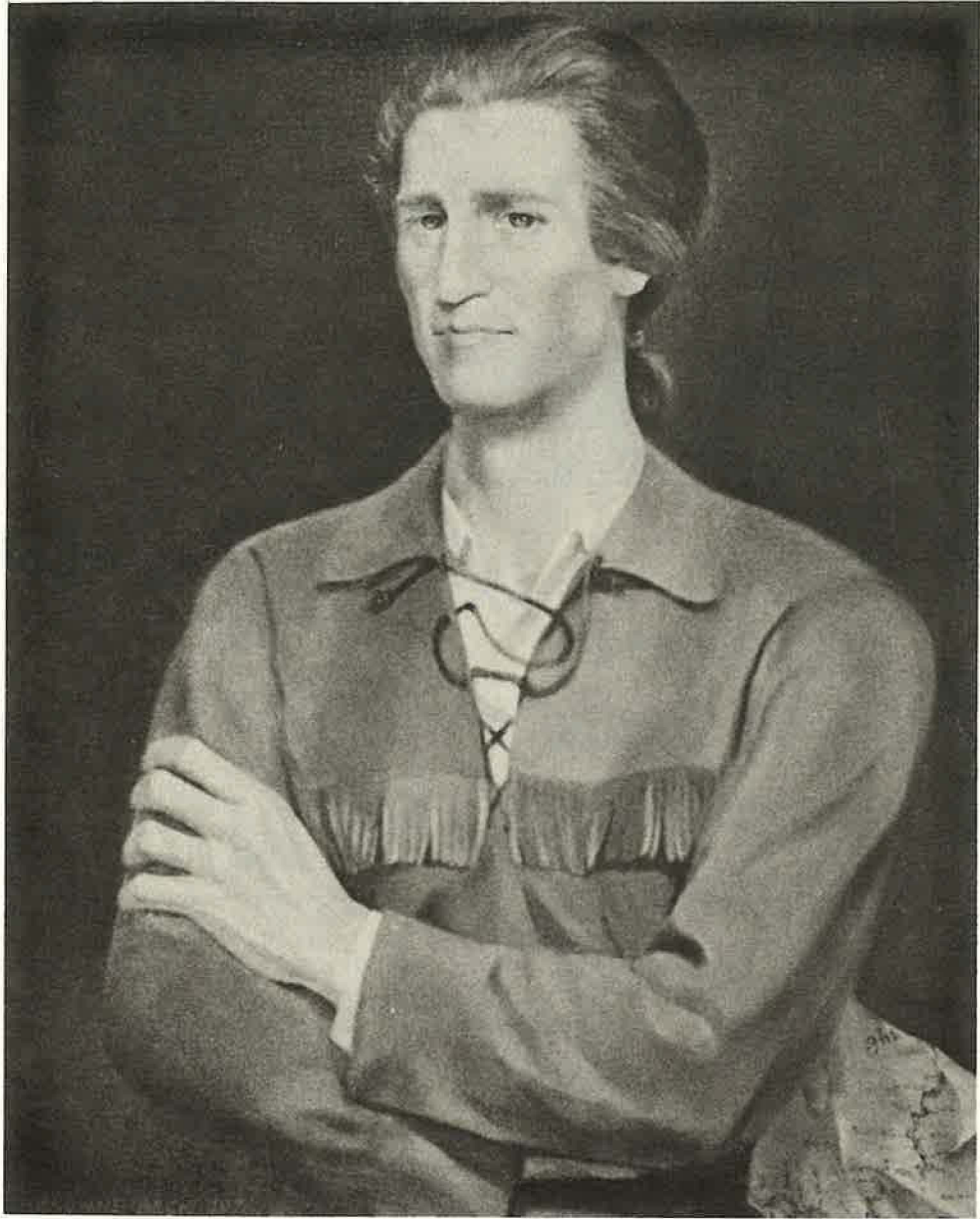


SURVEYOR

HOOBIEER

**Indiana Society of Professional
Land Surveyors, Inc.**



**VOLUME 3
NUMBER 2
SUMMER 1976**



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- NEW LS REGISTRANTS•CURRENT SITs•NEW ISPLS OFFICE•
- SUMMER WORKSHOP REPORT•PUBLIC RELATIONS BROCHURE•

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HOOSIER SURVEYOR

VOLUME 3, NO. 2, SUMMER 1976

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EDITOR'S NOTE:

The Editor apologises to the readers of this newsletter for the apparent lack of final proof-reading for the Spring 1976 issue. The captions under three important photos were reversed and unnecessary space was utilized in a mix up in attempting to publish new land surveyor registrants. An attempt is made in the current issue to properly list the recent registrants.

COVER: Portrait of George Rogers Clark was commissioned by the Indiana State Museum Society to be painted by Rosemary Browne Beck and was presented to the Indiana State Museum as a part of the Bicentennial Exhibit February 25, 1976. Used through the courtesy of the Indiana State Museum.

The Hoosier Surveyor is published quarterly by the Indiana Society of Professional Land Surveyors, to inform land surveyors and related professions, government officials, educational institutions, libraries, contractors, suppliers, and associated businesses and industries about land surveying affairs.

Editorial/Advertising offices: 1224 North Capitol Ave., Indianapolis, IN 46202 (Telephone: 317-634-6206). Advertising rates, closing dates, circulation data on request. Contributed articles, photographs subject to space limitations.

Kenneth S. Curtis
Editor

THE PRESIDENT'S PAGE

NEW MANAGEMENT, NEW MEMBERSHIP STATUS, NEW BENEFITS, NEW WORKSHOPS, NEW HORIZONS.

ISPLS has changed again. For the first time in history, ISPLS, Inc. has been under the complete direction of your Board of Directors. Thomas V. McComb resigned as our Executive Director on May 25, 1976. Discussions with ISPE through task forces appointed by ISPLS and ISPE resulted in an agreement approved by both boards whereby ISPLS is now headquartered at 1224 N. Capitol Ave., Indianapolis. We are currently cost sharing with ISPE for the use of office space and equipment as well as the clerical and bookkeeping services of Peggy Archer. Peggy has tackled the chore with efficiency and enthusiasm. We have retained the same phone number for your convenience. 317-634-6206.

This transition has not been an easy one. Our financial situation is beginning to look much brighter. This has been helped by the willingness of ISPLS members to support the higher dues schedule and also by a new membership category called Member Firms. As of this time, 19 firms have joined and more are joining every week. A current list appears on another page in this issue. These firms recognize that the strength of their organization is in their own employees. By joining as member firms, employees are given a 20% discount on workshops and convention fees which can largely offset the fees of member firms. Other benefits are available and have been sent to the various surveyor firms. If your firm has not yet joined, I would encourage you to do so now.

Things are changing and fast. Through the guidance of your Board of Directors, I believe that we are moving with the changes and in the right direction.

I want to close by giving my thanks to all of the Board of Directors of ISPLS, Inc., who have given freely of their time and worked so hard to make this move to a new location work smoothly.



Peggy Archer, who has served six-years as a secretary in the ISPE state headquarters, has now assumed added duties with ISPLS.



Brian M. Dickerson
President



1976 ISPLS Board of Directors-(first row, left to right) Johnson, DeReamer, Tazian, Brady, Day; (second row) Dickerson, Tanke, Schneider, Franklin, Woodfill, and Curtis.

The following is a list of ISPLS member firms:

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UNIFORM COLLECTION SERVICE APPROVED BY ISPLS BOARD OF DIRECTORS FOR USE BY ISPLS MEMBER FIRMS

Member Firms of the Indiana Society of Professional Land Surveyors now have a uniform collection system approved for their use. It employs the latest techniques available, consistent with all requirements and provisions of the increasingly strict laws governing collection practices. The official announcement letter outlined the program, but did not go into the particular qualifications of the company chosen to serve the membership: I. C. System, Inc.

I. C. System, Inc., has been in the collection business since 1938. It now serves the members of some 800 state business and professional associations all across the country. During 1975 the company collected an all time record of \$13.4 million in past-due accounts.

All collection practices, procedures and materials used by I. C. System have been scrutinized by the Federal Trade Commission. So without reservation, all Member Firms can be assured that the company is fully aware of what can and cannot be done on behalf of its clients. And in view of I. C. System's pre-eminence in size and prestige within the industry, Member Firms can be assured that they are in no danger of legal action resulting from collection activities carried out on their behalf. That's particularly important in this age of consumerism. A few short years ago, the most important consideration in selecting a collection service was in determining its ability and willingness to turn over to the creditor all the money he had coming to him. Today, such selection equally emphasizes the importance of entrusting the surveyor's good name and reputation to the collection service. . a heavy responsibility.

Keeping pace with the increases in collections over the years has been development of improved processing and customer service departments in their home office. The company has a modern, tailor-made data processing system from IBM. For the benefit of those familiar with computer systems, their's is an on-line 360/50 computer with a 3211 printer serving 3270 cathode ray tube terminals and backed up by auto-

matic typewriters, microfilm equipment and a complete in-house printing and mailing capability. For those not familiar with such equipment, it simply means that company growth hinders neither their effectiveness nor their ability to respond immediately to customer needs and inquiries.

The company maintains a staff of Customer Relations personnel whose job it is to see that all customer inquiries are handled on a "right now" basis. And for those situations in which the mail cannot carry information fast enough, the creditor can telephone the company via their toll free WATS line system.

Borrowing from the experience of users in other states, Member Firms of the Indiana Society of Professional Land Surveyors who install the system should submit nine or more accounts immediately. Even if it's necessary to go back a year or more to come up with that many bad checks or written off accounts, but the initial heavy use will get your bookkeeper accustomed to working with the service and thus less likely to forget to submit future accounts as they become 60 or 90 days past due. A company representative will be happy to spend some time with your bookkeeper to start things off on the right foot.

