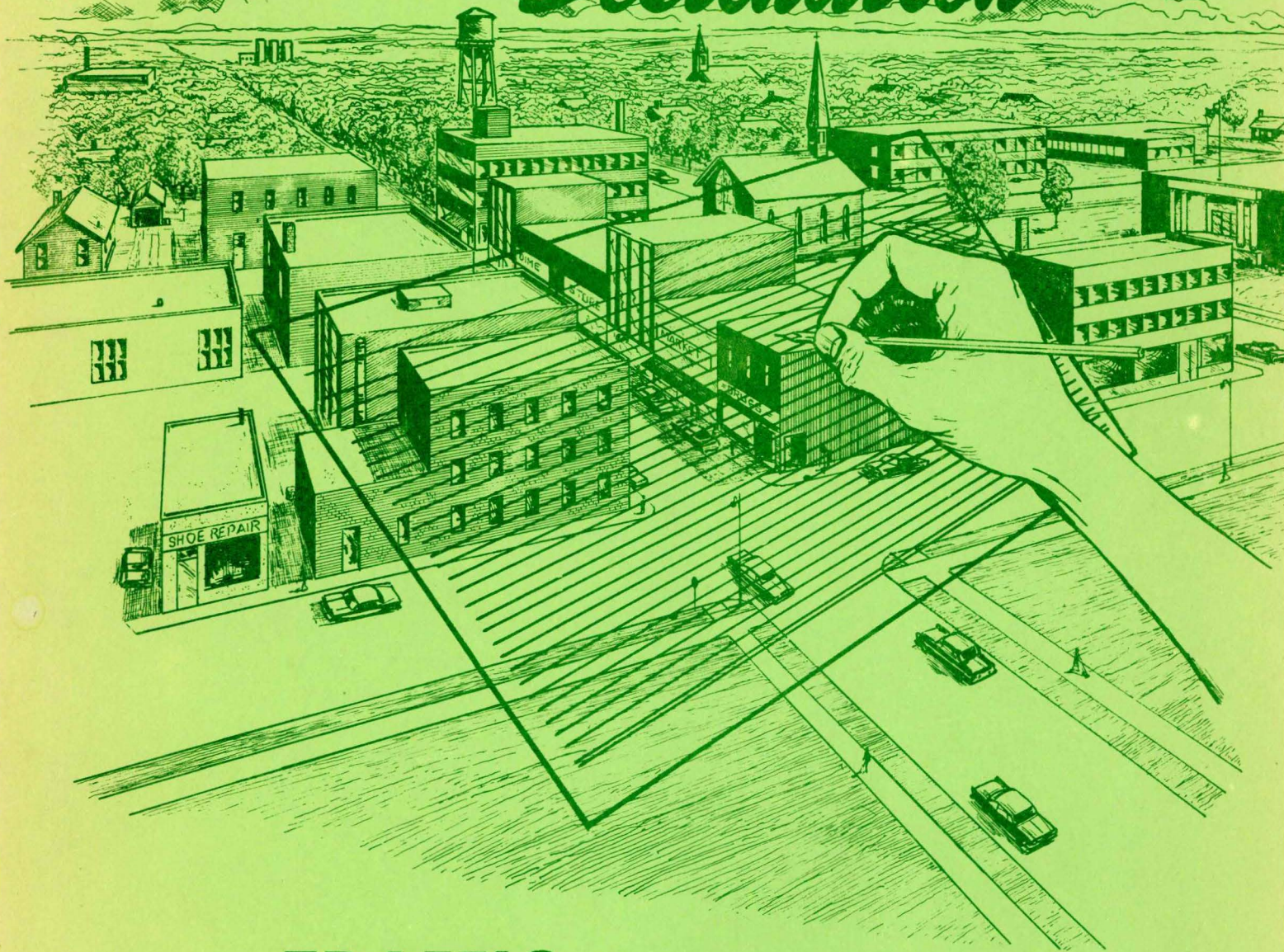


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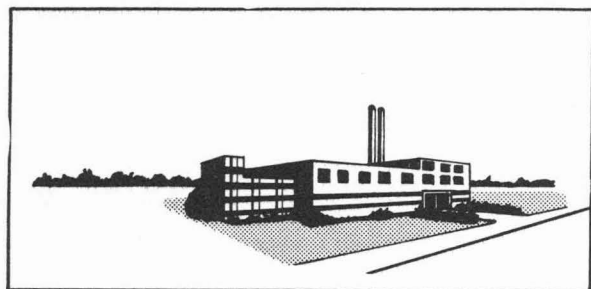
Origin and Destination



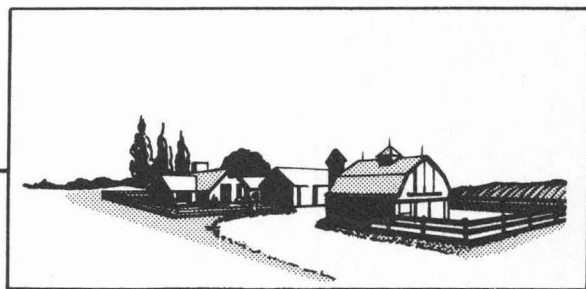
**TRAFFIC
REPORT**

Iowa
AUGUST 1960

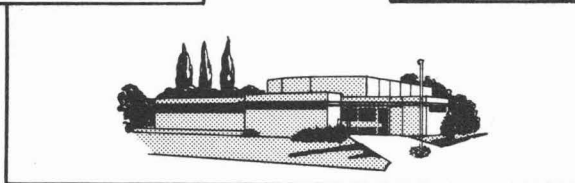
State Of Iowa
Grinnell Urban Area
Origin And Destination
Traffic Study
September 1962



Industry



Agriculture



Education And Culture

PREPARED BY
TRAFFIC AND HIGHWAY PLANNING DEPARTMENT
DIVISION OF PLANNING
IOWA STATE HIGHWAY COMMISSION
IN COOPERATION WITH THE
UNITED STATES BUREAU OF PUBLIC ROADS

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Definitions of Technical Terms

Central Business District (C.B.D.)	The major business district of a city.
Cordon Line	The boundry of the area being studied.
Desire Line	A straight line between the point of origin and point of destination without regard to routes of travel.
Destination	The place where a trip ends.
External Trip	A movement having origin, destination, or both outside the study area.
Internal Trip	A movement having both origin and destination within the area under study.
Origin	The location from which the driver started the trip.
Through-Trip	A movement with neither origin nor destination within the area under study.
Tract	An area containing one or more city blocks and usually consisting of a more or less homogenous development.
Trip	The one-way travel between origin and destination.
Urban Area	The area included within and adjacent to a municipality or other urban place of 5,000 or more in population.

FOREWORD

An origin-destination survey, as the name implies, is a comprehensive study of trip termini with special emphasis being placed on the origin, destination, and routes of travel between the terminal points of each trip. The ultimate goal of such a survey is to obtain factual evidence of traffic patterns in a given locality. This information can then be used in the development of an efficient and practical street or highway program.

In order to obtain the mass of information required, it is necessary to interview vehicle drivers at strategically located interview stations. In Grinnell, interview stations were located on each of the primary highways entering the city at or near the corporate limits. Interviews were conducted on the 15th through the 18th of August, 1960 with interviewing being done from 6 A.M. to 10 P.M. at each station location.

Each vehicle passing through an interview station was stopped and the driver was asked the origin, destination, and purpose of his trip. In addition, interviewers also noted and recorded the type of vehicle, number of occupants, direction of travel, and the state or Iowa county in which the vehicle was registered.

In addition to the data obtained from interviews, supplemental data was gathered by mechanical recorders and manual vehicle classification counts. This information was later used to expand the data obtained during the 16 hour period in which interviews were conducted to 24 hour August average weekday traffic.

Grinnell was divided into twelve internal tracts using major streets and highways, in most cases, as the dividing lines between tracts. At the conclusion of the fieldwork, the data pertaining to each trip was converted into code and punched on tabulating cards. These cards were then sorted and tabulated by machine. Trips which originated or terminated in Grinnell were coded according to tract of origin or destination. Those trips which had neither origin nor destination in Grinnell were coded to the station of entry and exit.

In this report, all traffic movements are divided into two basic types.

- (1) External trips. Trips in this category have either origin or destination within the study area and pass through only one interview station enroute to their destination.

(2) Through-trips. Trips in this category had neither origin nor destination within the study area and pass through two interview stations enroute to their destination.

Traffic flow charts indicating the internal dispersion of traffic by tract of origin or destination are included in this report along with a series of desire line charts showing desired routes of travel in straight lines between interview stations and tracts within the city. These charts along with the accompanying tables illustrate the movement of traffic through Grinnell as well as desired routes of travel.

It is not within the scope of this report to make recommendations concerning the revision or construction of routes, but rather to organize and present the findings of the survey in a manner which will be helpful to local officials in determining traffic needs. It is hoped that this report will point the way toward the solution of any existing traffic problems and thereby help provide adequate and efficient transportation facilities for the people of Grinnell.

HISTORY

The city of Grinnell is located near the western edge of Poweshiek County in east central Iowa. Grinnell is named after one of its founders, Josia Bushnell Grinnell, a Congregational minister from New York City who came to Iowa along with Dr. Thomas Holyoke of Scarsport, Main, and the Rev. Homer Hamlin of Hudson, Ohio, seeking a location to establish and develop a college and a town. Grinnell and his friends reached Iowa in March 1854 and the following year in December 1855, Grinnell College was founded.

The town of Grinnell was platted in 1855 and lots were offered for sale to provide the necessary money to finance the new educational venture. One important stipulation connected with the sale of lots was that no intoxicating liquor was to be sold in the town. The original deeds to town lots contained a provision providing that any person holding property in Grinnell would forfeit his property if liquor were sold on the premises and that such property would immediately revert back to the Grinnell estate.

In 1859, Iowa College of Davenport merged with Grinnell College and is today a four year, liberal arts college which is privately endowed, non-sectarian, and coeducational. Grinnell College has been rated among the top ten liberal arts colleges in the nation.

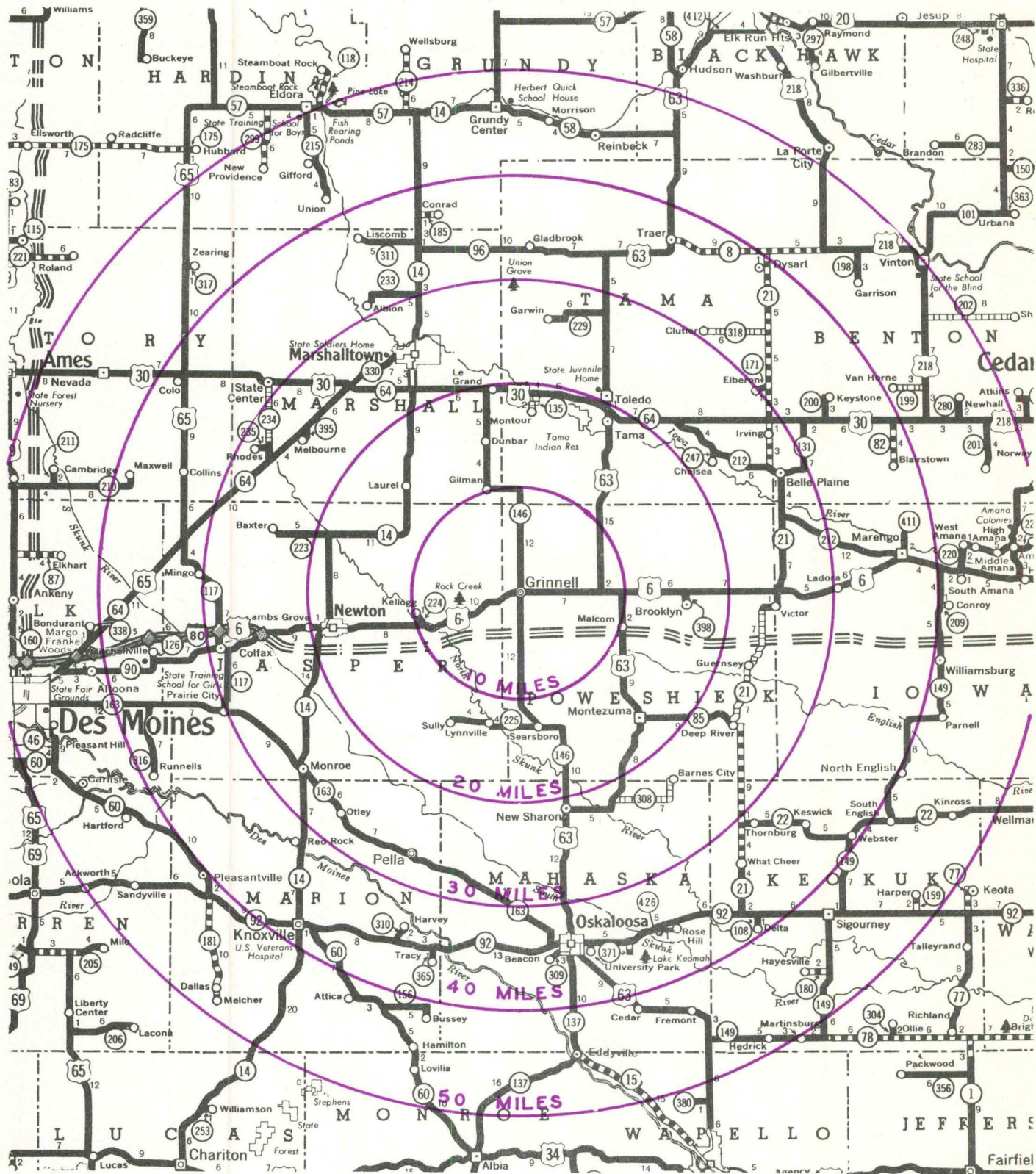
During the year of 1854, several buildings were erected in Grinnell - a store was opened by Anor Scott, a hotel was started by George Chambers, and a small building was erected which was to serve as both church and school.

