC is and will be at the forefront of these developments.

PLSC Membership – it is definitely worth the price of admission! Please consider joining or renewing if you have not already done so, and help spread the word to other surveyors who are not yet members.

# What Direction Are You Going?

By Earl F. Henderson, PLS

We all may have noticed that there exist between Architecture and Engineering (A&E) many differences with Land Surveying, but I'd like to focus on one fundamental difference that keeps coming to mind.

First, consider A&E wherein a professional comes up with a conceptual design and applies that to paper through a complicated methodology to create a set of plans. Those plans are then used to construct a site or structure in reality, or on the ground. If a problem or issue arises during or after the creation of the reality, the plans are consulted to verify what was proposed and compare that to the reality. If there's a difference, the proposed plans are looked on as the definitive design and the reality is adjusted to match the proposed plans.

Performing an original land survey works fundamentally the same as the first half of the A&E process. We take a design, be it a subdivision plat or the BLM manual, which is itself just a complicated set of instructions for a subdivision design, and apply that design to the ground, stake out the property corners, and set monumentation in the proposed locations. At that precise moment, when the original monuments have just been set, the fundamental process of land surveying changes

to the opposite direction. At that moment land surveying becomes an historical and legal profession, not a technical one, and we become Retracement Land Surveyors. I see many land surveyors applying original survey mentality incorrectly when they are performing Retracement Land Surveying. It is very unusual in the private sector to perform original surveys anymore unless you're contracted by the Federal Government who owns almost all of the un-surveyed land, or you're creating a subdivision of some kind. But a subdivision requires that first you perform a Retracement Land Survey of the perimeter of the property. It is important to understand that once the original survey is completed the laws that govern Retracement Land Surveying require us to proceed in the opposite direction.

Retracement Land Surveying is fundamentally different from A&E and original surveys in that our plat is a depiction of the reality. In other words, the flow of information is in the opposite direction, from ground to plat. We measure the ground, the evidence and existing conditions first and what we find dictates our decisions, what appears on our plats, and where we place monumentation. The prior survey plats (even the original) and the deeds are guides during this process to be used to direct us to the locations of the original corners,

# Your deadlines ar deadlines







Custom orders your way ... when you need them.

When your name is on it, our name is behind it.

Berntsen delivers.

The professional's choice in survey products • www.berntsen.com • 877.686.8561

but they do NOT govern or dictate where the corners are located. The original corners were defined by the original survey on the ground and will never change. And the courts have determined, many times over and over again, that the original corners were NOT defined by the original plat or deed but by the original survey on the ground. It is our duty to find those locations and monument them as best as we can. Our plat is then governed by the ground, not the other way around. I am reminded of a Zen quote, "The map is not the territory." which in this case can be stripped of its spiritual and existential deeper meanings and applied here in a more earthly fashion. In Retracement Land Surveying we are legally required to survey property NOT descriptions and then show the differences on our plat.

One way that that has been communicated throughout our profession for centuries is the often heard phrase "Follow in the footsteps of the original surveyor". Notice that the phrase uses the term "original surveyor" not "original subdivision plat" or "original deed". Subdivision plats and deeds are pieces of paper that aren't capable of leaving footsteps. The original surveyor, and the clients of that surveyor, did leave footsteps in the form of evidence. It is our duty to evaluate all the evidence we can find and determine where the original corners were placed to the best of our ability, NOT to use mathematics to calculate a theoretical location, nor to proportion a location when contrary evidence exists. Every survey text book states this in one form or anoth-

er including the BLM Manual. I have, in my copy of the 2009 BLM Manual, at least 8-10 places highlighted that state the preference for using the evidence of the original survey over proportionate measurements. This applies even if the original survey was in error. The original surveyor may not have even been a licensed professional. It is possible and legal that the original surveyor was the farmer, who paced off a piece of land that his attorney described in a deed as the NW1/4 NW1/4 of Section 21 which the farmer then sold off to his cousin's nephew. It may be their footsteps we are trying to retrace so the measurements are sure to be rough.

