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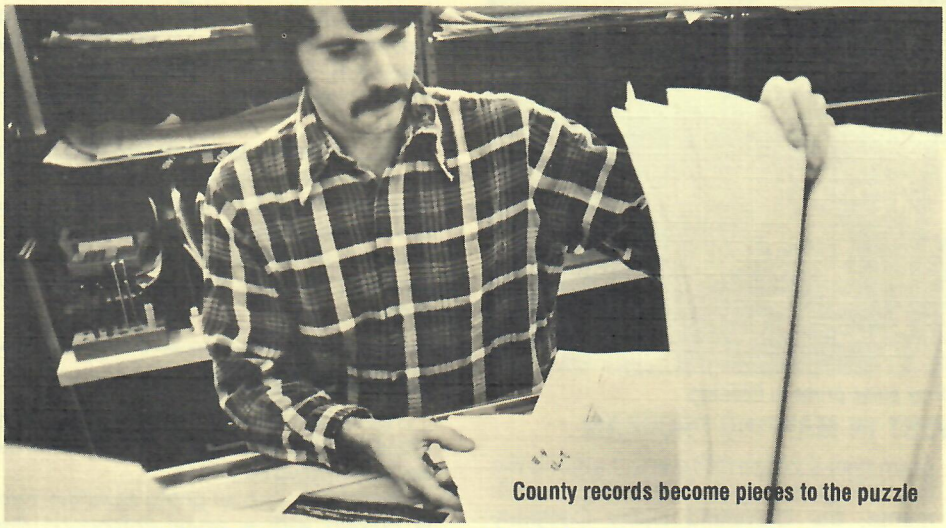
THE SIDWELL COMPANY®

map news



County records become pieces to the puzzle

SYSTEMATIC APPROACH SOLVES TAX MAP PUZZLE

Have you ever tried to put together a puzzle with thousands of pieces? One that has missing pieces or even pieces that are the wrong size or shape? If so, you'll appreciate the job Sidwell's mapping staff faces each time they begin a county-wide tax mapping project.

In mapping, a county's legal descriptions become the pieces of the puzzle. The trick is to find all the pieces and make them fit so that the completed picture covers all property in the county.

Puzzle fanciers know the task is easier if you have a logical place to start. In tax mapping, this means developing an accurate base to serve as the framework for plotting parcel descriptions.

Aerial photography is first step in tax mapping

Since the county tax map "puzzle" covers hundreds of square miles, aerial photography is the only logical way to accomplish this.

The photography is taken at several scales, depending on the density of parcels in the area being covered. Urban areas of the county containing small parcels are usually photographed at a scale of 1″=500′. Rural areas, with large acreage parcels, are covered at a scale of 1″=2,000′.

Once the photography is taken, it represents a permanent record of all ground features. Apparent ownership boundaries such as fences and hedges clearly stand out. On large-scale urban photography it's possible to spot detail such as telephone poles and recent additions.

Before the photography can be used for mapping, it must be enlarged to the proper scale and corrected for horizontal distortions. The resulting photo base is then said to be orthographically correct and can be used to make accurate parcel measurements.

County records provide data for property boundaries

While the photo base is being prepared, all county property records are gathered. These records vary from state to state; however, they usually include copies of subdivision plats, recorded surveys, existing maps, deeds and legal descriptions taken from the current assessment roll.

This tremendous amount of property data is made more manageable by sorting it into townships and sections. Then the boundaries of each parcel are plotted using the photo base as a guide.

It's this stage of mapping that's most like a puzzle. Some of the pieces don't fit or are missing.

Problems in property descriptions

These problem land descriptions can be caused by many factors. Land bordering rivers often has deed descriptions which refer to an old, original land grant. Consequently, it's not uncommon to encounter Spanish and French terms when researching deeds for these areas.

In Ohio, where there are eighteen different land survey systems, it's common to find "metes and bounds" descriptions based on landmark features which no longer exist. In other parts of the state, deed descriptions are referenced to sections that have a reverse numbering sequence.

