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   There are 239 legal sections within the project area. Please see Appendix A for a complete listing and table with associated Study Unit.

County	TWP	R	SEC	SU

Class I Literature Review of the Dakota Carrier Network Telecommunications Project:
An Overview of Known Cultural Resources and Potential for Discovery of Undocumented Cultural Resources

Prepared For:
Dakota Carrier Network
Bismarck, ND

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Report of Investigation: 1074

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ABSTRACT

Kadrmas, Lee & Jackson has conducted a Class I Literature Review of the site and manuscript files at the North Dakota State Historical Society for the proposed Dakota Carrier Network Telecommunications project. The purpose of this report is to provide an overview of the project area in terms of natural resources and previous research, including archeological, historical, and architectural sites recorded and inventories conducted. The study is meant to aid in final design and placement of transmission lines and to establish the amount of on-the-ground cultural resource inventory that will be needed for specific portions of those routes.

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INTRODUCTION

Dakota Carrier Network is applying for funding for three telecommunication exchanges as part of the Broadband ARRA program. Kadrmas, Lee & Jackson (KL&J) has been asked to provide environmental data required by Rural Utilities Service (RUS) as part of Attachment 9 of the application process. To meet the cultural resource requirements of Attachment 9, KL&J has prepared a Class I Literature Review of the site and manuscript files at the State Historical Society of North Dakota (SHSND) for within the project area. The 239 legal sections are located within Burke, Burleigh, Bottineau, Cavalier, Golden Valley, Grand Forks, Kidder, Logan, McIntosh, McKenzie, McLean, Mountrail, Nelson, Pembina, Richland, Rolette, Stutsman, Trail, Walsh, Ward, Wells, and Williams Counties, North Dakota. For a complete list of the sections included in the literature review, please see Appendix A.

The purpose of this report is to provide an overview of the project area in terms of natural resources and previous research, including archeological, historic, and architectural sites recorded as well as previous inventories conducted. A second purpose to this study is the provide preliminary project design and description information to the applicable state (North Dakota State Historic Preservation Office [SHPO]) and federal agencies (RUS) in an effort to aid in securing funding through the Broadband ARRA program for the project presented in this document. The project is comprised of a total of 33 project areas in 22 counties. Table 1 outlines the project areas, their associated counties, and the archaeological study units as defined by the North Dakota State Historical Society (2008).

Table 1: Counties by Project Area and Archaeological Study Unit

Project Area	County	Study Unit
Sentinel Butte	Golden Valley	Little Missouri River
Columbus Tower	Burke	Souris River
Williston	Williams	Garrison
Indian Service Area	Williams	Garrison
Ryder	Ward	Garrison
Arnegard	McKenzie	Garrison
Moffit/Federal Park	Burleigh	Southern Missouri River
Beaver Lake State Park	Logan	Southern Missouri River
Wishek Tower	McIntosh	Southern Missouri River
Tappen	Kidder	Southern Missouri River
Blaisdell Tower	Mountrail	Garrison
Tioga Tower	Williams	Garrison

Table 1: Counties by Project Area and Archaeological Study Unit		
Project Area	**County**	**Study Unit**
Bottineau Tower	Bottineau	Souris River
Lake Metigoshe State Park	Bottineau	Souris River
Belcourt Tower	Rolette	Souris River
Minot Tower	Ward	Souris River
Dogden Butte	McLean	Souris River
Hillsboro	Traill	Northern Red River
Cleveland Tower	Stutsman	James River
Woodworth	Stutsman	James River
Arrowwood	Stutsman	James River
Manvel	Grand Forks	Northern Red River
Grafton	Walsh	Northern Red River
Carrington Towers	Wells	James River
Robinson	Kidder	Southern Missouri River
Fordville	Walsh	Northern Red River
Osnabrock	Cavalier	Northern Red River
Mountain	Pembina	Northern Red River
Milton	Cavalier	Northern Red River
Petersburg Tower	Nelson	Northern Red River
Icelandic State Park	Pembina	Northern Red River
Wahpeton Tower	Richland	Southern Red River
Wahpeton High School	Richland	Southern Red River

An obvious additional benefit of the study is that it can aid in the final design and placement of telecommunication cables, fencing, and associated structures so as to avoid impacting significant cultural resources when possible, and to establish the amount of on-the-ground cultural resource inventory that will be needed for specific portions of those routes.

Areas within the proposed project areas will be stratified into three levels of probability/potential for encountering cultural resources. Based on this study, the anticipated level of effort for cultural resource inventories will reflect the probability/potential for encountering cultural resources. Determination of the probability criteria and the appropriate levels of inventory should be accomplished in

consultation with the North Dakota State Historic Preservation Office, drawn from data provided by KL&J contained in this report, and on the provided maps.

ENVIRONMENTAL SETTING

The project area is located in the Garrison (GASU), James River (JASU), Little Missouri River (LMSU), Northern Red River (NRSU), Souris River (SOSU), and Southern Red River (SRSU) Study Units as described in the *North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component* (SHSND 2008) (Appendix A). The SHSND (2008) document provides a generalized overview of the physiography and previous research of the study unit. The following provides a more specific discussion of the project area within each study unit.

Topography

The project area lies primarily within the Glaciated Plains physiographic region of North Dakota. Portions of the project area are also located within the Red River valley and Drift Prairie physiographic zones. The Glaciated Plains physiographic region is comprised of gently rolling hills with occasional steep relief along watercourses. The Drift Prairie physiographic zone is also characterized by gently rolling hills, but also hosts a series of low ridges and knob and kettle topography. The Red River valley is characterized by a flat plain with little to no relief. Some areas of downcutting have occurred along Holocene drainages, but elevation generally does not vary more than a few meters throughout the study area (SHSND 2008:10.1). Soils throughout the three study areas tend to be loamy with high silt and clay content (SHSND 2008: 9.7). The soils in some areas, particularly the glacial plains, tend to contain heavy gravels.

Flora

The botanical species present within the project area today do not reflect those of the past. The study area is located within the North American Grassland Biome. In the past, this biome would have consisted primarily of tall and mixed grass prairie and would have included slender wheatgrass and needle grass. Gallery forests existed along floodplains of large drainage basins such as the Red River, and would have included American elm, green ask, burr oak and basswood. Wetland vegetation would have been common along streams and prairie kettles.

While the vegetation across the project area is not uniform, agriculture, the introduction of non-native species, and modern development have all played a role in altering the present landscape as well as the associated botanical communities, bringing with them a striking vegetative similarity in each of the study areas. The exiting flora of most of the project area consists primarily of introduced species within agricultural fields and road ditches. Existing woody draws within the project area host communities of elm, chokecherry, saskatoonberries, gooseberries, green ash, cottonwood, and bur oak.

Fauna

As with extant flora within the project area, the types and distributions of faunal species have also been altered over time due to human interaction. In the past, the project area was that of a typical prairie setting. Large herds of bison roamed the grasslands, presenting ample predation opportunities for prehistoric populations. Trapping, pounding, and opportunistic hunting of bison would have been common practices within the project area. In addition to bison, elk, pronghorn, and deer would have been commonly encountered. Stream valleys also hosted populations of beaver and raccoon, as well as other fur bearing animals such as wolves, coyotes, jack rabbits, badgers, weasels, beavers, ground squirrels and prairie dogs. Raptors, songbirds, and game birds would have found abundant habitats suitable for food, water, and shelter.

The intermittent drainages and other more substantial watercourses in the general area would have contained various species of fish (northern pike, perch, and suckers), as well as different types of waterfowl (ducks, geese, etc.,), and amphibians, and reptiles (SHSND 2008). These waterways would also have served as major sources of water for the area, concentrating the faunal resources and creating the prospect for opportunistic hunting.

Lithic Resources

The entire project area contains diverse lithic resources in streambeds and lag deposits. Tongue River silicified sediment (TRSS), Swan River chert (SRC), pebble cherts, quartzites, and silicified wood are the most common knappable lithic resources available within the project area and can be found in glacial and stream deposits. Cobbles of granite were also utilized for construction, ground stone tools, and heat transfer.

RESEARCH GOALS FOR CLASS I LITERATURE REVIEW

The purpose of this document is to facilitate the planning for the Dakota Carrier Network stimulus funding application. Further, the document will provide data on which the SHPO may comment regarding future work required for Section 106 compliance. The compiled data will be used to avoid cultural resources and choose project routes least likely to cross areas of high potential for cultural resources during the planning phase of these projects. Another goal of this study is to identify areas which may require a Class II Cultural Resource Inventory, Class III Cultural Resource Inventory, and those areas which will require no further cultural resource work.

METHODS FOR CLASS I LITERATURE REVIEW

On March 5 through March 10, 2010, KL&J archaeologist Michael Shropshire conducted a Class I Literature Review for the project areas of the site records and manuscript files of the State Historical Society of North Dakota. The file search centered on the North Dakota Cultural Resources Survey master site data files and manuscript files for previous investigations in the vicinity of the proposed undertakings. The locations of known historical sites, archaeological sites, site leads, and isolated finds were plotted on USGS 1:24,000 scale (7.5') quadrangle maps and compiled in a

geodatabase using ESRI ArcMap software. The following table outlines the previously recorded sites by site type. For a complete listing of previously recorded cultural resources, please see Appendix B.

The locations of cultural resource inventories conducted since 1988 were also plotted on these maps, unless locational information was unavailable or unusable. Generally, cultural resource investigations are valid for a time span of 20 years. Work conducted more than 20 years ago is considered to be expired, and future construction or ground disturbance in those areas need to be preceded by a Class III inventory. Over time, standards also change and work conducted prior to 20 years ago may not meet current standards. Some of the investigations conducted since 1988 contained maps that were not detailed enough or were copied inadequately and their locations could not be confidently transferred to the standard 1:24,000 scale maps. The latter investigations were not included on the project maps.

In addition to previous cultural resource investigations that have included areas encompassing or adjacent to the present project areas, large block surveys and Class I investigations dealing with nearby and comparable areas were also consulted. The latter studies were used to aid in evaluating the levels of site potential/probability, particularly in areas where few previous investigations have been conducted.

RESULTS OF THE LITERATURE REVIEW

A total of 472 previously recorded cultural resources were recorded during the Class I Literature Review (Table 2). Of these cultural resources, 16 are isolated finds, 30 are archaeological (precontact); 10 are historic; two are multicomponent with both archaeological and historic cultural material; two have historic and architectural components, and 428 are architectural. The architectural sites are primarily located within urban settings.

Table 2: Previously Recorded Sites and Site Leads by Type

Site Type	Count
Isolated Find	18
Archaeological	28
Historic	10
Historic/Archaeological	2
Historic/Architectural	2
Architectural	428
Total Sites	488

EVALUATION OF RESEARCH

The data gathered for this project has a fundamental bias toward the areas of the greatest development, (i.e., along roadways and housing/utility developments). Even

the previously conducted cultural resource inventories vary greatly in scope ranging from small borrow areas and gravel pit inventories to large scale linear and block surveys.

The methods and accuracy of cultural resources recorded prior to 1980 vary in quality of the work done. This is especially true in regards to site locational data. Some of the cultural resources (data) associated with this study are either unmapped or too poorly mapped to be used. This is due to numerous factors including: non-standard maps used to plot resources; inconsistent, vague, or contradictory data for the legal locations; and written descriptions of resource locations based on local landmarks that may or may not still exist (no map). The types of cultural resources recorded have also changed over time. In the past, small lithic scatters and similar types of sites were ignored or only minimally recorded because they were not scientifically understood as they are today. These sites used to be considered not worth recording or the recording efforts focused only on portions of the overall artifact assemblage (i.e., noting only diagnostic artifacts and stone tools while discarding debitage).

ELIGIBILITY OF CULTURAL RESOURCES

Rather than go through a site by site discussion of each of the cultural resources discovered during the files search, a generalized discussion of eligibility is presented. For all cultural resources to be eligible for the National Register, the resource must retain one or more essential aspects of physical and spatial integrity and meet one or more of the criteria for eligibility (36 CFR§ 60.4).

Eligibility for prehistoric archaeological resources is typically recommended under Criterion D, the sites potential to provide information about the past on the basis of information from surface artifacts and features and intact subsurface cultural deposits. The integrity and eligibility of most prehistoric sites can only be determined after conducting subsurface investigations, or evaluative testing.

Prehistoric sites that have been recommended as eligible have met the requirements for inclusion to the NRHP under Criterion D. Prehistoric sites that are unevaluated for inclusion to the NRHP require the development and implementation of a specific evaluative testing plan (approved by the lead agency and the NDSHPO) prior to the evaluation of the resource. Prehistoric sites that have been recommended as not eligible for the NRHP failed to meet the requirements for inclusion under Criterion D.

Site leads are possible locations of prehistoric sites. As noted in the METHODS and EVALUATION OF RESEARCH sections of the document, sites recorded prior to 1980 were inconsistently recorded. For prehistoric site leads, the location and whether the site lead is an isolated find or a site should be reestablished. The above discussion on prehistoric site eligibility can then be applied to the site lead; otherwise the resource is characterized as an isolated find. Most isolated finds are considered to be not eligible for inclusion to the NRHP based on their definition.

Historic resources are slightly more complex in that there are two main types of historic sites, those with and those without structures. For historic resources without structures, eligibility is usually recommended under criteria A or B and only rarely D. These pertain to a site's relationship to historically significant events (A) or persons (B) in a state, regional, or national context. In these cases, subsurface testing in conjunction with archival research is required to determine the site's eligibility for inclusion to the NRHP. For sites with standing or partially collapsed structures, eligibility can also be recommended under Criterion C, when the design/construction of the site is of architectural importance. Historic sites with standing structures usually do not require subsurface testing, but do require archival research and the evaluation of the structure by an architectural historian.

The historic sites within the proposed project area which have been recommended as eligible for the NRHP have met one or several of the criteria (A-C) above. Sites that have not been recommended as eligible for the NRHP may not have sufficient data for recommendation, or may fail to meet the requirements of the criteria A-C. Depending upon the type of historic resource, the investigations needed to determine the eligibility can consist of subsurface testing, archival research, an evaluation by an architectural historian, or a combination thereof. Similar to prehistoric resources, the development and implementation of a specific plan (approved by the lead agency and the NDSHPO) may be required prior to the evaluation of the resource.

Historic site leads are possible locations of historic sites. As noted in the Methods and Evaluation of Research sections of this document, sites recorded prior to 1980 were inconsistently recorded. For historic site leads the location and whether the site lead is an isolated find or a site needs to be reestablished. The above discussion on historic site eligibility can then be applied to the site leads; otherwise the resource is characterized as an isolated find. Most isolated finds are considered to be not eligible for inclusion to the NRHP based on their definition.

Table 3: Previously Recorded Sites and Site Leads by NRHP Status

Site Type	NRHP Status			
	Unknown	Not Eligible	Eligible	Totals
Isolated Find		18		18
Archaeological	26	2		28
Historic	6	4		10
Historic/Archaeological	1	1		2
Historic/Architectural	1	1		2
Architectural	371	49	8	428
Totals	407	57	8	488

SUMMARY AND RECOMMENDATIONS

A literature review of the 32 project areas across 22 counties in North Dakota was completed by KL&J. A total of 235 legal sections were reviewed and the data in each collected and compiled. Because of the number and diversity of cultural resources

recorded in these sections, the findings are not included in this document, but are available at KL&J. Based on the assembled results gathered from the files search, and the environmental setting of the proposed project area, two levels of cultural resource inventory effort have been recommended.

Sections of the project that lie within areas that were inventoried after 1995 should be considered previously inventoried, with no further work required. Sections of the project that were inventoried prior to 1998 or not at all will require further work. The maximum level of effort required for these areas is based on physical location and environmental setting.

Low:

KL&J recommends that areas characterized by heavily disturbed sediments (i.e., road ditches), away from water, with poor preservation environments, and where historically few cultural resources have been recorded, be considered low probability settings. Urban settings are generally thought to be in low probability settings as well. Previous work within the study areas suggests that approximately 60% of the routes selected for the exchanges will be in low probability areas.

Medium:

KL&J recommends that areas characterized by undisturbed sediments, moderate distances from seasonal water sources, with low to moderate types of preservation environments, but where some cultural resources have been previously recorded, be considered moderate probability settings (i.e., hilltops and ridges more than 1,000 meters from seasonal named and unnamed water courses). Previous work within the study areas suggests that approximately 20% of the routes selected for the exchanges will be in medium probability areas.

High:

KL&J recommends that areas characterized by undisturbed settings, away from but with good access to water, with high preservation environments, and where many cultural resources have been previously recorded, be considered high probability settings (i.e., ridges, hills, and plains overlooking major (named) watercourses). Previous work within the study area suggests that approximately 20% of the routes selected for the exchanges will be in high probability areas.

Based on this data, the anticipated level of effort for cultural resource inventories should reflect the probability/potential for encountering cultural resources. For low and medium probability areas, the level of effort should be a Class II Cultural Resource Inventory. For high probability areas, a Class III Cultural Resource Inventory should be conducted. In areas where previous inventories are less than ten years old and cover the proposed route, no further work should be conducted other than to avoid previously recorded sites dependent upon their National Register status.

The location of the low, medium, and high probability areas, the adequacy of previous inventories, and the level of inventory effort (no further work, Class II, or Class III inventories) should be determined in consultation with the NDSHPO based upon the data provided by KL&J. If the time between this file search and the finalization of any or all of the project areas exceed 18 months, the file search should be updated for that exchange.

REFERENCES

Bluemle, J. P.,
2000 *The Face of North Dakota*, Third Edition. North Dakota Geological Survey, Bismarck. Educational Series 26, 206 p.

State Historical Society of North Dakota (SHSND).
1990 *The North Dakota Comprehensive Plan for Historic Preservation: Archeological Component*. North Dakota State Heritage Center. Bismarck, North Dakota.

United States Department of the Interior National Park Service
1990 *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation*. National Park Service, Washington DC.

APPENDIX A

Project Area Legal Locations				
Study Unit	**County**	**Section**	**Township**	**Range**
SO	Richland	6, 7	132 N	47 W
SO	Richland	1, 12	132 N	48 W
SM	McIntosh	18	132 N	72 W
SM	Logan	19-21, 28-30	134 N	71 W
SM	Logan	19-30	134 N	72 W
SM	Burleigh	8-17, 23, 24	137 N	76 W
SM	Kidder	8-10, 15-17	139 N	71 W
LM	Golden Valley	5, 6	139 N	104 W
JA	Stutsman	19, 20, 29-32	140 N	66 W
JA	Stutsman	14, 15, 22-27	140 N	67 W
LM	Golden Valley	19, 20, 29, 30, 31, 32	140 N	104 W
JA	Stutsman	1-5, 8-12, 16, 17, 20, 21	142 N	68 W
SM	Kidder	2, 3	142 N	72 W
JA	Stutsman	25-36	144 N	65 W
JA	Stutsman	25, 36	144 N	66 W
NR	Traill	5	145 N	50 W
JA	Wells	2-4, 9-11, 14, 15, 22, 23, 26, 27	145 N	68 W
NR	Traill	5-8, 17-20, 29, 32	146 N	50 W
JA	Wells	15, 16, 21, 22, 27, 28, 33, 34	146 N	68 W
SO	McLean	11, 12	150 N	79 W
GA	McKenzie	10, 11	151 N	100 W
NR	Grand Forks	7, 18	152 N	50 W
NR	Grand Forks	1-5, 8-12	152 N	51 W
NR	Nelson	3, 10	152 N	57 W
GA	Ward	28, 29, 32, 33	152 N	85 W
NR	Grand Forks	15, 16, 21, 22, 27, 28, 33, 34	153 N	51 W
GA	Williams	2, 3, 9, 10, 15-17	153 N	102 W
SO	Ward	1, 2, 11, 12	154 N	83 W
GA	Williams	22, 23, 26, 27, 34, 35	154 N	102 W
NR	Walsh	25, 26	155 N	56 W
NR	Walsh	30	156 N	52 W
NR	Walsh	1, 2, 11-4, 23-25	156 N	53 W
GA	Mountrail	4, 5, 8, 9	156 N	88 W
GA	Williams	8, 9, 16, 17, 20, 21, 28, 29	156 N	95 W
NR	Walsh	19, 30, 31	157 N	52 W
NR	Walsh	24, 25, 36	157 N	53 W
NR	Walsh	22, 23, 26, 27,34, 35	157 N	88 W
NR	Pembina	3, 4	159 N	56 W
NR	Cavalier	3, 4	159 n	57 W
NR	Cavalier	4, 5	159 N	58 W
NR	Pembina	15, 16, 21, 22, 27, 28, 33, 34	160 N	56 W
NR	Cavalier	33, 34	160 N	57 W
NR	Cavalier	20, 21, 28, 29, 32, 33	160 N	58 W
SO	Rolette	18, 19	160 N	69 W
SO	Rolette	13, 14, 23, 24	160 N	70 W
SO	Burke	6	160 N	93 W

Project Area Legal Locations				
Study Unit	**County**	**Section**	**Township**	**Range**
NR	Pembina	15	161 N	55 W
SO	Bottineau	1, 2, 11, 14	163 N	75 W
SO	Bottineau	11, 12	163 N	76W

APPENDIX B

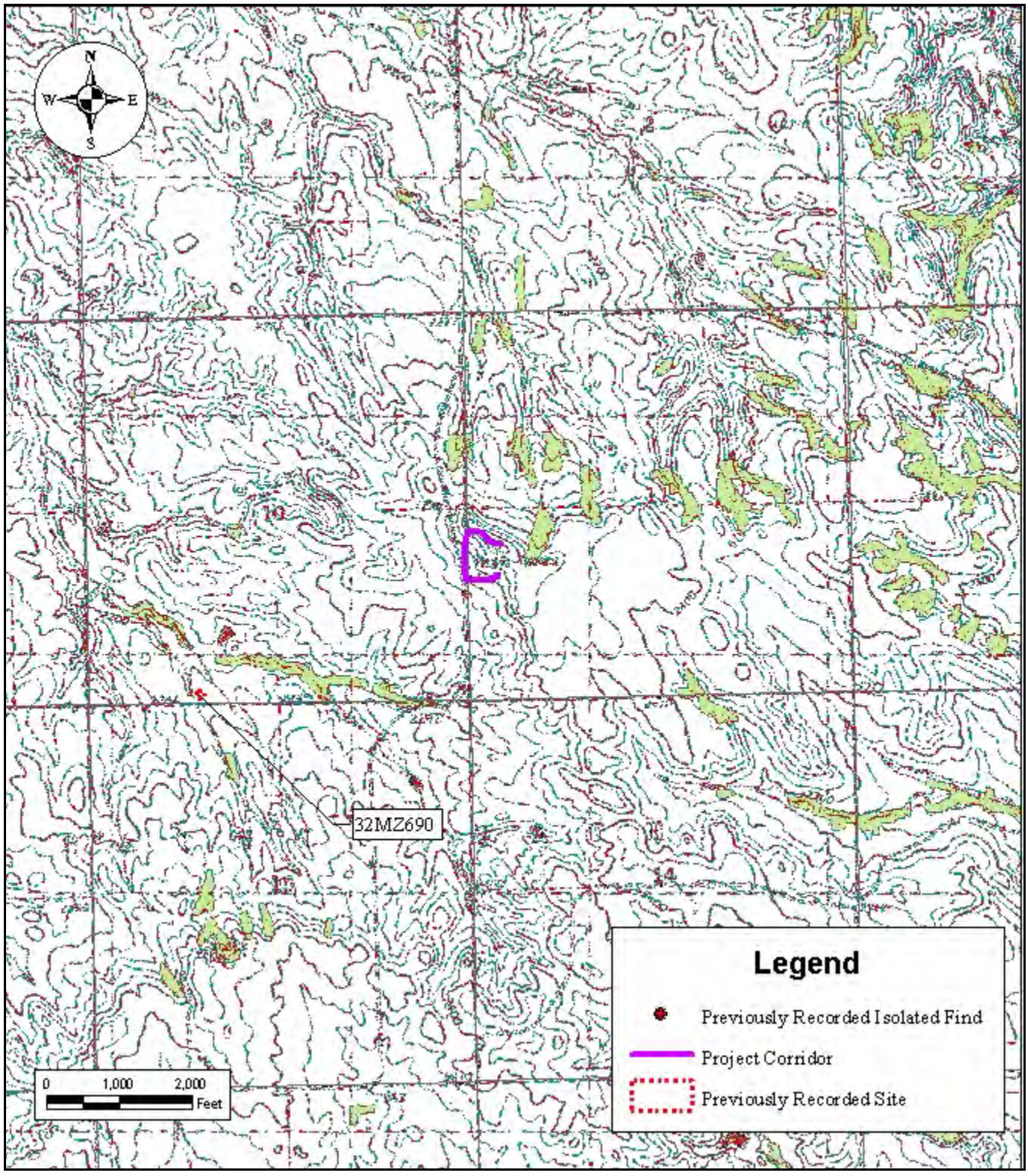

Figure 1: Location of Arnegard Tower project corridor and previously recorded cultural resources in Sections 10 and 11, T. 151 N., R. 100 W., McKenzie County, North Dakota.

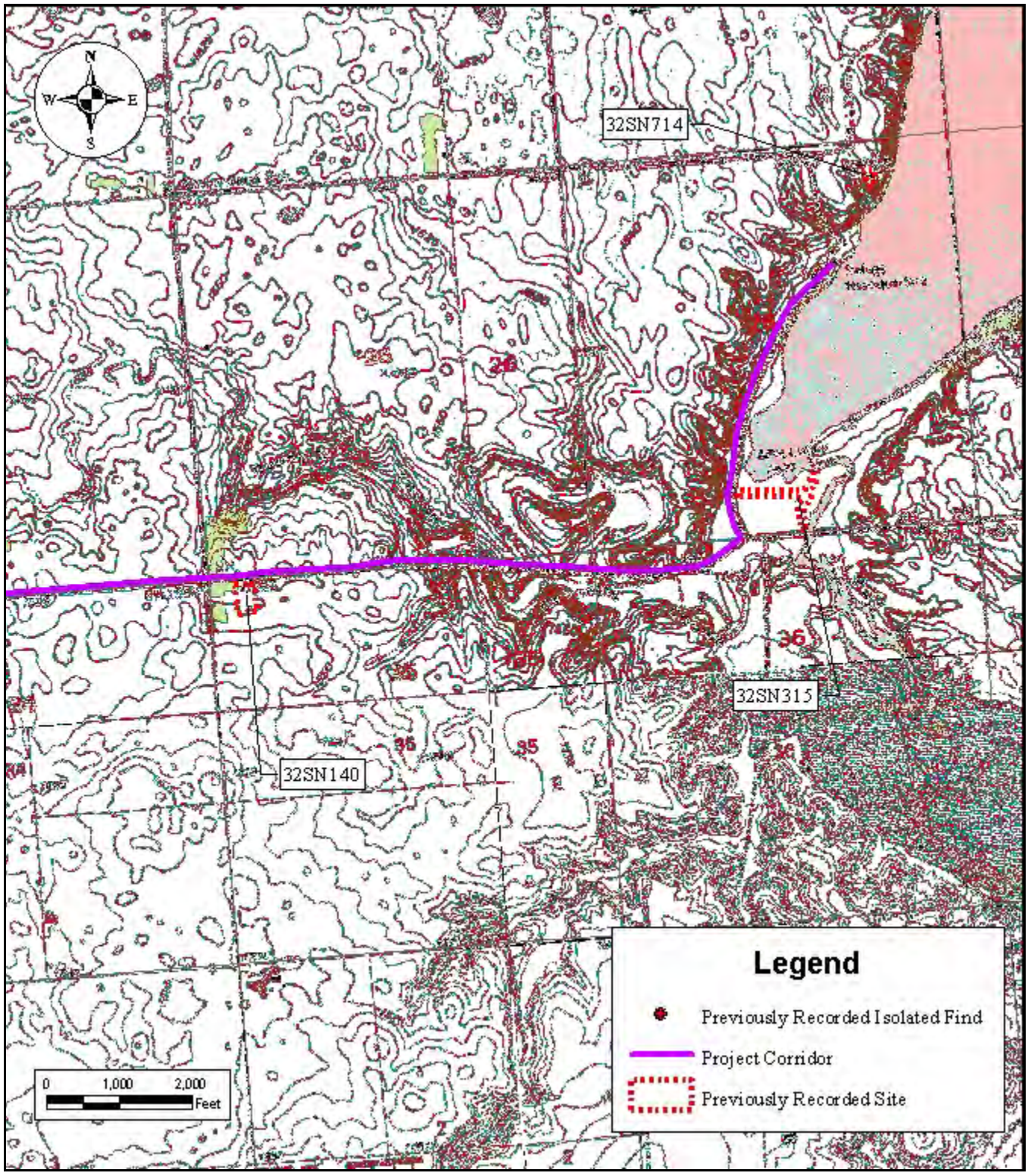

Figure 2: Location of eastern portion of the Arrowwood National Wildlife Refuge project corridor and previously recorded cultural resources in Sections 25, 26, 27, 34, 35, and 36, T. 144 N., R. 65 W., Stutsman County, North Dakota.

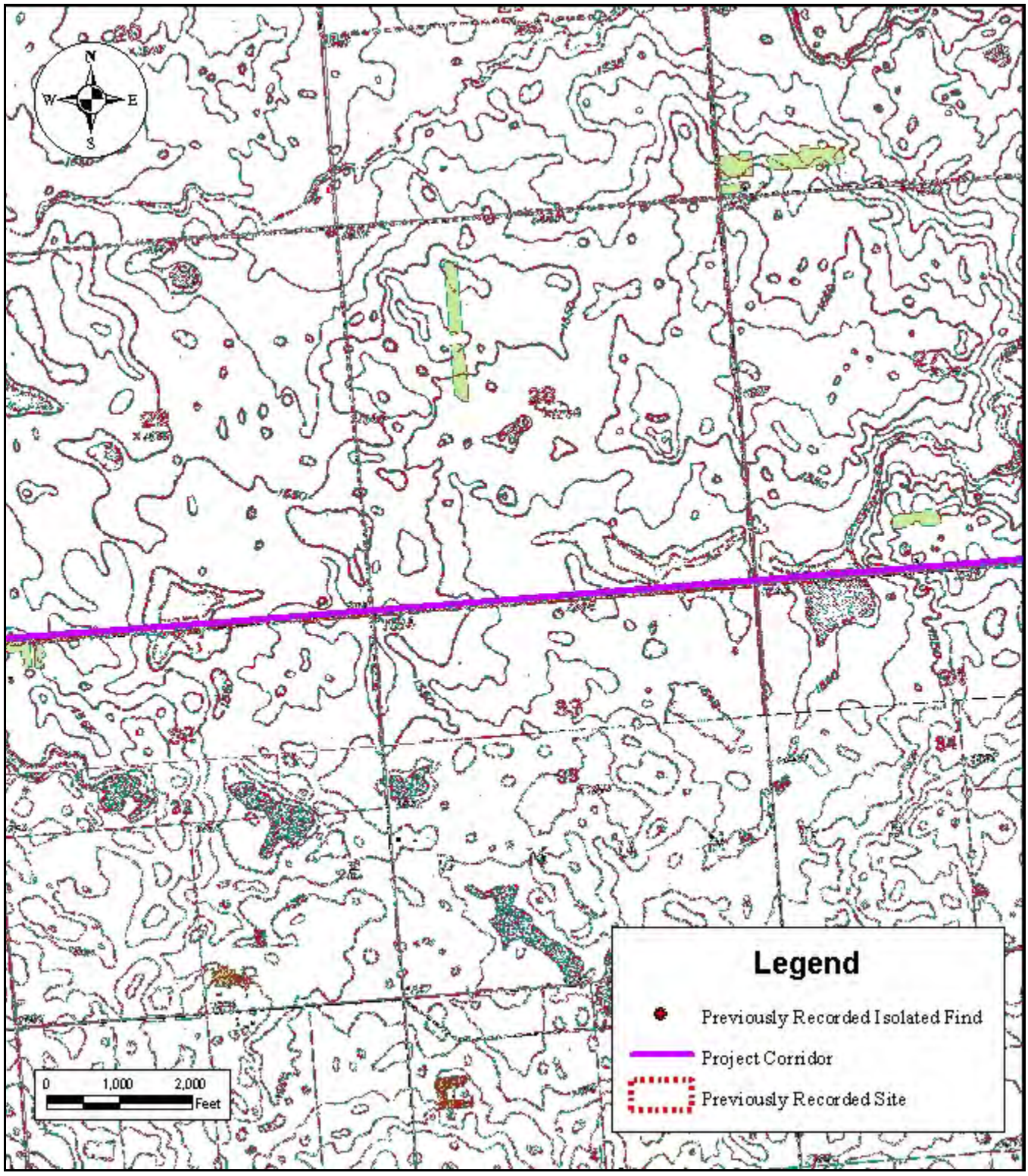

Figure 3: Location of center portion of the Arrowwood National Wildlife Refuge project corridor and previously recorded cultural resources in Sections 28, 29, 32, 22, T. 144 N., R. 65 W., Stutsman County, North Dakota.