Those Member Firms who did not return the inquiry card enclosed with the original announcement letter can arrange to see a representative at a later date by simply contacting the ISPLS, Inc. Headquarters at 1224 N. Capitol Ave., Indianapolis, Indiana 46202, Phone 317-634-6206.

MARK YOUR CALENDARS!

Saturday, October 23, 1976

ISPLS Fall Workshop on "Roads and Streets" in Indianapolis - geared toward the technician. Topics will include roads, streets, pavements, horizontal and vertical curves, curbs and gutters, traffic counts, etc. Watch for the mailing of announcements.

Thurs., Fri., & Sat., January 27-28-29, 1977

ISPLS Annual Convention at Stouffer's Indianapolis Inn - Workshops on Thursday; Annual meeting on Friday and Saturday; Equipment exhibits; Ladies Program.

February 27-March 5, 1977

ACSM-ASP Annual Convention at Washington Hilton Hotel, Washington, D.C.

NEWSNOTES

1. Copies of the 1974 edition of U.S. Bureau of Land Management booklet RESTORATION OF LOST OR OBLITERATED CORNERS AND SUBDIVISION OF SECTIONS (A guide for Surveyors), 40 pages, are avail-

able at \$1.00 per copy including postage from the ISPLS State Office, 1224 North Capitol Ave., Indianapolis, Indiana 46202. Only a limited quantity are available.

2. Two very important recent change of addresses:

a. Indiana Society of Professional Land Surveyors, Inc.
1224 North Capitol Ave.
Indianapolis, Indiana 46202

b. American Congress on Surveying and Mapping
210 Little Falls Street
Falls Church, Virginia 22046

3. A practical surveying course designed "to acquaint the novice with the principles of surveying" will be offered by IUPUI this Fall on seven Wednesdays Sept. 22 - Nov. 24, 1976; 7:30 - 9:30 p.m.; with four Saturday labs to be announced. IUPUI also plans to offer a refresher course "review for land surveyors exam" in the Spring on Monday evenings in January, February, and March. Details can be obtained from Bennie I. Keller (317/264-4501) or by writing IUPUI, Division of Continuing Studies, P. O. Box 55261, Indianapolis, Indiana 46220.

4. The Fall issue of the HOOSIER SURVEYOR will contain extended reports of conduct of the business of the Indiana Society of Professional Land Surveyors, Inc. particularly on the actions of the Board of Directors and current financial statements. The Fall issue will also contain reports from the various local chapters of the Society:

Central Indiana Chapter (around Indianapolis)

Tecumseh Chapter (around Lafayette)

Northwest Indiana Chapter (around Calumet)

Northeast Indiana Chapter (around Fort Wayne)

St. Josephs' Valley Chapter (around South Bend)

Secretaries of these chapters are encouraged to correspond with the newsletter editor.

5. The new ISPLS public relations brochure which is depicted on pages 18 and 19 will be available in lots of 10 and 25. Brochures will be available at Society headquarters office after November 1. Prices are yet to be established.

GREAT LAKES COUNCIL MEETS IN MILWAUKEE

The Great Lakes Council of ACSM Sections and Affiliates held its summer meeting at the Red Carpet Inn in Milwaukee, Wisconsin, on June 26th. Harold Charlier, delegate from Wisconsin, was host and convenor, and each of the other six member states (Illinois, Indiana, Iowa, Michigan, Minnesota, and Ohio) was represented by one or more delegates. According to its intended purpose, the Council meets periodically to discuss previously docketed concerns common to land surveyors in the seven member states and to share solutions to common problems. Following are several significant points from this meeting's discussion:

1. Neil Franklin, for Indiana, reported on his Society's experience with a professional management firm and made a strong recommendation that any paid staff should be treated as an adjunct to a Society's officers and committee personnel, and not as a substitute for them. Delegates from

other states concurred and a consensus developed that a full-time paid secretary and a regular office were desirable, as was professional legislative assistance, but not necessarily a full-time paid executive director.

2. All states require state organization membership for chapter membership, and most states require chapter membership, assigning all members to an appropriate chapter and collecting chapter dues along with state dues. Several states are successfully structuring their Boards of Direction--and even their nominating committees--to accommodate representation on a chapter basis.

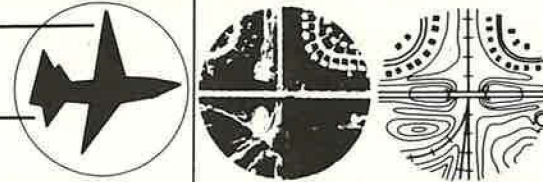
3. The Wisconsin Society of Land Surveyors has prepared an excellent 25-minute 16 millimeter sound film interpreting surveying to the general public. This film can be borrowed at no cost from the Wisconsin Society

(the booking schedule is pretty crowded), or prints can be purchased from them for \$275.00 each.

4. All states are having difficulty generating surveyor enthusiasm for recertification programs. Iowa, which has the only mandatory requirement so far, has really only activated it in concept, with the details still to be worked out. A concern was voiced by the representatives at this meeting that once this area of professional re-licensing is subjected to bureaucratic control, bureaucrats can later change it to suit their own interests, and the professionals will lose control--or even guidance.

The next meeting was scheduled to coincide with the ACSM Seattle meeting in September, and once again all seven member state organizations indicated they would be represented. This is a high-powered group of dedicated professionals, and they deserve the support of every surveyor in all seven states.

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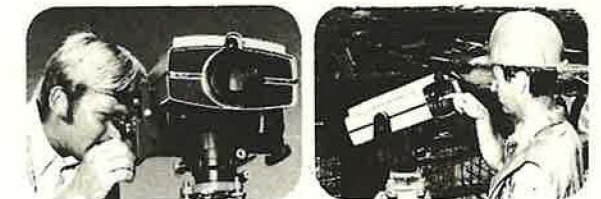
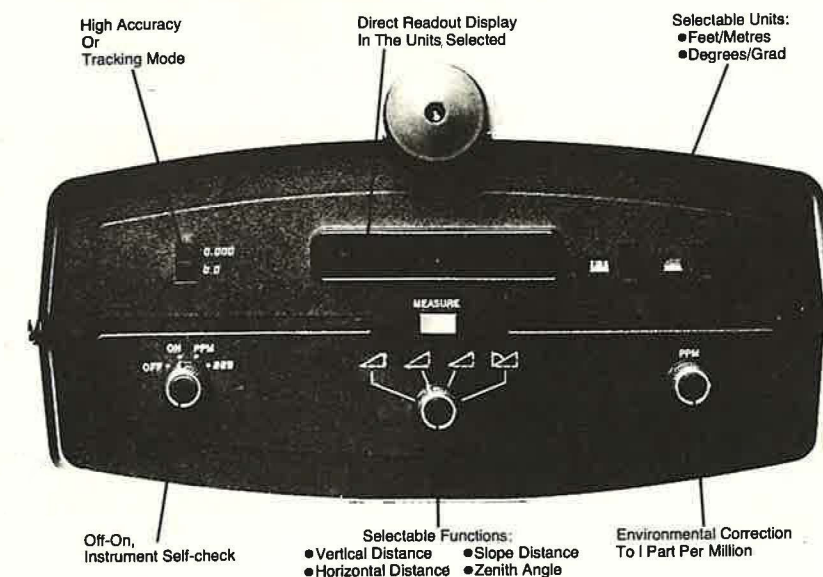
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GEORGE ROGERS CLARK AND SURVEYING

Compiled by Kenneth Curtis, editor

The accompanying article on George Rogers Clark by Million and Leslie primarily dwells on Clark's contribution to the Revolutionary War in the Northwest Territory. "Like Washington, Clark was trained to be a surveyor". This Revolutionary War giant did indeed start as a surveyor in his early adult life. The following two accounts of Clark describe his interests in surveying. The first account is from "A Commemorative History of the George Rogers Clark Bicentennial Exhibit", a booklet published in 1976 by the Indiana State Museum Society.

Growing up in Virginia

George Rogers Clark was born November 19, 1752, two miles east of Charlottesville, Virginia, in the shadow of the Blue Ridge Mountains. He was the second son of John and Ann Rogers Clark, both from well regarded, moderately prosperous Virginia families.

Located on the Rivanna River, the Clark farm was only two and one half miles northwest of Shadwell, the birthplace of Thomas Jefferson. This coincidence of birth may have laid a foundation for the high regard in which each held the other in later years.

When George Rogers was five, the Clarks inherited a small plantation and moved to the southwest corner of Caroline County, Virginia. There, Clark spent a boyhood typical of this time. . . helping with the work of the plantation. . . learning to ride and hunt. . . taking prizes in wrestling at local events. . . accompanying his father to the capital at Williamsburg. . . and enjoying the occasional visits of prominent Virginians who were friends of the family. These associations and experiences were to prove helpful to him when he assumed his role as a leader in Kentucky.

Like most boys of this time, George Rogers had little formal schooling, receiving most of his instruction at home. According to some historians, he and his older brother Jonathon went to live for a short time with their Grandfather Rogers in order to attend a private school run by Donald Robertson on the Mattaponi River. If true, Clark remained no more than six or eight months, and his name does not appear in the school records. Others known to have been enrolled at the time are James Madison and John Tyler.

Nevertheless, Clark became an avid reader and a keen observer, and in later years he was consulted frequently by scientists and scholars from all over the world on a wide range of subjects related to the western country. Despite his somewhat erratic spelling, Clark's letters and journals reflect an articulate, highly intelligent man.

