

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)R	2023	ADD.38	40

GUARDRAIL SUMMARY - BASE BID (MAKAI "OCEAN" SIDE)									
Project Guardrail Segment	Guardrail Type MGS (LF) (a)	Strong Post Thrie-Beam (LF) (a)	Type MGS Trans. Section (d)	End Terminal Treatment					Remarks (h)
				MASH Type A (e)	Modified Type 1-A (e)	MFLT (TL-3) (f)	MSKT-SP-MGS8 (TL-3) (e)	Trailing-End Anchorage System (g)	
Sta 65+15± to 72+65± Lt. (b)	662.5			1		1			100' Type MGS with 8-Ft. Posts
Sta 72+85± to 79+85± Lt.	625.0			1				1	
Sta 81+20± to 83+55± Lt. (b)	137.5			1			1		100' Type MGS with 8-Ft. Posts
Sta 85+25± to 93+25± Lt.	712.5			1		1			
Sta 93+60± to 94+85± Lt.	50.0				1			1	
Sta 97+70± to 103+45± Lt.	475.0			1	1				
Sta 105+95± to 108+95± Lt.	200.0			2					
Sta 371+75± to 376+65± Rt.	400.0			1		1			
Sta 365+15± to 371+45± Rt.	562.5				1			1	
Sta 355+95± to 364+05± Rt.	712.5				2				
Sta 346+00± to 352+10± Rt.	200.0	325.0			1	1			Thrie-Beam length includes transitions
Sta 334+40± to 345+00± Rt.	887.5	100.0			1			1	Thrie-Beam length includes transitions
Sta 327+45± to 332+05± Rt.	362.5				2				
Sta 320+70± to 323+55± Rt.	187.5				2				
Sta 316+20± to 318+30± Rt.	112.5				2				
Sta 309+20± to 315+05± Rt. (b)	487.5				2				100' Type MGS with 8-Ft. Posts
Sta 303+70± to 307+05± Rt.	237.5				2				
Sta 297+20± to 300+30± Rt.	212.5				2				
Sta 290+45± to 295+55± Rt.	412.5			1	1				
Sta 286+45± to 290+05± Rt.	262.5			2					
Sta 279+85± to 284+05± Rt.	325.0			1	1				
Sta 270+55± to 277+80± Rt.	625.0				2				
Sta 261+45± to 265+55± Rt.	312.5			1	1				
Sta 251+85± to 255+12± Rt.	237.5		1		1				Exist. trailing end terminal to remain (19')
Sta 244+80± to 247+05± Rt.	125.0				2				
Sta 235+85± to 240+85± Rt.	400.0				2				
Sta 224+70± to 234+05± Rt.	837.5				1		1		
Base Bid (Makai) - Sub-Totals:	10,762.5	425.0	1	13	30	4	2	4	
⚠ Totals plus 10% Contingency:	11,850.0	475.0	1	14	33	4	2	4	

- ⚠
- (a) Length rounded up to nearest 12.5-Foot increment

(b) Includes Type MGS with 8-Ft. Posts

(c) Includes Thrie-Beam with 8 Ft. Posts

(d) Type MGS transition section (±25 LF, Each)

(e) Average limit of payment (±50 LF, Each)

(f) Average limit of payment (±40.0 LF, Each)

(g) Average limit of payment (±25 LF, Each)

(h) Length of existing end treatments estimated

⚠

~~(i) Bid Alternative Sub-Totals include 10% Contingency~~

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	3/23
	TRACED BY	
	NOTED BY	
NOTE WORK	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

⚠	4-13-23	Delete Totals Plus 10% Contingency Quantities
	4-13-23	Delete Footnote (i)
⚠	DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL SUMMARY

HONOAPIILANI HIGHWAY
GUARDRAIL & SHOULDER IMPROVEMENTS
Vicinity of North Kihei Road to Hononana
Federal-Aid Project No. STP-030-1(058)R

