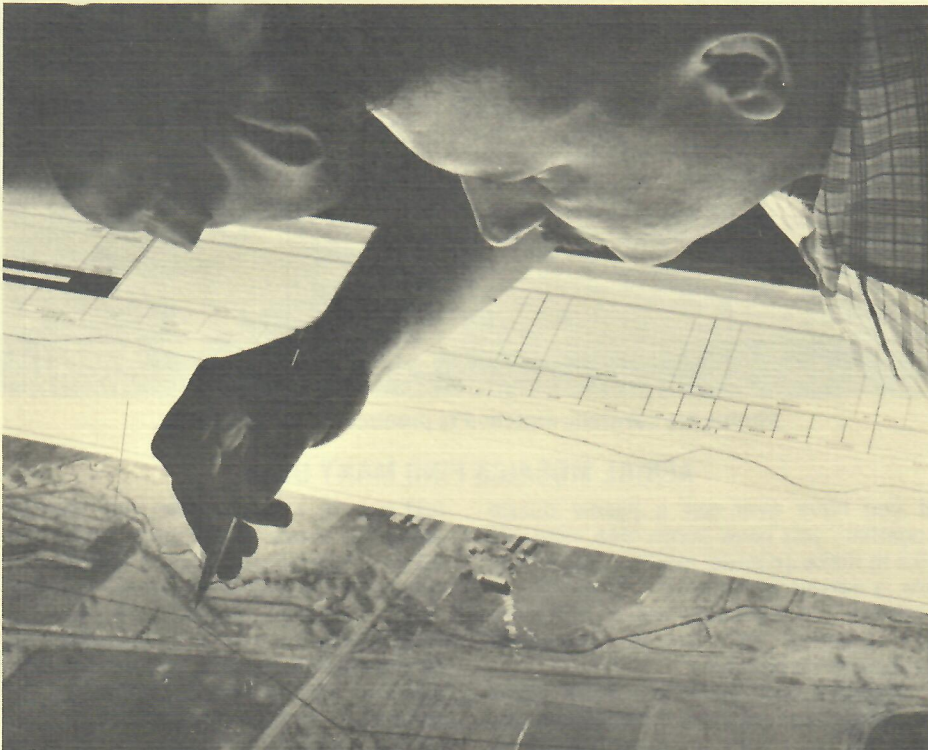




# map news



Sidwell technician checks positioning of Wyoming transmission line.

## WYOMING TRANSMISSION LINE MAPPED

The residents of Cody and Lovell, Wyoming, will never realize it, but the availability of electric power in their Bighorn Basin area was helped along by maps prepared by The Sidwell Company.

The plan and profile maps were used by the Chicago firm of McCaffrey and Associates to plan and design a new 65 mile long 115KV transmission line between the two communities.

The project began by photographing the irregular upland terrain using precision aerial cameras at two separate altitudes.

A high altitude flight was made at a scale of 1"=2,000' covering a wide swath between the two towns. The photos from this reconnaissance flight were used to prepare an aerial mosaic showing the natural and man-made details of the project area.

The mosaic, along with records on existing rights-of-way, property ownership and an environmental impact report, helped determine the final location of the transmission line.

After the final route was selected, a second aerial flight, at a scale of 1"=1,000', was made for mapping. This flight was controlled using field surveys tied to the Wyoming State Plane Coordinate System and Mean Sea Level.

Using the low altitude photography and control, Sidwell prepared plan and profile map sheets covering the entire transmission line route.

Each 28"x 40" sheet consisted of a photo-plan area at the top containing an orthographically correct photo base prepared with our Matra Orthosform 9300. The orthophoto process corrects distortions due to tilt and relief to produce a horizontally accurate photo base.

The final route centerline, stationing and State Plane Coordinates were plotted on the orthophoto base.

The bottom portion of the map contained a grid where the centerline and right and left profiles were plotted. By correlating the right and left profiles with the photo base, it was possible to estimate the amount of right-of-way clearing required.

