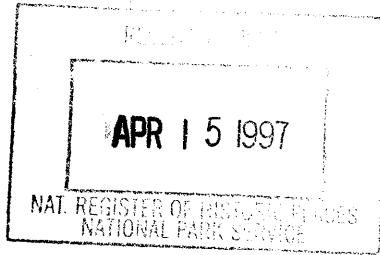


United States Department of the Interior
National Park Service



National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Dairy Building, North Oaks Farm

other names/site number N/A

2. Location

street & number Red Barn Road at Hill Farm Circle not for publication N/A

city or town North Oaks vicinity

state Minnesota code MN county Ramsey code 123 zip code 55127

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Ian R. Stewart 3/28/97
Signature of certifying official/Title Ian R. Stewart Date
Deputy State Historic Preservation Officer
State of Federal agency and bureau Minnesota Historical Society

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

- entered in the National Register. See continuation sheet.
- determined eligible for the National Register See continuation sheet.
- determined not eligible for the National Register.
- removed from the National Register.
- other, (explain:)

Edson H. Beall 5/16/97
Signature of the Keeper Date of Action

Dairy Building, North Oaks Farm
Name of Property

Ramsey County, Minnesota
County and State

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count.)

| Contributing | Noncontributing | |
|--------------|-----------------|------------|
| 1 | | buildings |
| | | sites |
| | | structures |
| | | objects |
| 1 | 0 | Total |

Name of related multiple property listing

(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

AGRICULTURE: processing

Current Functions

(Enter categories from instructions)

Work in progress

7. Description

Architectural Classification

(Enter categories from instructions)

LATE 19TH AND 20TH CENTURY REVIVALS/

Colonial Revival/Georgian Revival

Materials

(Enter categories from instructions)

foundation STONE (limestone)

walls BRICK and stucco-clad brick

roof WOOD (cedar shingle)

other wood porch

wood cupolas

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance

(Enter categories from instructions)

AGRICULTURE

Period of Significance

1884-1916

Significant Dates

1884

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

N/A

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetSection number 7 Page 1Dairy Building, North Oaks Farm
Ramsey County, MN**General Site Description**

Saint Paul magnate James J. Hill (1838-1916) earned his title "The Empire Builder" for his ruthless and aggressive efforts to develop transportation in the Northwest in the late nineteenth and early twentieth centuries. His acumen and skills placed Hill on the level of the great nineteenth century U.S. business leaders, men such as E.H. Harriman and J.P. Morgan, with whom he competed and partnered in his business dealings. Hill's acquisition of the Saint Paul and Pacific Railroad (later the Saint Paul, Minneapolis and Manitoba, and later still, the Great Northern) formed the basis of his empire, and he extended the road to Seattle by 1893, thus opening up Pacific trade and encouraging development of land throughout the northern tier of states where the road ran. Hill later acquired control of the Northern Pacific, and the Chicago, Burlington and Quincy Railroads as well. But Hill recognized that agriculture must prosper in the lands his railroads served, and decided early on to demonstrate how crops and livestock could improve farmers' profits.

James J. Hill acquired his first farm, "Hillier," a 160-acre property near Lake Minnetonka in 1880. The following year, he began to acquire land in the Red River Valley near Hallock, eventually totaling 45,000 acres, named Humboldt Farm. Humboldt was operated as a bonanza-type farm, although much of it was sold off in smaller plots of 80 to 160 acres. Some 3,000 acres of Humboldt were split off to form Northcote Farm in 1910, managed by Walter J. Hill, James J. Hill's youngest son, as a cattle breeding and stock farm (Northcote Farm in Kittson County named NRHP-eligible in October 1983).¹

In 1883, however, perhaps deciding he needed a more convenient farm than Hillier, Hill purchased over 3,000 acres of land ten miles north of Saint Paul, surrounding Pleasant Lake. The property eventually grew to over 5,000 acres and 34 buildings and became North Oaks Farm, which Hill built up as a laboratory for his agricultural experimentation in livestock raising and crossbreeding, crop testing, and as a second home for his large family (see Map I).

The land was held by the Hill family after James J. Hill's death in 1916, and some agricultural operations continued on the farm until the 1960s. The large home on the farm was razed in 1939, and other buildings torn down in the following decades. Beginning in the 1950s, however, the Hill family organized the North Oaks Company and began development of much of the farm into a residential suburb. The North Oaks Company remains the city's only land developer. Roads in the community are privately owned with easements granted by the company.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 7 Page 2

Dairy Building, North Oaks Farm
Ramsey County, MN

North Oaks is 8.7 square miles, with 1,070 housing units and a population of 3,386.² (see Map II).

The three remaining North Oaks Farm buildings are located on the southwest shore of Pleasant Lake and accessed by Hill Farm Circle in the community of North Oaks. After agricultural operations ended the remaining buildings were used for storage. In 1988, the buildings were acquired by the Hill Farm Historical Society from the North Oaks Company. The farm site is approximately 5.6 acres, and has modern residential development on the east, south and west.

Entering the site from Hill Farm Circle, the Dairy Building is on the east, the Granary is to the north and the Blacksmith Shop is located to the northwest (see Map III).

The Dairy Building, which is proposed for designation, faces west, orienting along the main north/south central axis of the original farm complex. A large barn originally stood south of the Dairy Building, and was connected by an annex building added in the 1890s. The ice storage building was located adjacent to the ice room on the north side of the Dairy (see Map IV).

