

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-98	1998	13	21

**LEGEND**

- 4 each Type A Raised Pavement Markers  
Type C Raised Pavement Markers @ 40' - 0" o.c.
- 4 each Type J Raised Pavement Markers  
Type D Raised Pavement Markers @ 40' - 0" o.c.
- 8" White Stripe with Type C Raised Pavement Markers @ 20' - 0" o.c. (Tape, Type I or Thermoplastic Extrusion)
- 4" Double Solid Yellow with Type D Raised Pavement Markers @ 20' - 0" o.c. (Tape, Type I or Thermoplastic Extrusion)
- 4" Double Solid Yellow Stripes with Type H Raised Pavement Markers @ 20' - 0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" Yellow Edge Stripe with Type H Raised Pavement Markers @ 40' - 0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" Double Solid White Stripes with Type C Raised Pavement Markers @ 20' - 0" o.c. (Tape, Type I or Thermoplastic Extrusion)
- Lane Change Restriction Marking  
4 each Type A Raised Pavement Markers  
Type C Raised Pavement Markers @ 20' - 0" o.c.  
4" White Stripe (Tape, Type I or Thermoplastic Extrusion)
- 4" or 8" White Edge Stripe with Type C Raised Pavement Markers @ 40' - 0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" White or Yellow Guide Lines (Tape, Type III, or Thermoplastic Extrusion, Except for Busbays)
- Transverse Median Marking (Tape, Type II or Thermoplastic Extrusion)
- Transverse Shoulder Marking (Tape, Type II or Thermoplastic Extrusion)
- 8" White Channelizing Island or Deceleration Lane Gore with Type C Raised Pavement Markers @ 20' - 0" o.c. and 12" White Diagonal Striping. (Tape, Type II, or Thermoplastic Extrusion)
- Crosswalk and Stop Line. All Stop Lines shall be 10' - 0" from Crosswalk unless otherwise noted. The circled number indicates the number of lanes for payment. (Tape, Type III, or Thermoplastic Extrusion)
- Pavement Arrow (Tape, Type III or Thermoplastic Extrusion)
- Pavement Word (Tape, Type III or Thermoplastic Extrusion)
- Flexible Post Delineator
- 4 Each Type J Raised Pavement Markers  
Type D Raised Pavement Markers @ 40' - 0" o.c.  
Type H Raised Pavement Markers (Reflective Surface facing no-passing direction)
- 4" Single Solid Yellow Stripe (Tape, Type I or Thermoplastic Extrusion)
- Extension of Edge Line, 4" Wide x 2' - 0" Long  
White Stripe @ 10' - 0" o.c. w/Type C Markers @ 40' - 0" o.c. (Tape, Type III or Thermoplastic Extrusion)

**NOTES**

1. Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any Installation work.
2. Existing pavement markings not incorporated in the final traffic pattern shall be removed as directed by the Engineer. Costs shall be incidental to the various pavement marking items.
3. Raised pavement markers shall not be installed within crosswalks.
4. Final locations of all signs shall be approved by the Engineer prior to any Installation work.
5. Existing signs not shown on these plans shall remain as posted unless otherwise directed by the Engineer. Removal and disposal of existing signs and/or posts as designated on these plans shall be incidental to the various signing items.
6. Final locations of all Stop Lines shall be approved by the Engineer prior to installation.
7. All pavement striping shall be as noted on the Legend and/or plans.
8. All preformed pavement marking tapes over existing pavement shall be applied with an approved primer as recommended by the tape manufacturer and as approved by the Engineer. The primer shall be allowed to dry to the tacky stage prior to tape installation.
9. The following abbreviations shall be used:
  - TI = Tape, Type I
  - TII = Tape, Type II
  - TIII = Tape, Type III
  - TPE = Thermoplastic Extrusion
  - RPM = Raised Pavement Markers
  - C = PRM, Type C
  - D = PRM, Type D
  - WS = White Stripe
  - DSY = Double Solid Yellow
  - WES = White Edge Stripe
  - WGL = White Guide Lines
  - TSM = Transverse Shoulder Markings
10. Removal of existing Delineators and Posts as directed by the Engineer shall be considered incidental to the various signing items.
11. Existing signs that are to be replaced shall not be removed until new signs are installed as replacements, or the messages are no longer necessary.
12. Backing for all new regulatory and warning signs shall not be spliced.
13. All sign panels shall conform to Section 621 of Special Provisions and the latest editions and amendments of the following FHWA publications:
  - a. "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
  - b. "Standard Highway Signs"
  - c. "Standard Alphabets for Highway Signs"

