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via email

Subject: Queen Ka'ahumanu Highway Widening Phase 2 - Archaeological Site Buffer Breaches, SIHP Sites 50-10-27-19947, 28783, and 28811, Kaloko, Kohanaiki, and 'O'oma 1st ahupua'a, North Kona District, Island of Hawai'i

Dear Jason:

As requested, on behalf of the Hawai'i Department of Transportation (HDOT), ASM Affiliates (ASM) has prepared this letter report to provide additional information and recommendations regarding breaches to the archaeological preservation buffers that occurred at SIHP Sites 50-10-27-19947, 28783, and 28811 in Kaloko, Kohanaiki, and 'O'oma 1st, North Kona District, Island of Hawai'i during implementation of the Queen Ka'ahumanu Widening Phase 2 Project. The sites in question are all located along the *makai* edge of Māmalahoa Hawai'i and are included in an Archaeological Preservation Plan prepared for the Phase 2 Widening Project by Hammatt and Shideler (2014) that was accepted by the Hawai'i State Historic Preservation Office (SHPO) in a letter dated April 9, 2014 (Log No.: 2014.1379, Doc No.: 1404MV06). Site 19447 consists of three collections of stacked rocks interpreted as an *ahupua'a* boundary marker; Site 28783 is a complex containing 6 agricultural planting areas; and Site 28811 is a *pāhoehoe* excavation interpreted as a quarry location. All three sites were visited by Matthew R. Clark, M.A. (ASM Senior Archaeologist), and Johnny R. Dudoit, B.A. (ASM Associate Archaeologist), on May 12, 2020, and the breaches to the preservation buffers were documented. This letter presents a brief background regarding the historic preservation regulatory documentation and preservation of Sites 19947, 28783, and 28811, provides recent photographic documentation of those sites and the preservation buffer breaches at them, as well as measurements of how far the sites are from the edges of the breaches, and assesses the need for a revised Archaeological Preservation Plan for Site 28811 due to its proximity to the constructed roadway embankment.

Background

An initial Archaeological Inventory Survey (AIS) of the Queen Ka'ahumanu Highway right-of-way, between Palani Road and Keahole Airport, was completed by Walsh and Hammatt (1995). That study, which was accepted by the State Historic Preservation Division (SHPD) in a letter dated November 22, 1995 (Log No.: 15956, Doc. No.: 9511PM28), identified 17 historic properties within the right-of-way, including Site 19947. In 1996, the Federal Highways Administration (FHWA) and HDOT produced a Final Environmental Assessment (FEA) that issued a Finding of No Significant Impact (FONSI) for the project and in 1999. Subsequently, a Final Archaeological Treatment Plan (FATP) and a Memorandum of Agreement (MOA) for 12 of the historic properties identified by Walsh and Hammatt (1995) were completed, partially completing the requirements of Section 106 of the National Historic Preservation Act (NHPA) for the project.

In 2008, HDOT reissued the FONSI for the proposed widening of Queen Ka'ahumanu Highway, prompting staff working for the National Park Service (NPS) at the Honokōhau Settlement National Historic Landmark, the Kaloko-Honokōhau National Historical Park and the Ala Kahakai National Historic Trail to raise concerns regarding the adequate identification of historic properties within the Area of Potential Effect (APE). In response to these concerns, and concerns expressed by other parties participating in the consultation process, a supplemental AIS for the Proposed Queen Ka'ahumanu Highway Widening Phase 2 Project, prepared in consultation with the State Historic Preservation Division (SHPD) and in compliance with Chapter 6E-8 and the National Historic Preservation Act (NEPA) Section 106, was completed by Monahan et al. (2012a) and accepted by the Hawai'i SHPO in a letter dated August 21, 2012 (Log No.: 2012.1443, Doc No.: 1208MV01). The final 2012 AIS, which was revised substantially following the initial submittal by Monahan et al. (2011) to include the results of at least two subsequent supplemental surveys (Monahan and Wilkinson 2012; Monahan and Yucha 2012), resulted in the identification of 75 historic properties, including Sites 19947, 28783, and 28811.

All of the historic properties identified by Monahan et al. (2012a) were recommended as eligible for the National and Hawai'i Register of Historic Places (NRHP and HRHP) under NRHP Criterion "D," and under HRHP Criterion "e"; additionally all of the trail sites were assessed as significant under NRHP Criterion C (three trails were also assessed as significant under NRHP Criterion A, and one under NRHP Criterion B), resulting in a Chapter 6E-8 effect recommendation for the project of "effect, with proposed mitigation commitments," and a Section 106 recommendation of "adverse effect." The accepted treatment recommendations for the 75 sites included burial treatment planning (n=2), preservation (n=15), preservation and no further work (n=1), avoidance during construction (n=12), no further work (n=2), relocation (n=2), relocation and preservation (n=1), data recovery (n=23), and data recovery and preservation (n=17). As a result of the Monahan et al. (2012a) AIS, Site 19947 was recommended for relocation, Site 28783 was recommended for data recovery (excavation) and preservation, and Site 28811 was recommended for data recovery (excavation/dismantling).

