

Results of a Phase I Archaeological Investigation of the Proposed Rockford Solar Field Project, Winnebago County, Illinois

Prepared for:

Anderson Environmental Engineering
Rockford, IL

Prepared by:

Archaeological Research, Incorporated

August, 2010

Archaeological Research, Inc.
1005 Greta Avenue Woodstock, Illinois 60098

IHPA Log # _____
Locational Information and Survey Conditions
County: Winnebago
Quadrangle:

IHPA use only (Form ASSR0886)

Project Type/Title: Phase I/Rockford Solar

Funding &/or Permitting Fed./State Agencies:

Sec: 26 & 27 T.: 43N R.: 1E Natural Divis. (no.): 3d

Project Description: The client proposes to construct a solar energy field within the project area. The project area was staked at the time of survey. The project area is largely agricultural with some small areas of trees and grass.

Topography: The project area is located within the Rock River Hill Country physiographic province of Illinois. The Rock River Hill Country is largely in Illinoian glacial drift, and is characterized by rolling topography punctuated by dells, or bluffs along streams. Locally, the project area is situated in a low-lying, frequently flooded floodplain area between the Kishwaukee River and Kilbuck creek.

Soils: Soils in the project area have been mapped as: Hononegah loamy coarse sand 0-2% slopes, Millington silt loam 0-2% slopes, and Comfrey loam 0-2% slopes frequently flooded. Hononegah series soils are deep, excessively drained soils situated on stream terraces and outwash plains. These soils formed in a parent material of alluvium and developed under a native vegetation of water-tolerant grasses. Millington series soils are deep, poorly drained soils that are situated on alluvium. These soils are situated on floodplains, formed in a parent material of alluvium and developed under a native vegetation of wet-prairie grasses. Comfrey series soils are very deep, poorly drained soils situated on floodplains. These soils formed in a parent material of alluvium and developed under a native vegetation of grasses and trees.

Drainage: The project area is drained by Kilbuck Creek which drains into the Kishwaukee River which in turn drains into the Rock River.

Land Use/Ground Cover (Include % Visibility): The majority of the project area is contained within agricultural fields. At the time of survey vegetation in these areas consisted of corn and soybeans. Visibility within the corn was roughly 75%. Visibility within the beans was roughly 40%. The western portion of the project areas of trees interspersed with areas of grass and light brush. Ground surface visibility in these areas was less than 30%. Numerous areas of the project area were flooded at the time of survey, these areas are marked on the attached sketch map.

Survey Limitations: There were no limitations to a comprehensive survey of the project area.

ARCHAEOLOGICAL AND HISTORICAL INFORMATION

Historic Plats/Atlases/Sources:

IAS site files for Winnebago County, Plats and Atlases of Winnebago County: 1839 (GLO); 1871 (Warner, Higgins & Beers); 1886 (H.R. Page & Co.); 1905(George A. Ogle & Co.) ARI site files for Boone County. These plat maps were viewed but not photocopied at the Ida Public Library in Belvidere, IL.

Previously Reported Sites: The project area contains the previously recorded archaeological sites 11WO313 and 11WO338. There are twelve previously recorded archaeological sites located within one mile of the project area: 11WO72, 11WO473, 11WO71, 11WO341, 11WO358, 11WO339, 11WO73, 11WO254, 11WO342, 11WO343, 11WO344, & 11WO345.

Previous Surveys: The project area has been previously surveyed. This survey was conducted by IDOT in 1993/1994 as part of the Greater Rockford Airport project. A search of the Illinois online sites database failed to locate an IHPA document number for this previous survey. Surveys within one mile of the project area include the following IHPA doc.#'s: 5888, 15581, 13822, 9164, and 5923.

Regional Archaeologists Contacted: David Keene

Investigation Techniques: Surface inspection was conducted over the entire project area at 5-meter intervals. In those areas where visibility was less than 30%, screened sub-surface shovel testing was conducted at 15-meter transect intervals. Archaeological sites 11WO313 and 11WO338 were surface inspected at 1-meter transect intervals. Additionally, archaeological site 11WO338 was sub-surface inspected with two transects at 10-meter intervals. One transect bisected 'Area B' in an east-west direction, and one transect bisected the north-south portion of the site paralleling the road. These transects are illustrated on the attached site map.

Time expended: 12 Person days

Sites/Find Spots Located: N/A

Cultural Material: N/A

Curated At: ARI

Collection Techniques: Total Recovery

Area Surveyed (Acres & Square Meters): 200 acres / 809,4000 square meters

Results Of Investigation And Recommendations: (Check One)

- Phase I Archaeological Reconnaissance Has Located No Archaeological Material; Project Clearance Is Recommended.
- Phase I Archaeological Reconnaissance Has Located Archaeological Materials; Site(s) Does (Do) Not Meet Requirements For National Register Eligibility; Project Clearance Is Recommended.
- Phase I Archaeological Reconnaissance Has Located Archaeological Materials; Site(s) May Meet Requirements For National Register Eligibility; Phase II Testing Is Recommended.
- Phase II Archaeological Investigation Has Indicated That Site(s) Does (Do) Not Meet Requirements For National Register Eligibility; Project Clearance Is Recommended.
- Phase II Archaeological Investigation Has Indicated That Site(s) Meet Requirements For National Register Eligibility; Formal Report Is Pending And A Determination Of Eligibility Is Recommended.

Comments: SEE ADDITIONAL COMMENT SHEET

Archaeological Contractor Information:

Archaeological Contractor: Archaeological Research, Inc.

Address/Phone: 2000 North Racine Ave. Chicago, Illinois 60613 / 773-975-1753

Surveyor(s): Steve Parrish, David Keene

Survey Date: 7-13,14,15 & 8-2,3,5-2010

Report Completed By: Steve Parrish

Date: 8-13-2010

Submitted By (Signature & Title):



Senior Staff archaeologist

Attachment Check List: (#1 Through #4 are MANDATORY)

- 1) Relevant Portion Of USGS 7.5' Topographic Quadrangle Map(s) Showing Project Location And Any Recorded Sites;
- 2) Project Map(s) Depicting Survey Limits And, When Applicable, Approximate Site Limits And Concentrations Of Cultural Materials;
- 3) Site Form(s);
- 4) All Relevant Project Correspondence;
- 5) Additional Information Sheets As Necessary.

