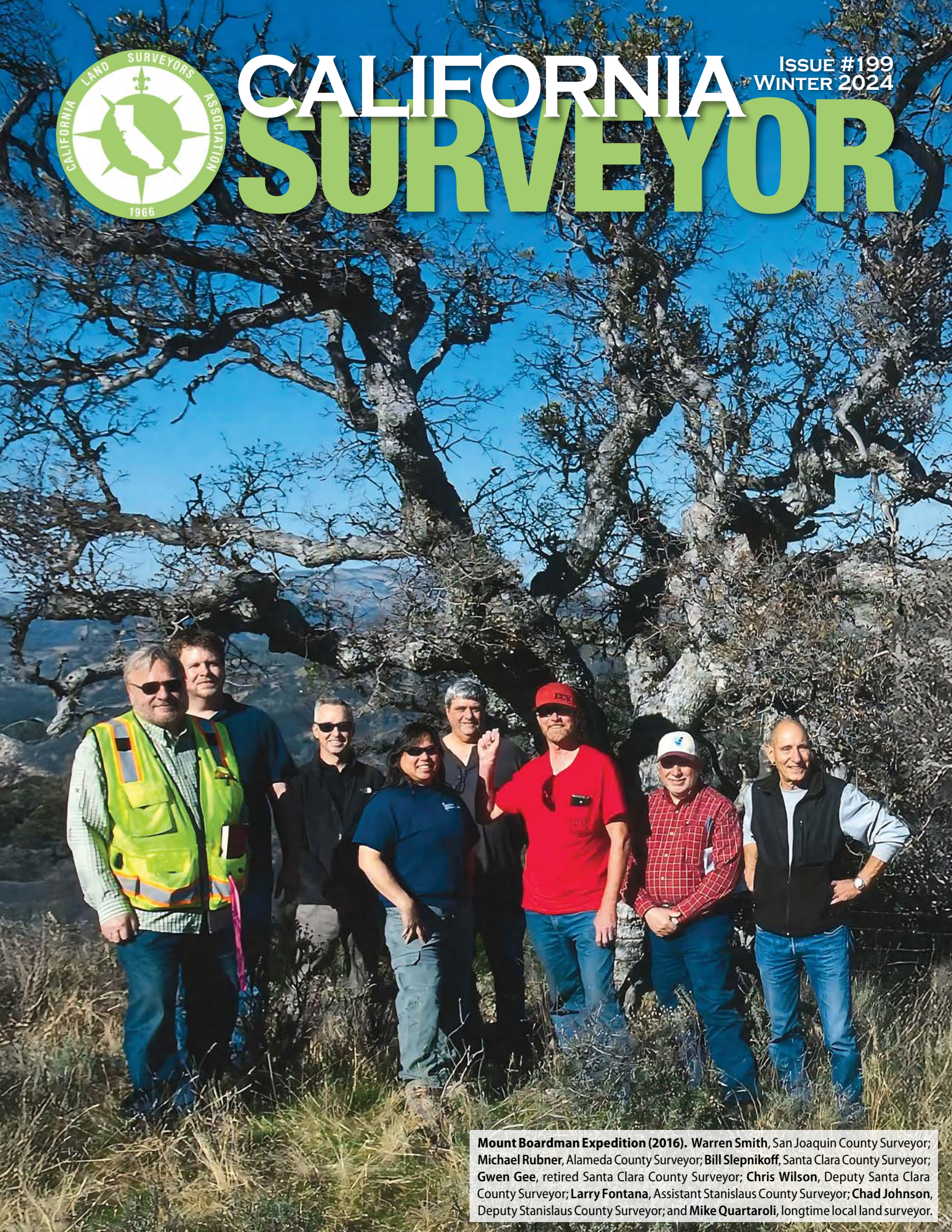
ISSUE #199
WINTER 2024

CALIFORNIA SURVEYOR



Mount Boardman Expedition (2016). Warren Smith, San Joaquin County Surveyor; **Michael Rubner**, Alameda County Surveyor; **Bill Slepnikoff**, Santa Clara County Surveyor; **Gwen Gee**, retired Santa Clara County Surveyor; **Chris Wilson**, Deputy Santa Clara County Surveyor; **Larry Fontana**, Assistant Stanislaus County Surveyor; **Chad Johnson**, Deputy Stanislaus County Surveyor; and **Mike Quartaroli**, longtime local land surveyor.

CLSA

CALIFORNIA LAND SURVEYORS ASSOCIATION

CLSA CENTRAL OFFICE

Jennifer Blevins, CMP, *Director of Management Services*

Kimi Shigetani, *Executive Director*

John Berkowitz, *Publications Director*

Michael Cochran, *Webmaster*

Stephanie Schoen, *Special Projects*

Tricia Schrum, CPA, *Accountant*

Central Office Address

2520 Venture Oaks Way, Suite 150
Sacramento, CA 95833
916-239-4083 • 916-924-7323 fax
clsa@californiasurveyors.org
www.californiasurveyors.org

California Surveyor Editor

Warren D. Smith, PLS – Editor
WDSmith@co.tuolumne.ca.us

California Surveyor Designer

John Berkowitz
john@caladmanagement.com

Advertising

Commercial advertising is accepted by The *California Surveyor.* Advertising rates and information can be obtained on the CLSA website at *www.californiasurveyors.org/calsurv.aspx,* or by contacting Kelly Hoskins at *kelly@caladmanagement.com* or 916-239-4083. Circulation: 2,000.

Editorial Material

All articles, reports, letters, and other 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 e-mailed to "CA Surveyor Magazine" at *clsa@californiasurveyors.org.*

Material Deadline Dates

Spring: March 1
Fall: September 1

Articles, reports, letters, etc., received after the above mentioned date will be considered for the next edition.

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.

PRINTED ON RECYLED PAPER

PRINTED WITH SOY INK

CLSA 2024 BOARD OF DIRECTORS

EXECUTIVE COMMITTEE

Kevin Nehring, *President*
Joseph A. Padilla, *President-Elect*
Kristie M. Achee, *Secretary*
Michael D. Pulley, *Treasurer*
Kevin R. Hills, *Immediate Past President*

DIRECTORS

Bakersfield Chapter
Jeffrey Alfred Gutierrez

Cascade Chapter
Jesse Lenaker

Central Coast Chapter
Luz Garcia • Joseph T. Morris

Central Valley Chapter
Scott Landon Blake

Channel Islands Chapter
William R. Froman • Daniel J. Walsh

Desert Chapter
Taylor Preece • Timothy J. Reilly

East Bay Chapter
David A. Murtha

Gold Country Chapter
Dirk J. de Valk

Humboldt Chapter
Jesse N. Buffington

Los Angeles Chapter
Beau Immel

Marin Chapter
Dominic P. Sanfilippo

Monterey Bay Chapter
Lynn A. Kovach • Kathy Nitayangkul

Orange County Chapter
Patrick D. Earl • Chu Man Kow • Bryan J. Mundia
Tiffany Lisa Padilla • Kurt R. Troxell • David E. Woolley

Sacramento Chapter
Curtis B. Burfield • Cameron G. Clark • Andrew Tapley

San Francisco Chapter
Andrew Zachary Robinson

San Joaquin Valley Chapter
Jason A. Camit

Santa Clara / San Mateo Chapter
Paul W. Lamoreaux

Sonoma Chapter
Bruce S. Johnson • Michael Mueller

ISSUE #199
WINTER 2025

CALIFORNIA SURVEYOR

COLUMNS

FEATURES

The *California Surveyor* is a bi-annual 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 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.

PRESIDENT'S MESSAGE

Kevin W. Nehring, PLS
CLSA 2024 President

At the 2019 CLSA/NALS Conference in Reno, Nevada, I was able to attend one of the early sessions by Surveyor, Attorney, and Author, Jeff Lucas. I made a point of getting there early, said hello to a few friends, and made my way to the front to get a seat. Mr. Lucas' seminars are always informative and well attended; this one was sure to be no different. I didn't want to miss anything.

As the presentation started, I soon realized that I had left my glasses up in the hotel room. As much as I don't want to admit that I'm getting older, or that I now need glasses to take notes, I reluctantly sent my wife a text asking her to bring my glasses down to the conference center. Five to ten minutes later, I received a text from my wife saying that my daughter was in the conference center with my glasses. I looked in the back of the room and could see my then 13-year-old daughter sheepishly standing against the back wall, with what seemed to be a multitude of standing room only attendees.

I got most of the way back to her before my daughter saw me. When she did, she moved forward, and we met in the middle of the back of the room. She handed me my glasses, quickly turned around and was gone before I could even get a "Thank you" out.

Kids, right?

Later that day, my wife shared the text exchange between her and my daughter as my glasses were being delivered.

Daughter: *I can't find dad.*

Wife: *He's in the big room.*

D: *I'm in the big room. I can't find dad.*

W: *He's wearing a plaid shirt and wearing a ball cap.*

D: *EVERYONE HERE is wearing plaid shirts and wearing ball caps! I CAN'T FIND DAD!!!*

That was when my daughter came to the realization that surveyors pretty much all look the same. As she likes to say now, I'm a member of a distinctive tribe with a generally poor sense of style.

I served as the President of the San Joaquin Valley Chapter from 2007-2014. During that time, I often felt disconnected from the association. I knew the association was there, somewhere, but I struggled as I worked just to keep the chapter together, especially during the 2009-2010 economic downturn. It was difficult to even conceive that the chapter was one of many chapters, or that the chapters were part of something bigger. That was no fault of the association, but my struggles kept my focus on the chapter, away from the association.

Beginning around 2009, I began to attend the board meetings. The association seemed to be a group of chapters rather than an association of surveyors. The chapters often seemed to be at odds with each other. It shouldn't be that way. I struggled with that. I still do.

My first year on the Executive Committee as a Member at Large was 2019. My association with that Executive Committee brought a new and exciting understanding of what this association is. Every time we met, I learned something new from them. I often felt a bit of Imposter Syndrome as I met with these individuals who seemed to know everything about everything CLSA related.

I listened. I took notes. I tried to pay attention to everything. I learned that some (most) committees could manage themselves efficiently. I learned that some (a few) committees needed a bit of handholding. I often thought we got too wrapped up in Robert's Rules for our own good. I still do.

As President-Elect in 2023, I had the wonderful opportunity to meet with all but one of the chapters. Not only did I get to see parts of this beautiful state I'd never seen before, I got to make many new friends and see some old ones. All of the meetings were in-person, with only three of them being a hybrid-type meeting. I was able to meet with the Cascade Chapter twice (so it makes up for the one chapter I missed.)

I learned something from every chapter I met with. It may have been about the chapter, the area, the local processes (and the frustrations the local surveying community has with said local processes), or just an individual within the chapter. I often learned something about myself.

One thing I found interesting was how similar each of the chapters are. Some are bigger than others, but I found that to be a function of proximity. (More surveyors in a given area will net greater association activity.) Some chapters have a very polished online presence, or newsletter, but that is usually the result of one or two individuals,

continued on page 31

EDITOR'S MESSAGE

Warren D. Smith, PLS
California Surveyor Editor

This issue contains – of all things – a monument obituary. It is one of several that have, unfortunately, been written by Mike Quartaroli to commemorate the hard work and benefits put forth by any number of survey monuments, and unceremoniously met with an undignified demise.

Also is an article by Michael Pallamary raising the question of schizophrenia among land surveyors as to what to call ourselves and how we present our work product.

Mike Mueller (notice a trend in first names?) poses the issue of unrecorded maps, and the potential usefulness or hazard of reliance or disregard.

I hope you enjoy this issue and appreciate the gamut of topics that infuse our profession.

Warren Smith, PLS

— Welcome New Members! —

Miguelangel Antonio
Christopher Attias
Candace Bailey
Lance J. Bradhurst
Kris Brandt
Robert W. Bryan
Jordan Alexander Bunce
Aaron G. Byrd
Mark Carrel
Patrick Champion
Thomas D. Chayra
Tanya Cissell
Jeffrey Dee Clay
Jeffrey Travis Crume
Timothy J. Davis
Ramzy De Castro
Brody Ray Doan
Jacob Edwards
Matthew Christian Ehe
Jay S. Fahrion
Ryan L Fidler
Gabriel Mason Galindo
Christopher Ryan Gallagher
Michael Gallegos
Jonathon Andrew Graham
Gene A. Gray
Frederick Gregory
Stephen Guay
James Higgins
George Anthony Ibarra
Bruce Ing
Byram Jennex
Larry E. Jernigan
Jonathan Michael Johnson
Gerald D. Juarez
Edward Lawitzke
Ryan B Lee
Garen Lemos
John Edward Litzinger
Daniel Mark Marshall
Gregory Adam Mata
David Daniel Mayer
David R McEachern
Ajay Mehmi
Dominique Meyer
Steven Mical
Daniel Mirabile
Gavin Dalton Mitchell
Justin John Mruskovic
Shamim Naderi
Laird Hugh Nelson
Eduardo Gonzalo Novoa
Jonathan R. Olin
Bruce E. Parker
Timothy Edwin Peterson
Russell Pugh
Owen R. Ragland
Charles T Rawls
Jose Rosas
Keith Rose
Sergio Sanchez
Garrin James Schaap
Ben Richard Schock
Robert C. Shellman
Jeremy Taylor
Robert Blean Thompson
Andrew Turner
Arina S Ushakova
Rayna Valencia
Sergio Vazquez
e steyn visagie
Brendan Michael Ward
Thomas Warren
Jon Wheat
Walter White
Kennedy S Williams
Philip Edgar Woltz
Jeffrey James Wright
James Yaccino
Robert David Younathan
Jessica Camille Zepeda
Yuen Zhou

LEGISLATIVE REPORT

Michael Belote, Esq.
CLSA Legislative Advocate

CLSA Monument Proposal Passes

Each year the California Legislature introduces around 2,500 new bills, covering pretty much every possible issue of interest in our state. Roughly forty percent of these bills are signed into law by the Governor, and the vast majority go into effect on January 1 of the following year. When the Legislature adjourned the 2023-2024 two-year session at midnight on August 31, as required by the state constitution, and the Governor completed his signatures and vetoes at midnight on September 30, also as required by law, 1017 bills entered the California Codes. To make our lives better!

Clients often ask, where do all of these bills come from? Are there too many? It is true that it is hard to keep track of 1,000 or so new laws every year, and it is equally true that the need for some of them is a little, ahem, undocumented, but the answer to the questions is actually more nuanced than people might think. The truth is that California is a highly codified state, with in excess of 150,000 statutes spread over 29 different codes, such as the Penal Code, Vehicle Code, Civil Code, and the like. The vast majority of bills are not controversial, never make the *L.A. Times*, and are simply workaday measures designed to keep the state and its operations running.

As for where all of the bill ideas come from, a very high percentage come from interest groups exactly like CLSA. When a group suggests an idea to a legislator, and agrees to spearhead the effort the enact the idea, that group is described in Sacramento as the "sponsor" of the bill. This is an informal, nonlegal term, but one that is widely recognized in the Capitol. The legislator actually carrying the bill is described as the "author." This California tradition is different from Congress, which does not informally recognize stakeholder groups as "sponsors."

For 2024, CLSA acted as sponsor for AB AB 3176 (Hoover), which was designed to broaden the requirement on surveyors to rehabilitate monuments found to be in poor condition. AB 3176 initially proposed changes in Business and Professions Code Section 8773.3, which primarily focuses on corner records. Although there was general agreement with the policy goal of broadening the monument rehabilitation language, in conversations with other organizations and the Business and Professions Committee, it was decided that it would be clearer in the Business and Professions Code to essentially leave the corner record obligation in its own section, and create a new section relating to monuments more broadly.

