

MISSOURI SURVEYOR

A Quarterly Publication of the
Missouri Society of Professional Surveyors

Jefferson City, Missouri

December 2009



To Hold or Not to Hold, That is the Question	4
John C. Fremont's Surveying Instruments	14
Mo Says: Get Involved & Engaged in the Political Process	18
A Day at the Fair	20
In Committee	35
MSPS Meets with MoDOT	36

CALENDAR OF EVENTS

2009-2011

December 5, 2009

Board of Directors Meeting
MSPS Office
Jefferson City, MO

February 24, 2010

Legislative Committee Meeting
Capitol Visits and Board Meeting
Capitol Plaza Hotel
Jefferson City, MO

May 7-8, 2010

Spring Workshop
Lodge of Four Seasons
Lake Ozark, MO

July 9-10, 2010

Board Meeting and MS Workshop
Lodge of Four Seasons
Lake Ozark, MO

October 7-9, 2010

53rd Annual Meeting and
Convention
Tan-Tar-A Resort
Osage Beach, MO

December 4, 2010

Board Meeting
MSPS Office
Jefferson City, MO

May 6-7, 2011

Spring Workshop
Lodge of Four Seasons
Lake Ozark, MO

October 13-15, 2011

54th Annual Meeting and
Convention
University Plaza Hotel
Springfield, MO

John Alan Holleck, Editor



Notes from the Editor's Desk

by John Alan Holleck



In less than two weeks, it will be Thanksgiving Day, where in the heck has this year gone. I hope we find a lessening of the economic slump that has hung over the profession as it has on businesses, in general. Let's hope the light at the end of the tunnel will be shining brightly by the New Year. I guess there is no time like the present to discuss the upcoming December issue of *The Missouri Surveyor*.

As usual, page two is the Editor's Notes and page three belongs to the President's Message. Otherwise, the newsletter opens with a long critical essay on the Center quarter. The article entitled "To Hold or Not to Hold, That is the Question" is by one of our faithful

contributors—Chris "State Fair" Wickern. Next up is my favorite author, Wilhelm Schmidt from Pennsylvania, writing on "John C. Fremont's Surveying Instruments." My friend Willi keeps me well supplied with interesting and well written articles. Next, is a new feature of *The Missouri Surveyor*, "Meet the Members," Fermin X. Glasper and a former student of mine at Longview Community College, Curtis McAdams, while in a second "Meet the Members" (later in the issue) we meet Robert "the Kid" Ubben and the lovely Connie Todd. A question and answer session with the MSPS lobbyist Mo McCullough leads into a pictorial representation of "How a Bill Becomes a Law." Rounding out the first half of the newsletter is Chris Wickern with "A Day at the Fair," his personal effort to get the Society some recognition at the Missouri State Fair.

The first major article to open the second half of the December issue is by Dr. Andrew Kellie, of Murray State University, entitled "Just Four Lines." How many times have we said that just prior to stepping into a pothole. You should enjoy Dr. Kellie, as he is another of my favorite authors. Next follows a slew of awards from the MSPS Convention, all of them written by the presenter, Donald Martin. First is a Special Service Award given to Chris Wickern for his community outreach program at this year's Missouri State Fair—great effort Chris. Second is Robert E. Myers Service Award this year given to the best of us all, Robert E. Myers. All the preceding years have been practice leading up his eventual winning and for my money; it is about time. Third is the Surveyor of the Year Award given this year to John Teale. Not only is this award well earned and deserved it is also long in coming. John has long been a leader in the Society. Fourth is the first ever award, Distinguished Service by a Missouri Surveyor given to James Anderson for his many years of service to the Registration Board on behalf all Missouri Surveyors. Finally, is the Retirement Award, which honors Past Presidents on their retirement from the active practice of surveying. The first recipient of this new award is Mort Ratliff, Columbia area surveyor. The final article in the December issue is MSPS "Meets with MoDOT," where it seems they are not following Minimum Standards in their Right-of-Way surveys. It is so much easier to comply than to be a cry baby. Have a happy Holiday season. 🇺🇸

Cover: The photo was taken by Chris Wickern during the Missouri Society of Professional Surveyors exhibit with the Missouri Department of Natural Resources during the Missouri State Fair in August, 2009.

THE MISSOURI SURVEYOR

Published quarterly by the
**Missouri Society of
Professional Surveyors**

OFFICERS

Ralph L. Riggs President
Mark W. Nolte President-Elect
Joe Carrow Vice President
Sharon Herman Secretary-Treasurer
Sandra C. Boeckman .. Executive Director
Darrell D. Pratte Immediate Past President

DIRECTORS

Norman D. Ellerbrock
Robert L. Ubben
Ronald E. Kliethermes
Adam Teale
Paul G. Dopuch
Bryan Ferguson

ADVERTISING RATES

	4 issues	1 issue
Full Page	650.00	200.00
Half Page (horizontal or vertical)	400.00	150.00
Quarter Page	250.00	100.00
Professional Card	50.00	N/A

COPY DEADLINE

June Issue - May 1
September Issue - August 1
December Issue - November 1
March Issue - February 1

EDITOR

John Alan Holleck
8510 E. 59th St.
Kansas City, MO 64129
Phone or FAX (816) 353-1782
E-mail: editor@missourisurveyor.org

PUBLISHER

Sandra Boeckman
P.O. Box 1342
Jefferson City, MO 65102
(573) 635-9446 FAX (573) 635-7823
E-mail: mspss@missourisurveyor.org

The Missouri Surveyor is published quarterly by the Missouri Society of Professional Engineers, to inform land surveyors and related professions, government officials, educational institutions, contractors, suppliers and associated businesses and industries about land surveying affairs. Articles or opinions appearing in this publication do not necessarily reflect the viewpoints of MSPS but are published as a service to its members, the general public and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes or deletions as to its contents. Articles may be reprinted with due credit given.

President's Message



by *Ralph Riggs*

The annual meeting is over and I have accepted the MSPS president's gavel. First I would like to express my appreciation to immediate past president Darrell Pratte for his leadership, his commitment to the Society and his dedication to the advancement of the surveying profession. I would like to thank those who have agreed to chair and continue to chair various committees. New faces to committee leadership include Gerald

Glasper, CST co-chair, Norman Ellerbrock, handbook committee, Adam Teale, membership committee and John Stevens, scholarship committee.

MSPS and surveyors alike have experienced a less than perfect year. The economy has been a major discussion item from board rooms to staff meetings to lunchtime chats in the field. Lay-offs and the elimination of positions have been a too-often occurrence this past year. However, I have personally seen surveyors that adhere to "minimum standards" exhibit what could be called "maximum standards" when they have referred potential clients to a fellow professional that is struggling to keep the doors open. Such is the caliber of surveyors that we have here in Missouri.

MSPS experienced the defeat of legislative items that would have alleviated the budget crunch of the Land Survey Program, established digital cadastral mapping standards for GIS and revised the lien law. It should be said that the outcome was not a result of a lack of effort by those that worked tirelessly to bring about the desired changes. It's similar to sighting in a rifle. The first shot may not hit the bull's-eye but we are able to see where we hit and adjust accordingly. The key is not to give up after the first shot. Historically we have seen legislation take more than one legislative session to be finally passed. We have to be prepared to stay the course over the long haul if necessary.

To end on a positive note I would like to remind the membership that in the history of MSPS there have been several notable victories. Remember when there was no LS division? Now we have that division and all three members have a vote. The revised definition of surveying and continuing education are also milestones that have advanced the profession of surveying.


In this coming year as our Surveyor's Creed states, let us....

Engage only in honorable endeavor;

Do our utmost to raise the standards of the land surveying profession;

Believe that success as a Surveyor is a worthy ambition, and seek success based only upon justice and right;

Live according to the laws of man and the highest principles of professional conduct; and

Place service to others before personal profit, the honor of the land surveying profession before personal advantage and the public welfare above all other considerations. 

~ To Hold or Not to Hold, That is the Question ~

by Chris Wickern, PLS

Whether 'tis nobler in the mind of the surveyor to accept the monument found, or whether 'tis nobler to set a new one upon the intersection of lines on the ground (my most sincere apologies to Mr. Shakespeare and his fans). The center quarter, as we all know is a protracted corner of the Public Land Survey System, and has been the subject of much controversy throughout our history. It is the most common protracted corner.

The Federal procedure to establish the legal center of section is found in the Act of February 11th, 1805. It describes the intersection method to set the corner, as shown on the plat, upon the ground. This prescribed method is unambiguous and clear. The surveyor is to use opposite quarter corners and intersect the lines. This is "the corner common to the several quarter sections, or the legal center of section" as it is properly defined in the current Manual of Instructions.ⁱ This method is mandated by rule and therefore valid under the law. It does not mean that other locations that have been determined are automatically invalid and cannot be supported under the law. At any time in our history, a

competent technician could accomplish this by making measurements and determine where to set a monument at the intersection. There would be no need to exercise a professional opinion given such clear, black and white instructions and procedures. However, this method may not fit the plan to subdivide as shown on the approved plat accepted by the Government Land Office (GLO), or the patents issued to the new owners. The methods and

instructions used to establish protracted corners are found in Missouri statutes, past and present; federal laws and instructions, past and present; case law from our courts, correspondence from the Surveyors General, and from the Commissioners of the GLO. Many times these are in conflict with one or more of the others. Let's consider quarter corners not set in the government surveys along Range lines.

The earliest surveying statutes in Missouri describe a procedure that is not found in federal law, and is contrary to the instructions issued by the Surveyors General and Commissioners of the GLO. The statute describes a procedure to set the quarter corners along the Range line not set in the original survey.ⁱⁱ This 'Blank Corner' or 'corner of minimal control'ⁱⁱⁱ is a protracted corner. Federal law doesn't state how to establish this corner, but the instructions from the Surveyors General, the approved Plat, and Patents nearly

always depict this corner 40 chains north of the southwest section corner and along the Range line. It would be a very rare coincidence if these 2 methods arrived at the same position on the ground. Depending on the particular section, the difference in the placement of this monument can change by a few feet to a hundred feet or more. In turn, the placement of the center of section changes, and all of the aliquot parts are effected. This state statute wasn't changed to conform to federal instructions until 1979, yet it was the law, and it was common practice. Again, the law was not in conformance with the instructions or the approved plat. However, we properly use this method to restore previously established corners today. Changes to laws, rules, instructions, and written directions concerning corners and monuments have never been retroactive. It was never intended for surveyors or anyone else to go back and "fix" the old location to the new position. Once established, the corners original position cannot be changed. Missouri statutes state we are to perpetuate the original corners in their "exact" location as they were established.^{iv}

The earliest surveying statutes in Missouri describe a procedure that is not found in federal law, and is contrary to the instructions issued by the Surveyors General and Commissioners of the GLO.

Our predecessors, whose footsteps we are to follow, recognized these conflicts. They sought advice and direction from the Surveyors General and the Commissioners of the GLO. Some responses were to protract by area. Others direct the surveyor to establish the center by running west from the east quarter corner 40 chains, others say to go from the east quarter to the west quarter on a random line, and set the center at mid point on

the true line, and still others said to run from the north quarter corner to the south quarter corner on random, and set the center at mid point on the true line.^v In 1856 instructions were issued by the Surveyor General for the Surveys of Illinois and Missouri. Surveys were conducted, monuments set, plats were approved, and land was sold with reference to these plats and the monuments established on the ground.^{vi} These instructions did not conform to the Act of 1805, but they were in effect for a few years. This naturally, caused even more confusion in the field with more questions and correspondence. The following extracts are from an 1872 letter to an Illinois state legislator asking about 'proper' procedure;

Hon. H. C. Burchard, House of Representatives

To Hold or Not to Hold (continued)

I have the honor to acknowledge the receipt ... desiring information in regard to the proper method of establishing the centers of sections, and in reply, I have to say as follows: -

This office has not authority to issue instructions for the subdivisions of lands which have been disposed of by the government" ... "The "Instructions to the Deputy Surveyors of the United States for the District of Illinois and Missouri", issued in the year 1856, contains directions for the subdivision of Sections, which, though not in strict accordance with the requirements of the Act [1805] above referred to, is the method which has been adopted by many County Surveyors " ... "In some cases the Surveyor General subdivided the Sections upon the original plats by the rule laid down in said "Instructions" and the lands have been sold according to such subdivision. Many purchasers of lands subdivided upon the plats by the Surveyor General, or subdivided by County Surveyors according to the rule given in the "Instructions" have held possession for many years, and have fenced their lands and made other improvements in such manner that, a change in the lines, in order to make them conform to the strict letter of the law, would often work great hardship and it has been the policy of this office, to recommend in such cases the maintenance of the subdivision lines as established in the field. Mr. M's. Letter to you is herewith returned."

Willis Drummond, Commissioner^{vii}

It's important to note that sixteen years after the 1856 instructions were issued, the Commissioner advises a state legislator and recommends the lines be maintained as established in the field for the reason that forcing the errant establishment to conform to the intersection would 'work great hardship'. Is there then, any logical reason for a modern surveyor, a century or more later, to calculate a 'new' position and 'work great hardship' on the owners today?

Representative Bruchard's letter is one in a very long line. The appendix from those 1856 instructions provides the typical federal response to questions from the field:

Numerous and repeated applications having been made to the Surveyor General, by county and United States deputy Surveyors and others interested in the Public Surveys within the District of Illinois and Missouri, for information and directions as to the proper method of making re-surveys, renewing missing comers formerly established, and subdividing Sections, ... and it is impossible to frame instructions so minute in detail

as to meet every case, and enable a deputy or county Surveyor to do equal and exact justice to all parties concerned. After all that might or could be said, much will depend upon the judgment and experience of the Surveyor on the ground. It is not intended, by what is here recommended for renewing missing corners or subdividing Sections, to give any positive directions to county Surveyors. This office has no control over them whatever, but it is believed that the information here given will enable the Surveyor in most cases to do justice to the parties interested, without any further correspondence with the Surveyor General on the subject.^{viii}

The federal government was demanding more than a surveyor with mere technical capabilities. These thoughts are carried forward to today's Manual of Instructions issued by the Bureau of Land Management. It states,

The local surveyor is employed as an expert to identify lands which have passed into private ownership... The work usually includes the subdivision of the section into the fractional parts shown upon the approved plat. In this capacity the local surveyor is performing a function contemplated by law... The Bureau of Land Management assumes no control or direction over the acts of local and county surveyors in the matters of subdivision of sections and reestablishment of lost corners of original surveys where the lands have passed into private ownership, nor will it issue instructions in such cases."^{ix}

This is very similar to the 1856 appendix, letters, and instructions discussed earlier. The Government was done. Its surveys were complete, and the local surveyor was always contemplated to be the surveyor with the authority to protract corners.

