CULTURAL LANDSCAPE REPORT

Chellberg Farm

Indiana Dunes National Lakeshore

Charles L., OttoMina, Naomi and Ruth Chellberg in the front yard with the lane and fields in the background, 1910.

March 2000

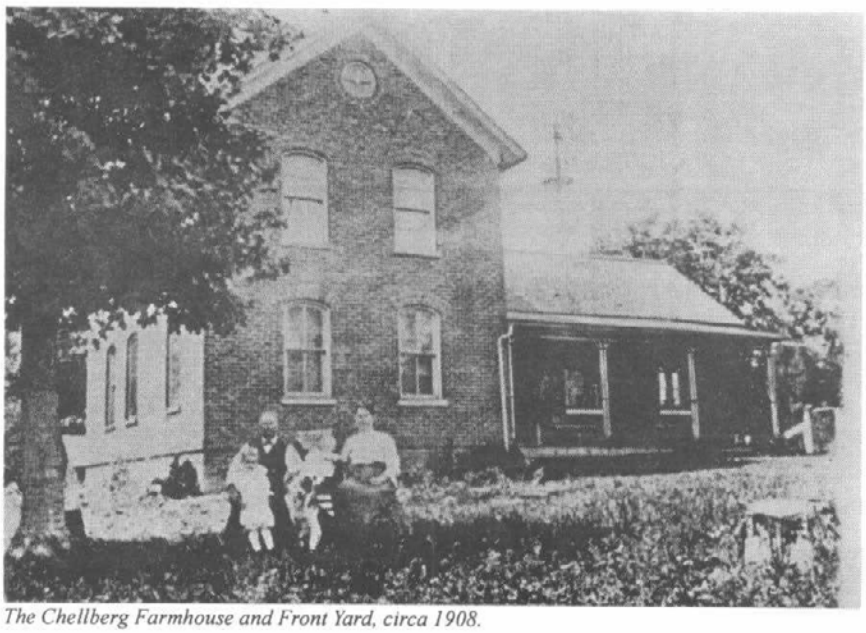
QUINN EVANS | ARCHITECTS

219 1/2 North Main Street
Ann Arbor, Michigan 48104
(734) 663-5888

CULTURAL LANDSCAPE REPORT

Chellberg Farm

Indiana Dunes National Lakeshore



The Chellberg Farmhouse and Front Yard, circa 1908.

May 2000

QE|A Project #98127.00

QUINN EVANS | ARCHITECTS
219 1/2 North Main Street
Ann Arbor, Michigan 48104
(734) 663-5888

Recommended:

Chief, Cultural Resources Division — Date: 3 Feb 00

Concurred:

Superintendent, Indiana Dunes National Lakeshore — Date: 3/22/00

Approved:

Regional Director, Midwest Region — Date: 3/4/00

Table of Contents

List of Figures

Chapter I

Chapter II

Chapter III

Chapter V

Chapter VI

Chapter VII

Chapter I:

Introduction

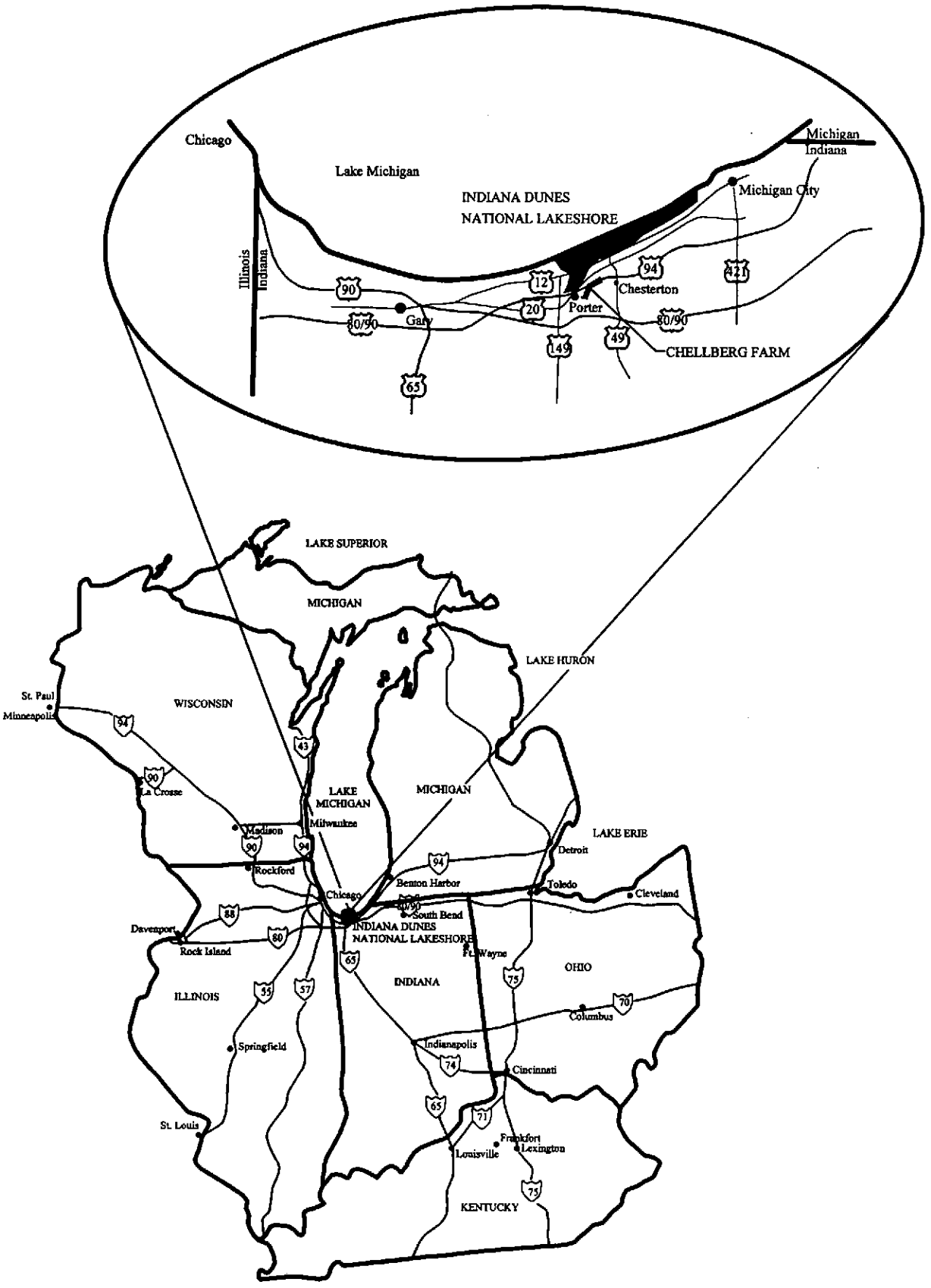


Figure I-1: Location of Indiana Dunes National Lakeshore

Chapter I: Introduction and Administrative Data

Scope of the Report

The purpose of this *Cultural Landscape Report* is to guide treatment and use of the Chellberg Farm historic landscape at Indiana Dunes National Lakeshore. The report is meant to provide park managers with a comprehensive understanding of the physical evolution of the farm landscape, and guidance for management of the site. The Midwest Regional Office of the National Park Service located in Omaha, Nebraska funded this project. The report was prepared by QUINN EVANS / ARCHITECTS, a consulting firm specializing in the preservation of historic architecture and historic landscapes. The report is organized in the following manner:

Chapter I: Introduction
Documents the scope of the report, location and description of the property involved, methodology used, and identifies the project consultant.

Chapter II: Site History
Documents and analyzes historic information as it relates to the chronological development of the site. This section identifies the major periods of development and describes the evolution of the physical landscape. A "Historic Period Plan" for each development phase illustrates the known physical characteristics and features associated with each period. A "Summary of Landscape Characteristics" is provided for each major period describing the conditions of each of the *component landscapes* during that phase. A description of each of the component landscapes associated with the Chellberg Farm historic landscape is provided in the Methodology section of this chapter.

Chapter III: Existing Conditions
Describes and illustrates the existing conditions of the landscape features associated with the site. An overview of general landscape characteristics includes environmental setting, land use, spatial organization, topography, vegetation, circulation, structures, small-scale features, and utilities.

Chapter IV: Management Issues
Describes and refines the management issues and concerns to be addressed by the treatment recommendations.

Chapter V: Analysis
Evaluates the historical integrity of the character defining features associated with the historic landscape. Provides a "Statement of Significance" and defines the "Period of Significance" for the Chellberg Farm.

Chapter VI: Treatment Recommendations
Provides recommendations for the treatment of the historic landscape and guidelines for applying the treatments.

Chapter VII: Implementation Guidelines
Outlines general recommendations for phasing recommended treatments and provides "Class C" cost estimates.

Historical Overview

The Chellberg Farm is a part of Indiana Dunes National Lakeshore and it is included in a Swedish Farming District that is potentially eligible for listing in the National Register of Historic Places.[1] The Chellberg Farm is historically significant because it is one of the few remaining intact representatives of a unique Swedish immigrant community in northwestern Indiana. Members of the community established churches, a school, and organized social gatherings that emphasized their ethnic heritage. The community thrived for several decades keeping Swedish customs and language integrated in the day-to-day activities of its members.[2] The Chellberg Farm is among the best preserved physical reminders of the ethnic heritage of the area's Swedish immigrant farming community. As a part of Indiana Dunes National Lakeshore the farm is accessible to the public and protected from development.

The United States Congress established Indiana Dunes National Lakeshore in November 1966. The enabling legislation directs the Secretary of the Interior to

> "...Preserve for the educational, inspirational, and recreational use of the public certain portions of Indiana Dunes and other areas of scenic, scientific, and historic interest and recreational value in the State of Indiana."[3]

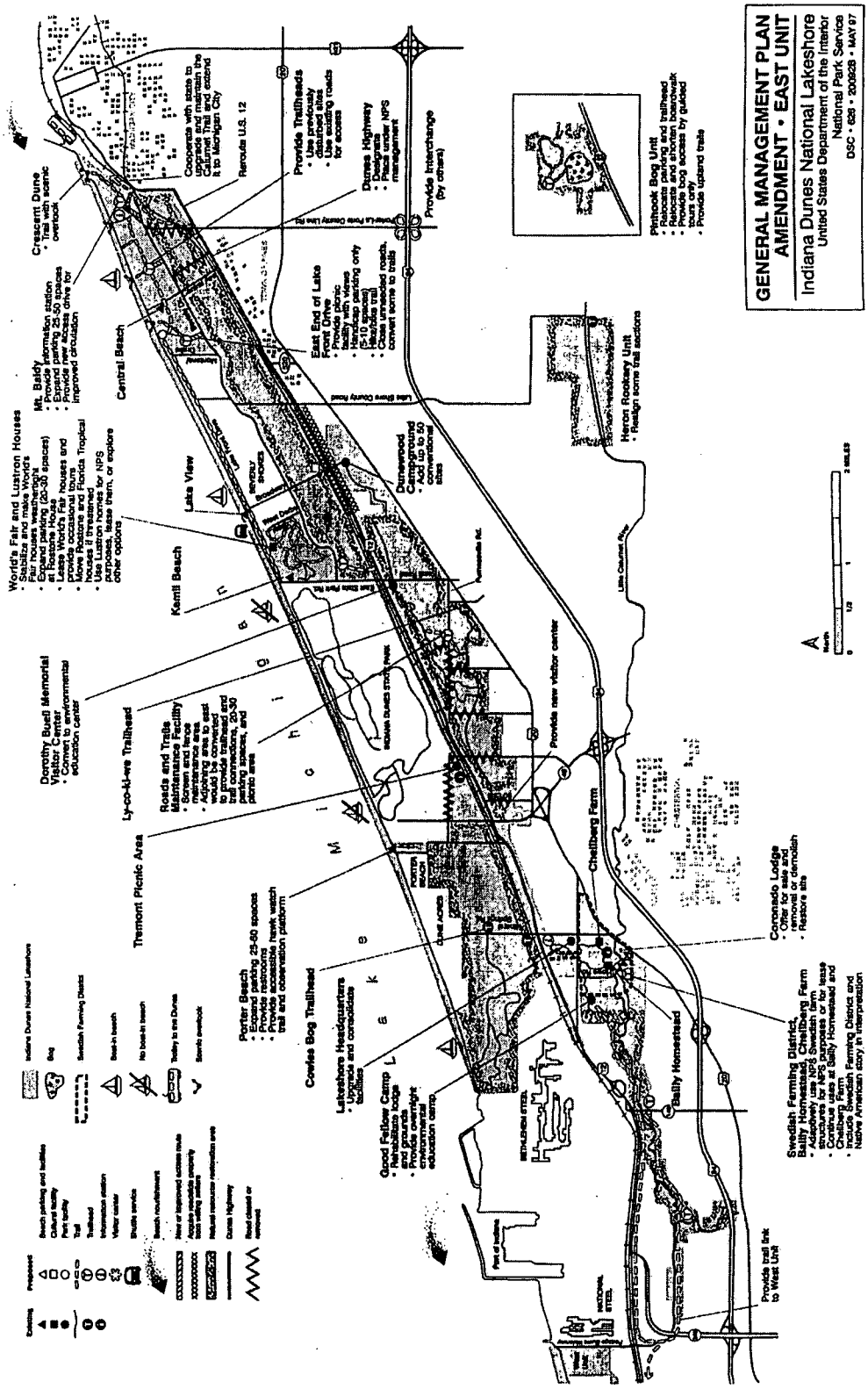


Figure I-2: Indiana Dunes National Lakeshore East Unit General Management Plan

The 1997 *General Management Plan (GMP)* defines the Lakeshore's primary purposes:

> to "...Preserve, maintain, and restore the integrity of the natural resources and processes and protect cultural resource values at the lakeshore; provide educational, inspirational, and recreational opportunities compatible with preserving natural and cultural resource values; inspire in the public an appreciation of and a sense of personal stewardship for lakeshore resources; and interpret, encourage, and conduct scientific research in the tradition of pioneer investigators."[4]

The Lakeshore is composed of several noncontiguous units located along the south shore of Lake Michigan between the urban centers of Gary, Indiana, and Michigan City, Indiana. The Lakeshore includes a rich diversity of natural resources including several notable areas of exceptional biological diversity. It also contains a number of significant cultural resources among which are the Bailly Homestead and cemetery and the Chellberg Farm.

Figure I-1 shows the location of Indiana Dunes National Lakeshore, the Chellberg Farm, and major highways. **Figure I-2** is an overview of the General Management Plan for the East Unit of the Lakeshore. The Chellberg Farm is located within the Lakeshore's East Unit in Porter County, approximately 40 miles east of Chicago, Illinois and about 40 miles west of South Bend, Indiana. The farm encompasses 79.6 acres of the original 80-acre tract. The property is currently managed by the National Park Service as a working farm. The site is used extensively for interpretive and educational programs. Historic resources associated with the farm include a ca. 1885 two-story brick farmhouse, ca.1880 gable barn, several other agricultural buildings, structures, and landscape features. In addition, the farm includes numerous non-historic elements. The National Park Service has constructed many of the non-historic elements in order to facilitate the interpretive programs of the working farm.

Methodology

Preparation of this report included an in-depth investigation of primary and secondary sources. The most useful primary sources included historic photographs, *U.S. Census of Agriculture Manuscripts*, land transfer documents, mortgage records, and several oral history interviews. The report was greatly enhanced by the availability of transcripts for several oral history interviews that were not accessible at the onset of the project. During Phase I of the project, Amanda J. Holmes repaired and transcribed numerous damaged tapes making the richly detailed information contained within them available for use in this project. The most useful secondary sources consulted included; *The Bailly Area of Porter County, Indiana: The Final Report of a Geohistorical Study Undertaken on behalf of the Indiana Dunes National Lakeshore*, prepared by Sarah Gibbard Cook and Robert S. Jackson, *A Historical Study of the Indiana Dunes National Lake Shore*, prepared by M. D. Marciniak, *The Ethnic Heritage of the Chellberg Farm and the Swedish Baillytown Region*, by David R. McMahon, *and The Chellberg Family, the Chellberg Farm*, by Martha Miller.

Evaluation of the integrity of the historic landscape characteristics was made using procedures outlined in *National Register Bulletin 30: Guidelines for Evaluating and Documenting Rural Historic Landscapes.*

Throughout this report, the historic landscape at the Chellberg Farm is discussed as a *cultural landscape* that is made up of several *component landscapes, character-defining features*, and *small-scale features.*

Cultural Landscape – a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes.[5] The Chellberg Farm is a significant historic vernacular landscape and an ethnographic landscape as well.

Historic Vernacular Landscape: a landscape whose physical , biological, and cultural features

reflect the customs and everyday lives of people.

- Ethnographic Landscape: a landscape containing a variety of natural and cultural resources that associated people define as heritage resources.

Component Landscape – A discrete portion of the landscape which can be further subdivided into individual features. The landscape unit may contribute to the significance of a National Register property, such as a farmstead in a rural historic district. In some cases, the landscape unit may be individually eligible for the National Register of Historic Places, such as a rose garden in a large urban park.

The Chellberg Farm Historic Landscape is made up of eight component landscapes including:

1. *The Buildings* -- extant buildings include: the barn, farmhouse, chicken house, granary, windmill, and sugar camp. The silo foundation and reconstructed water house are also contributing structures.

2. *The Yard* -- the utilitarian space between the barn and farmhouse.

3. *The Front Yard* -- the domestic space adjacent to the farmhouse that included a fence, lawn, and ornamental plants.

4. *The Orchard* -- a one-acre orchard that included apple, pear, cherry, peach, and crabapple trees.

5. *The Garden* -- a large rectangular vegetable garden where food was grown for the family.

6. *The Lane* -- a treelined entrance road to the farm.

7. *The Fields* -- open areas that were cultivated or used for pasture.

8. *The Ravine* -- a wooded area with steeply sloping terrain.

The locations of the component landsapes are illustrated in **Figure I-3.**

Character-defining feature – a prominent or distinctive aspect, quality, or characteristic of a cultural landscape that contributes significantly to its physical character. Land use patterns, vegetation, furnishings, decorative details and materials may be such features.[6]

Small-scale feature – The smallest element(s) of a landscape that contributes to the significance and that can be the subject of a treatment intervention. Examples include a woodlot, hedge, lawn, specimen plant, allee, house, meadow or open field, fence, wall, earthwork, pond or pool, bollard, orchard, or agricultural terrace.

Historic Character – the sum of all visual aspects, features, materials, and spaces associated with a cultural landscape's history, i.e. the original configuration together with losses and later changes. These qualities are often referred to as character-defining.[7]

Endnotes

1 While neither the farm nor the District are listed in the National Register, documentation within this report indicates that the property is eligible. A multiple property nomination is being prepared for the district by the Lakeshore historians.

2 McMahon, David R., "*The Ethnic Heritage of the Chellberg Farm and the Swedish Baillytown Region,*" (located in Historian's file at Indiana Dunes National Lakeshore) p. 5.

3 United States Department of the Interior, National Park Service, General Management Plan, Indiana Dunes National Lakeshore, August 1997, p.3.

4 Ibid, p.4

5 United States Department of the Interior, National Park Service, Cultural Resource Stewardship and Partnerships, Heritage Preservation Services, Historic Landscape Initiative, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* (Washington, D.C., 1996) p.4.

6 Ibid.

7 Ibid.

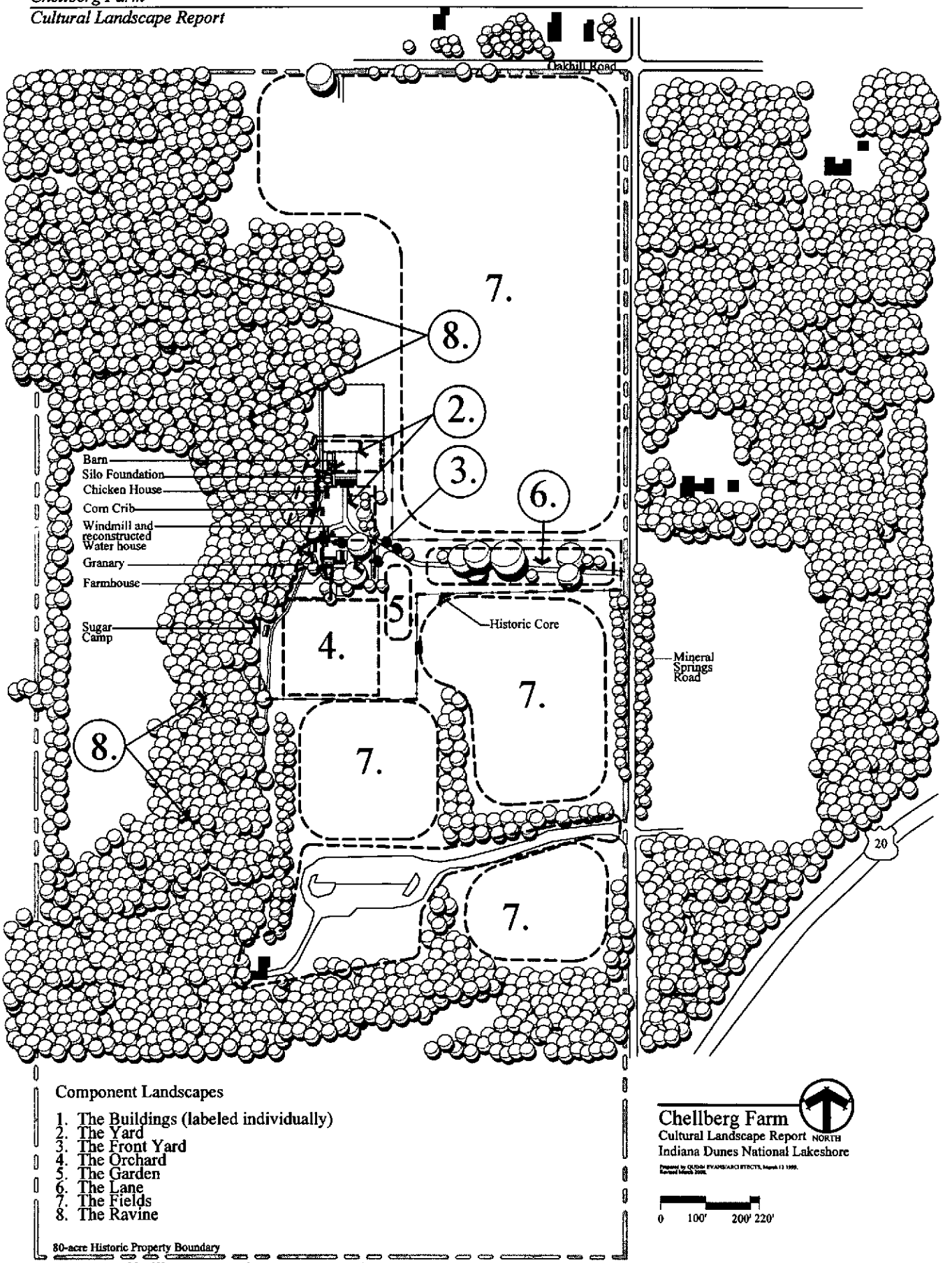


Figure I-3: Chellberg Farm Component Landscapes

Chapter II:

Site History

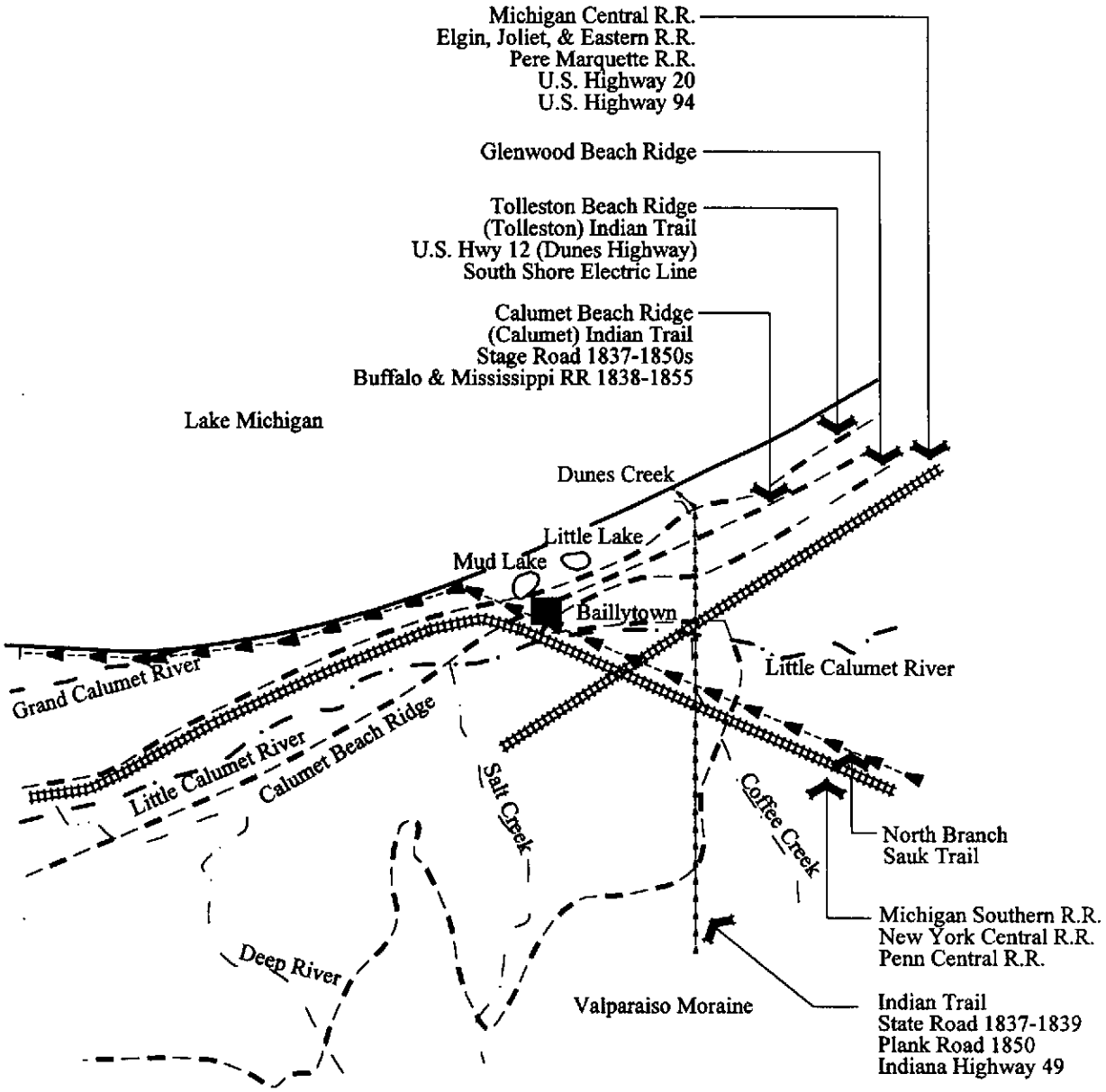


Figure II-1: The Calumet Area Beach Ridges and Early Transportation Routes. Compiled from Cook and Jackson, 1978, Figures 2 and 4.

Chapter II: Site History

This chapter presents a chronological history of the Chellberg Farm landscape, identifying each of the major periods of development and describing the evolution of the phsyical landscape. The discussion of each phase includes a narrative of the major events during the period, a historic period plan that illustrates the elements present at the site, and a summary of landscape characteristics. The summary of landscape characteristics includes a discussion of the conditions of each of the component landscapes during the period.

PRE-SETTLEMENT LANDSCAPE

(Pre 1831)

The Chellberg Farm is located in the northwestern corner of the state of Indiana in the Calumet Region. The region encompasses an area that includes portions of Cook County, Illinois and Lake and Porter Counties in Indiana. The Southern edge of the region is indicated by the Little Calumet River and the northern edge is formed by Lake Michigan. Historically the region was bound by extensive wetlands to the south and east, Lake Michigan to the North, and Chicago, Illinois to the West. The extensive wetlands presented barriers to early travelers limiting access from the main directions of travel into the region. The Black Swamp of northeastern Ohio limited access from the East, and the Kankakee Marsh made passage from the South difficult.[1] These natural environmental barriers inhibited European settlement in the region until the 1820s or 1830s. Within the Calumet Region, the Bailly Area is named after the earliest recorded settler of European descent in northwestern Indiana, Joseph Bailly. Bailly arrived in the area between 1822 and the early 1830s. Although Bailly platted an early town in the area in the 1830s, the development was not successful, and it was not until the railroads came to the area in the 1850s that settlement was widely established. The Chellberg Farm lies within this area, adjacent to the Bailly homestead site.

Land Formation

The topography of the region was formed through the action of prehistoric glaciers. The Valparaiso Moraine is the largest glacial landform in northwestern Indiana. As glacial ice withdrew it formed a subcontinental divide separating the Kankakee Valley and the Lake Michigan basin. The land on the northern side of the Valparaiso Moraine is the Calumet Region. Water from the southern slopes of the moraine flowed to the Gulf of Mexico beginning at the Kankakee River which flows into the Illinois River, and then the Mississippi. Water from its northern slope flowed into the Little Calumet River, to Lake Michigan, through the Straits of Mackinac, Lake Huron, the Niagara and St. Lawrence Rivers, into the Atlantic.[2]

As the glacier retreated, a large lake was left between the Valparaiso Moraine and the icecap. Each time the retreating icecap paused, the lake was redefined at a successively lower level. The slope of the Valparaiso Moraine served as the shore of the lake and three successive "beaches" were formed. These beaches remain extant as ridges in the landscape of the Bailly area. The ridges illustrated in **Figure II-1** are the present Lake Michigan beach and dunes (farthest north), Tolleston Beach Ridge below that, Calumet Beach Ridge in the middle, and Glenwood Beach Ridge farthest south. Between the ridges were shallow valleys that collected water and formed ponds, marshes, swamps and slow moving rivers. These wet areas created great barriers for travel through the area. Since the beach ridges were the most easily traversed terrain in the area, they became the transportation routes. The Calumet Beach Ridge is the longest of the three and has had the greatest impact on human activities in the area. [3]

Native American Activities and Early Transportation Routes

The Calumet Beach Trail followed the Calumet Beach Ridge and passed north of the Bailly Homestead. A second trail followed the same route from the east as far west as Baillytown and then crossed the Baillytown Sag and continued westward on the Tolleston Beach Ridge. Along Lake Michigan one trail followed the beach and a smaller trail ran between the Great Marsh and the sand hills.

The Kankakee Marsh placed severe restrictions on access to the Calumet Region from the south. Long-distance north-south travelers bypassed the area, avoiding the difficulties involved in crossing the marshland. The north-south trails within Porter County were local links that connected to major east-west routes. An example is a branch of the Sauk Trail that passed through the area. The Dakota-Wisconsin branch of the Sauk Trail was an early route between Chicago and Detroit used by both Indians and settlers

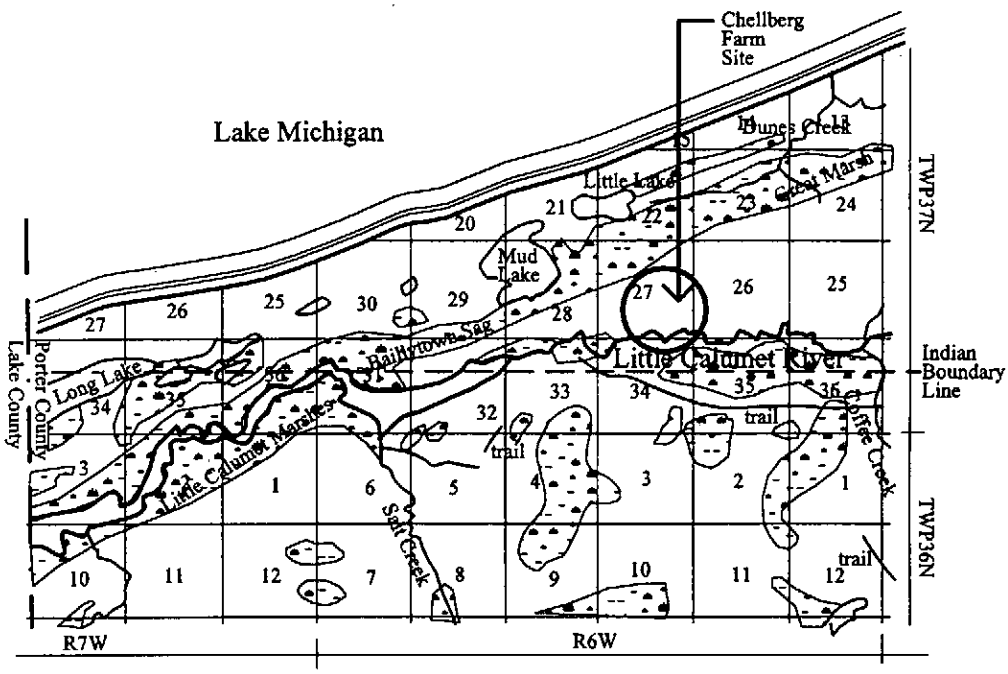


Figure II-2: Rivers, Lakes, and Wetlands in the area. The Bailly Homestead site is circled. (Revised from Cook and Jackson, 1978, Figure 3)

of European descent. In Indiana the main Sauk Trail crossed Porter County well South of the Bailly area. It followed the Valparaiso Moraine from what is now South Bend to Valparaiso then north to Chesterton and Tremont, linking the Sauk Trail with the Calumet Beach Trail. The north branch of the Sauk left the main trail at Door Prairie in LaPorte County. It then crossed the Little Calumet River at what was to become the Bailly homestead site. It then continued through the Baillytown Sag and the sand hills to the Lake Michigan beach.[4] Evidence indicates there were Indian campgrounds located on the southwestern bank of the Little Calumet River about one-quarter of a mile southwest of the Bailly Homestead, however, it is unclear if any native campgrounds were present contemporaneous with Bailly's occupation.[5]

The earliest European-American travel through the area made use of the beach trail along the southern shore of Lake Michigan. The beach was clear of trees and brush, making wagon passage possible. In addition, the lakeshore provided a definite boundary and guarantee against getting lost. When Lieutenant Swearingen traveled from Detroit to the site he would establish as Fort Dearborn in 1803 (Fort Dearborn would eventually become Chicago), he followed the lakeshore. William Johnson followed the same route in 1809.[6] Travelers made this trip by foot or private wagon and had to sleep on the beach or in the shelter of the dunes. Mosquitoes made nights uncomfortable and storms on the lake made travel dangerous. "On calm days in winter the hard beach offered a firm road surface, but in dry summer horses had trouble walking on the loose sand." Travelers switched to inland routes when they became available.[7]

EARLY SETTLEMENT, 1831-1869

Settlement in the Calumet Region

Early settlement in the area began with the arrival of Joseph Bailly, a French-Canadian fur trader. Bailly is the earliest recorded settler of European descent in northwestern Indiana. He and Marie, his wife, established their homestead on the banks of the Little Calumet River. While it is believed that they arrived in the area in 1822, records date only to the early 1830s.[8] When the Baillys arrived in the area the indigenous Pottawatomi tribe owned the land in northwestern Indiana. In 1826 and 1832 the United

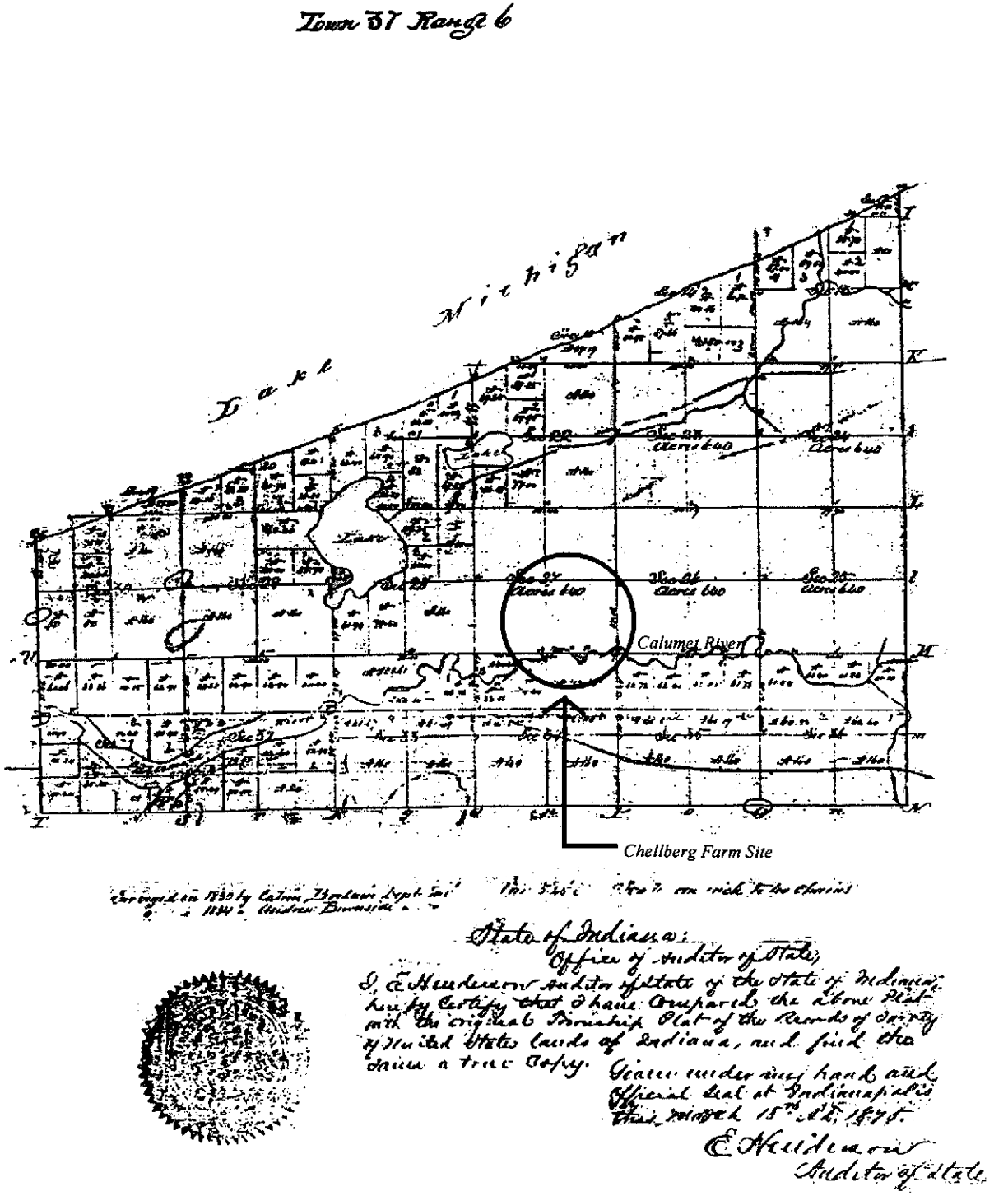


Figure II-3: First Survey of the area, 1830-1834. The Bailly Homestead site (circled) is in Section 27.

States government purchased the land from the Pottawatomi. Bailly obtained title to property that included the land that would later become the Chellberg farm from the United States government on 6 September 1831. According to granddaughter Frances Howe, Bailly had a peach and apple orchard and later his son-in-law, Joel Wicker, added cherries, plums, mulberries.[9]

Figure II-3 shows the first General Land Office survey of the area, from 1830/1834. The Bailly Homestead was located in Section 27 (circled). Early landowners purchased land either as homesteaders, or as real estate developers who bought large parcels, platted towns, and sold lots. In the 1830's three inland towns were platted in the Bailly area. Each of these towns was located along the Little Calumet River. Waverly was established in 1834 only to be was destroyed by a forest fire in 1838. Manchester was platted in 1837, a few lots were sold, and then it faded out of existence. Joseph Bailly laid out the "Town of Bailly" (Baillytown) and it was platted by the LaPorte County recorder, on 10 December 1834.[10] **Figure II-4** shows the plat of the town of Bailly. The town was located slightly north of the river "where the stage road along the north branch of the Sauk Trail crossed the Calumet Beach Ridge Road in the southeastern quarter of Section 28." A few lots were sold in 1835 before Bailly's death, which ended the development of the town. Although the town was never developed its name has survived. Bailly's son-in-law, Joel Wicker, was ultimately successful in developing in the area. In 1836 he received some of the Bailly property from Bailly's estate. Wicker established a sawmill and encouraged laborers to move to the area and settle.[11]

The first Swedish immigrants came to the area in the 1840s. They were laborers who came from Chicago and cut trees for Joel Wicker's sawmill. The earliest arrivals lived in shelters built from the refuse resulting from squaring the logs at the mill, or slabs. The town included the sawmill, a store, and a few houses. As they accumulated enough cash, the immigrants purchased land to establish their own homesteads. Eventually, circa 1859, the Swedish immigrants purchased Wicker's store for use as a church. By the mid-1800s the region consisted of a rural area in which enclaves of settlement were beginning to appear. Many settlers survived through a combination of hunting and farming. While the small family farms were not necessarily specialized, orchards were prevalent.[12]

There were still less than 100 inhabitants within the Little Calumet area in 1850 when the state of Indiana received title to swamplands within its borders from the Federal Government. The state surveyed and drained the wetlands in order to make them more appealing for settlement and development. The land was then sold to raise funds for schools.[13]

The combination of newly developable land and the arrival of the railroads in 1850 spurred a new phase of settlement in the Bailly area. Between 1850 and 1900 several railroad lines provided access to Chicago. Railroad construction created opportunities for new settlers by providing ample work for laborers and the means for new arrivals to accumulate cash to be used to purchase land. This opportunity, coupled with recruitment efforts by at least one railroad precipitated the establishment of the Swedish-American community in the Bailly area.

The Illinois Central Railroad began the first organized recruitment of Swedish immigrants to the area by sending a Swedish-American agent to Sweden in the mid 1850s.[14] This must have been a lucrative endeavor, as recruitment agents became a popular method to attract new labor to remote railroad construction sites. Legend indicates that Joel Wicker used an agent, an earlier Swedish immigrant named Jonas Asp. Recent immigrants also encouraged their friends and families to join them.[15]

Economic, social, and religious factors contributed towards two periods of massive Swedish emigration. In the United States the onset of Swedish immigration was marked by the founding of the community of New Sweden in 1638. Established by a Swedish mercantile company, New Sweden occupied the present-day site of Wilmington, Delaware. In the 1840s Swedish immigrants included skilled craftsmen and landed farmers who had access to information about America and the necessary funds to make the journey. These individuals sought to escape religious repression in Sweden, and were drawn by America's appealing labor market. In the 1860s mass emigration of Sweden began in earnest. This was brought about by a combination of several events. Prior to 1860, Sweden experienced a prolonged population boom in the rural agricultural population. As the rural population was exploding, land reforms left many people landless and unemployed. A severe countrywide famine occurred from 1867 until 1869 and mass

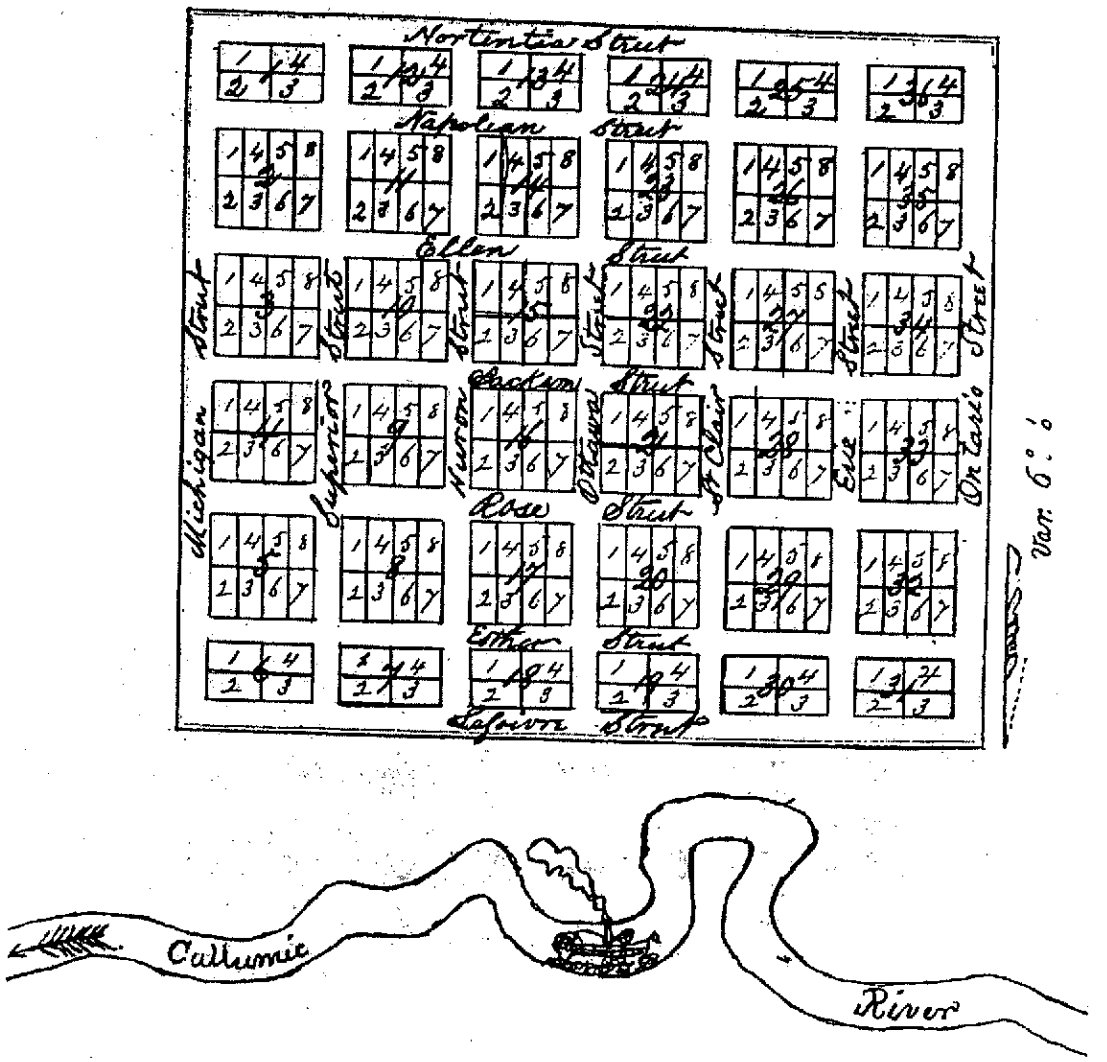
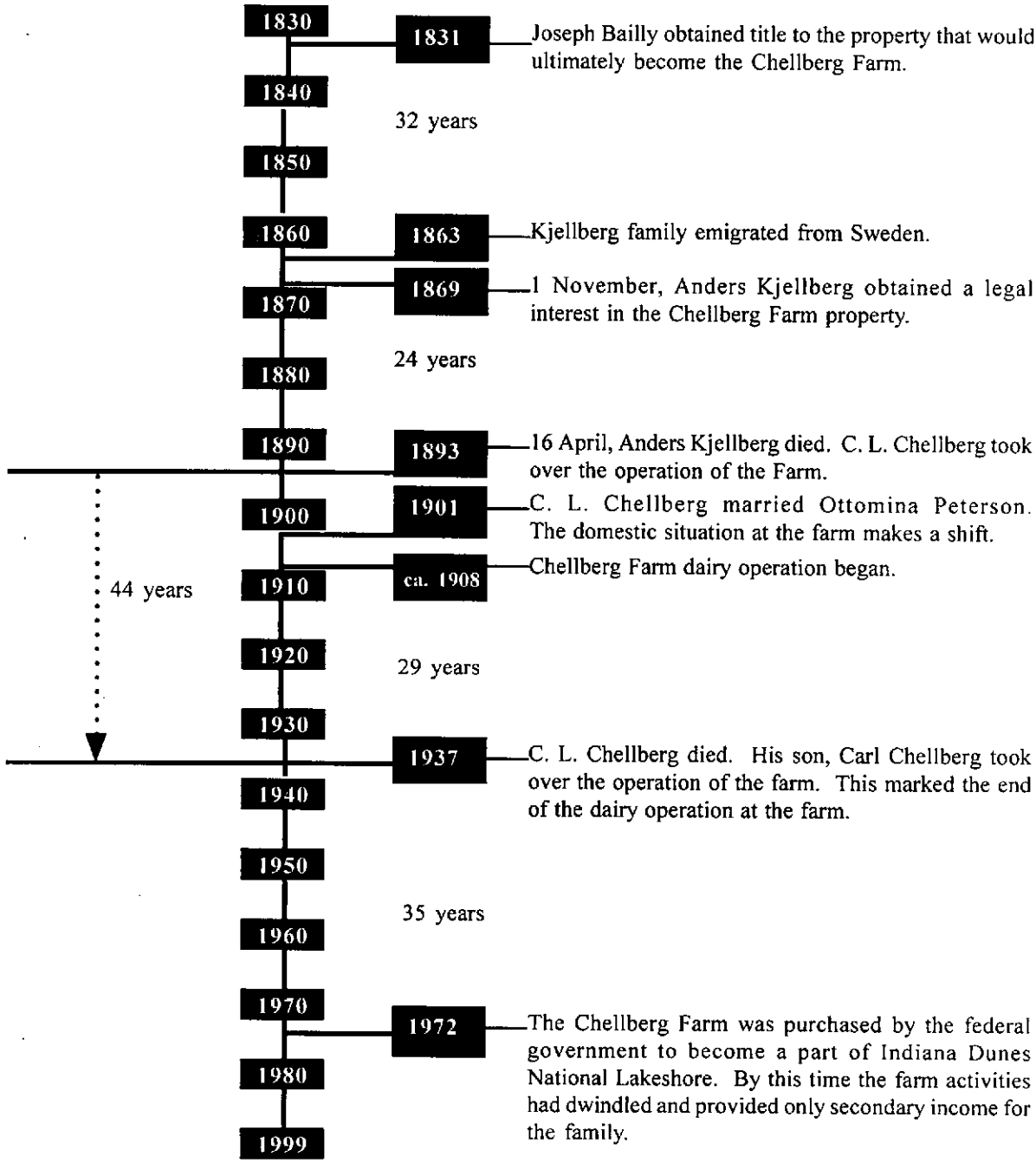


Figure II-4: Plat of the town of Bailly. (Reproduced from Cook & Jackson, Figure 6).