Address Of Contracting Agency To Whom SHPO Comment Should Be Mailed:

Anderson Environmental & Engineering, Co.
124 N. Water Street, Suite 206
Rockford, IL 61107

Contact Person: Jennifer Anderson

Phone No. 815-962-9000

Reviewers Comments:

ADDITIONAL COMMENTS:

A Phase I archaeological survey was conducted on the site of a proposed solar energy field in Winnebago County, Illinois. The project area consists of 200 acres of primarily agricultural land situated within the floodplain of the Kishwaukee River and Kilbuck Creek south of the Rockford Regional Airport. The western edge of the project area contains an area of trees, grass and light brush. The low-lying project area contains a number of wetland, marsh and flooded areas that were underwater at the time of survey. These areas are delineated on the attached sketch map of the project area. The project area contains the remains of a demolished structure that appears to have been constructed of corrugate metal and wood. The remains of this structure were photographed and the photos appear at the end of this report. The project area was previously surveyed by crews from RIP/UIUC in 1993 as part of the Greater Rockford Airport project. This survey resulted in the location of two sites that are within the current project boundaries. These sites have been recorded with the Illinois State Museum as 11WO313 and 11WO338. The USGS map of the project area indicates 4 structures within the western 1/3 of the project area that appear to be associated with a former campground.

11WO313

The project area contains the previously recorded archaeological site 11WO313. Archaeological site 11WO313 was originally recorded in 1993 by crews from RIP/UIUC when this area was surveyed as part of the Greater Rockford Airport project. The site is situated within the floodplain of the Kishwaukee River to the north and Kilbuck Creek to the south, 740 meters southwest of the intersection of Elmwood Road and South Bend Road. Cultural material attributed to the site consists of a total of 3 pieces of lithic debitage: 1 tertiary flake, 1 bifacial thinning flake and 1 broken flake. Because of the light density of cultural material as well as the inclusion of the site within previously disturbed agricultural soils further investigation at 11WO313 was not recommended in 1993. The area containing archaeological site 11WO313 was re-investigated during the current survey. Currently, the site is contained within an agricultural field that was planted with soybeans. Ground surface visibility was roughly 40-50%. Initially, the area was walked at 5-meter intervals as part of the initial pedestrian inspection of the project area. No cultural material was encountered within the area mapped as containing 11WO313 during this initial inspection. Subsequent to the 5-meter inspection, the area mapped as containing site 11WO313 was subjected to a pedestrian inspection at 1-meter transect intervals. No cultural material was located as a result of 1-meter pedestrian inspection. Limited sub-surface shovel testing was then conducted at select locations and also failed to result in the location of any cultural material. Given the light density of cultural material originally attributed to the site, the previous investigations recommendations of no further work, as well as the negative results of the current investigation, and the inclusion of the site within agricultural fields further investigation at 11WO313 is not considered likely to result in the location of significant cultural deposits in situ. Further investigation at 11WO313 is therefore not recommended.

11WO338

As mentioned, the project area also contains the previously recorded archaeological site 11WO338. Archaeological site 11WO338 was originally recorded in 1993 by crews from RIP/UIUC when this area was surveyed as part of the Greater Rockford Airport project. The site is recorded as being situated on a low rise within the floodplain of the Kishwaukee River to the north and Kilbuck Creek to the south, 200 meters southwest of the intersection of Elmwood Road and South Bend Road. Cultural material attributed to the site consists of: 8 decortication flakes, 4 thinning flakes, 25 broken flakes, 6 core fragments, 3 bladelet cores, 1 anvil/grinding stone, 60 grit tempered body sherds, 2 grit tempered basal sherds, 30 indeterminate sherds, 2 lamellar flakes, 3 tertiary flakes, 1 notched flake, 6 chert hammerstones, 4 fcr, 1 perforator, 2 quartzite hammer stones, 1 triangular humpbacked scraper, 11 biface blades, 8 limestone pieces, grit tempered shoulder sherds, grit tempered neck sherds, 3 mammal bones and 1 mollusc shell. This cultural material was dispersed over 29,196 square meters. In addition, the 1993 survey identified two areas of artifact concentration, 'Area A' on the northern end of the site and 'Area B' which is situated on the southern end of the site as mapped. These areas of artifact concentration are marked on the attached map of archaeological site 11WO338 [Attachment 7]. The site form does not indicate what cultural material came from which area, nor which area contained a greater percentage of the assemblage or a greater density of artifacts. The northern end of 11WO338, the portion of the site that contains the concentration of artifacts labeled 'Area A' is located outside of the current project boundaries, and was not investigated during the investigations presented in this report. This portion of the site is also contained within an active agricultural field that at the time of survey was planted with soybeans.

Given the presence of large amounts of pottery, as well as the recommendation for additional investigation by the previous survey, an earnest attempt was made to relocate archaeological site 11WO338. The entire site as mapped was initially surveyed at 5-meter transect intervals on July 13, 2010. Random sub-surface shovel testing was also conducted at that time. When 5-meter transect intervals failed to result in the location of any cultural material, the interval was reduced to 1-meter transects and the surface of the site was re-inspected. The reduced transect interval also did not result in the location of any cultural material. Archaeological site 11WO338 was then set aside and the remainder of the project area was inspected.

