Selecting a Search Area for a New Major Airport
Part Two: Draft Data Analysis

Appendix D

Metropolitan Access

June 1991

The Second in a Series of Reports
to the Twin Cities Area

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APPENDIX D

METROPOLITAN ACCESS

The ability of residents and businesses to get to and from a potential new major airport for the Twin Cities Metropolitan Area is an important criterion in selecting a search area. Ground access includes a number of considerations, including travel times and highway distances from residential areas, employment centers and major activity centers. While the needs of existing residential and business areas must be addressed, the planned location of new housing and commercial/industrial development expected over the next 20 years should also be considered. The planned highway network for 2010 has been used for the access analysis. The need to improve the highway network to deal with congestion points is also addressed in the analysis that follows.

Methodology

The ground access impacts of the three search areas and the existing site has been evaluated through the use of a travel demand forecasting computer model, TRANPLAN. It is a classical model, using a road network and demographic and employment information as its base data sources.

The model uses the road system to determine routes from one location to another and to distribute calculated volumes. The road network used for the evaluation of the search areas and the existing site is the road system which is expected to exist in the year 2010 and which is used by the Metropolitan Council to make its travel forecasts. Figure 1 shows the recommended metropolitan highway system for the year 2010. The model network also includes many more roads beyond these major roadways. Figures 2, 3 and 4 show the road system that is being modeled in each of the search areas. These figures also show the changes to the road system that have to be added to the system to model the ground access impacts in each candidate search area.

Candidate Search Areas

The solid dots on figures 2 through 4 represent the general range of locations that might be considered for a new airport in each of the candidate search areas. They are arbitrary points, placed to test the impacts of each general location on the road network. If an airport were to be sited anywhere in the vicinity of one of these points, its impact on the road network would be similar to that modeled, provided its connections to the road network were similar to those used in the model. The road impacts each point are to evaluate are as follows:

Anoka-Isanti-Chisago Candidate Search Area

The North Branch Township test point tested the preferred routing between U.S. 65 and I-35 that occurs with a site located generally in the eastern portion of the candidate search area (see Figure 2). Likewise, the Isanti Township test point tested the preferred routing between U.S. 65 and I-35 of a site located in the western portion of the candidate search area. The Oxford Township test point tested the preferred routing between U. S. 65 and I-35 of a more centrally located site and to see if there is any change in routing affiliated with how far north a site is located.

Dakota Candidate Search Area

The Marshan Township test point tested the preferred routing of this location between Highway 61

FIGURE 1
RECOMMENDED METROPOLITAN HIGHWAY SYSTEM, 2010

●●●●● Additional Highway Segments

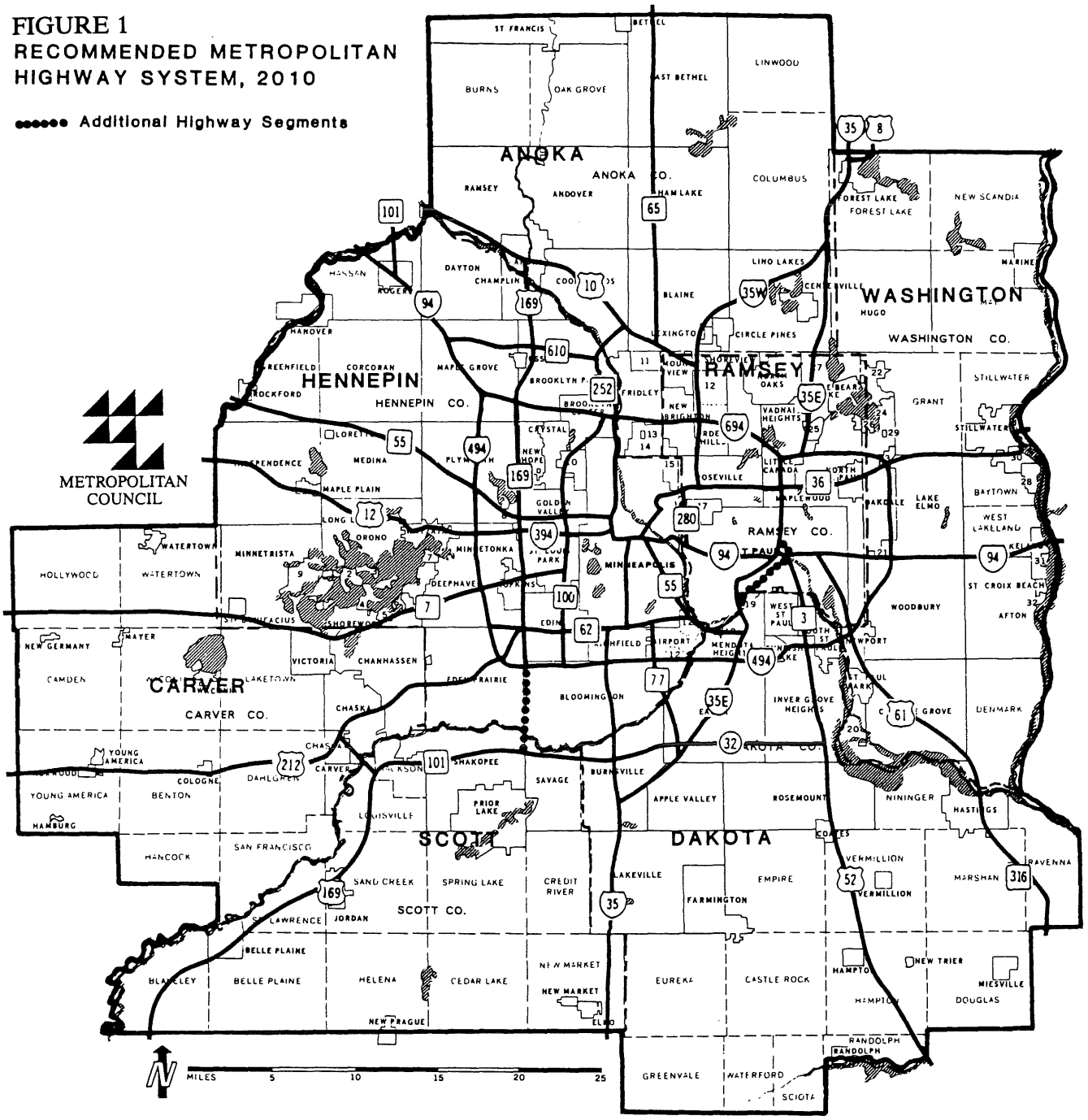
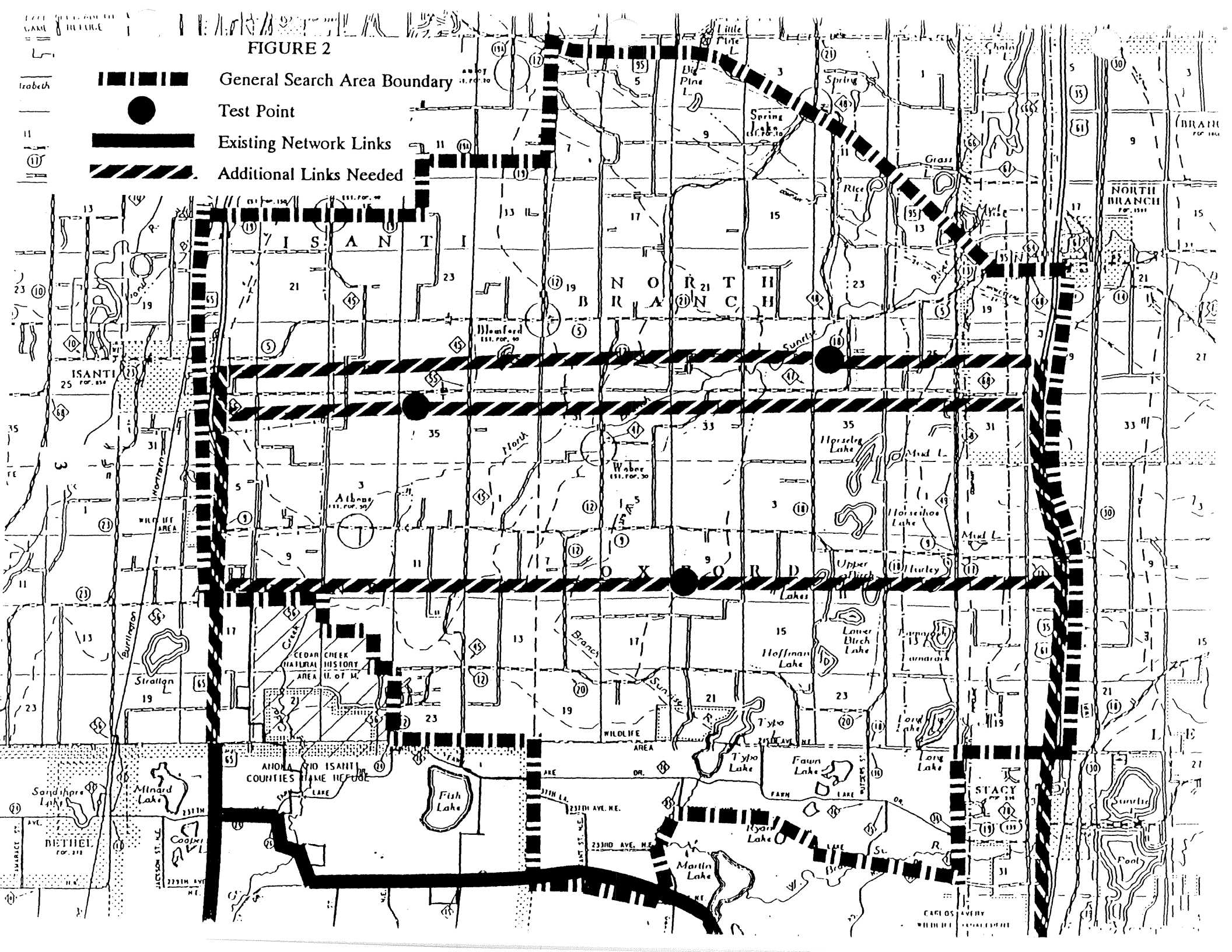


FIGURE 2


General Search Area Boundary
Test Point
Existing Network Links
Additional Links Needed
ISANTI
NORTH BRANCH
OXFORD
ISANTI
NORTH BRANCH
Blomford
Weber
Athens
Horseleg Lake
Horseshoe Lake
Upper Birch Lake
Hurley
Lower Birch Lake
Hoffman Lake
Typo Lake
Fawn Lake
Ryan Lake
Martin Lake
Fish Lake
Minard Lake
Sandshore Lake
Stratton
Cooper
Long Lake
Spring Lake
Grass L.
Rice L.
Mud L.
Sunrise
Pool
STACY
BETHEL
CEDAR CREEK NATURAL HISTORY AREA
ANOKA AND ISANTI COUNTIES GAME REFUGE
WILDLIFE AREA
CARLOS AVERY WILDLIFE MANAGEMENT
Burlington Northern
Creek
Branch
North
Sunrise
Spring
Little Pine L.
Big Pine L.
Chain
Myrtle
Izabeth
GAME REFUGE
233RD AVE. N.E.
237TH AVE. N.E.
FAWN LAKE DR.
JACKSON ST. N.E.
229TH AVE. N.E.

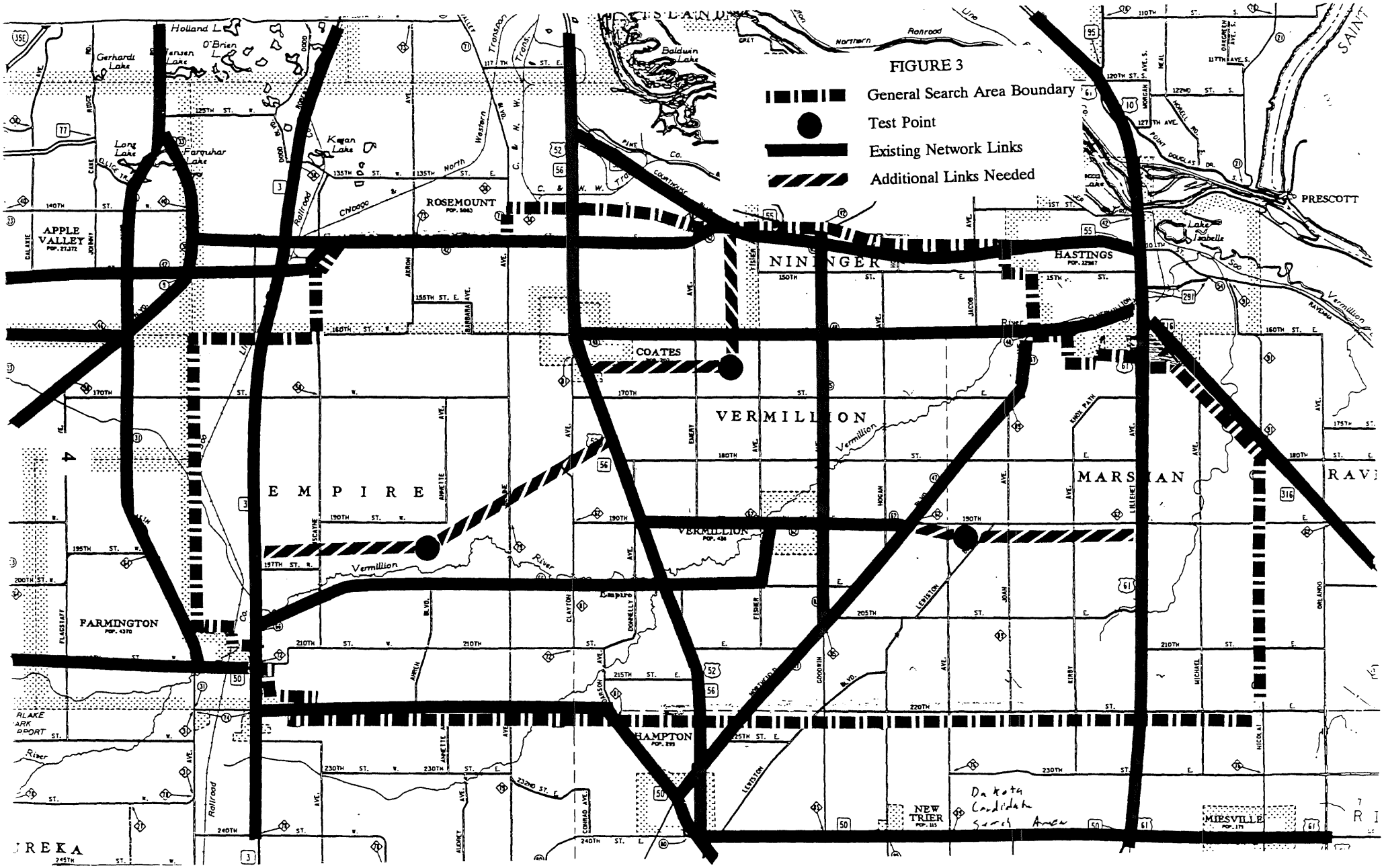


FIGURE 3
General Search Area Boundary
Test Point
Existing Network Links
Additional Links Needed
APPLE VALLEY
ROSEMOUNT
NININGER
HASTINGS
PRESCOTT
COATES
VERMILLION
EMPIRE
MARSHAN
FARMINGTON
HAMPTON
NEW TRIER
MIESVILLE
Holland L.
O'Brien L.
Gerhardt Lake
Long Lake
Farquhar Lake
Kegan Lake
Baldwin Lake
Lake Isabelle
Vermillion River
Empire
Dakota Candidate Search Area

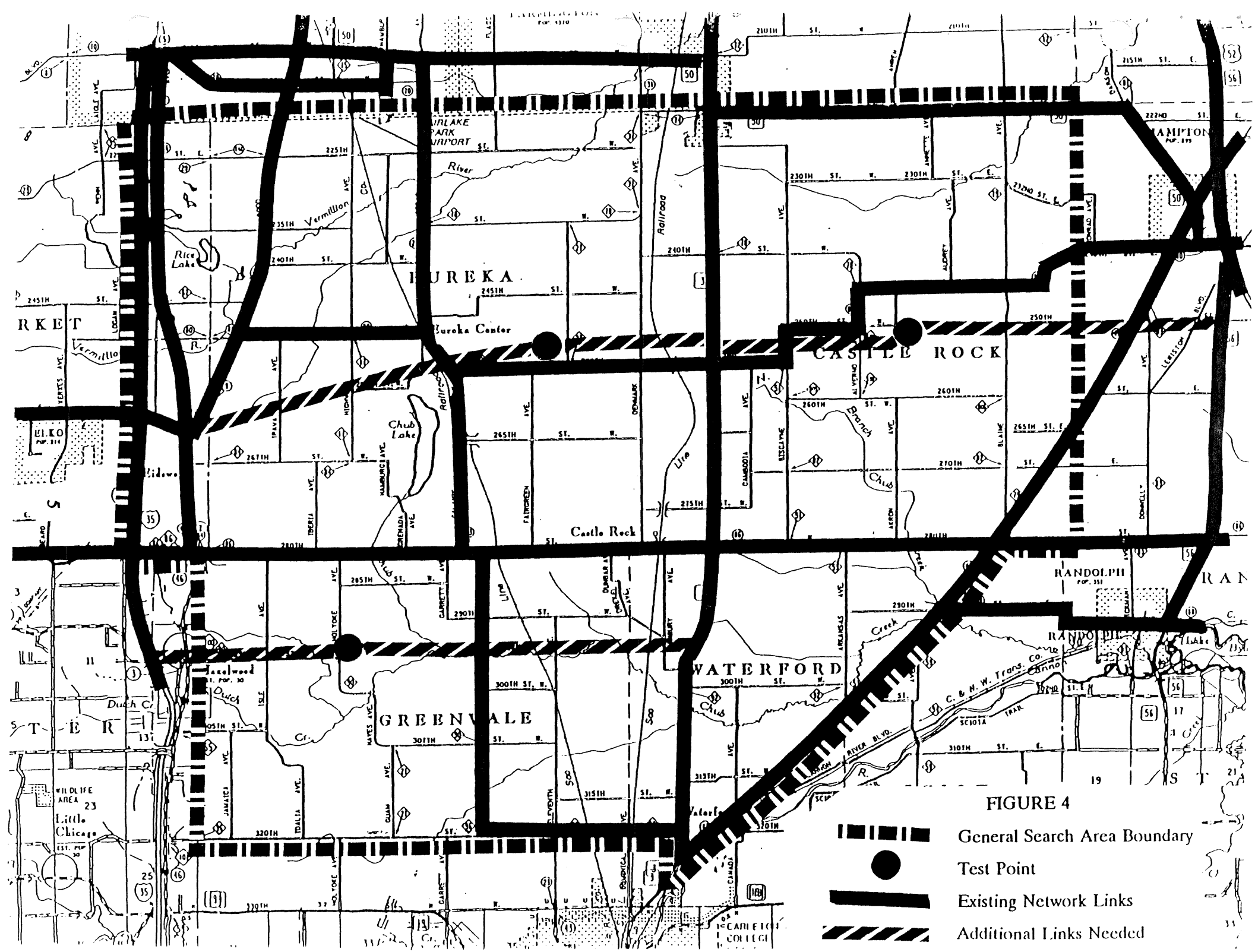

EUREKA
Eureka Center
CASTLE ROCK
Castle Rock
WATERFORD
GREENVALE
RANDOLPH
Rice Lake
Chub Lake
Vermillion
River
Railroad
Branch
Chub
Creek
Dutch Cr.
Little Chicago
WILDLIFE AREA
C. & N. W. Trans. Co.
SCIOTA TRAIL
CARLETON COLLEGE
General Search Area Boundary
Test Point
Existing Network Links
Additional Links Needed

FIGURE 4

and Northfield Boulevard (see figure 3). The Vermillion Township test point tested the preferred routing between Highways 55 and 52, and County Road 42. The Empire Township test point tested the preferred routing between Highways 3 and 52.

Dakota - Scott Candidate Search Area

The Castle Rock Township test point tested the preferred routing between Highways 3 and 56 (see figure 4). The Eureka test point tested the preferred routing between I-35 and Highway 3. The Greenvale test point tested the preferred routing between I-35 and Highway 3, and also tests the preferred routing from a more southern location.

Connections to the Road Network

Each test point needed to be connected to the network. The model uses links to describe the road network. A road link represents an actual section of road, with attributes that emulate that section of road. The most significant attributes include such things as distance, speed, and capacity.

For example, the attributes for Glumack Drive (the access road to Lindbergh Terminal) include a distance of two-thirds of a mile from Highway 5 to the terminal, an assigned speed of 35 miles per hour and an assigned capacity of 275 vehicles per lane per hour. The road links provided to each of the special generators will vary from these attributes depending on the length of the link. If a link is a similar length to Glumack Drive, the speed and capacity will be the same as those for Glumack Drive. If a link is 1 to 3 miles in length it will have a speed of 45 miles and hour and a lane capacity of 875 vehicles per hour. If a link is greater than three miles in length, it will have a speed of 55 miles and hour and a lane capacity of 1,200 vehicles per hour. These capacities are consistent with those for arterials and expressways as provided by the Transportation Development Guide/Policy Plan.

