

Working Paper 89-06
Requesting Travel Time Contour Maps

by

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Chicago Area Transportation Study
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Introduction

Over the years CATS has developed a process of producing travel time contour maps using data extracted from CATS traffic simulation models. As such, the travel times represent generalized averages. They should be considered generic and not representative of any one day, time period or route. These maps can be produced showing travel times either TO a specified site or FROM it. In addition, the travel times are drawn from CATS base year data which is 1980. Given the way the data is acquired, these maps are best used to make comparisons between areas.

Because transportation planning and travel forecasting is done on a zonal basis, the travel times are reported at this level of aggregation. The CATS zone system is based on survey townships, areal units approximately six miles on a each side. Within each township is a secondary areal unit system of approximately one square mile sections. In the more densely populated areas these one square mile sections are further broken down into four zones called quarter-sections. A quarter section is one-half mile on each side. In terms of coverage, the zone system bears a direct relationship to the population and employment density in the regions with downtown Chicago being represented at the quarter-section level. A map depicting the zone system is shown as Exhibit 1.

Cost

The charge for a travel time contour map is a function of the staff time, computer costs, and materials associated with the production of map. Typical costs for one map are approximately \$75.00. There is an economy of scale when more than one location is requested at the same time. A typical charge for 12 maps (12 separate locations) is approximately \$600.00. Of course, these charges are contingent on the specifications of the particular request. If multiple copies of single maps are needed, it is more cost effective for the client to use the color reproduction ability of a printing firm.

Specifications

A certain degree of customizing is available. Presented below is a list of options that need to be specified before the map can be produced. The turn around time for the entire process is about 5 to 7 working days.

1. Is the map to be done in black and white or color? If the map is to be reproduced, black and white may be best. However, with the advances being made with color copying, color maps are becoming more popular. Overall, color maps are easier to read and are recommended.
2. What time contours are to be used? Ten or 15 minute increments work best. Smaller intervals tend to get lost with detail while larger increments tend to be too generalized.
3. The travel time maximum must also be specified. That is, how far out (in terms of time) should the contours be extended. Note that the entire map only covers the six counties of northeastern Illinois.
4. What size paper is desired? CATS can produce maps in two sizes: 8 1/2 by 11 inches or 17 by 11 inches. An example of the smaller size is shown as Exhibit 2. Note that the map shown in Exhibit 2 is a black and white reproduction of a color map.
5. Another option concerns the travel time itself. Should the travel time represent the travel time TO the location in question or FROM it?

Instructions for Processing Requests

Work with the client to identify the specifications and locations of interest. Complete the attached information form and present it to CATS Systems Simulation Division. The form is shown as Exhibit 3. The Systems Simulation Division is the group that processes the request and produces the map. When completing the form make sure to include the CATS zone number for the location in question. Make sure the 1984 zone numbering system is used. The zone number can be found by geocoding the location to its proper quarter-section and then using the quarter-section to CATS zone printout to identify which CATS zone it falls in. Use the 1984 CATS zone numbers. This printout can be found in the CATS Systems Surveillance Division.

While the Systems Simulation Division is preparing the map(s), the accompanying transmittal letter can be prepared. Attached as Exhibits 4 and 5 are two sample letters.