By the time he was eighteen, he was an impressive figure. . . over six feet tall, with red hair and dark, snapping eyes. . . the kind of a man others would choose to follow. William, the youngest of the Clark's six sons and four daughters, was born that year. Some thirty years later, Clark would recommend this younger brother to Thomas Jefferson as a leader for the famous Lewis and Clark expedition.

George Rogers undoubtedly derived much of his determination and self confidence from these formative years among his close-knit and devoted family. All maintained affectionate ties and intense loyalty to each other throughout their lives.

As he neared manhood, Clark was taught surveying by his grandfather, a skill which was in demand on the western frontier. In June of 1772, at the age of nineteen, Clark left his home in Virginia to seek land and adventure west of the mountains. Although he was to return many times to Virginia, his home and his allegiance thereafter were in the West.

On reaching Kentucky, Clark would write, "A richer and more beautiful country than this, I believe has never been seen in America yet!"

Claiming land in Kentucky

After France ceded a portion of her western lands to Britain, a Royal Proclamation was issued, by which the purchase of land and settlement was prohibited, without special license, in the region beyond the headwaters of the rivers flowing into the Atlantic. This boundary along the crest of the Appalachian Mountains became known as the "Proclamation Line."

Enforcement of the proclamation would mean not only the development of the fur trade, which was enriching many London merchants, but also would keep the frontiersmen under English political control.

However the pioneers blatantly ignored the proclamation. The British Governor of Virginia, Lord Dunmore, characterized their disregard in the following letter to the Colonial Secretary:

"I have learnt from experience that the established authority of any Government in America, and the policy of Government home are both insufficient to restrain the Americans; and they do and will remove as their avidity and restlessness incite them. They acquire no attachment to Place; but wandering about seems engrafted in their nature; they do not conceive the Government has any right to forbid their taking possession of a vast tract of county either uninhabited or which serves only as a shelter to a few scattered tribes of Indians. Nor can they be easily brought to entertain any belief of the permanent obligation of Treaties made with those People whom they consider as but little removed from the brute creation."

The futility of enforcement soon became clear as some 30,000 settlers defied the edict between 1765 and 1768. Lord Dunmore should have recognized that Virginians equated land with wealth, and many adventurous and ambitious young men in the colony saw in the West an opportunity to make their fortunes.

One of these was George Rogers Clark, who left Pittsburgh by canoe in 1772 to survey land at the mouth of the Kanawha River. So impressed was he that he returned with his father in the Fall to locate land at Fish Creek, 130 miles below Pittsburgh. When the rest of the party returned home, Clark and a companion traveled 170 miles down the Ohio River before returning in mid-November to winter at Fish Creek.

During 1773, the year of the Boston Tea Party, Clark went with a surveying party to Kentucky, and wrote to his brother Jonathon: "I am convinced if he (father) once sees yeuntry he never will rest until he gets into it to live. I am ingrossing all ye land I possibly can expecting him."

During this time, frontiersmen like Daniel Boone were leading settlers through the Cumberland Gap and along other routes to settle in Kentucky. On foot and on horseback, the pioneers crossed the mountains, carrying the tools and goods they would need to establish homes in the wilderness.

In 1774, Clark joined ninety other men to form a settlement in Kentucky, a plan which had to be temporarily abandoned due to Indian hostilities. The following Spring, he returned to survey land for the Ohio Company and to locate property in his own name.

Found Captain James Harrod and fifty companions reoccupying the site abandoned the previous year. This was to be the first permanent settlement in Kentucky. . . Harrodsburg.

A basic difficulty in western land ventures was the question of who actually had the authority to grant title. It was virtually impossible for an absentee owner to prevent a settler from "squatting" on his property. As a result, conflicting claims and clouded titles still continue to plague Kentucky landowners.

Matters were further complicated by the fact that, despite their desire to retain their own hunting rights, it was not unusual for the Indians to sell the hunting territory of another tribe to the Americans for an adequate "consideration."

However, the prize was rich, and the tide of settlement could not be stayed.



"SURVEYING METHODS USED AROUND 1770"

The Kentucky Settlements

By 1775, there were four settlements in Kentucky: Harrodsburg, Boiling Spring, St. Asaph (Logan's Fort), and Hinkson's (Ruddell's Station).

Having been hired by the Transylvania Company to clear a trail from the Cumberland Gap to the Kentucky River (later known as the "Wilderness Road") and to build Fort Boonesborough fifty miles east of Harrodsburg, Daniel Boone brought 27 men and four families, including his own, to settle in Kentucky.

Along with other leaders of the Kentucky settlements, Clark played an important role in establishing a system of government in the isolated communities. On May 23, representatives of the settlements met at Boonesborough, in what has been called "the first representative body of American freemen west of the mountains."

They agreed on a militia, a judicial system, religious liberty, improvement of horse breeds, and the preservation of game and rangeland.

Although opposed by Clark and others, who considered Kentucky part of Virginia, the Transylvania land company attempted to have a delegate seated as the fourteenth member of the Second Continental Congress. The proposal was denounced by the governors of North Carolina and Virginia as a "lawless undertaking," and was rejected.

The settlers, who had come with such high hopes, were finding life in the wilderness increasingly difficult. As the isolated cabins were attacked with mounting frequency and violence by the Indians, many of the settlers were forced to take refuge in the forts, leaving their fields untended.

As food supplies dwindled and living conditions in the forts grew more crowded, many of the settlers became discouraged and returned to the East. At the close of 1775, the entire population of Kentucky totaled less than two hundred.

The second account is from William H. English's book "Conquest of the Northwest 1778-83 and Life of General George Rogers Clark" published in 1895.

Not much is known of the early boyhood of George Rogers Clark. His father had a large family, and the facilities of obtaining a good education in the part of Caroline county where he was raised were then probably not of the best. He, however, for a time, improved such opportunities as he had, and for nine months at least was under the tuition of Donald Robertson, who had the reputation of being a superior teacher. It is said that young James Madison, afterwards President of the United States, was a pupil with Clark, under Robertson's tuition. Madison and Clark were nearly of the same age. But Clark did not persist in his scholastic studies like Madison, and acquired only a common English education—not very thorough even in some branches of that. In spelling he was certainly deficient, or very careless, but that seems to have been a deficiency quite common in this pioneer period. Mathematics and surveying were his favorite studies, and in the latter he became quite proficient.

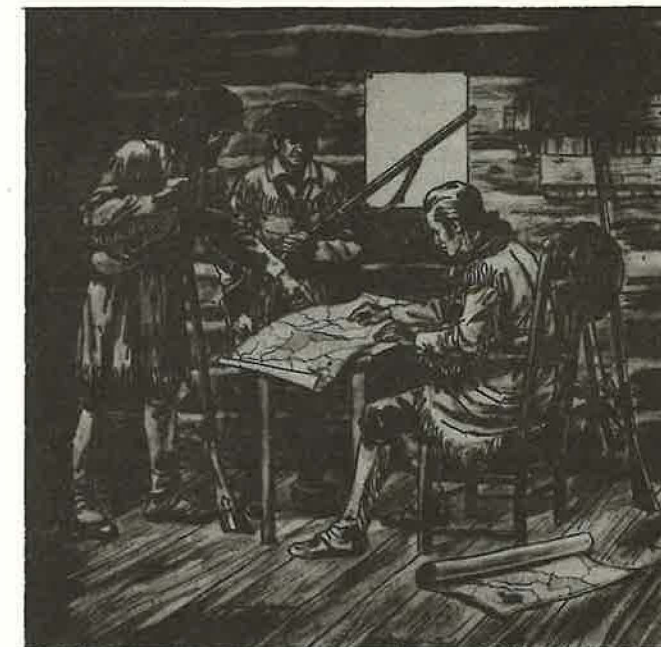
At that period there had been no systematic government surveys of land, as at present, consequently the running and establishing of boundaries were of much importance, and the services of surveyors in great demand. It was, in fact, an employment congenial to Clark's tastes, for he had a strong natural intellect which sought practical knowledge of men and material things rather than the rules of the schoolteacher, and he entered upon active duties as a practical surveyor in the field when he was quite young.

George Washington, who was also a young surveyor, had visited the country in the vicinity of the mouth of the Kanawha in 1770, surveying and locating land. About this time public attention was strongly turned in the direction of the Ohio valley, and enterprising men began to take steps to secure desirable locations. To do so the services of surveyors were indispensable. The movement came exactly in time to suit Clark's aspirations. Full of vitality and ambition, he determined at once "to go west" and unite his destiny with a new country. He was only about nineteen years old when he crossed the mountains on an exploring and surveying expedition. One of his objects was to make a location of land for himself.

This first journey was probably in 1771, or it may have been in the spring of 1772, as it is known that he made an extensive tour through the upper Ohio valley in 1772, returning to his father's house again late in August.

The interest that already existed among young Clark's friends at home, in relation to the new country over the mountains, was largely increased by his glowing description of its desirable qualities, and some of them generally returned with him. Upon one

occasion his father accompanied him, but only to take a glance at the country. He soon returned home. His son, however, spent much of his time for several years in the upper Ohio valley, chiefly near the mouth of Fish creek, in Grave Creek township, some twenty-five or thirty miles below Wheeling, where he made a location of land, and built a cabin. It is said that the celebrated Michael Cresap subsequently became the owner of this land.



