

**SECOND AMENDMENT TO
MEMORANDUM OF AGREEMENT
BETWEEN
THE UNITED STATES ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
AND THE NEVADA STATE HISTORIC PRESERVATION OFFICER
REGARDING
THE SOUTH EAST CONNECTOR PROJECT
WASHOE COUNTY, NEVADA**

WHEREAS, the Memorandum of Agreement (MOA) was executed on April 6, 2015; and

WHEREAS, the First Amendment to the MOA was executed on August 31, 2015; and

WHEREAS, Attachment 4 of the MOA requires modification to correctly cite Stipulation III.E in place of “Attachment 7,” and to reflect that sites 26Wa5205 and 26Wa8320 have been tested following the procedures outlined in Attachment 4 of the MOA and determined to be eligible for the National Register of Historic Places under Criterion D; and

WHEREAS, Attachment 5 of the MOA requires modifications to address health and safety concerns posed to archaeological and tribal personnel; and

WHEREAS, this Second Amendment shall be effective on the last date the amendment is signed by all of the Signatories and Invited Signatory; and

WHEREAS, the USACE will send a copy of this executed amendment to the ACHP; and

NOW THEREFORE, in accordance with Stipulation XI.C of the MOA, and in consideration of the comments issued by the Nevada SHPO on January 4 and February 2, 2016, the Washoe Tribe of California and Nevada on January 8, 2016, the USACE on January 6, 2016 and the resulting telephone conference held on January 12, 2016; the USACE, SHPO, and RTC agree to amend the MOA as follows:

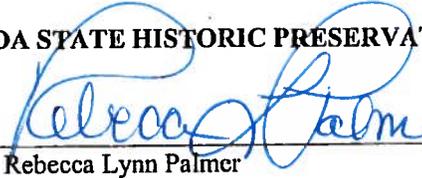
1. Amend Attachment 4 to correctly cite Stipulation III.E in place of “Attachment 7,” and to provide an up-to-date document reflecting the completion of archaeological testing at sites 26Wa5205 and 26Wa8320. An updated version of MOA Attachment 4 is attached (Revised Attachment 4 - Unevaluated Site Testing Plan and Attachment 4.1 - Unevaluated Site Location Map).
2. Amend Attachment 5, of the MOA to allow for mechanical trenching to occur in place of auger testing in areas where safety concerns regarding soil contamination and exposure exist. An updated version of MOA Attachment 5 is attached (Revised Attachment 5 - Construction Corridor Testing Plan. Attachment 5.1 - Results of Augering to Date, Attachment 5.2 - 26WA9885 North Wall Profile, and Attachment 5.3 - Location of Augering and Trenching for Sensitive Soil Testing).

SIGNATORY PARTIES:

UNITED STATES ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT

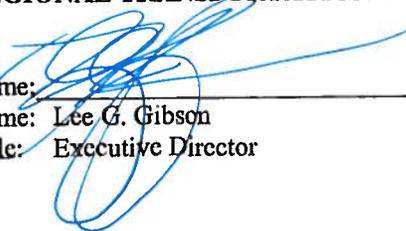
Name:  Date: 4 Feb 2016
Name: Michael S. Jewell
Title: Chief, Regulatory Division

NEVADA STATE HISTORIC PRESERVATION OFFICER

Name:  Date: 4/2/16
Name: Rebecca Lynn Palmer
Title: State Historic Preservation Officer

INVITED SIGNATORY PARTY:

REGIONAL TRANSPORTATION COMMISSION

Name:  Date: 2-4-16
Name: Lee G. Gibson
Title: Executive Director

CONCURRING PARTIES:

RENO-SPARKS INDIAN COLONY

Name: _____ Date: _____
Name: Arlan D. Melendez
Title: Chairperson

PYRAMID LAKE PAIUTE TRIBE

Name: _____ Date: _____
Name: Vinton Hawley
Title: Chairperson

WASHOE TRIBE OF NEVADA AND CALIFORNIA

Name: _____ Date: _____
Name: Neil Mortimer
Title: Chairperson

MOA Amendment 2 Attachment List

Revised Attachment 4 - Unevaluated Site Testing Plan

Figure 4.1 - Unevaluated Site Location Map

Revised Attachment 5 - Construction Corridor Testing Plan

Figure 5.1 - Results of Auguring to Date

Figure 5.2 - EU 1 Profile (26Wa9885)

