

SURVEYOR

HOOSIER



VOLUME 7
NUMBER 1
WINTER 1980



Indiana Society of Professional Land Surveyors, Inc.

Affiliated with the American Congress on Surveying and Mapping

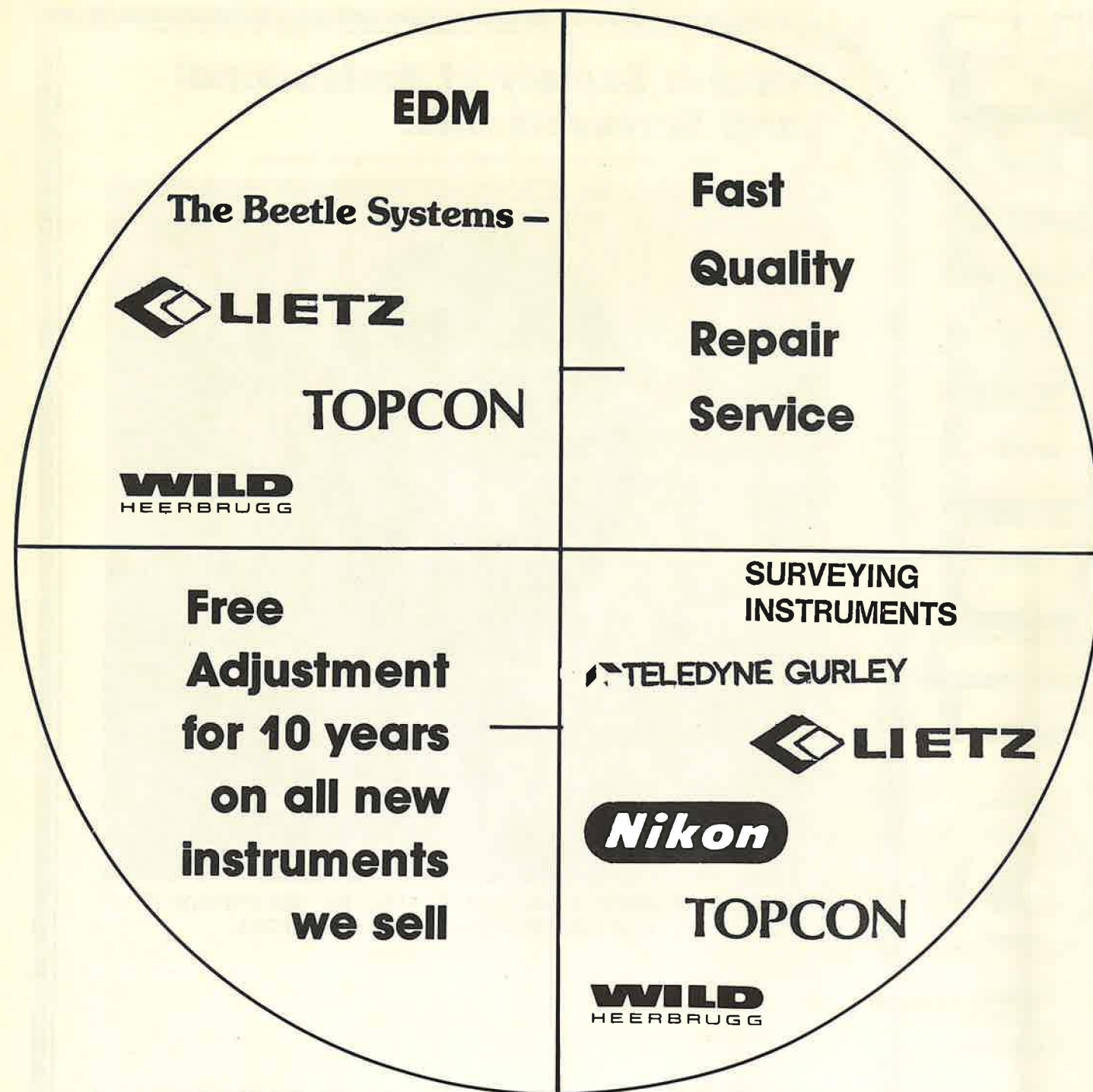


CHARLES A. BUDNICK, NOBLESVILLE, ELECTED 1980 PRESIDENT OF
INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS

CONVENTION HIGHLIGHTS • GOVERNOR BOWEN'S TALK
PRESIDENT'S 1979 REPORT • POINT-COUNTERPOINT • URBAN
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HOOSIER SURVEYOR

VOLUME 7, NUMBER 1, WINTER 1980

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COVER: Charles A. Budnick, Noblesville, newly elected 1980 president of ISPLS, is pictured with Albert McConahay, new vice-president, as he presided at the first new board of directors meeting at the recent convention. Chuck plans to hold board meetings around the state during 1980, hopefully hosted by various local chapters.

EDITOR'S NOTE:

Deadlines for copy for various planned issues of the HOOSIER SURVEYOR are as follows:

Winter issue - January 31
Spring issue - April 30
Summer issue - July 31
Fall issue - October 31

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Kenneth S. Curtis
Editor

Gary Kent
Associate Editor

THE PRESIDENT'S PAGE

PRESIDENT'S MESSAGE

By C.A. Budnick

I am honored to be elected your first President of the eighties. However, with this office comes responsibility, and the sobering realization that many challenges must be met before the dawn of another decade.

In the coming year, the very concept of demonstrating technical competency through state licensing will be challenged by a Sunset Evaluation Committee composed of 17 people.

Within the past month, a "Surface Mining" bill (which was modeled after the federal act) was passed by the Indiana Legislature. This bill like the Federal bill failed to recognize the "Land Surveyor" as being the one professional who should be preparing "Cross-Sections and Maps".

We are faced with an identity crises of severe proportions. Because we are small in numbers, and generally conservative by nature, we have let other fields usurp duties that logically should be ours. Twenty years ago whoever heard of "Land Planners", "Soil Surveyors" or "Landscape Architects"? Yet today these groups are influencing the formation and administration of ordinances that control the surveyor daily.

In the past decade, technology gave us tools that are revolutionizing our profession. However, if present trends continue, who will be technically competent enough to maximize their use? Where will qualified technicians come from and who will train them?

Our fees are being challenged by realtors, attorneys, architects, and even engineers who think that their services should be compensated at a much higher level than ours. And sadly, most of us lack the communication skills, and the forum to convince the public of the real value of our services.

Lastly, we face the greatest challenge of all---"unlimited liability" for every number, every decimal point, every line, and every word that is recorded in our notes, calculated on our computers, and drafted on our plats.

Now comes the call for the question---Can we meet the challenges we face, or will we continue to sit in the stands and watch the parade go by? If our answer is to watch the parade, then no action is required. If our answer is to meet these challenges, then it requires collective action on the behalf of all the surveyor's in Indiana. This Society provides the means for the action, and as your President, I can assure you that 1980 will be a very active year!

The challenge is now up to you --- Get out and get involved. Solicit new members, talk to them about these challenges, and then together let us resolve: "To smooth the path for those that follow", and to "build a bridge" to span the decade.



Charles Budnick
President



1980 ISPLS officers are, seated left to right, David Wolf, president-elect; Charles Budnick, president; standing, Emil Beeg, secretary-treasurer; and Albert McConahay, vice-president.

IMPORTANT DATES TO REMEMBER

June 2-4, 1980

ASCE Speciality Conference on The Planning and Engineering Interface with a Modern Land Data System, Denver, Colorado

June 22-26, 1980

Xth Surveying Teachers Conference, Colorado State University, Fort Collins, Colorado

October 6-11, 1980

Fall Convention of American Congress on Surveying and Mapping, Niagara Falls, New York

January 29-30, 1981

1981 Annual Convention of Indiana Society of Professional Land Surveyors, Holiday Inn (I-65 and US 30) Merrillville, Indiana



1980 ISPLS board of directors also includes, seated left to right, Jack Irwin and John Whitlock; standing, Jerry Martin, Kenneth Curtis, and Orwic Johnson. Absent for the picture were Gene O'Brien and William Davis.

GOVERNOR BOWEN OF INDIANA AGAIN ADDRESSES INDIANA SOCIETY OF PROFESSIONAL LAND SURVEYORS CONVENTION HOLIDAY INN-NORTH — INDIANAPOLIS, IN. — JANUARY 31, 1980

For our "Point of Beginning" today, I am happy to again welcome you, members of The Indiana Society of Professional Land Surveyors, to Indianapolis for your annual meeting.

Last year I talked about the historic importance of your profession, this year, I want to speak to more immediate concerns. I know that some of you have questions about what the Sunset Legislation might do to your licensing board, the Engineers and Surveyor's Board. The Sunset Bill provides the opportunity to evaluate all existing state agencies.

This is done in three steps. First, information is gathered and analyzed about the agency. In this case, 35 agencies, including the Engineers and Surveyors Board, have been, or are being evaluated. A report from the legislative council which audited this board was completed in December.

Next, A committee of legislators will review the audits and make their own recommendation in the form of a bill. Finally, the 1981 General Assembly will act on the recommendation of this legislative review committee.

What Sunset requires, is that the legislature must take some affirmative action to continue any existing agency. This is necessary so that our government works in the most effective, up-to-date way possible. The recommendation made after an agency is evaluated can be anything from continuing as it is, to merging it with other agencies, splitting it into separate agencies, creating a new agency or terminating the agency. If the legislature fails to take action, the agency is terminated, unless the next Governor decides to exercise the option of extending the agency for a year. If this is the case, the 1982 legislature must act to continue the agency.

This is the process that the Engineers and Surveyors Board is facing now. It is at the first and earliest stages of evaluation and analysis. I am certain that the best possible decision will be made about this licensing board when it is thoroughly studied. Feel free to express your concerns to your legislators. The system works best with your participation.

