

HOOSIER SURVEYOR



QUARTERLY PUBLICATION OF THE
INDIANA SOCIETY OF
PROFESSIONAL LAND SURVEYORS, INC.

VOLUME 20
NUMBER 1
SUMMER 1993



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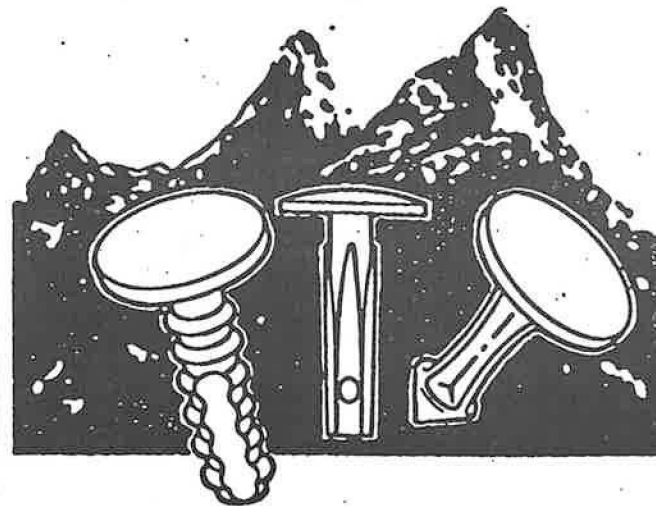
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Articles and columns appearing in this publication do not necessarily reflect the viewpoints of ISPLS or the Hoosier Surveyor staff, but are published as a service to its members, the general public and for the betterment of the surveying profession. No responsibility is assumed for errors, misquotes or deletions as to its contents.

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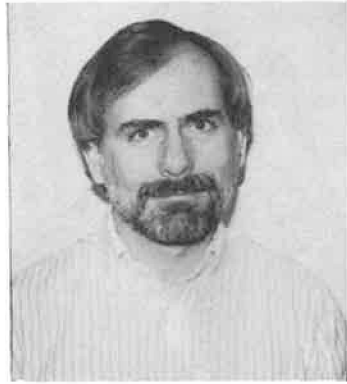
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PRESIDENT'S THOUGHTS

by Douglas Herendeen, New Palestine, IN



With the year half-way completed I have a few thoughts I would like to share with you.

It starts out as an idea from a group of people "How can we improve on the system". A goal is established to accomplish this idea with its list of tasks that must be completed before the idea can become a reality. The

wheels are then put into motion that will hopefully change the system. Some people voice their concerns as to why this idea should not become a reality. The group satisfies most of the complaints and proceeds toward a completion. The group succeeds and passes their idea into law. For those who follow the current Legislative body you may think I am writing about our bill to amend the Indiana Code. But I am not, I am writing about the way the Legislators handled the current State Budget Bill. It was amazing the similarity between what happened with the State Budget Bill and our Indiana Code Bill. For those of you who follow the Legislation I am sure the similarities were plentiful.

It wasn't until I was elected to the Board of Directors that I paid any attention to the Legislative procedures in the State of Indiana. As many of you are aware I originally came from Upstate New York, and up until a few years ago I can probably assume not too many people followed the Legislative procedures either, with the exception of our Governmental Affairs Committee. Early attempts were made to pass bills but as with any group just trying things for the first time it took awhile to understand the system and to find out who our friends or foes were. However, things began to turn around with the passing of Rule 13 (now "Rule 12"), and our own Registration Board. The attitude at the beginning of the General Session this year was one of relief and what could go wrong now. Little did we know this year was going to be one we would not forget. It started when we made a few influential people furious at us for passing Rule 13. It appears that with the passing of Rule 13 it made some projects cost prohibitive because of the requirements necessary to comply with Rule 13. (We all know this is not true and the need to educate the public is one ISPLS needs to accomplish). After much work by our Lobbyist and Governmental Affairs Committee we were able to satisfy some very influential Legislators with the legislation we passed this year. I am sure everyone involved is relieved this year is over.

In my opinion the same thing happened with the State Budget. Certain people believed the time was right to obtain certain items for their home districts and they used their influence to accomplish this goal. They even used their influence to disagree with the Governor on a matter that affects the entire State of Indiana.

Nothing is wrong with this as long as it does not jeopardize the citizens of Indiana. Only time will tell who was correct. Now we didn't have the Governor as an opponent to amending the Indiana Code but the similarities between what happen with the State Budget Bill and our Bill are uncanny. One of the items accomplished by this year's legislation will allow the Registration Board to adopt Continuing Education Requirements (Professional Development). The current ISPLS Voluntary Professional Development program continues with two one day seminars on IOSHA requirements for Safety Procedures on the Job Site. These seminars will be presented by Ronald Koons of RoSaKo Enterprises. The first will be on October 1st at Turkey Run State Park and the second one will be on October 15th in Fort Wayne. Look in your mailbox for the registration form or call Dianne at the Central Office (317-687-8859) for information. Remember space is limited at Turkey Run so register early.

Remember when the Federal Government passed the Metric Law back in the 70's and everyone was supposed to start converting to metrics. Well the Federal Government finally realized the people were not going to convert unless they put some teeth into the legislation. Therefore, starting May, 1992, any project that is receiving Federal Assistance will be fully metric by 1996. The Indiana Department of Transportation (INDOT) has already started the conversion with all surveys being in metric. They are now requesting all Local Public Agencies (LPA's), Metropolitan Planning Organizations (MPO's), and Consultants to start converting to the metric system. This is to provide for a timely transition to the metric system in all federally funded construction contracts beginning with the October 1996 bid letting. If this sounds like a possible seminar for our members please let Dianne know at the Central Office.

One final note, in regards to the lawsuit filed against ISPLS, our day in court has come and gone. As some of you predicted it was continued until August 27 at 1:00 pm. in Superior Court Room 2. For those of you who are interested, they asked for extension of time. As far as the issue of Ron Hansell being able to represent ISPLS, I believe the Judge will rule in our favor.

That's all for now, I hope everyone is having a glorious summer. As I started this letter I find it hard to believe that half the year is gone and school will be starting soon.

**HAVE YOU PAID YOUR
1993/1994 DUES ??**

**IF NOT, THIS WILL BE YOUR LAST
ISSUE OF THE HOOSIER SURVEYOR!!!**

ISPLS BOARD OF DIRECTORS MEETING

Summary by Dianne Bennett

The Board of Directors of the Indiana Society of Professional Land Surveyors held a meeting on April 3rd at Purdue University, Lafayette.

The agenda was adjusted to allow Steve Johnson and Boudewijn van Gelder of Purdue University to make a presentation to the board. Steve Johnson reminded the board of the evening's Surveying Recognition Banquet and updated the board on the recent accreditation process and the surveying course changes. GPS and GIS have been added to the curriculum. Johnson and van Gelder are also coordinating the preparation of a questionnaire to the graduates of the program and the practicing professionals which the program serves. The board was asked to review the questionnaire. After lengthy discussion a motion was made and approved to send the questionnaire to the Education Committee with the board's comments for review and their recommendations.

Steve Johnson also reported that Manual #2 will be updated by himself and two graduate students. A draft is expected by the end of the semester and will be finalized by the end of the summer.

Doug Herendeen reported on the 1993 convention; there were 369 in attendance. ISPLS's share of the profit from the convention should be around \$6000.

David Blankenbeker presented the budget for the 1994 con-

vention and the tentative program. After discussion a motion was made and passed to approve the preliminary budget.

After discussion of staff's salary and benefits, a motion was made and passed to increase Dianne's salary and change her title to Executive Director.

Wes Day reported on Government Affairs regarding the status of our Bill.

The following membership applications were presented and approved: Surv-Kap, Sustaining; Brian Anderson, Junior; Robert Griffin, Junior.

ISPLS will once again be participating in Career Days at the Indianapolis Convention Center on April 18th.

The sale of the 10 States Standards by ISPLS was discussed. This will be discussed at the Finance Committee meeting.

Collegiate/TUPUI Surveying Course Study will be reactivated and will be presented with new charges.

The Engineers and Surveyors Boards would like ISPLS and ISPE to sponsor an evening reception and/or breaks during the NCEES Central Zone meeting on May 5-7, 1994, in Indianapolis.

Indiana Historical Landmarks - the field work for legal survey of the Witness Tree is to be finished. The date of completion was rescheduled to April 17th.

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LEGAL CASE SUMMARIES

by Knud E. Hermansen, P.L.S., P.E., Ph.D., Esq.

Sears Mortgage Corp. v. Rose

607 A.2d 1327, 257 N.J. Super. 33 (1992)

Sometimes seeming unrelated cases can provide some interesting insight into surveyor liability. Sears Mortgage Corp. v. Rose is a case in point. In the case, a buyer purchased property and in the process obtained title insurance. The title insurance company excepted an existing mortgage. The buyer gave the closing attorney funds from a prior sale to pay off the existing mortgage. The attorney deceitfully took the money and used it for his own purposes. (The attorney was later caught and disciplined.) The buyer refused to pay on the existing mortgage causing the mortgagee to begin foreclosure proceedings against the property. Eventually the buyer, title insurance company, and the mortgagee began litigation to determine who should bear the loss for the attorney's deception.