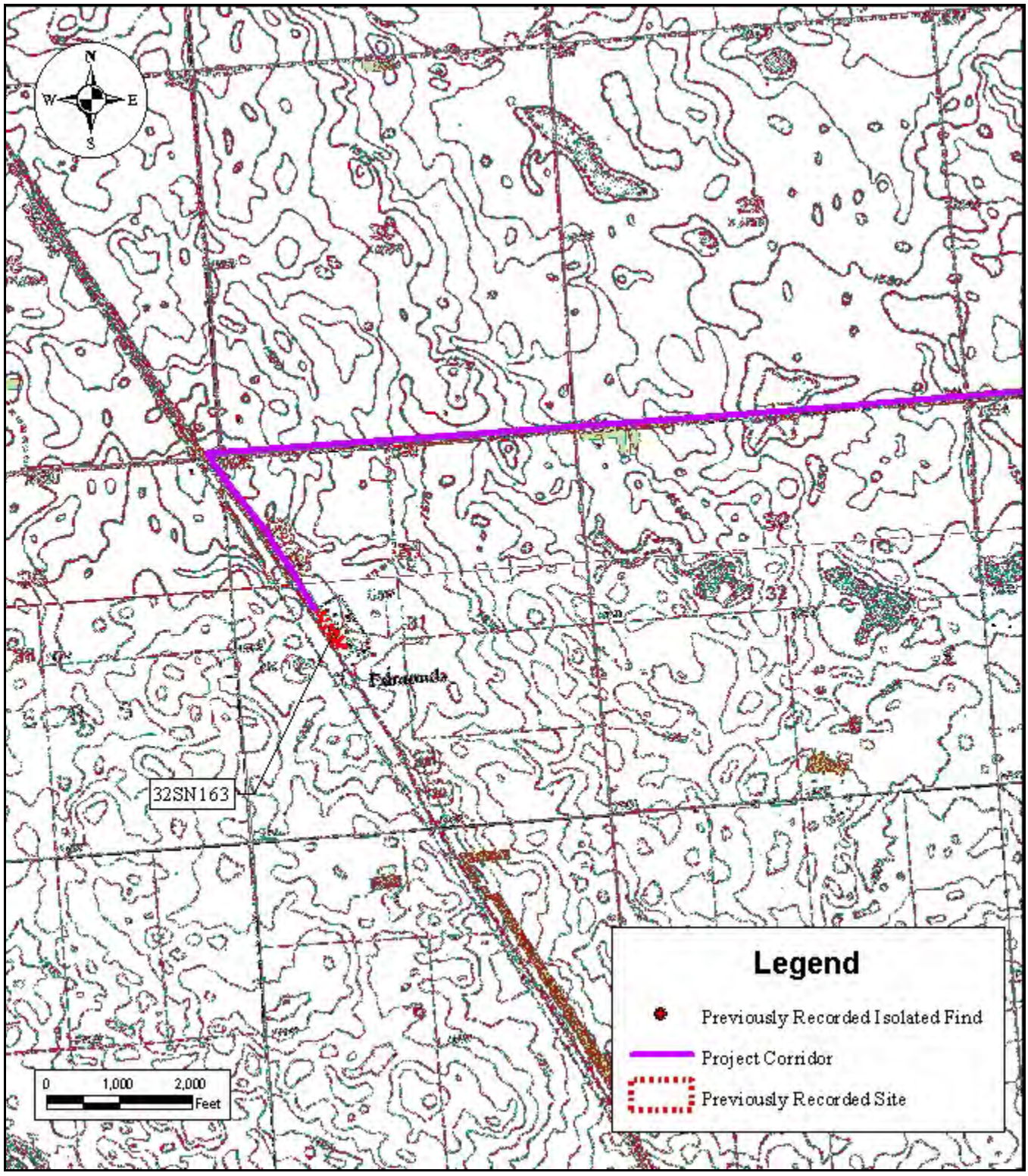

Figure 4: Location of western portion of the Arrowwood National Wildlife Refuge project corridor and previously recorded cultural resources in Sections 30 and 31, T. 144 N., R. 65 W., and Sections 25 and 36, T 144 N., R 66 W., Stutsman County, North Dakota.

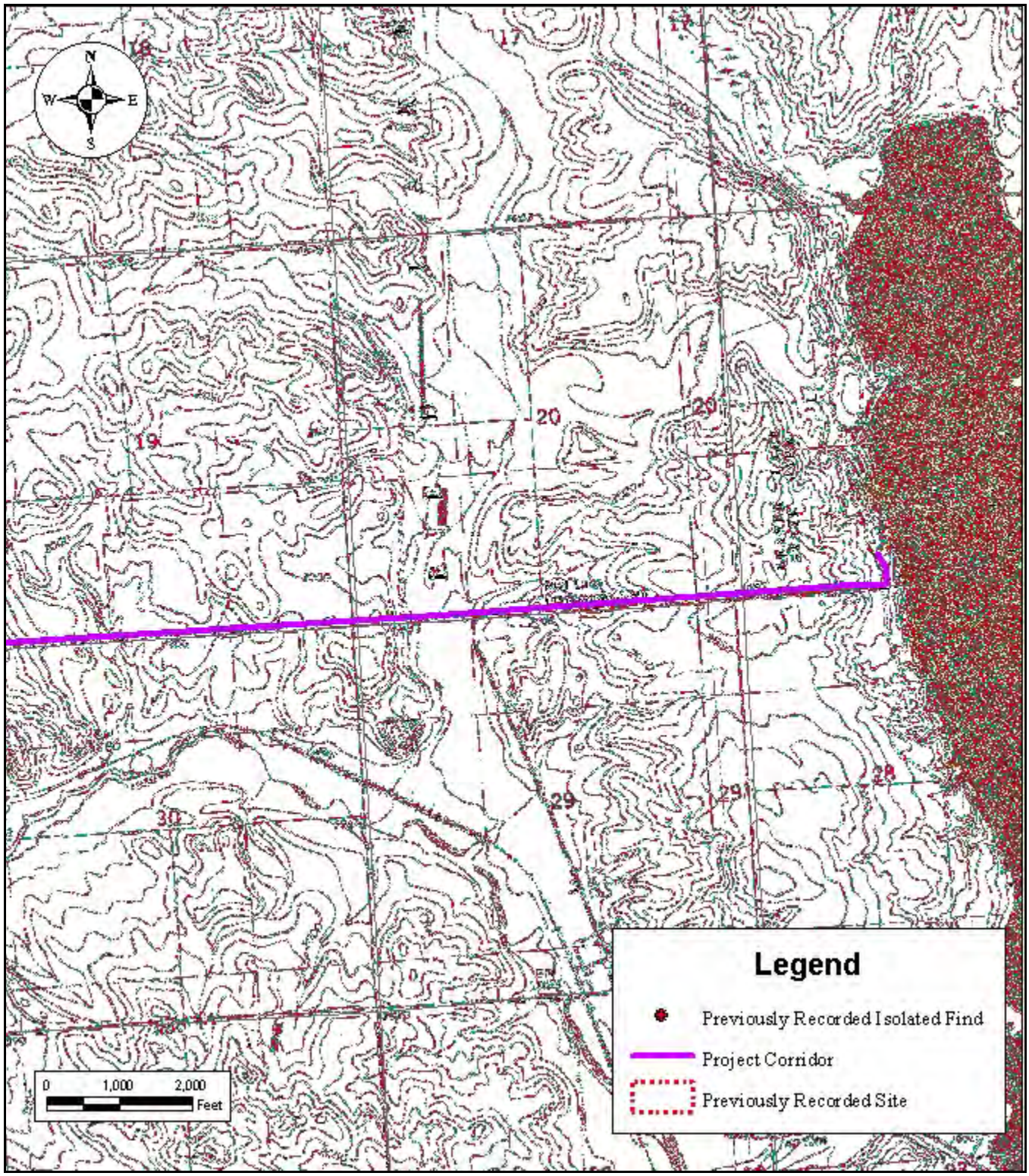

Figure 5: Location of eastern portion of the Beaver Lake State Park project corridor and previously recorded cultural resources in Sections 19, 20, 21, 28, 29, and 30, T. 134 N., R. 71 W., in Logan County, North Dakota.

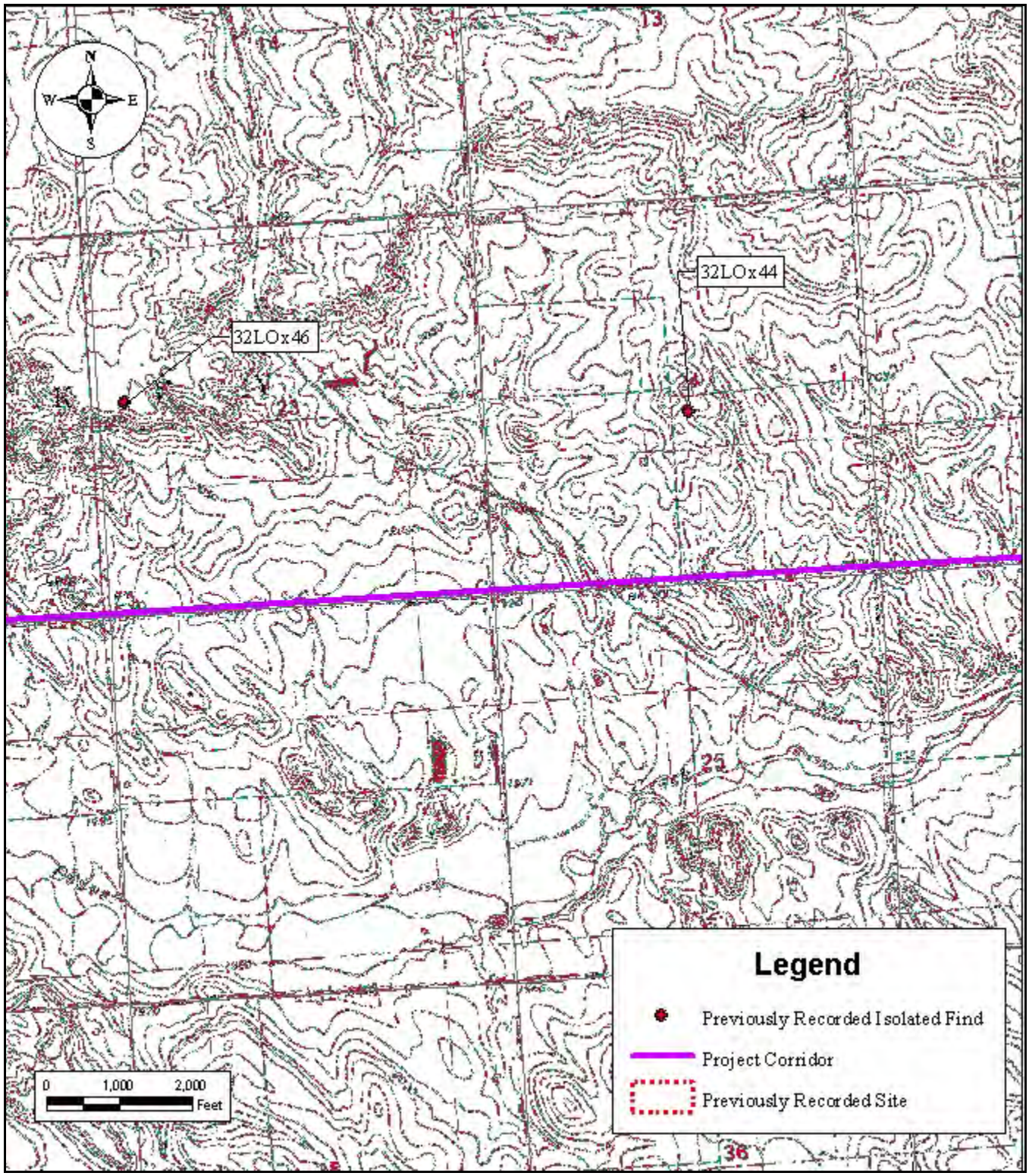

Figure 6: Location of eastern center portion of the Beaver Lake State Park project corridor and previously recorded cultural resources in Sections 23, 24, 25, and 26, T. 134 N., R. 72 W., in Logan County, North Dakota.

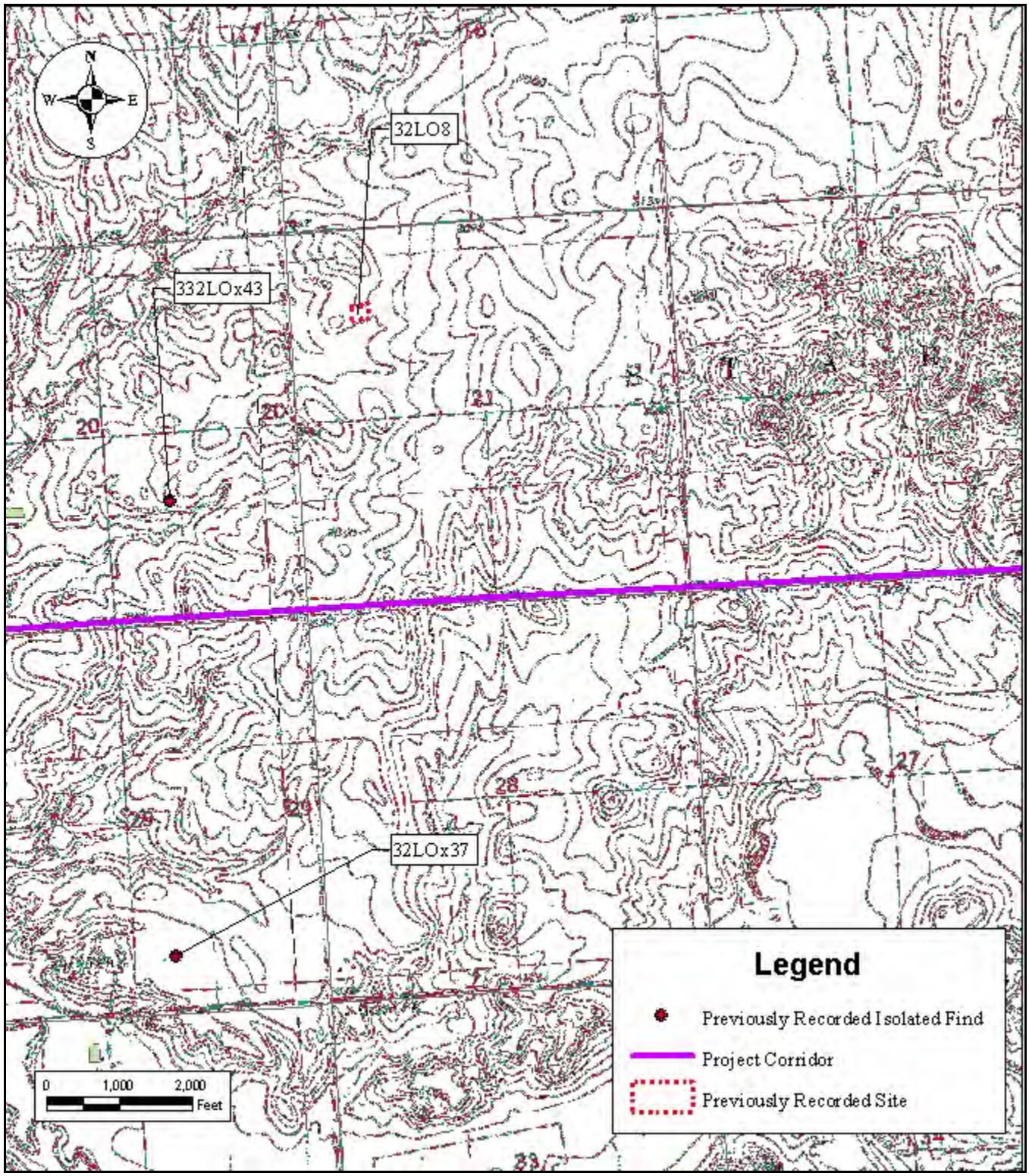

Figure 7: Location of western center portion of the Beaver Lake State Park project corridor and previously recorded cultural resources in Sections 20, 21, 22, 27, 28, and 29, T. 134 N., R. 72 W., in Logan County, North Dakota.

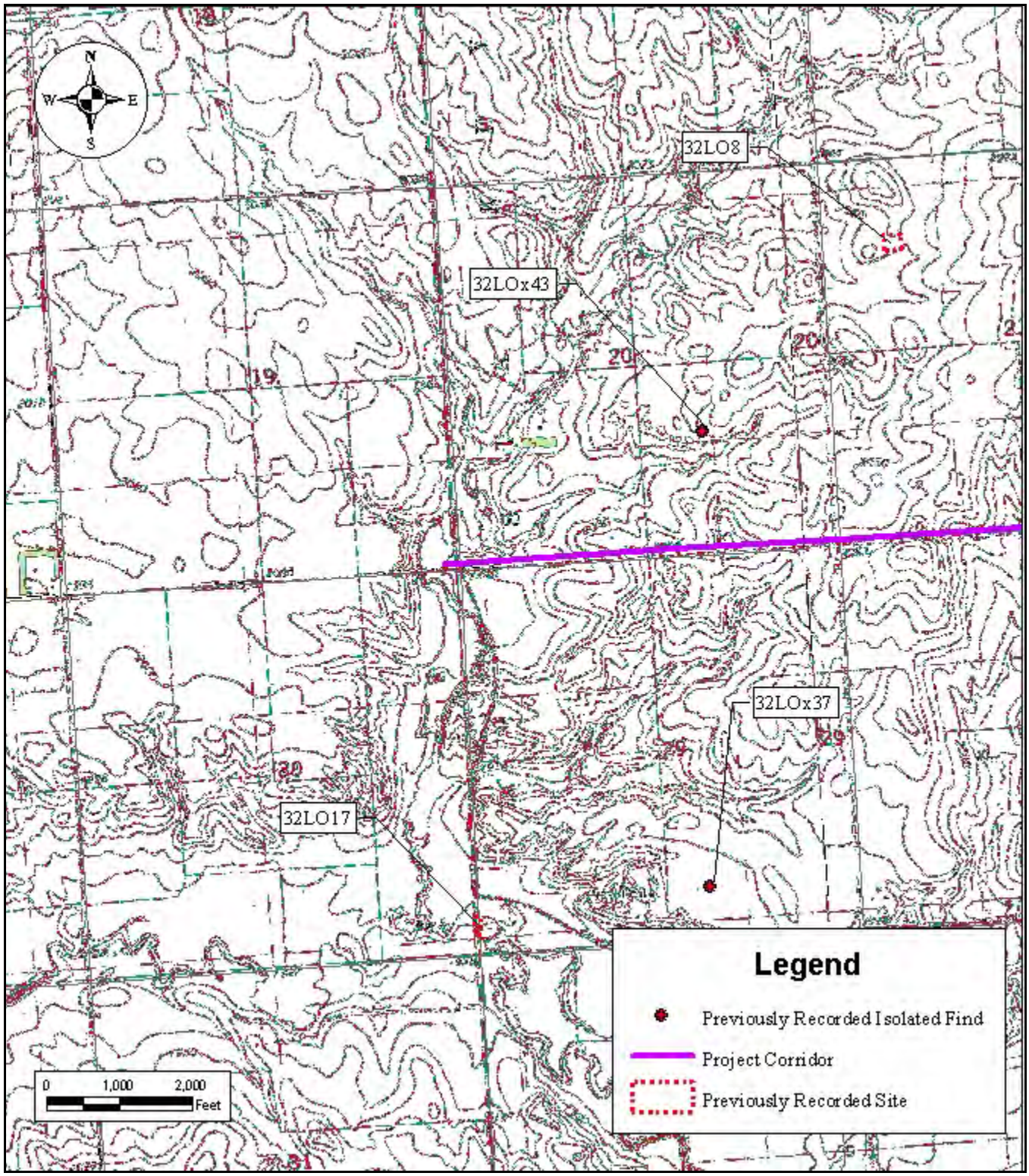

Figure 8: Location of western portion of the Beaver Lake State Park project corridor and previously recorded cultural resources in Sections 19, 20, 29, and 30, T. 134 N., R. 72 W., in Logan County, North Dakota.

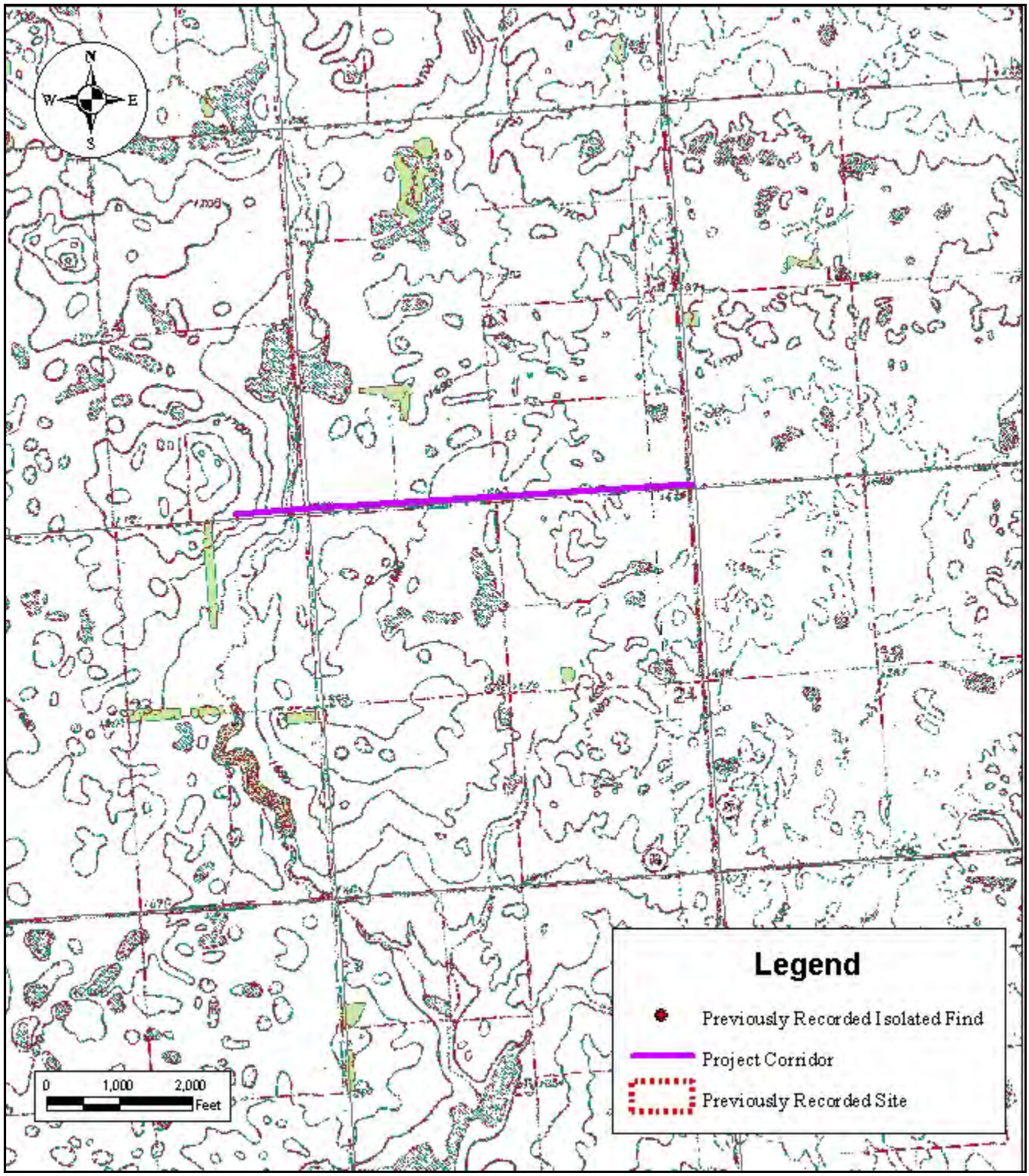

Figure 9: Location of the Belcourt Tower project corridor and previously recorded cultural resources in Sections13, 14, 23, and 24, T. 160 N., R. 70 W., and Sections 18 and 19, T. 160 N., R. 69 W., in Rolette County, North Dakota.

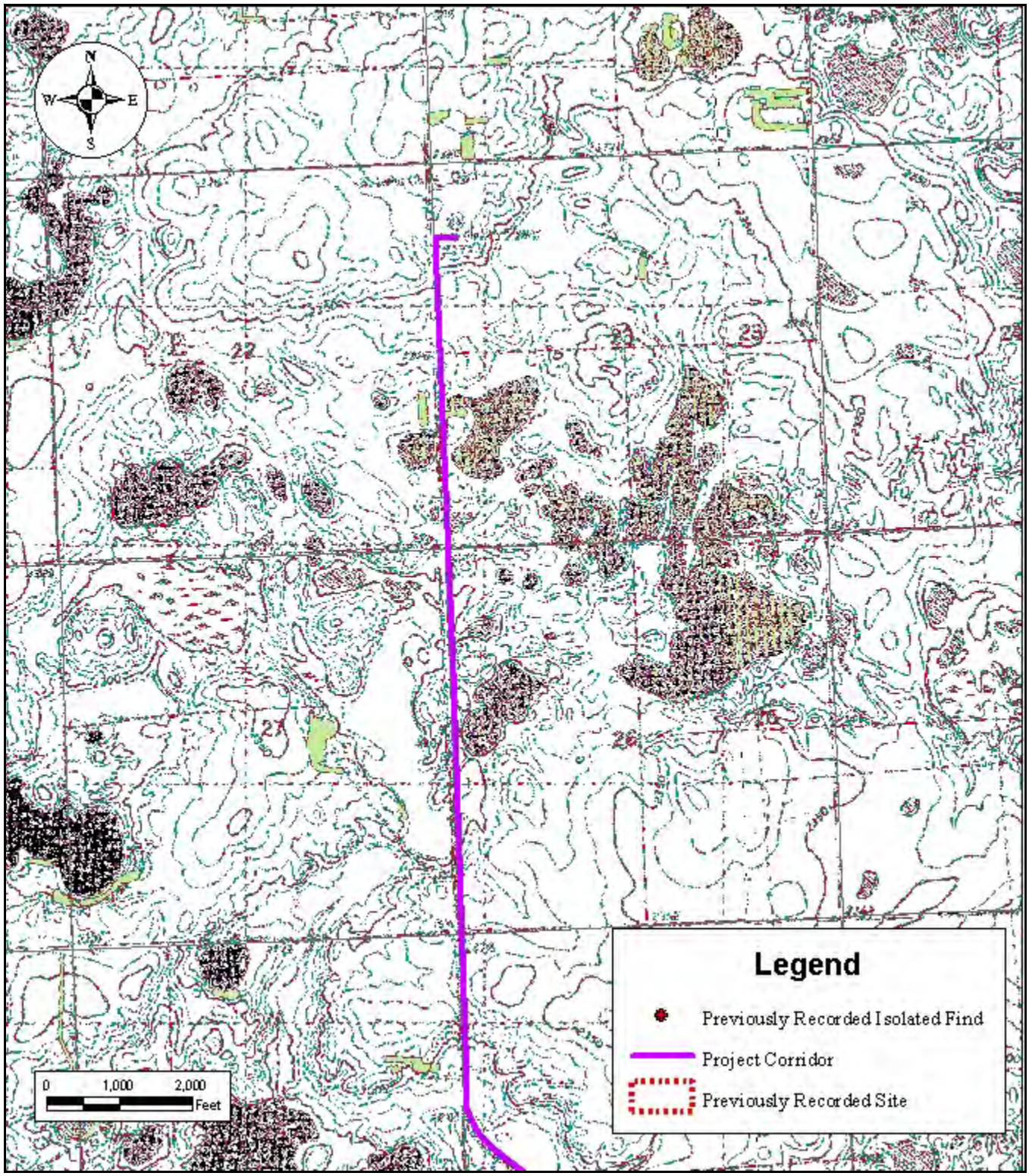

Figure 10: Location of the northern portion of the Blaisdell Tower project corridor and previously recorded cultural resources in Sections 22, 23, 26, 27, 34, and 35, T. 157 N., R. 88 W., in Mountrail County, North Dakota.

