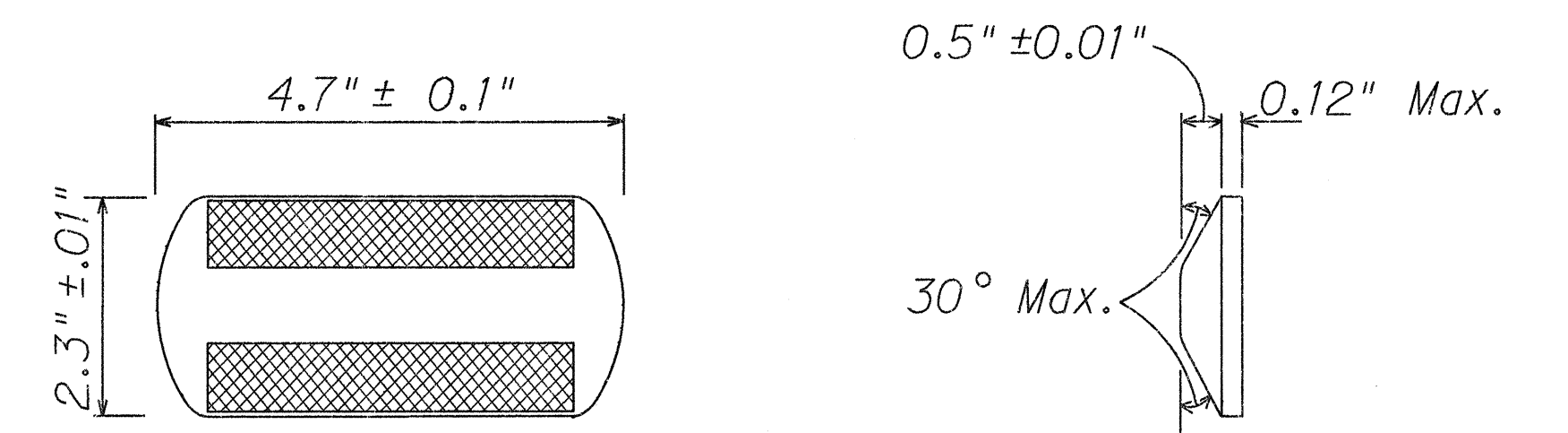


# LEGEND

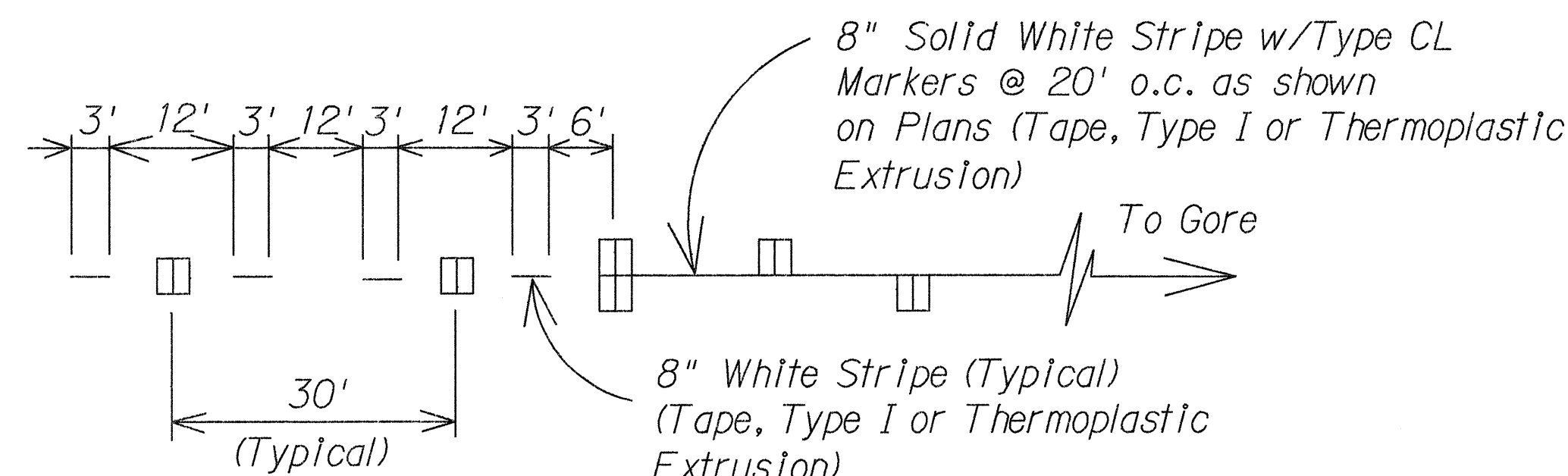
- 4 each Type A Raised Pavement Markers  
Type CL Raised Pavement Markers @ 40'-0" o.c.
- 4 each Type J Raised Pavement Markers  
Type DL Raised Pavement Markers @ 40'-0" o.c.
- 8" White Stripe with Type CL Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
- 4" Double Solid Yellow with Type DL Raised Pavement Markers @ 20'-0" o.c. (Tape, Type I or Thermoplastic Extrusion)
- 4" Double Solid Yellow Stripes with Type HL Raised Pavement Markers @ 20'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" Yellow Edge Stripe with Type HL Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" Double Solid White Stripes with Type CL 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 CL Raised Pavement Markers @ 20'-0" o.c.  
4" White Stripe (Tape, Type I or Thermoplastic Extrusion)
- 4" or 8" White Edge Stripe with Type CL Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" White Guide Lines (Thermoplastic Extrusion)
- Transverse Median Marking (Tape, Type II or Thermoplastic Extrusion)
- Transverse Shoulder Marking (Tape, Type II or Thermoplastic Extrusion)
- Channelizing Island or Deceleration Lane Gore (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. (Thermoplastic Extrusion)
- Pavement Arrow (Tape, Type I or Thermoplastic Extrusion)
- Pavement Word (Tape, Type I or Thermoplastic Extrusion)
- 4 Each Type J Raised Pavement Markers  
Type DL Raised Pavement Markers @ 40'-0" o.c.  
Type HL 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 CL Markers @ 40'-0" o.c. (Thermoplastic Extrusion)

