

BARTON'S
COPY

ENVIRONMENTAL ASSESSMENT
WORKSHEET (EAW)

MARK APPROPRIATE:

X REGULAR EAW

_____ SCOPING EAW

- 1) Project Name: Barton Sand & Gravel Mining Permit-New Scandia Twp.
- 2) Proposer: Barton Sand & Gravel Company
 Contact Person: Gary B. Sauer
 Address: 10633 - 89th Avenue West, Osseo, MN 55369
 Phone: 425-4191
- 3) RGU: Washington County
 Contact Person: Dennis O'Donnell
 and Title: County Planner
 Address: 14900 - 61st Street North, Stillwater, MN 55082
 Phone: 779-5187
- 4) Project Location: SW1/4 Section 7, T32N, R20W
 - a. County Name: Washington Township Name: New Scandia
 - b. Attach copies of each of the following to the EAW:
 1. a county map showing the general area of the project.
 2. a copy(ies) of USGS 7 1/2 minute, 1:24,000 scale map.
 3. a site plan showing the location of significant features such as proposed structures, roads, extent of floodplain, wetlands, wells, etc.
 4. an existing land use map and a zoning map of the immediate area, if available.
- 5) Describe the proposed project completely (attach additional sheets as necessary).

Barton Sand & Gravel Company owns approximately 217 acres in New Scandia Township. Approximately 45 acres is currently actively mined. Over the next 25-35 years, an additional 75 acres is proposed to be mined. Approximately 400,000 tons per year of aggregate would be removed from the pit. Existing elevations of the unmined area is 1000-1010. A 50 acre pond would result from the mining with a bottom elevation of 870-890. Therefore, approximately a 120-140 foot elevation change could be anticipated as a result of the mining.

The following numbered items outline in more detail the project:

- 1) Aggregate materials shall be mined and sold from this pit as the market conditions of this area may demand.
- 2) Estimated time required to complete removal, storage, or excavation; number of acres involved; estimate of amount of material to be removed:

Time period: First Phase - 0-10 years
 Second Phase - 10-25 years
 Third Phase - 25-35 years

(See attached Phase Plan for locations of each Phase).

46
+75

121

Number of acres: Approximately 120 acres.

Material to be removed: This number will depend heavily on the market demand. Current estimate - 400,000 tons per year.

3) Plan of operation: Topsoil to be stockpiled for future replacement; aggregate materials to be mined as the market may demand; ~~materials to be washed in aggregate wash plant; hot mix to be made in bituminous hot mix plant;~~ plants, equipment, well and water locations as set forth on the attached map of proposed operations. ~~Mining will continue in a southerly direction as set forth more fully on the attached Phase Plan map.~~

4) Travel routes: County Road 15 and County Road 1.

Number of Trucks: This number again will depend heavily on the market demand from year to year. Current estimate - an average of ~~150 trucks to utilize pit each day.~~

5) Plans for drainage, water and wind erosion control, sedimentation and dust control: The soil takes up most drainage, and a settling pond (as set forth on the attached Proposed Operations map) will take any additional drainage not absorbed into the soil. ~~The boundary areas of this property have been heavily planted with trees to protect the soil from erosion and to help control dust.~~ The westerly portion of this property contains a heavily wooded area which also protects the property from erosion.

6) Plans for restoration and future land use: Restoration will occur in stages as shown on the phasing plan. The land will be contoured and planted as operations move south. Timing of the restoration will depend on the aggregate needs of the area and the excavation of the phase areas. A possible future land use might include a residential plat surrounding a water body as set forth more fully in the attached Land Development map

See attached illustrations.

- 6) Reason for EAW preparation: Mandatory EAW as per Minnesota Environmental Review Program.
List all mandatory category rule #'s which apply: 6 MCAR 3.038 (K)
- 7) Estimated construction cost: N/A
- 8) Total project area (acres): 217 acres or length (miles) N/A
- 9) Number of residential units: N/A or commercial, industrial, or institutional square footage: N/A

10) Number of proposed parking spaces: N/A

11) List all known local, state and federal permits/approvals/funding required:

<u>Level of Government</u>	<u>Type of Application</u>	<u>Status</u>
Federal: none		
State: none		
Local: Washington Co.	Conditional Use Permit	In Process
New Scandia Township	Conditional Use Permit for existing operation and in progress for long range permit	

12) Is the proposed project inconsistent with the local adopted comprehensive land use plan or any other adopted plans?

If yes, explain: No X Yes _____

13) Describe current and recent past land use and development on and near the site.

Land use in vicinity of this mining operation is agricultural and/or rural residential in nature.

14) Approximately how many acres of the site are in each of the following categories? (Acreages should add up to total project area before and after construction.)

PRESENT MINING SOUTH
2 GRAVEL PITS

	Before	After
Forest/Wooded	<u>83.85</u>	<u>56.61</u>
Cropland	<u>0.00</u>	<u>0.00</u>
Brush/grassland	<u>72.02</u>	<u>103.37</u>
Wetland (types 3-8)	<u>11.8</u>	<u>53.16</u>
Impervious Surface	<u>0.88</u>	<u>3.86</u>
Other (specify)	<u>48.45</u>	<u>0.00</u> mine

15) Describe the soils on the site, giving the SCS soil classification types, if known.

See attached map and corresponding soil legend.

16) Does the site contain peat soils, highly erodible soils, steep slopes, sinkholes, shallow limestone formations, abandoned wells, or any geologic hazards? If yes, show on site map and explain.

No X Yes _____

Incidental to operation, erosion of granular soils may occur. All runoff during operation is contained on site. Reclamation

3. industrial wastewater? No Yes
 4. cooling water (contact and noncontact)? No Yes
 If yes, identify sources, volumes, quality (if other than normal domestic sewage), and treatment methods. Give the basis or methodology of estimates.

b. Identify receiving waters, including groundwater, and evaluate the impacts of the discharges listed above, if discharges to groundwater are anticipated, provide percolation/permeability and other hydrogeological test data if available.

Groundwater ultimately receives all detained runoff.

23) Will the project generate (either during or after construction):

- a. air pollution? No Yes
- b. dust? No Yes
- c. noise? No Yes
- d. odors? No Yes

If yes, explain, including as appropriate: distances to sensitive land uses; expected levels and duration of noise; types and quantities of air pollutants from stacks, mobile sources, and fugitive emissions (dust); odor sources; and mitigative measures for any impacts. Give the basis or methodology of estimates.

S/B Present Form.

- a. A hot-mix asphalt plant on site will produce product for distribution by truck. It is assumed that proper air pollution control equipment will be utilized to mitigate odors and particulate matter from leaving site boundaries.
- b. Dust will be generated by the haul trucks and excavation equipment. Water and chloride will be used to control the spread of the dust both within and at the perimeters of the project.
- c. Noise will be generated by haul trucks and excavation equipment. Mitigation is accomplished by erection of barrier plantings and maintaining existing woodlands where appropriate.
- d. Odors - See a. above.

