

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	H1A-01-02M	2003	C.O. 11	88

Notes:

1. The Contractor's attention is directed to Section 209 - Water Pollution and Erosion Control during construction operations.
2. The Contractor shall apply Best Management Practices during grading operations.
3. All graded areas shall be hydromulched. The Engineer shall make payment for Water Pollution and Erosion Control on a force account basis.

B H-1 Sta. 96+97

(o/s 63' RT)
Connect E/D24" to new inlet
Type A-9P frame & grate, see Std. Plan H-09
Install drop inlet, see detail sht. C-0 24S-1
5± If 24" pipe
Inv.= 130.9± (24")

B Ramp MB Sta. 7+00

(o/s 10.0' RT)
Connect E/D24" to new inlet,
Type 61614P Grated drop inlet
Inv.= 131.73 (18" and 24")
See Std. Plan H-11 and detail sht. C-22

Connect underdrain to
grated drop inlet

B Ramp MB Sta. 6+80

(o/s 10.0' RT)
Type 61614P Grated
drop inlet
Inv.= 131.96 (18")
See Std. Plan H-11
and detail sht. C-22
18" Drainline (15 LF)

Install new Type 1
grating on exist.
drain inlet, see
struct. dwgs.

B Ramp MB
(on-ramp)

Limits of
grading, typ.

B Ramp MB Sta. 3+75

(o/s 7.0' RT)
Install 6" underdrain COTG

DRAINAGE AND GRADING PLAN

Scale: 1" = 40'

Ramp MB deleted
from Sta. 0+00 to
0+80

B H-1 Sta. 96+97

(o/s 67' RT)
Type "A" Manhole, see Std.
Plan H-05
Connect to exist. 24" drainlines
Inv.= 130.89 (4-24")

B Ramp MB Sta. 7+20

(o/s 10.0' RT)
Type 61614P Grated
drop inlet
Inv.= 131.96 (18")
See Std. Plan H-11
and detail sht. C-22
18" Drainline (15 LF)

B Ramp MB Sta. 9+50

(o/s 7.0' RT)
Install 6" underdrain COTG

Connect
underdrain
to grated
drop inlet

Install Rip rap
(10'x10'x12")

Limits of
grading, typ.

B Ramp MB Sta. 5+50

(o/s 7.0' RT)
Install 6" underdrain COTG

Q conc. gutter
(6" underdrain, typ.)

B Makakilo Drive Sta. 6+74

B Ramp MB PC Sta. 0+09.64
R= 125'

6" Underdrain

R= 150'

INSET MB

B Ramp MB Sta. 0+88

Install 6" underdrain COTG

Repair exist. catch basin,
see struct. dwgs.

B Ramp MA Sta. 0+08

(o/s 22.0' RT)
Daylight to drain
See detail sht. C-22

B Ramp MB PC Sta. 11+07.39

R= 6,000'

B Ramp MB Sta. 11+50

(o/s 7.0' RT)
Install 6" underdrain COTG

Q conc. gutter
(6" underdrain, typ.)

Limits of
grading, typ.

Q conc. gutter
(6" underdrain, typ.)

Right-of-way, typ.

B Ramp MA (on-ramp)

B Ramp MA Sta. 1+77
Install 6" underdrain COTG

B Ramp MA Sta. 1+77.8

(o/s 10.0' RT)
Type 61614P Grated drop inlet
Inv.= 132.26 (D24)
See Std. Plan H-11 and detail sht. C-22
Conn. underdrain to grated drop inlet

New 24" Drainline (105 LF),
See profile and trench detail, sht. C-22

Connect new D24" to
exist. drain inlet
Inv.= 131.21,
Install new Type 2 grating,
see struct. dwgs

6" Underdrain, typ.

B Makakilo Drive Sta. 4+02.68=

B Ramp MA PC Sta. 0+00 (R= 500')
Install 6" underdrain COTG

INSET MA

TRUE NORTH
Scale: 1" = 40'

B Ramp MB PT Sta. 12+68.83

B Ramp MB Sta. 13+33.2

End conc. swale (o/s 10.0' RT)
Install 6" underdrain COTG

B Ramp MA Sta. 6+12.39

B Ramp MA PC Sta. 5+79.47
R= 500'

B Ramp MA PT Sta. 6+08.32
R= 420'

