

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360B-01-85	1985	25	41

PAVEMENT WIDTH SCHEDULE	
APPROX. LIMITS STA. to STA.	PAVEMENT WIDTH
890+00 - 909+00	18.0'
909+00 - 924+50 912+50	17.0'
924+50 912+50 - 926+50	18.0'
926+50 - 923+50 917+00 - 922+00	20.0'
923+50 922+00 - 922+00	17.0'
923+50 - 923+00 922+00 - 926+00	20.0'
923+00 - 1005+50 926+00 - 1021+00	17.0'
1005+50 - 1010+00 1021+00 - 1043+00	15.0'
1010+00 - 1024+00 1043+00 - 1049+00	18.0'
1024+00 - 1030+00 1049+00 - 1058+00	19.0'
1030+00 - 1032+15 1040+00 - 1064+00	21.0'
1032+15 - 1043+00 1064+00 - 1067+00	20.0'

NOTE: Sta. 1043+00 to Sta. 1090+00 - Leveling Course only, 1" Thick.

TRAFFIC SIGNS AND REFLECTOR MARKERS SUMMARY			
TYPE	DESCRIPTION	QUANTITY	
		W/POST	W/O POST
R2-1(15)	SPEED LIMIT SIGN	10	
W1-S R	WINDING ROAD SIGN	2	
W1-9L	WINDING ROAD SIGN	4	
W9-2a	NARROW BRIDGE SIGN	6	
W1-8	CHEVRON ALIGNMENT SIGN	45	
W9-1	ROAD NARROWS SIGN	6	
RM-1	REFLECTOR MARKER WITH STEEL POST	23	
RM-1	REFLECTOR MARKER WITH FLEXIBLE DELINEATOR POST	205 210	
RM-3	REFLECTOR MARKER WITH STEEL POST	5	
RM-3	REFLECTOR MARKER WITH FLEXIBLE DELINEATOR POST	25	
W13-1(10)	ADVISORY SPEED PLATE		11

CRM WALL SCHEDULE		
APPROX. LIMITS STA. to STA.	APPROX. CRM VOL. (C.Y.)	APPROX. SHOTCRETE AREA (S.Y.)
923+00± - 923+40± Lt.	4	+
924+70± - 925+15± Lt. & Rt.	45.3	1322.0
944+22± - 946+15± Lt.	122.6	3425.1
992+50± - 993+00± Lt.	67.4	1724.5
954+30± - 954+80± Lt.	66.1	1723.1
956+50± - 956+62± Lt.	1.7	34.7
966+25± - 966+55± Lt.	34.5	1025.2
994+15± - 994+70± Lt.	77.3	2018.6
995+75± - 996+50± Lt.	816.4	2524.5
997+ 25 ²⁸ ± - 1001+ 40 ⁷⁵ ± Lt.	4246.3	12778.0
1068+50± - 1068+75± Lt.	2	6
1079+10± - 1075+ 41 ⁴⁵ ± Lt.	33.4	1620.6
1079+ 25 ³⁰ ± - 1079+30± Rt.	2.8	26.0
1084+37± - 1084+58± Rt.	23.6	78.8
1001+39± - 1001+73± Lt.		14.9
929+20± - 929+25± Lt.	2.6	2.2
924+98± Rt.	4.2	
TOTAL	114.2 101 C.Y.	298.2 310 S.Y.

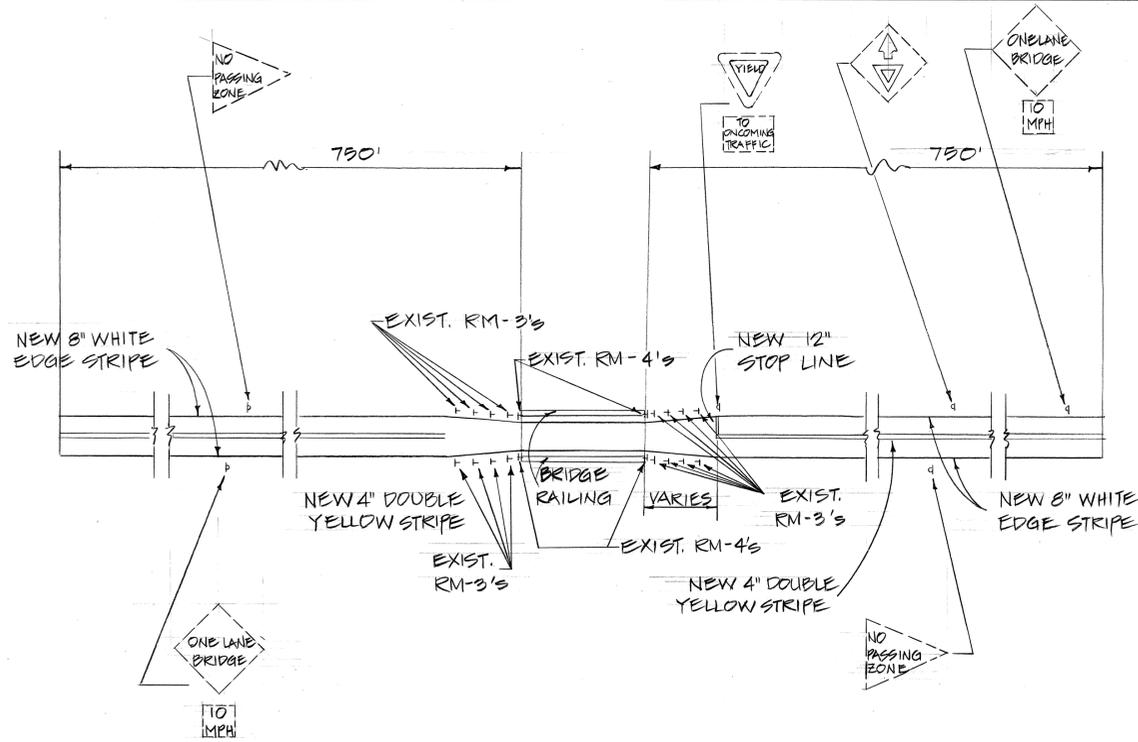
PAVEMENT MARKINGS SUMMARY	
DESCRIPTION	QUANTITY
PAVEMENT STRIPING - 4" DOUBLE YELLOW	20,900 20,315 L.F.
PAVEMENT STRIPING - 8" WHITE EDGE @ BRIDGE	20,970 20,628 L.F.
TYPE "D" PAVEMENT MARKERS	1,000 1,005 ea.

PAVEMENT MARKINGS AT BRIDGES		
BRIDGE NAMES	LANE TYPE	8" WHITE EDGE STRIPE @ BRIDGE
W. WAILUAIKI	TWO-LANE	3150 3124
E. WAILUAIKI	TWO-LANE	3070
KOPIILULA	ONE-LANE	3150 3156
PUAKAA	TWO-LANE	3040 3044
WAIOHUE	ONE-LANE	2090 1990
UNNAMED #1	ONE-LANE	1640 1750
UNNAMED #2	ONE-LANE	160 92
PAAKEA	ONE-LANE	1570 1542
KAPAUULA	ONE-LANE	3100 1500
WAIKANI	ONE-LANE	1500
TOTAL		20,970 L.F. 20,768

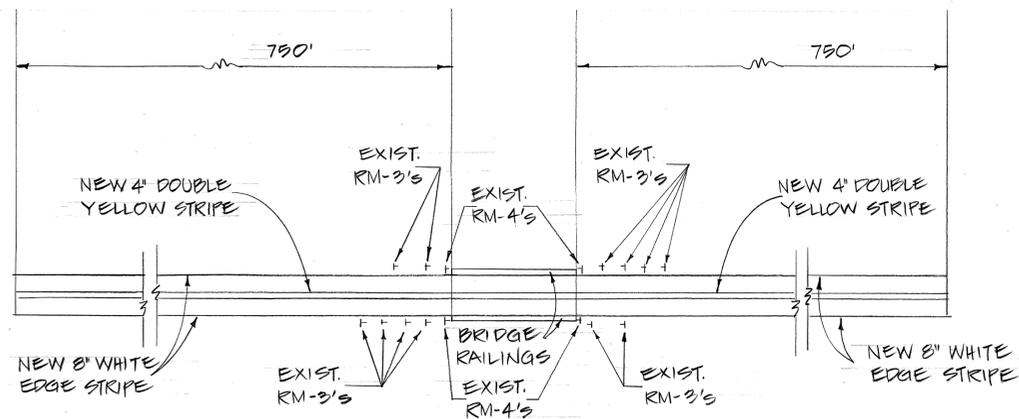
- NOTES:
- For CRM Wall Details, See Plan Sht. No. 2
 - For Traffic Sign Locations, See Plan Sht. Nos. 3-8
 - For Typical Reflector Markers Spacings, See Plan Sht. No. 20
 - For Typical Pavement Markers and Striping Details, See Plan Sht. No. 20
 - For Pavement Markings of Bridges Details, See Plan Sht. No. 20
 - CRM Wall Schedule does not include quantities for CRM headwalls which maybe located within CRM wall limits.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PAVEMENT WIDTH, CRM WALLS,
SIGNS, RM'S & PAVEMENT MARKINGS
SCHEDULES AND SUMMARIES
HANA HIGHWAY IMPROVEMENTS
WAILUA TOWARDS HANA, PHASE I
PROJ. No. 360B-01-85
DATE: OCT. 1984
SHEET No. 1 OF 12 SHEETS

ORIGINAL PLAN
DATE
DRAWN BY
DESIGNED BY
CHECKED BY
NO.



