

**Langdon Wind Energy Center:
A Class II and Class III Cultural Resource Inventory in
Cavalier County, North Dakota**

Prepared for:
Tetra Tech EC, Inc.
Boston, Massachusetts

On behalf of:
Langdon Wind, LLC

NDSHPO #07-400

Principal Investigator:
Ed Stine

Prepared by Ed Stine and Aaron Barth
Metcalf Archaeological Consultants, Inc.
Bismarck, North Dakota

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Abstract

Tetra Tech EC, Inc., on behalf of Langdon Wind LLC, contracted Metcalf Archaeological Consultants, Inc. to conduct a Class II and Class III cultural resource inventory for a proposed wind farm in Cavalier County, North Dakota. The North Dakota Public Service Commission is the lead regulatory agency for this project.

The project is within portions of the following sections:

- T. 159 N., R. 59 W., sections 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, & 22;
- T. 159 N., R. 60 W., sections 1, 2, 12, 13, 14, 23, & 24;
- T. 160 N., R. 59 W., sections 2, 3, 4, 7, 8, 9, 17, 18, 20, 29, 30, & 32;
- T. 160 N., R. 60 W., sections 2, 3, 11, 13, 14, 23, 24, 25, 26, 35, & 36;
- T. 161 N., R. 59 W., sections 26, 27, & 34; and
- T. 161 N., R. 60 W., sections 23, 25, 26, & 36.

The project involved a Class III inventory of all of the proposed turbine locations and the access roads/collector lines. This was accomplished using pedestrian transects to cover a 200' corridor. The 200' corridor would be expanded to a 500' by 500' block at any turbine location where, in the archaeologist's professional opinion, such expansion was warranted. No such expansion was warranted for this project. The remainder of the project routes were covered with a Class II windshield survey. In all 865 acres were covered by Class III inventory. Between April 24 and May 4, 2007, the inventory was conducted by Ed Stine, serving as Principal Investigator, Aaron Barth, Caroline Klebacha, Naomi Rintoul, and Garrett Williams.

The inventory resulted in the documentation of one prehistoric isolated find, 32CVx84, and the update of one previously recorded site, 32CV121, a railroad. A National Register eligible site 32CV113, the Stanley R. Mickelsen Army Safeguard Complex, is located approximately .66 miles to the west of the nearest proposed turbine.

The isolate is recommended as not eligible for the National Register. The railroad, while potentially eligible for the National Register, will be bored under for installation of the collector line and will not be impacted by the project. The pyramid within the National Register eligible Safeguard Complex site is 0.80 miles distant from the nearest proposed turbine. Any turbine or other tall structure within several miles would modify the viewshed of the site. Based on discussions with the Army and North Dakota State Historic Preservation personnel, Langdon Wind LLC will submit a mitigation plan to the State Historic Preservation Office and the Army which will assist in the development of an interpretive system to improve the preservation efforts of site 32CV113, the Nekoma Pyramid.

Introduction

Tetra Tech EC, Inc., on behalf of Langdon Wind LLC contracted Metcalf Archaeological Consultants, Inc. (MAC) to conduct a Class II and Class III cultural resource inventory for a proposed wind turbine farm. The North Dakota Public Service Commission is the lead regulatory agency for this project. This project was inventoried to locate any cultural resources within the potential area of effect, fulfilling the policies implementing the National Historic Preservation Act (NHPA [Public Law 89-665]) as amended. An additional goal was to allow the client to plan construction so as to avoid any cultural resources or mitigate the effects on any resources.

The proposed wind farm is located east of Highway 1 between the communities of Langdon and Nekoma in Cavalier County, North Dakota. In all 70.3 miles of access road/collector line between or associated with the proposed wind turbines were inventoried. A Class II windshield survey was conducted along approximately 34.5 miles (49%) of corridor. Approximately 35.7 miles (51%) of 200' wide corridor was inventoried at a Class III, with pedestrian transects spaced at 20 meter intervals, for a total of 865 acres surveyed.

Project Location

The project is depicted on USGS 7.5' Easby (1972), Nekoma (1972), Osnabrock (1972) and Osnabrock SW (1972) quadrangle maps (Appendix A). It is located in portions of the following legal sections:

- T. 159 N., R. 59 W., sections 5, 6, 7, 8, 9, 16, 17, 18, 19, 20, 21, & 22;
- T. 159 N., R. 60 W., sections 1, 2, 12, 13, 14, 23, & 24;
- T. 160 N., R. 59 W., sections 2, 3, 4, 7, 8, 9, 17, 18, 20, 29, 30, & 32;
- T. 160 N., R. 60 W., sections 2, 3, 11, 13, 14, 23, 24, 25, 26, 35, & 36;
- T. 161 N., R. 59 W., sections 26, 27, & 34; and
- T. 161 N., R. 60 W., sections 23, 25, 26, & 36.

Project Setting

The majority of the project is located in the Northern Red River Study Unit (Unit # 9) as defined in the *North Dakota Comprehensive Plan for Historic Preservation: Archeological Component* (SHSND 1990: 9.1-9.43). The southwest portion of the project is in the Sheyenne River Study Unit (Unit #12) but the descriptions of the archaeology and physiography provided in Unit 9 is applicable to the project area as a whole. The project is in the Glaciated Plains within the Central Lowlands described as rolling, glaciated landscape with more than 80% gently sloping, also referred to as Drift Prairie with deep glacier deposits (Bluemle 1991: 4-5). The project area is gently rolling to flat with subdued topographical relief (Figure 10, Appendix B, Page B2).

Portions of the project area are subject to spring flooding and a number of small swales are present across the area. The principal drainage, which divides the project, is the South Branch Park River. The Park River is a tributary of the Pembina River which drains into the Red River near the Park Pembina confluence. The river was flowing at the time of the inventory but it is, in its upper reach, a seasonal drainage.

All of the project area has either been plowed or has been impacted by road construction with ground surface visibility excellent at 50 to nearly 90%. Soils consist of fairly deep (~50 cm) black silt loam over glacial till. Because the area is virtually all in crop land there is no native vegetation remaining outside of marsh species in the various sloughs and large swales. Area fauna includes white tail deer, jack and cotton tail rabbits, small predators such as fox and coyote, along with numerous waterfowl and upland game birds. Prior to large scale Euro-American settlement, bison would have been plentiful and would have been regularly exploited by Native populations.

Files Search

Between December 4, 2006 and January 4, 2007, MAC conducted a Class I inventory for the project area. At that time plans were preliminary and a larger area than currently under consideration was covered (162 sections). The files search revealed one prehistoric isolated find, 32CVx66 (a projectile point) with the remaining properties consisting of bridges, churches, residences and post office site leads. The previously recorded site 32CV113, Army Safeguard Complex, is the only documented site revealed by the files search that is eligible for the National Register. While it is out of the project area proper, there will be some modification to the viewshed of the site. The location of this site as depicted in the current site form is incorrect and an updated site form has been submitted. There have been nine previous investigations in the area. An urban survey of Langdon (MS #4283) accounts for the majority of the recorded historic sites for private residences while a church survey (MS #5945) accounts for the churches on record. Of most interest for the current project is a Class III survey of Highway 1 between Langdon and Nekoma (MS #9597). The proposed transmission line for the wind farm follows this route. The complete results of the files search are depicted on the project maps in Appendix A and are provided in tabular form in Appendix C.

Field Methods

The inventory was conducted between April 24 and May 4, 2007, by Ed Stine, serving as Principal Investigator, Aaron Barth, Caroline Klebacha, Naomi Rintoul, and Garrett Williams. Prior to conducting the field work Ed Stine met with Paul Picha, North Dakota State Historic Preservation Office Chief archaeologist and Susan Quinnell, Review and Compliance Officer, to discuss the project. At that meeting it was agreed that a combination Class II and Class III inventory would be employed. The turbine locations had been staked prior to the inventory and were readily located. The majority of the corridor was adjacent to roads or visible between turbine stakes and was easily followed in any case. The inventory was accomplished using parallel zig-zag pedestrian transects spaced at 20 meter intervals along the corridor between the proposed wind turbines and along selected portions of access road/collector line corridors. A 200' wide corridor was inventoried in segments totaling 35.7 miles. The Class III inventory, over areas not accessible by car, revealed that the overall area has low potential for archaeological sites (ie no sites were encountered). Where roads allowed access to access/collector/transmission line corridors a Class II windshield survey was conducted.

