

ALAN. M. ARAKAWA
Mayor



DAVID TAYLOR, P.E.
Director

PAUL J. MEYER
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

September 7, 2012

Gary Hooser, Director
Office of Environmental Quality Control
State of Hawaii
23 5 South Beretania Street, Suite 702
Honolulu, HI 96713

RECEIVED
12 SEP 12 P 1:43
OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Dear Mr. Hooser:

**SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PROPOSED
UPPER HOLOKAI TANK 40,000 GALLON PRESSURE BREAK TANK AT
TMK (2) 2-8-005:115, PEAHI, HAIKU, HAWAII**

The County of Maui, Department of Water Supply, the Approving Agency for the Draft Assessment (EA) for the subject project, has reviewed the Draft EA. Please publish the Draft EA in the next available publication of the Office of Environmental; Quality Control (OEQC) Environmental Notice.

We have enclosed a completed OEQC Publication form and Project Summary, a CD (pdf.file) and one (1) hard copy of the Draft EA.

Should you have questions, please feel free to contact our planning consultant, Heidi Bigelow of West Maui Land Co., Inc. at (808) 877-4202.

Sincerely,

A handwritten signature in blue ink, appearing to read "DT", written over a blue horizontal line.

David Taylor, P.E.
Director

FT:pf

"By Water All Things Find Life"



**Publication Form
The Environmental Notice
Office of Environmental Quality Control**

Project Name: Upper Holokai Tank 40,000 Gallon Pressure Break Tank
Applicable Law: Chapter 343, Hawaii Revised Statutes (HRS)
Type of Document: Draft Environmental Assessment
Island: Maui
District: Peahi, Haiku
TMK: (2) 2-8-005:015
Permits Required: Grading Permit
**Applicant or
Proposing Agency:** West Maui Construction, LLC.
Address 33 Lono Avenue, Suite 450
Kahului, Hawaii, 96732
Contact & Phone Glenn Tremble, (808) 877-4202
**Approving Agency/
Accepting Authority:** County of Maui, Department of Water Supply
Address 200 South High Street
Wailuku, Hawaii, 96793
Contact & Phone David Taylor, Director, (808) 270-7816

Project Summary:

The project involves the construction a 40,000 gallon pressure break tank on County owned property located at the corner of South Holokai Road and Kaupakalua Road. The parcel size is .226 acres and is identified by Tax Map Key Number (2) 2-8-005:115. Related onsite infrastructure includes associated pipes and valves and a perimeter road. Off-site improvements consist of connections to existing water lines on South Holokai Road and a drain line. The site previously contained a 10,000 gallon redwood tank that has since been removed. The objective of the project is to replace the previous tank and ensure reliable water pressure for down gradient water users as well as to provide a storage buffer for users in the immediate service area.

**DRAFT ENVIRONMENTAL
ASSESSMENT**

**UPPER HOLOKAI TANK
40,000 GALLON PRESSURE BREAK
TANK AT
TMK: (2) 2-8-005: 115**

Approving Agency
**Department of Water Supply
County of Maui**

Applicant
West Maui Construction, LLC

August 2012

**DRAFT ENVIRONMENTAL
ASSESSMENT**

**UPPER HOLOKAI TANK
40,000 GALLON PRESSURE BREAK
TANK AT
TMK: (2) 2-8-005: 115**

Approving Agency
**Department of Water Supply
County of Maui**

Applicant
West Maui Construction, LLC

August 2012

CONTENTS

Executive Summary	i
I. PROJECT OVERVIEW	2
A. PROPERTY LOCATION OWNERSHIP AND EXISTING USE	2
B. PROJECT DESCRIPTION	2
C. DEVELOPMENT TIMELINE AND NECESSARY APPROVALS.....	3
II. DESCRIPTION OF THE EXISTING ENVIRONMENT AND POTENTIAL IMPACTS/MITIGATION MEASURES.....	4
A. PHYSICAL SETTING	4
1. Existing and Surrounding Land Use	4
2. Topography	5
3. Soils	6
4. Flood and Tsunami Hazards	7
5. Flora and Fauna.....	7
6. Archaeological and Cultural Resources	8
7. Air Quality	8
8. Noise	9
9. Scenic and Open Space Resources	10
B. SOCIO-ECONOMIC ENVIRONMENT.....	10
1. Population.....	10
2. Economy	11
C. PUBLIC SERVICES.....	12
D. INFRASTRUCTURE.....	12
1. Roadways.....	12
2. Water	12
3. Wastewater Systems	13
4. Drainage	14
III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS	16
A. STATE LAND USE DISTRICTS.....	16
B. Maui Countywide Policy Plan	16
C. PAIA-HAIKU COMMUNITY PLAN	17
D. COUNTY ZONING	18

E. SPECIAL MANAGEMENT AREA OBJECTIVES AND POLICIES.....	18
IV. CUMULATIVE AND SECONDARY IMPACTS	19
V. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED.....	21
VI. ALTERNATIVES ANALYSIS.....	22
A. NO ACTION OR NO BUILD ALTERNATIVE	22
B. ALTERNATIVE LOCATION	22
C. ALTERNATIVE USE.....	22
VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES.....	23
VIII. FINDINGS AND CONCLUSIONS	24
IX. LIST OF PERMITS AND APPROVALS	28
References	i

LIST OF FIGURES

Figure 1. Location Map

Figure 2. Aerial Map - Peahi/Ulumalu vicinity

Figure 3. Site Plan

Figure 4. Section

Figure 5. Offs-site Drainline

Figure 6. Grading Plan

Figure 7. DWS Water System Map

LIST OF APPENDICES

Appendix A. Site Photographs

Executive Summary

Project Name:	Upper Holokai 40,000 Gallon Pressure Break Tank
Type of Document:	Draft Environmental Assessment
Legal Authority:	Chapter 343, Hawai'i Revised Statutes
Agency Determination:	Anticipated Finding of No Significant Impact (FONSI)
Applicable Chapter 343, HRS "Trigger":	Use of County Land
Location:	TMK: (2) 2-8-005:115 Peahi, Maui Island
Applicant:	West Maui Construction, LLC 33 Lono Avenue, Suite 450 Kahului, Hawai'i 96732
Accepting Authority:	Department of Water Supply County of Maui 200 South High Street Wailuku, Hawai'i 96793
Project Summary:	<p>The project involves the construction a 40,000 gallon pressure break tank on County owned property located at the corner of South Holokai Road and Kaupakalua Road. The parcel size is .226 acres and is identified by Tax Map Key Number (2) 2-8-005:115. Related onsite infrastructure includes associated pipes and valves and a perimeter road. Off-site improvements consist of connections to existing water lines on South Holokai Road and a drain line. The site previously contained a 10,000 gallon redwood tank that has since been removed. The objective of the project is to replace the previous tank and ensure reliable water pressure for down gradient water users as well as to provide a storage buffer for users in the immediate service area.</p>

I. PROJECT OVERVIEW

A. PROPERTY LOCATION OWNERSHIP AND EXISTING USE

The project site is located in Peahi, Maui at the corner of South Holokai Road and Kaupakalua Road (Route 365) and is identified as TMK (2) 2-8-005: 115. See **Figures 1 and 2**. The subject property, approximately .226 acres in size, is owned by the County of Maui's Board of Water Supply and is currently vacant. The site previously contained a 10,000 gallon tank that has since been removed. A dirt driveway to the neighboring parcel (TMK (2) 2-8-005: 76) runs through the site and will be realigned as part of the project. A drainage easement runs in a northerly direction across the neighboring parcel. Access is provided from South Holokai Road. Photographs of the subject property are presented in **Appendix A**.

B. PROJECT DESCRIPTION

The project involves the construction of a 40,000 gallon pressure break tank and related appurtenances, including connection pipes and valves, access road and other site improvements.

The tank will measure approximately 22 ft. in diameter and will be approximately 19 ft. in height. A paved access road will be constructed from South Holokai Road and will provide access around the perimeter of the tank. A perimeter fence will be constructed along the property boundary and an access gate will be provided. Various control valves will be installed to control the flow of water into and out of the tank. Off-site improvements will consist of two connections to the existing water line on South Holokai Road as well as an off-site drain line and discharge headwall. The off-site drain line will be installed in order to capture tank overflow, to drain the tank as well as to capture the site generated runoff. The overflow/drain line will discharge to a neighboring gulch to the north via off via a concrete headwall. See **Figures 3-6**.