ONE-LANE BRIDGE

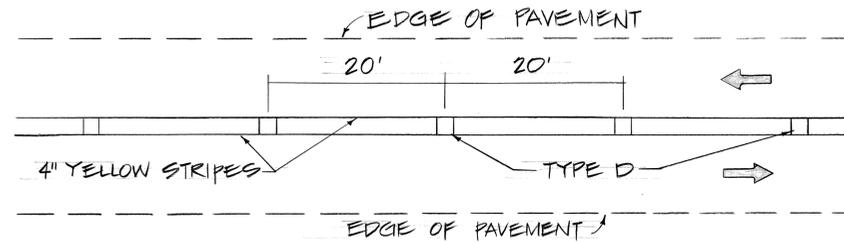


TWO-LANE BRIDGE

TYPICAL PAVEMENT MARKINGS

AT BRIDGES

NTS



TYPICAL PAVEMENT MARKERS AND STRIPING DETAIL

Not to Scale

NOTES:

- Locations of all Pavement Markings shall be staked out by the Contractor for approval by the Engineer prior to installation.
- For additional information refer to section 629- Pavement Markers, Striping and Markings of the Special Provisions.
- For typical Reflector Marker Spacing (RM-1), See schedule below.
- Objects adjacent to the roadway such as walls, culvert headwalls, ends of guardrails, etc. shall be marked with Reflector Markers (RM-3).

REFLECTOR MARKER SCHEDULE

STA. to STA.	SPACING	STA. to STA.	SPACING
928+99 - 929+99 Lt.	20' a.c.	1037+00 - 1039+00 Lt.	20' a.c.
956+00 - 959+00 Lt.	100' a.c.	1040+00 - 1041+20 Lt.	20' a.c.
962+20 - 963+40 Lt.	20' a.c.	1064+00 - 1065+80 Lt.	30' a.c.
965+30 - 967+90 Lt.	20' a.c.	1072+00 - 1073+20 Lt.	30' a.c.
969+30 - 970+80 Lt.	30' a.c.	1073+50 - 1074+60 Lt.	20' a.c.
972+00 - 975+20 Lt.	20' a.c.	1081+00 - 1083+70 Lt.	30' a.c.
986+00 - 987+00 Lt.	20' a.c.	1086+20 - 1089+80 Lt.	20' a.c.
996+80 - 997+70 Lt.	30' a.c.	1090+90 - 1093+30 Lt.	30' a.c.
1002+10 - 1002+70 Lt.	20' a.c.	1094+30 - 1095+20 Lt.	30' a.c.
1021+20 - 1023+00 Lt.	30' a.c.	1095+50 - 1096+50 Lt.	20' a.c.
1024+30 - 1025+70 Lt.	20' a.c.	1097+15 - 1098+95 Lt.	30' a.c.
1026+10 - 1031+30 Lt.	40' a.c.	994+15 - 996+80 Lt.	20' a.c.
1034+10 - 1036+80 Lt.	30' a.c.	1011+00 - 1015+00 R.t.	20' a.c.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES, PAVEMENT MARKINGS @
BRIDGES, MARKINGS & STRIPING
REFLECTOR MARKER SCHEDULES

HANA HIGHWAY IMPROVEMENTS
WAILUA TOWARDS HANA, PHASE I
PROJ. No. 360B-01-89
DATE: OCT. 1984

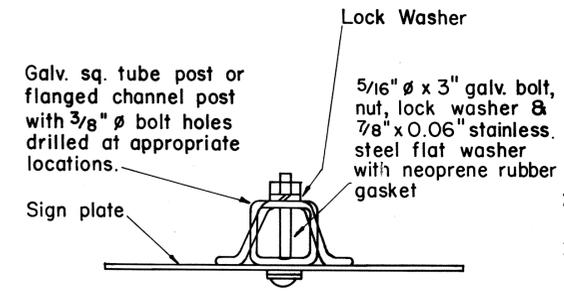
SHEET No. 2 OF 12 SHEETS

ORIGINAL PLAN
SURVEY PLOTTED BY
DRAWN BY
DESIGNED BY
CHECKED BY
DATE

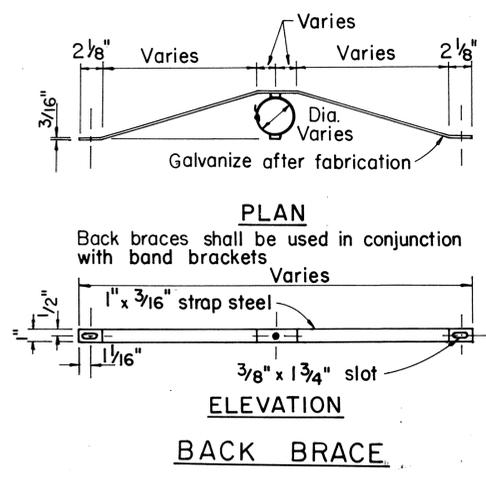
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360B-01-85	1985	27	41

GENERAL NOTES

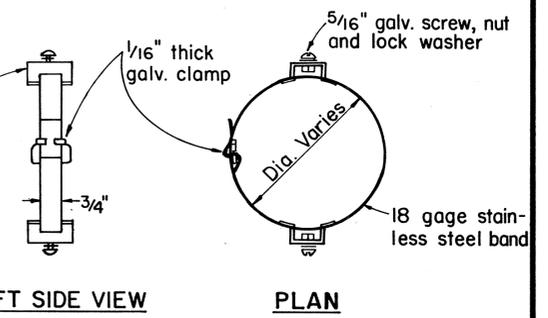
- Signs shall be placed in conformance with positions shown and described in the "Manual on Uniform Traffic Control Devices for Streets and Highways", 1978, Part II, Section 2A-21, as amended, and as supplemented herein.
- Sign 48" and wider or larger than 10 sq. ft. in area shall be mounted on two or more sign posts except as noted below.
- Signs 48" and wider or larger than 10 sq. ft. in area may be mounted on objects other than sign posts (i.e. on highway lighting poles) as follows:
 - Signs 48" and wider but less than 10 sq. ft. in area shall be mounted with a minimum of two sets of band bracket and back braces.
 - Signs larger than 10 sq. ft. and less than 28 sq. ft. in area shall be mounted with a minimum of two sets of band brackets and back braces.
 - Signs larger than 28 sq. ft. in area shall be mounted with a minimum of three sets of band bracket and back braces.
- All parking restriction signs with arrows shall be mounted 45° to the line of traffic flow.
- Sign posts shall extend 3/2" above each sign, where required, for attachment of City and County street name signs.
- (R) or (L) indicates right or left and shown on the plans.
- See plans for special details of signs along bikeways.
- The minimum lateral distances shown are guidelines and shall be exceeded whenever possible. The Contractor shall place signs at the maximum practical lateral distance from the edge of the traveled way up to 30 feet and shall utilize protected locations whenever possible. Final locations of all signs shall be approved by the Engineer.
- Signs in medians shall be placed at midpoint of median up to a maximum distance of 30 feet from the edge of traveled way. When appropriate, signs for opposing directions shall be placed back to back.
- Anchor bases shall be installed for all signpost installations, unless otherwise shown or directed. See sheets DT 100A and DT 100B.



GALVANIZED SQUARE TUBE OR FLANGED CHANNEL POST



Additional. Required for bidirectional mounting or when used in conjunction with band brackets.



BAND BRACKET

APPROVAL RECOMMENDED:
Eiichi Tanaka 10/14/83
 TRAFFIC ENGINEER DATE

APPROVED:
P. Fujiyama 10-18-83
 ASSISTANT CHIEF, ENGINEERING DATE

TYPICAL MOUNTING DETAILS

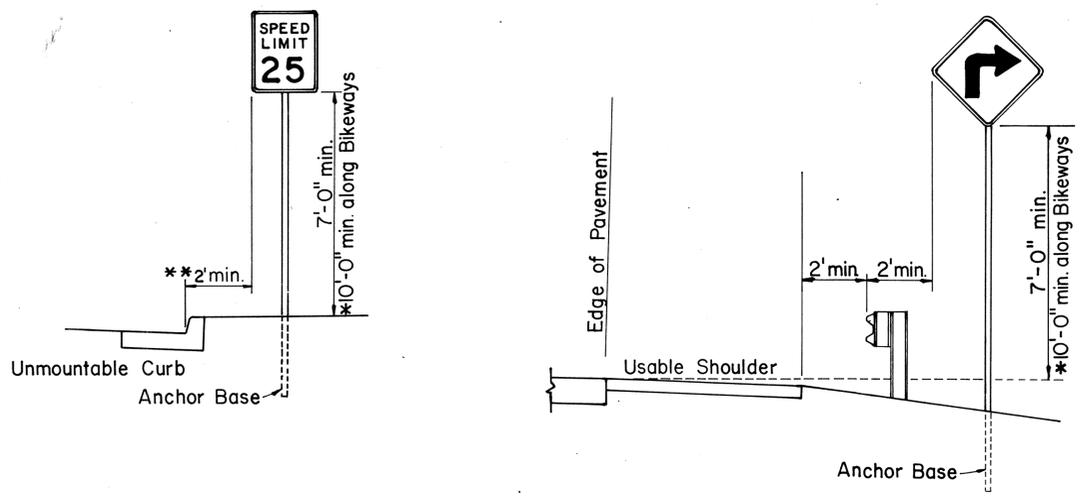
NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 100 approved 11/15/77	<i>[Signature]</i>	10-18-83

