

GUARDRAIL SUMMARY (BASE BID)									
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 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 - 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 7/22
	DRAWN BY <u>X</u> _____		
	TRACED BY _____		
	DESIGNED BY <u>LH</u> _____		
NOTE BOOK mei,jay	QUANTITIES BY _____		_____
	CHECKED BY _____		

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)
Date: July, 2022

SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-030-1(058)	2022	38	38

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 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. (b)	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		
Additive Alternate #1 - 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 #2)									
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+50± to 84+75± Lt.	575.0		2						Connect new guardrail to exist. guardrail sections
Sta 131+60± to 142+00± Lt.	1000.0		1					1	
Sta 161+60± to 165+00± Lt.	275.0					1		1	
Sta 200+50± to 234+50± Lt.	3,325.0						1	1	
Additive Alternate #2 - Sub-Totals:	5,175.0	0	3	0	0	1	1	3	
Totals plus 10% Contingency:	5,700.0	0	3	0	0	1	1	3	

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:	11,850.0	475.0	1	14	33	4	2	4
Additive Alternate #1 Bid Sub-Totals:	3,200.0	362.5	2	10	32	1	1	0
Additive Alternate #2 Bid Sub-Totals:	5,700.0	0.0	3	0	0	1	1	3
Totals:	20,750.0	837.5	6	24	65	6	4	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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL SUMMARY

HONOAPIILANI HIGHWAY

GUARDRAIL # SHOULDER IMPROVEMENTS

Vicinity of North Kihei Road to Hononana

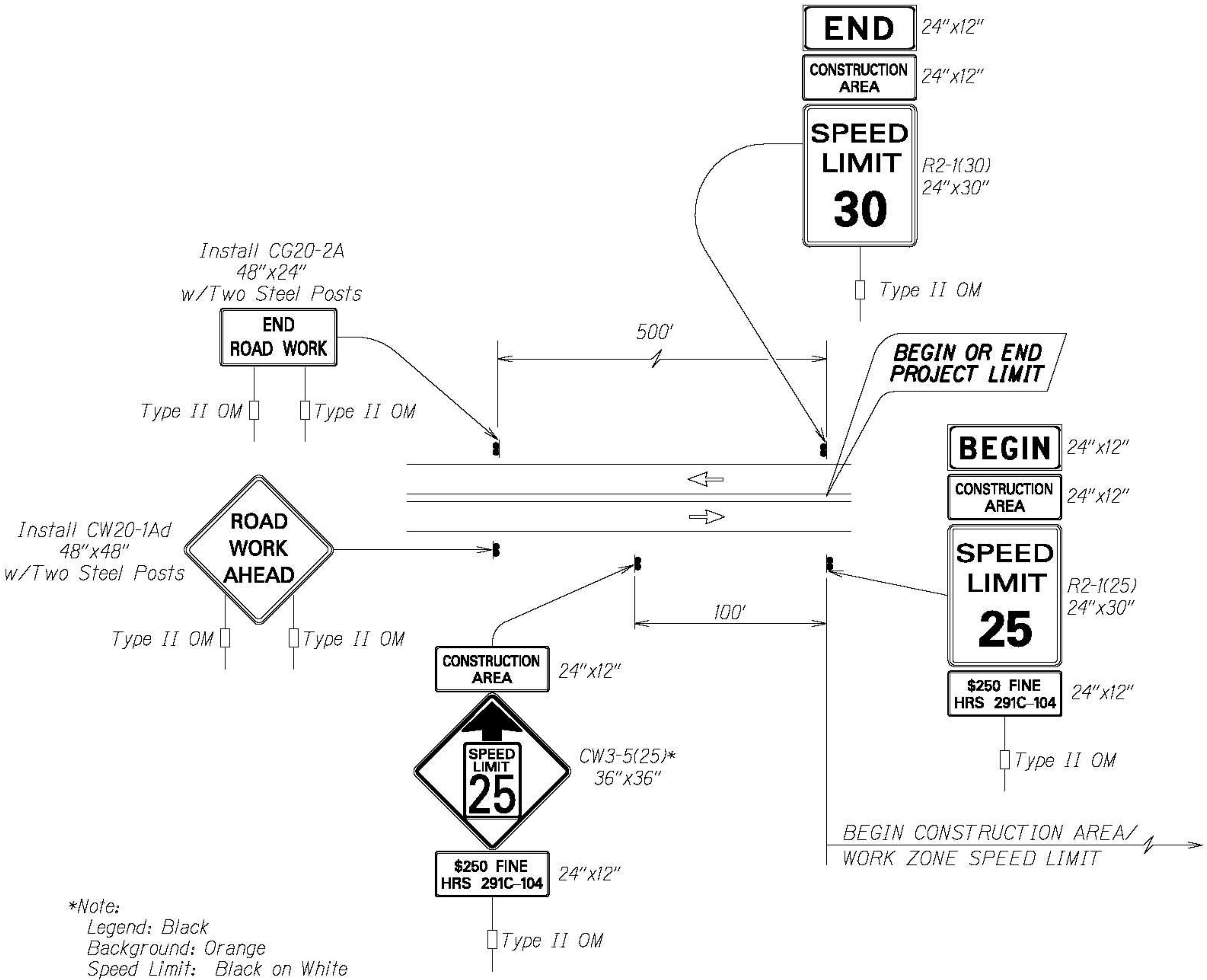
Federal-Aid Project No. STP-030-1(058)