Mitigation measures will be incorporated during the construction phase to minimize the potential impacts from soil and wind erosion.

Construction of the tank is needed to replace the previous pressure break tank in order to better regulate pressure to customers down gradient from the site. The additional storage also will provide a buffer for the existing delivery system. Current storage available for the area is limited and there is a need for additional storage to buffer the peak demands from existing users. Most of these users are provided with “on-demand” service directly from the main water transmission lines, resulting in little or no buffer during times of peak demand. The tank site is considered a good location since it can provide for the pressure break as well as needed storage at the same location. The Department of Water Supply’s system map for the area is shown in **Figure 7**.

C. DEVELOPMENT TIMELINE AND NECESSARY APPROVALS

Necessary approvals include a grading permit from Department of Public Works and water system approval by the State Department of Health. It is anticipated that construction plan approvals will take approximately four months to complete. Construction activities will commence immediately after construction plan approvals and are expected to take approximately four months to complete. Thus, project completion is anticipated to occur in the beginning of 2013.

II. DESCRIPTION OF THE EXISTING ENVIRONMENT AND POTENTIAL IMPACTS/MITIGATION MEASURES

A. PHYSICAL SETTING

1. Existing and Surrounding Land Use

a. Existing Conditions

The project site is located within the Paia-Haiku Community Plan region, on the northern windward coast of the island of Maui. The Haiku region is rural in character with small urban nodes at Kuiaha, Haiku and Pauwela. The subject property is located in Peahi approximately 3 miles east of Haiku and approximately 9 miles east of Paia Town.

The development pattern in Peahi and the neighboring Ulumalu area includes a mixture of newer 2-acre minimum lot subdivisions as well a number of smaller (less than 2 acres) parcels along older roadways, including Holokai and Kaupakalua Roads. Between the project site and Hana Highway on South Holokai Road there are approximately 20 parcels that are not consistent with the current 2-acre minimum lot size standard in the Agricultural district. (Maui County established a 2-acre minimum lot size in the Agricultural District in 1969.) North Holokai Road, makai of Hana Highway, includes a few small parcels, as well as newer lots created as part of 2-acre minimum lot size subdivisions. See **Figures 1-2**.

Although located in the Agricultural district, land uses currently surrounding the subject property can be described as rural residential in character with parcels ranging in size from approximately 1.5 to 4 acres.

b. Potential Impacts and Mitigation Measures

The proposed project involves the construction of a 40,000 gallon pressure break tank on a site which was previously used for the same purpose. Once constructed, the water tank will be a passive use and will not alter the character of the area. There will be a minor visual impact to the area, however the floor of the tank will be approximately 10 ft. lower than the ground elevation at the Kaupakalua and South Holokai Road intersection and the tank will be setback from the roadways, thus minimizing visual impacts. Also, water tanks are a common feature in the agricultural district and not an unusual sight. The tank is intended to provide a necessary pressure break for down gradient users on South Holokai Road and Kekoanui Road. As such, the proposed project is considered to be compatible with existing and surrounding land uses.

2. Topography

a. Existing Conditions

The topography of the site slopes towards the north at an average slope of 11%. Elevations range from a low of 788 ft. above sea level (asl) to a high of 808 ft. asl. A portion of the site has been leveled and used for a driveway to the property to the north. An earthen berm approximately 3-4 ft. in height runs parallel to South Holokai Road, and is covered with overgrown vegetation. See **Appendix A - Site Photographs**.

b. Potential Impacts and Mitigation Measures

A portion of the site will be graded to provide a flat area for the tank. This will require a maximum cut of 6 feet on the site. In addition, approximately 2-3 feet of cut will be required beneath the tank site in order to provide compacted structural fill for more uniform support of the foundation. The total estimated excavation quantity is 444 cubic yards. All grading work will comply with applicable requirements of Chapter 20.08, Soil Erosion and Sedimentation of the Maui County Code. The

proposed project will not present any significant adverse impacts on the existing topography and landform of the surrounding area.

3. **Soils**

a. **Existing Conditions**

The project site is in an area associated with the Pauwela-Haiku association. This association consists of well-drained, fine textured soils on low uplands on the north-facing slopes of East Maui. In general, the near-surface soils consist of residual and saprolitic soils (completed weathered rock), derived from the deep in-situ weathering of igneous rocks. Occasional hard basaltic rock boulders may be encountered embedded within the deeply weathered soils. Subsurface conditions at the project site generally consist of stiff residual soils that graded with depth to very stiff saprolite.

b. **Potential Impacts and Mitigation Measures**

Based on the structural loads anticipated and the subsurface conditions, a shallow foundation system consisting of spread and/or continuous footings will be used to support the proposed water tank structure. Due to heavy rainfall conditions, the area beneath the tank floor will be over-excavated and replaced with compacted structural fill for more uniform support. Best Management Practices will be implemented both prior to and during grading and construction to minimize opportunities for soil erosion at the site. Upon completion of construction, groundcover will be installed which will stabilize the ground on a permanent basis. With implementation of the foregoing mitigation measures, the proposed project is not anticipated to present significant adverse impacts on soil conditions within the subject property. Moreover, with the proposed structural footing design, the soil types found on the property do not present any limitations to the constructability of the proposed water tank.

4. **Flood and Tsunami Hazards**

a. **Existing Conditions**

The subject property is located within Flood Zone “X”, an area of minimal flooding. (Flood Panel 0429E) The subject property is not situated within a defined Tsunami Evacuation Area.

b. **Potential Impacts and Mitigation Measures**

The water tank is proposed to be situated entirely within Zone “X”, an area of minimal flooding and therefore there are no anticipated impacts due to flooding.

5. **Flora and Fauna**

a. **Existing Conditions**

The proposed site is situated within the rural setting of Haiku. Natural environmental features, such as plant and animal life, therefore, are reflective of this rural setting. Roughly half of the property is a flat lawn area with a dirt road running through the proposed tank site. The remainder of the site is overgrown with mostly introduced or alien weedy species, including eucalyptus trees, cane grass, guava, ginger and a few ti plants. See **Appendix A - Site Photographs**. None of the plants on the site are a threatened and endangered species or a species of concern (U.S. Fish and Wildlife Service 1997). All of the plants can be found in throughout Haiku and in other previously disturbed lowland windward habitats throughout the main Hawaiian Islands.

Animal life in the project vicinity reflects the rural character of the region as well. Avifauna typically found in the vicinity includes the common myna, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rodents, and mongoose.

b. Potential Impacts and Mitigation Measures

The project will involve removal of approximately 6 eucalyptus trees approximately 30 feet in height as well other weeds, grasses, and shrubs. The eucalyptus are considered to be relatively small or young trees, given that trees of this type in the immediate area commonly grow to heights over 100 feet. There are no known habitats of rare, endangered or threatened species of flora or fauna located within the subject property. No significant adverse impacts on flora and fauna in the area are expected to be generated through implementation of the proposed project.

6. Archaeological and Cultural Resources

a. Existing Conditions

The entire project area has been previously disturbed and there are no surface archaeological features or resources within the boundaries of the property. Similarly, based on the relatively small size of the property, it's location within a developed rural setting and prior use as a tank site, there is no significant cultural resources or activities occurring at the property.

b. Potential Impacts and Mitigation Measures

There are no known archaeological or historic sites or cultural resources at the project site. Although unlikely, if human remains or historic features are identified during excavation activities, work will stop in the immediate vicinity of the find and the SHPD will be immediately notified in order to establish an appropriate mitigation strategy. Based on the foregoing, cultural practices or resources are not anticipated to be adversely impacted by the proposed project.

7. Air Quality

a. Existing Conditions

Peahi's constant exposure to tradewinds creates a clean air environment. There are no point sources of airborne emissions in the immediate vicinity and air quality at the property is considered good.

b. Potential Impacts and Mitigation Measures

The scope of the proposed project is limited to construction of a water tank. Air quality impacts attributed to the proposed project could include dust generated by short-term, construction-related activities. Site work such as footing excavation could generate airborne particulate. Dust control measures such as regular watering and sprinkling will be implemented to minimize the potential impact from wind-blown emissions. In the long-term, the water tank will not result in air borne emissions. There will be minimal impacts to air quality since there will be no associated increase in vehicle or ground disturbance activities.