CLARK PREPARING TO SEND LINN AND MOORE AS SPIES TO KASKASKIA

Here Clark devoted himself mainly to surveying, hunting, fishing, and improving the land on which he had located. He wrote to his friends at home that he was making some money surveying; was pleased with his land location, and rather enjoyed his rough frontier life. He was, in fact, unconsciously preparing himself for the trials and hardships he was destined soon to encounter in military campaigns. On the 9th of January, 1773, he wrote a letter, headed "Ohio river, Grave Creek township," to his brother Jonathon, at "Woodstock, Dunmore county, Virginia," in which he said:

"I embrace ye opportunity by Mr. Jarrot to let you know that I am in good health, hoping that this will find you in the same . . . I am settled on my land with great plenty of provisions, and drive on pretty well as to clearing, hoping, by the spring, to get a full crop. I know nothing more worth acquainting you with, but that this country settles very fast, and corn is in some parts 7s. 6d. per bushel, but I have a great plenty. The people are settling as low as ye Sioto river, 366 below Fort Pitt. Land has raised almost as dear here as below. I had an offer of a very considerable sum for my place. I get a good deal of cash by surveying on this river. Pray write to me by ye first opportunity after the receipt of this. Nothing more but your affectionate brother."

He did not remain in Grave Creek township all the time, however, as his restless and adventurous spirit demanded action in a wider field. In the spring of 1773 he made a journey further down the river with a party of Virginians on their way to Kentucky. Exactly how far he went on this occasion is not known, but it was probably not far, as he was back at his father's in Caroline county in the summer of that year, and at his location again on the Ohio river shortly after. He was there in the spring of 1774, and about that time serious troubles with the Indians began. He was in the region of the first disturbances, and associating, more or less, with the men involved in them. It is possible he may have been a party to some of them himself.

In Dodge's "Red Men of the Ohio Valley," it is said that . . . "in the spring of 1774 an alarm spread through the border occasioned by killing of a white man near Wheeling by a band of Cherokees. A party of Virginia surveyors and explorers, under the lead of Captain Cresap, repaired at once to Wheeling. George Rogers Clark was one of this party."

In the latter part of July of the same year four hundred men, under Major Angus McDonald, crossed the Ohio at the mouth of Fish creek, near Clark's cabin, and destroyed some Indian villages on the Muskingum.

There is some reason to believe that Clark, and William Harrod, Leonard Helm and Joseph Bowman, afterwards captains under Clark in the Illinois campaign, went with this expedition.

It is certain that when unfortunate events in the spring of 1774 culminated in what is known as Dunmore's War, Clark was among the first to join the army. He was not in the memorable battle of Point Pleasant, for he happened to be with the wing, led by Dunmore, which was not engaged. It is not necessary here to enter into this well-known campaign, or onto the events which immediately preceded, and, no doubt, occasioned it. There is some doubt as to Clark's rank, but it is believed that he was either on Dunmore's staff or in command of a company. Whatever his rank may have been, he discharged the duties in such a satisfactory manner that it is said he was offered a permanent position in the English military service, but he did not want it because the trouble between the mother country and the colonies was then approaching a crisis, and besides his thoughts and aspirations were all in the direction of the great west, which he rightfully regarded as the best field for him in which to win success and imperishable renown.

The movement towards the west, which had been slowly gathering strength before Dunmore's War, rapidly increased after it.

Many of the young, the enterprising, the adventurous, as well as the unfortunate, turned their thoughts towards the fair land of Kentucky, and many who had been in Dunmore's army joined in the movement. Some of Clark's friends and acquaintances had already gone there, including Leonard Helm, William Harrod, Simon Kenton, Joseph and John Bowman, Isaac Hite, and others. Clark, no doubt, met some of these persons en route, and may have gone part of the way with them. This probably, increased his desire to go further, and it is certain that he visited the interior of what is now Kentucky in the spring of 1775.

There is no evidence, however, that visions of his future military career had as yet entered his mind. From a letter written his brother Jonathan, dated "Steward's Crossing, Apl. 1, 1775," it appears that he went, mainly, as a surveyor, and to secure desirable locations of land. The letter said: "I take this opportunity to acquaint you that I found all things according to my expectation on my arrival here. This leaves me quite well, hoping that it will find ye in the same state of health. I have engaged as a deputy surveyor under Cap'n Hancock Lee, for to lay out lands on ye Kentuck, for ye Ohio company, at ye rate of 80 & pr year, and ye privilege of taking what land I want. I hope that you will spare no money nor pains to get that patent for me as soon as possible, as it will be of ye greatest importance to me. I hope that you will write to our friends and let them know that I am well." He adds the following postscript: "Pray get ye patent for may land before June, if you possible can, as delay is dangerous."

About this time, and for some months afterwards, his letters show that he encountered some misfortunes of a character not known, which rather depressed him, but it was of short duration, for by midsummer he was in fine spirits, at the site of "Leestown," seventy miles up the Kentucky river, where he intended, he said, to live, and did not doubt but fifty families would be living there by Christmas. He thought a richer or more beautiful country had never been seen in America. He was sure if his father could see it he would come there to live, and come he did, at last, and his remains are at rest in "the beautiful country," with that of his wife and most of their children, as has already been related.

"Hancock Lee, and others," we are told in Collins's History of Kentucky, settled Leestown, on the east side of the Kentucky river, about a mile below where Frankfort is now situated. The "and others," probably included Clark, but if it did, the connection was likely of short duration.

"It was the first spot," says Collins, "settled by whites," (in that region) "and as early as 1775 was a kind of stopping-place, or resting-place for the explorers and improvers from the Pitt, or Monongahela country, who came in canoes down the Ohio, and up the Kentucky to look for land." As a town, however, it proved a failure, but that Clark was there is shown by a letter to his brother Jonathan, dated, "Lees Town Kentucke, July 6th, 1775," in which he said:

"I embrace the opportunity of Cap'n E. Taylor to send you this small epistle. I am in a flow of spirits at this time but it has not been ye case long, for I have had nothing but a series of misfortunes this four months past, too tedious to mention; but I hope to get ye better of them yet. A richer and more beautiful county than this I believe has never been seen in America. Colonel Henderson is (here) and claims all ye country below Kentucke. If his claim should be good, land may



"The three major forts in Kentucky were Fort Harrod, Boonesborough, and Logan's Station as depicted on John Filson's famous map."

be got reasonable enough, and as good as any in ye world. My father talked of seeing this land in August. I shall not advise him whether to come or not, but I am convinced that if he once sees ye country he never will rest until he gets in it to live. I am engrossing all ye land I possibly can, expecting him. We have laid out a town seventy miles up ye Kentucke where I intend to live, and I don't doubt but there will be fifty families living in it by Christmas. I hope that you will write to me by the first opportunity, letting me know how you all are, and what news, as I expect you will have frequent opportunities. This from your affectionate brother. P. S. My compliments to Mr. and Mrs. Campbell. Let Johny see this as wrote to himself as before."

But Clark did not make himself a fixture at Leestown. He was at Harrodstown, and other stations, as well as Leestown, familiarizing himself with the country and people, organizing, and, for the time, commanding the irregular militia of the scattered and meager settlements. He remained until the fall of 1775, by which time he determined to remove permanently to this beautiful country. He returned to his old home, and devoted the next winter to winding up his affairs with a view to removing west in the spring.

In the spring of 1776 Clark returned to Kentucky, resumed his relations with the settlers, and soon became a leader. He was brave, energetic, bold, prepossessing in appearance, of pleasing manners, and in fact, with all the qualities calculated to win upon a frontier people. The unorganized and chaotic condition of the country needed such a man, and the man had come.

Editor's Note: A tract of one hundred and fifty thousand acres of land was subsequently granted to George Rogers Clark and the officers and soldiers who assisted in the reduction of the British posts in the Northwest during the Revolution. This land grant on the north side of the Ohio river across from Louisville will be the subject of an article in the next issue of the HOOSIER SUPVEYOR.

GEORGE ROGERS CLARK, THE FRONTIER HERO OF THE AMERICAN REVOLUTION, ORIGINALLY CAME WEST TO SURVEY LAND

(Editor's Note—This is one of a series of stories about events of some 200 years ago in the land that is now Indiana. Not all significant events of the Revolutionary era occurred on the Eastern Seaboard. This series about some of the heroic men of frontier Indiana who contributed to the birth of the United States of America. The stories were written by Charles J. Leslie, University News Service, Purdue University, with the assistance of Paul E. Million Jr., associate professor of history at Purdue and a specialist in Indiana history. This newsletter presents this story as part of our bicentennial observance.)

George Rogers Clark seemed destined for great things. He was born in 1752 in Virginia near the home of Thomas Jefferson. The Clark family was well-to-do, and George grew up on a plantation. He was red-haired and grew tall and strong. Some felt that he resembled George Washington.

Like Washington, Clark was trained to be a surveyor.

When he was 19, Clark joined a small group of adventurers on an exploring expedition of the Ohio River and its upper tributaries. He was among the first from his region to visit the Ohio area. Clark's descriptions of the frontier induced his father and others to accompany him back to the West.

In 1773, Clark left his new home to join an exploring and surveying party into Kentucky. This was hardly a routine undertaking because the Shawnees had sworn to drive white settlers out. In October, Shawnees ambushed a group led by Daniel Boone and killed five whites.

Both Boone and Clark served in Lord Dunmore's War which began in 1774. Lord Dunmore led nearly 3,000 militiamen against the Shawnee strongholds in the Scioto Valley. The Shawnee chief, Cornstalk, headed a confederation of his fellow tribesmen, Miamis, Wyandots and Ottawas. He commanded about 1,000 warriors.

Cornstalk was defeated in a battle at Point Pleasant on the Ohio. The Indians then agreed to a peace which established the Ohio as the boundary between redmen and white.

But neither white man nor redman could resist the pressures which led to continued conflict. The Indians were especially vulnerable and both the British and Americans sought to use them in the greater struggle which was developing. Sporadic fighting continued along the frontier for many years after the treaty was signed in Paris ending the war between Britain and her former colonies.

