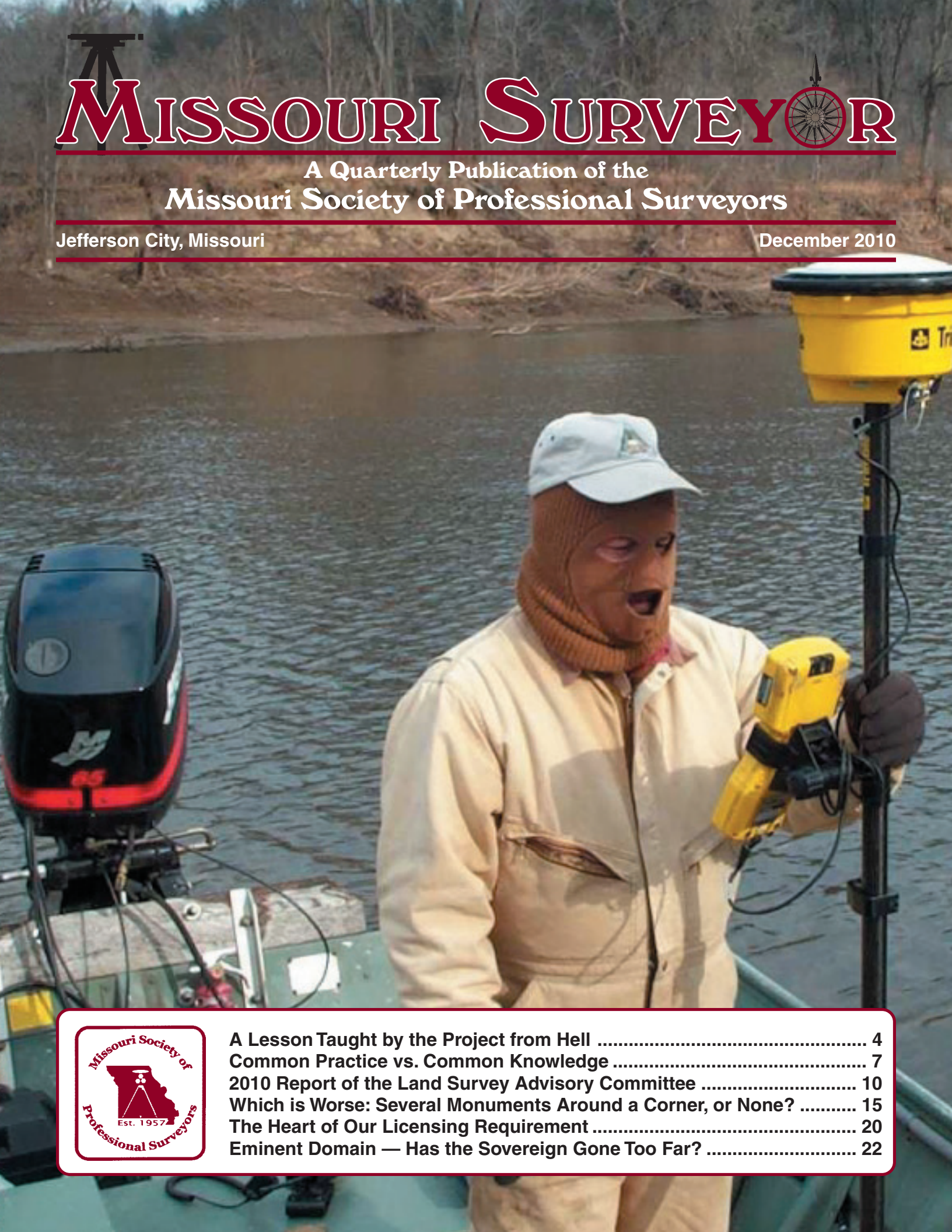
Missouri Surveyor

A Quarterly Publication of the
Missouri Society of Professional Surveyors

Jefferson City, Missouri December 2010



MISSOURI SURVEYOR

CALENDAR OF EVENTS

2011-2012

February 23, 2011
Board of Directors Meeting
and Capitol Visitation
Capitol Plaza Hotel
Jefferson City, MO

May 5, 2011
Board of Directors Meeting
and Golf Tournament
Lodge of Four Seasons
Lake Ozark, MO

May 6-7, 2011
Spring Workshop
Lodge of Four Seasons
Lake Ozark, MO

July 8-9, 2011
Board Meeting, Golf Tournament
and Minimum Standards Workshop
Lodge of Four Seasons
Lake Ozark, MO

October 13-15, 2011
54th Annual Meeting and
Convention
University Plaza Hotel
Springfield, MO

May 11-12, 2012
Spring Workshop
Lodge of Four Seasons
Lake Ozark, MO

July 14, 2012
Minimum Standards Workshop
Lodge of Four Seasons
Lake Ozark, MO

October 11-13, 2012
55th Annual Meeting and
Convention
Hilton St. Louis Frontenac
St. Louis, MO

John Alan Holleck, Editor

Notes from the Editor's Desk

by John Alan Holleck

Happy Holidays everyone from the staff (be us ever so humble) of the *Missouri Surveyor.* It is hard to believe that another year has passed by so quickly and without much fanfare. We should be happy that summer was pretty mild without too much or too little rain. And, best of all not too many 100° plus days. If that was not enough, we actually have had a fall season. Except for the economy, this has been a very good year. I hope it has been a good year for our entire readership. Enough said, on to the current issue.

As usual, page two contains the editor's message followed by Mark Nolte's first "President's Message." The first major article is "A Lesson Taught by the Project from Hell," by Renee Clough, an Oregon surveyor. This is a classic 'Murphy's Law' scenario, with every thing that could go wrong—does. Next, follows a reprint from the *Nebraska Surveyor,* "Common Practice vs. Common Knowledge." Jim Schmitz opines that while common knowledge and common practice are not synonymous terms they are different sides of the same coin. Next is the "2010 Report of the Land Survey Advisory Committee," authored the Chairman, Stan Emerick. Donald A. Wilson follows with "Which is Worse: Several Monuments Around a Corner, or None?" In the final analysis, Don does not like either choice. Part of the results (6 of 10) of the survey pertinent to recording, follow and are shown in various areas in the back half. Chris Wickern closes out the front half and opens the back half of our newsletter. The title of his message is "The Heart of our Licensing Requirement: Protecting the Public." As the readership is well aware, Chris has been a consistent contributor to our publication.

"Eminent Domain—Has the Sovereign Gone Too Far?" follows. Written by Terry W. McHenry, the editor of the *Nevada Traverse* takes us back to Roman times and follows with the history of the term. Next is one of my favorite authors to reprint—Joel Leininger, a Baltimore surveyor. Entitled, "Minimum Level Competency," Leininger takes to task the whole idea a minimum level surveyor. Does he really protect the public? Professor Andrew C. Kellie of Murray State in Kentucky is next with an article titled "It's All About Technology." Kellie likes all the technological equipment changes over the last 30 years but he warns us not to forget the land and the people. The always interesting Knud E. Hermansen offers some "Comments on Professional Liability" in the next article. Hermansen suggests that there is a very fine line between the professional surveyor and the lawyer toward a client—cross at your own risk. Donald A. Wilson returns with "The Surveyor as Forensic Scientist," a subject which he offers in seminars. As the yang to Don Wilson's ying, lawyer Bud Salyer offers some suggestions about "Multiple Corner Pins—What to Do?" Keep in mind that this is a lawyer's view of retracement surveys. This finishes another *Missouri Surveyor,* as usual please let me know what you like and dislike and I will try to remedy the situation.

THE MISSOURI SURVEYOR

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Missouri Society of Professional Surveyors

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President's Message

by Mark Nolte, PLS

Greetings.

With Christmas days away and Thanksgiving just passed, it is a good time to count the many blessings of family, friends and an occupation worthy of our most earnest effort. We are fortunate to do the work we do that is so important and integral to the resurgence of a faltering economy. Not many professions can say that. I am writing to you with the MSPS Annual Meeting fresh in my mind as well as the humbling feeling of the responsibility and expectation of the presidency position of our organization. The annual meeting topics were very relevant to the most important issues that we are facing today. Height modernization, as well as the recording question was discussed in detail along with other topics including minimum standards which are a staple at the annual meeting. Don Martin was the worthy recipient of the Bob Meyers Service Award with outgoing President Ralph Riggs receiving the Surveyor of the Year Award. Ralph was quite surprised, but recovered well with some thoughtful comments about our choice of livelihood.

It would be easy to bathe in the glow of our recent successes with the passage of the cadastral mapping legislation, lien law changes and Registration Board structure as well as our success at the Missouri State Fair and the involvement of the governor with the height modernization kick-off. After recovering from the hangover, it is apparent to me that we now have the duty to carry on with other unfinished business such as how to keep the Land Survey office in business and the creation of cadastral mapping standards. We heard a pledge from Stan Emerick, newly elected director, to find a way to place the Land Survey Program back in focus and prominence with the mindset of government officials.

Being a business owner, I was most interested in conversations with other surveyors from across the state to check the pulse of the surveying business. The forecast I heard was steady with growth in some markets. There is no denial that business has been flat for too long. An upturn in the economy would be a blessing for us all.

One other item on my to-do list for the 2010-2011 year will be to hold a banquet in Springfield that will be worthy of the presence of all who can make it to the annual meeting. I encourage you to read the itinerary for the next banquet. With the help of some good Springfield surveying people, we will have an offsite barbeque worthy of your attendance. Stay tuned.

Cover: As part of a USGS research project, the Osage River basin was surveyed for analysis of stream flow. On this edition's cover is Steve Branch, CST of Jefferson City taking GPS measurements on the waters of the Osage. Our back cover features Rich Howard, PLS of Vienna taking optic measurements on shore.

A Lesson Taught by the Project from Hell

by Renee Clough, PE, PLS

I tried to leave the names of people and jurisdictions vague in the hopes of not upsetting anyone. If you were involved in this project, please realize that I do not want to make anyone look bad, but do want to help people avoid the mistakes I made.

The site was a large tract of land on the outer edges of a small city with a city street through the middle of the site. The entire site, on both sides of the city street, was a vacant field. The owner was an elderly lady, Mrs. A. Unlike most elderly ladies, Mrs. A had actively participated in real estate transactions for much of her life.

The project started out innocent enough with a phone call to do an ALTA survey for a potential buyer, Mr. B, on a portion of the site east of the city street. We performed the ALTA survey without any troubles. The boundary calculations were challenging enough to be fun but not challenging enough to be frustrating. There was one easement across the site which Mr. B got vacated. I felt a little strange turning over an ALTA survey with so much white showing.

We performed the ALTA survey without any troubles. The boundary calculations were challenging enough to be fun but not challenging enough to be frustrating.

Mr. B decided to purchase the land and required the owner to be responsible for dividing off the area. I was contacted by the owner's attorney, Mr. D, to begin the partitioning process. This is when I learned that another local surveyor, Mr. D, was already working on a partition for another buyer on the west side of the street. Mr. D's plat was to layout two parcels on the west and one on the east. Obviously the best solution would have been for Mr. D's plat to create two parcels on the west and two on the east; however, Mr. B didn't decide to purchase until after Mr. D's tentative was approved, and Mr. D's buyer didn't want to wait for another tentative review. Consequently I was left to do a two parcel replat of Mr. D's parcel east of the street. At this point I started getting a bad feeling, but shrugged it off and continued ahead.

Preparation of the tentative was slowed by simultaneous city code revisions, but we were able to get the tentative submitted in only slightly more time than expected. Just after the tentative was submitted, but before the public hearing, Mrs. A fired Mr. C. She felt that he was cheating her, although I never saw any evidence of this. The tentative approval only had two conditions: 1) record an Improvement Agreement for the street and 2) provide evidence that a septic system could be installed on the parcel that Mr. B would not be purchasing (Mr. B's parcel has access to the city sanitary system).

At this point, it seemed like a good time to get the contract situation cleaned up. I had paper contracts with Mr. B and Mr. C and an oral contract with Mrs. A. I admit that I was also concerned about her health and was worried that I might end up with a bill that her heirs refused to pay. I sent her a contract with a letter explaining that it was our office policy to have a contract. The result of my request for a contract was an angry phone call about, "How dare you ask for such a thing" — "I paid every bill that you sent me." True, she had paid every bill; how do you tell an elderly person you are afraid they will die before their bill is paid? In the end, against office policy and the sermons that I have preached to others, I agree to do the final plat without a contract. My main motivation was that I wanted to stay on the project in the hopes of getting future work from Mr. B.

