

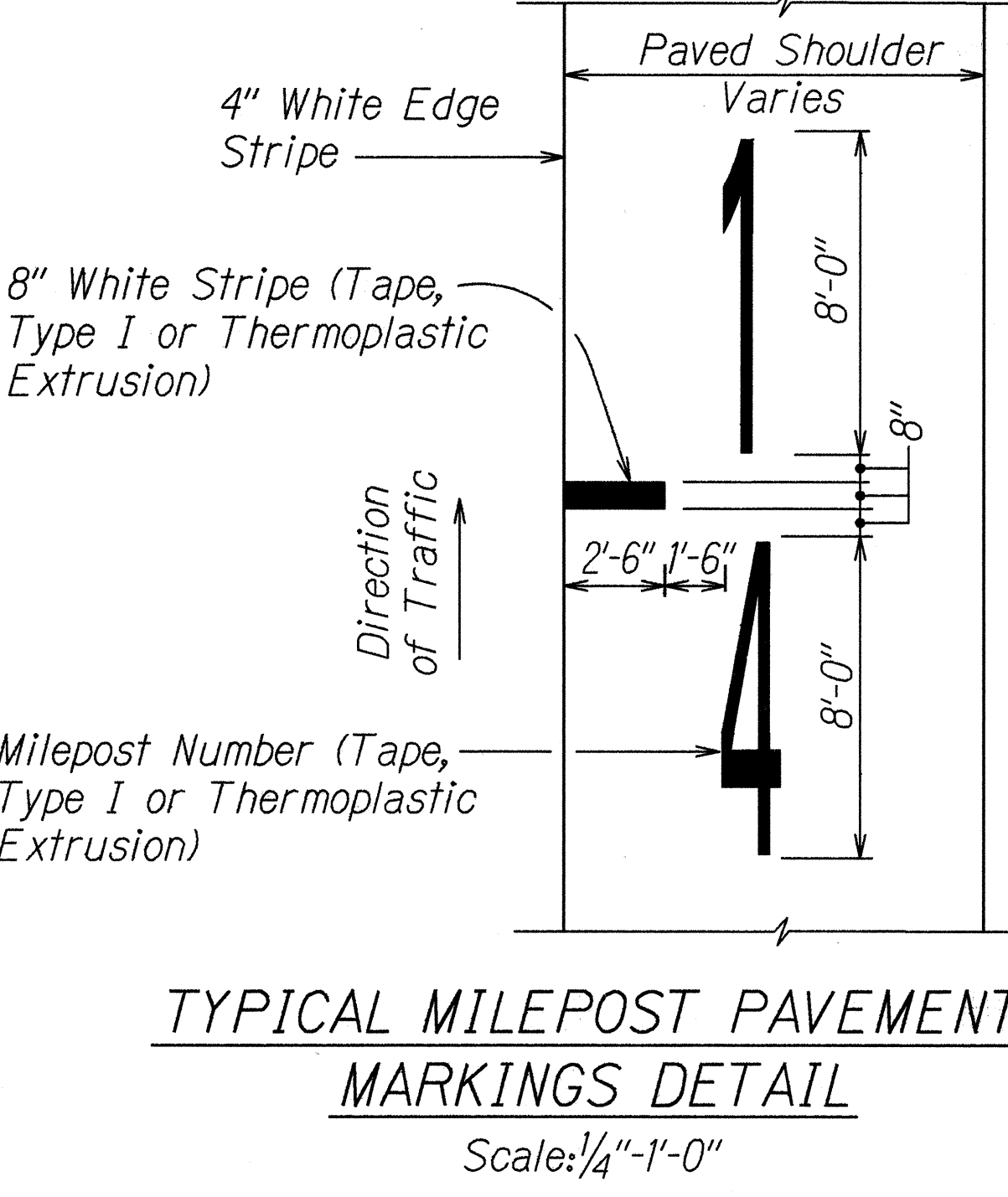
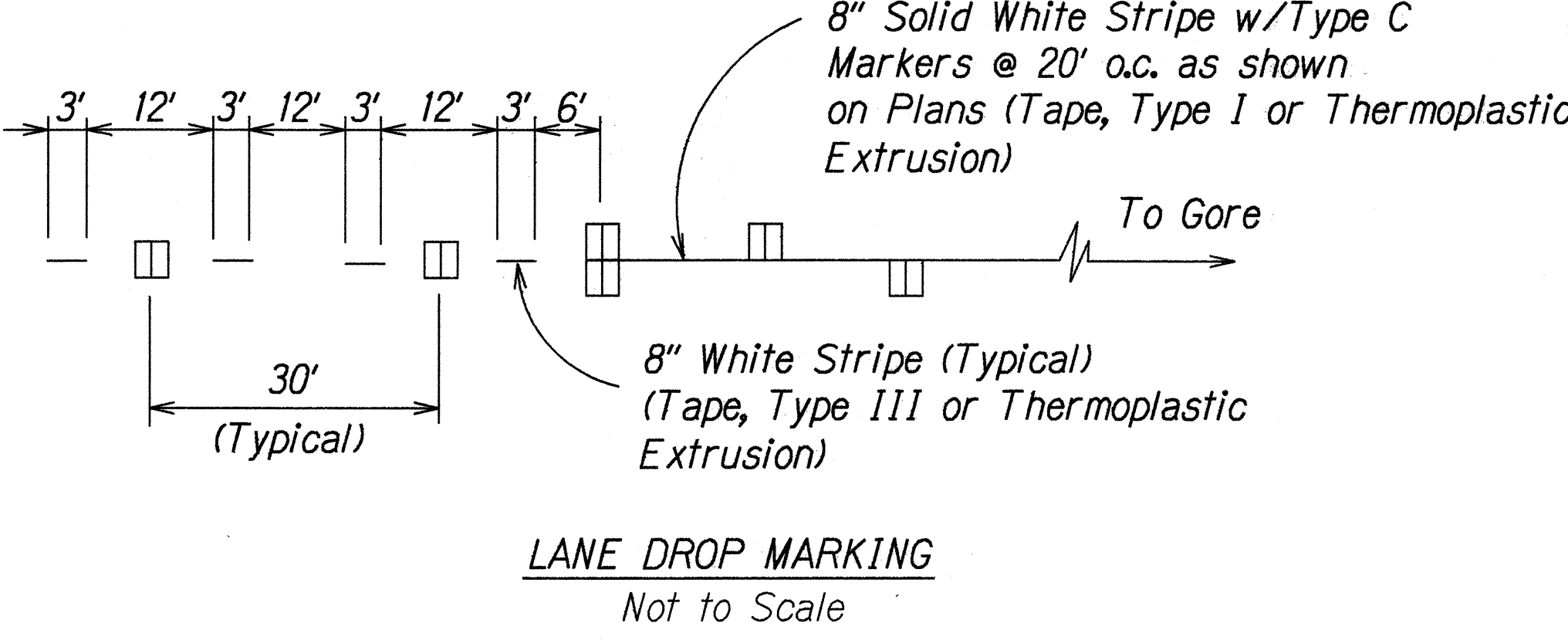
FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	24	36

LEGEND

- 4 each Type A Raised Pavement Markers
Type C 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" 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" White Edge Stripe with Type C Raised Pavement Markers @ 40'-0" o.c. (Tape, Type II or Thermoplastic Extrusion)
- 4" White Guide Lines (Tape, Type III or Thermoplastic Extrusion except for bus bays)
- Transverse Shoulder Marking (Tape, Type II or Thermoplastic Extrusion)
- Channelizing Island or Deceleration Lane Gore (Tape, Type II 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)
- Pavement Diamond (Tape, Type III or Thermoplastic Extrusion)
- Reflector Marker (RM-2, White) w/ Steel Post
- Reflector Marker (RM-2, White) w/ Flexible Delineator Post (Type B)

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.
- 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. Costs of removal and disposal of existing signs, posts, and/or concrete foundation designated on these plans or directed by the Engineer 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.
- 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.
- Backing for all new regulatory and warning signs shall not be spliced.
- All sign panels shall conform to Section 621 of Special Provisions and the latest editions and amendments of the following FHWA publications:
 - "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD)
 - "Standard Highway Signs"
 - "Standard Alphabets for Highway Signs"
- State Route Marker Symbols, borders, messages, arrows, symbols and shields shall conform to details as shown on the plans and as specified in the MUTCD.
- All new and relocated signs and markers installed on pipe posts, light standard or expressway sign post are to be mounted with band brackets and steel braces.
- Removal of existing delineators and posts, as directed by the Engineer or shown on the plans, shall be considered incidental to the various signing items.
- The Contractor shall notify the Oahu Transit Services Inc. (OTS), Ed Sniffen, at 848-4571 or Lowell Tom at 848-4578 two weeks prior to beginning any work, informing them of location, scope of work, proposed closure of any street or traffic lanes, and the need to relocate any bus stop.
- The Contractor shall erect and maintain at the beginning and 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 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 Oahu District Baseyard or as directed by the Engineer upon the completion of the project.