Date: July, 2022

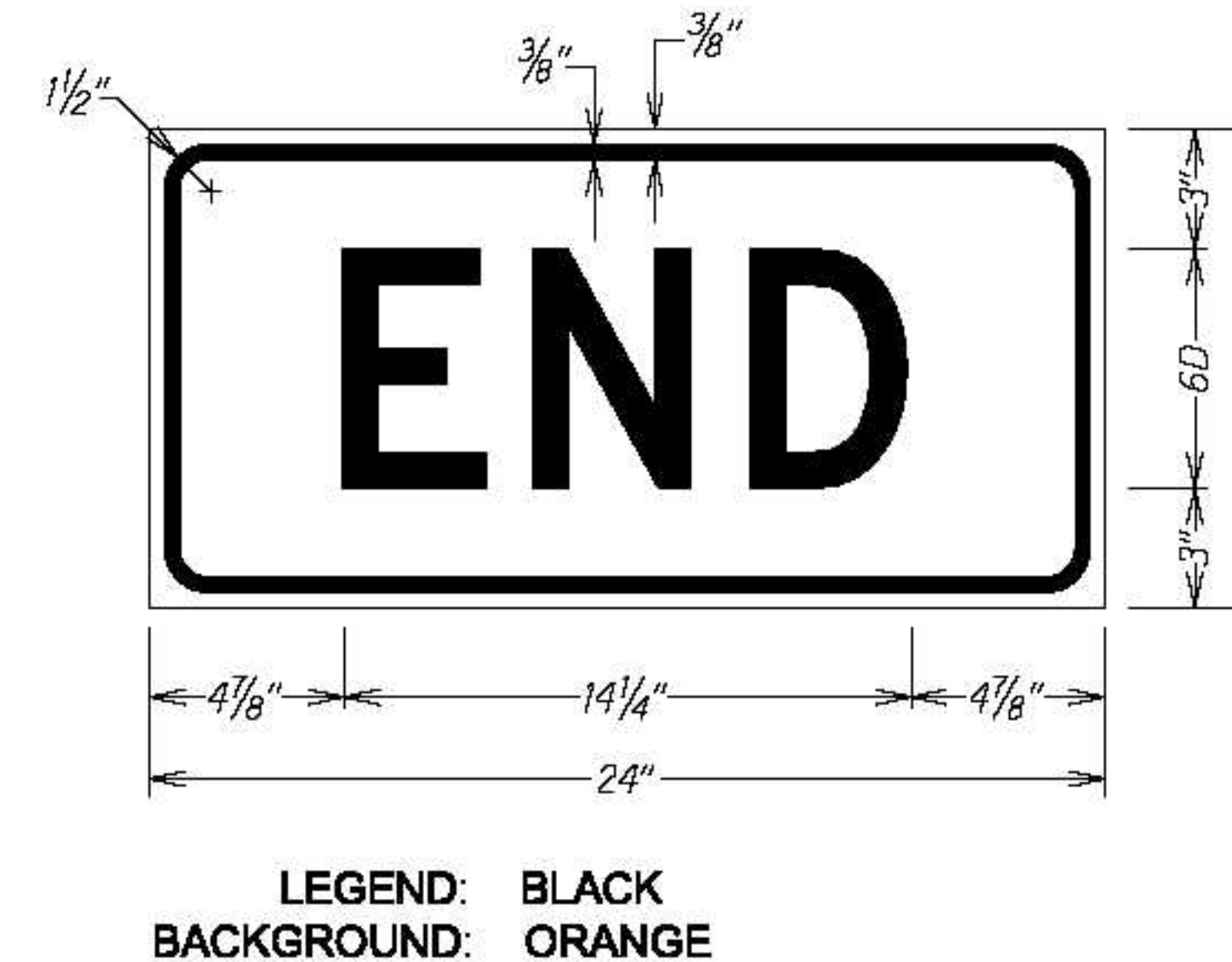