8. Noise

a. Existing Conditions

Vehicular noise from traffic traveling along local roadways is the primary source of intermittent noise at the subject property. Ambient noise conditions are generally attributable to natural conditions such as wind and rain.

b. Potential Impacts and Mitigation Measures

During construction, noise will be generated by construction equipment associated with grading activities as well as hauling of excavated materials. Construction activities will be limited to daylight hours and will be carried out in compliance with State Department of Health Community Noise Control standards. Once constructed, there will be minimal noise generated from the tanks and valves. There will be no pumps or other mechanical equipment installed as part of the project. As

such, there are no anticipated long term impacts to ambient noise levels associated with the proposed project.

9. Scenic and Open Space Resources

a. **Existing Conditions**

The project site is not located in an identified scenic view plane. Given existing topography and vegetation in the area, there are no scenic views across the property from South Holokai or Kaupakalua Roads.

b. **Potential Impacts and Mitigation Measures**

The proposed tank will be approximately 19 feet tall, which is in scale with other residential structures in the area. Also, the tank site is setback from the adjoining roadways and the floor will be approximately 10-12 feet lower than the elevation of the roadways at the Kaupakalua and South Holokai Road intersection. This will minimize the vertical scale of the structure as viewed by the traveling public. Lastly, water tanks are a common feature in the agricultural district and not an unusual sight. Given the above, the project is not anticipated to negatively impact scenic resources.

B. SOCIO-ECONOMIC ENVIRONMENT

1. **Population**

a. **Existing Conditions**

The resident population of the County of Maui has demonstrated a substantial increase over the last two decades with the 1995 resident population of 117,895 increasing to 151,300 persons in 2010, with approximately 12,525 persons residing in the Paia-Haiku region. Forecasts for 2015 and 2020 reflect an island-wide population of 162,600 persons and 174,450 persons, respectively, and a population of the Paia-Haiku region of 12,837 persons and 13,168 persons,

respectively (County of Maui, Department of Planning 2006).

b. Potential Impacts and Mitigation Measures

The proposed project will not have a significant impact upon population parameters. Potential secondary impacts include alleviating system constraints to allow for a 16 lot subdivision on a nearby property (TMK 2-8-005: 114). The secondary impacts from this subdivision on population levels would be minimal considering the existing population levels of the Peahi-Haiku region as well as anticipated increases in population.

2. Economy

a. Existing Conditions

The economy of Maui is heavily dependent upon the visitor industry. The economy in the vicinity of the project includes diversified agriculture and ranching as well as small country/town businesses. In addition, the region is surrounded by large plantation agricultural acreage which includes sugar cane and former pineapple fields.

b. Potential Impacts and Mitigation Measures

The proposed project, in the short term, will provide positive economic benefits in the form of construction employment. On a long-term basis, there will be minimal direct impacts on the economy.

C. **PUBLIC SERVICES**

Because the subject project is limited to the construction of a pressure break tank, there will be no direct impact on public services and facilities. Secondary impacts may occur due to the potential development of a 16-lot agricultural subdivision on a nearby property (TMK 2-8-005: 114), however, impacts from this subdivision on public services are considered minimal due to the built out nature of the surrounding area as well as the project's relatively small size.

D. **INFRASTRUCTURE**

1. **Roadways**

a. **Existing Conditions**

The project site will be serviced via an access driveway off of South Holokai Road, a county owned roadway located between Kaupakalua Road (Route 365) and Hana Highway (Route 36). Kaupakalua Road provides a connection from Hana Highway to Kokomo. Hana Highway is a state owned roadway serving as the major transportation route between central and east Maui.

b. **Potential Impacts and Mitigation Measures**

During construction activities, there will be associated impacts from construction vehicles utilizing the adjacent roadway network. Once construction is complete, there will be minimal traffic generated, estimated at 1-2 trips per month for maintenance. Thus, over the long term there will be minimal impacts to the surrounding transportation network.

2. **Water**

a. **Existing Conditions**

The County of Maui Department of Water Supply's Upcountry System provides water service to the area. Water for the

Upcountry system is provided by various sources. The primary source for the project area is the Kaupakalua Well. The lack of adequate source has led to the enactment of the Water Meter Issuance Provisions for the Upcountry Water System which currently regulates the issuance of water meters within the Upcountry water system.

The project site is situated in the northeastern extent of the Upcountry system, at an elevation of approximately 800 feet. Transmission in the area is provided via a 12-inch water line in Kaupakalua Road and a 6-inch water line in South Holokai Road. See **Figure 7**.

b. **Potential Impacts and Mitigation Measures**

Construction of the 40,000 tank and associated pressure valves, is needed to replace the previous pressure break tank in order to better regulate pressure to customers down gradient from the site, along South Holokai Road and the mauka portion of North Holokai Road as well as Kekoanui Road. The additional storage also will provide a buffer for the existing delivery system. Current storage available for the area is limited and there is a need for additional storage to buffer the peak demands from existing users. Most of these users are provided with “on-demand” service directly from the main water transmission lines, resulting in little or no buffer during times of peak demand. The tank site is considered a good location since it can provide for the pressure break as well as needed storage at the same location. However, improving the reliability of the transmission system will not alleviate the system wide source limitations that have led to the non-issuance of new water meters.

3. **Wastewater Systems**

a. **Existing Conditions**

There are no County operated wastewater disposal facilities in the area. Individual wastewater disposal needs in the area are

currently addressed either by cesspools, septic tanks or individual wastewater treatment systems.

b. Potential Impacts and Mitigation Measures

During construction, portable toilets will be provided to meet construction worker needs. Once construction is complete there will be no generation of wastewater from the site and, as such, there will be no impacts related to wastewater generation or facilities resulting from the proposed project.

4. Drainage

a. Existing Conditions

There are no significant drainage improvements in the area. Runoff generally sheet flows from the south to north in a mauka to makai direction. A unnamed gulch just south of the project site flows into Uaoa gulch.

b. Potential Impacts and Mitigation Measures

Existing rates of surface run-off are expected to increase under “with-project” conditions due to increases in impervious surfaces on the subject property, namely the concrete access road and tank. Implementation of the proposed project is expected to increase the 10-year and 50-year surface run-off rates from 0.39 cubic feet per second (cfs) to 0.51 cfs (a 0.12 cfs increase) and 0.65 cfs to .85 cfs (a .2 cfs increase), respectively. To accommodate the increase in surface run-off, a drainage system is proposed consisting of a grated inlet and drainline which will direct the flows to the unnamed gulch to the south via an off-site headwall. The drainline will also be capable of draining the tank and handling overflow. A Best Management Practices (BMPs) program will be implemented both prior to and during construction to prevent impacts from drainage flows. [Since the area of the tank lot and drainage overflow line is less than one acre, an NPDES permit should not be required for construction activity.](#) With the proposed

improvements and mitigation measures, the proposed project is not anticipated to present any significant drainage-related impacts on adjacent or downstream properties in the vicinity of the subject property.

III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES AND CONTROLS

A. STATE LAND USE DISTRICTS

Chapter 205, Hawai'i Revised Statutes, relating to the Land Use Commission, establishes four (4) major land use districts in which all lands in the State are placed. These districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The subject property is located within the "Agricultural" district.

Water distribution systems are allowable within the State "Agricultural" district.

B. Maui Countywide Policy Plan

The Countywide Policy Plan provides broad goals, objectives, policies, and implementing actions that portray the desired direction of the County's future. This includes: (1) a vision statement and core values for the County to the year 2030; (2) an explanation of the plan-making process; (3) a description and background information regarding Maui County today; (4) identification of guiding principles; and (5) a list of countywide goals, objectives, policies, and implementing actions related to the following core themes:

- Protect the Natural Environment
- Preserve Local Cultures and Traditions
- Improve Education
- Strengthen Social and Healthcare Services
- Expand Housing Opportunities for Residents
- Strengthen the Local Economy
- Improve Parks and Public Facilities
- Diversify Transportation Options
- Improve Physical Infrastructure
- Promote Sustainable Land Use and Growth Management
- Strive for Good Governance

The project is consistent with the theme of improving physical infrastructure.

