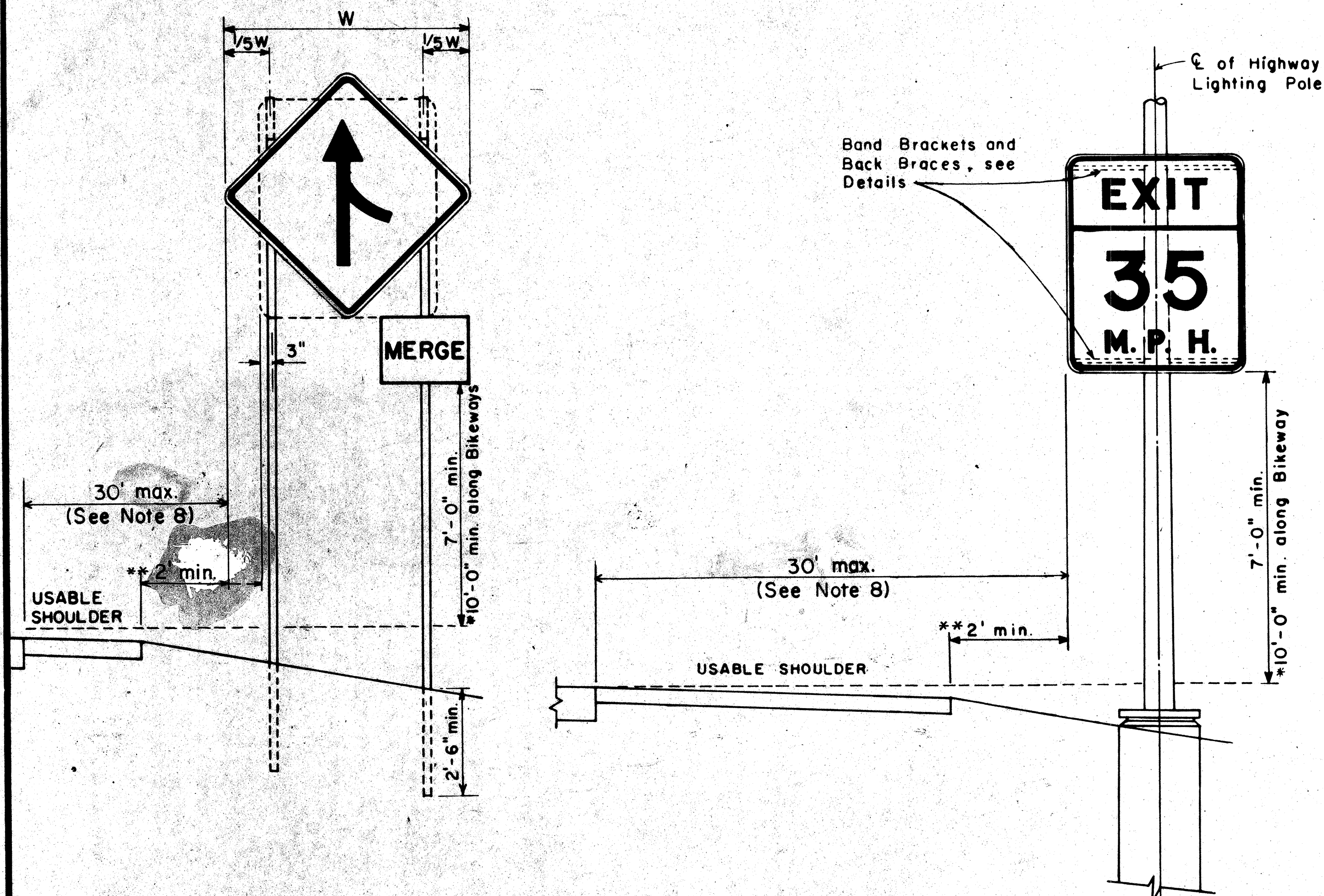
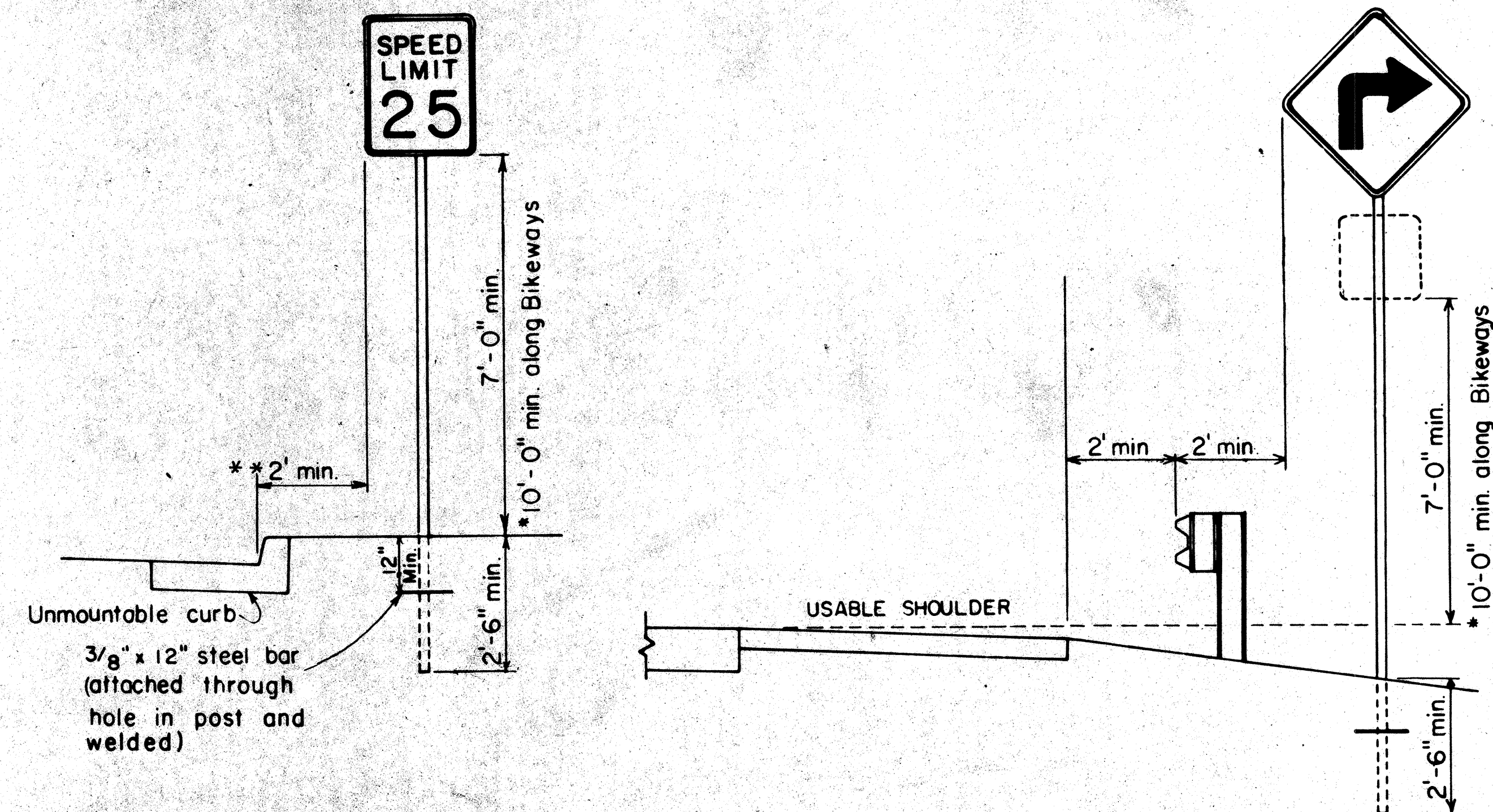
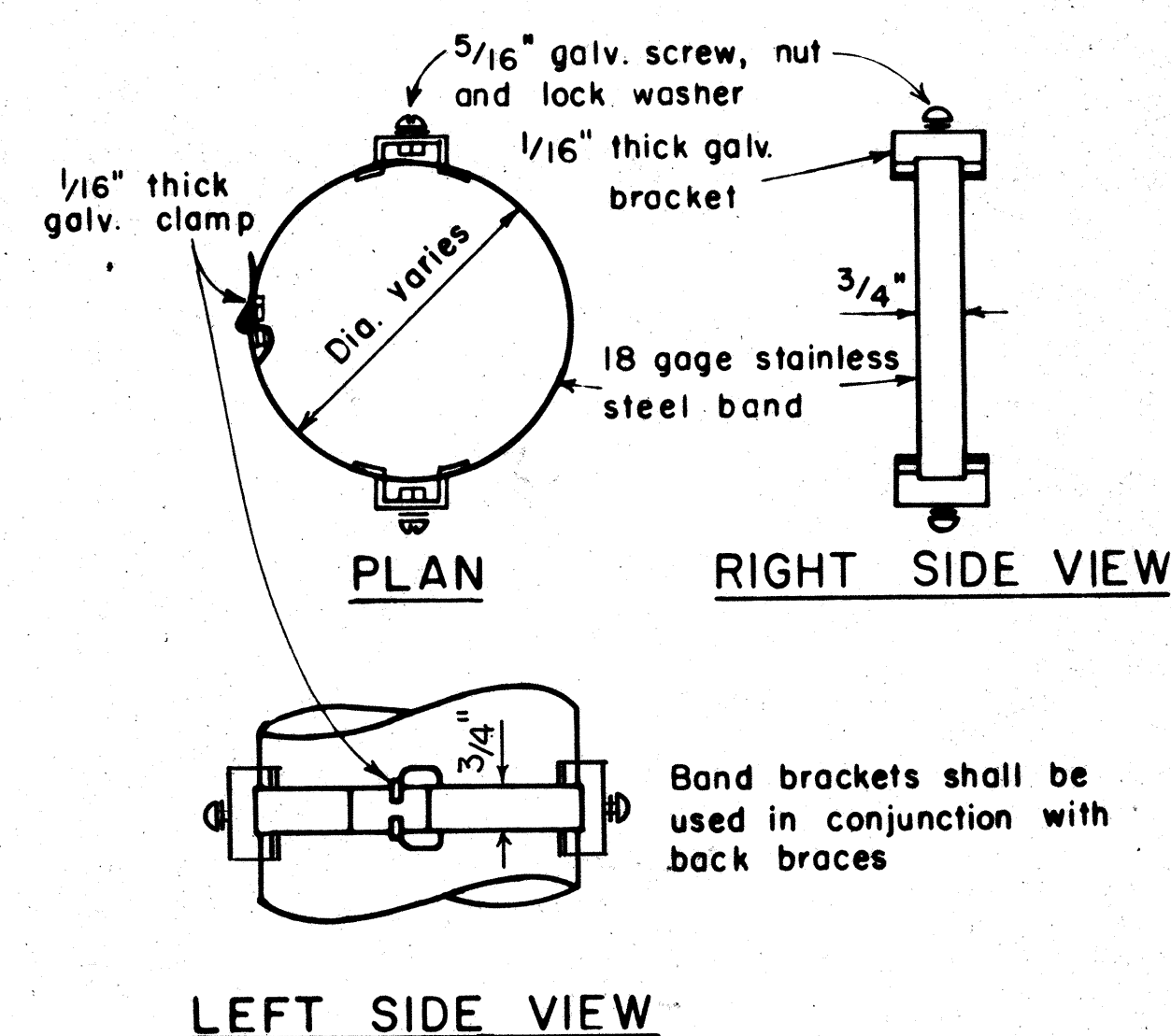


GENERAL NOTES

- ## BACK BRACE DETAILS FOR BALANCED SIGN INSTALLATION



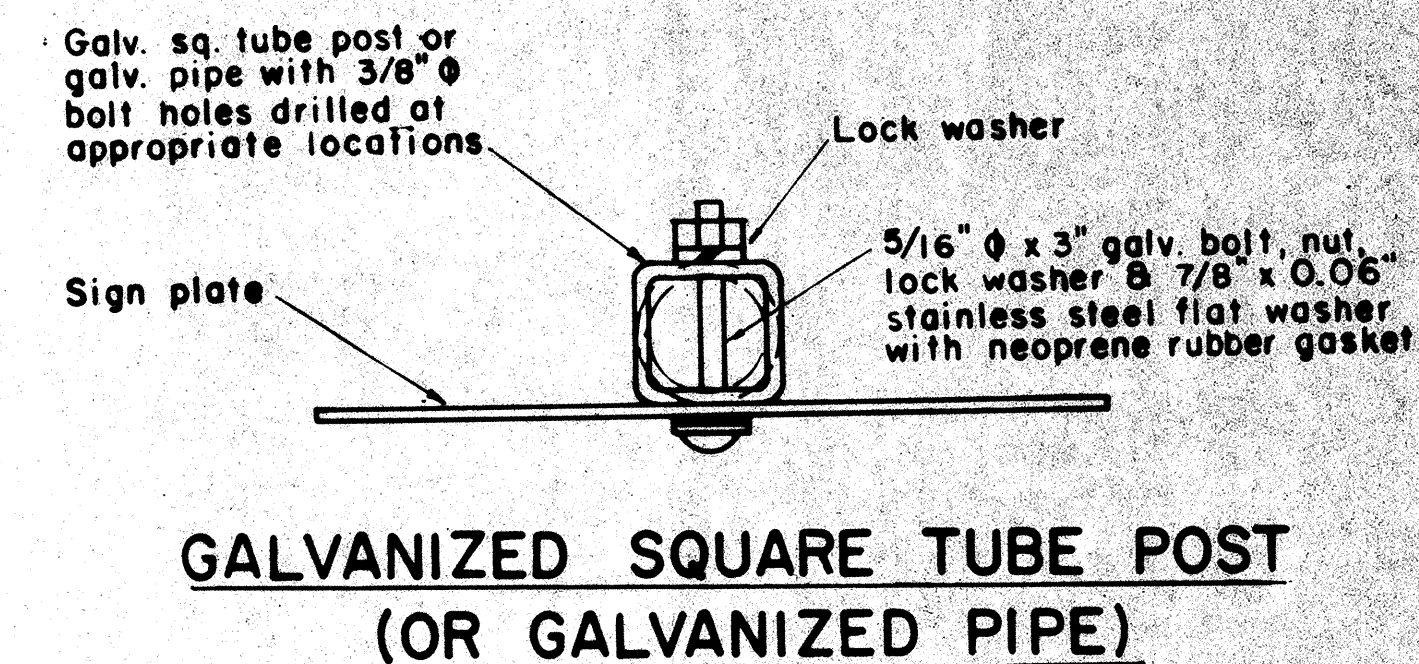
HEIGHT AND LATERAL LOCATION OF SIGNS



BAND BRACKET

TYPICAL MOUNTING DETAILS

NOT TO SCALE



NO.	REVISION	APPROVED BY	DATE
1	Supercedes Shl. DT - 100 approved 12/30/69	H.T.	11/15/71
2	Revised depth of signpost	H.T.	5/8/71
3	Added Notes No. 8 & No. 9	H.T.	5/15/71
4	Revised Gen. Note #4 & Mounting Details	H.T.	4/23/71
5	Revised General Notes, Lateral Sign Locations and Mounting Details	H.T.	5/15/71