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

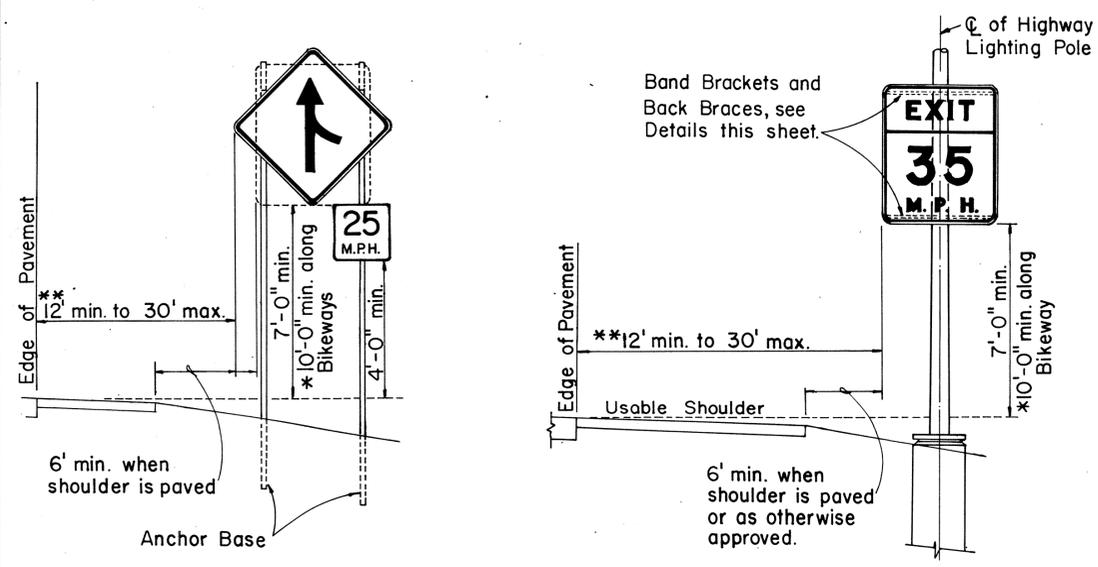
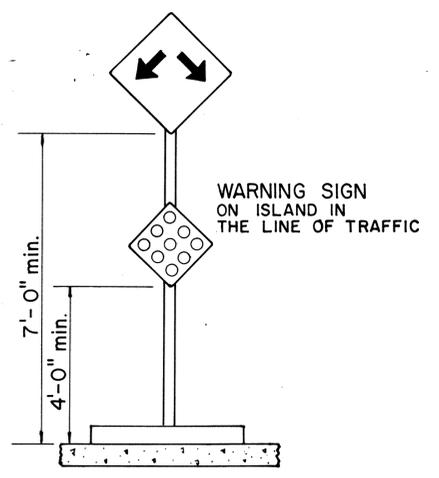
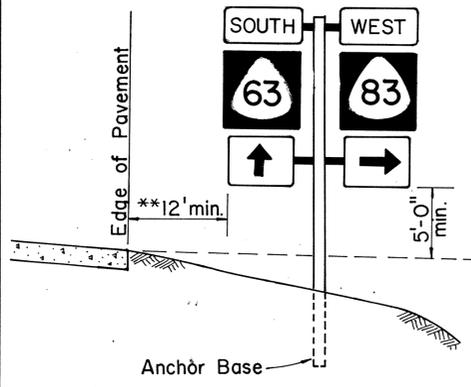
STANDARD DETAILS

MISCELLANEOUS SIGN DETAILS

Not to Scale: Oct. 1983
 SHEET NO. 3 OF 12 SHEETS DT 100



ROADSIDE ASSEMBLY RURAL DISTRICT



HEIGHT AND LATERAL LOCATION OF SIGNS TYPICAL INSTALLATION

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	3608-01-85	1985	28	41

A or A,	C	C,
36"	6"	-
48"	9"	19"
60"	12"	24"

NOTE: Frame stiffeners are required when D is greater than 24". See Gen. Note 4.

GENERAL NOTES

- Sign posts and base posts shall be flanged channel type structural steel conforming to ASTM A 499 and galvanized in accordance with ASTM A 123.
NOMINAL DIMENSIONS:
2.50 lbs./ft. - 3.125" x 1.562"
4.00 lbs./ft. - 3.500" x 1.750"
- Retainer - Spacer Strap shall be AISI 1020 steel and galvanized in accordance with ASTM A 123.
- Retainer and Connector Bolts shall be 5/16 - 18 UNC x 1.75" long hex. head, integral flange conforming to ASTM A 354 Grade BC. Nuts shall be 5/16 - 18 UNC hex. head, integral flange conforming to ASTM A 563 Grade D. All bolts and nuts shall be cadmium plated per Federal spec. QQP 416 B, Class 2, Type 2.
- All accessories, fittings and stiffener details (as required) shall be submitted to Engineer for approval 20 days prior to installation.
- For additional details see sht. DT 100.
- Basic formulas for use with the windload charts:
Factor = A x B x H
Therefore, if sign area (A x B) is known,
Maximum H = $\frac{\text{Factor}}{\text{sign area (A x B)}}$
and if H is known,
Maximum sign area (A x B) = $\frac{\text{Factor}}{H}$

APPROVAL RECOMMENDED:

Eishi Tanaka 9/2/82
TRAFFIC ENGINEER DATE

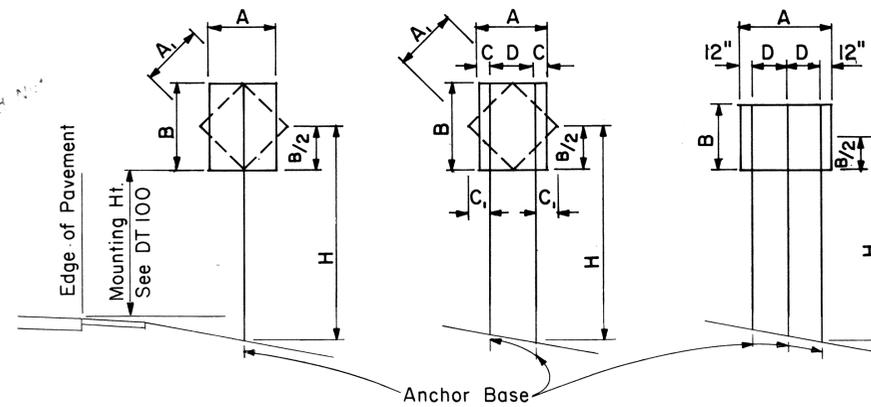
APPROVED:

Hubert Salsichis 9/22/82
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
GALVANIZED FLANGED CHANNEL
SIGN POST MOUNTING

Scale: As Shown Date: Sept. 1982
SHEET No. 4 OF 12 SHEETS DT100A



1-POST Sign area 10 sq. ft. and less
2-POST Sign area greater than 10 sq. ft. or A=48"-60"
3-POST A = greater than 60"

TYPICAL INSTALLATION

Not to Scale

FLANGED CHANNEL: 1-POST INSTALLATION

Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)						A x B (Area, sq. ft.)
		7	8	9	10	11	12	
2.50 lbs./ft.	57	8.14	7.13	6.33	5.70	5.18	4.75	A x B (Area, sq. ft.)
4.00 lbs./ft.	112	-	-	-	-	-	9.33	

FLANGED CHANNEL: 2-POST INSTALLATION

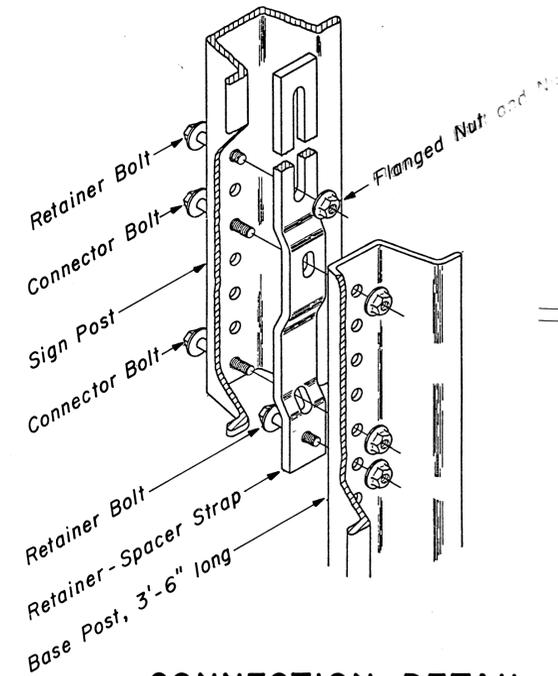
Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)						A x B (Area, sq. ft.)
		7	8	9	10	11	12	
2.50 lbs./ft.	124	17.71	15.50	13.77	12.40	11.27	10.33	A x B (Area, sq. ft.)
4.00 lbs./ft.	241	34.43	30.13	26.78	24.10	21.91	20.08	

FLANGED CHANNEL: 3-POST INSTALLATION

Post Size	A x B x H (Factor)	H = Ground Level to Midpoint (ft.)						A x B (Area, sq. ft.)
		7	8	9	10	11	12	
2.50 lbs./ft.	187	26.71	23.38	20.78	18.70	17.00	15.58	A x B (Area, sq. ft.)
4.00 lbs./ft.	362	51.71	45.25	40.22	36.20	32.91	30.17	

