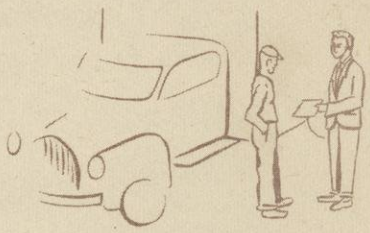
External survey: land use--transportation study. no. 4 August 1963

[s.l.]: Southeastern Wisconsin Regional Planning Commission, August 1963

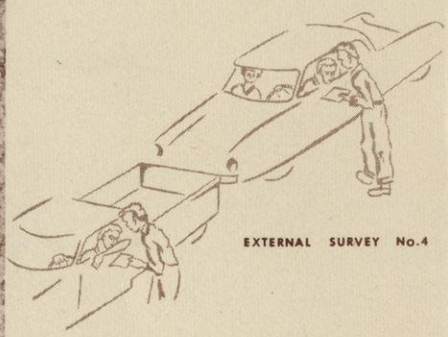
PROCEDURAL MANUAL

ORGANIZATION CHARTS AND POSITION DESCRIPTIONS No. 1

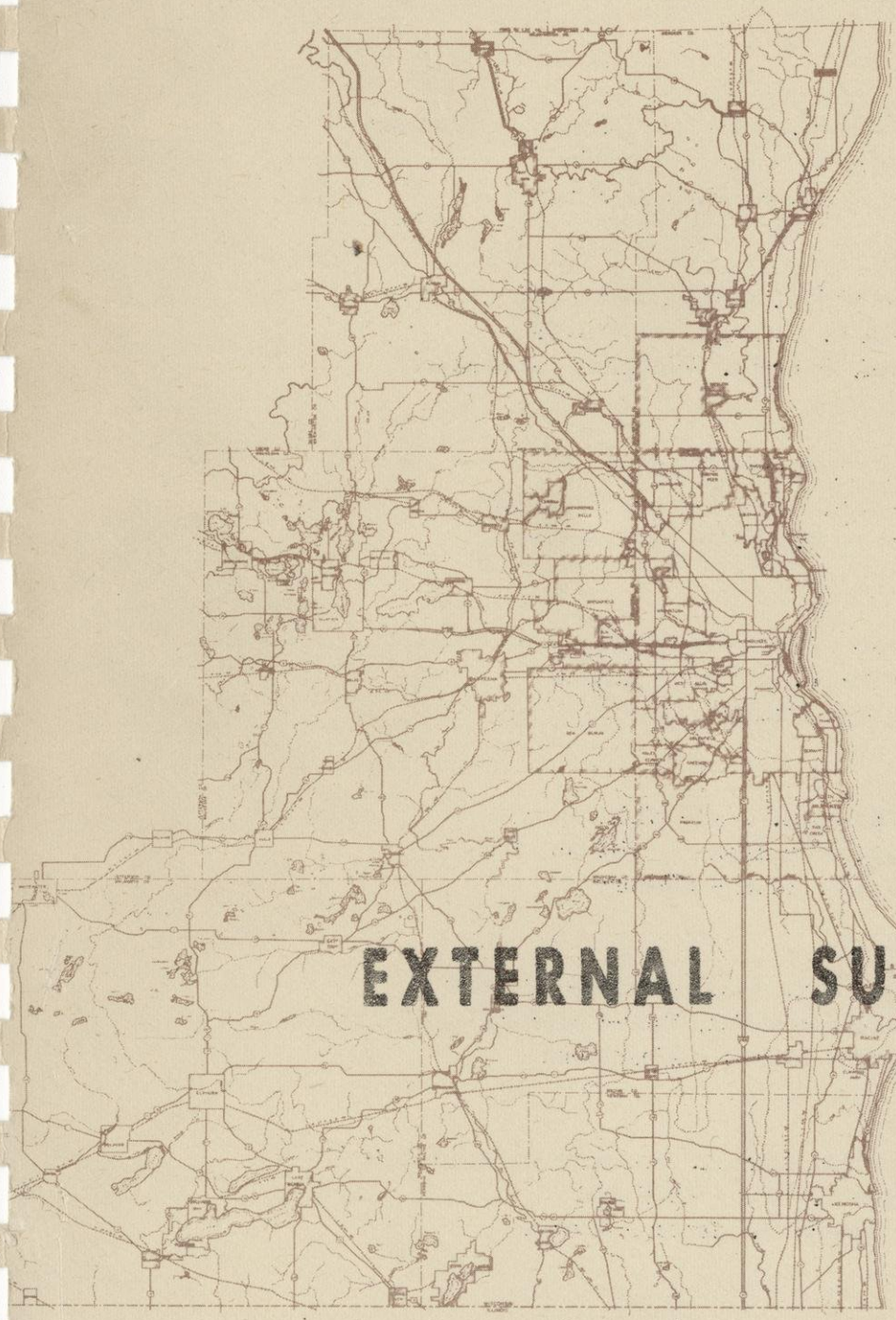
HOME INTERVIEW SURVEY No. 2



TRUCK AND TAXI SURVEY No. 3

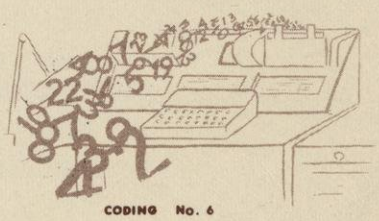


EXTERNAL SURVEY No. 4



EXTERNAL SURVEY No. 4

LAND USE SURVEY No. 5



CODING No. 6

REGIONAL LAND USE – TRANSPORTATION STUDY

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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PROCEDURAL MANUAL

NUMBER 4

EXTERNAL SURVEY

Land Use - Transportation Study

Revised August 1963

Southeastern Wisconsin Regional Planning Commission
916 No. East Avenue - Waukesha, Wisconsin - 53187

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9-19-63

TABLE OF CONTENTS

DEFINITIONS

The following definitions explain the technical terms and abbreviations used in this manual.

An ORIGIN-DESTINATION SURVEY is a survey of travel concerned with the location where trips begin and end, the type of transportation used, the purpose of trips, and related information. Origins and destinations are the locations where individuals actually begin and end trips. (Bus stops and parking lots are not considered as a beginning or an end of a trip.)

The STUDY AREA is the area selected for the land use and traffic surveys, completely encompassed by the external cordon line.

The EXTERNAL CORDON LINE is an imaginary line near the boundary of the southeastern Wisconsin Region, along which the external survey is conducted.

The INTERNAL CORDON LINE is an imaginary line around a city or village in the Region and its urbanized fringes.

The EXTERNAL SURVEY is that phase of the study in which travel data are obtained by interviewing motor vehicle operators intercepted at designated external stations.

The EXTERNAL STATION is a roadside interview station located on a principal highway which enters the study area at, or close to, the intersection of the highway and the external cordon line.

The EXTERNAL AREA includes all locations outside the external cordon line.

A TRIP is the one-way travel, by a single mode of transportation, between the point of origin and the point of destination.

A LOCAL TRIP is a trip crossing the external cordon line and having either an origin or a destination within the study area.

A THROUGH TRIP is a trip passing through the study area, crossing the external cordon line twice, and having both origin and destination outside the study area.

A LOCAL STOP is a stop within the study area for a definite purpose, made during the course of a through trip.

A DESIRE LINE is a straight line drawn between the point of origin and the point of destination, without reference to existing street patterns.

A SCREEN LINE is a line extending across the study area, used for the purpose of determining the completeness of the survey data. (A natural barrier often serves as a screen line.)

LAND USE refers specifically to the type of development of the area or the purpose for which the land or the structures thereon is occupied or maintained.

Examples of generalized land use include residential, retail, office, manufacturing, or public open space.

A TRAFFIC COUNT is any count of traffic which passes a given point on the road during a specified time period.

A MACHINE COUNT is a traffic count made by a recording traffic counting machine with a detector at a specific location on a highway.

A CLASSIFICATION COUNT is a traffic count made by an individual who records each type of vehicle (auto, truck, bus, etc.) which passes a given point on the road.

TURNING MOVEMENT is a traffic count made at an intersection which records the number of vehicles that enter the intersection, the number of vehicles that go straight ahead, the number that turn left, and the number that turn right.

TRUCKS are all vehicles used for the transportation of goods, including the following:

PICKUP OR PANEL -- any light, single unit truck of the local delivery class, with single tires on the rear.

SINGLE UNITS, DUAL TIRE -- any single unit, two axle truck with dual tires on the rear; also includes a tractor type truck, not pulling a semi-trailer or trailer.

SINGLE UNITS, 3 AXLE -- any single unit truck with three axles.

COMBINATIONS -- any tractor type truck pulling a semi-trailer, full trailer or any combination thereof.

Part I

THE SCREEN LINE CHECK

A. PURPOSE AND SCOPE

The screen line is an imaginary line that divides each of the home interview areas and the Region into two parts. The screen lines are shown on Map 1, page 2A. (Schematic diagrams of station locations and descriptive listings are in Appendix A.)

Travel across the screen line is developed from the results of all other surveys, and independently from the results of the classification counts taken at the screen line stations. The expanded home interview sample and the total screen line classification counts each represent the total screen line crossings for an average weekday.

The degree of correlation between these totals is one indication of the completeness and accuracy of the survey. It is called the screen line check.

The principal objective of the screen line counts is to determine the total number and type of all vehicles crossing each screen line, per hour, for an average weekday during the survey period.

B. LOCATION OF THE SCREEN LINE

Each screen line was located so as to minimize the number of crossings on a line drawn through the Region and also to minimize chances for double crossings on a single trip by circulating traffic.

Good observation and safety are critical in choosing station locations. A sight distance along the street of 800 feet in each direction is required. Form T3-E-7A, Appendix C-8, is the check list for choosing a suitable station. Other criteria for selecting a station are listed thereon.

C. OPERATING SCHEDULE

Screen line counts will be made during the same period in which the home interview survey is made. Stations will be operated on a sampling basis so as to cover at least one morning shift and one afternoon shift at each station during the survey period. Saturdays, Sundays, holidays or other days not representative of an average weekday will not be scheduled. Night counts will be made at stations having higher volumes.

D. DUTIES OF CLASSIFIERS

The duties of classifiers during the screen line survey are essentially the same as during the external cordon survey. Instructions are set forth in detail in Part II, F 4. One significant difference is that during the screen line study the classifiers may sit in their cars at most stations to make the counts. When cars are so used, a sign reading "Traffic Survey" will be furnished to display on each vehicle. It will be displayed only during the hours of classification counts.

E. WORK REPORTS AND CONTROL FORMS

1. Form T3-E-3, Screen Line Survey, Hourly Volumes of Traffic Classified by Type of Vehicle

Form T3-E-3, Appendix C-3, is the data summary sheet for the screen line survey. This form shows the date of screen line station operation, the hourly total by vehicle type, the hourly total for all motor vehicles, and the corresponding hourly machine counts.

2. Form T3-E-4, Traffic Record - Machine Count

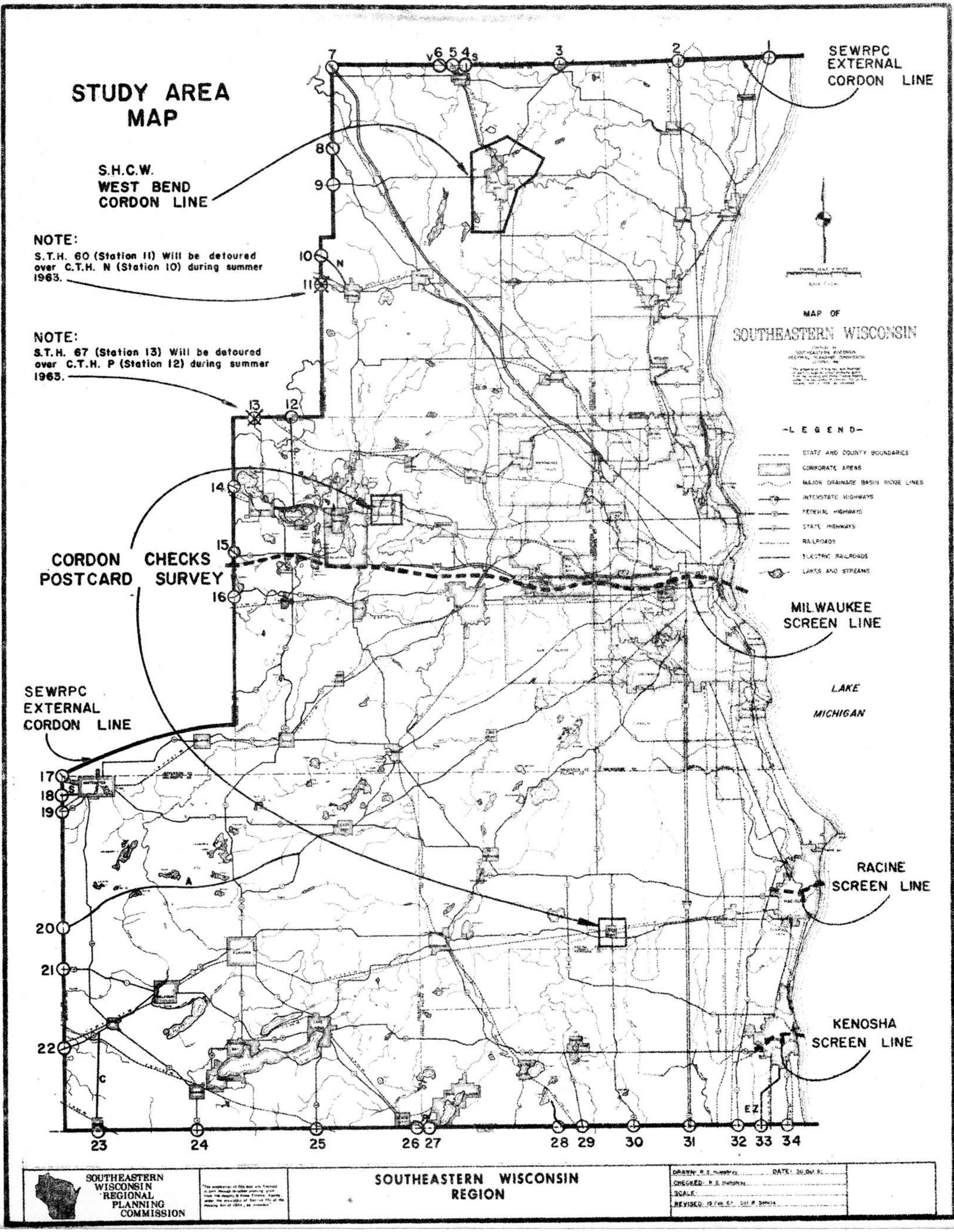
Form T3-E-4, Appendix C-4, summarizes traffic volume data recorded on the traffic counter tapes. This form shows the station number, route, roadway direction, day, date, year, hourly total traffic volume, and 24-hour total traffic volume. The weather, temperature and condition of roadway surface are shown for the day the counter was set out and the day the counter was picked up. The percentage relationship between the 24-hour total and the average weekday traffic may be calculated.

3. Form T3-E-5A, Weekly Progress Report - Screen Line Classification Program

Form T3-E-5A, Appendix C-6, is the weekly progress report for the screen line classification count program. This report shows the number of stations operated, the number of man hours worked by type of crew member, the axle adjusted machine count of the number of vehicles passing, the number of vehicles classified, the number of vehicles classified per man hour and the number of vehicles classified per classifier per hour. Totals for the week and cumulative totals to date are shown.

This report is to be prepared not later than Friday of the week following the report week.

Monthly progress reports will also be prepared following the same format.


STUDY AREA MAP
SEWRPC EXTERNAL CORDON LINE
S.H.C.W. WEST BEND CORDON LINE
NOTE: S.T.H. 60 (Station 11) Will be detoured over C.T.H. N (Station 10) during summer 1963.
NOTE: S.T.H. 67 (Station 13) Will be detoured over C.T.H. P (Station 12) during summer 1963.
CORDON CHECKS POSTCARD SURVEY
MILWAUKEE SCREEN LINE
SEWRPC EXTERNAL CORDON LINE
LAKE MICHIGAN
RACINE SCREEN LINE
KENOSHA SCREEN LINE
MAP OF SOUTHEASTERN WISCONSIN
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SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
SOUTHEASTERN WISCONSIN REGION

Part II

THE EXTERNAL SURVEY - GENERAL INSTRUCTIONS

A. PURPOSE AND SCOPE

The principal objectives of the regional land use - transportation study are to determine the existing land uses and travel desires within the Region and to develop recommended long-range plans for the land use and transportation facilities. The land use and transportation plans must be integrated as any change in one has a far-reaching effect upon the other. For example: the construction of an expressway often leads to the relocation of trucking companies to the newly created interchanges; while the relocation or construction of a new manufacturing plant often requires new or wider streets for adequate access.

The fact that there is a traffic problem in this region is common knowledge. This problem results from a series of related forces: the continued rapid growth of population; the increased use of motor vehicles; the fixed street sizes that limit the volume of traffic they can accommodate; the movement of people, business and industry to the suburbs; and the effect this has had on different uses made of land, (such as the building of shopping centers, factories and schools which have generated traffic to and from these new and changing uses of land).

