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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FINAL
ENVIRONMENTAL IMPACT STATEMENT

FOR

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

State Project 7005-42
Minnesota Project U 075-1 ()

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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Region 5

Shakopee By-Pass in Scott County Minnesota

State Project 7005-42 (T.H. 101)

Minnesota Project U 075-1()

From: U.S. 169 in Jackson Township
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ADMINISTRATIVE ACTION

FINAL

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.

June 1, 1978
Date

Hermit R. McRae Jr
Harry A. Reed
Deputy Commissioner
Bureau of Policy and Planning
Minnesota Department of Transportation

SEP 25 1978
Date

/s/ W. G. Emrich, Director
Office of Environment and Design
FHWA, Region 5

TABLE OF CONTENTS

	PAGE
List of Tables and Exhibits	4
I. Summary	7
II. Need for Improvement	10
Local	10
Regional	10
History	11
Metropolitan Council Plan	14
Mass Transit	15
Impacts of No-Build	17
III. Description of the Proposed Action	18
Traffic Data	18
Safety	23
Flooding	23
Major Design Features	24
IV. Social, Economic and Environmental Context of the Area	26
Natural Features	26
Surface Waters	26
Ground Water	28
Wildlife	29
Archaeological Sites	31
Historical Sites	31
Existing Transportation System	32
Population	33
Employment	33
Households and Income	35
Public Facilities	35
Aesthetic/Visual Values	38
V. Land Use Planning	39
Metropolitan Area	39
Local Area	40
VI. Probable Impact of the Proposed Action	47
Secondary Impacts	47
Direct Impacts	48
Water Quality	48
Agricultural Land	53
Displacement and Relocation of People	56
Wetlands	62
Wetland and Wildlife Impacts and Mitigation	68
Air Quality	72
Noise Analysis	75
Construction Impacts	85
VII. Alternatives	87
VIII. Probable Unavoidable Adverse Environmental Effects	92

	PAGE
IX. Relationships Between Local Short-Term Uses of Man's Environment and the Maintenance of Long Term Productivity	93
X. Irreversible and Irretrievable Commitments of Resources	95
XI. Coordination and Comments	95
Early Coordination	95
Public Hearing Input	104
DEIS Comments and Responses	105

TABLES

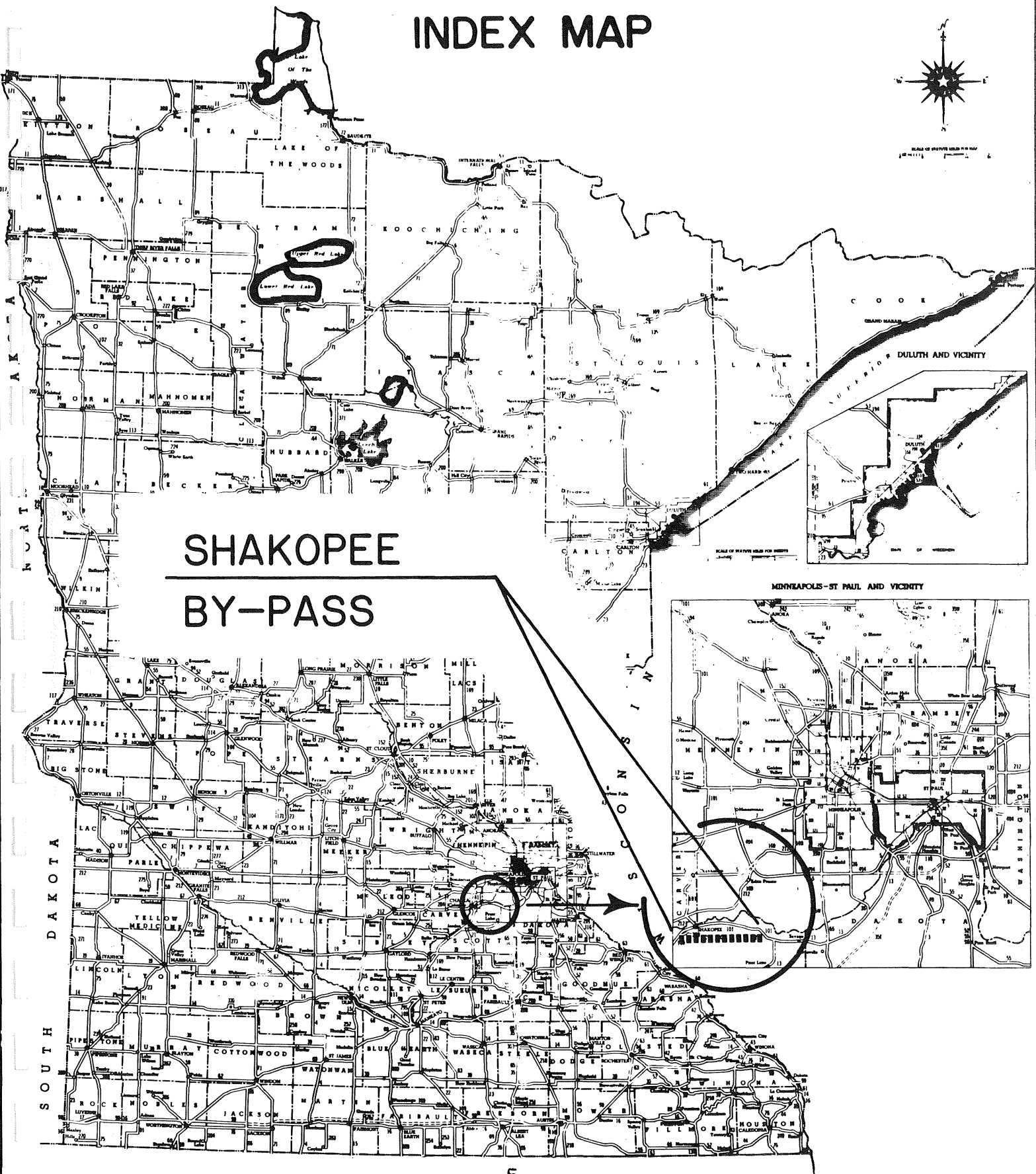
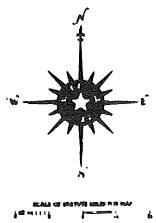
	PAGE
1. General Characteristics of Population: 1974	34
2. Population Forecasts: 1980-2000	34
3. Employment Forecasts: 1980-2000	34
4. Household Forecasts: 1980-2000	35
5. Value and Number of Single Family Homes Displaced	58
6. Displacement of Occupied Mobile Homes	58
7. Available Housing	60
8. Inventory and Wildlife Habitat Evaluation of Wetlands in the Shakopee By-Pass Corridor between Co. Rd. 83 and TH 101	65
9. Worst Probable Carbon Monoxide Concentration	74
10. Federal and State Design Noise Level/Land Use Relationships	77
11. Noise Analysis Summary	79
12. Alternative Comparisons	90
13. Short and Long Term Losses and Gains	93
14. Alternatives Summary Evaluation	100
15. "Unique System D" Traffic Loading Interrelationships	112

EXHIBITS

1. Index Map	5
2. Location Map	6
3. Project Maps	123-126
4. Corridor Studies	13
5. Existing System 1974 AADT	20
6. Existing System 2000 AADT	21
7. By-Pass System 2000 AADT	22
8. Existing Land, Fall 1976	25
9. Public Facilities	36
10. Existing land Use	43
11. Proposed Land Use	44
12. Surface Hydrology	49
13. Wetland Maps	66 & 67
13.1 Wetlands Mitigation	71
14. Noise Analysis Map	82 & 83
15. Proposed By-Pass with Interchange Concepts	88
16. U.S. Fish and Wildlife Alternative	97



INDEX MAP



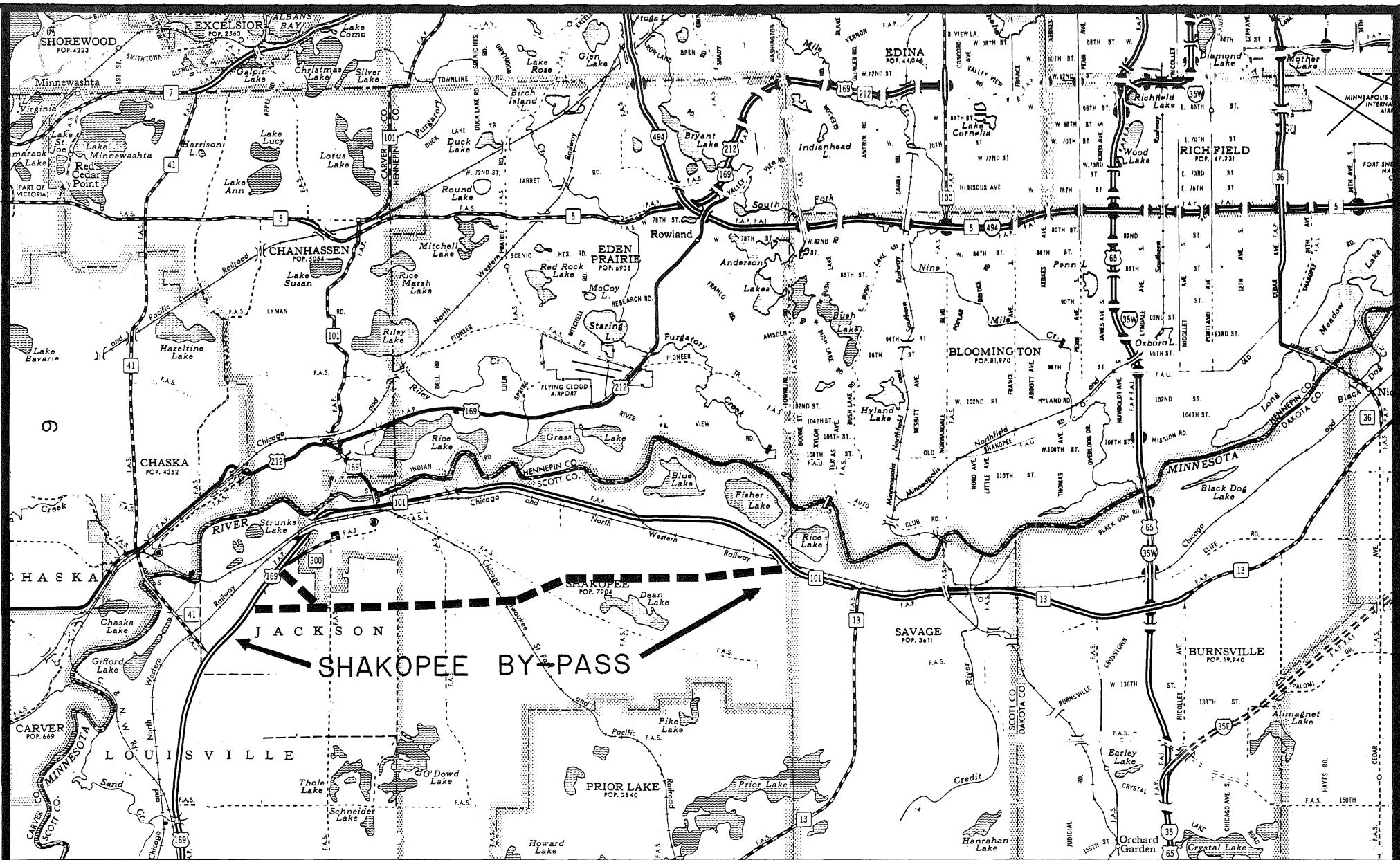


EXHIBIT 2



LOCATION MAP

SCALE
0 2 MILES

I. SUMMARY

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

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

District Director, Minnesota Department of Transportation
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St. Paul, MN 55101, Telephone: (612) 725-7001

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 525 acres of additional right of way, 290 acres are agricultural land-190 acres of prime, 8 acres are wetlands, 45 acres are forestland and the remaining 182 acres are quasi-developed residential and commercial land. For the alternative selected, 41 single family residences, eight mobile homes, and three businesses need to be relocated.

Alternatives

The following three viable alternatives were considered:

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

Alternative 1 is the selected alternative because it minimizes the relocation impacts and was preferred by the majority of people at the public hearing.

State Government and Multi-State Responsibilities

The use of Federal Aid stipulates that specified policies, procedures and design criteria have to be followed by State Government. State Government is affected by these controls. This action will have no effect on adjacent states or on any multi-state responsibilities.

Comments on the Draft Environmental Impact
Statement (DEIS) were Requested from:

Council on Environmental Quality

*US 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 Board

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

*These agencies provided comments on the DEIS. The following agencies
also submitted comments on the DEIS.

Minnesota Soil Conservation Service

Metropolitan Transit Commission

Metropolitan Waste Control Commission

Federal Power Commission

Federal Aviation Agency

The DEIS was mailed to the Council on Environmental Quality on
September 26, 1977 and a period of 57 days from that date was established
for review and comment.

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 23 .

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 13.

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 13.

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

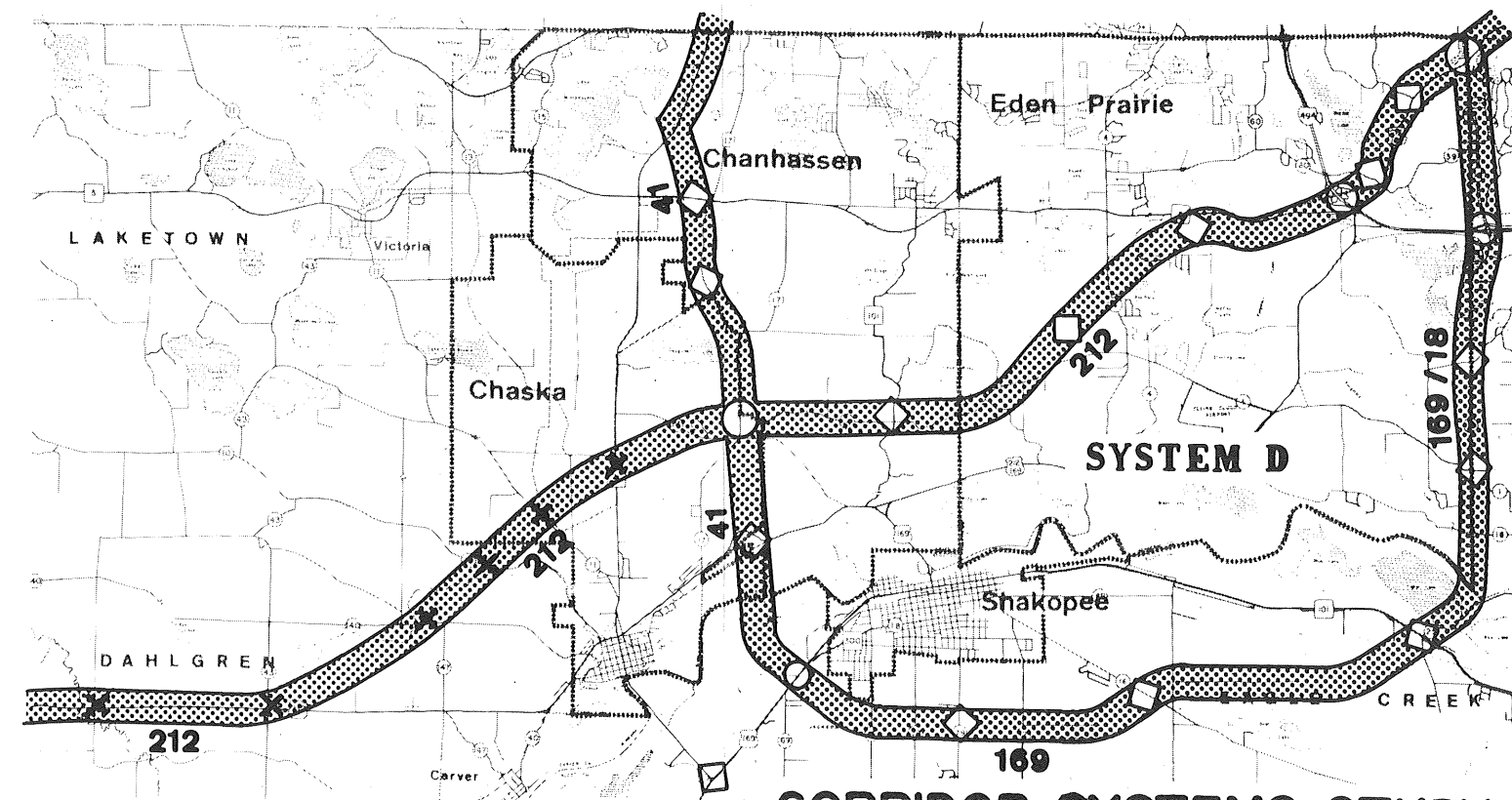
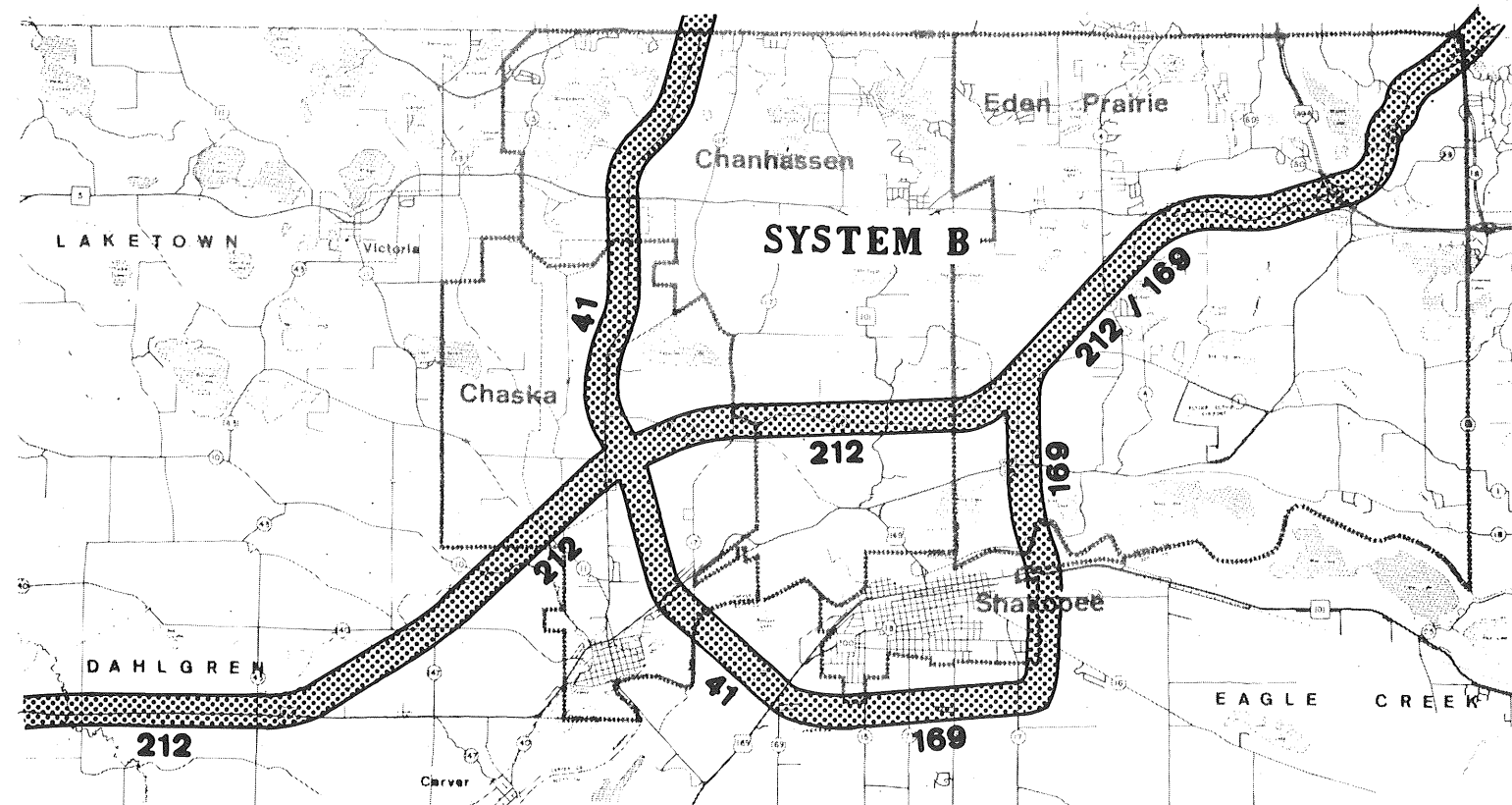
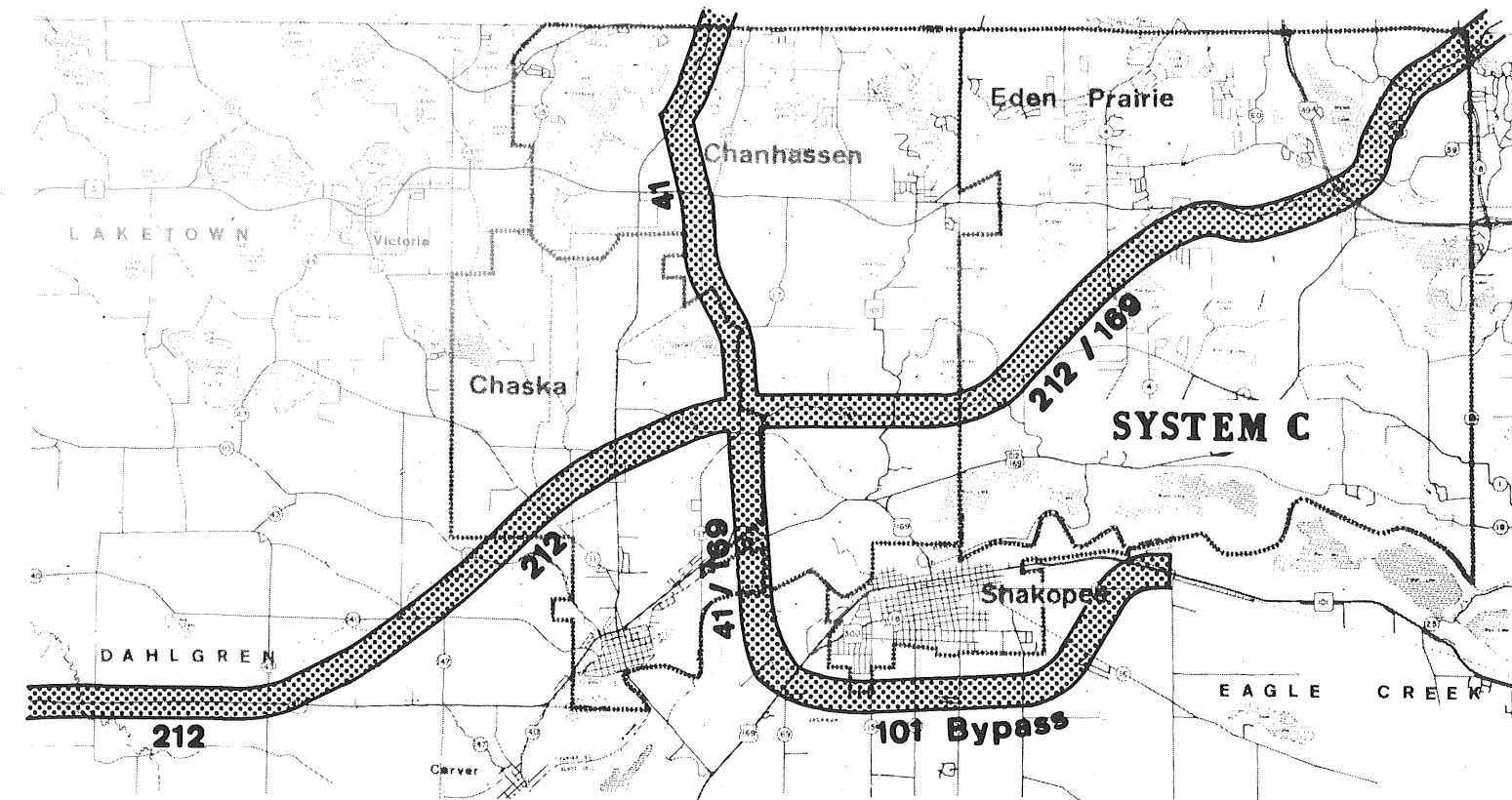
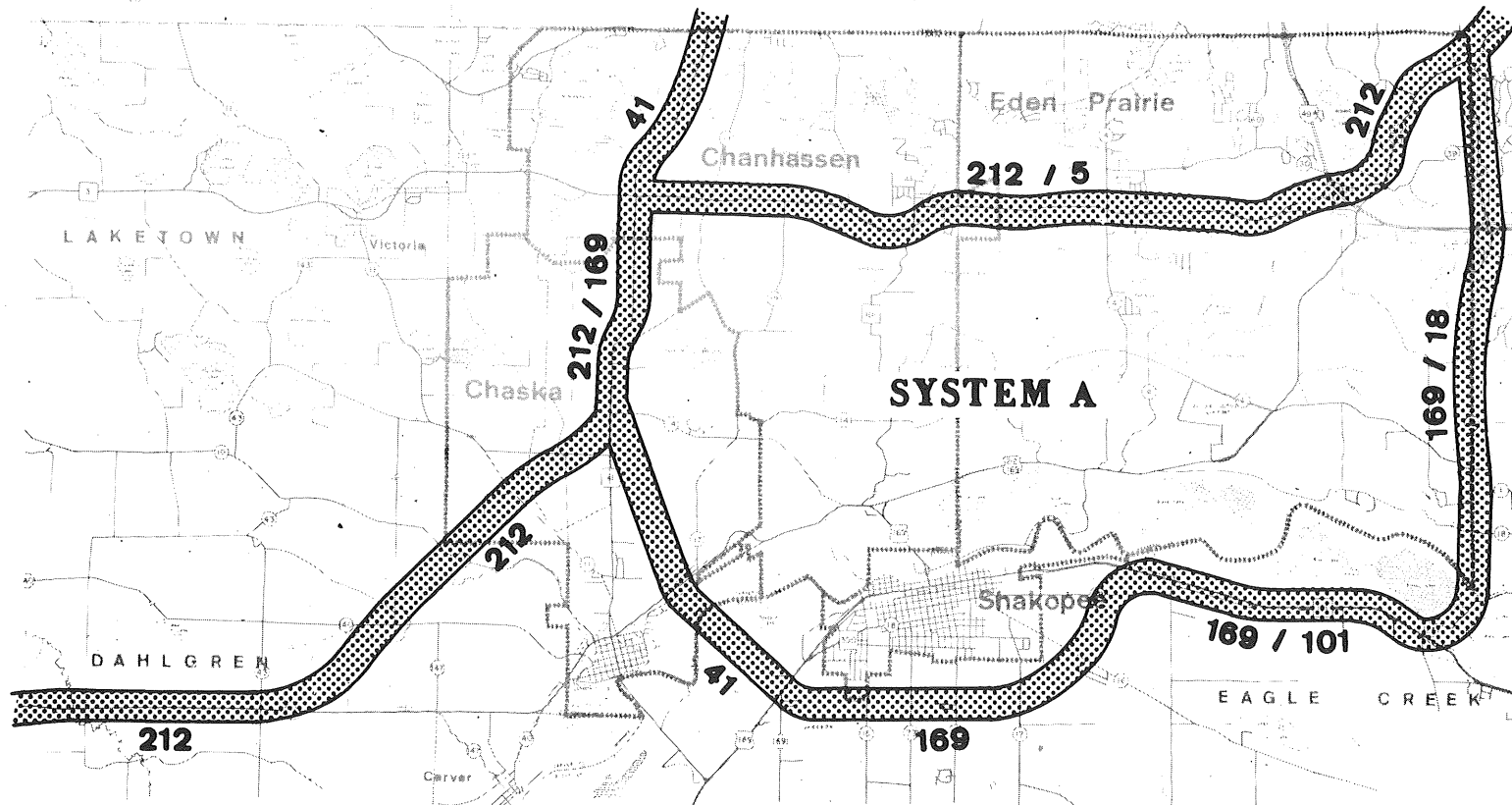
The By-Pass in System A, B and C would confine the growth of Shakopee and this is undesirable to Shakopee. Valley Industrial Park, a planned 2000 acre commercial and industrial center, would be served better by a By-Pass route that bordered the southern boundary. The By-Pass in System D would act as 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 44).

