

University of Minnesota Shoreview Property site analysis

university of minnesota
office of physical planning
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introduction

The intent of the Shoreview site study is to provide a comprehensive analysis of the site potentials and answer questions relating more specifically to the University's Shoreview property. This report complements the market and development potential study done for the University by Economic Research Corporation (ERC) in 1974. Together, the reports begin to define feasible land uses and how those uses might be best developed on the site.

Four general areas of concern are documented: 1) general background and site context, 2) natural systems, 3) man-made features, and 4) a synthesis of the most important features defined in the three preceding areas.

The University's Shoreview property consists of *333.5 acres located at the northwest corner of the Village of Shoreview, approximately 20-25 minutes by automobile from the Minneapolis and St. Paul business districts. The property contains two topographically different areas. The northwestern portion is a generally well drained, level piece of land of about 200 acres, while the southeastern section is affected by Rice Creek and its flood plain, and contains some marshlike areas.

*Approximately 133.5 will be transferred to the Ramsey County Parks and Open Space System.

summary

The site would be eligible for planned unit development (PUD) zoning through the City of Shoreview's existing ordinances. Preliminary reactions to the possibility of a PUD development have been favorable by the City planning staff. Given this response and the market feasibility information in the ERC study, a PUD type of development was assumed as a basis for this study because it addresses and tests several land use types.

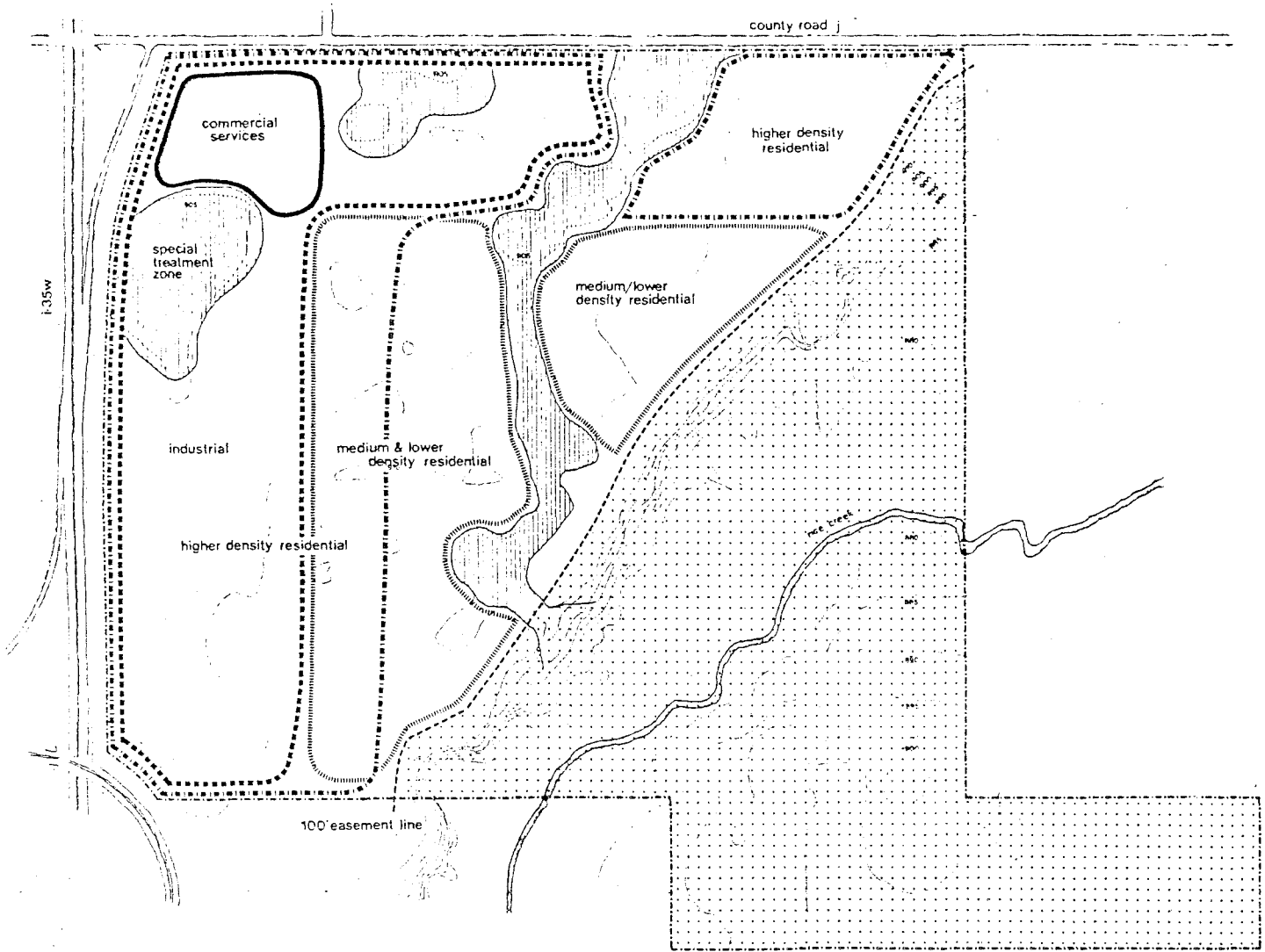
The development site contains approximately 170 acres of level, well drained land highly suitable for development and approximately 30 acres of level but poorly drained land which is suitable but less conducive to development.

The Western portion of the property has exposure to Interstate 35W which provides good visibility but also impacts the site with traffic noise. In addition, 35W provides high accessibility to the property both to and from a southerly direction. Ramsey County's open space acquisition to the southeast will provide a highly desirable amenity which should be taken advantage of through site design.

This preliminary site analysis shows that a PUD encompassing the three land use activities defined by the ERC market study, multi-family and single family housing, light industrial, and retail commercial, could work well on the Shoreview Property.

The illustrative site organization shown in Figure a suggests a band of higher density residential use along the northern and western boundaries with commercial services located at the point of maximum accessibility and visibility. Also suitable, might be light industrial activity in the same general location but terminating at the start of a potential special treatment area running north-south on the property.

The property adjacent to the proposed open space, might be best suited for single and multiple family housing. This type of development site begins to indicate a generally decreasing intensity in land use from the perimeter of the site towards the interior reflecting adjacent environmental concerns.



development suitability

key:













	higher density residential		special treatment zone - potential open space use	
	commercial		proposed easement	
	med. & low dens. residential		ramsey co. open space acquisition	
	industrial			