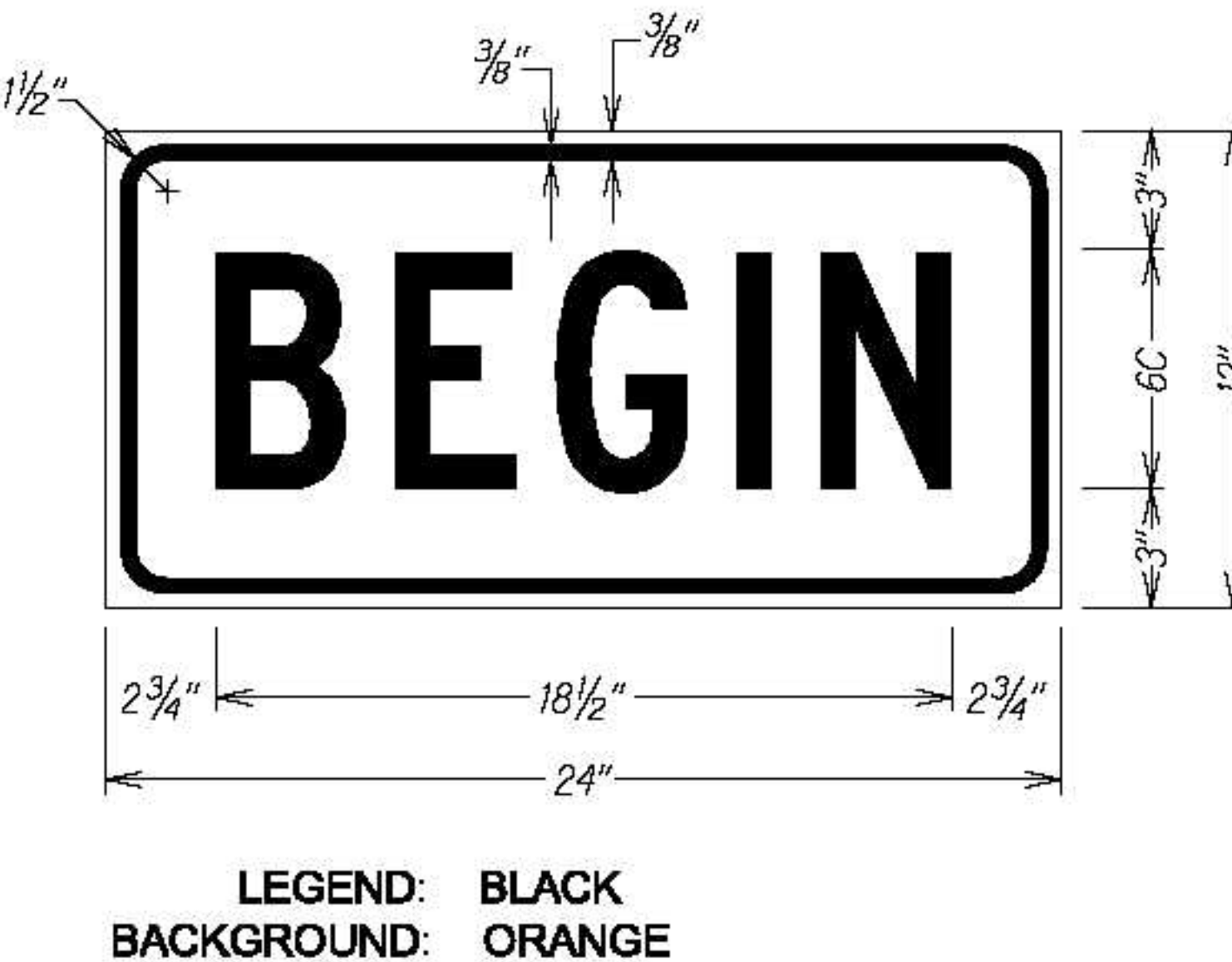