C. PAIA-HAIKU COMMUNITY PLAN

Maui County's General Plan consists of an overall Countywide Policy Plan, a yet to be adopted Maui Island Plan as well as nine community plans which consist of policies and objectives as well as land use maps. From a General Plan implementation standpoint, each region is governed by a Community Plan which sets forth desired land use patterns, as well as goals, objectives, policies, and implementing actions for a number of functional areas including infrastructure-related parameters. The subject property is located within the Paia-Haiku Community Plan region.

The subject parcel is located on land currently designated "Agricultural" in the Community Plan Land Use Map. The water system improvements are consistent with the "Agricultural" designation.

Other applicable goals, objectives and policies of the Paia-Haiku Community Plan are cited below.

Physical Infrastructure

Water

Goal

An adequate supply of potable and irrigation water to meet the needs of the region.

Objectives and Policies

- Improve the existing potable water distribution system and develop new potable water sources prior to further expansion of the State Urban District boundary or major subdivision of land in the State Agricultural or Rural Districts. (Pg. 27)

Health and Public Safety

Objectives and Policies

- Improve fire protection capabilities in the Ha`iku area and ensure adequate water pressure for fire protection, particularly in urban and rural areas. (pg. 32)

D. **COUNTY ZONING**

The property is currently zoned “Agricultural” by the County of Maui. Water storage tanks are considered minor utility facilities and are a permitted use in the “Agricultural” zoning district. See Maui County Code, Chapter 19.30A.

E. **SPECIAL MANAGEMENT AREA OBJECTIVES AND POLICIES**

Pursuant to Chapter 205A, Hawai`i Revised Statutes, and the Rules and Regulations of the Planning Commission of the County of Maui, actions located within the SMA are evaluated with respect to SMA objectives, policies and guidelines. The property is not located within the SMA and is not anticipated to have negative impacts to the SMA resources.

IV. CUMULATIVE AND SECONDARY IMPACTS

Cumulative impacts are defined as the impact on the environment, which results from the incremental impact of an action when added to other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions.

The proposed pressure tank is considered a relatively small water improvement project with the primary goal of replacing an older previously demolished tank. The affected service area is the portion of the County water supply system serving South Holokai Road and Kekoanui Road. There are no other known or proposed water improvement projects in the area which could lead to cumulative impacts.

Secondary impacts are those that have the potential to occur later in time or farther in distance, but which are reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project. On a system wide basis, the Department of Water Supply is not issuing new water meters due to source limitations. Thus, this system wide policy will decrease the likelihood of secondary impacts resulting from an improved distribution system in the area.

Future development potential in the area is dictated by the County of Maui via their planning and land use policies. The County's community plan and zoning would therefore determine the types of land uses allowed on the parcels in the pressure zone served by the new tank. Thus, construction of the pressure break tank will not lead to significant secondary impacts by altering permissible land uses in the area. Also, the parcels within the tank's service area are in the County's Agricultural Zoning district and are subject to a minimum lot size of 2 acres. With the exception of one larger parcel approximately 38 acres in size (TMK 2-8-005: 114), the remaining parcels being serviced by the pressure break tank have little to no subdivision potential given the County's minimum lot size requirement. The larger 38-acre parcel received preliminary approval for a 16-lot subdivision prior to the source limitation restrictions and is entitled to new water meters. This subdivision would benefit from the proposed improvements and could be viewed as a potential secondary impact. The potential build-out of the 16 agricultural lots would create

small impacts upon area infrastructure. This subdivision will be constructed in accordance with the County's subdivision ordinance and appropriate mitigation measures will be incorporated to address compliance with health, safety and environmental protection ordinances as well as consistency with infrastructure requirements. Given the substantial amount of existing 2-acre agricultural properties in the area, the potential impacts from the 16 new lots on area infrastructure are considered minimal and will be mitigated through the subdivision process. As such, there are no substantial, adverse, secondary impacts associated with the proposed pressure break tank or the potential 16 lot subdivision.

V. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The proposed project will result in unavoidable construction-related impacts which include noise-generated impacts occurring from the proposed improvements. In addition, there may be temporary air quality impacts associated with dust generated from site work and exhaust emissions discharged by construction equipment. These impacts will be mitigated by erosion control measures and Best Management Practices designed to minimize dust and erosion. Construction of the proposed project will be carried out in compliance with State Department of Health Community Noise Control standards. Secondary impacts related to the potential subdivision of a property to be serviced by the pressure break tank will be mitigated through the County's subdivision process.

Accordingly, the subject project is not anticipated to create any significant, long-term adverse environmental impacts.

VI. ALTERNATIVES ANALYSIS

A. NO ACTION OR NO BUILD ALTERNATIVE

The subject property is vacant and undeveloped at the present time. Previously, a pressure break tank existed at the site and it has been anticipated that a replacement tank would be constructed on the property for some time. The no-action alternative would not provide needed system improvements to provide better control of pressure in tank's service area. Similarly, the additional storage capacity would provide a buffer to the direct demand on the water distribution lines in the area. The no action or no build alternative would involve the continuation of the underutilized nature of the County property and would not provide for the necessary system improvements.

B. ALTERNATIVE LOCATION

An alternative location would not provide the necessary pressure break in the water system. While there are alternative locations for constructing the additional storage component, such as at the County's "Opaepilau" tank, significant costs would be involved in creating larger system-wide storage solution. The proposed location provides for the ability to construct a relatively small facility at a location which historically provided a similar function.

C. ALTERNATIVE USE

The project site is owned by the Board of Water Supply. Thus, alternative uses of the property are limited to providing functional or operational needs of the Department of Water Supply. Due to the remote location and size of the property, use as a baseyard facility for storage and/or repair of vehicles, materials and supplies is not considered feasible. Also, given the surrounding residential uses, this may not be desirable.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Resource commitments include the land on which the project will be developed, as well as fuel, labor, funding and material resources. Impacts relating to the use of these resources should be weighed against the expected system improvements to be derived from the project.

The commitment of land resources of the Board of Water Supply is appropriate given the underutilized nature of the property and the lack of alternative uses for the property. Resources required for the project includes building materials and labor, both of which are non-renewable and irretrievable. In general, the proposed action is not anticipated to place significant additional requirements upon public services and infrastructure. There is no other significant irreversible commitment of resources associated with the proposed project.

VIII. FINDINGS AND CONCLUSIONS

The “Significance Criteria”, Section 12 of the Administrative Rules, Title 11, Chapter 200, “Environmental Impact Statement Rules”, were reviewed and analyzed to determine whether the proposed project has significant impacts on the environment. The following criteria and analysis are provided:

1. **Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.**

There are no known, rare, endangered or threatened species of flora or fauna located within the subject property. There are no known wetlands located within the subject property. Nor are there any known archaeological or cultural resources within the subject property. Should any historic or cultural remains be discovered during construction, work will cease in the immediate area of the find and consultation will be undertaken with the SHPD to determine appropriate mitigation measures. No impacts to natural or cultural resources are anticipated to result from the proposed project.

2. **Curtails the range of beneficial uses of the environment.**

The use of the subject property for the proposed project will not curtail the range of beneficial uses of the environment. It is considered appropriate use of Board of Water Supply owned land.

3. **Conflicts with the state’s long-term environmental policies or goals and guidelines as expressed in chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.**

The State's Environmental Policy and Guidelines are set forth in Chapter 344, Hawai'i Revised Statutes and were reviewed in connection with the proposed project. The proposed project is in consonance with the guidelines.

4. **Substantially affects the economic welfare, social welfare, and cultural practices of the community or State.**

Given the limited size and scope of the project, it will not substantially affect the economic welfare, social welfare, and cultural practices of the community or state.

5. **Substantially affects public health**

No adverse impacts to the public's health and welfare are anticipated to result from the proposed project. As noted previously, BMPs will be employed during construction work to mitigate any environmental impacts.

6. **Involves substantial secondary impacts, such as population changes or effects on public facilities.**

As previously noted, secondary impacts may result from the subdivision of a nearby 38 acre parcel with the service area of the new tank. Impacts of the potential 16 lot subdivision will be mitigated through the County's subdivision review process. The secondary impacts resulting from the potential subdivision are considered relatively minor given the presence of similarly developed properties in the area.

7. **Involves a substantial degradation of environmental quality.**

During the construction phase of the project, there will be short-term air quality and noise impacts generated. No long-term degradation of environmental quality is anticipated from the proposed project.