Poweshiek county, in which Grinnell is located, was officially organized in April 1848 with the election of the following county officers: Richard B. Ogden, Martin Snyder, and Jacob Yeager. The county seat was located at Montezuma where lots were sold to finance the construction of a county court house. William H. Barnes erected the first building in the new county seat in 1848. In 1856, John Cassady established the first newspaper, the "Montezuma Republican." The county was named after Chief Poweshiek of the Sac Indian tribe.

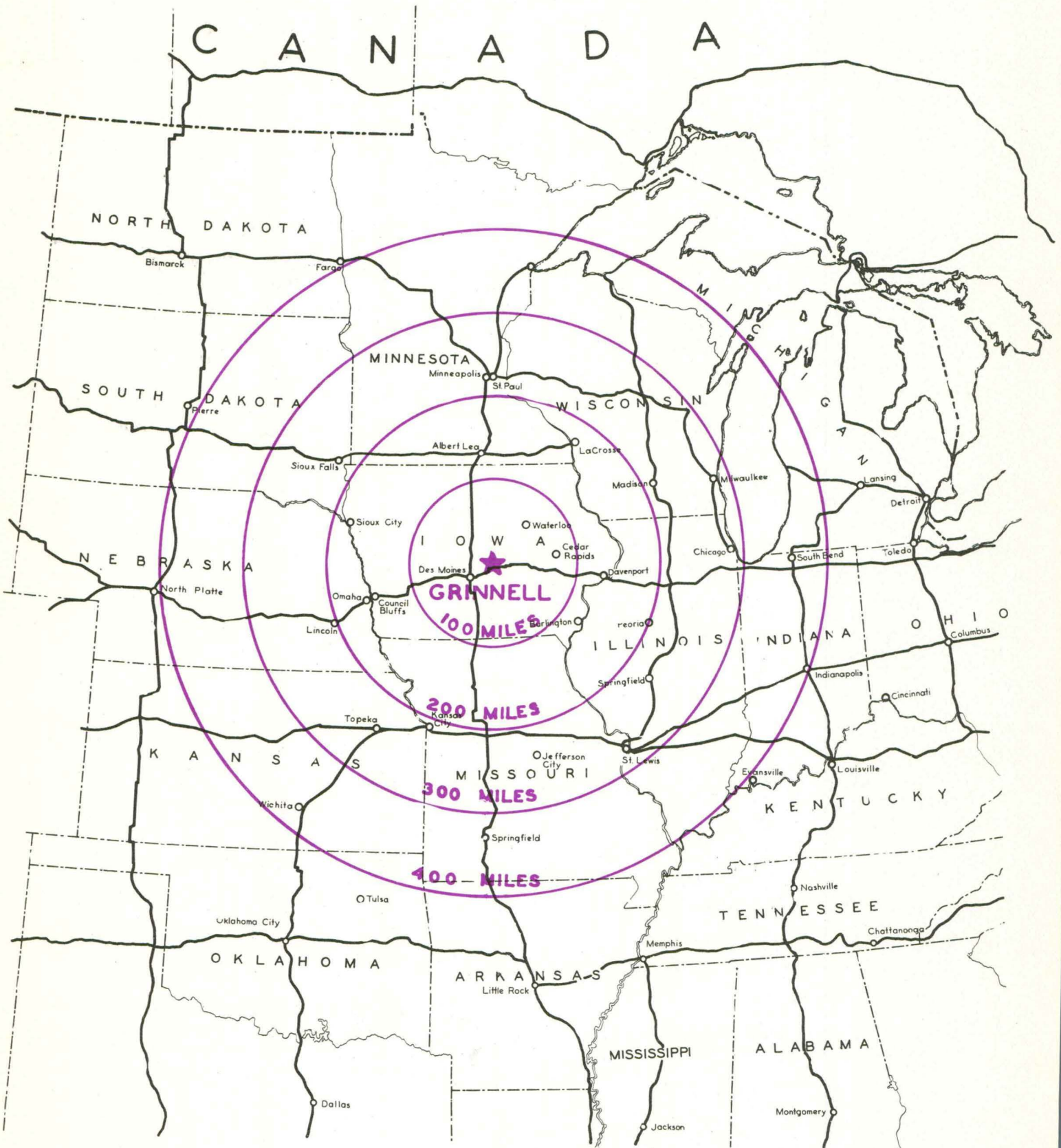
Richard B. Ogden was the first white man to settle in what was later to become Poweshiek county and settled in Union township in the spring of 1843. Daniel and Joseph W. Satchell and Richard Cheeseman settled near him in the same year. The first school in Poweshiek County, a log cabin in Union township was taught by Stephen Moore during the winter of 1847-48. The first mail route through the county was also begun in 1847 when mail was carried from Iowa City to Ft. Des Moines passing through Poweshiek County.

From its humble beginning in 1855, Grinnell has grown steadily and today has a population of 7,367. Several nationally known manufacturers are located in Grinnell and its location at the junction of two primary highways, U.S. 6 and Iowa 146, make its location easily accessible. The proposed route of Interstate 80 passes a few miles south of the city and upon its completion will provide additional accessibility to points east and west of Grinnell.

STUDY AREA POSITION IN EAST CENTRAL IOWA



STUDY AREA POSITION IN THE MIDWEST



GRINNELL POPULATION
BY CENSUS YEAR

Census Year	Grinnell Population	Percent Increase
1900	3860	
1910	5036	30.47
1920	5362	6.47
1930	4949	-7.70
1940	5210	5.27
1950	6828	31.06
1960	7367	7.89

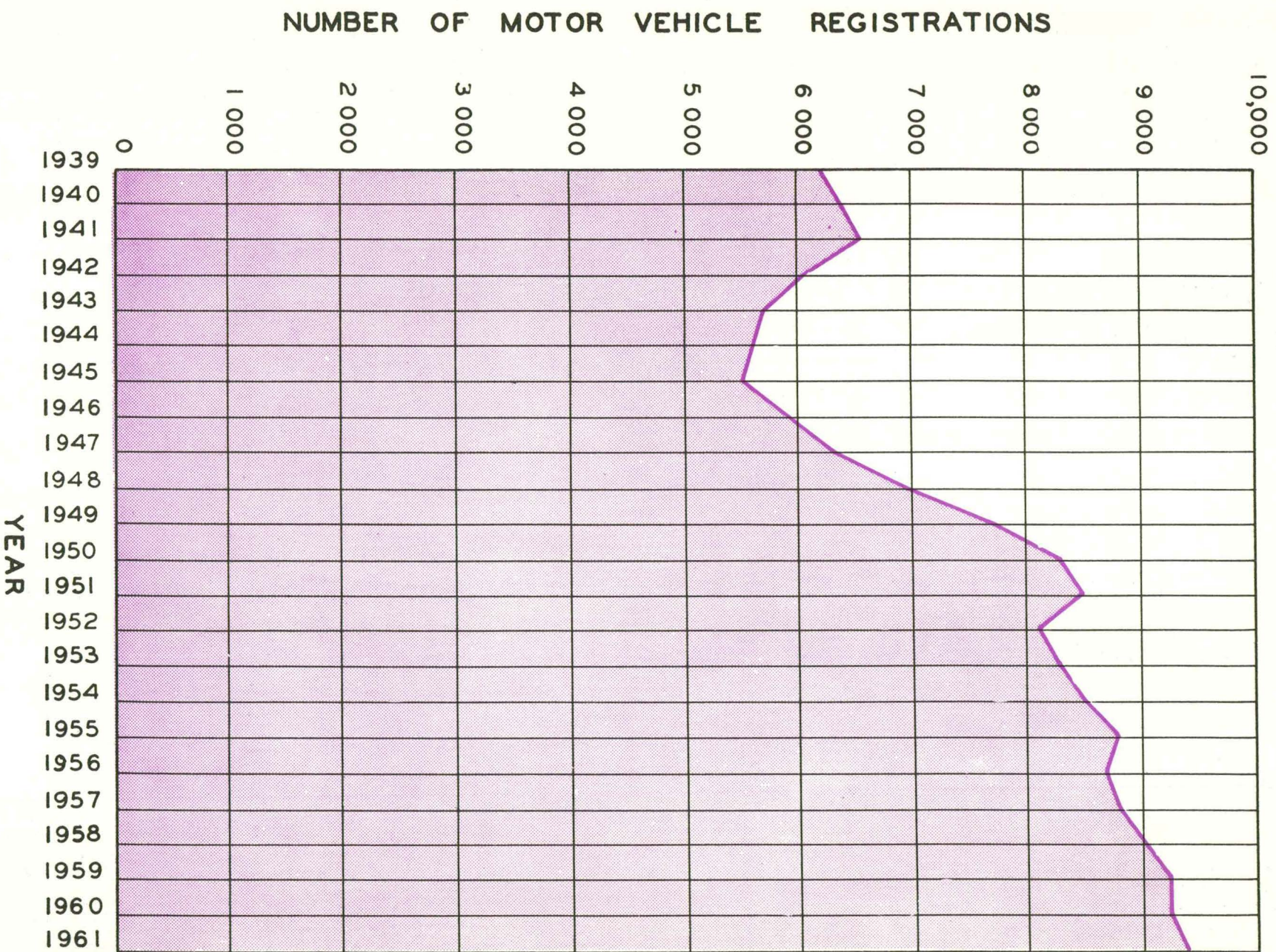
The above table illustrates population trends for the city of Grinnell from 1900 to 1960. The greatest percentage decrease in population occurred between 1920 and 1930.

MOTOR VEHICLE REGISTRATION
FOR POWESHIEK COUNTY FROM 1939 TO 1961

Year	Auto	Commercial	Motorcycles	Total	Percent of Increase or Decrease
1939	5488	716	29	6233	
1940	5653	788	29	6470	3.80
1941	5760	829	25	6614	2.23
1942	5257	802	24	6083	-8.02
1943	4964	772	9	5745	-5.56
1944	4852	810	6	5668	-1.34
1945	4702	833	6	5541	-2.24
1946	4953	944	30	5927	6.97
1947	5206	1063	79	6348	7.10
1948	5653	1275	91	7019	10.57
1949	6202	1449	88	7739	10.26
1950	6686	1555	75	8316	7.46
1951	6784	1624	67	8475	1.91
1952	6471	1602	64	8137	-3.99
1953	6637	1676	53	8366	2.81
1954	6742	1759	63	8564	2.37
1955	6975	1810	66	8851	3.35
1956	6790	1823	66	8679	-1.94
1957	6876	1844	69	8789	1.27
1958	7033	1902	68	9003	2.43
1959	7183	1996	69	9248	2.72
1960	7207	1983	74	9264	.02
1961	7268	2032	83	9383	1.28

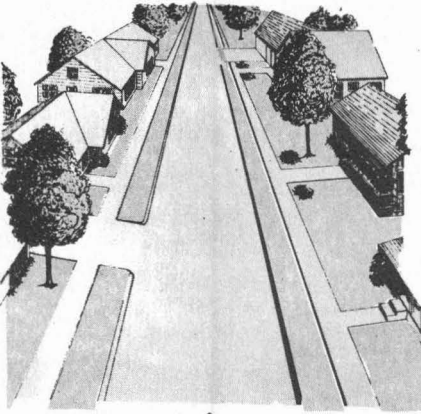
The above table shows motor vehicle registration for Poweshiek county as a whole and does not necessarily reflect registration for Grinnell.