PRESENTLY USING EPA AND CA APPROX POLLUTION CONTROL EQUIP

24) Describe the type and amount of solid and/or hazardous waste including sludges and ashes that will be generated and the method and location of disposal:

None

- 25) Will the project affect:
- a. fish or wildlife habitat, or movement of animals? ___ No X Yes
 - b. any native species that are officially listed as state endangered, threatened, or of special concern (animals and/or plants)? X No ___ Yes

If yes, explain (identify species and describe impact):

Lake created by extraction will "affect" game fish habitat, by expanding it on site.

In addition, a significant alteration to this area will necessarily change the habitat and any flora and fauna native to the existing terrain will be displaced. There does not appear to be any economical way to mitigate this impact.

- 26) Do any historical, archaeological or architectural resources exist on or near the project site? If yes, explain (show resources on a site map and describe impact): X No ___ Yes

No known sites are located in this area.

- 27) Will the project cause the impairment or destruction of:
- a. designated park or recreation areas? X No ___ Yes
 - b. prime or unique farmlands? ___ No X Yes
 - c. ecologically sensitive areas? X No ___ Yes
 - d. scenic views and vistas? X No ___ Yes
 - e. other unique resources? X No ___ Yes

If yes, explain:

A limited amount of prime farmland has been identified in the Washington County Comprehensive Plan for purposes of inclusion in the Agricultural Preserves Program, however, the land has been out of production for a number of years.

*S/P NO
PRIME
UNIQ
?*

- 28) For each affected road indicate the current average daily traffic (ADT), increase in ADT contributed by the project and the directional distributions of traffic.

Truck activity is anticipated to be 150 round trips per day, however, market demand may alter this number. Access to this site is from County Road 15.

The attached maps indicate the average daily traffic.

- 29) Are adequate utilities and public services now available to service the project? If not, what additional utilities and/or services will be required? ___ No X Yes

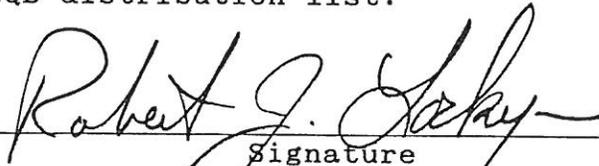
Summary of Issues

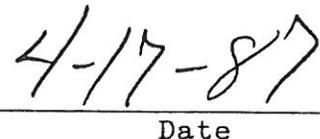
For regular EAWs, list the issues as identified by "yes" answers above. Discuss alternatives and mitigative measures for these issues. For scoping EAWs, list known issues, alternatives, and mitigative measures to be addressed in EIS.

- #20) Lake creation may slightly lower groundwater levels immediately at the perimeter of the lake, due to extraction of aggregate which currently displaces water volume.
- #23) a. A hot-mix asphalt plant on site will produce product for distribution by truck. It is assumed that proper air pollution control equipment will be utilized to mitigate odors and particulate matter from leaving site boundaries.
- b. Dust will be generated by the haul trucks and excavation equipment. Water and chloride will be used to control spread of the dust both within and at the perimeters of the project.
- c. Noise will be generated by haul trucks and excavation equipment. Mitigation is accomplished by erection of barrier plantings and maintaining existing woodlands where appropriate.
- d. Odors - See a. above.
- #25) "Yes", gamefish habitat will be expanded on site.
- #27) Some prime farmland will be destroyed; proposed to be replaced with wildlife habitat.

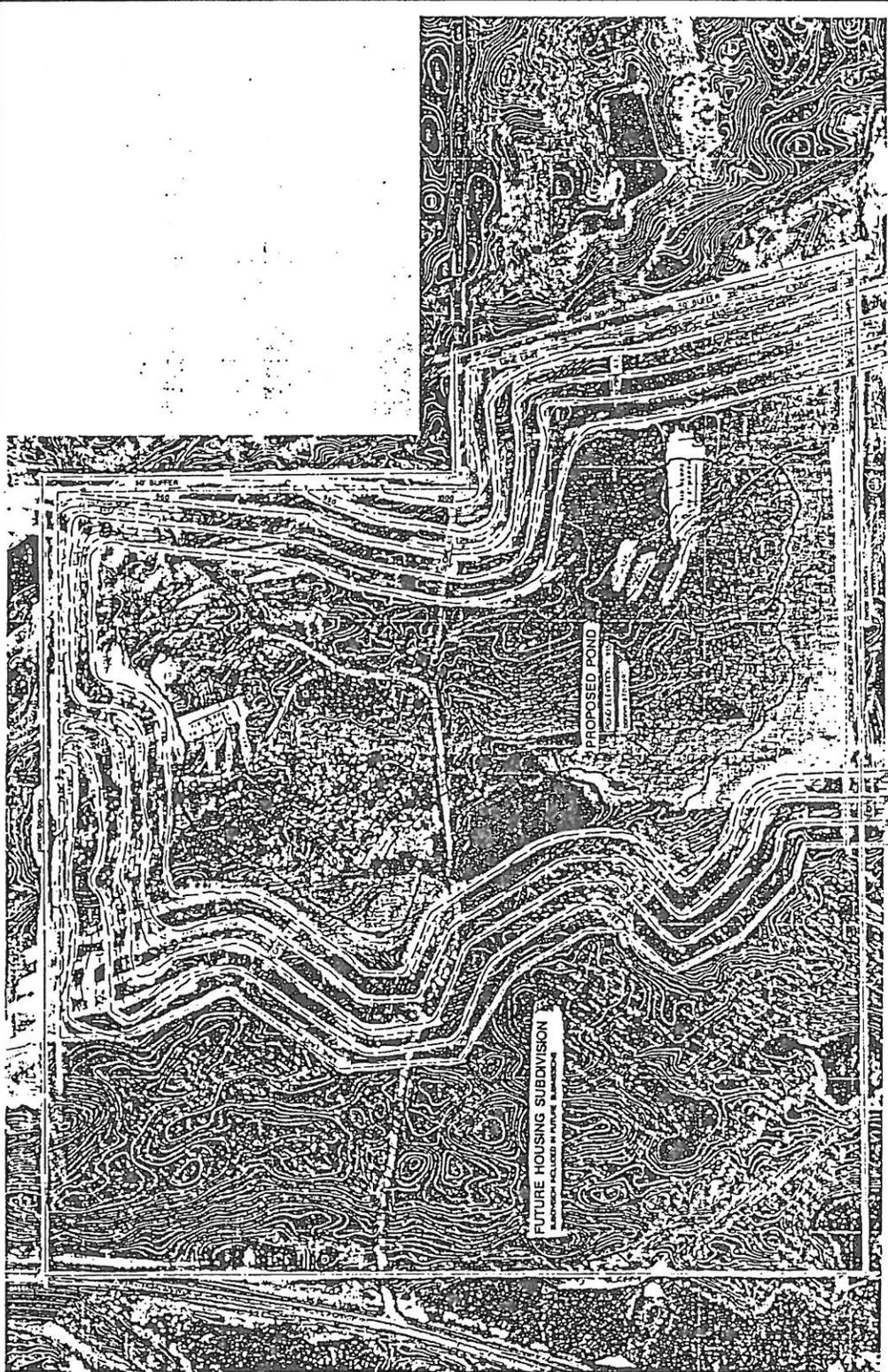
CERTIFICATION BY RESPONSIBLE GOVERNMENTAL UNIT

I hereby certify that the information contained in this document is true and complete to the best of my knowledge and that copies of the completed EAW have been made available to all points on the official EQB distribution list.


