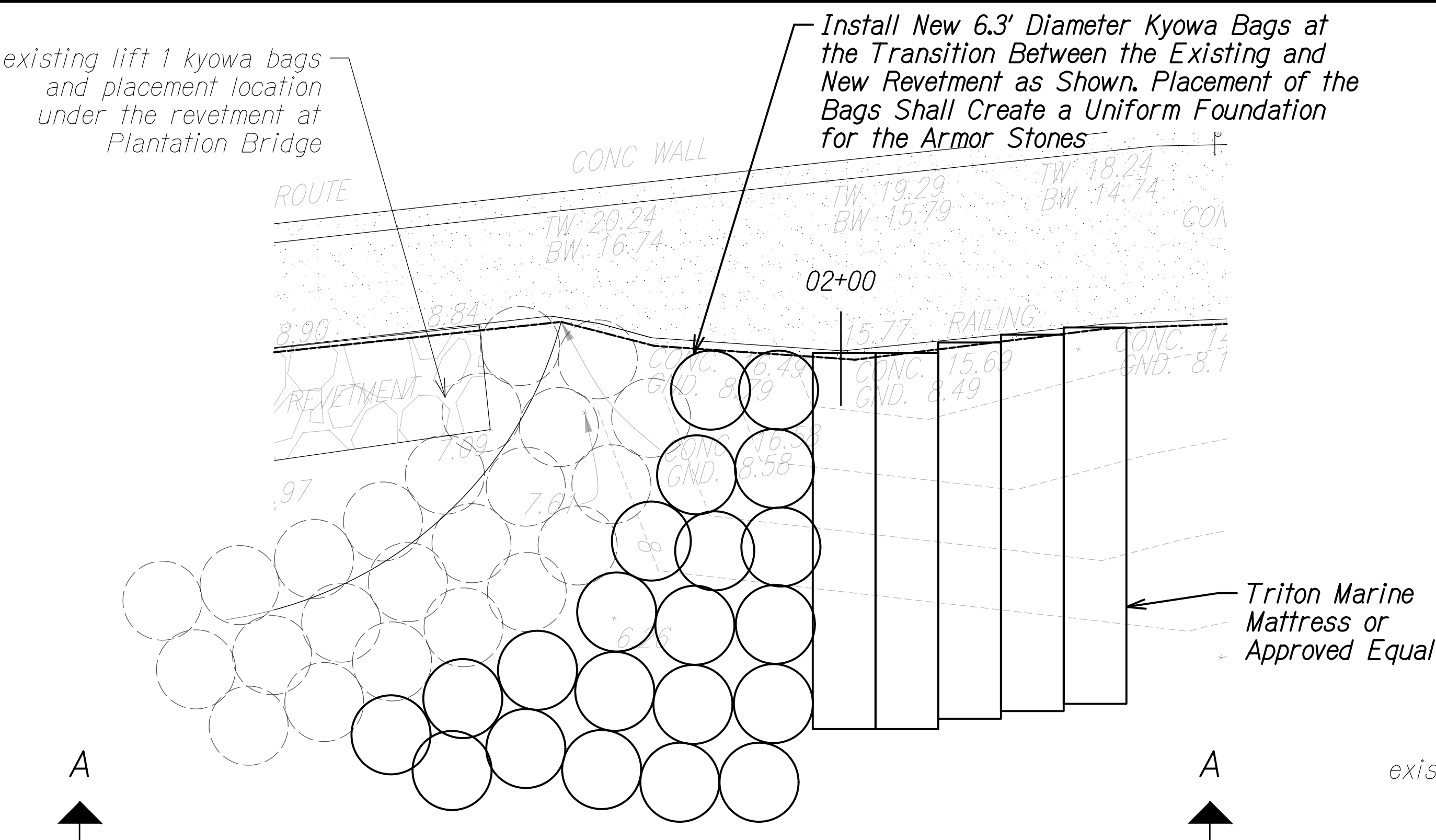
