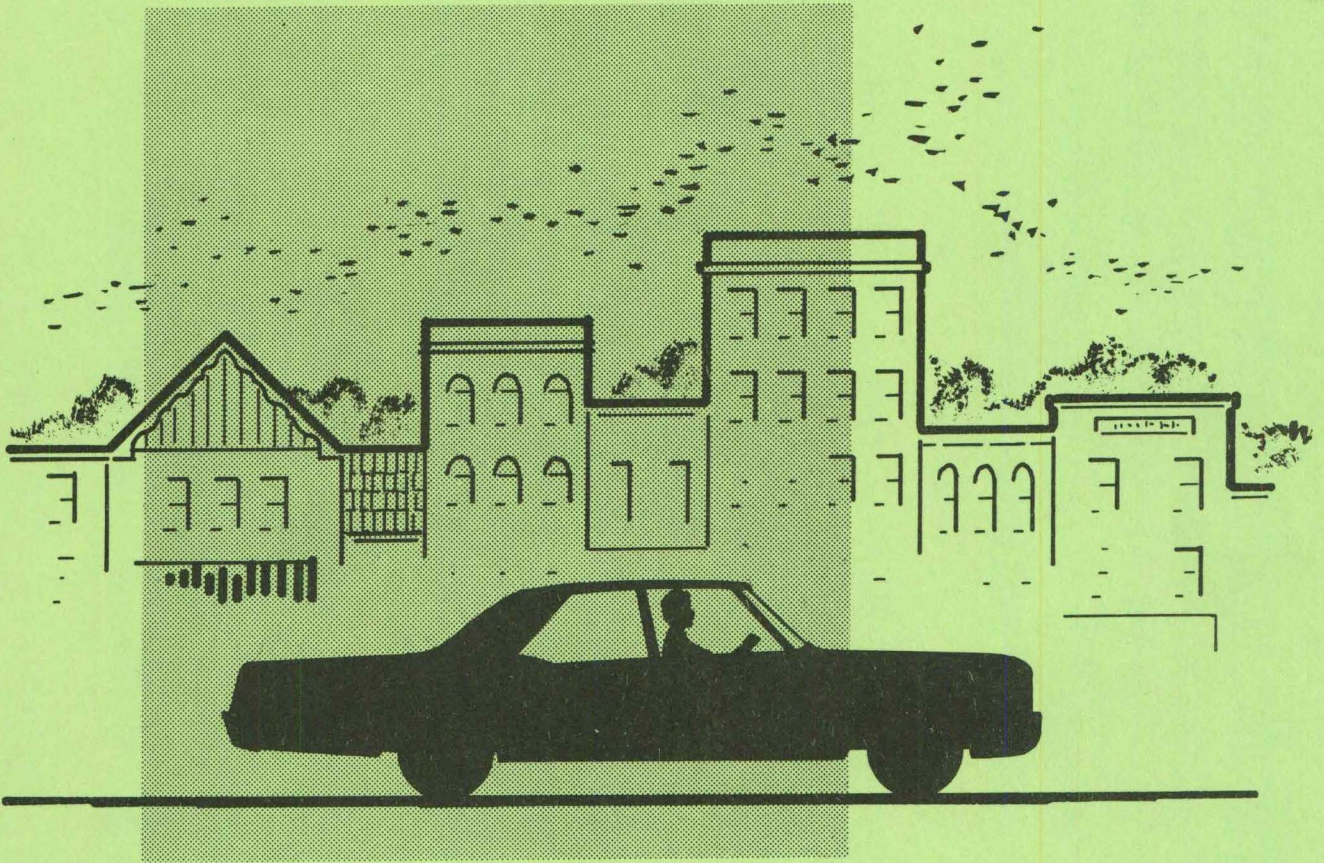


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SIBLEY IOWA

ORIGIN AND DESTINATION



TRAFFIC REPORT

JUNE of 1970

STATE OF IOWA

SIBLEY

ORIGIN AND DESTINATION
TRAFFIC REPORT

DATA GATHERED JUNE 1970

PUBLISHED FEBRUARY 1971

PREPARED BY

HIGHWAY PLANNING SURVEYS DEPARTMENT
DIVISION OF PLANNING
IOWA STATE HIGHWAY COMMISSION

IN COOPERATION WITH THE

UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Reproduction Cost \$3.65

INTRODUCTION

This report is a summary of data gathered during an external origin and destination traffic survey made in Sibley in June, 1970. The survey, conducted in cooperation with the Federal Highway Administration, was made to determine the total number and type of vehicles entering or leaving the study area and to gather specific origin/destination data from a representative sample of vehicle operators.

This summary is intended to present the data in a manner which will implement the determination of traffic needs and provide a sound basis for street and highway planning.

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DEFINITIONS OF TECHNICAL TERMS

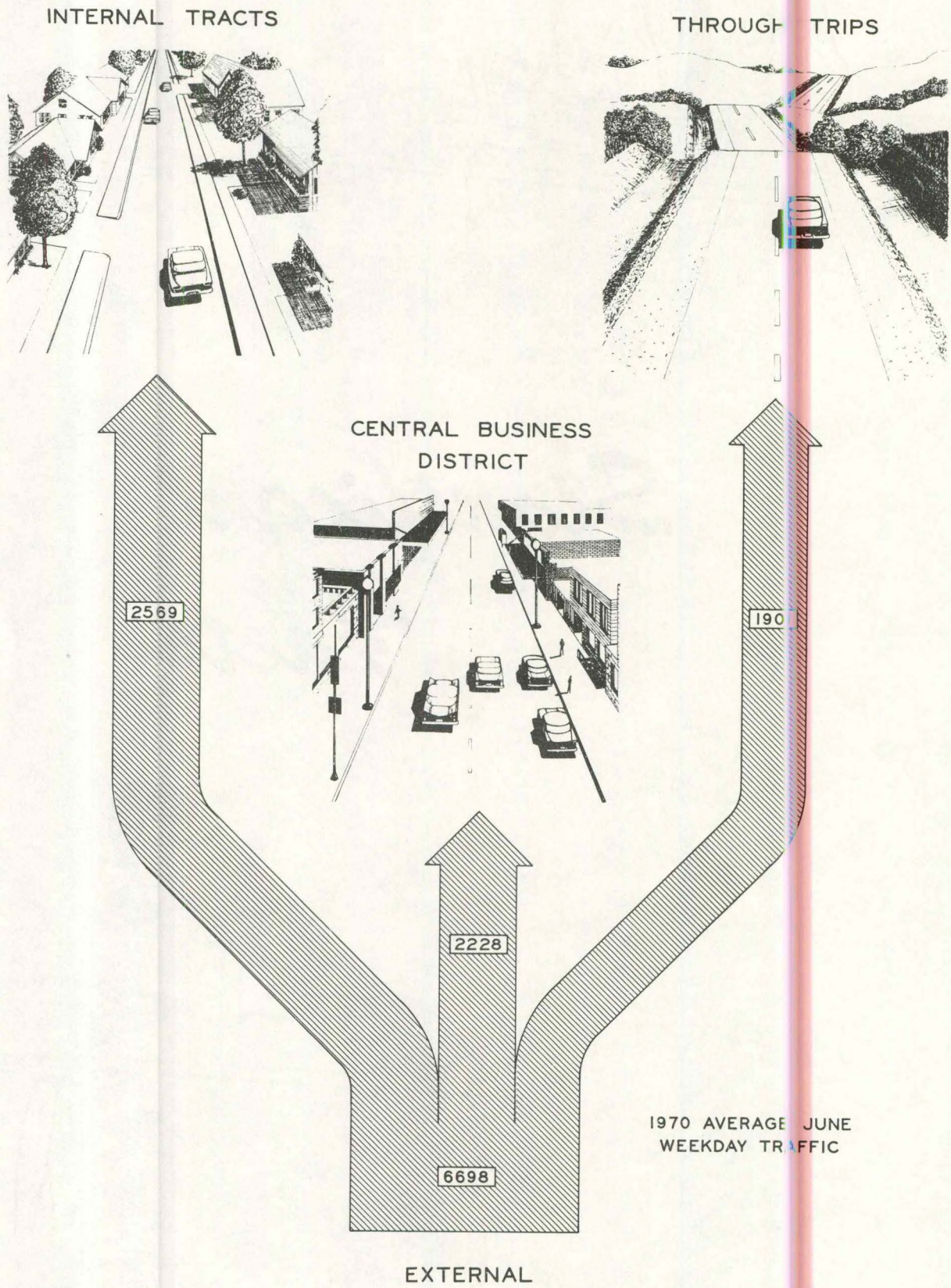
Study Area	The area enclosed by a cordon line of interview stations
Cordon Line	A hypothetical line determined by the location of traffic interview stations and used to delimit the area under study
Interview Station	A location at which vehicle drivers are stopped and interviewed
Code Station	A location on a street or highway at the point where it crosses the cordon line and at which traffic is counted but not interviewed
Central Business District	The major business district of a city
Origin	The location from which a driver started a trip
Destination	The location at which a trip was ended
Trip	The one-way travel between a point of origin and a point of destination
Internal Trip	A trip having both origin and destination within the study area
External Local Trip	A trip having either origin or destination within the study area and which passed through only one interview station in the cordon line enroute to its destination
External Through Trip	A trip having neither origin nor destination within the study area but which passes through it enroute to its destination
Traffic	The total number of vehicles passing a given point
Desire Line	A straight line between the point of origin and point of destination without regard to routes of travel



Significant Facts



FIGURE I-1
DISTRIBUTION OF TRIPS
SIBLEY STUDY AREA



SUMMARY

The chart at left graphically illustrates some of the more significant traffic volumes derived from the Sibley origin and destination traffic survey. An average of 6,698 trips per day passed through the external cordon line of interview stations surrounding the study area during the survey period.

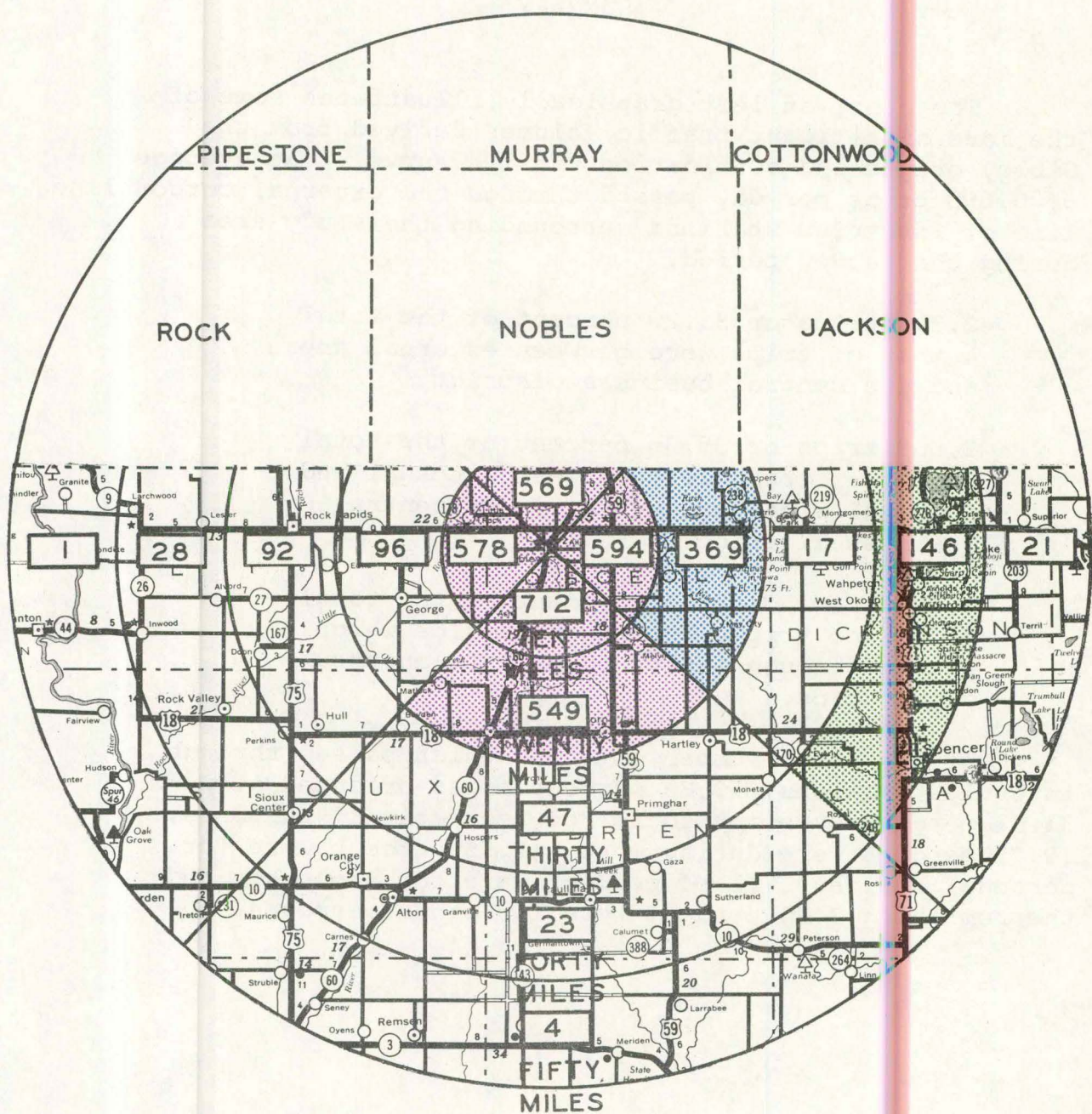
2,228 trips or 33.26 percent of the total number of trips were between external areas and the central business district.

2,569 trips or 38.36 percent of the total number of trips were between external and internal areas exclusive of the central business district.

1,901 trips or 28.38 percent of the total number of trips were through trips which passed through Sibley enroute to another destination.

Of the total number of trips which passed through interview stations, 13.85 percent began or ended at work, 31.01 percent were for social or recreational purposes, 19.75 percent were during work, 15.95 percent were for personal business, 11.94 percent were for shopping, and the remaining 7.50 percent were for other purposes.