figure a

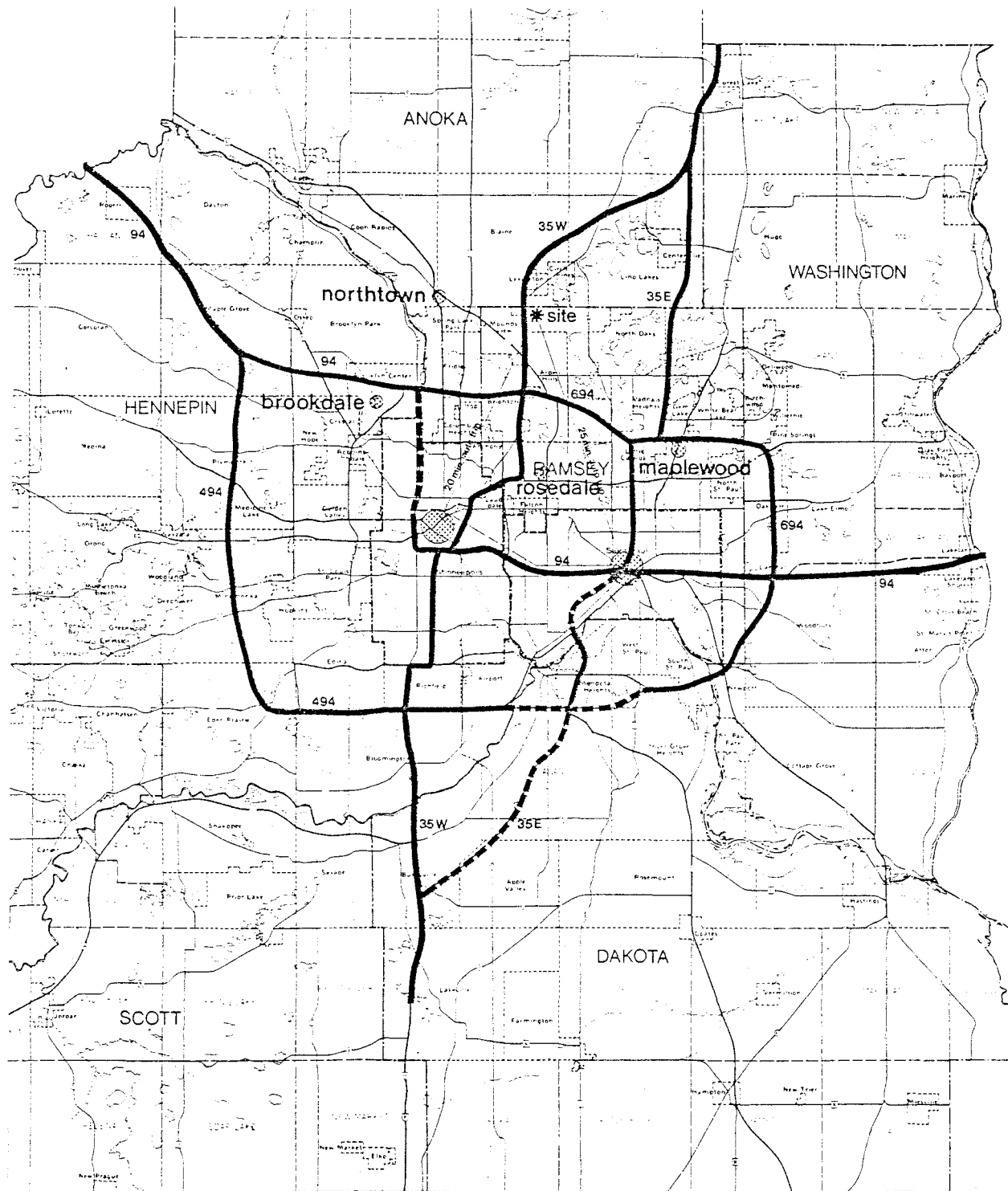


figure 1

metropolitan site context

The University's property in the City of Shoreview is located at the intersection of Interstate Highway 35W and County Road J, approximately 20-25 minutes from downtown Minneapolis and St. Paul. The site is also proximate to 4 regional centers of employment and shopping: Brookdale and Maplewood on the 694 corridor, Northtown, at the junction of Highways 10 and 47, and Rosedale at Highways 36 and 51.

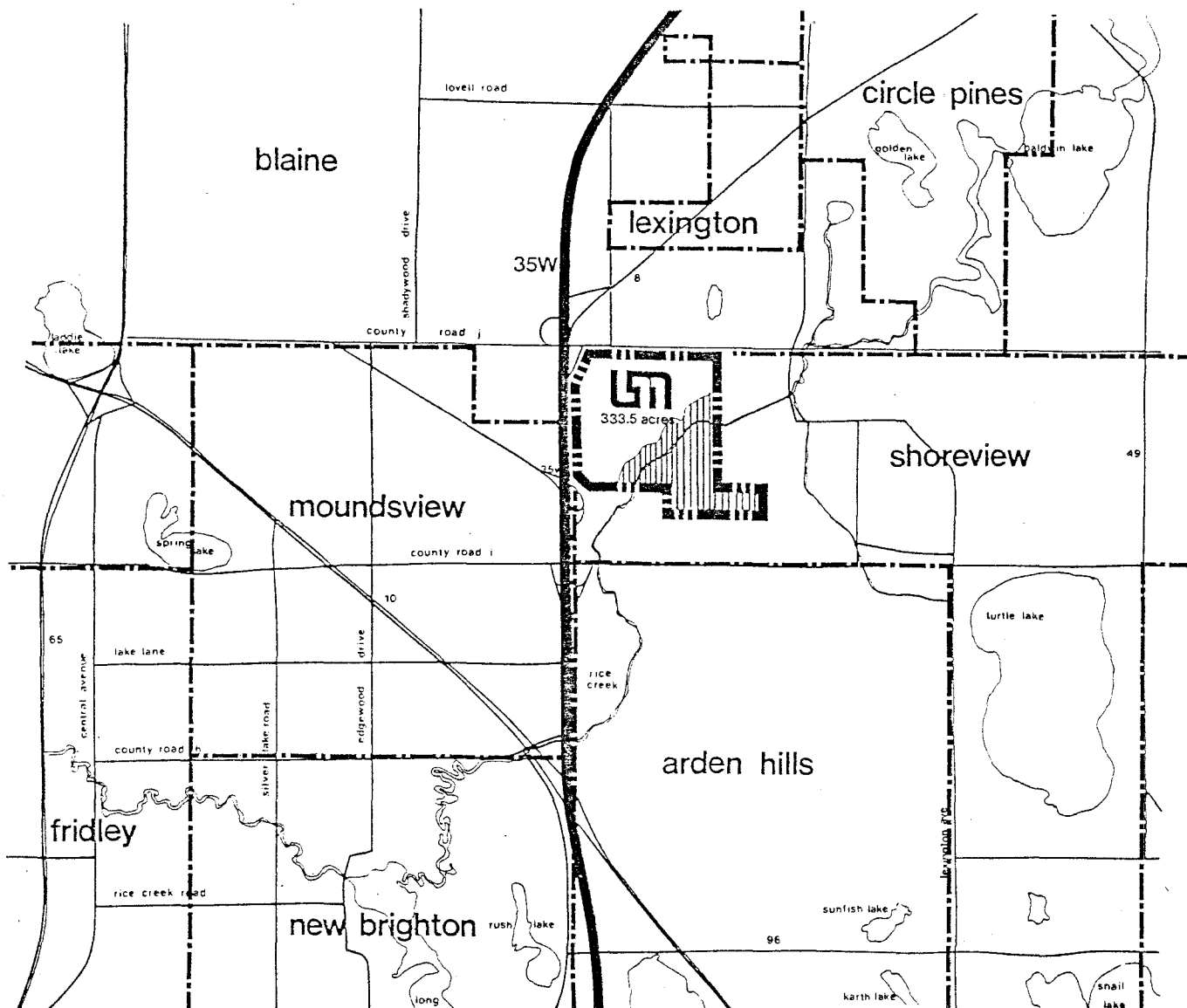














figure 2
site context

key:

	municipal boundary		
	site boundary		
	highway		
	open space		

The site is located in the northwestern corner of Shoreview and is adjacent to the Cities of Moundsviiew and Blaine. The land is bordered on the west by Interstate 35W and on the north by County Road J.

The area being acquired by Ramsey County for their open space system is shown shaded and amounts to approximately 133.5 acres out of the total 333.5 acres in the parcel.

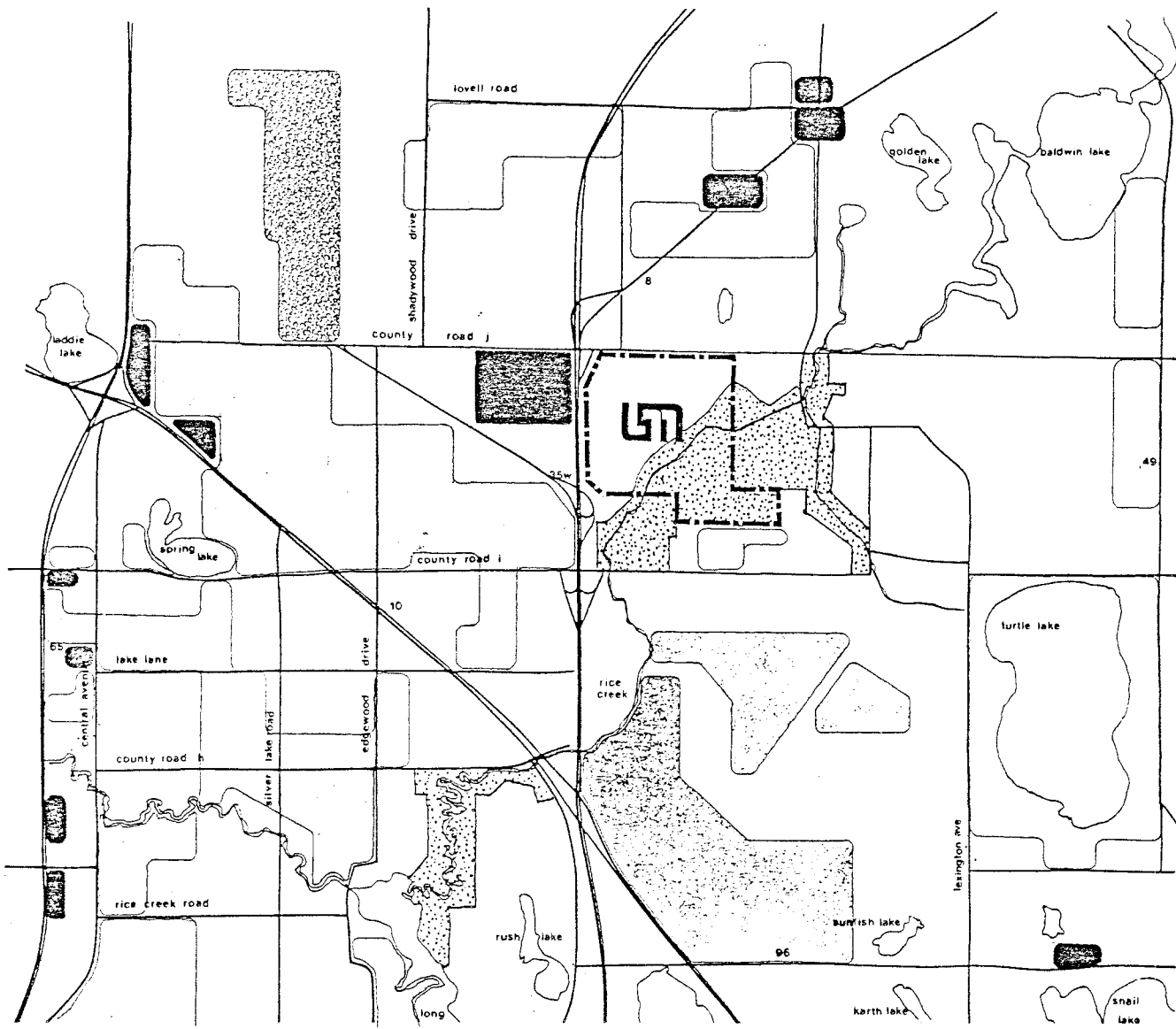














figure: 3

generalized land use

key:

	site		industrial	
	single family residential		airport - Anoka Co.	
	multi-family residential		undeveloped	
	commercial		open space	

Most of the land immediately adjacent to the property is currently undeveloped. However, there is substantial metropolitan related development surrounding the property. The area to the west and north is characterized generally by a mix of single family residential, and commercial land uses. The most significant use to the property's south is the Twin Cities Arsenal - a large industrial land use.



aerial photograph

The development patterns within the area, as well as natural land features can be observed more readily in the above photograph. Very prominent is the Rice Creek natural area running diagonally through the property.