Figure 5.3 - Locations of Auguring and Trenching for Sensitive Soil Testing

Revised Attachment 4

Unevaluated Site Testing Plan

Two prehistoric archaeological sites (26Wa7858 and 26Wa9528) remain Unevaluated for eligibility for listing in the National Register of Historic Places (NRHP) (Revised Attachment 4; Figure 4.1). Both sites are located within the Direct Area of Potential Effects (APE) for the South East Connector, a planned roadway construction project located in the City of Reno, Washoe County, Nevada. The following is a testing plan designed to resolve the "Unevaluated" status of these two sites. (Previously unevaluated sites 26Wa5205 and 26Wa8320, both discussed in the original testing plan, have been tested and determined eligible for listing in the National Register of Historic Places.)

1. 26Wa7858, a lithic scatter with flakes, a biface, a chopper, and ground stone

The purpose of this testing operation is to expand the presently-documented assemblage and with the augmented data, reevaluate the site's NRHP eligibility. This site is a small (11 m N/S by 50 m E/W, 417 sq m), apparently surficial, prehistoric lithic scatter, with flaked and ground stone tools (Simons and Kautz 2005:114). It is located atop the flat floodplain within an old agricultural field about 60 m west of Steamboat Creek. The site has 75+ flakes, ground stone tools composed of a metate and a mano fragment, and flaked stone tools including a basalt Stage IV biface, and a rhyolite chopper. Sinter (84%) and basalt (16%) flakes have a maximum density of 7 per sq m. Flaking stages represented include biface thinning flakes (53%), pressure flakes (32%), and shatter (16%). No prehistoric temporally diagnostic artifacts, other artifacts, ecofacts, features, or any other cultural materials were observed. A trowel scrape was excavated to 10 cm below surface to evaluate the depositional context, which revealed the depositional environment but failed to recover subsurface cultural materials.

Testing Plan: It is suggested that a limited testing program of one or more 1 x 0.5 m excavation units be conducted to test for depth, and a 5 x 5 m surface scrape be performed to determine the presence of temporally sensitive materials (obsidian, organics) or objects (projectile points, beads, etc.). Particularly interesting is the presence of both flakes and groundstone objects suggesting a more diverse suite of human activities than is present at most other local sites.

A report of the testing operations will be prepared, any artifacts recovered will be temporarily stored until their eligibility is determined, then handled accordingly, and a revised site record will be prepared. Should the site be evaluated eligible for nomination to the NRHP, with concurrence of the USACE and the SHPO, a Historic Properties Treatment Plan (HPTP) will be prepared and implemented following the procedures outlined in Stipulation III.E of the Memorandum of Agreement (MOA).

2. 26Wa9528, a prehistoric lithic scatter of unknown age

The purpose of the present testing operation is to locate the origin of the lithic debris redeposited atop a man-made berm, and if located, assess its NRHP eligibility. This site is a sparse, small (26 x 8 m), lithic scatter resting on the western bank of a modified, modern ditch (Ancillary Ditch 6, South, 26Wa6653), atop a man-made berm. The ditch is deeply incised to a depth of 6 feet with very steep sides. Vegetation present at the site is dense and may have affected the inventory. Post-depositional impacts to the site include ditching and other agricultural activities that have left the site in poor condition.

The site assemblage, as currently defined, is composed entirely of 13 flakes. Tool stone is composed of 8 white CCS and 4 basalt flakes, and 1 obsidian item. The dominant flake stage is "indeterminate," possibly due to agricultural impacts with several decortication and tertiary forms present.

The locational context of this site suggests that it is present on top of the berm (the ditch's back dirt) because it was embedded within the sediments derived from the ditch at this locale and removed quite recently. Accordingly, the edges of the ditch should be tested systematically to look for a buried prehistoric component from which these objects may have been derived. It is also possible that these artifacts are the result of cut bank retreat upstream. If this is the case, they would have been removed from their primary context and the site will be of very little value.