Two points were made by the appellate court that may be interesting to a surveyor. First, the court noted that an attorney may in fact be representing multiple parties at a closing "The fact is that at a ...closing, {the} ...attorney usually wears three hats. He represents the buyer, of course. But he also represents the mortgagee, if there is one, by disbursing the mortgage funds under conditions imposed by the mortgagee and attending to execution and recording of the mortgage documents. And, in addition, the attorney also represents the title insurance company by doing all those things which, ... the company would have to do for itself." (p.42) This multiple representation is worth noting because some surveyors have the impression that survey information sought by the bank is strictly for the bank's internal use (e.g. where the surveyors perform a "mortgage survey"). Second, when faced with allocating damages among the innocent parties, someone has to bear the loss regardless of the fact that there may be little or no guilt or negligence. The court states "where a loss must fall on one or more of a number of innocent parties, the loss should fall on the one or ones among them who, by his or her conduct, created the circumstances that led to the perpetrator causing the loss." (p. 46) In other words, the loss is allocated to the less innocent party. In this case the loss was allocated to the buyer. The buyer was the one who selected the attorney for the closing.

Pasta House Co. v. Williams

833 S.W.2d 460 (Mo.App.E.D. 1992)

A surveyor was charged with breach of contract and negligence for failing to properly stake a building within the building set back lines. As a result, the developer had to remove portion of the building. The trial court found in favor of the surveyor because "expert testimony was required to establish the alleged standard...[and the developer] presented no such testimony; accordingly, the trial court determined appellant's cause of action failed" (p. 462) In truth, it appears the surveyor probably did not make a sufficient effort to determine the building setback lines. However, the developer did not offer enough evidence to establish the surveyor's duty under the applicable standard of care. A point of interest arising from the case is the developer's contention that the surveyor is per se liable by failing to abide by the State's mandatory "Minimum Standards

for Property Boundary Surveys," which requires that "[t]he surveyor shall, acquire...data, such as adjoining deeds, maps, certificates of title, subdivision plats and original plats and notes." In what is arguably misdirected logic, the appellate court determined that the standards as written apply to locating boundaries and not set back lines. (Implying that the term "boundaries" within state standards do not encompass restriction lines. The standard must specifically mention restriction lines to charge the surveyor with the responsibility for locating restriction lines under the standards.)

Crane v. Hayes

417 S.E.2d. 117, 187 W. Va. 198 (1992)

A recent West Virginia case indicates the need for surveyors to be familiar with some aspects of title. In Crane v. Hayes, a landowner had a prescriptive easement over their neighbor's land. The easement had been used for farming activities such as fence repair and cultivation. The landowner decided to sell two lots and provide them access using the prescriptive easement. The West Virginia Supreme Court denied the lots the right to use the prescriptive easement for residential use. The Court affirmed "that the burden placed upon the land during the ten-year statutory period may not be increased, and the proposed use to be made of the prescriptive easement must be of the same nature as the uses exercised during the statutory period. The character and purpose of an easement acquired by prescription are determined by the use made of it during the prescriptive period" (p. 119) Therefore, the landowner "only has an easement for maintenance of the fence. He cannot use the lane for a different purpose than he made of it over the years." (p. 120)

The failure of the surveyor to recognize the validity and limitations of easements before preparing development plans are obvious. An injunction issued once lots are sold and homes built would be disastrous and sure to bring claims for damages. Therefore, as a note of caution, surveyors should check on the validity and extent of all easements before relying upon them to provide access to residential property.

Bradley v. Waldrop

(F1.App. 1992)

A landowner had a developer help in selling his property. The developer hired a surveyor to subdivide the parcel into three lots. The surveyor performed the services and sought payment from the developer. When the developer refused to pay, the surveyor sued the landowner. The landowner denied responsibility for payment. The trial court sided with the landowner. The appellate court found that the developer was acting as an agent for the landowner. As a result, the landowner was responsible for the surveyor's fee. The appellate court said: "It is well-established that an agent's authority may be inferred from acts, conduct and other circumstances. Further, an agency relationship may be found even though the principal and the agent deny the existence of such a relationship. [A] principal may be held liable for the acts of his agent, even though the acts were not authorized, if the agent was acting within the scope of his employment or apparent authority." Two important concepts should be learned from this case: (1) The surveyor may contract with persons other than the landowner for services (as many mechanics lien laws allow); however, the surveyor can avoid problems and misunderstanding by making the landowner aware of the contract through written notification directly to the landowner. (2) The surveyor's employees may bind the surveyor/employer as a result of acts or words, imposing unexpected obligations on the surveyor. Proper instruction and training of surveyor's employees are essential to prevent unwanted liability.

HOUSE BILL NO. 1664

A BILL FOR AN ACT to amend the Indiana Code concerning professions and occupations.

Be it enacted by the General Assembly of the State of Indiana:

SECTION 1. IC 25-21.5-1-7, AS ADDED BY P.L. 23-1991, SECTION 12, IS AMENDED TO READ AS FOLLOWS: Sec. 7.

(a) "Practice of land surveying" means any of the following:

- (1) The measurement of directions and distances needed to establish or reestablish the corners and boundaries required to locate lots, parcels, tracts, or divisions of land.
- (2) The determination of elevations and preparation of topographic drawings for tracts of land.
- (3) The preparation of subdivision plats.
- (4) The preparation of legal descriptions of tracts of land to be used in the preparation of deeds of conveyance or other instruments, except when prepared by an attorney who is licensed to practice law in Indiana.
- (5) The determination of the amount of acreage contained in a tract of land, except when determined by an attorney who is licensed to practice law in Indiana.

(b) The term includes the following:

- (1) For and within subdivisions being laid out or having been laid out by the land surveyor, the preparation and furnishing of plats, plans, and profiles for roads, storm drainage, sanitary sewer extensions, and the location of residences or dwellings where the work involves the use and application of standards prescribed by local, state, or federal authorities.
- (2) The necessary staking and layout work to construct roads, storm drainage, sanitary sewer extensions or location of residences or dwellings, if the plans and profiles were prepared by or under the direction of a land surveyor.
- (3) Preliminary surveys for preparation of plans for engineering and building construction projects and the staking out of the projects from plans prepared by a registered professional engineer or by a registered architect.
- (4) All work incidental to cleaning out, reconstruction, or maintaining existing open and tile drains.

SECTION 2. IC 25-21.5-8-7 IS ADDED TO THE INDIANA CODE AS A NEW SECTION TO READ AS FOLLOWS: Sect. 7.

(a) The board may adopt rules requiring a land surveyor to obtain continuing education for renewal of a certificate under this chapter.

(b) If the board adopts rules under this section, the rules must do the following:

- (1) Establish a fee of two dollars (\$2) for each hour of continuing education required after the certificate of registration was issued or renewed.
- (2) Require that continuing education fees be paid when the land surveyor's certificate of registration is renewed.
- (3) Establish procedures for approving an organization that provides continuing education.
- (4) Require an organization that provides an approved continuing education program to supply the following information to the board not more than (30) days after the course is presented:

(A) An alphabetical list of all land surveyors who attended the course.

(B) A certified statement of the hours to be credited to each land surveyor.

(c) If the board adopts rules under this section, the board may adopt rules to do the following:

- (1) Allow private organizations to implement the continuing education requirement.
- (2) Establish an inactive certificate of registration. If the board adopts rules establishing an inactive certificate, the board must adopt rules that:
 - (A) do not require the holder of an inactive certificate to obtain continuing education;
 - (B) prohibit the holder of an inactive certificate from practicing land surveying; and
 - (C) establish requirements for reactivation of an inactive certificate.

(This bill went into effect July 1, 1993)

VALUABLE PAPERS

Since a sizeable portion of the contents in a surveyor's office might properly be deemed Valuable Papers, I read a brief article in an insurance newsletter about the need for Valuable papers insurance, and some methods to protect against loss. The three simple methods proposed are logical, but for most surveyors, probably not practical. Suggested methods to eliminate or reduce losses:

1. Duplicate all documents and keep copies off premises.
2. Store all originals in a hazard-resistant file, safe, vault, or safe-deposit box when not in use.
3. If documents cannot be duplicated, take extra precautions to protect them.

Some Commercial Property and Business Package policies include a small amount of Valuable Papers coverage, but the limits included in the base policies are probably not adequate to replace a loss.

To determine the cost of paper, computer discs or tapes, mylar, etc. is relatively easy. Calculate the initial cost of such items, and the time and cost to prepare them, then also figure the hours involved to reproduce these valuable records. You would then arrive at a best-guess estimate of coverage needed. Obviously each project that is completed by your office increases the amount of coverage you would need.

One of the most valuable items which should be copied and kept off-premises is the financial records of your business. If the financial records go up in flames, what proof do you have of any value?