When an artifact was encountered the location was marked with a pin flag and the surrounding area was closely examined for the presence of additional artifacts or features. For this project a location with five or fewer artifacts and no features was identified as an isolated find. The threshold for a site was six or more artifacts or the presence of a feature. After the location was thoroughly examined the appropriate forms were filled out, the area was photographed, and the location was mapped with the aid of a GPS unit. During the inventory field notes were maintained, representative electronic photographs were taken, and maps were generated with the aid of a GPS unit. Copies of field notes, electronic photo images, maps and forms are on file at the MAC Bismarck office.

Results

The Class III inventory covered 35.7 miles (51%) of the overall project corridor. One prehistoric isolated find, 32CVx84, was documented and a previously recorded railroad, 32CV121, was updated as a result of the inventory. A second historic site, the Safeguard Complex (32CV113) is located approximately 0.66 miles west of the nearest proposed wind turbine and out of the project area proper. Background research on the site was conducted due to its National Register eligible status and potential viewshed issues.

32CVx84

Photo: Figure 12, Appendix B page B-2

Map: Figure 8, Appendix A page A-9

This isolated find was encountered approximately 60 meters north of turbine T69. The location is in a flat, cultivated field. Area ground surface visibility was approximately 50% at the time of the inventory. The isolate consists of two Swan River chert flakes and a gray chert biface fragment located within 50 meters of each other. The biface fragment is not temporally diagnostic. The isolate is recommended as not eligible for the National Register of Historic Places and no avoidance is recommended.

32CV121

Photo: Figure 9, Appendix B page B-2

Map: Figure 3, Appendix A page A-4

The project crosses a segment of the Burlington Northern Santa Fe Railroad (site 32CV121) between turbines OT16 and Alt OT1. The site was initially recorded by Bleier in 2006. The railroad was constructed prior to the Railway War of 1905. In 1970 the Northern Pacific Railway Company, the Chicago, Burlington, and Quincy Railroad Company, the Great Northern Railway Company, and the Spokane, Portland and Seattle Railway Company merged to become the Burlington Northern Railroad. In 1995, the Burlington Northern Railroad and the Atchison Topeka and Santa Fe Railroad became the Burlington Northern Santa Fe Railway Company.

The railway is currently in use and retains integrity. The construction of rail lines played a pivotal role in the development of northeastern North Dakota and North Dakota in general. An increase in settlement and commercial and agricultural ventures are due largely to competition

between railroad companies. Thus the rail lines constructed during the settlement era are significant. Most rail lines are likely eligible for the National Register of Historic Places, however a statewide thematic study of rail lines needs to be conducted in order to accurately assess this site's significance and eligibility. The railroad will be bored under for collector line installation and the project will thus not impact the site's National Register eligibility.

32CV113

Photo: Figure 11, Appendix B page B-3

Map: Figure 7 on Appendix page A-8

This National Register eligible site, the Safeguard Complex, is out of the project area proper but the proposed wind farm turbines (the nearest being T47) are approximately 0.80 miles or greater to the east but within the viewshed of the pyramid, the principal component of the site. The site location depicted in the current site form is incorrect and an updated site form reflecting a more accurate location has been filed. Following is a history of the Safeguard Complex, also known as the Nekoma Missile Site Radar, based on Mills (forthcoming) and Hafermehl (1993).

As described in Chapter 8 of David Mills, "Cold War in a Cold Land: Fighting Communism on the Northern Great Plains" (Fargo, North Dakota State University: forthcoming dissertation, 2008), the Nekoma Missile Site Radar (MSR) was designed and constructed to track the targets that the Perimeter Acquisition Radar in Langdon, North Dakota, was unable to engage. In addition to its significance in American military history, the construction of this site altered the environmental, socio-economic and political norms around Nekoma.

Environmentally, a need to supply water to the construction workers and eventual military staff was realized in the early stages of the project. Ultimately, twenty-six miles of piping brought water to the site and surrounding area from the Tiber Reservoir. In the socio-economic sense, as workers poured into the area, local retailers made adjustments to best accommodate the population influx. Mills says some retailers were accused of price-gouging the workers, but Colonel Roy Beatty, the Commander of the site area, said he "detected no escalation in price trends" from local businesses. Politically, local, state and federal politicians responded to complaints and problems that the workers and residents around the site encountered. The politicians also acted as intermediaries between Washington, D.C., and the region around Nekoma.

The Safeguard Complex that the Nekoma MSR was connected with received initial operational status on April 1, 1975, and full operational status on September 28, 1975. The United States Congress deemed the Safeguard Complex obsolete after realizing that the Soviets could overwhelm the military installation with a large-scale attack. On October 2, 1975, the House voted to deactivate the system, the decision based largely on the monetary costs needed to maintain a site with limited effectiveness. By February 10, 1976, the Joint Chiefs of Staff ordered that the Safeguard Complex be terminated entirely. By the time of abandonment, the site cost approximately five billion dollars, and was operational for less than five months.

Justification of Significance

This site meets the National Register of Historic Places Criteria A and C and although the site remains less than fifty years old, it is eligible for the National Register of Historic Places under Criteria Consideration G, as a Post World War II Property defined as *A military installation [of] exceptionally important because of its contribution to the Cold War arms race.*

This unique site is associated with events that significantly contributed to the broad missile defense patterns that characterized a component in the history of the Cold War in North Dakota, America, and internationally, thus making it eligible under Criterion A. In addition to the socio-economic impact brought on by the construction of the Nekoma MSR, the site is associated with local, state and federal politicians. These individuals were significant in shaping the American past. The concrete pyramid and adjoining structures remain a distinct and highly visible characteristic of the landscape around Nekoma, especially considering the comparatively flat physiography of the northern Plains. As noted by Louis Hafermehl on August 11, 1993, since the site was the only one of its kind ever built, it is the only one which contains the physical features and traits of its type. The Missile Site Control Building (the concrete pyramid) measures approximately 123 feet and three inches in height, and has a total of four floors. Active or not, the structure and architecture itself symbolize the anti-nuclear defense technology of the 1970s making it eligible under Criterion C.

The complex has lost integrity, in varying degrees, of design, materials, and workmanship. Many (at least 15) buildings in poor condition on the complex have been destroyed, altered or removed from the location including both domestic and defense structures. All of the defense structures were stripped of the technological aspects of the defense system with the missile silos sealed and abandoned between 1975 and 1977 (ETC, 1992). The setting and location was modified somewhat by that project, however, the defense structure's placement on the ground was chosen for radar coverage concerns and not aesthetics or associations with the surrounding landscape. The feeling and association of this site, while having diminished integrity, still embody the historic sense of the Cold War era, expressed in both structure and technology.

The proposed wind turbines will be visible from the Nekoma MSR, but they will not negatively impact or affect the structural or historical integrity of the site to the degree that it would no longer be eligible for the National Register. The feeling, setting, and association integrity of this site will not be greatly diminished as the surrounding landscape did not contribute to the physical placement of the complex. As the nearest wind tower lies approximately 0.8 miles east of the pyramid, there is little reduction in the site's dominance of the skyline if one travels from the north to the south along Highway 1. The highway bends around the structure to the west creating a front focal point as one approaches the site from the north. The wind turbines will be east of this view and will not impact the visual effect of this imposing structure. While the turbines will be more visible as one approaches the site from the south, the site's viewshed will be modified at a distance. The closer one travels to the site, the more physically dominant the site becomes. At the closest vantage point to the site from the highway, lying west less than a quarter mile from the complex, little surrounding landscape is visible. Thus, minimal negative modification of the site's viewshed will result from this project. Since the site's eligibility pertains to its importance in historical events and structural integrity, the viewshed modification to the site will not affect its eligibility status.