B Ramp MA Sta. 4+00

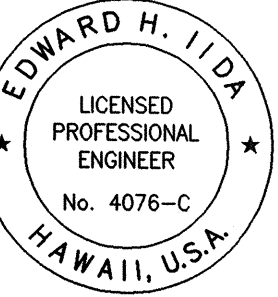
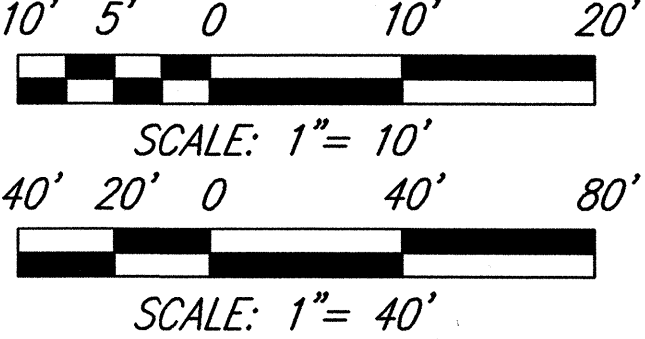
(o/s 7.0' RT)
Install 6" underdrain COTG

LEGEND FOR AS-BUILT POSTING

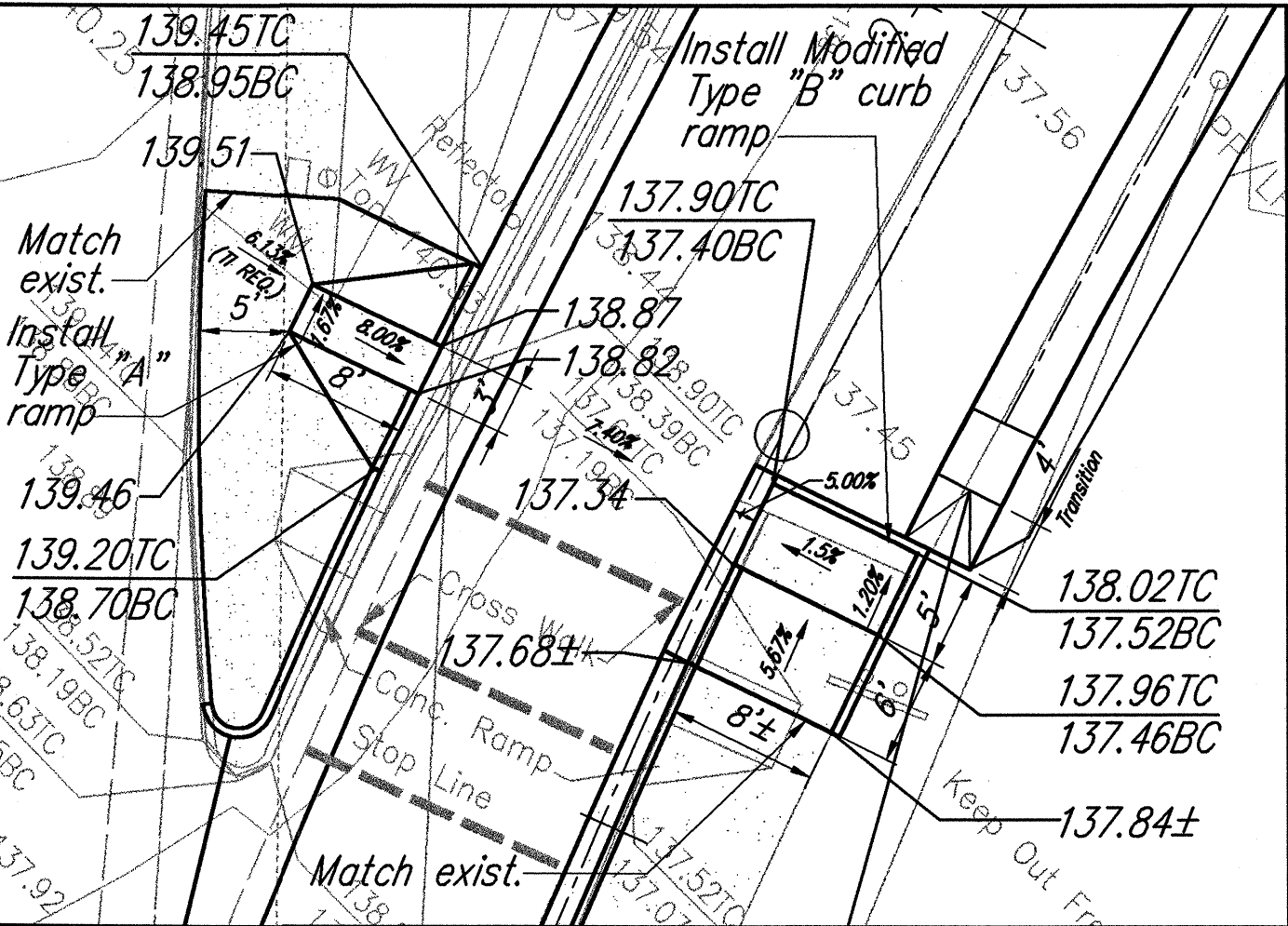
Squiggly line for as-built deletion
Double line for as-built deletion
Roadway Text for as-built posting