So be very aware of the difference between original surveys and retracement surveys as you perform your work. Know which one applies to your current project and know the laws that guide your processes. And if you're performing a Retracement Land Survey and you find yourself taking a plat or deed description and applying that to the ground and then claiming that is the location of the property, you're going in the wrong direction and a head-on collision may be imminent.



# **PLSC Board of Directors Meeting Minutes**

September 25, 2012; 4:00 p.m.

Call to Order: 4:03pm

**Recognition of PLSC Board Members and Officers:** 

**Present:** Roger Nelson, Mike Bouchard (VP), Terry Maw (Treasurer), and Becky Roland (Exec. Dir.). **Board:** Todd Beers, Bill Buntrock, Patrick Green, Peter

Kent, Peter Krick, Parker Newby (SW)

Exofficio: Kayce Wohlman (Northern), J.J. Rihanek

(Central), Brian Dennis (CSRN) Nonvoting: J.B. Guyton

**Absent**: Gary Gable, Stan Vermilyea, Warren Ward, Tom Adams.

Determination of Quorum (Terry Maw - 6 voting members) established

#### **Welcome of Guests**

Additions, deletions and modifications to agenda: GIS in the Rockies – moved to 5A

1: Approval of Minutes from Previous meeting: MOTION: To approve the July 25, 2012 meeting minutes. Moved by Beers, 2nd by Buntrock. Approved unanimously as submitted.

# 2: Executive Director: Phoenix AMC, Becky Roland Transition Update.

Finalized taxes, moved accounting to Quick Books, update of state regs, updated signature cards. E-mail business protocol –Include e-mail business in subject line, response required and deadline, an agreement of those present was agreed upon.

# 3: 2012 Budget Tracking – Terry Maw & Becky Roland

- 3.1 Mileage expenses need to watch.
- 3.2 Membership drive sent info to chapters need to get on it.
- 3.3 Need to get PLSC membership application on website.

Becky wants to change our accounting from cash basis to accrual basis. The accrual basis will better show our financial position over time.

Maw made a motion, Dennis 2nd for the PLSC to move from cash to accrual basis financially. Approved unanimously.

#### 4: 2012 Elections Committee, Chair - Bill Buntrock.

- 4.1 Nomination status-ballot status 7 director's candidates, one candidate for each office.
- 4.2 B.O.D member shirts. +/- cost for polo shirts \$25. Put into budget 30ea@\$25.

#### 5: PLSC Awards – Stan Vermilyea & Bill Buntrock

Stan – need to finalize form and get into *Side Shots*. 5.1 - If Tom Adams has an appreciation plaque is a gavel needed.

5.2 - Do we want to provide trigstar winners with money/award. Bouchard – use scholarship funds for

gifts. Motion: Bouchard moved Patrick 2nd to provide this year's Trigstar winner with a certificate and a \$200 gift either cash/gift certificate. Approved unanimously.

5.3 - Roger Nelson nominated for PLSC lifetime membership.

#### 6: 2012-2013 Lobbyist – CONTRACT WITH Peg Ackerman

After reviewing the three pricing options by Peg Ackerman – Beers moved and Bouchard 2nd to accept the middle of the road pricing of \$4000. Approved unanimously.

# 7: 2013 Surveyor's Summit Planning Status – Chair Todd Beers

All tracts are filled – speakers signed up – preliminary lineup to be placed into *Side Shots* – working with Arvada Center on long term use.

#### 8: PLSC Scholarship form.

Scholarship form was reviewed, corrected and explanations added to the form. Dennis moved and Vermilyea 2nd to put the revised scholarship form on the PLSC website. Approved unanimously.

# 9: PLSC Website - Updates, Protocol, etc. – Brian Dennis

Terry Sanders has stepped down as the PLSC webmaster. Brian and Becky looking for a company to administer our website.