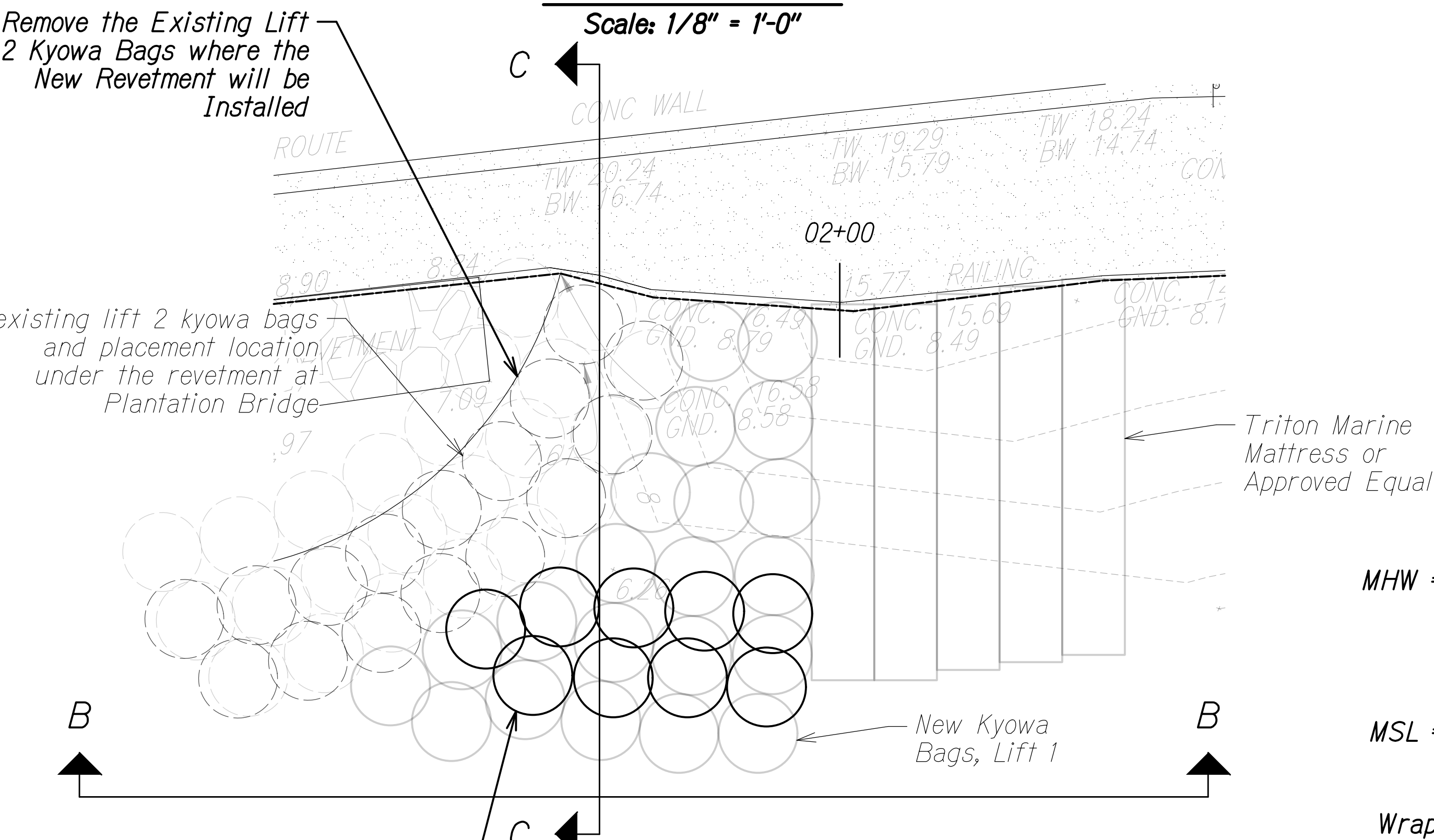