The internal surveys connected with this study, principally the home interview survey, develop data concerning existing land use and travel within the study area by its residents. Data concerning travel by non-residents must be determined by making a survey of vehicles entering and leaving the study area on all major roads which cross the cordon line. The principal objectives of this external survey are:

1. To determine the total number and character of all vehicles entering and leaving the study area.

2. To obtain origin and destination of trips, the land use at these locations, and certain other information from the drivers of a representative sample of vehicles crossing the cordon line.

The first objective is accomplished by manually counting and classifying, by type of vehicle and direction of travel, all traffic passing each external interview station during certain specified periods. This information is supplemented by automatic traffic recorder counts extending over longer periods of time.

The second objective is accomplished by stopping and interviewing a selected sample of vehicles at each external station and obtaining from the drivers the information necessary to answer the questions asked on the external trip report, a copy of which is shown in Appendix C.

B. LOCATION OF INTERVIEW STATIONS

Interview stations are located on all roads which carry a significant volume of traffic entering and leaving the study area. Safety is a principal consideration in locating external interview stations. Wherever possible, level, straight

sections of road with unrestricted sight distance for 800 feet in each direction have been selected. See Form T3-E-7, Appendix C-7, for the check list used in site inspection. Station locations selected are shown on Map 1, page 2A, and are listed in Appendix B-1 and 2.

C. EQUIPMENT USED

A considerable amount of expensive equipment is used in making the external survey. Some items are necessary at the beginning of the survey; others become necessary as the survey progresses.

The first need is for accurate large-scale maps and/or aerial photographs of the cordon and screen line areas. These are used to help determine the final location of the cordon and screen lines.

Next, machine traffic counters are needed to obtain 24-hour traffic counts at all roads intercepting the cordon and screen lines. Twenty Streeter-Amet RC counters were obtained for this purpose, along with spare batteries, hoses, parts, and all other necessary appurtenances. A battery charger, hydrometer and assorted tools were among the latter.

Two panel trucks provide for the transportation of machine traffic counters to and from sites.

The actual interviewing program requires much more equipment. The major items necessary are listed below, without regard to the quantity of each required:

> Safety cones, traffic signs, hand counters, clipboards, first aid kits, thermos jugs, forms, pencils, etc.

Most of this equipment is purchased new, specifically for this study. Some of it is borrowed from cooperating highway agencies.

D. OPERATING SCHEDULE

Each external interview station will be operated on weekdays, Monday through Friday, omitting holidays and other non-representative days from the schedule.

At stations located on routes where traffic volumes during the night are particularly high with heavy truck movement or due to other reasons, the daylight operation will be supplemented by an additional classification count (and, in some cases, additional interviews) between 8:00 P.M. and 6:00 A.M. Night counts will be made at stations with ADT over 2,000. Night interviews will be made at five of the highest volume stations.

Stations will be operated to interview traffic in both directions during each shift. This procedure reduces the number of times a station must be operated and, consequently, reduces the man-days of work for station setup and the number of times automatic traffic recorders must be set out. This also makes it possible to utilize members of the party to greater advantage by shifting interviewers from one side of the road to the other as inbound and outbound traffic volumes vary.

The number of interviewers assigned is in proportion to the traffic volumes. For example: where daily counts exceed 10,000 vehicles, a 20 percent sample should

be adequate. At lesser volumes, the sample rate should be increased to the point of getting all possible interviews without causing unreasonable delay to the traffic.

In determining the number of interviewers required at each station during a shift, it is assumed that an interviewer can complete 40 interviews per hour (although a much higher rate is sometimes possible by an experienced interviewer).

Interviewing will stop for inclement weather, for example, when coding sheets would become illegible. However, if weather or other unforseen conditions interrupt the operation of a station during a particular shift on any given day and a representative sample of the traffic passing in an 8-hour period has not been obtained, then the time which was missed must be made up. This will be done on another day, at the end of the regularly scheduled operations. When work is stopped for any such reason, the original schedule will be resumed as if no interruption had occurred.

E. GENERAL INFORMATION FOR TEMPORARY PERSONNEL

1. Training

You will be given two or more days of instructions before field operations are started. This will include a practice operation at a station in the field.

2. Hours of Work

You will work an 8-hour shift, five days per week. On any given day, the schedule of operation will determine the particular shift you will work. It will be your responsibility to read and interpret the schedule and to report at the correct time and place. Any modifications of the schedule will be announced. It will be your responsibility to note these announcements and follow the instructions given.

Travel expenses will be paid, not to exceed the distance from the central office to the station, at a rate of seven cents per mile. No time or expense will be allotted for meals away from the station.

3. Appearance

Interviewers are required to be clean shaven and neatly dressed. Dress clothing is not required; however, soiled and ragged clothing will not be permitted.

4. Equipment

The party chief will furnish the necessary clipboards, pencils, forms and other equipment required for operation. Each interviewer should bring with him proper garments for all kinds of weather (raincoats and hats, sun glasses and sun hats, and sweaters or jackets). A camp stool is also recommended, and sun tan lotion and salt tablets may be desirable.

5. Transportation

It is each man's responsibility to provide his own transportation to and

from the station. In past studies it has been the practice of the interviewers to form car pools. This practice provides transportation for all, saves expense, and helps to avoid the parking problems that sometimes arise at certain station locations.

6. Additional Duties

The primary duty of the external survey crew member is, of course, the operation of the stations; however, it is anticipated that several of the crew members will be required, occasionally, to perform other duties in place of station operation. Such other duties may include screen line manual counts, arterial manual counts, truck and taxi interviewing, office work, and related duties. When inclement weather prevents station operation, as many men as possible will be given such duties as are described above.

F. ORGANIZATION AND SUPERVISION

1. In General

A typical external survey crew will consist of one "Party Chief", nine "Interviewers", one "Classifier", and one "Lead Interviewer". At a few stations the crew may be supplemented by the addition of one or two uniformed police officers. (At some stations an interviewer will act as flagman).

If one crew is split, the lead interviewer will manage the operation of the second crew. At all times, the permanent staff party chief will have full responsibility and control over both crews.

A preliminary training period will be held for crew members before field operations are started. This instruction is important. It will include a description of the purpose of this survey, the methods used and why they are used, intensive study of the questions on the interview form, and practice in using the form by making trial interviews at a station in the field.

2. Duties of Party Chief

The party chief is responsible for the successful and safe operation of the stations and completion of the work.

He will assign the place for each man to work and see that each person is supplied with forms, pencils, and clipboards and is ready to start at the scheduled time.

The party chief will be responsible for and will supervise the setting up of station equipment prior to the interview operation. When operation of the station is completed, he will supervise the collection and dismantling of all station equipment. Typical station layout diagrams are shown in Appendix B-8 through 11.

He will advise the interviewers, as necessary, and offer suggestions that will help them obtain interviews in an efficient and courteous manner. During peak periods of travel, he may aid by making interviews himself.

He will assign lunch breaks during periods of low traffic volume and will see that arrangements for other rest periods are made so that continuous operation of the station is maintained.

It will be his responsibility to keep an accurate record of each man's time as well as his own.

In case of inclement weather, or some emergency, it will be left to the judgment of the party chief as to whether operations should continue. If operations are halted, he will normally wait one hour to see if the station can be continued and the shift completed.

He will take note of the percentage of various vehicle types passing and insure that the percentage of each vehicle type interviewed does not fall below the prescribed minimum sample rate. During most hours the number of interviews will probably exceed the minimum prescribed sample rate. A more specific selection of interviews by type vehicle will be made in the office during the process of editing.

The party chief will announce the beginning of each hourly interview period and will collect the completed forms from the preceeding period. He will then review them for legibility, accuracy, and completeness. He will write a page number on each sheet as it is reviewed.

When the party chief has finished reviewing and checking the interview forms, they will be placed in folders provided for the purpose. The date, hour, and station number will be marked on the outside of each folder preparatory to submission to the office.

3. Duties of Interviewers

Interviewers will question the drivers routed to them and record the information on the "External Trip Report", Form T3-E-1, Appendix C-1. Use of this form is explained in Part III, A.) They should approach the driver in a courteous, business-like manner; keep the interview under control; and be as brief as possible in getting the desired information. Exchanging pleasantries with the drivers or passengers is strictly forbidden. Upon completing an interview, the interviewer should thank the motorist for his cooperation and hand him the printed card explaining the study.

A definite method of approach should be planned in order to secure the desired information. As a guide, the following is suggested:

"Good (morning, afternoon), (Sir, Madam), this is a traffic survey." Then follow with the interview quickly before the driver can ask questions. Several examples of typical completed interviews are shown in Appendix B-3 through 6.

Some drivers may refuse to give the information requested. Each should be assured that the requested information will be kept confidential and will not be used for enforcement of traffic ordinances. If the driver still does not wish to cooperate, the best policy is to let him proceed without wasting time in argument. However, too many refusals reported by any one interviewer will be investigated to see that the proper approach is being made and that an antagonistic atmosphere is not being created by the interviewer.

NOTE: In making interviews, speed is desirable, but do not sacrifice accuracy or completeness for speed. If information is not recorded correctly, it will become necessary to disregard the entire interview. When this happens, the time spent in getting the interview is wasted -- for the interviewer, the vehicle driver, and the editor.

4. Duties of Classifiers

It is necessary to determine the total number and classification of vehicles passing each station during the interview period. At each interview station, therefore, someone will be designated for each shift to make a manual vehicle classification count. Every interviewer should know how to make the classification count as outlined in the following paragraphs, since he may be required to do so during any shift to provide relief.

All traffic passing through the station, including vehicles stopped for interview, should be counted and classified during the full time the station is operated. Vehicles should not be stopped merely for the purpose of determining their classification.

The "Traffic Classification Count Form", T3-E-2, Appendix C-2, will be used for recording the data. (Use of this form is explained in Part III, B.)

Hand counters will be used to count the types of vehicles encountered most frequently. At the end of each hour, totals for all hand counters will be recorded in the proper columns, and counters will be reset to zero. Vehicle types less frequently observed can be counted by tally marks entered in the proper column and grouped in the usual manner (Four vertical marks and one diagonal are drawn to represent five vehicles). Horse-drawn vehicles, bicycles, motorcycles, farm equipment, road construction equipment being driven, and pedestrians will not be recorded.

Each day, before starting the count, the classifier should synchronize his watch with that of the party chief so that the change from one hour period to the next will be made at the same time the interviewers change. At the same time the party chief should check the recording counter machine to insure that it is recording by the same time periods, and is synchronized to the start time for each hour period.

5. Duties of Flagmen

The flagmen (an interviewer will act as flagman when needed) will be assigned their positions by the party chief. When stopping vehicles and/or directing traffic, the flagmen will use the prescribed signals and will carry them out with motions that are clear-cut and authoritative (full arm signals rather than finger wiggling) in order to minimize misunderstanding by vehicle drivers.

Mail trucks, construction equipment, regularly scheduled common carrier buses, funeral processions, and emergency vehicles will be allowed to pass at all times. Upon noting the approach of an emergency vehicle, the flagman will immediately warn the interviewers and will take such action as necessary to permit the immediate passage of the emergency vehicle.

Flagmen, charged with the responsibility of directing traffic, must realize that the safety of the operation depends in great measure upon their interest in doing a good job. A flagman's job is important, and laxity in any respect will not be tolerated.

6. Duties of the Traffic Counter Technician

It will be the responsibility of the traffic counter technician to deliver

the station equipment to the proper station location according to the schedule allowing adequate time for setting-up prior to station operation. He will also pick up the station equipment at the end of the shift. He will be responsible for placing and maintaining the automatic traffic recorders according to a schedule that will allow a minimum of 48 hours of counts, during which time the 8-hour station operation is scheduled. He will make automatic traffic recorder counts at additional locations as directed by the traffic operations engineer.

Part III

EXTERNAL SURVEY FORMS

A. INTERVIEW FORM

1. General

This form, (T3-E-1, Appendix C-1), is designed to be filled out in part by the interviewers in the field and in part by the editors and coders after receipt in the office.

Each interviewer will be assigned a number. He will write this number at the left of the words "Sheet____of____Sheets" at the upper right of the interview form. During the hour, it will be necessary for an interviewer to use more than one external trip report form. Further, it may be necessary for an interviewer to make interviews in both the inbound and outbound directions. When this is necessary, the interviewer will number his interview forms for each travel direction separately. At the end of each hour period, each interviewer will place the page number of the last interview form for each direction in the second blank of "Sheet____of____Sheets" on all interview forms used in the hour period. Entries for "Hour Period Beginning", "Inbound and Outbound", and the first blank of "Sheet____of____Sheets" should be made prior to recording any interviews for the sheet.

For example: "4 Sheet 3 of 8 Sheets" could appear on a form. This indicates that interviewer number 4 has used 8 sheets during the hour period in the direction indicated, and that this particular sheet is number 3 of 8. One of his sheets for the opposite direction may be numbered, for example, "4 Sheet 5 of 6 Sheets".

Each interviewer will check his sheets thoroughly to insure that all sheets are numbered correctly before handing them to the party chief at the end of the hour period.

Entries for "Vehicle Type" and "No. in Vehicle" should be noted as the vehicle to be interviewed approaches the station. The remainder of this information is to be obtained during the interview.

Each line on the form is for one complete interview. You are, therefore, able to get 6 complete interviews on each sheet until the hour period is completed. Remember, at the start of each hour and/or if you change from inbound to outbound, you must start a new interview form.

NOTE: Never mark in coding boxes.

2. Specific Instructions for Interviewers

a. Card Number - Make no entry.

b. Station - Enter the number assigned to the external station being operated.

c. Date - Enter the actual date of operation, for example: "June 12, 1963". The code will be determined in the office from this entry. Write out the name of the month.

d. Hour Period Beginning - Enter the hour at the beginning of each hour period. For example, if it is the period of 2 to 3 P.M., enter the figure "2" and circle (P.M.) This entry would then read, "Hour Period Beginning 2 (P.M.)". For the hour beginning at noon or midnight, it is best to write out "noon" or "midnight". Start a new form for each hour period, even though the form may not be completely filled at the end of the hour period.

e. Inbound and Outbound - Circle the appropriate word, depending on whether inbound or outbound traffic is being interviewed. Caution: Each interview sheet can be used for interviewing one direction only. If you are directed to interview travel in the opposite direction, you must remember to start a fresh interview form.

The heading items listed above must be completed on every interview form.

f. Column 1, Serial Number - Make no entry. The coder will number your interview sequentially within each hour period.

g. Column 2, Vehicle Type - From the list at the bottom of the external trip report, enter the number which describes the type of vehicle being interviewed. A drawing showing vehicle types by code is shown in Appendix B-7. Passenger cars, station wagons, carryalls, ambulances and jeeps bearing Wisconsin license plates should be coded "1". All similar vehicles not bearing Wisconsin license plates should be coded "2". Any single-unit truck will be coded according to the number of axles and/or tires. All combination units will be coded "6". A tractor type truck, not pulling a semi-trailer or trailer is to be classified as a single unit truck. Passenger cars with trailers are to be considered only as passenger cars and are to be recorded as one vehicle. Pick-up and panel trucks pulling small trailers are classed as single trucks. No distinction is made between local and foreign commercial vehicles. No buses will be stopped for interview during this study.

h. Column 3, Number of Occupants - Count all persons in the vehicle, including the driver and infants, and enter this total in the space provided. Record this information for all vehicles interviewed, or all those which you attempt to interview, regardless of type. If a driver refuses to be interviewed, so note, and then run a line across the remaining columns. For nine or more persons, enter the number "9".

i. Columns 4 and 6, Where Did This Trip Begin (Origin)? Where Will This Trip End (Destination)? - The origin of a trip is where the driver started the trip which crosses the cordon line. It would be the address of his home (if he just left home), the address of a store (if he had just been shopping), or the address of his place of business or work (if he had just come from work), etc. The destination is where the driver is going and not necessarily where he will park the car. Do not include stops for gas or roadside relief as an origin or destination.

There is one exception: For trips beginning or ending outside the state of Wisconsin, the trip origin is the original point of departure and the destination is the final point of arrival. For example: a trip from New York to Seattle with an overnight stop in the Region should be recorded as having its origin in New York and destination in Seattle, with an intermediate stop (overnight) in Milwaukee. As another example: a driver is on vacation from California, but his trip for the day started in Des Moines. The interviewer, nevertheless, lists the driver's origin as his home in California.

However, if a driver enters or leaves the Region through a station which is not on the normal route of the indicated trip, ascertain, if possible, the name of the place that caused him to change his normal route and record that place as the origin or destination, as the case may be, instead of the original starting place or final destination. For instance: a driver entering the Region from the west gives Chicago as the place where his trip began, and it is learned that he went to Madison before coming in to the Region, record the origin as Madison, rather than Chicago.

In the case of a round trip, as when a family is out for a drive, record it as a one-way trip between the starting point and the furthermost point of the trip. Which of these points is the origin and which is the destination will depend upon whether the driver is leaving or returning to the starting point.