I also want to take a minute to congratulate you all on having one from your ranks nominated for the national 1980 American Congress of Surveying and Mapping Land Surveying Excellence Award. Professor John G. McEntyre, from Purdue, I understand, is one of four to be nominated nationally for this award. I know that we will not know the winner until after the March meeting, but I do know that it is an honor to have someone from Indiana who makes the contributions Professor McEntyre makes to the profession and to the state. His work in helping to prepare the four hour portion of the licensing test concerning Indiana's Laws is an important part of insuring professional and quality surveying.

As our "Point of Ending", I would like to say that it is an honor to welcome you to Indianapolis. I hope your stay is productive as well as enjoyable.

Thank You.

Otis R. Bowen, M.D.
Governor of Indiana



Indiana Governor Otis Bowen, M.D., address Land Surveyors at Thursday noon luncheon.



ISPLS president Orwic Johnson presents Gov. Bowen with a plaque naming him an honorary member of ISPLS.

PHOTOSTORY COVERAGE OF ISPLS ANNUAL CONVENTION IN INDIANAPOLIS JAN.-FEB. 1980

Photos by Condre and Curtis



Albert McConahay, convention chairman, and Peggy Archer, ISPLS office secretary, appear to be ready at the registration desk.



Al McConahay and his wife, Jean, make sure the registration packets are ready. Without this pair there would have been no convention.



Over 120 surveyors registered for the well-organized 2½ day meeting.



Dr. Urho Uotila, president of ACSM, addresses the assembly at the Thursday luncheon after Gov. Bowens remarks.



Prof. John McEntyre, Purdue, a member of ACSM national board of directors, discusses some matters with Prof. Uotila.



Incoming president Budnick, right, presents outgoing president Johnson with a past-presidents plaque.



The facilities of Holiday Inn-North and its rooms and holidome served as an excellent site for the convention. Across the street was the Beef & Boards dinner house.



Past ISPLS presidents George Crowder, James Dankert, and Wesley Day are photographed having breakfast at Cafe St. Paul with computer expert, Charles Campbell, left foreground.



Exhibit space was completely sold out and attracted a great deal of attention, considering its second floor location.



The three workshops on Thursday were well attended. In this one, Prof. Gerald Arffa, IUPUI, discusses "Human Relations in Supervision".



Workshop leaders or speakers included, left to right, Prof. David Wahstrom, Roger Woodfill, and Jack Irwin. Other speakers included David Glaudio, George Reno, John McEntyre, Edward Brooks, William Radlinski, and three Purdue land surveying students.



The Friday luncheon, with the women, was presided over by outgoing president Orwic Johnson, with wife Betty, center photo. Seated, left to right, are secretary-treasurer Emil and Nancy Beeg, vice-president Albert and Jean McConahay, incoming president Charles and Sharon Budnick, and president-elect David and Mary Wolf.



Out-of-state guests with Roger Woodfill are, at left, Urho Uotila, president, and, center, William Radlinski, executive director, of the American Congress on Surveying and Mapping.



Other guests included representatives of the Indiana State Registration Board, left to right, Otto Andres, secretary; Oliver Summers; and R. Duane Monical.



ISPLS president Orwic Johnson presented two outstanding service awards to Charles Budnick and Albert McConahay



Two long-time ISPLS members were presented life memberships. Newly retired members are Lloyd Kemmer, center, and Dale Long.



The ladies joined their husbands at the Friday evening banquet and dance. FBI agent Kelly discussed "White Collar Crime" and this was followed by dancing with music provided by a small combo.



Thirty-two wives attended the program which included dinner and "South Pacific" at Beef & Boards, a visit to the Children's Museum, lunch at the Iron Skillet, shopping, crafts, palmistry, and a Saturday morning style show.



ISPLS PRESIDENT'S REPORT 1979

(Orwic Johnson)

The Indiana Society of Professional Land Surveyor's has matured considerably in 1979. The Society was organized in 1953 with the first constitution adopted January 15, 1954 at the annual meeting then held at Purdue University. The Society grew through the years depending entirely on volunteer help until 1974 when the Board of Directors recognized that if this Society was to continue to grow and to provide more and better services to its members, hired assistance and permanent offices were required. In June 1974, the firm of Thomas B. McComb and Associates, a young professional management firm, was retained. Also, in October 1974, I.S.P.L.S. took a major step forward by becoming incorporated in the State of Indiana as a "not for profit corporation".

The original estimates of time required to manage a society such as ours proved faulty and since we did not have sufficient incomes to afford a new contract, McComb and Associates terminated their contract in May of 1976 and we entered into a contract with the Indiana Society of Professional Engineers to provide office services to our Society. This proved successful until a new Executive Director was hired by the Professional Engineers. In July of 1979 the Board of Directors terminated the contract with I.S.P.E. and obtained our own office at 3675 North Post Road, August 17, being moving day. We presently have a Secretary, Mrs. Peggy Archer, on Monday, Wednesday, and Friday and the best set of records and files that we have had. I know there have been problems with membership records in the past and some of the records have been lost during some of the moves, but I believe these problems are coming to an end. If any of you have a question regarding membership or if you know of a fellow land surveyor who is unhappy because of a past membership problem, please have him call Headquarters (317) 899-3685 or one of the members of the Board of Directors so that it may be resolved.

With the Headquarter's problems, 1979 became a year of frustration for your President. The Society is still dependent upon *volunteers*. It is *your* Society and is only as strong as *you* make it. Many, many man hours of volunteer time went into resolving the Headquarter's problems. Due to the lack of willing volunteers, this reduced the time available for other projects. Please let your new Board know that you are willing to work, and when asked, do what you are asked. It is your Society.

An early highlight of the year occurred on March 23rd when I spent the day at Vincennes University. Mr. Art Haase has a tremendous two year program going down there in the southwest corner of the state producing Survey Technicians. This program is not competing with Purdue's four year program that is geared to the future registrant, but Art's young men and women are the Technicians of the future. The ones who do the work in the mud and the thorns and he is giving them excellent training in a good program. Personally, I'm glad that he showed me the master copy of the final exam with the answers or I might have been embarrassed. One of his first year students worked for me during the summer and was very competent. I hope I can get him back permanently this year. At the March 2nd Board of Director's meeting, a letter to Mr. Haase was authorized supporting a proposed name change for his course from Civil Engineering Technology to Surveying Technology.

My intentions were to visit all the local chapters once during the year. I did make it to Central Indiana Chapter for their March 28th meeting and that was as far as that intention went. It would be beneficial if the local chapters would add the Board Members to their mailing lists for any newsletters or meeting notices.

Also, on March 28th I spoke at the Columbus Chapter of the Women's Council of Realtors Training Seminar. The Council sponsors a training seminar for new real estate salespersons once a year. At this seminar, various professionals, attorneys, abstractors, etc. speak as to their relationships with a real estate transaction. This is a good place to meet future clients and to sell the survey profession. You should also investigate in your areas and see if such a program is available and try to get involved.

April 21st, my wife and I had an enjoyable evening and meal with the Purdue Student Chapter A.C.S.M. - I.S.P.L.S., at their 7th Annual Recognition Dinner. Garry Brown was awarded the 1979-80 scholarship for \$1000.00 from I.S.P.L.S.

Due to other available workshops and seminars, the Society sponsored only one workshop in 1979. Ted S. Madson presented his workshop on "The Business of Land Surveying" April 6 and 7 and Purdue University hosted a seminar on "Urban Drainage Planning and Design" at West Lafayette on June 4, 5, and 6. The Society sponsored Dr. Ben Buckner in a two day workshop on "Understanding Surveying Measurements" on August 10 and 11 at Kokomo. The Buckner Workshop was attended by 37 participants.

As President of the Society, I was asked to speak at the two certificate presentations held by the Board of Registration April 27th and November 16th at the Supreme Court Chamber in the State Capitol Building. This formal presentation was started by the Registration Board several years ago to present registration certificates to newly licensed Land Surveyors and Engineers. Attendance is not mandatory, but is a very impressive ceremony. The November 16th presentation was attended by over 200 recipients and guests. If you have a recipient on your staff, don't hesitate to not only give him the day off but pay his expenses and his wife's. You might even break down and escort him to the presentation, the reception afterwards that is jointly sponsored by I.S.P.E. and I.S.P.L.S., and take him out to dinner. It will be a day long remembered by all, and it should be one of the biggest days of his life.

A joint meeting was held July 19th between the I.S.P.L.S. Board and the State Board of Registration. The primary topic being Sunset Legislation. This is the second joint meeting the two Boards have had and I feel they are mutually beneficial.

As the world grows older, it also grows more complex. We used to be able to plan our annual convention in mid summer. Now, we must plan a year or more ahead just to obtain space. Roger Woodfill presented the Board a tentative 5 year convention plan. This would tentatively locate conventions as follows:

1981 Clarksville Area
1982 South Bend Area
1983 Evansville Area
1984 Fort Wayne Area

and culminate in 1985 back in the Indianapolis area with a joint convention with A.C.S.M. Roger is touring Indianapolis with a representative of A.C.S.M. to show them what facilities are available. It should be emphasized that the schedule listed is tentative. The Board needs volunteers from various areas of the state to serve as Convention Chairmen and would appreciate invitations from local chapters to serve as host. Also, some of these convention sites were selected so that joint conventions with Ohio, Kentucky, Illinois, or Michigan could be held. Lets respond to the challenge.

A committee was appointed late in Roger's term and reaffirmed by myself to investigate a revision to our constitution to permit the Board of Director to serve staggered multi-year term. To date this committee has not reported. It is hoped by the Board that such an amendment can be adopted soon in order to permit more continuity of planning by the Board of Directors and Officers.