The Anoka-Isanti-Chisago Candidate Search Area required the extension of links from U.S. 65 and Interstate 35 into the search area. These links have the same speed and capacity attributes as the northern-most links of these facilities.

Trip Generation

The trips generated by a hypothetical new airport in each candidate search area will be modelled assuming a level of activity (i.e. employees and operations) expected for the year 2010. This level is consistent with the level of activity at MSP in 2010 that the Metropolitan Airports Commission is using in their ground access studies. This resulted in a total daily trip generation of 119,655 trips and 11,429 trips in the peak hour.

Travel Times

The primary access question is "How long will it take to get to the airport?" The Council's Metropolitan Aviation Development Guide Chapter calls for the major airport to be accessible within at least 60 minutes from throughout the region. Thirty locations across the Metropolitan Area were selected to examine access to the three search areas. These results show not only travel times, but also distances on the regional highways to the search areas. Since the search areas are large, each search area has three reference points to show the range of accessibility from the two central city downtowns, major retail centers, employment centers and residential areas. Minneapolis-St. Paul International Airport (MSP) is also included for reference and comparison. MSP is located at

approximately the geographic center of the region. As a result, providing comparable access will be difficult. Additions to the 2010 metropolitan highway system to accommodate airport traffic going to or from the search areas have not been included. These additions should reduce the travel times. This will be analyzed in the site selection phase.

Travel times from all three search areas are generally within the 60-minute travel times during the periods when most of the traffic goes to or from an airport (Table 1 and Figures 5a, 5b and 5c). Travel times to the Isanti Township and North Branch Township reference points in the Anoka-Isanti-Chisago search area and the Marshan Township reference point in the Dakota search area exceed the 60-minute standard during afternoon peak time.

The regional average travel time to MSP in the year 2010 will be 25 minutes in normal airport drive time (off-peak) and 35 minutes during the afternoon peak.

Anoka-Isanti-Chisago Search Area

The Anoka-Isanti-Chisago search area would add on an average 22 to 27 minutes to the afternoon airport travel time and an average of 31 to 35 minutes in the normal travel time (see figures 6a, 6b, 7a, 7b,8a and 8b) . The variation in peak versus non-peak travel times is due to the fact that much of the trip to the northern test points was along roads that experience relatively mild congestion compared to the roads serving the MSP site. Therefore, the drop in travel time between peak and non-peak travel for MSP is of greater significance than the drop for the test points. The Anoka-Isanti-Chisago search area reaches only half of the major locations within 60-minutes and 5-6 locations within 45-minutes.

Dakota Search Area

The Dakota search area would add 8 or 9 minutes peak hour travel time from its western portion and 30 minutes peak hour travel time from the eastern portion (see figures 9a,10a and 11a). The disparity between the travel times for the eastern portion and the western portion is the result of the model assigning virtually all of the traffic to the western approach. This produces lower speeds and higher travel times. The western test point loads more equally to both the east and west. The Dakota search area would add 15 or 17 minutes in normal travel time from its western portion and 23 minutes normal travel time from its eastern portion (see figures 9b, 10b and 11b). The Dakota search area comes closest to providing the 30 major locations with travel access comparable to MSP. All but one, the city of Anoka, are within the 60-minute travel time. The middle portion of the Dakota search area, Vermillion Township, reaches 22 locations within 45 minutes and 7 locations within 30 minutes.

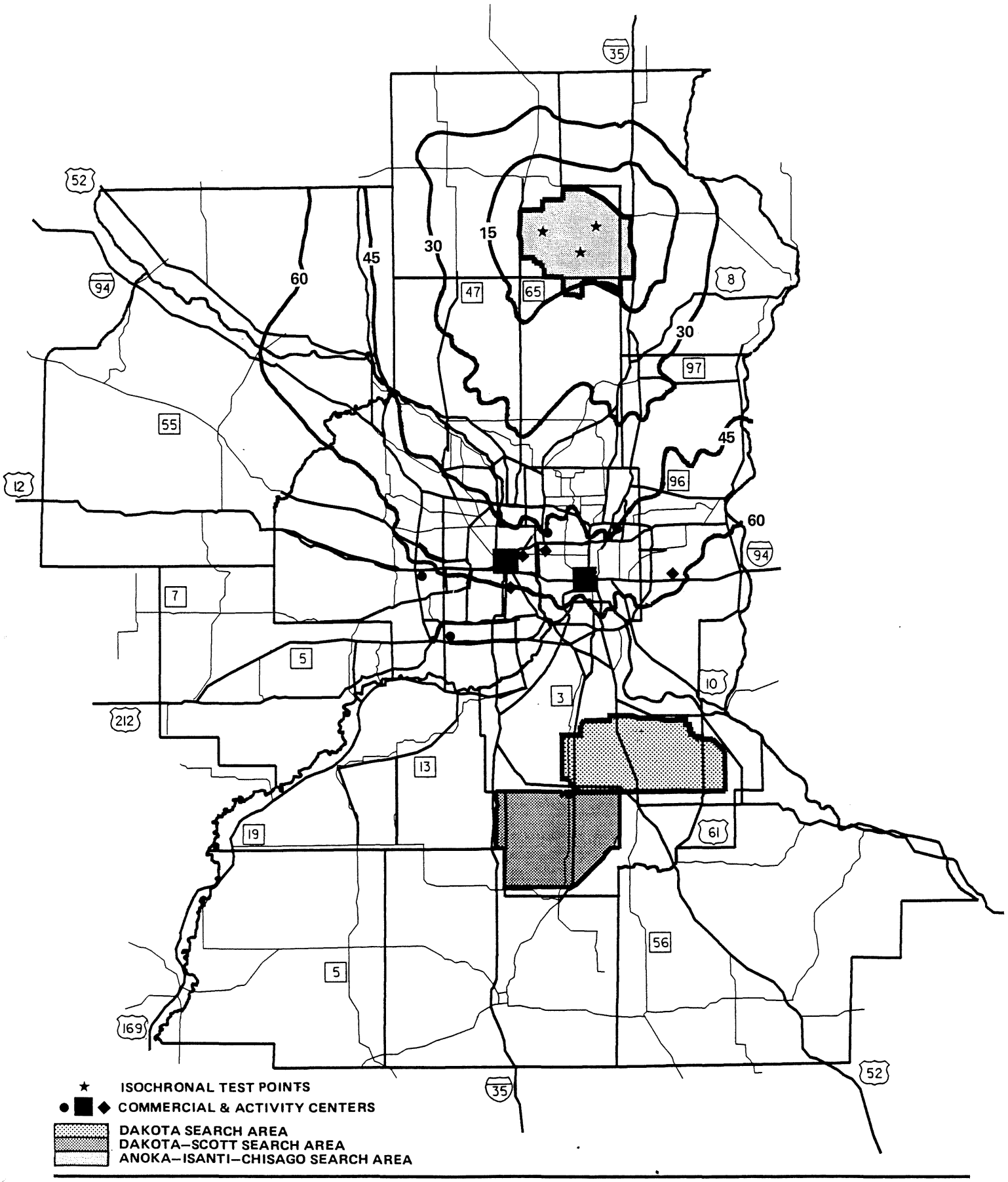
Dakota - Scott Search Area

The Dakota-Scott search area would add 15 to 22 minutes to the afternoon airport travel time and 24 to 25 minutes in normal driving time (see figures 12a, 12b, 13a, 13b, 14a and 14b). The variation in peak versus non-peak travel times is due to the fact that much of the trip to the northern test points was along roads that experience relatively mild congestion compared to the roads serving the MSP site. Therefore, the drop in travel time between peak and non-peak travel for MSP is of greater significance than the drop for the test points. Dakota-Scott search area reaches 25-26 locations within the 60-minute timeframe, 10-12 locations within 45-minutes and only 1-2 locations within 30-minutes.

TABLE 1

TRAVEL TIMES TO SIGNIFICANT POINTS FROM THE CANDIDATE SEARCH AREAS PM PEAK AND NORMAL (OFF-PEAK) TRAVEL TIMES

	ANOKA-ISANTI-CHISAGO						DAKOTA						DAKOTA-SCOTT						
POINT	ISANTI		OXFORD		NORTH BRANCH		EMPIRE		MARSHAN		VERMILLION		CASTLE ROCK		EUREKA		GREENVALE		MSP	
	PM	OFF	PM	OFF	PM	OFF	PM	OFF	PM	OFF	PM	OFF	PM	OFF	PM	OFF	PM	OFF	PM	OFF
MINNEAPOLIS CITY HALL	53	53	54	54	61	60	46	56	68	51	44	42	56	53	49	48	61	48	21	21
SAINT PAUL CITY HALL	60	58	53	53	54	54	32	32	58	36	30	27	40	40	47	47	54	47	15	15
MSP	69	64	65	62	63	63	30	30	51	34	28	25	40	38	40	40	48	40	---	---
MAPLEWOOD MALL	49	49	42	42	44	44	42	42	68	46	47	38	61	46	57	57	65	58	28	27
RIDGEDALE	67	59	62	60	74	66	54	51	73	58	52	50	60	78	61	51	56	50	29	29
ROSEDALE	55	45	46	46	50	50	46	46	71	50	44	42	59	54	58	56	66	55	24	24
SOUTHDALE	76	66	68	67	70	70	38	35	57	43	37	34	44	43	36	36	38	35	13	13
3M HEADQUARTERS	61	61	54	54	55	55	33	33	59	37	39	29	52	41	48	48	56	51	23	23
HONEYWELL HEADQUARTERS	67	57	58	58	62	62	42	41	64	47	40	38	52	49	45	44	57	43	17	17
U OF M SAINT PAUL	60	49	51	50	54	54	44	44	67	48	42	39	56	52	54	53	62	52	20	20
U OF M MINNEAPOLIS	63	53	53	53	58	58	45	44	68	49	43	40	56	52	49	49	61	48	21	19
I-35E AND I-494	71	69	64	64	66	66	26	26	48	31	25	22	35	34	35	34	42	33	8	8
I-35E AND I-694	46	46	39	39	41	41	44	44	70	49	50	40	64	52	59	59	67	59	28	28
NORTH I-35E/35W SPLIT	37	35	30	30	31	31	63	63	89	68	61	59	85	71	78	78	86	77	46	46
SOUTH I-35E/35W SPLIT	84	79	77	77	78	78	26	26	48	31	25	22	30	27	24	24	26	23	21	21
I-35W AND 62 COMMON SECTION	73	63	64	64	68	68	36	34	56	41	35	32	43	42	35	34	37	34	13	12
I-35W AND I-494	77	67	68	68	72	72	37	32	53	40	34	31	41	39	33	32	34	31	11	11
I-35W AND I-694	49	39	40	40	43	43	49	49	75	54	47	45	57	57	62	61	72	60	30	29
EAST I-494/694 SPLIT	63	63	56	56	58	58	31	31	57	35	36	26	50	39	45	45	53	48	24	23
WEST I-494/694 SPLIT	56	49	51	49	63	55	61	58	80	66	59	57	68	66	69	59	63	58	36	36
I-394 AND I-494	68	60	63	61	75	67	55	51	73	59	53	50	60	59	62	52	57	51	30	30
HWY 18 AND I-494	76	68	71	69	77	75	41	38	59	45	39	37	47	46	39	38	44	37	16	16
HWY 100 AND HWY 62	64	64	65	65	72	71	41	39	60	46	40	37	47	46	40	39	42	38	17	16
HWY 100 AND I-394	57	57	58	58	66	63	51	48	70	56	49	47	57	56	49	49	51	48	27	26
HWY 10 AND HWY 610	33	33	34	34	51	40	58	58	84	62	56	53	66	66	67	66	80	65	38	38
ANOKA	44	36	37	37	50	42	67	67	93	72	65	63	75	75	82	72	76	71	48	47
CHASKA	85	77	80	78	92	84	58	49	71	59	53	51	61	57	57	50	51	49	31	31
HASTINGS	84	84	80	77	79	79	25	20	13	12	11	11	25	25	41	36	40	40	31	31
SHAKOPEE	88	81	83	82	95	87	46	39	62	49	43	41	50	47	46	40	40	39	30	30
STILLWATER	54	60	53	53	55	54	46	46	47	44	45	42	59	55	61	61	69	64	40	39
AVERAGE	62	58	57	56	62	60	44	42	65	48	43	40	53	50	50	49	57	49	35	25
SIGNIFICANT POINTS WITHIN NORMAL DRIVE TIME																				
WITHIN 30 MINUTES	0		1		0		4		1		7		2		1		1		23	
WITHIN 45 MINUTES	5		6		6		18		12		22		10		12		11		28	
WITHIN 60 MINUTES	17		18		15		28		26		29		25		25		26		30	

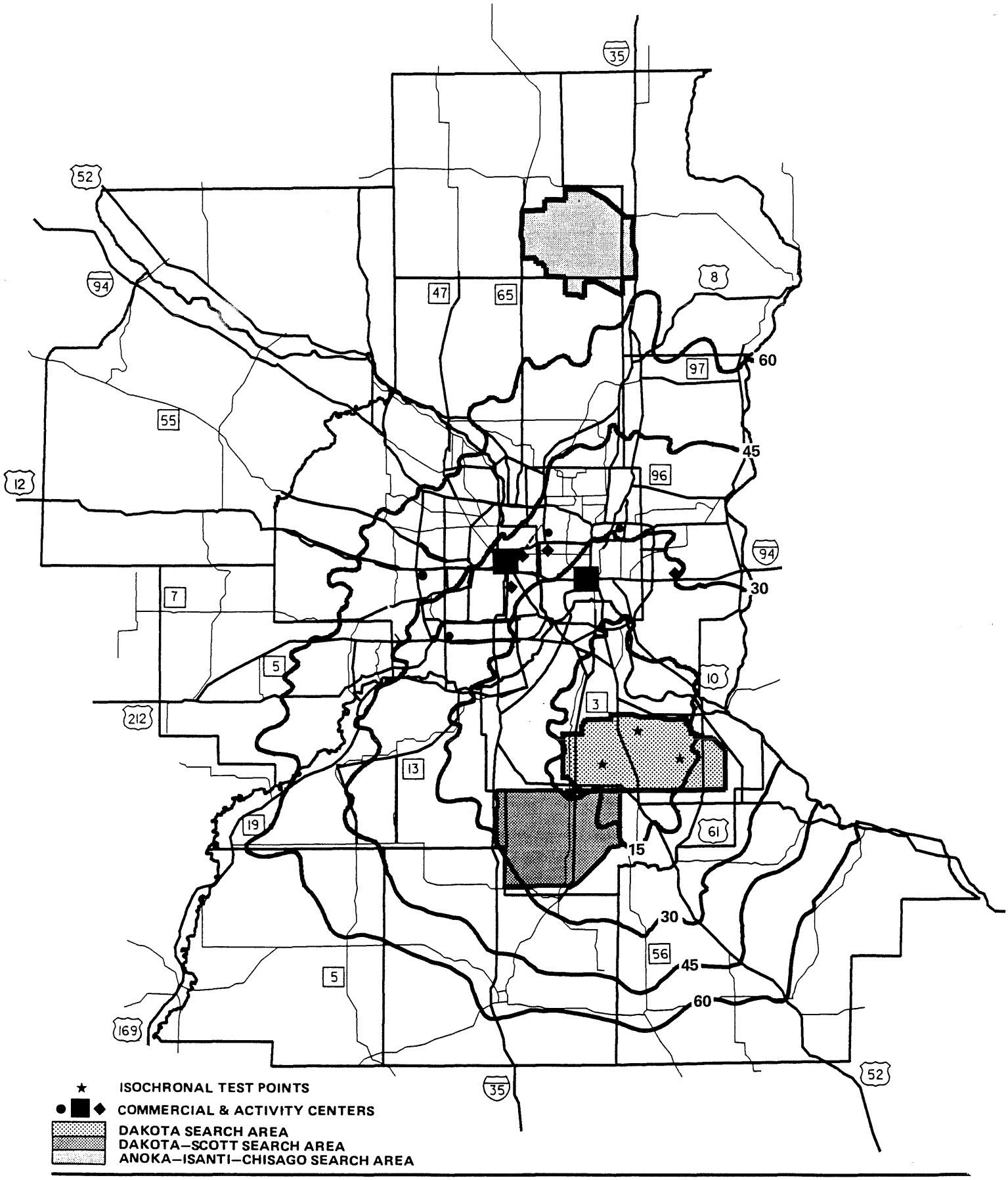


Source: Metropolitan Council

METROPOLITAN COUNCIL

Anoka–Isanti–Chisago Search Area

FIGURE 5A **Driving Times From Candidate Search Areas**
(Off-Peak)

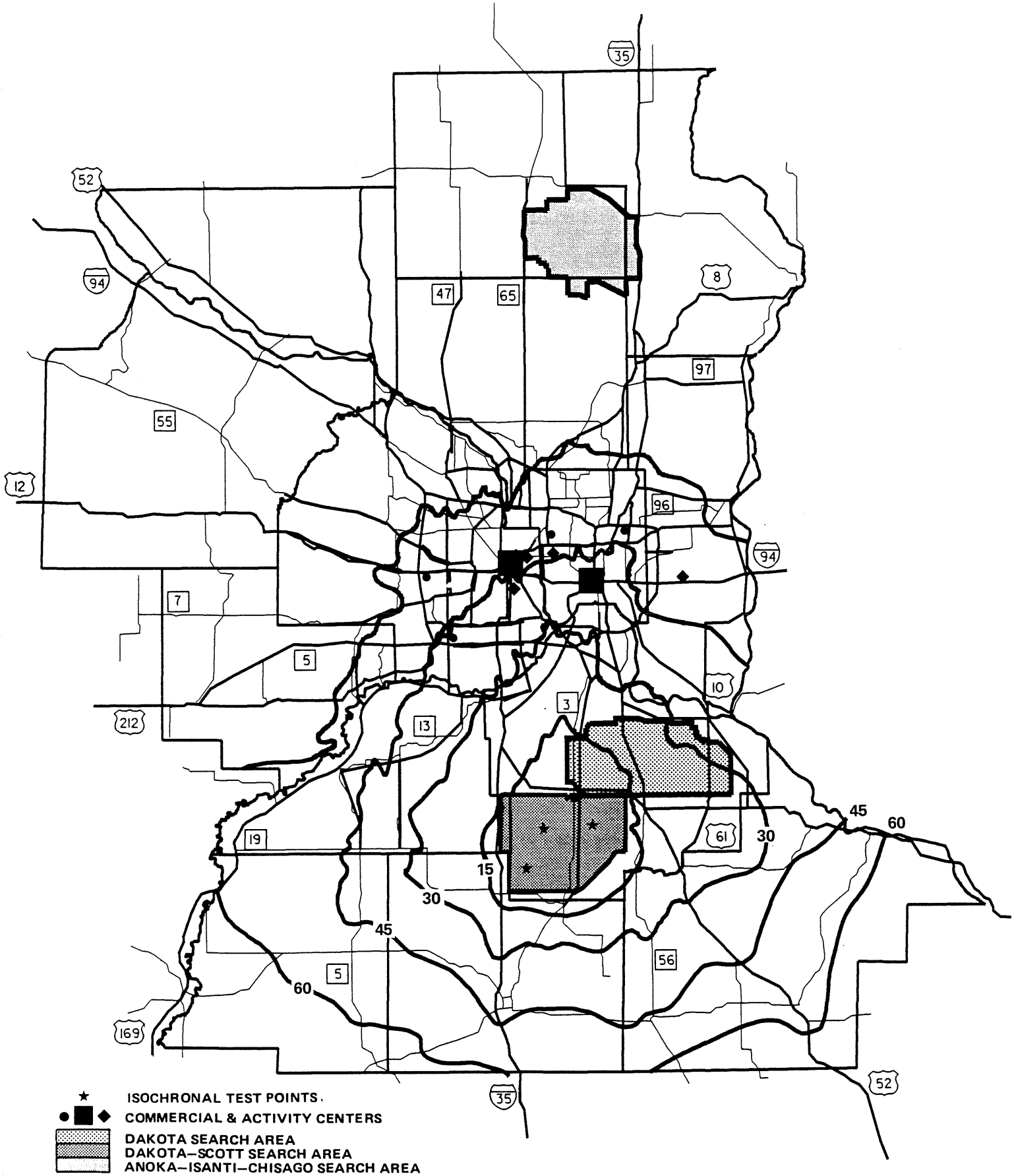


Source: Metropolitan Council

METROPOLITAN COUNCIL

Dakota Search Area

FIGURE 5B **Driving Times From Candidate Search Areas**
(Off-Peak)



Source: Metropolitan Council

METROPOLITAN COUNCIL

Dakota–Scott Search Area

FIGURE 5C **Driving Times From Candidate Search Areas**
(Off-Peak)