The origin and destination of a trip are never at the same place. For example: a driver enters Milwaukee from his home outside the Region, proceeds downtown to shop and then returns home. If recording the inbound trip, the origin is the location of his home and the destination is the principal place in Milwaukee where he plans to shop. If recording the outbound trip, the origin is the principal place in Milwaukee where he shopped and the destination is the location of his home.

For those origins or destinations inside the Region, the exact street address and the name of the city, town or village is most desirable. However, noting a well-known firm or building, a street intersection, or some definite identification (along with the city, village or town) is satisfactory. Care must be taken when recording a street name to make certain that the proper prefix (N., S., E., or W.) is given, so that it can be coded to the correct zone. Care must also be taken when recording a street name to ascertain, if at all possible, whether it is a Street (St.), Avenue (Ave.), Court (Ct.), Drive (Dr.), or Road (Rd.), etc. There are cases of streets with the same name except for the difference in designation. These streets can be located by the coders in the appropriate quarter-section only if properly recorded by the interviewer.

Care must be taken to determine the exact location when a well-known firm name is given as the origin or destination, since many of these firms have more than one location. For example: Kroger Stores, A and P Stores, Walgreen Stores (over 20 stores), and others must be carefully identified.

When a specific address is unknown, indicate the name and side of the street and its position relative to the nearest intersection, such as "south side of W. Wisconsin Ave., between Third St. and Fourth St.", or in the case of a rural location, "3/4 mile north of intersection C.T.H. 'K' and Norwegian Rd.". As previously stated, use the firm, building or business name if the place is well-known. Small stores, taverns, eating places, garages, among others, should be addressed by street location whenever possible, since it is often difficult to locate these properly when only the name is given.

For nearby places outside the Region (outside Wisconsin) enter detailed information, as was done for places within the Region. For places outside the Region (but inside Wisconsin) enter the name of city, town or village and county--or if rural, the highway number and distance from the nearest city, town or village. For places outside Wisconsin, the name of the municipality, county, and state should be entered.

NOTE: Interviewers must obtain specific information or the interview cannot be used.

A uniform procedure should be used to obtain information on origins and destinations. When trying to find out origins it is suggested that the interviewer ask: "Where did you come from back that way?" (pointing in the direction from which the vehicle has come).

To get information on destinations, the interviewer should point in the direction which the vehicle is headed and ask: "Where are you going in this direction?" This is a clear, simple, and concise way of stating the question and should produce the desired results. THE INFORMATION DESIRED IS THE ORIGIN AND DESTINATION OF THE DRIVER, NOT THAT OF THE PASSENGERS.

j. Columns 5 and 8, Land Use - Land use refers specifically to the type of establishment or kind of place at which a trip begins or ends. A question, "From what type of place did this trip start?" or "From what kind of establishment did this trip start?" or "At what type of place will this trip end?" or "At what kind of establishment will this trip end?" should obtain the information needed.

In some cases, such as trips starting from home, the answer to the kind of land use at the origin is self-evident (residential). Always ask, however, if there is any doubt.

Examples of land use include:

Residential	Hardware Store
Services (insurance & real estate)	Bank
	Office
Manufacturing Industry	Government Buildings
Transportation	Wholesale and Storage
Restaurant	Recreational Area
Department Store	Institutions

The general uses listed on page 14 are not adequate for reporting. Be sure to include the type of store, office, manufacturing plant, etc. If there is any doubt, get the name of the store, office, building, etc.

k. Columns 6 and 9, Trip Purpose - Great care should be taken to get the major purpose for each trip recorded.

From the lists at the bottom, enter the number which describes the major purpose for making the trip. The purpose of a trip is usually the objective toward which the driver is headed; for example, "work", "home", etc.

NOTE: There are three lists at the bottom of Form T3-E-1 which pertain to columns 6, 9, and 12. Two of the lists are under "Passenger Transportation" and the third list is under "Truck Transportation".

The "Trip Purpose"--The passenger transportation list should be used in choosing the trip purpose codes to be entered in columns 6 and 9 for all trips, other than trucks, which have an origin or destination in the Region.

The "Stop Purpose"--The passenger transportation list should be used in choosing the trip purpose codes and be entered in column 12 for all through trips, other than trucks, which have an intermediate stop in the Region.

The truck transportation list should be used in choosing the trip purpose and local stop purpose codes to be entered in columns 6, 9, and 12 for all truck trips.

Be sure to use the appropriate list for each type of vehicle interviewed. A brief discussion of each purpose shown in the three lists is given below:

l. Columns 6 and 9, Trip Purpose (Passenger Transportation)

Code 1 - WORK - The major occupation of a person is classified as "Work". Most persons have a fixed place of employment. Trips made in the course of a person's work are classified as a "Work" purpose.

Code 2 - PERSONAL BUSINESS - Refers to trips made to transact personal business where no goods are involved but only services, such as trips to the bank, the barber or beauty shop, to pay a bill, or obtain repairs. Include trips for legal consultation and trips to church services. A trip to a hospital to visit a friend or relative is a social trip, and a trip made by a doctor to see a patient is a work trip.

Code 3 - MEDICAL-DENTAL - Refers to trips made for consultation about health with doctors, dentists, etc. and does not refer to trips made by doctors to see patients, which should be classed as "Work".

Code 4 - SCHOOL - Refers to trips by students to school. Trips by teachers or school employees are to "Work". Trips to school dances are social, and trips to sporting events are recreation.

Code 5 - SOCIAL AND EAT MEAL - Refers to trips where no business is transacted or no personal business is involved; such trips are instead for social purposes or to eat a meal. This category includes trips made to social meetings, lectures, for cultural purposes--as well as trips to attend parties, to visit friends, or to eat lunch.

Code 6 - CHANGE TRAVEL MODE - Refers to a change in the mode of transportation and applies to that portion of the trip necessary to reach the point where a change in means of travel occurs.

For example: a person is stopped at an interview station who is driving his auto to a railroad station where he will park his auto and take a train to Chicago. The external survey is concerned only with the trip by auto, the purpose of which would be to "Change Mode of Travel".

Code 7 - SERVE PASSENGER - Refers to a driver taking a passenger to a specific location where he will drop him off. It would include such trips as a wife driving the husband to the bus stop or to work; the mother driving the children to school, etc.

Code 8 - SHOPPING - Refers to trips made for the purpose of shopping for goods or the purchase of goods. This will include shopping at establishments where merchandise is sold.

Code 9 - RECREATION - Refers to trips made for the purpose of recreation. It would include golfing, ball games, movies, vacations, etc.

Code 0 - HOME - Refers to a driver going to or leaving his place of residence.

m. Column 12, Local Stop Purpose (Passenger Transportation)

Code 1 - WORK - Refers to the stopping at a location to perform some work or carry on business in relation to his work (Such as a salesman stopping to talk with a client).

Code 2 - SHOPPING - Refers to stop made for the purpose of shopping for goods or the purchase of goods.

Code 3 - RECREATION - Refers to a stop where no business is transacted (see explanation Col. 6, Code 9).

Code 4 - PERSONAL BUSINESS - Refers to a stop to transact personal business where no goods are involved (see explanation Col. 6, Code 2).

Code 5 - EAT MEAL - Refers to a stop for the eating of a meal or light lunch.

Code 6 - VEHICLE SERVICE - Refers to stopping for any service for the vehicle (gas, oil, flat tire, etc.).

Code 7 - OVERNIGHT - Refers to stopping for the night at a hotel or motel.

n. Columns 6, 9, and 12, Trip and Stop Purpose for Trucks

Code 1 - PICK UP GOODS - Refers to trips made for picking up tangible goods or products.

Code 2 - DELIVER GOODS - Refers to trips made for delivery of tangible goods or products.

Code 3 - PICK UP AND DELIVER GOODS - Refers to trips made for the purpose of picking up and delivering tangible goods or products at the same address.

Code 4 - OTHER WORK-CONNECTED BUSINESS - Refers to trips made for other work-connected business. (This would include: for the purpose of making sales or promotional calls, delivering or picking up invoices, orders, among others.)

Code 5 - TO BASE OF OPERATIONS - Refers to trips made for the major purpose of getting to the truck's usual base of operations.

Code 6 - PERSONAL BUSINESS - Refers to all trips not a part of the regular business for which the truck is used; that is, for the purely personal business of the driver. Also includes driver stops to rest, eat, service truck, etc.

An example might be a laundry truck driver using his truck to go to the dentist, lawyer, bank, etc. This trip purpose also applies where the truck's usual base of operations is the driver's home, but where the truck was used on this particular trip for personal business only.

Code 7 - SERVICE - Refers to all trips where the driver of the truck is going to perform a service. It would include such persons as TV repairmen, painters, plumbers, wrecker service, etc.

o. Column 10, Where Is This Vehicle Garaged Overnight? - To coordinate data obtained in the external survey with pertinent data from the internal survey, it is necessary to know where the vehicle is garaged overnight.

When the address of the vehicle's garage corresponds with either the origin or destination, circle the O or D under column 10. If other than the origin or destination, write in the correct address.

For vehicles garaged outside of the Region; the name of the city, village, or town; the county; and the state should be recorded.

A few vehicles may be encountered which have no fixed base (permanent garaging address). In such cases, the words "on the road" or "on the job" should be written in.

NOTE: Columns 11 and 12 refer to through trips only; that is, to trips that have both origin and destination outside the Region. If the vehicle is not making a through trip, answers to these questions are not required.

p. Column 11, Route Exit or Entrance - For an inbound vehicle, this item refers to the route by which the driver intends to **leave** the Region. For an outbound vehicle, it refers to the route by which it entered the Region. Describe the route by the number or a commonly used name. In some cases a route number or letter alone is ambiguous. For example: U. S. 14 crosses the Region boundary at two places not far apart; a county trunk highway letter may be duplicated in other counties. Be specific.

q. Column 12, Local Stop Purpose - See previous explanation (Col. 11 above).

r. Column 13, Trucks Only-Commodity - Finally, for trucks only, determine what is being carried in the truck. Sometimes visual inspection will give the answer; other times, it may be necessary to ask the driver of the truck, "Is your truck empty or loaded?" and, if empty, write "Empty"; but if it has a cargo, ask the driver, "What are you hauling?" Get as much information on the load as possible.

3. The Completed Interview

At the end of each hour, the interview forms will be collected by the party chief who will review them and make any necessary corrections; then he will place them in a labeled folder for submission to the study's main office.

Review of interview forms by the party chief will be very strict. "Is the form complete, accurate, and legible?" The party chief will insist that the answer to this question be affirmative. If an interviewer cannot produce good results consistently, he may have to be replaced.

B. TRAFFIC CLASSIFICATION COUNT FORM

1. General

This form, T3-E-2, Appendix C-2, is designed to be filled out in part by the classifier in the field and in part by the lead editor after receipt in the office.

2. Specific Instructions for Classifiers

a. Heading - Complete the entries as indicated.

b. Hour Begin., Column A - Enter the hour period for the beginning of the hour. (For the hour period 6 - 7 A.M. the proper entry would be "6".) Be sure to check the box in the heading indicating the proper shift.

c. Local (Wisconsin) Passenger Cars - Passenger cars carrying a Wisconsin license plate should be entered in columns B, C, or D. Passenger cars with trailers are to be considered only as passenger cars and are to be recorded as one vehicle. Station wagons, jeeps, taxis, hearses, and ambulances are also to be considered as passenger cars.

SMALL, COLUMN B - Small cars will consist mostly of the foreign makes. The Rambler American and Volkswagon (sedans) will fall into this class.

COMPACT, COLUMN C - The compact cars will consist of the American compact cars, most of the Mercedes-Benz models and some other medium size foreign makes. The Comet, Lark, Rambler, Falcon, Valiant, Corvair, Volkswagon bus, Jeep, Chevy II and Nova are included in this group.

REGULAR, COLUMN D - The regular cars will consist of all large cars. The Corvette, Thunderbird, and Ambassador belong to this class. The large, powerful sports cars such as the Jaguar will also be classified as regular cars.

d. Foreign (Non Wisconsin) Passenger Cars - Any passenger cars which do not carry a Wisconsin license plate, including government owned cars, are to be entered in columns E, F, or G.

SMALL, COLUMN E - Small cars will consist mostly of the foreign makes. The Rambler American and Volkswagon (sedans) will fall into this class.

COMPACT, COLUMN C - The compact cars will consist of the American compact cars, most of the Mercedes-Benz models and some other medium size foreign makes. The Comet, Lark, Rambler, Falcon, Valiant, Corvair, Volkswagon bus, Jeep, Chevy II and Nova are included in this group.

REGULAR, COLUMN D - The regular cars will consist of all large cars. The Corvette, Thunderbird, and Ambassador belong to this class. The large, powerful sports cars such as the Jaguar will also be classified as regular cars.

e. Taxi, Column H - Enter in this column all commercial taxicabs and similar vehicles such as airport limousines.

f. Total Passenger Cars - The total of columns B through H will be entered by office personnel.

g. Trucks - Commercial Vehicles - Use columns J, K, L, and M for these entries.

PICK-UP OR PANEL, SINGLE UNIT, SINGLE TIRE, COLUMN J - This includes any light, single unit truck of the local delivery class, with single tires on the rear. Also included are madeover passenger cars used for trucking and which carry a commercial license, Volkswagon delivery or pick-up station wagons and cars used for delivery. Small trailers pulled by pick-up

or panel trucks are not counted. Only the towing vehicle is counted and included in Col. J.

DUAL TIRE, SINGLE UNITS, COLUMN K - This includes any single unit, two-axle truck with dual tires in the rear. A tractor type truck, not pulling a semi-trailer or trailer is to be included in this column also.

3 AXLE, SINGLE UNITS, COLUMN L - This includes any single unit truck with three axles.

COMBINATIONS, COLUMN M - This includes any tractor type truck pulling a semi-trailer, trailer, or any combination thereof; also any other heavy truck pulling a trailer, such as a dump truck with trailer.

h. Buses - Commercial Vehicles - Use columns N, O, and P for these entries.

REGULAR COMMON CARRIER, COLUMN N - This will include all buses of the common carrier type, whether chartered or on a regular run. Greyhound buses are an example of this type.

CITY, COLUMN O - This will include all buses of the type used by the Milwaukee Transport Company and Wisconsin Coach Lines.

SCHOOL, COLUMN P - Enter the count of all school buses.

i. Total Commercial Vehicles, Column Q - The total of columns N, O, and P will be entered by office personnel.

j. Total All Vehicles, Column R - The total of columns I and Q will be entered by office personnel.

3. The Completed Classification Count

Manual classification counters will be responsible to the party chief and should give him the completed forms at the end of each shift. A recording machine counter will be operated at each interview station for a period including the shift operation. The machine record thus obtained will be compared to the counter's vehicular totals, by hours, to check any gross inaccuracies. It should be noted that the road tube counters record only axle crossings. They have inherent errors due to multi-axle vehicles, simultaneous impacts, and other reasons. A good manual count is generally more accurate than a machine count.

Part IV

THE EXTERNAL SURVEY - WORK CONTROL AND REPORTS

A. GENERAL INSTRUCTIONS FOR CONTROL OF COMPLETED TRIP REPORTS

Great care and expense has been expended to obtain travel information concerning vehicles entering and leaving the survey area. In order that maximum results may be obtained, in terms of formulating a future transportation plan, extreme care must be exercised in the handling of the completed trip reports so that important data will not be lost or misplaced.

It is essential to efficient operation that the procedures outlined in Section B below be followed closely to insure that completed trip reports are accounted for at all times.

B. PROCESSING COMPLETED TRIP REPORTS

1. As explained in "Duties of Party Chief", the party chief will review the completed interviews at the end of each hour period. Any corrections, additions, etc. made by the party chief will be entered in red pencil. Upon completing his review, the party chief will place a page number on each interview form. Page numbering will be consecutive by interviewer, by trip direction, by hour period and will be consecutive for all interview forms completed at each external station. Finally, the party chief will place the interview forms for the hour in a file folder labeled by hour, date and station number.

2. At the end of a shift the party chief will place the completed manual count sheet and the completed daily time record in the first hour's folder.

3. As soon as possible, after the shift, the party chief will turn in the completed trip reports to the external survey supervisor (traffic operations engineer).

4. While awaiting office review, the folders containing the completed interviews for a particular 7-hour shift will be placed in a properly labeled portfolio which in turn will be placed in a file drawer labeled "External Survey--Completed Trip Reports to be Reviewed".

5. When the automatic traffic recorder tape is turned in, it will be placed in the applicable first hour's envelope.

6. As soon as possible, the external survey supervisor or the external survey lead editor will review the completed interview forms, traffic classification count forms, and recorder tapes for errors, omissions, and/or inconsistencies. He will have to check the page numbering on all interview forms. Page numbering must be consecutive by interviewer, by direction and by hourly period. All marks made by office personnel on the trip report forms shall be in purple pencil.

At this point the interview forms will be ready to be processed by the external survey lead editor.

7. The external survey lead editor will begin the computation and summarization

necessary for expeditious processing of the completed interview forms. He will work with one portfolio at a time. Each portfolio contains interview forms for one shift at one external station.