FIGURE 1-2
 REGIONAL INFLUENCE OF THE
 SIBLEY STUDY AREA







-  0 TO 100 TRIPS
-  100 TO 200 TRIPS
-  200 TO 400 TRIPS
-  400 AND OVER

Table 1-1

REGIONAL INFLUENCE OF THE SIBLEY STUDY AREA

1970 Average June Weekday Traffic

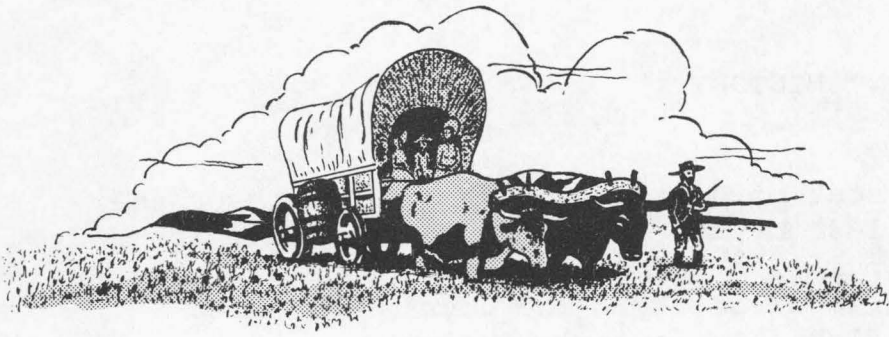
Miles From Study Area		Number of Trips	Percent of Total Trips Within a Fifty-Mile Radius
North	0 - 10	569	14.80
	10 - 20	--	--
	20 - 30	--	--
	30 - 40	--	--
	40 - 50	--	--
North Total		569	14.80
East	0 - 10	594	15.44
	10 - 20	369	9.59
	20 - 30	17	.44
	30 - 40	146	3.80
	40 - 50	21	.55
East Total		1,147	29.82
West	0 - 10	578	15.03
	10 - 20	96	2.49
	20 - 30	92	2.39
	30 - 40	28	.73
	40 - 50	1	.03
West Total		795	20.67
South	0 - 10	712	18.52
	10 - 20	549	14.28
	20 - 30	47	1.22
	30 - 40	23	.60
	40 - 50	4	.10
South Total		1,335	34.71
Grand Total		3,846	100.00

Table 1-2
Sibley Study Area
Vehicle Type Summary

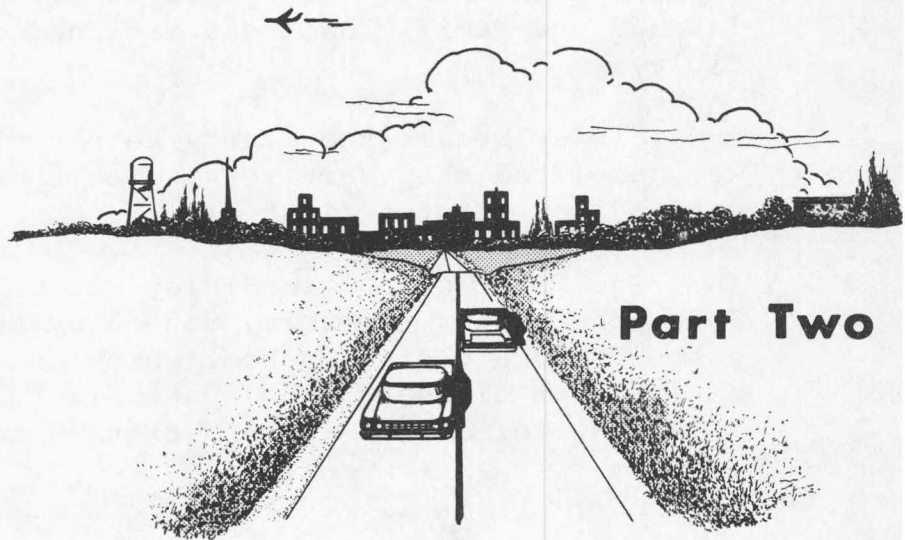
1970 Average June Weekday Traffic

Station	Location	Passenger Cars	Pickups and Panels	Single Unit Trucks	Truck Combinations	Total
701	Iowa 60 North	1828	279	188	216	2511
702	Co. Rd. L-40 North	473	75	21	4	573
703	Co. Rd. A-22 East	645	119	37	10	811
704	Co. Rd. A-30 East	451	123	41	8	623
706	Iowa 60 South	2239	349	224	237	3049
707	Local Road West	73	63	12	--	148
708	Co. Rd. A-22 West	358	69	29	5	461
709	Co. Rd. L-36 North	285	99	34	3	421
Grand Total		6352	1176	586	483	8597

The totals shown above include the duplication of those trips which passed entirely through the study area and were, therefore, interviewed twice.



History and Development



Part Two

HISTORY

Sibley is the county seat of Osceola County. Although organization was authorized in 1851 by the Iowa General Assembly, it was not until 1871 that population had grown enough to officially constitute the county as a legal entity. The county was named after Osceola, a chief of Florida's Seminole Indians.

Osceola County in its earliest days incurred a debt of some \$20,000, a sizeable sum in those days, due to financial maneuvering by early officials. Several projects were undertaken with financing to come from the sale of swamplands under the Federal Swamplands Act. Insufficient income from swamplands to pay for projects, evidence of misappropriation of public funds into private pockets, and blatant conflicts of interest led to the ouster of the officials involved.

First platted in 1871 by the Sioux City and St. Paul Railroad, Sibley was first named Cleghorn. When it was discovered that there was already a town by that name in Iowa, the name was changed to Sibley.

For a while Sibley bid fair to be a railroad town without a railroad. Formed in 1865, for the purpose of linking Sioux City and St. Paul, the railroad had trouble obtaining land. Minnesota would not grant land to an Iowa based railroad and Iowa would not grant land to a Minnesota based railroad. The problem was solved when the company incorporated in Iowa as the Sioux City and St. Paul Railroad and in Minnesota as the St. Paul and Sioux City Railroad. When the lines met at the Iowa - Minnesota border the link was completed. The railroad was completed through Sibley in 1872. It was the first of three railroads which would serve the town. In 1884 the Burlington, Cedar Rapids, and Northern completed its line to Sibley. Six years later, in 1890, the Chicago, Rock Island, and Pacific Railroad finished construction of trackage to Sibley.

Sibley became the county seat in 1872. The first courthouse was completed that same year. Incorporation came in 1876 with D. L. Riley elected first mayor.

The first school in Sibley was begun in the middle 1870's. Today the Sibley Community School system includes two elementary schools and a central school which includes both junior high and senior high classes. The system is fully accredited and offers a full range of curricular and extra-curricular activities.

A municipal water works and sewer system, completed in 1900, was the first utility in Sibley. Completion of an electrical power plant came in 1914. Electricity, water and sewage treatment are still supplied to Sibley residents by municipal utility facilities. Natural Gas Service is supplied by Iowa Electric Light and Power Co.

Fire protection in Sibley is supplied by a volunteer fire-fighting force of 20 men. Equipment includes two fire trucks, a tank truck, and an emergency unit. Police protection is supplied by four full time officers and one part time officer.

Mass media bringing information to Sibley residents include one radio station and one newspaper. The radio station is a branch of Station KIWA in Sheldon. The newspaper, The Sibley Gazette Tribune, was founded in 1872 by L. A. Bank. The paper is published on Tuesday and Thursday.

Sibley has had a public library since 1895, when a Dr. Neill proposed a monetary subscription to start one. In 1917 the library was enlarged and improved with a Carnegie grant.

Sibley is served by Iowa Highway 60 to the north and south. Iowa Highway 9 located approximately 2 miles to the north of Sibley provides east-west highway facilities. In addition, a network of paved county roads connects Sibley with the surrounding area.

Population Trends
Sibley Population

Table 2-1

Census Year	Sibley Population	Volume Increase or Decrease	Percent Change 10 Year Period
1900	1,289	--	--
1910	1,330	41	3.18
1920	1,803	473	35.56
1930	1,870	67	3.72
1940	2,356	486	25.99
1950	2,559	203	8.62
1960	2,852	293	11.45
1970	2,749	-103	-3.61

Osceola County Population

Table 2-2

Census Year	Osceola Co. Population	Volume Increase or Decrease	Percent Change 10 Year Period
1880	2,219	--	--
1890	5,574	3,355	151.19
1900	8,725	3,151	56.53
1910	8,956	231	2.65
1920	10,223	1,267	14.15
1930	10,182	-41	-.40
1940	10,607	425	4.17
1950	10,181	-426	-4.02
1960	10,064	-117	-1.15
1970	8,555	-1,509	-14.99

Figure 2-1
Population Trends



Year

Table 2-3
 Motor Vehicle Registration in Osceola County
 1949 - 1969

Year	Autos	Trucks	Motorcycles	Total	Percent Change
1949	3,716	833	56	4,605	--
1950	3,881	934	46	4,861	5.56
1951	3,846	964	43	4,853	- .16
1952	3,710	997	33	4,740	- 2.33
1953	3,862	1,082	30	4,974	4.94
1954	3,909	1,121	29	5,059	1.68
1955	4,031	1,190	35	5,256	3.89
1956	3,984	1,187	48	5,219	- .70
1957	3,962	1,187	44	5,193	- .50
1958	4,005	1,219	55	5,279	1.66
1959	4,091	1,238	55	5,384	1.99
1960	4,074	1,212	50	5,336	- .89
1961	4,089	1,180	51	5,320	- .30
1962	4,286	1,238	72	5,596	5.19
1963	4,307	1,263	81	5,651	.98
1964	4,390	1,317	95	5,802	2.67
1965	4,499	1,390	98	5,987	3.19
1966	4,492	1,479	107	6,078	1.52
1967	4,430	1,533	130	6,093	.25
1968	4,420	1,603	149	6,172	1.30
1969	4,303	1,641	182	6,126	- .75