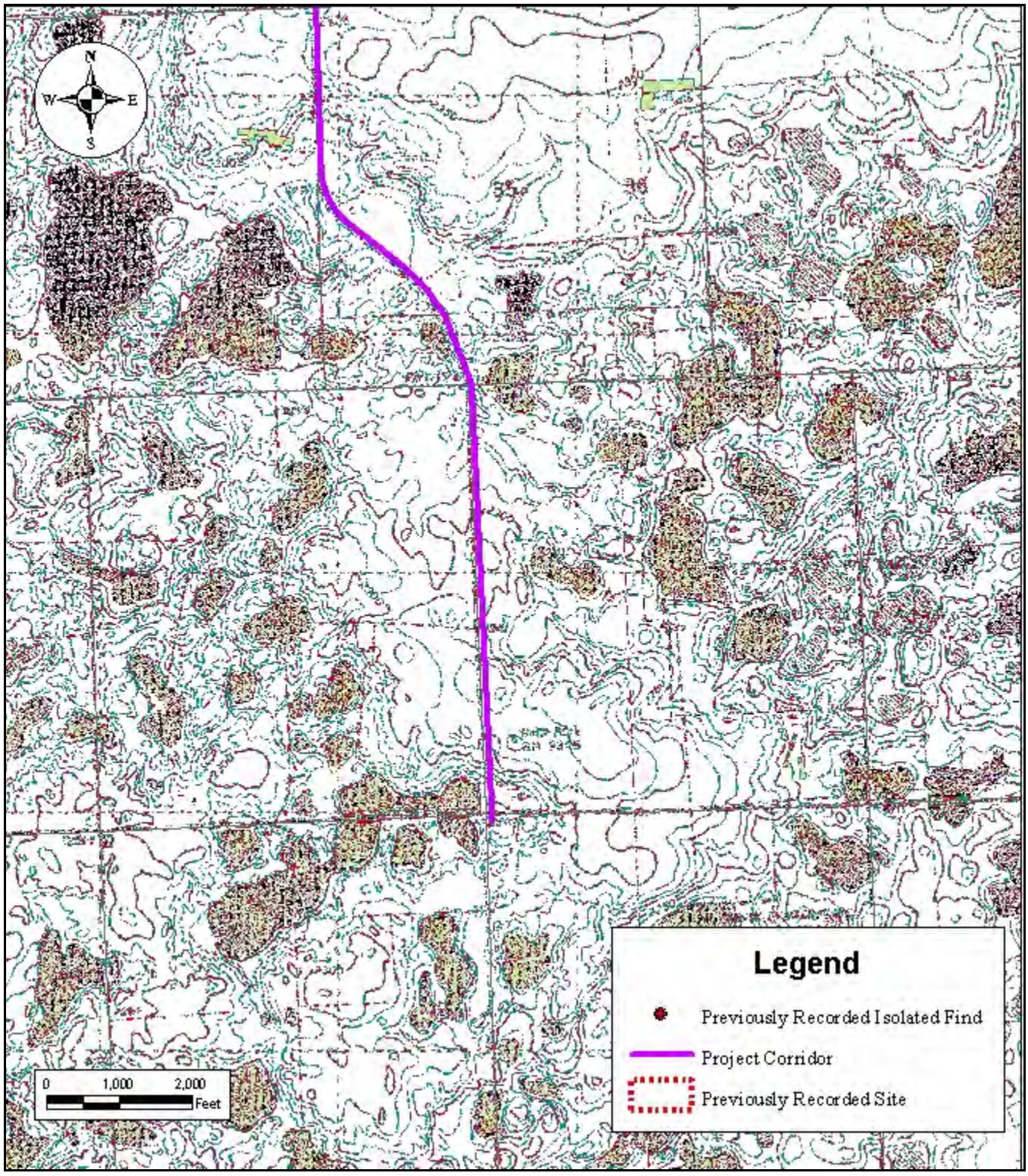

Figure 11: Location of the southern portion of the Blaisdell Tower project corridor and previously recorded cultural resources in Sections 4, 5, 8, and 9, T. 156 N., R. 88 W., in Mountrail County, North Dakota.

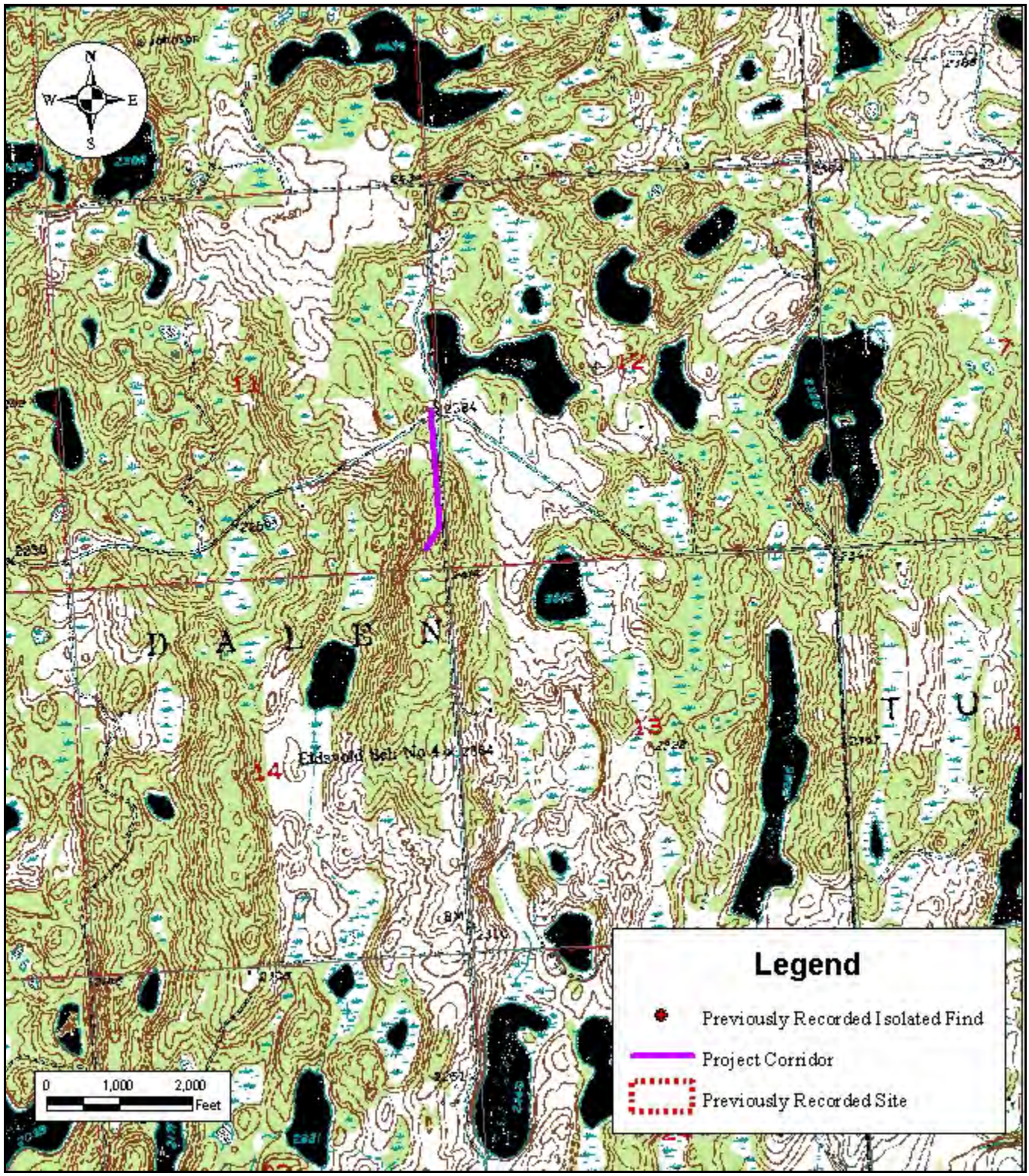

Figure 12: Location of the Bottineau Tower project corridor and previously recorded cultural resources in Sections 11 and 12, T. 163 N., R. 76 W., in Bottineau County, North Dakota.

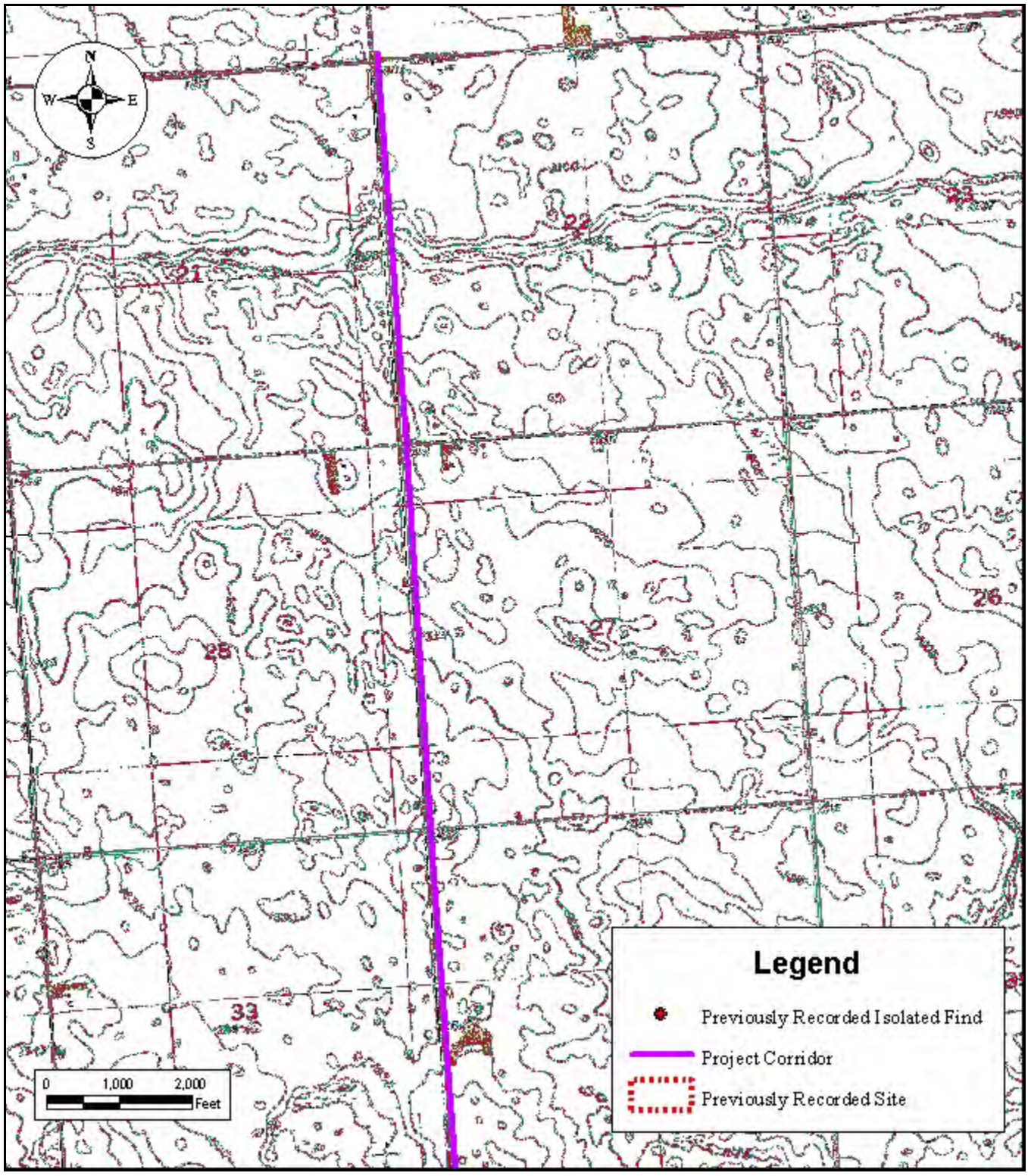

Figure 13: Location of the northern portion of the Carrington Towers project corridor and previously recorded cultural resources in Sections 15, 16, 21, 22, 27, 28, 33, and 34, T. 146 N., R. 68 W., in Wells County, North Dakota.

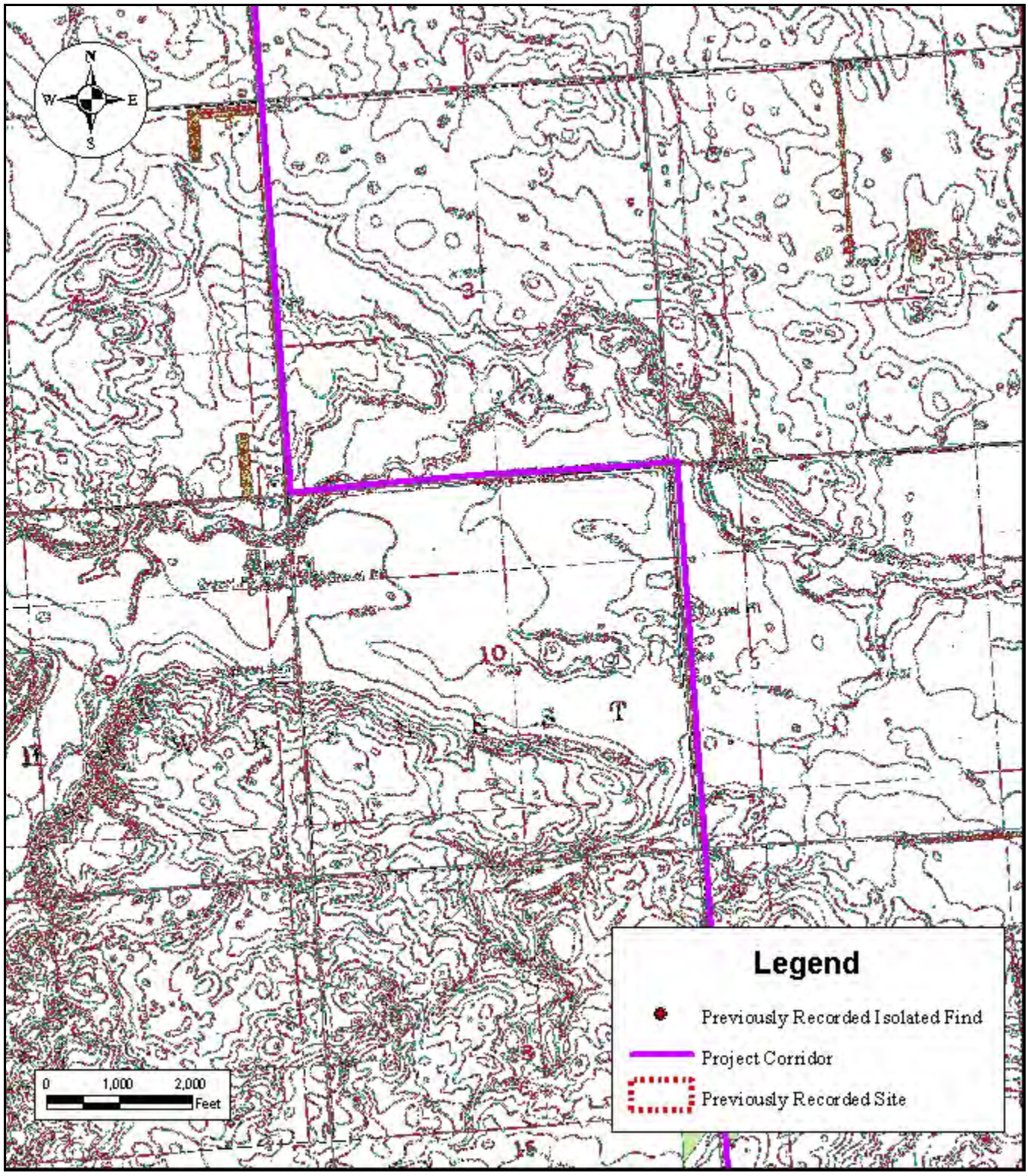

Figure 14: Location of the central portion of the Carrington Towers project corridor and previously recorded cultural resources in Sections 2, 3, 4, 9, 10, 11, and 15, T. 145 N., R. 68 W., in Wells County, North Dakota.

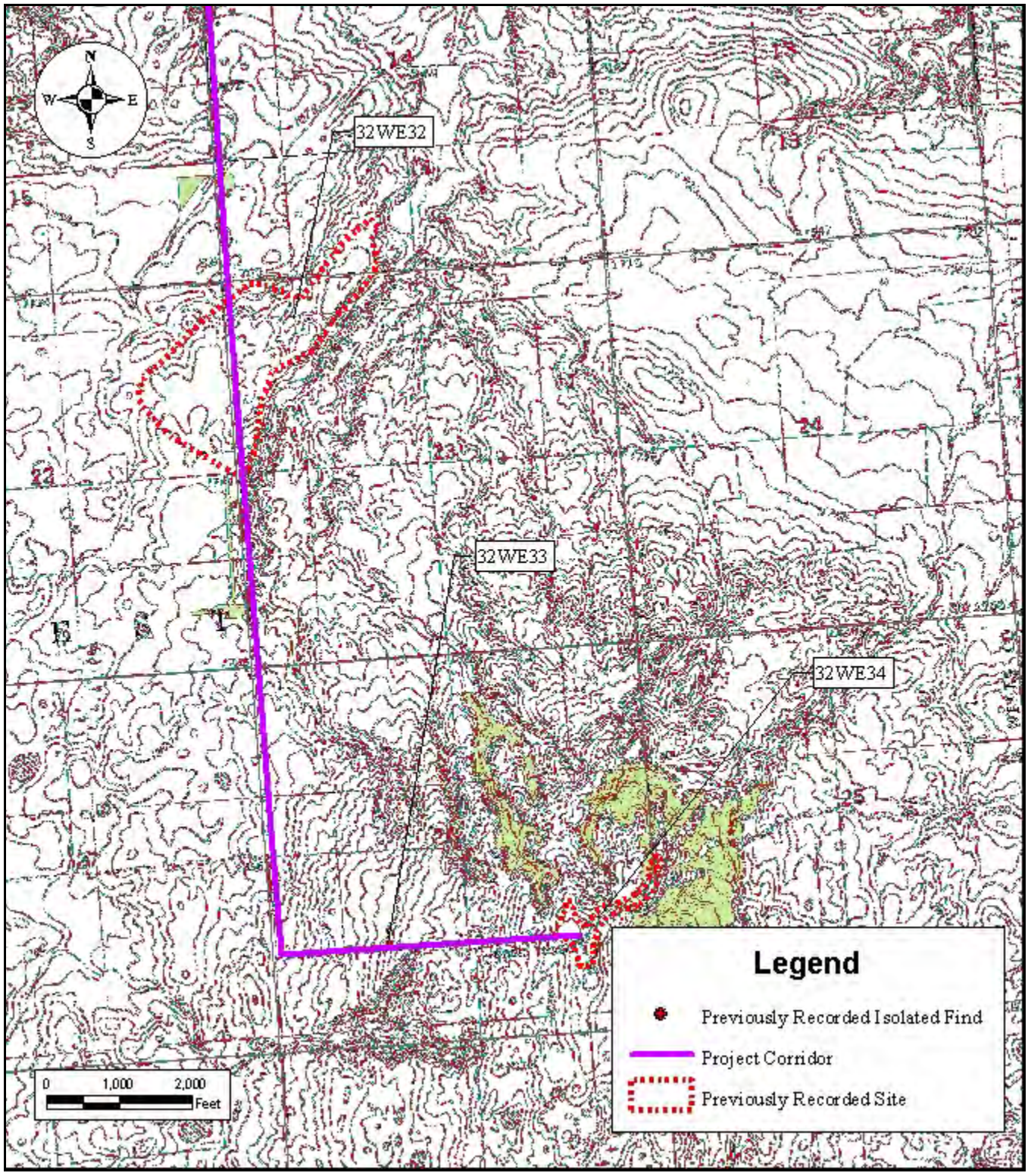

Figure 15: Location of the southern portion of the Carrington Towers project corridor and previously recorded cultural resources in Sections 14, 15, 22, 23, 26, and 27, T. 145 N., R. 68 W., in Wells County, North Dakota.

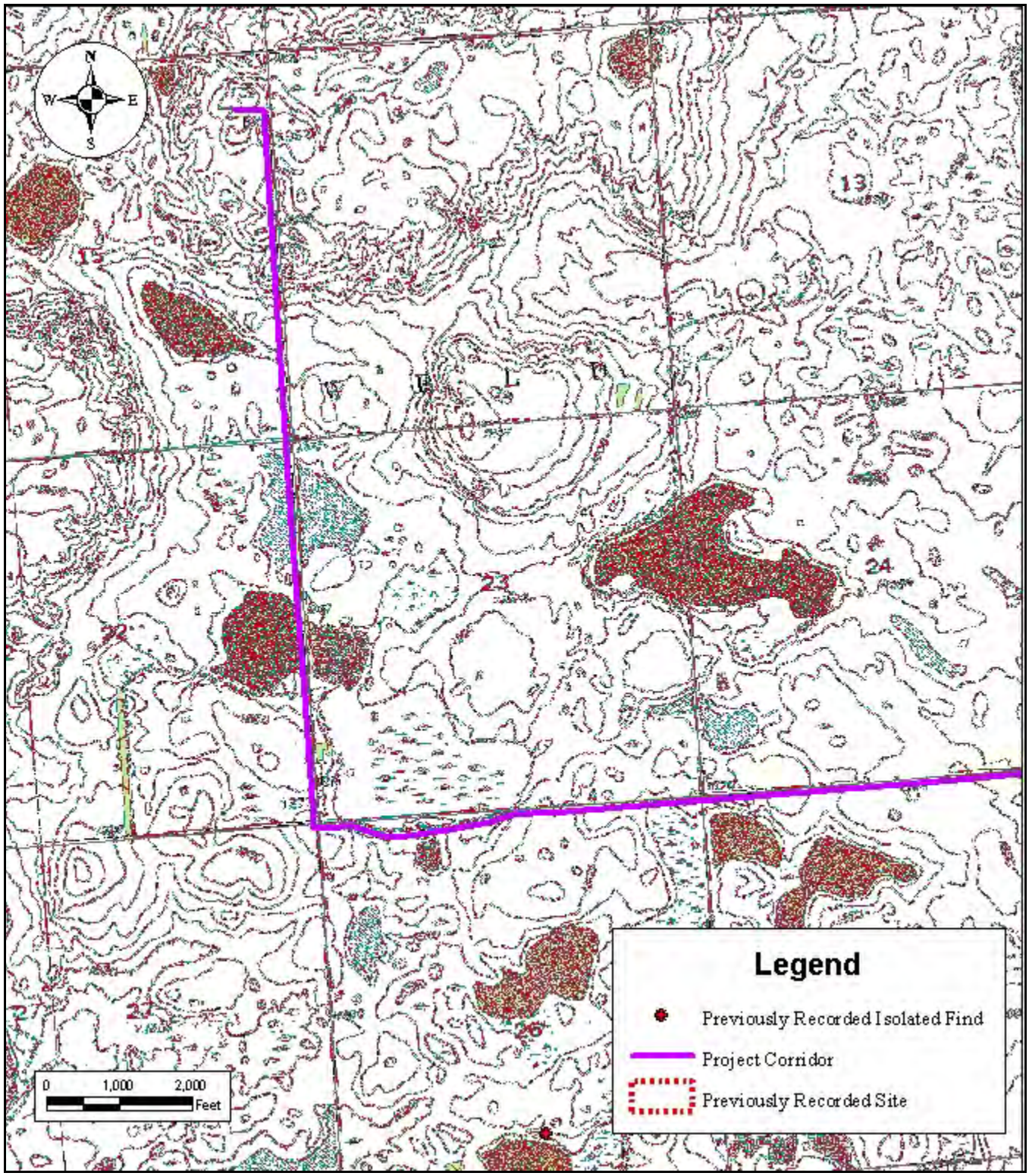

Figure 16: Location of the northern portion of the Cleveland Tower project corridor and previously recorded cultural resources in Sections 14, 15, 22, 23, 24, 25, 26,and 27, T. 140 N., R. 67 W., in Stutsman County, North Dakota.

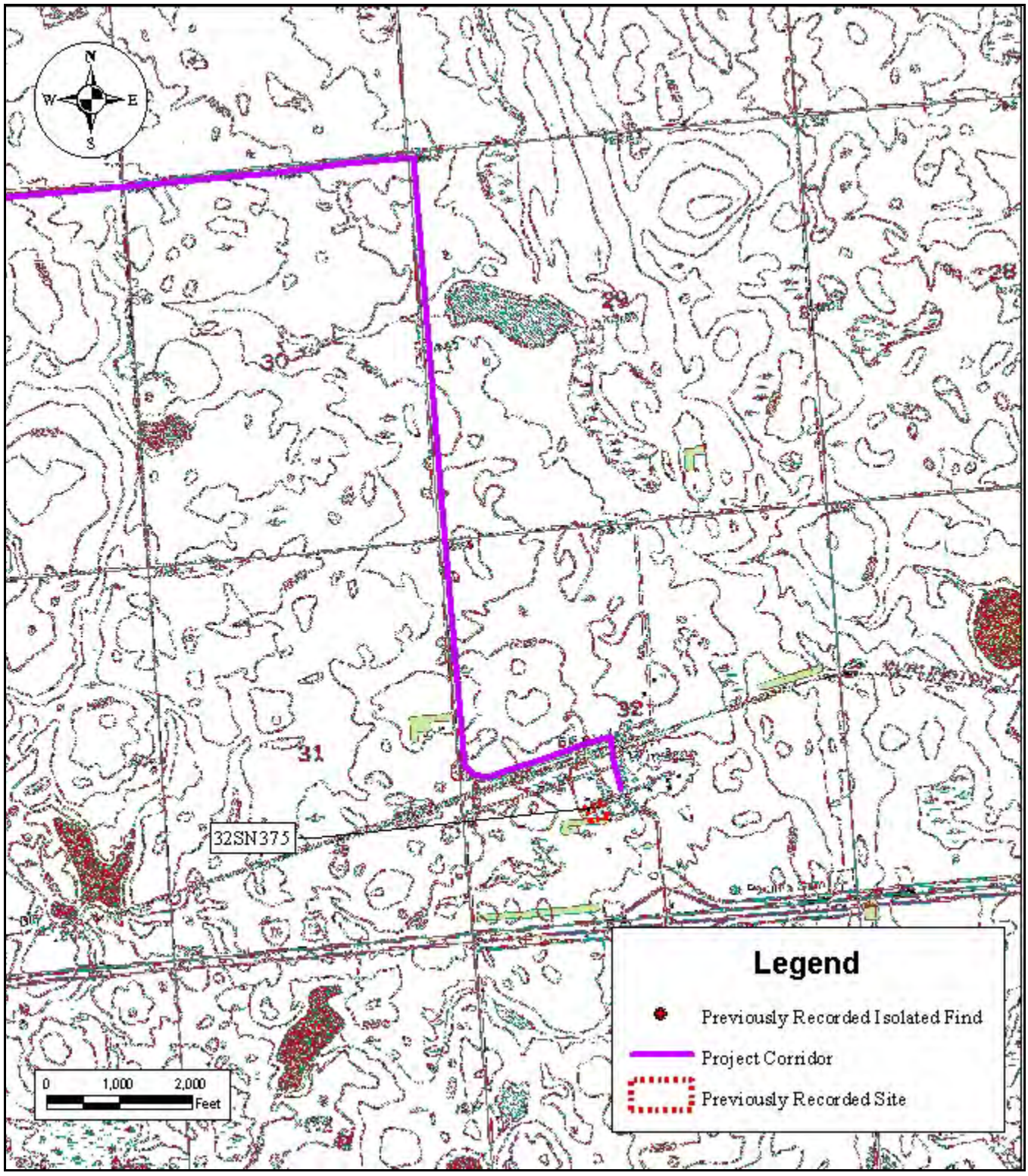

Figure 17: Location of the southern portion of the Cleveland Tower project corridor and previously recorded cultural resources in Sections 19, 20, 29, 30, 31, and 32, T. 140 N., R. 66 W., in Stutsman County, North Dakota.

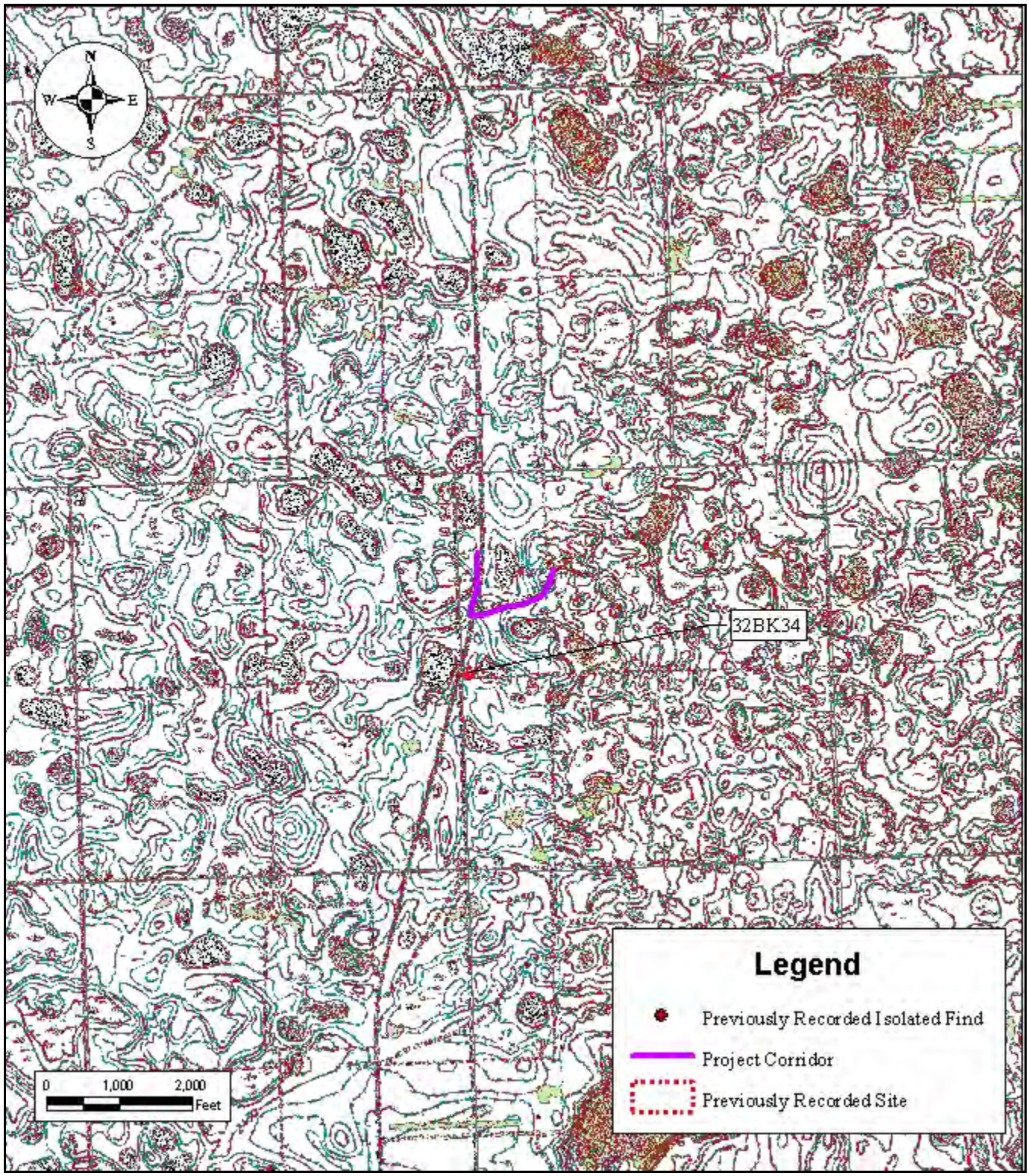

Figure 18: Location of the Columbus Tower project corridor and previously recorded cultural resources in Section 6, T. 160 N., R. 93 W., in Burke County, North Dakota.

