

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

Land Development Division

DEC 09 2019

Date

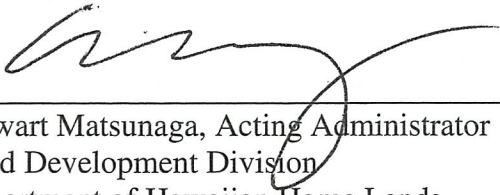
ADDENDUM NO. 2
TO
INVITATION FOR BIDS
IFB-20-HHL-012

VARIOUS LOT IMPROVEMENTS IN WAIEHU KOU AND PAUKUKALO
SUBDIVISIONS

Notice to All Prospective Offerors

This addendum is hereby made a part of the contract documents for Various Lot Improvements in Waiehu Kou and Paukukalo Subdivisions, IFB-20-HHL-012, and it shall amend the said contract documents as detailed within this Addendum document.

APPROVED:



Stewart Matsunaga, Acting Administrator
Land Development Division
Department of Hawaiian Home Lands

Please execute and immediately return the receipt below to the Department of Hawaiian Home Lands via facsimile to: **(808) 620-9299, Mr. Robert Ing, Land Agent, Land Development Division, or scan and E-mail to: Robert.m.ing@hawaii.gov.**

Receipt of Addendum No. ____ for Various Lot Improvements in Waiehu Kou and Paukukalo Subdivisions, Invitation for Bids No.: IFB-20-HHL-012, is hereby acknowledged.

Signature: _____
Print Name: _____

Title

Name of Firm/Company

Date

ADDENDUM NO. 2

IFB-20-HHL-012

Various Lot Improvements in Waiehu Kou and Paukukalo Subdivisions

INCLUSIONS

This Addendum No. 2 shall incorporate the following amendments to IFB-18-HHL-012:

1. Pre-Bid Conference Agenda with Minutes (including Questions and Answers).
*Notes-
 - i) Deadlines for Notice of Intent to Bid, Standard Qualification Questionnaire and Due Date and Time for bids on page 4 were amended by Addendum No. 1.
 - ii) Answers to questions are included on page 3;
2. Pre-Bid Conference Attendance Sheet;
3. Site Visit Photos;
4. Bid Offer Form {Revised}
5. Construction Plans {Revised}
(These revised Construction Plans replaces in its entirety the original plans published on the State's HANDS website for IFB-20-HHL-012, on November 19, 2019; And,
6. Specifications {Revised}
(This revised Bid Offer Form replaces the original Bid Offer Form in IFB-20-HHL-012 published on the State's HANDS website, on November 19, 2019).

Pre-bid Conference & Site Inspection
Various Lot Improvements for Waiehu Kou and Paukukalo Subdivisions
(IFB-20-HHL-012)

9:45 a.m., Tuesday, December 3, 2019
Waiohuli Community Center
881 Lauie Drive, Kula, Maui 96790

MEETING AGENDA with MINUTES

1. INTRODUCTIONS

Department of Hawaiian Home Lands (DHHL)

- Stewart Matsunaga, Project Manager
- Robert Ing, Land Agent
- ~~Bryan Toda, LDD Engineer~~
- Nikki Luong, P.E., Austin Tsutsumi & Associates, Inc. (ATA)
- Grace Juhre, ATA
- ~~Brooks Aoki, Deputy Manager/CM, SSFM International, Inc. (SSFM)~~
- Cory Uchima, Construction Manager (SSFM)
- *(See attached sign-in sheet)*

2. PURPOSE OF PRE-BID CONFERENCE

- Project overview and job site visit
- Review procurement requirements
- Clarify bid documents.
- Submittal Schedule (Below). (Also, Pages 1-3, 'Instructions for Bid Submittal').

3. SCOPE OF WORK (General Description)

- a. Lot 58, Waiehu Kou IV Subdivision (Limu Ele'ele Place)
 - Clearing, grubbing, handling, and removal of vegetation
 - Installation, maintenance, monitoring, and removal of BMP
 - Excavation, embankment and permanent erosion control
- b. Waiehu Kou Subdivision Frontage Walls (Kahekili Highway)
 - Clearing, grubbing, handling & removal of vegetation
 - Installation, maintenance, monitoring, and removal of BMP
 - Construction of a 2' High Concrete Rock Masonry Wall
- c. Lot 4 Paukukalo (Kuhio Place)
 - Clearing, grubbing, handling & removal of vegetation
 - Installation, maintenance, monitoring, and removal of BMP
 - Permanent erosion control
 - Excavation and embankment for AC driveway.
 - Construction of Concrete Masonry Unit retaining wall

General

- All work must be performed in accordance with the Technical Specifications and Plans included in this IFB.
- All work and responsibilities listed in the Plan's 'General Construction Notes' are incidental to the bid proposal and are made part of this contract.

4. PROCUREMENT REMINDERS

- This project is not exempt from the General Excise Tax (GET). A line item for the GET is included in Bid Proposal Form, and should be added to the subtotal of bid items, and not the individual prices for each bid item;
- The Apprenticeship Agreement Preference for public works projects shall ~~not~~ apply to this IFB, in accordance with HRS §103-55.6, concerning projects with an estimated value of ~~less than~~ \$250,000 *or more. It is anticipated that the project will be more than \$250,000, therefore the Apprenticeship Agreement Preference shall apply to this project.*
- This project is subject to Chapter 104 HRS, Department of Labor and Industrial Relations (DLIR) prevailing wages and salaries;
- After bid opening and prior to award of the contract, DHHL shall verify compliance with Sections 103D-310 and 103D-328 HRS via Hawaii Compliance Express (HCE) for the bidder and all subcontractors. Therefore, the bidder and all subcontractors should register with HCE. Instructions for registration are at the HCE website: <http://vendors.ehawaii.gov>;
- Failure by the bidder and/or any subcontractor to rectify a non-compliant status within ten business days of notification will be considered as sufficient for the disqualification of the bidder and rejection of its proposal;
- In accordance with the provisions of Chapter 104-25, Hawaii Revised Statutes, there are contractors who have been suspended from doing any work on State or County public work construction project. An updated list can be found at this web link: <http://labor.hawaii.gov/wsd/prevaling-wages-on-public-works/contractors-suspended-under-chapter-104-hawaii-revised-statutes/>

5. COMPLETION SCHEDULE AND LIQUIDATED DAMAGES

- Time to complete: Nine (9) months (270 calendar days)
- Liquidated damages: \$500 per calendar day.

6. QUESTIONS/ANSWERS ISSUED BY LAST ADDENDA

- A written summary of this pre-bid conference will be issued as an Addendum.
- Requests for clarifications and any questions after this meeting shall be made in writing and faxed to 808-620-9299, no later than 4:30 p.m., December 4, 2019.

- Written answers to questions will be provided to all potential bidders via addenda on the State's HANDS (Hawaii Awards Notice Data System) website; any verbal responses to questions by DHHL and its Consultant shall not be binding.

Link- <https://hands.ehawaii.gov/hands/opportunities/opportunity-details/15317>

- Interested bidders are responsible to check the HANDS website for the issuance of any addenda up until the due date for bids.

7. DEADLINES (See table below)

8. QUESTIONS AND ANSWERS

a. Is archaeological monitoring required?

Answer: Archaeological monitoring for Lot 4, Paukukalo Subdivision portion of the project. An allowance item will be included in the Revised Bid Offer Form as part of Addendum No. 2.

b. Who is responsible for soil testing?

Answer: Geotech will be the Contractor's responsibility.

c. Who is responsible for surveying?

Answer: Contractor is responsible for surveying.

d. Does the surveyor need to be licensed in Hawaii?

Answer: YES. Surveyor needs to be licensed in Hawaii.

e. Is there a project cost estimate?

Answer: The estimated range for the project cost is between \$500,000 and \$1,000,000.

9. SITE INSPECTION TO FOLLOW PRE-BID CONFERENCE (After Lunch)

- a. the CRM wall along the Waiehu Kou frontage will be re-aligned due to conflicting field conditions. An addendum will be issued.*

DEADLINES FOR SUBMITTALS

Various Lot Improvements for Waiehu Kou
and Paukukalo Subdivisions
IFB-20-HHL-012

SUBMITTAL	DEADLINE
Hawaii Products Preference Request (Form SPO-038)	4:30 P.M., December 4, 2019
Request for Substitutions (See Item H, 'Instructions for Bid Submittal')	4:30 P.M., December 4, 2019
Notice of Intention to Bid	4:30 P.M., December 4 9, 2019 <i>(See Addendum No. 1)</i>
Written questions (Requests for Clarification)	4:30 P.M., December 4, 2019
Standard Qualification Questionnaire (SPO Form-21) (SQQ's for previous projects are NOT valid)	4:30 P.M., December 4 9, 2019 <i>(See Addendum No. 1)</i>
Issuance of Last Addendum- * However, interested bidders are required to check the HANDS website for any Addenda issued up until the Bid Opening date.	December 6, 2019
Bid Opening <ul style="list-style-type: none"> Sealed bids due by <u>10:00 A.M., December 17 19, 2019</u> at the DHHL Maui District Office, at 655 Kaumualii Street, Suite 1, Wailuku, Hawaii 96793, according to its time clock. <i>(See Addendum No. 1)</i> Bids <u>WILL NOT</u> be accepted at the DHHL's Main Office in Kapolei, Oahu. Bids to be submitted at DHHL Maui District Office, at 655 Kaumualii Street, Suite 1, Wailuku, Maui, HI 96793 Bids will be opened shortly after 10:00 A.M. and read aloud in a designated area to be determined. (Bidders are welcome to attend). Bids submitted after 10:00 A.M., <u>December 17, 2019</u> will be time-stamped, but not accepted or opened. All the required bid forms are included in the IFB package. 	10:00 A.M, December 17 19, 2019 <i>(See Addendum No. 1)</i>

Pre-Bid Conference & Site Visit Schedule

(IFB-20-HHL-004 and IFB-20-HHL-012)

December 3, 2019

When	What	Estimated Time
9:00 a.m.	Pre-Bid Conference for IFB-20-HHL-004 (Keokea-Waiohuli Drainage Improvements)	45 mins.
9:45 a.m.	Pre-Bid Conference for IFB-20-HHL-012 (Various Lot Improvements for Waiehu Kou & Paukukalo Subdivisions)	45 mins.
10:30 a.m.	Conferences Pau	
10:45 a.m. - 11:10 a.m.	Site Visit #1 (Corner of Olakino & Koapu'upu'u Street)	25 mins.
	(5 minute commute)	
11:15 a.m. - 11:45 a.m.	Site Visit #2 (695 & 733 Keanuhea Street)	30 mins.
11:45 a.m. - 1:00 p.m.	Lunch	
1:45 p.m. - 2:10 p.m.	Site Visit #3 (Lot 58, WK3; 169 Limu Ele'ele St.)	25 mins.
	(10 minute commute)	
2:20 p.m. - 2:45 p.m.	Site Visit #4 (Waiehu Kou Frontage Walls; Kahekili Hwy between Hoola Hou St. and Kohomua St.)	25 mins.
	(15 minute commute)	
3:00 p.m. - 3:40 p.m.	Site Visit #5 (Lot 4, Paukukalo; 893 Kuhio Pl.)	40 mins.
4:05 p.m.	Return to Airport	

Verious Lot Improvements for Waiehu Kou and Paukalo Subdivision

IFB-20-HHL-012

Pre Bid Conference Sign In Sheet

DECEMBER 3, 2019 at 9:30 a.m. - Waiohuli Community Center (881 Lauie Drive, Kula, HI)

Name		Organization	Phone No.	Cell No.	Email
1	Stewart Matsunaga <i>SM</i>	DHHL	620-9283	439-2124/382-1937	Stewart.T.Matsunaga@hawaii.gov
2	Robert Ing <i>RI</i>	DHHL	620-9277	392-4614	Robert.M.ing@hawaii.gov
3	Bryan Toda	DHHL			bryan.toda@hawaii.gov
4	Brooks Aoki	SSFM International	244-7630	357-4787	baoki@ssfm.com
5	Cory Uchima	SSFM International	244-7630	268-8116	cuchima@ssfm.com
6	Gabe Hoeffken	Tom's Backhoe	878-6277	357-2727	gabe@tomsbackhoe.com
7	John Barrick	Global Specialty	551-3351		JBarrick@globalspecialty.net
8	Fernando Camacho	CPE	531-4252		fernando@cpe-hawaii.com
9	Nikki Luong	ATA	533-3646		nuong@atahawaii.com
10	Grace Juhre	ATA	533-3646		gjuhre@atahawaii.com
11	Rodney Akau	Akau Construction	384-1770	344-1770	ra.aka@construction@gmail.com
12	Jason Kurako	SSFM	244-7630		jkurako@ssfm.com
13					
14					
15					

WAIEHU KOU FRONTAGE WALL SITE



Facing South-East on Kahekili Highway



Facing North-West on Kahekili Highway

LOT 58, WAIIEHU KOU



LOT 4, PAUKUKALO SUBDIVISION



**STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS**

**{REVISED} BID OFFER FORM
(ADDENDUM NO. 2)**

FOR

**VARIOUS LOT IMPROVEMENTS FOR WAIEHU KOU AND
PAUKUKALO SUBDIVISIONS
WAILUKU, MAUI, HAWAII**

IFB NO.: IFB-20-HHL-012

Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
91-5420 Kapolei Parkway
Kapolei, Hawaii 96707

The undersigned has carefully examined, read, and understands the terms and conditions in the Plans and Specifications, Special Conditions attached hereto, DHHL Construction General Conditions, and General Conditions specified in the Invitation for Bids (IFB) No. IFB-20-HHL-012. The State of Hawaii's (State) Contract for Goods and Services Based on Competitive Sealed Bids AG-003 Rev. 6/22/2009, AG-008 103D General Conditions, are included by reference and made part hereof and available upon written request to the Procurement Officer. The undersigned hereby submits the following offer to perform the work for IFB No. IFB-20-HHL-012 as specified herein, all in accordance with the true intent and meaning thereof.

The undersigned understands and agrees that:

1. The State reserves the right to reject any and all offers and to waive any items that are defective when, in the State's opinion, such rejection or waiver will be in the best interest of the State. A solicitation may be rejected in whole or part when in the best interest of the State.
2. If awarded the contract, all services will be in accordance with Hawaii Revised Statutes (HRS) § 103-55.5.
3. In submitting this offer, the Offeror is not in violation of HRS Chapter 84, concerning prohibited State contracts.
4. By submitting this offer, the Offeror certifies that the offer was independently arrived at without collusion and the Offeror did not participate in any practices to restrict competition.
5. It is understood that the failure to receive any addendum shall not relieve the Offeror from any obligation under this IFB.

Date: _____

The undersigned represents that it is: **(Check ☐ one only)**

☐ A **Hawaii business** incorporated or organized under the laws of the State of Hawaii; **OR**

☐ A **Compliant Non-Hawaii business** not incorporated or organized under the laws of the State of Hawaii, is or shall be registered at the State of Hawaii Department of Commerce and Consumer Affairs Business Registration Division (DCCA-BREG) to do business in the State of Hawaii.

State of incorporation: _____

Offeror is:

☐ Sole Proprietor ☐ Partnership ☐ Corporation ☐ Joint Venture ☐ Other: _____

Federal ID No.: _____

Hawaii General Excise Tax ID No.: _____

Telephone No.: _____

Fax No.: _____

E-Mail Address.: _____

Payment address (other than street address below)

(Street Address, City, State, Zip Code)

Business address

(Street Address, City, State, Zip Code)

Respectfully submitted:

Authorized (Original) Signature

Name and Title (Please Type or Print)

* _____
Exact Legal Name of Company (Offeror)

*If Offeror shown above is a "dba" or a "division" of a corporation, furnish the exact legal name of the corporation under which the awarded contract will be executed:

The following bid is hereby submitted for IFB-20-HHL-012 for the Department of Hawaiian Home Lands.

VARIOUS LOT IMPROVEMENTS FOR WAIEHU KOU AND PAUKUKALO SUBDIVISIONS			
The prices herein for the following items shall include all materials, labor, tools, equipment, machinery and all incidentals necessary, including excavation and backfill, to install or to construct these items in place complete and in accordance with the plans and specifications. The general excise tax (GET) shall be inclusive in the total bid price.			
Item No.		Unit Price	Total
A.	<u>Lot 58, Waiehu Kou (Limu Ele'ele Place)</u>		
A1.	Clearing and Grubbing, Including Handling and Removal of Vegetation and Debris from DHHL Lands; In Place Complete		
	LS	LS	\$ _____
A2.	Installation, Maintenance, Monitoring, and Removal of BMP (8" Thick Ingress/Egress Gravel Access); In Place Complete		
	95 SY	\$ _____	\$ _____
A3.	Installation, Maintenance, Monitoring, and Removal of Temporary Sediment Barrier at Catch Basin; In Place Complete		
	1 EA.	\$ _____	\$ _____
A4.	Installation, Maintenance, Monitoring, and Removal of Sediment Filter Sock; In Place Complete		
	150 LF	\$ _____	\$ _____
A5.	Permanent Erosion Control Measures for All Graded Areas, Including Hydro-Mulch Seeding and 90 Day Maintenance; In Place Complete		
	245 SY	\$ _____	\$ _____

Item No.		Unit Price	Total
A6.	Excavation; In Place Complete		
	10 CY	\$ _____	\$ _____
A7.	Embankment; In Place Complete		
	160 CY	\$ _____	\$ _____
A8.	North America Green C350 Turf Reinforcement Mat or Approved Substitute; In Place Complete		
	245 SY	\$ _____	\$ _____
A9.	Allowance for Varying Site Condition		
	Allowance	Allowance	\$20,000.00
	SUBTOTAL (A1 – A9):		\$ _____

Item No.		Unit Price	Total
B.	<u>Waiehu Kou Frontage Walls</u>		
B1.	Clearing and Grubbing, Including Removal and Disposal of Existing Irrigation Line and Irrigation Valves, Handling and Removal of Vegetation and Debris from DHHL Lands; In Place Complete		
	LS	LS	\$ _____
B2.	Installation, Maintenance, Monitoring, and Removal of Temporary Sediment Barrier at Catch Basin; In Place Complete		
	1 EA	\$ _____	\$ _____

Item No.		Unit Price	Total
B3.	Installation, Maintenance, Monitoring, and Removal of Sediment Filter Sock; In Place Complete		
	650 LF	\$ _____	\$ _____
B4.	New 2 Feet High Concrete Rock Masonry (CRM) Wall (322 LF); In Place Complete		
	LS	LS	\$ _____
B5.	Irrigation Line Work (Cut and Plug of Existing Irrigation Line and Installation of PVC Pipe Sleeve); In Place Complete		
	LS	LS	\$ _____
B6.	Arboricultural Work, Including Tree Removal, Tree and Root Trimming and Pruning		
	Allowance	Allowance	\$ 3,000.00
B7.	Allowance for Varying Site Condition		
	Allowance	Allowance	\$10,000.00
	SUBTOTAL (B1 – B7):		\$ _____

Item No.		Unit Price	Total
C.	Lot 4 Paukukalo (Kuhio Place)		
C1.	Clearing and Grubbing, Including Handling and Removal of Vegetation, Portion of Wooden Fence, and Debris from DHHL Lands; In Place Complete		
	LS	LS	\$ _____

Item No.		Unit Price	Total
C2.	Installation, Maintenance, Monitoring, and Removal of BMP (8" Thick Ingress/Egress Gravel Access); In Place Complete		
	35 SY	\$ _____	\$ _____
C3.	Installation, Maintenance, Monitoring, and Removal of Temporary Sediment Barrier at Catch Basin; In Place Complete		
	1 EA	\$ _____	\$ _____
C4.	Installation, Maintenance, Monitoring, and Removal of Sediment Filter Sock; In Place Complete		
	310 LF	\$ _____	\$ _____
C5.	Permanent Erosion Control Measures for All Graded Areas, Including Hydro-Mulch Seeding and 90 Day Maintenance; In Place Complete		
	295 SY	\$ _____	\$ _____
C6.	Excavation Including Disposal of Unsuitable Material; In Place Complete		
	625 CY	\$ _____	\$ _____
C7.	Embankment; In Place Complete		
	210 CY	\$ _____	\$ _____
C8.	Concrete Curb; In Place Complete		
	75 LF	\$ _____	\$ _____
C9.	Concrete Header; In Place Complete		
	15 LF	\$ _____	\$ _____

Item No.		Unit Price	Total
C10.	2" Asphalt Concrete; In Place Complete		
	125 SY	\$ _____	\$ _____
C11.	6" Asphalt Concrete Base; In Place Complete		
	125 SY	\$ _____	\$ _____
C12.	18" Select Borrow; In Place Complete		
	125 SY	\$ _____	\$ _____
C13	New ¾" Copper Water Lateral, Including Pipe Bedding and All Pertinent Work for Water Lateral Installation; In Place Complete		
	85 LF	\$ _____	\$ _____
C14	New Concrete Jacket for ¾" Copper Water Lateral; In Place Complete		
	85 LF	\$ _____	\$ _____
C15.	Adjust Existing Water Meter and Install New Traffic Rated Water Meter Frame and Cover; In Place Complete		
	1 EA	\$ _____	\$ _____
C16.	Concrete Masonry Unit Retaining Wall (226 LF); In Place Complete		
	L.S.	L.S.	\$ _____
C17.	Archaeological Monitoring		
	FA	FA	\$30,000.00

Item No.		Unit Price	Total
C18.	Arboricultural Work, Including Tree Removal, Tree and Root Trimming and Pruning		
	Allowance	Allowance	\$2,000.00
C19.	Allowance for Varying Site Condition		
	Allowance	Allowance	\$35,000.00
	SUBTOTAL (C1 – C19):		\$ _____

	SUBTOTALS A, B & C:		\$ _____
	GENERAL EXCISE TAX (4.166%) (For Subtotals A, B & C)		\$ _____
	TOTAL SUM BID:		\$ _____

TOTAL SUM BID = _____

_____ Dollars (\$_____).

The prices herein for the above items shall include all materials, labor, tools, equipment, machinery and all incidentals necessary to install or to construct these items in place complete and in accordance with the plans and specifications contained in this IFB. The total sum bid shall be inclusive of the general excise tax.

The CONTRACTOR shall complete all work as specified or indicated in the Contract Documents on or before Nine (9) Months (270 calendar days) after receiving written Notice to Proceed, subject to extensions, as may be granted.