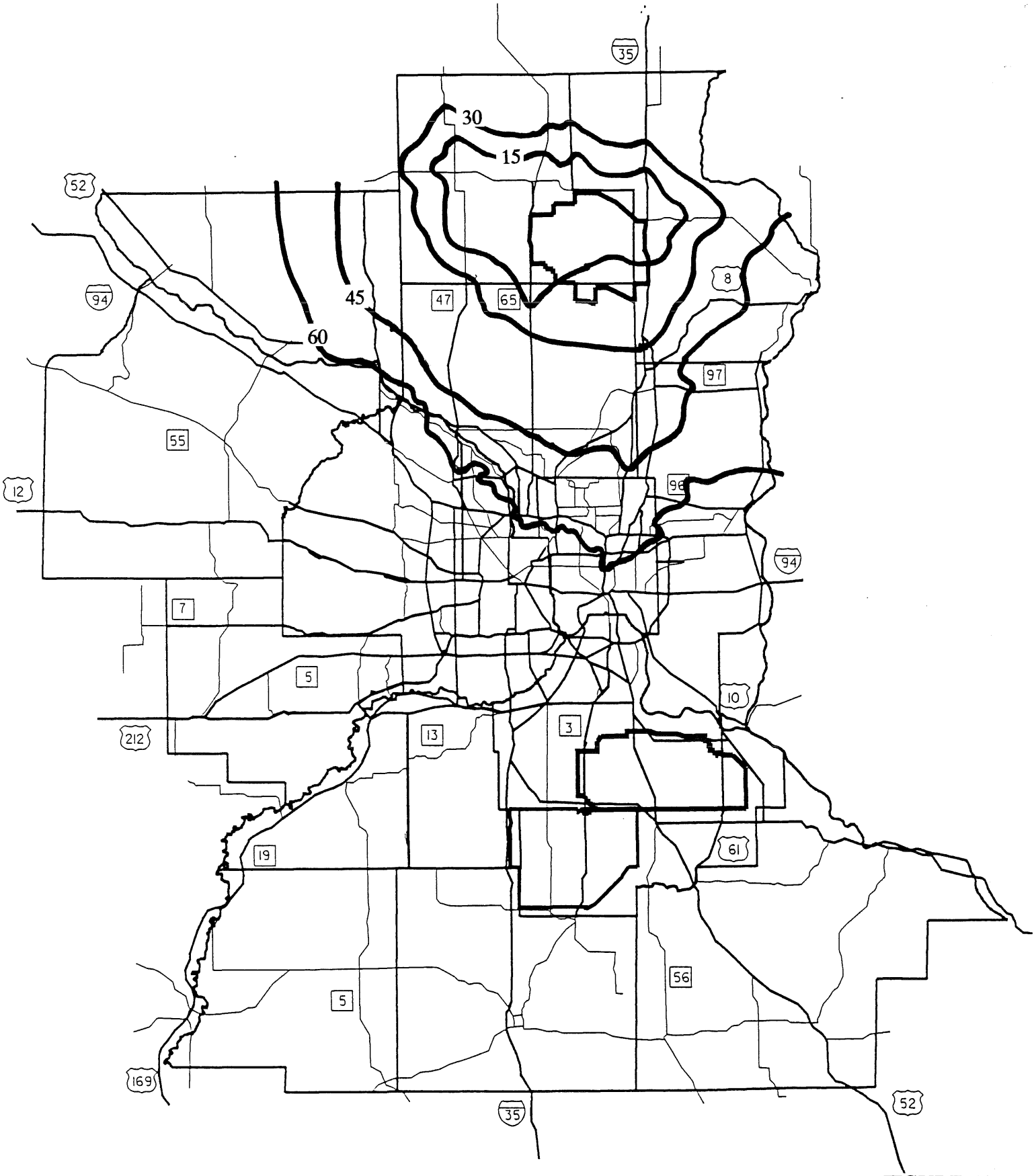


FIGURE 6A

METROPOLITAN COUNCIL

ANOKA-ISANTI-CHISAGO SEARCH AREA
ISANTI TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

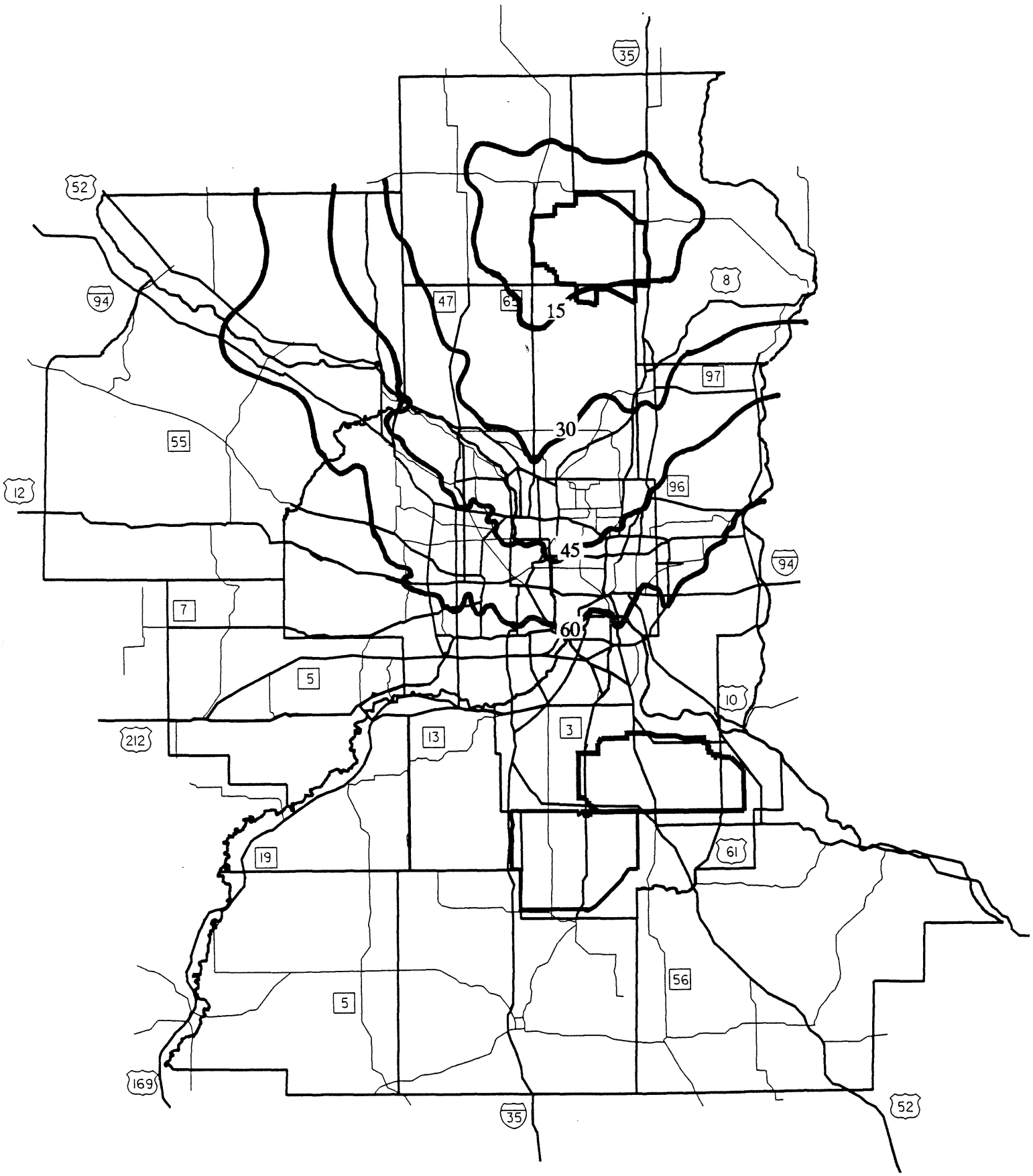


FIGURE 6B

METROPOLITAN COUNCIL

ANOKA-ISANTI-CHISAGO SEARCH AREA
ISANTI TOWNSHIP TEST POINT
NORMAL DRIVE TIMES

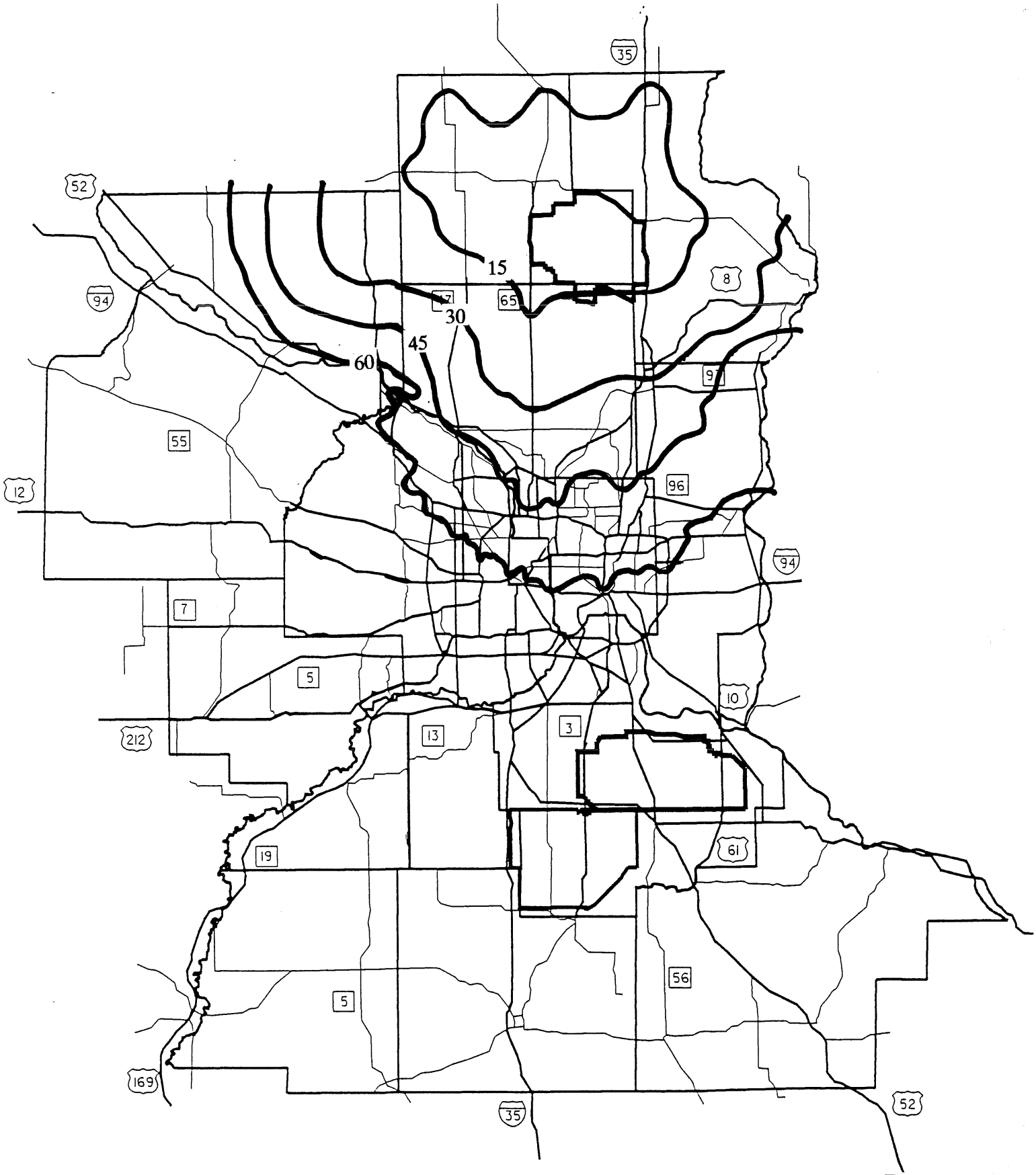


FIGURE 7A

ANOKA-ISANTI-CHISAGO SEARCH AREA
OXFORD TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

METROPOLITAN COUNCIL

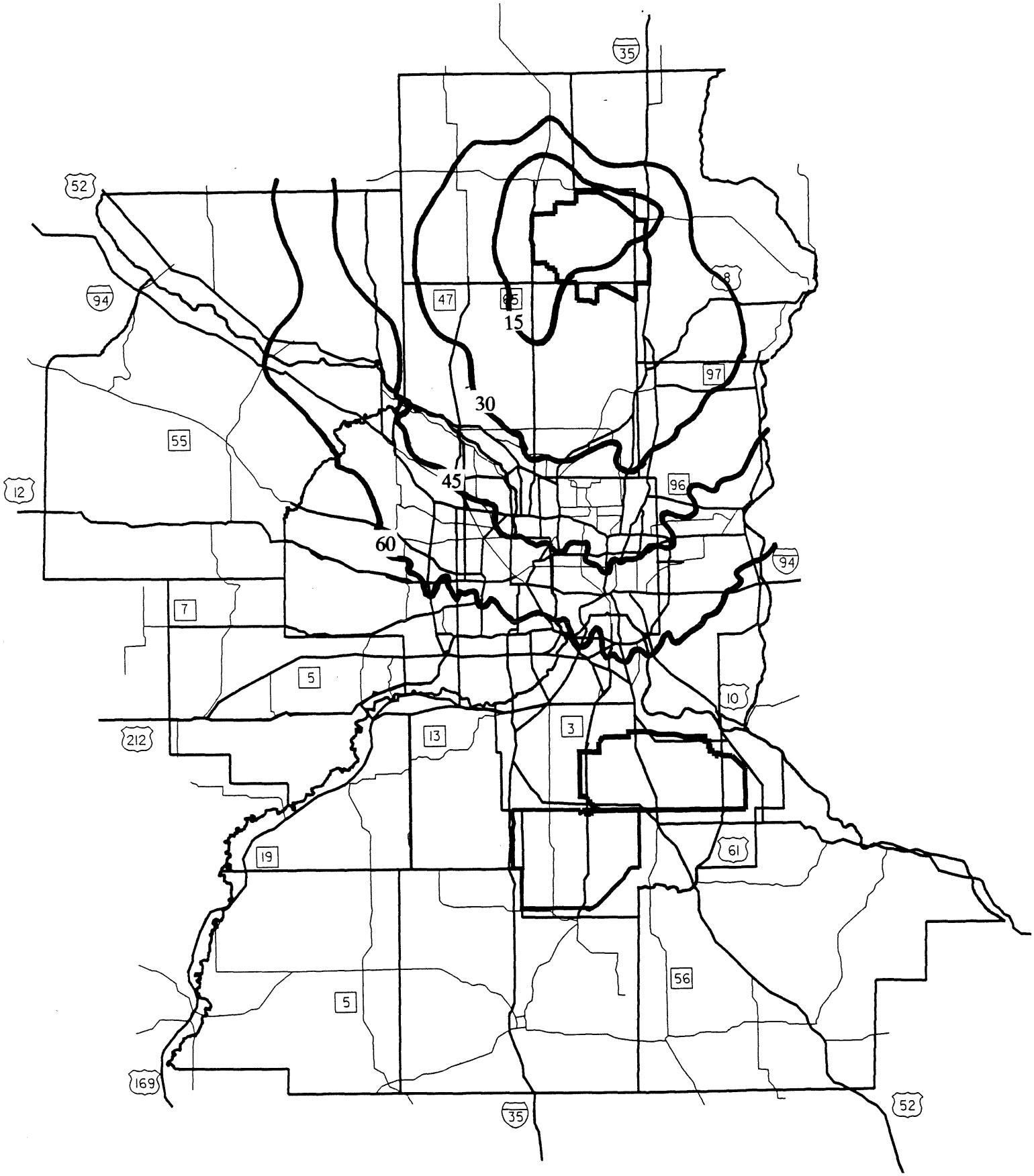


FIGURE 7B

METROPOLITAN COUNCIL

ANOKA-ISANTI-CHISAGO SEARCH AREA
OXFORD TOWNSHIP TEST POINT
NORMAL DRIVE TIMES

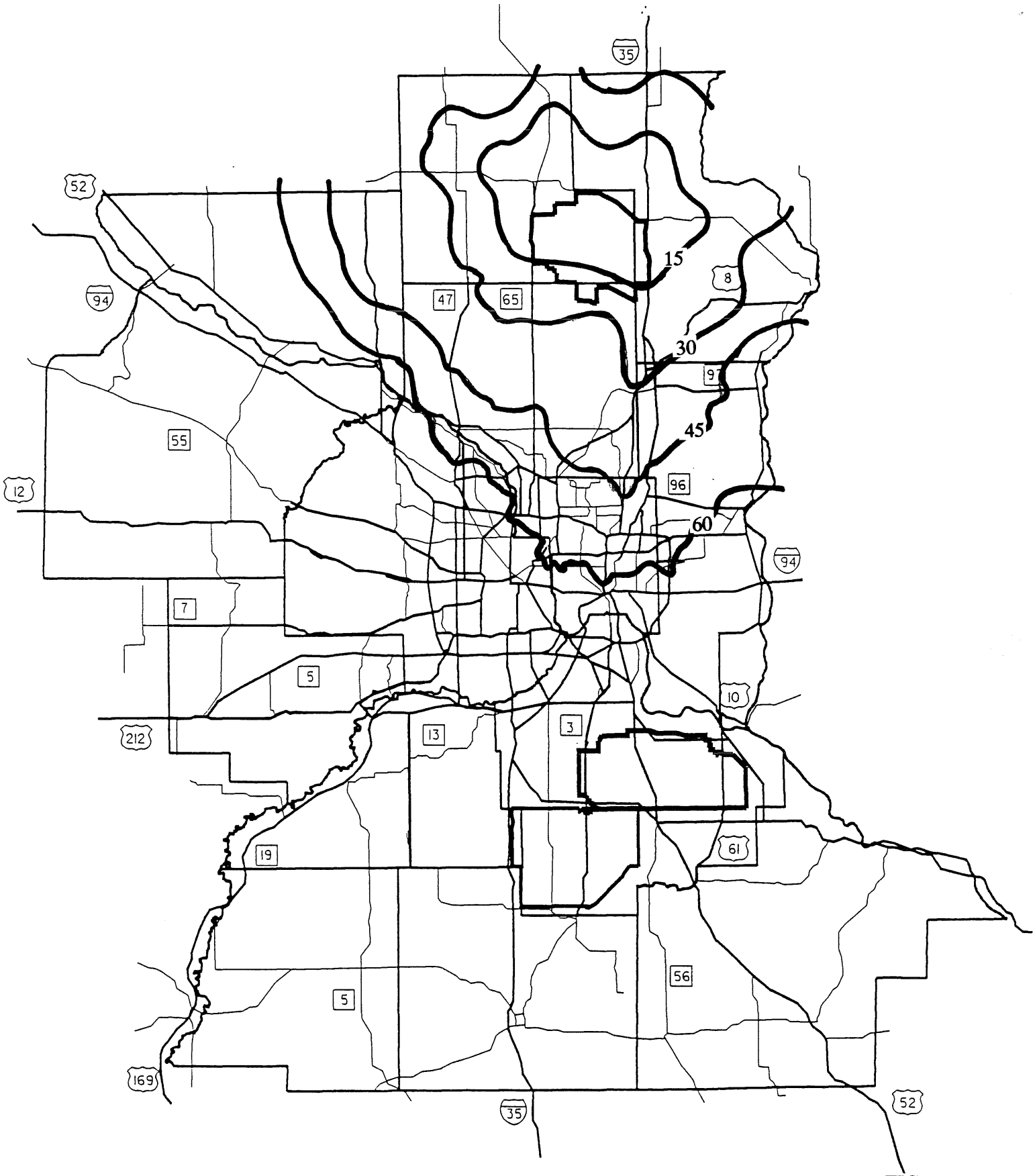
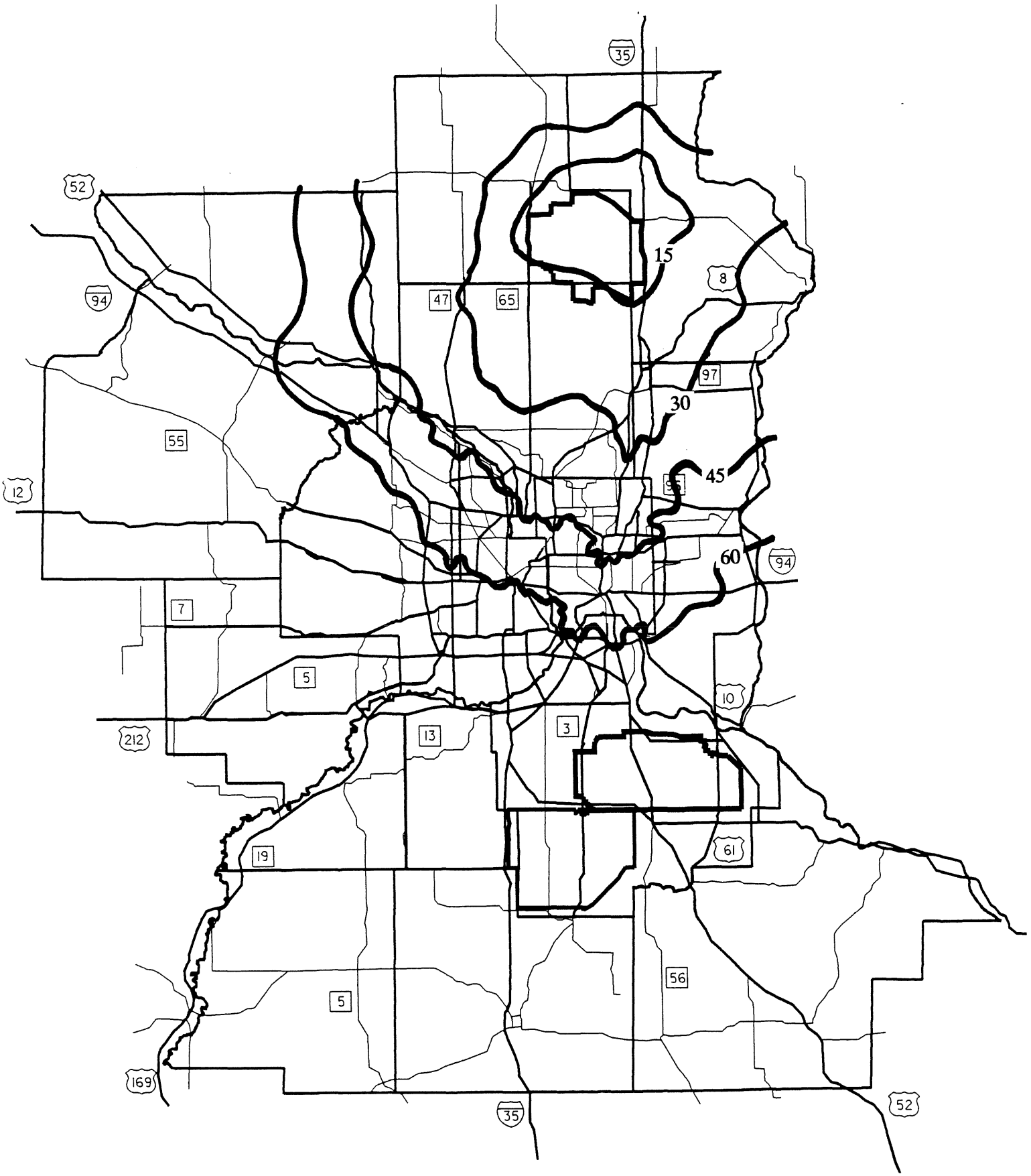