#### 10: Bob Stollard's House update

A copy of the transfer needed, then get the property appraised. Once sold we will need to pay capital gains. Buntrock moved – Bouchard 2nd to approve Becky to secure a Warranty Deed from the Stoddard Estate, get an appraisal. Approved unanimously.

#### 11: First SIT Certificate.

There was general agreement to put a scanned copy on the website. Frame the certificate and store in someone's office.

## 12: PLSC 2012 Main Goals - Update

Need to come up with 3 goals for 2013.

14: Reports: No Reports
Next Meeting Date and Location:
December 4, 2012; 4:00 p.m.
2450 South Peoria Street
Aurora, CO 80014

5:43pm Adjourned. Respectively Submitted Terry R. Maw, PLS Secretary/Treasurer, PLSC

# **Employees: Assets with an Inherent Risk**

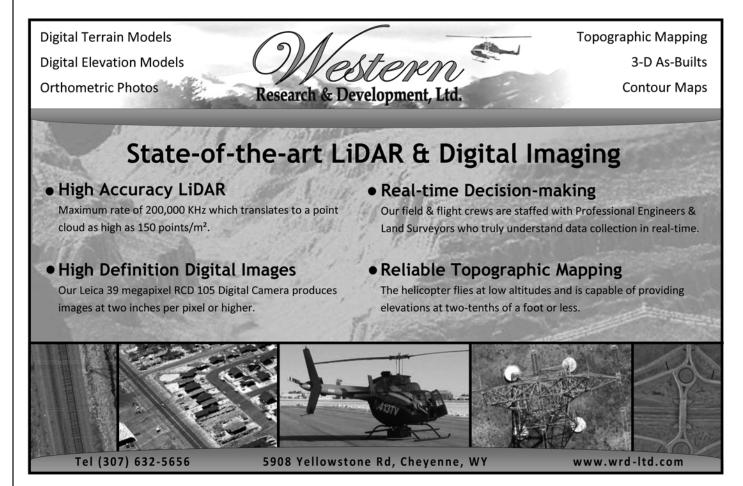
By Scott Sorensen, Assurance Risk Managers

Design consulting, like many other industries, is one where employees are one's most valuable asset. However, it is important to recognize that businesses today are increasingly at risk for liability claims and lawsuits that arise from employment practices and related human resource issues, such as the obvious matter of sexual harassment and discrimination, but also for wrongful discharge, failure to hire and failure to promote, as well as many other matters.

Employment practices related lawsuits continue to grow in both frequency and severity. This is partly attributed to the fact that over the past decade due to a combination of both federal employment laws together with state laws the employees' rights in the workplace have expanded, opening the way for new "causes of action" to be brought against employers and broader than ever rights of recovery. Third parties, such as customers, consumers and clients are also more frequently seeking legal recourse for alleged discrimination or harassment.

These trends coupled with more expansive judicial interpretation of applicable laws have gone hand in hand with reasons of why this exposure has grown, leading to a costly vulnerability. Try as one will, one can attempt to do everything right and still find their business subject to claims of wrongful employment practices. Whether the allegations against one's firm are legitimate or groundless, one may be faced with expensive legal costs. Employment Practices Liability Insurance (EPLI) is needed as soon as one starts to hire employees and is especially important for new and rapidly growing firms as they tend to be more vulnerable as management teams have not yet designed or implemented procedures for hiring, firing, and disciplining employees.

There are no standard EPLI policies and thus each policy must be evaluated on its own, but these policies are designed to protect against liabilities that arise out of the employment relationship and not Workers Compensation, issues involving unemployment insurance and ERISA exposures. Each policy will contain its own



definition of the wrongful acts that are included in the policy. It is important to note that if an act is outside the definition of a wrongful act, then there may not be coverage. Some examples are:

- Discrimination
- Negligent Hiring
- Wrongful Discharge, Evaluation, Discipline, Promotion
- Employment-Related Personal Injury (Libel or Slander)
- Sexual Harassment
- · Failure to Hire
- Workplace Tort Wrongful Termination, Retention, etc.