8. **Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.**

The proposed project, limited in scope to the construction of a storage tank, pressure reduction valve and related improvements, and does not represent a commitment to larger actions. There are no cumulative impacts associated with the subject project which would result in considerable effects on the environment.

9. **Substantially affects a rare, threatened, or endangered species, or its habitat.**

There are no known significant habitats or rare, endangered or threatened species of flora and fauna that will be adversely affected by the proposed project.

10. **Detrimentially affects air or water quality or ambient noise levels.**

Construction activities for the proposed project will result in short-term air quality and ambient noise impacts. Dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind blown emissions during construction. Construction will be limited to daylight working hours only. Water quality is not anticipated to be affected with implementation of BMPs. There will be no impact on adjacent or downstream properties from drainage flows related to the proposed project.

In the long-term, the proposed project is not anticipated to have a significant impact on air, noise and water quality.

11. **Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.**

As documented in this Assessment, the subject property is not located in an environmentally sensitive area.

12. **Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.**

The subject property is not located in an identified scenic vista or view plane. Scenic views over the property from the adjoining roads are limited due to existing vegetation and topography. As such, the project will not substantially affect scenic vistas or view planes.

13. **Requires substantial energy consumption.**

The proposed project will involve the short-term commitment of equipment requiring energy consumption. The fuel consumption and energy requirements for the proposed project, on both a short- and long-term basis, are not anticipated to result in a substantial consumption of energy resources.

Based on the foregoing findings, it is anticipated that the assessment of the subject project will result in the issuance of a Finding of No Significant Impact (FONSI).

IX. LIST OF PERMITS AND APPROVALS

The following State and County permits and approvals will be required for the subject project.

State of Hawai`i

1. Public Water System Improvements– Department of Health

County of Maui

1. Grading and Construction Permits from County of Maui, Department of Public Works, Development Services and Administration

REFERENCES

County of Maui, Countywide Policy Plan, March 24, 2010.

County of Maui, Paia-Haiku Community Plan, 1995.

County of Maui, Department of Planning, Socio-Economic Forecast: The Economic Projections for the Maui County General Plan 2030, June 2006.

County of Maui, Office of Economic Development, Maui County Data Book 2005.

Department of Geography, University of Hawai`i, Atlas of Hawai`i, 3rd Edition, 1998.

U.S. Fish and Wildlife Service, Pacific Islands Ecoregion Office, Honolulu, Hawai`i, U.S. Fish and Wildlife Service Species List, Plants, September 25, 1997.