Following the acceptance of the AIS, an archaeological monitoring plan for sites located within the Queen Ka'ahumanu Highway Widening Phase 2 Project Area was completed by Monahan et al. (2012b) and a data recovery and preservation plan was completed by Shideler et al. (2012). The monitoring plan was accepted by the Hawai'i SHPO in a letter dated October 1, 2012 (Log No.: 2012.2544, Doc No.: 1209MV11) and the data recovery and preservation plan was accepted in a letter dated October 25, 2012 (Log No.: 2012.3052, Doc No.: 1210MV25). Data recovery work specified for Sites 19947, 28783, and 28811 in the Shideler et al. (2012) plan included photographing all three features of Site 19947 prior to relocation, excavation of 1-m² within Feature B of Site 28783, and the excavation of an additional 1-m² "should there be any significant quantity of midden or any artifacts other than a small quantity of basalt waste flakes" (Shideler et al. 2012:134) encountered during the initial excavation, and 100% areal excavation of Site 28811. The data recovery work at these three sites was deferred, however, as subsequent to the SHPO acceptance of the detailed mitigation plan, the FHWA initiated a redesign of the Phase 2 widening project in order to minimize the effects of the undertaking on historic properties. The redesign resulted in avoidance of 23 historic properties that would have been directly impacted by construction activities, including Sites 19947, 28783, and 28811.

An archaeological preservation plan addressing the mitigation commitments for the 23 sites to be avoided during construction activities associated with the Queen Ka'ahumanu Highway Widening Phase 2 Project was completed by Hammatt and Shideler (2014) and accepted by the Hawai'i SHPO in a letter dated April 9, 2014 (Log No.: 2014.1379, Doc No.: 1404MV06). The 2014 plan specified preservation through avoidance and protection (conservation) for Sites 19947, 28783, and 28811. Interim preservation measures recommended for all three sites included protection behind a continuous barrier on the highway (east) side of the sites during construction activities. A construction buffer zone of 5 m on all sides was specified for Site 19947; a construction buffer zone of 5 m on all sides except on the highway (east) side, where the buffer would be 3.6 m, was specified for Site 28783; and a construction buffer zone of 5 m on all sides of the site except on the highway (east) side, where the buffer would be 2.2 m, was specified for Site 28811.

The agreed upon long-term preservation measures specified for all three sites in the Hammatt and Shideler (2014) preservation plan was passive preservation, meaning that the sites would be left in their current state for the foreseeable future, and that no permanent (long-term) demarcation of the preservation buffers was required.

Data recovery fieldwork at 11 historic properties located within the Queen Ka'ahumanu Highway Widening Phase 2 Project Area was completed on June 16, 2015 (LaChance et al. 2017), and the interim protection measures for the preservation sites specified in the Shideler et al. (2012) and Hammatt and Shideler (2014) were also implemented by that date. At Sites 19947, 28783, and 28811 orange barricade fencing tied to steel posts was erected along the construction buffer zone of each site. The completion of the data recovery fieldwork and the implementation of the interim protection measures was reported to SHPD in a letter dated June 25, 2015 (Folk 2015). In a July 16, 2015 response to that letter (Log No.: 2015.02518, Doc. No.: 1507MV03), SHPD determined that the fieldwork components of the detailed mitigation plans for the project had been successfully executed, and that construction activities could commence. Archaeological monitoring of construction activities associated with Queen Ka'ahumanu Highway Widening Phase 2 Project commenced on September 2, 2015, and were completed on November 26, 2018. The results of the monitoring effort are reported on in Archaeological Monitoring Report prepared by Bautista et al. (2020). The breaches of the preservation buffers at Sites 19947, 28783, and 28811 are not mentioned in the monitoring report, but date and time stamped photographs (provided by R.M. Towill) indicate that all three breaches occurred prior to September 9, 2016, and suggest that the fencing may have been improperly placed at the outset of the construction activities.

Recent Field Inspection of Sites 19947, 28783, and 28811

In order to provide the documentation of the site buffer breaches requested by R.M. Towill on behalf of HDOT, Sites 19947, 28783, and 28811 were inspected by Matthew R. Clark, M.A., and Johnny R. Dudoit, B.A., of ASM affiliates on May 12, 2020. During the field inspection measurements of the distance between the sites and the edges of the breaches were collected, and photographs of all of the breaches, including photographs that matched the directions and general locations of the original (September 9, 2016) breach pictures and photographs that showed the location of the sites from the breaches, were taken. The results of the field inspection at each site are presented below.

