

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	29	50

BEGIN PROJECT

TRUE NORTH
SCALE : 1" = 400'

11
RM-3 (Bi)  RM-3 @ 100' 

1

M.L. # Sta. 208+00

Diagram illustrating the connection of a three-phase RM-3 (Bi) motor. The phases are labeled 11, 12, and 1, each consisting of a hexagonal symbol with a number and '(Bi)' followed by a terminal block. An arrow indicates the flow of current from the neutral point of the left side towards the right side. Below the phases, a dashed-line box contains the text 'F. A. P.', '10 - d (1)', and 'F - 10 (6)'.

MAMALAHOA HIGHWAY

<u>LEGEND FOR AS-BUILT POSTINGS</u>	
	Squiggly line for as-built deletion
100.00	Double line for as-built deletion
Redbox	Text for as-built posting

A hand-drawn map showing a river system. The map includes a scale bar labeled "SCALE : 1''=40'" and a north arrow labeled "TRUE NORTH". A vertical dashed line on the right side is labeled "84.61 L. R=11,459.16'".

MAMALAHOA HIGHWAY

M.L. B Sta. 219+00

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
	DRAWN BY _____	_____
	TRACED BY _____	_____
	DESIGNED BY _____	_____
NOTE BOOK	QUANTITIES BY _____	_____
	CHECKED BY _____	_____
I.O. _____		

M.L. # Sta. 208+00

KEY

- | | | | |
|---|--|---|--|
| ① | Exist. Sign(s) w/ Post(s) to Remain | ⑦ | Install New Sign(s) |
| ② | Remove Exist. Sign(s) w/ Post(s) | ⑧ | Remove Exist. Sign(s) & Reinstall |
| ③ | Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post/Pole | ⑨ | Remove Exist. Marker(s) & Install New Marker(s) w/ Flex Post(s) |
| ④ | Remove Exist. Sign(s) w/ Post(s) &
Install New Sign(s) w/ Post(s) | ⑩ | Install New Marker(s) w/ Flex Post(s) |
| ⑤ | Install New Sign(s) w/ Post(s) | ⑪ | Remove Exist. Marker(s) w/ Post(s) & Install New
Marker(s) w/ Steel Post(s) |
| ⑥ | Remove Exist. Sign(s) & Install New Sign(s) | ⑫ | Install New Marker(s) w/ Steel Post(s) |

STATE OF HAWAII

HIGHWAYS DIVISION

SIGNAGE AND PAVEMENT

MARKING PLAN

MAMALAHOA HIGHWAY RESURFACING
Vicinity of Kamakoa Bridge No. 1 to Keamoku

Project No. 190DE-01-99M

Scale: As Shown Date: June, 1999

SHEET No. 1 OF 13 SHEETS

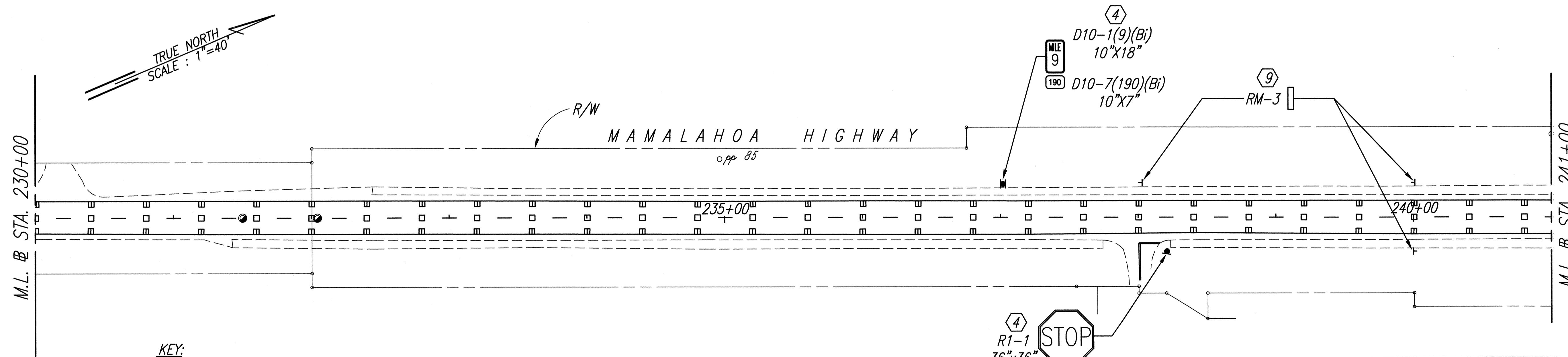
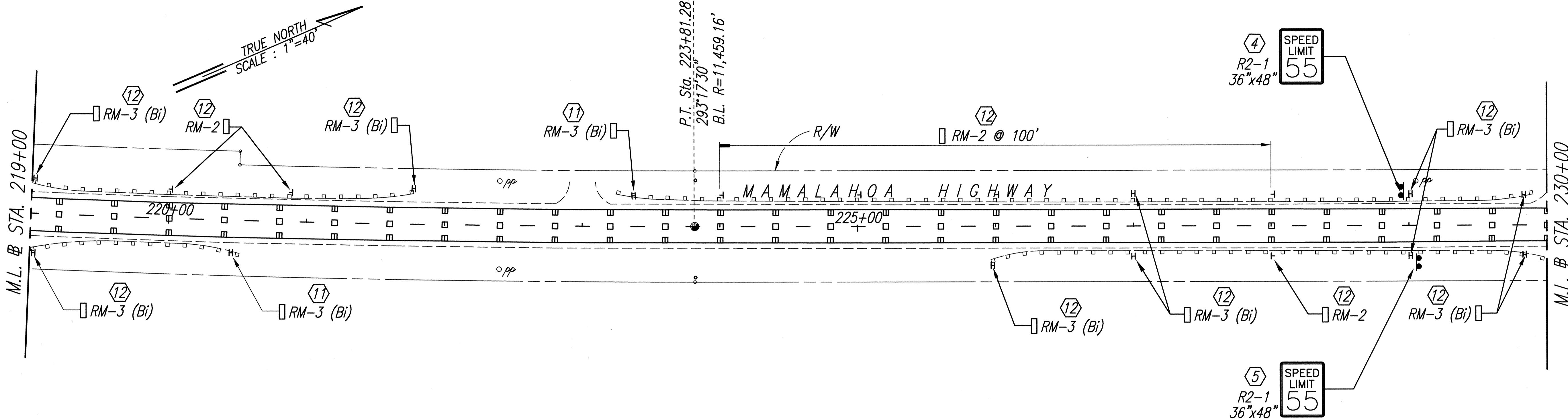
SHEET No. 1 OF 13 SHEETS

29

29

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	30	50



ORIGINAL PLAN	SURVEY PLOTTED BY _____ DRAWN BY _____ TRACED BY _____ DESIGNED BY _____	DATE _____ " _____ " _____ " _____ " _____
NOTE BOOK No. _____	QUANTITIES BY _____ CHECKED BY _____	