FIGURE 8A

ANOKA-ISANTI-CHISAGO SEARCH AREA
NORTH BRANCH TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

METROPOLITAN COUNCIL


35
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94
47
65
15
8
97
30
55
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3
19
61
56
5
169
35
52

FIGURE 8B

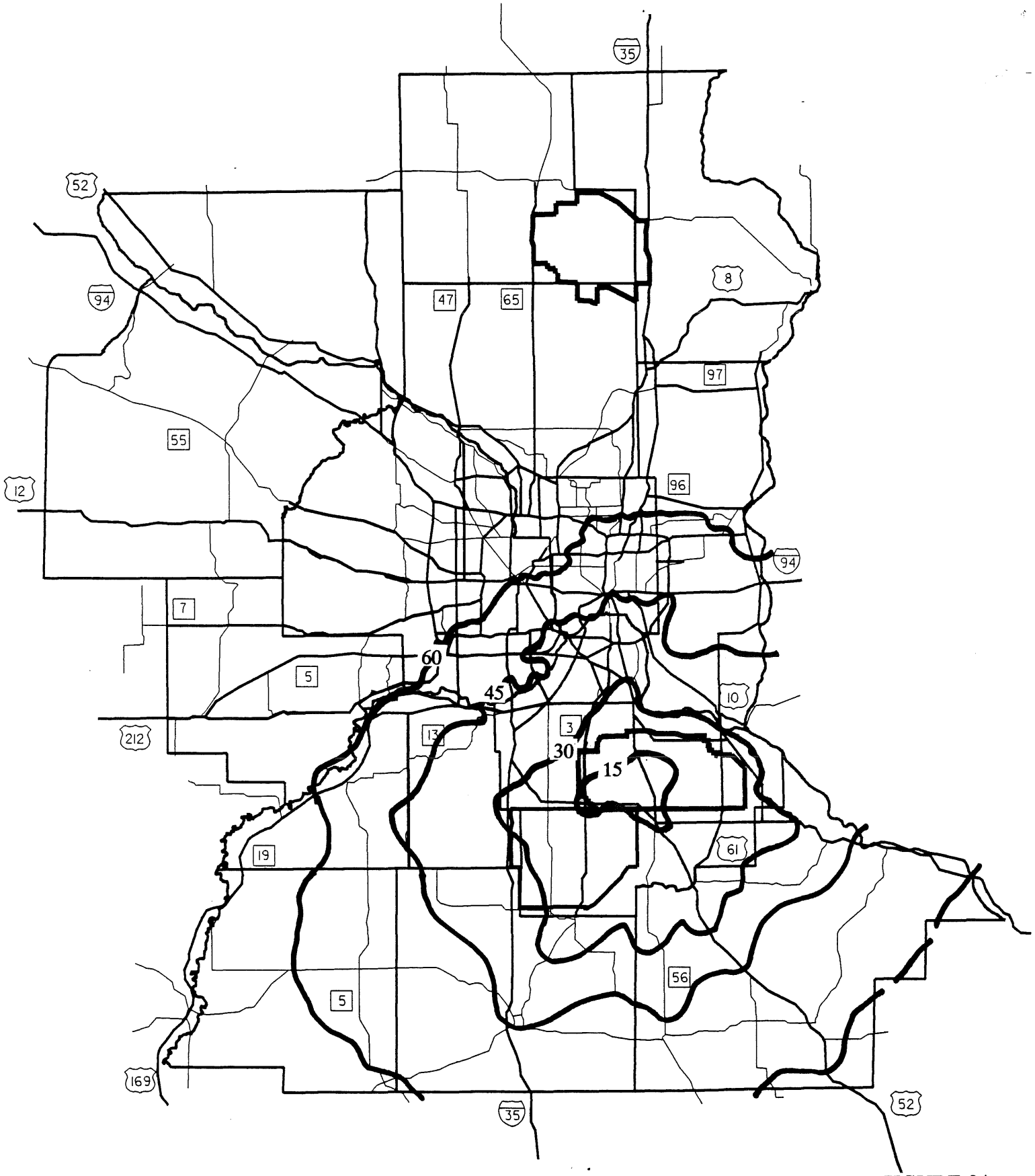

FIGURE 9A

METROPOLITAN COUNCIL

DAKOTA SEARCH AREA
EMPIRE TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

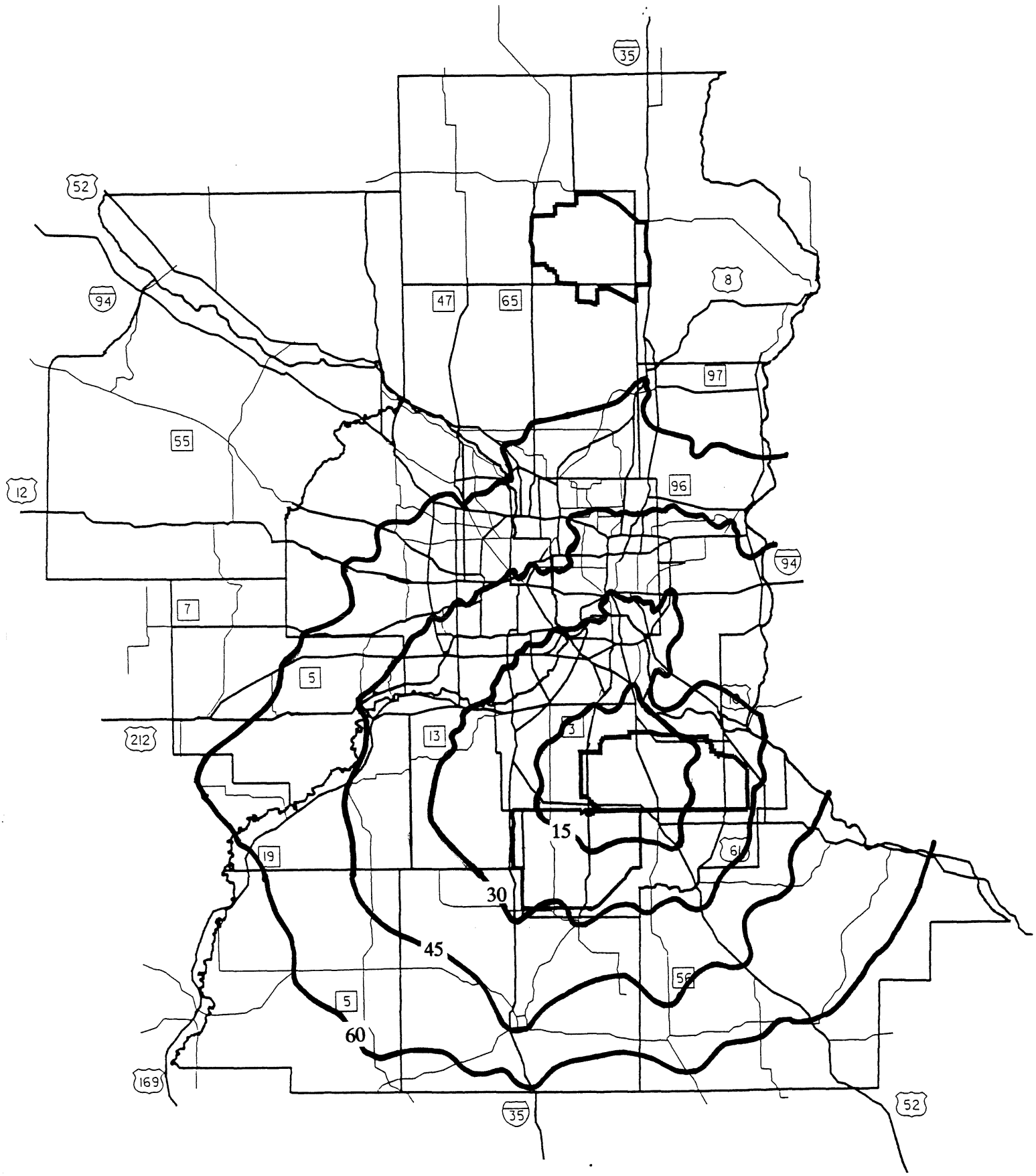

FIGURE 9B

DAKOTA SEARCH AREA
EMPIRE TOWNSHIP TEST POINT
NORMAL DRIVE TIMES

METROPOLITAN COUNCIL

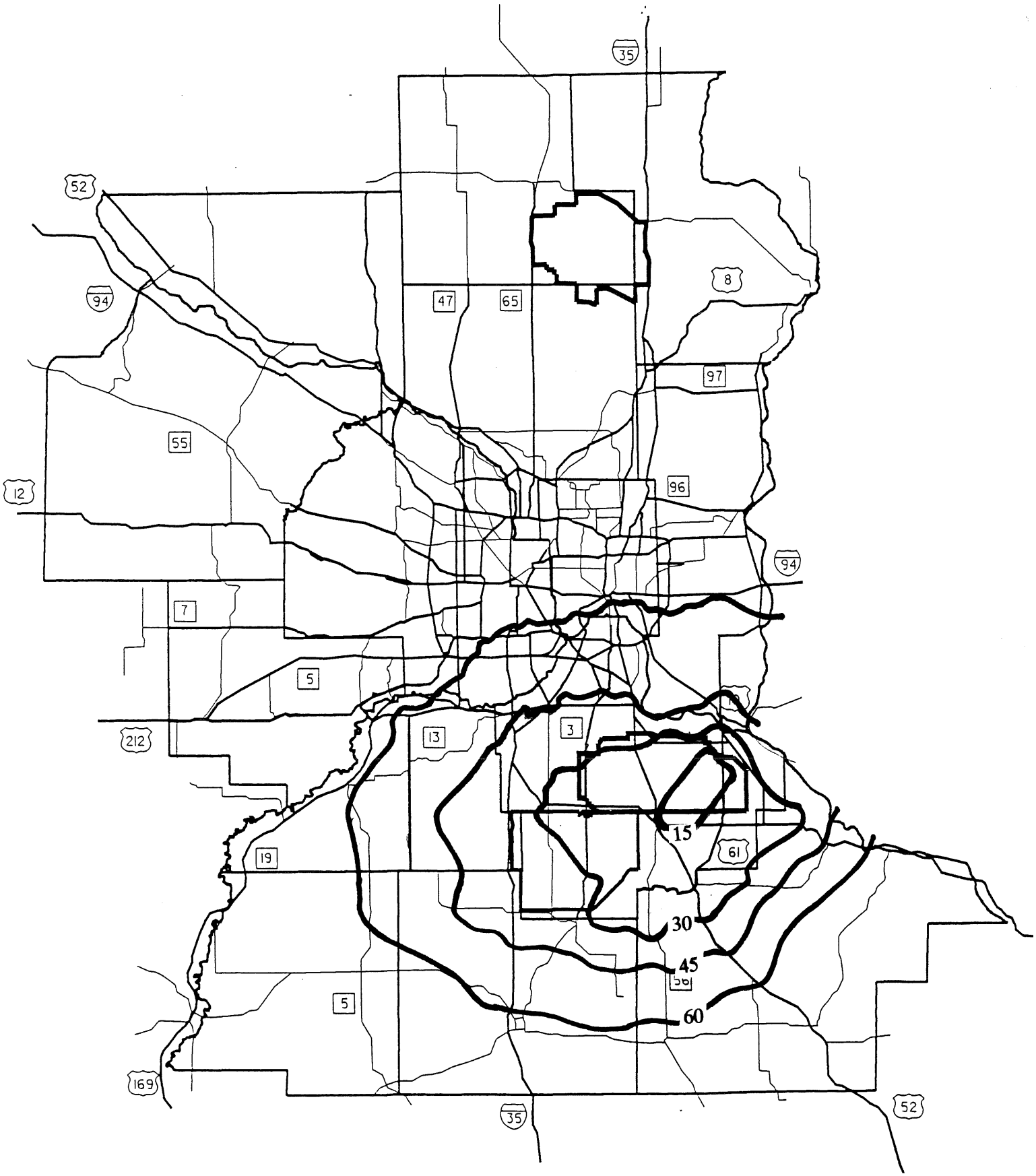

FIGURE 10A

METROPOLITAN COUNCIL

DAKOTA SEARCH AREA
MARSHAN TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

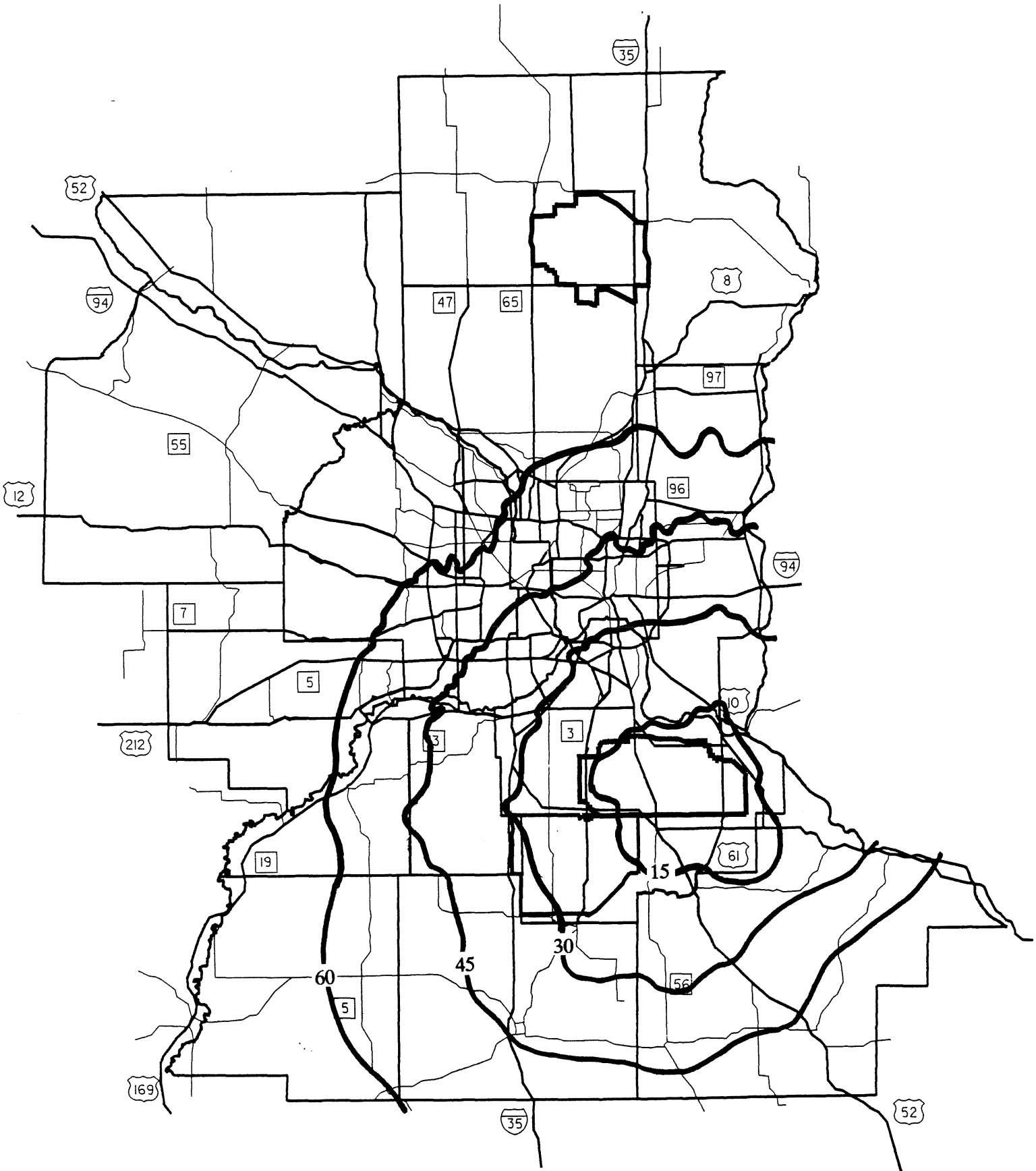

FIGURE 10B

DAKOTA SEARCH AREA
MARSHAN TOWNSHIP TEST POINT
NORMAL DRIVE TIMES

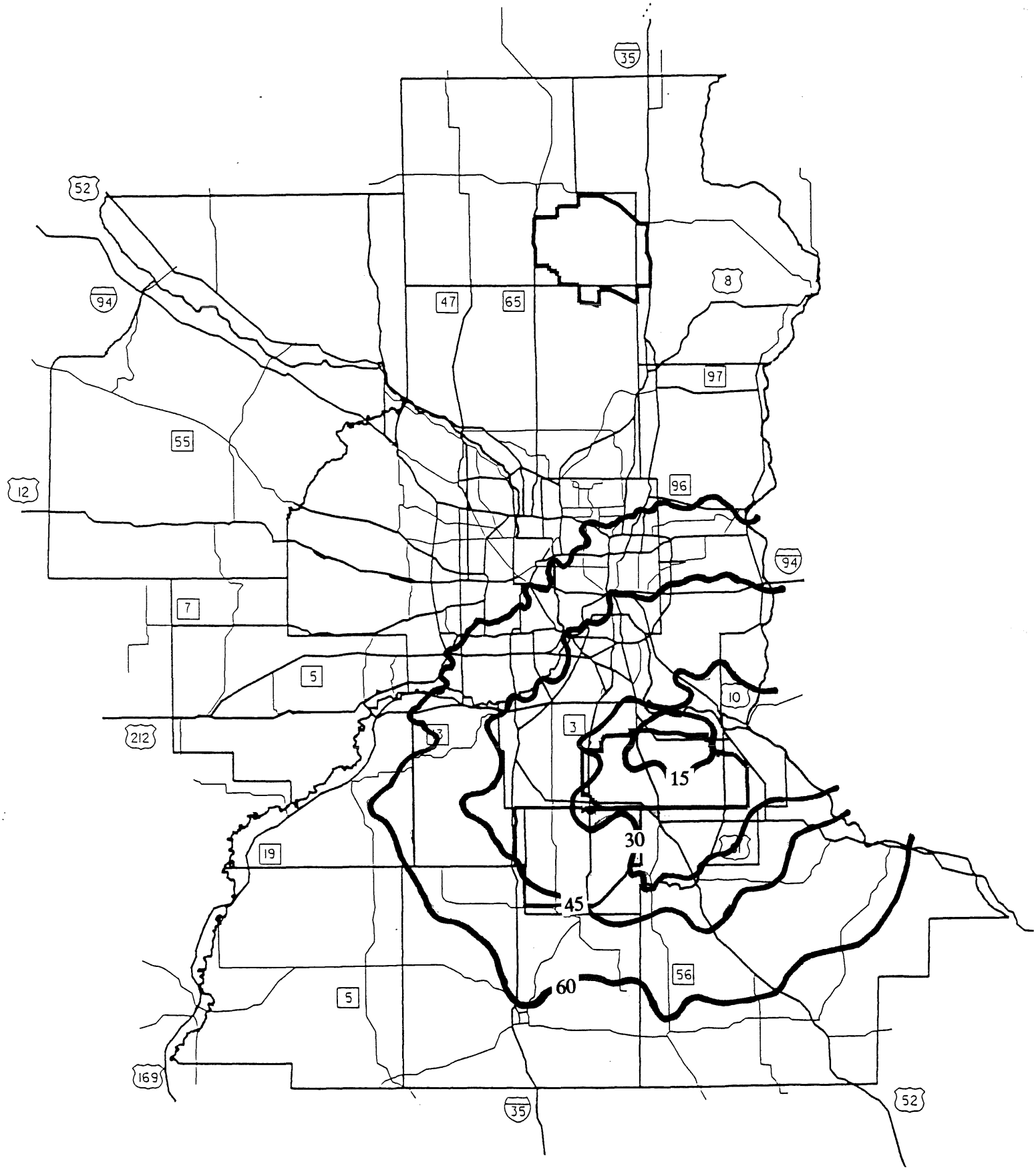

FIGURE 11A

DAKOTA SEARCH AREA
VERMILLION TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