MOTOR VEHICLE REGISTRATIONS IN POWESHIEK COUNTY
FROM 1939 TO 1961

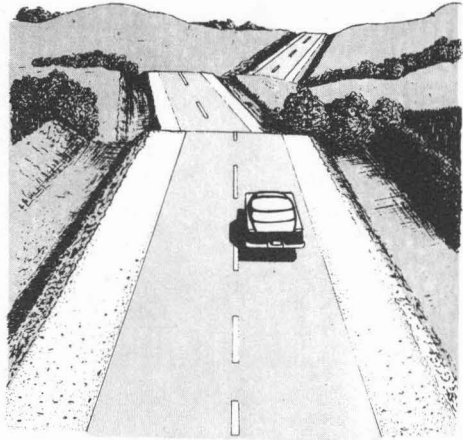


DISTRIBUTION OF TRIPS

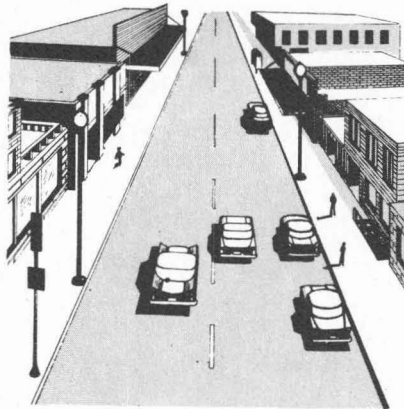
INTERNAL TRACTS



THROUGH TRIPS



CENTRAL BUSINESS DISTRICT



3337

3370

1735

8442

EXTERNAL

SUMMARY OF TRIP DISTRIBUTION

The chart at left graphically illustrates some of the more significant traffic volumes derived from the Grinnell origin-destination survey. An average of 8442 trips per day passed through the four primary road entrances of Grinnell during an average August weekday in 1960.

1735 trips or 20.55 percent of the total number of trips were between external areas and the C.B.D.

3337 trips or 39.53 percent of the total number of trips were between external and internal areas exclusive of the C.B.D.

3370 trips or 39.92 percent of the total number of trips were through-trips which passed through Grinnell enroute to another destination.

TEXT TABLE 1
 VEHICLE TYPE AND TOTAL NUMBER OF TRIPS
 PASSING THROUGH ALL PRIMARY ROAD ENTRANCES
 TO GRINNELL

August Average Weekday Traffic 1960

External Station Location	Passenger Cars and Pick-ups	Single Unit Trucks	Truck Combinations	Total	No. of Interviews	Per Cent Interviewed
Ia. 146 N.	1117	199	70	1386	1051	75.83
U.S. 6 E.	3648	265	345	4258	3549	83.35
Ia. 146 S.	1291	71	37	1399	1140	81.49
U.S. 6 W.	3963	272	534	4769	3688	77.33
Total	10019	807	986	11812	9428	79.82

Text table 1 above shows the total traffic passing through the four primary entrances to Grinnell along with the total number and type of vehicles passing through each primary road entrance.

Trip Purpose of Vehicle Drivers Passing Through
the North Entrance, Iowa 146, to the
Grinnell Urban Area
August Average Weekday Traffic 1960

Text Table 2

Trip Purpose Origin	Trip Purpose - Destination										Total	Percent
	Work	Transact Business	During Work	Medical or Dental	School	Recreation Social or Cultural	Eat	Shop	Serve Passen- gers	Home		
Work		5	148			8			1	102	264	19.05
Transact Business	1	11	10			1				96	119	8.59
During Work	64		110							44	218	15.73
Medical or Dental										12	12	.86
School										3	3	.22
Recreation Social or Cultural		2				8	1	1	1	134	147	10.61
Eat	1										1	.07
Shop						3				64	67	4.83
Serve Passengers			1							6	7	.50
Home	100	147	23	19	4	175	4	56	20		548	39.54
Total	165	166	292	19	4	195	5	57	22	461	1386	100.00
Percent	11.90	11.98	21.07	1.37	.29	14.07	.36	4.11	1.59	33.26	100.00	

Trip Purpose of Vehicle Drivers Passing Through
The East Entrance, U.S. 6, to the
Grinnell Urban Area
August Average Weekday Traffic 1960

Text Table 3

Trip Purpose - Destination

Trip Purpose Origin	Work	Transact Business	During Work	Medical or Dental	School	Recreation Social or Cultural	Eat	Shop	Serve Passen- gers	Home	Total	Percent
Work	13	18	147	1		1	1	1	3	213	398	9.35
Transact Business	12	53	5		1	3		1		294	369	8.67
During Work	56	8	389							109	562	13.20
Medical or Dental	3	1		2		1				60	67	1.57
School		1				3			2	25	31	.73
Recreation Social or Cultural	1	11				135		1		650	798	18.74
Eat	2									8	10	.23
Shop										92	92	2.16
Serve Passengers		1							2	25	28	.66
Home	296	498	192	76	20	684	8	92	37		1903	44.69
Total	383	591	733	79	21	827	9	95	44	1476	4258	100.00
Percent	8.99	13.88	17.22	1.86	.49	19.42	.21	2.23	1.03	34.67	100.00	

Trip Purpose of Vehicle Drivers Passing Through
The South Entrance, Iowa 146, to the
Grinnel Urban Area
August Average Weekday Traffic 1960

Text Table 4

Trip Purpose - Destination

Trip Purpose Origin	Work	Transact Business	During Work	Medical or Dental	School	Recreation Social or Cultural	Eat	Shop	Serve Passengers	Home	Total	Percent
Work		9	119	1		6	4	1	1	115	256	18.30
Transact Business	5	9	9		1		2	1		135	162	11.58
During Work	30		40				1			24	95	6.79
Medical or Dental										5	5	.36
School										2	2	.14
Recreation Social or Cultural		1				18			1	116	136	9.72
Eat	3									4	7	.50
Shop	3	2						1		80	86	6.15
Serve Passengers			1							6	7	.50
Home	123	166	24	18		227	5	75	5		643	45.96
Total	164	187	193	19	1	251	12	78	7	487	1399	100.00
Percent	11.72	13.37	13.80	1.36	.07	17.94	.86	5.57	.50	34.81	100.00	

Trip Purpose of Vehicle Drivers Passing Through
The West Entrance, U.S. 6, to the
Grinnell Urban Area
August Average Weekday Traffic 1960

Text Table 5

Trip Purpose - Destination

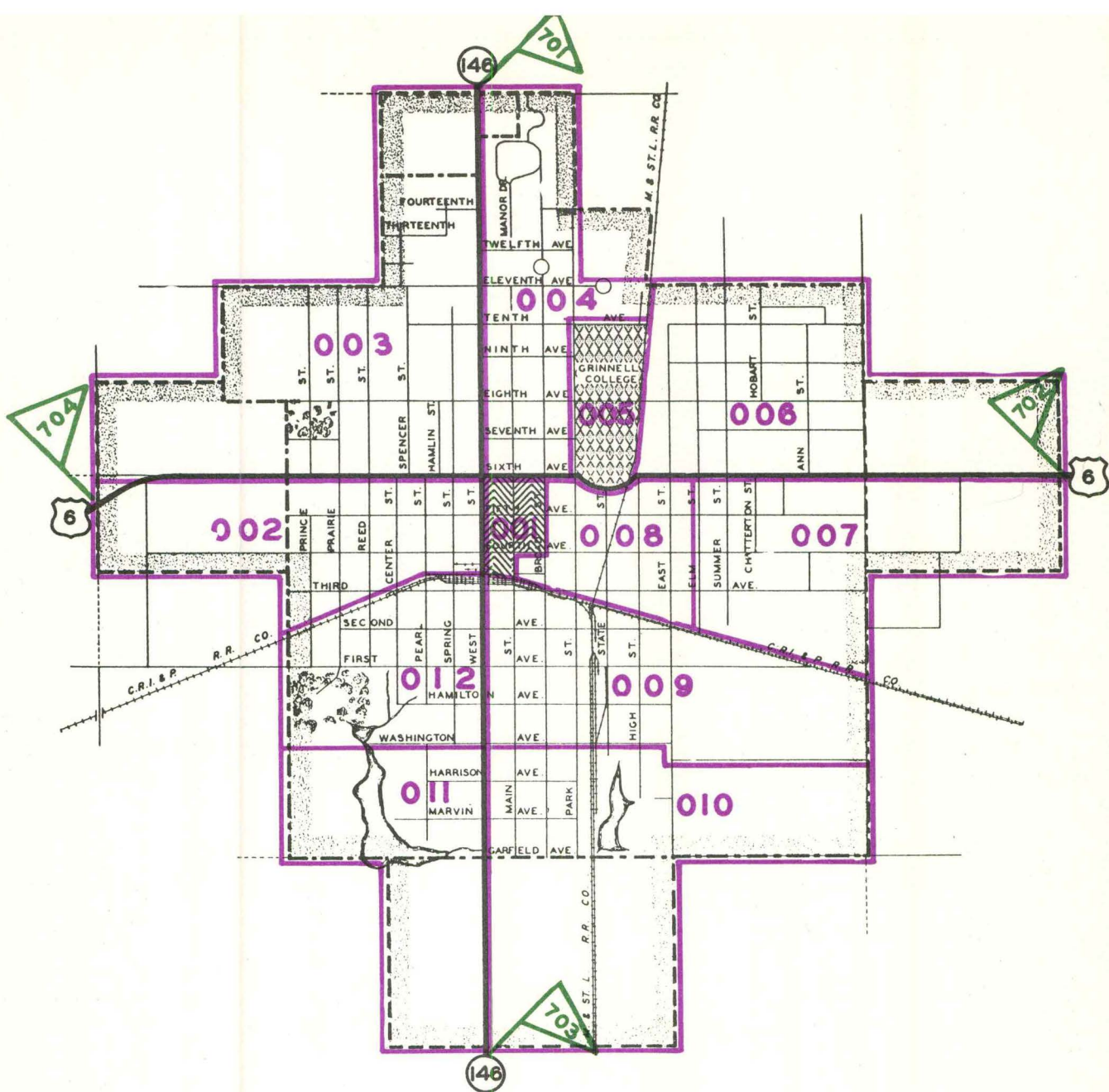
Trip Purpose Origin	Work	Transact Business	During Work	Medical or Dental	School	Recreation Social or Cultural	Eat	Shop	Serve Passengers	Home	Total	Percent
Work	9	27	226	1		9	30	9	3	334	648	13.59
Transact Business	11	42	4			11	1	1	1	339	410	8.60
During Work	104	13	555				1		1	158	832	17.45
Medical or Dental		2		1		1			1	56	61	1.28
School						1				12	13	.27
Recreation Social or Cultural	8	9	1	3		198	10	4	4	579	816	17.11
Eat	34	3				7	1			12	57	1.19
Shop	3					1		1		83	88	1.85
Serve Passengers	1		1						4	16	22	.46
Home	404	428	156	49	6	693	12	56	18	1822	1822	38.20
Total	574	524	943	54	6	921	55	71	32	1589	4769	100.00
Percent	12.04	10.99	19.77	1.13	.13	19.31	1.15	1.49	.67	33.32	100.00	

Trip Purpose of Vehicle Drivers Passing Through
 All Primary Road Entrances to the
 Grinnell Urban Area
 (Duplicate Through-Trips Removed)
 August Average Weekday Traffic 1960