Signature


Date

Planning Coordinator
Title



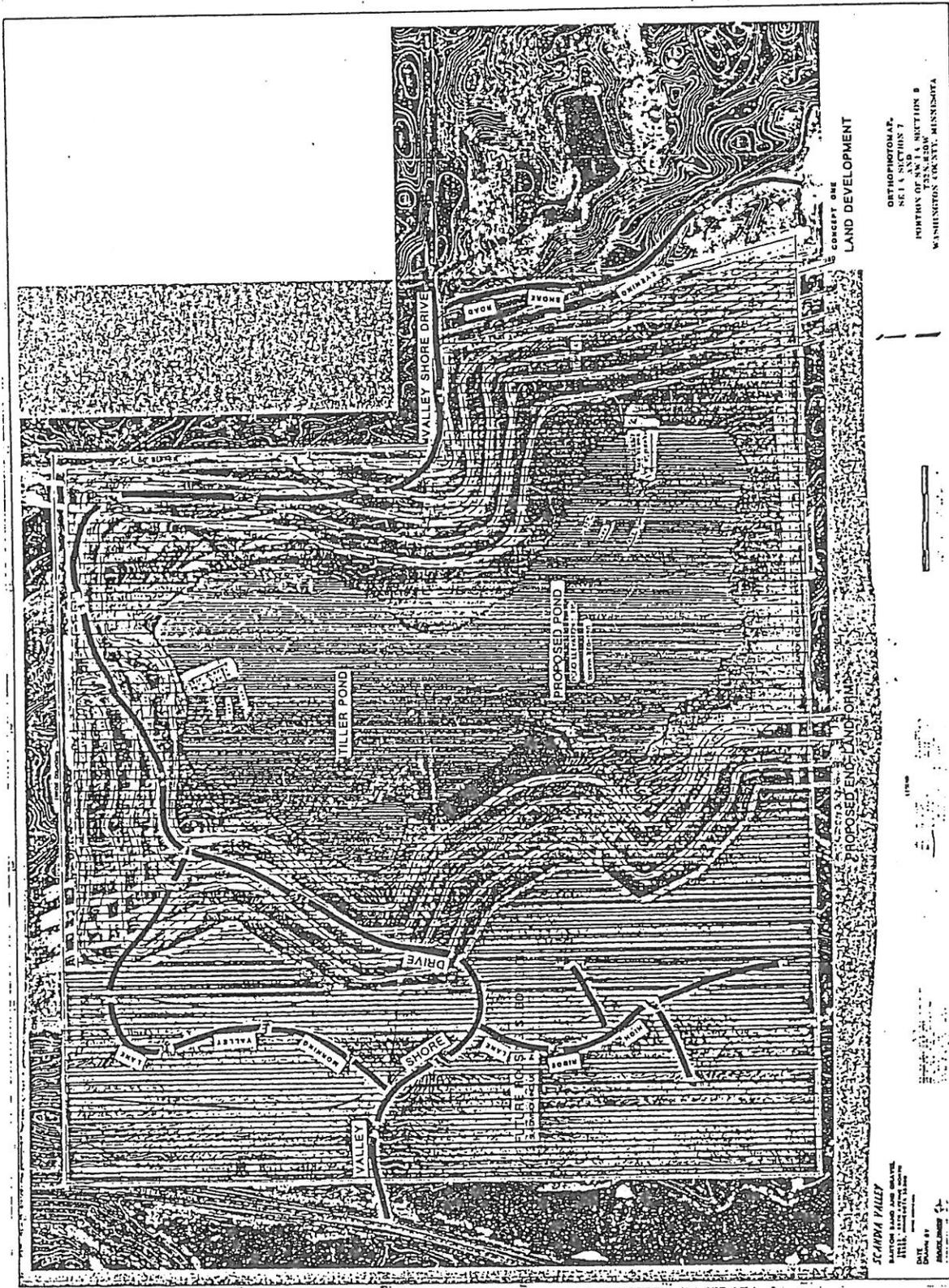
ORTHOPHOTOMAP
 SHT 1 & 2
 AND
 PORTION OF SHT 1 & SECTION 8
 WASHINGTON COUNTY, MINNESOTA