8. The classification count form, T3-E-2, will be completed by totaling all lines and columns. The recorder tapes will be summarized on the traffic record machine count form, T3-E-4. The tape will be stapled to the back of this form.

9. On each interview form he will circle the word Origin at the top of columns 4, 5, and 6 on all "Outbound" sheets and circle the word Destination at the top of columns 7, 8, and 9 on all "Inbound" sheets. At the top of column 11, the word "Exit" will be lined out on all "Outbound" interview forms and the word "Entrance" will be lined out on all "Inbound" interview forms.

10. He will complete the headings on two summary of external interviews forms, Appendix C-10, one for inbound and one for outbound. The 24-hour traffic volume will be obtained from the traffic record - machine count form, T3-E-4. "Sample: ____" refers to the sample percent for code #1 and code #8 vehicles which will be determined from the following table:

24-Hour Traffic Volume	Sample Percent
less than 2000	50
2000 - 3000	33
3001 - 5000	25
5001 - 10000	20
over 10000	10

The sample percent for all other vehicle codes, 2 through 6, will always be 100 percent.

11. Using a hand tally counter, he will determine for each hour the total interviews in each of the six vehicle codes for each travel direction. The classification count and the total number of interviews for each vehicle code will be entered in the appropriate columns on the summary of external interviews form.

12. The completed classification count form, traffic record - machine count form, and summary of external interviews form will be placed in the general external station folder which in turn will be placed in the file labeled "Station Folders".

13. All interview folders will be placed in their portfolio, and the portfolio will then be placed in a file labeled "External Survey - Completed Trip Reports to be Edited". At this point the interview forms and accompanying data will be ready for further processing by the external survey editors.

14. In general, the external survey editors will go through each of the completed "External Trip Reports", check for accuracy, and delete the interviews that are incomplete. Further, they will indicate which interviews will be coded as explained in the following paragraphs. All editors' marks made on trip report forms shall be made with purple pencil.

15. Procedures for vehicle codes 1 and 8. (These are described separately from the procedures for vehicle codes 2 through 6. No code 7 vehicles will be interviewed.) Working from the summary of external interviews forms and the external trip reports for one hour periods in one direction, the number of interviews to be indicated for coding will be determined as follows:

Total to be coded = Sample percent X classification count

The sample multiplier will be determined as follows:

$$\text{Multiplier} = \frac{\text{100 Percent}}{\text{Sample Percent}}$$

The "Total to be Coded" and the "Multiplier" will be entered in the appropriate column on the summary of external interviews form. The number of interviews to be coded, times the multiplier, equals the expanded sample for each vehicle code. This is entered in the column headed "Code Expanded". This approximates the classification count.

Total to be coded X multiplier = "Code Expanded" (approximately equals classification count)

16. The fraction of interviews to be coded will be determined as follows:

$$\text{Fraction to be coded} = \frac{\text{Total to be coded}}{\text{Total interviews}}$$

When rounded off to the nearest simple fraction, this fraction will be used as a guide in selecting interviews to be coded. For example: a fraction of one-third indicates that every third "code 1" interview should be examined; that is, pick one, skip two, pick one, etc. The interviews thus selected are indicated by placing a small purple check mark in the left hand column.

17. The chosen interviews will then be edited. If the interview is satisfactory for coding (that is, accurate and complete in all respects), this will be indicated by placing the interview form page number, found in the upper right hand corner, in the serial number box, column 1. When page numbers exceed 999, a letter will be substituted for the first two digits of a four digit page number; A for 10, B for 11, etc. Thus 1024 is coded A24. Page 1146 is coded B46. The multiplier for that trip will be entered in the right hand margin. If the interview is unsatisfactory for coding, it will be lined out with purple pencil. Another nearby interview will be chosen and the editing process repeated. The number of interviews indicated for coding on the interview forms will be checked to insure that it corresponds with the total to be coded as shown on the summary of external interviews form.

18. Procedures for vehicle codes 2, 3, 4, 5, and 6 are the same for each of these codes. The following description uses vehicle code 2 as an example.

Working from the summary of external interviews form and the interview report forms for a one hour period for one direction, all interviews for vehicle code 2 will be edited. Satisfactory interviews will be checked in purple pencil. Unsatisfactory interviews will be lined out with purple pencil.

19. The number of satisfactory interviews will be counted and divided into the classification count total for the same code. This will determine the multiplier for this code, comparable to that described in paragraph 15 above. The multiplier

will be rounded off to one of the following six numbers: 1, 2, 3, 4, 5, or 10. The product of this multiplier and the sample to be coded should approximate the classification count. Since the choice of multiplier is limited, a few of the satisfactory interviews may not be used in order that the expanded sample for each code will more closely compare with the classification count.

20. In the vehicle code 2 sample column of the summary of interviews form, a fraction will be entered consisting of the number of interviews to be coded (numerator) over the total number of satisfactory interviews (denominator). The number of interviews to be coded and the multiplier, in parentheses, will be entered in the "Tot. Code (Mult)" column. The expanded sample will be computed and entered in the last column for code 2.

21. The interviews to be coded will be indicated by placing the interview form page number in the serial box, column 1, and by entering the multiplier in the right hand margin. This is the same procedure as described for code 1.

Codes 3 through 6 are processed in like manner.

22. As each hour period is completed, the total classification count (CC) and the code expanded (CE) for all vehicle codes will be entered in the column provided on the summary of external interviews form. The total CC and the total CE should compare closely. If not, it may be necessary to adjust the number of interviews to be coded and/or change the multiplier for a particular vehicle code.

23. When the editing has been completed for the 7-hour interview period at a particular station, the interview forms will be returned to the portfolio, and the portfolio will be placed in a file labeled "External Survey--Edited Trip Reports to be Transmitted". The completed summary of external interviews form will be returned to the station folder, and the station folder will be placed in a file labeled "Station Folders".

24. The processed and edited external trip reports are batched for transmittal to the coding section. A batch consists of one day's work for one external interview station and in most cases a portfolio will contain one batch. An interview batch transmittal form, Form T6-21, will be prepared for each batch and attached to the front of the portfolio. This form, shown in Appendix C-11, is used for internal surveys as well as for the external survey. When used for the external survey, the following modifications are made: in column 1 enter the beginning hour for each hourly period; in column 4 the number of inbound interviews to be coded; in column 5 the number of outbound interviews to be coded; in column 6 the total to be coded; in column 7 the total number of interviews made. Columns to the right of this are not filled in by survey or editing personnel.

25. When several batches are ready to be sent to the coding section, a batch receipt, listing each batch by interview station number and date of transmittal, will be filled out. The coding supervisor will sign the receipt when the batches of trip reports are turned over to the coding section.

C. WORK REPORTS AND CONTROL FORMS

1. Form T3-E-5, External Survey, Weekly Progress Report

Form T3-E-5, Appendix C-5 is the weekly progress report of the external

cordon survey. This report shows the number of stations operated, the number of man hours worked by each type of crew member, the number of vehicles passing and the number of drivers interviewed, the number of drivers interviewed per man-hour, and number of drivers interviewed per interviewer per hour. Totals for the week and cumulative totals to date are shown.

This report is to be prepared not later than Friday of the week following the report week.

A monthly progress report will be prepared in the same format.

2. Form T3-E-8, External Survey, Daily Time Record

Form T3-E-8, Appendix C-9, is the daily time report for the external survey crew members. This report will be completed daily by the party chief and submitted to the external survey supervisor. All external survey crew members temporarily assigned to traffic studies will be included on this report.

Under the column "Classification of Work" it will not be necessary for the party chief to enter the code. A description of the work performed by each man listed will be sufficient. The actual work code will be entered by office personnel.

This form will be used to prepare weekly the attendance record.

Part V

LICENSE PLATE CHECK AT INTERNAL CORDONS

A license plate check will be conducted in conjunction with the post card survey at two smaller communities in the study area; Hartland and Union Grove (see Map 1). The purpose of this check will be to provide a means of separating the through trips from trips having an origin or destination in each community. The check will be accomplished by stationing observers with synchronized time pieces at selected points of exit and entry. Each observer will chronologically record the last three digits of each license number as vehicles enter or leave the community past his station. In addition, the licensing state will be noted for out-of-state vehicles and truck license numbers will be indicated with a "T". License numbers will be grouped for each 15 minute period by underlining the last entry in each period.

Analysis of the license plate data will be completed in the office using Form T3-G25, Appendix C-12. For a particular through route, license numbers of inbound vehicles will be compared with license numbers of outbound vehicles. If the license number appears on the outbound record no later than 30 minutes after the end of the 15 minute period within which it was recorded by the inbound observer, it will be considered a through trip.

All other outbound trips will be treated as originating inside the village. All other inbound trips will be treated as having destinations in the village.

This data (that is, origins and destinations) may then be compared with the expanded post card O - D survey data for a screen line check.

TS-5+ Rev.
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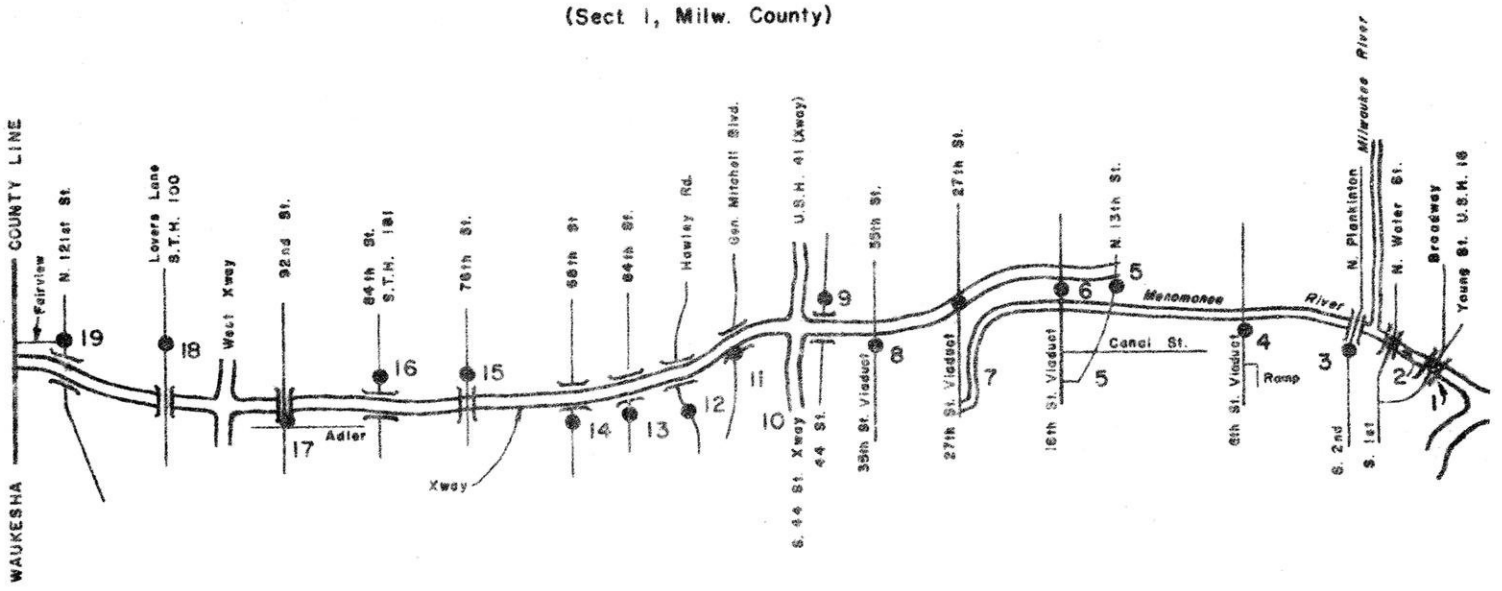
3-20-63

Appendix A

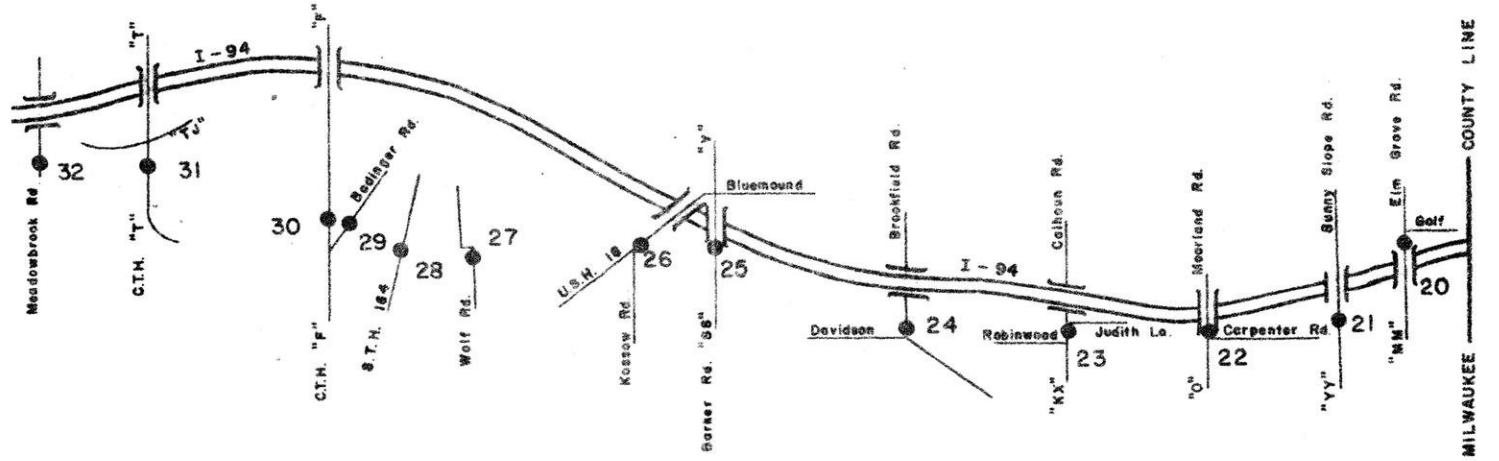
SCREEN LINES

MILWAUKEE SCREEN LINE

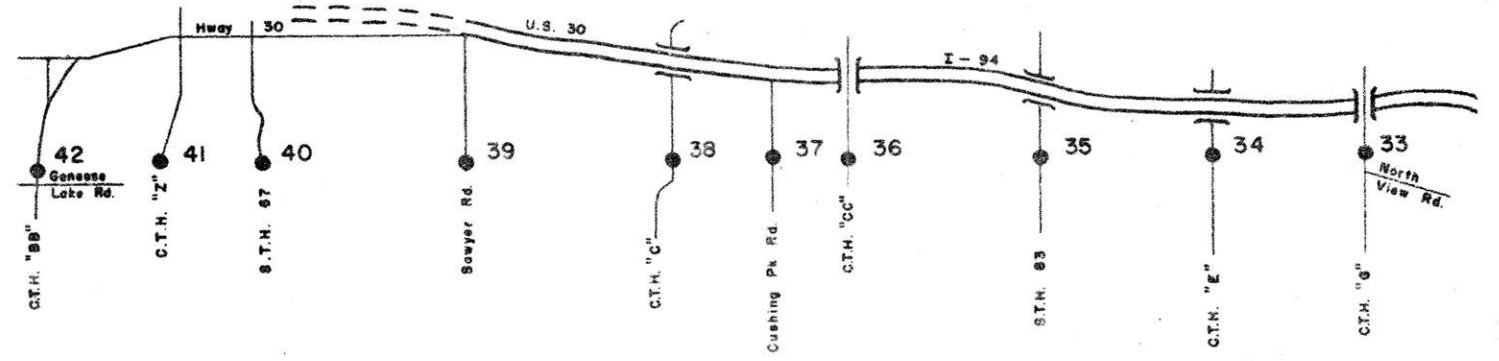
(Sect. 1, Milw. County)



(Sect. 2, Eastern Waukesha County)



(Sect. 3, Western Waukesha County)



N

No Scale

S E W R P C
TRANSPORTATION STUDY

Milwaukee Screen Line

Section 1, Milwaukee County

Sta. No.	Street or Highway	Location	Counts Pre-1963	Counts-1963 City-3/12/63 SEWRPC-4/
1	(U.S. 16) Broadway Bridge (Young St.)	Over Milwaukee River	('62 AADT) 24,865	City: 23,560 SEWRPC:
2	Water St. Bridge	Over Milwaukee River	('62 AADT) 14,313	City: 14,457 SEWRPC:
3	S. 2nd St.	400 ' + S. of Plankinton Bridge	('62 AADT) 14,629	City: 14,010 SEWRPC:
4	6th St. Viaduct	N. of Ramp in Middle of Viad.	('62 AADT) 25,331	
5	N. 13th St. Bridge	Just N. of Bridge Over Canal	(7/18/62) 5,329	
6	16th St. Viaduct	150' + S. of W. Clybourn St. (at Xway)	('62 AADT) 22,018	City: 20,745 SEWRPC:
7	27th St. Viaduct	150' + S. of W. St. Paul Ave. (at Xway)	('62 AADT) 25,888	City: 22,769 SEWRPC:
8	35th St. Viaduct	300' + S. of Park Hill (S. of Xway)	('62 AADT) 21,582	City: 19,355 SEWRPC:
9	S. 44th St. (Local St.)	N. of Parking Lot N. of Xway Bridges	(7/27/60) 10,479 no game	
10	S. 44th St. Xway (U.S. 41)	S. of Interchange with I-94, N. of Ramps to & from Stadium	(11/62) 26,100	
11	Gen. Mitchell Blvd.	Just S. of I-94 (Xway)	5,112-24 hr. 4,611-12/14/61-ballgame	
12	S. Hawley Rd.	S. of On Ramp to I-94, N. of S. Hawley Ct.	(7/22/60) 13,903	
13	S. 64th St.	at I-94 Bridge		
14	S. 68th St.	S. of I-94, N. of Dixon	(6/29/62) 18,928	
15	S. 76th St.	at I-94 (Xway)	(9/10/59) 12,547	
16	S. 84th St.-S.T.H. 181	N. of Relocated Adler	(4/23/62) 15,259	
17	S. 92nd St.	at I-94, N. of Adler	(1/29/63) 4,844	
18	Lovers Lane Rd.-S.T.H. 100	0.3 Mi. S. of U.S. 16-18 N. of Ramps to I-94	29,640	
19	S. 121st St. (Curtis Rd.)	Just N. of W. Fairview		