...taken from the Empire State Surveyor, January 1993

IRWA FORMS SURVEYING COMMITTEE

International Right of Way Association, the association serving professionals employed in all aspects of right-of-way activities, has formed an ad hoc committee representing that segment of the right-of-way industry principally involved in surveying. The new committee, known as the International Surveying Committee (ISC), was established by IRWA's International Executive Committee (IEC) at the association's 1993 International Education Seminar in Calgary, Alberta, (Canada) to determine the interest and support for a permanent surveying industry committee in IRWA.

The ISC will be chaired by IRWA International Secretary Woodrow W. Pemberton, Jr., SR/WA. The new committee will report directly to the IEC, and will begin to develop plans for the formation of a surveying industry committee within each of the association's 75 chapters. The ISC also will identify surveying topics, speakers and exhibitors for the association's 40th International Education Seminar on June 26-30, 1994 in Pittsburgh, Pennsylvania.

In addition to opportunities for participation at the chapter level, IRWA members who are Professional Land Surveyors will be encouraged to share their experience of the value of IRWA membership with potential clients and custodians of land information, and to submit technical feature articles for publication in IRWA's professional journal, *Right of Way*.

For more information about the benefits of membership, contact IRWA headquarters, 13650 S. Gramercy Place, Gardena, California 90249; phone (310) 538-0233, or Fax (310) 538-1471. To speak with a land surveyor member of the ISC, call Don Bender, SR/WA, in Los Angeles (213) 481-6748; Al Hebrank in Washington state, (206) 447-1729; or Ron Williams, SR/WA, in West Virginia (304) 343-4202. In Canada, call Land Surveyor Committee members Walter Carbis in Ontario, (416) 798-8606 or Bernie McKenna in Alberta (403) 245-4711.

International Right of Way Association

Founded in 1934, International Right of Way Association (IRWA) is a nonprofit organization serving more than 9,000 members in 75 chapters throughout the United States and Canada. IRWA is the association serving professionals employed in all aspects of right-of-way activities.

IRWA offers individual membership to professionals and consultants who acquire, manage or dispose of real estate for public agencies and investor-owned companies. IRWA members represent a broad base of employment environments, including local, state, provincial and national government agencies. Contractors and employees of special authorities such as airports, harbors, ports, water districts and public transit systems also participate,

and IRWA enjoys significant involvement from those who work for investor - and publicly-owned utilities and pipeline companies.

IRWA thrives at the chapter level. Professionals and consultants gather at chapter functions to participate in high quality education courses and seminars, and to exchange information on local issues. IRWA chapters provide opportunities to network with professionals employed within the diverse real estate interests of the association's membership.

PURDUE (WEST LAFAYETTE) CAMPUS TO OFFER EVENING COURSE DURING 1993 FALL SEMESTER

During the 1993 Fall semester, Purdue will teach LS 300 Land Survey Systems (3 credits) at 5:30 to 6:45 p.m. on Tuesday and Thursday evenings. The semester commences on August 23 and ends December 18, 1993. The course will be held in the Civil Engineering Building on the West Lafayette campus. The instructor is Dr. Steven Lambert (317) 494-2168). The course will emphasize land survey systems from the historical development of the U.S. Public Land System to modern implementations of land information systems (LIS) and geographic information systems (GIS). The textbook for the course will be Dr. McEntyre's book *Land Survey Systems*. Additional material will be used to supplement the course text. Information on enrollment procedures can be obtained from the Admissions Office (317-494-1776). A non-degree student status is possible. The tentative course outline includes the following:

History of the development of land survey systems. United States Public Land System. Use of coordinate systems. Methods of describing property. Implementation of land information systems, LIS versus GIS.

NEW REGISTERED LAND SURVEYORS IN INDIANA

The Indiana State Board of Registration for Land Surveyors held the certificate presentation for Professional Land Surveyors on Friday, May 21, 1993. The ceremonies were held at the Government Center South Auditorium, Indianapolis. The following land surveyors were awarded with certificates:

William Finke	Lebanon, OH	29300003
Daniel Kovert	Indianapolis, IN	29300002
Merton Lovell, II	Springsboro, OH	29300001
Jeffrey Myers	Indianapolis, IN	293000



STATE OF INDIANA

EVAN BAYH, Governor

Indiana Professional Licensing Agency

302 West Washington Street Room E034
Indianapolis, Indiana 46204-2700
Telephone: (317) 232-2980
Fax: (317) 232-2312

August 9, 1993

Montgomery County Commissioners
Montgomery County Court House
Crawfordsville, Indiana 47933

Subject: Mr. Harvey Keller
The Practice of Land Surveying
without a license

Dear Commissioners:

On behalf of the Indiana State Board of Registration for Land Surveyors, I am writing this letter to inform you of a complaint filed with the State's Attorney General's Office alleging that Mr. Harvey Keller, Montgomery County Surveyor, is practicing land surveying without a license.

It is a deceptive act and a violation of Indiana law for any individual in this state to solicit to engage, or engage in, the practice of land surveying, unless said individual is so licensed by the Indiana State Board of Registration for Land Surveyors.

Mr. Keller has agreed to an Assurance of Voluntary Compliance which is approved by the Marion Circuit Court and filed with the Clerk of Circuit Court of Marion County under Cause No: 93 AVC 0021.

Mr. Keller has also acknowledged that it is a Class B misdemeanor to engage in the practice of land surveying without being registered, and has agreed to refrain from making any representation that he is licensed to perform the practice of land surveying.

Mr. Keller has also agreed to reimburse the Consumer Protection Division of the Office of the Attorney General for their reasonable costs of investigating this matter.

Mr. Keller's election to public office does not qualify him or allow him to establish a private practice of land surveying in the State of Indiana without being registered, and land surveying performed by the Office of the County Surveyor must be by or under the direct supervision of a registered land surveyor.

This letter is for your information as executive officers of your county and for the public's welfare.

Respectfully yours,

Patrick N. Cunningham
Indiana Board of Registration
for Land Surveyors

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IMPORTANT CONGRESSIONAL ALERT !!!

Message from Milton F. Denny, Chair of ACSM/ASPRS Government Affairs Committee

AT STAKE: The Brooks Act—Qualifications-Based Selection (QBS)

WHY: Congressional efforts to implement the recommendations contained in the Department of Defense (DOD) Section 800 Report on federal procurement reform have raised the specter of potential repeal of the Brooks Act. Why? There is an overriding Administration and congressional search to reduce government costs associated with contracting with the private-sector. Key Senate committee staff, opposed to the Brooks Act, are questioning the cost-effectiveness of qualifications - based selection (QBS) procedures vs. low bid process. The committee draft legislation on the Section 800 Report is anticipated by the end of the August congressional recess.

ACTION NEEDED: Please write or call your Senators immediately! It is particularly helpful if your Senator serves on the Senate Governmental Affairs and Senate Armed Services Committees which have jurisdiction over the DOD Section 800 reforms (see list attached). **Key message--"Senators should not allow repeal or provisions that would undermine the time-tested Brooks Act in Senate procurement reform measure implementing the DOD Section 800 Report."** Additional talking points and U.S. Capitol phone number and mailing address are listed below.

Dear ACSM/ASPRS Members:

Once again I am requesting your assistance with Congress. This time your help is important, indeed crucial, to maintaining the professional stature of the Federal government's solicitation of surveying and mapping services. We have learned that the very cornerstone of federal QBS procedures for obtaining surveying and mapping, architectural and engineering services, **the Brooks Act**, is a potential target for repeal in procurement reform legislation implementing the DOD Section 800 Report in the Senate.

We cannot allow any proposal to repeal or undermine the Brooks Act to be included in the legislative package of DOD Section 800 procurement reforms. Your government affairs director Nancy Parke is working this issue on Capitol Hill and coordinating efforts with related architectural and engineering societies through the Council on Federal Procurement of Architectural and Engineering Services (COFPAES). This is important, but we also need your participation through congressional calls and letters to let your Senators know the strong support in the professional design community for the QBS selection procedures outlined in the Brooks Act.

Some key points you can use either for your letter or telephone calls on this issue:

- * The DOD Report (Section 800) containing the recommendations of the Acquisition Law Advisory panel to Congress in January 1993 validated the Brooks Act as being cost-effective. It stated "In essence, since its formal adoption in 1972, qualifications-based selection has been validated, allaying the cost concerns that were present when it was first enacted."
- * Brooks Act is a time-tested, negotiated QBS procedure used for over twenty-years in Federal procurement. It is recognized as an effective procurement method by Federal, state and local governments for acquiring profes-

sional design services. Most importantly, Brooks Act procedures are deemed competitive under the requirements of the Competition in Contracting Act.

- * Negotiated procedures under Brooks Act direct the focus of procurement activity on the quality of the surveying and mapping services suited to a given contract. A high quality survey or map will stand the test of time and will ensure that the government can proceed with its design, construction or resource planning project based on complete and precise information. This would not be the case when only price competition and not qualifications is used.

