APPENDIX A

STATE HISTORIC PRESERVATION DIVISION LETTERS AND ARCHAEOLOGICAL RECONNAISSANCE SURVEY REPORT

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

WINNIFRED K.Y. SESLI
DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 12, 2010

Sara Ziff, EPA Project Officer
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105-3901

LOG NO: 2010.0921
DOC NO: 1005MD11
Archaeology

Dear Ms. Ziff:

SUBJECT: National Historic Preservation Act (NHPA) Section 106 Review –
Kapulena Well Development Project, EPA Grant #10-025
Kauko'i Ahupua'a, Hāmākua District, Island of Hawai'i
TMKs: (3) 4-7-002:029 & 035 (por.) and 4-7-008:019 (por.)

Thank you for the opportunity to review the aforementioned undertaking, which we received on April 12, 2010. This development project will entail construction of a new well; if pump tests confirm that the well's yield is adequate and suitable for use as drinking water, there will be a second phase wherein the County of Hawaii will convert the well into a production well, install a new 0.30 million gallon water tank, and connect the tank to an existing 0.05 million gallon tank that is already in service at the site.

A request for "No Effect" was previously accepted by SHPD on behalf of the County of Hawaii on January 23, 2009 under State of Hawaii Chapter 6E-8 (*Log No. 2009.0046, Doc No. 0901MD37*). We concur with your determination that this undertaking will have **no adverse affect** in the proposed A.P.E. pursuant to 36 CFR 800 (Section 106). If you have questions about this letter please contact Morgan Davis at (808) 896-0514 or via email to: morgan.e.davis@hawaii.gov.

Aloha,

Nancy A. McMahon

Nancy McMahon, Deputy SHPO/State Archaeologist
and Historic Preservation Manager
State Historic Preservation Division

LINDA LINGLE
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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

January 23, 2009

Robert B. Rechtman, Ph.D.
Rechtman Consulting LLC
507-A E. Lanikaula Street
Hilo, Hawaii 96720

LOG NO: 2009.0046
DOC NO: 0901MD37
Archaeology

Dear Dr. Rechtman:

SUBJECT: Chapter 6E-8 Historic Preservation Review –
Request for "No Effect" for the Kaupulena Well
Hauko'i Ahupua'a, Hamakua District, Island of Hawai'i
TMK: (3) 4-7-002:029 & 035 (por.) and 4-7-008:019 (por.)

This letter is a reply to your letter/report (RC-0487) request for a no effect determination for the aforementioned project, which we received on January 22, 2009. This project will cross, but not affect, a portion of the Lower Hamakua Ditch. We determine that **no historic properties will be affected** by this project because:

- ☐ Intensive cultivation has altered the land
- ☒ Residential development/urbanization has altered the land
- ☒ Previous grubbing/grading has altered the land
- ☐ An accepted archaeological inventory survey (AIS) found no historic properties
- ☐ SHPD previously reviewed this project and mitigation has been completed
- ☒ Other: *On January 16, 2009, qualified archaeologists from you firm (Rechtman and Clark) performed a field inspection of the project area and determined no historic properties were present; we concur with that assessment.*

In the event that historic resources, including human skeletal remains, cultural materials, lava tubes, and lava blisters/bubbles are identified during the construction activities, all work needs to cease in the immediate vicinity of the find, the find needs to be protected from additional disturbance, and the State Historic Preservation Division, Hawaii Island Section, needs to be contacted immediately at (808) 933-7653. If you have questions about this letter please contact Morgan Davis at (808) 933-7650.

Aloha,

Nancy A. McMahon

Nancy McMahon, Deputy SHPO/State Archaeologist
and Historic Preservation Manager
State Historic Preservation Division

RECHTMAN CONSULTING, LLC
507-A E. Lanikaula St. Hilo, Hawaii 96720
phone: (808) 969-6066 fax: (808) 443-0065
e-mail: bob@rechtmanconsulting.com
ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL STUDIES

January 22, 2009 RC-0487

Morgan Davis
Assistant Hawai‘i Island Archaeologist
DLNR-SHPD
40 Po‘okela Street
Hilo, HI 96720

Dear Morgan:

At the request of Tom Nance Water Resources Engineering, Inc., on behalf of their client the County of Hawai‘i Department of Water Supply, Rechtman Consulting, LLC has prepared this request for determination of “no historic properties affected” associated with the development of a well (referred to as the Kapulena Well), a 0.3 million gallon (MG) water tank, and an associated 20-foot wide access/utility corridor within TMKs: 3-4-7-02:29, 35, and 3-4-7-08:19 in Hauko‘i Ahupua‘a, Hāmākua District, Island of Hawai‘i (Figures 1, 2, and 3). TMK: 3-4-7-08:19 is a 7,726 square foot utility easement and 30-foot road reserve that provides access to several parcels *mauka* of Highway 240 (the Honoka‘a-Waipi‘o Government Road; Figure 4). TMK: 3-4-7-02:29 is 0.104 acre parcel owned by County of Hawai‘i that is the location of an existing 50,000 gallon water tank (Figure 5). TMK: 3-4-7-02:35 is a privately owned, 41.303 acre parcel that has a 15-foot wide road and pipeline easement running across it between the two other parcels. A dirt road that follows the easement across Parcel 35 provides access to the existing water tank from Highway 240 (Figure 6). The Kapulena Well development plans call for the preparation of a 250 x 200 foot area for the proposed well pad and tank location (on Parcel 35), the use of a roughly 100 x 50 foot area for the storage of construction materials (on Parcel 35), and the realignment and improvement of the existing access road (on Parcels 19 and 35). The water tank on Parcel 29 will be updated and tied into the new infrastructure, but no additional land disturbance will occur on that parcel. The County of Hawai‘i has an agreement in place for the fee-simple purchase of the proposed development areas on Parcel 35.

The subject parcels have all been previously grubbed and graded. In addition to the existing road and water infrastructure described above, the privately-owned Parcel 35 contains a macadamia nut orchard (Figure 7) and a single family residence. Terrain within the proposed development area slopes consistently to the north. Elevations range from approximately 900 feet above sea level at Highway 240 to 1,060 feet above sea level at the proposed location of the well pad. The soil within the project area is classified as Kukaiau silty clay loam on 12 to 20 percent slopes (KuD). This soil is dissected by many, deep, narrow gulches. The surface layer consists of very dark grayish-brown silty clay loam about 10 inches thick, and the subsoil is dark-brown silty clay loam about 40 inches thick. It is underlain by basalt. The surface layer is extremely acidic, and the subsoil is medium to slightly acidic. This soil dehydrates irreversibly into aggregates the size of fine sand (USDA-NRCS web site). The underlying lava flow originated from Mauna Kea more than 10,000 years ago (Wolfe and Morris 1996).

Cordy (1994), in his regional synthesis of the Hāmākua District, summarizes the general land use patterns for the subregion of East Hāmākua based on a review *Māhele* records and a detailed examination of archival historical information. Cordy (1994) defines four general envirionmental zones within the subregion: (1) the Sea-shore, (2) The Seaward Upland Slopes, (3) the ‘Ōhi‘a-Koa Forest Zone, and (4) The Gulches. The current project area falls within The Seaward Upland Slopes, which was the farming and housing zone of East Hāmākua. House sites in this zone were common between the sea cliffs and the cross-island trail (present day Māmalahoa Highway). Garden plots (*mala*, *kihapai*, and *kula*), which were

generally non-irrigated, tended to be located in proximity to the houselots, with some scattered fields in the *mauka* regions. Dryland taro was the dominant crop, but sweet potatoes and bananas were also commonly grown in this zone.

Cordy (1994) follows his discussion of general land use patterns in East Hāmākua with a review of *Māhele* documents from ten specific *ahupuaʻa*, including Haukoʻi Ahupuaʻa. Haukoʻi is a narrow *ahupuaʻa* that extends only 2.5 miles inland from the shore. Four Land Commision Awards (LCAw.) were issued in Haukoʻi, all of which were for houselots and farm plots located within 1.25 miles of the sea. The names of two *'ili* are mentioned in the testimony for these awards; Haleolona and Papuaa. Taro, bananas, breadruit, coffee, *ʻawa*, and *wauke* were named as crops that were grown, and a pig sty is also mentioned. Cordy relates that, "Puhalahua was the konohiki of Haukoʻi, and his luna seems to have cared for his land, "hog sty", and his houselot" (1994:70).