14. Relocated signs shall be installed with new nuts, bolts, washers, base supports, brackets, and necessary hardware.
15. The Contractor shall erect at the beginning of the project and at the end of the project advance construction warning signs placed as indicated on the plans or as directed by the Engineer for the duration of the highway project. These signs shall be maintained by the Contractor and shall be placed in addition to the required traffic control signs called for in Section 645-Traffic Control. The advance construction warning signs shall be new and become the property of the State. The Contractor shall remove, clean, and deliver the signs and posts to the Kaula District Baseyard, in Kapaa, upon completion of the project.

ORIGINAL PLAN	DATE
REVISED BY	DATE
NOTES	
REVISIONS	
BY	
CHECKED BY	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

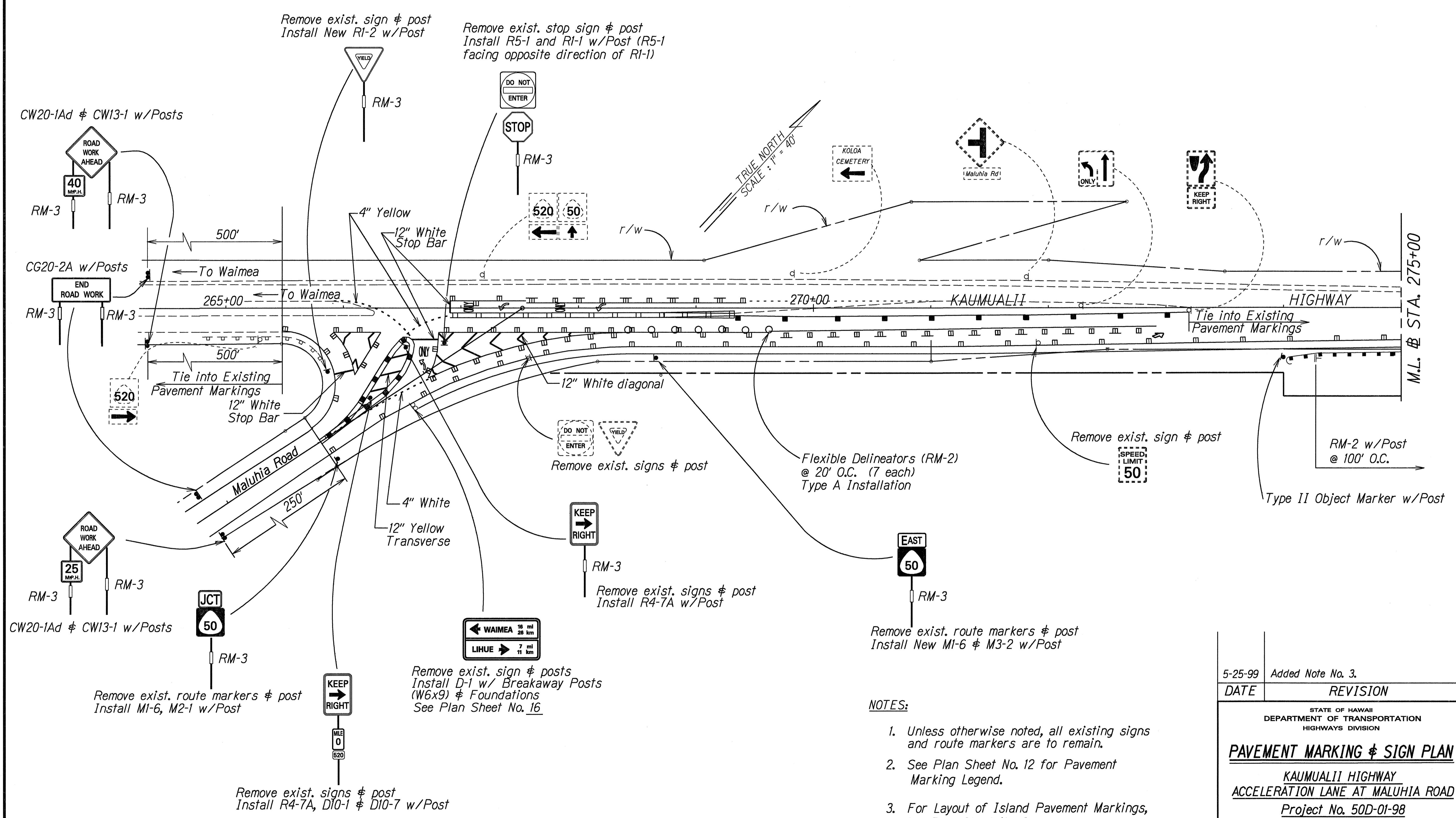
**PAVEMENT MARKING LEGEND**

KAUMUALII HIGHWAY  
ACCELERATION LANE AT MALUHIA ROAD  
Proj. No. 50D-01-98

Scale: As Shown      Date: August, 1998

SHEET No. 1 OF 1 SHEETS

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-98	1999	ADD.14	21

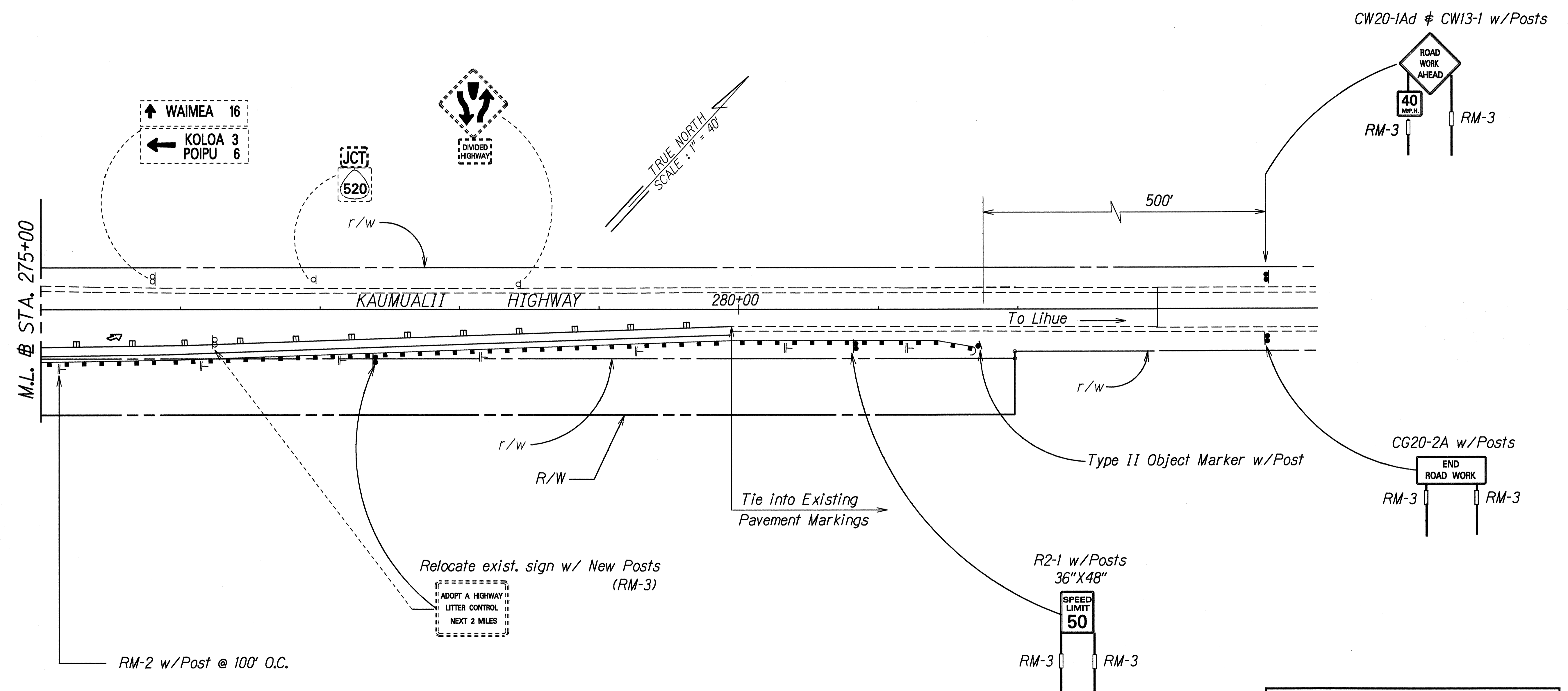


DATE	5-20-99
SURVEY PLOTTED BY	F. Jones
DRAWN BY	F. Jones
TRACED BY	F. Jones