None the less there will be an effect on the viewshed and a mitigation plan is being developed in consultation with the Army and North Dakota State Historic Preservation Office.

Recommendations

Isolate 32CVx84 is recommended as not eligible for the National Register. The rail line site 32CV121, while potentially eligible for the National Register, will be bored under to avoid impact to the site. The proposed wind farm will minimally modify the viewshed of one National Register eligible historic property, 32CV113. The principal component of site 32CV113, the Safeguard Complex, is over three quarters of a mile from the nearest turbine and while it's viewshed will be modified, the modification will not greatly reduce the feeling or association of the site. None the less there will be an impact. Based on discussions with the Army and NDSHPO personnel, Langdon Wind LLC will submit a mitigation plan to SHPO and the Army which will assist in the development of an interpretive system to improve the preservation efforts of the Nekoma Pryamid and associated Safeguard Complex (32CV113). This mitigation plan will help to resolve the potential adverse effect to the site viewshed.

References Cited or Consulted

Baucom, Donald R.

1992 *The Origins of SDI, 1944-1983* Lawrence: University of Kansas Press

Bluemle, John P.

1991 *The Face of North Dakota Revised Edition* (Educational Series 21)
North Dakota Geological Survey, Bismarck, North Dakota

Earth Technology Corporation, The (ETC)

1992 *Historic Context for Properties, Located on the Stanley R. Mickelsen Safeguard Complex and Considered Potentially Eligible for Listing on the National Register of Historic Places.* Prepared by Earth Technology Corporation, Huntsville, Alabama, for US Army Space and Strategic Defense Command, Huntsville, Alabama. MS#6447.

Hafermehl, Louis, "Cold War Sites – NR Eligibility of the Safeguard Site" (1993: manuscript in possession of the author).

Mills, David, "Cold War in a Cold Land: Fighting Communism on the Northern Great Plains" (Fargo, North Dakota State University: forthcoming dissertation, 2008).

State Historical Society of North Dakota (SHSND)

1990 *The North Dakota Comprehensive Plan for Historic Preservation: Archeological Component*, Archeology and Historic Preservation Division, State Historical Society of North Dakota, Bismarck, North Dakota.