Figure II-5:

Chellberg Farm Timeline, Major Events



emigration resulted. This first wave of Swedish emigration peaked between 1868 and 1873. A later wave of Swedish immigrants came to the United States between 1880 and 1893. The second movement was related to difficulties in rural agricultural communities in Sweden. Large scale Swedish immigration to the United States ended with the onset of the Depression in 1930.[16]

The settlements of Baillytown, Chesterton, and Porter by Swedish immigrants fits into the larger patterns of Swedish immigration in the United States. Swedish settlement in the United States resulted in a "westward movement that occurred in successive waves." The proximity of this area to Chicago "connected it to the larger paths of Swedish immigration and to Swedish-American life as it developed from the 1840s to the 1920s." There were more prominent businessmen of Swedish birth or parentage in Chicago than in any other city in the United States. Westchester Township, in particular Baillytown and Chesterton, probably had the heaviest concentration of Swedes in Indiana. In the 1880 Population census, "Swedes numbered nearly two-thirds of the 797 foreign born in the township." [17][18]

There were many Swedish churches in the area including a Swedish Lutheran church in Baillytown that was organized in 1857 and a Swedish Methodist church that was organized in Chesterton in 1879.[19]

The earliest description of Baillytown was recorded by Pastor T. N. Hasselquist. He visited the area in September 1856 and described it in an issue of Hemlandet:

> About 40 miles east of Chicago...lies a small Swedish settlement, which may prove the most enduring. As a rule the land is covered by a forest, in part, with large and old trees. The owners are well paid when selling to the network of railroads. The ground is probably low here and there, but where seeded it has shown itself highly fruitful. Almost a score of larger and smaller landowners live here, mainly from Ostergotland....Some of them own 100 or more acres, some 80 and 75 acres, and less down to 2-1/2 acres of one couple. Their houses are yet of inferior quality, of the kind found among newcomers, but soon will be exchanged... for better and more convenient accommodations. Surprisingly one could find himself in a wild forest in America and there come upon Swedish families cultivating the earth around their small houses. They paid from $6 to $12 per acre, but prices have risen so that now one can demand $15 and over, even $50 per acre.[20]

Once they became landowners, it was often necessary to continue as hired labor in order to obtain the capital to create a successful farm. The manuscripts for the 1870 U.S. Census of Agriculture for Westchester Township enumerate one hundred and sixty farms. Joel Wicker does not appear in the census, indicating that he was not pursuing agriculture. Emigrating in 1863, the Kjellberg family settled in the United States several years before the first mass influx of Swedish immigrants arrived. [21]

The Kjellberg's Arrival in America

Anders Ludwig Kjellberg (born 22 March 1830) and Johanna (Anderson) Kjellberg (born 28 April 1829) were married in Sweden in the 1850s. In 1863 the Kjellberg's and their son, Cahrl (born 1859), emigrated to the United States from Sweden.[22] According to oral history, the family immediately moved to the Bailly area and lived at a temporary site until 1869 when they purchased the property now known as the "Chellberg Farm." Naomi Chellberg Studebaker recalled the story:

> "My grandfather and grandmother... ...came from Sweden in 1863. And my father [*Cahrl L. Kjellberg, born 1859*] was then four years old, and they located in that area a few years until they bought the farm and built a home there in the same spot where this home is now and started farming."[23]

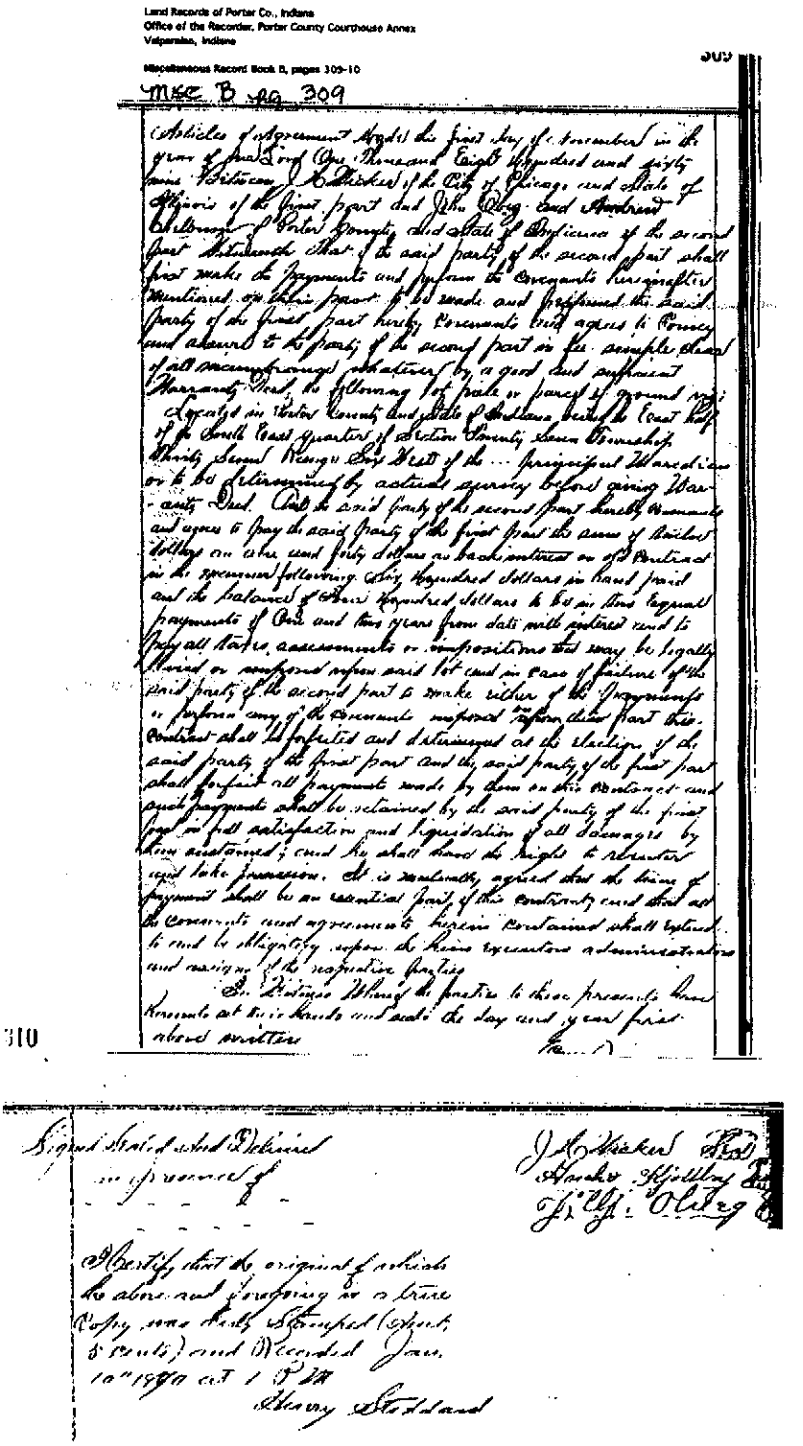
While Naomi Studebaker's account indicates that the family came immediately to the Bailly area, other sources imply that the family may have spent time in Boston or Chicago before settling in Indiana. Also, it is unclear whether or not Anders Kjellberg's immediate family was joined by other family members.[24] The popular story that is told by interpreters at the farm indicates that the Kjellberg family met Joel Wicker (the son-in-law of Joseph Bailly) in Chicago. Wicker hired Anders Kjellberg to clean out brush from cleared land in preparation for planting and provided a small log house for the family.[25]

Anders Kjellberg had been a tailor and a lay preacher in the Lutheran Church in Sweden. He continued to place an emphasis on his religion after immigrating and helped to establish the Augsburg Lutheran Church in Porter. The Kjellberg's second child, Carolyn, was born in the mid 1860's. She died at the age of three or four. Another daughter, Emily, was born in 1867.

The family also had a foster son, Simon Larson who was born in 1874 and joined the family before 1880.[26]

The Kjellberg's were part of a large influx of Swedish immigrants that played an important part in the settlement of the Calumet region. The immigrants provided the necessary labor force for developing farmland, railroads, and industry in the area. Members of this close-knit Swedish-American farming community emphasized their cultural heritage by teaching their children Swedish, establishing Swedish churches, and participating in social events where Swedish traditions were observed.

The first property in the Bailly area that was owned by the Kjellberg family was not the site now known as the Chellberg Farm. On 5 February 1869, Andrew Kilberg [sic] purchased four and one-eighth acres of property from John Johnson for eighty-three dollars. The property was described as being located "all south of the railroad," in the Southwest one-half of the Northwest one-quarter of Section Thirty-five, Township Thirty-seven, Range Six. The property was across the railroad tracks from the Swedish Lutheran Church as shown in **Figure II-9**, Hardesty's 1876 Atlas of Westchester Township. The proximity of the family's property to the church hints that they were quickly immersed in the heart of the Swedish community. The parcel was sold on 28 December 1869, two months after the family obtained legal interest in the Chellberg Farm property.[27]



Land Records of Porter Co., Indiana
Office of the Recorder, Porter County Courthouse Annex
Valparaiso, Indiana

Miscellaneous Record Book B, pages 309-10

MISC B pg 309

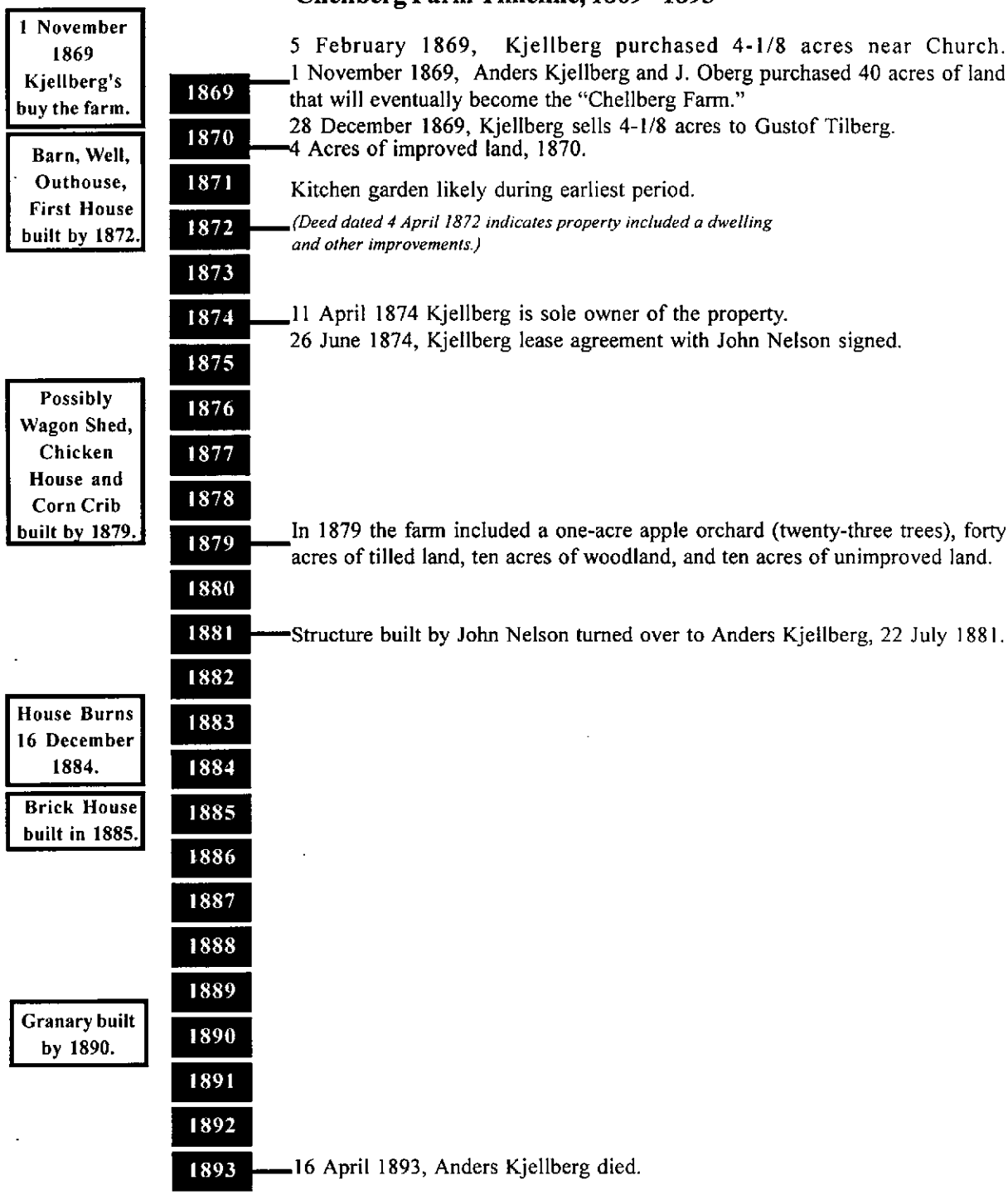
309

310

Figure II-6: 1869 contract of J. A. Wicker's agreement with Anders Kjellberg and John Oberg. (Courtesy of Amanda J. Holmes)

Figure II-7:

Chellberg Farm Timeline, 1869 - 1893



Note: Construction dates for the farm's earlier outbuildings have been approximated based on implications made in the 4 April 1872 Deed and information found in the 1870 and 1880 Agricultural Census Manuscripts.

ESTABLISHMENT OF THE KJELLBERG FARM, 1869-1893

On 1 November 1869 the Kjellberg/Chellberg family began a one hundred and three-year association with the property known today as the Chellberg Farm. The family initially acquired an interest in the farm property when J. H. Wicker entered into an agreement with John Oberg and Anders Kjellberg. **Figure II-6** is a copy of the contract. The contract documents the sale of eighty acres consisting of the East half of the Southeast quarter of Section Twenty-seven Township Thirty-seven Range Six West to Oberg and Kjellberg,

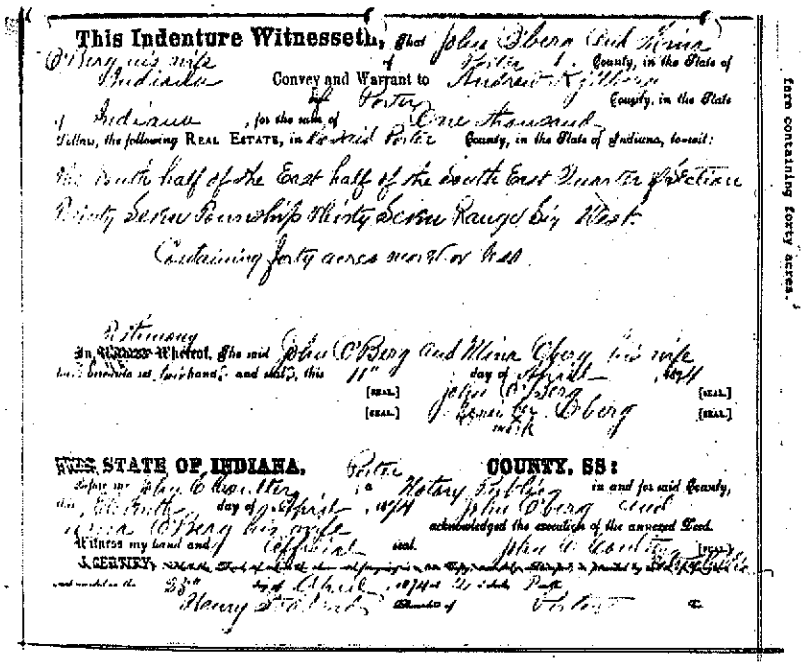
> "For the sum of twelve dollars an acre and forty dollars as back interest on an old contract in the manner following. Six hundred dollars in hand paid and the balance of four hundred dollars to be in two equal payments of one and two years from date with interest and to pay all taxes, assessments or impositions that may be legally levied or imposed upon said lot ..."[28]

Although it is possible that they moved some time between 1 November 1869 when the property was purchased and 28 December 1869 when the other property was sold, documentation hints that the family may have waited until the start of the next growing season to move to the farm. A residence and housing for livestock would have been necessary, most likely constructed during the Winter/Spring of 1870. While Kjellberg and Oberg are both enumerated in the 1870 Population and Agricultural Census,' both documents indicate that they were not living on the same property, or close to each other. The two names are not listed near each other in either document. The 1870 Population Census indicates that Andrew Shabr (sic) was living in the area with his wife Johanna and two children, Carl and Emily.

The Agricultural census for the same year indicates that Kjellberg owned/managed a farm in its earliest stages of development. When recorded in August 1870, Kjellberg's property included a mere four acres of improved land that produced no crops during the year ending 1 June 1870. Kjellberg owned two "milch" cows, two "other" cattle, and two swine. The sole production enumerated for the year was one-hundred pounds of butter. The same census indicates that John Oberg's farm was slightly more established than Kjellbergs.' On an equal quantity of improved land, four acres, ten bushels of Spring wheat, twenty-five bushels of Winter wheat, and twelve bushels of Irish potatoes were produced. Oberg owned one swine and two "milch" cows, and his farm produced one-hundred and fifty pounds of butter during the year. It appears that Kjellberg was residing at the property in Section 28 when the 1870 census' were recorded. It is possible that Oberg was already residing at the eventual Chellberg Farm site and that the crops raised by him were the beginnings of cultivation at the property. It is unlikely that both Oberg and Kjellberg were residing on the property, since they are not listed near each other in the manuscripts and Kjellberg owned another piece of land. In Naomi Chellberg Studebaker's recollection of the family story, her grandparents lived at another site "*...until they bought the farm...*" supporting the theory that the family did not reside at the property until sometime after the purchase was made late in 1869.[29]

The early establishment of the farm would have been slow and difficult work. In general, the amount of land that could be cleared depended on its condition, the number of people working on it, and the amount of outside work required to obtain cash. At the most, fifteen acres per year could be cleared under very favorable conditions. Clearing five to ten acres per year was more common. As land was cleared for cultivation, cash could be obtained from the sale of lumber and cordwood. Agriculture in the region included small generalized farms and some orchards. Fruit production included apples, pears, peaches, plums, cherries, grapes, strawberries, and raspberries. There were a number of peach orchards operating in the Bailly area and Michigan City.[30]

In addition to agriculture, industry was evolving in the area during this period. The United States Congress approved funding for Calumet Harbor in 1870, ensuring the region's industrial future. The establishment of the Harbor also foreshadowed the relatively early demise of agriculture in the Calumet region. While the predominantly sandy soil limited agricultural productivity in the area, the geographic location offered extensive opportunities for industrial development. Access to shipping via water and rail, proximity to major markets in the Midwest and Western United States, and abundant water for processing made the Calumet region a desirable location for manufacturing, mining, processing, and transportation activities. However, in 1870 the future of the region was still undetermined and the Kjellbergs, along with other



This Indenture Witnesseth, That John O'Berg and Mina O'Berg his wife of Porter County, in the State of Indiana Convey and Warrant to Andrew Kjellberg of Porter County, in the State of Indiana, for the sum of One thousand Dollars, the following Real Estate, in the said Porter County, in the State of Indiana, to-wit:

The South half of the East half of the South East Quarter of Section Thirty Seven Township Thirty Seven Range Six West.

Containing forty acres more or less.

farm containing forty acres.

In Witness Whereof, the said John O'Berg and Mina O'Berg his wife have hereunto set their hands and seals, this 11th day of April, 1874.

[SEAL] John O'Berg [SEAL]

[SEAL] Mina O'Berg [SEAL]

THE STATE OF INDIANA, Porter COUNTY, SS:

Before me John C. Hamilton, a Notary Public in and for said County, this 11th day of April, 1874, John O'Berg and Mina O'Berg his wife acknowledged the execution of the annexed Deed.

Witness my hand and Official seal. John C. Hamilton [SEAL]

J. GERNEY

Figure II-8: Copy of the indenture of Andrew Kjllberg [sic] for the farm property, 1874.

Baillytown residents, worked toward establishing an agricultural community.[31]

The first buildings constructed at the farm were most likely the barn, the house, a well, an outhouse, and possibly a chicken coop and corncrib. Oral history indicates that the barn was the first structure built at the farm:

> *"...they built the barn, then they built the house that later was destroyed, and then they built a wagon shed and a corn crib and the chicken, we call it."*

A deed dated 4 April 1872 implies that the property included a dwelling, as well as other improvements. With this transaction Andrew Kyllburgh [sic] purchased the northern one-half of the property from Joel H. Wicker, consisting of forty acres. Based on that deed, it appears that the barn and original house were built between 1 November 1869 and 4 April 1872. It is also likely that a well and outhouse were built during that period, since both would have been necessary immediately upon occupation of the farm.[32]

On 11 April 1874, Anders Kjellberg mortgaged the southern 40 acres from John and Mina O'berg and was for the first time the sole owner of the entire eighty acre property. **Figure II-8** is a copy of the mortgage.

On 26 June 1874, Kjellberg leased a small portion of land that was adjacent to his house to John Nelson. Nelson paid Kjellberg twenty-five dollars for a site to build a ten by twenty four-foot house that would revert to Kjellberg upon Nelson's death. It is possible that the *house* that Nelson built was actually an addition to the Kjellberg home (the lease indicates the site to be *"adjoining the Dwelling..."* of Kjellberg). John Nelson relinquished the title for the building to Kjellberg on 22 July 1881.[33]

By 1879 the farm included thirty poultry, eight cows, two sheep, eleven swine, and five horses. This quantity of livestock would have easily filled the barn, and the number of poultry indicates a chicken coop would have been necessary. Therefore, it is likely that the chicken house was constructed between 1869 and 1879. Evidence also indicates that a corncrib may have been built prior to 1879. In 1879 the farm produced 100 bushels of Indian corn, necessitating a

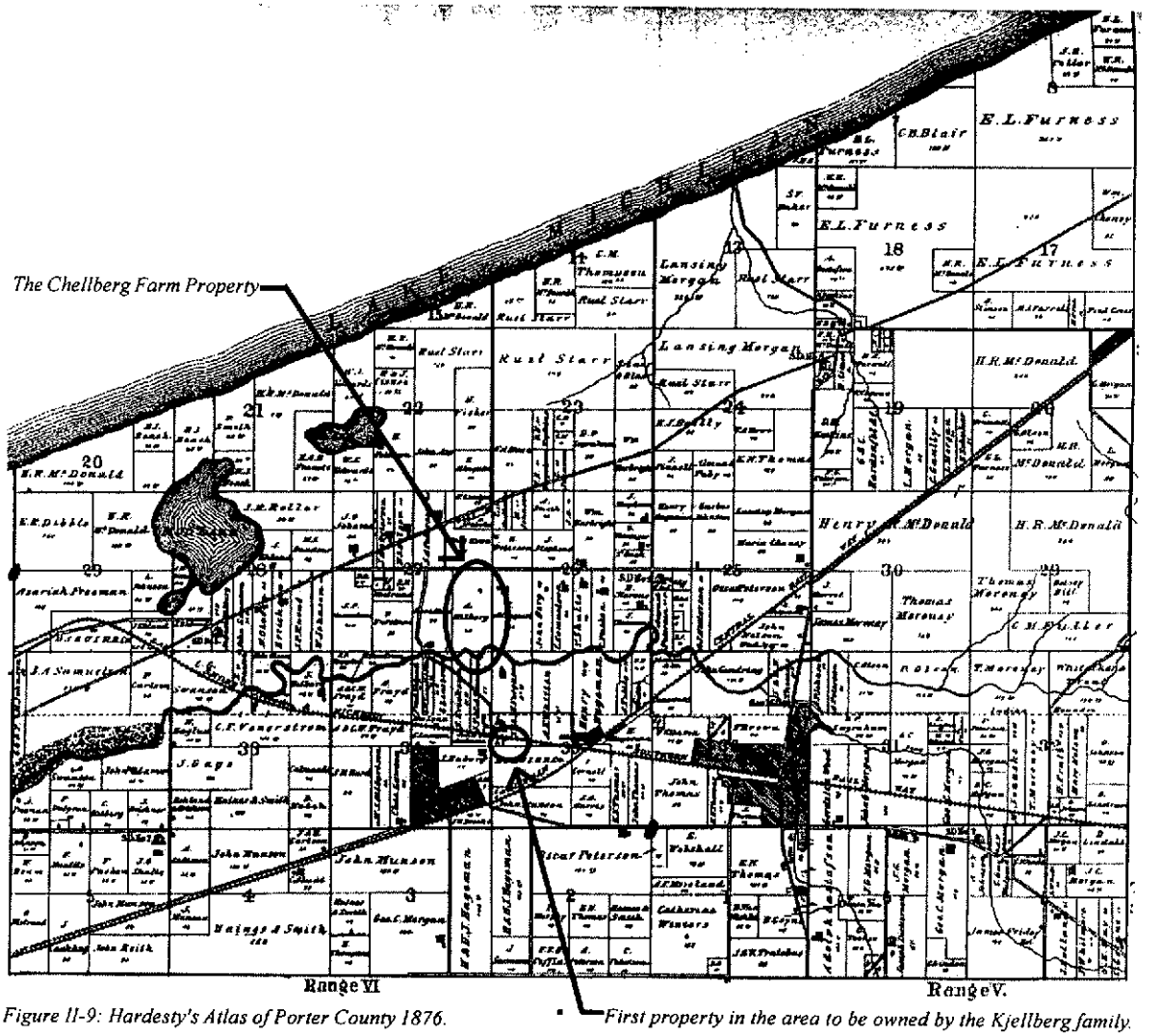


Figure II-9: Hardesty's Atlas of Porter County 1876.

storage location. While other grains were stored in the house (and lost in the 1884 fire), corn was not lost in the fire in 1884. The large quantity of corn would have been difficult to store in the house or barn indicating the use of a separate structure.

The construction dates of the farm's earlier outbuildings have been approximated based on implications made in the 4 April 1872 Deed and information found in the 1870 and 1880 Agricultural Census Manuscripts.[34]

The production of apples indicates the maturity of the apple trees—the orchard had been in place for several years. Naomi Chellberg Studebaker indicated that her grandfather planted one orchard and then her family expanded the orchard at the same site—just south of the house.[35]

On 24 January 1876, Anders Kjlberg [sic] and Johanna Kjlberg [sic] mortgaged their property to Robert Close of Lake County, Indiana, and paid off the loan from John Oberg. Hardesty's Atlas of Porter County, Indiana, **Figure II-9**, indicates that A. Kilberg [sic] owned eighty acres in 1876. Neighbors with tilled or otherwise improved land according to the Atlas include E. Allenquist, Rose Howe, J. A. Peterson, H. J. Nelson, and J. & O. Peterson. Hardesty's 1876 Atlas also indicates that an August Kilberg owned thirty-seven acres adjacent to the southern shore of Mud Lake in Section 28, and a C. Kilberg owned forty acres in Section 32. It is possible that these were Anders' brothers. By 1895, the Township plat indicates that a Charles Chellberg owned the property adjacent to Mudd Lake. Perhaps August Kilberg was actually Anders Kjellberg and the land was transferred to Charles Chellberg af-

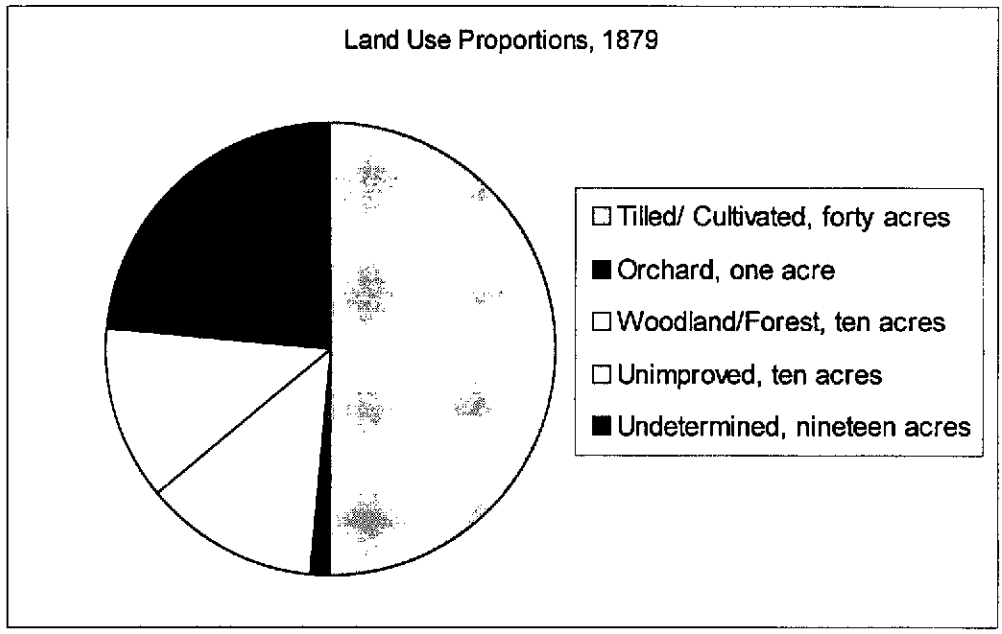


Figure II-10: Land Use Proportions, 1879

ter his father's death. It is also possible that August Kilberg was an uncle.[36]

The 1880 Federal Population Census indicates that Andrew Kilberg [sic] was 50 years old and the head of a household that included his wife, three children, and an adopted son who was a carpenter and boarder. (one in each of these age groups: 1-10, 11-20 (Emily would have been 13 years old), and 20-over). One twenty-year old son was working on the farm (born in 1859 Carl was 20 in 1880).[37]

During the first decade after Anders Kjellberg purchased the farm it grew substantially, and by the time the 1880 Agricultural Census was recorded, a total of sixty acres had been cleared. Forty acres were tilled and growing crops, and twenty acres consisted of meadow, pasture, orchards or vineyards. In addition, the property included ten acres of woodland and ten unimproved acres. While it is unknown where each land use occurred on the property, **Figure II-10** illustrates the proportional sizes of each of these land uses in relation to the entire eighty-acre parcel.

The value of the farm had increased to Four-thousand dollars, quadrupling the purchase price paid eleven years earlier. During 1879, no wages were paid for labor at the farm. The estimated value for all farm productions (sold, consumed or on hand) in 1879 was $600. As of 1 June 1880, there were five horses, two "milch" cows, and six other cows at the farm. During 1879, two cattle were purchased and one was sold. Three hundred pounds of butter were produced at the farm in 1879. The farm included two sheep, one of which was shorn in the spring of 1880 producing three pounds of wool. There were also eleven swine, and thirty chickens on hand. During the year of 1879 fifty dozen eggs were produced at the farm.

Of the forty cultivated acres, nine acres of Indian corn produced 100 bushels; three acres of oats produced forty bushels; one acre of rye produced fifteen bushels; and seven acres of wheat produced one hundred and twenty-two bushels. Five tons of hay were harvested from five acres of land in 1879. One acre was planted in Irish potatoes producing seventy-five bushels. Indian corn and wheat utilized the largest cultivated areas--sixteen of the forty tilled acres. Fig-

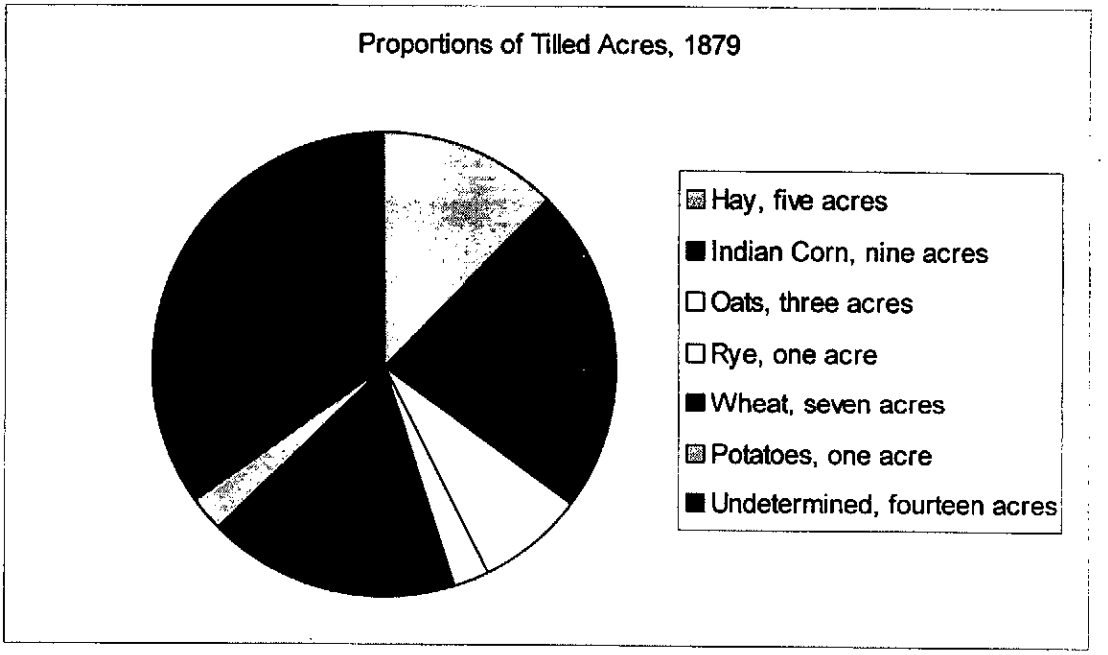


Figure II-11: Proportions of Tilled Acres, 1879

ure II-11 illustrates the amount of land cultivated for these crops in relation to the areas used by other crops. The census enumerated no peas, beans, flax, hemp, hops, sweet potatoes, or tobacco, no vineyards, market gardens, or bees, and no sugar or molasses was produced from either sorghum or maple in 1879. The farm included a one-acre apple orchard consisting of twenty-three bearing trees which produced ten bushels of apples in 1879, at an estimated worth of three-dollars. Six cords of wood were cut for an estimated value of ten dollars. The census certainly indicates that the farm was well established by 1879.[38]

Another phase of construction at the farm during this phase was initiated by a crisis. On 16 December 1884 the original wood frame house was destroyed by fire. The fire claimed all of the family's belongings including clothing, furniture, insurance papers, and deeds. In addition, 75 bushels of wheat, 35 bushels of rye, 50 bushels of oats, flour, and pork were lost in the fire. As a result of the disaster the family constructed a new home the following year, a balloon frame gable-and-wing with a brick veneer. The new house was constructed upon the same site and cellar used by the original farmhouse. Family history indicates Andrew J. Lundquist, a local farmer and friend of the Chellbergs, built the house. In addition to the brick farmhouse, another major structure was added to the farm after the fire. The granary was constructed sometime after 1884 and was a major addition to the farm indicating a new approach to storing grain products. The devastating loss of provisions as a result of the house fire most likely pushed the family toward constructing the granary.

The construction of the brick farmhouse in 1885 was a major addition to the farm. For many families the construction of a new, larger house would have indicated an improved level of prosperity, however, the Chellberg farmhouse was constructed as a direct result of the disastrous fire that consumed the original family home. The use of brick for the new house was more likely to be an attempt to guarantee that another fire would not threaten the family, than a display of a new level of wealth

The financial hardship incurred by the family due to the fire had a long-term effect on the farm. Over the next several decades the family took out a series of

mortgages in efforts to repay debts and make improvements to the property. **Figure II-13** provides a summary of the mortgage transactions.[39]

In addition to their agricultural activities, the family emphasized their ethnic heritage and participated in the Swedish-American community. They were active members of the Augsburg Lutheran Church in Porter – Anders was a lay preacher and served as the church school superintendent. One account indicates that Anders helped to establish the church. The family spoke Swedish at home and Swedish holidays were observed. Although there was a strong emphasis on their Swedish heritage, the family was also undergoing a transition to become Americans. Sometime during this period Cahrl Kjellberg changed the spelling of his name to Carl Levin Chellberg and Anders and Carl became American citizens.[40]

See the map exhibits at the end of this chapter for the Historic Period Plans, 1869-1884 and 1885-1893.

SUMMARY OF LANDSCAPE CHARACTERISTICS, 1869-1893

Although documentation regarding the layout, circulation, and spatial organization at the farm is meager for this time period, these materials can be supplemented with inferences made based on documents relating to later dates. Maps published during the period are limited to plat maps that do not include details beyond property boundaries and the approximate location of a residence for each parcel. Mortgage records, a newspaper article, and agricultural census manuscripts helped to provide an understanding of when each of **the buildings** were present as well as quantities of cultivated fields. However, these documents do not provide information linking the elements to specific locations on the property. Oral history accounts and historic photographs that relate to later dates helped to develop an understanding of the landscape during this period.

The organization of the **yard** appears to have begun in this early phase, with changes in later periods typically consisting of additions of new buildings or other landscape elements. The location of the original structures including the house, barn, chicken house, and well, have remained stable over the farm's existence. Although the original house was replaced with the extant farmhouse, it was built on the same site. The granary was another major addition made in the middle of this period. These two structures, in addition to the earlier barn and out buildings, created a framework for the activities at the farm. A loosely defined **yard** lay between the buildings—defined on the south by the farmhouse and well, on the west by the granary and chicken house, and on the north by the barn. This area provided a place for many of the farm activities to occur—butchering, moving grains and hay from the fields to their storage locations, chicken grazing, and vehicular use and storage. The farm vehicles could approach any of the farm buildings from this area.

The earliest historic photographs available were taken in 1908—fifteen years after the end of this period. There is some data that may be implied from the turn of the century photographs. In **the front yard** the maple tree on the left side of **Figure II-15** appears to have been at least fifteen years old when the photograph was taken. The stump seen at the lower right corner of the image indicates another mature tree that was probably present before 1893. Both of these trees are shown on the **Historic Period Plan, 1869-1884**. It is unknown if the fenced **front yard** existed during this period.

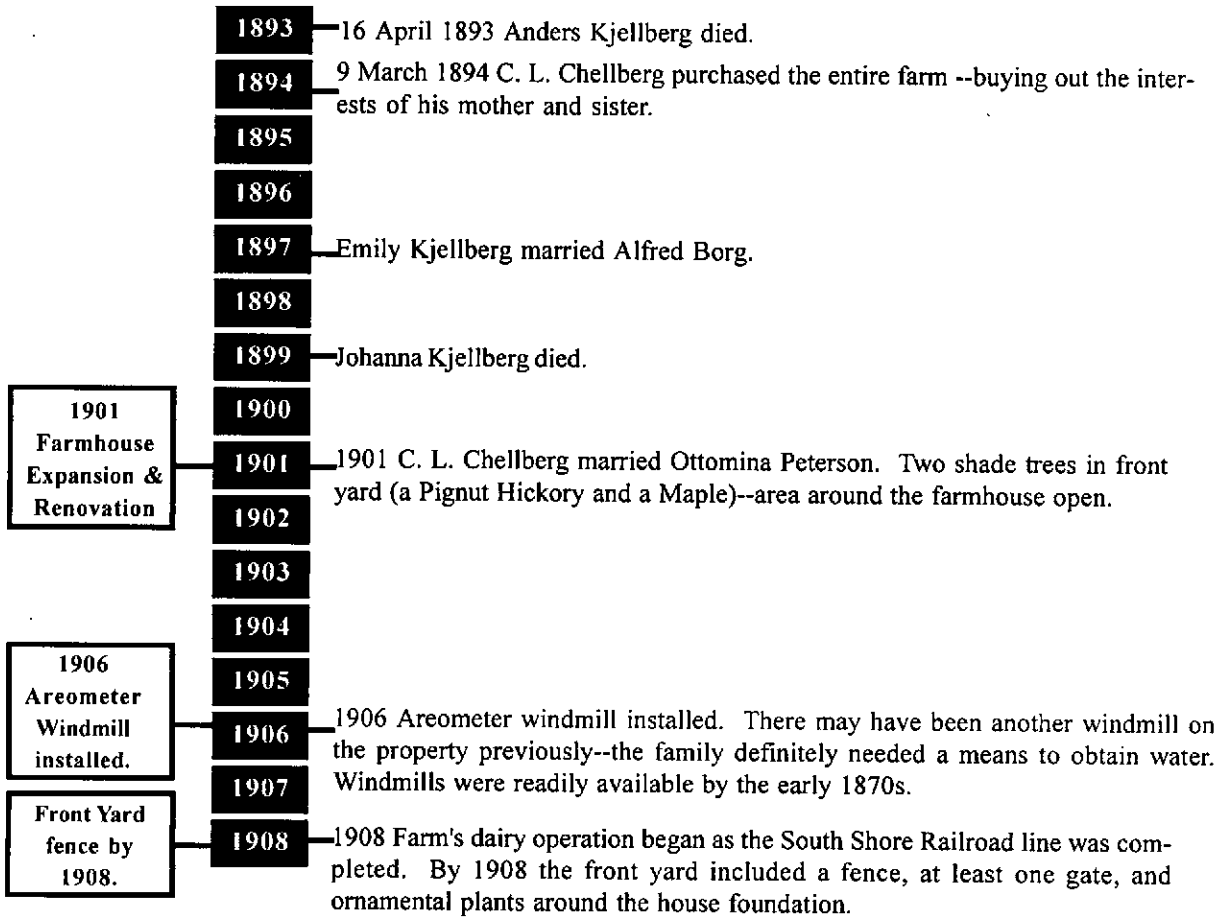
The farm included a one-acre apple **orchard** that was already productive in 1879, indicating that it had been in place for several years. The orchard may have been planted as early as 1869. Oral history accounts indicate that the orchard location did not change over the life of the farm, however the interviewees were not present during this earliest period. Environmental conditions and practical concerns support the theory that the orchard site did not change. Its situation on a south facing slope that provided shelter from severe winter winds as well as access to maximum sunlight created an ideal environment for fruit trees. In addition, location of the orchard close to the farmhouse would provide easy access for maintaining and protecting the trees from browsing animals or late spring frosts. These reasons indicate that the site directly south of the farmhouse would have been the best site on the property for the orchard.

While the family would surely have cultivated a vegetable **garden** quickly after establishing occupancy, there is no documentation indicating its location or size.

It is probable that the east-west entrance road to the farm from Mineral Springs Road ("**the lane**") has served as the farm's main entrance since this early period. Another circulation route was referred to by Naomi Studebaker—a lane that ran from the barn north to Oak Hill Road. It is possible that this may have served as a farm road or access road at one time, but there is no means available for verifying this theory.

By 1879 the farm included forty acres of cultivated **fields.** The locations of these fields would have been in areas with suitable topography. It is likely that the family used the trees in **the ravine** as a source for wood. It is unknown whether the ravine was utilized by the family for other activites during this period.

Figure II-12:
Chellberg Farm Timeline, 1893 - 1908



SECOND GENERATION AT THE CHELLBERG FARM, 1893-1908

Transition to a Second Generation, 1893-1901

Anders Kjellberg died intestate on 16 April 1893 at the age of 63. One year later, on 9 March 1894, C. L. Chellberg became the sole owner of the farm when he bought his mothers' and sisters' inherited interest in the property.[41] C. L. paid Johanna and Emily $3500 and agreed to provide food and shelter for them as long as they lived on the farm. A detailed Letter of Agreement between Johanna Kjellberg and Charles Levin Chellberg describes the provisions:

> *"Charles Levin Chellberg for and in consideration of the execution of the above Warranty Deed agreed to do and perform the following. Namely, to furnish the said Johanna Kjellberg necessary house room and fuel. Ten Bushels of Wheat, Five Bushels Potatoes, one hundred pounds of meat, and one quart of milk daily when the same is produced on the farm conveyed as herein described. The food and provisions herein mentioned is the quantity to be furnished yearly except milk which is above described. Now, it is understood that if the Said Johanna Kellberg [sic] Shall not stay and live on said farm that this agreement is only binding for a pro-rata of the food and grain promised or as much of it as the proportions of time She may Stay on the farm."*[42]

On 4 April 1894, one month after he became the sole owner of the farm, C. L. paid the 1876 mortgage to Robert Close. In order to payoff the mortgage, C. L. took out a new mortgage for $1000 from Edward Ackerman of Cook County, Illinois. This was the fourth of a series of eight mortgages that were taken out on the property. **Figure II-13** includes a summary of the mortgage transactions. Each mortgage was used to payoff the last, until the family was finally able to release the final mortgage on 25 July 1917, almost forty-eight years after Anders Kjellberg initially purchased the property. In July of 1899 C. L. took out a $1,500 mortgage and paid off a $1,000 loan. Although the extra cash could have been to cover interest, it is likely that C. L. intended to buy equipment or make other improvements to the farm.

As C. L. Chellberg took over the operation of the farm he had a desire to run the farm differently than his father and sought out information to determine a new approach. He subscribed to The Farm Journal from at least February 1894 through May 1895. In those issues, the journal supplied popular views about farming mixed with advertisements, poems, and citations, all heavily laden with references to God's will, piety, frugality, and the appropriate path to heaven. Dairy farming was often referred to favorably, and one article suggested that the "...surest and best way of reducing the size of the mortgage..." was to operate a milk dairy. This advice was only supplied to the farmer after first insisting that *he* consider his wife's opinion regarding the business since "...women are not destitute of business ability, and the man who looks with contempt upon her as an adviser and helper, is getting away from the path that leads to peace and plenty..." Perhaps the advice was noted by C. L. during the next several years while he determined a focus for the farm and planned to marry Ottomina Peterson. At any rate, the highly subjective writing in the journal may have inspired C. L. Chellberg to investigate more scientific information regarding dairy farming and other topics discussed in the articles.[43]

It appears that C. L. Chellberg, and possibly other family members, acquired scientific information for improving the success of the farm. A number of U.S. Department of Agriculture Farmer's Bulletins dating from 1896 through 1908, were found at the farm after the National Park Service acquired the property. The seven bulletins that are in the park's archives address issues related to growing potatoes, sweet potatoes, food storage, fertilizers, and hog illnesses.[44]

A bulletin published in 1894 provided detailed information about two hog illnesses, hog cholera and swine plague. If the diseases were present in the area, it is likely that the information in the bulletin influenced the way the hogs were treated at the farm. The bulletin described sanitary measures to be used to help prevent the introduction of the diseases to a population of hogs. It recommended that hogs be kept in a pen or small lot and be kept as dry as possible. In addition, visits to farms where the disease was present were discouraged since the disease could be brought back to the home farm by tracking manure on shoes or the feet of dogs or horses.[45]

It is likely that the family used other bulletins as well. Each includes a list of all bulletins published to date. In April 1897, Bulletin 55 titled "The Dairy Herd: Its Formation and Management," provided detailed instructions for beginning a dairy farm. Two ways for forming a dairy herd were described, buying or breed-

DATE	PROPERTY PURCHASED	TOTAL PURCHASE PRICE	AMOUNT OF MORTGAGE	TRANSFER OR MORTGAGE TO	TRANSFER OR MORTGAGE FROM	DATE DUE
1 November 1869	E1/2 of SE1/4 of S27, T37, R6W	$1,000	$400 "with interest"	John Oberg Anders Kjellberg	J. H. Wicker	1 November 1871
4 April 1872	N1/2 of E1/2 of SE1/4 of S27, T37, R6W	$480	NO MORTGAGE	Anders Kjellberg	Joel H. Wicker	
11 April 1874	S1/2 of E1/2 of SE1/4 of S27, T37, R6W	$1,000	$1,000 6% interest	Anders Kjellberg	John and Mina Oberg	11 April 1878
24 January 1876			$800	Anders and Johanna Kjellberg	Robert Close	26 February 1882
21 February 1876			RELEASE ($800 + interest, 11 April 1874)	Anders and Johanna Kjellberg	John and Mina Oberg	
9 March 1894	Their portion of the estate.	$3,500		Charles Levin Chellberg	Johanna and Emily Kjellberg	
4 April 1894			RELEASE ($800 + interest, 21 January 1876)		Robert Close	
6 April 1894			$1,000 7% interest/year	Charles Levin Chellberg	Edward Ackerman	6 April 1897
5 June 1897			RELEASE ($1,000 + interest 6 April 1894)	Charles Levin Chellberg	Edward Ackerman	
26 May 1897			$1,000 6% interest	Charles Levin Chellberg	Hedda Swenson[sic]	26 May 1898
5 July 1899			$1,500 5% interest	Charles Levin Chellberg	Edward Ackerman	5 July 1904
5 July 1899			RELEASE ($1,000 + interest 26 May 1897)	Charles Levin Chellberg	Hedda Swenson[sic]	
23 May 1905			$500 5% interest/year	*Minnie and Charles Levin Chellberg	Charles P. and Matilda Nelson	23 May 1908
28 February 1907			RELEASE ($500 + interest 23 May 1905)	Minnie and Charles Levin Chellberg	Charles P. and Matilda Nelson	
19 June 1911			RELEASE ($1,500 + interest 5 July 1899)	Minnie and Charles Levin Chellberg	Edward Ackerman	
21 July 1911			$500 5% interest/year	Charles Levin and Minnie Chellberg	Edward Ackerman	21 July 1916
25 July 1917			RELEASE ($500 + interest 21 July 1911)	Charles Levin and Minnie Chellberg	Edward Ackerman	

Figure II-13: Summary of Mortgage Transactions

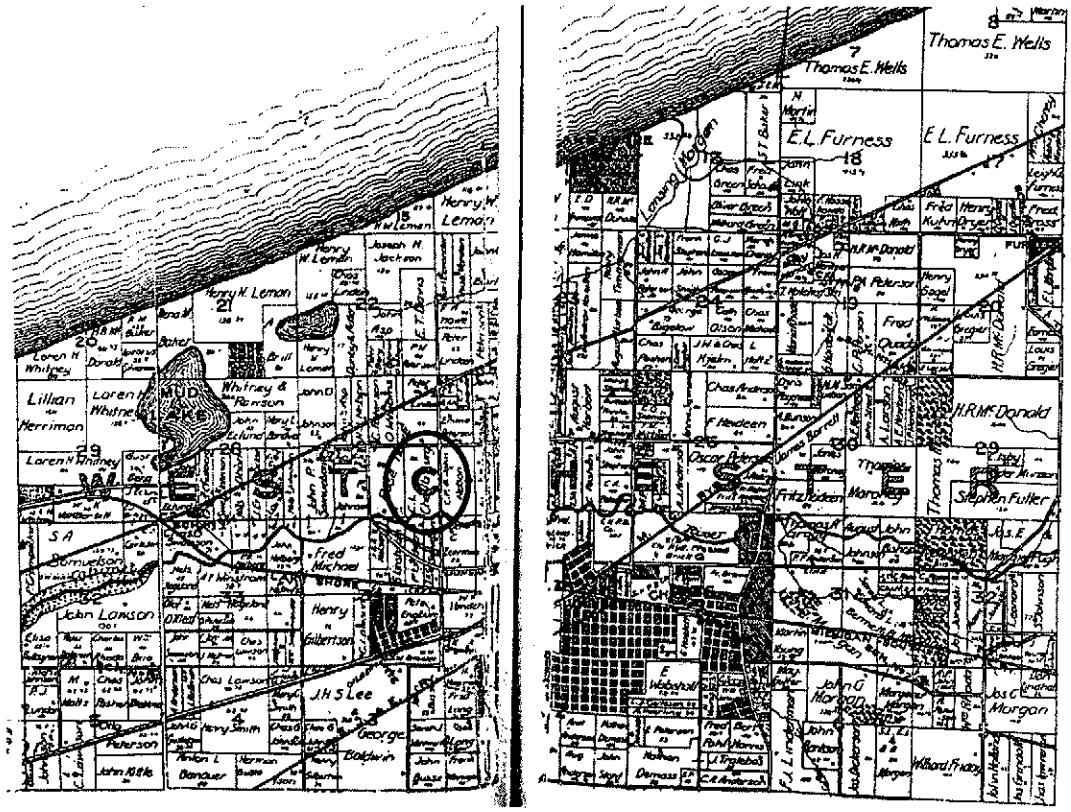


Figure II-14: 1895 Township plat map. The Chellberg Farm site is circled.

ing. The Chellberg family posessed neither the expertise nor abundant capital required for buying a new herd. A combination of the two was recommended wherein one would buy a number of good animals and a few superior cows as well as a first class bull. After purchasing the initial herd, improvement could be achieved through breeding and selection.

The bulletin also included a description of the best accommodations for dairy cattle that stated "the large and lofty barn, in which to keep the cattle and the crops, the manure and farm implements, all within four rectangular walls and under one roof, can no longer be regarded as perfection. No matter how well arranged and how thorough the ventilation, the danger of loss and damage is too great." The forage should be housed in a separate or slightly attached building from the structure that houses the cows. The cow house should provide adequate ventilation—a room with the ceiling open to the roof is better than one with a low, level ceiling above the cows. The author recommended that each cow have at least a stall 3-1/2 to 4 feet wide. Cattle ties should provide freedom of movement, comfort, and cleanliness. "There are serious objections to all stanchions; if some form of this devise is insisted upon, let it be one which is so hung as to move a few inches in any direction." The author also recommended an open level feeding floor in front of the cows rather than any form of boxes.[46]

Another bulletin published the same year provided detailed recommendations regarding milking, removal of milk from the stable, straining, aerating, cooling, storing, skimming, and hauling milk to the factory. The bulletin is summarized in "Fifty Dairy Rules" that include: #2, "Observe and enforce the utmost cleanliness about the cattle, their attendants, the stable, the dairy, and all utensils;" #33, "Remove the milk of every cow at once from the stable to a clean, dry room, where the air is pure and sweet. Do not allow cans to remain in stables while they are being filled;" and #38, "If milk is stored, it should be held in tanks of fresh, cold water (renewed daily), in a clean, dry, cold room."[47]

Although the Chellberg Farm's dairy operation was not clearly established until 1908, planning for the dairy would have begun much earlier. Since the family had limited cash, development of the herd was most likely achieved through breeding and selection which

would have required several years. An account by Naomi Chellberg Studebaker also indicates that this was the method used by her father:

> "Mostly what I remember was the milk cows, or the dairy herd. [Father] had somewhere around a dozen, maybe fourteen. The barn wasn't too large. And then they would have a growing herd that was going to be the next one's, you know. And we always milked them by hand. There were maybe three or four that would be milked by each one of us in the morning and evening."[48]

It is likely that C. L. Chellberg was in the process of developing the herd by 1901, and possible that he began planning the dairy business much earlier.

During this phase C. L. Chellberg, Emily Kjellberg and Johanna Kjellberg continued to live and work at the farm. After Emily Kjellberg married Alfred Borg in 1897, she continued to live at the farm with her husband and two children until 1901. The addition of Emily's husband may have meant another able-bodied worker at the farm. His opinions could have inspired changes at the farm. Since Alfred Borg was a carpenter/brickworker by trade it is perhaps more likely that he worked off of the farm—and that his impact to the running of the farm was limited to monetary contributions. In 1899 Johanna Kjllberg died at the age of 70. After their mother's death, C. L. Chellberg and Emily and Alfred Borg continued to live in the farmhouse together until C. L. married Ottomina Peterson in 1901. At that time, Emily and Alfred and their two children moved away from the farm. They lived with various relatives until ca. 1904 when construction was completed on their new house which was located across Oak Hill Road from the farm.[49]

The Second Generation is Established, 1901-1908

When C. L. married OttoMina (the family called her Minnie) Peterson in 1901, the domestic aspects of the farm began a new phase. Minnie Chellberg was concerned with appearances and the farmhouse and landscape were renovated during her tenure at the farm. This short period represents a time when the new household was becoming established. The farm operations were continuing in a similar fashion to that of previous years. The period ends in 1908 when documentation firmly establishes that the dairy farm was operational.