KEY

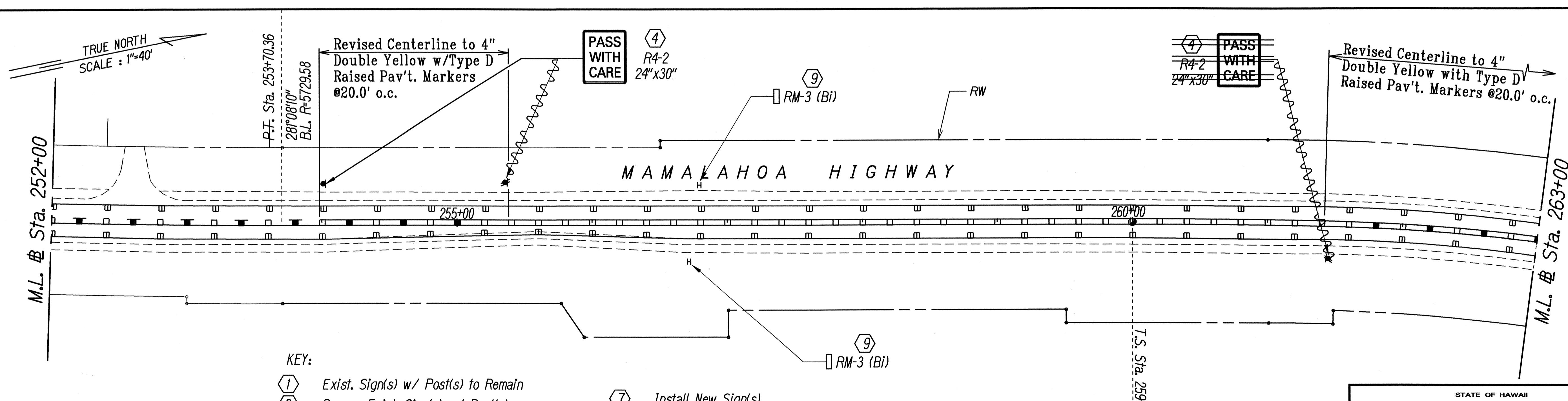
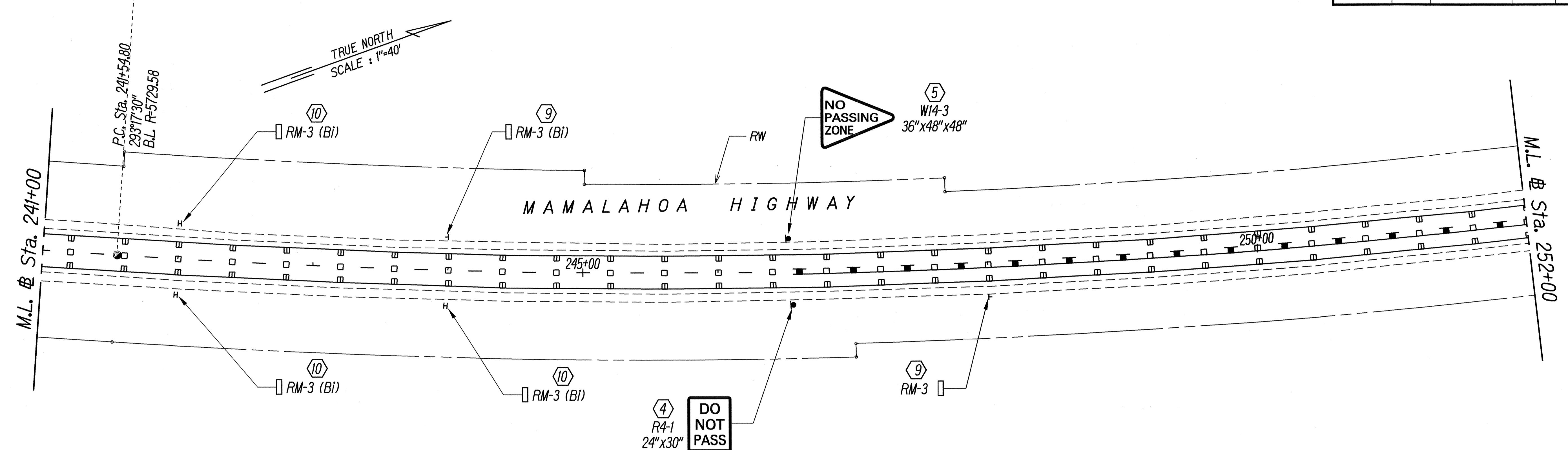
- | | | | |
|---|--|---|--|
| ① | Exist. Sign(s) w/ Post(s) to Remain | ⑦ | Install New Sign(s) |
| ② | Remove Exist. Sign(s) w/ Post(s) | ⑧ | Remove Exist. Sign(s) & Reinstall |
| ③ | Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post/Pole | ⑨ | Remove Exist. Marker(s) & Install New Marker(s) w/ Flex Post(s) |
| ④ | Remove Exist. Sign(s) w/ Post(s) &
Install New Sign(s) w/ Post(s) | ⑩ | Install New Marker(s) w/ Flex Post(s) |
| ⑤ | Install New Sign(s) w/ Post(s) | ⑪ | Remove Exist. Marker(s) w/ Post(s) & Install New
Marker(s) w/ Steel Post(s) |
| ⑥ | Remove Exist. Sign(s) & Install New Sign(s) | ⑫ | Install New Marker(s) w/ Steel Post(s) |



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SIGNAGE AND PAVEMENT
MARKING PLAN
MAMALAHOA HIGHWAY RESURFACING
Vicinity of Kamakoa Bridge No. 1 to Keanihi Point
Project No. 190DE-01-99M

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	31	50



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE:
NOTE BOOK	DRAWN BY	
CHIEF ENGINEER	THREADED BY	
REVIEWED BY	APPROVED BY	
checked by		
N.		

LEGEND FOR AS-BUILT POSTINGS	
~~~~~	Squiggly line for as-built deletion
~~~	Double line for as-built deletion
Roadway	Text for as-built posting

- KEY:
- (1) Exist. Sign(s) w/ Post(s) to Remain
 - (2) Remove Exist. Sign(s) w/ Post(s)
 - (3) Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post/Pole
 - (4) Remove Exist. Sign(s) w/ Post(s) & Install New Sign(s) w/ Post(s)
 - (5) Install New Sign(s) w/ Post(s)
 - (6) Remove Exist. Sign(s) & Install New Sign(s)
 - (7) Install New Sign(s)
 - (8) Remove Exist. Sign(s) & Reinstall
 - (9) Remove Exist. Marker(s) & Install New Marker(s) w/ Flex Post(s)
 - (10) Install New Marker(s) w/ Flex Post(s)
 - (11) Remove Exist. Marker(s) w/ Post(s) & Install New Marker(s) w/ Steel Post(s)
 - (12) Install New Marker(s) w/ Steel Post(s)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**SIGNAGE AND PAVEMENT
MARKING PLAN**
MAMALAHOA HIGHWAY RESURFACING
Vicinity of Kamakoa Bridge No. 1 to Keamoku
Project No. 190DE-01-99M
Scale: As Shown Date: June, 1999
SHEET No. 3 OF 13 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	32	50

Revised Centerline to 4" Double Yellow with
Type D Raised Pavement Markers @20.0' o.c.

**Revised Centerline
to 4" Double Yellow
with Type D Raised
Pavement Markers
@20.0' o.c.**

M.L. B Sta. 43+00

TRUE NORTH
SCALE : 1"=40'

4 W1-8 18"x24"

M.L.
Sta. 263+00

C.S. Sta. 263+61.21

RW

MAMALAHOA HIGHWAY

265+00 270+00

7 W14-3 36"x48"x48"

9 RM-3 (Bi)

NO PASSING ZONE

4 W5-1 30"x30"

7 R4-1 24"x30"

DO NOT PASS

NO PASSING ZONE

6 W13-1(35) 24"x24"

35 M.P.H.

P.C. Sta. 41+67.43 A
R=2665.44

FEQ. Sta. 271+93.70 M&E
P.T. STA. 41+67.43 (Ah.)

Revised Centerline to 4" Double Yellow with
Type D Raised Pavement Markers @20.0' o.c.

TRUE NORTH
SCALE : 1"=40'

TRUE NORTH
SCALE : 1"=40'

MAMALAHOA HIGHWAY

KEY:

- (1) Exist. Sign(s) w/ Post(s) to Remain
- (2) Remove Exist. Sign(s) w/ Post(s)
- (3) Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post/Pole
- (4) Remove Exist. Sign(s) w/ Post(s) & Install New Sign(s) w/ Post(s)
- (5) Install New Sign(s) w/ Post(s)
- (6) Remove Exist. Sign(s) & Install New Sign(s)
- (7) Install New Sign(s)
- (8) Remove Exist. Sign(s) & Reinstall
- (9) Remove Exist. Marker(s) & Install New Marker(s) w/ Flex Post(s)

P.T. Sta. 44+77.18 P.T. Sta. 45+00

P.C. Sta. 44+77.18 P.C. Sta. 45+00

P.T. Sta. 45+00 P.T. Sta. 45+05.44

P.C. Sta. 45+05.44 P.C. Sta. 45+11.5

P.T. STA. 50+49.72 (Bk.) P.T. STA. 50+50.93 (Ah.)

EQ.