S E W R P C
TRANSPORTATION STUDY

Milwaukee Screen Line

Section 2, Eastern Waukesha County

Sta. No.	Street or Highway	Location	Counts Pre-1963	Counts 1963
20	Elm Grove Rd.-C.T.H. "MM"	0.35 Mi. S. of S.T.H.30 Just S. of Golf Pkwy.	1,890	
21	Sunny Slope Rd.-C.T.H."YY"	0.85 Mi. S. of S.T.H.30 (S. of I-94) 450' N. of Kinsey's Park Dr.	2,895	
22	Moorland Rd.-C.T.H. "O"	Just S. of I-94, N. of Carpenter Rd.	1,380	
23	Calhoun Rd.-C.T.H. "KX"	0.8 Mi. S. of S.T.H.30 Betw. Judith La. & Robinwood La.	4,440	
24	Brookfield Rd.	0.75 Mi. S. of S.T.H.30 Just N. of Davidson Rd.	(4/62) 309	
25	Barker Rd.-C.T.H. "SS"	0.3 Mi. S. of Goerke's Corners N. of School	760	
26	U.S.H. 18	S.W. of I-94, Just E. of Kossow Rd.	9,600	
27	Wolf Rd.	0.5 Mi. S. of C.T.H. "JJ", Just S. of Jog		
28	S.T.H. 164	0.4 Mi. S. of C.T.H. "JJ", Just N. of Private Bridge over River	5,410	4,357 4,483
29	Badinger Rd.	150' N.E. of C.T.H."F"		527 556
30	C.T.H. "F"	300' N. of C.T.H."FT"	3,560	3,933 4,281
31	C.T.H. "T"	0.2 Mi. S. of C.T.H. "TJ"	4,160	3,676 3,944
32	Meadowbrook Rd.	0.65 Mi. S. of I-94, 2 Houses on E/S	240	193 252

S E W R P C
TRANSPORTATION STUDY

Milwaukee Screen Line

Section 3, Western Waukesha County

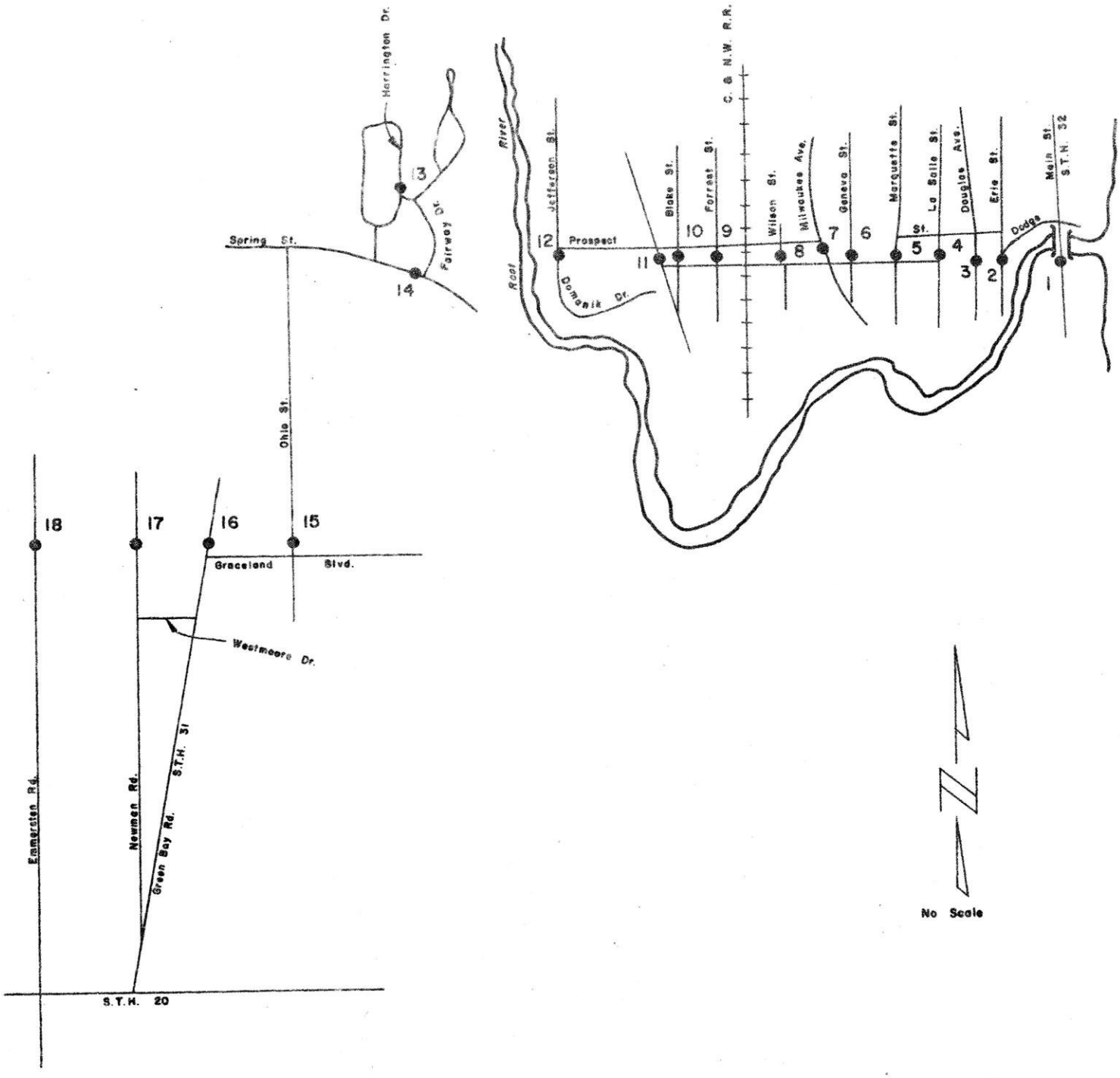
Sta. No.	Street or Highway	Location	Counts Pre-1963	Counts 1963
33	C.T.H. "G"	0.25 Mi. S. of I-94 Just N. of Northview Rd.	430	315 501
34	C.T.H. "E"	0.15 Mi. S. of S.T.H.30	230	224
35	S.T.H. 83	0.3 Mi. S. of S.T.H. 30	1,350	1,010
36	C.T.H. "CC"	0.5 Mi. S. of S.T.H. 30	475	179
37	Cushing Park Rd.	0.5 Mi. S. of S.T.H. 30	150	159
38	C.T.H. "C"	0.7 Mi. S. of S.T.H. 30	360	157
39	Sawyer Rd.	0.5 Mi. S. of S.T.H. 30	755	566
40	S.T.H. 67	0.4 Mi. S. of S.T.H. 30	940	1,176
41	C.T.H. "Z"	0.5 Mi. S. of S.T.H. 30	590	571
42	C.T.H. "BB"	0.8 Mi. S. of S.T.H. 30 Just N. of Genesee Lake Rd.	405	579

Milwaukee Screen Line Shift

Since the Region contains over 10,000 quarter sections and since the 1963 trip analysis zone size in the 100% Post Card Trip Survey area will not be less than four quarter sections, the coding supervisor has decided to code trip ends to sections in this area, rather than to quarter sections as in the Home Interview area in Milwaukee, Racine, and Kenosha. All land use information will still be coded to quarter sections throughout the Region, since the smaller size data collection unit permits more accurate aggregation of data for irregular areas.

This change in coding trip ends outside the Home Interview Survey area means that the Milwaukee Screen Line west of Station 37 (Cushing Park Road) had to be located on a section line so that crossings could be sorted by machine. Therefore, Stations 39 (Sawyer Rd.), 40 (S.T.H. 67), and 41 (C.T.H. "Z") were moved one-half mile south to the section line.

RACINE SCREEN LINE

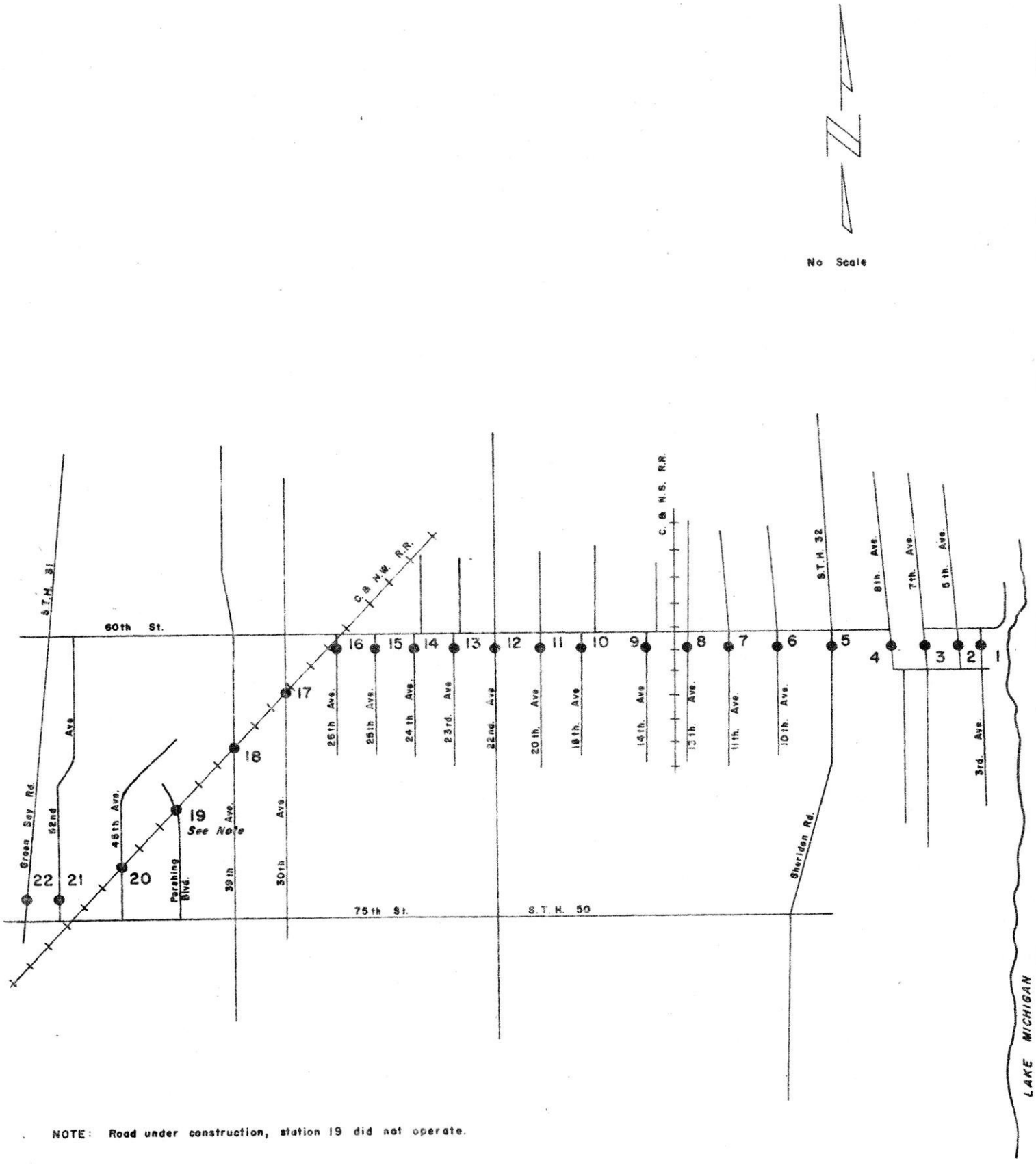


S E W R P C
TRANSPORTATION STUDY

Racine Screen Line

Sta. No.	Street or Highway	Location	Counts Pre-1963	Counts 1963
1	Main St.	S. of Root River Bridge	18,301	
2	Erie St.	S. of Dodge St.		
3	Douglas St.	S. of Prospect St.	5,193	
4	LaSalle St.	S. of Prospect St.		
5	Marquette St.	N. of West St.	8,573	
6	Geneva St.	N. of West St.		
7	Milwaukee Ave.	N. of West St.	5,776	
8	Wilson St.	N. of West St.		
9	Forest St.	N. of West St.	7,968	
10	Blake Ave.	N. of West St.		
11	State St. (Northwestern Ave.)	N. of West St.	8,139	
12	Jefferson St. (Domanik Dr.)	S. of Prospect St.		
13	Ravine Dr.	E. of Harrington Dr.		
14	Spring St.	W. of Fairway Dr.	4,858	
15	Ohio St.	N. of Graceland Blvd.		
16	Green Bay Rd. (S.T.H. 31)	N. of Graceland Blvd.	6,410	
17	Newman Rd.	0.1 Mi. N. of Westmore Dr.	1,695	
18	Emmertsen Rd.	0.5 Mi. N. of S.T.H.20	1,270	

KENOSHA SCREEN LINE



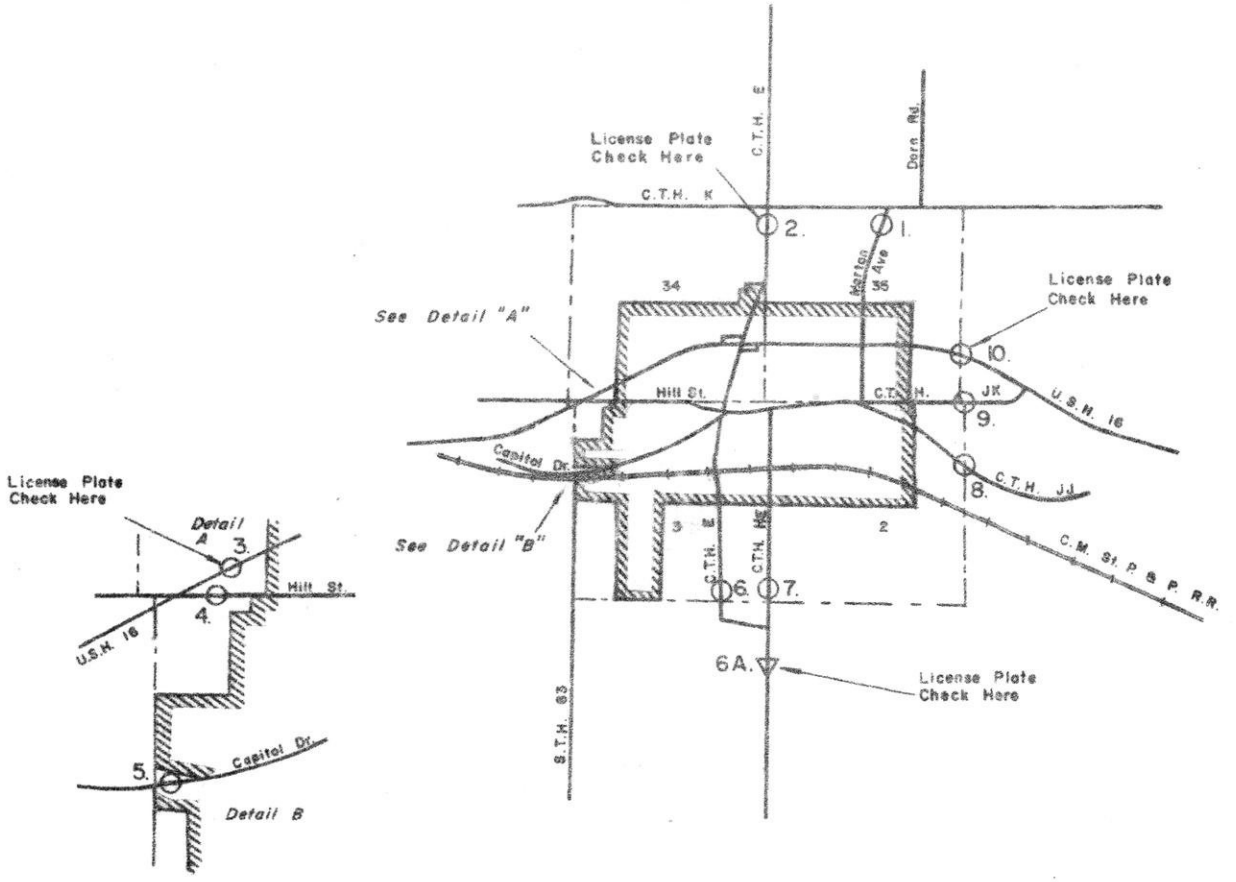
NOTE: Road under construction, station 19 did not operate.

