

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

SURVEY & CENTERLINE MONUMENTS / WATER / STORM MANHOLES & VALVE BOXES SUMMARY

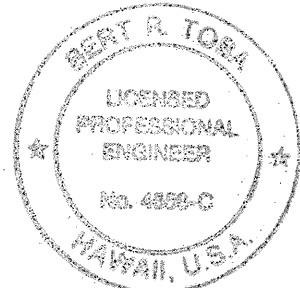
LOCATION		STORM DRAIN MANHOLE FRAME & COVER	WATER MANHOLE FRAME & COVER	WATER VALVE BOX FRAME & COVER	REMOVE & INSTALL WATER MANHOLE FRAME & COVER	REMOVE & INSTALL WATER VALVE FRAME & COVER	CENTERLINE MONUMENT	STREET SURVEY MONUMENT
PUPPEELUA AVENUE @	O/S +/-							
Sta. 5+40	20' Rt.		1					
Sta. 6+85	22' Rt.			1				
Sta. 10+20	20' Rt.		1					
Sta. 10+30	20' Rt.				1	4		
Sta. 11+00	20' Rt.			1				
Sta. 15+30	20' Rt.			1				
Sta. 16+10	15' Rt.		1					
Sta. 19+50	20' Rt.			1				
Sta. 24+00	20' Rt.			1				
Sta. 24+15	16' Rt.		1					
Sta. 25+40	0'						1	
Sta. 28+50	20' Rt.			1				
Sta. 29+60	16' Rt.		1					
Sta. 31+85	30' Lt.		1					
Sta. 31+85	35' Rt.			1				
Sta. 32+15	15' Rt.		4					
Sta. 32+45	20' Lt.		1					
Sta. 32+90	15' Rt.		1					
Sta. 33+00	20' Rt.			1				
Sta. 33+70	20' Lt.		1					
Sta. 35+10	15' Rt.		1					
Sta. 37+85	12' Rt.			1				
Sta. 42+80	10' Rt.			1				
Sta. 51+95	20' Lt.			1				
Sta. 53+25	10' Rt.			1				
Sta. 53+55	7' Rt.		1					
Sta. 55+85	16' Rt.		1					
Sta. 58+50	8' Rt.			1				
Sta. 63+70	20' Rt.			1				
Sta. 63+75	20' Rt.		1					
Sta. 63+82	20' Rt.			1				
Sta. 64+27	27' Lt.		1					
Sta. 64+33	32' Lt.			1				
Sta. 64+45	13' Rt.			1				
Sta. 64+98	18' Lt.		1					
	Subtotal	0	19	17	1	4	1	0
FARRINGTON AVENUE @								
Sta. 0+00	0'							1
Sta. 4+10	18' Rt.			1				
Sta. 11+00	16' Rt.			1				
Sta. 19+85	17' Rt.			1				
Sta. 26+47.31	0'						1	
Sta. 27+40	17' Rt.			1				
Sta. 27+50	15' Rt.			1				

LOCATION		STORM DRAIN MANHOLE FRAME & COVER	WATER MANHOLE FRAME & COVER	WATER VALVE BOX FRAME & COVER	REMOVE & INSTALL WATER MANHOLE FRAME & COVER	REMOVE & INSTALL WATER VALVE FRAME & COVER	CENTERLINE MONUMENT	STREET SURVEY MONUMENT
FARRINGTON AVENUE @	O/S +/-							
Sta. 30+95	20' Lt.			1				
Sta. 31+97.31	0'						1	
Sta. 34+80	15' Lt.			1				
Sta. 38+05	15' Rt.				2			
Sta. 38+70	15' Rt.			1				
Sta. 49+50	13' Lt.			1				
Sta. 53+50	25' Lt.			3				
Sta. 53+52	13' Rt.			1				
Sta. 53+58	0'						1	
Sta. 55+99.61	0'						1	
Sta. 56+95	35' Lt.			1				
Sta. 57+95	26' Lt.			3				
Sta. 57+98	0'						1	
Sta. 59+70	0'						1	
Sta. 61+30	24' Lt.			1				
Sta. 62+00	25' Lt.			1				
Sta. 66+60	25' Lt.		1					
Sta. 66+75	25' Lt.				2			
Sta. 67+20	23' Lt.			1				
Sta. 68+82.94	0'						1	
Sta. 70+85	25' Lt.			1				
Sta. 73+40	15' Lt.	1						
Sta. 76+15	15' Lt.	1						
Sta. 76+90	23' Lt.			1				
Sta. 76+95	26' Lt.		1					
Sta. 78+85	20' Lt.			1				
Sta. 78+92	15' Lt.		1					
Sta. 79+00	15' Lt.			1				
Sta. 84+79.48	0'						1	
Sta. 86+21.81	0'						1	
Sta. 96+25.03	0'						1	
Sta. 97+58	0'						1	
Sta. 99+19.26	0'						1	
Sta. 100+52.59	0'						1	
Sta. 107+74.81	0'						1	
Sta. 109+08.14	0'						1	
Sta. 115+57.33	0'						1	
Sta. 119+86.76	0'						1	
Sta. 123+62	15' Lt.		1					
	Subtotal	2	4	24	4	0	17	1
	Total	2	23	41	5	4	18	1

FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP - 0480(2)	1998	40	43

CROSSWALK SUMMARY

APPROXIMATE STATION	QUANTITY
FARRINGTON AVENUE @ Sta. 71+15	2 LANES
FARRINGTON AVENUE @ Sta. 73+30	2 LANES
FARRINGTON AVENUE @ Sta. 76+60	2 LANES
FARRINGTON AVENUE @ Sta. 128+50	2 LANES
TOTAL	8 LANES



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS SUMMARIES

PUPPEELUA AVENUE RESURFACING
Maunaloa Highway to Farrington Avenue
And
FARRINGTON AVENUE RESURFACING
Puppeelua Avenue to Kalae Highway
Federal - Aid Project No. STP - 0480(2)

Scale: None Date: March 1998

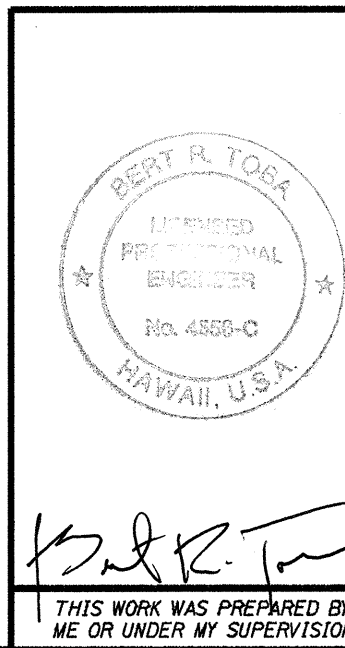
SHEET No. 1 OF 4 SHEETS

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

RAISED PAVEMENT MARKERS AND STRIPING SUMMARY

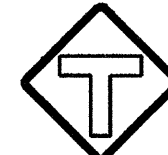
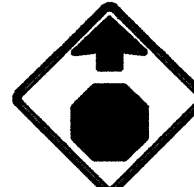
FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP - 0480(2)	1998	41	43

