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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

DRAFT
ENVIRONMENTAL IMPACT STATEMENT

FOR

T.H. 101 Shakopee By-Pass
In Scott County, Minnesota

State Project 7005-42

From: U.S. 169 in Jackson Township
To: T.H. 101 in Savage

Prepared By
**THE STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION**

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FHWA-MN-EIS-77-1-D
Federal Highway Administration
Region 5

Shakopee By-Pass in Scott County Minnesota

State Project 7005-42

From: U.S. 169 in Jackson Township
To: T.H. 101 in Savage

ADMINISTRATIVE ACTION

DRAFT

ENVIRONMENTAL IMPACT STATEMENT

U.S. DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

and

STATE OF MINNESOTA
Department of Transportation

Submitted pursuant to 42 U.S.C. 4332(2) (c), 23 U.S.C. 128(a)
and Minnesota Statutes 116D.01 et seq.

August 30, 1977
Date

Kermit McRae
Kermit McRae
Director
Transportation Services
Minnesota Department of Transportation

8-31-77
Date

E. Dean Carlson
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Division Administrator
Federal Highway Administration

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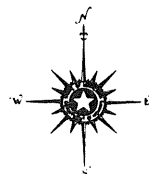
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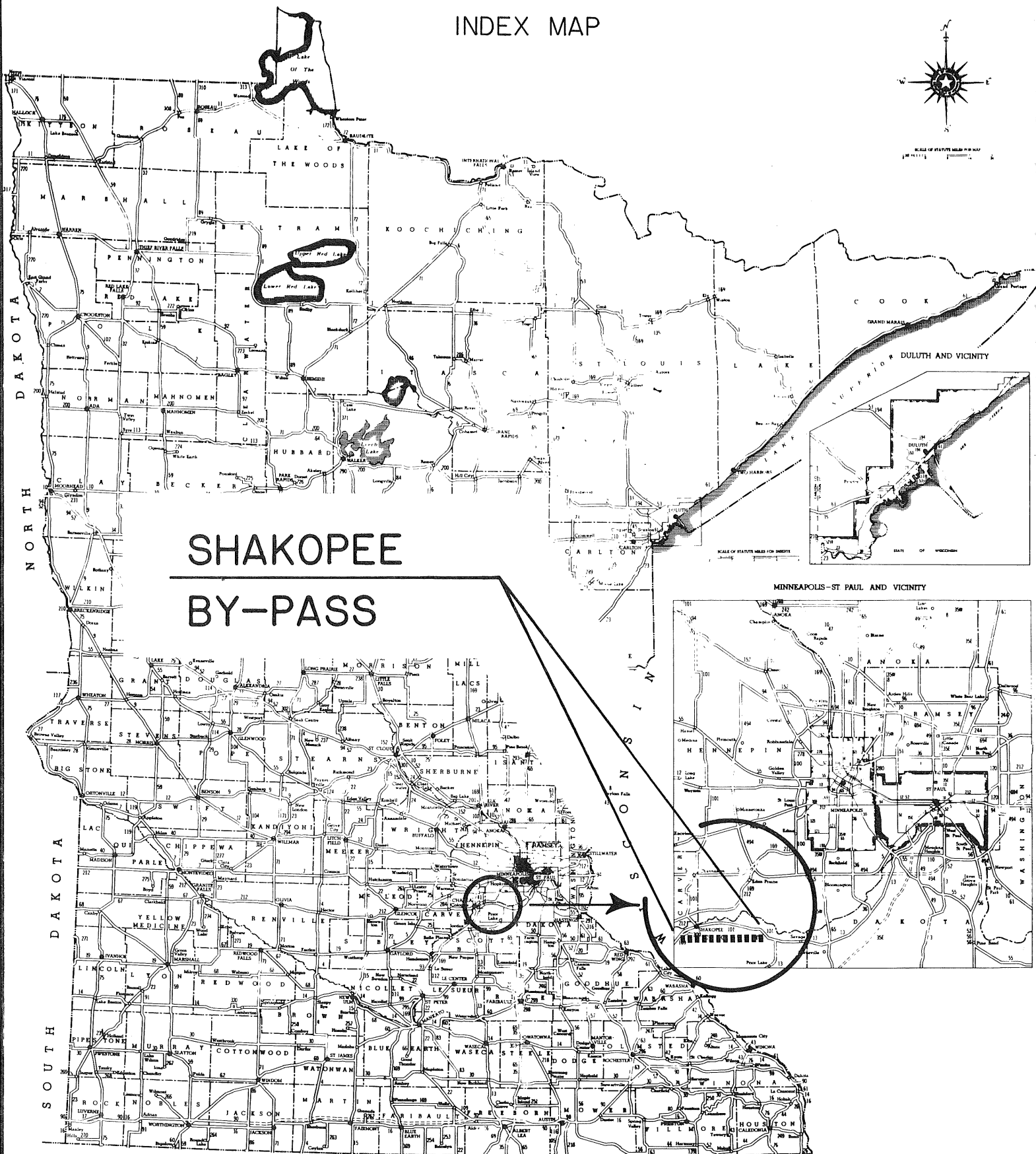
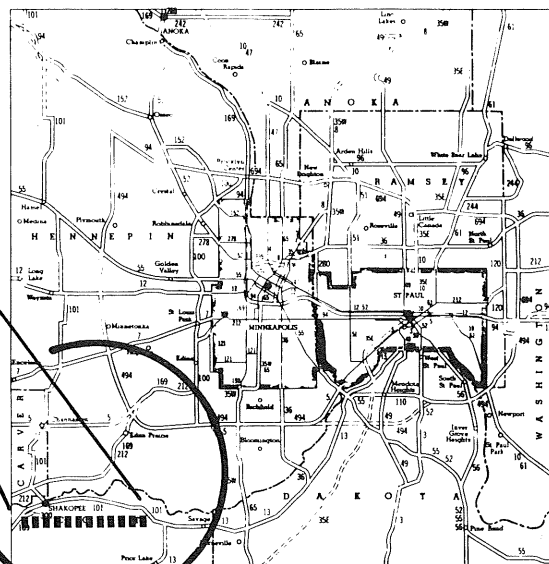
INDEX MAP



SCALE OF STATUTE MILES FOR MAP
1:62,500

SHAKOPEE BY-PASS

MINNEAPOLIS-ST. PAUL AND VICINITY



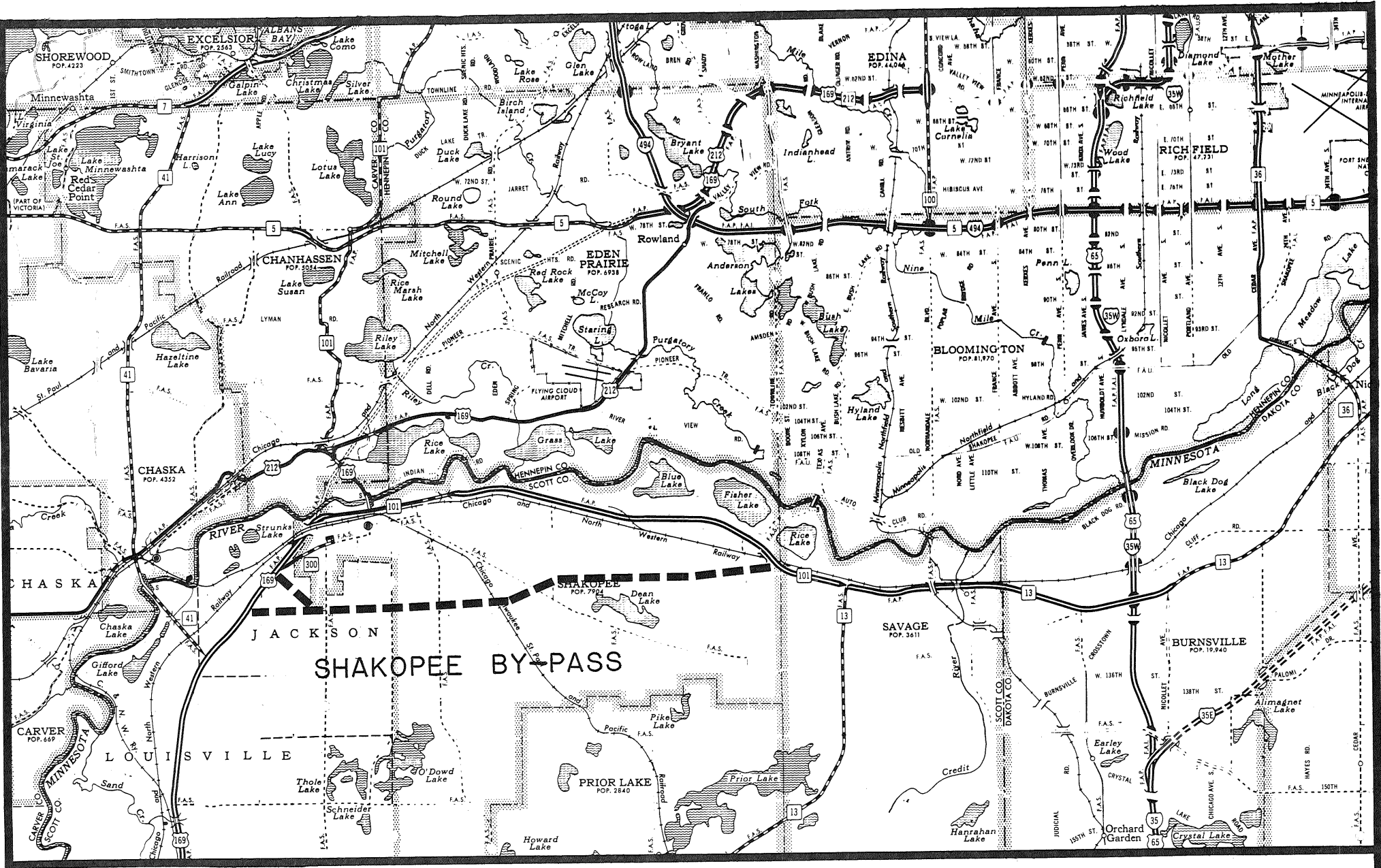


EXHIBIT 2



LOCATION 6 MAP

SCALE
0 2 MILES

I. SUMMARY

Federal Highway Administration
Environmental Statement
(X) Draft () Final
() Section 4(f) Statements Attached

For additional information concerning the proposal and this statement,
contact:

District Director, Minnesota Department of Transportation
District 5, 2055 North Lilac Drive
Golden Valley, MN 55422, Telephone: (612) 545-3761

or

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Description of Proposed Action

The proposed Federal Highway Administration (FHWA) Action is the participation, with funds administered by FHWA, in the construction of relocated Minnesota Highway 101 (TH 101) in Scott County, Minnesota. The action begins at US 169 in Jackson Township southwest of the City of Shakopee, proceeds easterly through Shakopee for 8.5 miles and ends on TH 101 at the west edge of the City of Savage. The action will provide a four-lane divided freeway with full access control, constructed to rural design standards.

Actions Required by Other Federal Agencies

The U.S. Army Corps of Engineers has determined that a Section 404 Permit will be required prior to any project construction.

Environmental Impacts

Beneficial environmental effects of the proposed action include the removal of through traffic including a significant amount of heavy truck traffic from downtown Shakopee, improved safety to the traveling public and pedestrians, and implementation of recommendations made in the 1990 Metropolitan Highway Systems Plan prepared by the Metropolitan Council (MC).

Of the 550 acres of additional right of way, 300 acres are agricultural land, 8 acres are wetlands, 49 acres are forestland and the remaining 193 acres are quasi-developed residential and commercial land. Depending on the design alternative selected, a maximum of 45 single family residences, 67 mobile homes, and four businesses may need to be relocated.

Alternatives

The following three viable alternatives are considered:

1. By-pass with Directional Interchange at US 169.
2. By-pass with Trumpet Interchange at US 169.
3. No-Build.

State Government and Multi-State Responsibilities

There is no impact on state government as a result of any federal controls associated with this action. This action will have no effect on adjacent states or on any multi-state responsibilities.

Comments on this Draft Environmental Impact
Statement are Being Requested from:

Council on Environmental Quality

Environmental Protection Agency

US Department of Health, Education, and Welfare

US Department of Agriculture

US Department of Army, Corps of Engineers

US Department of Commerce

US Department of Interior

US Department of Housing and Urban Development

US Department of Transportation

US Department of Energy

Minnesota State Planning Agency

Minnesota Historical Society

Minnesota Pollution Control Agency

Minnesota Department of Natural Resources

Minnesota Environmental Quality Council

Minnesota Water Resources Board

Metropolitan Council of the Twin Cities Area (A-95 Clearinghouse)

Scott County Board of Commissioners

Jackson Township Board of Commissioners

City of Shakopee

City of Savage

Lower Minnesota River Watershed District

II. NEED FOR IMPROVEMENT

Local

On the local level, TH 101 and US 169 are 4-lane rural expressway facilities east and west of Shakopee that funnel through the Central Business District (CBD). They approach the town from opposite directions and meet in the center of Shakopee. Here they merge and cross the Minnesota River, on a two-lane bridge, and proceed toward Minneapolis. The intersection is operating at capacity now due to three factors. First is the high volume of traffic on the through street and at major intersection approaches. The through street, US 169 and TH 101, is a four-lane street with parking on both sides. A second factor is the high volume of trucks mixed with the traffic on the street, about 2,500 heavy commercial AADT (HCAADT) or 11 percent of the total vehicles. Roughly, 80 percent of the truck trips are passing through the area. A third factor is the functional use placed on the highway segment in downtown Shakopee. These segments serve major volumes of traffic in three functional uses: movement of long distance through trips from outstate area into the metropolitan area, access to Shakopee from other regions, and as a local street providing access and parking for businesses adjacent to the highway.

Regional

On the regional level, the area has a problem shared by all of the communities of the Minneapolis-St. Paul Metropolitan Area south of the Minnesota River. This problem is insufficient capacity on the present river crossing system along with the fact that twice during the last 12 years, floods have caused the two main highways in the Shakopee area to be closed. These flood prone areas are discussed on page 21.

History

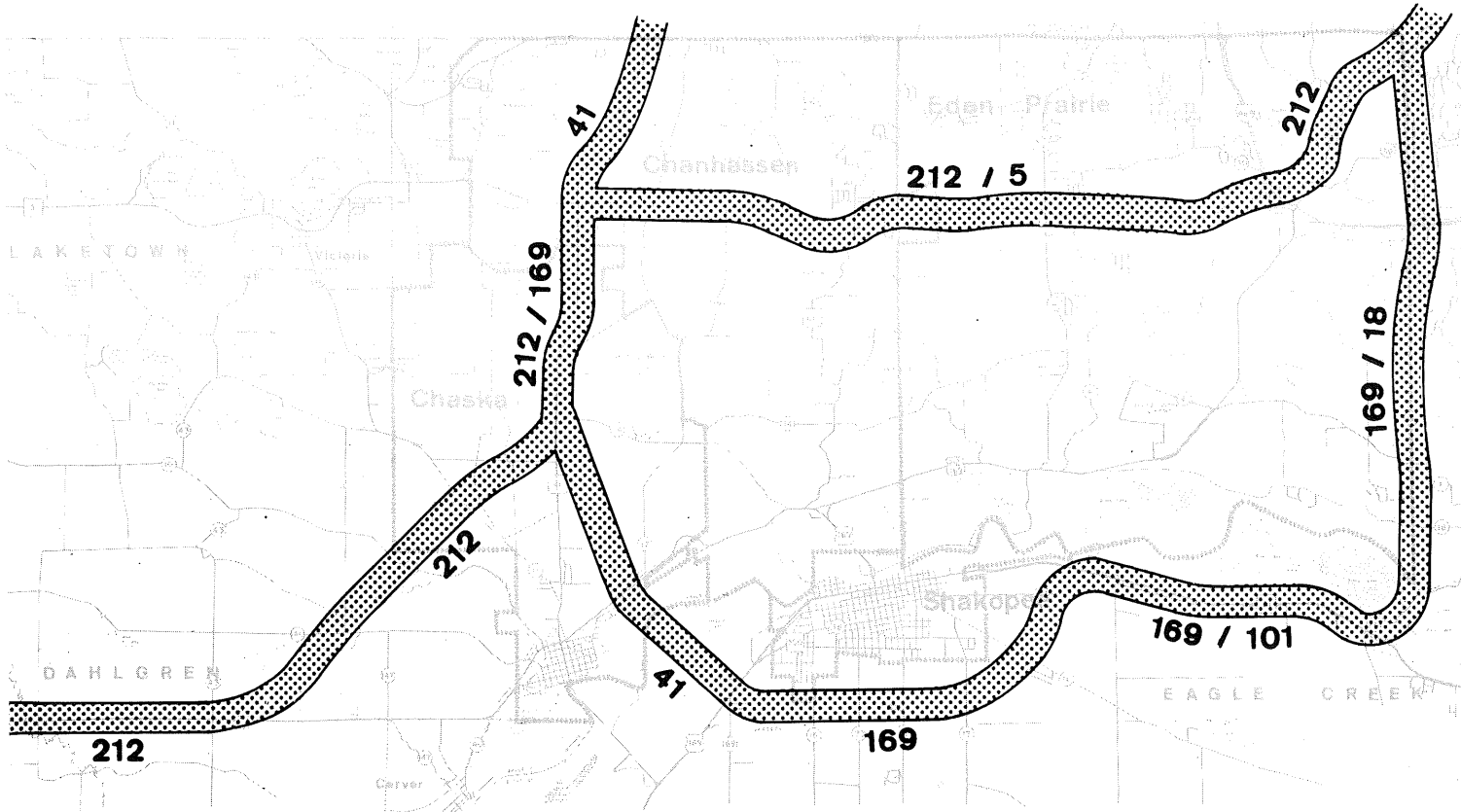
In the middle 1960's it became apparent the southwest Minneapolis-St. Paul Metropolitan area would experience large growth. This growth would cause a transportation demand greater than existing capacity. To plan ahead, the Minnesota Department of Transportation (Mn/DOT) initiated a detailed transportation study of the area. The purpose was to investigate a 135 square mile area, which contained three major highways, US 169, TH 212, and TH 41; and to identify corridor locations for a new system to handle the forecasted growth.

