

DRAINAGE SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-8930(1)	2005	50	144

STRUCTURES			CULVERTS		ESTIMATED QUANTITIES															
SHEET NUMBER	STRUCTURE NUMBER	STRUCTURE TYPE	ITEM NO.		206.3000	206.4000	206.6000	604.6060	604.3100	604.3101	604.3102	604.3103	604.3104	604.3105	604.3106	604.3107	604.3108	604.6050	604.6051	604.6052
			FROM STRUCTURES	TO STRUCTURES	STRUCTURE EXCAVATION FOR DRAIN CULVERT	STRUCTURE EXCAVATION FOR DRAIN CULVERT OUTLET STRUCTURE	STRUCTURE EXCAVATION FOR DRAINAGE SYSTEM	DRAIN MANHOLE (SPECIAL), 9FT TO 9.99FT	DRAIN INLET (SPECIAL) INTERCEPTOR DITCH, 11FT TO 11.99FT	DRAIN INLET (SPECIAL) INTERCEPTOR DITCH, 13FT TO 13.99FT	DRAIN INLET (SPECIAL), 14FT TO 14.99FT	DRAIN INLET (SPECIAL), 16FT TO 16.99FT	DRAIN INLET (SPECIAL) INTERCEPTOR DITCH, 16FT TO 16.99FT	DRAIN INLET (SPECIAL), 17FT TO 17.99FT	DRAIN INLET (SPECIAL), 18FT TO 18.99FT	DRAIN INLET (SPECIAL), 19FT TO 19.99FT	DRAIN INLET (SPECIAL) INTERCEPTOR DITCH, 19FT TO 19.99FT	TYPE B CATCH BASIN, 6FT TO 6.99FT	TYPE B CATCH BASIN, 7FT TO 7.99FT	TYPE B CATCH BASIN, 8FT TO 8.99FT
			UNIT		C.Y.	C.Y.	C.Y.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
C2.2		24" STUBOUT		N14			147													
	N14	TYPE B CB																	1	
		24" PIPE	N15	N14			220													
		24" STUBOUT		N15			76													
	N15	TYPE B CB																	1	
	N16	TYPE B CB																1		
		24" PIPE	N16	C			95													
	18	DMH (SPECIAL)					1													
	17	DI(SPECIAL) INT. DITCH		C									1							
	16	DI (SPECIAL)		C											1					
		STUB FOR FUT. CONN.		C																
	C	DRAIN CULVERT	17, 16	CHANNEL	3020	90														
		GRP APRON																		
		24" PIPE	N17	C			202													
	N17	TYPE B CB																		1
		24" PIPE	N18	N17			282													
C2.3		24" PIPE	N18	N17			15													
		24" STUBOUT		N18			95													
	N18	TYPE B CB																		1
		24" PIPE	N19	N18			284													
		24" STUBOUT		N19			95													
	N19	TYPE B CB																		1
	24	DI(SPECIAL) INT. DITCH		D.L. G				1												
		DRAIN CULVERT R1	24	CHANNEL		50	755													
		GRP APRON																		
C2.4	26	DI(SPECIAL) INT. DITCH		D					1											
		STUB FOR FUT. CONN.		D																
SUB-TOTAL THIS SHEET					3020	140	2266	1	1	1			1		1			1	2	3

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

DRAINAGE SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-8930(1)	2005	51	144