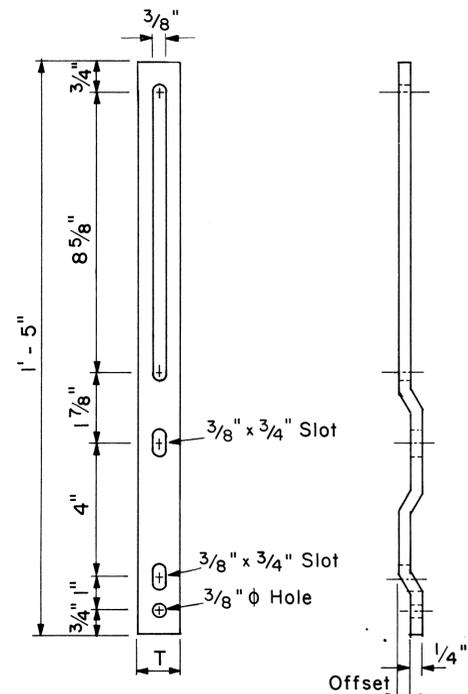
WINDLOAD CHARTS

NO.	REVISION	APPROVED BY	DATE



CONNECTION DETAIL

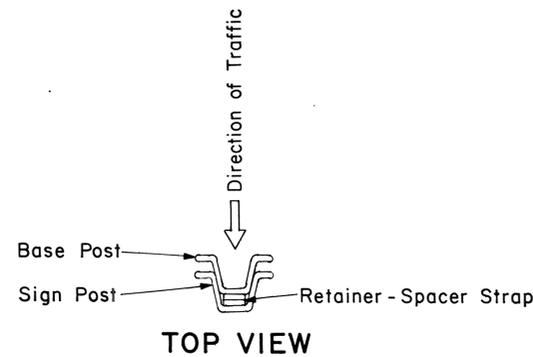
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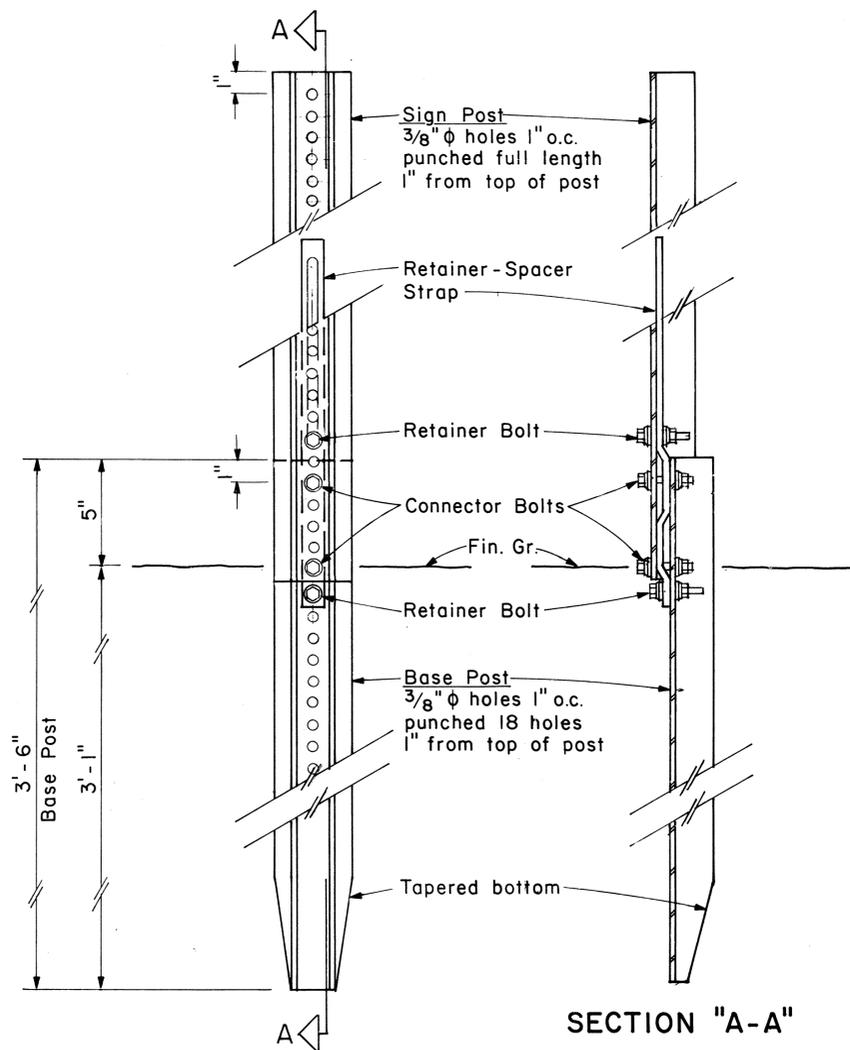
RETAINER-SPACER STRAP

Not to Scale

RETAINER-SPACER STRAP		
Post Size	T	Offset
2.50 lbs./ft.	1.00"	0.145"
4.00 lbs./ft.	1.12"	0.280"



TOP VIEW



SECTION "A-A"

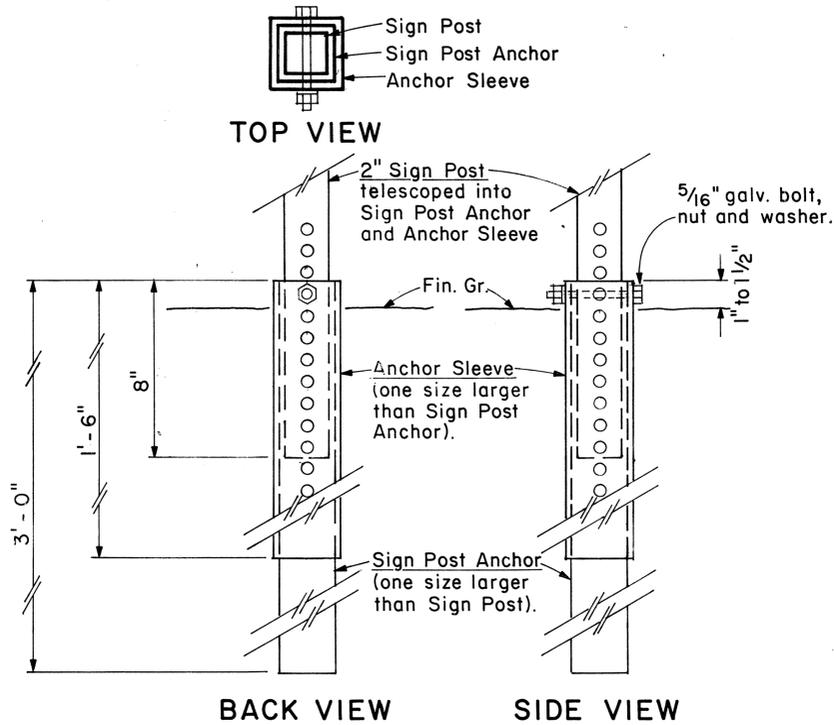
BACK VIEW

ANCHOR BASE DETAIL

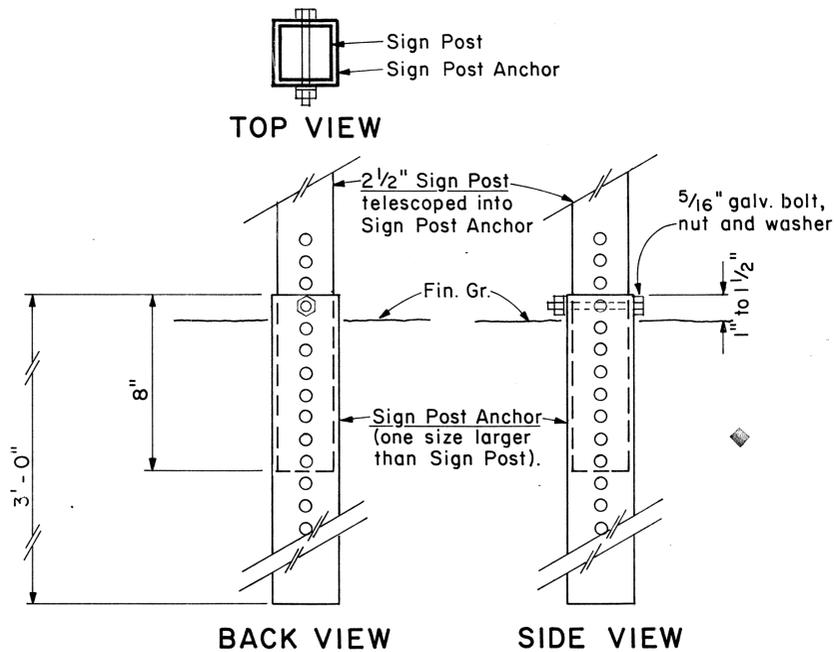
Scale: 3" = 1'-0"

SURVEY PLOTTED BY: _____ DATE: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 QUANTITIES BY: _____
 CHECKED BY: _____
 ORIGINAL PLAN No. _____

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360B-01-85	1985	29	41



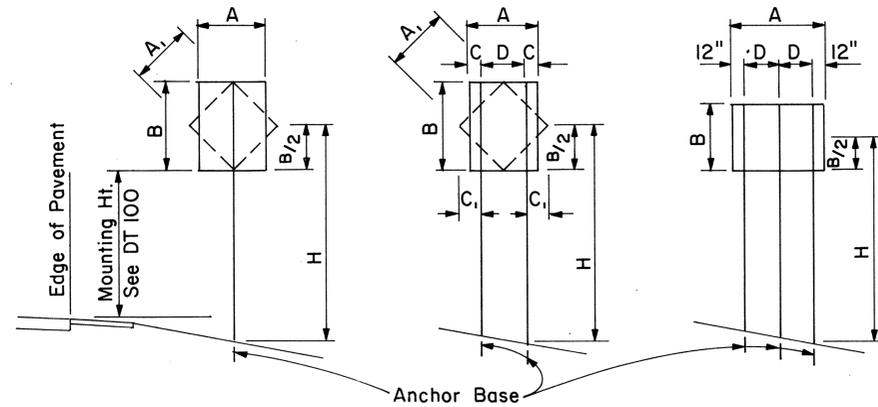
2" SIGN POST INSTALLATION



2 1/2" SIGN POST INSTALLATION

ANCHOR BASE DETAIL

Scale: 3" = 1'-0"



1-POST Sign area 10 sq. ft. and less
 2-POST Sign area greater than 10 sq. ft. or A=48"-60"
 3-POST A = greater than 60"

TYPICAL INSTALLATION

Not to Scale

A or A ₁	C	C ₁
36"	6"	-
48"	9"	19"
60"	12"	24"

NOTE: Frame stiffeners are required when D is greater than 24". See Gen. Note 2.