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(004)	2024	23	49



LIFT 1 - PLAN

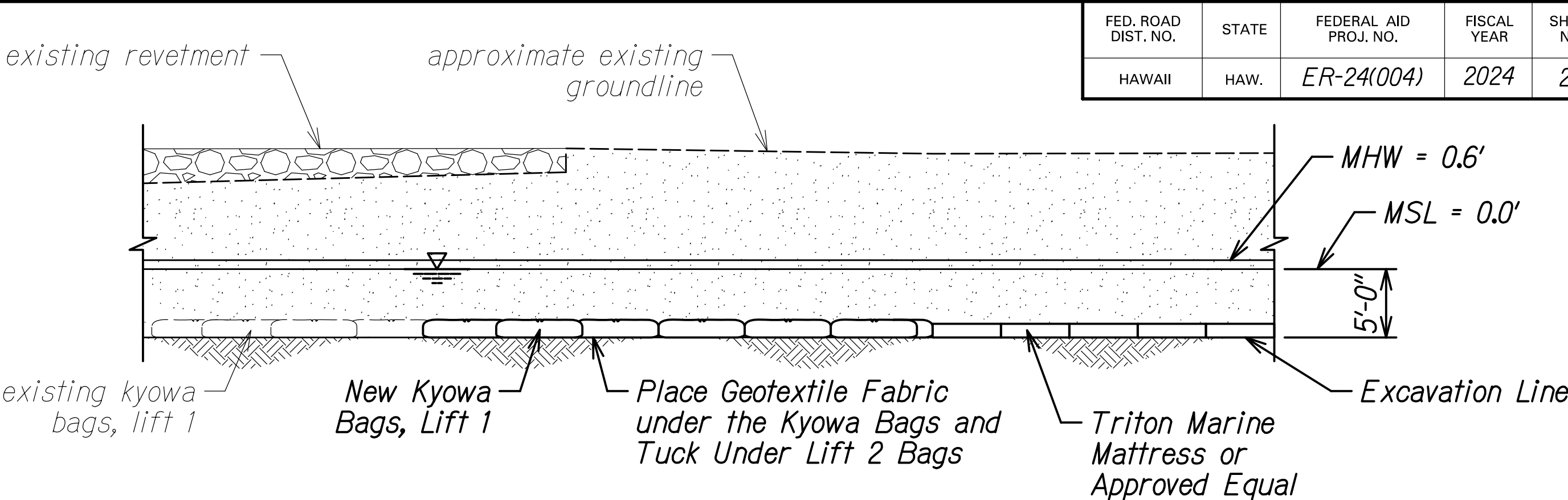
Scale: 1/8" = 1'-0"



LIFT 2 - PLAN

Scale: 1/8" = 1'-0"

Install New 6.3' Diameter Kyowa Bags at the Transition Between the Existing and New Revetment as Shown. Placement of the Bags Shall Create a Uniform Foundation for the Armor Stones

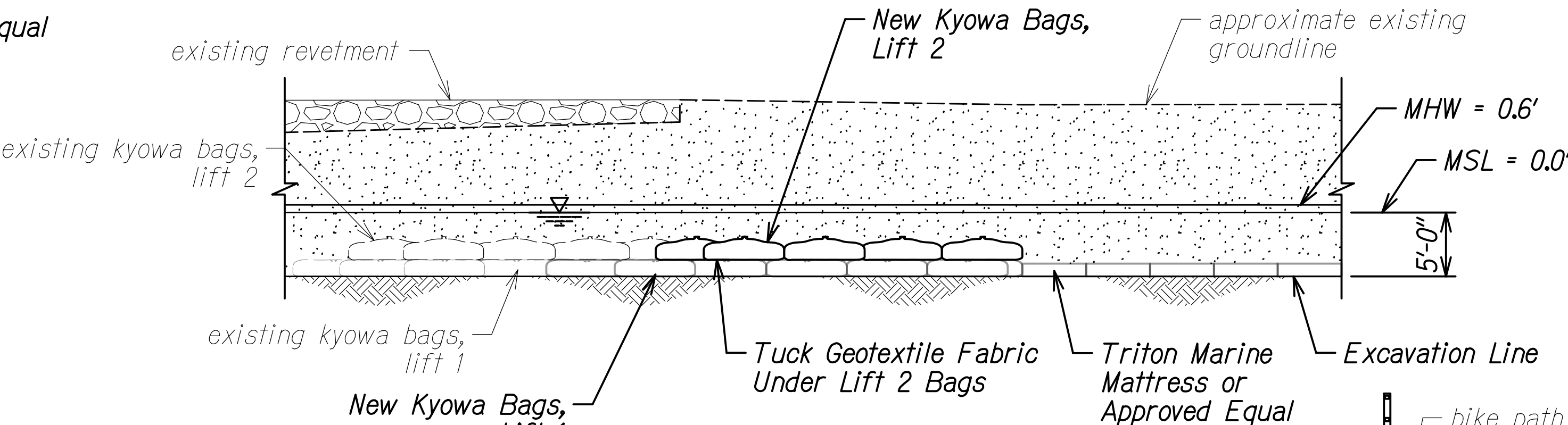


SECTION A-A

Scale: 1/8" = 1'-0"