OttoMina Peterson was born in Baillytown on 3 September 1869. C. L. and Minnie Chellberg had four children: Frank (born 1903, died 1904); Ruth Mildred (born 1904, died 1973); Naomi Victoria (born 1907, died 1988); and Carl Lewis (born 1913, died 1973). Minnie Chellberg was very particular about the aspects of the farm that were under her supervision. Many accounts recall Minnie Chellberg as a fastidious personality reflected in the appearance and organization of the house, yard, garden, and chicken house.[50]

In 1901 Minnie Chellberg guided the expansion and renovation of the farmhouse. The dining room was created by removing several partitions that had formerly created two or three small rooms. A kitchen, summer kitchen, and porch were added. Also, a cistern that collected water from the gutters was installed under the house. The cistern provided water for household use. The kitchen sink had a hand pump on it that was used to pump the water out of the cistern. There was a hot well attached to the back of the stove that held a couple of gallons of water that would be heated by radiation from the fire in the stove. This system was used until the gutters fell into disrepair, probably in the forties. After that water was used from the windmill well until running water was installed in 1953.[51]

Minnie Chellberg was a gardener and loved flowers, as a result the appearance of the farm's landscape was emphasized during her presence. Historic photographs that date to this period illustrate a yard with many flowers and flowering shrubs. Naomi Studebaker recalled her mother stating that when she moved into the house in 1901 there were "practically no trees at all around the homestead." There were, however, at least two trees present before 1901. A large Pignut Hickory (which died in 1945) and a maple that still stands in front of the house were already there when Minnie Chellberg arrived. Minnie planted many of the older trees presently around the house, including the walnut in the front yard. It is likely that she also planted the trees that lined the "lane," the entrance road that approaches the farm from Mineral Springs Road. In addition to planting trees, Minnie also maintained a "front yard" that included colorful annuals and perennials. She planted "several beautiful flower gardens, including a round one in the front yard that had pansies, cosmos, iris, chrysanthemums, gladiolus, roses and daisies."[52]

The farm vegetable garden was Minnie's responsibility—in it she raised a wide variety of vegetables for use by the family. The garden included beans, carrots, potatoes, sweet corn, cabbage, leaf lettuce, tomatoes, parsnips, green peppers, sage, and flowers. Minnie's vegetable garden was located to the east of the front yard, and was rectangular in shape. In addition to produce grown at the farm, the family utilized several natural resources. Naomi Chellberg Studebaker remembers picking wild blueberries in the "marsh." Crops grown during this period included corn, oats, wheat, clover, timothy and alfalfa. The grain was taken to the nearby McCool mill to be ground for feed and flour. It was stored at the farm in the granary, which was built by 1890.[53]

The Areometer winmill was installed in 1906. There may have been another windmill at the farm previously--the family definitely needed a means to obtain water. Windmills were readily available by the early 1870s.

See the map exhibits at the end of this chapter for the Historic Period Plan, 1893-1908.

Figure II-15: The south and east sides of the house, with the windmill visible in back, circa 1908. (H2-0002)

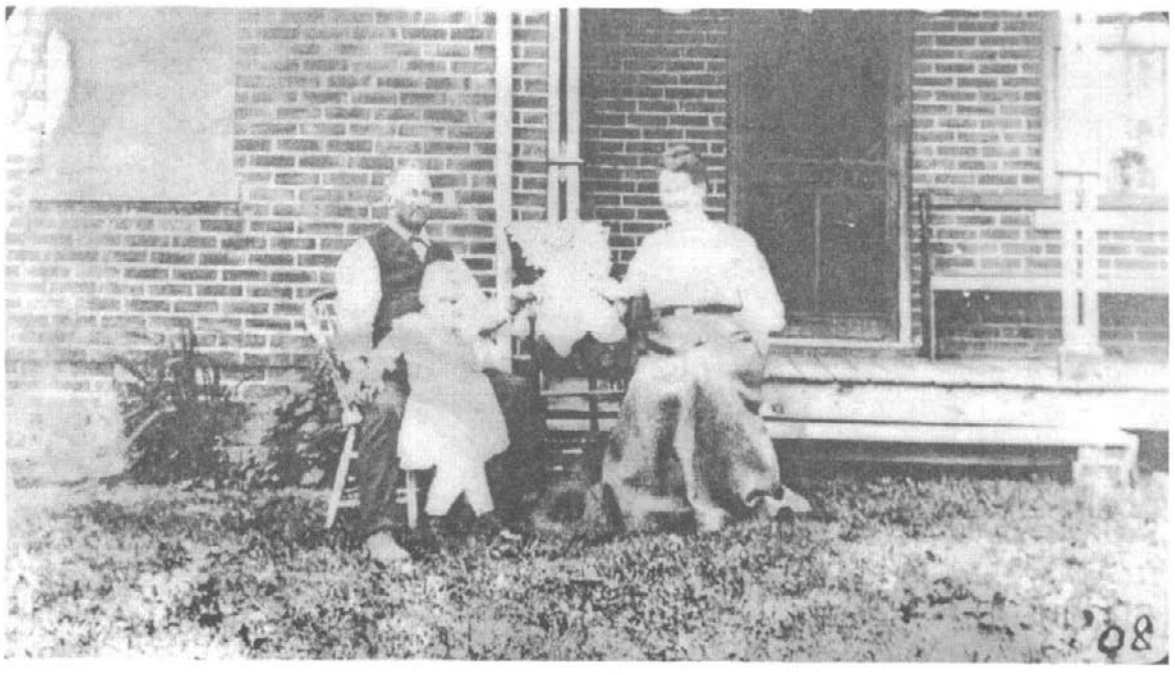


Figure II-16: A second view of the house and family, circa 1908. (H2-0003)

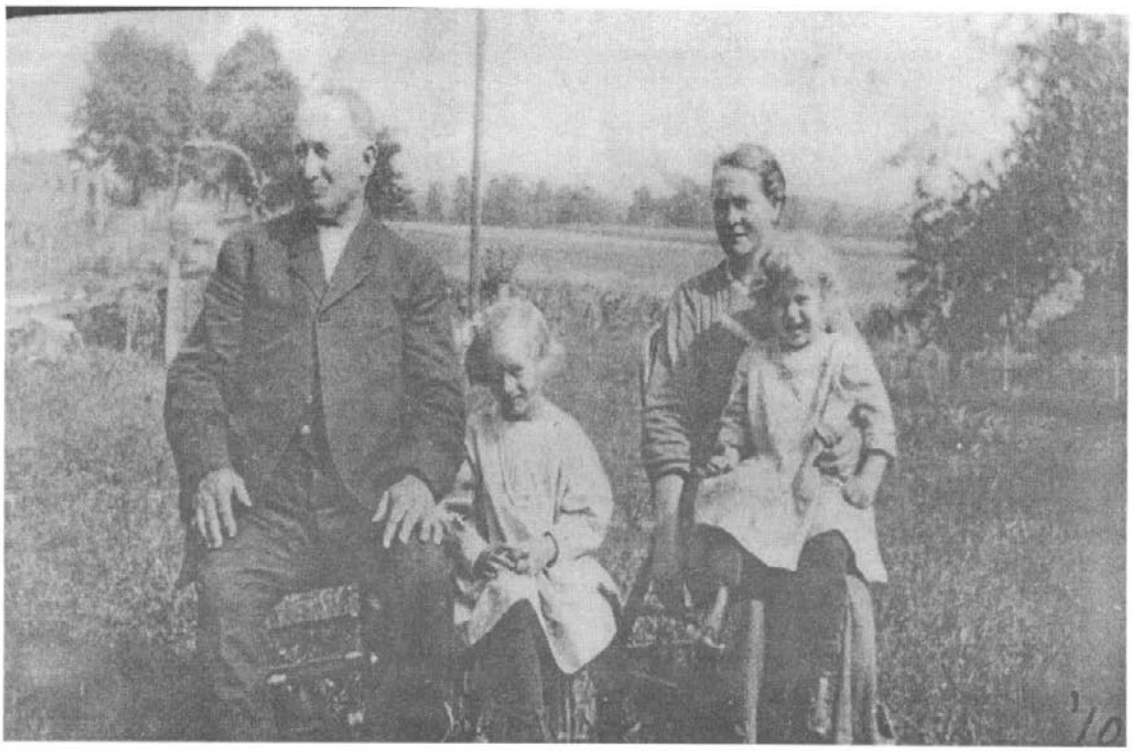


Figure II-17: Charles L. and OttoMina Chellberg, with Naomi and Ruth, sit in the yard, facing west, 1910. Behind the family, a fence, gate, utility pole, and plants are visible. (H2-0005)

SUMMARY OF LANDSCAPE CHARACTERISTICS, 1893 - 1908

All of **the buildings** that are known to have been present during the previous phase continued to exist during this period. The arrival of OttoMina Peterson Chellberg, after her marriage to C. L. Chellberg, had an impact on the farm that was indicated by the immediate farmhouse renovation and expansion and the vacation of Emily Kjellberg Borg and her family.

As discussed in the *Summary of Landscape Characteristics, 1869-1893*, **the yard** between the house, barn and other buildings would have begun its function as a utilitarian space immediately upon construction of the buildings. The area would have certainly provided the most convenient location for activities that involved livestock, farm implements or preparations for storage of provisions since these require close proximity to the buildings.

It is likely that the fenced **front yard** was established during this period, although it is possible that it was installed earlier. By 1908 when the first historic photographs are available the front yard included a fence (the right side of **Figure II-15** shows a gate), two deciduous trees, and ornamental plants around the house. A 1910 photograph, **Figure II-17**, illustrates a fence and gate at the eastern side of the front yard. Naomi Chellberg Studebaker's account that there were practically no trees around the homestead when her mother arrived in 1901 provides insight that the farmhouse was situated in an open area.

Figure II-17 also implies that **the lane** entrance road to the farm from Mineral Springs Road was established either during or before this period. In the upper left corner of the photograph a treelined road is apparent. Although it is difficult to determine their age without knowing the species of the trees, they appear to be reaching maturity and are probably between five to twenty years old, indicating that they were planted between 1890 and 1905.

No documentation has been found that provides details regarding **the orchard, the garden, the fields** or **the ravine** for this period. The establishment of their existence during the previous phase and known presence in later periods leads to the assumption that they were continuing parts of the farm landscape.

Figure II-18:

Chellberg Farm Timeline, 1908 - 1937

	1908	First historic photograph of farm shows details of front yard and farmhouse.
Pole Barn built in early 1900s.	1909	
	1910	
	1911	
	1912	
	1913	
	1914	
	1915	
Ca. 1917 Silo built.	1916	
	1917	
	1918	
	1919	1919 Electrification of the farm--included interior lights in house and barn, pole and wires between house and barn and a yard light. Cucumbers grown for a local pickle manufacturer.
Electricity at the farm.	1920	Around 1920 trains in the local area discontinued making "milk stops."
	1921	Original Corn Crib collapsed by the time "Spring Butchering" photograph was taken.
	1922	
	1923	
	1924	
	1925	
Tenant House built.	1926	Tenant House built before photograph taken in 1926.
	1927	
	1928	
	1929	
	1930	
	1931	
	1932	1930s pole barn collapsed in a snow storm.
	1933	
Sugar Camp built.	1934	1934 or 1935, Sugar Camp built--maple syrup production in full swing.
	1935	
	1936	
	1937	6 August, 1937, C. L. Chellberg died.

THE CHELLBERG DAIRY FARM, 1908-1937

By 1908 a shift in the farm operation was firmly established. The farm had switched from producing mainly grain to becoming a dairy and grain farm. This change was the direct result of the completion of the South Shore Railroad line. The South Shore stopped within one mile of the farm and the Chellberg family transported milk to the train stop daily to be taken to a dairy in East Chicago, Indiana.

Information regarding the farm operations and domestic activities during this period has been obtained through oral history accounts with members of the Chellberg family. These members are referred to throughout this section and are briefly introduced here. Naomi Chellberg was one of C.L. and Ottomina Chellberg's daughters. Born in 1907, she lived at the farm until her marriage to Alden Studebaker in 1926. She continued to spend time at the farm throughout her life and her husband and sons played active roles in the farm operations. Ms. Studebaker died in 1988. Ann Chellberg Medley is the daughter of Carl and Hilda Chellberg. She lived at the farm throughout her childhood. Henry Studebaker and Arthur Studebaker are the sons of Naomi Chellberg Studebaker and Alden Studebaker. From 1933 until 1939 Henry and Arthur spent every afternoon at their grandparents farm. They did farm chores and continued to work on the farm with their uncle and father on various projects through the mid-1950s. The two boys also lived in the tenant house at the farm during school breaks while they attended college in the 1950s.

The date when the dairy operation ended is unclear. One source indicates that around 1920 the trains discontinued stopping for the milk, however Henry Studebaker remembers that the farm continued to produce milk into the mid-1930s. While it is difficult to determine the date when the dairy operation ended, it appears that the dairy activities began to decrease after the South Shore stop was discontinued. The family looked to other activities—such as constructing and renting a tenant house at the farm—to provide extra cash. During the 1930s C. L. and Minnie Chellberg were getting older and could not do as much work as they had previously. Although Ruth continued to work and reside at the farm until the mid-forties, Naomi married in 1926 and moved off of the farm. Carl Chellberg continued to live at the farm and help his parents. By 6 August 1937 when C. L. Chellberg died, his estate included only two cows. It is possible that the farm included more cattle that was considered to be the property of other family members. The end of this phase is defined by the year that C. L. died—1937. After that, the farm changed hands once again, and the management experienced another shift.[54]

Throughout this period, family members took part in numerous activities. The dairy operation required the help of all family members and as the children became old enough they played important roles; milking, feeding, and caring for the livestock. The dairy included twelve to fourteen milking cows. In addition, there were young cows that required care. After the milk was collected it was placed in the pump-house to be cooled. Cold water was pumped into the trough continuously to cool the milk. On windy days the windmill powered the pump and on calm days the pump had to be manually operated. A silo was added to the barn ca.1917, greatly changing the approach to storing corn at the farm. Previously a corncrib was used and whole corn was stored and fed to the cattle. With the addition of the silo, corn was chopped into silage for feed and the corncrib became obsolete. The original corncrib was no longer standing in the Spring of 1921.[55]

Crops grown at the farm included wheat, oats, corn, barley, hay, and sometimes rye. Wheat was the primary crop and oats were secondary. Wheat, oats, and rye required threshing—this was accomplished by hiring a contractor to bring a threshing machine to the farm.

> "...threshing machines would be scheduled around the area... they would come to different properties and spend the day and when they were done threshing they would pick up shop and move to the next farm so they could thresh the next day." The whole family was part of the threshing crew "because it was a very labor intensive operation to make sure you got the wheat bundles up to the threshing machine and kept it going and kept it busy and got through the whole harvest as fast as you could so that the guys could pack up their machinery and move on to the next farm before the sun went down."

The wheat and rye grain was taken to a mill to be processed for animal feed and flour. The last time that wheat was threshed at the farm was in the 1930s, probably in 1938 or 1939. Corn was picked by hand. The horses pulled a wagon down the rows of corn while the ears were picked.[56]

In addition to the original eighty acre property, the Chellbergs owned or used other sites for raising hay and providing pasture for the cows. The family owned twenty-eight acres of land north of Highway 12 that was regularly used for hay. It was a wet, marshy area. The family tried to grow a few different crops there, but were not successful because it was difficult to till and harvest. It was also used for grazing in the summer months when it was dry. The marsh drained into the Little Calumet River via the Sameulson Ditch until the construction of the steel mills interrupted this drainage pattern. Another non-adjacent property, a portion of the Peterson property that was located on the north side of Oak Hill Road, was also used for grazing the Chellberg livestock.[57]

While the dairy was the major focus of the farm during this period, the family participated in a variety of other endeavors. They continued to raise hogs and chickens; a large vegetable garden provided fresh produce. Hogs were a major endeavor and the farm "...raised twelve hogs a year, butchered six and sold the others or used them for new stock." Butchering at the farm occurred in the yard area between the barn and the house. The meat was cured in a smokehouse that was built behind the farmhouse (date?). Minnie raised chickens and according to oral history she took very tender care of them. She had a couple dozen chickens, Rhode Island Reds, White Leghorns, and Guinea Hens. The chickens produced eggs and provided meat for the family. Throughout this period horses were used for the majority of the fieldwork.[58]

Many vegetables were stored in the cellar for use in the winter and others were canned or pickled. The orchard was mature and the family had an abundance of fresh apples and pears. They also had crabapples and peaches. There was a small vineyard and Minnie Chellberg made jelly from the grapes. The family raised cucumbers that they sold to a local pickle manufacturer at least one year (1919). Minnie Chellberg was an excellent cook and worked off of the farm catering parties at the Dune Acres Country Club (in the mid-1920s) as well as for wealthy families in the area. According to Henry Studebaker, meals at the farm were standard fare consisting of meat (primarily fowl or pork), potatoes, and vegetables that were raised in the farm garden (including corn, green beans, peas, and carrots).[59]

Towards the end of this period, in the 1930's, the family began making maple syrup to sell for cash to pay the property taxes. They collected maple sap and made syrup with rudimentary equipment for a couple of years before they built the sugar camp. It was built in either 1934 or 1935 by a member of one of Alden Studebaker's construction crews, probably Oscar Nelson. It was constructed with concrete blocks that were made at Dune Acres. The sugaring operation involved tapping well over one hundred trees. The majority of the trees that were tapped were located at the Chellberg Farm property, in the ravine. Occasionally trees at the Nelson farm were also tapped. The Chellbergs sold the syrup that they produced and used the cash to pay the taxes. People would come to the farm to buy the syrup. This started with family members, and spread by word of mouth. Many people from Chicago came to the farm to buy the syrup.[60]

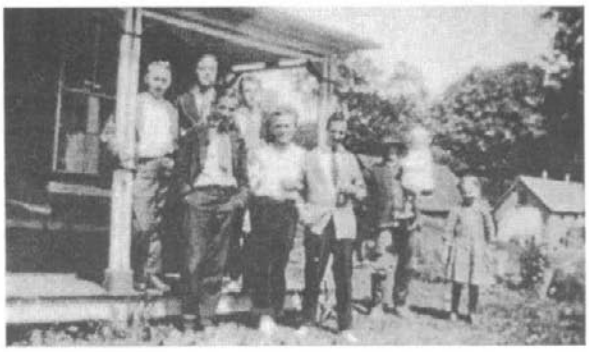


Figure II-19: Circa 1914-1915 photo of "Montreal Bank Employees" In the background there is a structure that looks like a corncrib near the chicken coop.

Figure II-20: The woodshed at the top of the ravine. (HS-0040)

Figure II-21: The Ravine facing East with farm buildings in the background. Note the fence and distribution of trees.

The sap was collected when there was a thaw during the day and freeze at night. This generally occurred during the last week of January through the first week of March. The trees were tapped by putting spigots into holes in the trees and buckets were hung under the spigots. The buckets were emptied into a barrel (on a wagon or sleigh that was pulled by a team of horses). Then the sap was transferred into storage tanks on a platform outside the sugar camp. A pipe led inside the building to the evaporator pan where the sap was boiled. The syrup was strained and bottled for sale. They made 55 to 60 gallons of syrup every year which was sold for between four and ten dollars per gallon. When the sugar camp was built a deep well was dug adjacent to it. It had a hand pump and was used during the syrup production.[61]

In the summer months people would come from Chicago to visit the dunes on the weekend. Many people came on the South Shore line and walked to the dunes. The Chellberg's extended family included many members who lived in Chicago, when they came to visit they would picnic at the farm. The family rented out rooms and built a tenant house in the 1920s that was rented out to generate cash.[62]

As the children became old enough to help on the farm, they became integral parts of the operation. Ruth and Naomi Chellberg were both responsible for milking specific cows. Ruth Chellberg was the oldest and was a very enthusiastic farmer. She worked with the animals training both cows and horses. Her father, C. L., taught her to graft apple trees "so special varieties could be grown."[63] In addition to their work at the farm, the children attended school in Porter.

In 1919 the house was wired for electricity. A porch was added to the farmhouse to hold the batteries and generator. It was located near the side entrance of the house on the side near the windmill. The entire "...house was wired for lights, and there were one of two outlets in the house for appliances." The family had a radio that was used in the kitchen. Also, "the barn was wired and there was an outside pole... ... that had a yard light on it." In the barn, there were lights in the horse stall section as well as the area where the cattle were kept. In addition, the haymow was lit. The electrical wires ran from the house, along poles that were near the chicken coop, to the barn. Within a few years the generator was out of service and it was not until the middle 1930s that electricity was rees-

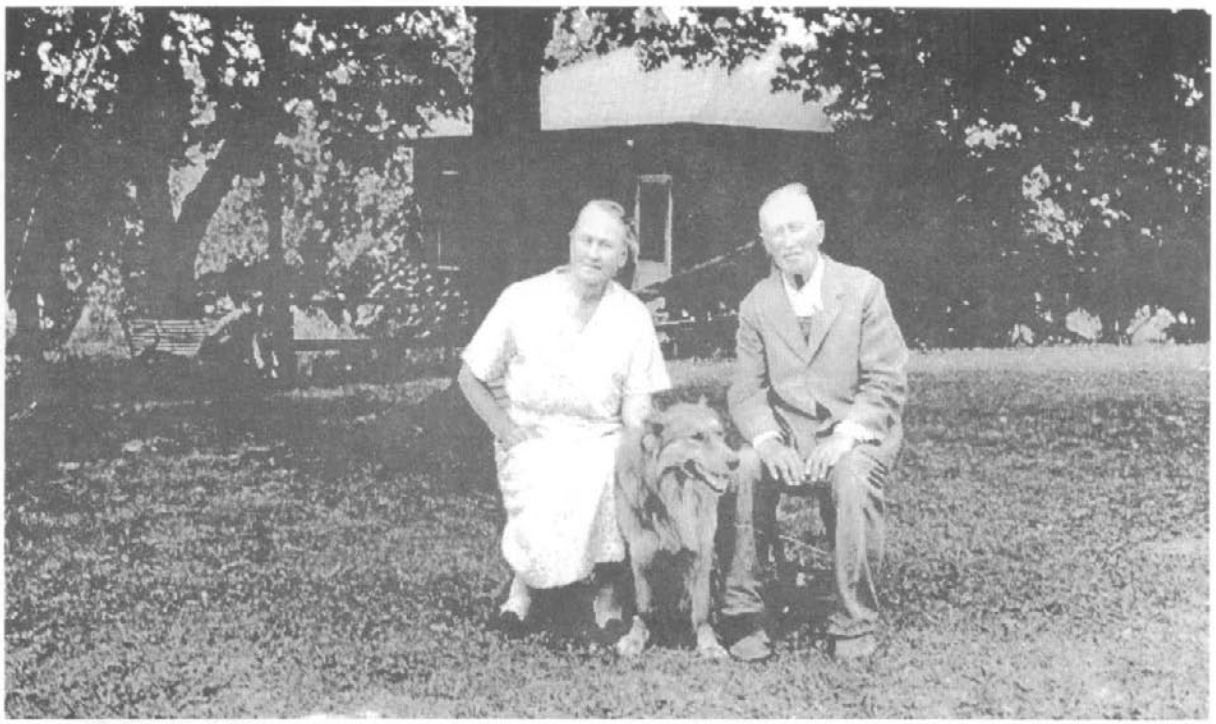


Figure II-22: The tenant house is visible in the background of this photo dated 7/4/36. (INDU7130)

tablished at the farm. When the generator stopped working they used kerosene for at least a decade.[64]

During this period most of the outbuildings at the farm had a weather-beaten appearance. The barn was bare wood, the silo was a weathered red. The granary and chicken coop were both bare boards. Also during this period, a brick tenant's house (or rent house) was constructed and the farmhouse was once again altered. Changes in the farmhouse included the addition of a new front porch, a new parlor fireplace, and new windows in the front room. Also, repairs were made after a fire occurred in the summer kitchen.

The tenant house was built by Minnie (Peterson) Chellberg's brother, Emil Peterson, to provide an additional source of income for the farm. Peterson was a brick mason who moved to the farm from the Pacific Northwest in the 1920s. Since Peterson was the first tenant, it is possible that his need for a residence was the inspiration for the addition of this structure to the farm. The building was constructed of solid red brick with a terra cotta tile foundation that eventually disintegrated due to frost heave. It had three rooms including a small bathroom, a kitchen/dining room, and a living/bedroom. It was twenty-four feet square with a back porch and a chimney that rose from the center of the pyramidal hip roof. In addition to the rent house, Minnie Chellberg rented out rooms in the farmhouse for a number of years.[65] The tenant house appears in the background of **Figure II-22**.

Figure II-19 is a circa 1914-1915 photograph of several people standing on and near the farmhouse porch. In the background there is a structure that appears to be a corncrib near the chicken coop. It is possible that this was the original corncrib, built between 1870 and 1879. The building in the photograph has a basic gable roof (the gable runs north-south). A photograph labeled "Spring Butchering," **Figure II-25**, indicates that this building was no longer standing in 1921.[66]

Figure II-19 also provides other useful information. In the image there is a fence between the people and the outbuildings—the fence was "around the whole farm to keep the chickens out of the front yard. The chickens would still crawl under the gates, but they were not fenced "in" they were fenced "out."

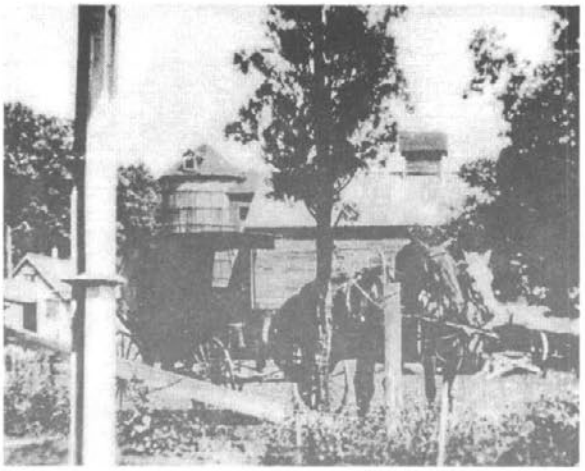


Figure II-23: Circa 1921 photo showing the wire fence with wood post at the yard and the light post south of the chicken coop. (HS0043)

Figure II-24. A 1921 photograph showing the woodshed area and the gate. The outhouse is on the right behind the tree.(H20018)

24 June 1926 Naomi married Alden Studebaker and they moved to a new house in Dune Acres. They had two children, Henry and Arthur. Towards the end of this period, circa 1933-1939 Henry and Arthur Studebaker spent afternoons at their grandparent's farm. They rode the schoolbus to the farm and stayed there until their father picked them up after work.[67]

See the map exhibits at the end of this chapter for the Historic Period Plan, 1908-1937.

SUMMARY OF LANDSCAPE CHARACTERISTICS, 1908-1937

The Buildings

Several changes to the farm **buildings** occurred during this period. Photographs taken during this phase document the existance and conditions of the buildings at the farm. The addition of the Silo to the barn ca. 1917 significantly changed the approach to storage of corn silage, rendering the corn crib obsolete. The addition of electricity brought changes to both the buildings and landscape. An addition to the farmhouse provided space for the generator and batteries, and poles and wires between the house and barn were added. Lights in the barn and **yard** would have had an impact on the farm activities. Evening and early morning chores including milking and transportation of milk from the barn to the waterhouse would have been simplified with the addition of electric lighting. The original corn crib collapsed before 1921. The addition of the tenant house before 1926 changed the makeup of the landscape. A road was added to access the house and **the lane** approach to the farm branched

Figure II-25: "Spring Butchering" circa 1921. (HS20016)

Figure II-26: Circa 1922 photo of the north side of the farmhouse. (H20009)

Figure II-27. The yard ca. 1920. (H20020)

off to the left. Also, the tenant house blocked views from the farmhouse to the south-- the view of the orchard would have been obstructed. In the 1930's the pole barn collapsed and the sugar camp was built.

The Yard

Photographs taken during this period provide the first documentation of the physical characteristics of the **yard** between the barn, outbuildings, and house. The yard was defined by a fence that ran from the barn to the chicken house and corn crib to the granary and then the waterhouse. The front yard fence on the north side of the house ran from the water house to the east and defined the southern edge of the yard. This area included the terminus of the farm road or "the lane" which had a turn around in the yard space. **Figures II-26 through II-31** illustrate the conditions of the yard during this period.

Figure II-28: "Snowbound." Similar to Figure 26, the tree in the yard is bigger and there are more trees visible. (H20008)

Figure II-29: The northeastern portion of the farmhouse. (H2-0010)

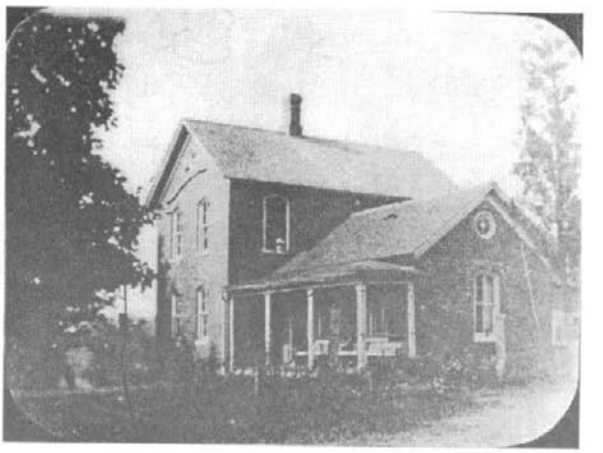


Figure II-31: The farmhouse and yard. (CHFMS01)

Figure II-30: Circa 1922. The front of the farmhouse in the snow. (CHFMHS02)

Figure II-32: The sugar camp with a fence running along the ravine. Early 1935 or 1936--the pumphouse addition has not yet been built. (INDU8138)

Figure II-33: Naomi Chellberg Studebaker and her son Henry visiting his grandmother. Yard at house facing northeast circa 1928. Note fence, shrubs, small trees along fence and possible guy wire at the right portion of the photograph. Open fields in the background.

Figure II-34: "Grandsons." Yard at house facing northeast, circa 1928. Note fence, shrubs, small trees and shadow of large tree.

Figure II-35: "Mums." Date unknown. Mums with medium sized deciduous tree and barn in background.

The Front Yard

For a long period the farm landscape included a domestic "**front yard**" that was defined by a fence surrounding a lawn in front of the farmhouse. The date of its establishment is unknown. The earliest documentation of it is a historic photograph that is dated 1910 (**Figure II-17**). In the photograph, the fence is present and there are ornamental plants along the perimeter of the fence, suggesting that is has been present for at least a couple of years. It is possible that it was established at a very early date. The **front yard** was used for picnics, children's play, and other family activities. The fence kept livestock—mainly chickens during the early periods—out of the **front yard**. This was necessary since the chickens were allowed free range of the farm.

Ornamental plants in the **front yard** included flowers, shade trees, flowering fruit trees, shrubs, and grass. Shade trees included a large hickory and a maple. The hickory was mature in the 1920s and 1930s, nearly a "few feet in diameter," and a good fifty feet tall. It died in circa1945. The **front yard** was sunny to the east of the house, with a few shady patches that were created by two mature deciduous trees. The south, west and north yard areas were more shady. There was a pear tree in between the tenant house and the farmhouse, and a peach tree in the **front yard**.[68]

The area inside the fence was lawn, and Minnie Chellberg had a circular flower garden in the front yard that was less than ten feet in diameter. Naomi Chellberg Studebaker recalls that her mother had a flower garden in the **front yard**, and also a round flower garden. It is unclear if she meant that there were two flower gardens in the **front yard**, or if they were the same. She remembered her mother growing white chrysanthemums in the round garden, as well as other flowers. She also indicated that her mother "always had roses," and that she had orchids that she protected from frost damage by keeping the roots in the cellar in the winter. In addition, Naomi recalled that her mother had a flower garden in the backyard, near where the woodhouse used to be and "just south of the granary, out in the open." She also remembered a "Theodore Roosevelt chrysanthemum," that bloomed red." Naomi also remembered having pansies in the **front yard**, and a trumpet vine that was by the porch. Clothes were hung in the area behind the house on a line that may have been strung from the

Figure II-36: Gate and sidewalk north of the farmhouse, circa 1920s.

Figure II-37: A variation on the gate at the yard, circa 1920.

back porch to one of the outbuildings. This area was partially shaded even in the 1930s.[69]

The Orchard

The farm's small **orchard** produced apples, crabapples, pears, peaches, and possibly cherries. It was located just south of the tenant house. There was also a pear tree at the northeastern corner of the tenant house, and a peach tree in the **front yard**. The trees were maintained until sometime after C. L. Chellberg died in 1937. After that, Ruth Chellberg maintained the orchard until she moved away from the farm.[70]

The Garden

Minnie Chellberg had a vegetable **garden** that was outside of the yard fence, southeast of the **front yard**. There is no documentation indicating that it was ever fenced. The **garden** included "typical things like tomatoes, cabbages, potatoes, carrots, radishes, green beans, and peas." The vegetables were grown for household use. Manure from the barnyard was used to fertilize the garden. When asked if the appearance of the **garden** was ever considered, Minnie's grandson Henry Studebaker indicated that "it was a utilitarian approach." Henry remembers that "they harvested a lot of root crops... potatoes, rutabaga, the kinds of things that went down in the cellar of the farm house." They also canned vegetables from the **garden**. There were a lot of black and red raspberries planted around the perimeter of the vegetable **garden**. "...they were growing along the edge of the **garden** because I can remember as kids we'd get caught up in those things and we'd get all scratched up. They were little berry patches." The Chellbergs owned 28 acres north of Highway 12 that was mined for soil. "The soil was a dark-black heavy mucky type soil that was fairly light when it dried out, almost like peat, we would take truckloads of that soil over to the Chellberg farm and blend it with the heavier clay soils of the farm and try to lighten it up to allow vegetables to grow better."[71]

Figure II-38: Gate at eastern edge of yard, circa 1922. Note the tree-lined lane, fruit tree, and ornamental plants nears the fence.(lane.tif)

The Lane

The entrance road to the farm ran east-west roughly from Mineral Springs Road to the farmhouse. Two historic photographs, **Figure II-17** and **Figure II-38**, show views of this "**lane**" from the **front yard**. There was a gate in the fence that roughly lined up with the **lane**. The gate was decorated during various periods with flowers, shrubs, and antlers. The **lane** appears to have been the main entrance to the farm for pedestrians and vehicular traffic. The photographs show the **lane** lined with deciduous trees creating a corridor that would have been both scenic and utilitarian. It provided shade for the passage to or from the farm, and possibly for breaks while working in the nearby **fields**. It also provided an organizing element for views from the **house** and **front yard** and was featured in the background of many period photographs. No historic photographs have been located that show a view from the **lane** toward the **house** (facing west). However, the alignment of the road, placement of the ornamental gate, location of the farmhouse, the lawn, and possibly even the location of the circular flower bed in the **front yard**, seem to create an organized view into the farm that would have been scenic. This view would have presented the most beautiful aspects of the farm to anyone approaching along the **lane**.

The **lane** split at the **front yard** and continued toward the **barn** to the northwest and around the fence towards the **tenant house** to the southwest. Towards the **tenant house** it was "just wide enough for two tire tracks," and located about ten or fifteen feet from the yard fence on the east side—only five feet on the south of the fence. Its surface was composed of "cinders from the railroad locomotive." There was also another lane at the farm. A passage linked the heart of the farm with Oak Hill Road to the north. Starting just east of the barn, a path went north to Oak Hill Road. [72]

Figure II-39: Circa 1921. View of the ravine, with scattered trees and no undergrowth. (CHFM04)

The Ravine

When C. L. and Minnie Chellberg were running the farm there was another fence to the west of the outbuildings that kept the **pastured** animals away from the **fields** and **yard**. The animals, in particular the hogs and cows, were **pastured** in the **ravine**. There were shelters for the hogs located in the **ravine**. From at least 1930 to circa1950 the **ravine** was densely wooded, but it was open under the canopy. "The whole wooded area was like that. All the way up to Oak Hill Road. Because when we used to go with the sap sled, we'd go..." along the perimeter of the whole **ravine**. "The scrubby stuff wasn't around. You just had the main trees." Carl used the ravine as a hunting ground and often brought home the meat he caught for supper. The trees in the **ravine** were tapped for maple syrup, and dead trees were cut for use as firewood. The trail at the top of the **ravine** (parallel to the ravine from the sugar camp to the visitor center) was used to run the sap sled (the sled used to transport buckets of maple sap). The fence ran along the trail that was used for the sap sled. The farm equipment was moved on the path east of the **farmhouse.** The **ravine** was also used as a dump. "...they dumped it right over the side of the **ravine**, in a washout. Sometimes we'd get washouts up here and you can see where some of them might have been. They'd just dump all kinds of stuff."[73]

Figure II-40:
Chellberg Farm Timeline, 1937 - 1972

	1937	After C. L. Chellberg died, his son Carl Chellberg took over the operation of the farm.
	1938	
	1939	Threshing occurs for the last time at the farm.
Corncrib built.	1940	Ca. 1940 Silo torn down.
	1941	Beginning in 1940s Carl Chellberg raises sheep.
	1942	Ca. 1941 Corncrib built with wood from the Silo.
	1943	Truck garden during 1943, 1944, and 1945.
Brooder house built.	1944	1944 Brooder house built.
	1945	
	1946	
	1947	
Sheep shed constructed.	1948	Sheep shed constructed behind the granary between 1940 and late-1950s.
	1949	
	1950	
	1951	5 November 1952, Minnie Chellberg died.
Indoor Plumbing in Farmhouse.	1952	1952, U. S. Government purchased an acre from the Chellbergs for a septic tank for the Nike base.
	1953	1953 Water line from the Sugar Camp pumphouse to the farmhouse installed adding indoor plumbing to the farmhouse for the first time.
	1954	1954 lean-to sheep shed constructed adjacent to the barn.
	1955	1955 Brooder house collapsed.
Sheep shed addition to barn.	1956	1956 last time the Tenant House was occupied.
	1957	
	1958	Late 1950s Carl Chellberg sold the sheep and began working off of the farm. **Agriculture is no longer the primary family business.**
	1959	
	1960	
	1961	
	1962	
	1963	
	1964	
	1965	
	1966	Indiana Dunes National Lakeshore was created.
	1967	
	1968	Late '60's, Chellberg family plans to develop a subdivision on the farm property.
	1969	
Last Chellberg leaves the farm.	1970	
	1971	
	1972	Carl moves from the farm after it is purchased by the federal government to become a part of Indiana Dunes National Lakeshore.

THIRD GENERATION AT THE CHELLBERG FARM, 1937-1972

After C. L. Chellberg's death in 1937, the farm property was divided between his wife, Minnie Chellberg, and three children, Ruth Chellberg, Naomi Studebaker, and Carl Chellberg. At this point, the management of the farm was passed on to Carl Chellberg, however other members of the family continued to play an active role in the decision making and hands-on management of the farm. Carl Chellberg did not share his father's entrepreneurial attitude and success in running the farm. The changing economic environment made it difficult to survive on the proceeds obtainable from the small farm in an area that was quickly becoming industrialized. He raised a herd of sheep and eventually worked off of the farm in a machine shop in Chesterton.

Carl Chellberg married Hilda Johnson in 1938 and they eventually had two children. They remodeled the second floor of the farmhouse as an apartment where they lived with their two children until Minnie Chellberg died on 15 November 1952 at the age of 82. Then they moved downstairs. While Minnie Chellberg was alive she continued her role in defining and tending many of the domestic aspects of the farm landscape. She planted and managed the vegetable **garden**, tended the flowers and other ornamental plants in the **front yard**, and took care of the **orchard** trees. She also continued to raise chickens.[74]

Threshing occurred at the farm for the last time in either 1938 or 1939. **Figure II-43** is an excerpt from the first aerial photograph that was taken of the farm. When the aerial was taken in 1938 a large portion of the farm property was cultivated **fields**. The cultivated area was similar in 1951 when the next aerial photograph was taken (**Figure II-44**).

In ca.1940 the silo was demolished. A corncrib was soon constructed to replace the silo. Eventually a tractor shed was added on to the South side of that building. In 1944 a brooder house was built. [75]

In 1945 Minnie Chellberg began to divide her property between the three children. She transferred a parcel of land that she had inherited from the Peterson family to Ruth Chellberg. Ruth, in turn, transferred her rights to the farm property to Carl Chellberg and Naomi Chellberg Studebaker. In 1947 Minnie Chellberg transferred her interest in the Chellberg farm property to Carl Chellberg and Naomi Chellberg Studebaker.[76] Naomi had not lived at the farm since she married in 1926. Her husband, Alden Studebaker, and eventually their two sons, Henry Studebaker and Arthur Studebaker, were actively involved in various endeavors at the farm. By 1947 Carl Chellberg was definitely the main decision maker regarding farm operations.

Sometime in the forties Carl Chellberg began raising sheep and kept about sixty head. The sheep were sold at auctions for meat. The sheep grazed throughout the entire farm property and were kept in two sheep sheds that were constructed during this period. A large extension was built onto the south side of the barn in 1954. It was constructed by Carl Chellberg, Henry Studebaker, and Arthur Studebaker. Another sheep shed was constructed behind the granary. The building was smaller than the barn addition and constructed of corrugated iron. Eventually (sometime in the mid to late 1950s) Carl Chellberg took a job a machine shop in Chesterton and sold the sheep. Hilda Johnson Chellberg worked as a cook at a local restaurant. Once both Carl and Hilda had jobs off of the farm, the farm operation became a secondary effort and no longer the main family business.[77]

Circa 1940 electricity was reestablished at the farm. It was used until the utility company power was brought to the farm in the 1940s after the war.[78]

During 1943, 1944, and 1945, Henry and Arthur Studebaker grew vegetables at the farm for sale to local residents. They had a two-acre **garden** in the eastern portion of the field south of the **orchard** and north of the current visitor center parking lot. They grew vegetables to sell door to door in Dune Acres. They grew asparagus, lima beans, yellow and green snap beans, beets, broccoli, cabbage, carrots, cauliflower, celery (white), kale, leaf lettuce, endive, cantaloupe, watermelons, okra, green onions, leeks, parsnips, peas, green and red peppers, red, white, and sweet potatoes, radishes, rhubarb, spinach, red rhubarb chard and white swiss chard, jerusalem and butternut squash, red and yellow tomatoes, turnips, rutabagas, kohl robi, cicely, sweet corn (yellow bantam and country gentleman) horseradish, dill, sage, chives, and parsley. They were sold for "very reasonable and competitive" prices, "like five cents for a

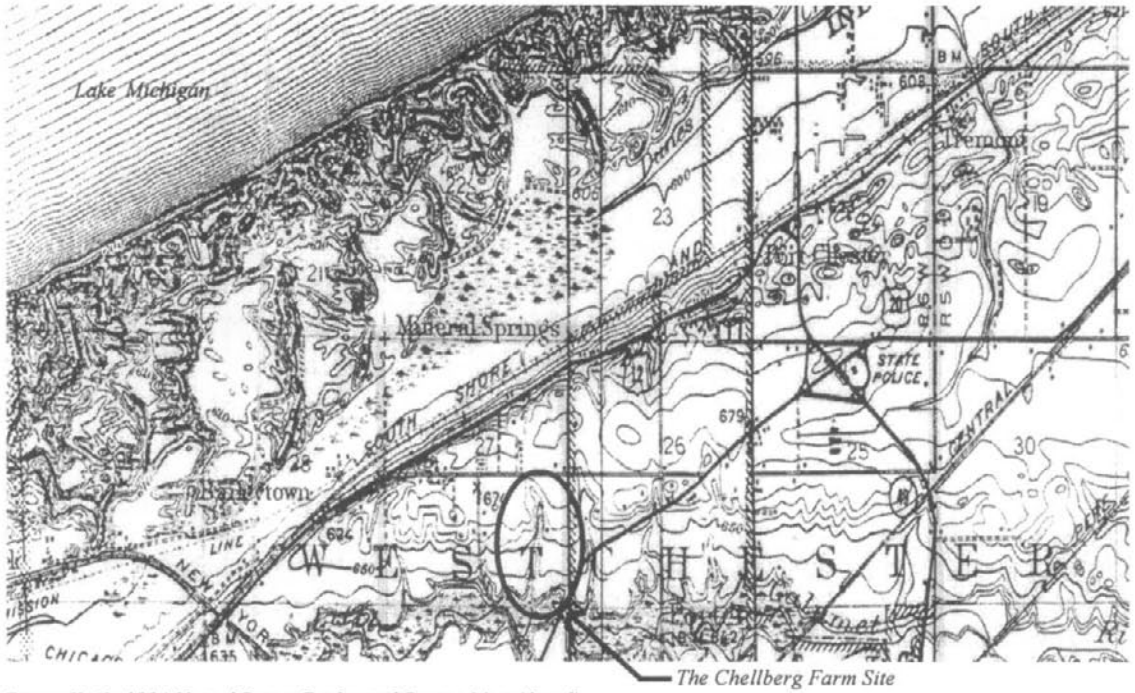


Figure II-41: 1934 United States Geological Survey Map (detail).

bunch of radishes, onions, leaf lettuce, chard or a head of cabbage and 25 cents for a dozen ears of corn." The **garden** was the idea of the boy's father and paternal grandfather. "My brother and I both feel this was an effort on their part to give teenage boys something worthwhile to do and keep them out of mischief."[77] The boy's paternal grandfather was living in the brick rent house at the farm during this period.

In response to a question regarding the particular techniques used to prepare, plant, or harvest the **garden**, Henry and Arthur provided the following response.

> "Our father was the brains of the operation and he approached it with some finesse. He acquired a soil testing kit as well as information about the soil and nutritional needs of garden produce crops. Appropriate amounts of natural and chemical fertilizers and soil conditioners were determined for each type of plant. The preparations started in early spring with the planting of the seeds of the set out items, like cabbage, broccoli, tomatoes, etc. in wooden plant boxes so they would be well developed for planting in the ground when danger of frost had passed. Garden soil preparation was very conventional plowing and disc harrowing finished up with a spike toothed drag. A plan of the garden was devel-

Figure II-42: A 1937 photograph shows the yard by the northeastern corner of the house. There was a sidewalk, fence, trees, and grass.

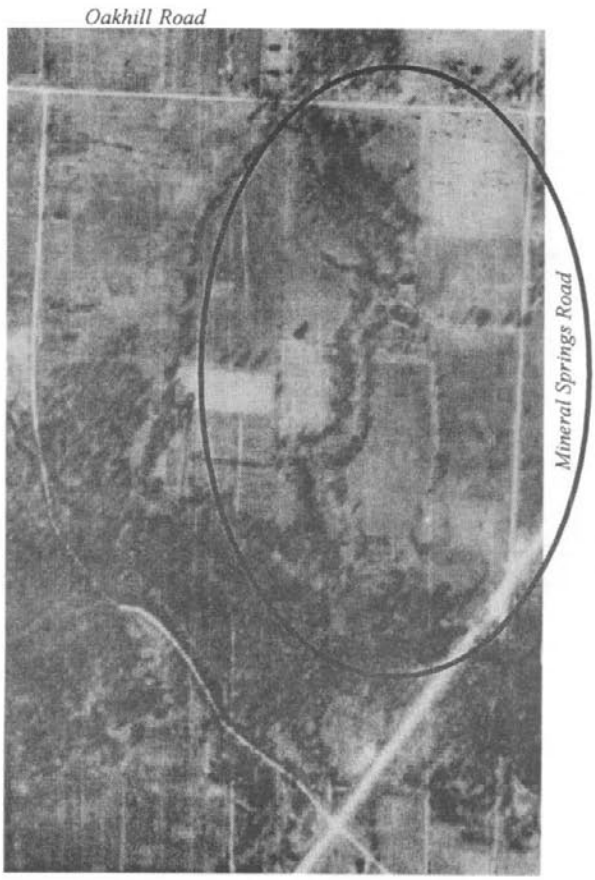


Figure II-43: The first aerial photograph of the farm, taken in 1938. The Chellberg Farm site is circled.

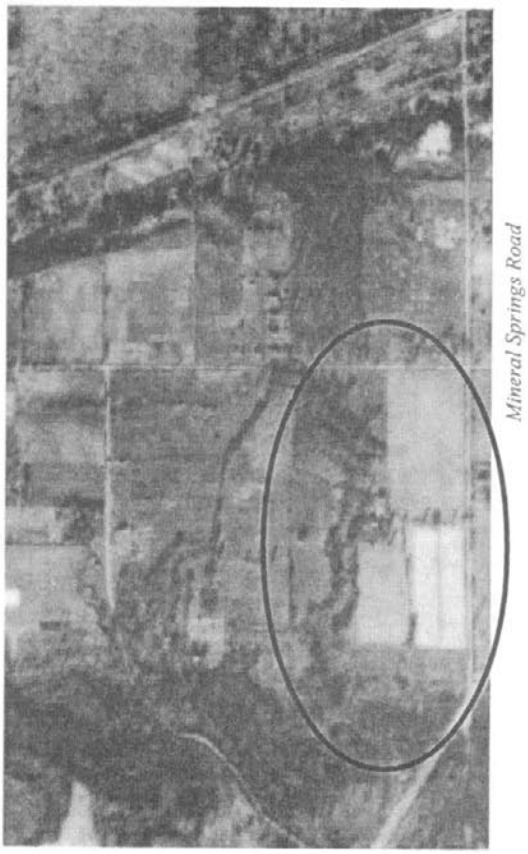


Figure II-44: 1951 aerial photograph, the Chellberg Farm site is circled. three cultivated fields and the treelined entrance road can be identified.

> oped and plantings made accordingly. A manual seed planter was used to plant seeds for the row plants. Plants were set using a homemade stick with a sharpened wedge shaped point and footrest for quick and easy placement of the plant and closing the hole. Cultivating was done using various manual wheeled cultivators and an ordinary garden hoe. Our paternal grandfather spent his morning hours carefully hoeing the rows. When the rains didn't come in a timely manner irrigation was necessary. The construction dump truck was converted into a water wagon by lining the box with a canvas and filling it with water from Dune Acres. The water was released in the rows with a siphon hose from the truck. Harvesting was simply picking, cutting, digging or pulling as required by each type of produce. Bunches, and baskets were used to package the produce into the pickup truck for sale to the customers. When there was demand for items we did not have in sufficient quantities our father would buy wholesale produce to supplement our own."[79]

The ashes from the maple syrup fire were used on the garden "it was good for the potatoes." Soil from the Chellberg property North of US HWY 12 was used to condition the soil for the truck **garden.** This property was occasionally used as a hay field and once to grow melons, however, it was never very productive. The money made from selling vegetables was given to their parents and used to help support the family.[80]

Also during WWII, Carl Chellberg, Alden Studebaker (Henry Studebaker's and Arthur Studebaker's father), Bill Nelson, Henry Studebaker and Arthur Studebaker cultivated 640 acres of land on U.S.6. They grew wheat one year and soybeans the next.[81]

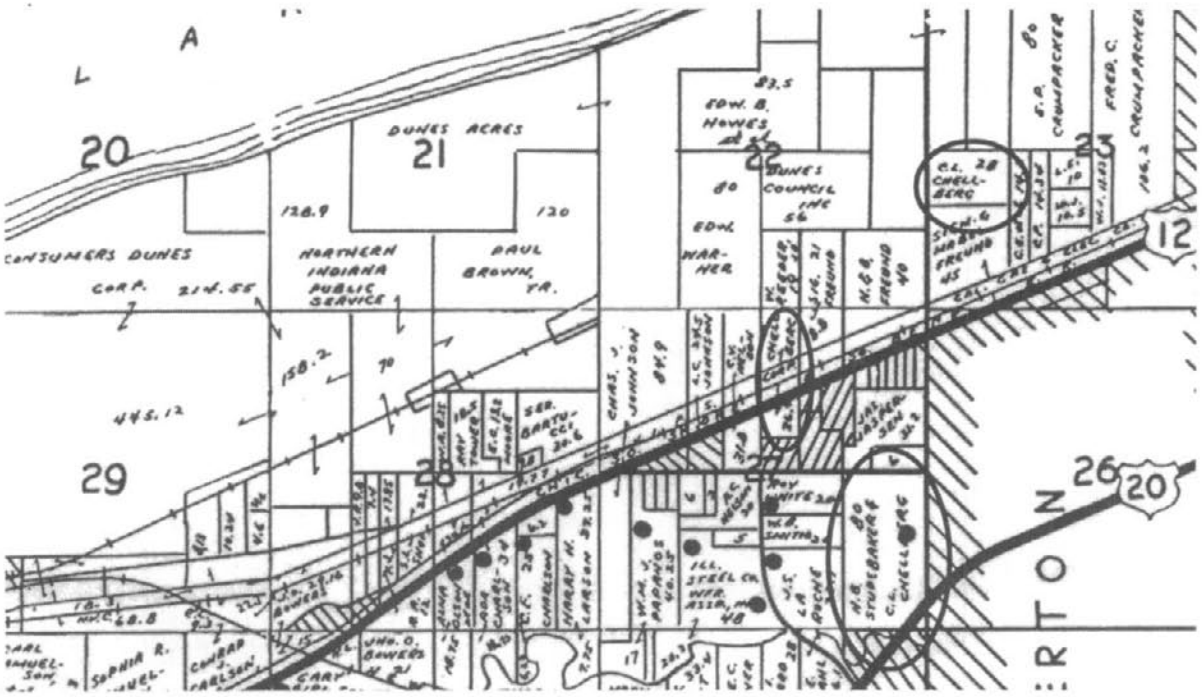


Figure II-45: 1959 Porter County, Indiana, Official Farm Plat Book and Directory, *published by County Plat & Directory Company, Inc., Madison, Wisconsin. Properties owned by the Chellbergs are circled.*

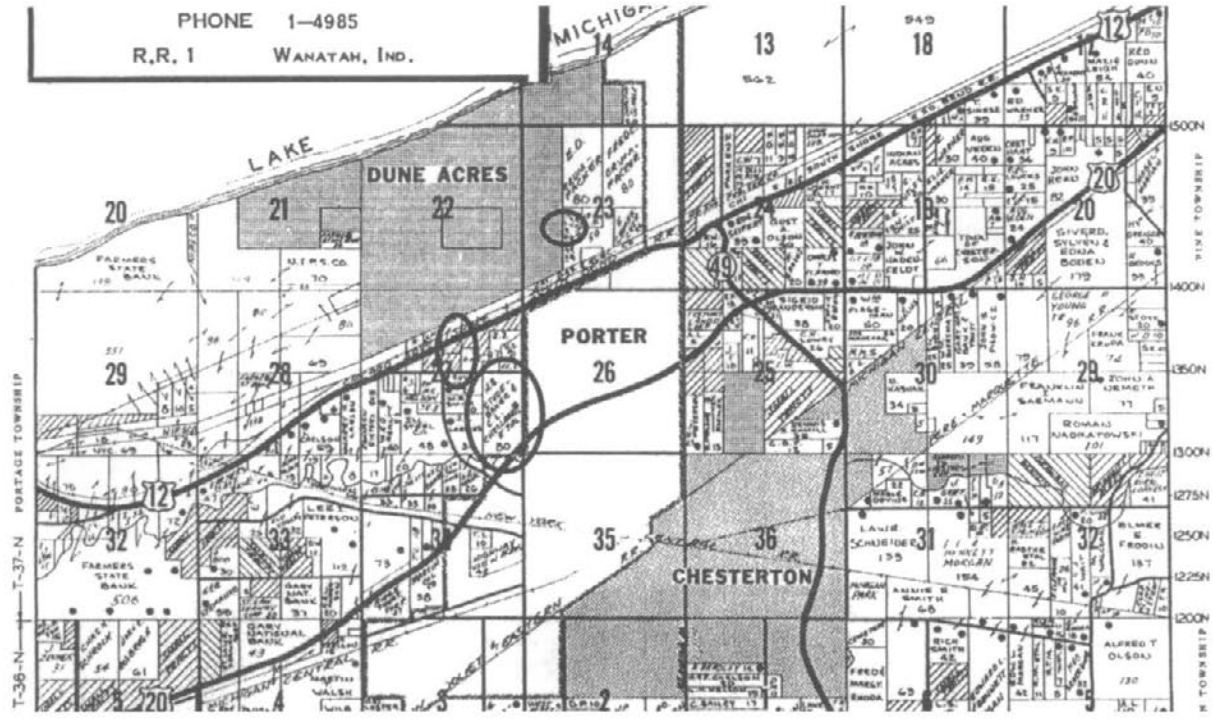


Figure II-46: Circa 1960s Porter County, Indiana, Official Farm Plat Book and Directory, *published by County Plat & Directory Company, Inc., Madison, Wisconsin. This map indicates N.B. Studebaker and C.L. Chellberg own 80 acres with a farm dwelling on it. The two other properties are no longer owned by the Chellbergs.*

See the map exhibits at the end of this chapter for the Historic Period Plan, 1937-1972.