8/15/05	As-Built
DATE	REVISION

GRAPHIC SCALE:



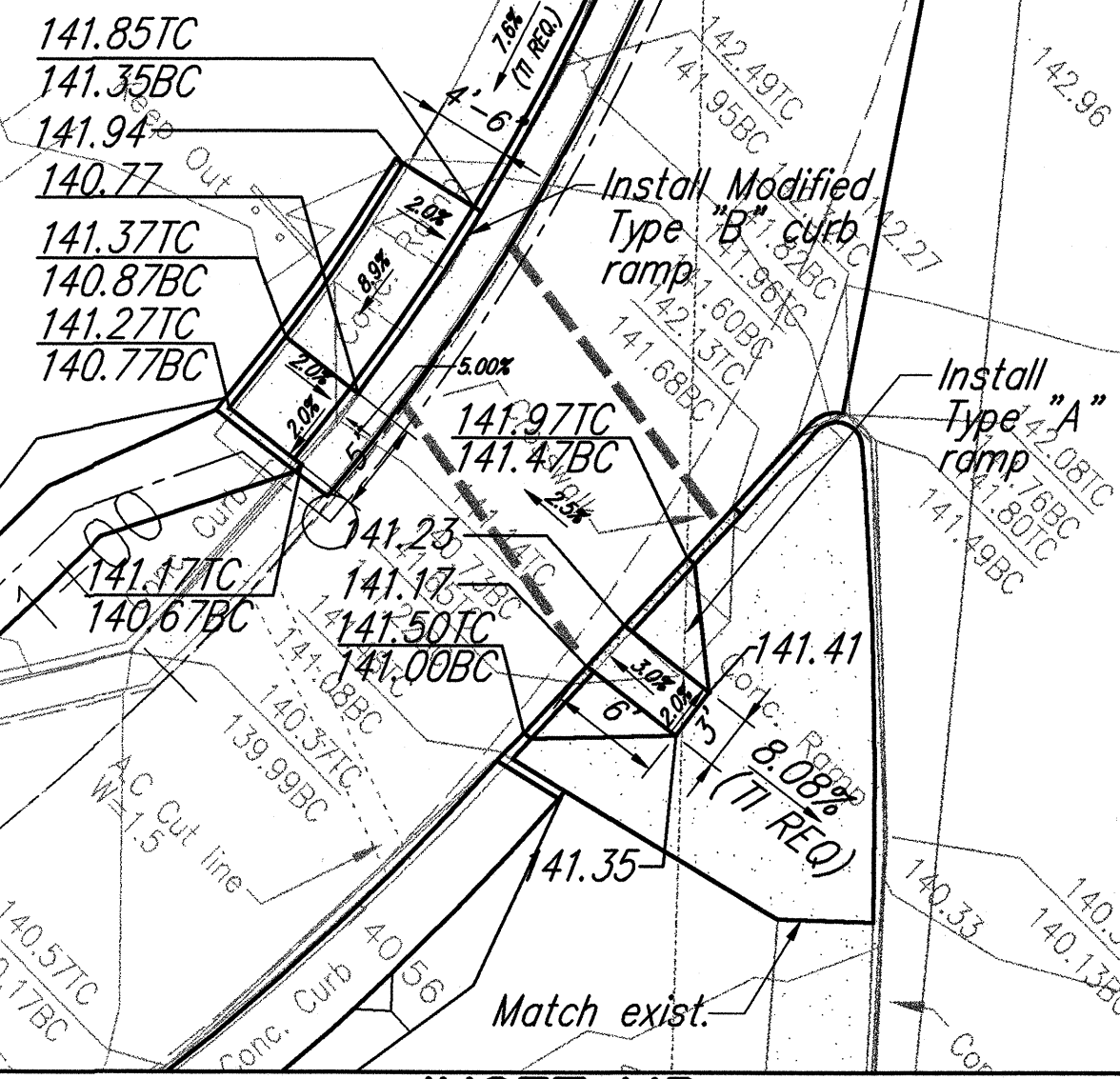
THIS WORK WAS PREPARED BY ME OR
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Edward H. Iida
MITSUNAGA & ASSOCIATES