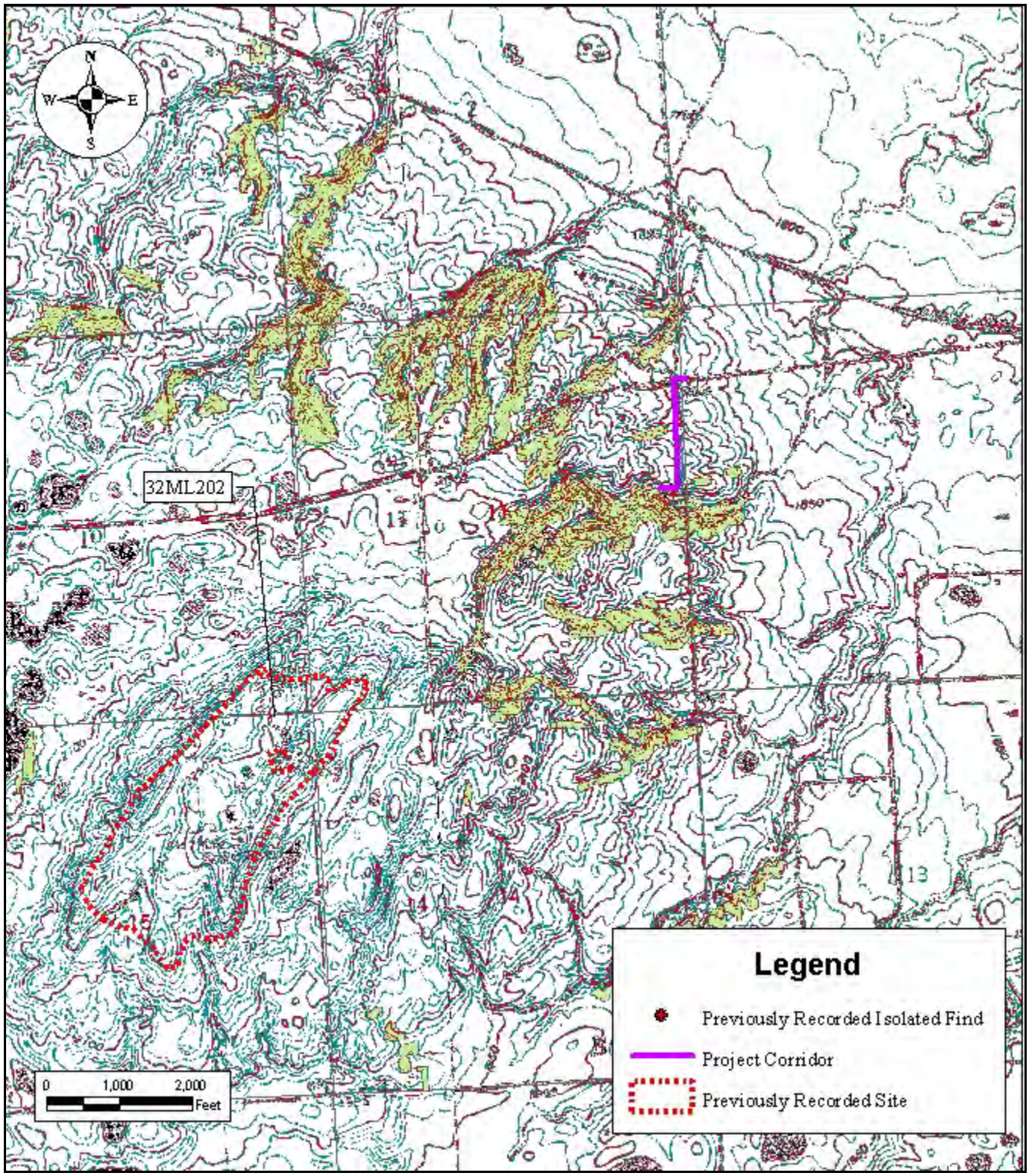

Figure 19: Location of the Dogden Butte project corridor and previously recorded cultural resources in Sections 11 and 12, T. 150 N., R. 79 W., in McLean County, North Dakota.

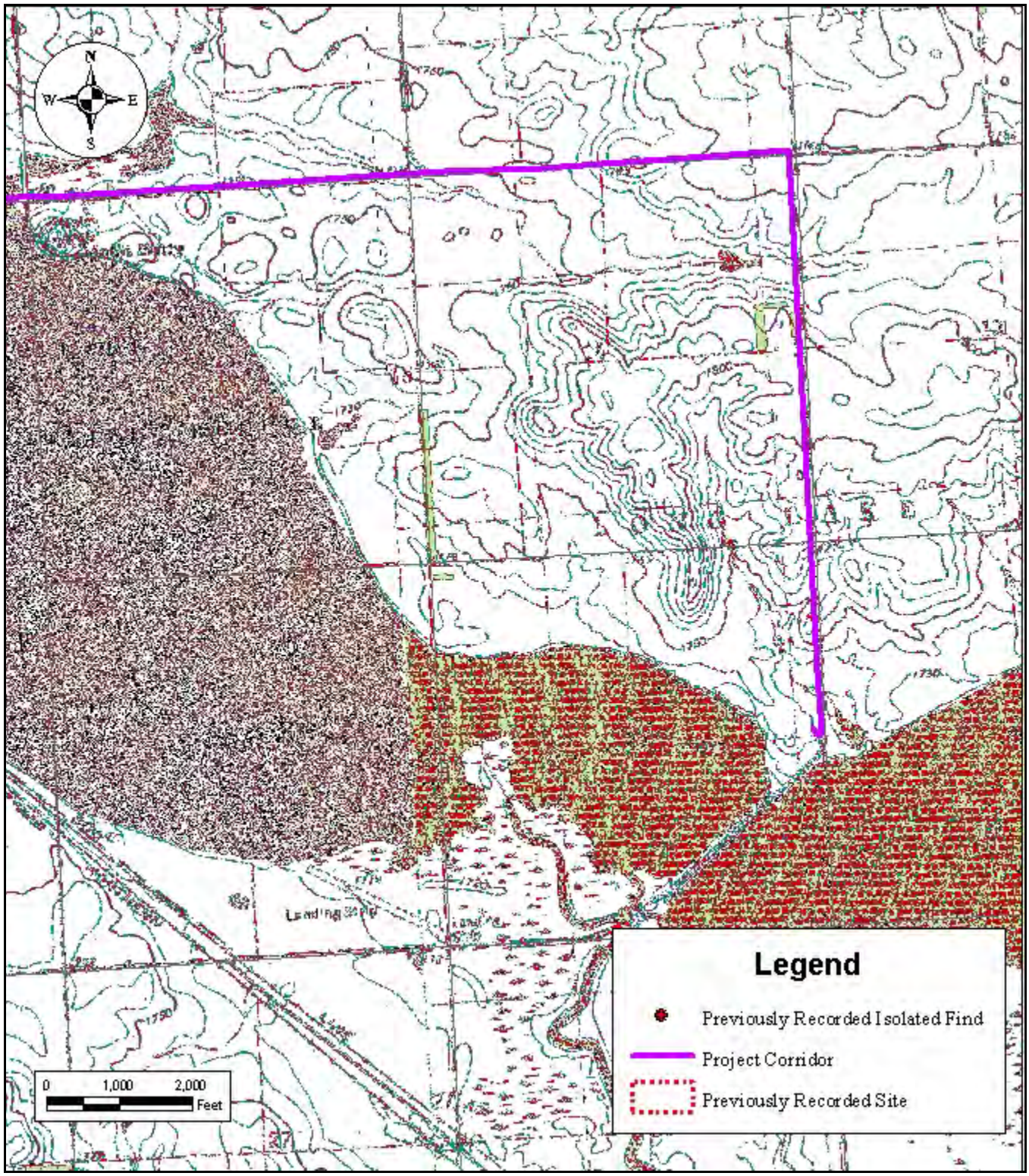

Figure 20: Location of the eastern portion of the Federal Park project corridor and previously recorded cultural resources in Sections 10, 11, 12, 13, 14, 15, 23, and 24, T. 137 N., R. 76 W., in Burleigh County, North Dakota.

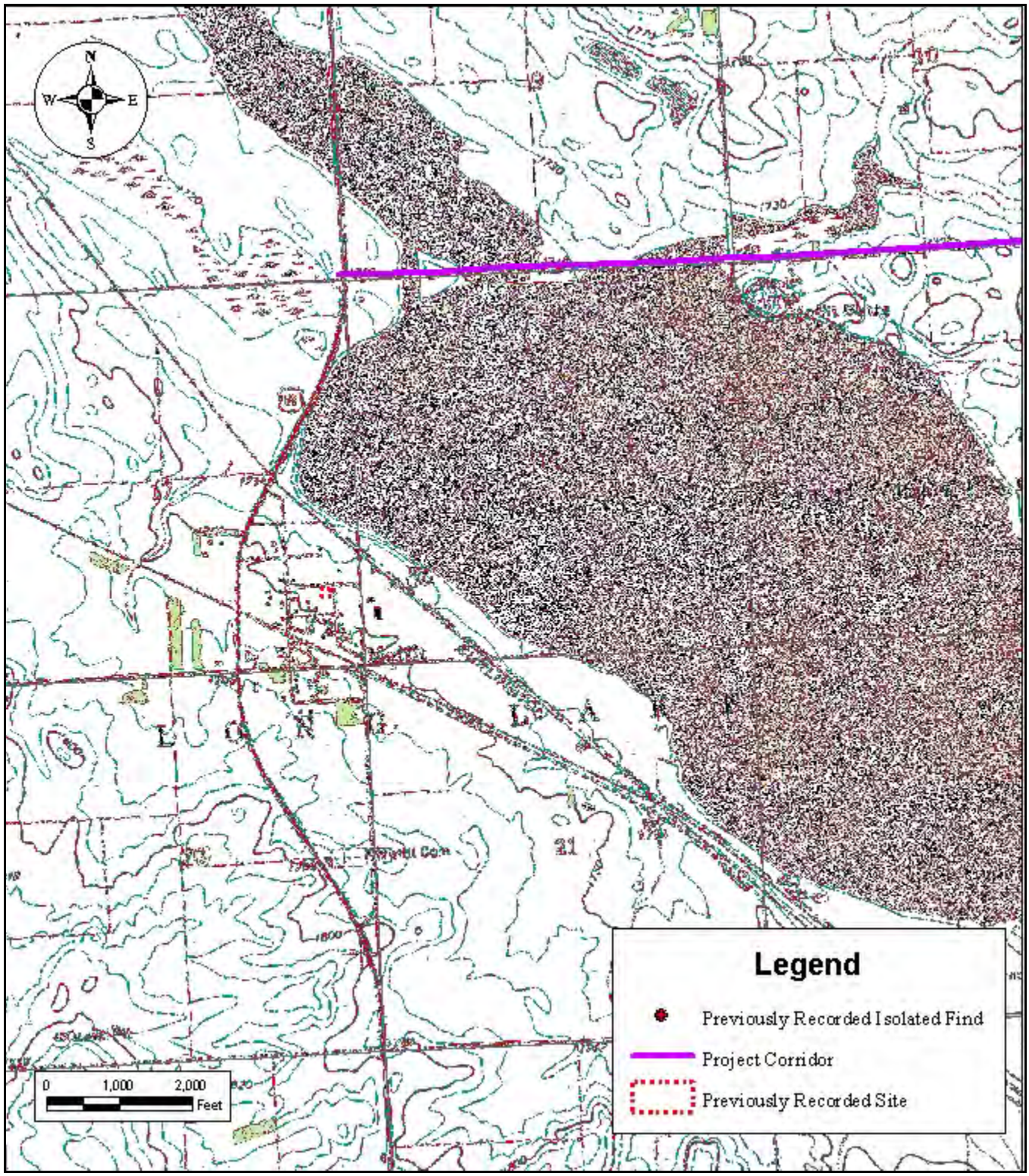

Figure 21: Location of the western portion of the Federal Park project corridor and previously recorded cultural resources in Sections 8, 9, 10, 15, 16, and 17, T. 137 N., R. 76 W., in Burleigh County, North Dakota.

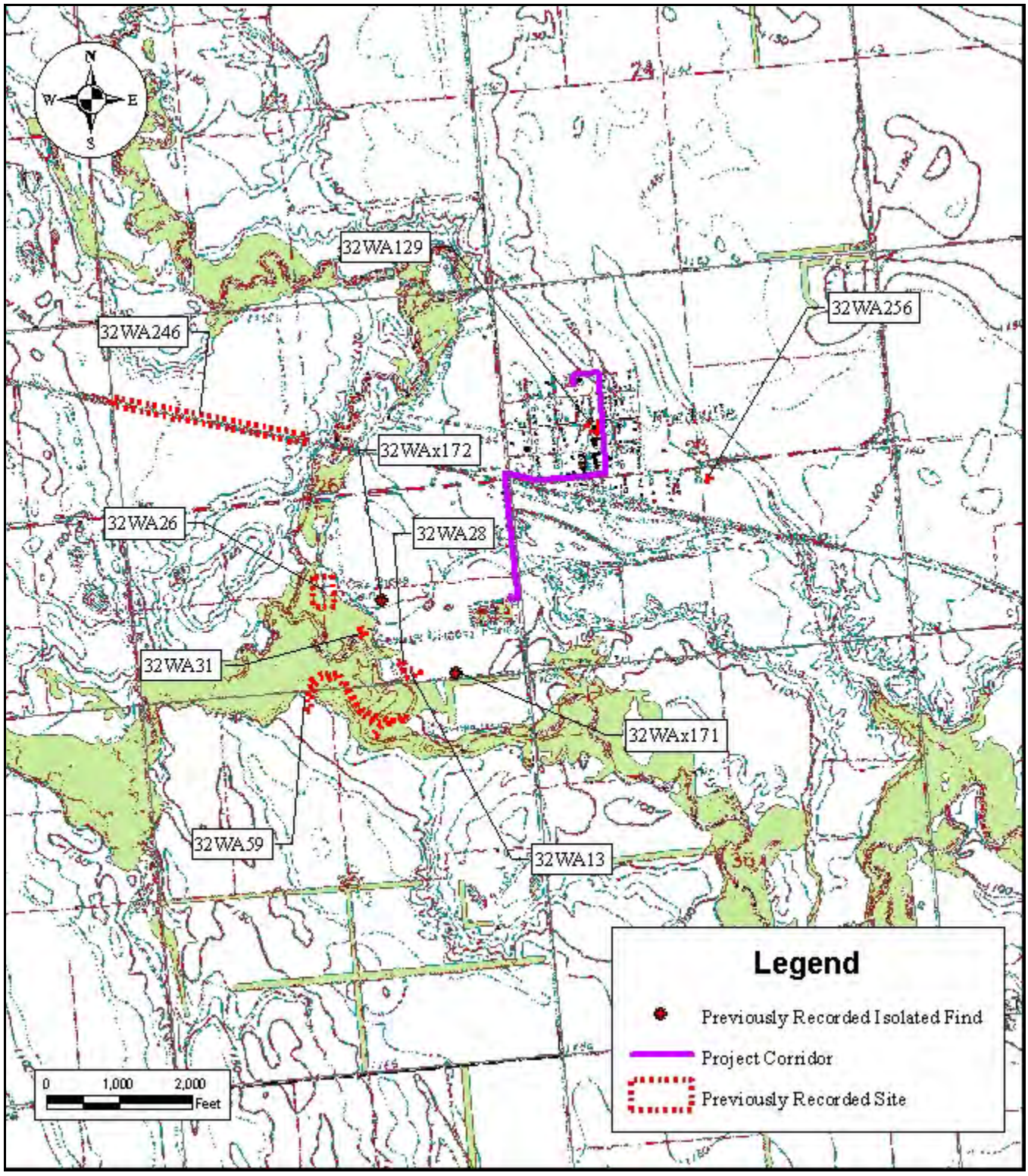

Figure 22: Location of the Fordville project corridor and previously recorded cultural resources in Sections 25 and 26, T. 155 N., R. 56 W., in Walsh County, North Dakota.

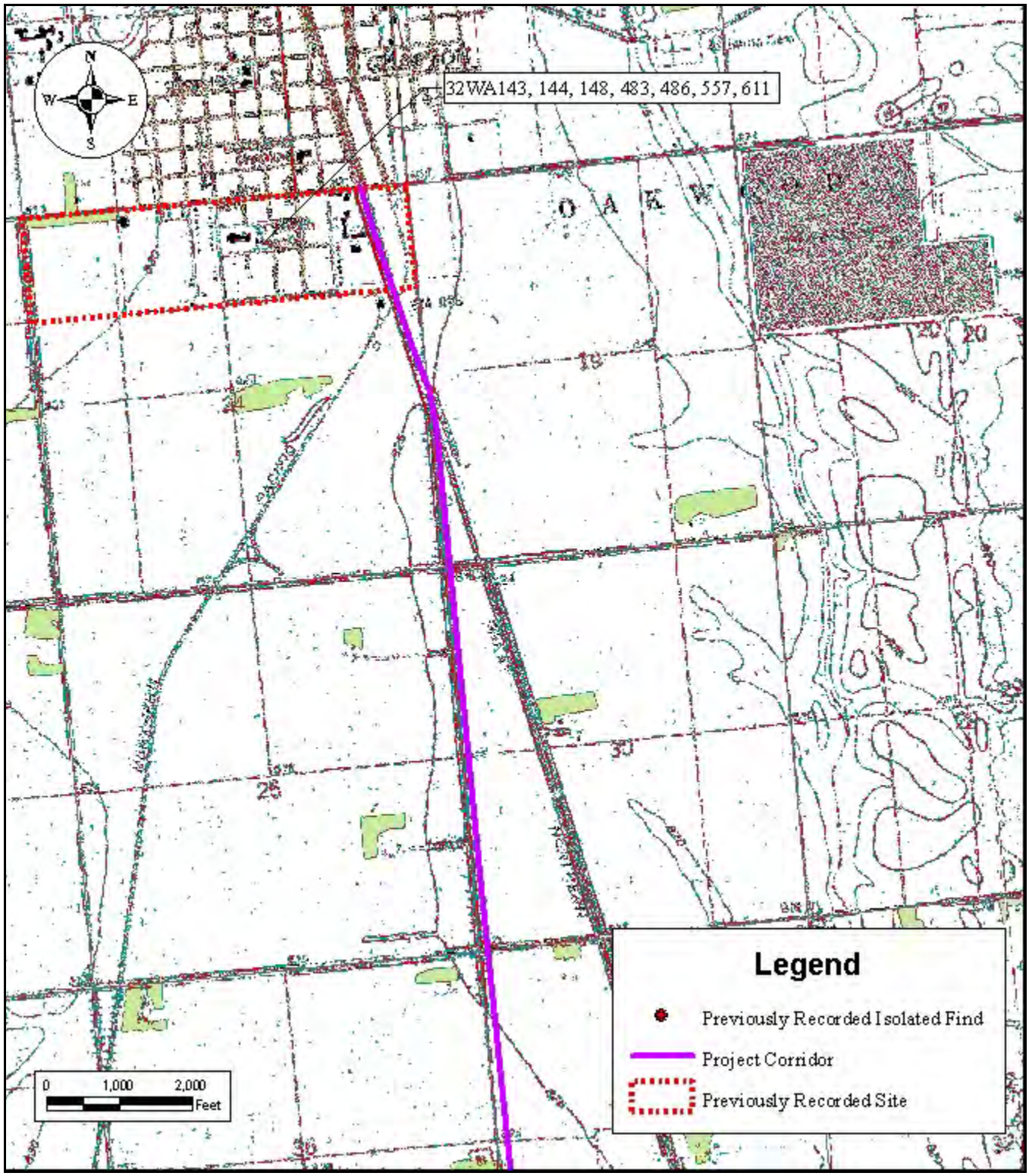

Figure 23: Location of the northern portion of the Grafton project corridor and previously recorded cultural resources in Sections 19, 30 and 31, T. 157 N., R. 52 W., and Sections 24, 25, and 36, T. 157 N., R 53 W., in Walsh County, North Dakota.

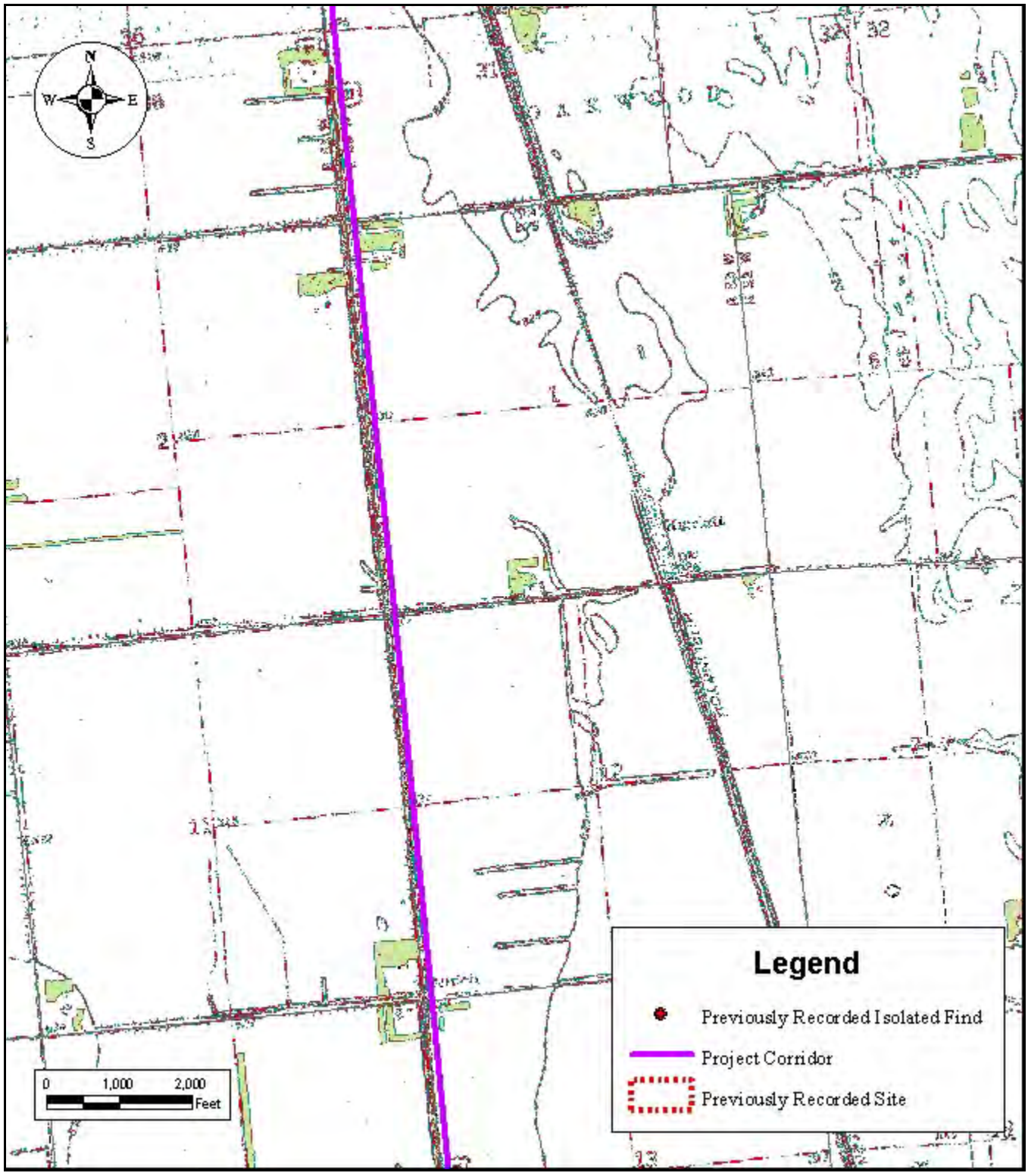

Figure 24: Location of the northern middle portion of the Grafton project corridor and previously recorded cultural resources in Sections 1, 2, 11, and 12, T. 156 N., R. 53 W., in Walsh County, North Dakota.

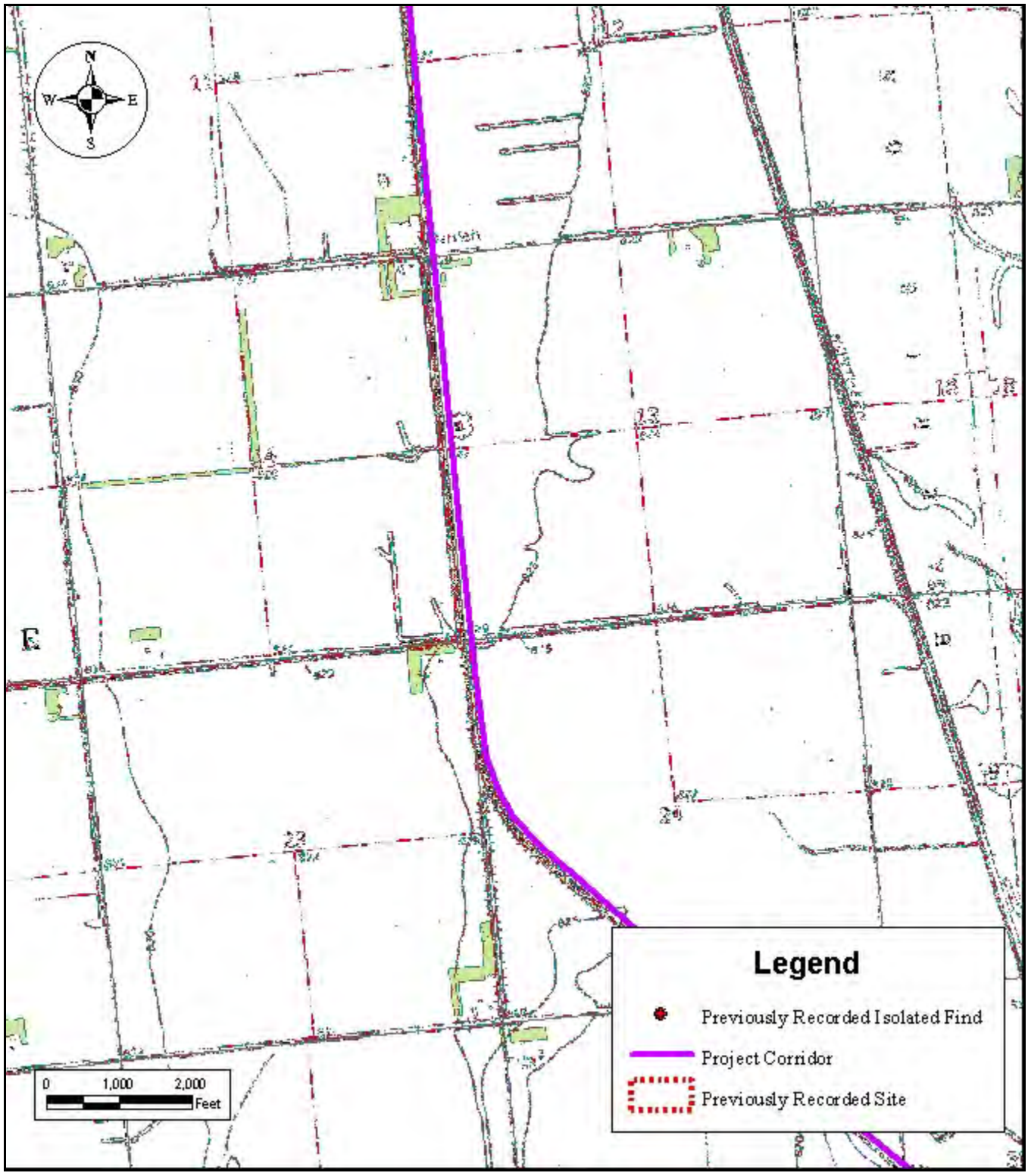

Figure 25: Location of the southern middle portion of the Grafton project corridor and previously recorded cultural resources in Sections 13, 14, 23, and 24, T. 156 N., R. 53 W., in Walsh County, North Dakota.

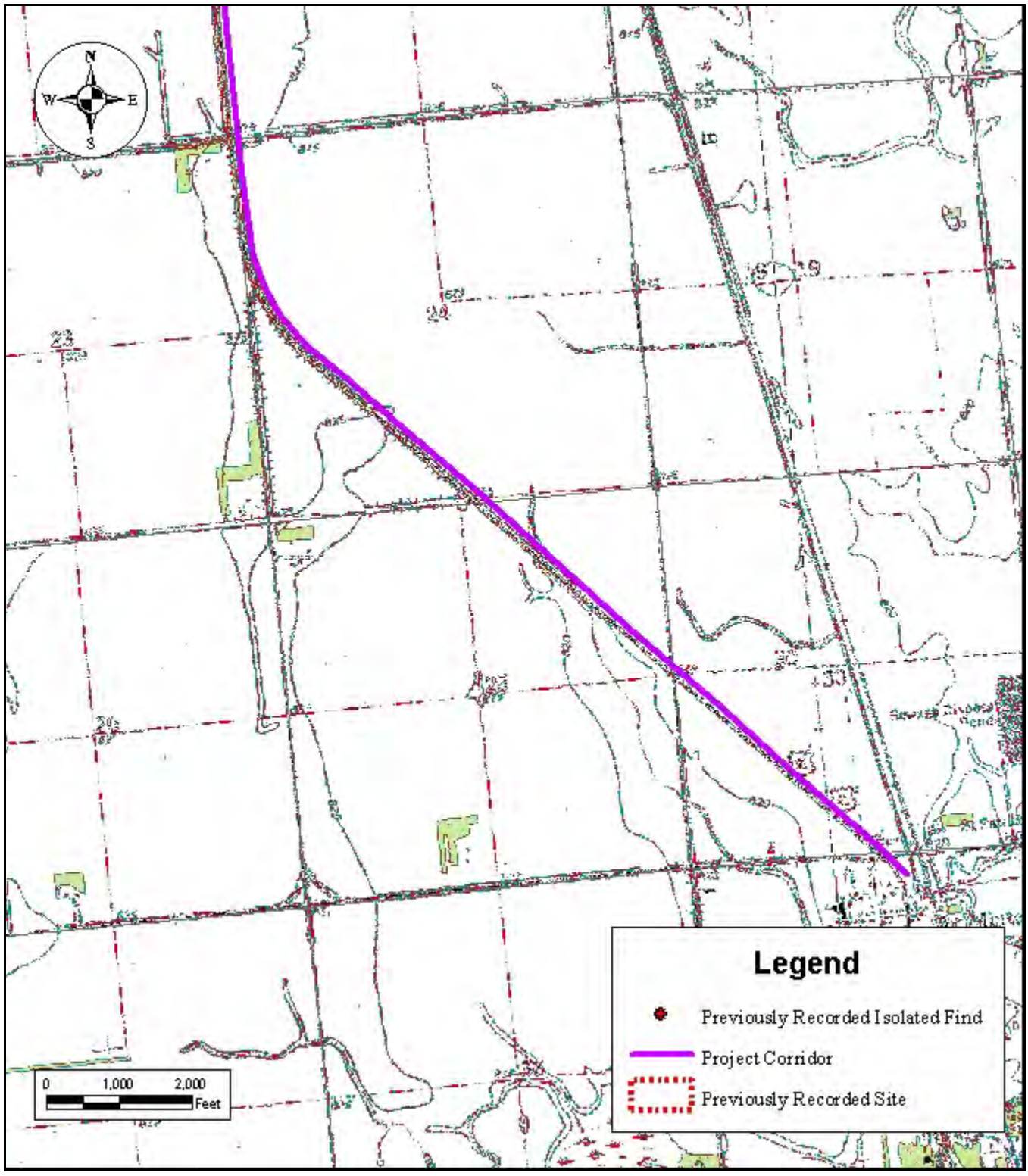

Figure 26: Location of the southern portion of the Grafton project corridor and previously recorded cultural resources in Sections 23, 24, and 25, T. 156 N., R. 53 W., and Section 30, T. 156 N., R. 52 W., in Walsh County, North Dakota.