NOTED BY	F. Jones
QUANTITIES BY	F. Jones
CHECKED BY	F. Jones

- NOTES:
1. Unless otherwise noted, all existing signs and route markers are to remain.
  2. See Plan Sheet No. 12 for Pavement Marking Legend.
  3. For Layout of Island Pavement Markings, See Plan Sheet No. 8

5-25-99	Added Note No. 3.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<b>PAVEMENT MARKING &amp; SIGN PLAN</b>	
KAUMUALII HIGHWAY ACCELERATION LANE AT MALUHIA ROAD Project No. 50D-01-98	
Scale: 1" = 40'	Date: August, 1998
SHEET No. 1 OF 2 SHEETS	

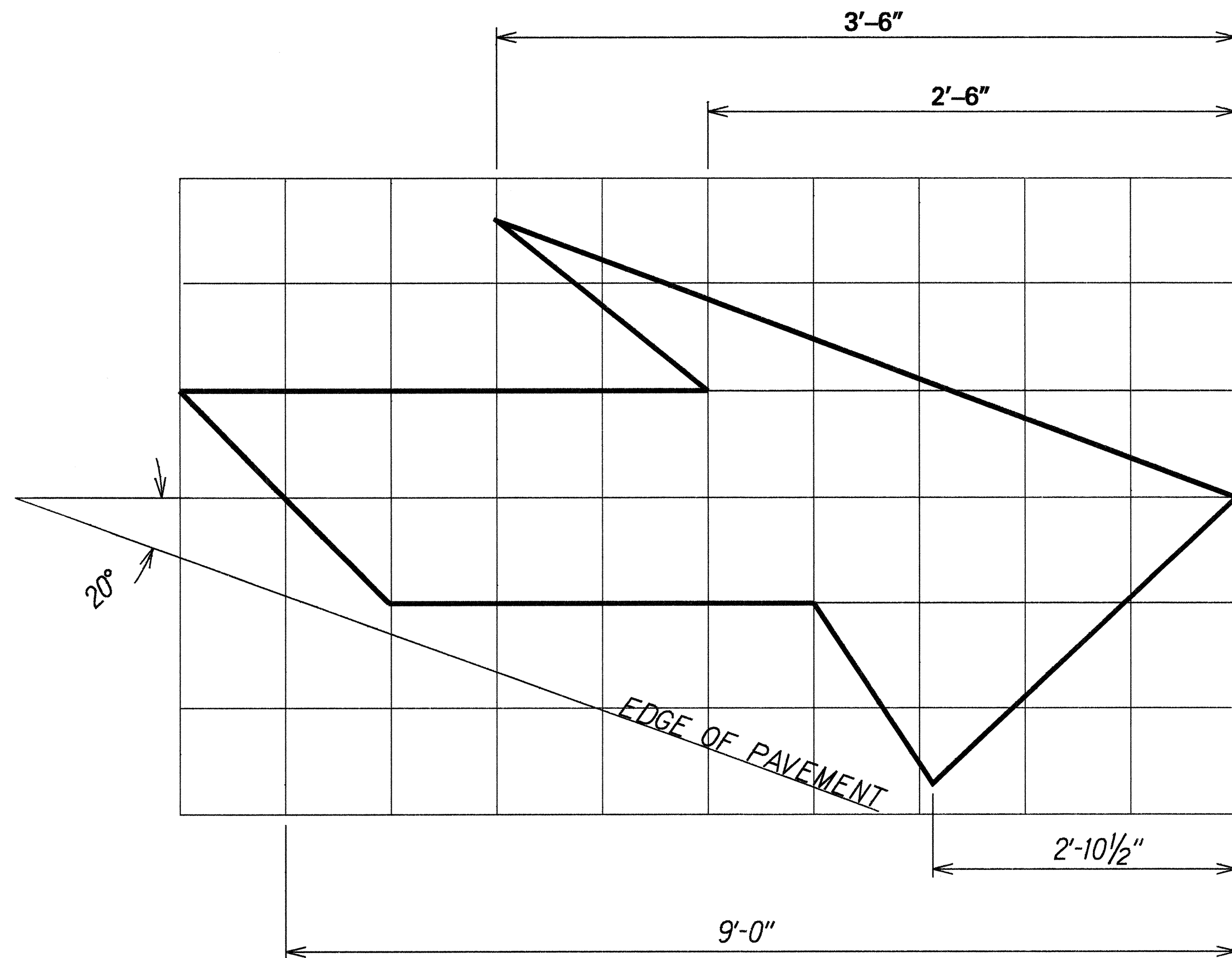
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-98	1999	15	21