The Granary and Root Cellar Building is located at the north end of the main north/south central axis of the original farm complex. The Granary, completed by October, 1884, is a rectangular wood frame building approximately 40' x 60'. It was constructed on an embankment, raised to provide a root cellar for crop storage, and to provide for ease in unloading products from the drive-through alley in the building.³

The Blacksmith Shop is a one-story, rectangular brick masonry building approximately 24' by 64'. The building's main door orients south toward the farm complex and provides entry into the machine shop end of the building. The north portion of the building contained the blacksmith's shop and was originally entered by doors on the east and west facades.⁴ The Blacksmith Shop is currently undergoing restoration.

Dairy Building Description

The Dairy Building was constructed by some of the over 500 workers employed to erect buildings at North Oaks Farm. Payment vouchers indicated that supplies were purchased through the spring and summer of 1884, and the Dairy was completed by October.⁵

The Dairy is a rectangular one-and-one-half-story brick masonry building with a distinctive shingled hip roof with twin ventilation cupolas. The building measures 31'-8-1/2" by 47'-8-3/4", and rests on a limestone

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 7 Page 3

Dairy Building, North Oaks Farm
Ramsey County, MN

foundation. Exterior walls are of reddish brick masonry, measuring two feet thick to provide natural insulation for dairying. Brickwork is running bond with a row of headers every sixth course, a modest cornice of a corbeled band, and a dentil pattern just below the flush eave line.⁶

The west facade is punctuated with three doors and one window shaded by an open porch, and by two smaller windows outside the porch. The restored porch has a shallow-pitched roof supported by four turned posts and two engaged half posts, resting on a raised wood floor. Door and window openings have curved brick arches and stone sills. Windows are set back one brick length from the outside, an effort to keep the interior cool. The center west window and one east window are double-hung nine-over-nine-lights; other windows are double-hung six-over-six-lights. Most of the windows and doors in the building originally were tandem, with both inner and outer windows and doors to provide an insulating effect. Exterior doors are replacements, except the east double doors and the north ice room access. Most exterior double-hung wood sash have been replaced with exact replicas or original construction.⁷

The roof is clad in new cedar shingles and trimmed with ornamental metal. It has a 12-in-12-slope. The hip peaks contain two square cupolas capped by pyramidal-hipped shingle roofs reminiscent of the main building roof. Warm air inside was exhausted through chases to the cupola ventilators. Each side of the roof contains a hipped cedar shingle roof dormer with twin six-over-six double-hung windows. Restoration of the roof included new cedar shingles, repair of the dormers and reconstruction of the two ridge ventilators.⁸

The building's interior was constructed to facilitate the sanitary handling of milk products and for butter making. The main floor was divided into five rooms. The central room was used for cream separation and churning, and had two double doors on the east side, but which were soon made unusable with the placement of a large two-compartment cooling tank. The De Laval Cream Separator and butter churns were in this room, and floor anchors and bolt locations remain which indicate positions of this equipment.⁹

On the north side of the building were two cooling rooms, which took advantage of a long, closet-like ice room which extended the length between the rooms into the center of the building. Cool air grilles near the floor and ceiling drew cold air from the ice room and allowed it to circulate through these rooms. The long, narrow ice room was reached by an exterior door, allowing ice to be deposited for cooling the adjacent rooms inside. This door was conveniently located to the

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 7 Page 4

Dairy Building, North Oaks Farm
Ramsey County, MN

ice house, a separate building on the north side of the dairy building.¹⁰

On the south side of the building, beyond the center separating and churning room, was the southeast utility room which held the steam engine and provided access to the boiler house which provided the steam power for the engine. Anchors, bolts and accessories remain in the southeast room to indicate the locations for engines and motors. The southwest room provided access to the office by a stairway which led to the second story.¹¹

The interior was finished with materials and techniques that would ensure sanitary handling of dairy products. The walls were finished with painted plaster, and the floors were poured concrete finished with marble pavers in milk production spaces. Double layer windows and doors provided insulation and kept the building interior cool. Two-foot thick walls, as well as windows set back, also contributed to the insulating effect for the building.¹²

Dairy equipment was removed from the building in the 1940s, and the ice house on the north side was taken down in the 1950s. The east wall was stuccoed in the 1950s as well. The barn south of the Dairy was removed in ca. 1967-68, leaving the annex building on the south side of the Dairy. This annex was used for storage by the North Oaks Home Owner's Association. In 1990, the annex was removed and the south wall of the Dairy stuccoed after the buildings had been acquired by the Hill Farm Historical Society. The Society completed restoration work between 1992 and 1995, including reroofing, cupola reconstruction, porch reconstruction, window sash and door replacement, and masonry pointing.¹³

Building Types: The Dairy Building

The creamery business was not well established in Minnesota when Hill built his dairy building. In the early 1880s, the dairy business was in its infancy, and most butter was still produced by farmers' wives with little consistency of product. The advent of a separate sanitary building for handling dairy products on a farm was a relatively new phenomenon. Vermont farmers had developed a dairy industry in the late 1840s as an answer to the declining sheep industry. But even there, with dairying somewhat established, the business was seasonal and few specific buildings to handle dairy products were constructed until the 1870s when icehouses first came into use for storing milk. In 1875, the annual report of the Vermont Board of Agriculture encouraged building of dairy houses attached to barns for milk storage. At that time, however, most butter making was done in a room of the farmhouse, with cooling in the farmhouse cellar rather than a separate location.¹⁴

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetSection number 7 Page 5Dairy Building, North Oaks Farm
Ramsey County, MN

Hill's dairy building was constructed prior to most centralized creameries, which started to develop in Minnesota communities by the 1890s.¹⁵ Although intended for use on the farm and not as a commercial operation, the dairy building is similar to a milkhouse rather than a full-fledged creamery structure of the type later built throughout the state. Given Hill's investment, however, his building is a very elaborate example of a milkhouse, and one that he wanted farmers to emulate.