To obtain the necessary letter from the county sanitation's office, I had to have test pits dug on the site. I had discovered it was difficult to communicate modern code requirements to Mrs. A: the site looked to everyone in our office like a vacant field with weed grass. Consequently I took it upon myself to have the test pits dug and applied to the sanitation's office for their inspection and letter. A few weeks later I got a call from an upset rye grass farmer. He understood my situation when I explained it to him, but still wanted to be compensated for his loss. I also got a half-hour chewing by Mrs. A during which she mostly accused me of lying about the requirement to have the test pits.

Shortly after the drama, we received the letter from the sanitarian's office and the plat was ready for review submittal to the letter from the city saying there were no review comments, Mrs. A put the project on hold. Because Mr. B hadn't called to check on the project status for a number of months, she assumed that he no longer wanted to purchase. I asked if she would like me to inform Mr. B (at no charge) and was specifically told that I was not to contact him. A few days later I received the county's review letter, the largest comment the county had was to change the plat to a subdivision because it was creating more than four lots within a calendar year.

The project than sat for almost two months until Mr. B called me to find out when I expected the plat to record. I explained that the project was on hold and that I had been specifically instructed not to contact him. I encouraged him to contact Mrs. A and talk things over with her. A few days later I received an irritated phone call from Mrs. A wanting to know

A Lesson Taught by the Project from Hell (continued)

why her project hadn't been completed. I explained that I couldn't complete it because she put it on hold and gave her a task list and approximate time for completing the project, but only after accusing me of lying when I told her that I was required to set monuments for the plat.

I submitted my response to the county as quickly as I could and encouraged them to check the pins quickly before another disaster erupted. I also sent Mrs. A copies of the plat and the Improvement Agreement for her records. When the county sent their review comments, they also included the tax pre-pay amount. The tax pre-pay was rather substantial because the property had been in farm deferral for a number of years. Mrs. A was angry about the amount of the tax pre-pay, but agreed to let me and my notary come over to get her notarized signature on the plat and Improvement Agreement and to get the tax pre-pay check from her. As soon as we arrived, she said that she wasn't notarizing anything until she had time to read it and she wasn't going to read it that day and that she wasn't paying the tax pre-pay. I was frustrated, but quietly listened to her stories about her youth for an hour or so then excused myself.

About a week later I got a call from her saying that the plat was all wrong and she wouldn't notarize it. For a few minutes I tried to explain things to her over the phone, but it was clear we weren't getting anywhere so I told her I would come over the next day to review her concerns. Her primary concern seemed to be the name I had used for the existing road on the south side of the project. At this point I called Mr. D for advice because from what I had heard, he had a good relationship with her. He advised that I offer to "change" the street name (put both names on the plat) and that by making this apparent concession she would agree to anything else I wanted. The next day I started our conversation by telling her that I had researched the street name and found a place in the county records that used the name on the plat. Her response was that she was willing to notarize any time. I was floored. She then proceeded to write the tax pre-pay check while accusing the county of lying and cheating. My notary got her signature on the plat and Improvement Agreement the next day and everything recorded shortly thereafter.

Once the plat recorded, my first reaction was to push it as far back in my mind as possible so that I wouldn't have to relive the frustration that came with all the memories. But then I realized that if I didn't learn from the situation it might happen again which seemed worse than reliving the frustration long enough to figure out what went wrong. I realized a number of things that will hopefully help me on all my projects — not just the ones from hell.

But then I realized that if I didn't learn from the situation it might happen again which seemed worse than reliving the frustration long enough to figure out what went wrong. I realized a number of things that will hopefully help me on all my projects — not just the ones from hell.

Realization 1

The first thing that I realized was that **clients want to have a personal connection** with the people working on their project. One of the things that Mr. D had done from the very beginning of his project was to have one of the people working with him make a personal visit to Mrs. A's house each month. This was also evident when she stopped the project due to lack of communication by Mr. B. Looking back, she did become less aggressive after our first personal meeting.

In retrospect, if I had gone to see her in person as soon as Mr. C contacted me, I could have explained the partitioning process and made a personal connection thereby eliminating one source of future surprises and giving her the feeling that I was "on her side" and there to help her instead of an anonymous voice on the phone. If I had also met with her in person to review the conditions of approval, I could have made sure that she understood the requirement that led to the test holes and been informed of the need to work around the rye grass farming.

Realization 2

This led me to realize that **clients need to feel involved** in their project. Looking back on some of our conversations, I believe the primary reason she was calling me was frustration over not knowing what was happening. It was her money paying the bills and she did have a right to know how it was being spent. I was fighting an uphill battle each time she called to ask the status because she had already decided that I was in the wrong. If I had periodically called, sent a letter or gone to visit her to say what had (or had not) been accomplished to-date, she would have known that the project was progressing on schedule and not to worry or it was not progressing and who was really the cause of the delay.

(continued on page 6)

MSPS Recognized for Contribution

Accepting on behalf of MSPS; Jim Anderson, Don Martin and Rich Barr.

At the September 23, 2010 meeting of the Design Alliance in Jefferson City the Missouri Society of Professional Surveyors was recognized for legislative contributions by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Landscape Architects. This recognition was given to all four of Missouri's design profession associates in honor of their efforts to amend the statutes that govern board activities. With the passing and enacting into law of provisions in House bills 1692 and 2226 the way was cleared for the Board to conduct business more effectively. Changes to law enabled by this legislation include criteria for *quorum* status of the Board, an increase in the number of engineering Board members and clear rules for appointment as chairperson of the Board.

A Lesson Taught by the Project from Hell (continued)

Realization 3

I have to credit Mr. D for setting up the realization that **clients need to feel that they have input** on their project. I admit that when he suggested putting both street names on the plat I had severe doubts that it would work. When it did work I spent a lot of time thinking about why. It is easy to feel that as surveyors and/or engineers we have "been there, done that" and to expect the client to sit back and watch us work. However, from the client's perspective there are two reasons they don't want to sit back and watch (1) they worked hard to earn the money that is paying your bills and (2) they want to make sure that the product you deliver truly meets their needs/desires. Listening to a client's ideas and opinions then finding a way to implement them or explaining why you can't shows them that you are trying to provide them with the best product for their needs. Once they realize this they are more likely to trust your judgement in places where it truly counts.

These realizations all add up to one overall concept: communication. Good communication is the key to a good project.

These realizations all add up to one overall concept: **communication**. Good communication is the key to a good project.

Communication has never been my strong point: if it was, I probably could have made this article a lot shorter! I realize now that whether I like it or not I need to become more communicative. I have decided to make it a personal policy to have face-to-face meeting with clients whenever possible and when I can't do that, to have more frequent phone and/or written contact with clients. I am hoping that by forcing myself to do this I will gradually become more comfortable, and eventually look forward to, communicating with clients. If this doesn't seem to increase my comfort level, I am considering signing up for Toastmasters.

Reprinted from the *Oregon Surveyor*, April/May 2009

Common Practice vs. Common Knowledge

by Jim Schmitz, PLS

How do we define the difference between Common Practice and Common Knowledge when it is associated with surveying? Good question. Is common knowledge if we know that most of the old surveyors prior to us couldn't measure very well, or didn't use good judgment? Were they really that bad, or was it just common practice at that time? It's common knowledge that common practice varied and varies in different areas of this State and others. The odds are, common practice will continue to change as our practice evolves and our common knowledge of these changes should evolve with it. Some of you "old" guys have had several mentors and seminar instructors over the years with various opinions about everything. Because of this variance in opinions (sometimes known as knowledge), I like to think that our practice has also evolved, mostly for the good. Some of you "young" people currently have a mentor and have only listened to a few seminar instructors. All have helped us to form our opinions of past common practice and common knowledge of an area.

As difficult as it is for some of us to accept, we are retracers and historians, not correctors of surveys.

As difficult as it is for some of us to accept, we are retracers and historians, not correctors of surveys. Even before we conduct an original survey of a new tract, we are obligated to recover the surrounding monumentation and retrace the controlling lines on which our new survey will be based. Some of us will ignore these old guys who couldn't measure very well. After all, the subdivision of townships only needed to be accurate to one chain or less and we're all better than that. Some of us feel that if some of these old guys who were retracing and subdividing a section ten years or so after the GLO couldn't get a quarter corner closer than a foot of being on line and halfway in between they shouldn't have been setting them, right? Too many of us take the statutes verbatim and ignore the common practice of the time and know little or nothing of the "common" or case law pertaining to a certain situation. It is imperative that you consider all three with the evidence from your research and evidence found in the field. To grab a deed, head to the field, G.P.S. the section corners, calculate the quarter corners and set the monuments exactly as a deed reads will make you a lot of money in the short run but is akin to loading five rounds in a six shot revolver, spinning the cylinder, pulling the trigger and betting whether you will survive or not.

So why is it that we seem to forget we are historians and retracers? Maybe it costs too much to do the research? Too many of us never consider that the iron bar found, (origin unknown), at the section corner we need probably isn't the one that was there when the deed we are retracing was created. Wouldn't it be advisable to pull it and check for the historical monument, replacing the one we found when we are done? Shouldn't we learn to consider the physical evidence that evolved upon the liens of the original survey? Through my own experience from digging for corners, I can tell you I have a lot more original monuments within a couple of feet of possession lines than I have at prorated distances. Too many times I've heard a surveyor say, "That guy wasn't worth a _____, and I ain't no fence line surveyor" or "I survey exactly what the deed says". It makes me cringe every time I hear this because I know I am facing a potential lawsuit when this "surveyor" doesn't agree with a quarter corner that's not one-half way between and on line, or "corrects" one of my surveys. A deed that appears clear at first glance may not be so clear after you evaluate it with all of the additional research and field evidence. "The grantor's intention controls, and the question for the court is not what the parties meant to say, but what they meant by what they did say." [v. Lucas, (1960), (Missouri Surveyor, Sept. 2007, p. 22)j.

We think our (systems and total stations have made us better surveyors. In some aspects this is true but, in other aspects, they have made us worse by enabling us to gather more information in a short period of time, allowing us to (heaven forbid) prorate more lines. Norm Bowers had an excellent article addressing proration entitled Rules Allowing Proportionate Measurement in the last issue of Section Lines. It's time we realize our total stations and GA's. Equipment are nothing more than measuring tools, not a method for getting an old monument in a better place than the old guy could, or worse, has it "No rule in real estate law is more inflexible than that monuments control course and distance" (Professional Surveyor Magazine, March 2006, p.). When making your retracement, don't be too hasty to call missing quarter corners and section corners lost. This rule may also apply when it is evident the surveyor had enough supporting evidence or accessories to the monument to replace it in its original position. For example, if you have an original survey where the surveyor subdivided a section for one reason or another, laying out several interior tracts, you may be able to measure all of the physical interior lines, along with what is left of the exterior lines, and find a pattern that fits his survey very well. While doing this, try using your magnetic locator to locate turn of the century wire along some of the interior quarter section lines, it will be amazing how much this helps. Many of these old fences and most old walls were probably constructed from the original survey corners. This is likely and can be strong evidence of where the original corners were, or are, and the position of the original section or quarter section corners.

In another case it is stated, "Nothing else appearing, the calls in a deed must be followed as of the date thereof. Where

(continued on page 12)

MO Colleges/Universities Where Land Surveying Coursework is Available

The following list will be updated quarterly as new information becomes available.