INSET MA

Scale: 1" = 10'

Connect new conc. swale
to exist conc. swale,
provide smooth connection
Install 6" underdrain COTG



INSET MB

Scale: 1" = 10'

12/22/03 [X] Note added/ MH & Inlet added

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE AND GRADING PLAN

INTERSTATE ROUTE H-1 REHABILITATION

Vicinity Of Makakilo Interchange

Project No. H1A-01-02M

Scale: As Noted Date: April 2003

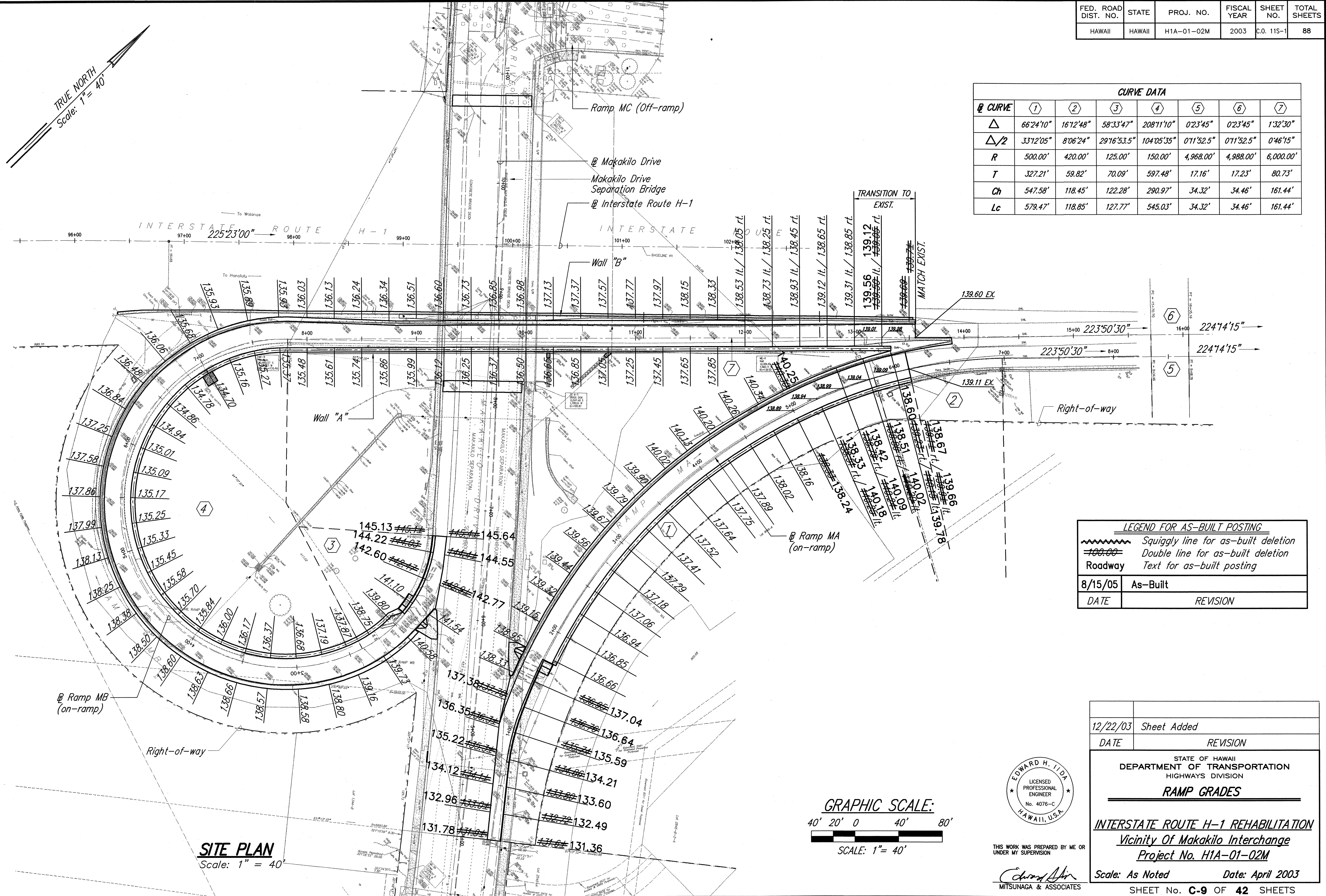
SHEET No. C-9 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	H1A-01-02M	2003	C.O. 11S-1	88