The British directed operations from Detroit which had a garrison of 120 English troops. The various Indian tribes of the Northwest included some 8,000 warriors. During the Revolutionary period they generally sided with the British.

The year 1777 was to be remembered as "the bloody year" on the frontier. Lt. Gov. Henry Hamilton, the British commandant at Detroit, sent wave after wave of warriors against frontier settlements. It was believed at the time that Hamilton paid a bounty on the scalps his Indians brought back, but historians have never been able to establish this.

At this time, Kentucky was part of Virginia. Gov. Patrick Henry made George Rogers Clark responsible for the defense of Kentucky.

Clark was appointed a major in the militia. His captains included several noted Indian fighters, among them Daniel Boone.

Clark decided that the best defense against the Indians would be an attack. He hoped to capture Kaskaskia, the outpost which enabled the British to control navigation on the Mississippi and the Ohio and direct Indian attacks against Kentucky. He also hoped to win the allegiance of the French villages on the Mississippi and Wabash to the patriot cause.

Clark outlined his plan in a letter to Henry. He then left for Williamsburg to present the idea in person. The 620-mile trip took a month. In his diary, Clark noted that he attended church in Williamsburg on Sunday and also bought a state lottery ticket for three pounds.

The governor was enthusiastic about Clark's plan, but he could not put the proposal before the assembly without tipping off the British that an attack was coming.

Henry solved the problem by getting assembly approval for Clark to enlist seven companies of militia for the defense of Kentucky. In secret orders, the governor directed Clark to lead an attack on Kaskaskia "with as little delay & as much secrecy as possible."

Acting on these orders, Clark carried out one of the most difficult and most successful campaigns of the American Revolution.

Before he ever attempted to convince Gov. Patrick Henry that the Virginia militia should attack the outpost at Kaskaskia, George Rogers Clark had the foresight to send out two spies.

The spies returned to Harrodsburg, Ky., in June 1777, to tell Clark that British troops had left Kaskaskia. A Frenchman had been left in charge and, while they feared the Americans, the French were

generally cool toward the British. There was apparently no suspicion that an attack might be coming.

That was the good news. The bad news was that few men wanted to volunteer for Clark's army.

Clark was authorized to recruit seven companies of 50 men each. He managed to sign up about 150. With this little army, Clark proposed to capture and hold the French villages with a combined population of 900 to 1,000 whites and some 600 black slaves. He could expect to be attacked at any time by British troops from Detroit or by any of dozens of marauding Indian bands directed by the British.

On May 12, Clark set out from Redstone in Pennsylvania. Some 20 settlers and their families had joined the group. Proceeding cautiously down the Ohio River, the party reached the falls near the present site of Louisville on May 27.

Clark got more bad news here. The reinforcements joining him at this point were far fewer than expected.

The group camped on an island in the midst of the rapids to make it tougher for the men to desert. A few deserted anyway when Clark revealed the objective of their mission.

On June 26, a messenger brought word of France's alliance with America. The same day, Clark left with his army of 175 men. The settlers were left behind to grow corn and to defend the provisions stored in a blockhouse on the island.

Clark's boats shot the rapids of the Ohio during a total eclipse of the sun. The men interpreted this in various ways, but most thought it a favorable omen.

The party descended the Ohio to a point about 10 miles below the mouth of the Tennessee River where they hid their boats. To avoid detection, they did not want to approach Kaskaskia via the Mississippi River. So they marched overland.

They carried as little equipment as possible on the 120-mile march. Each man had a tomahawk slung from his belt and a long flintlock rifle on his shoulder. Everyone had a game bag for his provisions along with a power horn and shot bag.

There were no such things as uniforms in this army. Most of the men wore fringed buckskin hunting shirts, leather breeches and moccasins. A few had wool cloth boots or leggings. Some wore wide-brimmed felt hats and some had caps of squirrel or fox skin with dangling tails.

The march took six days, and for the last two they were without food.

On the evening of July 4, Clark and his army reached the Kaskaskia River on the opposite side from the village three miles away. They procured boats, crossed the river and attacked at dusk.

Within 15 minutes Clark and his men had conquered the village and fort without firing a shot.

Phillipe Rocheblave, the commandant left in charge by the British, was taken completely by surprise and the villagers were terror stricken by the brutal appearance of Clark's soldiers.

"Giving all for lost," Clark wrote in his journal, "their lives were all they could dare beg for, which they did with the greatest fervency..."

Except for Rocheblave who was imprisoned, Clark treated the villagers well. He permitted Catholic church services to be conducted. He promised the villagers that they could enjoy the privileges of Americans if they would take a loyalty oath. Clark had practical as well as humanitarian reasons for treating the people well. He knew that his little band could not hope to hold the village of 1,000 persons and their Indian allies in check without the help of the people themselves.

Clark's treatment and news of the alliance with France won over the villagers. The village priest, Father Pierre Gibault, and a few companions carried a message from Clark to Vincennes.

Their purpose was to convince the French of Vincennes to back the American cause. Fr. Gibault succeeded, and Capt. Leonard Helm was sent to Vincennes to take charge.

Another of Clark's captains and 30 horsemen captured the other Illinois villages, Prairie du Rocher, St. Philippe and Cahokia.

Clark then had to deal with the Indians. There were hundreds of warriors in the region and almost all of them supported the British. Many of them had fought for the British.

The tribes near Kaskaskia and Vincennes were willing to make but a horde of warriors was gathered at Cahokia waiting to see what Clark would do.

Clark went to meet them and with decisive action brought them into the American fold.

On the second night he was at Cahokia, a band of Indians tried to break into Clark's lodging. But Clark was ready. His guards captured the intruders. The townspeople immediately armed themselves and made it plain to the Indians that they supported Clark.

Talks continued for five weeks in August and September, but eventually the Indians made peace. But Clark was far from secure.

By Aug. 6, 1778, Lt. Gov. Henry Hamilton, the British commandant at Detroit, knew that Clark had taken Kaskaskia, Vincennes and the other outposts. Early in the fall he led a force southwest to try to recapture the towns.

Hamilton led some 175 troops—about two-thirds of them Frenchmen—and 60 Indians. As they proceeded down the Wabash they picked up more Indian allies. Winter had set in and ice slashed the men's hands as they dragged their boats over the rocks.

When he reached Ouiatenon, south of present-day West Lafayette, Hamilton won the allegiance of several chiefs who had previously sided with the Americans.

As Hamilton's expedition neared Vincennes, the garrison learned of their approach. The French militiamen deserted. Capt. Leonard Helm, the American commander, was left with one soldier to defend the fort. He surrendered.

Hamilton decided to spend the winter at Vincennes rather than press on to Kaskaskia. He felt that a winter march would be too difficult, and he expected to get reinforcements by spring.

Among those captured at Vincennes was Francis Vigo, an Italian-born fur trader who favored the American side. Vigo was later released and made his way to Kaskaskia where he told Clark about the British expedition. He also gave Clark financial help so that a counter-attack could be launched.

Clark wasted no time in setting out to attack Hamilton. On Feb. 6, 1779, eight days after Vigo's arrival, Clark led his army out of Kaskaskia.

Riding a handsome horse, Clark led some 172 men, nearly half of them French volunteers. This expedition has been called one of the most heroic and dramatic events of the entire American Revolution.

Vincennes was 180 miles away, and the weather was mild. Slogging through mud and rain, the force reached the Little Wabash River about 20 miles from Vincennes Feb. 13. On the way the soldiers ate buffalo and other game and sang and danced around their evening campfires.

The prairie between the Little Wabash and the Wabash was almost completely under water. The flood was so bad that the two branches of the Little Wabash formed a single stream five miles wide. It was three feet deep in the shallowest places.

"This," Clark wrote in his journal, "would have been enough to have stop'ed any set of men that was not in the same temper we was."

The Embarrass River was too high to be forded, so the party marched downstream to the Wabash. They stayed there for two days without food. Three attempts to get men across the river to gather information and steal boats failed.

Finally, the troops were ferried across on boats they built for themselves. Horses were left behind. Once on the east bank, they set off for Vincennes and made three miles through water that sometimes was up to their shoulders.

On Feb. 22, Clark and his men continued toward Vincennes. They spent the night at a sugar camp on high ground six miles from the fort. It was so cold that night that water in quiet places was covered with ice a half-inch thick.

Clark plunged into the water to lead his men onward. He ordered any man who refused to march to be shot.

They had to cross Horse-Shoe Plain which had become a shallow lake four miles wide. Many men collapsed and had to be rescued by canoe. When they reached shore, they built fires and made broth from a half-quarter of buffalo they took from some squaws in a passing canoe.

After this scanty meal they marched again and reached Warriors Island about two miles from Vincennes. Here they captured a Frenchman who was out shooting ducks. From him they learned that the already superior British garrison had just been strengthened by the arrival of 200 Indians.

Clark decided to try to neutralize the town dwellers with a bluff. He sent a message to the residents asserting that his army would capture the fort that night. He advised the people to remain in their homes.

Clark's ploy succeeded. The people of Vincennes were so frightened they sent no warning to the fort.

Clark continued his bluff by having his men unfurl banners and march back and forth behind a small rise. Seeing only the banners and hearing a din of shouted commands, the villagers became convinced that an army of 1,000 men was approaching. Many of the Indians fled.

At 8 p.m., the Americans attacked the fort taking the British by surprise.

During the night American marksmen knocked out the British cannon by firing through the fort's portholes and killing and wound-

ing a number of gunners.

At nine the next morning, Clark demanded surrender. His men ate breakfast while awaiting an answer. This was their first regular meal in six days.