Testing Plan: It is proposed that in order to locate the *in situ* site, that a backhoe be employed to cut a series of no more than 3 short trenches on each side of the ditch, with an east/west orientation, spaced approximately 8 m apart, with a length of approximately 10 m each, extending from the cut bank of the ditch at the location where the artifacts were recovered. The trenches should be no more than about 3-4 feet in depth. An archaeologist meeting the Secretary of the Interior's Professional Qualification Standards as published in the Code of Federal Regulations (36 CFR Part 61) will accompany the backhoe operator and when/if the site is located, stop any further backhoe operations. The further extent of the site may be approximated by means of hand augering.

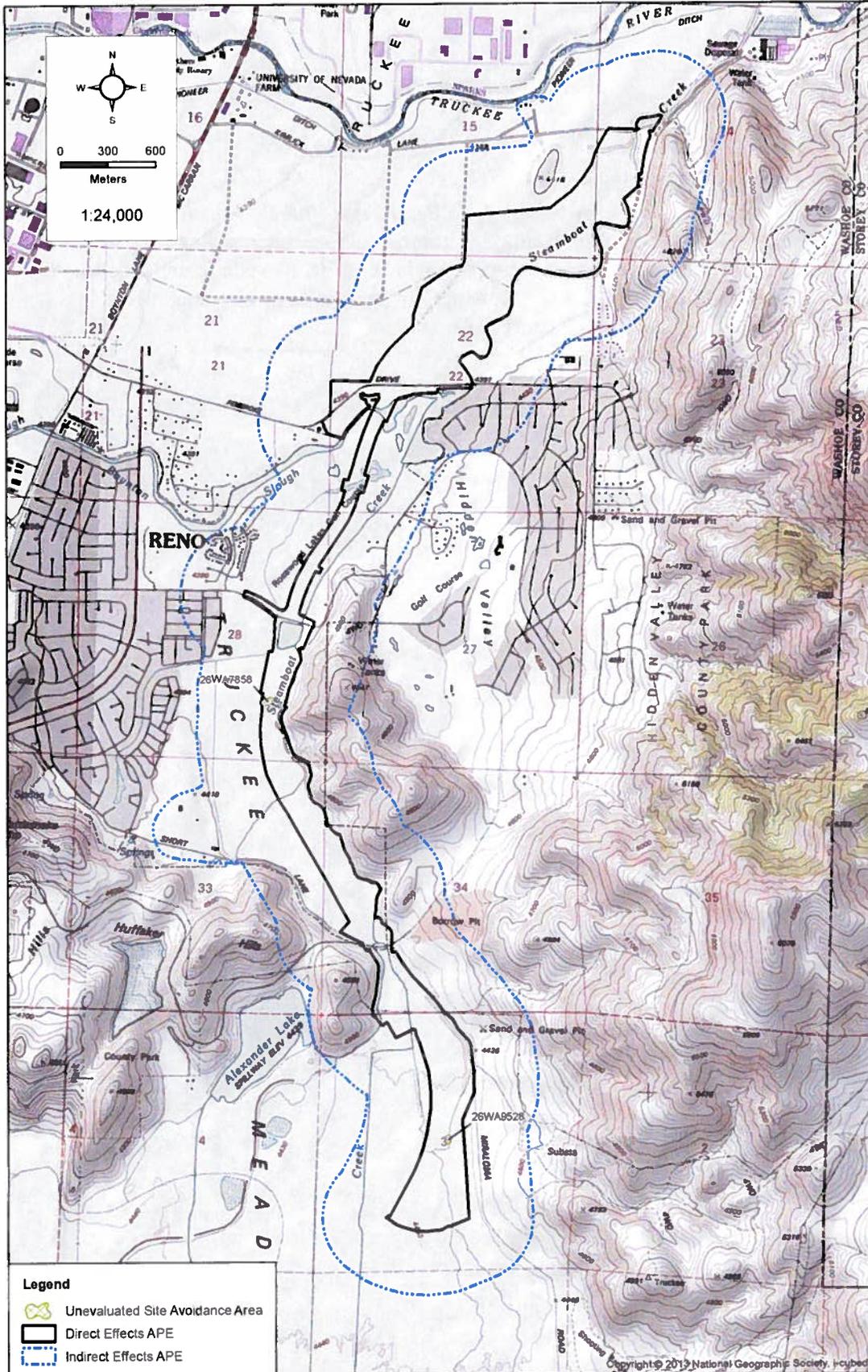
All trenches and auger locations will be GPS located and a map of these operations will accompany an updated site map and site record. At the earliest point during these operations that it is determined this site has been relocated and adequately evaluated for its NRHP eligibility, all testing operations will cease.