Additionally, the legislature requested that the monument language be added to AB 3253, the bill designed to extend the operation of the Board of Professional Engineers, Land Surveyors and Geologists (BPELSG), rather than enacting the rehabilitation language in its own stand-alone bill. Thus, the bill carried by Assembly Member Hoover did not move forward, but the rehabilitation proposal was incorporated into new Business and Professions Code Section 8771.6, contained in AB 3252. The bill was enacted by the legislature unanimously, signed by the Governor on September 25, and becomes effective on January 1, 2025.

This may sound like confusing legislative mumbo jumbo, but the point is that the CLSA proposal to require rehabilitation of any monument used as controlling in any survey was in fact enacted, just in a different bill than originally proposed. *CLSA owes a debt of gratitude to Assembly Member Hoover for agreeing to author CLSA-sponsored AB 3176, and for graciously allowing the monument rehabilitation language to move from his bill to the sunset extension bill for BPELSG.*

As ultimately enacted, AB 3253 extends the statutory operation of BPELSG until January 1, 2029. The bill also requires engineers, surveyors and geologists to disclose to prospective clients if they carry professional liability insurance, similar to an existing requirement on lawyers. In another addition to the law, after January 1, AB 3253 requires any business offering engineering or land surveying services to provide to BPELSG documentary evidence that at least one owner, operator or partner of the business possesses the requisite license from BPELSG.

Another bill enacted and signed by Governor Newsom extends the statutory authority for businesses offering land surveying, architectural or engineering services to organize as limited liability partnerships (LLPs). This bill was AB 1862 by Assembly Member Phil Chen (R-Diamond Bar). Of course, CLSA supported the measure.

At the end of the day, keeping up with 2,500 new bills and amendments to these bills, plus sponsoring bills to improve the law relating to land surveying, is an enormous task. CLSA is exceedingly well-served by the hard-working Legislative Committee, under the leadership of Chair Michael Butcher. If you see or talk to Mike or members of the committee, thanks are definitely in order.

Now, on to 2025!

CENTRAL OFFICE REPORT

Renew Your Membership for 2025

Thank you for your continued support of the California Land Surveyors Association! Your membership renewal notices will be sent soon. Please don't delay on renewing your CLSA membership! As a member, you have access to a wide range of benefits, including NSPS membership (for Corporate members), access to the members only section of the website, free webinars and free webinar recordings, discounts on items in the CLSA Store, and your subscription to the *California Surveyor* magazine. Renewing your membership also helps support the important work that our organization does, including promoting the profession of surveying and advocating for the interests of our members.

We value each and every one of our members, and we are committed to supporting you in your professional development and advancement. We encourage you to renew your membership today and to take advantage of all the benefits that membership in the California Land Surveyors Association has to offer.

SAVE THE DATE FOR THE 2025 CONFERENCE

Please save the date for the 2025 conference! The 2025 conference will be a joint conference with NALS and will be held March 29 – April 1 at the Silver Legacy in Reno, NV. The conference committee is already hard at work, making sure you all have a fun, productive, and educational time in Reno. Please don't forget to bring your CLSA Education Foundation donations for the live and silent auctions.

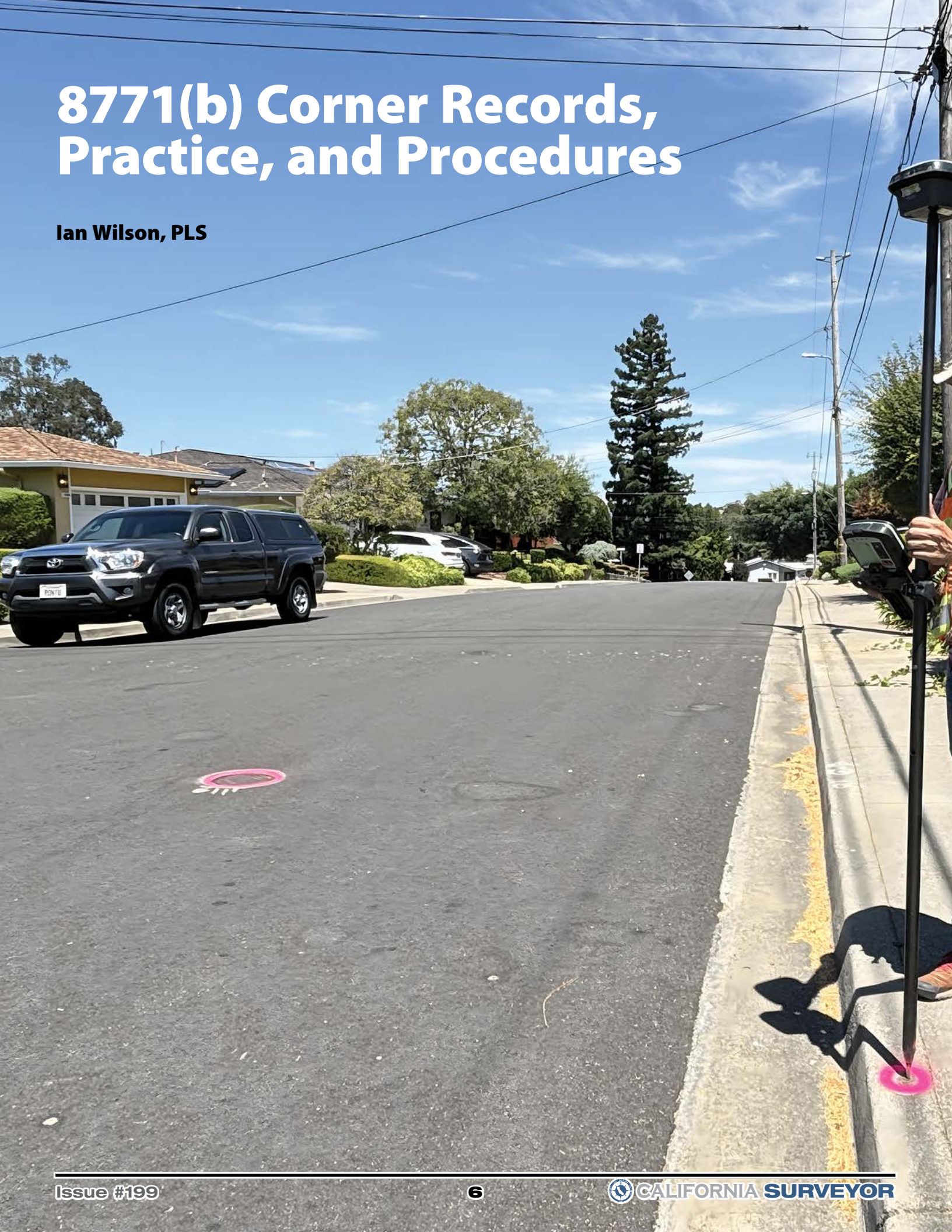
START PLANNING NOW FOR 2025 SURVEYORS WEEK – March 16-22, 2025

Surveyors Week activities can include requesting a proclamation from your local, state and national governments; talking to students about the land surveying profession; helping scouts obtain Surveying Merit Badges; getting involved with Trig-Star. Visit the NSPS website (www.nsps.us.com/page/NSW) for details.

We hope you all have a great rest of 2025!

8771(b) Corner Records, Practice, and Procedures

Ian Wilson, PLS



The current version of the 8771(b) Corner Record was established in 2015 by SB 1467, which was signed by Governor Brown on September 17, 2014. The CLSA Legislative Committee had spent a few years working on the language of the bill before it was introduced in March of 2014. It was intended to provide a simple method of documenting the position of monuments found during the course of a construction project. By documenting the position, others could re-establish the monument's position even when it was inaccessible or destroyed.

The key points of the legislation was 1) there is no implication of what the monument marks represent and no effort is made to determine the relationship to any other points in the land net; 2) the monument is referenced simply and easily; 3) the monument can be replaced without relying on complicated measurements; and 4) the documentation is simple and provides an easy method of preserving and extending the provenance of the monument at risk.

As County Surveyor for Alameda County, I see submittals with elaborate ties up to 400 feet way; submittals with just three ties; submittals using another "at risk" monument as one of the ties; and other unintended situations. In some cases the ties are within the construction zone and are often destroyed along with the original point. I seldom see a submittal for a point that could be re-established without measurement.

As part of the sub-committee charged with coming up with the wording for the section, I remember lengthy discussions about whether details of the ties and methods were necessary. The idea was that most surveyors would use simple, effective means to establish cross ties, sort of a large scale version of "red heads" when setting new monuments or other points. Unfortunately, ten years after the legislation was first proposed in the State House, it seems that the practice of setting cross ties is not being taught any more.

For those unfamiliar with the concepts, "red heads" were 16D nails with flagging tied on them to be able spot them easily. Red flagging was used, hence "red heads." I used to pay my kids a penny for every five they tied.

Once the position for the new monument had been established, two pairs of red heads would be set a foot or so away from the point and on line so that the intersection of the lines between the pairs was the point for the monument. As the pipe or rebar was being driven, a plumb bob string between the pairs of red heads would help us keep the monument on target. Measurements weren't needed as the ties were set in pairs roughly 90° apart with the target point at the intersection of the lines through each pair of red heads. Hence the name cross ties.

The ties can be set without using measurements. When the ties are on an 8771(b) Corner Record, the positions can be re-established after the construction using nothing more than a chalk line or snap line. The whole process can be accomplished

continued on page 8

using simple equipment that doesn't need batteries!

Once the monument has been discovered, a device such as a cone sight can be set up over the point. The cone sight used to be a device that could be purchased to sit snuggly on a traffic cone and allow a plumb bob to be suspended from an arm over the point to be referenced. The company that sold the units is no longer in business. In our office, we made our own using a 4" PVC pipe connector, a 2 foot length of ¼" x 1" aluminum bar and a few bolts. The aluminum bar is bent in the middle and the ends are bolted to the PVC connector. The plumb bob is set up with the string in notch in the aluminum bar. The device can be set up quickly and easily over a point at the surface or below the road surface in a well monument.

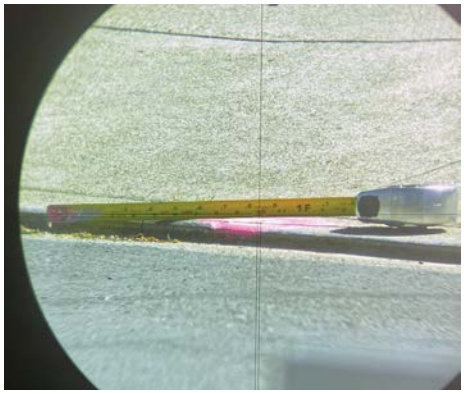
Homemade Cone Site over found monument.

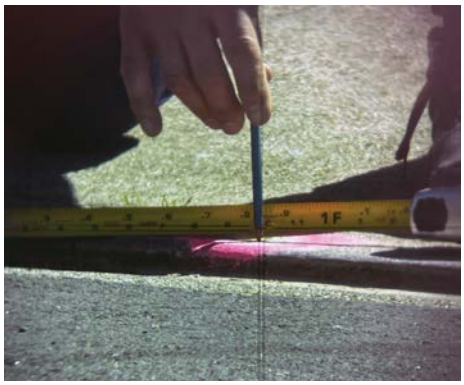
The Cone Sight point makes a great reference to locate two pairs of points on opposite curbs. The crew used a ⅛" concrete drill in a battery powered hammer drill to drill holes in the top of the curb on one side of the street. They set a Mag Nail and tag in the hole.

The crew sets up a Wild T-16 over the nail. Any theodolite or transit from the "Closet of Old Equipment" can be used, even a robotic total station as long as it has locking plates and is set up properly and used in manual mode.

Set up over the first tag.

The Instrument Person sights through the string line to the opposite curb line and directs the Assistant to set the next point in the pair on the line from the occupied point through the found monument to the far curb. That point can be marked with a pencil or other marking device. A hole is drilled at the point and another nail and tag set, completing the pair.





The point over the other side of the found monument and dialing in

The instrument is then moved to the first point of the second pair and the process repeated so that two pairs of points are set with the found monument at the intersection of the two lines between the pairs.

At this point, no measurements have been made but the point can be re-established quickly and easily. If there are a number of points to be set quickly due to a last minute call to the surveyor to mark out the monuments while the contractor is hard at work destroying monuments, the crew can move off to the next one and leave the measurements for later. Using this method, the crew can blow through two or three monuments in an hour easily.

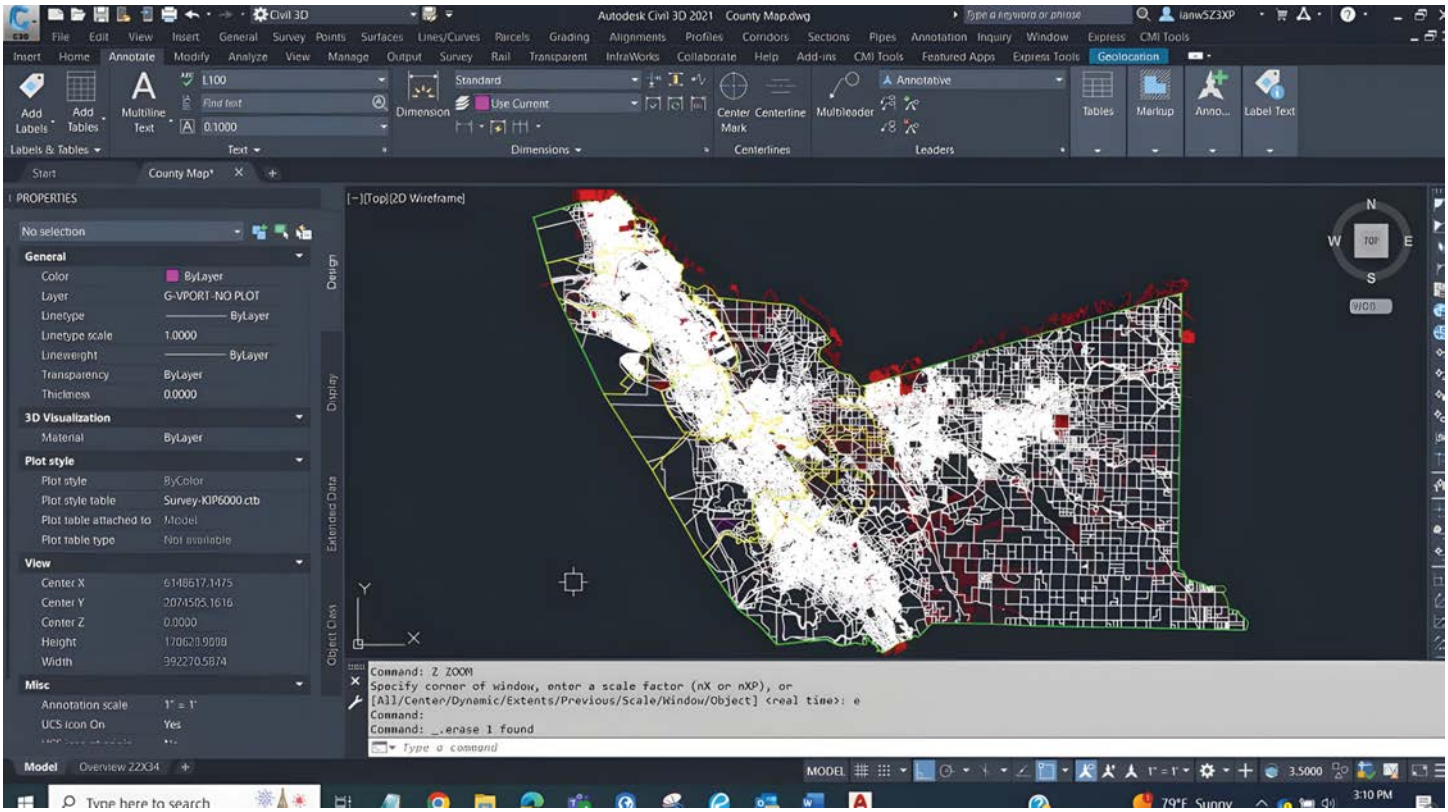
The crazy thing is that the measurements are relative and secondary to the fact that the pairs of cross ties establish the position for the point. Measurements using network RTK positions for the ties and monument, if it hasn't already been taken out, can be made days later without jeopardizing the project or monument preservation.