Due to the fact that policies are unique, keep in mind that some will narrowly define "harassment" limiting it to "sexual harassment" while others use a broader definition as "workplace harassment" or "harassment including sexual harassment." EPLI coverage/policies most commonly are on what is known as a "claims-made" policy and differ from most liability insurance policies such as General Liability, Automobile, and Workers Compensation policies as they pay for events that occur during the policy period which is known as an "occurrence" form. For example, an auto policy will pay for a recent accident that occurs during its active policy period, or in other words if the occurrence or accident happened during the policy period, coverage will be available. EPLI policies, however, pay for lawsuits filed during the policy period; the wrongful act could have occurred years before. Claimsmade policies respond only when a suit is filed, or when a strong threat of a suit exists at that time a claim is made and thus filed with one's current carrier.

The downside of a claims-made policy comes in two forms. First Claims-made policies respond to claims brought during the policy period but most include a date after which a claim must occur in order for the policy to respond, known as a "retro date" which is typically the date when coverage was first obtained. Therefore the importance of obtaining EPLI once one hires

employees as many times that would become the retro date of the policy. When changing insurance companies, it is vital to understand that if the retro date is not rolled over one would begin the period all over again.

The second downside is if a policy is cancelled. An example would be if an EPLI policy is in force January 1, 2008 and is renewed in 2009 and in 2010. However, the organization decides to end the policy in 2011 because the premium increased. A year later though a letter from an attorney arrives announcing a lawsuit for discrimination in a hiring that occurred in 2009. Although the policv was in force at the time of the alleged discrimination, the policy was not in force when the suit was filed thus unfortunately there is no coverage in force. The solution to this is to obtain an extended reporting period. In the event that coverage is cancelled or not renewed protection may be desired for events that took place prior to the expiration/cancellation but for which no claim has yet been filed. This coverage is called a "tail" or "extended reporting period" (ERP).

In some Business Owners Packages one can include a small amount, \$5,000 for example, of this coverage for a very affordable price. However, you may look for more protection, especially one that has a broader definition, and possibility some very useful policy features to help assist in preventing losses. Some insurers may provide a "hotline," allowing free access to HR experts to discuss employment actions and situations. Another feature is a reduction in your deductible if legal council is sought prior to an incident turning into a claim. That may be in the form of assistance from the "hotline" or by working with your own attorney. Either way, it is typically an overlooked line of coverage. But whether you have large or small limits, it is good coverage to have.

Members with questions and in need of more detailed assistance should contact Assurance Risk Managers, Inc. Account Executive Scott Sorensen at 303-454-9562 or email him at ssorensen@arm-i.com

# STATE BOARD UPDATE

By Brian Pritchard, Director
Business and Technical Section
State Board of Licensure for Architects, Professional
Engineers, and Professional Land Surveyors

# **New Program Director**

I am pleased to announce that Joyce J. Young has accepted the Program Director position overseeing the Board of Licensure for Architects, Professional Engineers and Professional Land Surveyors, the State Board of Landscape Architects and the Colorado Passenger Tramway Safety Board. Ms. Young is replacing Angie Kinnaird Linn who held this position for 18 years (less the 4 years when she held the title of Director of the Business and Technical Section of the Division of Professions and Occupations).

Joyce began her career with DORA and the Division in 2002 and has worked exclusively in the Business and Technical Section for a host of program areas, including the Plumbing, Electrical and AES Boards. She brings a great deal of institutional knowledge to the position. Please join me in welcoming Joyce to her new role.

# C H A P T E R N E W S

#### **CCPS**

Another great year has come and gone! The CCPS hopes everyone had a safe and happy holiday season.

Our special project for 2012 was to construct a new baseline in the Denver Metro area for all members of the land surveying community to utilize. Finding a suitable location is turning out to be a daunting task and we could use your help. Please contact Shawn Clarke if you think you have a location that would work, as he is well versed in the required NGS baseline specifications and would love to hear your suggestions.