In 1978, steps were taken to change the fiscal year of the Society. This became a reality in 1979 and our fiscal year now runs from July 1 through June 30. This has brought some confusion in our present budget, but after this year will give a much clearer picture as to the Society's financial position as well as remove the extreme pressure on the new secretary/treasurer to complete the tax returns when he has just assumed office.

Publications and communications still remain one of our major problem areas with both Professor Ken Curtis and Gary Kent doing outstanding jobs. It takes a lot of time to produce a magazine or roster. We also need more reporters from the membership sending articles. I know it all takes time. The President's page is empty in the last issue of the Hoosier Surveyor. I too ran out of hours. By the time you read this, a new roster should be printed and ready for distribution.

Our Standards remain essentially where they were one year ago. The August 17th General Membership Meeting produced much discussion on the first paragraph and little progress in a forward direction. These are intended to be one of the Board's major projects for 1980. In conjunction with the Standards, Wes Day has been involved with the Indiana Land Title people and is producing a recommended certificate for 1 and 2 family mortgage loan inspections.

While 1979 was a year of frustration, 1980 shows signs of being a year of accomplishment. Headquarters is functioning and a framework for Standards has been established. Sunset Legislation remains our big problem with our very existence in question after 1981. Roger has a report scheduled during the program which will provide an update on the Sunset Law as it now stands.

1979 has been frustrating, but also quite rewarding. I look forward to stepping down from the duties of a President to where I can again do something of more tangible benefit to the Society as well as devoting some time to my company.

SUSTAINING MEMBERS

The following are sustaining members of the Indiana Society of Professional Land Surveyors. The Society appreciates their continued participation and encourages your support of these firms.

AIR MAPS, INC.
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Reston, VA 22090

**REPORT OF
I.S.P.L.S. Delegate to A.C.S.M.
February 1979 to February 1980**

(Roger Woodfill)

The Indiana Society of Professional Land Surveyors, Inc. and the American Congress on Surveying and Mapping have interacted to the benefit of both organizations. In this report the initials ACSM will be used to denote all of the American Congress on Surveying and Mappings divisions or subsections that we are a part of--Land Surveys Division, Great Lakes Council, etc.

ISPLS and ACSM are working together on Sunset Legislation. In addition to the informal interchange of information at ACSM conventions, ISPLS has received specific information from Gene Stoner in Florida, ACSM's Sunset Legislation committee chairman.

The American Bar Association's model procurement code has been accepted listing Architects, Engineers, and Land Surveyors separately but equally as professionals permitted to negotiate for governmental projects. You will remember that Don Bender of California, ACSM Government Relations committee chairman, won over the A.B.A. by using the Indiana experience story as supplied to him by ISPLS.

As reported in a "Hoosier Surveyor" article, the ISPLS membership drive for ACSM produced 34 new members for ACSM in Indiana. ISPLS and ACSM exchanged rosters in an effort to increase both societies membership. ACSM has grown without us, too. In 1979 they added four new state affiliate societies and two new student chapters. They have 8000 + members and a \$500,000 + budget.

ACSM is still mopping-up the Surface Mining Act detail. In the near future we will be asked to contact our congressmen for a final vote of support to an amendment placing land surveyors in said bill.

I was asked to serve on two ACSM committees last spring. My report on "accreditation" presented at Souix Falls has created a great deal of ACSM attention and comment. I expect much of this turmoil to be settled at the St. Louis meeting.

ACSM commenced distributing two series of newsletters during 1979. Both "ACSM News" and the "Parallel-O-Gram" have effectively related what is happening within ACSM various boards and committees. These newsletters are not for technical papers, and I believe that they fill a long existing communications gap.

ISPLS in the guise of Prof. Arthur Haase, Vincennes University, cooperated with ACSM's Surveying and Mapping Technicians committee to explain the status of technician training in Indiana.

The subject most talked about in ACSM circles this year was the reorganization of the ACSM operating structure. Although it has not been completely adopted, the plan that is the present favorite is what I call the "Indiana Plan". It is a compromise solution to ACSM leadership struggles that leaves dignity and honor to the ACSM board, but releases some purse strings to groups closer to the grassroots membership. The concept and political steering of the proposal came from ISPLS members attending the Souix Falls meeting.

The code of ethics, moonlight resolution, advertising guidelines, and in the future, standardized business forms, come largely from ideas developed in other states or by ACSM committees. It is most important to continue exchanging and inputting ideas into ACSM in order to upgrade our profession.

Finally, as you read in the most recent "Hoosier Surveyor", ISPLS has successfully secured the semiannual 1985 ACSM-ASP convention for Indianapolis. This is one of the largest steps ever taken by ISPLS to bring surveying information to Indiana. Again I would like to take this opportunity to encourage members of ISPLS to attend the St. Louis ACSM meeting, March 9-14, 1980.

The following is a list of ISPLS member firms:

Allen & Associates, Inc.
26 N. Monroe Street
Williamsport, Ind. 47993 (Arthur A. Allen)

Anderson & Associates, Engrs.
222 E. Main Street, P.O. Box 585
Lebanon, Ind. 46052 (Carl M. Anderson)

H.R. Blankenbaker & Son
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Jeffersonville, Ind. 47130 (Rollyn H. Blankenbaker)

Brady Land Surveying, Inc.
55308 Jay Dee Street
Elkhart, Ind. 46514 (Byron M. Brady)

Columbus Surveying & Engr., Co.
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Columbus, Ind. 47201 (Orwic A. Johnson)

Paul I. Cripe, Inc.
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Indianapolis, Ind. 46250 (James Dankert)

Dickerson Aerial Surveys
2505 Cambridge Road
Lafayette, Ind. 47905 (Brian M. Dickerson)

District 9 Land Survey Co.
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Lawrenceburg, Ind. 47025 (Roger Woodfill)

John R. Donovan
2030 Inwood Drive
Fort Wayne, Ind. 46805 (John R. Donovan)

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Greencastle, Ind. 46135 (Alan Stanley)

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14 Washington Street
Valparaiso, Ind. 46383 (William S. Tanke)

Weihe Engineers, Inc.
10505 N. College Ave.
Indianapolis, Ind. 46280 (Allan H. Weihe)

David K. Wolf Associates, Inc.
R.R. #1, Box 45
Garrett, Ind. 46738 (David K. Wolf)

The 1980 Census: Will your occupational response count?

by Clifton J. Fry, Jr.
and R. Anthony Novotny, Jr.

The answer to that question is extremely timely, and now depends on *you*.

The ACSM Position Classification Committee, in conjunction with ASP, has been actively negotiating for more adequate occupational recognition of surveyors and mapping scientists. If progress is to continue, the responsibility now rests with all persons in surveying, mapping, and related occupations to use recognizable occupational titles. By doing so, our numbers will be sufficiently sampled to justify further improvements in our classification structure. It must be borne in mind that to deal effectively with the Bureau of the Census we must do so on its own terms; our potential strength depends on our Census count as a unified profession.

Before nationwide response to the decennial Census Questionnaire begins on April 1, 1980, we ask that you inform your colleagues, particularly those who are not current ACSM or ASP members, of these important points. Officers of Regions, Sections, and Affiliates are urged to notify local surveying and mapping persons before that date. Reportedly one person in six will be asked occupational questions in densely populated areas of our nation, and one person in two in localities of less than 5,000 population. When filling out the Census Questionnaire, be sure that under question "29. Occupation" you use the most appropriate title from the listing below.

You will note obvious redundancies in the titles listed. This was done of necessity so that Census coders, who are generally quite unfamiliar with any of our occupations, will not overlook any of us.

Any questions or comments should be addressed to:

Mr. Clifton J. Fry, Jr., Chairman
ACSM Position Classification Committee
10120 Farmington Drive
Fairfax, Virginia 22030
Phone: (703) 860-6251

A high count for surveyors and mapping scientists in the 1980 Census of Population will build a strong case for improving our stature in future editions of the *Classified Index of Industries and Occupations*, the *Standard Occupational Classification Manual*, the *Dictionary of Occupational Titles*, and the *Occupational Outlook Handbook*. Improvements in these and other documents of the Office of Management and Budget, and the Departments of Commerce and Labor, will have significant long-term benefits for our occupations with respect to legislation, contracting,

education, and career planning in federal, state, county, city, and private sectors. Trusting that all members are committed to improving our occupational recognition, you are strongly urged to use these guidelines when completing your Census forms.

Occupational Titles Recommended to the U.S. Bureau of the Census for 1980 Statistical Sampling of SURVEYORS AND MAPPING SCIENTISTS, TECHNICIANS, AND HELPERS

Aerial photographer	Mine surveyor
Aerial-photograph interpreter	Mosaicist
Brush clearer, surveying	Notekeeper, surveying
Cadastral surveyor	Party chief, surveying
Cartographer	Photo interpreter
Cartographic aide	Photocartographer
Cartographic technician	Photogrammetric engineer
Cartography supervisor	Photogrammetric surveyor
* Chainman, surveying	Photogrammetric technician
City surveyor	Photogrammetrist
Construction surveyor	Photogrammetry operations director
Control surveyor	Professional surveyor
County surveyor	Property surveyor
Engineering surveyor	Public utilities surveyor
Field-map editor	Recorder, surveying
Flight planner, aerial photo	Registered land surveyor
Geodesist	Registered public surveyor
Geodetic computer	Remote sensing specialist
Geodetic engineer	Right-of-way surveyor
Geodetic technician	* Rodman, surveying
Geodetic surveyor	Route surveyor
Geophysical prospecting surveyor	Staker, surveying
Hydrographic surveyor	State surveyor
* Instrumentman, surveying	Stereocompiler
Land surveying consultant	Stereoplotter operator
Land surveying manager	Surveying aide
Land surveyor	Surveying technician
Land surveyor-in-training	Surveyor's assistant
Licensed land surveyor	Surveyor's helper
* Levelman	Surveyor, not specified
Map compiler	Topographic field assistant
Map editor	Topographic surveyor
Map maker	Topographer
Map plotter	* Transitman
Mapper	Worker, surveying
Mapping supervisor	

Notes:

(a) Occupations preceded by "*" are traditionally known; Census may deem it appropriate to change these to "... person."