Please direct copies of your letters and any questions to Nancy Parke at the headquarters office (301) 493-0200. I strongly urge that you write and make it your responsibility to get at least two of your colleagues to write as well. Thank you in advance.

Important Information:

For writing your Senator use: The Honorable _____,
United States Senate, Washington, DC 20510-1103

For telephone calls: U.S. Capitol Switchboard (202) 224-3121
Request your Senators' offices and ask to speak to the Legislative Director.

Let your Senator know that you have been advised that there are discussions in the Senate relative to implementing procurement reforms in the Section 800 report that may repeal or undermine the Brooks Act. Then give three reasons why they should support Brooks Act such as those listed above!

Committee on Armed Services

SR-228 Russell Senate Office Bldg, Washington, DC 20510 6050
Phone: (202) 224-3871

Majority Members

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Carl Levin, Mich.
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Committee on Governmental Affairs

SD-340 Dirksen Senate Office Bldg, Washington, DC 20510-6250
Phone: (202) 224-4751 Fax: (202) 224-9682

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John McCain, Ariz.

PURDUE SUMMER SURVEYING 1993 FIELD PROJECT

The 1993 Summer Surveying Field Project course was held on the West Lafayette campus from May 17 to June 11. The group of eight surveying majors were tasked to complete four projects: large-scale topographic mapping of a portion of Happy Hollow Park, site map and access road plan at Cumberland Recreation Fields, section corner recovery in Happy Hollow Park, and horizontal and vertical control at Slayter Hill for surveying course laboratory exercises. The students were responsible for meeting with the clients to determine project requirements, planning and scheduling the field and office effort, setting specifications and quality control, and producing the final product. At the end of the

course, the students presented the project results orally and in report form to the clients, faculty, and invited guests.

The faculty this year were professors B.H.W. van Gelder and S.D. Johnson. The students are listed with the accompanying photos. Our appreciation to the following individuals who helped so much to make the course successful: Penny Ainsworth and Lee Booth of the West Lafayette Parks and Recreation Department, Dale Grimes of the Tippecanoe County Section Corner Perpetuation Project, Opal Kuhl of the West Lafayette Engineering Department, and Dan Pusey of the Purdue University Facilities Planning Department.



LS 400 Students (L to R) Scott Whybrew, Mike Salyers, Stephen Pratt, and Jamie Gorski.



LS 400 Students (L to R) Dean Coon, D. Scott Bordenet, Brent Spencer, Stephen Marshall.



The Daily group project planning and review meeting with faculty and students.



Brent Spencer and Prof. Johnson set up a GPS receiver during the GPS control survey campaign.

PURDUE SUMMER SURVEYING 1993 FIELD PROJECT



Stephen Pratt concentrates on keeping the level rod vertical during the control surveys.



Jamie Gorski takes notes for Mike Salyers during the precise leveling survey down Slayter Hill.



Scott Whybrew takes topo observations with the total station during the Happy Hollow mapping project.



Mike Salyers prepares to try for an A shot during the final exam/golf tournament.

ISPLS FALL WORKSHOPS

Two - One Day Seminars On "Hazard Communications and Safety Standards"

Turkey Run State Park, Marshall, Indiana - Friday, October 1, 1993
Holiday Inn N.W., Fort Wayne, Indiana - Friday, October 15, 1993

** 5 Professional Development Hours (PDH) **

Presented By

Ronald E. Koons
RoSaKo Enterprises

The Indiana Occupational Safety and Health Administration is responsible to insure compliance with workplace safety regulations in the State of Indiana. A summary of the basic requirements as they apply to Land Surveyors will be presented. This will include Company Safety Programs, Hazard Communications Programs, and Confined Space Entry Permits. You will be informed of what to expect if a Compliance Officer visits one of your job sites or office facility. This discussion will include what violations are currently being emphasized by IOSHA. Previous citations for other businesses will be reviewed. An explanation will be given on how to contest citations and ask for a reduction in fine amount. Time will be allotted for a question and answer period.

This workshop will be presented by Mr. Ronald E. Koons, RoSaKo Enterprises. Mr. Koons has over 18 years experience in dealing with IOSHA. He is a Consultant in the Safety and Hazardous Materials areas. His company writes Safety and Hazard Communications Programs for businesses throughout the State. He has worked with Surveyors and understands their specific needs and areas of concern.

WORKSHOP SCHEDULE

8:30	Registration
9:00	"The Price is Right?" An introduction to IOSHA and what non-compliance can cost.
10:30	Break
10:45	The Company Safety Program
12:00	Lunch
1:00	The Hazard Communications Standard; what it means and how it applies to a Surveyor.
2:30	Break
2:45	Conclusion of Hazcom; Confined Space Permits; Question and Answer period.
4:30	Adjourn

REGISTRATION FORM - ISPLS FALL WORKSHOPS

Two - One Day Seminars On "Hazard Communications and Safety Standards"

Turkey Run State Park, Marshall, Indiana - Friday, October 1, 1993
Holiday Inn N.W., Fort Wayne, Indiana - Friday, October 15, 1993

5 Professional Development Hours (PDH)

Time: Registration 8:30 a.m. Program 9:00 - 4:30 p.m.

Registration: All fees include lunch. Payment must accompany reservations. No other discounts apply. Please make checks payable to ISPLS and mail to: 55 Monument Circle, Suite 1222, Indianapolis, Indiana 46204
Phone: (317) 687-8859

Name(s): _____ Firm Name: _____

Address: _____
City/State/Zip: _____ Phone: _____

Specify preferred reservation date: Turkey Run State Park - Oct. 1st.
 Fort Wayne - Oct. 15th.

Attendance limited - 50 persons at Turkey Run - 75 Fort Wayne

REGISTRATION FEE:	No. Persons	Sub-Total
ISPLS Firm Member	_____ @ \$ 75.00	_____
ISPLS Member	_____ @ \$ 95.00	_____
Others	_____ @ \$115.00	_____
Total Enclosed		_____

ROOM RESERVATIONS: Call Turkey Run Inn, Marshall, IN - (317) 597-2211 (Limited # of Rooms)
Call Holiday Inn N.W., Fort Wayne, IN - (219) 484-7711
3330 W. Coliseum Blvd. (off I-69 exit 109A)

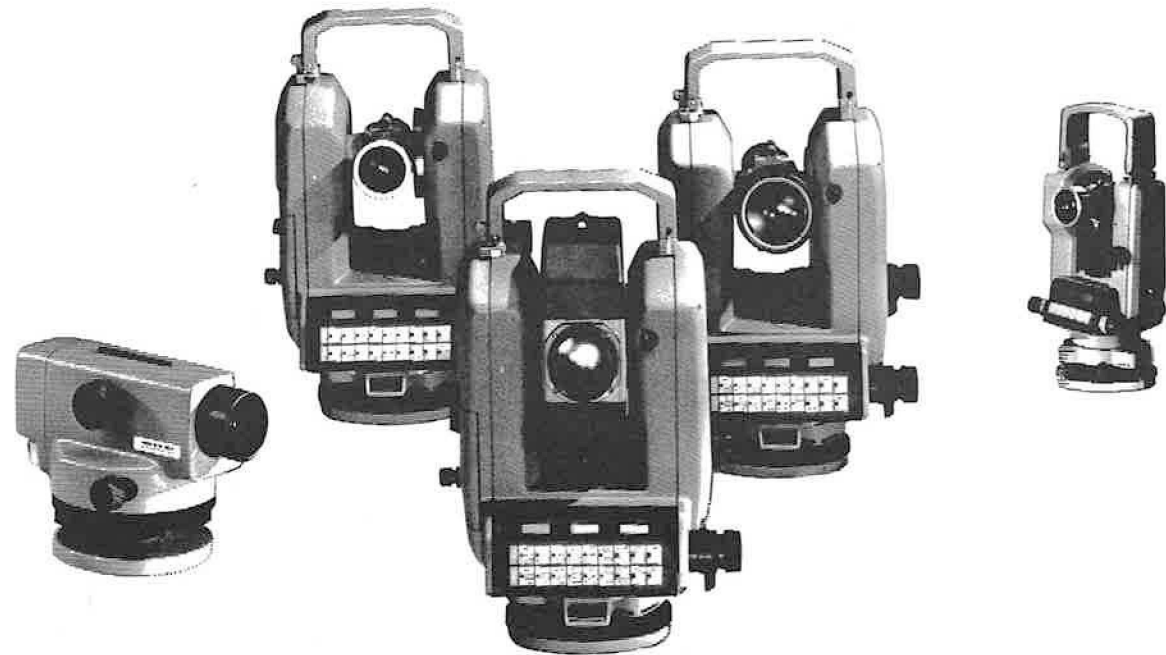
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100 % Refund if ISPLS office is notified by the Friday before the reservation.



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WHAT'S A PPM?

by Chuck Lee, Leica Inc., Norcross, Georgia

From time to time, field equipment users call the LEICA Systems Support Center complaining that they cannot match the record length of a line. Usually, they want to know what is wrong with their instrument. One of the first questions we ask in response regards what the PPM setting on the EDM is and how it was determined.