Longview Community College - Lee's Summit, Missouri
Contact: David Gann, PLS, Program Coordinator/Instructor - Land Surveying MCC - Longview, MEP Division
Longview Community College
Science and Technology Bldg.
500 SW Longview Road
Lee's Summit, Missouri 64081-2105
816-672-2336; Fax 816-672-2034; Cell 816-803-9179

Florissant Community College - St. Louis, Missouri
Contact: Ashok Agrawal
Florissant Community College
3400 Pershall Road
St. Louis, Missouri 63135
314-595-4535

Missouri State University - Springfield, Missouri
Contact: Thomas G. Plymate
Southwest Missouri State University
901 So. National
Springfield, Missouri 65804-0089
417-836-5800

Mineral Area College - Flat River, Missouri
Contact: Jim Hrouda
Mineral Area College
P.O. Box 1000
Park Hills, Missouri 63601
573-431-4593, ext. 309

Missouri Western State University - St. Joseph, Missouri
Contact: Department of Engineering Technology
Missouri Western State University
Wilson Hall 193
4525 Downs Drive
St. Joseph, MO 64507
816-271-5820
www.missouriwestern.edu/EngTech/

St. Louis Community College at Florissant Valley
Contact: Norman R. Brown
St. Louis Community College at Florissant Valley
3400 Pershall Road
St. Louis, Missouri 63135-1499
314-595-4306

Three Rivers Communitiy College - Poplar Bluff, Missouri
Contact: Larry Kimbrow, Associate Dean
Ron Rains, Faculty
Three Rivers Community College
2080 Three Rivers Blvd.
Poplar Bluff, Missouri 63901
573-840-9689 or -9683
877-TRY-TRCC (toll free)

Missouri University of Science and Technology - Rolla, Missouri
Contact: Dr. Richard L. Elgin, PLS, PE
Adjunct Professor
Department of Civil Engineering
1401 North Pine Street
211 Butler-Carlton Hall
Rolla, Missouri 65409-0030
573-364-6362
elgin@mst.edu

University of Missouri-Columbia, Missouri
Contact: Lois Tolson
University of Missouri-Columbia
W1025 Engineering Bldg. East
Columbia, Missouri 65211
573-882-4377

Missouri Southern State College - Joplin, Missouri
Contact: Dr. Tia Strait
School of Technology
3950 E. Newman Rd.
Joplin, MO 64801-1595
1-800-606-MSSC or 1-417-782-MSSC

2010 Report of the Land Survey Advisory Committee

by Stan L. Emerick, PLS and Paul G. Dopuch, PLS

November 17, 2010

Mr. Kip A. Stetzler
Acting Director
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102-0176

Dear Acting Director,

In August, of 1969, after nearly a decade of encouragement by professional surveyors, the Seventy-Fifth General Assembly of Missouri approved Senate Bill 22 establishing the "State Land Survey Authority". This Authority was given duties and responsibilities that included among others, (1) to restore and preserve the evidence of the United States Public Land Survey (USPLS) and other boundary markers, (2) to establish and maintain a repository for the storage and dissemination of land survey records, (3) and to extend and maintain a geodetic network of monuments to support the Missouri State Plane Coordinate System. In that bill, a one dollar user fee was added to the recording fees for all instruments conveying real property, as collected by the various county recorders. This fee was an appropriation whose sole purpose was to help fund the work done by the Authority in meeting its statutory obligations.

For the next few years, the Authority made a commendable effort in implementing its duties of protecting the public's land records. It chose a site for its headquarters, hired the first State Land Surveyor, and began the first assemblages of records into a land survey repository. That activity continued until The Omnibus State Reorganization Act of 1974 transferred control to the Department of Natural Resources. This Act extinguished an authority governed by members of the professions it was designed to assist, and left in its wake a program managed by public servants with little understanding of the disciplines involved and a minimal appreciation for the assets contained therein. With the transfer of power came a reduction in oversight by the surveying profession to one of being a dismissible advisory committee. (These duties are currently outlined in Chapter 60.510 and 60.620 of the Revised Statutes of Missouri (RSMo 60.510 and 60.620).

In the late eighties, some of the revenues destined for the Land Survey Program began to be siphoned off for other uses. This misdirection of appropriations eventually came to be known as "cost allocations", which were to be considered sums necessary to cover some of the administrative costs experienced by the Department in its overseeing of the Program. These allocations were initially thought to be short term expenditures, made necessary by shortfalls in the state's general revenue. No one ever anticipated that they would grow into an exorbitant misuse of statutorily defined funding.

By 1995 these "Cost Allocations" had exceeded fifty-seven thousand dollars ($57,000) annually, or roughly five percent (5%) of the Program's revenue. For fiscal year 2001, the cost allocation exceeded three hundred twenty-six thousand dollars ($326,000), or twenty-three percent (23%) of the revenue. That equates to a near five-fold increase in defalcation in a six year period. In fiscal year 2009, the cost allocation exceeded four hundred and fifty-one thousand dollars ($451,000). A full thirty-five percent (35%) of revenue. In the past fifteen years more than four and a half million dollars ($4,500,000) have been taken from the Land Survey Program. By this time next year that figure will exceed FIVE MILLION DOLLARS (nearly twenty percent of the revenue).

That's FIVE MILLION DOLLARS of Program revenues that are not being spent for the preservation of the USPLS System; FIVE MILLION DOLLARS that are not being spent for the safeguarding of the Land Survey Repository; FIVE MILLION DOLLARS that are not being spent for the maintenance of the Missouri State Plane Coordinate system; FIVE MILLION DOLLARS that are not being spent for the protection of the public land records of the people of the State of Missouri.

In addition to this injustice, the Land Survey Program was forced this year to terminate six full-time employees and discharge ten program positions. At about the same time as this reduction, the Department created four new deputy department director positions. One of which is now another overseer of the Division containing the Program. Of these new deputies, we question if any have much of an appreciation for the importance of the Land Survey Program. From our point of view, it is tough to see the logic in eliminating the positions of productive personnel in exchange for the creation of positions for overhead personnel. It would be a true indignity to the Program if any of its reserved money was found to be used for the support of these new deputies.

In the late eighties, some of the revenues destined for the Land Survey Program began to be siphoned off for other uses.

The Department's actions have virtually gutted the Program. The result has significantly reduced the Program's ability to respond to requests for assistance with problems in the USPLS System. The reduction in field personnel will mean that considerably fewer investigations will be initiated and a drastic reduction in the monumenting of corners will occur. In reality, the entire process of evaluating requests has shifted from one of prioritization to one of calculating the probability for action. Where action on a request a few years hence would have been completed within the year, the typical reply-time today is nearly two and a half years away, assuming of course that the request is actually deemed worthy of program resources.

This is a terrible change in events. The Program has gone

Martin Received the Robert Myers Service Award

At the 53rd Annual Meeting of the Missouri Society of Professional Surveyors, Donald Martin of Jefferson City was honored as the recipient of the organization's career service award. Formally titled the *Robert Myers Service Award* the honor is named for Missouri's first State Land Surveyor. It is bestowed upon a member surveyor who over an extended period of time has given exemplary service to the surveying profession.

Mr. Martin was previously the Missouri Surveyor of the Year (2006) recognized for his outstanding reputation for knowledge, integrity and professional competency. He has served as an Officer and President of the Missouri Survey Society. An industry veteran of more than 32 years Donald Martin has been a surveying and mapping leader in the design professions, transportation and conservation in Missouri. He has focused his practice in the disciplines of remote sensing, engineering, geodetic and land boundary surveys. He is also a trainer, presenter and writer on surveying related topics. He is a graduate of William Woods University (BS & MBA) and the Land Survey Review Program of Missouri University of Science & Technology.

Donald Martin receiving his award from Troy Hayes, co-chair of the Awards Committee and MSPS Past President

2010 Report (continued)

from preserving roughly six hundred corners a year into a position where they will be lucky to set even a tenth of that number annually in coming years. Also of great despair is the Program's inability to follow through on its prime directive, that being the preservation of the USPLS System. Similarly its ability to perform maintenance on the geodetic monuments that support the Missouri Coordinate System has also been significantly curtailed. Where that used to be a routine process, it now requires a redirection of resources away from one of the other competing tasks. In short, the Department's action has so decimated the Program, that it can no longer successfully comply with its statutory responsibilities. The future of the Land Survey Program appears dismal if the current trend is left unchecked.

Also of grave concern is the administrative interference the Program encounters from the Department. The most disturbing of these are the impedance in personnel decisions, including the bureaucratic restrictions on pay and advancement and the improper classification of employees. While the majority of governmental employees may be required to follow state mandated employment guidelines, the person in charge of a program operating within the confines of a professional discipline should be given more latitude to manage the specialists under his direction. Every effort should be afforded to that leader to see to it that qualified and competent personnel are retained and encouraged towards advancement. There should be no significant disparity in compensation between the public and private sector for a person with specific technical skills. If the Program is forced to utilize substandard personnel, its demise will be hastened and the reputation of the Department supplementarily tarnished.

For similar reasons, disallowing the proper classification of personnel has put some of the Program's best assets in peril. The Repository has in excess of two million records. And as users uniquely familiar with the complexities of such a mosaic database, we recognize that if any single record is incorrectly indexed or otherwise misfiled, that record might as well have been thrown away. Recovering misappropriated information in a multi-dimensional array is a nearly impossible task. Hence, the people who run this database need to be treated as specialists in the cataloging and maintenance of survey records. They must possess a thorough understanding of the USPLSS, how parcels are distinguished and adjoined, and how important the preservation of this chain of evidence is to the public in general and the surveying community in particular.

Given the facts as stated above, we no longer perceive the Department as a good steward for the Program. Before we are forced to seek justice from a superior governmental authority, we ask the Director to follow his statutory duty to *"faithfully cause to be executed all policies established by the boards, commission* (and authorities) *assigned to his department"* (RMSo 640.010). That sense of duty should start with the rectifying of this crisis by fully restoring the funding and staffing to the Program.

We hope that the Department can restore our faith in its governance by returning the Program to the entity envisioned by our predecessors and shaped by the Seventy-Fifth General Assembly. If this Program is left to deteriorate into obscurity, a great loss will be recognized by the people of the State of Missouri, whose belief in good government should not be further defiled.

Courteously Submitted;

Stan L. Emerick PLS
Chairman, Land Survey Advisory Committee

Paul G. Dopuch, PLS
Former Chairman, Land Survey Advisory Committee

Common Practice vs. Common Knowledge (continued)

it clearly appears upon the face of the deed, or where the evidence shows that a line as established on a prior date was adopted and was copied in the deed according to the courses and distances thereof, it is necessary to take into consideration the variation of the needle in locating the same [v. Hayes) 216 NC. 396 (1939)] (Professional Surveyor Magazine, Dec. 2007, p. 44). In other words, we need to do our research and not be too hasty to survey the deed verbatim. Remember, calls such as creeks, walls, fences or even the actual location of section or quarter section lines will overrule course and distance. We must be careful as well when we determine if the physical evidence that has evolved along these lines since the original survey is valid or not.

The courts have continuously upheld that where a tract of land has been clearly monumented and ownership taken, it is unchangeable. This doesn't mean, just because "some" of the monuments are missing, we are authorized to change the lines to measure better because we didn't find "all" of the original monuments, or to disagree with the theory the original surveyor used. Neither does it mean we have to honor every monument found. We must use good common knowledge of the past common practice to first determine where it came from, is it a surveyor's monument, is it the same type and size he usually set (if not noted on the survey) and is it the original monument. We can be just as destructive in our surveying practice by honoring erroneously set monuments from a prior retracement as we will be by not honoring the original monument that did not measure precisely. Why then do some of us feel we are obligated to correct the original survey of a tract which created the current deed and throw the neighborhood into turmoil? Remember and never forget that we are not "officials" when acting in a private capacity and we do not have the right to correct surveys that are, in most cases, not even our own. With this being said, it is understandable why we must know both the Common Practice along with the Common Knowledge of the area we are practicing in. These two things can go a long way in getting our retracement right the first time. In no way, in all that is said here, am I advocating that we should be fence line surveyors. I am only trying to emphasize that there is a lot of evidence right under our noses that can be useful in putting the last part of our survey puzzle together."

Maybe a good rule of thumb is, if you continuously find you can't hold or accept the monuments of your predecessor, ask yourself "Is it them or is it me?".

Reprinted from the *Nebraska Surveyor*, Spring 2009

Public Access to Surveys by Surveyors

by Joseph Clayton, PLS, Chair, Recording Subcommittee

If the Legislative Committee is the busiest committee within MSPS then the subcommittee on recording is by far the busiest within the busiest.

I want to make it clear; no one supports mandatory recording of all surveys and no one supports placing more limits and burdens on surveyors! I believe moving forward the subcommittee will continue on with our charge. To craft language that can be supported by the majority and be opposed by no one.

It is imperative that our society move in a manner which will gain successful support and not just internally! If not for our own legislative agenda for the upcoming year and/or years; then to give a point of reference when asked for our opinion! Assessors, Recorders, County Commissioners, The Tax Commission, Planning and Zoning Boards, etc.…; all aided by the support of their GIS tech, who needs the data for funding, will in upcoming legislative sessions ask for what a majority of our group would now support! Our political currency is limited we must spend it wisely! Again this is an issue we can lead and craft or follow and be fed by others!

I would like to acknowledge each of the members of the subcommittee. All of these folks are very active members! They have all placed a good amount of heart and soul into this issue!

Jerry Anderson, Jim Anderson, Don Bormann, Stan Emerick, Bryan Ferguson, Rich Norvell, Paul Taylor, Chris Wickern, Mark Wiley

If you haven't reviewed the summary of responses to the poll of membership you'll find it in this issue. Thirty percent of all surveyors, 273 of 928, in Missouri, a far higher percentage than people who voted in the last primary! But this percentage is still too low!

We want to give a big thanks to you all for your participation and we encourage your re-participation! In our zeal to assess your opinions, we may have left in too many options for responses. The committee members have varying opinions on the interpretation of the responses. Please help us to clarify some issues by taking part in this second questionnaire. This version of the survey has been simplified to binary responses [yes or no] [one choice or the other], with "maybes" eliminated from consideration. If you take part in the survey, please keep your responses to only one answer per question. If you feel that the answers to the question do not cover your particular opinion, please bypass that question and add a comment at the end. By appearing in this issue of the Missouri Surveyor, the accessibility of this survey should reach all LS's. Results will be published in an upcoming issue of the Missouri Surveyor.