An extensive study was done for the Mn/DOT by Howard, Needles, Tammen, and Bergendoff (HNTB). The Report, Corridor Location Study for Trunk Highways 169, 212, and 41, was finalized in 1970. This study initially identified eight possible corridor systems, but later reduced it to three. They were identified as Systems A, B, and C as shown on page 12.

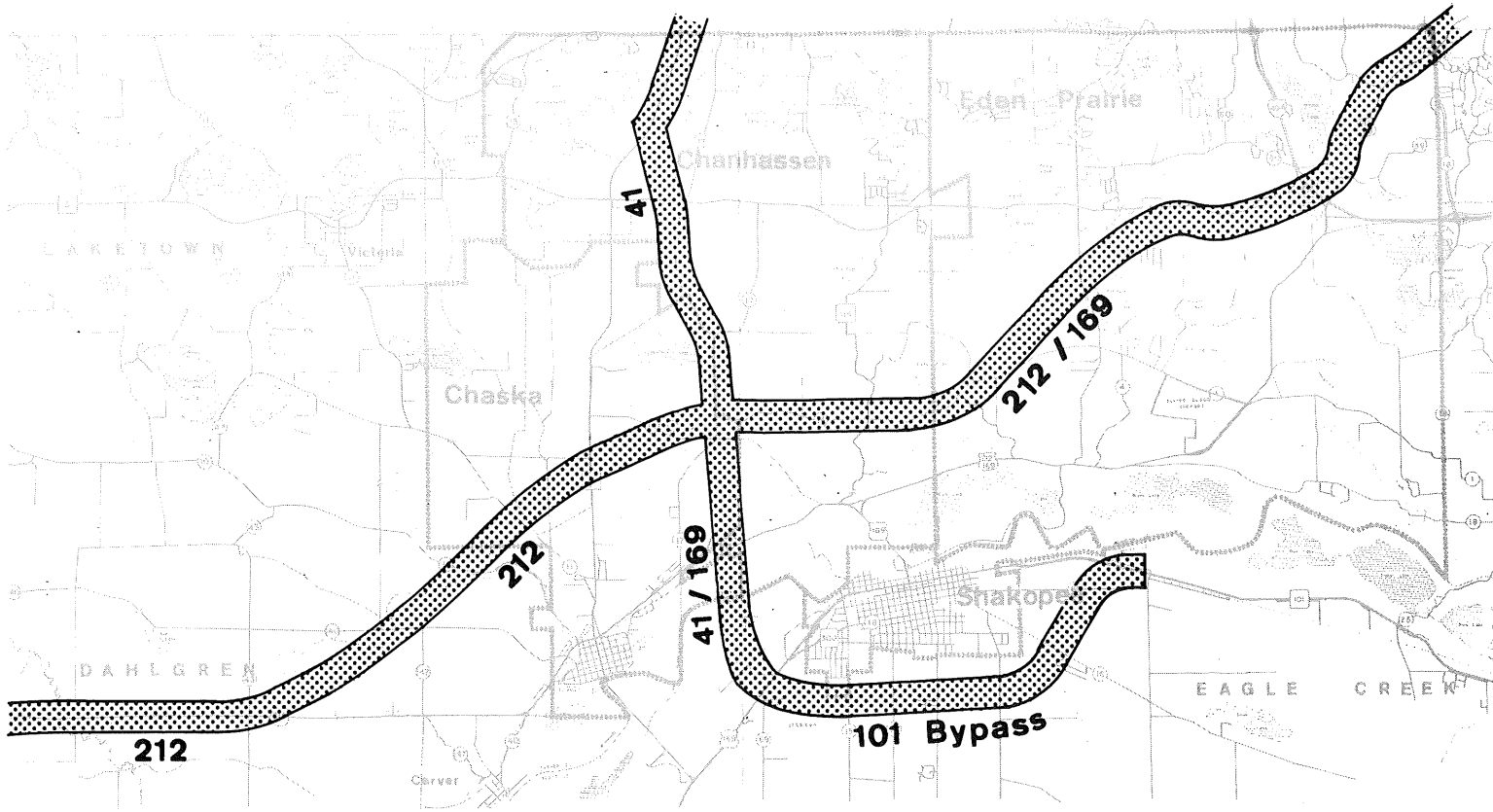
A significant link in these corridor systems was the Shakopee By-Pass. In System A and B it was defined as TH 169. In System C it was defined as 101 By-Pass.

In the late 1960's after HNTB identified three possible corridors for the southwest area, two public hearings were held. The first hearing was in June, 1969 and as a result a new system came about. It was called System D. System D was a composite of System A and C with the Shakopee By-Pass extended farther to the east before merging into in place TH 101 as shown on page 12.

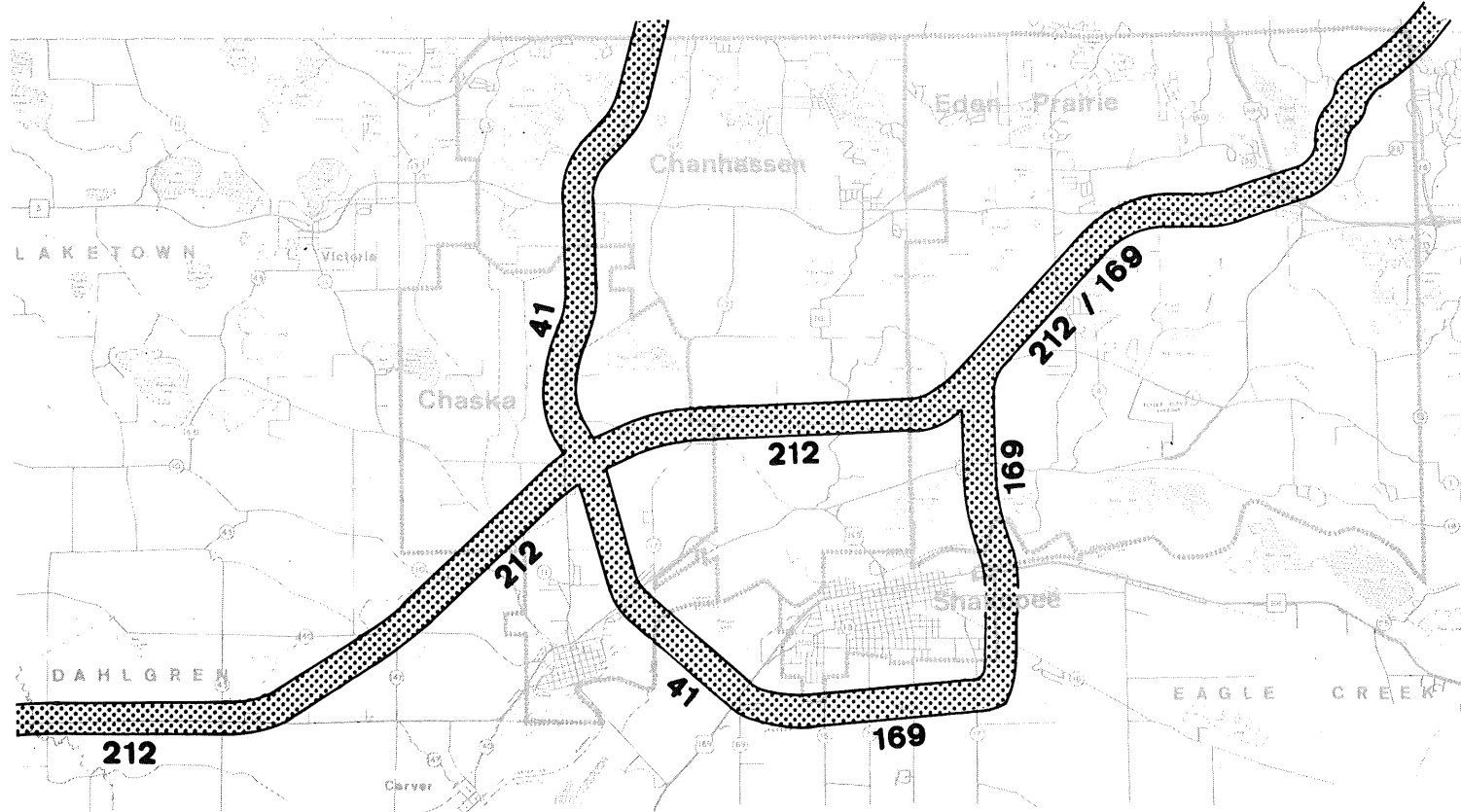
CORRIDOR SYSTEMS STUDY



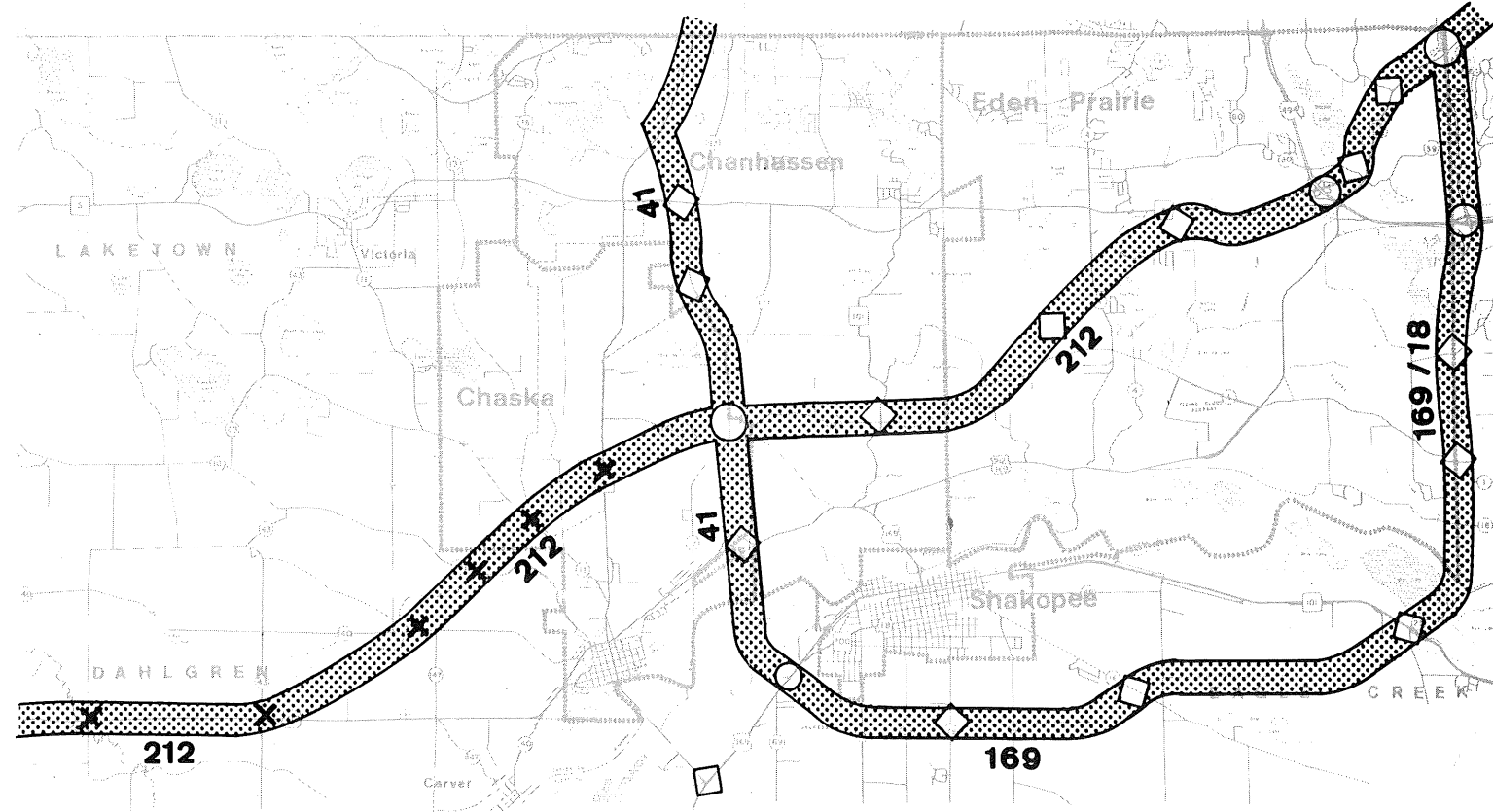
SYSTEM A



SYSTEM C



SYSTEM B



SYSTEM D

○ INTERCHANGE OF CONTROLLED ACCESS FACILITIES
◊ INTERCHANGE WITH LOCAL ACCESS
X AT GRADE INTERSECTION
INTERCHANGE LOCATIONS SHOWN ARE PRELIMINARY ONLY
AND SUBJECT TO CHANGE IN SUBSEQUENT STUDY



Some comments that surfaced at the public hearing concerning the By-Pass were the following:

The By-Pass in System A, B and C would confine the growth of Shakopee and this is undesirable to Shakopee. Valley Industrial Park, a planned 2000 acre commercial and industrial center, would be served better by a By-Pass route that bordered the southern boundary. The By-Pass in System D would act as a barrier separating the planned industrial area, north of the By-Pass corridor, from the proposed residential and park areas to the south (see Exhibit 11, page 42).

In April 1970, the Mn/DOT held a second hearing. This time System D was included with A, B and C. The testimony received reinforced the desirability of System D. Consequently a 2000 foot wide corridor band for the Shakopee By-Pass was established as part of System D. The CSAH 18/Minnesota River crossing is not part of this DEIS for reasons explained later in this section.

The planning process continued, and in 1974 a Task Force Committee was established to expedite completion of the Shakopee By-Pass. The Committee was composed of representatives from the local communities, the Metropolitan Council (MC)*, and the Minnesota Department of Transportation, (Mn/DOT). One way the task force felt it could best expedite the project was to restrict development in the right of way. To accomplish this, it was decided to develop an official map. Then in accordance with 1974 Minnesota Legislative Statutes, Chapter 571, this "Official Map" would be used as a local planning tool to retard further development within and adjacent to the intended right of way. The Official Map will be adopted after the Final Environmental Impact Statement has been adopted.

*The Metropolitan Council is the A-95 Clearinghouse and the Metropolitan Planning Organization (MPO) for the Minneapolis-St. Paul Metropolitan Area.

Draft EIS's have been prepared and circulated for TH 212, FHWA-Mn-EIS-74-5-D, and for MR 41, FHWA-Mn-EIS-74-3-D, in 1974. The proposed Shakopee By-Pass action is separate and not related to any proposed Minnesota River crossings. Proposed Minnesota River crossings will be considered by other environmental impact statements. Implementation of this action will not pre-determine the location or construction of the proposed CSAH 18/Minnesota River crossing. Although the CSAH 18/Minnesota River crossing is part of System D, it is not part of this action because the need for this action is independent of the river crossings as discussed above.

The planned construction for the By-Pass is between 1985-1990.

Metropolitan Council Plans

Another aspect of the project's need is the MC transportation plans. The By-Pass has been included in the 1990 Metropolitan Highway System Plan prepared by the MC and published in July, 1976. It is classified as an intermediate arterial calling for early planning and reservation of right of way until the project is built. This EIS is intended to define the highway corridor for purposes of restricting development within it.

Mass Transit

Based on the MC Transportation Development Guide/Policy Plan, the 1990 transit system plan will not provide subregional transit service for the area. The 1990 transit system plan relies on buses in the Minneapolis-St. Paul Metropolitan area. However, by 1990 Shakopee will be provided with Metro Center Service by express bus service in mixed traffic on an all day basis.

The 1990 transit plan does not completely rule out the possibility of Shakopee providing its own internal bus system or of future revision to the Metropolitan Transit Plan to provide subregional service. High traffic volumes will still be experienced on the existing highway in Shakopee because of the large number of through trips that will not be served by transit, and by trips outside the transit service area destined for Shakopee. A transit system would not provide transportation of many commodities now being moved by truck. Truck traffic would continue to increase on the highway. Consequently, the existing system would still be required to serve varying functional uses. Because of the varied function serviced by the existing system, congestion would continue and safety improvement would be less than for other alternatives. The existing highway would still be prone to closures during time of high flood waters. Consequently mass transit is not considered a viable alternative.

Impacts of No-Build

If the project is not built, the overall system plan for the area will be missing an important link. The planned growth of the Shakopee area will be constrained and the existing highway will still be vulnerable to closings during high flood waters. The congestion in the Shakopee CBD will get worse. Corresponding to the increase in congestion will be an increase in air and noise pollution in downtown Shakopee. At the same time the accident rate, which is already four times the state average, will remain high and perhaps become worse.

III. DESCRIPTION OF THE PROPOSED ACTION

The proposed action is a highway by-pass around the developed portion of the City of Shakopee in Scott County, Minnesota. The western terminus is about one-half mile southwest of Shakopee at an interchange with US 169 and proposed TH 41, thus providing system linkage. The route proceeds southeasterly about 3,000 feet and then easterly about 7 1/2 miles to an interchange with TH 101 at the Shakopee/Savage corporate boundary. Total length is about 8 1/2 miles. The project will be designed as four-lane divided highway with full access control. Rural design standards and a design speed of 70 miles per hour (MPH) will be used. Interchanges are proposed at US 169, CSAH 15, CSAH 17, CR 83, CR 89, and TH 101. Typical right-of-way widths will be 450 feet on the west half and 350 feet on the east half with interchanges requiring greater widths up to 1,500 feet. The approximate cost of the facility will be 30 to 33 million dollars.