Text Table 6

Trip Purpose - Destination

Trip Purpose Origin	Work	Transact Business	During Work	Medical or Dental	School	Recreation Social or Cultural	Eat	Shop	Serve Passengers	Home	Total	Percent
Work	15	67	443	3		23	35	11	7	650	1254	14.85
Transact Business	24	76	20		1	14	3	3	1	642	784	9.29
During Work	184	13	707				2		1	214	1121	13.28
Medical or Dental	3	2		3		1			1	99	109	1.29
School						2			1	28	31	.37
Recreation Social or Cultural	8	15	1	2		216	9	5	4	916	1176	13.93
Eat	39	4				7	1			22	73	.86
Shop	6	2				3		2		290	303	3.59
Serve Passengers	1		2						3	41	47	.56
Home	761	891	235	119	17	1176	26	254	65		3544	41.98
Total	1041	1070	1408	127	18	1442	76	275	83	2902	8442	100.00
Percent	12.33	12.68	16.68	1.50	.21	17.08	.90	3.26	.98	34.38	100.00	



LEGEND

STATION NUMBER AND LOCATION
 TRACT NUMBER
 TRACT BOUNDARY LINE



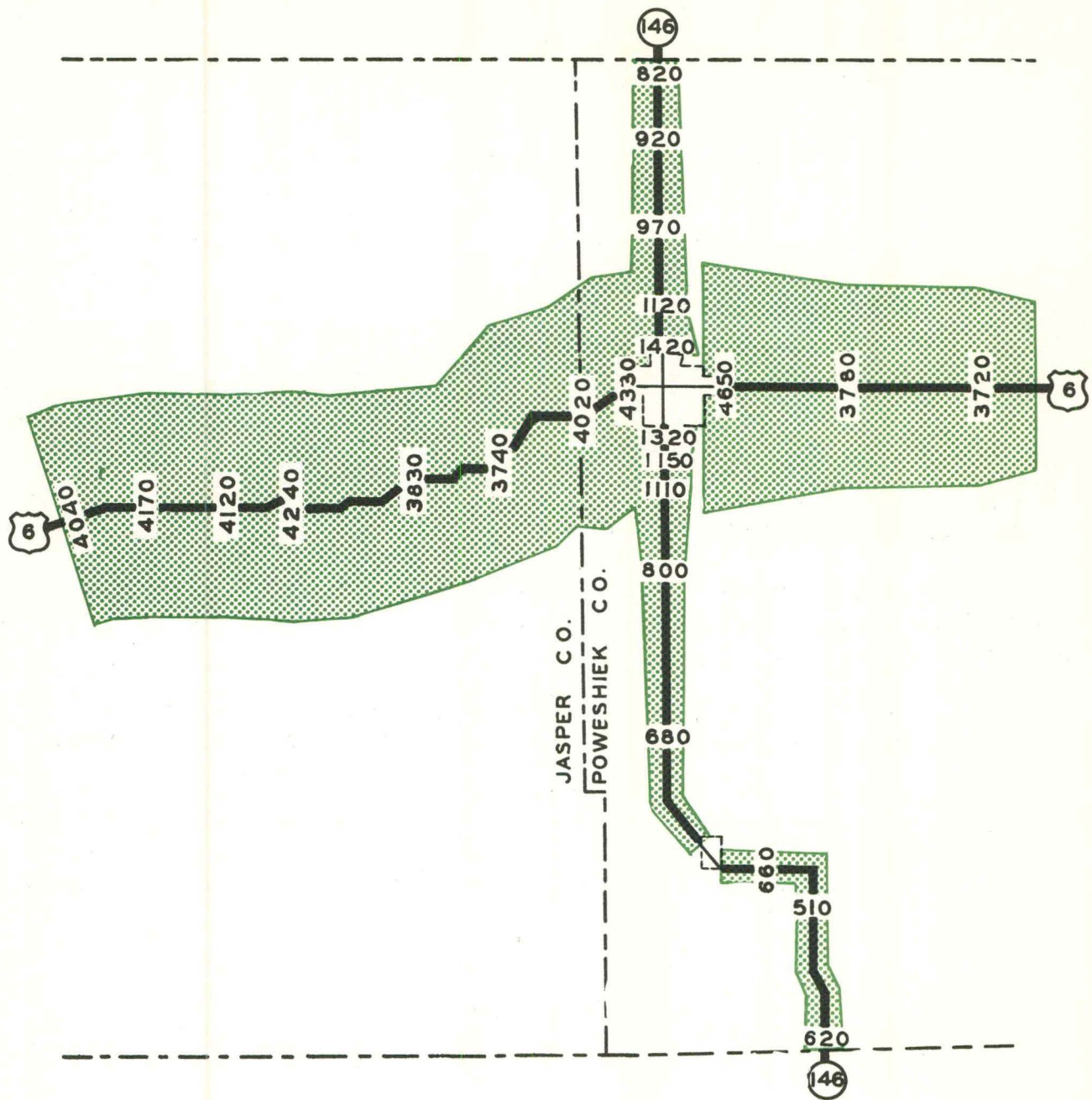
TRACT MAP OF THE
 GRINNELL URBAN AREA
 WITH EXTERNAL STATION LOCATIONS

TRAFFIC VOLUMES ON PRIMARY HIGHWAYS
IN AND NEAR GRINNELL

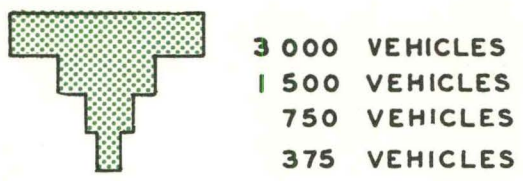
The following charts illustrate the average annual daily traffic on rural primary highways entering or leaving Grinnell and on primary extensions within the urban area.

The chart on page 22 illustrates the 1959 average annual daily traffic on rural primary highways entering or leaving Grinnell.

The chart on page 23 illustrates the 1961 average annual daily traffic on primary extensions in the Grinnell urban Area.