PROPOSED END-LANDFORM

FUTURE HOUSING SUBDIVISION
 BOUNDARIES INDICATED BY DOTTED LINE

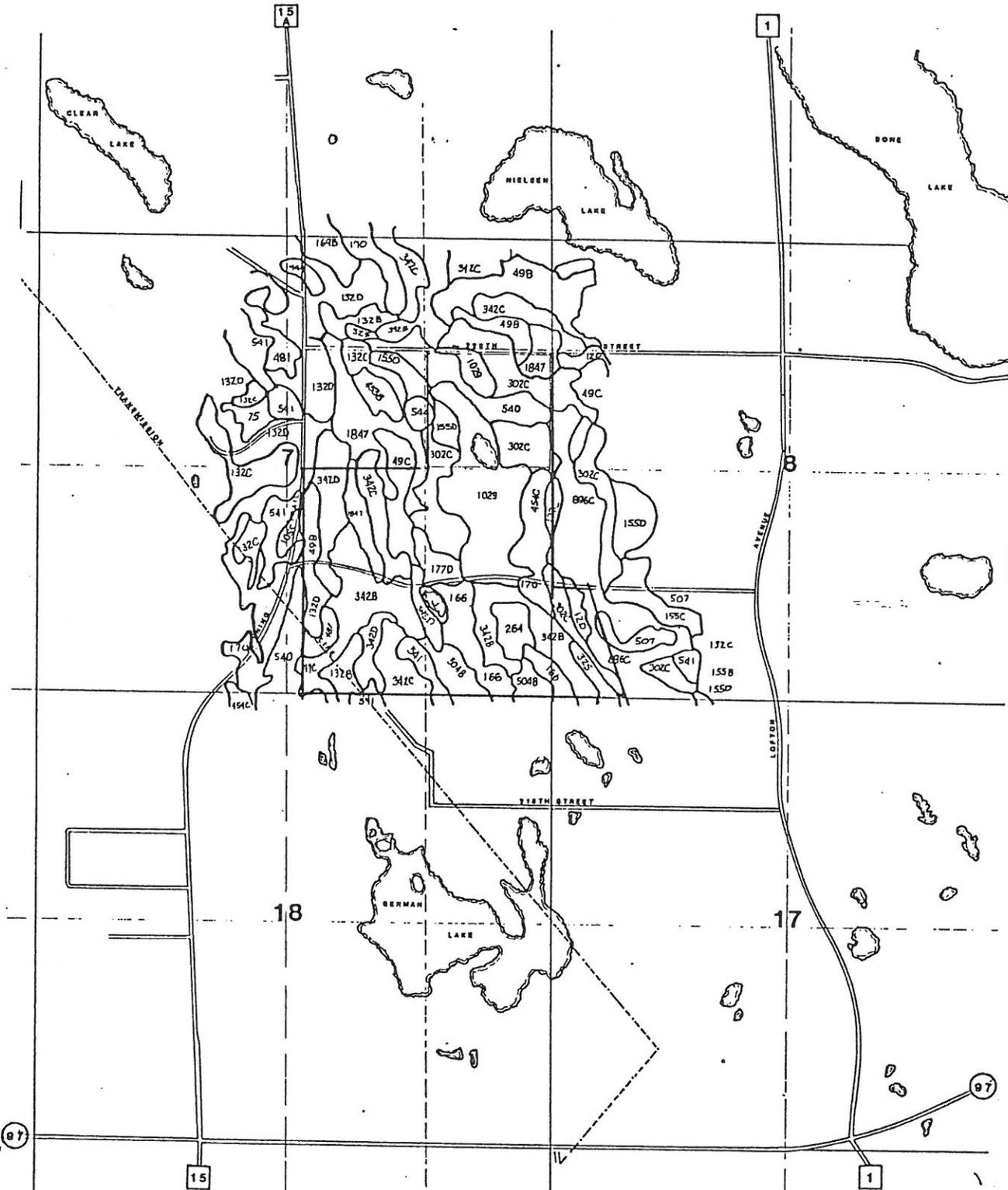
PROPOSED POND
 BOUNDARIES INDICATED BY DOTTED LINE

SCANDIA VALLEY
 BARRON BLAND AND ORVILLE
 WILLIAMS, LAND SURVEYORS
 1111 1/2 1ST AVENUE, NE
 FARGO, N.D. 58103
 DATE: 11/15/2011
 DRAWN BY: JACQUES/JOHNSON

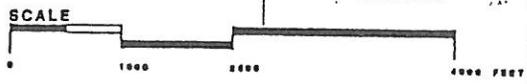


DETHMERS & ASSOCIATES, INC.
 1010 W. WASHINGTON ST.
 ST. CLOUD, MINN. 56301

SCANDIA VALLEY
 SECTION 1 AND 2, TOWNSHIP 10 N., RANGE 10 W.,
 COUNTY OF WASHINGTON, STATE OF MINN.
 DATE: 10/1/78
 DRAWN BY: J. H. HARRIS



SOILS USDA SOIL SURVEY
PART OF
NEW SCANDIA (T32N, R20W)
 SECTIONS 7, 8, 18, 17
 DRAWN BY: DON OBERNOLTE

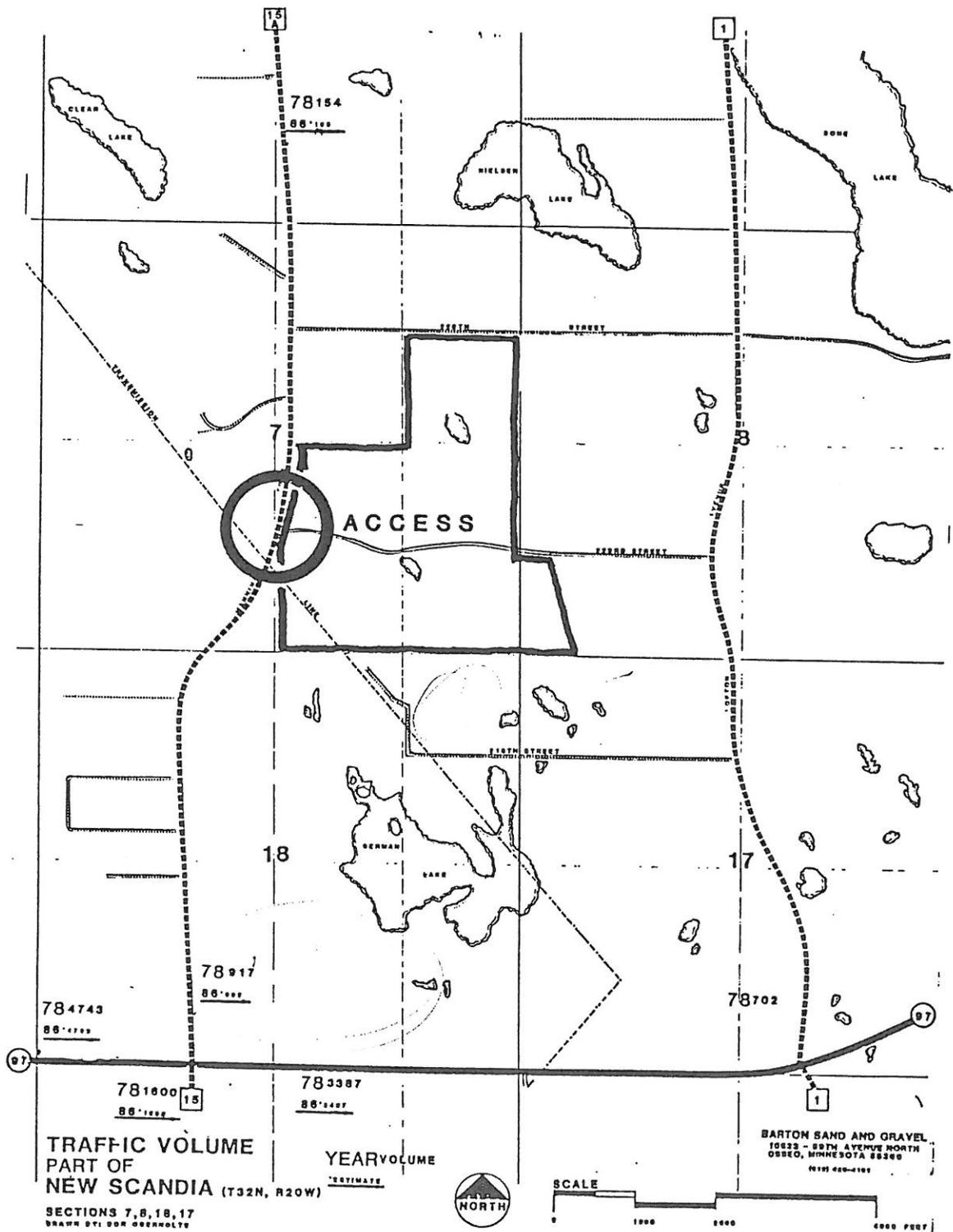


BARTON SAND AND GRAVEL
 10633 - 89TH AVENUE NORTH
 OSSEO, MINNESOTA 55309
 (612) 420-1167

SOIL LEGEND

Map symbols consist of numbers or a combination of numbers and letters; for example, 8, 1237C, and 100B. The number or numbers designate the kind of soil and the letter the class of slope. Symbols without a slope letter are for level, nearly level, or very gently sloping soils or for miscellaneous areas.