ORIGINAL PLAN	DATE
DESIGNED BY	DATE
TRACED BY	DATE
NOTED BY	DATE
QUANTITIES BY	DATE
CHECKED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

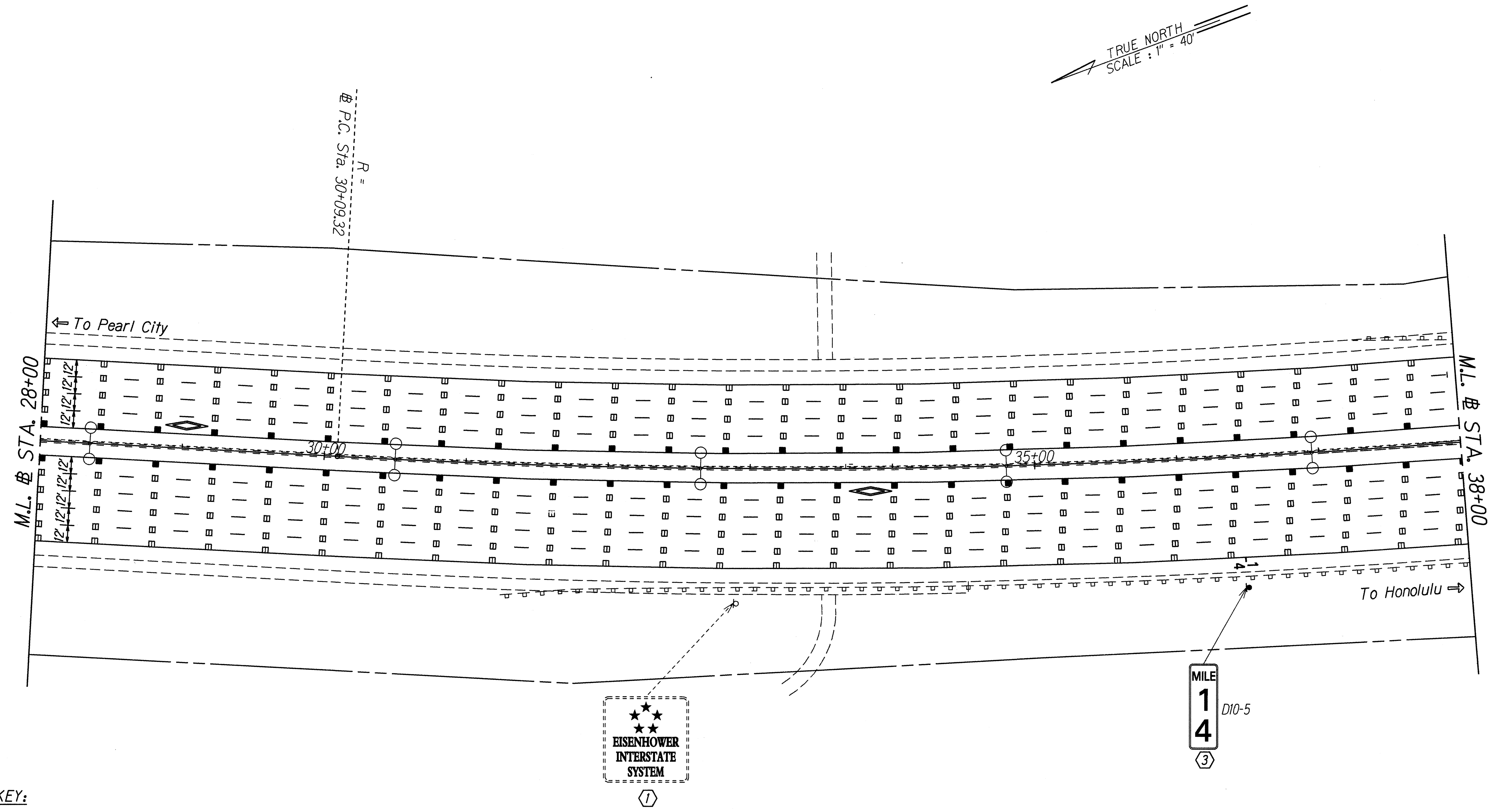
TRAFFIC LEGEND, DETAILS & NOTES

H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)

Not to Scale Date: Apr., 1996

SHEET No. 71 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	26	36



- KEY:**
- ① Exist. Sign(s) & Post(s) to Remain
 - ② Remove Exist. Sign(s) w/Post(s)
 - ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
 - ④ Install New Sign(s) w/Post(s)
 - ⑤ Install New Sign(s) on Light Standard
 - ⑥ Remove Exist. Sign(s) & Install New Sign on Light Standard
 - ⑦ Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post

ORIGINAL PLAN	SURVEY PLATTED BY	DATE
NOTE BOOK	DESIGNED BY	
QUANTITIES BY	CHECKED BY	

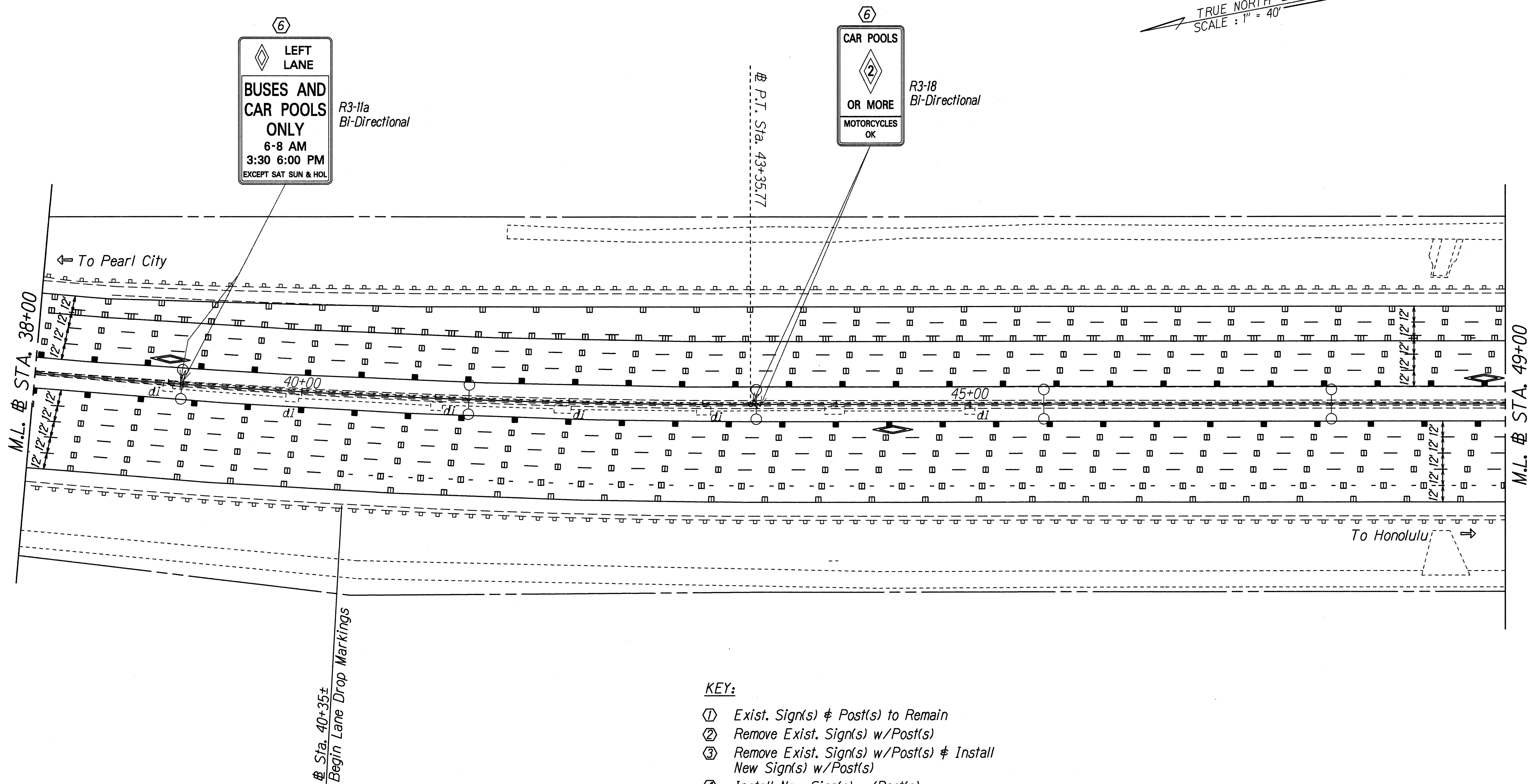
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING
& SIGNING PLAN
H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)

Scale: 1" = 40'
Date: Apr., 1996

SHEET No. T3 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	27	36



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

- KEY:
- ① Exist. Sign(s) & Post(s) to Remain
 - ② Remove Exist. Sign(s) w/Post(s)
 - ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
 - ④ Install New Sign(s) w/Post(s)
 - ⑤ Install New Sign(s) on Light Standard
 - ⑥ Remove Exist. Sign(s) & Install New Sign on Light Standard
 - ⑦ Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