Developing the Contract

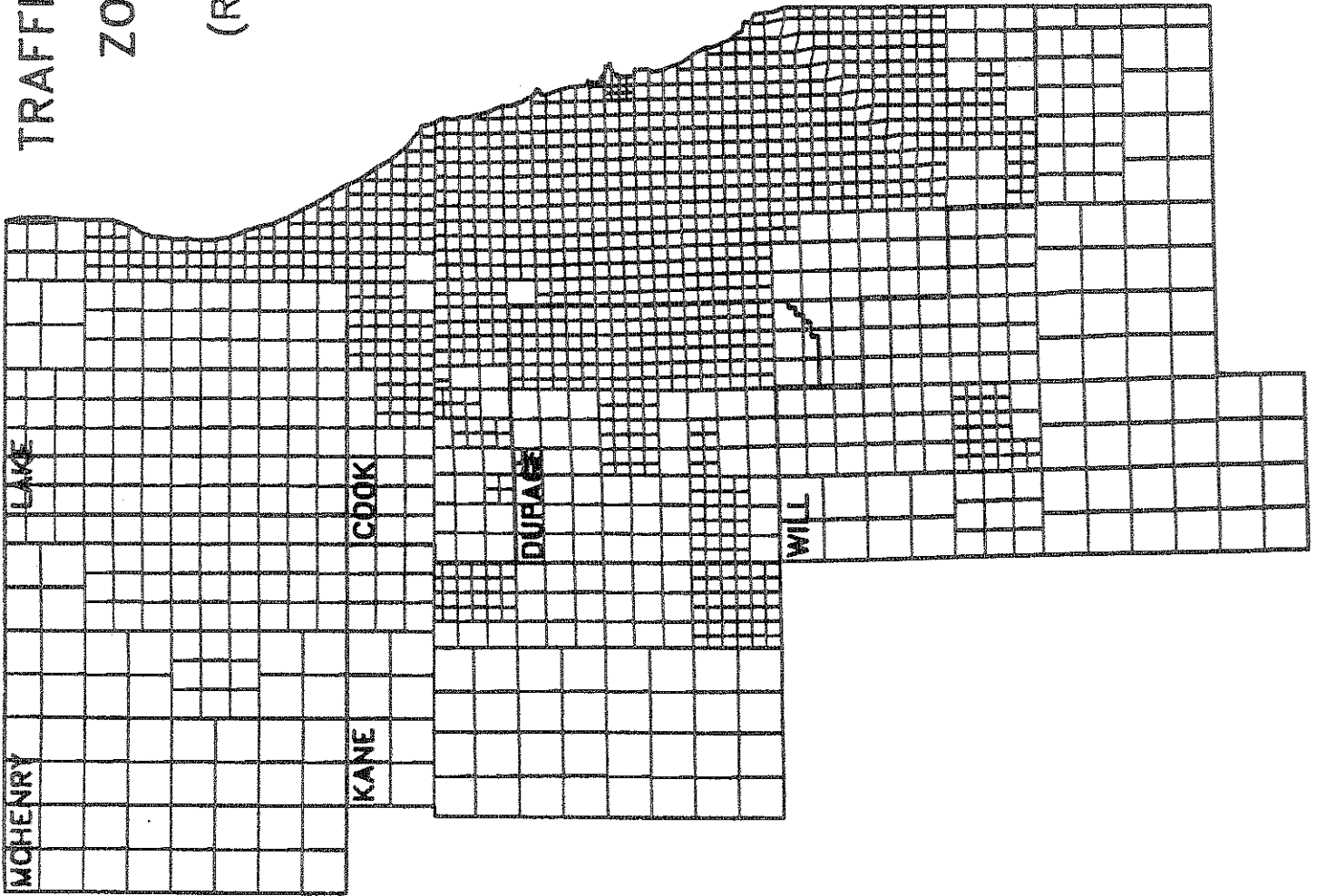
Because these tend to be relatively small jobs, all that is needed is a letter from the client indicating what is to be done and an acknowledgement of a charge. Present the letter to the Work Program Development Division with a budget estimate. A project number will then be issued and work can commence on the project. When the work is complete notify the Administration Division so that the billing can take place.

Close Out

To close out the project deliver to the client the requested maps with the cover letter. Make sure to keep copies of the materials (black and white reproductions are fine) and incorporate them into the central filing system.

TRAFFIC ASSIGNMENT ZONE SYSTEM

(Revised 1984)



HIGHWAY TRAVEL TIMES To Touhy and CALDWELL

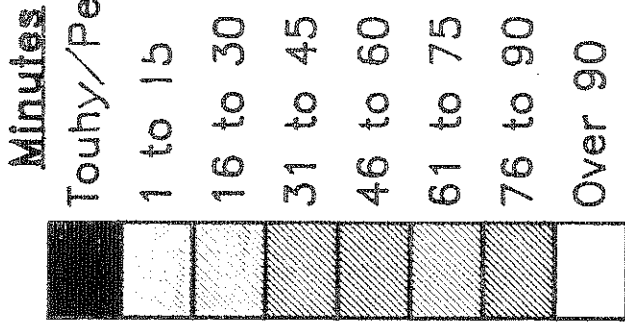
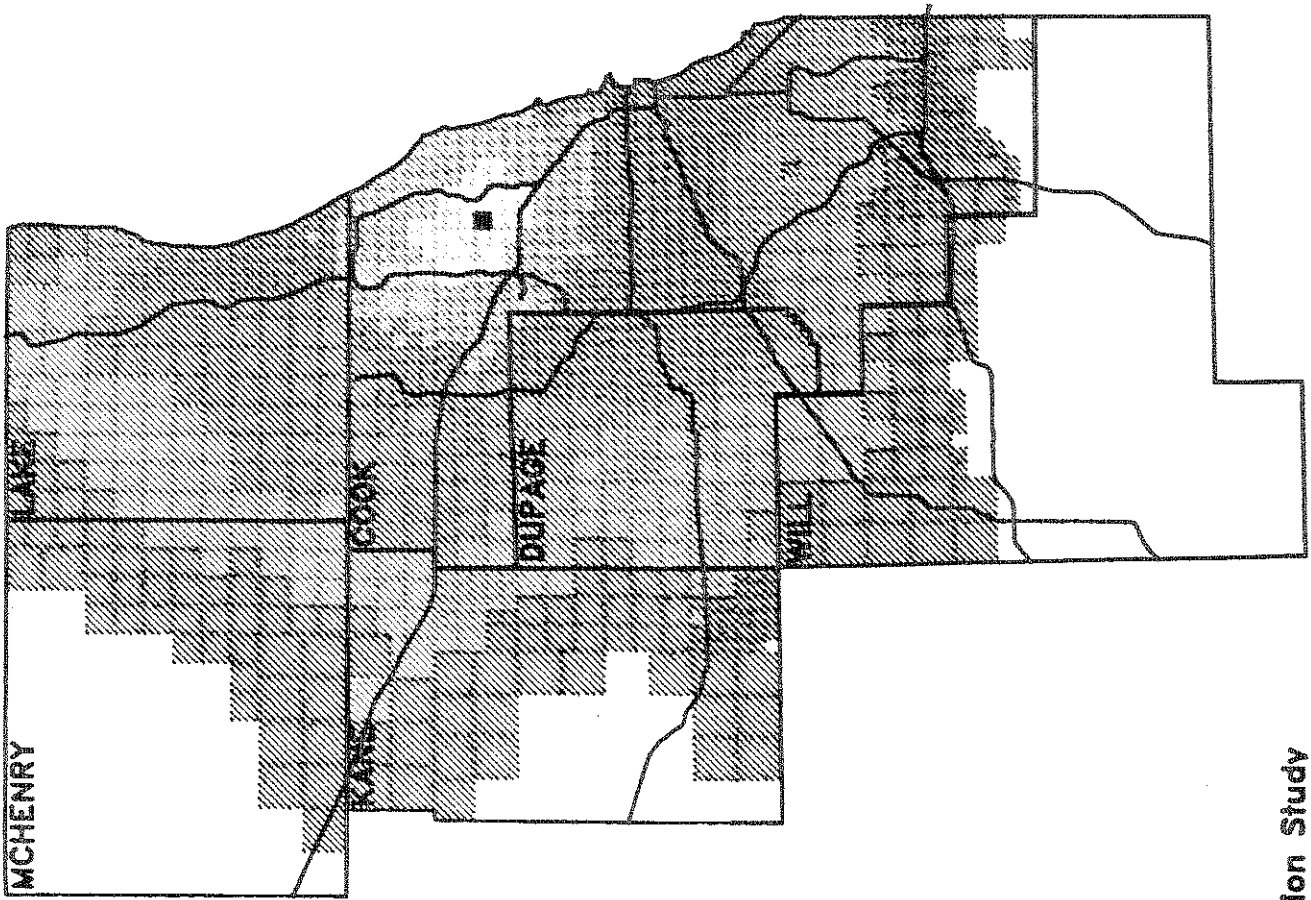