SQUARE TUBE: 1-POST INSTALLATION							
Post Size	AxBxH (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2"	62	8.8	7.7	6.8	6.1	5.6	4.8
2 1/2"	107	-	-	-	-	9.6	8.8

SQUARE TUBE: 2-POST INSTALLATION							
Post Size	AxBxH (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2"	122	17.4	15.2	13.5	12.2	11.0	10.1
2 1/2"	212	30.2	26.5	23.5	21.1	19.2	17.6
2 1/2", 10 ga.	260	37.0	32.0	28.6	26.0	23.5	21.5

SQUARE TUBE: 3-POST INSTALLATION							
Post Size	AxBxH (Factor)	H = Ground Level to Midpoint (ft.)					
		7	8	9	10	11	12
2"	183	26.0	22.8	20.3	18.2	16.6	15.2
2 1/2"	318	45.4	39.5	35.2	31.5	28.8	26.5
2 1/2", 10 ga.	388	55.0	48.5	43.0	38.5	35.0	32.0

WINDLOAD CHARTS

NO.	REVISION	APPROVED BY	DATE

GENERAL NOTES

- Square tube sign posts shall conform to Subsection 713.11(C) Square Tube Posts of the Specifications.
- All accessories, fittings and stiffener details (as required) shall be submitted to Engineer for approval 20 days prior to installation.
- Square tube posts shall be perforated with 7/16" φ holes, 1" o.c., 4 sides, along entire length of post.
- All posts shall be 12 gage unless otherwise specified or shown on the plans.
- For additional details see sht. DT 100.
- Basic formulas for use with the windload charts:
 Factor = A x B x H
 Therefore, if sign area (A x B) is known,
 Maximum H = $\frac{\text{Factor}}{\text{sign area (A x B)}}$
 and if H is known,
 Maximum sign area (A x B) = $\frac{\text{Factor}}{H}$

APPROVAL RECOMMENDED:

Eishi Tanaka 9/21/82
 TRAFFIC ENGINEER DATE

APPROVED:

Robert R. S. S. S. 9/22/82
 ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
 GALVANIZED SQUARE TUBE
 SIGN POST MOUNTING

Scale: As Shown Date: Sep. 1982
 SHEET No. 5 OF 12 SHEETS DT100B

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360B-01-85	1985	30	41



R1-1 30" x 30"
R1-1-A 36" x 36"
4-WAY
R1-3 12" x 6"
R1-3-A 18" x 9"



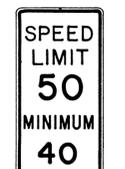
R1-2 36" x 36" x 36"
R1-2-A 48" x 48" x 48"



R2-1(50) 24" x 30"
R2-1(50)-A 48" x 60"



R2-2(40) 24" x 24"
R2-2(40)-A 48" x 48"



R2-4a(50/40) 24" x 48"
R2-4a(50/40)-A 48" x 96"



R2-5b(30) 24" x 30"
R2-5b(30)-A 48" x 60"



R3-1 24" x 24"
24" x 18"
R3-1-A 48" x 48"
48" x 36"



R3-2 24" x 24"
24" x 18"
R3-2-A 48" x 48"
48" x 36"



R3-3 24" x 24"
R3-3-A 48" x 48"



R3-4 24" x 24"
24" x 18"
R3-4-A 48" x 48"
48" x 36"



R3-5(L) 30" x 36"
R3-5(L)-A 48" x 60"



R3-6(L) 30" x 36"
R3-6(L)-A 48" x 60"



R3-7(R) 30" x 30"
R3-7(R)-A 48" x 48"



R3-8(L) 30" x 30"
R3-8(L)-A 36" x 36"
R3-8(L)-B 48" x 48"



R3-9 24" x 30"



R4-1 24" x 30"



R4-2 24" x 30"



R4-3 24" x 30"
R4-3-A 48" x 60"



R4-5 24" x 30"



R4-6(500) 24" x 30"



R4-7 24" x 30"
24" x 18"



R4-8 24" x 30"
24" x 18"



R5-1 30" x 30"
R5-1-A 48" x 48"



R5-2 24" x 24"
24" x 18"



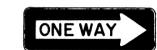
R5-4 24" x 30"



R5-6 24" x 24"
24" x 18"



R5-9 36" x 24"



R6-1(R) 36" x 12"



R6-2(R) 18" x 24"



R7-1 12" x 18"
R7-1-A 24" x 30"



R7-4 12" x 18"
R7-4-A 24" x 30"



R7-1,7(R) 12" x 18"



R7-108 12" x 18"



R7-201 12" x 6"
R7-201-A 24" x 12"



R8-1 24" x 30"



R8-2 24" x 30"



R8-3 24" x 30"



R8-4 30" x 24"
R8-4-A 48" x 36"



R8-5 24" x 30"



R8-6 24" x 30"



R8-7 30" x 24"
R8-7-A 48" x 36"



R9-1 18" x 24"



R9-2 12" x 18"



R9-3 12" x 18"



R9-4 18" x 24"



R10-1 12" x 18"



R10-2 12" x 18"



R10-3 9" x 12"



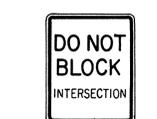
R10-4 9" x 12"



R10-5 24" x 30"



R10-6 24" x 36"



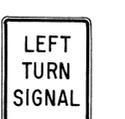
R10-7 24" x 30"



R10-8 24" x 30"



R10-9 24" x 30"



R10-10 24" x 30"



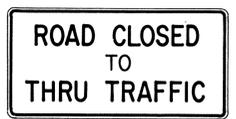
R11-1 24" x 30"



R11-2 48" x 30"



R11-3(10) 60" x 30"



R11-4 60" x 30"



R12-1(10) 24" x 30"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- All signs shall be erected without educational plaques unless called for in the plans.

APPROVAL RECOMMENDED:
Etsuki Tanaka 3/17/72
TRAFFIC ENGINEER DATE

APPROVED:
Valent Zabin 3-20-72
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 101 Approved 12-30-69	H.I.	8/20/72
2	Revised General Note 1.	H.I.	10/10/74
3	Added General Note 5	H.I.	11/9/75

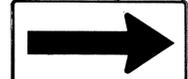
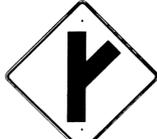
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

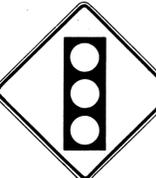
STANDARD DETAILS
REGULATORY SIGNS

NOT TO SCALE

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
CHECKED BY: _____
ORIGINAL PLAN: _____
NOTE BOOK: _____
No. _____

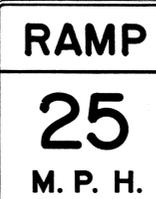
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII*	HAW.	360B-01-85	1985	31	41

 W1-1(R) 30"x30" W1-1(R)-A 48"x48"	 W1-2(R) 30"x30" W1-2(R)-A 48"x48"	 W1-3(R) 30"x30" W1-3(R)-A 48"x48"	 W1-4(R) 30"x30" W1-4(R)-A 48"x48"	 W1-5(R) 30"x30" W1-5(R)-A 48"x48"	 W1-6 48"x24"	 W1-7 48"x24"	 W2-1 30"x30" W2-1-A 48"x48"	 W2-2 30"x30" W2-2-A 48"x48"	 W2-3(R) 30"x30" W2-3(R)-A 48"x48"
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 W2-4 30"x30" W2-4-A 48"x48"	 W2-5 30"x30" W2-5-A 48"x48"	 W3-1 30"x30" W3-1-A 36"x36"	 W3-2 30"x30" W3-2-A 36"x36"	 W3-3 36"x36" 24"x18"	 W4-1(R) 30"x30" 24"x18" W4-1(R)-A 48"x48" 24"x18"	 W4-2(R) 36"x36" W4-2(R)-A 48"x48"	 W5-1 36"x36"	 W5-2 30"x30" W5-2-A 36"x36"	 W5-3 36"x36"
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 W6-1 36"x36" 24"x18"	 W6-2 36"x36" 24"x18"	 W6-3 30"x30" 24"x18" W6-3-A 36"x36" 24"x18" W6-3-B 48"x48" 24"x18"	 W7-1 30"x30" 24"x18" W7-1-A 36"x36" 24"x18"	 W7-2 24"x18"	 W8-1 30"x30" W8-1-A 36"x36"	 W8-2 30"x30" W8-2-A 36"x36"	 W8-3 30"x30" W8-3-A 36"x36"	 W8-4 30"x30" W8-4-A 36"x36"	 W8-5 30"x30" 24"x18" W8-5-A 36"x36" 24"x18"
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 W9-1(R) 30"x30" W9-1(R)-A 36"x36" W9-1(R)-B 48"x48"	 W9-2(L) 36"x36" W9-2(L)-A 48"x48"	 W10-1 36" Diameter	 W11-1 30"x30" 24"x18" W11-1-A 36"x36" 24"x18"	 W11-2 30"x30" 24"x18" W11-2-A 36"x36" 24"x18"	 W11-4 30"x30" 24"x18" W11-4-A 36"x36" 24"x18"	 W11-5 30"x30" 24"x18" W11-5-A 36"x36" 24"x18"
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 W12-1 24"x24" W12-1-A 36"x36" W12-1-B 48"x48"	 W12-2 (12'-6") 36"x36" 24"x18"	 W13-1(25) 18"x18" W13-1(25)-A 24"x24"	 W13-2(25) 48"x60"	 W13-3(25) 48"x60"	 W14-1 30"x30"	 W14-3 36"x48"x48"
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GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.
- All warning signs shall be reflectorized unless otherwise specified.
- All warning signs shall have 3/8" bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- Signs prefixed with "CW" on the plans shall indicate orange and black construction signs, and shall be reflectorized.

APPROVAL RECOMMENDED:
Eishi Tanaka 3/17/72
 TRAFFIC ENGINEER DATE

APPROVED:
Walter Dalsin 3-20-72
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 102 Approved 12-30-69	H.T.	3/20/72
2	Revised General Note 1	H.T.	10/16/74
3	Revised General Note 5	M.H.	9-16-75
4	Revised General Note 5	H.T.	9-14-76
5	Added Note 1	H.T.	11-9-79

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
WARNING SIGNS

NOT TO SCALE

SHEET No. 7 OF 12 SHEETS DT 102

DATE: _____
 SURVEY PLOTTED BY: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 NOTE BOOK: _____
 QUANTITIES BY: _____
 CHECKED BY: _____

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	3608-01-85	1985	32	41

General Notes

- Sign details shall conform to the latest editions of the following FHWA publications:
 - "Standard Alphabets for Highway Signs," and as amended.
 - "Standard Highway Signs," and as amended.
 - "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- All signs shall be reflectorized with reflective sheeting, unless otherwise specified.
- All signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations.
- Numerals in () indicate numerals to be inserted for sign message. (R) or (L) indicates right or left.
- Signs prefixed with "CW" on the plans shall indicate orange and black construction signs, and shall be reflectorized with reflective sheeting.
- All signs shall be erected without educational plaques unless called for in the plans.

