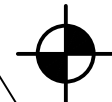


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-16(003)	2020	26	48

DRAWING NAME: I:\DRAFTING\COMPLETED\716731-00\KALIHIWA BRIDGES\LOCATION PLAN.DWG PLOT TIME: 07-05-19, 4:00 PM

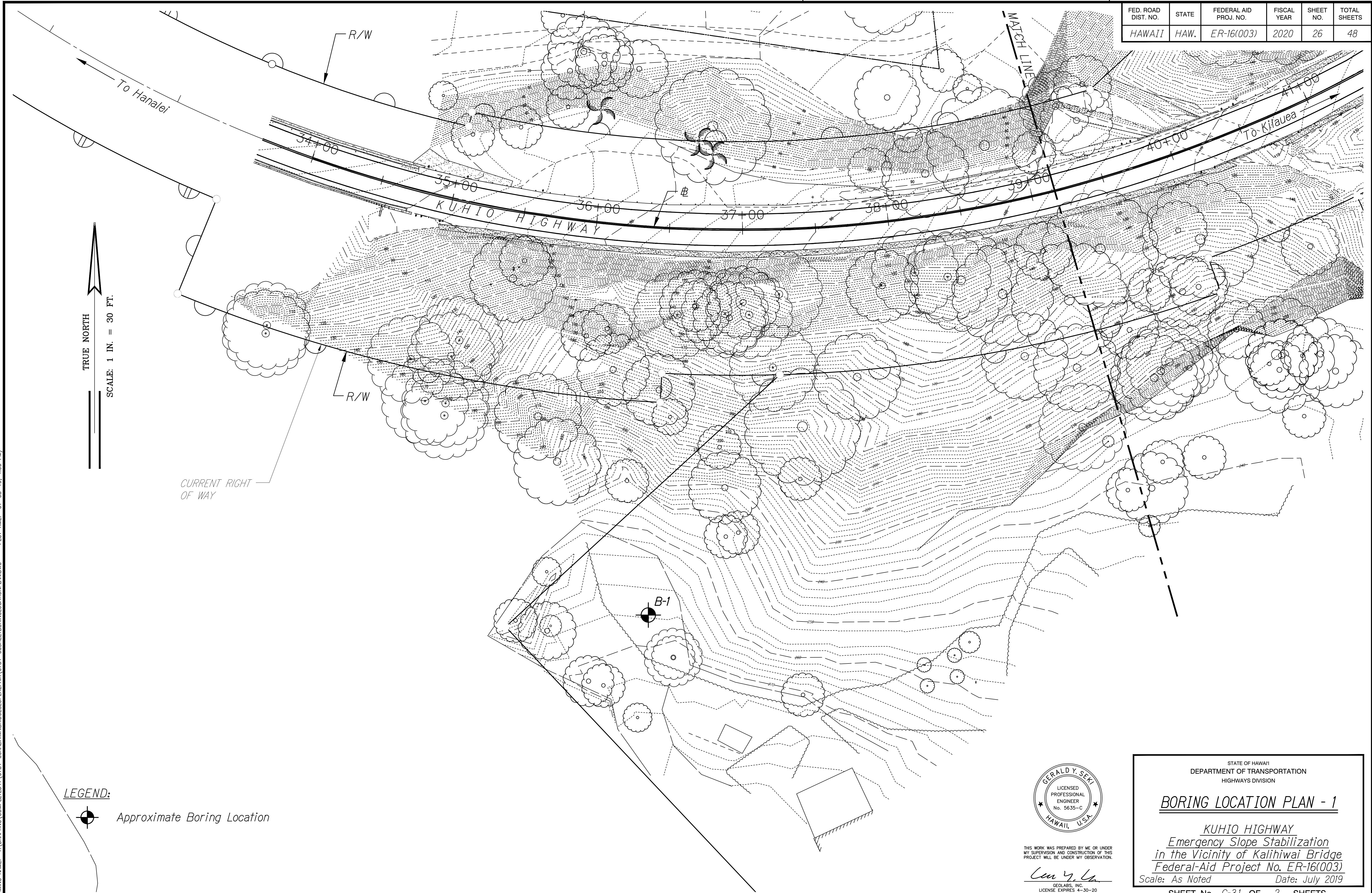
ORIGINAL PLAN	DATE
NOTED BY	DESIGNED BY
QUANTITIES BY	CHECKED BY
No.	