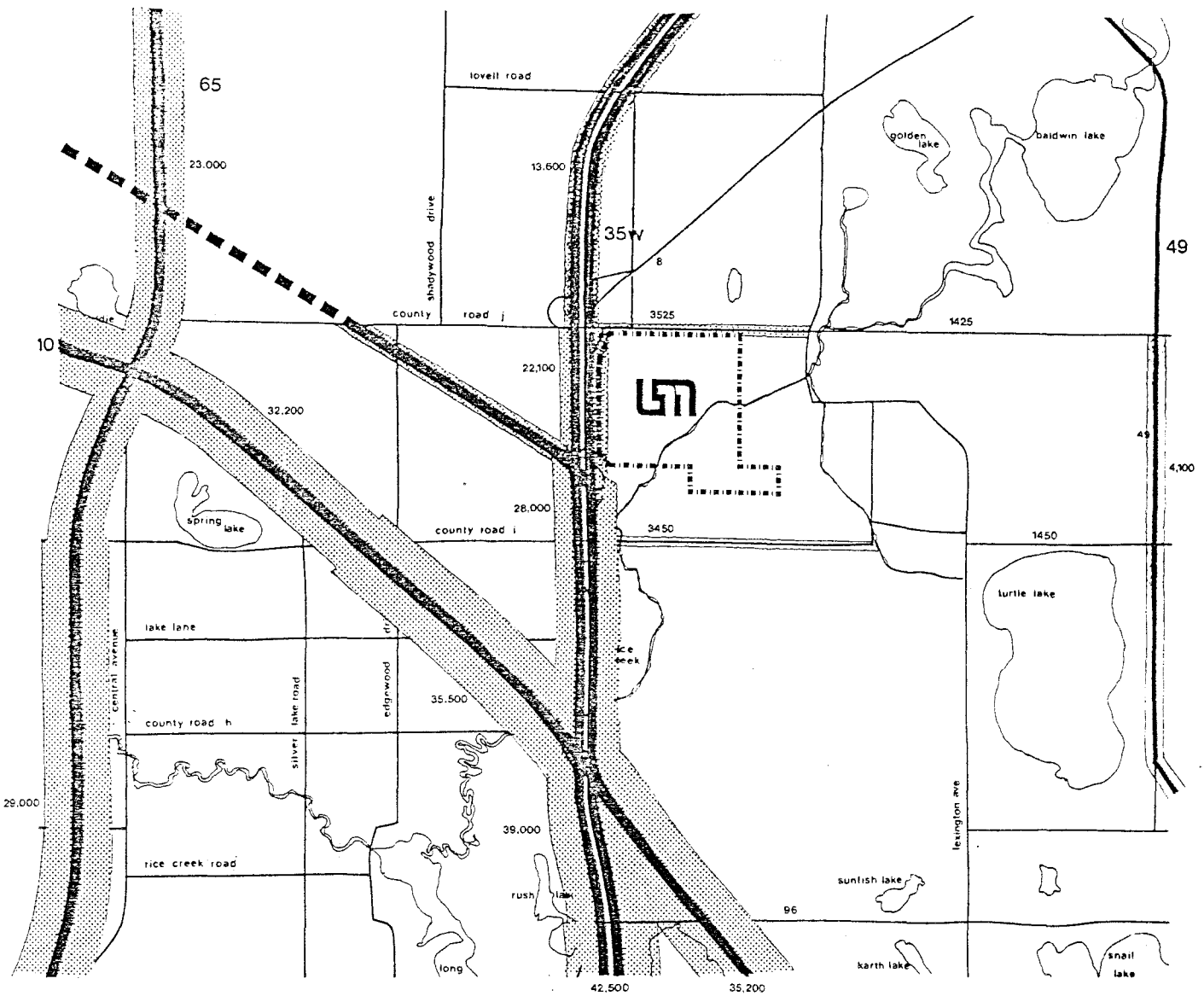
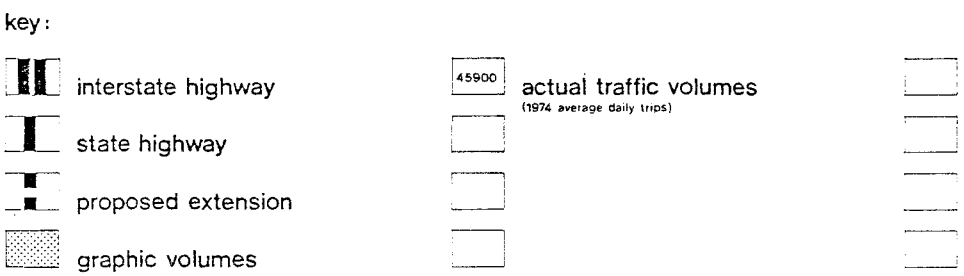


figure: 4
circulation



The major traffic routes serving the property are Interstate 35W which carries approximately 22,000 A.D.T. which is adjacent to the western boundary and State Highway 10, carrying about 35,000 average daily trips. This pattern will be altered somewhat when the proposed extension of new Highway 10 is completed at a future date.

Immediate site access is provided by County Road J which parallels the entire northern boundary of the site, intersecting Interstate 35W to the west, and State Highway 49 (Rice Street) to the east.

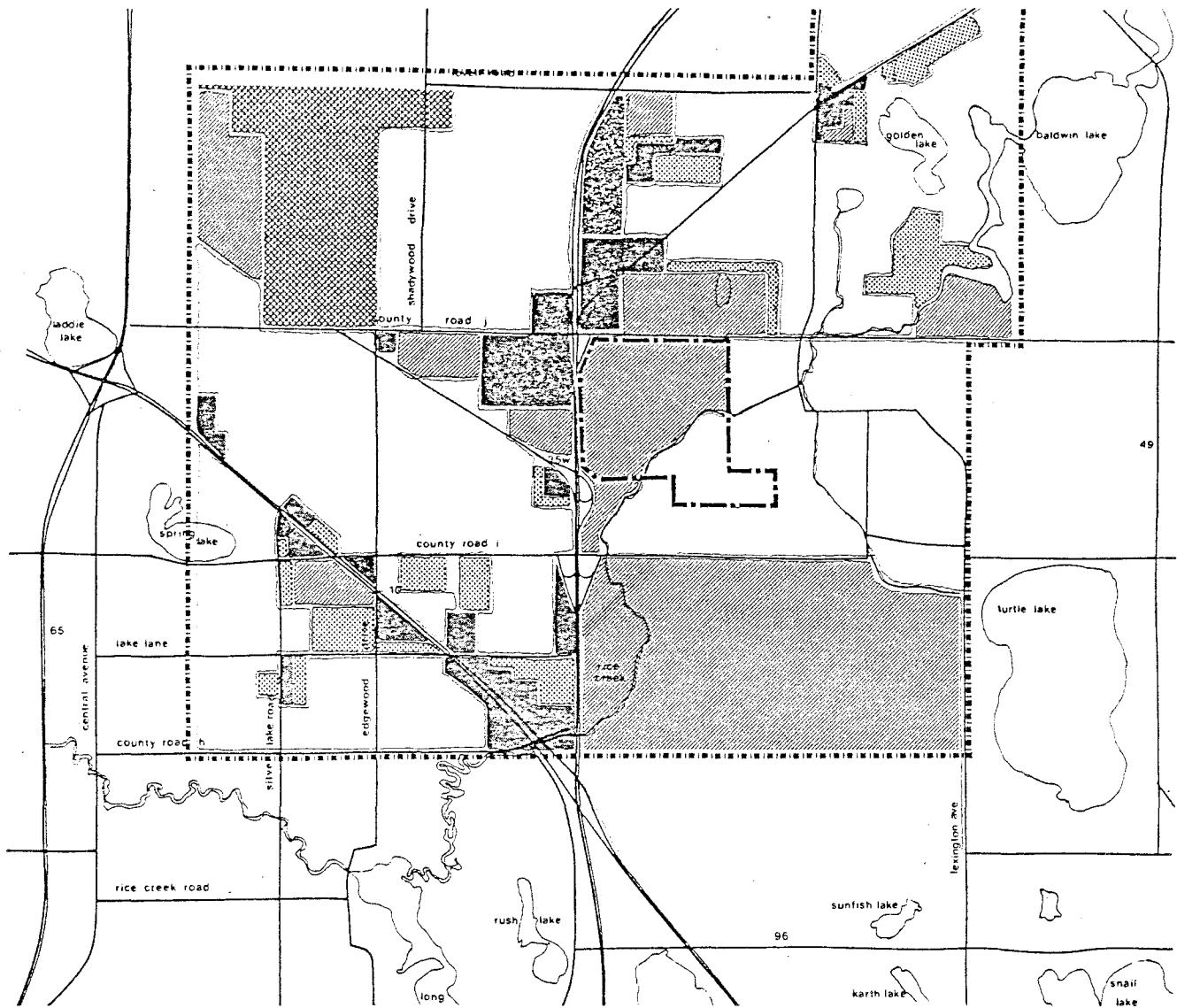














figure 5

existing zoning

key:

	mobile homes		commercial-business	
	single family residential		industrial	
	multi-family residential		airport	
	site			

The developable land is currently zoned industrial. The University has had favorable communications with the City of Shoreview about the possibility of zoning changes. A change to Planned Unit Development would seem to meet Shoreview's long term development objectives and thus be in keeping with current plans.

utilities

Sewer

The University's property is well serviced by the Metropolitan Waste Control Commission's 60" sewer interceptor which cuts diagonally across the site near Rice Creek. This interceptor and the treatment plant to which it connects, can completely handle new demand produced by any type of new development on the 200 acres of land the University is retaining.