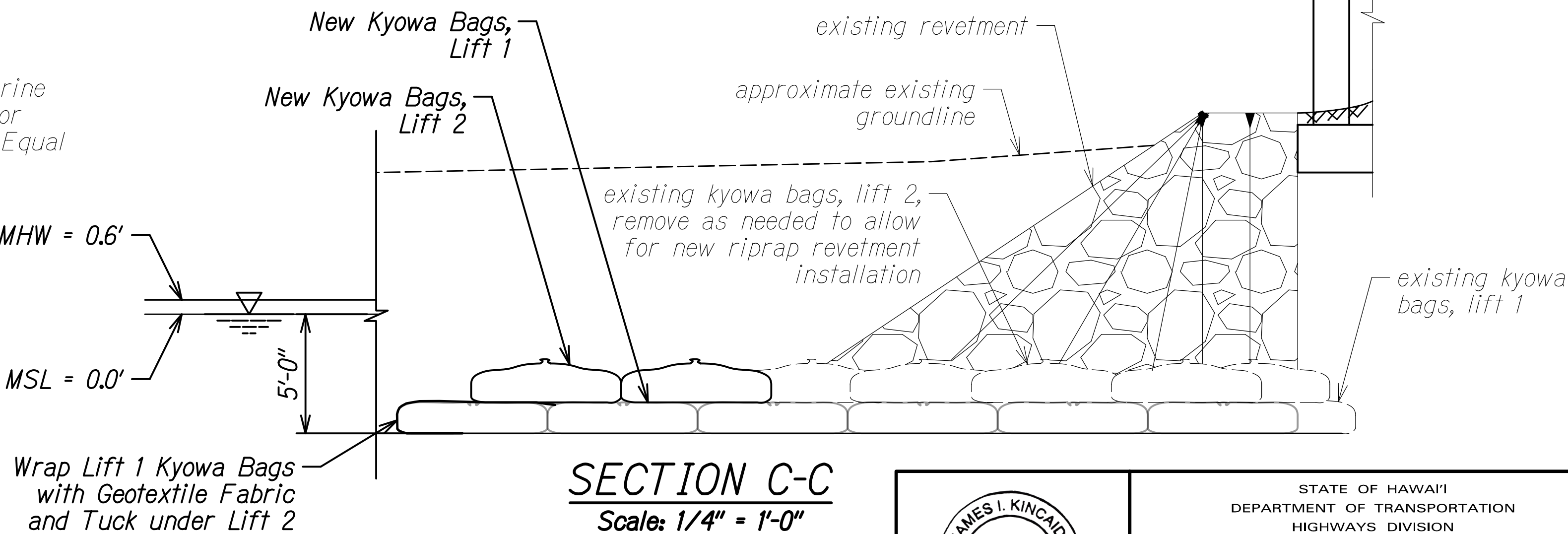
NOTE:

Geotextile Not Needed Under Triton Mattress



SECTION B-B

Scale: 1/8" = 1'-0"

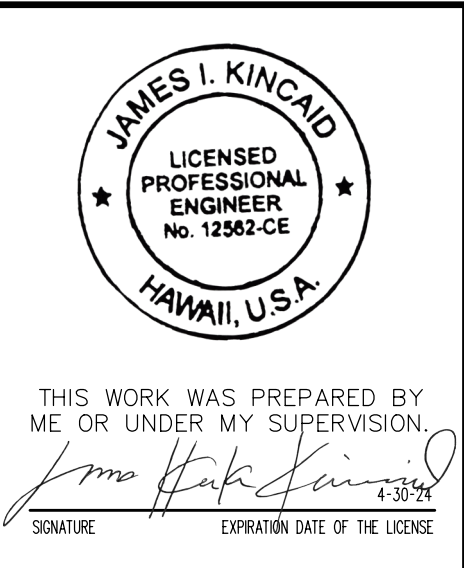


SECTION C-C

Scale: 1/4" = 1'-0"