Our predecessors were performing a function as contemplated by federal law, state law, and the courts. The Illinois surveyors met in Convention and asked Abraham Lincoln his opinion. In his 1859 response he stated, the proper method "is to run straight lines through the section from the opposite quarter section corners, fixing the point where such straight lines cross, as the middle, or center of section. Nearly, perhaps quite, all original surveys are to some extent erroneous, and in some of the sections quite so. In each of the latter, it is obvious that a more equitable mode of division than the above may be adopted; but error is infinitely various, perhaps no better single rule can be prescribed." It is also

(continued on page 6)

To Hold or Not to Hold (continued)

important to note that Lincoln was addressing questions concerning establishment of protracted corners, and not retracing the footsteps of those before us.

Protracted corners were created by virtue of federal acceptance of the plat, and it was their task to establish these original corners upon the ground. Black's Law Dictionary [6th ed.] defines *establish* as, "To settle, make, or fix firmly; place on a permanent footing; found; create; put beyond doubt or dispute; prove; convince." They were the ones who had the authority to *establish* protracted corners. Once a protracted corner is *established* it *is* created, fixed, and put beyond doubt. It is the corner represented on the plat, and it can only be disproved by a preponderance of the evidence, but it is by no means automatically nullified, dismissed, or ignored on the sole basis that a retracement measurement indicates a different *possible* solution.

There are those who say Missouri case law doesn't support this and the center of section can *only* exist at the intersection. Granby Mining and Smelting Company vs. Davis is most often quoted to support this. It states,

Modern case law from other states is more explicit and enlightening.

The eighth [instruction to the jury] merely directed the jury that if they found that Harrel, the former county surveyor, had found and fixed the center of the section as the statutes of this state directs the point of intersection found by him was the true and legal center of section. Certainly this is the law. It is of the utmost importance that a corner thus fixed by law, and as to which there is no suggestion of dereliction of duty in its establishment, should remain a permanent corner.

This is quoted and presented to support the proposition that the center quarter, if not at the intersection, is wrong and needs to be corrected. The Court went on to state,

The surveys of the lands of this state were made in the first place by the surveyors of the United States. The corners and monuments are binding on juries and courts alike. The subdivision of sections is provided by our statutes, and where this has been done by county surveyors, and interior corners fixed, these, also, are binding, in the absence of proof that such officers have violated the law in their methods."^x

It would seem the court is telling us there are higher principles to be observed, and that is the fundamental principle of well established monuments control, which indicates that they are binding on all. A jury can't change them, and a court can't overturn them. They are bound to be recognized where they were established. They further state that where the surveyor applied *methods*, and there is no

proof the surveyor violated the law, the interior subdivision of section corners are fixed and binding. Applying the rigid requirements of one statute does not disprove a monuments location. Methods are not limited to one state statute and may be based in federal law, federal instruction, standards of practice, direction and correspondence from the Surveyor General, Commissioner of the GLO, or state law. This ruling would also bring into question Missouri's statute to set 'Blank' quarter corners. Yet, that statute remained in effect for another eight decades. We correctly apply rules for reestablishment of 'Blank corners' as they were established by state statutes that were contrary to federal rules and the accepted plat. Why would we ignore the same precedent for determining the center of section? There isn't a large body of Missouri case law regarding protracted corners. State Courts routinely

turn to similar cases in other states. They do this when their states have few decisions to review, when there are conflicting cases, or when the decisions that they do have are antiquated, and clearly inappropriate or otherwise inapplicable, such as Missouri's.

Modern case law from other states is more explicit and enlightening. In the well respected and frequently cited 1992 Michigan case of Adams vs. Hoover, the court stated with regard to a center quarter corner not set at intersection,

... the surveyor's only duty is to relocate, upon the best evidence obtainable, the courses and lines at the same place where originally located by the first surveyor on the ground. In making the resurvey, he has the right to furnish proof of the location of the lost lines or monuments, not to dispute the correctness of or to control the original survey. The original survey in all cases must, whenever possible, be retraced, since it cannot be disregarded or needlessly altered after property rights have been acquired in reliance upon it.

Notice the court's reluctance to overturn a monuments position after it was proved to be established by incorrect methods. The Court clearly recognizes the initial subdivision of the section as an original survey with the acquisition of property rights and reliance upon the monument. The Adams court went on to say that,

Certainly surveyors must feel in a dilemma when they follow the statute and become aware or are aware that their technically correct procedure conflicts with work done by a prior surveyor... Public policy favors that the monumented boundaries dictated by these recorded surveys should be left in repose where, as here, there is no physical evidence of conflicting established lines of occupation. To disturb such boundaries under these

To Hold or Not to Hold (continued)

Many today appear to have been told, instructed, or taught that the only solution is to establish the center of section at the intersection of lines between the quarter corners. They calculate and set a “new establishment” at the intersection of lines, state that the existing monument is incorrect, and report a problem to the owners. However, we are not usually tasked with establishing corners of the system today. Our task today is nearly always one of retracement or resurveying that which has already been established.

facts would cause, as Justice Cooley stated in Diehl, supra, incalculable “mischief” and “consternation.”^{xi}

Dykes vs. Arnold is an even more recent decision from Oregon in 2006. This too is precisely on point. It specifically cites and follows the wisdom of Adams vs. Hoover, earlier cases, and states,

The appropriate inquiry in cases of this kind is not whether a survey is completely accurate, but whether the lots are purchased in reliance upon the boundaries which it establishes. When there is such reliance, to sanction the relocation of boundaries on the basis of subsequent surveys would defeat the intentions of the parties and subvert the security of possession. ... For the same reasons that a federal government survey of a section’s exterior boundaries is given legal effect despite its errors, an original county survey of a section’s interior boundaries should be as well. We therefore agree ... that an original county survey marking the center of a section, despite a flawed methodology, should be deemed an original survey, one that is “left in repose” and given legal effect...^{xii}

These decisions seem to be agreeing with Commissioner Drummond’s 1872 letter, other correspondence with the GLO, later instructions, and current instructions from the Bureau of Land Management. They all seem to be saying that once *established* and relied on; it is always *established*. Any subsequent survey would properly be a retracement of what was *established*.

The current Manual’s of Instructions state,

The rules for identifying an approved official survey differ from those under which the survey was originally made. The purpose is not to “correct” the original survey by determining where a new or exact running of the line would locate a particular corner, but rather to determine where the corner was established in the beginning. No decision should be made in regard to the restoration of

a corner until every means has been exercised that might aid in identifying its true original position.... Any supplemental survey record or testimony should then be considered in the light of the facts thus developed.^{xiii}

The 1974 guide for retracement surveys states,

A thorough search and inquiry with regard to the record of any additional surveys that have been made since the approval of the original survey should be made. The county surveyor, county clerk, register of deeds, practicing engineers and surveyors, landowners, and others who may furnish useful information should be consulted as to such features.^{xiv}

Here the BLM is expressly directing BLM surveyors to gather your information, and that of our predecessors, as valid and important evidence, not to be ignored in the retracement process. It continues,

Therefore, whatever the purpose of the retracement may be -if it calls for the recovery of the true lines of the original survey, or for the running of the subdivisional lines of a section, the practices outlined require some or all of certain definite steps, as follows: ... Secure all available data regarding subsequent surveys ... supplemental survey records ... Knowledge of the practices and instructions in effect at the time of the original survey will be helpful. These should indicate what was required and how it was intended that the original survey should be made.^{xv}

They are recognizing the multitude of different rules, laws, and instructions in effect at different times in the past, and sanctioning their use, as they prepare for and evaluate retracement surveys.

Those who we are following had conflicting evidence, conflicting instructions, conflicting laws, and were told to exercise professional judgment. They may have used state

(continued on page 10)

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 Community 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

Your deadlines are our deadlines



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

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

Berntsen delivers.

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

**Griner
and
SCHMITZ** INC. EST. 1910



Surveying & GPS Equipment

SALES • RENTALS • SERVICE • DATA PREP • TRAINING • SUPPORT

Griner and Schmitz, Inc. exclusive distributor of Freedom Network.

1701 Broadway • Kansas City, MO 64018 • (800) 821-3896
www.grinerschmitz.com • www.grinersgarage.com


FreedomNetwork
Freedom to Work How You Want
www.freedomtrk.com

To Hold or Not to Hold (continued)

statute to establish the west quarter corner along the range line and used federal fractional rules to set the center of section in an attempt to harmonize statute with the federal plat and patents. They may have used one method exclusively, or a combination of methods. The authority to establish protracted corners was clearly granted to them, by virtue of necessity, so that their work on the ground could be legitimately relied upon by the entrymen. Typically, our decisions today are seldom made with regard to the establishment of protracted corners. Missouri Statutes direct how exterior corners of the US Public Land System are to be restored, reestablished and perpetuated. There are no instructions, rules, or laws stating how to restore protracted corners. Many today appear to have been told, instructed, or taught that the only solution is to establish the center of section at the intersection of lines between the quarter corners. They calculate and set a “new establishment” at the intersection of lines, state that the existing monument is incorrect, and report a problem to the owners. However, we are not usually tasked with establishing corners of the system today. Our task today is nearly always one of retracement or resurveying that which has already been established.

Today’s laws and rules to establish a protracted corner may not be harmonious with a bona fide location that has been in existence for many years and is now obliterated. Our proper function is to restore it to where it was, not to create a new and better position based solely on a technical solution that the current rules appear to mandate, if they are rigidly applied. Protracted corners do exist in only one place, and that is where they were established on the ground by competent authority and honored by the land owners. To state otherwise would be the act of a technician who is adept at following one set of rules. Ours is a profession that demands we exercise professional judgment. A surveyor declares an exterior quarter corner is lost and reestablishes it using proportionate measure methods. We all know that this rule of last resort is an equitable solution that most likely will not place the corner where it was, but the rules state if it is lost, this is what you do. A technical interpretation would mean a protracted corner isn’t where it was. It has moved with the new position of the quarter corner, maybe a little, maybe a lot, but the protraction from the reestablished lost corner is not where it was. So a ‘new and better’ protraction is made with each survey. This is a technical solution which disrupts

Our proper function is to restore it to where it was, not to create a new and better position based solely on a technical solution that the current rules appear to mandate, if they are rigidly applied.

well settled and established neighborhoods, and is in direct contradiction to one of the surveyor’s most fundamental responsibilities, that is to do no damage to established property rights. Established property rights are of the highest significance under the law. The law seeks above all else, to maintain harmony in communities and discourage, and even condemn, that which disrupts harmony as we have seen from decisions such as those cited herein. We are not merely technicians, we are called to evaluate both the record evidence and the field evidence, and apply our professional judgment to establish or reestablish the boundaries of real property. We have acted not as professionals, but as technicians, if we were to do less.

Today, we commonly reset protracted ‘Blank’ quarter corners along the Range lines that were contrary to the federal plan and instructions, and are contrary to Missouri’s current law. Our modern law conforms to federal instructions to establish this corner, but our modern retracements perpetuate the corners *established* under the old law. The old law was in conflict with federal instructions

and the intent expressed on the accepted plat and patents. However, it was in effect for well over a century. That is how the corners were first *established* on the ground, relied on by the entryman, and the public. It is the proper procedure to perpetuate this corner as originally set today. Using the current law or the federal instructions would create boundary problems where none existed, or as the Court said in *Dykes vs. Arnold*, “...When there is such reliance, to sanction the relocation of boundaries on the basis of subsequent surveys would defeat the intentions of the parties and subvert the security of possession.”, and Commissioner Drummond’s response, “...in order to make them conform to the strict letter of the law, would often work great hardship and it has been the policy of this office, to recommend in such cases the maintenance of the subdivision lines as established in the field.”

There is no reason to take a contrary approach when protracting the subdivision of sections. The first surveyors embodied the ‘competent authority’, they questioned the laws, instructions and procedures, and they were told,

... it is impossible to frame instructions so minute in detail as to meet every case, and enable a deputy or county Surveyor to do equal and exact justice to all parties concerned. After all that might or could be said, much will depend upon the judgment and experience


To Hold or Not to Hold (continued)

of the Surveyor on the ground. It is not intended, by what is here recommended for renewing missing corners or subdividing Sections, to give any positive directions to county Surveyors. This office has no control over them whatever, but it is believed that the information here given will enable the Surveyor in most cases to do justice to the parties interested, without any further correspondence with the Surveyor General on the subject.

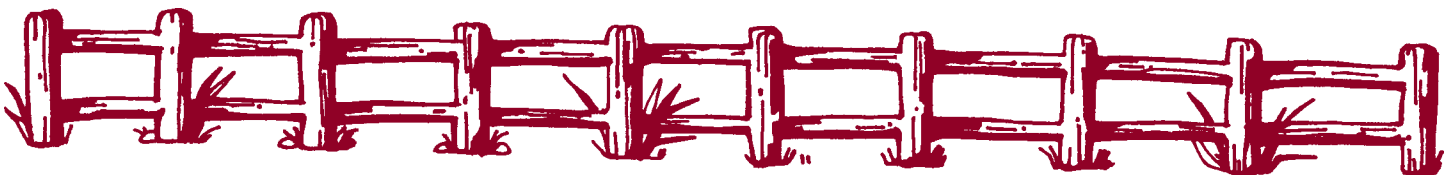
They exercised their judgment 'as contemplated by law'. Their *established* corners have existed since the first section was subdivided in the state. It would seem that after so many years of use and reliance the corner they *established* would be recognized today. The monument they set may not be the 'legal center of section' at the intersection of lines, but it may very well be the center quarter corner as *established* on the ground by the first surveyor and 'as contemplated by law'.

It is a fair assertion that the land surveyor is not a lawyer and therefore is not qualified to behave as if he or she were a lawyer. This is very true and quite correct, yet this logic cannot be used as a legitimate excuse for neglecting either to gather, or give serious consideration to, all forms of valid boundary evidence. The gathering and weighing the value of this evidence is specifically within the function of the professional land surveyor. It can fairly be stated that this *is* the function of the professional, and reason for a licensing requirement. After all, it is the land surveyor who is the professional primarily charged with objective boundary resolution, and not that of the attorney, who is charged with advocacy, the very opposite of objectivity. Land surveyors do not have the option of ignoring one rule or statute in favor of another when the statutes appear to conflict. The statutes should exist in harmony and a proper analysis of the evidence and application of our current statutes will nearly always find them so.