A report of the testing operations will be prepared, any artifacts recovered will be temporarily stored until eligibility determined, then handled accordingly, and a revised site record will be prepared. Should the site be evaluated eligible for nomination to the NRHP, with concurrence of USACE and the SHPO, a HPTP will be prepared and implemented following the procedures outlined in Stipulation III.E of the MOA.

Citations

Simons, D. D., and R. R. Kautz

2005 *A Cultural Resources Inventory of the Bella Vista (Butler) Ranch Property, Washoe County, Nevada*. Kautz Environmental Consultants, Reno, Nevada. Prepared for Lennar Homes, Reno, Nevada. On file, Nevada State Museum Indian Hills Curatorial Center, Carson City and Kautz Environmental Consultants, Reno (KEC Report 438).



Revised Attachment 4: Figure 4-1 - Unevaluated Site Location Map
 Base Map: USGS 7.5' Vsta, Nev., 1975 (Photo Revised 1982) and
 Steamboat, Nev., 1994
 T.18-19N, R.20E, Sections 10-11, 14-15, 21-23, 27-28, and 33-34, 2-4, and
 10, Datum (UTM NAD 83, meters)
 Project: SouthEast Connector (KEC-992)
 ACE Permit Number: SPK-2010-01058

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Revised Attachment 5

Construction Corridor Testing Plan

The South East Connector roadway alignment crosses the Truckee Meadows, in the southeast portion of the City of Reno, Washoe County, Nevada. Locally, the Truckee Meadows is composed of alluvial soil deposited by Steamboat Creek and the Truckee River. Previous archaeological work conducted within the region has shown that these alluvial soils have the potential to contain intact, stratified archaeological resources (Simons and Hutchins 1996; Ringhoff and Stoner 2011; Zeier and Elston 1986).

The exact location and depth of archaeological resources within this area is unknown, having been obscured over time by periodic flood events and by historic-modern era development. Archaeological resources that may have once been visible on the surface may be obscured by modern-era flood events and agriculture. The “plow zone” in fields typically affects the first two feet of soil. Furthermore, due to channelization of Steamboat Creek and the leveling of agricultural fields for irrigation, the depth of original ground surface may vary across the region. Prehistoric archaeological resources may still be intact below these surface impacts. As a result, there exists a high potential to encounter previously undocumented archaeological resources within the Direct Area of Potential Effect (APE).

The natural stratigraphy of the Truckee Meadows consists of relatively old alluvium of the Donner Lake Outwash overlain by younger Holocene aged alluvium deposited in terraces of Steamboat Creek. The alluvium of the Donner Lake Outwash is archaeologically sterile, but archaeological deposits are found in the overlying Holocene aged alluvium (Young et al. 1997). Where not extensively modified in the historic-modern eras, these Holocene aged alluvial deposits constitute archaeologically sensitive soil deposits for the purposes of the South East Connector Project (Baumer 1983). These sensitive soils are illustrated in Attachment 3; Figure 3.1.

Summary Results to Date

Following the procedures outlined in the Construction Corridor Testing Plan (CCTP), Attachment 5 of the *Memorandum of Agreement Regarding the Southeast Connector Project* (MOA) dated April 6, 2015, a total of 1,016 auger probes have been placed in archaeologically sensitive soils (Revised Attachment 5; Figure 5.1).

Auger probing revealed little noticeable change in stratigraphy for the one meter of soil examined. These results conflict with the stratigraphic data recovered during archeological mitigation and testing results to date, which show discreet changes in stratigraphy.

The hand auger probes churn up the soils during the removal process, creating a soil mixture that represents only an *aggregate* soil type within the 20 cm layer removed. Due to the 3 inch diameter of the hole, no sidewalls are visible to assist the researcher in delineating stratigraphic levels. Consequently, any slight distinctions or changes in stratigraphy are obscured during this process. To further complicate the soil profile in the local region, the fill used to level the farm

fields originated from local sources, and therefore the distinction between modern fill and natural intact soils proved inconclusive during the auger probing.