Exhibit 3

Travel Time Contour Map
Information Form

1. Project number: _____.
2. Will the map be in Color _____ or Black and White _____?
(check one)
3. Should the map represent travel times TO _____ the specified location
or FROM _____ it? (check one)
4. Paper Size: 8 1/2 by 11 inch _____ or 17 by 11 inch _____?
5. Travel time increments: 10 minutes, 15 minutes, Other _____.
6. Travel time maximum time: 60 minutes, 75 minutes, Other _____.
7. Actual location: Address _____

City Zip Code
8. Quarter-section code _____.
9. CATS zone number (1984) _____.
10. Title information _____
_____.
11. Legend information. The legend information contains the travel time
increments and is developed by the Systems Simulation Division.
12. Special Notes or Instructions. _____

_____.
13. Requested by (CATS staff) _____
For (client's name) _____.



CHICAGO AREA TRANSPORTATION STUDY
300 W. Adams Street Chicago, Illinois 60606

December 6, 1988

Mr. Stan Kirtley
Staff Manager, Real Estate Management
Illinois Bell Telephone
255 West Randolph Street - Floor 25A
Chicago, Illinois 60606

Dear Mr. Kirtley:

Enclosed is a copy of the travel time contour map that you requested. It depicts travel time in ten minute increments from the intersection of St. Charles Road and 22nd Avenue in Bellwood. As I mentioned in our telephone conversation, this map is based on traffic simulation models which represent generalized average travel times. In short, the travel times should be considered to be generic and not representative of any one day or time period.

If you have any questions, please do not hesitate to call me at (312) 793-3467.

Sincerely,

Alan R. Fijal
Chief Survey Manager

EC:ls-0720L
cc: Ligas, J.



CHICAGO AREA TRANSPORTATION STUDY
300 W. Adams Street Chicago, Illinois 60606

December 7, 1988

Mr. Stan Kirtley
Staff Manager, Real Estate Management
Illinois Bell Telephone
255 West Randolph Street - Floor 25A
Chicago, Illinois 60606

Dear Mr. Kirtley:

Enclosed are two additional copies of the travel time contour maps that you requested. They depict travel time in ten minute increments from the intersections of York Road and Ogden Avenue in Hinsdale and Ogden Avenue and Main Street in Downers Grove. As I mentioned in our telephone conversation, these maps are based on traffic simulation models which represent generalized average travel times. In short, the travel times should be considered to be generic and not representative of any one day or time period.

In about one month you will be billed for this work. According to my estimate it will be between \$175.00 and \$200.00. However, due to our internal accounting process the exact costs will not be known until the end of the month. For your information, the cost will include the staff time and computer costs associated with the production of all three maps.

If you have any questions, please do not hesitate to call me at (312) 793-3467.

Sincerely,

Alan R. Fijal
Chief Survey Manager

AF:ls-0720L
cc: Ligas, J.