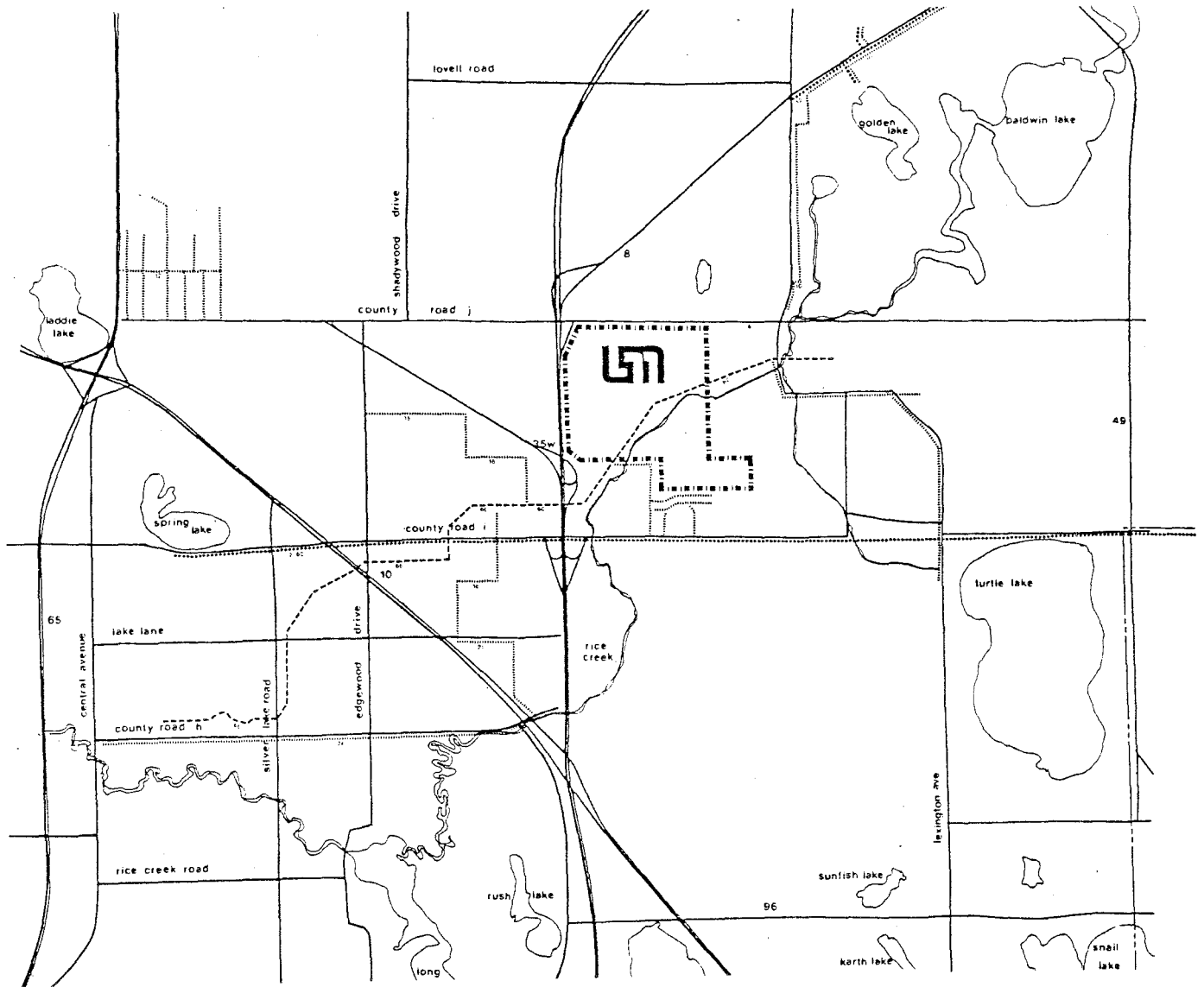
Water

The major utility question revolves around the provision of an adequate water supply for the site because the property is currently not serviced through the municipal water system. Although the utilities map shows two 60" water mains paralleling County Road I, these mains carry untreated water to St. Paul's main treatment plant. There appear to be two options in supplying the site with water:

- 1) Water can be brought to the site by extending a municipal main from the nearest location - approximately one mile east of the property. This cost would have to be absorbed by Shoreview or the developer, or shared by both parties.
- 2) The housing development immediately to the east has drilled it's own on-site well. If feasible, the costs of drilling an on site well would be substantially less than extending a water main to the property.

Electricity and Gas

Both electric and gas service are readily available from the appropriate regional supply agencies.



utilities

key:

	water main		
	sewer interceptor		
	sewer main		

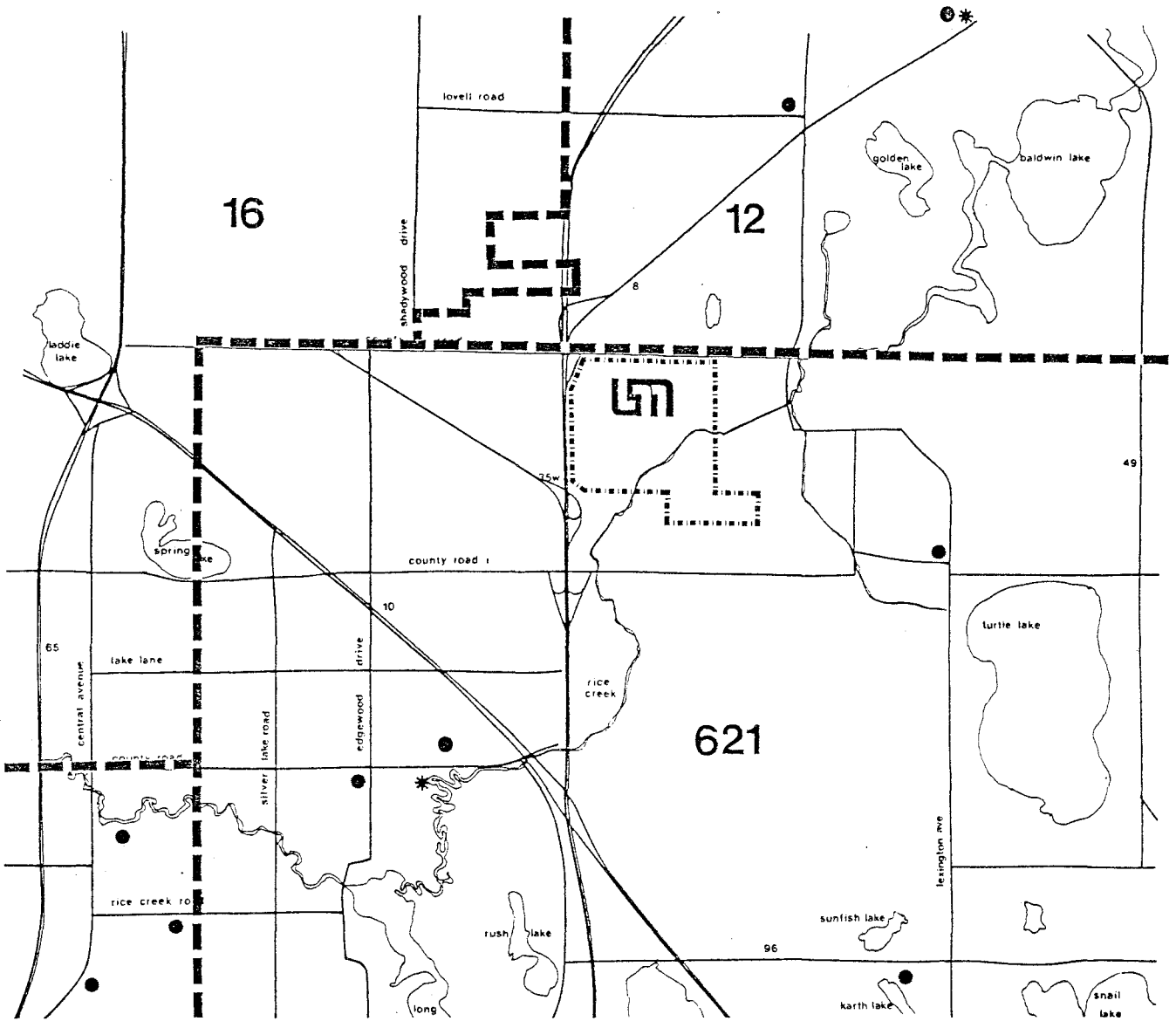
schools - school district 621

The property is within Moundsvew School District 621 which is beginning a long downward trend in enrollment throughout the whole system. Currently, three elementary, one junior high, and one senior high school service K through 12 grade requirements. A tabular summary of projected enrollments for these schools is provided and clearly shows a capacity available in all grades.