Traffic Data

The MC of the Twin Cities Area has developed forecasts of population, households, and employment for the year 2000. This data base was used to develop the travel demand forecast used in conjunction with the 1975 street and highway network. Total travel was developed using a range of volumes based on reasonable high, medium, and low volumes for trips/person, % transit and vehicle occupancy. To set the upper brackets the highest trips/person were combined with the lowest vehicle occupancy and % transit. To set the lower brackets the opposite combinations were used. For this project the medium values were chosen. Along with these values 1972-74 traffic counts on the county roads were con-

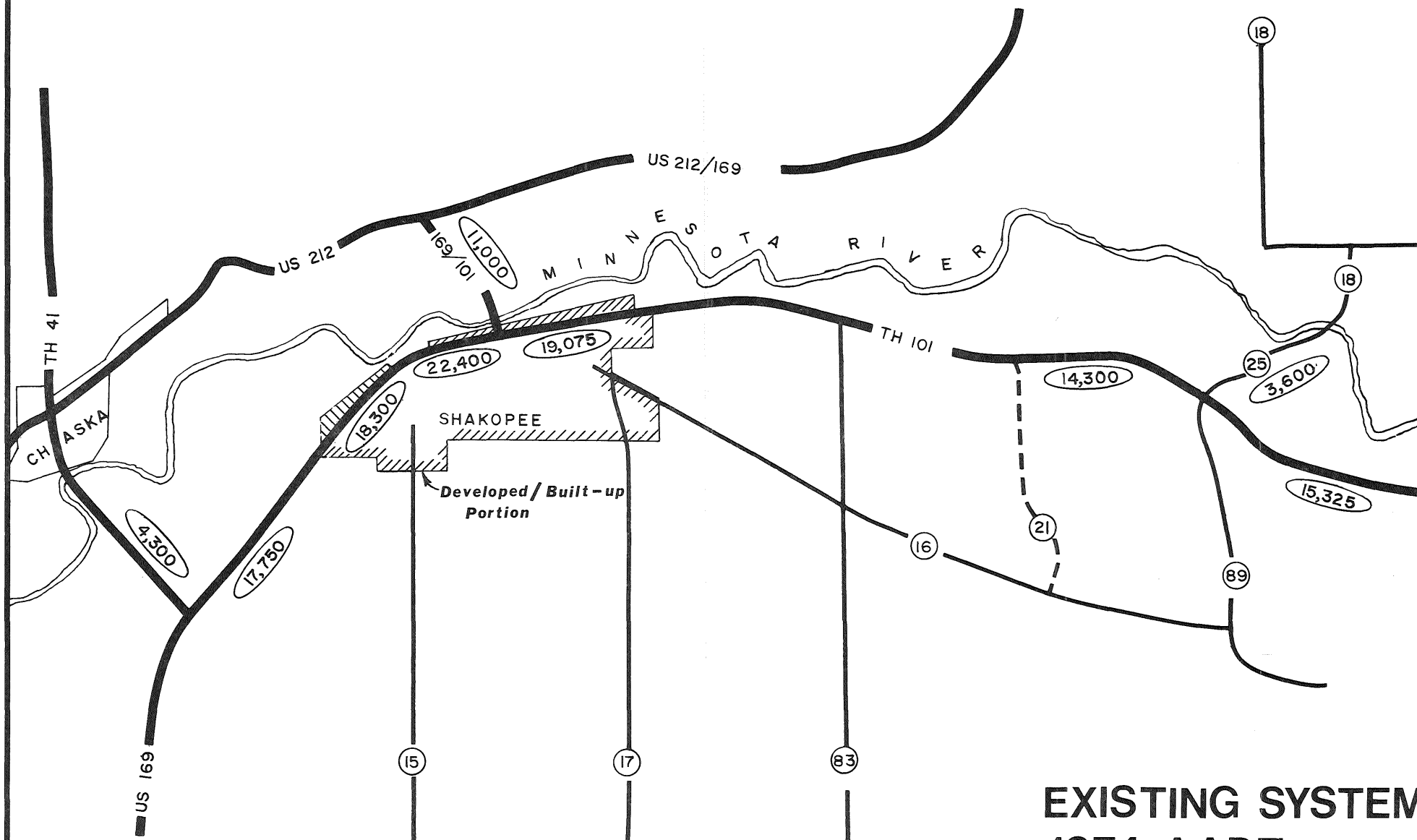
sidered. The heavy commercial average daily traffic (HCADT) is based on vehicle classification counts recorded in the area. They were projected to the design year by use of vehicle type trends. Basic traffic data used in this report was prepared by the Office of System Planning, Mn/DOT, as reported in the System Planning and Analysis Reports (SPAR) M-181, M-181A, and M-181B. The SPAR reports give estimated 2000 Average Annual Daily Traffic (AADT), directional peak hour volumes, and truck volume and classification and are available at the same Mn/DOT location noted on page 7.

Exhibit 5 on the next page indicates the AADT on the primary elements of the existing system in the year 1974. Presently, the portion of US 169 and TH 101 within the developed area of Shakopee is heavily congested during the morning and afternoon peak traffic hours.

Exhibit 6 shows what the traffic demands would be in 2000 without any highway improvements in the area. Traffic volumes in Shakopee will increase about 10,000 AADT and truck traffic will increase to about 3,500 HCAADT. The existing 169/101 intersection, already at capacity, will be taxed further. To meet demand, congestion will occur more frequently and for longer time periods with increasing delays.

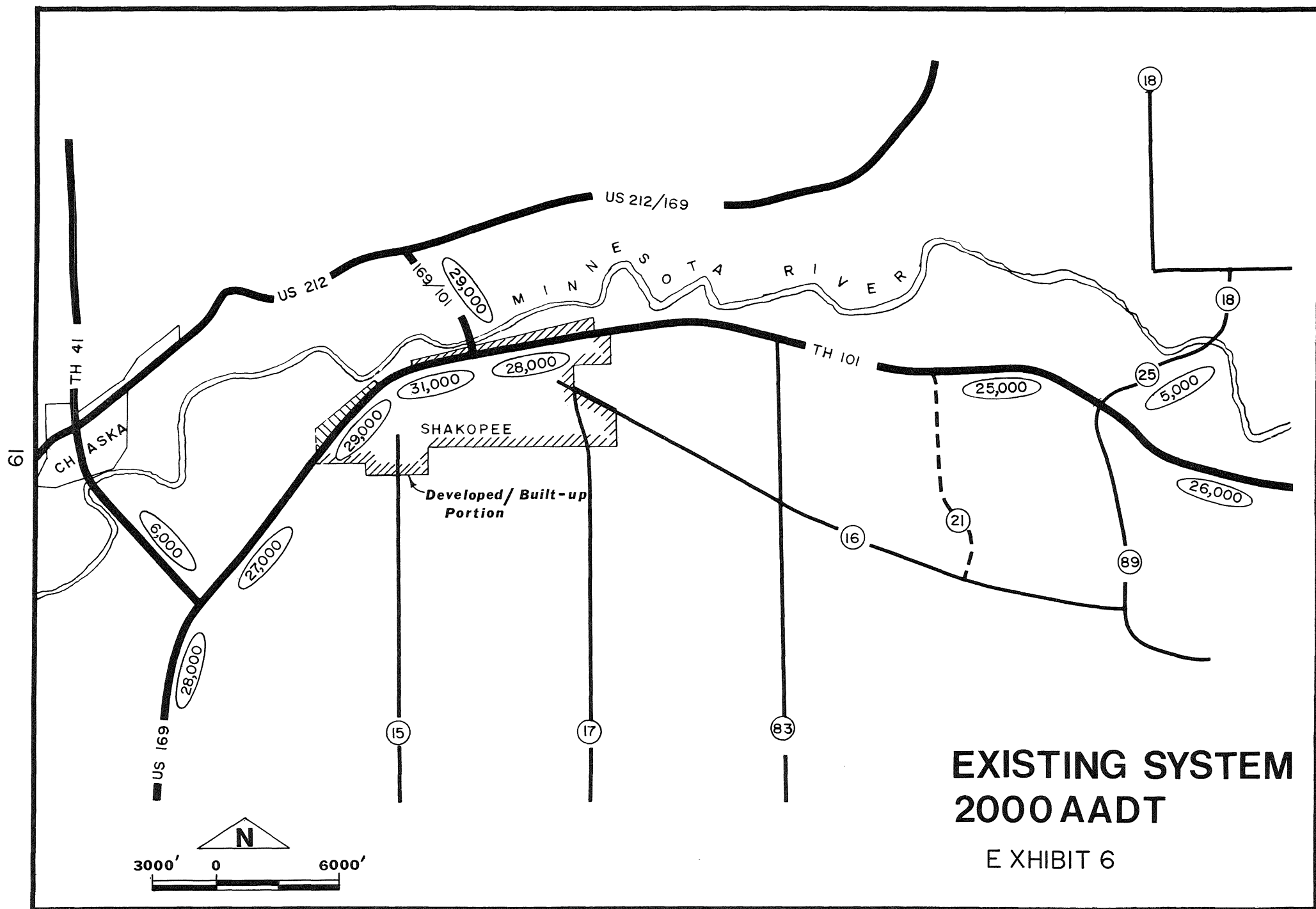
Exhibit 7 displays what traffic projections would be for the year 2000 with the proposed Shakopee By-Pass. Traffic in the downtown area would be reduced by about 7,000 AADT from the 1974 average. Operation of the major downtown intersection would be improved from existing unstable flow to stable traffic flow. The proposed action would eliminate over fifty percent of the truck trips now passing through downtown. Where 2,500 HCAADT exists today, less than 1,000 HCAADT

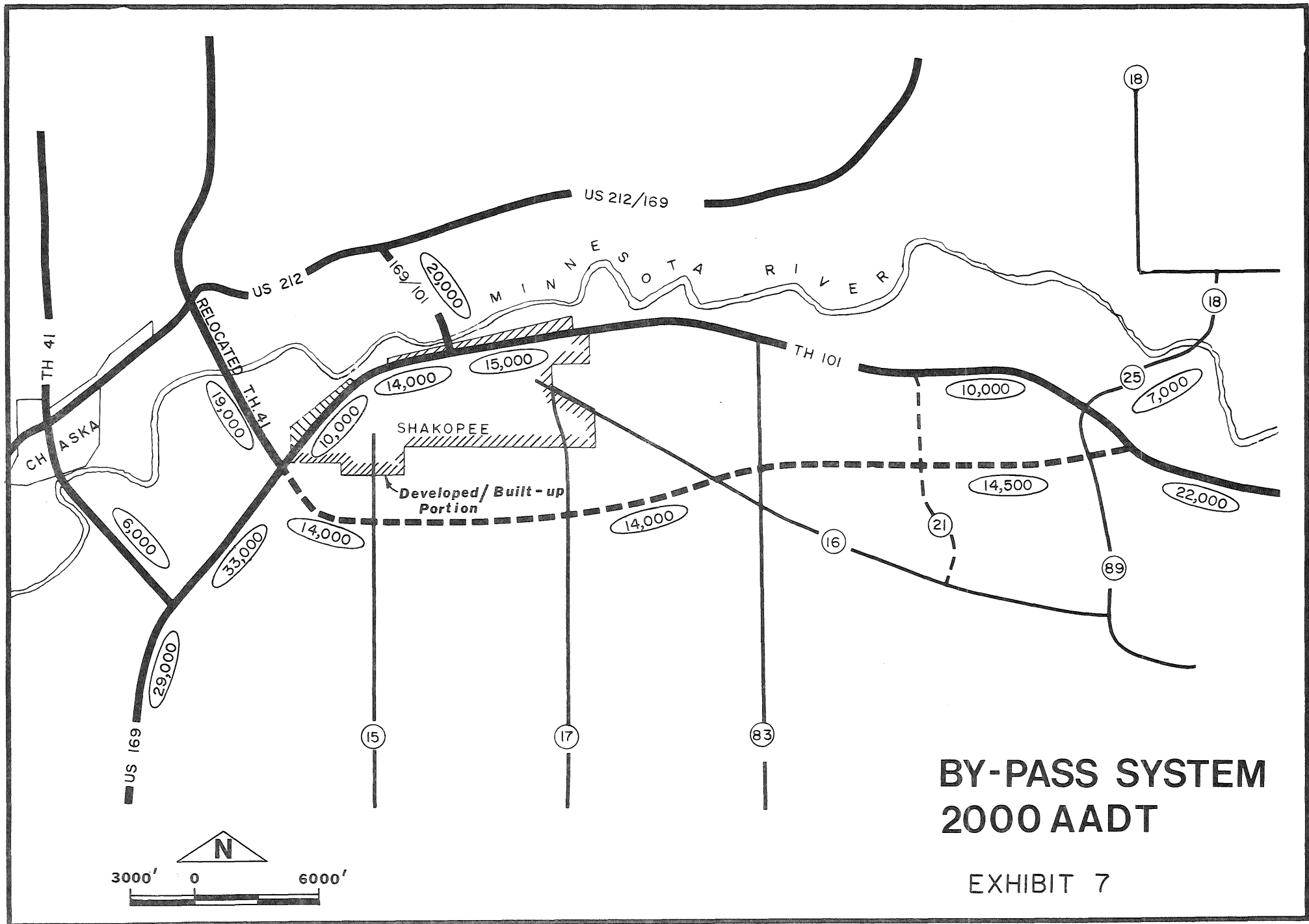
81



**EXISTING SYSTEM
1974 AADT**

EXHIBIT 5





BY-PASS SYSTEM 2000 AADT

EXHIBIT 7

could be expected for the year 2000. The majority of trucks would be using the by-pass to continue east-west trips. The functional use of existing US 169/TH 101 and the proposed action will be more clearly defined. Long distance through trips should use the by-pass and those trips with local destinations requiring access to Shakopee would use the existing highway. More than 80 percent of the trips on the by-pass will be through trips that have been eliminated from the downtown area.

Safety

The proposed action should increase safety to the public by improving the type of roads traveled. For example, from 1969 through 1971 the accident rate for urban truck highways in Minnesota was about three times the rate for urban freeways (198 accidents per 100 million vehicle miles of travel compared to 57). In 1971, the accident rate for US 169 and TH 101 in the downtown business area of Shakopee was 850 accidents per 100 million vehicle miles of travel, a rate more than four times the state average. By reducing vehicle numbers and congestion in the downtown area and placing trips on a better designed facility, the combined accident rate will be reduced.

Flooding

The existing highways are in or near the 100 year flood zones of the Minnesota River. In the area of Shakopee, the flood elevation is 725 feet above sea level. Two sections of the present highway on the south side of the Minnesota River are at elevations below 725 feet and are thus subject to closure during spring floods. One section is

on the west side of Shakopee on US 169 under the railroad overpass. The other section is at the east edge of Shakopee on TH 101 near the CR 89 intersection. The flood plain limits designated by the U.S. Department of Housing and Urban Development are depicted on Exhibit 15 page 80. Because these flood prone sections would be by-passed by the project, the proposed action would provide good east-west service in time of flooding and would not impact the flood plain area.

Major Design Features

A design speed of 70 MPH will be used for horizontal and vertical curve control. Even though the posted speed of 55 MPH is below the design speed, the higher design speed provides an additional margin of safety and a higher level of service. Basically, the higher design speed has longer, flatter horizontal curves and longer vertical curves to provide better sight distance. Interchanges are proposed at US 169, CSAH 15, CSAH 17, CR 83, CR 89, and TH 101. All other county roads and railroad crossings will be grade separated in such a manner to maintain existing accessibility.



EXISTING LAND, FALL 1976

IV. SOCIAL, ECONOMIC, AND ENVIRONMENTAL CONTEXT OF THE AREA

Natural Features

The Shakopee area lies within a large glacial river valley containing various terraces. These terraces are roughly 100 feet different in elevation with the proposed By-Pass located in the upper two. The western two-thirds of the project is located in agricultural land typical of the photo shown on page 23. The eastern one-third is a combination of farm land, open stands of scrub oak containing mostly bur oak, red oak and aspen, dune lands consisting of light-colored wind-blown sand, several shallow wetlands, and a stand of planted jack and red pine (see Project Map at the end of this DEIS).

Surface Waters

Located in the Minnesota River watershed, the project area is not characterized by any large lakes or major streams. However, Dean Lake, a spring fed perched lake of 216 acres, is located approximately 2,000 feet south of the proposed corridor (see Exhibit 12 page 45). This lake receives its water from springs and surface runoff. The outlet is through infiltration to the ground. Drainage from the proposed action will not affect Dean Lake.

Dean Lake has a shallow, marshy character. The open water of the lake is surrounded by a wide band of emergent vegetation which provides habitat for many waterfowl, furbearers and non-game wildlife species. The lake maintained some open water during the severe drought of 1975 and 1976 when many wetlands went dry. Thus, Dean Lake is especially valuable to wetland wildlife during dry years. The lake and surrounding uplands are included in a proposed community park.

The proposed action will cross an unnamed stream channel that in the prehistoric past served as an outlet for Dean Lake. In the past, this channel emptied into Blue Lake. Now the channel is not continuous due to development and climatic changes. In 1976 a sanitary sewer crossed the channel where it intersects with the proposed By-Pass. The channel is non-existent in this area because of the sewer construction. The large amount of vegetation growing in the channel also indicates its dryness.

Situated about one and one-half miles north of the proposed action is the Minnesota River, which is the final receiving stream for all surface runoff and ground infiltration in the project area. The Minnesota River does not supply water to project area communities for municipal use because of its relatively poor quality and treatment requirements. It is considered suitable for recreational pursuits such as boating but not swimming. The river is also used for the deposition of treated wastewater effluent from the Blue Lake Treatment Plant.