SIGNAGE AND PAVING MARKING PLAN

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION**

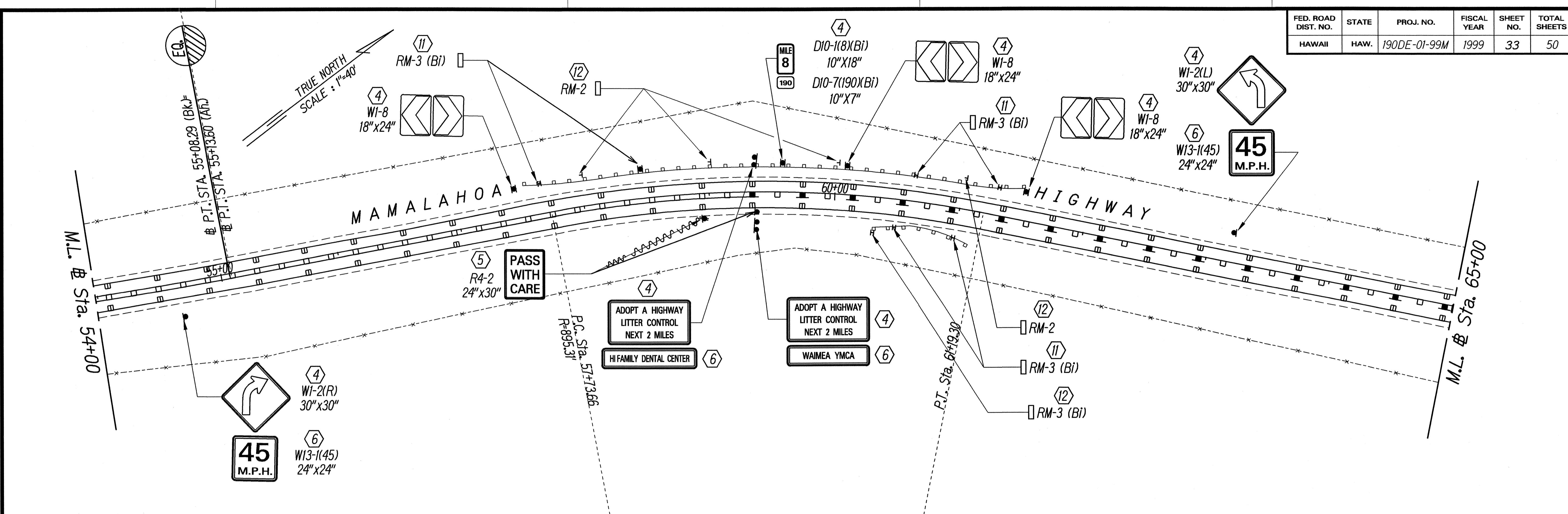
SIGNAL AND PAVEMENT MARKING PLAN

MAMALAHOA HIGHWAY RESURFACING
Vicinity of Kamakoa Bridge No. 1 to Keamoku
Project No. 1900E-01-99M

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
100.00	Double line for as-built deletion
Roadway	Text for as-built posting

"AS-BUILT"

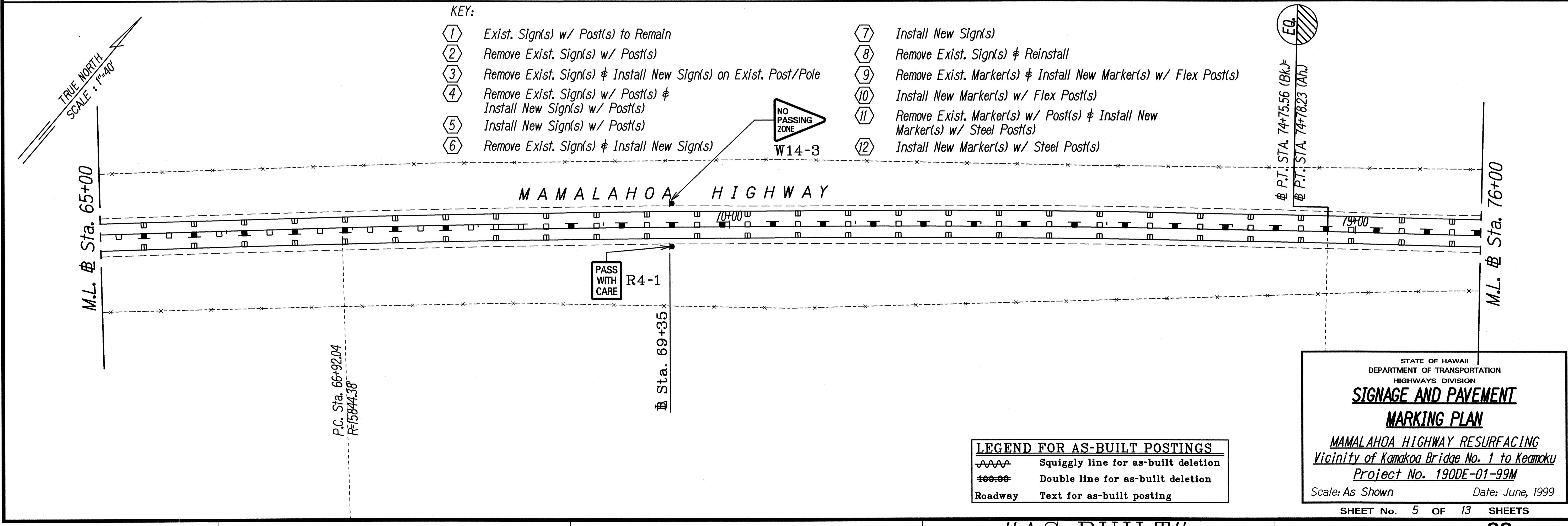
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	33	50



KEY:

- (1) Exist. Sign(s) w/ Post(s) to Remain
- (2) Remove Exist. Sign(s) w/ Post(s)
- (3) Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post/Pole
- (4) Remove Exist. Sign(s) w/ Post(s) & Install New Sign(s) w/ Post(s)
- (5) Install New Sign(s) w/ Post(s)
- (6) Remove Exist. Sign(s) & Install New Sign(s)
- (7) Install New Sign(s)
- (8) Remove Exist. Sign(s) & Reinstall
- (9) Remove Exist. Marker(s) & Install New Marker(s) w/ Flex Post(s)
- (10) Install New Marker(s) w/ Flex Post(s)
- (11) Remove Exist. Marker(s) w/ Post(s) & Install New Marker(s) w/ Steel Post(s)
- (12) Install New Marker(s) w/ Steel Post(s)

ORIGINAL SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
CHECKED BY	
RE-CHECKED BY	