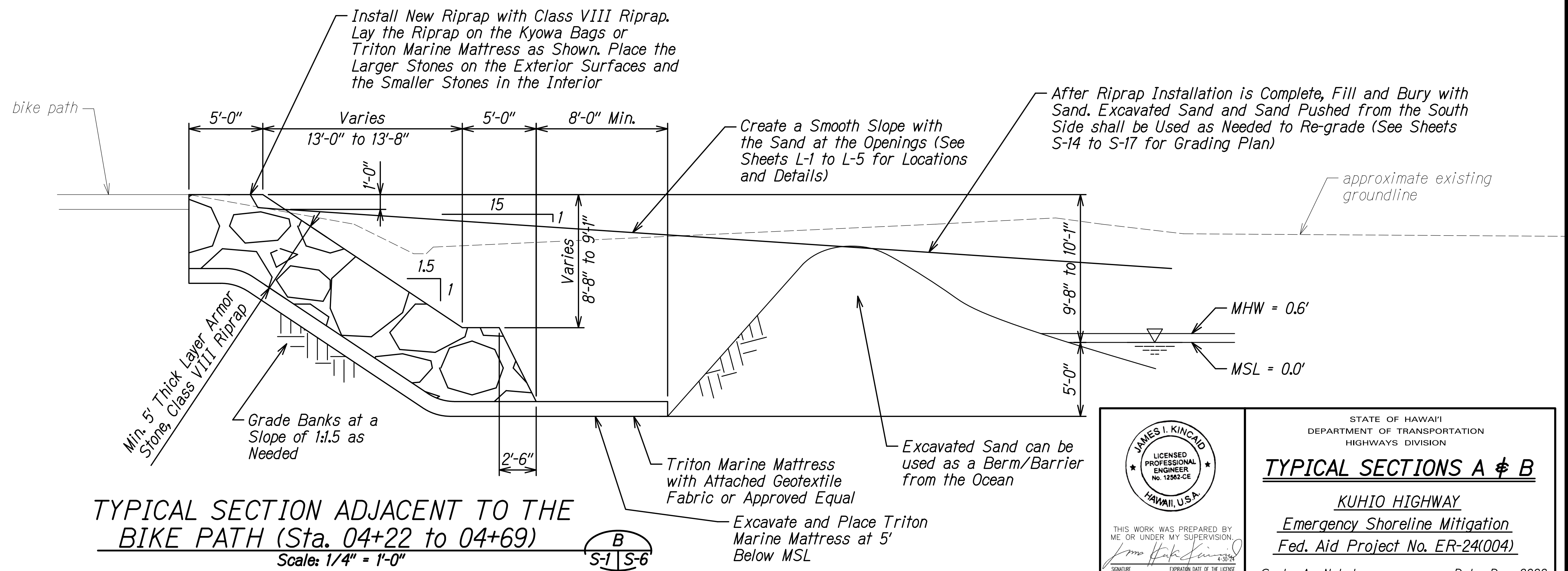
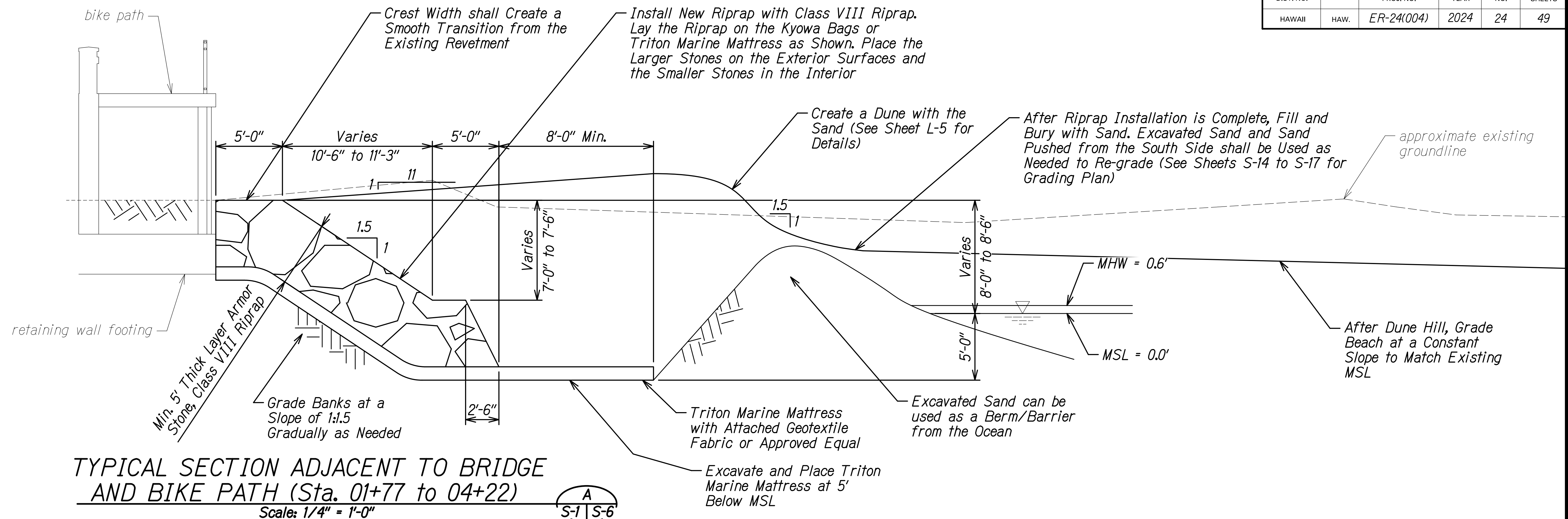
TIE-IN AT STA. 01+77
TRITON MARINE MATTRESS & KYOWA BAG
FOUNDATION LAYOUT