Although, the closing of an elementary and a junior high school elsewhere in the district will shift some students into the schools shown, the overall enrollment will be decreasing.













MOUNDSVIEW SCHOOL DISTRICT 5-YEAR ENROLLMENT PROJECTIONS - 1975

<u>K-6</u>	<u>Current</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Island Lake Elementary	701	648	629	599	564	517
Snail Lake Elementary	704	676	624	562	497	432
Turtle Lake Elementary	398	386	365	351	336	313
 <u>7-9</u>						
Chippewa Junior High	954	934	879	846	780	757
 <u>10-12</u>						
Moundsvew Senior High	1791	1904	1963	1984	1937	1850



schools/school districts

key:

- | | | | | |
|---|-----------------|---|-------------------|---|
|  | elementary |  | district boundary |  |
|  | junior high |  | |  |
|  | senior high |  | |  |
|  | district number |  | |  |

open space

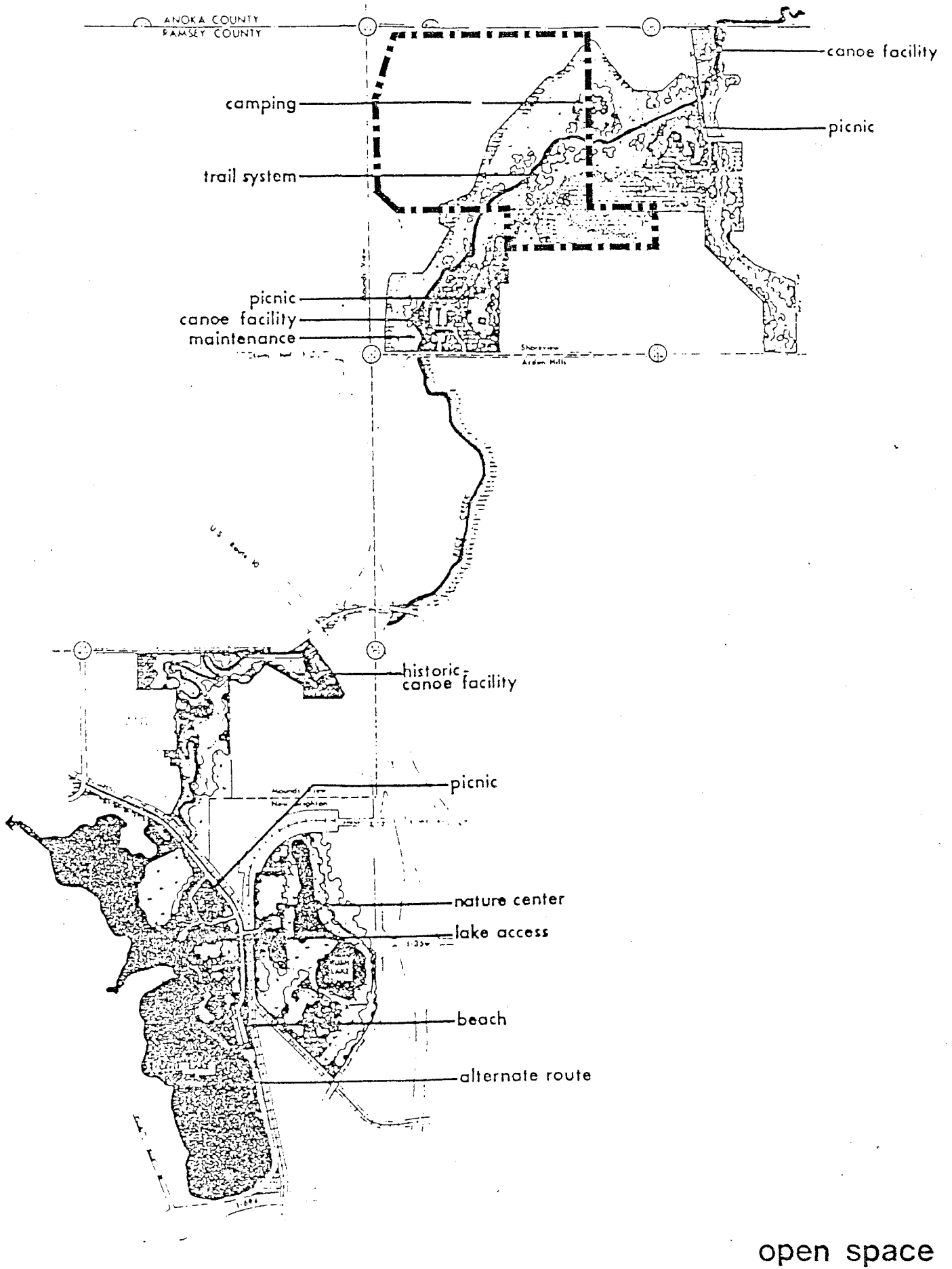
The 750 acre Rice Creek Regional Park is an exciting, untapped recreational resource. Recent acquisition has brought into public use two lakes, and a creek which stretches from the Lino Lakes chain of lakes to the Mississippi River.

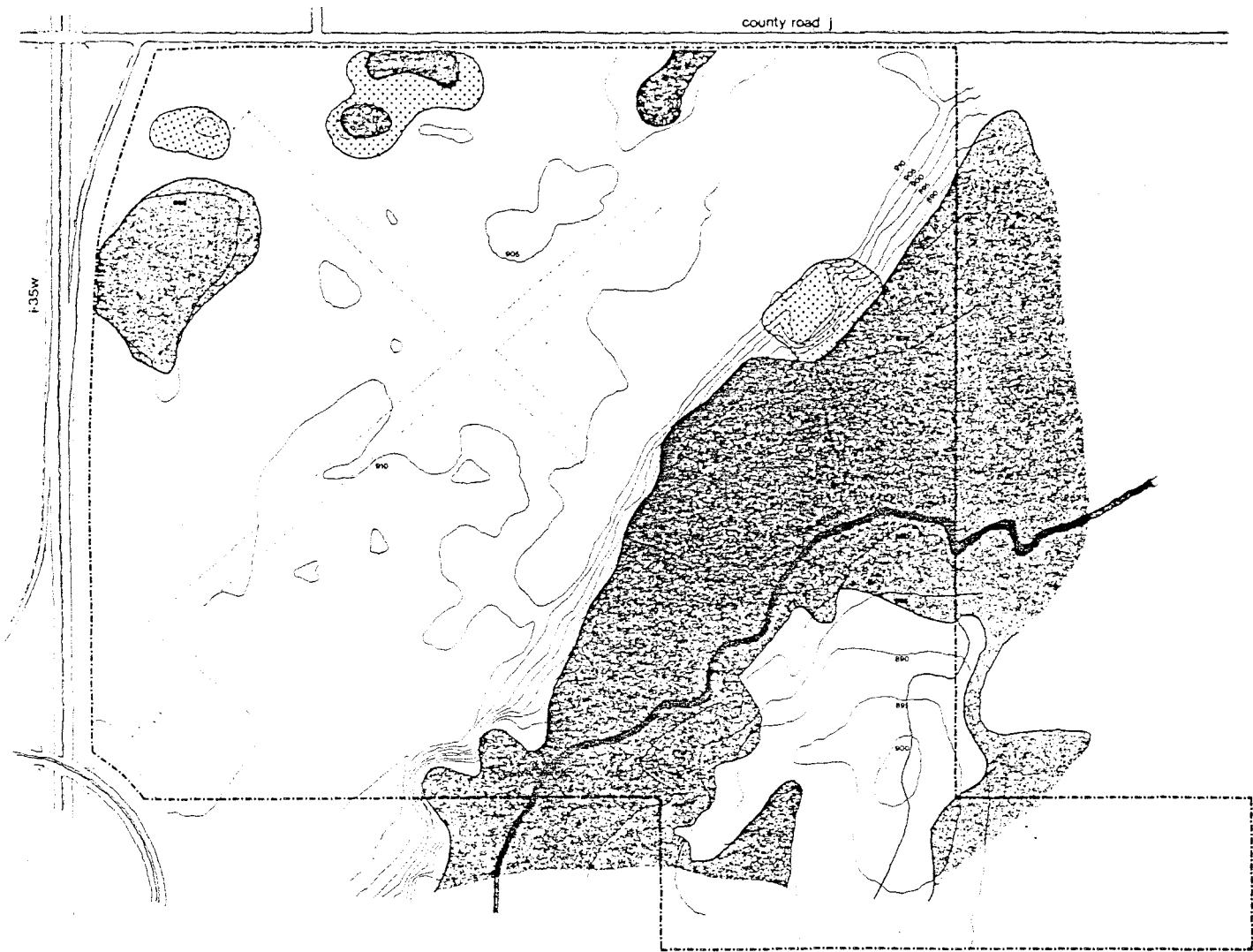
The Long Lake portion will be developed with a beach and support facilities on a 220 acre lake. In addition, group and family picnic areas will be developed overlooking the lake with a non-motorized boat launch area. Site access will involve construction of a bridge over Rice Creek.