Questions about protracted corners are large questions, having important legal implications, that should be addressed and answered by both the land surveying profession and the individual professional, and then only after conducting thorough and diligent research and performing a careful analysis of all the evidence available. It is our professional obligation, and our burden, to prove, by a preponderance of the evidence, that an existing monument was not relied upon by the owners, or not established under competent authority before rejecting it and resorting to methods that were never intended to govern the retracement process.

For after all, when it comes to a question of the stability of property and the peace of the community, it is far more important to have a somewhat faulty measurement of the spot where the line truly exists than it is to have an extremely accurate measurement of the place where the line does not exist at all.^{xvi} 

- i Technical Bulletin 6, Manual of Instructions for the Survey of the Public Lands of the United States 1973, Bureau of Land Management, Section 3-87
- ii Revised Statutes of the State of Missouri, 1879, Ch. 158, Sec. 7398 [representative of the law previously in effect and through 1979]
- iii Glossary of BLM Surveying & Mapping Terms, 1980, Cadastral Survey Training Staff, Denver Service Center
- iv Revised Statutes of the State of Missouri, Chapter 60, 60.311
- v History of the Rectangular System, C. Albert White, Letters and Correspondence
- vi Instructions to Deputy Surveyors for Illinois and Missouri, 1856, Item 23, Pg. 55
- vii History of the Rectangular System, C. Albert White, Pg. 150
- viii Instructions to Deputy Surveyors for Illinois and Missouri, 1856, Item 1. Pg.47
- ix Technical Bulletin 6, Manual of Instructions for the Survey of the Public Lands of the United States 1973, Bureau of Land Management, Section 3-76
- x Granby Mining & Smelting Co. vs. Davis, 57SW 126
- xi Adams v Hoover 493 NW2d 280
- xii Dykes v. Arnold, Oregon Court of Appeals filed February, 2006, Case Number A121699
- xiii Technical Bulletin 6, Manual of Instructions for the Survey of the Public Lands of the United States 1973, Bureau of Land Management, Section 5-8
- xiv Technical Bulletin 6, Manual of Instructions for the Survey of the Public Lands of the United States 1973, Bureau of Land Management, Section 5-1
- xv Restoration of Lost or Corners & Subdivision of Sections a guide for surveyors, Bureau of Land Management, 1974
- xvi Boundaries and Landmarks, A.C. Mulford, 1912



RTI Student Zack Stockhorst Awarded the O. Dan Lashley Scholarship

On September 23, 2009, Zachary Stockhorst was awarded the O. Dan Lashley Scholarship at Rolla Technical Institute (RTI) in Rolla. Presenting the scholarship were selection committee members Pat Lashley and J. Michael Flowers, PLS. Zachary currently resides in Bourbon and will graduate from RTI in May 2010.

The annual \$500 scholarship was commissioned by O. Dan Lashley, a long-time Department of Natural Resources surveyor and Rolla resident, specifically for an RTI Drafting & Design second year student interested in land surveying. Dan had a love of surveying, educating young people about the profession, and encouraging them to consider a career as a Professional Land Surveyor

Darrell Pratte, PLS, the Missouri State Land Surveyor and Don Block, PLS, RTI instructor were also involved in the selection process. Congratulations to Zachary as he continues his education..



Pictured from left: Pat Lashley, Zachary Stockhorst, J. Michael Flowers, PLS



Surveyors Materials, Inc.

8875 Frost Avenue
St. Louis, MO 63134
(314) 521-9041

**EPOCH
FOCUS**

Sales * Rentals * Service

**From Laths and Hubs to Robotics and RTK GPS
&
Rovers for the MODOT Reference Network**



SEILER

Providing Smoother workflow,
fewer roadblocks...



SALES • SUPPORT • SERVICE • TRAINING • RENTALS • FINANCING

Industry specialists and support solutions that provide enhanced collaboration from conceptual design through construction, operations and asset management.

AutoCAD®
Revit MEP®
Revit Structure®
AutoCAD Civil®
AutoCAD Civil 3D®
Autodesk® Navisworks®
Autodesk® 3ds Max® Design
Trimble® 3D Laser Scanning
Trimble® R8 GPS
Trimble® S6 Robot

Autodesk
Authorized Value Added Reseller



SEILER
Providing Integrated Solutions since 1945

ST. LOUIS
3433 Tree Court Industrial Blvd.
St. Louis, MO 63122

ST. CHARLES
1375 Triad Center Drive
St. Peters, MO 63376

Toll Free 888-263-8918
Email: solutions@seilerinst.com
Website: <http://solutions.seilerinst.com>

John C. Fremont's Surveying Instruments

by Wilhelm A. Schmidt, PLS, Feb. 2009

For seven years (1995-2001), *Backsights* published page-long selections from Charles W. Upham's *John Charles Fremont, Life, Explorations and Public Service*. The book was published in 1856, the year in which Fremont ran for the U. S. Presidency, as campaign literature. By then, he had become famous worldwide as a western explorer, notably an explorer of the Great Basin between the Rocky Mountains and the Sierras. But his expeditions crossed almost the entire westerly half of the country.

The selections from Upham's book cover only the first two of Fremont's five expeditions, and consist largely of quotations from his journals. The quotations are a pleasure to read. Fremont wrote superbly, even when he was tired after a long day's trek; and, needless to say, he had fascinating adventures to relate. But on reading them again recently, I found them less absorbing than the first time. The reason is that they dwell on the feats and hazards of his journeys, but say little about surveying. They divulge no more than that he made celestial observations to ascertain horizontal position, and read a barometer to determine elevation.

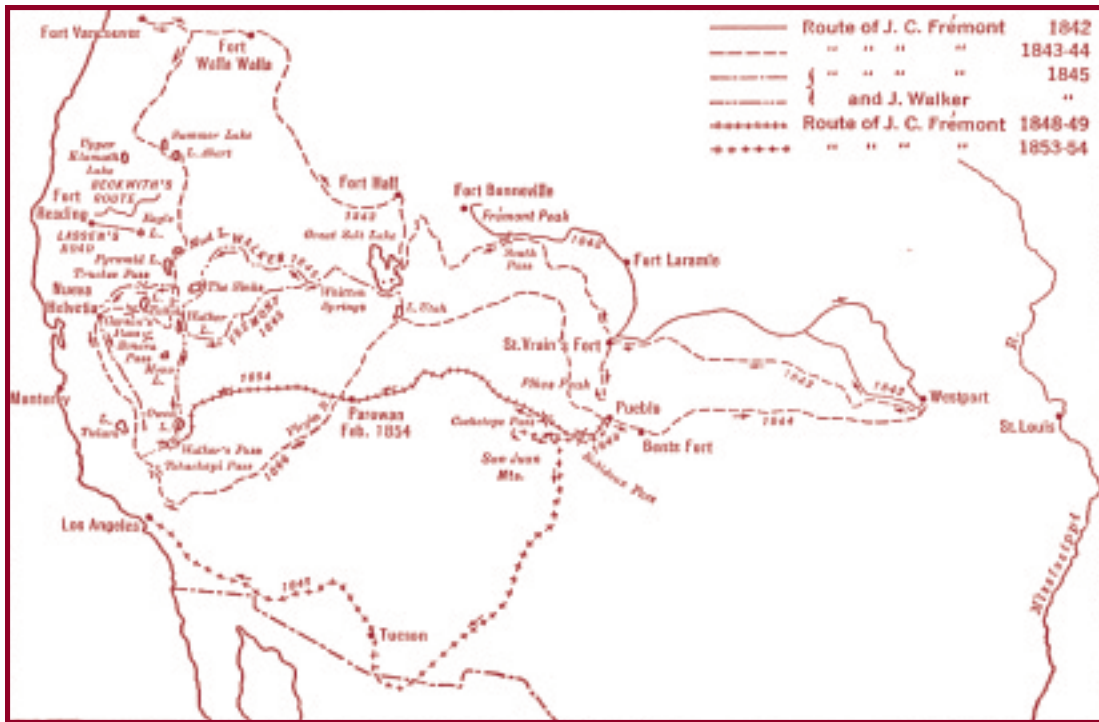
A search of the internet yielded no additional information other than that the use of the barometer for this purpose is called hypsometry. I found no mention at all of the instruments he employed to ascertain position.

I therefore took myself to the local college library and found several biographies, among them Allan Nevins' *Fremont, Pathfinder of the West* (1939). "Pathfinder" is the moniker

given to Fremont by contemporary journalists. Since Fremont as often as not followed and surveyed established trails – those used by trappers and homesteaders, notably the Oregon Trail and the Santa Fe Trail - Nevins calls him a "pathmarker." But he dutifully points out new routes taken by Fremont.

Call him what you like, Fremont proved himself on these expeditions to be "an excellent topographer, surveyor, and mathematician, and a good amateur geologist and botanist." He seemed destined for this career. From early on, he showed an aptitude for mathematics, and later taught it - among other places at the Apprentices' Library in Charleston. There he came across a book on practical astronomy. "The beautiful maps of constellations and the lucid tables of astronomical calculations fascinated him." They did more: they revealed to him his purpose in life. At 22, he was appointed to the U. S. Topographical Corps, and participated in surveys of a route for a railroad and of Indian lands. He then became chief assistant to Joseph Nicollet on two expeditions to the upper Mississippi and the upper Missouri. From Nicollet, a French émigré, he learned "ten times as much about scientific exploration, mapping and descriptions as he could have obtained in any American school." Most importantly, he learned to make accurate astronomical observations. He first applied these skills on his own on a survey of the Des Moines River in 1841, in part to complete Nicollet's map of the area.

Like most biographers, Nevins relates the events of



FREMONT'S FIVE EXPLORING TRIPS, 1842-54

John C. Fremont's Surveying Instruments (continued)

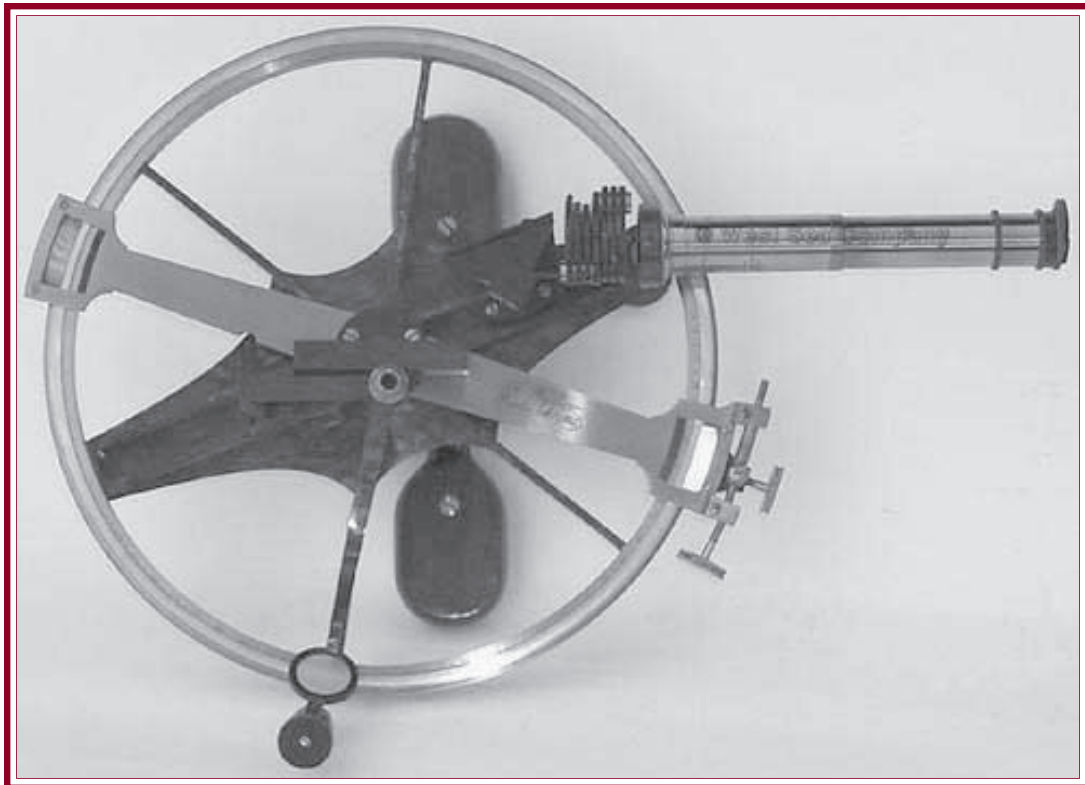
Fremont's expeditions, but hardly mentions the instruments Fremont used, and then only in passing. During the first expedition (1842), for instance, when the collapsible rubber raft - in which Fremont foolishly tried to navigate the rapids of the Platte River with all the instruments aboard - flipped, a sextant and telescope were lost, but the circle was saved. When a pack animal slipped and fell, the glass cistern of the barometer broke; Fremont craftily improvised one from a powder horn. He calculated the height of the "Snowy Peak," later named after him, using a barometer. During the second expedition (1843-44), Fremont computed the elevation of Carson's Pass in northern California by measuring the temperature of boiling water on top of it. After surveying the remaining part of the Oregon Trail from the Rockies to Vancouver, he had turned south and crossed that pass before returning by an uncharted route. He must have made an immense number of measurements, but since no accidents occurred, no mention of them is made. On the third expedition (1845), he became embroiled in the fight for California. He was court-martialed for insubordination and also promptly pardoned. The fourth expedition (1848) was an attempt to survey a route for a transcontinental railroad. It turned out badly, but there were no surveying mishaps. During the fifth expedition (1853), undertaken for the same reason as the fourth, he rescued his party at one point by making observations, "first with one star and then another," took out his pocket compass and led the men to the Mormon village of Parowan through deep snow in three days.

Prior to that last expedition, Fremont had imported from England "the finest instruments that money could buy." But they are not identified. Nevins does list the instruments which Fremont had procured for the second expedition: a refracting telescope, two pocket chronometers, 2 sextants, a reflecting circle, siphon and cistern barometers, thermometers, and an assortment of compasses.

Of greatest interest, to me at least, is the reflecting circle. To the best of my understanding, it is an advance over the circumferenter (used by Mason and Dixon, and Ellicott and Rittenhouse, to survey state boundaries) in that two points can be viewed simultaneously, one directly and one reflected by a mirror. It is a larger version of an octant, sextant or quadrant - a full circle, hence the name. The points are viewed through a telescope, not just a slit, but in an upright, rather than a prone position. In combination with a chronometer, it makes the calculation of latitude and longitude physically more comfortable, though perhaps less precise.