SIHP Site 50-10-27-19947

Site 19447, located within Kohanaiki Ahupua'a and consisting of three collections of stacked rocks (Features A-C) interpreted as an *ahupua'a* boundary marker, has an accepted preservation buffer of 5 m on all sides (Hammatt and Shideler 2014). This site was relocated during the recent field inspection and it was found that grading activities associated with the Queen Ka'ahumanu Highway Widening Phase 2 Project encroached to within 2.4 m of the eastern edge of site (as measured from Feature B, the easternmost rock pile). The site itself was not damaged, however. Photographs of the Site 19447 buffer breach are presented as Attachment A of this letter report.

SIHP Site 50-10-27-28783

Site 28783, located within Koloko Ahupua'a and consisting of a complex of six agricultural planting areas, has an accepted preservation buffer of 5 m on all sides except on the highway (east) side, where the buffer is 3.6 m (Hammatt and Shideler 2014). This site was relocated during the recent field inspection, however, the exact extent of encroachment on the preservation buffer was difficult to accurately gauge due to the incomplete feature documentation presented in the Monahan et al. (2012a) AIS and Hammatt and Shideler (2014) mitigation plan. Site 28783 was initially documented by Monahan et al. (2011) as containing two planting areas (Features A and B), but four additional planting areas were added to the site prior to the acceptance of the Final AIS in 2012. The four additional planting areas (Features C-F) were not assigned individual feature designations or described in either the Monahan et al. (2012a) AIS or the Hammatt and Shideler (2014) mitigation plan, and their locations are simply shown on a plan view map of the site (listed as "historic properties" in the legend) in both of those reports with no further details.

In the field, the features added to Site 28783 prior to the acceptance of Final 2012 AIS are difficult to recognize and, based upon their plotted locations (to the north of Features A and B), they appear to be coterminous with the locations of Christmas-berry trees, rather than with any type of constructed feature. Four Christmas-berry trees with flagging tied to them are present in the area to north of Features A and B of Site 28783, at the locations shown on the plan view map of the site. These are assumed to be the four agricultural planting areas that were not assigned feature designations. Grading activities associated with the Queen Ka'ahumanu Highway Widening Phase 2 Project appears to have encroached upon the preservation buffer for Site 28783 near the two easternmost Christmas-berry trees, and in the vicinity of Feature B, which is located directly in front of a large culvert (it is not clear from the text of the preservation plan if Feature B was intended to be preserved or not; the data recovery excavations initially recommended for Feature B were never undertaken, but preservation is only specified in the plan for Features A and C-F). It was found during the recent field inspection that the grading activities along the highway (east) side of Site 28783 encroached to within 2.6 meters of the two Christmas-berry trees, and to within 0.8 meters of Feature B. The features themselves were not damaged, however. Photographs of the Site 28783 buffer breaches are presented as Attachment B of this letter report.

SIHP Site 50-10-27-28811

Site 28811, located within 'O'oma 1st Ahupua'a and consisting a *pāhoehoe* excavation interpreted as a quarry location, has an accepted preservation buffer of 5 m on all sides except on the highway (east) side, where the buffer is 2.2 m (Hammatt and Shideler 2014). This site was relocated during the recent field inspection and it was found that grading activities associated with the Queen Ka'ahumanu Highway Widening Phase 2 Project encroached to within 1.2 m of the eastern edge of site. The site itself was not damaged, however. Photographs of the Site 28811 buffer breach are presented as Attachment C of this letter report.

Summary and Recommendations

On May 12, 2020, ASM Affiliates conducted a field inspection of breaches to the preservation buffers at Sites 19947, 28783, and 28811 that occurred during implementation of the Queen Ka'ahumanu Highway Widening Phase 2 Project. All three sites have agreed upon, prior preservation commitments that are specified in an archaeological preservation plan prepared by Hammatt and Shideler (2014). That plan was accepted by the Hawai'i SHPO and SHPD in a letter dated April 9, 2014 (Log No.: 2014.1379, Doc No.: 1404MV06). The field inspection was conducted in an effort provide HDOT with recent photographic documentation of the sites and buffer breaches, as well as measurements of how far the sites are from the edges of the breaches, and also to assess the need for a revised Archaeological Preservation Plan for Site 28811 due to its proximity to the constructed roadway embankment.

As a result of the field inspection it was found that grading activities along the *makai* edge of the highway encroached to within 2.4 m of the eastern edge of Site 19447, to within 0.8-2.6 m of the eastern edge of Site 28783, and to within 1.2 m of the eastern edge of Site 28811, in all cases violating the agreed upon preservation buffers for those sites. Despite the documented encroachment within the preservation buffers, none of the sites or their component features were directly impacted or damaged by the grading activities. The accepted long-term protection measures specified in the Hammatt and Shideler (2014) preservation plan for all three sites is passive preservation, meaning that the long-term buffer zones do not need to be delineated on the ground, and would only need to be demarcated with orange construction fencing any time potentially disturbing activities occur within the highway right-of-way in the vicinity of the sites. Hammatt and Shideler (2014:147) do note, however, that "if certain sites become threatened by on-going activities, SHPD has requested the permanent ("long-term") buffer zone be demarcated with plants or some type of permanent barrier," and they explicitly state that if the sites are impacted by construction activities, "it is the landowner's responsibility to report the extent of the impact to the SHPD."