SURVEY PLOTTED BY: DATE: 8-20-98  
 DRAWN BY: F. POOS  
 CHECKED BY:

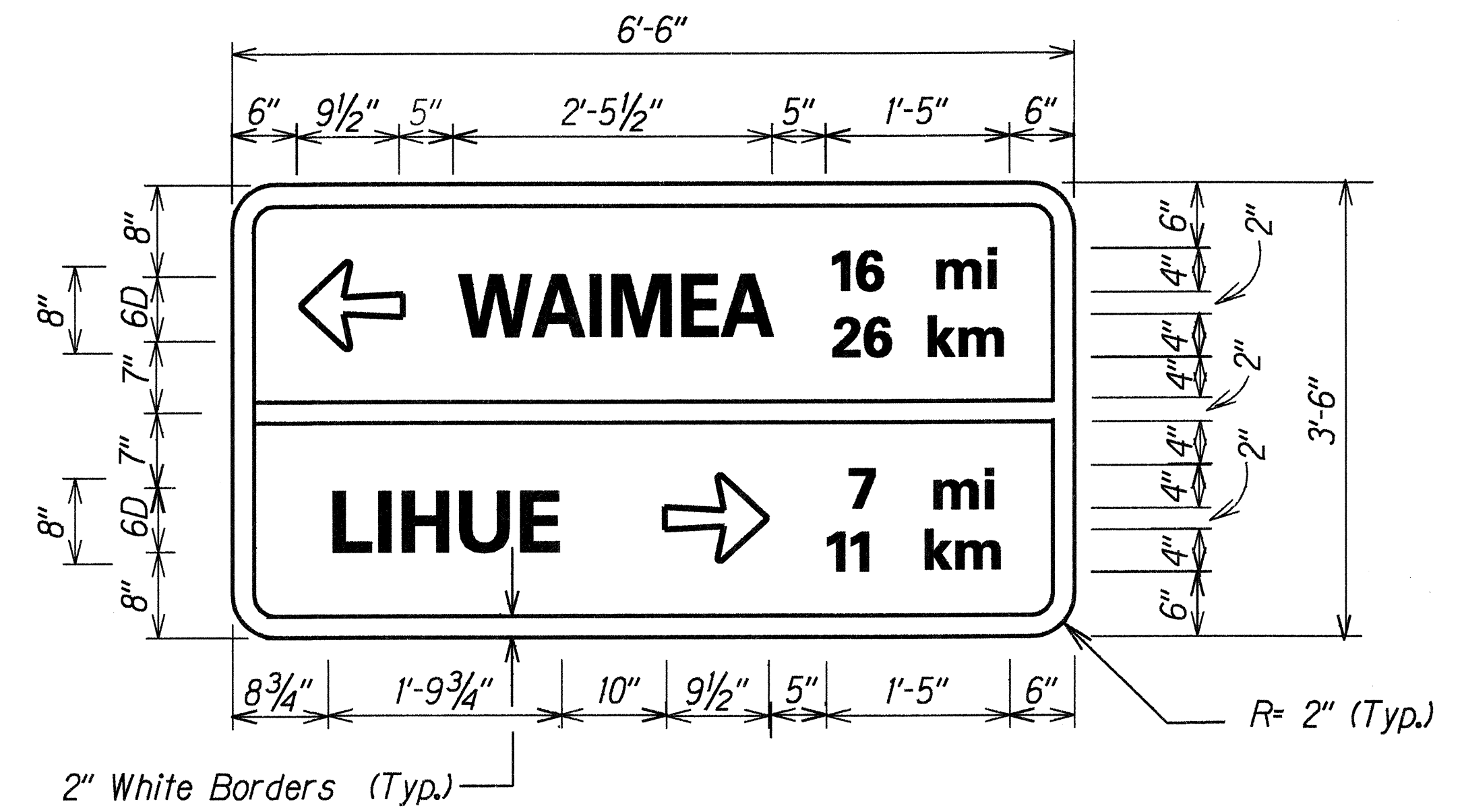
STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION  
**PAVEMENT MARKING & SIGN PLAN**  
 KAUMUALII HIGHWAY  
 ACCELERATION LANE AT MALUHIA ROAD  
 Project No. 50D-01-98  
 Scale: 1" = 40' Date: August, 1998  
 SHEET No. 2 OF 2 SHEETS