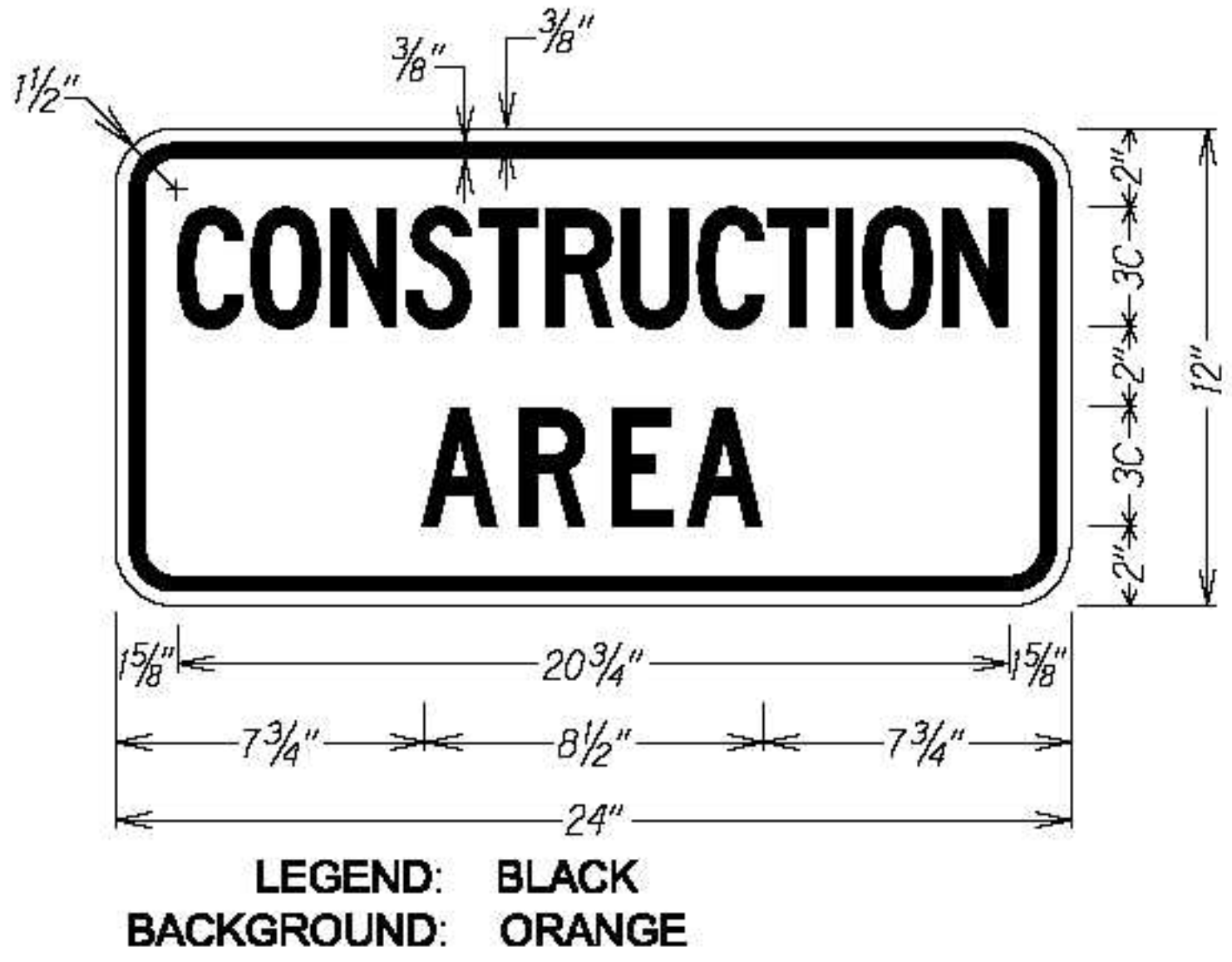
SHEET No. 2 OF 2 SHEETS