The CCPS hopes to continue to have topics and speakers at our general membership meetings that are just as interesting this year as those we had this past year. I want to give thanks to everyone who was willing to donate their time and to present as one of our guest speakers or sponsoring vendors. These meetings are put on for the benefit of our members and we want to have speakers and topics that everyone will enjoy. If you have a speaker in mind please let me know. These are great venues to discuss anything regarding the land surveying profession. If you haven't attended one yet we hope to see you in 2013. Bring a friend.

The 2013 CCPS Board of Directors elections have occurred and the results are in. Officers will be Christopher Raml, President; David Kuxhausen, Vice President; and Aaron Willis, Treasurer. The directors will be Shawn Clarke, George Robinson, John Wilhelm, Terry Pickering, Kevin Kucharczyk, and Ken Baker. The secretary position and one director spot are currently vacant.

If you or someone you know is interested in serving please let me know. The CCPS needs YOU! Let's all thank JJ Rihanek for the last two years of his distinguished service as President.

Please visit our website, www.centralcosurveypro.com for contact information, meeting details, and general CCPS news.

> Chris Raml, PLS President, CCPS

#### **CSRN**

The CSRN begins another year as 2012 is behind us and so is my time as President. I have enjoyed and appreciated the opportunity to serve two terms as President. As I look back I am able to see many accomplishments for the CSRN over that time. Our most noticeable achievement is the creation of the annual GPS Day. Our second is the

installment of two more surveyors onto the CSRN Board in the spirit of outreach to adjacent professions.

At this time I am excited to announce the new President for the CSRN for 2013, Jan Sterling. Jan will bring a new style of leadership and focus to the CSRN. New leadership is healthy and necessary to keep any chapter or group alive and moving forward. Jan has been with the CSRN for many years and I believe she will serve the membership well and has my full support in her new role.

The CSRN still needs to fill the position of Secretary, which is an Officer position. If you are interested in this position and in participating in an active and exciting group contact Jan Sterling at info@csrn.us. The CSRN Board for 2013 is: Jan Sterling – President, Eric Carson – Vice President, Chris Duda – Treasurer, John Doty – Director, Harold Schuch – Director, Larry Rector – Director, Kayce Wohlman – Director and Brian Dennis – Director.

Brian Dennis, PLS Past President, CSRN

#### NC-PLSC

The Northern Chapter is gearing up for 2013. We have lined out presenters for the next several meetings. Our January meeting, we'll have a presentation "Civil 3D for Surveyors" by Ken Martinez with CommTech. Ken presented for our chapter several years ago and all attendees were hanging at the edges of their seats being wowed by his innovative skillset. February 6th, we'll have a special guest from our Colorado State Geodetic Advisor, Pam Fromhertz. She'll be providing a presentation on horizontal and vertical datums. If you haven't heard her talk, I highly recommend coming to this meeting with your questions. She's an excellent resource for any surveyor working in this state.

Our chapter is gearing up for



From the Northern Chapter Christmas Party, from left: Laine Landau, Steve Varriano, Wally Muscott, David Holmes, Becky Roland, Mike Dedecker, Rob Hintz.

# C H A P T E R N E W S

the 2013 Summit Conference which I'm sure you've heard all about. All the speakers have been lined out and we have some big names. The Northern Chapter is excited to once again be a part of this annual event. Todd Beers has done a heck of a job pulling everything together. His energy in pulling this event together for the past two years is impressive. Next time you see him, be sure to let him know how much you appreciate his dedication to the advancement of our industry.

Lastly, our most exciting news for the 2013 year, the Northern Chapter has compiled another booklet for our constituents; we've dubbed it 'The Subdivision'. This booklet like the last, covers many areas that were not in our first booklet. The Subdivision contains some of the information that was in our latest booklet submittal however it has some new additions including but not limited to the following (may not be in full): Subdivisions, Planned Unit Development, Cluster Development, Planning Commission, and Bylaws and Policies of the State Board of License for Architects, Professional Engineers and Professional Land Surveyors. We'll be mailing these out to all Chapter members in the coming months. They will also be on sale at the conference at the registration booth.