In the course of my research, I discovered another biography of Fremont that is only about his expeditions. It is *Fremont and '49*, by Frederick S. Dellenbaugh (1914). I suspect that it contains more information about Fremont's instruments than I have found so far. I tracked down a copy of it on the internet. But first editions are too costly for me, and it has apparently not been reprinted. 🇺🇸

Editor's note: Reprinted by permission of the author.



Meet Our Members!

LS Member

Fermin X. Glasper
Maryland Heights, Missouri

Position:

Director of Surveying,
Sabur Inc
President, MSPS St. Louis Chapter



Focus of survey practice:

Route surveys, topography and mapping for infrastructure improvements; comprehensive surveying services within commercial and industrial markets.

Most memorable project:

As a US Army Artillery Surveyor in Germany, I was on a survey competition team. Military surveyors were pitted against civilian counterparts. Each team performed three types of high-order control surveys. The competition was to determine if military surveyors could achieve timely accuracy and precision utilizing what was current equipment. During the competition we bested our counterparts in each event in both time and accuracy. We received Commendation Medals, presented by a Brigadier General.

Likes about surveying:

The responsibility! I am a proud member of the profession charged with creating, dividing and maintaining records of property boundaries. I also like filling the surveyor's role of being an integral component to the developments and improvements upon lands. When surveyors do this we not only serve our clients, we have a leading role in helping build communities.

Why a member of MSPS:

In the St. Louis Chapter I have found fellow professionals from whom I learn a great deal. In turn they have allowed me to share my passion for surveying as a presenter in training seminars and as a leader by serving as President. Becoming more involved statewide with MSPS allows me to be an active part of the solution making body for the challenges and opportunities facing our ever-evolving profession. 🇺🇸

LS Member

Curtis McAdams
Maryville, Missouri

Position:

Partner/Project Manager
Midland Surveying
Co-Chair, MSPS Awards Committee



Focus of survey practice:

At Midland Surveying I am part of a team of surveyors and other geospatial professionals that work across the scope of most surveying and mapping disciplines. My main contributions are boundary project management, client relations, staff supervision and GPS project coordination.

Most memorable project:

I was the Party Chief responsible for field surveys for the McKissick Island Boundary Survey completed for the states of Missouri and Nebraska. Leading this project required pulling together my skills in a variety of surveying challenges; subdivision of the USPLSS, high-order control surveying, riparian boundaries, research and investigation. This survey resolved the 100-year disputed state line between Missouri and Nebraska. It was ratified and approved by the United States Congress and became a matter of U.S. Congressional Record.

Likes about surveying:

So many things! There is the combination of time in the outdoors balanced with research and analysis in the office. Complex problems followed by the satisfaction of finding a surveying solution. Helping clients fulfill the goals and ambitions they have for their lands. I like all of those things, but mostly I like the people. I like my fellow surveyors and business partners; they are friends and colleagues.

Why a member of MSPS:

I was encouraged to be a member by business partners that have served as leaders in this organization. Through MSPS I have met many fellow surveyors who have taught me better ways to do the work I perform and new approaches to surveying tasks. I have returned the favor as presenter at an MSPS workshop. It has also helped me identify new business opportunities for surveying firms. I think all Missouri surveyors should join! 🇺🇸



solutions.seilerinst.com

SEILER

NEW CORPORATE FACILITY



Seiler Instrument & Mfg. Co has a new corporate facility located in St. Louis County Missouri!

**Our new address is:
3433 Tree Court Industrial Blvd
St. Louis, MO. 63122
Toll Free: 888-263-8918
Local: 314-968-2282
Fax: 314-968-2637**



Autodesk®
Authorized Value Added Reseller



- Expanded Showroom and Supply Center
- Expanded Service Center
- Expanded Training Facility
- Convenient Hours for drop-off, pick-up, equipment and supply purchases
- Conveniently located just minutes from I-270 or I-44
- Ample parking

**Check out our
New Website!**

<http://solutions.seilerinst.com>

E-mail: solutions@seilerinst.com

Mo Says: Get Involved & Engaged in the Political Process!

Good Advice from MSPS Lobbyist Mo McCullough



While 2009 did not include legislative successes for MSPS it was an active year. Success in governmental affairs is not only attained through winning votes; it is attained through building relationships with elected officials and other parties that are politically active. Mo McCullough gives advice, ideas and information for Missouri Surveyor with his answers in the following dialog.

Surveyor: What should MSPS members be doing to be politically/legislatively engaged?

McCullough: The best way to get involved in the political/legislative process is to get to know your Senator and Representative. Attend their events, shake their hand discuss the issues. In other words, build a personal relationship with them so they can put a face with a name. Being politically active is the key to grass roots lobbying. In order to be successful as an association the main political push must come from the members. The elected officials want to hear from their constituents.

Surveyor: What are the most effective ways to contact elected officials?

McCullough: The most effective way to contact your elected official often depends on timing. If the situation is urgent, a phone call to their office is best. If you have a little time e-mails are good and yes, they do all still have fax machines. If the issue is important but not urgent, personal contact is always best.

Surveyor: How may our members help their office holders?

McCullough: Elected officials are constantly running for their next election. You can help by sending campaign donations; they can always use money. And/or you can volunteer to help with their campaigns by knocking on doors, putting up signs,

handing out pamphlets or whatever they need. This is a great way to win an ally.

Surveyor: What are the rules for MSPS and its members regarding monetary contributions to political campaigns?

McCullough: There are currently no limits on the amount you can contribute to a candidate's campaign. However there are a lot of laws governing campaign finance regarding such things as in-kind contributions, entertaining, business relationships, etc. You can get more information by going to www.mec.mo.gov.


Surveyor: When should our Society be developing it's legislative agenda?

McCullough: You develop your legislative agenda over time. Nothing gets done quickly in the general assembly and circumstances change from year-to-year. Therefore an association's priorities may change and your legislative agenda should always reflect those priorities.

Surveyor: What is the most important advise you are giving clients?

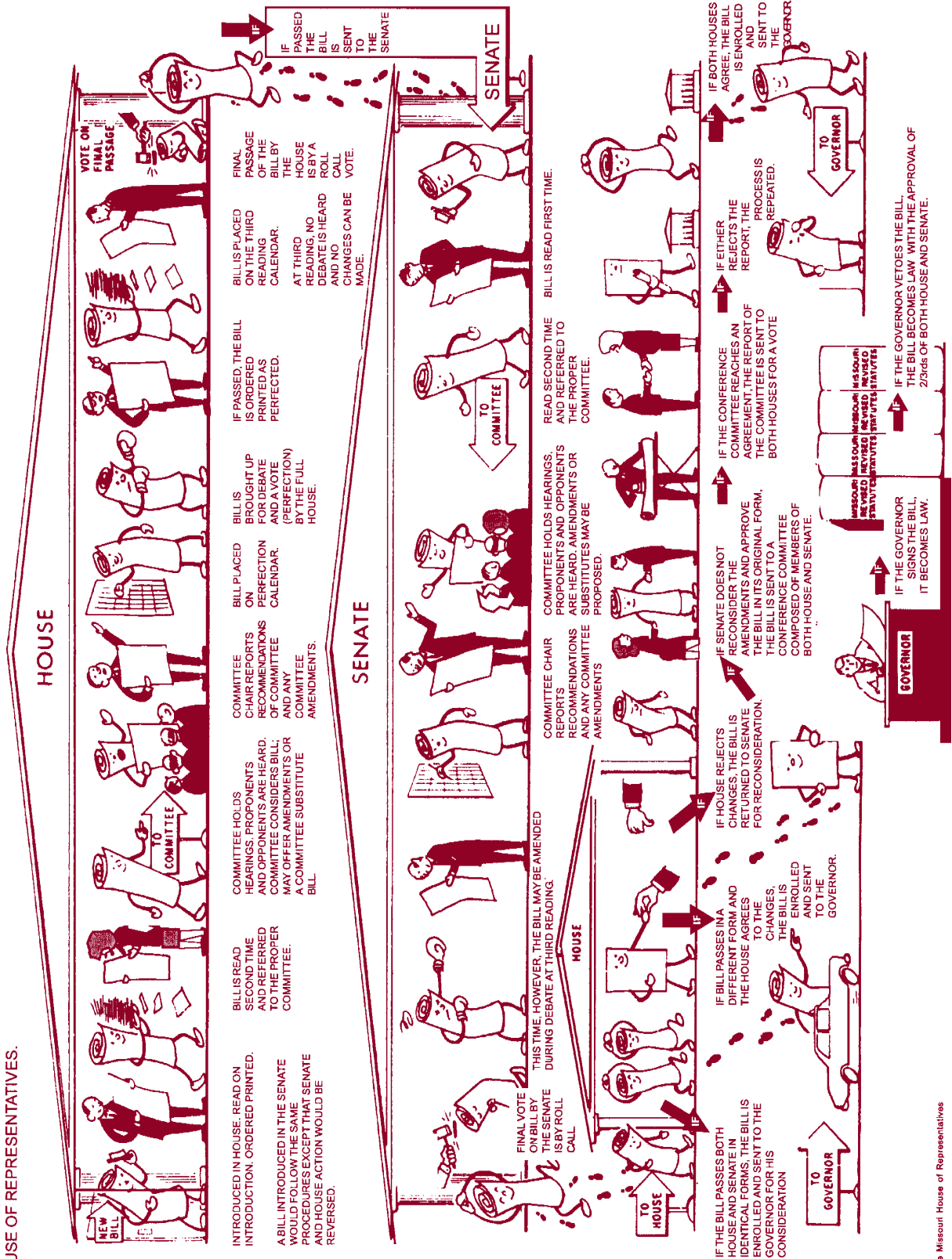
McCullough: My advice to everyone is be pro-active, get involved and engaged in the political process. If it is important to you then you need to make a commitment to the process both as an association and an individual. Also, don't get discouraged and be patient. As I said, nothing happens overnight.

Surveyor: Are there political or professional partnerships that MSPS needs to cultivate?

McCullough: Keep your friends close and your enemies closer. I believe strongly in that. You should attempt to build a relationship with every group and association that can in any way impact your profession, especially those that can hurt you. 

Bill Becomes a Law

THIS CHART OUTLINES THE PROCESS FOR ENACTING A BILL INTO LAW IN MISSOURI BY TRACING THE PATH OF A BILL INTRODUCED IN THE HOUSE OF REPRESENTATIVES.



Printed by the Missouri House of Representatives

A Day at the Fair

by Chris Wickern, PLS

The State Fair Committee, a sub-Committee of the Public Relations Committee, takes this opportunity to report the results of our State Fair activities. Our purpose was to take one small step along the way to educate the public about surveying, surveyors, and our profession. There are few opportunities where we as a profession can interact with large numbers of the public in a relaxed and informal environment. Inquiries about the Fair were made to the Missouri Department of Geology & Land Survey, Department of Natural Resources. They have leased a building and ground at the Fair for many years. The DGLS/ DNR folks were very helpful, and noted they had about 4,000 people per day passing through their exhibits and displays, and interacting with their staff. They have displays showing cadastral and geodetic surveying, but no one to answer questions, generate interest, or discuss surveying to interested parties.

A 'partnership' was formed with them. They provided space, admission, and assisted in numerous ways. Survey equipment needed to be brought from the MSPS volunteer's truck, and our partners would get their Gator, take the surveyor to their truck in the parking lot, and bring them to our set up area. Any of us who have carried a couple of tripods, an instrument (or 2), and other equipment in August, knows how appreciative the volunteers were! Our volunteers generally drove in the day they chose to work. They came from all over the State, and we didn't always get started on time. One morning folks from distant Chapters arrived a little late. Our tent and table were set up, and all of our supplies and displays were there waiting to be set out. Our society owes a special thank you to Mark Gordon, Heylan Beydler, Van Beydler, and others with DNR. These are truly exceptional people to work with.

Our volunteers were not prepared in that, no script, or spiel was created or handed out for them to follow or use. Our goal was not to direct the surveyor. It was simply to make

the professional available to the public. Over 6,000 people went through the DGLS/ DNR Building opening day, and if they went through the building they went by our booth. There were 21,500 visitors through over the course of the days we worked. Hundreds of folks were just looking for the give a ways. Then there were others with very real concerns about the boundaries of their property. Folks from every area of the state who needed to at least speak with a local surveyor about their issues. They were provided an MSPS directory,



and shown the listing for surveyors practicing in their county. I have no doubt some surveyors will get a call from landowners met at the fair. They may consider it too expensive, but that's a matter between the folks and the surveyor they call. In addition there were Scouts who had some interest from earning the surveying merit badge, an R.N. who is tired of working with patients, a MoDOT Engineer from SE Missouri who minored in surveying at Purdue and wants his LS, School teachers and guidance counselors, and County Recorders. These are among many, many others who didn't identify themselves.

Following are thoughts some of the surveyors had on the fair and the visitors:

10 or 15 percent were genuinely interested. We had a red headed 9th grade corn dog cooker, who spent 30 minutes with Jim's [Kent Kemp, Jim Herre's Party Chief] party chief, playing with their robotic total station. He was truly interested in exploring Surveying as his career (as opposed to Corn Doggery). - Tim Reed

I had a great time, and it was fun to visit with the public and my fellow surveyors. You can certainly count me in for next year. I found there was some genuine interest



A Day at the Fair (continued)



and knowledge among some of the visitors to the booth. One idea that was floated was to set some trinkets out at coordinate positions, and let the folks who are interested, stake out to those points to find stuff. Make it somewhat interactive. I'm sure we will have even more fun ideas by next year. - Jim Herre

Thoughts on the Fair... I feel that the time at the Fair is very beneficial for the Land Surveyors and our Society.

We passed out a lot of information and gave away a lot of frisbees, chapstick and sunscreen as well as CD's on becoming a Land Surveyor.

I think our presence at the Fair in the future should be a priority and we should also include information on the National Land Surveying Museum in Springfield, Illinois... we should also include information and a display on the evolution of Surveying from the "Chain & Compass" to the "Modern GPS" and robotics and monuments, stakes, stones and pin and caps... information on calculations and the need for trigonometry and geometry in high school... Modern Color Maps would also be of benefit... Possibly coming up with a game like "Name the Famous Surveyors", geographic location, a geocaching demonstration, and the find the prize/treasure on the fairgrounds with GPS.