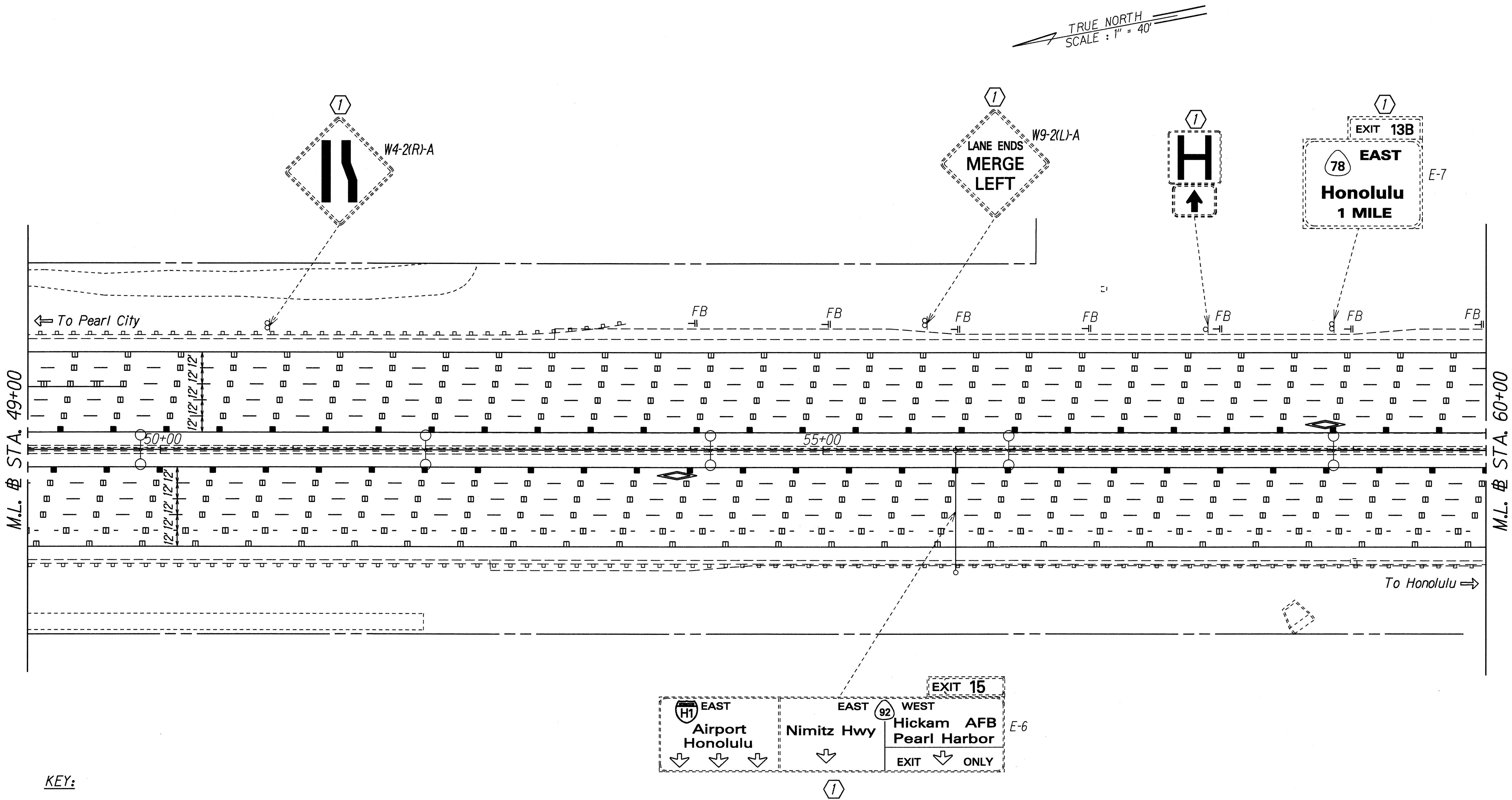
PAVEMENT MARKING
& SIGNING PLAN

H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)

Scale: 1" = 40'
SHEET No. T4 OF 13 SHEETS

Date: Apr., 1996

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	28	36



KEY:

- ① Exist. Sign(s) & Post(s) to Remain
- ② Remove Exist. Sign(s) w/Post(s)
- ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
- ④ Install New Sign(s) w/Post(s)
- ⑤ Install New Sign(s) on Light Standard
- ⑥ Remove Exist. Sign(s) & Install New Sign on Light Standard
- ⑦ Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post

ORIGINAL PLAN	DATE
DESIGNED BY	2/29/96
TRACED BY	
NOTED BY	
CHECKED BY	
IN CHARGE	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

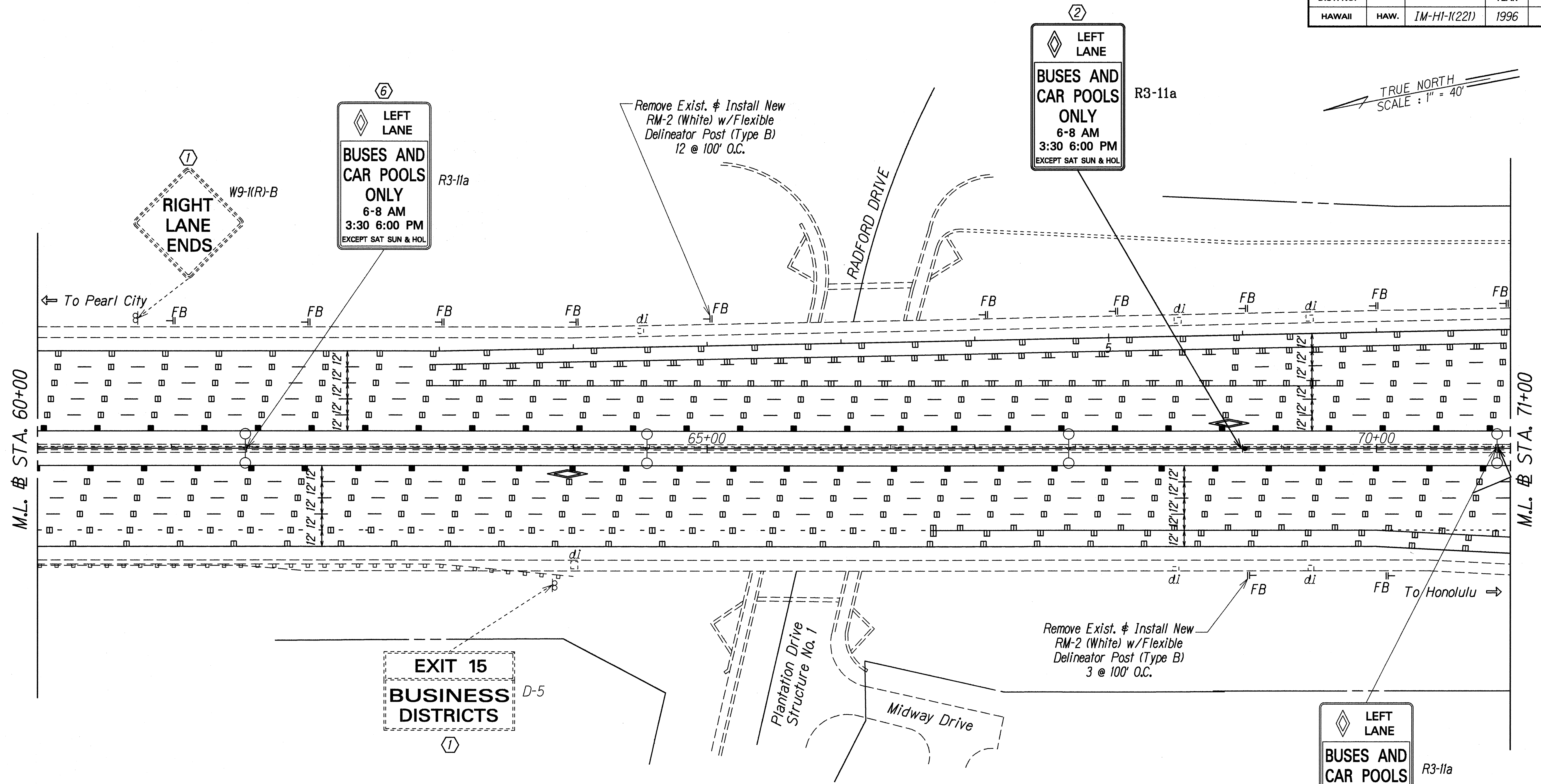
PAVEMENT MARKING
& SIGNING PLAN

H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)

Scale: 1" = 40'
Date: Apr., 1996

SHEET No. T5 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	29	36



KEY:

- ① Exist. Sign(s) & Post(s) to Remain
- ② Remove Exist. Sign(s) w/Post(s)
- ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
- ④ Install New Sign(s) w/Post(s)
- ⑤ Install New Sign(s) on Light Standard
- ⑥ Remove Exist. Sign(s) & Install New Sign on Light Standard
- ⑦ Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post

Note:

Contractor shall patch existing sign post holes with an Engineer approved epoxy.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PAVEMENT MARKING
& SIGNING PLAN

