

THE American Surveyor

A FOOT IN THE PAST... AN EYE TO THE FUTURE

Vol. 7, Issue 3

SMART Surveying

Ashtech is Back!

An interview with François Erceau

The Birthplace of VRS

Great ideas from Bavaria

The Center of Section

Which corner controls?





The best of the old and new still can't
replace one man and a shovel.
Photo courtesy of Paul Dopuch, County
Surveyor, Gasconade County, Missouri.

Whose Footsteps Are They?

The Journey to the Center Quarter Corner

The center quarter corners of the Public Land Survey System are the topic of many heated discussions between surveyors. Some say the center quarter can exist only at the intersection of lines described by the ACT of 1805, and others say it exists where any field evidence suggests it has been.

The center quarter is a corner of the Public Land Survey System. These are corners of the system that are protracted from the corners, lines, and monuments established in the original field surveys, and represented on the official plat. Protracted corners were only established by the government on the ground under unusual conditions and with special instructions to the Deputy Surveyor. Our dilemma is which controls, the corner represented on the plat, or the corner found on the ground in a position different than the calculated point?

Many of us are taught that the instructions to establish the center of section are historically clear, absolute, and date back to the provision of the ACT of February 11, 1805. Our instructions, rules, and statutes all tell us that to establish the center of

section, run straight lines from the established quarter section corners to the opposite corresponding corners; the point of intersection of these lines will be the corner common to the several quarter sections. There are exceptions to these rules for the Northern tier, Western tier, and Fractional Sections. The center quarter and protracted corners were always thought to be, and intended to be, established on the ground by the local surveyor with authority to conduct surveys.

The 19th century county surveyors didn't consider these instructions quite as clear as we do in hindsight. There are numerous letters sent by concerned citizens, surveyors, and State Legislators from across the Public Land Survey System asking the Surveyor General or the Commissioner of the General Land Office for guidance. Eventually the Government issued its first circular regarding the subdivision of sections and the restoration of corners November 1, 1879, nearly 75 years after the Land ACT of 1805.

There are an untold number of corners protracted during this time. The questions asked of the Surveyors General and the Commissioner regarding the reestablishment of corners and

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establishment of protracted corners was a repeated theme. One answer to these questions came from Commissioner Justin Butterfield in 1839. He directed the center of the section be established at the midpoint of the line connecting the east quarter section corner and the west quarter section corner. This procedure was perpetuated in the instructions issued by the Surveyor General in St. Louis in 1856. Surveys were run, corners set, notes returned, plats drawn, approved by the government, and land was sold. This process created a right of reliance by the public on that work, which became vested in the patentee. The government was finished. The government surveys were as complete as the law contemplated, and questions lingered.

The Appendix to the 1856 instructions is typical of the responses and directions given for completing and subdividing Sections:

“Numerous and repeated applications having been made to the Surveyor General, by county and United States deputy Surveyors and others”... “for information and directions as to the proper method of ... subdividing Sections,”...”the answers to which would occupy much time and delay other public business, it is deemed advisable to publish, for the information of those concerned, a brief statement of the system adopted by the General Land Office for the surveys of the public lands,”... “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.”

The “rules” the county surveyor understood weren’t so clear and unambiguous as we like to think looking back so many later. Armed with instructions that were often ambiguous, and answers to questions that compounded the uncertainty, the county surveyors did not shirk their obligation and duty to *establish* protracted corners.

Once *established*, corners exist in three states, existent, obliterated, or lost, and we have rules and procedures to restore and perpetuate these corners. *Black’s Law Dictionary* defines “establish”:
“To settle, make, or fix firmly; place on a permanent footing; found; create; put beyond doubt or dispute; prove; convince.”

Under a rigid application of the establishment procedure, no corner could be stable, and would be subject to a different location based on different calculations, at different times, with different equipment. We all know that declaring a corner lost and proportioning its position is an equitable solution, and (most likely) will not place the corner where it was. That’s why it is always the rule of last resort. Following the rule for establishment, protracted corners will be created in a “new” position every time a quarter corner is declared lost and proportioned. The field and record evidence of each protracted corner must be evaluated on

Its history, reliance, and yes, the methods that were used to establish it all play a role in the decision to accept or reject the corner found.

Strict adherence to the rules for establishing protracted corners should not be the only evidence surveyors evaluate. This action discards the legal authority of the 19th century surveyors who were the authority to establish them. Their decisions and surveys established the corner on the ground. In a nutshell, protracted corners are original corners of the system, and the local authority was the only authority charged with establishing monuments at protracted corners. Today, many surveyors follow procedures that were intended to establish protracted corners and ignore the procedures of resurveying and retracing. The public is not protected or well served by the profession when every surveyor establishes a corner, especially when it is in a different position than a previously *established* corner that exists or is obliterated and can be retraced.

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Gary J. Bockman, PE, PLS wrote an article, “Plat or Monument”, published May 2008 in *Professional Surveyor*. Mr. Bockman cites numerous court cases from across the nation, and states, “In *Dykes v Arnold*, 129 P 3d 257 (Ore. App. 2006)... The case involved a situation where the county surveyor did not intersect lines between opposing quarter corners to determine the legal center of section but only split the east-west quarter line. That center quarter corner was used in subsequent metes and bounds surveys creating several parcels. The ruling held the county surveyor’s corner monument to be the true corner, even though it was not set by proper procedures.... They also acknowledged


that the county surveyor was given the role of completing the identification of the individual parcels or aliquot parts of sections after the federal government created the sections. In recognizing the role of the county surveyor, the court also concluded that this person, being the first official surveyor to monument the center quarter corner, must be treated as an original surveyor whose lines run and marked on the ground are the true lines and corners....”

Adams v Hoover 493 NW2d 280 (Mich CA 1992) continues with these same thoughts, “As stated in *Am Jur 2d*, Boundaries, Sec. 61, p. 599: In surveying a tract of land according to a former plat or survey, the surveyors 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 Court continued, “...and if all the lines were now subject to correction on new surveys, the confusion of lines and titles that would follow would cause consternation in many communities. Indeed the mischiefs that must follow would be simply incalculable, and the visitation of the surveyor might well be set down as a great public calamity. But no law can sanction this course. The surveyor has mistaken entirely the point to which his attention should have been directed. The question is not how an entirely accurate survey would locate these lots, but how the original stakes located them....”

The goal of any resurvey or retracement is to find and perpetuate the corners in their original position, and the county surveyor was always contemplated to be the one to establish protracted corners. Once established, they are forever fixed in position. *Adams v Hoover* concludes with; “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... To give effect to the technically correct ... survey... could

unsettle boundaries throughout the entire Section... There was testimony that all of the other surveyors...relied upon the [previous] center post [not at intersection]... 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 the facts herein would cause, as Justice Cooley stated in Diehl, supra, incalculable ‘mischief’ and ‘consternation’”

Our laws, rules, and the Courts seem to be clear. Once a corner has been established, it is always established, with the exceptions of gross error or fraud. Yet, many surveyors reject the evidence found in the field and mathematically establish “their” protracted corner. A retracing surveyor’s obligation is to, research, find, perpetuate, and preserve the evidence. This includes protracted corners that were established under authority, pursuant to the instructions, methods, rules, and laws in effect when they were established. Those whose footsteps we are to follow, questioned procedures, sought guidance, and were told, “...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 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.”

The stone you find in the field set by the county surveyor in the mid 19th century may not be at intersecting lines. It may be far from it. It may also prove to be the center quarter corner following the footsteps of those charged with establishing the corner. 

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