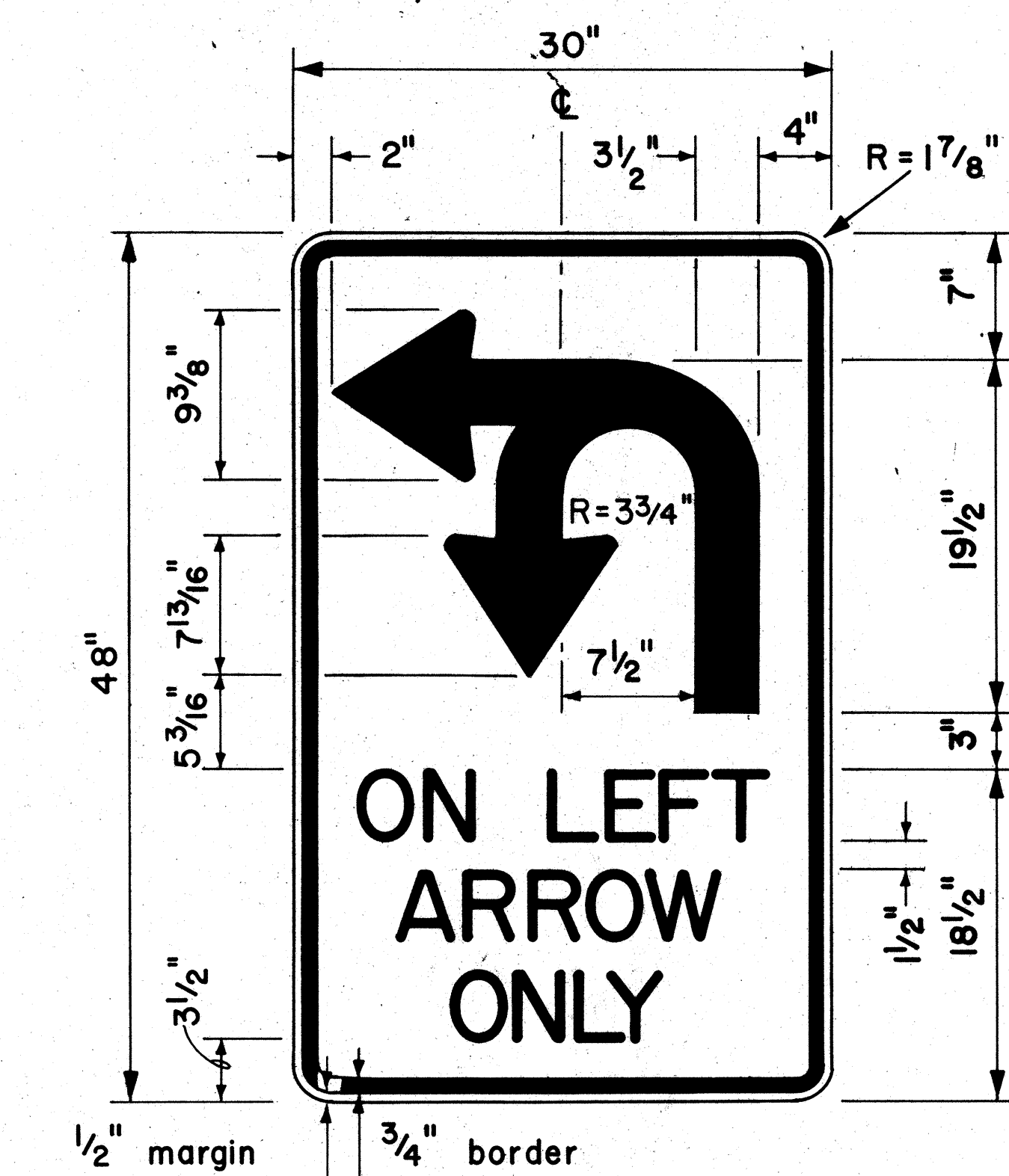
Not to scale June, 1977

SHEET No. 1 OF 2 SHEETS DT 100

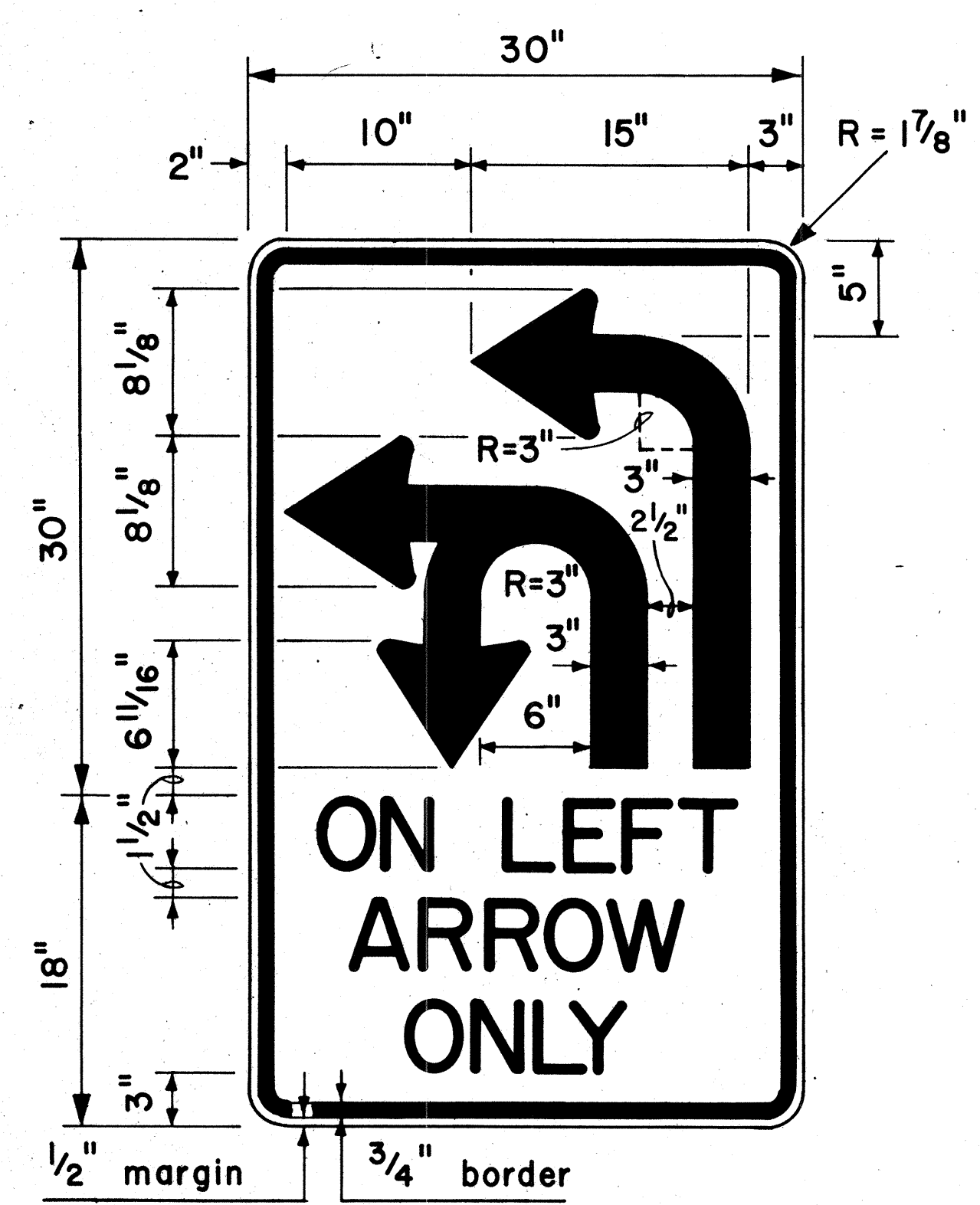
FED. ROAD DIST. NO.	STATE	FED-AID-PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1977-01-81	1982	7	14

GENERAL NOTES

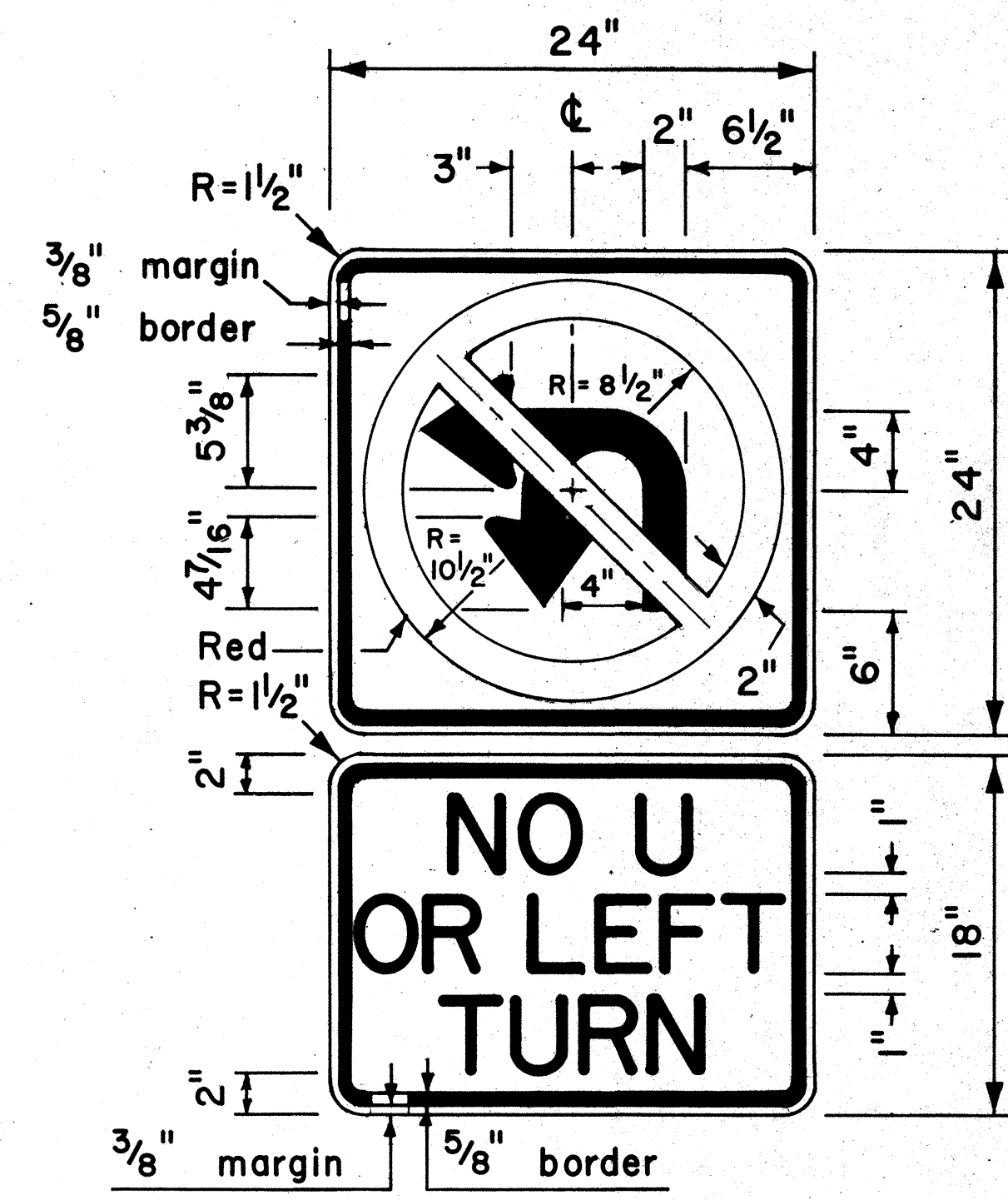
- Sign details shall conform to the latest editions of the following FHWA publications: "Manual on Uniform Traffic Control Devices for Streets and Highways," and "Standard Highway Signs," and as amended.
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have 3/8" bolt holes drilled at appropriate locations.



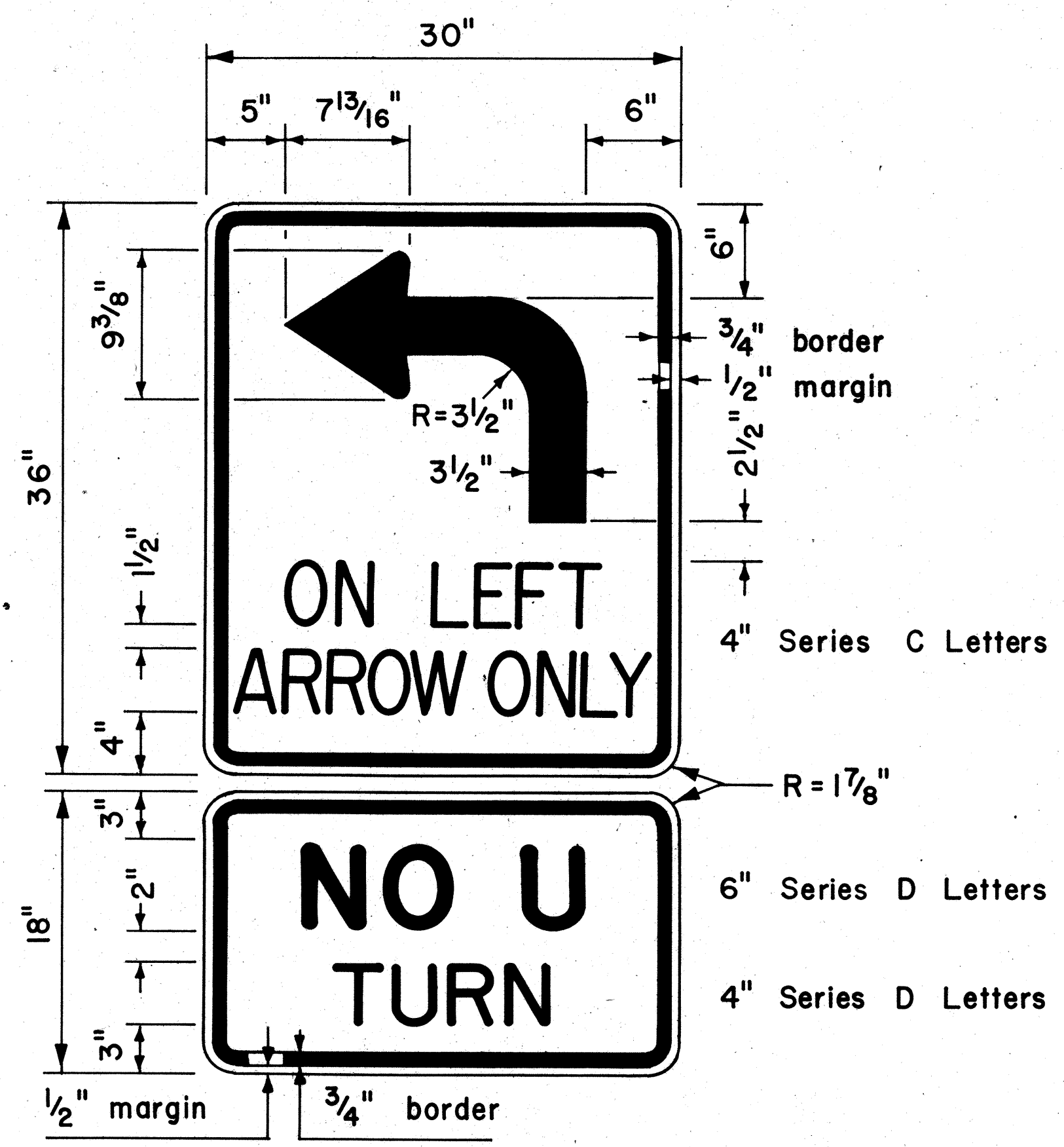
4" Series D Letters
R17-1



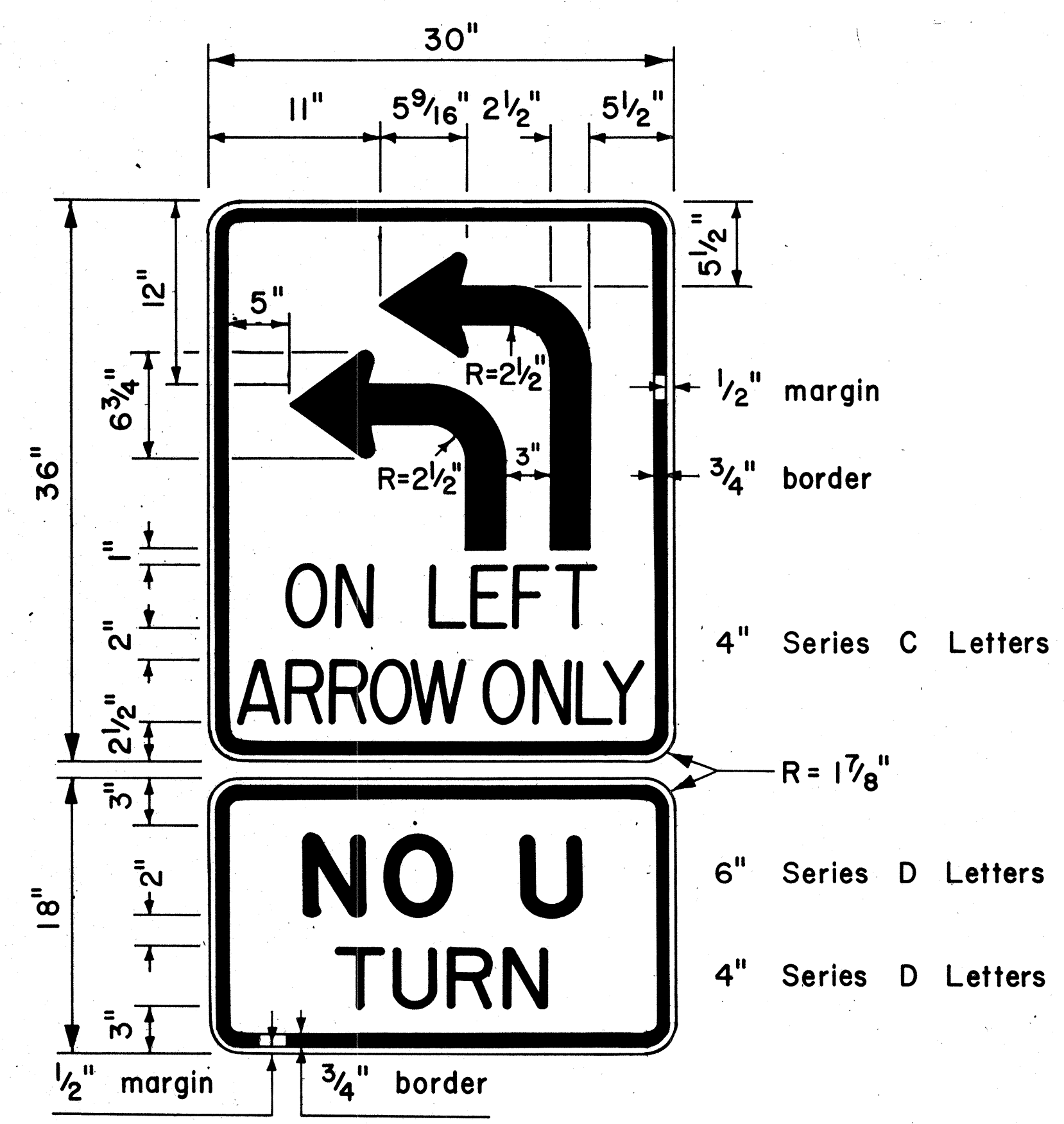
4" Series D Letters
R17-2



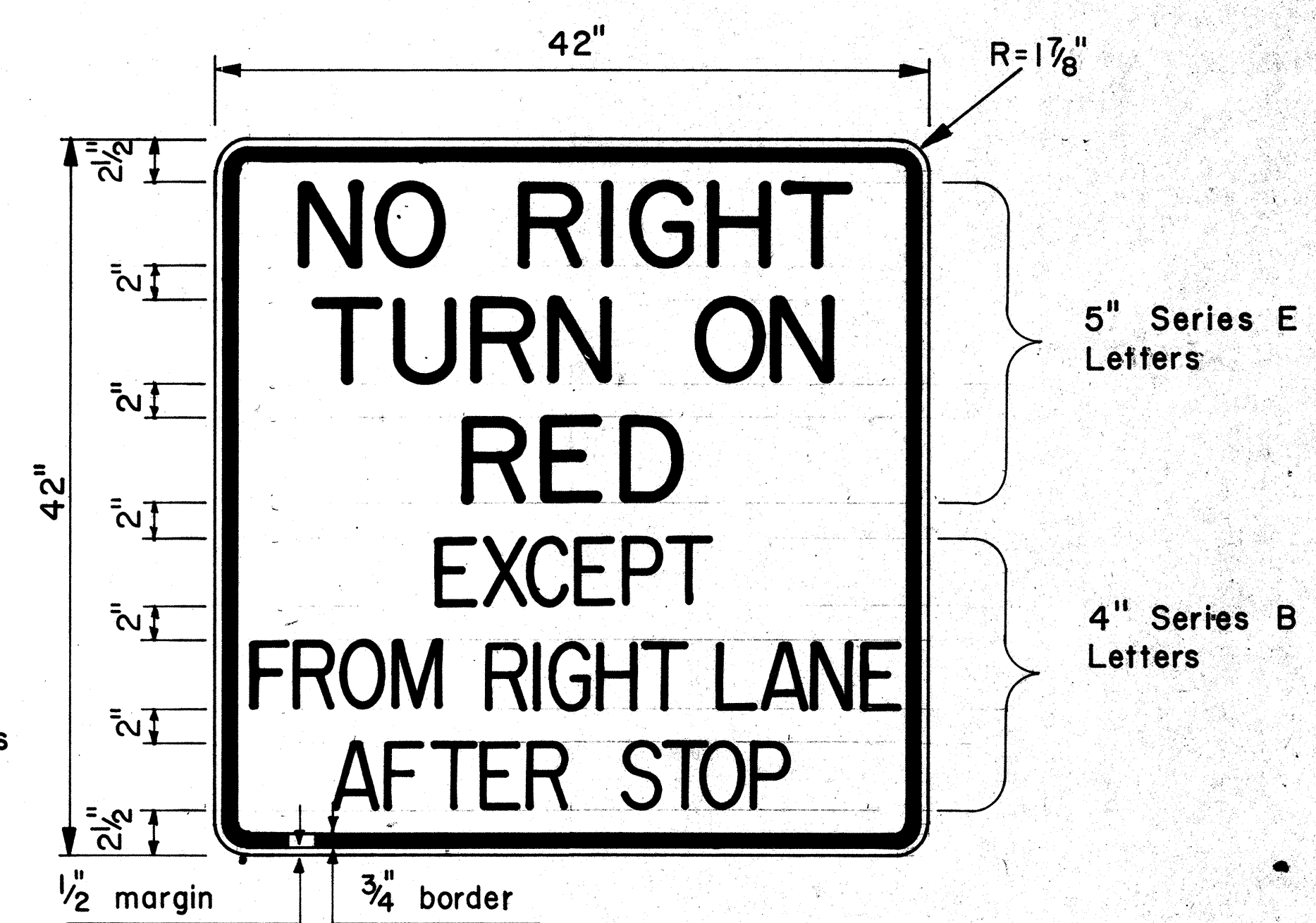
4" Series D Letters
R3-4b



R17-3



R17-4



R10-11d

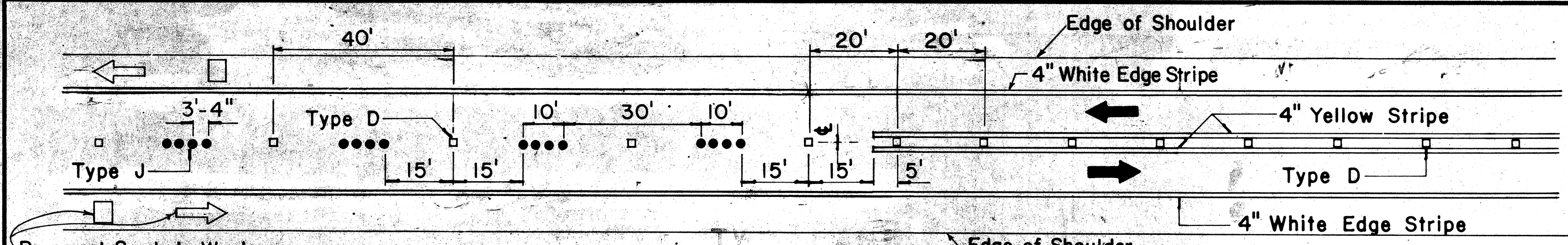
NO.	REVISION	APPROVED BY	DATE

APPROVAL RECOMMENDED:
Eishi Tanaka 8/1/77
TRAFFIC ENGINEER DATE
APPROVED:
Harbert B. Kiehl 8/16/77
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
MISCELLANEOUS
INTERSECTION SIGNS
Scale: 1/2" = 1'-0" Date: Aug., 1977
SHEET NO. 2 OF 2 SHEETS DT 112