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-98	1999	16	21

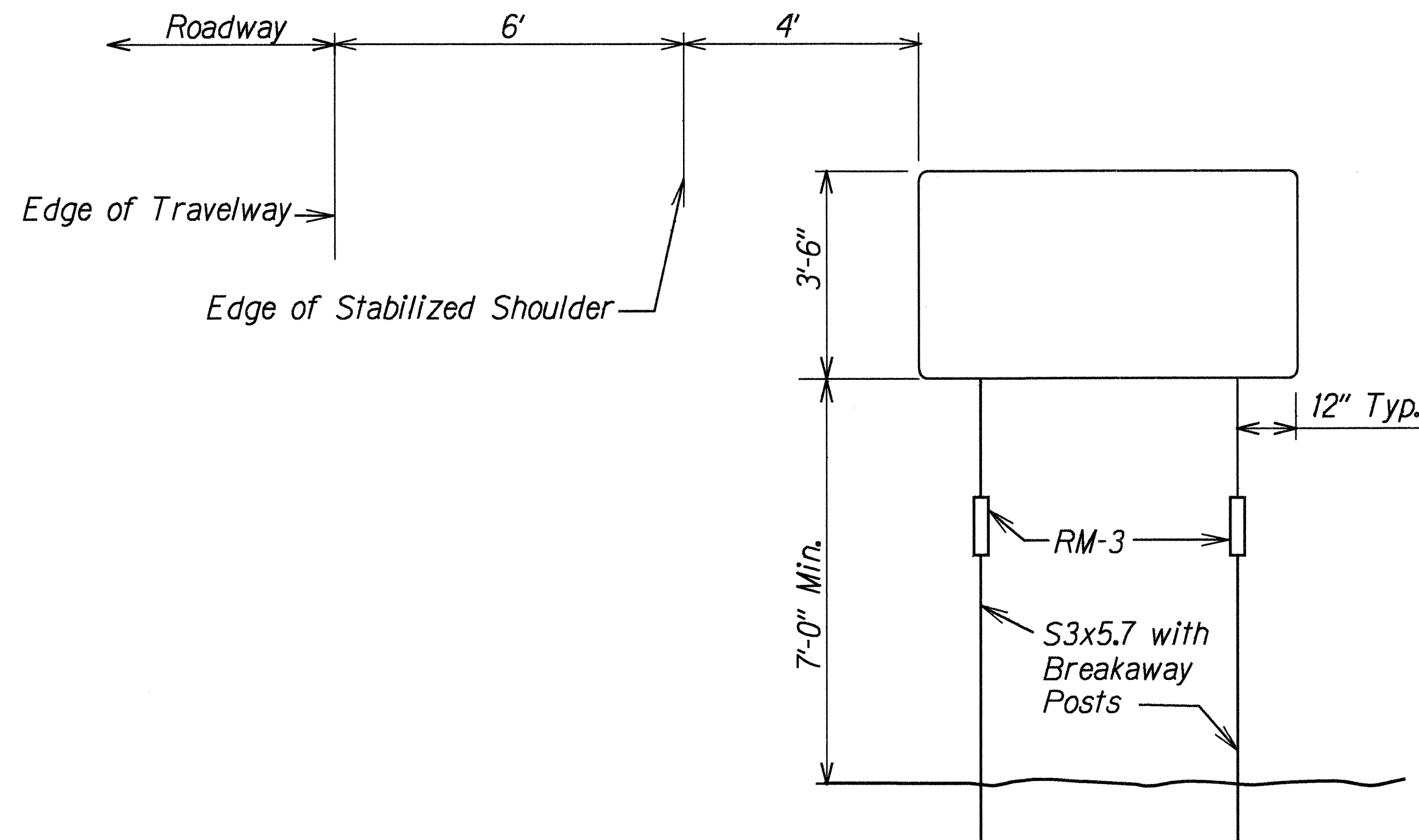


**RIGHT LANE DROP ARROW**

2-Each  
Scale: 1"= 1'-0"



**D-1**  
Scale: 1"=1'







**DETAIL- FRAME LAYOUT**





Scale: 1/2"=1'

SURVEY PLOTTED BY	DATE
DRAWN BY	8-20-98
TRACED BY	
NOTED BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO. 618412101	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**SIGN PANEL LAYOUT** &  
**DETAILS**  
KAUMUALII HIGHWAY  
ACCELERATION LANE AT MALUHIA ROAD  
Project No. 50D-01-98  
Scale: Varies Date: August, 1998  
SHEET No. 1 OF 1 SHEETS

REGULATORY AND WARNING SIGN SUMMARY					
SIGN NO.	MESSAGE	QUANTITY			
		10 SQ. FT. OR LESS		GREATER THAN 10 SQ. FT.	