The Northern Chapter will be looking for some new folks to step up as director this coming fall. Let me know if this interests you at all. We're always looking for new faces to join our organization. If you're interested in being more involved in our wonderful group, all you have to do is show up to a meeting. If you would like meeting notices and are not yet receiving them, please email me and I'll be sure to place you on our mailing list.

I hope to see you at our next chapter meeting, and if not then, at the Summit Conference this spring.

> Kayce D. Wohlman, PLS Northern Chapter President

#### **NW 1/4 CLS**

The NW1/4 met for the final time of 2012 on November 12th at the Craig Holiday Inn. Present were Walter Magill, Lloyd Powers, Peter Epp, Leif Joy, Tom Effinger, Skidge Moon, Gordon Dowling, Willy Thomas, Brian T. Kelly along with special guests Roger Nelson and Todd Beers of the PLSC. Sometimes we wonder how those guys found us!

After going through the normal reporting of the bank balance, the change in the PLSC Executive Director and the upcoming legislative session, we settled into two topics of relevance for everyone in the area: Narrowbanding and the establishment of a CORS station in Steamboat Springs. With County Surveyors present from the Rio Blanco, Routt and Moffat Counties, the discussion centered on where best to site the CORS station, possible donations by CDOT as well as local governments, access to repeating stations to broaden the potential range, NGS requirements and physical issues in establishing the CORS station as winter approaches. Tom Effinger graciously offered his assistance to Walter Magill in establishing this CORS station and it appears likely at this date this will become a reality by early spring. Certainly, the two coldest months of the year have slowed progress down a little, but it appears Walter and Tom have worked out most of the technical and site issues and when the thermometer actually gets over 32 degrees for a while, they should have it done! Kudos to both of these gentlemen for their persistence in not only getting the equipment from CDOT, but actually taking the time to figure out the nuts and bolts of getting it established. This will be a non-glonass station once established, but that should change in the not too distant future.

Narrowbanding is an issue that affects all surveyors throughout the country and its impact was discussed at some length. The solutions are different for each user as

the software upgrades vary according to age and manufacturer. Peter Epp discussed what he had done to resolve his particular issue and of course narrowbanding became effective Jan 1st of this year.

Last but not least, Roger and Todd discussed this past year's changes within the PLSC, the changes in membership with the downturn in the economy and what to expect this upcoming legislative season. I have been getting regular email correspondence from the PLSC BOD and of course the Colorado Legislature starts up shortly. Todd also discussed the probable program of the upcoming PLSC Spring technical session and the effort to lend ongoing continuity to the educational programs.

The probable upcoming legislation for out of state registrants to "test" the markets within Colorado was also discussed and there was not a favorable reaction to this. It was felt that individuals or corporations seeking to do surveying business within the State of Colorado should get registered first and then seek business. This is true of all of our neighboring states.

The NW1/4 will meet again in the Spring!

Brian T. Kelly, PLS President, NW1/4

#### **SCPLS**

The November board meeting was held in Pueblo. Discussions included the budget for 2013 along with board and officers elections. The Secretary position and two board of directors openings are up for election. Our Election ballots have been sent out and results are not available at this time.

Numerous potential presentation speakers were discussed for future membership meetings to be held during year 2013. Note: Scholarship funds are available for those not enrolling in a four year college program. Discussions continue for applicants interested in the program.

# C H A P T E R N E W S

On December 14, 2012, our Christmas Party was held at the La Renaissance Restaurant in Pueblo. This was one of our largest dining turnouts. A white elephant gift exchange was held after dinner which ended a fun night.

Calendar updates included the 2013 board of directors and membership meeting dates. Significant dates included the Summit to be held at the Arvada Center February 28, March 1 & 2, 2013.