Given the long-term protection measures specified in the Hammatt and Shideler (2014) preservation plan, it is recommended that HDOT inform SHPD (and the Hawai'i SHPO) in writing of the extent of the preservation buffer breaches at Sites 19947, 28783, and 28811. It is important to also inform them that the

breaches did not directly impact any of the sites or their component features. Ultimately, SHPD will be responsible for deciding whether or not a revised preservation plan is needed for Site 28811, or either of the other two preservation sites, but since no direct impacts to the sites occurred, and passive protection is the accepted long-term treatment, I believe that informing SHPD of the breaches should be sufficient for fulfilling HDOT's (i.e. the landowner's) obligations regarding the impacts to these preservation sites. It is possible, however, that SHPD will require further mitigative measures for these sites upon being informed of these breaches, such as removing the loose cobble material deposited near Site 28811 to the edges of the preservation buffer, and/or demarcating the long-term buffer with plants or some type of permanent barrier. Should you have any question or concerns, please don't hesitate to contact me directly.

Sincerely,



Matthew R. Clark, M.A.
Senior Archaeologist – Director ASM Hawai'i

References Cited

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Attachment A-Site 19447 photographs



September 9, 2016 photograph of Site 19447 looking north.



Same photograph of Site 19447 looking north taken on May 12, 2020 (with meter stick along limits of grading).



May 12, 2020 photograph of Site 19447 taken from the breach looking west (with meter stick along limits of grading).



May 12, 2020 photograph of Site 19447 taken from Feature B looking east (with meter stick along limits of grading).

Attachment B-Site 28783 photographs



September 9, 2016 photograph of Site 28783 looking north.



Same photograph of Site 28783 looking north taken on May 12, 2020.



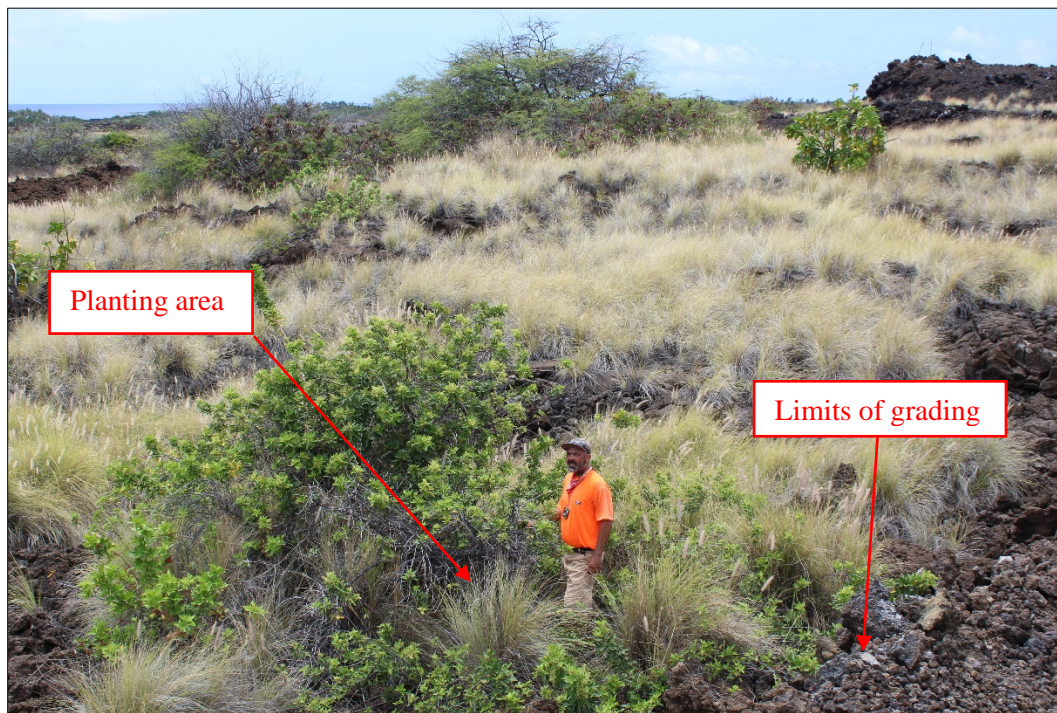
Eastern edge of
Feat. B

May 12, 2020 photograph of Site 28783 Feature B looking north (with meter stick along limits of grading).