SYMBOL	NAME	SYMBOL	NAME
2	Ostrander silt loam, 0 to 2 percent slopes	342D	Kingsley sandy loam, 12 to 18 percent slopes
2B	Ostrander silt loam, 2 to 6 percent slopes	342E	Kingsley sandy loam, 18 to 30 percent slopes
2C	Ostrander silt loam, 6 to 12 percent slopes	367B	Campia silt loam, 0 to 8 percent slopes
7B	Hubbard loamy sand, 1 to 6 percent slopes	408	Faxon silt loam
7C	Hubbard loamy sand, 6 to 12 percent slopes	411	Waukegan silt loam, 0 to 2 percent slopes
7D	Hubbard loamy sand, 12 to 18 percent slopes	411B	Waukegan silt loam, 2 to 6 percent slopes
8	Sparta loamy sand, 0 to 2 percent slopes	411C	Waukegan silt loam, 6 to 12 percent slopes
8B	Sparta loamy sand, 2 to 6 percent slopes	449	Crystal Lake silt loam, 1 to 3 percent slopes
8C	Sparta loamy sand, 6 to 15 percent slopes	452	Comstock silt loam
12C	Emmert loamy coarse sand, 3 to 15 percent slopes	453B	Demontreville loamy fine sand, 2 to 6 percent slopes
12D	Emmert gravelly loamy coarse sand, 15 to 25 percent slopes	453C	Demontreville loamy fine sand, 6 to 12 percent slopes
49	Antigo silt loam, 0 to 2 percent slopes	453D	Demontreville loamy fine sand, 12 to 25 percent slopes
49B	Antigo silt loam, 2 to 6 percent slopes	454B	Mahomedli loamy sand, 0 to 6 percent slopes
49C	Antigo silt loam, 6 to 12 percent slopes	454C	Mahomedli loamy sand, 6 to 12 percent slopes
49D	Antigo silt loam, 12 to 18 percent slopes	454D	Mahomedli loamy sand, 12 to 25 percent slopes
75	Bluffton loam	454F	Mahomedli loamy sand, 25 to 40 percent slopes
100B	Copaston loam, 0 to 6 percent slopes	456	Barronett silt loam
100C	Copaston loam, 6 to 12 percent slopes	460B	Baytown silt loam, 1 to 6 percent slopes
13	Webster loam	460C	Baytown silt loam, 6 to 12 percent slopes
120	Brill silt loam	468	Otter silt loam
123	Dundas fine sandy loam	472B	Channahon silt loam, 1 to 6 percent slopes
132B	Hayden fine sandy loam, 2 to 6 percent slopes	472C	Channahon silt loam, 6 to 12 percent slopes
132C	Hayden fine sandy loam, 6 to 12 percent slopes	472D	Channahon silt loam, 12 to 18 percent slopes
132D	Hayden fine sandy loam, 12 to 25 percent slopes	481	Kratka fine sandy loam
151	Burkhardt sandy loam, 0 to 3 percent slopes	488F	Brodale flaggy loam, 20 to 50 percent slopes
151B	Burkhardt sandy loam, 3 to 9 percent slopes	504B	Duluth silt loam, 1 to 6 percent slopes
153B	Sanlago silt loam, 2 to 6 percent slopes	504C	Duluth silt loam, 6 to 12 percent slopes
153C	Sanlago silt loam, 6 to 15 percent slopes	504D	Duluth silt loam, 12 to 25 percent slopes
153B	Chelek sandy loam, 0 to 6 percent slopes	507	Poskin silt loam
153C	Chelek sandy loam, 6 to 12 percent slopes	529	Ripon silt loam, 1 to 2 percent slopes
155D	Chelek sandy loam, 12 to 25 percent slopes	529B	Ripon silt loam, 2 to 6 percent slopes
158B	Zimmerman loamy fine sand, 0 to 6 percent slopes	529C	Ripon silt loam, 6 to 12 percent slopes
158C	Zimmerman loamy fine sand, 6 to 12 percent slopes	540	Seelyville muck
158D	Zimmerman loamy fine sand, 12 to 25 percent slopes	541	Rifle muck
159	Anoka loamy fine sand, 0 to 3 percent slopes	543	Markey muck
159B	Anoka loamy fine sand, 3 to 9 percent slopes	544	Catho muck
161	Isanti loamy fine sand	552	Kerston muck
162	Lino loamy fine sand	852B	Urban land—Copaston complex, 0 to 8 percent slopes
166	Ronneby fine sandy loam	857	Urban land—Waukegan complex, 0 to 3 percent slopes
169B	Braham loamy fine sand, 1 to 6 percent slopes	857C	Urban land—Waukegan complex, 3 to 15 percent slopes
169C	Braham loamy fine sand, 6 to 15 percent slopes	858	Urban land—Chelek complex, 0 to 3 percent slopes
170	Blomford loamy fine sand	858C	Urban land—Chelek complex, 3 to 15 percent slopes
174C	Gale silt loam, 6 to 15 percent slopes	859B	Urban land—Zimmerman complex, 1 to 8 percent slopes
174F	Gale silt loam, 25 to 50 percent slopes	860C	Urban land—Hayden—Kingsley complex, 3 to 15 percent slopes
177B	Gotham loamy sand, 1 to 6 percent slopes	860D	Urban land—Hayden—Kingsley complex, 15 to 25 percent slopes
177C	Gotham loamy sand, 6 to 12 percent slopes	861C	Urban land—Kingsley complex, 3 to 15 percent slopes
177D	Gotham loamy sand, 12 to 20 percent slopes	861D	Urban land—Kingsley complex, 15 to 25 percent slopes
189	Auburdale silt loam	862	Urban land—Dundas complex, 1 to 4 percent slopes
225	Nessel fine sandy loam, 1 to 4 percent slopes	863	Urban land—Lino complex, 0 to 3 percent slopes
259B	Grays silt loam, 2 to 6 percent slopes	896C	Mahomedli—Kingsley complex, 3 to 12 percent slopes
264	Freon silt loam, 1 to 4 percent slopes	896D	Mahomedli—Kingsley complex, 12 to 25 percent slopes
265	Soderville loamy fine sand	896F	Mahomedli—Kingsley complex, 25 to 40 percent slopes
266	Freer silt loam	1013	Pits, quarry
298	Richwood silt loam, 0 to 2 percent slopes	1027	Udorthents, wet substratum
298B	Richwood silt loam, 2 to 6 percent slopes	1029	Pits, gravel
301B	Lindstrom silt loam, 2 to 4 percent slopes	1033	Udilluents
302B	Rosholt sandy loam, 1 to 6 percent slopes	1039	Urban land
302C	Rosholt sandy loam, 6 to 15 percent slopes	1040	Udorthents
325	Prebish loam	1055	Aquolls and Histosols, ponded
327	Dickman sandy loam, 0 to 2 percent slopes	1813B	Lino Variant loamy fine sand, 2 to 6 percent slopes
327B	Dickman sandy loam, 2 to 6 percent slopes	1819F	Dorerton—Rock outcrop complex, 25 to 65 percent slopes
327C	Dickman sandy loam, 6 to 12 percent slopes	1820F	Mahomedli Variant—Rock outcrop complex, 25 to 60 percent slopes
329	Chaska silt loam	1821	Alganssee loamy sand
340B	Whalan silt loam, 1 to 6 percent slopes	1827	Waukegan Variant silt loam, 0 to 2 percent slopes
340C	Whalan silt loam, 6 to 12 percent slopes	1827B	Waukegan Variant silt loam, 2 to 9 percent slopes
342B	Kingsley sandy loam, 2 to 6 percent slopes	1847	Barronett silt loam, sandy substratum
342C	Kingsley sandy loam, 6 to 12 percent slopes	1848B	Sparta loamy sand, bedrock substratum, 0 to 6 percent slopes