SURVEY PLOTTED BY	DATE
DRAWN BY	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
ORIGINAL PLAN	DATE
NOTE BOOK	DATE
NA	DATE



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
REVETMENT TIE-IN DETAILS -
STATION 01+77
KUHIO HIGHWAY
Emergency Shoreline Mitigation
Fed. Aid Project No. ER-24(004)
Scale: As Noted
Date: Dec. 2023

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(004)	2024	24	49



ORIGINAL PLAN	DATE	DESIGNED BY	CHECKED BY
NOTE BOOK	DATE	DATE	DATE
DATE	DATE	DATE	DATE
DATE	DATE	DATE	DATE

JAMES I. KINCAID

LICENSED PROFESSIONAL ENGINEER

No. 12562-CE

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME, OR UNDER MY SUPERVISION.

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TYPICAL SECTIONS A & B

KUHIO HIGHWAY

Emergency Shoreline Mitigation

Fed. Aid Project No. ER-24(004)

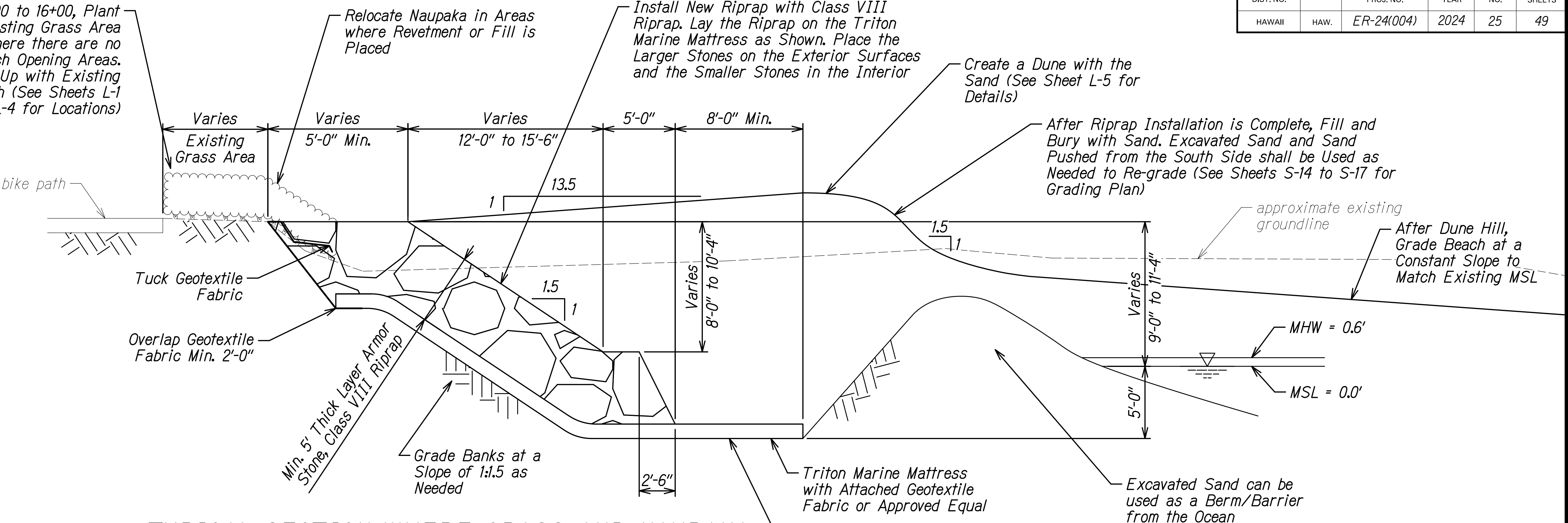
Scale: As Noted

Date: Dec. 2023

SHEET No. S-6 OF 20 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(004)	2024	25	49

Beginning at Sta. 06+00 to 16+00, Plant Naupaka Bush on the Existing Grass Area to Act as a Barrier where there are no Bush, Except in Beach Opening Areas. Naupaka shall Line Up with Existing Naupaka Along Bike Path (See Sheets L-1 to L-4 for Locations)



