

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	13	23

STRUCTURAL GENERAL NOTES

CONSTRUCTION SEQUENCE

1. GENERAL SPECIFICATIONS:

A. State of Hawaii Department of Transportation Hawaii Standard Specifications Road and Bridge Construction 2005 together with Special Provisions prepared for this contract.

2. GENERAL:

A. The contract documents are complementary. Any requirement in one document is as binding as though occurring in all. A stricter requirement prevails over any less strict requirement. The stricter requirement will be the requirement that provides the greater product life, durability, strength and function.

B. Existing conditions are shown on the drawings to the best of the designer's knowledge and are intended to aid the contractor during construction. Bridge dimensions, where shown on the drawings, are based on available as-built plans and field measurements. Existing dimensions and elevations shown may not be exact and are provided for information only. Contractor shall field verify all existing dimensions and elevations prior to construction. All discrepancies shall be promptly called to the attention of the Engineer and shall be resolved prior to proceeding with any construction work.

C. Drawings are based on 1929 As-Built drawings and field measurements taken on November 11, 2021.

D. Bridge is posted at 8 tons.

E. No storage of materials or heavy equipment is allowed on the existing bridge.

F. Contractor shall submit for approval construction procedure and equipment list for concrete grout filled concrete fabric bags.

1. Install BMPs.

2. Remove all loose material, soft and otherwise unsuitable subgrade soils, sharp objects and debris from the location of work and properly dispose.

3. Install empty concrete fabric bags into the scour cavity.

4. Install required temporary formwork.

5. Pump concrete grout into concrete fabric bags.

6. Remove BMPs.

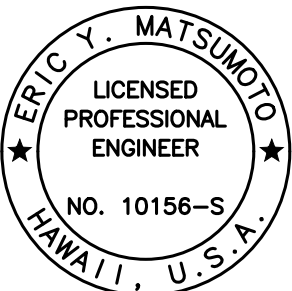
CONSTRUCTION SEQUENCE NOTES

1. Order of Construction Sequence shall not be changed unless approved by the Engineer.

2. Each sequence stage shall be completely finished before proceeding to the next stage unless otherwise noted. The Engineer will be the sole judge of whether the sequence stage is complete, and may direct the Contractor to stop work on a sequence stage to complete work on the preceding sequence stage.

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

DRAWING NAME: Z:\00 ONGONG\21-009 4-NAAILIHALE BR-CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\NSR-50001 GEN NOTES.DWG PLOT TIME: 01-09-23 2:32 PM



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SIGNATURE: Eric Y. Matsumoto  
EXPIRATION DATE OF THE LICENSE: 4-30-24