The Rush Lake site utilizes the access road for the Long Lake site, thereby allowing excellent control. The Rush Lake site will be developed as a nature center site with emphasis upon environmental education and trail development.

The 450 acre Rice Creek portion will have two canoe launch facilities with a canoe rental concession as an option. A small island of oak woods north of Rice Creek will be developed into a hike-in camping area with limited site improvements. Two picnic areas will be developed, one at the north end near Lexington Avenue, and the other off of County Road I. A trail system will connect the two picnic areas. In order to properly maintain the 750 acre park, a maintenance shop will be constructed near County Road I and Interstate 35W for easy access.

To implement the Rice Creek portion of the plan, approximately 133 acres of the Shoreview property have been purchased by Ramsey County. The proximity of the open space system and recreation opportunities will enhance the desirability of the site for development.





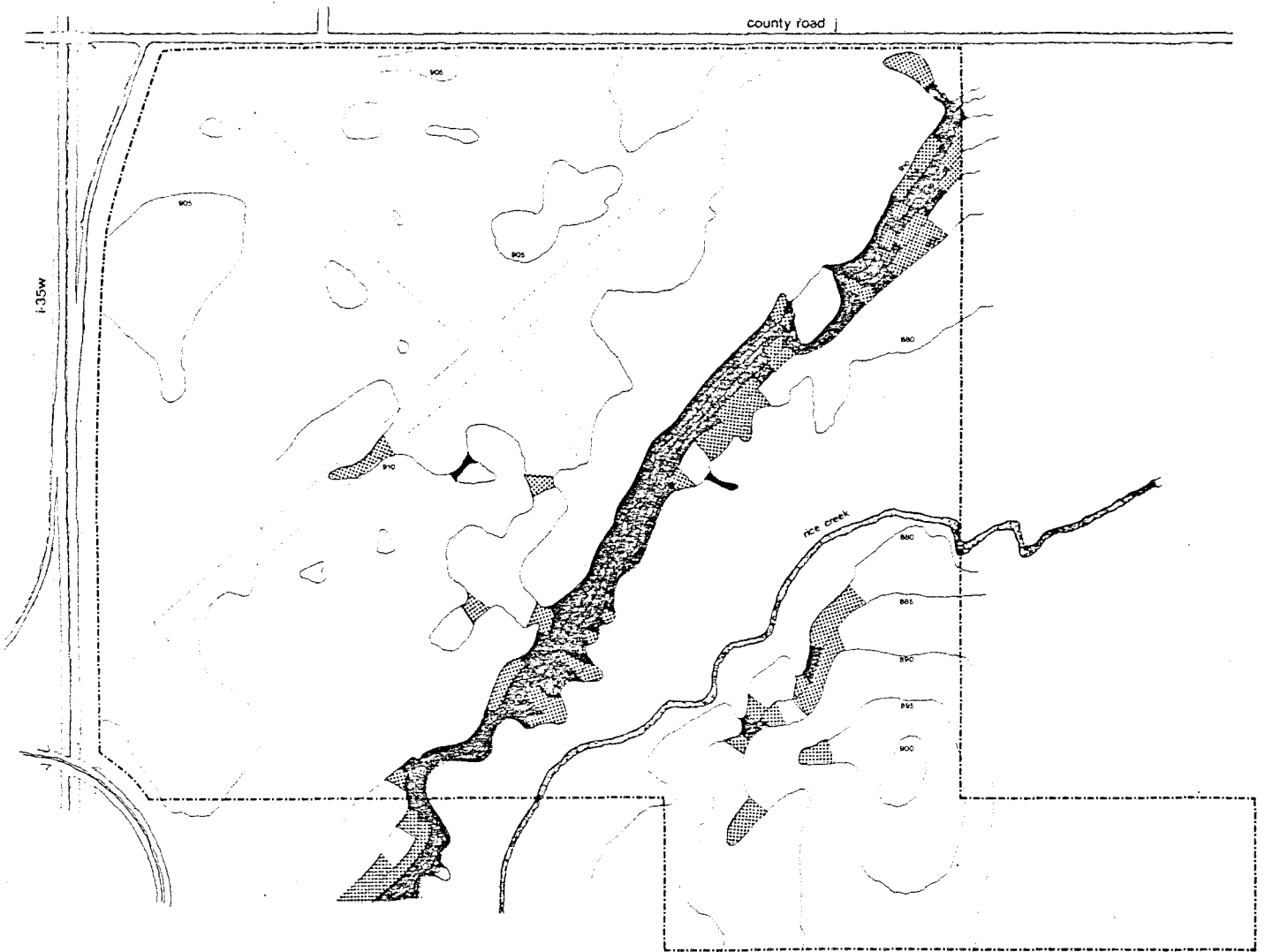
soils (development suitability)

key:

<input type="checkbox"/>	high	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	moderate	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	low	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

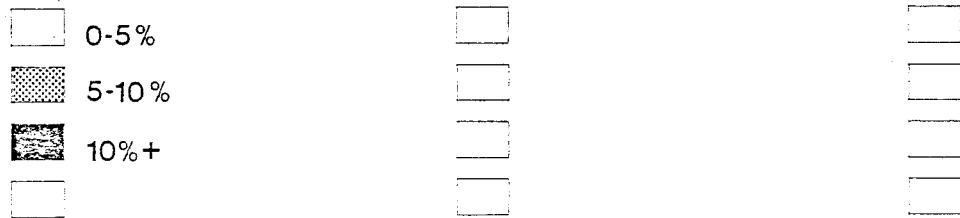
In terms of development suitability, the soils found on the property can be grouped according to three levels of suitability: high, moderate, and low. The northwest segment contains occasional pockets of poor soil but contains approximately 170 acres of stable, well drained, sandy soil.

The area under consideration for open space acquisition contains mostly marsh or muck types of soil with some unstable conditions.

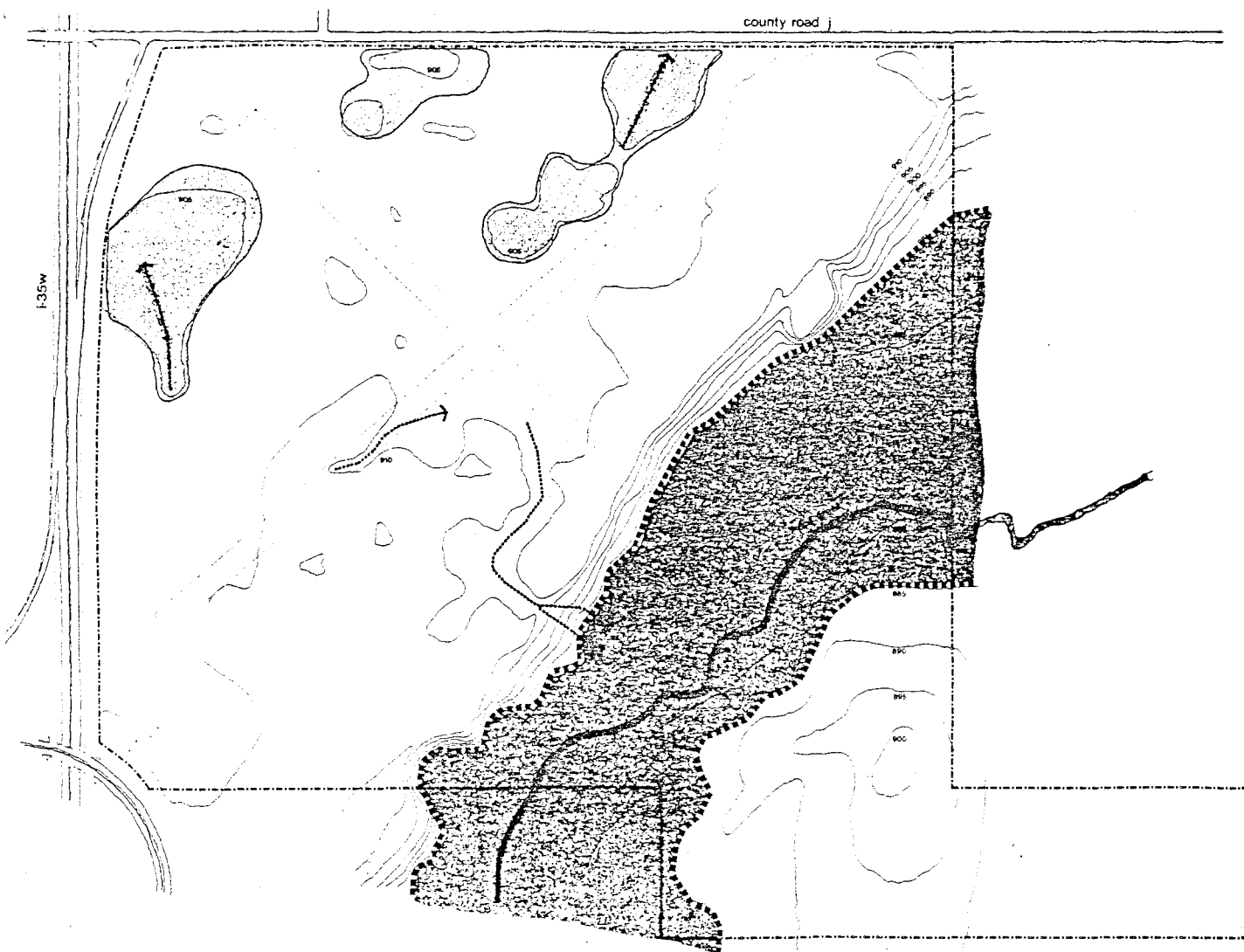


slopes

key:






The site consists of two topographically different areas. The north-western segment is a relatively flat, well drained plane. This plane falls off, with slopes in excess of 10%, to the creek bed and flood plain of Rice Creek and rises again to a single large hill with most slopes ranging between 0% and 5%.

