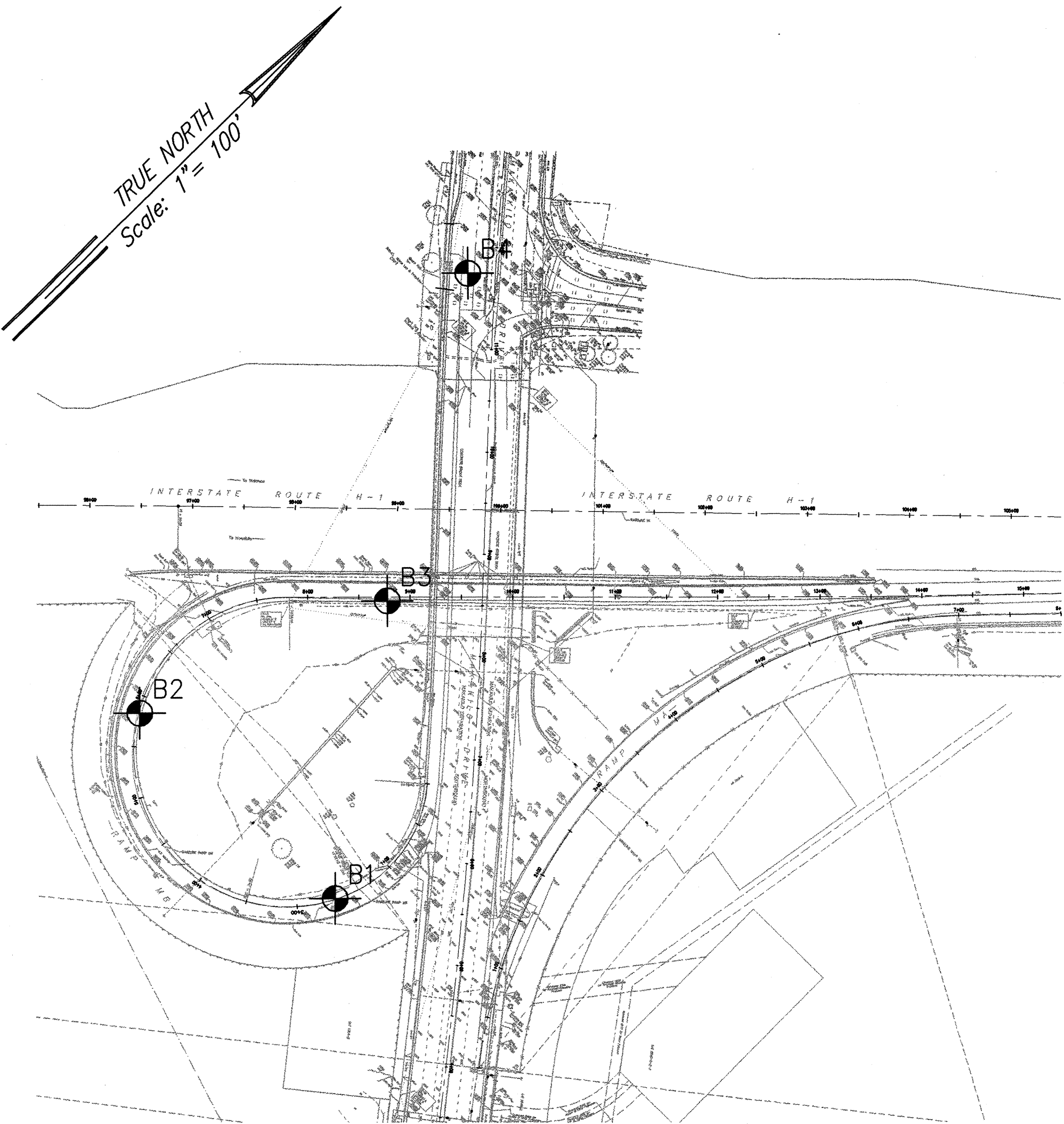


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	H1A-01-02M	2003	35	88



LEGEND:
Approximate location of borings

BORING LOGS LOCATION
Scale: 1"=100'

ERNEST K. HIRATA & ASSOCIATES, INC. Geotechnical Engineering					
BORING LOG					
BORING NO. B1		DRIVING WT. 140 lb.		DATE OF DRILLING 2/11/02	
SURFACE ELEV. 139±		DROP 30 in.		WATER LEVEL None	
D E P T H F E E	G R A V E L C O N T. (%)	S A N D C O N T. (%)	B L O W S P E R F O O T	D R Y D E N S I T Y (P C T)	M O I S T C O N T. (%)
0					
5			53	99	23
10			52	81	36
15			19/2"	85	21
20					
25					
30					
Silty CLAY (CL-M) - Dark brown, moist, stiff, with sand. Covered by 2.5 inches of asphaltic concrete over 13 inches of base material.					
Sandy SILT (MH) - Grayish brown, moist, stiff, with weathered gravel. (Highly weathered basalt)					
End boring at 8.5 feet.					
* Elevations based on Topographic Map provided by Mitsunaga & Associates, Inc.					