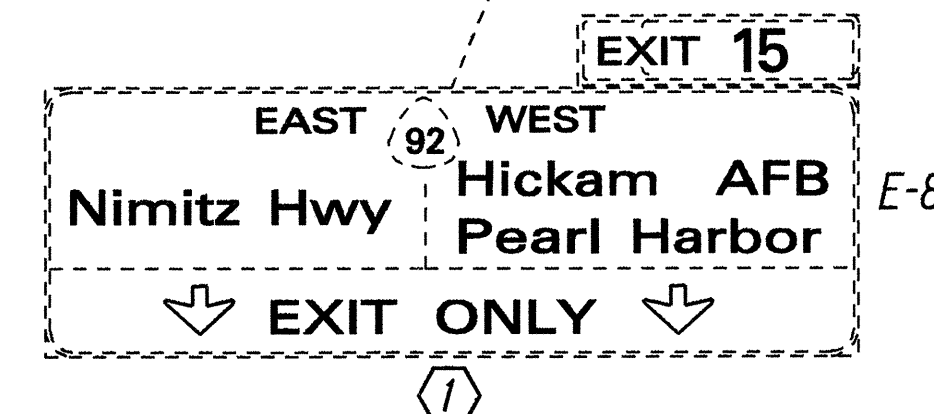
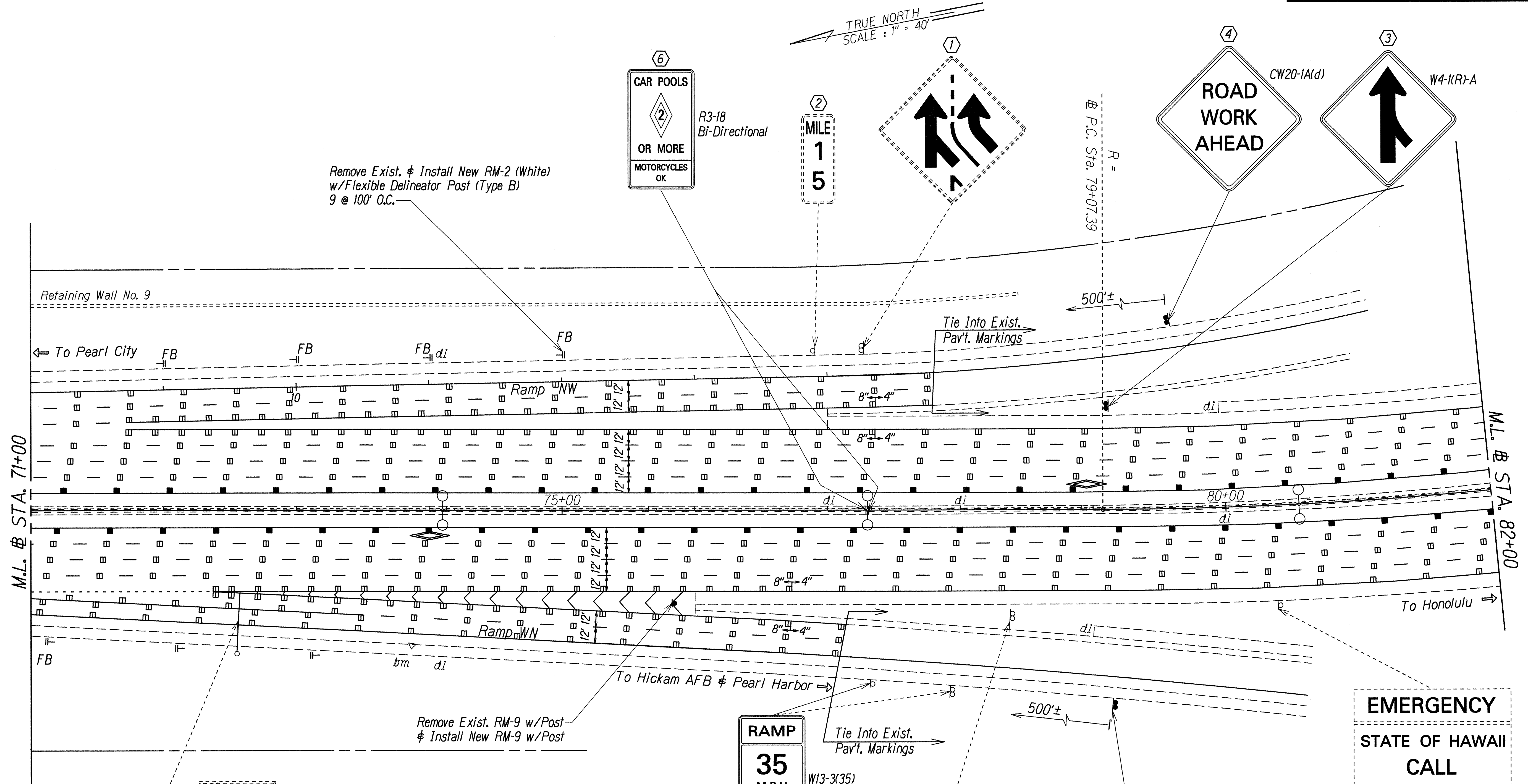
H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)

Scale: 1" = 40' Date: Apr., 1996

SHEET No. T6 OF 13 SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	3/24/96
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	30	36



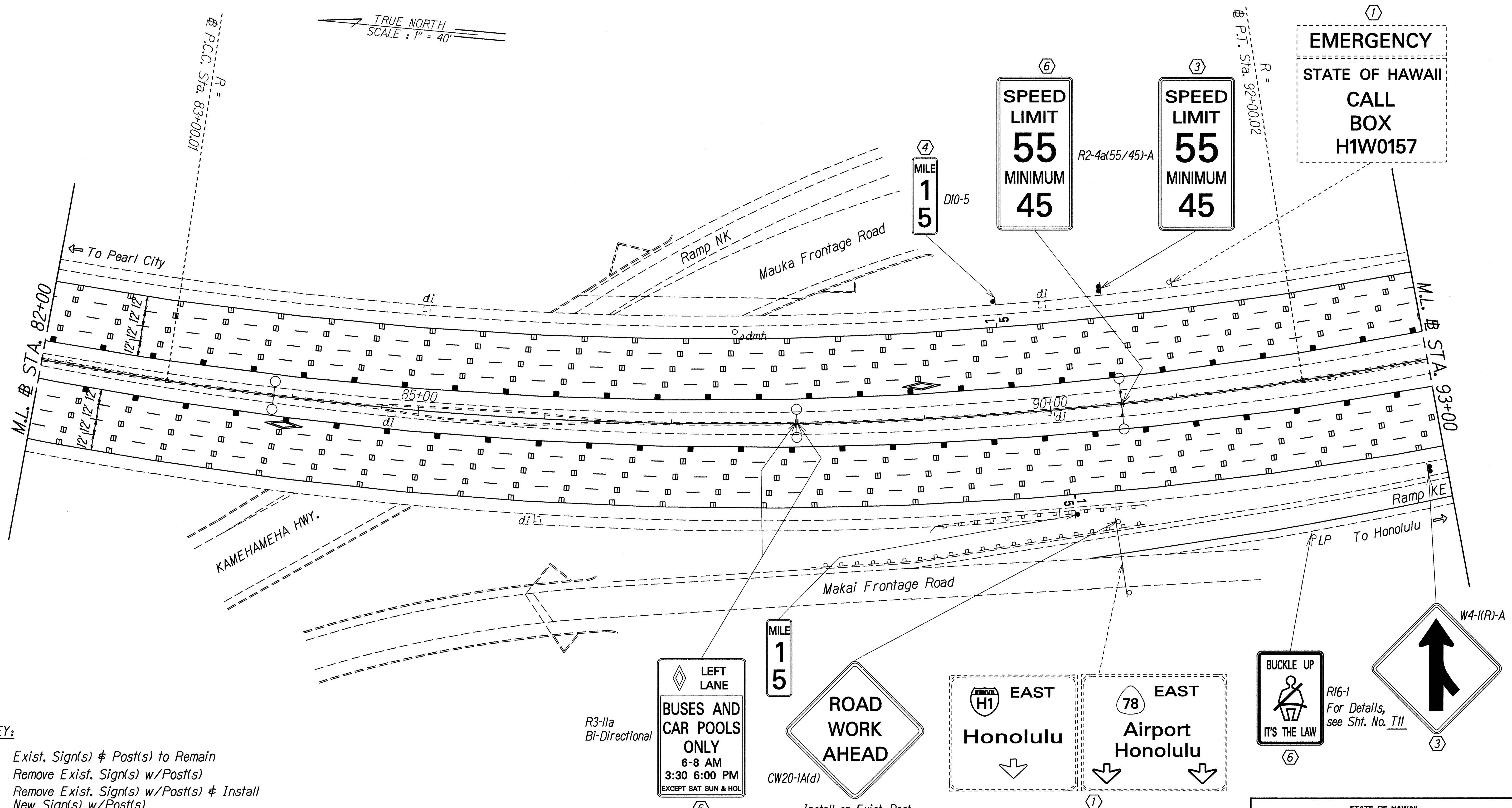
- KEY:**
- ① Exist. Sign(s) & Post(s) to Remain
 - ② Remove Exist. Sign(s) w/Post(s)
 - ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
 - ④ Install New Sign(s) w/Post(s)
 - ⑤ Install New Sign(s) on Light Standard
 - ⑥ Remove Exist. Sign(s) & Install New Sign on Light Standard
 - ⑦ Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post

SURVEY PLOTTED BY	DATE
DRAWN BY	1/24/96
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

EMERGENCY
STATE OF HAWAII
CALL BOX
H1E0151

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PAVEMENT MARKING
& SIGNING PLAN
H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)
Scale: 1" = 40' Date: Apr., 1996
SHEET No. 77 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-HI-1(221)	1996	31	36



- KEY:**
- ① Exist. Sign(s) & Post(s) to Remain
 - ② Remove Exist. Sign(s) w/Post(s)
 - ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
 - ④ Install New Sign(s) w/Post(s)
 - ⑤ Install New Sign(s) on Light Standard
 - ⑥ Remove Exist. Sign(s) & Install New Sign on Light Standard
 - ⑦ Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post

ORIGINAL PLAN	DATE	3/4/96
SURVEY PLOTTED BY		
DRAWN BY		
DESIGNED BY		
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**PAVEMENT MARKING
& SIGNING PLAN**