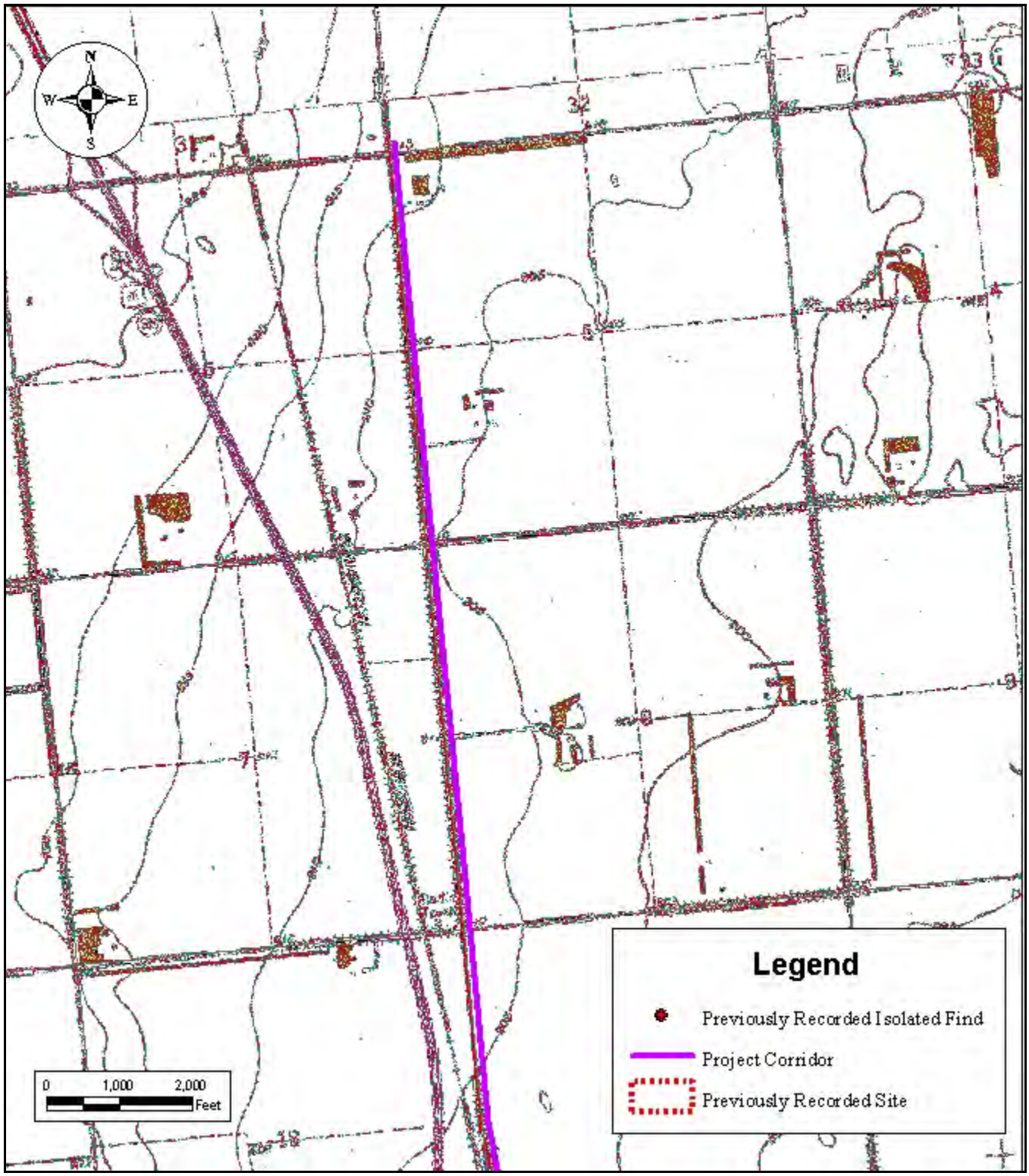

Figure 27: Location of the northern portion of the Hillsboro project corridor and previously recorded cultural resources in Sections 31 and 32, T. 147 N., R. 50 W., and Sections 5, 6, 7, and 8, T. 146 N., R. 50 W., in Traill County, North Dakota.

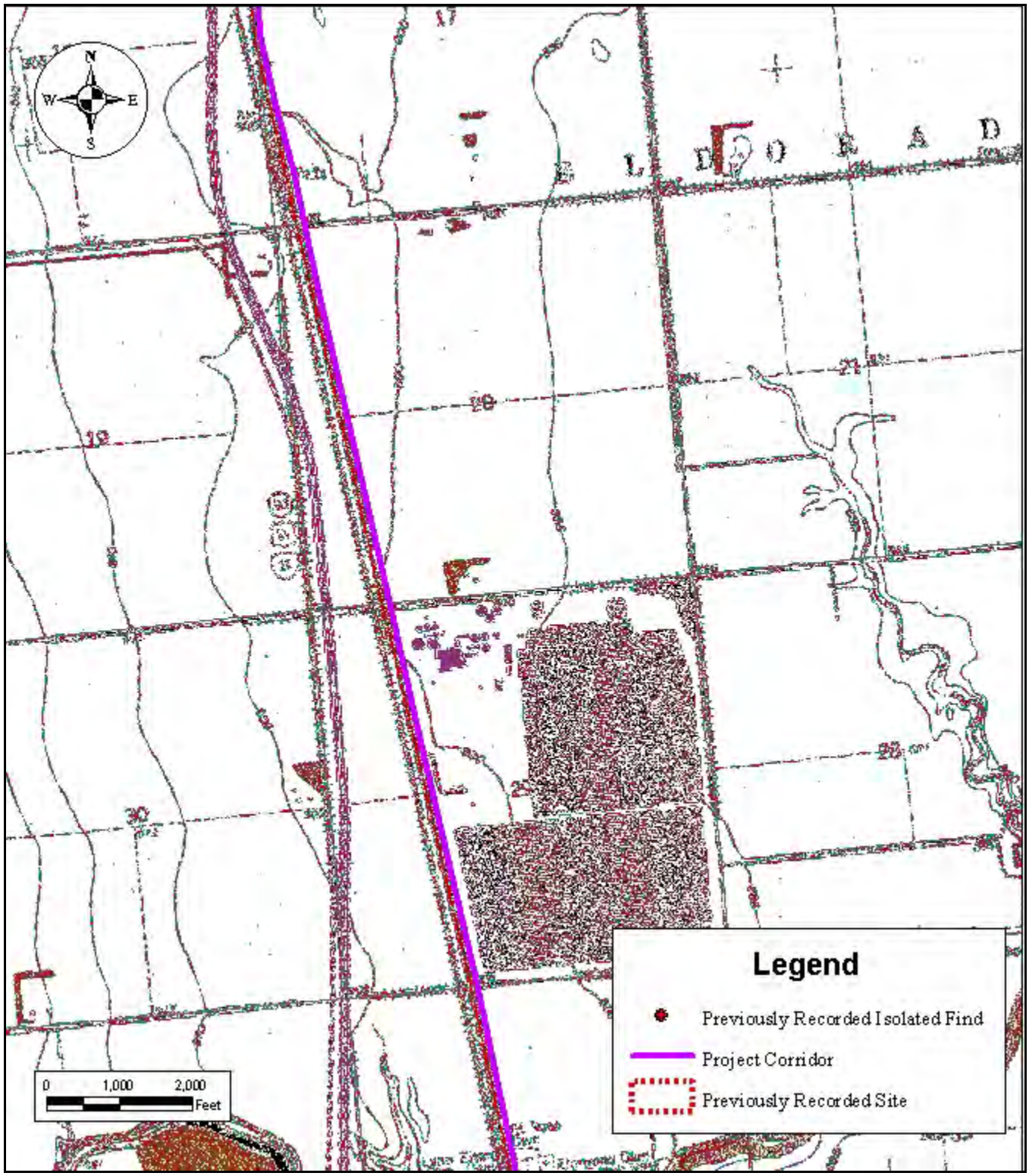

Figure 28: Location of the middle portion of the Hillsboro project corridor and previously recorded cultural resources in Sections 17, 18, 19, 20, and 29, T. 146 N., R. 50 W., in Traill County, North Dakota.

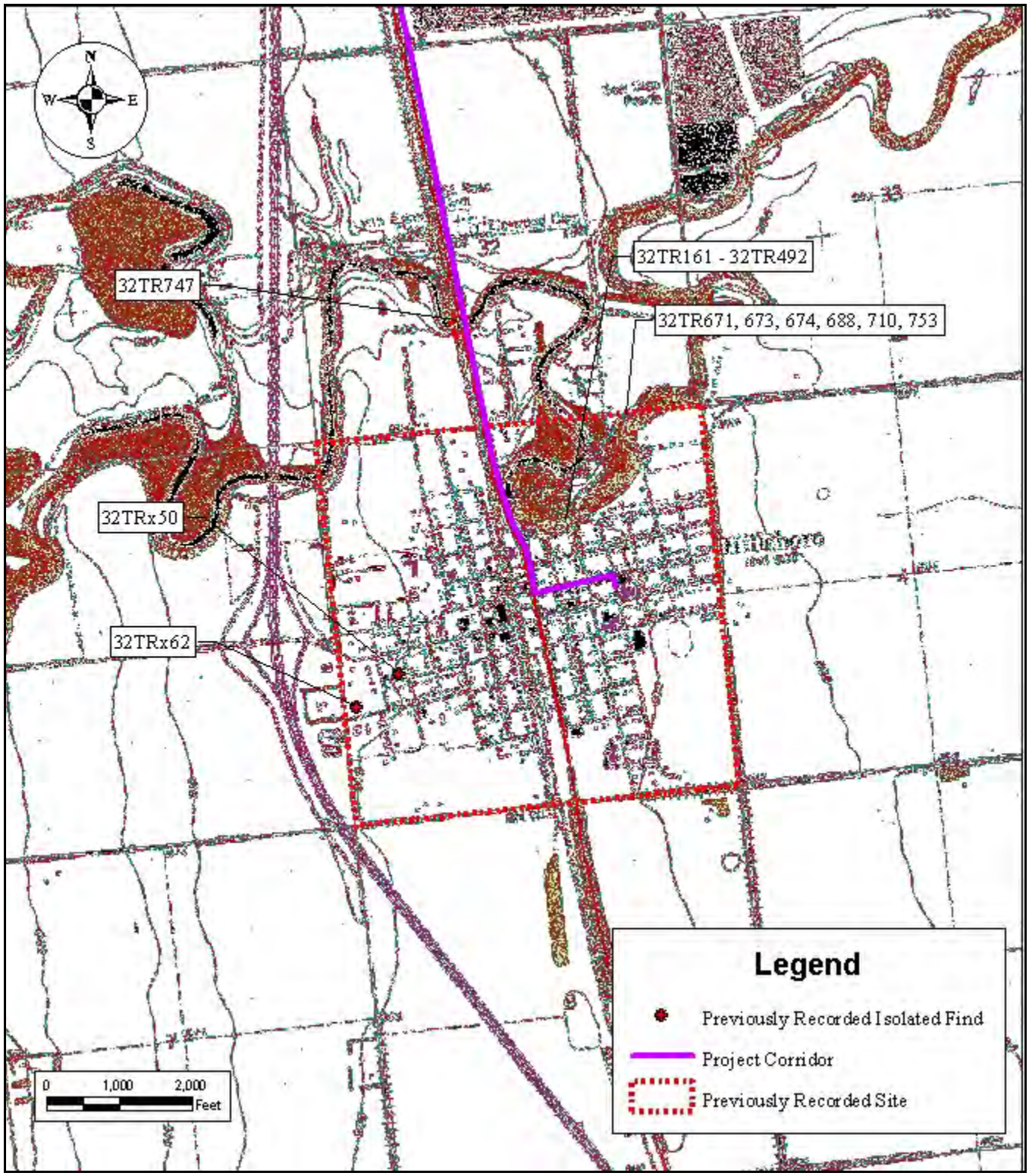

Figure 29: Location of the southern portion of the Hillsboro project corridor and previously recorded cultural resources in Section 32, T. 146 N., R. 50 W., and Section 5, T. 145 N., R. 50 W., in Traill County, North Dakota.

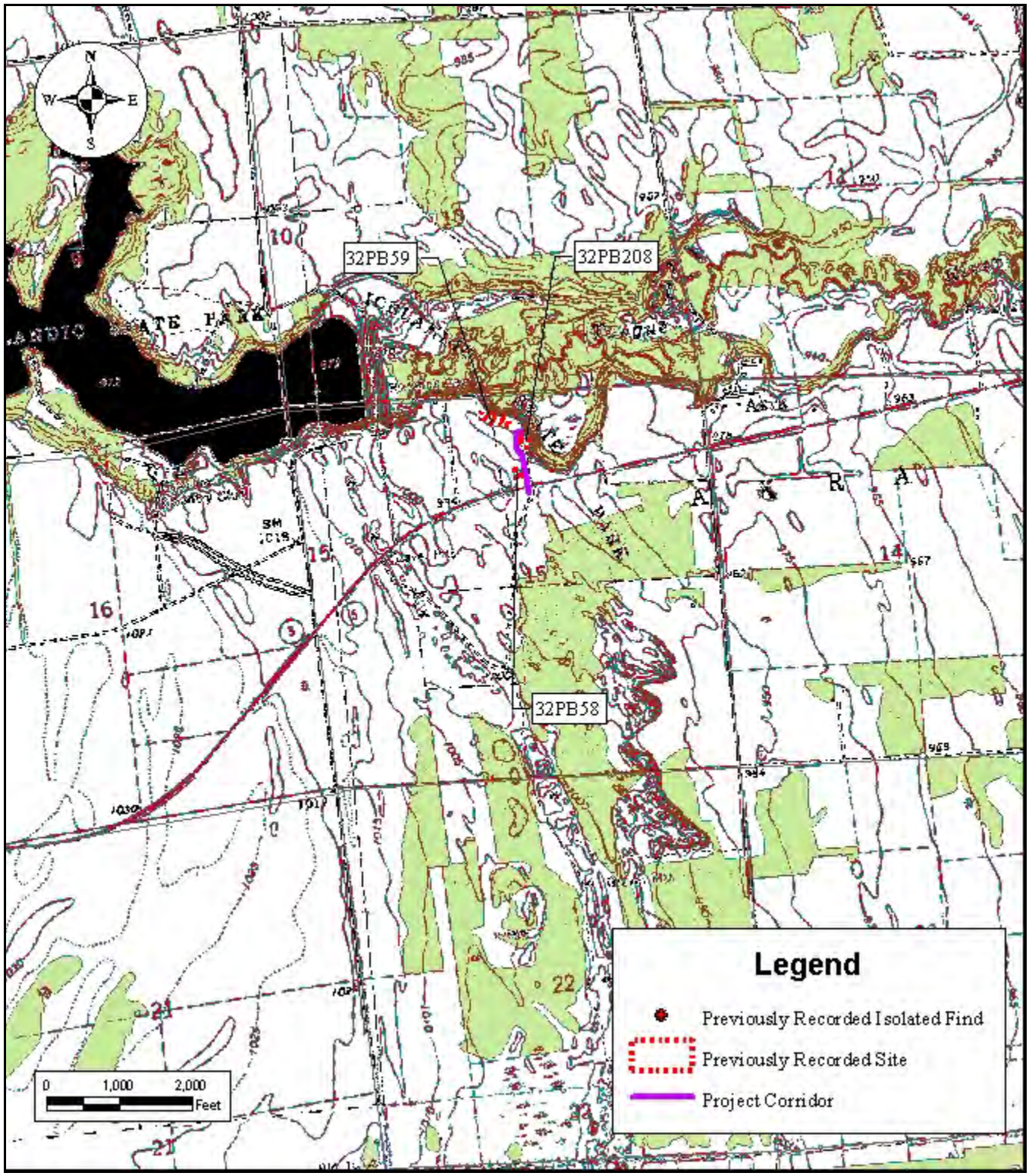

Figure 30: Location of the Icelandic State Park project corridor and previously recorded cultural resources in Section 15, T. 161 N., R. 55 W., in Pembina County, North Dakota.

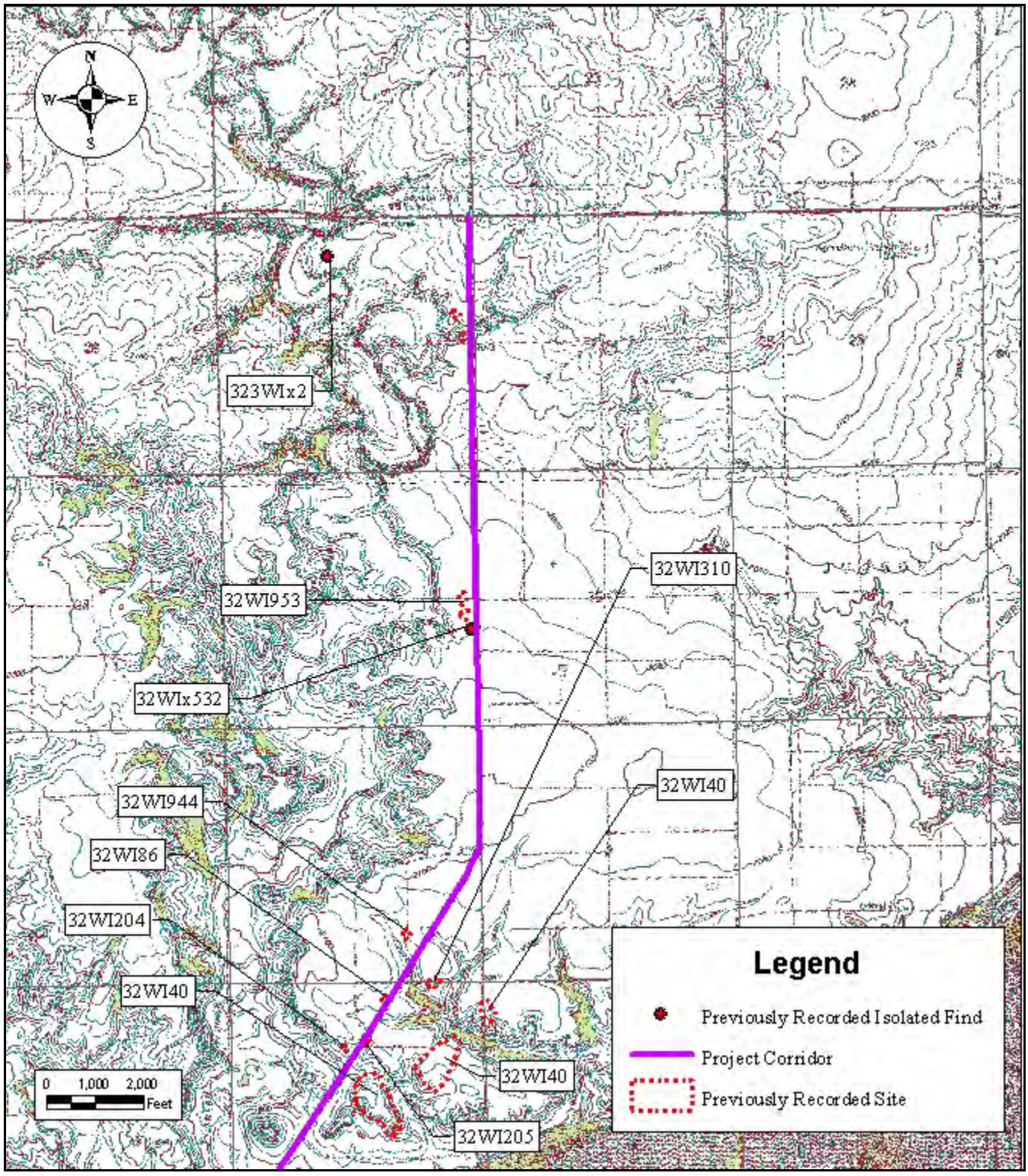

Figure 31: Location of the northern portion of the Indian Service Area project corridor and previously recorded cultural resources in Sections 22, 23, 26, 27, 34, and 35, T. 154 N., R. 102 W., and Sections 2, 3, 9, and 10, T. 153 N., R. 102 W., in Williams County, North Dakota.

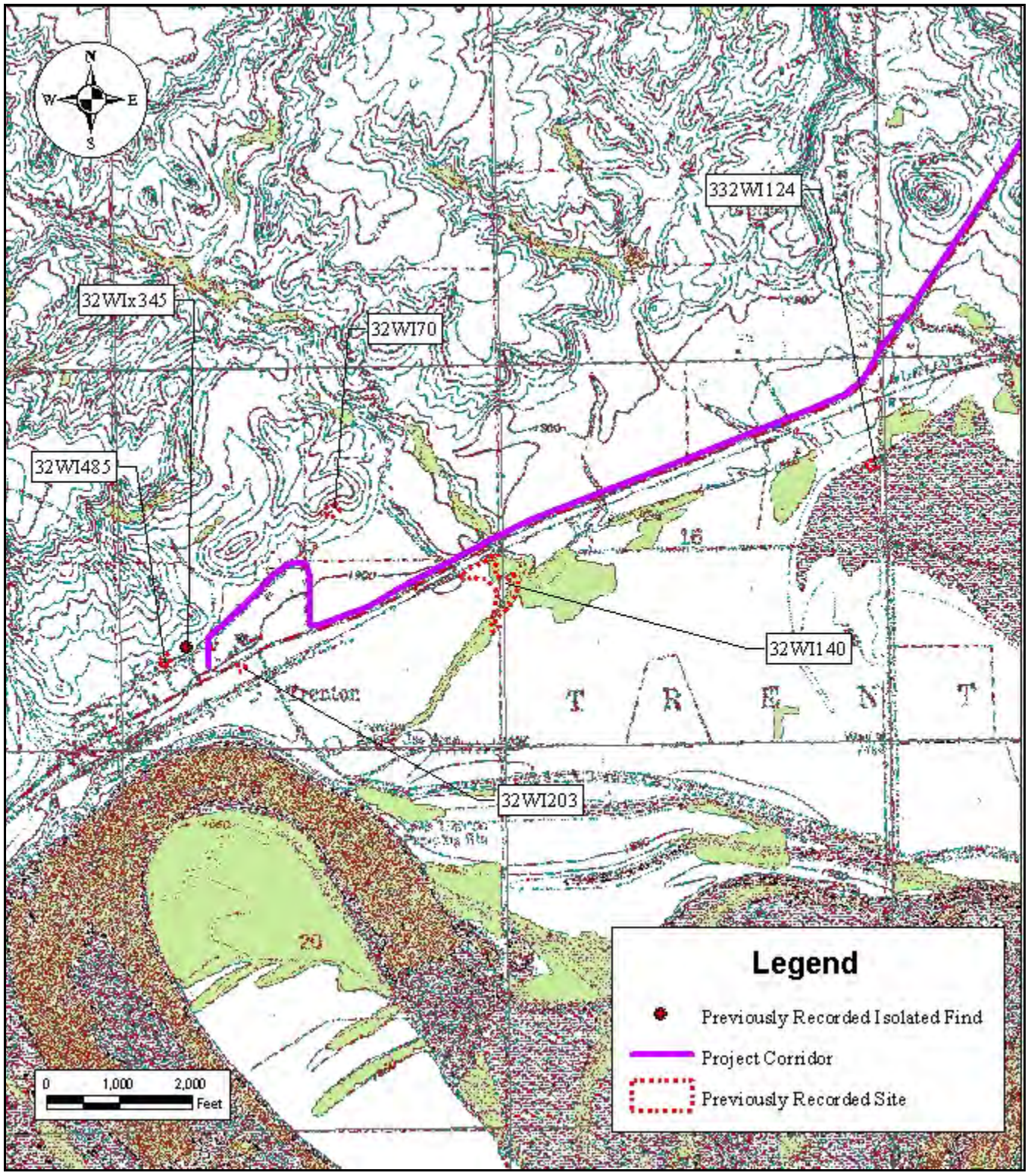

Figure 32: Location of the southern portion of the Indian Service Area project corridor and previously recorded cultural resources in Sections 16 and 17, T. 153 N., R. 102 W., in Williams County, North Dakota.

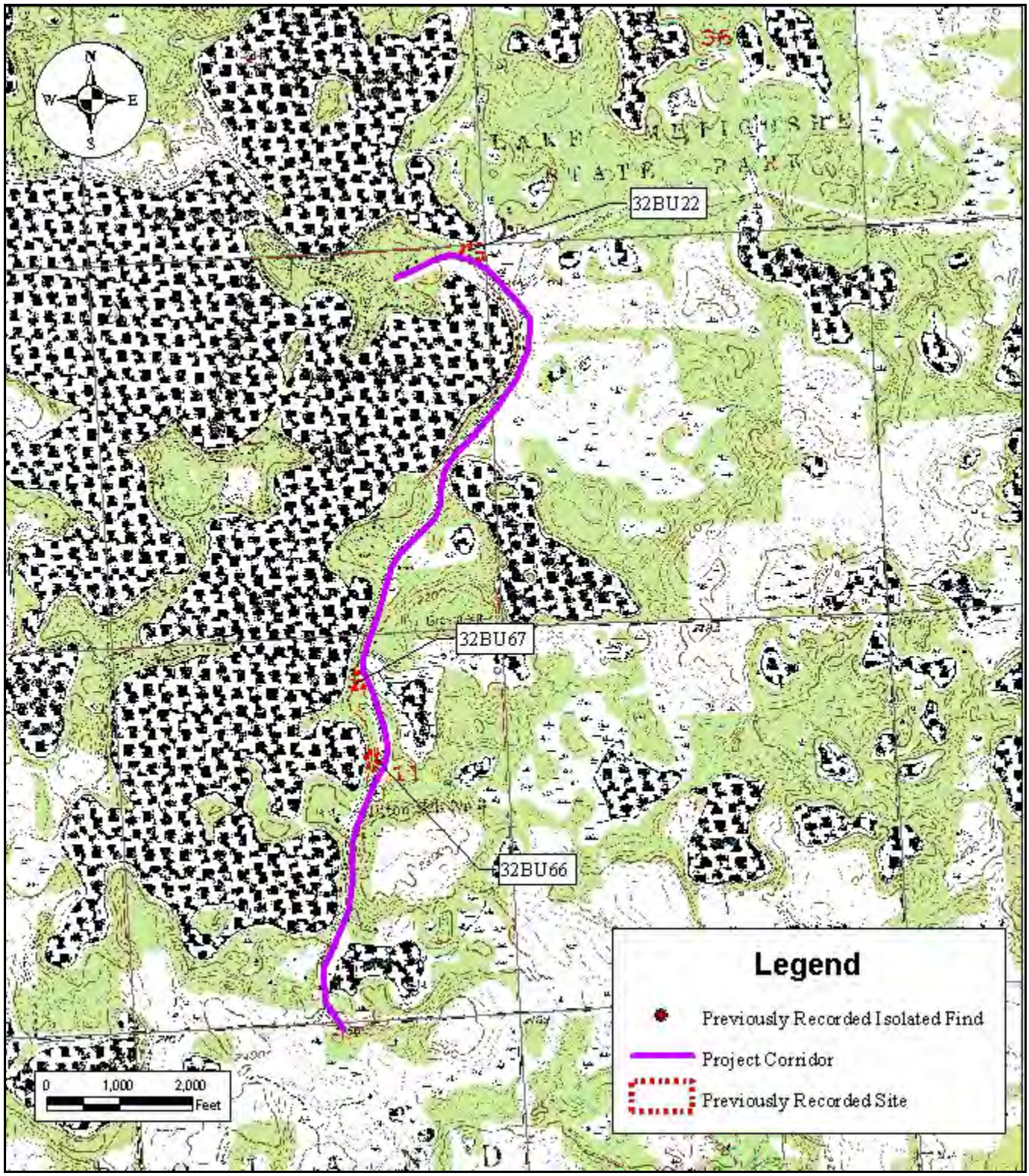

Figure 33: Location of the Lake Metigoshe State Park project corridor and previously recorded cultural resources in Sections 1, 2, 11, and 14, T. 163 N., R. 75 W., in Bottineau County, North Dakota.

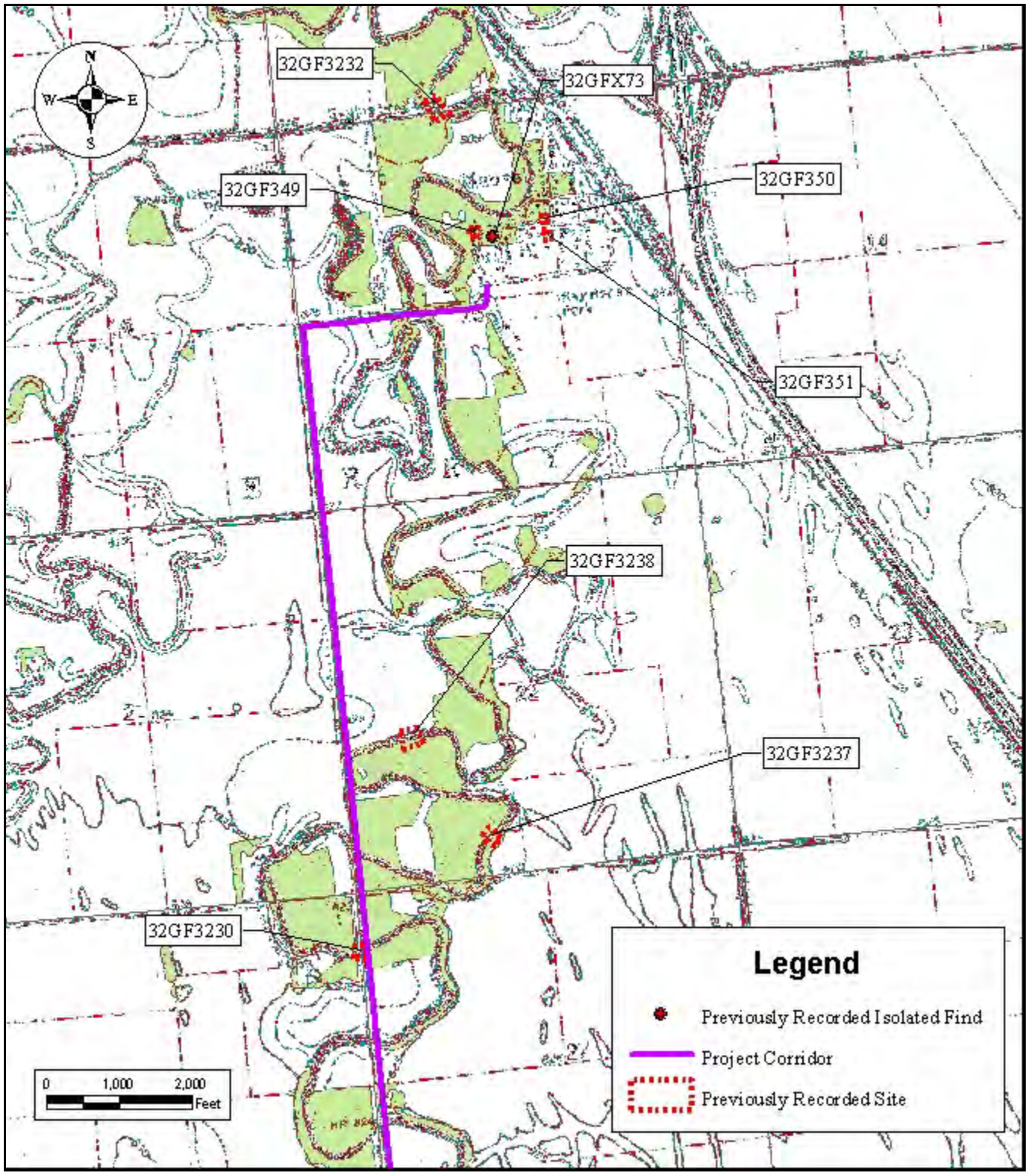

Figure 34: Location of the northern portion of the Manvel project corridor and previously recorded cultural resources in Sections 15, 16, 21, 22, 27 and 28, T. 153 N., R. 51 W., in Grand Forks County, North Dakota.