TMK: 3-4-7-08:19 of the current study area is a portion of LCAw. 8381 to Kaaeae. Kaaeae's claim was for two houses and six agricultural sections. The claim mentions fifteen *mala* or *kihapai*, fourteen of which were planted in unspecified food crops, and one of which was planted in*ʻawa*. TMKs: 3-4-7-02:29 and 35 are portions of Grant No. 2449, which was purchased by Pili et al. in 1857. The grant parcel is located along the *mauka* edge of the *kuleana* parcel. No information was obtained relative to the use of this grant parcel.

In 1878 the first sugar mill was established in the Hāmākua District. Due to it's rich soil and plentiful water supply the district soon became the premiere location for growing sugar on the Island of Hawaiʻi (Hazlett et al. 2007). In 1909 the Hawaiian Irrigation Company began work on the Lower Hāmākua Ditch. The ditch carried water twenty-four miles from the Waipio Stream to Paahau Plantation, irrigating the fields of the Kukuihaele and Honokaa Plantations along the way. By 1979, these plantations had merged with others in the area to create the Hamakua Sugar Company, a plantation that stretched along the Hāmākua coast for thirty-five miles and inland to a distance of four miles. The sugar company initially prospered, but then went bankrupt, and closed its doors in 1993 (Hazlett et al. 2007).

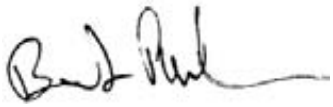
The current project area was a part of the Hamakua Sugar Plantation. The Lower Hāmākua Ditch crosses through a tunnel beneath the existing road easement on TMK: 3-4-7-02:35 (Figure 8). According to the land owner, Parcel 35 was never planted in sugarcane because the ground was too rocky, but it was used as an experimental plot for growing macadamia nuts. As a result of this experiment, several different varieties of macadamia nut trees are still present on the parcel.

On January 16, 2009, Robert B. Rechtman, Ph.D. and Matthew R. Clark, B.A. performed a field inspection of the project area, the limits of which were clearly identifiable in the field. The entire surface of the proposed development area, which appears to have been 100% mechanically altered in the past, was visually inspected. No archaeological resources were observed within the project area and given the extensive ground disturbance and the nature of the substrate the likelihood of encountering subsurface resources is extremely remote. Based on these negative findings, on behalf of our client, we are requesting that DLNR-SHPD issue a written determination of "no historic properties affected" in accordance with HAR 13§13-284-5(b)1.

In the unlikely event that archaeological resources are encountered during future development activities within the current study area, work in the immediate area of the discovery will be halted and DLNR-SHPD contacted as outlined in Hawaiʻi Administrative Rules 13§13-275-12.

Should you require further information, or wish to visit the project area, please contact me directly.

Respectfully,



Bob Rechtman, Ph.D.
Principal Archaeologist

References Cited

Cordy, R.
1994 A Regional Synthesis of Hāmākua District, Island of Hawaiʻi. Historic Preservation Division, Department of Land and Natural Resources, State of Hawaiʻi.

Hazlett, A., Shideler, D., and Hammatt, H.
2007 Supplemental Archaeological Surveying, Recordation, Monitoring, Discovery, and Data Recovery Plan for the Hamakua Ditch System, Lālākea, Kukuihaele, Kanahonua, Waioʻekoʻe, Keaʻā, Puʻuʻōpaha, Kalakalaʻula, Moʻoiki 1, Hanapai, Niupuka, Kana, Paʻakō, Puanui, Papalapuka, Waikōloa, Waiʻaleʻale, Kapulena, Kaʻauhuhu, Keʻahakea, Haukoʻi, Moʻoiki 2, Manae, Kapoaʻula, Malanahae and Honokaiʻa Ahupuaʻa, Hāmākua District, Hawaiʻi Island, Portions of TMK: [3] 4-06, 4-07, and 4-08. Cultural Surveys Hawaiʻi Job Code: LALAKEA 1. Prepared for Belt Collins Hawaii, Ltd.

Wolfe, E., and J. Morris
1996 Geologic Map of the Island of Hawaiʻi. Geologic Investigations Series Map 1-2524-A. U.S. Department of the Interior, U.S. Geological Survey.