Figure 2-2
Motor Vehicle Registration in Osceola County
1949 - 1969

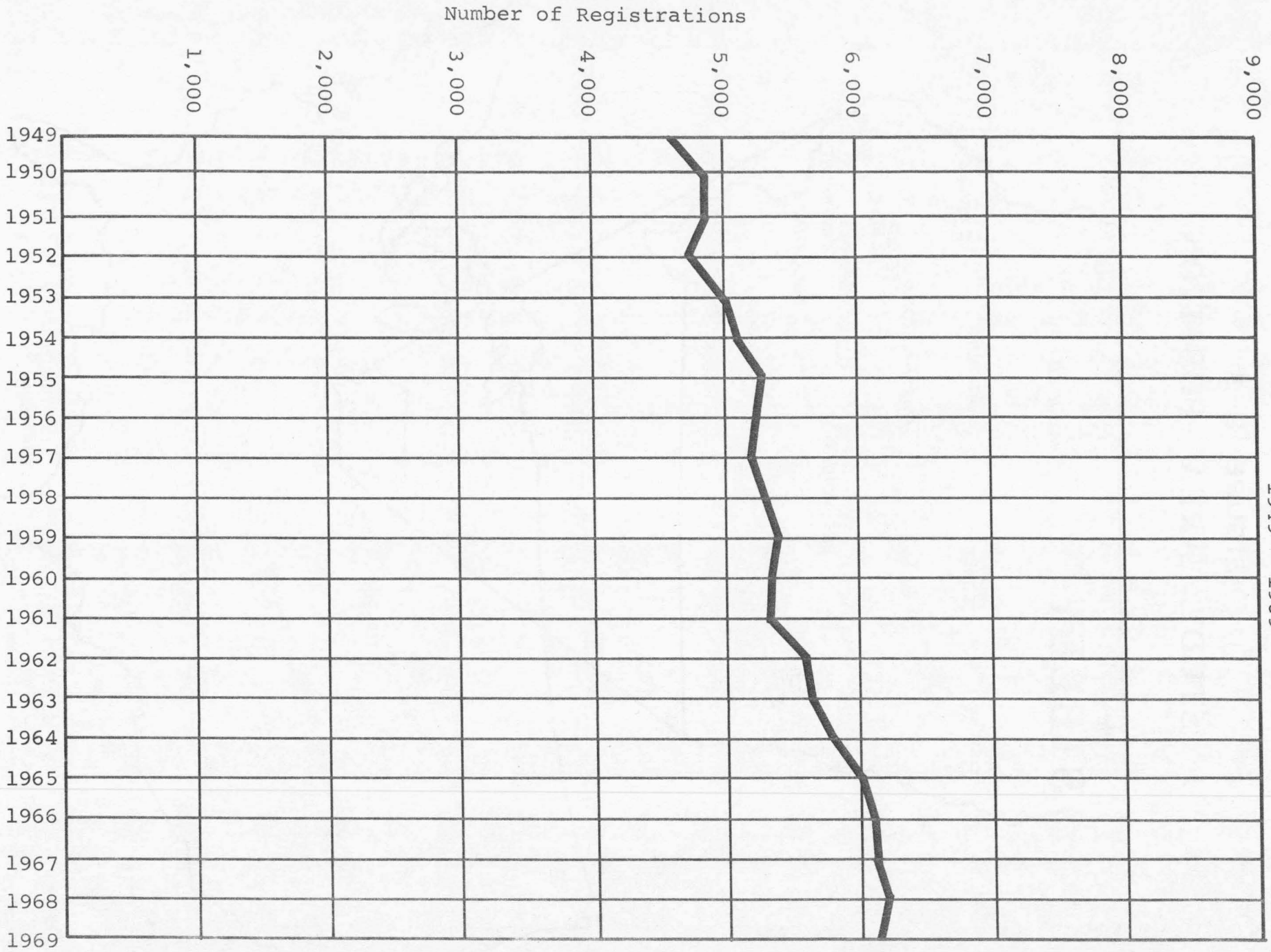
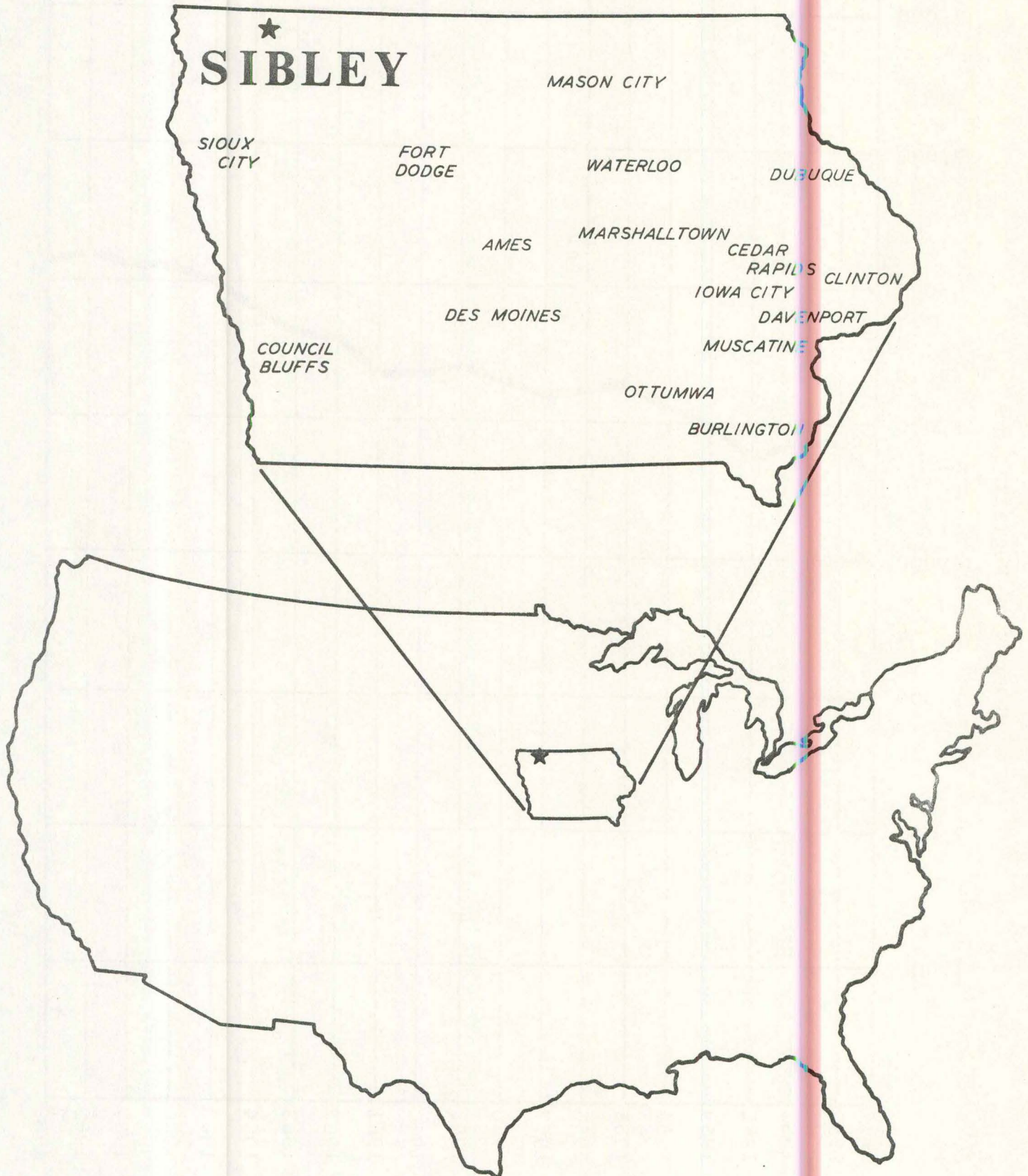
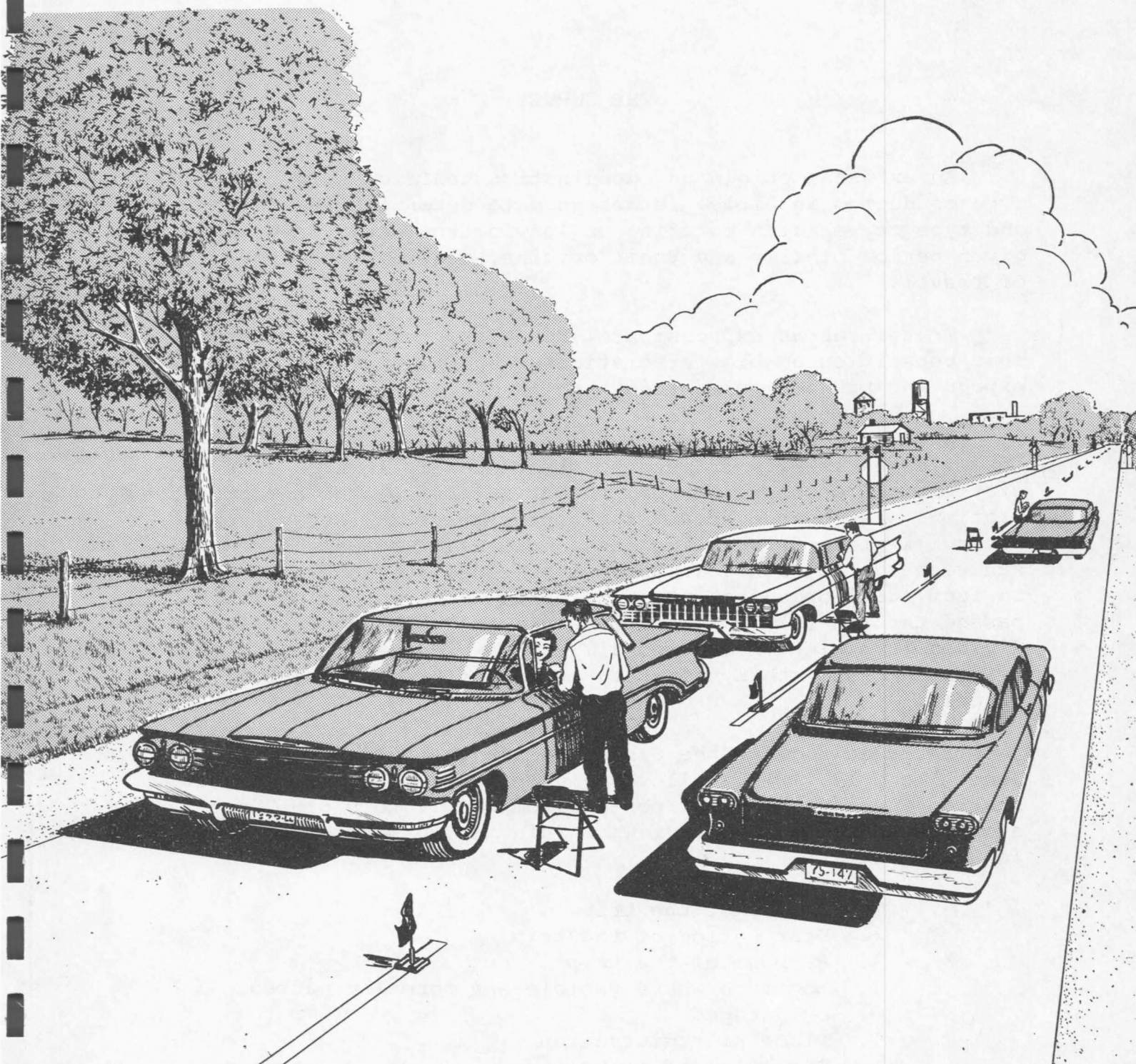


FIGURE 2-3
STUDY AREA POSITION





Survey

Procedures

Part Three

THE SURVEY

An external origin and destination traffic survey, of the type conducted in Sibley, is designed to determine the number and type of vehicles entering or leaving the study area in a given period of time and their origins, destinations and purposes of travel.

Travel, as an expression of behavior, tends to be repetitive. This repetition enables statisticians and highway planners to expand and project current data to predict future needs.

Information upon which to base an analysis is gathered by interviewing vehicle drivers at strategically located interview stations. A cordon line composed of interview stations and code stations was located around the perimeter of the study area. Interview stations were located on all major roads entering the study area. All other roads were assigned station code numbers to facilitate organization of interview data for trips which passed through only one interview station. The study area was divided into nine tracts and all trips which had either origin or destination within the study area were traced to one of these tracts.

Interviewing for the Sibley survey was done between June 11 and 17, 1970. All vehicles passing through interview stations during a 15-hour period from 6 a.m. to 9 p.m. were stopped briefly for interviews. Information was recorded on the following items:

1. Origin of the trip
2. Destination of the trip
3. Purpose of the trip
4. Location where vehicle was normally parked or garaged
5. Place of registration
6. Direction of travel
7. Number of occupants

Mechanical traffic recorders placed at each interview station were operated continuously for five weekdays including the day on which interviewing was done. Manual vehicle classification counts were also taken. Data from both types of counts was used to expand the interview data to 24 hour average June weekday traffic.

At the conclusion of field work, trip data was coded and punched on tabulation cards. The cards were then computer sorted and tabulated according to tract of origin or destination and the station or stations through which each trip passed.

In an external survey of this type, all trips are placed into two main categories, "external local trips" and "external through trips." External local trips have only one terminal (either origin or destination) within the study area and pass through only one interview station enroute to their destination. External through trips have neither origin nor destination within the study area, but pass through it enroute to their destination. These trips must cross the cordon line at least twice.

Traffic flow charts indicating trip termini by tract of origin/destination are included in this report along with desire line charts showing desired routes of travel in straight lines between interview stations and internal tracts.