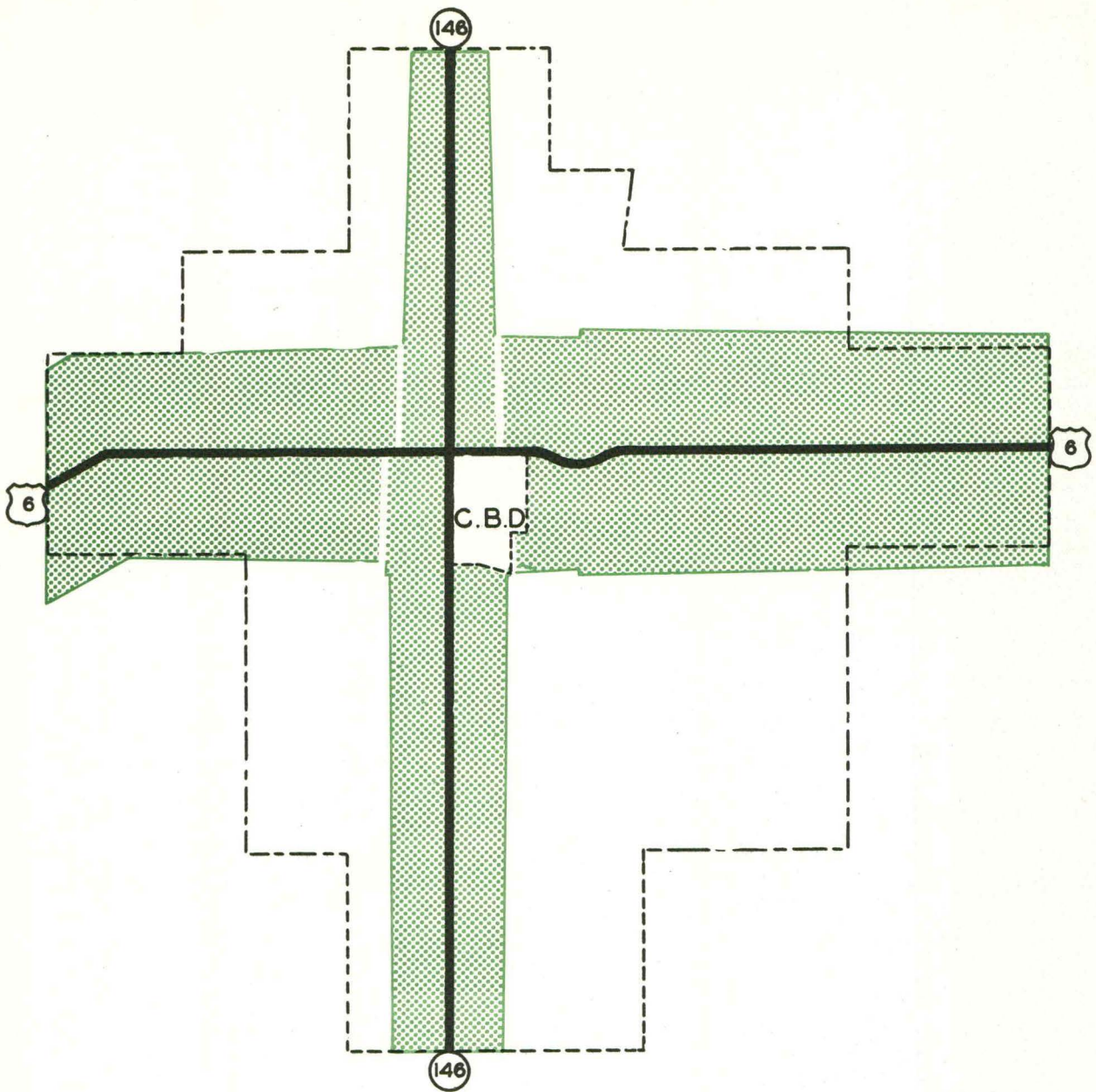
GRAPHIC SCALE



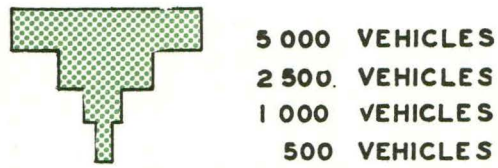
AVERAGE ANNUAL DAILY TRAFFIC 1959



TRAFFIC VOLUMES ON RURAL PRIMARY HIGHWAYS ENTERING GRINNELL URBAN AREA



GRAPHIC SCALE



AVERAGE ANNUAL DAILY
TRAFFIC 1961



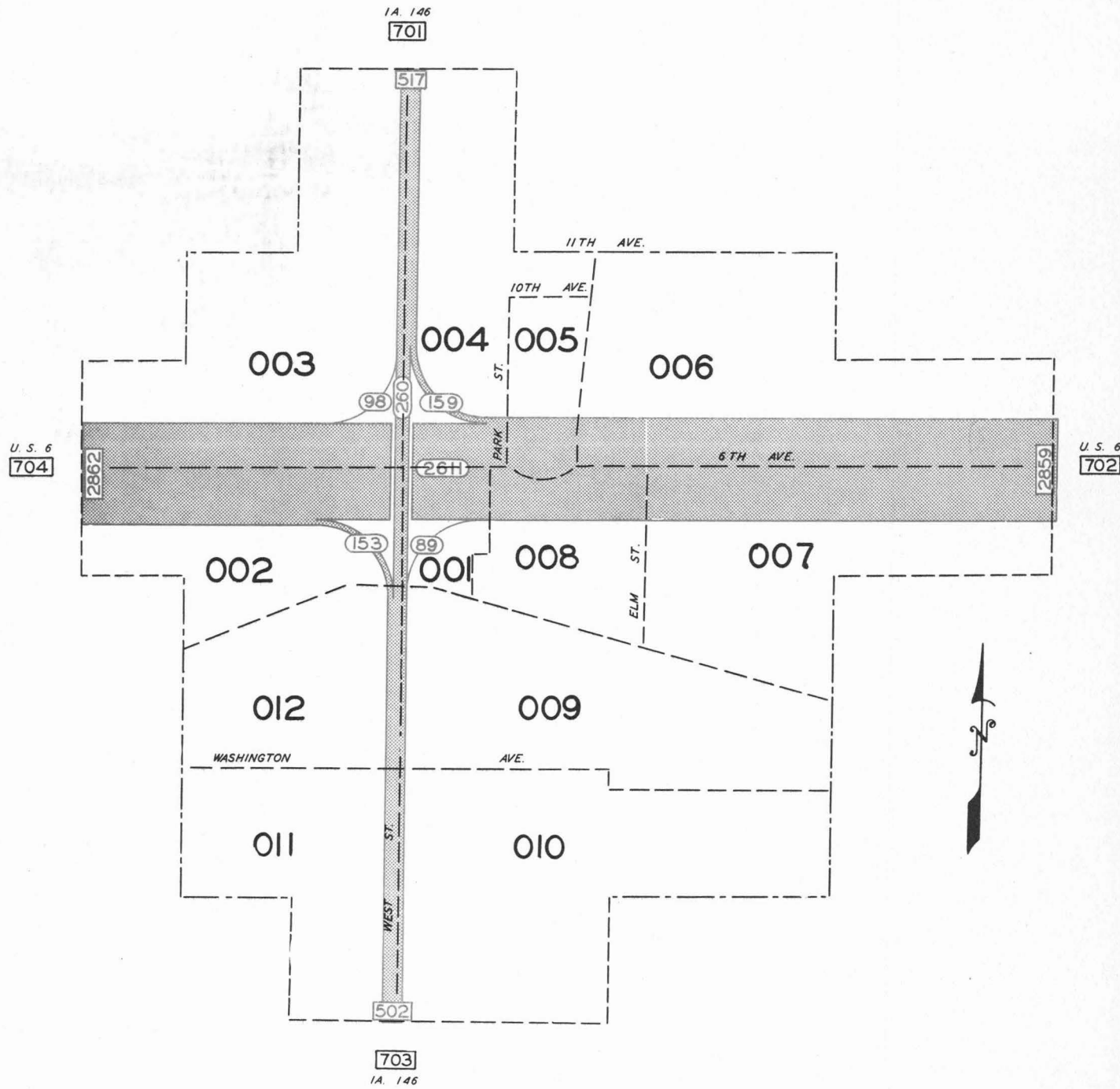
TRAFFIC VOLUMES ON
PRIMARY ROAD EXTENSIONS IN THE
GRINNELL URBAN AREA

TRAFFIC FLOW CHARTS

The following traffic flow charts illustrate the dispersion of traffic between points of origin and/or destination through the specific stations indicated. These charts are not intended to show exact routes, but rather to show approximate routes and the cumulative volume of traffic as it approaches or leaves the station location. Trip origins and destinations are not differentiated and the tract or station totals shown may be considered as either origin or destination.

Chart number 1 illustrates the movement of through-trips between all primary road entrances, whereas charts 2 through 5 illustrate the external and internal dispersion of traffic through individual stations.

The adjoining page of statistics across from charts 2 through 5 shows the number of external trips to or from each primary road entrance and tracts within the study area along with the percent of the total number of trips to each area.



LEGEND

- TRACT BOUNDARY LINE _____
- CORPORATION LINE _____

GRAPHIC SCALE



CHART NO. 1

**ORIGIN OR DESTINATION OF TRIPS
BETWEEN PRIMARY ROAD ENTRANCES
OF THE
GRINNELL URBAN AREA**

AUGUST AVERAGE WEEKDAY TRAFFIC 1960

DISPERSION OF TRIPS TO OR FROM IOWA 146 NORTH

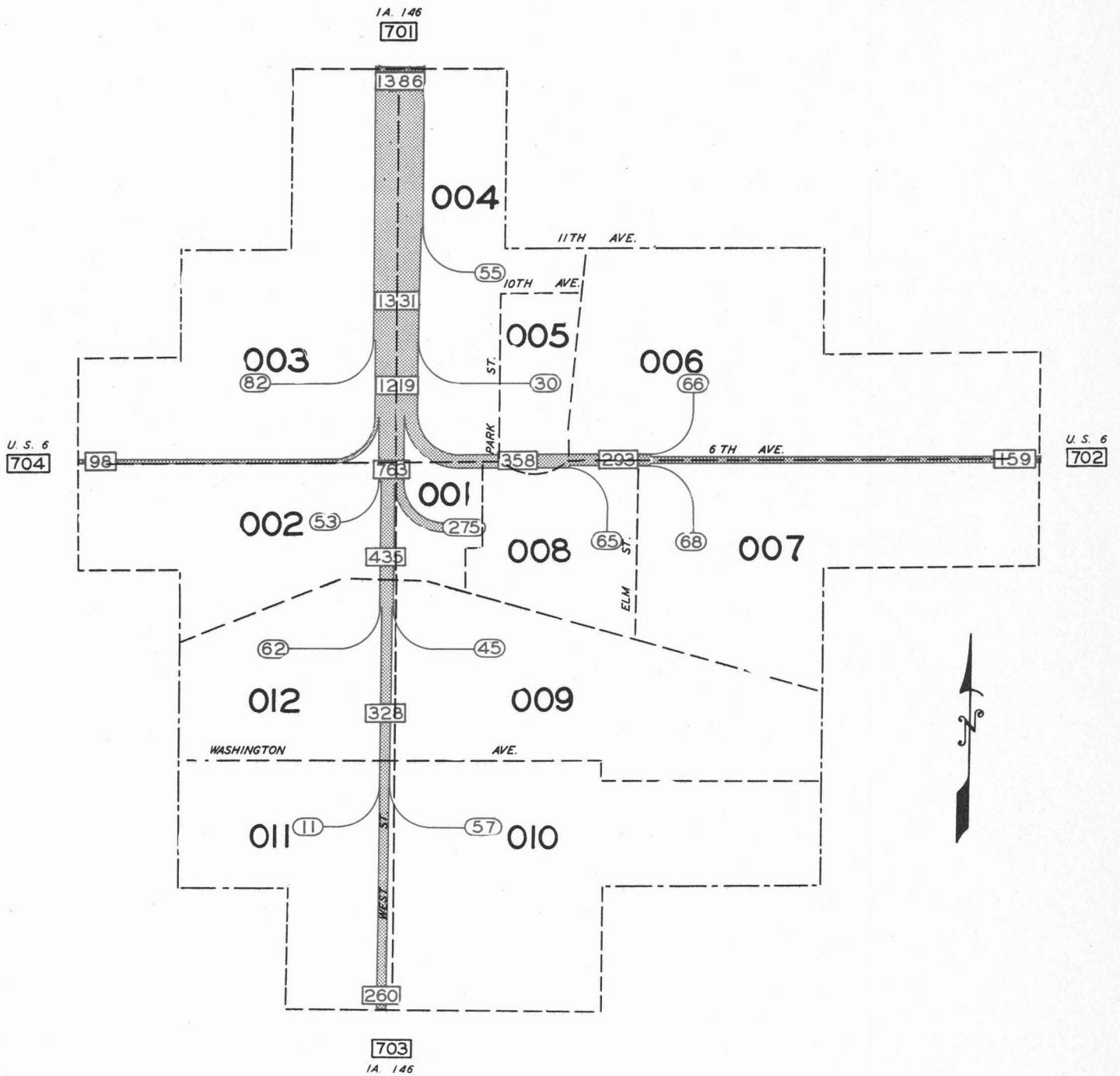
	Vehicles	Percent
Trips with internal origin or destination	869	62.70
Trips with external origin and destination	517	37.30
Grand total of all trips through station 701	1386	100.00
Trips with origin or destination in C.B.D.	275	19.84
Number of interviews (16 hours)	1051	75.83
Percent of total traffic through all primary road entrances		11.73

Internal Dispersion

Tract	Volume	Percent	Tract	Volume	Percent
001	275	19.84	007	68	4.91
002	53	3.82	008	65	4.69
003	82	5.92	009	45	3.25
004	55	3.97	010	57	4.11
005	30	2.17	011	11	.79
006	66	4.76	012	62	4.47
			Total	869	62.70

External Dispersion

Station	Volume	Percent	Station	Volume	Percent
701			703	260	18.76
702	159	11.47	704	98	7.07
			Total	517	37.30



LEGEND

TRACT BOUNDARY LINE _____
 CORPORATION LINE _____

GRAPHIC SCALE

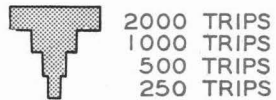


CHART NO. 2
ORIGIN OR DESTINATION OF TRIPS
PASSING THROUGH
THE NORTH ENTRANCE IOWA 146
TO THE
GRINNELL URBAN AREA

AUGUST AVERAGE WEEKDAY TRAFFIC 1960

DISPERSION OF TRIPS TO OR FROM U.S. 6 EAST

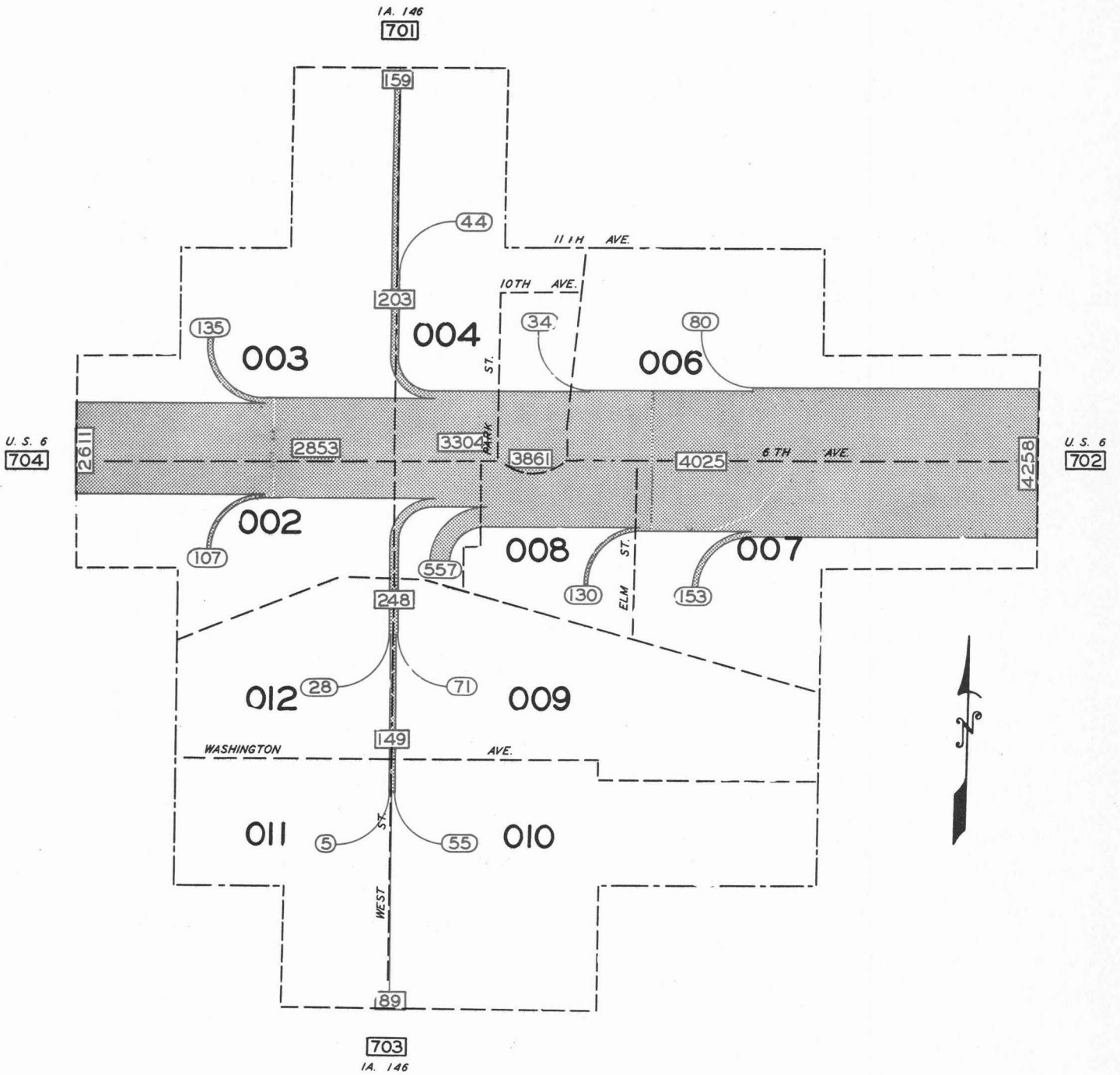
	Vehicles	Percent
Trips with internal origin or destination	1399	32.86
Trips with external origin and destination	2859	67.14
Grand total of all trips through station 702	4258	100.00
Trips with origin or destination in C.B.D.	557	13.08
Number of interviews (16 hours)	3549	83.35
Percent of total traffic through all primary road entrances		36.05