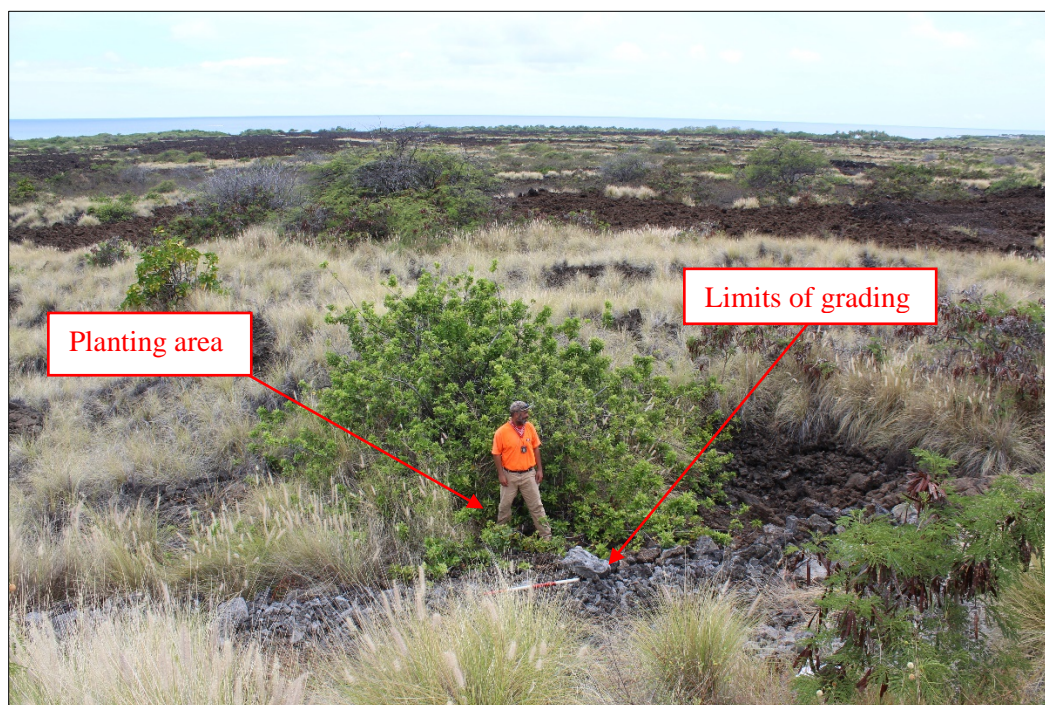


Eastern edge of
Feat. B

May 12, 2020 photograph of Site 28783 Feature B looking south.



May 12, 2020 photograph of an undesignated planting area at Site 28783 looking northwest with the limits of grading indicated.



May 12, 2020 photograph of an undesignated planting area at Site 28783 looking northwest with the limits of grading indicated.