Figures

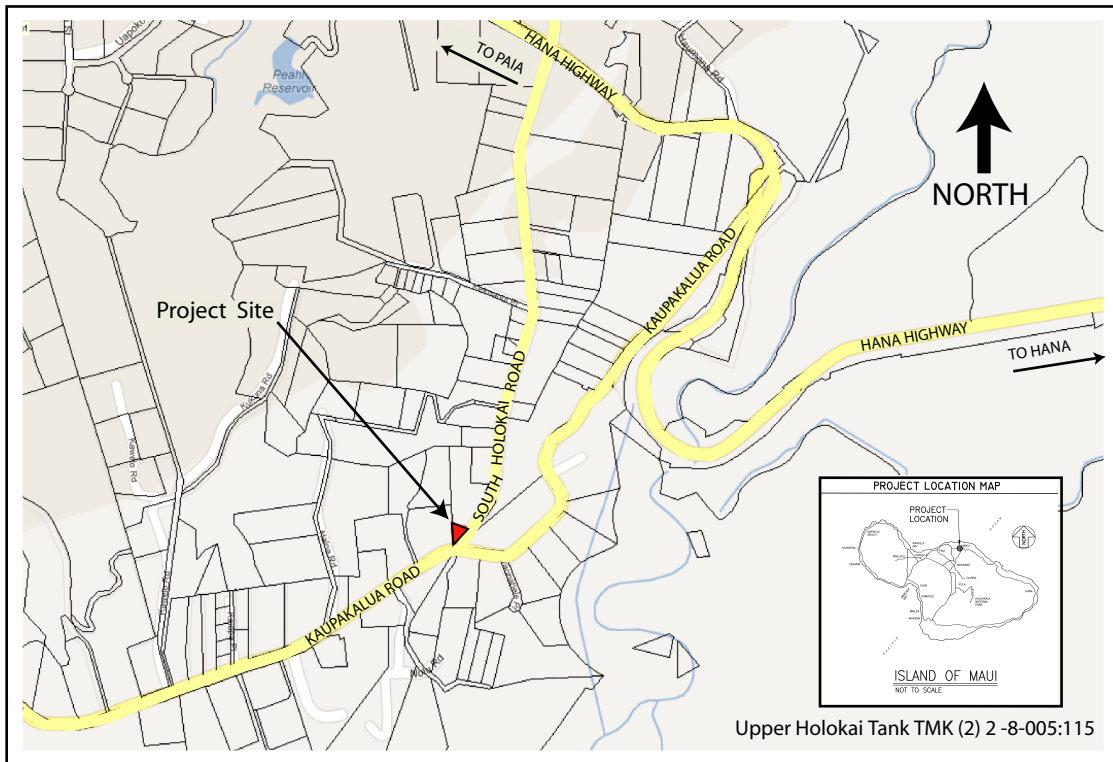


FIGURE 1
LOCATION MAP

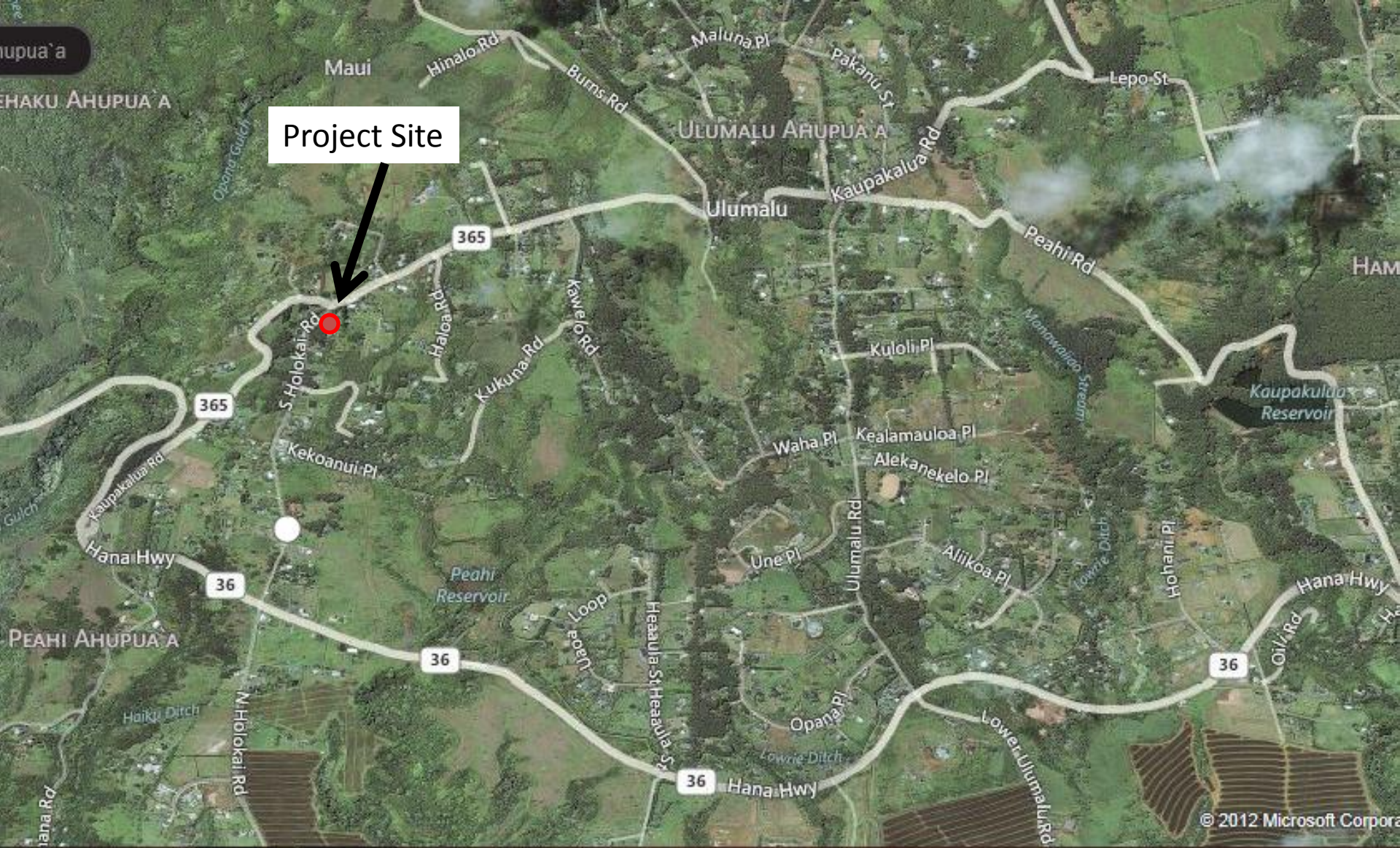
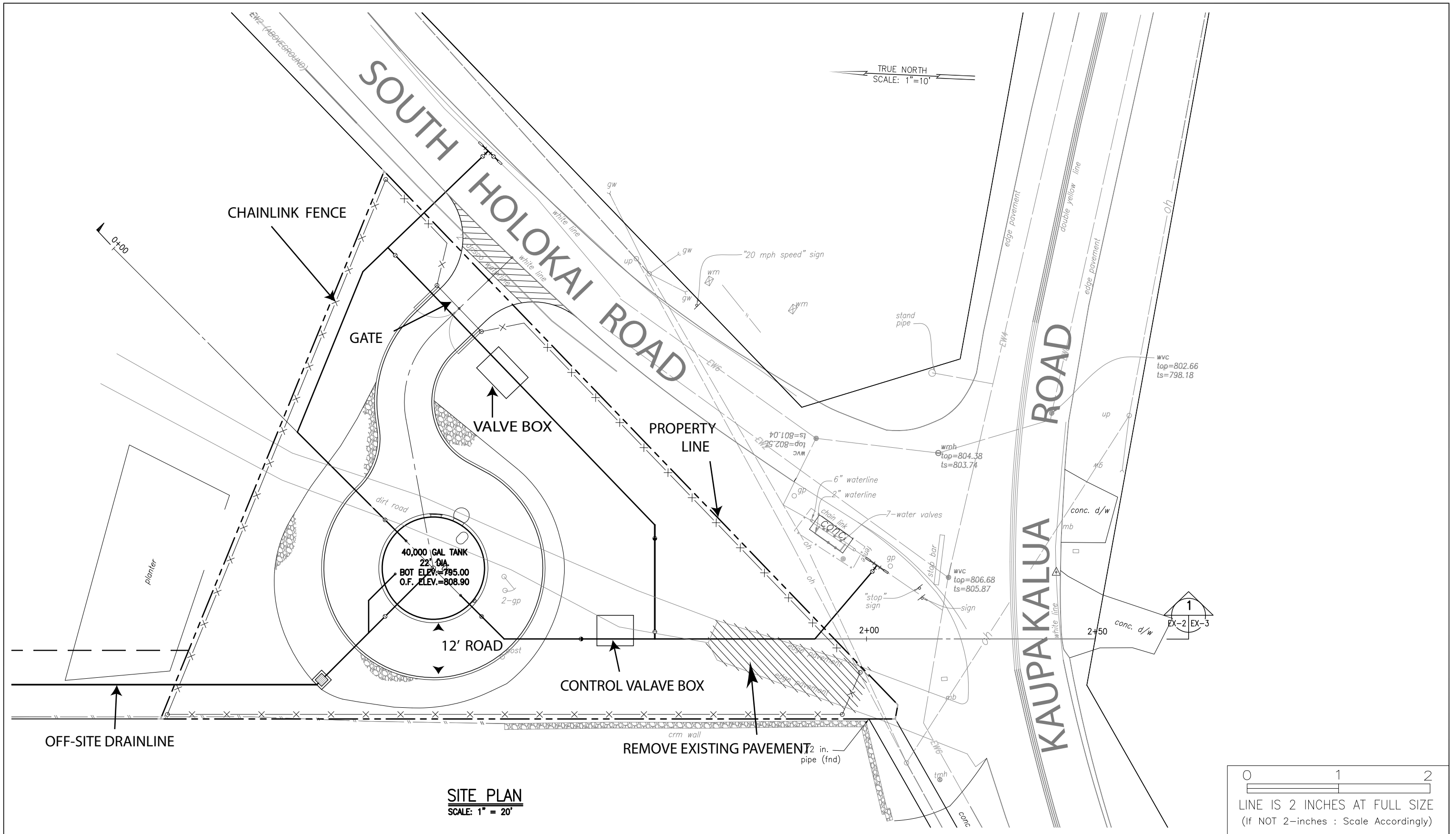


Figure 2 - Aerial View of surrounding vicinity: Peahi and Ulumalu



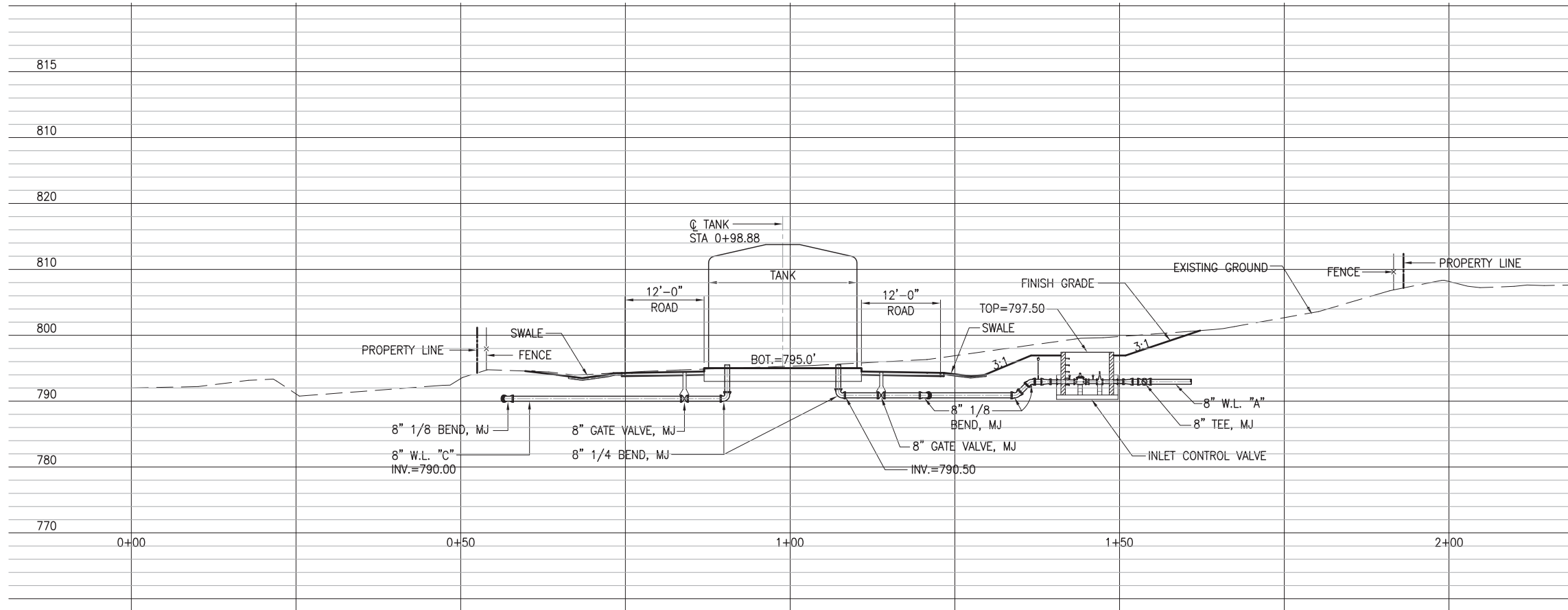
SITE PLAN
 SCALE: 1" = 20'