Lt. Gov. Henry Hamilton, the British commander, refused to quit so the shooting started again.

At 11 a.m., Hamilton asked to surrender "under honorable terms." Clark refused to accept anything less than immediate unconditional surrender. That evening Hamilton surrendered and the next morning he and his 79 soldiers became prisoners of the Americans.

The Americans hoisted their flag over the fort and fired the national salute of 13 guns. Clark renamed the fort for Patrick Henry, the governor of Virginia who had given him his secret orders to march against the British in the Indian Territory.

Clark was determined to complete his mission by capturing Detroit, the British headquarters for the entire area west of the Alleghenies.

However, Clark decided to wait until June before moving against the British stronghold. This would give him time to gather supplies. He also expected to receive reinforcements by then.

Clark left a detachment at Vincennes and marched back to Kaskaskia with 80 men. He was never able to put together an expedition against Detroit, and Indians—stirred up by the British there—continued to raid the American frontier until the end of the Revolution.

Clark's campaign was the only significant military action during the Revolution in what was to become Indiana.

The only other incident recorded by historians grew out of another plan to seize Detroit. In June 1780, Augustin Motting de la Balme, a friend of the Marquis de Lafayette, came west to incite the French to attack Detroit. Gen. George Washington was said to have conceived this project.

The French welcomed la Balme at Vincennes, Kaskaskia and Cahokia. He set off for Detroit in July with some 80 French and Indian followers.

At the site of Fort Wayne, they plundered the Miami trading post. But a few days later the traders and Indians regrouped and attacked the expedition.

La Balme and several others were killed and their force dispersed.

A detachment of la Balme's men captured St. Joseph, a trading post just north of the present location of South Bend. On their way back to Cahokia, the raiders were overtaken near what is now Chicago by a group of traders and Indians. All but three of la Balme's men were killed or captured.

At the close of the Revolution, Britain ceded the Indian Territory to her former colonies by the peace treaty signed in Paris Sept. 3, 1783. Historians are divided on the importance of Clark's campaign in gaining this huge area for America.

Some scholars maintain that if Clark had not defeated Hamilton at Vincennes, Britain would never have given up the valuable territory. Others believe that the negotiating skill of John Jay and Benjamin Franklin would have prevailed even if Clark had never left Kentucky.

But in either case no one denies the heroism of Clark and his little band of frontiersmen.

Perhaps it was best stated by a witness to Clark's attack on Vincennes who wrote, "Although a handful in comparison to other armies, they have done themselves and the cause they were fighting for, credit and honor, and deserve a place in history for future ages; that their posterity may know the difficulty their forefathers had gone through for their liberty and freedom."

**GEORGE ROGERS CLARK
BICENTENNIAL EXHIBIT**

Your attention is directed to the excellent George Rogers Clark Bicentennial Exhibit at the Indiana State Museum, 202 North Alabama Street in Indianapolis. The free exhibit will be available for viewing from February 25, 1976 through February 25, 1979. The museum is open daily 9-5, Sunday 2-5, and closed on major holidays. All Hoosiers should visit this outstanding exhibit!

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BY THE GRACE OF GOD

DEDICATED OCTOBER 14, 1973



REPORT ON ISPLS SUMMER WORKSHOPS

Conducted by Profs. Curtis and McEntyre

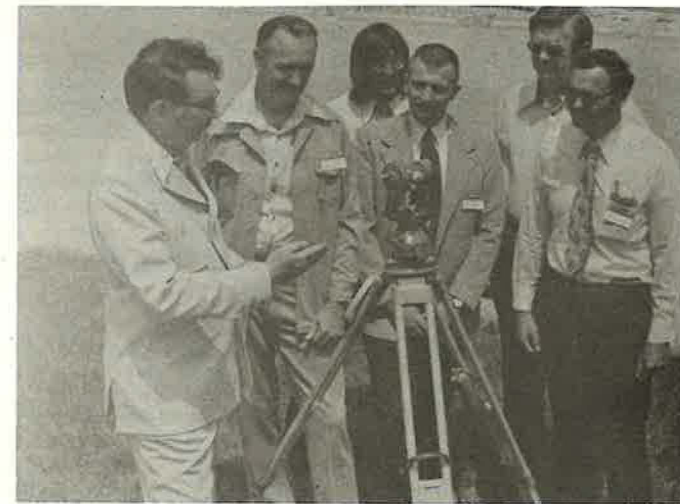
- 1974 - 10 sites — Perpetuation of Section Corners (McEntyre)
Indiana State Plane Coordinate System (Curtis)
- 1975 - 10 sites — Law and Surveying (McEntyre)
Meridian Determination by Solar and Polaris Observation (Curtis)
- 1976 - 7 sites — Establishment of Boundaries by Unwritten Methods (McEntyre)
Optical Distance Measurement (Curtis)

SUMMARY OF SUMMER WORKSHOP ATTENDANCE

	1974	1975	1976
Lafayette	9	6	—
Kokomo	—	6	—
Merrillville (or Valparaiso)	19	11	18
South Bend	16	11	18
Fort Wayne	26	14	22
Richmond	15	8	—
Anderson	—	—	14
Indianapolis	29	26	48
Terre Haute	12	X	—
Evansville	23	15	17
New Albany	20	—	20
Scottsburg	—	11	—
Columbus	27	—	—
Nashville	—	14	—
Total	196	122	157

Same interesting statistics:

- 48 surveyors have attended all 3 workshops
- 75 surveyors have attended 2 workshops
- 179 surveyors have attended only on workshop (one disturbing statistic is that 198 of ISPLS members have attended no summer workshops)



Liability of A Surveyor to Third Persons

by Darrell R. Dean, Jr. and
John G. McEntyre
School of Civil Engineering
Purdue University

Introduction

Surveyors have been held liable in the courts for inaccurate surveys — mistaken boundary line location, incorrect placement of construction stakes, incorrect acreage computation, and incorrect plats (2, 5, 6, 7, 9). The liability is incurred regardless of whether the inaccurate survey is one of intent or mistake. In researching surveyor liability cases occurring after 1956, not one case in the appellate court records was found to indicate that a surveyor had intentionally performed an inaccurate survey. There are several legal theories under which a surveyor may be liable to his client for an inaccurate survey. In a recent article Boyd (5) has discussed these theories as they relate specifically to Florida law. For each theory, a given set of circumstances or facts must exist before the appropriate law may be applied under the theory. However, basically, regardless of the theory — negligence, misrepresentation, breach of warranty, breach of contract, or malpractice — the surveyor owes a duty to his client and a breach of this duty may result in litigation for the surveyor. The duty owed to a client may be either specifically stipulated in a written contract or it may be a professional responsibility that is left to the discretion of the surveyor to comply with standards as promulgated by the surveying profession. To fulfill the latter duty, it is often stated that a surveyor must perform a survey such as any other prudent surveyor would under the same or similar set of circumstances. A breach of duty not under contract is called a tort. Howell (7) has discussed the nature of the surveyor's duty under a tort.

Liability to Third Persons

A surveyor may also be liable to a third person even though there is no contract or privity between them. An example of a third person and lack of privity is illustrated as follows: The defendant surveyor has performed an inaccurate survey for landowner A, plaintiff B has relied on the inaccurate survey and has suffered damage as a result. The plaintiff B is the third person. Privity is absent because there is not a contractual relationship between the plaintiff and the defendant.

Prosser (8) has classified the various relationships between the plaintiff third person and the defendant in cases of misrepresentation. According to Prosser (8) liability for misrepresentation is

founded upon one of three bases — intent, negligence, or strict liability without either. Misrepresentation based on intent occurs when a false representation is consciously made and is considered as deceit. Deceit is actually one of four species of fraud (1). Negligence is involved when the defendant fails to exercise due care and prudence and is unconscious of the false representation. The doctrine of strict liability holds the defendant responsible merely because he has made the false statement, even though he reasonably believes it to be true and has exercised prudent care under the circumstances. Bohlen (4) indicates that the treatment of a statement in this manner is considering the statement as having the same legal effect as a warranty.

The objective of this paper is to make the surveyor aware of the possibility of liability to third persons even in the absence of privity and to illustrate by using Prosser's classification, circumstances under which this liability may be incurred. This paper is not a statement or prediction of the law in any jurisdiction. When available, actual court cases involving surveyors have been used as illustrations in each classification. When cases were not available, situations have been synthesized to illustrate the appropriate classification with respect to the surveyor. Perhaps the reader will be able to visualize examples other than those given. Following are examples of the various circumstances that Prosser (8) classified.

A. Plaintiff is identified: Defendant's purpose is to influence him.

This condition is illustrated with a hypothetical example.

The situation could arise when a surveyor is employed to make a survey which will establish a boundary line in an exceedingly valuable stand of walnut timber and the surveyor knows the location will influence a prospective investor. Here, there is invariably liability for deceit, negligence, or strict liability (8).

B. Plaintiff is identified: Defendant has special reason to expect his action.

This situation is exemplified by the case of *Craig v. Everette M. Brooks Co.*, 222 N.E. 2d 752 (1967), in which the defendant, a surveyor, was employed to design and stake out a road and the plaintiff, a general contractor, was employed independently by the same person to construct the road. The surveyor erroneously located construction stakes, causing the contractor to sustain monetary losses. A Massachusetts appellate court overruled the judgment of the trial court

which held the defendant was not liable for the negligent placement of road stakes. The same effect was established in *Tartera v. Palumbo*, 453 S.W. 2d 780 (1970). In this case a surveyor was employed by a prospective purchaser of land to survey and partition the plaintiff's property. Transactions between the prospective purchaser and the plaintiff were to be based on the survey. Subsequently, transactions, which relied on the survey, were made and the plaintiff unknowingly conveyed part of his house. The trial court judgment which was in favour of the defendant was reversed by the Tennessee Supreme Court.