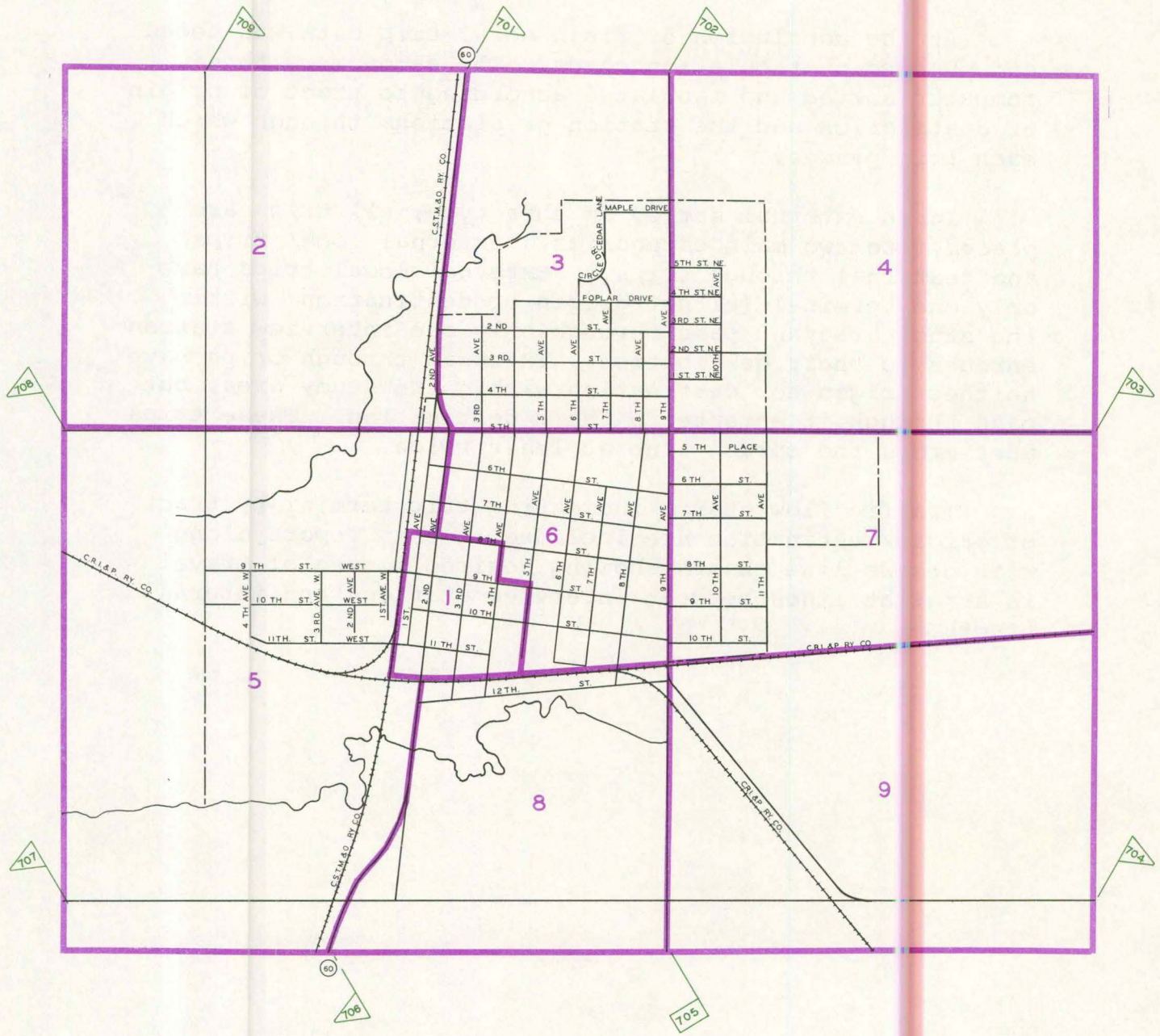


FIGURE 3-1
TRACT MAP OF THE
SIBLEY STUDY AREA

JUNE 1970

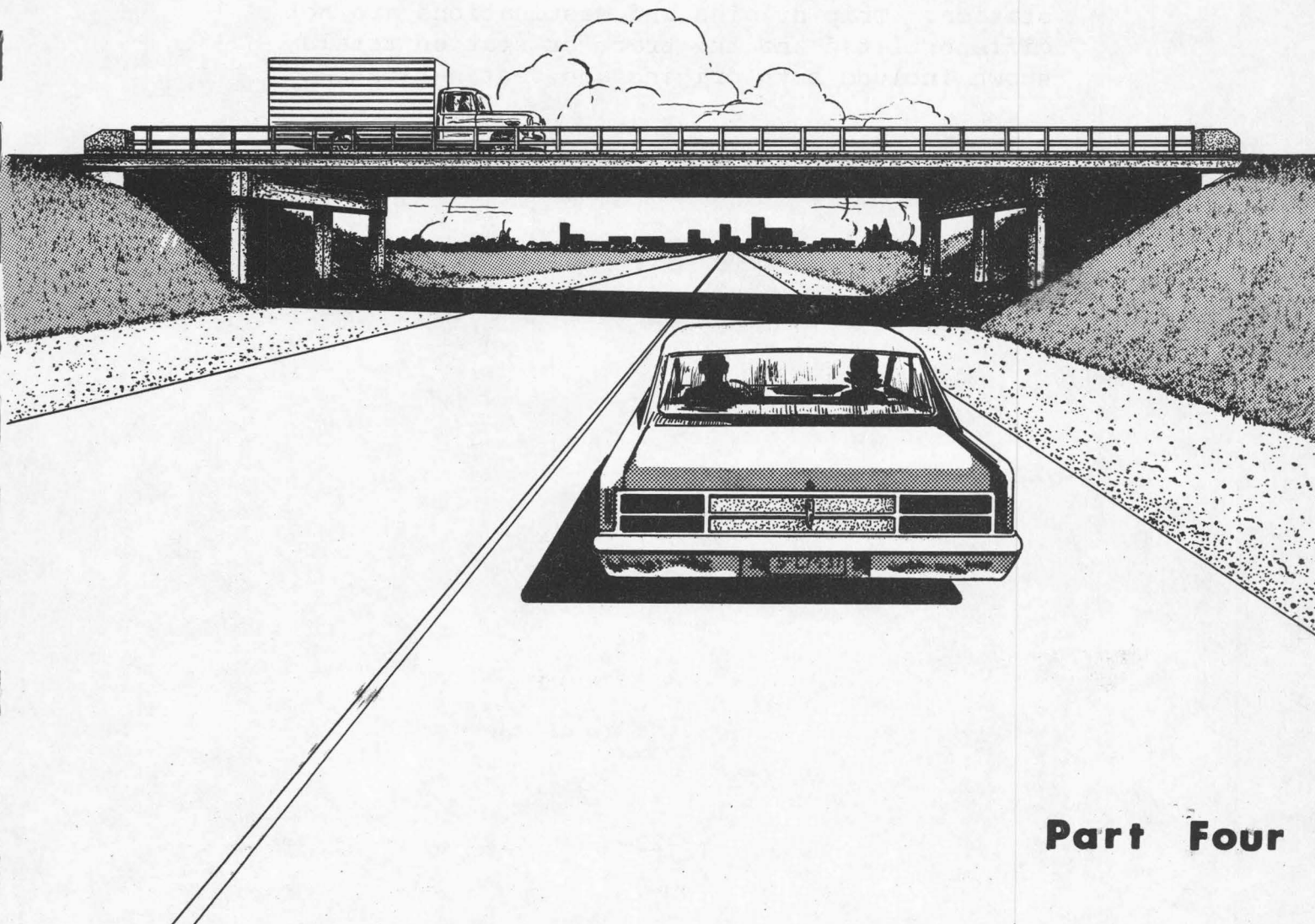


LEGEND

- TRACT NUMBER 2
- TRACT BOUNDARY LINE
- CORPORATION LINE
- INTERVIEW STATION LOCATION
- CODE STATION LOCATION

Traffic

Movements



Part Four

TRAFFIC FLOW CHARTS

The following traffic flow charts illustrate the internal dispersion of trips between points of origin and/or destination through the stations indicated. These charts are not intended to show exact routes, but rather to show trip volume by tract of origin or destination and the number of trips passing through each external interview station. Trip origins and destinations are not differentiated and the tract or station totals shown include both origins and destinations.

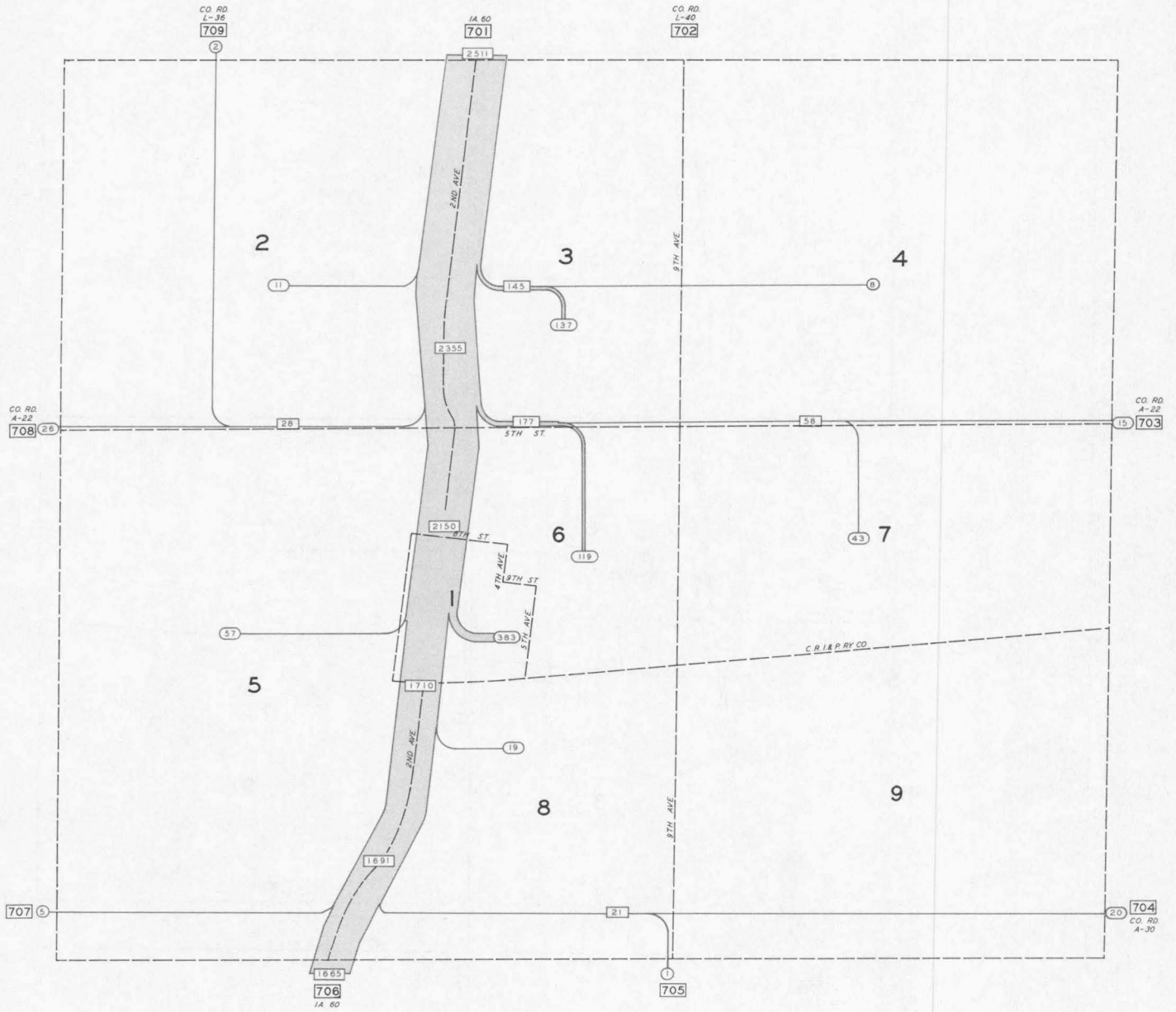
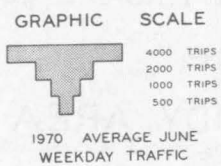


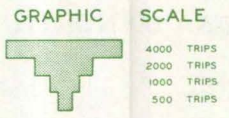
FIGURE 4-1
 INTERNAL DISPERSION OF
 ALL VEHICULAR TRIPS PASSING THROUGH
 STATION 701 - IOWA 60 NORTH
 OF THE
 SIBLEY STUDY AREA
 (ALL TRIPS BY DRIVERS OF AUTOS, TRUCKS, TAXIS AND BUSES)

LEGEND
 TRACT BOUNDARY LINE - - - - -



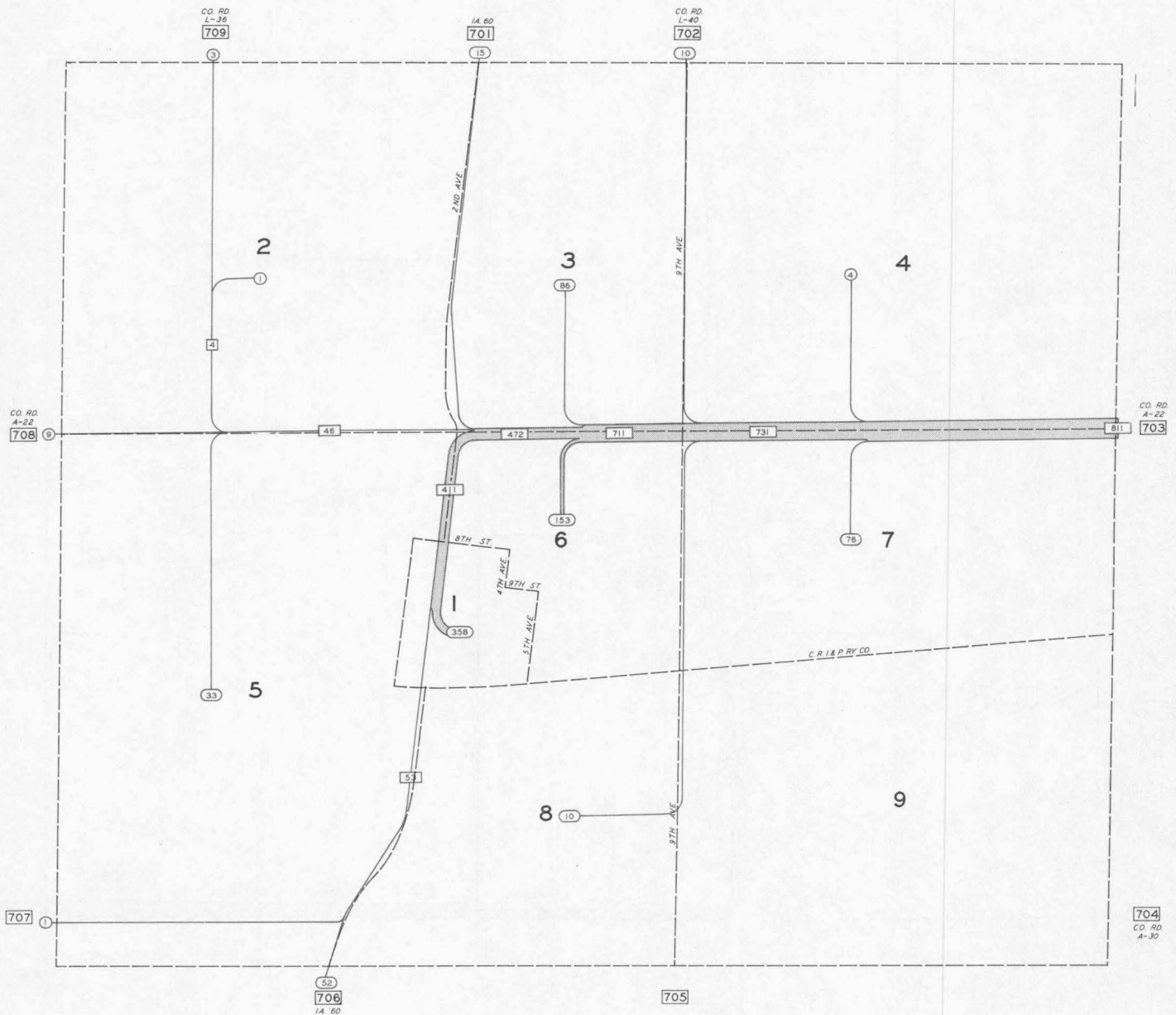


LEGEND
TRACT BOUNDARY LINE - - - - -

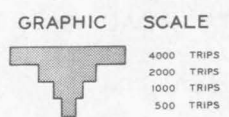


1970 AVERAGE JUNE
WEEKDAY TRAFFIC

FIGURE 4-2
INTERNAL DISPERSION OF
ALL VEHICULAR TRIPS PASSING THROUGH
STATION 702 — COUNTY ROAD L-40 NORTH
OF THE
SIBLEY STUDY AREA
(ALL TRIPS BY DRIVERS OF AUTOS TRUCKS TAXIS AND BUSES)



LEGEND
TRACT BOUNDARY LINE - - - - -

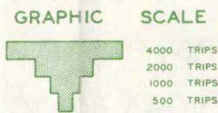


1970 AVERAGE JUNE
WEEKDAY TRAFFIC

FIGURE 4-3
INTERNAL DISPERSION OF
ALL VEHICULAR TRIPS PASSING THROUGH
STATION 703 — COUNTY ROAD A-22 EAST
OF THE
SIBLEY STUDY AREA
(ALL TRIPS BY DRIVERS OF AUTOS TRUCKS TAXIS AND BUSES)