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 FEIS 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.

CORRIDOR SYSTEMS STUDY



○ 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



CORRIDOR SYSTEMS STUDY

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

The MC has published a Metropolitan Development Guide for the Minneapolis-St. Paul Metropolitan Area. This Guide contains a chapter dealing with transportation. The MC in developing their Transportation Development Guide/Policy Plan through the Transportation Planning Program (TPP) for the Minneapolis - St. Paul Metropolitan Area considered two alternative system plans: (1) a Highway Plan and (2) a Transit Plan in addition to the Highway/Transit Plan recommended and adopted by the TPP decision makers composed of various local elected officials and agencies, State agencies and regional appointed officials. The Transit portion is discussed in the next section.

The Shakopee By-Pass has been included in the 1990 Metropolitan Highway System Plan as part of the Highway/Transit Plan prepared by the MC and published in July, 1976. The By-Pass is classified as an intermediate

arterial calling for early planning and reservation of right of way until the project is built. This EIS is part of the process intended to define the roadway corridor for purposes of restricting development within the corridor.

TH's 212 and 41 are also part of the MC Transportation Development Guide/Policy Plan. TH 212 is classified as a Principal Arterial for major construction as part of the 1990 Metropolitan Highway System Plan. TH 41 from TH 169 to TH 212 is also classified as a Principal Arterial for major construction as part of the 1990 Metropolitan Highway System Plan. The CSAH 18 portion of Unique Corridor System D has been classified as a Minor Arterial and is not part of the 1990 Metropolitan Highway System Plan for major construction.

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.

The MC adopted Highway/Transit Plan does not preclude non-capital transportation solution alternatives such as car pooling, van pooling, dial-a-ride, jitneys, shared-ride taxi and fringe parking. In February of 1977, Mn/DOT conducted a survey of motorists using the TH 169-101 northbound Minnesota River crossing in the A.M. peak hour. These motorists indicated that they would seek other home and job locations before seeking other modes of transportation if the existing transportation system became intolerable. The Metropolitan Transit Commission (MTC) in their comments on the DEIS indicated that "we do not anticipate this project to significantly affect existing or proposed transit service to the City of Shakopee". Given Mn/DOT's Minnesota River Crossing Survey and MTC's comments, it would appear that the viability of another non-capital transportation alternative to reduce and/or eliminate the need for the proposed action is questionable. However, if drastic future changes occur which are not anticipated, the MC Highway/Transit Plan does have the flexibility for para-transit considerations should they be desired and/or warranted by socio-economic or energy crisis conditions.

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 highways US 169-TH 101 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

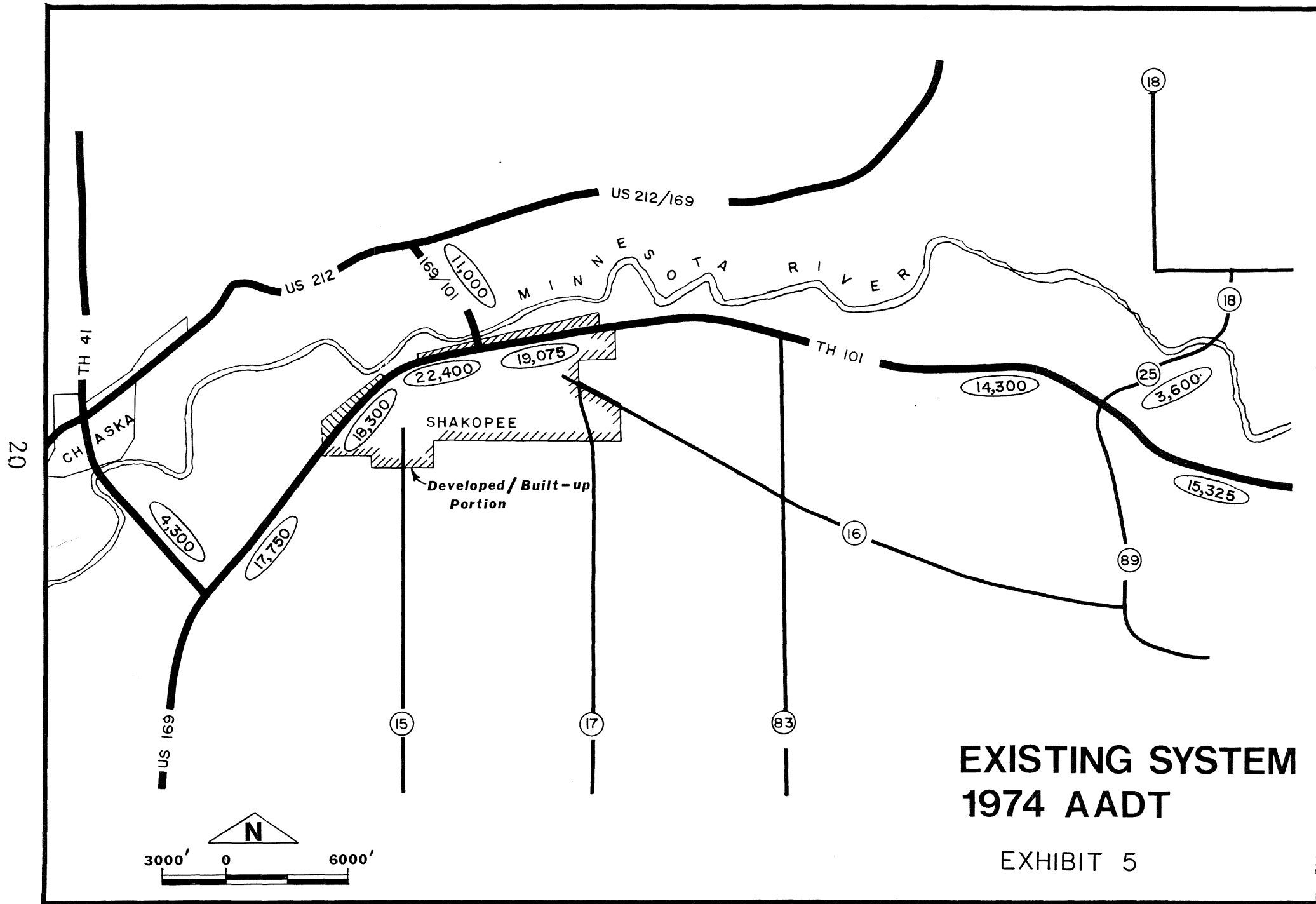
The 1975 street and highway network along with the appropriate population, household and employment forecasts were used to develop the year 2000 travel demand forecast. Total travel was developed using a range of volumes based on reasonable high, medium, and low volumes for trips/person, % transit and 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 considered. The heavy commercial average daily traffic (HCADT) is based on vehicle classification counts recorded in the area. They were

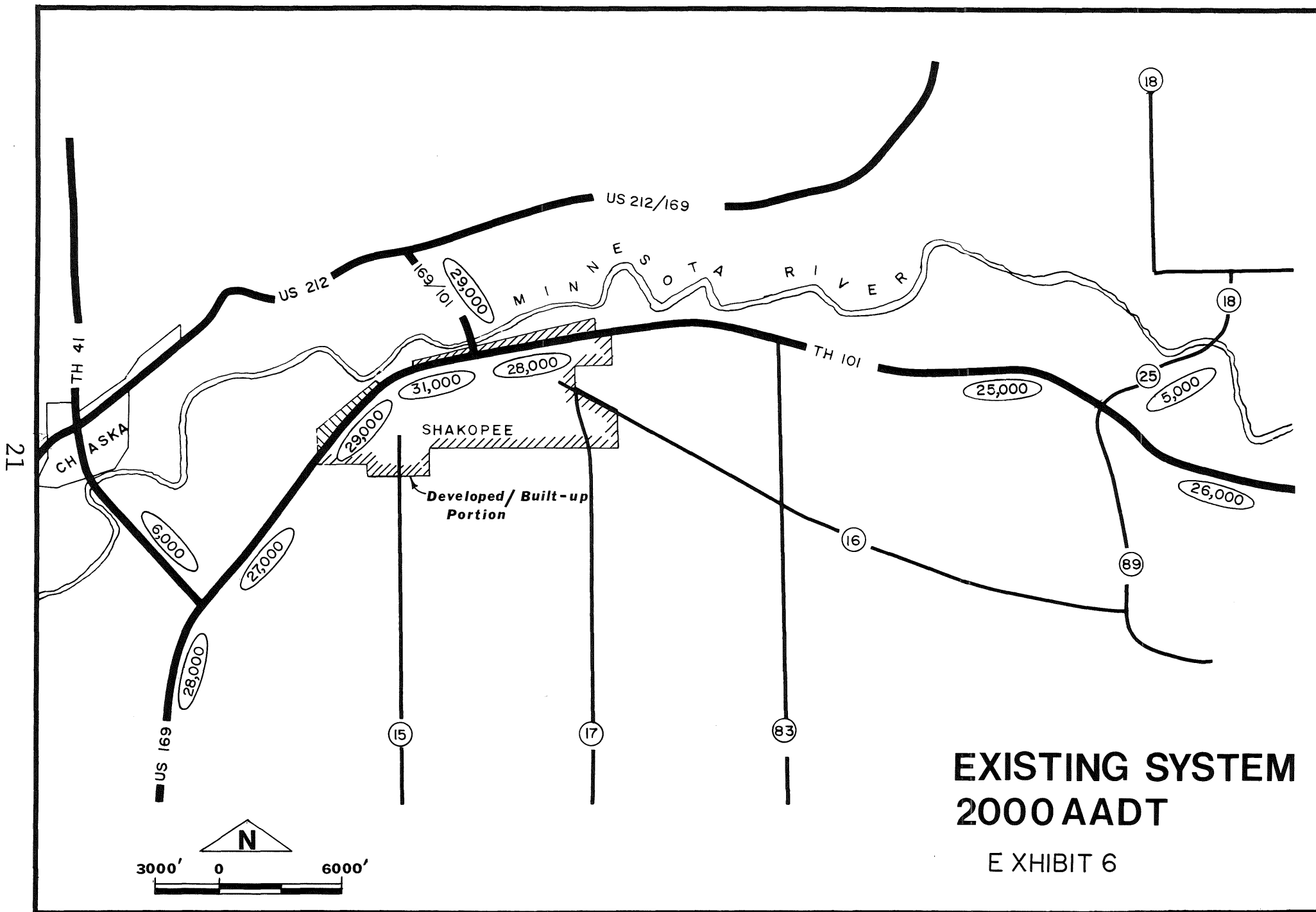
projected to the design year by use of vehicle type trends. Basic traffic data used in this report was prepared by the Office of System Planning, Mn/DOT, as reported in the System Planning and Analysis Reports (SPAR) M-181, M-181A, and M-181B. The SPAR reports give estimated 2000 Average Annual Daily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

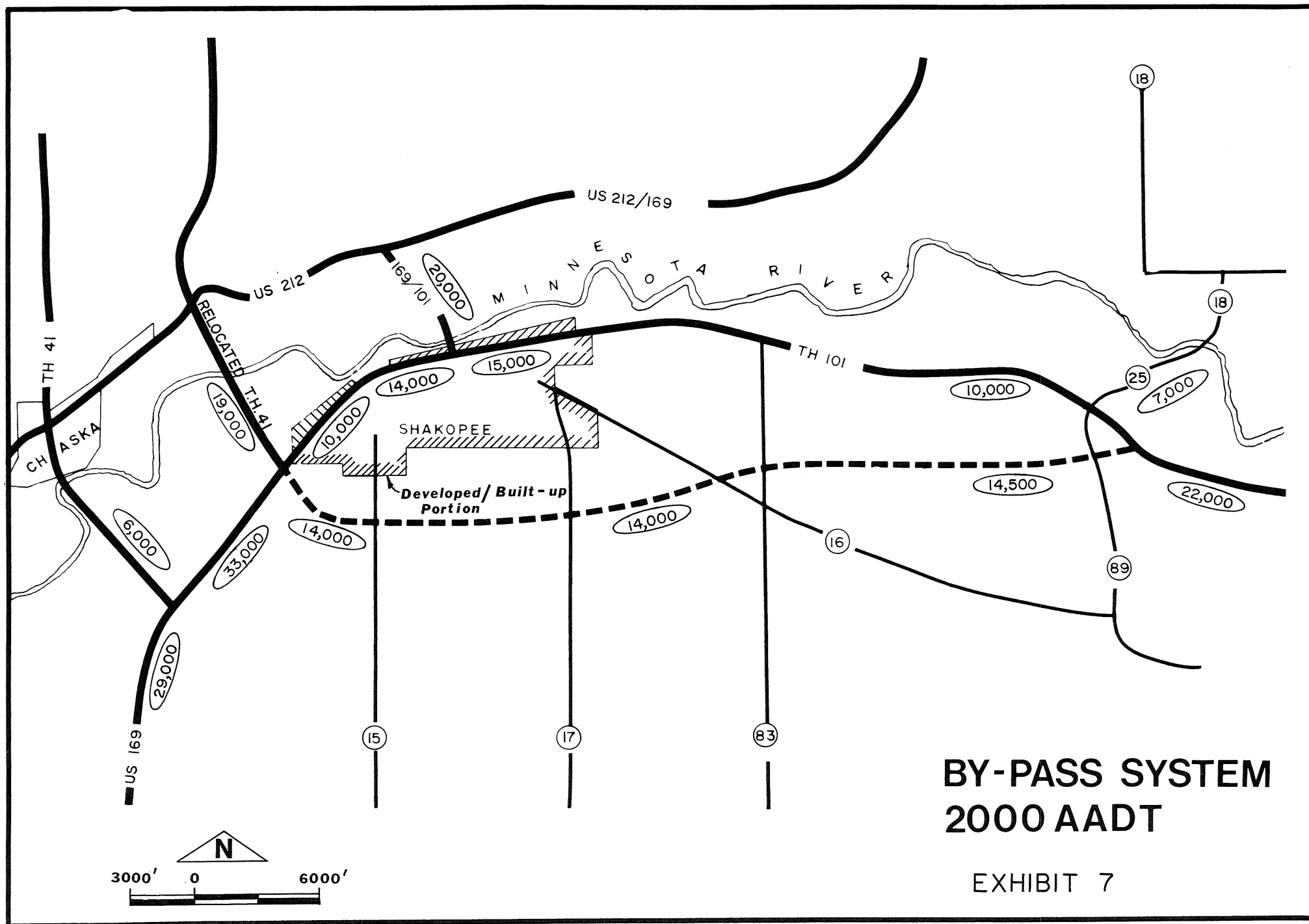
Exhibit 5 on the next page indicates the AADT on the primary elements of the existing system in the year 1974. Presently, the portion of US 169 and TH 101 within the developed area of Shakopee is heavily congested during the morning and afternoon peak traffic hours.

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. Exhibit 7 is consistent with MC Transportation Development Guide/Policy Plan-Highway System Plan. The year 2000 traffic in the Shakopee 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 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 US 169-TH 101 Minnesota River crossing is in the 100 year flood zone of the Minnesota River. In the area of Shakopee, two sections of present US 169 and TH 101 on the south side of the Minnesota River are below the flood elevation 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 16 page 97. 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 25. 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, Part D, at the end of this FEIS).

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 49). 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, the Prior Lake Sewer Interceptor 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 and some uses which include body contact may be restricted during specific times when the Most Probable Number (MPN) exceeds the Minnesota Pollution Control Agency Standards. The river is also used for the deposition of treated wastewater effluent from the Blue Lake Treatment Plant. Additional uses of the Minnesota River pertain to industrial consumption, agricultural and wildlife.

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 than as a productive forest land potential. The tree stands are intermixed and it is difficult to quantify the acres present by each specific cover type. The most distinguishable tree stands are the Soil Conservation Service plantings in the By-Pass - CR 89 interchange area. These red pine stands total approximately 10 acres. The wooded thickets provide suitable habitat for most of those wildlife 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 FEIS.