Appendix A:
Project Area Maps

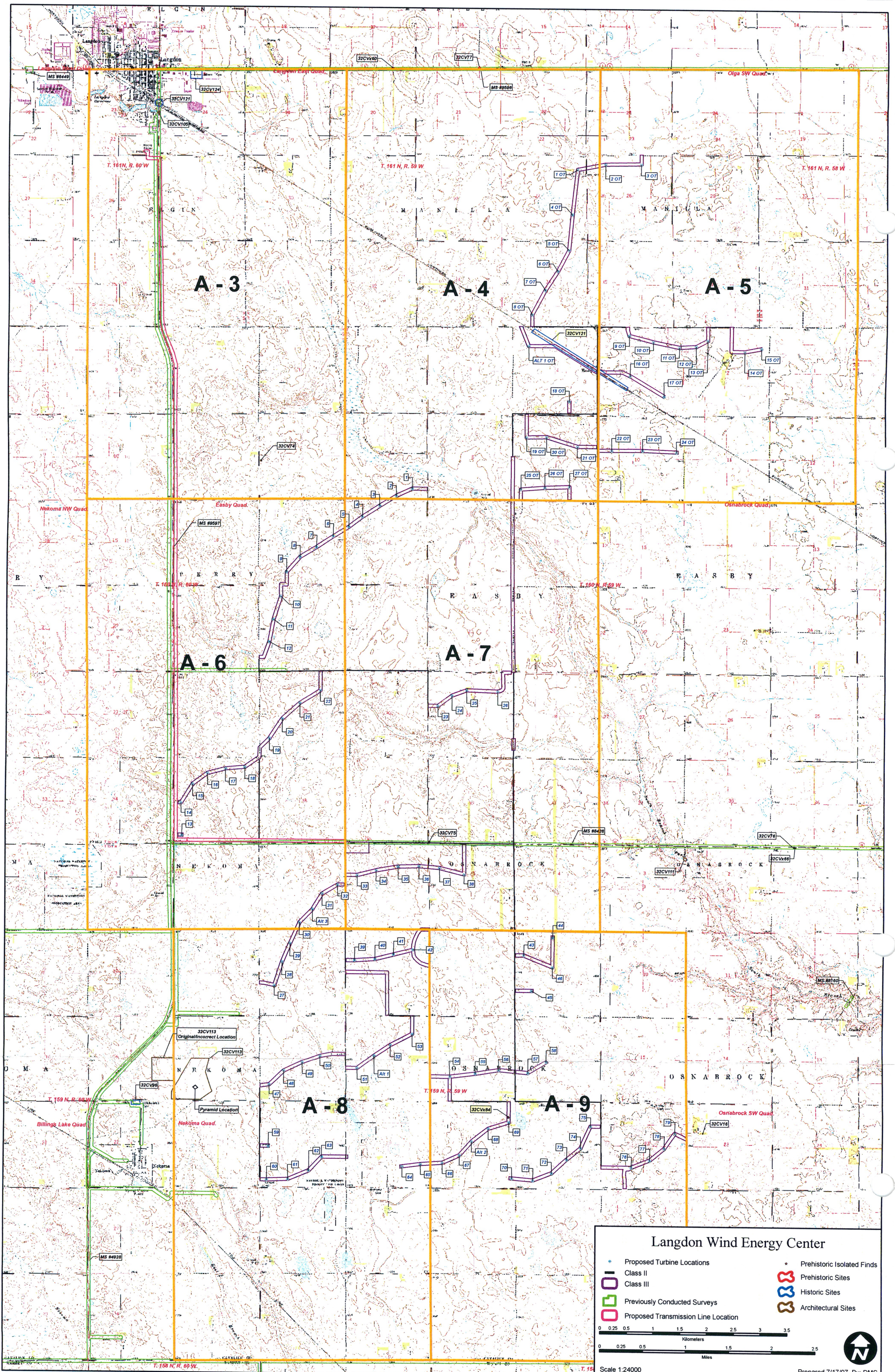


Figure 1: Overview of project area A-2

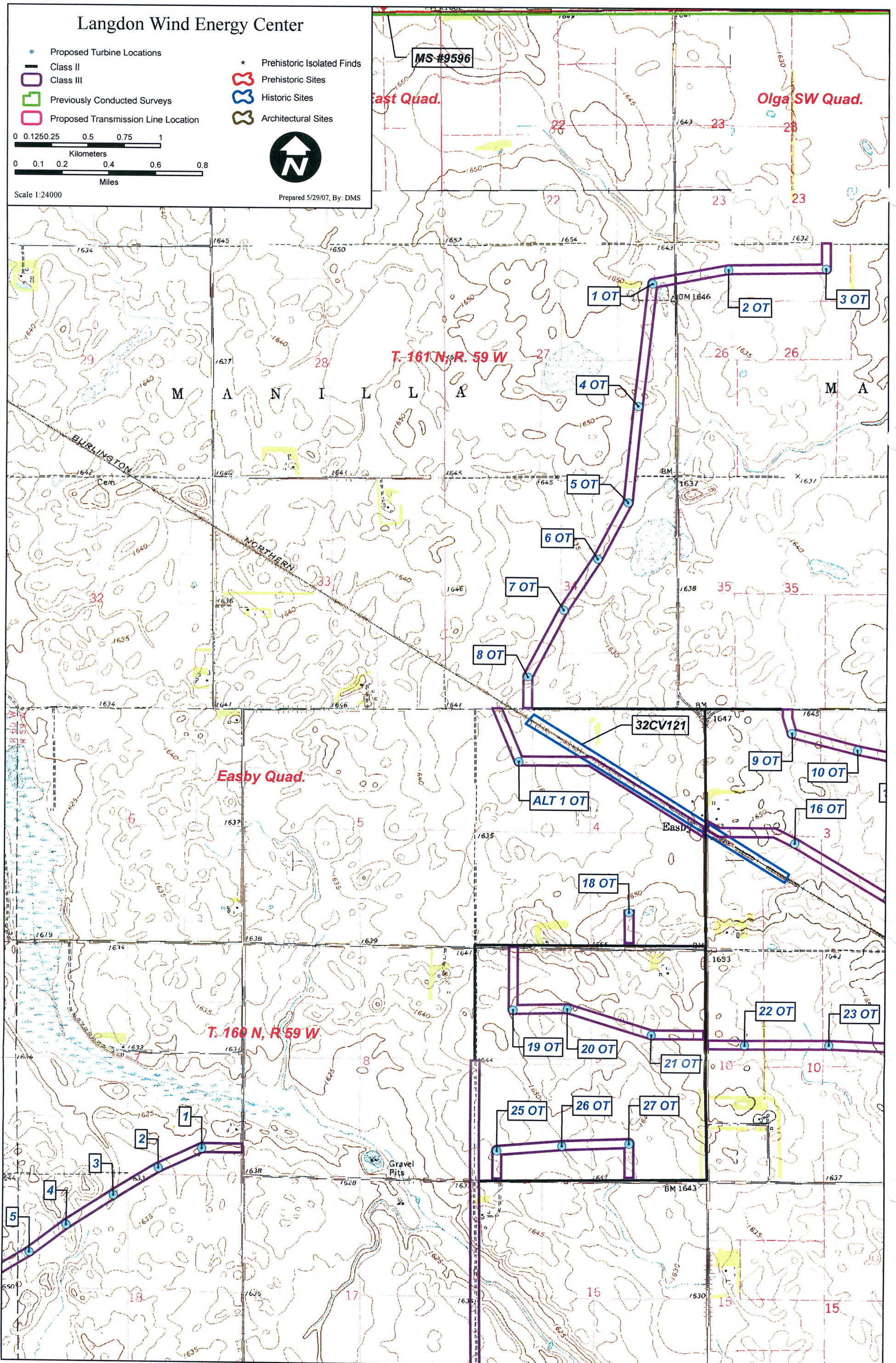


Figure 3: Proposed project area A-4.

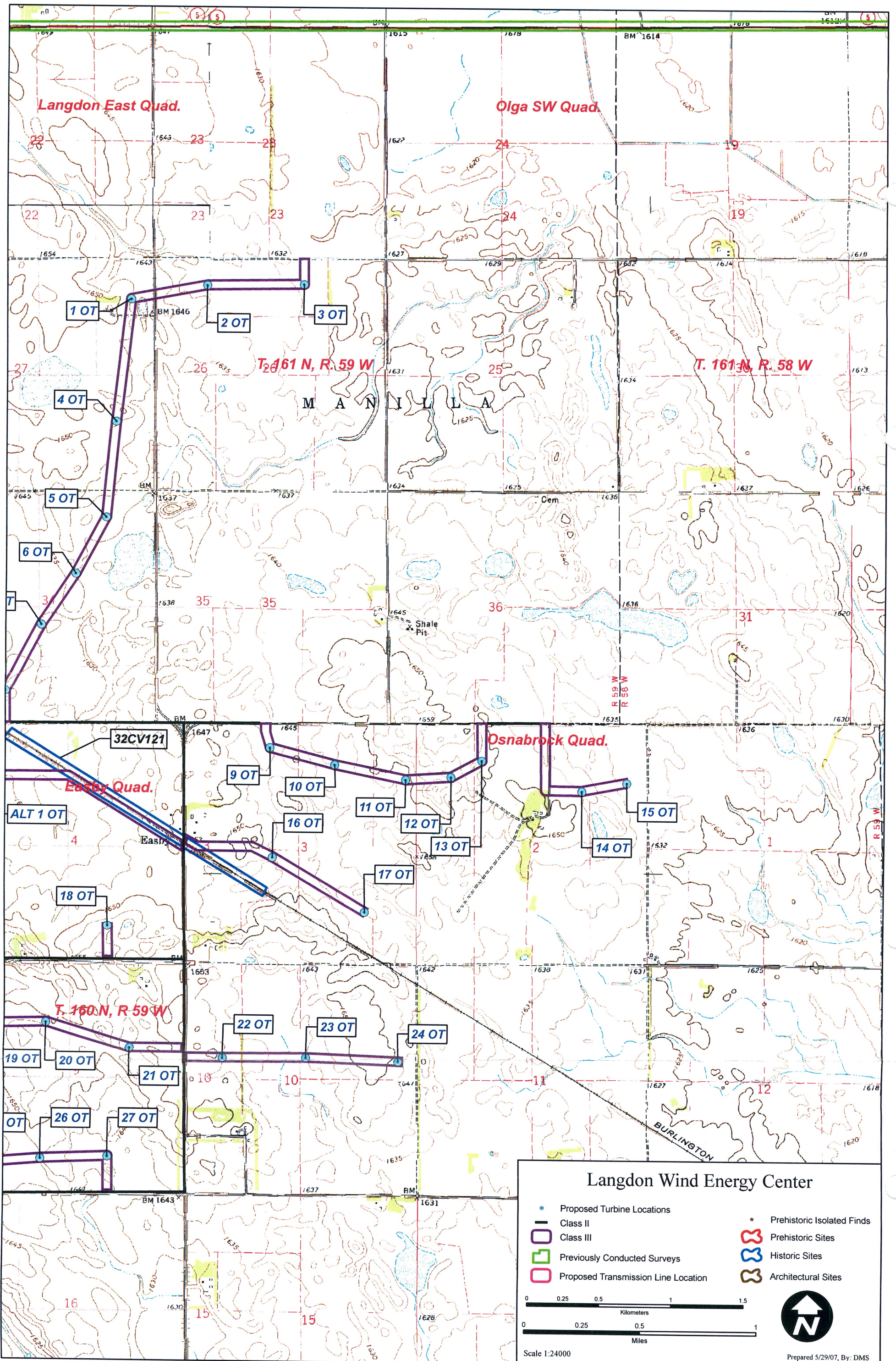


Figure 4: Proposed project area A-5.