During this time, northwestern Illinois and southwestern Wisconsin received large amounts of rainfall which thoroughly washed the project area and resulted in significant flooding to the region in general, as well as the project area specifically. Given the heavy rain, it was hoped that cultural material at 11WO338 would be more evident on the surface. As a result a second surface inspection at 1-meter transect intervals was conducted on August, 2. Again, this inspection failed to locate a single piece of cultural material. After this second surface inspection, two transects of sub-surface shovel tests were excavated. Transect 1 (illustrated on the map of 11WO338) [Attachment 7], bisected 'Area B' in an east-west direction, and Transect 2 [Attachment 7], bisected the remaining portion of the site in a north-south direction running up towards 'Area-A'. All soils excavated as a result of these shovel test units was screened for cultural material through ¼ inch hardware cloth. Sub-surface shovel testing was did not result in the location of any cultural material. Sub-surface shovel testing did result in the location of several small (1-2cm) chert nodules, however none of them exhibited any evidence of human modification.

Archaeological site 11WO338 was intensely scrutinized for cultural material, and yet, no cultural material could be located. At the time of the 1993 survey, Mr. Berres indicates that 'cultivation is having an adverse impact on the site'. It appears that this assessment was correct. The site is currently under cultivation, planted with soybeans, and evidence of old cornstalks, indicates that the area has likely been under cultivation continuously since 1993. In addition to cultivation, the area is frequently flooded, as indicated by flooding during the current survey. It is considered likely that the combined effects of modern mechanized agricultural and periodic intense flooding have resulted in the destruction of archaeological site 11WO338. Given the size of the site, and the apparent absence of cultural material, further work at 11WO338 is considered likely to be ineffective as there is no clear area within the large site boundaries in which to concentrate any further investigation. The negative effect of agriculture is compounded by frequent flooding and as a result the potential for intact features is considered to be low. Given the lack of integrity, archaeological site 11WO338 is recommended to be considered not eligible for listing on the National Register of Historic Places. Further archaeological investigation at 11WO338 is not recommended.

Archaeological inspection of the remainder of the project area did not result in the location of any additional archaeological deposits. The remains of a modern structure were encountered, and these remains are marked on the sketch map of the project area [Attachment 4]. The remains consist of corrugated metal and wood. It appears to have been an above ground shelter type structure like a yurt that may have been associated with the abandoned campground that is located west of the project area. The structure has no foundation, and there was no archaeological component associated with it. The structure has been demolished, and the remains are currently in a large pile. Given the lack of structural integrity, this structure is not considered to be eligible for listing on the National Register of Historic Places. Further evaluation of this structure is not recommended. The U.S.G.S. topographic map (Rockford South Quadrangle) indicates that 3 other such structures were at one time situated within the current project area. No evidence of these structures was located during the Phase I investigation of the project area. These other structures were likely demolished at the same time as the structure indicated on Attachment 4, or were destroyed by flooding. Given the negative results of field inspection, the inclusion of the project area in an agricultural field as well as the negative results of background documents, further investigation of the project area is not considered likely to result in the location of significant cultural deposits in situ. Further inspection of the project area is not recommended. If cultural material is encountered during construction, construction should be halted and the SHPO should be notified immediately.

REFERENCES CITED

Graham, D.R.

1980 *Soil Survey of Winnebago and Boone Counties, Illinois*. United States Department of Agriculture, Soil Conservation Service, Washington D.C.

Schwegman, John E.

1973 *Comprehensive Plan for the Illinois Nature Preserves System Part 2, The Natural Divisions of Illinois*. Illinois Nature Preserves Commission, Rockford.

Nelson, Ronald E.

1988 Illinois: *Land and Life in the Prairie State*. Kendall/Hunt, Dubuque.

Willman, H.B.

1971 *Summary of the Geology of the Chicago Area*. Illinois State Geological Survey Circular 460, Urbana.

1839 *General Land Office Plat Map of Winnebago County, Illinois*. Library of Congress, Washington, D.C.

1871 *Atlas of Winnebago County, and the State of Illinois*. Warner, Higgins and Beers, Chicago.

Viewed but not photocopied at the Belvidere Public Library

1886 *Illustrated Atlas of Winnebago & Boone Counties, Illinois*. H.R. Page & Co.

Viewed but not photocopied at the Belvidere Public Library.

1905 *20th Century Atlas of Boone County, Illinois*. Middle West Publishing Company.

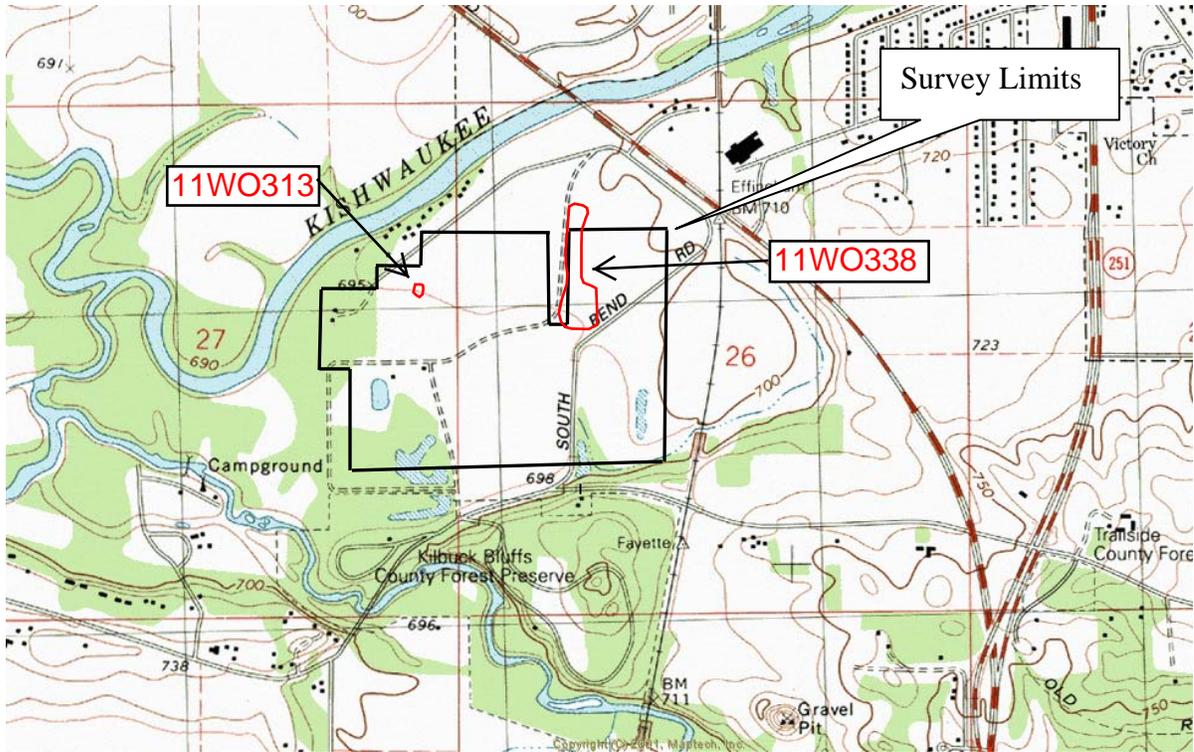
Viewed but not photocopied at the Belvidere Public Library.