We thank you for your time. Your participation will determine our course!

See page 16 for survey results

Pitzman's Company Announces New Majority Owner & President

Chris Peoples

Bill Berthold

On October 6, 2010, T. Christopher Peoples purchased majority interest in Pitzman's Company of Surveyors & Engineers from Frontenac Engineering Group. Chris has worked for Pitzman's as a Project Engineer and Land Surveyor for over 12 years. For the last year as Vice President, Chris helped increase the overall success and productivity of the firm. As President and Managing Partner, Chris is committed to maintaining the high quality of service, standards and attention to clients that has long been a trademark of Pitzman's.

Pitzman's provides land surveying services to municipal, institutional, commercial and residential real estate owners throughout Saint Louis and the surrounding region. Established in 1859 by Major Julius Pitzman, Pitzman's has meticulously maintained surveying and engineering, providing its clients with detailed information about their property and development plans for over 150 continuous years.

"Chris is a truly outstanding guy. He knows the business from the ground up; he's very responsive to our clients, and driven to satisfy their land surveying needs. I am very proud to be associated with Chris and the extraordinary staff." — William K. Berthold.

Chris will be supported during the ownership transition by William K. Berthold. Bill will remain a minority owner and play an active role within the firm as Vice President and Principal Land Surveyor. Along with Bill, Chris will be joined by the existing highly experienced and professional staff including Kevin Blest, Office Manager & Senior CADD Specialist; Sam Demos, Field Supervisor & Deputy Surveyor; Scott Pett, Deputy Surveyor and Bill Howe, Deputy Surveyor.

To learn more about Pitzman's Company of Surveyors & Engineers, visit pitzmans.com.

Which is Worse: Several Monuments Around a Corner, or None?

by Donald A. Wilson, LLS, PLS, RPF

There are a lot of complaints these days about multiple corners, or porcupines, pincushions, pin farms, or whatever your favorite name happens to be. The topic has engendered a lot of discussion and resulted in a few seminars. What we hear less about, however, is when there is one pin — a recent marker — set as an attempt to signify a corner established at some time in the past, but set in the wrong location, even if only by a little bit. Or knowing the approximate location of a corner and there being no marker to indicate its position. In such case, perhaps there never was a market set, or if there was, there is no trace or evidence of it remaining. So which is worse? Perhaps a review of some pertinent court rulings will provide some insight.

The courts have been clear about proper procedure when there is no marker: rely on the next-best evidence. *(Webster's New Collegiate Dictionary* defines a corner as the point or place where two converging lines, sides, or edges meet; an angle.)

* Where no corner was ever made and no lines appear running from the other corners towards the one desired, the place where the courses and distances will intersect is the corner [*Wishart v. Cosby*, 8 Ky. (1 A.K. Marsh.) 832 (1818)].

* In ascertaining boundary, the rule is to find the lines and corners, if they ever were made, and if not to take as data such as have been made; and if not to take as data such as have been made; and if there are no monuments to govern, to take the course and distance called for *[M'Nairy v. Hightour*, 2 Overton 302 (Tenn. 1814)].

* A point mathematically computable has been held a monument *[Matthews v. Parker*, 299 P. *354*, 163 Wash. 10 (1931)].

* Although a corner in a description is not marked by any visible object, it is sufficient where it is susceptible of precise location by aid of the compass *(Hartshorn v. Wright*, Fed. Cas. No. 6,169 (Pet. C.C. 64) U.S., 1813].

In the absence of monuments, use the course and distance. However several courts have stated that reliance on course and distance may be done only when all other means fail.

* It is only in the absence of all monuments and marks upon the ground and in the total failure of evidence to supply them that recourse can be had to calls for courses and distances as authoritative [12 Am. Jur. 2d Boundaries, 73 and numerous cases stated therein].

* Before courses and distances can be used, all means for ascertaining the location of lost monuments must first be exhausted. *[Myrick v. Feet* 180 *P.574(1919); US v Doyle*, 468 F.2d 633 (1972)].

That seems simple enough, but before we can take measurements at face value, we must first analyze the measurements. With a "closed" figure from a computer analysis of a description, we cannot know how much forced closure exists without some raw data. We also can't know if the measuring device used was calibrated and proper corrections made. And to close and adjust the field work, without some investigation and a bit of luck we cannot know what kind of adjustment routine was used, if any.

At least as early as 1809 *[Bryan v. Beckley*, 16 Ky. (Litt. Se!. Cas.) 91, 12 Am. Dec. 276], courts have stated that (1) there must be an allowance made for change in declination, and (2) distances must be analyzed and lengthened or shortened where necessary. In addition to determining the appropriate units and some analysis for usual error (random and compensating), adjustments must be made for direction. When a course is resorted to for want of a better guide to find the terminus or boundary of a tract of land, it is the course as it existed at the time to which the description of the tract of land refers. If it appears that, because of the magnetic variation, that course is not the same as that which the needle now points out, it is the duty of the jury to make allowance for such variation in order to ascertain the true original line. However, the needle may vary, the boundaries of the land remain unchanged *[Norcom v. Leary,* 3 Iredell, 25 N.C. 49 (1842)].

Nothing else appearing, the calls in a deed must be followed as of the date thereof. Where it clearly appears upon the face of the deed or where the evidence shows that a line as established on a prior date was adopted and was copied in the deed according to the courses and distances thereof, it is necessary to take into consideration the variations of the magnetic needle in locating the same *[Greer v. Hayes*, 216 N.C. 396 (1939)].

So what about multiple markers? Can't we just pick the one we like best or most closely agree with? Since there is only one corner yet several opinions as to its location, the correct position of that corner must be determined in accordance with the rules of law. The original location of a monument controls, and, if it is obliterated, the court is concerned in ascertaining where it was originally located *[Home Owners' Loan Corporation v. Dudley et al.*, 141 P.2d 160 (19430)].

Picking the right one (provided one of them is correct) means doing the appropriate analysis on all of them. As the Wyoming court stated in the case of *Hagerman v. Thompson* there were three surveys presented to the court, all purporting to locate the same property, but all different. The court stated, *"The three surveys in question here were resurveys, binding on no one, unless one of these perchance should ultimately in a proper proceeding be found to be correct. Which one of these resurveys is correct is a question of fact."*

Obviously, the more markers there are the more analysis that is required. Essentially that means doing everyone else's survey over again; only this time it is necessary to contact as many of the previous surveyors as possible to obtain field notes, discussions on how they made their decisions, examining the computer sheets for errors and the determination of what adjustments were made.

Invariably the final analysis will likely produce a result that is at variance with all of them. But we could not know that

(continued on page 16)

Which is Worse (continued)

until we have completed all of the analyses. One court said exactly that: It is a matter of common knowledge that surveys made by different surveyors seldom, if ever, completely agree and that, more than likely, the greater the number of surveys the greater the number of differences *[Erickson v. Turnquist*, 77 N.W.2d 740 (Minn.)]. Finding the correct point is not necessarily a matter of accepting one existing pin in favor of the others. What most people do not consider when given a choice of two or more is that they could all be incorrect. Generally people presume that one is correct and the remainders are wrong; they just want to know which one is correct, or which one is theirs.

Good, better, best . . . bad, worse, worst. To have two things with one being worse that the other implies that they are both bad. For certain, either situation is likely to result in the surveyor getting a call from the client.

So, which is worse: too many monuments, none, or one in the wrong place? You decide. But none of them is a good thing.

I believe a valuable suggestion can be learned from all of this: do anything and everything to find the location of the corner. Without it, the troubles have only begun.

Don Wilson is president of Land & Boundary Consultants, Inc.; and part owner of and the lead instructor in Surveyors Education Seminars, a member of the Professional Surveyor / Red Vector Dream Team providing online courses for continuing education; and a regular instructor in the University of New Hampshire Continuing Education System for 25 years. He is also co-author of several well-known texts.

As seen online at www.profsurv.com — Professional Surveyor Magazine December 2007, Volume 27, Number 12

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Recording Subcommittee Survey Results

1. Would you support a Statutory Law or Code of State Regulation requiring the filing of a boundary plat?

	Response Percent	Response Count
Yes	48.4%	132
No	30.8%	84
Maybe	20.9%	57
answered question		273
skipped question		0

2. Would you support conditional recording of some surveys? (boundaries and rights of way)

	Response Percent	Response Count
Yes	55.6%	150
No	21.1%	57
Maybe	23.3%	63
answered question		270
skipped question		3

3. Should surveys that show significant material differences from the public record be recorded?

	Response Percent	Response Count
Yes	**63.7%**	**174**
No	14.7%	40
Maybe	21.6%	59
answered question		**273**
skipped question		**0**

4. Would you support leaving the recording requirements as they currently stand?

	Response Percent	Response Count
Yes	**36.2%**	**98**
No	35.8%	97
Maybe	28.0%	76
answered question		**271**
skipped question		**2**

5. Would you support eliminating all recording requirements?

	Response Percent	Response Count
Yes	6.6%	18
No	**90.4%**	**245**
Maybe	3.0%	8
answered question		**271**
skipped question		**2**

6. Do you think mandatory recording of Boundary surveys would:

	Response Percent	Response Count
Infringe on a client's right to confidentiality	30.1%	81
Protect your client's property rights by constructive notice	37.5%	101
Protect the Public	**56.1%**	**151**
Just clutter the public record	21.9%	59
answered question		**269**
skipped question		**4**

(continued on page 21)

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The Heart of Our Licensing Requirement

Protecting the Public

by Chris Wickern, PLS

The Territory of Missouri granted survey authority to County Surveyors in 1814. These requirements stated, "No survey or re-survey hereafter made by any person except the county surveyor, or his deputy, shall be considered as legal evidence in any court of law or equity within this territory — except such surveys as are made by authority of the United States or by mutual consent of the parties". The requirements went on to state, "He shall number his surveys progressively, and shall also file and preserve a copy of the calculation or each survey, endorsing thereon its respective number. A copy of any survey shall be furnished by the surveyor to any person requiring the same, on payment of the fees herein after directed." Think about this for a moment, in Missouri the importance of protecting the public by mandating Survey requirements was considered and passed. Before:

- Napoleon faced defeat at Waterloo
- General Jackson lead troops into the Battle of New Orleans
- Tiffin's Instructions were issued

Our Territorial Government mandated survey requirements. Boundary surveys were to be performed under the authority granted by law, and these surveys were to be documented with copies made available to the public on demand.

The law remains amazingly simple and consistent from 1814 to today. Other laws clearly state certain surveys must be recorded or filed. Chapter 446 Establishment and Evidence of Boundaries and Titles to Land may be the most noteworthy of these. It requires the survey to be conducted from known corners and the original corners to be retraced, restored, reestablished, monuments set, a plat drawn, and the record perpetuated by recording. This may have been our first Minimum Standards. These old laws were written at a time when survey authority was given solely to the County Surveyor. They were beyond the practical surveyor applying their trade, but they are still in affect and are our laws today. The need for Surveys grew as we went from a territory, to Statehood, and continued to grow throughout the 19th and first half of the 20th centuries.

Enter the Practical Surveyor. There were few problems in the early years with the practical surveyors. Many were experienced US Deputy Surveyors, some were former County Surveyors, and others were experienced Deputy County Surveyors. The number of experienced and knowledgeable surveyors could not keep up with demand, and introduced others with little experience. Some seem to have opened for business with no experience; after all it is just measuring land, and land was plentiful. Few were concerned, and there were no requirements or mandates for the practical surveyor to comply with. The public paid for a service, was provided a service, and relied on that service. Their practice and service was not that envisioned by law to protect the public. Theirs was the practice of an unregulated trade that continued into modern times and the common sense recording/ filing requirements did not apply. Blacksmiths were a more closely regulated profession than practical surveyors were throughout most of this time.

Our Territorial Government mandated survey requirements. Boundary surveys were to be performed under the authority granted by law, and these surveys were to be documented with copies made available to the public on demand.

The law remains amazingly simple and consistent from 1814 to today.

The records, maps, and practices of these practical surveyors grew and evolved. Today, we are still using the evolved system given to us by these businessmen applying their trade. Their surveys have always been considered proprietary, and were generally not made a part of the public record. This broke a public chain of evidence going back in time, and haunts the practicing Professional Surveyor today. We are taught that our task is to "follow the footsteps" of the original surveyor. Those "footsteps" and the field evidence from the original survey have been and are fading with every passing day. Modern retracement must consider the original footsteps, but it must also consider how a corner has been perpetuated over time. These subsequent surveys document how corner evidence has been and is being perpetuated. They are critical pieces of evidence for Professional Surveyors to evaluate and form a sound basis for their professional opinion, and in turn fulfill our charge to protect the public.