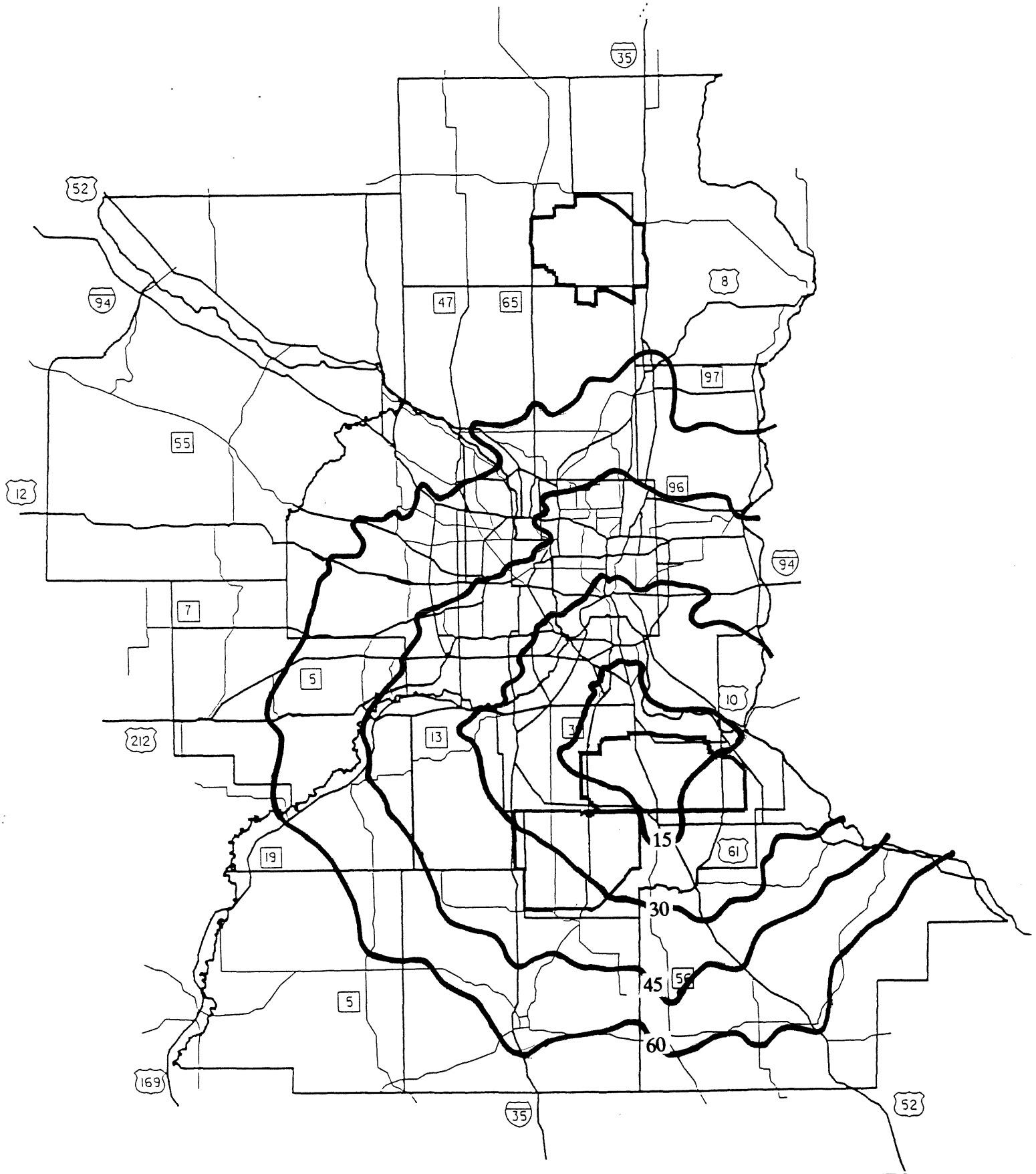

FIGURE 11B

METROPOLITAN COUNCIL

DAKOTA SEARCH AREA
VERMILLION TOWNSHIP TEST POINT
NORMAL DRIVE TIMES

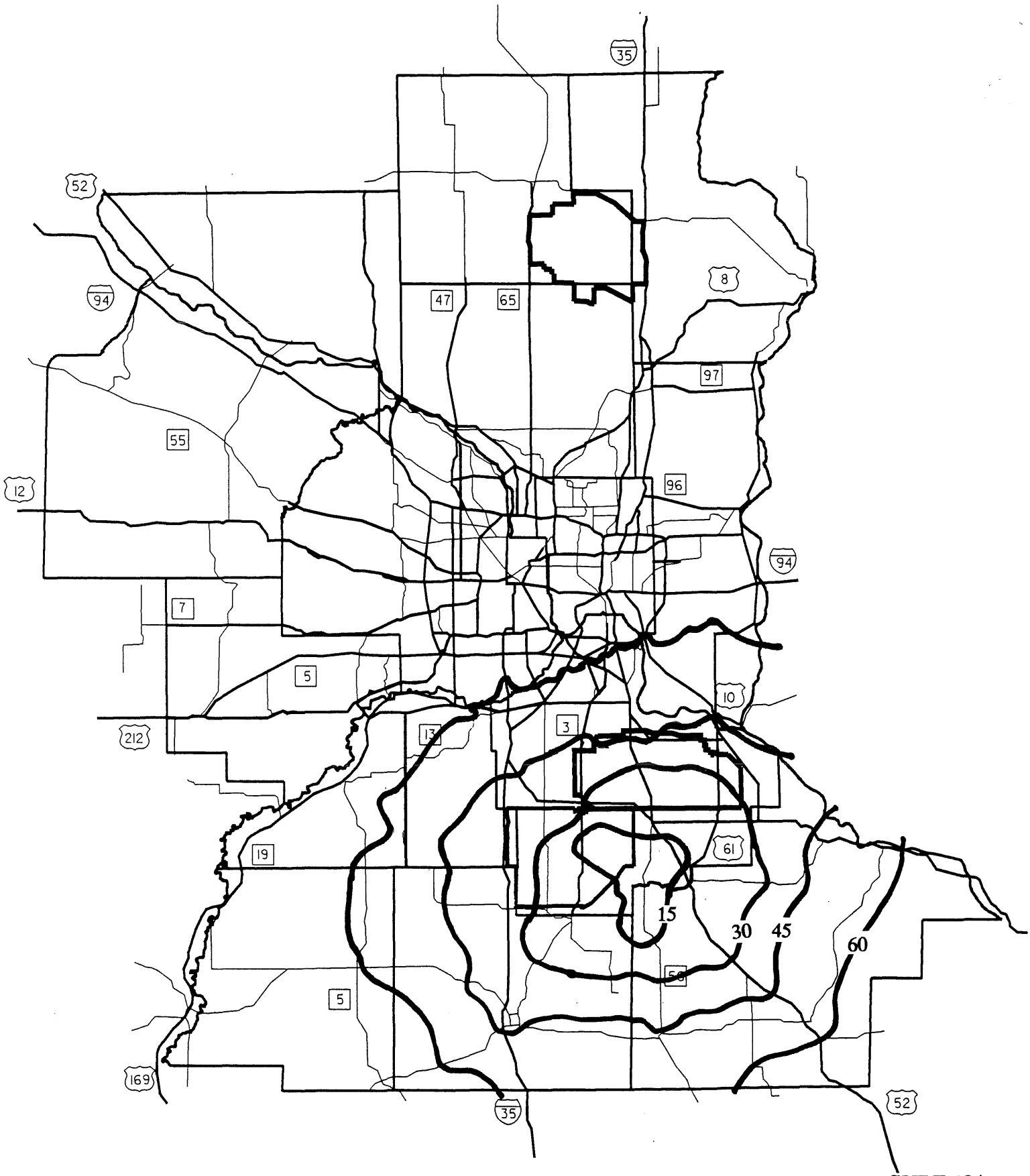

FIGURE 12A

METROPOLITAN COUNCIL

DAKOTA - SCOTT SEARCH AREA
CASTLE ROCK TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

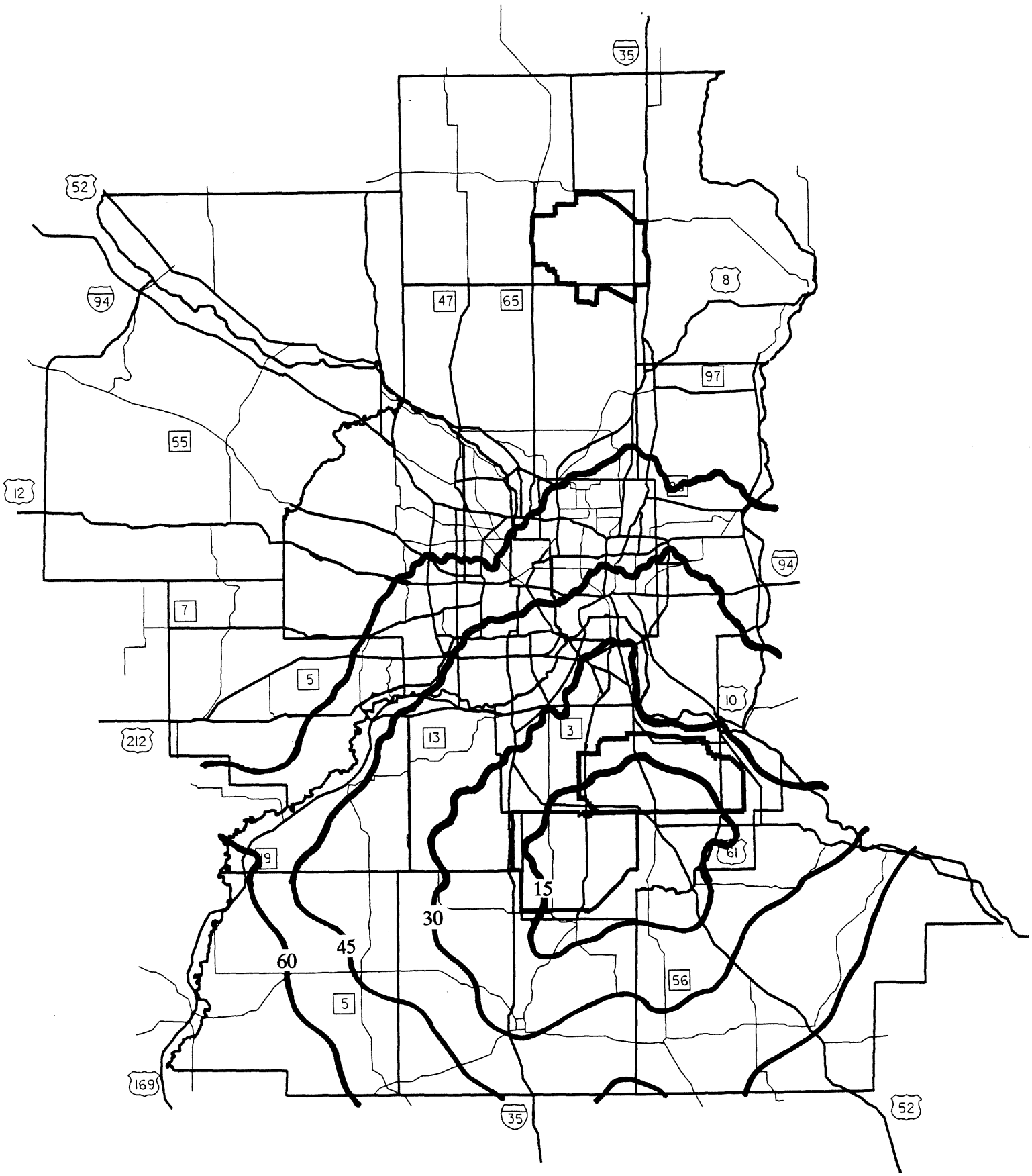

FIGURE 12B

DAKOTA - SCOTT SEARCH AREA
CASTLE ROCK TOWNSHIP TEST POINT
NORMAL DRIVE TIMES

METROPOLITAN COUNCIL

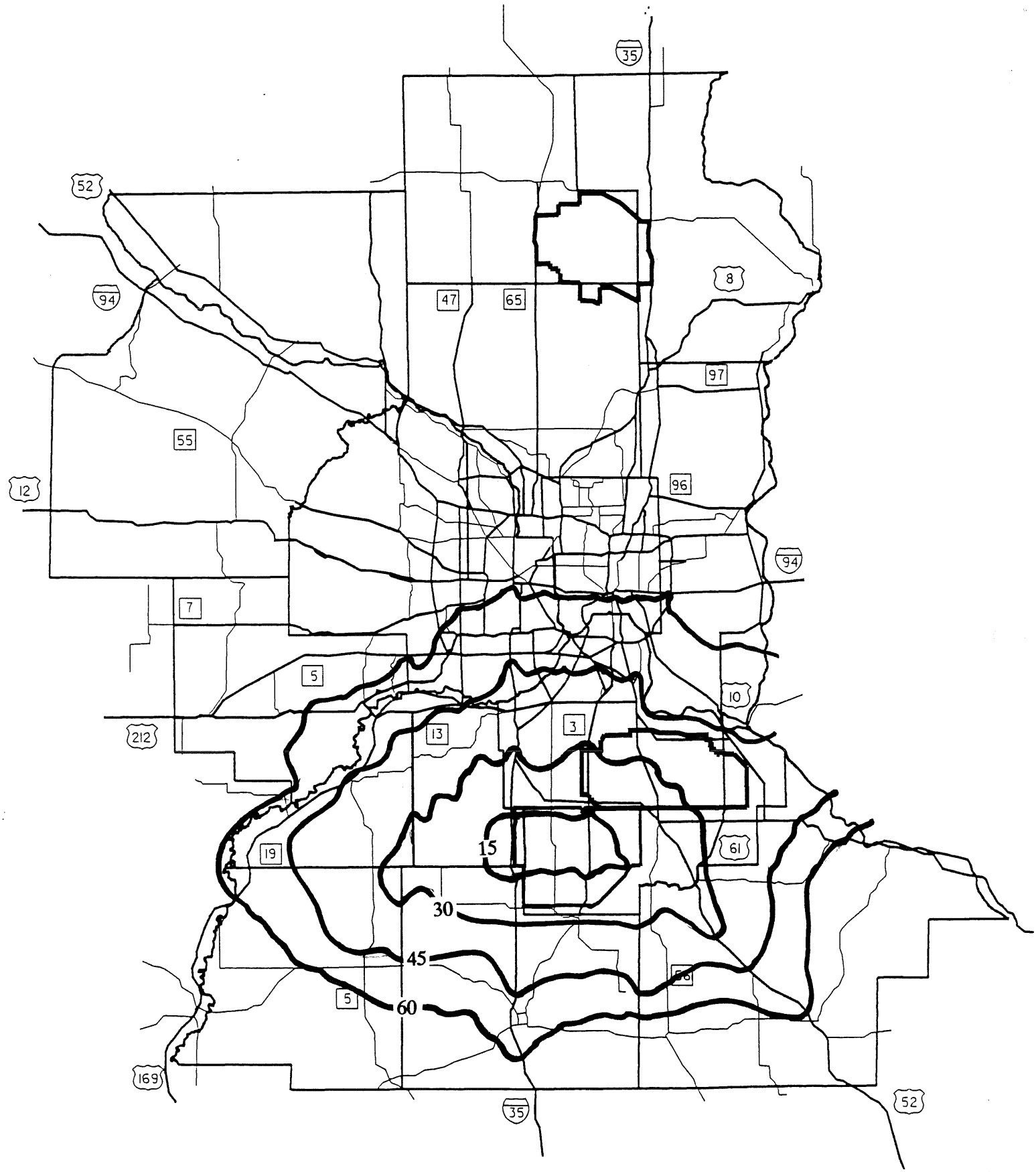

FIGURE 13A

METROPOLITAN COUNCIL

DAKOTA - SCOTT SEARCH AREA
EUREKA TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