Due to the inherent limitations of this technique, the changes observed in the composition of alluvium (e.g. clay or sand content) could not be correlated together across space to represent specific stratigraphic layers, even at the 30 meter distance between probes. Preliminary results thus far confirm that the soils defined as alluvium correlate with regional soils maps. The CCTP as implemented was a successful positive/negative test for the presence of archaeological deposits within soils determined to be archaeologically sensitive.

The positive auger probe No. 166, subsequently designated as site number 26Wa9985, exemplifies a sample of soils tested within the University of Nevada Agricultural fields during implementation of the CCTP north of Pembroke Drive. Due to the discovery of fragmented animal bone, the positive auger probe was treated as an unanticipated discovery requiring a National Register of Historic Places Evaluation under Attachment 6.F of the MOA. Subsequent archaeological testing of the positive auger probe in the form of a 1 x 1 meter hand excavation unit indicated that this bone fragment was removed from its original depositional context and redeposited into a fill layer deposited for agricultural use. This excavation unit was extended deeper to penetrate through the fill layer for purposes of informing archaeologists about the localized stratigraphy. The data from the excavation unit indicated that agricultural fill was deposited to a thickness of 99 centimeters, with intact, natural soils present underneath (Revised Attachment 5; Figure 5.2). Other auger probes tested by excavation units revealed similar stratigraphy at UNR farms, with the exception that the depth where natural ground surfaces were encountered varied considerably by location (approximately 40-99 cmbs). Conversely, the testing of previously unevaluated site 26Wa5205, which appears to be located outside of historic-modern era farm lands, presented an intact soil column commencing at the surface level. This suggests that agricultural impacts, while widespread within the region, may not extend the entire distance to the Steamboat Creek.

In comparison to the monitoring program, the same area analyzed by auger probing identified three archaeological resources, whereas archaeologists and tribal representatives have confidently identified 12 archaeological sites and 12 isolated finds. This attests to the ongoing utility of combining subsurface testing with a system of archaeological monitoring within these sensitive soils.

Process Revision for Safety Concerns

Known concentrations of mercury and internments of anthrax cattle within the APE pose a health and safety risk to archaeological and tribal workers. To reduce the potential of exposure to these environmental hazards, a revised process for investigating sensitive soils within the project area will be implemented. The primary exposure route of archaeological and tribal workers to these environmental hazards is fugitive dust that is produced during the screening process associated with auger probing. Future testing of archaeologically sensitive soils in areas where these environmental hazards are known to exist will be accomplished by mechanical trenching (Revised Attachment 5; Figure 5.3). The mechanical trenching will occur within areas where

construction is proposed. The trenches will be excavated perpendicular to the roadway alignment, thereby bisecting the local soil deposits and allowing for archaeological examination. Trenches will be excavated at an interval of approximately 125-150 meters for areas within North and South Butler Ranch. The trenches will be staggered to bisect the entire project construction footprint at every other trench, or at a 250-300 meter interval. The trenches will be excavated to no less than one meter in depth (approximately 3 ft.). OSHA safety protocols will apply to any trenches excavated over 4 ft. in depth. Following completion of trenching operations, a revised sensitivity map depicting the trenching locations and a summary of results will be supplied in accordance with Stipulation V.B of the MOA.

For identification of previously undocumented sites, it is expected that the trenching operations will produce a more comprehensive understanding of stratigraphy across the APE. In turn, the method of trenching will be accompanied by dust control measures, limiting the exposure of archaeological and tribal monitors to fugitive dust.

Prior to mechanical trenching, Best Management Practices (BMPs) must be installed to prevent soil contamination of Waters of the United States. Furthermore, it is necessary to create an access road for equipment within the agricultural fields to allow for the installation of BMPs and access for trenching equipment. The trenching and road features will be constructed in areas previously inventoried for cultural resources. These activities will be conducted in preparation for trenching of the archaeologically sensitive soils, and will be subject to archaeological and tribal monitoring.

Should archaeological materials be encountered during the trenching operations or monitoring, testing and evaluation of the find will be conducted following the procedures outlined in Attachment 6.F of the MOA.

Citations

Baumer, O. W.

1983 *Soil Survey of Washoe County, Nevada, South Part*. U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.