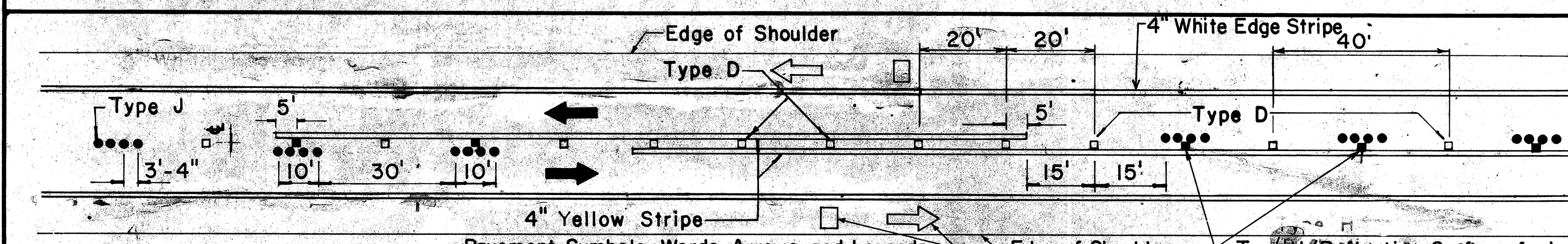
ORIGINAL PLAN	DATE
DRAWN BY	
CHECKED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	220-01-01	1982	8	14



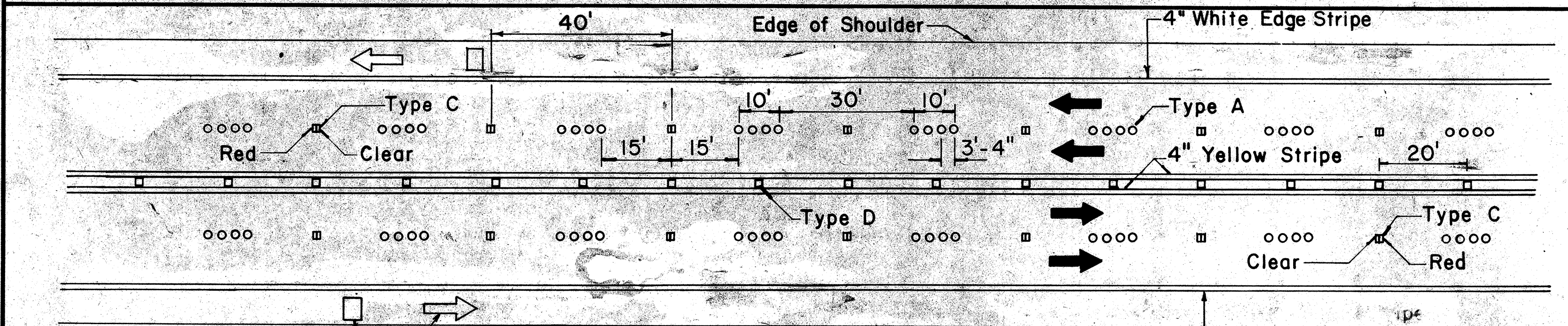
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PERMITTED AND PASSING PROHIBITED



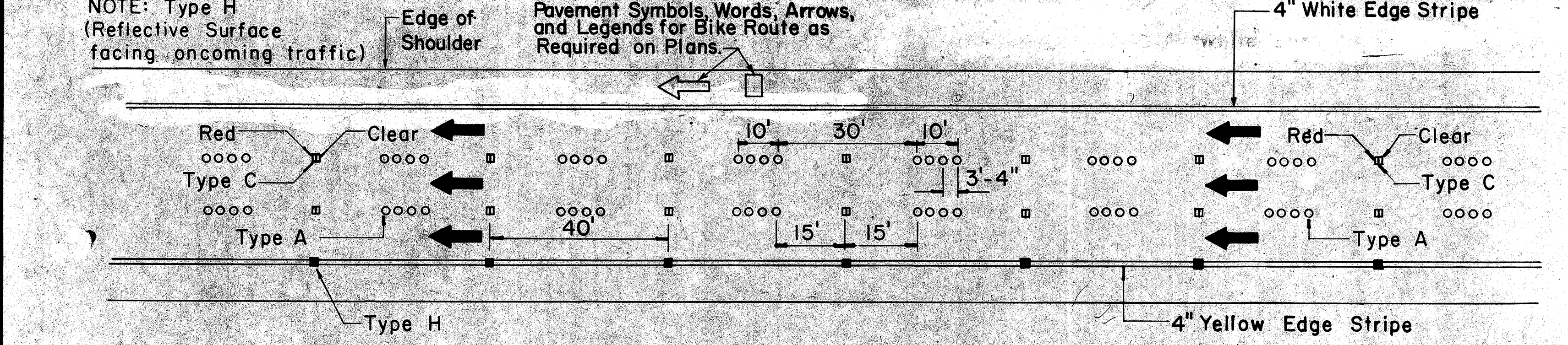
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

PASSING PROHIBITED ZONES



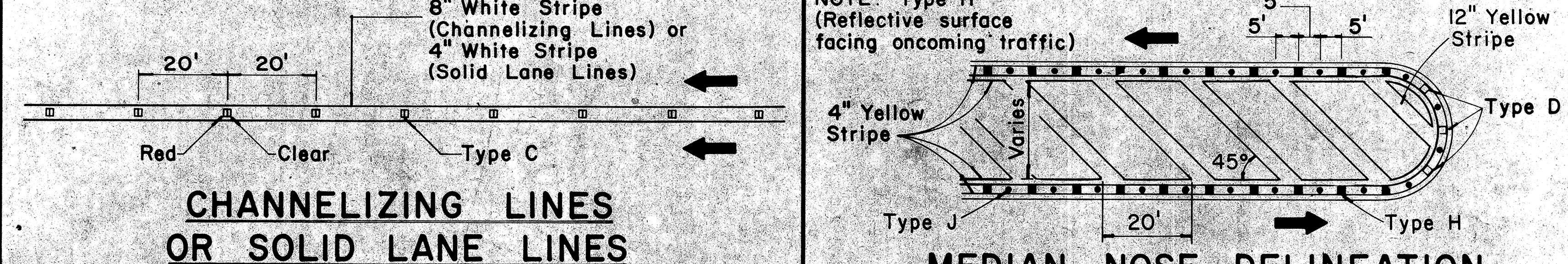
Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

NOTE: Type H (Reflective Surface facing oncoming traffic)



Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

NOTE: Type H (Reflective surface facing oncoming traffic)



Pavement Symbols, Words, Arrows, and Legends for Bike Route as Required on Plans.

CHANNELIZING LINES OR SOLID LANE LINES

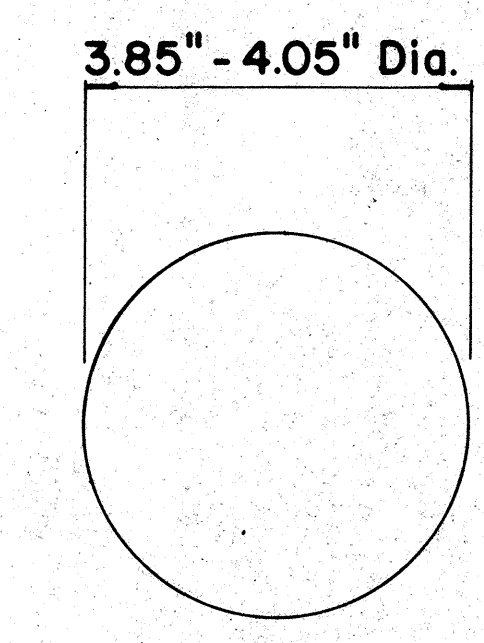
MEDIAN NOSE DELINEATION

TWO - LANE

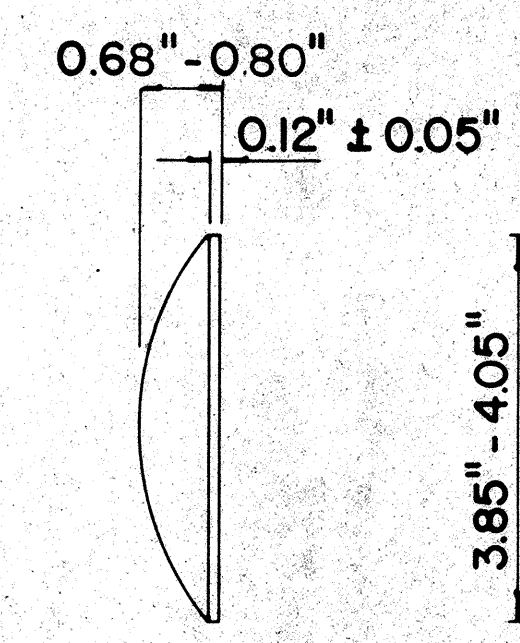
MULTI - LANE

DIVIDED HIGHWAY AND FREEWAY

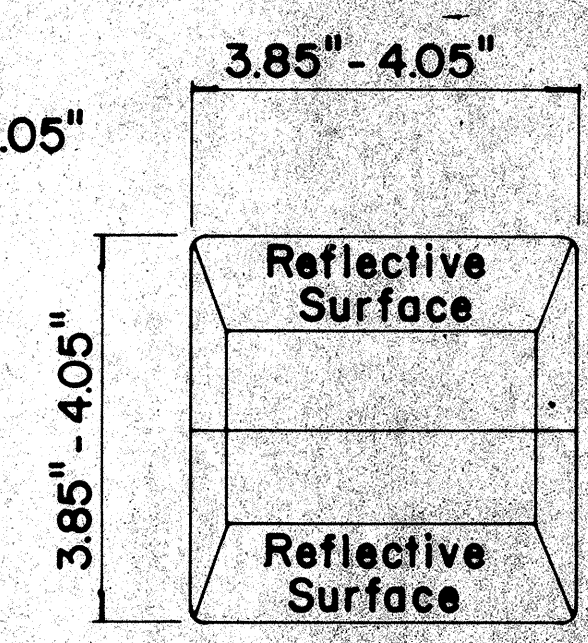
MISCELLANEOUS



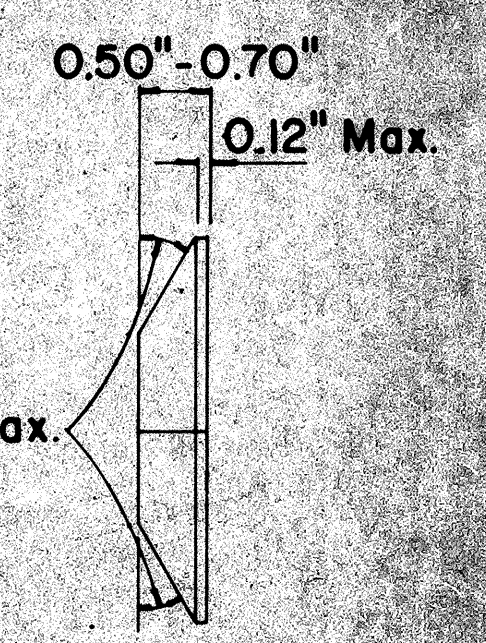
TYPE A
NON-REFLECTIVE WHITE MARKER



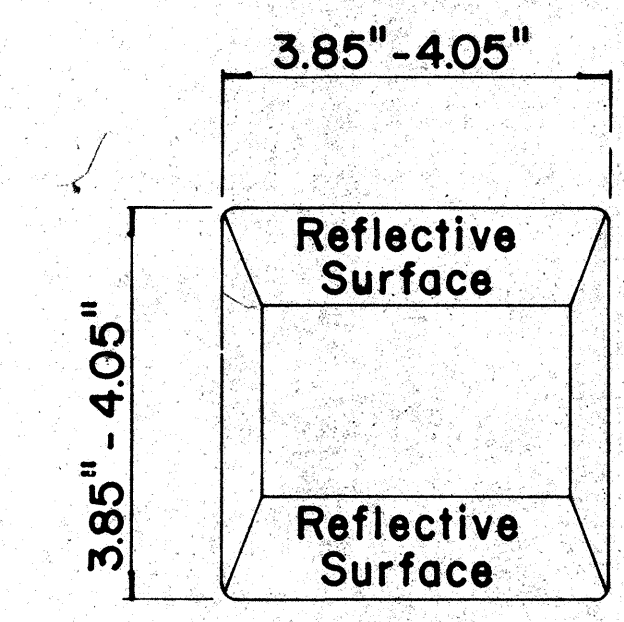
TYPE J
NON-REFLECTIVE YELLOW MARKER



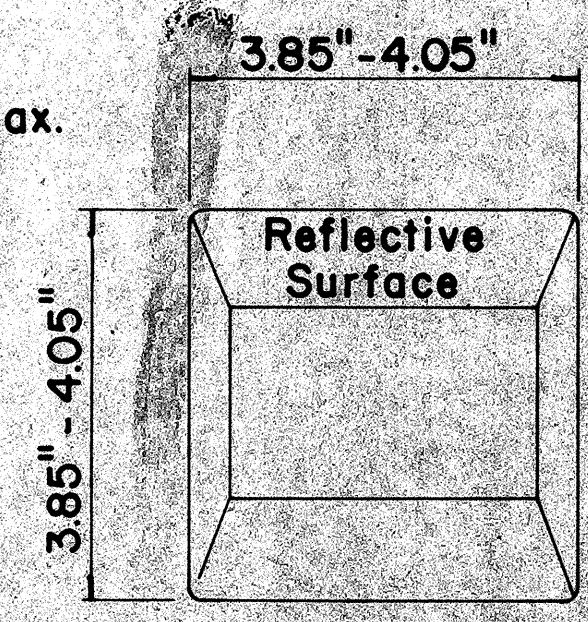
TYPE C
RED-CLEAR REFLECTIVE MARKER



TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER



TYPE D
TWO-WAY YELLOW REFLECTIVE MARKER



TYPE H
ONE-WAY YELLOW REFLECTIVE MARKER

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.

LEGEND

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

APPROVAL RECOMMENDED

Emilio Tanaka
TRAFFIC ENGINEER

1/24/78
DATE

APPROVED:

Robert D. Dake
ASSISTANT CHIEF, ENGINEERING

1/24/78
DATE

No.	REVISION	APPROVED BY	DATE
1	Supersedes DT 300 approved 11/18/71.	H.T.	1/24/78
2	Delete Type A Markers from Bike Route Delineation.	H.T.	10/15/79

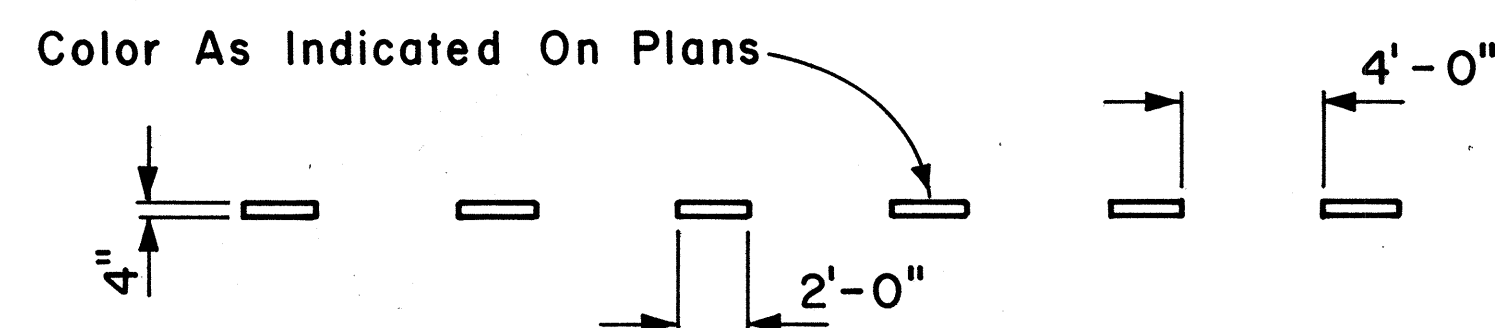
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS
RAISED PAVEMENT MARKERS
AND STRIPING
Not to Scale
SHEET No. 8 OF 9 SHEETS DT 300

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

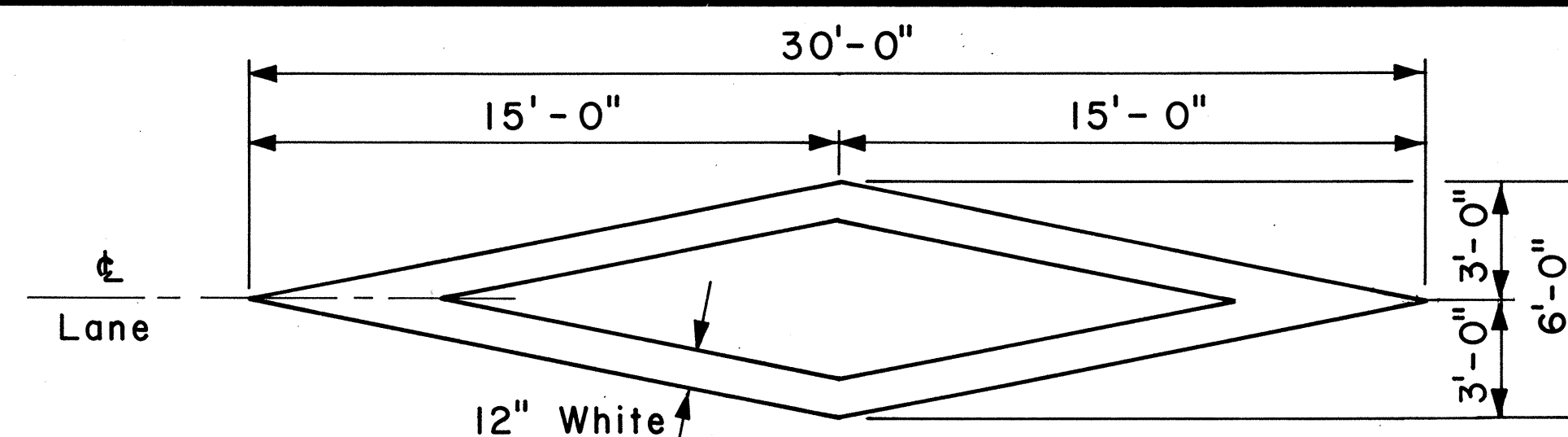
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-81	1982	9	14

GENERAL NOTES:

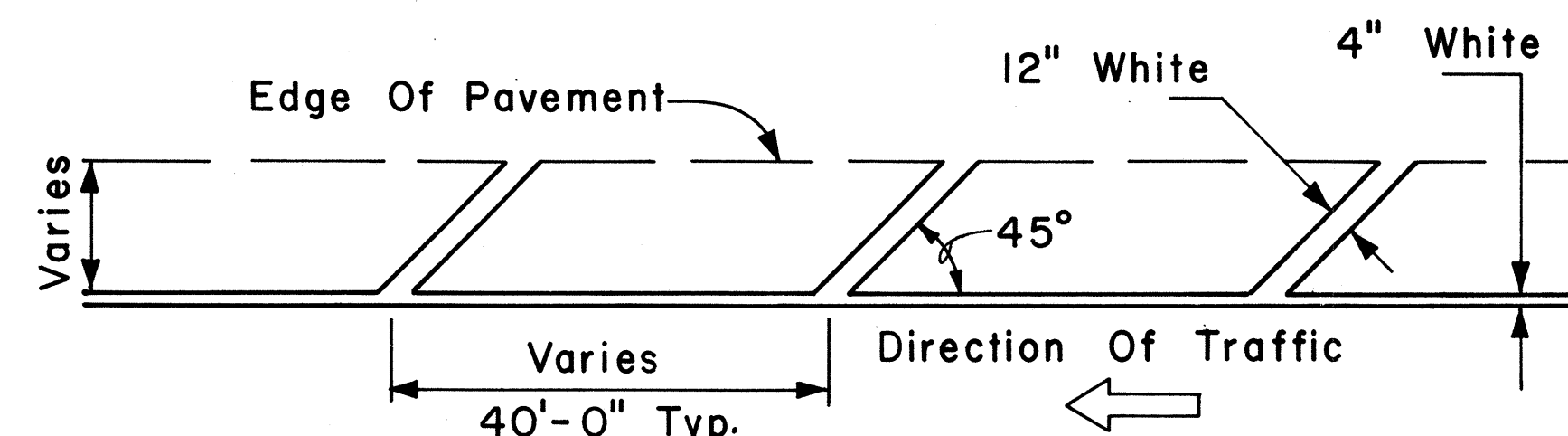
1. Pavement marking and striping shall conform to the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," by the FHWA, and as amended.
2. Layout of pavement markings and striping shall be done by the Contractor. The Contractor shall check layout of markings and striping with the Engineer prior to performing work.
3. For additional pavement marking details, see sheet DT 300.