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 proposed Minnesota Valley National Wildlife Refuge Areas are all north of the Minnesota River, in this area, and will not be impacted. The proposed 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 16, page 97. The proposed 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. An additional reconnaissance sample survey was conducted by MHS in 1976 and no archaeological sites were identified as per correspondence dated March 7, 1978 (see letter on page 110).

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 it 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 1, 1977, and monthly supplements do not identify any historical sites within or adjacent to the proposed action. Additionally, as indicated in the previous section, the proposed action has been reviewed by MHS in conformance with the National Historic Preservation Act of 1966 and the Procedures of the National Advisory Council on Historic Preservation. The review determined that no properties of historic, architectural or cultural significance existed within the proposed corridor study area.

*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 36).

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 Shakopee and Farmington. An abandonment request has been made for the tracks between Cologne and Shakopee.

Population

Selected population characteristics for Jackson Township, Shakopee, and Scott County are presented in Table 1 on page 34. 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 on page 34 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 on page 34. 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.

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>1980**</u>	<u>1990</u>	<u>1990**</u>	<u>2000</u>	<u>2000**</u>
Jackson Township	1,800	1,800	2,000	1,900	2,200	1,900
Shakopee	11,300	11,000	16,300	16,000	22,700	21,000
Scott County	44,450	46,270	60,400	62,530	80,050	76,400

Table 3*

Employment Forecasts: 1980 - 2000

<u>Place</u>	<u>1980</u>	<u>1980**</u>	<u>1990</u>	<u>1990**</u>	<u>2000</u>	<u>2000**</u>
Jackson Township	50	100	80	100	120	100
Shakopee	5,200	6,000	8,300	9,000	13,700	11,500
Scott County	10,810	13,170	17,500	17,750	27,150	22,940

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

**Revised employment forecasts for the Twin Cities Metropolitan Area,
 MC, October, 1977.

Table 4*

Household Forecasts: 1980 - 2000

<u>Place</u>	<u>1980</u>	<u>1980**</u>	<u>1990</u>	<u>1990**</u>	<u>2000</u>	<u>2000**</u>
Jackson Township	490	520	520	560	550	600
Shakopee	3,600	3,600	5,450	5,400	7,850	7,000
Scott County	13,350	13,880	19,100	20,240	26,150	25,360

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

**Revised household forecasts for the Twin Cities Metropolitan Area,
 MC, October, 1977.

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 on page 35 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.

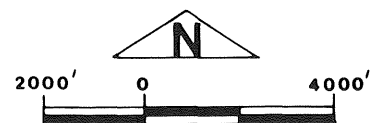
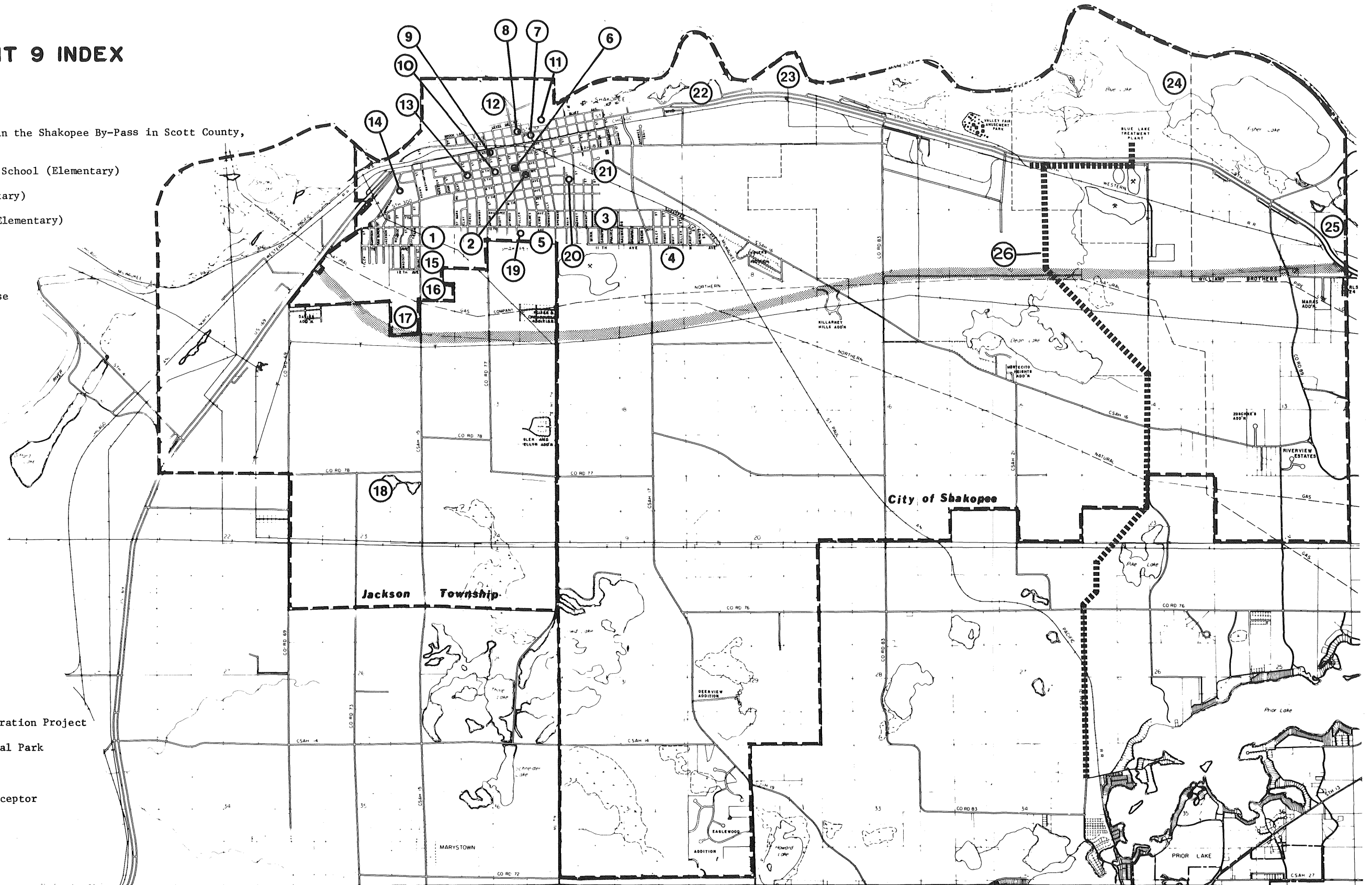
Public Facilities and Services

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 36. The three elementary schools serve both Shakopee and Jackson Township. Shakopee's fire department is all volunteer and serves both Shakopee and Jackson Township.

EXHIBIT 9 INDEX

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

1. Edward & Grade 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
26. Prior Lake Sewer Interceptor



SHAKOPEE BY - PASS

LEGEND
Public Facilities



PUBLIC FACILITIES

EXHIBIT 9

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 (see Project Map, Part A, page 123). Tahpah Park is approximately 40 acres in size and the park is basically a community park oriented to athletic activities with major emphasis on softball and baseball games in the summer. When the park is fully developed, there will be nine softball diamonds, one baseball diamond and one football field. The park will also have a concession stand, parking lot, trails and drainage area located on the north side. The proposed action is being planned to avoid the park; therefore, implementation of the proposed project will not require the use of park land (no 4(f) involvement).

The noise analysis for the proposed action is discussed on pages 75-85. The predicted noise levels in the Tahpah Park vicinity do not exceed the Federal or State standards (see Noise Analysis Map, Part A, page 82).

The Shakopee urbanized area is generally serviced by sewer and water. Exhibit 9 shows the Prior Lake sanitary sewer interceptor which connects the City of Prior Lake to the Metropolitan Waste Control Commission's (MWCC) Blue Lake treatment plant. The interceptor is a 72 inch reinforced concrete pipe with an invert elevation of 723. The groundline elevation is approximately 745 and the Shakopee By-Pass crosses the interceptor at an elevation of approximately 755, thus the By-Pass will have little or no impact on the interceptor. The interceptor was part of the Commission Facility 201 Study which is a subset of the 208 Water Quality program. While studying the Prior Lake interceptor as part of the Southwest Improvements, the MWCC was also considering the Jackson

Interceptor with a possible location in the By-Pass corridor. The MC has subsequently adopted their Rural Service Area policies which limit growth in most of the area surrounding the Shakopee By-Pass. As a result, the MWCC has delayed further studies on the Jackson interceptor. The By-pass implementation is anticipated for 1985-1990 so further coordination of the Jackson interceptor and the By-Pass will continue. Even if the By-Pass were implemented before the interceptor, the highway right of way could present a multiple use potential.

Other utilities in the project area include the Northern States Power transmission lines and natural gas pipelines. Some utility structure adjustments may be required during the project construction. Any proposed adjustments will be coordinated with the appropriate utility owner.

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 a commercial complex. Transmission line towers parallel the project corridor over much of its length.

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.

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 proposed action may contribute to Shakopee's and Jackson Township's

development in a manner that is consistent with local resources and the metropolitan systems capacity if properly coordinated. 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 43, 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.

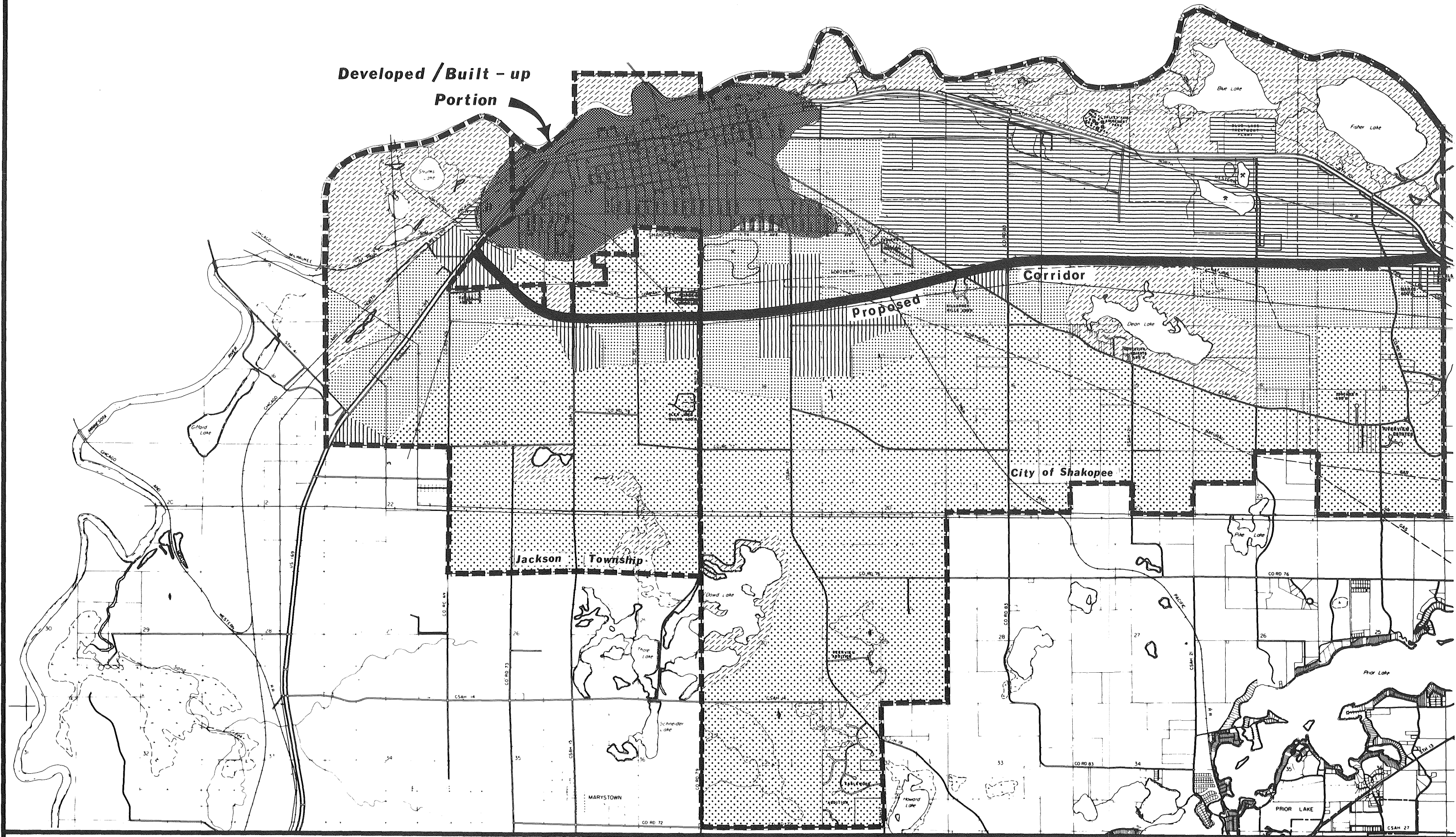
According to the proposed land use scheme as shown in the community and county plans, the project area will feature a mix of residential, commercial and industrial development, see Exhibit 11 page 44.

Until the adoption and approval of Shakopee and Jackson Township's formal comprehensive plans, the Metropolitan Council considers the entire By-Pass corridor to be part of the Rural Service Area. The following two MC transportation policies relate to the Rural Service Area.

- (1) Highways that interconnect the Metropolitan Area with outstate communities may be improved to accommodate projected intrastate travel but access should only be provided to Freestanding Growth Centers and Rural Town Centers.
- (2) The rural roadway should be planned and designed with primary emphasis upon the transportation of rural products to the urban market and the delivery of goods and services to the farming communities.

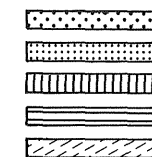
In relation to the above policies, the Shakopee By-Pass will allow grain truck traffic from southwestern Minnesota better access to the Savage grain terminals on TH 101 as part of intrastate travel. Access to the Shakopee CBD from the By-Pass is directly provided by US 169, CSAH 15 and CSAH 17. Shakopee CBD access is indirectly provided by CR 83 and CR 89 via in-place TH 101 on the easterly end.

In April and June of 1977, the MC transmitted Metropolitan System Statements to Shakopee, Jackson Township and Scott County. These statements establish guidelines to local units of government for developing their comprehensive plans. The Shakopee By-Pass was included in the system statements. The comprehensive land use plans, which are



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

currently being developed, should then be reflective of the By-Pass system statement if they are to be adopted under the Metropolitan Land Planning Act guidelines. Another part of the Metropolitan System Statements related to the availability of sewer. The Metropolitan Waste Control Commission is conducting a 201 Facilities Planning Program which will address the needs for service in the Shakopee, Jackson Township and Chaska Area. The Shakopee By-Pass will be coordinated with the sewer needs study.

The conversion of the Rural Service Area to an Urban Service Area is somewhat controlled by the following MC development policy.

"The MC will use the staged Urban Service Area in its referral process until a local unit of government has adopted an approved comprehensive plan for the timing and staging of Urban development and public services. Within the Urban Service Area, developments should be permitted on the showing that existing services are adequate until such time as additional metropolitan and local services are planned to be provided."

The Shakopee By-Pass is planned for construction between 1985 and 1990. 1985 is an optimistic date for commencement and if started then it could be 1989 to 1990 before the By-Pass is open to traffic. A staged construction may be considered for the By-Pass by building a two-lane facility with access control initially or building the By-Pass with at-grade crossings from CR 16 to CR 89.

By making the proposed project a controlled access facility, highway strip development with direct access will be curtailed. Clustered development at the interchange locations may occur but the local units of government have the control in terms of issuing building permits if they are or are not consistent with the local comprehensive plans. The development pressure may occur without the proposed project; however, the proposed project implementation may accelerate the development pressure in the proposed interchange areas. If the Shakopee By-Pass is not open to traffic until 1990 and the development acceleration occurs afterwards, then the By-Pass timing negates some of the concerns of the secondary development impacts prior to the availability of the 1990 metropolitan sewer services. The primary purpose for implementating the Official Map for the By-Pass Corridor is to control development in coordination with other MC Development Guide Chapters and as part of the Metropolitan Land Planning Act compliance.

The secondary growth, that occurs because of or is accelerated because of the By-Pass, will be in conformance with the land uses along the corridor as defined in the local comprehensive plans after they are adopted by the local units of government and the MC. Urbanization can lead to the loss of natural resources such as wildlife habitat. The establishment of open space areas around Dean Lake and Wildlife Refuges along the Minnesota River are part of the comprehensive land use planning for the Shakopee area to achieve a balance between nature and man.

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 as discussed earlier. At present the constraining growth factor is the availability of sewer. Current MC planning includes both the By-Pass and sewer development, and the planning of these facilities will continue to be coordinated through the local comprehensive land use plan process for consistency with the MC Metropolitan Development Guide.

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 49.

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.

Chaska Creek is 2 miles west of the project and north of the Minnesota River. Therefore, there will be no impact on Chaska Creek or the other creeks from highway pollutant runoff.

Pollutants found in highway runoff are:

1. Sediment, generated primarily by erosion during construction and also by winter sanding.
2. Chloride, from the application of highway deicing chemicals.
3. Trace pollutants which include:
 - a) Heavy metals such as lead, zinc, chromium, copper and nickel.
 - b) Petroleum product residues such as rubber, n-paraffin, grease, gas and oil.

These pollutants are residues of motor vehicle emissions or from the wearing of tires and mechanical parts.

- c) Pesticides and herbicides.
- d) Nutrients such as nitrogen or phosphorus.

These are caused by normal maintenance of highway right of ways and from the accumulation of dust, dirt and plant residues.

Runoff and pollutant pathways would be from the project, to direct infiltration of soil or drainage to wetland areas and thence to the recharge of surficial groundwater. Surficial groundwater travels slowly and ultimately will reach the Minnesota River. The project is not in the Minnesota River Flood Plain.

Sediment is not expected to be a problem. There is no direct drainage from the project to any public waters and any sediment generated by construction or maintenance will be filtered out by the sandy soils or entrapped by wetlands. Also, erosion control measures will be used to minimize the amount of sediment transported from the project area.

Trace pollutants are also not expected to pose a water quality problem. Heavy metals, pesticides and nutrients normally are not free but are bound to sediment or organic matter. Since solids will be filtered out by the soil and wetland entrapment, the trace pollutants will remain in the soil with them. Biological activity in the wetlands will also treat the runoff, with nutrients and heavy metals being taken up by plants. Petroleum residues will not dissolve in water so they will also be filtered by soil and wetlands.

Chlorides, however, will not be filtered out and will enter the groundwater and eventually reach the Minnesota River. The discharge of chlorides is a seasonal problem, with most chlorides being delivered during spring runoff. In this case, having no direct discharge to the Minnesota River, chlorides will take considerable time to reach the Minnesota River and its impact will be spread out over the year. No known contamination of groundwater wells, caused by the application highway deicing chemicals, has occurred in the Shakopee Area.

The nearest U.S. Geological Survey (USGS), Minnesota River testing station is located at Fort Snelling which is 13 miles downstream from the proposed project area. Runoff from numerous other roadways eventually enters the Minnesota River between the proposed project and the USGS Fort Snelling testing station. During the 1976 water year testing, the chloride concentrations had a range from 19 mg/l to 73 mg/l. A level of 100 mg/l may impact a salty taste to drinking water and the U.S. Public Health Service (USPHS) recommends a permissible level of 250 mg/l. Considerably higher concentrations must be reached before mortality of aquatic species will result. The proposed project should not cause a violation of the chloride standards.

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 most pollutants will be filtered out except for de-icing chemicals. These de-icing chemical concentrations are not expected to exceed the U.S. Public Health standards for potable ground water.

A chemical or oil spill is not likely to occur along the Shakopee By-Pass due to the smooth flowing alignment. However, if a spill should occur, procedures to contain spills are continuously being developed by MPCA Spill Unit. As indicated in the MPCA Inside Report published in December of 1977, the three person Spills Unit is on call 24 hours a day, seven days a week to respond to emergencies. Notification of spills will be made by Mn/DOT or the Highway Patrol to the MPCA, US Environmental Protection Agency, Minnesota Department of Natural Resources and local fire departments. If the Spills Unit knows who is responsible for the spill, the unit issues instructions for immediate containment and clean-up.

Planning efforts are being undertaken to perpetuate the natural drainage systems and make the By-Pass compatible with the Shakopee-Jackson Township 208 Water Quality Management as part of their comprehensive plans. The City of Shakopee is planning to use the sand pit areas along CSAH 17 north of the By-Pass corridor as a potential surface drainage holding area and it may be possible to direct the roadway drainage west of CSAH 17 to the holding area. The area may have restricted capacity for roadway runoff and coordination with Shakopee will continue during the project design development.

Another potential water holding area, in addition to the wetlands, is located east of TH 101 and south of the Chicago and North Western Railroad on present Mn/DOT right of way.

Agricultural Land

The agricultural land is used mainly for corn production since the soils are sandy and silty, well drained to droughty. The prime agricultural land lies primarily between TH 169 and CR 83 with isolated pockets of non prime agricultural land within the Shakopee By-Pass Corridor. The prime agricultural land corresponds to Class I* and Class II** soils defined by the U.S. Department of Agriculture, Soil Conservation Service (SCS). A meeting was held on November 17, 1977 to coordinate the soil classifications and identify the prime agriculture lands. As a result of this meeting, it was determined that no unique farm lands are affected. In the Shakopee By-Pass Corridor, the Waukegan and Dakota soils fall into the Class II, Subclass IIe and IIs category which pertains to soils that are subject to erosion and are moderately limited for production because of soil depth or available water retention capacity. The Project Maps (Exhibit 3) at the end of this FEIS show the soil types and their general locations. Although the soil is classified as prime agricultural land, the area yields 20% less than the Scott County average as indicated by the Scott Soil and Water Conservation District.

* Class I soils have few limitations that restrict their use.

**Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation.

Subclass IIe soils are subject to moderate erosion by wind or water unless protected.

Subclass IIs soils are moderately limited because of soil condition such as soil depth or available water capacity.

The Shakopee By-Pass right of way acquisition requires approximately 290 acres of agricultural land and approximately 190 acres of prime agricultural land between TH 169 and CR 83. Using the SCS Soil Association Map, the Shakopee By-Pass lies in a 24 square mile soil area associated with flood plains or terraces. The 190 acres represents approximately 3% of the total prime agricultural land in the project area.