Figure 1. Project area location.

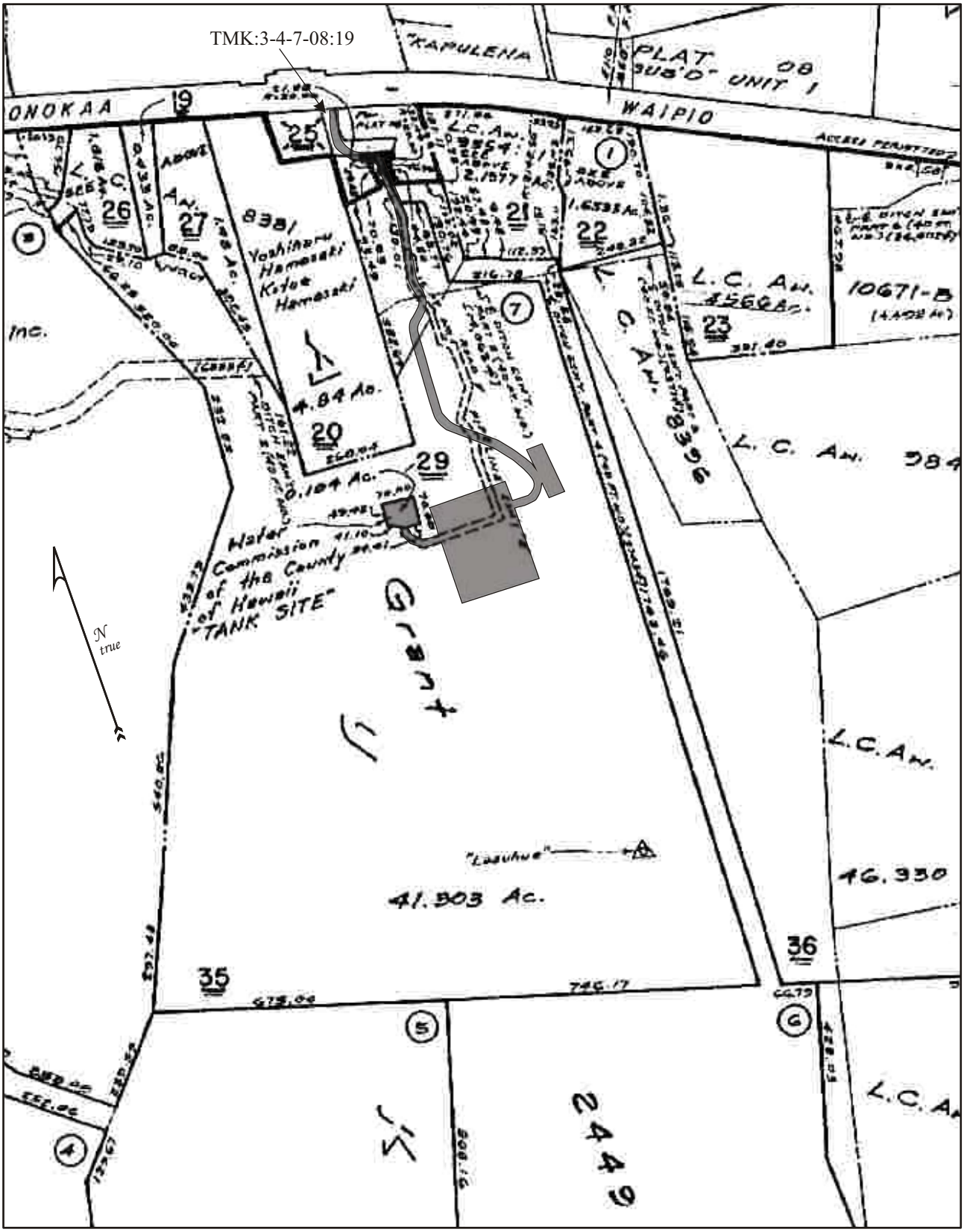


Figure 2. Portion of Tax Map Key (TMK): 3-4-7-02 showing the proposed development area (shaded).