SUMMARY OF LANDSCAPE CHARACTERISTICS, 1937 - 1972

The Buildings

There were a number of changes to **buildings** at the farm during this period. The Silo was demolished Ca. 1940. Within a year a Corncrib was built using wood from the Silo. A brooder house was built for the chickens in 1944. As raising sheep replaced the dairy operation, new shelters were required for the herd. Two sheep sheds were built during the period. One of these sheds was actually an addition that was built onto the south side of the barn. The addition changed the appearance and function of the barn and **yard**. While it did have a door on the South side, a large opening on the Eastern side of the addition appears to have been the main entrance for livestock and machinery. The addition and doorways can be seen in **Figures II-48, II-50, and II-55.**

The Yard

For the first time since the construction of the earliest buildings at the farm the **yard** between the barn and farmhouse was altered by the intrusion of a major structure. Through the years several small buildings had been added, deleted, and altered along the western edge of the **yard**. These changes did not, however, intrude upon the **yard** space. During this period the addition of the sheep shed onto the barn changed both the appearance and circulation patterns in the **yard**. The shed addition was placed in an area that would have previously been a very active outdoor space.

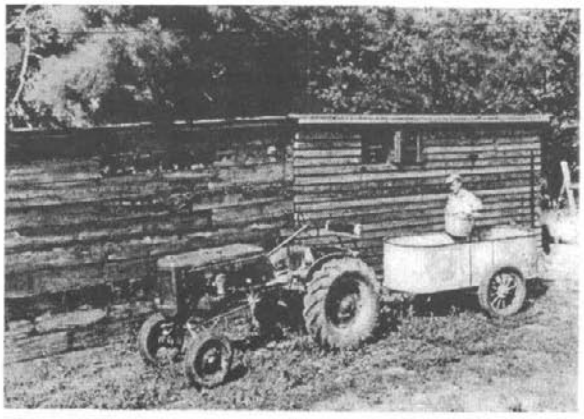


Figure II-47: The corn crib with a tractor shed addition to the south. Early 1940s. (INDU8137)

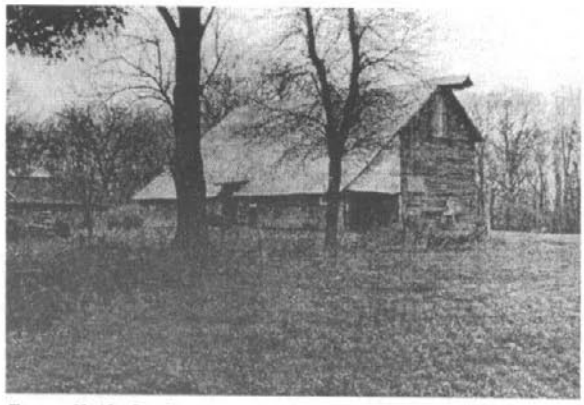


Figure II-48: Conditions at the farm, circa 1964.

Figure II-49: Conditions at the farm, circa 1964.

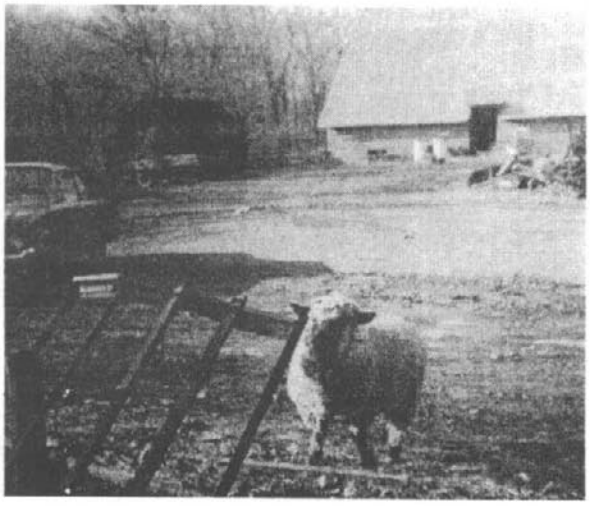


Figure II-50: Conditions at the farm, circa 1964.

The main entrance for both livestock and machinery changed from the South entrance to this location. Also during this period the **yard** became the parking area for cars, trucks and tractors. Carl Chellberg used a tractor in place of the horses that his father had used. During this period automobiles became more readily available and necessary for a family that needed transportation to jobs in other locations.

The Front Yard

The **front yard** persisted through much of this period. It continued to be used for relaxation and domestic activities. Minnie continued to tend the flowers and other ornamental plants during the early years of this period. The fence defined the **front yard** perimeter and protected it from the chickens and livestock. The gates were used to direct people to access points.

It is unclear when the fence was removed, but by 1967 it was no longer apparent. A 1967 photograph of a tulip bed near the north side of the house (Figure #53) indicates that any remaining fence was no longer functional. The photograph displays a short wire fence protecting the tulips, it clearly shows that there was no fence between the windmill/water house and the farmhouse. Any remaining portions of fence were obviously not protecting the **front yard** from trampling.

The Orchard

The farm's small **orchard** declined during this period. The fruit trees remained and continued to produce fruit at the beginning of the phase, but by the time the National Park Service purchased the property in 1972 many of the trees were no longer producing fruit.

Figure II-51: The yard near the house circa 1967.

Figure II-52: Conditions at the farm, circa 1964.

Figure II-53: Conditions at the farm, circa 1964.

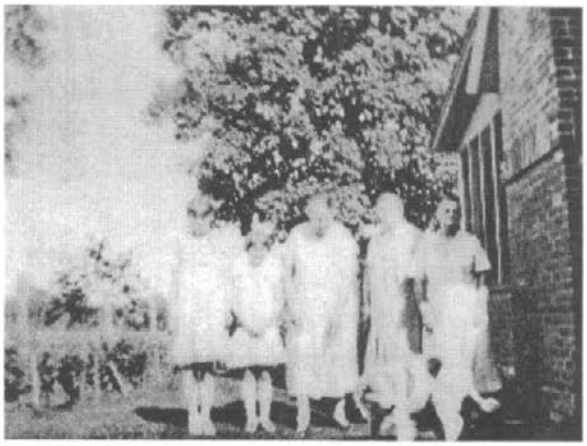


Figure II-54: Conditions at the farm.

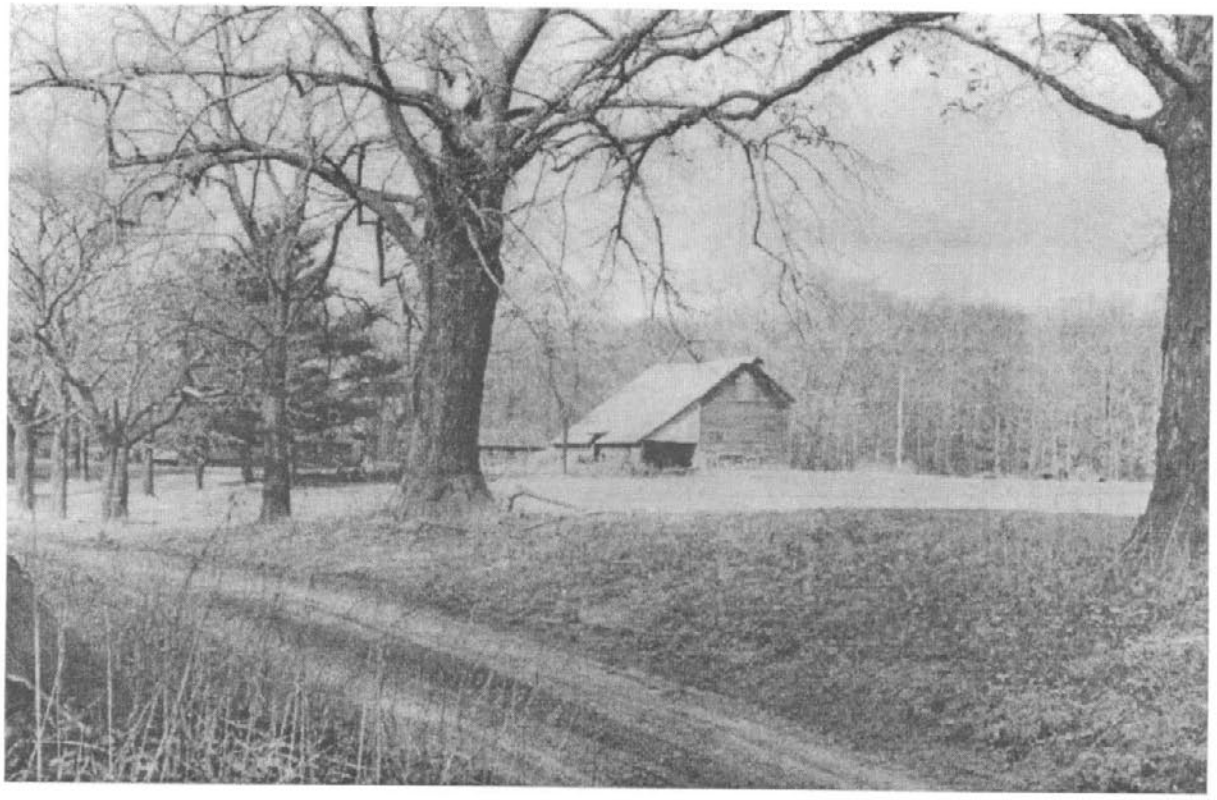


Figure II-55: The Lane, Barn with sheep shed addition, and Ravine, circa 1964.

After C. L.'s death in 1937, it is possible that Ruth and Minnie attempted to maintain trees. The **orchard** was not a focus for Carl, and he did not maintain it.[82]

The Garden

The family continued to have a **garden** while Minnie was capable of maintaining it. It is unclear if Carl, Hilda, or anyone else cultivated a family **garden** after Minnie's death. Henry and Arthur Studebaker had a commercial **garden** for three years (from 1943-1945). This was in a different location from the family **garden**.

The Lane

The **lane** continued to serve as the main vehicular and pedestrian entrance to the farm throughout this period. The large deciduous trees defined and shaded the corridor. The lack of undergrowth around the bases of the trees allowed views from the lane to the **fields**.[83]

The Ravine

The ravine was densely wooded with sparse underbrush until at least 1950. It was used as pasture for the hogs and cattle in the early part of this period. It may have been used for pasture for sheep as well. The fence on the eastern edge of the ravine (on the western edge of the farm buildings) remained until at least the 1950s. The trees were tapped for maple syrup and dead trees were cut and used for firewood. Carl hunted in the ravine and other hunters also came to the ravine to hunt. The trail at the top of the ravine (parallel to the ravine from the sugar camp to the visitor center) was used to run the sap sled. The fence ran along the trail. The ravine was also used as a dumping grounds for family refuse.[84]

Figure II-56:

Chellberg Farm Timeline, 1972 - 1999

1972	Chellberg Farm becomes part of Indiana Dunes National Lakeshore.
1973	
1974	Bailly Homestead/Chellberg Farm Trail established.
1975	
1976	
1977	
1978	
1979	
1980	Bailly/Chellberg Visitor Center, picnic shelters, paved road, and parking lot opened.
1981	Gravel parking lot constructed. Demonstration garden established at the farm. Tenant house used to board a large pony.
1982	Sorghum oven built at the farm.
1983	
1984	Overflow parking lot constructed on East side of Mineral Springs Road.
1985	Sorghum press installed at the farm.
1986	Tenant house removed. Pole barn constructed North of the barn.
1987	Small hoghouse, and pen built. Exterior restoration of farmhouse.
1988	
1989	Fence installed around barn. Storage shed by parking lot constructed. Farmhouse opened to public. Large hoghouse constructed.
1990	Barn stabilization begun. Hogpen expanded. Bluebird boxes installed. 1990, First memorial tree planted near gravel parking lot.
1991	Chicken coop repaired and pen enlarged. Barn repairs completed.
1992	
1993	
1994	Cow shelter built.
1995	Garden expanded.
1996	Sugar shack repaired.
1997	Fence installed along Mineral Springs Road. Wooden boxes installed around water pumps and water tanks. Large apple tree falls in September.
1998	
1999	

Endnotes

1 Marciniak, 4; and United States Department of the Interior, National Park Service, Midwest Region, *Calumet Ecological Park Feasibility Study: A Special Resource Study Conducted in the Calumet Region of Northeast Illinois and Northwest Indiana,* August 1998, 8-9.

2 Cook, Sarah Gibbard and Robert S. Jackson. *The Bailly Area of Porter County, Indiana: The Final Report of a Geohistorical Study Undertaken on behalf of the Indiana Dunes National Lakeshore*, (on file at Indiana Dunes National Lakeshore Library) 1978, 8-9.

3 Cook and Jackson, 9-10, and Marciniak, 4.

4 Meyer, Alfred H. "Circulation and Settlement Patterns of the Calumet Region of Northwest Indiana and Northeast Illinois, First Stage – 1830," *Annals of the Association of American Geographers*, XLIV, no.3 (Sept. 1954), 254-60; and Marciniak, 14.

5 Marciniak, 14.

6 Cook and Jackson cite Milo Milton Quaife, *Chicago and the Old Northwest 1673-1835*. Chicago, 1913, 373-76.

7 Cook and Jackson, 14.

8 Cook and Jackson, 7.

9 Cook and Jackson, 34-36, and 41, cites Howe, Francis, *Story of a French Homestead*, 122. It appears that Francis Howe embellished her grandparents' history in her writing, however, no other sources are available to either confirm or dispute the information regarding fruit trees.

10 Cook and Jackson, 36.

11 Cook and Jackson, 36-37; and *Assessors Books*, Westchester Township, Porter County, Indiana.

12 McMahon, 2.

13 Marciniak, 5; and Cook and Jackson, p34-43.

14 McMahon, 6, cites H. Arnold Barton, 9.

15 McMahon, 3, cites William J. Ahrendt, "Reminiscences of the Baillytown Area: A Lecture to the Duneland Historical Society," in *Duneland Notes* (April 1980) Norris Combs ed., Duneland Historical Society, Chesterton, Indiana.

16 Beijbom, Ulf. "Swedes," in Stephan Thernstrom (Ed.) Harvard Encyclopedia of American Ethnic Groups. Cambridge, MA: Harvard University Press, 1980, p971-972; Moore, Powell A. *The Calumet Region, Indiana's Last Frontier*, (Indiana Historical Bureau, 1959) 351; and McMahon, 6.

17 McMahon, 6; and Peopling Indiana, 482-485.

18 McMahon, 3-6, cites H. Arnold Barton and William J. Ahrendt, "Reminiscences of the Baillytown Area: A Lecture to the Duneland Historical Society," in *Duneland Notes* (April 1980) Norris Combs ed., Duneland Historical Society, Chesterton, Indiana, and Cook and Jackson, 38, and Benz, I-19 through I-20, cites Fred A. Shannon, *The Farmer's Last Frontier: Agriculture, 1860-1897* (New York, 1945) 44.

19 Ibid.

20 Peopling Indiana, and McMahon, 11, cites Eric Norelius, *The Pioneer Swedish Settlements and Swedish Lutheran Churches in America, 1845-1860*, trans. Conrad Bergendoff (Rock Island: Augustana Historical Society, 1984) 227.

21 Benz, I-16; and U.S. Bureau of the Census. 1870. Manuscript Schedules, Ninth Census of Agriculture (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana).

22 *Oral interview with Naomi Chellberg Studebaker*, conducted 3 February 1979, and translated by Amanda J. Holmes in January 1999. Naomi Chellberg Studebaker verified the spelling of her grandfather's name: "You know grandfather? His name was Anders Ludwig Kjellberg, only it was K-j-e-l-l-b-e-r-g, that is the Swedish way of spelling it... And his first name was Anders, A-n-d-e-r-s." The later family name, Chellberg, was adopted by Cahrl and his descendants ca. 1880. At the same time, Cahrl also changed the spelling of his name to "Carl," although he was typically referred to as "C.L." In this report the original family name, "Kjellberg," is used when referring to all family members before 1885, and it is the only surname used for Anders and Johanna. The Kjellberg's daughter, Emily, did not change the spelling of her maiden name. Therefore the original spelling "Kjellberg" is used for her until 1897, the year of her marriage. Cahrl is referred to as "C.L."—the name used for him by his family. Regarding the Kjellberg's point of origin, this author has not found definitive documentation regarding the Kjellberg family's hometown in Sweden. Martha Miller, 1982, indicates that the family immigrated from Gothenburg, 1-2. An article *in Peopling Indiana: The Ethnic Experience* indicates the family came from Vastergotland, 481.

23 Oral interview with Naomi Chellberg Studebaker, conducted 11 August 1975 and translated by Amanda J. Holmes, January 1999.

24 This author has not been able to verify any of the immigration information. Miller, 1-2, indicates that two of Anders' brothers also traveled with the family and that they traveled from Gothenburg, Sweden, to Boston by sail, and then by train to Chicago where another brother was residing. Miller cites the brother's names as John and Fritz. The 1880 Agricultural Census indicates that August Shelbrg and Charles Shelbrg were owners/operators of farms near the Chellberg farm—it is possible that these were Anders Kjellberg's brothers. Naomi Studebaker's account of the family's journey mentions only her grandfather, grandmother, and father. It is the opinion of this author that the three family members traveled together and other members eventually followed.

25 No primary sources have been found to verify this account.

26 *Oral interview with Naomi Chellberg Studebaker*, conducted 6 July 1978 and translated by Amanda J. Holmes, February 1999; and U.S. Bureau of the Census. 1880. *Population Census*.

27 *Warranty Deed*, 5 February 1869, recorded in Deed Book U, page 95; *Warranty Deed*, 28 December 1869, recorded in Deed Book U, page 565.

28 *Land Records of Porter County, Indiana*, Miscellaneous Record Book B, 309-310. Office of the Recorder, Porter County Courthouse Annex, Valparaiso, Indiana.

29 U.S. Bureau of the Census. 1870. *Manuscript Schedules, Ninth Census of Agriculture* (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana); U.S. Bureau of the Census. 1870. Population Census. Holmes, Amanda J., Historic American Buildings Survey, Chellberg Farm (Kjellberg Farm) HABS No. IN-#, Draft, May 1999; personal communication with Amanda J. Holmes, July 1999. Ms. Holmes compared the names surrounding Andrew Shabr(sic) in the 1870 Population Census with the names surrounding Andrew Shelbe(sic) in the 1870 Agricultural Census. The similarity indicates that they are the same person. Also, *Oral interview with Naomi Chellberg Studebaker*, conducted 11 August 1975 and transcribed by Amanda J. Holmes, January 1999.

30 Benz, I-17 and I-18; and Cook and Jackson, 41, cite oral information from Naomi Studebaker, Si Charlson, Norris Coambs, and Oscar Nelson.

31 United States Department of the Interior, National Park Service, Midwest Region, *Calumet Ecological Park Feasibility Study: A Special Resource Study Conducted in the Calumet Region of Northeast Illinois and Northwest Indiana*, August 1998, 8-9.

32 Amanda J. Holmes, *Historic American Buildings Survey, Chellberg Farm (Kjellberg Farm)* HABS No. IN-#, Draft, May 1999, 3; Warranty Deed, 4 April 1872, recorded in Deed Book K, page 320, Office of the Recorder, Porter County Courthouse Annex, Valparaiso, Indiana. The Deed records a transaction from Joel H. Wicker to Andrew Kyllburgh [sic] wherein Kjellberg paid four hundred and eighty dollars for the property "...together with all and singular the tenements, hereditaments and appurtenances therein belonging..."; and *Oral interview with Naomi Chellberg Studebaker*, conducted 11 August 1975 and translated by Amanda J. Holmes, January 1999.

33 *Warranty Deed*, 4 April 1872, Recorded in Deed Book K, page 320. Joel H. Wicker, City of Chicago to Andrew Kyllburgh[sic]. $480 for the North ... (Amanda J. Holmes, pp8-9) Land Records of Porter County, Indiana, Mortgage Book L, page 413. Office of the Recorder, Porter County Courthouse Annex, Valparaiso, Indiana; and *Miscellaneous Record Book B*, Page 555, Porter County Recorder's Office, Valparaiso, Indiana. Andrew Kjlberg [sic] lease to John Nelson, 26 June 1874; Amanda J. Holmes, *Historic American Buildings Survey, Chellberg Farm (Kjellberg Farm)* HABS No. IN-#, Draft, May 1999, 9.

34 U.S. Bureau of the Census. 1870 and 1880. *Manuscript Schedules, Ninth and Tenth Census of Agriculture* (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana); this logic follows that presented by Amanda J. Holmes, *Historic American Buildings Survey, Chellberg Farm (Kjellberg Farm)* HABS No. IN-#, Draft, May 1999, 4-6; and U.S. Bureau of the Census. 1880. *Manuscript Schedules, Tenth Census of Agriculture* (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana); "The Fire Fiend Selects the Coldest Night This Year, and Totally Destroys the Home of Andrew Shellberg [sic]," *Chesterton Tribune*, 17 December 1884.

35 *Oral interview with Naomi Chellberg Studebaker*, conducted 11 August 1975, translated by Amanda J. Holmes, January 1999.

36 *Miscellaneous Record Book B*, Page 555, Porter County Recorder's Office, Valparaiso, Indiana; and *Hardesty's Atlas of Porter County, Indiana*, Westchester Township, 1876, 85; and *1895 Plat Map of Westchester Township*, Indiana.

37 *1880 Census Analysis of Land Owners for Sections 26-27*, Westchester Township, Porter, Indiana, I-6, Robert Benz, *Agricultural Overview of the Calumet Region and Porter County and Preservation Guide and Restoration Guide Lines for The Chellberg Farm*. The names of immigrants are commonly misspelled in the Population Census Manuscripts because of communication problems brought on by language barriers and illiteracy.

38 U.S. Bureau of the Census. 1880. *Manuscript Schedules, Tenth Census of Agriculture* (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana). The spelling "Andrew Kilberg" was the same in both the Agriculture Census and the Population Census for 1880. Possibly Anders' brothers, Charles Shelbrg [sic] and August Shelbrg [sic], were also enumerated in the 1880 Census of Agriculture for Westchester Township.

39 "The Fire Fiend Selects the Coldest Night This Year, and Totally Destroys the Home of Andrew Shellberg [sic]," *Chesterton Tribune*, 17 December 1884; and Amanda J. Holmes, *Historic American Buildings Survey, Chellberg Farm (Kjellberg Farm)* HABS No. IN-#, Draft, May 1999. The report includes a complete physical description of the cellar. An archeological investigation conducted in 1988 uncovered charred debris that was most likely the remains of the previous house. Also, *Oral interview with Naomi Studebaker*, conducted 15 May 1980 by Carol Davis. More details regarding the mortgages are provided chronologically throughout this chapter.

40 *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979 and translated by Amanda J. Holmes, January 1999; and *Peopling Indiana*, 482.

41 Annexed *Warranty Deed*, 9 March 1894, recorded in Deed Book 52, page 101 and 102. Johanna Kjellberg and Emily C. Kjellberg to Charles Levin Chellberg.

42 *Letter of Agreement*, 9 March 1894. Document in the museum collection at Indiana Dunes National Lakeshore, #INDU 7134, building 103, cabinet 12, drawer 4. The Deed indicates that both Johanna and Emily were "personally appeased" suggesting that a separate agreement between C. L. and Emily was executed.

43 Six issues of *The Farm Journal* (February 1894, vol. Xviii, no.2, through May 1895, vol. Xix, no.5) with Charles's name on the mailing address are located in the archives at Indiana Dunes National Lakeshore. Cat. #s 1350-1355. There may have been more issues that did not survive or get transferred to the Lakeshore archives. Also, Sidney, Mary. "How Shall the Farm Mortgage Be Paid?," *The Farm Journal* (February 1885, vol. XIX, no.2), 39.

44 U.S. Department of Agriculture Farmer's Bulletins located in the archives at Indiana Dunes National Lakeshore. No. 35, *Potatoe[sic] Culture*, J. R. Duggar, 1896, (cat. #1314); no. 69, *Experiment Station Work*, iii, 1898, (cat. #1315); no. 21, *Potatoe[sic] Diseases and Their Treatment*, B. T. Galloway, 1899, (cat. #1308); no. 125, *Protection of Food Products from Injurious Temperatures*, H. E. Williams, 1901, (cat. #1313); no. 324, *Sweet Potatoes*, W. R. Beattie, 1905, (cat #1310); no. 44, *Commercial Fertilizers, Composition and Use*, Edward B. Voorhees, 1906, (cat. #1309); no. 24, *Experiment Station Work, vii*, 1908, (cat. #1311).

45 U. S. Department of Agriculture Farmer's Bulletin No. 24, *Hog Cholera and Swine Plague*, D. E. Salmon, D.V.M., 1894.

46 U. S. Department of Agriculture Farmer's Bulletin No. 55, *The Dairy Herd: Its Formation and Management*, Henry E. Alvord, April 1897. P10-11.

47 U. S. Department of Agriculture Farmer's Bulletin No. 63, *Care of Milk on the Farm*, R. A. Pearson, 1897. 36-38.

48 *Oral interview with Naomi Chellberg Studebaker*, conducted 11 August 1975, transcribed by Amanda J. Holmes, January 1999.

49 *Oral interview with Henry Studebaker*, conducted 12 February 1999 by Brenda W. Williams; and Miller, 1982.

50 *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, (interview conducted by Robert Fudge) transcribed by Amanda J. Holmes, January 1999, also *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes; and Miller, 5-21.

51 *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes; and Miller, 6-7.

52 *Memorandum* dated 28 November 1979 from Robert Fudge to the Interpretive Staff of the park, regarding an *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, by Robert Fudge, Park Technician; and Miller, 6-7; and *Oral interview with Ann Medley*, conducted by Amanda J. Holmes.

53 *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, by Robert Fudge, transcribed by Amanda J. Holmes, January 1999. In the interview Naomi stated: "The kitchen garden was located between the orchard and the culvert where the water runs from the north field down to the south end... there is a little piece there between the orchard and the field, was my mother's garden." Also, letter and map dated 26 April 1999 from Henry Studebaker to Brenda Williams; and *Oral interview with Henry Studebaker* conducted 12 February 1999, by Brenda Williams; and Miller, Martha. *The Chellberg Family, the Chellberg Farm*. Chesterton, Indiana: Millar Publications, 1982, 17.

54 While Martha Miller indicates that the dairying ended ca. 1920, Henry Studebaker remembers that milk was shipped to the dairy through the mid-1930s. Miller, 1982; *and Oral interview with Henry Studebaker*, conducted 12 February 1999 by Brenda W. Williams; and *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes; Naomi Chellberg Studebaker's diary indicates that the family was still delivering cream to local creameries in 1922; and *Probate document* 1937 regarding C. L. Chellberg's estate; Miller, 20; *e-mail from Henry Studebaker to Brenda Williams*, Spring 1999.

55 *Oral interview with Naomi Chellberg Studebaker*, conducted 17 February 1979, transcribed by Amanda J. Holmes, January 1999; in Figure 13 the remains of the corncrib can be seen in the background; and Miller, 7-10.

56 *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, (interview conducted by Robert Fudge) transcribed by Amanda J. Holmes, January 1999; and *Oral interview with Henry Studebaker*, conducted 12 February 1999 by Brenda W. Williams.

57 *Oral interview with Henry Studebaker*, conducted 12 February 1999 by Brenda W. Williams; and Marciniak, 15, cites oral interviews with Naomi Chellberg Studebaker and Norris Coambs.

58 *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes; and *Oral interview with Henry Studebaker*, conducted 12 February 1999 by Brenda W. Williams; and Miller, 7-10.

59 *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, (interview conducted by Robert Fudge) transcribed by Amanda J. Holmes, January 1999; and *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes.

60 *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes.

61 *Oral interview with Henry Studebaker*, conducted 7 December 1998, by Amanda J. Holmes; and *Oral interview with Henry Studebaker*, conducted 12 February 1999 by Brenda W. Williams. Alden Studebaker was Naomi Chellberg Studebaker's husband.

62 *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, (interview conducted by Robert Fudge) transcribed by Amanda J. Holmes, January 1999; and *Peopling Indiana*, 482.

63 Miller, 9, and *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, (interview conducted by Robert Fudge) transcribed by Amanda J. Holmes, January 1999; and *Oral interview with Ann (Chellberg) Medley*, conducted 1999 by Amanda J. Holmes.

64 *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes; and Miller, 20.

65 *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes, page 9 of this interview includes more description of the rooms and layout of the house; and *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, (interview conducted by Robert Fudge) transcribed by Amanda J. Holmes, January 1999; also Holmes, 1999, 30.

66 *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes.

67 *Oral interview with Henry Studebaker*, conducted 2 December 1998, by Amanda J. Holmes.

68 *Oral interview with Henry Studebaker*, conducted 12 February 1999; also, *Oral interview with Ann (Chellberg) Medley*, conducted 1999, by Amanda J. Holmes.

69 *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, (interview conducted by Robert Fudge?) transcribed by Amanda J. Holmes, January 1999.*Oral interview with Henry Studebaker*, conducted 12 February 1999, by Brenda Williams; and *Oral interview with Ann Medley*, conducted DATE, by Amanda J. Holmes.

70 *Oral interview with Henry Studebaker*, conducted 12 February 1999, by Brenda Williams; and *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, (interview conducted by Robert Fudge) transcribed by Amanda J. Holmes, January 1999.

71 Oral interview with Henry Studebaker, conducted 12 February 1999, by Brenda Williams.

72 *Oral interview with Henry Studebaker*, conducted 12 February 1999, by Brenda Williams; *and Oral interview with Ann (Chellberg) Medley*, conducted 1999, by Amanda J. Holmes; and *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, transcribed by Amanda J. Holmes, January 1999.

73 *Oral interview with Henry Studebaker*, conducted 12 February 1999 by Brenda W. Williams; *Oral interviews with Henry Studebaker*, conducted 7 December 1998 by Amanda J. Holmes; and *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, transcribed by Amanda J. Holmes, January 1999.

74 Miller, 21.

75 Holmes, 6.

76 *Warranty Deed*, 21 April 1945, recorded in Deed Book 127, pages 582-583. Ruth Mildred Chellberg, unmarried to Naomi V. Studebaker and Carl Lewis Chellberg; also Warranty Deed, 24 January 1947, recorded in Deed Book 134, page 370. Minnie Chellberg to Naomi V. Studebaker and Carl Lewis Chellberg.

77 Oral interview with Henry Studebaker, conducted 2 December 1998, by Amanda J. Holmes, and Miller, 21.

78 Oral interview with Henry Studebaker, conducted 2 December 1998, by Amanda J. Holmes.

79 Communication with Henry Studebaker and Arthur Studebaker, 22 February 1999.

80 Communication with Henry Studebaker and Arthur Studebaker, 22 February 1999.

81 *Oral interviews with Henry Studebaker*, conducted 2 December 1998 and 7 December 1998, by Amanda J. Holmes; and *Oral interview with Henry Studebaker*, conducted 12 February 1999, by Brenda Williams; and *Communication with Henry Studebaker and Arthur Studebaker*, 22 February 1999.

82 *Oral interview with Henry Studebaker*, conducted 12 February 1999; also, *Oral interview with Ann (Chellberg) Medley*, conducted 1999, by Amanda J. Holmes.

83 *Oral interview with Henry Studebaker*, conducted 12 February 1999, by Brenda Williams; *and Oral interview with Ann (Chellberg) Medley*, conducted 1999, by Amanda J. Holmes.

84 *Oral interview with Henry Studebaker*, conducted 12 February 1999, by Brenda Williams; *and Oral interview with Ann Medley*, conducted 1999, by Amanda J. Holmes; and *Oral interview with Naomi Chellberg Studebaker*, conducted 23 October 1979, transcribed by Amanda J. Holmes, January 1999.

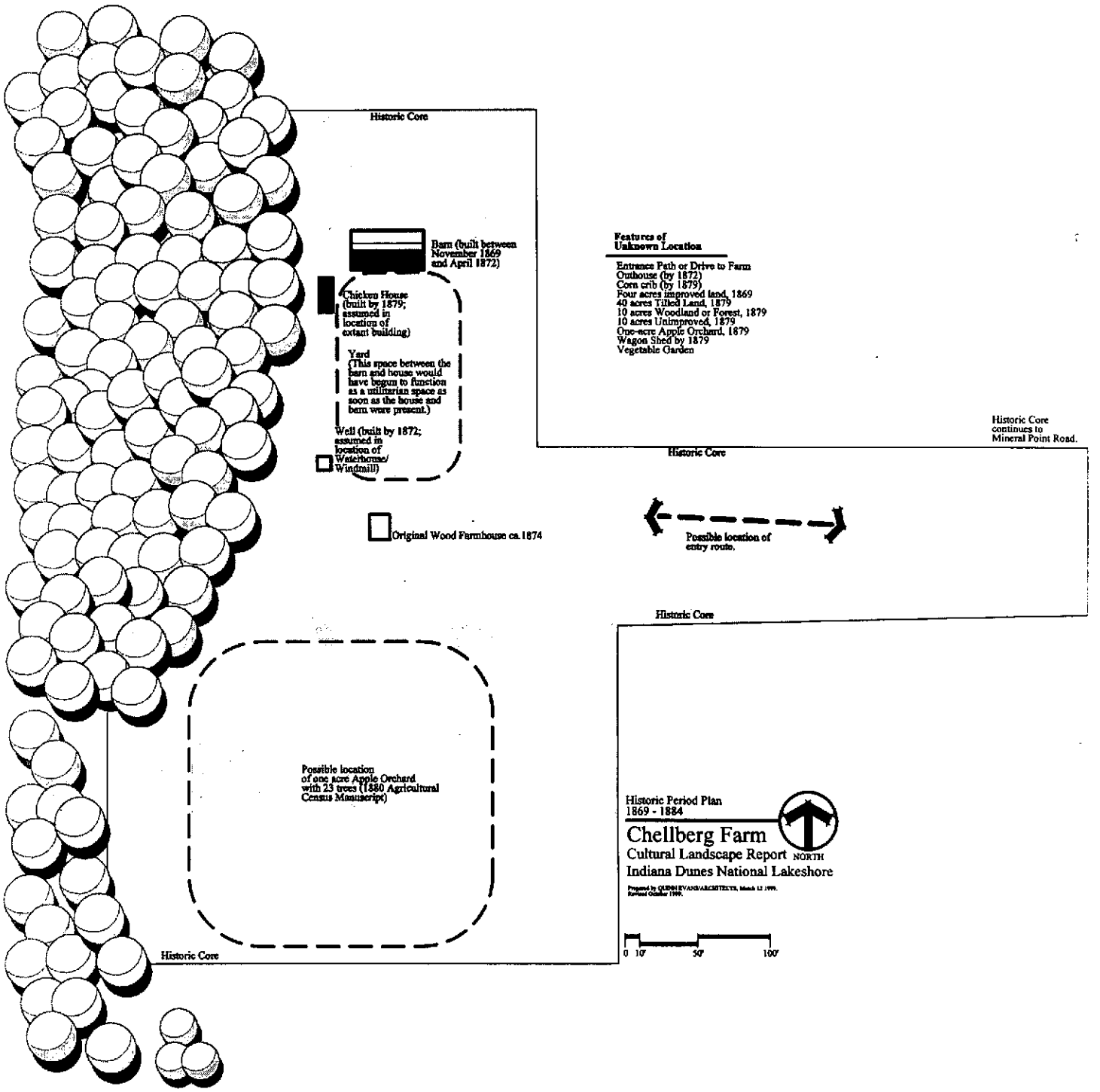


Figure II-57: Historic Period Plan, 1869-1884

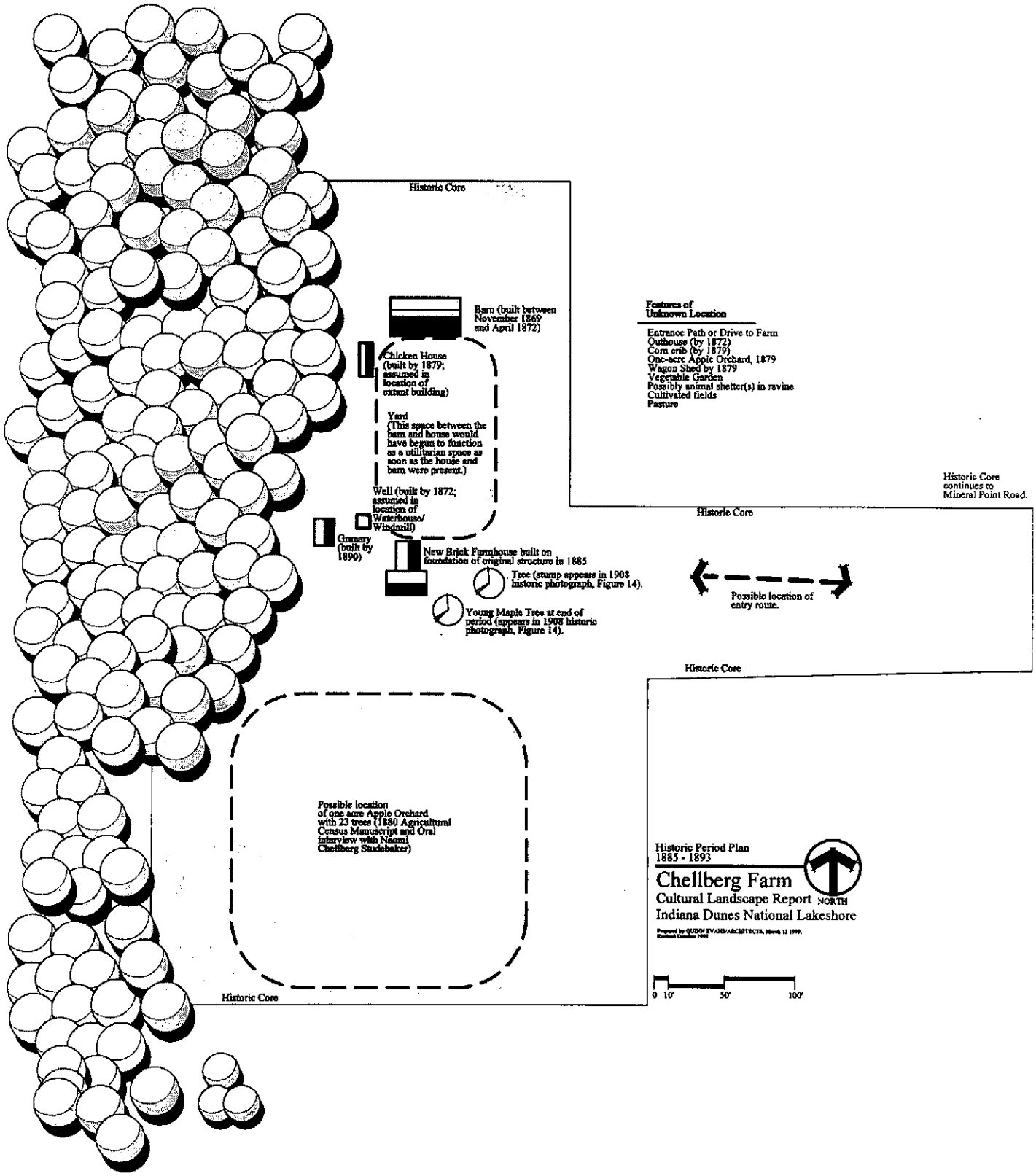


Figure II-58: Historic Period Plan, 1885-1893

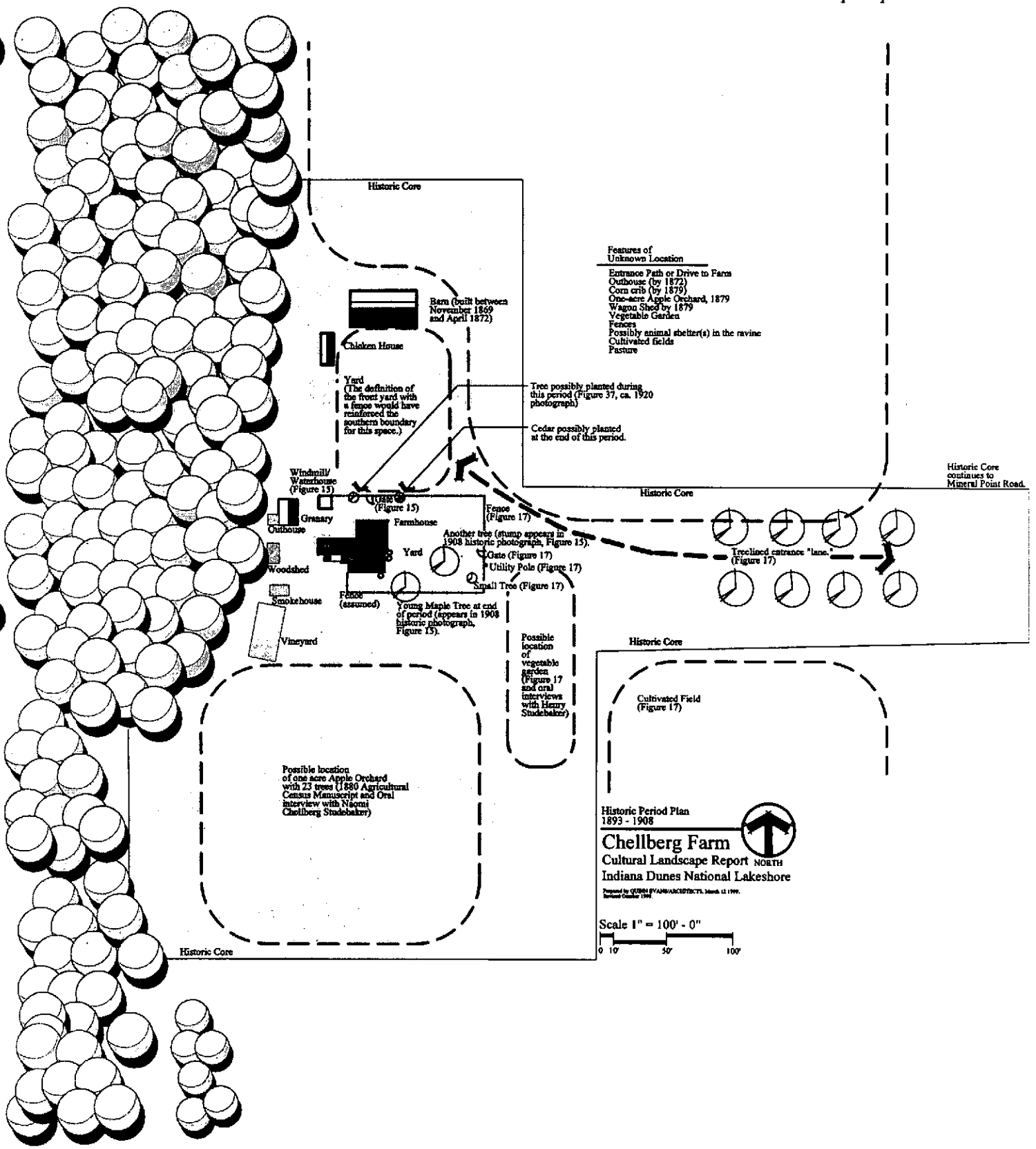


Figure II-59: Historic Period Plan, 1893-1908

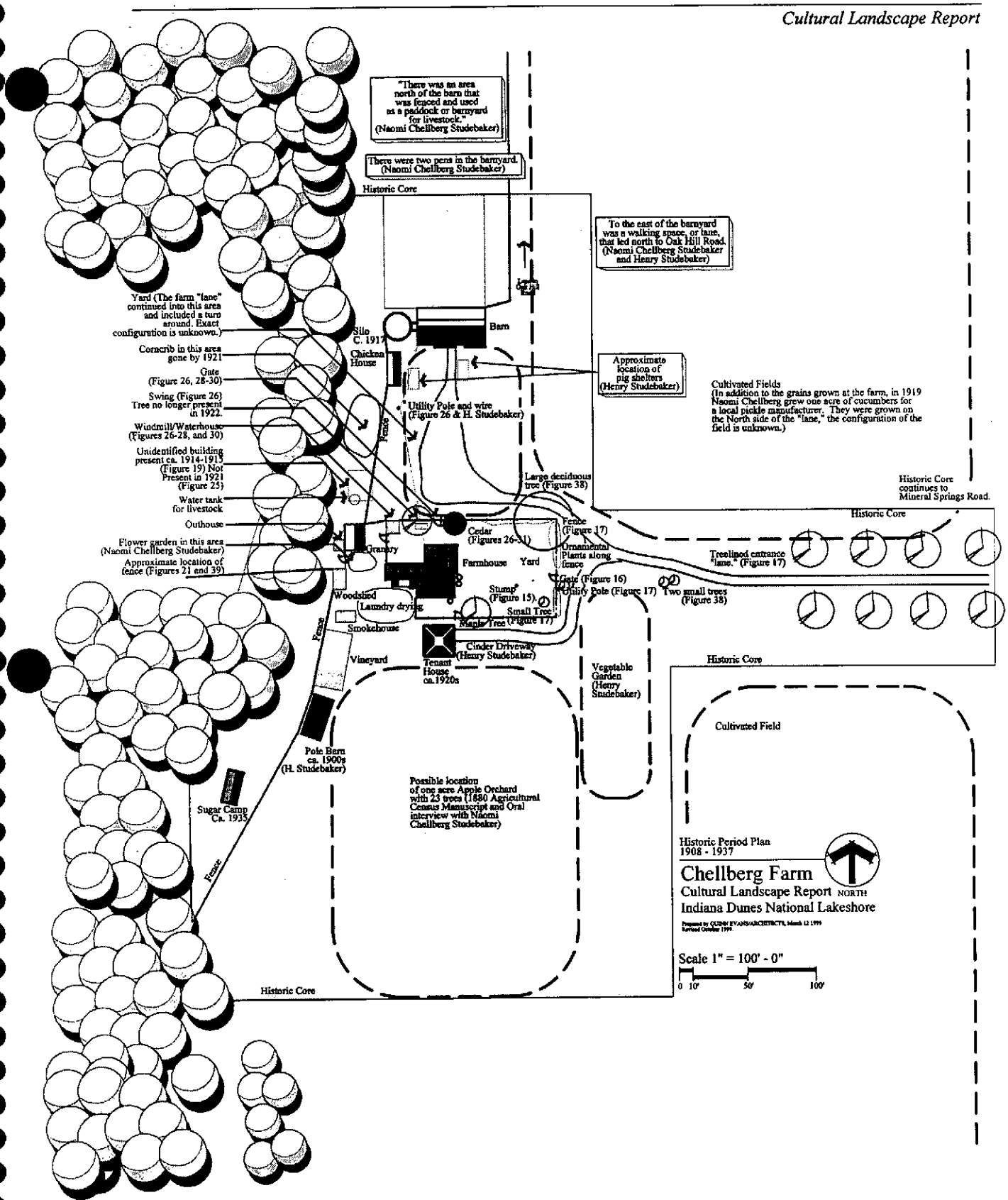


Figure II-60: Historic Period Plan, 1908-1937

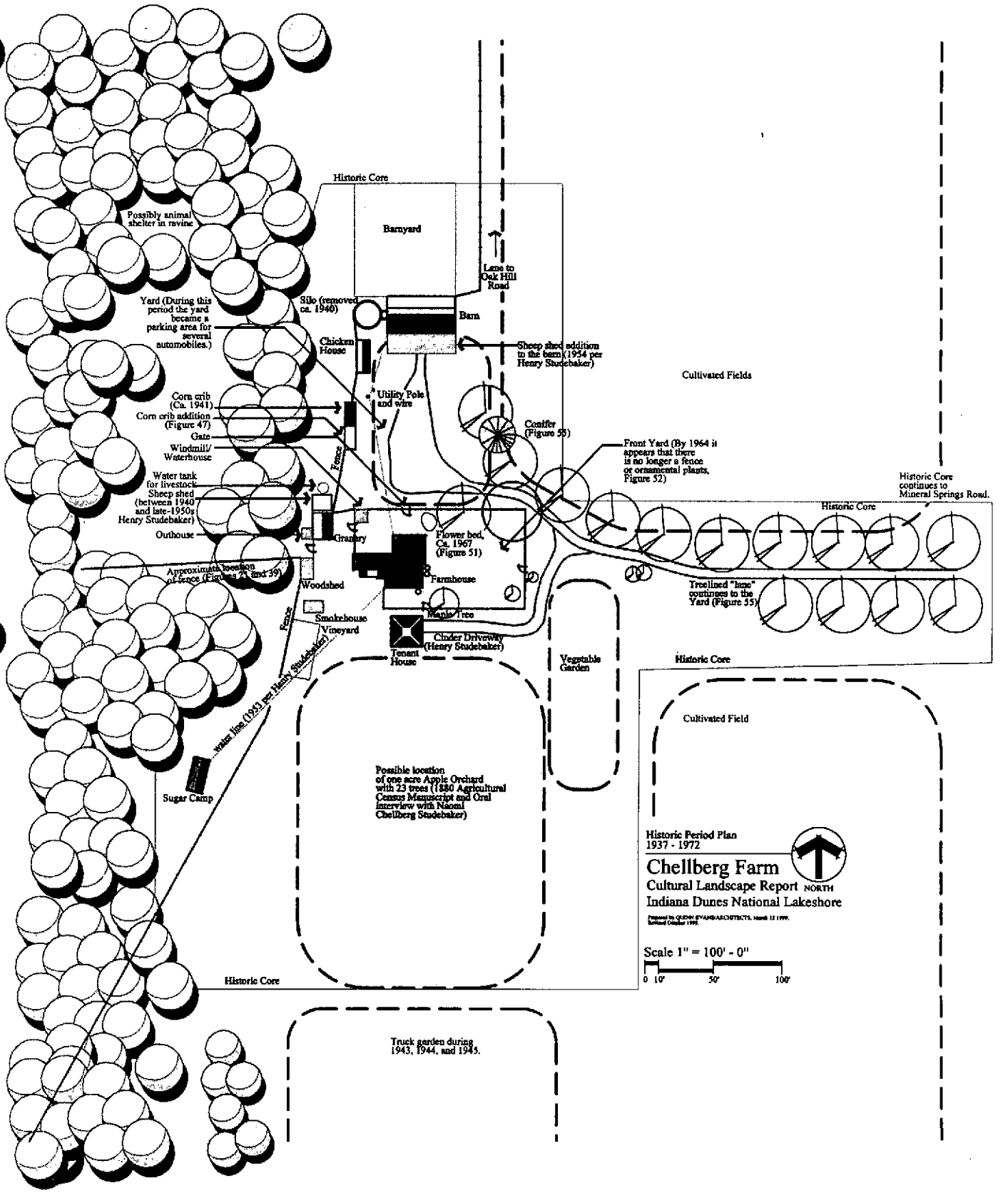


Figure II-61: Historic Period Plan, 1937-1972

Chapter III:

Existing Conditions

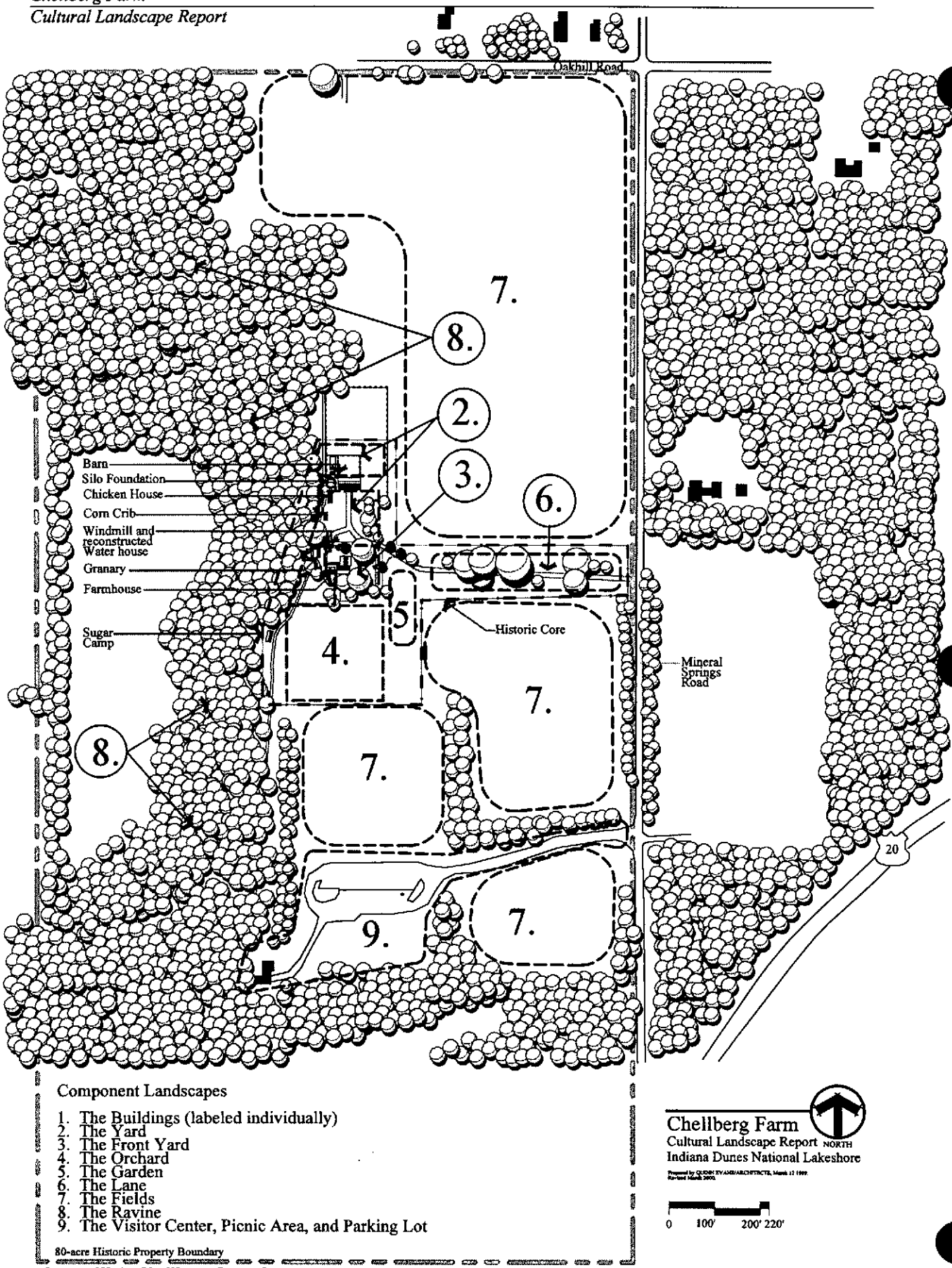


Figure III-1: Chellberg Farm Component Landscapes and the Visitor Center, Picnic Area, And Parking Lot.