Between TH 169 and CR 83, the Shakopee By-Pass generally parallels a Northern States Power transmission line to minimize the land severance and loss of prime agricultural land. Since prime agricultural land is found throughout Scott County, it is not practical to avoid use of prime agricultural land.

East of CR 83 to TH 101, the land is non prime because of the Zimmerman and Isanti Sand Soil Classification. These soils generally fall into the Class IV category which is defined as soils having very severe production limitations that reduce the choice of crops and require very careful crop management. The SCS has planted some evergreen trees in the vicinity of CR 89 to control wind erosion. These trees are identified on the Project Map, Part D, Exhibit 3, page 126. Retaining portions of the tree stand and/or possible transplanting of the trees for roadway aesthetics, soil stability, erosion control and wetland preservation and/or enhancement will be incorporated into the project design where applicable. Exhibit 13.1, page 71 shows a concept for accomplishing this.

While the Shakopee By-Pass requires the conversion of agricultural land in Northern Scott County, the Shakopee By-Pass will also be beneficial to the Southwestern Minnesota agricultural region in that 70% of the agricultural grain products marketed for shipment are transported to the grain terminals in Savage and Minneapolis - St. Paul via trucks*. TH 169 from the southwest is a major grain route and approximately 100 million bushels annually are transported to the Savage and Minneapolis - St. Paul terminals. The Shakopee By-Pass will allow the grain trucks to by-pass the Shakopee CBD and reduce the travel time and transportation costs.

A land ownership inventory in the Shakopee By-Pass Corridor indicates that Scotland, Inc. is the principal land owner from CSAH 17 to CR 89. This corresponds to the proposed industrial and commercial land use shown in Exhibit 11, page 44. The eventual agricultural land conversion to urban land use is anticipated. Between TH 169 and CSAH 17, there is one case where the Shakopee By-Pass will impact farming in terms of field access. The CR 69 realignment to the east as proposed will provide an opportunity to maintain the field access. The Shakopee By-Pass generally parallels section lines; therefore, diagonal property severance is minimized.

Vegetation within the Shakopee By-Pass Corridor consists of: red fescus, smooth brome grass, red clover, foxtail, sand drop seed, big bluestem, Indian grass, switch grass, little bluestem and wiregrass. Agricultural topsoil within the Shakopee By-Pass construction area will be stripped and

*"Grain Transportation in Minnesota," Minnesota State Planning Agency, St. Paul, Minnesota, January, 1975.

stockpiled for use on the roadway slopes for turf establishment. The slopes will generally be seeded with a mixture of plant and grass seeds native to the area plus perennial ryegrass for quick growth to minimize the soil erosion potential until a permanent ground cover is established. A straw mulch may also be provided and anchored with a mulch anchor (straight blade disk) to establish a uniform turf. The roadside vegetation establishment will lessen the soil exposure to wind and water erosion and will also provide some nesting and feeding habitat for wildlife. Mn/DOT's roadside mowing standards encourage the naturalization of roadsides within safe driving limits. The mowing standards provide protection for nesting wildlife and for natural blending of the roadside into the adjacent terrain. In general, roadside mowing is confined to two swaths along the shoulder, narrow medians, intersections, interchanges and curves. The rest is generally left undisturbed until July 31 of each year.

Irrigation in the project corridor is constrained by the proximity of power lines and towers. Only one area is currently being irrigated and that is along CR 83 outside of the project area (see Project Map, Exhibit 3, Part C page 125.)

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,

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

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.

The selected alternative will displace 49 households and three businesses.

The households include 41 single family homes and eight mobile homes.

The businesses consist of a truck stop and restaurant and a salvage yard.*

*The corridor using the selected alternative will displace 3 businesses. Because there are many highway oriented sites with proper zoning available in the area it is felt that relocation of the businesses can be accomplished with a minimum of difficulty.

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

TABLE 5
Value and Number of Single Family Homes Displaced

<u>Estimated Price Value</u>	<u>Number of Homes</u>	
	<u>Alternative 1</u>	<u>Alternative 2</u>
Under 15,000	2 (Rental Units)	2
15-30,000	4	5
30-40,000	13	11
40-50,000	20	6
Over 50,000	<u>2</u>	<u>2</u>
TOTAL	41	26

TABLE 6
Displacement of Occupied Mobile Homes

<u>Location</u>	<u>Number Displaced</u>	
	<u>Alternative 1</u>	<u>Alternative 2</u>
Near CR 15	1	1
Mobile Manor	6	11
Near Bonnevista	1	1
Bonnevista	<u>0</u>	<u>49</u>
TOTAL	8	62

While the basic concepts for Alternative 1 and 2 remained constant, geometric design modifications have been made to both Alternatives as part of the DEIS circulation, public hearing and coordination with the local governmental units. The geometric design changes for Alternative 1 were undertaken for the specific purpose of minimizing the

relocation impacts. Geometric design modifications were also made to Alternative 2 to provide better traffic flow geometrics for safety reasons. These changes to Alternative 2 resulted in Alternative 2 having greater relocation affects than Alternative 1.

For Alternative 1, the single family home relocation has been reduced from 45 to 41 and the mobile home relocation has been reduced from 67 to 8 due to the geometric design changes. Visual inspection of the project area indicates no minority inhabitants, four to seven elderly people and few large families. There could be three low income families involved in the relocation requirements.

While Alternative 2 affects fewer single family homes, it also affects more mobile homes. Alternative 1 affects 49 households and Alternative 2 affects 88 households. Alternative 2 also affects an additional 20-25 low income families.

The two 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 was 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

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 Bonnevista have neither and public sewer and water service is not scheduled for the area. Therefore, expansion of either park would require a variance from Scott County. Jackson Township has requested a variance from Scott County to retain an equal number of single family residential lots and to retain an equal number of mobile homes in Bonnevista and Mobile Manor as there now exists. Scott County has granted this variance for the Shakopee By-Pass relocation and if Jackson Township relates to this in their comprehensive plan, the MC has indicated a favorable reaction to the relocation problem.

Local officials are conferring on the feasibility of sewer and water projects in the area. New extensions of these utilities would 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 affect. A well planned acquisition schedule will minimize the relocation problems of all concerned. Present indications are that

adequate housing and adequate commercial sites will be available for the selected alternative, and with the County's help, satisfactory relocation of mobile homes will be accomplished. If some unforeseen circumstance changes the housing picture, then housing of last resort will be used to effect relocation.

Wetlands

Wetlands in the project corridor occur principally north and northeast of Deans 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 8 acres are within the right of way and 4 acres would be effected.

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 USFWS 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

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

The lowest possible score is 36 and highest is 108. Habitat value may be generally categorized as excellent (greater than 70), good (between 60 and 70), fair (between 50 and 60) and poor (less than 50). This is a comparative categorization 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 66 and 67 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 65. 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.

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

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.

WETLAND MAP
PART A

LEGEND

WETLAND BORDERS ———

RIGHT OF WAY - - - -

IMPACTED AREA 



SCALE

0

326 FEET



WETLAND MAP
PART B

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.

Wetland and Wildlife 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 direct impacts upon wildlife are loss of habitat paved as highway, change of the varied character of the vegetation in the right of way to a monotype of grassland, the effect of the roadway as a barrier to animal movements and mortality of animals killed along the highway by traffic. Secondary impacts primarily involve the loss of habitat caused by stimulation of further development of surrounding areas. Secondary development will be the most damaging impact of the project. Secondary development is likely without the highway project based upon proposed land use plans developed by Shakopee; however, without the highway the area would likely develop to a lesser degree and at a slower rate.

The habitat loss caused by this project will not threaten the existence of any local wildlife populations. However, total numbers of most wildlife species in the study area will decline in a proportion equal to or

greater than the quantity of habitat destroyed. This decline is negligible on a regional scale but is a major inroad upon the wildlife resources within the project area.

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 will 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.

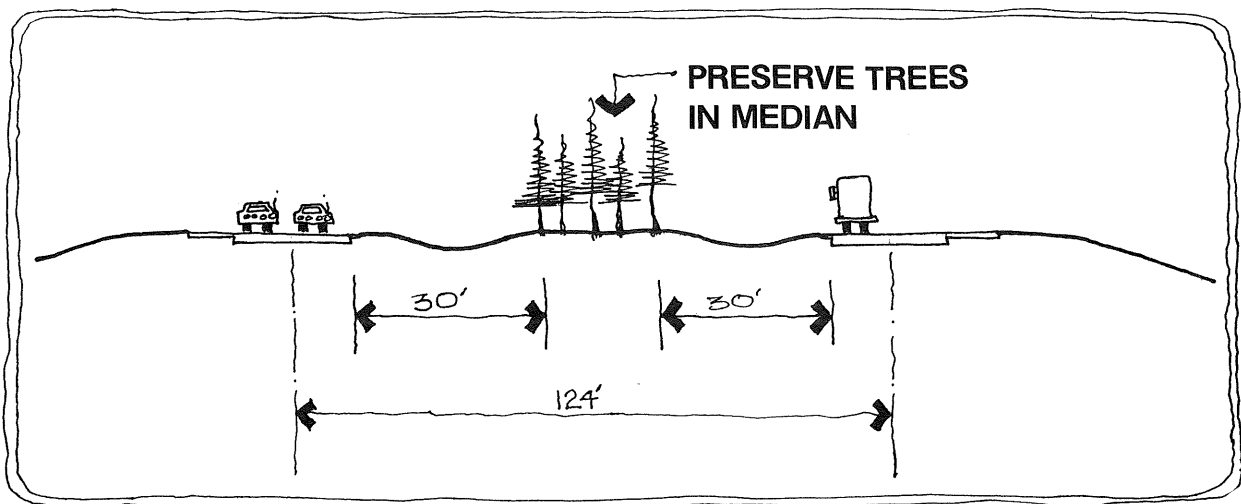
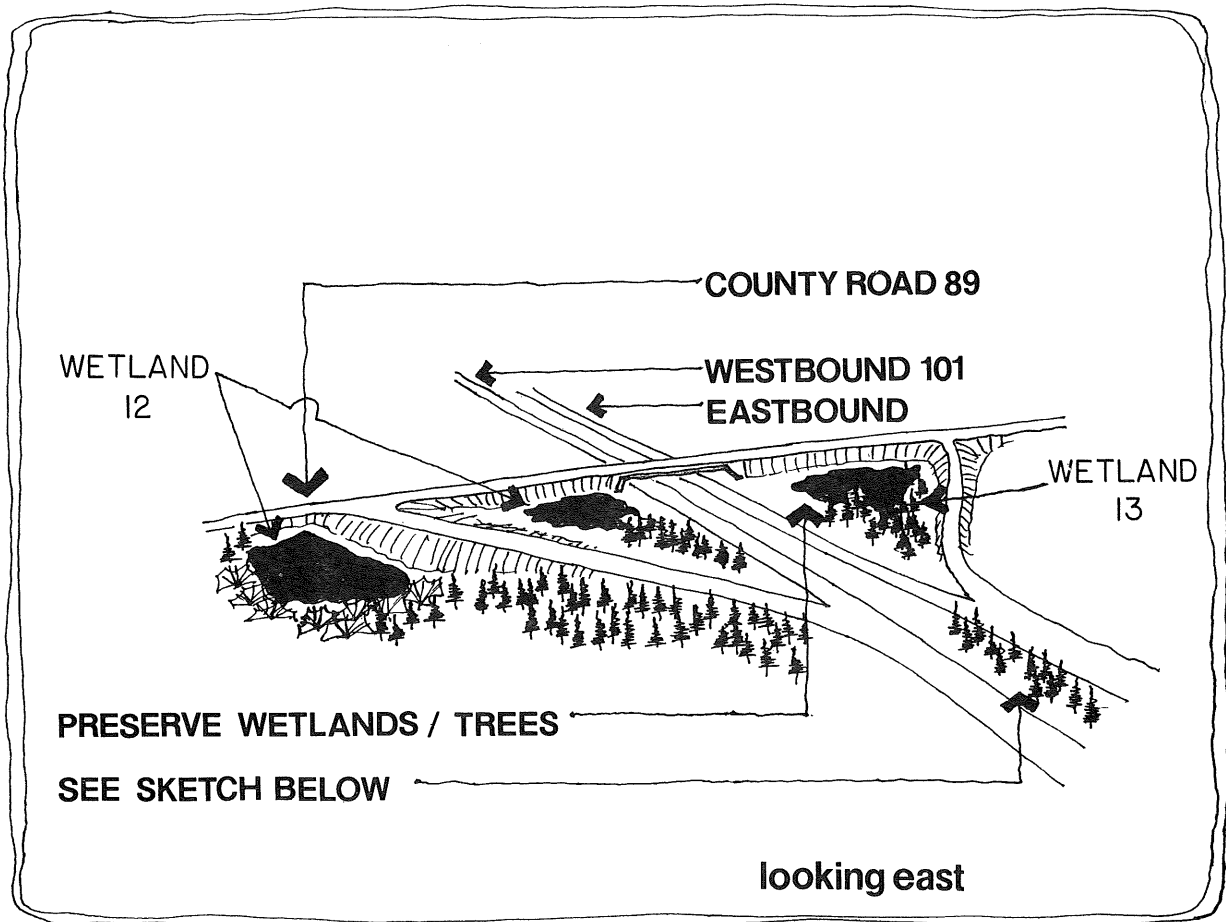
- C - By not mowing roadsides to provide nesting cover for pheasants, ducks and songbirds.
- D - By narrowing construction limits adjacent to wetlands (eg. steepen slopes outside of the safety section, shift alignment and change profile).

The above mitigation measures will be incorporated into the proposed action where applicable.

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 86 of this FEIS. The establishment of permanent grasses on the highway slopes will minimize the potential of sediment erosion into the wetland areas.

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.

WETLAND MITIGATION



Air Quality*

The air quality report was reviewed by the Minnesota Pollution Control Agency (MPCA) and the Environmental Protection Agency (EPA) (see page 73).

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.

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.

*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



JAN 17 1977

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

Dear Mr. Burrill:

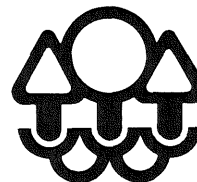
We have reviewed the air quality report for the proposed Shakopee By-Pass, from U.S. 169 Southwest of the City of Shakopee to T.H. 101 at the Shakopee/Savage Corporate Boundary, Scott County, Minnesota. Your letter of November 22, 1976, requested our review to determine the consistency of this project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



Minnesota Pollution Control Agency

November 30, 1976.

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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Table 9 below 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

*Calculations were made using the EPA Highway Model with a one meter per second wind speed, stability class D and a wind angle of 10 degrees.

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 73 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

The Shakopee By-Pass has been analyzed for potential noise impacts in accordance with the requirements found in Federal Aid Highway Program Manual (FHPM) 7-7-3. The analysis is based on current prediction methodologies. The predictions are compared to the Federal and State noise standards for the impacts evaluation.

The noise prediction model used in the impact analysis is a FHWA-approved form of the model of NCHRP Report 117, as modified by NCHRP 144. The parameters of this model include projected traffic volumes and the physical characteristics of the roadway and the surrounding area. Traffic projections were obtained by computer analysis by the Mn/DOT Office of System Planning. These volumes were then used to calculate predicted noise levels for the noisiest hour of the day. In accordance with FHPM 7-7-3, paragraph 4d(3), the design hour volume for trucks was used along with auto volumes anticipated during roadway operation at service level "C" (a traffic condition [used and described in the Highway Capacity Manual - Highway Research Board, Special Report 87, 1965] where speed and maneuverability are closely controlled by high volumes, and where drivers are restricted in their freedom to select speed, change lanes, or pass).

Permitted noise levels vary with the type of land use predominating within an area. Both the Federal Highway Administration and the State of Minnesota have adopted regulations aimed at controlling highway noise pollution. The Federal design noise levels and State noise standards are shown in Table 10 on page 77.

Table 10 Federal and State Design Noise Level/Land Use Relationships

DESIGN NOISE LEVELS ---FHWA (Federal)

<u>Land Use Category</u>	<u>Design Noise Level - L₁₀</u>	<u>Description of Land Use Category</u>
A	60 dBA (exterior)	Tracts of lands in which serenity and quiet are of extraordinary significance and serve 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, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities or serenity and quiet.
B	70 dBA (exterior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, picnic areas, recreation areas, playgrounds, active sports areas and parks.
C	75 dBA (exterior)	Developed lands, properties or activities not included in categories A and B above.
D	n/a	Undeveloped lands.
E	55 dBA (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

NOISE LEVEL STANDARDS ---MPCA (State)

<u>Classification</u>	<u>Land Use</u>	<u>Daytime Noise Level (7 AM to 10 PM)</u>	<u>Nighttime Noise Level (10 PM to 7 AM)</u>
NAC-1	Residential	L ₁₀ of 65 dBA	L ₁₀ of 55 dBA
NAC-2	Commercial	L ₁₀ of 70 dBA	L ₁₀ of 70 dBA
NAC-3	Industrial	L ₁₀ of 80 dBA	L ₁₀ of 80 dBA

The results of the noise analysis are listed in Table 11, page

Existing noise levels along the TH 101 corridor were measured in the Summer of 1976 and are shown on Exhibit 14, pages 82 and 83. Also, on the same exhibit are the predicted noise levels for the year 2000. With the proposed project implementation, the noise analysis indicates that areas 3, 4 and 16, as shown on Exhibit 14 pages 82 and 83, are the only noise sensitive areas where noise abatement is proposed.

Area 1 is presently composed of farm residences and light industry. Under the present circumstances, it does not appear to be economically feasible to construct a 3000 foot long sound barrier for three residences. Depression of the existing TH 169 roadway would be another method of mitigating the noise affects; however, this method would also be expensive for the benefits gained. If the residential land use intensity increases prior to the proposed project 1985-1990 implementation, the provision of sound barriers may become economically feasible and will be provided under those conditions. Excess earth fill may be available from the project and this excess fill will be utilized for a noise barrier in area 1. If the land use intensity remains the same and if excess fill is not available, then an exception may be requested for area 1.

Areas 3 and 4 are primarily mobile home parks and are located on the west end of the proposed action. The present TH 169 mainline will be depressed 3 feet to 20 feet below the present elevation. This depression mitigates the present noise levels to some extent. In the Bonnevista Mobile Park area, the local access interchange ramps offset some of the

Table 11

Noise Analysis Summary

AREA NUMBER	CHARACTER OF LAND USE	Applicable FHWA Standard (dBA)	Applicable State Standard (dBA)	Ambient Noise Level (dBA)	Predicted Noise Level in 2000 Without Abatement (dBA)	Noise Treatment Planned	Predicted Noise Level in 2000 With Abatement (dBA)	Exception may be Requested
1	Farm Residences & Light Industry	70	65	75	70-73	None	n/a	Yes
2	Vacant Land	n/a	n/a		72	n/a	n/a	No
3	Residential	70	65	77	66-69	Yes	65**	No
4	Residential	70	65	76	74	Yes	65**	No
5	Vacant Land	n/a	n/a		65	n/a	n/a	No
6	Vacant Land	n/a	n/a	*	71	n/a	n/a	No
7	Vacant Land	n/a	n/a		71	n/a	n/a	No
8	Park (Tahpah)	70	70	48	69-70	No	n/a	No
9	Vacant Land	n/a	n/a		70	n/a	n/a	No
10	Vacant Land	n/a	n/a	54	58-70	n/a	n/a	No
11	Residential	70	65	55	56-59	No	n/a	No
12	Vacant Land	n/a	n/a		64-70	n/a	n/a	No
13	Light Industry	75	80	50	64-70	n/a	n/a	No
14	Vacant Land	n/a	n/a		63-71	n/a	n/a	No
15	Vacant Land	n/a	n/a	67	63	n/a	n/a	No
16	Residential	70	65	69	65-73	Yes	65**	No

*An 77 dBA ambient reading was obtained in the TH 169-CR 69 area which will be in the middle of the Alternative 1 interchange.

**These values are shown in blue on Exhibit 14 pages 82 and 83.

mitigation gained by depressing the mainline. Noise barriers are being proposed for areas 3, 4 and 16 as shown on Exhibit 14 pages 82 and 83. Area 16 is on the east end of proposed project and is a residential neighborhood with six first row single family dwellings and numerous single family dwellings beyond the first row. The noise barriers for areas 3, 4 and 16 may be wood or concrete walls and/or earth mounds to best fit the project design area and the desires of the people. The traffic noise levels in these areas will be within applicable FHWA Design Noise Levels and MPCA daytime standards (see Table 11 on page 79).

Area 8 is Tahpah Park which is located in the northwest quadrant of CSAH 15 and TH 101. Although the park area will receive a significant noise increase, the predicted traffic noise levels for the year 2000 indicate that it will conform to FHWA Design Noise Levels and MPCA standards without noise attenuation. Since the DEIS circulation, the proposed project has been depressed an additional four feet in the Tahpah Park area. An additional earth berm may be included if excess earth fill material is available to help mitigate the significant predicted noise increases.

The remainder of the proposed project corridor consists primarily of vacant lands with scattered farms and light industry.