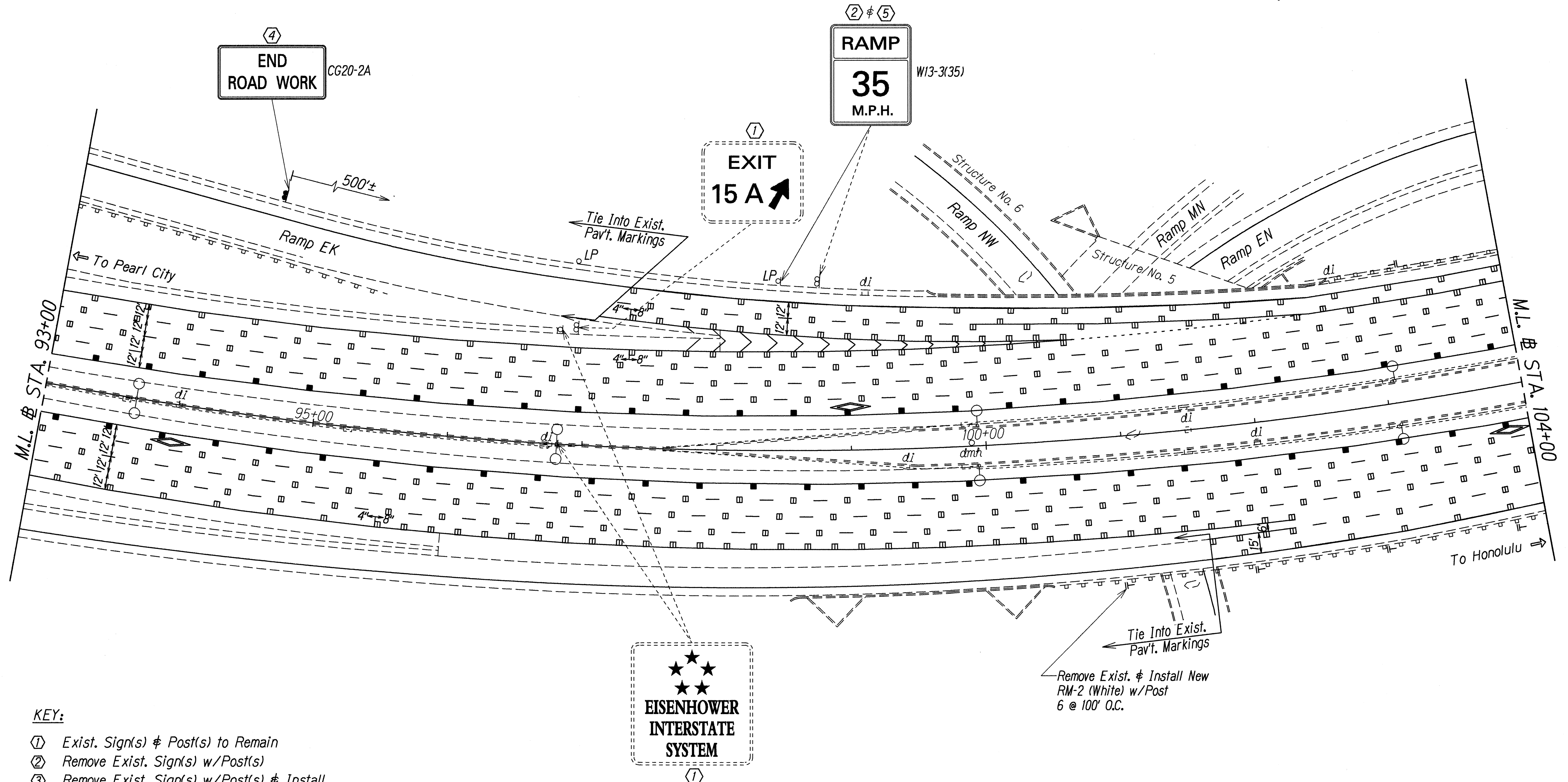
H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. 1M-HI-1(221)

Scale: 1" = 40' Date: Apr., 1996

SHEET No. T8 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	32	36

TRUE NORTH
SCALE: 1" = 40'



KEY:

- ① Exist. Sign(s) & Post(s) to Remain
- ② Remove Exist. Sign(s) w/Post(s)
- ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
- ④ Install New Sign(s) w/Post(s)
- ⑤ Install New Sign(s) on Light Standard
- ⑥ Remove Exist. Sign(s) & Install New Sign on Light Standard
- ⑦ Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY M. Tredwell	3/14/96
QUANTITIES BY	DESIGNED BY C. Abe	
CHECKED BY	102mg	
	N. H. Design	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

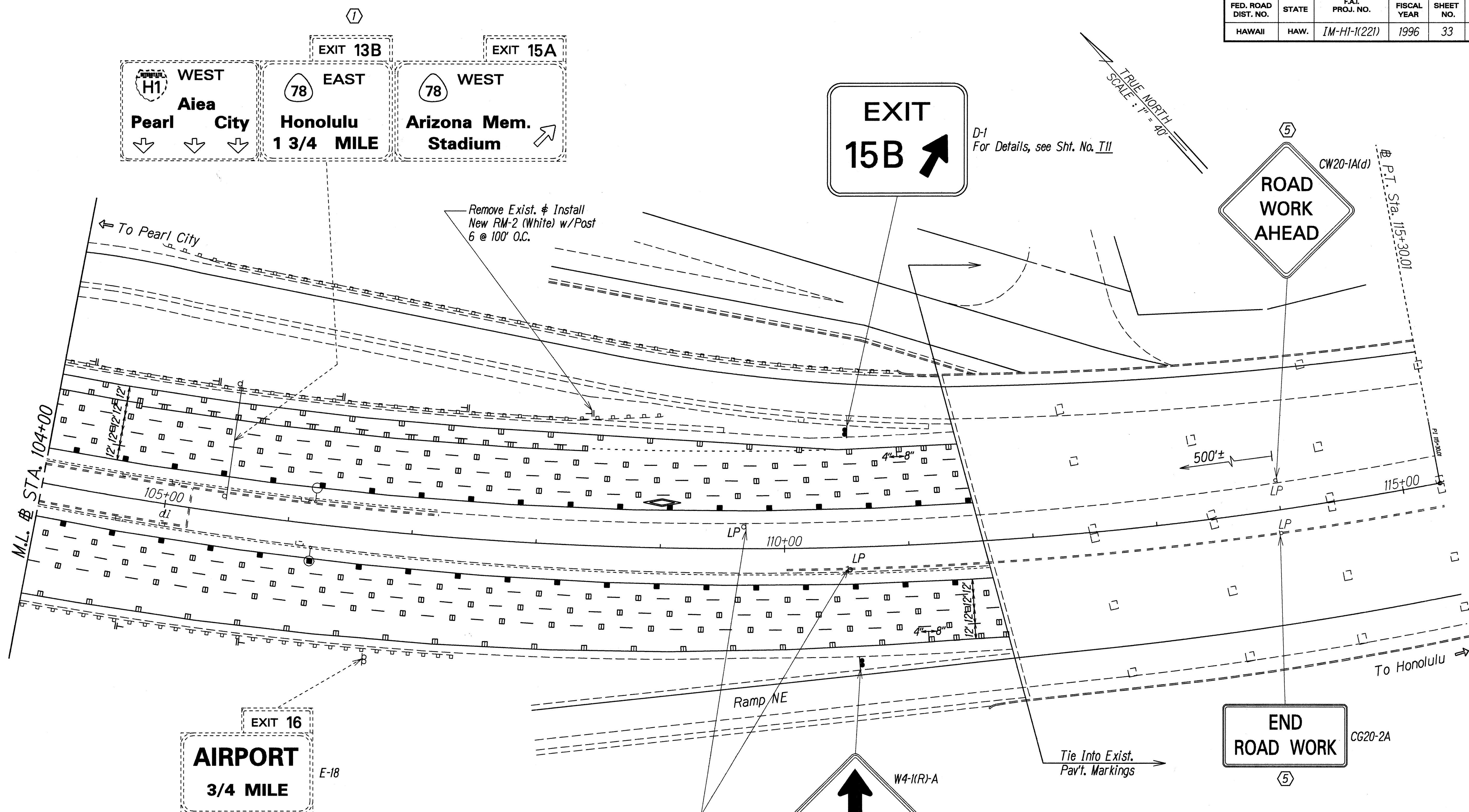
**PAVEMENT MARKING
& SIGNING PLAN**

H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)

Scale: 1" = 40' Date: Apr., 1996

SHEET No. T9 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	33	36



- KEY:**
- ① Exist. Sign(s) & Post(s) to Remain
 - ② Remove Exist. Sign(s) w/Post(s)
 - ③ Remove Exist. Sign(s) w/Post(s) & Install New Sign(s) w/Post(s)
 - ④ Install New Sign(s) w/Post(s)
 - ⑤ Install New Sign(s) on Light Standard
 - ⑥ Remove Exist. Sign(s) & Install New Sign on Light Standard
 - ⑦ Remove Exist. Sign(s) & Install New Sign(s) on Exist. Post

ORIGINAL PLAN	DATE
DESIGNED BY	3/24/96
TRACED BY	
QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