STRUCTURES			CULVERTS		ESTIMATED QUANTITIES														
SHEET NUMBER	STRUCTURE NUMBER	STRUCTURE TYPE	ITEM NO.		603.3000	603.3010	603.3020	603.3030	612.1000	612.1200	603.2000	603.2001	612.2000	611.0200	611.0300				
			FROM STRUCTURES	TO STRUCTURES	24-INCH REINFORCED CONC. PIPE, CLASS III, OR 24-INCH HIGH DENSITY POLYETHYLENE PIPE, OR 36-INCH SPIRAL RIB ALUM. PIPE SHT. "t"=0.105"	36-INCH REINFORCED CONC. PIPE, CLASS III, OR 36-INCH HIGH DENSITY POLYETHYLENE PIPE, OR 36-INCH SPIRAL RIB ALUM. PIPE SHT. "t"=0.105"	60-INCH REINFORCED CONCRETE PIPE, CLASS III	72-INCH REINFORCED CONCRETE PIPE, CLASS III	GROUTED RUBBLE PAVING (GRP) FOR CULVERT OUTLETS	GROUTED RUBBLE PAVING (GRP) FOR INTERCEPTOR DITCH	BED COURSE MATERIAL FOR DRAIN CULVERT	BED COURSE MATERIAL FOR DRAIN CULVERT OUTLET STRUCTURES	BED COURSE MATERIAL FOR GRP	RIP-RAP FOR DROP STRUCTURE	RIP-RAP FOR INTERCEPTOR DITCH BERM				
			UNIT		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.				
C2.2		24" STUBOUT		N14	129														
	N14	TYPE B CB																	
		24" PIPE	N15	N14	194														
		24" STUBOUT		N15	66														
	N15	TYPE B CB																	
	N16	TYPE B CB																	
		24" PIPE	N16	C	88														
	18	DMH (SPECIAL)																	
	17	DI(SPECIAL) INT. DITCH		C						14			7		2				
	16	DI (SPECIAL)		C						14			7		2				
		STUB FOR FUT. CONN.		C															
	C	DRAIN CULVERT	17, 16	CHANNEL							130	20							
		GRP APRON							48				19						
		24" PIPE	N17	C	104														
	N17	TYPE B CB																	
		24" PIPE	N18	N17	190														
C2.3		24" PIPE	N18	N17	60														
		24" STUBOUT		N18	66														
	N18	TYPE B CB																	
		24" PIPE	N19	N18	250														
		24" STUBOUT		N19	66														
	N19	TYPE B CB																	
	24	DI(SPECIAL) INT. DITCH		D.L. G						14			7		2				
		DRAIN CULVERT R1	24	CHANNEL		263					55	10							
		GRP APRON							36				15						
C2.4	26	DI(SPECIAL) INT. DITCH		D						14			7		2				
		STUB FOR FUT. CONN.		D															
SUB-TOTAL THIS SHEET					1213	263			84	56	185	30	62		8				

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

DRAINAGE SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-8930(1)	2005	52	144

STRUCTURES			CULVERTS		ESTIMATED QUANTITIES															
SHEET NUMBER	STRUCTURE NUMBER	STRUCTURE TYPE	ITEM NO.		206.3000	206.4000	206.6000	604.6060	604.3100	604.3101	604.3102	604.3103	604.3104	604.3105	604.3106	604.3107	604.3108	604.6050	604.6051	604.6052
			FROM STRUCTURES	TO STRUCTURES	STRUCTURE EXCAVATION FOR DRAIN CULVERT	STRUCTURE EXCAVATION FOR DRAIN CULVERT OUTLET STRUCTURE	STRUCTURE EXCAVATION FOR DRAINAGE SYSTEM	DRAIN MANHOLE (SPECIAL), 9FT TO 9.99FT	DRAIN INLET (SPECIAL) INTERCEPTOR DITCH, 11FT TO 11.99FT	DRAIN INLET (SPECIAL) INTERCEPTOR DITCH, 13FT TO 13.99FT	DRAIN INLET (SPECIAL), 14FT TO 14.99FT	DRAIN INLET (SPECIAL), 16FT TO 16.99FT	DRAIN INLET (SPECIAL) INTERCEPTOR DITCH, 16FT TO 16.99FT	DRAIN INLET (SPECIAL), 17FT TO 17.99FT	DRAIN INLET (SPECIAL), 18FT TO 18.99FT	DRAIN INLET (SPECIAL), 19FT TO 19.99FT	DRAIN INLET (SPECIAL) INTERCEPTOR DITCH, 19FT TO 19.99FT	TYPE B CATCH BASIN, 6FT TO 6.99FT	TYPE B CATCH BASIN, 7FT TO 7.99FT	TYPE B CATCH BASIN, 9FT TO 9.99FT
			UNIT		C.Y.	C.Y.	C.Y.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
	D	DRAIN CULVERT	26, 23	CHANNEL	3950	150														
		GRP APRON																		
	25	DI (SPECIAL)		D								1								
	34	DI(SPECIAL) INT. DITCH		E					1											
	33	DI (SPECIAL)		E							1									
	E	DRAIN CULVERT	34, 33	CHANNEL		55	1384													
		GRP APRON																		
C2.5	38	DI(SPECIAL) INT. DITCH		F									1							
	37	DI (SPECIAL)		F										1						
	F	DRAIN CULVERT	38, 37	CHANNEL		60	1802													
		GRP APRON																		
C2.5	43	DI(SPECIAL) INT. DITCH		G													1			
	42	DI (SPECIAL)		G												1				
	G	DRAIN CULVERT	43, 42	CHANNEL		60	1802													
		GRP APRON																		
C6.1		DRAINAGE CHANNEL																		
C6.2		DRAINAGE CHANNEL																		
		DROP STRUCTURE	20+00																	
		DROP STRUCTURE	24+00																	
		DROP STRUCTURE	28+00																	
		DROP STRUCTURE	37+00																	
		DROP STRUCTURE	40+00																	
		DROP STRUCTURE	42+50																	
		DROP STRUCTURE	45+00																	
C6.3		DRAINAGE CHANNEL																		
		DROP STRUCTURE	47+50																	
		DROP STRUCTURE	50+00																	
		DROP STRUCTURE	52+50																	
		DROP STRUCTURE	55+00																	
SUB-TOTAL THIS SHEET					3950	325	4988		1		1	1	1	1		1	1			
TOTAL					6970	465	7651	1	2	1	1	1	2	1	1	1	1	1	2	3