HAWAII PRODUCTS PREFERENCE

In accordance with HRS §103D-1002, the Hawaii products preference is applicable to this solicitation. Hawaii Products [are / may be] available for those items noted on the offer form. The Hawaii products list is currently available on the SPO webpage at: <http://spo.hawaii.gov/for-vendors/hawaii-product-preferences/>.

Offeror submitting a Hawaii Product (HP) shall identify the HP on the solicitation offer page(s). Any person desiring a Hawaii product preference shall have the product(s) certified and qualified if not currently on the Hawaii products list, prior to the deadline for receipt of offer(s) specified in the procurement notice and solicitation. The responsibility for certification and qualification shall rest upon the person requesting the preference.

Persons desiring to qualify their product(s) not currently on the Hawaii product list shall complete form SPO-038, *Certification for Hawaii Product Preference* and submit to the Procurement Officer issuing the solicitation (IFB or RFP), and provide all additional information required by the Procurement Officer. For each product, one form shall be completed and submitted (i.e. 3 products should have 3 separate forms completed). Form SPO-038 is available on the SPO webpage at <http://spo.hawaii.gov/all-forms/>. The manufacturers and producers must complete and submit SPO-38 to DHHL. The form must be received no later than the date and time specified in the Instructions for Bid Submittal's 'IFB Schedule'. Submittal by facsimile to: (808) 620-9299 is acceptable. SPO-38s received and approved by DHHL in relation to this solicitation as additional certified and qualified Hawaii products will be published via addendum.

Bidders may claim a Hawaii product preference for products that it manufactures or produces with its own workforce and equipment. The SPO-38, *Certification for Hawaii Product Preference*, must be submitted in accordance with the procedures described above in order for Bidder to claim a Hawaii product preference for such Hawaii products Bidder intends to use in this work.

When a solicitation contains both HP and non-HP, then for the purpose of selecting the lowest bid or purchase price only, the price offered for a HP item shall be decreased by subtracting 10% for the class I or 15% for the class II HP items offered, respectively. The lowest total offer, taking the preference into consideration, shall be awarded the contract unless the offer provides for additional award criteria. The contract amount of any contract awarded, however, shall be the amount of the price offered, exclusive of the preferences.

Change in Availability of Hawaii product. In the event of any change that materially alters the offeror's ability to supply Hawaii products, the offeror shall notify the procurement officer in writing no later than five working days from when the offeror knows of the change and the parties shall enter into discussions for the purposes of revising the contract or terminating the contract for convenience.

SCHEDULE OF ACCEPTABLE HAWAII PRODUCTS AND DESIGNATION OF HAWAII PRODUCTS TO BE USED			
ACCEPTABLE HAWAII PRODUCTS		HAWAII PRODUCTS TO BE USED Cost FOB Jobsite, Unloaded Including Applicable General Excise and Use Taxes	
Description	Manufacturer	Base Bid	Additive Alternate
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____

It is further understood by the Bidder that if upon being granted Hawaii Products, and being awarded the contract, if the Bidder fails to use such products or meet the requirements of such preference, the Bidder shall be subject to penalties, if applicable.

APPRENTICESHIP AGREEMENT PREFERENCE

Hawaii Revised Statutes §103-55.6 (ACT 17, SLH 2009) provides for a Hawai'i Apprenticeship Preference for public works contracts having an estimated value of \$250,000.00 or more. The preference shall be in the form of a 5% bid adjustment applied to the bidder's amount for bidders that are parties to apprenticeship agreements. The estimated value of this public works contract is \$250,000.00 or more and the apprenticeship agreement preference **shall** apply.

To be eligible for the preference, the bidder shall:

1. Be a party to an apprenticeship agreement registered with the DLIR at the time the bid is made for each apprenticeable trade the bidder will employ to construct the public works project for which the bid is being made.
 - a. The apprenticeship agreement shall be registered and conform to the requirements of HRS Chapter 372.
 - b. Subcontractors do not have to be a party to an apprenticeship agreement for the bidder to obtain the preference.
 - c. The bidder is not required to have apprentices in its employ at the time the bid is submitted to qualify for the preference.
 - d. If a bidder's employee is multi-skilled and able to perform work in more than one trade (for example, a project requires a carpenter and a laborer, and the employee is a carpenter, but is also able to perform the work of a laborer), the bidder need only be a party to the carpenter's apprenticeship agreement and does not need to be a party to the laborer's apprenticeship agreement in order to qualify for the preference. The bidder is not "employing" a laborer, only a carpenter, and so only needs to be a party to the carpenter's apprenticeship agreement.
 - e. Qualification for the preference is given on a project-by-project basis and depends upon the specific offer for a specific project. A bidder's employees may vary from project to project and may qualify for the preference on one project but may not qualify on another project. For example, on one project, if the bidder only employs carpenters to perform work in the carpentry and labor trades, then the bidder only needs to be a party to the carpenter's apprenticeship agreement in order to qualify for the preference. However, on another project if the same bidder employs both carpenters and laborers, then the bidder will not qualify for the preference if the bidder is only a party to the carpenter's apprenticeship agreement and not the laborer's apprenticeship agreement.
2. State the trades the bidder will employ to perform the work;

3. For each trade to be employed to perform the work, the bidder shall submit a completed signed original *CERTIFICATION OF BIDDER'S PARTICIPATION IN APPROVED APPRENTICESHIP PROGRAM UNDER ACT 17 (Certification Form 1)* verifying the participation in an apprenticeship program registered with the State Department of Labor and Industrial Relations (DLIR);
4. The *Certification Form 1* shall be authorized by an apprenticeship sponsor of the DLIR list of registered apprenticeship programs. The authorization shall be an original signature by an authorized official of the apprenticeship sponsor; and
5. The completed *Certification Form 1* for each trade must be submitted by the bidder with the offer. A facsimile or copy is acceptable to be submitted with the offer; however, the completed signed original must be submitted within five (5) working days of the due date of the offer. If the signed original is not received within this timeframe, the preference may be denied. Previous certifications shall not apply.

Failure to comply with ALL of the conditions noted above, without exception, shall disqualify the Bidder from qualifying for, and thus receiving, benefit of the Hawai'i Apprenticeship Preference.

The *Certification Form 1* and the List of Construction Trades in Registered Apprenticeship Programs is available on the DLIR website at: <http://labor.hawaii.gov/wdd/>.

Upon receiving *Certification Form 1*, the DHHL will verify with DLIR that the apprenticeship program is on the list of apprenticeship programs registered with the DLIR. If the program(s) are not confirmed by the DLIR, the bidder will not qualify for the preference.

If the bidder is certified to participate in an apprenticeship program for each trade which will be employed by the bidder for the project, a preference will be applied to decrease the bidder's total bid amount by five per cent (5%) for evaluation purposes.

Should the bidder qualify for other preferences (for example, Hawaii Products Preference), all applicable preferences shall be applied to the bid amount.

While preference for Hawai'i Apprenticeship will be taken into consideration to determine the low bidder, the contract awarded shall be the original bid amount, exclusive of any preferences. The preference is only for evaluation purposes.

The bidder hereby certifies that it will employ the following apprenticeable trades to perform the work for this project:

<u>LIST OF APPRENTICEABLE TRADES TO BE EMPLOYED</u>	
<u>TRADE</u>	<u>APPRENTICESHIP PROGRAM SPONSOR</u>

(Add additional sheets if necessary)

ALL JOINT CONTRACTORS OR SUBCONTRACTORS TO BE ENGAGED ON THIS PROJECT

The Bidder certifies that the following is a complete listing of all joint Contractors or Subcontractors covered under Chapter 444, Hawaii Revised Statutes, who will be engaged by the Bidder on this project to perform the nature and scope of work indicated pursuant to Section 103D-302, Hawaii Revised Statutes, and understands that failure to comply with this requirement shall be just cause for rejection of the bid.

The Bidder further understands that only those joint Contractors or Subcontractors listed shall be allowed to perform work on this project and that all other work necessary shall be performed by the Bidder with his own employees. If no joint Contractor or Subcontractor is listed, it shall be construed that all of the work shall be performed by the Bidder with his own employees.

The Bidders must be sure that they possess and that the Subcontractors listed in the bid possess all the necessary licenses needed to perform the work for this project. The bidder shall be solely responsible for assuring that all the specialty licenses required to perform the work are covered in his bid.

The Bidder shall include the license number of the joint Contractors or Subcontractors listed below. Failure to provide the correct names and license numbers as registered with the Contractor's Licensing Board may cause rejection of the bid submitted.

Complete Firm Name of Joint Contractor or Subcontractor	License Number	Hawaii Tax ID Number	Nature and Scope of Work to be Performed

METHOD OF AWARD

Bidder is required to bid on the entire project. The low bidder shall be determined by the procedures outlined in items 1) through 4) below:

- 1) Prior to opening of bids, the State will determine the amount of funds available for the project. This amount will be designated the "control amount". The control amount shall be announced at, and prior to the opening of bids.
- 2) The Base Bid and Alternate, if any, of each Bidder will be adjusted to reflect the applicable preferences in accordance with Chapter 103D, HRS. The Alternate, if any, will then be added to the Base Bid and compared with the control amount.
- 3) The low bidder shall be the Bidder having the lowest aggregate amount, within the control amount (after application of the various preferences), for the Base Bid plus the Alternate, if any.
- 4) If adding the Alternate, if any, would make the aggregate amount exceed the control amount for all Bidders, the low bidder shall be the Bidder having the lowest Base Bid after application of the various preferences.

It is further understood and agreed that:

- 1) The Chairman reserves the right to reject any and/or all bids and waive any defects when, in his opinion, such rejection or waiver will be in the best interest of the State.
- 2) After determining the low bidder, an award may be made either on the amount of the Base Bid alone, or including the Alternate (exclusive of preferences), if:
 - a. It is in the best interest of the State;
 - b. Funds are available at time of the award; and
 - c. The combination of the Base Bid plus Alternate does not change the apparent low bidder.
- 3) In the event the Base Bid for all Bidders exceed the control amount, the Chairman reserves the right to negotiate with the lowest responsible and responsive bidder to award a contract within available funds.
- 4) In the event the award is made for the Base Bid alone, the Chairman reserves the right to amend the contract at a later date to include the Alternate should funds subsequently become available.

OTHER CONDITIONS

- 1) The liquidated damages per working day for failure to complete the work on time have been determined and are noted in the Special Conditions of the sample contract.
- 2) By submitting this bid, the undersigned is declaring that his firm has not been assisted or represented on this matter by an individual who has, in a State capacity, been involved in the subject matter of this contract in the past one (1) year.
- 3) By submitting this bid, the undersigned is declaring that Bidder's own organization will perform at least 20% of the contractor's work. For the purposes of this section, the Contractor's work is defined as: direct cost labor for contractor's forces; direct cost materials installed by the contractor's direct cost labor force; direct cost equipment, either owned or leased, used by the contractor's direct cost labor force; and field overhead cost to include: field supervision, field office trailer (if any), field office equipment and supplies, etc.
- 4) Upon the acceptance of the bid by the Chairman, the undersigned must enter into and execute a contract for the same and furnish a Performance and Payment Bond, as required by law. These bonds shall conform to the provisions of Sections 103D-324 and 325, Hawaii Revised Statutes, and any law applicable thereto.
- 5) The quantities given herewith are approximate only and are subject to increase or decrease.
- 6) The estimated quantities shown for items for which a UNIT PRICE is asked in this bid are only for the purpose of comparing on a uniform basis bids offered for the work under this contract. No claim shall be filed for anticipated profit or loss because of any difference between the quantities of the various classes of work done or the materials and equipment actually installed and the said estimated quantities. Payment on UNIT PRICE items will be made only for the actual number of units incorporated into the finished project at the contract UNIT PRICE.
- 7) If the product of the UNIT PRICE BID and the number of units does not equal the total amount stated by the undersigned in the Bid for any item, it will be assumed that the error was made in computing the total amount. For the purpose of determining the lowest Bidder, the stated UNIT PRICE alone will be considered as representing the Bidder's intention and the total amount bid on such items shall be considered to be the amount arrived at by multiplying the UNIT PRICE by the number of units.
- 8) Certification for Safety and Health Programs for Bids in Excess of \$100,000. In accordance with Sections 103D-327 and 396-18, Hawaii Revised Statutes, by submitting this bid, the undersigned certifies that his firm will have a written Safety and Health Plan for this project that will be available and implemented by the Notice to Proceed date of

this project. Details of the requirements of this plan may be obtained from the Department of Labor and Industrial Relations, Occupational, Safety and Health Division.

- 9) Any contract arising out of this offer is subject to the approval of the Department of the Attorney General as to form, and to all further approvals, including the approval of the Governor, required by statute, regulation, rule, order, or other directive.

Receipt of the following addenda issued by the Department is acknowledged by the date(s) of receipt indicated below:

	Date		Date
Addendum No. 1	_____	Addendum No. 5	_____
Addendum No. 2	_____	Addendum No. 6	_____
Addendum No. 3	_____	Addendum No. 7	_____
Addendum No. 4	_____	Addendum No. 8	_____

It is understood that failure to receive any such addendum shall not relieve the Contractor from any obligation under this IFB as submitted.

Bid Security in the amount of: _____
_____ DOLLARS (\$ _____)

as required by law, is enclosed herewith in the form of:

<input type="checkbox"/> Surety Bond (*1)	<input type="checkbox"/> Official Check (*3)
<input type="checkbox"/> Legal Tender (*2)	<input type="checkbox"/> Share Certificate (*3)
<input type="checkbox"/> Cashier's Check (*3)	<input type="checkbox"/> Teller's Check (*3)
<input type="checkbox"/> Certificate of Deposit (*3)	<input type="checkbox"/> Treasurer's Check (*3)
<input type="checkbox"/> Certified Check (*3)	

Respectfully submitted,

Name of Company, Joint Venture or Partnership

License No.

By _____
Signature (*4)

Title:_____

Date:_____

Address:_____

Telephone No.:_____

IF A CORPORATION, AFFIX CORPORATE SEAL TO SIGNATURE, BE SURE TO FILL IN ATTACHED LIST OF SUBCONTRACTORS.

THIS BID FORM MAY NOT BE ALTERED AND BIDDERS MAY NOT QUALIFY OR CONDITION THEIR BIDS IN ANY WAY.

PLEASE FILL OUT THE ATTACHED CERTIFICATE OF RESOLUTION GIVING EVIDENCE OF THE AUTHORITY OF THIS OFFICER TO SUBMIT BIDS ON BEHALF OF THE COMPANY.

NOTES:

- *1. Surety bond underwritten by a company licensed to issue bonds in this State;
- *2. Legal tender; or
- *3. A certificate of deposit; share certificate; or cashier's, treasurer's, teller's, or official check accepted by, and payable on demand to the State by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation of the National Credit Union Administration.
 - A. These instruments may be utilized only to a maximum of \$100,000.
 - B. If the required security or bond amount totals over \$100,000, more than one instrument not exceeding \$100,000 each and issued by different financial institutions shall be accepted.
- *4. Please attach to this page evidence of the authority of this officer to submit bids on behalf of the Company, and also the names and residence addresses of all officers of the Company.
- *5. Fill in all blank spaces with information asked for or bid may be invalidated. BID MUST BE INTACT; MISSING PAGES MAY INVALIDATE YOUR BID.

CERTIFICATE OF RESOLUTION

I, _____, Secretary of _____, a Hawaii Corporation, do hereby certify that the following is a full, true and correct copy of a resolution duly adopted by the Board of Directors of said Corporation, at its meeting duly called and held at the office of the Corporation _____, Hawaii, on _____ day of _____, 20_____, at which a quorum was present and acting throughout; and that said resolution has not been modified, amended or rescinded and continues in full force and effect.

“RESOLVED that any individual at the time holding the position(s) of _____, be, and each of them hereby is, authorized to execute on behalf of the Corporation any bid, proposal or contract for the sale or rental of the products of the Corporation or for the services to be performed by the Corporation and to execute any bond required by any such bid, proposal or contract with the United States Government or the State of Hawaii or the City and County of Honolulu, or any County of Municipal Government of said State, or any department or subdivision of any of them.”

IN WITNESS THEREOF, I have hereunto set my hand and affixed the corporate seal of said _____ this _____ day of _____, 20____.

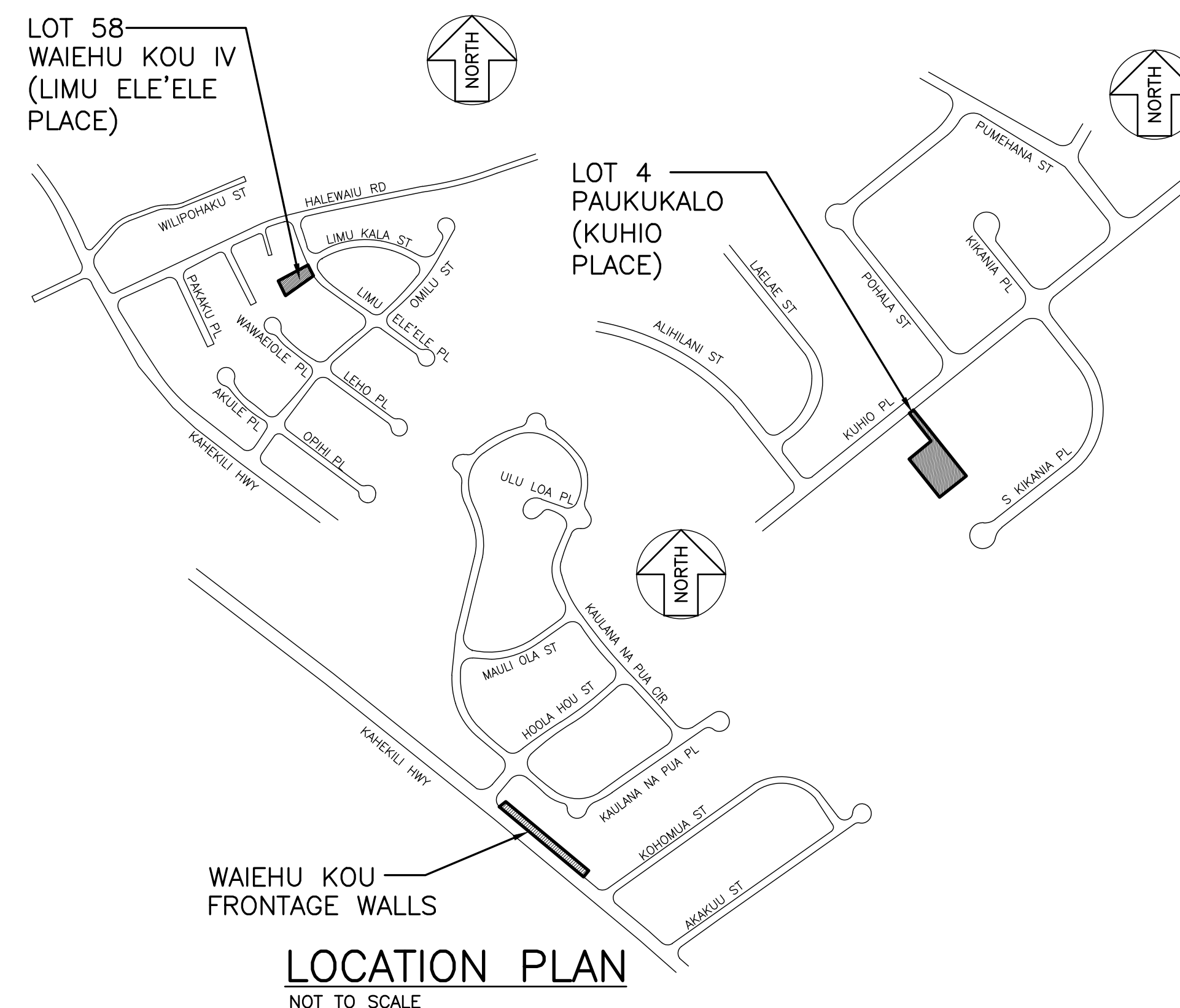
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Secretary

END OF BID

VARIOUS LOT IMPROVEMENTS FOR WAIEHU KOU AND PAUKUKALO MAUI, HAWAII

LOCATION MAP



SHEET	DRAWING	DESCRIPTION
1	T-001	TITLE SHEET
2	C-001	CONSTRUCTION NOTES
3	C-100	SITE AND GRADING PLAN FOR LOT 58 WAIEHU KOU IV (LIMU ELE'ELE PLACE)
4	C-101	SITE AND GRADING PLAN, PROFILE AND DETAILS FOR LOT 4 PAUKUKALO (KUHIO PLACE)
5	C-102	SITE AND GRADING PLAN FOR WAIEHU KOU FRONTAGE WALLS
6	C-103	EROSION CONTROL PLAN FOR LOT 58 WAIEHU KOU IV (LIMU ELE'ELE PLACE)
7	C-104	EROSION CONTROL PLAN FOR LOT 4 PAUKUKALO (KUHIO PLACE)
8	C-105	EROSION CONTROL PLAN FOR WAIEHU KOU FRONTAGE WALLS
9	C-106	EROSION CONTROL NOTES AND DETAILS
10	C-200	SITE SECTIONS FOR LOT 58 WAIEHU KOU IV (LIMU ELE'ELE PLACE)
11	C-201	SITE SECTIONS FOR LOT 4 PAUKUKALO (KUHIO PLACE) - 1
12	C-202	SITE SECTIONS FOR LOT 4 PAUKUKALO (KUHIO PLACE) - 2
13	S-101	STRUCTURAL GENERAL NOTES
14	S-102	TYPICAL DETAILS
15	S-201	PAUKUKALO (KUHIO PL) RETAINING WALL FOUNDATION PLAN
16	S-202	PAUKUKALO (KUHIO PL) RETAINING WALL ELEVATIONS
17	S-203	PAUKUKALO (KUHIO PL) RETAINING WALL SECTIONS & DETAILS
18	S-301	WAIEHU KOU CRM WALL FOUNDATION PLAN
19	S-302	WAIEHU KOU RETAINING WALL SECTIONS & DETAILS