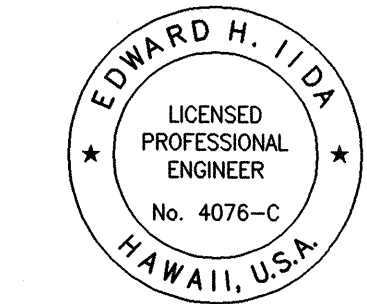
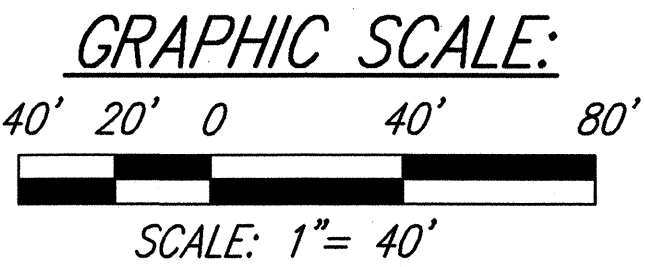
CURVE DATA							
Q CURVE	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Δ	66°24'10"	16°12'48"	58°33'47"	208°11'10"	0°23'45"	0°23'45"	1°32'30"
$\Delta/2$	33°12'05"	8°06'24"	29°16'53.5"	104°05'35"	0°11'52.5"	0°11'52.5"	0°46'15"
R	500.00'	420.00'	125.00'	150.00'	4,968.00'	4,988.00'	6,000.00'
T	327.21'	59.82'	70.09'	597.48'	17.16'	17.23'	80.73'
Ch	547.58'	118.45'	122.28'	290.97'	34.32'	34.46'	161.44'
Lc	579.47'	118.85'	127.77'	545.03'	34.32'	34.46'	161.44'

LEGEND FOR AS-BUILT POSTING	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting
8/15/05	As-Built
DATE	REVISION

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	8/15/05
	DESIGNED BY	8/15/05
	CHECKED BY	8/15/05
NOTE BOOK	DESIGNED BY	8/15/05
	CHECKED BY	8/15/05
	DATE	8/15/05
	NO.	8/15/05



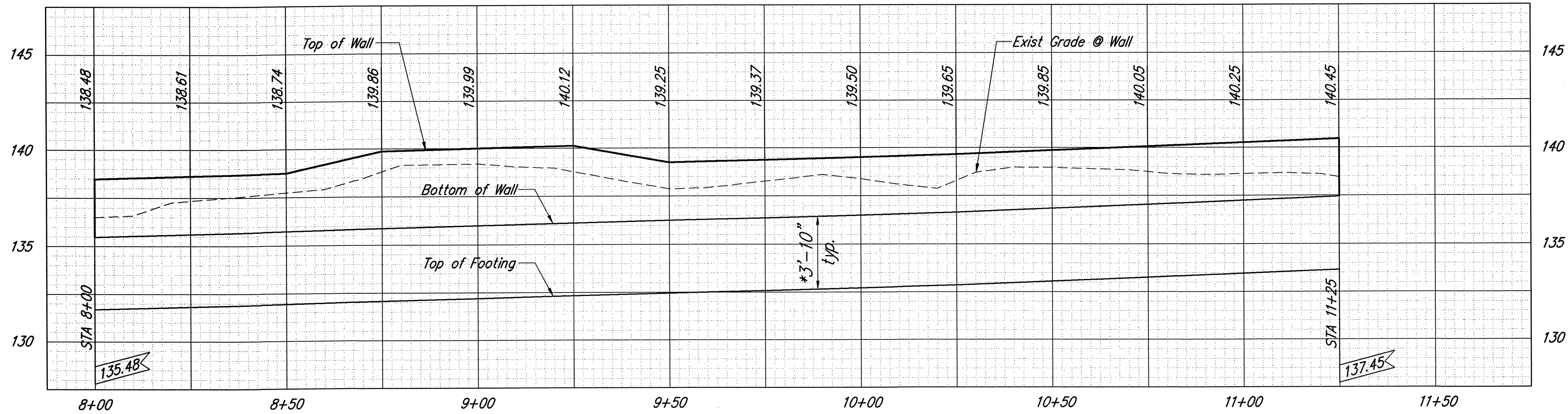
SITE PLAN
Scale: 1" = 40'