LEGEND:



Approximate Boring Location

TRUE NORTH
SCALE: 1 IN. = 30 FT.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
Gerald Y. Sen
GEOLABS, INC.
LICENSE EXPIRES 4-30-20

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

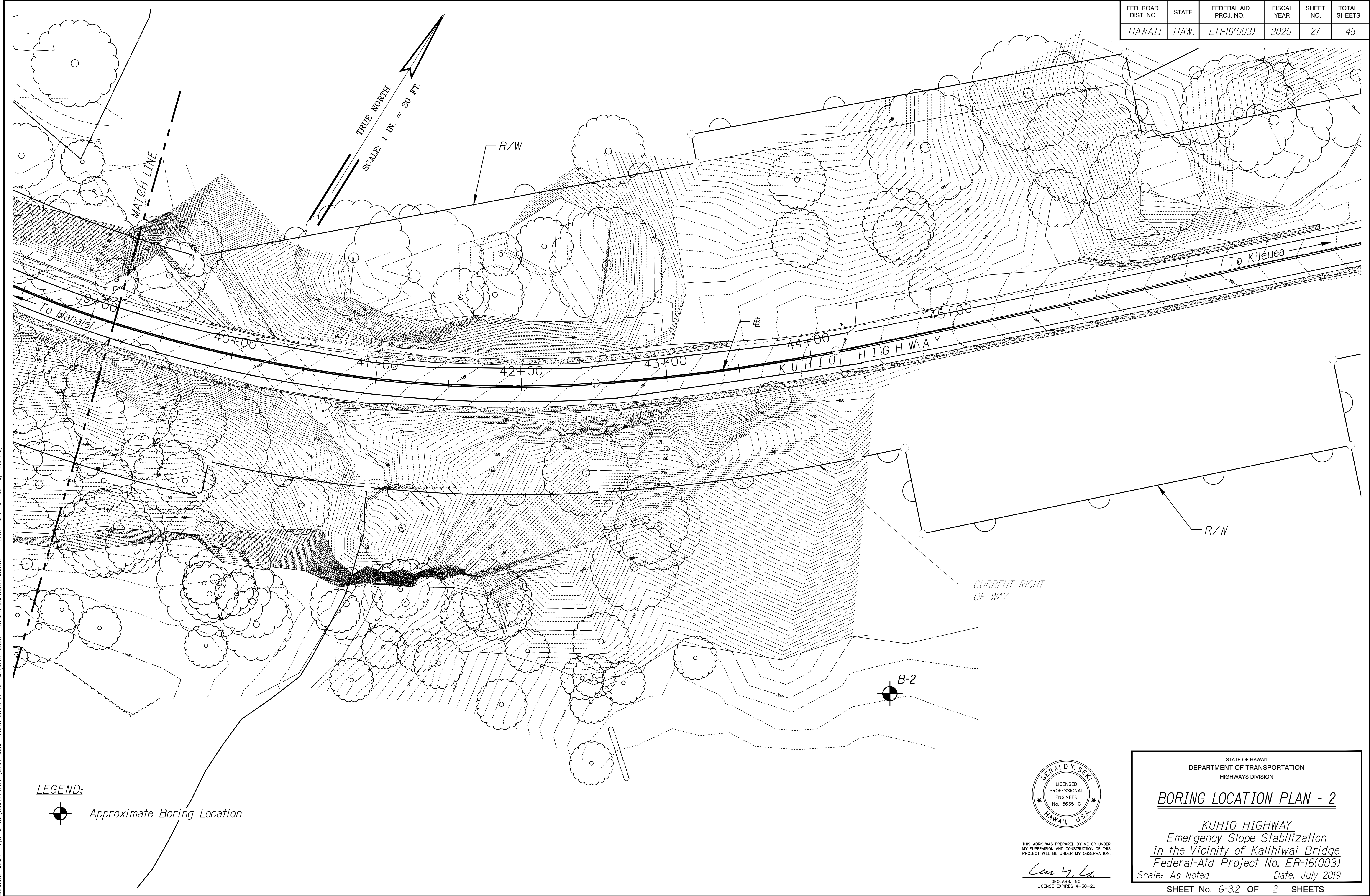
BORING LOCATION PLAN - 1

KUHIO HIGHWAY
Emergency Slope Stabilization
in the Vicinity of Kalihiwai Bridge
Federal-Aid Project No. ER-16(003)

Scale: As Noted Date: July 2019

SHEET No. G-3.1 OF 2 SHEETS

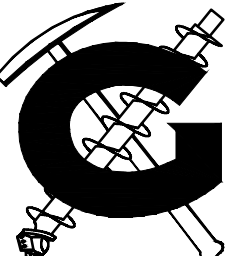
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-16(003)	2020	27	48



ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

DRAWING NAME: T:\DRAWING\COMPLETED\6731-00\KALIHIWAI BRIDGE\ER-16(003)\BORING LOCATION PLAN.DWG PLOT TIME: 07-05-19, 4:00 PM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-16(003)	2020	28	48

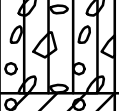
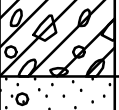
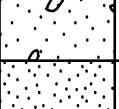
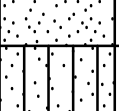
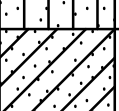
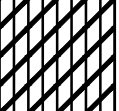
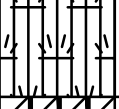
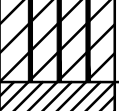
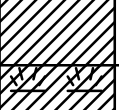
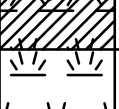
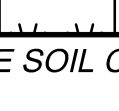


GEOLABS, INC.

Geotechnical Engineering

Soil Log Legend

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

MAJOR DIVISIONS			USCS	TYPICAL DESCRIPTIONS		
COARSE-GRAINED SOILS	GRAVELS	CLEAN GRAVELS		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
		LESS THAN 5% FINES		GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
		GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	
				GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES	
	SANDS	CLEAN SANDS		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
		LESS THAN 5% FINES		SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
		SANDS WITH FINES		SM	SILTY SANDS, SAND-SILT MIXTURES	
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES	
FINE-GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
		CLAYS		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
		SILTS AND CLAYS	LIQUID LIMIT 50 OR MORE		MH	INORGANIC SILT, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
	CLAYS			CH	INORGANIC CLAYS OF HIGH PLASTICITY	
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
	HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

LEGEND

 (2-INCH) O.D. STANDARD PENETRATION TEST

 (3-INCH) O.D. MODIFIED CALIFORNIA SAMPLE

 SHELBY TUBE SAMPLE

 GRAB SAMPLE

 CORE SAMPLE

 WATER LEVEL OBSERVED IN BORING AT TIME OF DRILLING

 WATER LEVEL OBSERVED IN BORING AFTER DRILLING

LL

LIQUID LIMIT (NP=NON-PLASTIC)

PI

PLASTICITY INDEX (NP=NON-PLASTIC)

TV

TORVANE SHEAR (tsf)

PEN

POCKET PENETROMETER (tsf)

UC

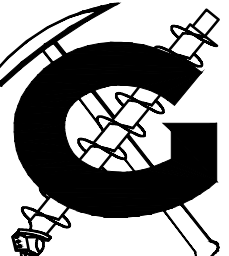
UNCONFINED COMPRESSION (psi)

UU

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION (ksf)

Plate

A-0.1

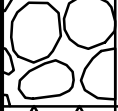
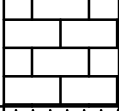
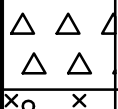
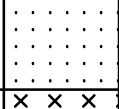
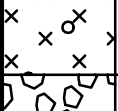
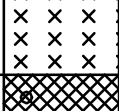
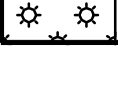


GEOLABS, INC.