The Minnesota River was surveyed in 1958 and 1959 and found to mainly contain fish species of the carp and gizzard shad varieties. A Federal Water Pollution Control Agency survey accomplished in 1966, indicated the following game fish as being present below the present TH 101/169 Minnesota River crossing: walleye, northern pike, sauger, crappies and bass. Despite the considerable population of rough fish, and the inorganic silt carried into the river from agricultural runoff, the Minnesota Department of Natural Resources (MDNR) believes that fishing can be generally classified as good.

Ground Water

Ground water is utilized as the primary source of water supply in and adjacent to the project area. Water is drawn from glacial drifts where such deposits are thick enough; otherwise, the underlying rock aquifers must be utilized. Such is the case for Shakopee, which draws its water from wells in the aquifers. In the rural portions of the project area, water for domestic use is derived from the glacial drift.

The quality of the ground water is generally good and somewhat variable. Water from the Jordan formation is often high in iron content and that from the Prairie du-chien is often very hard. There have been no severe problems with ground water quality documented to date.

Wildlife

Consultation with the MDNR reveals that the following wildlife species can be found in the general project area.

Mammals

1. white-tailed deer
2. red fox
3. beaver
4. muskrat
5. mink
6. striped skunk
7. raccoon
8. house mouse
9. meadow mouse
10. norway rat
11. eastern fox squirrel
12. eastern gray squirrel
13. thirteen-lined ground squirrel
14. cottontail rabbit
15. big brown bat
16. short-tailed shrew

Reptiles and Amphibians

1. skunk
2. bull snake
3. garter snake
4. snapping turtle
5. painted turtle
6. mud puppy salamander
7. American toad
8. leopard frog

Birds

1. blue jays
2. chickadees
3. nuthatches
4. wrens
5. thrushes
6. cedar waxwings
7. warblers
8. sparrows
9. blackbirds
10. scarlet tanagers
11. finches
12. crows
13. hawks
14. pheasants
15. bitterns
16. herons
17. black terns
18. doves
19. owls
20. hummingbirds
21. woodpeckers
22. swallows
23. ducks
24. coots

The corridor area and vicinity also receives use by migratory waterfowl. Migratory ducks and geese find temporary resting and feeding here during Spring and Fall. The area's lakes and wetlands provide habitat for limited populations of resident waterfowl. The MDNR list represents the regional wildlife picture. Many of those species do not occur in the proposed corridor. Farmlands in the western portion of the corridor are intensively farmed and have limited value for wildlife. Some species such as ring-necked pheasants, ground squirrels,

striped skunks, field rodents, crows and a few kinds of songbirds and raptors do occur, but generally are low in number.

The scrub oak and aspen stands especially in areas with brush and grass in the eastern portion of the corridor have more value for wildlife. They provide suitable habitat for most of those species which occur in the farmland areas as well as gray squirrels, cottontail rabbits, forest rodents, mourning doves, owls, woodpeckers and a variety of songbirds. White-tailed deer, red fox and raccoon are uncommon apparently because of disturbance from off-road vehicles, target shooters, free-ranging dogs and nearby industry.

The wetland basins in the project corridor hold water only temporarily during spring and after heavy storms. Thus, they have little value for many aquatic wildlife species (eg. mink, muskrat, beaver, wading birds, shorebirds, coots and most ducks), but do provide cover and nesting habitat for pheasants and some ducks, rabbits, black birds and several non-game species. The wetlands wildlife will be further assessed in the wetlands evaluation section of this DEIS.

According to the MDNR area wildlife manager, there are no known resident populations of threatened or endangered species in the project corridor.

The U. S. Fish and Wildlife designated Minnesota Valley National Wildlife Refuge Areas are all north of the Minnesota River, in this area, and will not be impacted. The National Wildlife Recreation area boundary follows the present north right of way line for in-place TH 101 from approximately one mile east of County Road 83 to one-half mile east of County Road 89 as shown on Exhibit 15, page 80. The National Wildlife area will not be impacted either.

Archaeological Sites

Archaeological reconnaissance surveys have been conducted by the Minnesota Historical Society* (MHS) as part of a cooperative program with the Mn/DOT and the FHWA. The surveys were conducted between 1968 and 1971, and no archaeological sites were found within the limits of the proposed action.

If items of archaeological interest are found during construction of the proposed action, the contractor will be required by special provisions to halt operations. The Preservation Office of the MHS will be notified so that he can determine the significance of the findings and, if appropriate, supervise their removal.

Historical Sites

The National Register of Historical Places, as published in the Federal Register of February 4, 1975, and monthly supplements does not identify any historical sites within or adjacent to the proposed action. Additionally, the MHS has been requested to conduct a field reconnaissance of the project corridor. The MHS has indicated that it will be the Fall of 1977 before they will be able to carry out this request. Consequently, the coordination will continue with the results documented in the Final Environmental Impact Statement (FEIS).

*The head of the Minnesota Historical Society is also the designated State Historic Preservation Officer.

Existing Transportation System

There are four State highways in the area (US 169, TH 101, MR 41, and TH 300). (See Location Map page 6.) US 169 coming from the southwest is a four-lane divided road until it reaches the Shakopee CBD. Here it becomes a two-lane facility and crosses the Minnesota River heading northeast toward Minneapolis. TH 101 coming from the north is a two-lane facility. It connects with US 169 north of Shakopee then crosses the Minnesota River. In the Shakopee CBD, it turns east becoming a four lane undivided roadway until it becomes a four-lane divided roadway outside of the Shakopee urbanized area. MR 41 is located west of Shakopee and traverses a north-south route with a river crossing over the Minnesota River. TH 300 is a city street designated as a state route because it serves a state institution. These State Trunk Highways are supplemented by County Roads in the rural areas and by County Roads and city streets in Shakopee (see Exhibit 9 on page 37).

In addition to the roadway system, the Shakopee area is presently served by two railroads: the Chicago and North Western Railway and the Chicago, Milwaukee, St. Paul and Pacific Railroad. The Chicago and North Western Railway's track between Shakopee and Burnsville is part of the Railway's main line between St. Paul and U.S. Southwest. This mainline presently has two through trains in each direction daily and two switching runs between Shakopee and Savage.

The Chicago, Milwaukee, St. Paul and Pacific Railroad tracks between Shakopee and Prior Lake is used by a train that makes the round trip from Farmington to the grain elevators in Shakopee and back each day. The track leading west from Shakopee through Chaska is not presently being used. Indications are that an abandonment request application may be anticipated within three years for the Chicago, Milwaukee, St. Paul and Pacific Railroad track between Cologne and Farmington.

Population

Selected population characteristics for Jackson Township, Shakopee, and Scott County are presented in Table 1 on page 33. The two communities comprise 26 percent of the 1970 Scott County population. Estimated 1974 population for Shakopee and Jackson Township is 10,983, which represents a 30 percent gain since 1970. Most of the population is concentrated in the urban area of Shakopee. Other nodes of population occur in the scattered small subdivisions found throughout the fringe area of Shakopee and Jackson Township.

Table 2 shows MC population projections for the period 1980 to 2000. The projected figures represent a continuing growth trend for Jackson Township and Shakopee as well as Scott County.

Employment

Present employment within the project area is primarily clustered in Shakopee, see Table 3. Employment tends to reflect population and land use patterns. Goods and services dominate local community employment, with industrial employment occurring along the TH 101/Scotland Industrial Park area, between Shakopee and Savage. In 1970, there were seven major businesses employing a total of 852 persons in Shakopee.

With the changing character of the area, agricultural employment is decreasing while commuting to jobs in the Twin Cities is increasing. As indicated by Table 3, Shakopee is expected to increase considerably as a base for employment.

Households and Income

The forecasted households are shown in Table 4 for 1980-2000. Tax rates on a \$30,000 home in 1976 were \$615.00. On a metropolitan ranking system Shakopee is in the highest 13 percent. The mean family income in 1969 was upper middle \$10,000-\$14,000 per year.

Table 1*

General Characteristics of Population: 1974

<u>Characteristic</u>	<u>Jackson Township</u>	<u>Shakopee</u>	<u>Scott County</u>
1970 total	1,578	6,876	32,423
Sex			
% Male	50.1	49.2	50.1
% Female	49.9	50.8	49.9
Race			
% White	99.6	99.8	99.63
% Black	-	-	.04
% Other	.4	.2	.33
Age			
% under 18	41.4	41.5	43.4
% over 65	2.2	8.9	7.8
Median	21.8	23.8	22.9
1974 Total	1,670	9,313	38,752

Table 2*

Population Forecasts: 1980 - 2000

<u>Place</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Jackson Township	1,800	2,000	2,200
Shakopee	11,300	16,300	22,700
Scott County	44,450	60,400	80,050

Table 3*

Employment Forecasts: 1980 - 2000

<u>Place</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Jackson Township	42	50	80	120
Shakopee	3,200	5,200	8,300	13,700
Scott County	7,395	10,810	17,500	27,150

*Source: Metropolitan Development Guide: Development Framework
Chapter, Appendix

Table 4*

Household Forecasts: 1980 - 2000

<u>Place</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
Jackson Township	490	520	550
Shakopee	3,600	5,450	7,850
Scott County	13,350	19,100	26,150

*Source: Metropolitan Development Guide: Development Framework
Chapter, Appendix

Public Facilities and Services

The City of Shakopee has five public schools (three elementary, one Jr. High and one Sr. High school) a relatively new county courthouse, post office, city hall, fire station, one hospital, and many parks and playgrounds, see Exhibit 9 page 37. The three elementary schools serve both Shakopee and Jackson Township. Shakopee's fire department is all volunteer and serves both Shakopee and Jackson Township.

Fifteen parks and playgrounds consisting of 1,239 acres are located in Shakopee and Jackson Township. Tahpah Park in Shakopee is situated immediately adjacent to the proposed action. This proximity, however, will not require the use of park land (no 4(f) involvement) for implementation of the proposed project.

Most of Shakopee is serviced by sewer and water. The project area is traversed by several Northern States Power transmission lines and natural gas pipelines. An interceptor sanitary sewer connects the City of Prior Lake to the Metropolitan Waste Control's Blue Lake treatment plant. These utilities will not be disrupted by construction of the action.

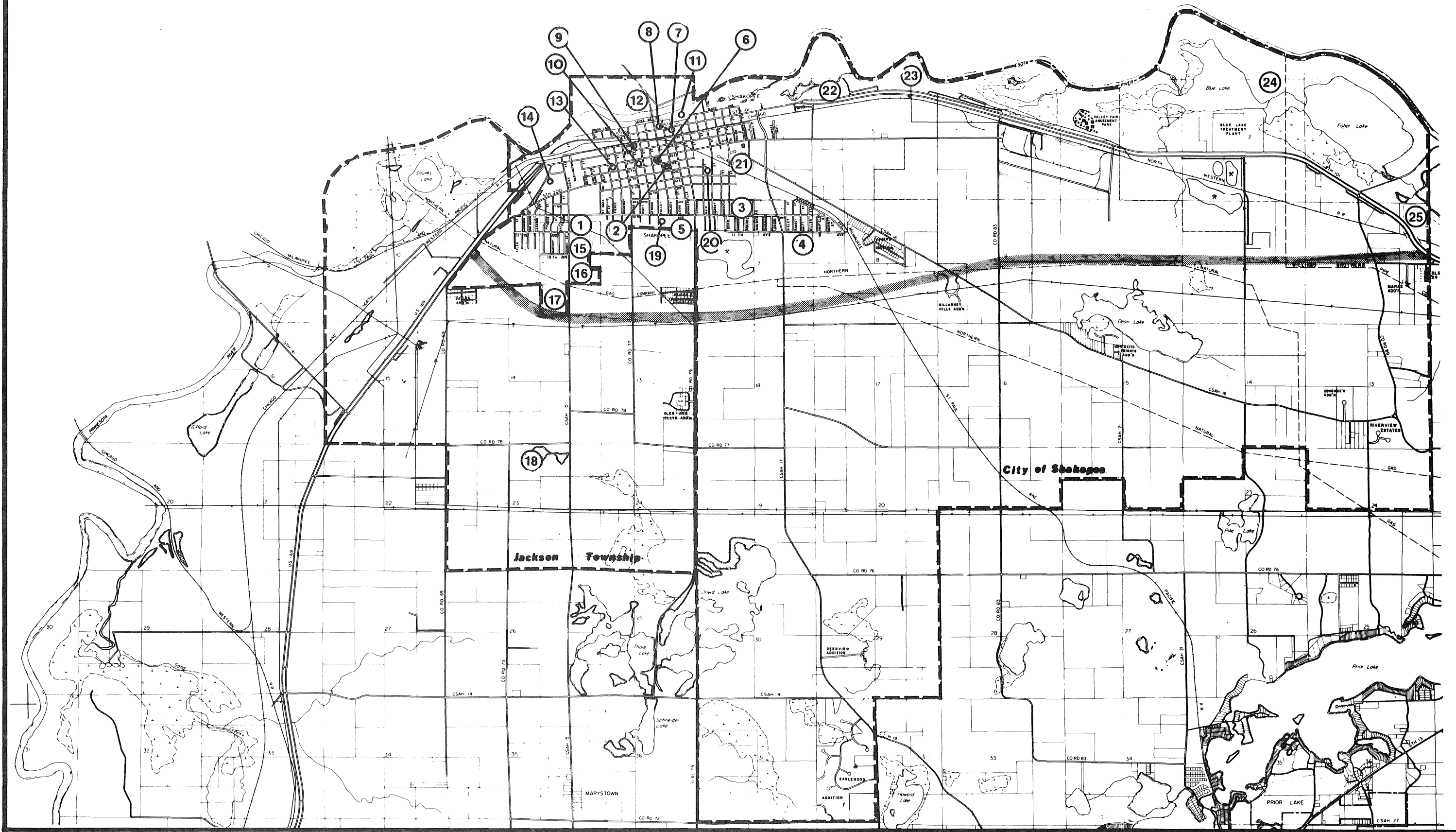
Aesthetic/Visual Values

The proposed action's visual environment consists of an area that is basically rural, agricultural land on nearly level to gently rolling terrain. The view from the project varies from residential scenes of home clusters and scattered farmsteads to park lands and commercial complex. Transmission line towers parallel the project corridor over much of its length.

Index to Exhibit 9

Public Facilities located in the Shakopee By-Pass in Scott County,
Minnesota Study Area:

1. Edward & Grace Sweeney School (Elementary)
2. Central School (Elementary)
3. B. F. Pearson School (Elementary)
4. Junior High School
5. Senior High School
6. Scott County Court House
7. Post Office
8. City Hall
9. Fire Station
10. St. Francis Hospital
11. Huber Park
12. Riverside Park
13. Holmes Park
14. Riverview Park
15. Municipal Pool
16. Lions Park
17. Tahpah Park
18. Jackson Township Park
19. Stans Park
20. Hiawatha Park
21. Gorman Park
22. Memorial Park
23. Minnesota Valley Restoration Project
24. James W. Wilkie Regional Park
25. Rice Lake Wayside Park



SHAKOPEE BY-PASS

LEGEND
Public Facilities
(see following page for Index)

PUBLIC FACILITIES

V. LAND USE PLANNING

Metropolitan Area*

Under the authority of Minnesota Statutes, the MC prepared and adopted, a comprehensive development guide for the metropolitan area. It consists of policy statements, goals, standards, programs, and maps prescribing guides for an orderly and economic development of the metropolitan area. The comprehensive development guide recognizes and encompasses physical, social, and economic needs of the metropolitan area and those future developments which will have an impact on the entire area. The scope includes such matters as land use, parks and open space land needs, the necessity for and location of airports, highways, transit facilities, public hospitals, libraries, schools, and other public buildings.

A goal of Development Framework is to ensure a broad choice of lifestyles in the metropolitan area. While many people prefer large city to suburban living environments, a significant share of the population prefers a more rural atmosphere. The small cities in the area which have been designated Freestanding Growth Centers can provide this rural living environment by economically accommodating growth which would otherwise occur as scattered rural subdivisions lacking adequate urban services.

The Shakopee area fits into the MC development framework by being designated a Freestanding Growth Center.

* Metropolitan Development Guide: Development Framework.

It is important to assure that Freestanding Growth Centers can expand beyond their present boundaries if necessary to supply municipal services.

Freestanding Growth Centers, in cooperation with the MC, inventory their community facilities and assess their potentials and desires for growth. Growth is planned and managed to revitalize and rehabilitate older sections of the city to allow the orderly and economic extension of urban services, to prevent the contamination of ground water by random development on unsuitable soils, and to preserve commercial agricultural activities on land not immediately needed for urbanization. Employment and retail opportunities should be encouraged in order to maintain community identity and minimize dependence on the Twin Cities.

Local Area

Planning, zoning and subdivision regulations in the local area are undertaken by the City of Shakopee and Scott County. Presently Shakopee relies on its 1963 Comprehensive Guide Plan, while Scott County has a development plan adopted in 1971.