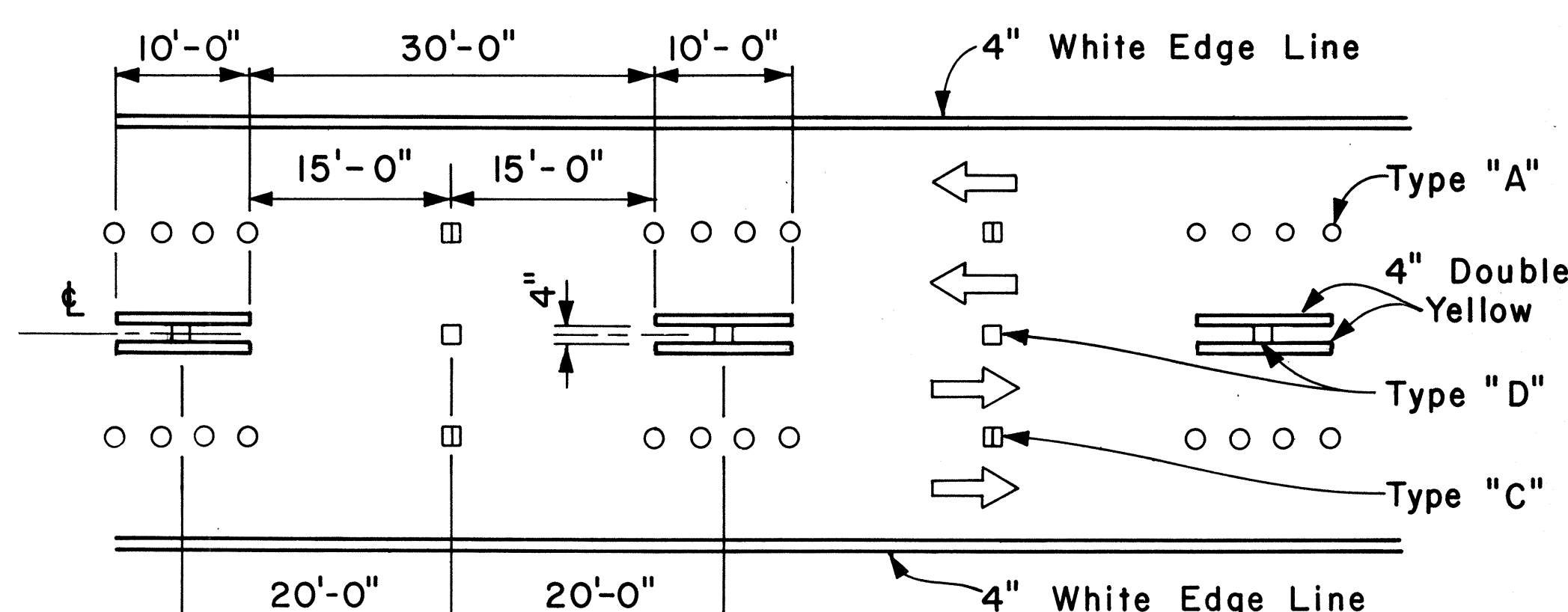
4" GUIDE LINE



PAVEMENT DIAMOND

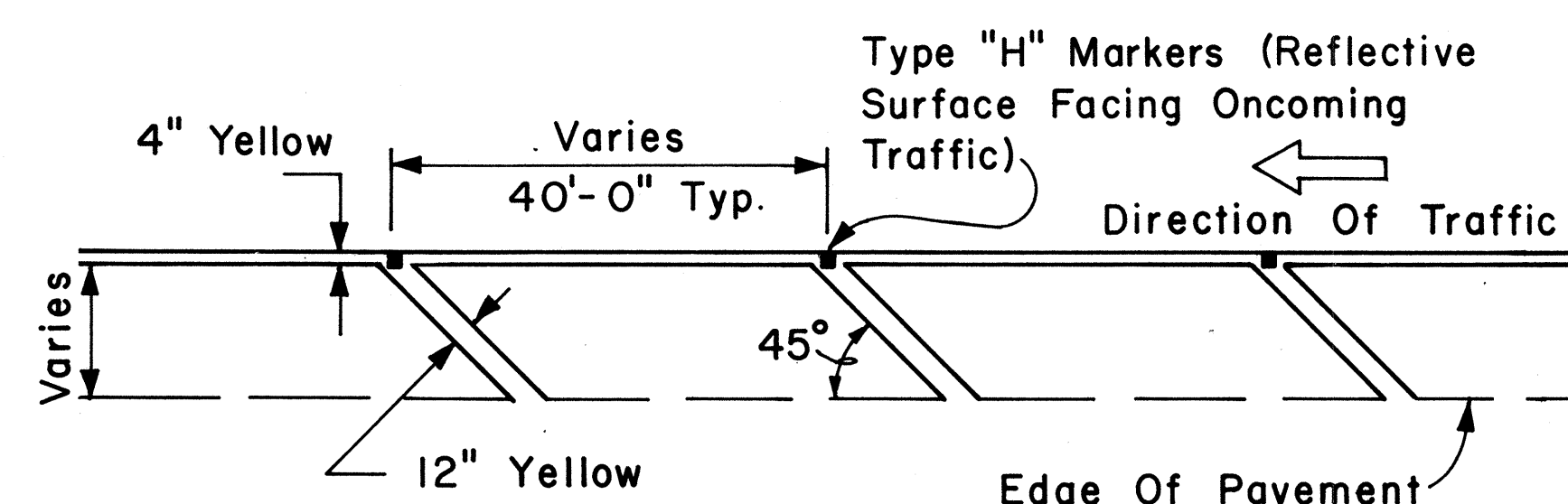


TRANSVERSE RIGHT SHOULDER MARKING

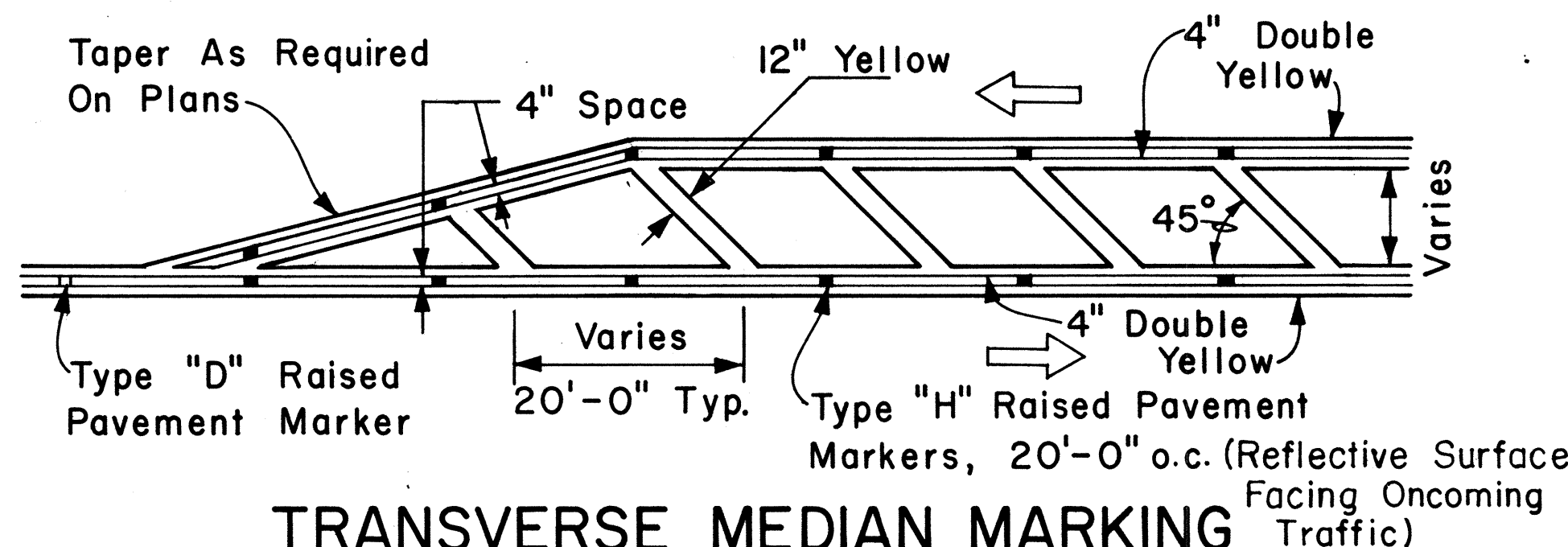


NOTE: Traffic Cone Usage Required.

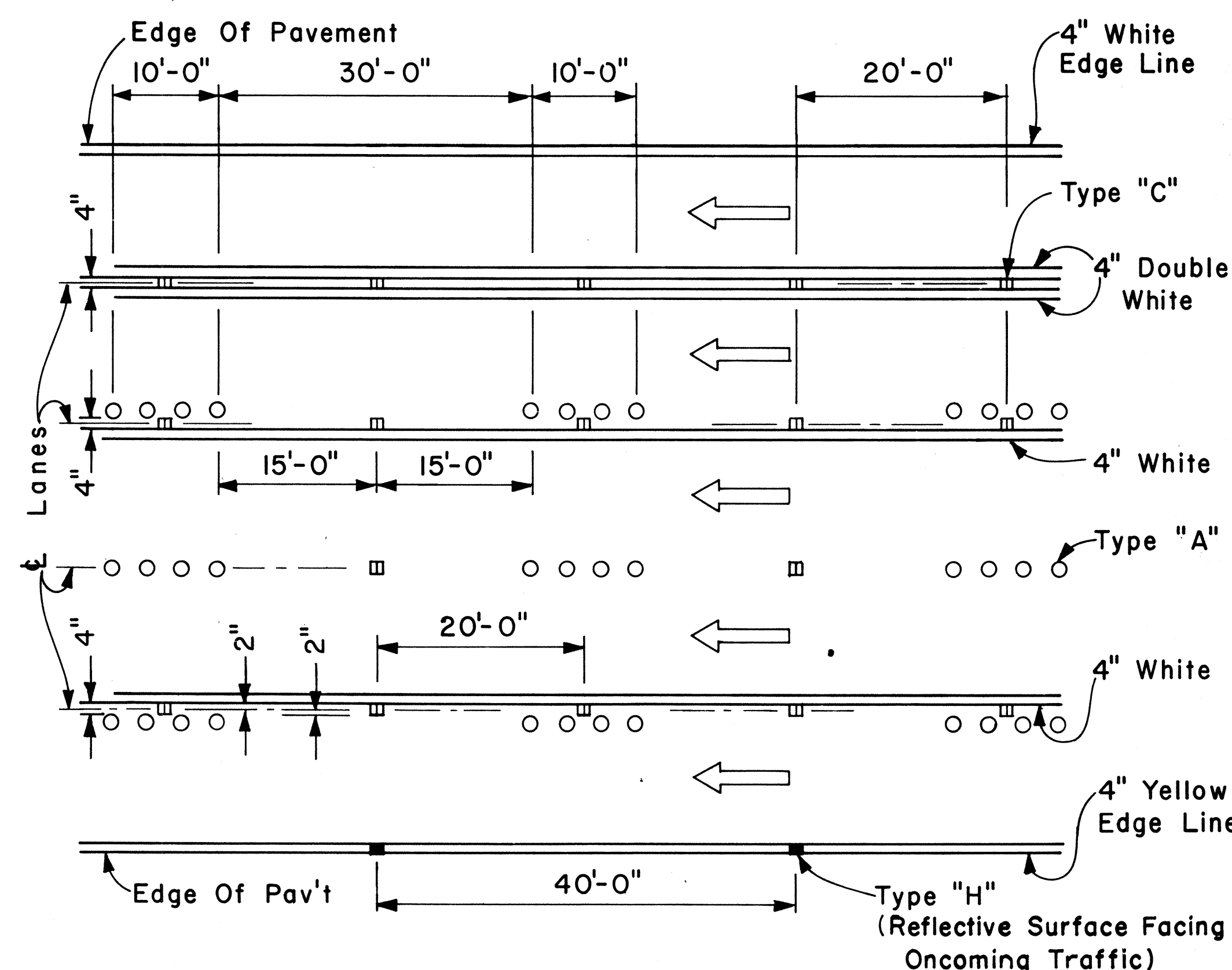
MULTI-LANE REVERSIBLE LANES



TRANSVERSE LEFT SHOULDER MARKING



TRANSVERSE MEDIAN MARKING



MULTI-LANE LANE CHANGE RESTRICTION ZONES

APPROVAL RECOMMENDED:
Traffic Engineer
5/2/78
DATE

APPROVED:
Assistant Chief, Engineering
5/3/78
DATE

NO.	REVISION	APPROVED BY	DATE

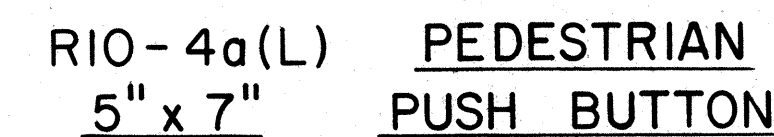
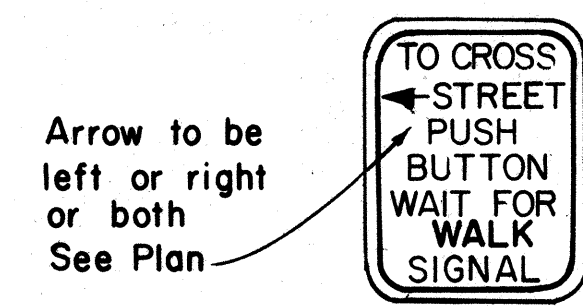
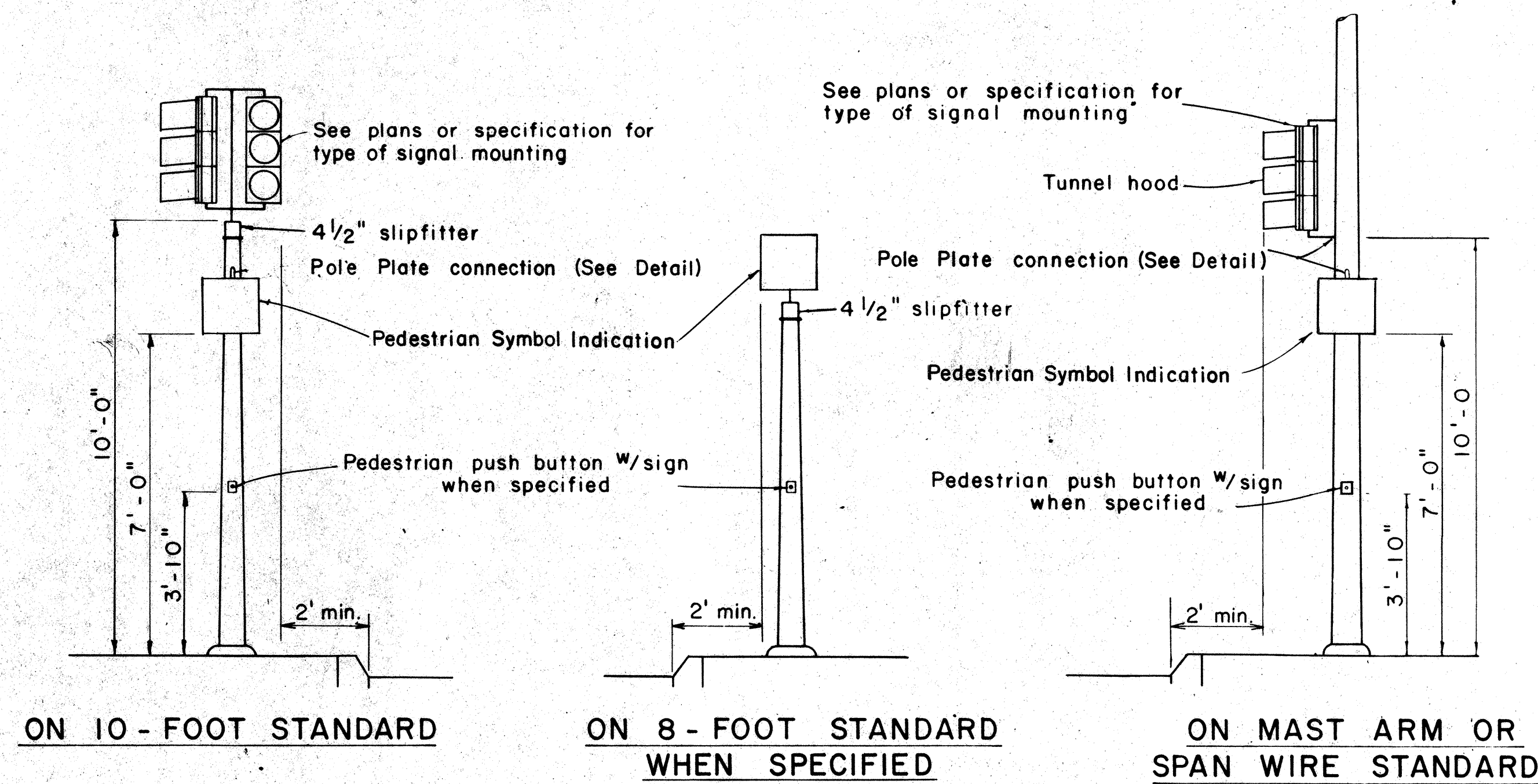
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION DIVISION
STANDARD DETAILS
MISCELLANEOUS
PAVEMENT MARKINGS
Scale: Not to Scale Date: April, 1978
SHEET NO. 4 OF 9 SHEETS DT 302

Figure 1 is a plan view diagram of a proposed road layout. The diagram shows a vertical centerline labeled "TRAFFIC LANE" with a width of 1'-0". To the left of the centerline is a triangular area with a base of 1'-5" and a height of 15'. To the right of the centerline is a curved area with a base of 1'-3" and a height of 15'. The diagram includes various dimensions and labels for different sections of the road layout.