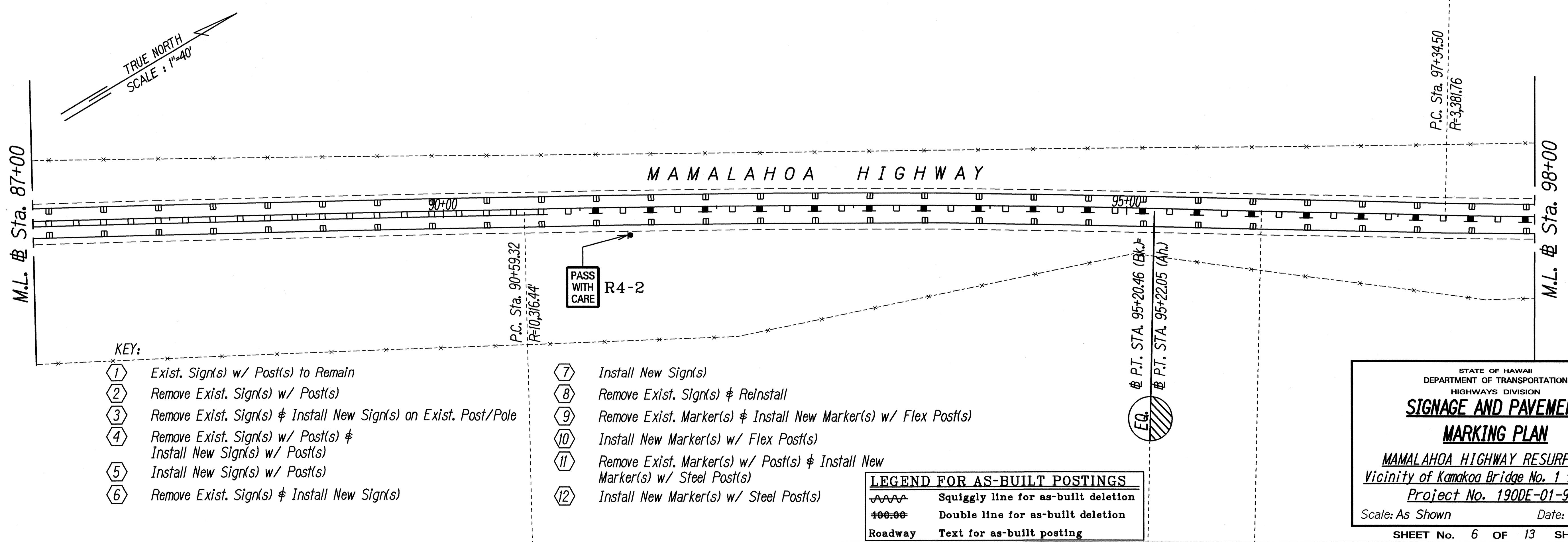
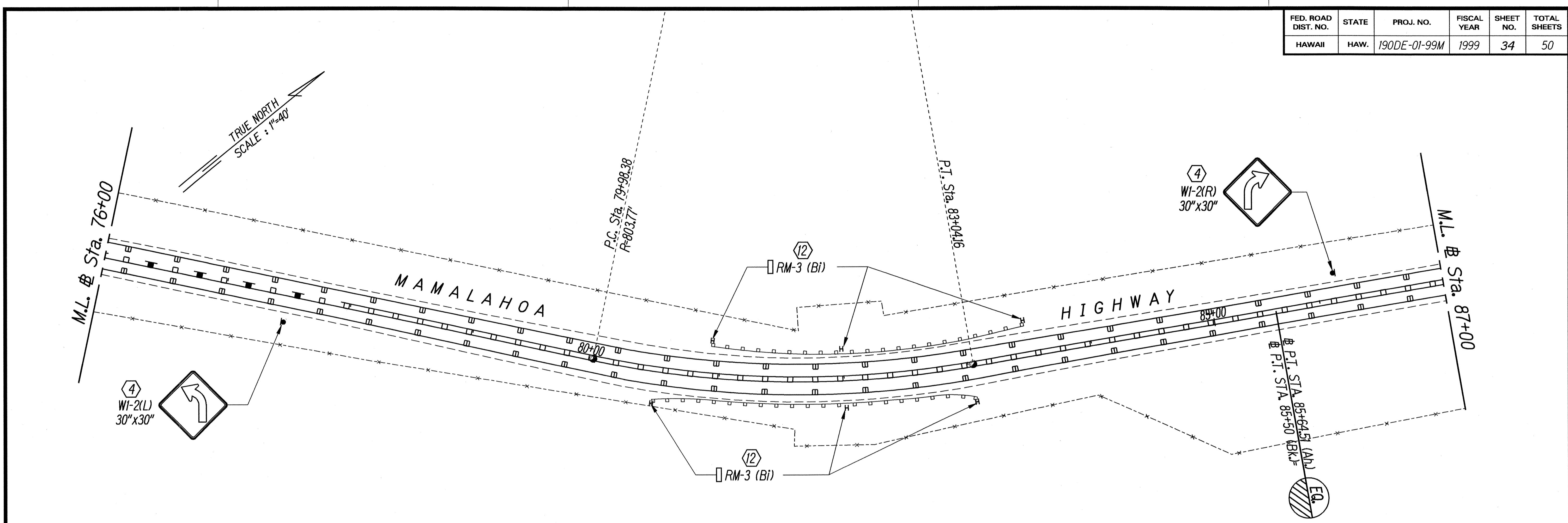


LEGEND FOR AS-BUILT POSTINGS

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

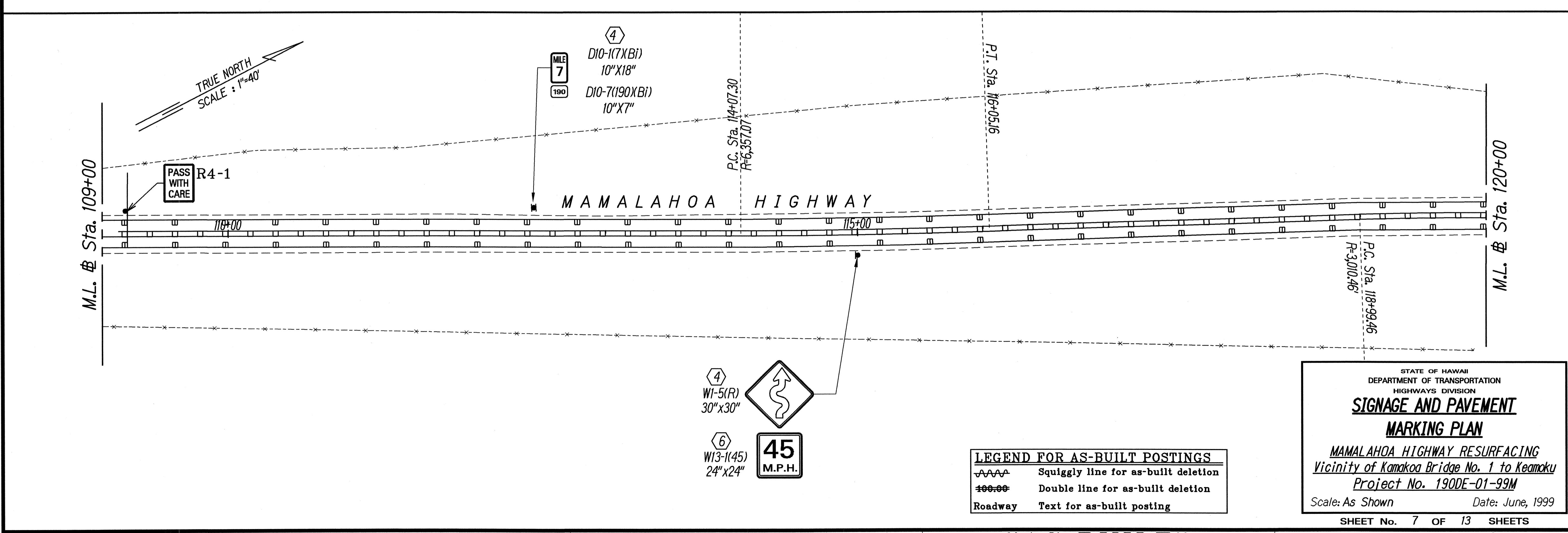
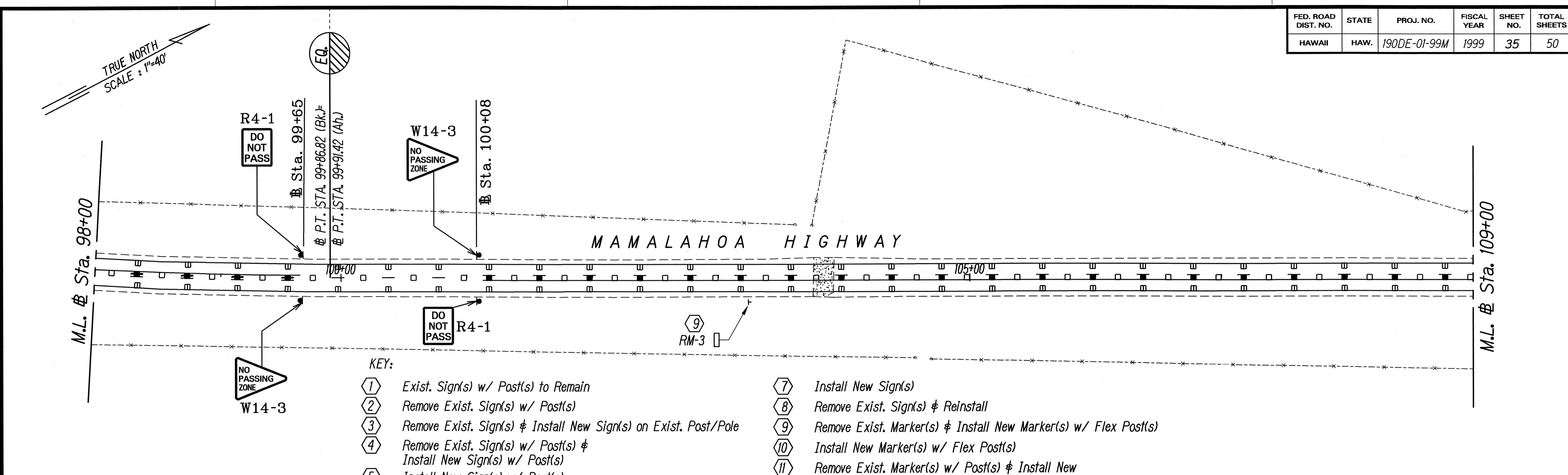
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**SIGNAGE AND PAVEMENT
MARKING PLAN**
MAMALAHOA HIGHWAY RESURFACING
Vicinity of Kamakoa Bridge No. 1 to Keamoku
Project No. 190DE-01-99M
Scale: As Shown Date: June, 1999