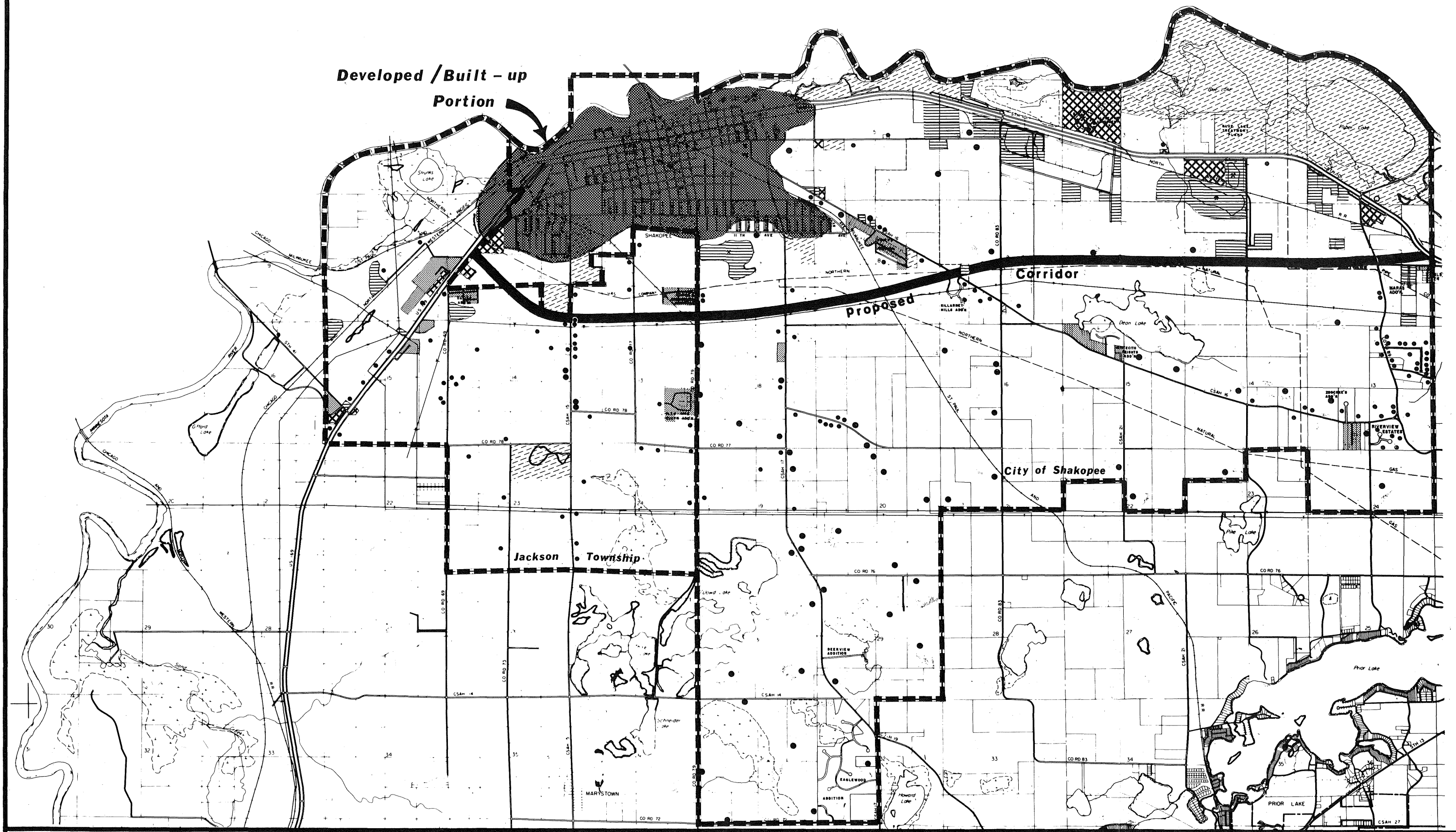
Savage, Shakopee, Jackson Township and Scott County will have to update their comprehensive plans in accordance with the Metropolitan Land Planning Act passed by the 1976 Minnesota Legislature. The Act provides that the MC "shall review and comment on the apparent consistency of the comprehensive plans and capital improvement programs with other adopted chapters of the Metropolitan Development Guide." The updated comprehensive plans have to be submitted to the MC by July of 1980. As

stated on page 14, the Shakopee By-Pass is part of the 1990 Metropolitan Highway System Plan prepared by the MC and published in July of 1976. The type and distribution of metropolitan facilities in and adjacent to the Shakopee By-Pass corridor will be addressed and issues resolved during the Metropolitan Land Planning Act compliance process.

Because of the project area's proximity to the Twin Cities as well as its location to major transportation corridors such as US 169, TH 101 and I-35W, many characteristics of urban encroachment and suburban growth are present. Increasing population and industrial growth are causing changes which are reflected in the decrease of agriculture and the relative disappearance of open space in favor of housing developments and commercial-industrial corridors.

As displayed in Exhibit 10 on page 41, existing land use in and adjacent to the project corridor is predominantly agricultural. Most of the corridor area is dominated by farmsteads and cropland interspersed with pasture and open areas. Concentrations of single family residences in scattered subdivisions are also evident. Small areas of commercial development occur in the vicinity of the project termini.

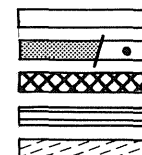
According to the proposed land use scheme as shown in the community and county plans, the project area will feature a mix of residential, commercial and industrial development, see Exhibit 11 page 42.



SHAKOPEE BY - PASS

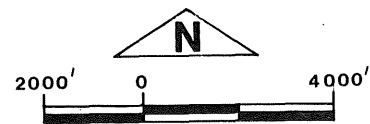
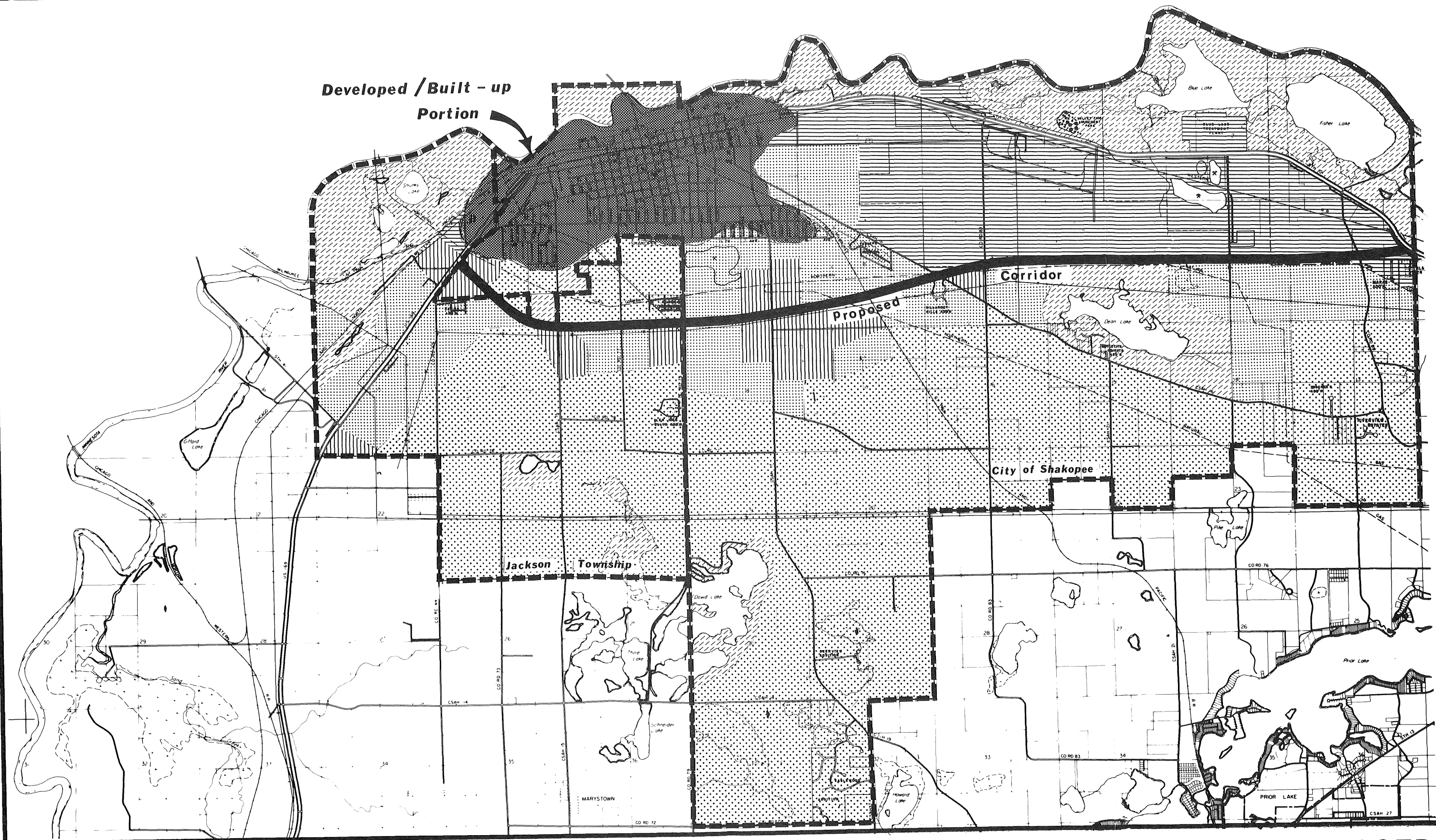
41

LEGEND
 Undeveloped / Agricultural
 Residential Dwelling Unit(s)
 Commercial
 Manufacturing / Industrial
 Parks / Public



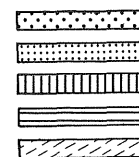
Reference:
 J. Darling and Associates
 Midwest Planning and Research, Inc.
 HNTB

**EXISTING
LAND USE**
 EXHIBIT 10



SHAKOPEE BY - PASS

LEGEND
 Low Density Residential
 Medium and High Residential
 Commercial
 Manufacturing / Industrial
 Parks / Public



Reference:
 J. Darling and Associates
 Midwest Planning and Research, Inc.

PROPOSED LAND USE

EXHIBIT II

VI. PROBABLE IMPACT OF THE PROPOSED ACTION

Secondary Impacts

Secondary impacts such as increased area growth and its effects on community facilities and structure are controlled by the MC Development Frame Work Policies. At present the constraining growth factor is the availability of sewer. Current MC planning includes both the By-Pass and sewer development, and the construction of these facilities has been coordinated. Although this proposal will probably increase the growth, it will be consistent with the area planning process.

Implementation of the proposed action will not disrupt school district boundaries. Public buildings will not be displaced nor will any park land be required as a result of the proposed action.

Expenditures related to the proposed action will have an income generating impact much greater than the construction cost as a consequence of the multiplier effect. Construction money will be used to purchase materials and meet payroll expenses, which should provide added employment to both the local and metropolitan area. The payroll and profit from the sale of materials is respent, mostly in the immediate area, and, in turn, causes a demand for more goods and services. This process can be repeated several times in decreasing scale over a short period of time until the initial investment is lost to the local economy through spending in other areas.

Direct Impacts

The direct impacts to the area include water quality, displacement and relocation of people, wetlands, agricultural land, air quality and noise.

Water Quality

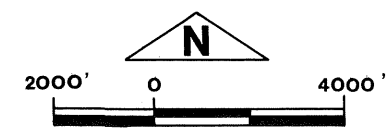
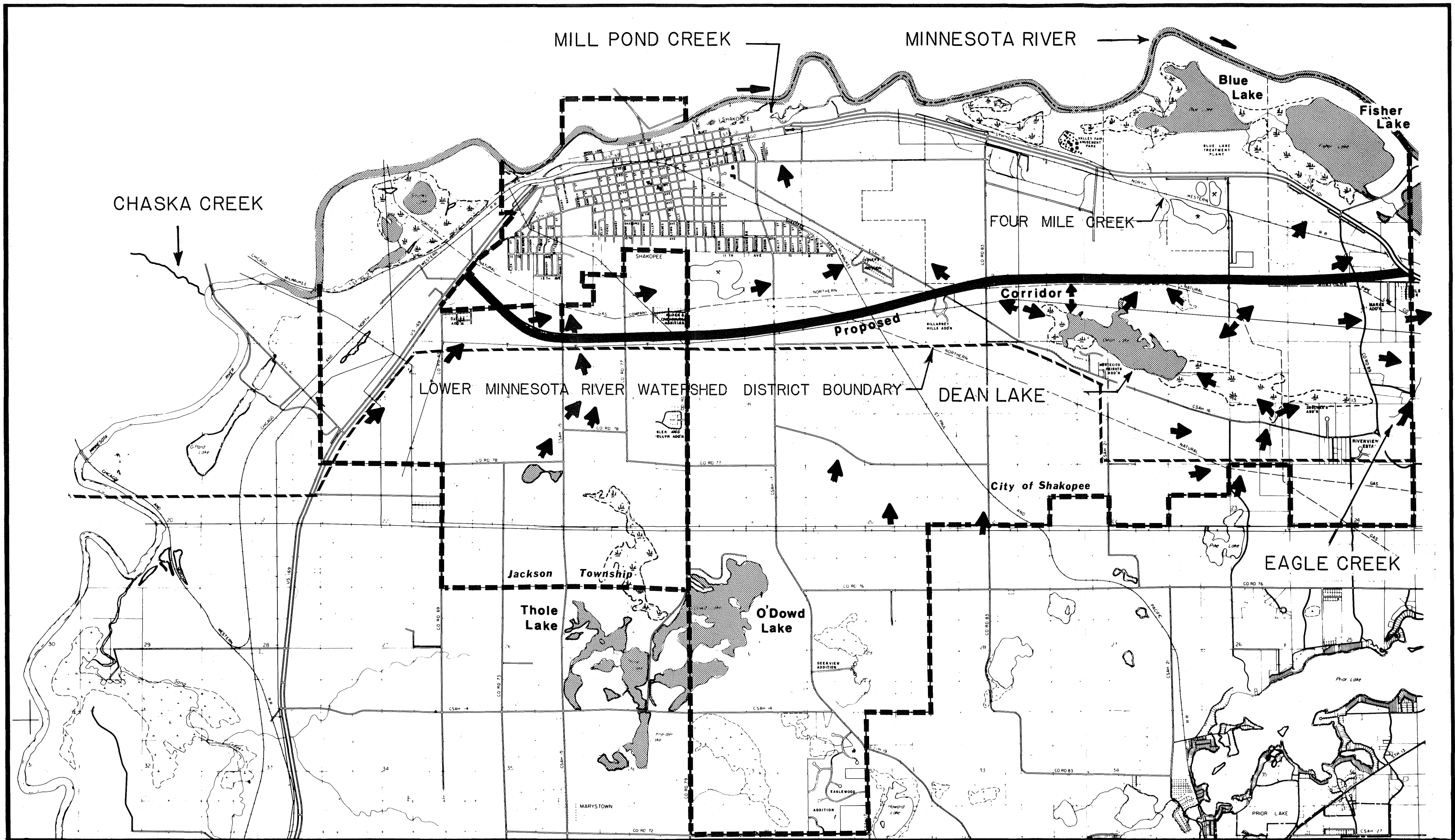
The sensitive areas in the project vicinity are Dean Lake, Eagle Creek, Mill Pond Creek, Chaska Creek, the Minnesota River and the ground water. See exhibit 12, page 45.

Dean Lake is 2000 feet south of the project and upstream in the drainage pattern. Consequently, drainage from the project will be away from Dean Lake and will not have any impact upon it.

Four Mile Creek commences 2000 feet north of the proposed project and drains the wetlands north of the proposed project into Blue Lake. Runoff from the project will not reach Four Mile Creek.

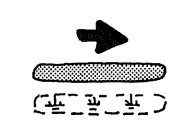
Eagle Creek is over 3000 feet from the project with a drainage path running parallel and upstream to the By-Pass. Runoff from the project will not reach Eagle Creek.

Although Mill Pond Creek is downstream from the project, it is 2 miles away and there are no established drainage channels between the proposal and Mill Pond Creek. The slope of the land between the By-Pass and the creek is 0-2 percent. The great distance and flat slopes between the project and the creek indicate highway runoff will not effect Mill Pond Creek.



SHAKOPEE BY - PASS

LEGEND:
Drainage Flow
Lake
Wetland



Reference:
U.S.G.S.

SURFACE HYDROLOGY

EXHIBIT 12

Chaska Creek is 2 miles west of the project and north of the Minnesota River. Therefore, there will be no impact on Chaska Creek.

The Minnesota River is 1 1/2 miles from the project. It is also the final receiver for all water in the drainage area. However, because of the distance, slope of land and soil porosity, it is unlikely that surface runoff will impact the Minnesota River. The project is not in the Minnesota River Flood Plain.

Evapo-transpiration accounts for over 80% of the rainfall in the water-budget. The remaining 20% is mostly stored in low areas where it percolates through the glacial drift and eventually reaches the Minnesota River as groundwater.

There are various locations for ground water. The first is on the glacial drift between 0-400 feet thick. Then the Prairie du Chein group and the Jordan Sandstone. These two formations are interconnected and yield large amounts of water. Highway runoff should not impact either the Prairie du Chein or Jordan Sandstone aquifers. The impact to the glacial drift will be at the surface where pollutants will be filtered out.

A chemical or oil spill is not likely to occur along either alternate due to the smooth-flowing alignment. However, if a spill should occur, procedures to contain the spill are being developed and notification will be made to appropriate state and federal officials.

The natural drainage will be perpetuated when the project is completed.

Agricultural Land

The agricultural land is used mainly for corn production since the soil is excessively well drained to droughty. Irrigation, in the corridor, is constrained by the proximity of power lines and towers. The U.S. Department of Agriculture representative in Scott County identifies the land as being marginal farmland.

Displacement and Relocation of People*

All persons lawfully occupying real property will be informed of their eligibility to receive such payments as; moving expenses, appraisal fees, housing supplements, closing costs, interest differentials, etc. Business concerns will be advised of such payments as; moving expenses, actual direct loss of tangible personal property, discontinued business payment, searching fees and appraisal fees (to owners of real property).

When Mn/DOT proceeds towards negotiations with landowners, the relocation staff will personally contact all occupants and advise them of relocation benefits.

Alternate "1" will displace 3 businesses near US 169. They are a truck stop and restaurant, a mobile home sales and a monument company. Alternate "2" will displace 2 businesses; a mobile home sales agency and a mobile home park. A warehouse located on the common corridor will also be needed.**

*A relocation report has been prepared and is available from Mn/DOT District 5.
**The corridor using alternate "1" will displace 4 businesses; using alternate "2" there will be 3 businesses displaced. Because there are many highway oriented sites with proper zoning available in the area it is felt that relocation of the businesses, except the mobile home park, can be accomplished with a minimum of difficulty. The mobile home park situation is reviewed later in this report.

Table 5 shows value and number of residences displaced for each alternate and Table 6 shows the occupied mobile homes displaced for each alternate.