# NOTES

- Layout of pavement markings and striping shall be done by the Contractor and approved by the Engineer prior to any installation work.
- 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.
- Raised pavement markers shall not be installed within crosswalks.
- Details of Type C, Type D and Type H Markers on Standard Plan Nos. TE-30, TE-31 and TE-32 shall be deleted and replaced with details of Type CL, Type DL and Type HL Markers as shown on this sheet. All references to Type C, Type D and Type H Markers in the plans shall mean Type CL, Type DL and Type HL Markers.
- Final locations of all signs shall be approved by the Engineer prior to any installation work.
- 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.
- Final locations of all Stop Lines shall be approved by the Engineer prior to installation.
- All pavement striping shall be as noted on the Legend or plans.
- 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 application.



TYPE CL  
Red-Clear Reflective Marker  
or  
TYPE DL  
Two-Way Yellow Reflective Marker  
or  
TYPE HL  
One-Way Yellow Reflective Marker  
**RAISED PAVEMENT MARKER DETAILS**  
Not to Scale



LANE DROP MARKING  
Not to Scale

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**PAVEMENT MARKING**  
**LEGEND, DETAILS & NOTES**  
**MAMALAHOA HIGHWAY WIDENING**  
**Hawaii Volcanoes National Park**  
**M.P. 35.9 to M.P. 37.0**  
**F.A. Proj. No. FLH-011-2(23)**  
Scale: As Shown Date: Aug, 1991  
SHEET No. 71 OF 2 SHEETS



ORIGINAL PLAN  
DATE  
SURVEY PLOTTED BY  
DRAWN BY  
DESIGNED BY  
NOTED BY  
CHECKED BY  
QUANTITIES BY  
REVISIONS

SCHEDULE OF STRIPING AND PAVEMENT MARKERS								
STATION - STATION	NEW STRIPING			NEW MARKERS				COMMENTS
	4" YELLOW (L.F.)		4" WHITE	TYPE	TYPE	TYPE	TYPE	
	DOUBLE	SINGLE	@ E.P. (L.F.)	"CL"	"DL"	"HL"	"J"	
1907+00 - 1912+45					14		56	PASSING
1912+45 - 1916+67		422			11	11	44	NO PASS. TO PAHALA, PASS. TO HILO
1916+67 - 1920+37	370				19			NO PASSING
1920+37 - 1926+71		634			16	16	64	PASS. TO PAHALA, NO PASS. TO HILO
1926+71 - 1931+20					12		48	PASSING
1931+20 - 1936+47		527			14	14	56	NO PASS. TO PAHALA, PASS. TO HILO
1936+47 - 1939+11					7		28	PASSING
1939+11 - 1942+81		370			10	10	40	PASS. TO PAHALA, NO PASS. TO HILO
1942+81 - 1955+48	1,267				64			NO PASSING
1955+48 - 1962+34		685			18	18	72	PASS. TO PAHALA, NO PASS. TO HILO
1962+34 - 1963+60					4		16	PASSING
1907+00 - 1963+60			11,320	284				EDGE STRIPING
TOTAL	1,637	2,638	11,320	284	189	69	424	