An 1881 book, *Barns, Sheds and Outbuildings*, by Byron Halsted, described the nineteenth century milkhouse as a single-story, gable-roof structure constructed of wood or masonry with a stone foundation. These buildings were located either on a spring or well, or adjacent to an ice house. Buildings might contain two rooms, a milk room and a butter or churning room. Milk was cooled in pans in cooling tanks in the milk room, then transferred to the churning room where it was made into butter. By the 1920s, farmers were advised to attach the milkhouse to the main barn, but to separate it by a hallway to prevent stable odors from contaminating the milk. The milkhouse should have several windows for light and ventilation, and ventilators at the central roof ridge for additional air circulation. Farmers were told that the best milk house location was close to the main drive of the farm to facilitate loading into wagons, and later trucks, for hauling.¹⁶ Hill's dairy building was far more elaborate than the 1881 book described, even though it was built only a few years later. It exhibited characteristics more similar to the 1920s advice, with its windows, roof ventilation, and separation from the barn.

Cooperative creameries began to develop in Minnesota by the 1880s, although they were in the early stages. The heyday of creamery development was between 1890 and 1917, when as many as 640 independent creamery buildings were constructed in Minnesota. Of that total, 450 were cooperative efforts. Steve Martens has analyzed creamery buildings throughout Minnesota and classified them into four categories: the Linear Plan (1889-1895); the "Cross Gable" replacement structures (1905-1921); the "Squared-off, multi-story, industrial building (1915-1930); and the Stylistic "Special Cases."¹⁷ Although these were creamery buildings, and thus aimed at a more industrial level of production than the Hill Farm, the arrangement of the dairy building at North Oaks is most similar to the simple linear creamery plan identified by Martens. This is not unusual, given that Hill's creamery was built in the early 1880s, the same decade as the linear plan creameries identified by Martens. Like the linear creamery, the Hill Farm Dairy Building had a central separator and dairy room, with mechanical equipment on one side and the cooling rooms on the other side, adjacent to the ice house. The Hill Farm dairy building remains as an elaborate

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 7 Page 6

Dairy Building, North Oaks Farm
Ramsey County, MN

version of the farm milkhouse, foreshadowing the style of creameries which would become prominent in towns across the state as the construction of cooperative dairy buildings flourished in the decades after the 1880s.

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetDairy Building, North Oaks Farm
Ramsey County, MNSection number 8 Page 1**Statement of Significance**

The Dairy Building at North Oaks Farm is historically significant under National Register Criterion A under the agriculture area of significance, because it is a tangible link to James J. Hill's efforts to promote agricultural diversification among farmers of the Northwest. Hill believed that livestock and dairying in particular would offer additional income to wheat farmers along his Great Northern Railroad line and enable them to succeed without being entirely dependent on one-crop agriculture. The Dairy Building offered the most modern equipment and methods available in the 1880s as an example of dairying and how its products could offer significant income for farmers. Hill and his employees discussed creamery operations for groups of farmers. Although Hill supported diversification by speaking to various groups, donating animals for use of farmers along his railroad, and in a variety of other ways, few visible remainders exist which so exemplify Hill's agricultural diversification efforts as the Dairy Building.

James J. Hill's efforts to develop a creamery on his North Oaks Farm occurred in the midst of a transition in the dairy industry from a home-based, to a more mechanized operation. Unlike many of the farmers struggling to move into dairying, Hill could afford to purchase the best equipment and establish his own creamery, rather than have to rely on home equipment or the development of a local cooperative. Although modest farmers could not hope to replicate Hill's creamery on their farms, the example of his operation was a prototype that could be adapted for the centralized cooperative creameries established later.

When Hill was constructing his Dairy Building in 1884, formal agricultural education was a tentative and haphazard affair. The University of Minnesota struggled with an experimental farm, and experiment stations were still in the future. At that time, the more typical method for agricultural development and experimentation was through the agricultural publications, new associational meetings, and by the example of wealthy "gentleman farmers" who could afford the costs of experimenting with crops and livestock. Publications like the *Breeder's Gazette* paid homage to gentleman farmers such as Hill, calling them

a class which receives less credit than many of its members deserve. . . composed of men who, having accumulated or inherited wealth, have also acquired or inherited a taste for agriculture, and take pleasure in gratifying this taste by the ownership and improvement of a farm. Sneered at or ridiculed as fancy or city farmers, such men often do a good work. . . the improved stock or varieties of grains introduced by the 'city farmer' may prove of great value to the community. . . 18

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation SheetSection number 8 Page 2Dairy Building, North Oaks Farm
Ramsey County, MN

Although later academic efforts would question the work of men such as Hill, his experimentation was important in offering examples for farmers to emulate, as well as to educate farmers on better methods in a time when formal agricultural education was unorganized.