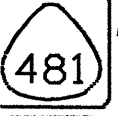
STATION TO STATION	PAVEMENT STRIPING					DISTANCE (L.F.)	PAVEMENT MARKERS (EA.)						CROSS WALK LANE	COMMENTS
	4" YELLOW (L.F.)	4" WHITE	8" WHITE	12" WHITE	TYPE		TYPE	TYPE	TYPE	STOP BAR	ARROW			
	DOUBLE	SINGLE	L.F.	L.F.	L.F.		"C"	"D"	"H"	"J"	WHITE 12" (L.F.)	EA.		
PUUPEELUA AVENUE @														
Sta. 0+20 - Sta. 5+00	480					480		24			30			NO PASSING
Sta. 5+00 - Sta. 30+60						2560		64		256				PASSING
Sta. 30+60 - Sta. 31+60	100					100		5						NO PASSING
Sta. 31+60 - Sta. 32+40	140					80		7			30			INTERSECTION
Sta. 32+40 - Sta. 33+40	100					100		5						NO PASSING
Sta. 33+40 - Sta. 63+10						2970		75		300	25			PASSING
Sta. 63+10 - Sta. 64+30	120					120		6						NO PASSING
Sta. 64+30 - Sta. 65+30	40					100		3			40			INTERSECTION
Sta. 0+20 - Sta. 65+30			13425				336							EP
FARRINGTON AVENUE @														
Sta. 0+40 - Sta. 3+50	340					310		17						NO PASSING
Sta. 3+50 - Sta. 26+35						2285		58		232				PASSING
Sta. 26+35 - Sta. 27+35	100					100		5						NO PASSING
Sta. 27+35 - Sta. 27+75	20					40		1			15			INTERSECTION
Sta. 27+75 - Sta. 29+00	125					125		7						NO PASSING
Sta. 29+00 - Sta. 37+35						835		21		84				PASSING
Sta. 37+35 - Sta. 38+55	120					120		6						NO PASSING
Sta. 38+55 - Sta. 38+95						40					10			INTERSECTION
Sta. 38+95 - Sta. 40+15	120					120		6						NO PASSING
Sta. 40+15 - Sta. 52+20						1205		31		124				PASSING
Sta. 52+20 - Sta. 53+40	120					120		6						NO PASSING
Sta. 53+40 - Sta. 53+80						40					10			INTERSECTION
Sta. 53+80 - Sta. 55+00	120					120		6						NO PASSING
Sta. 55+00 - Sta. 62+40						740		19		76	10			PASSING
Sta. 62+40 - Sta. 63+60	120					120		6						NO PASSING
Sta. 63+60 - Sta. 64+00	10					40		1			10			INTERSECTION
Sta. 64+00 - Sta. 76+15	1180					1215		59			65		4	NO PASSING
Sta. 76+15 - Sta. 76+95						80					25		2	INTERSECTION
Sta. 76+95 - Sta. 104+30	2735					2735		137						NO PASSING
Sta. 104+30 - Sta. 104+70						40					20			INTERSECTION
Sta. 104+70 - Sta. 106+40	170					170		9						NO PASSING
Sta. 106+40 - Sta. 109+85						345		9		36				PASSING
Sta. 109+85 - Sta. 111+05	120					120		6						NO PASSING
Sta. 111+05 - Sta. 111+45	25					40		1			20			INTERSECTION
Sta. 111+45 - Sta. 112+65	120					120		6						NO PASSING
Sta. 112+65 - Sta. 115+20						255		7		28				PASSING
Sta. 115+20 - Sta. 116+40	120					120		6						NO PASSING
Sta. 116+40 - Sta. 116+80	20					40		1			20			INTERSECTION
Sta. 116+80 - Sta. 118+00	120					120		6						NO PASSING
Sta. 118+00 - Sta. 122+55						455		12		48				PASSING
Sta. 122+55 - Sta. 123+60	105					105		6						NO PASSING
Sta. 123+60 - Sta. 124+50	20					90		1			20			INTERSECTION
Sta. 124+50 - Sta. 128+55	390					405		20			40		2	NO PASSING
Sta. 0+40 - Sta. 69+00			20580				343							EP
Sta. 69+00 - Sta. 76+95			795				20							EP-ONE SIDE ONLY
Sta. 76+95 - Sta. 128+70			12500				260							EP
TOTAL	7300	0	47300	0	0	19325	959	665	0	1184	390	0	8	



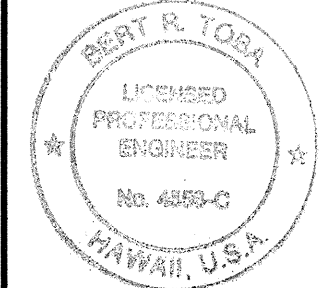
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MISCELLANEOUS SUMMARIES
PUUPEELUA AVENUE RESURFACING
Maunaloa Highway to Farrington Avenue
And
FARRINGTON AVENUE RESURFACING
Puupeelua Avenue to Kalae Highway
Federal - Aid Project No. STP - 0480(2)

Scale: None Date: March 1998

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
PUUPEELUA AVENUE					
R1-1	STOP	7			
R2-1 (35)	SPEED LIMIT 35	2			
R2-1 (30)	SPEED LIMIT 30	1			
R15-1	UNLAWFUL TO LITTER	1			
R16-1d	BUCKLE UP IT'S THE LAW	2			
	ADOPT A HIGHWAY LITTER CONTROL			1	
W2-1		3			
W2-4		1			
W3-1a		2			
	SUBTOTAL	19		1	
FARRINGTON AVENUE					
R1-1	STOP	14			
R2-1 (35)	SPEED LIMIT 35	5			
R2-1 (30)	SPEED LIMIT 30	1			
R2-1 (20)	SPEED LIMIT 20	2			
R2-5b	REDUCE SPEED 20	2			
R15-1	UNLAWFUL TO LITTER	1			
R16-1	BUCKLE UP IT'S THE LAW	1			
R20-1a	BEGIN STATE HIGHWAY	1			
S1-1		2			
S2-1		4			
S4-3	SCHOOL	2			
W3-1a		1			
W14-3	NO PASSING ZONE	2			
	ADOPT A HIGHWAY LITTER CONTROL			3	
	SUBTOTAL	38			
	TOTAL	57	0	4	0