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION 2005" AS AMENDED, AND THE "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION", DATED SEPTEMBER 1984, AS AMENDED, OF THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTIES OF THE STATE OF HAWAII, THE "STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION STANDARD PLANS" 2008, THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICE FOR STREETS AND HIGHWAYS", 2009, AND THE CONSTRUCTION DRAWINGS, DETAILS & SPECIFICATIONS PREPARED FOR THIS PROJECT.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, AND SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF SAME IN THE EVENT OF DAMAGES DUE TO HIS CONSTRUCTION PRACTICES.
3. WHEREVER CROSSINGS OR CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGES TO THE FACILITIES WHETHER SHOWN OR NOT ON THE PLANS.
4. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLANS ARE FROM THE LATEST AVAILABLE DATA, BUT ARE NOT GUARANTEED AS TO THE ACCURACY OF THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF LOCATION OF UNCHARTED UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE, AND SHALL PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
5. NO CONSTRUCTION EQUIPMENT SHALL BE PARKED WITHIN THE ROAD RIGHT-OF-WAY IN SUCH A MANNER THAT THE EQUIPMENT WILL OBSTRUCT THE NORMAL MOVEMENT AND SIGHT DISTANCE OF THE DRIVING MOTORIST, EXCEPT DURING ACTUAL WORKING HOURS.
6. EXCEPT DURING ACTUAL WORKING HOURS, ALL SIGNS WHICH DO NOT PERTAIN TO THE CONSTRUCTION ACTIVITY, SUCH AS "MEN WORKING" AND "FLAGMEN AHEAD" SHALL BE COVERED OR LAID DOWN. HOWEVER, ALL SIGNS NECESSARY FOR THE SAFETY OF THE PUBLIC SHALL BE MAINTAINED.
7. THE CONTRACTOR SHALL EMPLOY A HAWAII REGISTERED PROFESSIONAL SURVEYOR TO PERFORM ALL CONSTRUCTION STAKEOUTS, THE COST OF WHICH SHALL BE BORNE BY THE CONTRACTOR.
8. THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR, AND PAY FOR ALL TEMPORARY UTILITIES REQUIRED FOR HIS WORK.
9. THE CONTRACTOR SHALL HAVE AN ARCHAEOLOGICAL MONITOR PRESENT DURING GROUND DISTURBING ACTIVITIES. THE ARCHAEOLOGICAL MONITOR SHALL INSPECT THE EXPOSED SOIL AND THE STRATIGRAPHIC PROFILE OF ANY EXCAVATED TRENCHES IN AN EFFORT TO IDENTIFY ANY PREVIOUSLY UNDISCOVERED AND UNDISTURBED HISTORIC SITES OR REMAINS. SHOULD HISTORIC SITES SUCH AS WALLS, PLATFORMS, PAVEMENTS AND MOUNDS, OR REMAINS SUCH AS ARTIFACTS, BURIALS, CONCENTRATION OF CHARCOAL OR SHELLS BE ENCOUNTERED DURING CONSTRUCTION WORK, WORK SHALL CEASE IN THE IMMEDIATE VICINITY OF THE FIND AND THE FIND SHALL BE PROTECTED FROM FURTHER DAMAGE. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE STATE HISTORIC PRESERVATION DIVISION ((808) 692-8015), WHICH WILL ASSESS THE SIGNIFICANCE OF THE FIND AND RECOMMEND AN APPROPRIATE MITIGATION MEASURE, IF NECESSARY. A 3-METER / 10-FOOT WIDE BUFFER ZONE EXISTS AROUND ALL SITES IN PRESERVATION DURING CONSTRUCTION. IT IS HIGHLY IMPORTANT THAT THE PRESERVED SITES REMAIN UNDISTURBED.
10. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK.
11. THE CONTRACTOR SHALL RESTORE ALL EXISTING FACILITIES INCLUDING BUT NOT LIMITED TO PAVEMENT, DRAINAGE FACILITIES, CURBS, GUTTERS, SIGNS, LANDSCAPING, IRRIGATION SYSTEMS, ETC., REMOVED OR DAMAGED AS A RESULT OF HIS OPERATION USING MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION", 2005 AS AMENDED, "STANDARD DETAILS", SEPTEMBER 1984 FOR PUBLIC WORKS CONSTRUCTION OF THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI, AS AMENDED.
12. CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES AND OTHER PROTECTIVE DEVICES FOR THE PROTECTION, SAFETY AND CONVENIENCE OF THE PUBLIC ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", 2009 AND THE "RULES AND REGULATIONS GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON/OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS", ADOPTED BY THE HIGHWAY SAFETY COORDINATOR AND THE U.S. FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS", DATED 2005.
13. THE DIRECTOR OF PUBLIC WORKS HAS THE RIGHT TO STOP CONSTRUCTION SHOULD ANY WORK BE FOUND CONTRARY TO THE APPROVED CONSTRUCTION PLAN OR DETRIMENTAL TO THE PUBLIC'S INTEREST.
14. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH, AND COUNTY GRADING ORDINANCE.
15. THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL SILT AND DEBRIS DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS RESULTING FROM HIS WORK. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION ORDERED BY THE DIRECTOR OF PUBLIC WORKS SHALL BE PAID BY THE CONTRACTOR.
16. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL INFORM THE DIRECTOR OF PUBLIC WORKS OF THE LOCATION OF THE DISPOSAL SITES. THE DISPOSAL SITE MUST FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE. THE CONTRACTOR SHALL MINIMIZE ITS CONSTRUCTION DEBRIS AND SOLID WASTES.
17. CONTRACTOR SHALL PROVIDE VEHICULAR AND PEDESTRIAN ACCESS ROUTES AT ALL TIMES TO ALL EXISTING FACILITIES.

18. ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS SHALL BE CHECKED AND VERIFIED PRIOR TO THE START OF CONSTRUCTION, AND ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

CONTRACTOR'S RESPONSIBILITY FOR EXISTING LINES, PIPES AND SERVICES

1. INFORMATION REGARDING THE SITE OF THE WORK GIVEN ON THE DRAWINGS OR SPECIFICATIONS HAS BEEN OBTAINED BY THE ENGINEER AND IS BELIEVED TO BE REASONABLY CORRECT; HOWEVER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL SUCH INFORMATION. THE CONTRACTOR SHALL TONE THE AREA TO BE EXCAVATED TO ASCERTAIN THE LOCATION OF UNCHARTED UTILITIES.
2. ANY UTILITIES THAT THE CONTRACTOR ENCOUNTERS DURING THE PROGRESS OF THE WORK, SUCH AS BUT NOT LIMITED TO TELEPHONE DUCTS, ELECTRIC DUCTS, WATER LINES, SEWER LINES, ELECTRIC LINES AND DRAINAGE PIPES, WHETHER SHOWN OR NOT ON THE CONTRACT PLANS, SHALL NOT BE DISTURBED OR DAMAGED UNLESS OTHERWISE INSTRUCTED IN THE PLANS AND SPECIFICATIONS.
3. IN THE EVENT THE UTILITIES ARE DAMAGED OR DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD LIABLE FOR THE DAMAGED OR DISTURBED UTILITIES.
4. THE CONTRACTOR SHALL REPAIR THE DAMAGED OR DISTURBED UTILITIES TO THE EXISTING CONDITION AT NO COST TO THE OWNER. ANY DAMAGE CLAIMS DUE TO THE DISRUPTION OF SERVICE CAUSED BY THE UTILITIES BEING DAMAGED SHALL BE PAID BY THE CONTRACTOR, WHO SHALL SAVE HARMLESS THE OWNER AND ENGINEER FROM ALL SUITS, ACTIONS OR CLAIMS OF ANY CHARACTER BROUGHT ON ACCOUNT OF SUCH DAMAGES.
5. IN THE EVENT UTILITIES WHICH WERE NOT SHOWN ON THE PLANS AND SPECIFICATIONS ARE DAMAGED OR DISTURBED BY THE CONTRACTOR, THE CONTRACTOR SHALL BE HELD LIABLE. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND EXPOSE ALL UTILITY LINES PRIOR TO ANY EXCAVATION AND/OR INSTALLATION OF LINES.

PUBLIC HEALTH, SAFETY AND CONVENIENCE

1. THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY AND ENVIRONMENTAL QUALITY.
2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH. THE COUNTY OF MAUI MAY REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANING AND REMOVAL OF ALL SILT AND DEBRIS DEPOSITED AND ACCUMULATED WITHIN DOWNSTREAM WATERWAYS, DITCHES AND DRAIN PIPES AND ON PUBLIC AND PRIVATE ROADWAYS GENERATED BY HIS WORK. THE CONTRACTOR AGREES TO REIMBURSE THE COUNTY OF MAUI FOR ALL COSTS EXPENDED IN PERFORMANCE OF THE ABOVE WORK IF REQUIRED FOR PUBLIC HEALTH AND SAFETY, OR MADE NECESSARY BY NON-PERFORMANCE BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION, CONVENIENCE AND SAFETY OF THE PUBLIC.
5. THE CONTRACTOR SHALL PROVIDE A NOISE POLLUTION CONTROL PLAN WHEN APPLYING FOR A CONSTRUCTION PERMIT.
6. TEMPORARY PEDESTRIAN ROUTES SHALL BE MAINTAINED IN SAFE, PASSABLE AND ACCESSIBLE CONDITION COMPLYING WITH ADAAG 402.1.

GRADING NOTES

1. ALL GRADING AND STOCKPILING WORK SHALL BE IN ACCORDANCE WITH MAUI COUNTY CODE, TITLE 20, CHAPTER 8.
2. ALL DEBRIS SHALL BE REMOVED FROM THE SITE AND PREMISES LEFT IN A "RAKE CLEAN" CONDITION.
3. THE CONTRACTOR, AT HIS EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREA FREE FROM DUST NUISANCE.
4. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF CHAPTER 54: WATER QUALITY STANDARDS, AND CHAPTER 55, WATER POLLUTION CONTROL, OF TITLE 11, ADMINISTRATIVE RULES OF THE STATE DEPARTMENT OF HEALTH, AND IF APPLICABLE, THE NPDES PERMIT FOR THE PROJECT.
5. ALL EXISTING UTILITIES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES, UNLESS NOTED OTHERWISE.
6. ALL PLANTER AREAS SHALL BE SODDED OR PLANTED AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED SHALL BE PLANTED. PLANTING SHALL BE MAINTAINED TO MINIMIZE EROSION.
7. THE CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE DEVELOPMENT SERVICES ADMINISTRATION TWO WEEKS PRIOR TO COMMENCEMENT OF ANY CLEARING AND GRUBBING WORK. A SITE SPECIFIC EROSION CONTROL PLAN SHOWING STRUCTURAL & NON-STRUCTURAL BEST MANAGEMENT PRACTICES MUST BE SUBMITTED TO AND APPROVED BY LUCA PRIOR TO ISSUANCE OF A GRADING PERMIT. COMMENCEMENT OF ANY CLEARING AND GRUBBING WORK.

8. THE UNDERGROUND PIPES, CABLES OR DUCTLINES KNOWN TO EXIST BY THE ENGINEER FROM HIS SEARCH OF RECORDS ARE INDICATED ON THE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF THE FACILITIES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. WHEREVER CONNECTIONS OF NEW UTILITIES TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES AT THE PROPOSED CONNECTIONS TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
9. THE COUNTY SHALL BE INFORMED OF THE LOCATION OF THE BORROW/DISPOSAL SITE FOR THE PROJECT WHEN THE APPLICATION FOR A GRADING PERMIT IS MADE. THE BORROW/DISPOSAL SITE MUST ALSO FULFILL THE REQUIREMENTS OF THE GRADING ORDINANCE.
10. NO GRADING WORK SHALL BE DONE ON SATURDAYS, SUNDAYS AND HOLIDAYS AT ANY TIME WITHOUT PRIOR NOTICE TO THE CHIEF ENGINEER.
11. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.

SOLID WASTE CONSTRUCTION NOTES

UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER HANDLING, STORAGE AND/OR DISPOSAL OF ALL WASTE GENERATED BY THE CONSTRUCTION INCLUDING GRUBBING AND EXCESS EXCAVATED MATERIAL. ANY MATERIAL BROUGHT TO THE COUNTY LANDFILLS WILL BE SUBJECTED TO THE INSTITUTED TIPPING FEE SYSTEM, WITH NO EXCEPTIONS OR EXEMPTIONS.

TEMPORARY DUST CONTROL MEASURES

1. EXCAVATION, EMBANKMENT AND IMPORTED MATERIALS SHALL BE KEPT DAMPENED WITH WATER DURING THE GRADING OPERATIONS.
2. THE CONTRACTOR SHALL MAINTAIN A SUITABLE WATER SYSTEM AND DAMPEN THE GRADED OR GRUBBED SITE WITH WATER.
3. AT THE END OF EACH DAY, SEVEN (7) DAYS A WEEK, THE PROJECT SITE SHALL BE KEPT DAMP WITH WATER. THE SITE SHALL BE SUFFICIENTLY DAMPENED SO THAT THE SITE WILL REMAIN MOISTENED DURING THE NIGHT.

NOTES FOR ENVIRONMENTAL PROTECTION

1. ENVIRONMENTAL PROTECTION NOTES PERTAINING TO AIR AND WATER POLLUTION SHALL BE ADMINISTERED AND MONITORED BY THE DEPARTMENT OF HEALTH.
2. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL PROVIDE EFFECTIVE MEASURES FOR THE CONTROL OF FUGITIVE DUST EMISSIONS FROM THE PROJECT AND SURROUNDING AREAS CAUSED BY HIS OPERATIONS, THESE MEASURES SHALL MEET THE REQUIREMENTS OF STATE ADMINISTRATIVE RULES, DEPARTMENT OF HEALTH, AIR POLLUTION CONTROL (11-60.1).
3. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE GRADING ORDINANCE TO PREVENT VIOLATION OF THE STATE ADMINISTRATIVE RULES, DEPARTMENT OF HEALTH, WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS (11-54, 11-55) DUE TO EROSION AND RUNOFF TO STATE WATERS.
4. GRUB MATERIAL, DEMOLITION WASTES, AND CONSTRUCTION WASTES SHALL BE DISPOSED OF AT AN AUTHORIZED SITE HAVING A DEPARTMENT OF HEALTH SOLID WASTE MANAGEMENT PERMIT. OPEN BURNING IS PROHIBITED.
5. PERMITS REQUIRED:

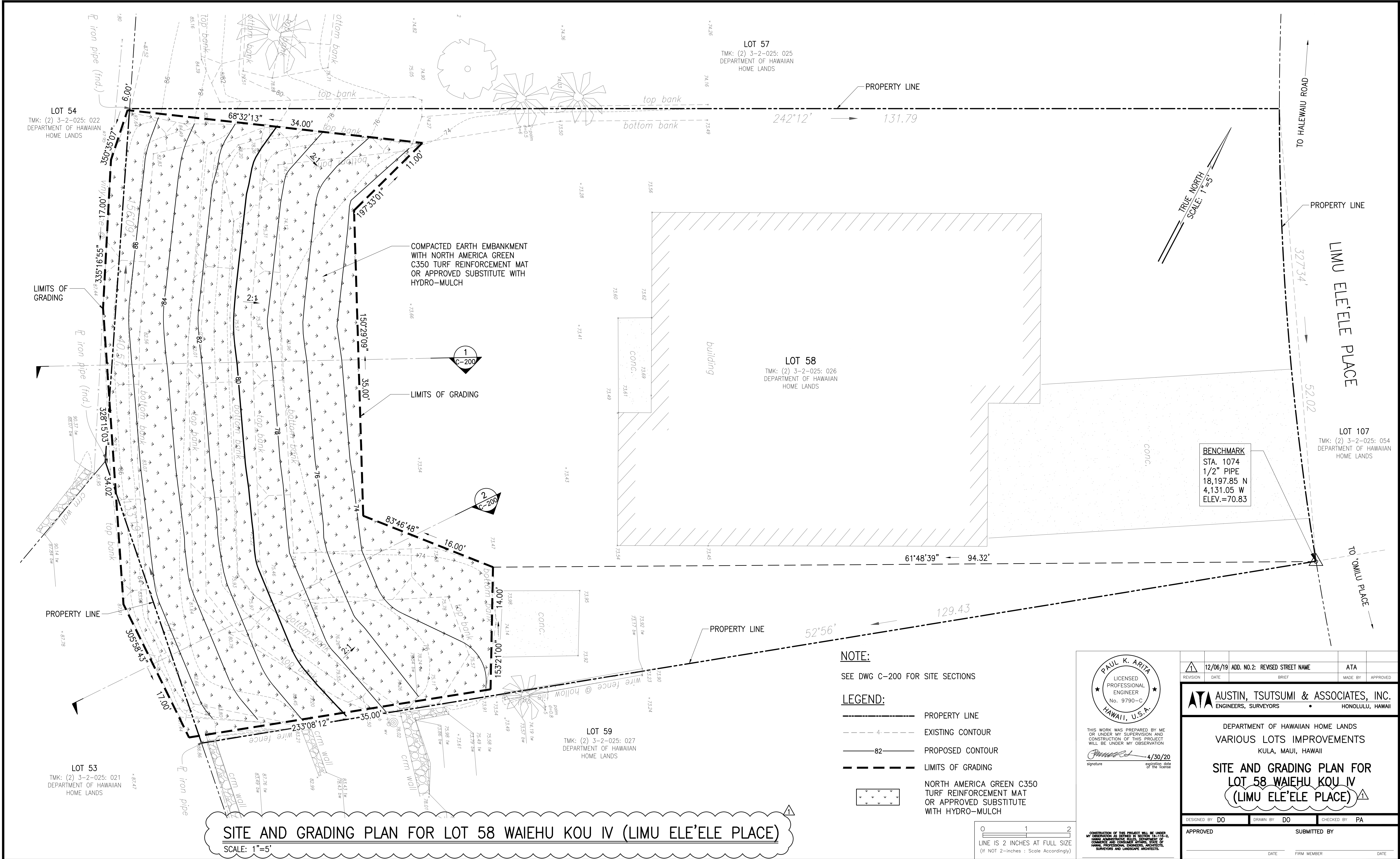
A. A NPDES PERMIT MAY BE REQUIRED FROM THE CLEAN WATER BRANCH OF THE DEPARTMENT OF HEALTH FOR STORM WATER DISCHARGE AND HYDROTESTING.

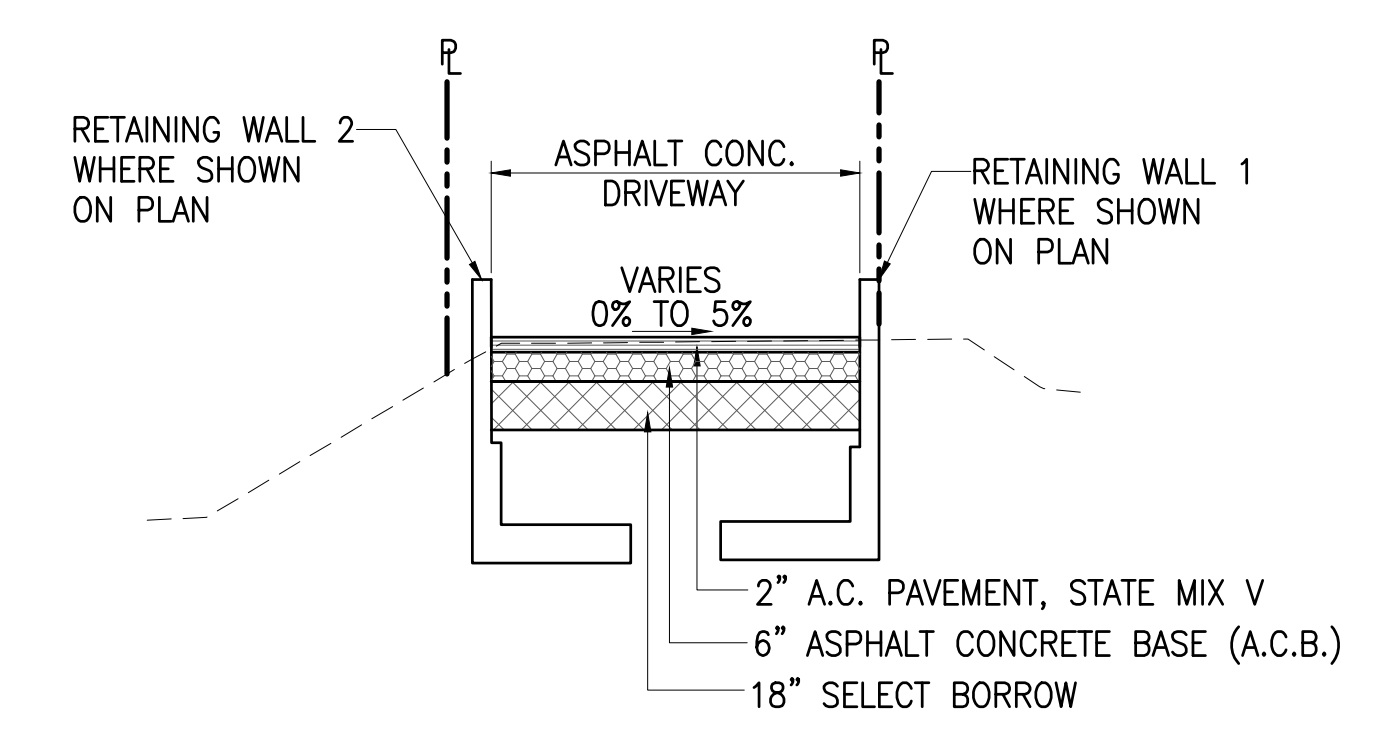
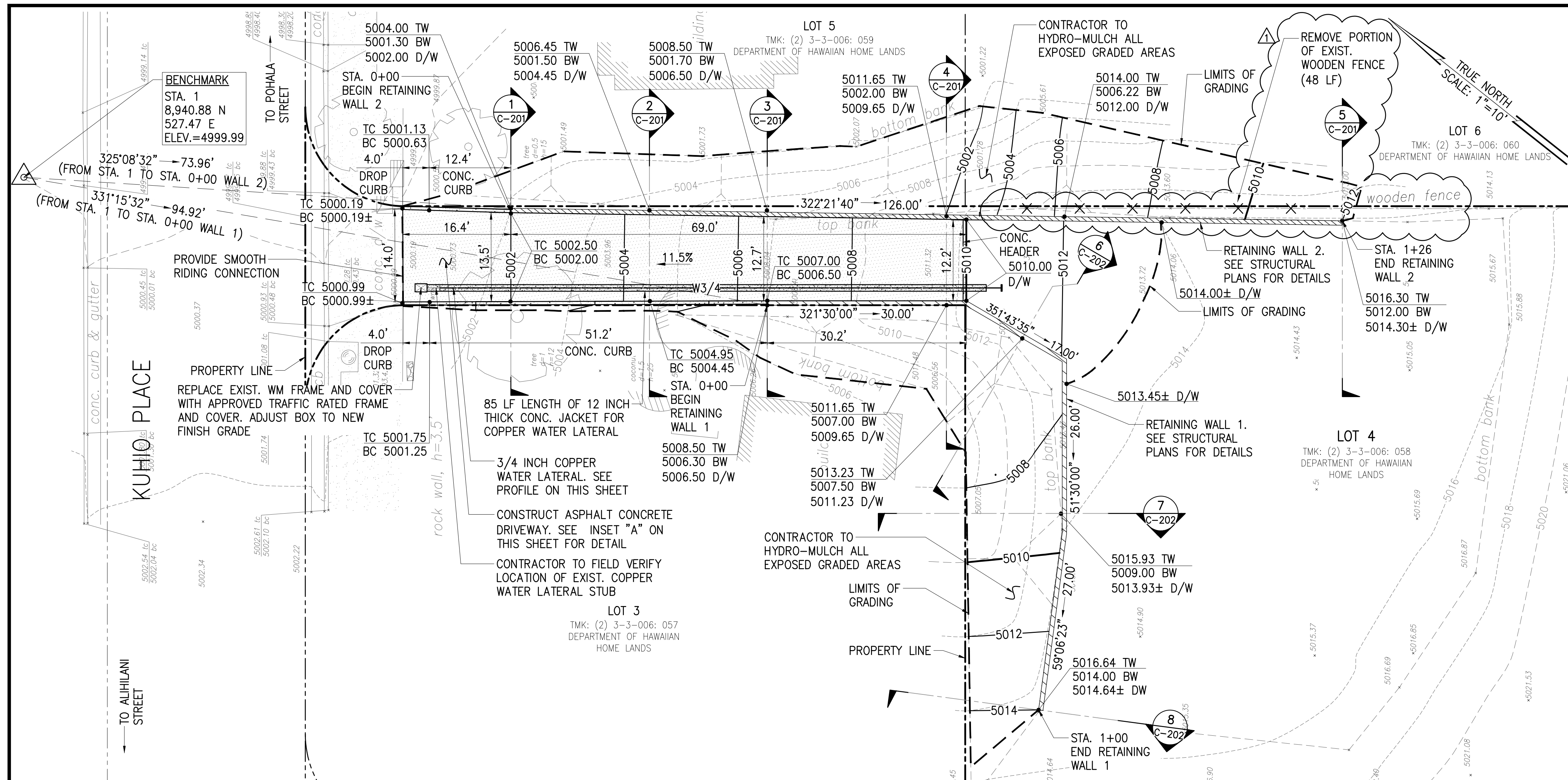
B. A DEWATERING PERMIT MAY BE REQUIRED TO BE OBTAINED FROM THE CLEAN WATER BRANCH OF THE DEPARTMENT OF HEALTH IF DISCHARGING INTO STATE WATERS.