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	34	50



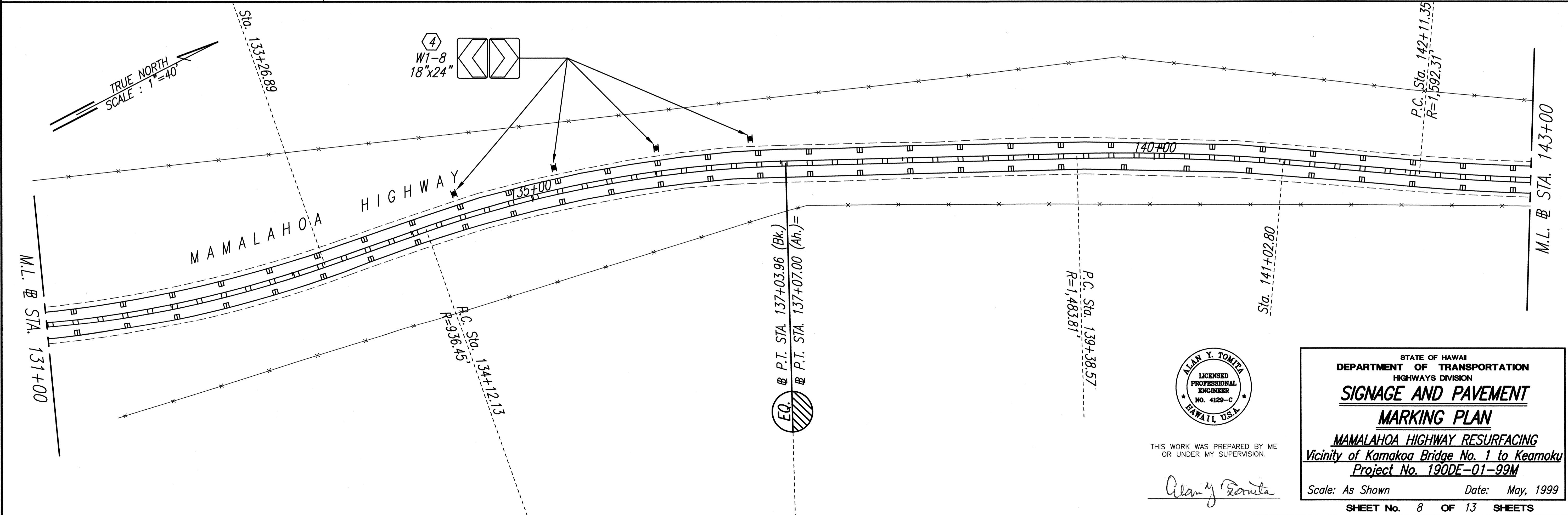
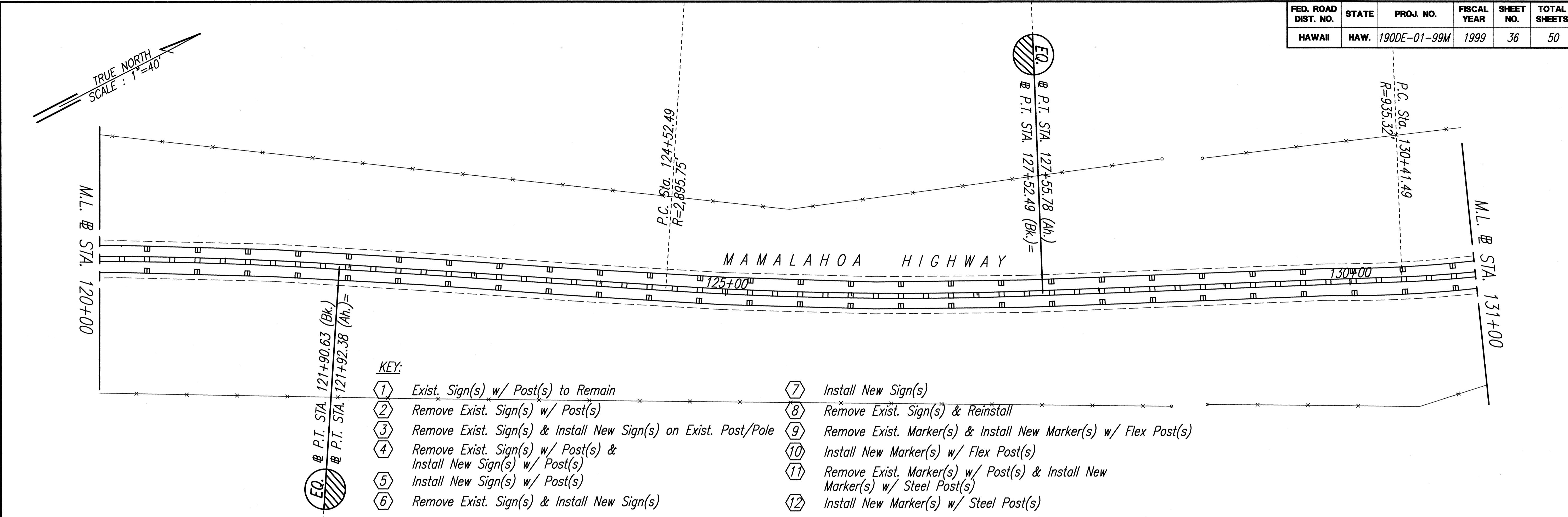
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	35	50



"AS-BUILT"