In the overwhelming majority of cases, we receive one of two responses:

- 1) "We set it once a season," or
- 2) "I don't know."

Unfortunately both responses reflect a lack of awareness of the significance of atmospheric conditions and their impact on electronic distance measurements.

PPM is an abbreviation for Parts Per Million. In the context of EDMs, it is a scale compensation factor that is proportional to the distance being measured. If you measure a line that is 10,000 feet long, it contains one million "pieces," each of which is 0.01 feet long (1,000,000 times 0.01 = 10,000). On this line, 1ppm would correspond to 0.01 feet.

Some callers contend that they can close a traverse just fine and so they see no need to mess with the PPMs more than twice a year. "After all," they say, "you can't see the difference anyway." If a short traverse closes on itself without any reference to external distances, that is generally true. Of course, it is also true that you can lay out a 100 foot square with a chain and close "perfectly" . . . without knowing that there is a foot missing from the middle of the chain!

All infrared Electronic Distance Measuring Instruments (EDMs) figure out "How Long" it takes a lightbeam to make the round trip from the EDM to the reflector and back. Some use a phase resolution technique while others measure the time directly. Exactly how this is done is beyond the scope of this article.

In a vacuum, the speed of light ("How Fast") is a constant value (about 186,000 miles or 300×10^6 meters per second.) Knowing "How Long" and "How Fast" enables the EDM to calculate "How Far." The speed of light in the atmosphere is not a constant, however. The function of the "PPM" variable is to allow calculation of the correct distance, in spite of the variations caused by the atmosphere.

The two factors that most significantly influence the speed of light in the atmosphere are temperature and pressure. The effects of humidity come in a poor third and are usually significant only when lines are being measured with high precision. Assuming 60% relative humidity, the maximum error caused by ignoring the effects of humidity does not exceed 2ppm, provided the temperature does not exceed 50 °C or 112 ° F (!). If the temperature is under about 90 ° F, the maximum error is less than 1ppm.

Actually, temperature, pressure and humidity all combine to influence the density of the atmosphere. It is the density of the atmosphere that governs the speed of light.

Just how significant are temperature and pressure? A tem-

perature change of 40 Fahrenheit degrees (the usual diurnal swing in Nevada, my heart's home state) will produce a 25 ppm change. That in turn will change the measured length of a one mile line by approximately 0.13 feet (25 times 5280 divided by 1 million) all other things being equal. The same line measured at 0 degrees F in the winter and 90 degrees F in the summer will produce a 57 ppm change, or a measured length change of approximately 0.30 feet.

An atmospheric pressure change of one inch of Mercury (1" Hg.) adds approximately 10 ppm or 0.05 feet to the above figures. Weather "Highs" and "Lows" can easily produce much more than a 1 inch pressure swing. In addition, elevation changes from one end of the line to the other contribute to the problem, but perhaps not as dramatically. Between Sea Level and 8,000 feet, the rule of thumb that 1000 feet equals 1 inch of Mercury holds reasonably well. Thus, an elevation change of 1000 feet in a mile (not unreasonable in most of the western states) will contribute another 5ppm (use the average pressure) or approximately 0.03 feet.

Speaking of pressure, there is much confusion about what pressure to use when computing ppm (or looking it up on the chart included with the EDM.) The weatherman on the TV or radio reports "Barometric Pressure" but this is rarely the correct pressure to use. Barometric Pressure is adjusted to sea level conditions. Only if you are surveying along the water's edge on the sea coast ("sea level") or at sea level on the edge of Death Valley will Barometric Pressure equal atmospheric or Station Pressure.

As the elevation of the ground surface rises above sea level, the Station Pressure (or the absolute pressure of the atmosphere) decreases. Since this is the atmospheric pressure through which the EDM measures distances, the Station Pressure is the pressure to use when calculating or looking up the ppm factor. Failure to recognize this distinction can introduce a 55 ppm "blunder factor" if you happen to be surveying at an elevation of 5,000 feet! That's good enough (or bad enough, depending on your point of view) for another 0.29 feet on our well-worn mile line.

If all these variables stack the same direction between your measurement and "the other guy's," a discrepancy approaching 0.7 feet can easily exist. It's easy to see that the reason the user can't match the record distance may be because the record distance is incorrect and/or that the EDM is incorrectly set. The best solution seems to involve four factors:

1. Careful calibration of the EDM;
2. A detailed knowledge of the existing atmospheric conditions (a calibrated pocket barometer and a calibrated thermometer at the instrument);
3. An awareness of topographic effects (and maybe another barometer and thermometer at the target); and
4. Confidence in your equipment and skills as a surveyor.

These are really the only factors you have control over, since you usually have no information about conditions and equipment settings when the "other guy" measured the same line!

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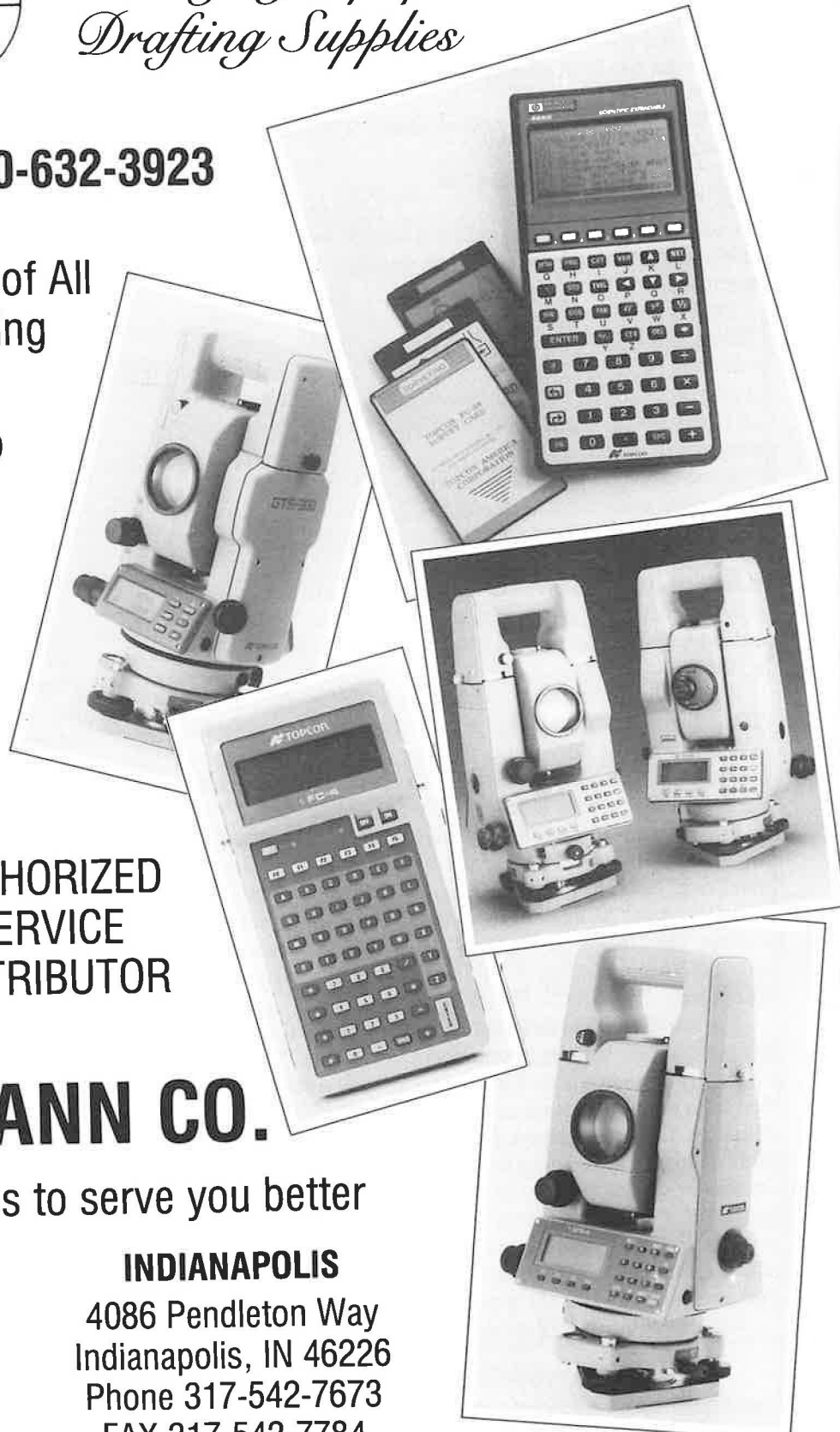
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FUTURE OF MORTGAGE LOAN SURVEYS/INSPECTIONS

by Knud E. Hermansen, PLS, PE, Esq.

I have frequently been asked about the future of mortgage loan surveys. I will attempt to give the general consensus among title attorneys and real estate attorneys on the future of mortgage loan surveys. To comprehend the future of mortgage loan surveys, surveyors must have a general understanding of mortgage title insurance and risk factors.