(b) Titles alphabetized here are as commonly referred to in both the spoken and written word within our profession. Words following a comma were suggested for differentiation from other professions, to avoid confusion by Census coders.

The Solar Surveyor: Scanning New Horizons

Editor's note: The author is a co-founder and principal of Boston Survey Consultants, Inc., Boston, Mass. He is a registered land surveyor in seven states, a registered professional engineer in two states and a certified photogrammetrist. Greulich has published and presented papers in the United States and abroad on electronic measuring, wetlands, the metric system, engineering surveys, title insurance, land records and other professional subjects. In addition, he is a reviewer for the National Science Foundation and the U.S. Delegate to the International Federation of Surveyors (FIG) Commission 7 (Cadastre and Rural Land Management). His firm is an associate member of the New England Land Title Association.

by Gunther Greulich

Unless a solar collection system is to be installed in a single residence, two-acre zone in the middle of the prairie, there will be some need for preventive planning to assure that the sun's rays reach the collectors.

The best time to plan for a solar heating system is during the design stage of a subdivision. Planning can never begin too soon. In fact, certain important steps can be taken with solar access in mind during the original survey of perimeter and topography.

From the outset, the entire parcel of land can be oriented to the sun by referencing the survey to the state plan coordinate system (SPC) and to an official vertical datum. This will assure a reliable selection of building locations and related solar access easements.

In planning a subdivision, it will be hazardous to create solar access easements before building locations have been finalized. Yet, individual lots

should not be sold without having made certain that solar access is available to the abutting lots. In this respect, it comes down to a chicken-and-egg dilemma.

Existing individual lots or buildings may be more difficult to accommodate. Firstly, many may be unsuited for an effective solar collection system. Secondly, abutters may refuse to grant a solar access easement that is of no benefit to them, and furthermore, existing buildings of different height may be too close for required minimum regular sun exposure. Finally, energy conservationists, finding it necessary to cut down trees to clear the sun's pathway to collectors may find themselves at odds with environmentalists who want to grow trees.

Certain unscrupulous developers who may stretch the facts a little when selling a solar-heated home that is inefficient due to lack of sun exposure may pose yet another problem.

From his vantage point, a registered land surveyor can reveal some of these deficiencies when he is asked to certify a building location plan based on an as-built survey.

A suitable location for a solar collector must meet certain minimum requirements which vary with geographic latitude, general topography and local zoning standards.

Access to energy of the sun requires a three-dimensional, fan-shaped clear zone for every system. Each solar building should be treated much like an airport where each runway has a corresponding fan-shaped approach zone and glide path that must remain free from obstructions.

Solar Thermal Systems, Division of Exxon Enterprises, Inc., is studying energy efficient constructions in conjunction with solar systems. This Foxboro, Mass., home is one of three in the program.

The easement should cover a 90 degree horizontal sector or wedge of air space, ranging from true southeast to true southwest (Fig. 1). Its vertical component is controlled by the lowest winter position or altitude of the sun southeast and southwest of locus (Fig. 2). The depth of the easement is a function of heights of collector, of maximum building heights allowed by zoning and of topography of locus and abutting land.

Since zoning by-laws usually restrict the building heights to a limit such as three stories or 60 feet above ground, it will be necessary to convert these relative heights to an absolute elevation based on an official datum plane. The most common nationwide datum is the National Geodetic Vertical Datum of 1929, formerly known as Sea Level Datum of 1929. The National Geodetic

Survey published benchmarks for every state. Title insurers may ask the surveyor to determine relevant elevations.

Horizontal angles for bearings and azimuths are best determined by reference to the state plane coordinate system (SPC). In public land survey states with the prevailing rectangular system, a reference to the principal meridian or a guide meridian may be necessary. Magnetic bearings are often unreliable, particularly in urban and suburban areas where metal is abundant. Assumed bearing systems, so frequently used today, may well become a thing of the past.

In order to reduce the size of a solar access easement, a refined solution (Fig. 3) could be applied. Taking the noon position of the sun into account would create a horizontal arc and

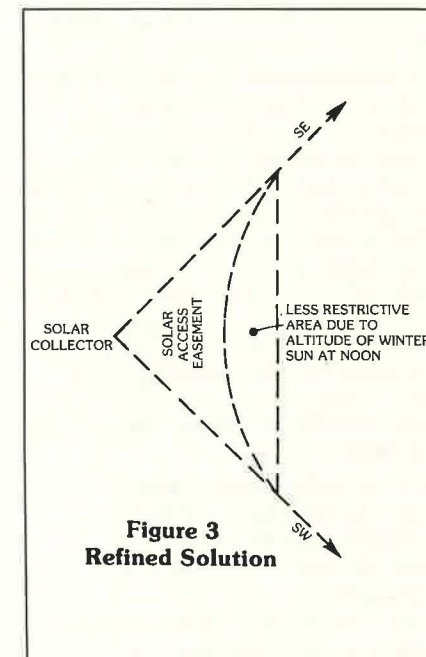


Figure 3
Refined Solution

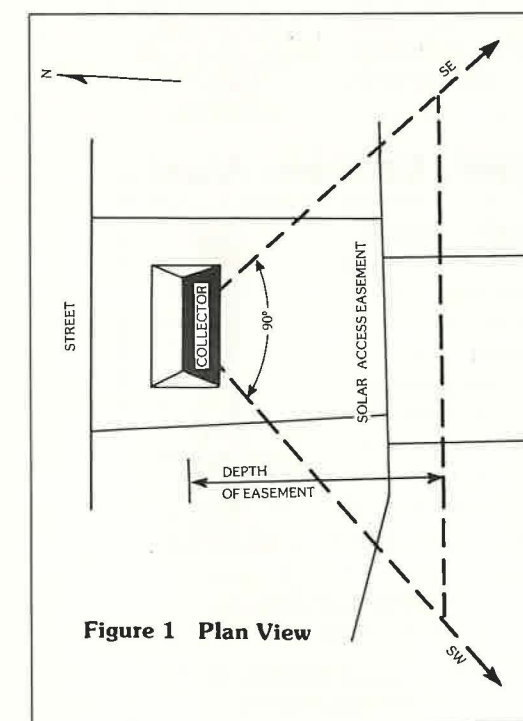


Figure 1 Plan View

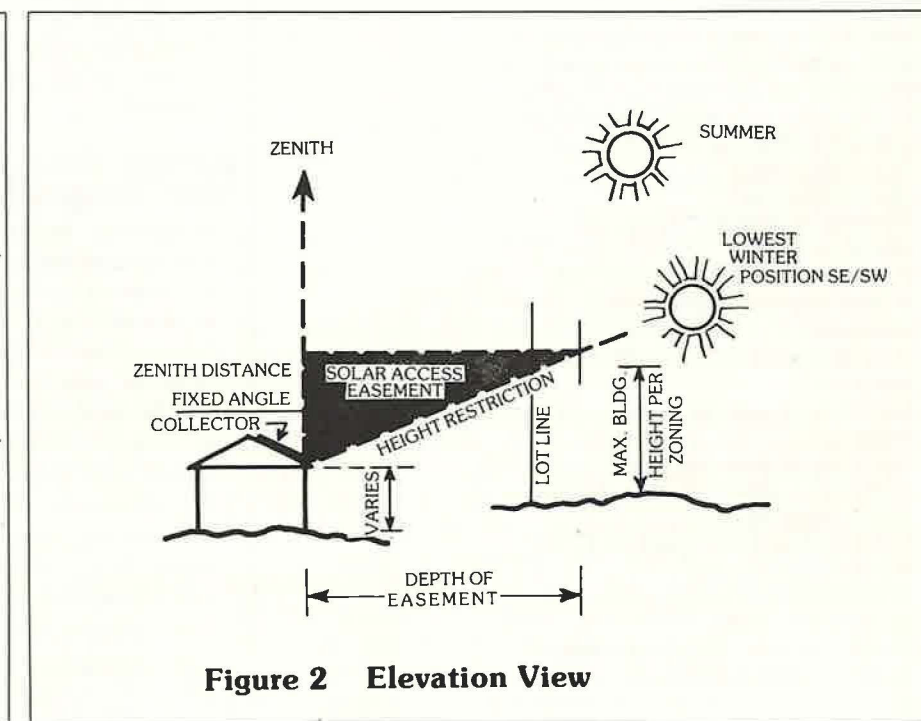
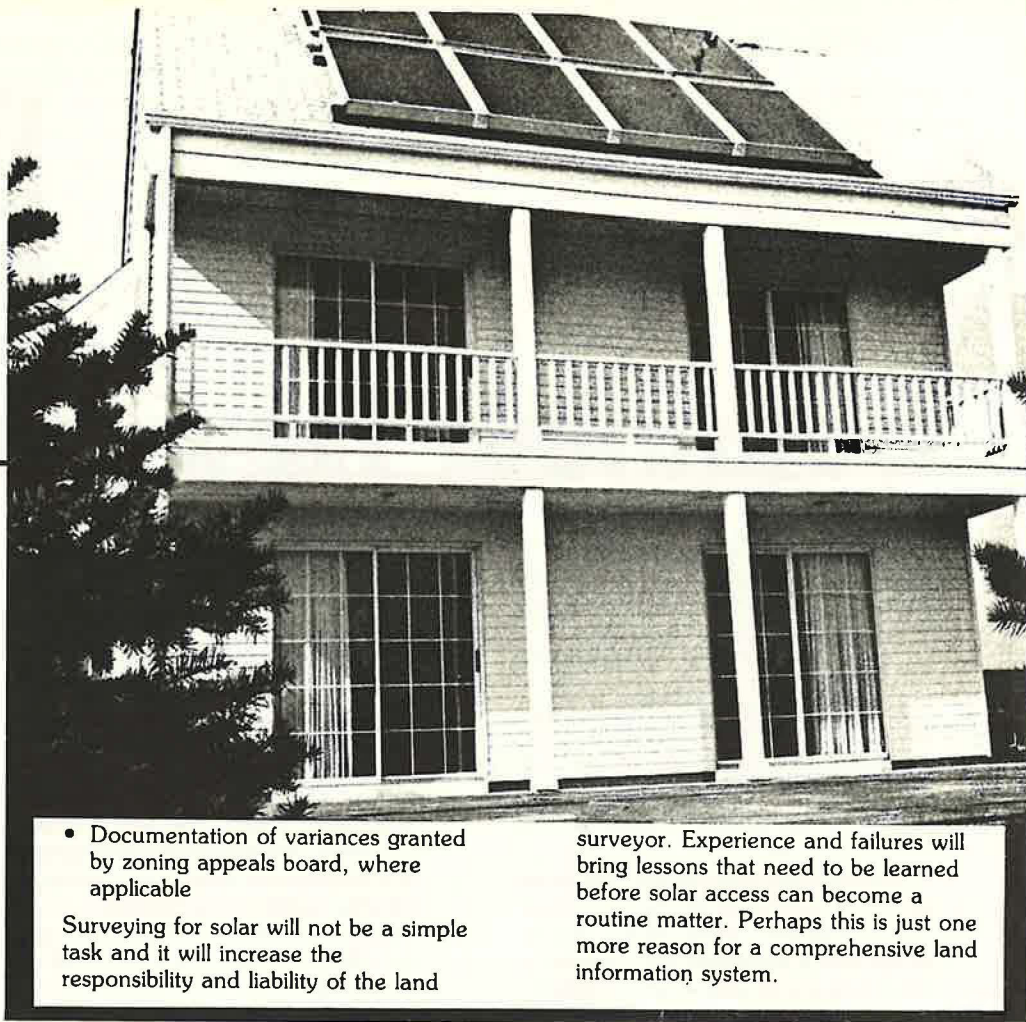