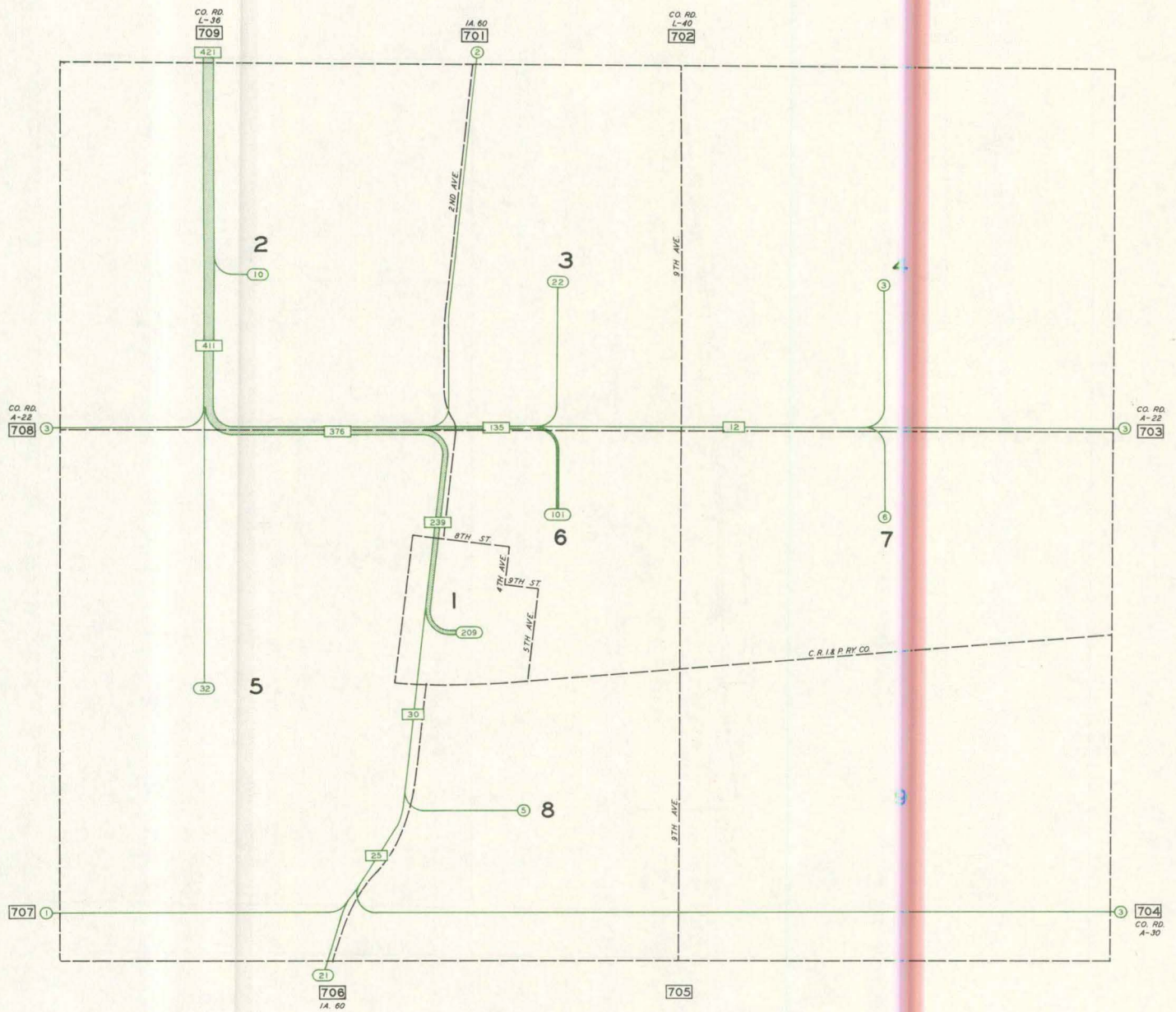


LEGEND
TRACT BOUNDARY LINE - - - - -

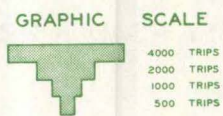


1970 AVERAGE JUNE
WEEKDAY TRAFFIC

FIGURE 4-6
INTERNAL DISPERSION OF
ALL VEHICULAR TRIPS PASSING THROUGH
STATION 707-LOCAL ROAD WEST
OF THE
SIBLEY STUDY AREA
(ALL TRIPS BY DRIVERS OF AUTOS, TRUCKS, TAXIS AND BUSES)



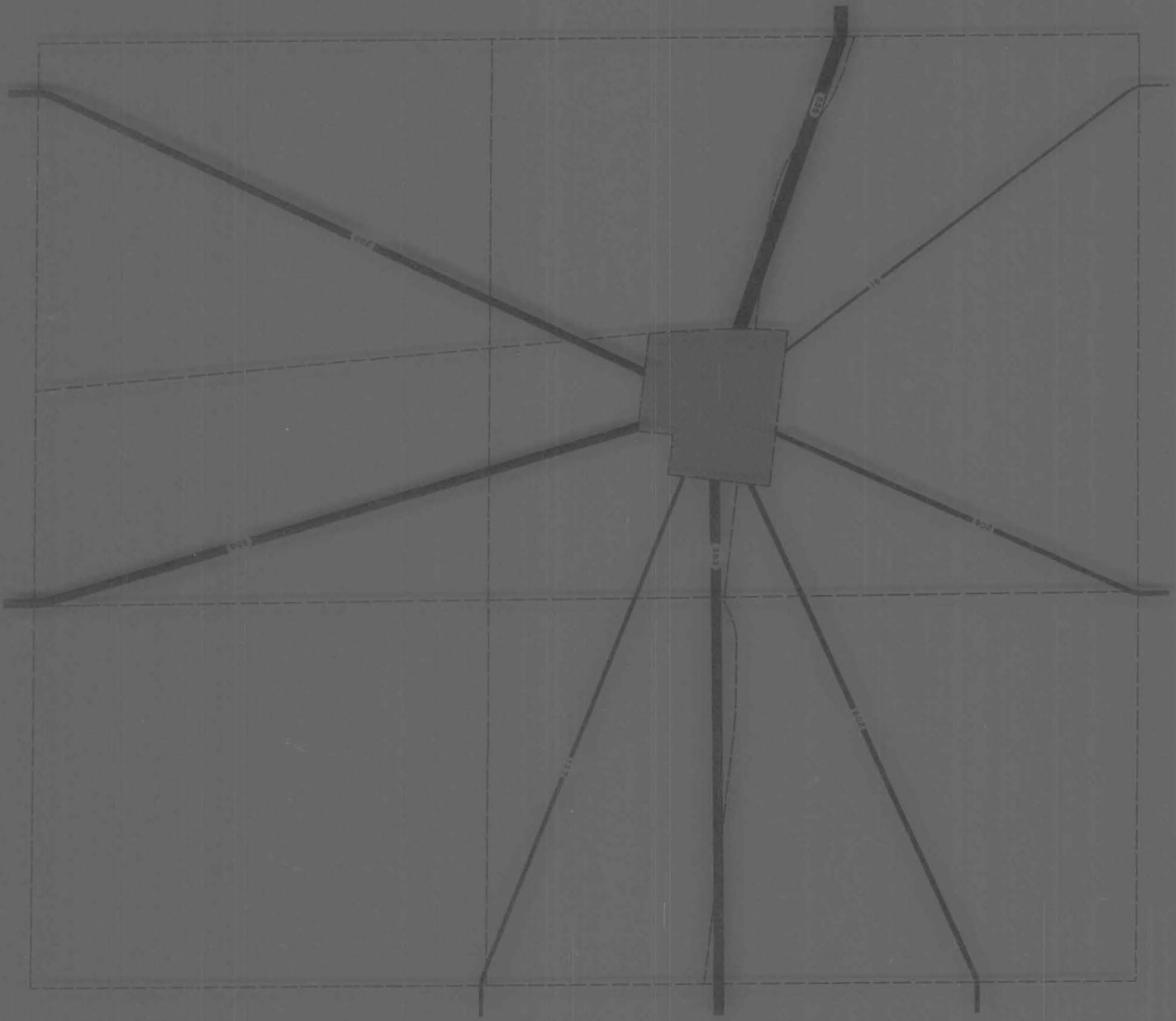
LEGEND
TRACT BOUNDARY LINE - - - - -



1970 AVERAGE JUNE
WEEKDAY TRAFFIC

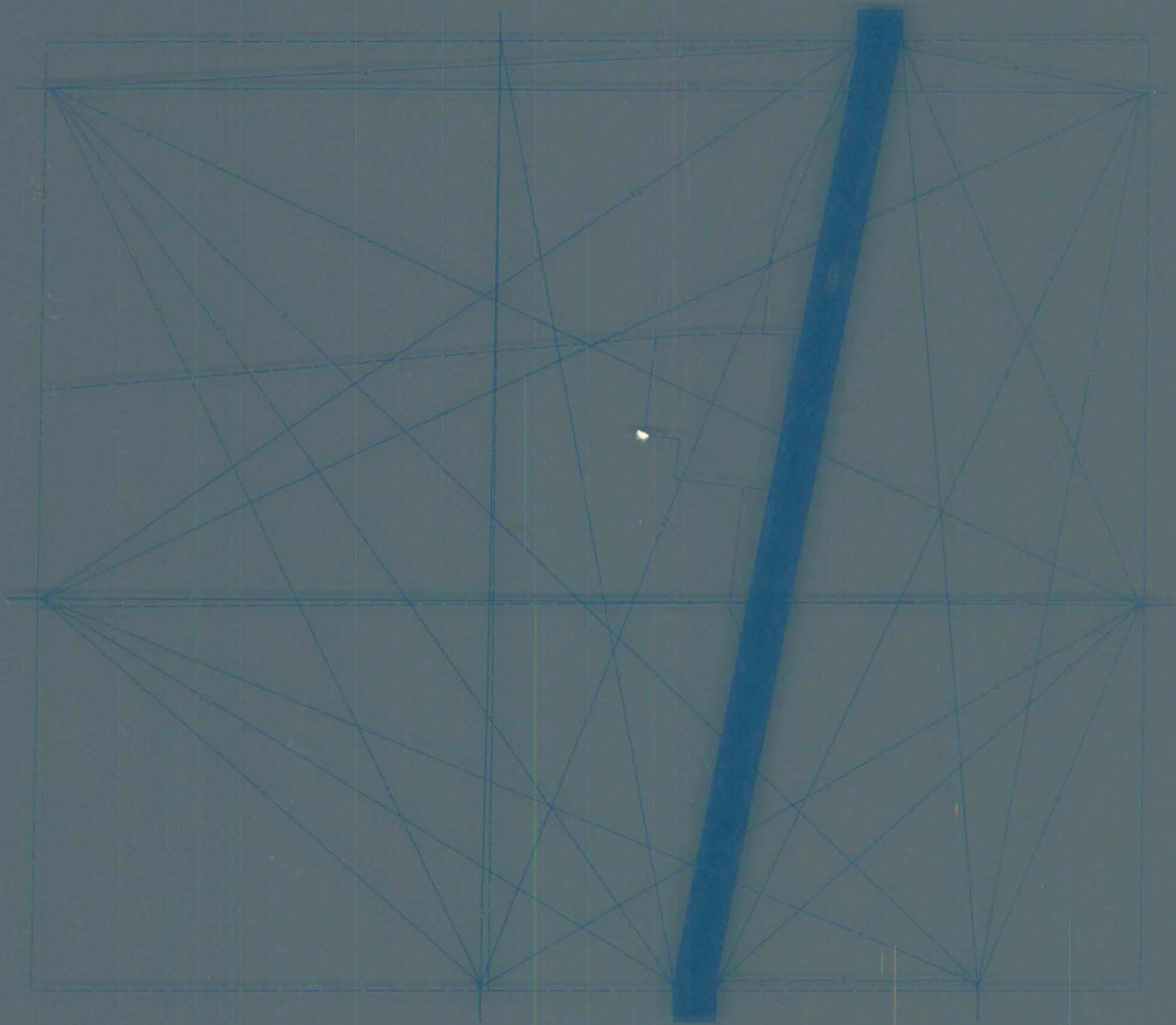
FIGURE 4-8
INTERNAL DISPERSION OF
ALL VEHICULAR TRIPS PASSING THROUGH
STATION 709 — COUNTY ROAD L-36 NORTH
OF THE
SIBLEY STUDY AREA
(ALL TRIPS BY DRIVERS OF AUTOS, TRUCKS, TAXIS AND BUSES)

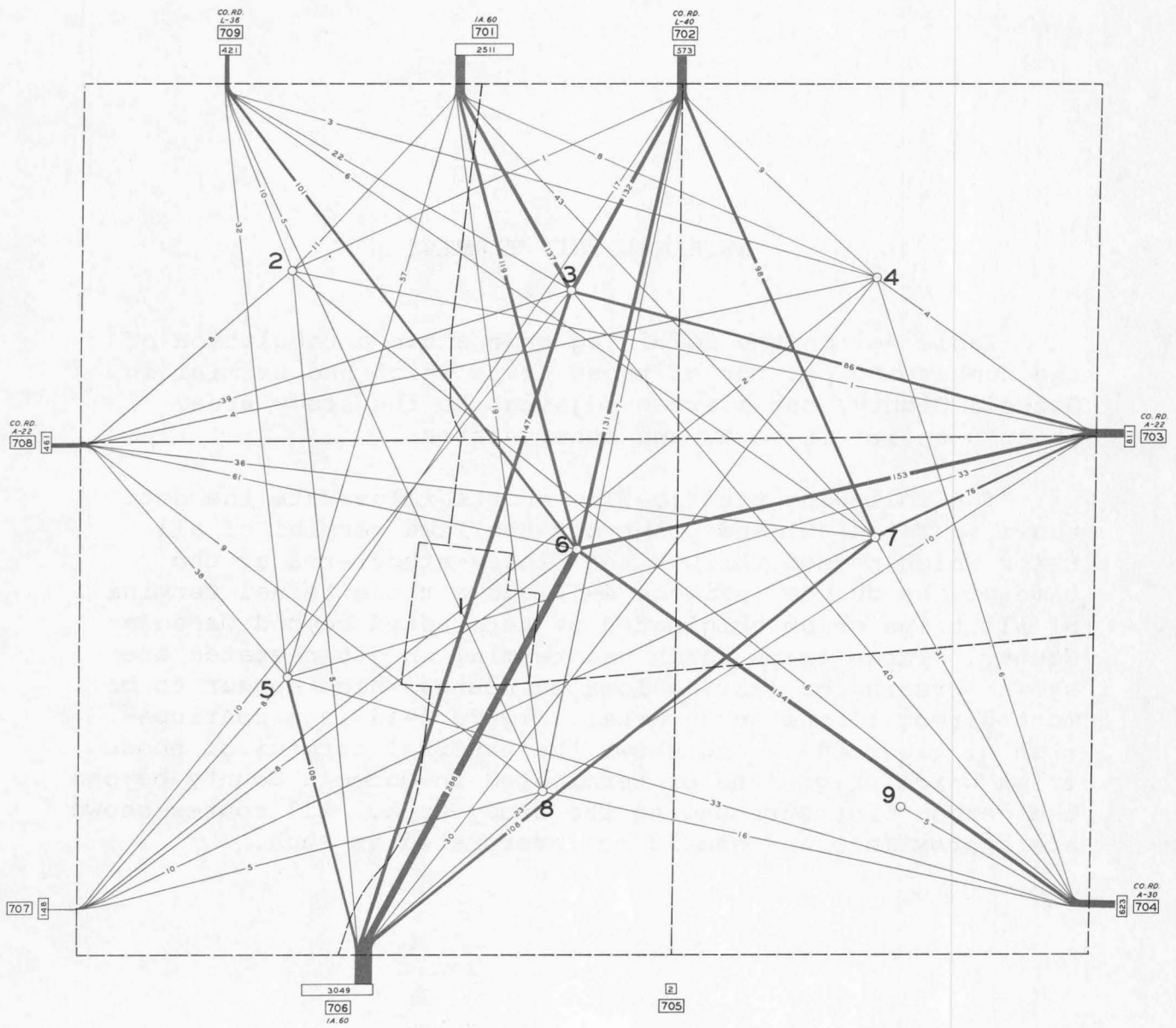
FIGURE 4-9



OTHER EXTERNAL ENTRANCES

FIGURE 4-10





GRAPHIC SCALE



1970 AVERAGE JUNE
WEEKDAY TRAFFIC

LEGEND

TRACT BOUNDARY LINE _____
CORPORATION LINE _____



FIGURE 4-11
DESIRE LINES OF TRAVEL OF TRIPS
TO OR FROM
EXTERNAL ENTRANCES OF THE
SIBLEY STUDY AREA
AND
INTERNAL TRACTS

EXTERNAL TRIP TERMINI

Table 4-1 on the adjoining page shows a tabulation of the number and percent of those trips which had termini in Osceola County, rural areas adjacent to the study area, other counties in Iowa, and other states.