Many have stated, 'See, I told you so, these laws specifically state the County Surveyor."' In other words, 'The professional surveyor is beyond these requirements. Yes, these old statutes do state 'County Surveyor' and not 'surveyor'. They do specifically address only the County Surveyor. However, we must keep in mind that, in the eyes of the legislature, there were no other surveyors. The County Surveyor was the only surveyor who was performing boundary surveys envisioned

The Heart of Our Licensing Requirement (continued)

under the authority of and regulated by law. It would make no sense for the legislature to write a law including the practical surveyor. They were not regulated, and the law could not have been enforced. The intent in our several statutes is clear. The surveyor with authority is to record or file certain boundary surveys, and that intent is not the same as our accepted standards. The standards we practice and have chosen to adopt are those handed down to us from surveyors who were held to no standard. They considered their work to be completely proprietary, their business, and ran their business applying the workmanship of a technical trade. It is said that in some areas there was an accepted practice to set "offset monuments" at corners for no reason other than to mislead and prevent a subsequent surveyor from using "their" work. If it misleads a subsequent surveyor, what do you think it does to the public, especially after 5, 10, 20, or more years?

It is reasonable to state that Missouri does have recording/filing law(s) and requirements that exist, but simply are not followed because of our inherited and evolved standards from an unregulated trade. Recording doesn't mean every survey should be recorded. In fact, exceptions already exist and a boundary survey does not have to be recorded if it is preliminary, or if it has been recorded under another provision of law. This raises questions:

- If a survey is performed for a parcel less than 1/16th of a Section and the owner fails to record the survey as required in RSMo 137.185, does the surveyor have an obligation to record/file the survey?
- If a surveyor performs work that includes the establishment and perpetuates evidence of boundaries and titles to land (RSMo 446), is that surveyor obligated to record or file the survey?

The intent of the laws is to record or file the survey to protect the public, and we are not being asked if we would like to comply. Further, our code of professional conduct explicitly states, "Licensees shall comply with state laws and regulations governing their practice." We are not being asked if an accepted standard of practice not in compliance with the intent of the law is sufficient. Should we file or should we not file are questions that were answered in 1814, and the answer remains consistent through today.

The Surveyor acting under the authority of the State has been protecting the public with a mandate to file their surveys since 1814. Those requirements did not change with the new mandate of licensing of the practical surveyor. Through legislative oversight or reasons lost to antiquity we have the inherited and evolved system. The words "County Surveyor" have never been changed to read "Surveyor" in our requirements. Since the licensing requirement went into effect, we argued, plead, and successfully passed a mandate requiring County Surveyors to be licensed just as we are. At the same time, we argue and claim that these "other" laws with a nearly 200 year history don't apply to us. If the licensed surveyor isn't held to the same requirements to protect the public, then why have a licence requirement at all? That would take us back to where we started, nothing more than the tradesmen, and businessmen of yesteryear whose practices we are still perpetuating today. We don't record or file for the benefit of surveyors or competitors. We do it to protect the public through the public record which provides stability to our land system.

Recording Subcommittee Survey Results (continued)

7. Would you support filing Retracement Surveys when:

	Response Percent	Response Count
There is no Record of a Survey for the Parcel	59.9%	160
Substantial differences are found in the measurements	56.6%	151
Corner Monuments were Established	50.2%	134
Will not Support Filing	21.0%	56
answered question		267
skipped question		6

(continued on page 24)

Eminent Domain — Has the Sovereign Gone Too Far?

by Terry W. McHenry, PSM

Often referred to as condemnation, the power of federal, state, local governing bodies or other authorized entities to exercise their sovereign right to take private real property has recently received a more liberal boost in the arm.

In *Kelo, et al., v. City of New London, et al.*, heard before the Supreme Court of Connecticut, No. 04-108, and then argued before the U.S. Supreme Court in February 2005, being decided in June 2005, it has been determined to be permissible to use eminent domain to encourage economic development, even if private business benefits. The rationale seemingly is increased tax revenues (for the condemning local governing body) coupled with a projected improved local economy.

The two-pronged question that has been mounting for at least two decades is this: has the "public use" intent expressed in the Fifth and Fourteenth Amendments to our Constitution been abused? And are we seeing an escalating scope in the power of eminent domain, in particular, from a branch of government not vested with the granting authority (viz., the Judicial Branch)?

Since the 5 4 decision of the High Court was handed down, more than one commentator whose professional deals in real property in one form or another has opined on the substance of *Kelo*. This commentator now adds to that mounting collection of concerns.

Conceived at the time of the Roman Empire, the power to seize private land by the sovereign was absolute, containing none of the protectionary clauses we know today.

BACKGROUND

Conceived at the time of the Roman Empire, the power to seize private land by the sovereign was absolute, containing none of the protectionary clauses we know today. Condemnation as a concept wound its way through history up to the beginning of the British Empire, primarily on the merits of takings for public use. As the Colonies were formed, and independence declared from the British Crown, the concept of eminent domain was carried forward into the Constitution of the United States of America. Being addressed initially in the Fifth Amendment to the Constitution, the verbiage read in part as follows.

> *No person . . . shall be compelled in any criminal case to be a witness against himself nor be deprived of life, liberty, or property, without due process of law, now shall private property be taken for public use, without just compensation.*

Here we see a tacit recognition of a preexisting power (in the crown), but with an amended provision for just compensation and due process of law.

As has been aptly pointed out by Jeffery N. Lucas, PLS, Esq., in a recently published commentary[1], the Fifth Amendment in terms of eminent domain has been made applicable to the individual states by the Fourteenth Amendment to the Constitution, which is the source of private property rights for U.S. citizens. This amendment reads, in part, as follows:

> *No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any state deprive any person of life, liberty, or property, without due process of law.*

Thus, the right to own real property and the right to have it involuntarily divested are sourced in the state. This granting and divesting authority are vested in the Congress at the Federal level, and in the individual state's legislature at the state level.

For Nevada, the power of eminent domain is codified primarily in NRS Chapter 37. Here we see outlined the parameters for taking of private property by the state and its political subdivisions (i.e., counties, cities), plus other statutorily authorized entities. Statute law is law derived by the people represented in Senate and Assembly in the legislative process.

The branch of government assigned responsibility under our Constitution for interpreting statutes passed by Congress at the Federal level, and by the states' legislatures at the state level, is the Judicial Branch, which is tiered downward in a strict system of hierarchy from the U.S. Supreme Court to the state's Supreme Courts, and finally the District (or trial) Courts at the county level.

DISCUSSION

The three key criteria of a valid taking under the power of eminent domain are *due process of law, just compensation,* and *public use*. The first two criteria are fairly well settled, although the second (just compensation) most often becomes a matter of contention in a takings proceeding. The third, public use, warrants our attention. It was the substantive element in Kelo, and is the principal thrust of this commentary.

Due Process of Law

Due process of law has been defined as follows:

> *A course of legal proceedings according to those rules and principles which have been established in our systems of jurisprudence for the enforcement and protection of private rights. Due process of law implies*

Eminent Domain (continued)

the right of the person affected thereby to be present before the tribunal which pronounces judgment upon the question of life, liberty, or property, in its most comprehensive sense; to be heard, by testimony or otherwise, and to have the right of controverting, by proof every material fact which bears on the question of right in the matter involved.[2]

Just Compensation

As regards property taken for public use, the term is comprehensive and includes all elements.

Just compensation is the fair market value of property taken at time of taking, plus compensation for delay in payment. It requires that the owner by put in as good as position pecuniarily as he would otherwise have been.

Public Use

The question of whether a particular use is a 'public use' is a judicial one. See, e.g., *City of Cincinnati v. Vester, 281U.S. 439. 444 (1930)*. However, the court has historically insisted on a high degree of judicial deference to legislative determination. "The role of the judiciary in determining whether that power is being exercised for a public purpose is an extremely narrow one." See *Berman v. Parker, 348 US. 26. 32 (1954)*. When it is a state action being challenged under the Fourteenth Amendment, there is the additional factor of the Court's willingness to defer to the highest court of the state in resolving such an issue. See *Hawaii Housing Authority v. Midkiff 467 US. 229 (1984)*. "We think that it is the function of Congress to decide what type of taking is for public use and that the agency authorized to do the taking may do so to the full extent of its statutory authority." *United States ex rel. TVA v. Welch, 327 US. 546. 551-552 (1946).*

The three key criteria of a valid taking under the power of eminent domain are due process of law, just compensation, and public use.

At an earlier time the prevailing judicial view was that the term 'public use' as synonymous with 'use by the public', and if there was no duty upon the taker to permit the public a right of use or enjoyment of the property taken, the taking was regarded as invalid. However, this view was rejected some time ago. See, e.g., *Mt. Vernon-Woodberry Cotton Duck Co. v. Alabama Interstate Power Co., 240 US. 30. 32 (1916)*.

The more modern concept of public use seems to have evolved and broadened into a more subjective definition, incorporating such things as economic development, urban renewal and beautification, erection of low-cost housing developments and, generally, promotion of aesthetic values as well as economic ones. Additionally, it has been determined that there is no requirement "that government possess and use property at some point during the taking". See *467 US. 243*. Instead, properties have, and do, pass into private hands as a result of some takings.

The term 'public use', it seems, has evolved into 'public interest' or 'public welfare', as the more correct phraseology.

Two contributing factors bear down on the public use debate, One, it is know that many agencies granted the power of eminent domain have in recent years seen funding become tighter, and thus are seeking alternative methodologies in reducing expenditures and expanding income sources. Two, it is no secret that the Judicial Branch of government has been accused in recent years of stepping into that gray band (if not over the distinct line intended by the founding fathers) which separates the legislative from the judicial branches of government. Moreover, we are all well aware of the intense debates over Presidential nominees to the U.S. Supreme Court, for example. Distilled down to the core elements, these debates are over the proper judicial role, of which there are varying opinions, both within the stream of judicial candidates, and the Congressional leaders conducting the hearings. These opinions run the gamut from interpreting the words of the law broadly or loosely, to narrowly or strictly. Chief Justice John Marshall stated 200 years ago in *Marbury v. Madison* that it is the duty of the judge to say what the law is, not what it *ought* to be (which is the province of the legislature). The proper meaning of the law, whether construing the Constitution, the law of statute or contracts, policies or deeds is found in the plain words of the law itself. In each instance, it is the duty of a judge to give faithful meaning to the words as written.

Challenges to the U.S. Constitution itself have surfaced, in recent times, with increasing intensity. The debate has been over the question of whether the Constitution was intended to be a living document, in which judges should "update" its provisions according to the "needs" of the times. Or, was it intended to be an enduring document, in which its original meanings and principles were to be permanently maintained, subject only to changes adopted in accordance with amending clauses (themselves being brought about through due process)? Our constitution would become an historical artifact if its original sense became irrelevant, to be replaced by the views of successive waves of justices intent on "updating" it with contemporary moral values and theory. This is precisely what the Founding Fathers, the crafters of the words of our constitutional form of government, sought to avoid when they instituted a "government of laws, not of men".

The question that begs an answer is whether the current judicial interpretations of 'public use' are within the parameters envisioned by the framers of our Constitution, and the Fifth and Fourteenth Amendments thereto, or has the sovereign extrapolated their intent?

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Eminent Domain (continued)

"I believe there are more instances of the abridgment of the freedom of the people, by gradual and silent encroachments of those in power, than by violent and sudden usurpations." — James Madison

CONCLUSION

Certainly every citizen who owns real property should be aware of the evolving patterns in matters of law that condone more liberal interpretations and, in this case, can result in the disenfranchisement of private property rights. In Justice O'Connor's dissenting opinion (joined by Justices Rehnquist, Scalia and Thomas) on *Kelo* there was a clear warning that no private property is now safe from the pressures of development.

The reader can draw his or her own opinion and conclusions. Bear in mind that at the state level, it is the legislature where parameters for eminent domain are established, and first weighed if challenged. If you have concerns, these should be expressed in writing to your elected representatives and the New York State Association of Professional Land Surveyors to effect change.

"Government is not reason; it is not eloquence; it is force. Like fire, it is a dangerous servant and a fearful master." — George Washington

Endnotes

[1]Trampling Private Property Rights? *POB Magazine, Vol. 31,* No. 1, Oct. 2005, Pg. 58.
[2]*Black's Law Dictionary*, Rev. 4th Ed., West Publishing Co. 1968.