Regulatory Signs:

- R1-4 18" x 6" ALL WAY
- R2-5d(35) 24" x 30" REDUCED SPEED 35 AHEAD
- R2-5d(35)-A 48" x 60" REDUCED SPEED 35 AHEAD
- R2-10 24" x 30" SPEED LIMIT ENFORCED BY VASCAR
- R3-9b 24" x 36" CENTER LANE ONLY
- R7-107(R) 12" x 24" BUS STOP
- R7-8 12" x 18" RESERVED PARKING
- R7-8-A 24" x 30" RESERVED PARKING
- R8-3a 24" x 24" ANY TIME
- R8-3a-A 48" x 48" ANY TIME
- R9-3a 18" x 18" NO PED XING
- R9-3a-A 24" x 24" NO PED XING
- R9-3b(R) 18" x 12" USE CROSSWALK
- R9-3b(L) 18" x 12" USE CROSSWALK
- R10-11a 24" x 30" NO TURN ON RED
- R16-1 24" x 30" TURN RIGHT ANY TIME WITH CAUTION
- R16-3 18" x 24" NO LEFT TURN ON RED
- R16-4 18" x 24" NO RIGHT TURN ON RED
- R16-5 36" x 42" UNLICENSED VEHICLES BICYCLES, CYCLES UNDER 5 H.P., PEDESTRIANS KEEP OUT FREEWAY
- R16-6 24" x 30" U TURN AHEAD
- R16-7 24" x 30" U TURN OK
- R5-8 30" x 24" MOTOR-DRIVEN CYCLES PROHIBITED

Warning Signs:

- W17-1(L) 60" x 60" U TURN AHEAD
- W3-1a 36" x 36" STOP AHEAD
- W3-1a-A 48" x 48" STOP AHEAD
- W3-2a 36" x 36" YIELD AHEAD
- W3-2a-A 48" x 48" YIELD AHEAD
- W3-4 48" x 48" STOP AHEAD WHEN FLASHING
- W8-6 30" x 30" TRUCK CROSSING
- W8-6-A 36" x 36" TRUCK CROSSING
- W9-3(L) 48" x 48" THRU TRAFFIC MERGE LEFT
- W11-9 36" x 36" LIMITED SIGHT DISTANCE
- W11-9-A 48" x 48" LIMITED SIGHT DISTANCE
- W14-4 36" x 36" DELAYED GREEN
- W14-4-A 48" x 48" DELAYED GREEN
- W15-1 24" x 24" ADVANCE GREEN
- W15-2 24" x 24" ADVANCE GREEN
- W18-1 48" x 60" END FREEWAY 1/2 MI
- W11-7 36" x 36" EQUESTRIAN XING
- W11-7-A 48" x 48" EQUESTRIAN XING
- W11-8 36" x 36" FIRE STATION
- W11-8-A 48" x 48" FIRE STATION
- W11-9 36" x 36" WHEELCHAIR ACCESSIBLE

Informational Signs:

- S1-1 36" x 36" SCHOOL BUS STOP AHEAD
- S2-1 36" x 36" SCHOOL BUS STOP AHEAD
- S3-1 30" x 30" SCHOOL BUS STOP AHEAD
- S4-1 24" x 10" 8:00 AM TO 3:30 PM
- S4-2 24" x 10" WHEN CHILDREN ARE PRESENT
- S4-3 24" x 8" SCHOOL
- S4-4 24" x 10" WHEN FLASHING
- CW23-4 48" x 48" SIDEWALK CLOSED
- R18-1 24" x 18" USE SIDEWALK

APPROVAL RECOMMENDED:
Eishi Tanaka 5/2/78
 TRAFFIC ENGINEER DATE

APPROVED:
Robert Z. Dakeishi 5/3/78
 ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT103 approved 3/20/72	H.T.	5/3/78
2	Added General Note 6	H.T.	11/9/78

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS

MISCELLANEOUS SIGNS

NOT TO SCALE DATE: MAY, 1978
 SHEET No. 8 OF 12 SHEETS DT 103

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	3608-01-85	1985	33	41



CW20-1a 48"x 48"



CW20-2d 48"x 48"



CW20-3b 48"x 48"



CW20-4d 48"x 48"



CW20-5d(L) 48"x 48"



CW20-7c 48"x 48"



CW21-1 30"x 30"



CW21-2 30"x 30"



CW21-3 36"x 36"



CW21-4 36"x 36"



CW21-5 30"x 30"



CW21-6 30"x 30"



CW22-1b 48"x 48"



CW22-2 42"x 36"



CW22-3 42"x 36"



CG20-1(5) 60"x 36"



CG20-2 60"x 24"



CM4-9(R) 30"x 24"



CM4-10(R) 48"x 18"



CG20-4 36"x 18"



CW23-1 36"x 36"



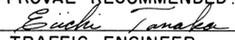
CW23-2b 48"x 48"



CW23-3(R) 48"x 48"

GENERAL NOTES

- Sign details shall conform to the FHWA publications "Manual on Uniform Traffic Control Devices for Streets and Highways," 1971, and "Standard Highway Signs," 1972, and as amended.
- All construction signs shall be reflectorized.
- All construction signs shall have 3/8" bolt holes drilled at appropriate locations.
- Numerals in () indicates numerals to be inserted for sign message. (R) or (L) indicates right or left.
- For "CW" series signs, suffixes a, b, c and d are as follows:
a-1500 FT, b-1000 FT, c-500 FT and d-AHEAD.

APPROVAL RECOMMENDED:

 TRAFFIC ENGINEER 3/21/72
DATE

APPROVED:

 ASSISTANT CHIEF, ENGINEERING 3/23/72
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes Sht. DT 104 Approved 12-30-69	H.P.	3/23/72
2	Revised General Note 1	H.P.	10/16/74
3	Revised General Note 2	H.P.	9-16-75
4	Revised General Note 2 and sign CG20-1(5)	H.P.	9-14-76

