

# SURVEYOR

*California*

Winter 2011

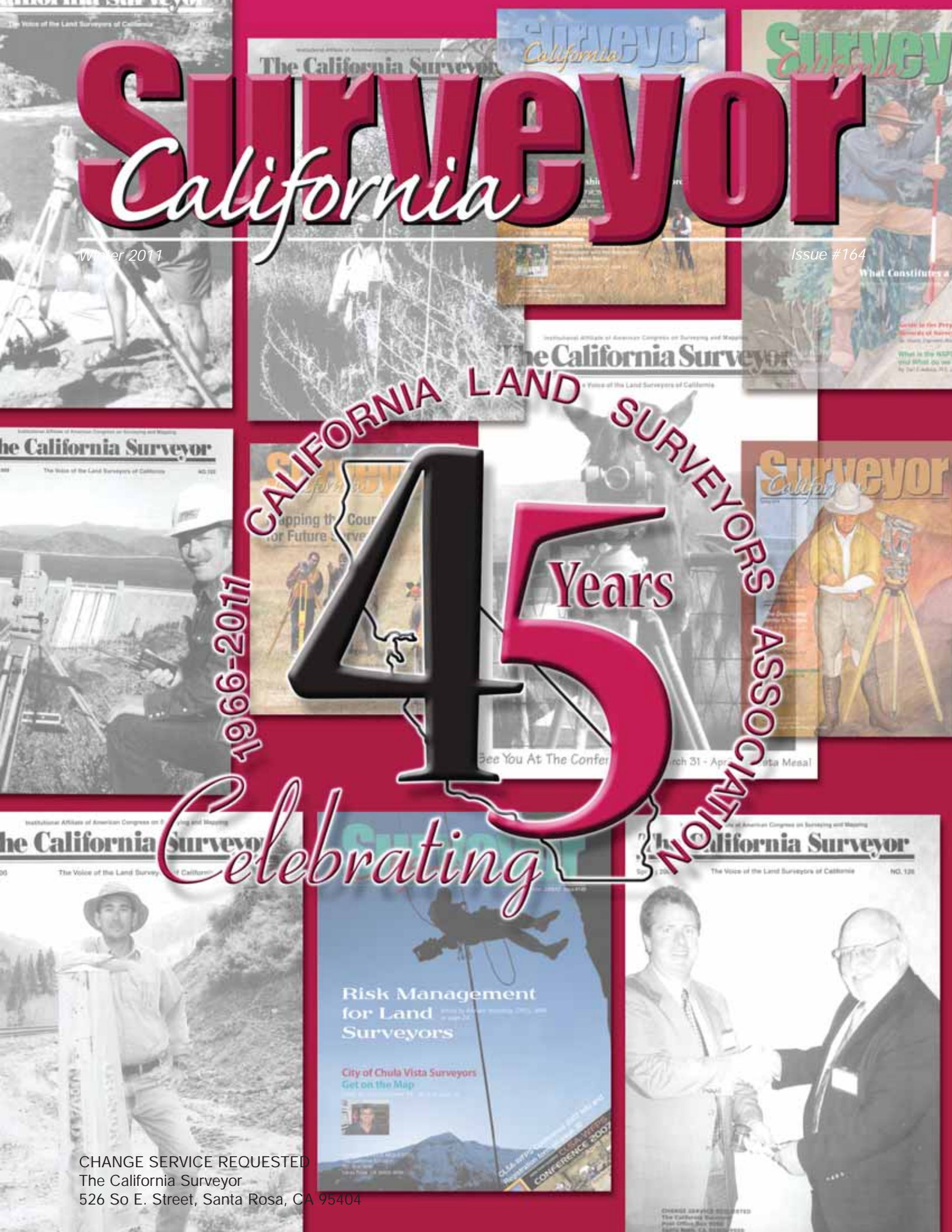
Issue #164

# CALIFORNIA LAND SURVEYORS ASSOCIATION

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The quarterly publication of the California Land Surveyors Association, Inc. and is published as a service to the land surveying profession of California. It is mailed to all Licensed Land Surveyors in the State of California as well as to all members of the California Land Surveyors Association, Inc. The California Surveyor is an open forum for all Surveyors, with an editorial policy predicated on the preamble to the Articles of Incorporation of the California Land Surveyors Association, Inc. and its stated aims and objectives, which read:

“Recognizing that the true merit of a profession is determined by the value of its services to society, the California Land Surveyors Association does hereby dedicate itself to the promotion and protection of the profession of land surveying as a social and economic influence vital to the welfare of society, community, and state.”

“The purpose of this organization is to promote the common good and welfare of its members in their activities in the profession of land surveying, to promote and maintain the highest possible standards of professional ethics and practices, to promote professional uniformity, to promote public faith and dependence in Land Surveyors and their work.”

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California Land Surveyors Association, Inc.

### CENTRAL OFFICE

526 So. E Street  
Santa Rosa, CA 95404

E-Mail address: [clsa@californiasurveyors.org](mailto:clsa@californiasurveyors.org)  
CLSA Homepage: [www.californiasurveyors.org](http://www.californiasurveyors.org)

### EDITOR

John P. Wilusz, PLS, PE

### ASSISTANT EDITORS

Paul M. Brown, PLS – Jill Van Houten, PLS

### CONTRIBUTING WRITERS

Michael P. Durkee, Esq.  
Richard R. Hertzberg, CPUC, ARM  
Ian Wilson, PLS  
David E. Woolley, PLS

### DESIGN AND PRODUCTION

Tony Monaco

### ADVERTISING

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All articles reports, letters, and contributions are accepted and will be considered for publication regardless of the author's affiliation with the California Land Surveyors Association, Inc. Contributions should be emailed to [clsa@californiasurveyors.org](mailto:clsa@californiasurveyors.org). We can accept WordPerfect or Microsoft Word files. We can accept ASCII text files or word processor files from the following programs: WordPerfect or Microsoft Word.

### EDITOR'S ADDRESS

John P. Wilusz, PLS, PE  
E-mail: [johnwilusz@gmail.com](mailto:johnwilusz@gmail.com)

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Opinions expressed by the editor or individual writers are not necessarily endorsed by the California Land Surveyors Association Officers or its Board of Directors. Original articles may be reprinted with due credit given to the source and written notification to the California Land Surveyors Association, unless otherwise noted.

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CLSA Celebrates 45th Anniversary

**John** works in the Delta Levees Program at the California Department of Water Resources in Sacramento, CA.

## From the Editor



# The National Museum of Surveying is Open for Business

After much anticipation the National Museum of Surveying (NMoS) opened for business on September 24, 2010. The museum is located in the historic central district of Springfield, Illinois – the Land of Lincoln. Bob Church, NMoS Treasurer, met me at the door on a crisp November morning. Bob was the executive director of the Illinois Land Surveyors Association for 35 years and has been at the helm of the NMoS since 2008. Although not a surveyor himself he has a respectable knowledge of, and a passion for sharing, land surveying history. I had been looking forward to my visit for some time.

### Guided Tour of the Museum

The NMoS occupies the bottom floor of a 10,000 square foot two-story brick building. Years ago the building was a high-end clothing store; it has since been extensively remodeled. The location is first-rate. It is only a block away from several Abraham Lincoln historic sites, and it is directly across the street from the beautifully restored Old Capitol Building, a place Lincoln frequented as a lawyer. The museum has four main rooms for exhibits and a fifth serves as a bookstore. We started our tour in the mini-theater with a showing of the NSPS/NCEES surveying recruitment video. Many visitors know little about surveying and the short film is an excellent introduction.

From there we moved on to the artifact exhibit room with its fifty-five foot long floor to ceiling mural. Colorful graphics include a collage of historical images: Egyptian rope stretchers, the presidential surveyors George Washington, Thomas Jefferson and Abraham Lincoln, colonial era African American surveyor Benjamin



Banneker, and the explorers Meriwether Lewis and William Clark. Bob has compelling stories about them all: “I tell our visitors how Lincoln’s career as a land surveyor played an important role in his political career. In the years before Lincoln became a land surveyor nobody knew who he was. He ran for office as a state representative and lost. Then he worked as a surveyor and people got to know him as a fair and trustworthy person. He ran again and won.”

### Stories Bring History to Life

The mural includes maps of the United States and my expert guide used them to segue into a lesson on the history of the Public Lands Survey System (PLSS). Bob described the PLSS’s impact on our nation’s development and emphasized Thomas Jefferson’s role in its implementation. He also talked about the difference between rectangular and metes and bounds surveys, and talked about their application in different parts of the country. “We tell the story of surveying throughout *all* the states, not just a few, because we want this to be a truly national museum.”



Portion of the mural in the exhibits room.



Continued on next page



The exhibit room also contains display cases with artifacts under glass. Old levels, rods, transits, compasses, solar compasses, slide rules, chaining pins, and chains – the NMoS has all that and more and Bob Church and his staff have something interesting to say about everything. He gave me a short lesson on the history of the mile: “When I show visitors the Gunter’s chain I ask them if they know why a mile is 5,280 ft. They have no idea. I explain how the distance was derived from the length of the surveyor’s chain and so they learn about something they can relate to. That makes it interesting for people. These are the kinds of things we talk about to bring this old equipment to life.”

By then we were joined by Matt Parbs, newly-hired Assistant Director of the NMoS. Matt is a recent graduate of the University of Illinois, Springfield. He has a B.A. in history and education – his background and personality are a perfect fit for the museum. Matt agrees that

engaging, interpretive stories are key to having happy customers: “My favorite compliment is when a visitor thanks us for the intimate, one-on-one tour. They think they’re the only one we do that with, but we do that with everybody.”

### Science on a Sphere

After a healthy dose of surveying history we switched gears and looked to the future. Next on the tour was the main theater. This room seats forty-five and holds the crown jewel of the NMoS - Science on a Sphere (SOS). SOS is an educational tool

developed by the National Oceanic and Atmospheric Administration (NOAA). It consists of a six-foot diameter sphere that hangs in the center of the room and functions as a high-tech movie screen. Four projectors, one in each corner of the room, work together to cover the surface of the sphere with a seamless image of planet earth. In fact the system can project an image of any planet, or anything else for that matter.



Science on a Sphere



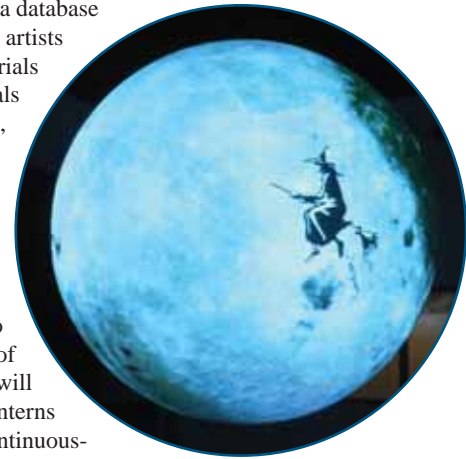
Bob Church and Matt Parbs with the SOS computers.

Powerful computers run the show behind the scenes. NOAA has some 250 data sets of educational programs, based on satellite imagery, that teach science through the use of spatial data. Matt turned on the projectors and played Blue Planet, an animated lesson on the distribution of fresh water, weather patterns, and precipitation across the planet. After that we watched a program on earthquakes that showed tsunami waves move through the oceans after a seismic event. Watching the sphere was a powerful experience for me. I have never seen anything quite like it. It was like looking at the earth from space, only with brighter colors and interpretive notes. The potential for teaching science-related topics seems

huge. As of this writing there are approximately sixty SOS installations around the world (five are in California). You can learn more by visiting NOAA’s SOS website at: <http://sos.noaa.gov>.

### Student Interns at the NMoS

During my visit I got to meet two of the museum’s dedicated and energetic volunteers. One of them is Cathy Talano, Ph.D. Cathy is a science professor at Robert Morris University, Illinois (RMU), a private university that emphasizes hands on experience through internships. She explained: “At RMU we use experiential learning both inside and outside the classroom. Right now we are selecting students who have displayed an interest in completing internships at the museum. We are just beginning, but as this evolves we anticipate interns will come from a variety of backgrounds. Business students will help us with marketing plans. CADD (computer assisted drafting and design) students can help with space planning, seasonal displays for the sphere, and overseeing educational activities. Interns with computer skills can do website maintenance and create a database for logging artifacts. Graphic artists can design promotional materials and a museum logo. Paralegals can bring our by-laws up to date, and student medical assistants can help us create an emergency plan. We hope to start with three to six RMU students here next quarter.” Matt takes it from there: “What this first batch of students is going to do is build the infrastructure of our internship program. They will lay the groundwork so future interns can integrate smoothly into a continuously operating program.”



The SOS Halloween show.

### Promotional Events

Jenni Dahl volunteers as the museum’s Educational Coordinator. Her day job is Technology, Math and Science Coordinator for the Sangamon County Regional Office of Education. In early November she and Bob invited a group from the Illinois Science Teachers Association (ISTA) to tour the museum. The science teachers were so impressed that the Executive Director of the ISTA sent a letter to the NMoS saying “every student field trip to Springfield should include the National Museum of Surveying, especially with its proximity to the Abraham Lincoln Presidential Museum.” The teachers were especially impressed with Science on a Sphere and its potential for geography, environmental science, and earth science education. Matt followed up by emailing every school principal in the State of Illinois promoting the NMoS as a prime destination for school field trips. “We all think of this as an educational institution,” says Cathy. Matt agrees: “We’re all teachers.”

Other promotional efforts include partnering with Downtown Springfield, Inc., an organization that promotes Springfield’s historic central district. Jenni gives this example: “We hosted a Halloween party for children up to age thirteen and their parents. Downtown Springfield, Inc. sponsored a costume contest at the farmers market, so we had them hand out flyers advertising free candy at the museum for kids dressed up in costume. That day we had a steady stream of kids come in with their parents, about seventy-five people in all, and some of the kids we couldn’t get to leave. They were so fascinated with the Halloween program on the sphere, we just went through it over and over again.”

## How You Can Help

Before I left I asked Bob how the national surveying community could contribute to the success of the museum. He said this:

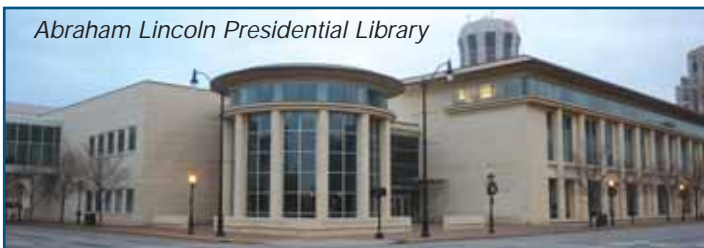
“In order to make the NMoS a truly national museum we need the support of all of the land surveying state associations throughout the



CLSA donates \$25,000 to the NMoS

country. We encourage each state to work with us by sending us information, equipment, maps and especially the stories on how land surveying and land surveyors affected its particular state. We also hope each state association will consider making a pledge of \$2,500, payable by March 1, 2011, to support the NMoS. However, we understand that due to the weak economy surveyors are experiencing difficult times. In order to help the state associations fund their pledge, the NMoS is offering a number of items, hardbound books and prints, for use as a funding source. These can be used as auction or raffle items to offset the cost of the pledge.” Details are available on the NMoS website.