		W/POST(S)	W/O POST	W/POSTS	W/O POST
	RELOCATE SIGN (ADOPT-A-HIGHWAY)	1			
R1-1	STOP 	1			
R1-2	YIELD 	1			
R2-1(50)	SPEED LIMIT 50			1	
R4-7	KEEP RIGHT 	2			
R5-1	DO NOT ENTER 		1		
TOTAL		5	1	1	0

MILEPOST MARKER SUMMARY		
SIGN NO. AND MESSAGE	QUANTITY	
	BI-DIRECTIONAL W/POST	W/O POST
D10-1 0		1
D10-7 520	0	
TOTAL		1

ROUTE MARKER SUMMARY				
SIGN ASSEMBLY	SIGN NO. AND MESSAGE	TYPE A ASSEMBLY		
		W/POSTS	W/O POST	
M-1	M2-1  M1-6 (50) 	1		
M-2	M3-2  M1-6 (50) 	1		
TOTAL		2		0

REFLECTOR MARKER SUMMARY				
TYPE	QUANTITY			
	W/O POST		W/STEEL POST	
	YELLOW	WHITE	YELLOW	WHITE
RM-1				
RM-2				8
RM-3	23			
TYPE II OBJECT MARKER	7		2	
FLEXIBLE POST DELINEATOR (RM-1)		7		