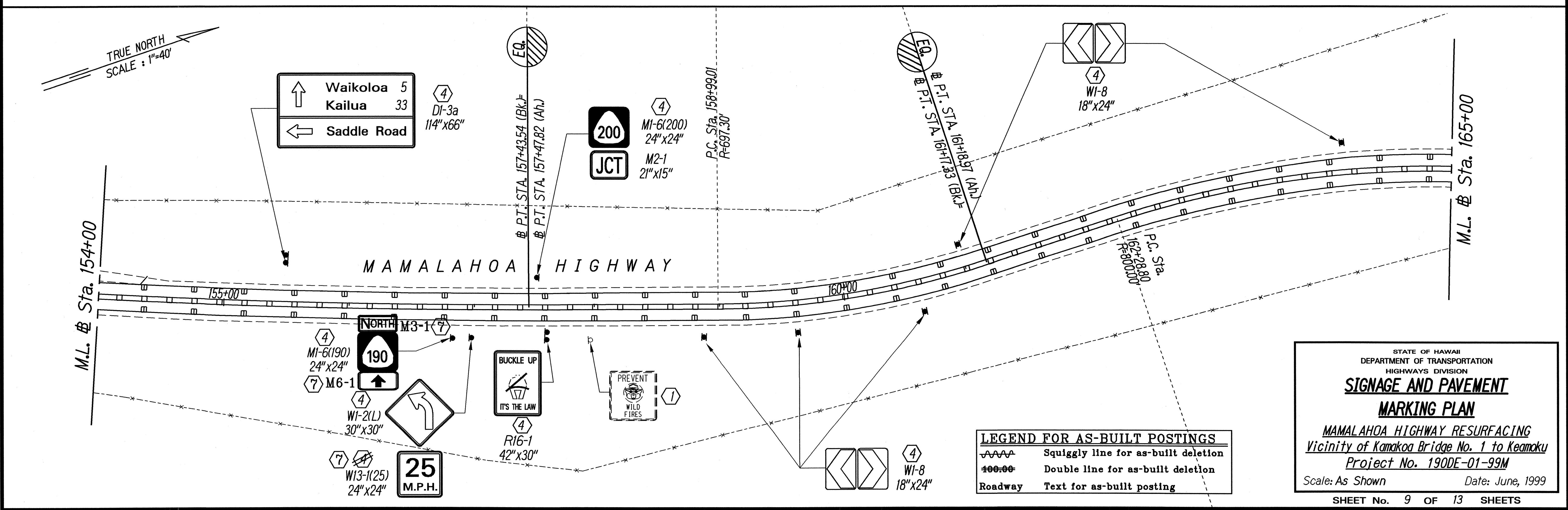
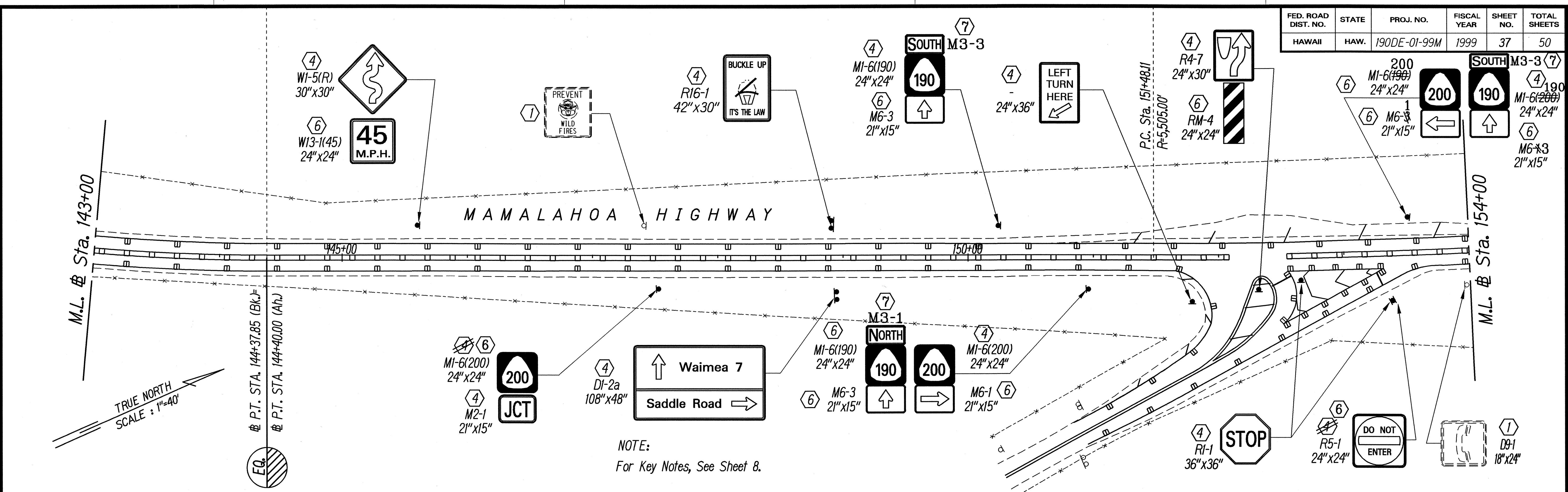
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	36	50



ORIGINAL SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTIFIED BY	
CHECKED BY	No. _____

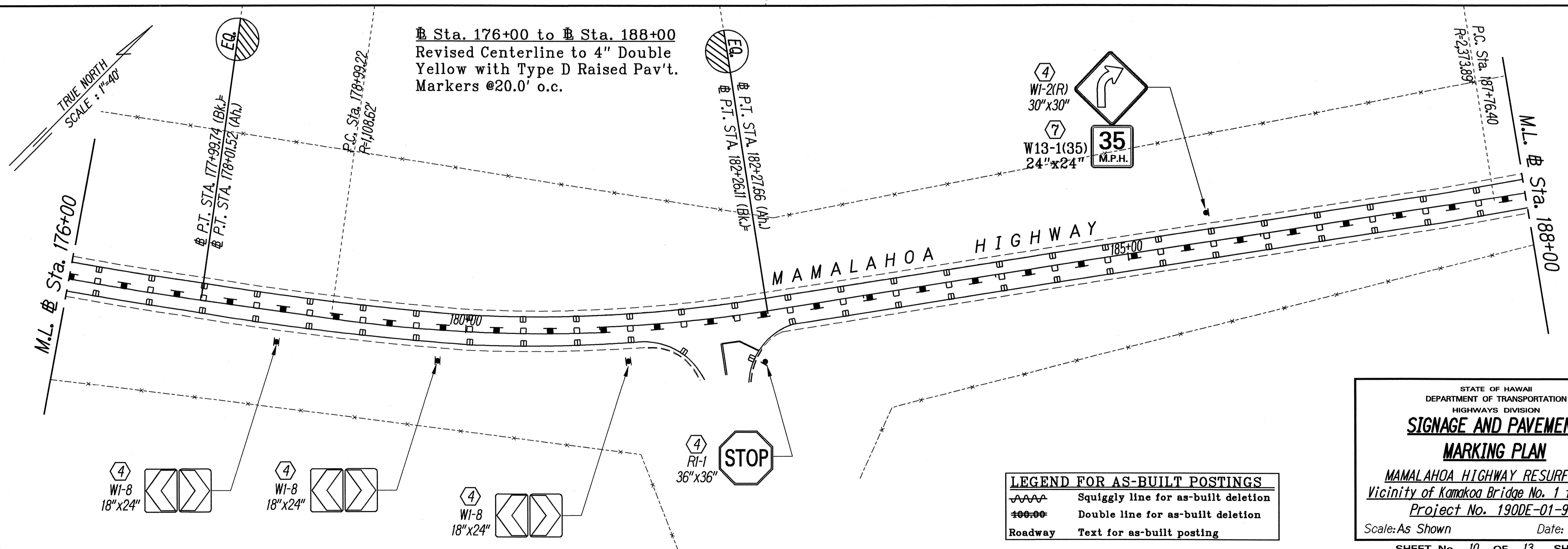
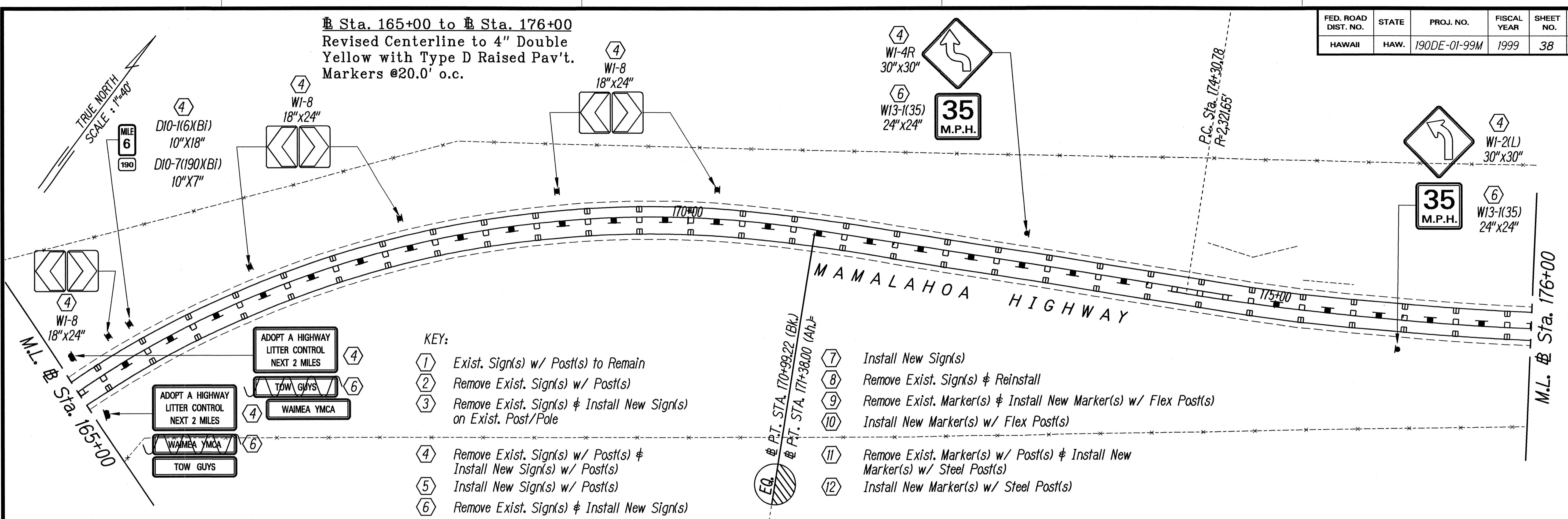
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	37	50

A diagram illustrating the placement of directional signs. It shows a vertical line with a horizontal dashed line across it.
 - On the left, a triangular sign points down and to the left, containing a hexagon with the number 6 and the text "M6-13 21"x15"".
 - To its right, a large rectangular sign has two sections: the top section contains a hexagon with the number 6 and the text "M1-6(190) 24"x24"", and the bottom section contains a white arrow pointing left.
 - To the right of this is another large rectangular sign divided into two sections: the top section contains a hexagon with the number 4 and the text "M1-6(200) 24"x24"", and the bottom section contains a white arrow pointing up.
 - Further to the right is a vertical sign with a hexagon at the top containing the text "SOUTH M3-3 < 7", followed by a vertical line with a hexagon containing the number 6 and the text "M6-13 21"x15"" below it.