The California Land Surveyors Association certainly did its part. Our generous and forward-thinking membership donated \$25,000 to the museum. But smaller donations help too. Individual memberships are available from \$30 per year for students, to \$50 per year for individuals,



Abraham Lincoln Presidential Library

and \$75 per year for families. If you'd like to donate more there are higher membership grades for that. Again, details are on the website.

## In the Land of Lincoln

The best way to enjoy the museum is to make a trip to Springfield, Illinois and see it for yourself. If you go you will see much more than the NMoS because Springfield is in the heart of the Land of Lincoln. This is where Abraham Lincoln lived prior to his election as our sixteenth President in 1860. While in the area he worked as the Deputy County Surveyor of Sangamon County, practiced law, served in the state legislature, and was elected to the U.S. Congress. Lincoln-related sites are everywhere in Springfield. The historic central district, where the NMoS is located, has a particularly high concentration of them. There are four major sites within a block of the museum: the Presidential Library, the Presidential Museum, the Lincoln-Herndon Law Office, and (right across the street) the Old State Capitol.

### Contact Information for the National Museum of Surveying

The NMoS is open Tuesday through Saturday from 10:00 a.m. until 3:00 p.m., with extended hours for group tours.

National Museum of Surveying  
521 East Washington Street  
P.O. Box 522  
Springfield, IL 62701

You can email NMoS Treasurer Bob Church at: [bchurch245@aol.com](mailto:bchurch245@aol.com), and Assistant Director Matt Parbs at: [matt.parbs@nationalsurveying-museum.org](mailto:matt.parbs@nationalsurveying-museum.org).

If a trip to Illinois is not practical you can still explore the museum and follow its events using the Internet:

- NMoS website: <http://surveyingmuseum.org>.
- NMoS blog: <http://nationalmuseumofsurveying.blogspot.com>.
- NMoS on Facebook:  
<http://www.facebook.com/NationalSurveyingMuseum>
- NMoS on Twitter: <http://twitter.com/SurveyingMuseum> ■

### Correction Notices for Issue #163

The picture of the statues in Founders Park from Postcards was taken by Rusty Macy of the City of San Diego.

The author of the article Santiago Canyon College Student Profile: Melissa Gruner is Laurie Weidner, Executive Director, Public Affairs/Gov Relations, Rancho Santiago Community College District.



# Letters to the Editor



## Surveyors Respond to Proposed Degree Requirement

I am writing in response to Carl C de Baca's article advocating mandatory four-year degrees for surveyors. Although I respect Mr. C de Baca's opinion and the fact that he changed his original position on the subject, this article has presented a thin argument, one that drifted off the topic of land surveying and into the realm of politics. Mr. C de Baca may be understandably frustrated with the current state of the economy but he has failed to establish a link between the future of our profession, the "devastated, defoliated, destroyed" landscape brought on by today's tough times, and the mandatory four-year degree. Whatever views he may have of the current administration, cap and trade, and the EPA (and their "new asserted dominion over carbon dioxide emissions as a primary tool of social re-engineering" – WHAT??), they have no relevance in this article or in this publication. Over the years we've debated this topic from all angles, or so I'd thought – this anti-administration editorial is certainly fresh, albeit irrelevant. Perhaps, as stated, "when the skies clear and new vegetation takes root" there will indeed be less work for professional land surveyors, but how does this convince me that only four-year degree holders should be the ones rewarded with jobs?

As a non-four-year degree holder (I have a two-year degree earned after several years of night school) and 30-year practitioner of our great profession, I am NOT a dinosaur, I have NOT failed to keep up with technology, NOR am I obsolete. Nor will I go away any time soon. With all due respect for the college educated among us (I've worked with - and schooled - some excellent Fresno alumni), I fail to see how a pedigree makes them better surveyors than field-seasoned veterans of the boundary wars. If all of our

new surveyors were enthusiastic 18-year-olds coming in droves from across the state to dive into the land surveying curriculum at CSUF, this degree requirement may have merit, but most everyone I know has fallen into the profession by some odd twist of fate. It's impractical at best to expect these adult surveyors to drop out of the working world and put their families up at mom and dad's house for four years while they move to Fresno and try to scratch up \$60K for four years of school. It seems that NSPS is only interested in the frosting and not the cake underneath; expect therefore the ranks of licensed professionals to fall steadily as the veterans die off, leaving a sprinkling of PLS elites scattered across the state. And you think we have a problem now with rubber stampers?

John Knox, PLS

I take issue with the NSPS Board of Directors voting to support a mandatory bachelor's degree in surveying to become licensed. I am a California licensed Land Surveyor with thirty-six years of surveying experience and six more years experience in related fields. I did not become licensed until I was 60 years young. You can't learn to identify old, beat up and sometimes supposed lost corners in a classroom. Field work and experience in all aspects of surveying is extremely valuable to the successful surveyor. Not everyone who would become a surveyor has the necessary background to qualify for a 4-year degree, and others might be unable to afford the cost of a 4-year degree. This could thereby prevent some of the best workers from becoming licensed. Many talented surveyors I worked for and with over the years did not have a 4-year college degree of any kind.

Rensselaer J. Smith, III, LS 6989



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*By: William R. Hofferber Jr, PLS - President*

## President's Message

Hello, my name is William R. Hofferber Jr. and I am extremely honored to be serving as President of the California Land Surveyors Association. I would like to take this opportunity to introduce myself to the membership and tell the story of my path to becoming a Land Surveyor.

My survey career began (about) 37 years ago. After finishing high school, the grocery market I was working for was closing their doors and I found myself looking for work. A friend told me he was working for Riverside County Flood Control on a maintenance crew, so I ask how he had landed that job. His reply was, "it's simple" go down to the HR building, look on the posted job listings, see what you qualify for, and fill out an interest card. I went the following Monday and found a position titled "Engineering Aide." Strong math background, outside work, team player that may work on field survey crew - sounded like something I would be interested in, so I completed an interest card. About two weeks later I was interviewed, and that same day was offered the position of Engineering Aide from the Chief of Surveying and Mapping, Mr. William H. Young. Thus, I began my career in land surveying quite by accident, which I think is more common than not in this wonderful profession. Over the next five years I progressed to learn the basics of surveying mostly through on-the-job-training, but I also attended courses at the community college. I then found myself working not only at the District, but also on weekends for a few different private Land Surveyors in southern California. I resigned from Flood Control in October 1978 to set the world on fire in private practice. Things went well for the first 3 or 4 years and I was working as a survey party chief. Then, in late 1982 the economy went flat (sound familiar?), and I was out of work for a month. I then landed a grade checking job for a construction company on a project at the Marine Corps base in Twenty Nine Palms, California. I was working on the project and living in a single wide 45-foot mobile home just off base when I received a call from my former boss at Flood Control. He wanted to know if I was interested in coming back to work at the District in the same position I had vacated in 1978. I figured it was the best thing for me to do and thus I found my way back to Riverside County Flood Control after nearly a 5 year hiatus.

I came to the realization that being a professional Land Surveyor was 'what I wanted to be when I grew up' and I began to pursue licensure. I became a licensed Land Surveyor in California in 1997. My current position at Riverside County Flood Control is Chief of Surveying and Mapping where I manage a division of about 40 employees in three different sections - Photogrammetry, Right-of-Way Engineering & Acquisition, and Surveying. We have seven licensed Land Surveyors in these sections with one

also being a certified photogrammetrist. There are approximately 27 technicians, 3 compilers, and 2 real property agents that make up the remainder of this division. Flood Control is mostly a design engineering and surveying firm with about 80 employees in operations and maintenance. From a design concept, the District takes care of master drainage plan concept of projects, design scale mapping, construction design plans, property acquisition, contract awards, construction survey and inspection, and finally facility maintenance.

Shortly after becoming licensed, I decided it was time to give back to the profession. I began working on exam development in 1998 and have continued to participate annually. In 2008 I began teaching land surveying courses at Riverside Community College, Norco campus. I have been teaching two different courses, Engineering 1A and 1B, surveying fundamentals and I hope to expand the program when the economy and budget are more favorable. While teaching is quite challenging, it is also extremely rewarding.

I became involved with CLSA at the local level by serving as Treasurer for the Riverside/San Bernardino Chapter and continued my way up the ladder becoming Chapter President in 2005. I joined the CLSA Board of Directors and the CLSA Education Foundation in 2004. Then, one evening, I received a call from Robert Reese asking if I would be interested in holding the position of BPELS liaison for CLSA. I was honored by the offer, and after checking with my supervisor at work (and the boss at home), I accepted the position. I held the BPELS Liaison position from 2006 to 2009. Next, I received yet another call from Robert Reese, this time it was to inform me that I was the Nomination Committee choice for 2008 Treasurer of CLSA. I was somewhat overwhelmed at this offer, but after consideration, I contacted Robert and accepted. The past 3 years serving as a CLSA Officer has been a fantastic and rewarding experience. I would like to thank all those who have mentored me along my journey and I will be happy to be able to repay others with but a fraction of what I have received. This past year, as President-Elect, I visited with 20 of the 22 chapters and also had the pleasure of visiting with 2 student chapters. I received many comments, suggestion and ideas in my travels.

The knowledge, experience, and dedication of the CLSA Board of Directors to serve the membership are, I believe, unsurpassed. I am ready to roll up my sleeves and get to work with the other Officers, Committees, and Liaisons in an effort to serve the needs of CLSA, its members, and the land surveying profession. ■

CALIFORNIA LAND SURVEYORS ASSOCIATION



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**1966 – 2011**

## **CLSA Celebrates Its 45th Anniversary** ***You've Come a Long Way - CLSA***

*The following is an edited version of the 35th Anniversary Issue of the California Surveyor*

The California Land Surveyors Association, founded in the winter of 1966, will be celebrating its 45<sup>th</sup> Anniversary, (1966-2011) this year! Much growth, change and maturing have taken place since those early days of 1966. Let's turn back the wheel of history and find out (1) how CLSA became organized, (2) about the beginning problems, objectives, and purposes; and (3) what CLSA is like today.

### ***The Organization of CLSA***

The roots of the present California Land Surveyors Association stem from two separate organizations: (1) an in-county group called "Sonoma, Lake and Mendocino Counties, Engineers, and Land Surveyors," and (2) the "California Association of Licensed Surveyors" in Sacramento. The Sonoma, Lake, and Mendocino organization was really the group responsible for forming the state-wide association. It had existed for many years. Dick Hogan, later to become CLSA's first president, had belonged to the tri-county group for nearly eight years. He described it as "a pleasant, rather loosely organized bunch who, about every few months, would get together for a cocktail, dinner and a program, usually at the Old Occidental Hotel in Santa Rosa." Their main topics of discussion were "tough surveys, developers, and unpaid accounts."

The group had basically become inactive in 1965. Bob Curtis, also a past president of CLSA, and one of the men responsible for its founding, recalls, how "Dick Stephan and I used to sit in an office in Healdsburg and look out of the window when it was raining, and there was nothing else to do, and try to figure out why the [surveying] profession had gotten into the mess that it had."

They decided something had to be done about it, and were able to contact and arrange a meeting of the old tri-county group to see if they could arouse some interest in forming a state-wide organization; they found, that there was enough interest, and the California Licensed Land Surveyors Association was formed, the CLLSA, later shortened to CLSA. Dick Hogan was elected as provisional president and a nine member steering committee was formed to draw up a constitution and bylaws. The committee met on February 18, 1966 in Sebastopol. Bob Curtis had written to other state associations asking them for information on how they

had become organized. Eight of them responded: Bob shared their replies and displayed the Illinois State Association organizational materials from which the following recommendations were proposed: forming a Board of Directors and chairman of the Board; a provisional state headquarters chapter; various standing committees; establishment of initiation fees and dues; and meetings at two month intervals.

Proposed were also three classes of membership which still exist today but with different titles:

- (a) Active (now, corporate) members – licensed Land Surveyors, these members have the right to vote and hold office;
- (b) Associate (now, affiliate) members - persons associated in affiliated fields such as title companies, civil engineers, etc.; and
- (c) Junior (now, associate) members – persons working for a licensed Land Surveyor.

President Dick Hogan then sent a letter to Mr. Gene Foster of Sacramento inviting him and his group of Surveyors, the California Association of Licensed Land Surveyors, to meet with the newly formed CLSA at a halfway point for discussion and the possibility of merging. They met at Jonesy's Steak House at the Napa airport on June 3, 1966.

The Sacramento group was basically a state group set up by Gene Foster and Fred Darby and a number of other people who were government employees. They had united for the same reasons: to gain status for the profession but they were also rather loosely formed, without a constitution or bylaws. It was suggested that since their goals and objectives were basically the same as that of the newly formed CLSA, and since they did not have any formal constitution yet, that they simply join CLSA and adopt their name. That is exactly what they did: so overnight the membership double from 15 to 32 members, and has been climbing ever since. Today there are some 2300 members in the CLSA.

The next problem was getting southern Californians involved. They, at first, ignored the new organization in northern California, probably thinking it was so small and would never really get off

*Continued on next page*



the ground. The early CLSA spent a lot of money and time having Board meetings in Los Angeles, specifically for the purpose of inviting Surveyors in that area to take a good look at CLSA and see what they were trying to do. In the mid-1970's the southern Californians really became involved. Now there is a predominance of members from southern California, including many leaders of the organization.

### Problems and Concerns

- The practiced of land surveying by unlicensed individuals. One of the main problems CLSA had from the beginning was related to surveying done by unlicensed individuals. The licensed Land Surveyor felt those persons who practice land surveying should be educated, experienced, tested and licensed to practice land surveying.

Chuck Wooldrige, a former president of CLSA – a licensed Land Surveyor, who had also acquired a degree in civil engineering, noted that in some ways this issue served a useful purpose: it made Surveyors united and working together, “this question provided a terrific battle ground for the many divergent solutions while appealing to all Surveyors to the extent of gaining great momentum and serving as the unifying force to bring Surveyors together under one umbrella.”

Other problems, as related by Bob Curtis, were:

- Upgrading the profession. There was a lot of poor work being done and a lot of “moonlighting that was sub-professional.”
- Lack of education. Very few universities offered any kind of land surveying curriculum: only a few two-year programs were offered. According to Bob Curtis, “the four-year curriculum is the basis for Land Surveyors entering the profession as professionals.” He strongly advocates working for more four-year programs.
- Legislation. The problem was how to get the members well enough informed, united, and strong enough to combat harmful legislation such as legislation proposed by the American Society of Civil Engineers (ASCE), Surveying and Mapping Division, which had as its objective, to have all registration Boards require that “those who wish to engage in the practice of land surveying and related engineering work, should first be required to qualify for a professional engineers license, and the right to practice land surveying should be a moral right based on professional competence and the engineer’s code of ethics” rather than a legal right based on separate registration for land surveying.
- And, of course, as with every beginning organization, there was a problem of finances. There really was not much money to help with anyone’s expenses. As Bob Curtis expressed, “Everything was volunteered time and volunteered money, and I spent a fortune in gas.” This was true of so many of the past presidents, as well as other officers, and is still true today. There is much personal sacrifice, generosity, and going “the extra mile” service that has helped build CLSA to the great organization it is today.