Geotechnical Engineering

Rock Log Legend

ROCK DESCRIPTIONS

	BASALT		FINGER CORAL
	BOULDERS		LIMESTONE
	BRECCIA		SANDSTONE
	CLINKER		SILTSTONE
	COBBLES		TUFF
	CORAL		VOID/CAVITY

ROCK DESCRIPTION SYSTEM

ROCK FRACTURE CHARACTERISTICS

The following terms describe general fracture spacing of a rock:

Massive:

Greater than 24 inches apart

Slightly Fractured:

12 to 24 inches apart

Moderately Fractured:

6 to 12 inches apart

Closely Fractured:

3 to 6 inches apart

Severely Fractured:

Less than 3 inches apart

DEGREE OF WEATHERING

The following terms describe the chemical weathering of a rock:

Unweathered:

Rock shows no sign of discoloration or loss of strength.

Slightly Weathered:

Slight discoloration inwards from open fractures.

Moderately Weathered:

Discoloration throughout and noticeably weakened though not able to break by hand.

Highly Weathered:

Most minerals decomposed with some corestones present in residual soil mass. Can be broken by hand.

Extremely Weathered:

Saprolite. Mineral residue completely decomposed to soil but fabric and structure preserved.

HARDNESS

The following terms describe the resistance of a rock to indentation or scratching:

Very Hard:

Specimen breaks with difficulty after several "pinging" hammer blows.
Example: Dense, fine grain volcanic rock

Hard:

Specimen breaks with some difficulty after several hammer blows.
Example: Vesicular, vugular, coarse-grained rock

Medium Hard:

Specimen can be broke by one hammer blow. Cannot be scraped by knife. SPT may penetrate by ~25 blows per inch with bounce.
Example: Porous rock such as clinker, cinder, and coral reef

Soft:

Can be indented by one hammer blow. Can be scraped or peeled by knife. SPT can penetrate by ~100 blows per foot.
Example: Weathered rock, chalk-like coral reef

Very Soft:

Crumbles under hammer blow. Can be peeled and carved by knife. Can be indented by finger pressure.
Example: Saprolite

Plate

A-0.2

GEOTECHNICAL NOTES:

- A geotechnical engineering report entitled "Geotechnical Engineering Exploration, Kuhio Highway (Route 56), Emergency Slope Stabilization, In the Vicinity of Kalihiwai Bridge, FAP No. ER-16(003), Island of Kauai, Hawaii" dated October 6, 2017 has been prepared by Geolabs, Inc. A copy of the report is on file at the office of the Engineer for review by the Contractor.
- For boring locations, see Sheet G3.1 and G3.2.
- The information presented in the logs of borings depict the subsurface conditions encountered at that specified location and at the time of the field exploration only. Variations of subsoil conditions from those depicted in the logs of borings may occur between and beyond the borings.
- The penetration resistance shown on the logs of borings indicate the number of blows required for the specific sampler type used. The blow counts may need to be factored to obtain the Standard Penetration Test (SPT) blow counts.
- The data given is for general information only. Bidders shall examine the site and the boring data and draw their own conclusions therefrom as to the character of materials to be encountered. The Engineer will not assume responsibility for variations of subsoil quality or conditions other than at the boring locations shown and at the time the borings were taken.