ERNEST K. HIRATA & ASSOCIATES, INC. Geotechnical Engineering					
BORING LOG					
BORING NO. B2		DRIVING WT. 140 lb.		DATE OF DRILLING 2/11/02	
SURFACE ELEV. 137±		DROP 30 in.		WATER LEVEL None	
D E P T H F E E	G R A V E L C O N T. (%)	S A N D C O N T. (%)	B L O W S P E R F O O T	D R Y D E N S I T Y (P C T)	M O I S T C O N T. (%)
0					
5			44	97	19
10			46/8"	82	31
15					
20			42	77	39
25					
30					
Silty CLAY (CL-M) - Dark brown, moist, stiff, with sand. Covered by 2.5 inches of asphaltic concrete over 15 inches of base material.					
Sandy SILT (MH) - Grayish brown, moist, stiff, with weathered gravel. (Highly weathered basalt)					
End boring at 9.5 feet.					

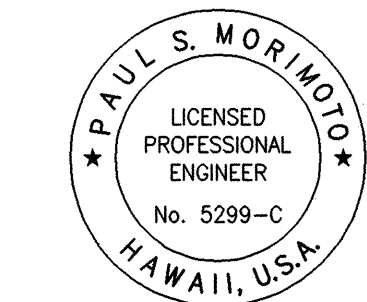
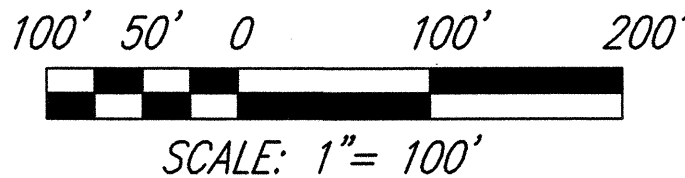
ERNEST K. HIRATA & ASSOCIATES, INC. Geotechnical Engineering					
BORING LOG					
BORING NO. B3		DRIVING WT. 140 lb.		DATE OF DRILLING 2/11/02	
SURFACE ELEV. 136±		DROP 30 in.		WATER LEVEL None	
D E P T H F E E	G R A V E L C O N T. (%)	S A N D C O N T. (%)	B L O W S P E R F O O T	D R Y D E N S I T Y (P C T)	M O I S T C O N T. (%)
0					
5			35/11"	73	30
10			10/No Penetration		
15			10/No Penetration		
20					
25					
30					
Sandy CLAY (CL-M) - Dark brown, moist, stiff, with weathered gravel. Covered by 2 inches of asphaltic concrete over 12 inches of base material.					
MODERATELY WEATHERED BASALT (MB) - Gray, hard.					
End boring at 8 feet.					

ERNEST K. HIRATA & ASSOCIATES, INC. Geotechnical Engineering					
BORING LOG					
BORING NO. B4		DRIVING WT. 140 lb.		DATE OF DRILLING 2/11/02	
SURFACE ELEV. 179±		DROP 30 in.		WATER LEVEL None	
D E P T H F E E	G R A V E L C O N T. (%)	S A N D C O N T. (%)	B L O W S P E R F O O T	D R Y D E N S I T Y (P C T)	M O I S T C O N T. (%)
0					
5			28/11"	88	20
10			10/No Penetration		
15			85/10"	98	23
20					
25					
30					
Sandy CLAY (CL-M) - Dark reddish brown, moist, stiff, with gravel and cobbles. Covered by 6 inches of asphaltic concrete over 24 inches of base material.					
Grayish brown color from 5.5 feet.					
End boring at 10.5 feet.					

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN	No.
NOTE BOOK	

GRAPHIC SCALE:



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Paul S. Morimoto
ERNEST K. HIRATA & ASSOC., INC.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
BORING LOGS

INTERSTATE ROUTE H-1 REHABILITATION
Vicinity Of Makakilo Interchange
Project No. H1A-01-02M

Scale: As Noted Date: April 2003
SHEET No. C-33 OF 42 SHEETS