TABLE 5

Value of Single Family Homes

Estimate Price	Common Corridor	Alternate "1"	Alternate "2"
Under 15,000	6	0	0
15-30,000	2	2	3
30-40,000	4	9	8
40-50,000	1	19	6
Over 50,000	0	2	2
TOTAL	13	32	19

TABLE 6

Displacement of Occupied Mobile Homes

Location	Common Corridor	Alternate "1"	Alternate "2"
Near CR 69	1	0	0
Mobile Manor	0	6	56
Buena Vista	0	58	0
Near Buena Vista	0	2	2
TOTAL	1	66	58

The most homes at the present time that would be acquired for the total project would be approximately 45 single family residences. Visual inspection of the project area indicates no minority inhabitants, a minimum of elderly people and few large families. There could well be many low income individuals and families because of the large number of mobile homes involved.

The 6 homes listed under a \$15,000 value are rented properties. These homes appear to be non decent, safe and sanitary. Problems in relocation could originate because of the assumed low income.

The director of the area Housing and Redevelopment Authority (HRA) indicated Scott County has subsidized section 8 properties which can be utilized for replacement housing. The agency presently aids 20 families a year. Although there is presently no redevelopment activity, the director is optimistic that such activity will get underway in the near future. Possibly this project would be the catalyst for creating such housing. A family displaced by the By-Pass would receive preferential treatment. Mobile homes may be utilized as a source of low-cost replacement housing if a new park can be built.

The acquisition of homes in the estimated \$15-30,000 range could present a problem. The number of homes listed for sale in April 1977 is 7 so the problem is considered to be minor. Utilization of maximum housing supplements should solve relocation problems.

New housing today consists of detached homes, condominiums, townhouses and pre-built homes. Displacees from this project may not be able to relocate into similar housing but they will have a large selection of housing nevertheless because of the change in styles. Table 7, shows what is happening in the spring of 1977. This trend can be expected to continue in this expansion community throughout the period of this project.

The majority of the homes affected are in the \$30-50,000 price range. Ample housing is available in this price range to accommodate displacees.

Many building lots are also available for those desiring to construct new homes. Scott County has definite restrictions pertaining to sewer service but projecting the time scheduled for the project, new residential developments are planned and new housing will be available in the area.

TABLE 7 - Available Housing

	Under \$15,000	\$15-\$30,000	\$30-\$40,000	\$40-\$50,000	\$50-\$60,000
Homes for sale 1977	0	7	11	26	31

2 bedroom Townhouses - 10 in \$30-\$35,000 range
 3 bedroom Townhouses - 26 in \$34-\$37,000 range

Overall, the relocation of residents on this project will take a concerted effort but can be accomplished, providing adequate lead time is scheduled.

Unlike the homes or business displacements, acquisition of the mobile home sites would present definite and unique problems. Alternate "2" would necessitate acquiring the complete "Mobile Manor" park (56 units) while Alternate "1" requires about 6 from "Mobile Manor", and 58 from the "Buena Vista Park" which has 250 sites in the park.

Relocation of 59 to 67 mobile home families will be difficult. Many factors are involved and include availability of public sewer and water, age and condition of the mobile homes, displacee's income and family size, displacee's source of employment.

Scott County presently has restrictions on mobile home parks. New parks or expansion of old parks is prohibited unless they are serviced by public sewer and water. Mobile Manor and Buena Vista have neither and public

sewer and water service is not scheduled for the area. Therefore, expansion of either park, or of other parks in the area to accommodate displacees is not now possible.

Most mobile home park operators have restrictions limiting entrance to their facility. A common restriction is age and size of unit allowed. This has been done to gain public acceptability. A large number of the units to be displaced will not be acceptable to other park operators because of their advanced age.

Relocating these 59 to 67 mobiles to other parks is not feasible. New mobile home parks are not being constructed in the area because of local restrictions; therefore, present low cost housing resources in Shakopee and Jackson Township are inadequate. However, there are possible solutions to the relocation problem.

Regulating authorities could provide exceptions to construct a substitute Mobile Manor or allow extension of Buena Vista to provide alternate sites for those to be acquired. If alternate 1 is chosen then extension of Buena Vista to accommodate the 58 sites acquired from them could be done without increasing their septic system size. If alternate 2 is chosen, Mobile Manor would be acquired in total. A new park meeting new requirements, excepting sewer and water, could be allowed in the same area. Provision for later sewer and water hookup could be made in the new park design and construction. Either of these actions, dependent upon the alternative chosen, would minimize relocation problems.

Another solution could be the relocation of mobile home families into apartments and homes. However, relocation costs might be so great as to

jeopardize the capability of funding the project, thereby creating a "no build" situation. The time needed to provide the quantity of housing necessary to effect relocation would extend the project considerably, also adding to project costs.

Local officials are conferring on the feasibility of sewer and water projects in the area. New extensions of these utilities could provide sites for mobile home parks or low cost modular housing developments; both would be housing resources for this project.

The assistant planning coordinator of Scott County says there will be no competing displacement within the next 10 years. Throughout the 10 years, there will be minor acquisition of some agricultural land in Scott County for various reasons, with a possibility of 2 - 4 farmsteads. This will have no affect or competition for the Shakopee By-Pass.

Although relocation problems will accompany the acquisition of homes, businesses, and mobile homes, the time schedule of acquisition would have a major impact. With a well planned acquisition schedule, the relocation of all concerned can be accomplished. There should be adequate housing available, adequate commercial sites and with the County's help, satisfactory relocation of mobile homes and their occupants.

Wetlands

Wetlands in the project corridor occur principally north and northeast of Dean Lake. An inventory and wildlife habitat evaluation was conducted for all wetlands near the corridor between Co. Rd. 83 and TH 101. Fourteen wetlands were identified. These wetlands have a total area of 37 acres of which 4 to 8 acres would be effected within the project corridor depending upon design selected.

The wetlands were classified according to the U. S. Fish and Wildlife Service classification system (Shaw and Fredine 1971). Three types were identified: wet meadow, shallow marsh and shrub swamp. This corresponds to USFW circular 39 as type 2, type 3 and type 6 respectively.

Wet Meadow Type 2 (7 wetlands totaling 11.4 acres of which 2.2 acres would be impacted) - The soil usually is without standing water during most of the growing season but is waterlogged within at least a few inches of its surface. Vegetation includes grasses, sedges, rushes and various broad-leaved plants. Wet meadows are occasionally used by nesting ducks, but are more important for pheasants, rabbits, skunks, mice and songbirds.

Shallow Marsh Type 3 (2 wetlands totaling 13.8 acres which will not be impacted) - The soil is usually waterlogged during the growing season; often it is covered with as much as 6 inches or more of water. Vegetation includes grasses, sedges, rushes, smartweed and cattail. Flooded areas also contain arrowheads, bur reeds and water plantain. Shallow marshes provide habitat for ducks, wading birds, black birds, muskrat, mink, raccoon, reptiles and amphibians.

Shrub Swamp Type 6 (5 wetlands totaling 12.1 acres of which 2.2 acres would be impacted) - The soil is usually waterlogged during the growing season. Vegetation includes grasses, alders, willows, dogwoods and saplings of aspen and cottonwood. These wetlands are currently in a state of vegetational transition. Aerial photographs taken in March of 1970 indicate that these wetlands were then a combination of wet meadow and shrub swamp. A field investigation in February of 1977 showed that these wetlands have been invaded extensively by aspen and upland grasses and forbs. These areas have low value for most wetland species of wildlife.

The relative value of each of the 14 wetlands for wildlife habitat was measured using a technique described by Larson (1976)*. The value of each wetland for wildlife productivity and diversity is based on a rating of 10 habitat criteria. The 10 criteria include:

1. Wetland Type Richness
2. Dominant Type
3. Wetland Size
4. Plant Life-Form Richness
5. Topographic and Hydrologic Location
6. Surrounding Habitat
7. Amount of Plant Cover
8. Cover Interspersion
9. Relationship to Other Wetlands
10. Water Chemistry

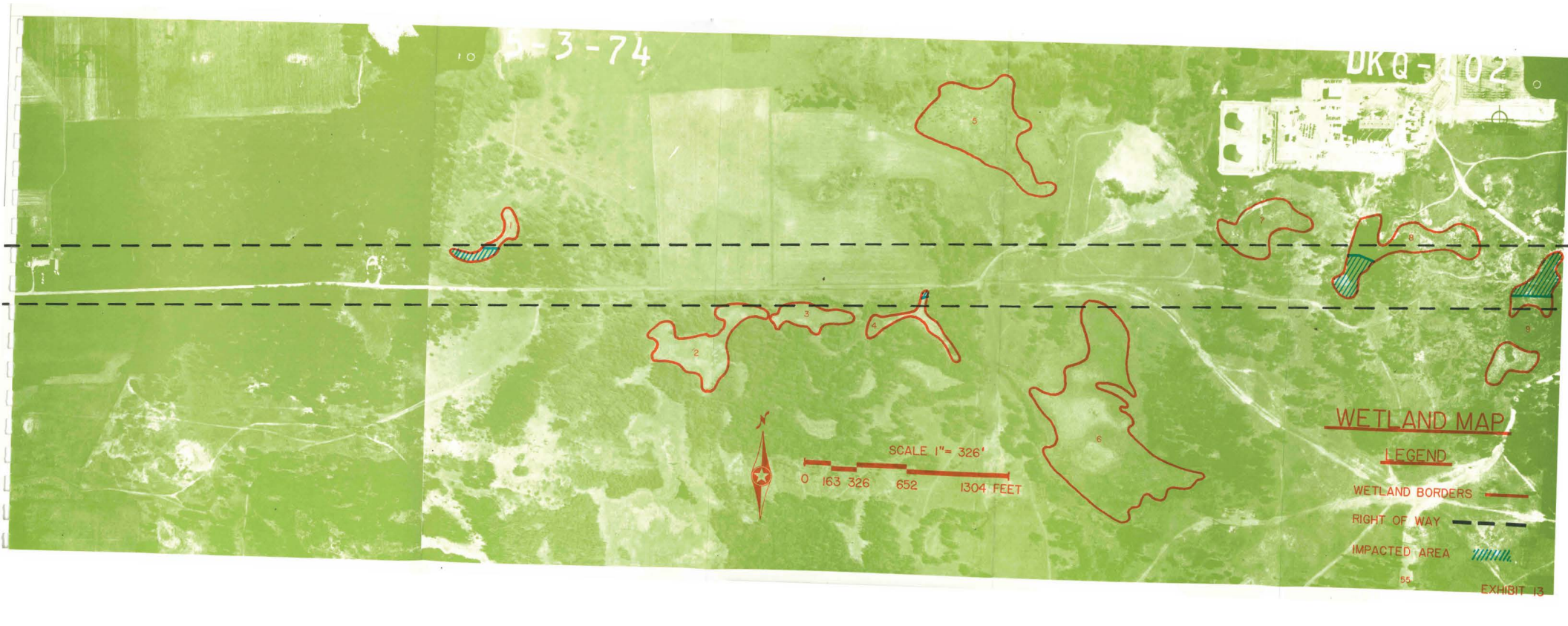
The lowest possible score is 36 and highest is 108. Habitat value may be generally catagorized as excellent (greater than 70), good (between 60 and 70), fair (between 50 and 60) and poor (less than 50). This is a comparative catagorization which ranks the wetlands on a scale relative to each other. All wetlands have value to wildlife and are important habitat.

The wetlands in the project corridor were evaluated in the field on 10 February 1977. The wetland maps, Exhibit 13 on pages 55 and 56 identify the wetland boundaries, the Shakopee By-Pass right of way and the impacted wetlands area. The name, area and wildlife habitat value of each of the wetlands are shown in Table 8 on page 57. Twelve of the wetlands evaluated had habitat scores of 52 or less. Thus, most wetlands in the corridor have fair to poor value for wildlife. Wetlands 2 and 6 had higher scores of 59.0 and 60.5 respectively. These are both shallow marshes which would have good value for wildlife, especially during wet years. Less than 10 percent of the area of either of these wetlands is located within the project corridor.

*Models for evaluation of fresh water wetlands, University of Massachusetts.

5-3-74

DKQ-102



WETLAND MAP

LEGEND

WETLAND BORDERS ———

RIGHT OF WAY - - - - -

IMPACTED AREA //



TABLE 8. Inventory and Wildlife Habitat Evaluation of Wetlands in the Shakopee By-Pass Corridor between Co. Rd. 83 and T.H. 101.

Wetland Name	Fish & Wildlife Service Classification	Total Area (Acres)	Area in Corridor* (Acres)	Impacted Area (Acres)	Wildlife Habitat Value
1	Wet Meadow (Type 2)	1.1	0.6	0.5	Poor
2	Shallow Marsh (Type 3)	3.3	0.0	0.0	Fair
3	Wet Meadow (Type 2)	1.6	0.0	0.0	Poor
4	Wet Meadow (Type 2)	0.8	0.1	0.03	Poor
5**	Wet Meadow (Type 2)	3.3	0.0	0.0	Fair
6	Shallow Marsh (Type 3)	10.5	0.4	0.0	Good
7	Shrub Swamp (Type 6)	1.5	0.1	0.0	Poor
8	Shrub Swamp (Type 6)	4.2	1.7	0.7	Poor
9	Shrub Swamp (Type 6)	3.3	1.5	0.9	Fair
10	Shrub Swamp (Type 6)	2.1	0.5	0.2	Poor
11	Shrub Swamp (Type 6)	1.0	0.4	0.4	Poor
12	Wet Meadow (Type 2)	1.5	1.5	0.7	Poor
13	Wet Meadow (Type 2)	0.9	0.9	0.3	Poor
14	Wet Meadow (Type 2)	2.2	0.6	0.6	Poor
TOTAL		37.3	8.3	4.3	

* Represents the worst case situation when all of the right of way would be used for construction.

**Most of this wetland in the corridor has been removed by a sewer line constructed in 1976.

Dean Lake, which will not be impacted by the project, was found to have a wildlife habitat value of 83 which would classify it as excellent wetland habitat.

No threatened or endangered species are known to occur within the proposed corridor area. Three wildlife species probably occur in the area which are recognized by the MDNR as being in need of special consideration even though they are not threatened or endangered. These are the marsh hawk, a species of uncertain status, and the common egret and great blue heron, species of special interest. Because these species tend to avoid close contact with man, the proposed project might have a detrimental effect upon them.

IMPACTS AND MITIGATION

Wetlands located within and adjacent to the project corridor will be directly impacted by the proposed project from construction of the road and from polluted drainage flowing off the completed roadway. Wetlands located throughout the project area may be indirectly impacted by the proposed project when residential and industrial development results as planned.

The primary physical and chemical impacts of road construction and maintenance upon wetlands are as follows: (stared items are long-term impacts).

- *1. Drainage and removal of vegetation and topsoil from wetlands within the project corridor.
- *2. Increased surface runoff into wetlands receiving highway drainage (may be a beneficial impact).
3. Increased soil erosion, primarily during construction.
- *4. Interference of water movement through the wetlands with possible loss of seepage flow into groundwaters.