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OTHER REFERENCES

Illinois Archaeological Survey (IAS) site files. Illinois State Museum, Springfield.

Attachment 1: Project Location Map



Archaeological
 RESEARCH, INC.

Winnebago County, Illinois
 Rockford South, IL 7.5 Minute USGS Quadrangle
 T43N., R1E; Section 26 and 27

Map Date:

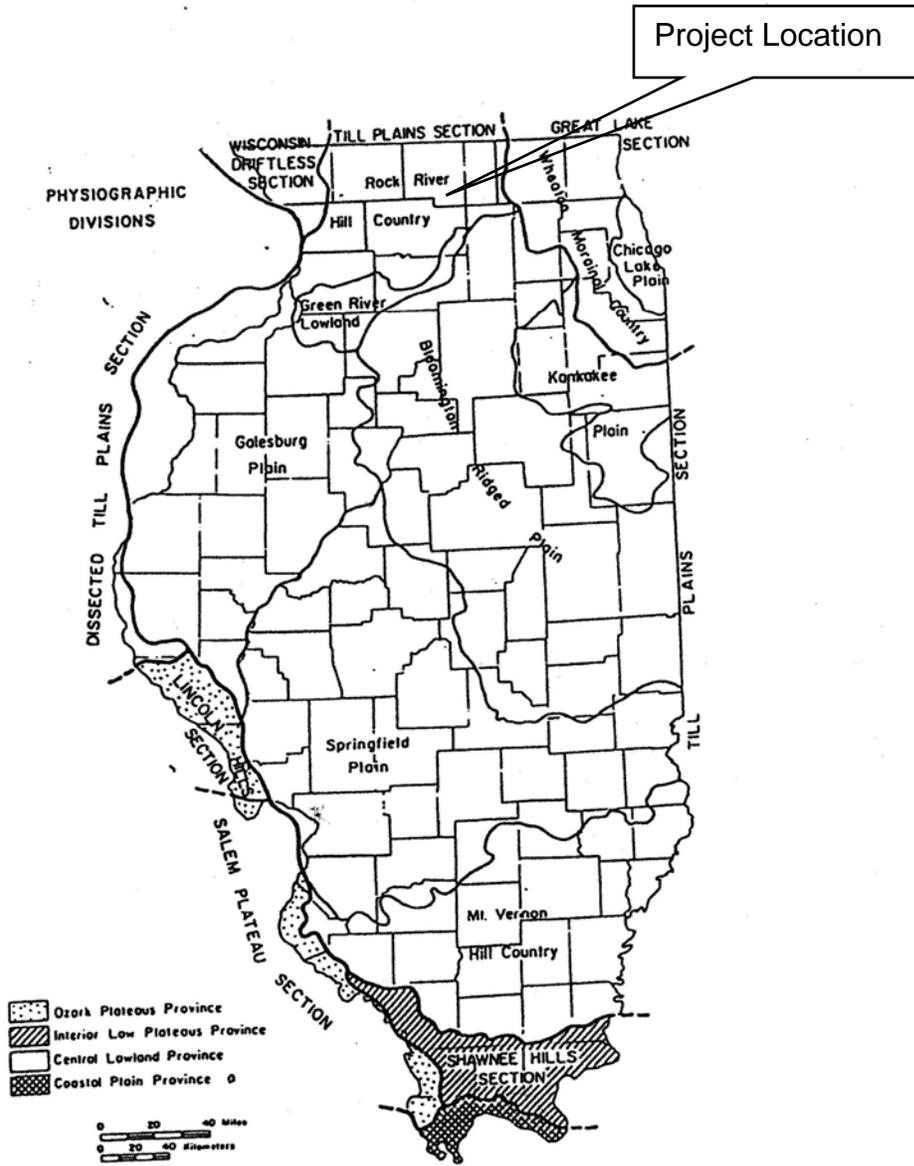
1993

Scale:

1: 24,000

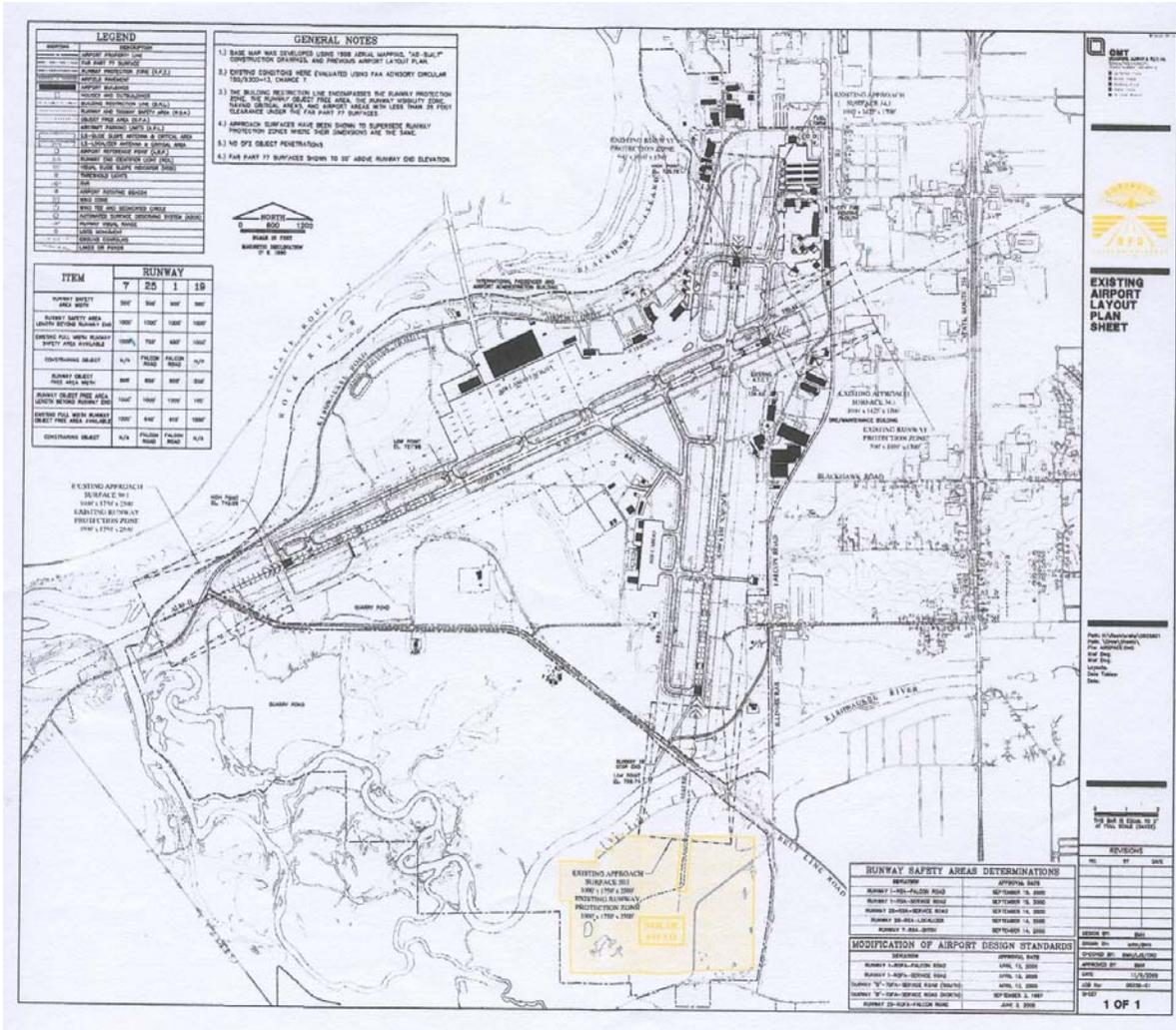
Project No.:

Attachment 2. Physiographic Provinces of Illinois

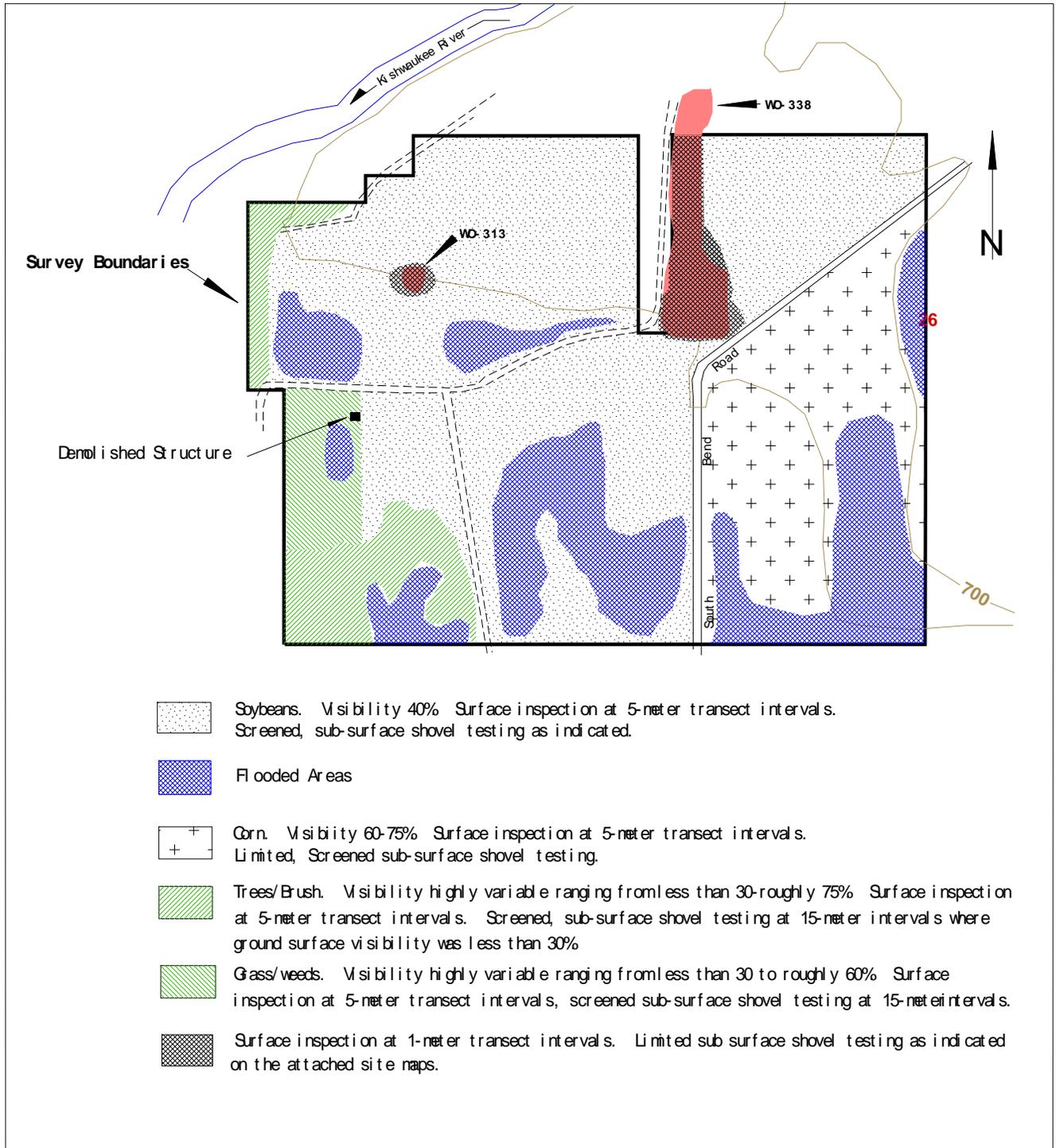


Physiographic Provinces of Illinois (Willman 1975:16)

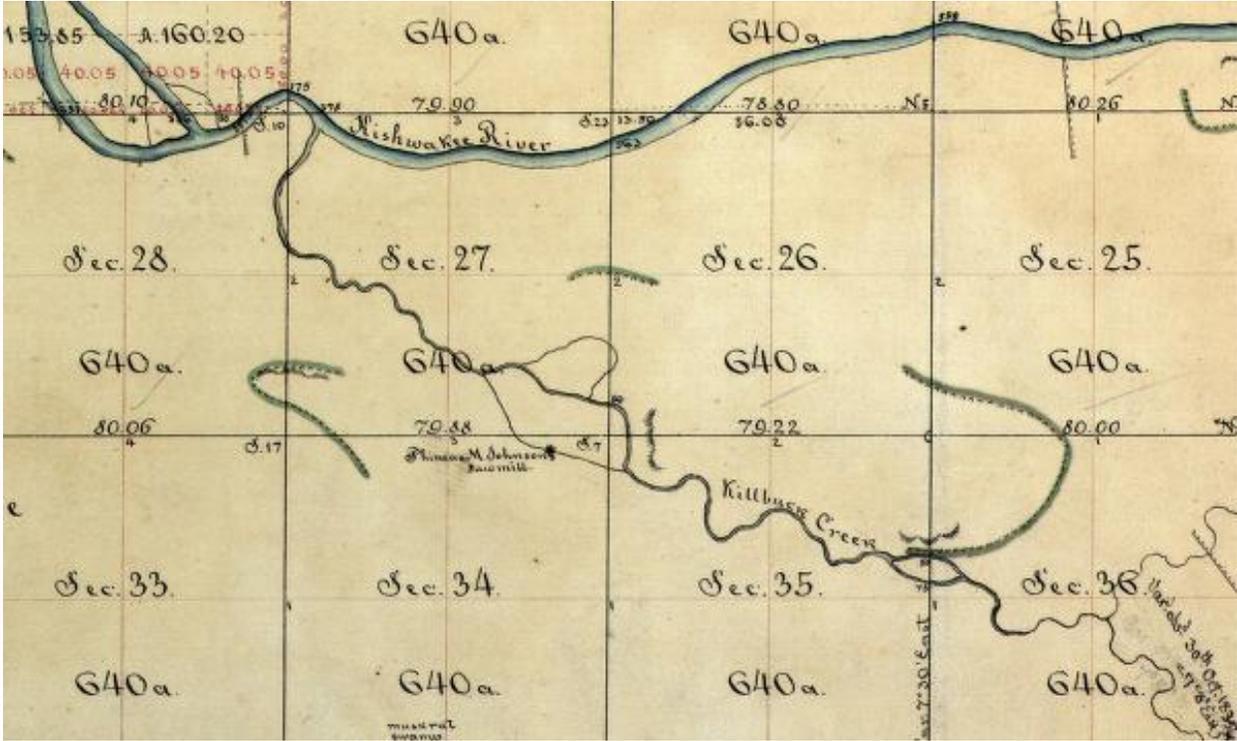
Attachment 3. Project Area Map Provided by the Client