From the examples cited, it is evident that one may be held liable for an inaccurate survey to a third person even in the absence of privity when one has reason to believe the third person is going to rely on the survey. Also under this classification, liability is incurred by intentional misrepresentation as well as when one is responsible under strict liability (8).

C. Plaintiff is identified: Defendant has no special reason to expect his action.

A hypothetical example of this circumstance would occur when a surveyor is employed by adjoining landowner who own surface rights only, to establish the boundary between them. At the time the property was surveyed a company owning mineral rights under one of the properties was stripmining coal. The company stripped coal up to the line which was erroneously established for the adjoining surface owners. Is the surveyor liable to the coal company which suffers damage as a result of acting in reference to the incorrect survey line between the properties? According to the principles documented by Prosser (8), the surveyor would not be held liable to such a third person on any basis — even deceit — provided the survey was made exclusively for the benefit of the adjoining surface owners and the surveyor had no reason to expect the mining company to place any reliance in the survey.

D. Plaintiff is an unidentified member of a group or class: Defendant's purpose is to influence any of its members.

A hypothetical example of this situation occurs when a surveyor is employed to design and lay out a sufficiently attractive subdivision to induce people to invest in lots. Here again the surveyor would be liable for misrepresentation — on any basis — to a third person who buys a lot in the subdivision.

E. Plaintiff is an unidentified member of a group or class: Defendant has special

reason to expect that any member of it may be reached and influenced.

Again a surveyor would be liable to a third person for misrepresentation whether the misrepresentation was based on intent, negligence, or strict liability. The case of *Rozny v. Marnull*, 250 N.E. 2d 656 (1969), is a case in which a surveyor was liable to a third person for misrepresentation that was based on both negligence and strict liability. The defendant made a survey of a lot and furnished to a landowner a plat showing monumented corners and boundary limits on the street line and in addition provided on the plat a statement that guaranteed accuracy. Subsequently, the plaintiff purchased the lot and built a house relying on the plat and monumented corners, which were inaccurately located, and as a result the plaintiff suffered damage. The Supreme Court of Illinois held the surveyor liable for negligence. The court offered six reasons for the holding, two of the pertinent ones are: (1) "The express, unrestricted and wholly voluntary 'absolute guarantee for accuracy' appearing on the face of the inaccurate plat" and (2) "Defendant's knowledge that this plat would be used and relied on by others than the person ordering, including the plaintiff." This case is interesting in that it overruled, in Illinois, other case law which required privity between plaintiff and defendant to sustain an action to recover damages for tortious misrepresentation. It is most interesting to the surveyor and should be a sufficient warning when the court said, "The recovery here by a reliant user whose ultimate use was foreseeable will promote cautionary techniques among surveyors" (emphasis added).

F. The effect of a public duty.

A surveyor making a subdivision plat which is required to be recorded in the public records would certainly be liable for any misrepresentation on the plat, regardless of the basis of misrepresentation. Prosser (8) states, "statutes requiring information to be filed for public record, and particularly those which require it to be published after filing, may considerably expand the class of persons whom the defendant has special reason to expect his representations to reach."

An Annotation in 40 A.L.R. 1358 states: "an engineer or surveyor employed by a municipality is liable for any damage by his negligence." Only where the duty of a municipal officer is discretionary or judicial is he not liable for negligence in the discharge of his duty (3).

G. Plaintiff is unidentified: Defendant has no special reason to expect that he may act in reliance.

Under this circumstance the surveyor

is not liable to a third person for misrepresentation, whether on the basis of intent, negligence, or strict liability (8). The absence of liability to a third person in such a situation is documented in the case of *Howell v. Betts*, 362 S.W. 2d 924 (1962). In this case the surveyor made an error in a survey and description for a landowner in 1934. The plaintiff purchased the land from the owner in 1958 and relied on the inaccurate survey and description. The Supreme Court of Tennessee held that the surveyor was not liable and expressed concern about unlimited liability for unlimited time and for an indeterminate class.

H. The Different Transaction.

No liability is incurred if a product or service is not used in the way it is intended to be used (8). An example involving a surveyor is illustrated in a hypothetical situation when a surveyor makes a topographic map to be used for reconnaissance purposes and then later the map is used in the final design for some facility. Any damage suffered with respect to the final design of the facility, as a result of the reconnaissance map being used, would not be the responsibility of the surveyor who made the map. Using a reconnaissance map as a basis for a final design would certainly be a violation of the use for which the map was made.

Time Limitation for Legal Action

Surveyors as well as other defendants are somewhat protected from unlimited liability, once a mistake is discovered, by the Statute of Limitations. This means that a client or a third person must bring litigation to recover damages as a result of an inaccurate survey within a given period of time. Originally, the time the Statute of Limitations started running was when the breach of duty occurred. However, this doctrine is not adhered to now and the "discovery rule" is applied by most courts. An exception exists in the State of Florida — see the article by Boyd (5). The Washington appellate court in *Kundahl v. Barnett*, 486 P. 2d 1164 (1971), in commenting on the original rule, but applying the "discovery rule" said, "courts then believed that 'it is better for the public that some rights be lost than that stale litigation be permitted'" and then went on to say, "the Statute of Limitations for action against a surveyor does not 'accrue' until the injured party discovered or had reasonable grounds to discover the error in survey." Also the Maryland Court of Appeals in *Mattingly v. Hopkins*, 253 A. 2d 904 (1969), confirmed the trial court holding "that the Statute of Limitations begins to run at 'discovery of breach of duty' not when it occurred and not at 'the time of maturation of harm.'" In this case the plaintiff lost part of the property he was possessing

and subsequently suffered pecuniary losses in litigation due to relying on the defendant's incorrect survey. The plaintiff did not initiate litigation against the surveyor at the time the error was discovered but waited until he suffered damages in litigation related to the incorrect survey. The surveyor was not held liable for his incorrect survey because he was within the Statute of Limitations as calculated by the "discovery rule."

States vary somewhat concerning the period necessary for the Statute of Limitations to run. In *Schenburn v. Lehner Associates*, 177 N.W. 2d 699 (1970), the Michigan court pointed out the following: (1) "The period of limitations is two years for actions charging malpractice," (2) "The period of limitation is three years for all other actions to recover damages for damage for injury to persons or property," and (3) "The period of limitations is six years for other actions to recover damages or sums due to breach of contract." Whereas in *Rozny v. Marnull* (supra) the court reported that Illinois had a specific limitation period of four years for surveyors, a Maryland court in *Mattingly v. Hopkins* (supra) referred to a 12-year period of limitations for any document classified as a "special instrument of record." Generally, the period of limitations for breach of duty is longer when under a written contract than when under a tort.

Summary

In summary, the surveyor is required to discharge his duties with due care and caution and to perform as any other ordinary prudent surveyor would in similar circumstances. For a breach of duty either under contract or tort the surveyor may be liable to his client for an inaccurate survey.

The surveyor may also be liable for an inaccurate survey to either an identified or an unidentified third person with whom there is no privity. Liability may be incurred if it is reasonable to believe that the third person may act in reliance toward the survey. In view of the court's warning provided in *Rozny v. Marnull* (supra) every surveyor should ask himself the following questions: (1) "Is this survey free of negligence?" (2) "Have I performed the survey as any other prudent surveyor would under the same circumstances?" and (3) "Whom do I expect to rely on my survey?" Also, the surveyor may want to certify the accuracy of the survey specifically to the client rather than expressing an absolute guarantee of accuracy to an indeterminate class. Some survey certifications are similar to expressed warranties or guarantees and liability claims arising from expressed warranties or guarantees are generally not covered by liability insurance (10).

The surveyor is protected, somewhat, from unlimited liability in that once an error is discovered, the person to whom the surveyor is liable for the inaccurate survey, must bring litigation within the time required by the Statute of Limitations. In many states the time when the Statute of Limitations starts running is not until the blunder has been discovered while in other states the time starts running when the survey job is completed.

For protection against liability to a client or a third person, a surveyor should:

1. Have knowledge of circumstances where liability has been or might be incurred.
2. Have a knowledge of the basis of liability, i.e., have an understanding of the nature of the duty owed as a result of offering professional services.
3. Seek professional legal counsel on contracts with clients, on survey certifications to limit liability, or to ascertain any aspect of the law relating to liability, in the jurisdiction where the surveyor practices.
4. Based on 1, 2, and 3 determine whether liability (errors and omission) insurance should be obtained for all services rendered or perhaps just for selected services or clients.