S E W R P C
TRANSPORTATION STUDY

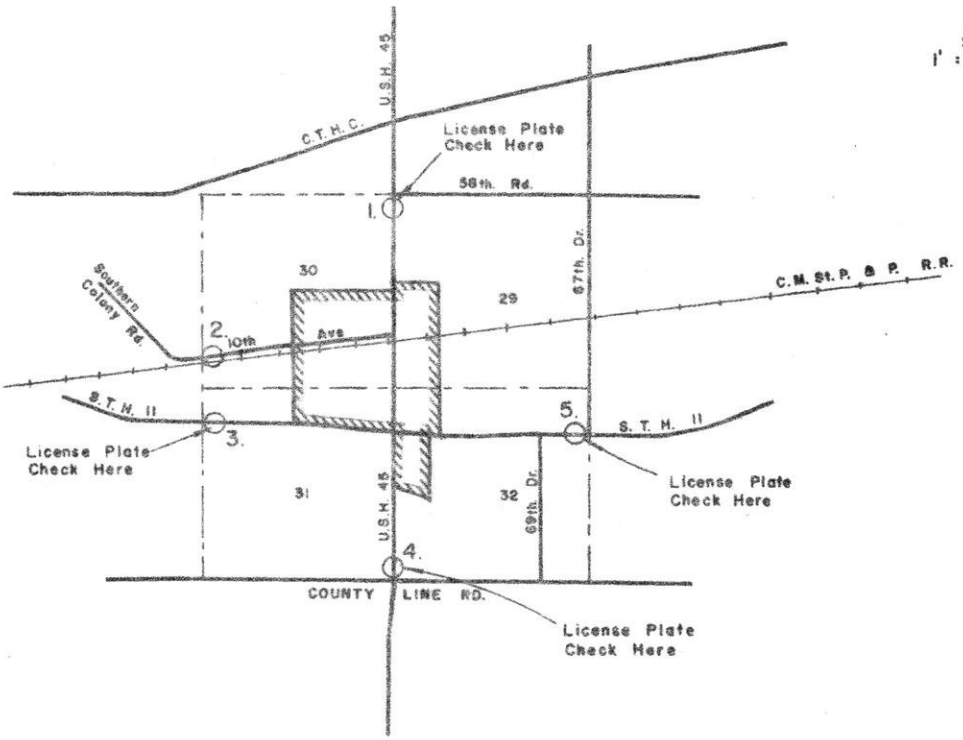
Kenosha Screen Line

Sta. No.	Road or Highway	Location	Counts Pre-1963	Counts 1963
1	3rd Ave.	S. of 60th St.		
2	5th Ave.	S. of 60th St.		
3	7th Ave.	S. of 60th St.	3,616	
4	8th Ave.	S. of 60th St.		
5	Sheridan Rd. (S.T.H. 32)	S. of 60th St.	15,540	
6	10th Ave	S. of 60th St.		
7	11th Ave.	S. of 60th St.		
8	13th Ave.	S. of 60th St.		
9	14th Ave.	S. of 60th St.		
10	18th Ave.	S. of 60th St.		
11	20th Ave.	S. of 60th St.		
12	22nd Ave.	S. of 60th St.	13,033	
13	23rd Ave.	S. of 60th St.		
14	24th Ave.	S. of 60th St.		
15	25th Ave.	S. of 60th St.		
16	26th Ave.	S. of 60th St.		
17	30th Ave.	@ C. & N.W. R.R.	10,060	
18	39th Ave.	@ C. & N.W. R.R.	± 8,000	
19	Pershing Blvd.	@ C. & N.W. R.R.		
20	45th Ave.	@ C. & N.W. R.R.		
21	52nd Ave.	N. of 75th St. (S.T.H. 50)	1,106	
22	Green Bay Rd. (S.T.H. 31)	N. of 75th St. (S.T.H. 50)		

HARTLAND INTERNAL CORDON LINE



UNION GROVE INTERNAL CORDON LINE



Scale
1" : 62,500

Dates of operation for Hartland Internal Cordon Line and Union Grove Internal Cordon Line, May 22, 23, 24, 27, 28, June 17, 18, 19, 20, 21.

III-E-13/75
WTW:bjc
4-22-63

S E W R P C
TRANSPORTATION STUDY

Union Grove Cordon Line

Sta. No.	Street or Highway	Location	Counts Pre-1963	Counts 1963
1	U.S.H. 45 (Main St.)	0.5 Mi. N. of 7th Ave. Just S. of 58th Rd.	3,310	
2	10th Ave.	1.0 Mi. W. of U.S.H.45		
3	S.T.H. 11 (15th Ave.)	0.5 Mi. W. of York St. 1.0 Mi. W. of U.S.H.45	2,460	
4	U.S.H. 45 (Main St.)	0.75 Mi. S. of S.T.H.11 Just N. of County Line Rd.	3,210	
5	S.T.H. 11 (15th Ave.)	0.5 Mi. E. of U.S.H.45 Just W. of 67th Dr.	1,880	

S E W R P C
TRANSPORTATION STUDY

Hartland Cordon Line

Sta. No.	Street or Highway	Location	Counts Pre-1963	Counts 1963
1	Merton Ave.	Just S. of C.T.H. K		
2	C.T.H. E	Just S. of C.T.H. K	1,600	
3	U.S.H. 16	Just E. of Hill St.	9,110	
4	Hill St.	Just E. of U.S.H. 16		
5	W. Capitol Dr.	Just E. of S.T.H. 83	1,790	
6	C.T.H. E	0.35 Mi. N.W. of C.T.H. HE		
7	C.T.H. HE	0.15 Mi. N. of C.T.H. E		
8	C.T.H. JJ	0.55 Mi. E. of Merton Ave.	525	
9	C.T.H. JK	0.5 Mi. E. of Merton Ave.		
10	U.S.H. 16	0.5 Mi. E. of Merton Ave.	9,300	

.C-54 Rev.
RBS:bjc
3-20-63

Appendix B

EXTERNAL SURVEY

S E W R P C
TRANSPORTATION STUDY

External Survey - Interview Stations

Sta. No.	Road or Highway & Location	AADT 1961	AADT 1963
1	U.S.H. 141 & S.T.H. 32 N.E. Ozaukee Co. 0.2 Mile S. of N. County Line (N. of Belgium)	3,800	
2	S.T.H. 57 N. Ozaukee Co. 0.2 Mile S. of N. County Line (N. of Fredonia)	2,870	
3	S.T.H. 144 & S.T.H. 28 N.E. Washington Co. 0.2 Mile S.W. of N. County Line (Boltonville)	990	
4	C.T.H. S N. Washington Co. 0.2 Mile S. of N. County Line (Kewaskum)	1,085	
5	U.S.H. 45 N. Washington Co. 0.2 Mile S. of N. County Line (Kewaskum)	710	
6	C.T.H. V N. Washington Co. @ N. County Line (Kewaskum)	780	
7	U.S.H. 41 & S.T.H. 28 N.W. Washington Co. 0.1 Mile S.E. of W. County Line (E. of Theresa Sta.)	7,020	
8	S.T.H. 175 N.W. Washington Co. 0.2 Mile S.W. of W. County Line (N.W. of Nenno)	620	
9	S.T.H. 33 N.W. Washington Co. 0.1 Mile E. of W. County Line (W. of Addison)	1,460	
10	C.T.H. N W. Washington Co. 0.2 Mile S.E. of W. County Line (N.W. of Hartford)	515	
11*	S.T.H. 60 W. Washington Co. 0.2 Mile E. of W. County Line (W. of Hartford)	1,580	
12	C.T.H. P N.W. Waukesha Co. 0.2 Mile S. of N. County Line (N. of Mapleton)	510	
13*	S.T.H. 67 N.W. Waukesha Co. 0.2 Mile S. of N. County Line (N. of Monterey)	1,010	
14	U.S.H. 16 W. Waukesha Co. 0.1 Mile E. of W. County Line (W. of Oconomowoc)	6,180	
15	S.T.H. 30 W. Waukesha Co. 0.1 Mile E. of W. County Line (W. of Summit Center)	4,560	
16	U.S.H. 18 W. Waukesha Co. 0.1 Mile E. of W. County Line (W. of Utica)	1,400	
17	U.S.H. 12 & S.T.H. 89 N.W. Walworth Co. 0.1 Mile S.E. of N. County Line (N.W. of Whitewater)	3,150	
18	C.T.H. S N.W. Walworth Co. 0.1 Mile E. of W. County Line (W. of Whitewater)	550	
19	S.T.H. 59 N.W. Walworth Co. 0.1 Mile E. of W. County Line (S.W. of Whitewater)	1,010	
20	C.T.H. A W. Walworth Co. 0.1 Mile E. of W. County Line (S.W. of Richmond)	900	
21	U.S.H. 14 & S.T.H. 11 W. Walworth Co. 0.1 Mile E. of W. County Line (W. of Delavan)	3,220	
22	S.T.H. 15 S.W. Walworth Co. 0.1 Mile E. of W. County Line (S.W. of Allens Grove)	2,670	

* Closed for construction during survey period.

Sta. No.	Road or Highway & Location	AADT 1961	AADT 1963
23	C.T.H. C S.W. Walworth Co. 0.2 Mile N. of S. County Line (Sharon)	575	
24	U.S.H. 14 S. Walworth Co. 0.1 Mile N. of S. County Line (S. of Walworth)	4,120	
25	S.T.H. 120 S.E. Walworth Co. 0.1 Mile N. of S. County Line (S.E. of Zenda)	1,660	
26	U.S.H. 12 S.E. Walworth Co. 0.1 Mile N. of S. County Line (E. of Genoa City)	3,790	
27	C.T.H. P S.W. Kenosha Co. 0.1 Mile N. of S. County Line (E. of Genoa City)	750	
28	Evans Rd. S. Kenosha Co. 0.2 Mile N. of S. County Line (S.W. of Trevor)	735	
29	S.T.H. 83 S. Kenosha Co. 0.2 Mile N. of S. County Line (E. of Trevor)	4,700	
30	U.S.H. 45 S. Kenosha Co. 0.2 mile N. of S. County Line (S. of Bristol)	2,760	
31	I-94 S. Kenosha Co. 0.2 Mile N. of S. County Line (S.W. of Pleasant Prairie)	14,880	
32	S.T.H. 31 S. E. Kenosha Co. 0.1 Mile N. of S. County Line (S.W. of Tobin)	4,150	
33	C.T.H. EZ S.E. Kenosha Co. 0.1 Mile N. of S. County Line (S.W. of Tobin)	2,770	
34	S.T.H. 32 S.E. Kenosha Co. 0.1 Mile N. of S. County Line (S.E. of Tobin)	5,890	

SOUTHEASTERN WISCONSIN PLANNING COMMISSION

REGIONAL

LAND USE - TRANSPORTATION STUDY

PRACTICE INTERVIEW #1 - EXTERNAL SURVEY
(For Training Purposes Only)

The following interview is being conducted at Station 21 on the inbound traffic lane on May 8, 1962, for the hour period from 7:00 A.M. to 8:00 A.M. The vehicle is a local passenger car with driver as the only occupant.

Interviewer: "Good Morning, (Sir, Madam), this is a Regional traffic survey." Then follow with the interview quickly before the driver can ask question.

Driver: "All right. Go ahead."

Interviewer: "Where did this trip begin?"

Driver: "From my home."

Interviewer: "Where is your home?"

Driver: "In Campbellsport."
(The origin of this trip has been determined, so enter 'Campbellsport' in column 4, "Where Did This Trip Begin?" This also gives the answer to column 8 as the driver stated that the origin of the trip was his home, and therefore "O" (Origin) will be circled.)

Interviewer: Where will this trip end?"
Driver: "At West Bend Plant in West Bend." (This is the correct destination and, therefore, will be entered in column 5. Since the destination is within the survey area, it is established that this is not a through trip.)

Interviewer: "What is the purpose of this trip?"
Driver: "I'm going to work." (This explains the purpose for which the trip is being made and, therefore, Number 1 (Work) is chosen from the list at the bottom of column 6 and the number "1" is entered on the appropriate line in column 6.)

Interviewer: "At what type of place or kind of establishment will this trip end?" (This question is necessary because the trip has an ending within the cordon line.)
Driver: "They manufacture appliances. (This explains Land Use for column 7, It should be entered as "Appliances."

Interviewer: "That's all. Thank you very much for your cooperation.

SOUTHEASTERN WISCONSIN PLANNING COMMISSION

REGIONAL

LAND USE - TRANSPORTATION STUDY

PRACTICE INTERVIEW #2 - EXTERNAL SURVEY
(For Training Purposes Only)

The following interview is being conducted at Station 19 on the outbound traffic lane on May 12, 1962, for the hour period from 5:00 P.M. to 6:00 P.M. The vehicle is a local passenger car with driver as the only occupant.

Interviewer: "Good Afternoon, (Sir, Madam), this is a traffic survey."
Driver: "I'm in a big hurry to get home, so make it snappy."

Interviewer: "Where did this trip begin?"
Driver: "At the University of Wisconsin in Milwaukee." This is not sufficient as the UWM is a large area.)

Interviewer: "Where at the University?"
Driver: "From the Mechanical Engineering Building." It is evident in this case that the Land Use is the "University" and the question need not be asked about land use. Therefore, enter "University" in column 7.)

Interviewer: "Where will this trip end?"
Driver: "At home in Cedar Grove."

Interviewer: "Thank you very much. Go ahead."

SOUTHEASTERN WISCONSIN PLANNING COMMISSION

REGIONAL

LAND USE - TRANSPORTATION STUDY

PRACTICE INTERVIEW #3 - EXTERNAL SURVEY
(For Training Purposes Only)

The following interview is being conducted at Station 13 on the inbound traffic lane on April 26, 1962, for the hour period from 6:00 A.M. to 7:00 A.M. The vehicle is a 5 - axle semi with two drivers. (Note: Second driver may be sleeping in bunk behind driver.)

Interviewer: "Good Morning, Sir, this is a traffic survey, and I would like to ask you a few questions."

Driver: "Don't take too long as my load is perishable."

Interviewer: "Where did your trip begin?"

Driver: "Los Angeles, California."

Interviewer: "Where will this trip end?"

Driver: "Green Bay, Wisconsin."

Interviewer: "Are you making any stops before Green Bay?"

Driver: "Yes, I'm delivering my load of produce at the Kroger Warehouse at 2500 N. 108th St., Milwaukee. (It will not be necessary to inquire about Land Use as it is obvious that the place at Krogers where the driver will stop is used as a warehouse.)

Interviewer: "What route will you use leaving Milwaukee?"

Driver: "Highway 57."

Interviewer: "This truck is registered where?"

Driver: "Green Bay."

Interviewer: "That's all, thank you." (It is obvious that the truck is garaged at Destination as it is licensed at Green Bay.)

SOUTHEASTERN WISCONSIN PLANNING COMMISSION

REGIONAL

LAND USE - TRANSPORTATION STUDY

PRACTICE INTERVIEW #4 - EXTERNAL SURVEY
(For Training Purposes Only)

The following interview is being conducted at Station 15 on the outbound traffic lane on May 2, 1962, for the hour period from 2:00 P.M. to 3:00 P.M. The vehicle is a Minnesota-licensed passenger car with driver and three passengers.

Interviewer: "Good Afternoon, (Sir, Madam), this is a traffic survey, and I would like to ask you a few questions about your trip."

Driver: "All right, what is it you wish to know?"

Interviewer: "Where did your trip begin?"

Driver: "Winona, Minnesota."

Interviewer: "Where will this trip end?"

Driver: "Chicago."

Interviewer: "Is that your home?" (This is necessary to determine where car is garaged.)

Driver: "No, we are vacationing there." (This will inform the Interviewer of the Trip Purpose and also provide information as to where the vehicle is garaged.)

Interviewer "Did you make any stops in Wisconsin?"

Driver: "Yes, at the Smith Building in Waukesha."

Interviewer: "At what type of office or store did you stop?" (This is necessary to provide information as to Land Use.)

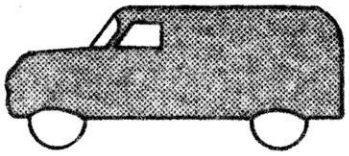
Driver: "At the Walgreen Drug Store."

Interviewer: "What highway did you use coming into Waukesha?"

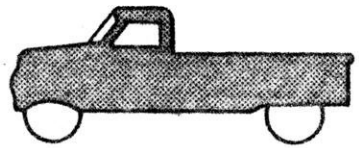
Driver: "Highway 30."

Interviewer: "That"s all. Thank you, and have a good trip."