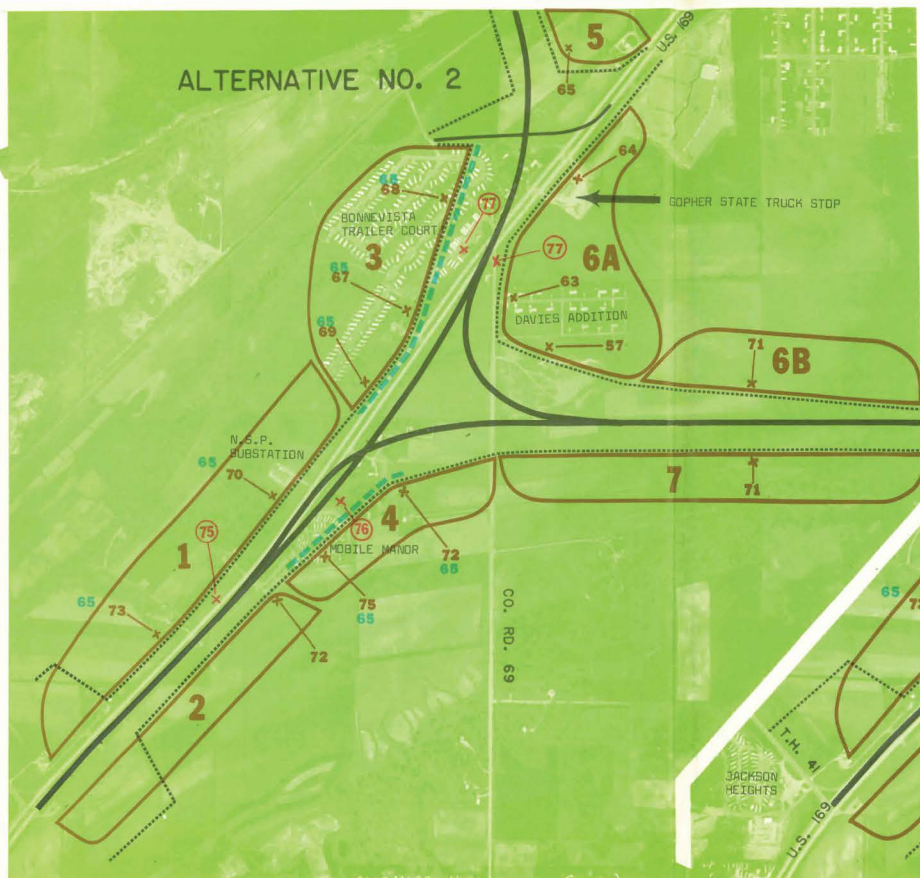
Specific noise abatement barrier types and designs have not yet been determined. Many of the details of noise abatement design will have to be worked out with the local units of government. Measures that will be studied include solid barriers, earth mounds, elevation or depression of the roadway itself, and combinations of these.

Prior to plans, specifications and estimates approval, a Noise Analysis Report will be prepared. This report will contain an in-depth examination of anticipated noise impacts and specific mitigation measure designs to be implemented. The Noise Analysis Report will also address the MPCA nighttime standard of 55 dBA.

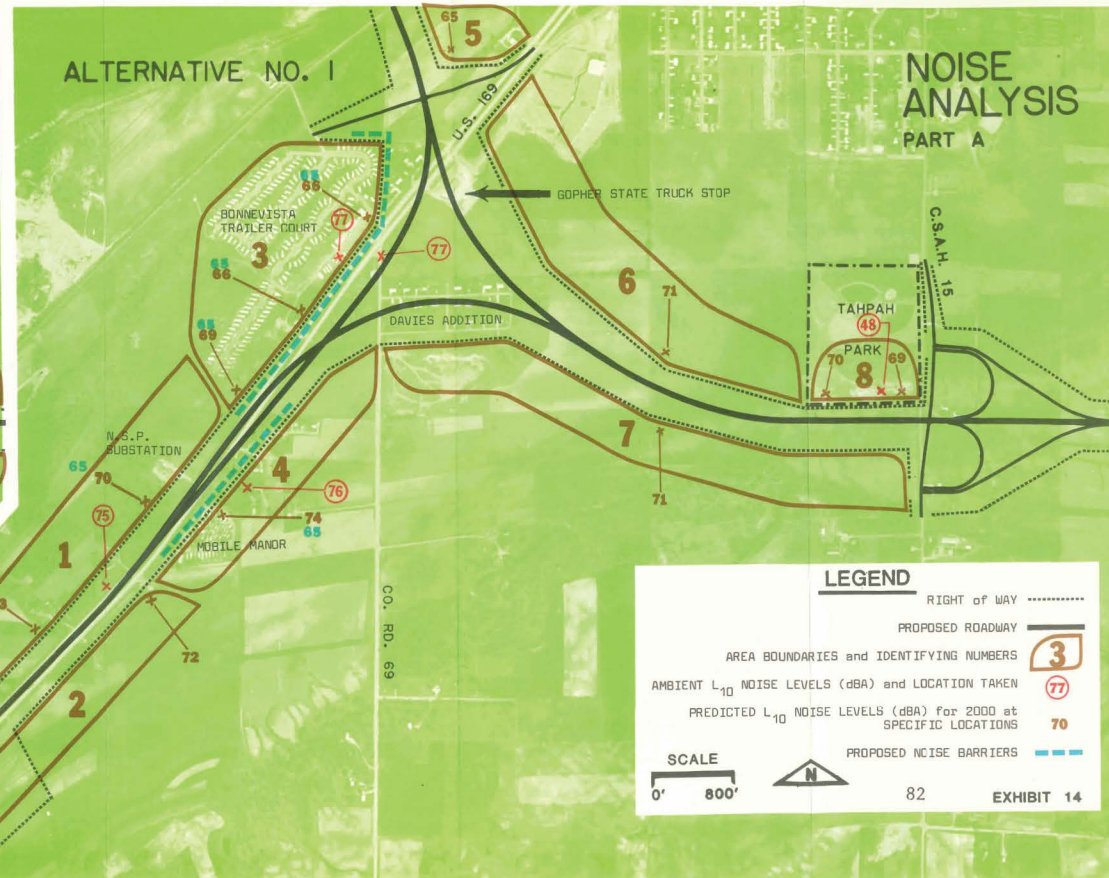
Not building TH 101 (Shakopee By-Pass) would mean that the noise levels currently experienced along in-place TH 101 would continue to rise as traffic volumes increase and congestion becomes widespread. Overflow traffic from TH 101 seeking alternate routes would likely travel residential streets which are not built to handle large volumes of traffic, causing not only increased noise levels in residential areas of Shakopee but also potentially severe safety hazards.

Construction activities are expected to last approximately four construction seasons. Although no one area should be exposed to construction noise for the full four years, each area will be impacted from time to time during each of those years. Throughout the project length, activities such as earth moving, truck hauling, pile driving and grading operations will contribute to the construction noise impact.

ALTERNATIVE NO. 2



ALTERNATIVE NO. 1



NOISE ANALYSIS PART A

LEGEND

RIGHT of WAY (dashed line)

PROPOSED ROADWAY (thick solid line)

AREA BOUNDARIES and IDENTIFYING NUMBERS (numbered area)

AMBIENT L_{10} NOISE LEVELS (dBA) and LOCATION TAKEN (number in circle)

PREDICTED L_{10} NOISE LEVELS (dBA) for 2000 at SPECIFIC LOCATIONS (number in circle)

PROPOSED NOISE BARRIERS (dashed line)

SCALE
0' 800'



82

EXHIBIT 14

NOISE ANALYSIS

PART B

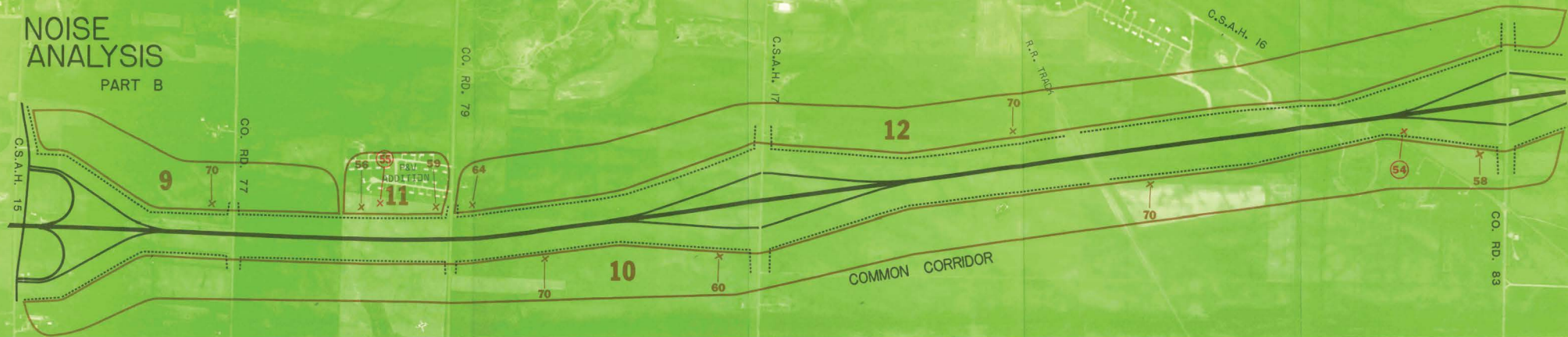


EXHIBIT 14

In Areas 3, 4 and 16 the proposed noise abatement barriers may be constructed early in the construction stage to help alleviate the construction noise impact. This will be studied during the design stage.

All of the affected municipalities have adopted noise control ordinances which will also help to minimize the impact. Most are similar to Shakopee's ordinance which is basically a nuisance ordinance limiting hours of noisy construction to between the hours of 7:00 AM and 6:30 PM, Monday through Saturday, and no construction on Sunday without city approval. State forces will give full cooperation to the city inspection personnel in enforcing these ordinances. Also, every contract let on TH 101 will allow ample time to complete construction within specified daily constraints.

Mn/DOT has furnished all Cities, Counties and Regional Development Commissions in Minnesota with copies of "The Audible Landscape". This handbook provides guidance for land use planning, plat layout and building design for compatible development near traffic noise. Additional copies are available upon request. The local units of government will also be furnished the noise analysis information contained in the FEIS along with the predicted 70, 65 and 55 dBA locations in residential zoned areas.

Proposed plats for land adjacent to all Minnesota state highways are submitted to the Department for review prior to plat approval. When potential for noise impact is identified in the review process, it is noted in the review comments to insure that the approving authority is

aware of an existing or potential noise impact on proposed noise sensitive areas, and is also aware that the soon-to-be-adopted State Noise Policy will discourage incompatible development along a highway by disclaiming any responsibility for protecting this development from noise impacts. This is consistent with FHPM 7-7-3 (May 24, 1976) which disclaims federal responsibility (in most instances) for development planned after the date of public knowledge of a highway project.

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.

The control of soil erosion during construction in the wetland areas will be of prime importance to keep these areas from filling up with sediment and reducing the waterfowl useage. The erosion control measures discussed in the previous paragraphs can be implemented as appropriate to erosion control problem areas.

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

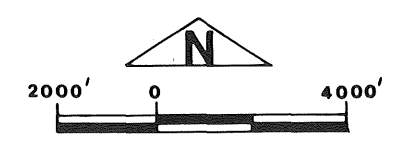
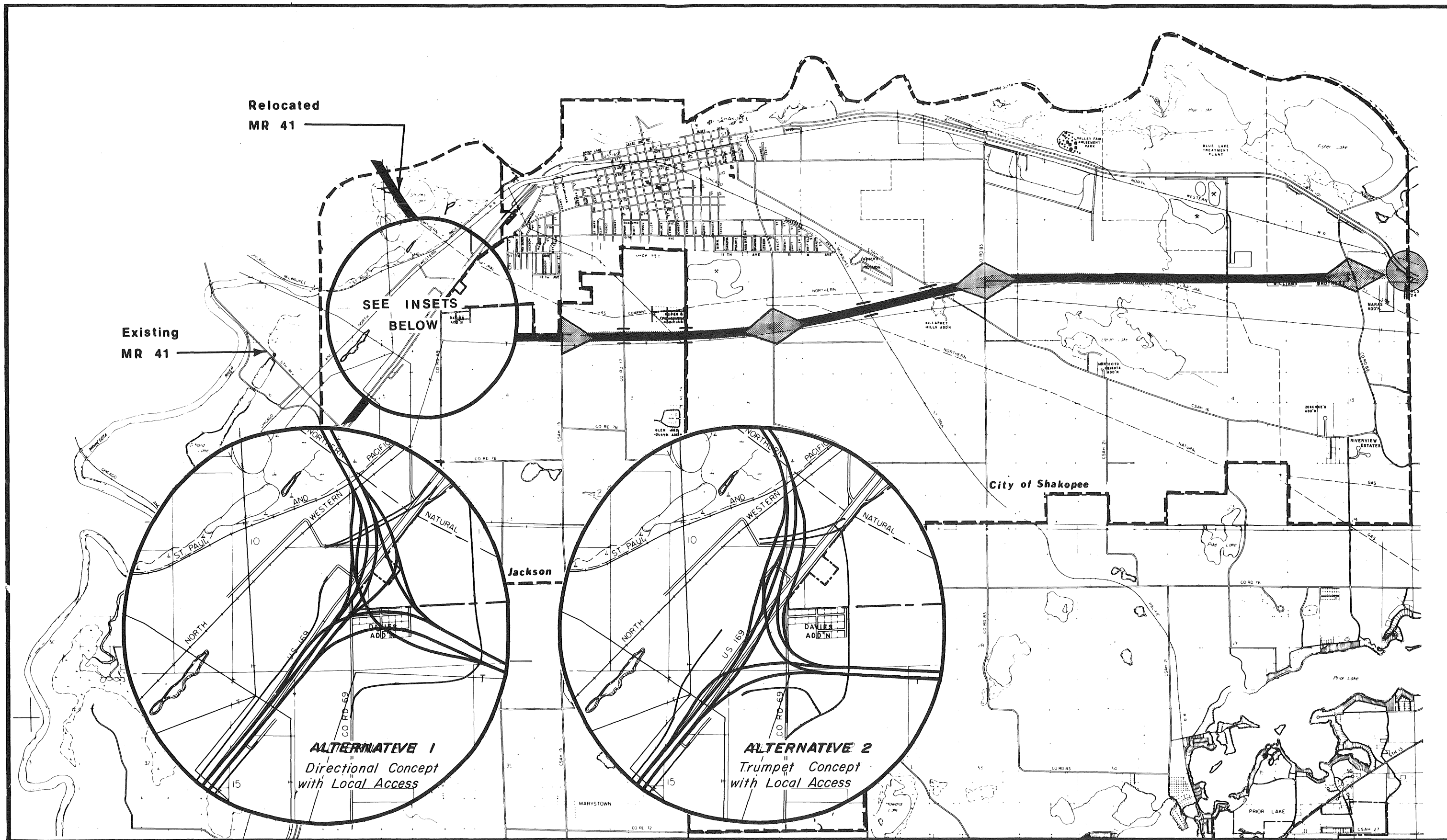
The corridor type alternatives were eliminated through the public hearing process in the late 1960's and early 1970's, as described in the history section. At that time one 2000 foot corridor was selected. As the planning process continued at the task force level, three alternatives evolved within the 2000 foot By-Pass corridor. Each alternative was identical from CR 15 to in place TH 101 (see Exhibit 15 page 88). 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 to the selected alternative were:

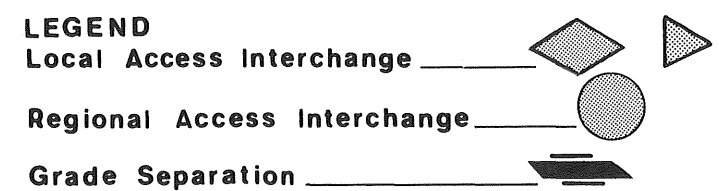
Alternative 2 - By-Pass with trumpet interchange

Alternative 3 - No build

The details on the two alternatives 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



SHAKOPEE BY-PASS



PROPOSED BY-PASS WITH INTERCHANGE CONCEPTS

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.

Upgrading US 169 and TH 101 on the existing alignment would have the impacts discussed with the suggested U.S. Fish and Wildlife Service (USFWS) alternative on pages 96-99. In addition to those impacts to alleviate the TH 101 flooding problem, alleviation of the US 169 flooding problem, which occurs under the Chicago and North Western Railroad main-line track, also has impacts. Raising the US 169 grade would severely impact the Railroad grades that are and have to be relatively flat (1% or less).

Changing US 169 and TH 101 to controlled access facilities on the existing alignment would require six to eight blocks of the Shakopee CBD for an interchange at the present US 169-TH 101 Minnesota River Crossing intersection area. The controlled access would also require a major traffic rerouting on several Shakopee city streets and meeting the noise standards would be difficult without major relocation impacts in the Shakopee urbanized section. For these obvious impacts and logical reasons and future planning by local, regional and state governmental units, upgrading on the existing roadway alignments was impracticable for consideration.

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

TABLE 12
ALTERNATIVE COMPARISON

	ALTERNATIVE		
	<u>1</u>	<u>2</u>	<u>3</u>
Additional highway right of way (acres)	525	500	0
Agricultural land lost (acres)	290	320	0
Wetlands impacted (acres)	4	4	0
Households displaced	49	88	0
Businesses displaced (maximum)	3	3	0
Construction cost (million dollars)	30	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

As can be seen from the above table, the two interchange alternatives differ primarily in the right of way acquisition and the number of households involved in the acquisition. While Alternative 1 takes more acres of right of way than Alternative 2, Alternative 1 acquires fewer households and basically acquires those who want to be relocated based on the public hearing input. On April 17, 1978, the Shakopee By-Pass Task Force unanimously passed a resolution recommending Alternative 1. For these reasons, Alternative 1 is the selected alternative for implementation.

Alternative 3 has definite short comings in meeting the transportation needs for southwestern Minnesota and the Southwest Metropolitan Area and the Shakopee CBD air quality. Since there was very little support for this alternative, it was eliminated from consideration.

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 525 acres of right of way will be needed. Of this amount, 290 acres will be agricultural land, 8 acres of wetlands, 45 acres of forestland and 182 acres of quasi developed residential, commercial land. Although the prime agricultural land yields 20% less than the Scott County average, 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 41 single family residences, eight mobile homes and three 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 TH 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

<u>LOSSES</u>	<u>GAINS</u>
Short term disruptions during construction such as noise and soil erosion.	Noise abatement measures are proposed to meet MPCA noise standards for existing developments. The predicted noise analysis information will be provided to the local units of government for land use zoning and building permit coordination.
	Use of temporary erosion control measures during construction will minimize the short term soil erosion. After construction, a permanent turf establishment by using plants and grasses native to the area will deter wind and water soil erosion and provide aesthetics for the driver. Agricultural land that is now plowed and exposed to erosion will have a permanent grass turf.
Conversion of land used for farmland, wildlife habitat, residences and businesses to land used for transportation purposes.	Agricultural crops grown in southwestern Minnesota and shipped to the Savage grain terminals will have reduced transportation costs by elimination of congestion in the Shakopee CBD thereby reducing the travel time and increasing safety. An important link in the southwest corridor system will be completed. The acquisition of agricultural land in the By-Pass corridor is of benefit to the southwestern Minnesota agricultural region.
	Some of the wetland areas between the actual roadway construction and the right of way line may be improved for water fowl uses through proper drainage design. Wetland areas within the right of way may be more protected from

Table 13 (continued)

LOSSES

GAINS

The displacement of residences and businesses which will effect jobs and the tax base.

The use of petroleum for construction energy.

recreational vehicles and other land use development encroachments. The Minnesota Valley National Wildlife Refuge Area establishment preserves an area for some species of wildlife to migrate to. The parks/public land use zoning around Dean Lake is also a positive action to preserve long term wildlife habitat. The By-Pass corridor will act as a buffer zone separating the commercial/industrial areas from park/public and residential areas.

With the completion of local comprehensive plans in conformance with the Metropolitan Land Planning Act, proposed land uses are coordinated to match the existing terrain and ecological conditions with compatible human land use activities as the urbanization process continues to take place under the MC Development Framework policies.

The relocation program provides assistance to place all displacees in housing equal to or better than that from which they come.

Scott County has taken steps to assure Jackson Township that variances will be granted for replacement of residential lots lost to the By-Pass right of way. Jackson Township has also received a positive response to the variances from MC provided Jackson Township addresses the situation in their comprehensive plan which has to be adopted by the MC.

Continued urbanization of the area with or without the By-Pass will provide business activity enhancement. This brings an additional revenue and jobs and thus may offset the short term losses from right of way acquisition.

Gasoline will be used more efficiently by the elimination of congestion and stop and go driving.

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. COORDINATION AND COMMENTS

The coordination and comments section is divided into three areas: early coordination prior to the DEIS; the public hearing input and comments on the DEIS.

Early Coordination

Previous to and during the development of the Draft Environmental Impact Statement (DEIS), public agencies, business interests and citizens were 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 (USFWS), 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 31, Mn/DOT has been in consultation with the MHS/SHPO since the early 1970's. They were contacted in the fall of 1976 and an August of 1977 response indicated that a previous preliminary Trunk Highway Archaeological Reconnaissance Survey in 1972 revealed no historical or archaeological sites with the zone of potential impact.

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 (USFWS) toured the project with Mn/DOT personnel. After the field trip, the USFWS 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 16 on page 97.

U.S. FISH AND WILDLIFE ALTERNATIVE

LEGEND

MINNESOTA VALLEY NATIONAL WILDLIFE
RECREATION AREA BOUNDARY
SOURCE: U.S.F.W. OFFICIAL MAP

JAMES W. WILKIE REGIONAL PARK BOUNDARY
SOURCE: HENNEPIN COUNTY PARK
RESERVE DISTRICT

FLOOD PLAIN LIMITS
SOURCE: U.S. DEPT. OF HOUSING AND
URBAN DEVELOPMENT

U.S.F.W. ALTERNATIVE



SCALE
0 800 FEET

The USFWS 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 FEIS. By connecting into TH 101 at the proposed USFWS 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 USFWS 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 16, even if the flooding problem did not exist.

The USFWS 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 USFWS 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 16.

As shown on Exhibit 16, the USFWS 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 100).

Table 14

Alternatives Summary Evaluation

	<u>USF&WS 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 Plant	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 USFWS alternative would end within the Shakopee City limits whereas the proposed alternative better fulfills the Shakopee By-Pass concept.

The USFWS 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 USFWS and COE for a better understanding of the project and to discuss comments provided by the COE. The USFWS 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 USFWS 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 USFWS representatives and with the removal of the proposed CSAH 21 interchange from the Shakopee By-Pass, the USFWS 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 FEIS.

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.

Prior to the DEIS circulation, noise and air reports were submitted to both the EPA and the MPCA as part of the early coordination. Both of these agencies stated at that time that no significant impacts are anticipated.