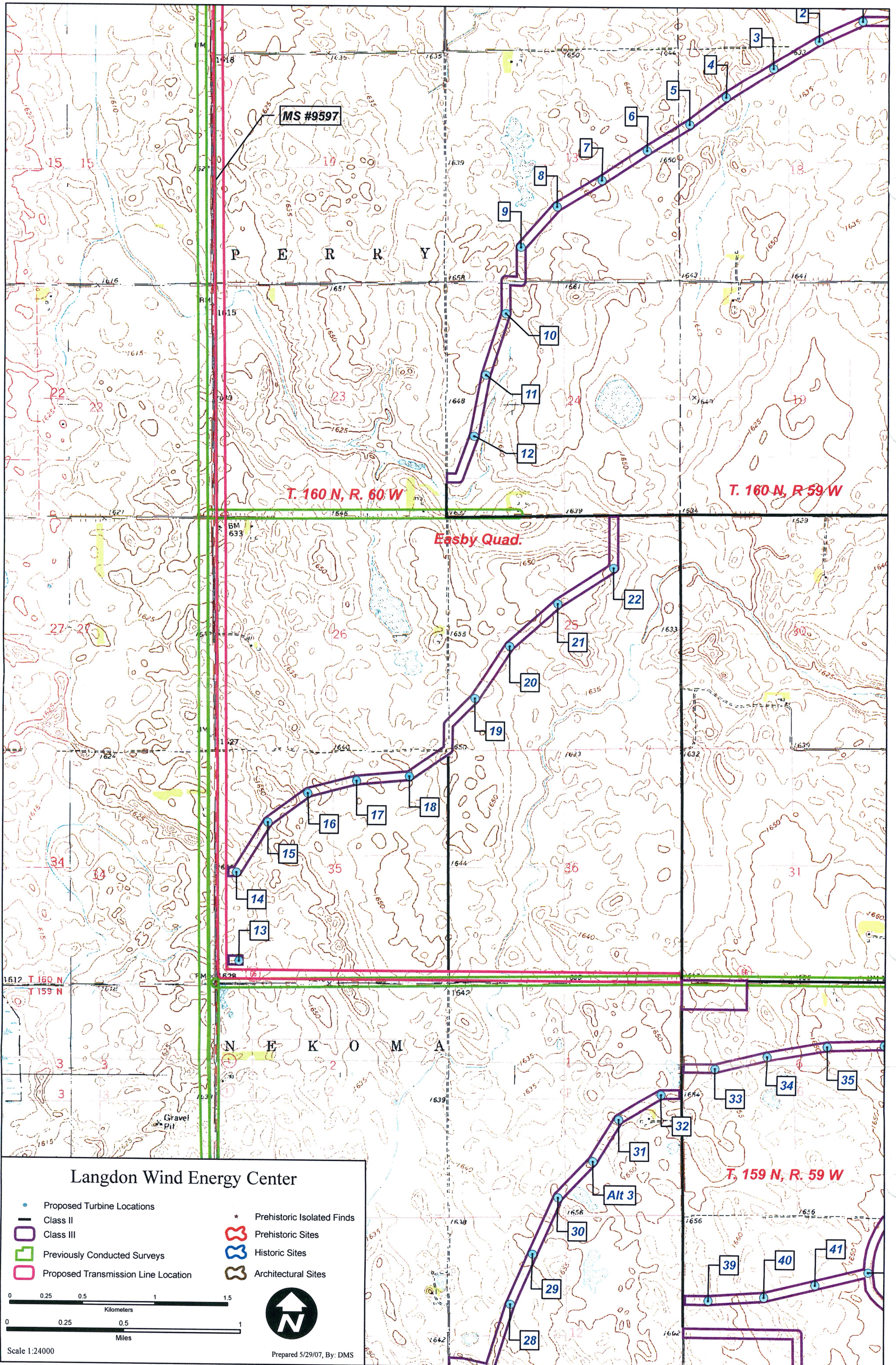


Figure 5: Proposed project area A-6.

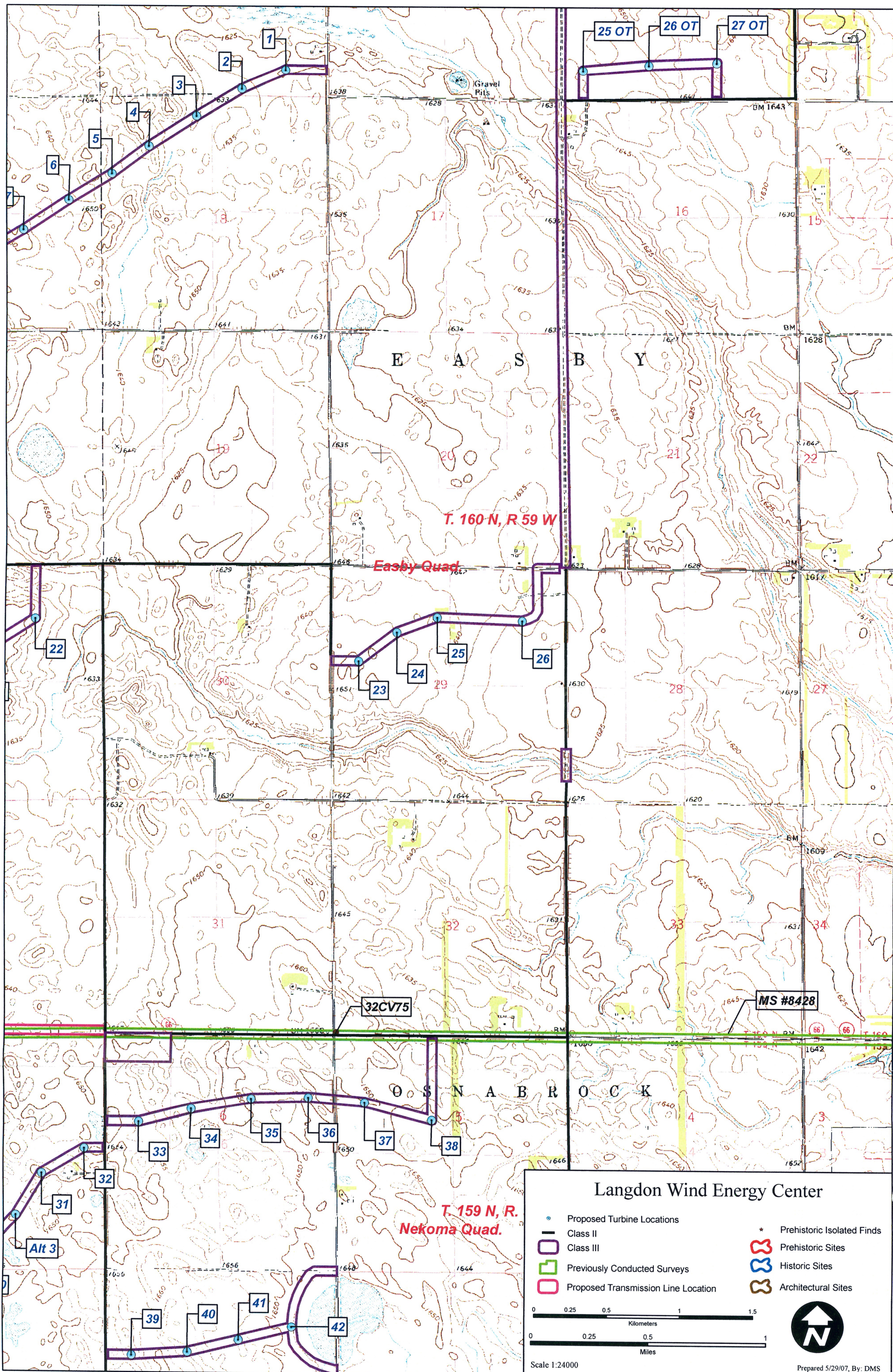


Figure 6: Proposed project area A-7.