- Work Zone Note:
- Contractor shall submit a Traffic Control Plan (TCP) at least 15 working days before the start of work per Section 645 of the Standard Specifications.
 - This Work Zone Sign Plan is intended for use on long-term stationary work zones/construction phases (3 days or more). All work zones or construction phases less than 3 days duration will use Traffic Control Plans shown in Section 645 of the Standard Specifications.
 - All existing regulatory speed limit signs with posts within the work zone/project limits shall be removed and replaced with work zone speed limit sign assemblies (R2-1(25) and R2-5b(25) with "CONSTRUCTION AREA" and "\$250 FINE HRS 291C-104" Supplemental Signs).
 - Construction sign assemblies shall be installed on both the approaching and trailing ends of each work zone as shown on this plan.
 - Each construction warning sign shall have a minimum of two (2) Type II OM. Each work zone speed limit assembly shall have a minimum of one (1) Type II OM. Installation of each Type II OM shall be considered incidental to Item No. 631.3000, Construction Sign with Post.
 - Upon the completion of all physical work or as directed by the Engineer, all construction signs and work zone speed limit assemblies shall be removed. All speed limit signs and posts that were existing at the start of the project within the work zone/project limits shall be restored back to their original locations and configurations.
 - Placement of construction signs shall not obstruct the path of pedestrians and bicyclists.
 - The removal and restoration of existing regulatory speed limit signs shall be considered incidental to Item No. 631.3000, Construction Sign with Post.
 - The installation, maintenance and removal of work zone speed limit sign assemblies shall be paid for under Item No. 631.3000, Construction Sign with Post.
 - The work zone speed limit signs shall be new and become the property of the Contractor.

TABLE I GUIDELINE FOR ADVANCE PLACEMENT OF SPEED REDUCTION SIGN CW3-5(XX), CONSTRUCTION AREA SPEED LIMIT		
EXISTING POSTED SPEED LIMIT (MPH)	XX-NEW CONSTRUCTION AREA SPEED LIMIT (MPH)	D-REDUCED SPEED LIMIT SIGN SPACING TO FIRST CONSTRUCTION AREA SPEED LIMIT SIGN (FEET)
≤ 25	EXIST. SPEED LIMIT TO REMAIN	
30	25	100
35	25	175
40	30	175



**TYPICAL DETAIL FOR CONSTRUCTION SIGNS
ON TWO LANE OR MULTILANE UNDIVIDED LOW SPEED HIGHWAY**



8-29-22	Added Sheet No. ADD. 38S-1.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION LOW SPEED UNDIVIDED HIGHWAY WORK ZONE SIGNING PLAN, NOTES & DETAILS HONOAHIKI HIGHWAY GUARDRAIL & SHOULDER IMPROVEMENTS Vicinity of North Kihei Road to Hononana Federal-Aid Project No. STP-030-1(058) Not To Scale Date: August, 2022	
SHEET No. 1 OF 1 SHEETS	