Figure 2 Elevation View

A second home in the Solar Thermal Systems solar energy study is this one, located in Washington Township, N.J.



possibly minimize the air space needed on an abutter's lot.

To maximize solar benefits, it may be necessary to relax front yard requirements on the south side of a street, for example. By allowing building construction closer to the street line, a solar easement across the abutting back property may be avoided. Conversely, rear setbacks may be reduced for lots on the north side of a street. Expert advice will certainly be needed. Survey engineers who are consultants to local planning boards that determine and enforce zoning by-laws would be an excellent resource in this regard.

In mountainous areas, it may be necessary to require that the surveyor's certificate be accompanied by a vicinity map based on a U.S. Geological Survey contour map. This would establish whether the subject parcel is located on an advantageous south slope or on a more difficult north slope.

As the nation moves toward President Carter's goal of significantly increased solar energy use by the year 2000, the following items may well be included in a surveyor's report for title insurance:

- A key map based on a USGS quadrangle sheet
- Bearings of property boundaries based on SPC
- Elevations referred to NGVD 1929
- A plan view of the solar access easement
- An elevation view of the solar access easement
- Elevations of tops of abutting buildings
- Elevations of trees and other obstructions within or below the solar access easement area
- Climatic information based on U.S. Weather Service data
- Minimum vertical sun angle or zenith distance in winter
- Location of solar access easement based on as-built conditions

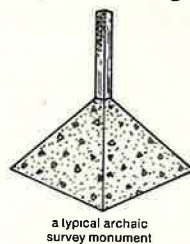
- Documentation of variances granted by zoning appeals board, where applicable

Surveying for solar will not be a simple task and it will increase the responsibility and liability of the land

surveyor. Experience and failures will bring lessons that need to be learned before solar access can become a routine matter. Perhaps this is just one more reason for a comprehensive land information system.

survey monument *n: (archaic)* a "thing"

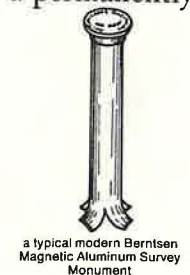
recognized and given authority for the purpose of referencing a point or boundary to be used for control of a survey. Often quite heavy to transport and made from iron pipe, brass, concrete, re-bar, or various combinations thereof.



a typical archaic survey monument

survey monument, Berntsen Aluminum Magnetic *n: (modern)* a permanently

magnetic, lightweight, easy to install and transport aluminum alloy monument referred to in a document as a means of ascertaining the location of a tract of land or any of its boundaries, available in 14 different models with added benefits to the surveyor and land owner including: economy, convenience, uniformity, fuel savings during transportation, choice, availability, reliability, uniqueness, permanence, and over 1,000 available languages. See note below.*



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INDIANA'S URBAN FLOOD PLAIN MAPPING PROGRAM

John Simpson
Assistant Chief, Division of Water
Indiana Department of Natural Resources

In an editorial in the March 11, 1937 issue of Engineering News-Record it was stated that, "... Rivers were here long before man, and for untold ages every stream has periodically exercised its right to expand when carrying more than normal flow."

Floods are acts of nature, but flood damages and problems result from man's actions in violating the natural use of flood plains and allowing urban development in areas which rightly belong to the rivers and streams.

The 1945 Indiana General Assembly, recognizing the need for flood control in the State, enacted what is commonly known and referred to as the "Flood Control Act". The act created the Indiana Flood Control and Water Resources Commission and declared that the loss of lives and property caused by floods, and the damage resulting therefrom, is a matter of deep concern to the State affecting the life, health and convenience of the people and the protection of property; that to prevent and limit floods all flood control works and structures, and the alteration of natural or present water courses of all rivers and streams in the State should be regulated, supervised and coordinated in design, construction and operation according to sound and accepted engineering practices; and that the channels and that portion of the flood plains of rivers and streams, which are floodways, should not be inhabited and should be kept free and clear of interference or obstructions which will cause any undue restriction of the capacity of the floodways.

Further, the act directed the Commission to make comprehensive studies and investigations of all pertinent conditions of the areas in the state affected by floods; determine the best method and manner of establishing flood control, giving consideration to the Reservoir Method, the Channel Improvement Method, the Levee Method, the Flood Plain Regulation Method and any other practical method; adopt and establish a comprehensive plan or master plan for flood control for all areas of the state subject to floods; determine the best and most practical method and manner of establishing and constructing the necessary flood control works; and adopt appropriate measures for the prevention of flood damages.

The act also stated that anyone desiring to erect, make, use or maintain any structure, obstruction, deposit or excavation within a floodway of a stream would need to obtain written authorization of the Commission prior to construction. Additionally, the Commission was directed to encourage and promote local initiative and effort in providing flood control and to cooperate with, advise, disseminate information to, and assist in matters relating to flood control and the development of water resources, including flood plain regulations or controls.

In 1965 the Flood Control and Water Resources Commission, the Department of Conservation and two other smaller agencies were combined into a new Department of Natural Resources and all of the power, duties, work, responsibilities and authority were then vested in the Natural Resources Commission.

In accomplishing the work of planning flood control measures and regulating construction in floodways, as directed in the Flood Control Act, it is necessary to obtain basic data. In many areas of engineering, data and information are generally applicable and standardized for use on any project. However, in flood control a large part of the factors and conditions such as rainfall, runoff, topography, stream capacities and width of the flood plain are variable and must be determined for each project. The procuring of the basic data needed is vital to dependable and economic flood control and adequate data can usually be secured only through years of patient work.

An important part of basic data is adequate topographic maps and one of the more significant programs developed by the staff of the Department's Division of Water in recent years has been that of large scale urban flood plain mapping by aerial photogrammetric methods.

The recognition for the real need of such a program began in 1964 when it became obvious that extensive, accurately controlled, and highly detailed large scale planimetry and topography maps were necessary if the advanced planning and development for the heavily urbanized region along the Little Calumet River in Northwestern Indiana was to be further expanded in an orderly fashion with regards to the natural functions of the river channel. The smaller scale U.S. Geological Survey topographic maps, although of exceptional quality and detail, were just not suitable for anything other than preliminary planning.

The first efforts in the new program were in the selection of a proper and technically correct scale, contour interval, photographic technique, field survey and aerial photo control methods, drafting procedures, reproduction media, and numerous other details which would provide accurate flood plain maps at a reasonable cost to the State. Contracts were prepared and negotiated for the required services with private consulting companies who had the knowledge, equipment, and personnel to do this specialized work. We were very fortunate, during this early period, in receiving the gratuitous assistance of several private photogrammetric companies and federal agencies who had accrued valuable past experience in this profession; a fact which gave us a very good start in photogrammetry and allowed us to develop with the profession during the next years and subsequent projects. It has also assisted us in the preparations of specifications for our dam and reservoir site mapping, a slightly different type of graphic project. Our current contract, specifications, and final map materials and presentation are now considered by many to be of as good a quality for their intended purpose as any produced in the nation.

Our first specifications were generally based on the traditional "national map standards of accuracy". However, even though some of these standards are still very much in use today, they were developed for what was then called an intermediate scale map by the primary mapping agency of that era; namely, the Topographic Branch of the U.S. Geological Survey. With the advent of higher precision aerial cameras, film, and processing procedures; of much more sophisticated and accurate plotting equipment, whereby personal interpretation is less of a factor; of

electronic distance measuring equipment for pinpoint field control surveys; and of the advanced drafting techniques by scribing on a dimensionally stable material for quicker, neater, and more consistent linework, the old standards of national map accuracy-never rewritten-have gradually become less severe. Specifications for our present aerial mapping work include provisions for all of these modern methods of production.