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.

Alternative schematic layouts for the US 169/MR 41/By-Pass interchange were subsequently developed. These alternatives 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 and 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.

Public Hearing Input

In compliance with Minnesota Statutes, 1976, Chapter 161, previously known as Minnesota Statutes, 1969, Chapter 312, Mn/DOT held a May 10, 1977 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.

On November 2, 1977, a public hearing was held on the proposed action and its DEIS. The hearing was attended by approximately 90 people and the hearing input has been categorized as follows with the given responses.

<u>Hearing Comments</u>	<u>Responses</u>
1. City of Shakopee favors By-Pass but has some concerns on 169-41-By-Pass interchange staging and recognizes impacts in other areas to benefit the city.	1. A staging layout plan has been developed for the 169-41-By-Pass interchange area. The staging plan considers both cases regarding the proposed 41 implementation and the By-Pass implementation if one occurs prior to the other.
2. Jackson Township was concerned about the value residents might receive for homes and relocation assistance provisions. The Township desired that residents have opportunity to relocate in Jackson Township to minimize tax revenue losses. The Township also expressed concerns regarding potential noise problems, the sewer extension problem and the return of the Shakopee Valley Mall from the City of Shakopee to Jackson Township.	2. The right of way acquisition relocation problems and assistance programs were discussed at the public hearing and are addressed in this FEIS on pages 56-62. Scott County has indicated that variances will be allowed to Jackson Township residents displaced by the project for relocation within the Township. Noise impacts and noise abatement mitigation for specific areas has been addressed in this FEIS on pages 75-85. Mn/DOT will continue to coordinate the By-Pass plans with sewer development plans. The return of the Shakopee Valley Mall to Jackson Township is beyond our jurisdiction.

Hearing Comments

Responses

- | | |
|--|--|
| 3. Davies Addition generally favors relocation to being a neighbor to transportation and commercial developments; therefore, favors Alternative 1. | 3&4. Alternative 1 has been selected over Alternative 2 for reasons mentioned earlier in the FEIS. |
| 4. Minnesota Valley Mall favors Alternative 2 for various reasons. | |
| 5. Interchange at CR 79 is needed to spur development and provide direct connection to O'Dowd Lake public recreational area. | 5. Full interchange at CR 79 is inconsistent with MC Transportation Development Guide/Policy Plan and Rural Service Area Policies as part of the Regional Development Framework. These plans/policies are contained in the MC Metropolitan Development Guide. Access from the By-Pass to O'Dowd Lake public recreational area is provided via the CSAH 17 interchange. |
| 6. Full interchange at CR 89 would be desirable. | 6. Full interchange at CR 89 has been incorporated into the project. |
| 7. Questions concerning right of way acquisition procedures. | 7. A very thorough explanation of the right of way acquisition and relocation procedures was given at the hearing and the explanation is documented in the transcript. |
| 8. Gopher State Truck Stop favors Alternative 1 if the Shakopee By-Pass is to be implemented. | 8. Alternative 1 has been selected. |
| 9. Move corridor alignment 600 feet south in CR 89 area to save individual's combined residence/salvage business. | 9. It would be physically impossible to move the By-Pass 600 feet south in the CR 89 area and not acquire more than one residential-commercial establishment by tying back into in place TH 101. The relocation impacts of the suggested routing would be greater than the proposed routing. |

DEIS Comments and Responses

The responses are usually contained on the same page as a reduced copy of the agency comment letter.

Responses to USEPA Comments

Item A:

The noise predictions for the proposed action indicate that Federal standards are exceeded at some mobile home sites. Noise abatement barriers are being proposed at the mobile home sites to meet Federal design noise levels and MPCA daytime standards. A detailed Noise Analysis Report will be prepared prior to project implementation. This report will discuss the specific noise barrier types and designs and the report will also address the MPCA nighttime standard. The noise analysis section on pages 82-83 indicates the proposed noise barrier locations in the mobile home areas. The mobile home acquisition has been reduced from 67 to 8 as discussed on page 58.

Item B:

Since circulation of the DEIS and public hearing, project coordination has continued with the local units of government. In the Tahpah Area, the Shakopee By-Pass profile has been depressed since the DEIS circulation. Even though Tahpah Park will be subjected to increased predicted noise levels, the roadway depression results in the predicted noise level meeting Federal design noise levels and State standards. An additional earth berm may be included if excess material is available to help mitigate the significant predicted noise increases.



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

NOV 10 1977

Mr. Leonard G. Elts
Design Engineer
Minnesota Department of Transportation
Transportation Building
St. Paul, Minnesota 55155

RE: 77-074-424
D-FHW-F40100-MN

Dear Mr. Elts:

We have completed our review of the Draft Environmental Impact Statement (EIS) for Shakopee By-Pass in Scott County, Minnesota, on which you requested our views and comments in a letter of September 26, 1977. Previously, we had commented on the air quality and noise reports prepared for this project. Our comments on those reports indicated that we had no major objections. The impacts anticipated from the construction of this project should be minimal. Our comments are as follows.

- A** The Draft EIS indicated that the location of the Shakopee By-Pass will require the relocation of up to 67 mobile homes. Regardless of the relocations, the highway will be located adjacent to the remaining mobile homes. The noise impacts upon these mobile homes should be assessed in the Final EIS. If the analysis indicates adverse noise levels at the mobile home site, some form of mitigative measures should be taken.
- B** The noise mitigative measures planned for Tahpah Park appear to be consistent with the activities at the park. As we said in our letter of February 3, 1977, local units of government should be informed of the location of the potential 70 dBA noise levels. This would prevent adverse noise impacts upon future developments by providing a buffer between any development and the highways or zoning for compatible uses adjacent to the highway.
- C** As the by-pass is proposed, approximately four acres of wetlands will be impacted by the roadway. Mitigative measures to offset the wetland losses have been outlined in the Draft EIS. We have no objections to the mitigative measures and believe they offset the wetland losses.
- D** In consideration of our review, we have rated the project as LO (lack of objection) and classified the EIS as Category 1 (sufficient information). The date and classification of our comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on other agencies' projects.

We appreciate the opportunity to review this Draft EIS. When the Final EIS is filed with the Council on Environmental Quality, please forward 2 copies to us. If you have any questions in regard to our comments, please contact Mr. William D. Franz at 312-353-2307.

Sincerely,

Susan P. Walker, Chief
Environmental Impact Review Staff
Office of Federal Activities

The noise analysis section information will be provided to the local units of government along with an approximate location of the predicted 70, 65 and 55 dBA noise levels where appropriate so that coordination with future developments will result in compatible land uses adjacent to the highway.

Item C:

No response necessary.

Item D:

No response necessary.

Responses to USDA Comments

Item A:

A discussion on the loss of wildlife habitat and its impact has been included in the FEIS section dealing with Wetland and Wildlife Impacts and Mitigation on page 68.

Item B:

The proposed action will attempt to perpetuate existing drainage patterns. As a mitigation measure, the water level in some wetland basins, which are choked-up with vegetation, may be raised by design to increase their value for marsh wildlife.

Item C:

Mn/DOT's landscaping program provides for the planting of trees and shrubs within the right of way after the project construction has been completed. Exhibit 13.1 on page 71 shows the possible use of existing evergreens to preserve the natural beauty. Retaining some evergreens along with the 60 foot grass median should reduce the night time headlight visual interaction between the eastbound and westbound traffic.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
NORTHEASTERN AREA, STATE AND PRIVATE FORESTRY
6816 MARKET STREET, UPPER DARBY, PA. 19082
(215) 596-1671

8430
November 15, 1977



Mr. Leonard G. Eilts
Design Engineer
Minnesota Department of Transportation
Transportation Building
St. Paul, Minnesota 55155

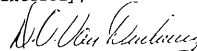
Refer to: 330-FHWA-MN-EIS-
77-01-D, Draft Environmental
Statement, Shakopee By-Pass
Scott County, MN

Dear Mr. Eilts:

- A** In Exhibit 13 over 50 acres of wildlife habitat, and other wooded land appear to be within the right-of-way at the western and eastern end. The final statement should include a discussion of the impact of the loss of wildlife habitat.
- B** The area of wetlands affected by the project will probably be greater than the area shown as directly impacted in Exhibit 13. Changes in drainage patterns may result in raising of water levels in the wetlands or stagnation of water unless drainage is provided, particularly in Wetlands 12 and 13 (Exhibit 13.1). This situation should be addressed in the final statement.
- C** To mitigate the effect of construction you could consider planting trees and shrubs in addition to grasses, for aesthetic reasons and for erosion control on slopes. You might also consider larger plants on median strips to reduce visual interaction of east and west-bound traffic particularly at night.

Thank you for the opportunity to review this draft statement.

Sincerely,


DALE O. VANDENBURG
Staff Director
Environmental Quality Evaluation

Item A:

The FEIS section on Public Facilities and Services, page 35 contains a thorough description of Tahpah Park including the size, type of facilities and recreational activities as provided by the City of Shakopee.

Item B:

The short term noise impacts will be during the construction season. Tahpah Park is geared to softball and baseball activities which may occur during the evening hours and on weekends when construction activities are reduced. Any games scheduled during the normal work day may experience some noise interference. The completed By-Pass will be depressed below the existing ground in the Tahpah Park vicinity and the predicted noise levels do not exceed Federal or State standards. Coordination with Shakopee City Administrator, who is responsible for the parks management, is evidenced by the February 13, 1978 letter on page 109. The planting of trees and shrubs in the Tahpah vicinity will be apart of Mn/DOT's landscaping program which provides for planting within the right of way. To some extent, the backslope in the depressed highway section serves as an earth berm. An additional earth berm may be included if excess material is available to help mitigate significant predicted noise increases.



United States Department of the Interior

OFFICE OF THE SECRETARY
NORTH CENTRAL REGION
2510 DEMPSTER STREET
DES PLAINES, ILLINOIS 60016

ER 77/927

November 10, 1977

Mr. E. Dean Carlson
Division Engineer
Federal Highway Administration
Suite 490, Metro Square Building
St. Paul, Minnesota 55101

Dear Mr. Carlson:

In response to the Minnesota Department of Transportation's request of September 26, 1977, we have reviewed the draft environmental impact statement for TH-101, Shakopee By-Pass, Scott County, Minnesota.

A Previous information provided was not sufficient to inform us of the existence and proximity to the project of Tahpah Park. A thorough description of this park including its size and the types of facilities and recreational activities occurring there is needed.

B Both the temporary (construction, page 69) and the long-term effects of noise on the park should be discussed in light of the recreational activities occurring in that part of the park adjacent to the project. The final environmental statement should contain evidence of coordination with the local park managing agency as to those mitigation measures best suited to noise abatement at Tahpah Park. Project mitigation measures should include the planting of sufficient trees so as to effectively screen the road from the park.

C We are pleased to note that the National Register of Historic Places has been consulted concerning project impact upon listed or nominated properties within the area (page 29). However, more recent consultation is recommended due to the continually expanding nature of the National Register (as published in the Federal Register, February 1, 1977, and monthly supplements). In addition to evidence of current National Register consultation, we suggest that the correspondence with the State Historic Preservation Officer be included in or appended to the final statement to facilitate the review process.

D We note that an interrelated Federal action associated with this project will be the need to obtain a Section 404 permit from the Corps of Engineers to accomplish dredge and fill activities in project implementation. In review of the application(s) for such a permit(s), the U.S. Fish and Wildlife Service may concur, with or without stipulations, or object to the proposed work depending on project effects which may be identified and evidence at that time on fish and wildlife resources. The U.S. Fish and Wildlife Service will likely recommend that the Corps of Engineers require the implementation of the various mitigation procedures discussed on pages 59 through 61 of the Draft Environmental Statement and any other such measures that may be apparent and appropriate at the time the permit is issued to minimize harm to fish and wildlife resources.

Sincerely yours,

David L. Jervis
David L. Jervis
Regional Environmental Officer

cc: Minnesota Department of Transportation

Item C:

Recent consultation with the National Register of Historic Places indicates that no sites have been identified within or adjacent to the proposed action. Correspondence from the State Historic Preservation Officer is included on page 110 to facilitate the FEIS review process.

Item D:

The mitigation measures discussed on pages 68-70 will be incorporated into the project design, construction and maintenance where applicable.



United States Department of the Interior

NATIONAL PARK SERVICE

MIDWEST REGION
1709 JACKSON STREET
OMAHA, NEBRASKA 68102
OCT 14 1978

IN REPLY REFER TO:

L7621 MWR DCL

Design Engineer
Minnesota Department of Transportation
Transportation Building
St. Paul, Minnesota 55155

Dear Sir:

Thank you for your notice concerning the following proposed project:
S.P. 7005-42 (T.H. 101) From U. S. 169 in Jackson Township to T. H.
101 in Savage (Shakopee By-Pass); Minn. Proj 1 494-4, S.P. 1985-52(1-494),
Reconstruction in the Interstate 494-Concord St. (T.H. 56), Dakota County.

No established or studied units of the National Park System or properties
under study or designated as National Historic, Natural, or Environmental
Educational Landmarks appear to be adversely affected by the proposal.

Accordingly, we have no objections to the performance of the proposed
work provided that the following checked conditions are satisfactorily
resolved.

- A** 1. ☒ We suggest that you consult the State Historic Preservation
Officer for information concerning historic or other cultural values in-
cluding properties entered or potentially eligible for the National
Register of Historic Places as it may be influenced by the proposed
construction.
- B** 2. ☒ As one of the concerns of the National Park Service is archeo-
logical studies, we feel that some thought should be given to archeological
resources in project planning. As the proposal develops, we will be con-
cerned that action is taken or proposed to determine whether archeological
resources are present in the construction area.
3. ☐ Other Comments:

Sincerely yours,

cc

C.P. Rockafellow
C.J. Hoffstedt
A.H. Hoffstedt
R. Johnson - L.H.H.

Merrill D. Beal
Merrill D. Beal
Regional Director

Item A:

See comment C to USDO I on
previous page.

Item B:

Thought has been given to
archaeological resources
in the project planning as
discussed on page 31 and
evidenced by the letter
from the MHS on the next
page.

The information contained
in the City of Shakopee
correspondence is included
in this FEIS on page 37.

CITY OF SHAKOPEE

INCORPORATED 1870

129 E. FIRST AVE. 55379
February 13, 1978



Mr. Carl Hoffstedt, P.E.
Minn. Dep't. of Transportation
District Five
5801 Duluth Street
Golden Valley, Minnesota 55422

RE: 315 S.P. 7005-42 (T.H. 101)
Shakopee Bypass DEIS
U.S. Department of Interior Comments

Dear Mr. Hoffstedt:

In response to your letter requesting specific information as to
the Tahpah Park facilities located in the City of Shakopee, I have
determined the following:

1. The park is approximately 40 acres in size and the proposed
bypass will run adjacent to its southern border of the corporate limits
of the City in this portion of Section 11, Twp 115, Range 23.
2. The park is basically a community park geared to athletic
activities with major emphasis on softball and baseball games in the
summer. These are not activities that will be greatly affected by
highway noise providing there is a reasonable amount of earth berms
and tree screening included.
3. It was known that there would be a highway constructed in this
location someday when this land was purchased in 1971. The original
master plan indicates this.
4. Public hearings were held regarding plans for the proposed
park back in 1971 at which time it was announced that the highway would
border it. No objections were raised at the hearings, and the project
has been endorsed by the Shakopee Recreation Board.

I hope this information is sufficient to permit a response on your
part to the concerns raised by the U. S. Department of the Interior on
the Shakopee Bypass DEIS. If my staff can be of any further assistance
to you, please contact my office.

Sincerely,

Douglas S. Reeder
Douglas S. Reeder
City Administrator

DSR/jsc

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An Equal Opportunity Employer



MINNESOTA HISTORICAL SOCIETY

690 Cedar Street, St. Paul, Minnesota 55101 • 612-296-2747

7 March 1978

Mr. C.P. Kachelmyer
Preliminary Design Engineer
Department of Transportation
Room 604 - Transportation Building
St. Paul, Minnesota 55155

Dear Mr. Kachelmyer:

Minn. Proj. U 075-1 ()
RE: S.P. 7015-01 (T.H. 169)
South Bypass of Shakopee
Scott County
MHS Referral File Number D903

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the National Advisory Council on Historic Preservation (36CFR800).

This review reveals the location of no properties of historic, architectural, or cultural significance within the proposed corridor study area. Additionally, no archaeological sites were located in reconnaissance sampling surveys conducted in 1972 and 1976 of the proposed corridor area. However, since this project is in a broad corridor study phase, we request that the final design specifications be submitted to us for a more detailed review and possible intensive surveys as planning progresses.

A

Sincerely,


Russell W. Fridley
State Historic Preservation Officer

RWF/fr

Founded 1849 • The oldest institution in the state

Item A:

The geometric design plans will be submitted to continue the project coordination.

Response to U.S. D.O.T. Comment

No Response Necessary

Form DOT F 1320.1 (1-47)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE SECRETARY

DATE NOV 7 1977

SUBJECT: Draft Environmental Impact Statement: Highway
Project Minnesota -- 77-01-D, Scott County

In reply
refer to: TES-70

FROM: Director, Office of Environmental Affairs

TO: Chief, Environmental Programs Division
Federal Highway Administration, HEV-10

We appreciate the opportunity to review and comment on this draft environmental impact statement. We have no specific comments to offer on the statement.

We look forward to receiving the final environmental impact statement, including the comments received from other public agencies and the general public on the draft statement.


Martin Convisser



Minnesota Pollution Control Agency

November 16, 1977

Harry A. Reed
Deputy Commissioner
Minnesota Department of Transportation
Transportation Building, Room 408
St. Paul, Minnesota 55155

Dear Mr. Reed:

A review has been made of the Draft Environmental Impact Statement (EIS) for the Shakopee Bypass in Scott County, pursuant to the Federal Guidelines for Review and Preparation of EIS and Chapters 116D "Minnesota Environmental Policy Act" (MEPA). The following comments are offered for consideration in the final EIS:

A Page 14: The discussion regarding the relationship of this project to any proposed Minnesota River crossings is unclear. Pages 18, 19 and 20 of the draft EIS give traffic data related to the proposed Shakopee bypass as well as information regarding Trunk Highway 41 (TH 41) and the proposed relocated TH 41. Upon receiving the draft EIS for TH 41 and projected traffic information with the bypass and without relocated TH 41, it is clear that relocated TH 41 is necessary to properly relieve the traffic at the intersection of 169 and TH 110 in Shakopee. Only partial resolution to traffic related problems in Shakopee will be mitigated by the Shakopee bypass alone. In light of this information, it appears necessary to consider the impacts of the Shakopee bypass with and without relocated TH 41. I would suggest that the project could be better analyzed if TH 41 and the Shakopee bypass were not segmented but recognized as complementary projects. As well, in consideration of the environmental impacts of the proposed action, relocated TH 41 could be considered along with the Shakopee bypass.

B Page 15: In the discussion on mass transit, it appears that mass transit is considered a viable alternative only if it will completely replace the need for the proposed facility. A discussion should be provided which will identify other transit alternatives which could reduce and/or eliminate the need for the proposed action. In this manner, decision-makers will have the ability to weigh transit alternatives to avoid adverse economic, environmental or other impacts.

C Page 16: In the discussion of traffic data, there should be traffic estimates which include relocated TH 41 without the Shakopee bypass and the Shakopee bypass without relocated TH 41. In this manner the interrelationship of the proposed transportation developments for the immediate area can be evaluated with and without relocated TH 41 and with and without the Shakopee bypass.

D Page 24: The discussion regarding surface waters in the project area indicates that the Minnesota River is suitable for recreational pursuits such as boating but no swimming. It should be noted that the Minnesota River is classified for uses which include body contact. In this case, it might be valuable to identify those classified uses for the Minnesota River to determine the degrees of maintenance which must be provided to assure those classes used. In addition, it would be valuable to describe the existing uses which are in part contained on page 25. Additional uses not considered on page 25 are industrial consumption, agricultural, and wildlife.

E Page 46: In the discussion of water quality impacts, the EIS fails to identify the ultimate disposition of pollutants which may accumulate in ditches, adjacent wetlands, and ground water aquifers. Highway pollutants such as chloride are not filtered by soils and thus may affect ground water quality. There should be a better discussion on the kind and quantity of pollutants expected and a definition of the pathway and ultimate sink in which the pollutants will deposit.

F Page 59: The impression is given that the deicing chemicals will be removed by filtration prior to reaching wetland areas. Since this statement is contrary to most information on the transport of conservative pollutants, please reference the sources used to come to the conclusion that the deicing chemicals will be filtered.

E Page 65: The discussion on design noise levels and standards which have been applied to noise abatement fails to consider the Minnesota State Noise Standards. The MPCA will consider any MN/DOT EIS inadequate that does not address compliance with State Noise Standards. It is a requirement of the EIS

process to adequately define impacts and discuss mitigating measures. It is improper to defer analysis of noise impacts to a later date where the balancing of need, environmental impact and proper abatement measures cannot be considered at the same time.

F Page 8: The discussion of impacts on state government and multi-state responsibilities as required in MEQC 25 is inadequate. The actions of the Minnesota Department of Transportation (a part of state government) is affected by federal controls such as FHWA design standards and funding requirements. As well, federal environmental standards affect actions of state government.

If you have any questions, I would be pleased to discuss these comments in further detail.

Sincerely,

Curtis J. Sparks

Curtis J. Sparks
Water Quality Coordinator
Office of Environmental Analysis

CJS:es

Responses to MPCA Comments

Item A:

The impacts most directly related to Shakopee By-Pass traffic loadings are air and noise pollution. The analysis of these impacts considered the worst case situation which took into account the proposed TH 41. The MC 1990 Highway System Plan designates TH 41 a Principal Arterial whereas the Shakopee By-Pass is designated as a right of way reservation. Proposed TH 41 has a higher priority than the Shakopee By-Pass and basically would serve traffic from southwestern Minnesota destined to the Minneapolis area and portions of the St. Paul area. The Shakopee By-Pass basically would serve traffic from southwestern Minnesota destined for the Savage grain terminals and South St. Paul area. Thus, on a state wide basis, proposed TH 41 and the By-Pass would serve two different traffic loadings even though they may be complimentary on an origin basis. The Shakopee By-Pass impact analysis accounts for consideration of proposed TH 41 and the proposed TH 41 FEIS will account for the By-Pass. As discussed on page 14, a DEIS for TH 41 has been prepared and circulated. A meeting was also held with MDNR regarding the proposed projects' relationship to possible TH 41 alternatives. As indicated on page 113, the meeting resulted in the MDNR satisfaction that the proposed project does not foreclose the alternatives for TH 41.