Date: March, 2023

SHEET No. 1 OF 2 SHEETS

SURVEY PLOTTED BY
DATE: 9/22

ORIGINAL
PLAN

DRAWN BY
LH

NOTED WORK
mei,lay

QUANTITIES BY
mei,lay

CHECKED BY
mei,lay

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)R	2023	ADD.39	40

GUARDRAIL SUMMARY - BASE BID (MAUKA "MOUNTAIN" SIDE)									
Project Guardrail Segment	Guardrail Type MGS (LF) (a)	Strong Post Thrie-Beam (LF) (a)	Type MGS Trans. Section (d)	End Terminal Treatment					Remarks (h)
				MASH Type A (e)	Modified Type I-A (e)	MFLT (TL-3) (f)	MSKT-SP-MGS8 (TL-3) (e)	Trailing-End Anchorage System (g)	
Sta 69+55± to 71+30± Rt.	75.0			2					
Sta 75+45± to 77+45± Rt.	100.0			2					
Sta 80+75± to 83+25± Rt. (b)	150.0			2					50.0' Type MGS with 8-Ft. Posts
Sta 98+95± to 103+45± Rt. (b)	350.0			1	1				100.0' Type MGS with 8-Ft. Posts
Sta 371+90± to 375+75± Lt.	300.0			1		1			
Sta 365+95± to 367+55± Lt.	62.5				2				
Sta 363+20± to 364+05± Lt.	0.0				2				
Sta 355+95± to 360+05± Lt.	312.5				2				
Sta 347+50± to 350+75± Lt. (c)	0.0	325.0							50.0' Thrie-Beam with 8-Ft. Posts/New Connectors
Sta 335+95± to 338+05± Lt.	112.5				2				
Sta 327+45± to 329+05± Lt.	62.5			1	1				
Sta 321+20± to 324+30± Lt.	212.5				2				
Sta 309+45± to 314+30± Lt.	387.5				2				
Sta 304+75± to 306+30± Lt.	62.5				2				
Sta 298+45± to 300+05± Lt.	62.5				2				
Sta 286+95± to 289+55± Lt.	162.5				2				
Sta 279+95± to 283+05± Lt.	212.5				2				
Sta 270+95± to 272+45± Lt.	50.0				2				
Sta 262+45± to 263+20± Lt.	0.0				2				
Sta 258+30± to 259+90± Lt.	75.0		1		1				Exist. end terminal to remain (19')
Sta 253+95± to 255+12± Lt.	25.0		1		1				Exist. end terminal to remain (19')
Sta 225+85± to 228+10± Lt.	125.0				1		1		
Base Bid (Mauka) - Sub-Totals:	2,900.0	325.0	2	9	29	1	1	0	⚠
-Totals plus 10% Contingency:	3,200.0	362.5	2	10	32	1	1	0	

GUARDRAIL SUMMARY (ADDITIVE ALTERNATE #1)									
Project Guardrail Segment	Guardrail Type MGS (LF) (a)	Strong Post Thrie-Beam (LF) (a)	Type MGS Trans. Section (d)	End Terminal Treatment					Remarks (h)
				MASH Type A (e)	Modified Type I-A (e)	MFLT (TL-3) (f)	MSKT-SP-MGS8 (TL-3) (e)	Trailing-End Anchorage System (g)	
Sta 78+00± to 86+60± Lt.	800.0		1			1			Connect new guardrail to exist. guardrail section
Sta 131+60± to 146+40± Lt.	1,412.5						1	1	
Sta 143+75± to 144+85± Rt.	50.0					1		1	
Sta 146+80± to 154+50± Lt.	712.5					1		1	
Sta 156+00± to 169+00± Lt.	1,237.5					1		1	
Sta 176+50± to 181+00± Lt.	375.0						1	1	
Sta 200+50± to 234+50± Lt.	3,337.5					1		1	
Totals:	7,925.0	0	1	0	0	5	2	6	⚠
-Totals plus 10% Contingency:	8,725.0	0	1	0	0	6	2	7	

(a) Length rounded up to nearest 12.5-Foot increment
(b) Includes Type MGS with 8-Ft. Posts
(c) Includes Thrie-Beam with 8 Ft. Posts
(d) Type MGS transition section (±25 LF, Each)
(e) Average limit of payment (±50 LF, Each)
(f) Average limit of payment (±40.0 LF, Each)
(g) Average limit of payment (±25 LF, Each)
(h) Length of existing end treatments estimated
~~(i) Bid Alternative Sub-Totals include 10% Contingency~~

GUARDRAIL SUMMARY (TOTAL QUANTITIES) ⚠									
Project Guardrail Segment (i) ⚠	Guardrail Type MGS (LF) (a)	Strong Post Thrie-Beam (LF) (a)	Type MGS Trans. Section (d)	End Terminal Treatment					
				MASH Type A (e)	Modified Type I-A (e)	MFLT (TL-3) (f)	MSKT-SP-MGS8 (TL-3) (e)	Trailing-End Anchorage System (g)	
Base Bid Sub-Totals:	13,662.5	750.0	3	22	59	5	3	4	
Additive Alternate #1 Bid Sub-Totals:	7,925.0	0.0	1	0	0	5	2	6	
Totals:	21,587.5	750.0	4	22	59	10	5	10	

⚠	4-13-23	Delete Totals Plus 10% Contingency Quantities
⚠	4-13-23	Delete Footnote (i)
⚠	4-13-23	Revise Quantities In Guardrail Summary (Total Quantities) Table
DATE	REVISION	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
GUARDRAIL SUMMARY
HONOAPIILANI HIGHWAY GUARDRAIL & SHOULDER IMPROVEMENTS Vicinity of North Kihei Road to Hononana Federal-Aid Project No. STP-030-1(058)R
Date: March, 2023
SHEET No. 2 OF 2 SHEETS