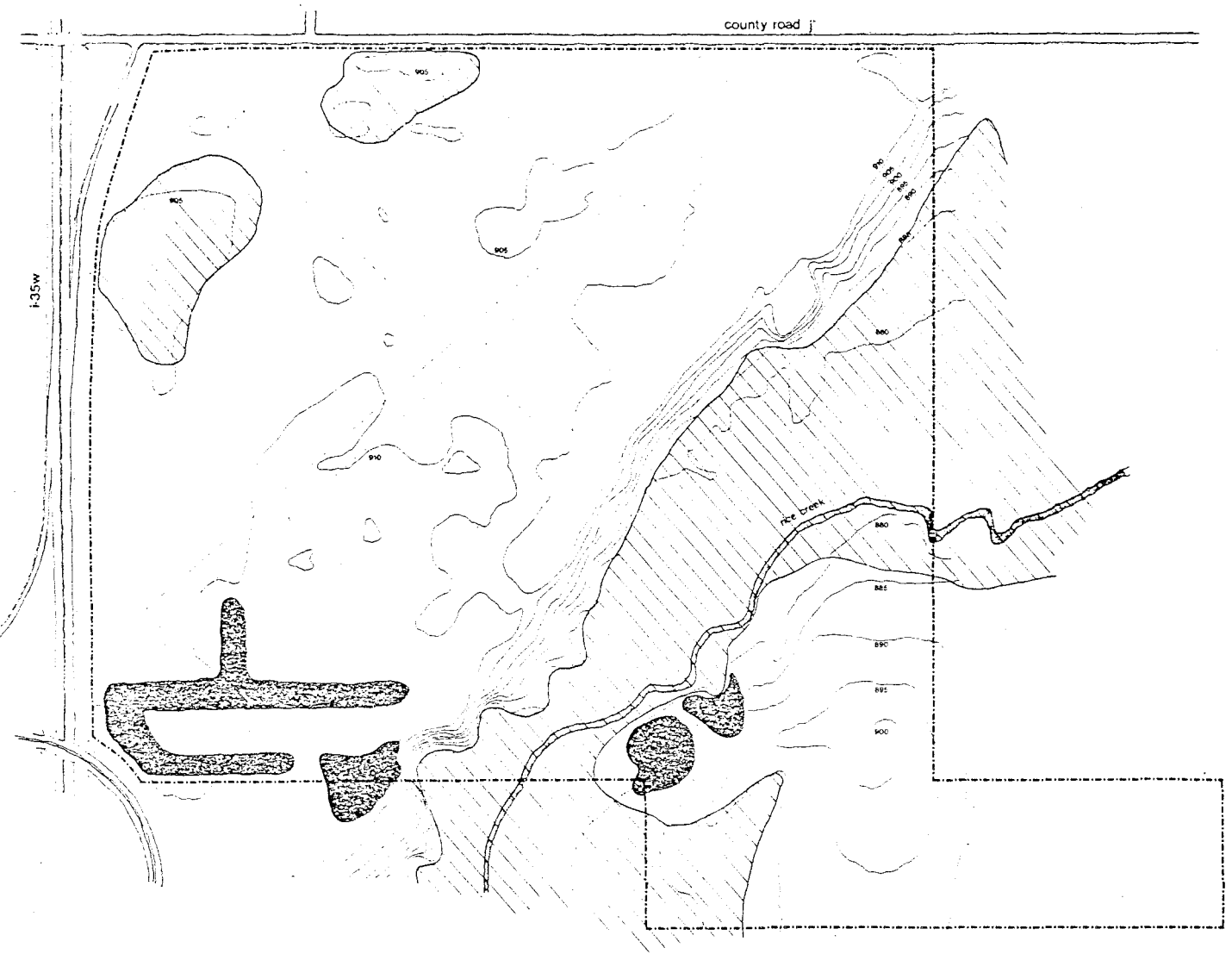


hydrology

key:













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	high water table	<input type="checkbox"/>	<input type="checkbox"/>
	drainage swale	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

The site contains only one natural surface water drainage swale into Rice Creek, which should be considered in site development. There are also occasional pockets of land with a high water table which would be significantly more expensive to develop. The 100 year flood plain is shown in dark tone and no development should be located within its boundary.

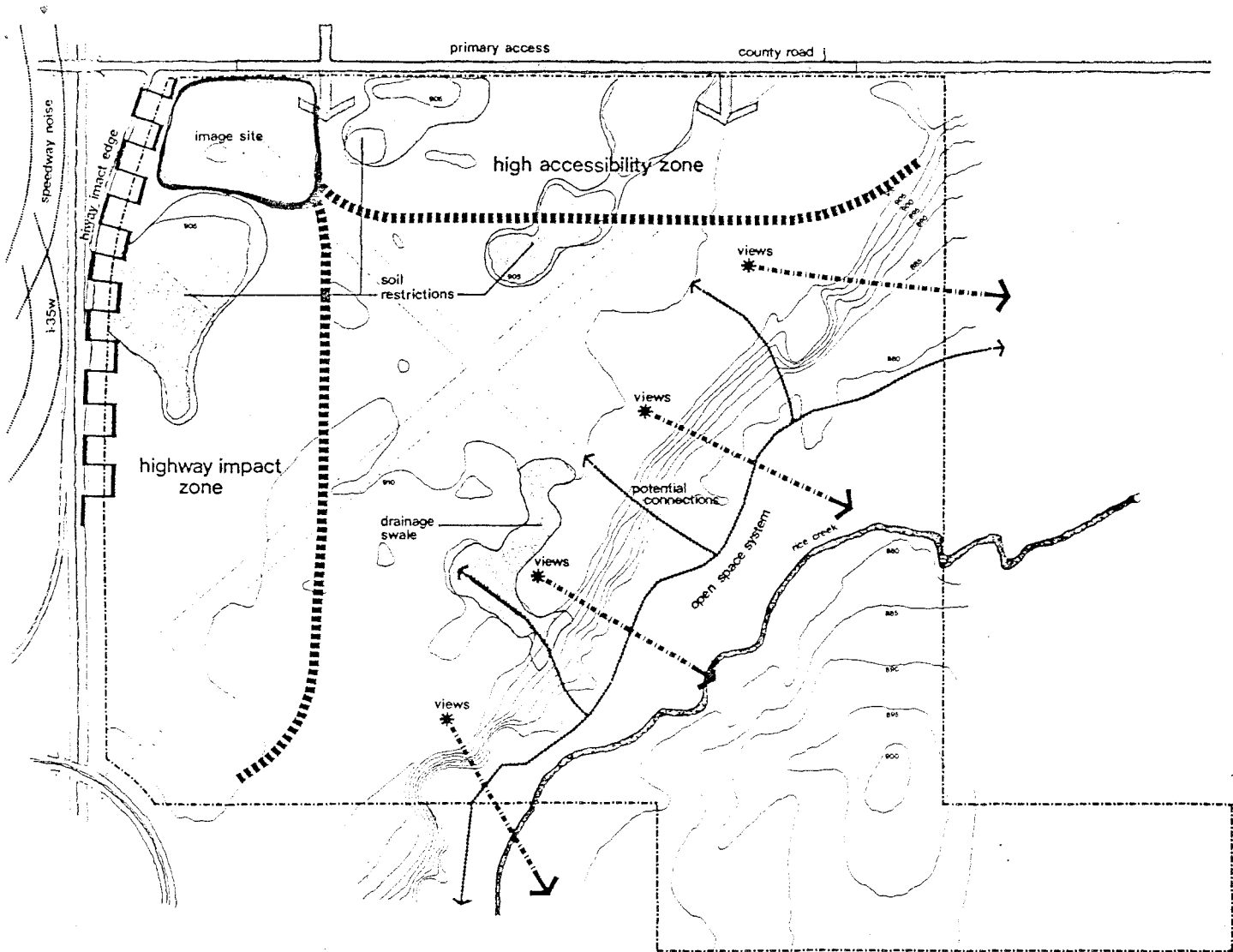


vegetation

key:

	open/grasses		
	marsh		
	upland deciduous		
			

Except for prairie type grasses and marsh growth there is very little growth of deciduous species. The only significant tree stands are boxelders, silver maples and poplars located at the southwest corner of the property.