The following traffic flow charts illustrate the data shown in Table 4-1 and point out the Iowa termini of all trips which passed through the Sibley study area at the time of the survey. Figure 4-12 shows the external termini of all trips which originated or terminated beyond Osceola County. Those trips which had termini in other states are shown entering or leaving Iowa on routes which appear to be most direct to the study area. Figure 4-13 is a continuation of Figure 4-12 and shows the external termini of those trips which originated or terminated in Osceola County beyond the cordon line surrounding the study area. All routes shown are approximate and should be interpreted as such.

FIGURE 4-12
DISPERSION OF EXTERNAL TRIPS
BETWEEN THE SIBLEY STUDY AREA
AND POINTS IN IOWA BEYOND OSCEOLA COUNTY

ALL TRIPS BY DRIVERS OF AUTOS, TRUCKS, TAXIS, AND BUSES

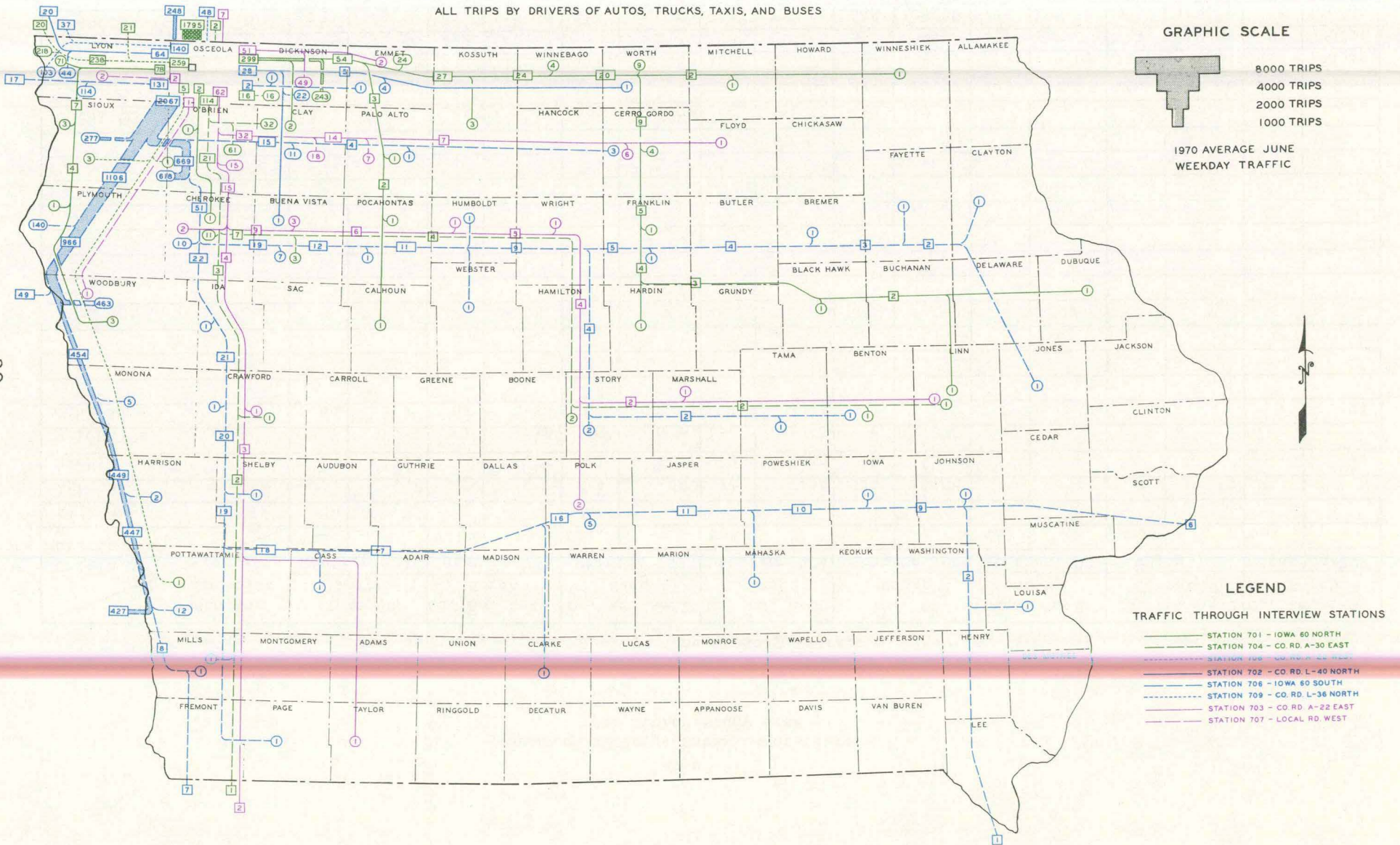
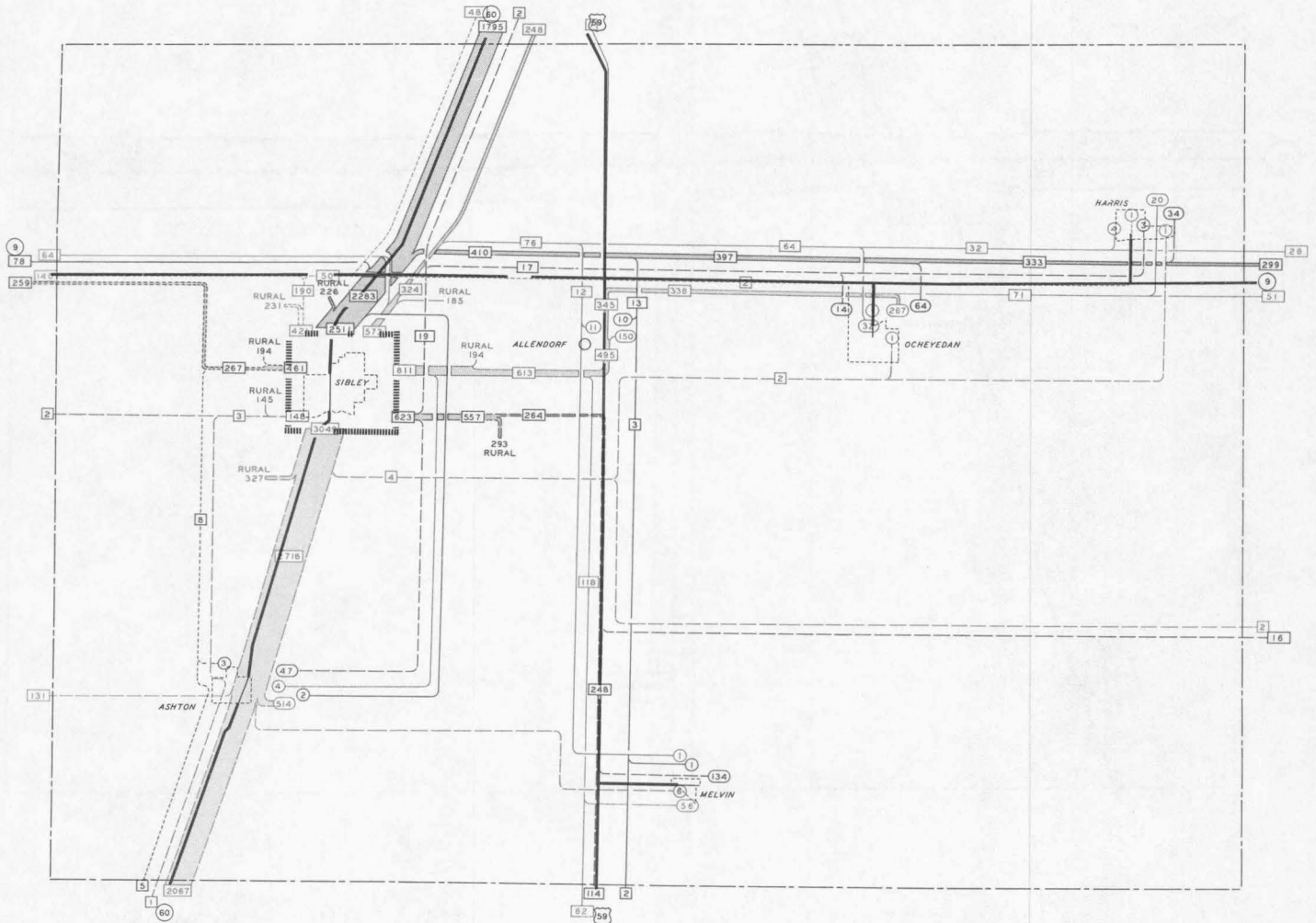
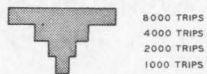


FIGURE 4-13
DISPERSION OF EXTERNAL TRIPS
BETWEEN THE SIBLEY STUDY AREA
AND POINTS WITHIN OSCEOLA COUNTY

ALL TRIPS BY DRIVERS OF AUTOS, TRUCKS, TAXIS, AND BUSES



GRAPHIC SCALE



1970 AVERAGE JUNE
WEEKDAY TRAFFIC

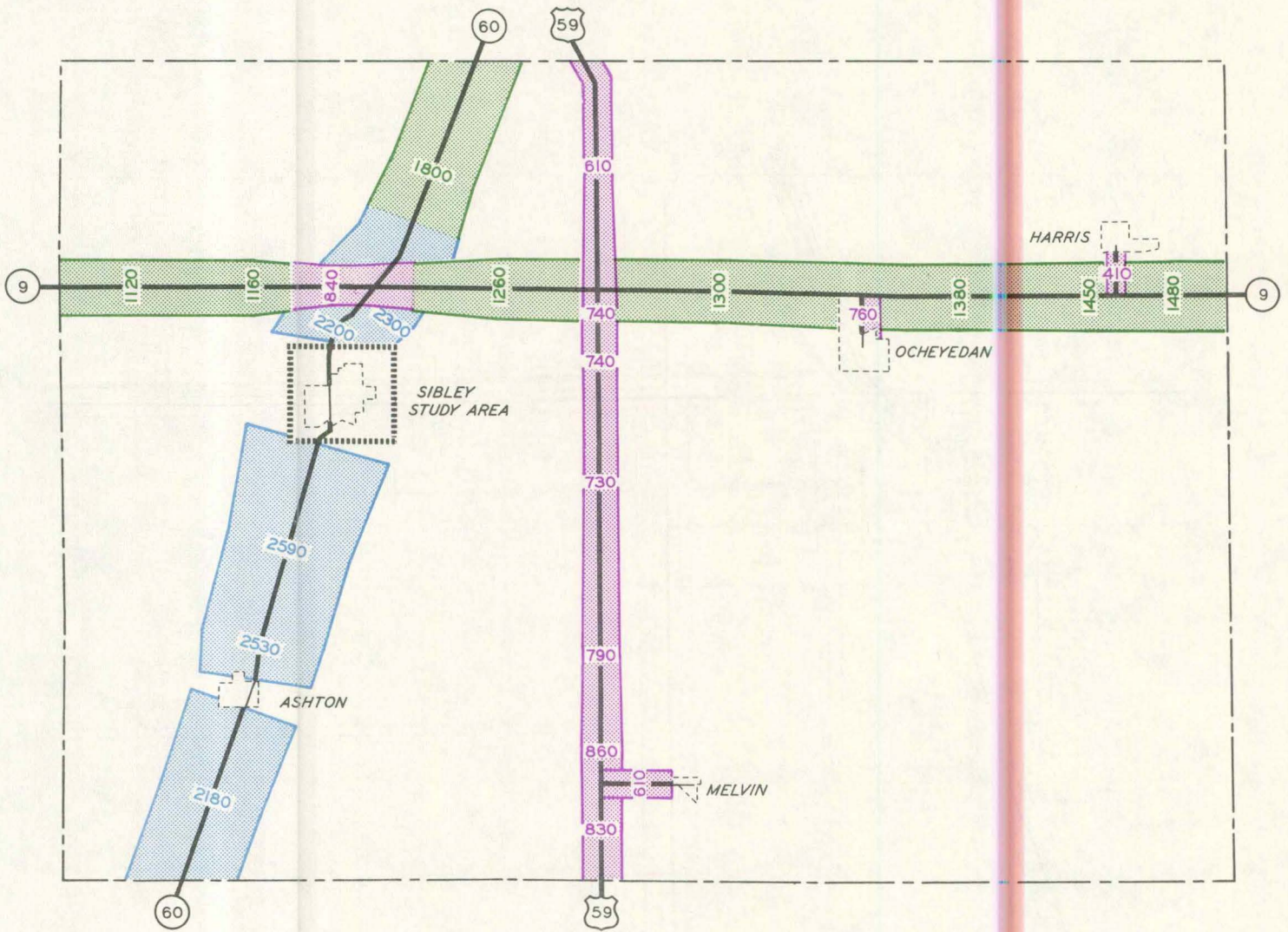
LEGEND

TRAFFIC THROUGH INTERVIEW STATIONS

- STATION 701 - IOWA 80 NORTH
- STATION 704 - CO. ROAD A-30 EAST
- STATION 708 - CO. ROAD A-22 WEST
- STATION 702 - CO. ROAD L-40 NORTH
- STATION 706 - IOWA 80 SOUTH
- STATION 709 - CO. ROAD L-36 NORTH
- STATION 703 - CO. ROAD A-22 EAST
- STATION 707 - LOCAL ROAD WEST