Collecting Tie Points the GPS Way.

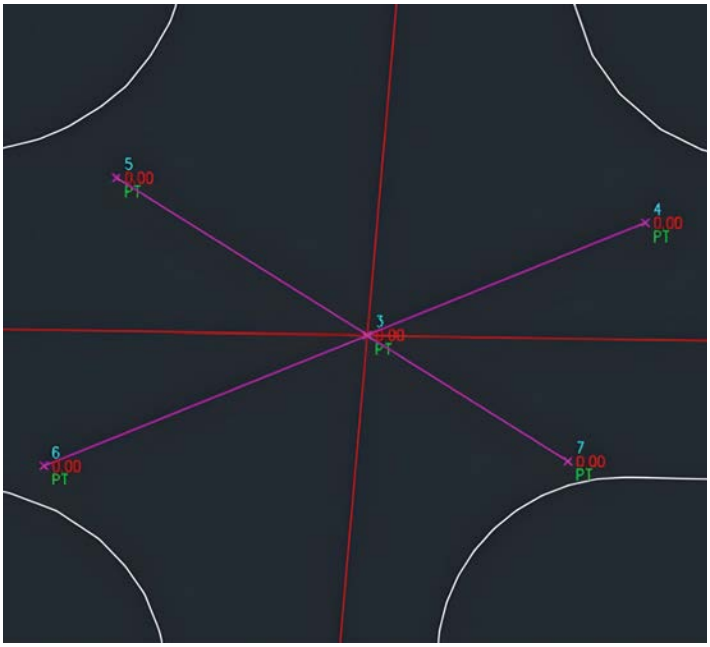
We have a large CAD file created from the County GIS files with all the parcels in the county, the road centerlines, the city limits, and the county boundary. It is set up on SPC Zone 3. By collecting the positions of the ties with GPS, those point coordinates can be imported into the County Base DWG file to serve as the stage for the Corner Record sketch.

continued on page 9

8711(b) Corner Records – *continued from page 9*

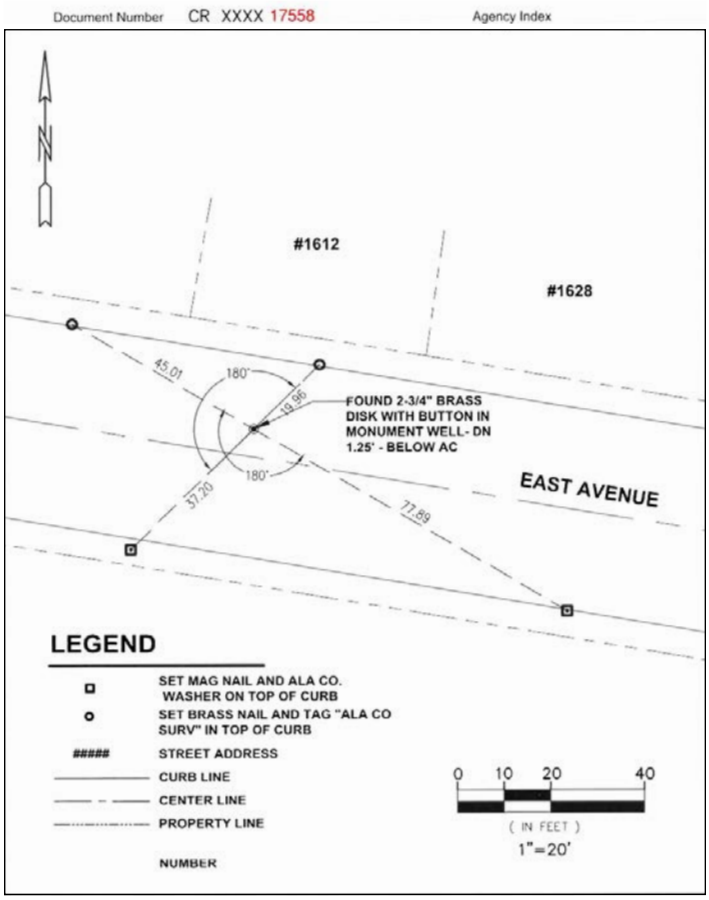


CAD drawing of the County Parcel Fabric.



Ties in the intersection.

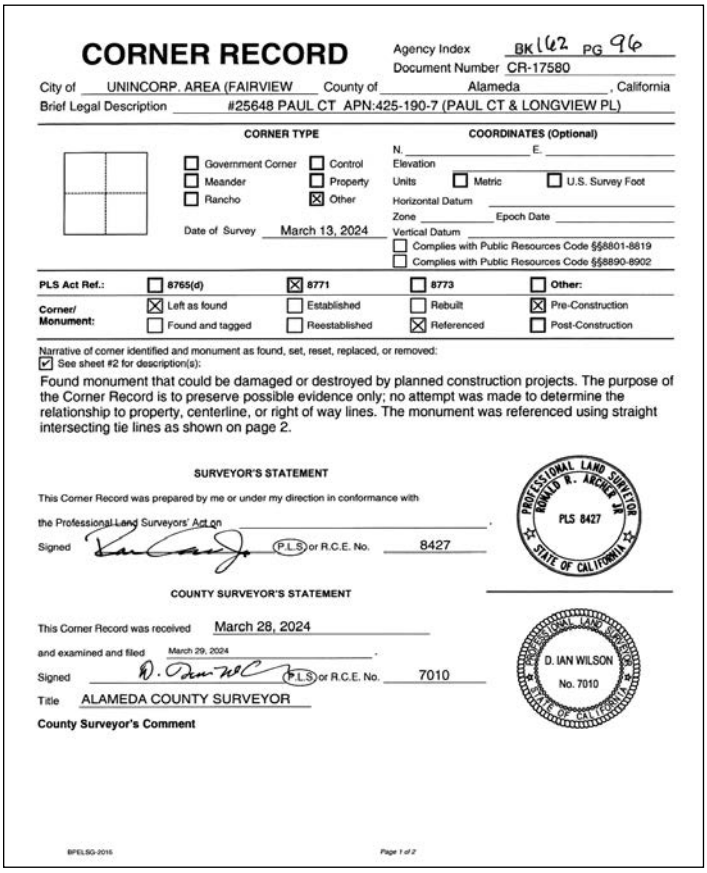
Drafting involves adding the street name(s), distance to nearest cross street if the point is in the middle of the block, nearby street address, full description of the found monument and points set, North arrow, scale, legend, and any other item necessary. We use the fillable PDF file from BPELSG to complete the front page. The finishing touches are added before passing the file of the Pre-Construction 8771(b) Corner Record to the Map Review Unit.



Sketch side of the Corner Record.

continued on page 9

By adding the distances from the set tags to the found point and the angle between the pairs, re-establishing the point when one or two of the ties are destroyed is fairly straightforward and not based solely on "record math;" the distances can be prorated by comparison to two of the remaining points.



CORNER RECORD

Agency Index BK 162 PG 96
Document Number CR-17580

City of UNINCORP. AREA (FAIRVIEW County of Alameda, California
Brief Legal Description #25648 PAUL CT APN:425-190-7 (PAUL CT & LONGVIEW PL)

CORNER TYPE
☐ Government Corner ☐ Control
☐ Meander ☐ Property
☐ Rancho ☒ Other
Date of Survey March 13, 2024

COORDINATES (Optional)
N. E.
Elevation
Units ☐ Metric ☐ U.S. Survey Foot
Horizontal Datum
Zone Epoch Date
Vertical Datum
☐ Complies with Public Resources Code §§8801-8819
☐ Complies with Public Resources Code §§8890-8902

PLS Act Ref.:	☐ 8765(d)	☒ 8771	☐ 8773	☐ Other:
Corner/ Monument:	☒ Left as found	☐ Established	☐ Rebuilt	☒ Pre-Construction
	☐ Found and tagged	☐ Reestablished	☒ Referenced	☐ Post-Construction

Narrative of corner identified and monument as found, set, reset, replaced, or removed:
☑ See sheet #2 for description(s):
Found monument that could be damaged or destroyed by planned construction projects. The purpose of the Corner Record is to preserve possible evidence only; no attempt was made to determine the relationship to property, centerline, or right of way lines. The monument was referenced using straight intersecting tie lines as shown on page 2.

SURVEYOR'S STATEMENT
This Corner Record was prepared by me or under my direction in conformance with the Professional Land Surveyors' Act on
Signed (P.L.S.) or R.C.E. No. 8427
PROFESSIONAL LAND SURVEYOR RONALD R. ARCHER JR PLS 8427 STATE OF CALIFORNIA

COUNTY SURVEYOR'S STATEMENT
This Corner Record was received March 28, 2024
and examined and filed March 29, 2024
Signed (P.L.S.) or R.C.E. No. 7010
Title ALAMEDA COUNTY SURVEYOR
County Surveyor's Comment
PROFESSIONAL LAND SURVEYOR D. IAN WILSON No. 7010 STATE OF CALIFORNIA

BPELSG-2015 Page 1 of 2

Front side of the Corner Record.

Of course, if all the points are still in, it's a simple thing to use a chalk line to re-establish the position for the destroyed monument. If the monument is still there, it's easy to check the monument to make sure it hasn't been disturbed.

Snapping chalk to reset the point.

Whether the monument is in good condition or needs to be replaced at the end of the construction project, the original CAD file serves as the base for the Post-Construction 8771(b) Corner Record. The Post-CR provides proof that the monument was in good shape after the construction work was finished or extends the "pedigree" of the position from the original monument through each new version to the current, shiny, new point.

The monument is documented so the position can be used during construction. It is documented as safe or replaced *after* construction. The provenance is extended. And all with a pair of simple Corner Records that simply note what was found without having to go to lengths to determine how the monument fits with the local land net. No additional notes about warrantees or guarantees are necessary. When simple cross ties are established, even the field procedures are simple and clean.

And that's what we anticipated over a decade ago when we wrote the legislation.

Unrecorded Maps – Landmines or Buried Treasures?

Michael (Mikey) Mueller

Most localities in California did not have many surveyors working prior to the post WWII boom. These early post war surveyors were often the entry men to an area, surveying lands that had only ever been surveyed by the government or by lay folk writing their own deeds. The "survey record," the totality of documents and maps relating to boundary location, was thin or nonexistent. Where there was a survey record of existing survey work, it was often comprised of unrecorded maps and field books that were held by individuals as a record of their personal work.

As this habit of not recording maps continued, it resulted in what I consider to be survey minefields. A survey minefield is a community or area were the lack of published maps combined with the depth and complexity of the survey record creates a hazard for anyone without access to the local private record collections. In a survey minefield it is almost impossible to do professionally competent work without reviewing those collections. This results in bad surveying done by "outsiders" who walk blissfully through the minefield, without realizing what they are missing. These blissful surveyors are not always incorrect, but they often create overlaps or gaps when decisions are made, and documents are prepared based on their incorrect or incomplete survey. When a blissful outsiders map is challenged by another surveyor who has access to the complete picture it does not make our profession appear all that professional. To the layman who cannot distinguish good work from bad, all surveys become simply another opinion.

In the 60s and 70s the laws changed and recorded maps were required to be filed under more circumstances. However, even though the law changed, the habits and patterns of many of the practicing surveyors did not and the recorded survey record was still rather sparse. Even when a map was filed, it was often the bare minimum required by law. Many of the Record of Surveys and Parcel Maps I have seen from this era had minimal information beyond the subject boundary. There was little to no supporting evidence or data, lacking or absent legends, and almost never any explanation of procedure. As near as I can tell, the operating paradigm was that anyone using the map should be competent enough to "figure it out."

Nowadays it is state law **and** generally accepted habit,to file a Record of Survey far more often. It is also becoming common practice to include much more than just the subject boundary. Often there is a list of previously recorded maps and deeds that it is relying on. If a question arises about a particular map's boundary solution, it is a simple matter to pull up the referenced documents map and review them to satisfy any concerns. A problem occurs when the map in question is unrecorded or shown as "on file in this office." It is like a discontinuity in the geologic record, or a break in the chain of custody of evidence. Until you can review the unrecorded map in question, you don't know if it's a landmine or buried treasure. Just because its old and unrecorded doesn't make it right, and without reviewing it, you are forced to take on faith that the use of that record is correct. It will always be an asterisk in any statement or assertion you make since your solution is predicated on a piece of evidence you have not reviewed.

This discontinuity can be solved by including any unrecorded work referenced in a RoS as an additional sheet on your map. There are several benefits to this procedure beyond providing the next surveyor a complete chain of custody to rely on. It transfers the maintenance cost of preserving that record to the public. It alerts future surveyors about the need to review that historic surveyor's collection for pertinent maps. It preserves all of the data of the unrecorded map, even those portions that might not have been considered "important" in its first reference, like addition monuments, or lines of occupation. When future surveyors can easily review your boundary solution in its entirety it also increases the likelihood of your map being accepted and relied on. It also helps all those coming after us to "figure it out" more consistently. Regardless of your views on how to prepare a map, I think we can all agree more consistency is better for the public and better for our profession.

If all offices stayed open forever and if fires, water leaks or rats never destroyed a record collection then I would not worry so much. However, as we all know; offices close, accidents happen, or, in the case of one local surveyor who instructed his wife to burn all his records when he died, unexpected events can surprise us all. Considering the relatively small increase in cost to include another mylar sheet, it seems like a simple way each of us can help to protect the public by preserving the survey record for future generations.