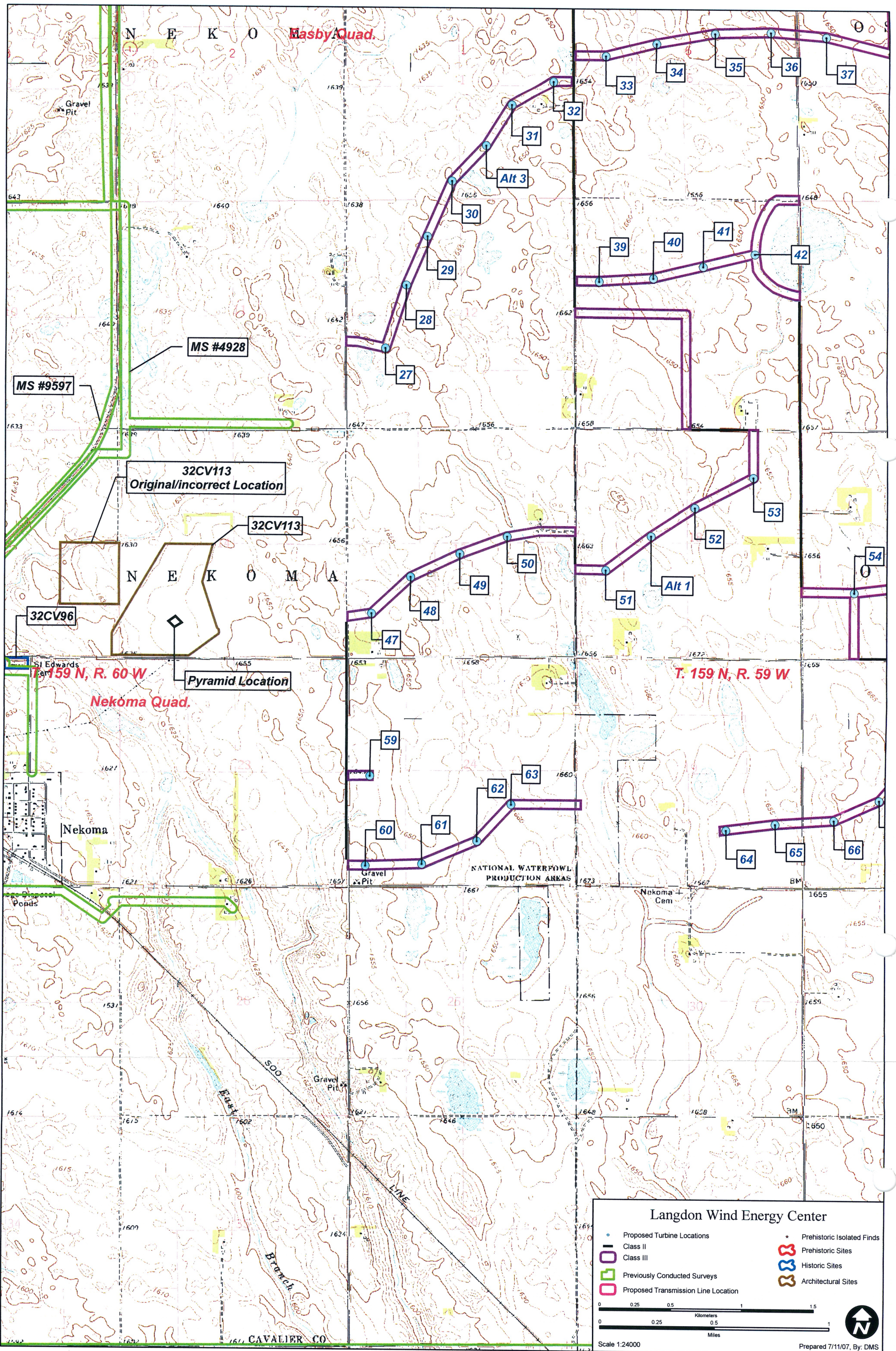


Figure 7: Proposed project area A-8.

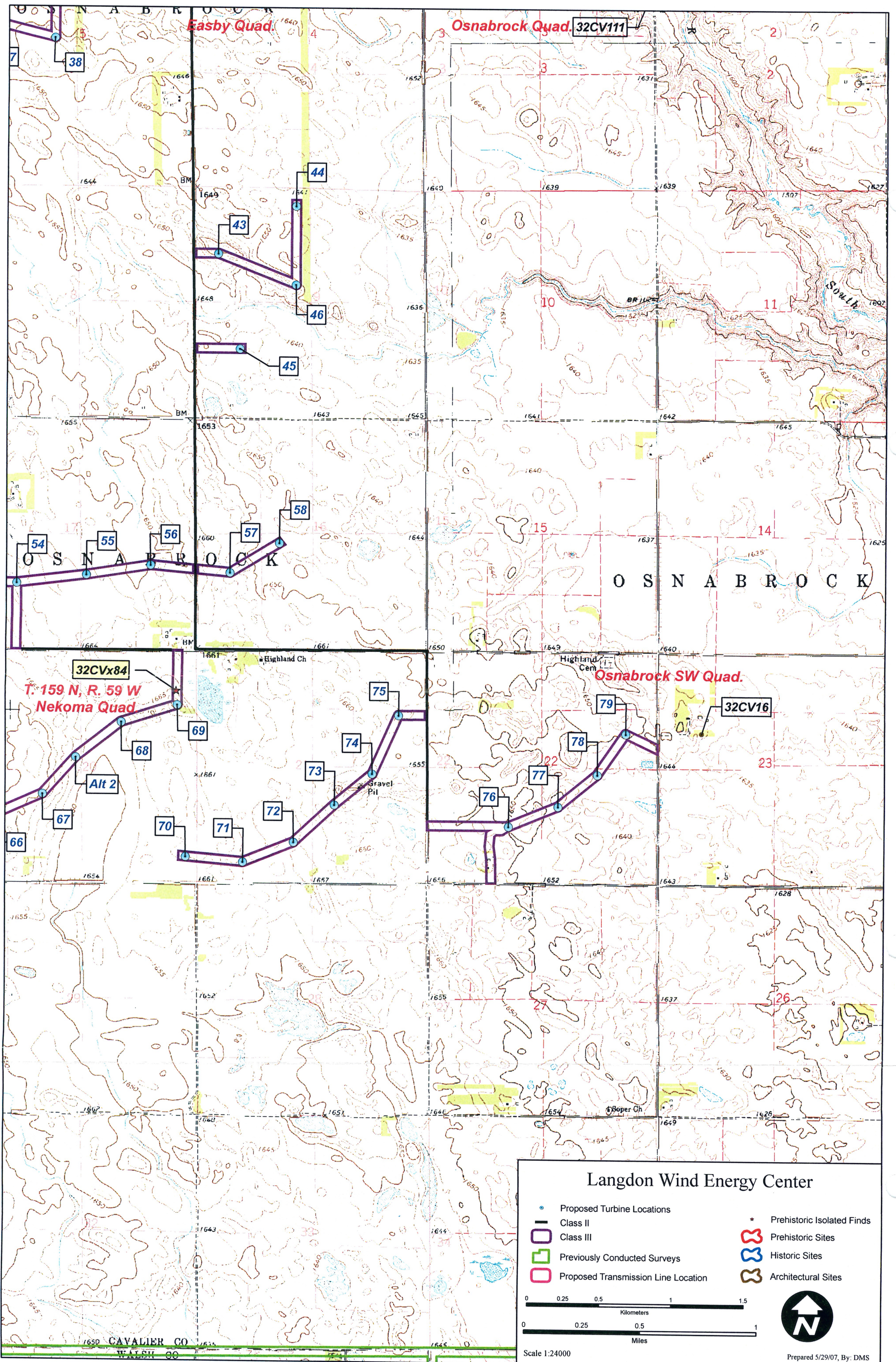


Figure 8: Proposed project area A-9.

Appendix B:
Project Area Photos



Figure 9: View to the west over 32CV121, railroad crossing (Img. 1).