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

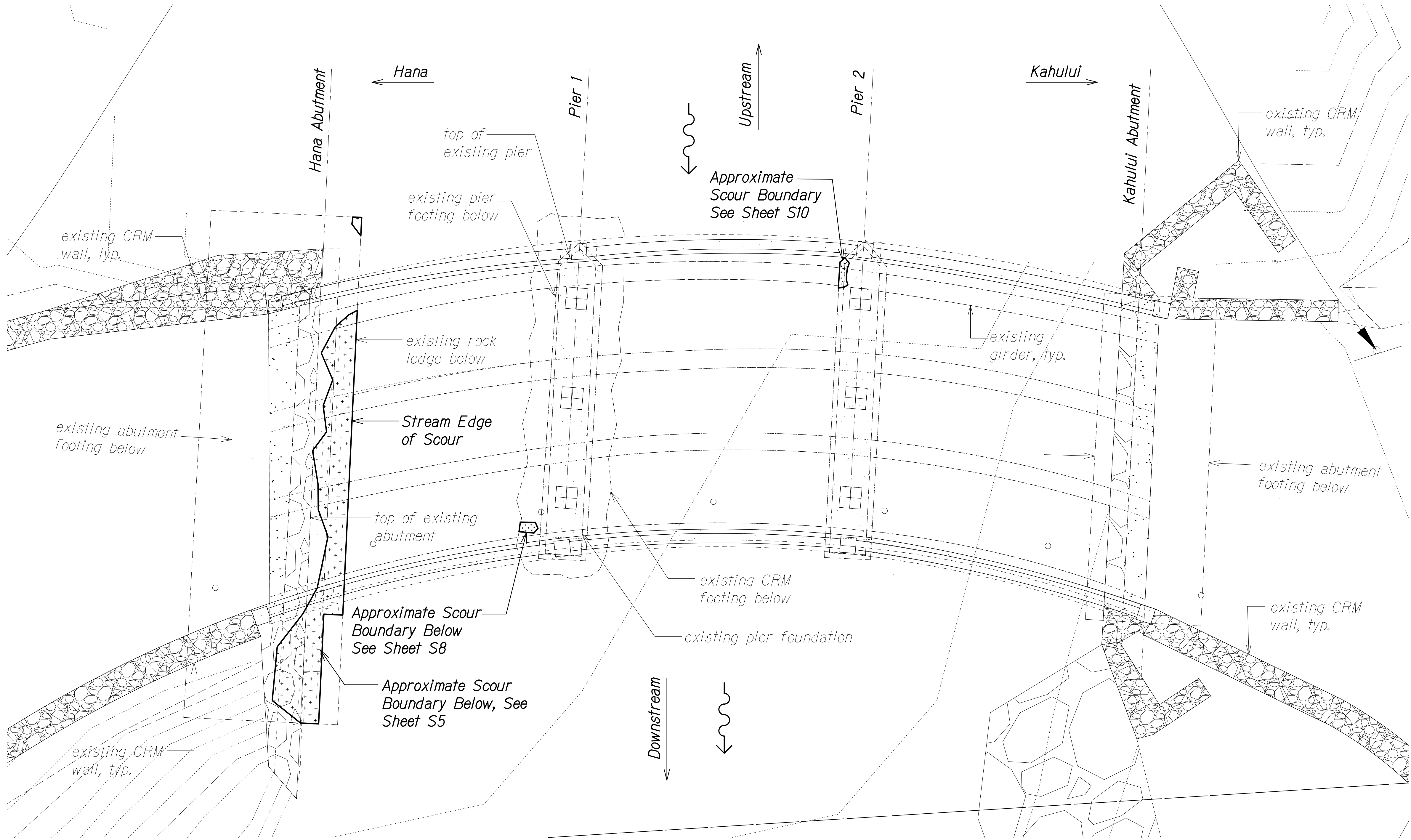
STRUCTURAL GENERAL NOTES  
AND CONSTRUCTION SEQUENCE

NAAILIHALE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)

Scale: None  
Date: Jan. 2023

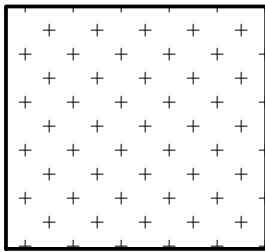
SHEET No. 51 OF 11 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	14	23



**BRIDGE PLAN**  
 Scale: 1/4" = 1'-0"

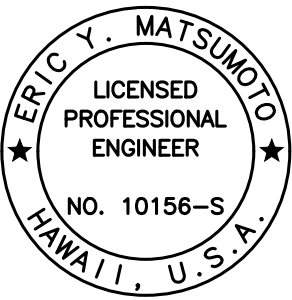
**LEGEND:**



Approximate scour location, based on measurement taken on November 11, 2021, to be filled in its entirety with concrete grout filled concrete fabric bags.