The mortgage loan survey can trace its inception to the regulations governing the secondary mortgage market. These regulations promulgated in part by the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) require that all mortgages sold on the secondary mortgage market have title insurance covering the mortgaged property. Furthermore, the title insurance cannot contain a survey exception. To remove the survey exception, title insurance agents have required "accurate surveys" as evidenced by survey plans depicting the property. A plan allowed the agents to remove the survey exception from the title policy.

It should be made clear at this point that the title policy is for the mortgagee and NOT the buyer. While the buyer can and frequently does purchase title insurance, the buyer's policy usually does contain the survey exception and may have different terms. As a result, the property may have two insurance policies written for it. One policy will be written to protect the mortgagee and another separate and different policy is written to protect the buyer.

The terms of the mortgagee's title insurance policy will usually provide payment in the form of coverage in the event three conditions occur. First, the title (or more properly the mortgage) to the property is jeopardized or made unmarketable. Second, the buyer or purchaser of the property (mortgagor) stops paying on the loan. Third and finally, after the lending institution calls in the note and sells the property, the net amount received must be less than the outstanding balance of the mortgage. Until the last two conditions occur, the mortgagee has not suffered any damages.

Insurers make money by knowing the risks. The less the risk, the less the insurer is concerned. What surprises many surveyors is that survey problems present little or no risk for mortgage title insurance. To understand the last statement, consider an example of the mortgage market of the future where no survey may be required to obtain mortgagee title insurance.

Albeit, most property does not have a title problem, for purposes of carrying an example forward assume 20% of the mortgaged properties have a title problem. Of the 20% assume one-half of the problems could have only been discovered by an accurate survey. As a result, 10% of the mortgaged properties have title problems only discoverable by an accurate survey. Furthermore, assume 10% of these problems are substantial. This would include such problems as the garage or entire septic field extending over the boundary onto the neighbor's property. At this point, we have 1 out of every 100 properties or 1% of the mortgaged property with substantial title defects that could have been discovered by an accurate survey. This number does not represent the title insurer's

risk on the mortgage title insurance.

As previously stated, the mortgagee's title insurance does not have to pay damages yet. First, the buyer must stop paying on the mortgage. Realistically, this does not happen even if the garage or septic field is discovered to reside on the wrong side of the boundary. If the buyer were to stop paying on the mortgage, the buyer creates several problems for themselves. First, the buyer runs the danger of losing the equity they have accumulated in the home. Since most mortgages start at 80% or less of the appraised value, even the most recent home purchaser risks losing up to 20% of the appraised value by walking away. Second, the buyer that walks away from the mortgage still has to rent or pay for housing someplace else. Faced with this prospect, most buyers think it is better to pay for a house they own and a garage they don't own than pay rent for a house and garage they don't and will never own. Third, the cost for removing the garage or coming to terms with the neighbor may be expensive but it will usually be less expensive than walking away from the mortgage. Walking away from the mortgage risks an expensive lawsuit and probable loss of a good credit rating. Failure to pay on a mortgage, no matter how justified, will almost certainly cause a request for a loan to purchase another home to be denied. Finally, walking away from the mortgage is not the same as walking away from the debt. A person has an obligation to pay even if the lending institution has collateral to seize. The lending institution may opt to sue on the note only or foreclose and sue for any remainder under the note. The bottom line is that the buyer will owe the money no matter how big the problem with the title.

Going back to the example again, it appears reasonable to state that only 0.5% of the serious title defects will result in the buyer refusing to pay on the mortgage. Even in the few cases this percentage represents, the mortgagee's title company still does not have to pay compensation. The final condition for compensation has not been met. The bank must foreclose on the note, sell the property, and fail to recover the outstanding amount. Therefore, to continue with the example, assume less than 10% of foreclosures bring less than the outstanding mortgage.

This is a reasonable assumption since mortgages seldom exceed 80% of the appraised value, five or more years of payments have been made before foreclosure occurs, and many banks simply refuse to sell the property by foreclosure for less than the outstanding mortgage. The end result of all these events coming together in this example is that an insurance firm risk paying substantial damages (buying the mortgage) one time for every 200,000 mortgages. (To put this in perspective, if the insurance company were to stop asking for mortgage surveys and charge \$1 more for each policy, they could save the buyer an extra \$100-\$300 in closing costs and have the money to purchase the typical residential mortgage if forced to buy one.)

Given these small risks, what does this mean for the surveyor

...continued Page 18

who prepares mortgage surveys. First, as most surveyors are well aware, the title insurance company is not concerned with the quality of the product. They don't pay for the services and they will not suffer for poor quality services except in extremely rare cases. Second, to lower closing costs and remain competitive with other lending institutions, they can safely look toward reducing or eliminating the survey costs.

In many cases banks are already allowing the less costly owner affidavits to substitute for surveys. In other words, the mortgagee's title insurer and the lending institution have little if any risk even if every transaction uses an owner's affidavit. Under the circumstances, a mortgage loan survey cannot be cheap enough because the surveyor is competing against a free or nominal costing piece of paper with no realistic increase in risk imposed on the title insurer. The trend to pay less concern with the survey exception can be expected to continue until the survey exception is removed as a matter of course from the mortgagee's title policy.

For surveyors that have looked down upon mortgage loan surveys as being sub-professional services this is good news, the temptation for surveyors to perform these services will be gone. Surveyors that have counted on these services to sustain their business are probably horrified at the thought that this service will no longer be sought by lending institutions. In order to prevent loss of business, these surveyors have sought to prevent owner's affidavits or require surveys with every sale. Realistically, both efforts are probably doomed to failure. First, outlawing owner's affidavits will not force insurers to start requiring surveys again. On the contrary, insurers will jump directly to the inevitable and not require surveys or affidavits. Second, state statutes requiring surveys will have no effect on the title insurance industry.

The secondary mortgage market and to a large extent lending institution regulations are governed by federal regulations, not state regulations. It is probably an accurate statement to say that the lending institutions and title insurers will generally ignore state regulations with impunity. On the other hand, the buyer will be affected by any statute requiring surveys at closing. As a result, buyers can be expected to either show outrage at the additional cost of closing or continue to seek the low cost "inspections" and use them like they were high cost, quality surveys. In each situation the surveyor will be the loser.

In conclusion, the surveyor who has relied upon mortgage loan surveys to sustain their business must shift their market. This may not be as difficult as it appears. During the time that surveys were required by lending institutions, many buyers' attorneys (perhaps incorrectly) began to rely on them to disclose potential problems for their clients. As a result, some attorneys now find them as indispensable for closing as radon tests, termite inspections, building inspections, and other common services usually sought by the cautious buyer. The value of a survey or inspection of the property before purchase by the buyer should be stressed and marketed.

A SURVEYOR DOES NOT INSURE THE CORRECTNESS OF HIS WORK

by Ron Burgess

Honorable Larry W. Moran, Eighteenth District Court
Bozeman, Montana
Case No. DV-88-403

Confirmed by the Supreme Court of the State of Montana Case No. 91-612

In the early 1980's Ron Burgess surveyed a ranch adjacent to public lands. Years later a Forest Service surveyor claimed to have found an original stone 370 feet from a Burgess brass cap. B.L.M. surveyors confirmed the Forest Service stone and found two original stones Burgess had overlooked. Burgess maintained the stone found by the Forest Service was not a monument but admitted the other stones appeared to be original and his survey was in error. The property owner filed suit claiming in excess of \$400,000 in damages. Judge Larry Moran exhibited keen insight in his precedent setting decision, confirmed in its entirety by the Supreme court.

"While present-day, licensed land surveyors are required to follow local, state, and federal regulations that define present-day standards of practice while searching for ancient monuments, it is a foregone conclusion that present-day surveyors may or may not find a particular ancient monument. If a modern surveyor fails to find the ancient monument, or if he finds that the monument is obliterated, he must certify that he followed all of the rules and regulations in monumenting an original corner location...but it is impossible for him to insure that he is, in fact, standing in the 100-year old footprints of the original surveyor. To expect the surveyor to insure the outcome of an argument over the location of a section corner differs little from demanding that an attorney insure the outcome of a trial, or a surgeon an operation. Though the surveyor, the attorney, and the surgeon are held to a standard of practice, none is an "insurer".

"It is possible for two qualified surveyors to meticulously follow the standards of practice for surveying while retracing a 100-year old survey, and disagree on a corner location without either being negligent."

"A surveyor does not insure the correctness of his work. Absent a showing that Defendants deviated from a reasonable degree of care and skill that would be expected of a surveyor, Plaintiffs are not entitled to recover."

The District Court findings of fact and conclusions of law and the Supreme Court confirmation are a must reading for any surveyor confronted by litigation.

About the author: Ron Burgess became licensed in Montana in 1971, owned and operated a surveying business in Bozeman until 1984. He remains active in surveying on a limited basis. Burgess has been a Professional Witness in a number of trials and has consulted with attorneys to resolve survey problems without going to trial.

...taken from the Treasure State Surveyor, July 1993, Issue 11.