Item B:

The Mass Transit Section on pages 15-16 has been expanded to cover the decision makers involvement in the Metropolitan Development Guide including the Transportation Chapter and its 1990 Highway Systems Plan and 1990 Transit System Plan. The Transportation Chapter also covers other transit alternatives considered viable for the Minneapolis-St. Paul Metropolitan area. Neither the MC or the Metropolitan Transit

Commission (MTC) provided any comments on mass transit alternatives for the Shakopee area; therefore, it seems that those involved in mass transit planning for the Metropolitan area consider the express bus service, supplemented by car pools, van pools, to be the viable transit alternative.

Item C:

Table 15 on page 112 shows the traffic loading interrelations in the immediate project area. The traffic data discussion on pages 18-23 is consistent with the MC 1990 Highway System Plan.

Item D:

The Minnesota River uses have been clarified and additional uses noted on page 27.

The water quality impacts discussion on pages 48-53 has been expanded to provided coverage consistent with the project development status. At the present time, models are not available to determine the quantity of all pollutants expected.

Item E:

The noise analysis discussion on pages 75-85 considers MPCA daytime noise standards and proposes noise barriers for abatement where the standards are exceeded. A Noise Analysis Report depicting specific noise barrier types and design will be prepared prior to project implementation. This report will also further address the nighttime standard.

Item F:

There is a difference of opinion in the interpretation of MEQC 25 among State Agencies as to what is really required. It is noted, however, on page 8 that the use of Federal Aid stipulates that specified policies, procedures and design criteria have to be followed by State Government and that State Government is affected by these controls.

TABLE 15: "UNIQUE SYSTEM D" Traffic Loading Interrelationships
Source: Mn/DOT SPAR's M - 181, 181A, 181B, 181C

SYSTEM ASSUMPTIONS	EXISTING T.H. 41 AADT	EXISTING U.S. 169 AADT	EXISTING US 169-T.H. 101 RIVER CROSSING AADT	EXISTING T.H. 101 AADT	EXISTING CSAH 18 AADT	PROPOSED BY-PASS AADT	PROPOSED T.H. 41 AADT
No Build By-Pass No Build 18 No Build 41	6,000	29-31,000	29,000	25-28,000	5,000	-----	-----
No Build By-Pass Build 41 Build 18	4,000	20-30,000	18,000	19-23,000	19,000	-----	18,000
No Build By-Pass No Build 18 Build 41	4,000	17-30,000	21,000	19-22,000	5,000	-----	21,000
Build By-Pass Build 18 No Build 41	11,000	13-30,000	20,000	8-11,000	26,000	22,000	-----
Build By-Pass Build 41 No Build 18	6,000	10-33,000	20,000	10-15,000	7,000	14,000	19,000
Build By-Pass Build 41 Build 18	6,000	10-33,000	17,000	8-15,000	23,000	17,000	16,000
Build By-Pass No Build 18 No Build 41	10,000	13-30,000	30,000	12-15,000	7,000	18,000	-----
Existing System (1974)	4,000	18-22,000	11,000	14-19,000	4,000	-----	-----
Existing System (2000)	6,000	27-31,000	29,000	25-28,000	5,000	-----	-----

 STATE OF MINNESOTA
DEPARTMENT OF NATURAL RESOURCES
CENTENNIAL OFFICE BUILDING • ST. PAUL, MINNESOTA • 55155

November 22, 1977

DNR INFORMATION
(612) 296-6157

Mr. Leonard G. Eilts
Design Engineer
Mn/DOT
Transportation Building
St. Paul, Minnesota 55155

Re: 330-DEIS for S.P.7005-42 Shakopee-
By-Pass (T.H.101) in Scott County,
from U.S. 169 in Jackson Township
to T.H.101 in Savage.

Dear Mr. Eilts:

The Department of Natural Resources (DNR) has reviewed the above cited DEIS and offers the following comments:

A We have no objection to the T.H.101 by-pass project itself, but have serious concerns regarding the western terminus. The T.H.101 DEIS seems to pinpoint the location of the T.H.41 interchange, yet to our knowledge the final decision has not been made on the choice between alternates 41-D SW and 41-D SE as identified in the T.H.41 DEIS reviewed in 1974. In fact, DNR would prefer that T.H.41 be located either between those two alternatives or to the east of Nyssen's Lake, to minimize impact on that lake and on the lake to the west. It may be premature to fix the location of this interchange before the final decision on the location of T.H.41 is made, if it precludes any of the options mentioned above. We anticipate that this matter can be resolved through coordination between Mn DOT and DNR, and we will proceed to set up a meeting to discuss the matter.

The following comments are in regard to the document itself:

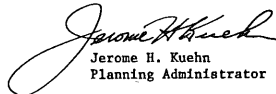
B It is mentioned briefly on page 8 and 74 of the document that 49 acres of forest land will be impacted. A discussion of these forest lands should be included as to its potential productivity and acres present by cover type.

C Table 13, "Short and Long Term Losses and Gains", seems to disproportionately balance losses related to soil erosion and land previously committed to farmland, wildlife habitat, residences and businesses, against gains related to development of the transportation system. The table could be more effective by identifying gains which mitigate the losses described in the table.

D Table 8 indicates that if all of the right of way is used for construction, 8.3 wetland acres would be impacted in the worst case situation and 4.3 acres will be impacted under favorable conditions. But information in Table 12 shows that 14 wetland acres will be lost. The EIS should correct or clarify these discrepancies.

E While some examples of temporary erosion control devices are listed, the EIS should discuss specific methods of temporary and permanent erosion control and the timing of these controls with construction. According to the EIS (page 59) measures to minimize the potential wetland impacts during construction are supposedly discussed in the construction impacts section. As this section does not address these measures, a discussion of methods to minimize these impacts should be added to the document. We concur with the partial mitigation measures identified on page 59 A-D.

Sincerely,


Jerome H. Kuehn
Planning Administrator

JHK:aa:dh

cc: Milt Krona
Bob Hance
Oliver Jarvenpa
Al Wald
Barb Clark
Don Carlson
Larry Seymour
Mary Sullivan EQB

Responses to MDNR Comments

Item A:

A joint meeting between MDNR and Mn/DOT representatives was held on November 30, 1977 to discuss this item. Mn/DOT explained that the TH 41-2000 foot corridor has been established through procedures spelled out by Minnesota Statutes. Mn/DOT also explained that there is enough flexibility in the US 169, TH 41 and By-Pass interchange to consider MDNR's suggested alignment for TH 41 within the corridor in the vicinity of Nyssen's Lake. This will be analyzed during the project development process including the FEIS preparation for TH 41. MDNR was satisfied with the explanation and future consideration of their suggested TH 41 alignment location.

Item B:

The forest lands are discussed on page 30. The 49 acres of forest land has been reduced to 45 acres.

Item C:

Table 13 on page 93 has been revised to identify gains which mitigate the losses described in the table.

Item D:

Table 12 on page 90 has been corrected accordingly.

Item E:

The measures to minimize the potential wetland impacts during construction are discussed in the Construction Impacts Section on page 86. The specific methods for erosion control will be developed on-site by the contractor as needed to solve erosion problems not only in the wetlands areas but also on the rest of the project.



300 Metro Square Building, 7th Street and Robert Street, Saint Paul, Minnesota 55101 Area 612, 291-8359

January 10, 1978

Mr. Fred Tanzer
Regional Coordinator
Minnesota Department of Transportation
Transportation Building
St. Paul, Minnesota 55155

RE: FHWA-MN-EIS - 77-01-D
Draft Environmental Impact Statement for Shakopee By-Pass in
Scott County
State Project 7005-42 (T.H. 101)
From U.S. 169 in Jackson Township
To: T.H. 101 in Savage
Metropolitan Council Referral File No. 5186

Dear Mr. Tanzer:

At its meeting December 22, 1977, the Metropolitan Council considered the above EIS. This consideration was based on a report of the Physical Development Committee, Referral Report No. 77-107. A copy of this report is attached.

The Council adopted this report as presented. Copies of the adopted report are being sent to Jackson Township and the Cities of Shakopee and Savage.

Sincerely,

METROPOLITAN COUNCIL

JB:jg
Attachment

cc: Harry A. Reed, Mn DOT
Norbert Thels, Chairman, Jackson Township Board
Douglas S. Reeder, Administrator, City of Shakopee
Thomas Markus, Administrator, City of Savage
Ghaleb Abdul-Rahman, Metropolitan Council Staff

John Boland
Chairman



An Agency Created to Coordinate the Planning and Development of the Twin Cities Metropolitan Area Comprising:
Anoka County • Carver County • Dakota County • Hennepin County • Ramsey County • Scott County • Washington County

Exhibit C

METROPOLITAN COUNCIL
Suite 300, Metro Square Building, Saint Paul, Minnesota 55101

REPORT OF THE PHYSICAL DEVELOPMENT COMMITTEE

REFERRAL REPORT NO. 77-107

December 16, 1977

TO: Metropolitan Council
SUBJECT: Shakopee Bypass Draft EIS
Metropolitan Council Referral #5186

At its meeting December 15, 1977, the Physical Development Committee reviewed the staff report on the Shakopee Bypass Draft EIS, Referral #5186. The committee approved the staff report and its recommendations without change.

RECOMMENDATION

That the Metropolitan Council adopt the report on the Shakopee Bypass Draft EIS and its recommendations and forward it to the cities of Shakopee & Savage and Jackson Township, and the Minnesota Department of Transportation.

Respectfully submitted,

Marcia Bennett
Chairman

MB:lh

MEMORANDUM

December 2, 1977

TO: Transportation Subcommittee
FROM: Ghaleb Abdul-Rahman, Transportation Staff
SUBJECT: Shakopee Bypass Draft EIS
Metropolitan Council Referral #5186

I. DESCRIPTION AND AUTHORITY TO REVIEW

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. 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.

The passage of the National Environmental Protection Act in 1970 established the requirement that an environmental impact statement (EIS) be written for all major federally-funded projects, including highways. In 1971 the Federal Highway Administration issued guidelines for preparation of highway EIS's. Either an EIS or a negative declaration statement must be prepared on any major highway project which did not have FHWA location approval prior to February, 1971. The draft EIS must be circulated to federal, state and local agencies with jurisdiction by law or special expertise with respect to any environmental impact involved, and these agencies must be given at least 45 days to return their comments. All submitted comments on the draft EIS must then be taken into account in the preparation of the final EIS.

Under state law (M.S. 473.167) the Council, after consultation with the MTC, must approve all controlled access highways as consistent with the policy plan and Development Guide. This approval will be given at the time the Council reviews the final EIS. Action on the referral before the committee should be limited to comments which can be used by MHD to improve the final document, including a determination of consistency with Council policy.

II. BACKGROUND

The location of the Shakopee Bypass was previously reviewed by the Metropolitan Council as part of the "Corridor Location Study for TH 169, 212 and 41," submitted to the Council in March, 1970 (Referral File #416). This document examined three alternate systems ("A," "B," and "C") for location of these three highways and recommended a compromise System "D" alignment. System "D" was prepared as a result of citizen response to the three original systems at a public hearing in the fall of 1969. At a second public hearing, held April 30, 1970 in accordance with the requirements of Chapter 312 of the Highway (Local Consent) Law, Scott and Carver counties and Savage, Shakopee, Chaska, Chanhassen and Eden Prairie made statements, unanimously in support of System "D".

On August 27, 1970, the Metropolitan Council approved the corridor location report (which recommended System "D") and made some preliminary comments on layout and design within these corridors. MHD subsequently requested corridor location approval from FHWA. However, FHWA could not grant this approval until an EIS was submitted. This review was made using guidelines found in the Metropolitan Development Guide adopted by the Metropolitan Planning Commission July, 1967, and published by the Metropolitan Council April, 1968.

In its review of the Metropolitan Sewer Board's Five-Year Sewer Capital Improvements Program 1974-1978 (Metropolitan Council Referral File #2117, October, 1973), the Council raised a concern that sewer investments in the Prior Lake-Shakopee area be more closely coordinated with possibly needed major highways in the same area. This concern was described as follows:

"There is another service problem in this area. This is the lack of arterial highways and Minnesota River bridge capacity. The major employment centers are located in Hennepin, Ramsey, and Dakota counties. Access from Prior Lake is primarily via State Highway 13 to the J5W, Cedar Avenue, or Mendota Bridge. These all are crowded during rush hour. The construction of this interceptor will result in increased highway demands and the eventual need for another bridge over the Minnesota River.

The Metropolitan Development Transportation Guide (adopted February, 1971) indicates location and reservation of right-of-way for the extension of Hennepin County 18 to the Southtown Corridor (County Road 42), which means a river crossing, between 1973 and 1980. There are difficult environmental and financing questions to be resolved. The approval of this project as a solution to the water pollution problem will present other problems, both environmental and developmental/fiscal. The need for the interceptor is the only feasible way to sewer Prior Lake Village, but it makes sewer available to currently rural land. Limiting hook-ups to the interceptor in currently undeveloped land until the bridge right-of-way is acquired should be considered as an interim solution to the development/fiscal problem."

This concern resulted in the following Council recommendation on the 1974-1978 Sewer Capital Improvements Program:

"3. That hookups to the Prior Lake Interceptor be limited to Prior Lake until highway right-of-way for the Minnesota River Crossing is reserved and that Savage install local sewers in the area around Prior Lake as soon as possible and in coordination with interceptor construction."

In December, 1973 Council members Paul Thuet and Jack Costello together with several staff members attended a Scott County Board of Commissioners meeting to explain this recommendation. In January of 1974 the Scott County Board passed a resolution setting up a task force to look into the requirements and procedures for the adoption of an Official Map of the necessary highway rights-of-way to define and preserve the Shakopee Bypass. The municipalities in the area (Savage, Shakopee, Prior Lake and Jackson Township) also resolved to join this task force, and the county requested the Metropolitan Council and Minnesota Highway Department to join also.

After several task force meetings, a meeting was held with Chairman Boland and Highway Commissioner Lappegaard to discuss whether the official map technique was a viable method that should be pursued further. Commissioner Lappegaard agreed to continue cooperating with the task force and the Metropolitan Council on this effort as it was considered to be a pilot project with potentially wide applicability for reserving corridors prior to outright purchase. Discussions were also held with local FHWA officials. They, too, viewed it as a valuable pilot project.

By June, 1974, the task force had determined the scope of study necessary to prepare an official map. During 1974 and 1975, a contract was obtained and a joint agency agreement signed by committees and agencies involved (Savage, Shakopee, Jackson Township, Scott County, Minnesota Department of Highways, and Metropolitan Council). The consultant contract and agreement called for the preparation of a Location Study Report, Environmental Impact Statement, and Preliminary Design adequate to implement the Official Map Law.

In January, 1976, the Council adopted the Transportation Policy Plan Chapter of the Metropolitan Development Guide. The Transportation Policy Plan recognizes the need for a highway bypass of Shakopee. The prospect of limited transportation funds and the priority of this highway in relation to other major highway improvements needed in the region place it in the category of a needed right-of-way reservation only through 1990.

On July 19, 1976, the Minnesota Highway Department (MHD) submitted a Project Development Report on the Shakopee Bypass for Council review (Referral File #3681). In its review, the Council noted that an EIS was being prepared and that Council staff was participating on the Shakopee Bypass Task Force which was supervising preparation of the EIS and official map. The Council notified the MHD that this project would require more specific and detailed information (such as an EIS and layouts), and reserved its A-95 review function until such additional information was submitted.

III. DISCUSSION

DEVELOPMENT FRAMEWORK: Gregg Johnson

The Shakopee Bypass will be located in Shakopee and Jackson Township. Both communities are within the Southwest Minneapolis Sector of the Development Framework plan.

Shakopee is classified in the Development Framework as a Freestanding Growth Center. In order to avoid scattered urban development in the rural service area, Freestanding Growth Centers have been designated so that Metropolitan investments can be concentrated in a limited number of city centers with the potential to absorb the major portion of rural growth.

POLICY 14 a.

Freestanding Growth Centers provide an alternative to large city living and accommodate growth which might otherwise occur as scattered rural non-farm development. Therefore, Freestanding Growth Centers should receive metropolitan investment to assist in providing urban services adequate to accommodate the population and employment projected for them.

Jackson Township is located within the General Rural Use Region of the Rural Service Area. The General Rural Use Regions can best be described as rural lands that are not best suited for large-scale agricultural production. Although some large crop and dairy farms are included in this area, there is a great deal of marginal land that is succumbing to the pressures of urban sprawl.

The Metropolitan Development Framework states that land in the General Rural Use Region is not needed for intense urban development before 1990, and metropolitan services should not be extended before then.

POLICY 15

The Rural Service Area shall consist of commercial agriculture regions and general rural use regions. Metropolitan Sewer Service and Urban Transportation Service shall not be provided in the Rural Service Area.

A major question from the Development Framework perspective becomes, what potential development pressures will the addition of a 4-lane divided highway put on the rural areas in Shakopee and Jackson Township? The expansion of the Metropolitan Highway System in this area may contribute to increased development trends in the rural area. The current highway system puts country living within easy commuting of major employment centers. People who move to rural areas tend to be urban oriented thereby requiring central sewer and water systems, streets, schools and police protection. All of these services tend to be an additional cost to the city and the rest of the metropolitan area.

Neither Shakopee or Jackson Township has an adopted and approved comprehensive plan. Without comprehensive plans that specifically address development in this area, there is no way to determine how much rural land will be opened up to urban development with the advent of such a roadway.

The communities of Shakopee and Jackson Township are currently in the process of developing comprehensive land use plans under the requirements of the Metropolitan Land Planning Act. It will be the responsibility of each community to inventory its community facilities and to assess its potential and desire for growth. The City of Shakopee should designate an urban and rural service area and plan for the orderly and economic extension of urban services.

POLICIES 14

Freestanding Growth Centers shall plan to accommodate urban development based upon their abilities to supply urban services to that development. Extension of services outside of existing corporate boundaries should be consistent with a sequential, orderly annexation plan prepared in cooperation with neighboring areas. In addition to development in these "old towns" that are self-sufficient communities may be accommodated in the Metropolitan Area. This policy will be supported by the following metropolitan policies:

- b. Freestanding Growth Centers should accommodate their share of metropolitan growth as indicated by the development framework. There should be effective development restrictions in the surrounding rural area to prevent development on unserviced lots outside of the city's service boundaries.

Until the adoption and approval of Shakopee and Jackson Township's formal comprehensive plans, the Metropolitan Council will consider the urban service area to be that area which is currently served by existing public services including central sanitary sewer. Based on these assumptions the entire Bypass right-of-way from TH 101 to TH 169 can be considered part of the Rural Service Area.

POLICY 11

The Metropolitan Council will use the staged Urban Service Area in its referral process until a local government has adopted an approved comprehensive plan for the timing and staging of urban development and public services. Within the Urban Service Area, development should be permitted on the showing that existing services are adequate until such time as additional metropolitan and local services are planned to be provided.

The proposed Bypass route has interchanges with local access provided at county roads 16 and 79, well within Shakopee's current rural service area. Both of these interchanges will provide easy access for those interested in developing the rural areas of Shakopee and Jackson Township. It is the Development Framework opinion that the specific location and timing of interchanges and/or access points should be consistent with the scope and timing of development in the rural area as outlined in the communities' comprehensive plans.

The draft EIS has included Development Framework population, household and employment forecasts. It should be pointed out that the forecasts have been revised and will be adopted by the Metropolitan Council in December of 1977. This information is available and should be reflected in the final EIS.

The draft EIS has indicated that the proposal will probably increase growth in the area. The report further states that the growth will be consistent with the area planning process. Consistency with the area planning process is difficult to determine at this time due to the fact that Shakopee and Jackson Township have not completed their comprehensive plans. Therefore, the communities' future comprehensive plans which are now being prepared, have not been addressed in the draft EIS.

The final EIS should adequately address the impact of the proposed project on surrounding land uses and the potential impact on the Rural Service Area. The study should also address the interrelationship between the timing of the proposed facility and development of lands adjacent to the roadway.

Shakopee and Jackson Township are currently preparing comprehensive land use plans in accordance with the Metropolitan Land Planning Act. The final EIS and subsequent location of the Shakopee Bypass should reflect and be consistent with the communities' comprehensive land use plans to be adopted under the guidelines of the Metropolitan Land Planning Act, the revised development framework forecasts, and the Metropolitan Waste Control Commission's 208 study.

ENVIRONMENTAL: Lynne Takemoto

No issues of environmental concern have been raised in the review of the draft EIS.

Construction of the Bypass will result in the loss of some wetland areas. However, the acreage to be lost is very small and the wetlands are not of significant value.

The proposed action is located within the Lower Minnesota Watershed District. Review of the draft and final EIS should be solicited from the Watershed District in order to assure consistency with the District's Management Plan.

Implementation of the Bypass will provide a considerable air quality benefit to the downtown Shakopee area. The methodology used to estimate air pollution impacts is somewhat conservative, and it is possible that without the Bypass, isolated air quality problems could occur in the Shakopee CBD.

A letter from the chairman of the Scott Soil and Water Conservation District raising soil erosion and agricultural and preservation concerns has been received and is attached.

A letter from the Metropolitan Waste Control Commission (MWCC) (attached) indicating a concern for the coordination of a potential metropolitan interceptor in this area has been received. The time frames of these two projects appear compatible and they should be coordinated as necessary.

HOUSING: John Doyle

The Draft EIS adequately addresses housing concerns.