Joseph Alessi, PLS President, Southern Chapter

#### SWC-PLSC

The SWC-PLSC held our most recent chapter meeting on Tuesday, November 13 in Durango. Topics of discussion included the CORS station at the La Plata Airport, ideas for the membership drive and guest speakers for the upcoming meetings. Discussion was had regarding the 2013 Colorado Land Surveying Refresher Course and how to make these classes available for surveyors and students in our remote location. Ideas included having a webinar available with the annual refresher course and perhaps doing Skype to have interactive participation with instructors and remote students.

The SW Chapter in conjunction with Compass Tools, Inc., CDOT, City of Durango, La Plata County and NOAA has just recently com-

pleted the installation of a CORS station on a maintenance building at La Plata County Airport. Compass Tools donated the equipment and the station has just been accepted by NGS and can now be accessed for data under the designation of CTI4. The Chapter thanks the many volunteers who helped with the installation efforts and coordination between agencies. Special thanks to Todd Johnson at CDOT and Pam Fromhertz with NOAA for their preliminary research and early efforts to get the project started.

Larry Connolly, La Plata County Surveyor, will be the guest speaker at our January 15th meeting here in Durango. We have some other names in the cue, so watch for emails announcing speaker, time and location. Our meetings are typically the second Tuesday of odd numbered months.

The annual Four Corners Area Seminar is scheduled for June 7 & 8, 2013 at Fort Lewis College in Durango. Our seminar committee has begun 'ramping up' for this year's event. Registration and speakers will be available soon at www.plsc.net.

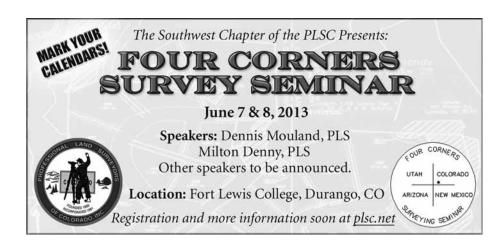
Joshua J. Casselberry, PLS President, SWC-PLSC

#### **WCLS**

The WCLS-PLSC had their latest meeting on November 14th.

We had another good turnout. It is great to see the turnout that we get for our meetings. Special thanks to the individuals that drive from out of town for the meetings. Peter Krick again provided an excellent meal for attendees. Scott Godfrey of the Grand Valley Drainage District gave an overview of their website. Les Doehling of CDOT gave an overview of CDOT information available. There was a discussion and vote on NSPS membership. WCLS will have their spring seminar on May 17, 2013 and Dave Pehr will be the speaker. One session will be "Surveyors and Litigation." We had Dave as a speaker last year and look forward to having him back this year. Next meeting will be on January 9th.