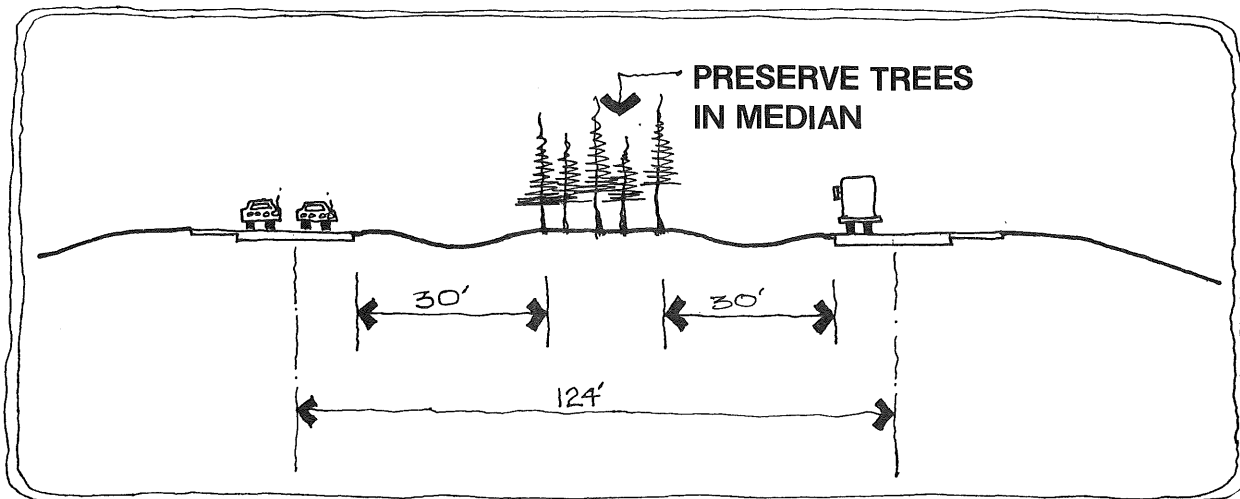
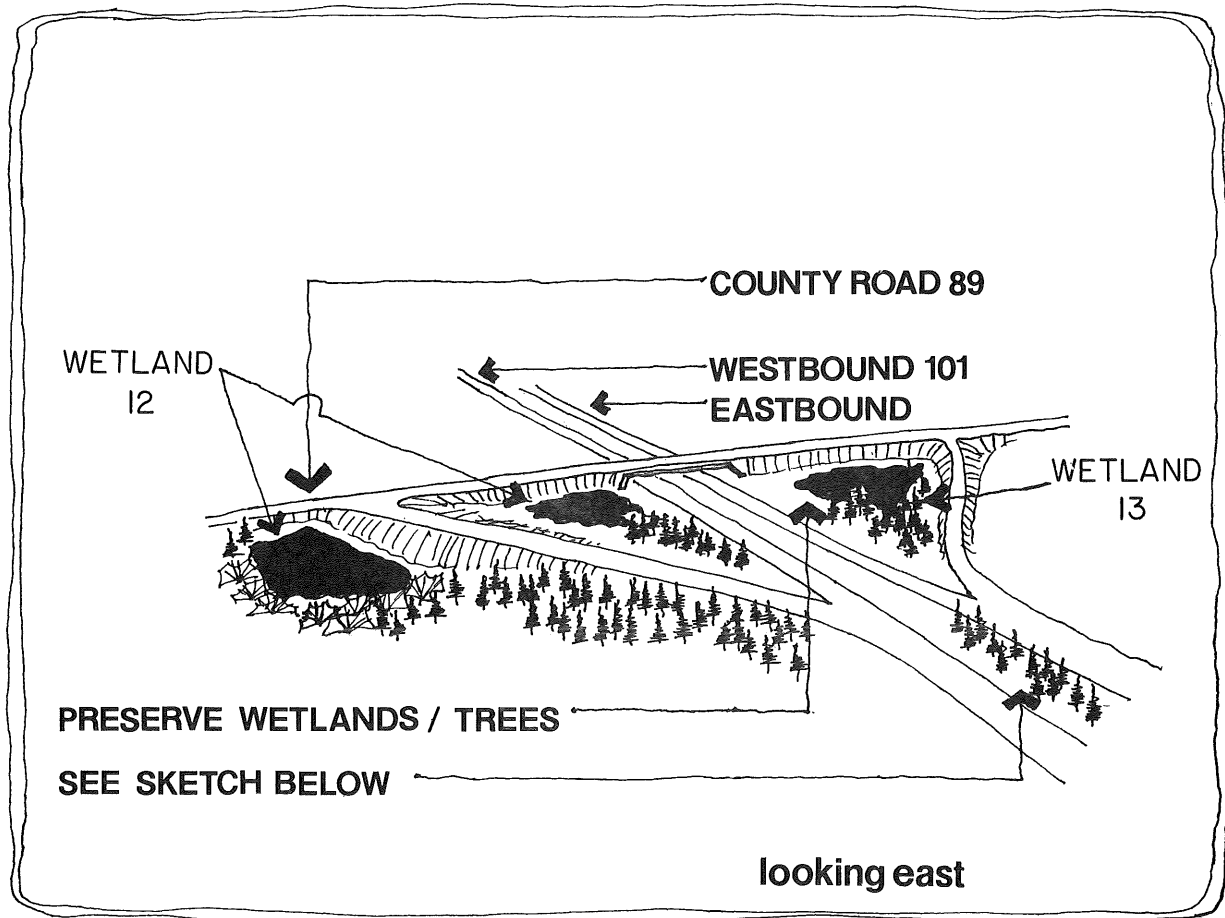
- *5. Loss of habitat diversity through change in vegetation composition (permanent grasslands along roadsides in farmlands would improve habitat diversity).
- *6. Greater fluctuations in water levels and flow rates.
- *7. Altered chemical composition of waters through increase of dissolved salts, nutrients and heavy metals.

The detrimental effects of these impacts upon wetlands and wildlife can be partially minimized and mitigated through the following procedures:

- A - By impounding shallow water in the wet meadow and shrub swamp areas adjacent to the corridor. Most of these wetlands lack sufficient water to be good wetland habitat. With proper design these wetlands can serve as ponding areas for highway runoff and at the same time provide improved wildlife habitat.
- B - By landscaping and seeding with species of plants that provide food and shelter for wildlife.
- C - By not mowing roadsides to provide nesting cover for pheasants, ducks and songbirds.
- D - By narrowing construction limits adjacent to wetlands (eg. steepen slopes, shift alignment and change profile).

Exhibit 13.1 on the next page illustrates the mitigation methodology as applied to wetlands 12 and 13 in the CR 89 interchange area. Wetland 12 is used for pasture by horses during the summer and one-half of wetland 13 is used for a garden area. By preserving these wetlands within the controlled access interchange area, they will no longer be used for pasture and gardening purposes and with the proper design, these wetlands will have a higher quality after the Shakopee By-Pass construction. Measures to minimize the potential wetland impacts during construction are covered on page 68 of this DEIS. With the establishment of permanent grasses on the highway slopes and with the natural sandy soils in the area, roadway runoff, contaminated by motor vehicle emissions and deicing chemicals, will be filtered prior to reaching the wetland area.

WETLAND MITIGATION



The highway may indirectly benefit wildlife by partially restricting access and movement through the area by off-road vehicles (snowmobiles, motorbikes, 4-wheel rigs). Currently, a significant amount of disturbance, soil erosion and vegetation damage is being caused by intensive off-road vehicle activity. This activity has created a network of wide trails which criss-cross throughout the project area. These trails are subject to erosion because of the fine, sandy texture of the soils. Placing a controlled access highway across the area may reduce its suitability for off-road vehicles by limiting their freedom of movement.

Air Quality*

The air quality report was reviewed by the Minnesota Pollution Control Agency (MPCA) and the Environmental Protection Agency (EPA) (see page 62).

The National Ambient Air Quality Standards for carbon monoxide are:

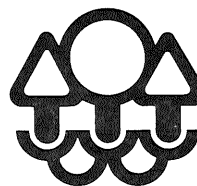
- One hour maximum concentration not to be exceeded more than once a year equals 35 ppm; and
- Eight hour average maximum concentration not to be exceeded more than once a year equals 9 ppm.

The MPCA's one hour standard of 30 ppm applies to this project. Due to the hourly variation of traffic and the persistence of stable atmospheric conditions, the eight hour standard of 9 ppm is usually the most critical in an urban area.

*An air quality report has been prepared and is available from Mn/DOT District 5.



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604



Minnesota Pollution Control Agency

November 30, 1976.

JAN 12 1977

Mr. Charles E. Burrill
Regional Director
Metropolitan Region
Minnesota Department of Transportation
Transportation Building
St. Paul, Minnesota 55155

Dear Mr. Burrill:

We have reviewed the air quality report for the proposed Shakopee By-Pass, from U.S. 169 Southwest of the City of Shakopee to T.H. 101 at the Shakopee/Savage Corporate Boundary, Scott County, Minnesota. Your letter of November 22, 1976, requested our review to determine the consistency of this project with the State Implementation Plan (SIP).

The localized air impacts as predicted by the air quality analysis should be minimal. In addition, the by-pass should reduce the traffic traveling into the Minneapolis-St. Paul central business district. While impacts of the by-pass appear to be beneficial, the effects upon the total pollutant burden within the Minneapolis-St. Paul air quality control region should still be assessed. Furthermore, this proposed by-pass will be linked with the proposed MR-41 improvement. Since a Draft Environmental Impact Statement (EIS) has already been prepared on MR-41, the combined air quality effects of both project should be assessed in the EIS for the by-pass.

We appreciate the opportunity to review this air quality report. If you have any questions in regard to our comments, please contact Mr. William Franz at 312-353-2307.

Sincerely yours,

Gary A. Williams
Chief,
Environmental Review Section

Mr. Charles E. Burrill,
Regional Director,
Metropolitan Region,
Minnesota Department of Transportation,
Transportation Building,
St. Paul, Minnesota. 55155.

RE: 330
Shakopee By-Pass
From U.S. 169 SW of City of Shakopee
To T.H. 101 at the Shakopee/Savage Corporate Boundary
Scott County, Minnesota
Air Quality Report

Dear Mr. Burrill:

Thank you for providing our office with the Air Quality Report on the Shakopee By-Pass. The staff has reviewed the report and has determined that the project is not inconsistent with the State Implementation Plan.

The Division will reserve further detailed comments for the Draft EIS.

Again, thank you for your cooperation in this matter.

Sincerely,

Edward M. Wiik, P.E.
Director
Division of Air Quality

EMW:BB/rmg

cc: Brad Beckham, Community Planner,
Transportation Section, Division of Air Quality, MPCA.

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Several models exist for the prediction of carbon monoxide concentration due to indirect source such as a highway. The MPCA recommends using procedures found in: Guidelines for Air Quality Maintenance Planning and Analysis. Vol. 9: Evaluating Indirect Sources, EPA-450/4-75-001, (January 1975). This document provides a conservative screening procedure used to identify situations in which potential problem may exist.

Table 9 on page 63 indicates the results of the screening analysis performed on possible receptor locations affected by the proposed action and its NO-BUILD alternative. The worst probable concentration of carbon monoxide for the year is indicated for each receptor site and the worst probable eight hour average concentration is shown in parenthesis, both figures include the background carbon monoxide.

TABLE 9
Worst Probable Carbon Monoxide Concentration

<u>Receptor Location</u>	1985	1995
	<u>1 Hour (8 Hour) (ppm)</u>	<u>1 Hour (8 Hour) (ppm)</u>
Receptor 1 Shakopee By-pass at R.O.W.	2.1 (0.8)	1.6 (0.6)
Receptor 2A Shakopee By-pass Interchange	2.0 (0.8)	1.6 (0.6)
Receptor 2B County Road 15 R.O.W.	2.3 (0.9)	1.8 (0.7)
Receptor 3A Shakopee CBD Intersection	8.1 (2.9)	6.0 (2.2)
Receptor 3B DO-NOTHING (Shakopee CBD)	11.1 (4.9)	9.0 (3.9)

The worst probable one hour average concentration will be eight percent of the standard and the worst probable eight hour average will be ten percent of the standard near the proposed project. For the NO-BUILD alternative, one hour and eight hour average concentrations will be thirty-seven and fifty-four percent of the standards, respectively, at the CBD receptor; the proposed by-pass will reduce this to twenty-seven and thirty-two percent. Maximum concentrations will occur during the first year after the project is completed, and then will be reduced about twenty-five percent during the next ten years due to improved emission rates as older automobiles come off the road.

This project and all alternatives are consistent with the State Implementation Plan. No significant air quality impacts are expected to occur in areas adjacent to the proposed facility.

The (EPA) concerns shown on page 62 were verbally discussed with them and clarification was made of the Shakopee location in relation to the Minneapolis-St Paul CBD's. The proposed Shakopee By-Pass is a great distance from the Minneapolis-St. Paul CBD's and will not reduce their CBD traffic volumes. The gross burden analysis for the Shakopee By-Pass indicates that by 1990 the build alternative will produce approximately 35% less carbon monoxide and 15% less hydrocarbons than the no build alternative but there will not be a significant difference in the nitrogen oxides production between the alternatives. The combined impacts of the Shakopee By-Pass and MR 41 will not be significant upon the Minneapolis-St. Paul Air Quality Control Region.

Noise*

An analysis of noise impacts and abatement measures has been conducted in accordance with the requirements found in Federal-Aid Highway Program Manual 7-7-3.

In June and July of 1976, Mn/DOT obtained field measurements of the existing noise levels in the vicinity of the proposed action. Locations which were some distance from the influencing effect of local roads and county highways were subject to noise levels ranging from 46 to 53 decibels (dBA). Development along the county highways was subject to noise levels from 54 to 61 dBA, and in the vicinity of TH 101 and US 169 noise levels of from 66 to 77 dBA were obtained.

Table 10 illustrates the design noise levels and land use relationships. This table provides a guideline for assessing the significance of present and future noise levels.

As shown in Table 11 page 67, the noise level for the year 2000 was predicted to be 70 dBA at a distance of 250 feet from the proposed center-line. Along the entire by-pass route, there is no existing residential, commercial or industrial development which will be impacted by estimated noise levels that exceed applicable design standards. However, at Tahpah Park, a noise sensitive area, sound levels could exceed the design noise levels if abatement measures are not implemented.

*A noise report has been prepared and available from Mn/DOT District 5.

TABLE 10

Design Noise Level/Land Use Relationships

<u>Land Use Category</u>	<u>Design Noise Level - L₁₀</u>	<u>Description of Land Use Category</u>
A	60 dBA (Exterior)	Tracks of lands in which serenity and quiet are of extraordinary significance and service an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	70 dBA (Exterior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A.
C	75 dBA (Exterior)	Developed lands, properties or activities not included in categories A or B.
D	---	For requirements on undeveloped lands see paragraphs 11a. and c. of FHPM 7-7-3.
E	55 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

These noise levels are desired goals which apply only to areas of normal human use. The values do not apply to the entire site, but only to the area where activity occurs.

TABLE 11

L₁₀ Noise Levels For The Year 2000

<u>Alternate Location</u>	<u>Right-of-Way L₁₀ Noise Level</u>	<u>Ambient Levels</u>	<u>Distance from C to L₁₀ 70 dBA</u>
BUILD			
East End	74.0	66-77	250'
West End	72.1	66-77	245'
Tahpah Park	72-74	46-50	
Existing TH 101	68.6	66-77	in right of way
NO BUILD			
Existing TH 101	78.3	78.3	340'

The most practical method of noise abatement for the proposed action is the use of earthmounds, walls or a combination of the two. Analysis indicates that a combination earthmound and short wall between the highway and Tahpah Park can effectively reduce noise levels below design standards. A maximum of 12 to 14 dBA reduction might be achieved with a barrier resulting in noise levels of around 60 dBA. This abatement measure could be incorporated in the project. No other problems presently exist which will require noise abatement.

A more detailed noise analysis will be conducted prior to construction of the proposed project. This analysis will respond to actual roadway design features so that proper abatement measures can be incorporated into the project. Local officials who have the responsibility of maintaining land uses compatible with adjacent noise levels will be furnished this information.

Construction Impacts

During construction of the proposed action, some areas in the project corridor will have vegetation removed, cuts and fills will have bare slopes and drainage ditches or channels may be dug and left open. Accelerated erosion will take place from wind and rain occurring during this unprotected period. To minimize the possible adverse effect on water and air quality, construction regulations and abatement measures will be incorporated into project design and construction plans.

The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time. Temporary pollution control measures will be used to keep from happening or correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent erosion control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with the permanent control features on the project. Some examples of temporary control devices are mulches, slope drains, dikes, sediment basins, and turf establishment. Temporary grasses will be quick growing species suitable to the area, that will provide temporary cover but will not later compete with the grasses sown for permanent cover.

Where erosion is likely to be a problem, clearing and grubbing operations will be so scheduled and performed that grading operations and permanent erosion control features can follow immediately thereafter if the project conditions permit; otherwise, temporary erosion control measures may be required between successive construction stages.

The Mn/DOT will limit the area of excavation, borrow and embankment operations in progress commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent erosion control measures current in accordance with the accepted schedules. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures will be taken immediately to the extent feasible and justified.

During construction, noise from equipment use will cause some impact to areas adjacent to the construction site. The most probable areas of noise conflict would be residential areas near the project site. However, this will not be a significant issue because of the few residential sites near the construction area.

Materials such as gasoline and oil will be stored in areas where spill impact will be minimized.

VII. ALTERNATIVES

The corridor type alternatives were eliminated through the public hearing process in the late 1960's and early 1970's, as described in the history section. At that time one 2000 foot corridor was selected. As the planning process continued at the task force level three alternatives evolved within the 2000 foot By-Pass corridor. Each alternative was identical from CR 15 to in place TH 101 (see Exhibit 14 page 73). Between US 169 and CR 15 three interchange concepts developed. They were two directionals and a trumpet concept. All three had significant local and regional impacts. The local effects were displacement of business and homes, and access to businesses. The regional effects were the continuity of the system in lieu of local access. Going through two public meetings eliminated one of the directional concepts.