CLSA/NALS CONFERENCE 2025

Traversing New Peaks:

Ain't No Mountain High Enough

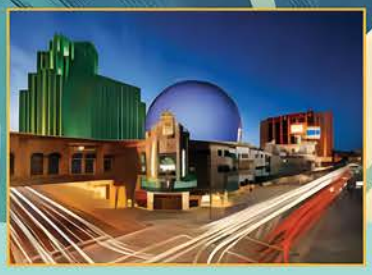
FEATURED SPEAKERS:

JEFF LUCAS
DAVE DOYLE
DAVEY EDWARDS
RICK ELLIS

March 29 – April 1

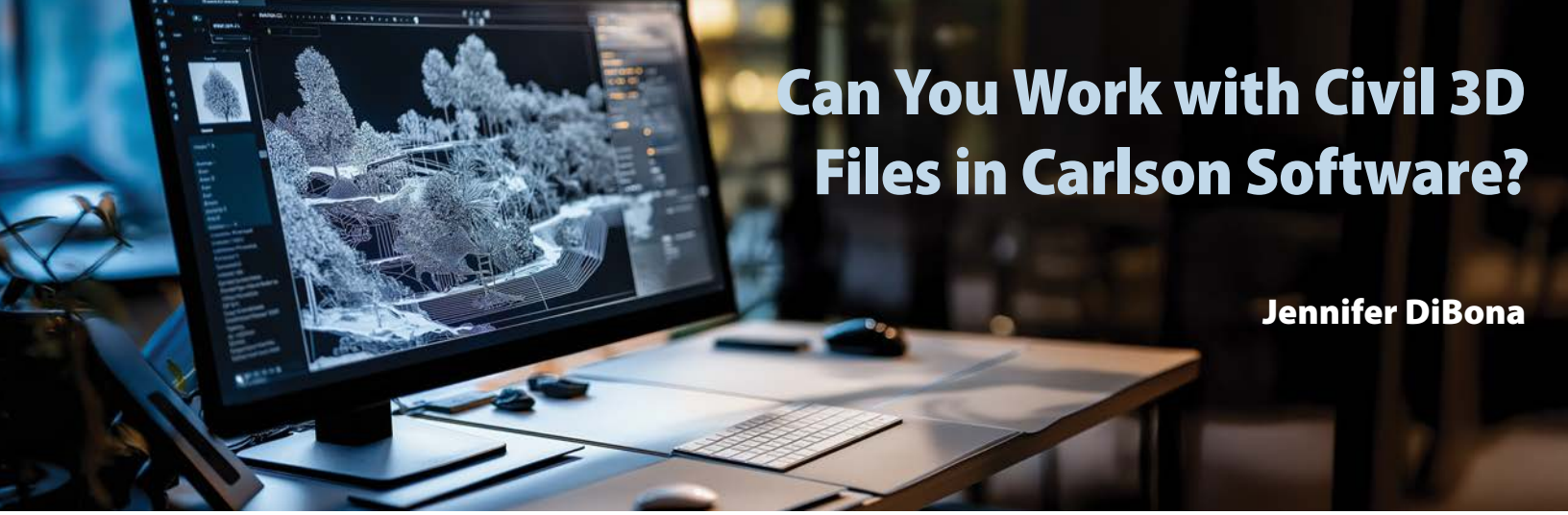
PROGRAMS:

CFEDS WORKSHOP
SURVEY TECHNICIAN TRACK



SILVER LEGACY
HOTEL AND CASINO
RENO, NV

CONFERENCE INFO:
www.PLSeducation.org
T. (888) 994-3510
E. conference@PLSeducation.org



Can You Work with Civil 3D Files in Carlson Software?

Jennifer DiBona

As a long-time trainer of Carlson Software, one of the questions I'm often asked is whether it's possible to use Autodesk's Civil 3D data in Carlson Survey or other Carlson programs. The answer is *mostly* **Yes**; however, "trust but verify" is always recommended!

The best news for land surveyors is that Carlson Software can import most of the Civil 3D data we need to work with every day such as points, surfaces, centerlines, and profiles. Luckily, Autodesk hasn't updated their DWG file format for several years now (unlike the more frequent changes in the past) so it's easier for Carlson to maintain the import routines that we depend on.

Why It's Necessary to Import and Export

The reason that importing and exporting between Carlson and Civil 3D is necessary at all is because of the proprietary nature of the development of each program and the different methods of storing the data we need for our projects.

Civil 3D, with AutoCAD as its platform, stores everything in the DWG file itself. That includes basic CAD entities such as lines, polylines, text, and blocks as well as specialized, proprietary entities that store data specific to surveyors and engineers such as points, point groups, and surfaces.

Carlson Software, on the other hand, develops their products on multiple platforms – IntelliCAD, AutoCAD, and embedded AutoCAD (OEM) – in order to give their users the option of selecting the platform that works best for them.

For this reason, Carlson Software creates only basic CAD entities in the DWG file and, when necessary, links the entities to additional, specialized data files that are stored separately. Examples of data files are CRD files for points, TIN files for surfaces, CL files for horizontal alignments, and PRO files for profiles.

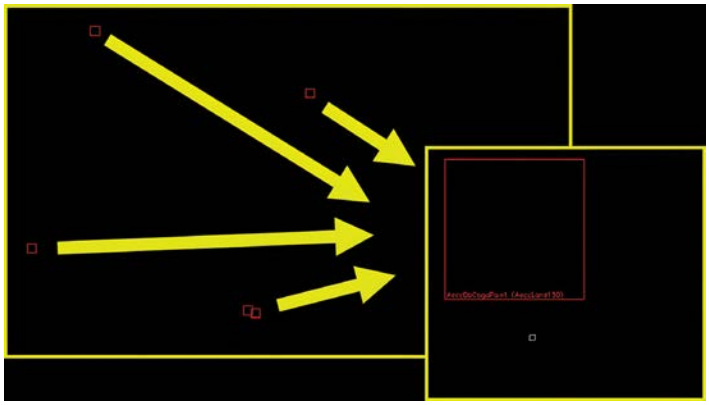
How To Get Started? What Gets Imported? And What Doesn't?

Essentially, the *DATA* gets imported – the *STYLES* do not.

Suppose you have been provided a DWG file generated from Civil 3D that you know includes points with symbols and nicely formatted descriptions, an existing ground surface with 2' and 10' contours and labels and a roadway centerline with nicely formatted station tics and labels.

Start the conversion by opening the Civil 3D DWG file in a Carlson program. This can be a scary first step! Because, initially, a lot of the entities may be completely unrecognizable. Points, surfaces and centerlines may appear as nothing but squares in the drawing.

If you zoom in and look VERY closely at one of the "squares," it might be labeled as AeccDbCogoPoint or AeccDbSurfaceTin. These are the dreaded "Proxy Objects" we've all struggled with at times.



A "proxy," by definition, is a substitute. These squares/proxy objects are substitutions for Civil 3D point or surface entities that IntelliCAD, basic AutoCAD or embedded AutoCAD (OEM) and Carlson do not recognize.

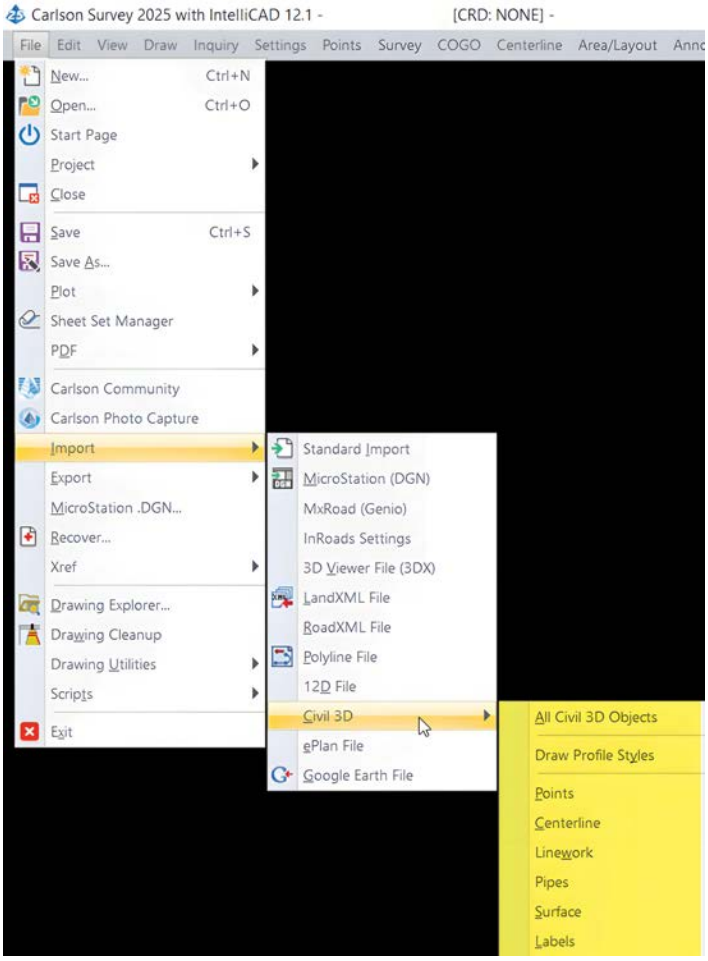
Opening a Civil 3D drawing with points or surfaces in newer versions of Carlson will display points and contours that look similar to what they should instead of a bunch of squares; however, using the LIST command or Object Properties reveals them to still be proxy entities – AeccDbCogoPoint or AeccDbSurfaceTin. They're still not usable for anything in Carlson – they're just "prettier."

Importing to Carlson

Once the Civil 3D drawing is open in Carlson Software, you can browse to the File Menu to find Import All Civil 3D Objects. Even

continued on page 14

if you believe the file contains only point and surface data, I recommend choosing the All Civil 3D Objects command, just in case there is additional data in the file that could be useful.



This command scans the Civil 3D drawing file to find embedded data and will extract it into corresponding Carlson data files such as CRD, TIN, CL, and PRO. As the routine converts each type of data, you will be prompted to provide a name and folder into which the data file will be saved.

Next, you will be prompted whether you want to "Draw the Points" or "Draw the Surface" into the drawing using the newly created data files.

As mentioned above, the *DATA* from Civil 3D gets imported – the *STYLES* do not.

So, entities from these new data files will be drawn based on the applicable Carlson dialog box settings – not the original Civil 3D Styles.

Carlson settings files for drawing entities are easily manageable and customizable and, in many ways, fulfill the same role as Civil 3D styles.

I hope you've found this article helpful and it saves you picks and clicks!

I'd appreciate your feedback. Please reach out to me through my website: *ThatCADGirl.com/contact-us* or email *ContactUs@ThatCADGirl.com*

Jennifer DiBona

Jennifer DiBona is a long-time CAD consultant and trainer doing business as That CAD Girl. Jennifer has a degree in Surveying Technology and approximately 30 years of experience working with land surveying, civil engineering, and construction professionals. That CAD Girl is a charter member of Carlson College – an authorized training center for Carlson Software. That CAD Girl provides sales advice, support and training for Carlson, AutoCAD, and IntelliCAD software programs. We specialize in Field to Finish, Surface Modeling, CAD standardization, and Carlson Software implementation.

Why You Can't Sell an Honest Boundary Survey (and the Three Fraudulent Substitutes for the Real Thing)

Landon Blake, LS

A couple of years ago things got slow in the middle of winter. I opened a business account on Yelp. I thought I'd run an experiment: I wanted to see how low I would need to drop my fees to get a residential boundary survey. (The target market was for the experiment was the Bay Area.) I started with a fee of around $8,000. I responded to several potential clients each week. Each week I lowered my price by $1,500. I stopped when I got to $3,000. I never got a single boundary survey on my Yelp account. (I did get a bill from Yelp.)

This experiment wasn't a failure. It taught me a valuable lesson: I can't sell an honest boundary survey in Central California. (It isn't easy in the Central Valley and Sierra Nevada Foothills. It is impossible in the San Francisco Bay Area.)

As a 10-person survey company, I can't prepare a proposal, open a job number, perform initial boundary research, and perform the first day of field surveys for less than $3,000. I'd go bankrupt trying to survey single-family home parcels in San Mateo or Hayward.

This was extremely depressing for me as a land surveyor and a small business owner. It meant I could do the type of surveying I loved the most – boundary surveys – for people who needed my expertise the most – homeowners. (I now understand most homeowners make horrible clients – for reasons we can discuss in a separate article.)

Has our profession always been this way? Or was this a recent development in land surveying? I don't have an answer to that question – but what I know is I have to deal with the modern reality – the going market rate for a residential boundary survey in my part of California is about $3,000.

Why is this important?

Bitterness isn't the primary reason I'm writing this article. I'm doing it for two (2) other reasons:

I want to educate young boundary surveyors on the challenge of selling an honest boundary survey so they don't need to learn the hard way.

I hope other land surveyors will share this article with the engineers, architects, and right-of-way professionals in their professional networks.

In the rest of this article, I'd like to teach you about the three basic types of fraudulent boundary surveys. As a good professional land surveyor, you need to be able to identify and reject this type of survey or to help people in your organization do so.

The Three Types of Fraudulent Boundary Surveys

We will identify and briefly describe three (3) types of fraudulent boundary surveys. The first is corner dusting. The second is two monument tango. The third is deed staking. I've ranked these from the easiest (and most common) to the most difficult (and least common).

Corner Dusting

Corner dusting occurs when a parcel has been previously surveyed and property corner monuments are set. I call this type of fraudulent survey "corner dusting" because the land surveyor doesn't typically make any measurements, they just uncover and "dust off" the property corner monuments. I frequently see land surveyors swing by a parcel on the way home from another project with a metal detector and a shovel. 45 minutes later they've unearthed the (alleged) corner monuments and collected $500 cash from the home owner. There isn't usually any measuring (even with a rag tape) and no actual "survey" is prepared.

Two Monument Tango

In two-monument-tango the parcel has been previously surveyed, but all of the property corner monuments may not be in place. The surveyor locates two or three of the monuments and uses the record bearings and distances on the previous survey to "translate and rotate" the parcel boundary onto the monument locations. (At least in this case the surveyor is measuring something.) Afterwards, a CAD file of the parcel boundary is often sent to the civil engineer or architect. Again, in most cases no actual survey map is provided.

Deed Staking

Deed staking involves taking the bearing and distances in a deed and laying those courses out on the ground, based on a small amount of physical evidence. This could be a couple of monuments (as in two-monument tango) or on a line of physical occupation. The parcel boundaries are then marked with stakes or corner monuments are set. Again, in most cases no actual survey map is provided.

continued on page 16

What is missing from these fraudulent boundary surveys?

What elements of a proper boundary survey are missing from all three (3) of the fraudulent surveys I listed previously in the article? We could write several pages to answer that question, but here is a short list:

- Thorough boundary research and review of land records.
- Resolution of controlling calls in the subject parcel land description.
- Comparison to controlling call in the adjoiner parcel deeds land description.
- Analysis of potential gaps and overlaps.
- Evaluation of physical evidence of boundary location.
- Review of all survey maps that could impact the boundary resolution.
- Evaluation of evidence of unwritten rights.
- Preparation of a survey map or exhibit and a technical report.
- Preparing and filing a record-of-survey map when required by state law.

How do you compete with these guys?

If you are a land surveyor in private practice, how do you compete with the guys offering these fraudulent surveys as a substitute for honest boundary surveys? I have a few recommendations that have helped our business at Redefined Horizons:

Don't propose boundary surveys for parcels with monuments in place or that are on an existing survey map. (Those parcels are too easy to perform a fraudulent boundary survey on.)

Become an expert at difficult boundary surveys. This includes water boundaries, large scale boundary surveys, and surveys of unmapped parcels that don't contain bearing and distance calls for every course.

Learn to bundle your boundary surveys with other related services, like land use planning, topographic surveying, and utility mapping.

I hope to talk more about these strategies for the honest boundary surveyor in a future California Surveyor article.

What can you do as a land surveyor in public practice to help?

What can you do as a land surveyor in public practice to help solve this problem? Here are a few suggestions:

Educate the engineers, real estate professionals, and right-of-way managers in your organization about the difference between an honest boundary survey and a fraudulent boundary survey.

Within your authority, demand that surveyors providing professional services to your organization provide honest boundary surveys.

Within your authority, demand that surveyors providing professional services to your organization provide a survey map and a technical report with every boundary survey. Write this into your specifications and RFP templates.