### Objectives and Purposes

In an April, 1967 letter to the members, by Bob Curtis, he states what he considers the primary purposes and objectives of CLSA: (A) to get the active participation of all California Land Surveyors involved in CLSA – to gain strength and unity in their Association; (B) to be able to advance their career through supporting proper legislation, to be aware of harmful legislation, and be strong enough to combat it; (C) to demand Land Surveyors’ right to better educational facilities and the resources to use them; and (D) to be regarded and respected as a profession by realizing that “high standards require high performance.”

On a message prepared for this article, Bob Curtis stated what he feels should be the primary objectives of CLSA: (1) to be the voice of all Land Surveyors in California and their main source of information ; and (2) to preserve the land surveying profession. He concluded with an impressive statement of what the alternative could be by not getting involved. “We could, through blissful ignorance - like the Kiki bird – become extinct.”

### CLSA Today

Fortunately, the CLSA members chose not to become extinct and today the CLSA has grown from its original 32 members to over 2,300. There are still some of the same concerns such as; (1) The issue of continuing education for relicensure – mandatory, compulsory, or none at all; and (2) The exorbitant record of survey checking fees.

But, many of CLSA’s purposes have been achieved, for example:

- (1) The membership has steadily grown and there is greater unity and strength in the Association;
- (2) CLSA maintains a professional lobbyist, representing surveyors before the California legislature and keeping them abreast of any legislation affecting land surveying;
- (3) CLSA’s award-winning publication, the *California Surveyor*, is sent to all California Land Surveyors, regardless of their membership. This policy has helped CLSA achieve its objective of being the voice of the California Land Surveyor;
- and (4) CLSA has helped to bring higher standards and greater recognition of the land surveying profession.

In summary, the future looks promising for CLSA as we consider what has been accomplished over the past forty-five years. We salute the hardworking leaders who were instrumental in its founding and guiding it over the years, as well as those presently at the helm of the organization. You have come a long way – CLSA.

*Our apologies for any inaccuracies in this history. To quote from Chuck Wooldrige, “the good old days are primarily based on poor memory and a good imagination.” ■*









CALIFORNIA LAND SURVEYORS ASSOCIATION  
1966-2011  
45 Years  
Celebrating



# CLSA Past Presidents Reflect

## CLSA PAST PRESIDENTS

1966 Richard S. Hogan\*  
1967 Fred M. Darby\*  
1968 Eugene L. Foster\*  
1969 Herbert J. Schumacher  
1970 Robert W. Curtis  
1971 Robert W. Curtis  
1972 C.A. Wooldridge, Jr.\*  
1973 Eugene Lockton\*  
1974 Joseph J. Scherf  
1975 Joseph J. Scherf  
1976 A.E. Griffin\*  
1977 James E. Adams\*  
1978 Michael K. Welch  
1979 Paul W. Lamoreaux, Jr.  
1980 William O. Gentry\*  
1981 William O. Gentry\*  
1982 Charles E. Moore  
1983 James W. Crabtree  
1984 James R. Dorsey  
1985 Michael R. McGee  
1986 Richard P. Siegmund  
1987 Louis E. Rutledge\*  
1988 Susan A. Jensen  
1989 Paul A. Cuomo\*  
1990 Howard W. Brunner  
1991 Kenny L. Fargen  
1992 LeRoy C. Hennes  
1993 Joseph W. Betit  
1994 Kurtis K. Hoehn  
1995 Billy Martin  
1996 Frederick W. Kett  
1997 Gary T. Lippincott  
1998 Steven C. Wilson  
1999 Gerald A. Stayner  
2000 Michael S. Butcher  
2001 Patrick J. Tami  
2002 Marc R. Van Zuuk  
2003 Raymond L. Mathe  
2004 Robert C. Hart, Jr.  
2005 Armand A. Marois  
2006 Robert J. Reese  
2007 Steve Shambeck  
2008 James M. Herrick  
2009 Matthew J. Vernon  
2010 Aaron R. Smith  
\* Deceased

**C**alifornia Land Surveyors Association was founded in 1966 to advance the interests of the land surveying profession, to maintain the highest possible standards of professional ethics and practice, to encourage uniformity of practices and procedures, and foster public faith in and understanding of Land Surveyors and their work. Throughout the years, CLSA Presidents have dedicated countless hours to achieve these objectives. We asked them to share their memories.

## What was your most rewarding accomplishment?

I think the most rewarding part of being CLSA President was visiting other chapters and meeting surveyors from different parts of the state. – *Kurtis Hoehn*

Helping to establish the professional development program – *Steve Shambeck*

Making it through 2005 & 2006. No, seriously, there seemed to be lots going on in 2006: 40th Anniversary; Path/Mark project and debut of CLSA DVD; Knerr v Mauldin AC Brief regarding land surveying principles; the death knell of NAFTA MRD; resignation of a President-Elect (was it my after-shave?). Of these, I would say my most rewarding accomplishment was getting the NSPS President and the ACSM Executive Director to acknowledge CLSA's pioneer effort for recruitment. – *Robert Reese*

Change in state law regarding the practice of land surveying by Land Surveyors only. – *Robert Curtis*

Working on the development of the "Operation Spotlight" video. – *Armand Marois*

Completing Steve Shambeck's efforts to get the Voluntary Professional Development program up and running. Being part of and watching the Education Foundation flourish. Visiting all but four of the chapters and being able to listen and talk to so many interested Land Surveyors across the state. – *James Herrick*

Negotiating with then Cal- Council, now ACEC of California, on implementing SB 2, where Civil Engineers could no longer practice land surveying without an L. S. License. This effort led to Sections 8726.1 & .2 of the L. S. Act and a similar measure for the Civil Engineers to offer land surveying. – *James Dorsey*

My most rewarding accomplishment is publishing a Presidents message in every California Surveyor. I felt it was very important, as the leader of CLSA, to find every reasonable way to connect with those involved in our profession. – *Patrick Tami*

## What is your fondest memory?

Working with a remarkable group of executive committee and board member volunteers. – *Steve Shambeck*

While NON-President - Probably the no-host ExCom go-kart races at Malibu Grand Prix in Redwood City after all-day ExCom meetings. While President - The 2006 40th Anniversary Convention at the Silver Legacy Casino, in Reno, Nevada, including the debut of CLSA's Path/Mark DVD and also the presentation at the award luncheon, along-side all Past-Presidents in attendance, of CLSA's recognition of the valuable work by CLSA's Executive Director, Ms. Dorothy Calegari, and her group. – *Robert Reese*

The people I have met. – *Robert Curtis*

I truly enjoyed my meetings at the Central Office. – *Armand Marois*

Working with Dorothy and the very helpful Central Office people. – *Kenny Fargen*

One would be having the privilege of awarding Dorothy Calegari Honorary Membership to CLSA. Another would be having the privilege of awarding special Presidential Citations to Hal Davis and Paul Lamoreaux for their many, many years of participation and support of CLSA. – *James Herrick*

To work with others of the CLSA Board in protecting, preserving and advancing the practice of land surveying in California. – *James Dorsey*

As the President of CLSA I was fortunate to attend the 150th anniversary event commemorating the setting of the initial point on Mount Diablo. I lived at the base of Mount Diablo most of my life and had climbed it top to bottom more times than I can count. – *Patrick Tami*

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# act on CLSA

*Continued from previous page*

## What does CLSA mean to you?

It means the ability for California Surveyors to find out what surveyors from other areas of California (and even out of state) think about the surveying process. – *Kurtis Hoehn*

CLSA means I'm not alone in the professional world. It means having a group of people with whom I can build professional and personal relationships. It means having a professional organization watching my political and legislative back. It also means many years of enjoyable service to an appreciative group. – *Robert Reese*

The last 45 years of my professional life had purpose. – *Robert Curtis*

A great organization of professionals working together to improve and enhance the future of all surveyors (young and seasoned). – *Armand Marois*

A professionally run organization for professionals. – *Kenny Fargen*

CLSA is a professional organization that is dedicated to the support and advancement of the land surveying profession. It is, hands down, the best run, most successful, most energetic, best organized and most dedicated organization that I have ever had the privilege of being involved in. It means that there is always a place to go to get information and support for the profession. – *James Herrick*

The voice of the California Land Surveyor. To represent our profession in all matters affecting the practice and practitioners. – *James Dorsey*

CLSA is the way we can more effectively have a voice in the shaping of public policy, protect against unethical competition, and the influences which undermine public trust in our integrity and competence. – *Patrick Tami*

## What do you feel was your greatest achievement as President?

Being able to get people together and talk about the Record of Survey process. Wasn't necessarily solved, but it definitely let people into the different processes and practices across the state. It did me, that is for sure. – *Kurtis Hoehn*

My greatest achievement, I think, was participating in drafting a significant AC Brief to the California Court of Appeals, which dealt with boundary control and principles, and working with a focused and committed Executive Committee to prepare the brief. Unfortunately, the Appellate Court missed the point completely. – *Robert Reese*

The building of the Chapters. – *Robert Curtis*

I don't know if I had a specific goal that was obtained; a lot of ideas that were started when I was president that have become reality after I left. – *Armand Marois*

Working with the Governor's Office to fill the LS position on the Board of Registration. – *Kenny Fargen*

Passage of SB2. – *Paul Lamoreaux*

This question would probably be better answered by others. I think that bringing the need for professional development requirements for license renewal a little closer to the forefront was one achievement. Another that comes to mind is leveling the playing field somewhat by refocusing attention on the stated circumstances in the PLS Act that trigger a Record of Survey requirement. – *James Herrick*

Any achievement would have been an accomplishment of the Board of Directors. All I did was to Chair the meetings and put forth ideas and questions. – *James Dorsey*

Not messing up what others had created. – *Patrick Tami*

## What do you see as CLSA's greatest strength?

Its membership, and the ability for its members to more easily gain information from each other. – *Kurtis Hoehn*

I am amazed how CLSA's diverse membership continues to work together to achieve our common goals. – *Steve Shambeck*

Unity of purpose. – *Robert Curtis*

Numbers, integrity, commitment, diversity. Numbers: CLSA has one of the three largest land surveying association memberships in the US. These numbers provide strength when dealing with national or international issues. Integrity: All of the people with whom I worked, whether or not we agreed, had great integrity. Commitment: The individuals who VOLUNTEER their time and expense to contribute to CLSA have a level of commitment rarely seen. Diversity: CLSA is comprised of surveyors from the outback and from some of the busiest urban areas in the US, from public and private organizations, from large corporations and one-person enterprise, who are young and old, both men and women. They possess a wide array of skills and knowledge that make up the land surveying profession. These all contribute to CLSA's hybrid vigor. – *Robert Reese*

Its members. – *Armand Marois*

Strength in numbers. When you can represent the numbers of member we do, people take notice. – *Kenny Fargen*

The dedication of its members. The accomplishments of CLSA are a reflection of the "can do" attitude of the dedicated people that volunteer their time and effort, and the dedication and support of the Executive Director and the Central Office staff. – *James Herrick*

Its ability to evolve. To keep current with methods and procedures, yet remembering that these are tools to accomplish the main purpose of the practice act, to preserve and protect the location of non-sovereign real property location. – *James Dorsey*

The greatest strength of CLSA is its diverse membership. CLSA encourages membership and asks for involvement from federal, state and local agencies; large, medium and small private business; licensed and non-licensed individuals; students and teachers; even groups associated with our work. – *Patrick Tami*

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## CLSA Past Presidents Reflect on CLSA

### What do you hope CLSA can yet achieve?

To really educate the public on surveying and stop the unqualified from practicing surveying. – *Kurtis Hoehn*

Leader in continuing education assistance, universities to provide online education for surveying degree. – *Robert Curtis*

CLSA is poised to be the premier portal through which young people enter this great profession, or begin the educational process. CLSA is becoming the point of beginning for a rewarding career in land surveying. Counter-intuitively, it is while the economy is slowest and need is least that investment is necessary. CLSA should accelerate its programs to provide career resources, in anticipation for the surge in need for professional Land Surveyors. CLSA can be ready. – *Robert Reese*

To get more surveyors involved. – *Armand Marois*

Greater participation of Professional Surveyors of California. Adopt FIG Definition of the Functions of the Surveyor. Resume licensing PS's under LS Act. Embrace the importance of The Surveying Body of Knowledge and participate in its development. – *Paul Lamoreaux*

I hope that CLSA can continue to bring dedicated professionals together to advance the profession of land surveying. There is a need to expand our public awareness program. CLSA should continue to support education within the profession and to focus attention on this. – *James Herrick*

To continue to evolve as time leads to changes in technology and methodology. – *James Dorsey*

I hope CLSA can get Professional Land Surveyors to look at the big picture of our chosen occupation. We need to see how we can both help society and ourselves. We must be more involved in spatial data management because, right now, we understand it much better than others. – *Patrick Tami*

### In what tangible ways has CLSA membership benefited you personally and/or professionally?

I have been able to meet many people and form personal and professional relationships. From that I am able to talk to many different people and get opinions and information for different areas of the state. – *Kurtis Hoehn*

My personal benefits from CLSA membership are support, connections with other professionals, education resources, and a place where I can return, in small measure, what I have received, in great measure: an opportunity to participate to CLSA's growth. The professional benefits of CLSA membership are business advantages (insurance, supplies), educational (workshops, conferences, texts), meetings and working with other professionals. Access to the opinions of other Land Surveyors through CLSA's web presence is also a great benefit. – *Robert Reese*

It has been my compass in life both personally and professionally. – *Robert Curtis*

Personally the friendships I have with other surveyors throughout the state would not have been possible without CLSA. On the professional level it has made me more aware of the value of keeping oneself edu-

cated with regards to technology, legislation, and national issues that could affect my career. – *Armand Marois*

Keeps me current with legislation and offers professional development. – *Kenny Fargen*

Good friends. – *Paul Lamoreaux*

By being a participating member in CLSA I have gained numerous contacts. I am able to keep abreast of changes or additions in laws that impact professional practice. Information on new technology is available. It provides an avenue to have your ideas heard. – *James Herrick*

The many friends and professional acquaintances that I have made over the years through my association with CLSA. – *James Dorsey*

For me personally, my membership in CLSA has made me a better public speaker and more effective in communicating my thoughts to others. By taking up leadership roles throughout CLSA, I have had the chance to meet and know some of the most knowledgeable and influential people in surveying. By interacting with them, I have learned much more than I would have learned on my own and I've become a better professional Land Surveyor as a result. – *Patrick Tami*

### What valuable life lessons did you learn through your service?

How to deal with people and listen too many different points of view that were, at times, considerably different from mine. – *Kurtis Hoehn*

That a leader can only be successful if he or she is supported by a talented and diverse team. I was blessed to have an amazing Executive Committee. – *Steve Shambeck*