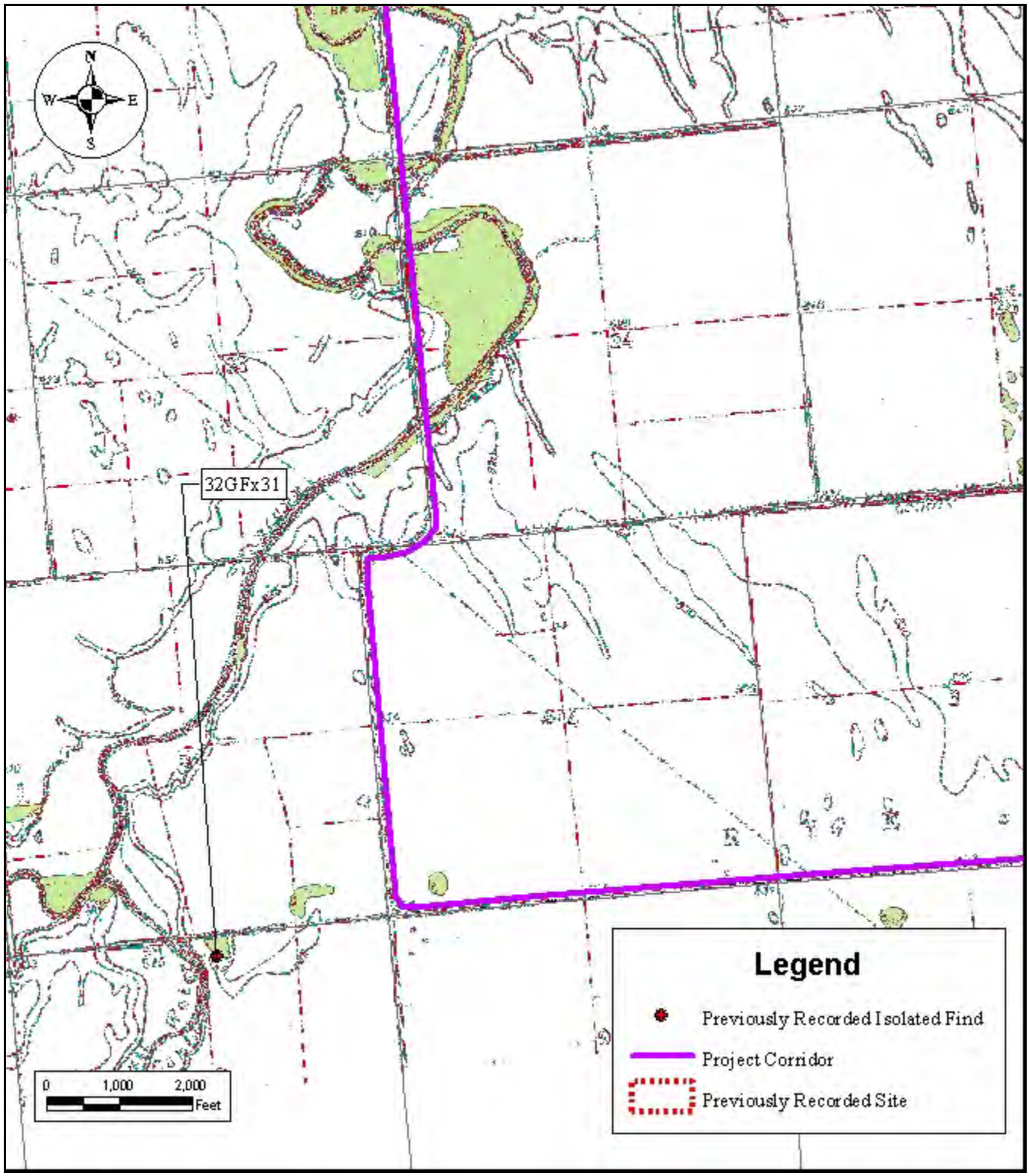

Figure 35: Location of the western middle portion of the Manvel project corridor and previously recorded cultural resources in Sections 33 and 34, T. 153 N., R. 51 W., and Sections 3, 4, 5, 8 , 9 , and 10, T. 152 N., R. 51 W., in Grand Forks County, North Dakota.

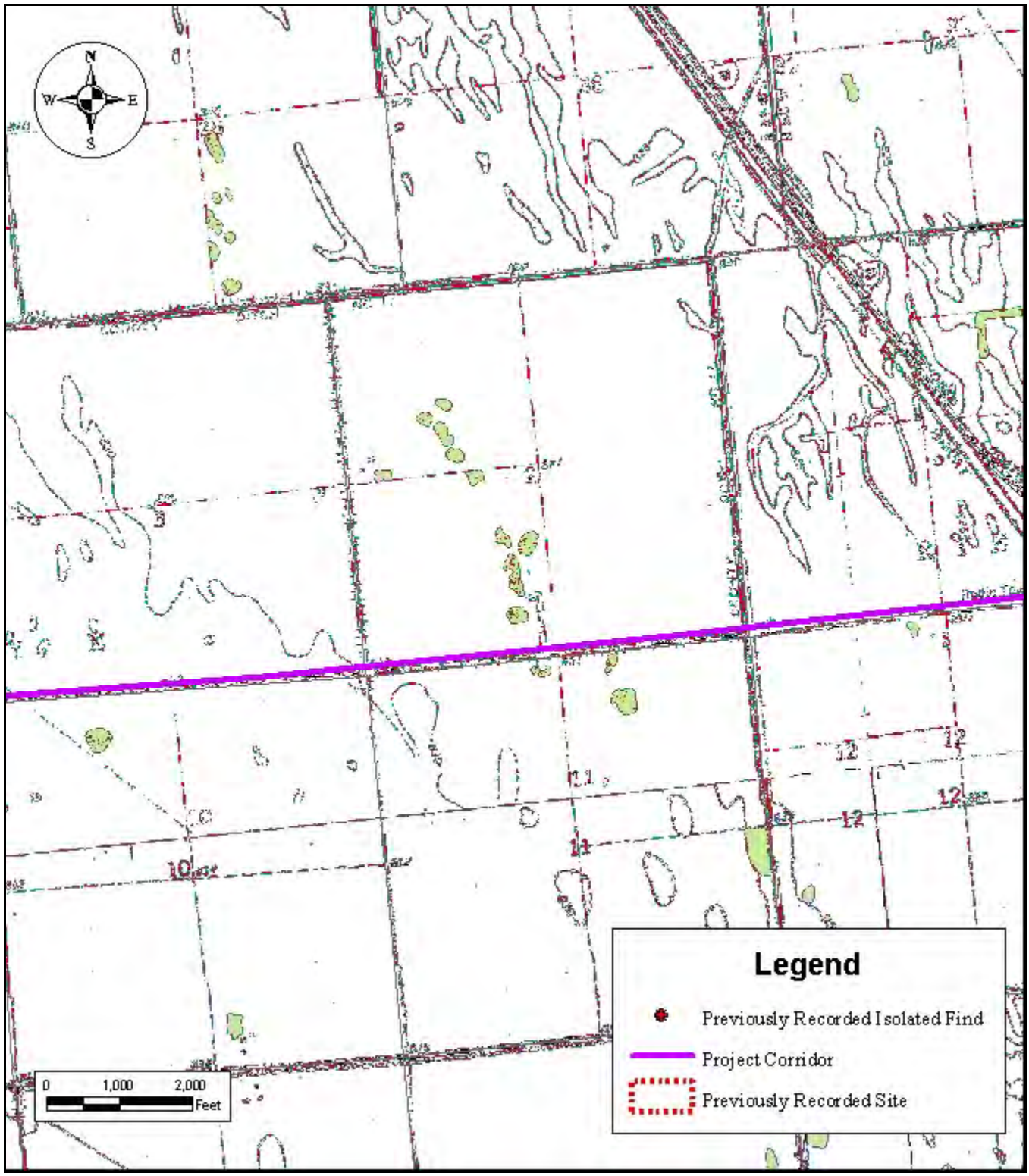

Figure 36: Location of the eastern middle portion of the Manvel project corridor and previously recorded cultural resources in Sections 2, 3, 10, 11, and 12, T. 152 N., R. 51 W., in Grand Forks County, North Dakota.

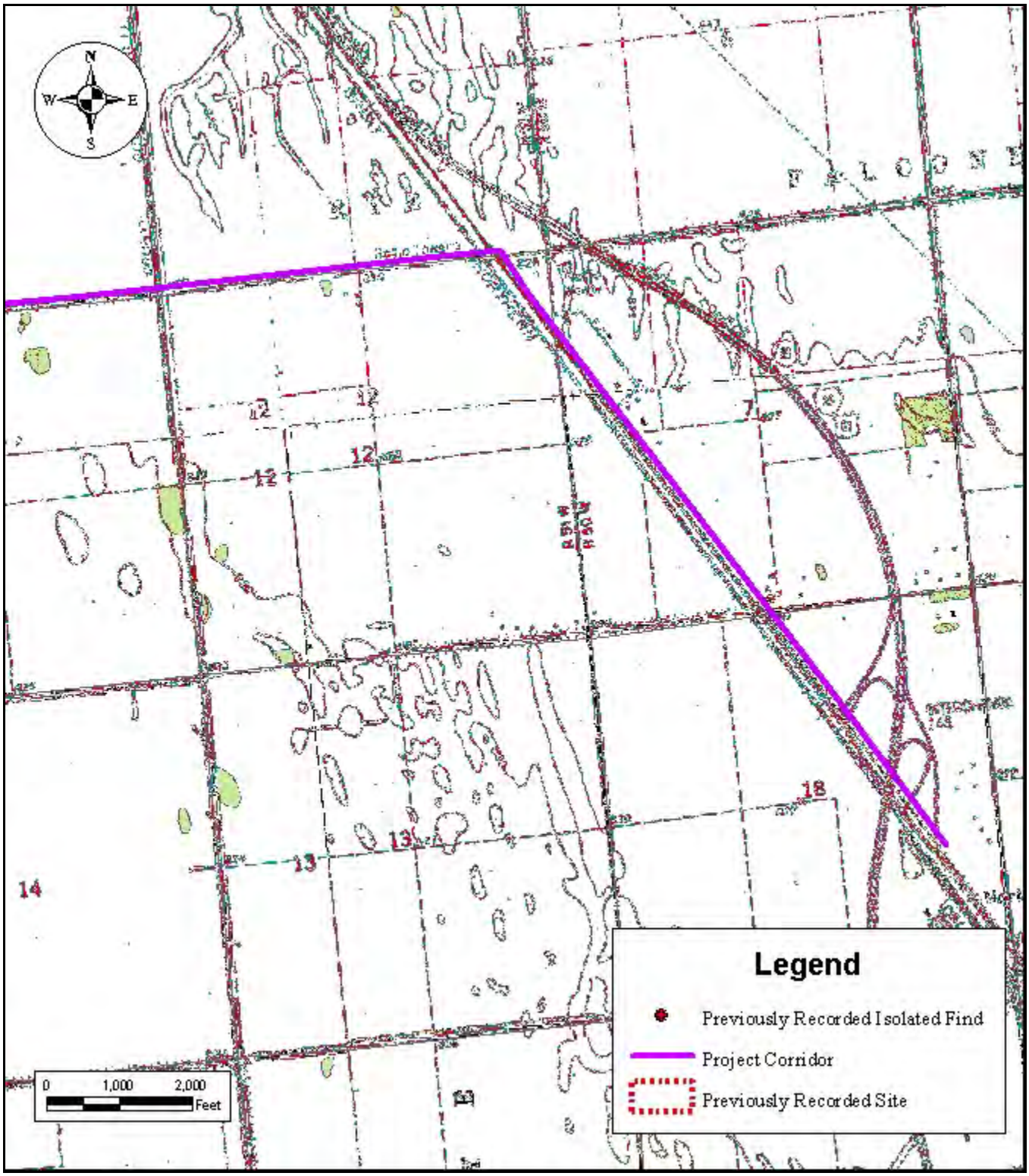

Figure 37: Location of the southeastern portion of the Manvel project corridor and previously recorded cultural resources in Section 12, T. 152 N., R. 51 W., and Sections 7 and 18, T. 152 N., R. 50 W., in Grand Forks County, North Dakota.

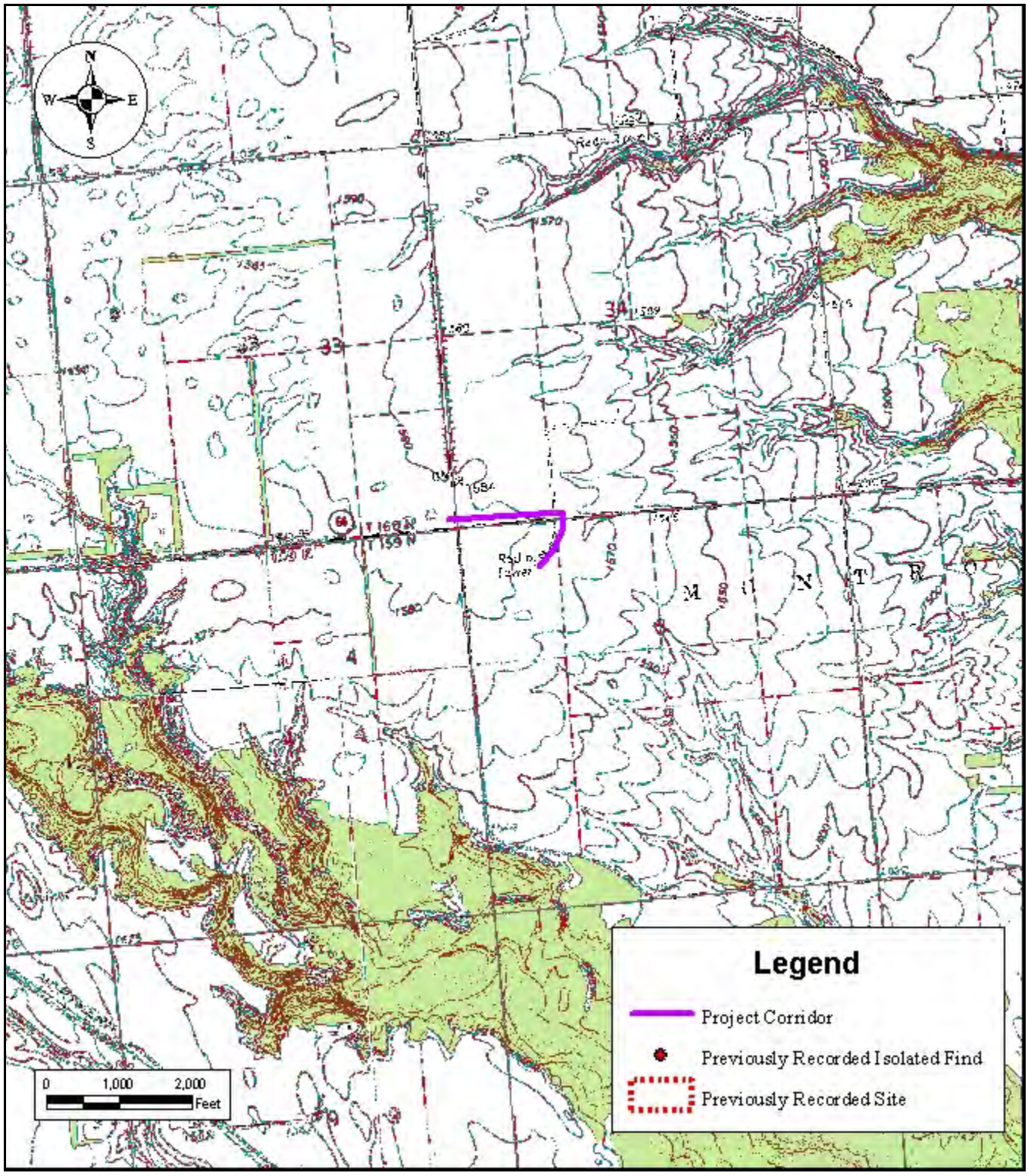

Figure 38: Location of the Milton project corridor and previously recorded cultural resources in Sections 33 and 34, T. 160 N., R. 57 W., and Sections 3 and 4, T. 159 N., R. 57 W., in Cavalier County, North Dakota.

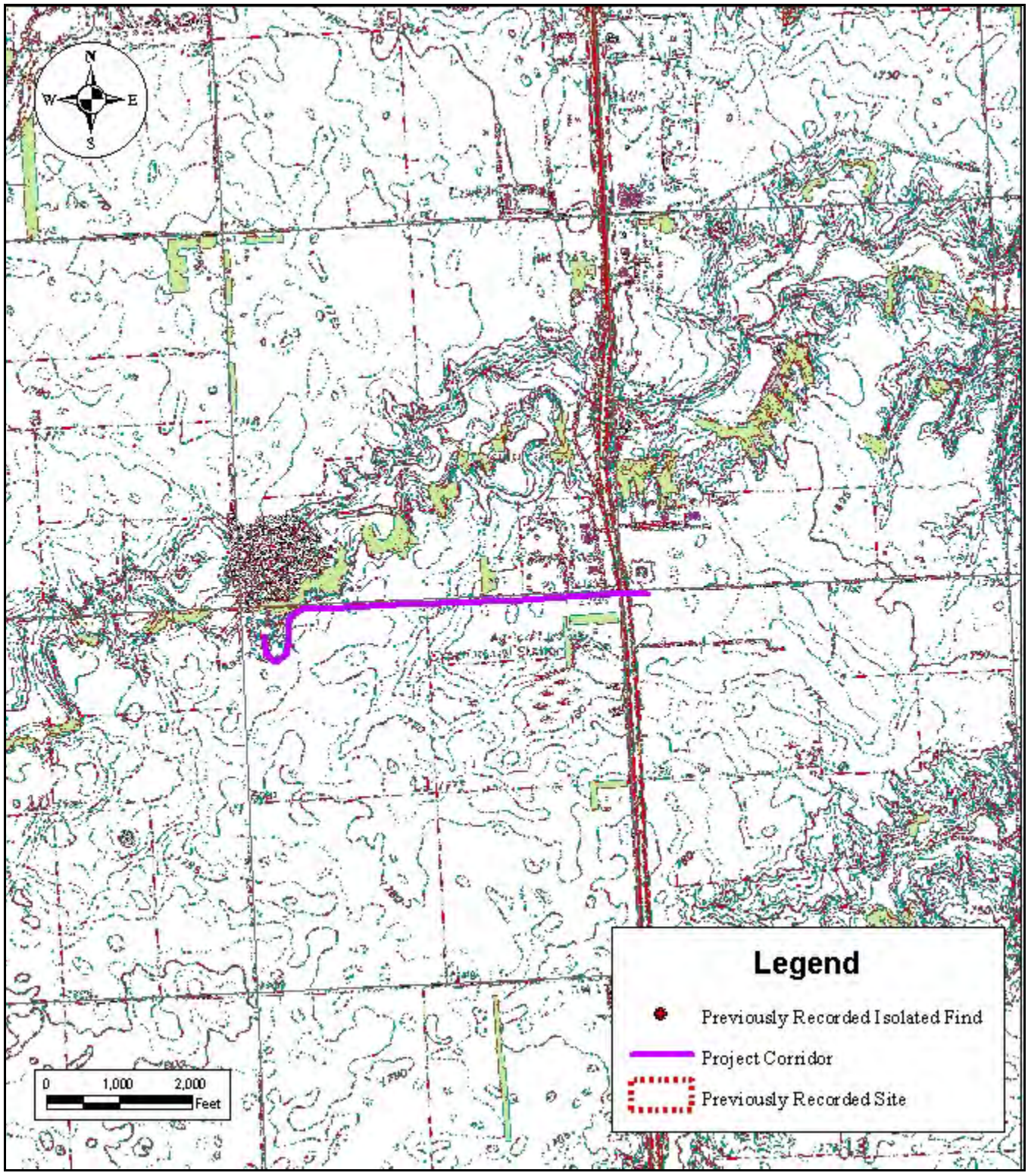

Figure 39: Location of the Minot Tower project corridor and previously recorded cultural resources in Sections 1, 2, 11, and 12, T. 154 N., R. 83 W., in Ward County, North Dakota.

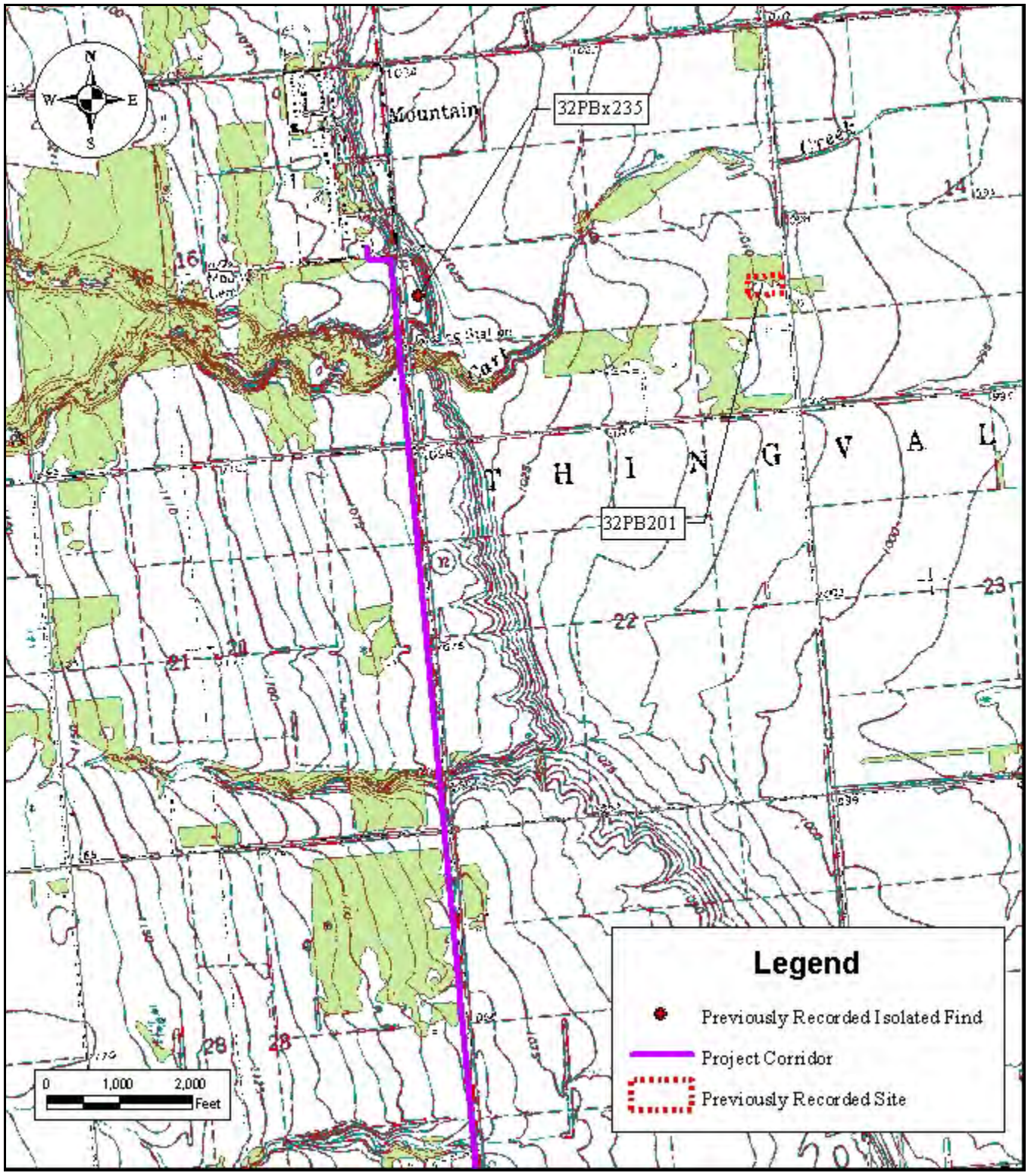

Figure 40: Location of the northern portion of the Mountain project corridor and previously recorded cultural resources in Sections 15,16, 21, 22, 27, and 28, T. 160 N., R. 56 W., in Pembina County, North Dakota.

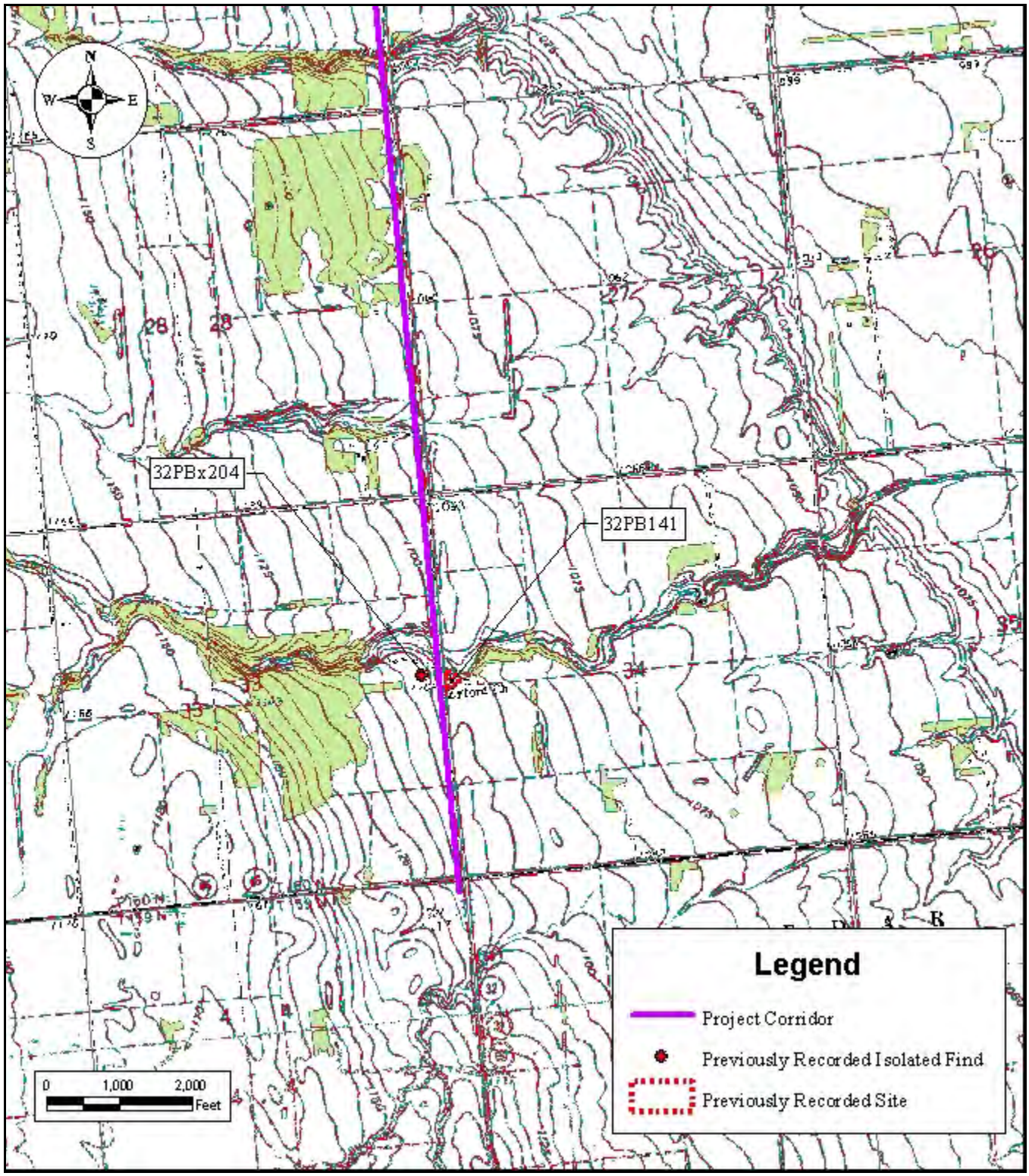

Figure 41: Location of the southern portion of the Mountain project corridor and previously recorded cultural resources in Sections 27, 28, 33, and 34, T. 160 N., R. 56 W., and Sections 3 and 4, T. 159 N., R. 56 W., in Pembina County, North Dakota.

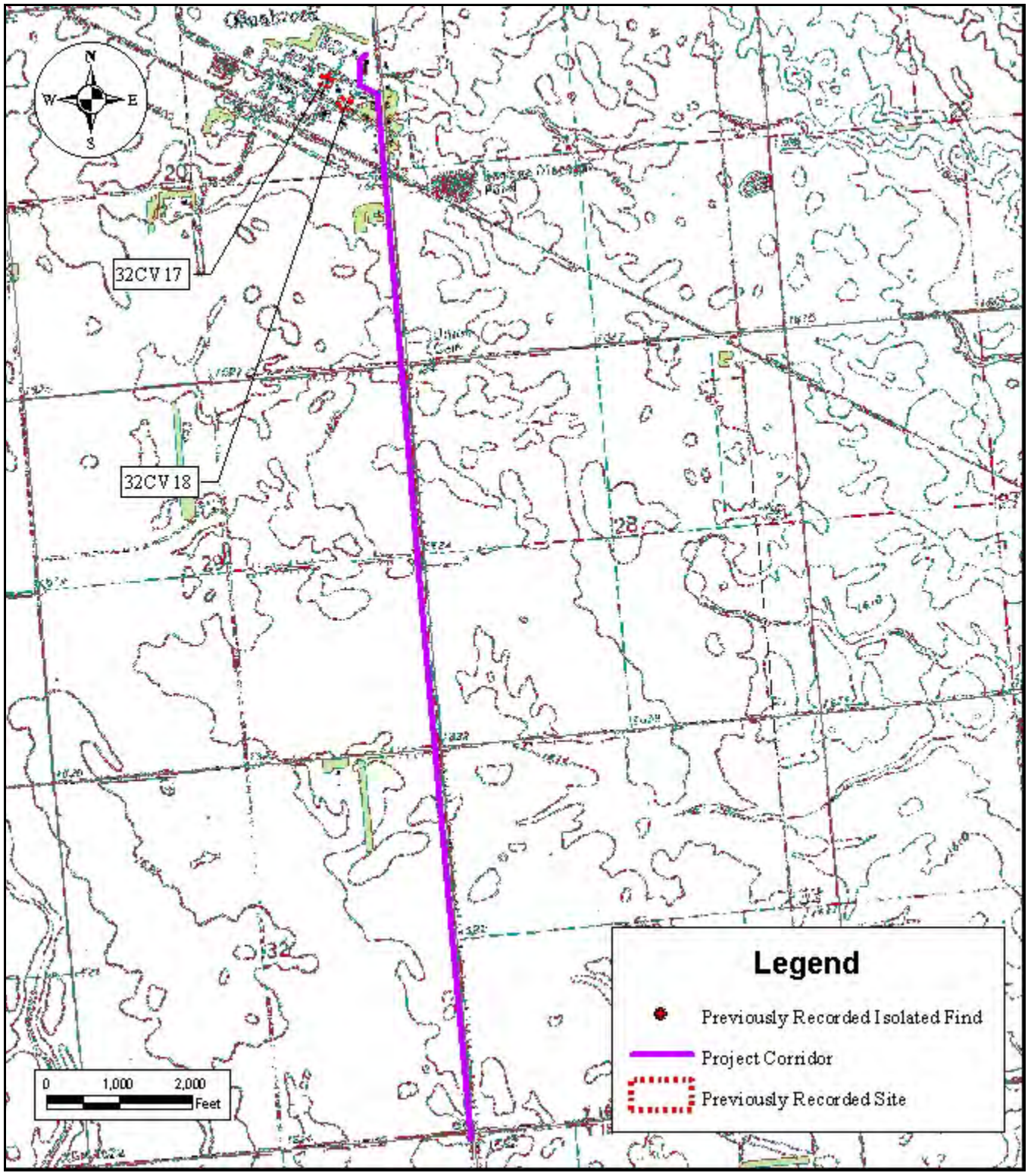

Figure 42: Location of the Osnabrock project corridor and previously recorded cultural resources in Sections 20, 21, 28, 29, 32, and 33, T. 160 N., R. 58 W., and Sections 4 and 5, T. 159 N., R. 58 W., in Cavalier County, North Dakota.