Ringhoff, M., and E. J. Stoner

2011 *The River and the Railroad: An Archaeological History of Reno*. Shepperson Series in Nevada History. Reno: University of Nevada Press.

Simons, D. D., and J. Hutchins

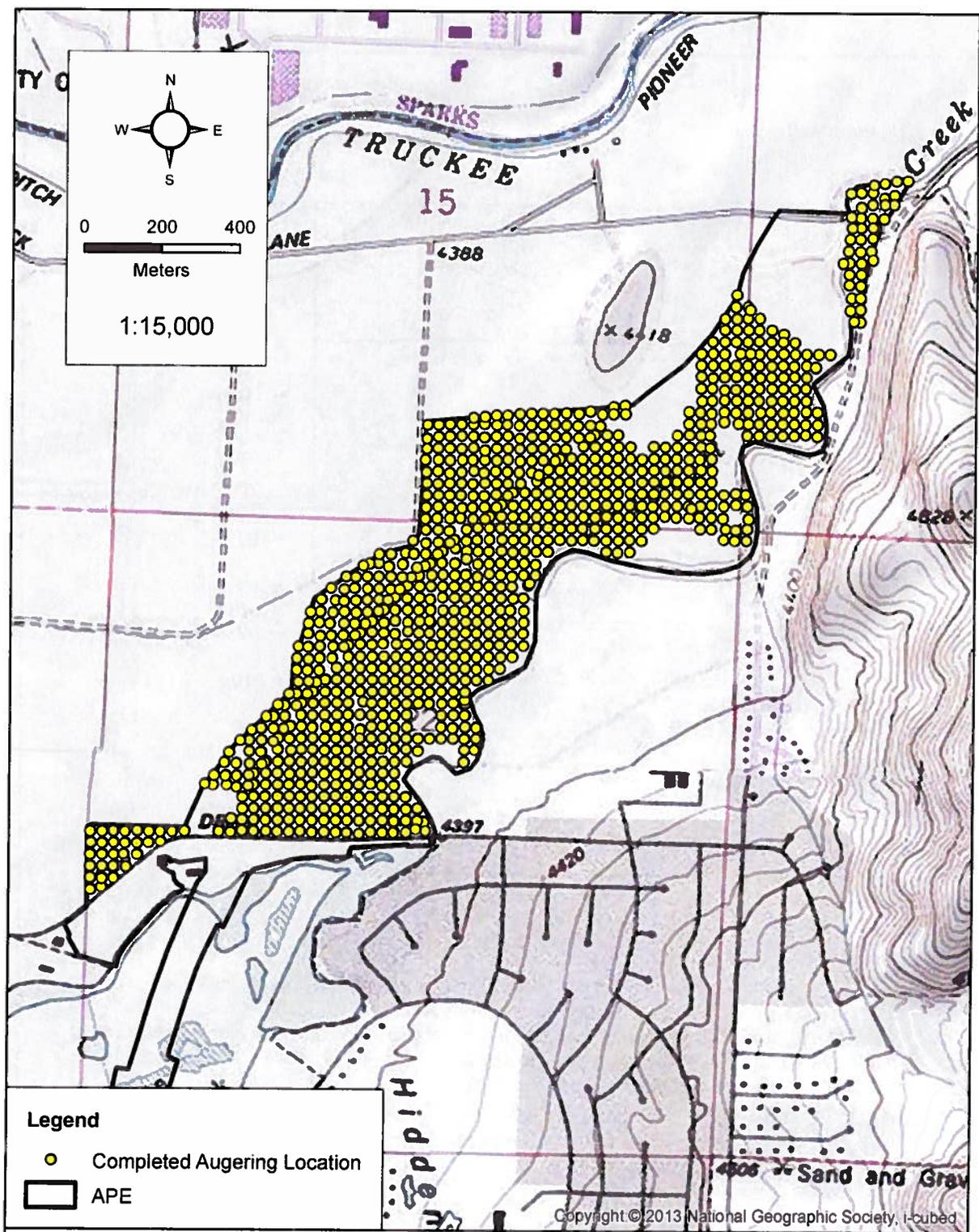
1996 *Martis in the Meadows: Data Recovery at 26 Wa4319: A Martis Phase Logistical Camp in the South Truckee Meadows, Washoe County, Nevada*. Kautz Environmental Consultants, Reno, Nevada. On file, Nevada State Museum, Carson City, Report No. 16-819.