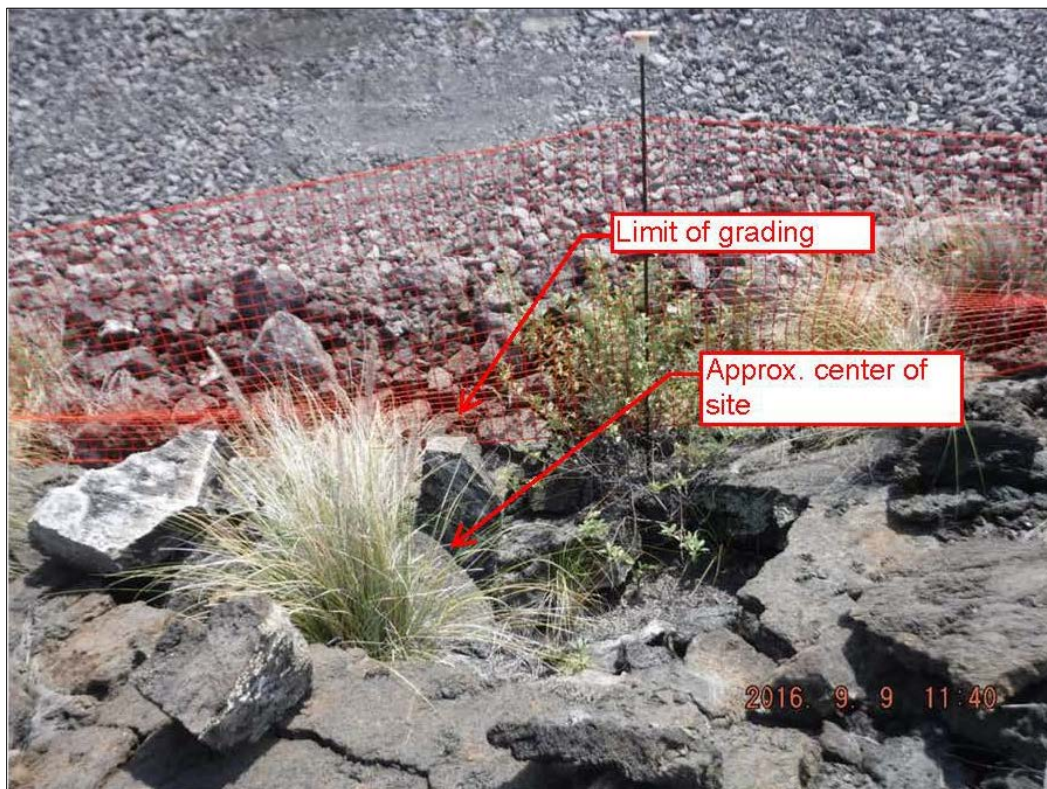
Attachment C-Site 28811 photographs



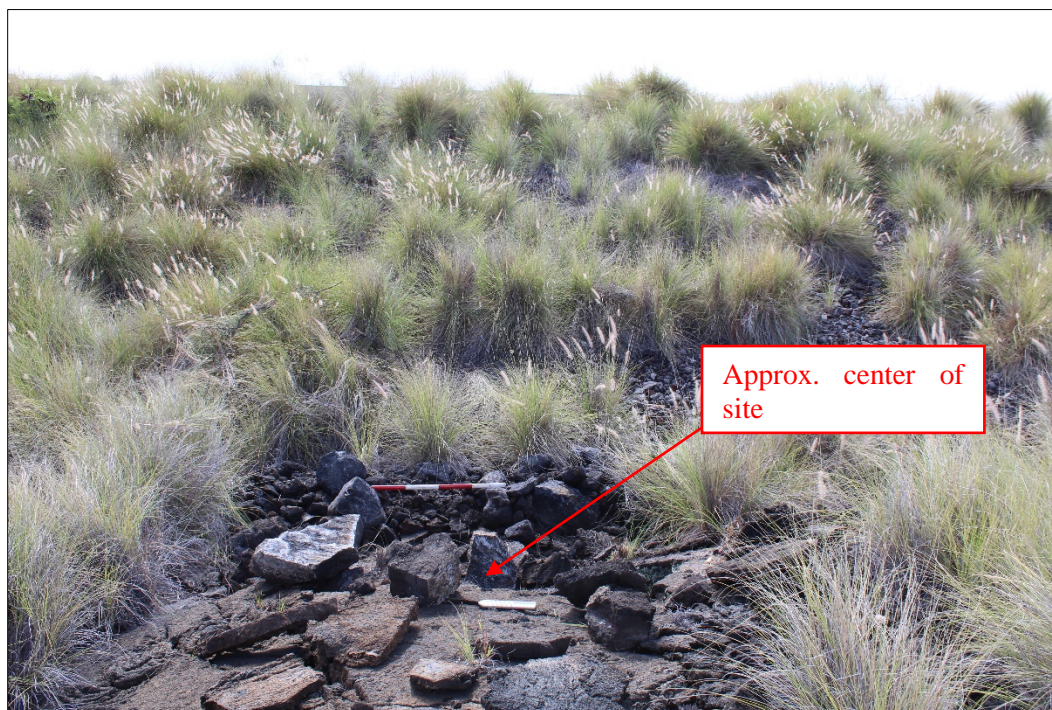
September 9, 2016 photograph of Site 28811 looking north.



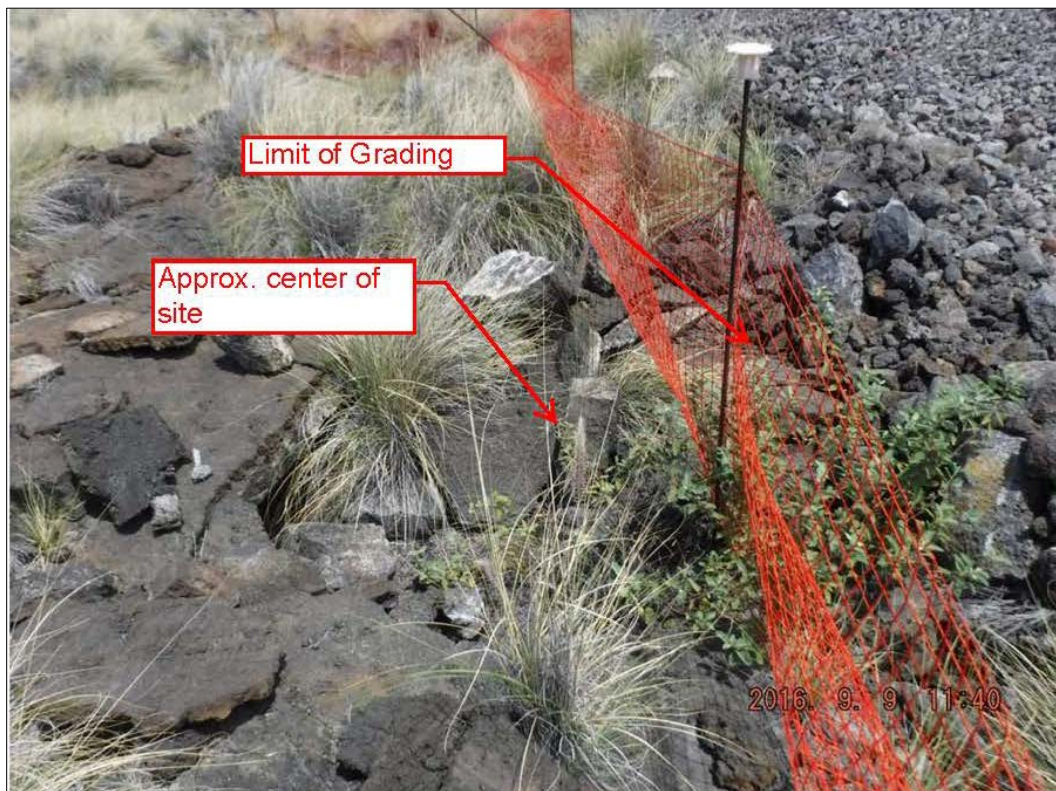
May 12, 2020 photograph of Site 28811 looking north.