However, the major use of the maps was to design and position the transmission line towers. Tower height and positioning is dependent upon the amount of sag in the electric cables. This in turn depends on the irregularities of the terrain as shown by the map centerline profile.

The left and right profiles are also used to design acceptable "blow-out" clearances. The term "blow-out" refers to the amount of sideways movement of the power cables at their lowest point of sag caused by high winds.

After completion of construction, the photo portion of the maps will be used to select access routes and to plan for continual maintenance and inspection.

## WILLIAM BARG IN 'WHO'S WHO'



Sidwell Vice President, William H. Barg, has been honored by being listed in the 1978-1979 edition of Who's Who in the Midwest.

Mr. Barg, who is also Sidwell's Marketing Director, has been active in the fields of aerial photography and photogrammetry for many years, and holds a Certified Photogrammetrist designation from the American Society of Photogrammetry. He also has over 28 years of experience in property mapping, parcel numbering systems and assessment administration.

Inclusion in Who's Who is limited to . . . "those individuals who have demonstrated outstanding achievement in their own fields of endeavor and who have, thereby, contributed significantly to the betterment of contemporary society."



## NEW KANE COUNTY ATLAS

New tax map atlases are now available for those needing up-to-date property information in Kane County, Illinois.

The atlases are precise half-size copies of the official Kane County tax maps and are printed at scales of 1"=200' for urban areas and 1"=800' covering rural areas.

The entire county is covered by two 11" x 17" map volumes showing complete property information including property boundaries, dimensions, street and subdivision names, acreage and permanent parcel numbers used on all tax bills.

Sidwell will also be publishing a new atlas for McLean county Illinois, this year.

Atlases are also available for Campaign, Cook, St. Clair and DuPage Counties, Illinois and Kent County, Michigan.

For further information on any Sidwell Atlas, contact our Map Order Department at 231-8200.

## MAP INFORMATION AVAILABLE AT MAP ORDER DEPARTMENT

If you're looking for a map or photo of a Chicagoland or Midwest area, chances are Sidwell has it on file.

Each day Gordon and Judy in our Map Order Department receive dozens of telephone calls and letters from realtors, lawyers, surveyors and others needing map information.

Some of the more popular items available include:

### Aer-O-Maps

Aerial photos at a scale of 1" = 660' covering four square miles. They are available for Cook, DuPage and Lake Counties and parts of Will, McHenry and Kane Counties, Illinois.

### Village Street Maps

Individual street maps covering 262 Chicagoland cities and villages complete with street names and house numbering systems.

### Tax Map Atlases

Reduced size tax maps of Cook, DuPage, Champaign and Kane Counties. The maps are one-half size reductions of the official county tax maps and show complete parcel information.

Copies of tax maps are also available for many other Illinois and midwestern counties.

For further information, contact our Map Order Department at 231-8200.

## CLARK ADDRESSES ROTARY



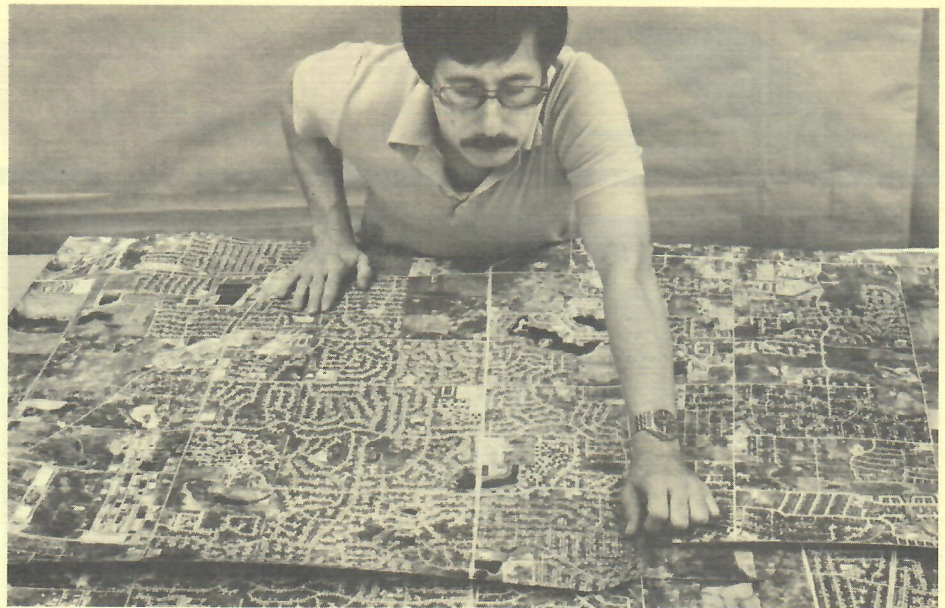
Sidwell representative Gary Clark addressed business and community leaders at the September meeting of the Lisle Rotary Club.