Landon Blake

Landon is a licensed land surveyor in California and Nevada. He is also a Certified Federal Surveyor and a Certified Remote Pilot. Landon is the co-owner of Redefined Horizons, a land surveying and land planning business operating in Central California.

What About a Record Boundary?

What about a "record boundary" survey? You will note that isn't in my list of fraudulent boundary surveys. In a very limited set of circumstances, it is appropriate to prepare a record boundary for use by a client. (A record boundary is an assembly of geometry from deeds and survey maps that typically covers a large area.) However, record boundaries are often misrepresented by land surveyors and misused by clients, and shouldn't ever be used as a subsitute for a proper, fully resolved boundary survey. In a future article for California Surveyor, I hope to write about two (2) scenarios in which I think preparation and delivery of a record boundary is appropriate, with the correct limitations and communication with the client.

Schizophrenia

Michael Pallamary PLS

'Tis but thy name that is my enemy;
Thou art thyself, though not a Montague.
What's Montague? It is nor hand, nor foot,
Nor arm, nor face, nor any other part
Belonging to a man. O, be some other name!
What's in a name? That which we call a rose
By any other name would smell as sweet.

— Juliet (*Hamlet*, William Shakespear)

The first time I heard the word "geomatics" was in 1979 when Fresno State University launched a *geomatics program* at the university, the first of its kind in the United States. It continues to be the only four-year, nationally accredited program in California.

My first impression was one of ivory tower elitism. After all, I was a Land Surveyor; what does land surveying have to do with geomatics?

I obtained my license in the following year; it says I am a Land Surveyor. It was good enough for George Washington and Abraham Lincoln, so why wasn't it good enough for me?

In the years to follow, as more and more students graduated from Fresno, they began to have a positive influence on the profession. They were bright, had a well-rounded education, and were well-versed in the sciences. I wrote it off as a successful marketing program.

The elitist perception disturbed many of the older surveyors. How could they be replaced with a bunch of geomatic engineers? After all, many of them, like me, learned our craft the old-fashioned way – working in the field on three or four-person crews. We performed calculations by hand, using a slide rule, trig tables, a pencil, and a lot of paper.

The distinction between surveyors and engineers escalated in 1985 when the city engineer for the City of Coronado awarded an important survey contract to another civil engineer, reportedly a close friend. The local survey community objected to awarding the contract, arguing that, at a minimum, the contract should be awarded to the most qualified Land Surveyor and not to a friend of the city engineer.

Cal Poly Pomona embraced geomatics when they developed a geospatial program as an adjunct to their civil engineering program. The program includes studies in the fundamentals of geomatics to support civil engineering, photogrammetry, remote sensing principals, GPS constellation, GIS and LIDAR applications, Foundation of Public Land Survey System, boundary surveys and descriptions, subdivisions, and map production in civil engineering projects.

In defense of his decision, the city engineer, Linwood Newton, sent a memorandum to city manager Raymond Silver, stating:

> *The professional engineering societies have long held that their members are educated and trained to do land surveying, while the paraprofessional land surveyors have contended that they are better equipped and trained to do the work.*

On March 29, 1985, CLSA president Michael McGee responded in a letter to Silver after the memorandum had been circulated, complaining about the single-sourced contract Newton had issued, reading in part:

> *It is hard to believe that the supervising city official (of Public Works) in charge of processing Parcel Maps would give equal consideration to a survey performed by a licensed Land Surveyor to one performed by a registered Civil Engineer after formally and in writing referring to the Land Surveyor as a paraprofessional.*
>
> *The California Land Surveyors Association requests that your City formally take steps to insure the citizens of Coronado and the Licensed Land Surveyors retained by them to perform surveying and mapping services with the City are given the same professional treatment without bias or prejudice as given other professionals performing the same service.*

The following year, a complaint was filed with the Board of Registration after the City destroyed valuable tie points when they installed pedestrian ramps. The Board sent a harsh letter to Newton, advising him that it was illegal to destroy survey monuments. He, in turn, promised to follow the law. Still, tension existed between Newton and the land surveying community.

Several years later, after I obtained a contract to layout a popular restaurant, the local business paper ran an article identifying me as an "engineer." The following day, the owner of a prominent civil engineering company and one of my competitors called me to complain. "You're not an engineer," he protested.

continued on page 18

"I didn't say I was. It would be best if you asked the newspaper to issue a retraction," I suggested to him.

Although I was confident of my position, out of an abundance of concern, I reached out to the state licensing board, asking what I thought was a simple question. I wrote in a letter dated May 18, 1990, addressed to Darlene Stroup, the state board's Executive Director, asking about Section 8751 of the LS Act.

> *In the way of clarification I wanted to be sure I understand the above references section of the B&P Code. As I understand that section any individual possessing a Land Surveyor's license is entitled to call him/herself any of the titles contained therein. In other words may I represent myself as an "Engineer holding a Land Surveying license or any other title contained in this section?*

Ms. Stroup responded one week later.

> *We do not interpret Section 8751 as you do. We believe the intent of the statute is to allow you to represent yourself as a Land Surveyor if you hold a Land Surveyor's license or an Engineer if you hold registration as an engineer.*

I responded four days later.

> *Dear Ms. Stroup,*
>
> *Thank you for your letter of 25, May regarding [Section 8751]. Although I understand your response, I am still at a loss as to what purpose section 8751 serves.*
>
> *You have indicated that I may call myself a "Land Surveyor." Can I call myself a "Licensed Land Surveyor?" That definition along with the others previously cited are contained in section 8751. If I or other surveyors cannot use these titles – who can? If others can why is the language found in the L. S. Act? Who is entitled to use the titles contained in section 8751 and why?*
>
> *I would emphasize that my purpose in seeking this clarification is not for debate but is in fact in order to comprehend the purpose of section 8751. The fact that it is contained within the LS Act would seem to indicate it serves within the act. The potentially conflicting interpretation is the product of dialogue between me and my colleagues compounded by an obvious effort to understand and comply with the laws governing the land surveying profession.*

Ms. Stroup responded on June 11, 1990:

> *You may call yourself a licensed Land Surveyor. If you require further understanding of Section 8751, we suggest you consult an attorney.*[1]

"Why," I wondered, did I need an attorney? Did I do something wrong?

From then on, any efforts to clarify this matter with the board were futile.

Intrigued with the thought that I needed an attorney, I did some more research into the history of geomatics. Wikipedia provides a good definition as follows:

> *Geomatics includes the tools and techniques used in land surveying, remote sensing, cartography, geographic information systems(GIS), global navigation satellite systems (GPS, GLONASS, Galileo, BeiDou), photogrammetry, geophysics, geography, and related forms of earth mapping. The term was originally used in Canada but has since been adopted by the International Organization for Standardization, the Royal Institution of Chartered Surveyors, and many other international authorities, although some (especially in the United States) have shown a preference for the term geospatial technology, which may be defined as synonym of "geospatial information and communications technology."*
>
> *Although many definitions of geomatics, such as the above, appear to encompass the entire discipline relating to geographic information – including geodesy, geographic information systems, remote sensing, satellite navigation, and cartography –, the term is almost exclusively restricted to the perspective of surveying and engineering toward geographic information. Geoinformatics and Geographic information science has been proposed as alternative comprehensive term; however, their popularity is, like geomatics, largely dependent on country.*

I next consulted the writings of my old friend, Curt Brown. Over the years, he spent considerable time exploring the evolution of the survey profession.[2]

In a paper delivered at the Fourth National Surveying Teachers Conference in Naces, Washington, held in August 1957, Curt wrote:

> *The subject of land surveying if taken in a broad sense would include photogrammetry, geodetic surveying, mine surveying, planning and route surveys, and even hydrographic surveys. In a narrow sense many of us think of property line surveyor as being the land surveyor. Since my primary interest is with the property line surveyor, many of my early remarks will be directed at his problems.*
>
> *Historically the property line surveyor has been a part of civil engineering. But as civil engineering has become more complex, surveying has been pushed to one side to make room for newer subjects. The thinking of many engineers is illustrated by a recent incident that happened to a fellow surveyor. When applying for associate membership in the American Society of Civil Engineers he was asked by*

continued on page 19

one of the membership committee what work he was doing. To his reply that he was a land surveyor, the remark was made, "I know that you are a land surveyor. I mean what have you done in engineering?" The attitude of many engineers is that surveying is not engineering, that it is sub-professional work to be handled by technicians. But is it? Too many of us think of the land surveyor as being the technician who operates a transit and only knows how to measure, not what to measure.

And in another paper presented at the same conference, entitled *What should be the education for Land Surveying?* Curt wrote:

My conclusion is that property surveying is so closely related to civil engineering that it should not be rejected as a part of engineering. The colleges should take a positive approach to the subject of property surveying and determine how it should fit in; not how it should be de-emphasized. I feel that civil engineering has become so complex that the better solution is to offer options in different fields of engineering and that property line surveying should fit into one of those fields; namely, land measurement engineering.

I researched the history of the land surveyors' act more, intrigued by what was behind this geomatics thing. I learned that the practice laws had been revised on May 16, 1959, when Dwight D. Eisenhower was the president of the United States, and *Gunsmoke* was the most popular show on TV. The revision became law when Governor Edmund G. Brown signed an amendment to Section 8751 of the Land Surveyors Act. Assemblymember S. C. Masterson of Contra Costa authored the bill as follows:

8751. No person shall represent himself as, or use the title of, licensed land surveyor, land surveyor, professional engineer in land surveying, land survey engineer, survey engineer, geodetic engineer, or geometronic engineer unless he is the holder of a valid, unsuspended and unrevoked license.

Section 8751 contains the word "engineer" five times.

In a study treatise prepared for Caltrans entitled *California Law for Surveyors*, prepared by Mitchell Duryea, L.S., he included the following:

Question: List those titles that are reserved by law to licensed land surveyors.

Answer: LS Act 8708: Licensed land surveyor, professional land surveyor, or land surveyor.

LS Act 8751: Professional engineer in land surveying, land survey engineer, survey engineer, geodetic engineer, and geometronic engineer.

continued on page 20

In 2010, the state board issued a "Guide to Engineering & Land Surveying for City and County Officials, written to serve as a "quick reference" for California's city and county building officials, county surveyors, city engineers, and public works officials to help answer questions about engineers *and* land surveyors. The guide includes a similar statement:

> ***43. What titles can only be used by a licensed land surveyor?***
>
> *(B&P Code §§ 8701, 8708, 8751, 8775)*
>
> *Professional Land Surveyor*
> *Licensed Land Surveyor*
> *Land Surveyor*
> *Photogrammetrist*
> *Photogrammetric Surveyor*
> *Geodetic Engineer*
> *Land Survey Engineer*
> *Survey Engineer*
> *Geomatics Engineer*
> *Geometronic Engineer*

Additional confusion exists because of the language found in § 8708 of the Business and Professions Code:

> *In order to safeguard property and public welfare, no person shall practice land surveying unless appropriately licensed or specifically exempted from licensure under this chapter, and only persons licensed under this chapter shall be entitled to take and use the titles "licensed land surveyor," "professional land surveyor," or "land surveyor," or any combination of these words, phrases, or abbreviations thereof.*

Based upon the historic dicta promulgated by the state board, it appears they only relied on § 8708 instead of § 8751, a troubling conundrum that has added considerable confusion about how to apply the law. This conflict needs to be resolved; § 8708 must be revised to agree with § 8751.

The topic came up again in 2016 in connection with a question posed to the California Fair Political Practices Commission by Kendra L. Carney, general counsel to the Orange County Sanitation District, in connection with a potential conflict of interest associated with Greg Sebourn, a Licensed Land Surveyor and a member of the Fullerton city council and the Orange County Sanitation District.[3]

> *Mr. Sebourn ... is licensed by the state as a Professional Land Surveyor under the Professional Land Surveyors' Act ("PLSA"). You state that the PLSA "suggests" that all licensed professional land surveyors may hold themselves out as professional land surveyor, licensed land surveyor, land surveyor, Land Survey Engineer, land survey engineer, survey engineer, geodetic engineer, geomatics engineer, or geometronic engineer. Your office has confirmed with the California Department of Consumer Affairs Board for Professional Engineers, Surveyors, and Geologists that a professional land surveyor is permitted to use any of those titles to describe his or her work.*[4 5]

The issue came up again in 2020 when a complaint was filed against a Licensed Land Surveyor for tracing a series of fault lines published on municipal geohazard zone maps, a common practice of Land Surveyors, planners, and other engineers.[6] The matter went before an administrative law judge who ruled in favor of the Land Surveyor. The state's expert witness, a geologist, unsuccessfully argued that the Land Surveyor was unqualified to trace a city map, arguing, "Mr. X ... is not a registered geologist or engineer, but rather a licensed land surveyor," a disparaging opinion intended to denigrate the subject of the complaint.

Given the fact that the preponderance of the law begs the question, why are there two sets of rules for Land Surveyors and Engineers?[7]

Freud believed that schizophrenia occurs when the ego becomes overwhelmed by demands of id or besieged by unbearable guilt from the superego. In schizophrenia disintegration of the ego occurs. The ego cannot cope so it uses defense mechanisms to protect itself which is regression. The schizophrenic's fantasies become confused with reality which gives rise to hallucinations and delusions. Freud is suggesting that the schizophrenic is dreaming and the hallucinations are not really happening, but they cannot tell the difference between dreams and reality.[8]

Endnotes

1 Letter to Michael Pallamary, dated June 11, 1990, from Darlene Stroup, Executive Director Board of Registration for Professional Engineers and Land Surveyors..

2 The Curt Brown Chronicles - Authorhouse Books - ISBN:9781452090511

3 CA FPPC Adv. A-16-073 (Cal.Fair.Pol.Prac. Com.) 2016 WL 321417 – KENDRA L. CARNEY

4 Email from Greg Sebourn, PLS to Michael Pallamary dated July 15, 2022, "I spoke with Dallas a few years ago and confirmed that PLS license means you can use those titles.

5 Email from Dallas Sweeney to: Michael Pallamary dated July 20, 2022

6 Board of Registration Citation Number 10901-L, March 19, 2021

7 Board Rules and Regulations Relating to the Practices of Professional Engineering and Professional Land Surveying California Code of Regulations, Title 16, Division 5 §§ 400-476

8 *https://www.lankaweb.com/news/items/2017/06/23/sigmund-freud-on-schizophrenia/*

Michael Pallamary PLS

Michael Pallamary PLS has been licensed since 1980 and surveying since 1971. He is the author of The Curt Brown Chronicles *and the co-author of* Advanced Land Descriptions *with the late Paul Cuomo, PLS, and Roy Minnick, PLS. He has authored numerous articles for* The California Surveyor *and wrote countless articles for* The American Surveyor *magazine for many years.*

The Parcel Map with No Monuments

Landon Blake, LS

In this article, I'm going to share a true story from about 15 years ago with you. I've changed the names in this story as well as some of the minor details. However, the major details important to the lessons we will try to extract from the story in this chapter will remain intact.

A couple of years ago, Ted, a family friend, approached me about a boundary survey. Ted's nephew Charles had just been hired by a new client to manage several hundred acres of orchard trees west of Stockton in the San Joaquin/Sacramento Delta. His client had recently purchased the farmland. Shortly after the purchase, a boundary dispute had arisen with Antonio, one of the neighbors who owned a small parcel with a home in the center of the orchards being managed by Charles. The boundary dispute was about the location of a property line near a pond near Antonio's house. Charles wanted a survey to resolve the dispute with Antonio and to mark all the other boundaries of the orchard to avoid future problems with other neighbors.