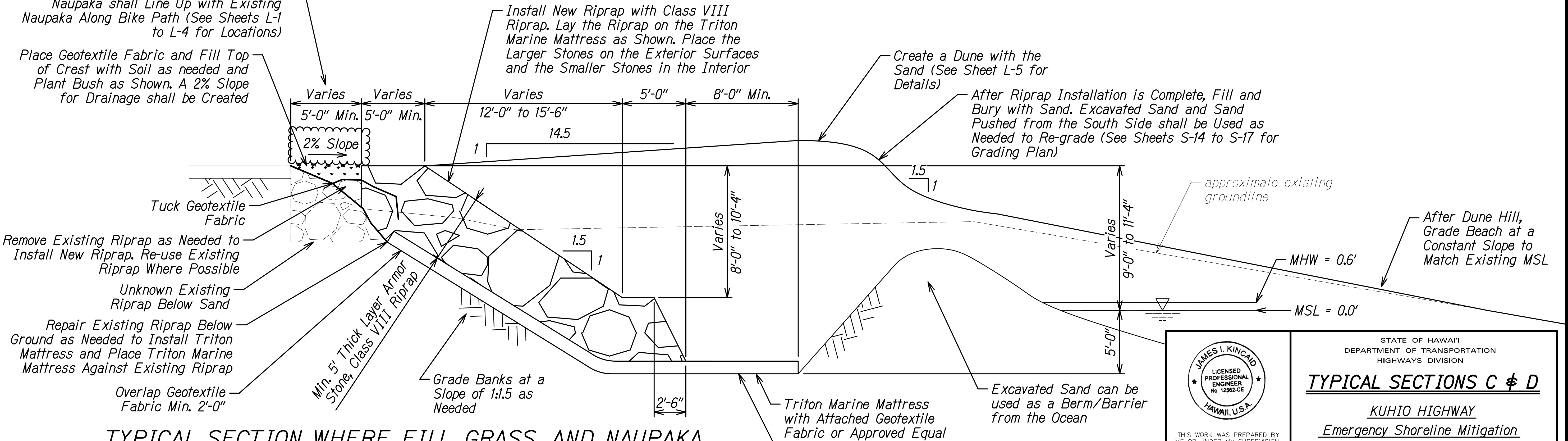
TYPICAL SECTION WHERE GRASS AND NAUPAKA CURRENTLY EXIST (Sta. 04+69 to 16+00)

Scale: 1/4" = 1'-0"

C
S-2 | S-7

Beginning at Sta. 06+00 to 16+00, Plant Naupaka Bush on the Existing Grass Area to Act as a Barrier where there are no Bush, Except in Beach Opening Areas. Naupaka shall Line Up with Existing Naupaka Along Bike Path (See Sheets L-1 to L-4 for Locations)

Place Geotextile Fabric and Fill Top of Crest with Soil as needed and Plant Bush as Shown. A 2% Slope for Drainage shall be Created



TYPICAL SECTION WHERE FILL, GRASS, AND NAUPAKA ARE TO BE INSTALLED (Sta. 04+69 to 16+00)

Scale: 1/4" = 1'-0"

D
S-2 | S-7

ORIGINAL PLAN	DATE	APPROVED BY
DRAWN BY	DATE	DESIGNED BY
NOTE BOOK	DATE	CHECKED BY
NO.	DATE	NO.

THIS WORK WAS PREPARED BY ME, OR UNDER MY SUPERVISION.