> Richard Bullen, PLS President, WCLS



# S U S T A I N I N G M E M B E R S

#### ACCURATE CORE DRILLING, INC.

15550 Hwy. 86 Kiowa, CO 80117 303-898-4385

#### ASSURANCE RISK MANAGERS

2851 S. Parker Road Suite 760 Aurora, CO 80014 303-454-9562

#### TERRY C BARNES

Range West, Inc. P.O. Box 589 Silverthorne, CO 80498 (970) 468-6281

#### BERNTSEN INTERNATIONAL, INC.

P.O. Box 8670 Madison, WI 0 608-249-8549

#### CAD-1

12130 N. Pennsylvania Street Thornton, CO 80241 303-427-2231

#### CARLSON SOFTWARE

12161 W. Layton Avenue Morrison, CO 80465 303-482-1836

#### COMPLIANCE SOLUTIONS

3980 Quebec Street 2nd Floor Denver, CO 80207 303-307-9220

#### COMM-TECH

5398 Manhattan Circle Boulder, CO 80303 303-530-4976

#### DAVID EVANS AND ASSOCIATES, INC

1331 17th Avenue Suite 900 Denver, CO 80202 720-946-0969

#### **ESRI**

380 New York Street Redlands, CA 92373 909-793-2853

#### FLATIRONS SURVEYING, INC.

3825 Iris Avenue, Suite 395 Boulder, CO 80301 303-443-7001

#### FRONTIER PRECISION INC

5855 E. Stapleton Dr. North A-140 Denver, CO 80216 720-214-3500

#### HIXON MFG & SUPPLY CO

8775 E Orchard Road, Suite 807 Englewood, CO 80111 303694-0012

#### ROBERT R JOHNS

Range West, Inc P.O. Box 589 Silverthorne, CO 80498 (970) 468-6281

#### NGS/NOAA

Pamela Fromhertz c/o USGS Core Science Informatics Building 810, MS 306 Denver, CO 80225 303-202-4082

#### NV 5

8000 South Chester Street Suite 200 Centennial, CO 80112 303-220-6400

#### POWER SURVEYING COMPANY INC.

120 W. 84th Avenue Thornton, CO 80260 303-702-1617

#### PWSI LAND SURVEYORS

3545 S. Platte River Drive, #M-3 Sheridan, CO 80110 303-904-1345

#### DIANE SIERRA

10355 Westmoor Drive Westminster, CO 80021

#### SITEWISE CORPORATION

7000 N Broadway #3-305 Denver, CO 80221 303 459 6531

#### SKLD INFORMATION SERVICES

9540 East Jewell Avenue Suite A Denver, CO 80247 (303) 695-3850

#### TOTAL POSTIONING SOLUTIONS

5385 Quebec Street Commerce City, CO 80022 303853-0311

#### SURV-KAP LLC

P.O. Box 27367 Tucson, AZ 85726 520-622-6011

#### TERRAMETRIX, LLC

4852 S 133rd Street Suite 105 Omaha, NE 68137 402-618-3165

#### UNDERGROUND CONSULTING SOLUTIONS

2701 W. Oxford Avenue, Suite 6 Englewood, CO 80110 303-904-7422

#### VECTORS, INC

8811 E Hampden Avenue Ste 110 Denver, CO 80231 303-283-0343

#### WESTERN RESEARCH & DEVELOPMENT

634 Suntrail Drive Loveland, CO 80538 307-632-5656

These firms support our organization.
Please show them your appreciation with your patronage.

A masterful documentation and historical perspective of each initial surveying point for federal public lands in the United States. Published in 9x12 format, Initial Points of the Rectangular Survey System features a 4-color section with more than 130 photos depicting monuments and landmarks.

Price
\$89
\$79 \$69

Call 303-428-9529 to order C. Albert White's second book,

# INITIAL POINTS OF THE RECTANGULAR SURVEY SYSTEM

Never before, in the history of surveying, has so much pertinent and interesting material been so meticulously compiled in one publication. (White personally visited EVERY Initial Point.)



Mr. White's first book, A History of the Rectangular Survey System, published by the BLM in 1983, is considered the definitive work on the U.S. Public Land Survey System. Arguably the most distinguished authority on the history of nineteenth and twentieth century public lands surveying, White began his career with the General Land Office in 1946. Both as BLM and a private surveyor, he applied his zeal to a wide range of activities. White's expertise represents a bridge between the wisdom and experience of the American heritage of land settlement and the contemporary uses of surveying technology.

Published by the Colorado Professional Land Surveyors Educational Foundation, Inc., a non-profit foundation, Initial Points of the Rectangular Survey System is undertaken in the spirit of, and dedication to, Mr. White's remarkable contributions to his field.

Net proceeds from its sale will be returned to the Professional Land Surveyors of Colorado Inc. Scholarship Fund.

# Need to get Utilities located?



Don't let these guys scare you..

# **Call UCS for Utility Locating**

We will tell you what they are hiding under those boxes...



Underground Consulting Solutions

- QUALITY -
- DEPENDABLE -
- EXPERIENCED -

We'll get the job done right the first time





Private and Engineering Utility Locates