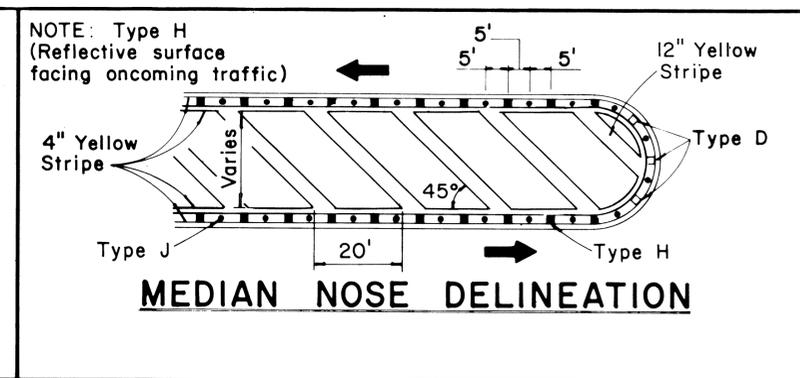
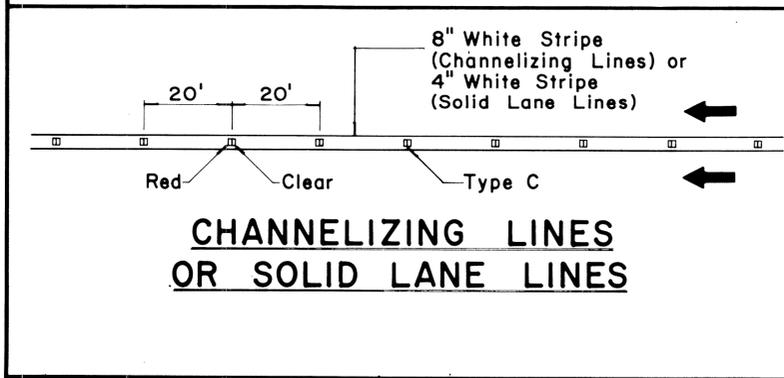
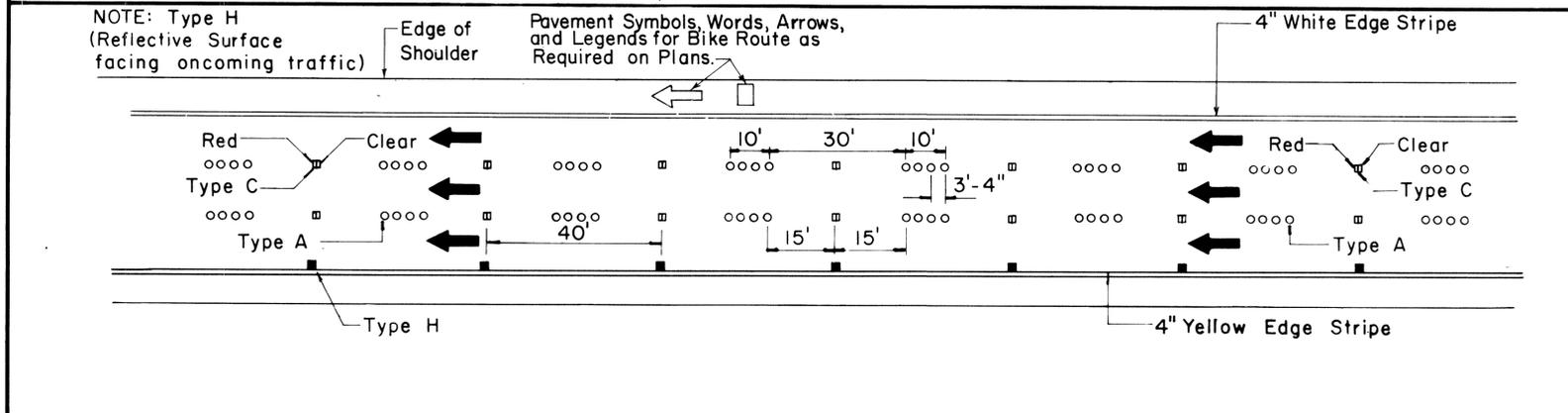
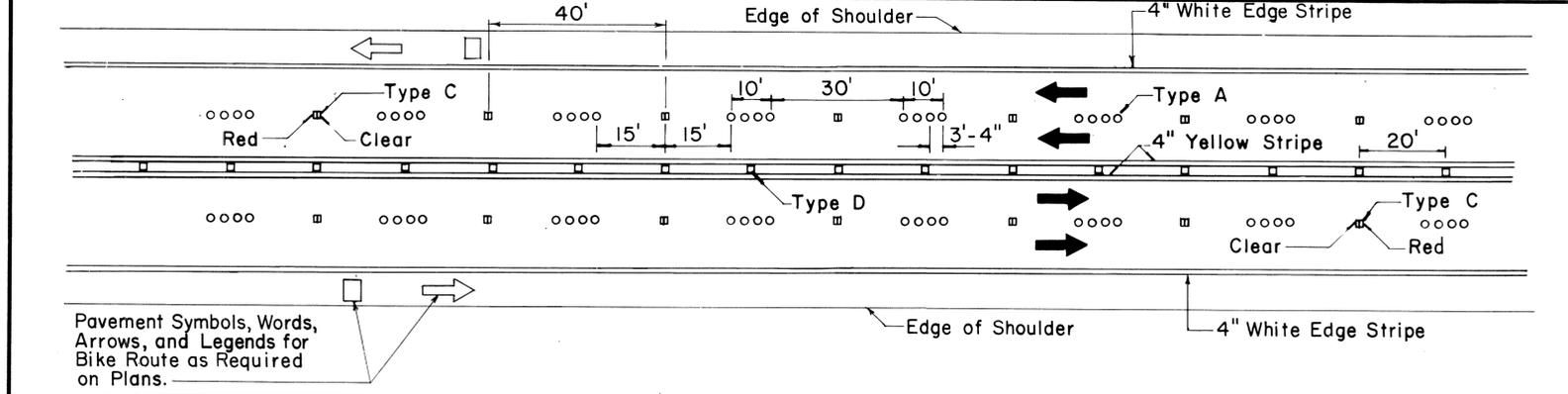
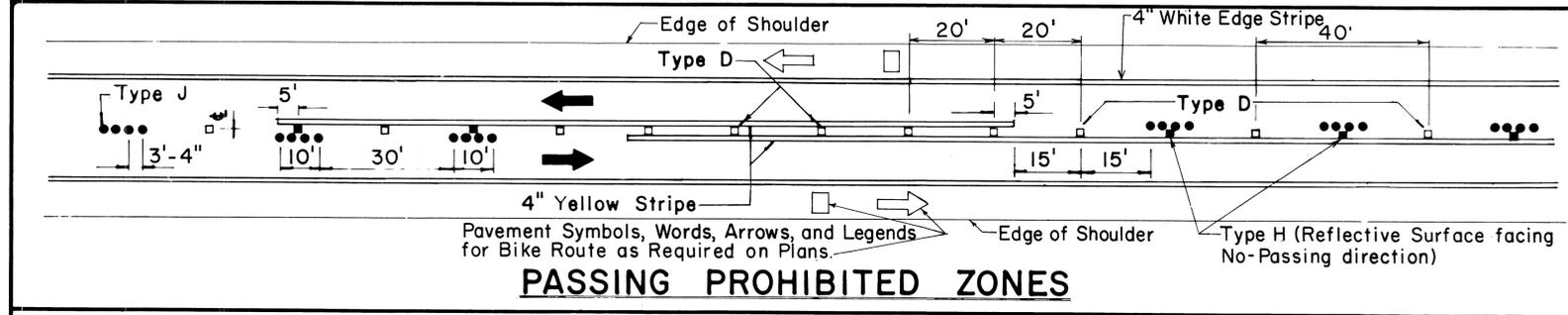
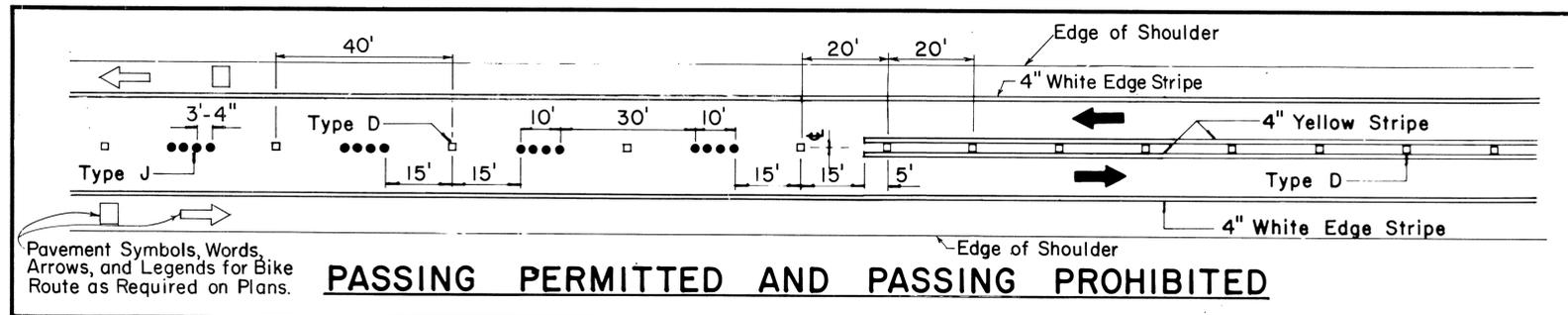
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STANDARD DETAILS
CONSTRUCTION SIGNS

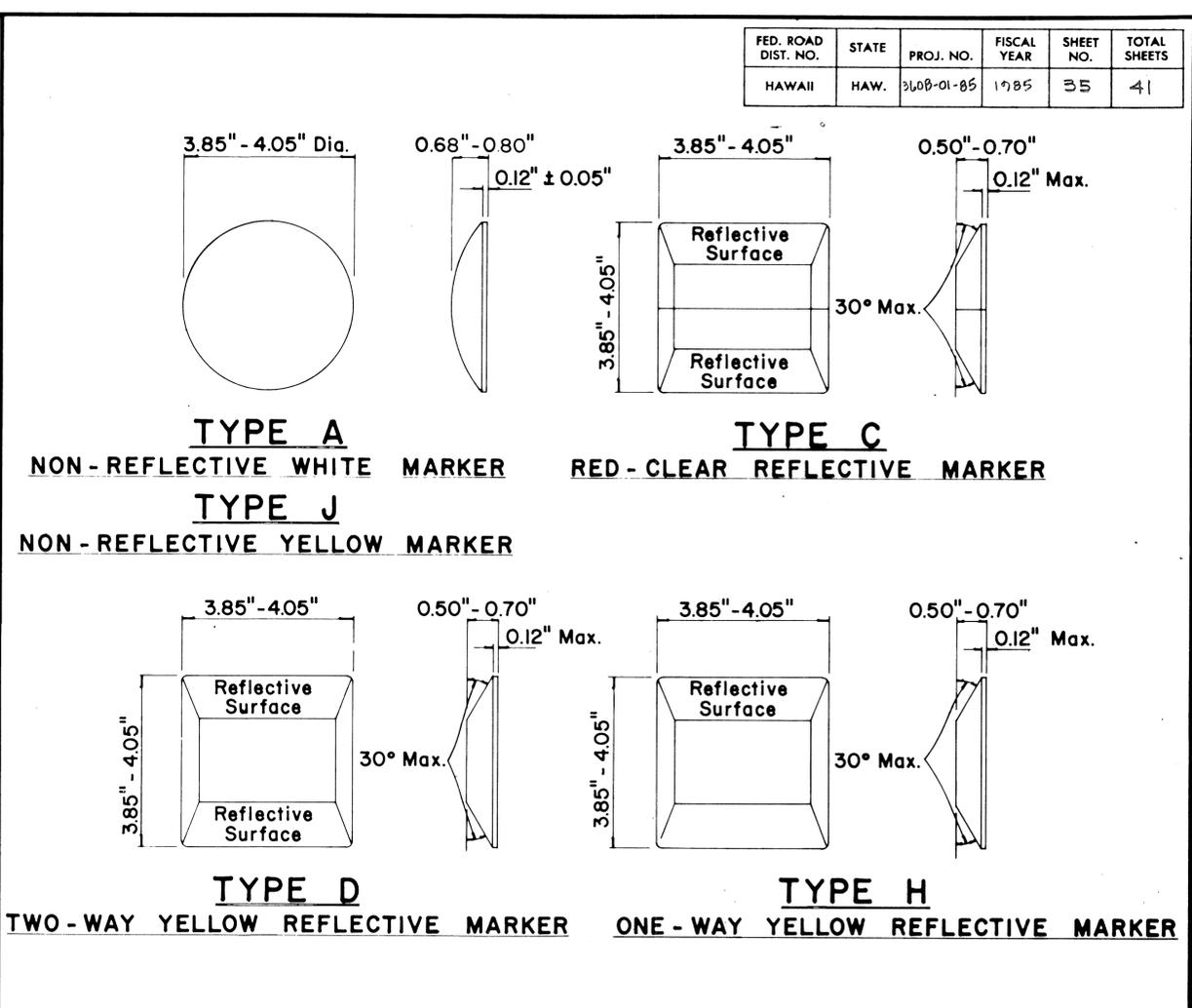
NOT TO SCALE

SURVEY PLOTTED BY _____ DATE _____
 DRAWN BY _____
 CHECKED BY _____
 QUANTITIES BY _____
 NOTE BOOK _____
 No. _____

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	3108-01-85	1985	35	41



TWO - LANE
MULTI - LANE
DIVIDED HIGHWAY AND FREEWAY
MISCELLANEOUS



GENERAL NOTES

- Pavement marking and striping shall conform to the latest "Manual on Uniform Traffic Control Devices for Streets and Highways," and as amended.
- Layout and installation of pavement marking and striping shall be done by the Contractor. The Contractor shall check the layouts with the Engineer prior to performing work.
- Edge lines shall not be continued through intersections and shall not be broken for driveways unless otherwise shown or directed.