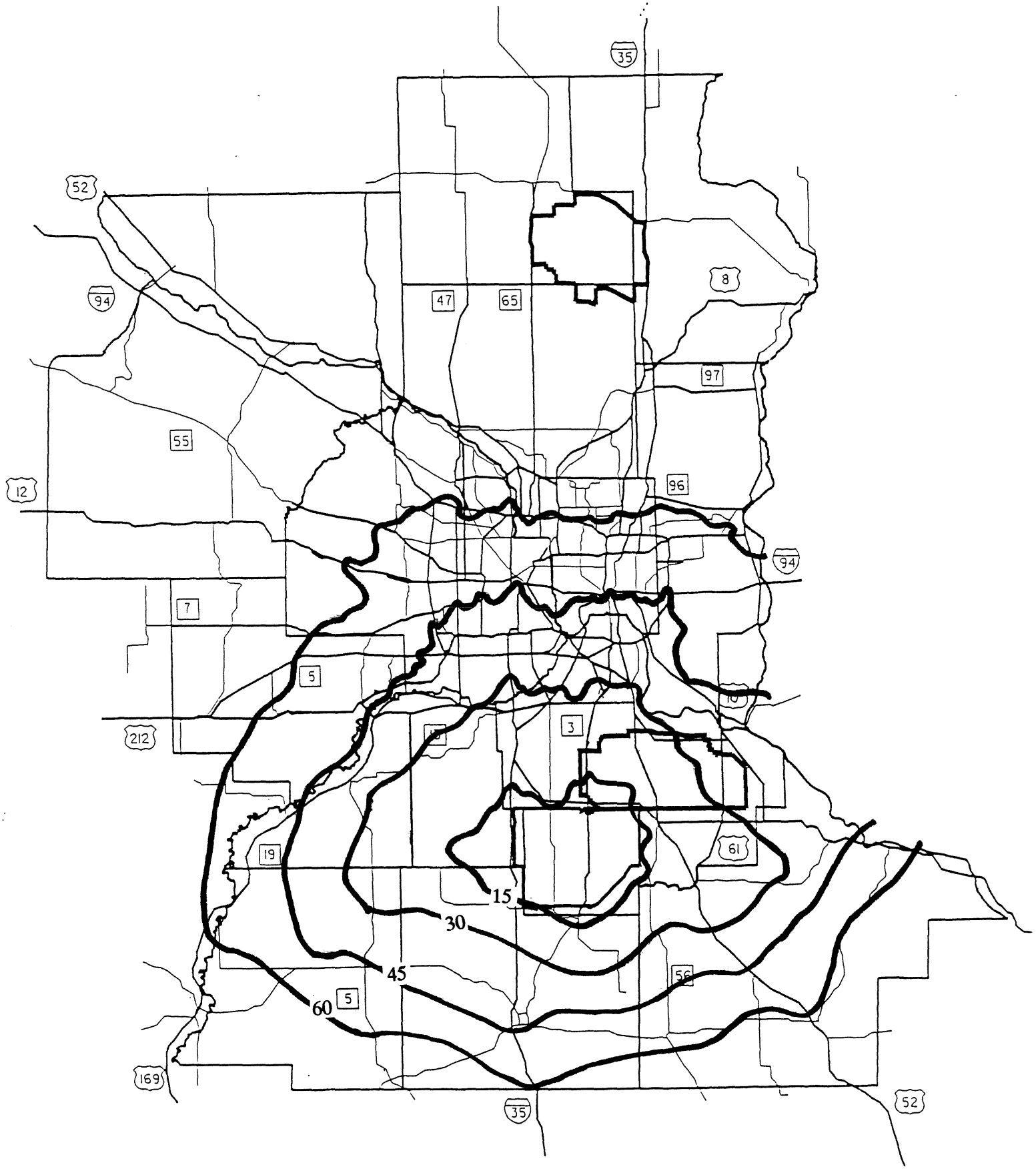

FIGURE 13B

METROPOLITAN COUNCIL

DAKOTA - SCOTT SEARCH AREA
EUREKA TOWNSHIP TEST POINT
NORMAL DRIVE TIMES

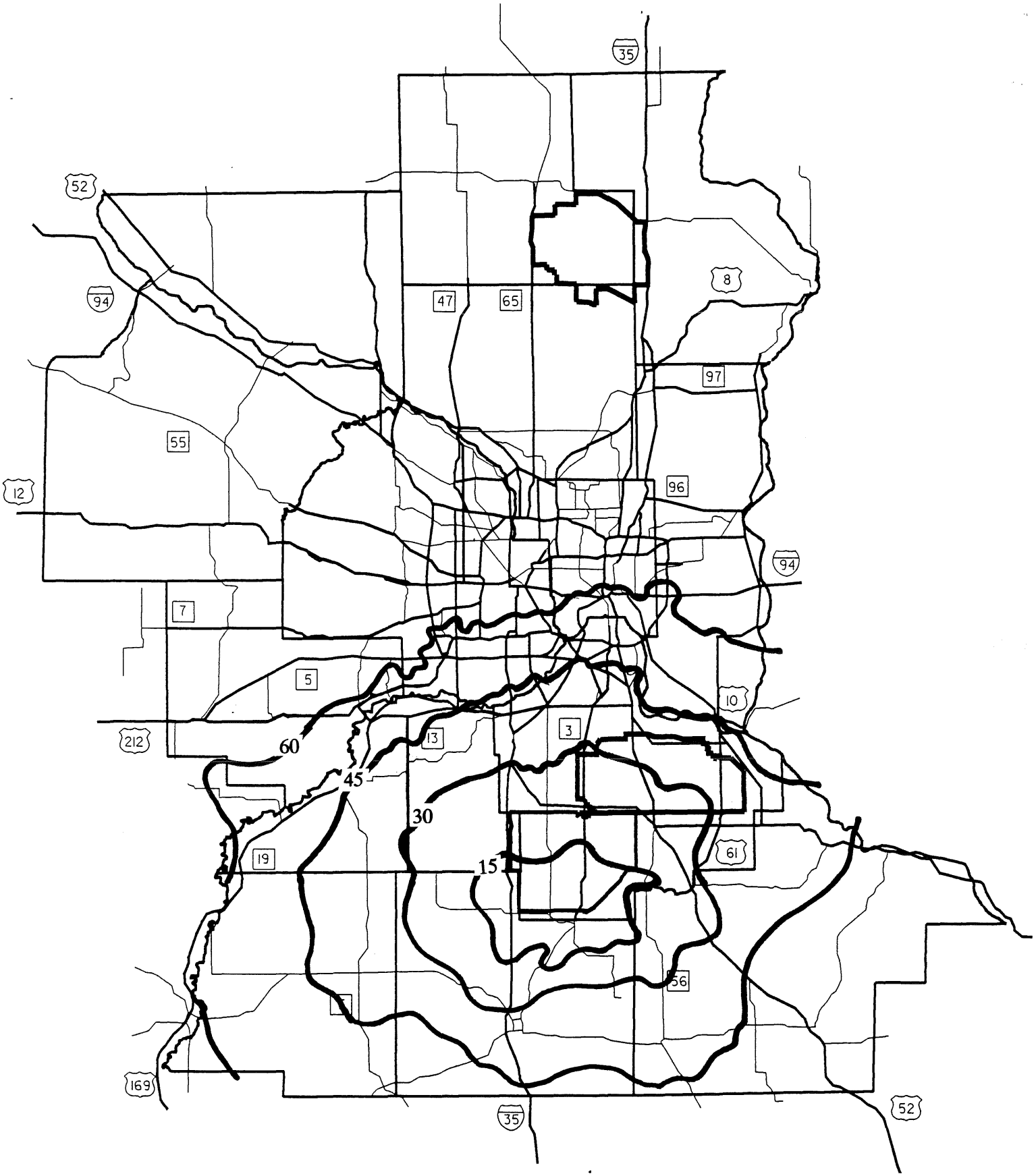

FIGURE 14A

METROPOLITAN COUNCIL

DAKOTA - SCOTT SEARCH AREA
GREENVALE TOWNSHIP TEST POINT
PM PEAK HOUR DRIVE TIMES

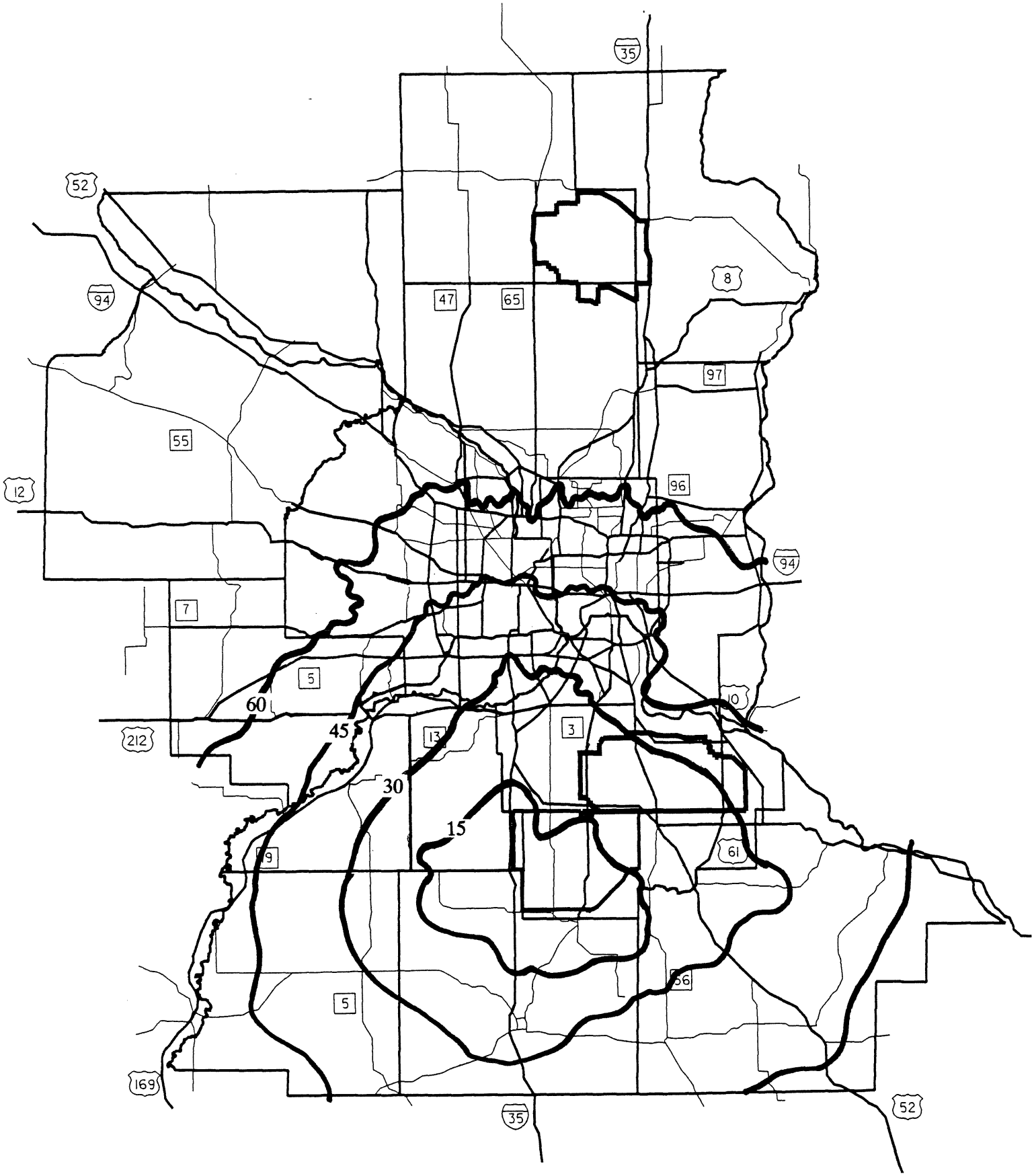

FIGURE 14B

METROPOLITAN COUNCIL

DAKOTA - SCOTT SEARCH AREA
GREENVALE TOWNSHIP TEST POINT
NORMAL DRIVE TIMES

Travel Distances

The analysis of highway distance, like that of travel time, shows that the southern two search areas are closer to the 30 major regional locations (Table 2) than the north search area. The average airport trip will increase significantly from the 16 mile average for MSP. The Dakota search area will add 12 to 17 miles to the average airport trip. The Dakota-Scott will require 20 to 22 additional miles. The northern search area will be 29 to 32 miles for the major locations.

Population and Employment Served

The Twin Cities Region is forecast to have 2.6 million residents and 1.6 million employees in 2010. The amount of the region's population, high income household quartile (the income group most likely to fly for business, personal business or pleasure), housing units, and employment served within 30, 45 and 60 minutes is shown in Table 3.

The Anoka-Isanti-Chisago search area can be reached by 50 to 60 percent of the region's residents in 60 minutes, but 15 to 22 percent within 45 minutes (see tables 4, 5 and 6). The Dakota search area would serve 75 to 92 percent of the population within 60 minutes, 40 to 61 percent within 45 minutes and 10 to 22 percent within 30 minutes (see tables 7, 8 and 9). The Dakota-Scott search area would serve about 75 percent of the region's population within 60 minutes and a third within 45 minutes (see table 10, 11 and 12).

The higher-income households are best served by the Dakota search area. From 80 to 95 percent would be within 60 minutes of reference points in the search area. Between half and two-thirds of the upper-income households would be within 45 minutes. Ten to 22 percent of the households would be within 30 minutes. The Dakota-Scott search area would serve 4 in 5 higher-income households within 60 minutes, 2 in 5 within 45 minutes and 1 in 5 within 30 minutes. The northern search area serve less than half of the upper-income households in 60 minutes, and 13 to 15 percent within 45 minutes.

The percent of housing units within 30, 45 or 60 minutes of the three search areas corresponds closely to the population figures.

Employment is more concentrated in the southern half of the region. Therefore, the southern search areas would serve the region's employment better. The percent of metropolitan employees within 30, 45 or 60 minutes of the middle of Dakota search area are 25 percent, 75 percent and 96 percent, respectively. The middle of the Dakota-Scott search area would reach 7 percent within 30 minutes, 35 percent within 45 minutes and 88 percent within 60 minutes. The middle reference point in the Anoka-Isanti-Chisago search area would serve within a 30-minute range 2 percent of the region's employees, 14 percent within 45 minutes and 62 percent within 60 minutes.

Congestion Points

The primary direction of travel for the three search areas is north-south, into and out of the center of the region. Therefore, the arterials and highways would have significant additional traffic each day. Figure 15 shows those highway links that will experience significant congestion (highway use expected to be at or more than twice design capacity). Table 14 shows for the number of links connecting reference points to the rest of the region where demand will create problems. Tables 15 through 24 specifically identify those links. The roads that would experience these problems are Hwy 77, Hwy 3, Hwy 55, and Hwy 52 in the south and to a limited extent, Hwy 65 in the north. Also, the

TABLE 2

TRAVEL DISTANCES TO SIGNIFICANT POINTS FROM THE CANDIDATE SEARCH AREAS

	ANOKA-ISANTI-CHISAGO			DAKOTA			DAKOTA-SCOTT			
POINT	ISANTI	OXFORD	NORTH BRANCH	EMPIRE	MARSHAN	VERMILLION	CASTLE ROCK	EUREKA	GREENVALE	MSP
MINNEAPOLIS CITY HALL	41	42	47	29	32	26	36	36	36	10
SAINT PAUL CITY HALL	44	42	44	22	25	19	30	32	36	8
MSP	47	48	50	22	25	19	28	28	33	---
MAPLEWOOD MALL	43	37	38	33	37	29	41	43	45	16
RIDGEDALE	46	47	52	35	43	36	41	40	40	19
ROSEDALE	38	39	43	32	35	28	37	41	42	11
SOUTHDALE	51	51	57	24	32	25	30	28	28	9
3M HEADQUARTERS	51	44	46	26	29	22	33	36	43	14
HONEYWELL HEADQUARTERS	44	45	50	28	31	25	34	34	34	8
U OF M SAINT PAUL	40	40	45	29	32	26	35	39	39	9
U OF M MINNEAPOLIS	42	43	48	29	32	26	37	37	37	9
I-35E AND I-494	50	51	53	17	22	16	24	28	28	5
I-35E AND I-694	41	35	36	31	34	27	38	41	44	16
NORTH I-35E/35W SPLIT	28	25	26	46	48	43	54	56	59	30
SOUTH I-35E/35W SPLIT	61	61	63	12	21	16	18	20	18	15
I-35W AND 62 COMMON SECTION	49	50	55	24	30	24	30	28	28	8
I-35W AND I-494	52	53	58	22	30	24	28	26	26	7
I-35W AND I-694	33	34	39	35	38	31	43	46	46	16
EAST I-494/694 SPLIT	55	49	50	23	27	20	31	33	41	16
WEST I-494/694 SPLIT	38	39	44	42	49	43	47	46	46	26
I-394 AND I-494	48	49	54	38	45	39	43	42	42	22
HWY 18 AND I-494	53	553	59	27	34	28	32	31	31	11
HWY 100 AND HWY 62	49	49	55	26	33	27	32	30	30	10
HWY 100 AND I-394	43	44	49	34	40	34	39	38	38	17
HWY 10 AND HWY 610	28	29	34	41	44	37	49	49	49	23
ANOKA	29	30	35	50	53	46	58	56	55	32
CHASKA	61	64	67	34	42	39	40	39	36	22
HASTINGS	72	66	67	13	8	8	19	24	28	23
SHAKOPEE	62	63	69	28	36	30	33	32	32	22
STILLWATER	48	41	43	35	32	32	43	45	52	28
AVERAGE	45	45	48	29	33	28	36	37	38	16

TABLE 3

MAJOR NEW AIRPORT METROPOLITAN ACCESSIBILITY
DEMOGRAPHICS TABULATED BY NORMAL TRAVEL TIME IN 2010

TOTAL 7 - COUNTY METROPOLITAN AREA PERCENT OF POPULATION SERVED

	Anoka - Isanti - Chisago			Dakota			Dakota- Scott			MSP
	Isanti	Oxford	North Branch	Empire	Marshan	Vermillion	Castle Rock	Eureka	Greenvale	
WITHIN										
30 Min.	3.4%	3.4%	1.6%	17.1%	10.3%	21.9%	8.9%	10.9%	9.8%	62.8%
45 Min.	20.2%	22.2%	15.3%	54.2%	40.4%	60.9%	34.2%	33.7%	35.2%	93.8%
60 Min.	56.4%	59.2%	50.5%	87.8%	74.8%	91.7%	70.5%	77.8%	77.6%	99.6%

TOTAL 7 - COUNTY METROPOLITAN AREA PERCENT OF HIGH INCOME QUARTILE HOUSING UNITS SERVED

	Anoka - Isanti - Chisago			Dakota			Dakota - Scott			MSP
	Isanti	Oxford	North Branch	Empire	Marshan	Vermillion	Castle Rock	Eureka	Greenvale	
WITHIN										
30 Min.	2.4%	2.4%	1.0%	17.6%	9.5%	21.5%	8.6%	11.6%	10.7%	69.8%
45 Min.	15.9%	18.3%	12.9%	57.2%	39.4%	64.6%	35.7%	39.2%	41.4%	96.3%
60 Min.	46.6%	48.2%	40.4%	91.3%	79.5%	94.7%	76.7%	82.8%	82.4%	99.8%

Demographics are those used for the Metropolitan Council's 2010F socioeconomic data.

TABLE 3 (CONTINUED)

MAJOR NEW AIRPORT METROPOLITAN ACCESSIBILITY
DEMOGRAPHICS TABULATED BY NORMAL TRAVEL TIME IN 2010

TOTAL 7 - COUNTY METROPOLITAN AREA PERCENT OF HOUSING UNITS SERVED

	Anoka -	Isanti -	Chisago	Dakota			Dakota - Scott			MSP
	Isanti	Oxford	North Branch	Empire	Marshan	Vermillion	Castle Rock	Eureka	Greenvale	
WITHIN										
30 Min.	2.8%	2.9%	1.4%	16.2%	9.2%	21.4%	8.0%	9.9%	8.9%	66.6%
45 Min.	18.2%	20.0%	13.5%	56.6%	40.7%	63.6%	33.9%	34.2%	36.4%	94.7%
60 Min.	57.3%	60.0%	49.9%	89.5%	77.4%	92.9%	73.1%	80.5%	80.3%	99.7%

TOTAL 7 - COUNTY METROPOLITAN AREA PERCENT OF TOTAL EMPLOYEES SERVED

	Anoka -	Isanti -	Chisago	Dakota			Dakota -Scott			MSP
	Isanti	Oxford	North Branch	Empire	Marshan	Vermillion	Castle Rock	Eureka	Greenvale	
WITHIN										
30 Min.	1.9%	1.8%	1.3%	16.3%	7.8%	24.9%	5.8%	7.4%	6.9%	77.9%
45 Min.	14.3%	14.4%	8.9%	61.4%	39.3%	73.8%	36.0%	34.6%	36.5%	97.6%
60 Min.	59.4%	62.1%	48.6%	94.4%	85.7%	96.2%	81.9%	87.5%	88.3%	99.8%

Demographics are those used for the Metropolitan Council's 2010F socioeconomic data.

TABLE 4

ISANTI TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	9,250	3,110	703	1,180	774	453	22,546	639
30 MINUTES	78,076	26,801	5,459	8,147	7,243	5,952	38,596	4,004
45 MINUTES	386,486	138,521	28,465	38,239	39,497	32,320	165,535	31,131
60 MINUTES	1,124,959	448,908	111,048	117,686	121,294	98,880	696,051	127,025
75 MINUTES	2,009,830	826,791	198,271	205,983	216,513	206,024	1,339,413	238,384
90 MINUTES	2,508,186	1,019,770	228,734	245,632	271,593	273,811	1,574,951	297,861
105 MINUTES	2,581,330	1,044,577	234,945	253,568	278,069	277,995	1,596,106	301,755
120 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	0	0	0	0	0	0	21,796	594
20 MILES	28,427	9,373	1,934	3,384	2,736	1,319	25,846	1,167
30 MILES	173,935	58,585	10,746	16,935	17,095	13,809	69,101	12,653
40 MILES	583,533	217,039	51,071	58,495	61,440	46,033	234,703	47,630
50 MILES	1,317,114	527,194	124,352	133,513	142,672	126,657	806,610	144,784
60 MILES	2,044,066	844,274	200,319	207,034	219,154	217,767	1,365,691	242,536
70 MILES	2,471,083	1,006,395	226,514	242,487	267,538	269,856	1,559,771	295,296
80 MILES	2,576,788	1,043,078	234,433	253,129	277,746	277,770	1,595,437	301,683
90 MILES	2,595,080	1,049,227	236,241	255,203	279,156	278,627	1,599,156	302,222
100 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	9,250	3,110	703	1,180	774	453	22,546	639
30 MINUTES	88,115	29,945	5,935	9,074	8,222	6,714	39,096	4,054
45 MINUTES	524,467	190,837	39,139	50,311	56,912	44,475	238,263	39,878
60 MINUTES	1,465,984	601,881	159,437	158,474	154,019	129,951	959,881	163,891
75 MINUTES	2,271,302	931,471	213,018	225,614	246,149	246,690	1,484,841	274,012
90 MINUTES	2,547,479	1,033,304	231,687	250,096	275,268	276,253	1,589,162	300,728
105 MINUTES	2,598,230	1,050,447	236,712	255,471	279,477	278,787	1,600,756	302,580
120 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	0	0	0	0	0	0	21,796	594
20 MILES	28,427	9,373	1,934	3,384	2,736	1,319	25,846	1,167
30 MILES	233,921	80,679	15,294	22,902	23,367	19,116	93,539	16,352
40 MILES	797,883	301,917	69,107	79,316	86,879	66,615	372,994	72,550
50 MILES	1,756,206	730,840	183,816	186,390	188,507	172,127	1,150,969	212,622
60 MILES	2,287,160	941,367	214,230	227,334	248,495	251,308	1,496,118	276,103
70 MILES	2,535,511	1,029,160	230,776	249,218	274,189	274,977	1,583,096	299,375
80 MILES	2,592,350	1,048,597	236,065	254,910	279,091	278,531	1,599,106	302,354
90 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	62
PM PEAK DISTANCE	50
OFF PEAK DRIVE TIME	58
OFF PEAK DISTANCE	45