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

Gerald Y. Sen
GEOLABS, INC.
LICENSE EXPIRES 4-30-20

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BORING LOG LEGENDS & NOTES

KUHIO HIGHWAY

Emergency Slope Stabilization

in the Vicinity of Kalihiwai Bridge

Federal-Aid Project No. ER-16(003)

Scale:

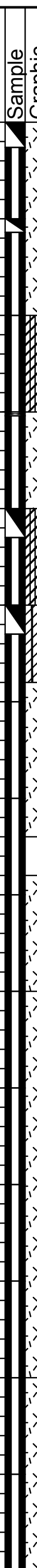
Date: July 2019

SHEET No. G-3.3 OF 6 SHEETS

28

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-16(003)	2020	29	48

		GEOLABS, INC.					KUHIO HIGHWAY (ROUTE 56) EMERGENCY SLOPE STABILIZATION IN THE VICINITY OF KALIHIWAI BRIDGE ISLAND OF KAUAI, HAWAII					Log of Boring 1	
Geotechnical Engineering													
Other Tests	Moisture Content (%)	Dry Unit Weight (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample Graphic	USCS	Approximate Ground Surface Elevation (feet MSL): 268 *			
										Description			
TV=0.325 tsf	35	87			37				MH	Reddish brown CLAYEY SILT with traces of organics and fine sand, very stiff, damp (residual soil)			
	35				52	3.5				grades to very hard			
TV=0.83 tsf	39	79			58		5		MH	Brown CLAYEY SILT with traces of organics, hard, damp (residual soil)			
	24				13		10		MH	Reddish brown with orange mottling CLAYEY SILT with traces of fine sand, stiff, damp (residual soil)			
TV=0.75 tsf TXUU Su=4.8 ksf	34	80			34	3.0	15			grades to very stiff			
	34				18		20						
TV=0.5 tsf	35	65	0		23		25		ML	Reddish brown with brown and gray mottling fine SANDY SILT, very stiff, damp (residual soil)			
	43		29		20	1.5	30			grades with traces of completely weathered basalt fragments			
	43		48		56		35		SM	Reddish brown with brown and gray mottling SILTY FINE SAND with traces of completely weathered basalt fragments, very dense, moist (saprolite)			
	87		52		14	1.0	40		ML	Orangish brown with brown and gray mottling fine SANDY SILT with clay and highly weathered basalt fragments, stiff, very moist (saprolite)			
	67		57		17	1.5	45			grades to very stiff			
	50		38		49		50		MH	Brown and gray CLAYEY SILT with fine sand and traces of highly to moderately weathered basalt fragments, stiff (saprolite)			
									SM	Grayish brown with brown and gray mottling SILTY SAND with traces of clay and highly weathered basalt fragments, dense, very moist (saprolite)			
	85		24		12		55		MH	Orangish and reddish brown with brown and gray mottling CLAYEY SILT with traces of fine sand, stiff, very moist (saprolite)			
LL=80 PI=27 TV=0.2 tsf	66	63	71		30	2.5	60			grades to very stiff			
	64		14	0	13		65		SM	Grayish brown with brown and gray mottling SILTY SAND with traces of clay and highly weathered basalt fragments, medium dense, moist (saprolite)			
TV=0.32 tsf TXUU	52	70	62	14	39		70						
							75						
Date Started: January 29, 2013									Water Level:  Not Encountered				
Date Completed: January 31, 2013													
Logged By: D. Sjolund									Drill Rig: CME-55				
Total Depth: 180 feet									Drilling Method: 4" Auger & PQ Coring				
Work Order: 6731-00									Driving Energy: 140 lb. wt., 30 in. drop				