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

DRAWING NAME: Z:\00 ONGONG\21-009 4-NAAILIHALE BR-CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\NSR-S0002 BR PLAN.DWG PLOT TIME: 01-09-23, 2:33 PM)



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*Eric Y. Matsumoto*  
 SIGNATURE  
 4-30-24  
 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

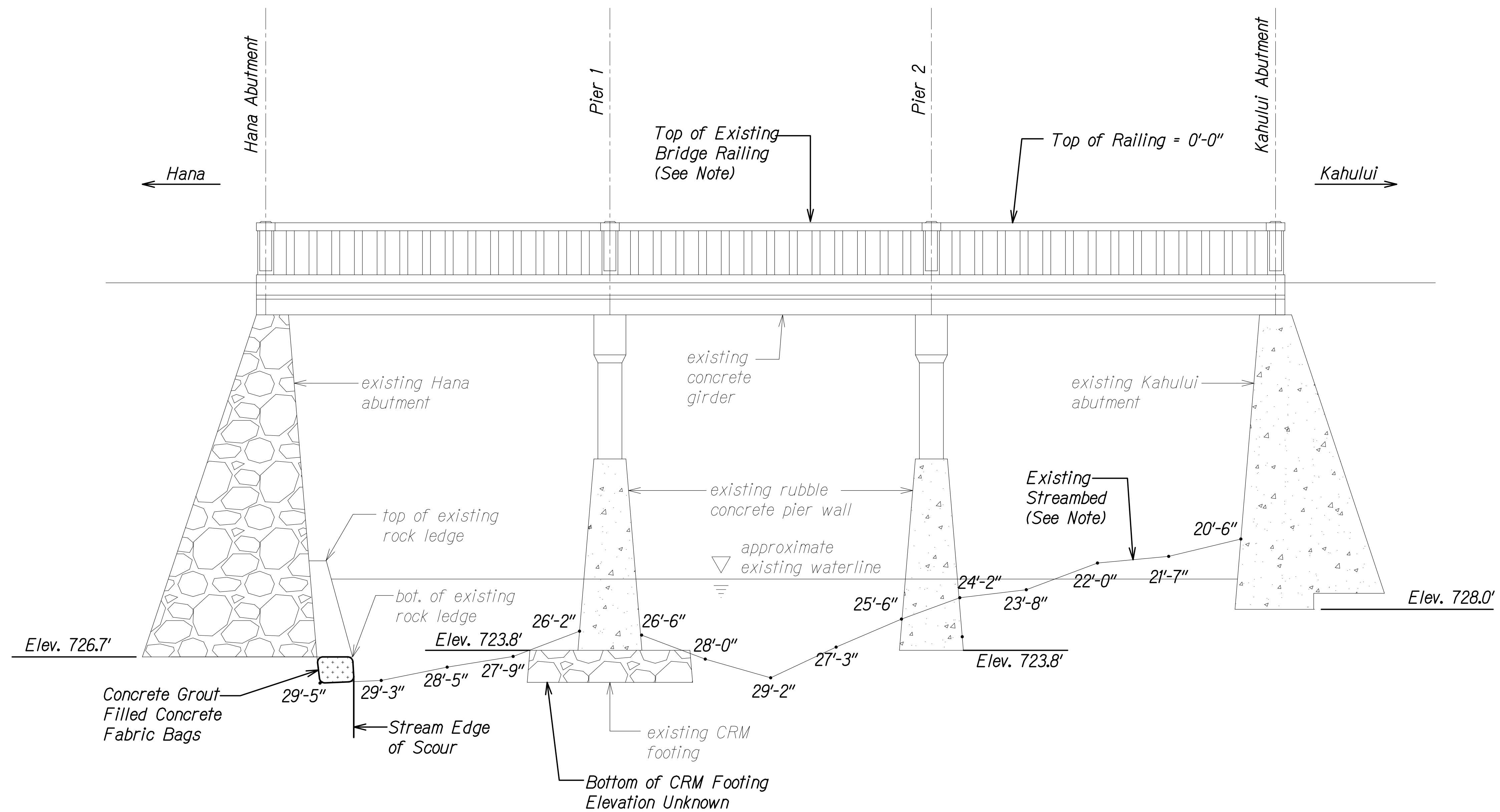
BRIDGE PLAN

NAAILIHALE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)

Scale: As Noted  
Date: Jan. 2023

SHEET No. S2 OF 11 SHEETS

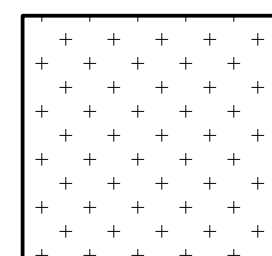
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	15	23



**NOTE:**

Streambed elevations measured from top of existing bridge railing.