The biggest lesson I learned through service, particularly the office of President, was to listen – hard sometimes, given the opinionated nature of Land Surveyors. Since I was given the unequalled opportunity to serve as President of CLSA, I felt my job was to preside and guide, giving equal time for point and counterpoint on a wide array of views. One has to listen and then help the organization arrive at goals and decisions that make sense. I will always be grateful for the experience. – *Robert Reese*

Working together anything can be accomplished. – *Robert Curtis*

Before CLSA I was never much for committee decision making. My experience with serving on the various committees has taught me patience and more respect for other opinions. – *Armand Marois*

A lot of people give much to their profession with no thought of seeking rewards for their effort. These people only wish to improve the profession as a whole. – *Kenny Fargen*

That there is strength in numbers. That you don't need to do everything yourself but rather ask for help and you will be amazed at the effort that you receive from other professionals. Finally that I could address a group of my peers and not get run out of the room. – *James Herrick*

In order to accomplish anything it is a group effort. Much more can be accomplished by working together. "No man, or woman, is an island." – *James Dorsey*

It is the things that you do not anticipate that will take up most of your efforts. – *Patrick Tami*

For additional REFLECTIONS from Past Presidents, visit the CLSA website at [www.CaliforniaSurveyors.org](http://www.CaliforniaSurveyors.org) ■

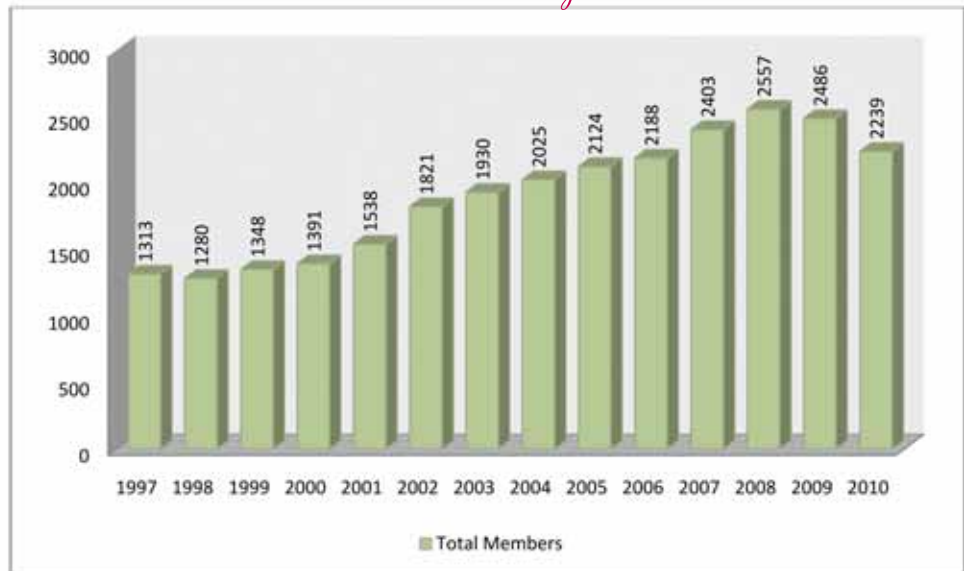


## CLSA Membership in Review

The CLSA Central Office has completed research of historic records to develop a list of members that have had 25 years continuous membership. The list includes over 250 members that have had 25 (or more) years of continuous membership in CLSA. These members will be receiving special recognition as part of CLSA's 45<sup>th</sup> Anniversary celebration.

CLSA's outstanding membership retention is indicative of the great value that CLSA offers members and the profession. To the right is a historic overview of CLSA membership.

To view the list of members with 25 (or more) years of continuous membership, please visit the CLSA website at [www.CaliforniaSurveyors.org](http://www.CaliforniaSurveyors.org) ■



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Annie began surveying in 1983 as a Navy Seabee. She has worked for the City of San Diego for 21.5 years, is a past president of CLSA San Diego Chapter, is a current Chapter State Representative, and Chapter Legislative Chairman. She was featured in Issue #156, Women in Surveying (<http://www.californiasurveyors.org/calsurveyor/CalSurv156.pdf>).

# Subdividing California

## The Evolution of the Subdivision Map Act

The Subdivision Map Act or simply “the Act,” establishes the framework for subdividing land within California. It requires local governments to enact an ordinance to be used as a tool to regulate the design and improvements of subdivisions. Prior to 1891, the role of a surveyor was not defined. Prior to 1893, there was not any state law that regulated the subdivision of land. At that time, the land speculation of the gold rush was rampant. Many “would-be” developers mapped the land with visions of quick sales and huge profits. These antiquated subdivisions are scattered throughout California, some in their entirety and others in remnants. The early maps were obviously drawn without consideration of the landscape. Many times, the maps were drawn on a drafting table thousands of miles away and the land was never seen. This situation infers antiquated subdivisions to be only “paper” maps being that there was no consideration (or knowledge) of the topography, natural resources, infrastructure, water supply, access, geology, or the environment. The maps may have been recorded and land may or may not have been sold. In his concurring opinion of *Morehart v. County of Santa Barbara*, Justice Mosk succinctly stated “These subdivisions are the legacies of 19<sup>th</sup> century would-be developers whose dreams of carving up their land into profitable real estate parcels went only as far as the county recorder’s office” (*Morehart v. County* 1994, p. 30).

California has an estimated 400,000 to one million lots shown on antiquated subdivision maps (Fulton 1999, 144). More prevalent in coastal and early mining areas, the antiquated maps cause surveyors to scratch their heads and have become a challenge to local governments. To the landowner, these lots can bring a for-

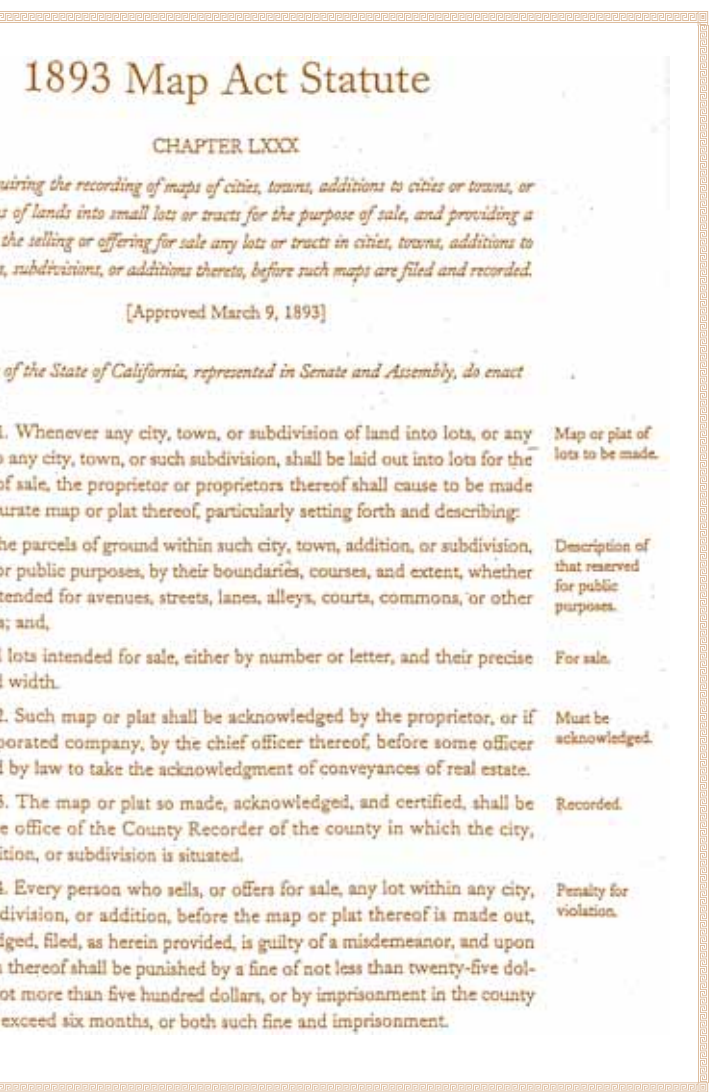


Figure 1

tune. To the local government, they may mean a loss of control over the use and planning of this mapped land. To the surveyor, knowledge of the Subdivision Map Act and its evolution is imperative.

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On 31 MAR 1891, the Statutes of California, Chapter CCLV approved the duties of and the licensing of Land Surveyors. Section 10 reads as follows:

*Every licensed surveyor is hereby authorized to make surveys relating to the sale or subdivision of lands, the retracing or establishing of property or boundary lines, public roads, streets, alleys, or trails; and it shall be the duty of each surveyor...to set permanent and reliable monuments, and such monuments must be permanent and reliable monuments, and such monuments must be permanently marked with the initials of the surveyor setting them.*

Section 11 reads as follows:

*Within sixty days after a survey relating to the sale or subdivision of lands, the retracing or establishing of property and boundary lines, ... he shall file with the Recorder of the county in which such survey or any portion thereof lies, a record of survey...(1891 Cal. Stat. 480)*

A few years later, the initial statewide statute that required the recordation of a subdivision map was enacted

on 9 March 1893. It was an Act requiring the recording of a map for the purpose of selling lots and it provided a penalty for noncompliance. This requirement, Chapter 80 of the 1893 Statutes (Act of 1893), (see Figure 1) is the precursor statute to today's Subdivision Map Act.

The Act was originally a law explicitly requiring a map to be prepared for the purpose of selling a parcel of land. Today, it has evolved into a complex land use regulation. Being a tool used to regulate the subdivision of land and at the same time, it protects landowners seeking to subdivide their land. The fledgling years of the Act, prior to 1928, clearly provided an efficient means to sell land by requiring a map to be recorded with the County Recorder prior to a sale. A map provided an easy way to describe property using a lot and block description rather than a metes and bounds description. Additionally, it simplified the tax assessor's duties and minimized conflicting deeds.

Through the years, as the land of California was being subdivided and developed, the regulations were evolving. The mapping and the evolution of the subdivision regulations were not necessarily in concert with each other. Subdivisions of land were not all created in the same manner.

*Continued on next page*

## Subdividing California - The Evolution of the Subdivision Map Act

Some maps were recorded in compliance with the laws of the day, some were not; some conveyed lots; some conveyed portions of lots via a metes and bounds description; some conveyed portions of the mapped subdivision via a metes and bounds description. Whether or not a piece of property was created legally has been controversial prior to the enactment of the first subdivision legislation.

Prior to 1928, physical improvements (infrastructure) may not have been required within the subdivision. The transition to motorized vehicles necessitated adequate roads. The preparation of a tentative map prior to the submission of a subdivision map was required in the 1929 Act. It required new development to conform to the existing improvements. It had become evident that regulations would be an important factor in controlling the sprawling development of the time.

In order to control the development of communities, adherence to general plans was introduced in the 1971 Act. No city or county was to approve a final subdivision map for any project unless it had adopted a specific plan covering the area of the project and the project was consistent with the specific plan. (1971 Cal. Stat. 2853) This created the connection between the community goals and new development. Today, a parcel of land cannot be legally developed unless it was legally created in accordance with the Subdivision Map Act and local ordinances at the time of its creation.

### Evolution of the Subdivision Map Act

Prior to the first subdivision statute, it was common practice to record maps with the county recorder to facilitate the county tax assessor and his duties. Since statehood, the Statutes of 1850, Chapter 58, §10 prescribed the duties of the recorder as keeping all the books, records, maps, and papers deposited in his office. The first prescribed duty was to keep the following documents:

*All deeds, mortgages, releases of mortgage, conveyances, deeds of trust, bonds, covenants, powers of attorney, leases, transcripts of judgments, or other instruments of writing, whereby any real estate is conveyed or may be affected, which shall have been proved or acknowledged, according to law and authorized to be recorded.* (1850 Cal. Stat. 152)

As stated initially, surveyors were required to file a Record of Survey after a survey relating to the sale or subdivision of land as of 1891. Finally as land speculation became rampant, the 1893 statute, referred to as the Act, required a map to be filed to sell a parcel of land.

The original intent of the Act was simply for the assessor to keep track of the subdivision of land in order to avoid clouded titles. As California grew, laws were amended to

enact more complete regulations for the subdivision of land. The years that incorporated significant amendments to the Act outline how it has evolved into a powerful tool used by local governments to regulate land use and development. The Act has developed, with minor and major updates, into the tool that now allows the local government to impose conditions upon developers to mitigate the effects of the development and ensure that the community is not unduly burdened. The major updates are outlined.

### 1893 Statute

As noted above, the first legislation that required a subdivision map was in 1893 (see Figure 1). Chapter LXXX of the 1893 statutes of California is prefaced with the following statement:

*An Act requiring the recording of maps of cities or towns, or subdivisions of lands into small lots or tracts for the purposes of sale, and providing a penalty for the selling or offering for sale and lots or tracts in cities, towns, subdivisions, or additions thereto, before such maps are filed and recorded.* (1893 Cal. Stat. 96)

The Act of 1893 required that proprietors cause an accurate map to be made and filed with the county recorder for the purpose of sale of lots. The maps were to include all grounds within the town site reserved for public use. Additionally, each lot intended for sale was to be numbered or lettered and the map had to be acknowledged by the proprietor (1893 Cal. Stat. 96). The new law contained no reference to maps that were recorded prior to this legislation.

### 1901 Statute

The significance of the 1901 amendment to the Act is that it required a map to be presented to the governing body to review offers of public dedications and endorse any acceptance on the map prior to recordation with the county recorder. Section 3 of the 1893 Act was amended to the following:

*The map or plat so made, acknowledged, and certified shall be presented to the governing body having control of the streets, roads, alleys, and highways in the territory shown on the map or plat, and said governing body shall indorse thereon which streets, roads, alleys and highways offered by said map or plat, they accept on behalf of the public, and thereupon such streets, roads, alleys, and highways, only as have been thus accepted, shall be and become dedicated to public use. When so indorsed, and not before, said map or plat shall be recorded in the office of the county recorder of the county in which the city, town, addition, or subdivision is situated, in a book kept for that purpose.* (1901 Cal. Stat. 288)

Continued on page 24



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## Subdividing California - The Evolution of the Subdivision Map Act

Therefore, if you have a map prior to 1901, do not expect to see a statement of dedication, but do not assume that the street was not dedicated. That is a completely different topic.

### 1903 Statute

In 1903, Chapter CCLXXXII of the Political Code was added to the California statutes. This was separate from the Act, however it related to Official Maps. Section 1, 3658a reads as follows:

*Whenever any city, town or subdivision of land is platted or divided into lots or blocks, ... for the purpose of sale or transfer, it shall be lawful for the city engineer, or the county or city surveyor, under the direction and with the approval of the city council or board of supervisors...to make an official map...shall adopt such map as the official map of the subdivision...it shall be lawful to, and the assessor shall, describe such lots, blocks, or parcels of land ...Each and every map, made and adopted as hereinabove provided, shall be certified...shall be forthwith filed in the office of the county recorder of the county. (1903 Cal. Stat. 408)*

Within the present day Act, §66499.50 et seq. expounds upon Official Maps and §§66499.35(d) & (e) specifically regards them as a Certificate of Compliance.