INDEPENDENT CONTRACTOR OR EMPLOYEE??

The Internal Revenue Service (IRS) takes a dim view of companies that misclassify their workers, calling them independent contractors instead of employees. IRS research has shown that small businesses are most likely to misclassify their workers. As a result, the government has been cracking down on those small companies.

The Federal Fair Labor Standards Act (FLSA) governs the requirements that workers receive minimum wage and overtime payments. It sets out six factors that you should closely examine:

- * Are the services that the worker provides an integral part of the company's business?
- * Is the relationship between the worker and the business a permanent one?
- * Does the worker lack a substantial investment in the facilities and equipment used in performing the services?
- * Does the business control the worker's job performance?
- * Does the worker lack opportunities for profit and loss?
- * Does the worker's success depend on any factors other

than his own initiative, judgment, or foresight in open market competition?

If a company has misclassified a worker, the IRS can assess for back social security and unemployment compensation and for back payroll taxes. It may also impose civil penalties and interest. Likewise, a finding that a worker is an employee under the FLSA may result in an award of overtime dues for services performed within the past two years and a penalty in an equal amount if the failure to pay was willful.

If you want to use independent contractors, consider whether you can give up some control and still conduct your business effectively. If possible, allow the worker to perform services for other businesses. Allow the worker to hire, supervise, and pay his/her own assistants. Put the terms of your relationship in a written agreement and identify them as an independent contractor in that agreement. Set things up so that you can answer "no" to virtually all of the 20 questions. If the preponderance of the answers are "yes" - the worker is an employee.

THE INTERNAL REVENUE SERVICE APPLIES THE FOLLOWING TEST in determining whether a worker is an employee or a contractor. The test generally examines the extent to which the business has the right to direct and control how, when, and where the work is performed.

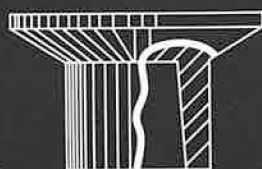
1. Must the worker comply with the business's instructions about how the work is to be performed?
2. Does the worker receive training from the business?
3. Are the worker's services a substantial part of the business?
4. Does the worker provide services which must be performed personally?
5. Does the business hire, supervise, and pay the worker's assistants?
6. Does the worker have a continuing relationship with the employer?
7. Must the worker follow set hours of work?
8. Does the worker work full-time for the business?
9. Does the worker work on the business's premises?
10. Does the worker perform services in a manner set by the business?
11. Must the worker submit regular reports to the business?
12. Does the worker receive payments of set amounts at regular intervals?
13. Does the worker receive payments for business and/or traveling expenses?
14. Does the worker rely on the business to furnish tools and materials?
15. Does the worker lack a major investment in facilities that are used to perform the services?
16. Is the worker protected against suffering a loss from the work?
17. Is the worker prohibited from working for more than one firm at a time?
18. Is the worker prohibited from offering services to the general public?
19. Can the worker be fired by the business like an at-will employee?
20. May the worker quit work at any time without incurring any liability?

The Empire State Surveyor Sept. 1992

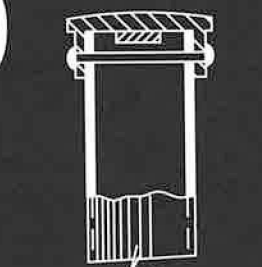
THE IRS 20-PART AUDIT TEST



**SURVEY
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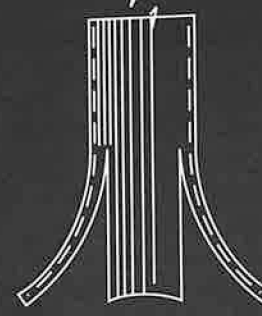


MONUMENTS

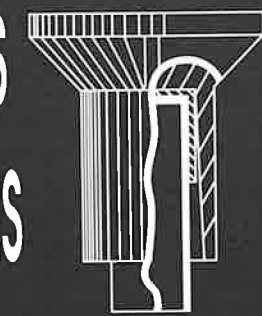


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CONGRATULATIONS!

Congratulations to David and Jo-Ellen Blankenkemper on the arrival of their new son, "Zachary David Blankenkemper". He arrived on Sunday, May 30th. He weighed in at 9 pounds 3 ounces.

CEI EXECUTIVE RESIGNS

Terry Bowen, Executive Director of Consulting Engineers of Indiana resigned her position effective June 17th. Terry has been CEI's executive director for the past six years. CEI's new Executive Director is Stephanie Morse.

COMPLETED CAREER

WALTER S. DIX, 94

"Mr. American Congress on Surveying & Mapping"

Walter S. Dix, 94, a retired surveyor who had worked for the Tennessee Valley Authority, died June 13 at Washington Hospital Center after a heart attack.

Mr. Dix, who lived in Washington, was born in England. He came to the United States as a child and grew up in Toledo.

As a young man he worked for R.H. Randall & Co., Geodetic and Topographic Engineers in Toledo, then in 1935 joined the staff of the Tennessee Valley Authority.

He was assigned in Washington shortly thereafter to work with the U.S. Geological Survey on coordinating mapping activities for the TVA region. He retired from the TVA in the early 1960s.

Mr. Dix was an expert in the use of photogrammetric techniques to produce accurate and large-scale maps.

He was a founder and former president and executive secretary of the American Congress on Surveying and Mapping, and he had been editor of the ACSM Bulletin. He was a member of the American Society of Photogrammetry and Remote Sensing and the American Society of Civil Engineers.

His wife, Violet Latil Dix, died in the early 1970s. There are no immediate survivors.

Editor's Note: It was my good fortune to have served on the national ACSM Board of Directors four different times during the time period 1955 to 1985 and to have had close contact with Walt Dix through the years. He really did serve as my "mentor" with his wise counsel during my career. He attended the Indiana Land Surveyors Conference at Purdue several times as a speaker. He continued his outstanding contributions to surveying and mapping, particularly ACSM, with his wit, wisdom and humor. We will miss him! Ken Curtis

NSPS GOVERNORS REPORT

by E.R. Gray III, P.L.S., Columbus, Indiana

The next ACSM/NSPS Conference will be in conjunction with the GIS/LIS '93 Annual Conference and Exposition. The conference will be held in Minneapolis, Minnesota, October 31 through November, 4. Additional information on the Conference can be acquired by writing: GIS/LIS '93, 5410 Grosvenor Lane, Suite 100, Bethesda, MD 20814-2122 or by calling (301) 493-0200.

All of us at one time or another have had problems with the FEMA Flood Maps. Therefore, I think you will find the following letter I received from Wendy Lathrop, PLS, Chair, FEMA Technical Advisory Committee, of interest.

Additionally, I have included a couple of articles found in the newsletter published by the "Consulting Engineers and Land Surveyors of California" in regards to R/W dedication and street improvements.

To: NSPS Governors, State Affiliate Presidents
From: Wendy Lathrop, PLS, Chair, FEMA Technical Advisory Committee

Recently ACSM and ASPRS joined forces to create a technical advisory committee to the Federal Emergency Management Agency (FEMA) regarding mapping issues for the National Flood Insurance Program (NFIP). We have long been aware of problems with the quality in the base mapping features of Flood Insurance Rate Maps (FIRMs). It is the objective of this committee to lend expertise to assist FEMA in correcting past problems and avoiding future difficulties.

FEMA has become aware of the need to accept information for future maps corrections even when the one who discovers the problem is not seeking a Letter of Map Correction or Letter of Map Amendment. Surveyors and others who use the FIRMs may find mislabelled streets, incorrect configuration of features, disparity between adjoining map panels, or other situations causing difficulty in using the map panels. This information, when documented as to the type of error and the source material for its correction, is valuable to FEMA. They have agreed to collect this data between the actual reprintings of the map panels in order to be sure corrections are complete.

Therefore, I ask your assistance in supplying documented needs for FIRM revisions to FEMA. The checklist enclosed has already been approved by FEMA and has been used successfully to report FIRM problems. Please distribute this checklist or make it available through your society publications. One checklist is to be used for one panel, although more than one problem can be reported on a form. Each report is to be accompanied by copies of documentation supporting the proposed changes and a full description of the problem.

Thank you for your interest. Concerns and questions can be directed to me at the address above, or to any of the committee members on the attached list.