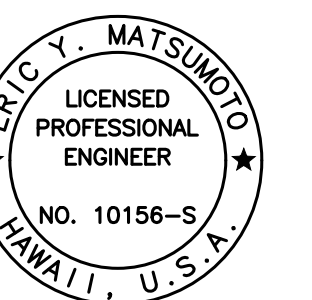
**LEGEND:**



Approximate scour location, based on measurement taken on November 11, 2021, to be filled in its entirety with concrete grout filled concrete fabric bags.

**BRIDGE DOWNSTREAM ELEVATION**

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



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*Eric Y. Matsumoto*  
SIGNATURE  
4-30-24  
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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**BRIDGE DOWNSTREAM ELEVATION**

**NAILILIHAELE STR. BR. EMERGENCY REPAIRS**  
**ROUTE 360, MILE POST 6.2**  
**Fed. Aid Proj. No. ER-24(008)**

Scale: As Noted Date: Jan. 2023

SHEET No. S3 OF 11 SHEETS

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

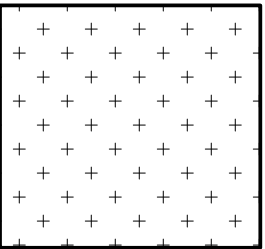
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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	17	23

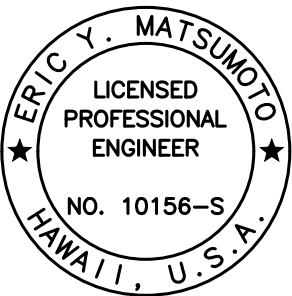
LEGEND:



Approximate scour location, based on measurement taken on November 11, 2021, to be filled in its entirety with concrete grout filled concrete fabric bags.



Station	(Y) High (Inches)	(X) Deep (Inches)
(-) 0+08	8	24
(-) 0+06	10	54
(-) 0+04	12	50
(-) 0+02	16	36
0+00	12	34
0+02	22	26
0+04	16	22
0+06	24	16
0+08	23	26
0+10	24	30
0+12	24	36
0+14	24	24
0+16	16	28
0+18	25	20
0+20	18	26
0+22	0	20
0+28	6	6



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*Eric Y. Matsumoto*  
SIGNATURE  
4-30-24  
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**HANA ABUTMENT FOUNDATION PLAN**

NAILILIHAELE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)