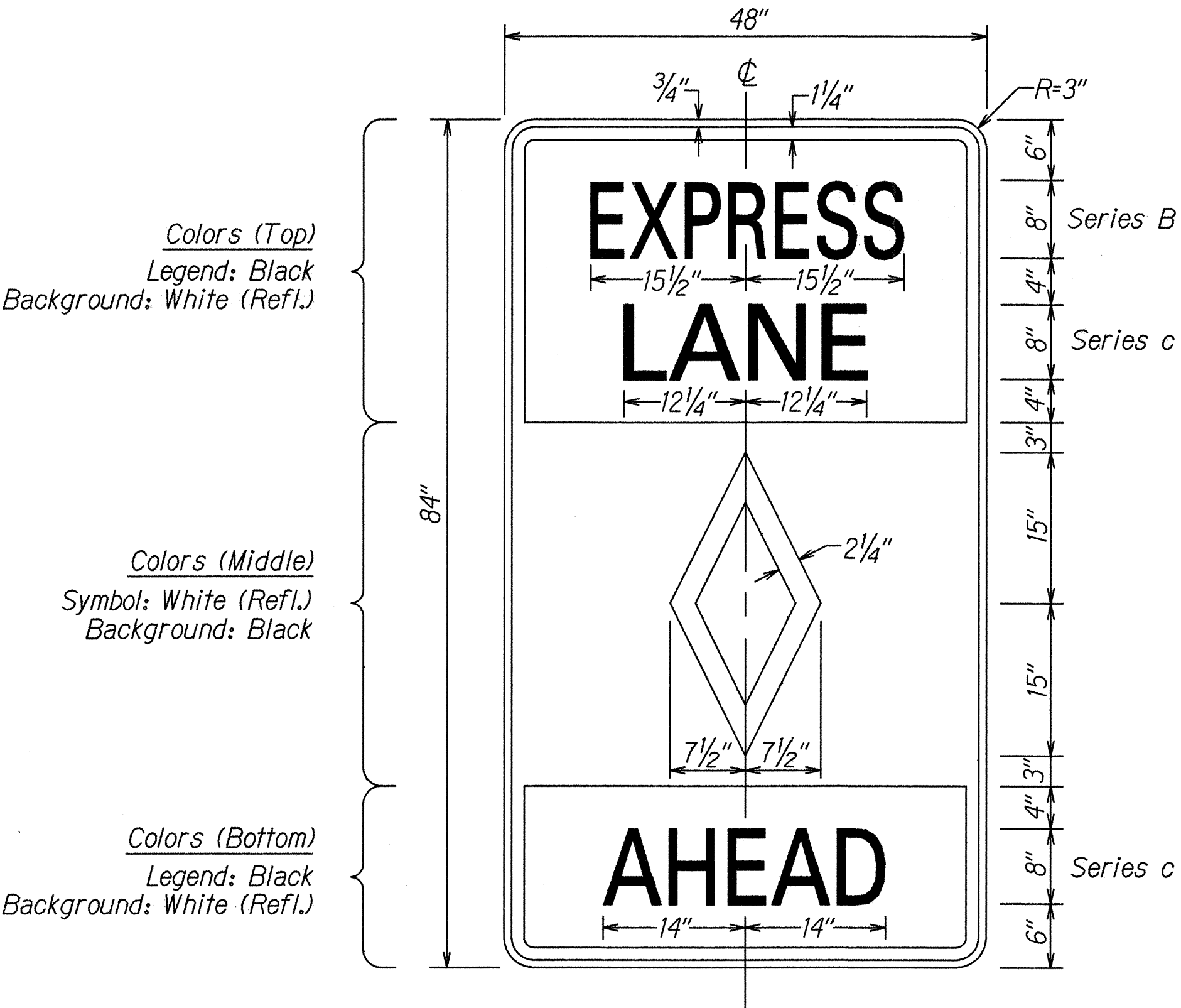
**PAVEMENT MARKING
& SIGNING PLAN**

H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)

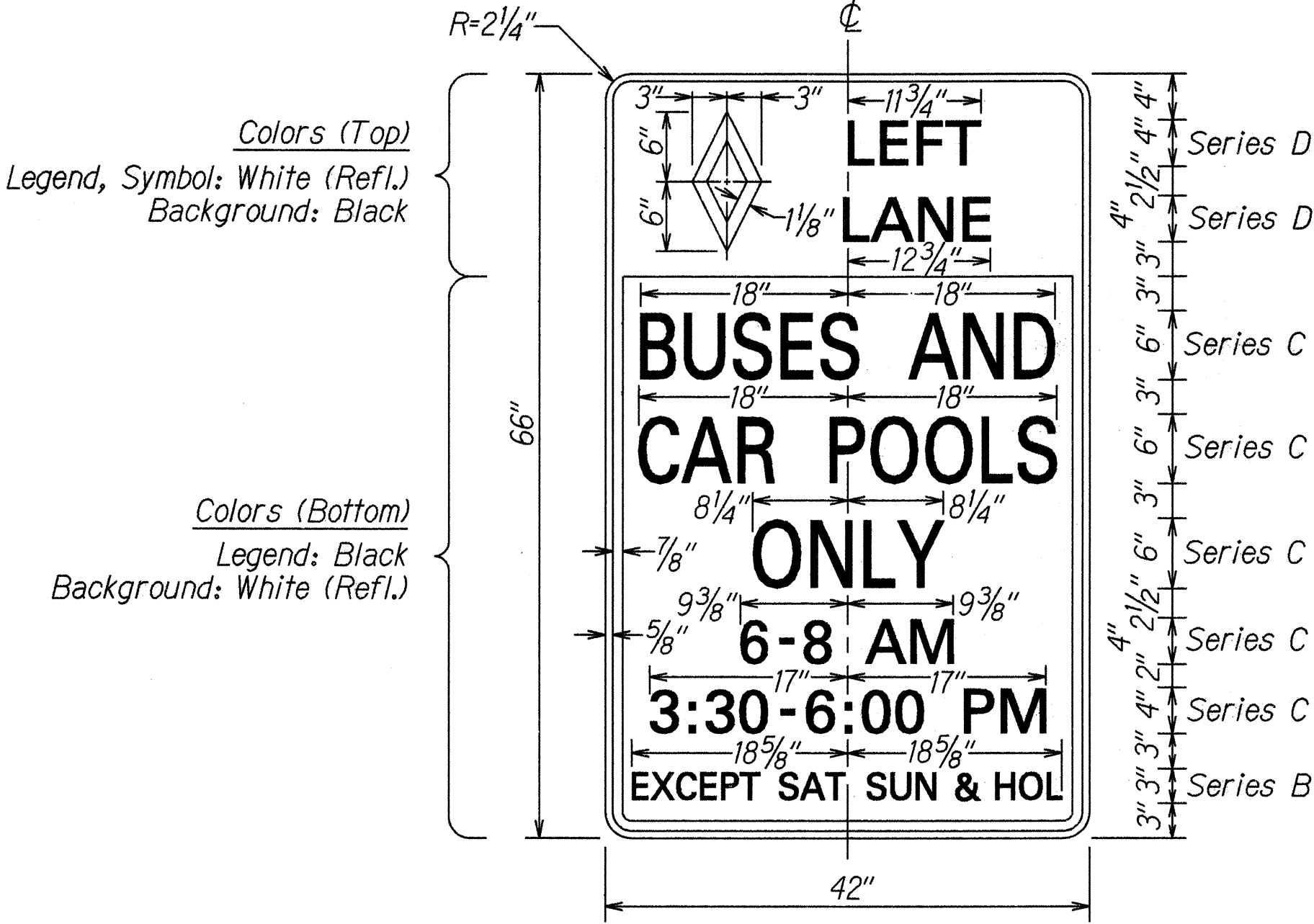
Scale: 1" = 40' Date: Apr., 1996

SHEET No. T10 OF 13 SHEETS

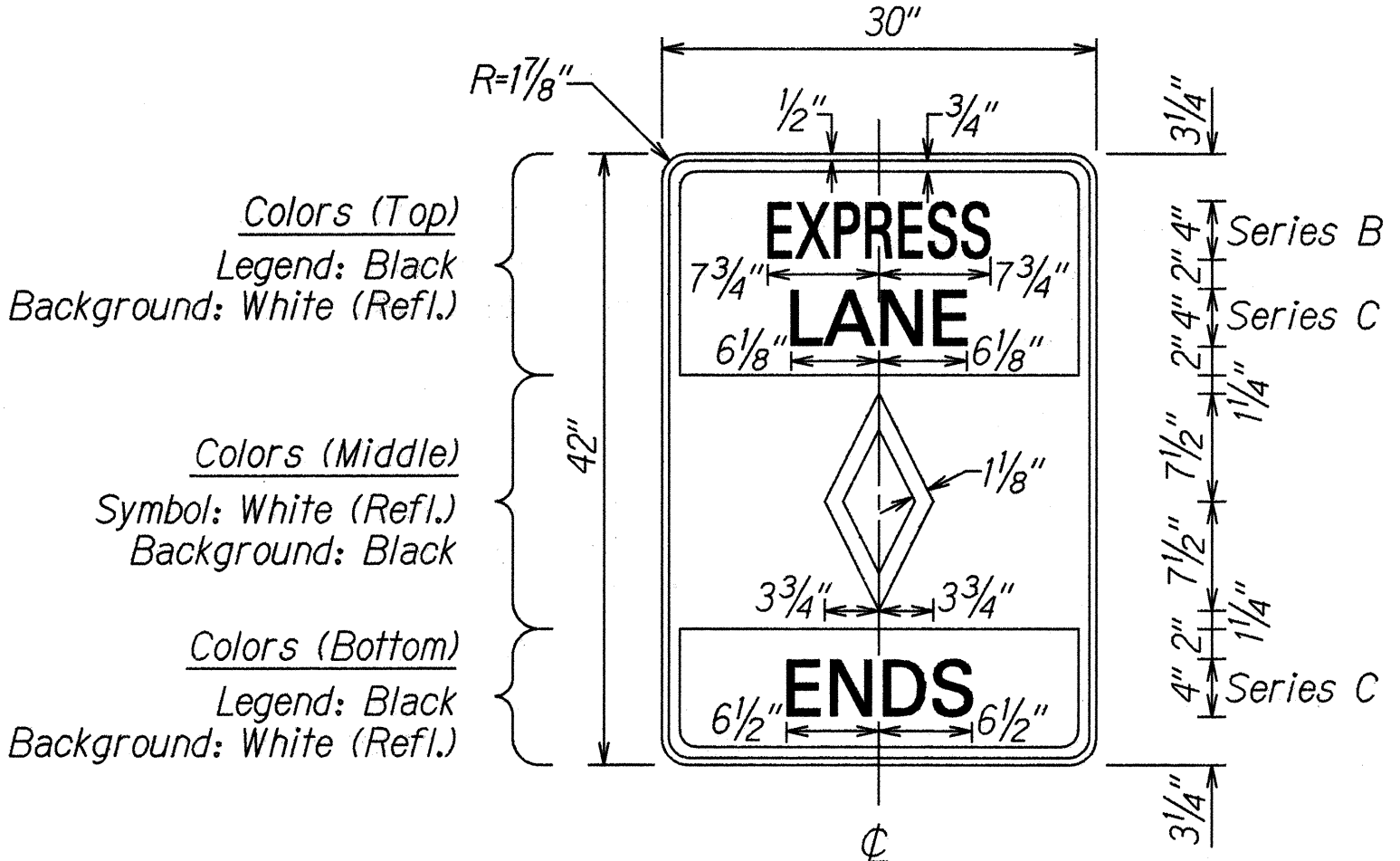
FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	35	36