C. PERMIT MUST BE OBTAINED PRIOR TO START OF CONSTRUCTION.
6. ENVIRONMENTAL PROTECTION NOTES PERTAINING TO AIR AND WATER POLLUTION SHALL BE ADMINISTERED AND MONITORED BY THE DEPARTMENT OF HEALTH.

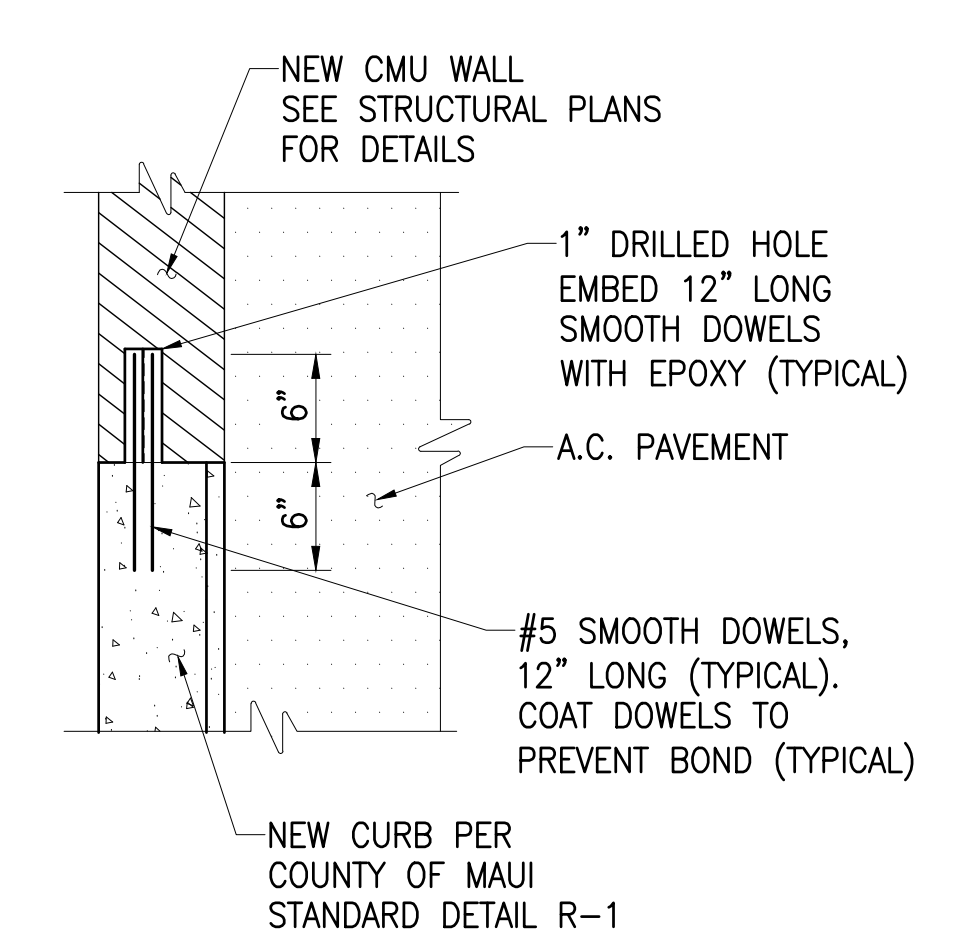
PERMANENT EROSION CONTROL MEASURES

1. THE CONTRACTOR SHALL GRASS ALL EXPOSED AREAS THAT HAVE BEEN CONSTRUCTED TO FINAL GRADES WITHIN A PERIOD OF 30 CALENDAR DAYS. ALL COSTS FOR MAINTAINING AND WATERING PERMANENT EROSION CONTROL MEASURES WILL BE BORNE BY THE CONTRACTOR.
2. THE CONTRACTOR MAY USE HYDRO-MULCH TO APPLY THE PERMANENT GROUND COVER.
3. PERMANENT BERMUDA GROUND COVER SHALL CONSIST OF 30 LBS. PER ACRE UNHULLED AMERICAN BUFFELGRASS SEED, 50 LBS. PER ACRE ANNUAL RYE GRASS, 6,000 LBS. PER ACRE GYPSUM BASED GEOBINDER, 2,000 LBS. PER ACRE WOOD CELLULOSE FIBER MULCH, AND 400 LBS. PER ACRE 10-30-10 FERTILIZER.





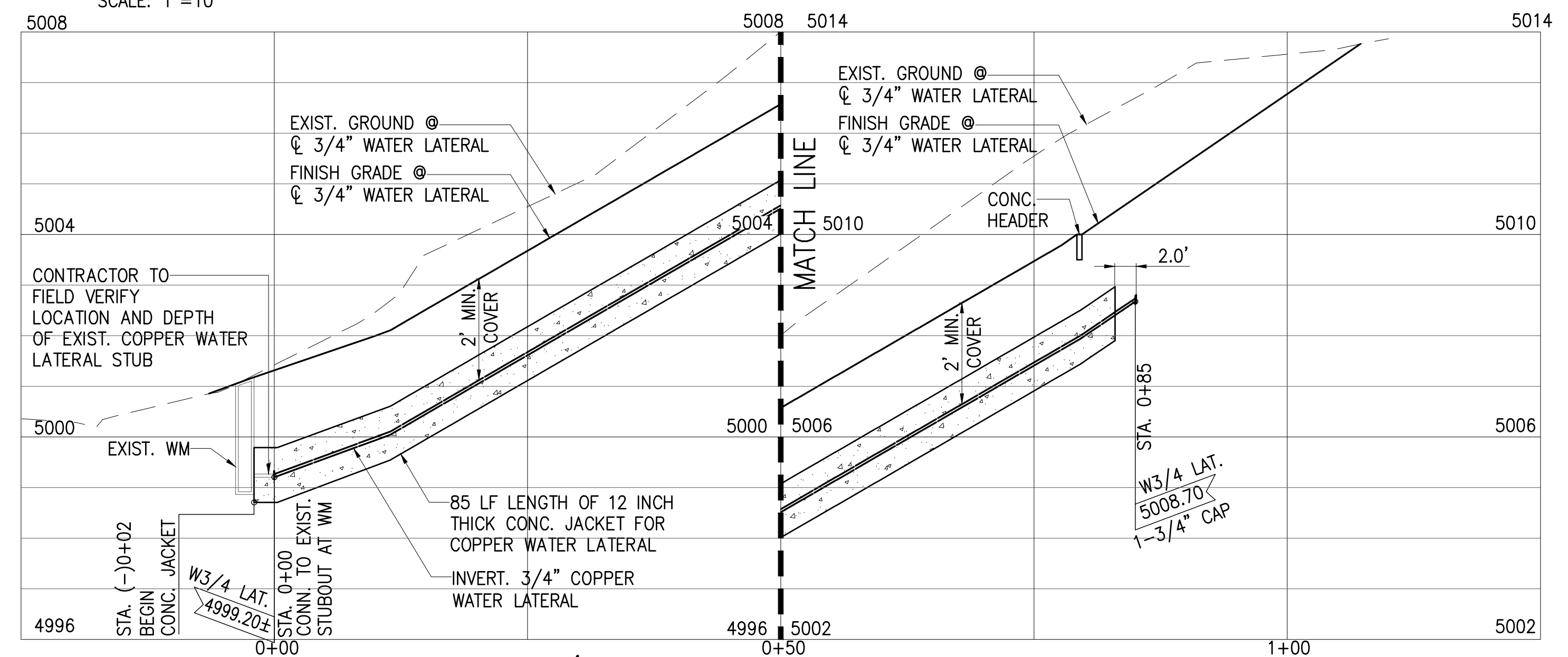
INSET "A" - AC PAVEMENT DETAIL
NOT TO SCALE



WALL TO CONC. CURB DETAIL
NOT TO SCALE

SITE AND GRADING PLAN, PROFILE AND DETAILS FOR LOT 4 PAUKUKALO (KUHIIO PLACE)

SCALE: 1"=10'



PROFILE - 3/4 INCH COPPER WATER LATERAL

SCALE: HORIZ: 1"=10'
VERT.: 1"=2'

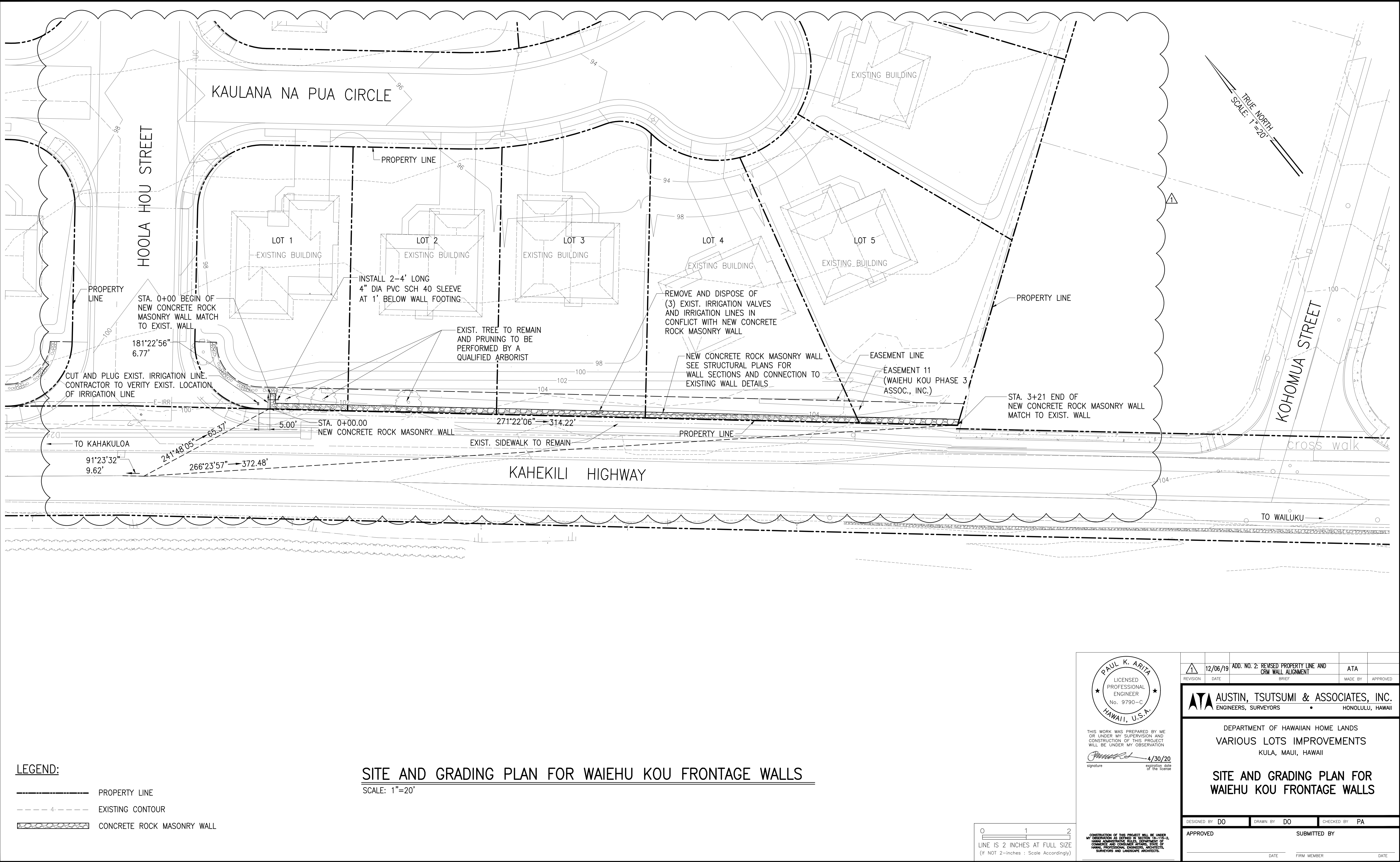
NOTE:

SEE DWG C-201 & C-202 FOR SITE SECTIONS

LEGEND:

- PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMITS OF GRADING
- RETAINING WALL

PAUL K. ARITA LICENSED PROFESSIONAL ENGINEER No. 9790-C HAWAII, U.S.A.		12/06/19 ADD. NO.2: REMOVAL OF FENCE		ATA
REVISION	DATE	BRIEF	MADE BY	APPROVED
ATA AUSTIN, TSUTSUMI & ASSOCIATES, INC. ENGINEERS, SURVEYORS HONOLULU, HAWAII				
DEPARTMENT OF HAWAIIAN HOME LANDS KULA, MAUI, HAWAII VARIOUS LOTS IMPROVEMENTS SITE AND GRADING PLAN, PROFILE AND DETAILS FOR LOT 4 PAUKUKALO (KUHIIO PLACE)				
DESIGNED BY DO	DRAWN BY DO	CHECKED BY PA		
APPROVED		SUBMITTED BY		
DATE		FIRM MEMBER DATE		



LEGEND:

————— PROPERTY LINE

----- 4' ----- EXISTING CONTOUR

CONCRETE ROCK MASONRY WALL

SITE AND GRADING PLAN FOR WAIEHU KOU FRONTAGE WALLS

SCALE: 1"=20'

0 1 2

LINE IS 2 INCHES AT FULL SIZE

(If NOT 2-Inches : Scale Accordingly)

PAUL K. ARITA

LICENSED PROFESSIONAL ENGINEER

No. 9790-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

Paul K. Arita 4/30/20

signature expiration date of the license

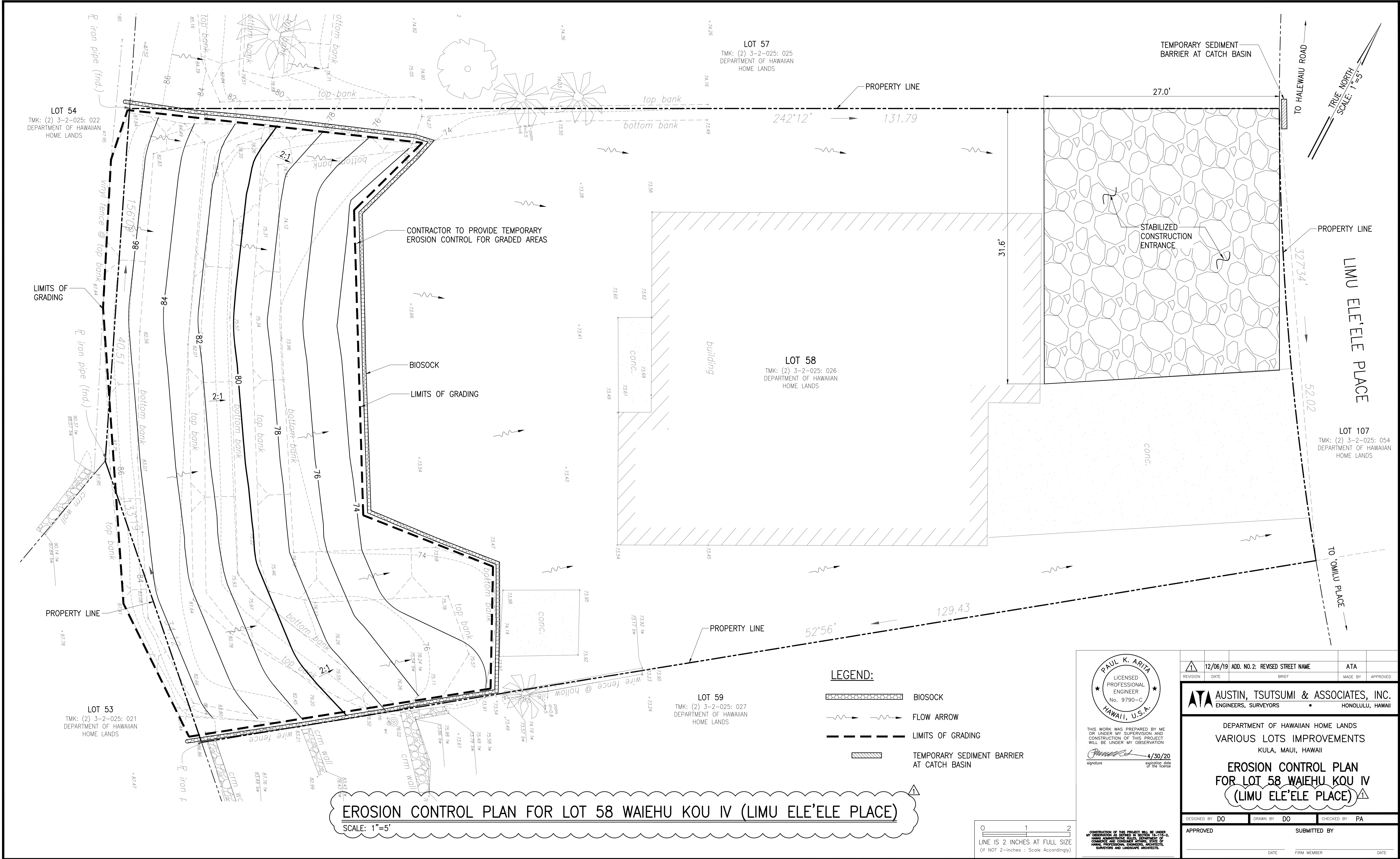
REVISION	DATE	ADD. NO. 2: REVISED PROPERTY LINE AND CRM WALL ALIGNMENT	ATA	
DESIGNED BY	DO	DRAWN BY	DO	CHECKED BY PA
APPROVED		SUBMITTED BY		
DATE		FIRM MEMBER		DATE

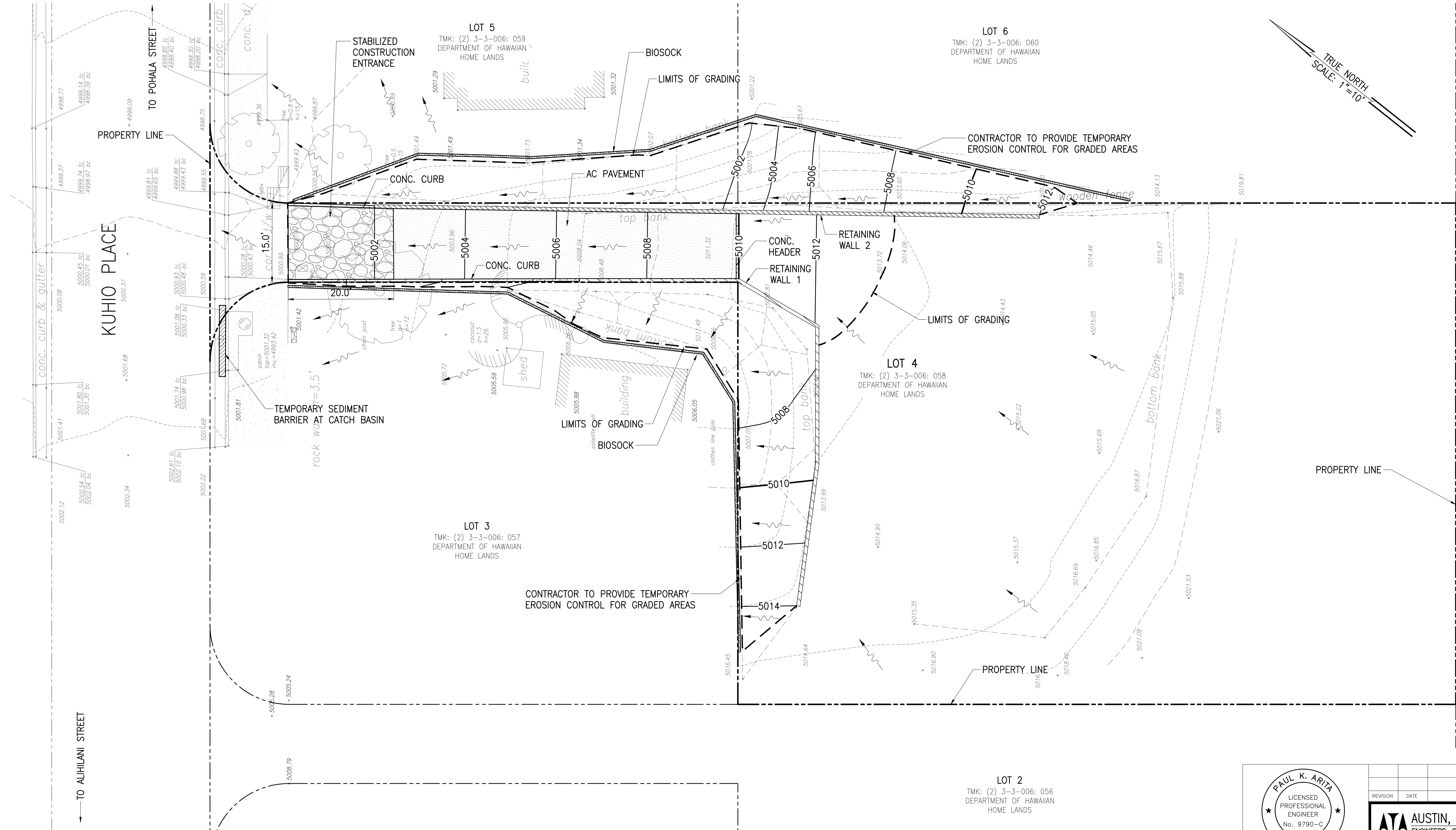
FILE

POCKET

FOLDER

NO.