-
- Diagram illustrating the dimensions for a T-intersection crosswalk and crosslines. The diagram shows a crosswalk (8" MIN. width) and crosslines (12" MIN. width) intersecting a lane. The crosswalk is marked with crosslines. The lane width is labeled "LANE". The crosswalk width is labeled "8" MIN.". The crossline width is labeled "12" MIN.". The distance from the crosswalk to the crosslines is labeled "VARIES (AS SHOWN ON PLANS)". The distance from the crosswalk to the stop line is labeled "STOP LINE". The distance from the crosswalk to the crosslines is labeled "CROSSWALK". The distance from the crosswalk to the crosslines is labeled "CROSSLINES".

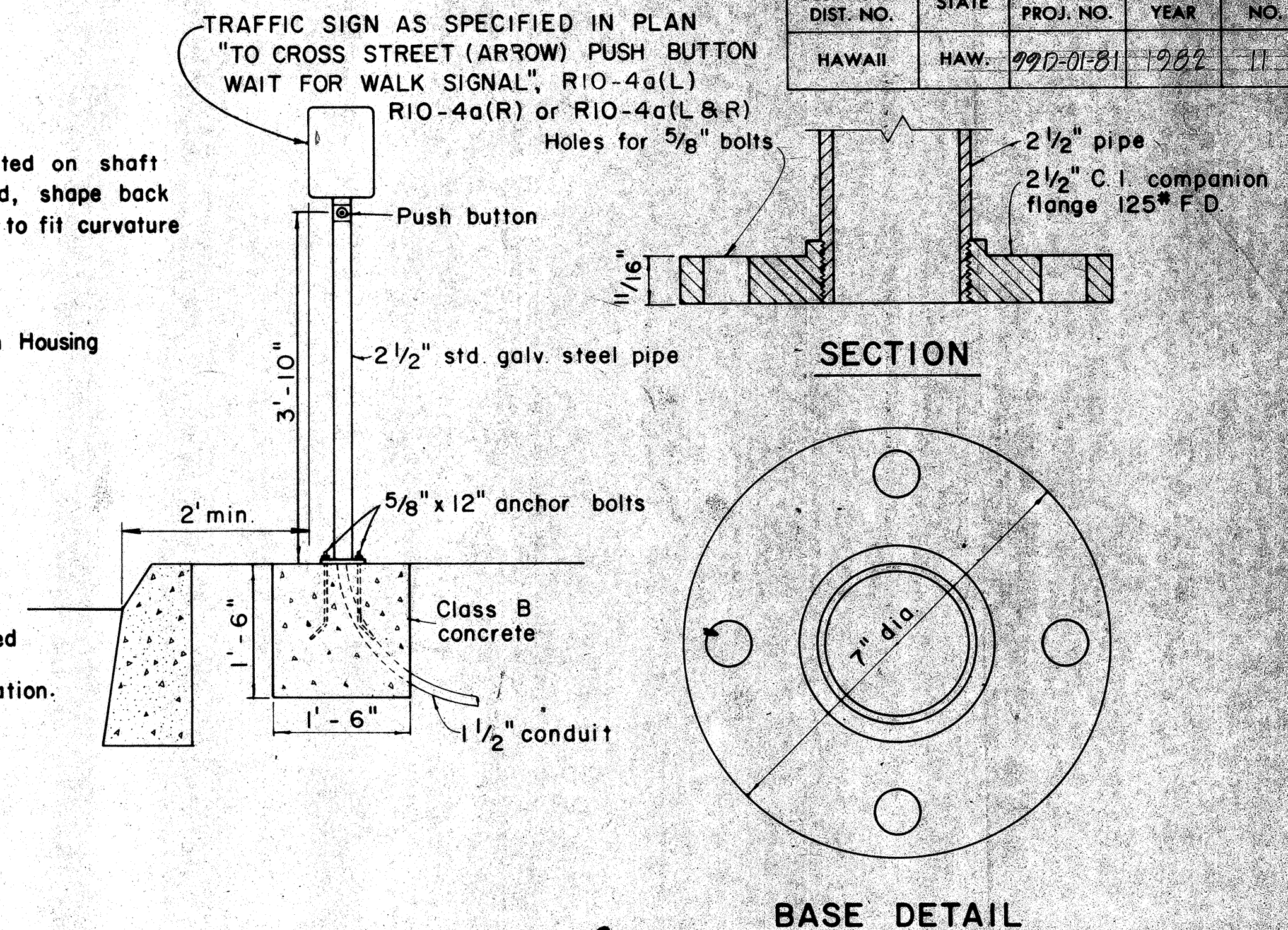
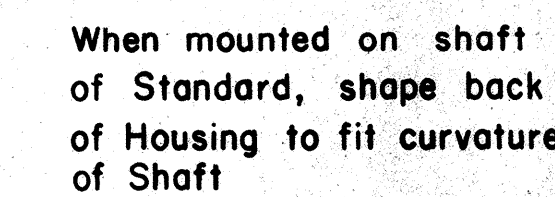
10

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D-01-81	1982	11	14

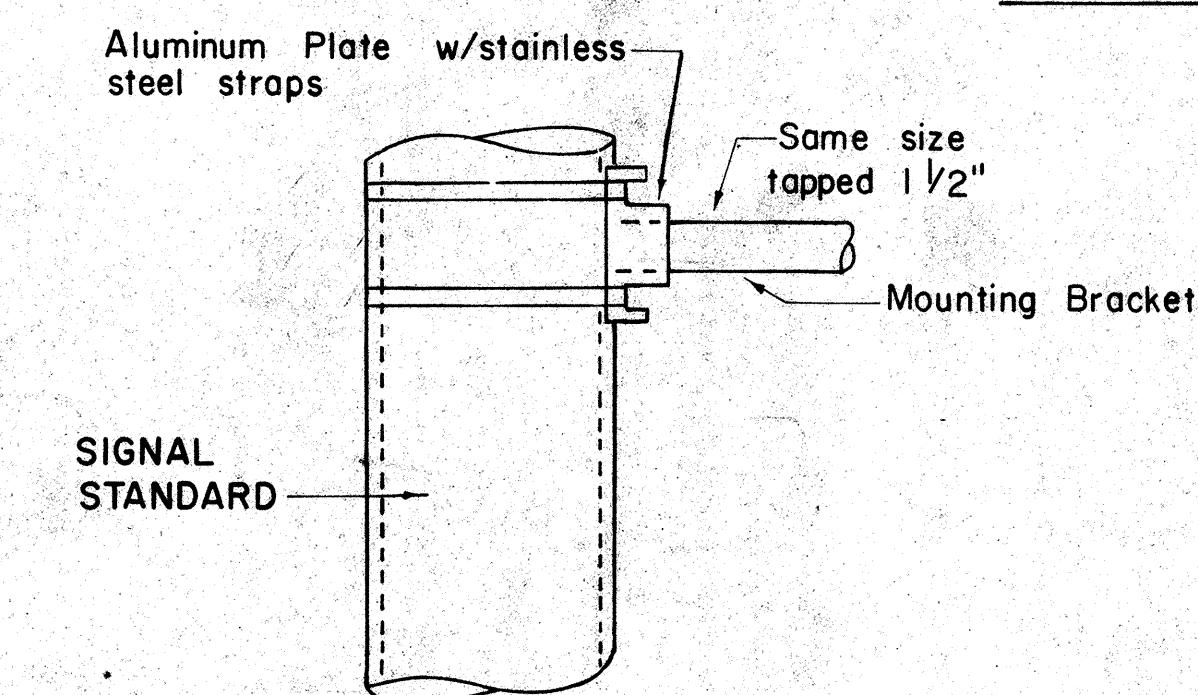


NOTE:

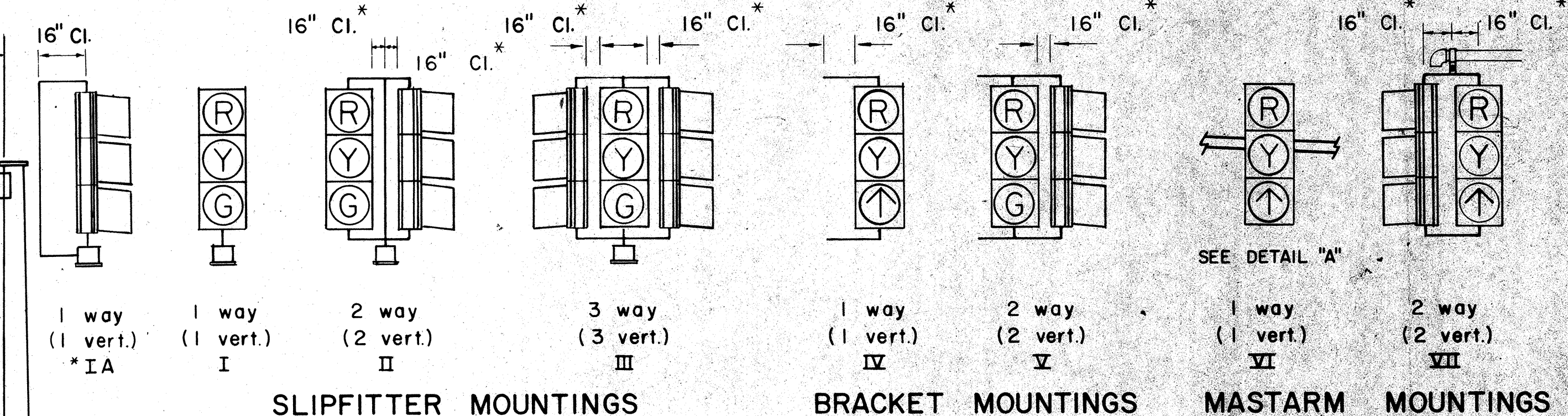
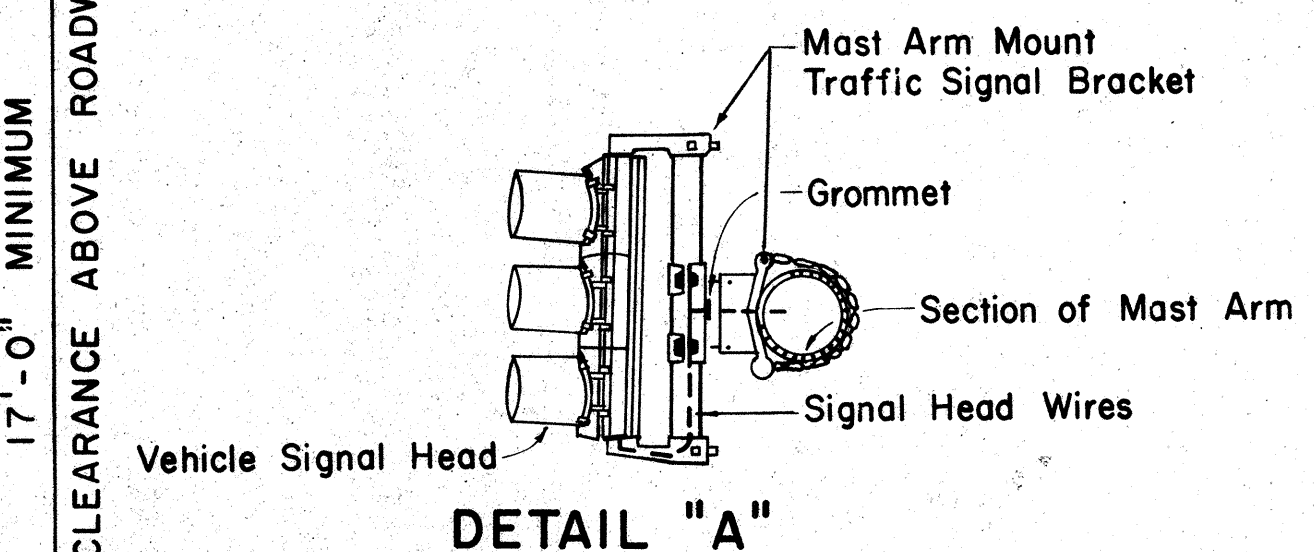
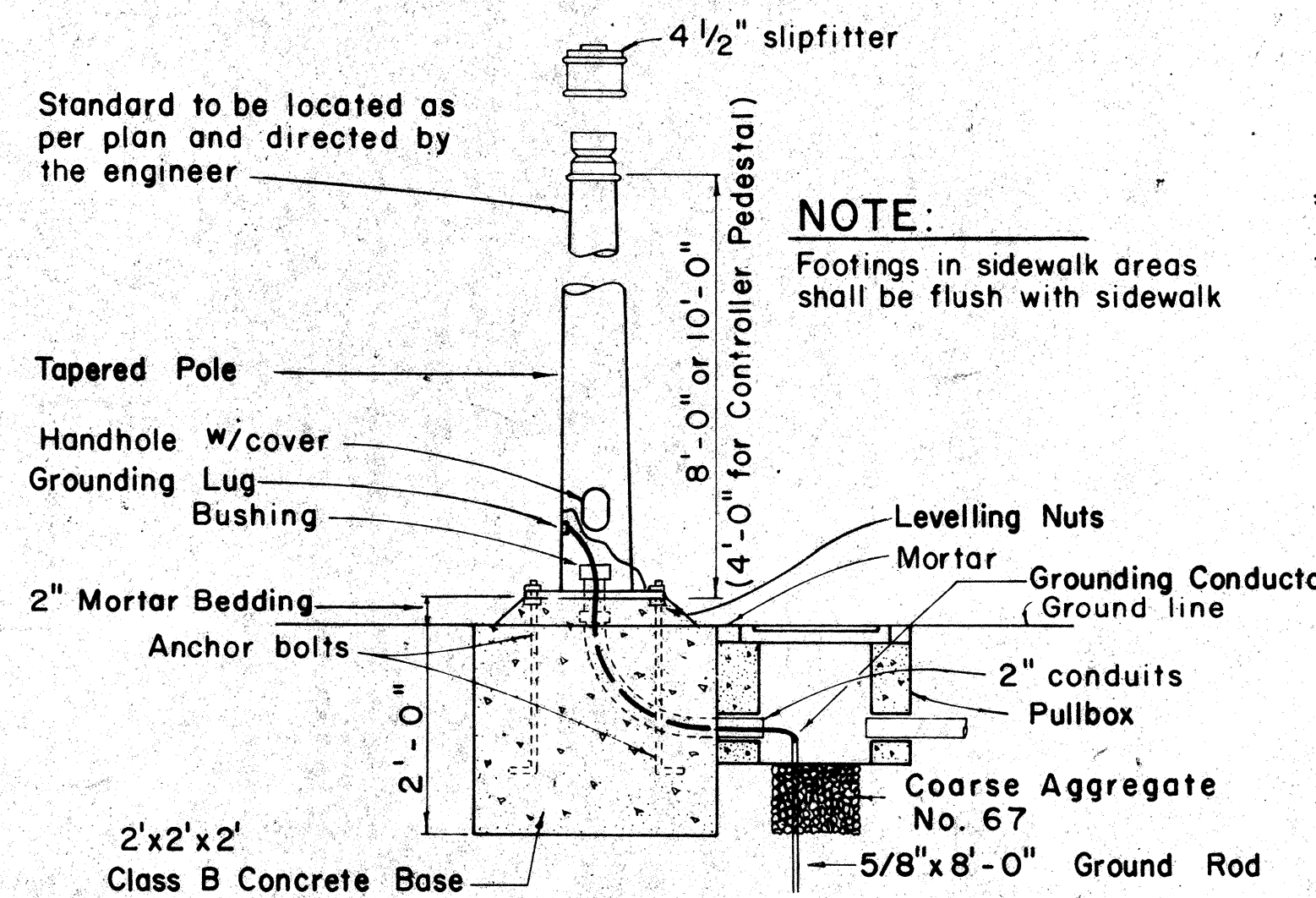
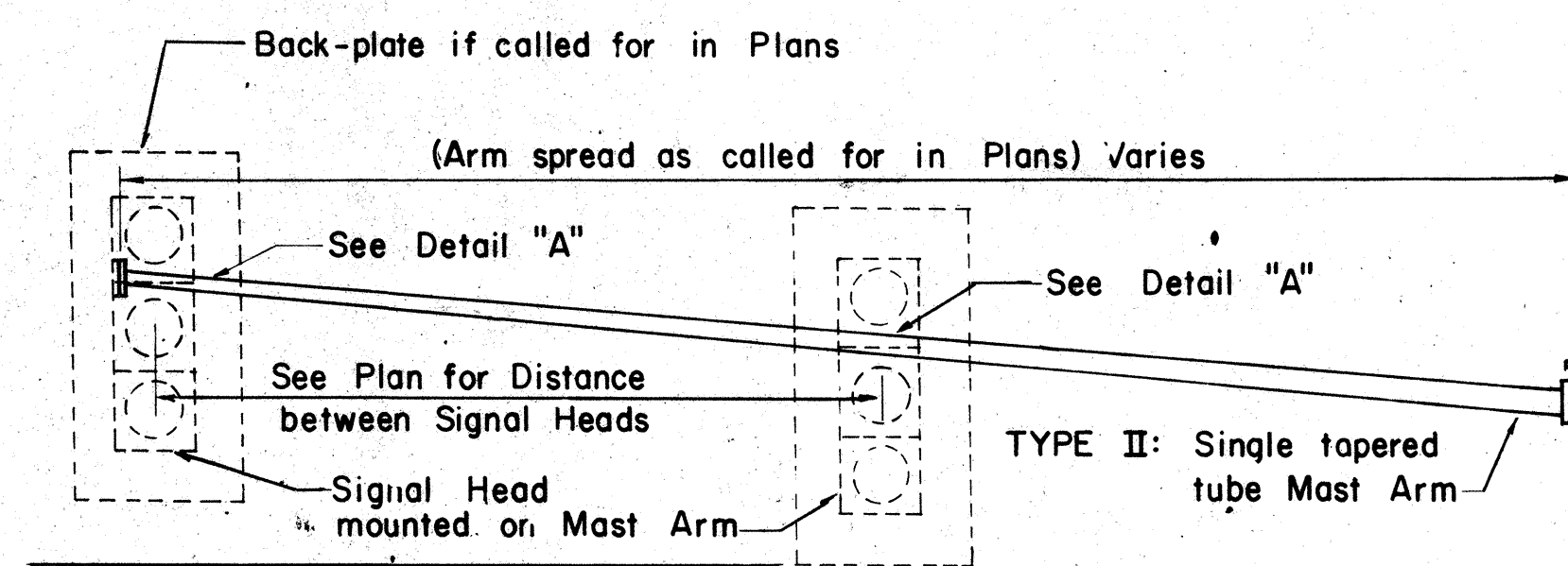
1. Conduits shall protrude 2" max. above finished surface of foundation.
2. Conduits shall slope away from pole foundation.