Young, D. C., Jr., D. Simons, and R. Kautz

1997 Geomorphology and Site Stratigraphy. In *Late Prehistoric Continuity in the Truckee Meadows*, by D. Simons, pp. 114-149. Kautz Environmental Consultants, Reno, Nevada. On file, Nevada State Museum Indian Hills Curatorial Center, Carson City, Report No. 16-817.

Zeier, C. D., and R. G. Elston

1986 *The Archaeology of the Vista Site 26Wa3017*. Intermountain Research, Silver City, Nevada. Submitted to Nevada Department of Transportation, Carson City, Contract No. P51-84-013.



Legend

- Completed Augering Location
- ▭ APE

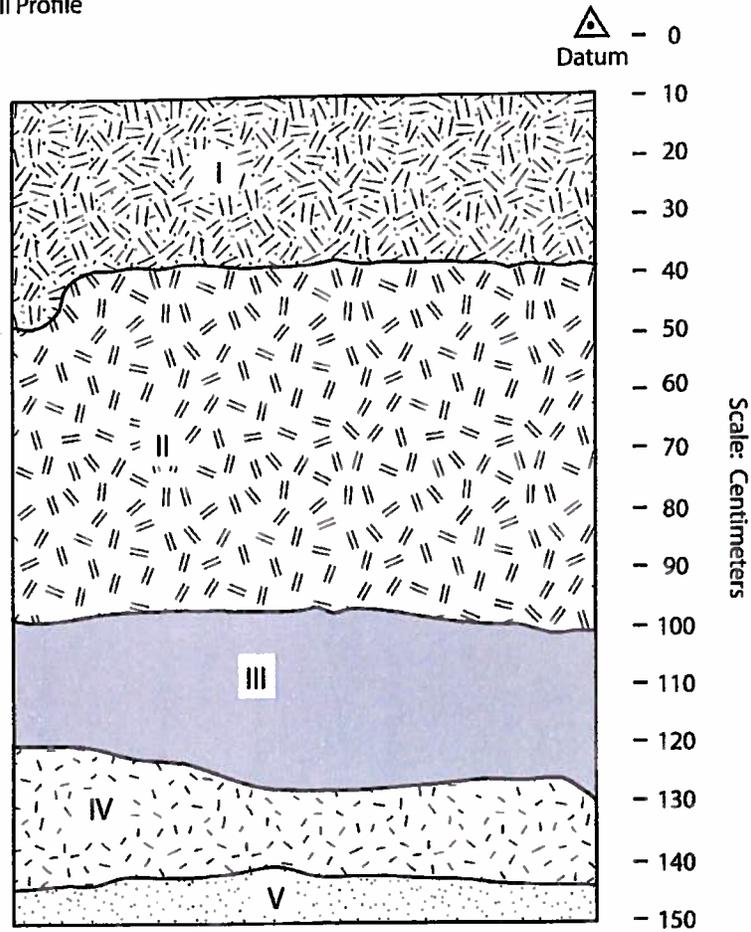
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Revised Attachment 5: Figure 5.1 - Results of Augering to Date
 Base Map: USGS 7.5' Vista, Nev., 1975 (Photo Revised 1982) and Steamboat, Nev., 1994.
 T.19N., R.20E., Sections 14-15 and 21-23, Datum (UTM NAD 83, meters)
 Project: SouthEast Connector (KEC-992)