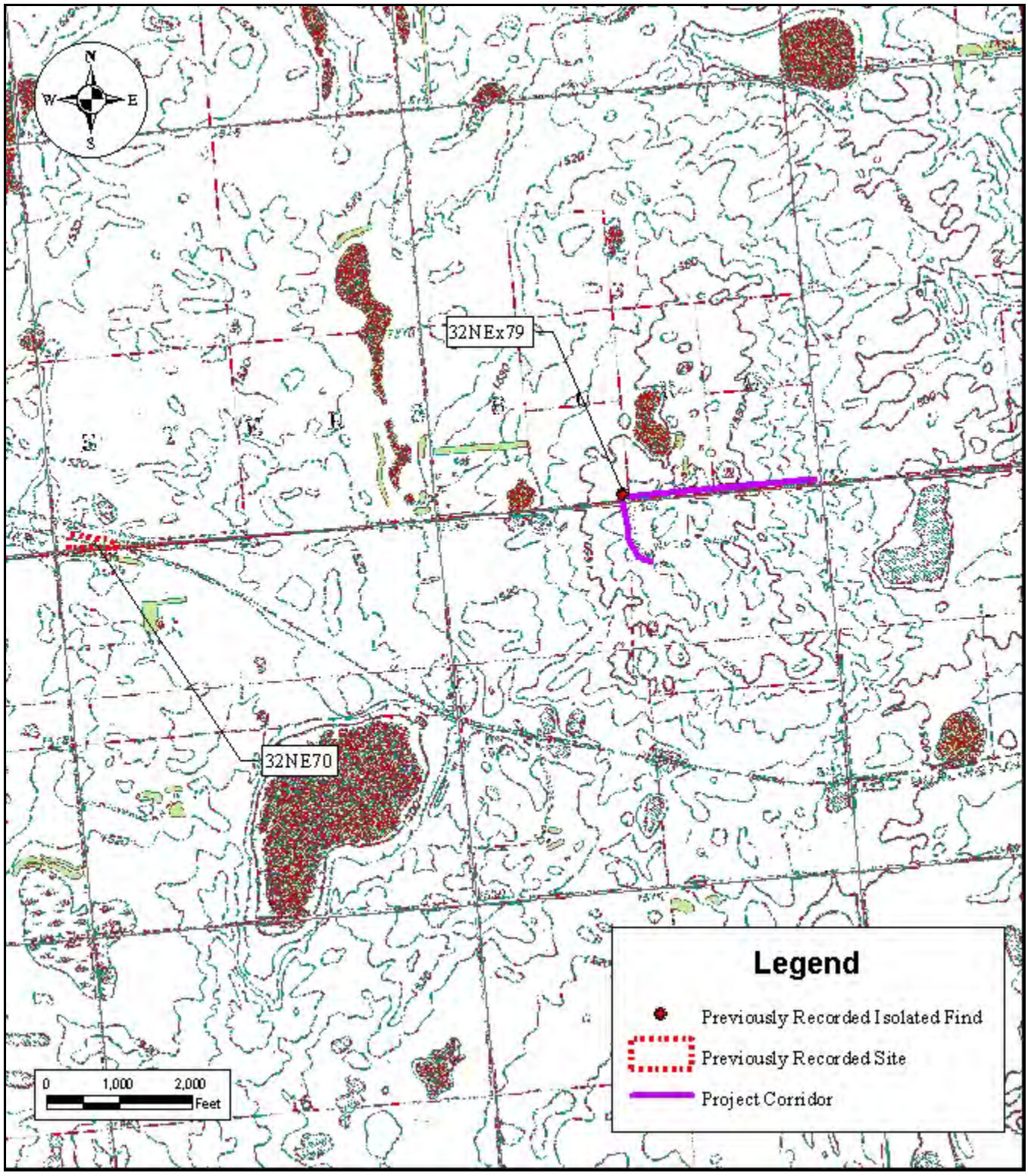

Figure 43: Location of the Petersburg Tower project corridor and previously recorded cultural resources in Sections 3 and 10, T. 152 N., R. 57 W., in Nelson County, North Dakota.

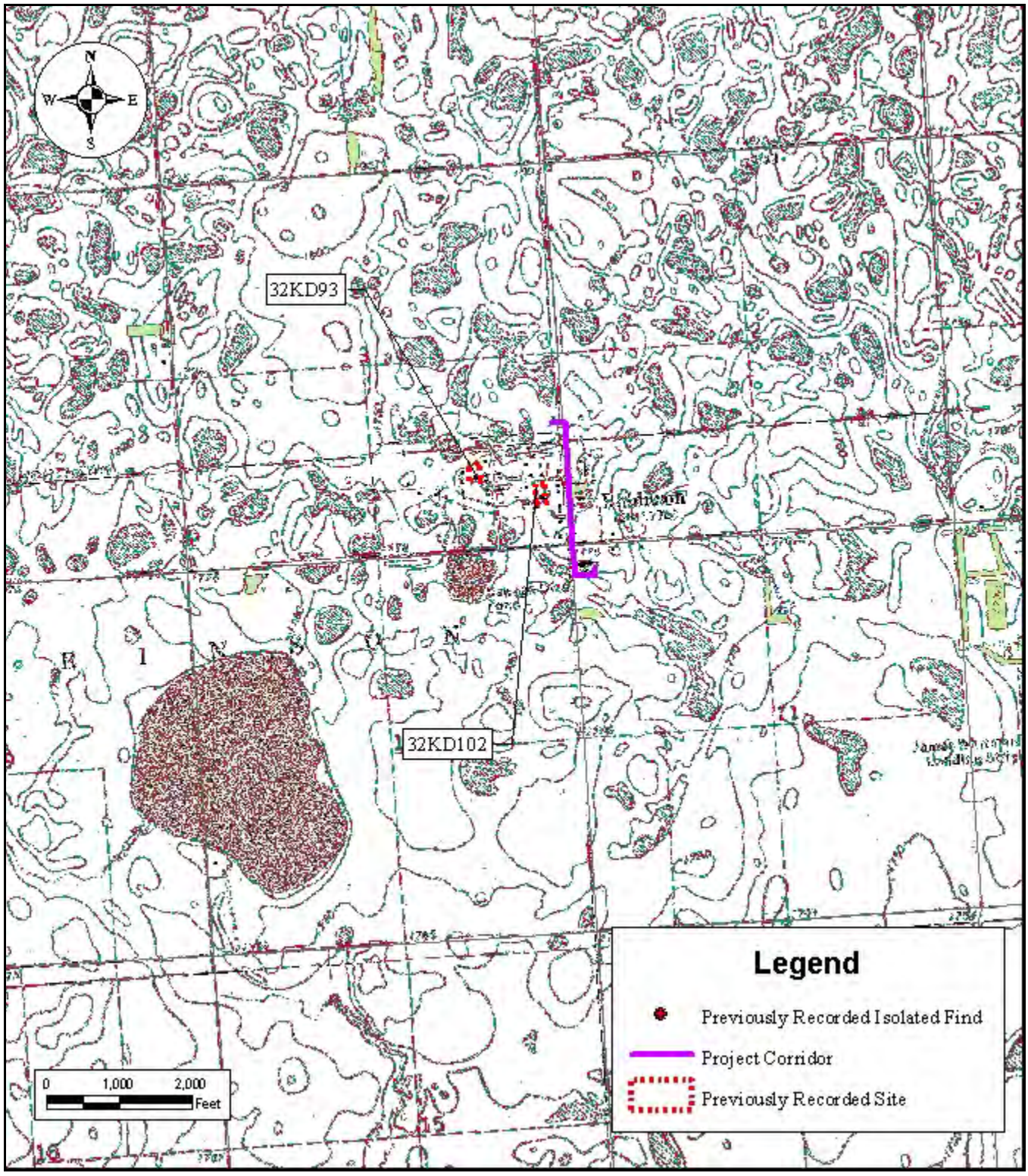

Figure 44: Location of the Robinson project corridor and previously recorded cultural resources in Sections 2 and 3, T. 142 N., R. 72 W., in Kidder County, North Dakota.

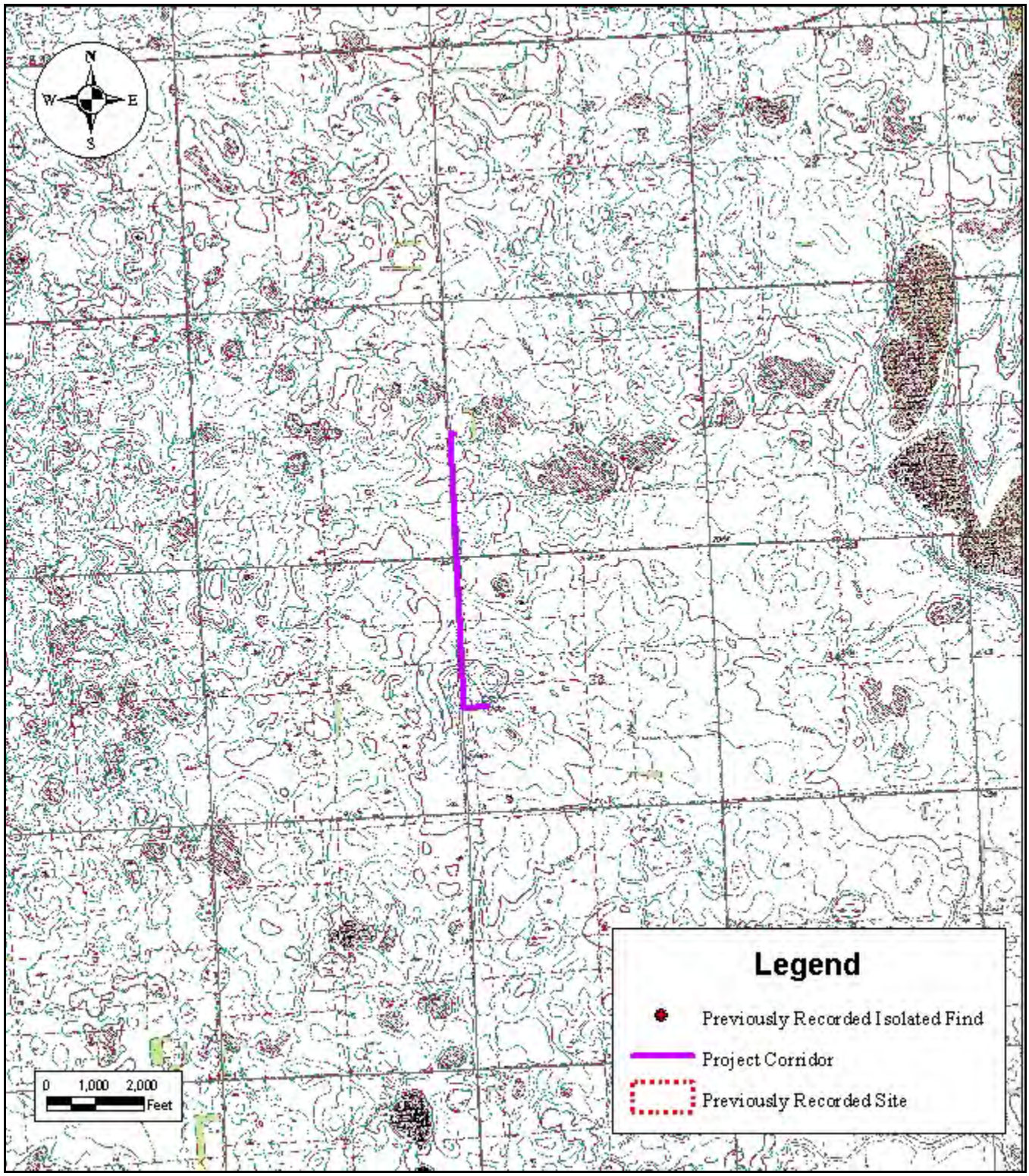

Figure 45: Location of the Ryder Tower project corridor and previously recorded cultural resources in Sections 28, 29, 32, and 33, T. 152 N., R. 85 W., in Ward County, North Dakota.

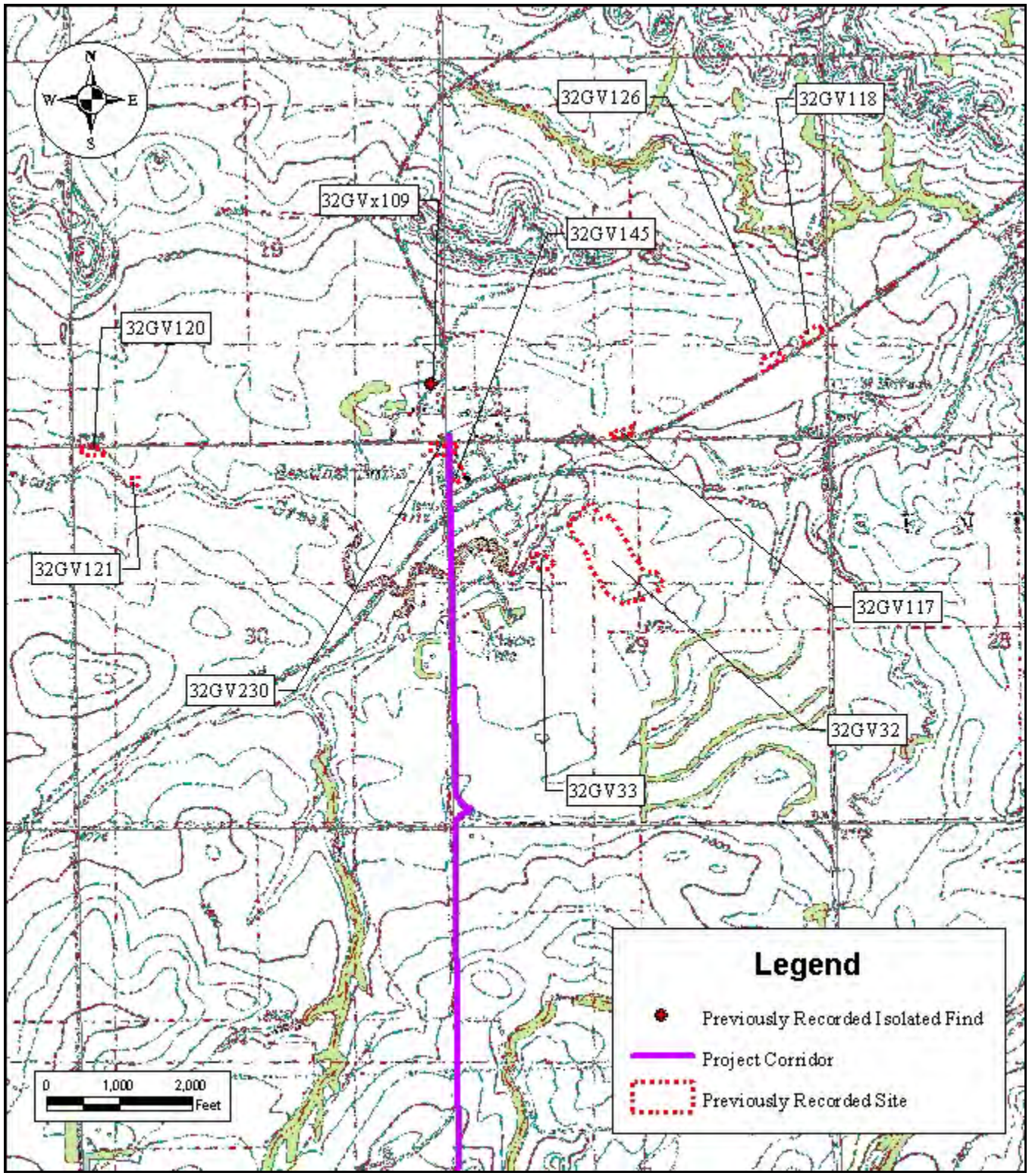

Figure 46: Location of the northern portion of the Sentinel Butte project corridor and previously recorded cultural resources in Sections 19, 20, 29, 20, 31, and 32, T. 140 N., R. 104 W., in Golden Valley County, North Dakota.

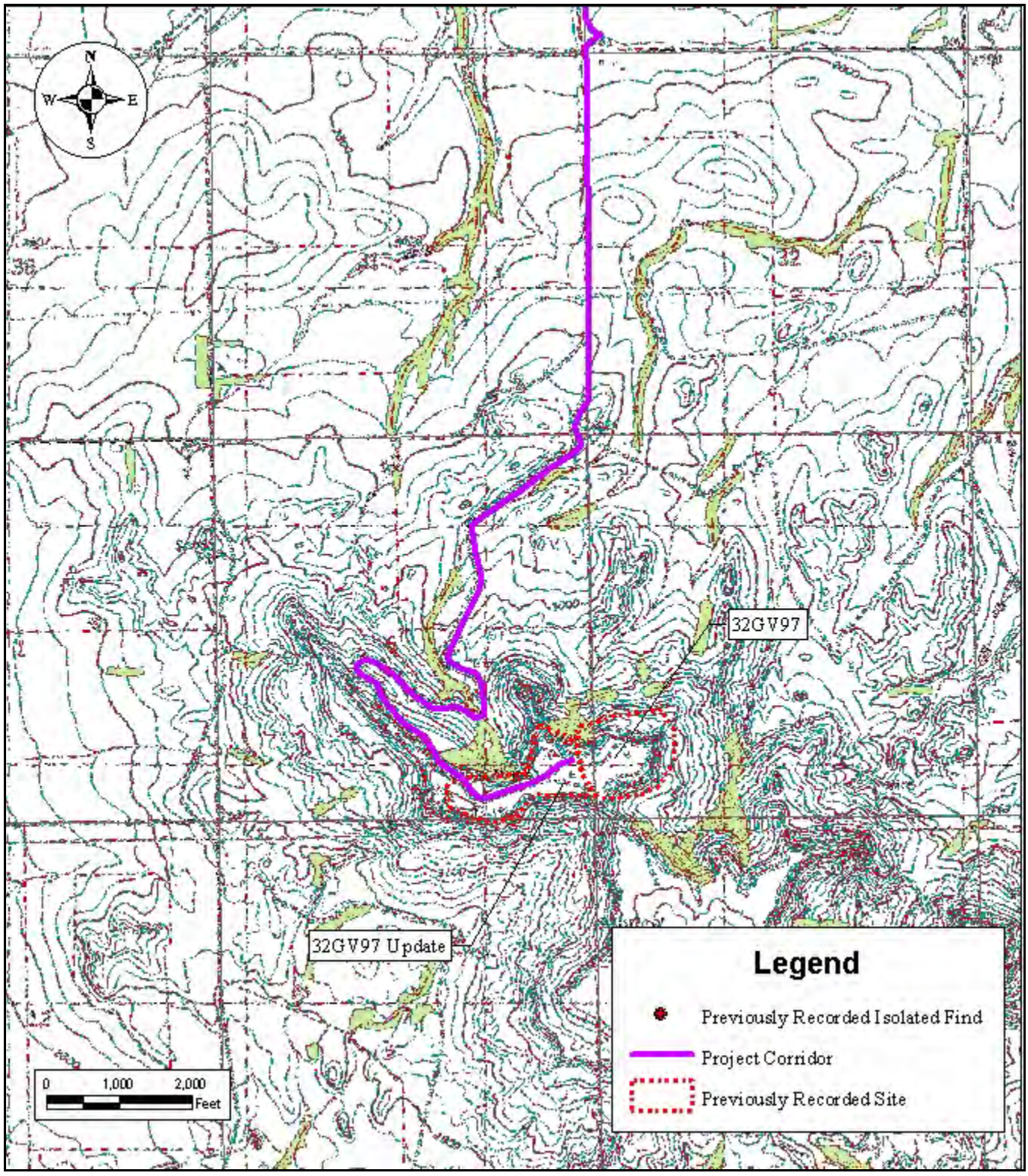

Figure 47: Location of the southern portion of the Sentinel Butte project corridor and previously recorded cultural resources in Sections 31 and 32, T. 140 N., R. 104 W., and Sections 5 and 6, T. 139 N., 104 W., in Golden Valley County, North Dakota.

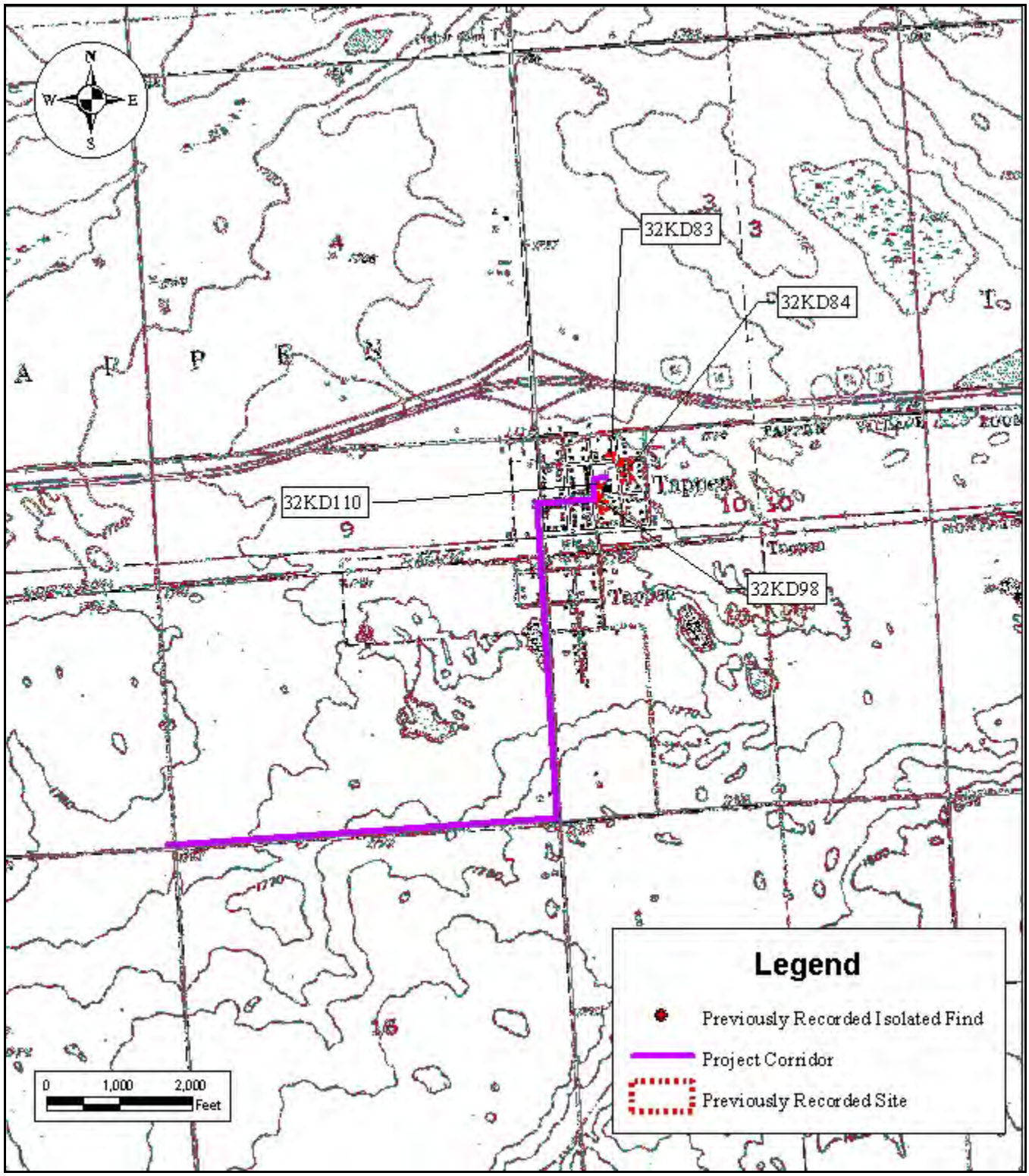

Figure 48: Location of the Tappen project corridor and previously recorded cultural resources in Sections 8, 9, 10, 15, 16, and 17, T. 139 N., R. 71 W., in Kidder County, North Dakota.

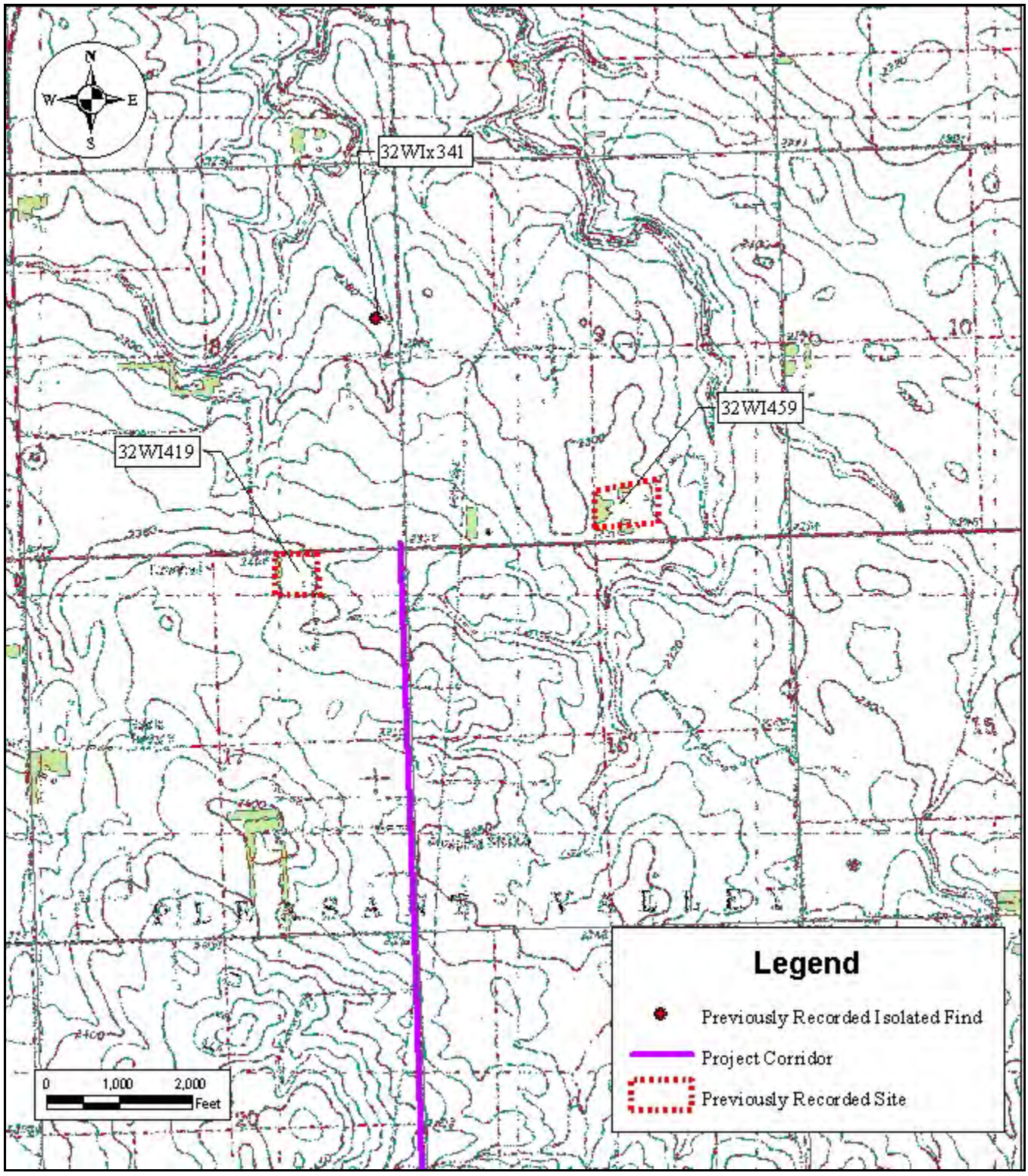

Figure 49: Location of the northern portion of the Tioga Tower project corridor and previously recorded cultural resources in Sections 8, 9, 16, and 17, T. 156 N., R. 95 W., in Williams County, North Dakota.

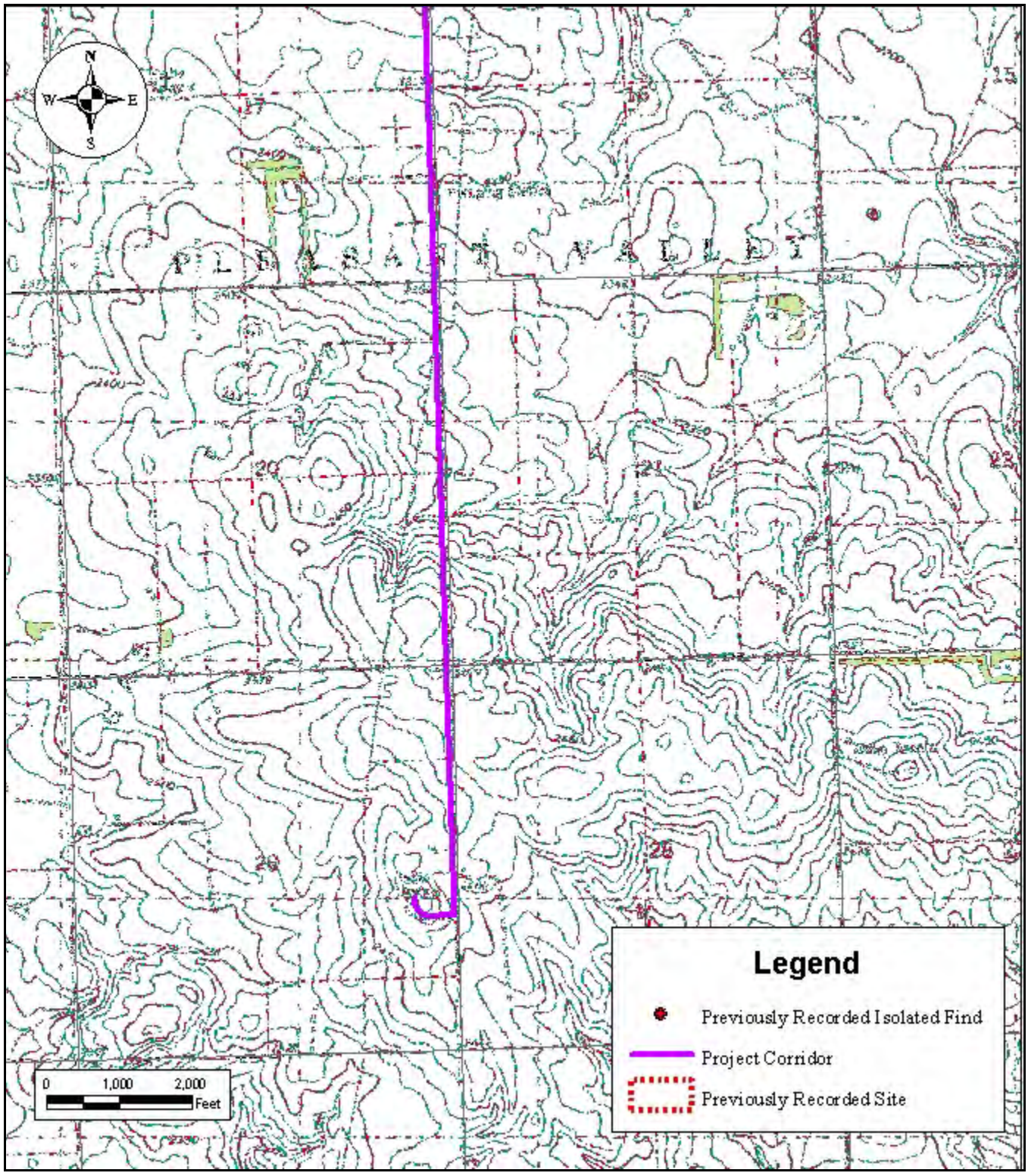

Figure 50: Location of the southern portion of the Tioga Tower project corridor and previously recorded cultural resources in Sections 20, 21, 28, and 29, T. 156 N., R. 95 W., in Williams County, North Dakota.