Members viewed a color filmstrip program explaining the aerial photography process and how topographic and other engineering mapping is produced at Sidwell.

## CONVENTIONS SCHEDULED

Officials attending various state and national conventions will have the opportunity to learn more about Sidwell's tax and topographic mapping services. These conferences include the Wisconsin Assessors and Tax Listers meetings, the I.A.A.O. Conference, Missouri Assessors Conference, Iowa County Officials and Assessors meetings, Minnesota Assessors Convention, Civil Engineering Exposition, Ohio Auditors meeting and the Illinois County Officials Conference.

We hope to see you there.



Photos are carefully matched to produce an aerial mosaic.

## AERIAL MOSAICS FIND MANY USES

If you have ever put a jigsaw puzzle together, you have some idea what it's like to make an aerial mosaic. Like a puzzle, a mosaic is made up of a number of "pieces," in this case photos, which are put together to form a composite photographic picture.

Mosaics are necessary since most mapping photography is taken at altitudes of 3,000' to 12,000', which does not allow large areas, such as entire counties, to be covered on a single photograph.

The mosaic process starts by making rectified copies of the individual photos covering the project area. During this step, distortions due to tilt are removed and the prints are matched for uniform contrast. The overlapping photos are then

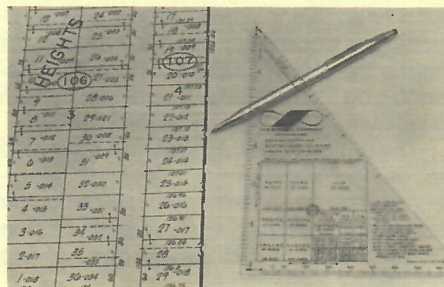
laid out on a large table and trimmed along the areas of common detail. The edges are feathered using a special sanding machine which insures the matched lines between photos will not be noticeable. The trick is to then assemble all the photos together so ground detail matches from one photo to another. The completed mosaic gives the impression of one continuous photograph covering the project area. This feature makes mosaics useful for regional planning, preliminary right-of-way selection and display purposes.

Mosaics can be prepared at a wide variety of scales. Generally they are framed for hanging in the courthouse.

## MAP TRIANGLE AVAILABLE

A plastic triangle printed with map scales of 1" = 100', 1" = 200', and 1" = 400' converted to chains is available from The Sidwell Company at no charge. The triangle also contains a conversion chart for land measurements and a diagram of a section of land showing common subdivisions with dimensions and acreage.

Triangles may be obtained by writing to: Department MN, c/o The Sidwell Company.



## O'ROURKE CERTIFIED BY A.S.P.



Mr. Michael O'Rourke, Sidwell photogrammetrist, has recently received the American Society of Photogrammetry's Certified Photogrammetrist designation.

The professional designation is awarded to applicants actively working in the field of photogrammetry. They must demonstrate a thorough capability by documenting a combination of professional experience and education.

Mr. O'Rourke has been with The Sidwell Company for more than eleven years.



FOR FURTHER INFORMATION ON ANY SIDWELL MAPPING SERVICES . . .

28 W 240 North Avenue West Chicago, Illinois 60185 (312) 231-0206