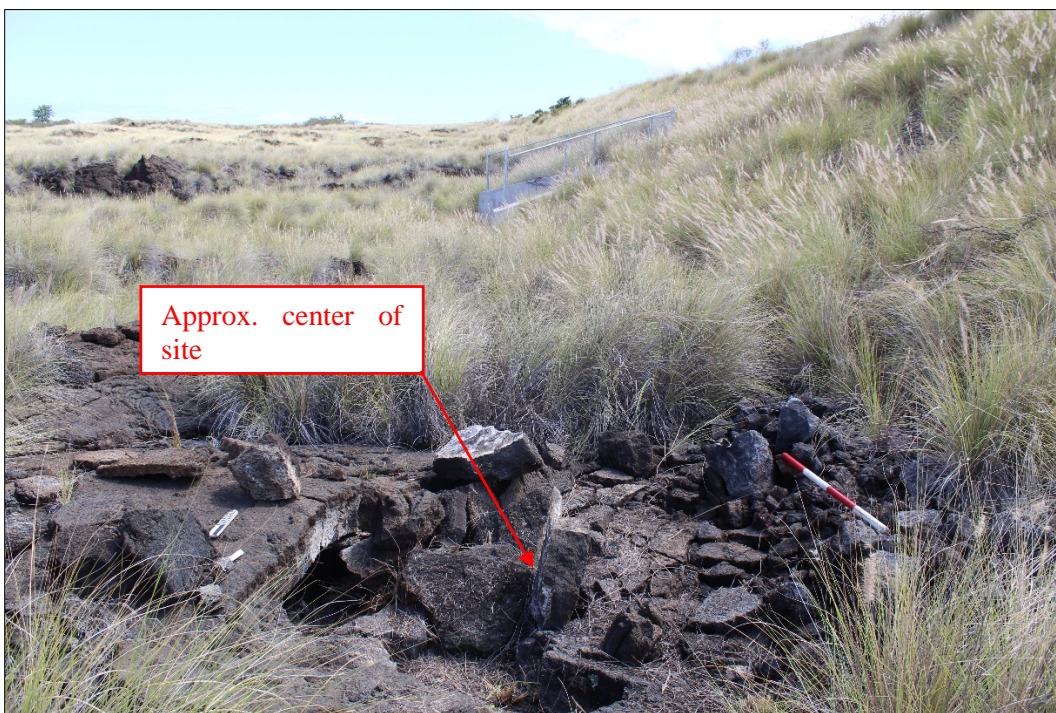
September 9, 2016 photograph of Site 28811 looking east.



May 12, 2020 photograph of Site 28811 looking east (with meter stick along limits of grading).



September 9, 2016 photograph of Site 28811 looking north.