The scale of our urban flood plain maps is one inch equals 200 feet with a 2-foot contour interval. Aerial flights and subsequent photography are held within strict tolerances commensurate with the limits of various precise plotting machines used with the photography to achieve this scale and contour interval. Such items as the amount of tilt and crab of the aircraft, the height of the sun, the absence of foliage, water ponds, or snow cover, the amount of overlap and sidelap of successive photos and flight strips, the quality of photo film emulsion, and many other factors make up the intricate technical details which have to be tightly controlled for best results.

Other controls include what we believe to be the tightest, yet the most important for nearly every purpose for which our maps have been put; namely, the ground survey specifications. Most large scale maps encompass a relatively small area, and therefore require little vertical or horizontal control for the bridging or extension of photo-models as projected in the plotting machine. Our maps, however, extend over a larger area and require more model set-ups; hence, we specify more and very accurate monumented primary geodetic surveys to assist in the expansion of the less accurate secondary or supplementary photo control surveys used to correctly orient the photography in the plotter. This method eliminates many of the possibilities of errors which may be experienced in analytical computations from photo data in the bridging process. More important to us and others, though, is the fact that good high-order marks are available on the ground for possible future use in checking, updating, or expanding the subject maps; for implementation of any project emitting from hydraulic studies using the subject maps; and for many other types of future field measurements. Since every mark on our map is recorded to both a vertical and horizontal datum, we try to provide enough of the necessary accurate elevation and coordinate ground reference points to hold the maps, and any subsequent surveys in the area to a positive maximum accuracy.

Although it is recognized that serious flooding can and does occur in rural areas, the main problems seem to be in the urban areas where increasing population and the industrial expansion is causing increased development and encroachment in the floodways. Therefore, we have concentrated our mapping efforts along the major streams in urban areas around th State.

Forty-six (46) mapping projects have been completed since 1964 and encompass a total area of over 362,000 acres or nearly 565 square miles. The maps cover the flood plains of about 500 linear miles of major stream channels. The accrued cost to the State for a total of 657 map sheets has been just a little over \$2,000,000, yielding a respectable general average cost of less than \$5.60 per acre. For this amount the State receives the aerial film negatives and three sets of positives, a

photo index negative and positive, the diapositive glass plates used in the plotting machines, the field survey notes and computations, the original and two copies of all map manuscripts, and scribe coat negatives, and a film positive suitable for reproduction of each map sheet. In addition the photogrammetric company doing the work provides reproducible film positives of a specially prepared title sheet, index to map sheet and control, and a cover sheet.

The maps have been used quite extensively and have become a vital part of our Division of Water's flood control planning and regulatory activities. Additionally, the maps have been provided to local, state and federal agencies for their use and information.

More specifically the maps have been utilized, along with flood elevation data, to provide information to and assist local officials in their efforts in adopting flood plain zoning ordinances.

The maps have proved quite useful and beneficial in hydraulic studies being conducted for the Department of Housing and Urban Development by the Corps of Engineers, the Soil Conservation Service and the U.S. Geological Survey. These studies are conducted to outline urban areas subject to flooding for use in the Federal Flood Insurance Program whereby flood insurance is made available to communities adopting flood hazard ordinances. Not only are the maps useful in the initial studies and the outlining of flood areas but also in regulatory functions after the ordinance has been adopted.

The Division of Water staff has been able to utilize the maps in delineating floodways along the streams; in encroachment studies and determining the effects on flood flows where construction in the floodway is planned, or possibly already completed without a proval; in project type studies where housing development or commercial and industrial development is contemplated; and in outlining and planning flood control measures and projects.

The Corps of Engineers has used the maps in Flood Plain Information Studies for various urban areas. In the areas where the mapping has been completed it was used in the reports thus saving the Corps of Engineers money while still providing high quality maps.

In conclusion, it is certainly felt that Indiana's urban flood plain mapping program has proven successful and very beneficial in implementing the 1945 Indiana Flood Control Act.

Paper presented at the County Surveyor's Session of the 65th Annual Purdue Road School, Lafayette, Indiana, March 8, 1979.

LEGEND

- 1. LITTLE CALUMET RIVER
- 2. WHITE RIVER AT COLUMBUS
- 3. WABASH AT LAFAYETTE
- 4. WHITE RIVER AT ANDERSON
- 5. WHITE RIVER AT MUNCIE
- 6. WILDCAT CREEK AT KOKOMO
- 7. ST. JOSEPH R. & ELKHART R.
- 8. BIG BLUE R. AT SHELBYVILLE
- 9. WHITEWATER R. AT BROOKVILLE
- 10. WHITEWATER R. AT CONNERSVILLE
- 11. WABASH RIVER AT WABASH
- 12. LITTLE RIVER AT HUNTINGTON
- 13. PATOKA RIVER AT JASPER
- 14. NORTH FK. SALT CR. AT NASHVILLE
- 15. WABASH & EEL R. AT LOGANSPO
- 16. IROQUOIS R. AT RENSSELAER
- 17. WHITE RIVER AT N. INDIANAPOLIS
- 18. WHITE RIVER AT NOBLESVILLE
- 19. WHITE RIVER AT S. INDIANAPOLIS
- 20. WHITE RIVER AT MARTINSVILLE
- 21. YOUNGS CREEK AT FRANKLIN
- 22. WHITE LICK CR. AT PLAINFIELD
- 23. BLUE RIVER AT SALEM
- 24. WHITE LICK CR AT BROWNSBURG
- 25. LITTLE BUCK CR AT INDIANAPOLIS
- 26. SUGAR CREEK AT CRAWFORDSVILLE
- 27. BRANDYWINE CREEK AT GREENFIELD
- 28. FLATROCK RIVER AT RUSHVILLE
- 29. ST. MARY'S RIVER AT DECATUR
- 30. MAUMEE & ST. MARY'S AT FT WAYNE
- 31. SALAMONIE RIVER AT PORTLAND
- 32. LICK CREEK AT INDIANAPOLIS
- 33. FALL CREEK AT INDIANAPOLIS (WEST)
- 34. FALL CREEK AT INDIANAPOLIS (EAST)
- 35. ST. JOSEPH RIVER AT FT. WAYNE
- 36. ST. JOSEPH RIVER AT LEO
- 37. CEDAR CREEK NEAR AUBURN
- 38. COOL CREEK AT CARMEL
- 39. EAGLE CREEK AT ZIONSVILLE
- 40. TRAIL CREEK AT MICHIGAN CITY
- 41. WEA CREEK AT LAFAYETTE
- 42. WHITE RIVER - CLARE TO ANDERSON
- *43. BURNETT CREEK AT BATTLEGROUND
- *44. HONEY CREEK AT PRAIRIETON
- *45. PLEASANT RUN CR AT GREENWOOD
- *46. PRAIRIE CREEK AT LEBANON



STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER

FLOOD PLAIN
MAPPING

* CURRENTLY IN PROCESS
OF BEING MAPPED

NEWS NOTES

...The new ISPLS Roster of members has been printed and distributed. We are indebted to Gary Kent, Indianapolis, for assuming the responsibility of producing the roster which is now available from ISPLS headquarters.

...Lowell Dean Hamilton, Indianapolis, contributed sixty dollars to the Purdue Student Chapter to provide free registrations to four Purdue land surveying students attending the 1980 Annual Convention.

...Three surveying majors at Vincennes University, Robert Gulick, John Trenshaw, and Mark Eickhoff, have expressed their appreciation to Columbus Surveying and Engineering Company and, in particular, Orwic Johnson and Amax Coal Co., Inc. for their financial support in subsidizing their trip to the recent ISPLS convention in Indianapolis.

...Former ISPLS president, Roger Woodfill, has recently resigned his position with the Division of Water, Indiana Dept. of Natural Resources, to return to his surveying practice in Lawrenceburg, Indiana. Rumor has it that he will run for an office in the State Legislature.

...Professor Lassi A. Kivioja, associate professor of geodesy at Purdue University - West Lafayette, is on sabbatical leave for the 1979-80 academic year. He is working with the Defense Mapping Agency and the Geodetic Survey Squadron, at F.E. Warren Air Force Base, Cheyenne, Wyoming, on several important research projects.

...ISPLS member Franklin Moses, Frankfort, has been appointed by Governor Otis Bowen to fill a vacancy on the Administrative Building Council until August 1981.

TWO NEW VISITING SURVEYING TEACHERS JOIN PURDUE STAFF FOR SPRING SEMESTER 1980

Two new visiting staff members have joined the surveying faculty for the Spring 1980 semester to temporarily fill a vacancy which exists on the staff. They are Hughart Brown and Larry Holderly.

Mr. Brown is from Jamaica, W.I. where he has most recently been in private surveying practice, after seven years of work as Senior Executive Surveyor with the Ministry of Works in Jamaica. He attended Waltham Forest Technical College in London, England, and is a chartered land surveyor. He is a commissioned land surveyor in Jamaica and registered land surveyor in Florida. He recently completed two years as president of the Land Surveyors Association of Jamaica. He is teaching CE 302 (Photogrammetry and Photo-interpretation) and CE 305 (Surveying Computations).

Prof. Holderly is originally from Monticello, Indiana, and has recently completed a degree, doctor of engineering, from Texas A. & M. He graduated in civil engineering from Purdue where he also earned an M.S. degree, majoring in surveying and mapping. His work experience includes several years with Penn Central Railroad in Philadelphia and a year with the Dept. of Land Acquisition of the Indiana Highway Dept. He also taught surveying at Glenville State College in West Virginia before moving to Texas A. & M. He is teaching CE 303 (Route & Construction Surveying), helping in CE 498, and is half-time teaching surveying in Agricultural Engineering.

AN EDITORIAL FROM

THE NEVADA TRAVERSE

The Official Publication of the
Nevada Association of Land Surveyors

EDITORIAL

It used to be said that things are not always what they seem. Today things are rarely what they seem.