Internal Dispersion

Tract	Volume	Percent	Tract	Volume	Percent
001	557	13.08	007	153	3.59
002	107	2.51	008	130	3.05
003	135	3.17	009	71	1.67
004	44	1.03	010	55	1.29
005	34	.80	011	5	.12
006	80	1.88	012	28	.68
			TOTAL	1399	32.86

External Dispersion

Station	Volume	Percent	Station	Volume	Percent
701	159	3.73	703	89	2.09
702			704	2611	61.32
			TOTAL	2859	67.14



LEGEND

TRACT BOUNDARY LINE _____
 CORPORATION LINE _____

GRAPHIC SCALE

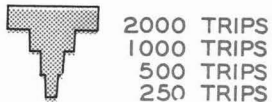


CHART NO. 3
ORIGIN OR DESTINATION OF TRIPS
PASSING THROUGH
THE EAST ENTRANCE U. S. 6
TO THE
GRINNELL URBAN AREA

AUGUST AVERAGE WEEKDAY TRAFFIC 1960

DISPERSION OF TRIPS TO OR FROM IOWA 146 SOUTH

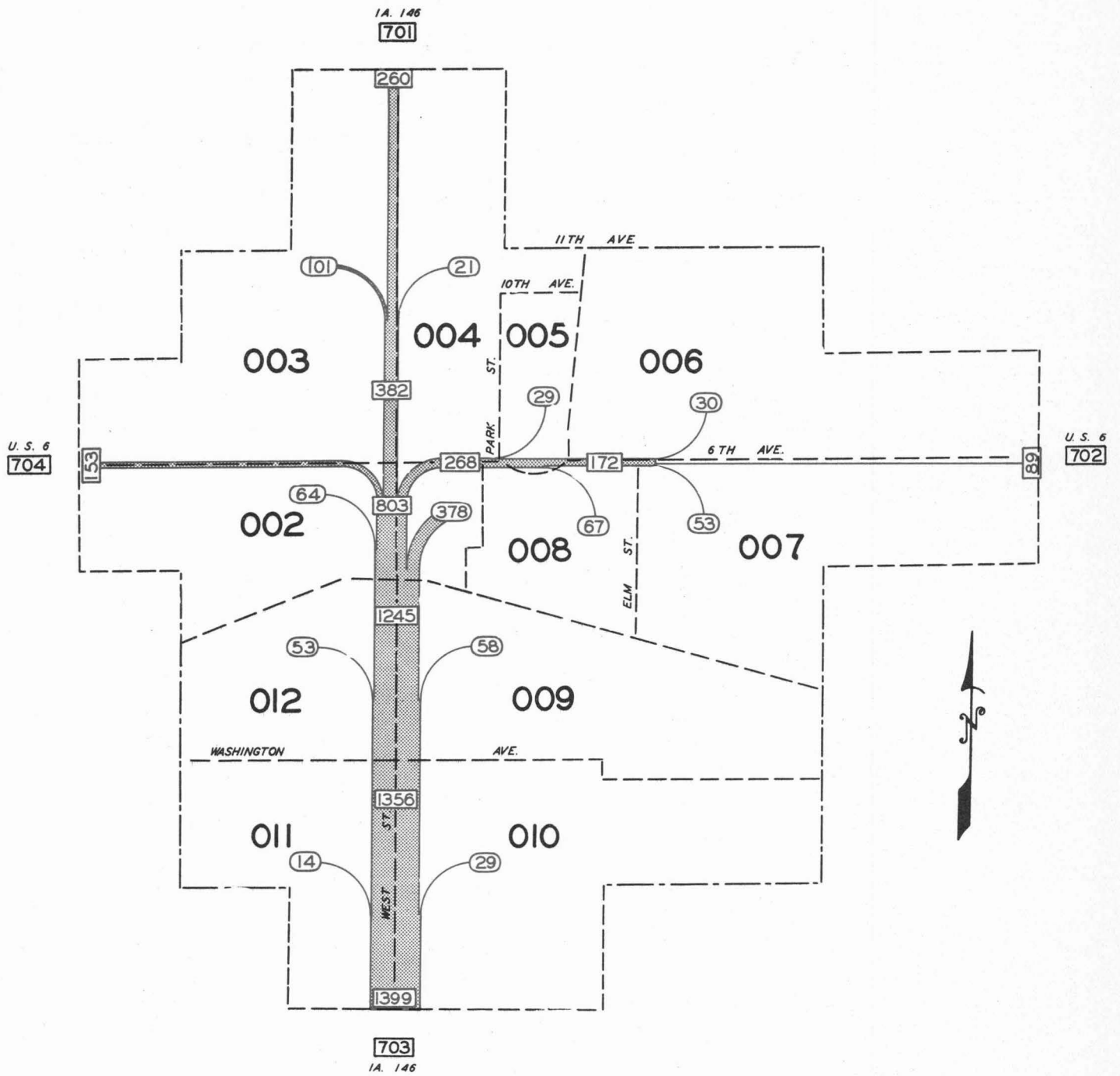
	Vehicles	Percent
Trips with internal origin or destination	897	64.12
Trips with external origin and destination	502	35.88
Grand total of all trips through Station 703	1399	100.00
Trips with origin or destination in C.B.D.	378	27.02
Number of interviews (16 hours)	1140	81.49
Percent of total traffic through all primary road entrances		11.84

Internal Dispersion

Tract	Volume	Percent	Tract	Volume	Percent
001	378	27.02	007	53	3.79
002	64	4.58	008	67	4.79
003	101	7.22	009	58	4.15
004	21	1.50	010	29	2.07
005	29	2.07	011	14	1.00
006	30	2.14	012	53	3.79
			TOTAL	897	64.12

External Dispersion

Station	Volume	Percent	Station	Volume	Percent
701	260	18.58	703		
702	89	6.36	704	153	10.94
			TOTAL	502	35.88



LEGEND

TRACT BOUNDARY LINE -----
 CORPORATION LINE _____

GRAPHIC SCALE

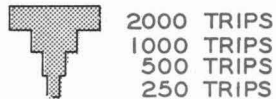


CHART NO. 4
ORIGIN OR DESTINATION OF TRIPS
PASSING THROUGH
THE SOUTH ENTRANCE, IOWA 146
TO THE
GRINNELL URBAN AREA

AUGUST AVERAGE WEEKDAY TRAFFIC 1960

DISPERSION OF TRIPS TO OR FROM U.S. 6 WEST

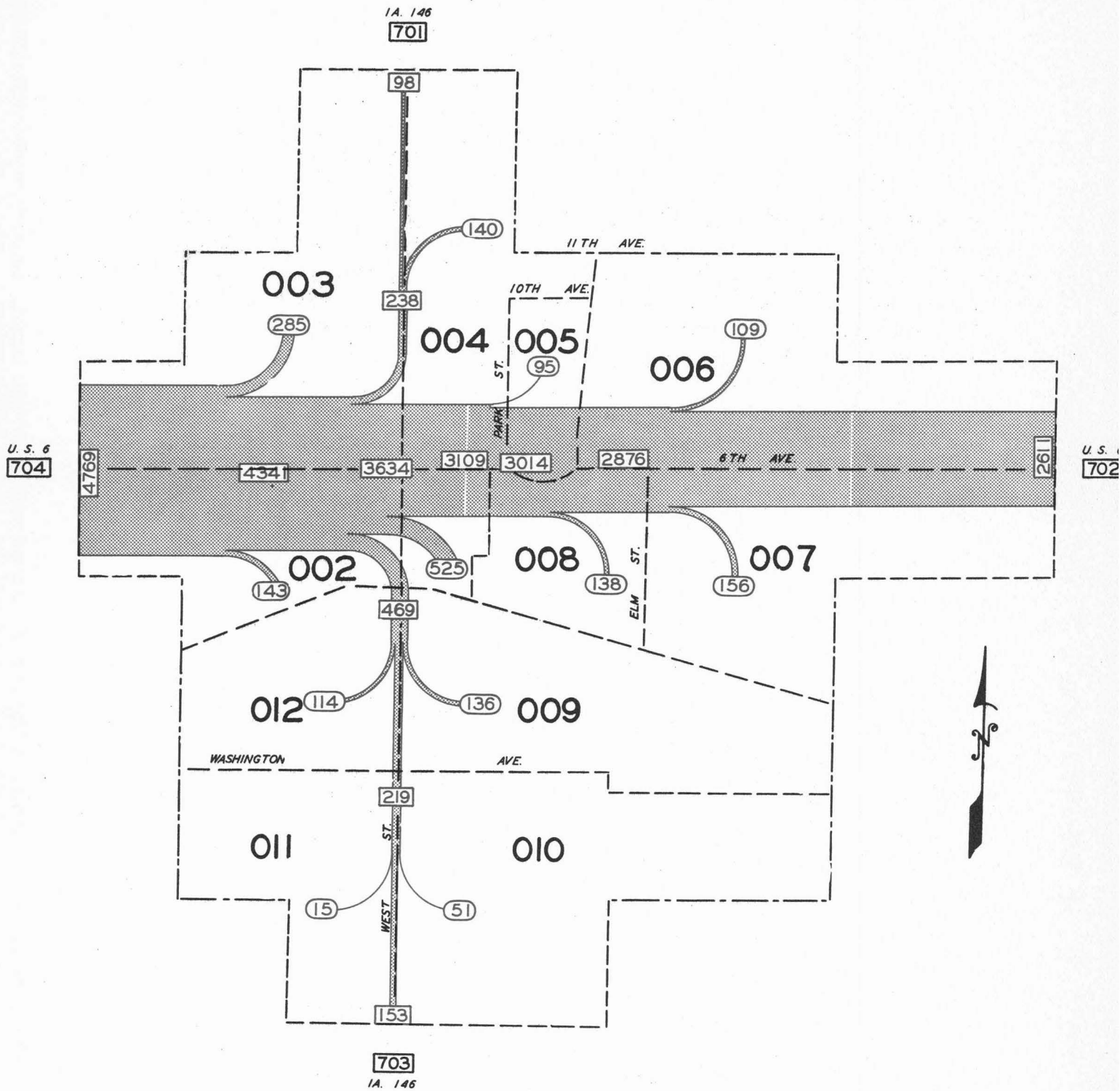
	Vehicles	Percent
Trips with internal origin or destination	1970	39.99
Trips with external origin and destination	2862	60.01
Grand total of all trips through station 704	4769	100.00
Trips with origin or destination in C.B.D.	525	11.01
Number of interviews (16 hours)	3688	77.33
Percent of total traffic through all primary road entrances		40.38

Internal Dispersion

Tract	Volume	Percent	Tract	Volume	Percent
001	525	11.01	007	156	3.27
002	143	3.00	008	138	2.89
003	285	5.98	009	136	2.85
004	140	2.94	010	51	1.07
005	95	1.99	011	15	.31
006	109	2.29	012	114	2.39
			TOTAL	1907	39.99

EXTERNAL DISPERSION

Station	Volume	Percent	Station	Volume	Percent
701	98	2.05	703	153	3.21
702	2611	54.75	704		
			TOTAL	2862	60.01



AUGUST AVERAGE WEEKDAY TRAFFIC 1960

CHART NO. 5
 ORIGIN OR DESTINATION OF TRIPS
 PASSING THROUGH
 THE WEST ENTRANCE U. S. 6
 TO THE
 GRINNELL URBAN AREA

DESIRE LINE CHARTS

The following desire line charts illustrate desired routes of travel between external stations and internal tracts without regard to existing streets or highways. These charts graphically illustrate the travel desires of motorists and frequently point out the need for improvement of existing routes or construction of new ones to satisfy the demands of traffic.