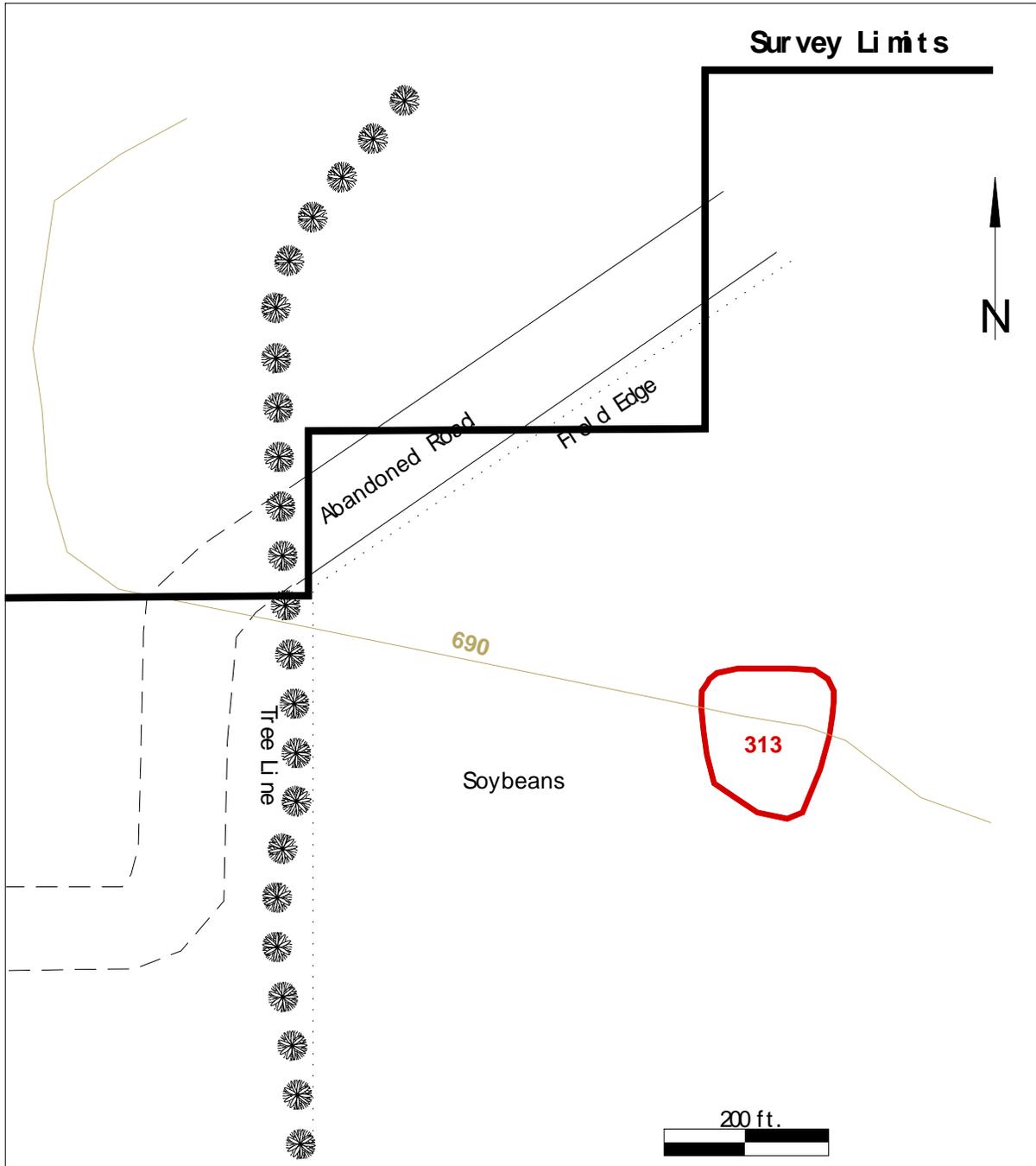
Attachment 4. Sketch Map of the Project Area Showing Vegetation and Survey Methods.



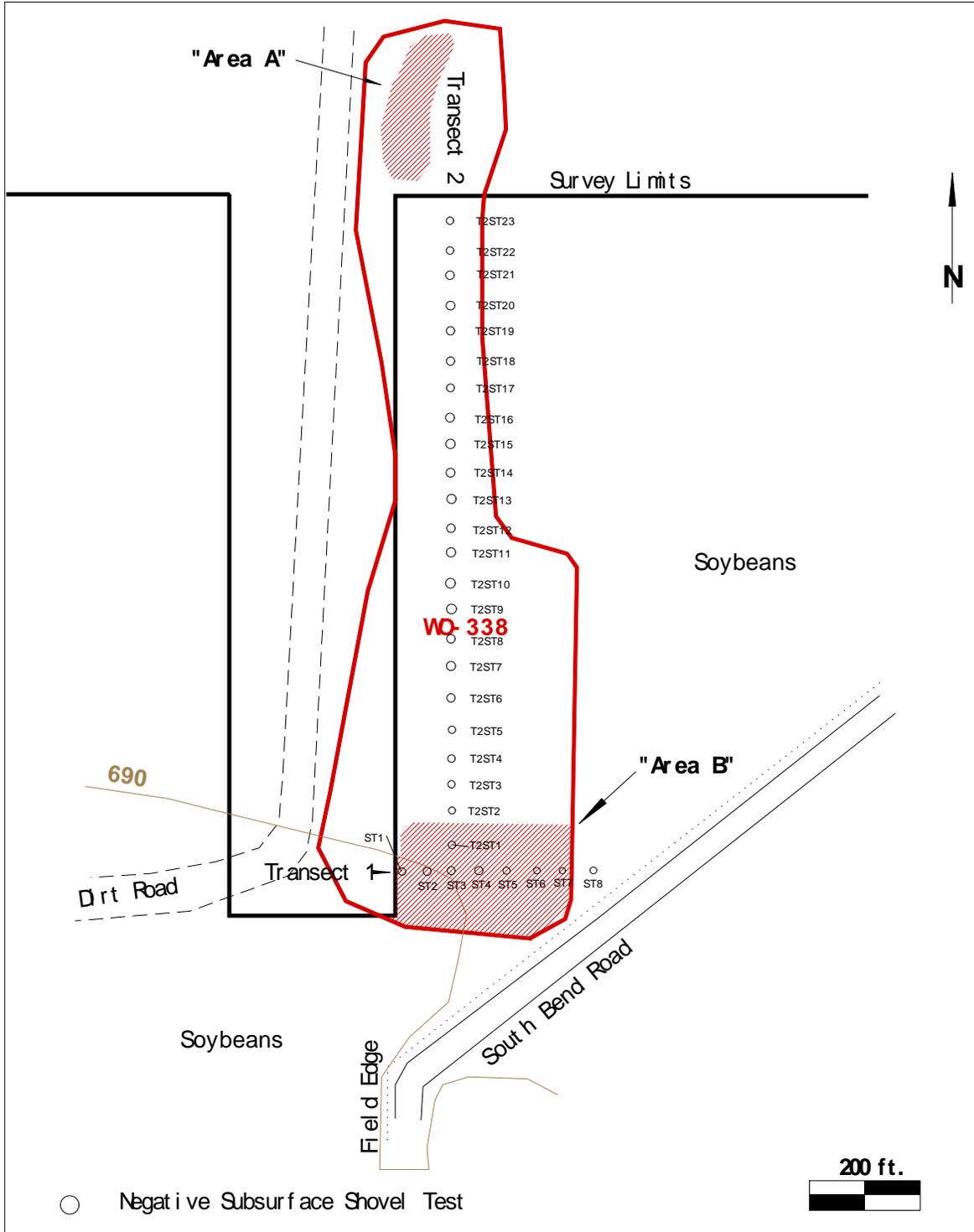
Attachment 5. General Land Office Plat Map of, Winnebago County, Illinois.
Library of Congress
1839



Attachment 6. Map of Archaeological Site 11WO303



Attachment 7. Map of Archaeological Site 11WO338.