We have become a nation concerned more with appearances than with the substance of things. Style sells because it is apparent. Character doesn't because it isn't. Most successful politicians, presidents and professionals learn this elementary truth somewhere between college graduation and their country club.

Not that these other professionals don't have character or worth. It's just that they have learned that the public likes to buy style and "image" and they have learned how to merchandise it to their profit. A doctor cures twenty percent of his patients with his image alone. An architect sells a million dollar commission with a million dollar image and a few pastel sketches.

An attorney's image is so good that he charges you \$100 while he decides if he wants to represent you or not. A surveyor's image is so bad that he has to buy his clients a \$25 lunch to get a \$50 lot job.

What is it about this second oldest profession of ours that makes Congress so forgetful when they left us out of the Surface Mining Act? When we were forgotten in the Brooks Bill? When surveying was cataloged as an apprenticeable trade instead of a profession? When cities and counties and clients decide that the cost of our services are more important than the quality of them?

You're right! It's our image and it's not a good one.

Jack boots on a mountain top, arms wildly waving, looking through a telescope at some unfathomable object is how one beer manufacturer showed us to 20,000,000 television viewers.

A cigarette ad portrays us to another 2,000,000 readers as a funny looking guy with a funny looking stick standing out in the middle of the road.

You never saw a Cadillac advertisement with a land surveyor in it.

It isn't as if all the good images have already been taken by the other guys who have learned all about "hidden persuaders". What we seem to lack in our professional image is not exactly hidden. What we lack

as a profession is what other professions have:

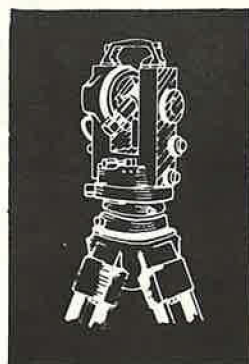
- Professional appearance and behavior
- Political involvement
- Active in charities
- Well educated
- Concerned about our profession

Assuming this costume of a professional won't make you a good surveyor if you're not one already. But if you are one, a little professional costuming may persuade the public to give you the respect and success you deserve.

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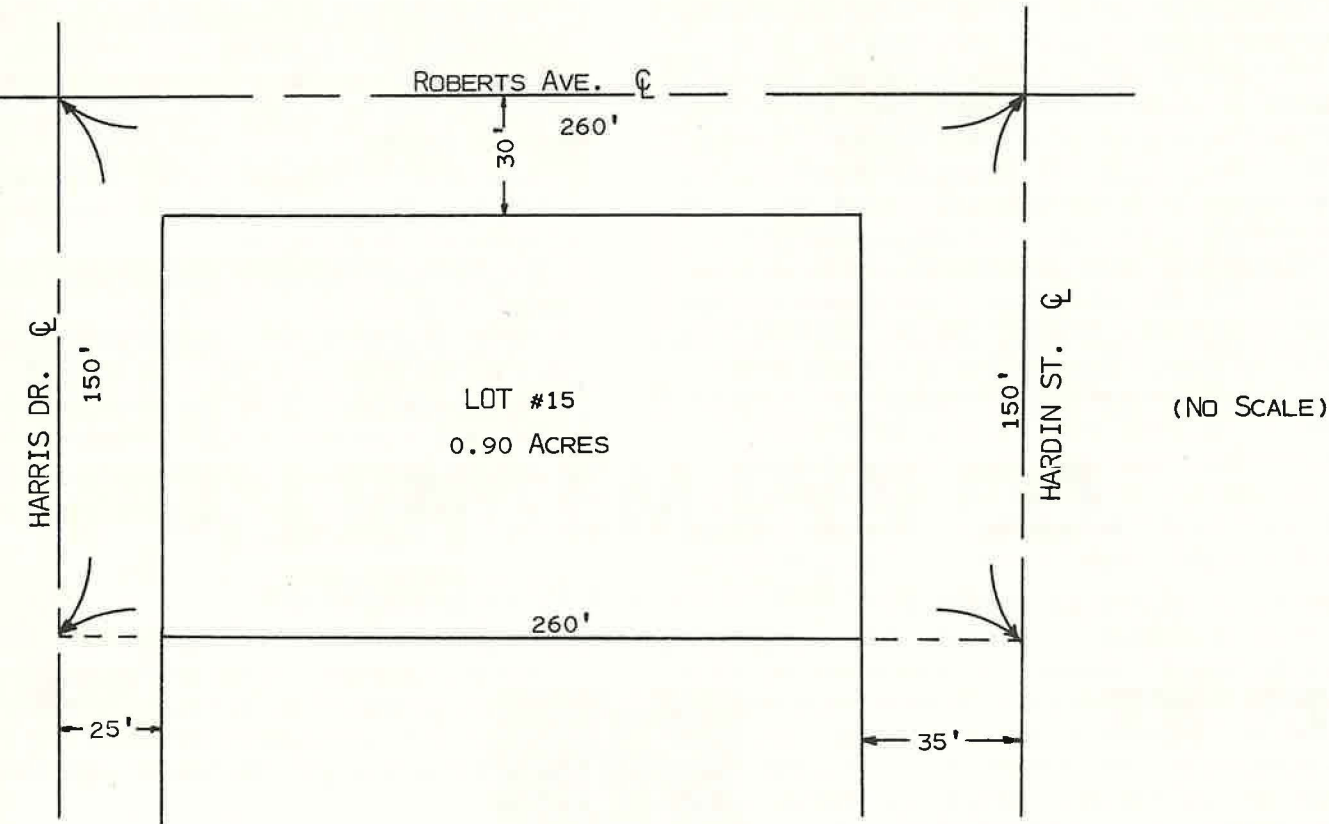
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POINT—COUNTERPOINT

In this issue of the Hoosier Surveyor, we are inaugurating a new feature that we hope will provoke discussions of ideas and problems generated by members. Contributors and discussions on wide-range of topics are solicited on topics from professionalism and survey education to registration and legislation. We would like to generate responses and letters to the editor. This first installment of the column has been contributed by Gary Kent, Deputy Marion County Surveyor, Indianapolis.

(SKETCH SHOWS PORTION OF PLAT INVOLVED IN PROBLEM)



THE RELEVANT STATEMENTS IN THE COVENANTS WERE:

- "... ALL DIMENSIONS ARE TO STREET CENTERLINES..."
- "... ALL LOTS INCLUDE ONE-HALF RIGHT OF WAY..."
- "... ACREAGES INCLUDE ONE-HALF RIGHT OF WAY..."

NOTE- The plat did not dedicate the rights of way for public use.

THE PROBLEM INVOLVED A SURVEY OF A PORTION OF LOT #15, THE DESCRIPTION OF SAID PORTION BEING:

"... THE WEST HALF OF LOT #15..."

THE QUESTION RAISED WAS WHETHER THE LOT SHOULD BE DIVIDED IN HALF BASED ON THE DISTANCE FROM CENTERLINE TO CENTERLINE (SINCE THE PLAT PLAINLY STATES THAT LOTS INCLUDE ONE-HALF OF THE STREET) OR SHOULD THE LOT BE DIVIDED BASED ON THE DISTANCE BETWEEN THE EAST RIGHT OF WAY LINE OF HARRIS AND THE WEST RIGHT OF WAY LINE OF HARDIN.

EXTENSIVE RESEARCH IN A LAW LIBRARY REVEALED SEVERAL CASES DEALING WITH SIMILAR CIRCUMSTANCES. IN ALL CASES, THE COURT ESSENTIALLY RULED THAT THE DIVISION SHOULD BE MADE BASED ON THE DISTANCE BETWEEN THE RIGHTS OF WAY NOT ON THE DISTANCE BETWEEN THE CENTERLINES.

EXCERPTS FROM THE SEVERAL CASES FOLLOW:

EARL V. DUTOUR ET AL. (181 CAL. 58) ... THE COURT STATED: "...THE GRANT OF A FRACTIONAL PART ... OF A CERTAIN LOT OR PARCEL OF LAND CONVEYS THE GIVEN FRACTIONAL PART ... OF THE LOT OR PARCEL OF LAND WHICH IS SET APART FOR PRIVATE USE AND OCCUPANCY."

MONTGOMERY V. HINES (134 IND. 221) ... THE SUPREME COURT OF INDIANA STATED: "... LOT AND STREET ARE TWO SEPARATE AND DISTINCT TERMS, AND HAVE SEPARATE AND DISTINCT MEANINGS. THE TERM 'LOTS' IN ITS COMMON AND ORDINARY MEANING, INCLUDES THAT PORTION OF THE PLATTED TERRITORY MEASURED AND SET APART FOR INDIVIDUAL AND PRIVATE USE AND OCCUPANCY. WHILE THE TERM 'STREETS' MEANS THAT PORTION SET APART AND DESIGNATED FOR THE USE OF THE PUBLIC..."

WEGGE V. MADLER (129 WIS. 412) ... THE COURT STATED: "...THE WORD 'LOT', AS GENERALLY AND CUSTOMARILY USED, DOES NOT INCLUDE SUCH PORTION OF THE STREET."