Quite possibly this could be the birth of a new committee.

One story about the fair: An elderly woman came up and asked for a Frisbee. I asked her if she was going to go play Frisbee, and she responded, "No, but they make great chicken feeders!" - Dan Govero



Our volunteer's who made this happen are: Don & Linda Bormann, Gene Baysinger, Fred Carroz, Don & Margaret Martin & their daughter Salina, Joe Clayton, Rich Howard, Robert Ubben, Aubrey & Kristin Meyer, Max Clark (Seiler), Bryan Forguson, Randy Thurman, Sharon & Joe Herman, Patsy Wickern, Carol Payne, Jim Herre, Tim Reed, Dan Govero, Ron Heimbaugh, Jason Lortz, Debbie McEnnis, Jacque Walters, Jamie Elliott, Rick Reese and Darrell Pratte, Sandy Boeckman, Fermin Glasper, Don Kelly (Griner & Schmitz), Paul Dopuch, Mary Frye, John & Jeanne Nelson, Bob Lewis, Debbie Frischman, Tom King, Sam King, Ralph Kliethermas, Ron Kliethermas & Jeremiah Pellin. Thank you one and all!

Some will notice that spouses were a part of the effort. They were most welcome, and worked ever just as hard as their Surveyor spouses. After all, you know what you call the spouse of a Surveyor who has never worked in the field? You call them "Newlywed." 🇲🇴



Legislator Interview

Mark Bruns, Missouri House of Representatives



Representative Mark Bruns of Wardsville is in his fourth term with the Missouri legislature serving District # 113. Recently Representative Bruns shared a few thoughts with *Missouri Surveyor* regarding the upcoming session at the Statehouse and how surveyors can be involved.

Question: What is the best way for Missouri surveyors to connect with their elected officials?

Rep. Bruns: Letters and phone calls as opposed to email. Because of the tremendous number of emails an office receives a direct call is more effective.

Question: How do you stay connected with your constituents?

Rep. Bruns: End of Session reports, constituent surveys, and visiting area schools, senior citizen centers and civic organizations.

Question: What will be the “big” issues in the Missouri legislature this session?


Rep. Bruns: Obviously the budget will be the main focus this session as we try to make our way through

unprecedented budget shortfalls. Our goals will be to keep government services intact and keep people employed while dealing with revenues that decline daily.

Question: An important part of government for surveyors is the State Land Survey Program (DNR). Funding and budget shortfalls are threatening this program’s operations. What can be done for or by this program to continue serving our state’s surveying community?

Rep. Bruns: We are in dire budget times. Everyone in the State and every program in the State will be impacted by this. All must share the load to find savings and preserve core functions.

Question: Describe your familiarity with land surveying or professional surveyors.

Rep. Bruns: Due to the technical nature of surveying, I am glad that Missouri law regulates the profession. I believe the Board of Architects, Professional Engineers, Professional Land Surveyors and Landscape Architects do a great job at protecting the consumer when it comes to regulation and Missouri’s surveyors do a great job of serving their clients. 

Minimum Standards

The Minimum Standards Committee would like your input.

Please go to the MSPS website (www.missourisurveyor.org) and complete our survey or mail in your comments to the office.

We will compile, review and present to our Board for direction. Our committee is scheduled to meet the Board of Registration January 25, 2010 and DNR Land Survey Program to be determined.

REMEMBER THESE ARE YOUR STANDARDS.

NSPS GOVERNOR ACTIVITIES

Member of:

ALTA/ACSM Standards Committee
2010 Revisions

Private Practice Committee
ACSM/NSPS Contract Manual Update
Survey Program Nationwide Course Inventory
Disaster Preparedness Manual

Membership Committee
Joint Membership Plan

Standards Committee
GPS Measurement Standards

Any questions or input contact Bill Kankolenski

Just Four Lines

by Andrew C. Kellie, PLS, Dept. of Industrial and Engineering Technology, Murray State University, Murray, KY

The deed to the property was kindly furnished by the client's lawyer so that we could "run out the lines." It was a relatively new deed, drawn just 20 years ago. "The title is okay" said the lawyer, "and it's just four lines. It shouldn't be too much trouble." The client agreed. "My uncle lived out-of-state and held the land as an investment. We need to settle the estate. With just four lines, there shouldn't be any trouble." The description was remarkably simple.

"Beginning on the southeast corner of Scott, thence southerly along state route 61, 100 rods to Wilson Landing Road, thence westerly along Wilson Landing Road 100 rods to the southeast corner of Fox; thence northerly along Fox 100 rods to Bayou de Chien; thence easterly along the bayou and land of Scott 100 rods to the point of beginning."

Not much to this," my assistant agreed. "I'll work up the coordinates and input them into the GPS. It's just four lines, and square at that."

Why was it that I, the surveyor, was the only one unconvinced that "just four lines" would be a *simple* survey?

I began my work with some research at the county courthouse — not title work, of course, but sufficient research to ensure that my survey would follow the footsteps of the original surveyor on the land. The words "along state route 61" in the first call caught my attention immediately. I knew that state route 61 was a primary road, so it seemed reasonable to check for conveyance of a right-of-way to the state. By granting out my client's deed I found that there had been an outsale in 1953 which, for some reason, didn't appear in the deed which my client obtained in 1987. The west line of the right-of-way was the east line of my client. Ergo (since I'm the surveyor), I copied the deed to the state from my client, and obtained a copy of the highway plans from the transportation department, too — even though there were just four lines.

Checking the plans for state route 61, I was able to identify monumentation (rumored to have been) set (somewhere, sometime) in 1953 that marked the limit of state ownership. Obviously, we would need to search for the monumentation in the field.

The south line of the client was described as "Wilson Landing Road". Despite my intimate acquaintance with the county, I couldn't recall what the road looked like. The name implied a plantation road leading to a steamboat landing on the Mississippi. That would make it a private way. However, it just might have been that the Wilson family was kind enough to allow neighbors and kin to use the road, and what if they had opened a store at the landing for the convenience of travelers? The public would have traveled the road, it might have been graded at public expense, and now the public might (probably would) have rights in it. This looked like another matter to check on the ground.

Next to draw my attention was the call which described the land as running "to the southeast corner of Fox". The person who drew my client's deed just might have been trying to be helpful by listing the name of the adjoiner to the west — or, Fox might be a senior owner and the location of Fox's

east line might control the location of the west line of my client. Either way, I needed to find out. A further check of the deeds showed that both my client's predecessors in title and Fox had purchased from Wilson. My client's predecessor purchased in 1923 and Fox's predecessor purchased in 1921. So . . . the call for the "southeast corner of Fox" was more than a memo as to who owned to the west. Fox's east line was the west line of my client.

If Fox's east line was to control, it seemed appropriate to find out how it was described. Fox's deed (from 1921) described the land as follows:

...thence easterly along Wilson Landing Road to a swamp oak with three hacks; thence North 5 degrees East by and along the barbed wire fence 100 rods to a cypress with three hacks on the banks of Bayou de Chien...as shown on the plat by Preston Barrett, C.E....

Barrett's plat was of record, neatly drawn in the three colors of ink on light blue tracing cloth. The swamp oak and cypress were shown as described in the deed at the southeast and northeast corner of Fox. In addition, call-outs on the plat showed pointers at each corner. The east line of Fox (west line of my client) was shown with a series of crosses — apparently indicating a fence. However, it was neatly *drawn* as N 5 degrees West — and neatly *labeled* as North 5 degrees East. Obviously, we would need to search for all this monumentation in the field. Ergo (since I'm the surveyor), I obtained a copy of the Fox deed and a copy of the Barrett plat, too — even though there were just four lines.

Scott's deed described the south line of Scott (north line of the client) as Bayou Creek. This was unremarkable, but the two deeds did call for the same boundary. I copied Scott's deed, too — even though there were just four lines.

The deed research took most of an afternoon, but with that work completed, my assistant and I knew at last part of what we would need to look for when we began the field survey the next morning. We had no trouble finding the parcel. Farmer Scott, who adjoined on the north, was running stock in his land north of the bayou. At state route 61, Bayou de Chien was marked by a culvert under the highway. Wilson Landing Road was a dirt path considerably supplied with potholes and ruts. The ruts led to a graveled area along the river complete with a pickup and boat trailer, but no boat. There appeared to be a timber type line at the approximate location of Fox's west line. The parcel was all bottom land, however, and fully furnished with mature oak, gum, cypress, and poplar. My assistant took one look at trees and left the GPS in the truck.

We began our work on state route 61. If we found the monumentation, we would use the published bearings on the highway plans for orientation. We recovered the monumentation, undisturbed, and the distance checked. We located the road pavement and ditches. I then told my assistant to locate all of the visible utilities. He objected. "There

(continued on page 24)

Special Service Award

by Don Martin, Awards Chair

Community outreach and finding the next generation of surveyors are on-going concerns within the land surveying world. In 2009, the Missouri Society of Professional Surveyors was a sponsor and exhibitor at the Missouri State Fair. The purpose was to present information about opportunities in surveying as a career. In the process, many guests of the Fair connected with member surveyors and learned about our profession. This event occurred through vision and leadership of a fellow member who we recognized at the 2009 MSPS Awards Banquet...

When you belong to a robust organization with enthusiastic members such as we have within MSPS, you become accustomed to hearing a lot of people with a lot of ideas. Everybody's got ideas, right? But every once-in-a-while, someone surprises you...having a good idea. And even rarer, the idea is accompanied with a plan, the plan with action. And pretty soon, you're kicking back and reflecting on a wonderful thing that has occurred. Well, we had just such an occurrence this year.

You see, one of our members had been listening to concerns and debates. Imagine that, someone listened. Same ol' stuff too..."how do we get the word out about surveying" and "how do we find the next generation of surveyors." You know we give it our best, but there just haven't been the connections, the contact we needed. We carry on about these things over and over. Mostly we end up scratching our heads, shrugging our shoulders and moving on. This year a member said he shared those same concerns and he thought he had a hometown venue that was perfect for reaching out and connecting; spreading the good word about surveying. He went on explaining how it could be done and that he would personally lead the effort including the real work of such an event.

So began our successful outreach effort at the State Fair. It was a first for us and it was a great event for us too. This unique idea moved many from our ranks to volunteer and

serve. Sure, it was fun to join surveying friends and families and be at the fair, but much was achieved as well. Hundreds, indeed thousands of guests included in their day at the fair a brief, informative encounter with MSPS members. Maybe they found career information for a young person or job hunter in their family, or maybe they discussed the need for a boundary survey on their farm, or maybe they just wanted a Frisbee. Whatever it was, it was a good idea, a good effort.

And it was the brainchild of a good surveyor. A surveyor who found his way to a surveying career while serving our country in that most honored of ways – military service. As a US Army artillery surveyor, he was responsible for position and direction. That sounds like what he does with any of his MSPS activities; identifies position, and gives direction, just as he did for our outreach effort. And if you doubt the importance of our humble little Society, listen to this story – when completing his call to service of our great country, he returned to his home state, took up an MSPS directory and distributed his resume to the listed firms. Gary Bockman of Springfield responded, and thus began the return to civilian life for this son of Cole Camp and an entry into the Missouri surveying community.

How do we know him? He is the guy that led our most successful outreach effort ever; he is the guy who offers so much to any surveying dialog he joins; he is the son who emulates well the father's example of being a straight shooter-good guy; he is a Certified Federal Surveyor, he is Missouri LS # 2000161240, he is Chris Wickern.

For your dedicated service to our Society and leading our outreach program at the Missouri State Fair, we present a special recognition to Chris Wickern. 🇲🇴



Chris & Patsy Wickern

Just Four Lines (continued)

were only four lines in this survey," he said. "Why do we need to locate poles, wires, and manholes?" I adjusted my patient look, "Poles, wires, and manholes," I explained, "all imply the existence of an easement. An easement is a right in land. The function of a plat is to show the extent of rights in land. So easements (or evidence thereof) must be located in the field and shown on the plat." Ergo (since I'm the surveyor), we located the utilities, too — even though there were just four lines.

Our traverse down Wilson Landing Road was unremarkable, except, of course, for the trailer. This was located on the client's land north of the road. It was a 12x60

model with two tone aqua and white paint. The trailer somehow had developed an affinity for trash. My field assistant was aghast. "Locating houses and out buildings is part and parcel of the field work done for a survey plat, but why must we locate a trailer?" I adjusted my patient look. "First", I explained, "a survey plat must show real property. Real property includes the land and the structures attached to it. The wheels are off the trailer and it is up on blocks. There is an electric line that goes to a utility pole on state route 61. There is a well behind the trailer, and a pipe goes in

(continued on page 35)

Career Service Award

by Don Martin, Awards Chair

In 1990, the Missouri Society of Professional Surveyors instituted an award recognizing a full career of achievement to include a long term of service to the surveying profession and our Society. Named in honor of Missouri's first State Land Surveyor this award was presented during the 2009 MSPS Awards banquet...

A career award, not just a single season MVP, not even a good stretch of a few fine years, but a whole career. A whole career at an award winning level, that's the mark. The technical criteria say something about "...more than 10 years of exemplary service and dedication to the surveying profession and in particular to the Society." There is something else it says too...that this level of service is so significant we named it after one who was the very model of service and dedication we wish to honor. He was the Grand Gentleman of Missouri surveying, Robert Myers. Has this year's recipient met the mark? Listen, then you tell me.

So many of us found surveying by chance and opportunity, or it found us. Sort of feral children that discovered on backwoods traverses by survey wolves, we were taken in to what is a pretty good profession. But the surveyor we honor now as the Robert Myers Service Award recipient was destined to be a surveyor. There were before him multiple generations of surveyors bearing his lineage. It was even the family business. He was doomed.

As a youth, he learned early what is important in surveying. After a rigorose morning and early afternoon of fieldwork, the ol' party chief and he would retire to the friendly, work-focused field office known as a tavern and go over their notes and computations. The Chief, Mr. Melton, looked over the notes and maps with his young protégé and in the time-honored way of survey tutoring explained the why and how of what they were doing. He also studied at his father's side; a methodical surveyor and engineer who understood accuracy was the limiting and canceling of error. Add to the mix a spiritual and leadership YMCA guide who instilled confidence by giving the ability to "do" thus allowing the freedom to "accomplish", and you have our most accomplished surveyor.