TABLE 5

OXFORD TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	9,250	3,110	703	1,180	774	453	22,546	639
30 MINUTES	89,616	30,330	6,421	9,142	7,929	6,838	38,292	3,901
45 MINUTES	543,800	198,931	40,339	52,082	58,256	48,254	228,598	44,011
60 MINUTES	1,515,485	621,243	164,773	164,668	160,161	131,641	989,564	168,468
75 MINUTES	2,281,723	934,038	214,003	226,507	247,158	246,370	1,481,697	276,179
90 MINUTES	2,546,471	1,032,533	231,735	249,571	274,925	276,302	1,588,631	300,203
105 MINUTES	2,597,230	1,050,147	236,569	255,399	279,416	278,763	1,600,656	302,570
120 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	0	0	0	0	0	0	21,796	594
20 MILES	24,050	8,810	2,365	2,578	2,192	1,675	29,446	2,373
30 MILES	219,037	75,119	14,120	20,929	22,234	17,836	83,564	12,988
40 MILES	789,382	299,286	66,959	78,350	85,970	68,007	359,371	75,847
50 MILES	1,724,171	713,486	182,187	184,056	184,461	162,782	1,089,061	188,969
60 MILES	2,338,284	956,483	217,041	230,257	253,767	255,418	1,499,823	279,513
70 MILES	2,547,106	1,033,052	231,705	250,061	275,022	276,264	1,589,437	300,609
80 MILES	2,584,580	1,045,577	235,122	253,911	278,335	278,209	1,596,206	301,765
90 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	9,250	3,110	703	1,180	774	453	22,546	639
30 MINUTES	89,616	30,330	6,421	9,142	7,929	6,838	38,292	3,901
45 MINUTES	575,702	210,334	42,412	54,415	62,609	50,898	239,323	46,466
60 MINUTES	1,537,990	630,604	166,944	166,608	162,573	134,479	1,003,036	170,125
75 MINUTES	2,309,773	945,768	215,566	228,570	250,264	251,368	1,490,758	277,421
90 MINUTES	2,549,159	1,033,324	231,907	249,852	275,136	276,429	1,588,762	300,213
105 MINUTES	2,598,230	1,050,447	236,712	255,471	279,477	278,787	1,600,756	302,580
120 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	0	0	0	0	0	0	21,796	594
20 MILES	29,450	10,510	2,651	3,111	2,801	1,947	29,696	2,451
30 MILES	213,752	73,085	14,271	20,895	21,030	16,889	84,067	13,167
40 MILES	828,902	313,082	70,102	82,297	90,120	70,563	366,907	77,894
50 MILES	1,755,211	727,333	183,028	186,487	188,302	169,516	1,117,772	195,915
60 MILES	2,359,473	965,190	218,615	232,504	255,780	258,291	1,504,432	279,959
70 MILES	2,549,591	1,033,833	231,864	250,308	275,263	276,398	1,589,531	300,633
80 MILES	2,589,480	1,047,427	235,583	254,668	278,772	278,404	1,597,606	302,023
90 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	57
PM PEAK DISTANCE	45
OFF PEAK DRIVE TIME	56
OFF PEAK DISTANCE	45

TABLE 6

NORTH BRANCH TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	0	0	0	0	0	0	21,796	594
30 MINUTES	35,925	12,550	3,062	3,574	3,264	2,650	30,339	2,445
45 MINUTES	279,448	99,318	19,282	25,243	29,131	25,662	94,371	17,799
60 MINUTES	1,173,644	473,205	118,589	127,342	126,156	101,118	668,734	122,418
75 MINUTES	2,043,206	837,532	202,154	210,830	221,536	203,012	1,337,346	250,082
90 MINUTES	2,478,743	1,007,042	225,691	242,384	268,738	270,229	1,562,105	296,050
105 MINUTES	2,571,381	1,041,133	233,883	252,350	277,266	277,634	1,593,931	301,347
120 MINUTES	2,598,230	1,050,447	236,712	255,471	279,477	278,787	1,600,756	302,580
135 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	0	0	0	0	0	0	21,796	594
20 MILES	9,250	3,110	703	1,180	774	453	22,546	639
30 MILES	63,020	21,614	5,026	6,551	5,915	4,122	33,133	3,038
40 MILES	438,794	157,288	30,791	40,209	46,593	39,695	166,021	33,473
50 MILES	1,322,753	533,743	135,627	143,292	140,931	113,893	856,422	151,802
60 MILES	2,118,969	869,532	204,843	215,369	230,606	218,714	1,394,741	260,862
70 MILES	2,495,261	1,014,151	227,183	244,461	270,073	272,434	1,568,155	296,602
80 MILES	2,570,980	1,041,117	233,894	252,461	277,213	277,549	1,594,056	301,442
90 MILES	2,597,230	1,050,147	236,569	255,399	279,416	278,763	1,600,656	302,570
100 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	0	0	0	0	0	0	21,796	594
30 MINUTES	42,102	14,613	3,379	4,492	3,840	2,902	30,789	2,595
45 MINUTES	396,829	141,458	27,439	35,978	41,996	36,045	151,247	31,551
60 MINUTES	1,311,858	524,425	130,687	140,297	140,849	112,592	787,807	134,756
75 MINUTES	2,150,329	882,381	206,065	216,565	233,458	226,293	1,439,011	263,487
90 MINUTES	2,536,045	1,029,038	230,678	248,486	274,179	275,695	1,586,670	300,007
105 MINUTES	2,584,580	1,045,577	235,122	253,911	278,335	278,209	1,596,206	301,765
120 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	0	0	0	0	0	0	21,796	594
20 MILES	9,250	3,110	703	1,180	774	453	22,546	639
30 MILES	80,949	27,166	5,892	8,271	7,651	5,352	34,186	3,308
40 MILES	506,063	182,166	36,328	47,296	53,786	44,756	189,323	38,953
50 MILES	1,460,043	598,285	157,264	158,473	154,166	128,382	955,940	163,776
60 MILES	2,166,054	888,152	207,150	217,655	235,052	228,295	1,440,733	263,225
70 MILES	2,521,528	1,024,473	229,654	247,248	272,889	274,682	1,583,201	299,551
80 MILES	2,579,280	1,043,887	234,724	253,327	277,916	277,920	1,595,956	301,742
90 MILES	2,598,230	1,050,447	236,712	255,471	279,477	278,787	1,600,756	302,580
100 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	62
PM PEAK DISTANCE	50
OFF PEAK DRIVE TIME	60
OFF PEAK DISTANCE	48

TABLE 7

EMPIRE TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	20,627	7,289	1,661	2,143	2,004	1,481	32,646	2,223
30 MINUTES	339,626	129,468	24,125	32,718	38,071	34,554	179,944	38,614
45 MINUTES	1,277,624	535,326	126,707	131,469	137,016	140,134	854,167	164,394
60 MINUTES	2,183,236	904,038	205,526	214,860	237,726	245,926	1,487,465	279,861
75 MINUTES	2,562,622	1,039,358	234,238	251,654	276,372	277,094	1,595,408	301,648
90 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	25,243	8,970	1,960	2,662	2,512	1,836	34,796	2,693
20 MILES	289,136	109,284	18,912	27,797	33,084	29,491	152,391	30,906
30 MILES	1,137,830	474,023	111,843	119,821	123,767	118,592	857,176	167,587
40 MILES	1,956,502	817,900	190,849	194,933	211,866	220,252	1,371,752	261,161
50 MILES	2,488,610	1,014,505	227,863	244,416	269,677	272,549	1,583,347	300,035
60 MILES	2,590,643	1,048,018	236,145	254,729	278,704	278,440	1,597,400	302,280
70 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	45,979	16,139	3,320	4,740	4,587	3,492	38,346	4,101
30 MINUTES	443,798	170,469	31,034	39,918	50,571	48,946	261,770	62,178
45 MINUTES	1,409,770	594,189	138,186	143,658	152,884	159,461	982,477	190,107
60 MINUTES	2,281,636	940,742	213,831	224,276	248,201	254,434	1,511,599	288,117
75 MINUTES	2,572,088	1,042,500	235,042	252,821	277,064	277,573	1,596,810	302,128
90 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	62,404	23,039	4,495	6,042	6,911	5,591	53,820	8,960
20 MILES	387,841	147,858	24,840	34,039	44,919	44,060	226,394	56,498
30 MILES	1,294,727	546,715	129,533	133,791	139,094	144,297	854,942	165,307
40 MILES	2,096,932	872,799	200,673	207,033	227,642	237,451	1,462,294	274,968
50 MILES	2,521,777	1,026,045	231,023	247,661	272,818	274,543	1,590,881	300,955
60 MILES	2,591,230	1,048,147	236,186	254,764	278,739	278,458	1,598,206	302,280
70 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	44
PM PEAK DISTANCE	31
OFF PEAK DRIVE TIME	42
OFF PEAK DISTANCE	29

TABLE 8

MARSHAN TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	21,190	7,333	1,735	2,008	1,821	1,769	31,431	2,469
30 MINUTES	73,020	23,490	5,352	6,185	6,440	5,513	44,846	4,702
45 MINUTES	297,958	105,547	18,364	25,128	32,787	29,268	116,640	28,598
60 MINUTES	872,955	345,703	67,210	79,889	96,720	101,884	567,762	115,436
75 MINUTES	1,856,287	778,795	179,785	181,183	201,048	216,779	1,335,238	249,304
90 MINUTES	2,486,080	1,012,722	227,930	243,240	269,489	272,063	1,572,062	297,927
105 MINUTES	2,588,330	1,047,247	236,025	254,428	278,490	278,304	1,598,106	302,280
120 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	18,670	6,304	1,416	1,608	1,651	1,629	27,082	1,527
20 MILES	49,926	16,354	3,955	4,316	4,299	3,784	39,627	3,616
30 MILES	265,353	92,611	16,862	22,354	28,337	25,058	94,161	20,268
40 MILES	648,420	248,885	45,456	57,364	73,167	72,898	322,272	73,701
50 MILES	1,512,270	638,954	152,806	155,525	163,032	167,591	1,127,821	210,179
60 MILES	2,228,957	922,073	211,653	219,596	241,642	249,182	1,496,452	284,566
70 MILES	2,540,305	1,032,425	232,763	249,581	274,338	275,743	1,592,809	301,637
80 MILES	2,591,230	1,048,147	236,186	254,764	278,739	278,458	1,598,206	302,280
90 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	24,320	8,330	1,981	2,282	2,081	1,986	32,131	2,530
30 MINUTES	266,872	96,788	17,037	23,913	29,230	26,608	134,387	25,680
45 MINUTES	1,050,627	427,448	94,235	107,799	115,485	109,929	628,412	131,027
60 MINUTES	1,945,132	812,811	188,806	192,129	210,099	221,777	1,372,591	258,665
75 MINUTES	2,528,702	1,027,965	231,449	247,826	273,376	275,314	1,590,032	300,769
90 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	24,860	8,503	2,020	2,311	2,137	2,035	32,331	2,530
20 MILES	221,757	78,351	13,653	18,895	23,933	21,870	89,889	17,866
30 MILES	883,922	358,729	79,436	90,516	96,780	91,997	493,646	99,723
40 MILES	1,727,933	730,150	175,187	176,331	188,609	190,023	1,230,973	230,195
50 MILES	2,367,543	970,418	218,918	231,522	257,330	262,648	1,538,990	293,714
60 MILES	2,579,320	1,044,407	235,196	253,545	277,771	277,895	1,594,806	301,966
70 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	65
PM PEAK DISTANCE	46
OFF PEAK DRIVE TIME	48
OFF PEAK DISTANCE	33

TABLE 9

VERMILLION TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	32,206	11,653	2,401	2,829	3,152	3,271	38,181	3,406
30 MINUTES	409,891	156,413	28,475	36,715	46,227	44,996	272,353	59,362
45 MINUTES	1,369,454	580,784	137,885	141,183	148,046	153,670	1,041,922	194,521
60 MINUTES	2,300,594	947,555	214,493	226,171	250,058	256,833	1,517,122	289,047
75 MINUTES	2,577,843	1,043,968	235,266	253,302	277,544	277,856	1,596,770	302,150
90 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	27,947	9,992	2,095	2,562	2,716	2,619	36,981	3,136
20 MILES	364,855	137,726	23,752	32,576	41,593	39,805	186,825	39,852
30 MILES	1,222,784	518,876	126,466	126,879	131,748	133,783	920,291	179,822
40 MILES	1,999,688	835,628	192,830	198,908	217,805	226,085	1,407,193	269,018
50 MILES	2,502,931	1,018,822	228,962	245,667	271,120	273,073	1,582,771	298,849
60 MILES	2,594,443	1,049,218	236,472	255,062	279,090	278,594	1,597,500	302,320
70 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	44,628	16,291	3,376	3,794	4,356	4,765	41,307	4,136
30 MINUTES	570,404	224,439	45,432	54,899	64,059	60,049	398,977	78,619
45 MINUTES	1,582,581	668,706	155,489	159,406	173,740	180,071	1,181,988	221,564
60 MINUTES	2,381,856	975,679	219,411	233,111	259,123	264,034	1,540,251	294,678
75 MINUTES	2,587,080	1,046,847	235,936	254,258	278,391	278,262	1,598,056	302,270
90 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	42,976	15,616	3,319	3,709	4,169	4,419	41,157	4,006
20 MILES	455,579	174,765	33,308	41,056	50,995	49,406	326,008	68,685
30 MILES	1,422,499	603,447	147,490	146,718	153,319	155,920	1,044,032	198,921
40 MILES	2,157,179	894,493	203,815	213,454	235,424	241,800	1,459,931	281,908
50 MILES	2,528,928	1,028,005	231,268	247,923	273,479	275,335	1,589,725	300,730
60 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	43
PM PEAK DISTANCE	30
OFF PEAK DRIVE TIME	40
OFF PEAK DISTANCE	33

TABLE 10

CASTLE ROCK TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	13,260	4,590	1,291	1,577	993	729	26,146	1,237
30 MINUTES	220,137	78,934	13,348	19,051	24,032	22,503	90,263	18,920
45 MINUTES	661,144	259,839	48,821	60,514	73,859	76,645	464,159	96,811
60 MINUTES	1,627,794	686,229	155,835	160,121	177,951	192,322	1,225,976	225,996
75 MINUTES	2,424,089	990,820	222,885	237,043	263,607	267,285	1,568,144	296,824
90 MINUTES	2,585,053	1,046,084	235,869	253,846	278,163	278,206	1,597,756	302,130
105 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	9,310	3,270	931	1,182	693	464	25,596	1,139
20 MILES	154,206	54,684	10,212	13,534	16,044	14,894	75,070	16,027
30 MILES	522,935	202,169	36,173	46,915	59,286	59,795	295,238	66,497
40 MILES	1,327,800	563,611	133,384	132,784	144,108	153,335	1,056,436	195,823
50 MILES	2,194,368	909,764	207,690	216,432	239,641	246,001	1,496,158	282,565
60 MILES	2,494,795	1,016,352	229,332	244,820	269,922	272,278	1,583,088	299,095
70 MILES	2,588,853	1,047,384	236,170	254,266	278,554	278,394	1,600,256	302,390
80 MILES	2,595,030	1,049,447	236,487	255,184	279,130	278,646	1,600,706	302,540
90 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	15,790	5,450	1,652	1,845	1,135	818	26,546	1,297
30 MINUTES	232,431	83,781	13,864	20,006	25,826	24,085	102,177	24,125
45 MINUTES	888,063	356,587	73,644	85,993	97,521	99,429	576,184	117,351
60 MINUTES	1,831,256	768,235	177,096	179,150	198,215	213,774	1,310,461	247,086
75 MINUTES	2,501,787	1,018,634	228,778	245,651	270,976	273,229	1,585,938	300,429
90 MINUTES	2,595,030	1,049,347	236,513	255,097	279,125	278,612	1,598,306	302,320
105 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	13,010	4,570	1,389	1,600	930	651	26,296	1,241
20 MILES	166,501	58,924	10,766	14,653	17,484	16,021	76,040	16,261
30 MILES	592,225	228,982	41,241	52,449	66,602	68,690	348,685	83,409
40 MILES	1,585,386	673,999	158,141	160,916	172,028	182,914	1,162,635	218,204
50 MILES	2,311,924	952,612	216,680	227,469	251,027	257,436	1,528,685	290,167
60 MILES	2,557,648	1,037,877	233,990	251,165	275,866	276,856	1,595,530	301,978
70 MILES	2,595,030	1,049,347	236,513	255,097	279,125	278,612	1,598,306	302,320
80 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	53
PM PEAK DISTANCE	38
OFF PEAK DRIVE TIME	50
OFF PEAK DISTANCE	36

TABLE 11

EUREKA TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	13,800	4,840	1,504	1,535	1,125	676	25,946	1,113
30 MINUTES	240,111	88,506	13,816	19,630	27,527	27,533	117,638	27,762
45 MINUTES	787,729	321,578	63,110	72,056	86,709	99,703	475,892	104,348
60 MINUTES	1,870,244	789,297	183,062	187,845	203,917	214,473	1,326,397	248,688
75 MINUTES	2,456,069	1,001,878	225,164	240,747	266,865	269,102	1,566,396	296,990
90 MINUTES	2,577,815	1,044,219	235,329	253,481	277,641	277,768	1,597,546	302,199
105 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	15,800	5,590	1,574	1,715	1,505	796	27,746	1,463
20 MILES	141,147	50,575	8,844	12,469	15,447	13,815	76,570	18,665
30 MILES	557,330	218,532	36,849	48,525	64,051	69,107	380,637	89,624
40 MILES	1,503,178	641,493	153,276	153,926	161,379	172,912	1,145,808	208,852
50 MILES	2,285,329	942,191	213,802	223,751	249,261	255,377	1,510,689	286,998
60 MILES	2,547,304	1,034,509	233,192	250,392	274,977	275,948	1,594,857	301,884
70 MILES	2,595,030	1,049,447	236,487	255,184	279,130	278,646	1,600,706	302,540
80 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	13,800	4,840	1,504	1,535	1,125	676	25,946	1,113
30 MINUTES	282,353	103,575	16,541	22,863	31,859	32,312	128,157	29,407
45 MINUTES	874,753	358,896	72,327	81,502	95,816	109,251	554,370	115,860
60 MINUTES	2,020,862	845,897	194,730	200,808	219,360	230,999	1,400,376	263,317
75 MINUTES	2,507,417	1,020,896	230,565	246,369	271,228	272,734	1,588,630	299,975
90 MINUTES	2,591,230	1,048,147	236,186	254,764	278,739	278,458	1,598,206	302,280
105 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	15,800	5,590	1,574	1,715	1,505	796	11,105	1,463
20 MILES	144,346	51,361	9,175	12,893	15,557	13,736	75,042	17,687
30 MILES	574,342	225,089	38,986	50,247	65,586	70,270	390,412	91,128
40 MILES	1,549,225	658,768	153,679	156,716	167,028	181,345	1,157,187	213,112
50 MILES	2,288,106	944,872	215,394	224,871	248,865	255,742	1,517,690	288,093
60 MILES	2,551,774	1,035,880	233,547	250,716	275,359	276,258	1,595,818	302,065
70 MILES	2,595,030	1,049,447	236,487	255,184	279,130	278,646	1,600,706	302,540
80 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	50
PM PEAK DISTANCE	37
OFF PEAK DRIVE TIME	49
OFF PEAK DISTANCE	37

TABLE 12

GREENVALE TOWNSHIP TEST POINT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	4,530	1,500	499	415	387	199	22,296	661
30 MINUTES	145,230	52,880	9,000	11,716	15,719	16,445	80,146	15,680
45 MINUTES	590,621	229,407	36,658	47,229	65,471	80,049	399,889	92,200
60 MINUTES	1,500,286	628,614	136,252	145,282	162,757	184,323	1,033,104	196,332
75 MINUTES	2,299,481	947,275	216,153	226,490	249,698	254,934	1,506,698	283,189
90 MINUTES	2,570,619	1,041,481	234,855	252,463	276,817	277,346	1,597,106	302,157
105 MINUTES	2,595,030	1,049,347	236,513	255,097	279,125	278,612	1,598,306	302,320
120 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	4,530	1,500	499	415	387	199	22,296	661
20 MILES	72,179	24,886	4,640	7,205	7,294	5,747	50,699	9,598
30 MILES	463,704	177,392	28,883	38,462	51,971	58,076	286,738	64,744
40 MILES	1,180,222	492,154	99,353	109,390	128,760	154,651	765,069	149,247
50 MILES	2,063,435	861,133	197,869	205,530	223,566	234,168	1,412,356	265,252
60 MILES	2,446,438	999,339	226,743	241,068	264,850	266,678	1,569,502	294,734
70 MILES	2,576,580	1,043,337	235,197	253,051	277,356	277,733	1,597,206	302,157
80 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	9,517	3,050	834	1,008	764	444	24,346	1,169
30 MINUTES	253,763	93,956	15,067	20,436	28,688	29,765	119,964	28,657
45 MINUTES	915,634	382,824	79,248	86,846	101,370	115,360	585,098	121,862
60 MINUTES	2,016,030	844,242	195,001	200,803	218,782	229,656	1,413,042	264,909
75 MINUTES	2,519,385	1,024,592	231,089	247,501	272,425	273,577	1,589,583	300,245
90 MINUTES	2,591,230	1,048,147	236,186	254,764	278,739	278,458	1,598,206	302,280
105 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	6,330	2,100	718	619	503	260	22,546	661
20 MILES	70,312	24,273	4,525	7,070	7,136	5,542	50,699	9,598
30 MILES	488,637	188,026	30,828	40,513	55,801	60,884	347,422	80,795
40 MILES	1,388,264	596,583	141,597	139,318	147,853	167,815	1,113,332	204,400
50 MILES	2,243,464	928,668	211,407	221,651	244,659	250,951	1,499,375	284,048
60 MILES	2,533,221	1,029,013	231,804	249,235	273,687	274,287	1,590,817	300,595
70 MILES	2,595,030	1,049,447	236,487	255,184	279,130	278,646	1,600,706	302,540
80 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	57
PM PEAK DISTANCE	41
OFF PEAK DRIVE TIME	49
OFF PEAK DISTANCE	38