LEGEND:

- BIOSOCK
- FLOW ARROW
- LIMITS OF GRADING
- TEMPORARY SEDIMENT BARRIER AT CATCH BASIN

EROSION CONTROL PLAN FOR LOT 4 PAUKUKALO (KUHIIO PLACE)

SCALE: 1"=10'

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

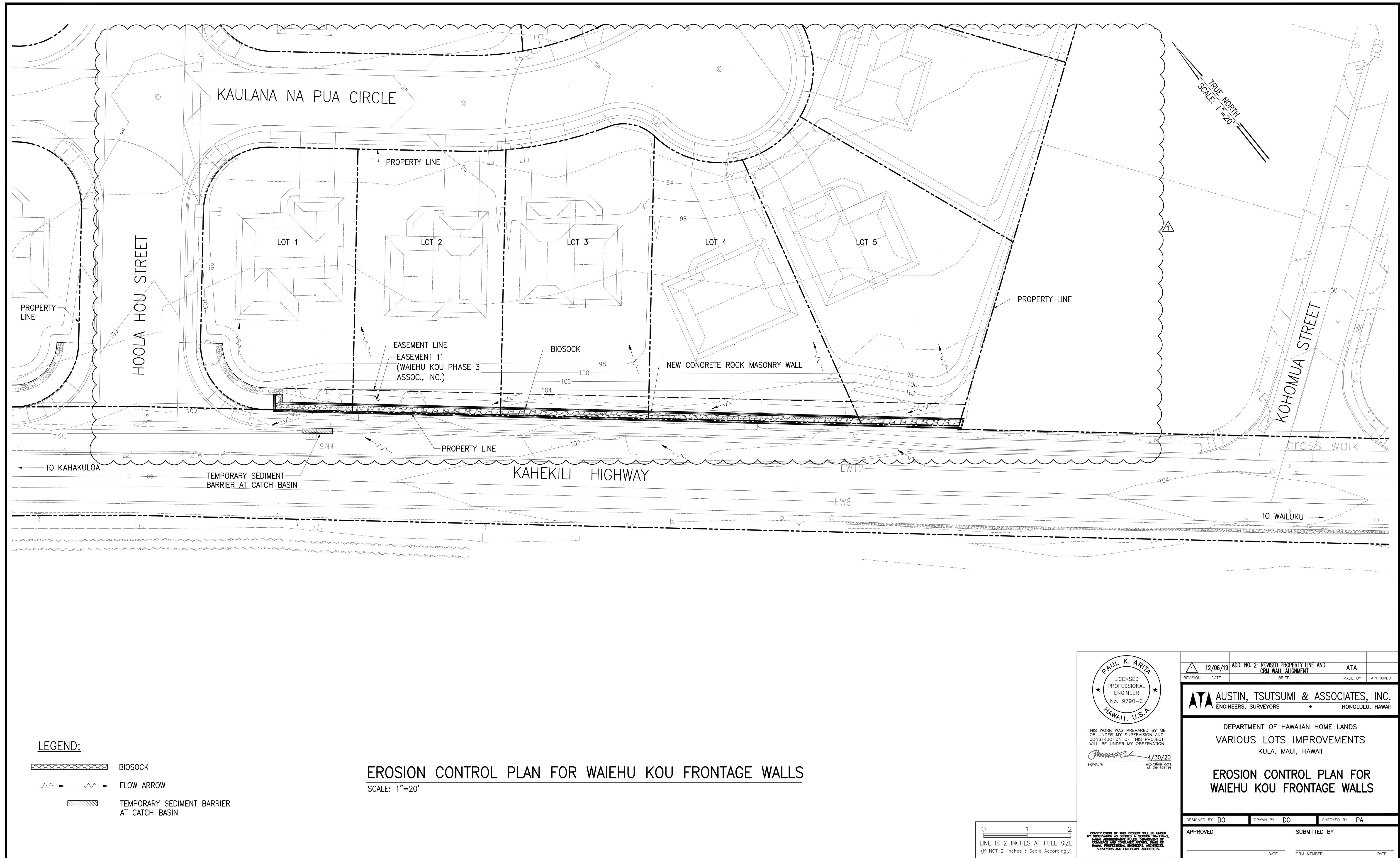
PAUL K. ARITA
LICENSED PROFESSIONAL ENGINEER
No. 9790-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

signature 4/30/20 expiration date

CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS REQUIRED BY SECTION 101-12, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII. PROFESSIONAL ENGINEER, ARCHITECT, SURVEYOR AND LANDSCAPE ARCHITECT.

REVISION	DATE	BRIEF	MADE BY	APPROVED
AUSTIN, TSUTSUMI & ASSOCIATES, INC. ENGINEERS, SURVEYORS HONOLULU, HAWAII				
DEPARTMENT OF HAWAIIAN HOME LANDS VARIOUS LOTS IMPROVEMENTS KULA, MAUI, HAWAII				
EROSION CONTROL PLAN FOR LOT 4 PAUKUKALO (KUHIIO PLACE)				
DESIGNED BY DO	DRAWN BY DO	CHECKED BY PA	APPROVED	
DATE		FIRM MEMBER		DATE
FILE	POCKET	FOLDER	NO.	



JOB NO. 17-518

C-105

SHEET 8 OF 19

ADDENDUM NO.2 (SHEET 8 OF 19)

 <small>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.</small> <small>signature</small> <small>4/30/20</small> <small>expiration date of the license</small> <small>CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 104-15-2, HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII. PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.</small>	REVISION	DATE	ADD. NO. 2: REVISED PROPERTY LINE AND CRM WALL ALIGNMENT	ATA	
			BRIEF	MADE BY	APPROVED
	 AUSTIN, TSUTSUMI & ASSOCIATES, INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII				
	DEPARTMENT OF HAWAIIAN HOME LANDS VARIOUS LOTS IMPROVEMENTS KULA, MAUI, HAWAII EROSION CONTROL PLAN FOR WAIIEHU KOU FRONTAGE WALLS				
DESIGNED BY DO		DRAWN BY DO		CHECKED BY PA	
APPROVED		SUBMITTED BY			
DATE		FIRM MEMBER		DATE	

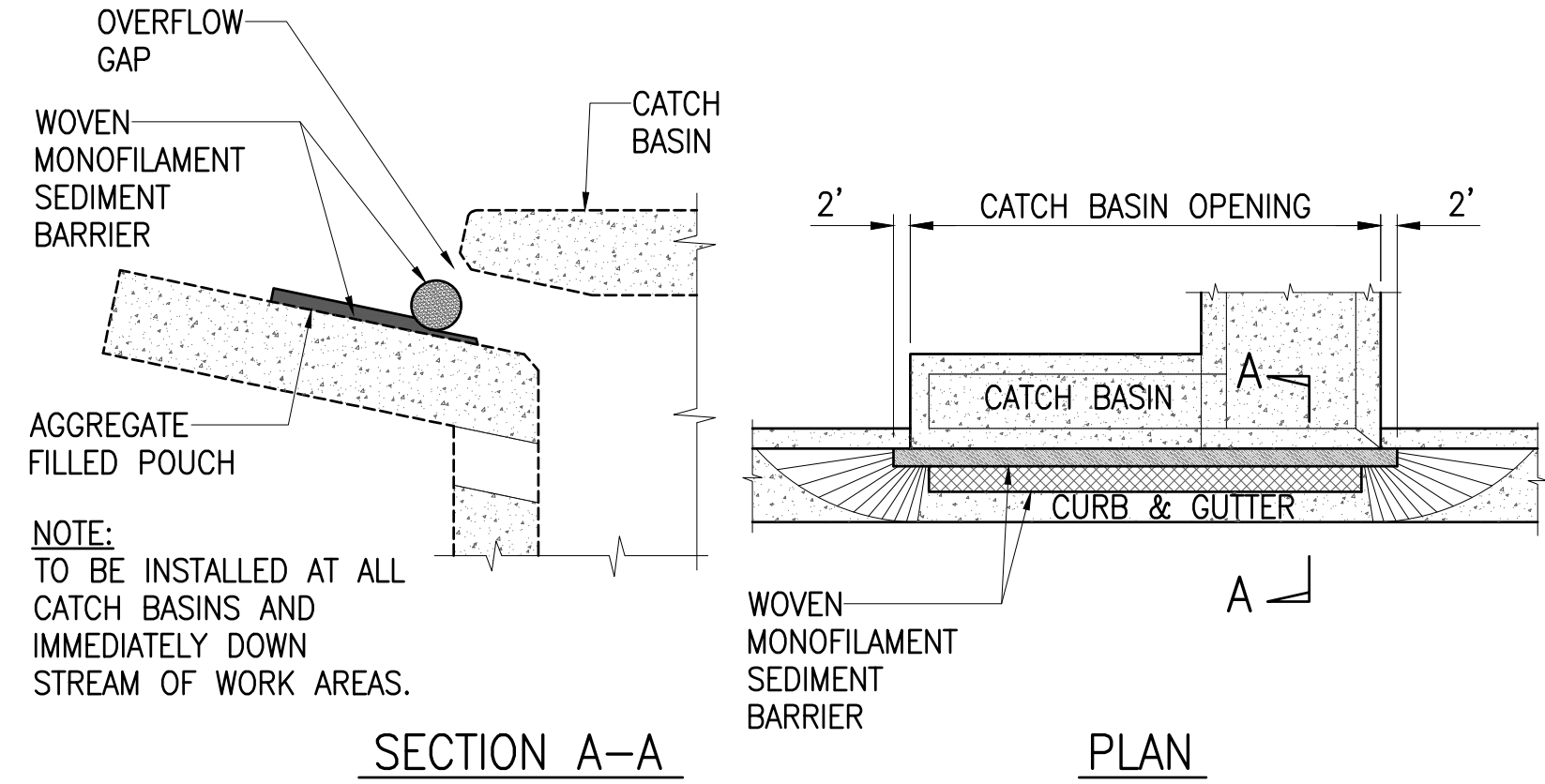
BEST MANAGEMENT PARCTICES (BMP)

NOTES MINIMUM:

1. ALL AFFECTED STORM DRAIN INLETS ALONG THE PROJECT SITE SHALL USE AN INLET PROTECTION DEVICE. SEE DETAIL THIS SHEET.
2. DURING CONSTRUCTION, DUST POLLUTION SHALL BE KEPT TO A MINIMUM.
3. THE CONTRACTOR SHALL ENSURE THAT ALL TIRES OF CONSTRUCTION VEHICLES ARE SUFFICIENTLY CLEANED OFF SO THAT DIRT OR DEBRIS IS NOT TRACKED OFF THE CONSTRUCTION SITE. WASHING OFF TIRES WITH WATER WILL NOT BE ACCEPTABLE UNLESS THE RUNOFF IS CONTAINED AND DOES NOT ENTER THE STORM DRAIN SYSTEM.
4. THE CONTRACTOR SHALL REMOVE FILTERS DURING TIMES OF ABOVE NORMAL RAINFALL EVENTS AND REPLACE THEM WHEN EVENT HAS PASSED.
5. THE CONTRACTOR SHALL CHECK THE CONDITION OF THE FILTER AT THE BEGINNING AND ENDING OF EACH WORK DAY AND REPAIR/CLEAN AS NECESSARY.
6. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL PROVIDE EFFECTIVE MEASURES FOR THE CONTROL OF FUGITIVE DUST EMISSIONS FROM THE PROJECT AND SURROUNDING AREAS CAUSED BY THIS OPERATIONS. THESE MEASURES SHALL MEET THE REQUIREMENTS OF STATE ADMINISTRATIVE RULES, DEPARTMENT OF HEALTH, AIR POLLUTION CONTROL (11-60.1).
7. THE PROJECT SITE THAT IS CLEARED OF VEGETATION SHALL BE KEPT DAMP FOR SEVEN (7) DAYS A WEEK. AT THE END OF EACH DAY, THE SITE SHALL BE SUFFICIENTLY DAMPENED SO THAT THE SITE WILL REMAIN MOISTENED DURING THE NIGHT.
8. IF REQUIRED, THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO THAT EXCAVATION, EMBANKMENT, AND IMPORTED MATERIAL SHALL BE DAMPENED TO PREVENT DUST PROBLEMS.
9. THE CONTRACTOR SHALL MAINTAIN A SUITABLE SYSTEM AND DAMPEN THE GRUBBED SITE WITH WATER.
10. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE REMEDIAL ACTION SHALL BE PAYABLE BY THE CONTRACTOR.

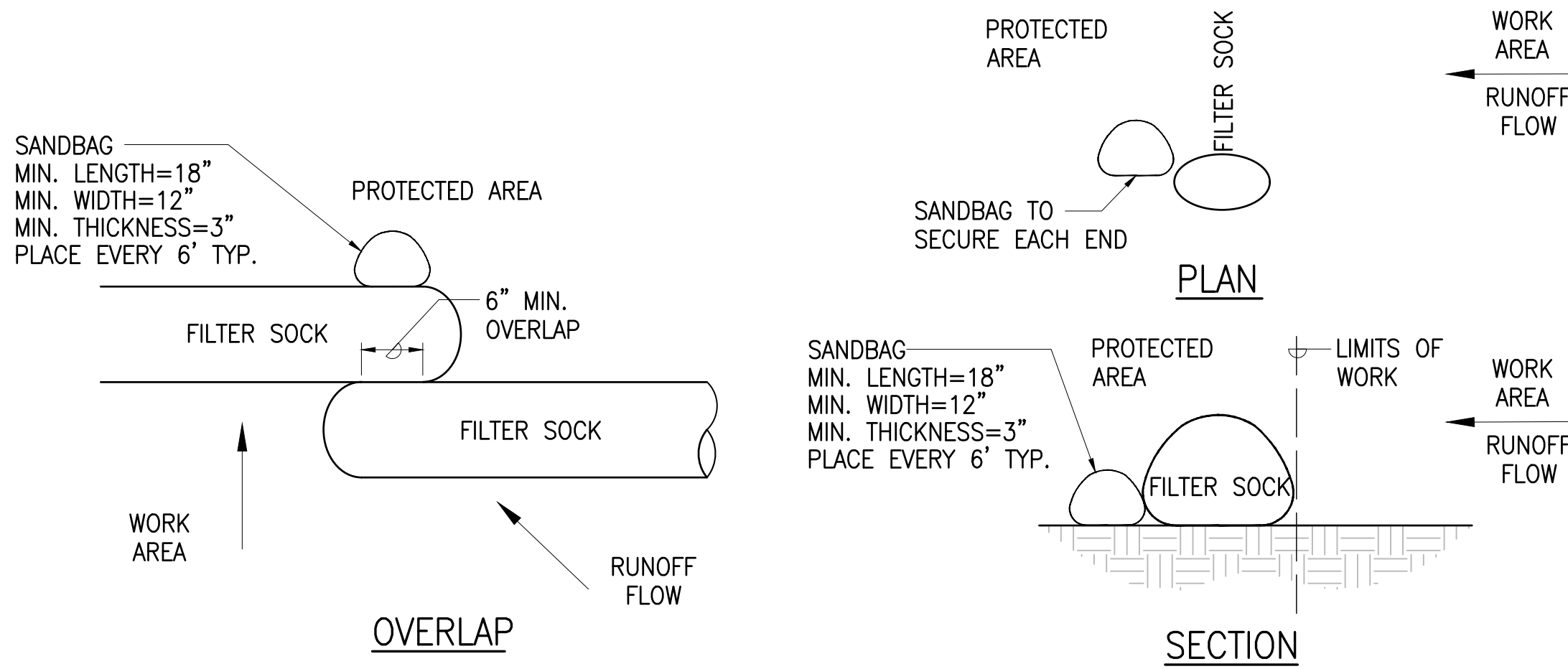
POST CONSTRUCTION:

1. THE CONSTRUCTION AREA AND SURROUNDING AREAS AND ADJOINING STREETS SHALL BE CLEARED OF ALL TRASH AND DEBRIS.
2. ALL MOBILIZED EQUIPMENT SHAIL BE REMOVED.
3. EXCESS EXCAVATED MATERIAL NOT UTILIZED FOR BACKFILL SHALL BE REMOVED. ALL EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE HAULED FROM THE JOBSITE.
4. HAULING OF WET, DRIPPING MATERIAL OVER PUBLIC STREETS WILL NOT BE PERMITTED.



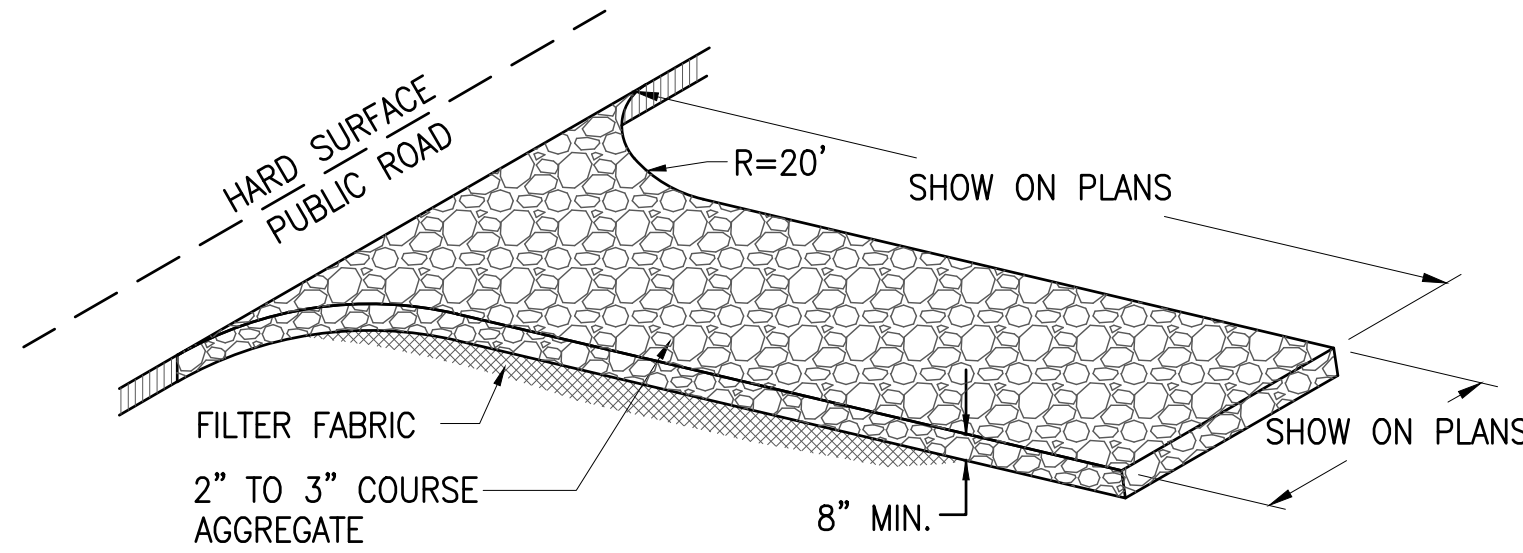
TEMPORARY SEDIMENT BARRIER AT CATCH BASIN