In preparing to introduce this gentleman, I asked longtime associates what personal values they observed this surveyor applying to how he conducts business. Repeatedly they affirmed trustworthiness and honesty. Now there is testament. But hear this; when I separately asked him his keys to effectively leading, he replied "be honest, and treat people right...trust them," again, honesty and trustworthiness. Isn't that something? His core values are what are applied. Not lip service, not idea, not aspiration...it is actually lived. Many can say they tried, he can say he did!

So how did this surveyor serve our profession? Adopting a shared vision; shared with others in the early years of

MARLS; shared by Dr. Mann; shared by the real need of our surveying community. Our visionary surveyor set a course on a foresight that looked beyond a world of hard-to-research records that were quickly deteriorating in recorders' offices; beyond a disappearing system of corner monuments; beyond personal and local standards (or none at all); and beyond records of public corners held as proprietary captives. He turned vision into reality, into innovation, into solution. Thus were born hallmarks of Missouri surveying that have made our surveying fate better and have even served as model for other states. The vision became the very real: the land survey records repository, the remonumentation authority of the Land Survey Program, the development of minimum standards, and the process of corner registration.

Along the way, this surveyor did all, indeed more, than was reasonable to expect. This guy repeatedly went to elected and appointed officials with the hard news, the unpopular news, the necessary news on what was needed for Missouri's land system. He confronted suspensions, challenges to his tenure, and threats to his career. He never wavered, and he never ceased being a gentleman. If he stood tough to the decision-makers, and stood firmly beside those whom he treasured; be they Missouri's corps of surveyors or his own staff. Listen how one of them described this champion; "he was our boss from 9 to 5, but our friend 24/7."

As our first State Land Surveyor he more than most understands the legacy that is our ground-based cadastre, yet just the other day he shared a new vision he dares to see, the vision of a numeric cadastre. Better look out, this surveyor's other visions became our realities. Do you know what else he sees? He sees us as professionals, highly educated, versed on theory and actual practice, fulfilling an eternal need to translate record to ground, with an eternal potential to do great things. And who would know better about the potential to do great things more than one who has done so many great things himself.

So tonight, the recipient of our career service award, the award named for the Grand Gentleman of Missouri Surveying, is none other than the Grand Gentleman himself, Missouri LS # 134, Robert Myers. You are a part of our legacy, congratulations on this honor. For the extended period of time, you have given exemplary service and dedication to the surveying profession and in particular, to this Society, you are the 2009 recipient of the Robert Myers Service Award. You've met the mark, because you set it! 🇺🇸



Robert & Ginny Myers

Surveyor of the Year Award

by Don Martin, Awards Chair

Surveyor of the Year is the Missouri Society of Professional Surveyors prestigious annual award for effort and contribution by a member. It is also our oldest award. Here is how it was presented at the MSPS Awards banquet for 2009...

A member that gives freely of his time and efforts to the organization and toward the betterment of the surveying profession is one we call Surveyor-of-the-Year. Add to that requirements of knowledge, integrity and competency and you have some idea of the prerequisites for this honor. I like to boast that this Society is so great that many deserve the title Surveyor-of-the-Year. It is true. And it makes this honor even greater. Imagine being the MVP of an All-Star line up. That is what it means to be the MSPS Surveyor-of-the-Year.

This year we honor one of our finest. Another case of the teenage summer job turned into a career...a most successful career. Summers in small-town, Iowa spent working with nice folk on a survey party where he worked hard but had fun. That unique combination of hard work and fun are recollections that many of us share from our introductory days in surveying. Through and immediately after college our surveyor stayed with the hard work and fun of surveying. He joined a fledgling firm in 1973 – there were just three of them making up the business, and the fun continued. But our surveyor was torn; he liked what he was doing, but he had been studying and preparing for a career in education. There was a family legacy in education and there were offers of the very opportunities he had studied for. Upon departing from a prospective interview our surveyor began a journey home with the confidence that he had just landed a dream position, one in which he could do things he desired. More importantly, it offered security. Yes, the notion of a secure job and pay as a teacher and coach had great appeal, especially when considering the passengers that rode with him on that journey – his young wife, his infant son. Love and responsibility were bundled into that ol' Pinto wagon that day. A secure job would have gone a long way towards providing. But there was something to this surveying, something that prevented accepting the teaching job. With the confident support of a spouse saying "go with it", comfort and security were abandoned for opportunity and fun that our recipient found in surveying. It was a risk, a risk he made worth taking many times over.

So began a surveying career forged on the reality of that act, that act of making opportunity, taking risk, having fun, yet working hard. Influences? You bet the best kind. The kind you come from, the kind you work with, the kind you make a life with. First, there is the solid Midwestern Dad. The WWII veteran that was stern, stoic, yet entertaining and civically active. Then there is the cadre of friends, family and coworkers that make the nucleus of a successful surveying and mapping business, and a successful life. Yes, they are fellow principles in the firm, associates, partners, but first and foremost, they

are friends. Friends named Troy, Rick, Curtis, Jeff, Matt, and Kirk...even a friend that he calls "son," Adam. But mostly, above all other influences there are one...one there the whole time. One that shared all of those risks; one that allowed their personal stake be placed on their business hopes; one that has accepted long hours and time apart; one that held his hand all along the way. Just as she had done those many years ago in that ol' Pinto, with a babe in arm? It was Chris that said, "Go with it," and it is she he cites as his greatest influence.



John & Kris Teale

Opportunities were met; risks were overcome by living and working by high principles. Our recipient is the first to give credit to those around him and let them lead with their talent. They in turn will tell you that he feeds their talent by being a leader of vision, always looking out for the next opportunity, for their well-being. He does this by keeping the radar tuned to the horizon and set to find those endeavors that he and his team can do that will set them apart. Again, he is about seeking opportunities and taking the needed risks.

Now that is career – what about this MVP-year business, it is more of that seeing an opportunity and taking the risks. Geographic Information Systems: GIS, that new kid on the block that's growing up fast, but not always minding its manners; How long are we surveyors going to keep asking what we're going to do about GIS? Our surveyor stopped asking, and started leading. He initiated one of the closest relationships this organization has ever enjoyed with the very elected officials responsible for the laws governing our practice. Introducing Senator Lager and Representative Sutherland to this organization and this profession, he built legislative relationships that helped us. He became the surveying voice of GIS, and quelled the fears of many Assessors at a time when fear and suspicion got in the way of progress. He is a Committee Chair that actually held meetings. He has conferred with elected officials in their offices; he has answered their inquiries in hearing rooms. He has stood before organized groups of mappers, assessors, GIS'ers and Tax Commissioners, all the while representing MSPS, representing surveying. We could not hope for a more professional, acclaimed and well-spoken representative. And he did all this while running a couple of businesses and serving on the Board of Registration.

So let's call forward LS # 1724, John Teale, so that we may honor him as the 2009 MSPS Surveyor-of-the-Year. For giving freely of your time and efforts to this organization and toward the betterment of the surveying profession, for your outstanding reputation, and for all that you did this year past on our behalf, you are our Surveyor-of-the-Year. 🇺🇸

PRECISE

Sokkia's SET X is built to withstand the most demanding worksites. Featuring high precision measurement technology, this classic total station offers superior distance measurement with greater stability and fewer constraints.

www.sokkia.com

800.4.SOKKIA

SOKKIA

Precision & Reliability

Please visit your local dealer:

Laser Specialists, Inc. • 3045 E. Chestnut Expressway • Springfield, MO 65802 • 417.864.5774

CSI Mapping • 15016 S. Rosehill Rd. • Olathe, KS 66062 • 913.851.5831

Laser Specialists, Inc. • 19879 W. 156th St. • Olathe, KS 66062 • 913.780.9990

© 2009 Sokkia Corporation



MSPS Special Award

In 2009, the Missouri Society of Professional Surveyors opted to grant a "special award." The first time this action has ever been taken by the Society it was done in consideration of unique achievements by a renowned member as follows... MSPS has but two standing awards; an award for an outstanding year by a surveyor, and an award for an exemplary career. It is not that there aren't those that are deserving, it is that the values and achievements we honor are so special that their value is great. And as is the nature of valuable things, they are rare. So it is, that we reserve honoring, we preserve the value of honors, by limiting their count, their number. But there may be instances where one among us is truly remarkable, uniquely accomplished, and innovative in their level of achievement. Such an occurrence is accounted for in our By-Laws by the provision for a special award. So special, so valuable is this honor, we have never invoked it. Never, that is, until now. Tonight, we present an award for Distinguished Achievements by a Missouri Surveyor.

Among we peers, there is one who is highly accomplished; recognized not only as a leader within our profession, but a leader from our profession; one who has completed a remarkably long-tenured tour of public service while setting the mark for leadership in that capacity. So who among us is acclaimed, so worthy for a special award to be authorized?

He is the continuation of another one of our multi-generation surveyor families. The son and grandson of surveyors, their family business was the dinner conversation around the table. We live in a time where pains are taken to claim that "it takes a village to raise a child." Yet what is it life shows over and over again? More than a village, it takes a family to raise a child. Never more true than for the surveying family of this honoree. Multiple generations in one business, multiple generations in one household, while the father brought together home and the family business, the grandmother brought together the world and the family. She traveled the grandchildren to cities and places, she imparted the lore and value of the family business, she even took our surveyor to Kansas City A's games! As she led our recipient in finding his place in the world, his father led him in finding his core in his values. The values the young boy admired in the dad became the values he would live and succeed by—open, embracing of good ideas, and honest. Its how the son describes the dad, it is how we all describe the son. Yes, it takes a family. And this very month, that legacy continues for within this clan, a daughter and son face licensing examinations.

Secrets to success this surveyor knows? He'd probably tell you he doesn't know any but he sure knows what has to be dealt with. More than most, he understands there is a fine line along which we traverse where the need to flourish in business is balanced with the needs for accuracy and diligence. What does he like most about the surveying business? He likes the satisfaction of solving problems; and understanding a client's needs, and then delivering a surveying solution. Hear that, what he likes may well be the secret – listening to clients, and solving their problems. And in doing all of that, he applies a core value learned from

family, learned from those who influenced him, learned from Bill Spann: its mutual respect. Value others in this field by respecting them. Respect, and encourage their development. It may mean helping surveyors learn more; it may mean encourage new business development. He's done that. And in return, he is respected; highly respected.



Jim Anderson

Okay, okay...he's a wonderful guy, a great surveyor, and he comes from the best of legacies. But why a Special Award? Let's see if any of this qualifies...along with architecture and engineering, surveying is regulated in Missouri through a Board of Registration. We take for granted that once-upon-a-time that Board was reserved only for our Design brethren. And when it was admitted, there was need for survey representation, first it was in unequal numbers, and then it was with the caveat that surveyors could not lead the Board. And then along came Jim. It took a long time to have surveyors and surveying properly recognized within the Board of Registration. The professional demeanor and a reputation for respect possessed by our honoree went a long way towards everyone's realization that the business of surveying was to be regulated by surveyors as equal, full partners of the Board. So this steady hand, this respected man of respect, not only fulfilled a Governor Carnahan appointment to the land Survey Division of the Board, he went on to lead that Board. And when the call came for a historical first, a surveyor serving as Chair of the full Board for Architects, Engineers and Surveyors, along came Jim. And when service as leader was needed well beyond the usual tour-of-duty, when leadership was needed among feuding professions, when a respected professional was needed to initiate a unified approach as Design professional with mutual interest, along came Jim. Not only did he cut new paths, set new marks, establish a new standard of respect, he left such a mark that even the Boards of the other professions preferred the continuation of his leadership to opportunities for replacing with one of their own. Indeed, the Board officials and Executive Director openly express their wish that this surveyor be appointed again to continue providing that steady, surveyor inherited skill as leader. So, do you think any of that qualifies for a Special Award? The 2009 Missouri Board of Directors believes so...ladies and gentlemen, the heir to great legacy, and the creator of his own great legacy, Missouri LS # 1726, Jim Anderson.

For exceptional achievements and accomplishments in service and leadership by a Missouri Surveyor, the accomplishments of the recipient have raised the standards of the surveying profession, the stature of practicing surveyors, and the profile of MSPS. With success as a proprietor and acclaim for a long tenure on the Board of Registration, the recipient is renowned for integrity, honesty and high character. I present this Award for Distinguished Achievements by a Missouri Surveyor. 🇺🇸



ACCESS



TRIMBLE R8 GNSS +
TRIMBLE ACCESS



You don't get ahead by thinking about features.



You think about efficiency.

Surveyors count on Trimble® solutions to finish work faster.

Trimble Access is a full-featured field solution designed for fast results. Based on the familiar structure of Trimble Survey Controller, Trimble Access has the versatility to take on any surveying challenge. Add any of the optional Streamlined Workflows for faster results on specialized projects.

The new Trimble® R8 GNSS delivers an unmatched ability to acquire signals – even near canopy or in urban environments where traditional receivers can't get the job done.

Trimble Access and the Trimble R8 GNSS – a combination you can count on when performance matters.

See this powerful system at work:
www.trimble.com/Access



© 2009, Trimble Navigation Limited. All rights reserved. Trimble, the Globe & Triangle logo, and Trimble TSC2 Controller are trademarks of Trimble Navigation Limited, registered in the United States and in other countries. Trimble Access is a trademark of Trimble Navigation Limited. All other trademarks are the property of their respective owners. SUR-179

**FOR MORE
INFORMATION CALL YOUR
TRIMBLE DEALER**

Seiler Instruments
St. Louis, MO
314-968-2282

Seiler Instruments
Belton, MO
816-331-3383

Retirement Award

In 2009, the Board of Directors of the Missouri Society of Professional Surveyors approved a plan to honor Past-Presidents for their service upon their retirement. Presented a gift and recognized by the sitting President, these members will also receive a pin identifying them as a leader in our Society. His retirement was recognized during the MSPS 2009 Awards Banquet as follows...

What do we do as we build a career? Is it merely the sum of so many days of showing up, working, and going home? When done right we build a career as the summary of building community, and in the process, building a legacy. Well now we recognize a surveyor who has done it the right way, and just this year after fifty plus years of surveying...you heard right, five ought years, one half century, he has put aside the compass and chain and as much as a surveyor can do it he has retired. And along the way, he has built both community and legacy.