R3-10d

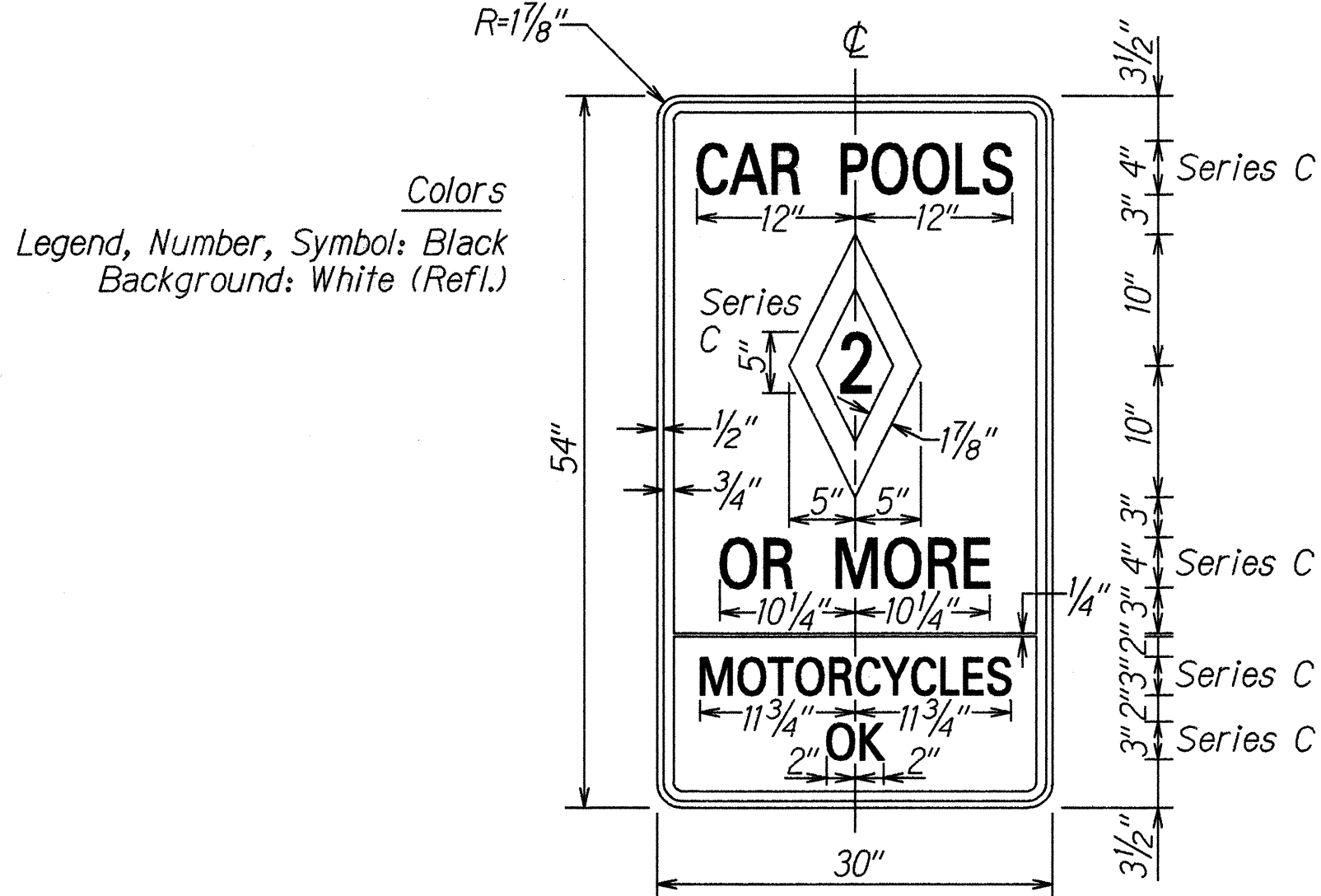


R3-11a

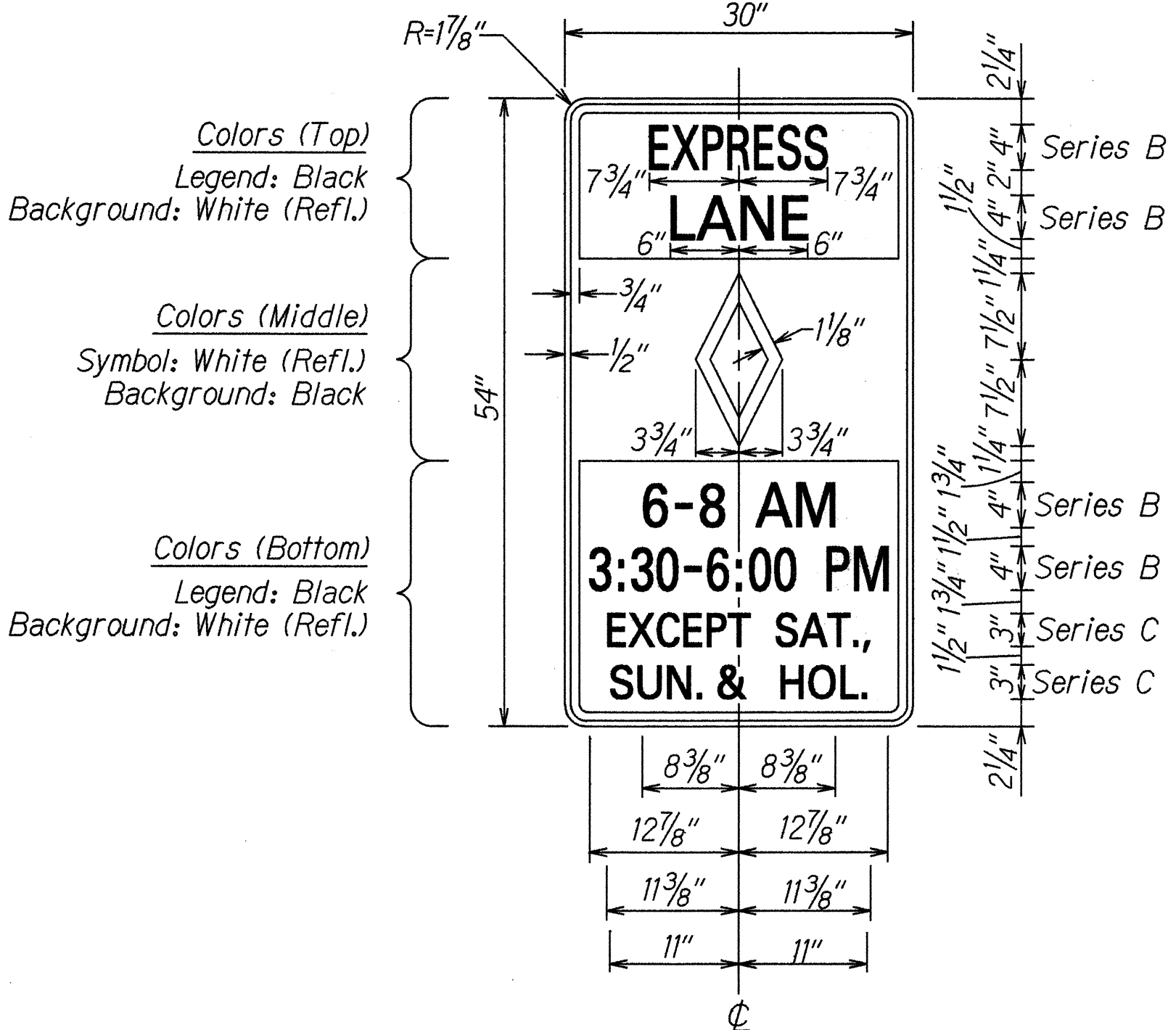


R3-12a

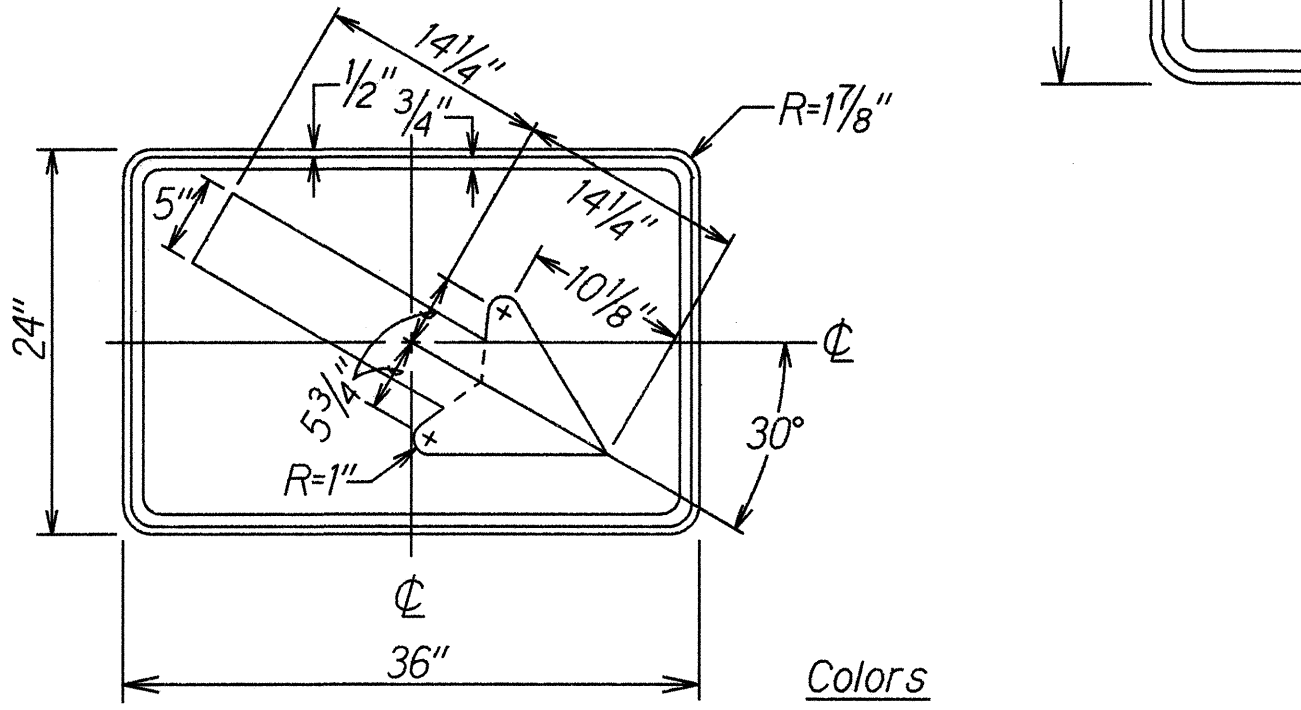
NOTE: For R3-10 Series Signs, Suffixes a, b, c, d, and e are as Follows:
a-1500 FT. b-1000 FT. c-500 FT.
d-AHEAD e-BEGIN.



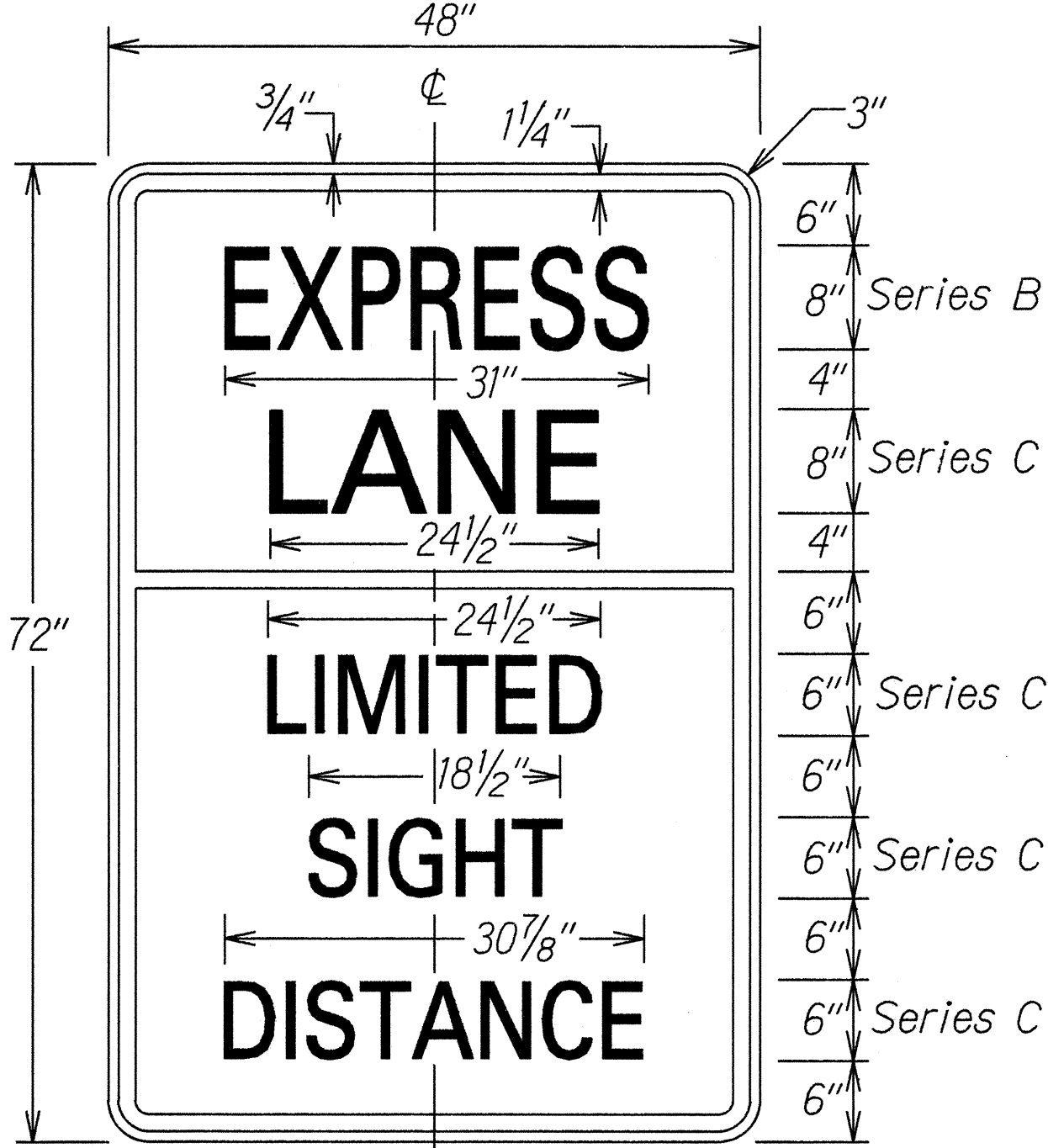
R3-18



R3-19



R3-20



W14-5

DATE	1/1/96
DESIGNED BY	C. Abo
CHECKED BY	M. H. H. H.
QUANTITIES BY	M. H. H. H.
NOTED BY	M. H. H. H.
ORIGINAL PLAN	M. H. H. H.

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HOV SIGNING NOTES

DETAILS

H-1 FREEWAY RESURFACING

Salt Lake Blvd. to Valkenburg Street

F.A.I. Project No. IM-HI-1(221)

Scale: 1"=1'-0"

Date: Apr., 1996

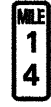
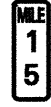
SHEET No. T12 OF 13 SHEETS

FED. ROAD DIST. NO.	STATE	F.A.I. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(221)	1996	36	36

TRAFFIC SIGN SUMMARY					
SIGN NO.	MESSAGE	QUANTITY			
		10 SQ. FT. OR LESS		GREATER THAN 10 SQ. FT.	
		W/POST	W/O POST	W/POSTS	W/O POSTS
R2-4a(55/45)-A	SPEED LIMIT 55 MINIMUM 45			1	3
R16-1	BUCKLE UP IT'S THE LAW		1		
R3-11a	LEFT LANE BUSES AND CAR POOLS ONLY				8 9
R3-18	CAR POOLS 2 OR MORE MOTORCYCLES OK				5
W4-1(R)-A	 RAMP			3	
W13-3(35)	35 M.P.H.				2
TOTAL		Ø	1	4	18 19

CONSTRUCTION SIGN SUMMARY			
SIGN NO.	MESSAGE	W/POSTS	W/O POST
CG20-2A	END ROAD WORK	2	3
CW20-1A(d)	ROAD WORK AHEAD	1	4
TOTAL		3	7

PAVEMENT MARKING SUMMARY		
DESCRIPTION	QUANTITY	