### 1907 Statute

The 1907 legislation added the first grandfather clause to the Act. Section 8 reads as follows:

*No person shall sell or offer for sale any lot or parcel of land, by reference to any map or plat, unless such map or plat has been made, certified, endorsed, acknowledged and filed in all respects as provided in this act, or was filed or recorded prior to the taking effect of this act and in accordance with laws in force at the time it was so filed or recorded. (1907 Cal. Stat. 292)*

This verbiage has created ambiguity as to whether or not "this act" means just the 1907 Act or does it pertain to earlier Acts since there is not a specified limitation put on the date of recordation of the map?

### 1913 Statute

The 1913 statute added the requirements for a Land Surveyor or Civil Engineer to survey the ground, set monuments, and prepare a map. It reiterated the 1907 grandfather clause and added "*and no person shall sell or offer for sale any lot or parcel of land by reference to any map or plat other than such recorded map or plat or true and correct copy thereof*" (1913 Cal. Stat. 571) to the end of Section 8. Once again, there was not a limitation as to the date of recordation of the existing map.

### 1929 Statute

The 1929 Act repealed the 1907 Act and substituted it with a rewritten version. It was rewritten to contend with the negative effects of the non-regulated development. Prior to the changes, proprietors legally could sell the land and not be required to provide roads to access the property.

Within Section 1 of the 1929 Act, a subdivision was defined for the first time as "a tract of land composed of five or more lots of one acre or less in area"(1929 Cal. Stat. 1791) Within the definition of *subdivision* the grandfathering language specifically refers to any previous act. The definition provided:

*...that nothing contained herein shall be construed to require the preparation of a map in accordance with the provisions hereof of any subdivision of land which had been staked out and in which sales or contracts of sale have actually been made prior to the adoption of this act, or of any subdivision map of which has been duly recorded under the provisions of any previous act; and provided further, that nothing herein contained shall require the recordation of a map showing property sold or contracted for sale by metes and bounds or by reference to an unrecorded map prior to the adoption of this act as a condition precedent to the sale or contract of sale of the whole or part thereof. (1929 Cal. Stat. 1791)*

Note that a limitation on the recordation date was not added, however "any previous act" would include the 1893 statute. In addition, definitions of subdivider, lot, block, and way were added.

Specific regulations came into effect. Section 5 of the 1929 Act added the requirement for a tentative map. Before the preparation of a subdivision map, a tentative map was required to be submitted and approved by the city planning commission, city engineer, or county surveyor. The map had to be prepared and recorded within one year of the approved tentative map (1929 Cal. Stat. 1793). Section 16 required "the final map shall particularly set forth the exact location of such subdivision with reference to adjacent subdivisions, the maps or plats of which have been previously recorded" (1929 Cal. Stat. 1797). Section 30 introduced the concept of a general plan and allowed the local government to regulate improvements. Some of the regulations included minimum lot size, front yard setbacks, and the dedication of land for public use. The recordation of the map could be legally conditioned with improvements. The local entity had the authority to exact the improvements streets and public utility easements to configure to the surrounding existing improvements (1929 Cal. Stat. 1801). Many other additions supplemented the 1929 Act as evidenced by the fact that in 1913, the Act was fewer than four pages; by 1929, it encompassed fifteen pages.

*Continued on next page*



### 1937 Statute

A monumental year for the Act was 1937. It was officially entitled Subdivision Map Act and it took on its present form. Government agencies were originally vested to regulate the design and improvements of proposed subdivisions of land. The significant changes included the election to file a record of survey instead of a final map. If the subdivider elected not to prepare a final map, in order to sell any part of a subdivision, a record of survey had to be filed with the county recorder (1937 Cal. Stat. 1867). With a record of survey, the government entity only had the option of requiring "street grading, surfacing and drainage reasonably necessary for lot access and local neighborhood traffic and drainage needs" (1937 Cal. Stat. 1867). The requirements for a record of survey were the same as a final map except that a parcel of land could be sold by a metes and bounds description rather than a call to a map. Most importantly, the 1937 Act stated that no parcel of land could be sold without prior government approval of a final map or record of survey (1937 Cal. Stat. 1865).


The third grandfather clause was added and it included more specificity to the exceptions of filing a new map. It read as follows:

...however any parcel or parcels of a subdivision of land (1) a map which was recorded or filed prior to August 14, 1929, or in compliance with the provisions of Chapter 837, Statutes of 1929, or (2) made prior to the effective date of this act and which complied with or was exempt from the provisions of Chapter 837, Statutes 1929, or (3) which had been surveyed and in which sales or contracts of sale have actually been made prior to April 1, 1937; provided, however, that nothing herein contained shall require the recordation or filing of a map showing the property sold or contracted for sale of a metes and bounds or by reference to an unrecorded map prior to the effective date of this act as a condition precedent to the conveyance thereof. (1937 Cal. Stat. 1865)

This clause explicitly grandfathered all maps that were recorded in accordance with the regulations in effect at the time. Additionally, permissible recording was added to the statute. It allowed maps of four or fewer parcels to be recorded and regulated. Many cities and counties elected to act upon this option. The Act states:

Nothing contained herein shall be construed to prevent the recording under the provisions of this act and any applicable local ordinances of a final map of any land not defined herein as a subdivision.

Continued on page 34



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**WHAT IS COVERED?**  
This seminar provides guidelines for effective use of the Subdivision Map Act. The instructor will discuss the responsibilities and powers of local agencies under the Act, as well as particular issues regarding when the Act applies.

**SEMINAR HIGHLIGHTS:**

- Discussion of new Legislative and Judicial developments in 2010
- Relationship of Map Act to other planning, zoning and development laws, and to CEQA
- When the Map Act applies (and when not)
- What kind of Map (tentative/final or parcel map) to use
- Certificates of Compliance, Lot Line Adjustments, Contiguity, Remainder Parcels
- Exemptions and Exceptions under the Map Act
- Life of Tentative Map
- Getting the most out of Vested Rights (including Vesting Maps, Development Agreements and Common Law Vesting)
- Conditions of Approval/Exactions/Dedications/Fees
- Creative mapping approaches
- Appeals/Judicial Actions

**WHO SHOULD ATTEND?**  
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<p><b>Petaluma</b> - March 24 Petaluma Community Center PCC Club Room</p>	<p><b>Marina</b> - June 23 Marina Airport Conference Room</p>	<p><b>Fresno</b> - September 22 Pardini's Catering &amp; Banquets</p>	



By: Patrick J. Tami, PLS

*Pat is the Land Surveyor Member of the California Board for Professional Engineers and Land Surveyors, a Past President of CLSA and Vice President for RBF Consulting.*

# Choices

The 1859 novel *A Tale of Two Cities* by Charles Dickens opens with the line: "It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to heaven, we were all going direct the other way - in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only." While Dickens was expressing the dramatic extremes that existed in England and France between the peasants and aristocracy, this also describes some of the divisions in our profession we see today that have been brought about by current economic conditions.

As the Land Surveyor member of the California Board for Professional Engineers and Land Surveyors, I have the opportunity of seeing the best and worst of our chosen field. In some cases, professionals have made questionable choices despite their normally virtuous nature, including using an employer's equipment while moonlighting, insisting on cash payments to avoid taxes, and not filing records of survey and other required documents.

On the other hand, many others choose to support and advance the goals of the profession during these tough times by volunteering to help with the exam process, participating in educational outreach programs like TrigStar, and working on behalf of non-profit organizations such as Habitat for Humanity.

In addition to the choices we make as practitioners, we also find our professional responsibilities infringed upon by others through advances in technology that make geospatial data collection and analysis available to those with minimal training and no verification by a professional board. The use

of mobile or airborne scanning by unlicensed individuals, as well as the application of Geographic Information System products to establish boundaries and fixed works, are just some examples of the challenges we face as we go forward in a technology- and data-rich environment.

In the 12th century, Dante said: "The hottest places in Hell are reserved for those who in a period of moral crisis maintain their neutrality." Today in the surveying profession, none of us can afford to stand on the sidelines and merely observe the changes going on around us without being in jeopardy of "going direct the other way."

Our active participation in professional societies plays an important role in managing change and supporting fellow practitioners by providing opportunities for ongoing professional development and support, as well as establishing a common platform to advocate for legislative and regulatory initiatives that protect the practice of surveying. Together, rather than as individuals, we are a much more effective voice in shaping public policy to help provide protection against unethical competition, arbitrary use of our title, and the influences which undermine public trust in our integrity and competence.

Dr. William E. Wickenden, in *The Second Mile*, wrote: "Every calling has its mile of compulsion, its daily round of tasks and duties, its standard of honest craftsmanship, its code of man-to-man relations, which one must cover if he is to survive. Beyond that lies the mile of voluntary effort, where men strive for excellence, give unrequited service to the common good, and seek to invest their work with a wide and enduring significance. It is only in this second mile that a calling may attain to the dignity and the distinction of a profession."

Dr. Wickenden's observation echoes as true today as when first published in 1944. It is in these best and worst of

*Continued on next page*



# Postcards

times we need to rally around our professional spirit that encourages adherence to a common ideal that puts service above gain, excellence above quantity, self-expression above pecuniary motives, and loyalty above individual advantage.

No professional person can evade the obligation to contribute to the advancement of the professional group. A person's skill is rightly held as a personal possession and when imparted to another justly deserves a due reward in money or in service. The person's knowledge, however, is to be regarded as part of a common fund built up over the generations, an inheritance which is freely shared and to which each is obligated to add; hence, the duty to publish freely the fruits of research and to share the advances in professional technique. If the individual lacks the ability to make such contributions personally, the least that can be done is to join with others to increase, disseminate and preserve professional knowledge and to contribute regularly to their support.

In these "worst of times," we owe it to each other to bring out the best in our profession and continue to lay the foundation for our success in serving the public throughout our knowledge and expertise. ■

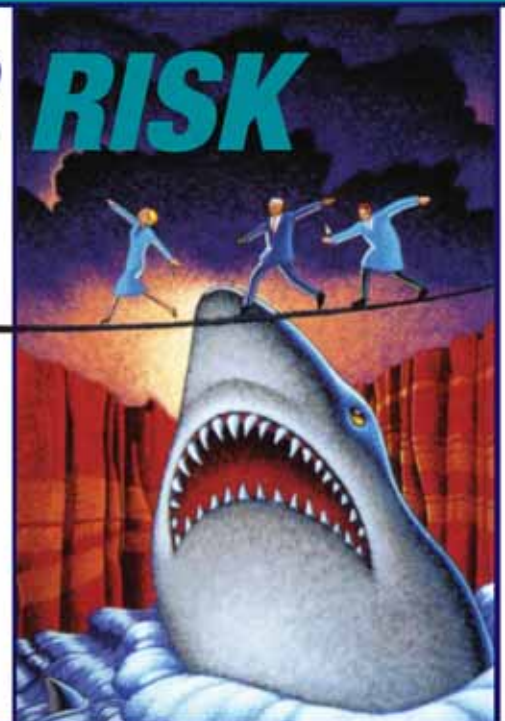


This brass cap is one of many boundary monuments marking Death Valley National Park and Manly Peak Wilderness above Striped Butte Valley. Submitted by Anne Hoppe, PLS.

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# The More Things Change...

By: David E. Woolley, PLS

**Dave**, is the CLSA Orange County Chapter Legislative Chairman, Chapter Representative, State PPC Member, and owner of D. Woolley & Associates, Tustin, CA

Quotes from the near and distant past that prove the point: the more things change, the more they remain the same.

The following quote was taken from "The California Surveyor", Issue 21, Winter Edition, 1971, Presidents Message by Robert W. Curtis.

"In March of 1966, 8 men sat around a table in a Santa Rosa restaurant. The topic of discussion was our new Land Surveyor's Association and its aims and goals. Now, more than five years later, while we are much nearer, we still have not accomplished our primary goal. To wit: The elimination of the Civil Engineer's Exemption to the Land Surveyor's Act. We contend and can prove that civil engineers being registered today are not, for the most part, surveyors. They lack education, experience and interest in land surveying as required by the Land Surveyor's Act to protect the public interest.

C.L.S.A. has responded with one legislative effort which was defeated. We are now proceeding with our new legislative program. This time it is, in fact, a *program*. We are ready with facts and figures to prove our contentions. But, we need more than facts and figures. We need the participation of every Land Surveyor in California. To those Land

the Southern California Section of A.C.S.M. on the important question of property boundaries as affected by seismic disturbance. I believe we will be expanding our activities in the technical direction more next year.

To carry out such programs and to increase our workload, as required by our profession, is expensive in manpower as well as dollars.

Simply stated, we need both. To illustrate, let's take a look at what one C.L.S.A. Board of Directors meeting costs. Generally, 25 or more men attend, so I will use 25 for illustration.

Average travel cost,  
\$15.00 per person:  
\$15 x 25 = \$ 375.00  
Using only \$5.00 per man hour  
\$5 x 8 hrs x 25 = \$ 1,000.00  
Lunch \$1.50 x 25 = \$ 39.50  
\$ 1,412.50

Considering that all this is paid for personally by the individual who also pays his association dues and, likely as not, has to make four or more additional committee

C.L.S.A. must always consider the public interest as paramount.

C.L.S.A. must represent all Land Surveyors equally.

C.L.S.A. must speak with one voice throughout the State.

To Boards of Directors, Committee Chairmen and friends throughout California, thank you for the opportunity to have been of service to my profession."

Commentary by David E. Woolley, PLS

In the last issue of the "California Surveyor" I quoted Mr. Robert W. Curtis' President's Message from Issue 14, 1970. I was pleasantly surprised when Mr. Curtis called me to discuss the article, which lead into an hour long discussion about the early days of CLSA. As stated above, the association was started when "...8 men sat around a table in a Santa Rosa restaurant." These surveyors didn't have internet, email, FAX machines, or word processors. They wrote letters, licked a stamp, and hoped others would be interested in joining their organization. Mr. Curtis and I enjoyed a few laughs, especially when he talked about driving down to Southern California with a couple of surveyors hoping to find some surveyors interested in meeting and discussing land surveying topics.

Today the association has a membership of 2239 people, 22 Chapters, 2 Student Chapters, a voice on the national level, award winning publications, a legislative advocate, enough women surveyors to dedicate an entire publication in their honor, and a sizeable operating budget.

Each year there are a few less of the founding members. I believe we owe each of them a debt of gratitude and if you can spare a minute in your busy day and you happen to know one of them, take a moment to thank them for their hard work and vision.

Thank you, Bob Curtis. ■

**Today CLSA has a membership of 2239 people, 22 Chapters, 2 Student Chapters**

Surveyors who have been waiting to see what C.L.S.A. is going to do or how we are going to fare, I say, "It's time to WAKE UP." The only people who care about Land Surveyors are Land Surveyors and no one else.

The activities of the Land Surveyor are increasing daily and thus the activities of C.L.S.A. are likewise increasing. We have *active* committees linking us with every willing group or association having a connection with surveying. While our committees are active in every phase of surveying, to date, we have not been as active in some of the technical areas as we would like to be. A good example is a motion by the C.L.S.A. Board of Directors, at the meeting on October 2, 1971, to work with

meetings a year, you may have some idea of the dedication of your Board of Directors.