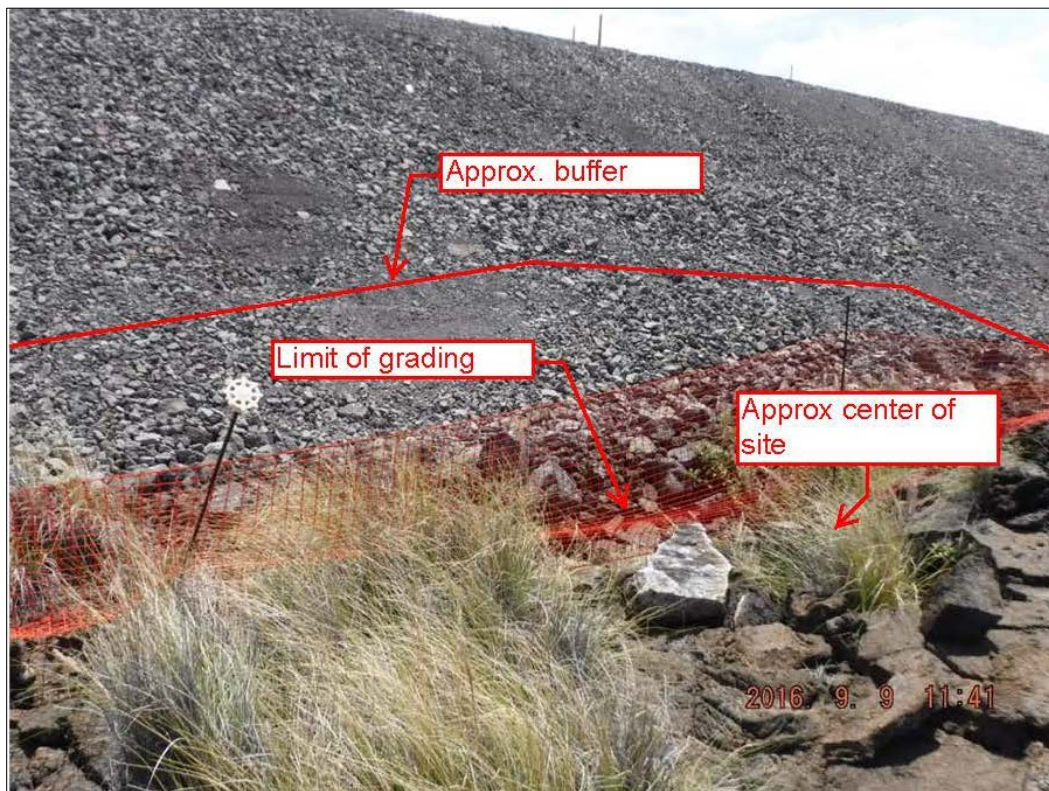
May 12, 2020 photograph of Site 28811 looking north (with meter stick along limits of grading).



September 9, 2016 photograph of Site 28811 looking south.



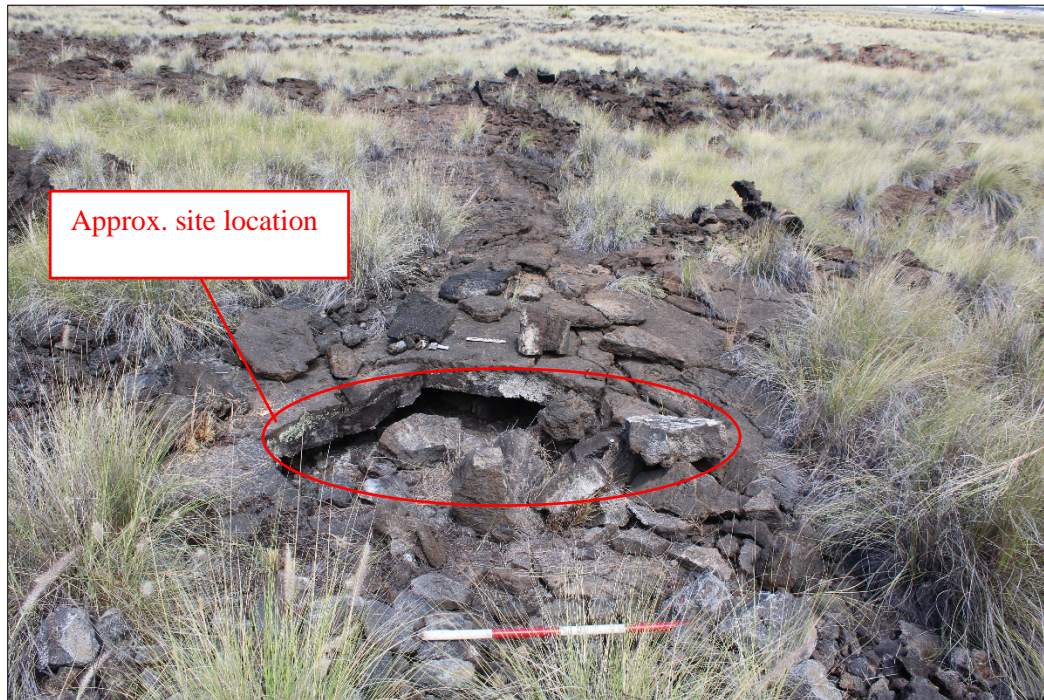
May 12, 2020 photograph of Site 28811 looking south.



September 9, 2016 photograph of Site 28811 looking southeast.



May 12, 2020 photograph of Site 28811 looking southeast (with meter stick along limits of grading).



May 12, 2020 photograph of Site 28811 taken from the breach looking west (with meter stick along limits of grading).