The North Oaks Farm creamery, or dairy building, was constructed and equipped in the summer of 1884. A newspaper account described the building as "a feature in which Mr. Hill takes great pride," a brick, one-and-one-half-story structure, 31 x 47 feet in size. The five-room interior boasted sanitary marble tile floors, marble slab shelves and machinery, including a De Laval Cream Separator, run by steam power. Seventy cows, half of which were Jerseys, supplied milk for the operation.¹⁹

Hill's cashbooks detailed the costs necessary to outfit the dairy. In June, Hill paid a freight charge of \$36 for marble brought from Chicago. Expenses that month also included purchases of dairy utensils including 14-quart strainer pails, 14- and 20-quart milk cans, a butter print, cream separator fitting, and in August, \$285 for a De Laval separator. Other machinery for the dairy and paint for the building were purchased in September.²⁰

Hill had purchased Shorthorns, Jerseys and polled Aberdeen-Angus for his North Oaks herd. Shorthorns were the most popular for milk cows in the early 1880s, but Jerseys were also known for producing a daily yield of 16 to 18 quarts of milk so rich it would produce 16 to 18 pounds of butter per week. The Angus were not generally considered for dairy use, but Hill intended to crossbreed them with Shorthorns as a "dual purpose" cow.²¹ By 1885 a writer commented that there was "certainly no collection of cattle in this country which strikes the beholder as at once so unique and so magnificent as Mr. Hill's herd of the Polled Angus." Hill had raised two animals that were subsequently shown at a New Orleans exhibition where they received first and second prize.²²

The creamery at Hill's farm, with its sanitary marble floors, shelves, and efficient light and ventilation was recognized as among the most extensive in the state. Accordingly, the State Dairymen's Association, a young organization founded in 1878, asked for a discussion of Hill's operations. Hill sent the dairy manager, Elizabeth Leggatt, to the meeting held at Faribault in March, 1885.²³

Among the items of most interest for the meeting attendees was the De Laval Cream Separator used at Hill's dairy. The 1877 invention of the centrifugal cream separator, along with the development of the Babcock test for butterfat, were the two most important inventions in establishing the dairy industry on a scientific basis. The centrifugal cream separator used mechanical means to separate the cream needed for

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 8 Page 3

Dairy Building, North Oaks Farm
Ramsey County, MN

butter making from the milk. Previously, a slow gravity method of separation was used, which made it impossible to get all the cream from the milk or produce a high quality cream.²⁴

Elizabeth Leggett explained how the separator worked, that the velocity of the separator caused the cream, as the lighter substance, to rise, and the milk to sink to the bottom. The Hill dairy used about 7 to 8 pounds of milk to separate about one gallon of milk per minute, set at a speed of 7000 revolutions per minute. At that rate, the creamery could separate 60 gallons an hour. Leggett felt the advantage of the separator was that it speeded up the work in getting the cream separated. The De Laval separator, however, was best used in large dairies, with a minimum of 30 to 100 cows and would not be cost efficient for smaller dairies.²⁵

Leggett also commented on the quality of butter produced, and believed that the deep setting gravity method actually produced a finer-grained butter than that produced by the separator. North Oaks Farm had received the same price for its butter, whether produced from deep setting or the separator method. Leggett sold to a regular group of customers, packaging the butter in gallon jars, or in pound or half-pound packages.²⁶

North Oaks Farm continued in the business of crossbreeding and dairying through the 1880s. The *North Dakota Farmer* (later *Northwestern Agriculturist*) contrasted Hill's efforts with the agricultural schools in 1886:

Agricultural schools have been established and sustained at large expense to the commonwealth and it is a question if there is a public institution in the whole Northwest where so diversified a field is being entered upon as that at North Oaks. . . too much praise could scarcely be meted out to an enterprise so necessary, so beneficial, and one which must give an impetus to the industry. . .²⁷

Hill's cattle herd dwindled to less than 200 head in the 1890s, but rebounded in 1897 when he began to purchase Ayrshire cattle. These dual purpose animals were popular in Vermont and Hill's native Ontario, but not in the Upper Midwest. By 1909, the farm had ninety-six head of purebred Ayrshires producing about two thousand pounds of milk daily. When he died in 1916, Hill had the finest herd of Ayrshires in the Midwest.²⁸

As with the bulls he distributed in 1883-1884, Hill gave milking Shorthorns and some Ayrshires to farmers along the Great Northern in 1914 and 1915. In the 1920s, a survey conducted by the agricultural

**United States Department of the Interior
National Park Service****National Register of Historic Places
Continuation Sheet**Section number 8 Page 4Dairy Building, North Oaks Farm
Ramsey County, MN

extension agent in Williams County, North Dakota, found that many farmers had used Hill's cattle. Despite words to the contrary from University of Minnesota dairy professor Theophilus Haecker and others, later researchers also found advantages for dual purpose cattle in the Red River Valley. A decade after Hill's death, researchers from the Minnesota Agricultural Experiment Station and the U. S. Bureau of Agricultural Economics found that livestock raising in the Red River Valley had benefited from dual purpose cows, expanding the herd sizes and production of dairy products. Dual purpose, rather than dairy cows, had been a better match for the labor requirements on grain and stock farms.²⁹

Hill's efforts to develop dual purpose cows as a way of hedging the bets of farmers along the Great Northern Railway in the 1880s was in keeping with the leadership of gentlemen farmers in a time of agricultural transition. Although farmers had fairs and farmers' institutes for learning about innovations, much leadership was supplied by those wealthy enough to experiment with new ideas, new technology and cross-breeding of stock in developing the dairy industry to supplant Minnesota's one-crop agriculture which still dominated in 1880. Hill's model creamery showed how well his purebred stock could produce dairy products; the stock itself became his method for bringing his discoveries to the farmers along his line.

By the turn of the century, the agricultural milieu had changed, with the University and its agricultural training more established. Gentlemen farmers such as Hill were challenged on their beliefs by experts. That opposition had little effect on Hill, however, who hired his own experts and continued to pursue agricultural experimentation in livestock, soils, conservation and other areas of interest. Although not always successful in his efforts, Hill continued to push his gospel of diversified agriculture to the end of his life.