NOT TO SCALE



BIO SOCK

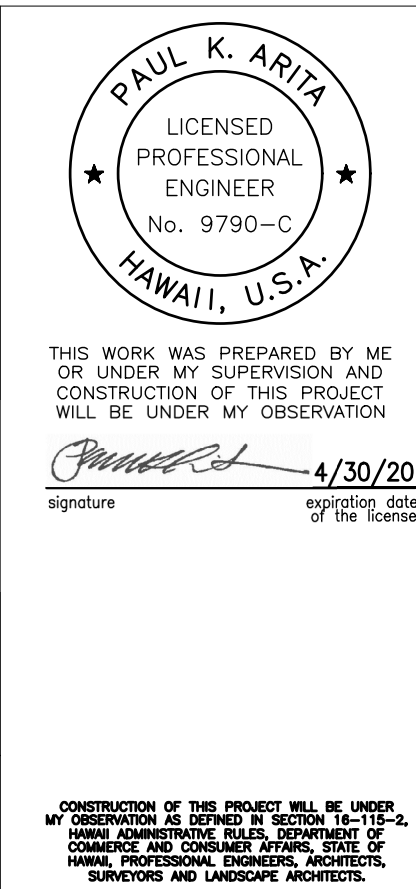
NOT TO SCALE



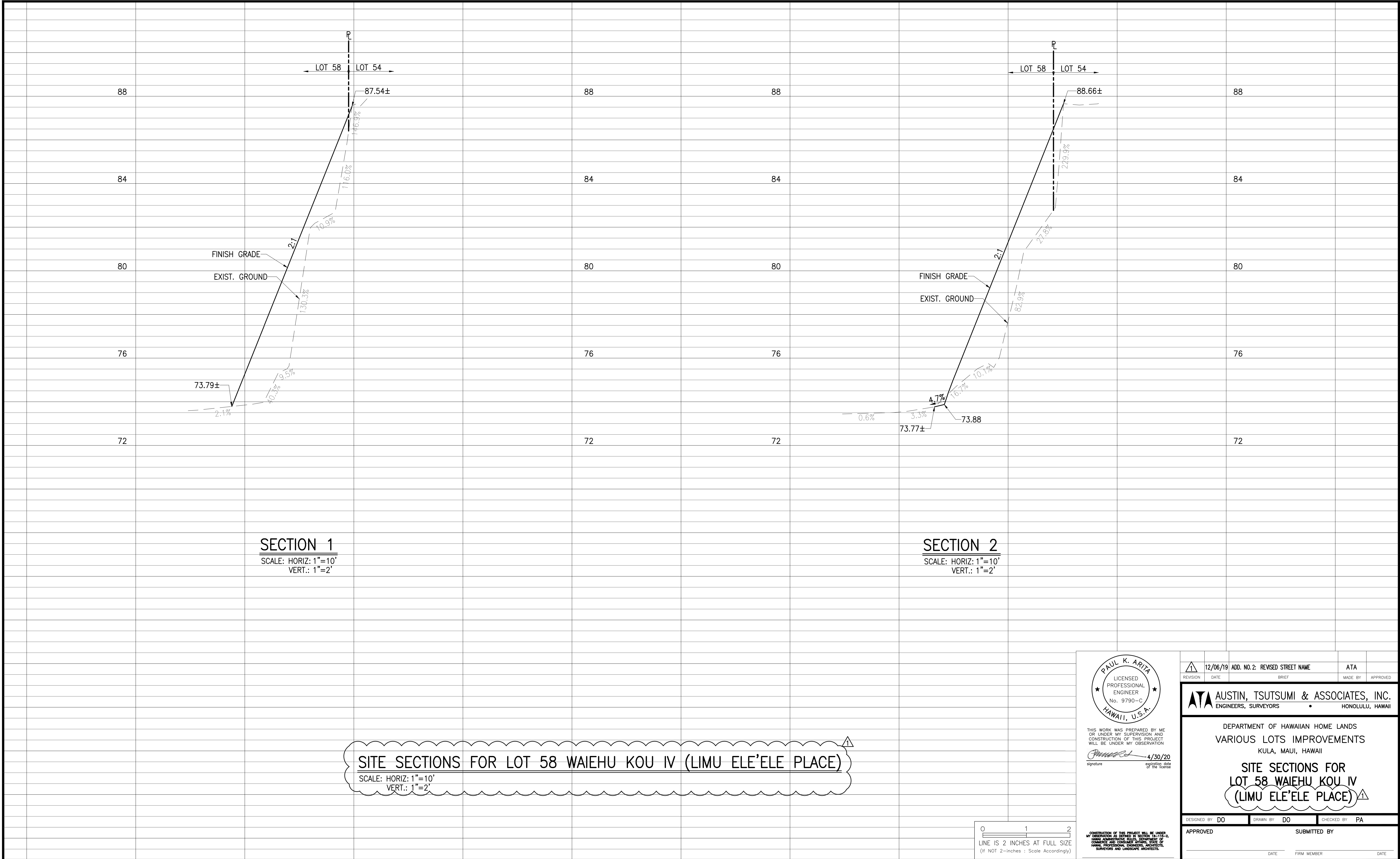
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

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



REVISION	DATE	BRIEF	MADE BY	APPROVED
AUSTIN, TSUTSUMI & ASSOCIATES, INC. ENGINEERS, SURVEYORS • HONOLULU, HAWAII				
DEPARTMENT OF HAWAIIAN HOME LANDS VARIOUS LOTS IMPROVEMENTS KULA, MAUI, HAWAII				
EROSION CONTROL NOTES AND DETAILS				
DESIGNED BY DO	DRAWN BY DO	CHECKED BY PA		
APPROVED		SUBMITTED BY		
DATE		FIRM MEMBER DATE		



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION
Paul K. Arima 4/30/20
signature expiration date of the license

CONSTRUCTION OF THIS PROJECT WILL BE UNDER
MY OBSERVATION AS REQUIRED BY SECTION 104-15-2,
HAWAII ADMINISTRATIVE RULES, DEPARTMENT OF
HAWAII, PROFESSIONAL ENGINEERS, ARCHITECTS,
SURVEYORS AND LANDSCAPE ARCHITECTS.

REVISION	DATE	ADD. NO. 2: REVISED STREET NAME	ATA	MADE BY	APPROVED
1	12/06/19				

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

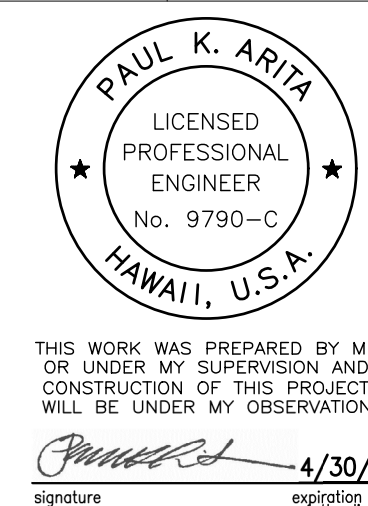
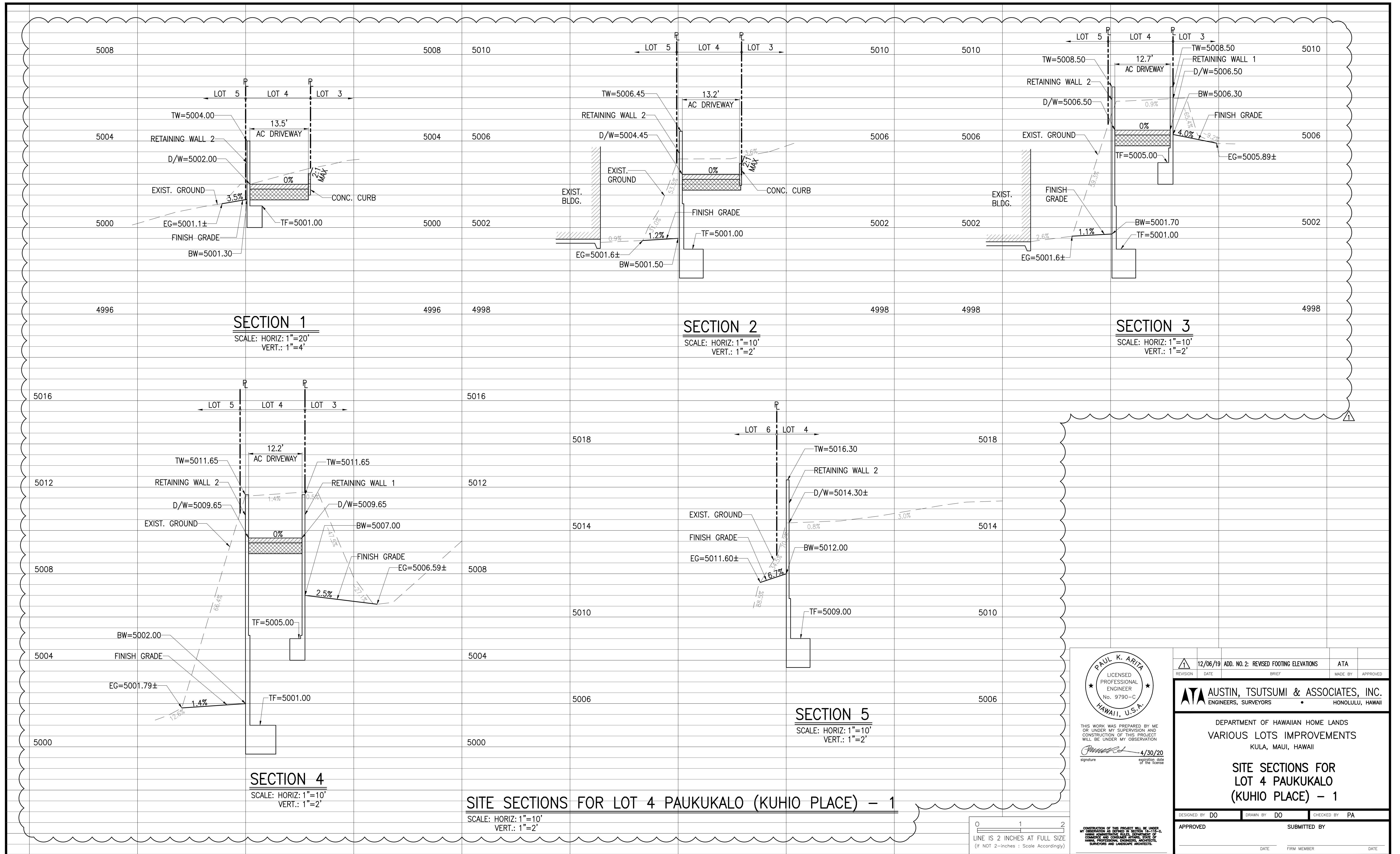
DEPARTMENT OF HAWAIIAN HOME LANDS
VARIOUS LOTS IMPROVEMENTS
KULA, MAUI, HAWAII

**SITE SECTIONS FOR
LOT 58 WAIEHU KOU IV
(LIMU ELE'ELE PLACE)**

DESIGNED BY DO DRAWN BY DO CHECKED BY PA

APPROVED SUBMITTED BY

DATE FIRM MEMBER DATE



REVISION	DATE	ADD. NO. 2: REVISED FOOTING ELEVATIONS	ATA
1	12/06/19		
BRIEF		MADE BY	APPROVED
ATA			
AUSTIN, TSUTSUMI & ASSOCIATES, INC. ENGINEERS, SURVEYORS HONOLULU, HAWAII			
DEPARTMENT OF HAWAIIAN HOME LANDS VARIOUS LOTS IMPROVEMENTS KULA, MAUI, HAWAII			
SITE SECTIONS FOR LOT 4 PAUKUKALO (KUHIO PLACE) - 1			
DESIGNED BY	DO	DRAWN BY	DO
CHECKED BY	PA		
APPROVED		SUBMITTED BY	
DATE		FIRM MEMBER	
		DATE	
FILE	POCKET	FOLDER	NO.

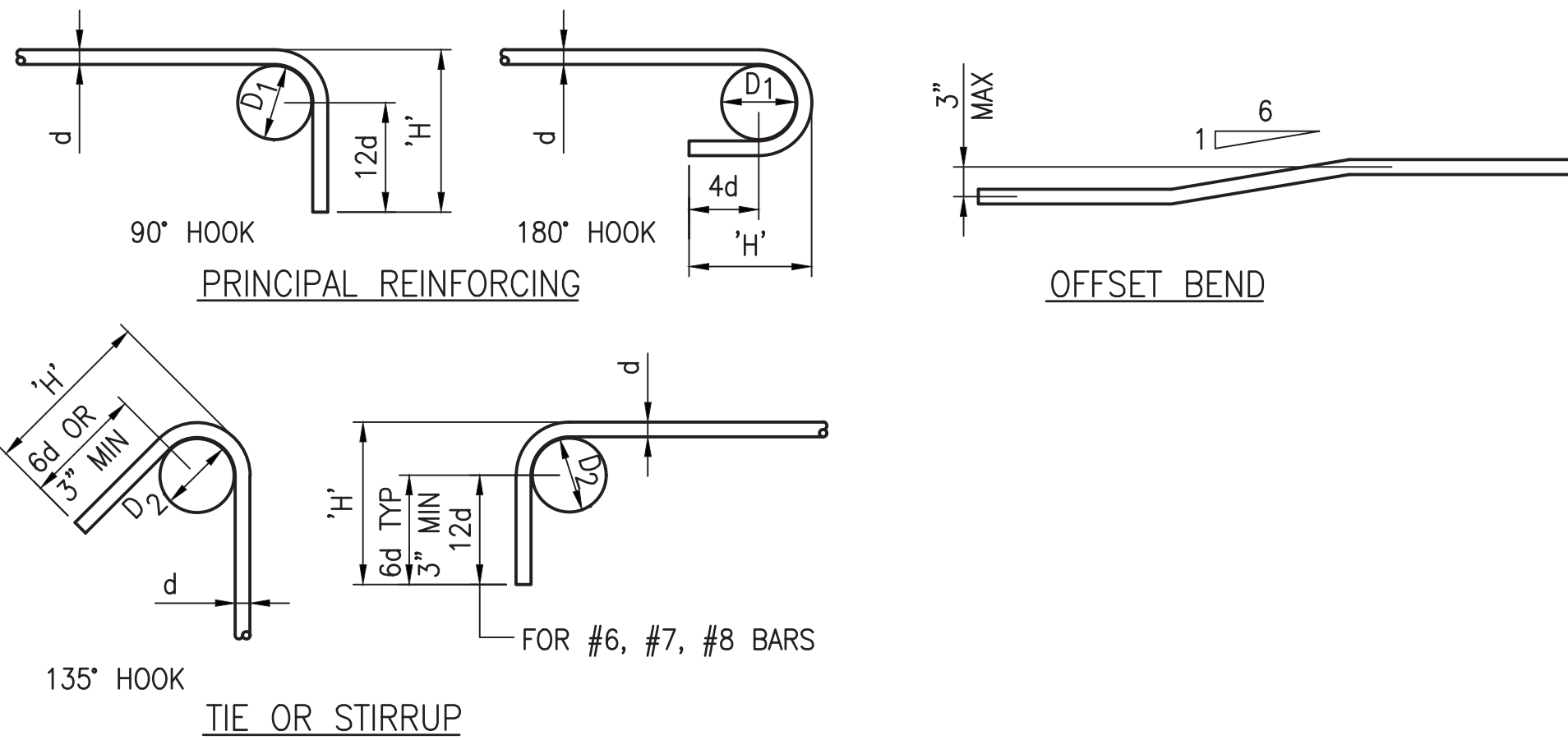
1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS.
2. THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, WIND AND SEISMIC LOADING. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS NOR RELIEVE THE CONTRACTOR OF HIS/HER OBLIGATIONS, DUTIES AND RESPONSIBILITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LAGGING, SHORING AND PROTECTION OF PROPERTY AND UTILITIES.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
5. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS.
7. SHOP DRAWINGS REQUIRED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION OR ORDERING OF MATERIALS.
8. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND UTILITY LINES AND NOTIFY THE RESPECTIVE OWNERS BEFORE COMMENCING WITH WORK. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION. IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS.
9. DESIGN CRITERIA –
 - A. CODES:
2012 INTERNATIONAL BUILDING CODE
 - B. WIND:
BASIC WIND SPEED = 115 MPH
EXPOSURE C
 - C. SEISMIC:
SEISMIC DESIGN CATEGORY = D
10. SPECIAL INSPECTION REQUIREMENTS FOR RETAINING WALL CONSTRUCTION.
 - A. FOOTING CONCRETE NOT REQUIRED
 - B. FOOTING REINFORCING STEEL NOT REQUIRED
 - C. MASONRY AND REINFORCING STEEL LEVEL 1
 - D. WALL CONCRETE REQUIRED
 - E. WALL REINFORCING STEEL REQUIRED

JOB NO. 17-518

HOOK LENGTHS (H) (IN INCHES)						
BAR SIZE	STANDARD HOOKS		STIRRUP OR TIE HOOK			
	90° HOOK	180° HOOK	90° HOOK	135° HOOK	D 2	D 1
#3	6	4	3-1/2	4	1-1/2	2-1/4
#4	8	4-1/2	4-1/2	4-1/2	2	3
#5	10	5	5-1/2	5-1/2	2-1/2	3-3/4
#6	12	6	12	7-1/2	4-1/2	4-1/2
#7	14	7	14	9	-	5-1/2

NOTES:

1. ALL BENDS SHALL BE MADE COLD.

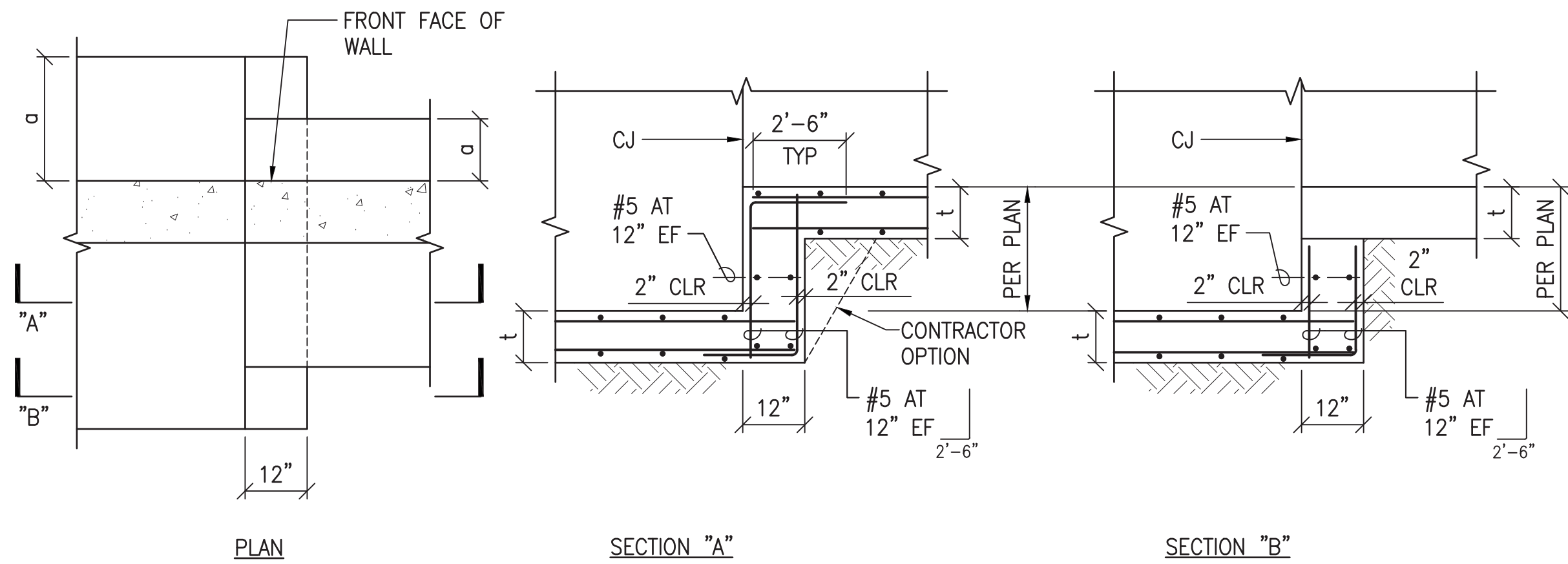


1 BARS BENDS AND HOOKS
NOT TO SCALE

SLAB & WALL SPLICE LENGTHS (INCHES) GRADE 60				
f'c	3000 PSI		4000 PSI	
BAR SIZE	OTHER BAR	TOP BAR	OTHER BAR	TOP BAR
#3	13	17	12	16
#4	21	28	18	24
#5	31	41	27	35
#6	43	56	37	48
#7	69	90	60	78

NOTES:

1. TOP BARS ARE HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW THE SPLICE.
2. SPLICES BASED ON 3/4" MINIMUM COVER.