Sincerely,
Wendy Lathrop, PLS

...continued page 22

CHECKLIST FOR REPORTING APPARENT F.I.R.M. MAPPING ERRORS

COMMUNITY NUMBER _____
PANEL NUMBER AND SUFFIX _____
STATE AND COUNTY _____
MUNICIPALITY (OR UNINCORPORATED AREA) _____

TYPE OF ERROR

___ Label (street or water course name incorrect)
___ Location
___ Configuration (shape, size, or relation to other features)
___ Non-continuous depiction of feature between adjoining panels
___ Other (specify) _____

FEATURE OF ERROR

___ Street
___ Water course
___ Municipal Boundary (Corporate Limits)
___ Flood zone
___ North arrow
___ Scale
___ Other (specify) _____

SOURCE OF DOCUMENTATION (provide copy with this checklist)

Copies of supporting documentation should contain:

full name of document
date (and last revision date)
scale of the image provided
name and address of individual, agency or firm which created the document

Type of document provided:

___ USGS quadrangle map	date _____	scale _____
___ Tax map	date _____	scale _____
___ Aerial photo	date _____	scale _____
___ Subdivision map	date _____	scale _____
___ Survey	date _____	scale _____
___ Other (specify)	date _____	scale _____

All reports are to be accompanied by a copy of the portion of the FIRM in error and supporting documentation. Include the title block with the scale and the north arrow of the FIRM panel in question. Include a full description of what exactly the apparent discrepancy is and why the submitted additional data contains better information than what is represented on the NFIP maps.

Please send to: John Matticks, Assistant Administrator
Office of Risk Assessment, FIA
Federal Emergency Management Agency
500 C Street SW
Washington, DC 20472

Detailed description of FIRM problem (compared to documentation): (attach additional sheets if necessary)

NEW FORMAT GEODETIC CONTROL DATA SHEET

A comprehensive new format for publishing geodetic control data is available. The new geodetic control data sheets combine horizontal control (position) and vertical control (orthometric height) information in a single published format. Paper copy data sheets are distributed in blocks of 7 1/2 minutes of latitude by 7 1/2 minutes of longitude, corresponding to the U.S. Geological Survey's series of topographic maps.

The new data sheets include:

- (1) control point designation and permanent identifying number,
- (2) horizontal or vertical datum,
- (3) horizontal coordinates and method of determination,
- (4) orthometric height and method of determination,
- (5) horizontal datum shift (NAD 83 minus NAD 27),
- (6) vertical datum shift (NAVD 88 minus NGVD 29),
- (7) type of mark used and how set/stamped at the control point,
- (8) geoid height, ellipsoidal height, modeled gravity, k and LaPlace correction,
- (9) state plan coordinates and Universal Transverse Mercator coordinates,
- (10) a description of the mark's location and how to reach it, and
- (11) a history of when the station mark was recovered, the condition in which it was found, and updates to the station description from the recoveries.

Prices range from \$20 to \$120, depending upon the number of stations included.

ASCII data sheet files, similar to the data sheets, also are available on 3 1/2" or 5 1/4" high-density computer diskettes for counties or 7 1/2 minute blocks for \$98 each.

Inquiries:

National Geodetic Information Center

Telephone: 301/443-8631 or Fax 301/881-0390

NSPS Governor Report

... continued from Page 21

Gas station owner doesn't have to give right of way.

An Arkansas gas station owner was given permission to add on a convenience store, but only if he granted an expanded right of way to the city. The court said this condition was a taking under *Nollan*, because the city was unable to show that the convenience store expansion would have any significant effect on traffic. *Jones Insurance Trust v. City of Fort Smith*, 731 F. Supp. 912 (W.D. Ark. 1990)

Converting to office building doesn't require street change.

California property owners were allowed to convert a single-family house to an office building, but only on condition that they dedicate part of their land for a realignment of a public street. The California Court of Appeals said this amounted to a taking because the street realignment had nothing to do with any traffic impact from the proposed office conversion (and there wouldn't be any traffic impact in any event.) *Rohn v. City of Visalia*, 214 Cal. App. 3d. 1463 (1989).

HOW WILL GEOGRAPHIC INFORMATION SYSTEMS AFFECT A SURVEYOR'S RESEARCH IN THE FUTURE

The time is coming when a professional surveyor will walk into the county Register of Deeds to do some research and find that everything he wants is now stored on computer. Deeds, plats of survey, easements, recorded subdivisions, utility locations and much else will be crammed into the memory banks of computers.

Granted this transition will happen slowly, beginning with the wealthier counties and cities first, but it will happen and it will affect the activities of most of the states' professional surveyors.

So, what will this mean to a surveyor using the system? Some of the primary advantages would be:

1. Quicker access to the documents and data that the surveyor wants.
2. A more complete search to discover all documents and data dealing with the subject parcel(s).

Some of the initial concerns would be:

1. How much confidence can I place in the positional accuracy of the utility data and the underlying base map?
2. How was the deed information loaded into the system?
3. Are the paper records still going to be available for old-fashioned research?
4. Will the paper records continue to be maintained or will the computer based system be all there is?
5. Do the personnel operating the system know what they are doing and am I liable if they forget to search areas of the database for pertinent information concerning my survey?
6. Will I be able to personally access the database if I'm interested in learning how?
7. How much is the county/city going to charge me for the documents and data that I request?

The questions can be endless and the answers will depend upon which county, city or agency the surveyor is talking to. The only thing that is for sure is that Geographic Information Systems will begin to control deed, plat, parcel and utility information access in the near future. County by county, city by city, it will happen. How will it happen in individual counties or cities is still somewhat open.

If you are interested in having a voice in how it happens, stay informed and look for appropriate opportunities to speak up with your professional surveyor's viewpoint.

...taken from the *Michigan Surveyor*, July 1993

LEICA TAKEOVER OF STOLZ CONSTRUCTION-LASER RANGE

Effective July 1, 1993, Leica AG, Heerbrugg, Switzerland has taken over from COS Computer Systems AG, Baden-Dattwil, Switzerland the business activities of COS Laser Technologies AG. COS Laser Technologies develops, manufactures and sells the well-known Stolz construction lasers. It has proved possible to find individual solutions to secure the future of COS Laser Technologies employees. The merger results from restructuring of the COS Group's activities.

In some markets, Leica and the former Stolz distribution network have already worked closely together for a number of years.

Integration of Stolz construction lasers in the Leica range of surveying instruments benefits Leica and Stolz customers alike. It rounds off the range of equipment for survey tasks on the construction site that both these brands can now offer. And availability of the international Leica advisory network will improve their market performance regarding customer services and distribution.

INDIANA DOT EXPANDS GIS

The Indiana Department of Transportation recently signed with electronic Data Systems (EDS) to add 86 workstations to its Graphic Data System (GDS) configuration. These workstations, distributed by Digital Equipment Corp., bring the DOT's total to 130.

This expanded GIS is part of a multiphase plan to integrate GDS within various departments of the DOT. To date, Indiana DOT has committed \$8 million to the system implementation project. With the addition of these workstations, GDS will be distributed throughout the five DOT offices, including the six district offices. Included with the purchase is a major upgrade of the server environment and network systems.

...from *Photogrammetric Engineering and Remote Sensing*, July 1993

EQUIPMENT RECOVERED

Surveying instrument and tripod recovered by the Jacksonville, North Carolina, Police Department on July 8, 1993 in Southern Onslow County. Both the instrument case and tripod bear the painted name of C. D. Smith. There is no record of a Surveyor in North Carolina with a similar name and it is expected that the owner of the equipment may be from some other state. The equipment was recovered among many other items including motorcycle parts and various car parts. These items may have been stolen over a period of time, possibly over a multi-state area. The owner of this equipment can contact Detective J.R. Shingleton of the Jacksonville, North Carolina, Police Department at (919) 455-1472.

...from *The Tarheel Surveyor*, July 1993

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CALENDAR

September 18, 1993
ISPLS Board of Directors Meeting

October 1, 1993
ISPLS Fall Workshop, Topic: "Hazard Communications & Safety Standards", (5 PDH) Turkey Run State Park, Marshall, IN,

October 9, 1993
ISPLS Board of Directors Meeting

October 15, 1993
ISPLS Fall Workshop, Topic: "Hazard Communications & Safety Standards", (5 PDH) Holiday Inn N.W., Fort Wayne, IN

October 29 - November 6, 1993
GIS/LIS '93 Annual Conference and Exposition and ACSM/ASPRS Fall Convention, Minneapolis, Minnesota.

November 13, 1993
ISPLS Board of Directors Meeting, Indianapolis

January 26, 1994
ISPLS Board of Directors Meeting, Louisville, Kentucky

January 26-28, 1994
ISPLS & KAPS Joint Society Convention, Galt House, Louisville, Kentucky

March 1994
ISPLS Spring Workshop, Topic: "Legal Descriptions", Purdue University, Lafayette, Indiana

April 23-28, 1994
ACSM/ASPRS Annual Convention, Reno, Nevada

August 15-19, 1994
Triennial U.S. Army Corps of Engineers surveying & mapping conference, Marriott Hotel, New Orleans, Louisiana

September 30, 1994
ISPLS Fall Workshop, Topic: "Environmental Risk Issues for Surveyors", Brown County State Park, Nashville, Indiana

CONTINUING PROFESSIONAL DEVELOPMENT COURSES

ISPLS Winter Workshop "Surveyor Reports & Legal Aspects", January 29, 1993, approved for six (6) hours (Florida)

ISPLS Fall Workshops "Hazard Communications & Safety Standards" October 1st and October 15, 1993 (Kentucky) *

ISPLS/KAPS 1994 Convention (Kentucky) *


*Application for PDH required credit has been applied for

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