The Details

After doing a little bit of research, I discovered the following:

1) The orchard property managed by Charles was actually made up of several large agricultural parcels created by the same subdivision map. The subdivision map had also created Antonio's home site parcel. Antonio had once owned the whole orchard now being managed by Charles for the new owner. Antonio subdivided the orchard property and sold all of the parcels except for his home site parcel to a single owner, Charles' client.

2) The surveyor that created and filed the subdivision map didn't set ANY interior property corner monuments. Only the outside boundary of the parcel was marked.

3) The dispute over the pond was based on a parcel boundary common to two interior parcels of the subdivision that had not ever been marked or monumented. The boundary had only been defined on paper, by the subdivision map. Because all of the subdivision parcels (except for the home site parcel) had transferred to a single owner, and remained in the same agricultural use, the interior parcel lines were not marked by any physical occupation like fences.

It is obvious to most of my readers that this dispute was caused in part by the lack of physical monuments on the ground. Why did this happen? Why was this not prevented by the land subdivision and other surveying regulations of my state?

Laws Regarding Monument Placement

Before we consider why situations like this happen, let's talk about the legal requirements for monument placement during land subdivision in California. State law is not very specific about where (and how many) monuments need to be set to mark parcels in a land subdivision. The law leaves a great deal up to the professional discretion of the land surveyor creating the parcels through the subdivision process.

County ordinances can specify requirements for monumentation, but usually don't do this for large agricultural parcels. (This may be a result of the lower value for land in an agricultural setting, a more relaxed attitude about property boundaries among farmers, or the power of the farming lobby/large land owners in local politics.) In the example under discussion, neither state law nor county regulation required:

a) A specific number of monuments to be set.

b) That interior parcel boundaries need be monumented.

c) A maximum distance between monuments.

d) A requirement to monument "major" property corners.

This makes some sense. It would be difficult to develop comprehensive regulations related to monument placement that could drill down to a great level of detail while still providing the needed flexibility. In most cases, it is better to leave these decisions to the professionals and not the law makers.

In our example, the surveyor creating the subdivision map for Antonio had a choice. He could determine how many interior property corner monuments to set or He could choose not to set any.

continued on page 22

Why Does This Happen?

Why does this happen? It certainly seems foolish looking backwards, especially because the lack of monuments caused a problem for the very land owners that subdivided. (In this case the subdivider wasn't long absent from the neighborhood, which is often the case.)

The monuments weren't placed on interior property corners for two main reasons:

1) This allows the subdivider to save money by not having to bear the cost of monument placement during the subdivision process.

2) If the surveyor uses record data for the parent parcel boundary, a "paper subdivision" can be created, eliminating the cost of a field survey altogether.

Why Is This a Very Bad Idea?

Why was the decision by the subdivider, and his land surveyor, to not set the interior property corner monuments a bad idea?

I can think of a couple important reasons:

1) It postpones the inevitable work to establish and monument the interior parcel boundaries. (This work will eventually be done, and the cost will be born by a future parcel owner. We are just delaying the work.)

2) It allows time for encroachments and other problems (like a boundary dispute) to develop.

3) It misses a great opportunity to set original monuments, which can definitively establish property boundaries on the ground, where they really matter and can benefit the property owners.

I'm not sure how the decision to skip monument placement was made in this particular case. Did Antonio want to complete the subdivision process for as cheaply as possible, without a concern for future problems? Did he pressure the subdividing surveyor to skip the monument placement?

Or, did the subdividing surveyor not discuss the monument placement issue honestly with his client? Did he leave this out of his scope of services for the project so he could provide a cheaper price than his competition?

If Antonio insisted, against the surveyor's advice, that interior property corner monuments not be set, did the surveyor provide a letter or other written document to the client explaining the risks of this decision? These are interesting questions.

The Lessons

What are the lessons this story has for boundary surveyors? What would you have done in this situation? If Antonio had told you he wasn't going to pay for monument placement if it wasn't required by law, would you have walked away? This is a difficult question. It is hard to turn down work.

Did the subdividing surveyor in this story really live up to his obligation as a licensed surveyor to protect the public? Did he have a duty to go beyond the absolute minimum required by the law in this case? Did he expose himself to additional liability and open the door to future litigation with his subdivision map?

No Survey

In the end, Charles client, the new owner of the vineyard decided my parcel survey was too expensive. This was a shame, as there was an excellent opportunity to clean up the problems with the interior parcel boundaries while just two owners were involved. As the parcels in the subdivision transfer to multiple owners, and more encroachments occur, this will get a lot more difficult (and more expensive) to clean up.

Important Questions

This story leaves us to consider some important questions:

1) If a client refuses to pay for monument placement because it isn't required by law, is it still the right decision to take the job?

2) If land is subdivided without the placement of monuments, is the public protected?

3) Do the problems caused by a subdivision without monuments expose the subdividing surveyor to additional liability and risk?

Landon Blake

Landon is a licensed land surveyor in California and Nevada. He is also a Certified Federal Surveyor and a Certified Remote Pilot. Landon is the co-owner of Redefined Horizons, a land surveying and land planning business operating in Central California.

SURVEYING FOR THE FUTURE
Upholding Standards in a Competitive Landscape

Kyle Brook, PLS

I just got off a short call with someone looking for a "simple" or "non-official survey" for a fence line. "I just need two corners of my property," the prospecting caller exclaimed. I get calls like this every day. After letting these potential clients know a Record of Survey or Corner Record will be required and the costs associated with that work, I usually don't hear back from them.

I know these callers will find someone else to do the work. There is always someone willing to cut corners by setting corner markers illegally. On a regular basis, I find evidence of non-recorded surveys: recently flagged lines, boundary markers without licensing information, a rebar and cap with no associated Record of Survey or Corner Record. These remnants of cheap survey work litter the landscape. Attestations of "I got a better deal from the guy because I helped him with the field work" or "he showed me the line and I set T-posts where he pointed" are commonplace in my neck of the woods.

Professional Responsibility and the PLS ACT

California's Professional Land Surveyors' Act (PLS Act) is clear about our responsibilities, especially when it comes to filing maps with the county after establishing or re-establishing property boundaries:

8762 (b)(4) The location, relocation, establishment, reestablishment, or retracement of one or more points or lines not shown on any subdivision map, official map, or record of survey, the positions of which are not ascertainable from an inspection of the subdivision map, official map, or record of survey.

California surveyors are rigorously tested on this material and are charged with following these codes. Unfortunately, there are surveyors – and sometimes unlicensed individuals – who skirt these regulations, leaving behind no record, no accountability, and in many cases, inaccurate work. By interpreting the recording requirements laid out in PLS Act 8762(d) "establish (or re-establish)" to mean "only if monuments are placed by my own hand" many licensees feel they can avoid recording requirements. These surveyors are not, in their minds, re-establishing a property line if they aren't setting the monuments themselves and instead the homeowner is following behind them and placing t-posts. They are not finding material discrepancies if they shut their eyes, cover their ears, and shout "LA LA LA" when issues are encountered.

If they were to truly re-establish a boundary, they have to spend more time working in the field and with the county. More records need to be researched and the boundary knowledge they learned to pass the licensure exam would need to be recalled. Brown's Boundary Control and Legal Principles would need to have the dust brushed off. It would cost the client more money. As a result, the work gets done illegally and for cheap. The next surveyor in the area has no idea who did the work or how the boundary was established because the previous surveyor (if even licensed) has operated anonymously and left nothing in the public record.

Why does all of this matter? That surveyor saved their client a few bucks by bending the law. Is that so bad?

The Real Cost of Cutting Corners

When a surveyor performs work without filing a map, the client may feel like they got a good deal. After all, they saved thousands of dollars, right? But what they don't realize is that this "survey" is nearly worthless in the long run. No other surveyor can determine how or why some improvements appeared, or how or why monuments were set. When a surveyor files a Record of Survey, they are not only marking boundaries but also accepting long-term liability for that work. This legal responsibility is key to protecting property owners, ensuring that fences, buildings, and other improvements are placed correctly and can stand the test of time – without boundary disputes.

The client, either without the knowledge or care to ask for a recorded survey, thinks the work is done with the same level of care and liability absorption that a filed map holds. They tell their neighbor about their $1,000 survey that they got for a deal. "The other guy wanted $10,000! I'm glad I avoided that grifter!"

continued on page 24

The Value of Doing Things Right

I am a surveyor estimating $10,000 (or more) when others estimate $1,000. That $10,000 quote reflects the time spent researching records, locating original monuments, setting durable markers, preparing a legally compliant map, and accepting liability for the long-term accuracy of the work. It includes employee wages, liability insurance, and the investment in high-quality equipment, all of which ensure the job is done right. Boundary issues such as an overlap or gap of title are uncovered and resolved rather than swept under the rug for the next survey to discover. Durable monuments are set that can be relied upon for hundreds of years to come, instead of cheap wood markers that will disappear in a few years.

Additionally, neighboring properties have their future survey costs decrease because much of the work to define the neighborhood has been recorded and can be relied upon. In short, the public is well served and protected.

A Profession Under Pressure

Unfortunately, the clients who understand this value and are willing to pay for it are few and far between. They see the price difference and call the expensive surveyor a rip-off. As a result, surveyors who follow the law and are passionate about solving boundary issues get less work than their unscrupulous colleagues. The law-abiding surveyor is forced to find clients with larger bank accounts and a better understanding of the value in a survey done right. Surveyors are required to be licensed to protect the public and the public interest, sometimes this means protecting them from themselves and from the cheapest survey in town.

Recently, my company has grown from a solo practice to myself and three employees. With the additional costs of employees, my company will need to find new clients. As we scale up, our need for consistent work that will cover the costs of following the law and practicing professionally will increase. Taking the time to prepare an estimate that will be rejected outright will become less viable. Meanwhile, our industry is struggling to find new licensees and employees. Those who compete for the cheapest of the work at the lowest of margins cannot afford to train and mentor staff. Land Surveyor Licensees are retiring or dying out of the industry at an increasing rate, while association memberships and the number of new licensees fails to grow meaningfully. We struggle to inspire young people to pursue surveying as a profession, because we offer insufficient wages and an industry hell bent on cost cutting and using a cheap survey as a loss leader.

All of these issues are caused in part by the cheap and quick fence survey. The cost-cutting surveyor has more work than they know what to do with because every professional practitioner has long since been priced out of the niche of boundary work. When attempting to operate legally, there is little a surveyor can do to be cost competitive with the corner cutter.

Policing Ourselves for the Greater Good

Professional Land Surveying is far from being the only profession with bad actors. Malpractice occurs in every profession to some extent. If your doctor prescribed a less effective medicine for you or a loved one because it makes their job easier or more profitable, while also having no documented medical record for the next physician to refer to, would you appreciate their practice?

The solution is not to hope that clients wise up or that the market corrects itself. Instead, it's up to us, as a profession, to hold each other accountable. Substandard practices need to be reported to the licensing board. While it may feel uncomfortable to report another surveyor, doing so is essential to maintaining the integrity of the profession. Due to the anonymous nature of some of these poor survey practices, whenever the slippery rule breaker can be caught, they must be. However hard it may be, reporting other surveyors to the Board must happen so disciplinary measures can be taken. If we don't take action, we allow illegal and unethical practices to flourish, further eroding trust in the industry.

By making the bad actors face the repercussions for malpractice and cutting corners we improve the market. Why would a substandard surveyor take on a "quick and easy" weekend job where you may bend the definition of the law, or blatantly break it, if it means risking your license?

Building a Future Worth Surveying

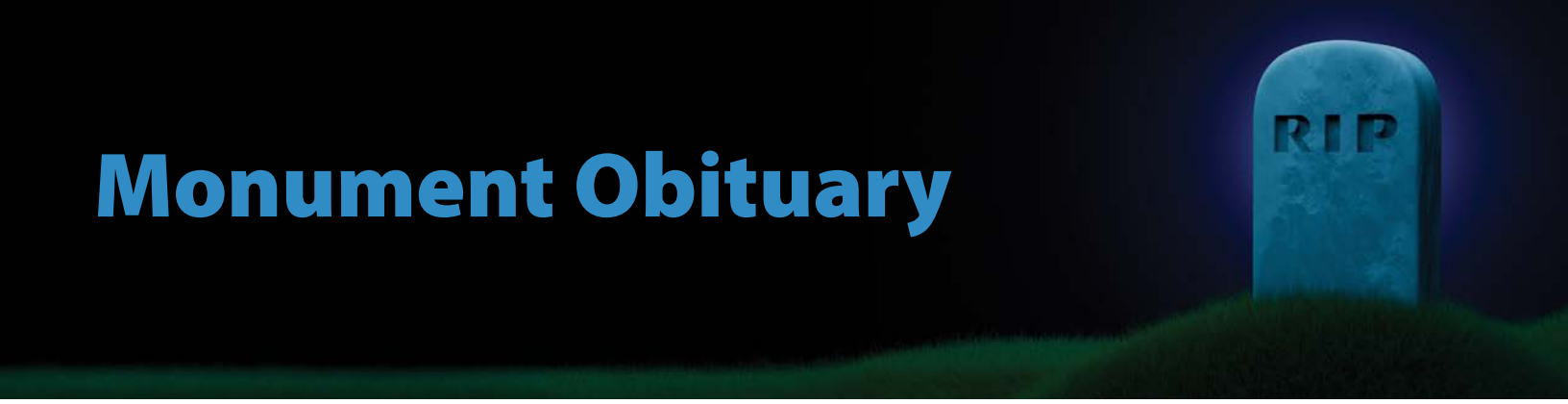
By holding ourselves and our peers to the standard of care called for in the PLS Act, we can ensure that our work – our maps, monuments, and records – stand the test of time.

Operating to the standards set by the law demonstrates respect for other professional surveyors. Instead of undercutting each other and leaving a problem for the next surveyor, we would be working in concert toward a future where each surveyor who visits a property improves it for the owners and neighboring properties for years to come. Mysterious boundary, title, and ownership issues would be either resolved or noted so the following surveyors can be better informed.

By having more work serving residential clients, the professional surveyor following the law would be able to charge appropriately for projects, allowing them to hire and train more young surveyors. More potential surveyors would be attracted to the profession as they see the profits rise for surveyors and survey staff. By working with other surveyors to determine the boundaries of properties, a good example would be set for the next generation of surveyors.

I hope to see this change in our profession come to pass not just for my own professional practice, but for the profession at large. As surveyors, we are problem solvers. We cut through brush, scale mountains, and leave clear markers for others to follow. It's time we approach the challenges within our own profession with the same tenacity. It's time we stop causing problems and start solving them for our clients and for the clients of the future.