ROUTE MARKER SUMMARY					
SIGN ASSEMBLY	SIGN NO. AND MESSAGE	TYPE A ASSEMBLY		TYPE B ASSEMBLY	
		W/ POST	W/O POST	W/ POST	W/O POST
SRM-1	M1-6 (460)   M1-6 (481) M6-4  END M4-6			1	
SRM-2	M1-6 (480)   M1-6 (481) M6-1  END M6-3			1	
SRM-3	M1-6 (480)   M1-6 (481) M6-6(L)  END M4-6			1	
SRM-4	M1-6 (480)   M1-6 (481) M5-1(L)  END M6-1			1	
SRM-5	 M1-6 (480)  M6-3	1			
SRM-6	M1-6 (470)   M1-6 (480) M6-4  END M4-6			1	
	TOTAL	1	0	5	0

DESTINATION SIGN SUMMARY						
SIGN NO.	LOCATION	MESSAGE	SIZE	NEW PANEL AREA (SQ. FT.)		REMARKS
				W/POST	W/O POST	
D-1	PUUPEELUA AVENUE @ Sta. 2+00 Lt.	← KAUNAKAKAI 6 AIRPORT 1 → MAUNALOA 17	8½'x4'	34		USE GALV. FLANGED CHANNEL POST (4.00 LBS./FT.) 3 - POST
D-2	FARRINGTON AVENUE @ Sta. 2+35 Lt.	← AIRPORT 3	7'x2'	14		REPLACE USE GALV. FLANGED CHANNEL POST (4.00 LBS./FT.) 2 - POST
D-3	FARRINGTON AVENUE @ Sta. 127+55 Rt.	← KALAUPAPA LOOKOUT 4 KAUNAKAKAI 6 →	8'x4'	32		REPLACE USE GALV. FLANGED CHANNEL POST (4.00 LBS./FT.) 3 - POST
		TOTAL		80		



STATE OF HAWAII
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Maunaloa Highway to Farrington Avenue
And
FARRINGTON AVENUE RESURFACING
Puupeelua Avenue to Kalae Highway
Federal - Aid Project No. STP - 0480(2)

Scale: None Date: March 1998
SHEET No. 3 OF 4 SHEETS

ORIGINAL PLAN
DRAWN BY: _____
CHECKED BY: _____
DESIGNED BY: _____
NOTED BY: _____
QUANTITIES BY: _____
CHECKED BY: _____
No. _____

FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP - 0480(2)	1998	43	43

RECONSTRUCTION OF WEAKENED AREAS

LOCATION	OFFSET	LENGTH	WIDTH	THICKNESS	EXCAVATION	GCB
		(FT.)	(FT.)	(IN.)	(C.Y.)	(TONS)
PUUPEELUA AVENUE @						
Sta. 6+65 - Sta. 7+05	10' Rt.	40	6	9	6.67	10.64
Sta. 10+10 - Sta. 10+50	10' Rt.	40	6	9	6.67	10.64
Sta. 13+20 - Sta. 14+20	4' Rt.	100	11	9	30.56	48.77
Sta. 15+50 - Sta. 18+00	4' Rt.	250	11	9	76.39	121.92
Sta. 31+80 - Sta. 32+15	10' Lt.	35	6	9	5.83	9.31
Sta. 40+40 - Sta. 44+50	5' Lt.	410	6	9	68.33	109.06
Sta. 40+40 - Sta. 44+50	5' Rt.	410	6	9	68.33	109.06
Sta. 55+80 - Sta. 58+00	4' Rt.	220	7	9	42.78	68.27
				SUBTOTAL	305.56	487.67
FARRINGTON AVENUE @						
Sta. 23+80 - Sta. 25+00	0' Lt.	120	12	9	40.00	63.84
Sta. 25+53 - Sta. 26+00	0' Lt.	47	12	9	15.67	25.00
Sta. 26+78 - Sta. 27+33	0' Lt.	55	12	9	18.33	29.26
Sta. 26+78 - Sta. 27+33	0' Rt.	55	12	9	18.33	29.26
Sta. 78+50 - Sta. 79+20	0' Lt.	70	12	9	23.33	37.24
Sta. 78+50 - Sta. 79+20	0' Rt.	70	12	9	23.33	37.24
Sta. 86+90 - Sta. 87+05	0' Rt.	15	12	9	5.00	7.93
Sta. 86+90 - Sta. 87+05	0' Lt.	15	12	9	5.00	7.93
Sta. 109+80 - Sta. 110+50	0' Lt.	70	12	9	23.33	37.24
Sta. 111+30 - Sta. 112+30	0' Lt.	100	12	9	33.33	53.20
Sta. 113+20 - Sta. 115+10	0' Lt.	190	12	9	63.33	101.08
Sta. 118+20 - Sta. 121+20	0' Lt.	300	12	9	100.00	159.60
Sta. 123+80 - Sta. 124+40	0' Rt.	60	12	9	20.00	31.92
				SUBTOTAL	389.00	620.74
				TOTAL	694.56	1108.41
				SAY	700	1110

