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# PETOSKEY

FACTUAL DATA AND TRIP TABLES

EXTERNAL ORIGIN  
DESTINATION STUDY

**1967**

TRANSPORTATION PLANNING DIVISION

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

MICHIGAN DEPARTMENT OF STATE HIGHWAYS

PETOSKEY AREA  
TRANSPORTATION STUDY  
EXTERNAL SURVEY

COOPERATING AGENCIES:

CITY OF PETOSKEY,  
EMMET COUNTY ROAD COMMISSION,  
U.S. DEPARTMENT OF TRANSPORTATION,  
FEDERAL HIGHWAY ADMINISTRATION

PREPARED BY:

TRANSPORTATION PLANNING DIVISION  
TRANSPORTATION SURVEY & ANALYSIS SECTION  
NORTHWEST AREA TRANSPORTATION ANALYSIS UNIT

1971

ACKNOWLEDGEMENTS:

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## PREFACE

During the month of July 1967, the Transportation Planning Division of the Department of State Highways conducted an external origin and destination survey at Petoskey, Michigan. Its purpose is to determine the traffic patterns in Petoskey as a sound basis for planning the efficient traffic arteries needed in the future.

This report "Factual Data and Trip Tables," is the first of two or more reports which will present the results of the traffic study. The data in this report will serve as the basis for study and detailed recommendations by the Department's Planners and by local officials. Subsequent reports will consider the suggested solutions to local traffic problems, made possible by this data.



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## HISTORY

Emmet County is located at the northwestern tip of Michigan's Lower Peninsula. It was organized in 1853 and originally named Tonedagana, after an Ottawa Indian Chief. Emmet County was later named for Robert Emmet, who was an Irish patriot. Petoskey is located on the shores of Little Traverse Bay in Emmet County.

Petoskey was founded in 1875 and named after an Ottawa Indian Chief, Pet-o-sega, meaning Rising Sun. Petoskey developed at the mouth of the Bear River and became a shipping center for sailing vessels carrying lumber, hides and portland cement. Near the turn of the century great flocks of Passenger Pigeons darkened the skies for hours as they passed overhead travelling in search of food. The first migrations of wild pigeons into northern Michigan came in the spring of 1877. One of their nesting places was located on the shores of Round Lake, about five miles northeast of Petoskey. Since they were seemingly limitless in their numbers, they were killed by the millions and whole trainloads were shipped from Petoskey to markets in other parts of America.

Petoskey became known as a summer resort community. Hay Fever sufferers found that this climate was particularly well suited to them and many families established permanent summer homes in and around Petoskey. Petoskey's harbors also became well known as a home for many pleasure craft.

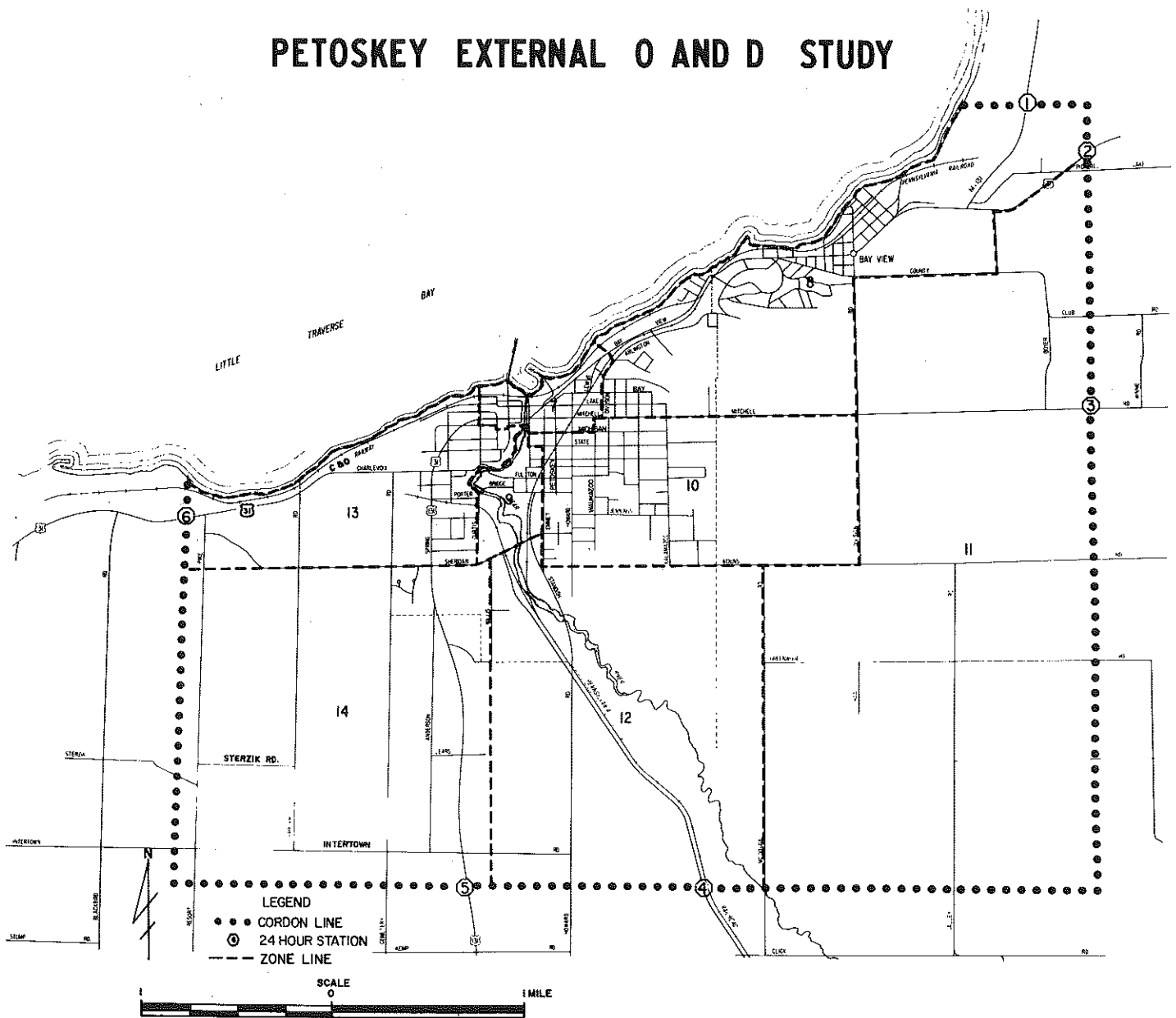
Petoskey is served by US-31, US-131 and M-131. Both Petoskey and the Little Traverse Bay region have been popular resort centers for generations. Being conveniently located via the above highways from the city, soon resort developments began to spring up - Walloon Lake to the south, Pickerel and other lakes to the east, Wequetonsing and Harbor Springs to the north.

The first community on US-31 to the northeast of Petoskey is Bay View. It was founded in 1875 by a group of Michigan Methodists as a camp meeting site. At the present time it consists of some 450 cottages, three hotels, several classroom buildings, dormitories, office buildings and other campus structures. Other attractions on this site are a complete water front and recreation complex, and the John M. Hall Auditorium, with a seating capacity of 2,000. The Bay View College of Liberal Arts and Music has summer sessions for those who wish to combine resorting and school work.

## SURVEY AREA

Petoskey is a city of 6,630 people, located on the east shore of Little Traverse Bay at the mouth of the Bear River. Population within the entire study area is estimated at 7,430. This area is composed of the city of Petoskey and parts of Bear Creek and Resort Townships. The total area covers approximately 15 square miles.

# PETOSKEY EXTERNAL O AND D STUDY



MICHIGAN DEPARTMENT OF STATE HIGHWAYS

## FIELD PROCEDURE

Field work on the Petoskey Traffic Study was conducted during the month of July 1967. The purpose was to accumulate data concerning the movement of people and goods by motor vehicle through, into and out of the study area.

Data for the study of external trips was obtained at a cordon of six interview stations established on all of the important roads leading into the study area. At each of these stations, vehicles were stopped and the drivers interviewed concerning the origin, destination and purpose of their trips. Manual vehicle classification counts were taken at the six stations for twenty-four hours.

Answers to the interview questions were recorded on Form O-D 4. One line of this form was used for each vehicle interviewed. A sample copy of Form O-D 4 is shown in Appendix . Both inbound and outbound vehicles were interviewed. They were recorded each hour at each station by direction of travel.

### TERMINOLOGY AND DEFINITIONS

CENTRAL BUSINESS DISTRICT (CBD):	The zones comprising the concentrated commercial and retail business center of the city.
CORDON LINE:	A hypothetical line encompassing the area under study.
CORDON TRIP, TERMINAL TRIP:	A trip with one terminal outside the study area and one terminal inside the study area.
DESTINATION:	The place where a trip ends.
DOWNTOWN AREA:	The zones comprising the CBD and its commercial-residential fringe.
EXTERNAL:	Outside the study area.
EXTERNAL STATION:	A point on a highway at the limits of the study area at which the drivers of vehicles were interviewed.
EXTERNAL TRIP:	A trip with one or both of its terminals outside the study area.
INTERNAL:	Within the study area.
NONRESIDENT:	A person living outside the study area.
ORIGIN:	The place where the trip begins.
ORIGIN-DESTINATION ZONE,	A basic subdivision of the study area having a single or dominant land use, designated for purposes of tabulation and analysis.
RESIDENT:	A person living within the study area.
STUDY AREA:	The area enclosed by the cordon line.
THROUGH TRIP:	A trip passing through the study area with the terminals outside the study area.
TRIP:	One-way travel between an origin and destination.
TRIP TERMINAL:	The point where a trip begins or ends.



## TRAFFIC VOLUMES

Many factors are responsible for the patterns of traffic volumes within a community. Such items as land use, street width, type and condition of street surface, parking restrictions, one or two way operation and signalization attract traffic to certain routes. The majority of motorists in the Petoskey Area voluntarily confine their travel to a small number of streets. These are: Spring Street – Bay View Drive (US-131, US-31, M-131, M-68), Charlevoix Avenue (US-31), Mitchell Street, Michigan Street, Lake Street, State Street, Emmet Street, Howard Street, Waukazoo Avenue, Kalamazoo Avenue, Lewis Street, Division Street, West Lake Street, Porter-Bridge Street, Division Road, Atkins Road, Greenwood Road and Standish Road.

Traffic volumes on these thoroughfares are small in the peripheral areas, gradually increasing as these routes converge upon the central area, and reaching their maximum in the Petoskey central business district. The highest traffic volume in the city (23,500 vehicles, July weekday) occurred at the west leg of the US-31, M-131, M-68, Mitchell Street and Bay View Drive, and Mitchell Street and Elizabeth Street.

Traffic decreases along US-31, M-131 and M-68. At the village of Bay View, the volume is 14,140 vehicles on the above route. Other streets and their approximate 24-hour July weekday volumes are Mitchell Street (11,560), Charlevoix Avenue (9,970), Emmet Street (4,770), Division Street (3,700), Waukazoo Avenue (3,640), Petoskey Street (3,370), Kalamazoo Avenue (3,170), Michigan Street (2,930), Division Road (2,480), Jennings Avenue (1,950), West Lake Street (1,680), and Porter, Bridge, Fulton Street (1,150).

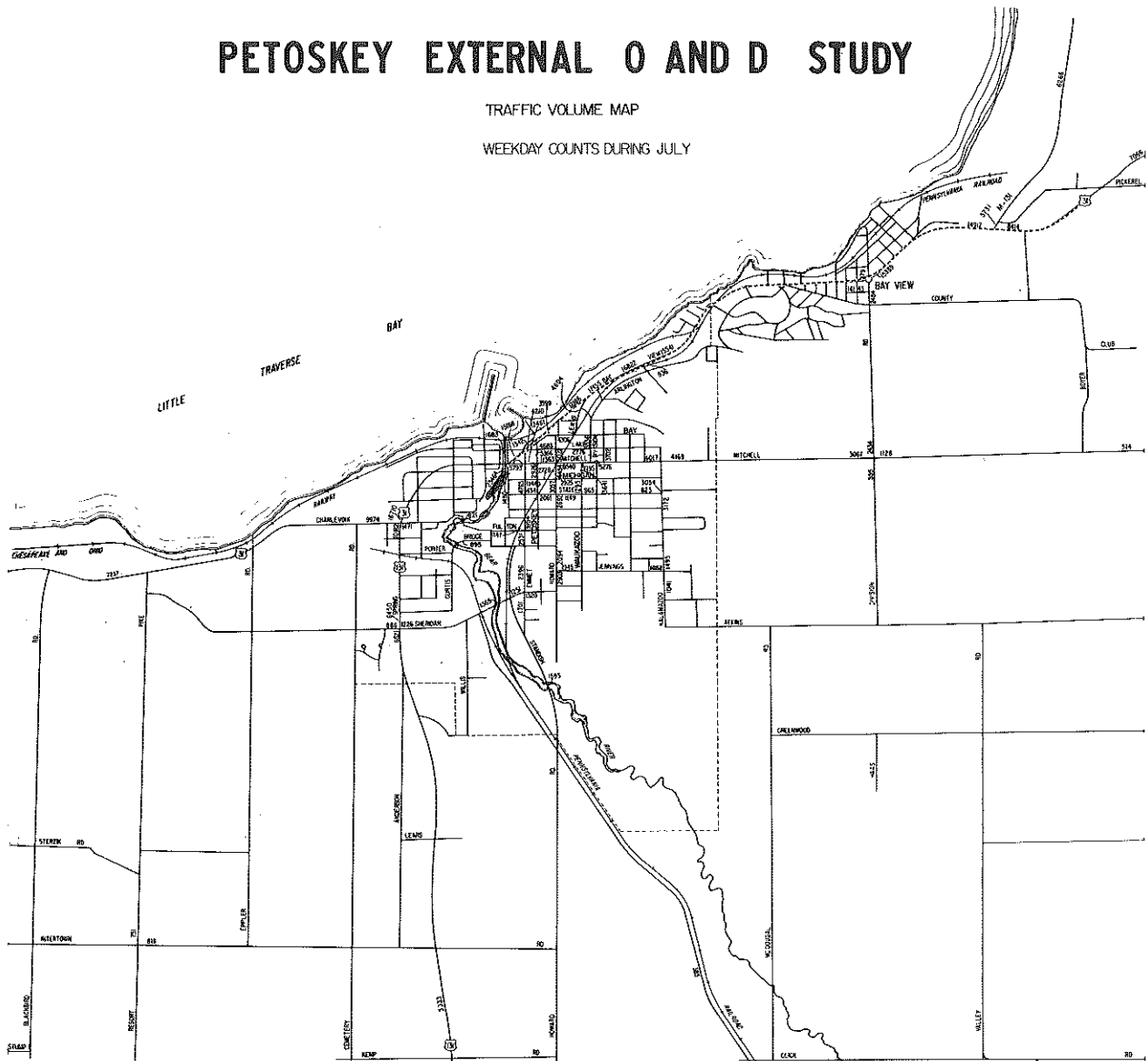
### Traffic Composition on Major Routes or Roads in the Petoskey Area

Route or Road	Location of Traffic Count Location	Total Volume	Through Volume	Terminal Volume	Local Volume
M-131	Station 1 North	4,710	1,423	3,287	0
US-31	Station 2 East	6,879	3,500	3,379	0
Mitchell Rd.	Station 3 East	779	115	664	0
River Rd.	Station 4 South	384	50	334	0
US-131	Station 5 South	5,172	2,396	2,776	0
US-31	Station 6 West	6,027	2,868	3,159	0
<u>US-31, M-131, M-68</u>	<u>West leg of Jct. with Mitchell St. &amp; Elizabeth St.</u>	<u>23,464</u>	<u>4,746</u>	<u>5,043</u>	<u>13,675</u>
US-131	S. of Sheridan St.	6,521	2,396	2,872	1,253
US-131	N. of Sheridan St.	6,450	2,396	2,391	1,663
US-131	S. of US-31 (Charlevoix St.)	10,182	2,420	2,579	5,183
US-31, M-131, M-68	N.E. of Lewis St.	17,455	4,681	6,050	6,724
US-31, M-131, M-68	W. of US-31	14,917	4,709	6,666	3,542
Bridge St.	On bridge over Bear River	895	0	188	707
Sheridan St.	On bridge over Bear River	1,365	28	575	762
Kalamazoo Ave.	S. of State St.	3,172	0	67	3,105
Elizabeth St.	S. of US-31, M-131, M-68	4,150	22	380	3,748
Lewis St.	S. of US-31, M-131, M-68	4,604	0	3,432	1,172
Division Rd.	N. of Mitchell Rd.	2,434	28	48	2,358

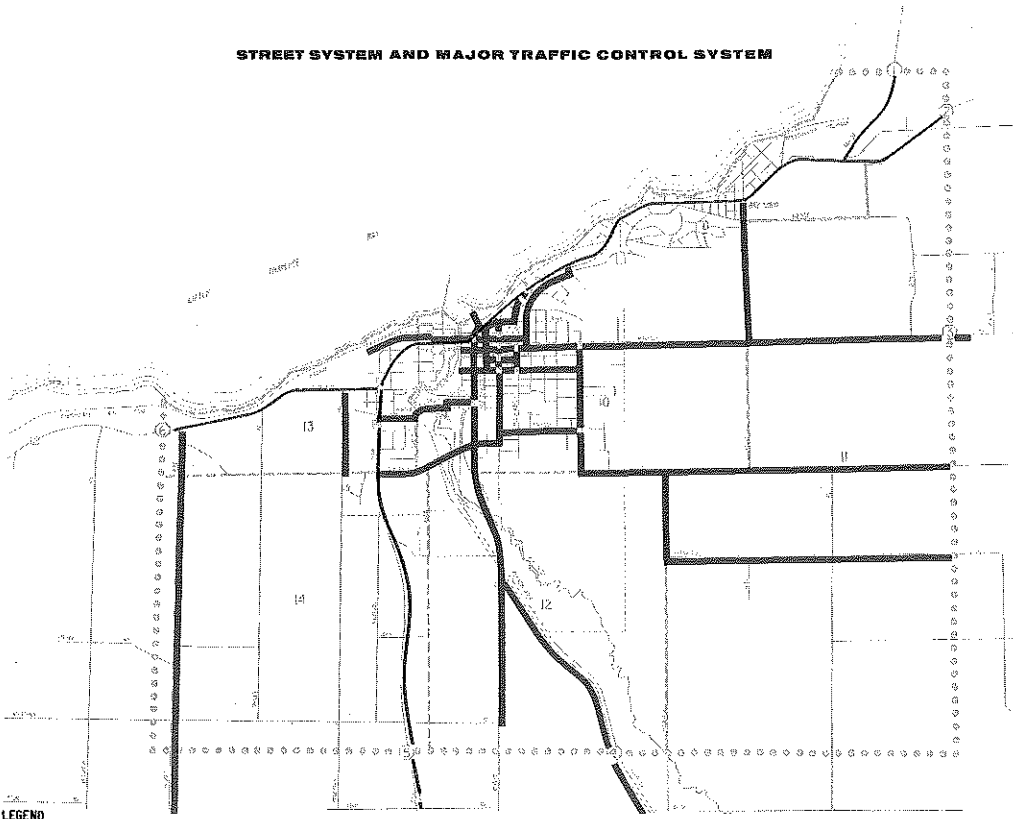
# PETOSKEY EXTERNAL O AND D STUDY

TRAFFIC VOLUME MAP

WEEKDAY COUNTS DURING JULY



**STREET SYSTEM AND MAJOR TRAFFIC CONTROL SYSTEM**



**LEGEND**

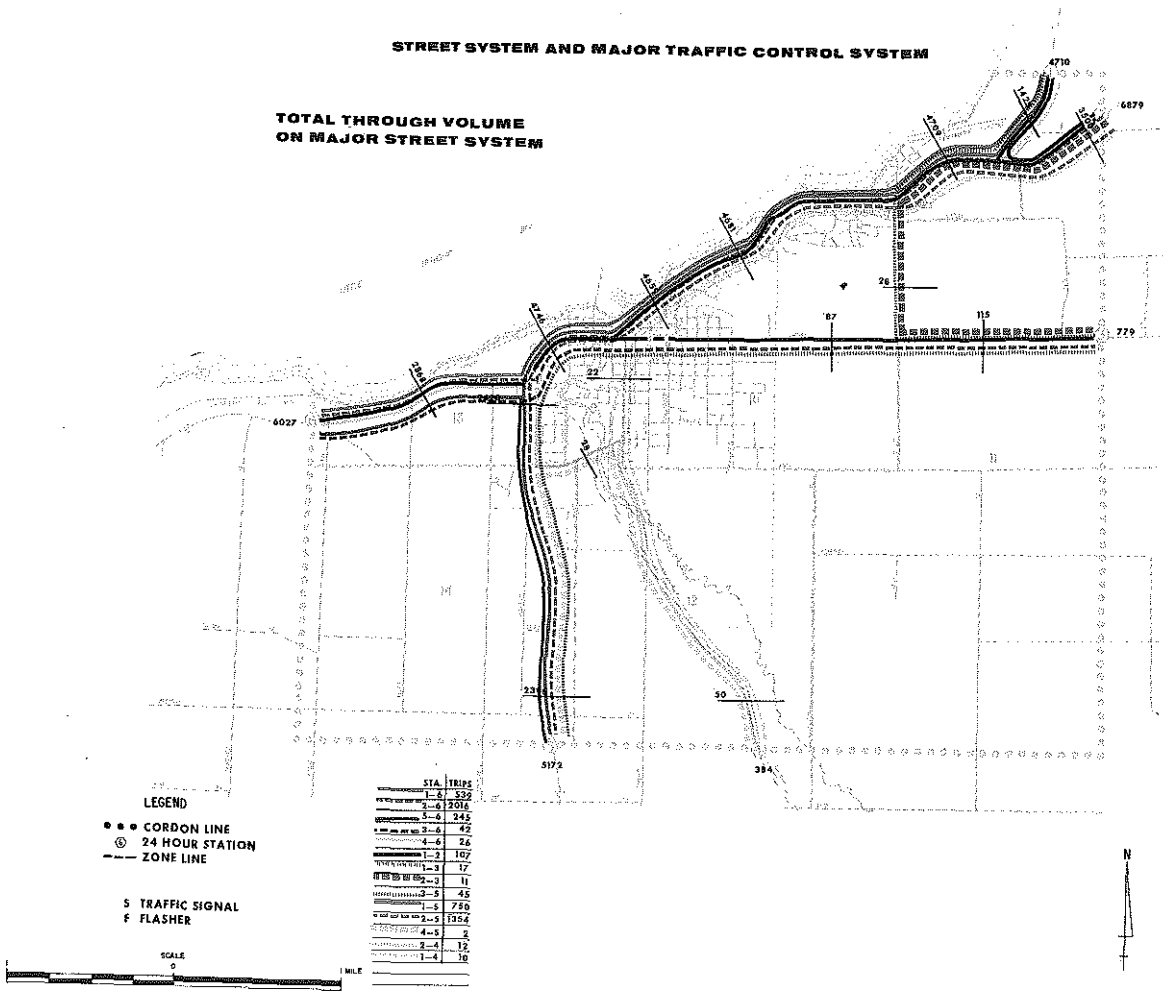
- ● ● CORDON LINE
- ⊙ 24 HOUR STATION
- ZONE LINE
- STATE TRUNKLINE
- MAJOR STREET OR ROUTE
- S TRAFFIC SIGNAL
- F FLASHER



MICHIGAN DEPARTMENT OF STATE HIGHWAYS

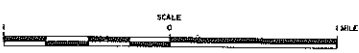
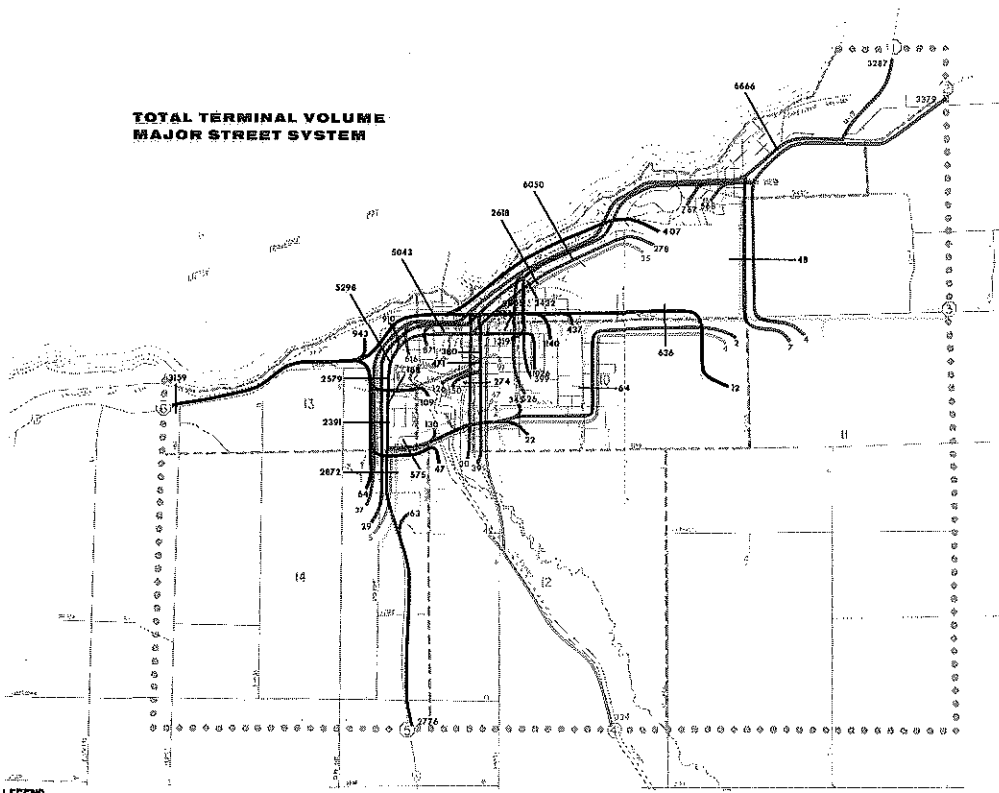
**STREET SYSTEM AND MAJOR TRAFFIC CONTROL SYSTEM**

**TOTAL THROUGH VOLUME  
ON MAJOR STREET SYSTEM**



MICHIGAN DEPARTMENT OF STATE HIGHWAYS

**TOTAL TERMINAL VOLUME  
MAJOR STREET SYSTEM**



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## SUMMARY

### TOTAL TRAFFIC

On an average July weekday in 1967, approximately 23,951 vehicles passed the six interview stations located on the federal aid primary and secondary highways serving Petoskey. Of the 23,951 vehicles, 22,788 (95.1%) traveled on the state highways.

The traffic volume at each station is as follows:

<u>LOCATION</u>	<u>STATION</u>	<u>TRAFFIC</u>	<u>PERCENT of TOTAL</u>
US-31 East	2	6,879	28.7%
US-31 West	6	6,027	25.1%
US-131 South	5	5,172	21.6%
M-131 North	1	4,710	19.7%
Mitchell Road East	3	779	3.3%
River Road South	4	384	1.6%
<b>TOTAL ALL STATIONS</b>		<b>23,951</b>	<b>100.0%</b>

### AUTOMOBILE AND TRUCK TRAFFIC

Automobiles account for 20,861 vehicles or 87.1 percent of the total traffic. The remaining 3,090 vehicles are trucks of which 2,704, or 11.3 percent of the total traffic, are single unit trucks.

The traffic volume by vehicle type at each station is listed below:

Location	Station	Trucks					
		Auto & Taxi		Single Unit		Trailer Comb.	
		Vehicles	%	Vehicles	%	Vehicles	%
US-31 East	2	6,094	88.6	674	9.8	111	1.6
US-31 West	6	5,153	85.5	793	13.2	81	1.3
US-131 South	5	4,443	85.9	577	11.2	152	2.9
M-131 North	1	4,194	89.0	480	10.2	36	0.8
Mitchell Rd. E.	3	652	83.7	123	15.8	4	0.5
River Road S.	4	325	84.6	57	14.9	2	0.5
<b>TOTAL ALL STATIONS</b>		<b>20,861</b>	<b>87.1%</b>	<b>2,704</b>	<b>11.3%</b>	<b>386</b>	<b>1.6%</b>

## EXTERNAL STATION TRAFFIC

BY

### HIGH ONE-HOUR, TWO-HOUR AND THREE-HOUR PERIODS

Sta. No.	One Hour			Two Hour			Three Hour		
	Time	Volume	%	Time	Volume	%	Time	Volume	%
1	3-4P	401	8.6	3-5P	768	16.4	2-5P	1,112	23.7
2	12-1P	577	8.3	11-1P	1,125	16.1	11-2P	1,614	23.1
3	5-6P	69	8.5	4-6P	117	14.4	3-6P	179	22.0
4	5-6P	35	8.7	5-7P	66	16.4	4-7P	91	22.6
5	4-5P	386	8.2	4-6P	757	16.1	3-6P	1,076	22.8
6	1-2P	553	8.7	12-2P	1,037	16.3	11-2P	1,510	23.8

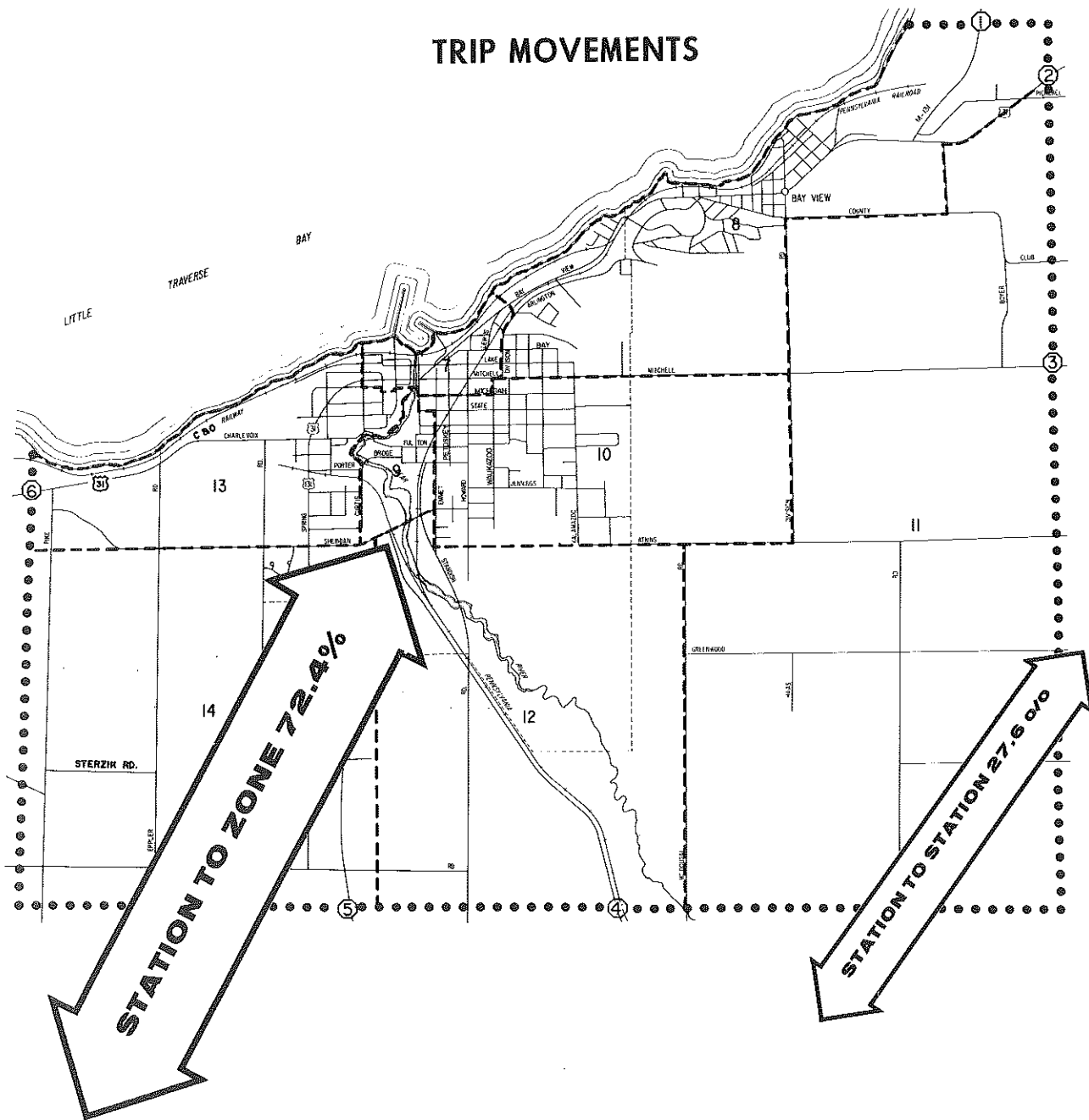
The above table summarizes the traffic movement at each external station during the high one-hour, two-hour and three-hour periods. For each period, the table shows the traffic volume, its percentage of the station total and time of occurrence. The largest external traffic movement occurred during the afternoon between 3:00 PM and 6:00 PM for all stations (5,504 vehicles or 23.0%). The highest one-hour period was from 4:00 PM - 5:00 PM (1,899 vehicles or 7.9%) for all external stations. The highest two-hour period occurred during the afternoon between 3:00 PM and 5:00 PM for all stations (3,716 vehicles or 15.5%).

### TRIP MOVEMENTS

The diagram on page 11 graphically shows the through and terminal traffic movements. The following tables are a consolidation of the through and terminal traffic by vehicle type and by trip purpose. Of the total numbers of trips made, 5,176 (27.6%) trips were through trips and 13,599 (72.4%) were terminal trips. A through vehicle is counted twice. It is counted at both its entering and departing stations.

The table shows that more than 8 out of 10 vehicles were autos. More than 7 out of 10 through trips were made for the purpose of social-recreation. More than 4 out of 10 terminal trips (6,085 trips) were made for the purpose of work. Work and social-recreation accounted for 74.6 percent of the total traffic movement.

# TRIP MOVEMENTS





THROUGH AND TERMINAL TRAFFIC BY VEHICLE TYPE

Vehicle Type	Through Traffic		Terminal Traffic		Total Traffic	
	Number of Trips	Percent	Number of Trips	Percent	Number of Trips	Percent
Auto	4,619	89.2	11,623	85.5	16,242	86.5
Single Unit Truck	455	8.8	1,794	13.2	2,249	12.0
Trailer Comb. Truck	102	2.0	182	1.3	284	1.5
TOTALS	5,176	100.0	13,599	100.0	18,775	100.0
Percent of Totals	27.6		72.4		100.0	

THROUGH AND TERMINAL TRAFFIC BY TRIP PURPOSE

Trip Purpose	Through Traffic		Terminal Traffic		Total Traffic	
	Number of Trips	Percent	Number of Trips	Percent	Number of Trips	Percent
Work	1,183	22.8	6,085	44.7	7,268	38.7
Business	101	2.0	1,416	10.4	1,517	8.1
Shopping	56	1.1	3,195	23.5	3,251	17.3
Social-Recreation	3,836	74.1	2,903	21.4	6,739	35.9
TOTALS	5,176	100.0	13,599	100.0	18,775	100.0

Separate tabulation were made for vehicles owned inside the study area and those owned outside the area. The first table shows the average occupancy of passenger cars owned by area residents making trips that crossed the cordon line. The second table shows the average occupancy of passenger cars owned by non-residents and garaged outside the study area making trips that crossed the cordon line. The tabulation uses the driver's trip purpose and includes him in the occupancy count.

Less than half of all travel of persons is accounted for by the driver of the car. Passengers account for more than half of the total travel of persons by passenger car. Of the principal purpose categories, social-recreation had the greatest number of passengers. This is expected since social-recreation is most often a family oriented activity. The average auto occupancy rate for vehicles owned outside the area is higher. The longer trip lengths that can be expected may influence the auto occupancy rate.

PETOSKEY PASSENGER CAR OCCUPANCY TABLE  
VEHICLES OWNED INSIDE THE AREA

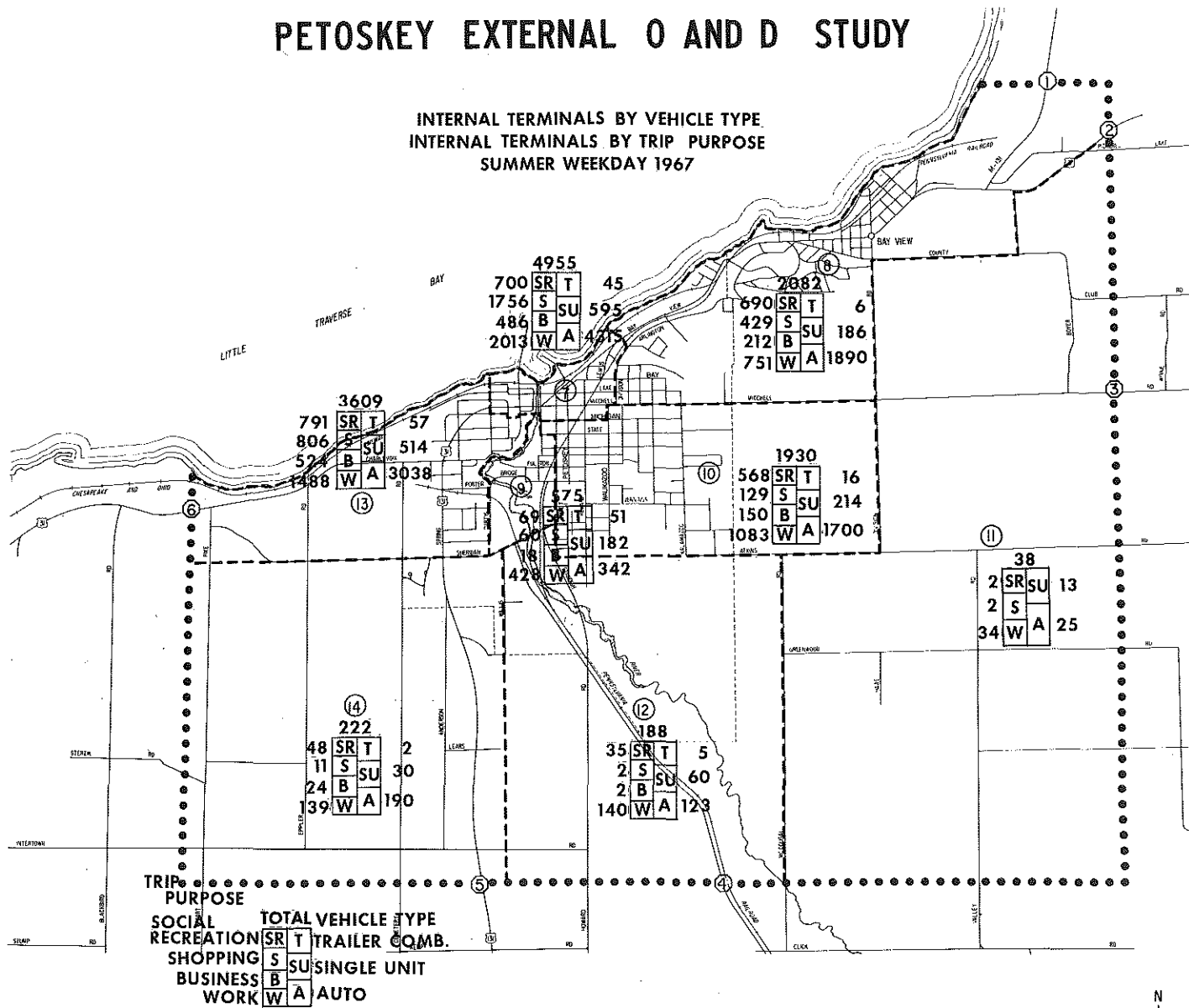
To-Purpose of Trip	Number of Vehicles	% of Vehicles	Number of Occupants	Average Occupants
Work	1110	49.4	1543	1.39
Business	201	8.4	399	1.99
Shopping	134	6.0	264	1.97
Social-Recreation	804	35.7	1897	2.36
Total	2249	100.0	4103	1.82

VEHICLES OWNED OUTSIDE THE AREA

Work	3940	28.2	5752	1.46
Business	1306	9.3	2547	1.95
Shopping	3033	21.7	7310	2.41
Social-Recreation	5714	40.8	16971	2.97
Total	13993	100.0	32580	2.33
-----				
	2249	13.8	4103	1.82
	13993	86.2	32580	2.33
TOTAL	16242	100.0	36683	2.26

# PETOSKEY EXTERNAL O AND D STUDY

INTERNAL TERMINALS BY VEHICLE TYPE  
INTERNAL TERMINALS BY TRIP PURPOSE  
SUMMER WEEKDAY 1967



MICHIGAN DEPARTMENT OF STATE HIGHWAYS

## TOTAL TRAFFIC AND THROUGH TRAFFIC INTERCHANGE

Diagram on page 15 shows the total traffic passing each station and the station interchange of through traffic. The 10,352 through vehicles consist of only 5,176 through trips as each vehicle is counted at both its entering and departing stations. The 10,352 through vehicles represent 43.2 percent of the total of 23,951 vehicles passing the six interview stations.

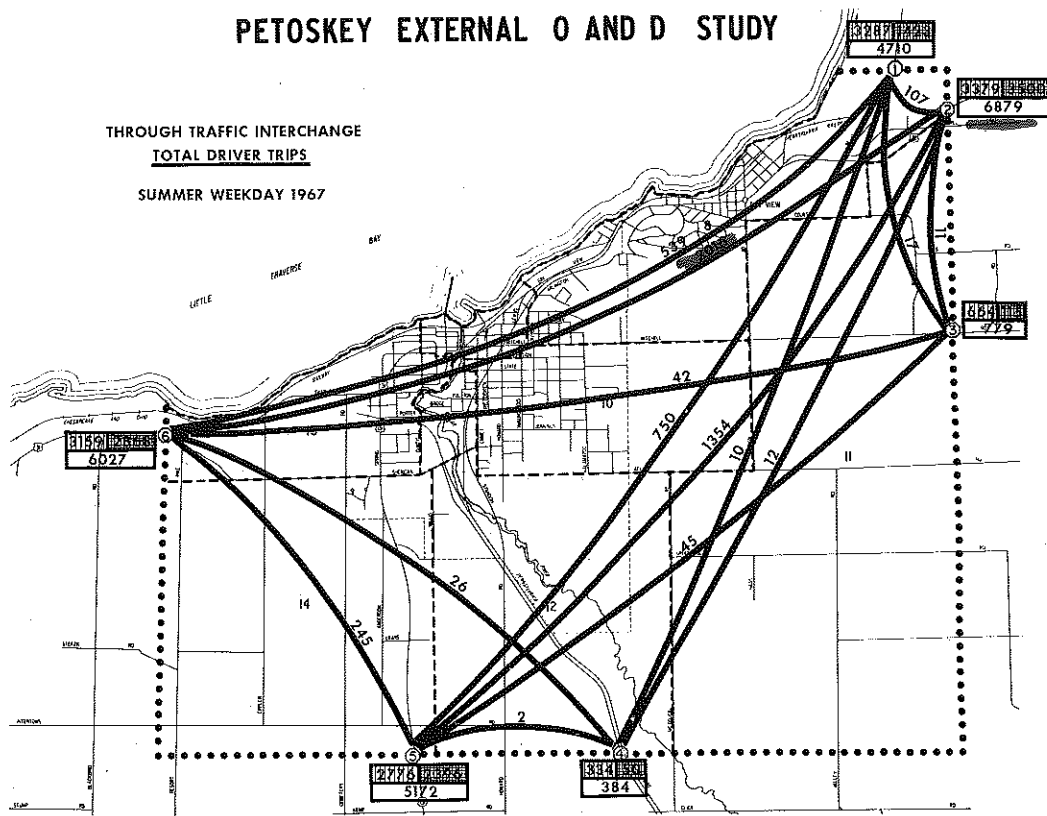
The largest through traffic movement is the 2,016 east-west movement on US-31 interchanging between Stations 2 and 6.

Station 2 (US-31 East) has the largest traffic flow with 6,879 vehicles per day or 28.7 percent of the total traffic.

The following table shows the station interchange of through traffic, the terminal and total traffic passing each station:

# PETOSKEY EXTERNAL O AND D STUDY

THROUGH TRAFFIC INTERCHANGE  
 TOTAL DRIVER TRIPS  
 SUMMER WEEKDAY 1967



LEGEND  
 ●●● CORDON LINE  
 ⊙ 24 HOUR STATION  
 --- ZONE LINE

TOTAL TRIPS  
 THROUGH TRIPS  
 TERMINAL TRIPS



MICHIGAN DEPARTMENT OF STATE HIGHWAYS

TOTAL TRAFFIC AND THROUGH TRAFFIC INTERCHANGE							TOTAL THROUGH TRIPS 5,176
US-31 EAST STATION 2	US-31 WEST STATION 6	US-131 SOUTH STATION 5	US-131 NORTH STATION 1	MITCHELL STREET STATION 3	RIVER ROAD SOUTH STATION 4	TOTAL TRAFFIC ALL STATIONS	
2,016							
1,354	245						
107	539	750					
11	42	45	17				
12	26	2	10	0			
3,500	2,868	2,396	1,423	115	50	10,352	THROUGH
3,379	3,159	2,776	3,287	664	334	13,599	TERMINAL
6,879	6,027	5,172	4,710	779	384	23,951	TOTAL
28.7	25.1	21.6	19.7	3.3	1.6	100.0	PERCENT

## TOTAL AUTO TRAFFIC AND AUTO THROUGH TRAFFIC INTERCHANGE

Diagram on page 17 shows the total auto traffic passing each station and the station interchange of through auto traffic. The 9,238 through autos consist of only 4,619 through auto trips as each vehicle is counted at both its entering and departing stations. The 9,238 through autos represents 44.3 percent of the total auto traffic of 20,861 autos passing the six interview stations.

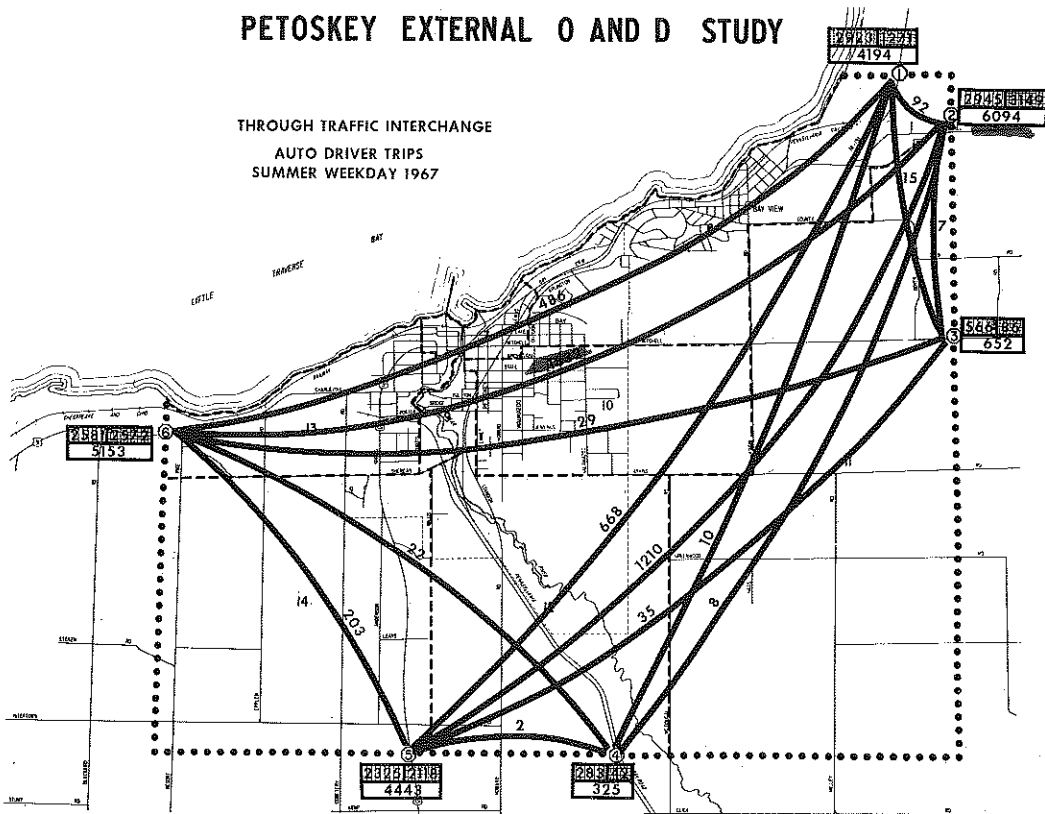
The heaviest through auto traffic movement is the 1,832 east-west trips on US-31 interchanging between stations 2 and 6.

Station 2 has the largest total auto traffic flow of 6,094 autos or 29.2 percent of the total auto traffic.

The following table shows the station interchange of through auto traffic, the terminal and total auto traffic passing each station:

# PETOSKEY EXTERNAL O AND D STUDY

THROUGH TRAFFIC INTERCHANGE  
 AUTO DRIVER TRIPS  
 SUMMER WEEKDAY 1967



LEGEND  
 ●●● CORDON LINE  
 ⊙ 24 HOUR STATION  
 --- ZONE LINE

▭ TOTAL TRIPS  
 ▨ THROUGH TRIPS  
 ▩ TERMINAL TRIPS

MICHIGAN DEPARTMENT OF STATE HIGHWAYS



TOTAL AUTO TRAFFIC AND AUTO THROUGH TRAFFIC INTERCHANGE							TOTAL TRAFFIC ALL STATIONS	TOTAL THROUGH TRIPS 4,619
US-31 EAST STATION 2	US-31 WEST STATION 6	US-131 SOUTH STATION 5	M-131 NORTH STATION 1	MITCHELL STREET STATION 3	RIVER ROAD SOUTH STATION 4	TOTAL THROUGH TRIPS		
1,832								
1,210	203							
92	486	668						
7	29	35	15					
8	22	2	10	0				
3,149	2,572	2,118	1,271	86	42	9238	THROUGH	
2,945	2,581	2,325	2,923	566	283	11623	TERMINAL	
6,094	5,153	4,443	4,194	652	325	20861	TOTAL	
29.2	24.7	21.3	20.1	3.1	1.6	100.0	PERCENT	

TOTAL SINGLE UNIT TRUCK TRAFFIC  
AND  
SINGLE UNIT TRUCK THROUGH TRAFFIC INTERCHANGE

Diagram on page 19 shows the total single unit truck traffic passing each station and the station interchange of through single unit truck traffic. The 910 through single unit truck trips represents 33.7 percent of the total single unit truck traffic of 2,704 single unit trucks passing the six interview stations.

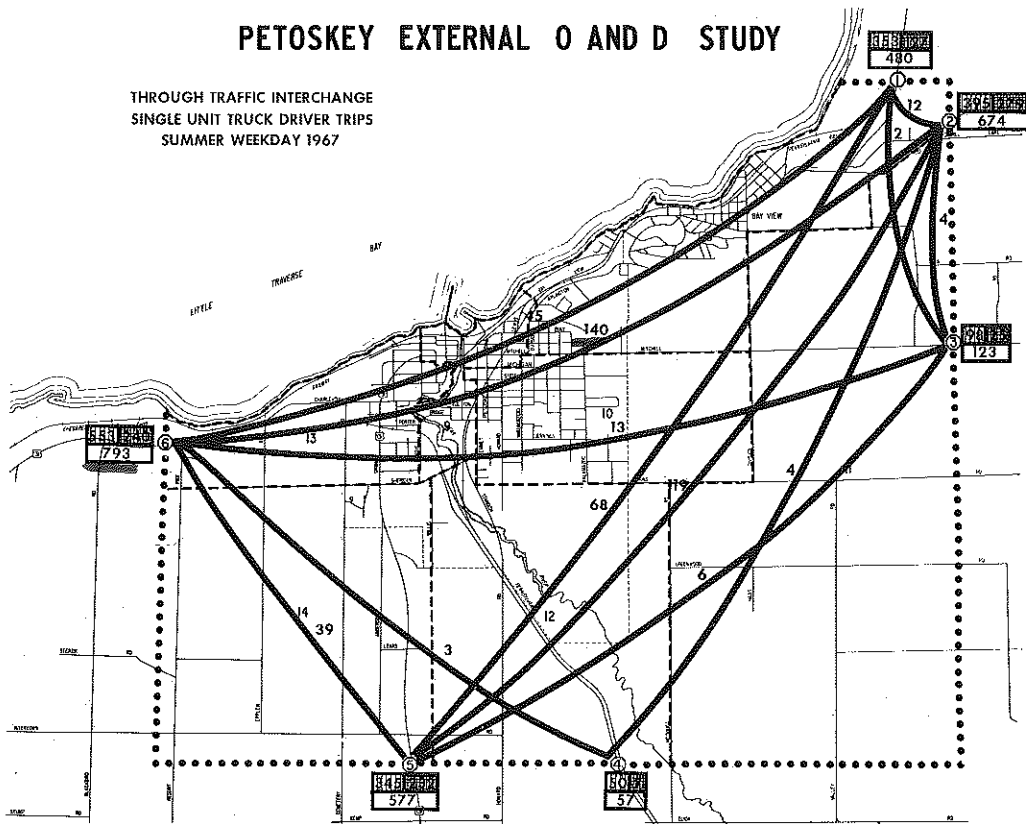
The heaviest through single unit truck traffic movement is the 140 east-west trips on US-31 interchanging between stations 2 and 6.

Station 6 has the largest total single unit truck traffic flow of 793 single unit trucks or 29.3 percent of the total single unit truck traffic.

The following table shows the station interchange of through single unit truck traffic, the terminal and total single unit truck traffic passing each station:

# PETOSKEY EXTERNAL O AND D STUDY

THROUGH TRAFFIC INTERCHANGE  
SINGLE UNIT TRUCK DRIVER TRIPS  
SUMMER WEEKDAY 1967



LEGEND  
●●● CORDON LINE  
⊕ 24 HOUR STATION  
--- ZONE LINE

▭ TOTAL TRIPS  
▨ THROUGH TRIPS  
▧ TERMINAL TRIPS



MICHIGAN DEPARTMENT OF STATE HIGHWAYS

TOTAL SINGLE UNIT TRUCK TRAFFIC AND SINGLE UNIT TRUCK THROUGH TRAFFIC INTERCHANGE								
US-31 EAST STATION 2	US-31 WEST STATION 6	US-131 SOUTH STATION 5	M-131 NORTH STATION 1	MITCHELL STREET EAST STATION 3	RIVER ROAD SOUTH STATION 4	TOTAL TRAFFIC ALL STATIONS	TOTAL THROUGH TRIPS	
140							455	
119	39							
12	45	68						
4	13	6	2					
4	3	0	0	0				
279	240	232	127	25	7	910	THROUGH	
395	553	345	353	98	50	1,794	TERMINAL	
674	793	577	480	123	57	2,704	TOTAL	
24.9	29.3	21.3	17.8	4.6	2.1	100.0	PERCENT	



TOTAL TRAILER COMBINATION TRUCK TRAFFIC  
AND  
TRAILER COMBINATION TRUCK THROUGH TRAFFIC INTERCHANGE

Diagram on page 21 shows the total trailer combination truck traffic passing each station and the station interchange of through trailer combination truck traffic. The 204 through trailer combination trucks consist of only 102 through trailer combination truck trips as each vehicle is counted at both its entering and departing stations. The 204 through trailer combination trucks represents 52.8 percent of the total trailer combination traffic of 386 trailer combination trucks passing the six interview stations.

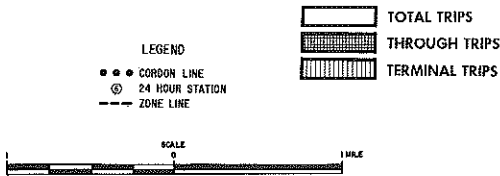
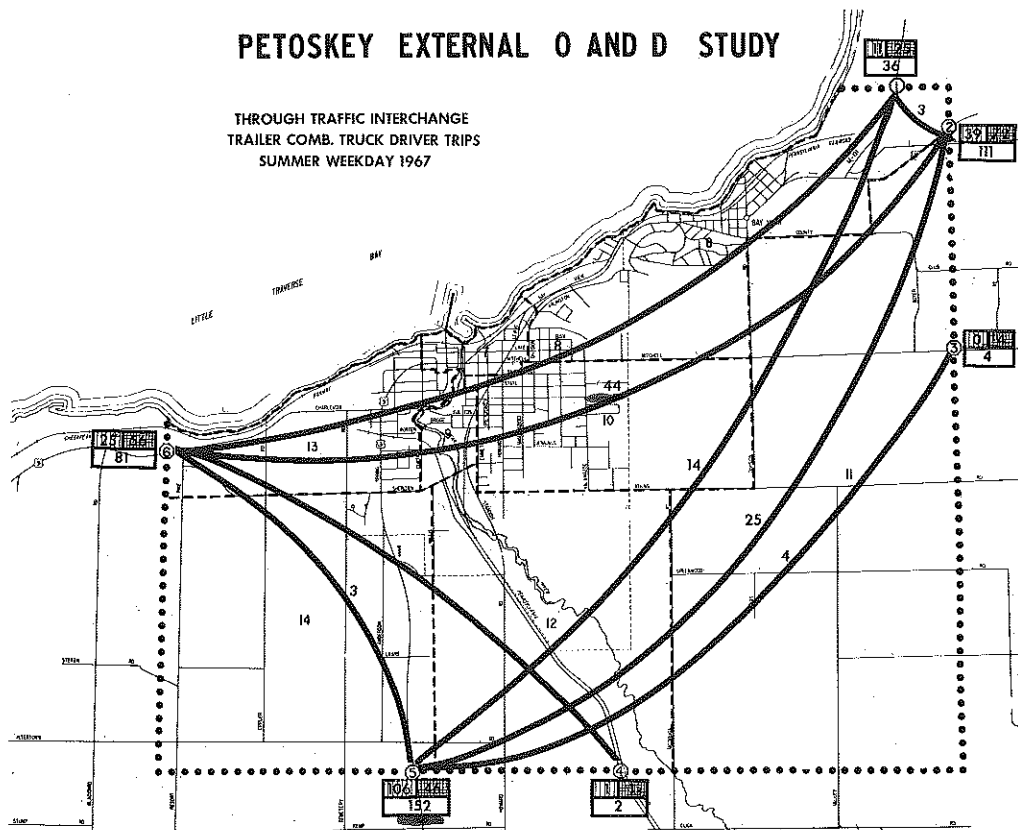
The heaviest through trailer combination truck movement is the 44 east-west trips on US-31 interchanging between Stations 2 and 6.

Station 5 has the largest total trailer combination truck traffic flow of 152 trailer combination trucks or 39.4 percent of the total trailer combination truck traffic.

The following table shows the station interchange of through trailer combination truck traffic, the terminal and total trailer combination truck traffic passing each station:

# PETOSKEY EXTERNAL O AND D STUDY

THROUGH TRAFFIC INTERCHANGE  
TRAILER COMB. TRUCK DRIVER TRIPS  
SUMMER WEEKDAY 1967



MICHIGAN DEPARTMENT OF STATE HIGHWAYS

TOTAL TRAILER COMB. TRAFFIC AND TRAILER COMB. THROUGH TRAFFIC INTERCHANGE							
US-31 EAST STATION 2	US-31 WEST STATION 6	US-131 SOUTH STATION 5	M-131 NORTH STATION 1	MITCHELL STREET EAST STATION 3	RIVER ROAD SOUTH STATION 4	TOTAL TRAFFIC ALL STATIONS	
44							TOTAL THROUGH TRIPS 102
25	3						
3	8	14					
0	0	4	0				
0	1	0	0	0			
72	56	46	25	4	1	204	THROUGH
39	25	106	11	0	1	182	TERMINAL
111	81	152	36	4	2	386	TOTAL
28.8	21.0	39.4	9.3	1.0	0.5	100.0	PERCENT

TERMINAL TRAFFIC DISTRIBUTION  
BY INTERNAL ZONE AND STATION OF TOTAL DRIVER TRIPS

The 13,599 total driver trips have termini in zones as designated on the following page and desire line diagrams Nos.

Approximately 9 out of every 10 vehicles making a trip into or out of the study area passed through the 4 trunk line stations.

The central business district, zone 7, is origin or destination of 4,955 (36.4%) of the 13,599 terminal trips. Zone 13 containing Little Traverse Hospital is second highest with, 3,609 (26.6%) trips. Zone 8 containing the village of Bay View, Lockwood-MacDonald Hospital, Bay View Association and the Petoskey Bay View Country Club is third with 2,082 (15.3%) trips.

TERMINAL TRAFFIC DISTRIBUTION  
BY INTERNAL ZONE AND STATION

TOTAL DRIVER TRIPS

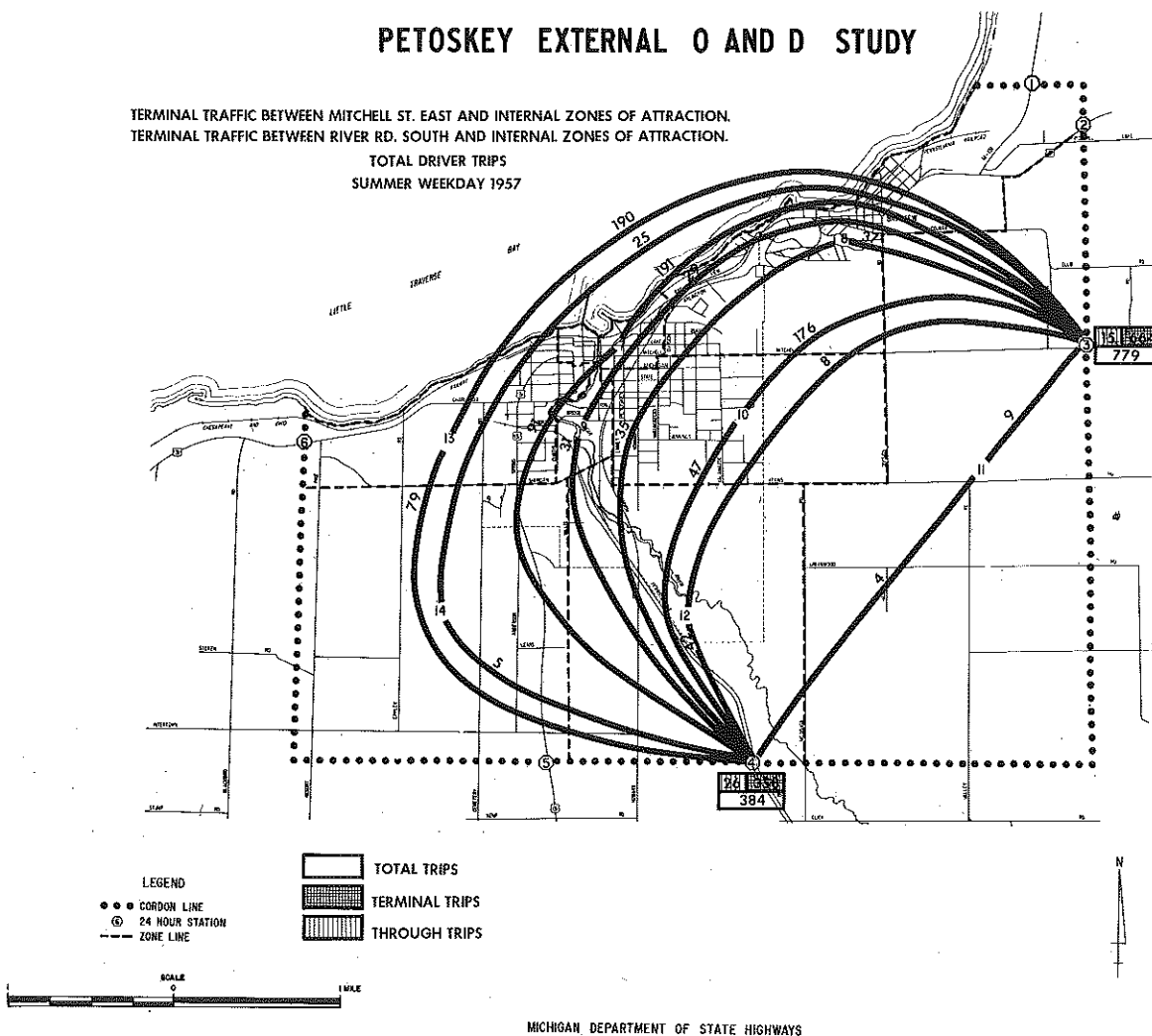
ENTERING OR DEPARTING STATIONS

Internal Zone	Zone Totals	M-131	US-31	Mitchell St.	River Rd.	US-131	US-31	Percent of Total
		North Sta. 1	East Sta. 2	East Sta. 3	South Sta. 4	South Sta. 5	West Sta. 6	
<u>7</u>	<u>4,955</u>	1,188	1,319	191	91	1,026	1,140	<u>36.4</u>
<u>8</u>	<u>2,082</u>	757	568	37	35	278	407	<u>15.3</u>
9	575	126	150	29	31	130	109	4.2
10	1,930	526	399	176	47	345	437	14.2
11	38	7	4	9	4	2	12	0.3
12	188	30	39	8	42	22	47	1.4
<u>13</u>	<u>3,609</u>	616	871	190	79	910	943	<u>26.6</u>
14	222	37	29	24	5	63	64	1.6
TOTAL	13,599	3,287	3,379	664	334	2,776	3,159	
PERCENT		24.2	24.8	4.9	2.5	20.4	23.2	100.0



# PETOSKEY EXTERNAL O AND D STUDY

TERMINAL TRAFFIC BETWEEN MITCHELL ST. EAST AND INTERNAL ZONES OF ATTRACTION.  
 TERMINAL TRAFFIC BETWEEN RIVER RD. SOUTH AND INTERNAL ZONES OF ATTRACTION.  
 TOTAL DRIVER TRIPS  
 SUMMER WEEKDAY 1957



## TERMINAL TRAFFIC DISTRIBUTION BY INTERNAL ZONE AND STATION OF AUTO DRIVER TRIPS

The 11,623 total auto driver trips have termini in zones as designated in the table. Approximately fifty percent of the terminal auto trips passed through Stations 1 and 2.

The central business district, zone 7, is origin or destination of 4,315 (37.1%) of the 11,623 terminal auto trips. Zone 13 is second with 3,038 (26.1%) trips. Zone 8 is third with 1,890 (16.3%) trips. This is similar distribution of trips as total driver trips discussed on a previous page.

TERMINAL TRAFFIC DISTRIBUTION  
BY INTERNAL ZONE AND STATION

AUTO DRIVER TRIPS

ENTERING OR DEPARTING STATIONS

Internal Zone	Zone Totals	M-131 North Sta. 1	US-31 East Sta. 2	Mitchell St. East Sta. 3	River Rd. South Sta. 4	US-131 South Sta. 5	US-31 West Sta. 6	Percent of Total
<u>7</u>	<u>4,315</u>	1,040	1,151	160	85	882	997	<u>37.1</u>
<u>8</u>	<u>1,890</u>	707	519	33	33	241	357	<u>16.3</u>
9	342	78	87	20	29	66	62	2.9
10	1,700	473	340	156	45	301	385	14.7
11	25	7	2	6	2	0	8	0.2
12	123	19	32	8	29	17	18	1.1
<u>13</u>	<u>3,038</u>	567	785	162	58	764	702	<u>26.1</u>
14	190	32	29	21	2	54	52	1.6
TOTAL	11,623	2,923	2,945	566	283	2,325	2,581	
PERCENT		25.1	25.4	4.9	2.4	20.0	22.2	100.0

TERMINAL TRAFFIC DISTRIBUTION  
BY INTERNAL ZONE AND STATION OF SINGLE UNIT TRUCK TRIPS

The 1,794 total single unit truck driver trips have termini in zones as designated in the table. Approximately 3 of every 10 single unit trucks making terminal trips pass Station 6 on US-31 west.

Approximately sixty percent of the 1,794 single unit trucks have a terminal in zone 7 (CBD) and zone 13 (same for total driver and auto driver trips). Zone 9 has 10.1 percent of the total terminal single unit truck trips as compared to only 2.9 percent of the terminal auto driver trips and 4.2 percent of all terminal traffic. This is due to the land use activity in this zone which is largely commercial or manufacturing in nature.

TERMINAL TRAFFIC DISTRIBUTION  
BY INTERNAL ZONE AND STATION

SINGLE UNIT TRUCK TRIPS

ENTERING OR DEPARTING STATIONS

Internal Zone	Zone Totals	M-131 North Sta. 1	US-31 East Sta. 2	Mitchell St. East Sta. 3	River Rd. South Sta. 4	US-131 South Sta. 5	US-31 West Sta. 6	Percent of Total
<u>7</u>	<u>595</u>	144	154	31	6	117	143	<u>33.2</u>
8	186	50	49	4	2	31	50	10.4
<u>9</u>	<u>182</u>	46	56	9	2	34	35	<u>10.1</u>
10	214	50	59	20	2	34	49	11.9
11	13	0	2	3	2	2	4	0.7
12	60	11	7	0	13	2	27	3.3
<u>13</u>	<u>514</u>	47	68	28	20	116	235	<u>28.7</u>
14	30	5	0	3	3	9	10	1.7
TOTAL	1,794	353	395	98	50	345	553	
PERCENT		19.7	22.0	5.5	2.8	19.2	30.8	100.0

TERMINAL TRAFFIC DISTRIBUTION  
BY INTERNAL ZONE AND STATION OF TRAILER COMBINATION TRIPS

The 182 total trailer combination truck driver trips have termini in zones as designated in the table. Approximately 6 of every 10 trailer combination trucks making terminal trips pass Section 5 on US-131 south.

Zone 9 had 51 (28.0%) terminal trailer combination truck trips. Only zone 13 had more terminal trips (57 trips or 31.3%). Zones 7, 9, and 13 account for 153 (84.0%) terminal trips. All three zones are primarily commercial or manufacturing in nature.

TERMINAL TRAFFIC DISTRIBUTION  
BY INTERNAL ZONE AND STATION

TRAILER COMBINATION TRIPS

ENTERING OR DEPARTING STATIONS

Internal Zone	Zone Totals	M-131 North Sta. 1	US-31 East Sta. 2	Mitchell St. East Sta. 3	River Rd. South Sta. 4	US-131 South Sta. 5	US-31 West Sta. 6	Percent of Total
<u>7</u>	45	4	14	0	0	27	0	<u>24.7</u>
8	6	0	0	0	0	6	0	3.3
<u>9</u>	51	2	7	0	0	30	12	<u>28.0</u>
10	16	3	0	0	0	10	3	8.8
11	0	0	0	0	0	0	0	0.0
12	5	0	0	0	0	3	2	2.8
<u>13</u>	57	2	18	0	1	30	6	<u>31.3</u>
14	2	0	0	0	0	0	2	1.1
TOTAL	182	11	39	0	1	106	25	
PERCENT		6.0	21.4	0.0	0.6	58.3	13.7	100.0

STATION 1

A total of 4,710 vehicles passed through Station 1 on M-131 North of Petoskey. Tabulations on the following pages gives a detailed analysis of this traffic.

Approximately 7 out of every 10 vehicles had a terminal inside the study area. Nine of every 10 vehicles were autos, whether they traveled into or through the area.

Approximately 1 out of every 10 vehicles was a single unit truck. Less than 1 out of every 100 vehicles was a trailer combination truck.

The largest through traffic movement at this station is the 750 (52.7%) vehicles interchanging with Station 5 on US-131 South. Of these 750 vehicles, approximately 1 of 9 is a truck of which 5 out of 6 are single unit trucks.

The heaviest terminal traffic movements are to and from Zone 7 (The Central Business District), Zones 8, 10 and 13.

Approximately 7 out of 10 trips passing through the station were made for the purpose of work or social-recreation. Six out of 10 through trips were made for the purpose of social-recreation. Four out of 10 terminal trips were made for the purpose of work.

Approximately 2 out of 3 trips interchanging with Station 5 on US-131 South were for the purpose of social-recreation.

The largest terminal trip movements by purpose were the 457 shopping and 449 work trips to Zone 7 (The Central Business District).



1. TOTAL TRAFFIC THROUGH STATION 1, 4710 VEHICLES  
THROUGH TERMINAL

1,423	3,287	VEHICLES
30.2	69.8	Percent of Total

<u>AUTO</u>	<u>Single Unit</u>	<u>TRUCK</u>	
		<u>Trailer Combination</u>	
4,194	480	36	
89.1	10.2	0.7	Percent of Total

A. THROUGH TRAFFIC: 1,423 VEHICLES

<u>AUTO</u>	<u>Single Unit</u>	<u>TRUCK</u>	
		<u>Trailer Combination</u>	
1,271	127	25	
89.3	8.9	1.8	Percent of Total

B. TERMINAL TRAFFIC: 3,287 VEHICLES

<u>AUTO</u>	<u>Single Unit</u>	<u>TRUCK</u>	
		<u>Trailer Combination</u>	
2,923	353	11	
88.9	10.8	0.3	Percent of Total

C. THROUGH TRAFFIC INTERCHANGE OF 1,423 VEHICLES

<u>STATION</u>	<u>AUTOS</u>	<u>SINGLE UNIT</u>	<u>TRUCKS</u>	<u>TOTAL</u>	<u>PERCENT</u>
			<u>TRAILER COMBINATION</u>	<u>VEHICLES</u>	<u>OF TOTAL</u>
2	92	12	3	107	7.5
3	15	2	0	17	1.2
4	10	0	0	10	0.7
5	668	68	14	750	52.7
6	486	45	8	539	37.9
TOTAL	1,271	127	25	1,423	100.0

D. TERMINAL TRAFFIC DISTRIBUTION OF 3,287 VEHICLES

<u>ZONE</u>	<u>AUTOS</u>	<u>SINGLE UNIT</u>	<u>TRUCKS</u>	<u>TOTAL</u>	<u>PERCENT</u>
			<u>TRAILER COMBINATION</u>	<u>VEHICLES</u>	<u>OF TOTAL</u>
7	1,040	144	4	1,188	36.2
8	707	50	0	757	23.1
9	78	46	2	126	3.8
10	473	50	3	526	16.0
11	7	0	0	7	0.2
12	19	11	0	30	0.9
13	567	47	2	616	18.7
14	32	5	0	37	1.1
TOTAL	2,923	353	11	3,287	100.0

2. TOTAL TRAFFIC THROUGH STATION 1 BY TRIP PURPOSE

<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL- RECREATION</u>		<u>TOTAL</u>
1,714	417	1,007	1,572	Vehicles	4,710
36.4	8.9	21.4	33.3	Percent Total	100.0

A. THROUGH TRAFFIC INTERCHANGE BY TRIP PURPOSE

<u>STATION</u>	<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL- RECREATION</u>	<u>TOTAL</u>
2	36	7		64	107
3	5	2	4	6	17
4	4			6	10
5	220	21	19	490	750
6	187	12	12	328	539
TOTAL	452	42	35	894	1,423
PERCENT OF TOTAL	31.7	3.0	2.5	62.8	100.0

B. TERMINAL TRAFFIC DISTRIBUTION BY TRIP PURPOSE

<u>ZONE</u>	<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL- RECREATION</u>	<u>TOTAL</u>
7	449	115	457	167	1,188
8	202	97	225	233	757
9	79	14	18	15	126
10	275	56	53	142	526
11	5		2		7
12	20			10	30
13	209	85	217	105	616
14	23	8		6	37
TOTAL	1,262	375	972	678	3,287
PERCENT OF TOTAL	38.4	11.4	29.6	20.6	100.0

## STATION 2

A total of 6,879 vehicles passed through Station 2 on US-31 East of Petoskey. Tabulations on the following pages give a detailed analysis of this traffic.

The through and terminal traffic passing this station is nearly equally divided. Nine of every 10 vehicles were autos, whether they traveled into or through the area.

Approximately 1 out of 10 vehicles was a single unit truck. Two (or less) out of 100 vehicles were trailer combination trucks.

The largest through traffic movement at this station is the 2,016 (57.5%) vehicles interchanging with Station 6 on US-31 West. Of these 2,016 vehicles, approximately 1 of 11 is a truck of which 3 out of 5 are single unit trucks.

The heaviest terminal traffic movements are to or from Zone 7 (The Central Business District), zones 8, 9 and 13.

Over half of the trips passing through the station were made for the purpose of social-recreation. Eight out of 10 through trips were made for the purpose of social-recreation. Eight out of 10 vehicles interchanging with Station 6 on US-31 West were for the purpose of social-recreation.

The largest terminal trip movements by purpose were the 560 work and 411 shopping trips to Zone 7 (The Central Business District).

## STATION 3

A total of 779 vehicles passed through Station 3 on Mitchell Road East of Petoskey. Tabulations on the following pages give a detailed analysis of this traffic.

Approximately 9 out of every 10 vehicles had a terminal inside the study area. Eight of every 10 vehicles were autos. Trailer combination trucks made no terminal trips and only four made through-trips.

The largest through traffic movement at this station is the 45 (39.1%) vehicles interchanging with Station 5 on US-131 South. Of these 45 vehicles, approximately 1 of 5 is a truck of which 6 out of 10 are single unit trucks and 4 out of 10 were trailer combinations. These trailer combination trucks interchanging with Station 5 were the only trailer combination trucks passing through Station 3.

The heaviest terminal traffic movements are to and from zones 7, 10, and 13, these are to the downtown area comprising the CBD and its commercial-residential fringe.

Approximately 6 out of 10 trips passing through the station were made for the purpose of work. Five out of 10 through trips were made for the purpose of work. Six out of 10 terminal trips were made for the purpose of work.

Approximately 3 out of 4 trips interchanging with Station 5 on US-131 South were for the purpose of work, while 1 out of 4 was for the purpose of social-recreation.

The largest terminal trip movements by purpose were the 123 work trips to zone 10 and 116 work trips to zone 7.

1. TOTAL TRAFFIC THROUGH STATION 2, 6,879 VEHICLES

<u>THROUGH</u>		<u>TERMINAL</u>		VEHICLES Percent of Total
3,500		3,379		
50.9		49.1		
<u>AUTO</u>		<u>TRUCK</u>		
	<u>Single Unit</u>		<u>Trailer Combination</u>	
6,094	674		111	
88.6	9.8		1.6	Percent of Total

A. THROUGH TRAFFIC: 3,500 VEHICLES

<u>AUTO</u>		<u>TRUCK</u>		Percent of Total
	<u>Single Unit</u>		<u>Trailer Combination</u>	
3,149	279		72	
90.0	8.0		2.0	Percent of Total

B. TERMINAL TRAFFIC: 3,379 VEHICLES

<u>AUTO</u>		<u>TRUCK</u>		Percent of Total
	<u>Single Unit</u>		<u>Trailer Combination</u>	
2,945	395		39	
87.2	11.7		1.1	Percent of Total

C. THROUGH TRAFFIC INTERCHANGE OF 3,500 VEHICLES

<u>STATION</u>	<u>AUTOS</u>	<u>SINGLE UNIT</u>	<u>TRUCKS TRAILER COMBINATION</u>	<u>TOTAL VEHICLES</u>	<u>PERCENT OF TOTAL</u>
1	92	12	3	107	3.1
3	7	4	0	11	0.3
4	8	4	0	12	0.4
5	1,210	119	25	1,354	38.7
6	1,832	140	44	2,016	57.5
TOTAL	3,149	279	72	3,500	100.0

D. TERMINAL TRAFFIC DISTRIBUTION OF 3,379 VEHICLES

<u>ZONE</u>	<u>AUTOS</u>	<u>SINGLE UNIT</u>	<u>TRUCKS TRAILER COMBINATION</u>	<u>TOTAL VEHICLES</u>	<u>PERCENT OF TOTAL</u>
7	1,151	154	14	1,319	39.0
8	519	49	0	568	16.8
9	87	56	7	150	4.4
10	340	59	0	399	11.9
11	2	2	0	4	0.1
12	32	7	0	39	1.1
13	785	68	18	871	25.8
14	29	0	0	29	0.9
TOTAL	2,945	395	39	3,379	100.0

2. TOTAL TRAFFIC THROUGH STATION 2 BY TRIP PURPOSE

<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL- RECREATION</u>		<u>TOTAL</u>
2,044	516	813	3,506	Vehicles	6,879
29.7	7.5	11.8	51.0	Percent Total	100.0

A. THROUGH TRAFFIC INTERCHANGE BY TRIP PURPOSE

<u>STATION</u>	<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL RECREATION</u>	<u>TOTAL</u>
1	36	7		64	107
3	2			8	11
4	3		1	8	12
5	213	21	6	1,114	1,354
6	349	28	9	1,630	2,016
TOTAL	604	56	16	2,824	3,500
PERCENT OF TOTAL	17.3	1.6	0.4	80.7	100.0

B. TERMINAL TRAFFIC DISTRIBUTION BY TRIP PURPOSE

<u>ZONE</u>	<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL- RECREATION</u>	<u>TOTAL</u>
7	560	188	411	160	1,319
8	186	68	128	186	568
9	122	2	8	18	150
10	231	24	33	111	399
11	4				4
12	34			5	39
13	283	175	217	196	871
14	20	3		6	29
TOTAL	1,440	460	797	682	3,379
PERCENT OF TOTAL	42.6	13.6	23.6	20.2	100.0

I. TOTAL TRAFFIC THROUGH STATION 3, 779 VEHICLES

<u>THROUGH</u>		<u>TERMINAL</u>		VEHICLES Percent of Total
115		664		
14.8		85.2		
<u>AUTO</u>		<u>TRUCK</u>		
	<u>Single Unit</u>		<u>Trailer Combination</u>	
652	123		4	
83.7	15.8		0.5	Percent of Total

A. THROUGH TRAFFIC: 115 VEHICLES

<u>AUTO</u>		<u>TRUCK</u>		Percent of Total
	<u>Single Unit</u>		<u>Trailer Combination</u>	
86	25		4	
74.8	21.7		3.5	Percent of Total

B. TERMINAL TRAFFIC: 664 VEHICLES

<u>AUTO</u>		<u>TRUCK</u>		Percent of Total
	<u>Single Unit</u>		<u>Trailer Combination</u>	
566	98		0	
85.2	14.8		0.0	Percent of Total

C. THROUGH TRAFFIC INTERCHANGE OF 115 VEHICLES

<u>STATION</u>	<u>AUTOS</u>	<u>SINGLE UNIT</u>	<u>TRUCKS</u> <u>TRAILER COMBINATION</u>	<u>TOTAL</u> <u>VEHICLES</u>	<u>PERCENT</u> <u>OF TOTAL</u>
1	15	2	0	17	14.8
2	7	4	0	11	9.6
4	0	0	0	0	0.0
5	35	6	4	45	39.1
6	29	13	0	42	36.5
TOTAL	86	25	4	115	100.0

D. TERMINAL TRAFFIC DISTRIBUTION OF 664 VEHICLES

ZONE	AUTOS	SINGLE UNIT	TRUCKS		TOTAL VEHICLES	PERCENT OF TOTAL
			TRAILER	COMBINATION		
7	160	31		0	191	28.8
8	33	4		0	37	5.6
9	20	9		0	29	4.4
10	156	20		0	176	26.5
11	6	3		0	9	1.3
12	8	0		0	8	1.2
13	162	28		0	190	28.6
14	21	3		0	24	3.6
TOTAL	566	98		0	664	100.0

2. TOTAL TRAFFIC THROUGH STATION 3 BY TRIP PURPOSE

WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION		TOTAL
481	43	84	171	Vehicles	779
61.7	5.5	10.8	22.0	Percent Total	100.0

A. THROUGH TRAFFIC INTERCHANGE BY TRIP PURPOSE

STATION	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL
1	5	2	4	6	17
2	3			8	11
4					
5	14			31	45
6	37	1		4	42
TOTAL	59	3	4	49	115
PERCENT OF TOTAL	51.3	2.6	3.5	42.6	100.0

B. TERMINAL TRAFFIC DISTRIBUTION BY TRIP PURPOSE

ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL
7	116	12	36	27	191
8	27	2		8	37
9	23		4	2	29
10	123	4	10	39	176
11	9				9
12	6			2	8
13	105	22	25	38	190
14	13		5	6	24
TOTAL	422	40	80	122	664
PERCENT OF TOTAL	63.6	6.0	12.0	18.4	100.0

#### STATION 4

A total of 384 vehicles passed through Station 4 on River Road South of Petoskey. Tabulations on the following pages give a detailed analysis of this traffic.

Approximately 9 out of every 10 vehicles had a terminal inside the study area. Eight out of every 10 vehicles were autos, whether they traveled into or through the area.

Approximately 2 out of every 10 vehicles were single unit trucks. Less than 1 out of 100 vehicles was a trailer combination truck.

The largest through traffic movement at this station is the 26 (52.0%) vehicles interchanging with Station 6 on US-31 West. Of these 26 vehicles, 4 of them were trucks of which 3 out of 4 are single unit trucks.

The heaviest terminal traffic movements are to or from Zone 7 (The Central Business District), zones 8, 10 and 13.

Approximately 6 out of 10 trips passing through the station were made for the purpose of work. Six out of 10 through trips were for the purpose of work. More than 5 out of 10 terminal trips were made for the purpose of work.

Approximately 8 out of 10 trips interchanging with Station 6 on US-31 West were for the purpose of work while 1 out of 8 trips was for the purpose of social-recreation.

The largest terminal trip movements by purpose were the 61 work trips to Zone 7 and 51 work trips to Zone 13.



1. TOTAL TRAFFIC THROUGH STATION 4, 384 VEHICLES

<u>THROUGH</u>	<u>TERMINAL</u>	VEHICLES
50	334	Percent of Total
13.0	87.0	

<u>AUTO</u>	<u>TRUCK</u>	
	<u>Single Unit</u>	<u>Trailer Combination</u>
325	57	2
84.6	14.9	0.5
		Percent of Total

A. THROUGH TRAFFIC: 50 VEHICLES

<u>AUTO</u>	<u>TRUCK</u>	
	<u>Single Unit</u>	<u>Trailer Combination</u>
42	7	1
84.0	14.0	2.0
		Percent of Total

B. TERMINAL TRAFFIC: 334 VEHICLES

<u>AUTO</u>	<u>TRUCK</u>	
	<u>Single Unit</u>	<u>Trailer Combination</u>
283	50	1
84.7	15.0	0.3
		Percent of Total

C. THROUGH TRAFFIC INTERCHANGE OF 50 VEHICLES

STATION	AUTOS	TRUCKS		TOTAL VEHICLES	PERCENT OF TOTAL
		SINGLE UNIT	TRAILER COMBINATION		
1	10	0	0	10	20.0
2	8	4	0	12	24.0
3	0	0	0	0	0.0
5	2	0	0	2	4.0
6	22	3	1	26	52.0
TOTAL	41	7	1	50	100.0

D. TERMINAL TRAFFIC DISTRIBUTION OF 334 VEHICLES

ZONE	AUTOS	TRUCKS		TOTAL VEHICLES	PERCENT OF TOTAL
		SINGLE UNIT	TRAILER COMBINATION		
7	85	6	0	91	27.2
8	33	2	0	35	10.5
9	29	2	0	31	9.3
10	45	2	0	47	14.1
11	2	2	0	4	1.2
12	29	13	0	42	12.6
13	58	20	1	79	23.6
14	2	3	0	5	1.5
TOTAL	283	50	1	334	100.0

2. TOTAL TRAFFIC THROUGH STATION 4 BY TRIP PURPOSE

<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL- RECREATION</u>		<u>TOTAL</u>
218	15	51	100	Vehicles	384
56.8	3.9	13.3	26.0	Percent Total	100.0

A. THROUGH TRAFFIC INTERCHANGE BY TRIP PURPOSE

<u>STATION</u>	<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL- RECREATION</u>	<u>TOTAL</u>
1	4			6	10
2	3		1	8	12
3					
5	2				2
6	<u>22</u>	<u>1</u>	<u>—</u>	<u>3</u>	<u>26</u>
TOTAL	31	1	1	17	50
PERCENT OF TOTAL	62.0	2.0	2.0	34.0	100.0

B. TERMINAL TRAFFIC DISTRIBUTION BY TRIP PURPOSE

<u>ZONE</u>	<u>WORK</u>	<u>BUSINESS</u>	<u>SHOPPING</u>	<u>SOCIAL- RECREATION</u>	<u>TOTAL</u>
7	61	4	10	16	91
8	9	4	4	18	35
9	9		20	2	31
10	16		6	25	47
11	4				4
12	34			8	42
13	51	4	10	14	79
14	<u>3</u>	<u>2</u>	<u>—</u>	<u>—</u>	<u>5</u>
TOTAL	187	14	50	83	334
PERCENT OF TOTAL	55.9	4.2	15.0	24.9	100.0

## STATION 5

A total of 5,172 vehicles passed through Station 5 on US-131 South of Petoskey. Tabulations on the following pages give a detailed analysis of this traffic.

The through and terminal traffic passing this station is nearly equally divided. More than 8 out of every 10 vehicles were autos, whether they traveled into or through the area.

Approximately 1 out of every 10 vehicles was a single unit truck. Less than 4 out of 100 vehicles were trailer combination trucks.

The largest through traffic movement at this station is the 1,354 (56.5%) vehicles interchanging with Station 2 on US-31 East. This same movement accounted for only 38.7% of the through movement at Station 2. Of these 1,354 vehicles, approximately 1 of 11 is a truck of which 8 out of 10 are single unit trucks.

The heaviest terminal traffic movement (1,936 vehicles or 69.8%) were to or from Zone 7 and Zone 13.

More than 4 out of 10 trips passing through the station were made for the purpose of social-recreation and 3 out of 10 trips were made for the purpose of work.

More than 7 out of 10 through trips were for the purpose of social-recreation.

More than 8 out of 10 trips interchanging with Station 2 on US-31 East were for the purpose of social-recreation, while less than 2 out of 10 trips were for the purpose of work.

The largest terminal trip movements by purpose were 415 shopping and 373 work trips to zone 7 (CBD).

## STATION 6

A total of 6,027 vehicles passed through Station 6 on US-31 West of Petoskey. Tabulations on the following pages give a detailed analysis of this traffic.

The through and terminal traffic passing this station is nearly equally divided. More than 8 out of every 10 vehicles were autos, whether they traveled into or through the area.

Less than 2 out of every 10 vehicles were single unit trucks. Less than 2 out of every 100 vehicles were trailer combination trucks.

The largest through traffic movement at this station is the 2,016 (70.3%) vehicles interchanging with Station 2 on US-31 East. This same movement accounted for 57.5% of the through movement at Station 2. Of these 2,016 vehicles, approximately 1 of 11 is a truck of which 3 out of 4 are single unit trucks.

The heaviest terminal traffic movement (2,083 vehicles or 65.9%) were to or from zone 7 and zone 13. Out of this 2,083 vehicles, 1,699 of them were autos.

Of the trips passing through the station, approximately 5 out of 10 trips were made for the purpose of social-recreation and 4 out of 10 trips were made for the purpose of work. More than 7 out of 10 through trips were for the purpose of social-recreation.

More than 8 out of 10 trips interchanging with Station 2 on US-31 East were for the purpose of social-recreation, while less than 2 out of 10 trips were for the purpose of work.

The largest terminal trip movements by purpose were 514 work trips to Zone 13 and 454 work trips and 427 shopping trips to Zone 7.

1. TOTAL TRAFFIC THROUGH STATION 5, 5,172 VEHICLES

<u>THROUGH</u>		<u>TERMINAL</u>		VEHICLES Percent of Total
2,396	46.3	2,776	53.7	
<u>AUTO</u>		<u>TRUCK</u>		
	<u>Single Unit</u>		<u>Trailer Combination</u>	
4,443	577		152	
85.9	11.2		2.9	Percent of Total

A. THROUGH TRAFFIC: 2,396 VEHICLES

<u>AUTO</u>		<u>TRUCK</u>		Percent of Total
	<u>Single Unit</u>		<u>Trailer Combination</u>	
2,118	232		46	
88.4	9.7		1.9	Percent of Total

B. TERMINAL TRAFFIC: 2,776 VEHICLES

<u>AUTO</u>		<u>TRUCK</u>		Percent of Total
	<u>Single Unit</u>		<u>Trailer Combination</u>	
2,325	345		106	
83.8	12.4		3.8	Percent of Total

C. THROUGH TRAFFIC INTERCHANGE OF 2,396 VEHICLES

STATION	AUTOS	SINGLE UNIT	TRUCKS		TOTAL VEHICLES	PERCENT OF TOTAL
				<u>TRAILER COMBINATION</u>		
1	668	68		14	750	31.3
2	1,210	119		25	1,354	56.5
3	35	6		4	45	1.9
4	2	0		0	2	0.1
6	<u>203</u>	<u>39</u>		<u>3</u>	<u>245</u>	<u>10.2</u>
	2,118	232		46	2,396	100.0

D. TERMINAL TRAFFIC DISTRIBUTION OF 2,776 VEHICLES

ZONE	AUTOS	SINGLE UNIT	TRUCKS		TOTAL VEHICLES	PERCENT OF TOTAL
			TRAILER	COMBINATION		
7	882	117		27	1,026	37.0
8	241	31		6	278	10.0
9	66	34		30	130	4.6
10	301	34		10	345	12.5
11	0	2		0	2	0.1
12	17	2		3	22	0.8
13	764	116		30	910	32.8
14	54	9		0	63	2.2
TOTAL	2,325	345		106	2,776	100.0

2. TOTAL TRAFFIC THROUGH STATION 5 BY TRIP PURPOSE

WORK	BUSINESS	SHOPPING	SOCIAL- RECREATION		TOTAL
1,665	290	706	2,511	Vehicles	5,172
32.2	5.6	13.7	48.5	Percent	100.0

A. THROUGH TRAFFIC INTERCHANGE BY TRIP PURPOSE

STATION	WORK	BUSINESS	SHOPPING	SOCIAL- RECREATION	TOTAL
1	220	21	19	490	750
2	213	21	6	1,114	1,354
3	14			31	45
4	2				2
6	88	8	5	144	245
TOTAL	537	50	30	1,779	2,396
PERCENT OF TOTAL	22.4	2.1	1.3	74.2	100.0

B. TERMINAL TRAFFIC DISTRIBUTION BY TRIP PURPOSE

ZONE	WORK	BUSINESS	SHOPPING	SOCIAL- RECREATION	TOTAL
7	373	77	415	161	1,026
8	109	19	28	122	278
9	102		3	25	130
10	166	27	6	146	345
11	2				2
12	12			10	22
13	326	110	220	245	910
14	38	7	4	14	63
TOTAL	1,128	240	676	732	2,776
PERCENT OF TOTAL	40.6	8.6	24.4	26.4	100.0

STATION 6

(US-31 WEST)

THROUGH AND TERMINAL TRAFFIC

BY VEHICLE TYPE

BY TRIP PURPOSE

A total of 6,027 vehicles passed through Station 6 on US-31 West of Petoskey. Tabulations on the following pages give a detailed analysis of this traffic.

The through and terminal traffic passing this station is nearly equally divided. More than 8 out of every 10 vehicles were autos, whether they traveled into or through the area.

Less than 2 out of every 10 vehicles were single unit trucks. Less than 2 out of every 100 vehicles were trailer combination trucks.

The largest through traffic movement at this station is the 2,016 (70.3%) vehicles interchanging with Station 2 on US-31 East. This same movement accounted for 57.5% of the through movement at Station 2. Of these 2,016 vehicles, approximately 1 of 11 is a truck of which 3 out of 4 are single unit trucks.

The heaviest terminal traffic movement (2,083 vehicles or 65.9%) were to or from zone 7 and zone 13. Out of this 2,083 vehicles, 1,699 of them were autos.

Of the trips passing through the station, approximately 5 out of 10 trips were made for the purpose of social-recreation and 4 out of 10 trips were made for the purpose of work. More than 7 out of 10 through trips were for the purpose of social-recreation.

More than 8 out of 10 trips interchanging with Station 2 on US-31 East were for the purpose of social-recreation, while less than 2 out of 10 trips were for the purpose of work.

The largest terminal trip movements by purpose were 514 work trips to Zone 13 and 454 work trips and 427 shopping trips to Zone 7.

1. TOTAL TRAFFIC THROUGH STATION 6, 6,027 VEHICLES

<u>THROUGH</u>	<u>TERMINAL</u>	<u>VEHICLES</u>
2,868	3,159	Percent of Total
47.6	52.4	

<u>AUTO</u>	<u>Single Unit</u>	<u>TRUCK</u>	<u>Trailer Combination</u>	
5,153	793	81		
85.5	13.2	1.3		Percent of Total

A. THROUGH TRAFFIC: 2,868 VEHICLES

<u>AUTO</u>	<u>Single Unit</u>	<u>TRUCK</u>	<u>Trailer Combination</u>	
2,572	240	56		
89.7	8.4	1.9		Percent of Total

B. TERMINAL TRAFFIC: 3,159 VEHICLES

<u>AUTO</u>	<u>Single Unit</u>	<u>TRUCK</u>	<u>Trailer Combination</u>	
2,581	553	25		
81.7	17.5	0.8		Percent of Total

C. THROUGH TRAFFIC INTERCHANGE OF 2,868 VEHICLES

<u>STATION</u>	<u>AUTOS</u>	<u>SINGLE UNIT</u>	<u>TRUCKS</u> <u>TRAILER COMBINATION</u>	<u>TOTAL</u> <u>VEHICLES</u>	<u>PERCENT</u> <u>OF TOTAL</u>
1	486	45	8	539	18.8
2	1,832	140	44	2,016	70.3
3	29	13	0	42	1.4
4	22	3	1	26	0.9
5	203	39	3	245	8.6
TOTAL	2,572	240	56	2,868	100.0

D. TERMINAL TRAFFIC DISTRIBUTION OF 3,159 VEHICLES

ZONE	AUTOS	SINGLE UNIT	TRUCKS		TOTAL VEHICLES	PERCENT OF TOTAL
			TRAILER	COMBINATION		
7	997	143	0		1,140	36.1
8	357	50	0		407	12.9
9	62	35	12		109	3.4
10	385	49	3		437	13.9
11	8	4	0		12	0.4
12	18	27	2		47	1.5
13	702	235	6		943	29.8
14	52	10	2		64	2.0
TOTAL	2,581	553	25		3,159	100.0

2. TOTAL TRAFFIC THROUGH STATION 6 BY TRIP PURPOSE

WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION		TOTAL
2,329	337	646	2,715	Vehicles	6,027
38.7	5.6	10.7	45.0	Percent Total	100.0

A. THROUGH TRAFFIC INTERCHANGE BY TRIP PURPOSE

STATION	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL
1	187	12	12	328	539
2	349	28	9	1,630	2,016
3	37	1		4	42
4	22	1		3	26
5	88	8	5	144	245
TOTAL	683	50	26	2,109	2,868
PERCENT OF TOTAL	23.8	1.8	0.9	73.5	100.0

B. TERMINAL TRAFFIC DISTRIBUTION BY TRIP PURPOSE

ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL
7	454	90	427	169	1,140
8	218	22	44	123	407
9	93	2	7	7	109
10	272	39	21	105	437
11	10			2	12
12	43	2	2		47
13	514	128	117	184	943
14	42	4	2	16	64
TOTAL	1,646	287	620	606	3,159
PERCENT OF TOTAL	52.1	9.1	19.6	19.2	100.0



## EXTERNAL TERMINALS

The preceding part of this report dealt with the traffic inside the Petoskey O-D Survey Area. This part of the report will deal with the origin and/or destination trip end outside of the Study Area. A through trip is counted twice. It is counted at both its entering and departing stations. This fact will not change the number of external terminals.

Diagram on page 46 shows the total number of external terminals of trips entering, departing or passing through the Petoskey O-D Survey Area. A total of 17,534 (73.1%) trips had an origin and/or destination in the county in which the study was done (Emmet County) or the surrounding two counties (Charlevoix County and Cheboygan County). A total of 6,447 (26.9%) trips had an origin and/or destination in the surrounding areas outside of Emmet, Charlevoix, and Cheboygan Counties.

The following desire line diagrams show all external terminals by county for the State of Michigan and by States for terminals outside of the State of Michigan:

Desire Line Diagram	Station 1
Desire Line Diagram	Station 2
Desire Line Diagram	Station 3
Desire Line Diagram	Station 4
Desire Line Diagram	Station 5
Desire Line Diagram	Station 6

The following desire line diagrams show only the external terminals in Emmet, Charlevoix, and Cheboygan Counties:

* Desire Line Diagram	Station 1
* Desire Line Diagram	Station 2
* Desire Line Diagram	Station 3
* Desire Line Diagram	Station 4
* Desire Line Diagram	Station 5
* Desire Line Diagram	Station 6

\*NOTE: These Desire Line Diagrams show a breakdown of the trip terminals at the points of interest in these three counties.

Of the 4,662 vehicles which passed through Station 1, 4,219 (90.5%) trips had origins and/or destinations in Emmet, Charlevoix and Cheboygan Counties.

Of the 7,022 vehicles which passed through Station 2, 4,714 (67.2%) trips had origins and/or destinations in Emmet, Charlevoix and Cheboygan Counties.

Of the 818 vehicles which passed through Station 3, 787 (96.3%) trips had origins and/or destinations in Emmet, Charlevoix and Cheboygan Counties.

Of the 409 vehicles which passed through Station 4, 381 (93.2%) trips had origins and/or destinations in Emmet, Charlevoix and Cheboygan Counties.

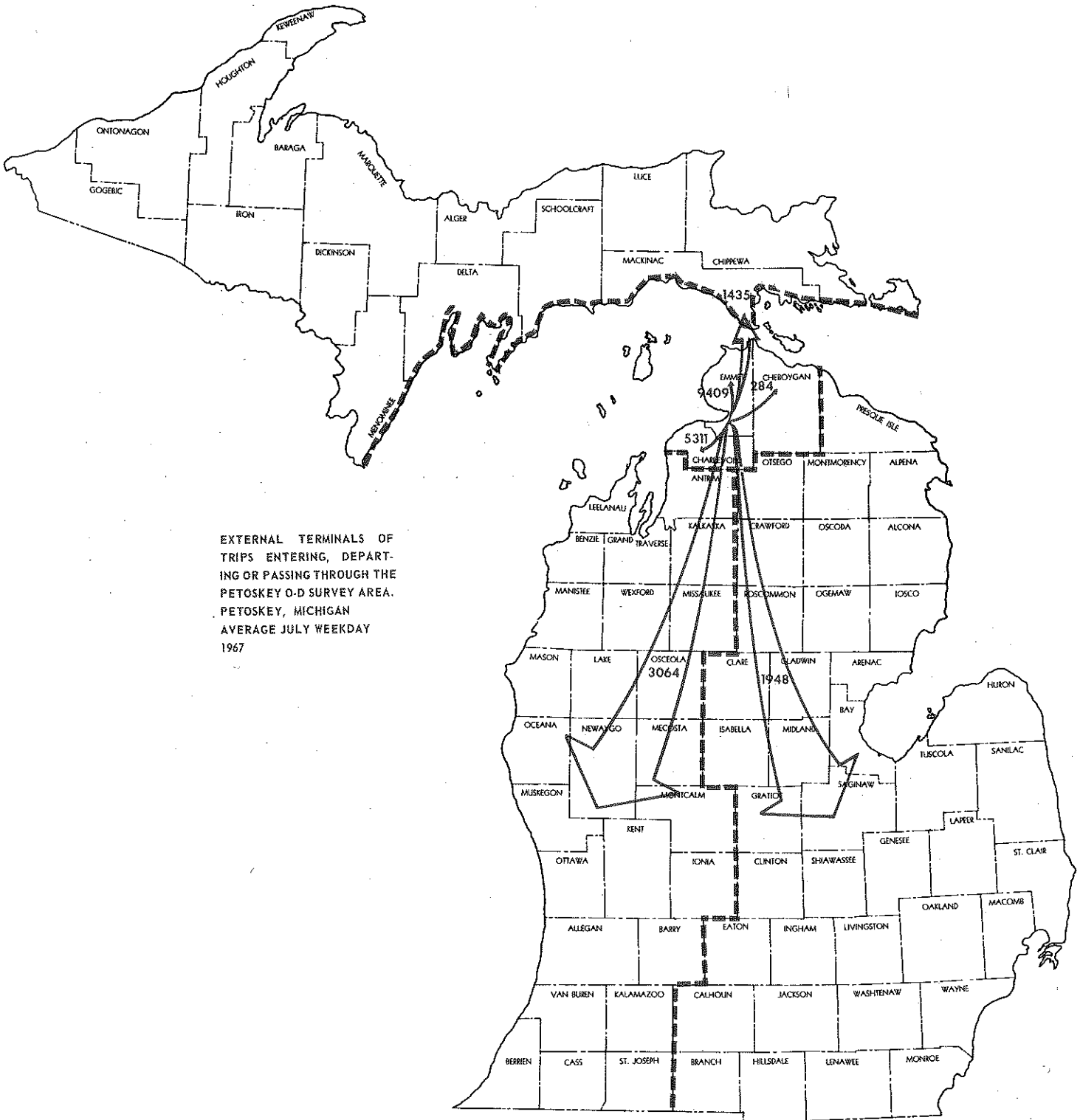
Of the 4,715 vehicles which passed through Station 5, 3,077 (65.3%) trips had origins and/or destinations in Emmet, Charlevoix and Cheboygan Counties.

Of the 6,355 vehicles which passed through Station 6, 4,356 (68.4%) trips had origins and/or destinations in Emmet, Charlevoix and Cheboygan Counties.