James J. Hill's Dairy Building is a well-conserved example of the Empire Builder's desire to promote dairying as a means for farmers in the Northwest to diversify and improve their agricultural practices. Hill knew that the farmers must prosper for his railroads to be successful, and he led the way to diversification by his own example and popularizing his efforts in the press and at various agricultural meetings. Hill's Dairy Building remains an important early example of the beginnings of the dairy industry in the state.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 8 Page 5

Dairy Building, North Oaks Farm
Ramsey County, MN

Endnotes

- ¹Claire Strom, "James J. Hill: Empire Builder as Farmer," *Minnesota History* 54/6 (Summer 1995): 246.
- ²Carol Lacey, "Private Place, Community Profile: North Oaks," *Saint Paul Pioneer Press*, August 14, 1994, Section L.
- ³Steven Edwins, *James J. Hill North Oaks Farm Historic Structures Report* (Completed for the Hill Farm Historical Society, April, 1995), 20-22.
- ⁴Edwins, 6-7.
- ⁵Joan Brainard, Notes compiled from James J. Hill's Cashbooks, 1881-1890, James J. Hill papers, James J. Hill Reference Library; *St. Cloud Journal-Press*, October 23, 1884.
- ⁶Edwins, 35.
- ⁷Edwins, 35-36, 40.
- ⁸Edwins, 36, 40.
- ⁹Edwins, 34-37, 41.
- ¹⁰Edwins, 34, 36, 41.
- ¹¹Edwins, 35, 37.
- ¹²Edwins, 34-41.
- ¹³Edwins, 38-39.
- ¹⁴Division for Historic Preservation [Vermont], "Agricultural Resources of Vermont." National Register of Historic Places Multiple Property Documentation Form, 1991, Section E, 23-27; Section F, 78.
- ¹⁵Steve C. Martens, "Diffusion of Cooperative Creameries in Minnesota," presentation to "Breaking New Ground" symposium, March, 1993 (copy in Minnesota State Historic Preservation Office files), p. 2.
- ¹⁶Vermont Historic Preservation, Section F, 78-79.
- ¹⁷See Martens, 5-7 and floor plan maps.
- ¹⁸*Breeder's Gazette*, quoted in Howard Leigh Dickman, "James Jerome Hill and the Agricultural Development of the Northwest," (Ph.D dissertation, University of Michigan, 1977), 310.
- ¹⁹*St. Cloud Journal-Press*, October 23, 1884.
- ²⁰Brainard, Notes from J. J. Hill Cashbooks, 1884-1885; see June 4, 1884, p. 3; June 12, 1884, p. 5, and numerous entries through August, 1884; Sept. 15 and 16, 1884, p. 41.
- ²¹Dickman, 75; "Couple Cattle With Grain," *Saint Paul and Minneapolis Pioneer Press*, March 14, 1884.
- ²²"Cattle in the Northwest," *Saint Paul and Minneapolis Pioneer Press*, December 6, 1885.
- ²³Brainard, Notes, J.J. Hill Cashbooks, 1884-1885, Sept., 1884; Elizabeth Leggatt appeared on the Hill payroll in August 1884.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 8 Page 6

Dairy Building, North Oaks Farm
Ramsey County, MN

-
- ²⁴Martin J. Anderson, "The Development of the Dairy Products Industry in Minnesota," Bulletin no. 52, Minnesota Dairy and Food Department, 1913, 1-6.
- ²⁵Minnesota State Dairymen's Association, *Proceedings of the Seventh Annual Meeting of the Minnesota State Dairymen's Association* (Northfield: Heatwole & Minder, 1886), 81-82.
- ²⁶Dairymen's Association, 84-86.
- ²⁷"Live Stock. North Oaks," *The North Dakota Farmer*, April 1886.
- ²⁸"Observations at North Oaks Farm," *The Farmer*, August 1, 1909; Dickman, 89.
- ²⁹Dickman, 98-100.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 9 Page 1

Dairy Building, North Oaks Farm
Ramsey County, MN

Bibliography

- Abraham, Roland H. *Helping People Help Themselves: Agricultural Extension in Minnesota, 1879-1979*. St. Paul: Minnesota Extension Service, University of Minnesota, 1986.
- Anderson, Martin J. "The Development of the Dairy Products Industry in Minnesota." Bulletin No. 52, Minnesota Dairy and Food Department, 1913.
- Blegen, Theodore C. *Minnesota: A History of the State*. Minneapolis: University of Minnesota Press, 1975.
- Brainard, Joan. Notes compiled from James J. Hill's Cashbooks, 1881-1890. James J. Hill papers, James J. Hill Reference Library, St. Paul, MN.
- BRW, Inc. *TH 14 Corridor Study: Cultural Resources Technical Report. Volume I, Investigations and Results*. Prepared for the Minnesota Department of Transportation, St. Paul, MN, 1995.
- Dickman, Howard Leigh. "James Jerome Hill and the Agricultural Development of the Northwest." Ph.D dissertation, University of Michigan, 1977.
- Division for Historic Preservation [Vermont], "Agricultural Resources of Vermont." National Register of Historic Places Multiple Property Documentation Form, 1991.
- Edwins, Steven. *James J. Hill North Oaks Farm Historic Structures Report*. Completed for the Hill Farm Historical Society, April, 1995.
- Historic Preservation Division, State Historical Society of Wisconsin. *Cultural Resource Management in Wisconsin*. Volume II: "Agriculture." June 1986.
- Jarchow, Merrill E. *The Earth Brought Forth: A History of Minnesota Agriculture to 1885*. St. Paul: Minnesota Historical Society, 1949.
- Lass, William E. *Minnesota: A History*. New York: W. W. Norton & Company, Inc., 1977.
- Malone, Michael P. *James J. Hill: Empire Builder of the Northwest*. Norman, OK: University of Oklahoma Press, 1996.
- Martens, Steve. "Diffusion of Cooperative Creameries in Minnesota." Presentation to "Breaking New Ground" symposium, March, 1993 (copy in Minnesota State Historic Preservation Office files).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 9 Page 2

Dairy Building, North Oaks Farm
Ramsey County, MN

Martin, Albro. *James J. Hill and the Opening of the Northwest*. St. Paul: Minnesota Historical Society Press, 1991 (Borealis Book).