Terry W. McHenry is a licensed professional land surveyor in Nevada, the principal of a land and water boundary consulting firm, and editor of The Nevada Traverse*. The article first appeared in Vol. 32, No. 4,* December 2005, *of* The Nevada Traverse*. Mr. McHenry may be contacted at editornvtraverse@sbcglobal.net*

From the *"Florida Surveyor* June 2010

Recording Subcommittee Survey Results (continued)

8. Do you think the filing of Retracement surveys will:

	Response Percent	Response Count
Improve the quality of surveys	62.7%	165
Reduce the number of surveys prepared in the State	16.3%	43
Place defective surveys in record	28.5%	75
Will do nothing	16.0%	42
answered question		263
skipped question		10

9. Would you support filing Retracement Surveys with:

	Response Percent	Response Count
The Recorder of Deeds	49.8%	134
The Land Survey Repository	49.8%	134
Will Not Support Filing	23.0%	62
answered question		269
skipped question		4

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Minimum Level of Competency

by Joel Leininger, LS

We turn now to a subject that has annoyed me for years, and shortly you shall see why. Discourse is, by its very nature, most useful when the language used moves the conversation in a helpful direction. But we have a term in licensing that (to me) seems calculated to truncate that conversation, smothering debate with a meaningless platitude. Of course I am referring to the phrase, "minimum level of competency."

On the surface, and to the dimmer bulbs among us, the phrase seems innocent enough. It usually is heard in response to whether someone was qualified enough to be issued a license. "Oh, well licensing is only designed to ensure a minimum level of competency." Ah yes, but what exactly is that? Confronted with that question, nearly all responses begin (and end) with a shrug of the shoulders or perhaps a long pause. You see, not only is the term undefined, it will always remain so, for it is undefinable. The vast number of situations potentially confronting the licensed surveyor (and every other licensed professional, for that matter) prevent anyone from compiling an accurate laundry list comprising minimum competence. Indeed, what may seem trivial to some, and therefore appropriate for dispatch by our less competent brethren, may well hide complexities that dwarf that of other projects.

The vast number of situations potentially confronting the licensed surveyor (and every other licensed professional, for that matter) prevent anyone from compiling an accurate laundry list comprising minimum competence.

From a distance it might seem as if some situations could be relegated to less experienced people (and codified as such), but how would that play out exactly? (We are entitled to exactness in this discussion, for in most every case where the phrase under consideration is tossed into the conversation, it is in response to a question over licensing efficacy. When licensing itself is examined, exactness is mandatory as livelihoods are at stake.)

Inexpensive

I once had an attorney bravely try to answer my "what exactly does that mean" question by saying that perhaps it meant (in the realm of surveying) only working on inexpensive property. Now, there is so much idiocy wrapped up in this definition that I am tempted here to let it twist in the wind for a while and accumulate its own ridicule, but as others may stumble upon that definition in the absence of any other, we'll examine it.

What are we assuming by saying that inexpensive property requires less competence to survey? Perhaps because the property is inexpensive, mistakes, even if serious, would not require expensive remedies. Or perhaps inexpensive generally means small, and smaller projects are easier to control (both administratively and by traverse) than larger projects. This is all speculation, of course, as no one has the answers to any of this. But let's address these two possibilities. Inexpensive properties are no less prone to expensive mistakes, because the seriousness of mistakes does not correlate to the property value. If the survey was a boundary survey, the work necessarily affects all of the adjoiners as well as the property itself. Are the adjoining properties to be considered inexpensive as well? In fact, the level of effort required to adequately survey a property has never depended on its value. It depends instead on the property's age (speaking of boundaries here), on its accessibility and on the quality of the written and field evidence defining its boundaries. This is true whether it is appraised at $1,000 or at $1,000,000. Indeed, I wish the market allowed us to structure our fees based on the value of the property in question. I'd be considerably better off, that's for sure.

The notion that small properties are usually less expensive than large properties is also silly. Some of the most expensive real estate in the world comprises less than a city block because it is part of a city block. Skyscrapers tend to live on small parcels like that, and have some of the highest property valuations anywhere. Swatting arguments down like this is almost too easy.

Enough picking on that poor attorney's argument. At least she proffered an idea, flawed as it was. Rarely does anyone even go that far.

Task Analysis

NCEES has expended some effort in trying to identify the tasks confronting newly licensed surveyors through its periodic task analyses. Basically, the idea is to poll newly licensed surveyors about the kinds of tasks they are facing, and then structure the NCEES test accordingly. Am I the only one who sees the circular logic in this? Are we to assume that because newly licensed surveyors are engaging in

(continued on page 26)

Minimum Level of Competency (continued)

certain tasks that those tasks are the ones in which newly licensed surveyors are supposed to be engaged? This is a wild stab at the minimum competence issue. Wild stabs at something are okay when nothing else is available, and as long as everyone involved remembers the attempt is, in fact, a wild stab. The danger comes when everyone forgets the tenuous nature of the underlying theory. A former boss of mine used to talk of a SWAG (Scientific Wild A** Guess). That seems to fit here.

Deep Roots and Long Tails

We would be foolish to assume that all newly licensed people are as competent as they will ever be. Experience is an effective teacher, and even old hands can be surprised. (I was shocked recently by a title doctrine that is both pervasive and well argued by jurists across the country, but unknown to me despite 30 years of practice. I haven't decided yet whether I know enough about its effects across the country to write about it or not. Stay tuned.) Ours is a complex playground with deep roots and long tails. Although every state recognizes that experience is essential prior to licensure, clearly the presumption is that the surveyor will continue to grow subsequent to getting his green light. Thus, we presume varying levels of competence among the licensed ranks.

But what is the minimum? I honestly cannot say. And I'm fairly sure no one else can articulate it convincingly either.

Thanks in advance for never using the term with me.

Joel Leininger is a principal of S.J. Martenet & Co. in Baltimore and is Associate Editor of the magazine.

If You Ever Wondered Why . . . Ask Mike!

by Michael Whitling, PSM

Why do we say "the whole shebang" to include everything about something?

"Shebang" has been used in its modern sense of "all, everything" since about 1862, but its source has always been a mystery. Part of the puzzle is that the term's meaning seems to have varied wildly within a very short period. The first recorded use of "shebang," in 1862 in Walt Whitman's journals, was in the sense of "hut, humble dwelling". In 1869, Mark Twain used "shebang" to mean "enterprise" or "the whole thing", but three years later he used "shebang" to mean "carriage". Then there's the sense of "shebang" as "saloon or tavern" that appeared around 1901. It may be that the "carriage" sense is derived from the French "char a bancs," a bus-like carriage with bench seats. For the "saloon" sense, the leading suspect is the Irish "shebeen," meaning an unlicensed drinking establishment or a low or disreputable saloon. Connecting this "dive" sense to the original "hut" meaning seems possible, but how that mixture could then drift over into meaning "everything" remains unsolved.

Why are <u>Florida Counties</u> named as they are?

In alphabetic order with my best attempt at where our counties got their names:

Indian River	Named for the Indian River, not a real river, but a long, narrow saltwater lagoon between the mainland and the barrier islands that extends above and below the county. The Indian River Lagoon is a grouping of three lagoons: Mosquito Lagoon, Banana River, and the Indian River.
Jackson	Named for Andrew Jackson, the seventh president of the United States and who had served as Florida's first military Governor for six months in 1821. Interestingly, there were no towns in Jackson County when it was formed.

Quick Facts:

- The chances of getting a cavity are higher if candy is eaten slowly throughout the day compared to eating it all at once and then brushing your teeth.
- Adult human bones account for 14% of the body's total weight.
- Why the Aflac Duck? Art director Eric David was trying to come up with an idea for a campaign when he realized that the company's name sounds quite similar to a duck's quack.
- If you were to take a square inch column of the air extending six hundred miles above the earth, its weight and pressure exerted on the earth at sea level would be 14.7 lbs. This is called atmospheric pressure.
- According to Shinto belief, the Emperor of Japan is the living embodiment of the god of the ripened rice plant, Ninigo-no-mikoto.
- Ian Fleming, creator of the James Bond adventure novels also wrote "Chitty-Chitty Bang Bang".

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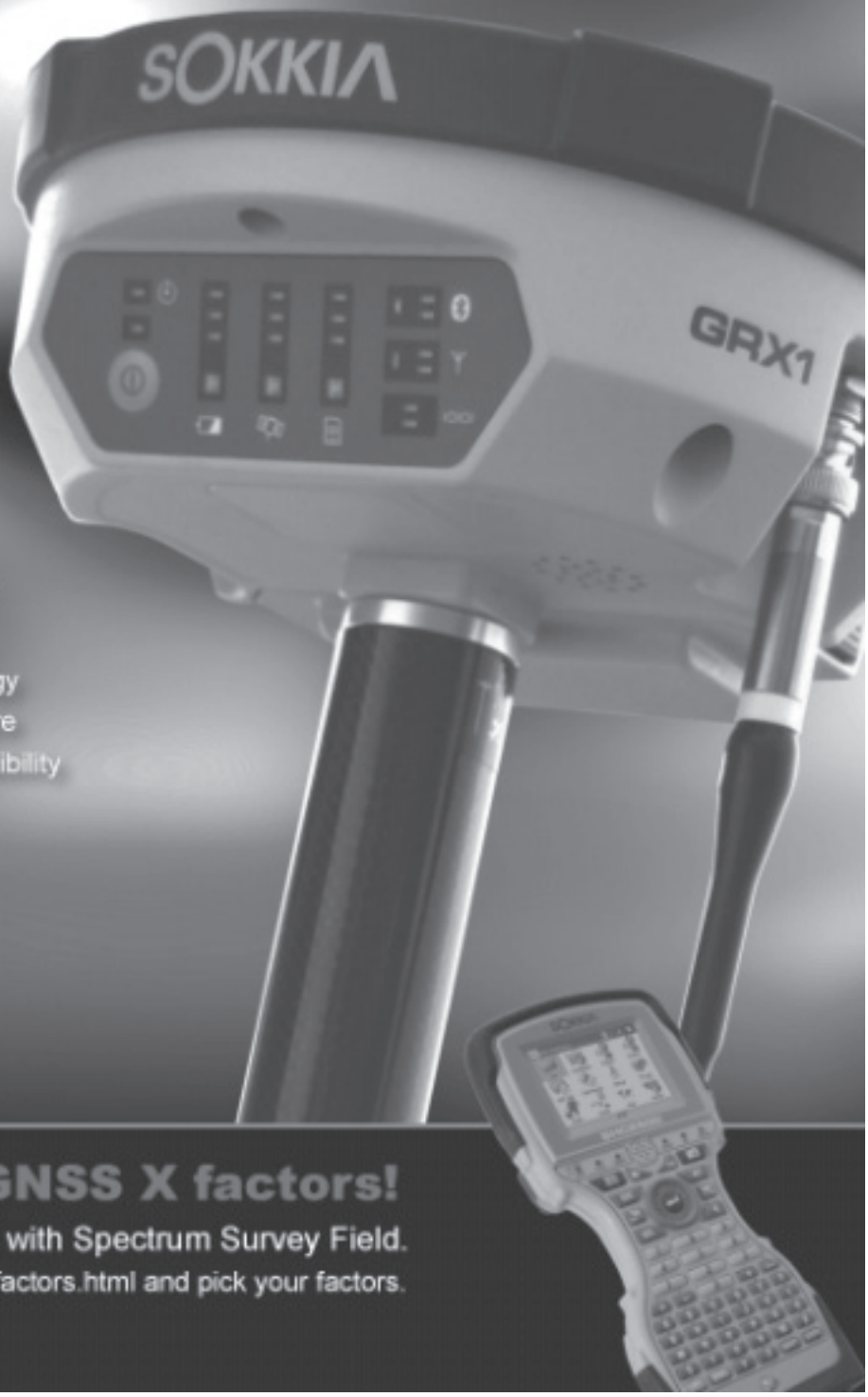

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It's All About Technology?

by Andrew C. Kellie, PLS

It was only mid-morning when we finished putting the gear in the truck. The job had been relatively simple. We had replaced a corner (one of five) on an interior lot of a suburban subdivision we originally staked a year ago, and we had marked the corners of the building to be built on site. My rodperson, Ted, made a final check to be sure we hadn't left anything and then said, "You know, I've finally figured it out. Surveying is all about technology, and I really like all the electronics we have. As long as you know how to program the equipment, you can measure whatever needs to be measured. When we're staking, we take the info from a map, upload what we need into the data collector, and put the measurements on the ground. When we're mapping, we locate the stuff on the ground, download it into the computer, and we get a map. As long as we know what buttons to push and what routines to use, it's technology all the way. Not only that, but the gear does good work— the distances we measured on that lot this afternoon were within a few hundredths of the same distances shown on the subdivision plat.

Surveying is all about technology, and I really like all the electronics we have. As long as you know how to program the equipment, you can measure whatever needs to be measured.