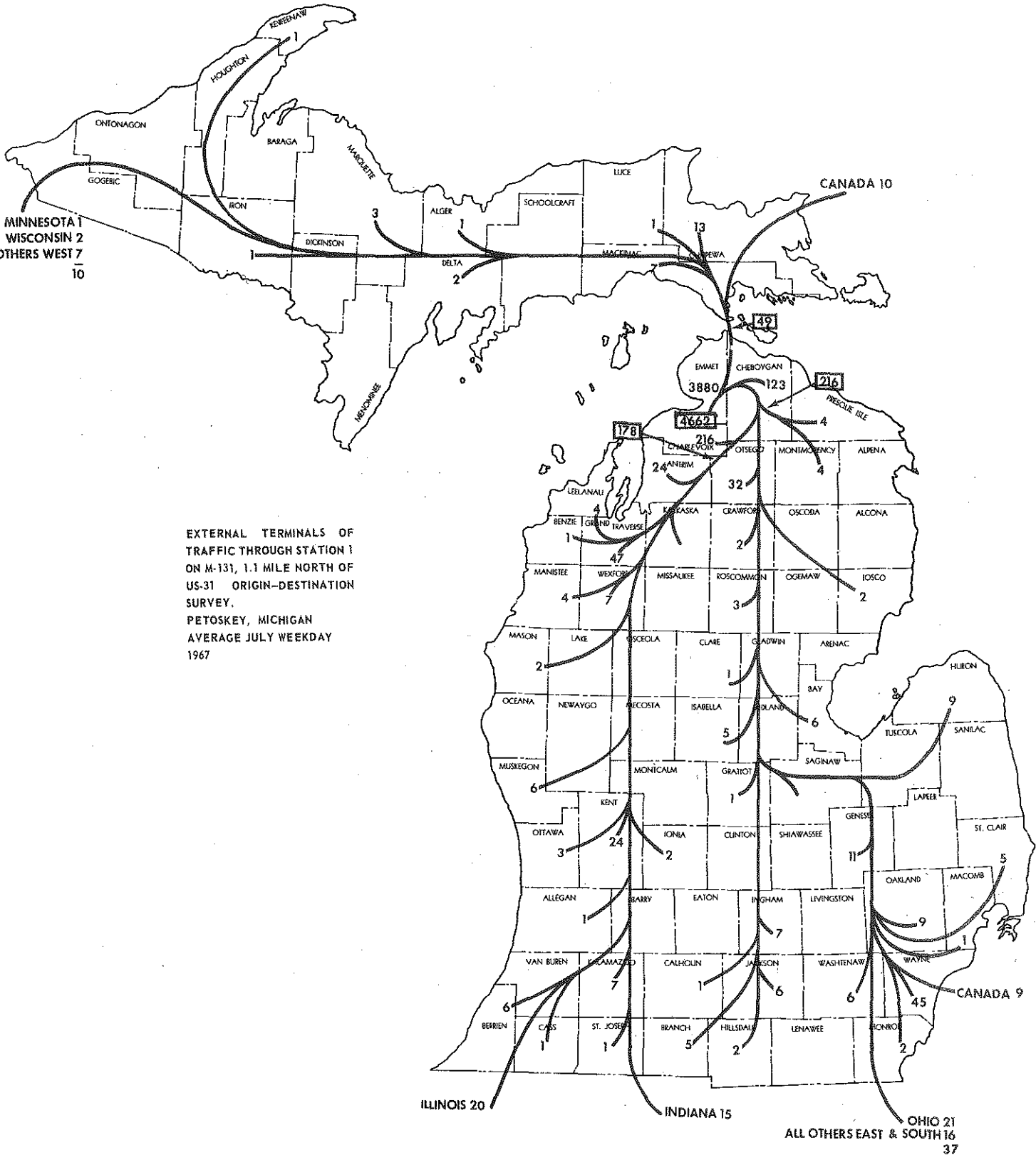
The following table shows the external terminals of trips entering, departing or passing through each station for all stations:

External terminals of trips entering, departing or passing through the Petoskey O-D Survey Area on an average July weekday in 1967.

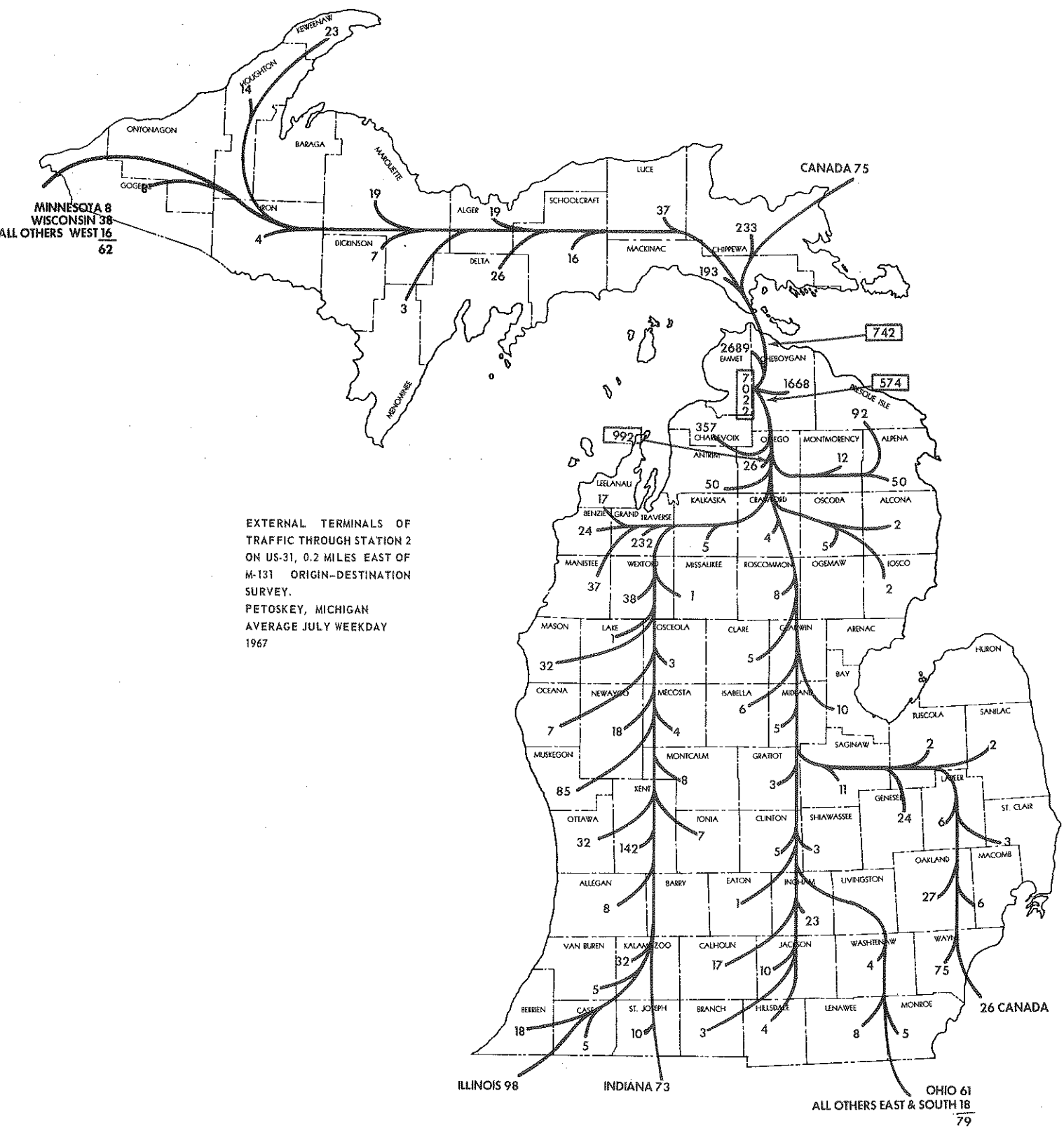
Station	Emmet	Charlevoix	Cheboygan	North	East & South	West & South	Total
1	3,880	216	123	49	216	178	4,662
Percent	83.2	4.6	2.7	1.1	4.6	3.8	100.0
2	2,689	357	1,668	742	574	992	7,022
Percent	38.3	5.1	23.8	10.5	8.2	14.1	100.0
3	636	36	115	4	11	16	818
Percent	77.8	4.4	14.1	0.4	1.4	1.9	100.0
4	239	134	8	0	14	14	409
Percent	58.4	32.8	2.0	0.0	3.4	3.4	100.0
5	507	2,291	279	236	730	672	4,715
Percent	10.8	48.6	5.9	5.0	15.4	14.3	100.0
6	1,458	2,277	621	404	403	1,192	6,355
Percent	22.9	35.8	9.7	6.4	6.4	18.8	100.0
TOTAL	9,409	5,311	2,814	1,435	1,948	3,064	23,981
PERCENT	39.2	22.2	11.7	6.0	8.1	12.8	100.0



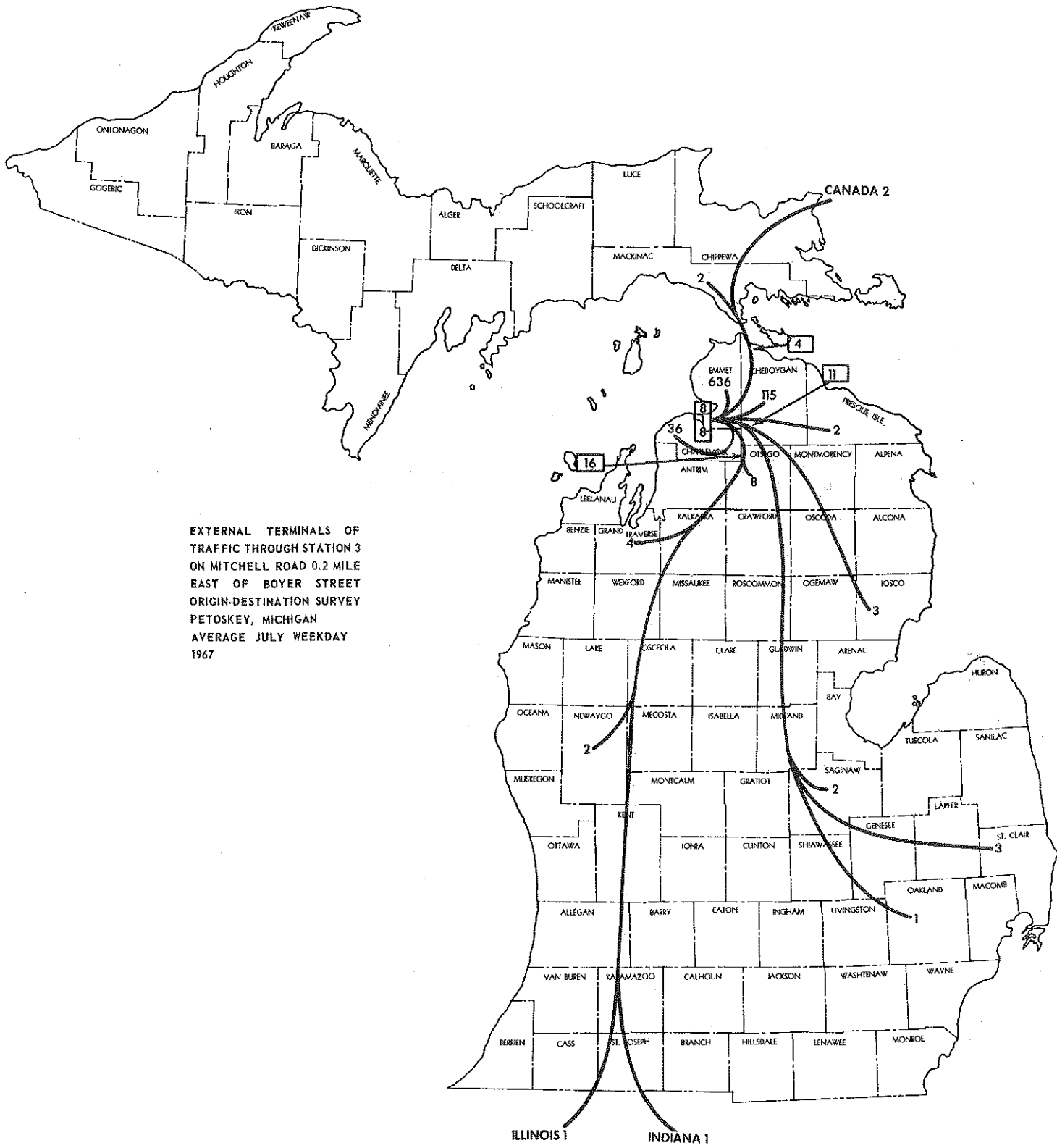
EXTERNAL TERMINALS OF  
TRIPS ENTERING, DEPART-  
ING OR PASSING THROUGH THE  
PETOSKEY O-D SURVEY AREA.  
PETOSKEY, MICHIGAN  
AVERAGE JULY WEEKDAY  
1967



EXTERNAL TERMINALS OF TRAFFIC THROUGH STATION 1 ON M-131, 1.1 MILE NORTH OF US-31 ORIGIN-DESTINATION SURVEY. PETOSKEY, MICHIGAN AVERAGE JULY WEEKDAY 1967

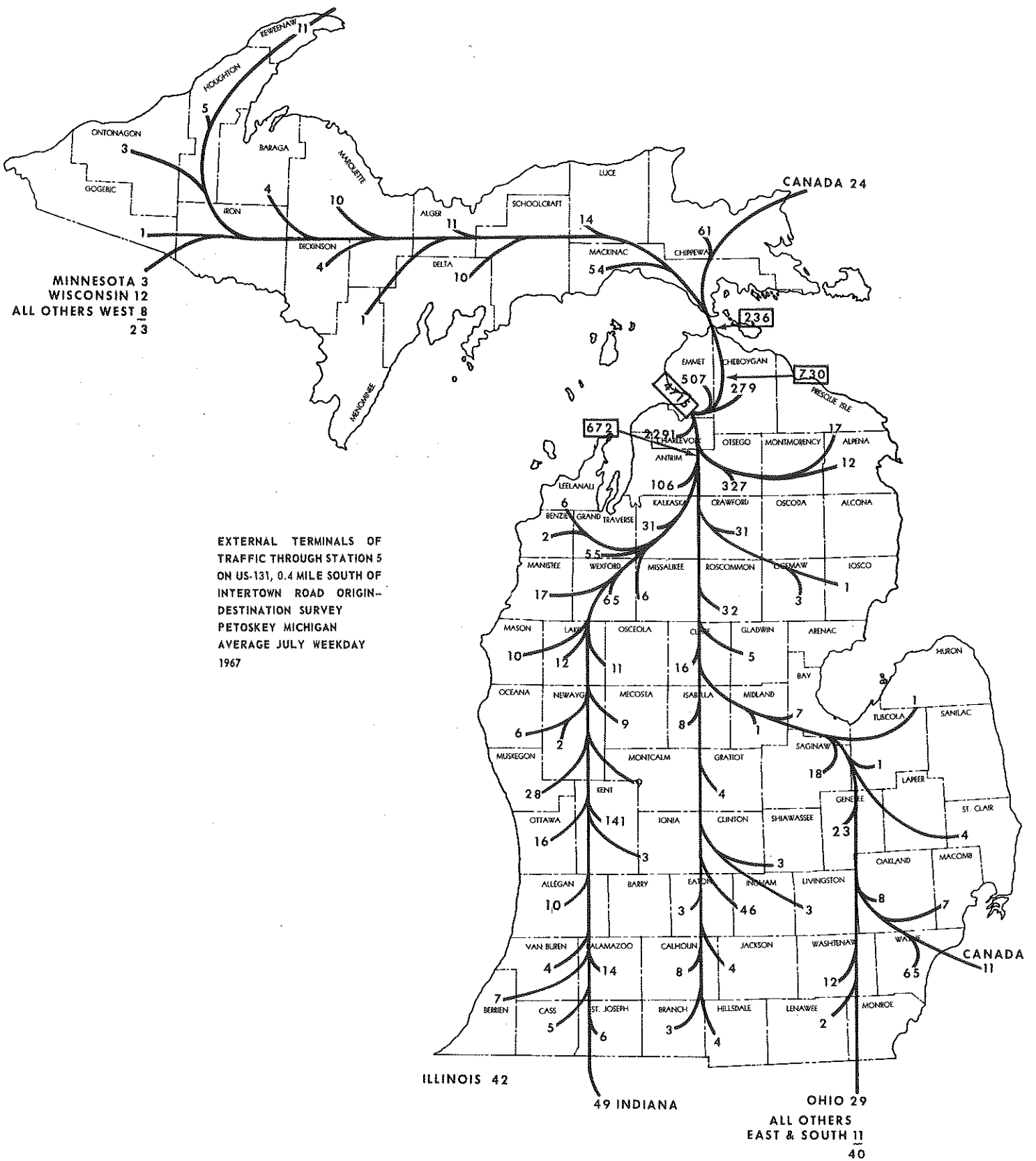


EXTERNAL TERMINALS OF TRAFFIC THROUGH STATION 2 ON US-31, 0.2 MILES EAST OF M-131 ORIGIN-DESTINATION SURVEY. PETOSKEY, MICHIGAN AVERAGE JULY WEEKDAY 1967



EXTERNAL TERMINALS OF  
 TRAFFIC THROUGH STATION 3  
 ON MITCHELL ROAD 0.2 MILE  
 EAST OF BOYER STREET  
 ORIGIN-DESTINATION SURVEY  
 PETOSKEY, MICHIGAN  
 AVERAGE JULY WEEKDAY  
 1967



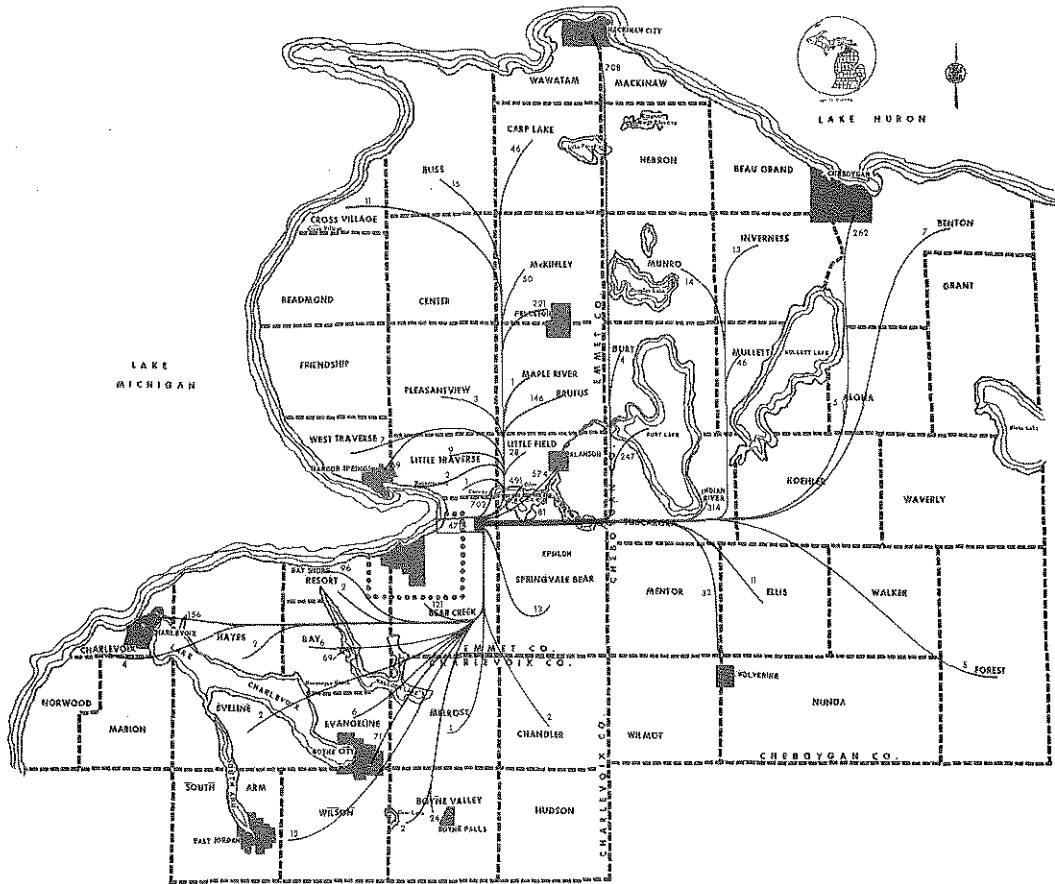






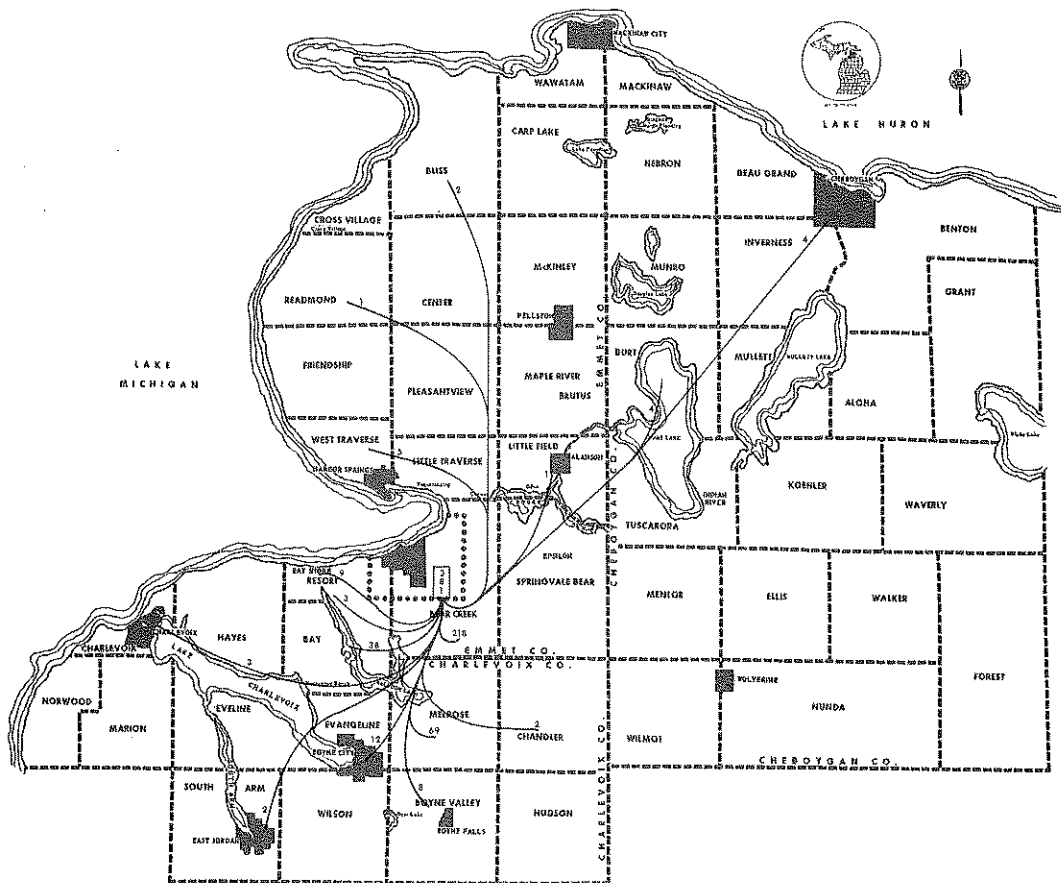


EXTERNAL TERMINALS IN EMMET, CHARLEVOIX AND CHEBOYGAN  
 COUNTIES WHICH PASSED THROUGH STATION 2 (US-31 EAST)  
 ORIGIN-DESTINATION SURVEY  
 PETOSKEY, MICHIGAN  
 AVERAGE JULY WEEKDAY, 1967





EXTERNAL TERMINALS IN EMMET, CHARLEVOIX AND CHEBOYGAN  
 COUNTIES WHICH PASSED THROUGH STATION 4 (RIVER ROAD SOUTH)  
 ORIGIN-DESTINATION SURVEY  
 PETOSKEY, MICHIGAN  
 AVERAGE JULY WEEKDAY, 1967







**APPENDIX A**  
**INTERVIEW FORM**



# EXTERNAL TRIP REPORT O-D 4

Form 1999  
O-D 4  
(Rev. 5/67)

## EXTERNAL TRIP REPORT

STATE OF MICHIGAN  
DEPARTMENT OF STATE HIGHWAYS

City Number		Form Number		Hour Period Ending ( ) AM or ( ) PM		Inbound 1-White Outbound 2-Green		Station		Day of Travel			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Interview Number	State of Registration	Veh. Type	No. in Vehicle	Where did this trip begin? Origin	Land Use	Where will this trip end? Destination	Where is vehicle garaged?	Trip Purpose	Screen	Route of Exit or Ent.	Stops in area	Purpose	Stop Location
	1 Mich. 2 Other										1 Yes 2 No		
	1 Mich. 2 Other										1 Yes 2 No		
	1 Mich. 2 Other										1 Yes 2 No		
	1 Mich. 2 Other										1 Yes 2 No		
	1 Mich. 2 Other										1 Yes 2 No		
	1 Mich. 2 Other										1 Yes 2 No		
	1 Mich. 2 Other										1 Yes 2 No		

- 1. Passenger Car
- 2. Single Unit-Single Rear Tire
- 3. Single Unit-Dual Rear Tire
- 4. Single Unit-3 or 4 Axle
- 5. TT-ST Combination
- 6. TK-TR Combination
- 7. TT-ST-TR Combination
- 8. Bus Not C.C.
- 9. Taxi

- Vehicle Garaged At**
- 1. Within the cordon
  - 2. Outside the cordon at origin
  - 3. Outside the cordon at destination
  - 4. Outside the cordon at neither origin or destination

- 1. Work
- 2. Pers. Business
- 3. Shopping
- 4. Vacation
- 5. Other Sec. or Rec.
- 6. All Other

- 1. Course of Work
- 2. Transact Business
- 3. Social-Recreation
- 4. Eating
- 5. Gas-Off Service
- 6. Serve Passenger
- 7. Secure Lodging
- 8. Shopping

- DAY OF TRAVEL**
- 1 Sun. 4 Wed.
  - 2 Mon. 5 Thur.
  - 3 Tue. 6 Fri.
  - 7 Sat.

# **APPENDIX B**

## **TRIP TABLES**

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-1

TOTAL TRIPS BY PASSENGER CAR, TRUCK AND TAXI DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

DESTINATIONS

ORIGIN	1	2	3	4	5	6	7	8	9	10
1		55	10	5	271	294	659	432	49	293
2	52		8	4	686	907	669	244	75	224
3	7	3			19	27	138	17	21	69
4	5	8			1	15	44	22	10	20
5	479	668	26	1		168	486	113	44	169
6	245	1109	15	11	77		585	206	47	230
SUB-TOT	788	1843	59	21	1054	1411	2581	1034	246	1005
7	529	650	53	47	540	555				
8	325	324	20	13	165	201				
9	77	75	8	21	86	62				
10	233	175	107	27	176	207				
11	3		2	2	2	10				
12	19	22	6	24	14	31				
13	333	449	106	39	450	501				
14	25	24	15	2	34	35				
SUB-TOT	1544	1719	317	175	1467	1602				
FIN-TOT	2332	3562	376	196	2521	3013	2581	1034	246	1005

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PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-1

TOTAL TRIPS BY PASSENGER CAR, TRUCK AND TAXI DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

DESTINATIONS

ORIGIN	11	12	13	14
1	4	11	283	12
2	4	17	422	5
3	7	2	84	9
4	2	18	40	3
5		8	460	29
6	2	16	442	29
SUB-TOT	19	72	1731	87
7				
8				
9				
10				
11				
12				
13				
14				
SUB-TOT				
FIN-TOT	19	72	1731	87

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-1

TOTAL TRIPS BY PASSENGER CAR, TRUCK AND TAXI DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

	SUB-TOT	SUB-TOT	FIN-TOT
1	635	1743	2378
2	1657	1660	3317
3	56	347	403
4	29	159	188
5	1342	1309	2651
6	1457	1557	3014
SUB-TOT	5176	6775	11951
7	2374		2374
8	1048		1048
9	329		329
10	925		925
11	19		19
12	116		116
13	1878		1878
14	135		135
SUB-TOT	6824		6824
FIN-TOT	12000	6775	18775

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-2

TOTAL TRIPS BY COMBINATION TRUCK DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

DESTINATIONS

ORIGIN	1	2	3	4	5	6	7	8	9	10
1		3			3	5				3
2					11	27	14		1	
3					2					
4										
5	11	14	2			1	21		10	10
6	3	17		1	2				2	
SUB-TOT	14	34	2	1	18	33	35		13	13
7	4				6					
8					6					
9	2	6			20	10				
10						3				
11										
12							2			
13	2	13			9					
14										
SUB-TOT	8	19			41	15				
FIN-TOT	22	53	2	1	59	48	35		13	13

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PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-2

TOTAL TRIPS BY COMBINATION TRUCK DRIVERS FOR A 24-HOUR WEFKDAY IN JULY 1967

DESTINATIONS

ORIGIN	11	12	13	14
1				
2			5	
3				
4			1	
5		3	21	
6			6	2
SUB-TOT		3	33	2
7				
8				
9				
10				
11				
12				
13				
14				
SUB-TOT				
FIN-TOT		3	33	2

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-2

TOTAL TRIPS BY COMBINATION TRUCK DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

	SUB-TOT	SUB-TOT	FIN-TOT
1	11	3	14
2	38	20	58
3	2		2
4		1	1
5	28	65	93
6	23	10	33
SUB-TOT	102	99	201
7	10		10
8	6		6
9	38		38
10	3		3
11			
12	2		2
13	24		24
14			
SUB-TOT	83		83
FIN-TOT	185	99	284



PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-3

TOTAL TRIPS BY SINGLE-UNIT TRUCK DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

DESTINATIONS

ORIGIN	1	2	3	4	5	6	7	8	9	10
1		7			24	23	79	33	12	32
2	5		1	1	67	56	81	24	25	38
3	2	3			1	8	18		9	13
4		3				1	6			
5	44	52	5			26	53	11	13	14
6	22	84	5	2	13		70	29	13	28
89										
SUB-TOT	73	149	11	3	105	114	307	97	72	125
7	65	73	13		64	73				
8	17	25	4	2	20	21				
9	34	31		2	21	22				
10	18	21	7	2	20	21				
11			2	2	2	4				
12	5	4		7	2	16				
13	24	45	14	9	67	113				
14	5		2		6	6				
SUB-TOT	168	199	42	24	202	276				
FIN-TOT	241	348	53	27	307	390	307	97	72	125

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-3

TOTAL TRIPS BY SINGLE-UNIT TRUCK DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967  
DESTINATIONS

ORIGIN	11	12	13	14
1		6	23	
2	2	3	23	
3	1		14	1
4		6	11	3
5			49	3
6		11	122	4
SUB-TOT	3	26	242	11
7				
8				
9				
10				
11				
12				
13				
14				
SUB-TOT				
FIN-TOT	3	26	242	11

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-3

TOTAL TRIPS BY SINGLE-UNIT TRUCK DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

	SUB-TOT	SUB-TOT	FIN-TOT
1	54	185	239
2	130	196	326
3	14	56	70
4	4	26	30
5	127	143	270
6	126	277	403
SUB-TOT	455	883	1338
7	288		288
8	89		89
9	110		110
10	89		89
11	10		10
12	34		34
13	272		272
14	19		19
SUB-TOT	911		911
FIN-TOT	1366	883	2249

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-4

TOTAL TRIPS BY PASSENGER CAR AND TAXI DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

ORIGIN	DESTINATIONS									
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
1		45	10	5	244	266	580	399	37	258
2	47		7	3	608	824	574	220	49	186
3	5				16	19	120	17	12	56
4	5	5			1	14	38	22	10	20
5	424	602	19	1		141	412	102	21	145
6	220	1008	10	8	62		515	177	32	202
SUB-TOTAL	701	1660	46	17	931	1264	2239	937	161	867
7	460	577	40	47	470	482				
8	308	299	16	11	139	180				
9	41	38	8	19	45	30				
10	215	154	100	25	156	183				
11	3					6				
12	14	18	6	17	12	13				
13	307	391	92	30	374	388				
14	20	24	13	2	28	29				
SUB-TOTAL	1368	1501	275	151	1224	1311				
FINAL TOTAL	2069	3161	321	168	2155	2575	2239	937	161	867

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-4

TOTAL TRIPS BY PASSENGER CAR AND TAXI DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

ORIGINS	DESTINATIONS			
	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>
1	4	5	260	12
2	2	14	394	5
3	6	2	70	8
4	2	12	28	
5		5	390	26
6	2	5	314	23
SUB-TOTAL	16	43	1456	74
7				
8				
9				
10				
11				
12				
13				
14				
SUB-TOTAL				
FINAL TOTAL	16	43	1456	74

PETOSKEY  
METROPOLITAN AREA TRAFFIC STUDY

TABLE S-4

TOTAL TRIPS BY PASSENGER CAR AND TAXI DRIVERS FOR A 24-HOUR WEEKDAY IN JULY 1967

	<u>SUB-TOTAL</u>	<u>SUB-TOTAL</u>	<u>FINAL TOTAL</u>
1	570	1555	2125
2	1489	1444	2933
3	40	291	331
4	24	133	157
5	1187	1101	2288
6	1308	1270	2578
SUB-TOTAL	4618	5794	10412
7	2076		2076
8	953		953
9	181		181
10	833		833
11	9		9
12	80		80
13	1582		1582
14	116		116
SUB-TOTAL	5830		5830
FINAL TOTAL	10448	5794	16242

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 1

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
2	24	1		30	55
3	4	1		5	10
4	1			4	5
5	86	5	2	178	271
6	94	5	6	189	294
7	281	65	261	52	659
8	121	50	136	125	432
9	25	7	11	6	49
10	167	7	38	81	293
11	2		2		4
12	9			2	11
13	111	28	89	55	283
14	8	2		2	12
TOTAL	933	171	545	729	2378

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

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ORIGIN ZONE	2						TOTAL TRIPS
	DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION		
	1	12	6		34		52
	3	1			7		8
	4	2		1	1		4
	5	97	10	3	576		686
	6	154	19	5	729		907
	7	296	78	213	82		669
	8	86	16	62	80		244
	9	57	2	2	14		75
	10	125	16	21	62		224
	11	4					4
	12	15			2		17
	13	106	63	158	95		422
	14	3			2		5
	TOTAL	958	210	465	1684		3317



PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 3

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	1	1		5	7
2	2			1	3
5	3			16	19
6	23	1		3	27
7	79	12	29	18	138
8	13	2		2	17
9	17		2	2	21
10	49	4	8	8	69
11	7				7
12	2				2
13	49	14	7	14	84
14	4		5		9
TOTAL	249	34	51	69	403

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PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 4

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	3			2	5
2	1			7	8
5	1				1
6	14	1			15
7	31		4	9	44
8	2	2	4	14	22
9			10		10
10	7			13	20
11	2				2
12	14			4	18
13	25	2	8	5	40
14	3				3
TOTAL	103	5	26	54	188

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PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 5

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	134	16	17	312	479
2	116	11	3	538	668
3	11			15	26
4	1			15	1
6	53	7	4	104	168
7	179	30	211	66	486
8	55	2	12	44	113
9	33		1	10	44
10	85	4	4	76	169
12	8				8
13	132	56	138	134	460
14	17		2	10	29
TOTAL	824	126	392	1309	2651

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 6

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	93	7	6	139	245
2	195	9	4	901	1109
3	14			1	15
4	8			3	11
5	35	1	1	40	77
7	258	33	246	48	585
8	129	2	19	56	206
9	33		7	7	47
10	169	11	16	34	230
11				2	2
12	14		2		16
13	279	54	46	63	442
14	18	2	2	7	29
TOTAL	1245	119	349	1301	3014

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 7

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	168	50	196	115	529
2	264	110	198	78	650
3	37		7	9	53
4	30	4	6	7	47
5	194	47	204	95	540
6	196	57	181	121	555
TOTAL	889	268	792	425	2374

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 8

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	81	47	89	108	325
2	100	52	66	106	324
3	14			6	20
4	7	2		4	13
5	54	17	16	78	165
6	89	20	25	67	201
TOTAL	345	138	196	369	1048

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 9

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	54	7	7	9	77
2	65		6	4	75
3	6		2		8
4	10		9	2	21
5	69		2	15	86
6	60	2			62
TOTAL	264	9	26	30	329

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE	10					TOTAL TRIPS
DEST ZONE		WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	
1		108	49	15	61	233
2		106	8	12	49	175
3		74		2	31	107
4		9		6	12	27
5		81	23	2	70	176
6		103	28	5	71	207
TOTAL		481	108	42	294	925



PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 11

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	3				3
3	2				2
4	2				2
5	2				2
6	10				10
TOTAL	19				19

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE	12						TOTAL TRIPS
	DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION		
	1	11			8		19
	2	19			3		22
	3	4			2		6
	4	20			4		24
	5	4			10		14
	6	29	2				31
	TOTAL	87	2		27		116

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 13

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	98	57	128	50	333
2	177	112	59	101	449
3	56	8	18	24	106
4	26	2	2	9	39
5	194	54	82	120	450
6	235	74	71	121	501
TOTAL	786	307	360	425	1878

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE 14

DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION	TOTAL TRIPS
1	15	6		4	25
2	17	3		4	24
3	9			6	15
4		2			2
5	21	7	2	4	34
6	24	2		9	35
TOTAL	86	20	2	27	135

PETOSKEY

SINGLE ZONE TRIP TABLE BY DESTINATION PURPOSE

ORIGIN ZONE						TOTAL TRIPS
DEST ZONE	WORK	BUSINESS	SHOPPING	SOCIAL-RECREATION		
TOTAL	7269	1517	3246	6743		18775