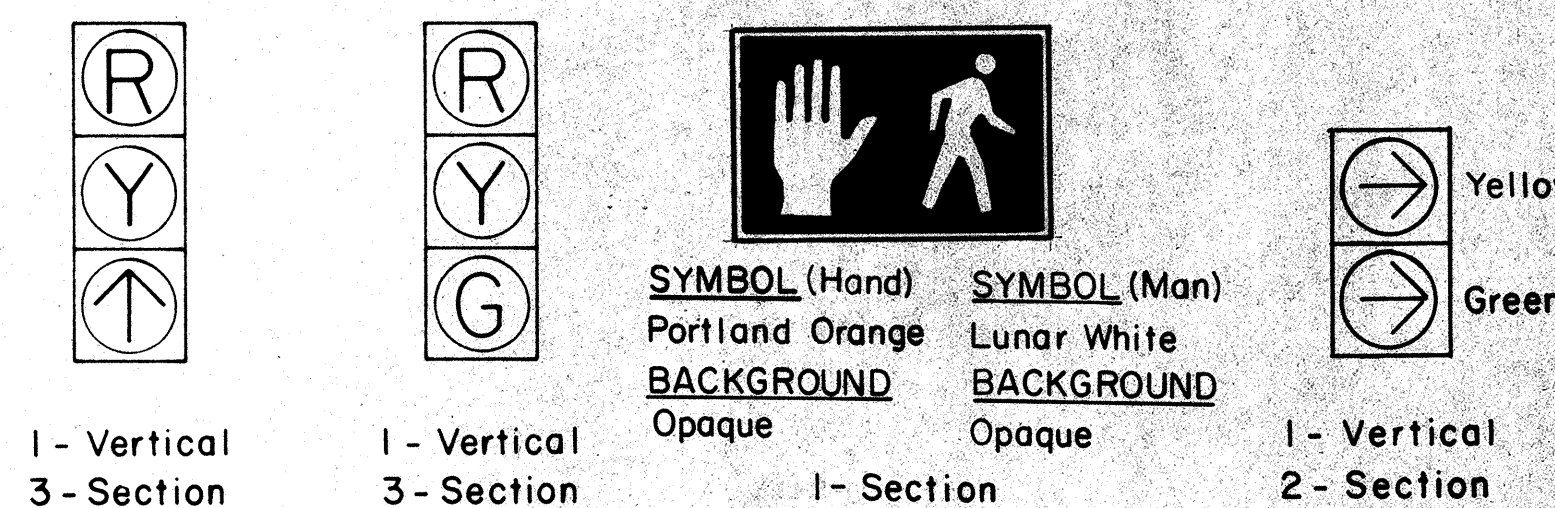
TYPICAL EQUIPMENT MOUNTINGS



DETAIL OF POLE PLATE CONNECTIONS



TYPICAL VEHICULAR AND PEDESTRIAN SIGNAL MOUNTINGS



TYPICAL SIGNAL ARRANGEMENTS

NO.	REVISION	APPROVED BY	DATE
1	Revise code nos. for Pedestrian Push Button signs.	H.T.	3/22/17
2	Revise Details of Traffic and Pedestrian Signals, Standards and Pedestrian Push Button and Signs.	H.T.	3/5/17
3	Revise signal indications.	H.T.	9/22/17
4	Remove Note No. 3 & Revise clearance and dimension.	H.T.	9/19/17
5	Revise Ped. Signal Indication	H.T.	8/6/18

APPROVAL RECOMMENDED:

Erick Tanaka 12/29/63
TRAFFIC ENGINEER DATE

Shirley S. S. S. 12/29/63
ASSISTANT CHIEF, ENGINEERING DATE

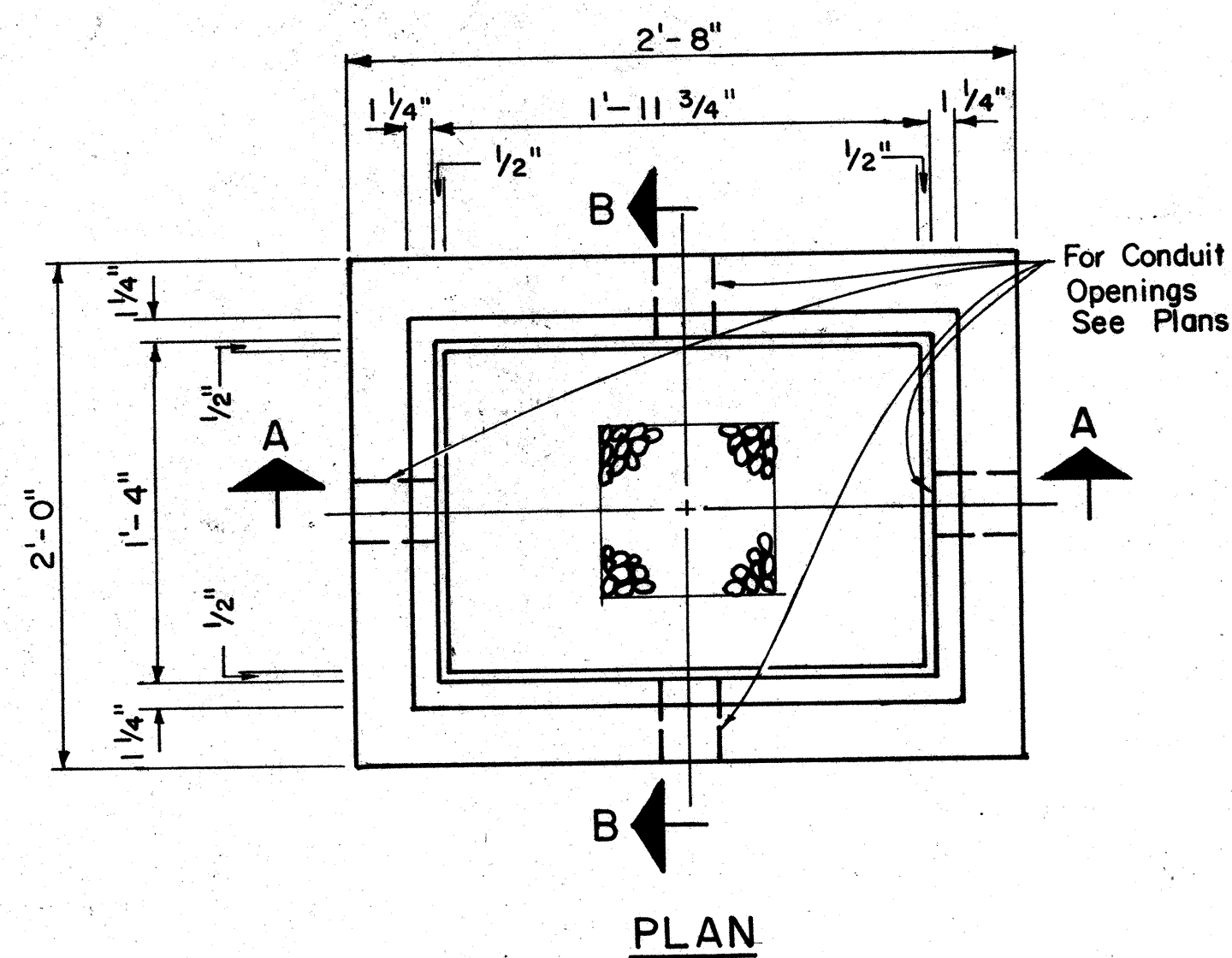
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL SYSTEM
MISCELLANEOUS DETAILS

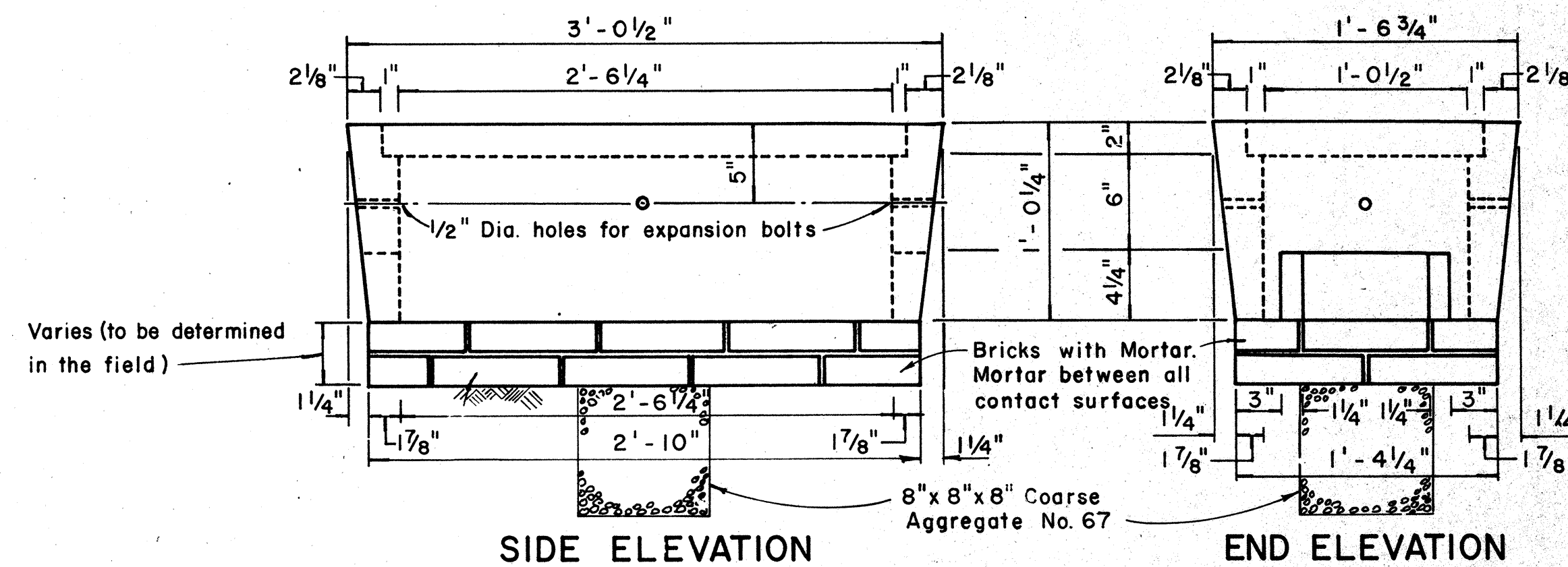
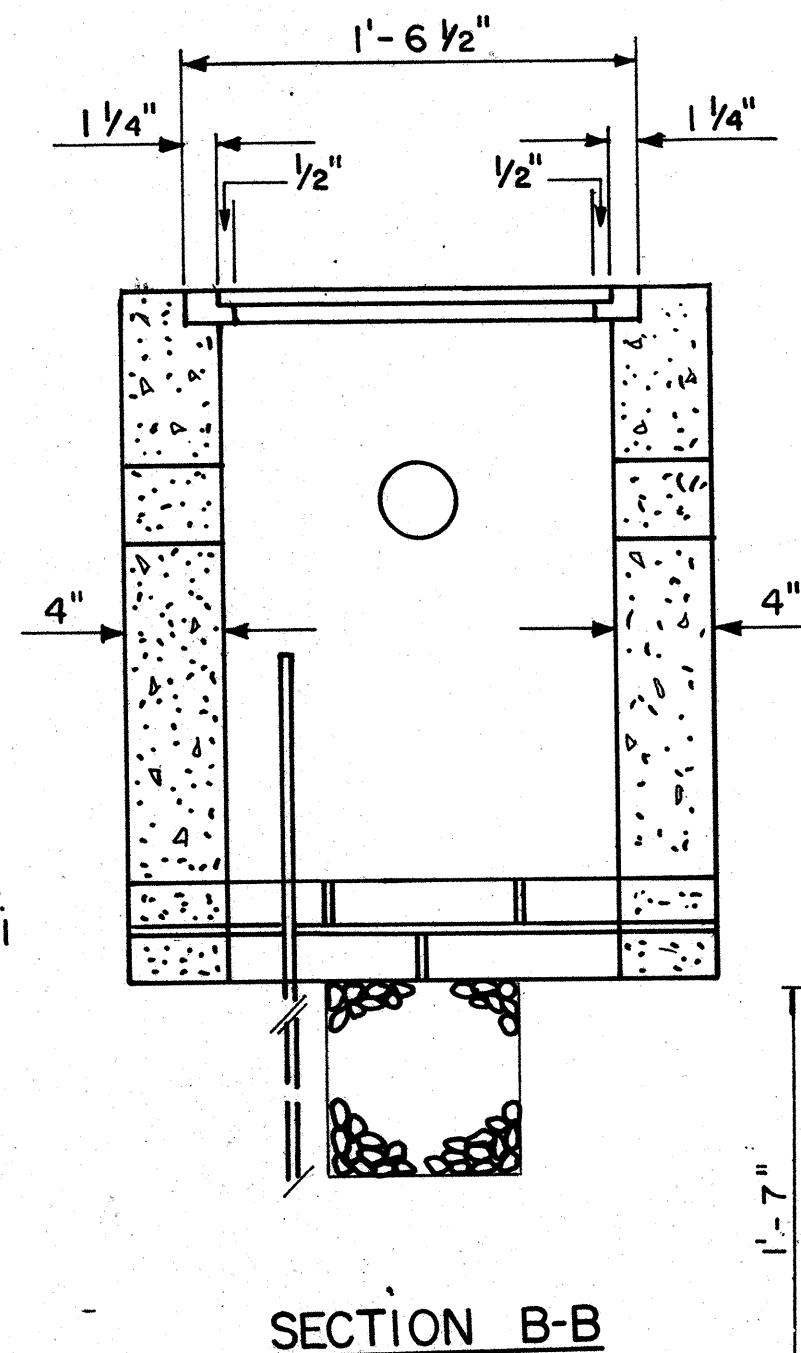
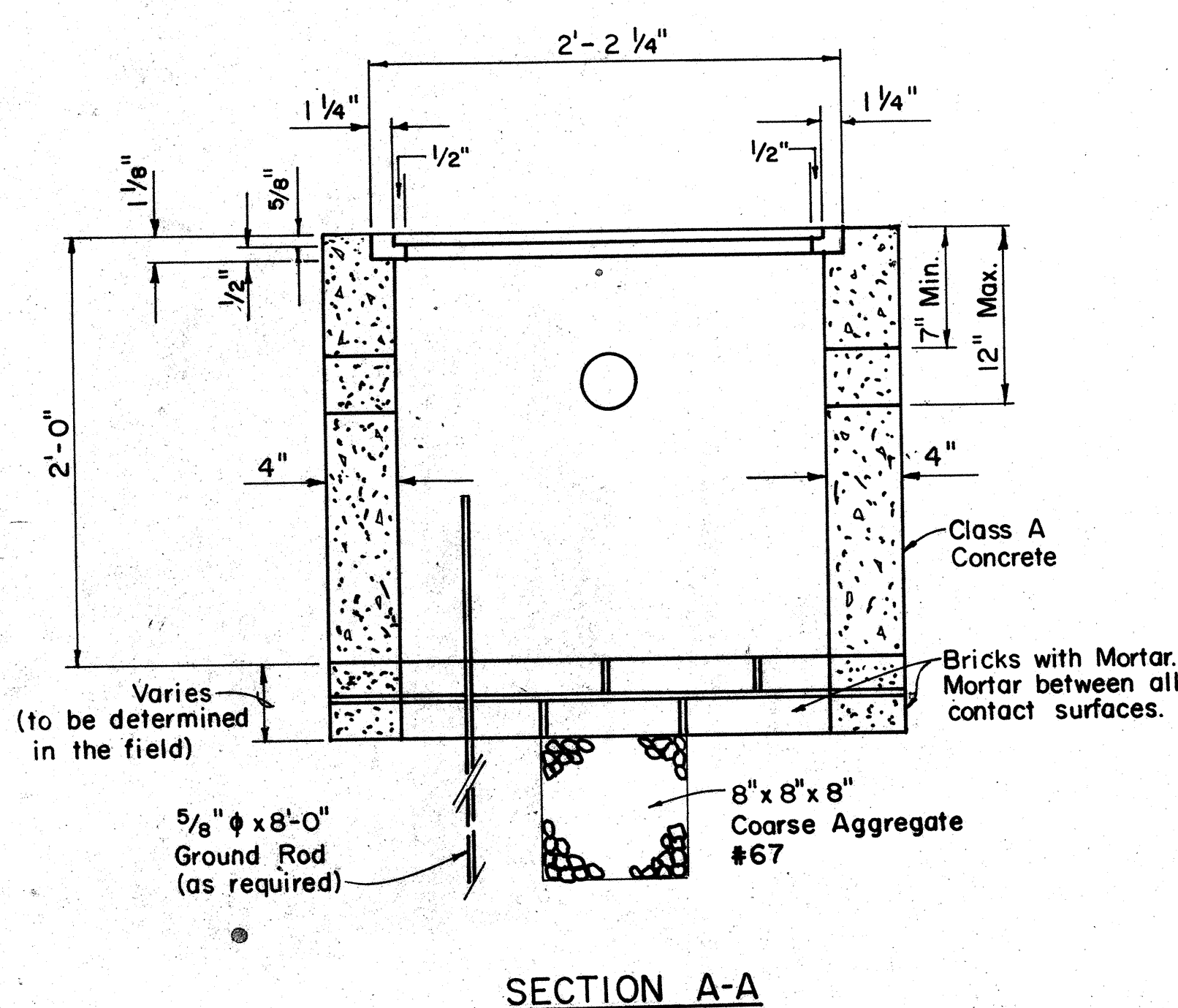
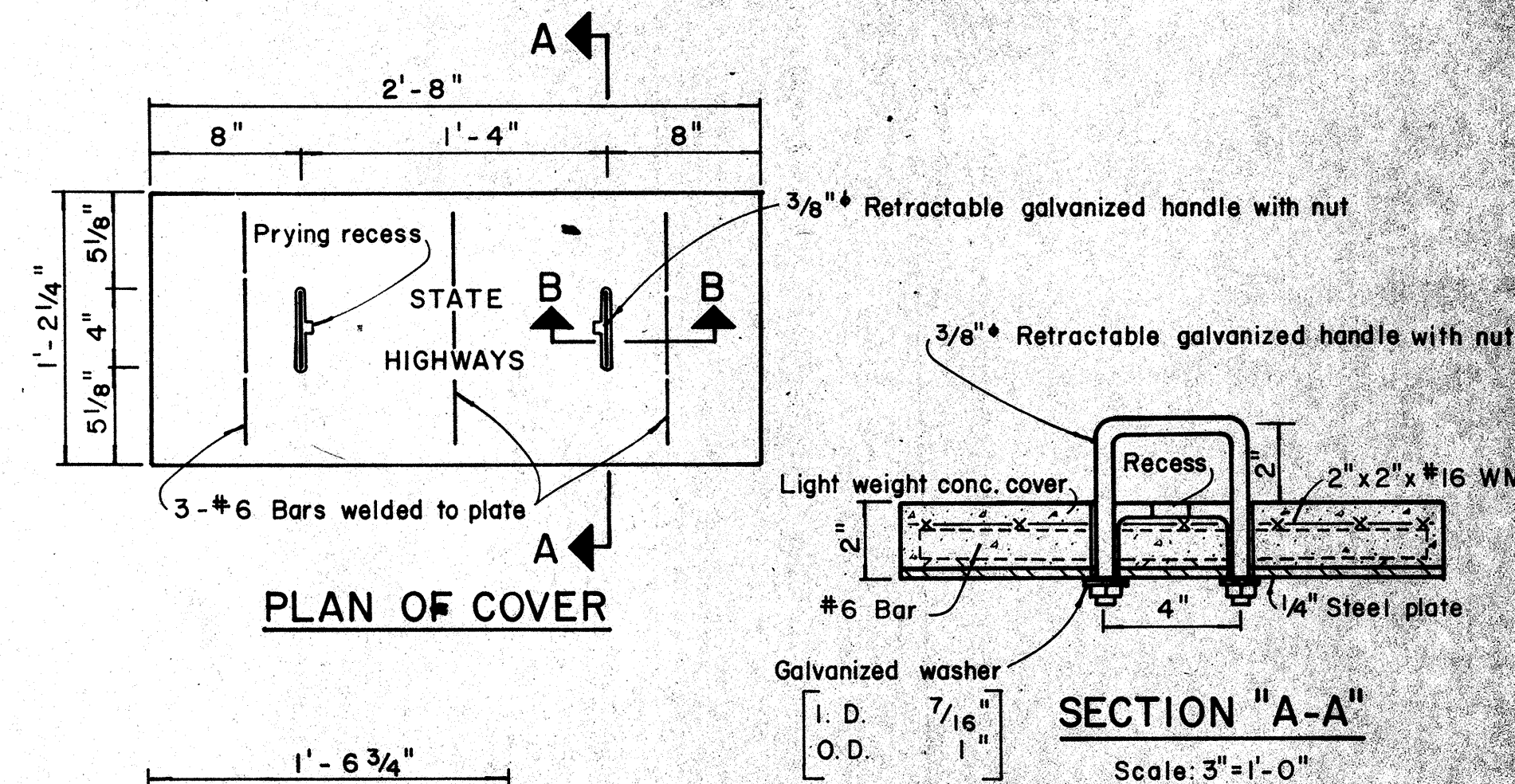
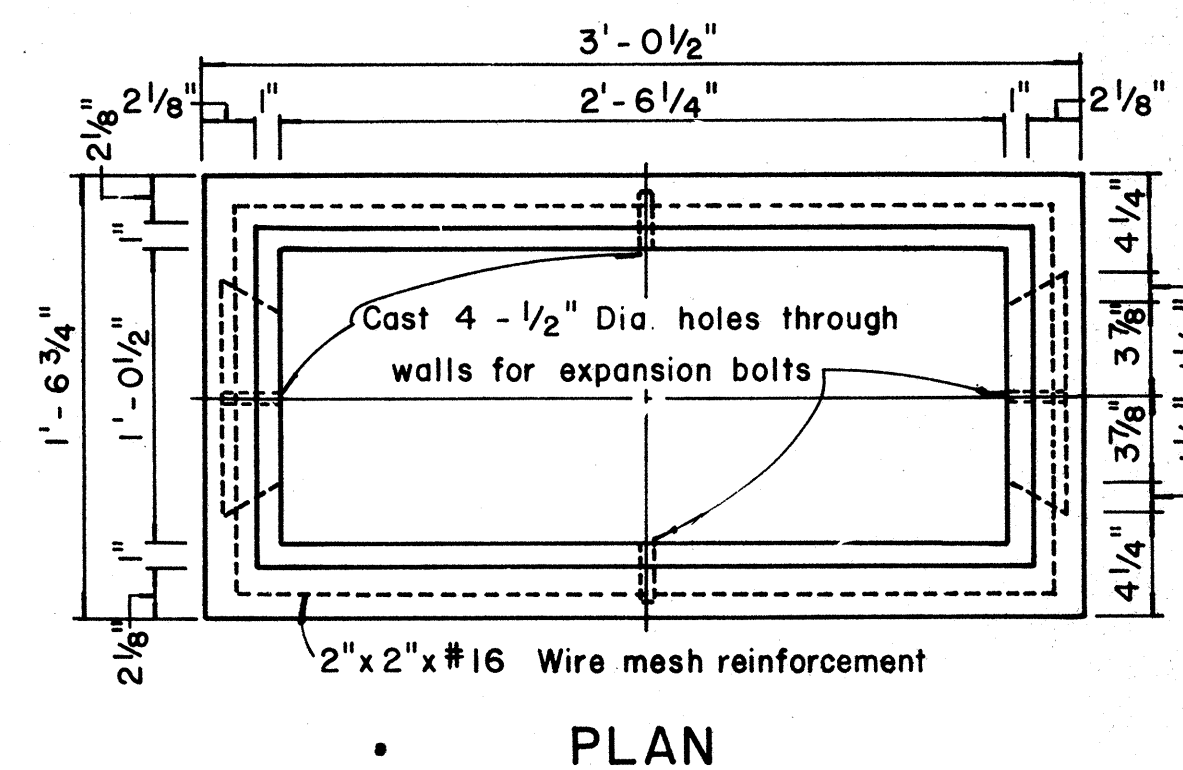
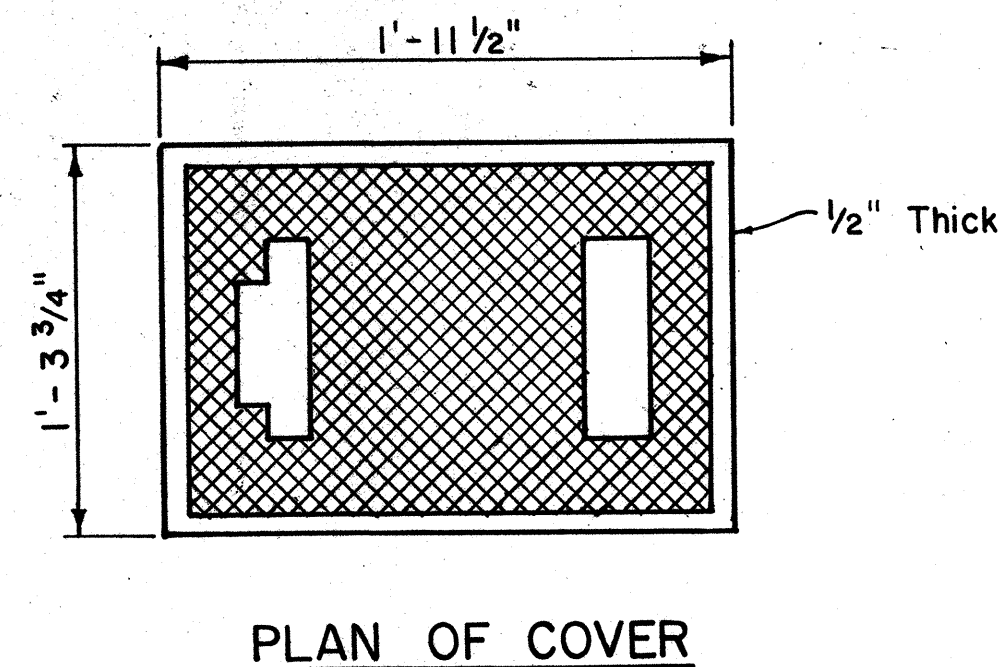
Not to Scale