LOCAL PLANNING ASSISTANCE: Jim Barton

In addressing the impacts on Jackson Township, consideration should be given to the fact that the township is currently rural and, with the advent of a new facility of this type and the traffic that it will generate, will tend to create development pressures particularly at the interchanges. For example, with the completion of the total system (i.e., 169 and 212 links with 41) provide greater accessibility to the major employment centers such as south Hennepin County and the Minneapolis CBD? And if so, is this supportive of Metropolitan Development Framework Policies?

Development pressures that will occur may tend to concentrate in the northern section of township and, specifically that portion that is adjacent to Shakopee. The final EIS should point out that these pressures must be evaluated by the City of Shakopee to determine how it will or can provide services to these areas through staged expansion of its services and extension of its facilities.

References made in the final EIS as to the availability of sewer service should be identified. According to currently adopted MDF policies, Jackson Township is not scheduled to receive sewer service prior to 1990. Upon completion of the 208 Sewer Facility Study, more information should be available as to the kinds of facilities that will be required to meet future sewer service needs at Chaska and Shakopee. As part of the alternatives being considered to serve this area, one would entail construction of a sewer facility through Jackson Township. If built, this facility may be available to provide future service to Jackson Township beyond 1990. Again, previously stated Council positions have consistently said that future sewer service needs would have to be documented within the context of the local planning process, and an agreement reached if there are inconsistencies between local and regional policies at the time the plan is submitted to the Council for review.

Given the timing of the Shakopee Bypass facility, 1985-1990, if then, may negate some of the concerns regarding its impact on development within Jackson Township. Nevertheless, this potential impact should be discussed in more detail in the final EIS.

As part of the alternatives evaluated, consideration should also be given to phasing the facility in such a manner that the initial construction may only consist of a two-lane facility with at-grade intersections. Again, due to funding limitations, utilization of the facility and its impact with local development policies, consideration of this alternative in the final EIS would seem appropriate.

On pages 38 and 39 there is a reference to Freestanding Growth Center which Shakopee has been designated, and the statement says something to the effect that the facility is consistent with Council policies, and that it allows for Shakopee to expand beyond its present boundaries. I think the intent of the concept of Freestanding Growth Centers has been misinterpreted. Instead, what should be stated is the Bypass may contribute to the development of Shakopee in a manner that is consistent with local resources and the capacities of the metropolitan systems if adequately coordinated.

In view of the current debates surrounding the need and locations of river crossings, it seems appropriate as an alternative to consider the consequences only if a new T.H. 41 bridge was built. For example, if the crossing was perceived as being part of an overall system, it would then be feasible to consider an alternate location of this bridge within the Minnesota River corridor. The point to be made is, can the Shakopee Bypass including a new bridge at T.H. 41 be separated into two subelements of the Bypass and the bridge facility and evaluate it separately. And, if this is the case, would different findings result in terms of impacts?

PARKS AND OPEN SPACE

The Draft EIS adequately addresses park and open space concerns.

TRANSPORTATION: Deane Wenger and Ghaleb Abdul-Rahman

The Shakopee Bypass is shown as a needed right-of-way reservation in the 1990 Metropolitan Transportation Policy Plan (TPP adopted January 1976). The high concentration of truck traffic in this transportation corridor that would otherwise have to travel through downtown Shakopee together with traffic demands that were borderline in respect to the capacity provided by the existing roadway placed the Bypass in the category of constructions needed by 1990. However, the priority of this transportation segment was low in comparison to other metropolitan transportation construction needed by 1990. Relatively low priority together with a constrained transportation funding outlook placed this project in the category of a right-of-way reservation only through 1990 in the TPP. This relationship between the Shakopee Bypass and the TPP should be more accurately reflected in the Final EIS, especially in the proposed timetable for construction.

Although it is appropriate that a separate EIS is prepared, the Bypass functional classification and schedule for construction has a major impact on routings from the southwest sector toward Minneapolis. It will not set construction standards or alignment for CSAH 18 but it affects loadings on 18, TH 41 and TH 212. This interrelationship should be more accurately reflected in the Final EIS.

Although the EIS may not be the appropriate place, some discussion of possible staging of the Bypass is warranted. Hopefully, all rights-of-way including that for interchanges will be acquired. The TH 169 capacity and routing problems in Shakopee could be relieved by a road on the Bypass alignment without being a full freeway by 1990. If feasible, the Metropolitan Council proposals to hold the Savage-Shakopee area outside the MDSA until after 1990 can be met and the TH 41 - TH 212 routing toward Minneapolis encouraged.

The flooding problems should be emphasized even more. This is a primary justification for the 41 crossing of the Minnesota River. The flooding of TH 101-169 from Shakopee across the river also warrants more emphasis. Discussion under the no-build alternative may be appropriate.

Responses to MC Recommendations

Item A:

The revised forecasts of population, households and employment have been incorporated into Tables 2, 3 and 4 on pages 34-35.

Item B.

The MC Metropolitan System Statement transmitted to Shakopee and Jackson Township included the Shakopee By-Pass. Shakopee and Jackson Township have accepted their system statement which serves as a guide for their comprehensive plan development. The Shakopee By-Pass Task Force provides a medium for the continuing coordination of the Shakopee By-Pass FEIS and the Shakopee and Jackson Township Comprehensive plan preparation. Also, the MC has to review the comprehensive plans to insure compatibility with their Metropolitan Development Guide chapters.

The Metropolitan Council year 2000 trip forecasts are now being prepared. Any revisions in the assigned volumes are not likely to be sufficient to alter the capacity conclusions contained in the Draft EIS.

The Metropolitan Transit Commission has sent a letter (attached) indicating that the proposed project will not significantly affect existing or proposed transit service to the City of Shakopee.

IV. FINDINGS

The Draft EIS is basically consistent with the Transportation Policy Plan and is the outcome of a study which the Metropolitan Council and its staff participated in with Mn/DOT, Scott County and local units of government.

The Draft EIS uses Development Framework population, household, and employment forecasts. These forecasts have been revised, are available to Mn/DOT and local units of government, and are anticipated to be adopted by the Metropolitan Council in December 1977.

Local comprehensive plans using guidelines from the Metropolitan Land Planning Act are now being prepared for Shakopee and Jackson Township.

The specific character, location, and timing of the Shakopee Bypass, including interchanges and/or access points, could impact the scope and timing of other kinds of development (public and private) in Shakopee and in Jackson Township.

The Shakopee Bypass is shown as a needed right-of-way reservation only in the Transportation Policy Plan. The interrelationships of traffic loadings between the proposed Shakopee Bypass and other portions of once proposed "Unique System D" (proposed new TH 41, TH 212, and CSAR 18) are not clearly recognized in the Draft EIS.

The Draft EIS does not clearly and accurately recognize the status of each element of once proposed "Unique System D" as specified in the adopted Transportation Policy Plan.

V. RECOMMENDATIONS

1. The reservation of the Shakopee Bypass Corridor is consistent with the Transportation Policy Plan.
2. The Final EIS should use (where possible) the new revised forecasts of population, households, and employment which are expected to be adopted by the Metropolitan Council in December 1977.
3. The Final EIS should be well coordinated with the comprehensive plans, being done at the same time, for Shakopee and Jackson Township.
4. The Final EIS should adequately address the impact of the proposed project on surrounding land uses and the potential impacts on the Rural Service Area including the interrelationships between the locations of interchanges (and/or access points) and timing of the facility to the development of lands adjacent and near the roadway.
5. The Final EIS should clearly and accurately reflect the status of this proposed project as specified in the Transportation Policy Plan, including the staging and timetable for construction.
6. The interrelationships of traffic loadings between the proposed Shakopee Bypass and previous proposals should be clearly identified in the Final EIS.

Item C:

The FEIS MC plans section on pages 14-15 and the Land Use Planning section on pages 39-46 address the impact of the proposed project on surrounding land uses and the potential impacts on the Rural Service Area.

Item D:

The sections mentioned in item C cover the Shakopee By-Pass status in the MC Transportation Policy Plan and the possible staging and timetable for construction.

Item E:

The traffic loading interrelationships between the proposed project and connecting segments for Corridor System D are shown in Table 15 on page 112. The traffic loading information for TH 212 was not available.



STATE OF MINNESOTA
SCOTT SOIL AND WATER CONSERVATION DISTRICT
JORDAN, MINNESOTA 55352
October 31, 1977

Metropolitan Council
300 Metro Square Building
7th St & Robert Street
St. Paul, Minnesota 55101

Attn: Mr. John Rutford, Referral Coordinator

Re: Minnesota Department of Transportation
Draft Environmental Impact Statement for Shakopee By-Pass
from U.S. 169 in Jackson Township to T.H. 101 in Savage
Metropolitan Council Referral File No. 5186

Dear Mr. Rutford:

This is in reply to your letter of October 21st regarding the proposed location of the Shakopee By-pass from Highway #169 to Highway #101.

We would wish to point out a few items and hope that you will give them some consideration.

A

1. The soils are easily eroded by flowing water.
2. Vegetation is hard to establish because of droughtiness.
3. It appears that it might divide some farms causing inconvenience and interfere with farming operations.
4. It appears that the route could pass through pine plantings near Highway #101 that were made by the district and SCS many years ago and these plantings should be saved if possible.
5. The route crosses some areas classed as prime agricultural land, although the yields on most of these soils are about 20 percent less than average for the county.

If we can be of any assistance, please feel free to contact our office.

Thank you for your time and consideration.

Sincerely,

John F. Bisek
John F. Bisek
Chairman

Response to Minnesota Soil
Conservation Service

Item A:

The Agricultural Land discussion on pages 53-56 has been expanded to cover these points. Part D of the Project Map shows the SCS pine plantings location and Figure 13.1 on page 71 shows a proposal to preserve some of the plantings.

Response to MTC Comment

No Response Necessary



Metropolitan Transit Commission

801 American Center Building St. Paul, Minnesota 55101

612/221-0939

October 7, 1977

Mr. Harry A. Reed
Deputy Commissioner
Mn/DOT
Bureau of Policy and Planning
Transportation Building
St. Paul, Minnesota 55155

OCT 14 1977

SUBJECT: FHWA-MN-EIS-77-01-D
Draft Environmental Impact Statement
Shakopee By-Pass in Scott County
State Project 7005-42 (T.H.101)
From: U.S. 169 in Jackson Township
TO: T.H. 101 in Savage

Dear Mr. Reed:

We have reviewed the Draft Environmental Impact Statement for the Shakopee By-Pass. Based upon the information provided, we do not anticipate this project to significantly affect existing or proposed transit service to the City of Shakopee.

Thank you for the opportunity to comment upon this project.

Sincerely,

Camille Andre
Camille Andre
Chief Administrator

CDA/DRJ/ag

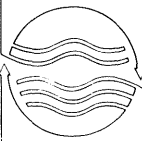
cc:
W.M. Crawford
L.G. Eilts
C.P. Kachelmyer
C.J. Hoffstedt -
A.H. Multine
R. Borson-L. Hill
H.J. Legler
Mike Kromminga
Terry Hoffman-J. Sparks

RECEIVED

OCT 12 1977

DEPUTY COMMISSIONER
Bureau of Policy & Planning

METROPOLITAN
WASTE
CONTROL
COMMISSION



October 7, 1977

Minnesota Department of Transportation
District 5
2055 No. Lilac Drive
Golden Valley, MN 55422

Attention: Mr. W. M. Crawford

Re: T.H. 101 Shakopee By-Pass

Gentlemen:

A review of your Draft Environmental Impact Statement on the above subject has been completed and we have the following comments:

- A** 1. The proposed by-pass intersects with the existing Prior Lake Interceptor in the area northwest of Dean Lake.
- B** 2. It would appear that the proposed by-pass follows a potential metropolitan interceptor route which is being studied as Southwest Improvements in the Commission Facility 201 Study.
- C** 3. This proposed by-pass may possibly interfere with an 8-inch sanitary sewer line located within the southwest corner of the City of Shakopee Interim Service Area.

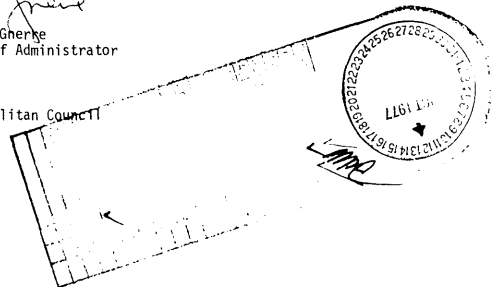
We would appreciate the opportunity to provide input into the final planning and design in each area that may affect our metropolitan facilities. If you have any questions in this regard, please contact us.

Sincerely,

Anthony C. Gherke
Anthony C. Gherke
Deputy Chief Administrator

ACG:RJP:bdw

cc: Metropolitan Council



Response to MWCC Comments

Item A:

The Prior Lake Interceptor location is shown on Exhibit 9 page 36. The interrelationship of the Interceptor and the By-Pass is discussed on page 37.

Item B:

The coordination with the potential Jackson Sewer Interceptor is discussed on page 37.

Item C:

The eight-inch sanitary sewer line is not located within the proposed By-Pass right of way.

Response to FPC Comments

No Response Necessary

FEDERAL POWER COMMISSION
REGIONAL OFFICE
Federal Building, Room 3130
230 South Dearborn Street
Chicago, Illinois 60604

October 6, 1977

Mr. Leonard G. Eilts
Design Engineer
Minnesota Department of Transportation
Transportation Building
St. Paul, Minnesota 55155

Dear Mr. Eilts:

Your reference: 330
FHWA-MN-EIS-77-01-D

We have reviewed the Draft Environmental Impact Statement dated September 1977 for Shakopee By-Pass in Scott County from: U.S. 169 in Jackson Township, To: T. H. 101 in Savage.

Comments of this office are made in accordance with the National Environmental Policy Act of 1969 and the August 1, 1973 Guidelines of the Council on Environmental Quality. Our principal concern with this development is its effect on bulk electric power facilities including potential hydroelectric developments and on natural gas pipeline facilities.

Since the above noted proposed project apparently would pose no major obstacle to the construction of such facilities, we have no comments on the Draft EIS.

The statements are of this office and do not necessarily represent the views of the Federal Energy Regulatory Commission.

Very truly yours,

Bernard D. Murphy
Bernard D. Murphy
Regional Engineer

✓ Scott Crawford
A. H. Hultine

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

GREAT LAKES REGION
2300 EAST DEVON AVENUE
DES PLAINES, ILLINOIS 60018



SEP 30 1977

Mr. Leonard G. Eilts
Design Engineer
Minnesota Department of Transportation
Transportation Building
St. Paul, Minnesota 55155

Dear Mr. Eilts:

We have reviewed the Draft Environmental Impact Statement for State Project
#7005-42, T. H. 101 Shakopee By-Pass in Scott County, and have no aviation-
related comments to offer. We do not require a copy of the Final Environmental
Impact Statement.

Sincerely,

A handwritten signature in dark ink, appearing to read "K. A. Kraus", is written over a horizontal line.

KENNETH A. KRAUS
Environmental Officer, AGL-4.5

cc: C. Hoffstedt-R. Borson-L. Hill
A.H. Hultine

Response to FAA Comments

No Response Necessary

Since the public hearing and DEIS circulation, coordination has continued with the Shakopee By-Pass Task Force and the COE. On April 17, 1978, the Shakopee By-Pass Task Force unanimously adopted a resolution recommending Alternative 1.

The COE reviewed the preliminary version of the FEIS and their comments are shown below.



DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
1135 U. S. POST OFFICE & CUSTOM HOUSE
ST. PAUL, MINNESOTA 55101

REPLY TO
ATTENTION OF:

NCSCO-GR(SF 77-129)

3 May 1978

Mr. Frederick A. Behrens
U.S. Department of Transportation
Federal Highway Administration
Suite 490, Metro Square Building
St. Paul, Minnesota 55101

Dear Mr. Behrens:

Thank you for your 6 April 1978 letter with inclosed copies of the Final Environmental Impact Statement (FEIS) for the proposed Shakopee Bypass project.

We have no comments to make concerning this FEIS; we appreciate the opportunity to review it.

Sincerely,

Ben Wopat
for WILLIAM D. PARSONS
Chief, General Regulatory Branch
Construction-Operations Division

PROJECT MAP

PART A

ALTERNATIVE NO. 1



LEGEND

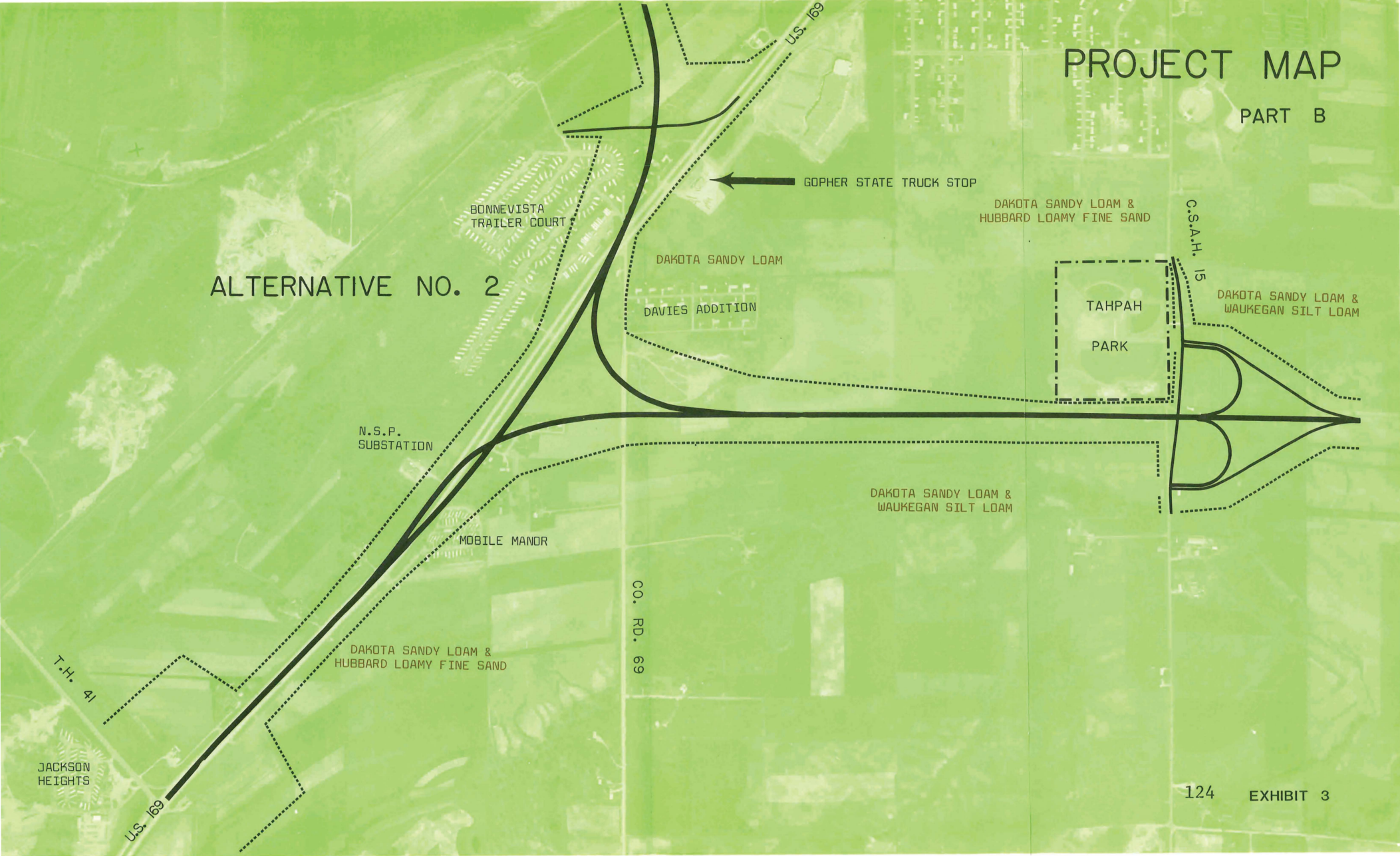
R/W LIMITS	-----
ROADWAY	————
SOIL CLASS	DAKOTA LOAM
SCALE	0' 800'
	N

Source: USDA, SCS Soil Survey,
Scott Co., Oct., 1959.

PROJECT MAP

PART B

ALTERNATIVE NO. 2



BONNEVISTA
TRAILER COURT

← GOPHER STATE TRUCK STOP

DAKOTA SANDY LOAM &
HUBBARD LOAMY FINE SAND

DAKOTA SANDY LOAM

DAVIES ADDITION

TAHPAH
PARK

C.S.A.H. 15

DAKOTA SANDY LOAM &
WAUKEGAN SILT LOAM

N.S.P.
SUBSTATION

MOBILE MANOR

DAKOTA SANDY LOAM &
WAUKEGAN SILT LOAM

CO. RD. 69

DAKOTA SANDY LOAM &
HUBBARD LOAMY FINE SAND

T.H. 41

JACKSON
HEIGHTS

U.S. 169

PROJECT MAP

PART C

IRRIGATION
AREA

CO. RD. 83

DAKOTA LOAM

COPAS SILT LOAM
& STONY LAND

C.S.A.H. 16

HUBBARD
LOAMY FINE SAND &
WAUKEGAN SILT LOAM

DAKOTA LOAM &
SANDY LOAM

C.S.A.H. 17

DAKOTA LOAM &
SANDY LOAM

CO. RD. 79

CO. RD. 77

DAKOTA LOAM &
WAUKEGAN SILT LOAM

DAKOTA SANDY LOAM
& WAUKEGAN SILT
LOAM

REV.
ADDITION

ESTERVILLE LOAM &
SANDY LOAM - DAKOTA SANDY
LOAM & WAUKEGAN SILT LOAM

DAKOTA SANDY LOAM
& WAUKEGAN SILT
LOAM

DAKOTA LOAM &
SANDY LOAM

DAKOTA LOAM &
SANDY LOAM

ESTERVILLE LOAM & SANDY LOAM
- WAUKEGAN SILT LOAM

COPAS SILT
LOAM

COPAS SILT
LOAM

COMMON CORRIDOR

C.M. ST. P. & P. R.R. TRCK

PROJECT MAP

PART D