"AS-BUILT"

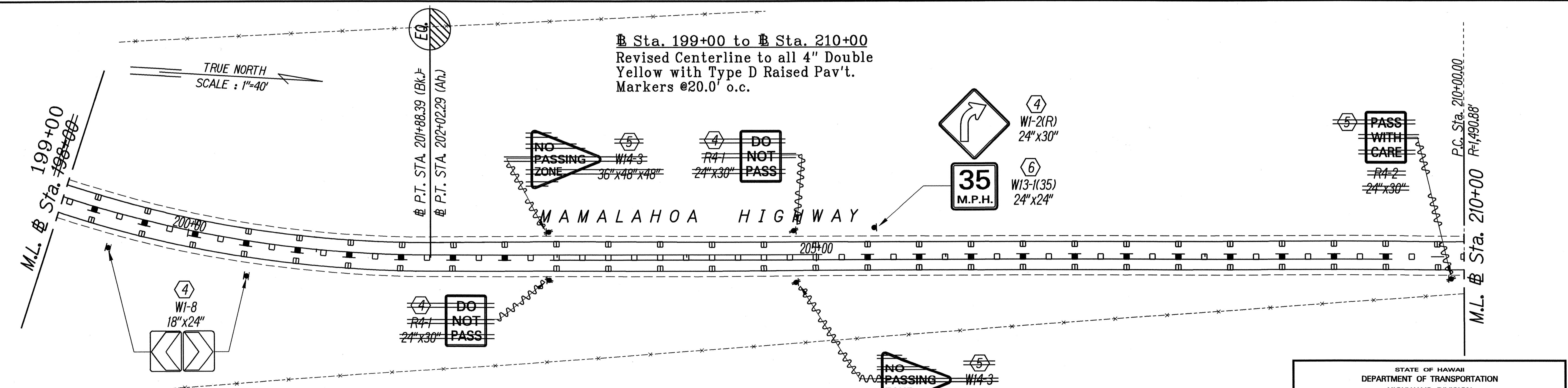
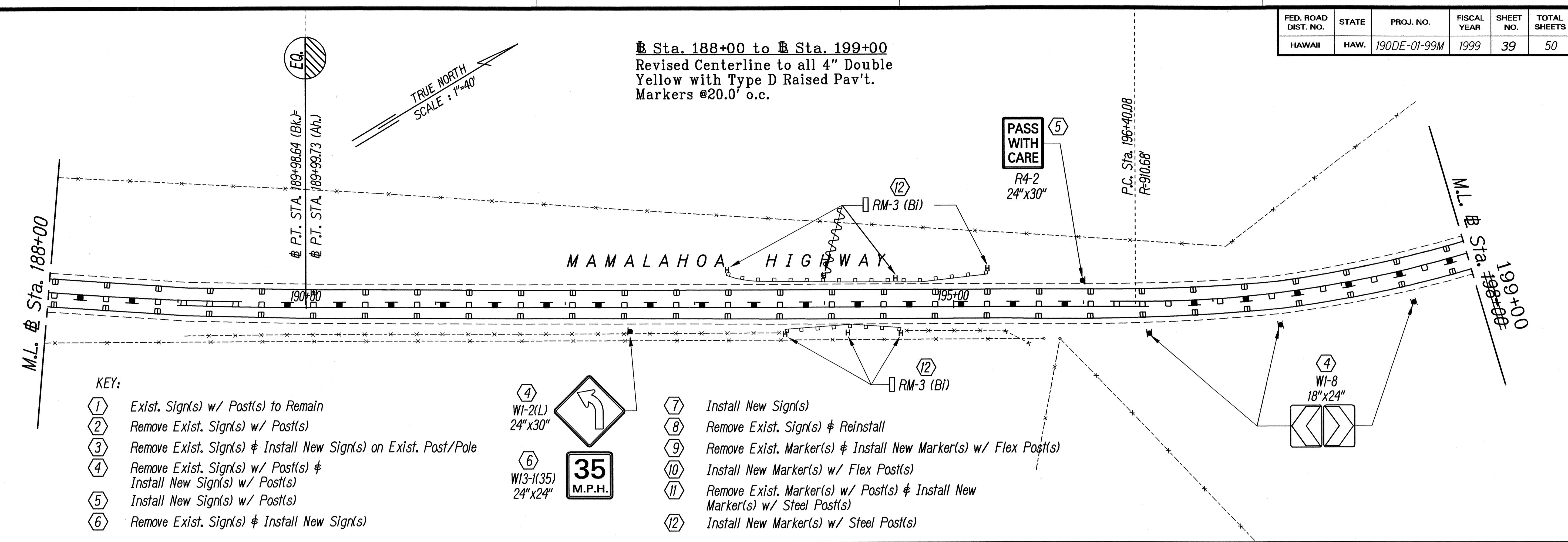
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	38	50



ORIGINAL PLANS	SURVEY PLOTTED BY	DATE
DRAWN BY	RECORDED BY	
NOTE BOOK	QUANTITY SURVEY	
RECORDED BY	QUANTITY SURVEY	
CHECKED BY	N.	

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	39	50



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWS BY	
DESIGNED BY		
QUANTITIES BY		
CHECKED BY		