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MITSUNAGA & ASSOCIATES

12/22/03	Sheet Added
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION RAMP GRADES	
INTERSTATE ROUTE H-1 REHABILITATION Vicinity Of Makakilo Interchange Project No. H1A-01-02M	
Scale: As Noted	Date: April 2003
SHEET No. C-9 OF 42 SHEETS	

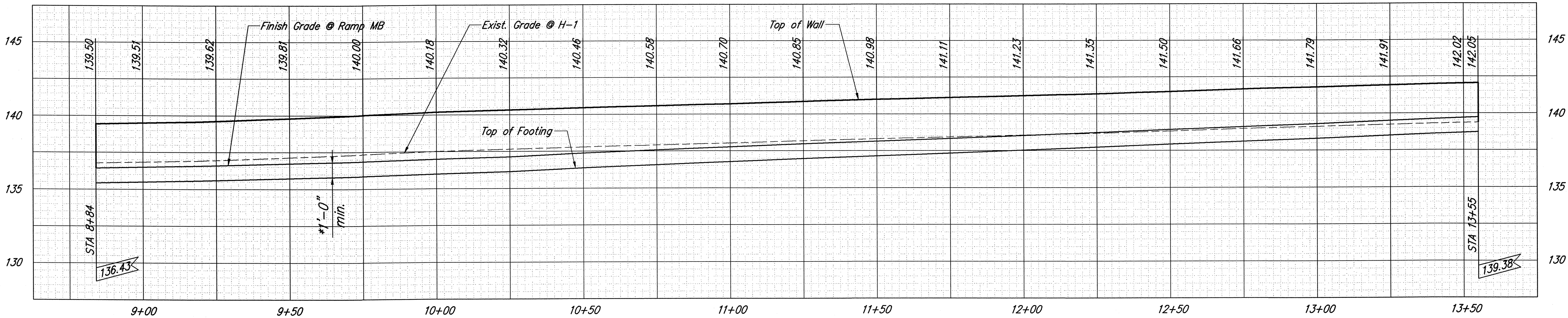
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	H1A-01-02M	2003	C.O. 11S-2	88



**Note:* Top of footing to be located 3'-10" below right EP finish grade. See plan for elevations.

PROFILE: WALL "A"

Scale: Horiz: 1" = 20'
Vert: 1" = 4'

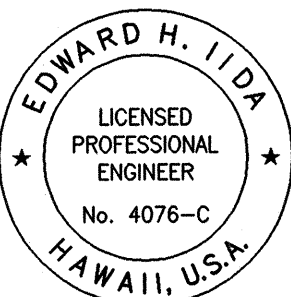
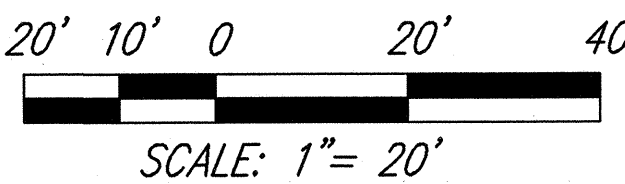
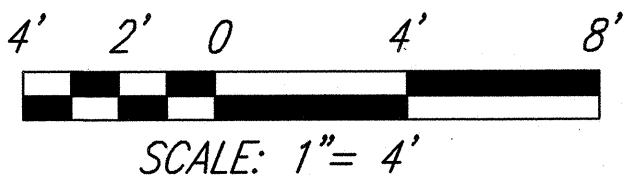


**Note:* Top of footing to be located 1'-0" (min.) below Ramp MB left EP finish grade. See plan for elevations.

PROFILE: WALL "B"

Scale: Horiz: 1" = 20'
Vert: 1" = 4'

GRAPHIC SCALE:



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12/22/03	Sheet Added
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
WALL PROFILES	
INTERSTATE ROUTE H-1 REHABILITATION	
Vicinity Of Makakilo Interchange	
Project No. H1A-01-02M	
Scale: As Noted	Date: April 2003
SHEET No. C-9 OF 42 SHEETS	

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	6/01
	DESIGNED BY	6/01
	QUANTITIES BY	6/01
	CHECKED BY	6/01