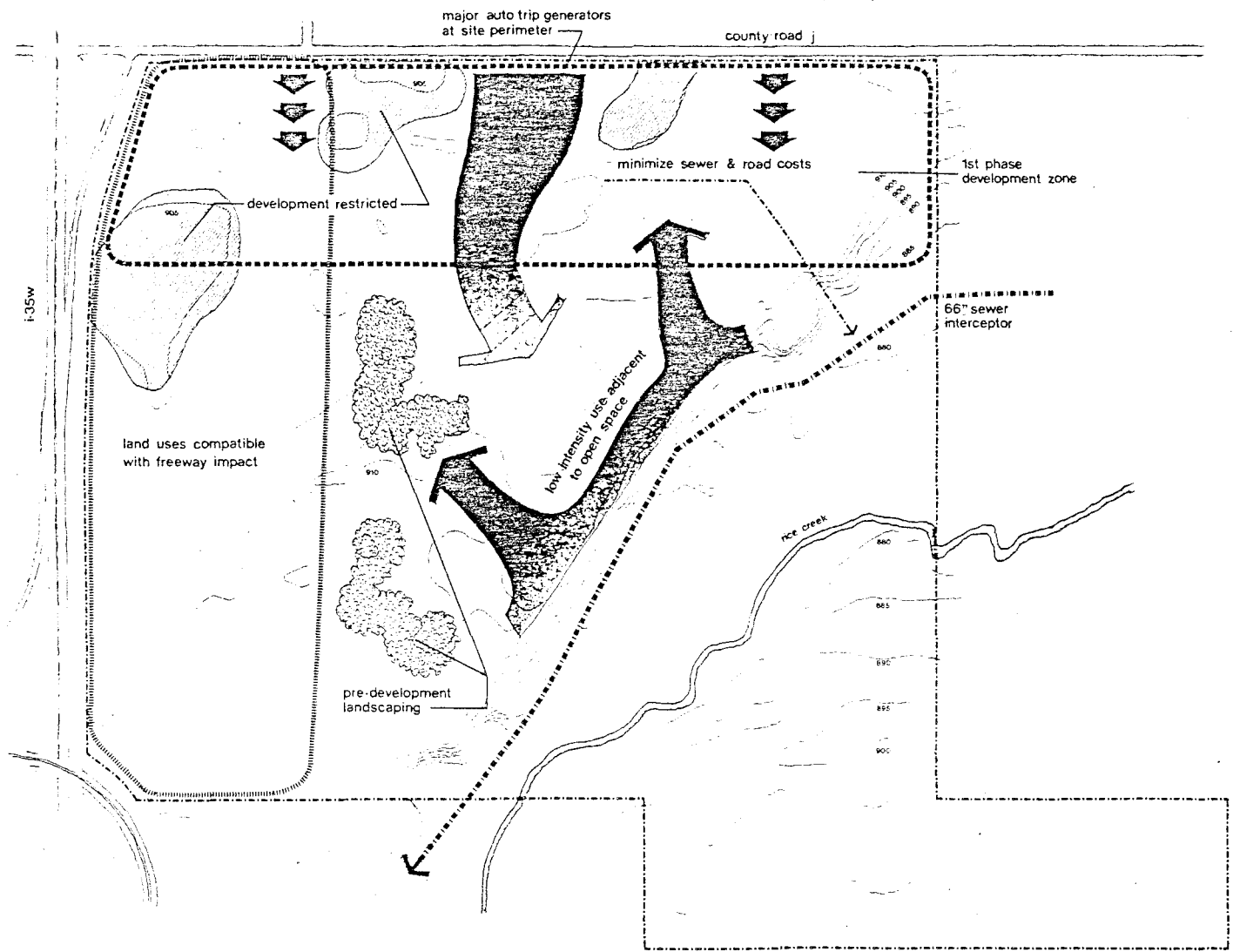
site opportunities/constraints

key:

	impact edge		zone boundary		development restrictions
	open space		noise impact		
	view orientation		access		







The site itself presents several opportunities which can be taken advantage of through imaginative site planning. There is the potential for a direct connection to the proposed open space system, a prime site with high accessibility and visibility from a major Interstate Highway, and a zone along County Road J with high accessibility.

In addition, there are several constraints which should logically be respected. Both, Interstate 35W and land uses west of 35W could pose some development constraints and there are small pockets of land unsuitable for development due to the coincidence of soil restrictions and water table conditions.



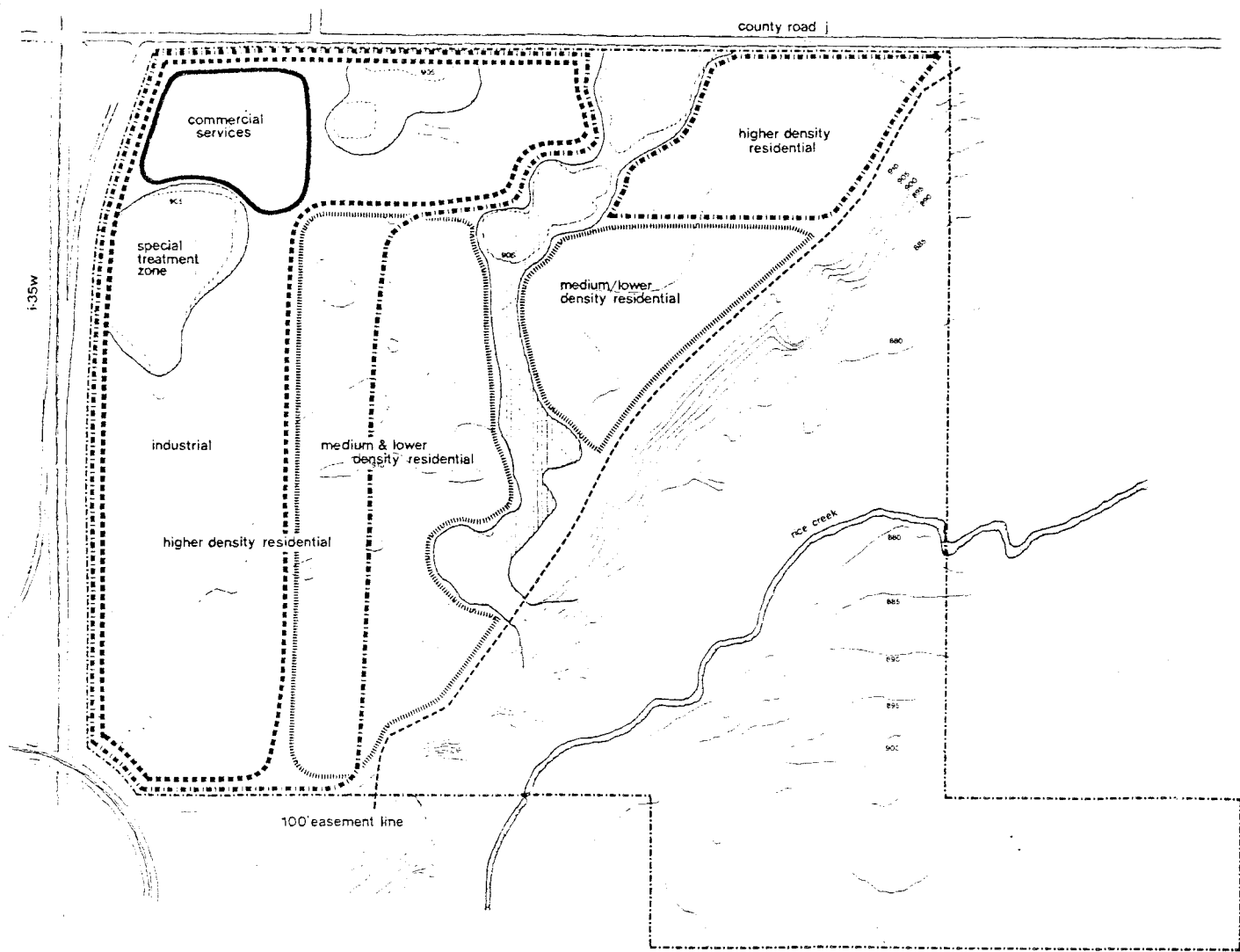
development principles

key:

 landscaping	 road improvements	
 sewer line	 restriction areas	







The zone fronting Interstate 35W should contain land uses compatible with the associated impact. The area fronting County Road J is most logically the land to be developed first, should a phased development timetable be desirable. This zone will most easily handle land uses which generate a high number of automobile trips. Development within this zone will also tend to minimize road and sewer connection costs.

Lower intensity land uses placed adjacent to the open space area will have less impact on the natural systems contained within that area.



development suitability

key:

- | | | |
|---|---|--|
|  higher density residential |  special treatment zone - potential open space use |  med. & low dens. residential |
|  commercial |  proposed easement |  industrial |

As a composite of all the significant factors affecting the site, the development suitability map shows where the uses identified as feasible, would be best located on the property. An "L" shaped band of higher density housing could be located at the north and west boundaries, with commercial services located at the northwest corner, taking advantage of visibility and accessibility from 35W. Also suitable for the western border is light industrial use.

At the center of the property is a triangular zone most suitable to medium and lower density residential use. This area overlaps the higher density housing band along their north-south edge, defining a gradual transition in density from higher to lower at the center.