TRAFFIC SIGN SUMMARY					
SIGN NO.	MESSAGE	QUANTITY			
		10 SQ. FT. OR LESS		GREATER THAN 10 SQ. FT.	
		W/POST	W/O POST	W/POST	W/O POST
R2-1(45)	SPEED LIMIT 45	2			
R2-4(30)	MINIMUM SPEED 30	1			
	TOTAL	3	0	0	0

CONSTRUCTION SIGN SUMMARY					
SIGN NO.	LOCATION	MESSAGE	W/POST	W/O POST	
CW20-1d	Sta. 1897+00 ± Rt.	ROAD CONSTRUCTION AHEAD	1		
CW20-1c	Sta. 1902+00 ± Rt.	ROAD CONSTRUCTION 500 FT.	1		
CG20-2	Sta. 1902+00 ± Lt.	END CONSTRUCTION	1		
CW20-1c	Sta. 1968+60 ± Lt.	ROAD CONSTRUCTION 500 FT.	1		
CG20-2	Sta. 1968+60 ± Rt.	END CONSTRUCTION	1		
CW20-1d	Sta. 1973+60 ± Lt.	ROAD CONSTRUCTION AHEAD	1		
	TOTAL		6	0	

SCHEDULE OF STRIPING AND PAVEMENT MARKERS									
STATION - STATION	TRAFFIC REGIME*		NEW STRIPING			NEW MARKERS			
	LT.	RT.	4" YELLOW (L.F.)	4" WHITE	TYPE	TYPE	TYPE	TYPE	
			DOUBLE	SINGLE	@ E.P.	C	D	H	J
1968+70 - 1964+00	P	P			940	22	11		40
1964+00 - 1955+80	N	P		820	1,640	40	20	20	80
1955+80 - 1939+75	N	N	1,605		3,210	80	80		
1939+75 - 1931+70	P	N		805	1,610	40	20	20	80
1931+70 - 1927+80	P	P			780	20	10		36
1927+80 - 1919+80	N	P		800	1,600	40	20	20	80
1919+80 - 1917+50	N	N	230		460	12	12		
1917+50 - 1909+70	P	N		780	1,560	42	21	21	84
1909+70 - 1908+20	P	P			300	6	3		8
1908+20 - 1907+00	N	P		120	240	12	3	3	12
TOTAL			1,835	3,325	12,340	314	200	84	420
* P = Passing      N = No Passing									

REFLECTOR MARKER SUMMARY		
TYPE	QUANTITY	
	w/o Post	w/Post
RM-2 Bi-Directional	Yellow 3	White 0

OBJECT MARKER SUMMARY		
TYPE	QUANTITY	
	w/o Post	w/Post
Type II Object Marker	60	0

PAVEMENT MARKING SUMMARY	
DESCRIPTION	QUANTITY
PAVEMENT MARKERS TYPE A TYPE C TYPE D TYPE H TYPE J	314 EA. 200 EA. 84 EA. 420 EA.
TAPE - TYPE I OR THERMOPLASTIC EXTRUSION 4-INCH PAVEMENT STRIPE (WHITE) 4-INCH PAVEMENT STRIPE (YELLOW) 8-INCH PAVEMENT STRIPE (WHITE) 12-INCH PAVEMENT STRIPE (WHITE) 12-INCH PAVEMENT STRIPE (YELLOW) DOUBLE 4-INCH PAVEMENT STRIPE (YELLOW) PAVEMENT ARROW PAVEMENT WORD	3,325 L.F. 1,835 L.F.
TAPE - TYPE II OR THERMOPLASTIC EXTRUSION 4-INCH PAVEMENT STRIPE (WHITE) 4-INCH PAVEMENT STRIPE (YELLOW) 8-INCH PAVEMENT STRIPE (WHITE) 12-INCH PAVEMENT STRIPE (WHITE) 12-INCH PAVEMENT STRIPE (YELLOW)	12,340 L.F.
THERMOPLASTIC EXTRUSION 4-INCH PAVEMENT STRIPE (WHITE) 8-INCH PAVEMENT STRIPE (WHITE) 12-INCH PAVEMENT STRIPE (WHITE) CROSSWALK MARKINGS	

MILEPOST MARKER SUMMARY			
M.P. NO.	LOCATION	QUANTITY	
		w/Post	w/o Post
36	Sta. 1911+38 ± Rt. (Bi-Directional)	1	
37	Sta. 1963+90 Rt. (Bi-Directional)	1	
	TOTAL	2	0

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

MISCELLANEOUS SUMMARIES

MAMALAHOA HIGHWAY WIDENING  
Hawaii Volcanoes National Park  
M.P. 35.9 to M.P. 37.0  
F.A. Proj. No. FLH-011-2(23)

Date: Aug, 1991

SHEET No. 72 OF 2 SHEETS