Coming out of rural Macon County in 1957, this surveyor already had a couple of summers of surveying behind him having been part of the booming business of what we now call transportation infrastructure. It was then called Get Missouri Out of the Mud and it was the pre-Interstate push for paved roads in our state. It involved a lot of highway surveying. With that experience as qualification, he moved to the growing community of Columbia Missouri and set about building. Starting with Jim Reed and his new company, Engineering Surveys & Services, our surveyor was a significant force in the growing of the company, which still thrives to this day. He also began effecting the building and growth of the community. You know, academics dedicate much time and effort to the studying of what documentarians refer to as Engineering Empires. So often, they report how a Pharaoh developed coordinate grids to remark boundaries after Nile floods, or how Napoleon developed a robust cadastre to, properly tax the empire. We all know how it really happened. Hard working, dedicated, smart common folk applying their time and talent worked with many others to do the same and pretty soon had empires, and you had communities. Sustainable, flourishing communities subdivided into neighborhoods where houses became homes. Homes served by utilities running on easements, and homes with the feet of children running on yards - on



**Mort & Alberta Ratliff and daughter and son-in-law
Chris & Christy Hayes**

property. That is how community is built and our surveyor was a key to such building in Columbia for the last fifty years.

What enables one to get it all as right as he has? He points to something we still hear often in our profession; it was that farm upbringing where toil and responsibility are learned side-by-side. Toil made pleasurable by enjoying the outdoors, and toil teaching lessons in responsibility and fulfilling commitments. Do you know what else this surveyor points to as helping him get it right? It was great personal influence in his life by a smart and supportive friend, one who was there all along the way. That great influence is a wonderful partner in life, in love, a wife named Alberta. And as our surveyor points out, she deserves credit for still letting him come home coated in mud and covered in stick-tights.

In 2009, the Board of Directors of the Missouri Society of Professional Surveyors established a program of legacy recognition where our Past Presidents, upon their retirement, will be honored and presented a gift. This year past our surveyor setting the benchmark for this legacy recognition is our 1974 President, Missouri LS # 931 Mort Ratliff of Columbia.

Mort, you are a part of our legacy, tonight with Alberta, and your daughter and son-in law Christy and Chris Hayes with you, joined by your peers in practice, congratulations on this retirement. This closes one traverse, and we wish you well in those to come. Use your compass to set your course ahead, but also use it to find your way back to us as frequently as you may. 🇺🇸

What enables one to get it all as right as he has? He points to something we still hear often in our profession; it was that farm upbringing where toil and responsibility are learned side-by-side. Toil made pleasurable by enjoying the outdoors, and toil teaching lessons in responsibility and fulfilling commitments.

Your Complete Service and Repair Solutions Source!

Construction Lasers • Total Stations • GPS Equipment
Data Collection Instruments • NIST Calibration

Drop Off - Pick UP - Ship to - Delivery Services where available...



Bring in a copy of this ad and receive a 10% discount on any one (1) item for your next repair or calibration!

Offer Expires
March 1, 2010



Authorized Dealer



authorized service provider



solutions.seilerinst.com

SEILER

Providing Integrated Solutions since 1945

ST. LOUIS

Trimble Authorized Service Provider
3433 Tree Court Industrial Blvd.
St. Louis, MO 63122
Toll Free: (800) 489-2282
Local: (314) 968-2282

ST. CHARLES COUNTY

Drop off and pick up
1375 Triad Center Drive
St. Peters, MO 63376
(Just off Hwy 364/Hwy 94 & Jungerman)
Toll Free: (800) 489-2282
Local: (636) 477-7499

KANSAS CITY

918 N. Scott Avenue
Belton, MO 64012
Toll Free: (800) 489-3383
Local: (816) 331-3383

Sales • Service • Rentals • Training • Financing

Meet Our Members!

LS Member

Robert Ubben
Raytown, Missouri



Position:

VP-Survey Dept Manager,
Affinis Corp
Past-President, KC Metro Surveyors

Focus of survey practice:

Topo and boundary surveys for site development, route surveys for transportation; primarily serve public-sector clients.

Most memorable project:

Six miles of corridor for a levee district in Riverside Missouri. This long-term project involved boundary surveys and property descriptions for R/W takings as well as utility locations. The ongoing nature of this project means we are still working there, now monitoring levee settlement elevations and river flood elevations.

Likes about surveying:

I enjoy that most every day at work is different than the last and the challenges that come with some projects. Every project is unique and often has different problems or circumstances to deal with. Those problems often lead to working with other professionals to find a solution. I do enjoy meeting and working with other surveyors and the occasion to work with people that are outside the surveying arena to help on projects. My biggest dislike is angry property owners. I really do not like having guns pulled on me.

Why a member of MSPS:

Initially I joined MSPS to get PDU's for license renewal. In so doing I made friends with surveyors from across Missouri. I bounce ideas off these friends and we exchange advice on better ways to do things. I became more active in MSPS to give back to a profession that has been good to me and my family. Survey association involvement has helped me build better business skills, people skills, and has helped improve my performance of surveying tasks. MSPS and its members have helped building a better professional surveyor – me! 🐾

Associate Member

Connie Todd
Ozark, Missouri



Position:

Office Manager,
Todd Surveying
Past-President, Ozark Rotary

Focus of survey practice:

Business operations and client relations for our surveying firm which focuses on real estate subdivision, boundary surveys, utility surveys and land descriptions.

Most memorable project:

To meet a project deadline during our first year in business I assisted my husband as a survey technician. This meant working on a Saturday which was also my birthday. Extreme heat, thick mud and dense brush were easy to deal with compared to what I thought was a ridiculous degree of accuracy. An accident with a machete in the afternoon ended all hopes of a birthday celebration and left me limping and sore for two weeks. Needless to say it was agreed I am better suited for office work.

Likes about surveying:

The thing that makes me the happiest in my job is being able to devote extra time to our more elderly clients. They appreciate my one-on-one work with them to explain planning & zoning requirements, title and abstract issues, deed descriptions and other matters impacting survey needs. I try to do everything to ensure they receive first-rate service from our surveying firm. It is a joy to see the relief on their faces and to hear their sincere expressions of gratitude. Serving them is such a blessing for me!

Why a member of MSPS:

Although I am not a surveyor, I am in the surveying business! I am interested in issues that affect this profession and I participate in MSPS workshops to stay current in the industry. What I learn during the sessions helps us keep our business up-to-date and provides me with information that helps me manage our survey office more effectively. 🐾

SEILER



New Scalable Solutions for Integrated Surveying Today



Trimble R4

"Everything you need to perform basic survey projects"



Trimble R5

"One receiver with many configurations- ideal for any surveying task"



Trimble R6

"Integrated receiver system with GPS antenna, receiver and internal communications in a small rugged package"



Trimble S3

"A great foundation for getting a survey crew into Trimble Integrated Surveying"

For more details contact your local Seiler Sales Professional below or email us at solutions@seilerinst.com



Contact Us:

St. Louis Office
3433 Tree Court Industrial Blvd
St. Louis, MO. 63122
Direct: 314-968-2282
Toll Free: 800-489-2282

Contact: Tom Seiler, ext. 331 or Jeff Brinkman, ext. 364

Email: solutions@seilerinst.com



Sales • Service • Rentals • Training • Financing



Annual Meeting

St. Louis

In Committee

What's Happening in MSPS Committees

All Committees

The Annual Meeting and the start of another “MSPS Year” mean it's *sign-up* time for Committees. Put your time and talents to work helping your Society by joining a committee!

CST Committee

Returning Chair Bob Myers is being joined by new Co-Chair Fermin Glasper. Fermin brings unique experience to our CST efforts having worked with members of his own staff to attain their certifications...

GIS/Vision 21 Committee

Chairs Joe Clayton and John Teale have this committee *ramping up* for the coming legislative session. They have been in contact with fellow members as well as representatives from the Missouri GIS Advisory Committee, the Missouri Assessors Association, the State Tax Commission, the State Land Survey Program and others in preparation of a November meeting with these interested parties. On the agenda: cadastral mapping standards and political affairs...

Legislative Committee

Chair Mike Flowers gave quite an informative report of legislative activities at the Annual Meeting. Accompanied by our MSPS lobbyist Mo McCullough, the past legislative session was reviewed and the upcoming session was previewed. Now is the time for MSPS to be *gearing up* for the political season ahead! Our Capitol Visitation Day and Legislative Committee meeting is in February...

Membership Committee

The report issued at the Annual Business meeting shows a

slight drop in MSPS membership to pre-2005 numbers! Let's all keep in mind that we are ambassadors for our Society and can encourage peers, associates and businesses to join...

MoDOT Liaison Committee

Busy, busy, busy! Chair Gary Bockman has things on the move with the DOT. He and his dedicated band of MSPS members have things *moving* towards helping MoDOT head down the right road (*no pun intended!*) with surveying and boundary matters...

Public Relations/Sales Committee

Did you get on of the new MSPS “hoodies” at the Annual meeting? Chair Rich Howard added some new attire to our sales selections — hoodies. He reports that sales were brisk for these popular items. Maybe it was those surveyor colors — fluorescent yellow for safety, bright orange for visibility (*and deer hunting*)...member Chris Wickern is at it again with a new outreach effort; he is working on having a team of MSPS surveyors serve as presenters at the Missouri Land Trust Association's Title School in March...

Standards Committee

This committee is looking at Minimum Standards. While MSPS does not promulgate the rules prescribed for surveying in Missouri, the Society and its members are critical stakeholders of these regulations. Chair Bill Kankolenski and the committee members have been reviewing existing standards and drafted proposed revisions. They would welcome involvement of others. 🇲🇴

Just Four Lines (continued)

from the well into the trailer. A larger pipe goes out of the trailer and into the ground. So, the trailer might be considered to be attached to the land. And since it appears to be attached to the land, the trailer might be considered real estate. Second, the presence of the trailer might indicate a claim of adverse possession against the property. Judging from the trailer's style (two tone paint? aqua and white?) the trailer has been around for a long time, but then again mobile homes are (or are supposed to be) mobile. How long it has been on the client's land is unclear, but such is not a question to be answered by a surveyor. Because a claim by adverse possession takes pride of place among the rules of construction for conflicting deed elements, I do not want to be in the position of missing so obvious a claim during a field

survey.” Ergo (since I'm the surveyor), we located the trailer, too — even though there were just four lines.

True to the description, the swamp oak at the southeast corner of Fox was waiting for us on the north side of Wilson Landing Road. The three hacks were evident, and there were pieces of rusted barbed wire embedded in the west face of the tree. A reconnaissance to Bayou de Chien resulted in our finding the cypress called for in the deed. Further work resulted in recovering all the pointers at the cypress (northeast corner of Fox) and all but one pointer at the oak (southeast corner of Fox). Because of the discrepancy with the bearing on my client's west line, I reasoned that it might

(continued on page 37)

MSPS Meets with MoDOT

New Committee Initiates Action!



On October 22nd the MoDOT Liaison Committee was very active! That morning they conducted a committee meeting with members reviewing ongoing issues regarding surveying and land management practices of the DOT. That afternoon committee members met with a team of MoDOT officials at their headquarters office in Jefferson City. When it was all done, one committee member summed up the events that day as "...moving the right way."

MSPS and MoDOT share a long and healthy history of exchanging concerns regarding surveying and land management along highway right-of-way. MSPS suggestions for surveying practices along roadway corridors were adopted by the Highway Department in the 1990's that resulted in a MoDOT commitment to "...perform surveys for new right-of-way acquisitions in compliance with the Missouri Minimum Standards for Property Boundary Surveys and all associated regulations in 4 CSR 30 and all applicable rules in Missouri Revised Statutes, Chapters 60 and 327..." As our state DOT has progressed in its survey related practices new concerns have arisen and the MoDOT Liaison Committee is working with the Department on the latest round of right-of-way surveying issues.

New Concerns

In the spring of 2009 surveyor-members of MSPS sought help from their Society with problems that were identified in the right-of-way endeavors of the Department. A contingent from MSPS met with highway officials to discuss the concerns of MSPS surveyors. This introductory meeting familiarized both parties with the relevant matters to address in the realm of property boundary surveying for highway right-of-way.

The primary concerns revealed during this meeting included practices that did not result in the highway corridor being sufficiently located in the USPLSS and the reliance of the Department on land descriptions that were not based on surveyed information and deliberately overlapped with neighbor property descriptions. While no firm plan was agreed to for fixing these problems the DOT did go about activities to better understand these issues and seek enhanced practices. These activities included having members from the Department learn about land surveying requirements at the MSPS Minimum Standards Workshop in July, the filling of a number of District Land Surveyor positions within the DOT, and revisions to MoDOT policies for surveying and right-of-way.

MSPS Response

With all of these active steps being taken by the Department, the MSPS Board of Directors joined the effort by authorizing a new committee. The MoDOT Liaison Committee was established to work for the protection of the USPLSS in and near highway corridors, promote the consistent application of proper boundary survey standards throughout MoDOT and to offer assistance to MoDOT for the improvement of procedures and the training of personnel. Chaired by Gary Bockman of Springfield this committee includes MSPS members with solid credentials in highway surveying, subdivision of the USPLSS, and land boundary descriptions. This team also includes land surveyors from the MoDOT ranks!



Gary Bockman
Chair,
MoDOT Liaison

Committee Meetings

The MoDOT Liaison Committee has been one of the most active committees in MSPS. First coming together at the July MSPS Board of Directors meeting this team picked up from the developments of the spring gathering with MoDOT. Convening again at the MSPS Annual Meeting this liaison group began to formulate an approach of mutual respect for mutual benefit to all parties concerned with the processes and procedures of highway right-of-way challenges. Meeting once more in Jefferson City in October prepared members for joining MoDOT authorities in moving forward towards improvement.

And improvements are under way! MoDOT reports they have adopted a *core team* concept of project management that includes land surveyors. They also report that land surveyors are involved in highway projects from inception through the conduct of a boundary survey of right-of-way and the development of a location plan. To help highway surveyors MoDOT right-of-way and engineering officials coordinate the acquisition of record plats, descriptions and documents for use during critical paths of project development phases.

Areas of ongoing concern revealed at the October meeting included a MoDOT reliance on minimal ties to the USPLSS (reported as being ties at each end of a project regardless of section and township crossing), the use of right-of-way plans instead of record title information as the guiding source for corridor boundary location and the continuation of the practice of writing deliberately overlapping deed descriptions for conveyed land.

"A Legal Description must be considered legally "sufficient" or the conveyance may be declared invalid or require reformation. 'Sufficiency' means that a competent surveyor can locate the described real

MSPS Meets with MoDOT (continued)

estate on the ground – with or without reference to extrinsic evidence. If a surveyor cannot locate the real estate, it is essentially an indeterminate tract of land. If the property cannot be identified, it is assumed that no conveyance took place.”