- CORPORATION LINE
- ▬▬▬▬▬ CORDON LINE

FIGURE 4-14
 TRAFFIC VOLUMES ON
 RURAL PRIMARY HIGHWAYS
 IN OSCEOLA COUNTY



LEGEND

- 0 TO 1000 TRIPS
- 1000 TO 2000 TRIPS
- 2000 TRIPS AND OVER

- CORPORATION LINE -----
- CORDON LINE (dotted)
- COUNTY LINE - - - - - (long dashed)



GRAPHIC SCALE



1970 AVERAGE ANNUAL DAILY TRAFFIC

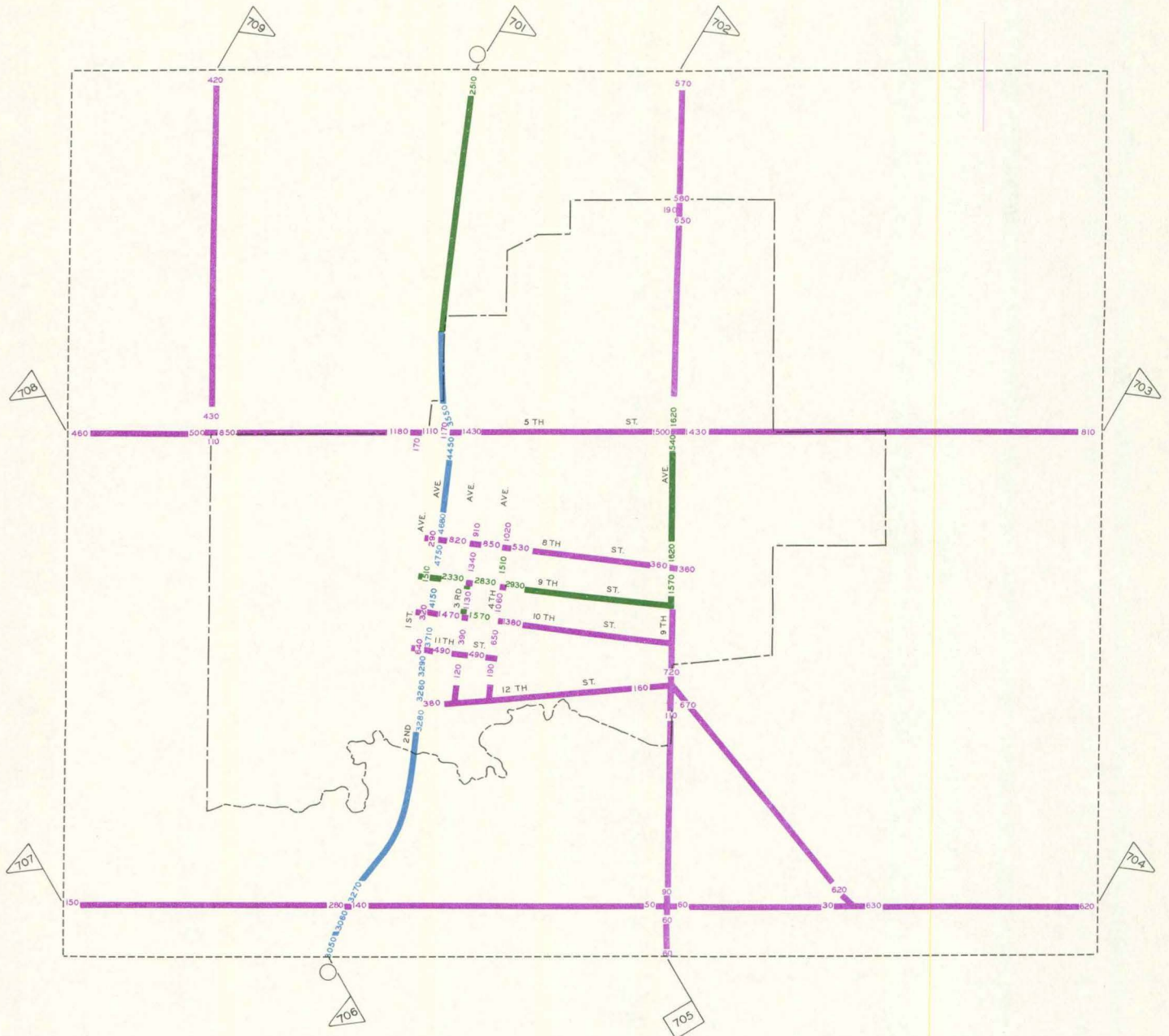
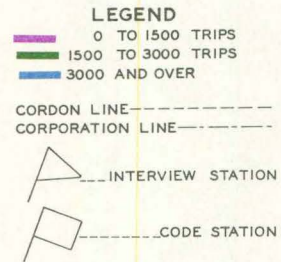
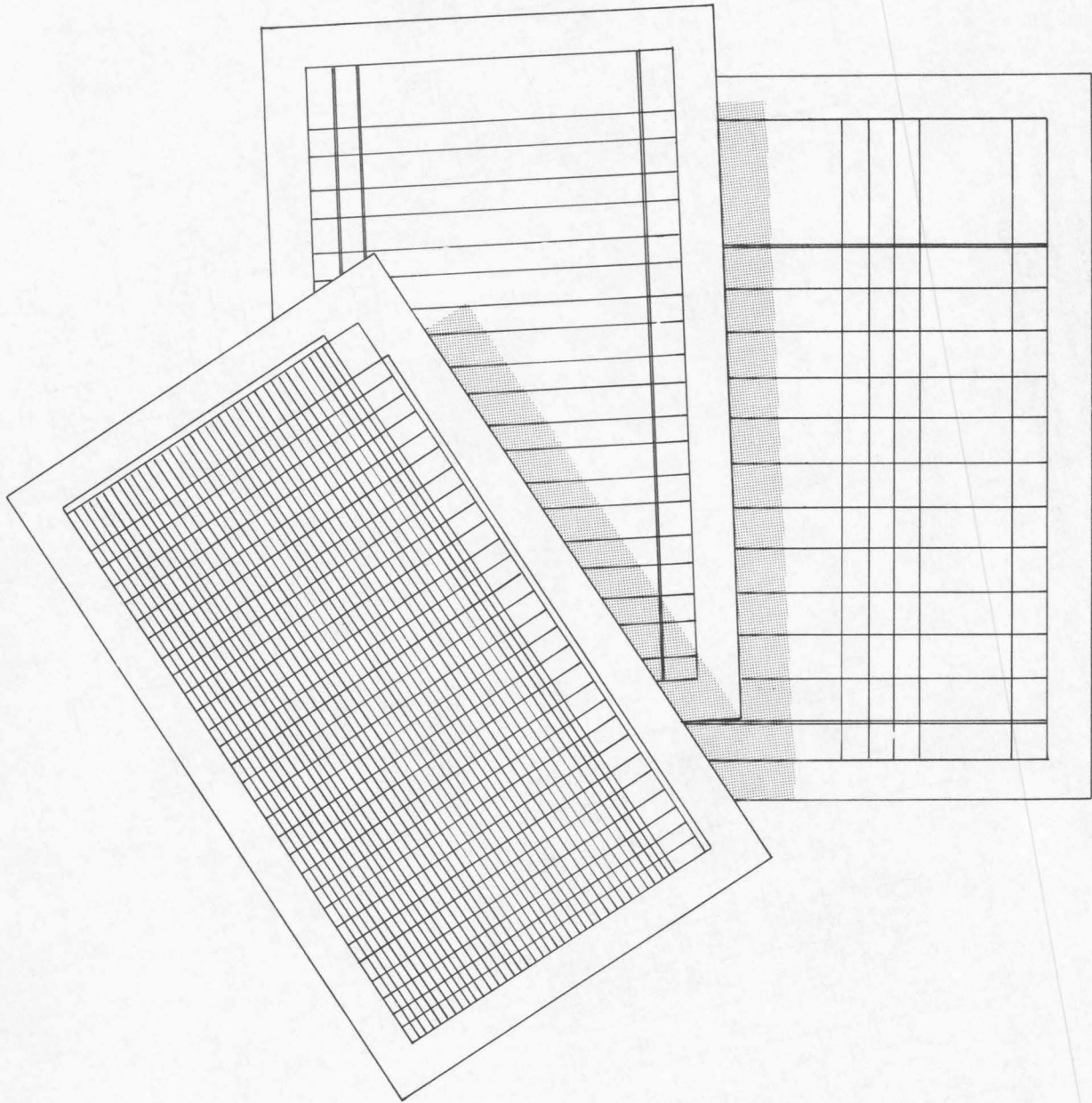


FIGURE 4-15
 TRAFFIC VOLUMES ON PRIMARY
 ROAD EXTENSIONS AND MAJOR STREETS
 SIBLEY STUDY AREA
 1970 AVERAGE JUNE WEEKDAY TRAFFIC



Appendix



SIBLEY STUDY AREA
TRIP PURPOSE OF EXTERNAL TRIPS
(ALL VEHICLE TYPES)
1970 AVERAGE JUNE WEEKDAY TRAFFIC

External Local Trips

Table B-2a (1)

Station \ Trip Purpose	701	702	703	704	706	707	708	709	Total Traffic
	Iowa 60 North	Co. Rd. L-40 North	Co. Rd. A-22 East	Co. Rd. A-30 East	Iowa 60 South	Local Road West	Co. Rd. A-22 West	Co. Rd. L-36 North	
Work	104	75	105	109	239	13	93	84	822
Personal Business	170	98	125	117	202	21	62	60	855
During Work	200	50	106	85	259	30	50	79	859
Medical or Dental	11	9	17	14	40		11	25	127
School	7	18	15	19	25	1	1	1	87
Social or Recreation	174	194	176	107	236	31	104	56	1,078
Eat	7	7	10	3	44		5	10	86
Shop	98	56	151	112	177	37	58	59	748
Serve Passengers	6	25	16	13	43	1	17	14	135
Total Traffic	777	532	721	579	1,265	134	401	388	4,797

External Through Trips

Table B-2a (2)

Station \ Trip Purpose	701	702	703	704	706	707	708	709	Total Traffic
	Iowa 60 North	Co. Rd. L-40 North	Co. Rd. A-22 East	Co. Rd. A-30 East	Iowa 60 South	Local Road West	Co. Rd. A-22 West	Co. Rd. L-36 North	
Work	84	8	14	4	85	1	10	5	211
Personal Business	196	7	8	6	195	1	8	4	425
During Work	429	4	22	4	447	3	11	7	927
Medical or Dental	7	1	1	1	6	1	1		18
School	21		2		23	1			47
Social or Recreation	923	18	36	24	953	4	25	15	1,998
Eat	15			1	17		2		35
Shop	43	2	6	4	42	2	2	2	103
Serve Passengers	16	1	1		16	1	1		36
Total Traffic	1,734	41	90	44	1,784	14	60	33	3,800

Summary - All External Trips

Table B-2a (3)

Station \ Trip Purpose	701	702	703	704	706	707	708	709	Total Traffic
	Iowa 60 North	Co. Rd. L-40 North	Co. Rd. A-22 East	Co. Rd. A-30 East	Iowa 60 South	Local Road West	Co. Rd. A-22 West	Co. Rd. L-36 North	
Work	188	83	119	113	324	14	103	89	1,033
Personal Business	366	105	133	123	397	22	70	64	1,280
During Work	629	54	128	89	706	33	61	86	1,786
Medical or Dental	18	10	18	15	46	1	12	25	145
School	28	18	17	19	48	2	1	1	134
Social or Recreation	1,097	212	212	131	1,189	35	129	71	3,076
Eat	22	7	10	4	61		7	10	121
Shop	141	58	157	116	219	39	60	61	851
Serve Passengers	22	26	17	13	59	2	18	14	171
Total Traffic	2,511	573	811	623	3,049	148	461	421	8,597

SIBLEY STUDY AREA
AVERAGE CAR OCCUPANCY BY TRIP PURPOSE
1970 AVERAGE JUNE WEEKDAY TRAFFIC

Table B-3a(1)

External Local Trips

Trip Purpose Origin	Trip Purpose - Destination										Average Occupancy
	Work	Personal Business	During Work	Medical or Dental	School	Social or Recreation	Eat	Shop	Serve Pass.	Home	
Work		1.244	1.000			1.852	1.485	1.000	3.400	1.313	1.357
Personal Business	1.182	1.810		1.000	4.000	2.724	2.028	1.561		1.442	1.596
During Work	1.250	2.000	1.228			1.000		1.000		1.194	1.227
Medical or Dental		1.000						3.000		2.449	2.428
School			2.000		3.696				4.000	1.321	2.353
Social or Recreation	1.268	1.625		3.000		2.151	1.334	3.173	4.000	2.248	2.201
Eat	2.000	3.000				2.137		2.000		2.142	2.156
Shop	2.000	1.597		6.000		2.235	3.000	2.554	3.000	1.970	2.009
Serve Passengers		4.000			4.000	3.000		5.436		3.255	3.405
Home	1.352	1.597	1.251	2.489	2.498	2.370	1.669	2.062	3.098		1.979
Average Occupancy	1.353	1.608	1.223	2.543	2.955	2.348	1.678	2.091	3.158	1.840	1.893

Table B-3a(2)