PAVEMENT MARKERS		
TYPE A _____	6,052	EA.
TYPE C _____	2,357	EA.
TYPE H _____	451	EA.
TAPE - TYPE I OR THERMOPLASTIC EXTRUSION		
4-INCH PAVEMENT STRIPE (WHITE) _____	3,080	L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	1,190	L.F.
MILEPOST PAVEMENT MARKING _____	4	EA.
TAPE - TYPE II OR THERMOPLASTIC EXTRUSION		
4-INCH PAVEMENT STRIPE (WHITE) _____	17,520	L.F.
4-INCH PAVEMENT STRIPE (YELLOW) _____	17,960	L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	3,510	L.F.
12-INCH PAVEMENT STRIPE (WHITE) _____	585	L.F.
TAPE - TYPE III OR THERMOPLASTIC EXTRUSION		
4-INCH PAVEMENT STRIPE (WHITE) _____	620	L.F.
8-INCH PAVEMENT STRIPE (WHITE) _____	2,650	L.F.
PAVEMENT DIAMOND _____	18	EA.

MILEPOST MARKER SUMMARY		
SIGN NO. AND MESSAGE	QUANTITY	
	W/POST	W/O POST
D10-5 	2	
D10-5 	2	
TOTAL	4	0

REFLECTOR MARKER SUMMARY				
TYPE	QUANTITY			
	W/FLEXIBLE POST (TYPE B)		W/STEEL POST	
	YELLOW	WHITE	YELLOW	WHITE
RM-2		24 26		12
RM-9			1	

DESTINATION (D) SIGN SUMMARY				
SIGN NO.	MESSAGE	SIZE	NEW PANEL AREA (SQ. FT.)	
			W/O POSTS	W/POSTS
D-1	EXIT 15 B 	8'-0" x 6'-0"		48.0
TOTAL			Ø	48.0

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY <i>M. Haddad</i>	<i>1</i>
	DESIGNED BY <i>C. Doe</i>	
	CHECKED BY <i>A. Smith</i>	
NOTE BOOK	1/22/96	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SUMMARIES

H-1 FREEWAY RESURFACING
Salt Lake Blvd. to Valkenburg Street
F.A.I. Project No. IM-HI-1(221)

Not to Scale Date: Apr., 1996

SHEET No. T13 OF 13 SHEETS