Signature: *James I. Kincaid*

EXPIRATION DATE OF THE LICENSE: *12/31/2025*

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SECTIONS C & D

KUHIO HIGHWAY

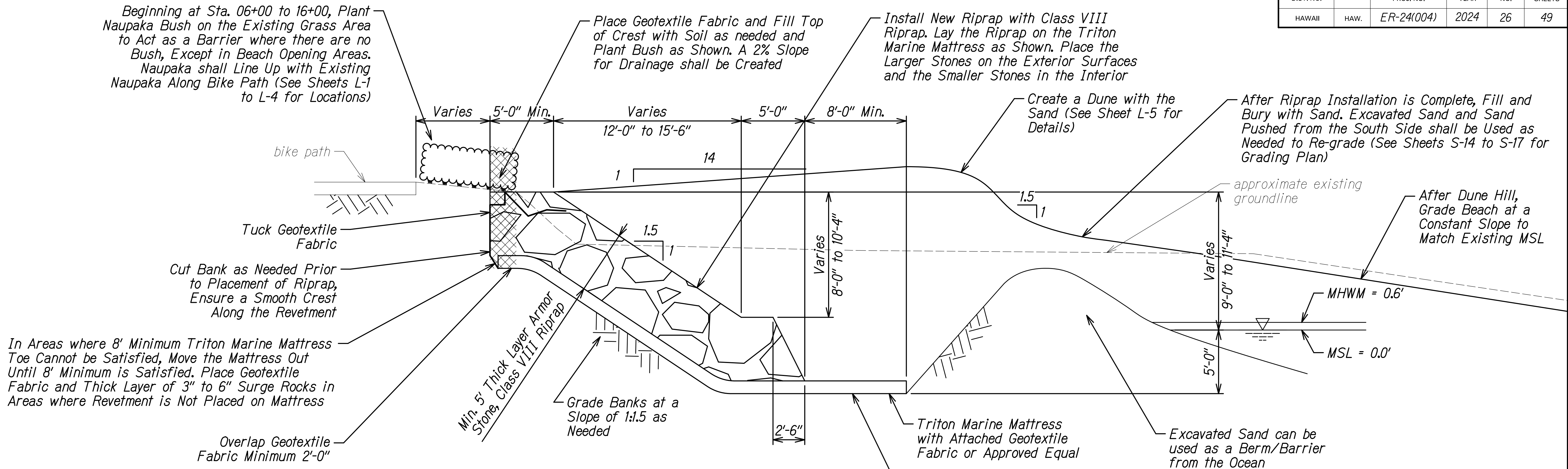
Emergency Shoreline Mitigation

Fed. Aid Project No. ER-24(004)

Scale: As Noted Date: Dec. 2023

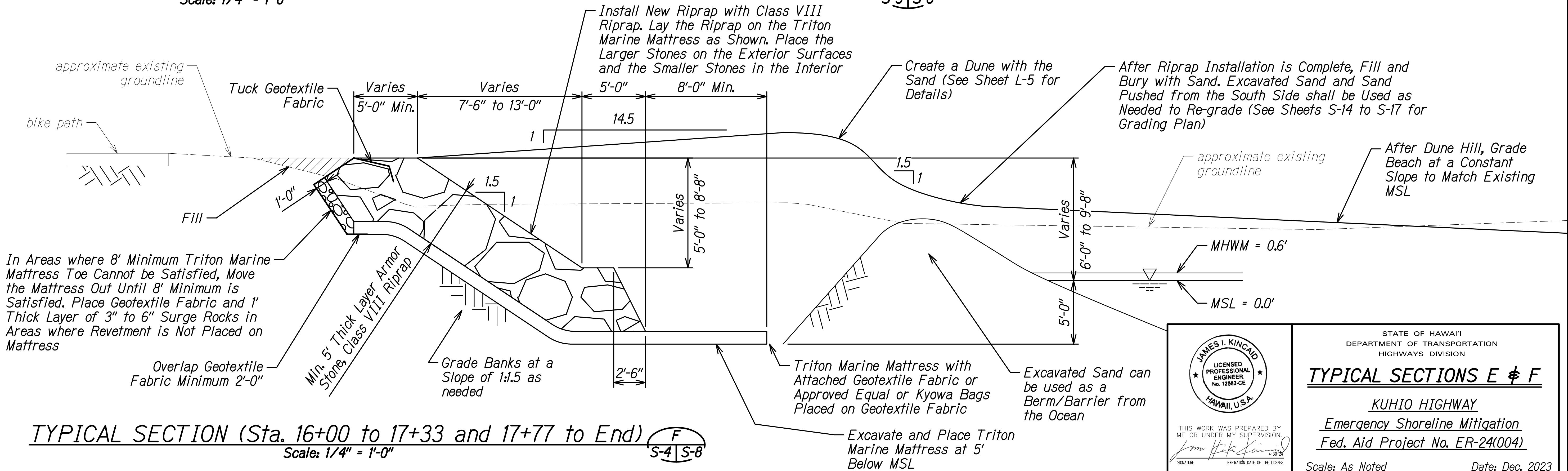
SHEET No. S-7 OF 20 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(004)	2024	26	49



TYPICAL SECTION WHERE THE EXISTING BANK NEEDS TO BE CUT TO MAINTAIN SMOOTH ALIGNMENT (Sta. 04+59 to 16+00)
Scale: 1/4" = 1'-0"

E
S-3 | S-8



TYPICAL SECTION (Sta. 16+00 to 17+33 and 17+77 to End)
Scale: 1/4" = 1'-0"

F
S-4 | S-8

SURVEY PLOTTED BY	DATE
DRAWN BY	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
IN CHARGE	DATE
NOTE BOOK	
NA	

THIS WORK WAS PREPARED BY ME, OR UNDER MY SUPERVISION

James I. Kincaid

SIGNATURE

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SECTIONS E & F

KUHIO HIGHWAY

Emergency Shoreline Mitigation

Fed. Aid Project No. ER-24(004)

Scale: As Noted Date: Dec. 2023

SHEET No. S-8 OF 20 SHEETS