SHEET No. 6 OF 2 SHEETS DT 40

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	77D-01-81	1982	12	14

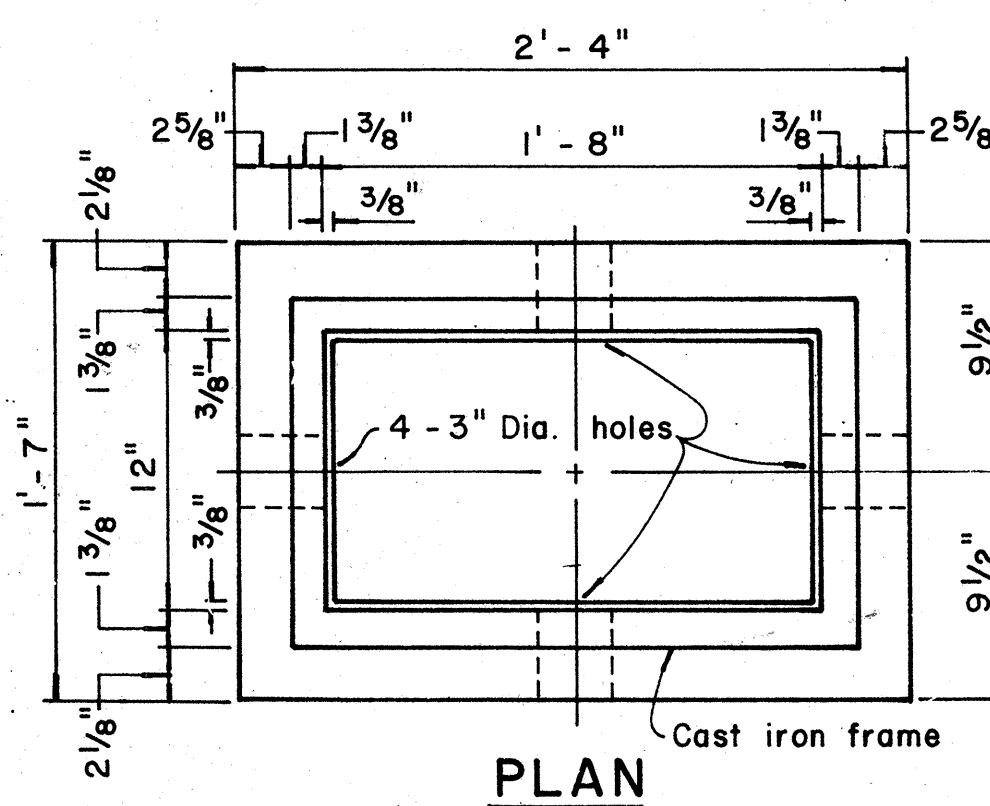
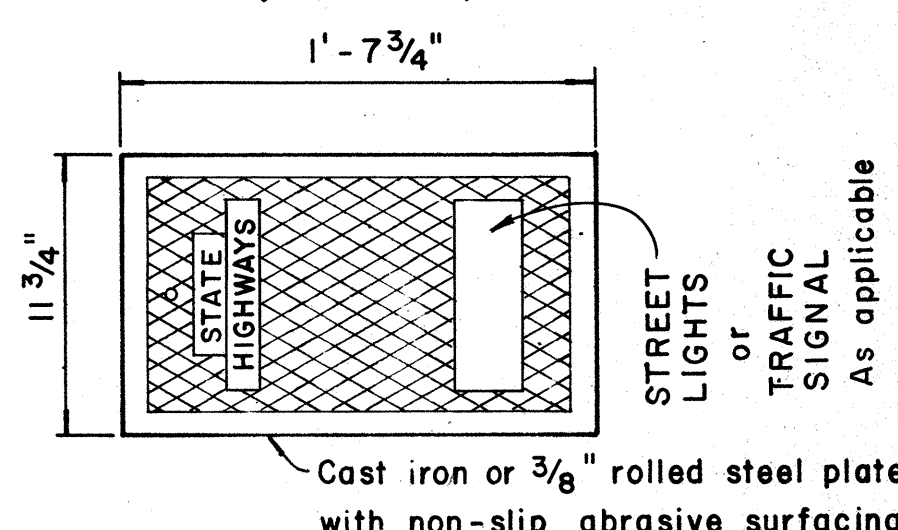


NOTE:
Except as noted, Cover Details shall conform to Type "B" Pullbox Cover.

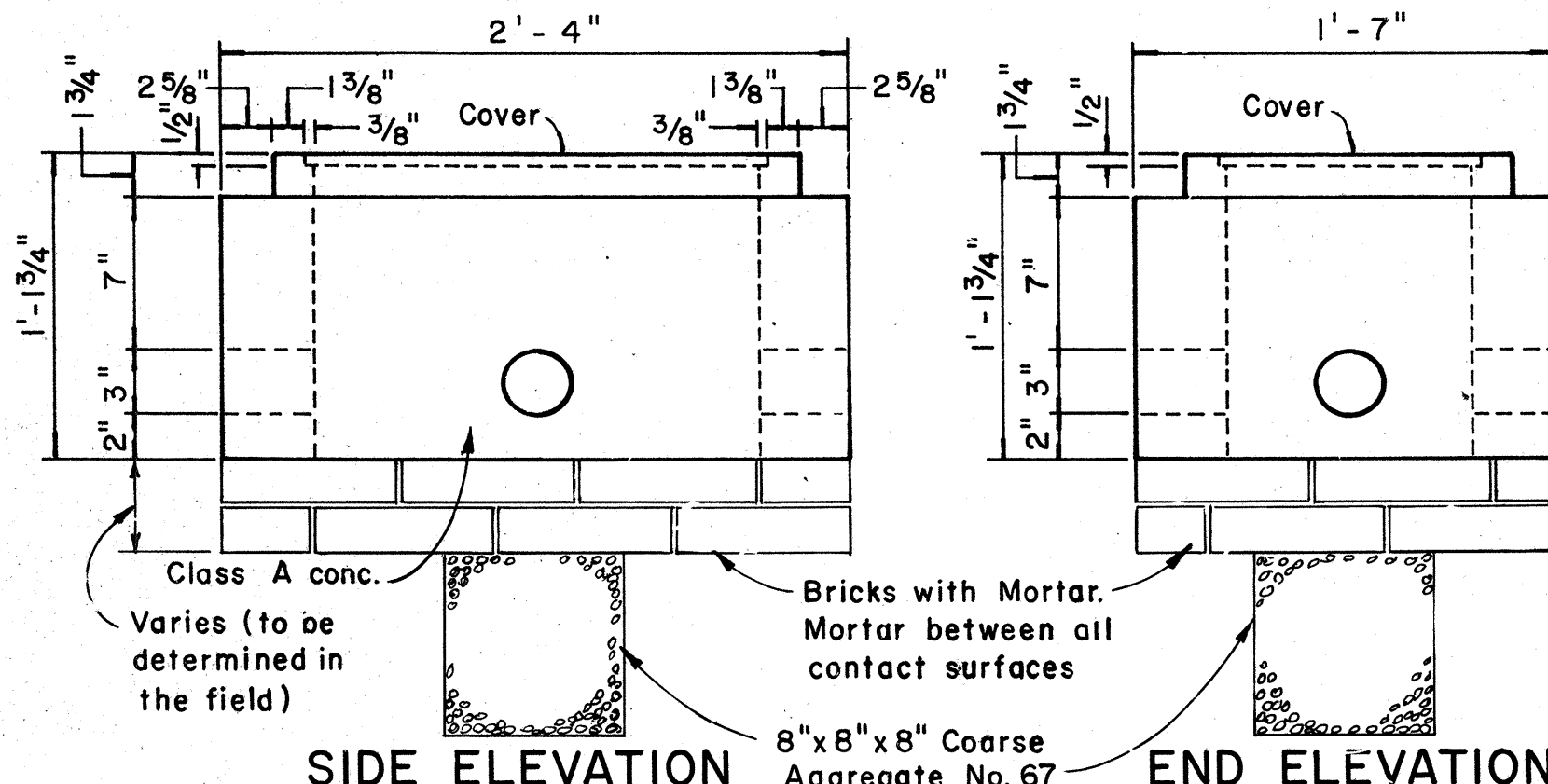


TYPE "C" PULLBOX
Scale: 1 1/2" = 1'-0"

NOTE:
Steel rim shall be welded to bottom of steel cover if necessary so that top of cover and frame are flush.



PLAN OF COVER



TYPE "B" PULLBOX
Scale: 1 1/2" = 1'-0"

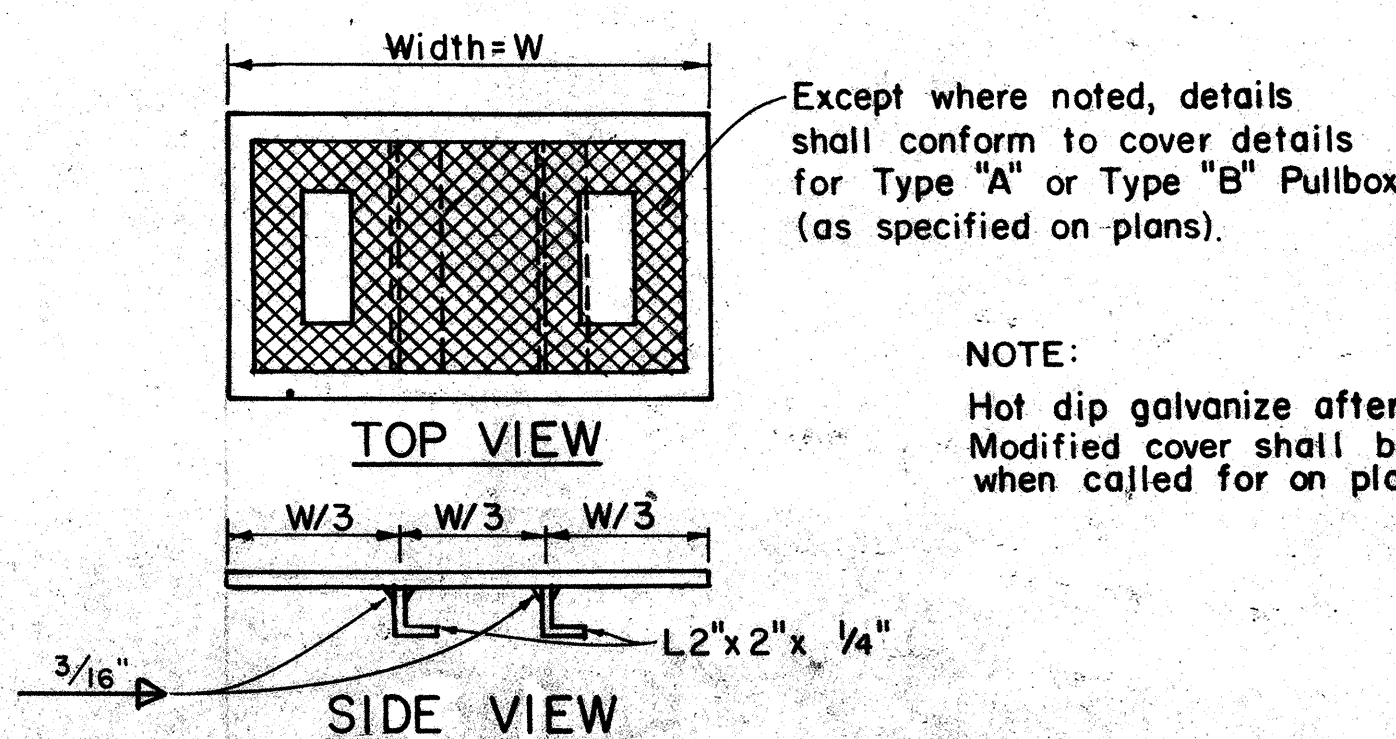
APPROVAL RECOMMENDED:
TRAFFIC ENGINEER
DATE: 12/27/82

APPROVED:
ASSISTANT CHIEF, ENGINEERING
DATE: 12-28-82

NO.	REVISION	APPROVED BY	DATE
1	Revised Type B & C Pullbox details	H.T.	8-5-76
2	Revised Type "A" Pullbox & Added Modified Cover.	H.T.	1-31-80

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
PULLBOXES
Scale as noted Date

DATE	
DESIGNED BY	
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
NO.	



MODIFIED COVER DETAIL
Not to Scale

NOTE:
Hot dip galvanize after fabrication. Modified cover shall be furnished when called for on plans.

Diagram illustrating the reinforcement details for a square column. The column is 3'-0" square. The reinforcement includes #4 ties at 12" spacing and "d" bars. A 3" clear distance is indicated between the outer bars and the core.

Diagram illustrating the installation of a pullbox in a concrete wall. The diagram shows a cross-section of the wall with a pullbox opening. Key components and labels include:

- Grounding type bushing**: Located at the top of the pullbox opening.
- Size and length of anchor bolts and diameter of bolt vary. See manufacturer's literature.**: Label pointing to the anchor bolts securing the pullbox.
- Form, upper 6" of base.**: Label pointing to the upper portion of the concrete base.
- "d" bars**: Label pointing to the vertical reinforcement bars within the concrete wall.
- #4 ties @ 12"**: Label pointing to the horizontal reinforcement ties.
- Place conc. neat.**: Label pointing to the concrete area around the pullbox.
- To pullbox**: Label pointing to the pullbox opening.
- 2"-90° elbow**: Label pointing to the elbow fitting used for pulling.
- Fin. gr.**: Label pointing to the finished grade level.
- "C"**: Label indicating the depth of the concrete wall.