LEGEND

- Type A
- ◻ Type C
- ◻ Type D
- Type H
- Type J

APPROVAL RECOMMENDED:
Eishi Tanaka 7/21/78
 TRAFFIC ENGINEER DATE

APPROVED:
Robert S. Zalewski 7/24/78
 ASSISTANT CHIEF, ENGINEERING DATE

No.	REVISION	APPROVED BY	DATE
1	Supersedes DT 300 approved 11/18/71.	H.T.	7/24/78
2	Delete Type A Markers from Bike Route Delineation.	H.T.	10/15/79
3	Added General Note 3. Revised left edge stripe.	R/S	9-28-83

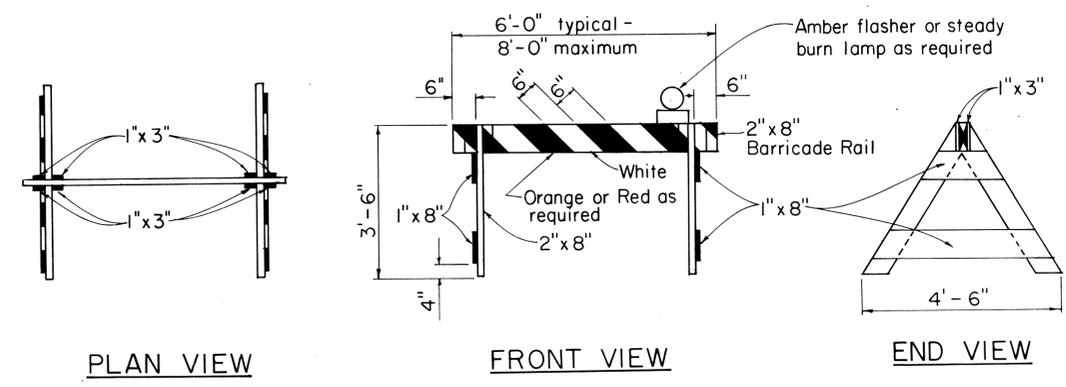
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
RAISED PAVEMENT MARKERS
AND STRIPING

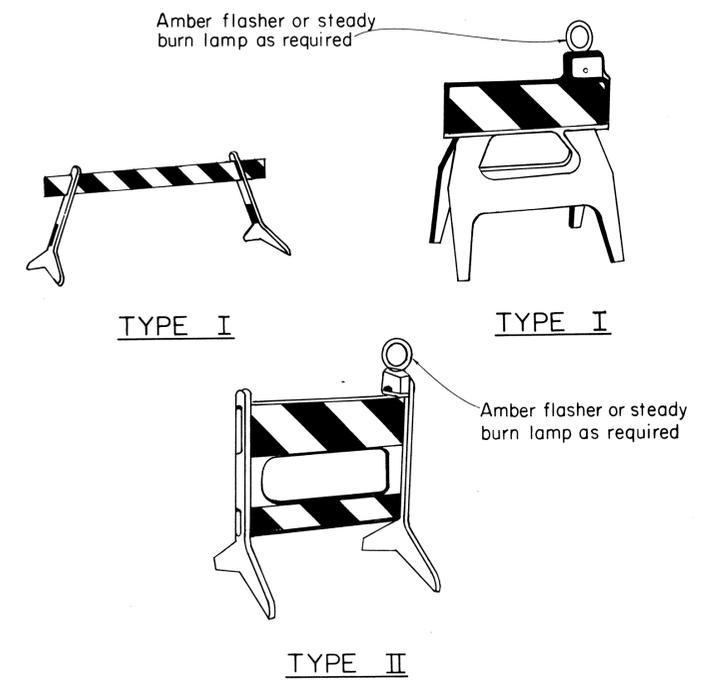
Not to Scale July 1978
 SHEET No. 11 OF 12 SHEETS DT 300

DATE
 DRAWN BY
 CHECKED BY
 DESIGNED BY
 QUANTITIES BY
 ORIGINAL PLAN
 NOTE BOOK
 No.

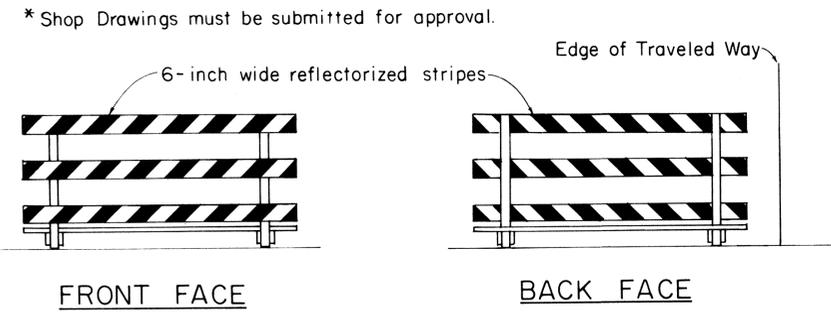
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360B-085	1985	36	41



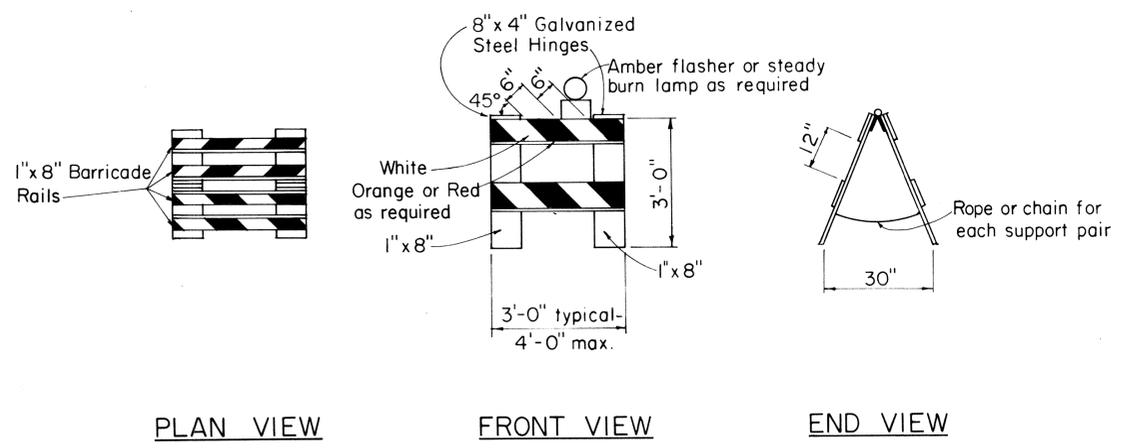
TYPE I BARRICADE
Scale: 1/2" = 1'-0"



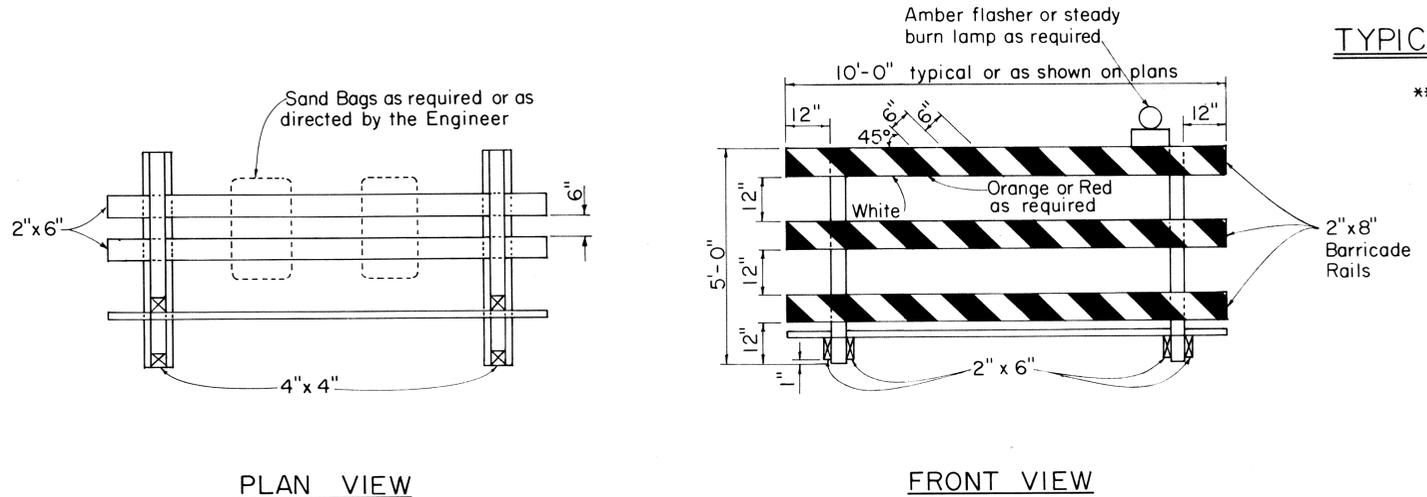
PLASTIC MOLDED BARRICADE OPTIONS*
Not to Scale



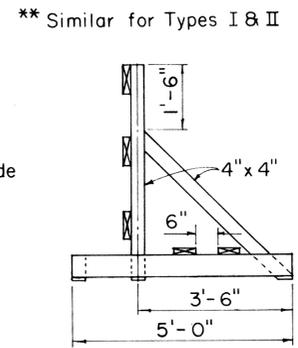
TYPICAL BARRICADE STRIPING DETAILS**
Not to Scale



TYPE II BARRICADE
Scale: 1/2" = 1'-0"



TYPE III BARRICADE
Scale: 1/2" = 1'-0"



END VIEW

GENERAL NOTES

1. The front and back faces of each barricade rail shall be reflectorized with stripes sloping downward toward the same side (traveled way) of each barricade.
2. Contractor may submit alternate barricade designs for approval.
3. Sandbags or other approved weights shall not be placed on top of any striped rail.
4. The Contractor is directed to Section 626.

** Similar for Types I & II

APPROVAL RECOMMENDED:
Eiichi Tanaka 10/21/81
TRAFFIC ENGINEER DATE

APPROVED:
Shuhei S. Saito 10/23/81
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes DT 800 Approved 12/30/69	H.T.	10/23/81

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

BARRICADES

SCALE: As Shown

SHEET No. /2 OF /2 SHEETS DT 800

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
TRACED BY: _____
DESIGNED BY: _____
NOTE BOOK QUANTITIES BY: _____
CHECKED BY: _____
No. _____