Minnesota State Dairymen's Association. *Proceedings of the Seventh Annual Meeting of the Minnesota State Dairymen's Association*. Northfield: Heatwole & Minder, 1886.

Murray, Stanley. "Railroads and the Agricultural Development of the Red River Valley of the North, 1870-1890." *Agricultural History* XXXI (October 1957): 57-66.

Noble, Allen G. and Wilhelm, Hubert G. H., eds. *Barns of the Midwest*. Athens: Ohio University Press, 1995.

Peterson, Garneth O. Context III, "The Influence of Agriculture on University Education in Minnesota (1862-1945)" in *Landscape Research, The University of Minnesota Preservation Plan* (Forthcoming 1996).

Robinson, Edward Van Dyke. *Early Economic Conditions and the Development of Agriculture in Minnesota*. Minneapolis: University of Minnesota Press, 1915.

Scott, Roy V. "Early Agricultural Education in Minnesota: The Institute Phase." *Agricultural History* XXXVII, No. 1 (January 1963): 21-34.

Scott, Roy V. "Pioneering in Agricultural Education: Oren C. Gregg and Farmers' Institutes." *Minnesota History* (March 1960): 19-29.

Strom, Claire. "James J. Hill: Empire Builder as Farmer." *Minnesota History* 54/6 (Summer 1995): 242-253.

Strom, Claire. "James J. Hill: Empire Builder and Farmer." Unpublished lecture, presented at James J. Hill House, 1994.

Newspaper Articles:

"Couple Cattle with Grain." *Saint Paul and Minneapolis Pioneer Press*, March 14, 1884.

"Model Minnesota Stock Farms." *St. Cloud Journal-Press*, October 23, 1884.

"Cattle in the Northwest." *Saint Paul and Minneapolis Pioneer Press*, December 6, 1885.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Dairy Building, North Oaks Farm
Ramsey County, MN

Section number 9 Page 3

"Live Stock. North Oaks." *The North Dakota Farmer* (later *Northwestern Agriculturist*), April 1886.

"His Country Place. An Hour at North Oaks." *The Saint Paul Pioneer Press*, June 9, 1893.

"Beautiful North Oaks, Mr. J. J. Hill's Dairy and Stock Farm." *The Saint Paul Daily Globe*, May 10, 1896.