TABLE 13

MINNEAPOLIS - SAINT PAUL INTERNATIONAL AIRPORT
2010 SOCIO-ECONOMIC DATA

BY	TOTAL POPULATION	TOTAL HOUSING UNITS	LOW INCOME QUARTILE	LOW-MOD INCOME QUARTILE	UPPER-MOD INCOME QUARTILE	HIGH INCOME QUARTILE	TOTAL EMPLOYEES	RETAIL EMPLOYEES
PM PEAK DRIVE TIME								
WITHIN								
15 MINUTES	381,826	165,339	35,309	39,878	44,593	45,559	322,909	67,701
30 MINUTES	1,614,880	692,877	162,000	161,995	176,403	192,479	1,235,274	229,308
45 MINUTES	2,432,510	994,021	222,578	238,584	264,802	268,057	1,562,009	295,523
60 MINUTES	2,588,330	1,047,247	236,025	254,428	278,490	278,304	1,598,106	302,280
75 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
PM PEAK DISTANCE								
WITHIN								
10 MILES	552,006	246,486	65,044	63,544	60,804	57,094	657,746	113,070
20 MILES	1,707,197	730,267	170,577	172,155	189,162	198,373	1,273,192	241,340
30 MILES	2,402,175	982,576	219,307	235,434	262,353	265,482	1,538,022	292,876
40 MILES	2,577,643	1,043,638	234,990	253,119	277,636	277,893	1,595,620	301,957
50 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DRIVE TIME								
WITHIN								
15 MINUTES	401,568	174,611	38,116	42,380	46,538	47,577	334,216	70,823
30 MINUTES	1,631,614	699,442	162,858	163,292	178,746	194,546	1,246,614	233,028
45 MINUTES	2,436,766	995,198	222,842	238,748	265,150	268,458	1,562,602	295,958
60 MINUTES	2,588,330	1,047,247	236,025	254,428	278,490	278,304	1,598,106	302,280
75 MINUTES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580
OFF PEAK DISTANCE								
WITHIN								
10 MILES	566,395	254,263	67,929	65,386	62,176	58,772	651,937	112,138
20 MILES	1,705,691	729,867	171,037	172,322	187,550	198,958	1,276,702	242,845
30 MILES	2,387,346	978,365	219,298	234,486	260,083	264,498	1,537,209	293,275
40 MILES	2,579,043	1,044,038	235,090	253,264	277,751	277,933	1,595,670	301,957
50 MILES	2,598,830	1,050,647	236,814	255,517	279,516	278,800	1,600,806	302,580

	AVERAGE
PM PEAK DRIVE TIME	35
PM PEAK DISTANCE	15
OFF PEAK DRIVE TIME	25
OFF PEAK DISTANCE	15

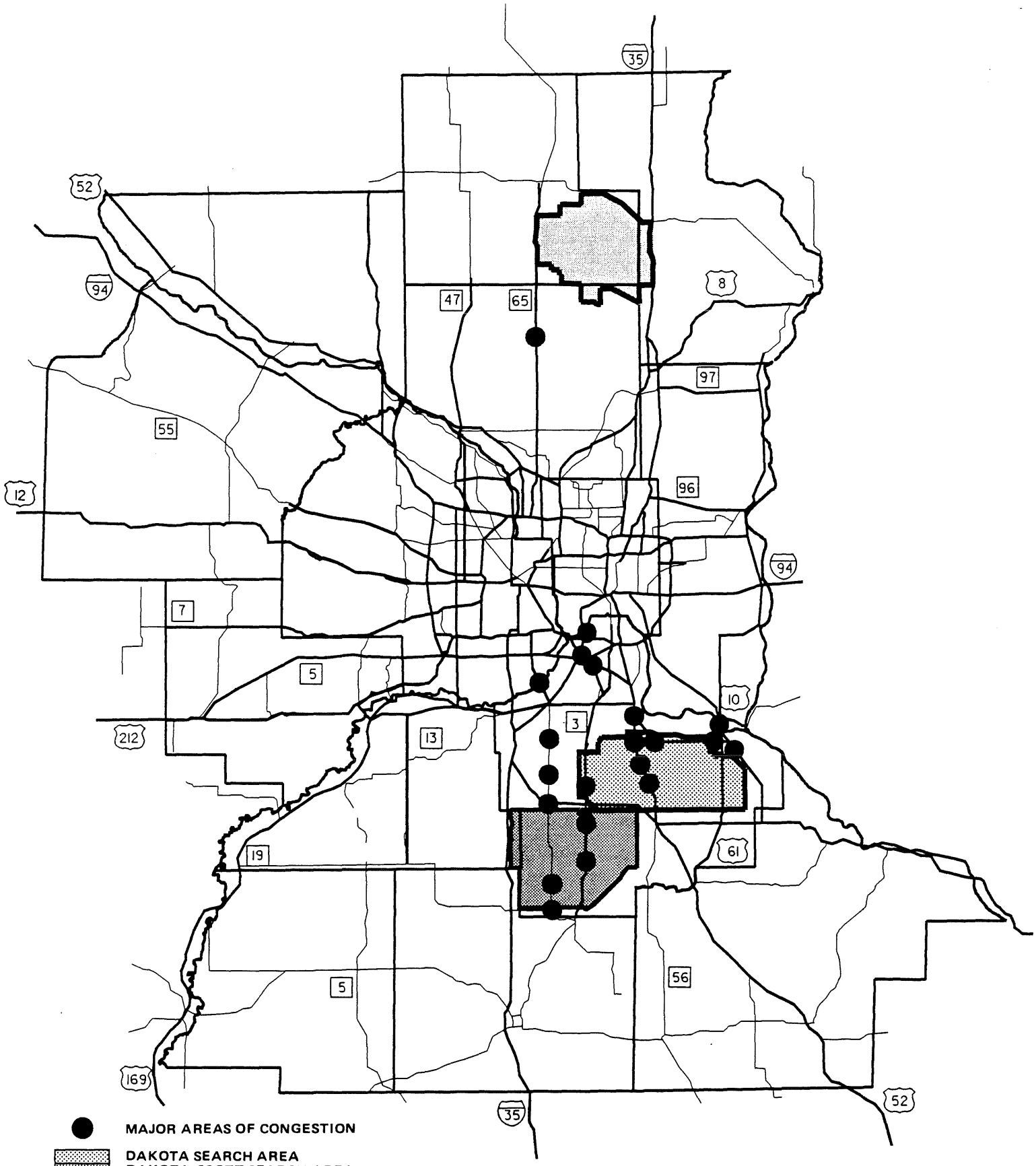

FIGURE 15

Source: Metropolitan Council

METROPOLITAN COUNCIL

Highway Congestion Areas For Airport Traffic
(2010 Highway System)

TABLE 14

LINKS WITH MODELLED CONGESTION

Test Point	Volume/Capacity $\geq$ 2	Volume/Capacity =1.75 to 2
Isanti	1	9
Oxford	1	3
North Branch	1	4
Empire	9	6
Marshan	14	7
Vermillion	8	6
Castle Rock	15	7
Greenvale	3	14
Eureka	11	11
Minneapolis - Saint Paul International Airport	6	3

TABLE 15

Links With High Volume/Capacity Ratios*
Isanti Township Test Point

Road	Between	No Airport Scenario	MSP	Isanti Township
U. S. 65	219 Ave. NE & Viking Blvd	1.72	1.72	2.89
Hwy 55	Hwy 5 & GSA Bldg	1.86	2.32	1.91
Hwy 55	Hwy 62 & 54th Ave	1.82	2.18	1.91
Hwy 55	GSA Bldg & Hwy 62	1.82	2.23	1.86
U. S. 65	Viking Blvd & Crosstown Blvd	1.06	1.08	1.83
U. S. 65	Constance Blvd & 150th NE	1.11	1.11	1.78
Hwy 61	Hastings Bridge Crossing	1.78	1.78	1.78
U. S. 65	150th & 147th	1.06	1.08	1.75
U. S. 65	95th & U. S. 10	1.36	1.39	1.75
U. S. 65	Cnty Brdr & 237th Ave NE	0.44	0.47	1.75

* Based on 2010 peak hour assignments.

TABLE 16

Links With High Volume/Capacity Ratios*
Oxford Township Test Point

Road	Between	No Airport Scenario	MSP	Oxford Township
U. S. 65	219 Ave. NE & Viking Blvd	1.72	1.72	2.33
Hwy 55	Hwy 5 & GSA Bldg	1.86	2.32	1.91
Hwy 55	Hwy 62 & 54th Ave	1.82	2.18	1.91
U. S. 61	Hastings Bridge Crossing	1.78	1.78	1.78

* Based on 2010 peak hour assignments.

TABLE 17

Links With High Volume/Capacity Ratios*
North Branch Township Test Point

Road	Between	No Airport Scenario	MSP	North Branch Township
U. S. 65	219 Ave. NE & Viking Blvd	1.72	1.72	2.56
Hwy 55	Hwy 5 & GSA Bldg	1.86	2.32	1.91
Hwy 55	Hwy 62 & 54th Ave	1.82	2.18	1.91
U. S. 61	Hastings Bridge Crossing	1.78	1.78	1.78
Hwy 55	GSA Bldg & Hwy 62	1.82	2.23	1.82

* Based on 2010 peak hour assignments.

TABLE 18

Links With High Volume/Capacity Ratios*
Empire Township Test Point

Road	Between	No Airport Scenario	MSP	Empire Township
Cedar	Dodd Blvd & 180th	2.9	2.9	3
Hwy 52	Cty Rd 42 & 160th	1.56	1.62	2.62
Hwy 52	160th & 170th	1.56	1.62	2.62
Hwy 55	Bahler Dr. & Vermillion St.	2.25	3	2.38
Hwy 3	130th & 125th	1.75	1.75	2.25
Cedar	140th & 146th	1.84	1.86	2.23
Hwy 61 Bridge	127th & 4th (Hastings)	1.78	1.78	2.11
Cedar	I-35E & Hwy 77 (Zoo Rd)	1.68	1.73	2.05
Hwy 3	Hwy 50 & 209th	0.62	0.62	2
Hwy 55	Hwy 5 & GSA Bldg	1.86	2.32	1.95
Cedar	Hwy 77 (Zoo Rd) & 140th	1.57	1.57	1.93
Hwy 55	GSA Bldg & Hwy 62	1.82	2.23	1.91
Hwy 3	Lasso Lane & Diffley Rd	1.6	1.6	1.8
Hwy 55	Cty Rd 42 & Goodwin	1.25	1.25	1.75
Hwy 55	Hwy 52 & Cty Rd 42	1.25	1.25	1.75

* Based on 2010 peak hour assignments.

TABLE 19

Links With High Volume/Capacity Ratios*
Marshan Township Test Point

Road	Between	No Airport Scenario	MSP	Marshan Township
U. S. 61	127th & 4th (Hastings)	1.78	1.78	3.06
Hwy 52	Cty Rd 42 & 160th	1.56	1.62	2.81
Cedar	Dodd Blvd & 180th	2.9	2.9	2.8
U. S. 61	10th & 18th (Hastings)	0.78	0.64	2.75
Hwy 55	Cty Rd 42 & Goodwin	1.25	1.25	2.75
Hwy 55	Bahler & Vermillion St.	2.25	3	2.75
Hwy 55	Hwy 52 & Cty Rd 42	1.25	1.25	2.75
Hwy 52	170th & 190th	1.62	1.62	2.62
U. S. 61	Cty Rd 47 & Hwy 316	1.22	1.22	2.61
Hwy 52	160th & 170th	1.56	1.62	2.5
Hwy 3	130th & 125th	1.75	1.75	2.55
Cedar	140th & 146th	1.84	1.86	2.09
Hwy 55	Hwy 5 & GSA Bldg	1.86	2.32	2.05
Hwy 55	GSA Bldg & Hwy 62	1.82	2.23	2.8
Cedar	I-35 & Zoo Rd	1.68	1.73	1.95
U. S. 61	4th & 10th	1.25	1.28	1.94
Hwy 3	Lasso Lane & Diffley Rd	1.6	1.6	1.9
U. S. 61	Hwy 316 & 180th	0.61	0.61	1.89
Cedar	Hwy 77 (Zoo Rd) & 140th	1.57	1.57	1.8
Hwy 55	117th & Hwy 52	0.95	0.98	1.77
Hwy 55	Horner Rd & Bahler Dr.	1.75	1.62	1.75

* Based on 2010 peak hour assignments.

TABLE 20

Links With High Volume/Capacity Ratios*
Vermillion Township Test Point

Road	Between	No Airport Scenario	MSP	Vermillion Township
Hwy 55	Hwy 52 & Cty Rd 42	1.25	1.25	3
Cedar	Dodd Blvd & 180th	2.9	2.9	3.81
Hwy 55	Bahler Dr. & Vermillion St.	2.25	3	2.62
U. S. 61	127th & 4th (Hastings)	1.78	1.78	2.56
Hwy 3	130th & 125th	1.75	1.75	2.38
Cedar	140th & 146th	1.84	1.86	2.11
Hwy 55	Hwy 5 & GSA Bldg	1.86	2.32	2.09
Hwy 55	GSA Bldg & Hwy 62	1.82	2.23	2.05
Cedar	I - 35E & Zoo Rd (Hwy 77)	1.68	1.73	1.95
Hwy 55	117th & Hwy 52	0.95	0.98	1.95
Hwy 3	Lasso Lane & Diffley Rd	1.6	1.6	1.9
Hwy 55	105th & 117th	0.93	0.95	1.88
Cedar	Hwy 77 (Zoo Rd) & 140th	1.57	1.57	1.82
Hwy 55	Concord & 105th	0.93	0.95	1.75

* Based on 2010 peak hour assignments.

TABLE 21

Links With High Volume/Capacity Ratios*
Castle Rock Township Test Point

Road	Between	No Airport Scenario	MSP	Castle Rock Township
Cedar	Dodd Blvd & 180th	2.9	2.9	3.46
Hwy 3	230th & 220th	0.62	0.62	3.25
Cedar	Cty Rd 80 & Cty Rd 80	0.5	0.5	3.8
Hwy 52	170th & 190th	1.62	1.62	2.69
Hwy 55	Bahler Dr. & Vermillion St.	2.25	3	2.62
Hwy 52	160th & 170th	1.56	1.62	2.56
Hwy 52	Cty Rd 42 & 160th	1.56	1.62	2.56
Hwy 3	Cty Rd 86 & Cty Rd 80	0.75	0.75	2.38
Cedar	Cty Rd 86 & Galaxie/Foliage	0.12	0.12	2.38
Hwy 3	130th & 125th	1.75	1.75	2.25
U. S. 61	127th & 4th (Hastings)	1.78	1.78	2.22
Hwy 55	Cty Rd 42 & Goodwin	1.25	1.25	2.12
Hwy 55	Hwy 52 & Cty Rd 42	1.25	1.25	2.12
Cedar	140th & 146th	1.84	1.86	2.05
Hwy 55	Hwy 5 & GSA Bldg	1.86	2.32	2
Hwy 52	240th & Cty Rd 56	0.47	0.5	1.94
Hwy 55	GSA Bldg & Hwy 62	1.82	2.23	1.92
Cedar	I-35E & Hwy 77 (Zoo Rd)	1.68	1.73	1.91
Hwy 3	Lasso Lane & Diffley	1.6	1.6	1.9
Hwy 3	Diffley & Hwy 149	1.18	1.18	1.9
Hwy 3	220th & Hwy 50	0.82	0.82	1.82
Cedar	Hwy 77 (Zoo Rd) & 140th	1.57	1.57	1.77

* Based on 2010 peak hour assignments.

TABLE 22

Links With High Volume/Capacity Ratios*
Greenvale Township Test Point

Road	Between	No Airport Scenario	MSP	Greenvale Township
Hwy 55	117th & Hwy 52	0.95	0.98	2.9
Cedar	Bridge Crossing	1.16	1.19	2.25
Cedar	Cty Rd 86 & Cty 96/Hwy 3	0.12	0.12	2.18
I-35E	Hwy 50 & 185th	0.82	0.85	1.96
I-494	24th & Cedar	0.83	1.02	1.95
Cedar	202nd & Lakeville Blvd	0.9	0.9	1.91
I-35E	Hwy 13 & Hwy 110	0.94	0.99	1.89
I-35E	Hwy 110 & I-494	0.63	0.65	1.89
I-494	Hwy 5 & 34th	1.22	1.54	1.86
Hwy 52	190th & 200th	0.58	0.61	1.86
I-35E	I-494 & Lone Oak Rd	0.98	1.00	1.86
Hwy 3	Diffley & Hwy 149	1.18	1.18	1.81
Cedar	Dodd Blvd & 180th	2.9	2.9	1.81
Hwy 3	Vermillion River & 170th	0.31	0.31	1.75
Hwy 52	170th & 190th	1.62	1.62	1.75
I-35W	Minnesota River Crossing	1.16	1.19	1.75
I-35W	Cty Rd 42 & I-35 W/E	0.58	0.58	1.75

* Based on 2010 peak hour assignments.

TABLE 23

Links With High Volume/Capacity Ratios*
Eureka Township Test Point

Road	Between	No Airport Scenario	MSP	Eureka Township
Hwy 55	117th & Hwy 52	0.95	0.98	3.8
Hwy 55	Hwy 149 & Argenta Trail	0.59	0.61	2.62
Cedar	Minnesota River Bridge	1.16	1.19	2.38
Hwy 55	Lone Oak & Hwy 149	0.56	0.60	2.25
Hwy 55	Babcock & College Trail	0.55	0.55	2.2
Hwy 52	190th & 200th	0.58	0.61	2.11
Hwy 3	Diffley & Hwy 149	1.18	1.18	2.06
Hwy 52	170th & 190th	1.62	1.62	2.89
Hwy 3	Vermillion River & 170th	0.31	0.31	2.89
I-35W	Cty Rd 42 & I-35W/E	0.58	0.58	2
Hwy 3	Cnty Brdr & Northfield Blvd	1.38	1.38	2
Cedar	202nd & Lakeville Blvd	0.9	0.9	1.91
Hwy 52	Cty Rd 47 & 240th	0.5	1.53	1.9
I-35E	Hwy 13 & Hwy 110	0.94	1.99	1.89
I-35E	Hwy 110 & I-494	0.63	0.65	1.89
I-35E	I-494 & Lone Oak	0.98	1.00	1.86
Hwy 3	220th & Hwy 50	0.82	0.82	1.84
Hwy 55	Argenta Trail & S. Robert	0.64	0.68	1.82
U. S. 61	18th & Cty Rd 47	0.78	0.64	1.8
Hwy 52	Hwy 55 & Cty Rd 42	0.64	1.25	1.8
Cedar	Dodd Blvd & 180th	2.9	2.9	1.75
I-35W	Minnesota River Crossing	1.16	1.19	1.75

* Based on 2010 peak hour assignments.

TABLE 24

Links With High Volume/Capacity Ratios*
Minneapolis - Saint Paul International Airport

Road	Between	No Airport Scenario	MSP
Hwy 55	Bahler Dr. & Vermillion St.	2.25	3
Cedar	Dodd Blvd & 180th	2.9	2.9
Hwy 55	Hwy 5 & GSA Bldg	1.86	2.32
Hwy 55	GSA Bldg & Hwy 62	1.82	2.23
Hwy 3 - Extension	Connection to Hwy 55	2.09	2.18
Hwy 55	Hwy 62 & 54th	1.82	2.18
Cedar	140th & 146th	1.84	1.86
U. S. 61	Hastings Bridge Crossing	1.78	1.78
Hwy 3	125th & 130th	1.75	1.75

* Based on 2010 peak hour assignments.

Minnesota River bridge crossing on Hwy 77 is expected to experience congestion. The other major bridge crossings would not become congested from airport traffic, but the traffic could exacerbate congestion problems.

Potential solutions for the capacity constraints in the south would be an extension of Hwy 3 south from its planned terminus at Hwy 55 to some point south of Rosemount. The cost would be approximately $10-15 million per mile. Also, Hwy 55 could be upgraded with frontage roads and restricted access points at an approximate cost of $2 million per mile and $5 million per diamond interchange. Hwy 55 in Mendota Heights would need to be improved to four lanes along its entirety. Hwy 52 could be realigned to provide better access to the eastern area of the Dakota search area at an approximate cost of $5 million per mile. For the Anoka-Isanti-Chisago search area Hwy 65 could be improved with the addition of frontage roads and improved interchanges at an approximate cost of $2 million per mile and $5 million per diamond interchange. All costs are in 1990 dollars and are Metropolitan Council estimates.

Travel Distances to Mankato, Rochester and St. Cloud

The following travel distances (see table 25) were measured (source map was 1989-1990 Offocial Highway Map: Minnesota, Minnesota Department of Transportation) from each of the test points to the three cities, or a combination of TRANPLAN distances and the map's mileage chart was used. The most direct route possible was followed, regardless of road type.

TABLE 25
MIleage to Mankato, Rochester and Saint Cloud

	Mankato	Rochester	Saint Cloud
Isanti	120	120	55
Oxford	120	120	60
North Branch	125	125	55
Empire	70	50	95
Marshan	75	50	100
Vermillion	75	60	90
Eureka	60	60	100
Castle Rock	65	50	100
Greenvale	55	60	100