2 TYPICAL SLAB AND WALL BAR SPLICE TABLE
NOT TO SCALE

3 TYPICAL RETAINING WALL FOOTING STEP
NOT TO SCALE

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

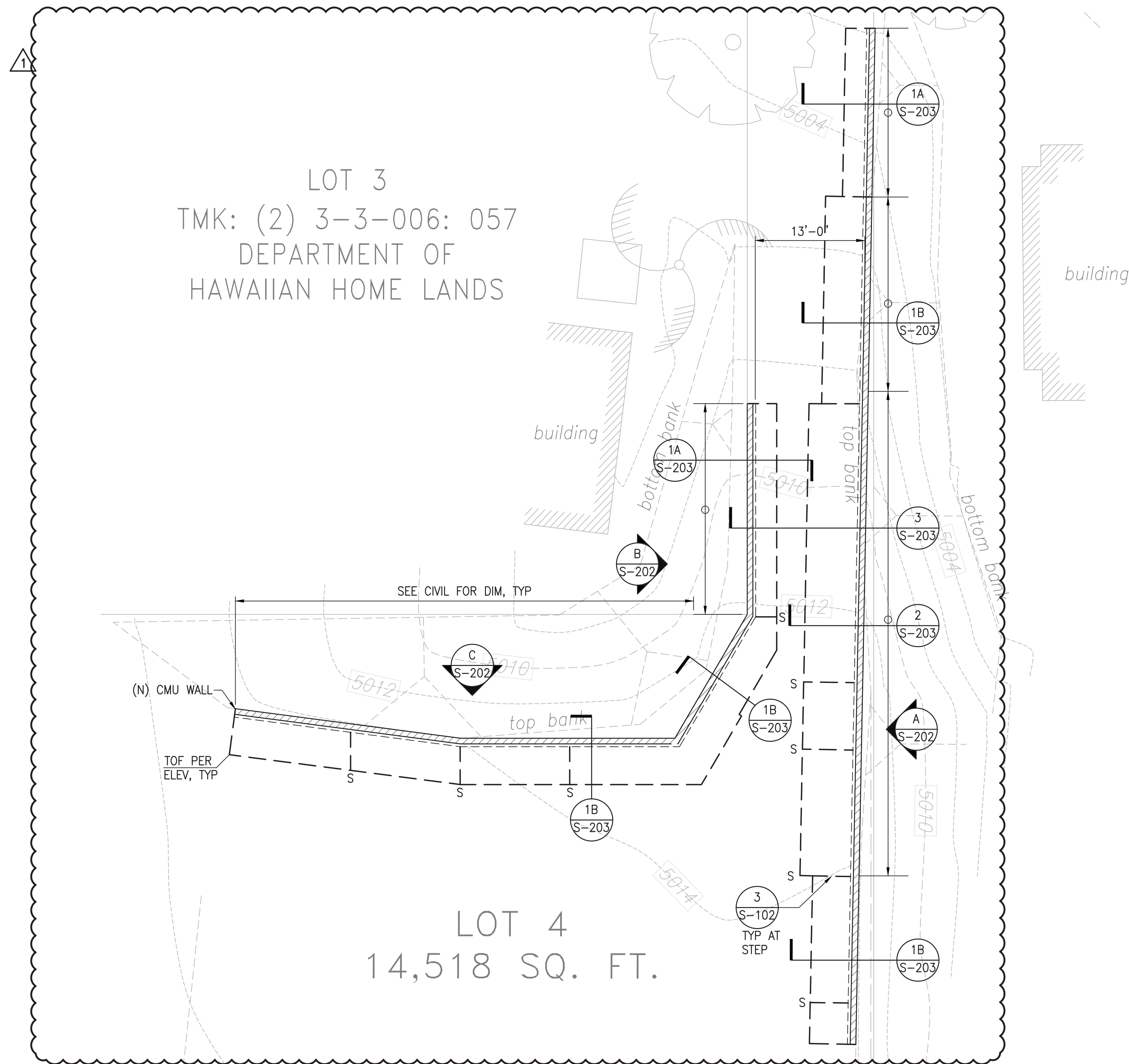
GEORGE O. GUTIERREZ JR.
LICENSED PROFESSIONAL ENGINEER
NO. 5479-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

signature: [Signature] 4/30/20 expiration date of the license

CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 1A-113-2, HAWAII CONSTRUCTION RULES, JOURNALS OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII. PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

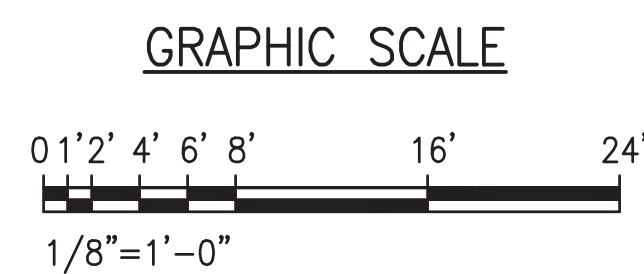
REVISION	DATE	BRIEF	MADE BY	APPROVED
DEPARTMENT OF HAWAIIAN HOME LANDS VARIOUS LOTS IMPROVEMENTS KULA, MAUI, HAWAII				
TYPICAL DETAILS				
DESIGNED BY	DN	DRAWN BY	SE	CHECKED BY
APPROVED		SUBMITTED BY		
DATE		FIRM MEMBER		DATE



NOTES:

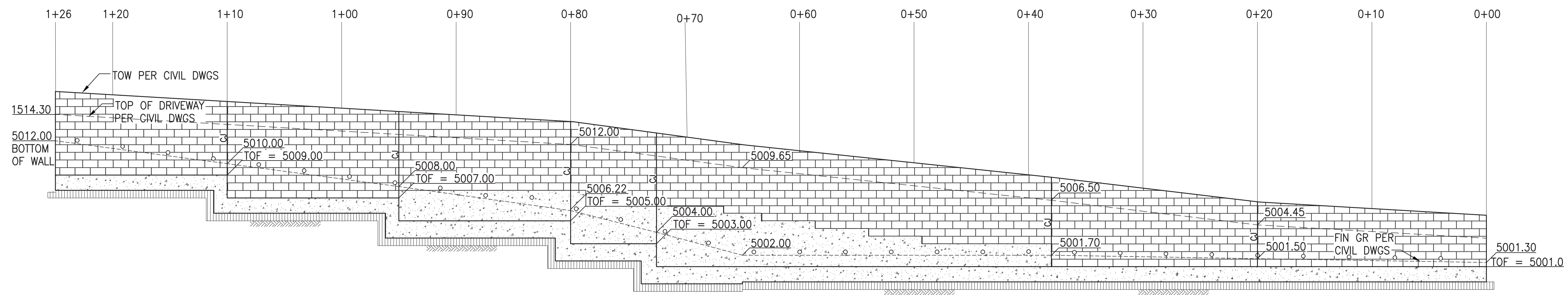
1. REFER TO GENERAL NOTES ON SHEET S-101 FOR ADDITIONAL INFORMATION.
2. REFER TO CIVIL DWGS FOR ALL GRADING INFORMATION AND DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
3. FOR RETAINING WALL PROFILE, SEE SHEET S-202.
4. = INDICATES 8" CMU WALL AND 12" CMU WALL

1 RETAINING WALL FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

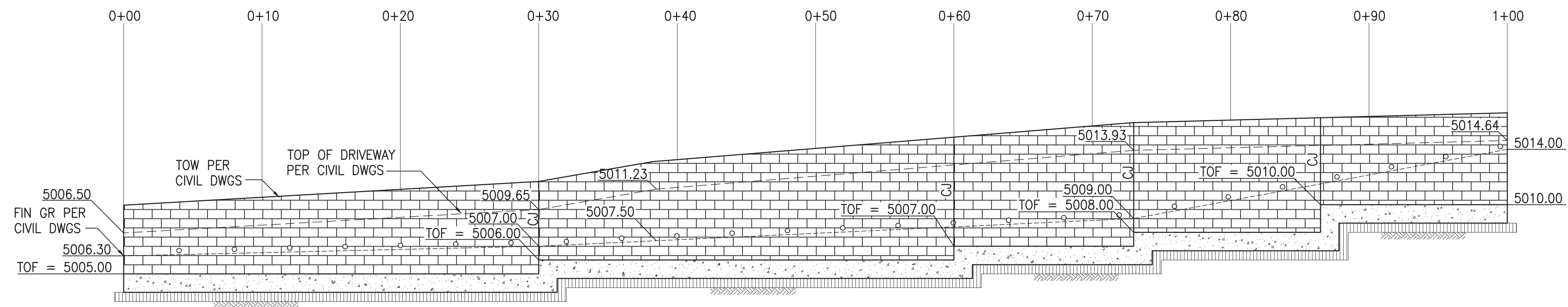


0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)

 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. signature 4/30/20 expiration date of the license	REVISION	DATE	BRIEF	MADE BY	APPROVED
	1	12/06/19	RETAINING WALL STEPS ADDED	SE	
DEPARTMENT OF HAWAIIAN HOME LANDS VARIOUS LOTS IMPROVEMENTS KULA, MAUI, HAWAII					
PAUKUKALO (KUHILO PL) RETAINING WALL FOUNDATION PLAN					
DESIGNED BY DN		DRAWN BY SE		CHECKED BY GG	
APPROVED		SUBMITTED BY			
DATE		FIRM MEMBER		DATE	



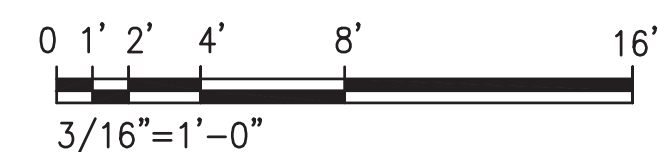
A **NORTHEAST WALL ELEVATION**
SCALE: 3/16" = 1'-0"



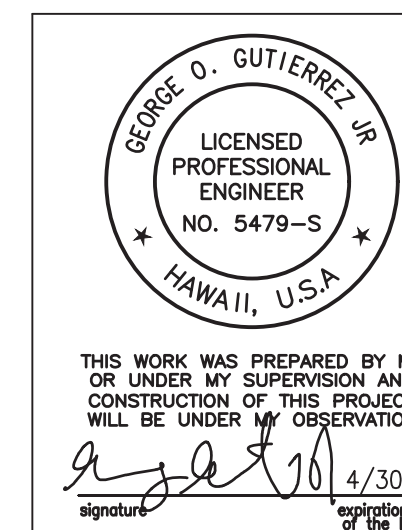
B **SOUTHWEST WALL ELEVATION**
SCALE: 3/16" = 1'-0"

C **NORTHWEST WALL ELEVATION**
SCALE: 3/16" = 1'-0"

GRAPHIC SCALE

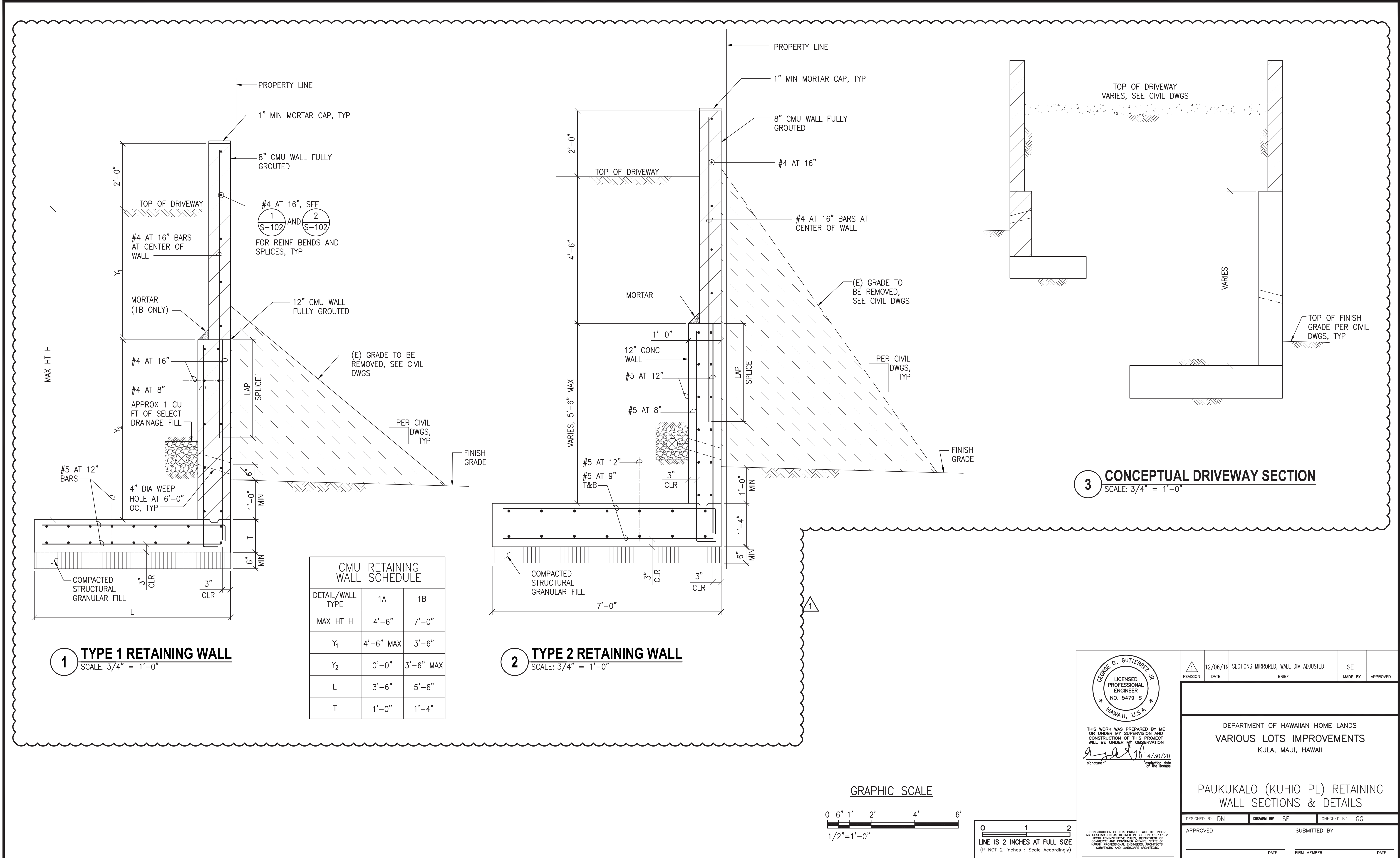


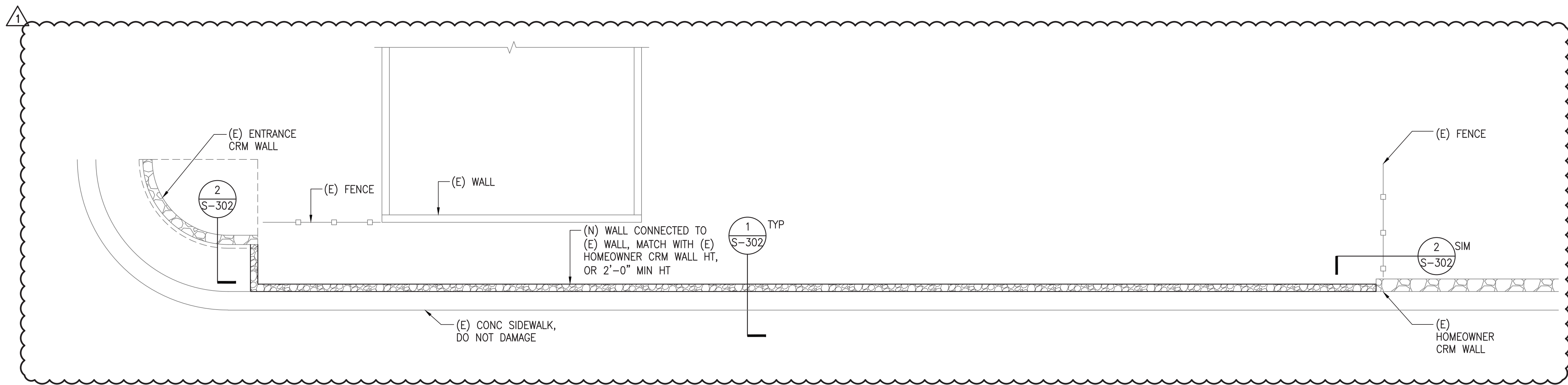
0 1 2
LINE IS 2 INCHES AT FULL SIZE
(If NOT 2-inches : Scale Accordingly)




CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 1A-115-2, HAWAIIAN CONSTRUCTION STANDARDS, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII. PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

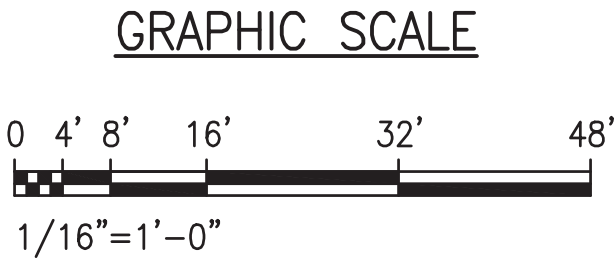
REVISION	DATE	STATIONS ADDED AND MATERIALS ADJUSTED	SE	MADE BY	APPROVED
1	12/06/19				
DEPARTMENT OF HAWAIIAN HOME LANDS VARIOUS LOTS IMPROVEMENTS KULA, MAUI, HAWAII					
PAUKUKALO (KUHI PL) RETAINING WALL ELEVATIONS					
DESIGNED BY: DN	DRAWN BY: SE	CHECKED BY: GG			
APPROVED	SUBMITTED BY				
DATE	FIRM MEMBER	DATE			





1 CRM WALL FOUNDATION PLAN
SCALE: 1/16" = 1'-0"

- NOTES:**
- REFER TO GENERAL NOTES ON SHEET S-101 FOR ADDITIONAL INFORMATION.
 - REFER TO CIVIL DWGS FOR ALL GRADING INFORMATION AND DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
 -  = INDICATES CRM WALL



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

GEORGE O. GUTIERREZ JR.
LICENSED PROFESSIONAL ENGINEER
NO. 5479-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

Signature 4/30/20
signature date of the license

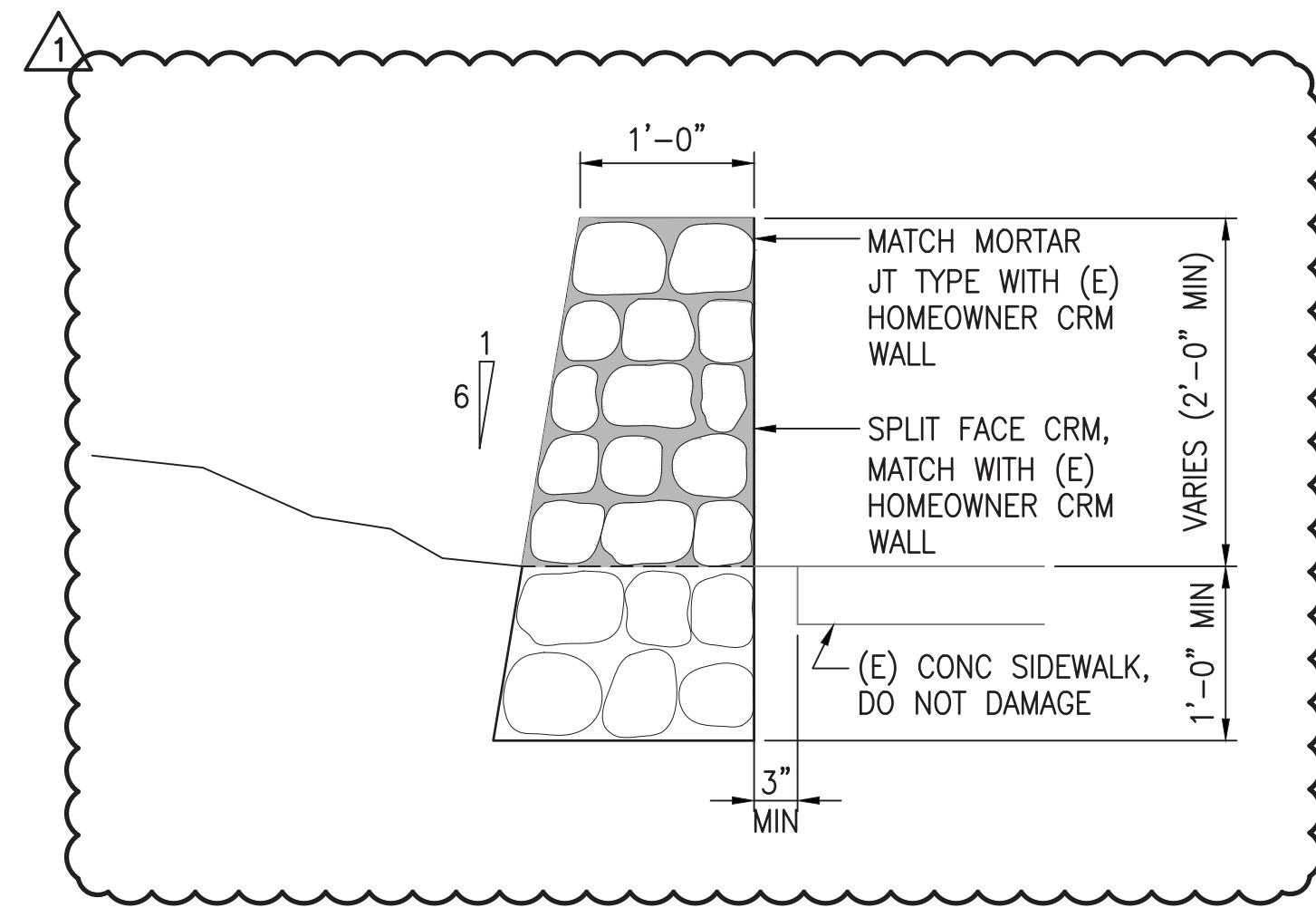
CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY SUPERVISION AS DEFINED IN SECTION 10-115-2, HAWAII CONSTRUCTION CODE, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII. PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

REVISION	DATE	BRIEF	MADE BY	APPROVED
1	12/06/19	WALL ALIGNMENT ADJUSTED	SE	

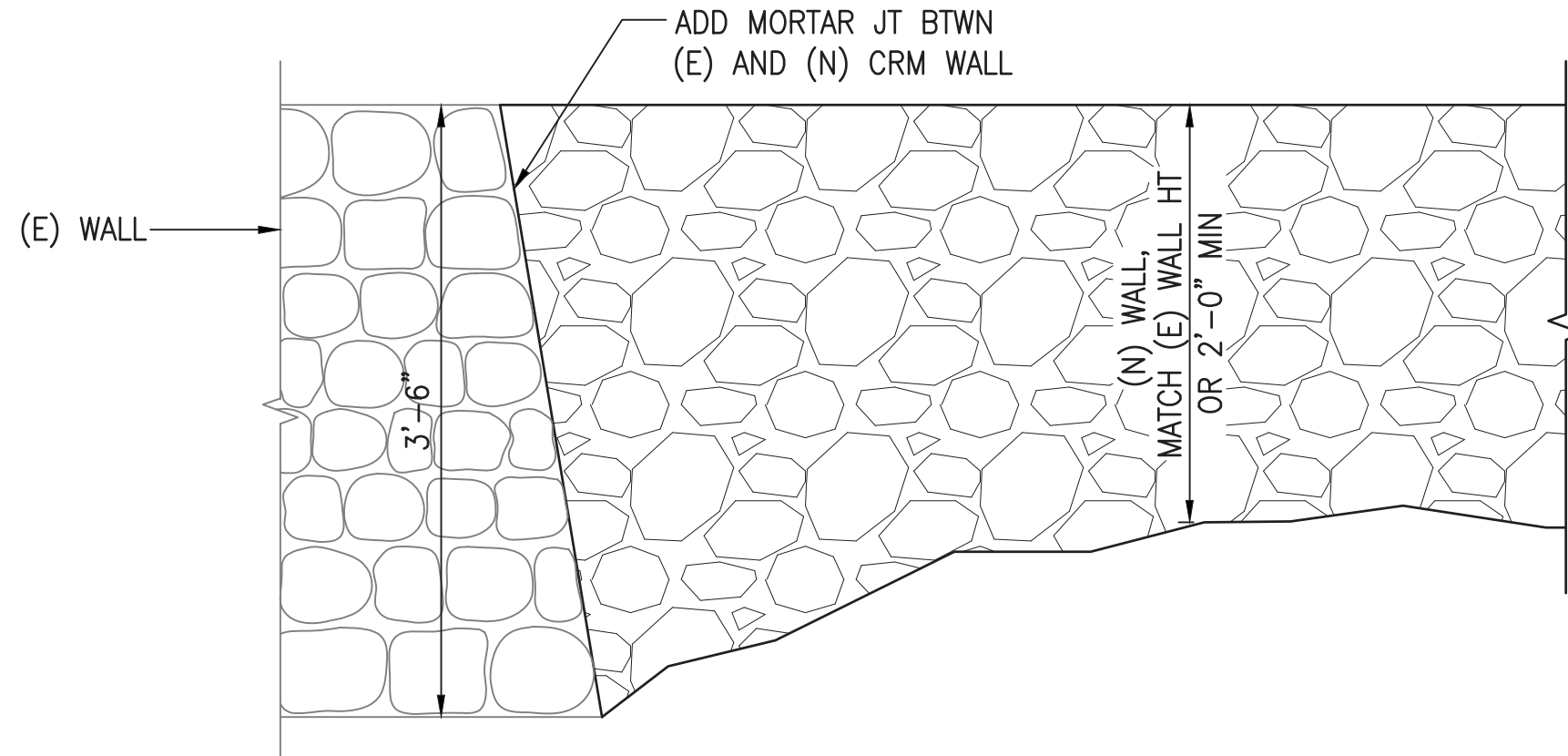
DEPARTMENT OF HAWAIIAN HOME LANDS
VARIOUS LOTS IMPROVEMENTS
KULA, MAUI, HAWAII

WAIEHU KOU CRM WALL
FOUNDATION PLAN

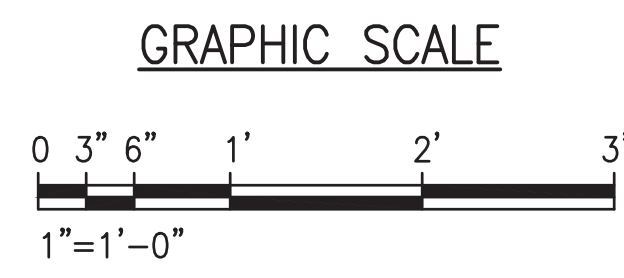
DESIGNED BY	DN	DRAWN BY	SE	CHECKED BY	GG
APPROVED		SUBMITTED BY			
	DATE	FIRM MEMBER		DATE	



1 TYP CRM WALL SECTION
SCALE: 1" = 1'-0"



2 CONNECTION DETAIL
SCALE: 1" = 1'-0"



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

GEORGE O. GUTIERREZ JR.
LICENSED PROFESSIONAL ENGINEER
NO. 5479-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION

Signature 4/30/20
signature expiration date of the license

CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION AS DEFINED IN SECTION 1A-115-2, HAWAII CONSTRUCTION STANDARDS, DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, STATE OF HAWAII. PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS.