I think our association is very much like a bank. Without investors, we can do no business. If, on the other hand, we all put in our share of time and money, we are certain to earn some *interest*. Most important of all, is the fact that if you do not put something *in*, you surely cannot expect to get anything out. Membership in C.L.S.A. is an investment in the future of land surveying.

This will be my last message as President of C.L.S.A., and based on my two years as President, I feel the most important ideals for C.L.S.A. to pursue are:





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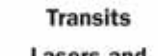
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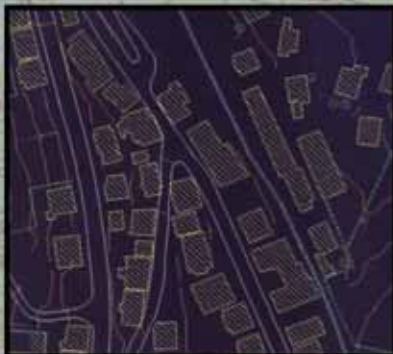
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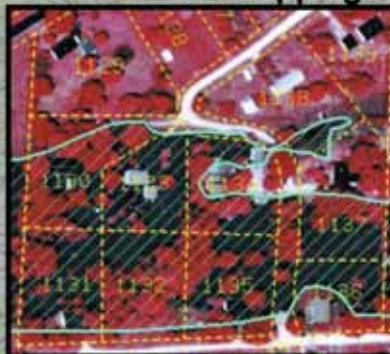


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# CLSA Member & Caltrans Employee Receives Medal for Heroic ACT



**SAN LUIS OBISPO COUNTY** – CLSA member and Caltrans District 5 Surveyor Robert “Bob” MacKenzie has received the Governor’s Gold Medal of Valor for his heroic actions on Hwy. 88 near Kirkwood, CA on the morning of Nov. 30, 2009. The medal was presented by California Governor Arnold Schwarzenegger at a statewide ceremony in Sacramento on Dec. 7.

MacKenzie and his wife, who live in Los Osos, observed a man waving his arms stating that a car had just crashed over the embankment. MacKenzie went over the guardrail and proceeded 75 to 100 feet down a slippery, snow covered, rocky mountainside.

He found an elderly man standing next to an overturned station wagon with his wife trapped in the front seat of the car with one of her arms pinned under the right front windshield. He was wearing shorts and tennis shoes and standing in about a foot of snow. MacKenzie found a rubber mat which was thrown from the car and placed it on the snow allowing the man to stand on it in order to prevent hypothermia and/or frostbite.

MacKenzie returned to the woman and covered her hand with a snow boot he found in the car while trying to keep her comfortable and treating her for shock. He covered the woman with his

jacket and stayed with her for the next 20 minutes in freezing temperatures until rescuers reached the scene.

MacKenzie described to rescuers how the woman was trapped which allowed them to make a single trip down the steep embankment with the proper tools and first aid supplies. MacKenzie remained at the scene alongside emergency personnel during the entire extraction which took approximately 3 hours.

The woman was removed from the vehicle and taken by air to a hospital in Reno, NV.

Because of weight restrictions, her husband could not accompany his wife to the hospital.

MacKenzie offered to drive her husband to the hospital, a two hour trip which was made in the opposite direction that Mackenzie and his wife were traveling.

The actions by MacKenzie during this incident were over and above the call of duty and were directly responsible for preventing further injury or death.

“The State of California is proud of the actions of Caltrans District 5 employee Robert “Bob” MacKenzie for his extraordinary act of service above and beyond the normal call of duty or service. He is a deserving recipient of the Governor’s Gold Medal of Valor,” said Caltrans District 5 Director Rich Krumholz. ■



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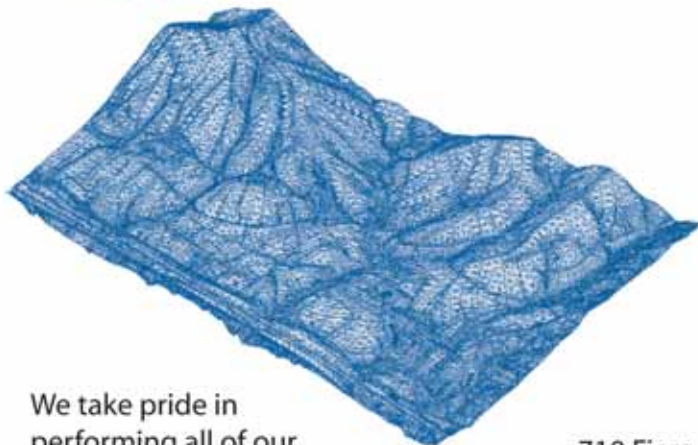


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## RISK MANAGEMENT FOR LAND SURVEYORS



# Current Insurance Questions and Answers

Here are answers to some specific insurance questions that surveyors have asked me during the year. I thought there might be some general interest in these topics.

### Where do most claims come from?

Basically, it's from stolen equipment. GPS left out of sight or in an unlocked truck. Know that someone's always watching and a shiny piece of high tech equipment is a tempting good target for a thief. Professional liability claims are not as frequent but they have a big dollar value and the loss potential to put a surveyor out of business. In most cases, however, the coverage is usually needed to pay for the surveyor's extraction from a lawsuit where the surveyor is blameless but has been named because they are party to a contract between a contractor and an owner.

### What are the best companies?

A-rated companies are the best and can be found in Best Insurance Guide or by asking your broker. Examples of A-rated companies include Zurich, Travelers, State Farm, CNA and New Hampshire. Most Requests for Proposals from owners, contractors and public entities require A-rated companies.

### What is the difference between Admitted and non-Admitted companies?

All companies doing business in California need to meet strict financial requirements as to capital, surplus and loss reserves. An admitted company has to file policy forms and rates with the state and also participate in the California Insurance Guarantee Association (CIGA). These companies pay a portion of their property, casualty and workers compensation premium collected into a fund that will pay claims in case they fail. These are usually large multi-line companies that advertise during football games. A non-admitted company does not pay into the fund so there is no guarantee a claim will be paid if they fail. These companies can be owned by admitted companies but are usually excess surplus lines companies that are located in places like London or Bermuda. Both admitted and non-admitted companies can be A-rated.

### Do All Companies Have the Same Coverage Forms?

No. You have to know what you're getting. Business Owners Policies are generally the same but can be altered by endorsement. When it comes to property and general liability, companies file their forms and rates with the state insurance department and generally adhere to their filings. Professional Liability forms and rates are different and diverse and have to be carefully considered because there as many forms and rates as the companies using them. Be sure to read your policy and ask your agent or broker what you are getting.

### What's the difference between a certificate, a binder and an insurance policy?

A certificate is general evidence of insurance that shows coverage, limits, and companies.

A binder is more specific as to these coverage items and has legal validity. To know full coverage and exclusion details, you need to have the complete insurance policy.

### What's Subrogation?

This is a policy provision that allows the insurance company, once they have paid a claim, to put themselves in your shoes and sue the entity that caused the claim in hopes that they can collect some or all of the money they have paid out for you as damages. If subrogation is waived then the insurance company cannot go after the guilty party to collect on their loss payment.

### What are the statutes of limitations?

These are the time limits set by law in which one party can bring a lawsuit against another party. There are many variations and qualifications depending on the nature of the lawsuit, you'll always need a lawyer to help, but in general they are as follows:

Professional malpractice	1 to 4 years
Construction defects and negligence	3 to 10 years
Breach of oral contract, personal injury, wrongful death	2 years
Breach of written contract	4 years
Fraud	3 years
Personal Property Injury	3 years
Product Liability	2 years

### Broker, Agent, Direct Writer? Who's the Best?

A broker represents you and can access many insurance companies. An agent represents a few insurance companies, and direct writer represents one insurance company. So is one or many best? It depends on what works for you and your relationship with your insurance provider. Who do you like doing business with after considering service, product quality and price? ■



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## Subdividing California - The Evolution of the Subdivision Map Act

### 1943 Statute

The significance of the 1943 Act, Chapter 128, is that it codified the Subdivision Map Act into the Business and Professions Code, Sections 11500 through 11628 (1943 Cal. Stat. 865). It must also be noted that § 11538 (b) altered the grandfathering verbiage of the Act:

*Subdivision refers to...five or more parcels...does not apply to any parcel or parcels of a subdivision offered for sale, contracted for sale or sold in compliance with or exempt from any law (including a local ordinance), regulating the design and improvement of subdivisions in effect at the time the subdivision was established (1943 Cal. Stat. 868).*

### 1965 Statute

The most significant amendment to the 1965 statute was that the concept of the parcel map was introduced. At this time the governing body could require that a parcel map be filed; however, it was not mandated by the state. The definition of a parcel map then essentially reads the same as it does today (1965 Cal. Stat. 2981, 2982).

### 1971 Statute

Chapter 1446 of the 1971 statute was approved in November and became effective in March of 1972. This year is familiar to Land Surveyors because it is when the parcel map became a requirement for a division of land of four or fewer lots (1971 Cal. Stat. 2854, 2855). Before March 1972 it was not required per the Subdivision Map Act for a map to be recorded for the subdivision of four or fewer lots; however, it may have been required by local ordinance.

The amendments of 1971 were introduced by Assembly member McCarthy and oftentimes referred to as the McCarthy Act. He introduced many significant amendments in addition to the requirement of parcel maps. The general plan concept was added to California law in 1929; however, it did not become a prerequisite of approval of the proposed tentative map and final map to be consistent with the general plan until 1972 (1971 Cal. Stat. 2856). The amendment also gave the local entity more authority to condition maps with dedications of land for public use and improvements by expanding the definitions of "design" and "improvement" (1971 Cal. Stat. 2853).

### 1974 Statute

The Subdivision Map Act was recodified into the Government Code and it is frequently referred to as Government Code §66410 et. seq. As noted earlier, the Act had been in the Business and Professions Code since 1943. The combination of Chapters 1536 and 24 of the 1974 and 1975 statutes, respectively, consolidated and

recodified the Subdivision Map Act. This change signified the change in the Act of being a technical statute within the realm of the land surveying profession to a regulatory land use tool. The planning and zoning laws already existed within the Government Code, therefore making this a logical change.

### 1980 Statute

The requirement for a parcel map was enacted in 1972, however the law was quiet. This created questions as to the legal status of lots established prior to 1972. Therefore in 1980, § 66412.6 was added to the California Government Code:

*For purposes of this division or of a local ordinance enacted pursuant thereto, any parcel created prior to March 4, 1972, shall be conclusively presumed to have been lawfully created if the parcel resulted from a division of land in which fewer than five parcels were created and if at the time of creation of the parcel there was no local ordinance in effect which regulated divisions of land creating fewer than five parcels (1980 Cal. Stat.788).*

### 1981 Statute

The 1981 statute simply added a requirement for a Certificate of Compliance for the lots created prior to 1972. California Government Code § 66412.6 (b) was added:

*(b) For purposes of this division or of a local ordinance enacted pursuant thereto, any parcel created prior to March 4, 1972, shall be conclusively presumed to have been lawfully created if any subsequent purchaser acquired that parcel for valuable consideration without actual or constructive knowledge of a violation of this division or the local ordinance. Owners of parcels or units of land affected by the provisions of this subdivision shall be required to obtain a certificate of compliance. (1980 Cal. Stat.4777)*

If a map or a document was approved by local ordinance and/or recorded prior to 4 March 1972, § 66412.6 grandfathers that division of land.

### Role of the Professional Land Surveyor

In accordance with Business and Professions Code §8726 (d) and (l), one who "makes any survey for the subdivision or resubdivision of land of any tract of land" or "determines the information shown or to be shown within the description of any deed, trust deed, or other title document prepared for the purpose of describing the limit of real property" is defined as a Land Surveyor. (Cal. Bus. & Prof. Code §8726) Antiquated maps are more prevalent in coastal and early mining areas; therefore, surveyors practicing in these areas should be aware of the additional issues that arise with these maps.

Continued on next page



If an antiquated subdivision is within the scope of one's project, the surveyor must have knowledge of the Act's evolution, when local ordinances effecting the subdivision of land were approved, and case law. Upon diligent research, if the surveyor is confident that lots were created in accordance with the laws of the time, the lots may not satisfy the requirements of the general plan. For example the lots may not have access to a dedicated right of way, or have an adequate lot size suitable for development. In order to make the lots eligible for development, one may simply be able to process a lot line adjustment. This approach may far outweigh the expense and time necessary to subdivide in accordance with current laws. Conversely, if one is confident that the antiquated lots no longer exist, one may advise their client appropriately to process a tentative map and subdivision map in accordance with today's laws. This cumulative knowledge will allow the foresight to alleviate the need for appeals to the agency, and possible legal actions.

The evolution of the Act, and the interpretation and analysis of the landmark cases create a basis. The surveyor should have a library and be aware of historic local ordinances and landmark cases. The complete chain of title must be researched, and possibly researched as far back as when the parcel was originally mapped. If the lot has never been conveyed in the configuration in which it was mapped, one may assume that the local agency may not deem the parcel to be legally created. However, if one can demonstrate that the parcel had been conveyed as an individual parcel in the configuration in which it was mapped, one may be able to assume that the parcel was legally created. If this is the case, the local agency should be petitioned to issue a Certificate of Compliance stating that the parcel was created in accordance with the Subdivision Map Act.

*The author wishes to thank Mike Emmons, PLS, Santa Barbara County Surveyor and Terry Connors, PLS, San Diego County Surveyor for their assistance in the development of this article.*

#### Landmark Cases for Your Library

People ex rel. Brown v. Tehama County Bd. Of Supervisors 149 Cal App 4<sup>th</sup> 422 (2007); Cal Rptr 3D

Gardner v. County of Sonoma 92 Cal App 4<sup>th</sup> 1055 (2001); 2001 Cal App LEXIS 795

Hays v. Vanek 217 Cal App 3d 271 (1989); 266 Cal Rptr 856

John Taft Corporation v. Advisory Agency 161 Cal App 3d 749 (1984); 207 Cal Rptr 840

Lakeview Meadows Ranch v. County of Santa Clara 27 Cal App 4<sup>th</sup> 593 (1994); 1994 Cal App LEXIS 823

Morehart v. County of Santa Barbara 7 Cal 4<sup>th</sup> 725 (1994); 1994 Cal LEXIS 2194

Witt Home Ranch, Inc v. County of Sonoma 165 Cal App 4<sup>th</sup> 543 (2008); 81 Cal. Rptr. 3d 123

#### References

Fulton, W. (1999). "The Basic Tools" *Guide to California planning*, 2<sup>nd</sup> Ed., Solano Press Books, Point Arena, California, 143-151.

Hoppe, A. (2006). "LAND WITHIN ANTIQUATED MAPS MAY NOT BE ABLE TO BE CONVEYED IN ACCORDANCE WITH THE LAWS OF TODAY", Master's Thesis, California State University, Fresno, CA.