ORIGINAL
PLAN

NO. _____

SURVEY PLOTTED BY _____

DATE _____

DRAWN BY _____

DESIGNED BY _____

QUANTITIES BY _____

CHECKED BY _____

DRAINAGE SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-8930(1)	2005	53	144

STRUCTURES			CULVERTS		ESTIMATED QUANTITIES															
SHEET NUMBER	STRUCTURE NUMBER	STRUCTURE TYPE	ITEM NO.		603.3000	603.3010	603.3020	603.3030	612.1000	612.1200	603.2000	603.2001	612.2000	611.0200	611.0300					
			FROM STRUCTURES	TO STRUCTURES	24-INCH REINFORCED CONC. PIPE, CLASS III, OR 24-INCH HIGH DENSITY POLYETHYLENE PIPE, OR 36-INCH SPIRAL RIB ALUM. PIPE SHT. "t"=0.105"	36-INCH REINFORCED CONC. PIPE, CLASS III, OR 36-INCH HIGH DENSITY POLYETHYLENE PIPE, OR 36-INCH SPIRAL RIB ALUM. PIPE SHT. "t"=0.105"	60-INCH REINFORCED CONCRETE PIPE, CLASS III	72-INCH REINFORCED CONCRETE PIPE, CLASS III	GROUTED RUBBLE PAVING (GRP) FOR CULVERT OUTLETS	GROUTED RUBBLE PAVING (GRP) FOR INTERCEPTOR DITCH	BED COURSE MATERIAL FOR CULVERT	BED COURSE MATERIAL FOR DRAIN CULVERT OUTLET STRUCTURES	BED COURSE MATERIAL FOR GRP	RIP-RAP FOR CHANNEL DROP STRUCTURE	RIP-RAP FOR INTERCEPTOR DITCH BERM					
			UNIT		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.	C.Y.				
	D	DRAIN CULVERT	26, 23	CHANNEL							340	60								
		GRP APRON							76				30							
	23	DI (SPECIAL)		D																
	34	DI(SPECIAL) INT. DITCH		E					14				7		2					
	33	DI (SPECIAL)		E					14				7		2					
	E	DRAIN CULVERT	34, 33	CHANNEL			263				100	17								
		GRP APRON							39				16							
C2.4	38	DI(SPECIAL) INT. DITCH		F					14				7		2					
	37	DI (SPECIAL)		F					14				7		2					
	F	DRAIN CULVERT	38, 37	CHANNEL				264			110	18								
		GRP APRON							41				17							
	43	DI(SPECIAL) INT. DITCH		G					14				7		2					
	42	DI (SPECIAL)		G					14				7		2					
	G	DRAIN CULVERT	43, 42	CHANNEL				269			112	19								
		GRP APRON							41				17							
C6.1		DRAINAGE CHANNEL	0+00	17+00																
C6.2		DRAINAGE CHANNEL	17+00	47+00																
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
C6.3		DRAINAGE CHANNEL	47+00	57+10																
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
		DROP STRUCTURE												389						
SUB-TOTAL THIS SHEET							263	533	197	84	662	114	122	4279	12					
TOTAL						1213	263	263	533	281	140	847	144	184	4279	20				

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No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	