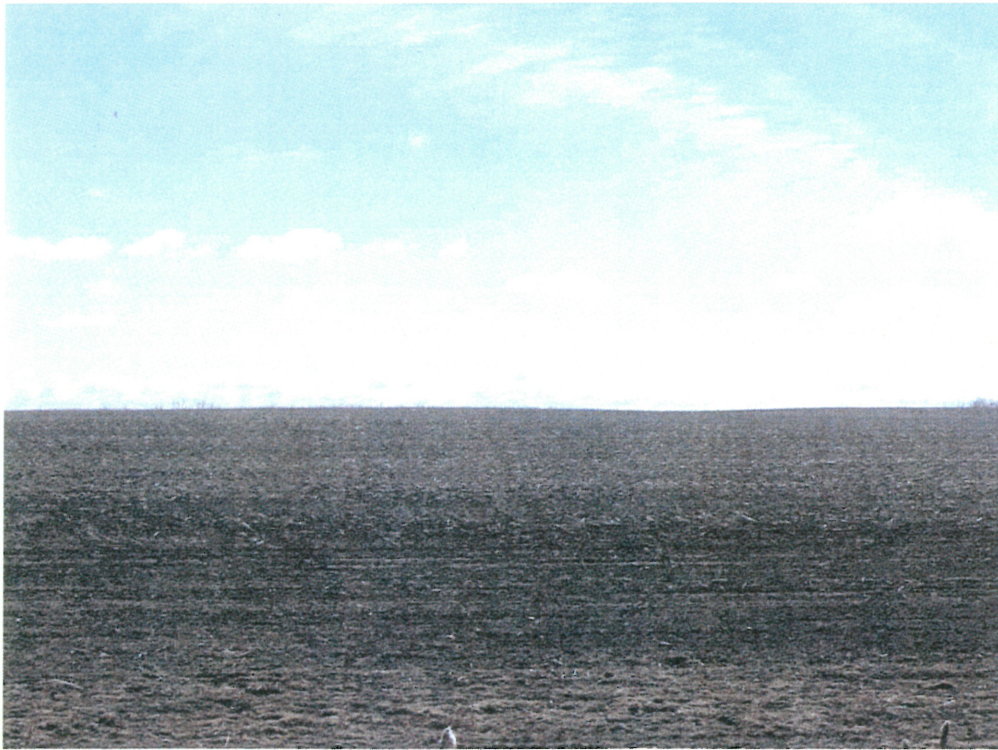


Figure 10: View to the east over typical project terrain (Img. 4).

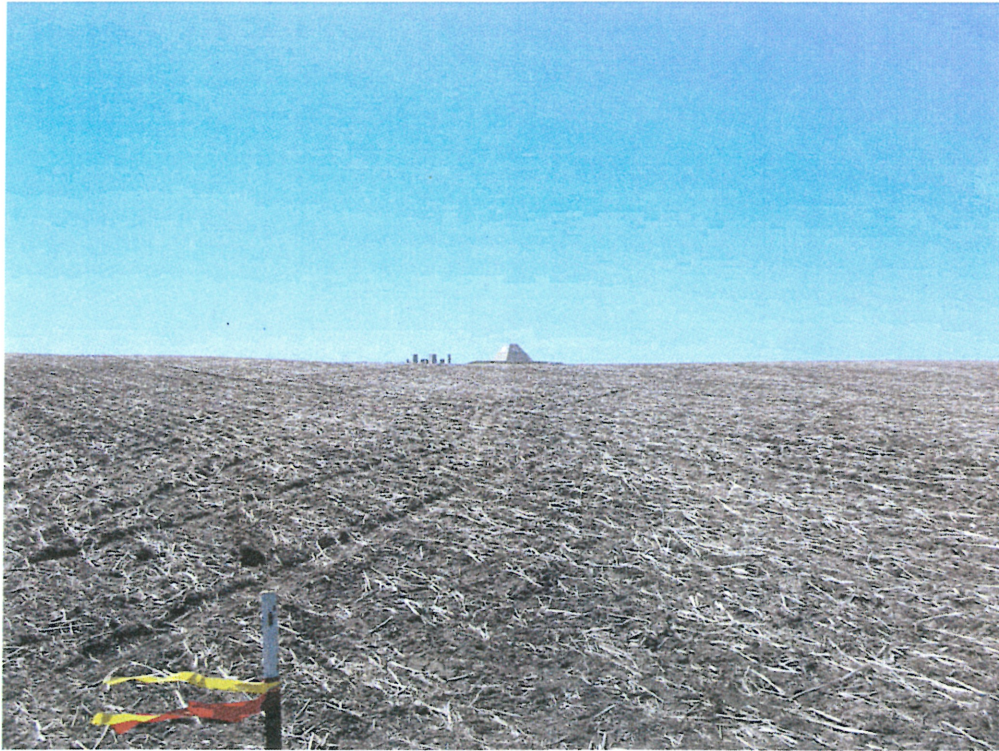


Figure 11: View to the west over turbine T47 location in relation to 32CV113 (Img. 10).



Figure 12: View to the southwest over 32CVx84 (Img. 18).

Appendix C:
Files Search Results

Cavalier County Windfarm Files Search					
T/R-Sec	SITS #	NRHP Status	Site Type & Description	Recorder, Date	MS #
Not Eligible=NE; Unevaluated Eligibility=U; Potentially Eligible=PE					
158/58-6	no sites				4928
158/59-1	no sites				4928
158/59-2	no sites				4928
158/59-3	32WAX148	U	Historical-Kinloss Post Office	REAP, 1978	4928
158/59-4	no sites				4928
158/59-5	no sites				4928
158/59-6	no sites				4928
158/60-1	no sites				4928
158/60-2	no sites				4928
159/58-6	no sites				4556, 8428
159-58-7	no sites/no surveys				
159/58-18	no sites/no surveys				
159/58-19	no sites/no surveys				
159/58-30	no sites/no surveys				
159/58-31	32CVx4	U	Historical-Gertrude Post Office	REAP, 1978	4928
159/59-1	32CV76	NE	Architectural-grain bin	Persinger, 1988	4556, 8428
	32CVx66	NE	Archaeological-projectile point	Persinger, 1988	
159/59-2	32CV111	NE	Architectural-bridge	Hufstetler et al, 2000	4556, 8428
159/59-3	32CV111	NE	Architectural-bridge	Hufstetler et al, 2000	8428
159/59-4	no sites				8428
159/59-5	no sites				4556, 8428
159/59-6	no sites				4556, 8428
159/59-7	no sites				4556, 4928

Cavalier County Windfarm Files Search

T/R-Sec	SITS #	NRHP Status	Site Type & Description	Recorder, Date	MS #
Not Eligible=NE; Unevaluated Eligibility=U; Potentially Eligible=PE					
159/59-8	no sites/no surveys				
159/59-9	no sites/no surveys				
159/59-10	no sites/no surveys				
159/59-11	no sites/no surveys				
159/59-12	no sites				8160
159/59-13	no sites/no surveys				
159/59-14	no sites/no surveys				
159/59-15	no sites/no surveys				
159/59-16	no sites/no surveys				
159/59-17	no sites/no surveys				
159/59-18	no sites/no surveys				
159/59-19	no sites/no surveys				
159/59-20	no sites/no surveys				
159/59-21	no sites/no surveys				
159/59-22	no sites/no surveys				
159/59-23	32CV16	NE	Architectural-Lutheran Church Steeple	Vyzralek, 1985	5945
	32CVx5	U	Architectural-Soper Post Office	REAP, 1978	
159/59-24	no sites/no surveys				
159/59-25	no sites/no surveys				
159/59-26	no sites/no surveys				
159/59-27	no sites/no surveys				
159/59-28	no sites/no surveys				
159/59-29	no sites/no surveys				
159/59-30	no sites/no surveys				
159/59-31	no sites/no surveys				
159/59-32	no sites/no surveys				

Cavalier County Windfarm Files Search					
T/R-Sec	SITS #	NRHP Status	Site Type & Description	Recorder, Date	MS #
Not Eligible=NE; Unevaluated Eligibility=U; Potentially Eligible=PE					
159/59-33	no sites/no surveys				
159/59-34	no sites/no surveys				
159/59-35	no sites/no surveys				
159/59-36	no sites/no surveys				
159/60-1	no sites				8428
159/60-2	no sites				4928, 8428, 9597
159/60-3	no sites				4928, 9597
159/60-10	no sites				4928, 9597
159/60-11	no sites				4928, 9597
159/60-12	no sites/no surveys				
159/60-13	no sites/no surveys				
159/60-14	32CVx6	U	Historical-Polar Post Office	Benson, 1980	4928
159/60-15	32CV113	PE	Architectural-Army Safeguard Complex	Schleisman, 2002	4928, 9597
159/60-23	no sites/no surveys				
159/60-24	no sites/no surveys				
159/60-25	no sites/no surveys				
159/60-26	no sites				4928
159/60-35	no sites/no surveys				
159/60-36	no sites/no surveys				
160/58-6	no sites				4556
160/58-7	no sites/no surveys				
160/58-18	no sites/no surveys				
160/58-19	no sites				4556