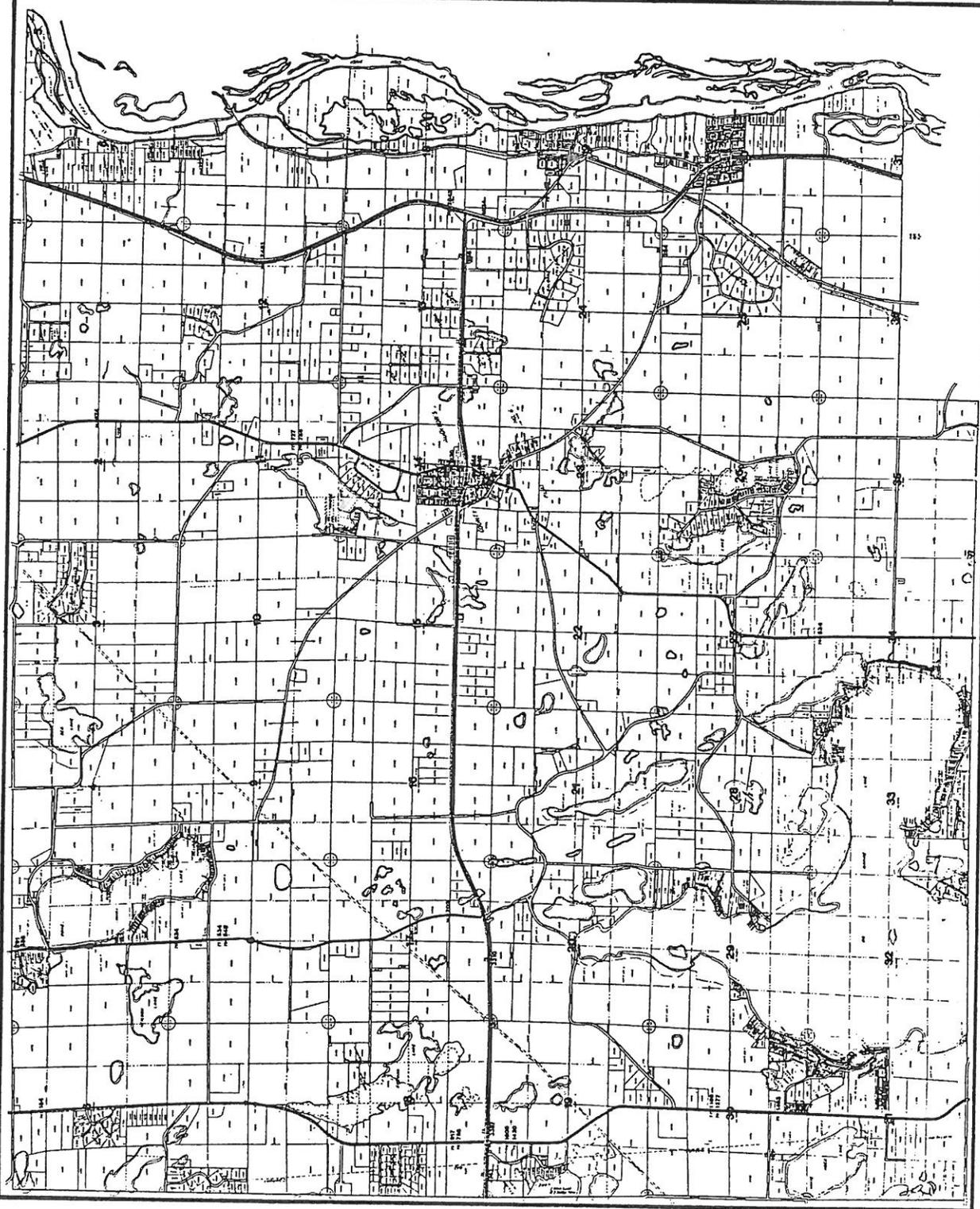
new scandia

transportation

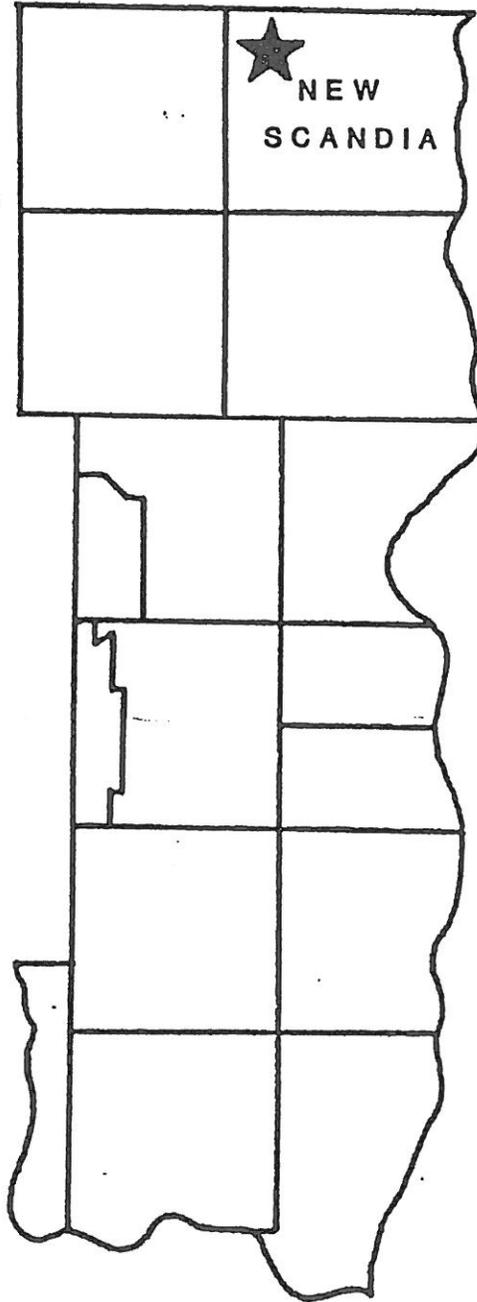
— Minor Arterial

— Collector

— Annual
Average daily traffic
count

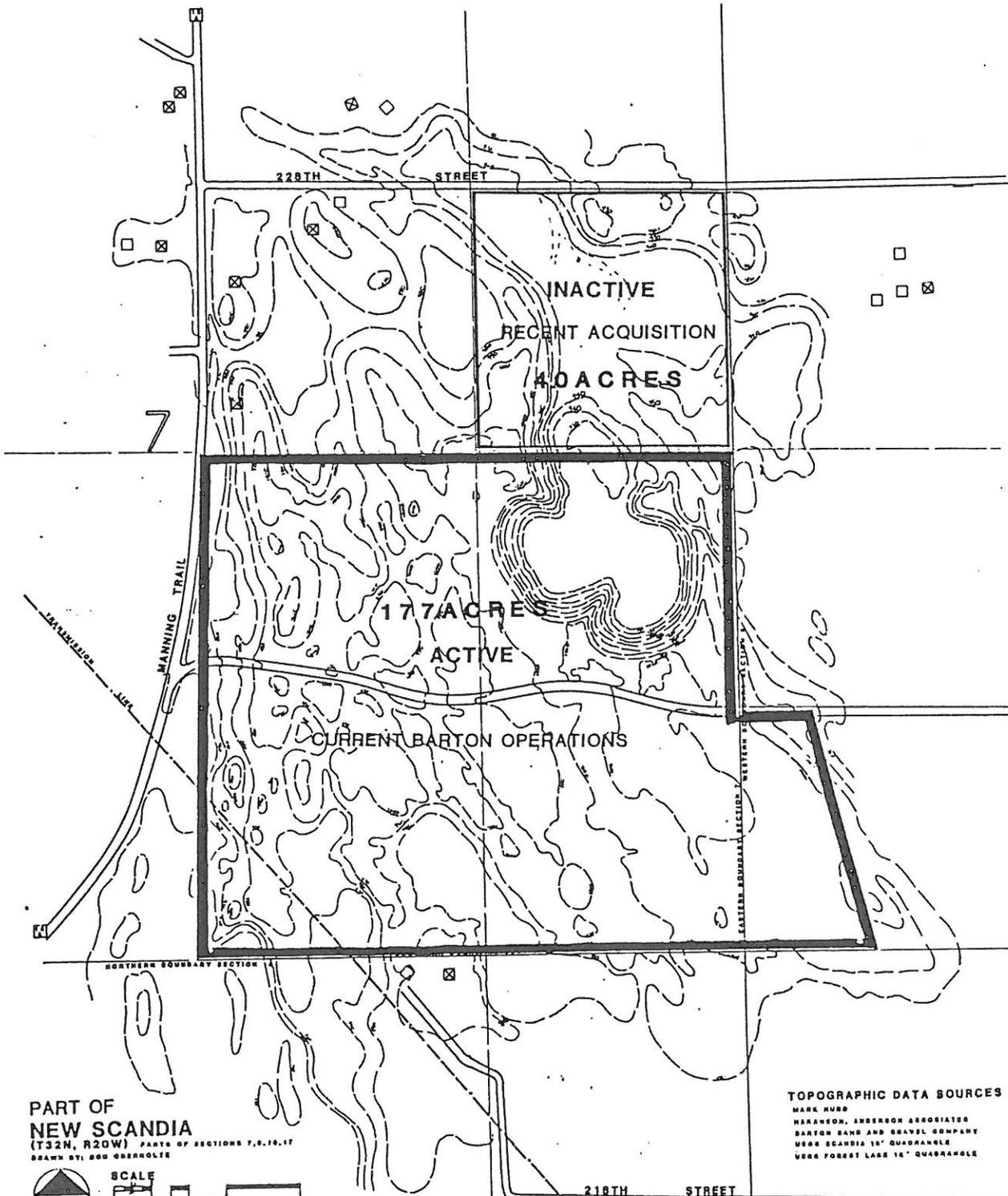


SITE VICINITY



**WASHINGTON COUNTY
MINNESOTA**



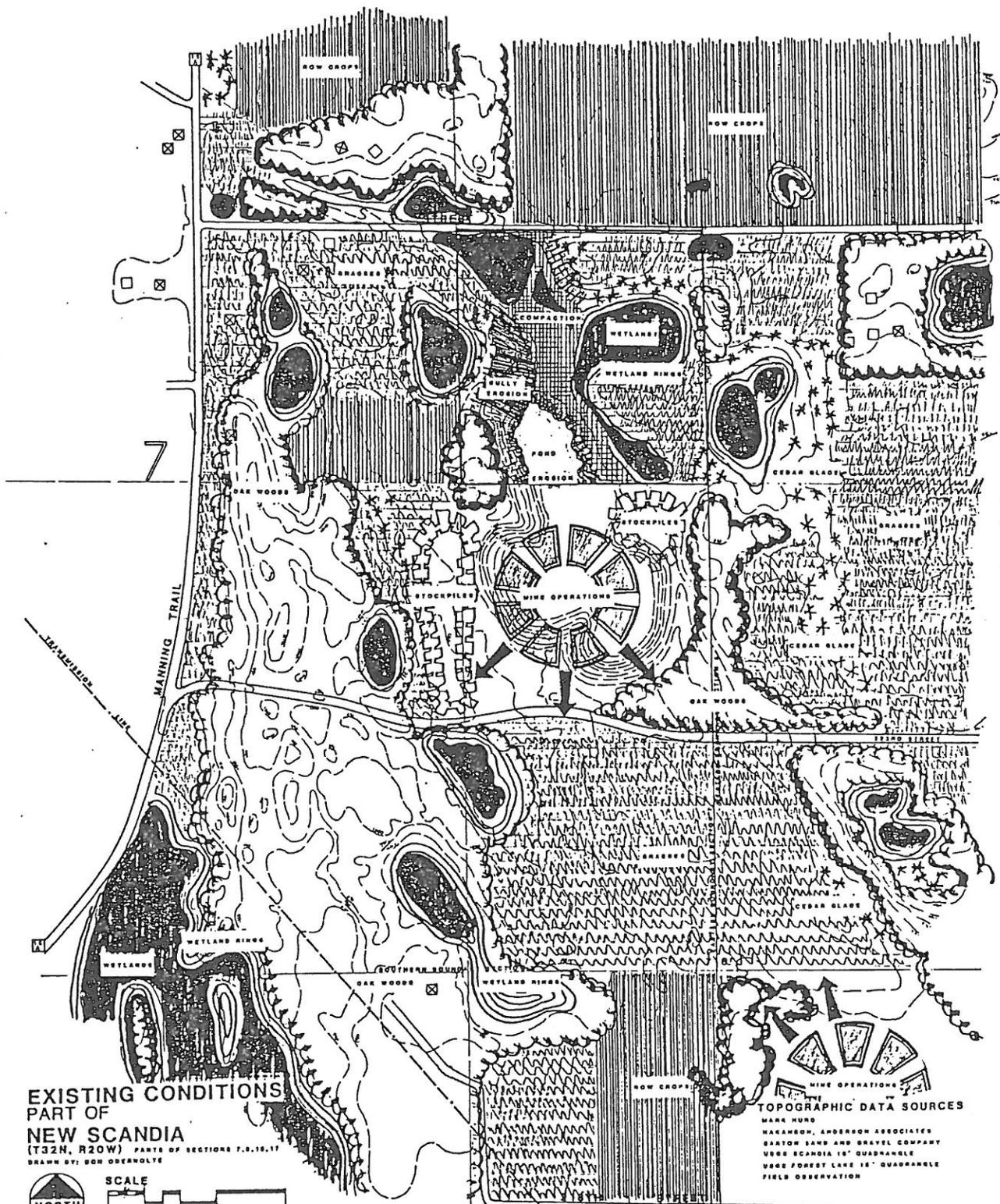


**PART OF
NEW SCANDIA**
(T32N, R20W) PARTS OF SECTIONS 7, 8, 16, 17
DRAWN BY: BOB OBERHOLZ

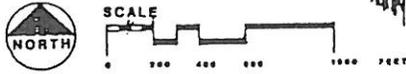