Highway Surveyors

The process of changing and improving MoDOT practices associated to surveying and right-of-way benefits from a uniquely qualified group of experts – highway surveyors. While the Liaison Committee and MoDOT leaders have opened a dialog to work towards good practices, surveyors within the Department have been working away performing the services of boundary surveys and topographic mapping. Along with those customary surveying duties, they have brought their expertise to bear on revisions to MoDOT practices and policies. By means of a quality improvement team and through regular meetings of surveyors and DOT leaders the highway surveyors have a positive impact on surveying issues with MoDOT.

Many of the MoDOT surveyors are MSPS members. Of the more than 30 PLS's on the Highway Department staff, some have joined their MSPS peers in practice on the Liaison Committee. They are the professionals that will turn changes in highway boundary practices into surveying solutions. These stewards of highway boundaries offer bright possibilities of combining transportation system expansion

with USPLSS preservation and land records improvement.

More to Come

October 22nd wasn't the end of changes to highway right-of-way practices; it was a new beginning. The MSPS MoDOT Liaison Committee, highway surveyors and DOT leaders have initiated a consideration of record and boundary enhancement. This new beginning was an educational exchange between parties to better understand concerns. Committee Chair Gary Bockman reports that “MoDOT is committed to doing the right thing.” And so is MSPS, with the help and leadership of our MoDOT Liaison Committee. 

MoDOT Guidelines

Check out these links to view the MoDOT guidelines for Right of Way & Surveying

MoDOT Engineering Policy Guide - Category: 238 Surveying Activities

[http://epg.modot.org/
index.php?title=Category:238_Surveying_Activities](http://epg.modot.org/index.php?title=Category:238_Surveying_Activities)

MoDOT Engineering Policy Guide - Category: 236 Right of Way

[http://epg.modot.org/
index.php?title=Category:236_Right_of_Way](http://epg.modot.org/index.php?title=Category:236_Right_of_Way)

Just Four Lines (continued)

be important at some time to be able to show that the oak and cypress we had recovered were indeed the same oak and cypress shown on Barrett's plat. Ergo (since I'm the surveyor), we located the oak, the cypress, and all the pointers, too — even though there were just four lines.

My assistant was ready at this point to run a random traverse on the remainder of our client's tract. Instead, he got to run the pin finder. Not that there were any pins to find, but the east line of Fox (the client's west line) was described as running “by and along a barbed wire fence”, and barbed wire (even embedded in a tree) makes a pin finder cry with delight. My assistant was aghast. “What is the point of having bearings in a deed if the bearings don't describe the line?” I adjusted my patient look. “Consider how the deed is written,” I said. “The barbed wire fence is an artificial monument. Monuments are considered superior to bearings. The wire fence is called for in the deed. It is shown on Barrett's plat, and the plat is called for in the deed, so everything on the plat is now included in the deed. From all this work by Barrett, it must have been the intent of the parties to the Fox deed to make the fence the boundary, and they expressed this intent in the writings. Intent, a call for a survey, and a monument are all superior to the call for a bearing. If the fence is described as the boundary, then we need to locate the fence

during the boundary retracement. The fence is tangible and, with effort, can be made visible. And for such a purpose was the pin finder invented.” He remained unconsolated, but (since I'm the surveyor) we located the barbed wire, too — even though there were just four lines.

I have to admit that my assistant was somewhat disappointed in Bayou de Chien. Somehow, he must have expected to see crowds of tourists, shrimp boats tied up along the waterfront, and some little, shingled buildings with pastel signs where he could get some gumbo for lunch. Instead, the bayou turned out to be a sluggish creek between two banks about six feet high. My explaining that *Bayou de Chien* (in French) translates as *Dog Creek* (in English) probably didn't increase the ambience.

It also didn't help when I explained that to retrace the boundary along the bayou, we would need to located *both* sides of the bank. This required repeated trips up and down the banks to locate the water mark, and it was especially vexing because Farmer Scott, the adjoiner north of Bayou Creek, had fenced his land at the top of the bank. All this scrambling about made no sense to my assistant. “The bayou is at normal stage, I can plainly see the channel, and locating the center

(continued on page 38)

2009 MSPS Corporate Members

Phoenix Engineering & Surveying, LLC, Independence, MO
Logan & Associates, Inc., Pleasant Valley, MO
Harms, Inc., Eldon, MO
Mathews & Associates, Inc., Springfield, MO
Shafer, Kline & Warren, Inc., Kansas City, MO
Jefferson County Surveying Co., Hillsboro, MO
Thouvenot, Wade & Moerchen, Inc., Swansea, IL
Buescher Frankenberg Associates, Inc., Washington, MO
Cochran, Wentzville, MO
Anderson Engineering, Inc., Springfield, MO
George Butler Associates, Inc., Lenexa, KS
Tri-State Engineering, Inc., Joplin, MO
John R.M. Nelson, Inc., Bolivar, MO
Sherrill Associates, Inc., Edwardsville, MO
Cole & Associates, Inc., St. Louis, MO
Bartlett & West Engineers, Inc., St. Joseph, MO
Allenbrand-Drews & Assoc., Inc., Olathe, KS
Govero Land Services, Inc., Imperial, MO
Burdine & Associates, Inc., Arnold, MO
Sprenkle & Associates Inc., Monett, MO
Allstate Consultants, LLC, Columbia, MO
Smith & Co., Inc., Poplar Bluff, MO
Anderson Survey Company, Lee's Summit, MO
Koebler Engineering & Land Surveying, Inc., Cape Girardeau, MO
Amsinger Surveying, Inc., Marshfield, MO
Barton Engineering Co., Inc., Lebanon, MO
Musler Engineering Co., St. Charles, MO
Central MO Professional Services, Inc., Jefferson City, MO
Hood-Rich, Inc., Springfield, MO
Elgin Surveying & Engineering, Inc., Rolla, MO

Marler Surveying Co., Inc., St. Louis, MO
Doering Engineering, Inc., St. Louis, MO
Shaffer & Hines, Inc., Nixa, MO
Affinis Corp, Overland Park, KS
ABNA Engineering, Inc., St. Louis, MO
Bowen Engineering & Surveying, Inc., Cape Girardeau, MO
St. Charles Engineering & Surveying, Inc., St. Charles, MO
Midland Surveying, Inc., Maryville, MO
Akin, Gordon & Cowger Engineers & Land Surveyors, Liberty, MO
Taliaferro & Browne, Inc., Kansas City, MO
Cochran Engineering & Surveying, Union, MO
Sam's Survey Company, Gladstone, MO
Pickett, Ray & Silver, Inc., St. Peters, MO
Whitehead Consultants Inc., Clinton, MO
Pellin Surveying LLC, Washington, MO
Schlagel & Associates, PA, Lenexa, KS
Cardinal Surveying & Mapping, Inc., St. Charles, MO
Surdex Corporation, Chesterfield, MO
Bader Land Surveying, Inc., Ste. Genevieve, MO
West Wildwood Surveying, LLC, Ellisville, MO
Integrity Engineering, Inc., Rolla, MO
Pitzman's Co. of Surveyors & Engineers, St. Louis, MO
Frazier Land Surveying Services, Inc., Foristell, MO
Poepping, Stone, Bach & Associates, Inc., Hannibal, MO
Midwest Land Survey, Desloge, MO
Zahner & Associates, Inc., Perryville, MO
Bartlett & West, Lee's Summit, MO
Wilson & Co., Inc. Engineers & Architects, Kansas City, MO
Schmitz, King & Associates, Inc., Olathe, KS
Robert S. Shotts, Inc., Lebanon, MO

Just Four Lines (continued)

of the channel requires only half as many observations as observing points on both banks." I adjusted by patient look and explained. "We located the normal water mark on each bank because the riparian boundary is defined as being the *thread*. The thread, in turn, is defined as that set of points equidistant from *both* banks. If we are going to locate the thread, we need to locate the banks." Ergo (since I'm the surveyor), we located points on both banks and so defined the thread, too – even though there were just four lines.

It was nearly four in the afternoon when we finished the field work by closing on the control from which we began the survey. The closure was unremarkable, and the only excitement in the remainder of the work occurred when my assistant decided to locate the north side of the bayou from inside Farmer Scott's fence. The "cows" were all black and white, so apparently my assistant drew a hasty conclusion and forgot to make the necessary gender check before climbing over the fence to join the "girls".

For just four lines, the survey just described covered a pretty fair sampling of boundary law. To begin, deed research involved both grantoring out the client's ownership and verifying the existence of senior rights. This disclosed an outsale which materially affected the location one of the four boundaries and showed the existence of two maps central to the retracement. Potentially, locating the outsale prevented including land not owned by the client in the survey. Locating the Barrett plat showed the existence of pointers which helped


resolve a discrepancy in the direction of one of the four boundaries and provided information that assisted in identifying corner monuments.

The work at the courthouse provided a basis for the field survey, but the field work shouldn't be minimized, either. For example, location of utilities during the field survey provides evidence of the ownership of rights by another party in the land being surveyed. That such constitute an interest in land is generally not considered by many (perhaps most) clients. Similarly, the existence of a possible claim of adverse possession against the client can only be determined by an inspection of the land. No amount of work by the sale attorney at the courthouse would have shown the trailer on the southeast corner of the tract. Such adverse use may take the form of physical possession (as in the case of the trailer described above) or it may involve a claim of right by use (as in the case of a prescriptive easement). Either way, it is the field survey that discloses the existence of the claim.

In the end, it was just four lines, and it really wasn't any more trouble than I had expected. The crew had returned to the site and set appropriate monumentation; we prepared the plat and a description and submitted the same to our client. I have to admit that while I thought the survey routine, the client, the attorney, and the parties owning the trailer were all somewhat surprised — after all, it was just four lines. 🇺🇸

Reprinted with permission from the author

Please Patronize Our Supporters



ANDERSON
SURVEY COMPANY

203 Northwest Executive Way
P.O. Box 673
Lee's Summit, Missouri 64063
Phone: 816-246-5050



MARK W. NOLTE
Professional Land Surveyor
www.noltelandsurveying.com

660-641-1807 cell 660-394-2600
11757 Plumb Bob Trail Fax: 660-394-8826
Higginsville, MO 64037 E-mail: nolterls@ctcis.net



Engineering • Surveying

CENTRAL MISSOURI
PROFESSIONAL SERVICES, INC.
2500 East McCarty Street
Jefferson City, Missouri 65101
(573) 634-3455
FAX (573) 634-8898



ANDERSON ENGINEERING, INC.


ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
(EMPLOYEE OWNED - SERVING THE AREA SINCE 1954 - LICENSED IN 26 STATES)

2545 W Woodland 811 E Third Street 10626 HWY 72 West #7201
Springfield, MO 65807 Joplin, MO 64801 Bentonville, MO 72712
417-866-2741 417-782-7399 479-254-6939
aefic@aeffc.com www.aefic.com



Civil & Environmental Consultants, Inc.

4848 Park 370 Blvd., Suite F
Hazelwood, Missouri 63042
Phone 314-838-4586 • Fax 314-838-4585
Cellular 314-840-5095
Toll Free 866-250-3679 **Bill Kankolewski, PLS**
Email bkankolewski@cacinc.com Senior Project Manager
Corp. Web Site http://www.cacinc.com Professional Land Surveyor
Missouri and Illinois




Surveyors Materials, Inc.
8875 Frost Avenue
St. Louis, MO 63134
Voice: 314-521-9041
Fax: 314-521-9043
Edward Owen
Vice President



Riggs & Associates, Inc.
Land Surveyors
Est. 1987 • Licensed in Missouri, Arkansas, Kansas, & Oklahoma

©162 West Titah Knight St.
West Plains, MO 65775
ralphr@riggslandsurveying.com
Ph: 1-800-317-8125
 (417) 254-8125
 Fax: (417) 254-6971
Ralph L. Riggs, PLS
President
www.riggslandsurveying.com



Farnsworth GROUP

Stan L. Emerick, PLS

314.962.7900 CELL 314.972.2548 FAX 314.962.1253
20 Allen Avenue, Suite 200
St. Louis, MO 63119
semerick@f-w.com www.f-w.com



Martin & Whitacre
Surveyors & Engineers, Inc.

Gary W. Whitacre, L.S.
3D Laser Scanning

1508 Bidwell Road Office: 563/263-7691
P.O. Box 413 Fax: 563/263-0048
Muscatine, IA 52761 Mobile: 573/299-4144
e-mail: gwhitacre@martin-whitacre.com



• Civil Engineering
• Land Surveying

BOCKMAN ENGINEERING SERVICES, LLC

2015 WEST WOODLAND BUS. 417.877.0611
Springfield, Missouri 65807 FAX. 417.877.0623
www.bockmanengineering.com



missouri registered
ENGINEERS
LAND SURVEYORS

HARMS, INC.

p.o. box 52 eldon, mo 65026
ph (573) 392-3312 fax (573) 392-8943
email harms@laurie.net

GOVERO
Land Services

SURVEYING • ENGINEERING


5929 OLD STATE RD.
IMPERIAL, MO 63062
(636) 464-9300
FAX (636) 464-9626
dgo@go-vero-land-services.com

DANIEL L. GOVERO LS1778
PRESIDENT



ELGIN SURVEYING
ENGINEERING, INC.

WWW.ELGINSURVEY.COM 573.364.6362
FAX 573.364.4782
Kent Mace, PE, PLS 310 East 6th Street
kent.mace@elginsurvey.com Rolla, MO 65401-3343



Gray & Associates, LLC
Professional Surveyors

Phone: 417-695-9962 • Fax: 417-623-0704
909 E. Republic Rd. - R304 • Springfield, MO • 65807

"Surveying the Ozarks"
boundary Surveys
Subdivisions
ACIA Title Surveys
Site Surveys
Construction Staking

Michael Gray, PLS
Managing Partner
mikgray@hughes.net
Cell: 417-569-6164

rotolite of st. louis, inc.

xerox •  HEWLETT PACKARD •  **OCÉ** • **RICOH**
Inkjet Plotters **Canon**

ANDY J. CANZIANI
DIRECTOR OF SALES

5301 Hampton Avenue • St. Louis, MO 63109
email acanziani@aol.com
Fax (314) 832-9423 Cell (314) 277-6343



**Missouri Society of
Professional Surveyors**
P.O. Box 1342
Jefferson City, Missouri 65102

PRSRT STD
US Postage PAID
Permit No. 364
Jefferson City, MO 65101