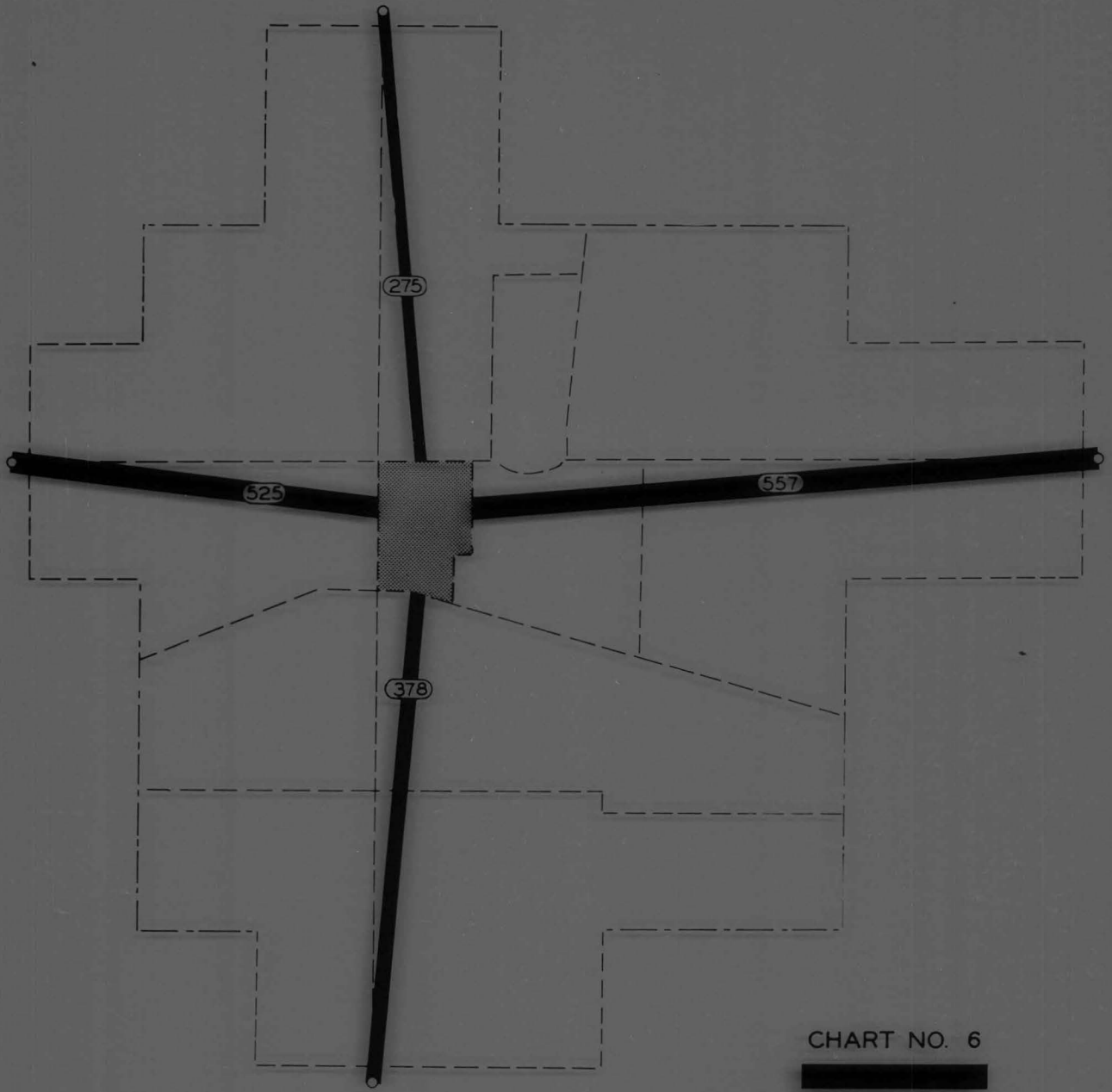


CHART NO. 6



THE CENTRAL BUSINESS DISTRICT

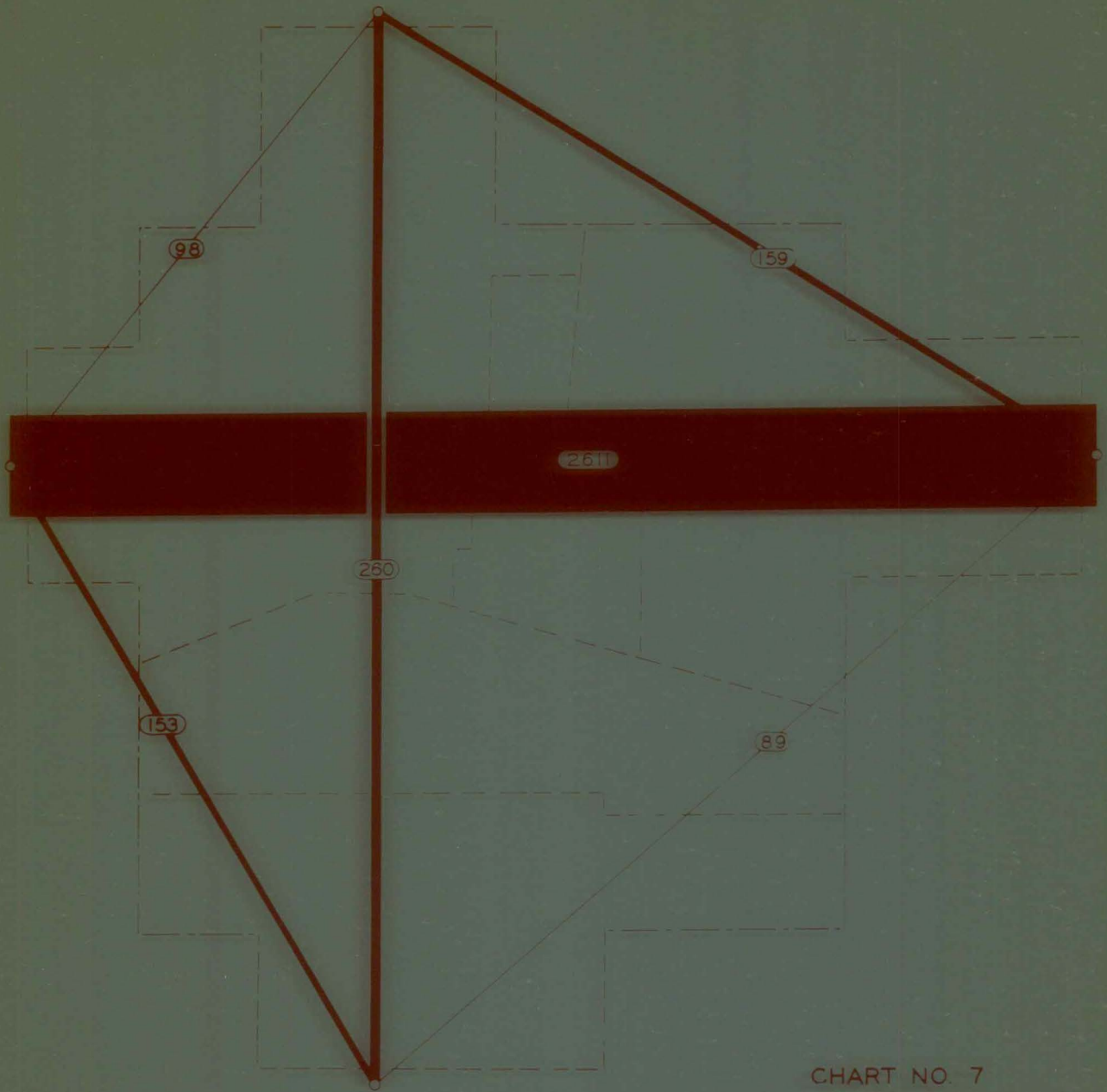
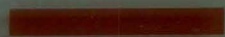


CHART NO. 7



THE OTHER EXTERNAL ENTRANCES

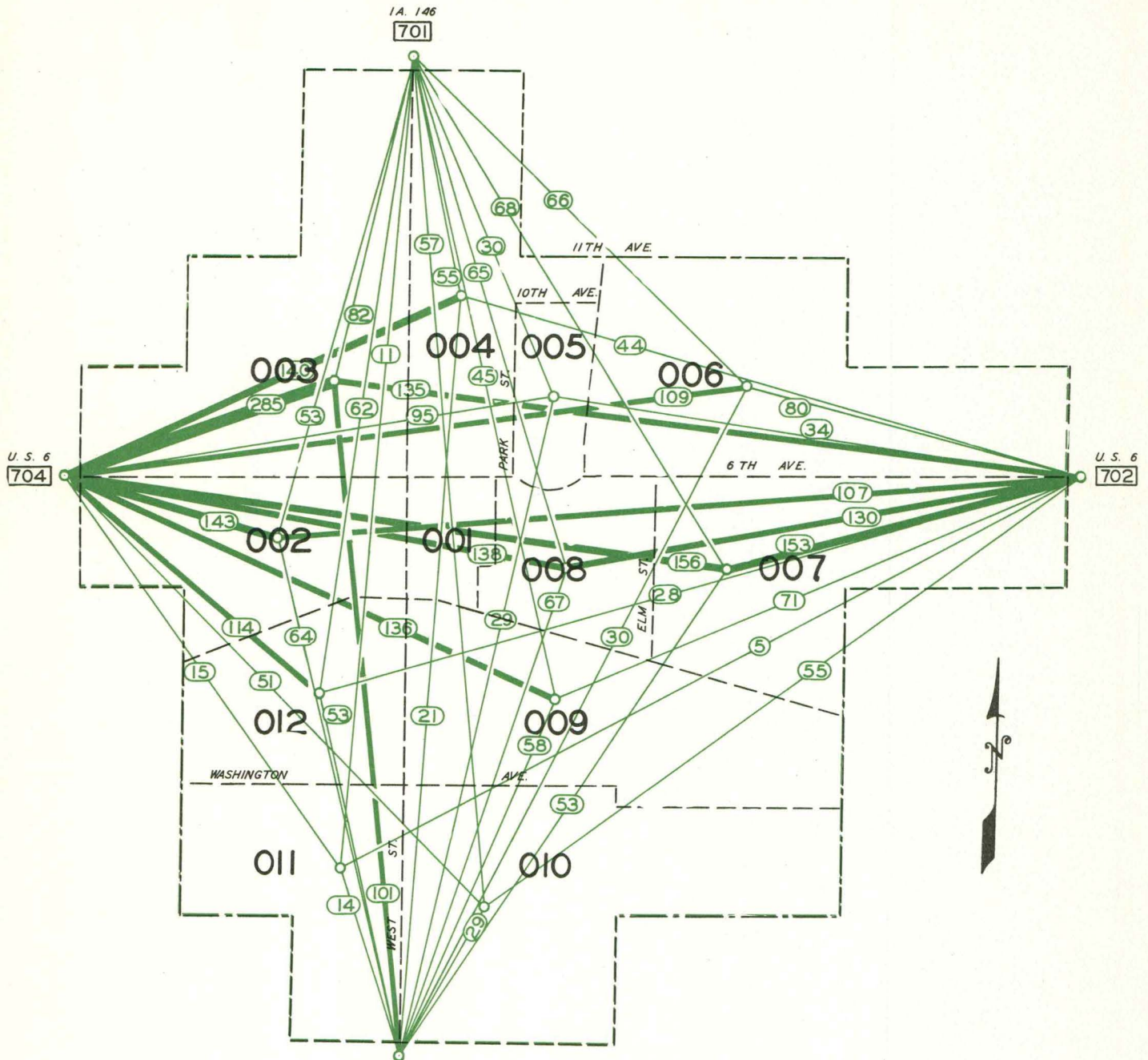


CHART NO. 8
 DESIRE LINES OF TRAVEL OF TRIPS
 TO OR FROM
 PRIMARY ROAD ENTRANCES
 OF THE
GRINNELL URBAN AREA
 AND
 INTERNAL TRACTS