TOPOGRAPHIC DATA SOURCES
MARK HUBB
HARRISON, ANDERSON ASSOCIATES
BARTON SAND AND GRAVEL COMPANY
USGS SCANDIA 15' QUADRANGLE
VORG FOREST LASS 15' QUADRANGLE

BARTON SAND AND GRAVEL
10433 - 80TH AVENUE NORTH
DEER, MINNESOTA 55330
(612) 910-2100



EXISTING CONDITIONS
 PART OF
NEW SCANDIA
 (T32N, R20W) PARTS OF SECTIONS 7, 8, 16, 17
 DRAWN BY: BOB ODERNOLTE



TOPOGRAPHIC DATA SOURCES
 MARK HURD
 HAKAMSON, ANDERSON ASSOCIATES
 BARTON SAND AND GRAVEL COMPANY
 NEW SCANDIA 15" QUADRANGLE
 1938 FOREST LAND 15" QUADRANGLE
 FIELD OBSERVATION

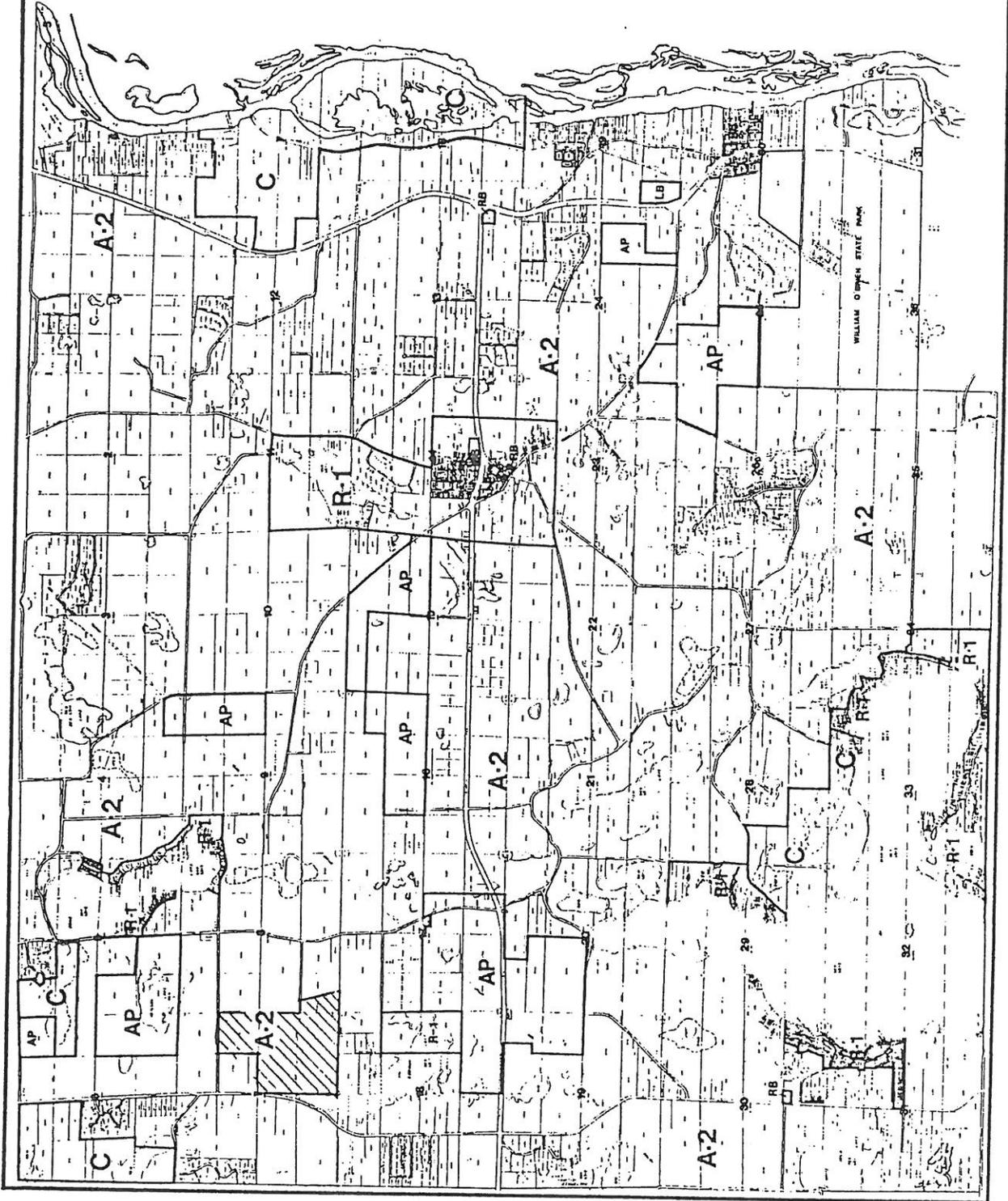
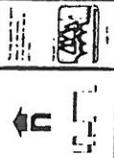
BARTON SAND AND GRAVEL
 10632 - 86TH AVENUE NORTH
 OSSEO, MINNESOTA 55369
 (612) 410-4195

new
scandia

zoning

- A-2 residential medium density
- R-1 residential single family
- AP agricultural
- C commercial
- LB light business

AMENDED
MARCH 1, 1984



new
scandia