I was very glad to have my selection of equipment validated, especially since (with the economy the way it is) there is little chance of changing the lineup. However, I wasn't quite sure about his conclusion . . . that part about surveying being "all about technology." There is no question that we have good equipment, but at the same time, the electronics involved often remind me of an iceberg. The visible part of an iceberg is very impressive, but 9/10 of the 'berg is actually hidden below water —and it was the hidden part that sank the Titanic.

Since I'm the surveyor, it seemed that a brief explanation was in order. "To begin with," I said, "the electronics only do what someone tells them, so before we plug in the cables, we need to plug in some common sense. Those distances you mentioned," I continued, *"were* all pretty close to the plat. But you will recall that for each distance, our field measurement was slightly longer than the distance shown on the plat. Why was that?"

Ted was unimpressed. "I guess there was a satellite out of orbit or there was too much refraction, or maybe we are just having a "long" day."

I adjusted my patient look. "The subdivision plat — which is called for in our client's deed — shows *grid* distances based on the state plane coordinate system. Ground distance depends on where our subdivision is in the state plane coordinate system zone and at what elevation the subdivision is. The combined scale-elevation factor is around 1, but it will be a little more in some places and a little less in others — sort of like prices at Motel 6. I'm the surveyor, so I calculated a combined scale factor and uploaded it at the same time we uploaded the coordinates. Here, our scale factor is less than 1, so *that's* why all the distances we staked were longer than the plat. If we don't understand map projections and correct the electronics accordingly, we don't make the measurements as they should be made."

Back at the office, work involved downloading field data from a previous topographic survey at a small shopping mall for use in mapping. The data was all electronic, of course, and once again, it all seemed to be about technology. The combined control and topographic data from our field survey processed seamlessly and the point plot looked reasonable. However, when Ted imported road and utility data obtained from the local GIS office, nothing seemed to plot correctly. In fact, there were two data sets shown on the screen separated by, as Ted put it, "hundreds of miles". Ted was frustrated. "What's the point of having data available for public use if it is not usable? Did they do their work with a transit and tape?"

Since I'm the surveyor, I got the call. I adjusted my patient look and resolved to let the comment about a "transit and tape" go to another time and concentrated on the data. "If you look closely," I said, "there are *two* sets of coordinates. We used a local set of coordinates for our data, and the data from the city GIS is on the state plane coordinate system. Fortunately, I insisted that we locate those three ROW markers when we did the fieldwork, even though you were sure they were already in the city data. So, we have common points in both data sets. If we rotate and translate one set of coordinates to the other, the matter is resolved." As I pointed out to Ted, there was even a routine in the survey software to handle the math — the only thing involved was knowing what math to do. Since I'm the surveyor, I did the math — and Ted was able to finish the topo.

Our final task for the day involved reconnaissance for physical evidence to be located in the field during later boundary retracement. Our clients, Mr. and Mrs. Fox, owned 50 acres (by deed) on Black Gum Road. We used the

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It's All About Technology? (continued)

courthouse computer database — technology, once again, as Ted noted — to search the grantor and grantee indices and locate deeds to both client and the adjoiners. This work showed that Fox purchased from Smith. The Smith and Fox deeds both referred to a deed from Abner Hawkins to Lucy Hawkins Johnson, but Lucy's deed was not of record. By checking the probate records, however, I did find that Lucy Hawkins Johnson and all of our clients' adjoiners (or their predecessors in title) were heirs at law of one Abner Hawkins.

In accordance with company policy, we visited the adjoiners. Since I'm the surveyor, it was up to me to do the talking. Mr. Powell, who adjoined our client on the west, showed us two corners he claimed as his. Both were pipes, old and rusted; the Fox and Powell deeds both called for pipes, but with no mention of rust.

Mrs. Oakley adjoined our client on the south. Both the Fox deed and the Oakley deed called for the common boundary as "the slough". The Fox and Smith deeds described the corners at the slough as "marked" trees, but there was no mention of trees, marked or otherwise, in the Oakley deed. According to Mrs. Oakley, however, her husband had gone along the line with Mr. Johnson and marked two cypress trees as corners so they could "both timber to a fixed line and no one would get made about someone else cutting their trees, and it must have worked because we have lived here 60 years with no trouble."

Mr. Warden, who adjoined to the east could tell us nothing about the boundary. He was an expert, however, on who married whom, when, and even (!) why. By providing him with an appreciative audience, we got all the local history complete with dates and plenty of background – the man had a phenomenal memory. Mr. Warden claimed that Lucy Hawkins had been deeded her land twenty years *before* Abner Hawkins died. "James Johnson married Lucy Hawkins in 1938 and he lost everything he had, gambling, not more than a year later — 1939 it was, I'm sure," Mr. Warden said. "Abner and Sadie didn't want their kin with no where to live, so they deeded enough land for a farm to Lucy — not her husband – in July of 1940. James wouldn't let her take the deed to the courthouse because then everyone would know that Abner and Sadie had deeded the land only to Lucy. James didn't have much luck at gambling, but he had plenty of pride."

On the way back to the office, Ted was bored. "We spent two whole hours talking to folks who otherwise don't see a living soul except at church on Sunday. In the time it took to do that, I could have run all around the place with the GPS unit and got some hard data."

I adjusted my patient look. "Let's look on the bright side," I said. "Mr. Powell knew where his corners were and was delighted that we asked before we began work. Mrs. Oakley explained why the Fox deed calls for blazed trees at the corners and her deed doesn't. Mr. Warder told us why we couldn't find the Lucy Hawkins Johnson deed. If he is right, then the Fox parcel is senior to all the adjoiners. Otherwise, as heirship property, all the parcels were created simultaneously. The question of seniority has a marked impact on boundary retracement whether we do the retracement electronically or with a transit and tape. Apart from that, our trip through the neighborhood was good public relations. Earlier today you said surveying was all about technology. You need to rethink that. Our precise GPS work at the first job today would have been less than correct if we hadn't known about scale and elevation factors. That was a question of map projections. The map we made of the shopping mall would have been just plain wrong if we hadn't rotated and translated data. That was a question of math. Finally, if we had just gone to measuring and neglected to talk and to listen to the people, there is a very good chance we would have put a boundary line in the wrong place. That was a matter of common sense. Surveying does involve measurement and it does involve technology, but it also involves land, and more importantly, people. No matter how we measure, our measurements won't count unless they are made in the correct place. And that is the difference between hard data and data that is hardly right."

Surveying does involve measurement and it does involve technology, but it also involves land, and more importantly, people.

Comments on Professional Liability

by Knud E. Hermansen, PLS, PE, PhD, JDS

An ongoing debate among professional surveyors focuses on the responsibility of the surveyor toward the client. Part of this debate focuses on where the surveyor's responsibility ends and where the attorney's begins. In other words, at what point does the surveyor stop practicing surveying and begin practicing law. Unfortunately, where the two seem to meet, there are no fixed rules or bright lines of professional conduct to guide the surveyor between the practice of law and practice of surveying. As a result, the concept of proper professional behavior varies between surveyors, attorneys, and clients. For example, some surveyors, attorneys, and clients feel the surveyor's professional responsibility should take the form of a "fact gatherer;" that is, someone who gets information but does not give an opinion. At the other end (some would say extreme end) are the surveyors, attorneys, and clients who feel the surveyor should be the client's "hired gun." This takes the form of a surveyor who feels it is their professional obligation to zealously advocate their client's position, right or wrong. There are, of course, shades of these and others, with every surveyor having a slightly different opinion.

In order to begin and understand, let's start where most surveyors agree. Most surveyors agree that the surveyor's responsibility in regard to a boundary retracement survey is to "follow in the footsteps of the original surveyor." This maxim can be expanded by saying the surveyor's professional responsibility is to: "identify the location of boundaries, verify the location of boundaries, or help resolve conflict among conflicting boundary locations (i.e., gather data for litigation)." Applying this definition to the three recognized boundary categories, the surveyor's responsibility is to identify, verify, or help resolve conflicting locations among or between record, possession, and ownership boundaries. To further help determine where the practice of surveying stops and the practice of law begins, the following maxims are useful and worth considering:

Surveyors Are Trained to Deal With Questions of Fact, Not Questions of Law

Surveyors trained to gather and analyze facts and apply them to a situation, using as guides legal principles and rules of law. Therefore, any decision the surveyor makes should be founded on questions of fact (guided by principles of law), not questions of law. An example to show this dichotomy is where one surveyor shows the location of a fence and calls it a possession boundary, while another surveyor shows the location of a fence and calls it the client's ownership boundary (based on the surveyor's understanding of adverse possession). The first is an opinion based on the facts, the second involves a factual opinion coupled with a legal assumption the client has marketable, fee-simple title (adverse possession generally requires an action to quiet title in order to give marketable title). The courts have held that boundary location generally involves the application of facts, while adverse possession involves a question of law. As one early survey practitioner said in the 1800s: "Old fences must generally be accepted by right of possession; though such questions belong to the lawyer [rather] than to the surveyor."

As one early survey practitioner said in the 1800s: "Old fences must generally be accepted by right of possession; though such questions belong to the lawyer [rather] than to the surveyor."

Be Knowledgeable But Prudent

Surveyors should not be reluctant to give an informed opinion to their client – that is why the client has hired a professional. However, the surveyor should refrain from opinions or action in areas where the surveyor lacks the training, knowledge, or experience. As a general rule to avoid undue liability and problems, surveyors should avoid acting on or giving unrestricted opinions when:

1. The matter is outside the scope of the contract with the client.
2. The surveyor is made aware of a potential problem that is outside of the scope of the surveyor's training or experience; and
3. The surveyor suspects a problem but may not be sure, does not have, cannot obtain, or refuses to get additional facts.

Start From the Proper Assumptions

Surveyors frequently find themselves working or have to come to a decision in a situation beyond the scope of their professional knowledge because they have incorrectly diagnosed the client's problem at the outset. This situation frequently occurs where the surveyor has assumed the client's problem is a boundary dispute rather than a title dispute or vice versa. A title dispute involves an area that is encompassed (or thought to be encompassed) in two or more deeds. Where there should be one common boundary between the parcels, there are, instead, two separate and

Ralph Riggs Recognized as Surveyor of the Year

The Surveyor of the Year award has been given since 1987. This award is given to an MSPS member who has given freely of his time and efforts to the organization and toward the betterment of the surveying profession. This year's recipient was Ralph Riggs of West Plains, Missouri.

Ralph began his surveying career in 1978 as a rodman for the Howell County Surveyor. In 1982 he enrolled and complete a two year Surveying and Engineering Technology degree program with International Correspondence Schools of Scranton, Pennsylvania. He then went to work for the City of West Plains as an engineering technician. While employed with the City of West Plains he became licensed as a land surveyor in Missouri and Arkansas.

In 1987 he and Rolan Norsworthy began Riggs-Norsworthy Land Surveyors, Inc., and in 1988 Ralph was elected as the Howell County Surveyor. He is not serving his 6th term in this office. Ralph and his wife Lisa purchased Norsworthy's shares and the company became Riggs & Associates, Inc. in 1994. Ralph, Bob Shotts and Craig Ruble formed Ruble, Riggs & Shotts, LLC in 2001 and the company primarily provides cadastral surveying services to state and federal government entities. Ruble, Riggs & Shotts operates RRS Survey Workshops where Ralph is an instructor on topics such as the retracement of the original GLO surveys.

Ralph Riggs receiving his award from Troy Hayes, co-chair of the Awards Committee and MSPS Past President

Ralph is also a licensed professional land surveyor in Kansas and Louisiana and is a Certified Federal Surveyor. He is the past-chairman of the Land Survey Advisory Committee, past-president of the Missouri Association of County Surveyors and a past-president of the Missouri Society of Professional Surveyors. He lives on a small farm in rural Howell County with his wife Lisa. They have three children, Stephanie, Ryan, Regan and one granddaughter, Clair Marie.

Congratulations Ralph on this well deserved award!.

Comments on Professional Liability (continued)

recognizable boundaries, each, when properly located, resides on land that appears to belong to the other landowner. (In fact, one party has title to the area and the other party has "color-of-title"). Title disputes are normally resolved in favor of the landowner with senior title, although adverse possession and estoppel may provide for a different outcome. On the other hand, a boundary dispute is where there is only one boundary but each party feels the boundary should reside in a different location. This problem is generally resolved by gathering the facts, applying principles of law, and coming to a decision based on the preponderance of evidence.