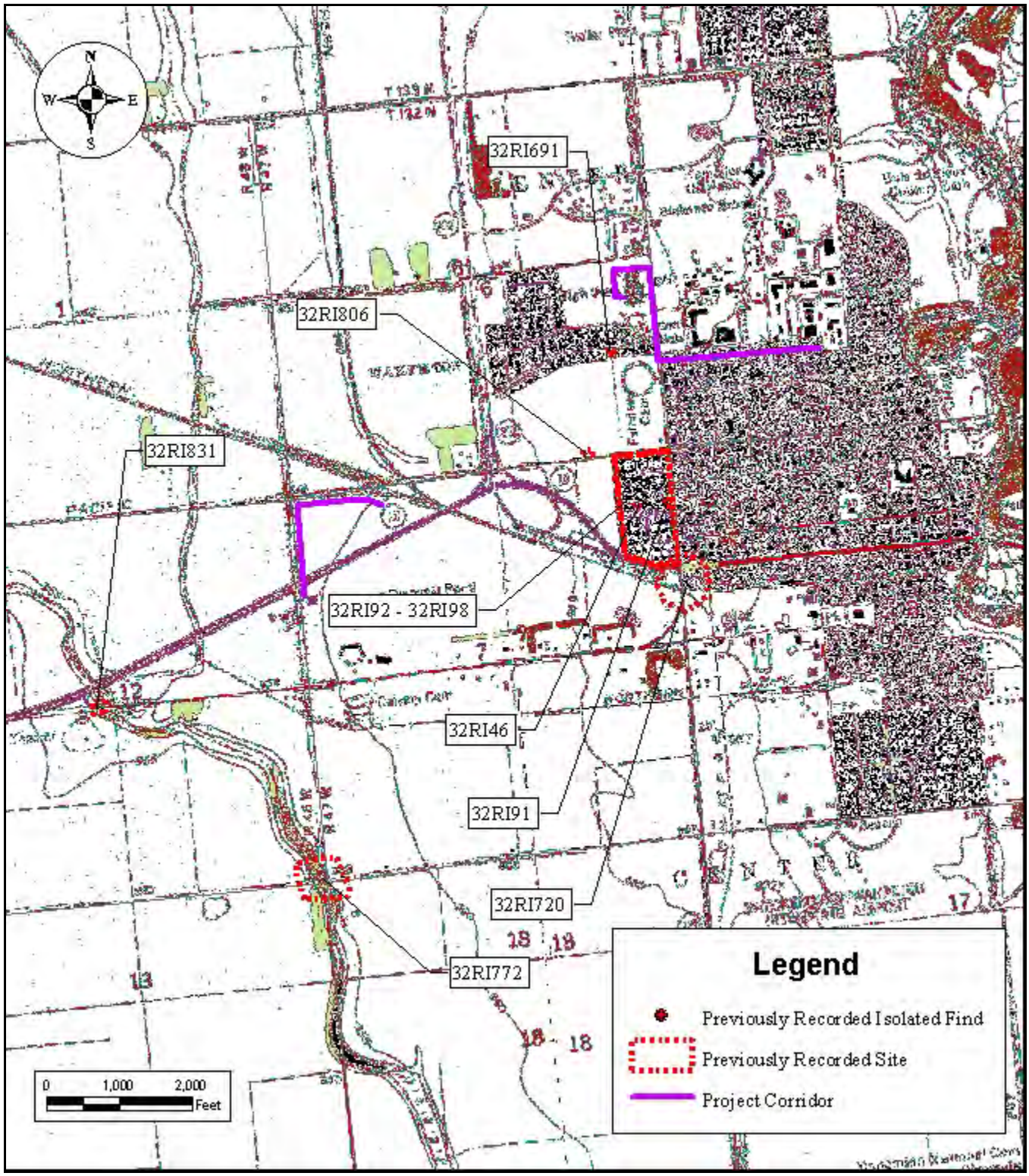

Figure 51: Location of the Wahpeton Tower and Wahpeton High School project corridors and previously recorded cultural resources in Sections 6 and 7, T. 132 N., R. 47 W., and Sections 1 and 12, T. 132 N., R. 48 W., in Richland County, North Dakota.

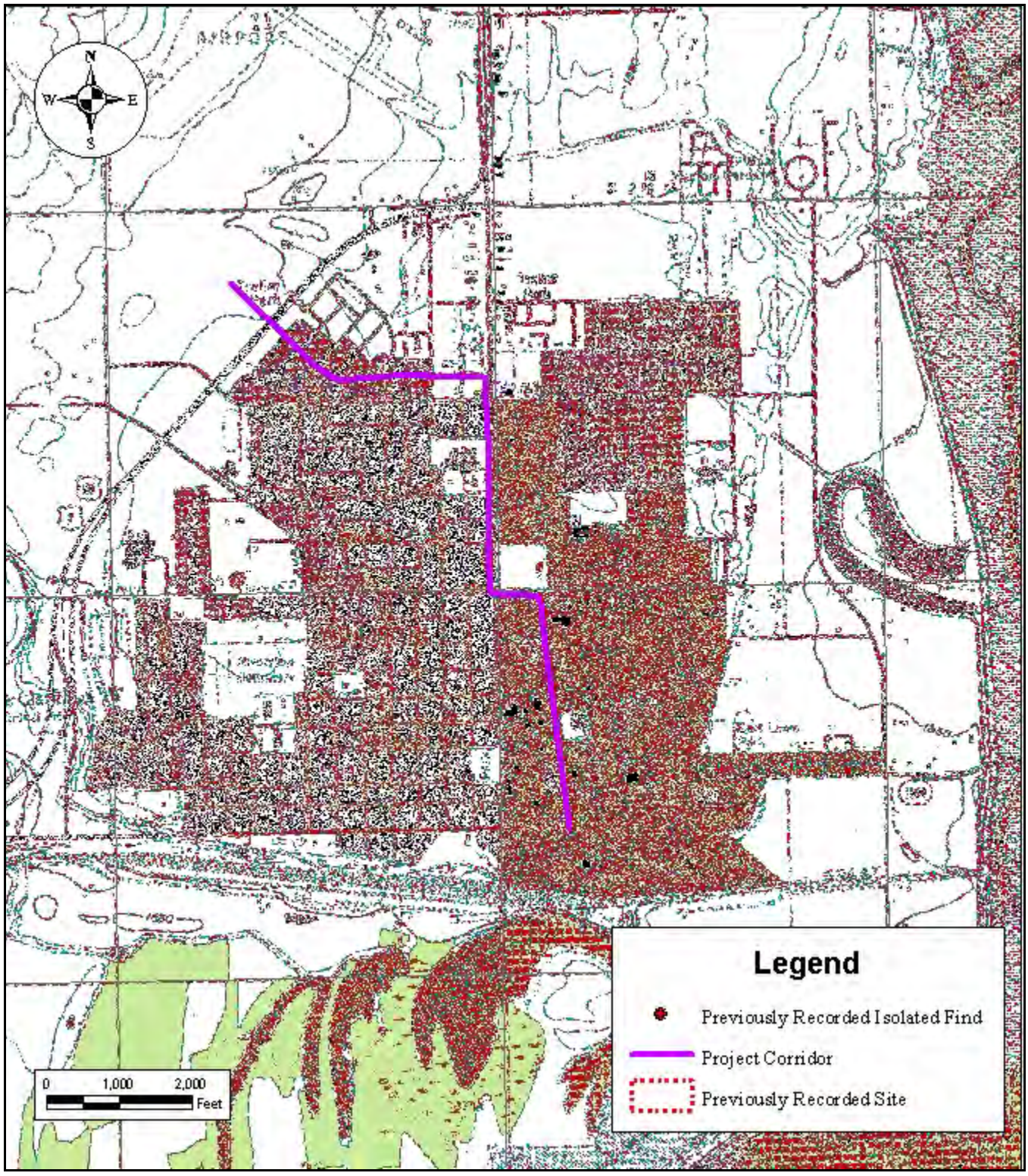

Figure 52: Location of the Williston project corridor and previously recorded cultural resources in Sections 13, 14, 23, and 24, T. 154 N., R. 101 W., in Williams County, North Dakota.

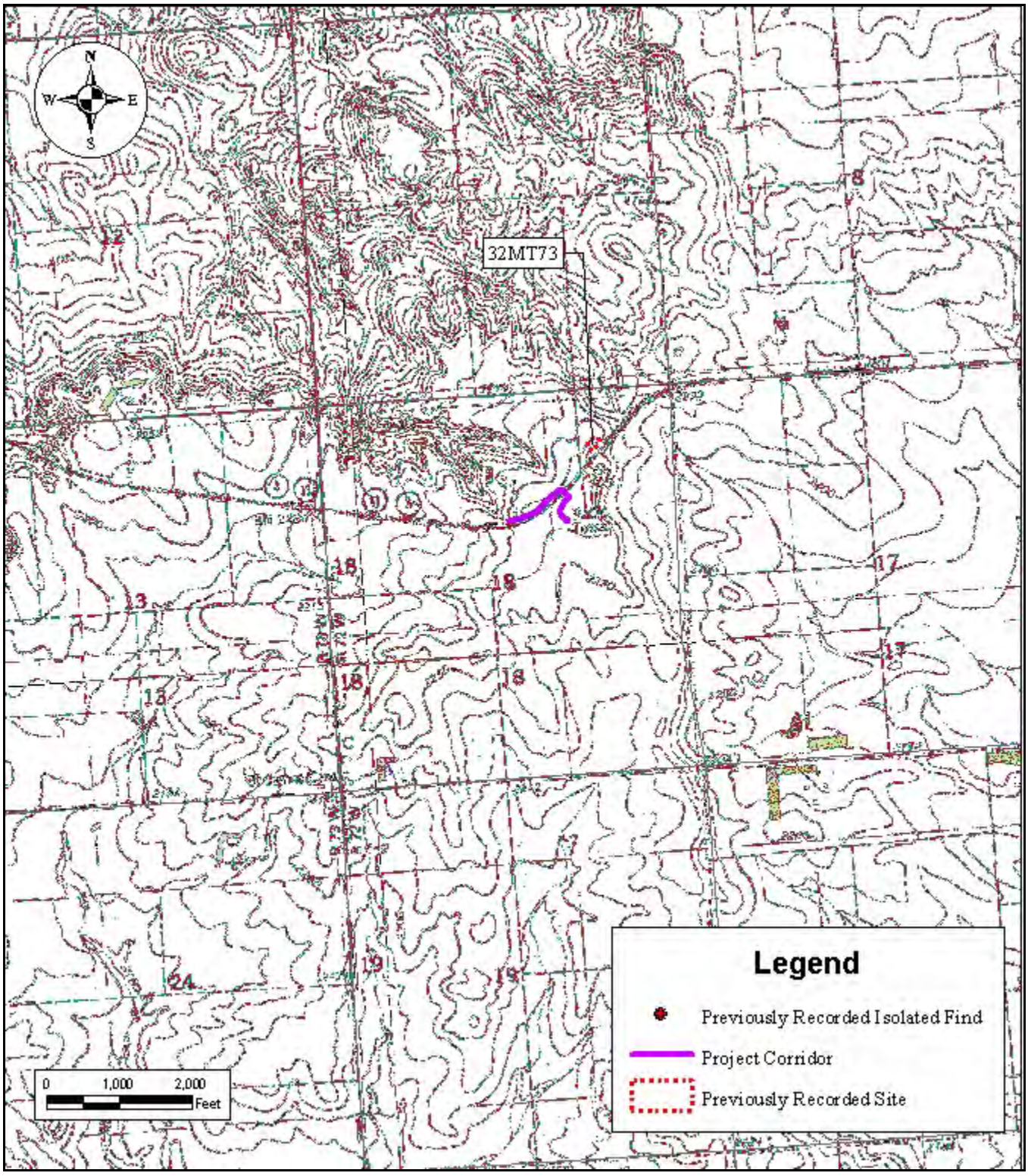

Figure 53: Location of the Wishek Tower project corridor and previously recorded cultural resources in Section 18, T. 132 N., R. 72 W., in McIntosh County, North Dakota.

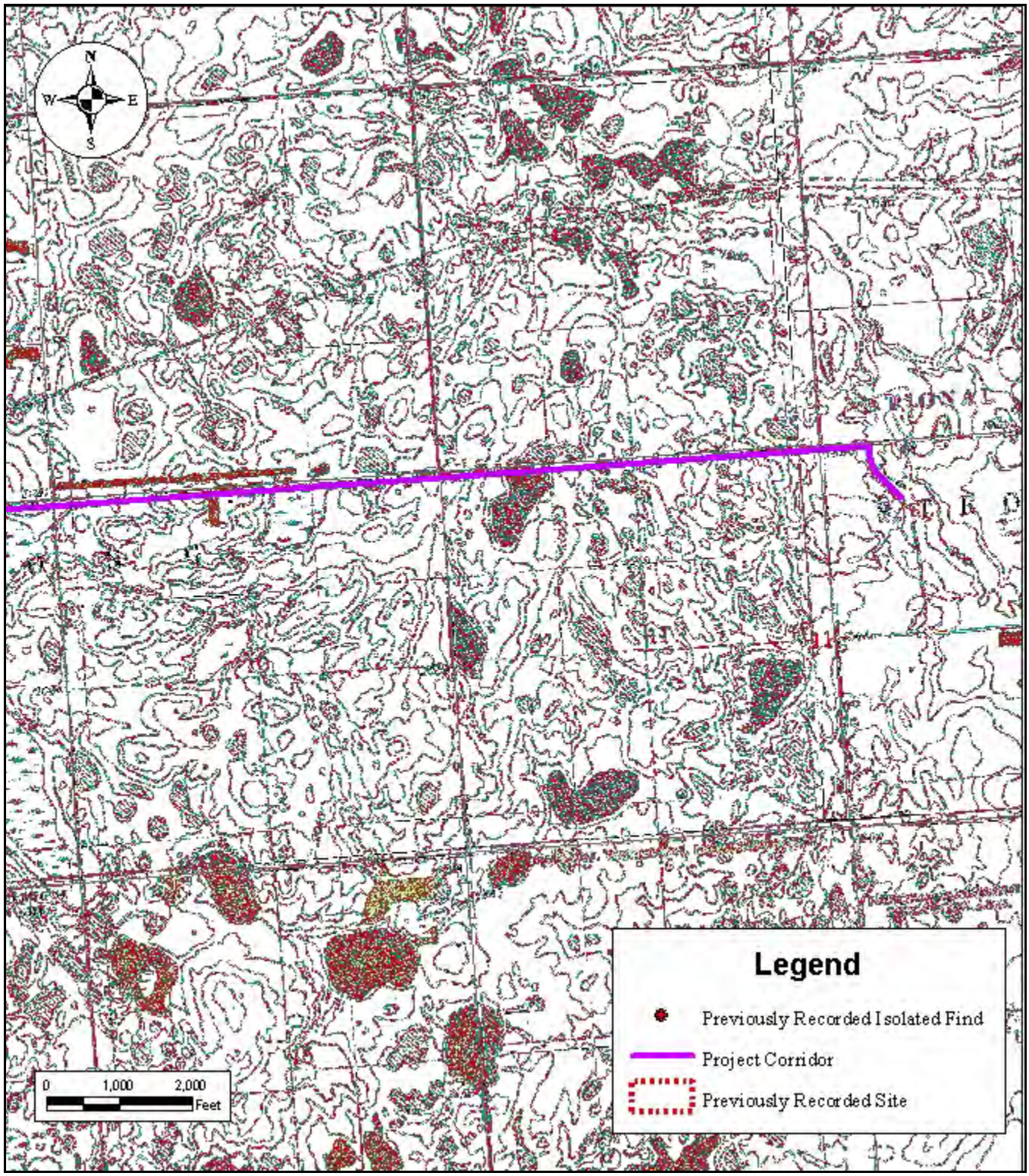

Figure 54: Location of the eastern portion of the Woodworth project corridor and previously recorded cultural resources in Sections 1, 2, 3, 10, 11, and 12, T. 142 N., R. 68 W., in Stutsman County, North Dakota.

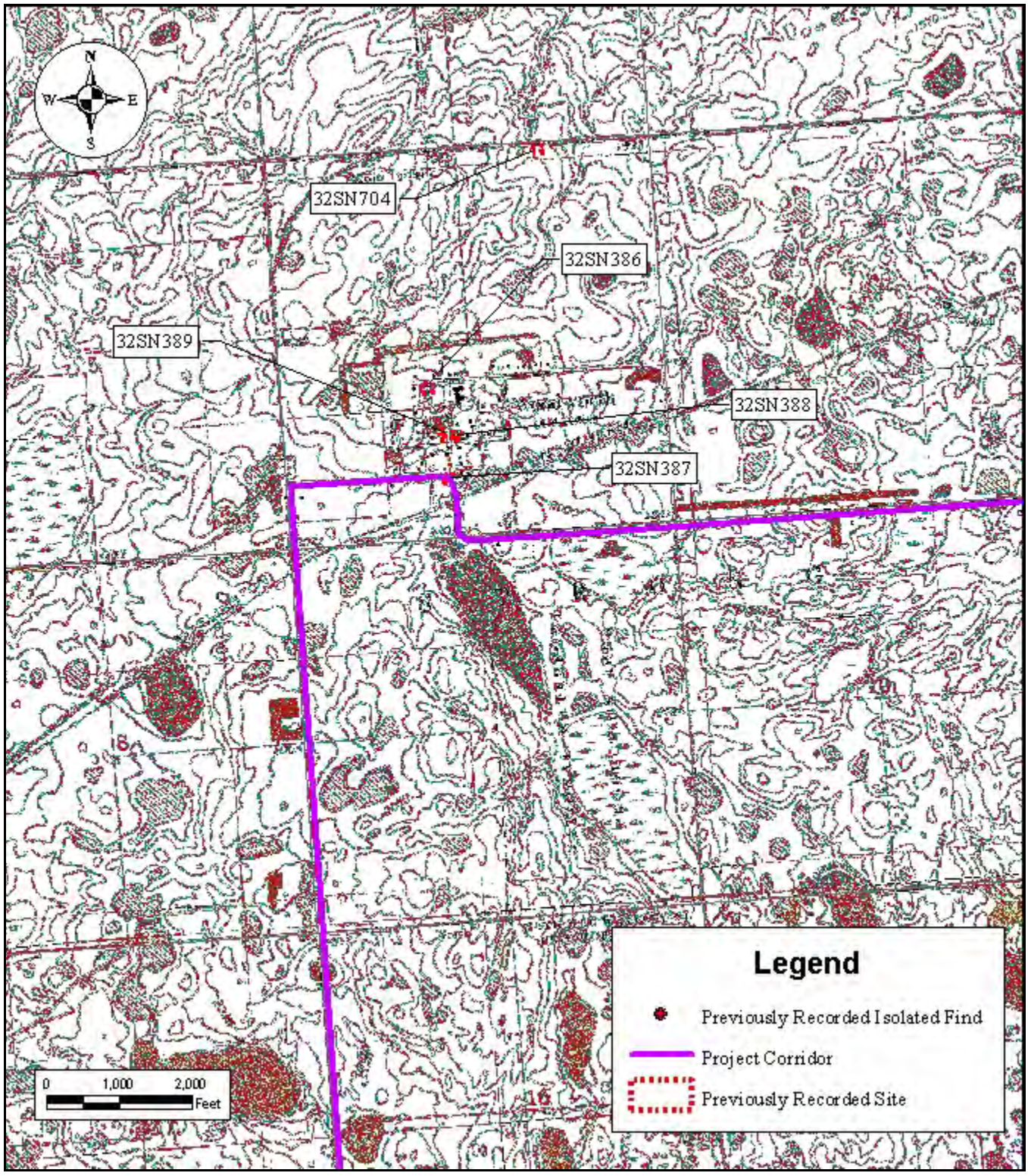

Figure 55: Location of center portion of the Woodworth project corridor and previously recorded cultural resources in Sections 3, 4, 5, 8, 9, and 10, T. 142 N., R. 68 W., in Stutsman County, North Dakota.

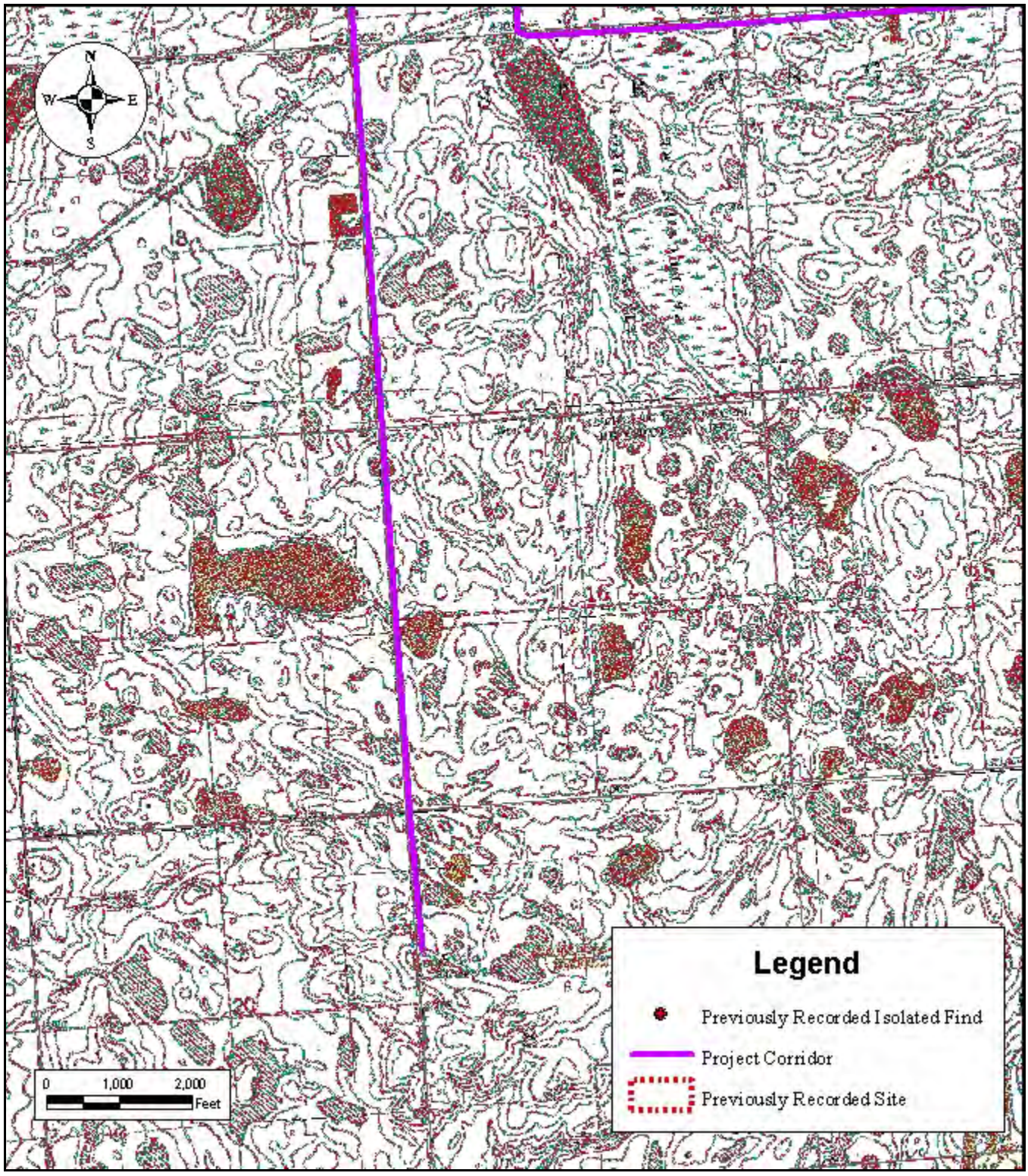

Figure 56: Location of the southern portion of the Woodworth project corridor and previously recorded cultural resources in Sections 8, 9, 16, 17, 20, and 21, T. 142 N., R. 68 W., in Stutsman County, North Dakota.

March 11, 2010

Mr. Paul Picha
North Dakota State Historical Society
610 East Boulevard Avenue
Bismarck, ND 58501

RE: Dakota Carrier Network Project for ARRA Broadband Infrastructure "Stimulus" Funding

Dear Mr. Picha,

KL&J has been asked to initiate the Section 106 review process on behalf of Moore and Liberty & Griggs Telephone Company for ARRA Broadband Infrastructure funding. The proposed project is the installation of telecommunications cable along and adjacent to existing rights-of-way (ROW) of local, county, and state roadways. The project is located in 239 legal sections in Burke, Burleigh, Bottineau, Cavalier, Golden Valley, Grand Forks, Kidder, Logan, McIntosh, McKenzie, McLean, Mountrail, Nelson, Pembina, Richland, Rolette, Stutsman, Trail, Walsh, Ward, Wells, and Williams Counties, North Dakota.

Below, please find a description of the project as we understand it.

- The proposed undertaking consists of the installation of fiber optic cable. The project is being designed to avoid all previously recorded cultural resources that are unevaluated or have been recommended *eligible* for the National Register of Historic Places. The cable will be placed in the ground using tractor-crawler and friction-type plow blade, creating soil disturbances approximately 1.21 m (48 inches) deep and 152.43 mm (6 inches) wide. The impacted construction corridor is 7.75 m to 15.24 m (25 to 50 feet) in width, although construction may be altered periodically by obstacles, or for the placement of above ground appurtenances. Restoration of the construction area will consist of compacting the cable plow slot. Every effort has been made to avoid water crossings, however when such crossings are required the method used by order of preference will be: (a) directly bury using the cable plow - this method is not used if bank destabilization is likely, (b) directional boring under the waterway, or (c) attaching to bridges or other in place support structures.

- Above ground appurtenances will consist of wooden poles, metal pedestals, and signage-which are required for access and to identify the buried facilities. The appurtenances are usually located on ROW lines for easy access and to avoid property obstructions. These appurtenances are normally installed using a trenching method. Poles will be nominally 3.05 m (10 feet) by 203.25 mm (8 inches) in diameter. Approximately 1.83 m (6 feet) of the pole will stand above the finished grade. Metal pedestals will nominally have an outside dimension of

0.91 m (36 inches) by 0.61 m (24 inches) by 0.31 (12 inches). A larger size metal pedestal is occasionally required; the maximum size of the larger pedestals will be 1.83 m (72 inches) by 0.91 m (36 inches) by 1.06 m (42 inches). Trenching is a method of excavation normally required for installing above ground appurtenances, and for crossing roadways or other buried utility services such as, water and gas lines. The trenching machine creates a disturbance approximately 0.91 m to 1.83 m (36 to 72 inches) deep by 0.30 m (12 inches) wide. Where trenching is performed, restoration will consist of suitable backfilling and compaction techniques as necessary, and reseeding of natural prairie grasses if required.

- The area of potential effect for the proposed undertaking is limited to the construction footprint, as the cable will be placed underground. The identification process for compliance with Section 106 was a Class I Literature Review. This was deemed reasonable given the limited APE and the location of the proposed undertaking (within the ROW of local roads). KL&J archaeologists conducted the literature review of the SHSND site and manuscript files. This data has also been supplied to the project design engineer, and it is our understanding that they plan to avoid all of the unevaluated, recommended eligible, or NRHP listed properties within the APE of the proposed undertaking. In general, railroads will be avoided in one of two ways, either through directional boring that begins and ends 50 feet from centerline on either side of the track, or by proceeding through existing structures such as culverts or ducts.

KL&J recommends a Class II Inventory of the entire project corridor and, as stated in the attached Class I report, a Class III Inventory of a minimum of 20% of the project corridor. The 20% subjected to a Class III Inventory should be in areas considered to have a high potential for previously undocumented cultural resources. This recommendation is based on KL&J's understanding of the project, professional experience with other projects similar in nature, and professional experience in the proposed project area.

If I can provide further information, please feel free to contact me at (701)250-5912 or on my cell phone at (701)202-7066, or by email jennifer.harty@kljeng.com

Sincerely,

Jennifer L. Harty
Archaeologist/Principal Investigator

Enclosures

CC: Lanny Harris, KL&J

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

March 18, 2010

Ms. Jennifer Harty
Archaeologist/Principal Investigator
128 Soo Line Drive
PO Box 1157
Bismarck ND 58502-1157

ND SHPO REF: 10-0837 RUS Dakota Carrier Network Project ARRA Broadband infrastructure (fiber optic cable, no communication towers) finding in Sentinel Butte, Columbus Tower, Williston, Indian Service Area, Ryder, Arnegard, Moffit/Federal Park, Beaver Lake State Park, Wishek Tower, Tappen, Blaisdell Tower, Tioga Tower in Golden Valley, Burke, Williams, Ward, McKenzie, Burleigh, Logan, McIntosh, Kidder, Mountrail, Counties

Dear Ms. Harty,

We received your Class I report and maps for the above captioned project. We concur with your recommendation regarding 100% Class II CRI (Reconnaissance) and a minimum of 20% of the APE at Class III CRI (Pedestrian) survey. Previously recorded but unevaluated and previously determined eligible sites merit incorporation into the Class III report with adequate avoidance routes mapped around eligible areas, and proposed eligible areas.
If the project crosses lands administered by a federal agency, then the agency must be consulted regarding their recommendations regarding cultural resources on the project. Finally, we look forward to reviewing the Class II/Class III reports covering the investigations. After receipt and review of this documentation, concurrence correspondence on determination of effect will follow.

Thank you for the opportunity to review the project to date. We look forward to review of the Class II and Class III reports for further recommendations. If you have any questions please contact either Susan Quinnell at (701) 328-3576 or squinnell@nd.gov or Paul Picha at (701) 328-3574.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota

STATE HISTORICAL SOCIETY OF NORTH DAKOTA

March 18, 2010

Ms. Jennifer Harty
Archaeologist/Principal Investigator
128 Soo Line Drive
PO Box 1157
Bismarck ND 58502-1157

ND SHPO REF: 10-0833 RUS Consolidated Telcom ARRA Broadband infrastructure (fiber optic cable, no communication towers) finding in Billings, Dunn Hettinger, Slope and Stark Counties

Dear Ms. Harty,

We received your Class I report and maps for the above captioned project. We concur with your recommendation regarding 100% Class II CRI (Reconnaissance) and a minimum of 20% of the APE at Class III CRI (Pedestrian) survey. Previously recorded but unevaluated and previously determined eligible sites merit incorporation into the Class III report with adequate avoidance routes mapped around eligible areas, and proposed eligible areas.
If the project crosses lands administered by a federal agency, then the agency must be consulted regarding their recommendations regarding cultural resources on the project. Finally, we look forward to reviewing the Class II/Class III reports covering the investigations. After receipt and review of this documentation, concurrence correspondence on determination of effect will follow.

Thank you for the opportunity to review the project to date. We look forward to review of the Class II and Class III reports for further recommendations. If you have any questions please contact either Susan Quinnell at (701) 328-3576 or squinnell@nd.gov or Paul Picha at (701) 328-3574.

Sincerely,

Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota)
and
Director, State Historical Society of North Dakota