Attachment 8. Photographs of Demolished Structure.



View to south. Demolished structure.



View to north. Demolished structure.

ILLINOIS ARCHAEOLOGICAL SITE RECORDING FORM

County: Winnebago

Site Name:

Revisit: Y

Field Number: WO313

State Site No.: 313

Quadrangle (7.5'): Rockford South

Date Recorded: 2010.08.11

LEGAL DESCRIPTION (to quarter quarter quarter section)

Align: NE 1/4s: NWSESENE NESESENE SWNESENE SENESENE Section: 27 Township: 43 N Range: 1 E
Align: 1/4s: Section: Township: Range:
Align: 1/4s: Section: Township: Range:
Align: 1/4s: Section: Township: Range:

UTM Coordinates (by ISM): UTM Zone: 16 UTM North: 4671042 UTM East: 326777 NAD27

Ownership: Private

ENVIRONMENT

Topography: Floodplain

Elevation (in meters): 215

Nearest Water Supply: Kishwaukee River

Drainage: Kishwaukee

Soil Association: Lawson-Sawmill-Darwin

Description: The site is situated on the floodplain of the Kishwaukee River, 740m SW of the Elmwood Road and South Bend Road intersection.

SURVEY

Project Name: Rockford Solar

Site Area (square meters): 1330

Ground Cover (List up to 3): Cultivated

Visibility (%): 40

Survey Methods (List up to 2): Pedestrian

Shovel Test

Standing Structures: N

Site Type (List up to 2): Unknown

SITE CONDITION

Extent of Damage: Destroyed

Main Cause of Damage: Agriculture

MATERIAL OBSERVED

Number of Prehistoric Artifacts (count or estimate): 0

Number of Historic Artifacts (count or estimate): 0

Prehistoric Diagnostic Artifacts: N

Historic Diagnostic Artifacts: N

Prehistoric Surface Features: N

Historic Surface Features: N

Description: No cultural material was encountered during the revisit.

TEMPORAL AFFILIATION (Y if present)

Prehistoric Unknown: X

Late Archaic:

Mississippian:

Colonial (1673-1780):

Paleoindian:

Woodland:

Upper Mississippian:

Pioneer (1781-1840):

Archaic:

Early Woodland:

Protohistoric:

Frontier (1841-1870):

Early Archaic:

Middle Woodland:

Historic Native American:

Early Industrial (1871-1900):

Middle Archaic:

Late Woodland:

Historic (generic):

Urban Industrial (1901-1945):

Description: No diagnostic material is attributed to this site.

Post-War (1946-present):

Surveyor: Parrish, Keene

Institution: ARI

Survey Date: 8-02-10

Curation Facility: NA

Site Report by: Parrish

Institution: ARI

Date: 8-12-10

IHPA Log No.:

IHPA First Sur. Doc. No.:

Compliance Status:

NRHP Listing: N

ILLINOIS ARCHAEOLOGICAL SITE RECORDING FORM

County: Winnebago

Site Name:

Revisit: Y

Field Number: WO338

State Site No.: 338

Quadrangle (7.5'): Rockford South

Date Recorded: 2010.08.11

LEGAL DESCRIPTION (to quarter quarter quarter section)

Align: NW 1/4s: SESESWNW NESESWNW SWSWSENE NWSWSENE Section: 26 Township: 43 N Range: 1 E
Align: 1/4s: SEENWNW SENESWNW NENESWNW SWNWSSENE Section: Township: Range:
Align: 1/4s: NWNWSENE SWSWNENW Section: Township: Range:
Align: 1/4s: Section: Township: Range:

UTM Coordinates (by ISM): UTM Zone: 16 UTM North: 4671089 UTM East: 327266 NAD27

Ownership: Private

ENVIRONMENT

Topography: Floodplain

Elevation (in meters): 215

Nearest Water Supply: Kishwaukee River

Drainage: Kishwaukee

Soil Association: Lawson-Sawmill-Darwin

Description: The site is situated on a floodplain of the Kishwaukee River 200 meters SW of the Elmwood Road and South Bend Road Intersection.

SURVEY

Project Name: Rockford Solar

Site Area (square meters): 29196

Ground Cover (List up to 3): Cultivated

Visibility (%): 40

Survey Methods (List up to 2): Pedestrian

Shovel Test

Standing Structures: N

Site Type (List up to 2): Unknown

SITE CONDITION

Extent of Damage: Destroyed

Main Cause of Damage: Agriculture

MATERIAL OBSERVED

Number of Prehistoric Artifacts (count or estimate): 0

Number of Historic Artifacts (count or estimate): 0

Prehistoric Diagnostic Artifacts: N

Historic Diagnostic Artifacts: N

Prehistoric Surface Features: N

Historic Surface Features: N

Description: No cultural material was encountered during the revisit.

TEMPORAL AFFILIATION (Y if present)

Prehistoric Unknown:

Late Archaic:

Mississippian:

Colonial (1673-1780):

Paleoindian:

Woodland:

Upper Mississippian: X

Pioneer (1781-1840):

Archaic:

Early Woodland:

Protohistoric:

Frontier (1841-1870):

Early Archaic:

Middle Woodland: X

Historic Native American:

Early Industrial (1871-1900):

Middle Archaic:

Late Woodland:

Historic (generic):

Urban Industrial (1901-1945):

Description: Temporal affiliation is based off the original site form.

Post-War (1946-present):

Surveyor: Parrish, Keene

Institution: ARI

Survey Date: 8-05-10

Curation Facility: NA

Site Report by: Parrish

Institution: ARI

Date: 8-12-10

IHPA Log No.:

IHPA First Sur. Doc. No.:

Compliance Status:

NRHP Listing: N