Even if the parcel descriptions can be plotted, it's not unusual to find parcels that contain more or less acreage than what is currently being assessed. This can be caused by using an estimated acreage, by erroneous calculations or by physical changes in the parcel's size, especially when it borders a river or lake.

Problems are also caused by overlapping ownership or gaps between abutting parcels. And, there are always some parcels that somehow manage to escape being listed on the tax roll.

Sidwell tax maps solve many problems

By combining parcel descriptions with an accurate aerial photo base and Sidwell's years of experience, problems with legal descriptions are found and corrected. In most cases the new maps represent the first time a complete and accurate inventory of property has been done in the county.

BILL BARG ADDRESSES IACREOT

Sidwell Executive Vice President, William H. Barg, was a featured speaker at the ninth annual convention of the International Association of Clerks, Recorders, Election Officials and Treasurers held in Seattle, Washington.

Mr. Barg's presentation was entitled "Cadastral Aerial Maps and a Permanent Parcel Numbering System—Tools for Local Government." Using slides to illustrate major points, Mr. Barg highlighted the need for proper assessment tools, especially tax mapping systems.

The presentation covered the parts of a comprehensive tax mapping system, including a discussion of parcel numbering systems and the application of computer cartography and interactive graphics to managing assessment land records.

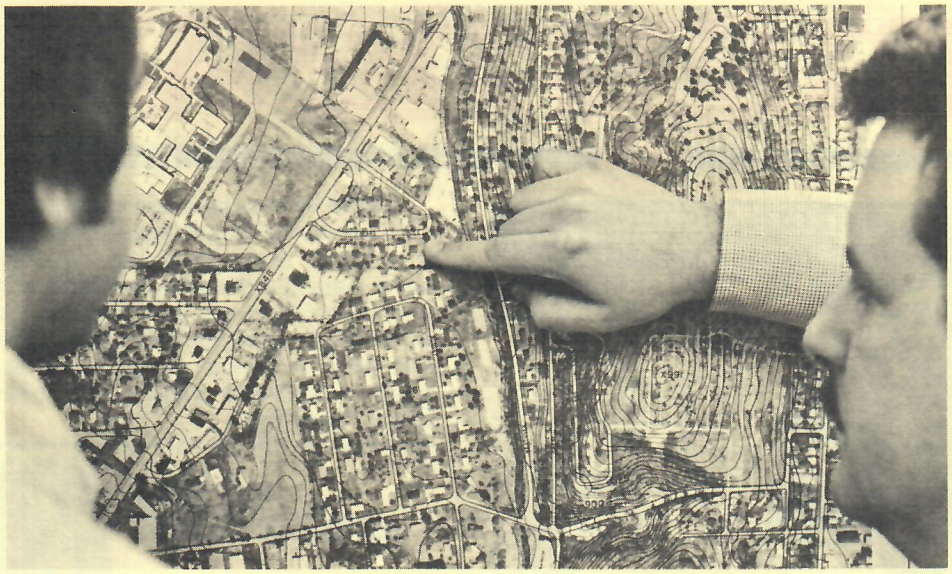
NEW PHOTOGRAPHY AVAILABLE

Precision aerial enlargements covering 3,719 square miles of six Chicago metropolitan counties are now available from Sidwell. The photos cover Lake and McHenry Counties and most of Cook, DuPage, Kane and Will Counties.

The enlargements, known as Aer-O-Maps, are printed at a scale of 1″=400′. Each 33″ x 33″ sheet covers four square miles and clearly shows ground features such as buildings, vacant land and new subdivisions.

The enlargements are available on black line diazo paper, or photographic prints can be made of the original aerial negatives at scales ranging between 1″=200′ and 1″=2,000′.

For information on coverages and prices, contact our Customer Service Department at 231-8200.



The city's Topo Plan maps show areas prone to flooding.