IT SHOULD BE NOTED THAT THE FACTS OF THE EARL V. DUTOUR CASE WERE EXCEPTIONALLY SIMILAR TO THE FACTS PRESENTED IN THIS PROBLEM. THE CIRCUMSTANCES RELATING TO THE PLAT WERE AS FOLLOWS: 1) THE LENGTH OF ALL LOT LINES EXTENDED TO THE CENTERLINES OF THE STREETS, 2) THE SIDE LOT LINES WERE EXTENDED BY DASHED LINES TO THE CENTERS OF THE STREETS, 3) THE AREA OF EACH LOT WAS COMPUTED TO THE CENTERLINES OF THE STREETS AND WAS MARKED ON THE PLAT, AND 4) THE CENTERLINE OF EACH STREET WAS INTERSECTED IN NEARLY ALL INSTANCES BY DASHED LINES EXTENDING THE LINES OF THE LOTS TO THE CENTERLINES. REFERRING TO THE ABOVE MENTIONED SET OF CIRCUMSTANCES ON THE PLAT IN QUESTION, THE COURT STATED: "GIVING TO THESE ITEMS ALL OF THE FORCE WHICH MAY REASONABLY BE CLAIMED FOR THEM, THEY TEND TO SHOW NO MORE THAN THAT IT WAS INTENDED THAT LOT OWNERS ... SHOULD TAKE TITLE TO THE CENTER OF THE STREETS OR AVENUES. THEY DO NOT, WE THINK, TEND IN ANY WAY TO REBUT THE PRESUMPTION THAT DEFENDANT'S GRANTOR USED THE WORD 'LOT' IN ITS ORDINARY AND COMMONLY ACCEPTED MEANING."

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THE LAND SURVEYORS ROLE IN TOMORROW'S SOCIETY

Willis F. Roberts, Director of the Atlantic Provinces LRIS (Land Registration and Information Service), presented a paper at the annual meeting of the New England Section CSM held on January 19th at the Sheraton Boxborough Inn in which he outlined the surveyors role of the past as well as integrating with the modernization of land records of the future. The theme of his talk was "Are we leading the procession to the post industrial society or snoozing at the side of the processional route?"

Mr. Roberts began with the note that in the 1850's "the surveyor was a professional, well respected and content working on subdivisions and small engineering projects" through the 1880's and the first polarization of professions with the establishment of the USGS in 1879 and their professional staff defined as geodists and cartographers. The 1900's brought about a re-orientation of the surveyors lives with the effects of the railroads. With "the migration of people to the cities, and then from the cities to suburbia with the construction of highways and super highways, the economy also went from boom to bust and back to boom because of two major wars, one at the beginning and one at the end of this period".

"During this time, the surveyor was receiving less and less attention from universities, was only tolerated by the general public, and was even being ignored by polarized groups within his own profession. By 1930 the surveyor was faced with extinction."

Mr. Roberts continued, "The late 1940's and the 1950 decade saw the rebirth of the land surveyor as we know him today, but remember, it was not due to any effort on the part of the land surveyor, but due rather to external factors and especially the increasing economy. This resulted in a massive housing requirement leading to subdivision work, the bread and butter of the land surveyor's work. No other profession wanted the field work and the land surveyor with poor instrumentation but hard work succeeded. Few realized the magnitude of the work or the external factors on the horizon which would again effect his profession. This period through hard work, some money and selfish pride gave the surveyor time to form organizations, set standards, be accepted by legislation, and begin policing his own members. His standards were low but with professionalism in his heart, he began to chart his future. I doff my hat to these gentlemen, some of whom are here today still fighting."

The 1960's saw changes being made from the compass, transit and chain to the automated theodolite and EDM equipment. The 1970's saw a strengthening of the land surveyor's profession, the upgrading of his knowledge through continuing education, and his watching the computer science field multiplying ten thousands fold.

Mr. Robert's comments on the present included "The data bank and recently the Land Information Systems, has been promoted by concerned individuals working within and outside the survey field and has been discussed at regional and national meetings under such acronyms as CLIPP, MOLDS, Cadastre, and L.I.I. The first meetings were sponsored by individuals of different organizations with common interest in obtaining better, and in a shorter period of time, information about the land we live on. MOLDS is an organization of organizations made up of 28 professionals associations and Federal Agencies, while L.I.I. is made up 128 members of many allied associations. Both aim to foster education and research, conduct workshops and conferences; and in all other feasible ways help bring to fruition improved and compatible land data systems."

"Are you making plans to enter this new field? Are you cooperating with your fellow surveyors? Are you integrating with and making your data compatible with the numerous land information projects underway today? Or are you complacent like the early easterners watching the westward migration? If you are, wake up — for example, electronic engineers may take over with inertia survey systems and position by satellite (PBS)."

"My first suggestion is that you define and collect statistical data pertaining to your profession and initiate a modelling system to aid in your decision making."

"If we accept that the effect of Land Information Systems on our profession will be monstrous, then we must know the monster. A comprehensive definition of a Land Information System is not possible at this time; but in my view certain basic characteristics are surfacing. I would list these as follows: (a) the system will be made up of many data bases or files; (b) each data base will be housed within one jurisdiction and its specifications must be well defined; (c) all data basis must have a common index file (Parcel Index); (d) the elements of each data file must be position locatable (coordinates) for data manipulation; and (e) an inter-disciplinary approach is mandatory, not polarization."

"My second suggestion is that you define and redefine the basic characteristics of an information system; define the components and method of data presentation (which has been jurisdictionally within your field of endeavor) and add new components you feel you can support."

"My third suggestion is that you create an atmosphere of cooperation with the computer science field, stressing your coordinate location capability, and continue to encourage within the service sector interdisciplinary efforts in your day to day project work."

"My fourth suggestion is that you enter into and strongly support all fields of research and development, and that you actively participate in continuing education including interdisciplinary courses."

Mr. Roberts concluded his excellent paper with "The suggestions I have made for strengthening the surveyors future role could be more than just suggestions — they could be considered goals that should be addressed in sequence with a view to moving the profession ahead in a rapidly changing world. 'Are we leading the procession to the post industrial society or snoozing at the side of the processional route?'"

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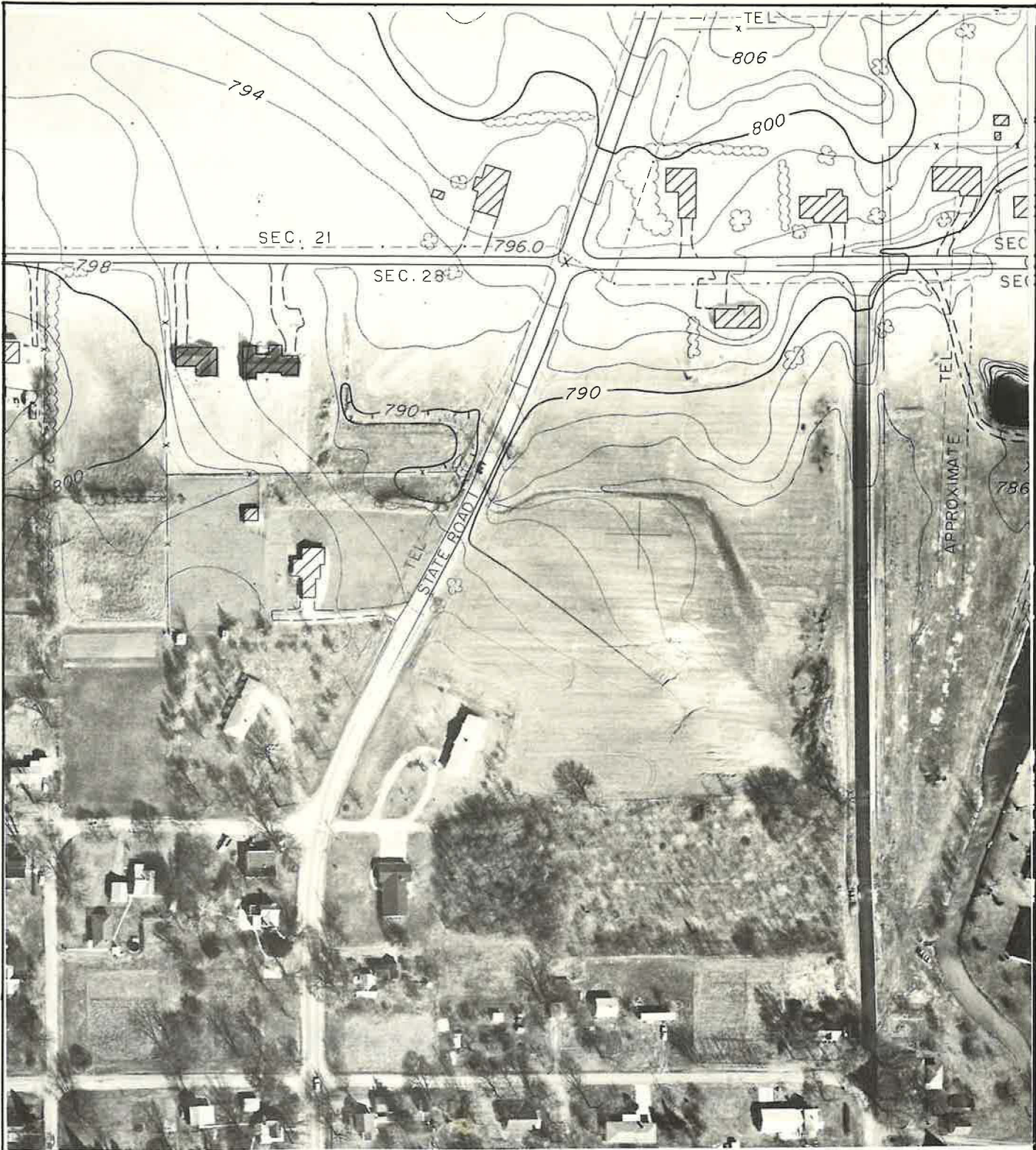
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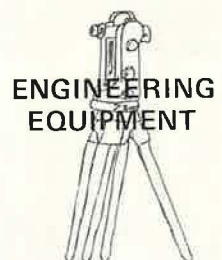
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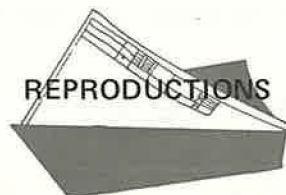
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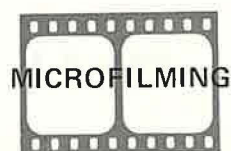
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