LEGEND

- TRACT BOUNDARY LINE - - - - -
- CORPORATION LINE - - - - -

GRAPHIC SCALE



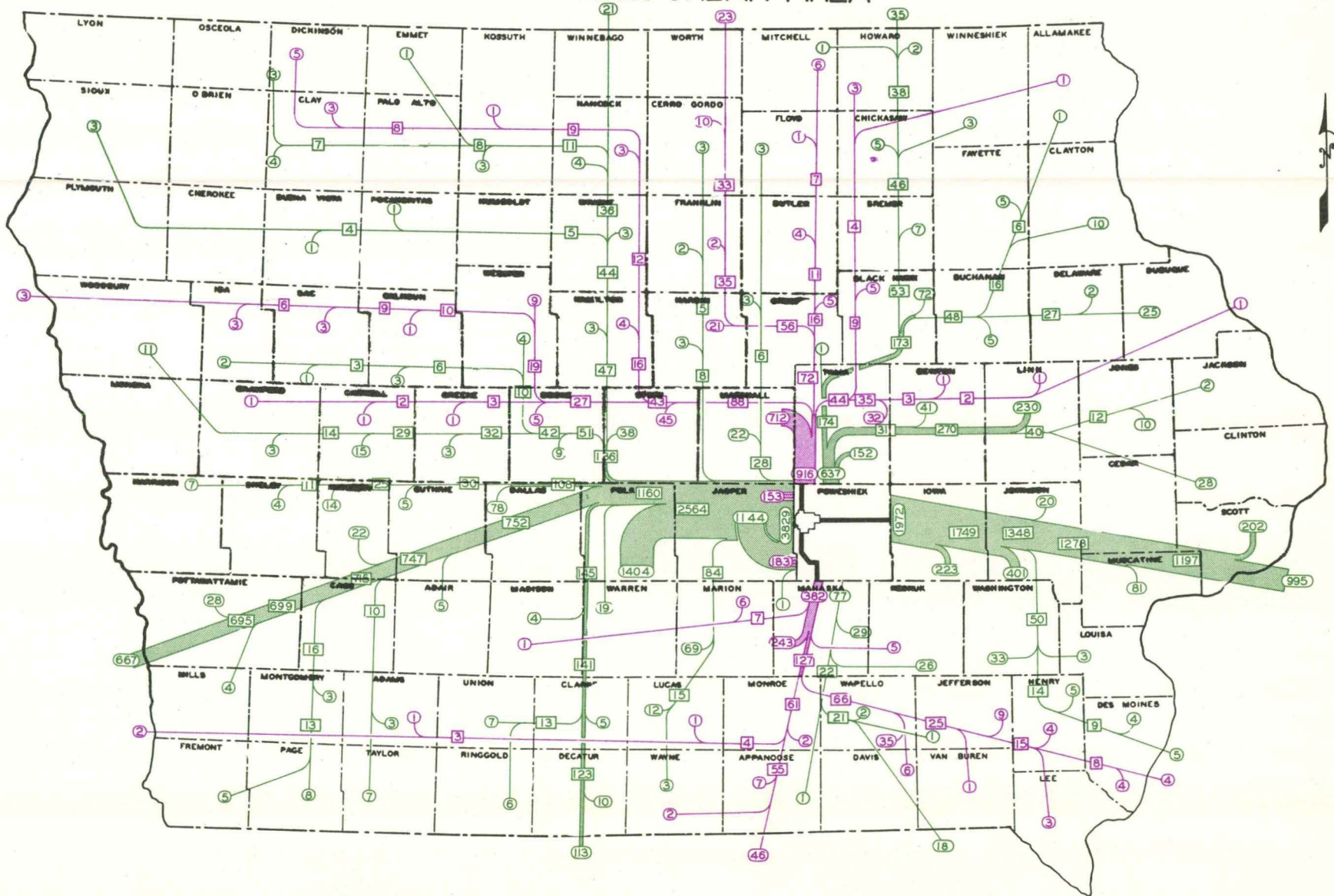
AUGUST AVERAGE WEEKDAY TRAFFIC 1960

ORIGIN AND/OR DESTINATION OF EXTERNAL TRIPS
PASSING THROUGH PRIMARY ROAD ENTRANCES OF GRINNELL

Chart 9A shows the origin and/or destination of all external trips passing through the four primary road entrances of Grinnell to or from primary roads entering Iowa and other counties within the state. Routes shown are approximate rather than exact and should be interpreted as such.

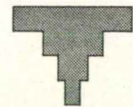
Chart 9B is a continuation of 9A and shows the origin and/or destination of external trips to or from primary roads entering Poweshiek county, communities within the county, and rural areas adjacent to Grinnell.

CHART NO. 9A
ORIGIN AND/OR DESTINATION OF EXTERNAL TRIPS
PASSING THROUGH PRIMARY ROAD ENTRANCES OF
GRINNELL URBAN AREA



-33-

GRAPHIC SCALE



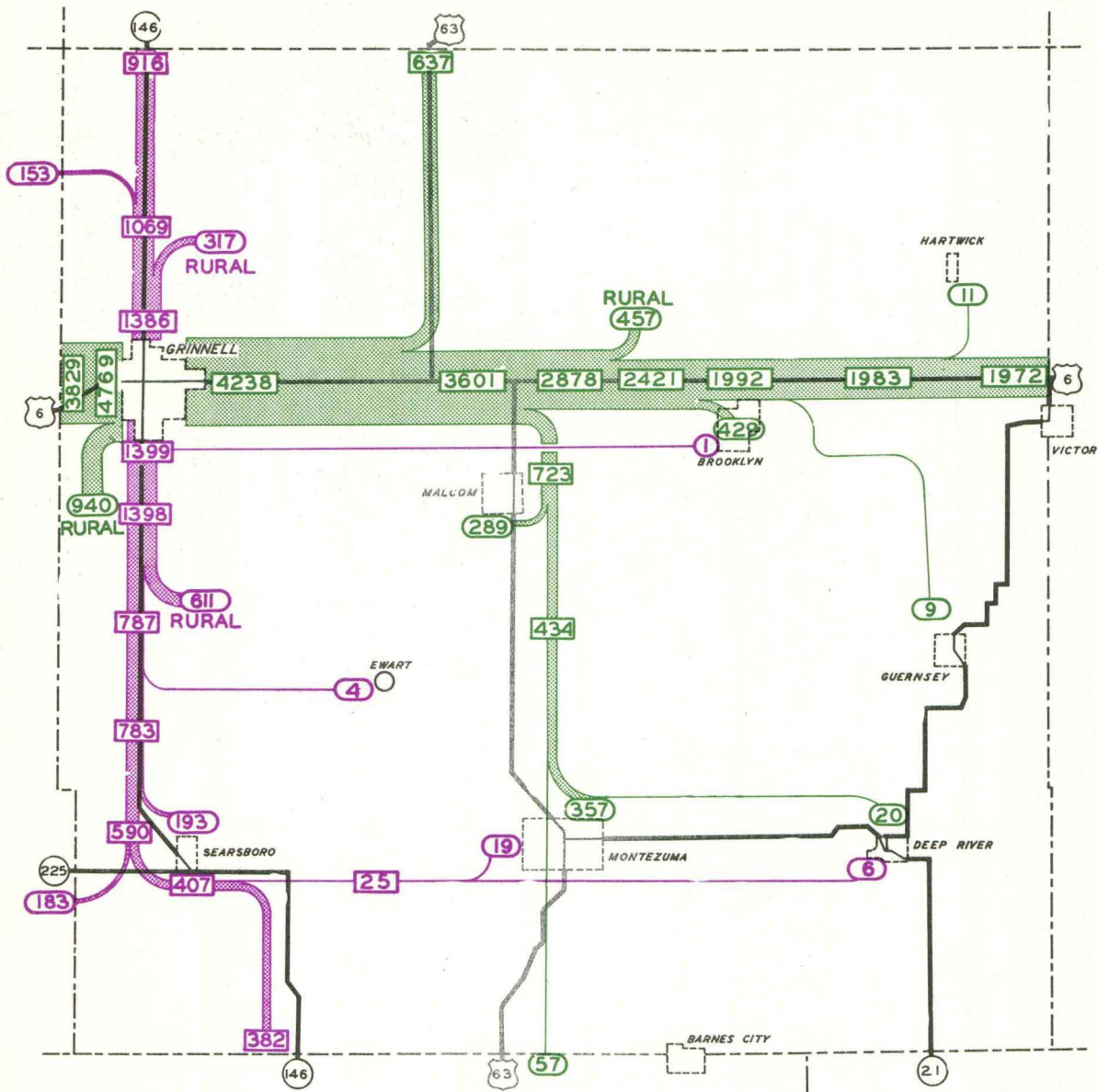
2000 TRIPS
1000 TRIPS
500 TRIPS
250 TRIPS

LEGEND

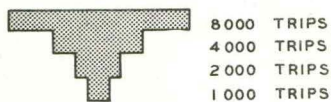
TRAFFIC THROUGH INTERVIEW STATIONS

U. S. HIGHWAY NO. 6
IOWA HIGHWAY NO. 146

AUGUST AVERAGE WEEKDAY TRAFFIC 1960



GRAPHIC SCALE



LEGEND

TRAFFIC THROUGH INTERVIEW STATIONS

- IA. HIGHWAY NO. 146
- U.S. HIGHWAY NO. 6

AUGUST AVERAGE WEEKDAY TRAFFIC 1960

CHART NO. 9B
 ORIGIN AND/OR DESTINATION OF EXTERNAL TRIPS
 PASSING THROUGH
 PRIMARY ROAD ENTRANCES OF
 THE GRINNELL URBAN AREA
 TO OR FROM COMMUNITIES WITHIN
 POWESHIEK COUNTY

DISPERSION OF EXTERNAL TRIPS PASSING
THROUGH PRIMARY ROAD ENTRANCES TO GRINNELL

Origin or Destination	Ia. 146 N.		U.S. 6 E.		Ia. 146 S.		U.S. 6 W.	
	No.	%	No.	%	No.	%	No.	%
Brooklyn			429	10.08	1	.07		
Deep River			20	.47	6	.43		
Ewart					4	.28		
Guernsey			9	.21				
Hartwick			11	.26				
Malcom			289	6.79				
Montezuma			357	8.38	19	1.36		
Searsboro					193	13.80		
Towns Total			1115	26.19	223	15.94		
Rural Total	317	22.87	457	10.73	611	43.67	940	19.71
Other Counties	1042	75.18	1633	38.35	513	36.67	3028	63.49
Out-of-State	27	1.95	1053	24.73	52	3.72	801	16.80
Station Total	1386	100.00	4258	100.00	1399	100.00	4769	100.00

The above chart shows the dispersion of 1960 August average weekday traffic which passed through the four primary road entrances to Grinnell.

INTERPRETATION OF APPENDIX TABLE 1

The following table shows a compilation of 1960 August average weekday traffic for Grinnell.

Appendix table 1 shows the directional movement of external trips to, from, and through Grinnell. Tract or station origin may be found in the vertical columns along either side of the sheet. Tract or station destination may be found in the horizontal columns across the top or bottom of the sheet. In table 1 it will be necessary to add origins to destinations in order to determine the number of trips between two points.

ORIGIN AND DESTINATION OF TRIPS
 ENTERING OR LEAVING
 THE GRINNELL URBAN AREA
 August Average Weekday Traffic 1960

TRACT	DESTINATION												Grinnell Total	Ia. 146 North 701	U.S. 6 West 702	Ia. 146 South 703	U.S. 6 West 704	External Total	Grand Total	Tract
	001	002	003	004	005	006	007	008	009	010	011	012								
001														139	265	171	266	841	841	001
002														18	58	28	67	171	171	002
003														35	68	54	142	299	299	003
004														28	26	6	78	138	138	004
005														15	15	17	47	94	94	005
006														39	48	20	55	162	162	006
007														35	75	26	81	217	217	007
008														31	65	36	73	205	205	008
009														27	34	32	73	166	166	009
010														38	34	13	27	112	112	010
011														4	3	6	8	21	21	011
012														26	14	26	55	121	121	012
Grinnell Total														435	705	435	972	2547	2547	Grin'l Total
Ia. 146 N 701	136	35	47	27	15	27	33	34	18	19	7	36	434		80	131	48	259	693	701
U.S. 6 E 702	292	49	67	18	19	32	78	65	37	21	2	14	694	79		47	1283	1409	2103	702
Ia. 146 S 703	207	36	47	15	12	10	27	31	26	16	8	27	462	129	42		79	250	712	703
U.S. 6 W 704	259	76	143	62	48	54	75	65	63	24	7	59	935	50	1328	74		1452	2387	704
External Total	894	196	304	122	94	123	213	195	144	80	24	136	2525	258	1450	252	1410	3370	5895	Ext. Total
Grand Total	894	196	304	122	94	123	213	195	144	80	24	136	2525	693	2155	687	2382	5917	8442	Grand Total
Tract	001	002	003	004	005	006	007	008	009	010	011	012	Grin'l Total	701	702	703	704	Ext. Total	Grand Total	Tract

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