Chapter III: Existing Conditions

A site survey was conducted in September 1998 to record the existing conditions of the buildings and landscape features at the farm. An Existing Conditions Plan is included at the end of this chapter as **Figure III-38.** A summary of the conditions of the plants at the property is provided in table form in **Figure III-39.** As described in Chapter 1, the Chellberg Farm cultural landscape has been divided into eight component landscapes for organizational purposes. The component landscapes are defined below—they include the **buildings**, the **yard**, the **front yard**, the **orchard**, the **garden**, the **lane**, the **fields**, and the **ravine**. **Figure III-1** illustrates the locations of the component landscapes and an additional area that encompasses the Visitor Center, Parking Lot, and Picnic Area.

- The *Buildings* – extant buildings include: the barn, farmhouse, chicken house, corncrib, granary, windmill, and sugar camp. The silo foundation and reconstructed water house are also contributing structures.
- The *Yard* – the utilitarian space between the barn and farmhouse.
- The *Front yard* – the domestic space adjacent to the farmhouse that included a fence, lawn, and ornamental plants.
- The *Orchard* – a one-acre *orchard* that included apple, pear, cherry, peach, and crabapple trees.
- The *Garden* – a large rectangular vegetable *garden* where food was grown for the family.
- The *Lane* – a treelined entrance road to the farm.
- The *Fields* – open areas that were cultivated or used for pasture.
- The *Ravine* – a wooded area with steeply sloping terrain.

Environmental Setting and Land Use

The farm's immediate environment includes a mix of agricultural, residential, recreational and industrial land use and natural areas. The farm occupies the Eastern half of the Southeast one-quarter of Section 27 in Township 37 North, Range 6 West of Porter County Indiana. **Figures I-1 and I-2** illustrate the location of the Lakeshore and the Chellberg Farm. Situated in the southwestern portion of the East Unit of Indiana Dunes National Lakeshore, the Chellberg Farm is located roughly three miles south of the southern shore of Lake Michigan. Neither the lake nor the dunes can be viewed from the site however their presence has a distinct impact on the region. The area is a popular recreation destination and home to several large residential and commercial developments. In addition, the Port of Indiana is approximately five miles northwest of the farm. The port provides access to Lake Michigan for industrial traffic, and is surrounded by two huge industrial complexes. Bethlehem Steel lies directly northwest of the farm, within one mile of the property. Midwest Steel is located approximately two miles west of Bethlehem Steel. U. S. Steel, another massive complex, is located ten miles west of the farm on the lakeshore.

The topography of the region was formed through the action of prehistoric glaciers. As the glaciers retreated, a large lake (Lake Chicago) was left between the Valparaiso Moraine and the icecap. The ridges in the landscape of the Bailly area were formed as beaches to Lake Chicago during three phases of glacial retreat. In between these ridges there were shallow valleys that collected water and formed ponds, marshes, swamps and rivers. Beginning in the mid-1800s many of these wet areas have been drained by a series of ditches to make the area more appealing for settlement and development. Since the creation of Indiana Dunes National Lakeshore, a movement towards restoration of native plant communities in the area is resulting in a partial reversal of development impacts on the landscape. Buildings and roads are being removed and several ditches have been closed to facilitate the restoration of wetlands and other natural areas.

At the farm, surface soils are composed of clay loam, the subsoil is mainly silty clay loam and some sandy clay loam. The northeastern portion of the farm landscape is composed of small open **fields** defined by

fences, roads, and fencerow vegetation. The cultivated **fields** include sixteen and one-half acres of cropland located in flat areas to the northeast, south, and southeast of the farmhouse. As a part of the working farm management, the Lakeshore plants corn, wheat, oats, rye, sorghum, grasses and legumes in these **fields** on a rotating basis. A one-acre field located directly north of the Bailly-Chellberg Visitor Center parking lot serves as a demonstration plot. Two acres utilized as pasture are located directly east and north of the barn.[1]

A cluster of historic and non-historic farm buildings is sited on three and one-half acres that are adjacent to the eastern edge of the wooded **ravine**.[2] The buildings are situated on a slight rise which is composed of a mix of mature and young deciduous trees, several mature evergreens, a few fruit trees, and clumps of undergrowth consisting of perennials, grasses, shrubs, and seedlings and saplings, scattered loosely around a "**yard**." The buildings and **yard** are the setting for a working farm that is managed by the National Lakeshore staff. They are used to house animals and equipment and to store feed. The structures and landscape provide a backdrop for the interpretation of a farm that was part of the local Swedish immigrant community. Interpretive activities at the farm include general visitation, programs for special groups, and two major festivals—the Maple Sugar Time Festival and the Harvest Festival.

This area also includes the farm road, or **lane**, which approaches from Mineral Springs Road to the east and continues to the barn. The road includes a small turnaround that is somewhat pear-shaped and located between the farmhouse and the barn. The farm road is utilized by Lakeshore staff as a maintenance road for the farm. Directly south of the farmhouse is the remnant of an **orchard**, this area includes a one and one-half acre space that is used heavily during the Maple Sugar Time Festival and the Harvest Festival.

To the south of the field that is directly south of the **orchard** remnant there is a visitor service area. This area includes an entrance road, paved parking lot, picnic area, visitor center, and restrooms. The western and southern portions of the property are composed of woodland that includes a healthy stand of mixed forest community. The maple trees in this area are tapped by the Lakeshore management as part of a demonstration in producing maple syrup.

Spatial Organization, Topography and Vegetation

Buildings, fences, land use, vegetation and topography historically defined the spatial organization of the farm. Generally the farm is divided into open areas and wooded areas. The "**ravine**" at the farm continues to define the edge between the two types of spaces. The areas east of the **ravine** are generally flat or gently sloping, and contain large open spaces with small clumps of vegetation dotted between them. The **ravine** and the area west of it, as well as the area south of the visitor center and parking lot, include steep slopes and dense woodland. The woodland is densely shaded and has an understory that limits views into the **ravine**. Sugar maple, red oak, white oak, and beech, are prevalent species, however none of these is singularly dominant. There is a high density of young sugar maples and a low density of seedlings/saplings of red oak in the woods, indicating that the sugar maple may be replacing the red oak in the stand.[3] The overall character is similar to the historic period, however the woods lacked undergrowth and were much more open historically.

The historic **buildings** at the farm play an important role in defining the **yard** and **front yard**. The **yard** includes the area between the house and barn that lies to the east of the chicken house and granary. It is a roughly rectangular space whose western side has been distinguished by small outbuildings and the edge of the **ravine**. The eastern side is the most loosely defined. In the farms early years the space may have ended with the edge of the cultivated **fields**. In later periods a line of deciduous trees served to define the space. Similar to other early Swedish-American farms, the layout of the **yard** did not have a distinct plan. While Swedish farms were organized in regional patterns closely related to the structure of the densely populated villages, their patterns were not typically repeated in America. Since it was not necessary for the early settlers to adapt their farm buildings to an existing village, in most cases the court*yard* and overall farm layout patterns were not transferred to the new country with Swedish immigrants.[4]

Historically the **yard** was an area that included an abundance of activity. The area served as free-range for the numerous chickens at the farm. It provided a place for butchering, building, and equipment repair. The farm road provided access for horse-drawn, and

later mechanical, machinery. The ground was mostly dirt as a result of these activities. Today the **yard** continues to be defined by the buildings and it includes the farm road. However, the presence of grass in-between the buildings, and lack of free-range animals has resulted in a more manicured appearance. Also, the small pens created by the fences adjacent to the chicken house and corncrib impose on the historic scene as non-historic definitions of space and land use.

The **front yard** at the farm was a space that was distinct from the utilitarian **yard** (between the barn and farmhouse) in function and physical characteristics. Once defined by a fence, lawn, and ornamental plantings, the **front yard** is no longer apparent in its historic form. The fence is no longer extant and the area that once served as the lawn is now composed of a combination of grass, bare ground, and woodchips. There are two defined flowerbeds in the **front yard**, however neither corresponds to historic flower bed locations. Several other historic elements—the vegetable **garden**, tenant house, road to the tenant house, and **orchard**—are now missing. They once helped to organize the spaces to the east and south of the **front yard**. The western portions of the **yard** were loosely defined by the fence, woodshed and smokehouse. Many of the trees have matured, and the area is now shaded where it was once sunny. Despite the absence of historic elements that once defined the **front yard**, the space continues to serve as a transition area between the actively cultivated **fields** and the farmhouse. It maintains its relationship to the farmhouse, the **lane**, the **yard**, and the **fields**, and provides an opportunity to reestablish historic views and character with a relatively limited amount of effort.

The area that historically contained the vegetable **garden** currently includes turf, clumps of undergrowth vegetation, and deciduous trees. This area is no longer distinguished from the **front yard** or **orchard**. There is a vegetable **garden** at the farm in a non-historic location. It is located directly east of the historic **garden** location, in the northwest corner of the southeastern field. This **garden** is enclosed by a fence and includes a wide variety of vegetables and flowers.

The historic **orchard** is barely discernable at the farm. The south-facing slope located directly south of the farmhouse contained a productive apple **orchard**, as well as crabapple, pear and peach trees during the period of significance. Today the slope is home to a few dying apple trees, a number of medium sized deciduous trees, and clumps of undergrowth vegetation.

The **fields** at the farm, including cultivated areas and pasture, remain as open, flat spaces on the eastern portion of the property along Mineral Springs Road. These fields create an agricultural setting for the property and allow for views of the farm buildings from Oak Hill Road and Mineral Springs Road. They also serve as buffers between the historic farmstead and newer development at neighboring properties. There is a large pile of woodchips at the northwest corner of the northern most field. The woodchip pile can be seen from Oak Hill Road and is incongruent with the historic character of the farm.

The farm entrance road, or the "**lane**," is defined by dense undergrowth and a few large deciduous trees creating a densely shaded corridor along the eastern portion of the road. The vegetation creates a definite visual barrier between the northern and southern **fields**. It also screens views towards the house from Mineral Springs Road. Historically, the "**lane**" included deciduous trees on either side of the road, and no undergrowth vegetation, allowing views to continue from one field to the next.

Circulation

Vehicular access to the farm is provided via two routes. The historic entrance road to the farm, often referred to as the **lane** by former farm residents, serves as a maintenance entrance that is used by Lakeshore staff. This entrance is also available for use by visitors with mobility constraints. The **lane** travels west from Mineral Springs Road toward the farm buildings. There is a gravel parking lot on the north side of the **lane** about halfway between Mineral Springs Road and the farm buildings. The road continues to the buildings, curving to the north towards the barn. There is a small loop in the road between the barn and the farmhouse. Another entrance road provides vehicular access for visitors to the park. It is also accessed from Mineral Springs Road, south of the **lane**. The paved road travels west to a parking lot that is adjacent to the small visitor center. There is also a picnic area near the parking lot. Visitors can park in this lot and walk along one of the woodchip paths to the farm buildings.

Pedestrian access to the farm is provided in the form of several woodchip paths. Three paths begin at the visitor center parking lot and lead north to the farm. One path travels along the eastern edge of the **ravine** in the shade of the woods. This is the Bailly Homestead/Chellberg Farm trail and it continues from the farm toward the west to the Bailly Homestead site. The Bailly Homestead/Chellberg Farm trail is a two-mile route that connects the Bailly Homestead, cemetery, and Chellberg Farm. There is a brochure that provides a brief introduction to the history of the **ravine**, Bailly Homestead, Indian Trail, Cemetery, and Chellberg Farm. The other two trails are on either side of the cultivated field that is in between the visitor center parking lot and the farmhouse.

Pedestrian circulation around the buildings, **yard**, and **front yard** is unstructured. Woodchips have been placed in several areas indicating paths and gathering areas for pedestrians. A concrete sidewalk in poor condition runs from the north side of the house to the dirt driveway, and a stone path leads from the windmill/waterhouse to the granary. Several of the smaller buildings are surrounded by grass without a defined access route.

Structures and Small Scale Features

The extant **historic structures** at the farm include the farmhouse, barn, granary, chicken house, corn crib, windmill and sugar camp. The silo is no longer extant, however its foundation remains directly west of the barn. In addition, there are six buildings in the immediate area of the farm buildings that have been constructed by the National Park Service. These include a reconstructed waterhouse, two pig shelters, a pole barn, a large storage building, a sorghum fireplace, and a small animal shelter. These buildings are intermingled with the historic structures. They are constructed of materials that are similar to the historic buildings. In a separate location south of the farm buildings, a visitor center, restroom and two picnic shelters have been constructed by the NPS.

Farmhouse – Gable-and-wing farmhouse with brick veneer over a balloon frame. Constructed in 1885 after the complete destruction of the original wood farmhouse in December 1884 by a fire. The house was built upon the cellar from the original house.[5]

Barn — Simple rectangular, ground level wood frame barn about 51' long and 24'-6" wide. Approx. 16' high to the eaves and 27' to the peak. Gable roof with steep pitch. Centered along the ridge is a small vent cupola. 3-bay floor plan—consisting of two major framing sections (called bents) along its length that divide it into three distinct areas, called bays.[6]

Granary – 14'x18' two story, cedar shingle gable roof, vertical board and batten siding, brick pier foundation, vertical board door on eastern side, fixed windows, cornerboards.[7]

Chicken house – 10'x24' one story, cedar shingle gable roof, vertical board and batten walls, brick foundation, wire mesh opening on east, vertical board door in south gable end, chicken door on east façade (at the southern end) leading into fenced outside area. whitewashed plaster interior.

Corncrib – 8'x17'9" shed roof, horizontal lattice siding, footings of wooden forms filled with concrete, plank door

Sugar camp – Concrete Masonry Unit foundation and walls, standing seam metal gable roof covering structure and extending over concrete paved area to the south (supported on two log posts), double vertical board doors on south, four-pane windows, brick chimney, gabled ridge vent with hopper panel vent, metal ball finials, small shed addition to East.[8]

Windmill – Areometer windmill dates from ca. 1906. There may have been another windmill on the property previous to that date.[9]

In addition to the **buildings** at the site, there are several small-scale features. Ten wayside exhibits facilitate a self-guided tour. There is a sorghum press, a miniature construction of the barn frame, a bridge at the bottom of the **ravine**, a platform near the sorghum fireplace, and gates at the two entrance roads. The entrance to the visitor center also includes a sign and split-rail fences. There are also numerous utility-related features including transformers, posts with electrical outlets, and manholes. There is a pipe culvert that provides drainage under the farm road. Finally, there are fences enclosing areas used for animal pens, pasture, and the **garden**.

The intermingling of non-historic buildings and features with historic buildings at the site is disorganized and misleading. The placement of several non-historic buildings and features in areas where they relate directly to the historic structures leads visitors to believe that these structures, or structures like them, were a part of the farm operations. The use of materials that appear similar to the historic materials adds to this problem. In addition, their presence deflects the focus of farm operations from the original cluster of buildings and the area around them to sites where no such activities occurred previously. At the visitor center site the use of materials that differ from the historic materials appropriately distinguishes between the historic and non-historic areas.

Livestock

National Park Service management of the Chellberg Farm as a working farm includes housing, care, and use of livestock. Currently the farm animals include: about twenty chickens, five cats, three geese, two goats, two large draft horses, one mixed breed horse, one Brown Swiss cow and a calf (the calves do not stay but every spring another is born), one pig that will have six to ten piglets (all pigs leave at the end of October). Other "guest" animals come in for the festivals.

Endnotes

1 *Indiana Dunes National Lakeshore: Chellberg Farm Management Plan.* Draft copy obtained from Lakeshore, August 1998.

2 *Indiana Dunes National Lakeshore: Chellberg Farm Management Plan.* Draft copy obtained from Lakeshore August 1998.

3 Dunevitz, Otto, and Hiebert. *An Ecological Study of the Chellberg Forest Sugar Bush, Indiana Dunes National Lakeshore: A Report to Management.* There is no natural resource assessment evaluating the overall health of the woodland community in the *ravine*.

4 Upton, Dell. 1986. *America's Architectural Roots: Ethnic Groups that Built America* (Washington, D. C.: The Preservation Press), p.156-157.

5 Holmes, Amanda. *Historic American Buildings Survey, Chellberg Farm (Kjellberg Farm)* HABS No. IN-#, Draft, May 1999.

6 Hayes, Blake D. and Mary L. Seelhorst. 1990. *Analysis of the Chellberg Barn, Completed for the Indiana Dunes National Lakeshore.* Located in the library at Indiana Dunes National Lakeshore.

7 List of Classified Structures, Indiana Dunes National Lakeshore, field notes 1993/1994.

8 Ibid.

9 Holmes, 1999.

Figure III-2: Farmhouse, north elevation, 8/11/98.

Figure III-3: Farmhouse, south elevation, 8/11/98.

Figure III-4: Farmhouse, northwest elevation, 8/11/98.

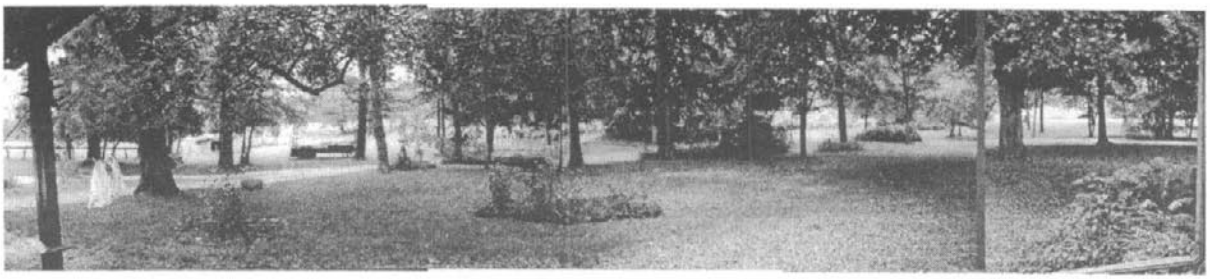


Figure III-5: Panoramic view from farmhouse porch of the front yard, lane, and fields in the background, 8/11/98.

Figure III-6: Farmhouse and front yard, 8/11/98.

Figure III-7: View of area southeast of house, 8/11/98.

Figure III-8: Farmhouse and front yard, 8/11/98.

Figure III-9: Farmhouse, east elevation, 8/11/98.

Figure III-10: View from barn looking south, 8/11/98.

Figure III-13: View from near the house, facing north, 8/11/98.

Figure III-11: Barn, north and east elevations, 8/11/98.

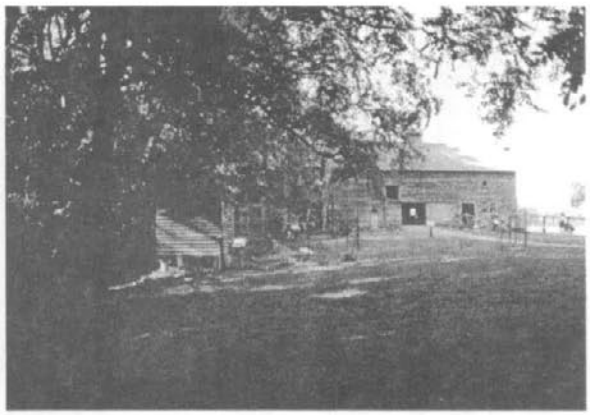


Figure III-14: Barn and chicken coop, south elevations, 8/11/98.

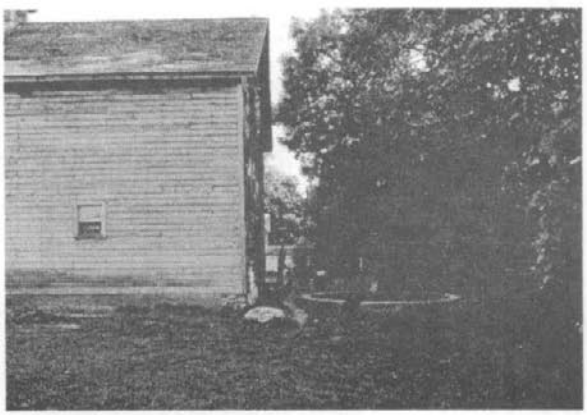


Figure III-12: Silo foundation, 8/11/98.

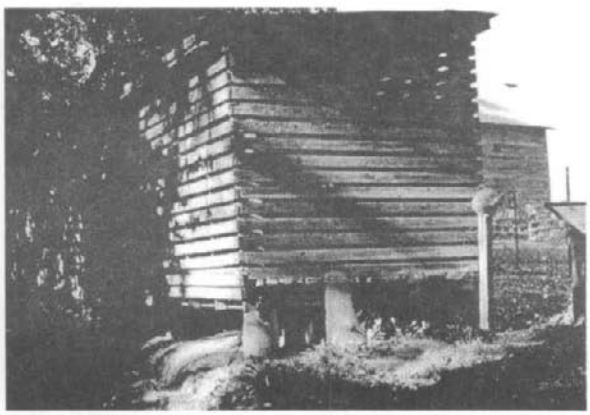


Figure III-15: Corn crib, 8/11/98.

Figure III-16: Granary, north and west elevations, 8/11/98.

Figure III-19: Chicken house, 8/11/98.

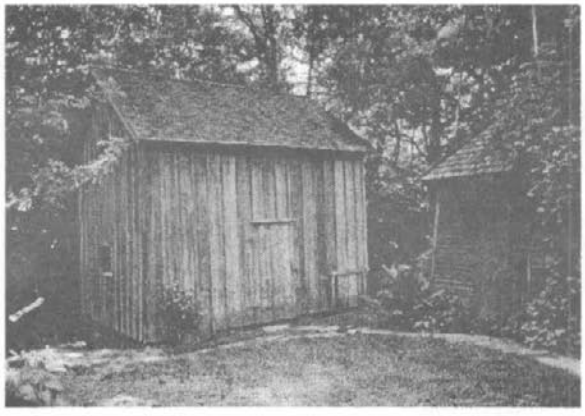


Figure III-17: Granary, south and east elevations, 8/11/98.

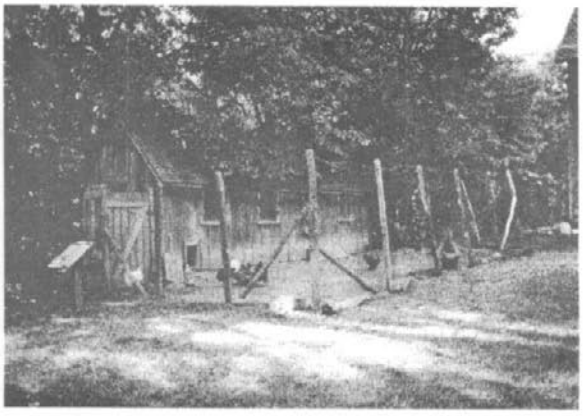


Figure III-20: Chicken house, south and east elevations, 8/11/98.

Figure III-18: Water trough, 8/11/98.

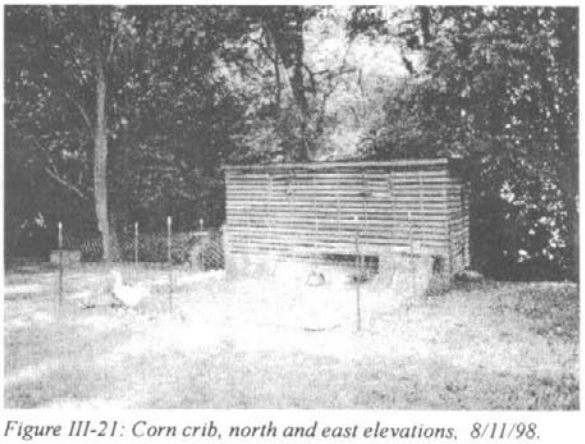


Figure III-21: Corn crib, north and east elevations, 8/11/98.

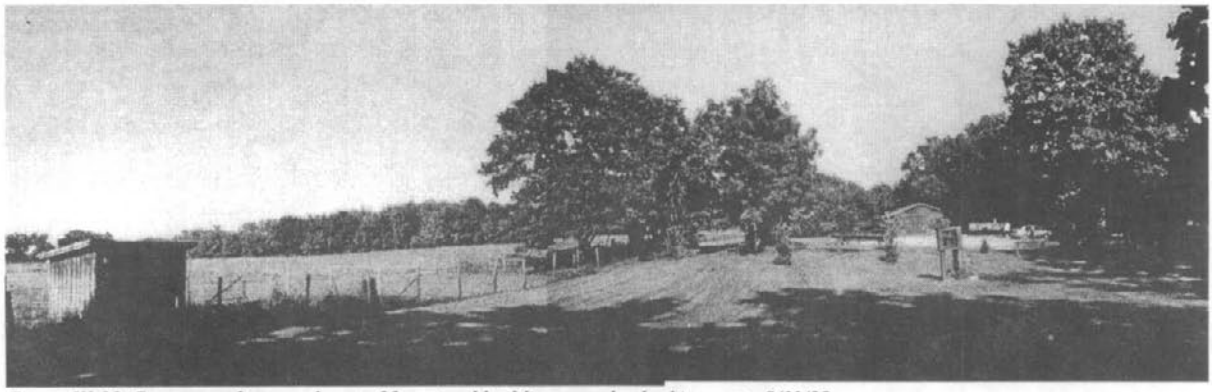


Figure III-22: Panorama from yard east of farmstead building complex looking east, 8/11/98.

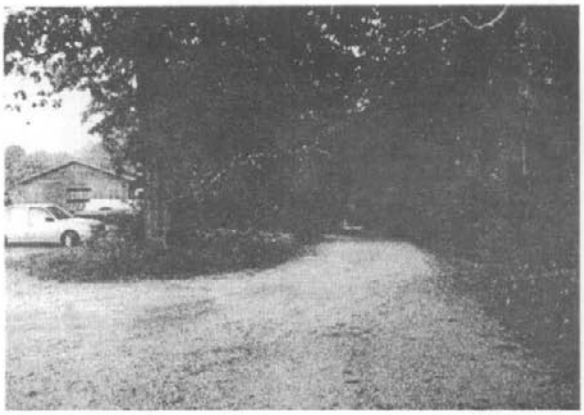


Figure III-23: Farm road facing east gravel lot, 8/11/98.

Figure III-24: Farm road facing west gravel lot, 8/11/98.

Figure III-25: The last fruit-bearing apple tree at Chellberg Farm, 8/11/98.

Figure III-26: Garden, facing south, 8/11/98.

Figure III-27: Sugar camp, east elevation, 8/11/98.

Figure III-30: View from Sugar camp looking north toward other farm structures, 8/11/98.

Figure III-28: Sugar camp, northeast elevation, 8/11/98.

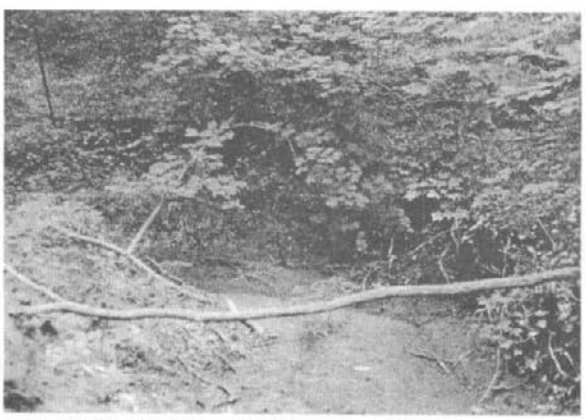


Figure III-31: Erosion west of Sugar camp, 8/11/98.

Figure III-29: Sugar camp, southeast elevation and slope, 8/11/98.

Figure III-32: Bridge over washout area west of Sugar camp, 8/11/98.

Figure III-33: Looking northeast from bridge, 8/11/98. The trail leads toward the Sugar camp on the right and the rest of the farm complex on the left.

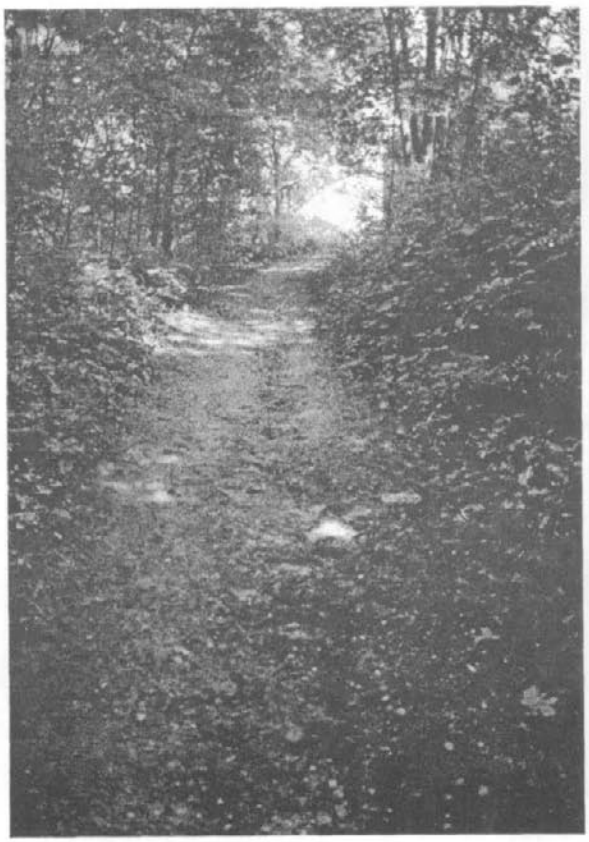


Figure III-34: Trail from bridge to farm complex, 8/11/98. Note erosion at the bottom of the picture.

Figure III-35: Erosion and culvert at #48, north side of road, 8/11/98.

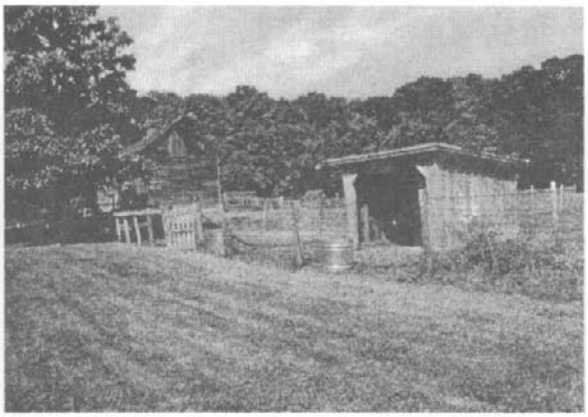


Figure III-36: Animal pen and proximity to barn, 8/11/98.

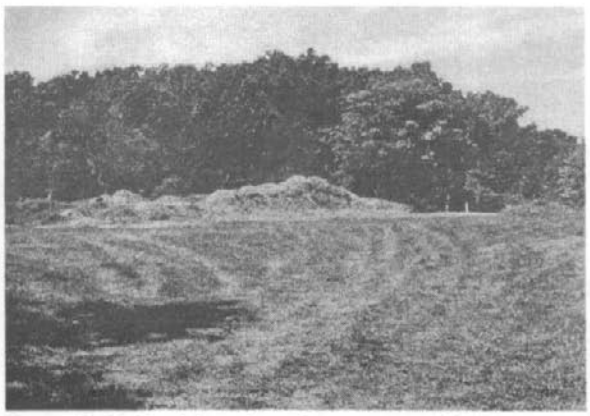


Figure III-37: Woodchip pile on farm property, 8/11/98.

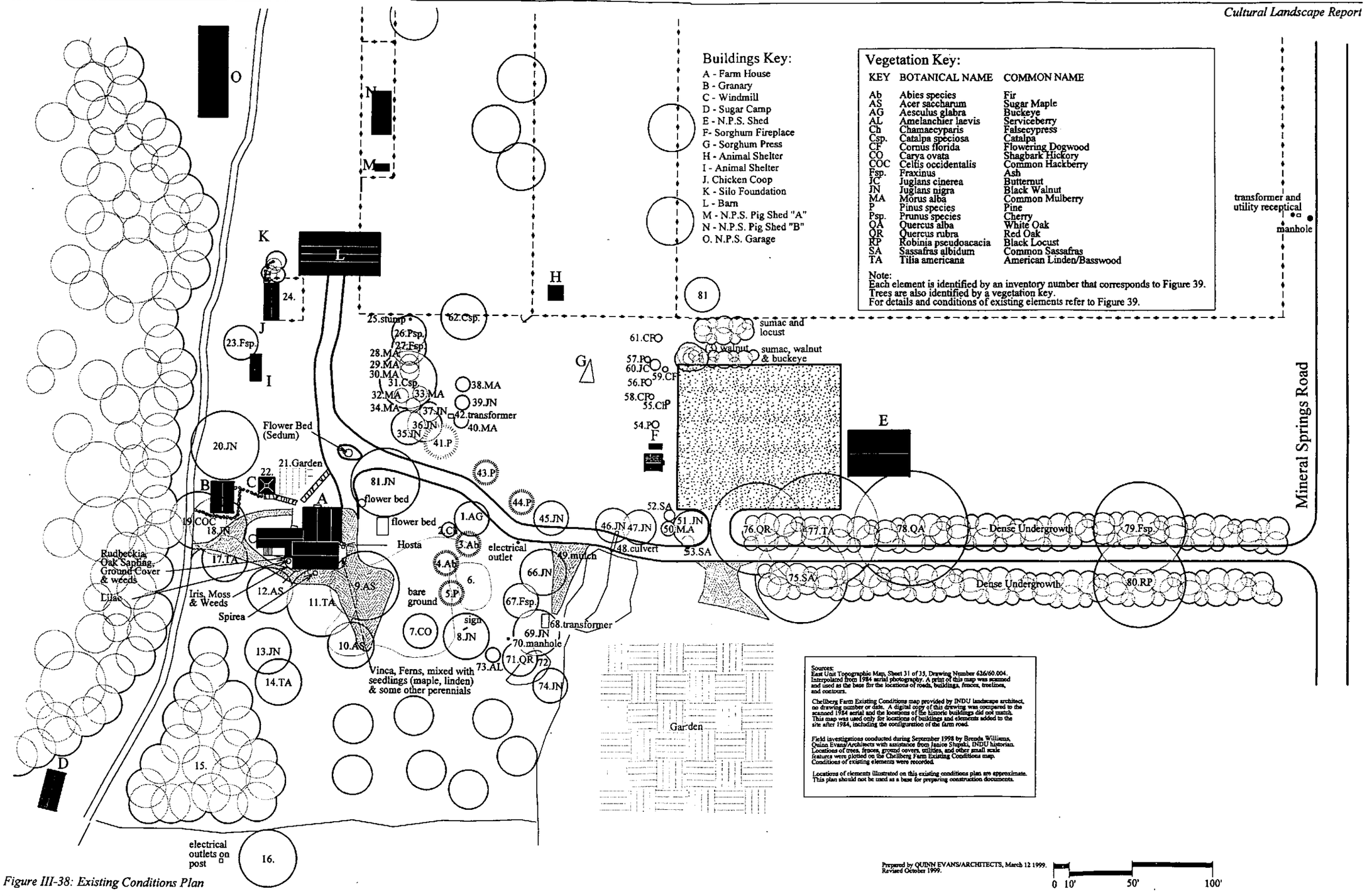


Figure III-38: Existing Conditions Plan

Figure III-39: Conditions of Existing Plants (continued)

KEY	COMMON NAME	BOTANICAL NAME	SIZE	CONDITION	DESCRIPTION
1	Buckeye	Aesculus glabra	14"	good	
2	Falsecypress	Chamaecyparis	6"&5"	fair	double trunk
3	Fir	Abies	12"	fair	several dead limbs
4	Fir	Abies	20"	fair to poor	
5	Pine	Pinus	14"	fair to poor	
6	At the base of #4 and #5 to the East is a large (30'x25') unmown area that includes daylillies, nettles, Maple and Catalpa saplings, one Maple 1-1/2" cal. & 15' height, a small transformer (34" tall) hidden by cornstalks) and an old Lilac that is dying.				
7	Shagbark Hickory	Carya ovata	8"	good	
8	(Black) Walnut	Juglans (nigra)	17"	good	
9	Sugar Maple	Acer saccharum	29"	good to fair	
10	Sugar Maple	Acer saccharum	12"	good	
11	American Linden/ Basswood	Tilia americana	30"		
12	Sugar Maple	Acer saccharum	10" & 11"	good	double trunk
13	(Black) Walnut	Juglans (nigra)	10"	fair	
14	American Linden/ Basswood	Tilia americana	7", 10" 4"	fair	triple trunk
15	Wooded area--includes Linden, Maple, Walnut, and herbaceous species forming a dense underbrush to approximately four feet high.				
16	Deciduous tree		16"		
17	American Linden/ Basswood	Tilia Americana	6" & 7"	good	double trunk
18	(Black) Walnut	Juglans (nigra)	10"	fair	
19	Common Hackberry	Celtis occidentalis	15"	good	
20	(Black) Walnut	Juglans (nigra)	21"	fair to good	

Figure III-39: Conditions of Existing Plants (continued)

KEY	COMMON NAME	BOTANICAL NAME	SIZE	CONDITION	DESCRIPTION
21	Small garden includes herbs, vegetables and perennials.				
22	Base of the Windmill/waterhouse--a variety of plants on and around the structures include morning glory and bittersweet vine, violet, rose, mint, and others.				
23	Ash	Fraxinus	8"	poor	damaged & dead branches
24	Several large stones are edging the woodchip path here. There are also five trees: 2 maples 3/4" and 1-1/2"cal. And 3 Ash 3", 4" and 6" cal.				
25	stump				
26	Cherry	Prunus	11"	poor	deep scars & leaning
27	Ash	Fraxinus	16"	fair to poor	
28	Common Mulberry	Morus alba	7"	fair	
29	Common Mulberry	Morus alba	8"	fair	
30	Common Mulberry	Morus alba	7"	fair	
31	Catalpa	Catalpa speciosa	48"	fair -- upper portion of tree looks good, but the trunk is deeply scarred—the scar is fresh. Another deep scar up high older.	
32	Common Mulberry	Morus alba	4"		
33	Common Mulberry	Morus alba	5"		
34	Common Mulberry	Morus alba	5"		
35	(Black) Walnut	Juglans (nigra)	11"	fair	
36	(Black) Walnut	Juglans (nigra)	13"	fair	
37	(Black) Walnut	Juglans (nigra)	5-1/2"	fair	too close to #36
38	Common Mulberry	Morus alba	7"	fair to poor	
39	(Black) Walnut	Juglans (nigra)	9"	fair	
40	Common Mulberry	Morus alba	7"	fair	

Figure III-39: Conditions of Existing Plants (continued)

KEY	COMMON NAME	BOTANICAL NAME	SIZE	CONDITION	DESCRIPTION
41	Pine	Pinus	25"	dead	
42	transformer "square D"				35" high, green box
43	Pine	Pinus	20"	fair	
44	Pine	Pinus	19"	fair	
45	(Black) Walnut	Juglans (nigra)	24"	good	
46	(Black) Walnut	Juglans (nigra)	18"	fair	erosion threatens tree
47	(Black) Walnut	Juglans (nigra)	27"	fair	
48	Culvert—metal pipe with riprap around. Ditch is cluttered —especially on south side —with branches and brush and erosion is apparent. On North side of road a canel about 12" is eroded for about 15 feet west and around north base of tree #46. Need to regrade ditch on south side of road so that it drains properly and repair erosion damage on north side. This is coming from a shallow swale through the field to the north.				
49	Bark chips to drive on for access for festival—causing erosion potential problem				
50	Common Mulberry	Morus alba	8" and 7-1/2"	good	double trunk
51	(Black) Walnut	Juglans (nigra)	16"	poor	vine is choking tree
52	Common Sassafras	Sassafras albidum	3"	fair	
53	Common Sassafras	Sassafras albidum	4"	fair	
54	Pine	Pinus	8-9'tall	fair	
55	Falsecypress	Chamaecyparis	3-1/2'tall		
56	Pine	Pinus	7' tall		
57	Pine	Pinus	7' tall		
58	Flowering Dogwood	Cornus florida	7' tall		
59	Flowering Dogwood	Cornus florida	7' tall		
60	Butternut	Juglans cinerea	10'tall		

Figure III-39: Conditions of Existing Plants (continued)

KEY	COMMON NAME	BOTANICAL NAME	SIZE	CONDITION	DESCRIPTION
61	Flowering Dogwood	Cornus florida	10'tall		
62	Catalpa	Catalpa speciosa	16"	good	
63	animal shelter about 10'x10' new construction, non contributing, shed roof, good condition				
64	Removed! Fence at corncrib				
65	fence at chicken coop 27' n-s x 15' e-w (south side curves slightly at north side) chicken wire with wood posts 6-1/2' wide gate at south/west				
66	(Black) Walnut	Juglans (nigra)	14-1/2"	fair to poor--is being shaded out—no leaves on brnaches below 20-25'ht. Prune out dead branches.	
67	Ash	Fraxinus	7",7-1/2",6"	fair	3 trunks
68	large transformer 4'10" tall, 4'4" wide painted brown & covered with cornstalks. Also, green box 2'8" tall x 2'8" box				
69	(Black) Walnut	Juglans (nigra)	16"	fair--dead branches need pruning	
70	Manhole with geraniums, ferns, and daffodils planted around it				
71	Red oak	Quercus rubra	12"	good	
72	unmown area about 20'x15' undefined species				
73	Serviceberry	Amelanchier (laevis)	5-1/2' ht	fair	
74	(Black) Walnut	Juglans (nigra)	11"	fair	
75	Common Sassafras	Sassafras albidum	34"	fair -- Remove vine that is around tree. Prune. Keep area around tree cleared.	
76	Red oak	Quercus rubra	28"	good	some erosion at base of tree from road
77	American Linden/ Basswood	Tilia Americana	40"	fair to poor	Damaged & trunk is hollow in one area
78	White oak	Quercus alba	36"	Poor-- Trunk is rotting could be preserved by some maintenance—beautiful tree above—should clear underbrush to help this tree.	
79	Ash	Fraxinus	28-30"	fair-- large scar in trunk, clear out vegetation around base of tree	
80	Black Locust	Robinia pseudoacacia	24"	good	

Chapter IV:

Management Issues

Chapter 4 – Management Issues

The Chellberg Farm is a historically significant property that is eligible for listing in the National Register of Historic Places. Therefore the management of this property must be undertaken in accordance with the *Secretary of Interior's Standards for the Treat ment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes* for preserving historic landscapes. The management recommendations included in this Cultural Landscape Report also comply with *Director's Order 28: Cultural Resource Management Guidelines*, the *National Environmental Protection Act* and the 1966 *National Historic Preservation Act*. In this Act, Congress declared that "the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people." Section 106 of the *National Historic Preservation Act* requires federal agencies to take into account the effects of their actions on properties listed or eligible for listing in the National Register. In addition they are required to give the Advisory Council on Historic Preservation a reasonable opportunity to comment on any planned actions. It is also required that the Lakeshore confer with both the Indiana State Historic Preservation Office and the Advisory Council on Historic Preservation when making management decisions that affect historic properties.[1]

The National Park Service acquired the property in 1972 and manages it as a working farm. The Indiana State Historic Preservation Officer rejected an early National Register Nomination, indicating that the historic resources associated with the property did not warrant preservation. As a result, the protection of the historic resources was given secondary consideration and the interpretation of the site became the primary focus for National Park Service managers. During the first few decades of it tenure, the National Park Service interpreted the site as a typical Northwestern Indiana farm. The property is currently interpreted as a representative of the local Swedish immigration community. Decisions regarding treatments for historic resources have been made based on the goals for the farms interpretative program. As a greater understanding of the Swedish immigrant community in the Bailly area has developed, the historical significance of the farm has become apparent. While selected elements within the landscape have experienced deterioration in their level of integrity, the overall property maintains a moderate to high level of integrity. Appropriate management of the site can result in a more accurate portrayal of the historic appearance of the site.

The existence of an intensely active interpretation program at the farm adds complexity to the management of the historic landscape. The information provided in this report is meant to assist managers at the park in their efforts to preserve and interpret the historic resources associated with the farm.

The following text provides a summary of the management issues that need to be addressed in the treatment recommendations provided in Chapter VI of this report. These issues were defined through consultation with Lakeshore staff and reviewing several management documents. Information was obtained from the *Indiana Dunes National Lakeshore Chellberg Farm Management Plan,* which provides guidance for farm managers regarding crop cultivation, the care of livestock, and the maintenance of the yard, garden, and orchard. Other documents consulted *include An Ecological Study of the Chellberg Forest Sugar Bush, Indiana Dunes National Lakeshore*, by Vicki L. Dunevitz, Dale K. Otto, and Ronald D. Hiebert; *Analysis of the Chellberg Barn*, by Blake D. Hayes and Mary L. Seelhorst; and the *General Management Plan for Indiana Dunes National Lakeshore.*

Vegetation/Landscape

Address management of vegetation at the farm.

Evaluate locations of cultivated fields and fields used for pasture. Define appropriate boundaries.

Address drainage and erosion issues.

Provide guidance regarding the re-establishment of the yard. Address landscape elements including fences, gates, ornamental plants, and treatment of the ground plane.

Provide guidance regarding the surface treatment for the barnyard.

Provide guidance regarding the preservation of extant fruit trees.

Address the re-establishment of an orchard.

Address the size, location, and boundary treatments for the vegetable garden.

Provide guidance regarding the appropriateness of establishing a compost pile and pit storage area.

Provide guidance regarding views to the visitor center parking lot.

Address temporary elements that are present at the farm including the gravel parking lot, some fences, animal shelter, and mulch stockpile.

Provide guidance regarding pedestrian and vehicular circulation at the site.

Structures

Provide guidance regarding the locations, style, and materials used for fences.

Provide guidance regarding the restoration, preservation, and rehabilitation of historic buildings. Recommendations regarding structures provide only very general guidance for a preservation strategy. Specific treatment of a structure would need to be guided by a historic structures report.

Provide guidance regarding views to the gravel parking lot and storage building.

Provide guidance regarding signs and exhibits at the site.

Suggest treatments for screening utility fixtures (electrical risers, sewer caps, water pump boxes, and meters).

Recommend treatment for non-historic buildings, structures, and objects.

Address the appropriateness of reconstruction of non-extant historic buildings including an outhouse, smokehouse, and woodshed.

Address ADA issues keeping in mind the desirability of accessible sites while interpreting a working farm that would be muddy, dirty, and smelly like a typical farm. The house and barn both meet ADA accessibility requirements and the grounds are accessible.

Endnotes

1 National Park Service. 1996. *The Secretary of the Interior's Standards for the Treatment of Hisotric Properties with Guidelines for the Treatment of Cultural Landscapes.* Washington, D.C.: USDI, NPS, Cultural Resources, Preservation Assistance Division. Also,

NPS - 28, Cultural Resource Management Guideline, Release No.4 Draft, February 1993, p.61.

Chapter V:

Analysis

Chapter V: Analysis

Statement of Significance

The Chellberg Farm is historically significant due to its representation of the settlement and establishment of a Swedish immigrant community in northwestern Indiana. The proximity of the Calumet Region to Chicago made it appealing to Swedish immigrants. Chicago was a major destination for Swedish immigrants, who by 1890 constituted ten percent of the city's population and were the third largest immigrant group. Chicago was referred to as "the hub of Swedish America." In 1920 Swedes were the fifth largest immigrant group in Chicago, behind Poles, Russians, Germans, and Italians. Single middle-class men constituted the majority of Swedish immigrants to Chicago in the early years; after the late 1840s agricultural families predominated. The Swedish American community in Chicago was complex; being organized by class, religious, social, and even home region associations.[1]

In the mid-nineteenth century Swedish-Americans began to settle in the Calumet Region. Many worked as laborers serving the lumber industry and railroads. Others took jobs at C. O. Hillstrom's organ factory in Chesterton, or the Straube Piano Company in Hammond. By 1880 two-thirds of the foreign-born population in Chesterton was Swedish. Baillytown and Portage were also predominantly Swedish.[2]

The Swedish immigrants who came to the Calumet region placed a strong emphasis on preserving ties to their ethnic heritage. Desires to ensure that their children continue to learn the native language and customs, led the community to establish a school where children were taught to speak and read Swedish. The children participated in classes at the Swedish school in addition to attending the local public school. The community organized Swedish-language instruction as early as 1880 when a large toolshed (from Frederick Burstrom's farm) was renovated to serve as a school. After 1885 the classes were held either in the Burstrom Chapel or at the Augsburg Svenska Skola (Swedish School). The community also established several Swedish churches in the area, and social activities were organized where Swedish was spoken, and homeland traditions and holidays were celebrated.[3] The Augsburg Luthern Church was the heart of the Baillytown community, but other activities also emphasized the Swedish heritage of local residents. Birthdays were celebrated with "feasts," and dances were held on North Howe Road and at young people's homes. Shivarees, for newly married couples, involved pranks played on the bride and groom.[4]

The Chellberg Farm is among the best preserved physical reminders of the ethnic heritage of the area's Swedish immigrant farming community. By the time the family purchased the property in 1869 the Swedish community was established. The Chellbergs actively participated in the social and ethnic life of the Swedish-American community, through their membership in the Augsburg Lutheran Church and participation in other activities. Many documents of the Chellberg family, such as confirmation and wedding certificates, are recorded in Swedish.[5] The history of the Chellberg Farm is one of a typical Swedish immigrant family who settled in the Calumet region and made their living through agricultural pursuits. The *ordinary* nature of this vernacular landscape's story makes it an excellent representative of the Swedish cultural community.