ENVIRONMENTAL ASSESSMENT FOR
 UPPER HOLOKAI TANK
 40,000 GALLON PRESSURE BREAK TANK

ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.
 HONOLULU WAILUKU, HAWAII

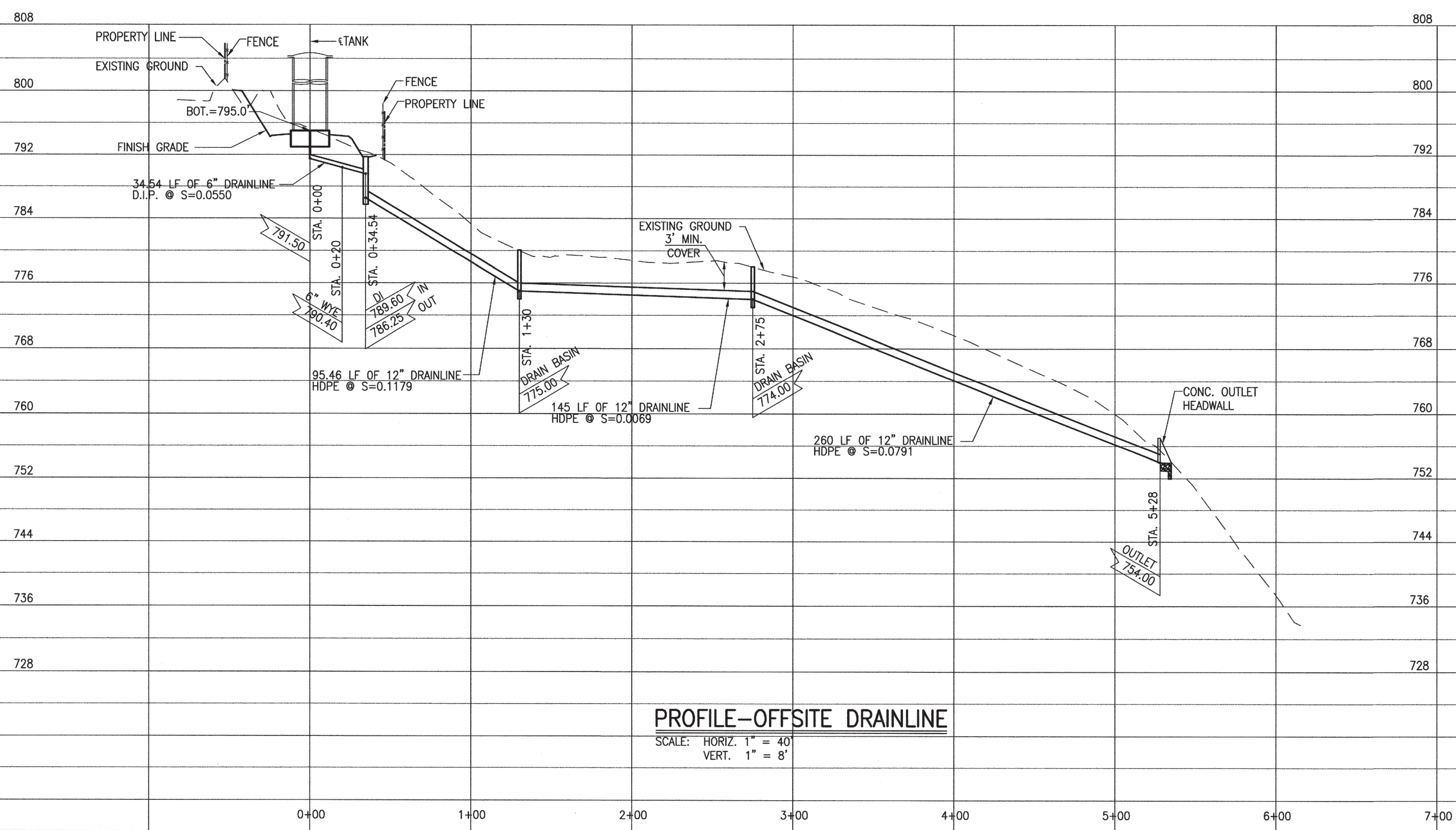
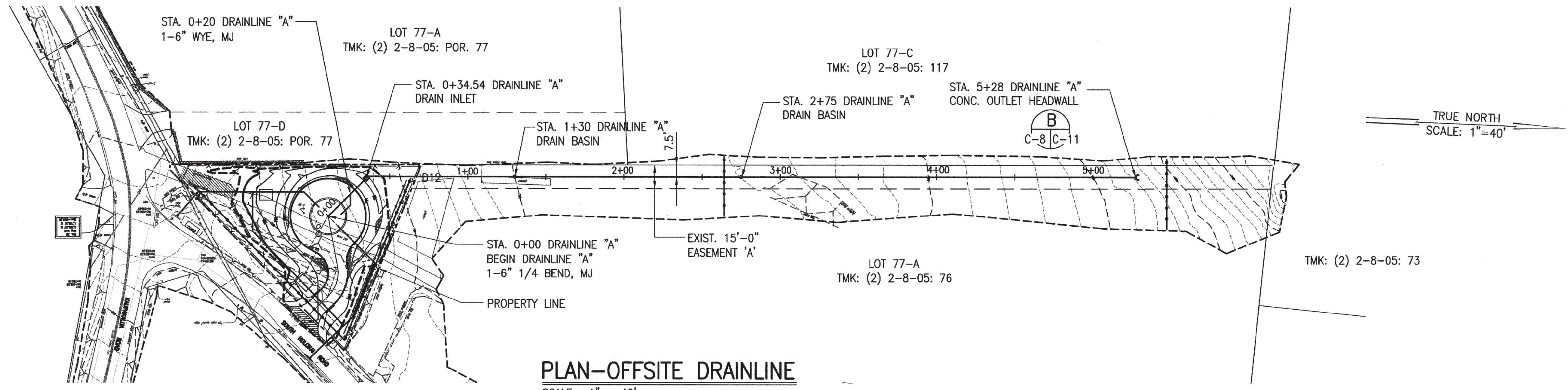
SITE PLAN

EXHIBIT
3



SECTION 1
 SCALE: HORZ: 1" = 20' EX-2 | EX-3
 VERT: 1" = 20'





REVISION	DATE	BRIEF	MADE BY	APPROVED

ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU • WAILUKU • HILO, HAWAII

ENVIRONMENTAL ASSESSMENT FOR
UPPER HOLOKAI TANK
40,000 GALLON PRESSURE BREAK TANK

**PLAN & PROFILE
OFFSITE DRAINLINE**

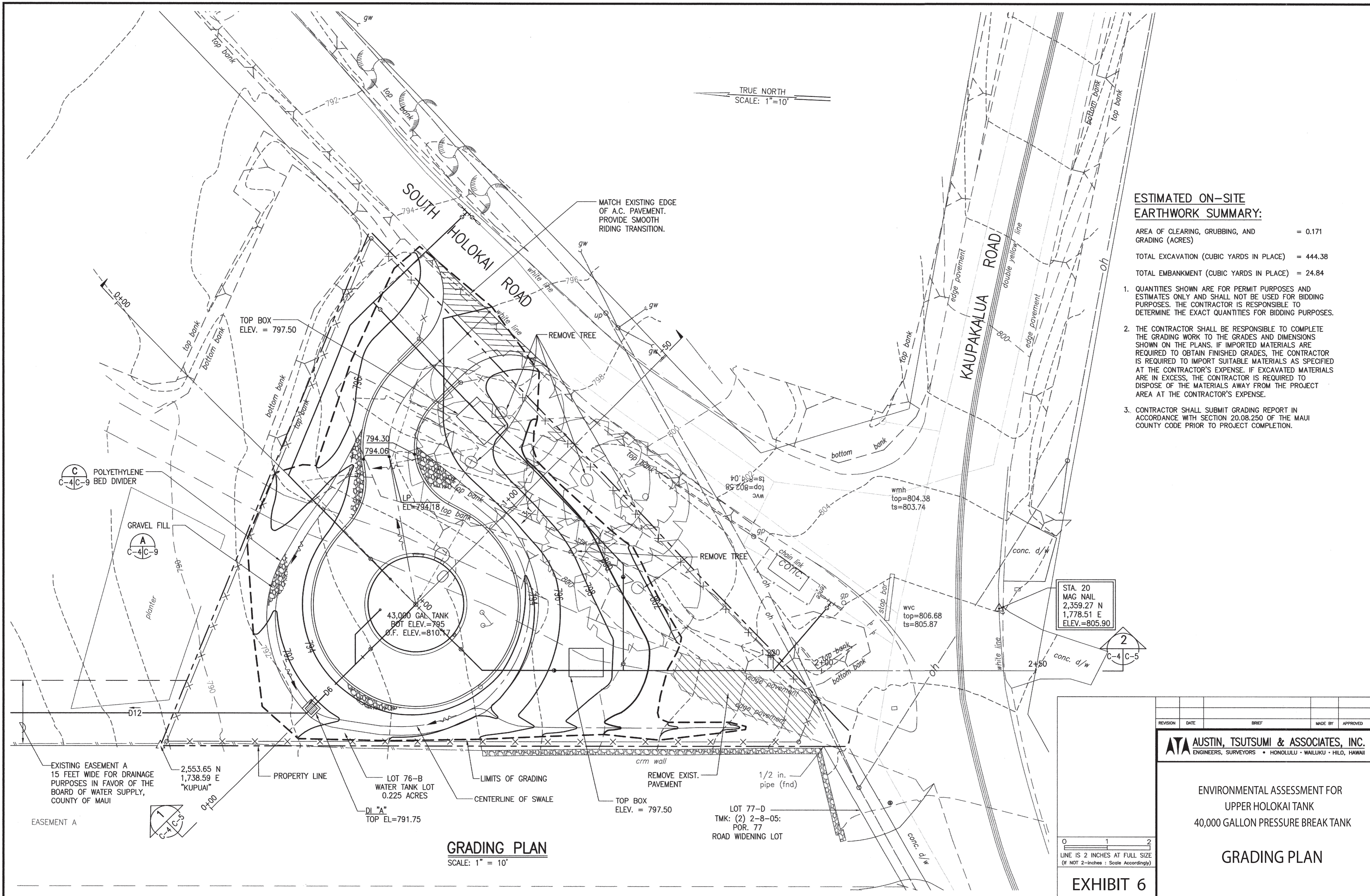
0 1 2
LINE IS 2 INCHES AT FULL SIZE
(if NOT 2-inches : Scale Accordingly)