FLOOD PROMPTS CITY TO INVEST IN MAPPING PROGRAM

In 1973, South Mouse Creek, running through the City of Cleveland, Tennessee, crested near the 100-year flood stage causing extensive damage to residential and commercial property. Although the flood was serious, it was only the most visible of many water-related problems faced by the city.

Joe Edwards, Cleveland's City Engineer, proposed a comprehensive engineering study to find ways of correcting these problems. The first step was to have a detailed set of topographic base maps prepared to cover the 57 square miles of the city and surrounding drainage area.

Sidwell Topo Plan mapping chosen

Sidwell's Topo Plan mapping system was chosen for the base since it provides a versatile combination of contours and an orthophoto base.

Since the city is situated in the rolling foothills of the Appalachian Mountains, it was determined that maps drawn at a scale of 1″ = 200′ with a five-foot contour interval would provide the accuracy required for engineering use.

Precision aerial photography was taken in the spring by Sidwell and used with ground control points to prepare the orthophotos and topopgraphic information to National Map Accuracy Standards. The contour information was overlaid on the mylar orthophoto base to produce reproducible base maps showing complete ground detail and accurate contour information. A separate mylar sheet was also prepared showing just contour information and a limited amount of planimetric detail.

Maps used in many ways

Because the maps can be used by many city agencies, funding for the program was a cooperative effort among the city's Engineering and Planning Departments, the Cleveland Utility Company and the Tennessee Valley Authority.

Cleveland Utilities uses the map information to plan sewer, water and electric easements into new areas annexed to the city. The maps also provide a base for plotting the location of existing utility lines and correlating them with customers' houses shown on the aerial photo.

The City of Cleveland also has multiple uses for the new mapping program. Developers can purchase copies for subdivision planning, and the city can now check the impact these new areas have on existing ones before problems arise.

Planning and Zoning uses the maps to make house counts prior to annexing new areas. This also points out the need for new schools and related services.

The maps are also useful as exhibits to explain engineering plans at Planning Commission meetings.

And, not to be forgotten is the city's comprehensive flood prevention study which is being prepared by city consultants, Russell and Axon.

Maps easy to update . . . economically

One feature which makes the mapping program an investment is the ease of updating. Instead of paying for completely new maps in several years, the existing maps can be economically updated by preparing new orthophotos for specific areas that have changed.

Readers interested in obtaining a sample Topo Plan map and case studies on completed projects can write to Department MN, C/o The Sidwell Company.

TREASURERS HEAR JERRY JOHNSON

Treasurers attending the 45th annual conference of the National Association of Counties heard Sidwell Marketing Vice President Jerry Johnson present a program on aerial photography and tax mapping.

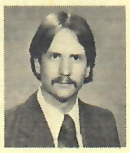
Mr. Johnson's presentation was part of a workshop on land identification techniques. Slides were used to discuss the advantages of aerial photography and the process of developing a cadastral tax mapping system for assessment purposes.

FILM COSTS RISE

The recent increase in the price of precious metals has found its way into the aerial mapping business.

Aerial film, like all photo sensitive film, is coated with a silver compound that reacts with light to produce a visible photographic image. With the dramatic rise in the price of silver has come announcements that prices for aerial film and other photo products will be increased.

HOPKINS AWARDED CERTIFICATION



The American Society of Photogrammetry recently awarded Tim Hopkins the designation of Certified Photogrammetrist The professional certification is earned by applicants working in the field of photogrammetry who demonstrate a high level of competence through education and work experience.

Mr. Hopkins is the fifth Sidwell employee to receive the Society's designation.

NEW ATLASES PRINTED

Realtors, lawyers and others who need current property information can now obtain the 1980 editions of the following county tax map atlases: McLean, Kane, Sangamon, St. Clair and Will, Illinois, and Kent, Michigan.

Each atlas contains exact copies of the official county tax maps which show parcel boundaries, dimensions, acreage, subdivision names and parcel numbers.

For further information on these and other county atlases, contact Mr. Harris, c/o The Sidwell Company.