Monument Obituary



Survey Monument Sheriff Mike was called to a rural area of San Joaquin County on a report of a suspicious object. A local farmer discovered a suspicious object in the weeds near his common property line with a PGE substation. Sheriff Mike confirmed the suspicious object was a deceased, displaced survey monument, cordoned off the crime scene, and called the survey monument coroner, Dr. L.S. Mike from Manteca. The coroner gently and respectfully removed the remains to the coroner's truck. There, the remains were prepared for transportation to the lab for a thorough autopsy. The coroner's autopsy report lists the cause of death as gross negligence and violation of Sec. 8771 of the Professional Land Surveyors Act. The survey monument was identified as a 4" diameter aluminum disc stamped "Pacific Gas and Electric Company Property Corner LS 3576." The Aluminum Disc sits on top of a 3/4" x 28" rebar set in a 8" x 24" concrete pedestal. This PGE monument was set in 1977 as noted on Record of Survey Map Book 27, at Page 110, San Joaquin County Records. This monument was set at the southwesterly property corner of a 3.57 acre PGE substation. It was typical for these monuments to be set a minimum of 18" deep. Great pride and effort went into setting this survey monument. At the crime scene, Sheriff Mike concluded that the PGE survey monument was murdered by the undergrounding of communication utilities. A utility vault now occupies the space where the PGE monument was set. Very few clues remained at the crime scene and Sheriff Mike classified the murder as a "Cold Case." No family members came forward to claim the monument remains. A hearse from the MQ Survey Monument Mortuary picked up the monument's remains and transported them to the LS 4450 Survey Monument Mausoleum for internment. A private service, presided by Preacher Surveyor Michael, was held at the Mausoleum, and sadly only a CAD Technician was in attendance.

This is another poignant example of the result of not complying with Sec. 8771, together with the lack of accountability.

The Doctrine of Acquiescence: Its Impact on Land Surveying in California

Zach Robinson, PLS

Submitted in partial fulfillment of the course requirements for SVT513, Advanced Studies in Boundary Law

Surveying Engineering Technology Program, University of Maine

12/4/2023

Supervising Professor: Dr. Knud Hermansen, PLS, PE, ESQ.

Property lines, often seemingly straightforward, can sometimes be shrouded in uncertainty. One such legal concept that can significantly impact land ownership and boundary disputes is acquiescence. This doctrine, rooted in the principle of long-standing acceptance of a boundary, can have far-reaching implications for land surveyors. At some point, all surveyors will come across this doctrine.

In this article, the intricacies of acquiescence and its effects on surveying in California will be discussed. The legal framework, practical applications, and potential challenges that surveyors may encounter when dealing with such cases will also be explored. By understanding the nuances of this doctrine, surveyors may better navigate complex boundary disputes and provide accurate, reliable land surveys. It is also to inspire and encourage land surveyors practicing in California to develop an understanding of unwritten rights[1] as they apply to the profession.

The first note of importance to make within this paper is that boundaries by agreement are typically referenced in California court cases, with acquiescence being evidence and a determinant of whether a boundary by agreement has occurred. "Boundaries by Acquiescence" is a legal term referred to throughout court cases and is different from agreed boundaries,[2] though an agreed boundary includes acquiescence.

The second note of importance to all readers is this: This paper is a labor of love and University document. It does not represent the single best solution for all surveyors. It is NOT legal advice. Such advice should be sought from either a judicial officer or a lawyer valid in the applicable jurisdiction.

RULES OF CONSTRUCTION

Due to its vast size and population, California frequently encounters boundary disputes. These disputes often involve complex legal arguments based on past rulings. Courts grapple with reconciling similar situations while considering both established legal precedent and the potential for new interpretations. This adherence to past decisions forms the cornerstone of a legal principle known as ***Stare Decisis***, which translates to "let the decision stand."

Stare decisis is a legal doctrine that compels courts to adhere to established legal principles and rulings. This means that courts are generally bound by the decisions of previous courts, particularly those of higher courts. This practice fosters consistency, predictability, and fairness within the legal system. In the context of land surveying, *stare decisis* helps establish a collection of legal principles known as the **Rules of Construction** when retracing property boundaries and interpreting legal descriptions. By adhering to *stare decisis* and the rules of construction, surveyors can make informed decisions and avoid potential legal challenges.

Often, surveyors are tasked with determining the "title boundary" or "record boundary," as defined by the property deed. When retracing said property's deed, a surveyor will likely rely on legal frameworks established by *Stare Decisis*. One well-known principle is that *original boundary monuments (natural or artificial) cited in the deed take precedence over courses and distances.*[3] This principle, along with many others, collectively forms the **Rules of Construction**.

It would be difficult for every surveyor to continuously read and maintain their knowledge on all court cases prevalent to land surveying. More likely, they may encounter topics, cases, and ideas in papers such as this one or from continuing education programs. This paper stands to provide surveyors with my own interpretation of the rules of construction, how they apply to acquiescence, and how they *might* apply to land surveyors in California.

As mentioned above, surveyors locate record boundaries in accordance with a property's deed. Surveyors, while determining boundaries, will also locate evidence of possession, make an opinion on record title, and provide an *opinion on ownership.*[4] As professionals, surveyors are expected by the courts to interpret the laws when making an opinion on boundaries. This is consistent with Justice Thomas Cooley's interpretation and naming of Surveyors as Quasi-Judicial entities.

THE FRAMEWORK OF ACQUIESCENCE

Acquiescence is just one of many unwritten rights that surveyors *may* encounter when

continued on page 27

determining record boundaries. Acquiescence, as defined by Black's Law Dictionary, is *a person's tacit or passive acceptance; implied consent to an act.*[5] Surveyors will often encounter acquiescence where adjoining landowners **build up** to what can be considered an "**occupation**" boundary line, typically by mistake, and then maintain across a period of time as a division line to their respective properties. The "Built-up"[6] boundary line mentioned does **NOT** always coincide with where the retracing surveyor has calculated the record boundary as described in a written deed. The dividing line or "Built-Up" boundary takes some importance and desires care from a surveyor. When encountered, surveyors should take note of the following:

1. What is the extent of the shared boundary in the present day? Where does it lie in relation to the record boundary?
2. What improvements have been built, maintained, and recognized?
3. What are the approximate ages of the improvements on the shared line?
4. Who originally built these improvements and what information did they rely on?
5. What significance do these improvements hold on the record boundary? Are they mere dividers of two adjoining tracts of land? Do both landowners occupy and improve the coterminous boundary?

The pre-conditions of acquiescence have been established across California by numerous court decisions. Acquiescence requires the following:

1. Uncertainty or doubt from the adjoining parties, and can still arise, even if the record boundary can be reestablished.
2. The boundary line must be fixed in an ascertainable manner, whether it be fences, walls, houses, etc.
3. Actual[7] or constructive notice must occur.
4. Conduct allowing acquiescence and recognition of the boundary must exist.
5. Continuous period of occupation and use, equal to 5 years in California, must have also occurred.

These pre-conditions form the basis of what a court relies on to determine if acquiescence has occurred.[8-9] The California Code of Civil Procedures Sections 312-366.3 also give a framework that has been relied on and interpreted by the courts since 1872.

Exploring the list of items a surveyor should consider along with the pre-conditions of acquiescence more in depth, one might begin to see why it is important for surveyors to have knowledge of this unwritten right.

A key reason why acquiescence is an unwritten right is due to its nature. The parties involved, almost always coterminous landowners, do not rewrite their deeds and usually do not "write" the agreement down. They are practically placing the boundaries, often without a surveyor's help, and agreeing to it through one of the above methods.

Looking at the location and significance of the shared boundary in the present day, surveyors know the importance when performing a boundary survey to collect evidence. What is being adhered to by adjoining owners in a land boundary? How are the parties using the two sides of the boundary? Is there currently conflict with this shared boundary? This starts the surveyor's investigation into the shared boundary.

The second demand a surveyor has is to locate the improvements that have been built and maintained. Have these been adhered to by both parties? Do both parties agree that the improvements represent their idea of the boundary. Within this step, one begins to find evidence of where possession occurs in the present day.

After the surveyor has located and gathered data on what improvements exist and where they are, they can then investigate the approximate age of these improvements. This is important as it relates to the statute of limitations in California. Examples of such evidence include building permits, parol agreements, and dated aerial photographs.

Determining who originally built the improvements may be difficult if they have existed for long periods of time. Ascertaining what they relied on to lay out the improvements is likely to be equally difficult, but it is a step one should at least consider. Building the evidence to acquiescence may also uncover additional surveying evidence that was relied on (or not). These two notes might set the framework for the next and final requirements to investigate.

Lastly, determining the significance of how these improvements relate and potentially impact the record boundary is of utmost importance. While surveyors do not have the ability to act as a judicial officer, they may act in a quasi-judicial fashion in interpreting previously determined rules of construction. Surveyors are also considered experts in courts of law and their opinions have the potential to be held in regard when determining the **true boundary line**.

All of the above represent the facts and evidence one should gather to help explain to their client the significance acquiescence may present itself in the determination of the location of their boundaries.

Once a surveyor has gathered the evidence and facts on what has occurred and where it stands today, they can also begin their formulation of an opinion as to the record boundary, possession lines,[10] and the ownership boundary.[11] Weighing in what previous case law has dictated is critical. There is no shortage of California case law and court opinions that will assist the surveyor in examining the evidence and facts to arrive at a defendable and supported decision.

SURVEY MONUMENTS

When surveyors go out to locate record boundaries, they almost always recover monuments. Monuments may be natural (e.g., navigable rivers) or artificial (e.g., iron pipes). The significance of monuments is well established and more accurately described as *physical objects on or in the ground, which establish the location of boundary lines.*[12] In absence of survey monuments directly located at the corners, a surveyor will often resort to relying on the courses and distances within a description or map to "*follow the footsteps*" of the original boundary survey as it was performed. This idea is quoted in Brown's, in which he states: "*The Original Boundaries are Sacred.*"[13]

continued on page 28

The deed is considered a guide and is simply "evidence" of ownership to a property. While Brown advocated for following in the footsteps of the original surveyor, he was a staunch supporter of also strictly following the deed description. The two statements juxtapose the ideas iterated by each other. In absence of certainty, surveyors must gather additional evidence.

In following the footsteps, as Brown mentioned, surveyors may sometimes be at odds with the record boundary and the built-up boundary. Pericles Cosseboom described an example in which surveyors working in the 50 Vara district (downtown San Francisco).[14] Surveyors often encountered random errors based on how the ancient blocks had been established and reestablished many times throughout the city's colorful history. Said errors presented a difference between where the record boundary would be based on the right-of-way retracement and where the existing built-up boundaries stood, in the form of permanent buildings.

Cosseboom highlighted one example of conflicts that present themselves to land surveyors when retracing boundaries. Retracing boundaries in downtown San Francisco greatly differs from retracing a boundary in rural sectionalized land. The distinction courts make regarding what monuments are is important though. The case of *Roberts v. Brae*[15] illustrates that permanent structures, such as buildings, can serve as monuments and, when acquiesced to over statutory periods of time, can establish a boundary line, emphasizing the subjective nature of monument identification in surveying evidence.

Buildings in a downtown setting that abut each other did not just do so out of thin air. Survey monuments were likely set or points measured according to a deed were calculated at one point to place those there. Surveyors in retracing the footsteps of the original surveyor would likely be justified in calling a 25' building built on a 25' lot a **survey monument** just as they might call an iron pipe found a monument.

While monuments may be used in determining **Record Boundaries**, evidence of possession would be of importance to the surveyor as well. Evidence of possession can be a check on a surveyor's opinion as the location of the record boundary. In instances where you locate the four corners of a property, monuments exist at the four corners and the boundaries are built up so that possession of the land and use of the land agree with the record boundary. This is a best-case scenario for surveyors. Often times, surveyors discover evidence to the contrary on one of these notes, the previous example being one San Franscisco surveyors discover often.

SURVEY EVIDENCE

When a conflict occurs, it is then time to go to the drawing board. Conflicts may exist as differences between record boundary locations or differences between record and occupation boundaries to name a few. Surveying evidence comes into play, forming what is known in a court of law as *Preponderance of Evidence*. This term, used in civil cases, means *evidence that has more convincing force than that opposed to it.*[16] A logical interpretation of this definition as a surveyor, is that a surveyor's boundary opinion should be predicated on the most compelling evidence of the original survey. What evidence can a surveyor use to support their boundary resolution? These are what will be defined as defendable boundary resolutions.

Evidence for acquiescence **must** become part of the surveyor's overall evidence compilation. Surveyors determine where the record boundary, referenced by a deed description, is on the ground. It is also a requirement that surveyors be able to measure, but not all who can measure are surveyors.[17] Mentioning measurements is important to note, because while they are significant in how a surveyor may gather our evidence, they are a means to determine a precise location of **WHAT** evidence surveyors are holding. That is to say, in most cases, surveyors hold evidence of where the original survey *may* have been, rather than rely on math to fix boundaries.

Deed staking, a term coined with little literary references, can be thought of as this mathematical determination. With little regard or flexibility in what a "monument" is, these deed stakers go out and may be throwing entire blocks into peril by holding a mathematical calculation rather than considering and weighting the evidence.

An important court case in San Francisco[18] highlights the impact evidence has alongside our measurements: *When the division line of adjoining owners is designated in their respective deeds as a line beginning at a specified distance from a fixed object, the only method of ascertaining the location of the line on the ground is by measuring the required distance from the object.*

Experience shows that such measurements, made at different times by different persons with different instruments, will usually vary somewhat. The position of the object or monument at which the course begins may also be changed and the change may not be known to the parties, or there may be no means of ascertaining [its] original position. The interpretation that can be deduced for this statement is in support of the above statement. Evidence of the original survey is more certain than measurements on a deed or plat.

Survey Evidence can be survey monuments, fences, walls, houses, rivers and more items that can be located on the ground. It can be parol testimony, field notes, and other items that might be found indirectly. It is a diverse category and one that a surveyor should be knowledgeable of.

ACQUIESCENCE AND THE SURVEYOR

As iterated earlier, encountering acquiescence is not a matter of if, but a matter of **when** for Land Surveyors. It is a subject taught by universities, because of its implications for the profession.

Licensing exams also include questions on acquiescence and other unwritten rights to test a surveyor's ability to recognize them. Clients who hire land surveyors may also question the significance of acquiescence on their boundaries. By this extension, it would not be unreasonable to suggest surveyors be qualified to speak on acquiescence in a way that educates interested parties.

When surveyors do encounter acquiescence, equipped with court knowledge and evidence, they may then begin making decisions. These decisions, backed by case law, must be defendable in a court of law. Defendable boundaries, based on a preponderance of evidence can reduce liability for the practicing surveyor.

continued on page 29

To demonstrate some of the ideas talked about so far, specific court cases are sighted below, in addition the previously mentioned cases.

Ernie v. Trinity Lutheran (Cal. 2d, 51, SF No. 19821 (Cal. 2d, 1959, Cal: Supreme Court)), a case situated in Marin County, is a great example of acquiescence to a boundary line. The case was held based on the assumption by coterminous (adjoining) landowners, that significant improvements existed (walkways, buildings and fences built and maintained for 26 years), and said improvements were assumed by both parties to be the true boundary line. Litigation occurred, and the courts held the improvements as the true boundary line.[19]

This is one significant case in which a boundary line was fixed in support of a "**built-up boundary.**"[20] Another such case that represents the term is *Young v. Blakeman* ((1908) 153 Cal. 477, 482-483 [95 P. 888]). A case regarding two feuding owners in downtown San Francisco, the case has been considered a frequently referenced case in stipulating evidence used to fix a boundary line. Defendants took title to a property described by a metes and bounds description based only on measurements (no monuments other than streets were called to). It has already been stated that monuments will rule over measurements. Evidence is also critical in determining boundaries. This case also found that "*Where land is occupied by buildings up to the agreed line, as in this case, the grantee is presumed to have bought the property with a view to the boundaries thus visibly marked.*"

The court also affirmed that *"A boundary line thus fixed and marked has the same effect as a monument erected to mark a point in a survey."* A rather powerful statement, as it speaks to the effect of these so called "built up boundaries."