#### California Law

California Business & Professions Code §8726 (West 2005)

California Government Code §66412.6 (West 2005)

California Government Code §66424 (West 2005)

California Government Code §66451.10 (West 2005)

California Government Code §66499.30 (West 2005)

Cal. Stat. 1850, ch. 58

Cal. Stat. 1893, ch. LXXX

Cal. Stat. 1901, ch. 124, amend §3

Cal. Stat. 1903, ch. CCLXXXII

Cal. Stat. 1907, ch. 231, §8

Cal. Stat. 1913, ch. 306, amend §1

Cal. Stat. 1929, ch. 837

Cal. Stat. 1937, ch. 670

Cal. Stat. 1943, ch. 128

Cal. Stat. 1965, ch. 1180

Cal. Stat. 1971, ch. 1446

Cal. Stat. 1972, ch. 706

Cal. Stat. 1974, ch. 1536

Cal. Stat. 1980, ch. 403

Cal. Stat. 1981, ch. 1184 ■

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By: *Michael J. Hollins, PLS*

*Michael has been a Party Chief for CalTrans for almost 20 years and has been indexing maps for almost 25 years. He has been active in the Humboldt and Cascade Chapters of CLSA since 1983.*

## Photographic Map Imaging

With today's technology, viewing a digital image of a map on a computer makes researching and indexing so much more convenient - but only if the map image exists. In Shasta County there were about 600 recorded maps, and another 600 unrecorded survey maps that had been donated to the Shasta Historical Society that were not imaged. These maps could not be easily roller scanned, so I had to find another way to image them.

I had used a digital camera to photograph small documents, like deeds, in the past, and I wondered when the technology would be good enough to photograph maps. I went to Crown Camera in Redding and met with photographer Harvey Spector, who happened to have experience photographing museum maps. I found that the latest camera technology produced resolutions comparable to roller scanning at 300 X 300 dpi, which yields acceptable image resolutions for both viewing and printing. I purchased the necessary equipment and took my camera to the source to successfully image the 1200 maps in Shasta County. Projects like this take time but now with a slow economy, it may be the perfect time to start.

Roller scanning maps is great for mylars and good quality prints, but photography may be the best choice over scanning for many reasons. Many maps cannot be scanned by a roller scanner because, they are drafted on linen, are hardened, fragile, oversized, have binding tabs attached, or are dark blue prints. Large format flatbed scanners take up a lot of space and you usually have to take the maps to the scanner. A flatbed scanner usually isn't an economical option unless you have thousands of maps to scan. When a map is scanned, only an image file is produced; however, a RAW digital photograph retains more information that can be manipulated later to produce an image file that is clearer and more printable. This is beneficial when working with poor quality maps that have water stains or blue prints that are faded.

To develop a portable photo studio, first start with a good camera like the Cannon EOS 5D Mark II. This camera has a 36mm X 24mm full frame sensor and later captures a 21.1 megapixel image - that's a higher resolution than a 35mm film camera. Next, put a very good lens on the camera, a Canon EF 70-200mm f/2.8L IS USM is an excel-



*FIG. 1: The portable studio set up in the Shasta County Recorder's Office map room to shoot linen and blue print maps that couldn't be scanned.*

lent choice. This lens zooms to about 4X, which allows you to take images at a distance of at least 8 feet from a typical map. Being 8 feet away from a typical-sized map minimizes photographic distortion of the image to less than 0.5 percent. If the camera was closer to the map, the image would get a fish-eye effect and a larger distortion of the map.

You also need to use a tripod, controlled lighting, a map board, and a light meter. The light meter ensures that the lighting is evenly distributed over the map surface and it determines the exposure level. I could not find a magnetic map board of the right size and portability so I constructed one myself from parts at an office supply store and a hardware store (it also fits in the back of a Prius). Strong magnets hold the maps flat and secure to the board, and are particularly handy if the map has been folded.

The camera can be controlled from software on a laptop computer, which saves the RAW photograph to the laptop rather than to the camera. This allows instant viewing of each photograph to ensure that it is framed properly, not

*Continued on next page*



accidentally cropped, and is in focus. You can also tell if the lighting is effective. The manipulation and converting is usually done at a later time unless there are just a few maps to shoot.

**My checklist for setting up the studio:**

- ⇒ Camera and Lenses
- ⇒ Tripod
- ⇒ Map Board and Magnets
- ⇒ Light Meter
- ⇒ Light Source and Stands
- ⇒ Laptop Computer and Cables
- ⇒ Lens Hood
- ⇒ Tape Measure
- ⇒ Extension Cord and Power Strip
- ⇒ External Camera Power Supply

When choosing a site to set up the studio, select a location where the existing lights can be turned off and outside light can be blocked from coming into the room. This allows the lighting of the map to be controlled. Avoid fluorescent lights; almost any other lighting will work. You can use a

tape measure to center the tripod at the center of the map board by measuring equal distance from a parallel wall and matching the height of the camera to the height at the center of the board. Try to keep the arrangement symmetrical and square. I use incandescent bulbs and place my two lights between the camera and map board off to the side and at about a 45 degree angle from the map board. I use a light meter to determine the evenness of the lighting and the shutter speed. I use an f-stop of 8 and have a typical shutter speed of 1 to 4 seconds depending on the brightness of the map. See Figure 1.

Sorting the maps by size reduces the number of times that the camera needs to be zoomed to fit the map in frame. It also helps to have the maps flattened prior to shooting; unrolling them or unfolding them and placing books on them for a few days seems to work. Pre-screen the maps so that you are not shooting recorded maps or maps that have no value for whatever reason. If all the maps are the same size, shooting goes quickly: It takes about 30 seconds to take the shot, download, and preview it. Working alone, it takes about 40 seconds to remove a map from the board and place another one on it. I could typically shoot 30 maps an hour by myself, but with help at the map board I could shoot about one map per minute.

Continued on next page

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With photo editing software, I have been able to successfully photograph brown sepia map copies, frosted on the direct side and glossy on the reverse side. This can be done by shooting them on the glossy side and manipulating them with the software by horizontally flipping them, inverting them, and maximizing their contrast to produce an image that is black on a white background which is easy to print and view. See Figures 2 and 3. Most scanners are usually set to black and white or gray scale scanning, which limits them to only scanning maps with light colored backgrounds. If you try to scan a blue print, with a dark blue background and white line work, the image is difficult to work with and impossible to print. But, you can shoot just about any kind of map and process it with the software to produce a useable image.

Typical software image creation workflow:

- ⇒ Open RAW Image
- ⇒ Rotate and Flip Image if necessary
- ⇒ Determine size of image, usually in inches
- ⇒ Crop Image
- ⇒ Invert Image if necessary
- ⇒ Convert Image to Grayscale
- ⇒ Sharpen Image
- ⇒ Adjust Black Level if necessary
- ⇒ Increase Contrast
- ⇒ Adjust Brightness
- ⇒ Save Image as a .TIF file

I have evenly spaced dots on my map board that I use to scale the images, but as an alternative a long ruler could be affixed to the map board. The map is purposely framed to include the scale; this information is used to determine the final cropping size of the image, usually in inches. The scale is not included in the cropped final image to reduce the image size. The size of the image and the resolution at which it is saved determines the size of the image file on the computer storage disk. Typical sizes are 10 to 20 megabytes.

Maps that have dark backgrounds and light line work (such as blue prints) can be inverted to make them have light backgrounds and dark line work. Sometimes the line work turns out more gray than black, so the black level can be adjusted to turn the line work darker and increase the brightness to make the background whiter. To ensure the proper level of adjustment, zoom in to a critical portion of the map to observe the manipulations and insure the proper level of adjustment. Most cameras have the image sharpness turned down for the purpose of shooting portraits of people. Maps are not nearly as self conscious as people, so I turn the sharpness up to make the line work on the map more "in focus" and easier to read.

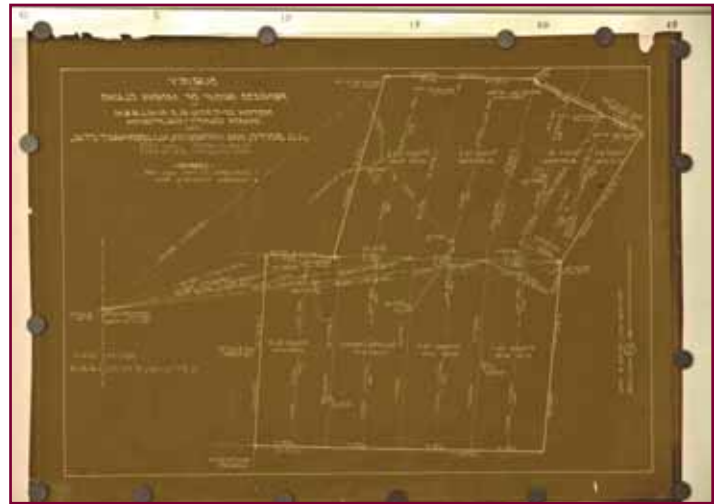
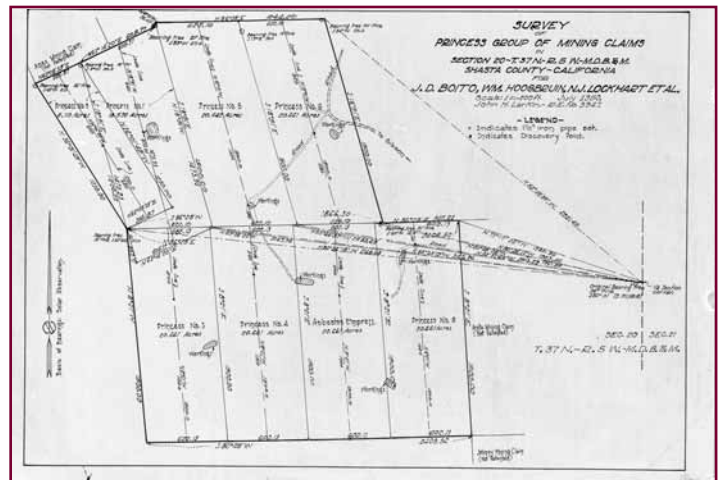


FIG. 2: Photograph of a brown sepia map as shot.

FIG. 3: The resultant image from the brown sepia map.



Some maps have low contrast due to aging or water damage and are more difficult to work with, so you have to compromise the ability to read the image in order to get a printable image. Sometimes the image must be left darker than usual in order to see the information on the screen, even though it will not print very well. Sometimes producing two images - one for viewing and one for printing - is a solution even if the print loses some information. The time it takes to process the images will depend on the horsepower of your computer, your graphics adapter, and how good you are with your photo editing software. I produce my images in about 3 to 4 minutes each. I choose not to modify the images by erasing, augmenting, or differentially editing the images in order to preserve the original, and not create an interpretation of the map.

With the economy slowed down, wouldn't now be a good time to hunt down all the unrecorded maps in your county and make images of them? Think how much more complete and faster your research can be with images of those maps right on your computer. ■



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# Q & A SMA Expert

By: Michael P. Durkee, ESQ



*Michael P. Durkee, a partner in the Walnut Creek office of Allen Matkins, represents developers, public agencies and interest groups in all aspects of land use law. Mike is the principal author of Map Act Navigator (1997-2011), and co-author of Ballot Box Navigator (Solano Press 2003), and Land-Use Initiatives and Referenda in California (Solano Press 1990, 1991). 415.273.7455 mdurkee@allenmatkins.com*

## Question

**I have applied for a tentative subdivision map with a local city and staff is now reviewing my application. Can you suggest conditions of approval that I would want to ask for in order to maximize the value of my map and protect it as much as possible from future changes in laws and regulations?**

## Discussion

Excellent question! As projects begin to come to life (hopefully!) in an uncertain market such as the current one, it is very important that subdividers make sure they get the most that they can out of their Tentative Map conditions of approval. This column provides some important guidance concerning conditions of approval, as well as specific language that can be used in those conditions.

**1. Do not undo your vested rights!** If you have requested approval of a Vesting Tentative Map (or vesting parcel map; collectively, “VTM”) be careful of “standard conditions of approval.” By law, a VTM should have imposed on it “only those ordinances, policies, and standards in effect at the date the local agency has determined that the [map] application is complete.” (Gov. Code § 66474.2.) However, if you do not double-check, oftentimes a standard condition of approval will apply the law in place “at building permit issuance” or similar after-application-date. Those conditions need to be removed or you will be subject to them (regardless of your vested rights) once the statute of limitations runs. Therefore, if you have a VTM, your conditions of approval should include a condition that states, in effect, the following:

This Tentative Map approval is granted subject to only those ordinances, policies, and standards in effect on \_\_\_\_\_, 20\_\_ [the date the map application was complete or some other date that includes the other approvals you are seeking and want to vest into].

**2. Know the “one bite of the apple” rule!** During the five-year period following recordation of a Final Map or Parcel Map for a subdivision, a city or county cannot impose as a condition to the issuance of any building permit or equivalent permit, performance of any conditions that the city or county *could* have law-

fully imposed as a condition to the previously approved Tentative or Parcel Map (but forgot to). (Gov. Code § 65691.) To enforce this rule, a city or county may not withhold or refuse to issue a building permit or equivalent subsequent permit for failure to conform with or perform any conditions that the city or county could have lawfully imposed as a condition to the previously approved Tentative or Parcel Map.

In other words, generally speaking, a city or county gets only “one bite of the apple” (i.e., one opportunity to impose existing conditions of approval) when approving a Tentative Map and until five years after the recordation of a Final Map or Parcel Map. (This limitation against the city or county does not apply if a failure to impose the condition would place the residents of the subdivision or of the immediate community, or both, in a condition perilous to their health or safety, or both; or if the condition is required in order to comply with state or federal law.)

With the foregoing in mind, consider whether your conditions of approval should include a simple statement that “Government Code § 65691 shall apply.”

**3. Anticipate the Life of Your Tentative Map!** Map Act section 66452.6 and related sections deal with the “life” of Tentative Maps. If you intend to use phased (multiple) final maps (to get up to 10 years worth of life), or if there is anticipated litigation against your map approval, deal with it expressly in the conditions of approval. Make it clear that each time you file a phased final map the remaining portions of your Tentative Map are extended by 36 months (up to a maximum of 10 years) and/or that any litigation against your map will toll the life of the tentative Map up to 5 years.

**4. Preserve your ability to challenge future fees or fee adjustments!** Sometimes, unlike the situation described above, a city or county seeks to apply a *new* fee or fee adjustment on your project; that is, a fee or fee adjustment that the city or county could not know about at the time of the Tentative Map approval. Subdividers and developers need to make sure that they preserve their right to legally challenge any such new fees or fee adjustments if and when the city or county seeks to impose them. Therefore, your conditions of approval should include a condition that states, in effect, the following:

*Continued on next page*



The Conditions of Approval set forth herein include certain fees, dedication requirements, reservation requirements, and other exactions (collectively "exactions"). Certain of these exactions are currently known with specificity (e.g., the amount of certain existing impact fees is known, etc.), while others have not yet been determined by the City/County. Additionally, while certain existing fees are currently known, their possible future adjustments are not. Therefore, the following shall apply:

**a.** For those exactions whose amount/scope can be determined today (approval date) because the amount/scope is set forth in or can be determined today from adopted City/County action, these Conditions of Approval shall constitute written notice of a statement of the amount of such exactions. The developer is hereby further notified that the 90-day period within which it may protest these exactions pursuant to Government Code section 66020(a) shall begin upon the date the City Council/Board of Supervisors adopts the resolution approving the Tentative Map to which these conditions apply. If the developer fails to file a protest within said 90-day period, the developer will be legally barred from later challenging such exactions.