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Section number 10 Page 1

Dairy Building, North Oaks Farm
Ramsey County, MN

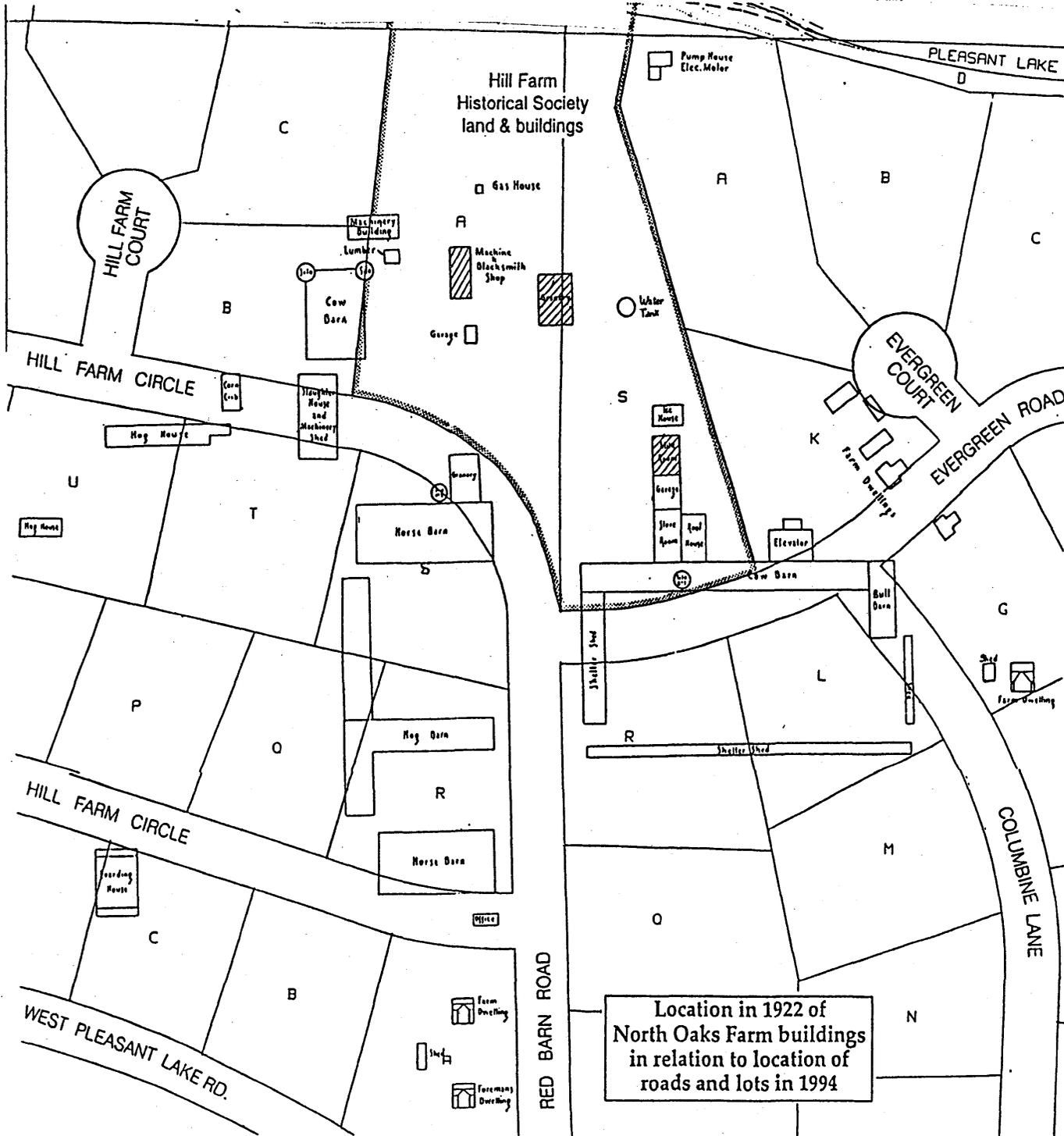
Verbal Boundary Description

The boundary of the Dairy Building, North Oaks Farm, is shown as the solid black line on the accompanying map entitled, "Dairy Building, North Oaks Farm, Ramsey County, Minnesota, January, 1997."

Boundary Justification

The boundary for the Dairy Building at North Oaks Farm is established by the Hill Farm Historical Society's property line on the east, south, and west, and a line from the site's entrance gate which runs northeasterly along the farm service road (located approximately in the center of the parcel) to the east property line. Property boundaries in North Oaks extend to the center of adjacent streets because all roads are private and used by easements granted by the North Oaks Company.

The Dairy Building boundary includes only the land surrounding the building. This includes only a portion of the 5.6 acre parcel which is all that remains from the original 5,000+ acre farm with its some 34 buildings. Since the 1950s most of the farm has been developed into the residential community of North Oaks. The Dairy Building is proposed for nomination because it is the most significant of the three remaining buildings (granary and blacksmith) and because it represents James J. Hill's efforts at agricultural diversification.

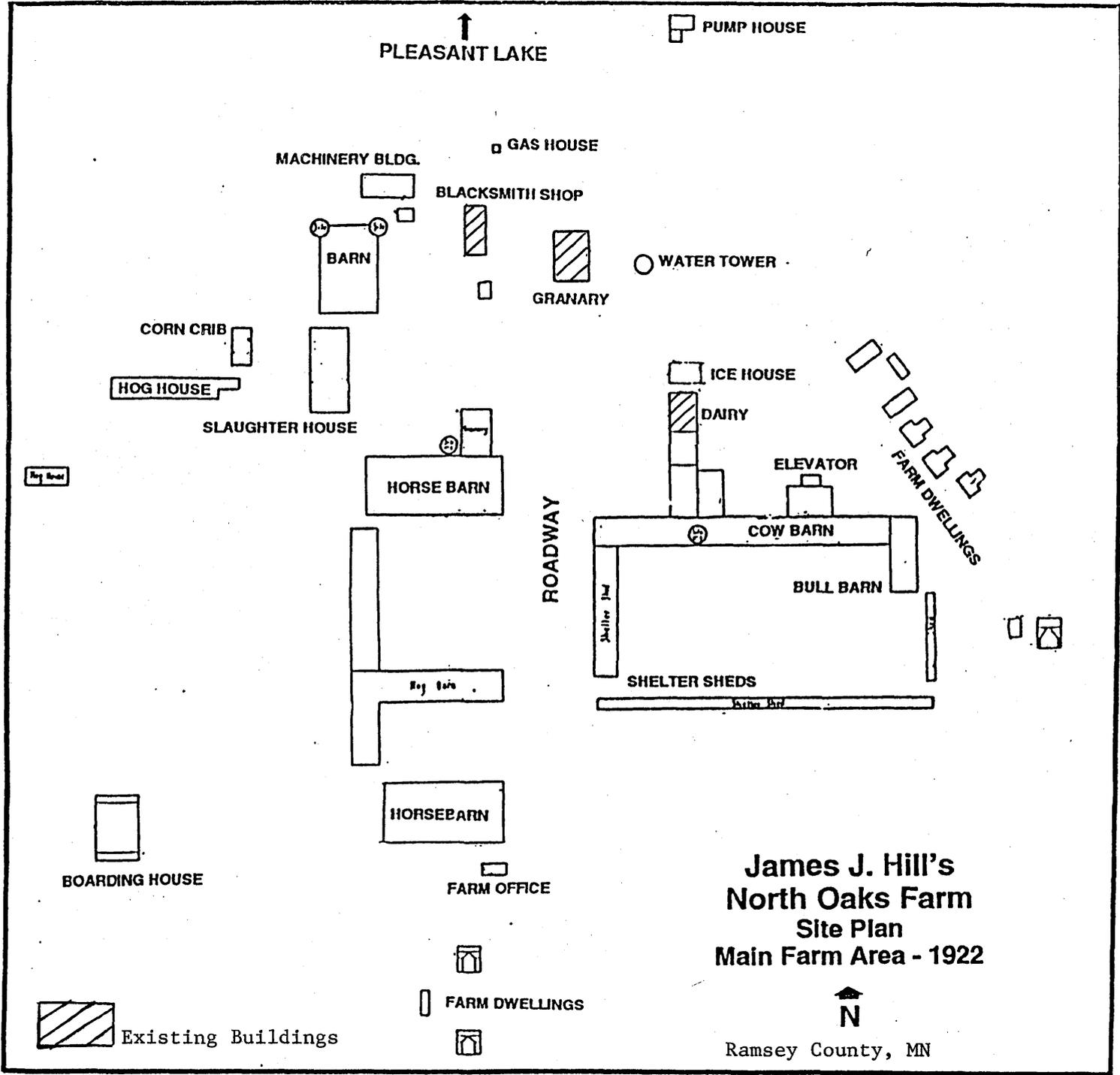


Location in 1922 of
North Oaks Farm buildings
in relation to location of
roads and lots in 1994