The court also took note to say that fixing boundaries such as this one in the manner it is, does not convey new title[21] nor does it offend the statute of frauds.[22] The specific mention being: "*If a measurement is made and the line agreed on and acquiesced in as required by this rule, it is binding on and applicable to all parties to the agreement and their successors by subsequent deeds.*"

The overwhelming conclusion in the last two cases is that California courts have established, through their decisions, stability within land boundaries. An example of applying built up boundaries often mentioned by numerous surveyors is when a deeded parcel is described by metes and bounds, with a 25 foot width. A surveyor retraces the record line based on calls to streets and finds the building (built in 1918), which is found to be 25' wide, off by 0.2' from the "record" line based on placing measurements from a city monument line. Applying the previously mentioned case law, would it be reasonable to say that the width of the property is fixed upon the 25' building? This is a simple example but highlights a potential case for fixing boundaries based off a preponderance of evidence. In this case, the long-standing occupation was paramount to measurements pulled.

Buildings are a permanent, visible and obtrusive (these all provide "actual" notice) indicator of an implied[23] or acquiesced boundary. Fences represent a more nuanced approach. Fences can represent boundary lines, they can agree with record boundary lines established by monuments, and sometimes they can simply represent where the path of least resistance existed (sometimes a fence is just a fence). When attempting to use fences as evidence, acquiescence plays a pivotal role.

A possible example of using fences/walls/improvements other than buildings can be seen in rural lands. Rural boundaries, subdivided long before the benefit of regulations,[24] may only have corner monuments and occupation evidence in between. Fixing a boundary by acquiescence would require the surveyor to be certain it has occurred and would likely involve using occupation evidence, such as a fence adhered to as a dividing boundary, to fix the location of the dividing line as it had been intended by the original survey.

A set of "rules of construction" in determining acquiescence has already been provided in **THE FRAMEWORK OF AQCUIESCENCE** section. The surveyor, before attempting to resolve boundaries utilizing boundaries by acquiescence or agreed boundaries,[25] must use the five prompts at a minimum. Most importantly to note is that if you are fixing a fence as a boundary, it must be clearly dividing the two owners.[26]

Duncan v. Peterson,[27] a case centered around an ancient fence dividing two half sections, found on the basis of significant use on either side of the boundary, that the fence was the boundary. Quoting from the case *"In the case before us acquiescence existed for at least 42 years and probably longer. Recognition of the fence as a boundary is inherent in the permissive use of the road and location of the airstrip, as well as in the other uses of the respective properties by the parties and their tenants."* Relying on calculations, a prudent surveyor resolved the boundary of the section and found that the fence was encroaching, yet the court still chose the fence as the best available evidence, due to the fact that it had been in place and used as an ascertainable boundary for a period longer than the statute of limitations.[28]

Bryant v. Blevins,[29] a rural Sacramento County case, with elements similar to the case above, held the importance of understanding the history of the long standing improvements (fence line). The intent of the subdivision, which was to convey two equal halves of the original lot, was held supreme. The fence line that straddled the division line, although approximately 10 feet off, just so happened to be a fence and nothing more.

The surveyor, when they feel justified in holding a fence, citing acquiescence, should prepare the facts, examine them as evidence, and consider the implications of holding said fence. In absence of uncertainty, it becomes a much more difficult proposition to hold a fence in an incorrect location. If the surveyor can prove all elements of a boundary by agreement have occurred, then there may be a different approach, but the preponderance of evidence has to be heavily in favor of said decision.

Acquiescence arises from uncertainty. It would be reasonable to say that uncertainty when uncovered by a retracing surveyor, should be put to rest. The courts would agree that uncertainty in boundaries is unacceptable. The average landowner likely does not unjustly seek out conflict with their neighbor. In absence of certainty, such as natural or artificially set monuments at the corners of the Lots, the best way to preserve happiness would be to place the lines at the location that represents where they would have been, at the original survey. Without monuments, acquiesced improvements represent the best evidence of the original survey.

continued on page 30

CONCLUSION

Curtis Brown, in his later years,[30] described an example of potential legal implications of not properly recognizing ownership rights. In not recognizing the implications that arise with ownership rights, a surveyor will be inviting liability. Some surveyors tend to hide behind the fact stipulated in earlier versions of Brown's Boundary Control and Legal Principles, in which it is recommended to locate land boundaries in accordance with a written deed. Brown, refuting this later in his career affirms the importance of a surveyor becoming knowledgeable in the unwritten rights they might deal with.

In absence of certainty,[31] a surveyor may be justified in marking the ownership boundaries, as they have been "acquiesced" to. Simply performing a survey and holding a fence is **NOT** advisable nor advocated for. Utilizing the preponderance of evidence to determine if certain ownership lines meet legal requirements and marking those as the best available boundary location is also just one piece of our involvement with land boundaries.

Clients hire surveyors to deliver opinions on whether there is a conflict between what they own as described in a deed and what they believe they own.[32] It is the surveyor's job, once they have gathered our evidence, made our opinion, and prepared our defense to articulate the impacts of any conflicts found.

Acquiescence and its impact on agreed boundaries is a critical topic that land surveyors must understand, as the probability a surveyor encounters it are high. Clients, courts and other subsequent surveyors are relying on us to hold the peace with respect to the land boundaries. Not doing so potentially invites liability. Inviting liability and incurring it are expensive and potentially damaging to the surveying industry. Value should come from the surveyor in the ability to avoid conflicts with land owners. There is a great quote from Michael McGee, PLS that extends that point: "*The surveyor duty is to encourage boundary agreements and bring possession and record title into agreement creating a permanent and often less expensive boundary solution.*"

ENDNOTES

1 Unwritten rights make up a number of legal doctrines that surveyors may come across. These include **adverse possession, estoppel, practical location, parol agreements, boundaries by agreement, and acquiescence.** These legal doctrines are touched upon in Michael McGee's paper titled "The Role of the Boundary Surveyor in the Legal Aspects of Possession, Title and Ownership" or on Knud Hermansen's university facing page: *https://umaine.edu/svt/faculty/hermansen-articles/*

2 *Kirkegaard v. McLain*, Cal. App. 2d, 199, Civ. No. 6550 (Cal. App. 2d, 1962, Cal: Court of Appeal)

3 *Hunt v. Barker*, 22 R.I. 18, 46 A. 46 (R.I. 1900)

4 McGee, M. R. (1990). The Role of the Boundary Surveyor In the Legal Aspects of Possession, Title and Ownership. *Cal Surveyor.*

5 Garner, B. A., & Black, H. C. (2021). *Black's Law Dictionary* (6th ed., Ser. Pocket Edition). Thomson Reuters.

6 Built-up Boundaries Outweigh Paper Boundaries, Wiel, Samuel C., San Francisco, CA written 1916 provides this term. For the readers of this paper, I will use "Built-Up" boundaries and "Occupation" boundaries similarly.

7 The phrase actual notice implies that a physical boundary can be seen, such as a house built up to the property line. It is implied that when you purchase the house, the land it is situated on is bounded by the structure. *Young* v. *Blakeman* (1908) 153 Cal. 477, 482-483 [95 P. 888] demonstrates this.

8 Taken From Knud Hermansen's course: SVT513 Advanced Boundary Law & California Civil Code

9 Also interpreted as equal to the following California Court Case: *Vella v. Ratto*, Cal. App. 3d, 17, Docket No. 1285 (Cal. App. 3d, 1971, Cal: Court of Appeal, 5th Appellate Dist.)

10 Previously referred to as the "Occupation" boundary.

11 May roughly align with the occupation boundary, although this is where unwritten rights may come into play. While a surveyor can place a boundary along the ownership boundary, only a court of law has the power to "fix" boundaries to these.

12 Defined by the CLSA on the Monument Preservation website: *https://www.californiasurveyors.org/monument- preservation#:~:text=In%20surveying%2C%20monuments%20are%20defined,markers%E2%80%9D%2 0by%20a%20lay%20person.*

13 Robillard, W. G., & Wilson, D. A. (2014). *Brown's boundary control and legal principles, 7th edition.* John Wiley & Sons.

14 Surveying in the 50 Vara District; Pericles Cosseboom

15 *Roberts v. Brae*, Cal. 2d, 5, Sac. No. 4930 (Cal. 2d, 1936, Cal: Supreme Court); one case that builds upon previous decisions subjecting surveyors to be aware of what may or may not be a monument.

16 BAJI 2.60 – California Jury Instructions – Civil Cases

17 Pallamary, M. J. (2015, August 15). Revisiting Cooley. *American Surveyor.*

18 *Young* v. *Blakeman* (1908) 153 Cal. 477, 482-483 [95 P. 888]

19 A survey likely relying on retracing the plaintiff's record boundary per her deed was submitted as evidence. The encroachments, significant in nature, extended 9/10 of a foot onto the plaintiff's property per the survey.

20 Built-up Boundaries Outweigh Paper Boundaries, Wiel, Samuel C., San Francisco, CA written 1916 is a law review that provides a highly defended position that significantly built up boundaries are better evidence of the original surveyor's intent than the "paper" line or deed line described by calls to measurements only

21 Surveyors cannot form an opinion that would convey title.

22 California's Statute of Frauds, codified in the California Civil Code section 1624, requires certain contracts to be in writing or have written evidence of their terms. The statute applies to contracts that are considered most important and susceptible to fraud,

23 Implied boundaries are those that are agreed upon silently or acquiesced to by long standing acceptance.

24 Subdivision Map Act in California

25 Two different processes.

26 This idea can be argued that if a boundary is established, presumably it is a division. However, the burden of proof falls on the plaintiff.

27 *Duncan v. Peterson*, Cal. App. 3d, 3, Docket No. 11865 (Cal. App. 3d, 1970, Cal: Court of Appeal, 3rd Appellate Dist.)

28 Agreed boundaries require a continuous five year period as statute of limitations

29 *Bryant v. Blevins*, P. 2d, 884, Docket No. S034604 (P. 2d, 1994, Cal: Supreme Court)

30 BROWN, C. M. (1979, June). *Land Surveyor's Liability to Unwritten Rights*. The Curt Brown Chronicles. Michael J. Pallamary was listed as the authority who released permission for the article to be printed. This article was provided to me via a web search.

31 Citing Justice Thomas J. Cooley, "*When Corners are extinct, the surveyor may usefully act as a mediator between parties and assist in preventing legal controversies by settling doubtful lines, making title permanent and stable*"

32 Consider what they think they own to be the boundaries as they are "**BUILT-UP.**"

and not the chapter as a whole. One thing was clear, although the names and faces are different from chapter to chapter, the concerns for the association, that chapter, the local surveying community, and the struggles each surveyor dealt with on a day-to-day basis was the same up and down the State.

I began to understand what I wished I had known when I began my chapter presidency in 2007: This NOT an association of chapters. This IS the California Land SURVEYORS Association. It is a State Association of individuals. The individuals are what's important here.

In 2021, when I was first installed on the Executive Committee as the Treasurer, I brought up the idea of the Executive Committee members working as mentors with the individual chapters. Then current President, Rob McMillan, divided up the chapters into five groups and assigned an Executive Committee member. Those groups remain virtually unchanged; the only significant change being that of the Executive Committee mentor. By design, the Executive Committee members will mentor the same four chapters throughout their tenure on the Executive Committee. When the Past President is retired, the newly installed Treasurer will take on the duties as mentor for those chapters.

The association needs this. New chapter presidents, officers, directors, and the membership at large, needs this. The Executive Committee has an obligation to help the membership. The Executive Committee Members work at the behest of the board, and ultimately, the association membership.

I've said this before: none of us became surveyors on our own. We all relied on others to become the surveyors that we are, and we continue to rely on others to continually better ourselves. We should be as willing to help other Association Officers and members as we would help mentor another surveyor. They *are* other surveyors.

Our goal is to make you a better officer. Through you, your chapter will be stronger, and in turn, the association will be stronger.

My daughter will occasionally mention that she saw some surveyors – my tribe. When I ask her how she knew they were surveyors, she'll say that they were dressed like me, and tell me how much plaid there was and how many ball caps she saw. (She's now beginning to mention the grey hair, which is, apparently, a tribal feature too.) When pressed, she might say there was a tripod somewhere nearby too.

As my then 13-year-old daughter will tell you: we all look alike. (Clearly, we're not *all* alike, but this is looking through the lens of a fairly new teenager). However, as we can tell each other apart, many of the issues we struggle with as surveyors, and members of this Association, are the same. As we work together, and mentor each other, all of us will benefit, no matter where we practice in this great State.

If you're new to the association and need some help: reach out. We'll help.

If you're a veteran to the association: Thank you for doing what you do.

If you, as a chapter officer, director, or member, have questions about anything related to the association, please contact the Executive Committee.

Questions? Comments? Concerns? Contact me:
Ca.PLS8200@gmail.com or 559-451-7112

Kevin W. Nehring, PLS
CLSA 2024 President

SUSTAINING MEMBERS

SUSTAINING MEMBERSHIP:

Membership in the California Land Surveyors Association, Inc. as a Sustaining Member is open to any individual, company, or corporation who, by their interest in the land surveying profession, is desirous of supporting the purposes and objectives of this Association. For information regarding Sustaining Membership, contact:

2520 Venture Oaks Way, Suite 150, Sacramento, CA 95833 • 916-239-4083 • 916-924-7323 Fax • *clsa@californiasurveyors.org*

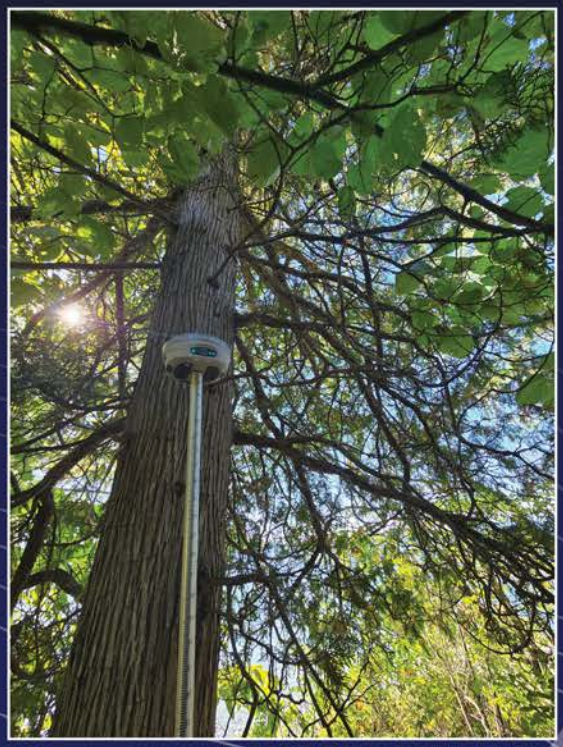
COMPACT DESIGN, POWERFUL PERFORMANCE

The compact Leica GS05 GNSS smart antenna is loaded with advanced technology you can trust, including tilt compensation - all without weighing you down.

HEXAGON | Leica Geosystems

Carlson

BRx7
KING OF THE WOODS



RT4+

SURVEYING SOLUTIONS FOR THE REAL WORLD (INCLUDING ALL THOSE TREES.)

SkyNet RTN

Carlson's nationwide RTK network - Free 14-day trial!

SkyNet RTN

carlsonsw.com/skynet

Jim Reinbold - California Regional Director
208-595-4855 | jreinbold@carlsonsw.com

www.carlsonsw.com