**b.** For those exactions whose amount/scope is set forth in or can be determined from adopted City/County action, but whose future adjustment is unknown, the developer is hereby notified that the 90-day period within which it may protest these adjusted exactions pursuant to Government Code section 66020(a) shall begin upon the date the City Council/Board of Supervisors adopts the adjustment of any such exactions. If the developer fails to file a protest within said 90-day period, the developer will be legally barred from later challenging such exactions.

**c.** For those exactions whose amount/scope cannot be determined today because the amount/scope is not currently set forth in or cannot be determined from adopted City/County action, the developer is hereby notified that the 90-day period in which it may protest such exactions pursuant to Government Code Section 66020(a) shall begin upon the date the City Council/Board of Supervisors adopts the exactions. If the developer fails to file a protest within said 90-day period, the developer will be legally barred from later challenging such exactions.

In sum, it is always surprising to me that subdividers will spend hundreds of thousands of dollars to get their Tentative Map to the approval stage and will not spend the time necessary to make their conditions of approval do the work they need them to do. Conditions of approval can make or break a project, and become even more important in these uncertain times.

Mike Durkee wishes to thank Tom Tunny with his help with this column. ■

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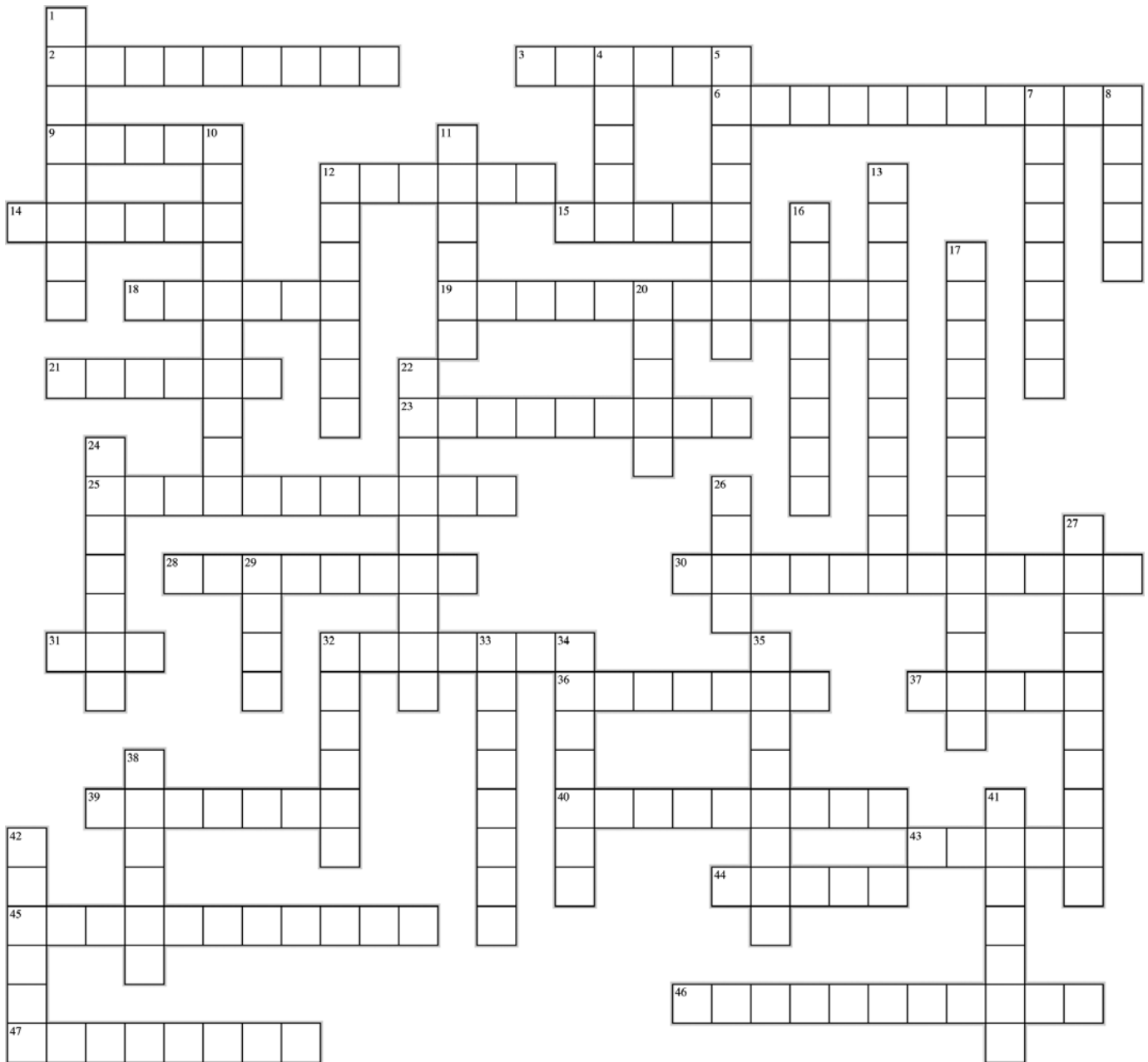
# Crossword Puzzle

By: Ian Wilson, PLS

*Ian Wilson, PLS is the Director of Survey for Cardno WRG, Inc. in Roseville, CA. He started surveying in 1988 in Southern California and is now enjoying life in Northern California. Ian enjoys hearing from fellow members about the crossword puzzle and is always looking for clue ideas and input. He is licensed in California and Nevada and has specialized in boundary, topographic and Land Title surveys. His expert witness practice in boundary and easement issues is growing. Ian has been a member of CLSA since 1988.*

## CLSA Crossword Puzzle #17

If you have an idea for a puzzle theme or a clue you would like to include in an upcoming puzzle, email to [clsa@californiasurveyors.org](mailto:clsa@californiasurveyors.org)



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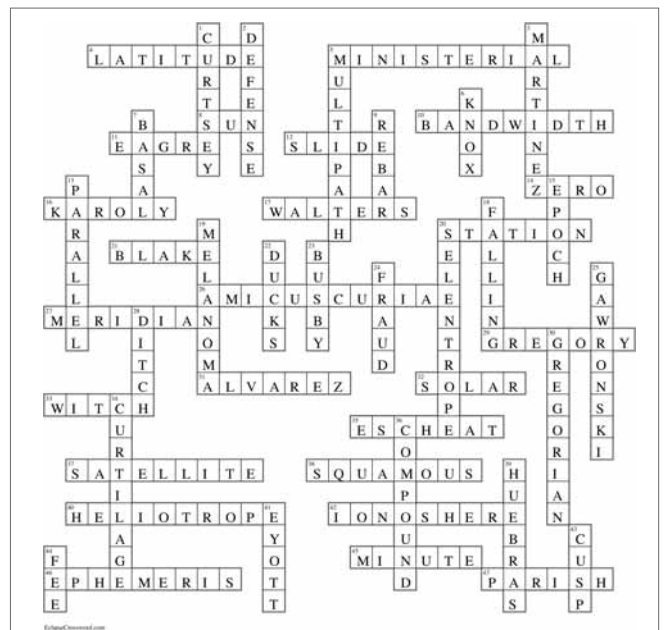
## Across

2. CALTRANS D5 RECIPIENT OF THE GOVERNOR'S MEDAL OF VALOR
3. SIX FEET
6. GENERAL EVIDENCE OF INSURANCE
9. LAND OF THE ROPE STRETCHERS
12. WITNESS ALLOWED TO DRAW CONCLUSIONS
14. HEAD OF SANTA ROSA JC SURVEY PROGRAM
15. METAL ROD
18. NMOs TREASURER
19. INTRUSION
21. SPECIFIES INSURANCE COVERAGE
23. PROVIDE FOR PERMANENTLY
25. TYPE OF REPORT USED IN GPS FIELD WORK
28. DEGREE OF WETNESS
30. EXTENSION
31. SPACE BETWEEN DESCRIPTIONS
32. POWER OF LENSES
36. RANK TYPE
37. MOBILE UNIT
39. 2.471 ACRES
40. AUTHOR OF "THE SECOND MILE"
43. HISTORY OF TITLE
44. ORAL EVIDENCE
45. HOME OF THE NATIONAL MUSEUM OF SURVEYING
46. TITLE REPORT
47. THE "OTHER GUY" ON MT RUSHMORE

## Down

1. LAST COUNTY CREATED IN CALIFORNIA
4. YEARS OF LIABILITY FOR FRAUD
5. ASSEMBLYMAN AUTHOR OF 1971 AMENDMENTS TO THE MAP ACT
7. MEMBER OF CIGA
8. GPA DATA INTERVAL
10. FACTOR NECESSARY IN AIRBORNE GPS CONTROL DATA EVALUATION
11. HOPPE SURVEY STARTER
12. REVERSION OF PROPERTY TO THE STATE
13. TYPE OF DIAGRAM USED IN GPS FIELD WORK
16. AN ESTATE OF INHERITANCE
17. ESTIMATE OUTSIDE DATA POINTS
20. PUBLICLY DEDICATED WAY 20 FT OR LESS IN WIDTH
22. RECESSION OF WATER
24. MATH OF LOGIC
26. 33.372 INCHES IN LA
27. CURRENT CODE SECTION FOR SMA
29. AUTHOR OF OPINION IN MOREHART V COUNTY OF SANTA BARBARA
32. JUDICIAL RULING
33. SURVEY RELATED SCHOLASTIC OUTREACH PROGRAM
34. CONSTRUCTED PUBLIC WAY
35. DIRECTION TYPE
38. SOLDIER'S GRANT
41. APPARENT DISPLACEMENT
42. PATTERN OF DATA

## Key to CLSA puzzle #16 (Surveyor Issue # 163)





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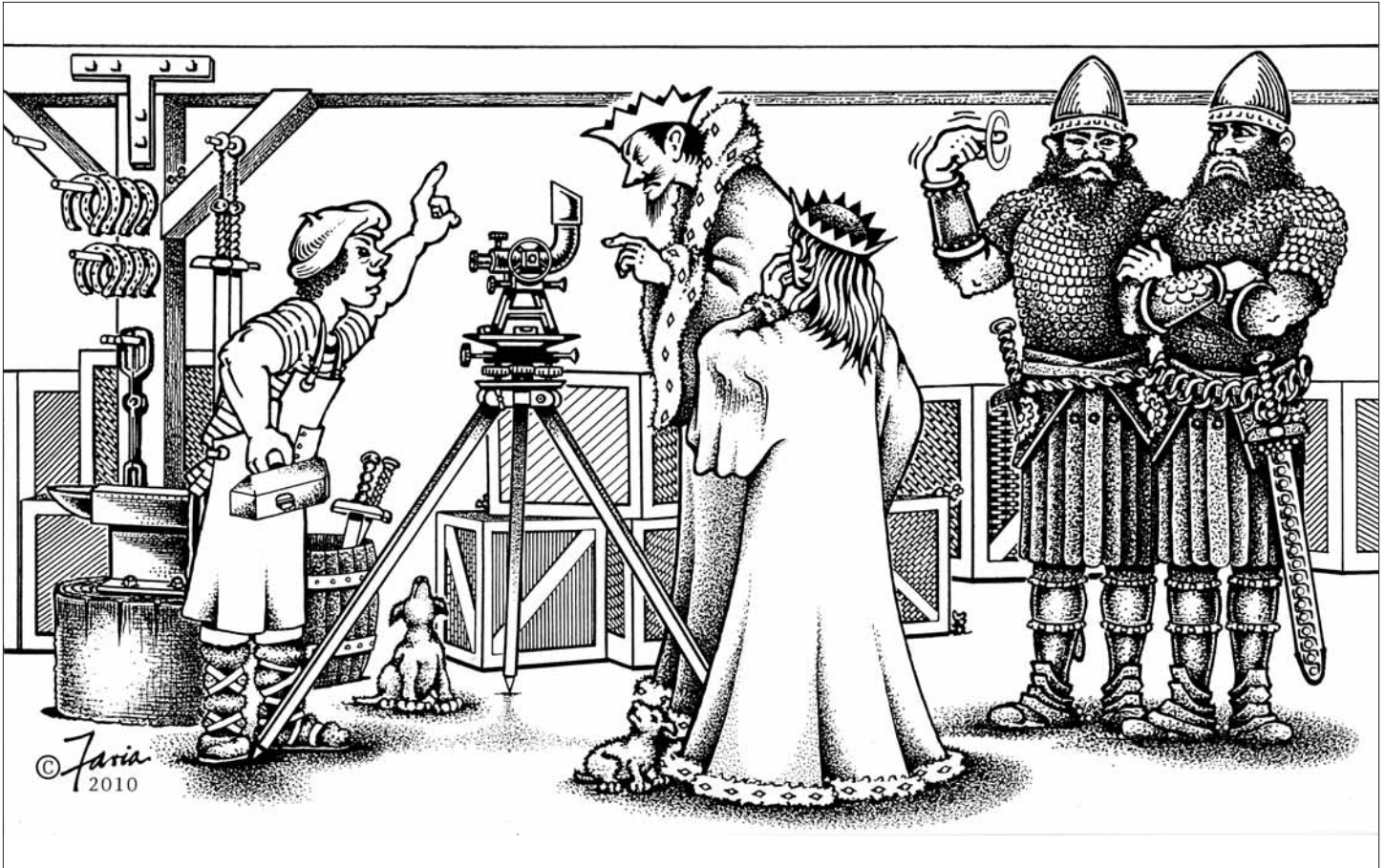
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- Convenient and long-lasting, re-chargeable AA batteries
- Easy-to-use keypad
- Rugged and lightweight (11 lb. including the battery)
- Linear focusing mechanism
- Uses rechargeable or off-the-shelf AA batteries

### SPECTRA Precision Ranger™ 500X Data Collector with TDS

Versatile and reliable - just like you

#### Key Features:

- Outdoor rugged design
  - Sunlight viewable touch screen display
  - Lower total cost of ownership
    - Survive drop and vibration.
    - Dust proof.
    - Sealed up to 1 meter underwater for 30 minutes.
    - 30-hour Lithium-Ion hot swappable rechargeable battery
  - Lightweight (2.1 lb including battery)
- Windows Mobile 6 software & Survey Standard software
- Alpha Numeric Keypad
- Optional integrated wireless capabilities: 802.11g and Bluetooth
  - Easy connection to other devices, networks and internet
  - No accessories or coding required
- 520 MHz processor, 128 MB SDRAM, 512 MB non-volatile Flash storage
- Expandability options
  - CompactFlash(CF) slots for more devices, such as GPS, RFID, bar code scanners, and more
  - USB port
- 12-month manufacturer warranty



**\$3,399**

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