



# Memo

Date: Tuesday, September 10, 2019

Project: Tatanka Ridge Wind, LLC

To: Paige Olson (State Historic Preservation Office)

From: Erika Eigenberger (HDR)

Subject: **Tatanka Ridge Wind, LLC– Site Evaluation Testing Plan**

HDR will evaluate three archaeological sites for National Register of Historic Places eligibility. The sites are 39DE0097, 39DE0150 (HDR-007A), and 39DE0151 (HDR-001B). All three are Native American artifact scatters located within agricultural fields.

- Site 39DE0097 is located in the SW  $\frac{1}{4}$  SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  and the SE  $\frac{1}{4}$  SE  $\frac{1}{4}$  NW  $\frac{1}{4}$  of Section 20 Township 113N, Range 48W.
- Site 39DE0150 (HDR-007A) is located in the NE  $\frac{1}{4}$  SW  $\frac{1}{4}$ , the SE  $\frac{1}{4}$  SW  $\frac{1}{4}$  and the SW  $\frac{1}{4}$  SE  $\frac{1}{4}$  of Section 15 Township 113N, Range 49W.
- Site 39DE0151 (HDR-001B) is located in the NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NE  $\frac{1}{4}$  of Section 11 Township 113N, Range 49W.

## METHODS

HDR proposes the following approach for each site evaluation. The evaluation will begin with a close-interval pedestrian survey (transects spaced at 1 to 2 meters) of the entire site boundary. This will include areas outside of the proposed project construction footprint, as currently defined. All artifacts encountered on the surface will be flagged and piece-plotted with the provenance data recorded using a Trimble Global Positioning System (Trimble GPS) unit. The type, morphology, and raw material of each artifact will be recorded in the field notebook of the principal investigator. Tools and diagnostic artifacts encountered during the close-interval pedestrian survey will be photographed in the field, and descriptions including basic measurements (length and width) will be recorded.

Subsurface testing will include excavating shovel tests within the site boundary to determine the presence or absence of subsurface cultural deposits and to best characterize subsurface integrity. Shovel tests will be spaced at 15-meter intervals, will be 30 to 40 centimeters in diameter, and will be excavated to a depth where culturally sterile subsoil is sufficiently documented. All excavated soils will be screened through a 0.25-inch mesh hardware cloth.

Shovel test data will be recorded on standard shovel test forms and in field notebooks. Shovel test data will include the shovel test location, depth, soil profile, soil texture and inclusions, and Munsell color. A Trimble GPS unit will be used to record each shovel test location. Artifacts recovered from subsurface tests will be photographed in the field. The depth encountered, type,



morphology, and raw material of each artifact will be recorded in the field notebook of the principal investigator.

The purpose of the testing will be to determine site boundaries, artifact density and characterize the site integrity in reference to Criterion D as detailed in *How to Apply the National Register Criteria for Evaluation* as published by the National Park Service (2002). Any artifacts recovered would be placed back in the test and reburied upon completion of the testing.

If dense clusters of artifacts (10 to 20 artifacts below the plow zone, within a single shovel test) are identified during shovel testing, HDR will note the location of the artifacts and discuss these findings with SHPO as it may be preferential to use unit excavations to continue the site evaluation. Prior to commencement of formal test unit excavation, a call to SHPO will occur to verify this approach is appropriate and required.

No collection policy is in place and all artifacts will be left on site. As such, laboratory analysis and curation will not be conducted for these evaluations.

All work will be completed according to currently accepted standards as described in the *South Dakota Guidelines for Compliance with the National Historic Preservation Act and South Dakota Codified Law 1-19A-11.1* (South Dakota State Historical Society 2012). Following the evaluations HDR will provide SHPO with an email summary of findings, recommending whether or not each site retains enough integrity and research potential to qualify for the NRHP. A formal addendum or letter report will also be submitted to SHPO for review within 30 days of field completion.

#### **Site 39DE0097**

The site is approximately 120 meters north to south and 74 meters east to west. Following the close-interval pedestrian survey, piece plotting, and documentation of identified tools/diagnostic artifacts, HDR proposes to excavate two parallel transects of shovel tests along the longest axis of the site, in a southeast to northwest direction. HDR anticipates no more than 16 shovel tests within the site.

#### **Site 39DE0150 (HDR-007A)**

This site is roughly 324 meters north to south and 263 meters from east to west. As currently defined, there are two main concentrations of artifacts, one along the eastern portion of the site boundary and one along the northern portion. Following the close-interval pedestrian survey, piece plotting, and documentation of identified tools/diagnostic artifacts, HDR proposes to excavate a single transect of shovel tests along the eastern boundary of the site and a second single transect along the northern boundary of the site bisecting the first to form a roughly cruciform pattern. A maximum of 40 shovel tests is anticipated for these two transects.

If the site boundary and/or the concentrations of surface artifacts significantly change based on the close-interval pedestrian survey, the two transects will be excavated using similar testing rational and will be based on the discretion of the principal investigator.



In addition to the approximately 40 shovel tests excavated along the two transects, up to 20 additional shovel tests may be excavated at various locations within the site boundary to further test artifact concentrations or to sample landforms that are not covered by the cruciform pattern. Additional testing will be at the discretion of the principal investigator. HDR anticipates a maximum of 60 shovel tests.

**Site 39DE0151 (HDR-001B)**

This site is roughly 78 meters north to south and 26 meters from east to west. Following the close-interval pedestrian survey, piece plotting, and measurements/photo-documentation of identified tools/diagnostic artifacts, HDR proposes to excavate a single transect of shovel tests along the longest axis of the site from west to east and a second single transect of shovel tests from north to south, bisecting the first transect to form a roughly cruciform pattern. HDR anticipates a maximum of 8 shovel tests.