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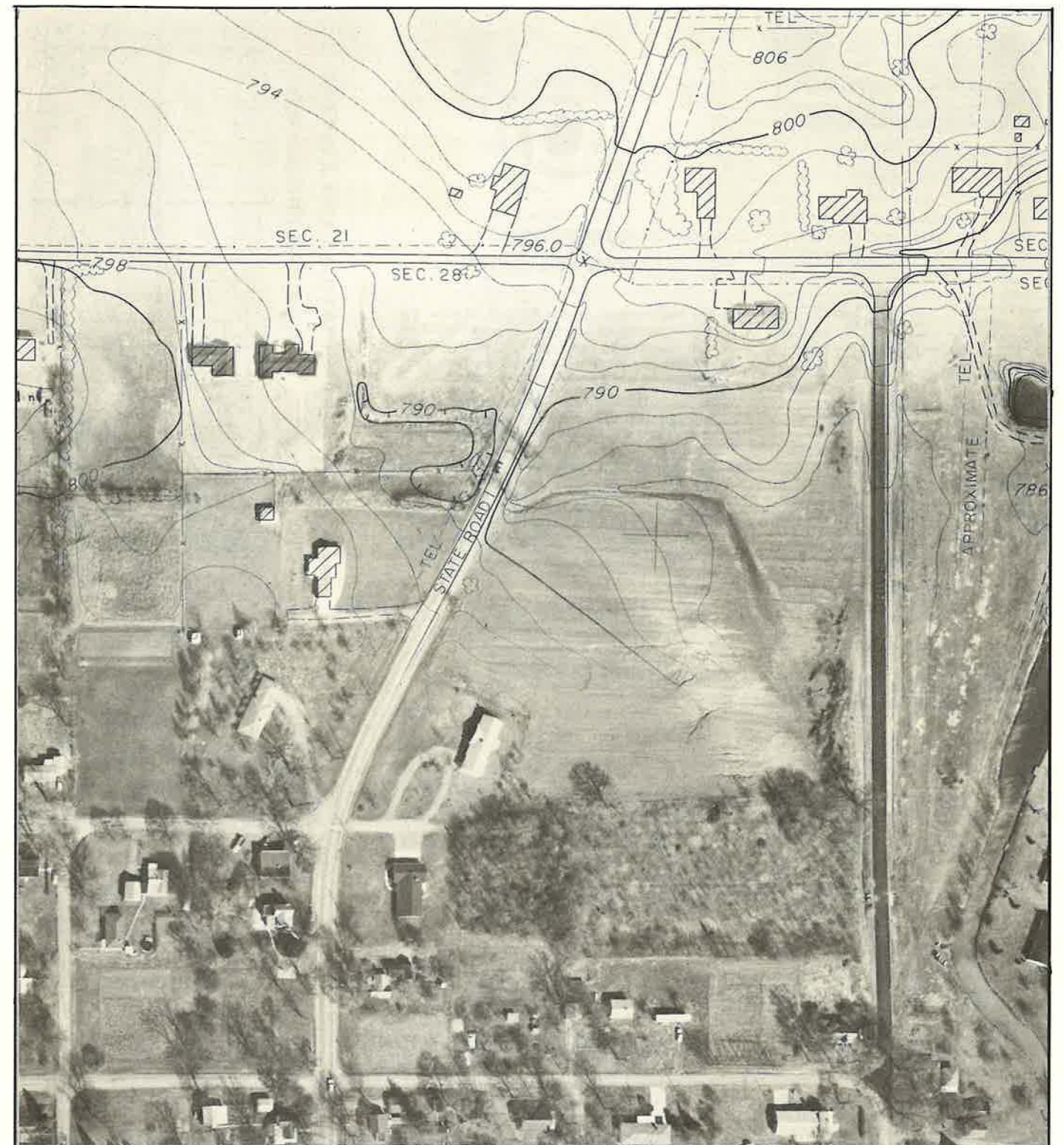
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Members of the Indiana Society of Professional Land Surveyors, Inc. have subscribed to a CODE OF ETHICS which insures a complete and high standard of work.

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A person generally has occasion to employ a land surveyor only once or twice in a lifetime. Since such employment is so infrequent, the average person is not aware of the logical steps to be followed in selecting a land surveyor. To help in making such a selection, the answers to a few common questions are noted herein.

A survey should be made before subdividing any parcel of land for sale and prior to the construction of any structures on property in which you have an interest. A survey is often desirable before purchasing real estate and frequently is recommended by legal counsel or by mortgage loan companies. Remember, the services of a land surveyor now will cost less in time, worry, and money than the cost of moving a building or defending a lawsuit later.

Land surveying is a learned profession. It requires precision, facility with applied mathematics, technical knowledge, ability for discriminating investigation, logical thinking, and judicious judgment. A land surveyor in the execution of his projects will work with lawyers, architects, engineers, urban planners, local government officials, and the public in general. He will be involved in both field and office work.

In the design of urban subdivision, the land surveyor utilizes extensive surveying principals, applied mathematics, including computer techniques, basic civil engineering principles, photogrammetry, and electronic distance measuring equipment. He is involved in planning, office design and field layout of streets, storm and sanitary sewer extension, and property boundaries. The land surveyor works with the lawyer in writing land descriptions or in locating existing descriptions on the ground.

He also makes maps for architects, landscape experts, and urban planners to utilize for the design of houses, shopping centers, or housing developments. He does layout work for engineering projects. Hence land surveying requires knowledge in applied science and mathematics and basic planning, surveying, engineering, and legal principles.

All 50 states have laws requiring practicing land surveyors to be registered. The state of Indiana requires the equivalent of a four-year university degree in land surveying and four years experience under the supervision of a registered land surveyor, plus the passing of a 16-hour written examination, to become registered as a land surveyor.

QUESTIONS AND ANSWERS
ABOUT THE PROFESSION

LAND
SURVEYING



WHAT CAN A SURVEYOR DO FOR ME?

Will he show me what I own?

No, but he will give you his professional opinion of what the records and facts indicate your ownership to be. This opinion is satisfactory in over 99% of the surveys. Only a court of law can determine ownership more decisively than a qualified surveyor.

Can he aid in subdividing my land?

A surveyor is the only one qualified under law to prepare a description for a newly created parcel of land. He may prepare an individual description or, if several lots are being created simultaneously, he may prepare a legal plat with lot or parcel numbers for recording. Platting rules differ with each county or local planning area. A qualified surveyor would be familiar with local rules and procedures.

Can he design streets, water lines, and sewer systems for my subdivision?

A surveyor can design streets, sanitary sewers and storm sewers within a subdivision. He will recommend an engineer to design the water supply system and to perform other engineering services that might be required. A professional surveyor will not attempt any aspects of engineering design with which he is not familiar and qualified to perform.

Can a land surveyor perform engineering surveys?

Most engineering surveys are conducted by land surveyors. They are knowledgeable and equipped to prepare topographic surveys, to supply control for aerial photography, to layout construction projects, to survey right-of-way for power lines and roadways, and so forth.



HOW DO I CHOOSE A LAND SURVEYOR?

Who can perform a land survey?

In the state of Indiana, only a Registered Land Surveyor can legally assume the responsibility for a land survey. The Registered Land Surveyor is a highly specialized individual whose education, experience, and competence have been rigorously examined; and who has then been licensed by the State of Indiana to practice land surveying. As a professional, his conduct and the quality of his work are subject to a stringent code of ethics.

How do I locate a Registered Land Surveyor?

Most survey work is acquired through the personal recommendation of satisfied clients or through attorneys who frequently handle real estate transactions. If it is difficult to obtain a recommendation, probably the most direct way would be to check the listings under "Surveyors-Land" in the classified section of the telephone directory. According to Indiana law, only licensed practitioners can advertise themselves as Land Surveyors. A third method would be to contact the Indiana Society of Professional Land Surveyors (See address on back of this brochure) for a listing of its members practicing in your locality.

Can an engineer do land survey work?

An engineer cannot perform survey work unless he is also registered as a Land Surveyor.

Can a contractor do land survey work?

A contractor cannot perform land survey work unless he is registered as a land surveyor. Also, beware of survey technicians who may be skilled in only some aspects of surveying - they are not licensed land surveyors.



Can a surveyor from an adjoining state perform a survey in Indiana?

If he has obtained his Indiana license, he may practice in Indiana. Each state has its own licensing authority and the surveyor must pass each state's individual requirement before practicing in that state.

HOW MUCH WILL A SURVEY COST?

Can I determine in advance what the charge will be?

Not usually. Final cost is dependent upon the kind of survey required and the difficulty encountered, which normally cannot be anticipated in advance. The cost is based on the time required to obtain the necessary information of record, to make the field survey of facts as they exist on the ground, to perform the required office computations leading to a plat or map of the findings, and to monument your lines on the ground.

How does the surveyor prepare my bill?

Generally, it is an hourly rate times the number of hours the surveyor and his personnel have involved. Expect to pay more per hour for computer operators or electronic measuring technicians than you do for drafting and typing personnel's time. The registered surveyor's fees are on a level with other professions in your community.

Should I employ a surveyor on the basis of price?

No. Competency and responsibility are of first importance. Since low cost and high quality are frequently inconsistent, and because of the uncertainties involved in judging the amount of work necessary to produce a quality survey, it is unreasonable and against your interest to expect him to "bid" on a project. Surveyors are bound by a code of ethics.



HOW DO I ARRANGE FOR A SURVEY?

Is a written contract required?

Traditionally, contracts for surveys have been by oral agreement. Many surveys have been requested over the phone. However, in recent years it is becoming more common for the client to visit the surveyor's office, discuss requirements of the survey and enter into a written contract which tends to assure a better understanding between the client and the surveyor.

What information should I furnish the surveyor?

Furnish the surveyor with an explanation of why the survey is desired. He will maintain confidence if requested by his client. With this purpose in mind a professional land surveyor can work most efficiently and reduce the clients cost. If you have a deed or mortgage description, aerial photographs of the land, or an abstract, relay them to the surveyor. If you have knowledge of a stone, iron pipe, fence line, etc. that was reported to you as a property corner, pass the information along to the surveyor. He will make the professional judgment as to what evidence should be used.

What will the surveyor furnish me?

The surveyor's final product will vary with each survey, depending upon the reason for the survey, but generally you will be furnished with a certified plat or map showing what the surveyor has done, and the corners of your tract will be monumented or otherwise identified. Often a description of the tract is prepared and shown on the plat. In recent years a "report of survey", briefly outlining the procedures and findings of the survey, is gaining popularity.

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George Washington, along with the other surveyors of his day, scrounged around and used whatever was available to mark corners—a rock, a glass bottle, a wooden post, a cannon ball.

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