Since the farm is owned by the National Park Service it provides a unique opportunity to preserve and interpret an important cultural resource that is associated with the early settlement and ethnic heritage of the region. In addition, the continuing role that the farm plays as a public venue for Swedish-American cultural activities adds to its significance as a vernacular landscape and indicates its potential eligibility as an ethnographic landscape. The Chellberg Farm provides an opportunity for Swedish-American heritage events to be held at a property that was the home of a Swedish immigrant family. Activities at the Farm include "Christmas at the Dunes," a celebration of Santa Lucia Day, and Midsummer programs in late June that celebrate the solstice. The occurrence of these events at a historic site adds a dimension to them in which ties to the communities past are intermingled with contemporary celebrations of cultural heritage. While meetings at the Scandiana Lodge of the Sons of Norway in Chesterton celebrate Scandinavian culture in general, the Chellberg Farm activities focus on Swedish traditions. Many participants are descendants of the Swedish immigrants who settled in the area. The farm has become an important site to many of these people—it is the only place where they can visit a complete historic agricultural landscape related to their community's past.[6]

Period of Significance

The period of significance for the Chellberg Farm spans a period of sixty-eight years from 1869 to 1937. It began in 1869 when Anders Kjellberg entered into a contract with John Oberg to purchase the Chellberg Farm property from Joel Wicker. The family was part of a small Swedish immigrant community and set about establishing a productive farm on the property. When Anders' son, C. L. Chellberg, took over managing the farm in 1894 his energy and ideas began a new phase for the operation. His marriage to OttoMina (Minnie) Peterson in 1901 marks the beginning of a transformation of the farm's management focus as well as a new understanding of the domestic landscape. Minnie Chellberg's emphasis on the organization and beauty of the farm landscape played an important role until her death in 1952. During the farm's dairy period from ca. 1908 until ca. 1937 the operation successfully reached financial stability, however the farm was never overly lucrative. After C. L.Chellberg's death in 1937 the management of the farm was transferred to his son Carl Chellberg. As Carl Chellberg and his wife Hilda took jobs off of the farm in the 1950s, the agricultural operation gradually became less of a focus. While the family was present and using the property for agricultural purposes until 1972, the period of significance ends with the death of C. L. Chellberg in 1937.

Evaluation of Landscape Integrity

The National Register of Historic Places program, which is part of the National Park Service, is responsible for creating eleven landscape characteristics that are used to evaluate and analyze historic landscapes. The evaluation results in determining their eligibility for listing in the National Register of Historic Places. They are divided into *processes* and *physical forms. Processes* either originate from the natural environment or have been produced through human activity. *Physical forms* are the "manifestation of processes" that have occurred over time. The following narrative provides an analysis of the landscape characteristics associated with the Chellberg farm. The combined characteristics define the historic landscape and include natural systems, spatial organization, land use, cultural traditions, circulation, topography, and vegetation.

Natural systems and features

The landscape processes that relate to the Chellberg Farm historic landscape originate from the natural environment. The natural topography and soils have defined two general landscape characteristics at the farm. The northeastern portion of the property is gently rolling to flat and this topography provided opportunities for establishing agricultural fields. The western and southern portions of the parcel are dominated by the steeply sloping ravine, which severely limited agricultural activities.

Spatial organization

For the purposes of analysis the farm landscape has been divided into eight component landscapes including: the buildings, the yard, the front yard, the orchard, the garden, the lane, the fields, and the ravine. **Figure III-1** illustrates the locations of each of the component landscapes.

The Buildings and Yard

The buildings maintain a medium level of integrity in relation to the dairy era of the period of significance (1908-1937). The main structures remain and include the barn, farmhouse, chicken house, corn crib, granary, windmill, and sugar camp. The silo foundation and reconstructed water house are also contributing structures. The absence of fences in their historic locations in this area detracts from the integrity and

the existence of fenced pens adjacent to the chicken house and corn crib are not congruent with the historic period. The absence of free-roaming livestock has also changed the appearance of this portion of the farm. The addition of two pig sheds, a pig pen, pole barn, and barn construction model also detract from the integrity of the barnyard area.

The Front Yard

The integrity of the front yard is low to medium mainly due to the absence of the fences, gates, and ornamental plants that were important organizing elements from the period of significance. Most significantly, the fence that separated this domestic area from the livestock portion of the farm is no longer present. The fence defined the boundaries of the yard as a domestic and ornamental area that was distinct from the other parts of the farm. Inside the fence were the lawn, flowers, and other ornamental plants. Outside of the fence the chickens roamed, butchering occurred, and vehicles and livestock maneuvered. The absence of the fence as well as the absence of the flowers and herbaceous plants that ran along its perimeter represent a major loss of definition and organization for the front yard. In addition, the gates in the fence provided organizing points for circulation at the farm, channeling foot traffic through particular routes.

The lawn is partially intact, however a large area of bare ground and another area that has been covered with wood chips create a discontinuous lawn. The two flowerbeds in the front lawn, as well as some patches of flowers, help to hint at the former emphasis that was placed on the yard as a domestic realm. However, they seem out of place in a landscape where they might once have been small parts of an overall planting scheme. They fail to convey the idea that this was once a carefully tended area in which the family relaxed and took pride. In addition, no documentation exists to indicate that they are sized or located appropriately. The flowers that they contain are not the same as those remembered by former residents of the farm.

The majority of the plants in the yard have either changed dramatically, or are no longer present. The exceptions to this are the two deciduous trees in the front yard. There were two large deciduous trees present during the period of significance. The flowering fruit trees are no longer present and many trees and shrubs that were very small during the period of significance have now matured and are dramatically different from their former appearance. For example, the fir tree saplings that were planted by Ruth are now mature and they tower above the house and obstruct the view toward the "lane." The yard was mostly sunny during the period of significance—now the mature trees shade the yard creating a different environment. There was a flower garden in the backyard near the woodhouse, both garden and woodhouse are no longer extant.

The Orchard

The orchard has a low level of integrity--it is barely apparent in the existing farm landscape. There continues to be a south-facing slope and there is at least one mature apple tree. However, a number of large deciduous trees have grown in the area, creating a shaded character at the site. There are currently no fruit-bearing trees and the space does not have the appearance of an orchard.

The Garden

The garden exhibits the lowest level of integrity of all of the Chellberg Farm component landscapes. There is no garden in the historic location, and the present garden does not represent the location, design, or workmanship of the historic garden. Historically the vegetable garden at the farm was arranged in a roughly rectangular shape. There is no documentation indicating that it was ever fenced. The area that once served as the garden now serves as an open area that appears to be an extension of the yard. Trees and patches of vegetation have grown into this area. The vegetable garden that exists at the farm today lacks integrity due to its non-historic location. In addition, the fence around the garden and ornamental arrangement of plants within it are not consistent with the historic garden. It does, however serve as a useful interpretive tool in relaying the types of food that may have been grown during the period.

The Lane

The entrance road to the farm ran east-west from Mineral Springs Road to the farmhouse. Historic photographs show views of this lane from the yard. There was a gate in the fence that roughly lined up with the lane. The gate was decorated during various periods with flowers and ornamental structures. The lane appears to have been the main entrance to the farm for pedestrians and vehicular traffic. It was lined with evenly spaced deciduous trees during the period of significance creating a corridor that would have been both scenic and utilitarian. It provided shade for the passage to or from the farm, and possibly for breaks while working in the nearby fields. It also provided an organizing element for views from the house and yard and was featured in the background of many period photographs. No historic photographs have been located that show a view from the lane toward the house (facing west). However, the alignment of the road, placement of the ornamental gate, location of the farmhouse and the lawn create an organized view into the farm that would have been very scenic. This view would have presented the most beautiful aspects of the farm first to anyone approaching along the lane.

The lane exhibits a moderate to high level of integrity. Its location has remained consistent. Its association with the farm has changed from being the primary entrance route to providing service access. The setting, feeling, materials and design are somewhat dimished in integrity because the corridor is no longer lined by evenly spaced deciduous trees. The vegetation that is present currently creates a densely shaded corridor that is enclosed and does not allow views to the surrounding fields. Previously the deciduous trees would have created a linear corridor, but would have also allowed views to the surrounding fields and created a rhythmic pattern along the passage.

The Fields

The fields at the farm demonstrate a high level of integrity of location, feeling, and association and a moderate level of integrity of design, setting, materials, and workmanship. Continued management of the landscape as a productive agricultural property has resulted in both positive and negative impacts to its integrity. The on-going association of animals and crop production add to the ability of the landscape to represent its previous state. However, the additions of non-historic structures and objects that have occurred as a result of the living-farm operations detract from the integrity of the historic scene. The addition of fences in the northeastern field and use of this area as pasture diminishes integrity there. This was a cultivated agricultural field during the period of significance. In addition several buildings, small structures, plants and a parking lot have been added in this area. Their combined impact results in a substantial detraction from the historic appearance.

The Ravine

The ravine exhibits a moderate level of integrity due to its unchanged location and topography. The change in vegetation can be seen as a natural succession of the plant community, however this change has occurred due to a shift in cultural resource management practices. The main detractors from the integrity of the ravine include the absence of the fence, the discontinued use of the area as a pasture, and the loss of views through the ravine.

Land use

The farm property is now managed as a working farm. In contrast to the previous arrangement, the farmhouse is not occupied by the people who are tending the farm. The ravine is no longer utilized as pasture as it was historically. This has resulted in a change in character of the woods, and results in a feeling that the actively used portion of the farm is much smaller than it was traditionally. The yard, garden and orchard are no longer utilized as they were during the period of significance. With the exception of a two-hour period each day, there are no longer free-roaming chickens, which once dominated the yard area between the barn and house. Continued management of the landscape as a productive agricultural property has resulted in both positive and negative impacts to its integrity. The on-going association of animals and crop production add to the ability of the landscape to represent its previous state. However, the additions of non-historic structures and objects that have occurred as a result of the living-farm operations detract from the integrity of the historic scene.

Circulation

The approach, arrival and entrance to the farm are dramatically different from their existence during the period of significance. The "lane" that had been the primary entrance to the farm is now utilized as a service road. Visitors to the farm enter via the road to the visitor center parking lot and approach the farm on the path from the south that runs along the edge of the ravine. While historically a visitor's arrival to the farm included a view of the farmhouse and yard that was framed by the double row of trees along the lane, today visitors come along the path in the woods. The sugar camp is the first farm structure that is encountered. Next, the back of the farmhouse is seen and it is not until one is in the midst of the farm buildings that a view of the overall complex emerges.

On a smaller scale, the fences and gates that were present during the period of significance helped to direct and organize the circulation of people, vehicles, and animals at the farm. The absence of fences in historic locations, and addition of fences in non-historic locations has resulted in a general lack of organization to site circulation as it related to the historic landscape. The woodchip paths are fairly ambiguous and do not relate to the former circulation routes.

Topography

The unchanged topography at the farm provides an important underlying element to the overall landscape. The site continues to be divided by topography into two distinct areas. The northeastern portion of the property is gently rolling to flat. This topography provided opportunities for establishing agricultural fields and continues to serve this purpose. The western and southern portions of the parcel are dominated by the steeply sloping ravine, which severely limited agricultural activities.

Vegetation

On a broad scale vegetation at the site demonstrates a moderate to high level of integrity. The overall patterns of vegetation have continued to define an open area dotted with trees in the northeastern portion of the site and a woodland in the western and southern areas. The character of the woodland has changed with the elimination of grazing and the onset of succession as young woody and herbaceous species have encroached into previously open areas. The elimination of grazing in the woods has had a dramatic impact—now the undergrowth is dense where it was once very sparse and open.

On a smaller scale vegetation at the site has changed more dramatically, resulting in a low level of integrity. The trees in and around the yard have matured and some have died. There are more large trees present now than there were during the period of significance, resulting in a greater amount of shade and a sense of enclosure. There are also more clumps of herbaceous plants that have grown in areas that were formerly actively used by the people or animals at the farm. The orchard is no longer productive—most of the trees have died and the remaining few are declining. It has been replaced by scattered deciduous trees. The double row of trees along the entrance road to the farm is now composed of a few extant trees and dense understory vegetation.

Cultural traditions

The use of the farm by local and regional Swedish-Americans creates an important link to their cultural heritage. In particular, programs organized by the National Park Service with the cooperation of local Scandinavian heritage groups provide opportunities for Swedish-Americans to participate in traditional activities at an authentic Swedish settlement site.

Component Landscape	Composite Integrity	Integrity Analysis						
		Location	*Design*	*Setting*	*Materials*	*Workmanship*	*Feeling*	*Association*
The Yard	M	H	M	M	M	M	H	H
The Front Yard	L/M	H	L	M	L	L	M	H
The Orchard	L	M	L	M	L	L	L	M
The Garden	L	L	L	L	L	L	L	L
The Lane	M/H	H	M	M	H	H	M	H
The Fields	M/H	H	M	M	M	M	H	H
The Ravine	M	H	M	M	M	L	M	M
Overall Chellberg Farm Cultural Landscape	M/H	H	M/H	M	M	M	H	H

Figure V-1: Summary of Integrity Analysis[7]

Summary of Integrity

Continued management of the landscape as a productive agricultural property has resulted in both positive and negative impacts to its integrity. An on-going association of animals and crop production add to the ability of the landscape to represent its previous state. However, the additions of non-historic structures and objects that have occurred as a result of the living-farm operations detract from the integrity of the historic scene. In addition, the impacts of visitor use, especially during festivals, have affected the overall level of integrity of the yard and barnyard. The spatial organization of the farm has been altered resulting in the absence of the yard and orchard, and in dramatic changes to the garden and front yard. Historic patterns of circulation are no longer apparent, due to the loss of important directional features. Changes in vegetation at the site have had a particular impact on the yard, orchard, lane, and ravine.

In order to gain a complete understanding of the integrity of the Chellberg Farm historic landscape, evaluation has focused on two scales. **Figure V-1** provides a summary of the analysis of integrity for the landscape components and for the overall Chellberg Farm cultural landscape. The overall landscape, including the entire 80 acre property that is made up of broad land use patterns, spatial organization, vegetation, circulation, and structures maintains a high level of integrity for location, feeling and association. At this scale the property exhibits a moderate to high level of integrity for design, and a moderate level of integrity for setting, materials, and workmanship. On a smaller scale, each of the component landscapes has been evaluated and integrity levels range from very low—as with the orchard and garden—to moderate/high—as with the lane and fields.

Adjustment of the management approach for the Chellberg Farm landscape can improve the accuracy of its historic character. A shift to provide more emphasis on the rehabilitation of the cultural landscape components can create a more veracious portrayal of the site's historic appearance. This in turn will provide a more appropriate stage upon which the interpretive activities can occur.

Endnotes

1 White, David R. M. *Roots Eternal and Unshakable: An Ethnographic Overview of the Indiana Dunes National Lakeshore*, Draft, September 1999, p. 168.

2 Ibid, p.169.

3 Peopling Indiana, p. 481.

4 White, David R., p. 169.

5 McMahon, David R., *The Ethnic Heritage of the Chellberg Farm and the Swedish Baillytown Region*, p. 5.

6 White, p.169-170.

7 The layout of this chart is modeled on a similar chart in: Williams, Sherda and Boyle, Susan Calafate. The *Cultural Landscape Report for Perry's Victory and International Peace Memorial, Put-in-Bay, Ohio*, (Omaha: National Park Service) 1994.

Chapter VI:

Treatment Recommendations

Chapter 6: Treatment Recommendations

This chapter includes descriptions for the *recommended landscape treatment approach* for the historic landscape at the Chellberg Farm. The recommended treatment was designed by Quinn Evans/Architects with input from the staff at Indiana Dunes National Lakeshore and the Midwest Regional Office of the National Park Service. A participatory meeting was held on 2 June 1999 at Indiana Dunes National Lakeshore Headquarters to discuss the potential impacts and benefits that various treatments would present for the historic landscape. The following Indiana Dunes National Lakeshore personnel attended the meeting: Dale Engquist, Superintendent, Garry Traynham, Assistant Superintendent, Jude Rakowski, Chellberg Farm Manager (Ms. Rakowski has since retired from this position), Bruce Rowe, Program Manager, Laura Gundrum, Visitor Services Manager, Janice Slupski, Historian, Dorinda Partsch, Historian, Judy Collins, Historical Architect, and Bob Daum, Resource Manager. In addition, Marla McEnaney, a Historical Landscape Architect in the Midwest Regional Office, and Brenda Williams and Steven C. Jones, both of Quinn Evans/Architects participated in the meeting.

During the meeting, three alternative treatment options were reviewed and aspects of each were combined, along with new ideas that were generated during the session, forming the *Recommended Treatment Approach.* The Recommended Treatment Approach presented herein incorporates concerns regarding natural resources and interpretation into a design that is focused on rehabilitating the historic landscape. The three alternative treatment options that were discussed at the 2 June meeting are included as **Appendix [A]** in this report.

The ongoing management of the Chellberg Farm as a working farm presents a dilemma that is somewhat unusual when dealing with historic sites within the National Park Service. The significance of the site warrants its preservation as a valuable cultural resource. However the interventions deemed necessary to improve the accuracy of the sites portrayal of its historic appearance pose conflicts with the existing interpretative programs. Preparation of the Recommended Treatment Approach included careful consideration of the implications of each recommendation on the integrity of the historic resources, the natural resources, and the interpretive programs at the Chellberg Farm.

The Recommended Treatment Approach includes *General Recommendations* as well as recommendations that address the eight landscape components (described in Chapter 3 and illustrated in **Figure III-1**) plus the Visitor Center, Parking Lot, and Picnic Area. Also, each option includes a section addressing circulation throughout the overall property. Throughout Chapters 6 and 7 these ten categories are referred to as *landscape management zones:*

- The *Buildings* – extant buildings include: the barn, farmhouse, chicken house, corncrib, granary, windmill, and sugar camp. The silo foundation and reconstructed water house are also contributing structures.
- The *Yard* – the utilitarian space between the barn and farmhouse.
- The *Front yard* – the domestic space adjacent to the farmhouse that included a fence, lawn, and ornamental plants.
- The *Orchard* – a one-acre *orchard* that included apple, pear, cherry, peach, and crabapple trees.
- The *Garden* – a large rectangular vegetable *garden* where food was grown for the family.
- The *Lane* – a treelined entrance road to the farm.
- The *Fields* – open areas that were cultivated or used for pasture.
- The *Ravine* – a wooded area with steeply sloping terrain.

The Visitor Center, Parking Lot, and Picnic Area.

Pedestrian and Vehicular Circulation.

Treatment Approach:

The Secretary of the Interior has established standards for managing cultural landscapes through four treatments: preservation, rehabilitation, restoration, and reconstruction.

- Preservation involves applying measures necessary to sustain the existing form, integrity, and material of a historic property. Of the four treatments, preservation requires the retention of the greatest amount of historic fabric. The property's distinctive materials, features, and spaces must be essentially intact and able to convey the historic significance without extensive repair or replacement.

- **Rehabilitation includes repair, alterations, and additions to a property to make possible a compatible use, while preserving portions or features that convey its historical, cultural, or architectural values.** Rehabilitation acknowledges the need to alter or add to a cultural landscape to meet continuing or new uses while retaining the landscape's historic character. This approach is applied to a historic property when its depiction at a particular period of time is not appropriate, when repair or replacement of deteriorated features is necessary, or when alterations or additions to the property are planned for a new or continued use.

  Restoration depicts the landscape at a particular time in history by preserving materials from the period of significance and removing materials from other periods.

  Reconstruction provides a framework for recreating a vanished or non-surviving landscape with new materials, primarily for interpretive purposes. Reconstruction involves depicting the form, features, and detailing of a non-surviving site, landscape, building, structure, or object, through new construction, for the purpose of replicating its appearance at a specific period of time and in its historic location.[1]

Three of the treatment approaches, preservation, restoration, and reconstruction, are not appropriate for the Chellberg farm for the following reasons. The farm does not retain the high level of integrity necessary to apply a preservation treatment approach. Several landscape characteristics require repair or replacement in order for them to adequately represent the historic period. The farm landscape includes elements related to several different time periods and phases of development, therefore depiction of a particular period of time through restoration is not appropriate. Reconstruction requires that the accurate duplication of historic features and elements be substantiated by documentary or physical evidence rather than on conjectural designs. In addition, reconstruction as a treatment approach is reserved for properties with the highest level of significance. Reconstruction is considered to be a last resort measure to be taken only upon specific review of the Director in the Washington office.[2] Finally, reconstruction poses a potential threat to extant historic resources by placing additional demands on the limited budget available for maintaining historic resources.

Rehabilitation is recommended as the appropriate treatment approach for the historic landscape at the Chellberg farm. Rehabilitation is the most appropriate treatment approach for the Chellberg farm landscape for several reasons. This approach will allow for repairs and replacement of selected elements to be made to improve the interpretative authenticity while preserving the intact historic features and characteristics of the landscape. Finally, rehabilitation provides the greatest level of flexibility for alterations or additions that may be necessary to accommodate the continued use of the site as an interpretive working farm.

The following are the Secretary of Interior's Standards for Rehabilitation:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive features, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Guiding Principals for Rehabilitation:

- Identify, retain, and preserve historic materials and features.
- Protect and maintain historic features and materials.
- Repair historic features and materials.
- Apply the least degree of intervention possible.
- Include limited in kind replacement of extensively deteriorated materials or parts of features.
- Use materials that match historic conditions in design, color, and texture; substitute material is acceptable if it conveys the same visual appearance as the historic period.
- Replace deteriorated historic materials and features.
- Design for the replacement of missing historic features only when deemed appropriate.
- Design for alterations/additions necessary to support new use.
- Provide universal accessibility, meet health and safety requirements, and consider environmental impacts and energy efficiency in the design solution.

Goals for Treatment of the Chellberg Farm Historic Landscape:

The *recommended treatment approach* and each of the three alternatives provide for the rehabilitation of the historic resources and for visitor use by addressing four common goals:

- Rehabilitate the historic landscape at the farm based on the period of significance (1869 through 1937) and emphasize the period for which the best landscape documentation exists, the years between 1908 and 1937.

- Continue to manage the farm as a working farm limiting activities and operations to those that have a basis in the historical significance of the property.

- Emphasize improving the ability of the site to represent the historic character of the landscape when rehabilitating the buildings and landscape features for use in the working farm operation and for interpretative use.

- Rebuild specific landscape elements that are critical to improving the ability of the site to represent its historic appearance.

General Recommendations

1. Limit signs and exhibits at the site to those deemed essential to providing visitors with an understanding of the historic property. Since this property is being actively farmed and managed for the maximum interpretative potential, it is unlikely to require as many signs as other properties. The farming activities and resulting land uses are "waysides" in and of themselves. Wayside exhibits should be designed to intrude as little as possible on the site.

2. Avoid replacing non-extant elements unless there is adequate documentation to ensure the location, size, materials, and design accurately represent the elements present during the period of significance. The Secretary of Interior's Standards should be applied when determining if documentation is adequate.

3. Limit confusion regarding which elements are historic or non-historic and what is authentic or recreated by interpreting any reconstructed elements as non-historic recreations and clarifying that they are not authentic.

4. Remove or relocate structures not related to the property's significance. Non-historic structures that are essential to the operations of the working farm should be relocated to sites where they do not impact the integrity of the historic landscape. Non-historic structures that are not essential to the operations of the farm should be removed from the property.

5. Avoid construction of new structures and objects that will create confusion, lower integrity, and clutter the landscape scene. Whenever possible, new structures should be located off of the historic property. When it is not possible to locate new structures off of the historic property, attempts should be made to place them in locations where they do not impact the historic scene.

6. Avoid non-historic land use and additions of non-historic livestock, plants, crops, and management activities.

7. Restore significant historic views associated with the farm.

8. Fences at the farm should be constructed of materials and styles that match as closely as possible the fences historically located on the site. Whenever possible, fences at the site should be limited to those in locations where documentation indicates that they were present during the historic period. In cases where fences are needed to support the working farm activities, they should be constructed only after careful review and approval by the SHPO (through Section 106 compliance) as reversible additions and removed as soon as they are no longer necessary.

9. When deciding where to place additional fences, efforts should be made to limit the number of fences on the site at any one time. The overall appearance of the historic landscape should be considered each time any new element is contemplated. Efforts should be made to avoid the addition of numerous fences which would create a cluttered appearance and detract from the character of the site.

10. Provide universal accessibility to the farmhouse and barn. Also, provide a universally accessible route that will enable visitors with disabilities to experience an exterior tour of the farm that includes the extant outbuildings. Materials used for this route should simultaneously compliment the historic appearance and provide universal accessibility.

11. Establish a pedestrian circulation plan that includes a primary route to guide visitors through the farm in a sequence that is as close as possible to the historic circulation pattern. This should emphasize that the arrival to the farm provides the most scenic view –presenting the domestic elements and ornamental landscape first, and then progressing on to the outbuildings and livestock-related elements.

12. High impact festival activities should be conducted outside of the historic core of the property.

13. Acknowledge the larger community landscape by emphasizing (through interpretive programs and research) ties to local farms, buildings, families, and activities.

- Consider conducting further research to increase knowledge regarding the Swedish-American community and the relationships between the community and the Chellberg farm.

- Complete the multiple property nomination for the Swedish farming district in order to more fully understand the place of the Chellberg farm within the community and to aid in identifying and preserving properties and landscape components related to the district.

- Consider investigating the history of the Nelson farm that is located directly across Mineral Springs Road from the Chellberg Farm. The Nelson property includes structures that are similar to the Chellberg buildings, that were possibly constructed by the same people.

- Consider conducting an analysis of the structures that remain at other properties within the Swedish farming district to gain a more thorough understanding of the ability of the Chellberg farm structures to represent the styles, techniques and materials used throughout the district.

- Consider conducting a natural resource assessment to determine the overall condition of the woodland community in the ravine.

- .Consider incorporating information from research projects regarding the historic context of the farm into a small publication for public distribution. Consider establishing a partnership with the local Swedish-American community to help publish and promote this project.

14. Fertilize and water all existing trees to remain during the fall of the year preceding implementation of Phase I.

15. Prune damaged or dangerous trees as soon as possible after their identification.

Recommended Treatment Approach

The Buildings

1. Remove all non-historic structures and elements from the historic core to locations (preferably off of the historic property) where they will not diminish the integrity of the cultural landscape. The Tables in **Figures VI-1 and VI-2** provide itemized lists for the removal/relocation of buildings, elements, plants, and landscape features.

2. Preserve the restored farmhouse and continue to use it for interpretive tours. To preserve the farmhouse:

- Repair the gutters and downspouts on the farmhouse and route the collected water to the cistern under the house.

- Replace the cistern with a drywell.

- Drill holes in the bottom of the cistern and remove the earth beneath to a depth of four feet below the frost level. Replace the earth with gravel to allow water to percolate efficiently into the ground.

- Consider installing perforated pipe in a gravel trench to more quickly move water away from the house.

- Remove plants from around the foundation of the farmhouse.

- Re-grade areas adjacent to the farmhouse to ensure positive drainage away from the building. Establish rough lawn in these areas.

- At the eastern and southern house foundation install plants (as described in the "front yard" section below) after re-grading to ensure adequate drainage.

3. Preserve the barn and use it to house the horses, cow, and hay. Continue to use it for interpretive tours.

4. Preserve the silo foundation. Provide information to visitors explaining the role this building once played at the farm. Consider rebuilding the silo only if adequate documentation is acquired that ensures the size, materials, and design can be accurately reproduced.

5. Preserve the chicken house and continue to use it to house chickens.

- Remove the fence that is adjacent to the chicken house. Consider allowing the chickens to have free range in the yard. If this is not possible, consider replacing the fence with a temporary fence that matches fences that were present at the farm during the period of significance in materials and design. **Figures VI-6 and VI-7** provide descriptions of the fence. The temporary fence should be installed as a "reversible" element that can be removed and erased leaving no trace or impact on the site.

- Control erosion at the west side of the chicken house by removing the earth at the drip-line and replacing it with pea gravel to a depth of four feet below the frost level in a 10-12" wide strip that is centered on the drip-line. Do not place other materials on top of the pea gravel.

6. Preserve the corncrib and continue to use it to store corn. Interpret the corncrib as a second-generation building that was constructed using wood from the silo.

- Remove the fence that is adjacent to the corncrib and do not replace it.

- Control erosion at the west side of the corncrib by removing the earth at the drip-line and replacing it with pea gravel to a depth of four feet below the frost level in a 10-12" wide strip that is centered on the drip-line. Do not place other materials on top of the pea gravel.

7. Preserve the granary and use it to store grain grown at the farm.

- The storage of grain in the granary should be limited to quantities that will not cause any

structural damage to the building.

- Control erosion at the west side of the granary by removing the earth at the drip-line and replacing it with pea gravel to a depth of four feet below the frost level in a 10-12" wide strip that is centered on the drip-line. Do not place other materials on top of the pea gravel.

8. Preserve the extant windmill. Maintain the water house and identify it as a reconstructed building. Remove the vegetation growing on and around the base of the windmill and waterhouse.

9. Preserve the sugar camp and continue to use it for maple syrup activities.

10. Determine the locations of non-extant historic outbuildings and provide visual cues for visitors indicating their former locations.

- When financially reasonable, determine the locations of non-extant historic outbuildings at the farm through archeological investigations.

- When the locations of non-extant historic outbuildings are determined through archeological investigations, remove vegetation in the area where the buildings once stood taking care not to disturb significant archeological materials. The non-extant historic outbuildings that should be interpreted at the site include the silo, tenant house, outhouse, woodshed, smokehouse, and vineyard.

- Establish lawn of rough grass in these areas.

- Rough grass refers to a turf area that is not highly manicured or treated. Weeds and bare patches are considered acceptable representations of the historic surface. The specified grass has a coarse texture and should be cut no lower than 3" high.

- To plant grass seed in large bare spots begin by removing the existing soil to a depth of six inches. Next add screened compost and bone meal to the soil, rake it smooth, top it with a thin layer of potting soil or fine garden loam, and sow the seed. Water the area regularly with a fine spray, so that the soil is kept moist but not saturated. Temporarily rope off the area until the grass is established. Once grass is established treat these areas the same as the rest of the lawn.

- In both sunny and shady areas plant a mixture of grass seed that is composed of 60% coarse fescue (*Festuca elatior*), 25% red fescue (*Fescuta rubra*), and 15% perennial ryegrass (*Lolium perenne*).

- Construct flush concrete curbs to indicate the locations of the former edges of the buildings when this construction can be achieved without impacting significant archeological materials.

- Consider replacing non-extant elements only when there is adequate documentation or physical evidence according to the Secretary of Interior's Standards, to ensure the location, size, materials, and design accurately represent the structures present during the period of significance and when this construction can be achieved without impacting significant archeological resources. Consult with the State Historic Preservation Office before replacing any non-extant elements.

11. Develop an interpretative brochure for the farm that includes photographs and descriptions of the uses and periods of each of the historic landscape elements and relates them to a site map. Explain the connections and relationships between the various extant components and non-historic buildings and elements. The brochure should frame interpretation of the farm within the context of Swedish immigration and settlement in the United States and provide a holistic view of life on the farm and the meaning and significance of the Chellberg Farm.

Building or Element To Be Relocated or Removed	**Relocation or Removal Site**
N.P.S. Shed ("E")	Relocate to open area along Oak Hill Road where wood chips are now stored. Screen views of this building from the historic core of the farm, Oak Hill Road and Mineral Springs Road.
Sorghum Fireplace ("F") and adjoining platform	Remove from Chellberg Farm Historic Landscape.
Sorghum Press ("G")	Remove from Chellberg Farm Historic Landscape
Animal Shelter ("H")	Remove from Chellberg Farm Historic Landscape
N.P.S. Pig Shed 'A' ("M") and N.P.S. Pig Shed 'B' ("N")	Replace with buildings that accurately represent the historic hog sheds.*
N.P.S. Pole Barn ("O")	Relocate to open area along Oak Hill Road where wood chips are now stored. Screen views of this building from the historic core of the farm, Oak Hill Road and Mineral Springs Road.

*Research aimed at determining the physical appearance and locations of the hog sheds uncovered only very general information (according to oral history accounts they were located in the ravine). To determine appropriate materials, style, and construction techniques consider conducting research aimed at locating photographs or detailed descriptions of hog/pig sheds located at other Swedish heritage farms included in the Swedish farming district.

Figure VI-1: Buildings and Elements to be Removed

Plant/Landscape Feature To Be Relocated or Removed	Relocation Site
Gravel Parking Lot	Remove gravel, recondition soil, and incorporate this area into 'Field A." Provide limited staff/ volunteer parking at open area along Oak Hill Road where wood chips are now stored. Additional parking could be provided to the west on the north side of Oak Hill Road.
All of the trees along the western side of the gravel parking lot, including trees labeled 54 through 61 on the Vegetation Key Plan.	Remove. Consider relocating the trees to the proposed trailhead at the north side of the visitor center parking lot.
Vegetation between the gravel parking lot and fence to the north.	Remove. Consider relocating desirable plants that will be easy to transplant to screen the proposed maintenance area near Oakhill Road.
Fence adjacent to corn crib	Remove
Fence adjacent to chicken house	Replace with a fence that is more in character with the historic period. Retain the new fence until the chickens can be allowed free-range. Interpret as a non-historic addition to the site and explain why it was not necessary during the period of significance.
Large mulch pile near Oak Hill Road.	Relocate to a non-historic property.
Mulch groundcover around house and large mulched areas adjacent to the farm road (near the garden and the culvert)	Remove
Vegetable garden and fence	Remove fence and relocate vegetable garden to the historic site. Incorporate the area that is currently the vegetable garden into Field B.
Brick-edged rectangular flower bed in front yard	Remove
Brick-edged circular flower bed in front yard	Remove
Clothesline in front yard	Relocate to backyard.

Figure VI-2: Landscape Features to be Relocated or Removed. (continued)

Plant/Landscape Feature to be Relocated or Removed	Relocation Site
Stanchion display in yard.	Remove.
Bell on post in the front yard.	Remove
Miniature barn frame located between the pole barn and the hog pens.	Remove
Understory vegetation along the lane.	Remove, taking care not to disturb or damage the large trees to be preserved.
Non-historic vegetation in areas where the vegetable garden, orchard, and front yard were located.	Remove—use a phased approach
Understory vegetation in area east of the yard.	Remove, taking care not to disturb or damage the large trees to be preserved.
Split rail fence at the intersection of the 'lane' and Mineral Springs road	Remove
Scarecrows and stacks of husks around the farm.	Remove
Vegetation at the base of the windmill and vine on the windmill.	Remove. Plant grass in this area.
Garden near the windmill/waterhouse.	Remove
Pile of rusty objects lying against the tree by the trail from the sugar shack to the back of the Chellberg farmhouse.	Remove
Garden near the windmill/waterhouse.	Remove
Fences in non-historic locations.	Remove when not essential for the working farm. If essential for the working farm, treat as temporary additions to the historic site and remove as soon as possible. All fences on the site should match the historic fences in style, design and materials as closely as possible.
Utility recepticles	Replace with underground when absolutely necessary. Otherwise remove.

Figure VI-2: Landscape Features to be Relocated or Removed. (continued)

The Yard and Barnyard

1. Restore the farm driveway to a configuration that is as close as possible to the historic layout. For more detail regarding the driveway refer to the Recommended Treatment Plan and the *Overall Circulation* section of this document.

2. Restore and maintain the yard and barnyard to a condition and appearance consistent with the period of significance.

- With the exception of the driveway, maintain the yard as a rough turf area that tolerates weeds and bare patches as acceptable representations of the historic surface. Re-seed bare patches only if they become eroded or visitor safety hazards.

- Remove or relocate all non-historic items according to the Tables in **Figures VI-1 and VI-2.**

- Establish lawn of rough grass in these areas.

- Rough grass refers to a turf area that is not highly manicured or treated. Weeds and bare patches are considered acceptable representations of the historic surface. The specified grass has a coarse texture and should be cut no lower than 3" high.

- To establish rough grass in areas where non-historic items have been removed or areas that have large bare spots, plant grass seed. Begin by removing the existing soil to a depth of six inches. Next add screened compost and bone meal to the soil, rake it smooth, top it with a thin layer of potting soil or fine garden loam, and sow the seed. Water the area regularly with a fine spray, so that the soil is kept moist but not saturated. Temporarily rope off the area until the grass is established. Once grass is established treat these areas the same as the rest of the lawn.

- In both sunny and shady areas plant a mixture of grass seed that is composed of 60% coarse fescue (*Festuca elatior*), 25% red fescue (*Fescuta rubra*), and 15% perennial ryegrass (*Lolium perenne*).

- Herbacides and chemical fertilizers should not be used on the lawn. Weeds and small bare patches are acceptable and should not be treated.

3. Preserve and maintain the mature trees on the eastern side of the yard.

- Maintain the trees by pruning out dead or dying branches and remove seedlings and saplings and other undergrowth from the area under and around the trees. **Figure VI-12** provides recommendations for individual trees that need immediate attention.

- Check mature trees that are not pruned frequently in midwinter and late summer for defects that need to be corrected. Correct problems related to dead and diseased wood, damaged branches, stag-heads (dead branches sticking out of the top of the crown), torn branches and bark, epicormic shoots (those produced from buds that were dormant), and suckers. For detailed instructions regarding appropriate treatments for these situations, refer to Christopher Brickell and David Joyce, *Pruning and Training: A Fully Illustrated Plant-by-Plant Manual.*[3]

- Trees that are severly damaged or diseased and present a hazard to contributing landscape features (including structures) or visitors should be removed. To determine if a tree presents a serious hazard, refer to Nelda P. Matheny and James R. Clark, *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas.*[4]

- Take care to protect the significant vegetation from damage when removing non-contributing vegetation.

- Maintain the area under the trees as a rough turf area that is a continuation of the yard.

4. Construct a fence at the north side of the barn that encloses the 'barnyard' area. Refer to **Figure VI-3**, the Recommended Treatment

Plan and **Figures VI-6, VI-7, and VI-8**, for fence and gate locations and descriptions.

- The fence materials and design match the fences in historic photographs (in particular **Figures II-21, II-26, II-27, II-28, II-29, and II-39**, have been used to develop the following specifications) as closely as possible.

- Construct the yard fence using approximately four-inch to six-inch round wood posts cut from local hardwood trees. The posts may vary somewhat in diameter and form. An effort should be made to allow for imperfections in form and surface to a degree that is consistent with posts that appear in the historic photographs. The posts should be approximately four feet, six inches tall and slight variations in height are acceptable. The posts should be spaced approximately six feet apart. Between the wood posts, the fence body should be composed of a rectangular wire mesh grid approximately eight-inches by four-inches. **Figures VI-6 and VI-7** provide elevations of the recommended fence design.

5. The hogs and their associated structures and elements should be replaced with structures that accurately represent the historic hog sheds. The hog area should be located within the barnyard, as indicated in **Figure VI-13**, the Recommended Treatment Plan for the Historic Core.

6. Establish a ten foot wide, compacted earth service route with a surface constructed with soil cement that leads from the eastern side of the barn and pasture to Oakhill Road. Provide interpretative materials indicating that this is non-historic route. Allow a two foot buffer on either side of the road providing a clearance of fourteen feet.

7. Extend the trail along the eastern edge of the ravine to continue along the western edge of the barnyard and pasture. Connect the trail to the Bailly Cemetery trail. The section titled "Circulation" provides details regarding design and materials recommendations for the path.

The Front Yard

1. Rebuild the front yard as it existed during the period of significance based on historic photographs and oral history information. Refer to **Figure VI-5**, the "Front Yard Treatment Plan" for locations of elements to be included in the front yard.

2. Remove vegetation not characteristic of the period of significance.

- Remove trees numbered four and five. These trees are not characteristic of the period of significance, and they are currently in fair to poor condition. These trees should not be replaced.

- Tree number three is not characteristic of the period of significance, however, it is in fair condition and it may be one of the trees planted in the front yard by Ruth Chellberg during the later portion of the period of significance. This tree should be maintained unless it impacts the view between the front yard and the lane. If the tree does impact the view, consider pruning the lower branches to re-establish the view. If pruning is not successful, the tree should be removed. When this tree becomes unhealthy or dies it should be removed and not replaced.

3. Preserve large deciduous trees that are similar to those present during the period of significance.

- Preserve large deciduous trees located in and around the front yard (trees numbered 7 through 12 on the Vegetation Key Plan). Prune dead and dying branches.

- Maintain the trees by pruning out dead or dying branches and remove seedlings and saplings and other undergrowth from the area under and around the trees.

- Check mature trees that are not pruned frequently in midwinter and late summer for defects that need to be corrected. Correct problems related to dead and diseased wood, damaged branches, stag-heads (dead branches

- Check mature trees that are not pruned frequently in midwinter and late summer for defects that need to be corrected. Correct problems related to dead and diseased wood, damaged branches, stag-heads (dead branches sticking out of the top of the crown), torn branches and bark, epicormic shoots (those produced from buds that were dormant), and suckers. For detailed instructions regarding appropriate treatments for these situations, refer to Christopher Brickell and David Joyce, *Pruning and Training: A Fully Illustrated Plant-by-Plant Manual.*[5]

- Trees that are severly damaged or diseased and present a hazard to contributing landscape features (including structures) or visitors should be removed. To determine if a tree presents a serious hazard, refer to Nelda P. Matheny and James R. Clark, *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas.*[6]

- Take care to protect the significant vegetation from damage when removing other vegetation.

4. Rebuild a lawn in the front yard that consists of rough grass.

- Remove the understory vegetation, the two brick-edged flower gardens, the bell and post, and the mulch, from the area of the front yard.

- To plant grass seed in large bare spots begin by removing the existing soil to a depth of six inches. Next add screened compost and bone meal to the soil, rake it smooth, top it with a thin layer of potting soil or fine garden loam, and sow the seed. Water the area regularly with a fine spray, so that the soil is kept moist but not saturated. Temporarily rope off the area until the grass is established. Once grass is established treat these areas the same as the rest of the lawn.

- In small areas of thin grass or bare spots, simply broadcast seed and water regularly until the grass is established.

- In both sunny and shady areas plant a mixture of grass seed that is composed of 60% coarse fescue (*Festuca elatior*), 25% red fescue (*Fescuta rubra*), and 15% perennial ryegrass (*Lolium perenne*).

5. Maintain the lawn at the front yard as rough grass.

- Rough grass refers to a turf area that is not highly manicured or treated. Weeds and bare patches are considered acceptable representations of the historic surface. The specified grass has a coarse texture and should be cut no lower than 3" high.

- Herbicides and chemical fertilizers should not be used on the lawn. Weeds and small bare patches are acceptable and should not be treated.

- Consider applying screened compost or composted manure to the lawn once a year in the Spring or Fall.

6. Rebuild the fence around the front yard using materials and construction methods similar to those viewed in historic photographs of the front yard at the farm (**Figures II-17, II-23, II-26** through **II-31, II-33** through **II-38, and II-42**) as described below:

- Construct the front yard fence using approximately four-inch to six-inch round wood posts cut from local hardwood trees. The posts may vary somewhat in diameter and form. An effort should be made to allow for imperfections in form and surface to a degree that is consistent with posts that appear in the historic photographs. The posts should be approximately four feet, six inches tall and slight variations in height are acceptable. The posts should be spaced approximately six feet apart. Between the wood posts, the fence body should be composed of a rectangular wire mesh grid approximately four-inches by eight-inches, as described in **Figures VI-6 and VI-7.**

7. Rebuild the pedestrian gate between the front yard and the yard as shown in **Figure VI-5,** the "Front Yard Treatment Plan."

   The gate should be designed as described in **Figure VI-8.**

   Adequate documentation for reconstructing the gates at the former location of the rent house (southern side of yard), at the southwestern corner of the water house (western side of yard), and at the eastern entrance to the front yard, has not been located. Unless more information is located, the recommended treatment at these sites will be to leave openings in the fence at these locations—with no gates.

8. Plant and maintain ornamental plants along the eastern and northern portions of the front yard fence as indicated in **Figure VI-5,** the Front Yard Treatment Plan. Use flowers that were grown at the farm during the period of significance include: pansies, cosmos, iris, chrysanthemums (particularly white chrysanthemums and a "Theodore Roosevelt chrysanthemum" that blooms red), gladiolus, roses, daisies, orchids, tulips, daylillies. **Figure VI-11** provides a summary of the conditions necessary to grow these plants and recommended treatments. Select heirloom varieties of flowers, shrubs, and fruit trees for use at the farm. When possible select heirlooms that were available in the area during the period of significance.

9. Plant a pear tree at the southeastern corner of the fence, as shown in **Figure VI-5,** the Front Yard Treatment Plan.

10. Plant a cedar along the north fence near the gateas shown in **Figure VI-5,** the Front Yard Treatment Plan.

11. Plant ornamental plants along the farmhouse foundation on the east and south sides. These should be informal plantings that include a small number of perennials to match historic photographs in density and spacing as well as texture, shape, and size, as closely as possible. **Figure VI-5,** the Front Yard Treatment Plan provides more information.

12. Remove foundation plantings along the west and north sides of the house. Temporarily relocate the plants and regrade the area to establish positive drainage away from the building. Replant some of the original plants.

13. Any object or structure placed in the front yard should be appropriate in design and scale to the types of objects documented in the front yard during the period of significance. This includes the chairs seen in **Figures II-15, II-16, and II-17.** These were obviously indoor chairs, and brought out only for the occasion of taking a photograph. Interpretation of activities within the front yard should be consistent with the activities that actually occurred in the front yard. This includes social activities of play and relaxation, and possibly small picnics. This would be an appropriate place for small groups to eat a sack lunch or take a break and relax and for children's play. Other activities that are appropriate for the space are tending and transplanting the plants and mending or maintaining the fence and gate.

14. The concrete sidewalk should be replaced with a new concrete sidewalk and the space should continue to serve as a passage between the yard, front yard, and farmhouse. The location and texture of the new concrete sidewalk should match the extant sidewalk as closely as possible.

The orchard

1. Rebuild the orchard by establishing a new orchard within the historic orchard boundaries using species and genotypes of apples that were at the farm during the period of significance. Consider having a pomologist determine the variety and age of the extant apple tree.[7] If the species cannot be obtained, use heirloom species of apples documented to have been grown in the area during the period of significance.

2. The orchard should include approximately one-acre of even-aged apple trees (include at least twenty-three trees) to correspond with information provided in the 1880 U. S. Census of Agriculture.

3. Remove all non-historic vegetation from within the historic orchard boundaries as shown in **Figure VI-3**, the Recommended Treatment Plan.

4. Establish the orchard using methods and a layout as close as possible to those used historically. It is likely that young grafted trees were purchased locally and planted in a grid pattern.

5. Maintain the orchard using historical methods and tools.

6. Consider conducting research to determine the locations, quantities, and time periods during which other fruit trees were present at the farm. Archeological investigations, including seed and pollen analysis, could help to more accurately define these variables.

7. Plant individual fruit trees (one pear and two cherry) as shown in **Figure VI-3**, the Recommended Treatment Plan.

8. When more information is known regarding crabapple, pear, and cherry trees, consider adding these trees within and outside the historic orchard boundaries. The orchard undoubtedly changed over the period of significance, and when original trees began to decline, or the family decided to expand the orchard, new trees were most likely added. Therefore, with the exception of the one-acre of apple trees, efforts to create an even-aged stand are not necessarily appropriate.

The garden

1. Rebuild the vegetable garden in its historic location using plants known to be grown by the Chellbergs including green beans, carrots, potatoes, sweet corn, cabbage, leaf lettuce, tomatoes, parsnips, green peppers, sage, radish, and peas.

2. To reconstruct the vegetable garden, layout the historic garden boundaries on the ground as they are shown on the Recommended Treatment Plan (approximately 50' x 150').

3. Use a simple planting pattern of linear rows that run the length of the garden, planting groups of one plant type together. For more information regarding the history of kitchen gardening in general, see Tucker, David M., *Kitchen Gardening in America: A History* (Ames: Iowa State University Press) 1993. The book provides useful information regarding the social and political constructs that have impacted physical and philosophical approaches to kitchen gardening in America.

4. Plant raspberry (black and red) bushes along the eastern edge of the garden. Plant the bushes in a linear pattern leaving adequate room for pickers to access them. If possible, transplant starts for bushes from patches that exist on the Chellberg Farm property.

5. Avoid using a fence to enclose the garden. If it is impossible to maintain the garden without a fence, consider constructing a temporary fence that matches fences that were present at the farm during the period of significance in materials and design. The temporary fence should be installed as a "reversible" element that can be removed and erased leaving no trace or impact on the site.

6. If the existing drainage swale impacts the rebuilt garden, relocate it to the east of its current location, as indicated in **Figure VI-**

3, the Recommended Treatment Plan. **Figure VI-10** provides information regarding the construction of the swale.

The lane

1. Restore the treeline along the lane.

2. Preserve the large deciduous trees and maintain them by pruning dead or damaged branches and by removing vines and other vegetation that is growing on or around them.

   Maintain the trees by pruning out dead or dying branches and remove seedlings and saplings and other undergrowth from the area under and around the trees.

   Check mature trees that are not pruned frequently in midwinter and late summer for defects that need to be corrected. Correct problems related to dead and diseased wood, damaged branches, stag-heads (dead branches sticking out of the top of the crown), torn branches and bark, epicormic shoots (those produced from buds that were dormant), and suckers. For detailed instructions regarding appropriate treatments for these situations, refer to *Pruning and Training: A Fully Illustrated Plant-by-Plant Manual.*[8]

   Trees that are severly damaged or diseased and present a hazard to contributing landscape features (including structures) or visitors should be removed. To determine if a tree presents a serious hazard, see *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas.*[9]

3. Remove all of the undergrowth vegetation from either side of the farm entrance lane. Take care to protect the significant vegetation from damage when removing other vegetation.

4. Selectively remove small and medium sized deciduous trees along the lane so that the remaining trees are spaced fifteen to forty feet apart from each other allowing views from the farmhouse to Mineral Springs Road and Fields A and B. Consider relocating some of these plants to the proposed planting located north of the visitor center parking lot or to the buffer around the service area near Oakhill Road.

5. Plant additional deciduous trees (select from Sassafras, Red Oak, White Oak, Shagbark Hickory, Sugar Maple, and Linden) along the lane in areas where there are gaps larger than forty feet.

6. To restore historic views between the lane, Mineral Springs Road, and the farmhouse area, remove the NPS shed, gravel parking lot, and vegetation as described in the "Buildings" and "Overall Circulation"sections and the Tables in **Figures VI-1 and VI-2.**

7. Consider coring the mature trees along the lane (trees numbered 75 through 80). Use the samples to determine the ages of the trees and indicate during which phase of development they were planted.

The fields

1. Restore Fields A, B, and C to visually represent the period of significance by redefining field edges and cultivating them using a crop rotation method that alternates complimentary crops to ensure that the soil is replenished with nutrients. The rotation of crops should reflect the historical period and be based on recommendations made by the Soil Conservation Service and the local county extension agent to conserve soil quality.

2. Plant crops that were grown historically at the farm including corn, oats, wheat, rye, hay, and potatoes.

3. To protect the fields and preserve the historic character of the farm, consider eliminating the use of fields for overflow parking during festivals.

   For parking during festivals, consider establishing a shuttle service to transport visitors from parking areas at nearby locations (possibly including the Indiana Dunes National

Lakeshore Headquarters and maintenance parking lots) to the farm.

- If it is not possible to accommodate all visitors during festivals through remote parking and a shuttle service, consider using a portion of field "A" for overflow harvest festival parking (two days out of the year). The location is illustrated in **Figure VI-3**, the Recommended Treatment Plan.

- To allow for this use, plant crops in the field that can be harvested long enough before the festival that the surface will be suitable for parking. Consider using the field for hay or legumes. When soil conditions throughout the farm require that these fields be used for other crops, eliminate their use for parking during that year.

- When portions of field "A" are used for overflow harvest festival parking (two days out of the year) take precautions to ensure that the field is not damaged. If the ground is soft or wet at the time of the festival, do not allow parking in this location.

- Provide information explaining the historic significance of the farm and the fields, and that their use as temporary parking areas is not consistent with the historic function or character of the farm.