 Existing Buildings



North Oaks Farm
Ramsey County, MN



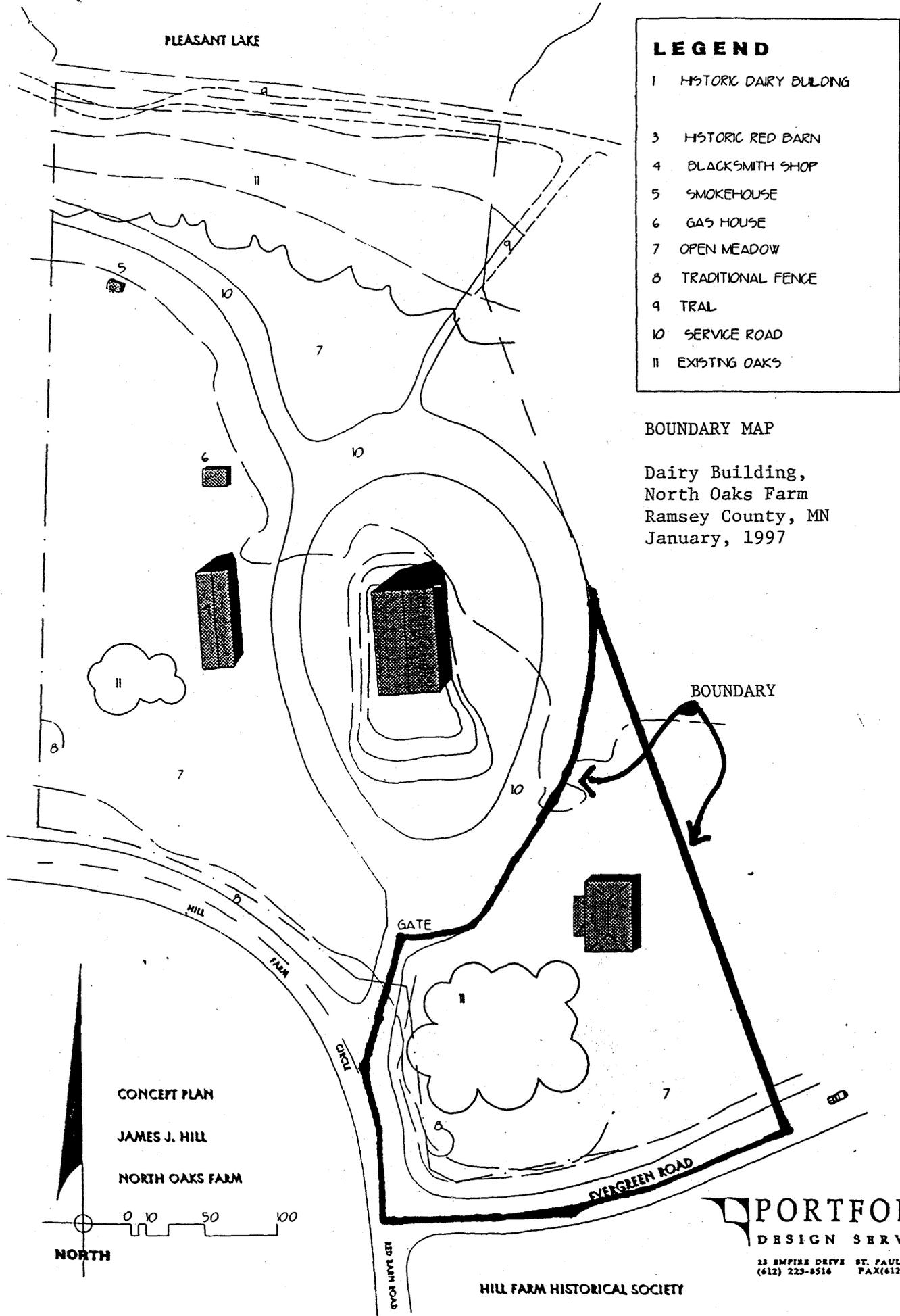
PLEASANT LAKE

LEGEND

- 1 HISTORIC DAIRY BUILDING
- 3 HISTORIC RED BARN
- 4 BLACKSMITH SHOP
- 5 SMOKEHOUSE
- 6 GAS HOUSE
- 7 OPEN MEADOW
- 8 TRADITIONAL FENCE
- 9 TRAIL
- 10 SERVICE ROAD
- 11 EXISTING OAKS

BOUNDARY MAP

Dairy Building,
North Oaks Farm
Ramsey County, MN
January, 1997



CONCEPT PLAN
JAMES J. HILL
NORTH OAKS FARM

NORTH

0 10 50 100

PORTFOLIO
DESIGN SERVICES

23 EMPIRE DRIVE ST. PAUL, MN 55109
(612) 223-8516 FAX(612) 223-8517

HILL FARM HISTORICAL SOCIETY