MAST ARM LENGTH	"c"	"d" BARS
16' - 18'	5' - 0"	12 - *6
20'	5' - 6"	12 - *6
25'	6' - 0"	12 - *6
30'	6' - 6"	12 - *6
35'	7' - 0"	12 - *8
40'	8' - 0"	12 - *8

MAST ARM LENGTH	"a"	"b" BARS
16' - 18'	5' - 0"	12 - #6
20'	5' - 6"	12 - #6
25'	6' - 0"	12 - #6
30'	6' - 6"	12 - #8
35'	6' - 6"	12 - #8
40'	7' - 0"	12 - #8

See Note A

4"

See Note A

4"

See Note A

4" See Note A 4"

Technical drawing of a rectangular box. The top horizontal dimension is labeled "See Note A" and is divided into three segments: a left segment of 4", a middle segment labeled "See Note A", and a right segment of 4". The left vertical dimension is labeled "See Note A". The front-left vertical edge is labeled "4" See Note A 4"". The drawing shows a perspective view of a box with a dashed line indicating a hidden edge on the right side. There are small circles representing rivets or fasteners on the top and front faces.

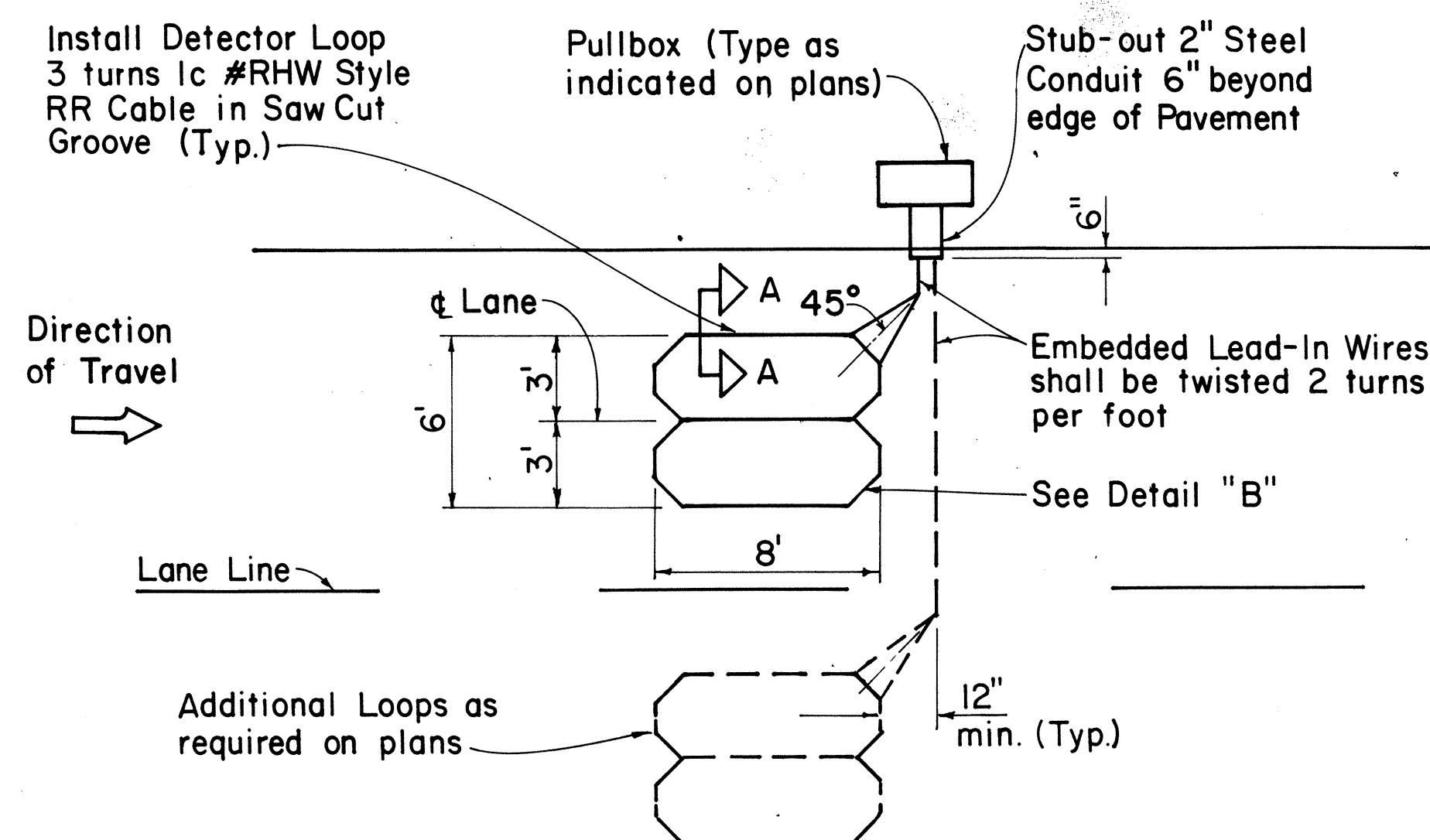
Diagram illustrating the foundation details for a structure, showing the placement of conduits, anchor bolts, and ground rods within the concrete.

Labels and Dimensions:

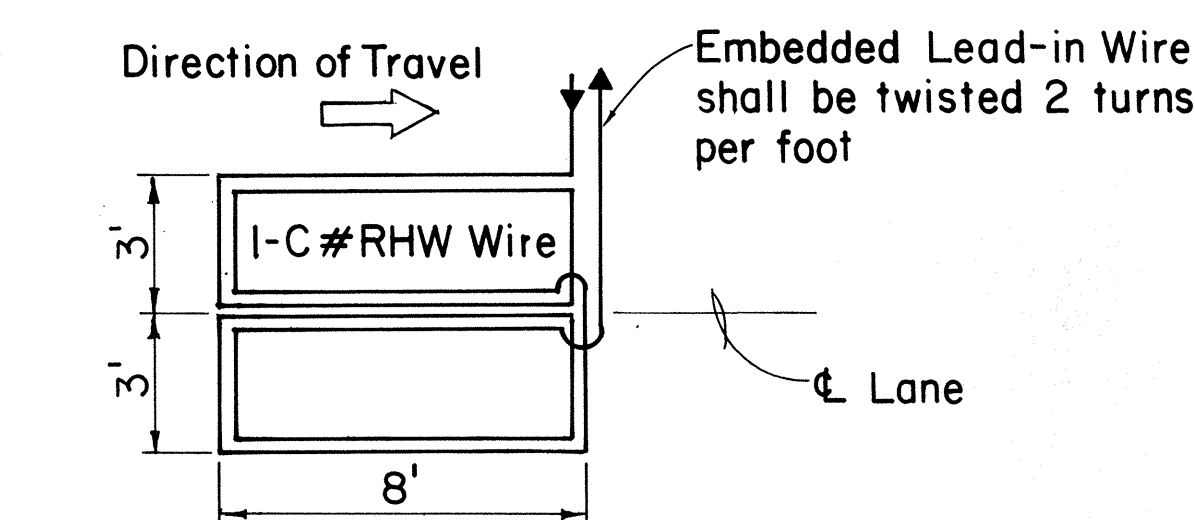
- Conduit extended above
- Anchor Bolts to be furnished by Contractor
- Bushings
- Top of Exist. grd.
- Class B concrete
- Ground Rod 5/8" x 8'-0"
- Conduits (for direction, size & No., see Plans)
- Dimensions: 6'-0" (height), 8'-0" (width)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	000-01-81	1982	14	14

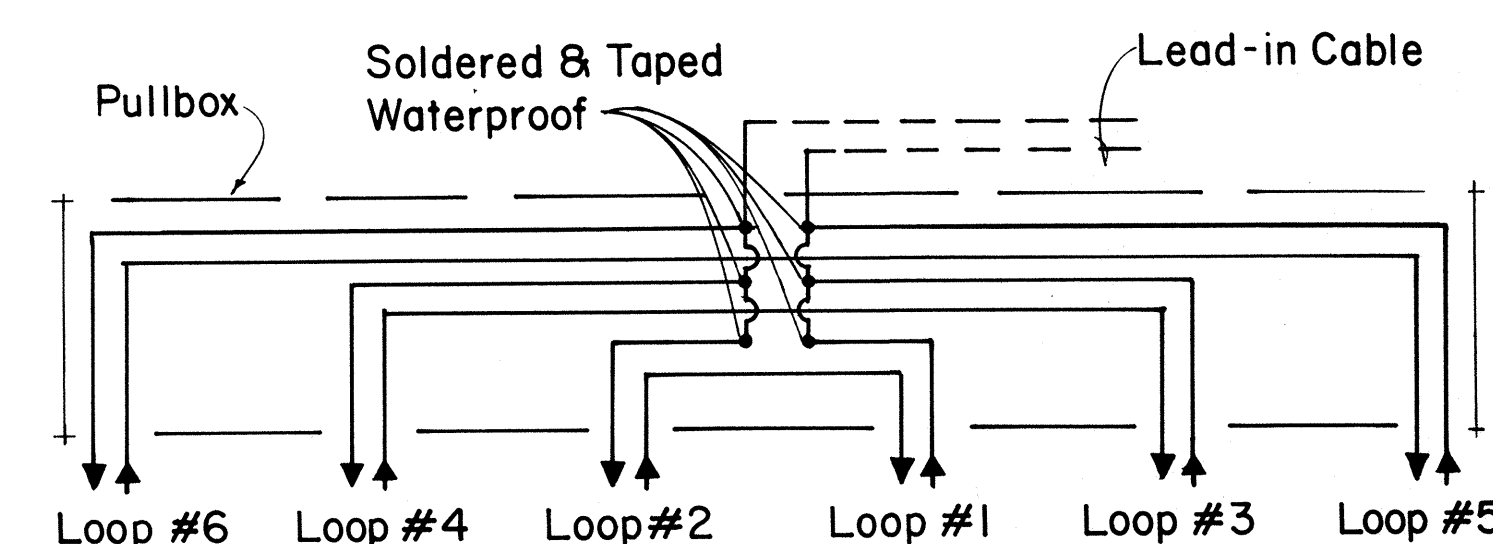
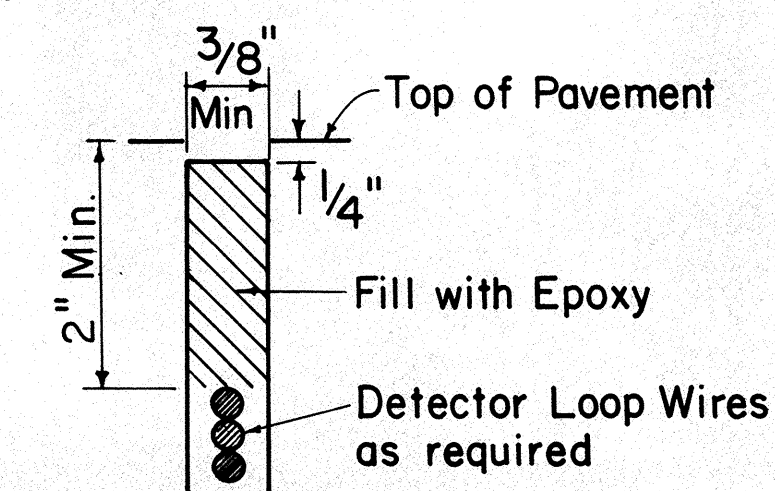


SINGLE LOOP LAYOUT



WIRING DIAGRAM

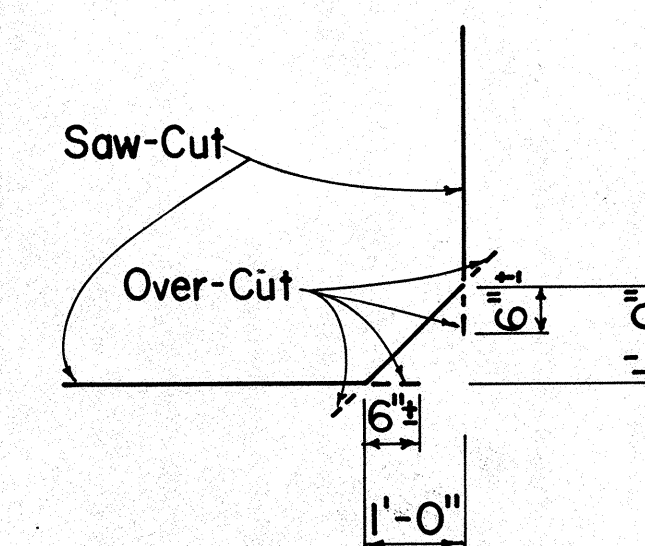
DETECTOR LOOP SAW-CUT SECTION A-A (TYPICAL)



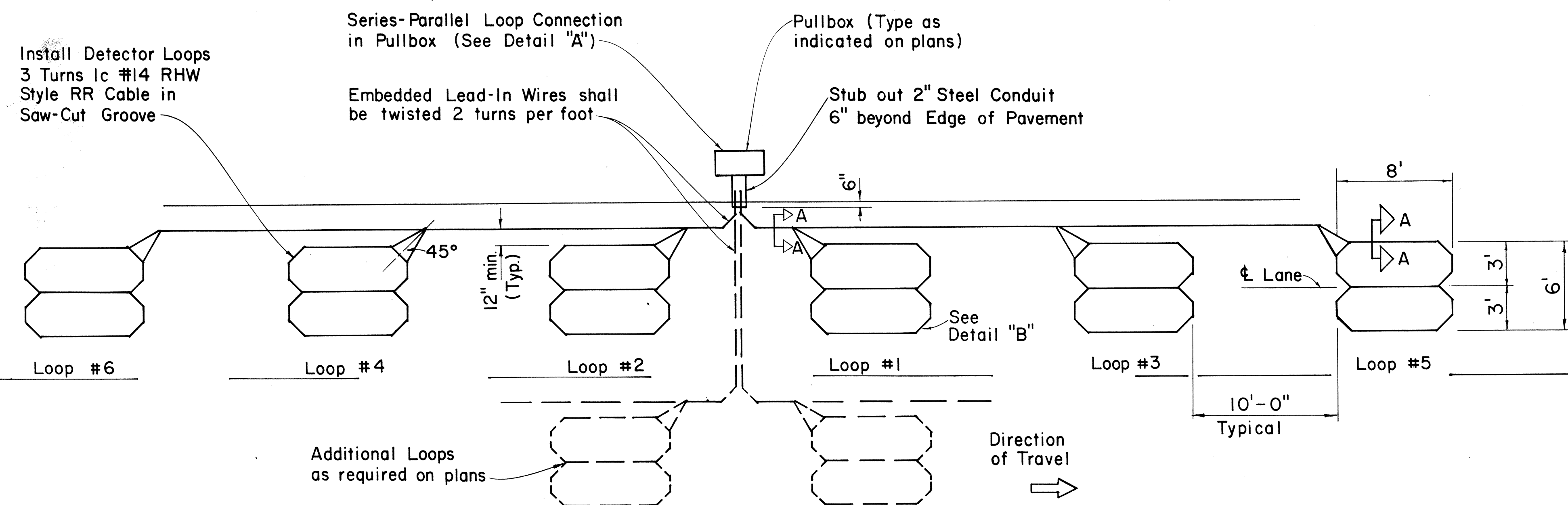
DETAIL "A"

TYPICAL SERIES-PARALLEL LOOP CONNECTION

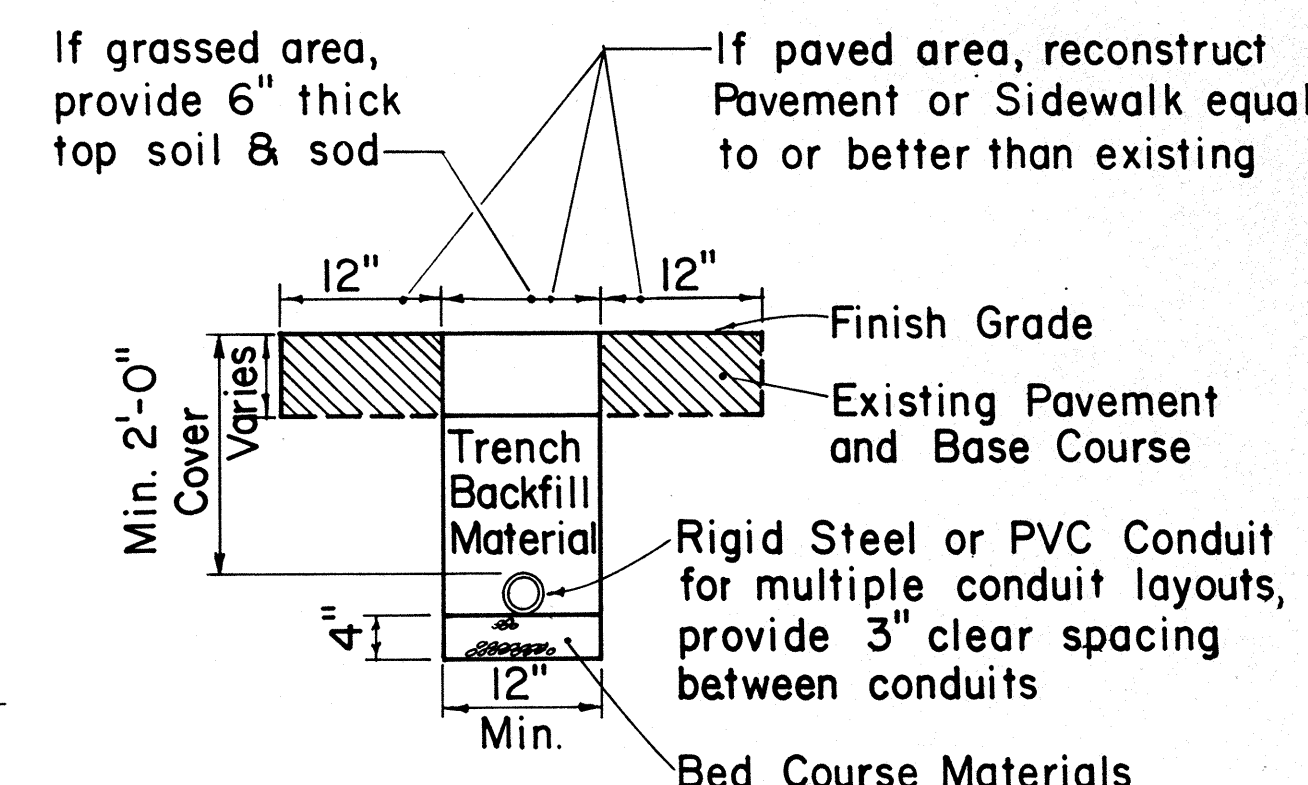
Note: Back-Fill Over-Cuts with Epoxy



DETAIL "B" SAW-CUT AT CORNERS



MULTIPLE LOOP LAYOUT



TYPICAL TRENCH SECTION FOR CONDUIT

NOTE:

- All conduits under roadways shall be steel or PVC schedule 80. All other conduits shall be steel or PVC schedule 40.

APPROVAL RECOMMENDED:

Erich Tanaka 9/26/80
TRAFFIC ENGINEER DATE

APPROVED:

Abdur Rafiq Shih 9/30/80
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE
1	Replaces Sht. DT 405 dated 3/5/76	H.T.	9/30/80
2	Revised Section A-A	H.T.	5/15/81

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD DETAILS
LOOP DETECTORS
Not to Scale

SHEET NO. 9 OF 9 SHEETS DT 405