Keep Your Client Informed

Lack of or poor communication between the client and surveyor is the common basis for most complaints to surveyor registration boards. Therefore, one important maxim is to keep the client informed. Professionals should, and are generally required to, keep their client informed. In some cases, professionals are required to obtain their client's consent before taking certain actions that may be detrimental to their health or their property (Doctrine Of Informed Consent). This doctrine in no way suggests that the surveyor act as a hired gun or an advocate for the client's position if it runs counter to the surveyor's professional opinion. On the contrary, the surveyor is expected to perform services in a competent manner; arrive at a professional opinion based on his or her knowledge, training, and experience; and communicate the favorable or unfavorable opinion to the client.

Practice as a Professional

The last maxim is to remember surveying is a profession and the surveyor should act as a licensed professional. A professional is someone who possesses some particular knowledge and skill that is beyond the ken of the average member of the public. Licensing of professionals is done to compensate for the public's lack of knowledge and thereby protect the public by insuring that any person offering his or her professional services has the requisite minimum knowledge and skill to provide professional services in a competent manner. In theory, licensing should eliminate the concept of caveat emptor that is generally paramount when members of the public deal with peers and tradesmen.

With these comments in mind, hopefully it should be easier to determine the surveyor's professional responsibility and define where the practice of surveying ends and the legal practice begins. In all cases of doubt or where legal problems could be involved, it is always good practice to recommend (in writing) that the client consult with an attorney.

The Surveyor as a Forensic Scientist

by Donald A. Wilson, LLS, PLS, RPF

Forensics is a household word these days, thanks to a number of television shows. Like anything else there are good and bad aspects to that. Television shows and movies compress real time into relatively few minutes and lead people to believe that investigations and answers that result from them can be had in a brief span of time. Even worse, for TV shows to retain their viewers, the episodes must pique the interest, and, yes, be entertaining or fascinating. Crime solving on TV backed by the latest investigation techniques is fascinating — not least because science almost invariably puts the bad guys behind the bars, and relatively quickly.

The same expectations have spilled over to the court system. Juries have come to expect from professionals giving testimony the same highly specialized knowledge and reasoning as they see on television. In reality, forensic science is not only exacting but also time consuming and, often, painstakingly routine.

Juries have come to expect from professionals giving testimony the same highly specialized knowledge and reasoning as they see on television. In reality, forensic science is not only exacting but also time consuming and, often, painstakingly routine.

The court system is not the only one undergoing a change with the times. Forensics studies have become so intriguing of late that a number of schools have either created or expanded their curricula to accommodate the interest; many of them are, however, unable to meet the sudden high demand for forensic science education.

Sherlock Holmes was the first forensic criminatologist known to the public, and much can be gleaned from Sir Arthur Conan Doyle's stories about his investigative methods. The reader is presented with a whole gamut of reasoning techniques. There is the "top-down" deductive reasoning which begins with a theory, develops a hypothesis, and endeavors to confirm or disprove the theory based on observed facts. The "bottom up" inductive reasoning, on the other hand, begins with specific observations and ends by developing general conclusions or theories that confirm a hypothesis. Sherlock Holmes often used "abductive reasoning," and so do today's forensic scientist, special detectives, and juries.

Abductive reasoning develops an inference to the best explanation, and it includes the generation, criticism, and possible acceptance of explanatory hypotheses. Sometimes called "the logic of Sherlock Holmes," abductive reasoning presents the investigator with subtle implications for evidence evaluation. A hypothesis is deemed acceptable only if it surpasses other explanations for the same data by a distinct margin, and, only if a thorough search has been conducted for other plausible explanations.

Some people may be turned away by gruesome crime scenes, blood spatter, corpses cut up to fit into freezer bags, or the most heart-wrenching of all, the violated bodies of children. That, admittedly, is what one gets to see early on but then come investigations that include such modern science as DNA testing and ballistics, and, most important, application of critical thinking to the problem at hand.

Land boundary investigations are no different from forensics in law enforcement — the owners expect surveyors to apply logic and exact science when surveying their properties. And where television has cold case files, for the surveyor there is probably no trail colder than an ancient land description or an early survey that must be retraced according to the rules of law. There are no shortcuts in boundary surveying; only, as in any criminal investigation, time-consuming, painstaking, exacting searching.

Forensics in surveying, in its strictest sense, is the application of science to questions which are of interest to local government, the courts, and, of course, to individual land owners. The legal system places a tremendous amount of emphasis on land ownership, land rights and interests, land boundaries, and constitutional issues involving land. Local government needs to know what all these are when building roads and expanding utilities and other civic services.

Land records, as many surveyors will agree, are filled with inherent description problems that are inaccurate, misleading, and frustrating. For instance, a survey description may close mathematically and still describe the wrong parcel of land. Or, the description is difficult to read because of illegible handwriting, a stain that has obliterated the writing, and other challenges. Such descriptions require some sort of investigation and evaluation to make them usable.

Take for instance wooden evidence. Deteriorated, misidentified, sometimes salvaged only in fragments, wooden evidence can still be used to re-establish corner monuments once it has been analyzed by wood technologists. Same with metal markers buried underground, but the investigative tool here is the metal detector; the detectors currently on the market are so sophisticated that they can locate even the smallest parts of such markers. Photography is also doing its bit; there are more photographs available now than ever before, many on the Internet, and some through auction sites

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The Surveyor as a Forensic Scientist (continued)

such as eBay. Railroad stations, dam and mill sites, streets, and rivers or lakes are easily identifiable on photographs and then related to the landscape. Then, if a surveyor needs to develop a chain of title in order to get back to the original description or fill gaps, the science of genealogy may be his or her first stop. Thanks to the Internet, it's much easier to track down relatives and determine family relationships and inheritances in order to complete a chain of ownership than it was just ten years ago! These are only a few examples of how modern technology and well tried surveying techniques are transforming surveying into "hot" forensic science. Let us not get carried away, though. Forensics is only part of any detective work, albeit important, and even though it usually "gets all the press."

As Sherlock Holmes said in the Study in Scarlet, "there is no branch of detective science which is so important and so much neglected as the art of tracing footsteps," . . . and . . . "when you have eliminated the impossible, whatever remains, however improbable, must be the truth." Gil Grissom, the team leader in CSI: Crime Scene Investigation is sure "there is always a clue." Surveyors conducting boundary recovery would be the first to agree; and, they are acutely aware that inadequate or incomplete information can lead to false conclusions. Facts speak for themselves, evidence does not lie, and that's what the surveyor, much like as a forensic scientist, is in pursuit of.

What we do or fail to do with this evidence speaks to our responsibilities as professionals.

[Editor's note: Don Wilson has been offering forensic services for most of his career, and has conducted seminars on various aspects of forensic science for about 20 years. His regular column in Professional Surveyor addresses several aspects of reasoning and practical application of scientific techniques and court decisions to significant boundary problems. He is currently preparing a treatise on forensic techniques for the land surveyor.]

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Facts speak for themselves, evidence does not lie, and that's what the surveyor, much like as a forensic scientist, is in pursuit of.

Multiple Corner Pins – What to Do?

by Bud Salyer, Esq., General Counsel, Board of Licensure (Retired)

Pin cushion corners in subdivisions cause problems for many surveyors. The lack of knowledge of how to deal with them sometimes leads surveyors to make fundamental errors, the worst of which is to compound the problem by adding yet another pin. The rules are quite simple, and the important thing is to not make the same mistake as the previous boneheads who helped create the nasty things to begin with.

The mere existence of a pin cushion corner is conclusive proof that one or more surveyors who came before you did not have a clue what they were doing. If you follow this discussion and take me at my word, then you will know what ***you*** are doing.

A survey consists of the marks made on the ground by the original surveyor. The proposition is supported by the minimum technical standards and by court cases dating clear back to 1785. A plat is merely a graphic record of what the surveyor did on the ground and, with rare exceptions, is used only by later surveyors to find the marks made by the original surveyor.

> ***A retracement is an attempt to locate where the original surveyor made his marks (his "footprints"). The aim is to find the marks (or where they actually existed), measure them and then plat the measurement.***

A retracement is an attempt to locate where the original surveyor made his marks (his "footprints"). The aim is to find the marks (or where they actually existed), measure them and then plat the measurement. In performing a retracement, a surveyor should not leave any marks on the ground except where an original monument has been lost or obliterated, or where none ever existed. Thus, the natural order of things would be for the surveyor to make his marks on the ground, measure his marks, and then prepare a plat. In fact, that is precisely the opposite of how subdivisions are created today.

Subdivisions are typically created on paper and then pinned, as precisely as possible, where the plat shows the corners. However, we know two things from experience: first, that human frailty guarantees that pins will not be driven precisely where a plat dictates; and, second, that no surveyor goes out and resurveys the pins that he has set and then revises his final plat.

Depending on who pinned the corners, the pins could vary as little as a fraction of an inch or as much as several feet. In view of this, consider the following absolute rule: corners marked by an original surveyor in an original survey are without error. The corners are wherever he marked them, even if he later would admit that he made a mistake. If a careful measurement reveals that the corners do not agree with the plat, then the plat is in error and the corner monuments are correct. Thus, when the surveyor finishes pinning the corners in a new subdivision, the corners are fixed for all eternity, regardless of what may happen to the pins at a later time. They may conflict with the plat, but that is totally irrelevant; in the case of a conflict, the plat yields to the pins. With these rules in mind, it is clear that no surveyor has any business or authority to "correct" a survey by placing new pins to more precisely reflect the measurements on the original plat. The plat serves one purpose and *only* one purpose: to show you, as accurately as possible, *where to find the corner pins*. The plat is not for the purpose of showing you where to drive *another* pin.

There is one tiny exception to this rule. If, by chance, the original surveyor discovers that he has misplaced a pin, whether by a fraction of an inch or several feet, he can go back and move it, *but only if the correction is made before the first lot is sold.* After that, all pins are in the ground and the corners are established until Gabriel blows his horn. All lots are sold in relation to every existing pin in the subdivision.

But here is what the knucklehead surveyor does: he is asked to mark a line so a client can erect a spite fence. On running the corners, he finds a pin at every corner (as promised by the plat) but discovers that the pins do not precisely agree with the plat. He believes that he should make the pins agree with the plat. Actually, he should make the new plat that he will prepare agree with the pins. So, he uses his outstanding measurement skills and drives a new pin where he thinks the plat *intended* it to be. The next surveyor finds two pins, can't decide which is the original corner, and re-measures and pins the corner again. All this comes about because the second surveyor didn't have enough sense to accept the existing pin, and the third surveyor was too lazy to do the correct thing — identify the original pin.

When you retrace a subdivision lot and find a pin that does not match the plat, accept the pin unless you have some *compelling* reason to believe that the pin has been moved or is not the original or bona fide replacement pin. The mere fact that a pin does not agree with the plat does not constitute a "compelling reason." A conflict of several feet between the plat and the pin location may raise some doubts and require further inquiry, but that alone is not sufficient to support rejecting the location. In fact, the failure of any pin to agree

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Multiple Corner Pins – What to Do? (continued)

with the plat has no legal significance. Don't add confusion by adding another pin.

When you find two or more pins, your task becomes a bit more interesting, and draws on your skills as a *professional*. If all the pins have caps, and one is the pin set by the original surveyor, accept that pin and measure it, showing *your* measurements on your new plat.

You may encounter a corner that has been pinned more than once and one or more pins may not have caps. It may be that some pins were placed before caps were required, or some bored neighborhood kids have decided to collect caps. Your task is to identify, to the best of your professional judgment, the original pin. Perhaps contacting previous surveyors will help. Maybe the present or a former owner, even of the neighboring tract, can shed some light. You cannot resolve the mystery of an ambiguous corner until oral or other extrinsic evidence has been considered. Any evidence, of whatever kind, should be analyzed to reach your conclusion. Of course, none of this is convenient, but is legally necessary. Ultimately, you may have to resort to selecting the pin that most closely meets the measurements on the original plat. That would be far better than simply putting more iron in the ground.

Some planning/zoning commissions try to insist that plats of retracements reflect exactly the bearings and distances contained on the original plat. Don't fall into that trap. No plat of any retracement will ever completely agree with the original plat, regardless of how many times it is measured. Your retracement plat must reflect *your* measurements and the conditions as you found them, not the ideal situation envisioned by the original surveyor.

A smart surveyor, like a smart lawyer, will cover himself with paper. When you prepare your own plat, it would be wise to do an exploded inset on your plat and show all the pins at the corner, together with a brief explanation why you selected a particular pin.

Recording Subcommittee Survey Results (continued)

10. What kind of surveys should NOT require recording:

	Response Percent	Response Count
ALTA Surveys	31.6%	83
Route and Engineering Surveys	39.5%	104
Any survey that does not retrace or establish boundaries	**71.1%**	**187**
No survey should be required to be recorded	17.9%	47
	answered question	263
	skipped question	10

Want to know what this sub has to do with surveying? Plan to attend the next annual meeting in Springfield and find out.

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