External Through Trips

Trip Purpose Origin	Trip Purpose - Destination										Average Occupancy	
	Work	Personal Business	During Work	Medical or Dental	School	Social or Recreation	Eat	Shop	Serve Pass.	Home		
Work		1.459	1.794								1.563	1.568
Personal Business	1.000	2.313	3.022			3.863					1.877	2.056
During Work			1.230								1.090	1.220
Medical or Dental						1.000					1.777	1.540
School						2.000					1.532	1.557
Social or Recreation		3.108			5.000	2.718	3.244	3.127	2.670	2.722	2.739	
Eat	2.000	1.718				2.871		3.000		2.492	2.438	
Shop		1.000				2.000				2.192	2.112	
Serve Passengers										2.575	2.575	
Home	1.669	1.964	1.719	2.596	1.247	2.810	1.767	2.326	2.824		2.547	
Average Occupancy	1.669	2.058	1.320	2.596	1.468	2.792	2.344	2.487	2.791	2.456	2.446	

Table B-3a(3)

Summary - All External Trips

Trip Purpose Origin	Trip Purpose - Destination										Average Occupancy
	Work	Personal Business	During Work	Medical or Dental	School	Social or Recreation	Eat	Shop	Serve Pass.	Home	
Work		1.268	1.161			1.800	1.432	1.298	3.400	1.336	1.377
Personal Business	1.168	1.965	3.022	1.000	4.000	2.877	2.028	1.561		1.528	1.683
During Work	1.250	2.000	1.228			1.000		1.000		1.157	1.225
Medical or Dental		1.000				1.000		3.000		2.430	2.394
School			2.000		3.696	2.000			4.000	1.386	2.189
Social or Recreation	1.268	2.117		3.000	5.000	2.534	2.097	3.153	3.199	2.490	2.490
Eat	2.000	2.005				2.461		2.334		2.216	2.253
Shop	2.000	1.539		6.000		2.229	3.000	2.554	3.000	1.984	2.015
Serve Passengers		4.000			4.000	3.000		5.436		3.207	3.355
Home	1.387	1.675	1.419	2.500	2.216	2.572	1.677	2.078	3.069		2.133
Average Occupancy	1.387	1.708	1.250	2.549	2.711	2.557	1.759	2.121	3.116	2.002	2.048

TABLE E-1

SIBLEY STUDY AREA
DIRECTIONAL TRIPS BETWEEN STATIONS AND TRACTS
1970 AVERAGE JUNE WEEKDAY TRAFFIC

VEHICLE TRIPS							VEHICLE TRIPS						
From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total	From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total
1	701	139	33	21	2	195	1	707	14	15	4		33
2	701	3				3	3	707	5				5
3	701	70	11	6	1	88	5	707	3	1	1		5
4	701	5				5	6	707	2				2
5	701	18	4	4	1	27	7	707	3	1	2		6
6	701	46	10	4		60	8	707		5			5
7	701	21	3	4		28	Cl.2 Total		27	22	7		56
8	701	4	3	4		11							
Cl.2 Total		306	64	43	4	417	1	708	71	16	7	1	95
							2	708		4			4
1	702	35	14	6		55	3	708	20				20
3	702	58	23			81	4	708	3				3
4	702	1				1	5	708	18	2			20
5	702	8				8	6	708	22	2	1		25
6	702	56	3			59	7	708	16	3	2		21
7	702	48	1			49	8	708	1	1			2
8	702	3				3	Cl.2 Total		151	28	10	1	190
Cl.2 Total		209	41	6		256							
							1	709	63	24	17		104
1	703	135	24	11	2	172	2	709	3	3			6
2	703	1				1	3	709	11	1			12
3	703	38	5	1		44	4	709	1				1
5	703	6	2	1		9	5	709	11	5	3		19
6	703	68	5	3		76	6	709	44	5			49
7	703	25	10	2		37	7	709	3	1			4
8	703	3	3	1	2	9	8	709	1	2			3
Cl.2 Total		276	49	19	4	348	Cl.2 Total		137	41	20		198
1	704	93	35	7		135	701	1	130	30	27	1	188
2	704	3	1			4	701	2	7	1			8
3	704	16	4			20	701	3	34	11	4		49
4	704	4				4	701	4	1	2			3
5	704	17	1	1		19	701	5	17	8	2	3	30
6	704	64	10	9		83	701	6	49	7	3		59
7	704	7	2		8	17	701	7	13	1		1	15
8	704	4	3	4		11	701	8	2	5	1		8
9	704	1				1	Cl.3 Total		253	65	37	5	360
Cl.2 Total		209	56	21	8	294							
							702	1	69	9	4		82
1	706	192	41	38	6	277	702	2	1				1
2	706	1				1	702	3	45	6			51
3	706	73	14	2		89	702	4	6	2			8
4	706	15	5			20	702	5	6		3		9
5	706	45	17	6		68	702	6	61	7		4	72
6	706	129	13	8	1	151	702	7	42	3	4		49
7	706	45	10	5		60	702	8		2	2		4
8	706	6	5			11	Cl.3 Total		230	29	13	4	276
Cl.2 Total		506	105	59	7	677							

VEHICLE TRIPS						
From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total
703	1	153	24	7	2	186
703	3	37	5			42
703	4	4				4
703	5	16	6	2		24
703	6	69	7	1		77
703	7	26	10	2	1	39
703	8		1			1
Cl. 3	Total	305	53	12	3	373
704	1	119	27	7		153
704	2	2				2
704	3	16	4			20
704	4	1	1			2
704	5	9	4	1		14
704	6	47	20	4		71
704	7	9	1	4		14
704	8	1	2	2		5
704	9	3		1		4
Cl. 3	Total	207	59	19		285
706	1	194	44	25	16	279
706	2	4				4
706	3	41	11	6		58
706	4	10				10
706	5	26	9	4	1	40
706	6	113	10	11	3	137
706	7	37	6	5		48
706	8	6	6			12
Cl. 3	Total	431	86	51	20	588
707	1	19	36	3		58
707	3	5				5
707	4	2				2
707	5	2		1		3
707	6	5	1			6
707	7	3		1		4
Cl. 3	Total	36	37	5		78
708	1	77	18	13	3	111
708	2	3	1			4
708	3	18	1			19
708	4	1				1
708	5	13	4	1		18
708	6	35	1			36
708	7	15				15
708	8	4	2	1		7
Cl. 3	Total	166	27	15	3	211

VEHICLE TRIPS						
From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total
709	1	64	29	10	2	105
709	2		3	1		4
709	3	5	5			10
709	4	1	1			2
709	5	12	1			13
709	6	41	10	1		52
709	7	2				2
709	8	1	1			2
Cl. 3	Total	126	50	12	2	190
701	703	6	2			8
701	704	12				12
701	706	596	70	57	115	838
701	707	1	2			3
701	708	11	2	1		14
701	709		1			1
703	701	5	2			7
704	701	8				8
705	701			1		1
706	701	620	67	49	91	827
707	701	1	1			2
708	701	8	3		1	12
709	701	1				1
Cl. 4	Total	1269	150	108	207	1734
702	703	5				5
702	704	1		1		2
702	705	1				1
702	706	9	2			11
702	708		2			2
703	702	5				5
704	702	1				1
706	702	11	1	1		13
708	702	1				1
Cl. 4	Total	34	5	2		41
703	701	5	2			7
703	702	5				5
703	706	15	5	4	1	25
703	707	1				1
703	708	3	1	1		5
703	709	1				1
701	703	6	2			8
702	703	5				5
706	703	20	4	1	2	27
708	703	2	2			4
709	703	1	1			2
Cl. 4	Total	64	17	6	3	90

VEHICLE TRIPS						
From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total
704	701	8				8
704	702	1				1
704	706	4	2			6
704	707	1				1
704	708	4	1			5
704	709		1			1
701	704	12				12
702	704	1		1		2
706	704		1			1
707	704	1	1			2
708	704	2	1			3
709	704	1	1			2
Cl. 4	Total	35	8	1		44
706	701	620	67	49	91	827
706	702	11	1	1		13
706	703	20	4	1	2	27
706	704		1			1
706	707	3				3
706	708	1	1			2
706	709	7	3	1		11
701	706	597	70	57	115	839
702	706	9	2			11
703	706	15	5	4	1	25
704	706	4	2			6
707	706	1				1
708	706	7	1	1		9
709	706	8	1		1	10
Cl. 4	Total	1303	158	114	210	1785
707	701	1	1			2
707	704	1	1			2
707	706	1				1
707	709	1				1
701	707	1	2			3
703	707	1				1
704	707	1				1
706	707	3				3
Cl. 4	Total	10	4			14

VEHICLE TRIPS						
From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total
708	701	8	3		1	12
708	702	1				1
708	703	2	2			4
708	704	2	1			3
708	706	7	1	1		9
708	709			1		1
701	708	11	2	1		14
702	708		2			2
703	708	3	1	1		5
704	708	4	1			5
706	708	1	1			2
709	708	2				2
Cl. 4	Total	41	14	4	1	60
709	701	1				1
709	703	1	1			2
709	704	1	1			2
709	706	8	1		1	10
709	708	2				2
701	709		1			1
703	709	1				1
704	709		1			1
706	709	7	3	1		11
707	709	1				1
708	709			1		1
Cl. 4	Total	22	8	2	1	33

TABLE E-2

SIBLEY STUDY AREA
NONDIRECTIONAL TRIPS BETWEEN STATIONS AND TRACTS
1970 AVERAGE JUNE WEEKDAY TRAFFIC

VEHICLE TRIPS							VEHICLE TRIPS						
From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total	From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total
701	1	269	63	48	3	383	707	1	33	51	7		91
701	2	10	1			11	707	3	10				10
701	3	104	22	10	1	137	707	4	2				2
701	4	6	2			8	707	5	5	1	2		8
701	5	35	12	6	4	57	707	6	7	1			8
701	6	95	17	7		119	707	7	6	1	3		10
701	7	34	4	4	1	43	707	8		5			5
701	8	6	8	5		19	Cl.2&3 Total		63	59	12		134
Cl.2&3	Total	559	129	80	9	777							
702	1	104	23	10		137	708	1	148	34	20	4	206
702	2	1				1	708	2	3	5			8
702	3	103	29			132	708	3	38	1			39
702	4	7	2			9	708	4	4				4
702	5	14		3		17	708	5	31	6	1		38
702	6	117	10		4	131	708	6	57	3	1		61
702	7	90	4	4		98	708	7	31	3	2		36
702	8	3	2	2		7	708	8	5	3	1		9
Cl.2&3	Total	439	70	19	4	532	Cl.2&3 Total		317	55	25	4	401
703	1	288	48	18	4	358	709	1	127	53	27	2	209
703	2	1				1	709	2	3	6	1		10
703	3	75	10	1		86	709	3	16	6			22
703	4	4				4	709	4	2	1			3
703	5	22	8	3		33	709	5	23	6	3		32
703	6	137	12	4		153	709	6	85	15	1		101
703	7	51	20	4	1	76	709	7	5	1			6
703	8	3	4	1	2	10	709	8	2	3			5
Cl.2&3	Total	581	102	31	7	721	Cl.2&3 Total		263	91	32	2	388
704	1	212	62	14		288	701	703	11	4			15
704	2	5	1			6	701	704	20				20
704	3	32	8			40	701	705		1			1
704	4	5	1			6	701	706	1216	137	106	206	1665
704	5	26	5	2		33	701	707	2	3			5
704	6	111	30	13		154	701	708	19	5	1	1	26
704	7	16	3	4	8	31	701	709	1	1			2
704	8	5	5	6		16	Cl. 4 Total		1269	150	108	207	1734
704	9	4	1	1		5	Cl.2&3 Total		559	129	80	9	777
Cl.2&3	Total	416	115	40	8	579	701 Total		1828	279	188	216	2511
706	1	386	85	63	22	556							
706	2	5				5	702	703	10				10
706	3	114	25	8		147	702	704	2		1		3
706	4	25	5			30	702	705	1				1
706	5	71	26	10	1	108	702	706	20	3	1		24
706	6	242	23	19	4	288	702	708	1	2			3
706	7	82	16	10		108	Cl. 4 Total		34	5	2		41
706	8	12	11			23	Cl.2&3 Total		439	70	19	4	532
Cl.2&3	Total	937	191	110	27	1265	702 Total		473	75	21	4	573

VEHICLE TRIPS						
From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total
703	701	11	4			15
703	702	10				10
703	706	35	9	5	3	52
703	707	1				1
703	708	5	3	1		9
703	709	2	1			3
Cl. 4	Total	64	17	6	3	90
Cl. 2&3	Total	581	102	31	7	721
703	Total	645	119	37	10	811
704	701	20				20
704	702	2		1		3
704	706	4	3			7
704	707	2	1			3
704	708	6	2			8
704	709	1	2			3
Cl. 4	Total	35	8	1		44
Cl. 2&3	Total	416	115	40	8	579
704	Total	451	123	41	8	623
706	701	1216	137	106	206	1665
706	702	20	3	1		24
706	703	35	9	5	3	52
706	704	4	3			7
706	707	4				4
706	708	8	2	1		11
706	709	15	4	1	1	21
Cl. 4	Total	1302	158	114	210	1784
Cl. 2&3	Total	937	191	110	27	1265
706	Total	2239	349	224	237	3049

VEHICLE TRIPS						
From	To	Auto	Pickup and Panel	Single Unit & Bus	Semi Truck	Total
707	701	2	3			5
707	703	1				1
707	704	2	1			3
707	706	4				4
707	709	1				1
Cl. 4	Total	10	4			14
Cl. 2&3	Total	63	59	12		134
707	Total	73	63	12		148
708	701	19	5	1	1	26
708	702	1	2			3
708	703	5	3	1		9
708	704	6	2			8
708	706	8	2	1		11
708	709	2		1		3
Cl. 4	Total	41	14	4	1	60
Cl. 2&3	Total	317	55	25	4	401
708	Total	358	69	29	5	461
709	701	1	1			2
709	703	2	1			3
709	704	1	2			3
709	706	15	4	1	1	21
709	707	1				1
709	708	2		1		3
Cl. 4	Total	22	8	2	1	33
Cl. 2&3	Total	263	91	32	2	388
709	Total	285	99	34	3	421

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