EXHIBIT 5

FILE	POCKET	FOLDER	NO.

FILENAME: Z:\2011\11-520\ENGINEERING\TANK SITE\PEAHI HUI WATER TANK 120530\PEAHI HUI TANK DRAWINGS - 5-29-2012\C-8 PP DRAINLINE.DWG May 31, 2012-7:15 AM

FILENAME: Z:\2011\11-520\ENGINEERING\TANK SITE\PEAHI HUI WATER TANK 120530\PEAHI HUI TANK DRAWINGS - 5--29--2012\C-4 GRADING PLAN.DWG May 30, 2012-10:56 AM



REVISION	DATE	BRIEF	MADE BY	APPROVED

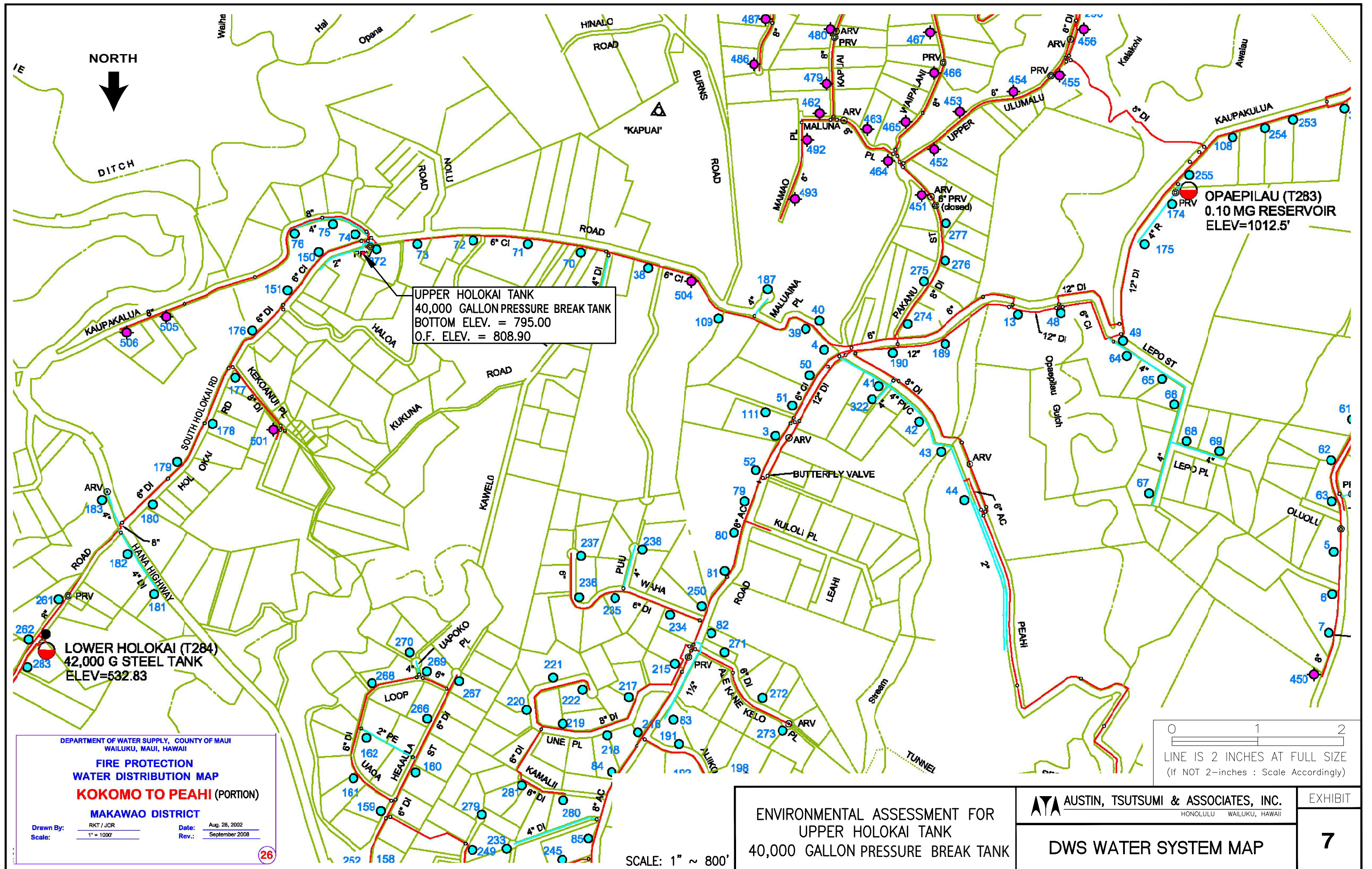
AUSTIN, TSUTSUMI & ASSOCIATES, INC.
ENGINEERS, SURVEYORS • HONOLULU • WAILUKU • HILO, HAWAII

ENVIRONMENTAL ASSESSMENT FOR
UPPER HOLOKAI TANK
40,000 GALLON PRESSURE BREAK TANK

GRADING PLAN

EXHIBIT 6

FILE	POCKET	FOLDER	NO.



UPPER HOLOKAI TANK
 40,000 GALLON PRESSURE BREAK TANK
 BOTTOM ELEV. = 795.00
 O.F. ELEV. = 808.90

OPAEPILAU (T283)
 0.10 MG RESERVOIR
 ELEV=1012.5'

LOWER HOLOKAI (T284)
 42,000 G STEEL TANK
 ELEV=532.83

DEPARTMENT OF WATER SUPPLY, COUNTY OF MAUI
 WAILUKU, MAUI, HAWAII

**FIRE PROTECTION
 WATER DISTRIBUTION MAP**

KOKOMO TO PEAHI (PORTION)

MAKAWAO DISTRICT

Drawn By: RKT / JCR Date: Aug. 28, 2002
 Scale: 1" = 1000' Rev.: September 2008



SCALE: 1" ~ 800'

ENVIRONMENTAL ASSESSMENT FOR
 UPPER HOLOKAI TANK
 40,000 GALLON PRESSURE BREAK TANK

AUSTIN, TSUTSUMI & ASSOCIATES, INC.
 HONOLULU WAILUKU, HAWAII

DWS WATER SYSTEM MAP

EXHIBIT
7

Appendix A

Site Photographs

Appendix A



Photo 1 – North View of project site from Kaupakalua Road



Photo 2 – North View of project site from Kaupakalua and South Holokai Road Intersection



Photo 3 – South View of project site from South Holokai Road



Photo 4 – South View of project site from neighboring property