		GEOLABS, INC. Geotechnical Engineering						KUHIO HIGHWAY (ROUTE 56) EMERGENCY SLOPE STABILIZATION IN THE VICINITY OF KALIHIWAI BRIDGE ISLAND OF KAUAI, HAWAII				Log of Boring 1	
Other Tests	Moisture Content (%)	Dry Unit Weight (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)		USCS	(Continued from previous plate)			
										Description			
Su=7.3 ksf	54		54	27	24/6" +26/4"					Brownish gray BASALT, severely to closely fractured, highly to extremely weathered, soft			
	53		44	0	15/2" Ref.		80						
			33				85		CL	Orangish brown with gray and reddish brown mottling SILTY CLAY with traces of fine sand and completely weathered basalt fragments, stiff (saprolite)			
			52	49	18/2" Ref.		90			Grayish brown BASALT, closely to moderately fractured, highly weathered, soft			
	53		86		10	1.0	95		CL	Orangish brown with black mottling SILTY CLAY with traces of completely weathered basalt fragments, stiff, moist (saprolite)			
	55		90	29	17	0.8	100		MH	Orangish brown with black mottling CLAYEY SILT with traces of fine sand, very stiff, moist (saprolite)			
UC=19130 psi			67	15			105			Light gray BASALT, slightly vugular, slightly fractured, slightly weathered, hard grades from closely to severely fractured, slightly to moderately weathered, medium hard to hard			
			43	6			110			VOID			
UC=1090 psi			100	18			115			Light gray BASALT, moderately to severely fractured, slightly to moderately weathered, hard			
			100	43			120			Light gray BASALT, slightly vesicular, moderately to severely fractured, slightly to moderately weathered, hard			
UC=1610 psi			75	75			125			grades to vugular, moderately fractured, slightly weathered, hard			
			100	100			130			grades to slightly fractured			
UC=6330 psi			100	100			135						
			90	90			140			Light gray BASALT, slightly vesicular, slightly to closely fractured, slightly weathered, hard			
UC=12160 psi			100	60			145			grades to closely to severely fractured, slightly to moderately weathered, medium hard to hard			
							150						
Date Started: January 29, 2013									Water Level:  Not Encountered				
Date Completed: January 31, 2013													
Logged By: D. Sjolund									Drill Rig: CME-55				
Total Depth: 180 feet									Drilling Method: 4" Auger & PQ Coring				
Work Order: 6731-00									Driving Energy: 140 lb. wt., 30 in. drop				

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTED BY	_____
QUANTITIES BY	_____
NO.	_____

DRAWING NAME: T:\DRAWING\COMPLETED\6731-00\KALIHIWAI BRIDGE\6731-00SHEETBORINGLOGS.DWG PLOT TIME: 07-05-19, 3:59 PM

BORING LOG DOT 6731-00-001 GEOLABS.GIT 12/21/13

BORING LOG DOT 6731-00-001 GEOLABS.GIT 12/21/13



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

Geolabs, Inc.
LICENSE EXPIRES 4-30-20

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

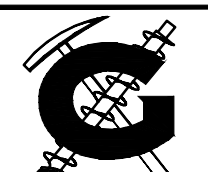
BORING LOGS - 1

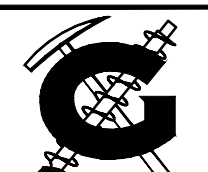
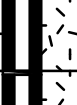
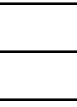
KUHIO HIGHWAY
Emergency Slope Stabilization
in the Vicinity of Kalihiwai Bridge
Federal-Aid Project No. ER-16(003)

Scale: _____ Date: July 2019

SHEET No. G-3.4 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-16(003)	2020	30	48

 GEOLABS, INC. Geotechnical Engineering		KUHIO HIGHWAY (ROUTE 56) EMERGENCY SLOPE STABILIZATION IN THE VICINITY OF KALIIHIWAI BRIDGE ISLAND OF KAUAI, HAWAII							Log of Boring 1	
Other Tests	Moisture Content (%)	Dry Unit Weight (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)		USCS	(Continued from previous plate)
										Description
UC= 12040 psi UC= 3320 psi UC= 10700 psi UC= 6590 psi UC= 540 psi			90	75						grades to slightly to severely fractured, slightly weathered, hard
			97	68			155			
			100	41			160			Light gray BASALT, slightly vesicular and vugular, moderately to severely fractured, slightly weathered, hard
			100	100			165			grades to slightly fractured
			88	65			170			grades to slightly to moderately fractured
			70	40			175			Orangish brown BASALT, closely to severely fractured, highly weathered, soft
							180			Light gray BASALT, moderately to closely fractured, slightly weathered, hard
										Boring terminated at 180 feet
							185			* Elevations estimated from Topographic Survey Map transmitted by PBWorld on January 17, 2013.
							190			
							195			
							200			
							205			
							210			
							215			
							220			
							225			
Date Started: January 29, 2013									Water Level: 	Not Encountered
Date Completed: January 31, 2013										
Logged By: D. Sjolund									Drill Rig:	CME-55
Total Depth: 180 feet									Drilling Method:	4" Auger & PQ Coring
Work Order: 6731-00									Driving Energy:	140 lb. wt., 30 in. drop

 GEOLABS, INC. Geotechnical Engineering		KUHIO HIGHWAY (ROUTE 56) EMERGENCY SLOPE STABILIZATION IN THE VICINITY OF KALIIHIWAI BRIDGE ISLAND OF KAUAI, HAWAII							Log of Boring 2	
Other Tests	Moisture Content (%)	Dry Unit Weight (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample Graphic	USCS	Approximate Ground Surface Elevation (feet MSL): 284 *
										Description
TV=0.525 tsf Direct Shear TV=0.16 tsf LL=76 PI=28	58 47	64			12 12	2.0			MH	Orangish and reddish brown CLAYEY SILT with traces of organics, stiff, moist (residual soil)
	57	66			35		5			grades to very stiff
	51				16	1.5	10			
TV=0.08 tsf	47	71			22		15		MH	Reddish brown and gray CLAYEY SILT with fine sand and completely weathered basalt fragments, very stiff, moist (residual soil)
	44		71		23		20			
TV=0.74 tsf Direct Shear	89	50			14	1.0	25		MH	grades to stiff
	58				13	0.5	30			Reddish brown and gray CLAYEY SILT with traces of fine sand and completely weathered basalt fragments, stiff, moist (saprolite)
LL=67 PI=32 TV=0.75 tsf TXUU Su=3.1 ksf	55	73			30	1.5 1.5	35			grades to very stiff
	52		100	21	29	1.0	40			Light gray slightly vugular BASALT, closely to severely fractured, extremely to highly weathered, soft to medium hard
UC= 1160 psi	27		100	29	15/1" Ref.		45			Light gray slightly vugular BASALT, moderately to severely fractured, slightly to moderately weathered, medium hard to hard grades to severely fractured
			100	0			50			grades to closely to moderately fractured
UC= 5760 psi			100	100			60			Light gray slightly vesicular BASALT, slightly fractured, slightly weathered, hard
			100	100			65			
UC= 5310 psi			100	100			70			
							75			
Date Started: January 24, 2013									Water Level: 	Not Encountered
Date Completed: January 28, 2013										
Logged By: D. Sjolund									Drill Rig:	CME-55
Total Depth: 150 feet									Drilling Method:	4" Auger & PQ Coring
Work Order: 6731-00									Driving Energy:	140 lb. wt., 30 in. drop



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

Gerald Y. Sen
GEOLABS, INC.
LICENSE EXPIRES 4-30-20

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BORING LOGS - 2

*KUHIO HIGHWAY
Emergency Slope Stabilization
in the Vicinity of Kalihiwai Bridge
Federal-Aid Project No. ER-16(003)*

Scale: _____ Date: July 2019

SHEET No. G-3.5 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-16(003)	2020	31	48