4. Avoid setting up extensive temporary structures within the historic core for festival displays.

- Instead mow and utilize the open field areas located around the boundaries of Fields B and C for temporary festival displays.

- Maintain wide areas as open field around the west, north and east boundaries of Field C and the west boundary of Field B as shown in **Figure VI-3**, the Recommended Treatment Plan. Utilize these areas for temporary festival displays. The width of these areas should range from twenty to forty feet as determined based on the sizes of festival displays and requirements for pedestrian circulation during festival activities.

- This treatment is intended to address only high-impact activities—for instance those that require the construction of booths. It is not intended that lower-impact activities, such as small demonstrations, be limited to a specific area. These activities should be located in areas that most appropriately relate to historic activities at the farm and be undertaken with an approach that is sensitive to the integrity of the historic materials.

10. To restore historic views between the lane, Mineral Springs Road, and the farmhouse area, remove the NPS shed, gravel parking lot, and vegetation as described in **Figures VI-1 and VI-2** and **Figure VI-3**, the Recommended Treatement Plan.

11. Set up an agreement between Indiana Dunes National Lakeshore and the Midwest Archeological Center to monitor and protect the archeological resources associated with the site at Field D. Once the agreement is in place, cultivate the field using animals only (no machinery). Use a crop rotation method as described for Fields A, B, and C (number 1 above provides a description).

The ravine

1. Restore historic views into and across the ravine so that it resembles the conditions during the period of significance. To accomplish this, remove select understory vegetation in areas seen in historic photographs, as indicated in **Figure VI-14**.

2. Repair areas in the ravine where erosion has caused washouts. Use hand tools to grade areas and carefully limit the impact of the activities around the treatment site. Plant indigenous groundcovers and small woody species in re-graded areas to help to stabilize the soil. When necessary, temporarily place erosion control materials (including erosion control blankets, silt fences, or hay bales) in areas that have been re-graded until new vegetation is established.[10]

3. Where erosion is occurring along the trail, reroute the trail to minimize erosion. The new trail should adhere to a gentle slope utilizing a zigzag pattern if necessary to reach the desired destination.[11]

4. Establish goals for the plant community in the ravine keeping in mind the need to reestablish and maintain historic views. Identify desired and undesired species and develop a plan that addresses management of these plants.

The visitor center, parking lot, and picnic area

1. Maintain the existing visitor center, parking lot, and picnic area.

2. Provide a universally accessible primary pedestrian trail from the parking lot to the farm as described in item number two under "Circulation."

3. Preserve the archeological resources associated with field "D." Set up an agreement between Indiana Dunes National Lakeshore and the Midwest Archeological Center to monitor and protect the archeological resources associated with the site at Field D. Once the agreement is in place, cultivate the field using animals only (no machinery) as described in number 10, "**The Fields.**"

4. Screen the parking area with vegetation to block views of the parking lot from the historic core. Use vegetation that is similar to the fencerow vegetation already at the farm (in particular the vegetation between fields B and C should be used as a model). The plants should appear as a mixture of woody and herbaceous vegetation of various species and sizes. Avoid uniformly sized and spaced plants that would create a manicured appearance—from the historic core this vegetation should look like a fencerow on the farm. Consider relocating some of the plants that will be moved from the west side of the gravel parking lot and the lane to this location.

Circulation

1. Maintain the existing parking lot at the visitor center as the main vehicular access route for visitors.

2. Establish a universally accessible trail from the parking lot that leads north to the historic core as the primary pedestrian access route for visitors. **Figure VI-4** illustrates the locations for recommended pedestrian and vehicular routes.

3. Consider adding an interpretive display at the beginning of the trail. The display should orient visitors to the property and illustrate the main elements of the farm and circulation routes.[12]

4. Remove the existing gravel parking lot located on the northern side of the "lane." This area should be incorporated into Field "A" and cultivated. To remove the existing gravel parking lot, remove the gravel and any base material and replace it with soil similar to the soil in Field "A." Cultivate and plant the area as a portion of Field "A."

5. Consider utilizing properties owned by the National Park Service located on the north side of Oakhill Road and on Bailly Drive for overflow parking. Take care to ensure that this is done in a sensitive manner that will not disrupt the surrounding historic agricultural setting or impact any significant historic resources associated with the properties.

6. If acceptable alternative sites cannot be utilized, continue to use the northern most portion of field "A" for overflow parking during the harvest festival. To allow for this use, plant crops in these fields that can be harvested long enough before the festival that the surface will be suitable for parking. Consider using these fields for hay or legumes. When soil conditions throughout the farm require that these fields be used for other crops, eliminate their use for parking during that year.

7. Maintain the trail along the western side of the farm buildings and extend it to the north along the western side of the barnyard and pasture. Connect this trail with the Bailly Cemetery Trail.

8. Construct a service route to provide access from the relocated maintenance structures and the historic core of the farm. This route is not meant to duplicate the historic route that once existed. The route should be fourteen feet in width and constructed with a soil consolidant that matches the farm driveway.

9. To restore the farm driveway to a configuration that is as close as possible to the historic layout, layout the drive based on the Recommended Treatment Plan.

10. When necessary due to erosion, recondition the farm driveway using a soil consolidant to provide a stable and universally accessible surface.

11. Consider accommodating volunteer parking and visiting horse teams in the open area along Oak Hill Road where wood chips are now stored.

12. Establish a trail from the visitor center parking lot that leads north to the historic core as the main pedestrian access route for visitors, apply a crushed stone surface. Excavate four inches of existing soil and compact the resulting surface. Place crusher fines obtained from a local source and compact creating a universally accessible surface.

13. To provide access for individuals with mobility impairments, provide hanidcapped parking spaces at the Bailly/Chellberg Visitor Center parking lot. If accompanied, visitors with severe mobility impairments may use the farm lane loop road for drop-off and pick-up. Vehicles should be parked at the visitor center parking lot. Provide information at the Bailly/Chellberg Visitor Center explaining the drop-off procedure.

Endnotes

1 National Park Service. 1996. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.* Washington, D. C.: USDI, NPS, Cultural Resources, Preservation Assistance Division. P. 47.

2 Ibid., and NPS 28 (now Directors Orders 28)...

3 Brickell, Christopher and David Joyce, *The American Horticultural Society Pruning and Training: A Fully Illustrated Plant-by-Plant Manual* (New York: DK Publishing, Inc.) 1996. See specifically "Pruning Established Trees," "Tree Forms," "Basic Techniques," and "Principles of Pruning and Training."

4 Matheny, Nelda P. and James R. Clark, *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas* (Savoy, Illinois: International Society of Arboriculture) 1994.

5 Brickell, Christopher and David Joyce, *The American Horticultural Society Pruning and Training: A Fully Illustrated Plant-by-Plant Manual* (New York: DK Publishing, Inc.) 1996. See specifically "Pruning Established Trees," "Tree Forms," "Basic Techniques," and "Principles of Pruning and Training."

6 Matheny, Nelda P. and James R. Clark, *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas* (Savoy, Illinois: International Society of Arboriculture) 1994.

7 It is possible to determine the variety of a fruit tree even if the tree is no longer producing fruit. The articles in **Appendix B** include useful information and contacts regarding this issue. Pyle, Kathleen. *Legacy of an Apple Seed*, (American Forests, Spring 1999); and *Appleplause for Johnny*, (The Holden Arboreum) p.10.

8 Brickell, Christopher and David Joyce, *The American Horticultural Society Pruning and Training: A Fully Illustrated Plant-by-Plant Manual* (New York: DK Publishing, Inc.) 1996. See specifically "Pruning Established Trees," "Tree Forms," "Basic Techniques," and "Principles of Pruning and Training."

9 Matheny, Nelda P. and James R. Clark, *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas* (Savoy, Illinois: International Society of Arboriculture) 1994.

10 Birkby, Robert C. *Lightly on the Land: The SCA Trail-Building and Maintenance Manual* (Seattle: The Mountaineers) 1996, includes a detailed section on revegetation and restoration along trails, pp.217-234.

11 Ibid., *Lightly on the Land* also provides detailed instructions for designing, constructing, and maintaining trails.

12 Trapp, Suzanne, Michael Gross, and Ron Zimmerman. *Signs, Trails, and Wayside Exhibits: Connecting People and Places* (Stevens Point, Wisconsin: UW-SP Foundation Press, Inc.), 1994, provides many more examples of signs and an excellent guide for designing signs and exhibits.

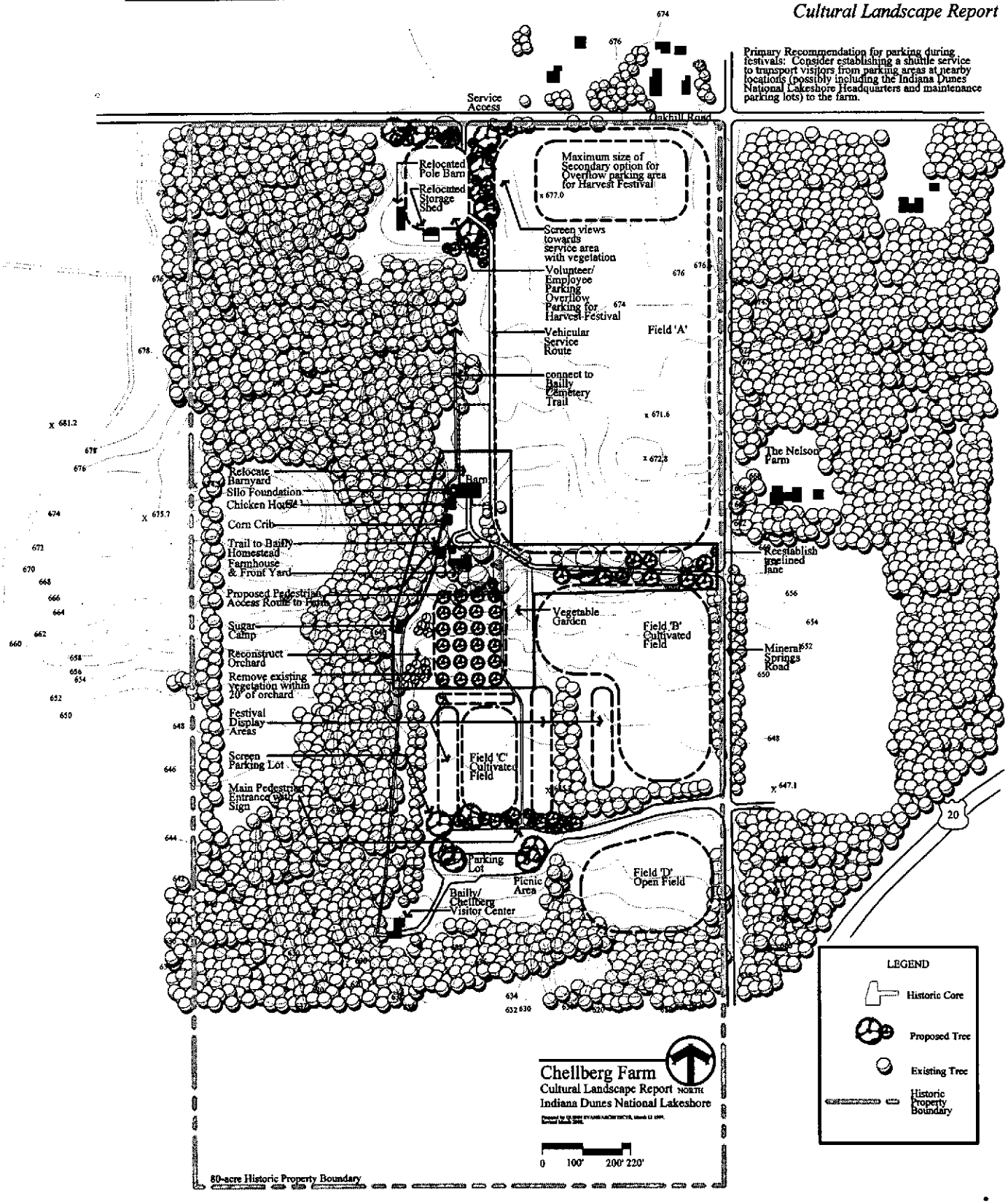


Figure VI-3: Recommended Treatment Plan, Overall Site

Note: The locations of existing elements are approximate based on sources listed in Figure 38: Existing Conditions Plan. The treeline along the edge of the ravine is based on 1984 aerial photography. To provide room for text on the drawing trees are not shown in portions of the ravine. Actual locations of individual trees within (and along the edges of) tree masses should be field verified.

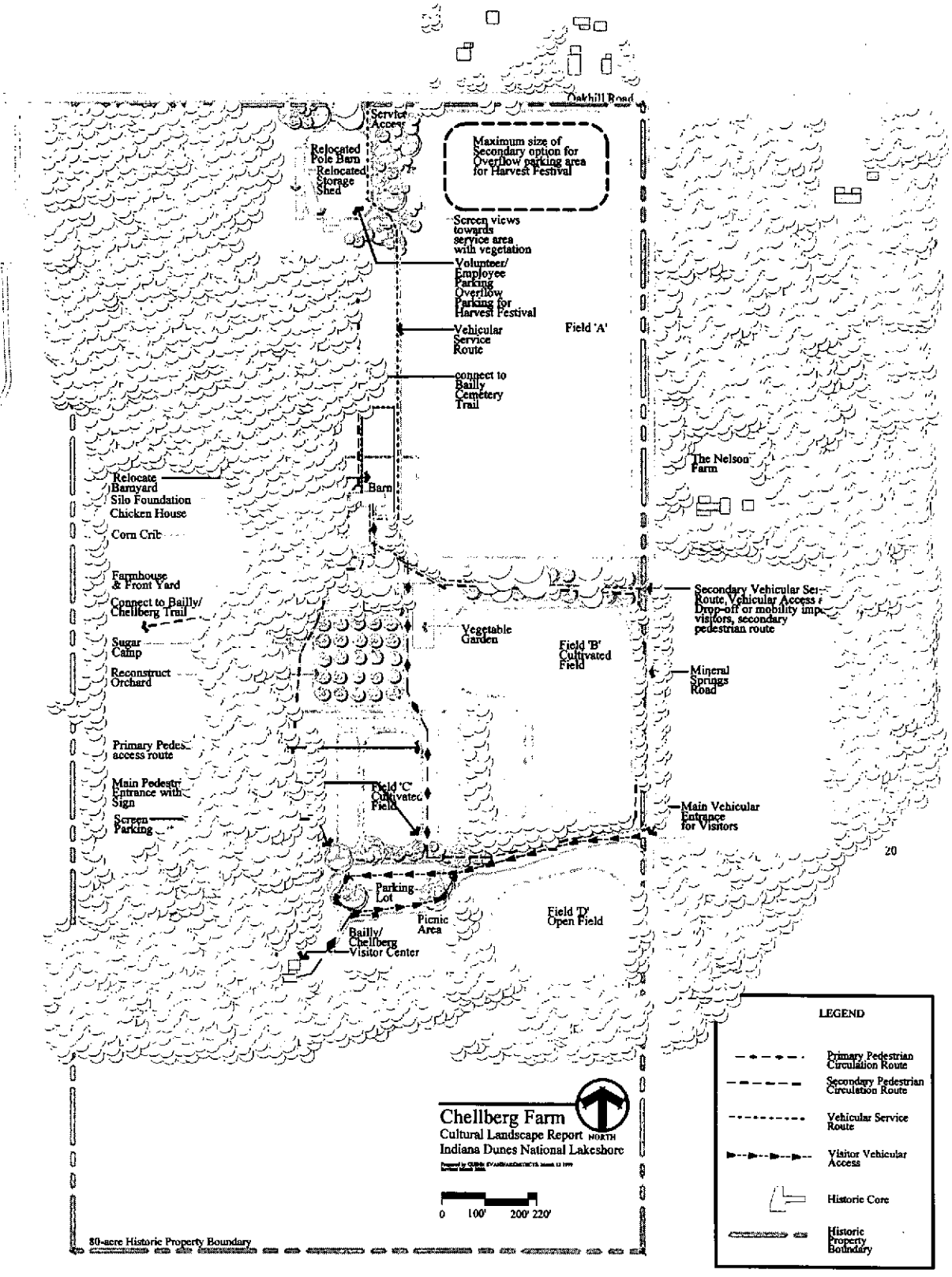


Figure VI-4: Circulation Schematic

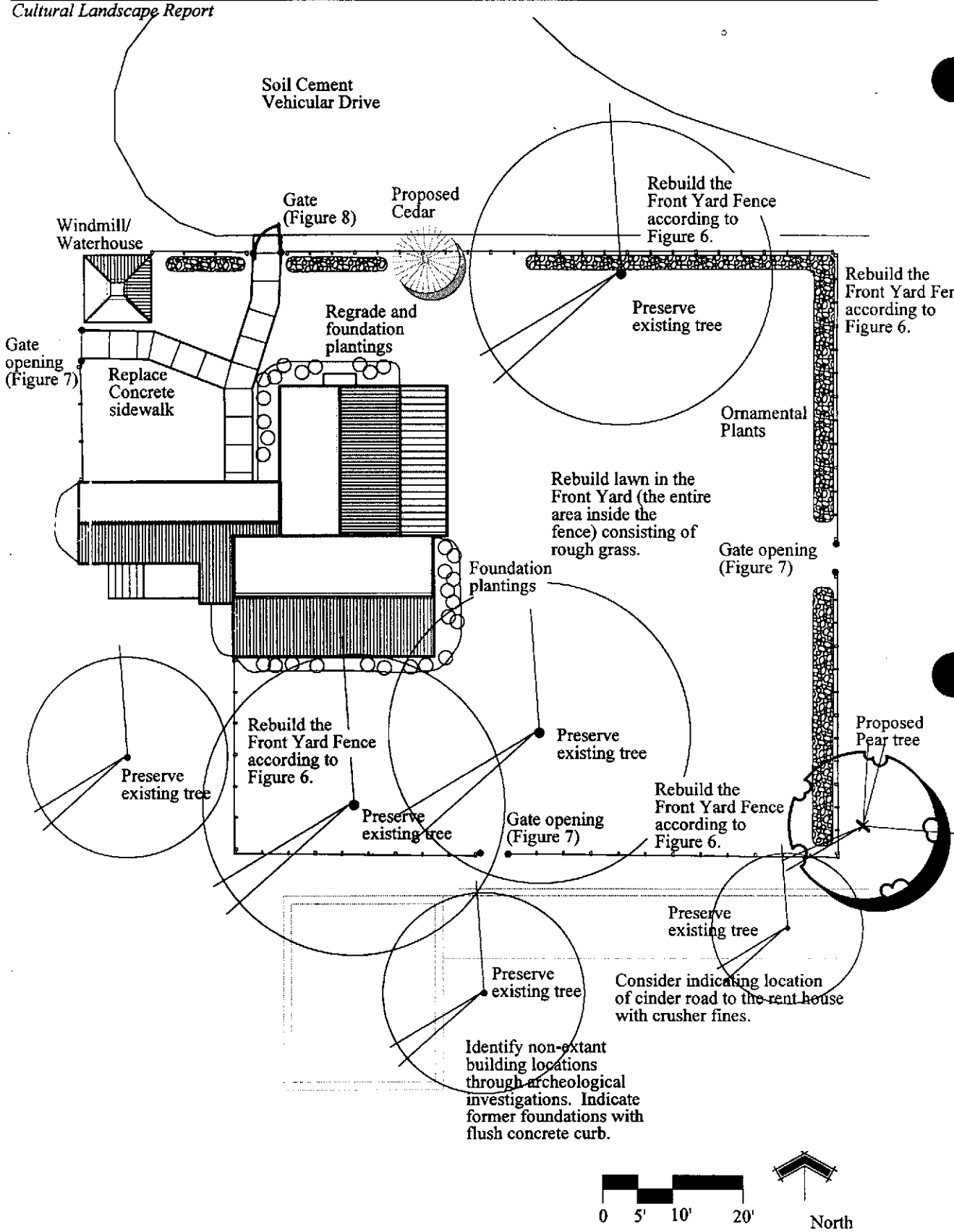
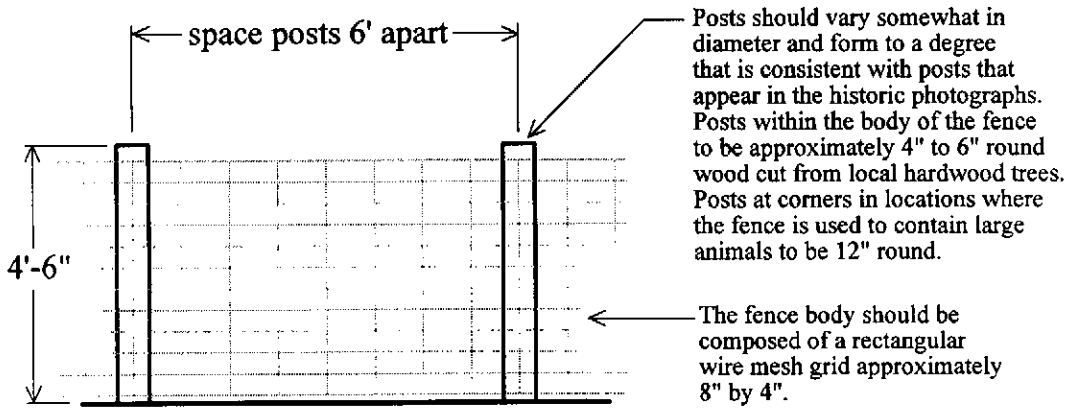


Figure VI-5: Front Yard Treatment Plan



Note: This design will result in buckles and sways in the fence body which are desirable to be consistant with the historic fence.

Figure VI-6: Recommended Fence Elevation

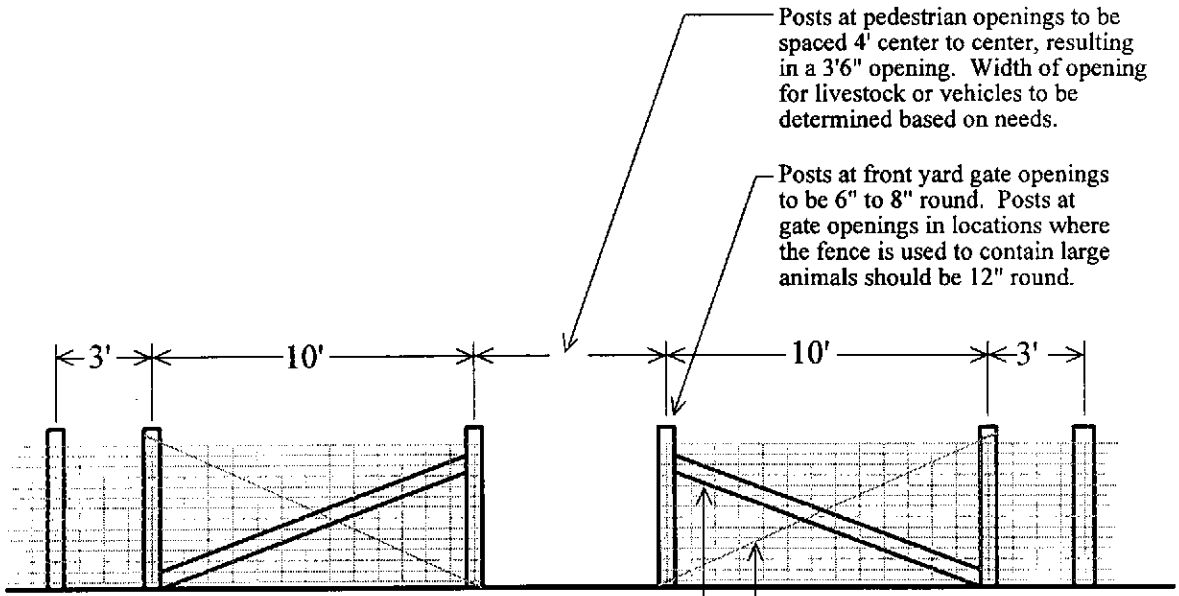
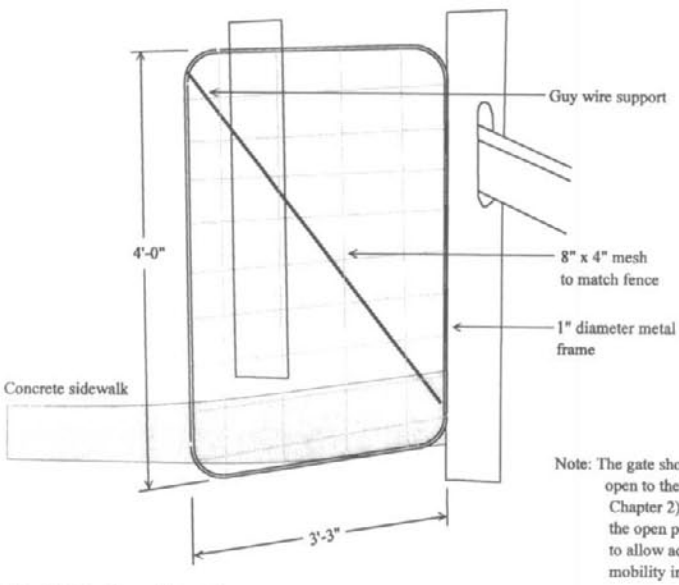


Figure VI-7: Recommended Fence at Gate Elevation

Fabricate front yard gates to match this circa 1920 photograph as closely as possible with the exception of the overhead structure. The structure was apparently very temporary (this is the only photograph in which it appears).

Refer to fence elevation and fence at gate opening for information regarding the posts and fence.



Note: The gate should swing completely open to the North (as seen in Figure 36, Chapter 2). The gate should be kept in the open position during hours of visitation to allow access for visitors with mobility impairments.

Figure VI-8: Pedestrian Gate

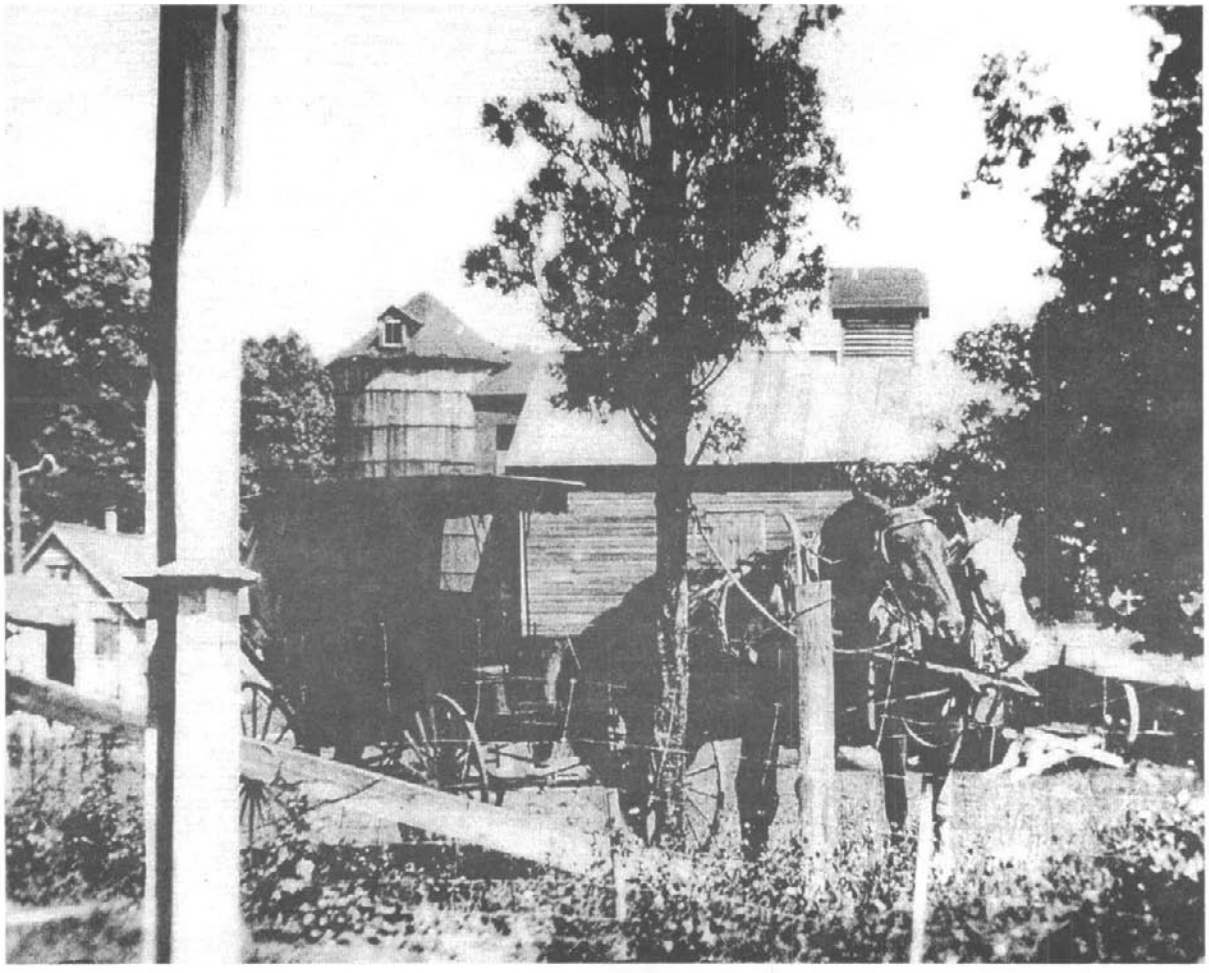


Figure VI-9: Historic Photograph of Fence Details

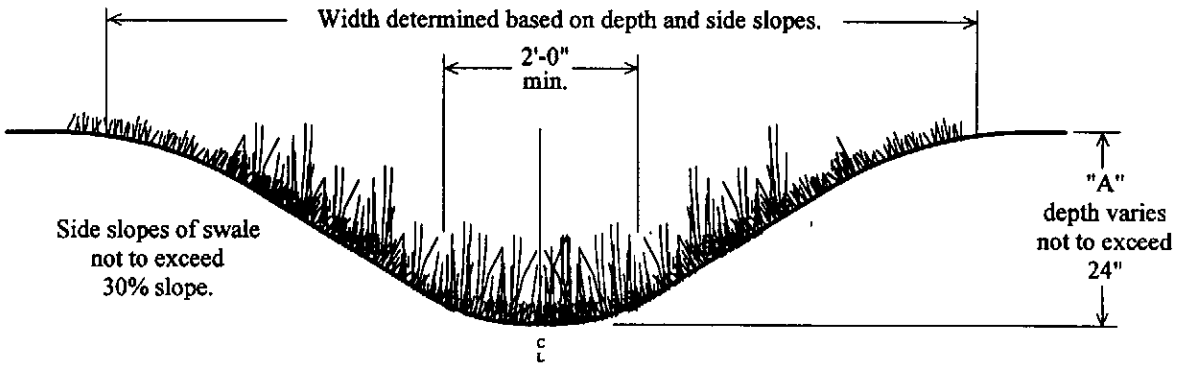


Figure VI-10: Swale Section

Botanical Name	Common Name	Conditions	Treatments	Comments
Iris sibirica	Bearded Iris Beardless Iris	full sun partial shade (half day or filtered sunlight	divide every 3-5 years divide every 3-5 years in early spring	The Chellbergs had iris in the front yard, it is unknown what types or varieties they had.
indigenous varieties	Ferns	partial shade or indirect sunlight		Use transplants from ferns indigenous to the ravine.
Viola x wittrockiana	Pansy	best in half day sun tolerate full or filtered sun	remove faded blossoms	bloom from early spring until frost
Cosmos sulphureus	Cosmos	full or half day sun	remove faded blossoms	bloom from early spring until frost
Chrysanthemum x morifolium	Hardy Chrysanthemum	full sun well drained soil	pinch in late spring/ early summer	White, red, a "Theodore Roosevelt" red
Gladiolus x hortulanus	Gladiolus	full sun, moist, well drained soil, locate away from trees and shrubs	Dig and divide corms before hard freeze store over winter @ 35 to 40 degrees	
Rosa x sp.	Roses	At least 6 hours sun well drained soil	According to suppliers directions	Select species available during the period of significance
Chrysanthemum coccineum	Painted Daisy	full sun, well drained soil	divide every 3-4 yrs cut back after bloom	bloom late spring to early summer
Tulipa	Tulip	full sun	plant in fall	bloom early to late spring
Hemerocallis species	Daylillies	full sun or partial shade, well drained soil competes well with tree roots	divide in fall or spring every 4 to 6 years	early summer to frost depending on variety

Figure VI-11: Front Yard Flowers

KEY	COMMON NAME	BOTANICAL NAME	CONDITION	MANAGEMENT RECOMMENDATION
1	Buckeye	Aesculus glabra	good	Mow area around base of tree
2	Falsecypress	Chamaecyparis	fair	
3	Fir	Abies	fair	prune dead limbs
4	Fir	Abies	fair to poor	remove
5	Pine	Pinus	fair to poor	remove
20	(Black) Walnut	Juglans (nigra)	fair to good	prune to prevent damage
21	garden			remove
22	Windmill/ waterhouse base			remove plants
23	Ash	Fraxinus	poor	removed
24	area			remove trees
27	Ash	Fraxinus	fair to poor	prune
35	(Black) Walnut	Juglans (nigra)	fair	prune
41	Pine	Pinus	dead	remove
43	Pine	Pinus	fair	prune
45	(Black) Walnut	Juglans (nigra)	good	prune
46	(Black) Walnut	Juglans (nigra)	fair	prune
47	(Black) Walnut	Juglans (nigra)	fair	prune
51	(Black) Walnut	Juglans (nigra)	poor	prune and remove vine
52	Common Sassafras	Sassafras albidum	fair	consider removing
53	Common Sassafras	Sassafras albidum	fair	consider removing
60	Butternut	Juglans cinerea		prune
61	Flowering Dogwood	Cornus florida		relocate
67	Ash	Fraxinus	fair	prune
74	(Black) Walnut	Juglans (nigra)	fair	Evaluate trees health--remove if presents hazard.

Figure VI-12: Recommended Treatments for Existing Plants

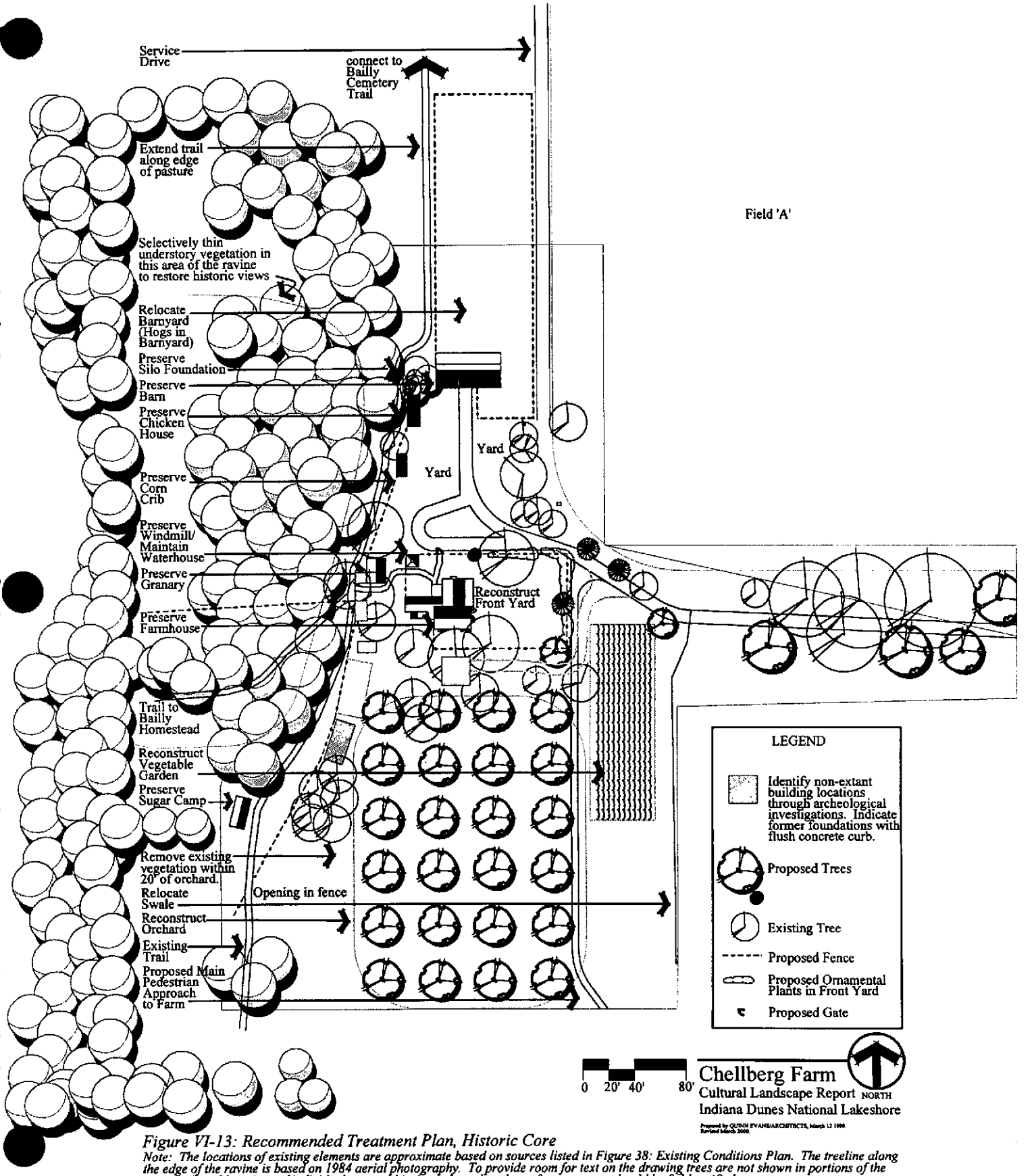


Figure VI-13: Recommended Treatment Plan, Historic Core

Note: The locations of existing elements are approximate based on sources listed in Figure 38: Existing Conditions Plan. The treeline along the edge of the ravine is based on 1984 aerial photography. To provide room for text on the drawing trees are not shown in portions of the ravine. Actual locations of individual trees within (and along the edges of) tree masses should be field verified.

Circa 1921. view of the ravine, with scattered trees and sparse undergrowth.

Circa 1921. Another view of the ravine.

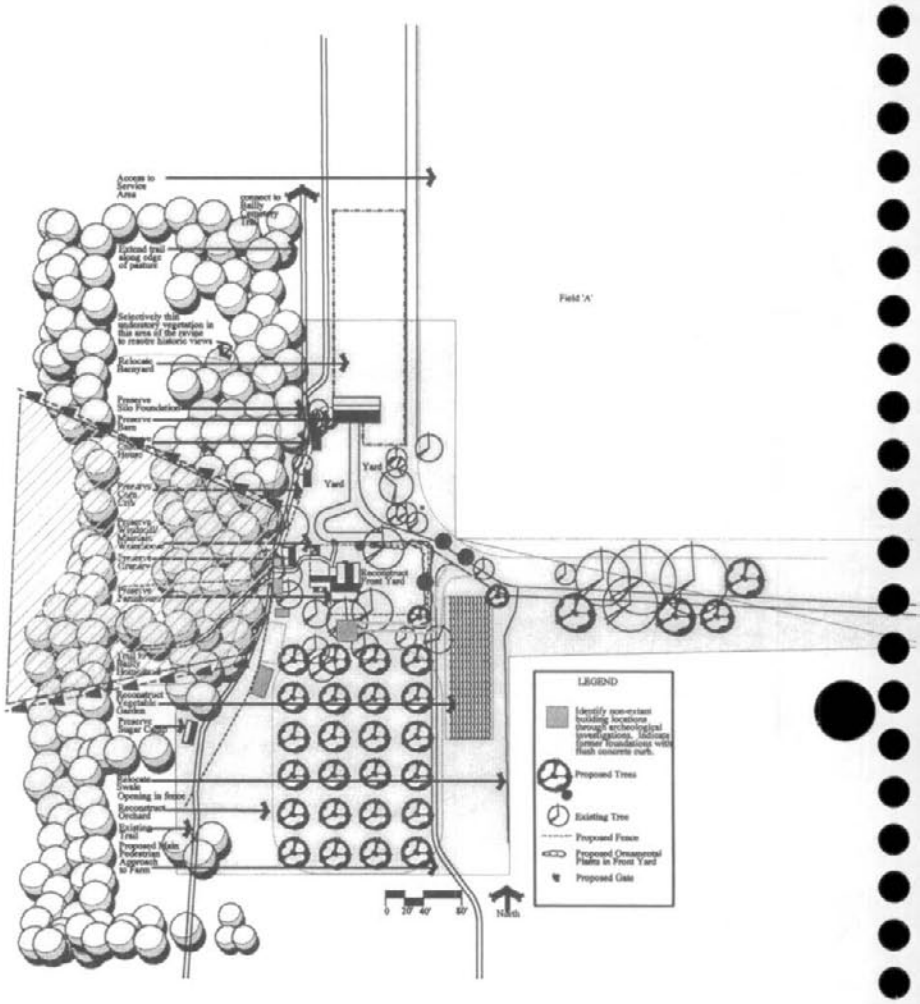


Figure VI-14: Restore Historic View in the Ravine

Chapter VII:

Implementation Guidelines

Chapter 7: Implementation Guidelines

This chapter provides guidelines for implementing the *Recommended Treatment Approach* for the Chellberg Farm historic landscape. Approaches for implementation and phasing are described for each of the ten *landscape management zones* that were defined in Chapter 6. In addition, "Class C" cost estimates are provided.

Phase I Implementation

The initial phase for rehabilitating the Chellberg Farm historic landscape will improve the integrity of the historic landscape by removing non-contributing elements and restoring select views. Removal of non-contributing elements will increase integrity by increasing the association, feeling, and setting aspects of integrity. **Phase I** includes the removal of all non-contributing elements from the historic core and its viewshed, restoration of historic views from the farmhouse towards Mineral Springs Road, re-establishment of the front yard, and establishment of the primary pedestrian circulation route. In addition, the proposed service area at the northwest portion of the farm and service drive will be constructed to replace the former service areas. **Figures VII-1 and VII-2** provide directions regarding the removal and relocation of non-contributing elements and descriptions regarding phasing for specific elements. With completion of this phase the historic landscape will achieve a level of integrity appropriate for eligibility for the National Register of Historic Places.

It is recommended that the multiple property nomination for the Swedish farming district be prepared as a parallel project to **Phase I.** The improved level of integrity at the Chellberg Farm historic landscape will provide a core for the district, strengthening the overall nomination. In turn, a greater knowledge of the Swedish-American farming community and related extant elements will increase the understanding of the role that the Chellberg Farm played historically, as well as the function it should take as a representative of the community.

Phase I: The Buildings

Implement items one through nine of the recommended treatments for the buildings (described in Chapter VI) during **Phase I.** For item one—removal of the non-historic structures and elements from the historic core—refer to **Figures VII-1 and VII-2.**

Phase I: The Yard and Barnyard

Implement items 2 through 8 of the recommendations for the Yard and Barnyard (described in Chapter VI) during **Phase I.** The removal or relocation of some specific elements will be *begun* during this phase as a gradual treatment—these are described in **Figures VII-1 and VII-2.**

Phase I: The Front Yard

Implementation of the majority of the Front Yard treatments (including items one through seven and twelve through fourteen of the Front Yard Recommended Treatments in Chapter VI) will occur during **Phase I.** One exception includes the removal of specific vegetation that is not characteristic of the period of significance. Unless otherwise specified, healthy mature trees (those with a minimum 6" caliper) that do not represent the period of significance should be pruned to restore historic views and maintained until they become diseased, die, or present a hazard. If pruning is not successful in restoring historic views, the trees should be removed. **Figures VII-1 and VII-2** indicate trees that should be removed during this phase. Another exception is the planting of new vegetation that represents the period of significance. Items eight through eleven of the Front Yard Recommended Treatments in Chapter VI will be implemented during **Phase II.**

Phase I: The Orchard

See **Phase II** recommendations.

Phase I: The Garden

See **Phase II** recommendations.

Phase I: The Lane

During **Phase I,** implement items one through four and items six and seven as described in **Chapter VI.**

Phase I: The Fields

Implement all of the recommended treatments for the Fields (described in **Chapter VI**) during this phase.

Phase I: The Ravine

Implement erosion control measures (described as items two and three of the Ravine treatment recommendations in **Chapter VI**) during **Phase I.**

Phase I: The visitor center, parking lot, and picnic area

Implement items one through three of the treatment recommendations for described in **Chapter VI.**

Phase I: Circulation

Implement items one through eight and eleven through thirteen described in **Chapter VI** during **Phase I.**

Phase II Implementation

Implementation of **Phase II** will further increase the ability of the Chellberg Farm historic landscape to represent the history of the farm, the family, and its role in the local Swedish-American community, through physical evidence. This phase includes additions of plants that represent the period of significance in the front yard, orchard and lane. It also includes reestablishing historic views in the ravine. Unlike **Phase I**, which is intended to be implemented as one complete project, **Phase II** includes a series of projects that can be implemented individually.

Phase II: The Buildings

Items ten and eleven of the recommended treatments for the buildings (described in **Chapter VI**). Also **Figures VII-1 and VII-2** include details regarding the removal or relocation of non-contributing elements, some of which involve **Phase II** directives.

Phase II: The Yard and Barnyard

Implement item 1--restore the farm driveway--as described in **Chapter VI.**

Phase II: The Front Yard

Implement items eight through eleven of the Front Yard Recommended Treatments in **Chapter VI** during **Phase II.** These items include installing plants that represent the period of significance.

Phase II: The Orchard

Rebuild the orchard with a gradual approach. Begin by removing all of the existing vegetation except the extant apple tree. Establish rough grass and maintain the area until trees are planted. When there is sufficient staff/volunteers to maintain a young orchard, the initial planting should include 23 apple trees as described in **Chapter VI.**

Phase II: The Garden

Implement all of the Recommended Treatments for the Garden described in **Chapter VI** during this phase.

Phase II: The Lane

Plant trees along the lane in areas where there are gaps larger than forty feet as described in item number five of the Treatment Recommendations for the Lane in **Chapter VI.**

Phase II: The Fields

See **Phase I** recommendations.

Phase II: The Ravine

Restore historic views (item one of the treatment recommendations for the Ravine in **Chapter VI**) and establish goals for the plant community in the ravine (item four).

Phase II: The visitor center, parking lot, and picnic area

Implement item four of the treatment recommendations for this area described in **Chapter VI.**

Phase II: Circulation

Phase II should involve removing all overflow parking from the farm fields. Also, items nine and ten in the treatment recommendations in **Chapter VI** should be implemented during this phase.

Building or Element To Be Relocated or Removed	Relocation or Removal Site	Phased Implementation
N.P.S. Shed ("E")	Relocate to open area along Oak Hill Road where wood chips are now stored. Screen views of this building from the historic core of the farm, Oak Hill Road and Mineral Springs Road.	Phase I
Sorghum Fireplace ("F") and adjoining platform	Remove from Chellberg Farm Historic Landscape.	Phase I
Sorghum Press ("G")	Remove from Chellberg Farm Historic Landscape	Phase I
Animal Shelter ("H")	Remove from Chellberg Farm Historic Landscape	Phase I
N.P.S. Pig Shed 'A' ("M") and N.P.S. Pig Shed 'B' ("N")	Temporarily relocate to barnyard north of barn. Interpret as non-historic structures. Remove from Chellberg Farm Historic Landscape if hogs are no longer kept at farm. If it is determined that hogs will continue to be kept at the farm, these structures should be replaced with buildings that accurately represent the historic hog sheds.	Phase I--relocate Phase II--remove/replace
N.P.S. Pole Barn ("O")	Relocate to open area along Oak Hill Road where wood chips are now stored. Screen views of this building from the historic core of the farm, Oak Hill Road and Mineral Springs Road.	Phase I

Figure VII-1: Phasing for Buildings and Elements to be Removed

Plant/Landscape Feature To Be Relocated or Removed	Relocation Site	Phased Implementation
Gravel Parking Lot	Remove gravel, recondition soil, and incorporate this area into 'Field A." Provide limited staff/ volunteer parking at open area along Oak Hill Road where wood chips are now stored. Additional parking could be provided to the west on the north side of Oak Hill Road.	Phase I
All of the trees along the western side of the gravel parking lot, including trees labeled 54 through 61 on the Vegetation Key Plan.	Relocate. Consider relocating these trees to the proposed trailhead at the north side of the visitor center parking lot.	Phase I
Vegetation between the gravel parking lot and fence to the north.	Remove. Consider relocating desirable plants that will be easy to transplant to screen the proposed maintenance area near Oakhill Road.	Phase I
Fence adjacent to corn crib	Remove	Phase I
Fence adjacent to chicken coop	Replace with a fence that is more in character with the historic period. Retain the new fence until the chickens can be allowed free-range. Interpret as a non-historic addition to the site and explain why it was not necessary during the period of significance.	Phase I--replace Phase II--remove completely.
Large mulch pile near Oak Hill Road	Relocate to a non-historic property.	Phase I
Mulch groundcover around house and large mulched areas adjacent to the farm road (near the garden and the culvert)	Remove	Phase I
Vegetable garden and fence	Remove fence and relocate vegetable garden to the historic site. Incorporate the area that is currently the vegetable garden into Field B.	Phase II
Brick-edged rectangular flower bed in front yard	Remove	Phase I
Brick-edged circular flower bed in front yard	Remove	Phase I
Clothesline in front yard	Relocate to backyard.	Phase I

Stanchion display in the yard.

Figure VII-2: Phasing for Landscape Features to be Relocated or Removed. (continued)

Plant/Landscape Feature to be Relocated or Removed	Relocation Site	Phased Implementation
Stanchion display in yard.	Remove.	Phase I
Bell on post in the front yard.	Remove	Phase I
Miniature barn frame located between the pole barn and the hog pens.	Remove	Phase I
Understory vegetation along the lane.	Remove, taking care not to disturb or damage the large trees to be preserved.	Phase I
Non-historic vegetation in areas where the vegetable garden, orchard, and front yard were located.	Remove	Phase I--remove all herbaceous plants and woody plants under 6" caliper. Prune lower branches to allow views.PhaseII--remove large trees as they become diseased, hazards, or die.
Understory vegetation in area east of the yard.	Remove, taking care not to disturb or damage the large trees to be preserved.	Phase I
Split rail fence at the intersection of the 'lane' and Mineral Springs road	Remove	Phase I
Scarecrow and stacks of husks around the farm.	Relocate scarecrow to historic garden site. Remove stacks of husks.	Phase II
Vegetation at the base of the windmill and vine on the windmill.	Remove. Plant grass in this area.	Phase I
Garden near the windmill/waterhouse.	Remove	Phase I
Pile of rusty objects lying against the tree by the trail from the sugar shack to the back of the Chellberg farmhouse.	Remove	Phase I
Utility boxes within the historic core.	Relocate underground when the recepticals are absolutely necessary. Otherwise remove.	Phase I
Fences in non-historic locations.	Remove when not essential for the working farm. If essential for the working farm, treat as temporary additions to the historic site and remove as soon as possible. All fences on the site should match the historic fences in style, design and materials as closely as possible.	Phase II and as appropriate.

Figure VII-2 (part 2): Phasing for Landscape Features to be Relocated or Removed.