The considered viable alternatives are:

Alternative 1 - By-Pass with directional interchange

Alternative 2 - By-Pass with trumpet interchange

Alternative 3 - No build

The details on the two alternates were a result of conflicting issues. On the Mn/DOT side was the desirability of an ideal design. An ideal design was perceived as having main route to main route flow or system continuity, being simple to drive, maintaining a design speed of 70 miles per hour, reducing congestion in downtown Shakopee and having a

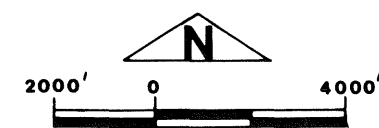
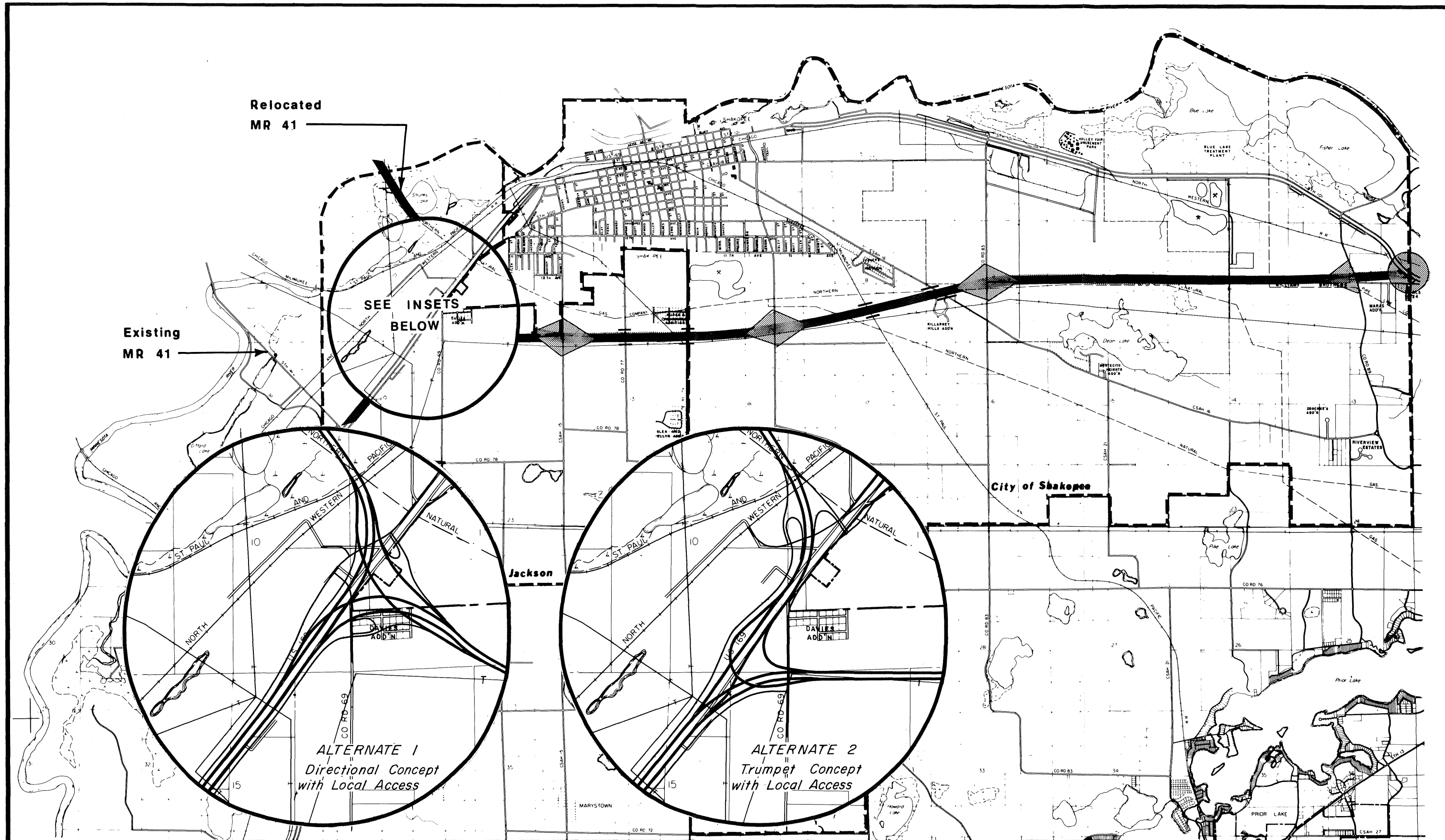
facility able to handle the forecasted traffic volumes. On the local side were issues such as local access and relocation. Two businesses were near the interchange area and felt their existence depended on this access. The downtown businesses also felt their businesses depended on good access to downtown. Future developemnt along US 169 and the By-Pass also would benefit by local access. The most salient relocation issue was the displacement of the Davies Addition. The total cost was also an issue, but everyone agreed it should be the lowest.

Using the above criteria, Mn/DOT evaluated the alternates on a subjective basis. Values of very good, good and poor were assigned to each criteria, corresponding to these were numerical values of 1, 2 and 3. Both alternatives received a total value that was equal.

Other alternative issues that can be quantified are represented in Table 12.

TABLE 12
ALTERNATIVE COMPARISON

	ALTERNATE		
	<u>1</u>	<u>2</u>	<u>3</u>
Additional highway right of way (acres)	550	505	0
Agricultural land lost (acres)	300	300	0
Wetland lost (acres)	14	14	0
Single family residences displaced	45	32	0
Mobile homes displaced (maximum)	67	59	0
Businesses displaced (maximum)	4	1	0
Construction cost (million dollars)	34	30	0
Traffic in downtown Shakopee (AADT)	15,000	15,000	31,000
Trucks in downtown Shakopee (HCAADT)	1,000	1,000	3,500
Worst probable CO concentration, downtown Shakopee 1985 eight hour average (ppm)	2.9	2.9	4.9
Worst probable CO concentration, vicinity of By-pass 1985 eight hour average (ppm)	0.9	0.9	0.9



SHAKOPEE BY-PASS

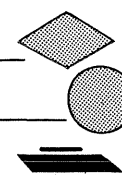
73

LEGEND

Local Access Interchange

Regional Access Interchange

Grade Separation



PROPOSED BY-PASS WITH INTERCHANGE CONCEPTS

EXHIBIT 14

VIII. PROBABLE UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

Construction of the Shakopee By-Pass will cause certain adverse effects which cannot be avoided. These include taking of land, displacement and relocation of families and businesses, loss of vegetation and wildlife habitat and disruption of traffic patterns during construction.

Up to 550 acres of right of way will be needed. Of this amount, 300 acres will be agricultural land, 8 acres of wetlands, 49 acres of forestland and 193 acres of quasi developed residential, commercial land. Even though the farmland is rated as marginal, there is income being earned from crops planted on this land. This income earning potential will be gone when the land is converted to right of way. The remaining acreage is mostly dunelands interspersed with small areas of woodlands and wetlands.

The relocation and displacement impacts will effect up to 45 single family residences, 67 mobile homes and 4 businesses. Relocation assistance will be provided and all relocation costs will be payed. However, there may be some temporary frustrations sustained by those displaced.

Traffic patterns will be disrupted during construction, especially on US 169 and T.H. 101 where the new alignment commences. The construction will be coordinated with the traffic department; therefore, any disruptions will be minimized and should be very minor since most of the Shakopee By-Pass is on new location.

IX. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT
AND THE MAINTENANCE OF LONG TERM PRODUCTIVITY

As is the case on most construction projects, trade-offs must be made between short and long term losses and short and long term gains.

Table 13 lists these trade-offs.

Table 13

Short and Long Term Losses and Gains

LOSSES	GAINS
Short term disruptions during construction such as noise and soil erosion.	Improved transportation system for the southwest metro-area and the region.
Commitment of land for transportation which was previously used for farmland, wildlife habitat, residences and businesses.	User benefits such as reduced travel time and reduction in the accident rate.
	Elimination of congestion in downtown Shakopee.
	Completion of an important link in the southwest corridor system.
	Proposed development in accordance with MC plans.
	The corridor will act as a buffer zone separating the commercial/industrial areas from park lands and residential areas.
The displacement of residences and businesses which will effect jobs and the tax base.	The relocation program provides assistance to place all displacees in housing equal to or better than that from which they came.
	New tax base created by the expected enhancement in business activity, bringing in additional revenue and jobs offsetting the short-term losses from right-of-way acquisition.
The use of petroleum for construction energy.	Gasoline will be used more efficiently by the elimination of congestion.

X. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Resources which are irretrievable are the petroleum and labor used for construction. Of these two, petroleum conservation is an important issue. However, the use of labor is desirable from an employment viewpoint. The funds used are also irretrievable, but in a narrow perspective since they will be used for highways only. The expenditure of funds for the By-Pass only means these funds will not be used on another highway project. Other resources fitting this category are farm land, trees, dunelands and some wildlife habitat. Although immediate use is gone, some of these could be replaced elsewhere. For example, trees replanted or wildlife habitat replaced on highway right of way. The displacement of residences, businesses and farm operations are irreversible, but mitigated by the relocation programs available.

XI. COMMENTS AND COORDINATION

Previous to and during the development of this Draft Environmental Impact Statement (DEIS), public agencies, business interests and citizens have been directly involved in the proposed action through the Shakopee By-Pass Task Force. Several agencies have been active in developing policy and direction for the by-pass project, while others have provided the necessary data needed for evaluation purposes. These agencies were the U.S. Department of Interior-National Park Service (USNPS), the U.S. Department of Interior-Bureau of Outdoor Recreation (USBOR), the U.S. Department of Interior-Fish and Wildlife Service (USFW), the U.S. Environmental Protection Agency (EPA), the U.S. Department of the Army-Corps of Engineers (COE), the Minnesota Department of Natural Resources (MDNR), the Minnesota Pollution Control Agency (MPCA), and the Minnesota Historical Society (MHS).

The USNPS suggested consultation with the State Historic Preservation Officer and suggested that some thought be given to archaeological resources in project planning. As indicated on page 28, Mn/DOT has been in consultation with the MHS/SHPO since the early 1970's. They have been contacted again and indicated they will survey the corridor in 1977. The FEIS will document the results.

The USBOR indicated that based on their general knowledge of the area, it does not appear that the proposed development would have significant impact on environmental resources within their area of jurisdiction.

In the Fall of 1976, the US Fish and Wildlife Service (USFW) toured the project with Mn/DOT personnel. After the field trip, the USFW recommended that the western five miles of the Shakopee By-Pass remain on the proposed alignment. However, they also recommended in Section 9, east of County Road 83, that the corridor would go northeast through Section 10 and connect with TH 101 in Section 3, as depicted by Exhibit 15 on page 80.

The USFW questioned the need for Mn/DOT proposed directional interchange rather than just an at-grade connection. This was explained as inadequate due to the flooding and traffic flow problems which were discussed earlier in this DEIS. By connecting into TH 101 at the proposed USFW location, the County Road 89 - TH 101 intersection would still be prone to flooding and closed to traffic during that occasion; therefore, the movement of people, service, and goods would be severely restricted.

An at-grade connection of the Shakopee By-Pass with present TH 101 would necessitate an at-grade crossing of the Chicago and North Western Railway mainline railroad tracks. At the present time, loaded grain trucks from Southwestern Minnesota passing through the Shakopee CBD to grain terminals in Savage do not have to cross any mainline railroad tracks. These trucks could conceivably continue to pass through the Shakopee CBD after the existence of the proposed USFW alternative since no mainline railroad tracks would have to be crossed at grade. Also, with an at-grade intersection, the trucks would have to stop and accelerate to the TH 101 - County Road 89 intersection where the trucks may again have to stop for the traffic signal which is to be installed in 1978. These stopped, loaded grain trucks would again have to accelerate up an existing three percent grade over the Chicago and North Western Railway tracks. This situation would then result in the demand for interchange improvements at TH 101 and County Road 89, as shown on Exhibit 15, even if the flooding problem did not exist.

The USFW alternative with a Shakopee By-Pass at-grade intersection with the Chicago and North Western Railway could result in the demand for a grade separation for traffic safety. This would probably be required initially for safety reasons as recent safety programs, both at the State and Federal level, have emphasized elimination of highway-railroad grade crossings.

A minimum clearance of 23 feet is required for a highway grade separation over a railroad track. This clearance requirement and the bridge span length limitation restrict the highway-railroad horizontal intersection angle. All of these factors in turn determine the distance north of the railroad required for a vertical roadway touchdown with the existing roadway and/or natural ground. On level ground with a three percent grade, approximately 1,500 feet is required. By the same token, approximately 700 feet between the highway and railroad is required horizontally, as depicted by the existing highway-railroad grade separation. Due to the proximity of the Chicago and North Western Railway tracks to TH 101 in Section 3, an adequate horizontal distance is unachievable for just a grade separation. Movement of the highway-railroad grade separation further east presents a potential long term conflict with the MC's policy on interchange spacing along with potential business relocation impacts.

The USFW alternative with an at-grade crossing of the railroad would be a short term solution. In the long term, the alternative would have to be upgraded, as depicted on Exhibit 15.

As shown on Exhibit 15, the USFW alternative would impact the Minnesota Valley National Wildlife Recreation Area, the Minnesota River flood plain, the James W. Wilkie Regional Park, Four Mile Creek, the Minnesota River Wetlands, and possibly the Blue Lake Sewer Treatment Plant operated by the Metropolitan Waste Control Commission. Table 14 gives a summary evaluation of the alternatives (see page 81).

U.S. FISH AND WILDLIFE ALTERNATIVE

LEGEND

— MINNESOTA VALLEY NATIONAL WILDLIFE RECREATION AREA BOUNDARY

SOURCE: U.S.F.W. SERVICE OFFICIAL MAP

— JAMES W. WILKIE REGIONAL PARK BOUNDARY

SOURCE: HENNEPIN COUNTY PARK RESERVE DISTRICT

— FLOODPLAIN LIMITS

SOURCE: U.S. DEPT. OF HOUSING AND URBAN DEVELOPMENT

— U.S.F.W. ALTERNATIVE

SCALE 1"=801'

0 400 801 1602 3204 FEET

TABLE 14

Alternatives Summary Evaluation

	<u>USF&W ALTERNATIVE</u>	<u>Mn/DOT ALTERNATIVE</u>
Impacts James W. Wilkie Regional Park	Yes	No
Impacts National Wildlife Recreation Area	Yes	No
Impacts Minnesota River Floodway/Flood Plain	Yes	No
Section 4(f) Involvement	Yes	No
Travel Distance	3.6 Miles	3.1 Miles
Profile Grades (Maximum)	3% or Greater	Less Than 0.5%
Impacts Wetlands	Yes	Yes
R/W Acquisition and Relocation	100 Acres Agricultural, possibly Industrial, Commercial	130 Acres Agricultural Residential
Construction Cost	Up To \$13 Million	\$12 Million
Impacts Four Mile Creek	Yes	No
Could Impact Blue Lake Sewer Treatment Plan	Yes	No
Mainline Railroad Crossings	3	1

Since the completion of the Corridor Location Study in 1970, the City of Shakopee has incorporated Eagle Creek township thereby expanding the Shakopee City limits easterly to the Savage City limits. The USFW alternative would end within the Shakopee City limits whereas the proposed alternative better fulfills the Shakopee By-Pass concept.

The USFW has been consulted periodically since a field trip in the Fall of 1976 identified their concerns regarding the wetlands in the proposed project area. Because of the wetlands, the COE was consulted for input into the DEIS to satisfy their NEPA requirements in relation to the Section 404 permit. Upon receipt of the COE input, a joint meeting was held with USFW and COE for a better **under**standing of the project and to discuss comments provided by the COE. The USFW suggested alternative was covered extensively and a subsequent field walk resulted in the coverage given to their alternative. The joint meeting with the COE and USFW also resulted in the recommendation to drop the proposed CSAH 21 interchange from the Shakopee By-Pass DEIS. At a subsequent meeting with the Shakopee By-Pass Task Force, the recommendation to drop the proposed CSAH 21 interchange was approved to lessen the wetland impacts of the Mn/DOT proposed alignment.

After meeting with and field walking the area with USFW representatives and with the removal of the proposed CSAH 21 interchange from the Shakopee By-Pass, the USFW representatives generally agreed that in the long run their alternative may have more detrimental impacts. Through the **contacts** and evaluation process, the consensus is that the proposed alignment is the viable alternative, as depicted by the Project Maps at the end of this DEIS.

As mentioned earlier, the MDNR has provided input on the wildlife species found in the project area. The correspondence with MDNR has shown no threatened or endangered species to occur in the corridor.

During the 1968-1970 Corridor Location Study for US 169, US 212 and MR 41 - which identified the By-Pass Corridor as a possible freeway location, numerous informational meetings were held with local officials, planning commissions, etc. The participation/coordination portion of that study also included two formal public hearings on June 3, 1969 and April 30, 1970. Unanimous support was voiced at the second hearing for the corridor location proposed herein for the Shakopee By-Pass.

In 1974, a Task Force called the Shakopee By-Pass Committee was formed with the objective of promulgating and directing efforts which would eventually lead to the adoption of an "Official Map". In accordance with Minnesota Statutes, this map would be used as a local planning tool to retard further development within and immediately adjacent to the intended right of way. The Committee includes representation from Scott County, Jackson Township, the Cities of Shakopee and Savage, the Mn/DOT-Field Operations Division, the MC, and the local citizenry at large.

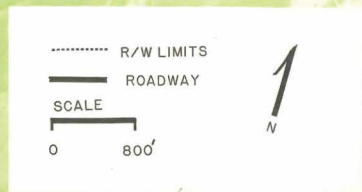
The full Committee met nine times during the first eleven months of 1976. At least that many sub-committee meetings also took place to resolve special concerns. The Jackson Township Board members were met with separately on February 16, 1976 to solicit their input regarding the By-Pass/CR 15 interchange. A second meeting with the Board and the occupants of the four homes to potentially be taken by the interchange took place on March 15, 1976.

A publicized informational meeting for residents along the entire project length was held on July 14, 1976, again to solicit comment and reaction to the proposed location. The meeting was attended by twenty-seven residents.

Alternate schematic layouts for the US 169/MR 41/By-Pass interchange were subsequently developed. These alternates could displace or avoid the approximately twenty-five homes in Jackson Township's Davies Addition and have varying impacts regarding the number of fixed and mobile homes to be displaced. Also, they would effect local access and the amount of right of way required. So an informational meeting was held on November 15, 1976. The meeting was attended by forty-five residents and/or property owners primarily of Jackson Township. The meeting was chaired by the Chairman of the township board. In a show-of-hand vote -- following a presentation of the project's purposes, the proposed location, the various interchange alternatives, the relative impacts of each and an extensive question/answer period -- residents of the Davies Addition unanimously preferred relocation to being a neighbor to the interchange.

In compliance with Minnesota Statutes, 1969, Chapter 312, Mn/DOT held a public hearing on the Shakopee By-Pass project. The hearing was attended by approximately 110 people and most of the input at the hearing dealt with the interchange alternatives. While most of the residents favored the By-Pass, the opinion was divided on the interchange alternatives. The selection of a final alternative will be made after the public hearing required by Federal procedures and the selection will be documented in the FEIS.

This proposal has been coordinated with both the U.S.E.P.A. and MPCA by submitting air and noise reports. Both of these agencies have stated that no significant impacts are anticipated.



ALTERNATE NO. 1

U.S. 169

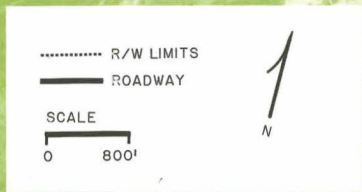
CO. RD. 69

TAHPAH PARK

C.S.A.H. 15

CO. RD. 77

CO. RD. 79



ALTERNATE NO. 2

U.S. 169

CO. RD. 69

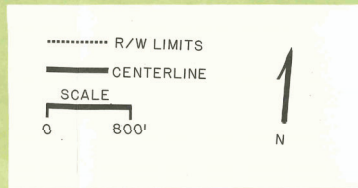
TAHPAH PARK

O.S.A.H. 15

CO. RD. 77

CO. RD. 79

86



87