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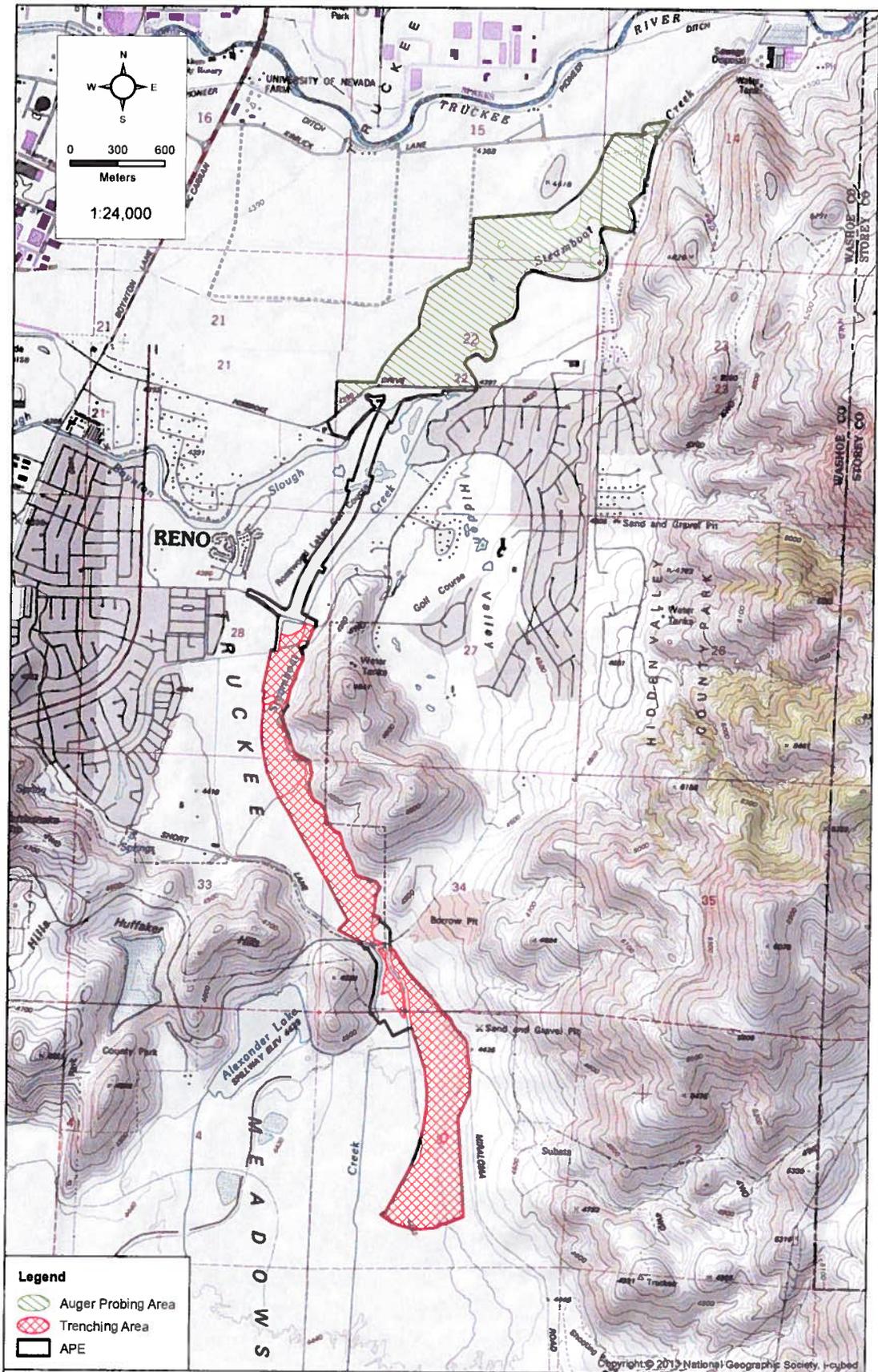


EU 1, North Wall Profile



Legend:

- I. 10YR 4/2 dark grayish brown, fill dirt, hard packed, silty loam, likely plow zone.
- II. 10YR 4/3 brown, fill dirt moderately compact silty loam.
- III. 10YR 3/1 very dark gray, native soil, moderately compact silty sand with high organic content.
- IV. 10YR 4/2 dark grayish brown, less compact silt.
- V. 10YR 4/2 dark grayish brown, loose sand.



Revised Attachment 5. Figure 5.3 - Locations of Augering and Trenching for Sensitive Soil Testing
 Base Map: USGS 7.5' Vista, Nev., 1975 (Photo Revised 1982) and Steamboat, Nev., 1994
 T.18-19N. R.20E. Sections 10-11, 14-15, 21-23, 27-28, and 33-34, 2-4, and 10, Datum (UTM NAD 83, meters)
 Project SouthEast Connector (KEC-892)
 ACE Permit Number: SPK-2010-01058



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