Cavalier County Windfarm Files Search					
T/R-Sec	SITS #	NRHP Status	Site Type & Description	Recorder, Date	MS #
Not Eligible=NE; Unevaluated Eligibility=U; Potentially Eligible=PE					
160/58-30	no sites/no surveys				
160/58-31	no sites				8428
160/59-1	no sites/no surveys				
160/59-2	no sites/no surveys				
160/59-3	32CVx15	U	Historical-Easby Post Office, cultural material scatter, depression, and foundation	Benson, 1980	4556
160/59-4	32CVx15	U	Historical-Easby Prost Office, cultural material scatter, depression, and foundation	Benson, 1980	
160/59-5	no sites/no surveys				
160/59-6	no sites/no surveys				
160/59-7	no sites				4556
160/59-8	no sites				4556
160/59-9	no sites				4556
160/59-10	no sites				4556
160/59-11	no sites				4556
160/59-12	no sites/no surveys				
160/59-13	no sites/no surveys				
160/59-14	no sites/no surveys				
160/59-15	no sites				4556
160/59-16	no sites/no surveys				
160/59-17	no sites/no surveys				
160/59-18	no sites/no surveys				
160/59-19	no sites/no surveys				
160/59-20	no sites				4556
160/59-21	no sites/no surveys				
160/59-22	no sites				4556
160/59-23	no sites				4556

Cavalier County Windfarm Files Search					
T/R-Sec	SITS #	NRHP Status	Site Type & Description	Recorder, Date	MS #
Not Eligible=NE; Unevaluated Eligibility=U; Potentially Eligible=PE					
160/59-24	no sites				4556
160/59-25	no sites/no surveys				
160/59-26	no sites/no surveys				
160/59-27	no sites				4556
160/59-28	no sites				4556
160/59-29	no sites				4556
160/59-30	no sites/no surveys				
160/59-31	no sites				8428
160/59-32	32CV75	NE	Architectural-building	Persinger, 1988	4556, 8428
160/59-33	no sites				4556, 8428
160/59-34	no sites				8428
160/59-35	no sites				8428
160/59-36	no sites				8428
160/60-1	no sites				4556
160/60-2	no sites				4556, 4928, 9597
160/60-3	no sites				4556, 4928, 9597
160/60-4	no sites				4556
160/60-9	no sites/no surveys				
160/60-10	no sites/no surveys				
160/60-11	no sites/no surveys				
160/60-12	32CV74	NE	Architectural-granary	Persinger, 1988	
160/60-13	no sites/no surveys				
160/60-14	no sites/no surveys				

Cavalier County Windfarm Files Search					
T/R-Sec	SITS #	NRHP Status	Site Type & Description	Recorder, Date	MS #
Not Eligible=NE; Unevaluated Eligibility=U; Potentially Eligible=PE					
160/60-15	no sites/no surveys				
160/60-16	no sites/no surveys				
160/60-21	no sites/no surveys				
160/60-22	no sites				4928, 9597
160/60-23	no sites				4928, 9597
160/60-24	no sites				4928
160/60-25	no sites/no surveys				
160/60-26	no sites				4928, 9597
160/60-27	no sites				4928, 9597
160/60-28	no sites/no surveys				
160/60-34	no sites				4928, 9597
160/60-35	no sites				8428, 9597
160/60-36	no sites				8428
161/58-29	no sites/no surveys				
161/58-30	no sites/no surveys				
161/58-31	no sites/no surveys				
161/58-32	no sites/no surveys				
161/59-19	no sites				4556, 9596
161/59-20	no sites				9596
161/59-21	no sites				9596
161/59-22	no sites				9596
161/59-23	no sites				9596

Cavalier County Windfarm Files Search					
T/R-Sec	SITS #	NRHP Status	Site Type & Description	Recorder, Date	MS #
Not Eligible=NE; Unevaluated Eligibility=U; Potentially Eligible=PE					
161/59-24	no sites				9596
161/59-25	no sites/no surveys				
161/59-26	no sites/no surveys				
161/59-27	no sites/no surveys				
161/59-28	no sites/no surveys				
161/59-29	no sites				4556
161/59-30	no sites				4556
161/59-31	no sites/no surveys				
161/59-32	no sites/no surveys				
161/59-33	no sites/no surveys				
161/59-34	no sites/no surveys				
161/59-35	no sites/no surveys				
161/59-36	no sites/no surveys				
161/60-22	no sites				4556, 6449, 9596
161/60-23	32CV105	NE	Architectural-culvert	Hafermehl, 2005	4283, 4928, 5945, 9596, 9597
	32CV57-32CV58, 32CV62, 32CV85, Unevaluated-Architectural-Langdon Urban Surveys				
	32CV121	U	Historical-railroad crossing, metal, wood, masonry	Bleier, 2005	
	32CV402-32CV433, 32CV438-32CV439, 32CV441, 32CV443, 32CV450, 32CV452-32CV454, 32CV456, 32CV459, 32CV487, 32CV489-32CV498, 32CV502-32CV547, 32CV558-32CV579, 32CV602-32CV619, 32CV632-32CV645, 32CV660-32CV661, 32CV692 U Architectural-Langdon Urban Surveys				
161/60-24	32CV105	NE	Architectural-culvert	Hafermehl, 2005	4928, 9596, 9597
	32CV85	U	Architectural-Langdon Urban Survey		
	32CV121	U	Historical-railroad crossing, metal, wood, masonry	Bleier, 2005	

Cavalier County Windfarm Files Search					
T/R-Sec	SITS #	NRHP Status	Site Type & Description	Recorder, Date	MS #
Not Eligible=NE; Unevaluated Eligibility=U; Potentially Eligible=PE					
	32CV124	U	Historical- Lebanon Cemetery, graves, wood, masonry, metal	Klinner, 2005	
	32CV434, 32CV485-32CV486,32CV695, Unevaluated-Architectural-Langdon Urban Survey				
161/60-25	no sites				4928, 9597
161/60-26	no sites				4928, 9597
161/60-27	no sites/no surveys				
161/60-34	no sites/no surveys				
161/60-35	no sites/no surveys				4928, 9597
161/60-36	no sites/no surveys				4928, 9597

Manuscript List	
MS #	Reference
4283	Granger, S. and S. Kelly 1987 Final Report of the Langdon Inventory Project North Dakota Cultural Resources Survey 1986-1987, Cavalier County, North Dakota
4556	Schweigert, K., et al. 1988 A Cultural Resource Survey of a Proposed Rural Water System in Cavalier, Walsh and Pembina Counties, North Dakota
4928	Schweigert, K. and R. Persinger 1990 Langdon Rural Water Users Phase II Cultural Resource Inventory Cavalier, Pembina, Ramsey & Walsh Counties North Dakota - Final Report Volumes II & III - Also Phase II, Parts 1 & 2
5945	Vyzralek, F. 1985 Report of an Architectural and Photographic Survey of Churches in Cavalier, Dickey, Cass, Trail, Grand Forks, Nelson, Ramsey, Walsh, and Pembina, Counties in Nine Eastern North Dakota Counties
6449	Borchert, J. 1995 North Dakota Department of Transportation Safety Project Cultural Resource Review 1992-1994
8160	Kinney, W. 2002 A Class III Cultural Resource Inventory of a Cavalier County Bridge Project. NDDOT Project No. BRO-10(013) and Addendum
8428	Nienow, J. and K. Breakey 2002 Class III Cultural Resources Inventory Between Highway 1 and Milton (SS-3-066(016)078) on Both Sides of Highway 66, Cavalier County, North Dakota
9596	Klinner, D. 2006 Highway 5 Improvements, NH-3-005(0030278 (PCN16345): A Class III Cultural Resource Inventory, Cavalier County, North Dakota
9597	Bleier, A. and L. Hafermehl 2006 Highway 1 from Nekoma to Langdon: A Class III Cultural Resource Inventory in Cavalier County, North Dakota