LEGEND FOR AS-BUILT POSTINGS	
~~~~~	Squiggly line for as-built deletion
=====	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**SIGNAGE AND PAVEMENT  
MARKING PLAN**

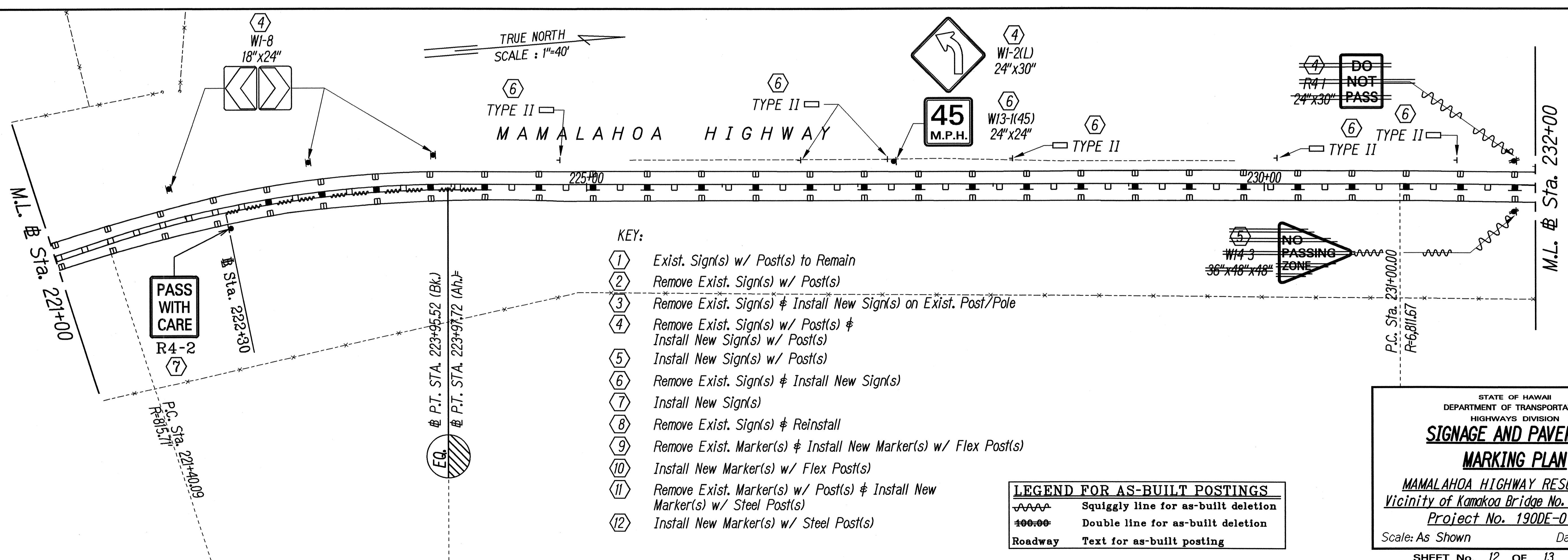
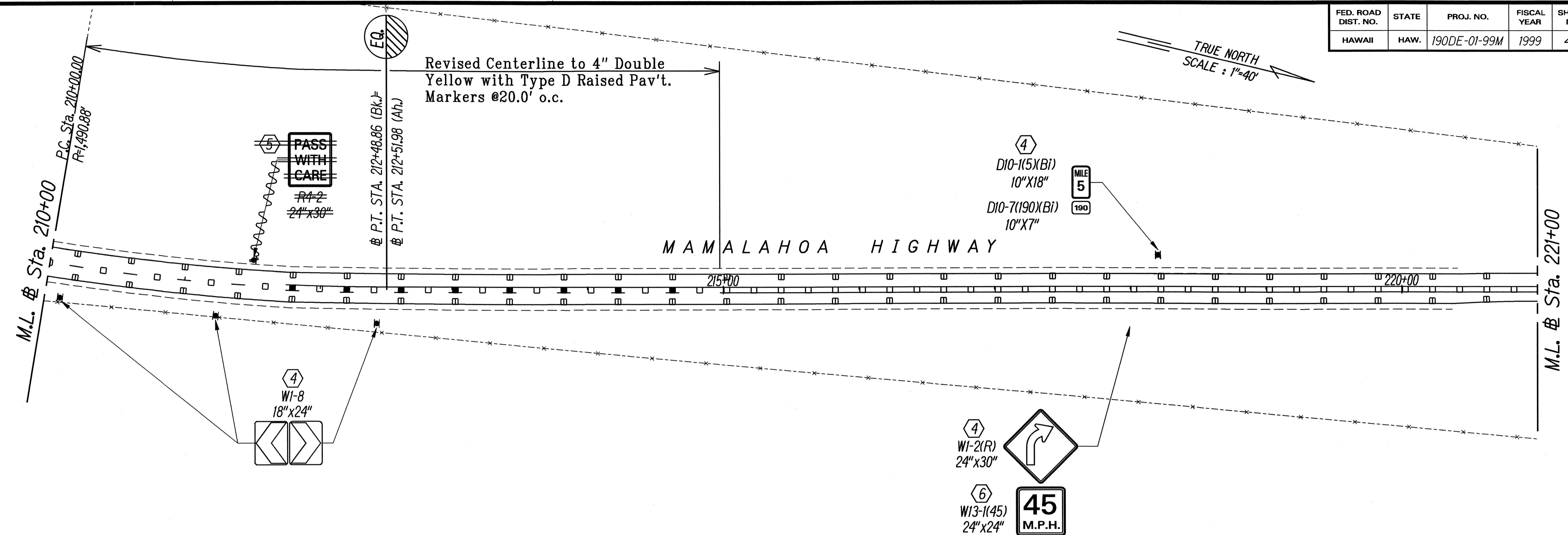
MAMALOHA HIGHWAY RESURFACING  
Vicinity of Kamakoa Bridge No. 1 to Keamoku  
Project No. 190DE-01-99M

Scale: As Shown Date: June, 1999

SHEET NO. 11 OF 13 SHEETS

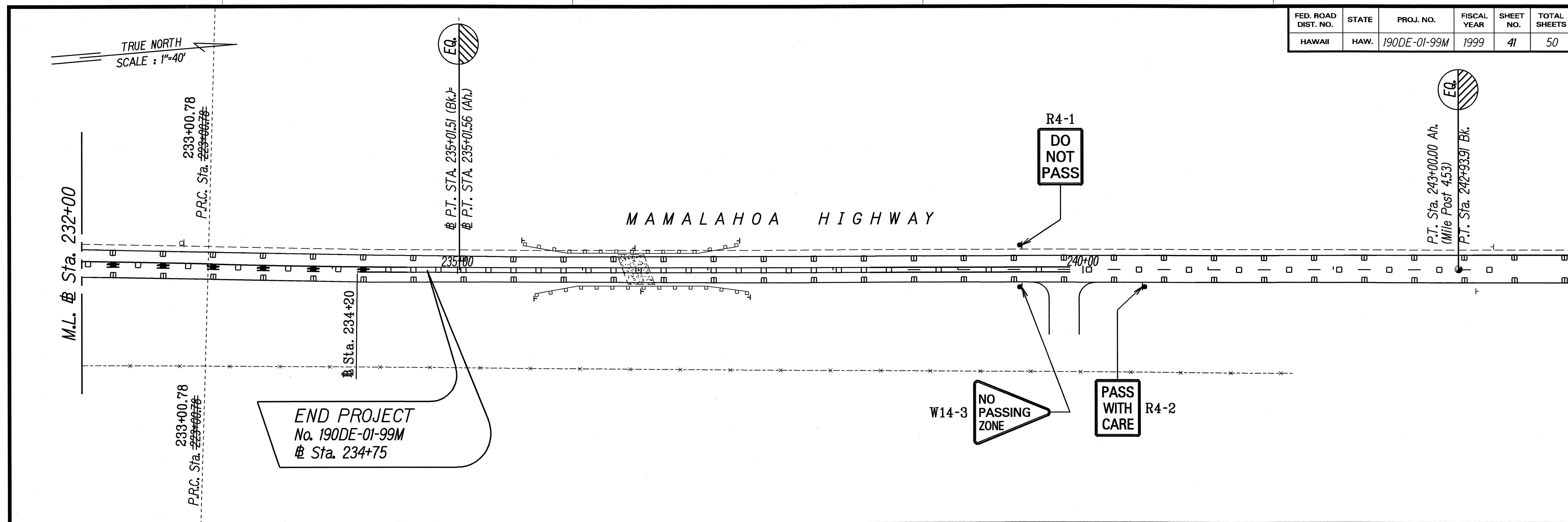
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	40	50



# "AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	190DE-01-99M	1999	41	50



ORIGINAL	SURVEY PLOTTED BY _____	DATE _____
PLAN	DRW. BY _____	RECD. BY _____
NOTE	DESIGNED BY _____	QUANTITATED BY _____
BOOK	CHECKED BY _____	N. _____

KEY:

- (1) Exist. Sign(s) w/ Post(s) to Remain
- (2) Remove Exist. Sign(s) w/ Post(s)
- (3) Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post/Pole
- (4) Remove Exist. Sign(s) w/ Post(s) & Install New Sign(s) w/ Post(s)
- (5) Install New Sign(s) w/ Post(s)
- (6) Remove Exist. Sign(s) & Install New Sign(s)
- (7) Install New Sign(s)
- (8) Remove Exist. Sign(s) & Reinstall
- (9) Remove Exist. Marker(s) & Install New Marker(s) w/ Flex Post(s)
- (10) Install New Marker(s) w/ Flex Post(s)
- (11) Remove Exist. Marker(s) w/ Post(s) & Install New Marker(s) w/ Steel Post(s)
- (12) Install New Marker(s) w/ Steel Post(s)

LEGEND FOR AS-BUILT POSTINGS	
~~~~~	Squiggly line for as-built deletion
=====	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**SIGNAGE AND PAVEMENT
MARKING PLAN**
MAMALAHOA HIGHWAY RESURFACING
Vicinity of Kamakoa Bridge No. 1 to Keamoku
Project No. 190DE-01-99M
Scale: As Shown Date: June, 1999

SHEET No. 13 OF 13 SHEETS

"AS-BUILT"