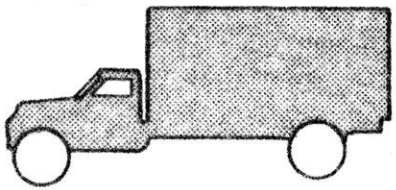
CODE 3.



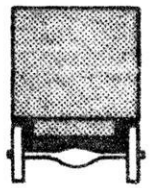
PANEL



PICK UP

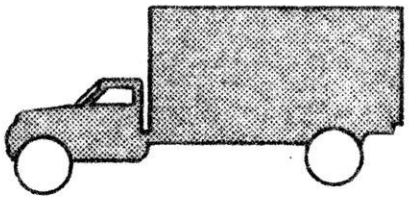


SINGLE UNIT
2 AXLE

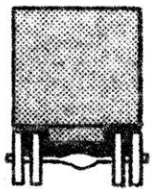


SINGLE TIRE

CODE 4

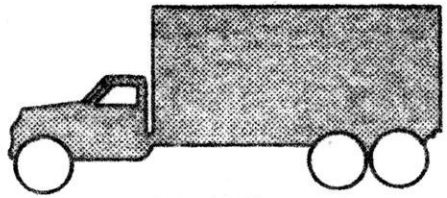


SINGLE UNIT
2 AXLE



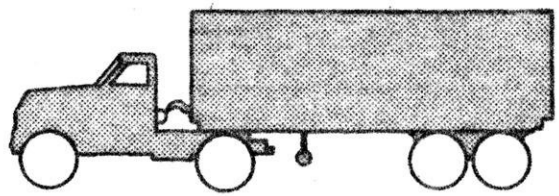
DUAL TIRE

CODE 5.

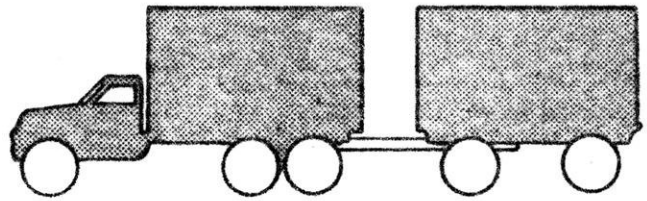


SINGLE UNIT
3 OR MORE AXLES

CODE 6.



TRACTOR TRAILER COMBINATION



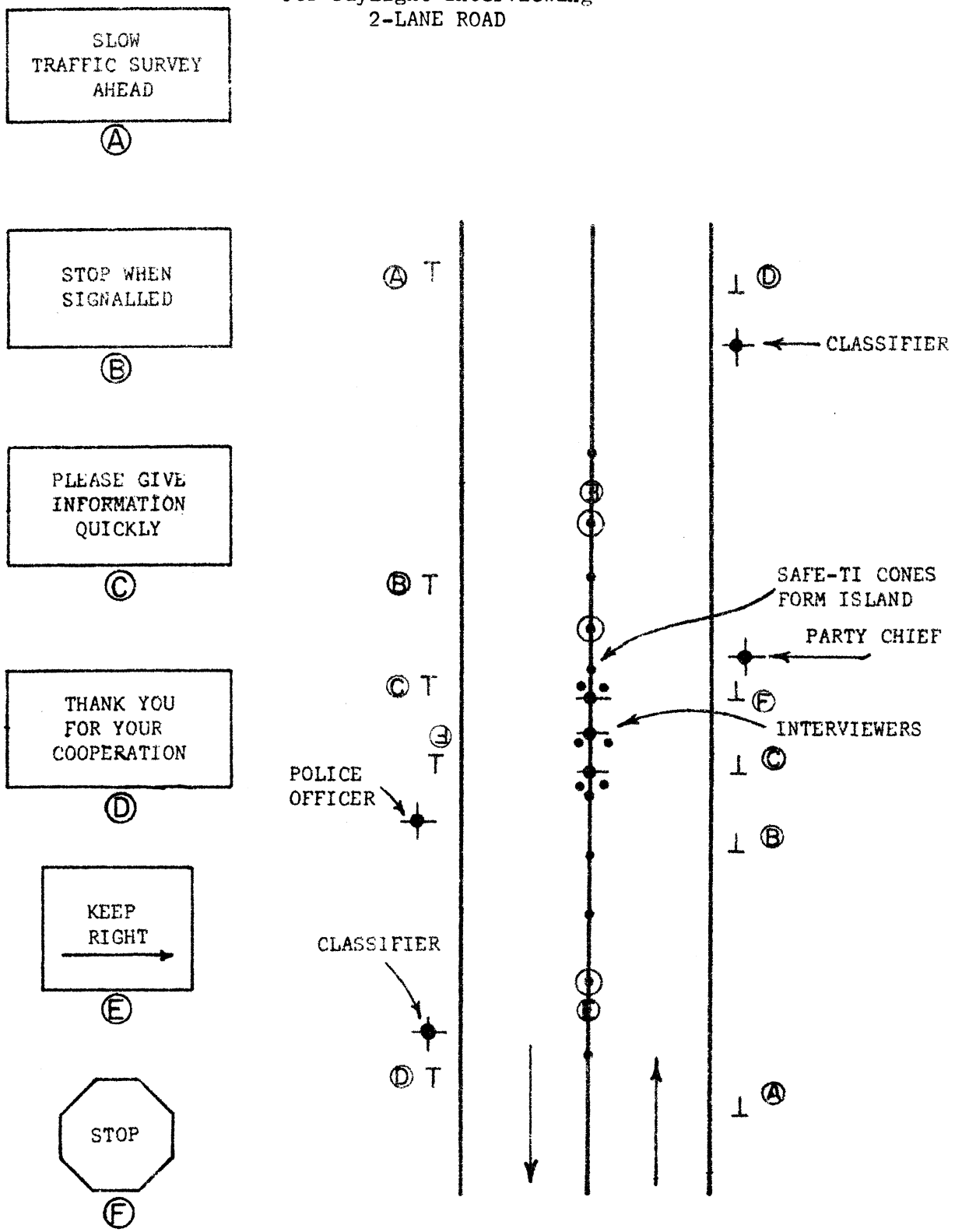
TRUCK TRAILER COMBINATION

Vehicle Types

SEWRPC TRANSPORTATION STUDY

TYPICAL STATION LAYOUT
For Daylight Interviewing
2-LANE ROAD

• Cone
⊙ Portable Stanchion



SEWRPC TRANSPORTATION STUDY

TYPICAL STATION LAYOUT
For Daylight Interviewing
4-LANE DIVIDED ROAD

• Cone
⊙ Portable Stanchion

SLOW
TRAFFIC SURVEY
AHEAD
Ⓐ

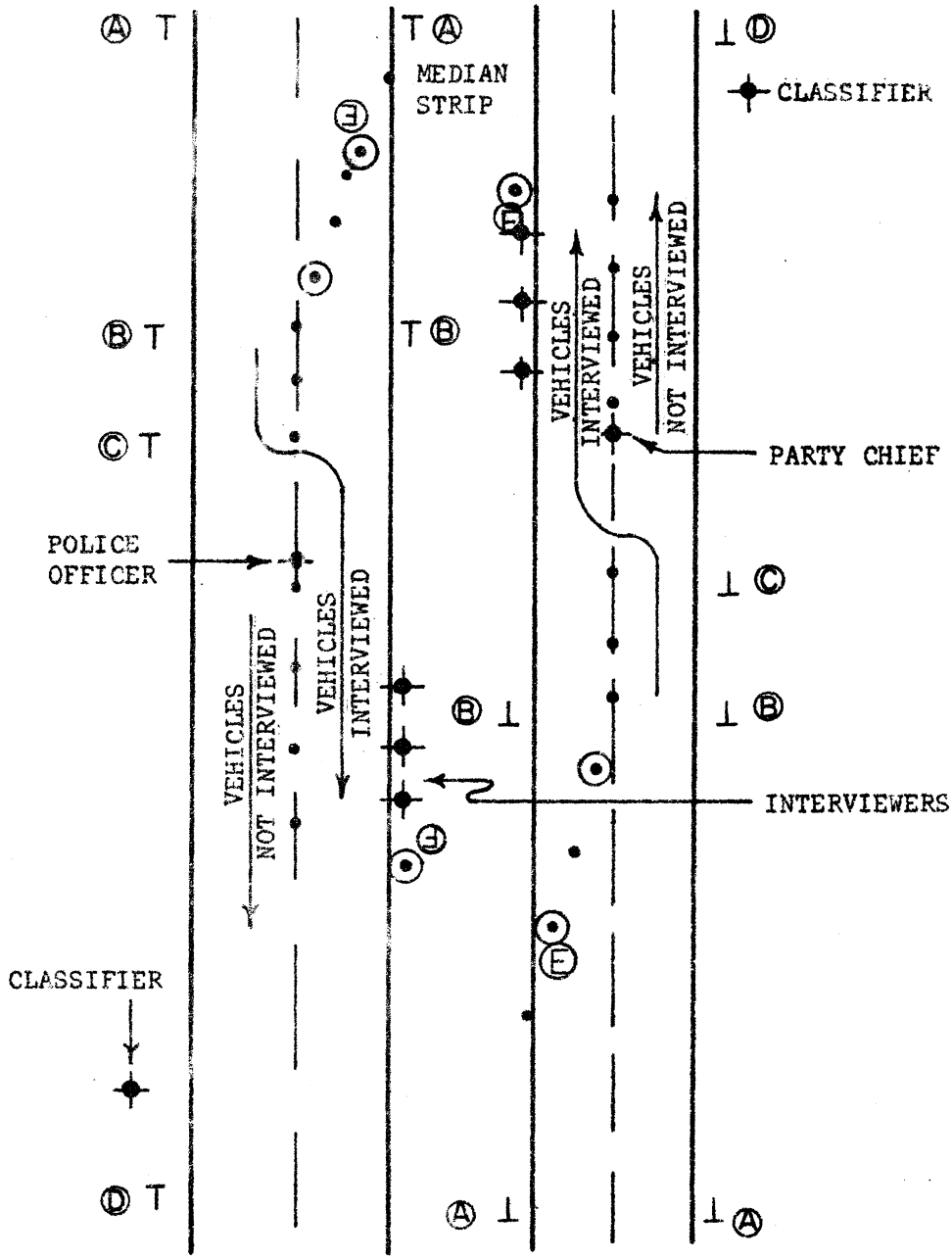
STOP WHEN
SIGNALLED
Ⓑ

PLEASE GIVE
INFORMATION
QUICKLY
Ⓒ

THANK YOU
FOR YOUR
COOPERATION
Ⓓ

KEEP
RIGHT →
Ⓔ

STOP
Ⓕ

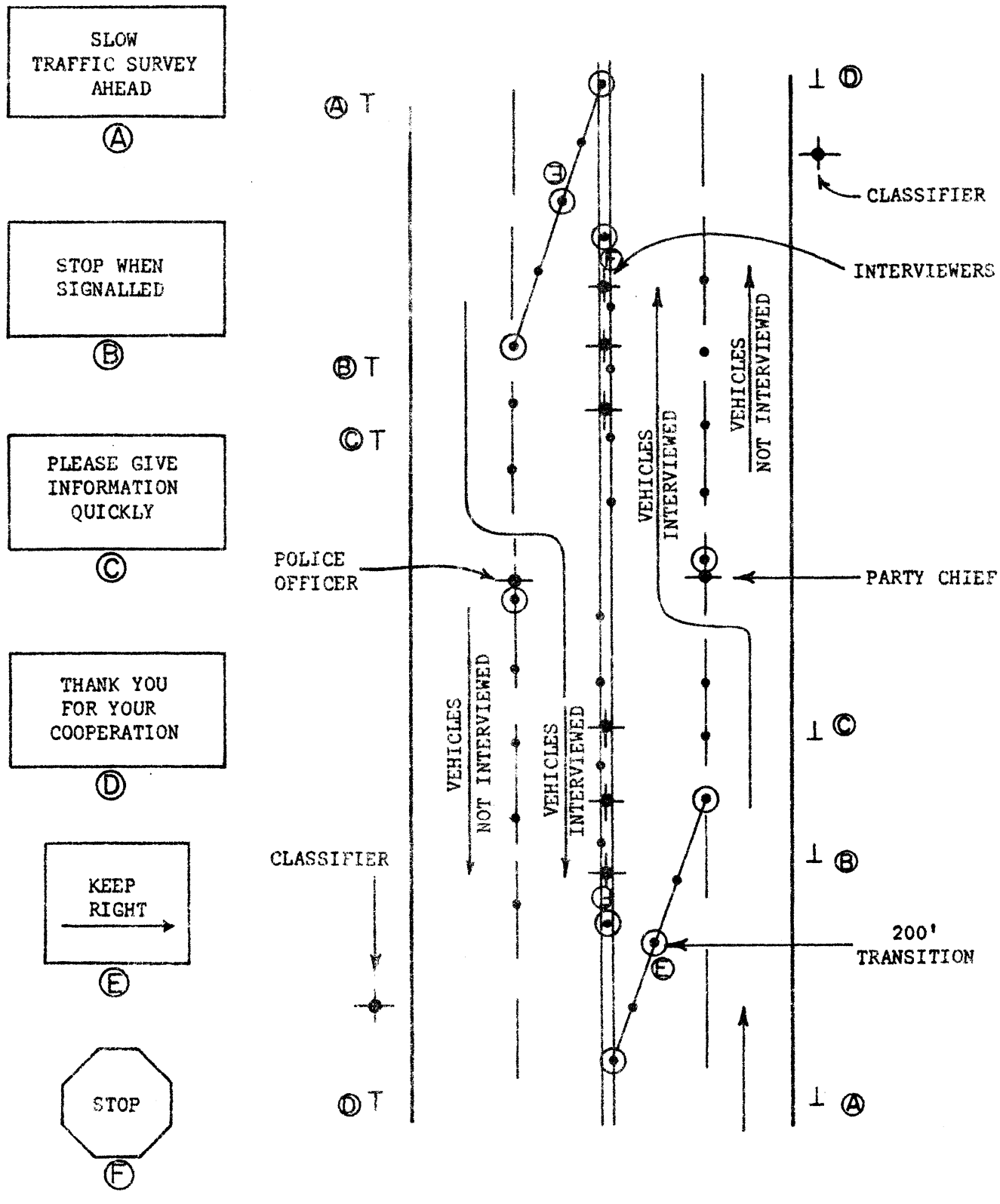


SEWRPC TRANSPORTATION STUDY

TYPICAL STATION LAYOUT
For Daylight Interviewing
4-LANE UNDIVIDED ROAD

• Cone

⊙ Portable Stanchion



SEWRPC TRANSPORTATION STUDY

TYPICAL STATION LAYOUT
For Nighttime Interviewing
4-LANE DIVIDED ROAD

TRAFFIC SURVEY
1 MILE
Ⓐ

TRAFFIC SURVEY
2000 FEET
Ⓑ

TRAFFIC SURVEY CONDUCTED
BY
THE STATE HIGHWAY
COMMISSION OF WISCONSIN
AND THE
U. S. BUREAU OF PUBLIC ROADS
Ⓒ

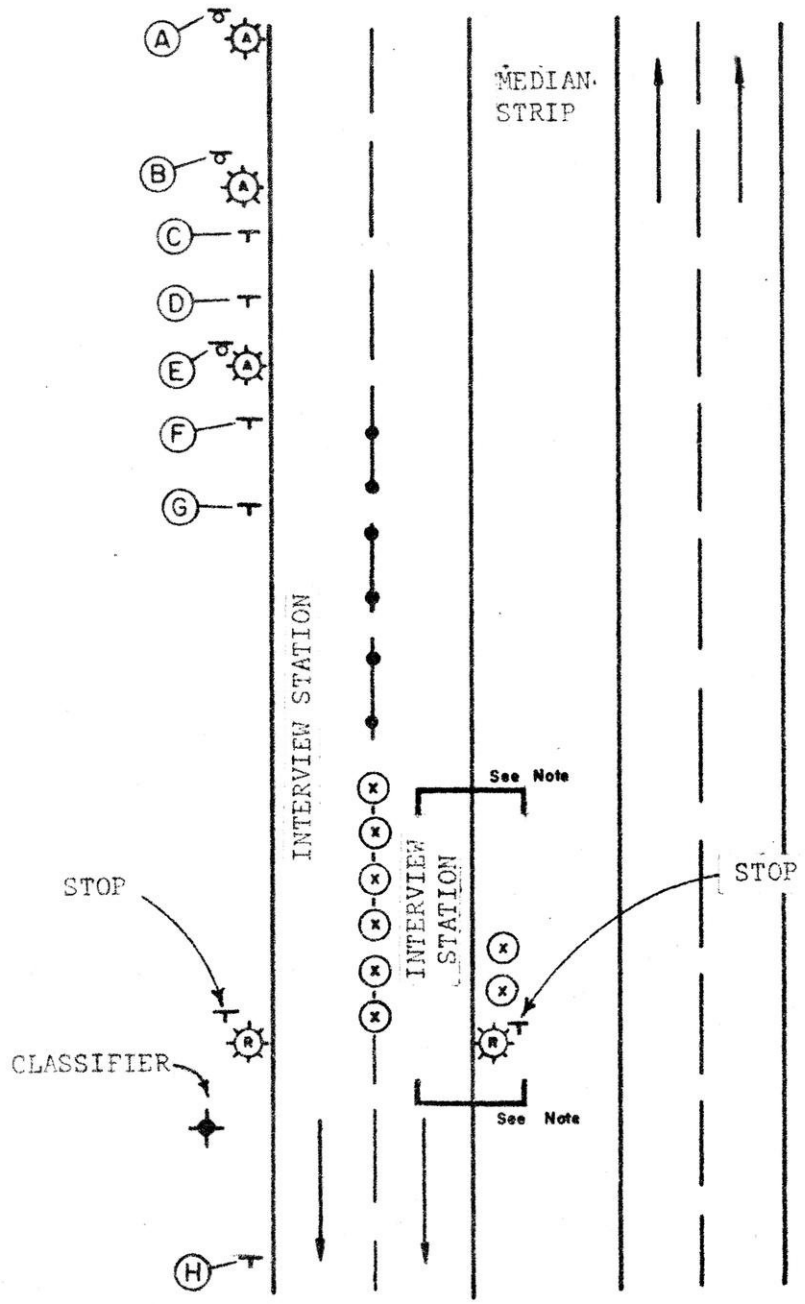
YOU WILL BE ASKED
ONLY ABOUT YOUR TRIP
Ⓓ

STOP AHEAD
Ⓔ

WHERE DID THIS TRIP BEGIN?
WHERE WILL IT END?
Ⓕ

KEEP RIGHT
Ⓖ

THANK YOU FOR
YOUR INFORMATION
Ⓗ



- ⓧ - BARREL W/COLEMAN LANTERN
- ● - FLARE POT
- T - SIGN ON "A" FRAME
- T - SIGN ON DRIVE POST
- Ⓐ - 8 INCH AMBER FLASHER
- Ⓡ - 8 INCH RED FLASHER

NOTE: For two lane two direction road eliminate this portion of the set up. Additional signs and flare pots are needed for a two direction station.