MILEPOST MARKER SUMMARY

LOCATION	SIGN NO. AND MESSAGE	TYPE A ASSEMBLY B-DIRECTIONAL	
		W/POST	W/O POST
PUUPEELUA AVENUE @ Sta. 34+40 Lt.	D10-1 MILE 3	1	
FARRINGTON AVENUE @ Sta. 23+21 Lt.	D10-1 MILE 2	1	
FARRINGTON AVENUE @ Sta. 77+82 Lt.	D10-1 MILE 1	1	
FARRINGTON AVENUE @ Sta. 128+55 Lt.	D10-1 MILE 0	1	
	TOTAL	4	

CONSTRUCTION SIGN SUMMARY

SIGN NO.	APPROXIMATE STATION	MESSAGE	W/ POSTS	W/O POSTS
CW20-1 (d)	MAUNALOA HIGHWAY @ Sta. 317+00 Rt.	Road Work Ahead	1	
CG20-2A	MAUNALOA HIGHWAY @ Sta. 317+00 Lt.	End Road Work	1	
CW20-1 (d)	MAUNALOA HIGHWAY @ Sta. 327+00 Lt.	Road Work Ahead	1	
CG20-2A	MAUNALOA HIGHWAY @ Sta. 327+00 Rt.	End Road Work	1	
CW20-1 (d)	PUUPEELUA AVENUE @ Sta. 70+30 Lt.	Road Work Ahead	1	
CG20-2A	PUUPEELUA AVENUE @ Sta. 70+30 Rt.	End Road Work	1	
CW20-1 (d)	FARRINGTON AVENUE (-) @ Sta. 5+60 Rt.	Road Work Ahead	1	
CG20-2A	FARRINGTON AVENUE (-) @ Sta. 5+60 Lt.	End Road Work	1	
CW20-1 (d)	KALAE HIGHWAY @ Sta. 87+30 Rt.	Road Work Ahead	1	
CG20-2A	KALAE HIGHWAY @ Sta. 87+30 Lt.	End Road Work	1	
CW20-1 (d)	KALAE HIGHWAY @ Sta. 97+30 Lt.	Road Work Ahead	1	
CG20-2A	KALAE HIGHWAY @ Sta. 97+30 Rt.	End Road Work	1	
		TOTAL	12	

REFLECTIVE MARKER SUMMARY

LOCATION	QUANTITY					
	W/ FLEXIBLE POST			W/O POST		
	RM-2 (WHITE)	RM-3	TYPE II O.M.	RM-2	RM-3	TYPE II O.M.
PUUPEELUA AVENUE	6	17	30			45
FARRINGTON AVENUE	9	20	20			104
TOTAL	15	37	50	0	0	149

ORIGINAL PLAN

NO.

SURVEY PLOTTED BY

DATE

DESIGNED BY

CHECKED BY

QUANTITIES BY

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

MISCELLANEOUS SUMMARIES

PUUPEELUA AVENUE RESURFACING

Maunaloa Highway to Farrington Avenue

And

FARRINGTON AVENUE RESURFACING

Puupeelua Avenue to Kalae Highway

Federal - Aid Project No. STP - 0480(2)

Scale: None

Date: March 1998

SHEET No. 4 OF 4 SHEETS

BEAT R. TOBA

LICENSED PROFESSIONAL ENGINEER

No. 4308-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION