ED. ROAD	STATE	FEDERAL — AID	FISCAL	SHEET	TOTAL
DIST. NO.		PROJ. NO.	YEAR	NO.	SHEETS
HAWAII	HAW.	NH-A311(3)	2002	75	159

						ORING LOG	W.O. <u>99–3144</u>
							_ DATE OF DRILLING 3/4/99
SURFA	CE ELI		50±	-	DROP	30 in.	WATER LEVELNone
D E P T H	G R A P H	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	С	DESCRIPTION
						Clayey SILT (ML—CL) to stiff, with sand	Brown, moist, medium stiff
			22	84	21	Stiff from 3 feet.	
- 5 —			33	92	27		
-10-			53	89	28		
		+++++++++++++++++++++++++++++++++++++++				SLIGHTLY WEATHERED hard.	BASALT (WS) — Gray, mediur
-15-	+ + + + - + - + - - + - + -	+		4		End boring at 15 fee	t. Plate I

					- В	ORING LOG W.O. <u>99-3144</u>
			(STA 26	- ,		140 lb. DATE OF DRILLING 3/4/99 30 in. WATER LEVEL None
D E P T H	G R A P H	S A M P L E	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST.	DESCRIPTION
0			7	60	15	Clayey SILT (ML-CL) — Brown, moist, firm to medium stiff, with sand.
- 5			20	77	20	Stiff from 4 feet.
			50	84	22	
-10-		+ + + + + + + + + + + + + + + + + + + +				SLIGHTLY WEATHERED BASALT (WS) — Gray, medium hard. Begin NX coring at 9 feet. 100% Recovery from 9 to 14 feet. RQD = 20%
-15-	-1 -1 -1 + + + 1- 1- 1-	+				End boring at 14 feet. Plate B

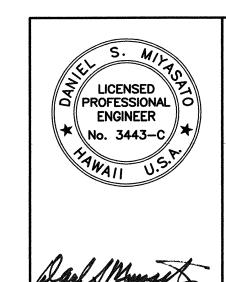
		au					
					E	BORING LOG	W.O. <u>99–3144</u>
			Near Hans 70±	sen Rd.) D	RIVING WT	. 140 lb. 30 in.	DATE OF DRILLING <u>3/3/99</u> WATER LEVEL None
		.v	/01	L	KOF	30 III.	WATER LEVEL NOTE
D E P T H	G R A P H	3 A M P L E	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)		DESCRIPTION
- 0 -			30	91	32	Clayey SILT (ML—CL with sand.) — Reddish brown, moist, stiff,
			18	82	40	Medium stiff to	stiff from 3 feet.
_ 5 _			22	80	42		
-10-						SLIGHTLY WEATHERE Begin NX coring 90% Recovery fro RQD = 72%	ED BASALT (WS) — Gray, hard. at 9 feet. om 9 to 14 feet.
-15				-		End boring at 14 fe	eet. Plate B3

					В	ORING LOG	W.O. <u>99–3144</u>
			(STA 35 71±				DATE OF DRILLING 3/3/99 WATER LEVEL None
DEPTH	GR APH	S A M P L E	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)		DESCRIPTION
0 —						Clayey SILT (ML-CL) sand.	- Brown, moist, stiff, with
			41	103	25		
— 5 —			22	83	39	Medium stiff to s	tiff at 4 feet.
40			79	91	26		
-10-		+ + +				SLIGHTLY WEATHERED hard.	D BASALT (WS) — Gray, medium
			4			End boring at 13 fee	et.
—15—						,	Plate B

					E	BORING LOG	W.O. <u>99-3144</u>
			(STA 44 75±			. <u>140 lb.</u> 30 in.	DATE OF DRILLING 3/3/99 WATER LEVEL None
DEPTH	G R A P H	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DE	ESCRIPTION
- 0 -			48	83	27	Clayey SILT (ML—CL) - with sand.	- Reddish brown, moist, stiff,
			30	91	27		
- 5 -			17	80	25	Medium stiff to stif	f from 5 feet.
-10-			51	98	21	WEATHERED BASALT (V brown, dense to me	MH—WM) — Mottled grayish edium hard.
			15/No	Penetrati	on		·
—15 <i>—</i>				,		End boring at 14 feet.	Plate B5

Note:

- 1. Boring Logs and Locations Reproduced From the "Soils Investigation" Report for Puunene Avenue/Mokulele Highway Widening Project, Puunene, Maui, Hawaii for Sato & Associates, Inc., By Ernest K. Hirata & Associates, Inc., W.O. 99—3144, Dated October 1, 1999.
- 2. The Boring Logs Indicate the Approximate Subsurface Soil Conditions Encountered Only At Those Times and Locations Where Borings Were Made, and May Not Represent Conditions At Other Times and Locations.
- 3. The Boring Logs are for Design Purposes Only, and are Not Intended for Use in Developing Cost Estimates By The Contractor.



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
BORING LOGS

<u>PUUNENE AVENUE WIDENING</u> <u>Kuihelani Highway to Hansen Road</u>

MOKULELE HIGHWAY WIDENING

Hansen Road to Vicinity of

Cane Haul Road Crossing

Federal — Aid Project No. NH—A311(3)

Scale: Not to Scale Date: October 2001

SHEET No. 1 OF 2 SHEETS

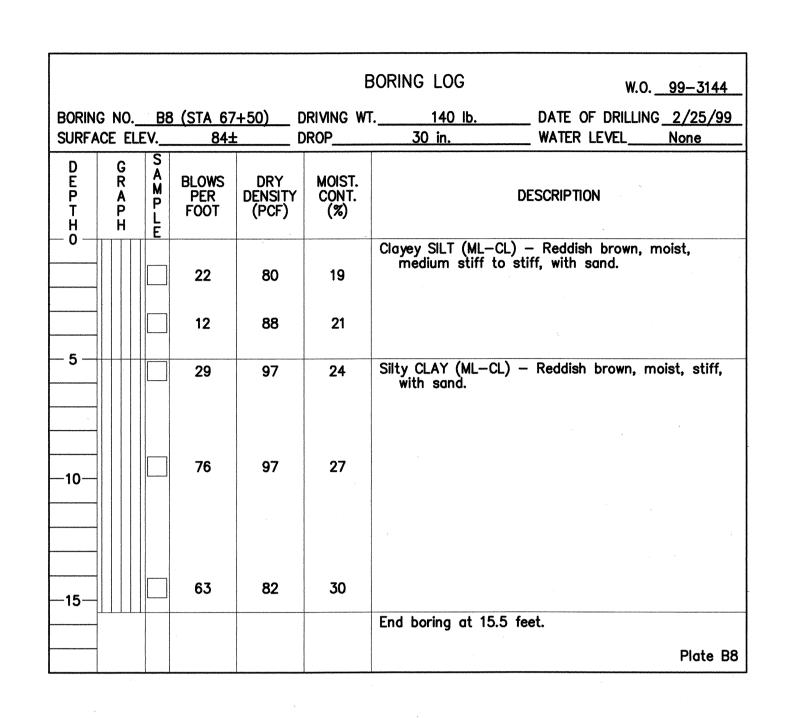
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

75

FED. ROAD	STATE	FEDERAL — AID	FISCAL	SHEET	TOTAL
DIST. NO.		PROJ. NO.	YEAR	NO.	SHEETS
HAWAII	HAW.	NH-A311(3)	2002	76	159

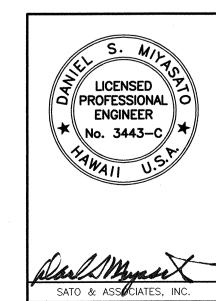
					E	BORING LOG W.O. 99-3144
						r. <u>140 lb.</u> Date of Drilling <u>2/25/99</u>
URFA	CE ELE		79±	<u> </u>	ROP	30 in. WATER LEVEL None
D E P T H O	G R A P H	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
			9	87	31	Clayey SILT (ML—CL) — Reddish brown, moist, medium stiff to stiff, with sand.
			22	93	27	
5 —			32	100	26	Stiff from 5 feet.
			33	94	30	Mottled reddish brown color from 9 feet.
10-			33	94	30	mottled readish brown color from 9 feet.
15-			25	79	40	
						End boring at 15.5 feet.

					E	BORING LOG W.O. 99-3144
			(STA 59 81±			T. 140 lb. DATE OF DRILLING 2/25/99 30 in. WATER LEVEL None
D E P T H O	G R A P H	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
						Clayey SILT (ML—CL) — Reddish brown, moist, stiff, with sand.
			40	90	23	
- 5 -			29	95	27	
-10-			21	87	36	
			40	85	39	WEATHERED BASALT (WC) — Mottled grayish brown, dense.
-15-						End boring at 14.5 feet.
						Plate B



Note:

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
BORING LOGS

PUUNENE AVENUE WIDENING

Kuihelani Highway to Hansen Road

And

MOKULELE HIGHWAY WIDENING

Hansen Road to Vicinity of

Cane Haul Road Crossing

Federal — Aid Project No. NH—A311(3)

Scale: Not to Scale

Date: October 2001

SHEET No. 2 OF 2 SHEETS