REVISION	DATE	BRIEF	MADE BY	APPROVED
1	12/06/19	CRM WALL DIMENSIONS ADJUSTED	SE	

DESIGNED BY DN				DRAWN BY SE		CHECKED BY GG	
APPROVED				SUBMITTED BY			
DATE				FIRM MEMBER		DATE	

DEPARTMENT OF HAWAIIAN HOME LANDS
VARIOUS LOTS IMPROVEMENTS
KULA, MAUI, HAWAII

WAIIEHU KOU RETAINING WALL
SECTIONS & DETAILS

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(I) Amend **201.05 – Payment** from line 177 to 179 to read as follows:

END OF SECTION 201

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(I) Amend 203.01 – Description from line 8 to 9 to read as follows:

(II) Amend **203.02 – Materials** line 41 to read as follows:

(E) Lot Embankment Material: Suitable and accepted embankment material. Embankment material shall conform to size and quality indicated in the contract documents. When the contract documents do not indicate size or quality, embankment material shall be of quality suitable for intended purpose. Embankment material shall be free of roots and other organic matter, garbage, trash, junk, and other deleterious material.”

(III) Amend **203.03 – Construction** from line 42 to line 45 to read as follows:

When excavation is made below required grade, backfill and compact areas below required grade with suitable excavated material. When needed, place and compact backfill material in uniform horizontal layers not exceeding 8 inches in loose thickness before compaction. Compact each layer of backfill until a relative compaction of 90 percent or more is achieved, when tested in accordance with Subsection 203.03(C)(2) – Relative Compaction Test.

Remove debris and unwanted material from grading limit.”

(IV) Amend **203.03(C)(2)(a) – Maximum Dry Unit Weight** from line 245 to line 255 to read as follows:

“(a) Maximum Dry Unit Weight. Test for maximum dry unit weight according to AASHTO T 180, and apply the correction for fraction larger than 3/4 inch. Use Hawaii Test Method HDOT TM 5 for sample preparation of sensitive soils when so designated by the Engineer.”

(V) Amend **203.04 – Measurement** line 367 to read as follows:

“(D) Lot excavation and lot embankment per cubic yard.”

(V) Amend **203.05 – Payment** from line 376 to 377 to read as follows:

“Pay Item	Pay Unit
Lot Excavation; In Place Complete	Cubic Yard
Lot Embankment; In place Complete	Cubic Yard”

(VI) Amend **203.05 – Payment** from line 442 to 446 to read as follows:

“The Engineer will not pay for stockpiling selected material, placing selected material in final position, or placing selected material in windrows along tops of roadway or lot slopes for erosion control work, separately and will consider the cost as included in the unit prices for the various excavation contract pay items. The cost is for work prescribed in this section and the contract documents.”

(VII) Amend **203.05 – Payment** by deleting the last paragraph, from line 455 to 457, in its entirety.

END OF SECTION 203

SECTION 209 – TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL

Make the following amendment to said Section:

(I) Amend **209.03(A)(2)(e)**, by revising the second paragraph from line 158 to 163 to read as follows:

“Effective October 1, 2008, follow guidelines in the “Construction Best Management Practices Field Manual” dated January 2008, in developing, installing, and maintaining BMPs for all projects. Follow Honolulu’s City and County “Rules for Soil Erosion Standards and Guidelines” for all projects on Oahu. Use respective Soil Erosion Guidelines for Maui, Kauai and Hawaii projects.”

(II) Amend **209.04 – Measurement** by revising the paragraphs from line 334 to 340 to read as follows:

“(A) Installation, maintenance, monitoring, and removal of the dust screen and dust screen with silt fence will be paid for per linear foot. The Engineer will measure the installation, maintenance, monitoring, and removal of the dust screen and dust screen with silt fence per linear foot in accordance with contract documents.

(B) Installation, maintenance, monitoring, and removal of the temporary sediment barrier will be paid for per linear foot. The Engineer will measure the installation, maintenance, monitoring, and removal of the temporary sediment barrier per linear foot in accordance with contract documents.

(C) Installation, maintenance, monitoring, and removal of the sediment filter sock will be paid for per linear foot. The Engineer will measure the installation, maintenance, monitoring, and removal of the sediment filter sock per linear foot in accordance with contract documents.

(D) Installation, maintenance, monitoring, and removal of the 8-inch thick ingress/egress gravel access will be paid for per square yard. The Engineer will measure the installation, maintenance, monitoring, and removal of the 8-inch thick ingress/egress gravel access per square yard in accordance with the contract documents.”

(III) Amend 209.05 – Payment by revising the paragraphs from line 349 to 361 to read as follows:

46	“	Pay Item	Pay Unit
47			
48	Installation, Maintenance, Monitoring, and Removal	Linear Foot	
49	of Silt Fence and Dust Screen with Silt Fence;		
50	In Place Complete		
51			
52	Installation, Maintenance, Monitoring, and Removal	Linear Foot	
53	of Dust Screen; In Place Complete		
54			
55	Installation, Maintenance, Monitoring, and Removal	Linear Foot	
56	Of Temporary Sediment Barrier; In Place Complete		
57			
58	Installation, Maintenance, Monitoring, and Removal	Linear Foot	
59	Of Sediment Filter Sock; In Place Complete		
60			
61	Installation, Maintenance, Monitoring, and Removal	Square Yard	
62	of 8-inch Thick Ingress/Egress Gravel Access; In Place		
63	Complete”		
64			
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66	END OF SECTION 209		
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(I) Amend 304.04 – Measurement from line 54 to 55 to read as follows:

(II) Amend 304.05 – Payment from line 57 to 66 to read as follows:

The Engineer will pay for the following pay item when included in the proposal schedule:

“Pay Item	Pay Unit
6 Inch Asphalt Concrete Base; In Place Complete”	Square Yard

END OF SECTION 304

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(I) Amend 305.04 – Measurement from line 54 to 55 to read as follows:

(II) Amend 305.05 – Payment from line 57 to 66 to read as follows:

The Engineer will pay for the following pay item when included in the proposal schedule:

“Pay Item	Pay Unit
18 Inch Select Borrow; In Place Complete”	Square Yard

END OF SECTION 305

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(I) Amend 401.05 – Payment from line 612 to 619 to read as follows:

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(I) Amend 503.04 – Measurement from line 1201 to 1202 to read as follows:

(II) Amend 503.05 – Payment from line 1206 to 1208 to read as follows:

(III) Amend 503.05 – Payment from line 1216 to 1223 to read as follows:

Concrete Footings and Walls	Lump Sum
-----------------------------	----------

The Engineer will not pay for reinforcing steel separately and will consider the cost for reinforcing steel as included in the contract prices for the various contract pay items.”

END OF SECTION 503

SECTION 509 – Masonry Structures

Make the following a part of the Standard Specifications:

“509.01 Description. This section describes construction of masonry structures.

509.02 Materials

Masonry Units

704.02

509.03 Submittals

(A.) **Product Data:** Submit manufacturer’s product data for each type of masonry unit accessory, and other manufactured products, including certifications that each type complies with specified requirements.

(B.) **Reinforcing Steel Certificates:** Certified copies of mill reports attesting that the reinforcing steel furnished contains no less than 25 percent recycled scrap steel and meets the requirements specified herein, prior to the installation of reinforcing steel.

509.04 Protection of New Work

(A.) **Covers:** Cover tops of construction with heavy waterproof sheeting. Cover tops of partially completed structures when work is not in progress. Extend covers a minimum of 24" down each side and secure in place.

(B.) **Staining:** prevent grout, mortar, soil, and other staining materials from the faces of units to be left exposed or painted. Remove all stains immediately from such surfaces.

509.05 Construction Tolerances

(A.) **Variation from Plumb:** For vertical lines and surfaces of walls and arrises do not exceed 1/8" in 5'-0". For vertical alignment of shear joints do not exceed plus or minus 1/8" in 5'.

(B.) **Variation from Level:** Bed joints and lines shall not exceed 1/8" in 20' maximum, nor 1/2" in 40' or more.

Various Lot Improvements For Waiehu Kou And Paukukalo

509-1

12/09/19

Addendum 2

(C.) **Variation in Cross Sectional Dimensions:** For thickness of walls, from dimensions shown, do not exceed minus 1/2" nor plus 1/2".

(D.) **Variation in Mortar Joint Thickness:** Do not exceed bed joint thickness indicated by more than plus or minus 1/8", with a maximum thickness limited to 1/2". Do not exceed head joint thickness indicated by more than plus or minus 1/8".

509.06 General Installation

(A.) **Construction:** Comply with specified construction tolerances, with courses accurately spaced and coordinated with either work. Maintain core (cell) continuity to ensure proper clearances for reinforcement.

(B.) **Pattern Bond:** Lay in "running bond". Pattern, unless otherwise indicated. Bond and interlock each course of each wythe at corners.

(C.) **Wetting Limitation:** Do not wet units. Keep units dry. Protect from rain and other sources of moisture.

(D.) **Temporary Support Work:** Provide temporary support work, including forms and shores and bracing, as necessary to support masonry elements requiring support. Do not remove temporary supports until the masonry work can support its own weight and other reasonable temporary loads which may be placed on it during the Contract Period.

(E.) **Stopping and Resuming Work:** Rack back 1/2-unit length in each course; do not tooth. Clean exposed surfaces of set masonry, wet units lightly (if required) and remove loose masonry units and mortar prior to laying fresh masonry.

(F.) **Full mortar Bedding:** Provide full mortar bedding to all horizontal and vertical (end flange) face shells and to all webs for following types of installation. Lay walls with 3/8" joints, unless otherwise indicated with joints slightly concave using a jointer.

91 **509.07 Reinforcement Bars**

- 92
- 93 (A.) **Proximity Between Vertical Bars:** Where vertical bars are
- 94 in close proximity, provide a clear distance between bars of
- 95 not less than nominal bar diameter or 1" (whichever is
- 96 greater); provide a clear distance between vertical bars
- 97 indicated, but not less than 1-1/2 times the nominal bar
- 98 diameter or 1-1/2", whichever is greater.
- 99
- 100 (B.) **Splicing:** Splice reinforcement bars where shown; do not
- 101 splice at other points unless acceptable to the Engineer.
- 102 Provide lapped splices of laps not less than indicated or
- 103 required by governing code. In splicing vertical bars or
- 104 attaching to dowels, lap ends, place in contact and wire tie.
- 105
- 106 (C.) **Placement:** Place Vertical reinforcement before grouting;
- 107 before or after laying masonry units, as required by job
- 108 conditions. Place horizontal reinforcement as the masonry
- 109 units are laid. Tie vertical reinforcement to dowels at base of
- 110 masonry where shown and thread CMU over or around
- 111 reinforcement. Support vertical reinforcement at lesser of
- 112 intervals not exceeding 192 bar diameters but not more than
- 113 10'.
- 114

115 **509.08 Grouting**

- 116
- 117 (A.) **Grouting Technique:**
- 118
- 119 (1) **Low-Lift Grouting:**
- 120
- 121 (a) **Pump Size:** Not less than 2" in any dimension and
- 122 with a minimum clear area of 8 sq. in.
- 123
- 124 (b) **Reinforcement Installation:** Place vertical
- 125 reinforcements prior to laying of CMU. Extend
- 126 above elevation of maximum pour height as
- 127 required for splicing. Support in position at vertical
- 128 intervals not exceeding 192 bar diameters but not
- 129 more than 10 ft.
- 130
- 131 (c) **Pour Height:** Do not exceed 5'-4" height, or if bond
- 132 beam occurs below 5'-4" height stop pour at course
- 133 below bond beam.
- 134

(d) **Grouting:** Pour grout using chute or container with spout. Rod or vibrate grout during placing. Place grout continuously; do not interrupt pouring of grout for more than one hour. Terminate grout pours 1-1/2" below top course of pour.

(2) **Preparation of Grout Spaces:**

(a) **Cleaning:** Prior to grouting, inspect and clean grout spaces. Remove dust, dirt, mortar droppings, loose pieces of masonry and other foreign materials from grout spaces. Clean reinforcement and adjust to proper position. Clean top surface of structural members supporting masonry to ensure bond. After final cleaning and inspection, close cleanout holes and brace closures to resist grout pressures.

(b) **Masonry Strength:** Do not place grout until entire height of masonry to be grouted has attained sufficient strength to resist displacement of masonry units and breaking of mortar bond. Install shores and bracing, if required, before starting grouting operations.

(3) **Grouting:** Place grout by pumping into grout spaces unless alternate methods are acceptable to the Engineer. Limit grout pours to sections which can be completed in one working day with not more than one hour interruption of pouring operation. Place grout in lifts which do not exceed 5'-0". Allow not less than 30 minutes, nor more than one hour between lifts of a given pour. Rod or vibrate each grout lift during pouring operation.

(4) **Pours per Section:** When more than one pour is required to complete a given section of masonry, extend reinforcement beyond masonry as required for splicing. Pour grout to within 1-1/2" of top course of first pour. After grouted masonry is cured, lay masonry units and place reinforcement for second pour section before grouting. Repeat sequence if more pours is required.

509.09 Repair, Pointing, and Cleaning

- (A.) **Defective Work:** Remove and replace masonry units which are loose, chipped, broken, stained or otherwise damaged, or if units do not match adjoining units as intended. Provide new units to match adjoining units and install in fresh mortar or grout, pointed to eliminate evidence of replacement.
- (B.) **Pointing:** During the tooling of joints, enlarge any voids or holes, and completely fill with mortar. Point-up all joints including corners, openings and adjacent work to provide a neat, uniform appearance, prepared for application of sealants.
- (C.) **Cleaning:** Clean exposed CMU masonry by appropriate methods and as soon as required to prevent permanent staining to masonry units. Dry brush at end of each day's work and final clean after final pointing. Comply with requirements of NCMA TEK 8-2A. Do not use acid cleaners that can damage masonry units. Do not use acid cleaners without approval from Engineer and after review of a test panel on masonry unit at a location to be selected by Engineer. Remove all products of cleaning processes that are deleterious to work or any finishes which are to be applied.

509.10 Special Inspection

All special inspections shall be done in accordance with International Building Code (IBC) 2012 Special Inspection provisions Section 1704. Special inspection shall be performed by the Owner. The contractor shall hire and pay for testing services.

All grout testing shall be tested by an independent testing laboratory approved by the Engineer and paid for by the Contractor. Contractor shall notify Engineer, Special Inspector and testing agency at least 72 hours in advance for work to be performed.

Masonry Special Inspection requirements (Level 1) shall be per IBC 2012 and summarized as follows:

- (1) Periodic special inspection for all reinforcing placement. Special inspector shall verify that reinforcing size and spacing conform to structural details and pre-reviewed shop drawings.
- (2) Continuous special inspection for grout placement.

Various Lot Improvements For Waiehu Kou And Paukukalo

Special Inspector personnel shall be in addition to the Contractor's quality control inspections and inspectors as required by the Contractor Quality Control Program. Special inspection shall be as follows:

- (1) **Continuous Special Inspection:** Continuous special inspection is the full time observation of the work by the Special Inspector present in the work area whenever work is being performed. Perform continuous special inspection where specified for items as shown on the drawings.
- (2) **Periodic Special Inspection:** Periodic special inspection is the intermittent observation of the work by a Special Inspector present in the work area while work is being performed. The intermittent observation periods shall be: at times of significant work; recurrent over the complete work period; and total at least 25 percent of the total work time. Perform periodic special inspection where specified for items as shown on the drawings.

509.12 Measurement. Masonry units will be paid on a lump sum basis. Measurement for payment will not apply.

509.13 Payment. The Engineer will pay for accepted concrete masonry on a contract lump sum basis. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Concrete Masonry Wall	Lump Sum

The Engineer will not pay for the accepted reinforcing steel separately. The Engineer shall consider the cost for the accepted reinforcing steel as included in the contract price of the various contract items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION 509

1 **SECTION 638 – PORTLAND CEMENT CONCRETE CURB AND GUTTER**

2
3 Make the following amendment to said Section:

4
5 **(I) Amend 638.04 – Measurement** from line 130 to 131 to read as follows:

6
7 **“638.04 Measurement.** Curb will be paid per linear foot. The Engineer will
8 measure curb per linear foot in accordance with contract documents”

9
10
11 **(II) Amend 638.05 – Payment** from line 133 to 148 to read as follows:

12
13 **“638.05 Payment.** The Engineer will pay for the accepted curb on a
14 contract on a linear foot basis. Payment will be full compensation for work
15 prescribed in this section and contract documents.

16
17 The Engineer will pay for the following pay item when included in the
18 proposal schedule:

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“Pay Item	Pay Unit
21 Cast-In-Place Concrete Curb, Type 2	22 Linear Foot”

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25 **END OF SECTION 638**

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(I) Amend **641.04 – Measurement** by revising the paragraph from line 173 to 174 to read as follows:

(II) Amend **641.05 – Payment** by revising the paragraphs from line 176 to 199 to read as follows:

Engineer will pay for the following pay item when included in the proposal schedule:

Pay Item	Pay Unit
Hydro-mulch Seeding, Including 90 Day Maintenance; In Place Complete"	Square Yard

END OF SECTION 641

1 **SECTION 704 – MASONRY UNITS**
2

3 Make the following amendments to said Section:
4

5 **(I)** Amend **704.02 – Concrete Brick** to read as follows:
6

7 **“704.02 Concrete Masonry Units**
8

9 **(A.) References - American Society for Testing and Materials**
10 **(ASTM):**
11

- 12 **(1)** ASTM A 615 Standard Specification for Deformed
13 and Plain Carbon-Steel Bars for Concrete
14 Reinforcement.
15
16 **(2)** ASTM C 140 Standard Test Methods for Sampling
17 and Testing Concrete Masonry Units and Related
18 Units
19
20 **(3)** ASTM C 144 Standard Specification for Aggregate for
21 Masonry Mortar
22
23 **(4)** ASTM C 150 Standard Specification for Portland
24 Cement
25
26 **(5)** ASTM C 207 Standard Specification for Hydrated
27 Lime for Masonry Purposes
28
29 **(6)** ASTM C 270 Standard Specification for Mortar for
30 Unit Masonry
31
32 **(7)** ASTM C 404 Standard Specification for Aggregates
33 for Masonry Grout
34
35 **(8)** ASTM C 476 Standard Specification for Grout for
36 Masonry
37
38 **(9)** ASTM C 90 Standard Specification for Loadbearing
39 Concrete Masonry Units
40
41 **(10)** ASTM C 780 Standard Test Method for
42 Preconstruction and Construction Evaluation of
43 Mortars for Plain and Reinforced Unit Masonry
44
45 **(11)** ASTM E 447 Test Methods for Compressive Strength
46 of Laboratory Constructed Masonry Prisms.

47
48 **(A.) Concrete Masonry Units**
49

- 50 **(1) Hollow Load Bearing Units:** ASTM C 90, as follows.
51
52 **(2) Size:** Nominal 8" x 8" x 16" (7-5/8" x 7-5/8" x 15-5/8"
53 Actual), unless otherwise indicated.
54
55 **(3) Grade:** N.
56
57 **(4) Type:** II.
58
59 **(5) Weight Classification:** Normal Weight.
60
61 **(6) Exposed Face:** Standard, gray and smooth.
62
63 **(7) Moisture Control:** Cure units by atmospheric drying for
64 not less than 30 days before installation to comply with
65 ASTM C 90, Type II.
66

67 **(B.) Mortar and Grout Materials**
68

- 69 **(1) Mortar:** Portland Cement Lime, with proportions
70 complying with ASTM C 270, Table 1. Type M; For units
71 in contact with grade and where indicated.
72
73 **(2) Grout:** ASTM C 476, fine or coarse as required herein.
74
75 **(3) Portland Cement:** ASTM C 150, Type 1 or Type II.
76
77 **(4) Hydrated Lime:** ASTM C 207, Type S.
78
79 **(5) Aggregate for Mortar:** ASTM C 144, except for joints less
80 than 1/4" use aggregate graded with 100% passing the No.
81 16 sieve.
82
83 **(6) Aggregate for Grout:** ASTM C 404.
84
85 **(7) Water:** Clean and potable with no deleterious substances
86 to mix.
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(C.) Reinforcing Steel

- (1) Reinforcing Bars:** ASTM A 615, deformed, of grades and sizes as indicated on Drawings.

END OF SECTION 704

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“712.28 Measurement. Engineer will measure copper water lateral in accordance to contract documents.

The Engineer will pay for each of the following pay items when included in the proposal schedule:

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