Appendix C

FORMS

FORM T3—E-1 3/63
SOUTHEASTERN WISCONSIN REGIONAL
PLANNING COMMISSION

SOUTHEASTERN WISCONSIN REGIONAL
LAND USE — TRANSPORTATION STUDY

CONFIDENTIAL The information contained in this survey will be accorded confidential treatment by the Southeastern Wisconsin Regional Land Use—Transportation Study. Individual reports will be used for statistical purposes only.

EXTERNAL TRIP REPORT

INTERVIEWER _____

SHEET _____ OF _____ SHEETS

CARD NUMBER [1] STATION NO. _____ [2 3] DATE _____ [MONTH 4 5 / WEEK DAY 6 7] HOUR PERIOD BEGINNING _____ AM PM [8 9]

INBOUND 1
OUTBOUND 2 [10]

1	2	3	4	5	6	7	8	9	10	11	12	13
SERIAL NUMBER	VEH. TYPE	NO. OF OCCUP.	ORIGIN ADDRESS (GET COMPLETE ADDRESS)	ORIGIN LAND USE	ORIGIN TRIP PURP.	DESTINATION ADDRESS (GET COMPLETE ADDRESS)	DESTINATION LAND USE	DESTINATION TRIP PURP.	WHERE IS THIS VEHICLE GARAGED OVERNIGHT?	THRU TRIPS ONLY: ROUTE EXIT OR ENTRANCE	THRU TRIPS ONLY: LOCAL STOP PURPOSE	TRUCKS ONLY: PRINCIPAL COMMODITY CARRIED
[11 12 13]	[14]	[15]	[16 17 18 19 20 21 22 23 24]	[25 26]	[27]	[28 29 30 31 32 33 34 35 36]	[37 38]	[39]	O [40] D	[41 42]	[43]	[44 45 46]
									O D			
									O D			
									O D			
									O D			
									O D			

COL. 2 VEHICLE TYPE

1 PASSENGER CAR - WISCONSIN LICENSE
2 PASSENGER CAR - NOT WISCONSIN
3 PICK-UP, PANEL, OR SINGLE UNIT - SINGLE REAR TIRE
4 SINGLE UNIT - DUAL REAR TIRE
5 SINGLE UNIT - THREE OR MORE AXLES
6 COMBINATIONS
7 BUS
8 TAXI

PASSENGER TRANSPORTATION

COLS. 6 & 9 TRIP PURPOSE

1 WORK
2 PERSONAL BUSINESS
3 MEDICAL - DENTAL
4 SCHOOL
5 SOCIAL & EAT MEAL
6 CHANGE TRAVEL MODE
7 SERVE PASSENGER
8 SHOPPING
9 RECREATION
0 HOME

COL. 12 STOP PURPOSE

1 WORK
2 SHOPPING
3 RECREATION
4 PERSONAL BUSINESS
5 EAT MEAL
6 VEHICLE SERVICE
7 OVERNIGHT

TRUCK TRANSPORTATION

COLS. 6, 9, & 12 TRIP AND STOP PURPOSE

1 PICK UP GOODS
2 DELIVER GOODS
3 PICK UP & DELIVER GOODS
4 OTHER WORK-CONNECTED BUSINESS
5 TO BASE OF OPERATIONS
6 PERSONAL BUSINESS
7 SERVICE

FORM T3-E-2 4/63
SOUTHEASTERN WISCONSIN REGIONAL
PLANNING COMMISSION

SHIFT

- ☐ 5 A.M. — 1 P.M.
- ☐ 1 P.M. — 9 P.M.
- ☐ 9 P.M. — 5 A.M.

SOUTHEASTERN WISCONSIN REGIONAL
LAND USE — TRANSPORTATION STUDY

TRAFFIC CLASSIFICATION COUNT

STATION NUMBER _____
ROUTE NUMBER _____
DATE _____ 19____
DAY _____
WEATHER _____

CLASSIFIER _____ DIRECTION OF TRAVEL _____

HOUR BEGIN. A	PASSENGER CARS								COMMERCIAL VEHICLES								TOTAL ALL VEHICLES R
	LOCAL (WISCONSIN)			FOREIGN (NON WISCONSIN)			TAXI H	TOTAL PASSENGER CARS I	TRUCKS				BUSSES			TOTAL COMMERCIAL VEHICLES Q	
	SMALL B	COMPACT C	REGULAR D	SMALL E	COMPACT F	REGULAR G			PICK-UP PANEL SINGLE UNIT SINGLE J TIRE	SINGLE UNITS DUAL TIRE K	SINGLE UNITS 3 AXLE L	COMBINATIONS M	REGULAR COMMON CARRIER N	CITY O	SCHOOL P		
8 HR. TOTAL																	

DIRECTION OF TRAVEL _____

8 HR. TOTAL																	
GRAND TOTAL																	

Form T3-B-3

SOUTHEASTERN WISCONSIN REGIONAL LAND USE-TRANSPORTATION STUDY C-3

Screen Line Survey: Hourly Volumes of Traffic Classified by Type of Vehicle

Route _____ Station No. _____

Location _____ County _____

Date	Machine Count	Hour Period	Passenger Cars		Commercial Vehicles					Total Motor Vehicles
					Trucks					
			Wis.	Non-Wis.	Pick. or Panel	Single Unit Dual Tire	Single Unit 3 Axel	Combinations	Buses	
		12-1AM								
		1-2								
		2-3								
		3-4								
		4-5								
		5-6								
		6-7								
		7-8								
		8-9								
		9-10								
		10-11								
		11-12								
		12-1PM								
		1-2								
		2-3								
		3-4								
		4-5								
		5-6								
		6-7								
		7-8								
		8-9								
		9-10								
		10-11								
		11-12								
		Total								

FORM T3-E-4 3/63

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

SOUTHEASTERN WISCONSIN REGIONAL
LAND USE - TRANSPORTATION STUDY

TRAFFIC RECORD - MACHINE COUNT

Station Number _____ Route _____ Roadway Direction _____ Year 19 ____

DATE									Total
DAY	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.		
Hour				*A.M.*					
12 – 1									
1 – 2									
2 – 3									
3 – 4									
4 – 5									
5 – 6									
6 – 7									
7 – 8									
8 – 9									
9 – 10									
10 – 11									
11 – 12									
Hour				*P.M.*					
12 – 1									
1 – 2									
2 – 3									
3 – 4									
4 – 5									
5 – 6									
6 – 7									
7 – 8									
8 – 9									
9 – 10									
10 – 11									
11 – 12									
TOTAL									
% Av. Week Day									X
Temperature Maximum									X
Temperature Minimun									X
* Condition of Road Surface									X
° Weather									X

* Classify as dry, wet, icy, snow.

° Classify as clear, cloudy, rain, snow.

Remarks: _____

_____

_____ Compiled by _____

Form T3-E-5 4/63
Southeastern Wisconsin Regional
Planning Commission

Southeastern Wisconsin Regional
Land Use-Transportation Study

WEEKLY PROGRESS REPORT -- EXTERNAL CORDON LINE INTERVIEW PROGRAM

For Week Ending			Previous Totals	This Week	Totals To Date
1.	NUMBER STATIONS OPERATED	(a) INBOUND			
		(b) OUTBOUND			
2.	NUMBER OF MAN HOURS STATION OPERATION	(a) Party Chief			
		(b) Classifiers			
		(c) Interviewers			
		(d) Total			
3.	NUMBER OF VEHICLES PASSING				
4.	NUMBER OF VEHICLES INTERVIEWED				
5.	a. Number of vehicles interviewed per man hour 4/2(d)				
	b. No. of vehicles interviewed per interviewer per hour -- 4/2(c)				
6.	PERCENT OF VEHICLES INTERVIEWED				
7.	ESTIMATED PERCENT COMPLETE	(a) STATION HOURS			
		(b) TRAFFIC VOLUME			

T3-E-5A
SEWRPC 6/63
JRD:bjc

Southeastern Wisconsin Regional
Land Use-Transportation Study

WEEKLY PROGRESS REPORT -- SCREEN LINE CLASSIFICATION PROGRAM

For Week Ending			Previous Totals	This Week	Totals To Date
1.	NUMBER STATIONS OPERATED	(a) TOTAL			
2.	NUMBER OF MAN HOURS STATION OPERATION	(a) Party Chief			
		(b) Classifiers			
		(c) License Plate Check			
		(d) Total			
3.	NUMBER OF VEHICLES PASSING-AXLE ADJUSTED MACHINE COUNT				
4.	NUMBER OF VEHICLES CLASSIFIED				
5.	a. Number of vehicles classified per man hour 4/2 (d) b. No. of vehicles classified per classifier per hour 4/2 (b)				
6.	PERCENT OF VEHICLES CLASSIFIED				
7.	ESTIMATED PERCENT	(a) STATION HOURS			

Field Checked By_____
Date_____

EXTERNAL STATION FIELD INSPECTION CHECK LIST

Station Number_____ Location Description_____

1. Sight Distance Observations:
   (a) Approximate Tangent Length (Ft.)_____
   (b) Restrictions Present_____
   (c) Suitable?_____
2. Pavement:
   (a) Width (Ft.)_____ (b) No. of Lanes_____
   (c) Type: Concrete_____ (d) Surface Condition: Good_____
   Blacktop_____ Poor_____
   Other_____ OK_____
   (e) Suitable?_____
3. Shoulder: Stabilized_____
   (a) Width (Ft.)_____ (b) Condition: Needs Work_____
   Drainage_____
   (c) Suitable for interviewing on shoulder?_____
4. Can traffic be interviewed from drivers side on highway or must it be interviewed from shoulder? Comments_____
5. Is there place convenient for parking survey cars?_____
6. Condition: For night operation:
   (a) Power nearby?_____ (b) Any street lighting?_____
   (c) Need portable lighting equipment?_____
7. Traffic Operating Characteristics: inbound_____
   (a) Approximate 24 hr. volume_____ (b) Peak hour: outbound_____
   (c) Approx. speed of vehicles_____ (d) % Comm. Traffic_____
   Comments and crew operation_____
8. Is it possible to interview in both directions simultaneously?_____
9. Is eating place convenient?_____

LOCATION SKETCH: (Show how man and station equipment should be placed.)
(Locate Portable Counter)

SCREEN LINE FIELD INSPECTION CHECK LIST

Station Number_____ Field Checked By_____

Date_____

Location Description_____

1. Pavement: Width_____ No. of Lanes_____
   Type_____ Condition_____
2. Shoulder: Width_____ Condition_____
3. Place Convenient to Park Cars?_____
4. Nearest Toilet_____
5. Shade Available?_____
6. Street Lighting_____
7. Approximate 24 Hour Traffic Volume_____
8. Approximate Speed of Vehicles_____
9. Lock Machine Counter to_____

LOCATION SKETCH: (Show North arrow, nearest intersecting street and where classifiers and counters should be placed.)

Form T3-E-8 4/83

Southeastern Wisconsin Regional
Planning Commission

Southeastern Wisconsin Regional
Land Use-Transportation Study

EXTERNAL SURVEY - DAILY TIME RECORD

Day _____ Date _____

Name	Hrs. Worked		Sta.	Classification of Work	
	AM	PM	No.	Code	Description

T3-E-9
JRD:bjc
6-26-63

Southeastern Wisconsin Regional
Land Use - Transportation Study

Summary of External Interviews

Station _____ Interview Periods: AM _____ PM _____ 24 Hr Vol: AM _____ PM _____ Sample: _____ Editor: AM _____ PM _____

Direction	Hour	Codes 1 & 8 Wis. Pass Car & Taxi					Code 2 Foreign Pass Car					Code 3 Pick up-Panel					Code 4 SU - 2 axle					Code 5 SU - 3 axle					Code 6 Combination					Total CC/ /CE
		Class Count	Total Interview	Sample	Tot. Code (Mult.)	Code Expanded	Class Count	Total Interview	Sample	Tot. Code (Mult.)	Code Expanded	Class Count	Total Interview	Sample	Tot. Code (Mult.)	Code Expanded	Class Count	Total Interview	Sample	Tot. Code (Mult.)	Code Expanded	Class Count	Total Interview	Sample	Tot. Code (Mult.)	Code Expanded	Class Count	Total Interview	Sample	Tot. Code (Mult.)	Code Expanded	
	0600																														
	0700																														
	0800																														
	0900																														
	1000																														
	1100																														
	1200																														
	1300																														
	1400																														
	1500																														
	1600																														
	1700																														
	1800																														
	1900																														
	Total																														

FORM TS - 21 5/63
SOUTHEASTERN WISCONSIN REGIONAL
PLANNING COMMISSION

SOUTHEASTERN WISCONSIN REGIONAL
LAND USE - TRANSPORTATION STUDY

INTERVIEW BATCH TRANSMITTAL FORM

HOME INTERVIEW ☐
TRUCK & TAXI ☐ BATCH NO. ____ WEEK ____ DAY ____ DIST.

EXTERNAL ☐ BATCH NO. ____ MONTH ____ WEEK ____ DAY ____ STA NO.

LIST NO.	CENTRAL OFFICE		SUMMARY CONTROL				CODING SECTION		CHECK CODE		CODE		GEOGRAPHIC				QUALITY CONTROL		KEY PUNCH	
	OKAY FOR CODING DATE : TIME INITIAL:		NO. OF INTERVIEWS	NO. OF NON-INTERVIEWS	NO. OF TRIPS	NO. OF NO TRIPS	*OKAY TO CODE* DATE : TIME INITIAL:		*RECEIVED* DATE : TIME INITIAL:		*RECEIVED* DATE : TIME INITIAL:		*RECEIVED* DATE : TIME INITIAL:		MAP LOOK-UP NEEDED		*RECEIVED* DATE : TIME INITIAL:		*RECEIVED* DATE : TIME INITIAL:	
	CHECKED DATE / TIME	INITL.					*CHECKED* DATE / TIME	INITL.	*COMPLETED* DATE / TIME	INITL.	*COMPLETED* DATE / TIME	INITL.	*COMPLETED* DATE / TIME	INITL.	✓	LINE NO.	*COMPLETED* DATE / TIME	INITL.	*COMPLETED* DATE / TIME	INITL.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)

T3-G25
WEC:bjc
8-1-63

Southeastern Wisconsin Regional Planning Commission
Land Use - Transportation Study

License Plate Analysis

Travel Direction:_____ Station:_____to_____ Date:_____ Editors:_____

Vehicle Type	Thru Trips Inbound		Non-Thru Trips Inbound		Non-Thru Trips Outbound		Total Inbound Trips	
	No.	% of Total	No.	% of Total	No.	% of Total	No.	% of Total
Pass Car-Wisc. Lic.								
Pass Car-Foreign								
All Trucks								
TOTAL								

Travel Direction:_____ Station:_____to_____ Date:_____ Editors:_____

Vehicle Type	Thru Trips Inbound		Non-Thru Trips Inbound		Non-Thru Trips Outbound		Total Inbound Trips	
	No.	% of Total	No.	% of Total	No.	% of Total	No.	% of Total
Pass Car-Wisc. Lic.								
Pass Car-Foreign								
All Trucks								
TOTAL								

STAFF

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Dallas Behnke . . . . . Chief Draftsman

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