PHASE I ITEM	QTY.	UNIT	UNIT COST	ITEM TOTAL	SUBTOTAL
The Buildings					
Relocate N.P.S. Shed "E" (30'x40'=1,200sf)					
Remove 4" concrete slab	134	SY	$ 17.28	$ 2,315.52	
Building removal	9600	CF	$ 0.43	$ 4,128.00	
New concrete slab	134	SY	$ 25.00	$ 3,350.00	
Reconstruct in new location	9600	CF	$ 0.43	$ 4,128.00	
Recondition soil — imported fill	5	CY	$ 10.00	$ 50.00	
					$ 13,971.52
Remove Sorghum Fireplace "F" (132sf)					
Removal	924	CF	$ 0.90	$ 831.60	
Recondition soil—imported fill	5	CY	$ 10.00	$ 50.00	
					$ 881.60
Remove Sorghum Press "G"	1	EA	$ 50.00	$ 50.00	$ 50.00
Remove Animal Shelter "H"	1	EA	$ 100.00	$ 100.00	$ 100.00
Relocate Pig Sheds "M" and "N"	2	EA	$ 100.00	$ 200.00	$ 200.00
Relocate Pole Barn "O" (60'x20'=1,200sf)					
Building removal	9600	CF	$ 0.43	$ 4,128.00	
Reconstruct in new location	9600	CF	$ 0.43	$ 4,128.00	
Recondition soil—imported fill	44	CY	$ 10.00	$ 440.00	
Seeding	1.2	1,000SF	$ 280.00	$ 336.00	
					$ 9,032.00
Preserve Farmhouse					
Repair gutters & downspouts	1	LS	$ 300.00	$ 300.00	
Additional downspout to drywell	20	LF	$ 11.40	$ 228.00	
Replace cistern with drywell					
Drill holes in concrete	5	EA	$ 25.00	$ 125.00	
Remove earth-hand excavation	15	CY	$ 80.00	$ 1,200.00	
Gravel fill	15	CY	$ 30.00	$ 450.00	
Perforated pipe in gravel trench (optional)	30	LF	$ 12.00	$ 360.00	
Remove plants & regrade at foundation	1	LS	$ 150.00	$ 150.00	
					$ 2,813.00
Preserve Chicken House					
Remove fence	1	LS	$ 25.00	$ 25.00	
Excavate earth	5	CY	$ 80.00	$ 400.00	
Pea gravel fill	5	CY	$ 30.00	$ 150.00	
					$ 550.00
Preserve Corn crib					
Remove fence	1	LS	$ 25.00	$ 25.00	
Excavate earth	3	CY	$ 80.00	$ 240.00	
Pea gravel fill	3	CY	$ 30.00	$ 90.00	
					$ 355.00

ITEM	QTY.	UNIT	UNIT COST	ITEM TOTAL	SUBTOTAL
Preserve Granary					
Excavate earth	3	CY	$ 80.00	$ 240.00	
Pea gravel fill	3	CY	$ 30.00	$ 90.00	
					$ 330.00
Preserve Windmill/waterhouse					
Remove vegetation	1	EA	$ 40.00	$ 40.00	
					$ 40.00
The Yard and Barnyard					
Remove stanchion display	1	EA	$ 30.00	$ 30.00	
Remove bell on post	1	EA	$ 10.00	$ 10.00	
Remove miniture barn frame	1	EA	$ 50.00	$ 50.00	
Remove understory veg. at East of Yard	1	LS	$ 300.00	$ 300.00	
Remove garden near windmill/waterhouse	1	EA	$ 50.00	$ 50.00	
Seeding	0.25	1,000SF	$ 280.00	$ 70.00	
Remove pile of objects behind farmhouse	1	EA	$ 50.00	$ 50.00	
Fertilize existing trees	1	LS	$ 100.00	$ 100.00	
Prune trees on east side of yard (rough quantity)	6	EA	$ 50.00	$ 300.00	
Remove trees that are diseased or dying (rough quantity)	6	EA	$ 350.00	$ 2,100.00	
Construct fence on north side of barn	200	LF	$ 15.00	$ 3,000.00	
					$ 6,060.00
The Front Yard					
Remove mulch groundcover	1	LS	$ 25.00	$ 25.00	
Remove rectangular flower bed	1	EA	$ 25.00	$ 25.00	
Remove circular flower bed	1	EA	$ 25.00	$ 25.00	
Relocate clothesline	1	EA	$ 10.00	$ 10.00	
Remove vegetation	1	LS	$ 500.00	$ 500.00	
Remove utility recepticles	3	EA	$ 100.00	$ 300.00	
Remove trees (rough quantity)	6	EA	$ 350.00	$ 2,100.00	
Prune trees (rough quantity)	6	EA	$ 50.00	$ 300.00	
Fertilize existing trees	1	LS	$ 200.00	$ 200.00	
Rebuild front yard					
Seeding	3.5	1,000SF	$ 280.00	$ 980.00	
New fence	200	LF	$ 15.00	$ 3,000.00	
Fence posts only	120	LF	$ 8.00	$ 960.00	
Pedestrian gate	1	EA	$ 100.00	$ 100.00	
Foundation plantings	1	LS	$ 50.00	$ 50.00	
Replace concrete sidewalk					
Remove existing concrete	20	SY	$ 16.00	$ 320.00	
New concrete 4"	20	SY	$ 56.00	$ 1,120.00	
					$ 10,015.00

ITEM	QTY.	UNIT	UNIT COST	ITEM TOTAL	SUBTOTAL
The Orchard (see phase II)					
The Garden (see phase II)					
The Lane					
Remove vegetation	1	LS	$ 1,000.00	$ 1,000.00	
Remove split rail fence	1	LS	$ 80.00	$ 80.00	
Prune mature trees	5	EA	$ 50.00	$ 250.00	
Remove dying, diseased, or hazard trees (rough quantity)	2	EA	$ 350.00	$ 700.00	
					$ 2,030.00
The Fields					
Remove gravel parking lot					
Remove gravel	1000	SY	$ 3.00	$ 3,000.00	
Recondition soil	1000	SY	$ 2.00	$ 2,000.00	
Remove trees 54 through 61	8	EA	$ 100.00	$ 800.00	
Remove vegetation	1	LS	$ 500.00	$ 500.00	
Move mulch pile near Oak Hill Road	1	LS	$ 500.00	$ 500.00	
					$ 6,800.00
The Ravine					
Erosion control					
Regrade by hand	5	CY	$ 80.00	$ 400.00	
Plant indigneous ground covers	10	SY	$ 4.00	$ 40.00	
Stabilize turf	10	SY	$ 16.00	$ 160.00	
Reroute pedestrian trail	10	SY	$ 20.00	$ 200.00	
Resurface existing trail	450	SY	$ 10.00	$ 4,500.00	
					$ 5,300.00
Visitor Center, Parking Lot & Picnic Area					
See phase II					
Circulation					
Compacted Soil Service Route	1000	SY	$ 5.00	$ 5,000.00	
Resurface existing trail along ravine	900	SY	$ 10.00	$ 9,000.00	
New primary pedestrian trail-crusher fines	450	SY	$ 10.00	$ 4,500.00	
New secondary pedestrian trial-crusher fines	950	SY	$ 10.00	$ 9,500.00	
Interpretive display/sign at parking lot	1	EA	$ 500.00	$ 500.00	
New gravel parking near Oak Hill Road	700	SY	$ 14.00	$ 9,800.00	
					$ 38,300.00
				subtotal	**$ 96,828.12**
			4% inflation to Dec 1999		$ 3,873.12
				TOTAL PHASE I	**$ 100,701.24**

PHASE II ITEM	QTY.	UNIT	UNIT COST	ITEM TOTAL	SUBTOTAL
The Buildings					
Remove Pig Sheds "M" and "N"	2	EA	$ 40.00	$ 80.00	
					$ 80.00
Conduct archeological investigations			undetermined		
Remove vegetation	1	LS	$ 500.00	$ 500.00	
Seeding	1	1000SF	$ 280.00	$ 280.00	
Flush concrete curb (rough quantity)	2000	LF	$ 20.00	$ 40,000.00	
Develop interpretive brochure	1	LS	$ 2,000.00	$ 2,000.00	
					$ 42,780.00
The Yard and Barnyard					
Prune trees on east side of yard (rough quantity)	4	EA	$ 50.00	$ 200.00	
Remove trees that are diseased or dying (rough quantity)	2	EA	$ 350.00	$ 700.00	
Restore farm driveway-soil cement	800	SY	$ 30.00	$ 24,000.00	
					$ 24,900.00
The Front Yard					
Remove trees (rough quantity)	2	EA	$ 350.00	$ 700.00	
Prune trees (rough quantity)	4	EA	$ 50.00	$ 200.00	
Install plants along east & north fences	1	LS	$ 500.00	$ 500.00	
Plant Pear Tree	1	EA	$ 300.00	$ 300.00	
Plant Cedar	1	EA	$ 300.00	$ 300.00	
Install plants at Farmhouse foundation	1	LS	$ 100.00	$ 100.00	
					$ 2,100.00
The Orchard					
Remove trees (rough quantity)	12	EA	$ 350.00	$ 4,200.00	
Remove vegetation	1	LS	$ 250.00	$ 250.00	
Plant trees	23	EA	$ 200.00	$ 4,600.00	
Plant other fruit trees	5	EA	$ 200.00	$ 1,000.00	
					$ 10,050.00
The Garden					
Remove existing garden and fence	1	LS	$ 200.00	$ 200.00	
Remove vegetation in garden location	1	LS	$ 1,000.00	$ 1,000.00	
Condition and Cultivate soil	1	LS	$ 200.00	$ 200.00	
Cost of Vegetable plants and seeds not included					
Raspberry bushes	15	EA	$ 30.00	$ 450.00	
Relocate swale	1	LS	$ 300.00	$ 300.00	
					$ 2,150.00

ITEM	QTY.	UNIT		UNIT COST		ITEM TOTAL	SUBTOTAL
The Lane							
Plant trees (rough quantity)	10	EA	$	370.00	$	3,700.00	
Prune mature trees (rough quantity)	6	EA	$	50.00	$	300.00	
Remove dying, diseased, or hazard trees (rough quantity)	2	EA	$	350.00	$	700.00	
							$ 4,700.00
The Fields (see Phase I)							
The Ravine							
Restore historic views							
Remove understory vegetation	1	LS	$	1,000.00	$	1,000.00	
Prune trees (rough quantity)	1	LS	$	500.00	$	500.00	
							$ 1,500.00
Visitor Center, Parking Lot & Picnic Area							
Install plants	1	LS	$	4,000.00	$	4,000.00	
							$ 4,000.00
Circulation (see Phase I)							
						subtotal	**$ 92,260.00**
						4% inflation to Dec 1999	$ 3,690.40
						TOTAL PHASE II	**$ 95,950.40**

Appendix A

Treatment Alternatives

Appendix A

Appendix A includes descriptions for three alternative treatments for the historic landscape at the Chellberg Farm. These alternatives were prepared for the purpose of stimulating input and participation at a meeting at Indiana Dunes National Lakeshore on 2 June 1999. After that meeting, the Recommended Treatment Plan (see Chapter 6) was prepared.

Option 1

The Buildings

- Remove all non-historic structures and elements from the historic core to locations (preferably off of the historic property) where they will not diminish the integrity of the cultural landscape.
- Preserve the restored farmhouse and continue to use it for interpretive tours.
- Repair the gutters and downspouts on the farmhouse and reestablish the rainwater collection system.
- Remove plants from around the foundation of the farmhouse. Re-grade areas adjacent to the farmhouse to ensure positive drainage away from the building. Establish rough lawn in these areas. At the eastern and southern house foundation install plants (as described in the "front yard" section below) after re-grading to ensure adequate drainage.
- Preserve the barn and use it to house the horses, cow, and hay. Continue to use it for interpretive tours.
- Preserve the silo foundation but do not rebuild the silo. Provide information to visitors explaining the role this building once played at the farm.
- Preserve the chicken coop and continue to use it to house chickens. Remove the non-historic fence that is adjacent to the chicken house.
- Preserve the corn crib and use it to store corn. Interpret the corn crib as a second generation building that was constructed using wood from the silo. Remove the non-historic fence that is adjacent to this building.
- Preserve the granary and use it to store grain grown at the farm.
- Preserve the water house and windmill and interpret them as non-historic reproductions.
- Preserve the sugar camp and continue to use it for maple syrup activities.
- Determine the locations of non-extant historic outbuildings at the farm through archeological investigations.
- When the locations of non-extant historic outbuildings are determined through archeological investigations, remove vegetation in the area where the buildings once stood taking care not to disturb significant archeological materials. Establish lawn in these areas. Construct flush concrete curbs to indicate the locations of the former edges of the buildings when this construction can be achieved without impacting significant archeological materials.
- Develop an interpretative brochure for the farm that includes photographs and descriptions of the uses and periods of each of the historic structures, as well as the non-extant historic buildings and relates them to a site map.
- Control erosion at the west side of the granary, corn crib, and chicken house. Remove the earth at the drip-line and replace it with pea gravel to a depth of four feet below the frost level in a 10-12" wide strip that is centered on the drip-line.

The Barnyard and Yard

- Remove the structures, objects, and fences in the areas of the barnyard and yard that are not historic.
- Restore the farm driveway to a configuration that is as close as possible to the historic layout?
- Recondition the farm driveway using a soil consolidant in the areas indicated as "primary pedestrian circulation" routes to provide a stable and universally accessible surface.
- Preserve the yard as a rough turf area that tolerates weeds and bare patches as acceptable representations of the historic surface. Re-seed bare patches only if they become eroded or present visitor safety hazards.
- Preserve the mature trees on the eastern side of the yard and maintain them by pruning out dead or dying branches.
- Remove seedlings and saplings and other undergrowth from the area on the eastern side of the yard.
- Establish a compacted earth trail that leads from the eastern side of the barn to Oakhill Road. Connect the trail to the portion of the Bailly/Chellberg Trail that leads to the Bailly Cemetery.
- Relocate the pig sheds to the fenced pasture in the ravine. Their exact location should be determined on site by identifying an area that is flat and free of understory vegetation. As contemporary additions to the site these sheds should be considered temporary and should be removed when they are no longer necessary to provide shelter for the livestock.
- Reconstruct a fence at the north side of the barn that encloses the 'barnyard' area.

The Front Yard

- Reconstruct the front yard as it existed during the period of significance.
- Remove vegetation not characteristic of the period of significance (including trees numbered three through five and plants in area six).
- Preserve large deciduous trees that are similar to those present during the period of significance.
- Reconstruct a lawn in the front yard that consists of rough grass.
- Reconstruct the fence around the front yard using materials and construction methods similar to those viewed in historic photographs of the front yard at the farm.
- Reconstruct four gates in the front yard fence.
- Plant and maintain ornamental plants along the eastern and northern portions of the front yard fence.
- Plant a fruit tree at the southeast corner of the fence.
- Plant a cedar along the north fence near gate.
- Place ornamental plants along the farmhouse foundation on the east and south sides. These should be informal plantings that include a small number of perennials to match historic photographs as closely as possible.
- Remove foundation plantings along the west and north sides of the house.
- Flowers for sunny areas: pansies, cosmos, iris, chrysanthemums, gladiolus, roses, daisies, orchids, tulips, daylillies.

The orchard

Restore the orchard.

Determine the boundaries of the historic orchard through archeological investigations.

- Remove all non-historic vegetation from within the historic orchard boundaries.
- Establish a new orchard within the historic orchard boundaries using species that were at the farm during the period of significance. If these species cannot be obtained, use species of (apple, crabapple, pear, cherry) documented to have been grown in the area during the period of significance.
- Establish the orchard using methods and a layout as close as possible to that used historically.
- Maintain the orchard using historical methods and tools.
- Do not use any non-organic herbicides, pesticides, or fertilizers.

The garden

- Restore the vegetable garden. Carefully layout the historic garden boundaries on the ground as they are shown on the Recommended Treatment Plan.
- Reestablish the vegetable garden in its historic location using plants known to be grown by the Chellbergs including green beans, carrots, potatoes, sweet corn, cabbage, leaf lettuce, tomatoes, parsnips, green peppers, sage, radish, peas.
- Plant raspberry (black and red) bushes along the eastern edge of the garden.
- Do not use a fence to enclose the garden.

The "lane"

- Restore the treeline along the lane.
- Remove all of the undergrowth vegetation from either side of the farm entrance lane.
- Preserve the large deciduous trees and maintain them by pruning dead or damaged branches and by removing vines and other vegetation that is growing on or around them.
- Selectively remove small and medium sized deciduous trees along the lane so that the remaining trees are spaced fifteen to forty feet apart from each other allowing views from the farmhouse to Mineral Springs Road and Fields A and B.
- Plant additional deciduous trees (select from Sassafras, Red Oak, White Oak, and Linden) along the lane in areas where there are gaps larger than forty feet.

The fields

- Restore Fields A and B to visually represent the period of significance.

- Cultivate Fields A and B using a crop rotation method that alternates complimentary crops to ensure that the soil is replenished with nutrients. As stipulated in the Farm Management plan (p.9) the rotation of crops should reflect the historical period and be based on recommendations made by the Soil Conservation Service and the local county extension agent to conserve soil quality.

- Plant crops that were grown historically at the farm including corn, oats, wheat, rye, and potatoes.

  Preserve the field that is located to the south of the orchard and north of the visitor parking lot. Maintain this field as an open field.

  Avoid setting up extensive temporary structures within the historic core for festival displays. Instead mow and utilize the field that is located to the south of the orchard and north of the visitor parking lot for temporary festival displays.

- As specified in the Farm Management Plan use cooperative agreements with local groups to plant, maintain, and harvest crops.

  Consider using special use permits to allow local farmers to grow and harvest crops.

The ravine

- Restore a portion of the ravine as pasture for pigs and chickens.

- Construct a fence to enclose the area to be used as pasture. The fence should be similar in materials and style to the fence that was historically in this location (wood posts and square wire mesh).

- Re-grade areas in the ravine where erosion has caused washouts. Use hand tools to grade areas and carefully limit the impact of the activities around the treatment site. Plant indigenous groundcovers and small woody species in re-graded areas to help to stabilize the soil. When necessary, temporarily place erosion control materials (including erosion control blankets, silt fences, or hay bales) in areas that have been re-graded until new vegetation is established.

- Where erosion is occurring along the Bailly/Chellberg trail in the ravine, reroute the trail to minimize erosion. The new trail should adhere to a more gentle slope utilizing a zig-zag pattern if necessary to reach the desired destination.

- Establish goals for the plant community in the ravine. Identify desired and undesired species and develop a plan that addresses management of these plants.

The visitor center, parking lot, and picnic area

- Maintain the existing visitor center, parking lot, and picnic area.
- Provide a primary pedestrian loop trail from the parking lot to the farm as described under "Circulation."
- Utilize the field that is located south of the entrance road for overflow parking.
- Screen the parking area with vegetation to block views of the parking lot from the historic core.

Circulation

- Maintain the existing parking lot at the visitor center as the main vehicular access route for visitors.
- Establish a trail from the parking lot that leads north to the historic core as the main pedestrian access route for visitors.
- Consider adding an interpretive display at the beginning of the trail. The display should orient visitors to the property and illustrate the main elements and circulation routes.
- Remove the existing gravel parking lot located on the northern side of the "lane." This area should be incorporated into Field "A" and cultivated.
- Eliminate the overflow parking area north of Field "A." This area should be incorporated into Field "A" and cultivated.
- Provide a new parking lot on the eastern side of Mineral Springs Road across from the "lane." This lot is meant to replace the gravel lot that is currently located on the northern side of the "lane." It can also provide overflow parking for visitors during festivals and events.
- Establish a secondary pedestrian route from the proposed parking area on the eastern side of Mineral Springs Road that crosses the road and continues down the "lane" to the farm, and links to the primary pedestrian circulation route.
- Establish a secondary pedestrian route from the eastern side of the barn north to Oak Hill Road. Also provide a link between this trail and the existing Bailly/Chellberg Trail that leads to the Bailly Cemetery.
- Maintain the field south of the Visitor Center entrance road as an open field that can be utilized for overflow parking during festivals and events.

Option 2 –

Note: Text in bold indicates recommendations that differ from those presented in Option 1.

The Buildings

- Remove all non-historic structures and elements from the historic core to locations (preferably off of the historic property) where they will not diminish the integrity of the cultural landscape.
- Preserve the restored farmhouse and continue to use it for interpretive tours.
- Preserve the barn and use it to house the horses, cow, and hay. Continue to use it for interpretive tours.
- Preserve the silo foundation but do not rebuild the silo. Provide information to visitors explaining the role this building once played at the farm.
- Preserve the chicken coop and continue to use it to house chickens. Remove the non-historic fence that is adjacent to the chicken house.
- Preserve the corn crib (building directly south of the chicken house) and use it to store corn. Interpret the corn crib as a second generation building (ca?) that was constructed using wood from the silo. Remove the non-historic fence that is adjacent to this building.
- Preserve the granary and use it to store grain grown at the farm.
- Preserve the water house and windmill and interpret them as a non-historic reproductions.
- Preserve the sugar camp and continue to use it for maple syrup activities.
- Determine the locations of non-extant historic outbuildings at the farm through archeological investigations.
- When the locations of non-extant historic outbuildings are determined through archeological investigations, remove vegetation in the area where the buildings once stood taking care not to disturb significant archeological materials. Establish lawn in these areas. **Place flush concrete corner markers at the locations of the corners of the former buildings when this construction can be achieved without impacting significant archeological materials.**
- Develop an interpretative brochure for the farm that includes photographs and descriptions of the uses and periods of each of the historic structures, as well as the non-extant historic buildings and relates them to a site map.
- Control erosion at the west side of the granary, corn crib, and chicken house. Remove the earth at the drip-line and replace it with pea gravel to a depth of four feet below the frost level in a 10-12" wide strip that is centered on the drip-line.

The Barnyard and Yard

- Remove the structures, objects, and fences in the areas of the barnyard and yard that are not historic.
- Restore the farm driveway to a configuration that is as close as possible to the historic layout.
- Recondition the farm driveway using a soil consolidant in the areas indicated as "primary pedestrian circulation" routes to provide a stable and universally accessible surface.
- Preserve the yard as a rough turf area that tolerates weeds and bare patches as acceptable representations of the historic surface. Re-seed bare patches only if they become erosion or visitor safety hazards.
- Preserve the mature trees on the eastern side of the yard and maintain them by pruning out dead or dying branches.
- Remove seedlings and saplings and other undergrowth from the area on the eastern side of the yard.
- Continue to use the existing trail along the western edge of the historic core (and the eastern edge of the ravine) to connect to the Bailly Cemetery trail.
- **Move the pig sheds into the 'barnyard.' These sheds should be considered temporary additions and should be removed when pigs are no longer kept at the farm. Provide additional fencing within the 'barnyard' to contain the pigs.**
- **Construct a fence and gates at the north side of the barn that encloses the 'barnyard.'**
- **Construct a fence and gates adjacent to and east of the 'barnyard' to enclose the pasture.**

The Front Yard

- Remove vegetation not characteristic of the period of significance.
- Preserve large deciduous trees that are similar to those present during the period of significance.
- Reconstruct a lawn in the front yard that consists of rough grass.
- **Reconstruct corner posts and gates in their historic locations to indicate the former location of the front yard fence. Do not reconstruct the fence.**
- **Remove foundation plantings around the house.Establish rough lawn to match the front yard in these areas.**

The orchard

- Determine the boundaries of the historic orchard through archeological investigations.
- Remove all non-historic vegetation from within the historic orchard boundaries.
- **Establish and maintain a rough lawn in the former orchard area.**
- **Provide interpretive information that explains that this site contained an orchard during the period of significance.**

The garden

- Restore the vegetable garden. Layout the historic garden boundaries on the ground as they are shown on the Schematic Treatment Plan for Option 2.
- Reestablish the vegetable garden in its historic location using plants known to be grown by the Chellbergs including green beans, carrots, potatoes, sweet corn, cabbage, leaf lettuce, tomatoes, parsnips, green peppers, sage, radish, peas.
- Plant raspberry (black and red) bushes along the eastern edge of the garden.
- Do not use a fence to enclose the garden.

The "lane"

- Restore the treeline along the lane.
- Remove all of the undergrowth vegetation from either side of the farm entrance lane.
- Preserve the large deciduous trees and maintain them by pruning dead or damaged branches and by removing vines and other vegetation that is growing on or around them.
- Selectively remove small and medium sized deciduous trees along the lane so that the remaining trees are spaced fifteen to forty feet apart from each other allowing views from the farmhouse to Mineral Springs Road and Fields A and B.
- **Do not plant additional trees along the lane.**

The fields

- **Cultivate Fields A, B and C** (shown in Figure 3) using a crop rotation method that alternates complimentary crops to ensure that the soil is replenished with nutrients. As stipulated in the Farm Management plan (p.9) the rotation of crops should reflect the historical period and be based on recommendations made by the Soil Conservation Service and the local county extension agent to conserve soil quality.
- Plant crops that were grown historically at the farm including corn, oats, wheat, rye, and potatoes.
- Preserve the field that is located to the south of the orchard and north of the visitor parking lot. Maintain this field as an open field.
- Avoid setting up extensive temporary structures within the historic core for festival displays. **Instead mow and utilize the field that is located to the south of the orchard and north of the visitor parking lot for temporary festival displays.** Note: this treatment is intended to address only high-impact activities--for instance those that require the construction of booths. It is not intended that lower-impact activities, such as demonstrations, be limited to a specific area. These activities should be located in areas that most appropriately serve their purpose and be undertaken with an approach that is sensitive to the integrity of the historic materials.
- As specified in the Farm Management Plan use cooperative agreements with local groups to plant, maintain, and harvest crops.
- Consider using special use permits to allow local farmers to grow and harvest crops.

The ravine

- **Restore historic views into and across the ravine by removing select understory vegetation.**

- Regrade areas in the ravine where erosion has caused wash-outs. Use hand tools to grade areas and carefully limit the impact of the activities around the treatment site. Plant indigenous groundcovers and small woody species in regraded areas to help to stabilize the soil. When necessary, temporarily place erosion control materials (including erosion control blankets, silt fences, or hay bales) in areas that have been regraded until new vegetation is established.

- Where erosion is occurring along the trail, reroute the trail to minimize erosion. The new trail should adhere to a more gentle slope (percentage?) utilizing a zig-zag pattern if necessary to reach the desired destination.

- Establish goals for the plant community in the ravine. Identify desired and undesired species and develop a plan that addresses management of these plants.

The visitor center, parking lot, and picnic area

- Maintain the existing visitor center, parking lot, and picnic area.

- Screen the parking area with vegetation to block views of the parking lot from the historic core.

Circulation

- Construct a new parking lot on the eastern side of Mineral Springs Road across from the "lane" **to serve as the main vehicular access route for visitors.**

- **Restore the historic approach to the farm by establishing a primary pedestrian route from the proposed parking area on the eastern side of Mineral Springs Road that crosses the road and continues down the "lane" to the farm.**

- **Consider adding an interpretive display at the beginning of the trail. The display should orient visitors to the property and illustrate the main elements and circulation routes.**

- **Preserve the Bailly/Chellberg trail that passes along the western edge of the farm yard and barnyard.**

- Maintain the existing parking lot at the visitor center.

- Remove the existing gravel parking lot located on the northern side of the "lane." This area should be incorporated into Field "A" and cultivated.

- Eliminate the overflow parking area north of Field "A." This area should be incorporated into Field "A" and cultivated.

Option 3
Note: Text in bold indicates recommendations that differ from those presented in Option 1.

The Buildings

- Remove all non-historic structures and elements from the historic core to locations (preferably off of the historic property) where they will not diminish the integrity of the cultural landscape.
- Preserve the restored farmhouse and continue to use it for interpretive tours.
- Preserve the barn and use it to house the horses, cow, and hay. Continue to use it for interpretive tours.
- Preserve the silo foundation and **reconstruct the silo**. Provide information to visitors explaining that the silo is a non-historic reconstruction.
- Preserve the chicken house and continue to use it to house chickens. Remove the non-historic fence that is adjacent to the chicken house.
- Preserve the corn crib (building directly south of the chicken house) and use it to store corn. Interpret the corn crib as a second generation building that was constructed using wood from the silo. Remove the non-historic fence that is adjacent to this building.
- Preserve the granary and use it to store grain grown at the farm.
- Preserve the water house and windmill and interpret them as a non-historic reconstruction.
- Preserve the sugar camp and continue to use it for maple syrup activities.
- Determine the locations of non-extant historic outbuildings at the farm through archeological investigations.
- Remove vegetation in the area where non-extant historic outbuildings once stood taking care not to disturb significant archeological materials. **Establish lawn in these areas.**
- Develop an interpretative brochure for the farm that includes photographs and descriptions of the uses and periods of each of the historic structures, as well as the non-extant historic buildings and relates them to a site map.

The Barnyard and Yard

- Remove the structures, objects, and fences in the areas of the barnyard and yard that are not historic.
- Restore the farm driveway to a configuration that is as close as possible to the historic layout.
- Recondition the farm driveway using a soil consolidant in the areas indicated as "primary pedestrian circulation" routes to provide a stable and universally accessible surface.
- **Restore the yard as a bare dirt area.** Use a soil consolidant in areas where erosion is a problem.
- Remove the mature vegetation (including trees, seedlings, saplings, and undergrowth) on the eastern side of the yard and preserve this area as a mixture of bare ground and rough grass.
- Continue to use the existing trail along the western edge of the historic core (and the eastern edge of the ravine) to connect to the Bailly Cemetery trail.
- Move the pig sheds into the 'barnyard.' These sheds should be considered temporary additions and should be removed when pigs are no longer kept at the farm. Provide additional fencing within the 'barnyard' to contain the pigs.
- Construct a fence and gates at the north side of the barn that encloses the 'barnyard.'
- Construct a fence and gates adjacent to and east of the 'barnyard' to enclose the pasture.

The Front Yard

- Remove vegetation not characteristic of the period of significance.
- Preserve large deciduous trees that are similar to those present during the period of significance.
- Reconstruct a lawn in the front yard that consists of rough grass.
- **Do not reconstruct the fence or any portion of it.**
- Remove foundation plantings around the house.

The orchard

- Determine the boundaries of the historic orchard through archeological investigations.
- Remove all non-historic vegetation from within the historic orchard boundaries.
- **Establish and maintain a rough lawn in the former orchard area. Do not plant new orchard trees.**
- Provide interpretive information that explains that this site contained an orchard during the period of significance.

The garden

- Remove all non-historic vegetation from within the historic garden area.
- **Establish and maintain a rough lawn in the former garden area.**
- Provide interpretive information that explains that this site contained a garden during the period of significance.

The "lane"

- Preserve the remnants of the treeline along the lane.
- **Restore the historic view from the farmhouse to Mineral Springs Road by removing vegetation along the lane that blocks the view. Leave other existing vegetation.**
- **Do not plant additional trees along the lane.**

The fields

- *Cultivate Fields A, B and C **(shown in Figure 5) using a crop rotation method that alternates complimentary crops to ensure that the soil is replenished with nutrients. As stipulated in the Farm Management plan (p.9) the rotation of crops should reflect the historical period and be based on recommendations made by the Soil Conservation Service and the local county extension agent to conserve soil quality.***
- Plant crops that were grown historically at the farm including corn, oats, wheat, rye, and potatoes.
- **Maintain wide areas as open field around the west, north and east boundaries of Field C.**
- **Avoid setting up extensive temporary structures within the historic core for festival displays. Instead mow and utilize the open field areas located around the boundaries of Field C for temporary festival displays.** Note: This treatment is intended to address only high-impact activities—for instance those that require the construction of booths. It is not intended that lower-impact activities, such as demonstrations, be limited to a specific area. These activities should be located in areas that most appropriately serve their purpose and be undertaken with an approach that is sensitive to the integrity of the historic materials.
- As specified in the Farm Management Plan use cooperative agreements with local groups to plant, maintain, and harvest crops.
- Consider using special use permits to allow local farmers to grow and harvest crops.

The ravine

- Restore historic views into and across the ravine by removing select understory vegetation **only in areas seen in historic photographs.**

- Re-grade areas in the ravine where erosion has caused washouts. Use hand tools to grade areas and carefully limit the impact of the activities around the treatment site. Plant indigenous groundcovers and small woody species in re-graded areas to help to stabilize the soil. When necessary, temporarily place erosion control materials (including erosion control blankets, silt fences, or hay bales) in areas that have been re-graded until new vegetation is established.

- Where erosion is occurring along the trail, reroute the trail to minimize erosion. The new trail should adhere to a more gentle slope utilizing a zig-zag pattern if necessary to reach the desired destination.

- Establish goals for the plant community in the ravine. Identify desired and undesired species and develop a plan that addresses management of these plants.

The visitor center, parking lot, and picnic area

- Maintain the existing visitor center, parking lot, and picnic area.

- Screen the parking area with vegetation to block views of the parking lot from the historic core.

- **Construct additional paved parking along the south edge of the entrance road to the visitor center. This parking is meant to replace the gravel lot that is currently located on the northern side of the "lane." It can also provide overflow parking for visitors during festivals and events.**

- Maintain the field south of the Visitor Center entrance road as an open field that can be utilized for overflow parking during festivals and events.

- Eliminate the overflow parking area north of Field "A." This area should be incorporated into Field "A" and cultivated.

Circulation

- Construct a new parking lot on the eastern side of Mineral Springs Road across from the "lane" to serve as the main vehicular access route for visitors.

- Restore the historic approach to the farm by establishing a primary pedestrian route from the proposed parking area on the eastern side of Mineral Springs Road that crosses the road and continues down the "lane" to the farm.

- Consider adding an interpretive display at the beginning of the trail. The display should orient visitors to the property and illustrate the main elements and circulation routes.

- Preserve the Bailly/Chellberg trail that passes along the western edge of the farm yard and barnyard.

- Maintain the existing parking lot at the visitor center.

- Remove the existing gravel parking lot located on the northern side of the "lane." This area should be incorporated into Field "A" and cultivated.

Appendix B

Historic Orchard Information

Legacy of an Apple Seed

Every kid in America knows the legend of Johnny Appleseed. Now, here's the whole story.

By Kathleen Pyle

When the American Midwest was still virgin territory unspoiled by rails or roads, a hero sowed promise in its fertile soil. Described in a magazine article as "a small wiry man, full of restless activity," he had long dark hair, a beard, and "keen black eyes that sparkled with a peculiar brightness." To himself, he was merely a "gatherer and planter of apple seeds."

Apple trees have come to be synonymous with the moniker of John Chapman, the much-beloved folk hero better known as Johnny Appleseed. But while every kid in America can tell you what Johnny Appleseed did, most probably don't know why.

Legend status notwithstanding, John Chapman was actually a shrewd businessman who played a pivotal role in the American population's shift west during the early 19th century. That's because he provided the means for the first settlers to grow their own apples, and apples meant subsistence and self-reliance.

Fresh apples and apple butter were staples in settlers' diets; boiled apple cider and vinegar enabled them to preserve foods. Apple cider (what we today call hard cider), a basic drink, could be traded for flour, sugar, livestock, and other staples in cash-poor settlements. Also, the planting of an apple orchard, along with cleared land and the building of a cabin, signified that land was claimed, the equivalent of a "sold" sign on a piece of wilderness.

Historian Robert Price says in his book *Johnny Appleseed, Man and Myth*, "It is hard to realize that in the pioneer history of most American communities, the first apple crop once marked a first stage of permanency. No other fruit could be started so easily, and none could be put to so many essential uses."

Although Indians, French settlers, and other pioneer orchardists preceded him, Chapman's unique importance lay in his own rootlessness. "He was a nurseryman with vision," says Jeff Meyer, director of AMERICAN FORESTS' Famous & Historic Trees project, who will retrace Chapman's path west this spring. "He kept moving with the frontier. Chapman was a progressive thinker; he was futuristic in his planning."

And in the apple business, being futuristic was everything. Chapman showed an uncanny ability to anticipate new settlements. Toting leather bags of apple seed from the cider mills of western Pennsylvania, he rode into new sites on horseback or transported his mobile "nursery" by canoe. After selecting an open, sunny spot and clearing the ground, he'd sow several bushels of seed (each bushel contained about 336,000 seeds). A crude brush fence protected the seedlings between his visits.

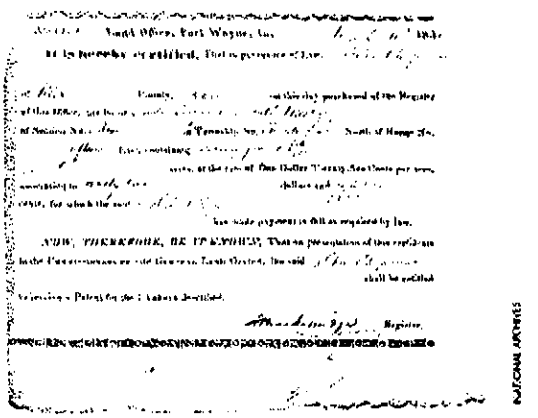
Within a few years, Chapman's trees would be ready when potential customers arrived to stake land claims. He sold the trees for a fippenny bit—about 6 1/2 cents a tree—but he was known to often extend kindhearted credit to penniless settlers. Once their apple orchard was in place, pioneer families selected trees worthwhile for fruit and grafted them onto the original seedlings. Although Chapman didn't believe in grafting, it was common practice by the early 19th century.

Why did Johnny Appleseed become a legend instead of just another orchardist? His frequent

Cleared land and a cabin were two signs land was claimed—the third, an apple orchard. Below, a certificate from Fort Wayne, Indiana's land office certifies John Chapman bought 74 acres of land in March 1836 for $1.25/acre.

acts of kindness, feats of strength, and unusual appearance fed the pioneer imagination.

"He was a hero in our own backyards, so to speak," says Bill Jones, founder of the Johnny Appleseed Heritage Foundation and lifelong Chapman scholar. Numerous were the farm families in Ohio, Indiana, and Pennsylvania who told, and still treasure, stories of Johnny's visits. Tall tales—adding fizz to the cider of his actual life—related how he hid underwater and breathed through a reed to escape hostile Indians and walked barefoot across a frozen lake.



No one knows who planted apple seed ambition in Johnny. Scant details of his birth, family, and route west have been traced from legal documents and family genealogies. Chapman was born in Leominster, Massachusetts, in 1774; his mother died when he was a toddler. After returning from the Revolutionary War where he'd worked as a wheelwright, John's father remarried and started a new family of 10 children.

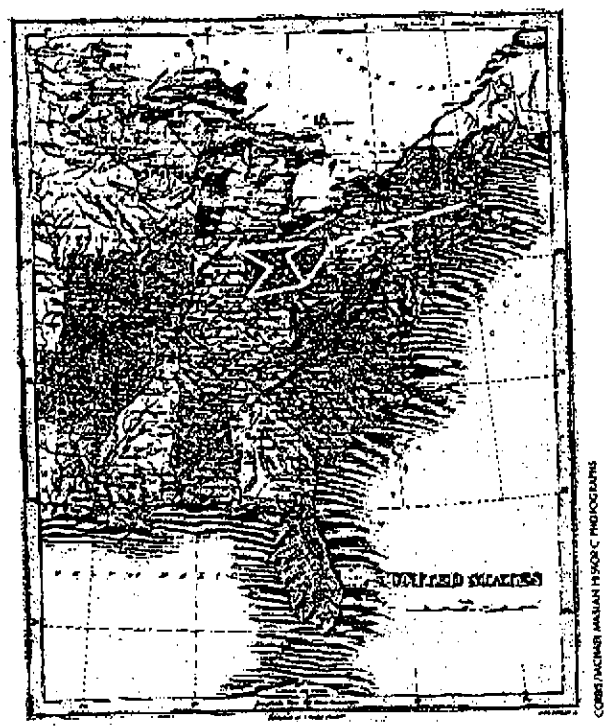
"Little else is known about John Chapman's boyhood, although it's likely part was spent tending fruit trees on neighboring farms, giving him an early skill that was to serve him well in his life adventures," according to Joe Besecker, codirector of the Johnny Appleseed Society based at Urbana University in Ohio.

Chapman left his father's home in Longmeadow, Massachusetts, as a teen. From 1797 to 1804 he attempted to claim land for apple plantings on French Creek between Pittsburgh and Lake Erie. Motivated by cheaper land and unsettled horizons, the 30-year-old Chapman pushed farther west into northern Ohio in the early 1800s. Land prices in that newly opened territory ranged from 50 cents to $2 an acre.

The wooded ridges and gently rolling landscape of northern Ohio beckoned, and Chapman spent most of his planting years there, purchasing several parcels of land in the Ohio territory.

It isn't difficult to imagine that Chapman saw the pris-

Appleseed country in 1999: a farm in Ohio's Amish country. Below, the route John Chapman traveled on his way to legend status. His route west is lined with memorial plaques, headstones, and monuments.



line beauty of the wilderness as evidence of heaven on earth. "Staying close to God was part of his philosophy," explains Besecker. A practical, weathered man accomplished in an adventurer's survival skills, Chapman also lived by intense religious convictions. In his Ohio days, he began to preach the teachings of Emmanuel Swedenbourg, a Swedish natural scientist and philosopher. As a devout Swedenbourgian, Chapman believed that all things existed simultaneously in the physical and spiritual worlds. Families who offered Chapman shelter were given tracts from Swedenbourg's writings.

As settlers moved further into Ohio, Chapman expanded west into northern Indiana, where he died in Fort Wayne in March 1845 at the age of 70. A trail of markers and memorial statues stretches from his hometown through Pennsylvania, Ohio, and Indiana. But the terrain he knew so well has changed immeasurably. Within 40 years after his death, millions of acres of woodland were sacrificed to plow and progress. Much of his most fertile nursery land in northern Ohio can be viewed from Interstate 71.

Progress may have claimed his land but not all his trees—some grew well into the 20th century. In 1994, AMERICAN FORESTS joined the effort to save Chapman's last living legacy after Meyer was informed that a tree Johnny Appleseed planted still existed on a 140-year-old Ohio farm. The tree's age and probable connection had been authenticated by a local historical society in the 1950s, said Marilyn Algeo Wilkins, whose family owns the farm.

A venerable Abraham of a tree, it seemed too old to

COURTESY JOE BLAKE KELLY/JOHNNY APPLESEED SOCIETY (R)

Two ways to preserve a legacy: In Urbana, Illinois, Doug Bahnsen dons a sack and tin pot hat for a celebration of Johnny Appleseed's life. At right, Chapman's Fort Wayne, Indiana, headstone reads simply, "He lived for others."

bear fruit. The tree was rotted on the inside, and Wilkins' father, Richard Algeo, wrapped the 11-foot trunk in chains, holding together a workhorse that had furnished his family with apples for generations.

Without an actual apple to go by, pomologists determined the tree was an Albermarle Pippin, based on its growth habit, foliage, and the variety's popularity in Chapman's day. It was later reidentified as a Rambo, Chapman's favorite variety.

"We believe it was planted in the 1830s when the farm was first established, but we'll never know exactly how old it is because the interior has decayed," says Jones, the Chapman scholar who has made frequent visits to the site.

Dave Furee, a pomologist from the Ohio Agricultural Research and Development Center, explains the tree's longevity by pointing to the glacial terrain under the farm. "It's almost pure gravel, which allows water to percolate through and encourages the tree's roots downward. Those roots have probably grown halfway to China by now."

AMERICAN FORESTS' propagators took both cutting wood and root cuttings from the tree before its last branch broke in a tornado a few years ago. Dale Bryan of Hollydale Nursery in Tennessee was chosen to grow the Famous & Historic Johnny Appleseed tree because of his expertise with T budding, a form of grafting in which cuttings (from the original Ohio tree) are budded into envelopes of bark on common apple tree rootstocks.

"Dale grows a million apple trees each year, but he'd never seen such a vigorous tree as the Algeo's—despite its advanced age," Meyer says. As if to prove the point, the ruins of the old tree sprouted shoots, yielding several apples. With fruit in hand, experts reidentified it as a Rambo.

Ten thousand seedling trees have now been grafted and are "finishing" in AMERICAN FORESTS' high-tech greenhouse in Jacksonville, Florida. Their next stop will be home gardens across the country, where the legacy of Johnny Appleseed will flourish anew. AF

Kathleen Pyle, a freelance horticultural writer, is a "garden doctor" for Garden Escape's web site, garden.com.

Appleplause for Johnny

Barbara McEntee

It was exceptionally cold and blustery on April 16, the day of the Johnny Appleseed Tree Planting Ceremony. "Let's cut to the core of this," a participant was heard to say. Above are Jeff Meyers (right) of American Forests and Ray McNiece, who enacts Johnny in Holden's cast of botanical historical characters.

On April 16 a hardy core of staff, members, trustees, and students gathered near the Visitor Center. They celebrated the life and work of John Chapman, beloved as Johnny Appleseed, by planting a tree grown from the last known surviving apple tree planted by Chapman.

The tree is one of many planted at arboreta, botanical gardens, and other sites by American Forests, a national conservation organization. The plantings honor Chapman as "tree planter of the millennium," who probably planted more trees than anyone else in American history. By planting apple trees he played a vital role in the life and history of our frontier.

Apples were central to frontier survival: they were dried for use in sauces, cooked into apple butter, pressed for cider, distilled into liquor, and bartered for eggs or beaver pelts. Perhaps most important, apples yielded cider and vinegar essential for putting up food to feed the family until the next harvest.

Thus any settler's goal was to have a producing apple orchard as soon as possible. At Marietta in 1792, for example, the Ohio Company stipulated that to acquire 100 acres, a settler must plant at least 50 apple trees and 20 peach trees within three years. When orchards had been established, the land had been mastered.

The easiest and most practical way to transport the trees for these orchards-to-be was by packing bags of appleseeds and peachstones. A bushel can hold 335,000 appleseeds!

The Johnny Appleseed project is part of a program by which American Forests identifies trees linking us to important events and people in American history, such as the Alamo and Gettysburg, George Washington and John Chapman.

In 1994 American Forests heard from Phyllis Algeo of Nova, Ohio, who said that from the late 1700s until his death in 1845, Johnny Appleseed had often visited the family farm and had planted many apple trees there. One tree was old and very distressed, but still alive. Her story was authenticated by Ashland County Historical Society.

When an apple tree is grown from a seed, the result is unpredictable: a seed from a large apple may produce a tree with small apples. Similarly, yellow apples may produce green ones, and sweet apples, sour. Mrs. Algeo's tree apparently was planted as a seedling and yielded a once-common apple called a Rambo.

American Forests obtained scions, or cuttings, from the tree and seeds from its apples (none too soon, for a 1996 storm felled the tree). The scions, grafted onto rootstocks, were successfully propagated, and two of the resulting trees are at Holden.

Two feet high, our Johnny Appleseed tree is quite small; our own trees routinely are planted out after they reach 5-6 feet in height. But visitors will be able to sight the tree by virtue of its protection. The tree has a tree shelter, a cylinder of translucent plastic, to prevent its being chewed and browsed by rodents and deer. The shelter, taller than the tree, encourages the tree to grow faster and upright. All this is fenced in to prevent future attack by deer.

All in all, it's a fitting tribute to a man who devoted a lifetime to bringing a hardy and essential fruit to settlers across our land.

Bibliography

BIBLIOGRAPHY

Archival Materials, Manuscripts, and Special Collections

Communication with Henry Studebaker and Arthur Studebaker, 22 February 1999. E-mail to Brenda Williams from Henry Studebaker addressing written questions he and his brother answered together.

Oral interview with Henry Studebaker, conducted 12 February 1999 by Brenda Williams; transcripts on file at Indiana Dunes National Lakeshore, Porter, Indiana.

Oral interviews with Henry Studebaker, conducted 2 December 1998 and 7 December 1998 by Amanda J. Holmes; transcripts on file at Indiana Dunes National Lakeshore, Porter, Indiana.

Transcripts of Oral interviews with Naomi Chellberg Studebaker, conducted 3 February 1979, 17 February 1979, 11 August 1975, 6 July 1978, 23 October 1979.

U.S. Bureau of the Census. 1850. Manuscript Schedules, Tenth Census of Agriculture (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana).

U.S. Bureau of the Census. 1860. Manuscript Schedules, Tenth Census of Agriculture (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana).

U.S. Bureau of the Census. 1870. Manuscript Schedules, Tenth Census of Agriculture (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana).

U.S. Bureau of the Census. 1880. Manuscript Schedules, Tenth Census of Agriculture (microfilm copy on file at Indiana State Archives, Indianapolis, Indiana).

Warranty Deed, 5 February 1869, recorded in Deed Book U, page 95.

Warranty Deed, 28 December 1869, recorded in Deed Book U, page 565.

Warranty Deed, 4 April 1872, recorded in Deed Book K, page 320.

Warranty Deed, 21 April 1945, recorded in Deed Book 127, pages 582-583.

Land Records of Porter County, Indiana, Miscellaneous Record Book B. Office of the Recorder, Porter County Courthouse Annex, Valparaiso, Indiana

Land Records of Porter County, Indiana, Mortgage Book L, page 413. Office of the Recorder, Porter County Courthouse Annex, Valparaiso, Indiana.

Government Documents

Benz, Robert. No date. *Agricultural Overview of the Calumet Region and Porter County and Preservation Guide and Restoration Guide Lines for The Chellberg Farm Indiana Dunes National Lakeshore.* Des Moines: 1984. (on file at Indiana Dunes National Lakeshore Library).

Cook, Sarah Gibbard and Robert S. Jackson. 1978. *The Bailly Area of Porter County, Indiana: The Final Report of a Geohistorical Study Undertaken on behalf of the Indiana Dunes National Lakeshore*, (on file at Indiana Dunes National Lakeshore Library).

Dunevitz, Vicki L., Dale K. Otto, and Ronald D. Hiebert. *An Ecological Study of the Chellberg Forest Sugar Bush, Indiana Dunes National Lakeshore: A Report to Management.*

Holmes, Amanda J. *Historic American Buildings Survey, Chellberg Farm (Kjellberg Farm)* HABS No. IN-#, Draft, May 1999.

Marciniak, M.D. 1978. *A Historical Study of the Indiana Dunes National Lake Shore*. Indiana Dunes National Lakeshore.

McMahon, David R. 1993. *The Ethnic Heritage of the Chellberg Farm and the Swedish Baillytown Region,* (located in Historian's file at Indiana Dunes National Lakeshore).

National Park Service. 1996. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes.* (Washington, D.C.: USDI, NPS, Cultural Resources, Preservation Assistance Division).

United States Department of Agriculture Farmer's Bulletin No. 35, *Potatoe [sic] Culture,* J. R. Duggar, 1896. (Located in the archives at Indiana Dunes National Lakeshore, cat. #1314).

United States Department of Agriculture Farmer's Bulletin No. 69, *Experiment Station Work,* iii, 1898. (Located in the archives at Indiana Dunes National Lakeshore, cat. #1315).

United States Department of Agriculture Farmer's Bulletin No. 21, *Potatoe Diseases and Their Treatment,* B. T. Galloway, 1899. (Located in the archives at Indiana Dunes National Lakeshore, cat. #1308).

United States Department of Agriculture Farmer's Bulletin No. 125, *Protection of Food Products from Injurious Temperatures,* H. E. Williams, 1901. (Located in the archives at Indiana Dunes National Lakeshore, cat. #1313).

United States Department of Agriculture Farmer's Bulletin No. 324, *Sweet Potatoes,* W. R. Beattie, 1905. (Located in the archives at Indiana Dunes National Lakeshore, cat. #1310).

United States Department of Agriculture Farmer's Bulletin No. 44, *Commercial Fertilizers, Composition and Use,* Edward B. Voorhees, 1906. (Located in the archives at Indiana Dunes National Lakeshore, cat. #1311).

United States Department of Agriculture Farmer's Bulletin No. 55, *The Dairy Herd: Its Formation and Management,* Henry E. Alvord, April 1897.

United States Department of Agriculture Farmer's Bulletin No. 63, *Care of Milk on the Farm,* R. A. Pearson, 1897.

United States Department of Agriculture Farmer's Bulletin No. 24, *Experiment Station Work,* vii, 1908. (Located in the archives at Indiana Dunes National Lakeshore, cat. #1314).

United States Department of the Interior, National Park Service, *General Management Plan,* Indiana Dunes National Lakeshore, August 1997, p.4

United States Department of the Interior, National Park Service, Midwest Region, *Calumet Ecological Park Feasibility Study: A Special Resource Study Conducted in the Calumet Region of Northeast Illinois and Northwest Indiana,* August 1998.

White, David R. M. *Roots Eternal and Unshakable: An Ethnographic Overview of the Indiana Dunes National Lakeshore,* Draft, September 1999.

Williams, Sherda and Susan Calafate Boyle. *The Cultural Landscape Report for Perry's Victory and International Peace Memorial, Put-in-Bay, Ohio,* (Omaha: National Park Service) 1994.

Published Articles, Books and Reports

Beijbom, Ulf. "Swedes," in Stephan Thernstrom (Ed.) *Harvard Encyclopedia of American Ethnic Groups.* Cambridge, MA: Harvard University Press, 1980, p. 971-972.

Birkby, Robert C. *Lightly on the Land: The SCA Trail-Building and Maintenance Manual* (Seattle: The Mountaineers) 1996.

Brickell, Christopher and David Joyce. *The American Horticultural Society Pruning and Training: A Fully Illustrated Plant-by-Plant Manual* (New York: DK Publishing, Inc.) 1996.

Chesterton Tribune, "The Fire Fiend Selects the Coldest Night This Year, and Totally Destroys the Home of Andrew Shellberg [sic]," 17 December 1884.

Danhoff, Clarence H. 1969. *Change in Agriculture, The Northern United States, 1820-1870.* Cambridge. (also, *Country Gentleman,* XIX (1862) p.74.

Farm Journal, The, (February 1894, vol. Xviii, no.2, thorough May 1895, vol. Xix, no.5) located in the archives at Indiana Dunes National Lakeshore. Cat. #s 1350-1355.

Holden Arboreum, The, *Appleplause for Johnny*, p.10.

Matheny, Nelda P. and James R. Clark, *A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas* (Savoy, Illinois: International Society of Arboriculture) 1994.

Meyer, Alfred H. "Circulation and Settlement Patterns of the Calumet Region of Northwest Indiana and Northeast Illinois, First Stage – 1830," *Annals of the Association of American Geographers,* XLIV, no.3 (Sept. 1954), 254-60.

Miller, Martha. 1982. *The Chellberg Family, the Chellberg Farm.* Chesterton, Indiana: Millar Publications.

Moore, Powell A. *The Calumet Region, Indiana's Last Frontier,* (Indiana Historical Bureau, 1959) 351.

Pyle, Kathleen. *Legacy of an Apple Seed,* (American Forests) Spring 1999.

Trapp, Suzanne, Michael Gross, and Ron Zimmerman. *Signs, Trails, and Wayside Exhibits: Connecting People and Places* (Stevens Point, Wisconsin: UW-SP Foundation Press, Inc.), 1994.