 GEOLABS, INC. Geotechnical Engineering		KUHIO HIGHWAY (ROUTE 56) EMERGENCY SLOPE STABILIZATION IN THE VICINITY OF KALIHIWAI BRIDGE ISLAND OF KAUAI, HAWAII							Log of Boring 2	
Other Tests	Moisture Content (%)	Dry Unit Weight (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample Graphic	USCS	(Continued from previous plate) Description
UC= 10460 psi	56		100	75			75			Light gray slightly vesicular BASALT, closely to moderately fractured, slightly weathered, hard
			100	23			80			grades to severely to closely fractured
			100	20			85			grades to slightly fractured
			100	48	27	3.5	90		SM	Orangish and grayish brown BASALT, closely to severely fractured, highly to completely weathered, soft
UC= 1100 psi	71		100	0		<0.5	95		ML	Dark orangish brown and gray SILTY SAND with highly to completely weathered basalt fragments, medium dense, very moist (saprolite/completely weathered basalt)
			67	47			100			Orangish brown fine SANDY SILT, medium stiff, very moist (saprolite)
		72	100	59	22		105			Light gray vesicular BASALT, closely to moderately fractured, slightly weathered, hard
			100	57	23		110			Light gray BASALT, severely fractured, moderately to highly weathered, medium hard to hard
UC= 19830 psi UC= 8500 psi	71		100	100			115			grades to moderately fractured, slightly weathered, hard
			100	80			120			Orangish brown BASALT, closely to severely fractured, highly to completely weathered, very soft to soft
			100	46			125			Light gray BASALT, slightly to closely fractured, slightly weathered, very hard
			100	60			130			grades to slightly fractured
UC= 5810 psi	71		75	50			135			grades to slightly to moderately weathered, hard to medium hard
			100	40			140			grades to closely to severely fractured, slightly weathered, hard
			100	35			145			grades to slightly to moderately fractured
							150			Light gray BASALT, moderately to severely fractured, slightly weathered, hard
Date Started: January 24, 2013									Water Level:  Not Encountered	
Date Completed: January 28, 2013										
Logged By: D. Sjolund									Drill Rig: CME-55	
Total Depth: 150 feet									Drilling Method: 4" Auger & PQ Coring	
Work Order: 6731-00									Driving Energy: 140 lb. wt., 30 in. drop	

		GEOLABS, INC. Geotechnical Engineering							KUHIO HIGHWAY (ROUTE 56) EMERGENCY SLOPE STABILIZATION IN THE VICINITY OF KALIHIWAI BRIDGE ISLAND OF KAUAI, HAWAII					Log of Boring 2	
Other Tests	Moisture Content (%)	Dry Unit Weight (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	(Continued from previous plate)				
											Description				
											Boring terminated at 150 feet				
							155								
							160								
							165								
							170								
							175								
							180								
							185								
							190								
							195								
							200								
							205								
							210								
							215								
							220								
							225								
Date Started: January 24, 2013								Water Level: 		Not Encountered					
Date Completed: January 28, 2013															
Logged By: D. Sjolund								Drill Rig:		CME-55					
Total Depth: 150 feet								Drilling Method:		4" Auger & PQ Coring					
Work Order: 6731-00								Driving Energy:		140 lb. wt., 30 in. drop					

DESIGNED BY	DATE
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

DRAWING NAME: T:\DRAWING\COMPLETED\6731-00\KALIHIWAI BRIDGE\SLOPE\ER-16(003)\SHEET\BORING LOGS.DWG PLOT TIME: 07-05-19, 3:59 PM

BORING LOG DOT 6731-00.DWG GEOLABS.GIT 1/28/13

BORING LOG DOT 6731-00.DWG GEOLABS.GIT 1/28/13



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

Gerald Y. Sen
GEOLABS, INC.
LICENSE EXPIRES 4-30-20

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BORING LOGS - 3

*KUHIO HIGHWAY
Emergency Slope Stabilization
in the Vicinity of Kalihiwai Bridge
Federal-Aid Project No. ER-16(003)*

Scale: _____ Date: July 2019

SHEET No. G-3.6 OF 6 SHEETS