CONSTRUCTION SIGN SUMMARY			
SIGN NO.	MESSAGE	W/POSTS	W/O POST
CG20-2	END CONSTRUCTION	3	
CW20-1d	ROAD CONSTRUCTION AHEAD	3	
CW13-1	25 M.P.H.		1
CW13-1	40 M.P.H.		2
TOTAL		6	3

DESTINATION SIGN SUMMARY				
SIGN NO.	MESSAGE	SIZE	NEW PANEL AREA (SQ. FT.)	
			W/O POST	W/POSTS
DI-1	← WAIMEA 16 LIHUE 7 →	6'-6" x 3'-6"		22.75
TOTAL				22.75

NOTES:

- All objects (utility poles or trees) that are within the State highway right of way and within 30 feet of the roadway edge of pavement shall be marked as directed by the Engineer.
- Removal of existing traffic signs with post(s) shall include removal of anchor bases. Removal and disposal of existing signs, posts and anchor bases, including excavation and backfill, shall be considered incidental to the various contract items.
- Relocate Sign shall include new posts, hardware and anchor bases. Remove and dispose of existing posts, hardware and anchor bases.
- Reflector Markers (RM-1) on Flexible Post Delineator shall be considered incidental to the various contract items.

SURVEY PLOTTED BY DATE: 8-20-98  
 ORIGINAL PLAN DRAWN BY  
 NOTE BOOK NO. 1000  
 QUANTITIES BY F. Riggs  
 CHECKED BY G. M. Schmitt

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION  
  
**TRAFFIC SUMMARIES**  
 KAUMUALII HIGHWAY  
 ACCELERATION LANE AT MALUHIA ROAD  
 Project No. 50D-01-98  
 Date: August, 1998  
 SHEET No. 1 OF 1 SHEETS

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-98	1999	18	21

PAVEMENT MARKING SUMMARY	
DESCRIPTION	QUANTITY
<b>PAVEMENT MARKERS</b>	
TYPE A _____	64 EA.
TYPE C _____	115 EA.
TYPE D _____	18 EA.
TYPE H _____	25 EA.
TYPE J _____	0 EA.
<b>TAPE - TYPE I OR THERMOPLASTIC EXTRUSION</b>	
4-INCH PAVEMENT STRIPE (WHITE) _____	530 L.F.
4-INCH PAVEMENT STRIPE (YELLOW) _____	0 L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	180 L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	0 L.F.
12-INCH PAVEMENT STRIPE (YELLOW) _____	0 L.F.
DOUBLE 4-INCH PAVEMENT STRIPE (YELLOW) _____	310 L.F.
PARKING STALLS _____	0 L.F.
<b>TAPE - TYPE II OR THERMOPLASTIC EXTRUSION</b>	
4-INCH PAVEMENT STRIPE (WHITE) _____	1,500 L.F.
4-INCH PAVEMENT STRIPE (YELLOW) _____	400 L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	500 L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	175 L.F.
12-INCH PAVEMENT STRIPE (YELLOW) _____	85 L.F.
DOUBLE 4-INCH PAVEMENT STRIPE (YELLOW) _____	230 L.F.
<b>TAPE - TYPE III OR THERMOPLASTIC EXTRUSION</b>	
4-INCH PAVEMENT STRIPE (WHITE) _____	280 L.F.
4-INCH PAVEMENT STRIPE (YELLOW) _____	130 L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	0 L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	55 L.F.
CROSSWALK MARKINGS _____	0 LANES
PAVEMENT ARROW _____	5 EA.
PAVEMENT WORD _____	3 EA.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	5-4-98
AS NOTED	TRACED BY	
	QUANTITIES BY	
	CHECKED BY	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**PAVEMENT MARKING**  
**SUMMARIES**  
KAUMUALII HIGHWAY  
ACCELERATION LANE AT MALUHIA ROAD  
Project No. 50D-01-98  
Date: August, 1998