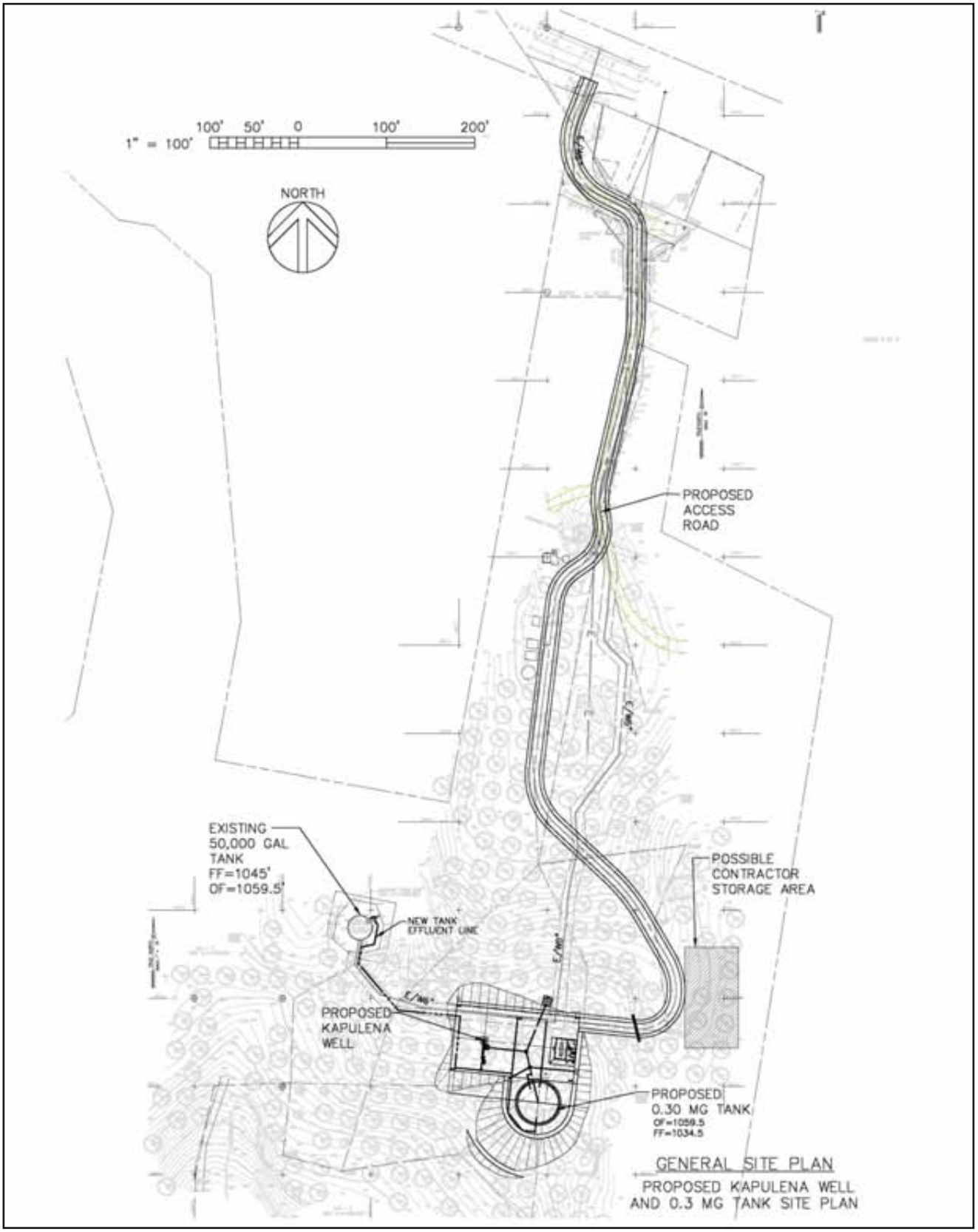


Figure 3. General site plan of the proposed development area.

Figure 4. View to northwest of the existing access road on TMK: 3-4-7-08:19.

Figure 5. View to north of the existing 50,000 gallon water tank on TMK: 3-4-702:29.

Figure 6. View to south of the existing access road on TMK: 3-4-7-02:35

Figure 7. View to east of the macadamia nut orchard at the proposed well pad location.

Figure 8. View to east of the Lower Hāmākua Ditch passing beneath the existing road.