Scale: As Noted      Date: Jan. 2023

SHEET No. S5 OF 11 SHEETS

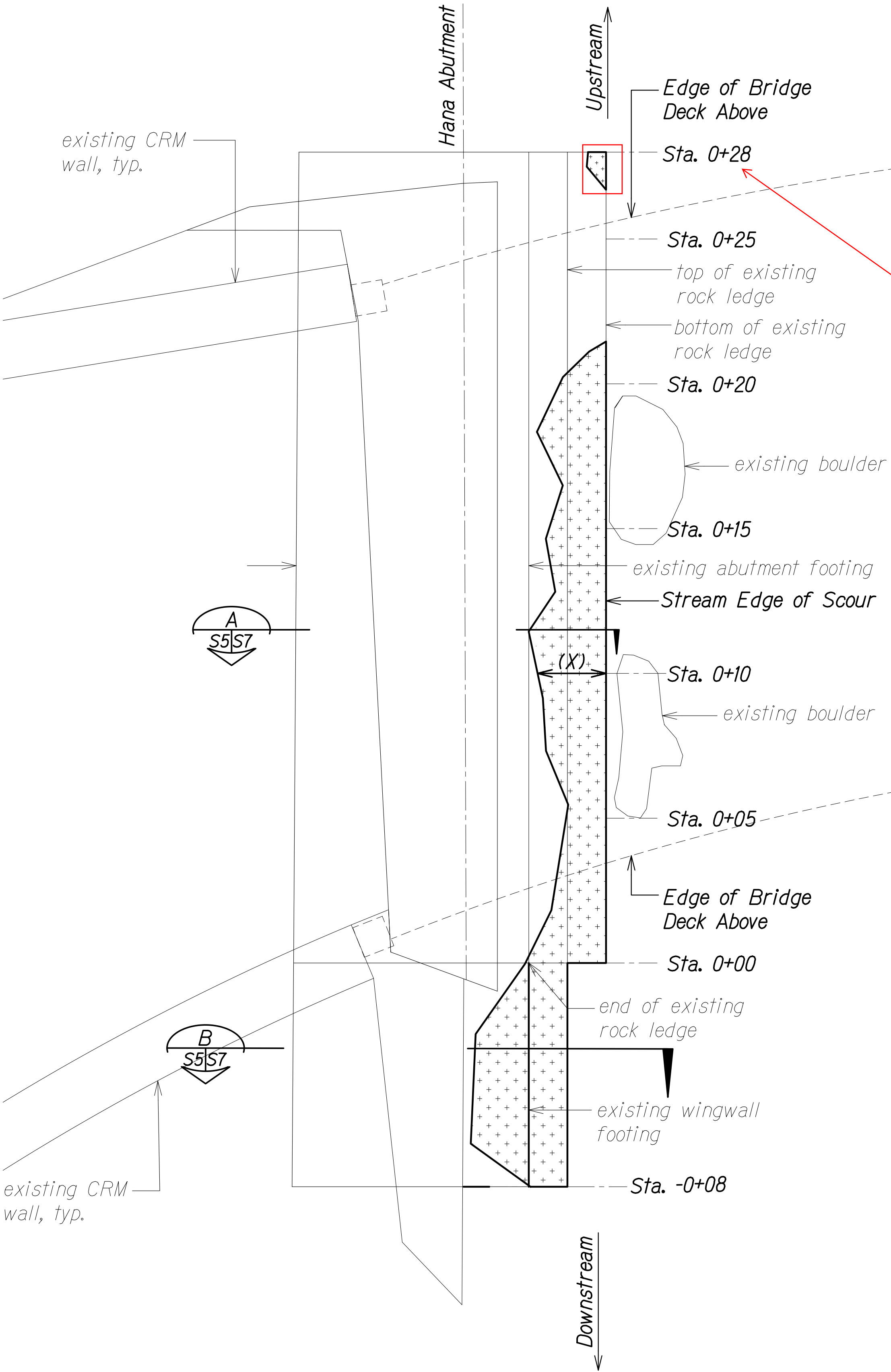
AS-BUILT DRAWINGS

This certifies that the dimensions and details shown on this sheet reflect the dimensions and details and specifications as constructed in the field.

GLOBAL SPECIALTY CONTRACTORS, INC.

*Sgt*      5/14/24  
Signature      Date

HANA ABUTMENT FOUNDATION PLAN  
Scale: 3/8" = 1'-0"



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

DRAWING NAME: Z:\00 ONGONG\21-009 4-NAILILIHAELE BR-CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\NSR-50005 HANA AB FDN PLANDWG PLOT TIME: 01-09-23, 2:34 PM

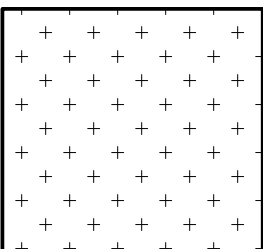
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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	18	23

Downstream

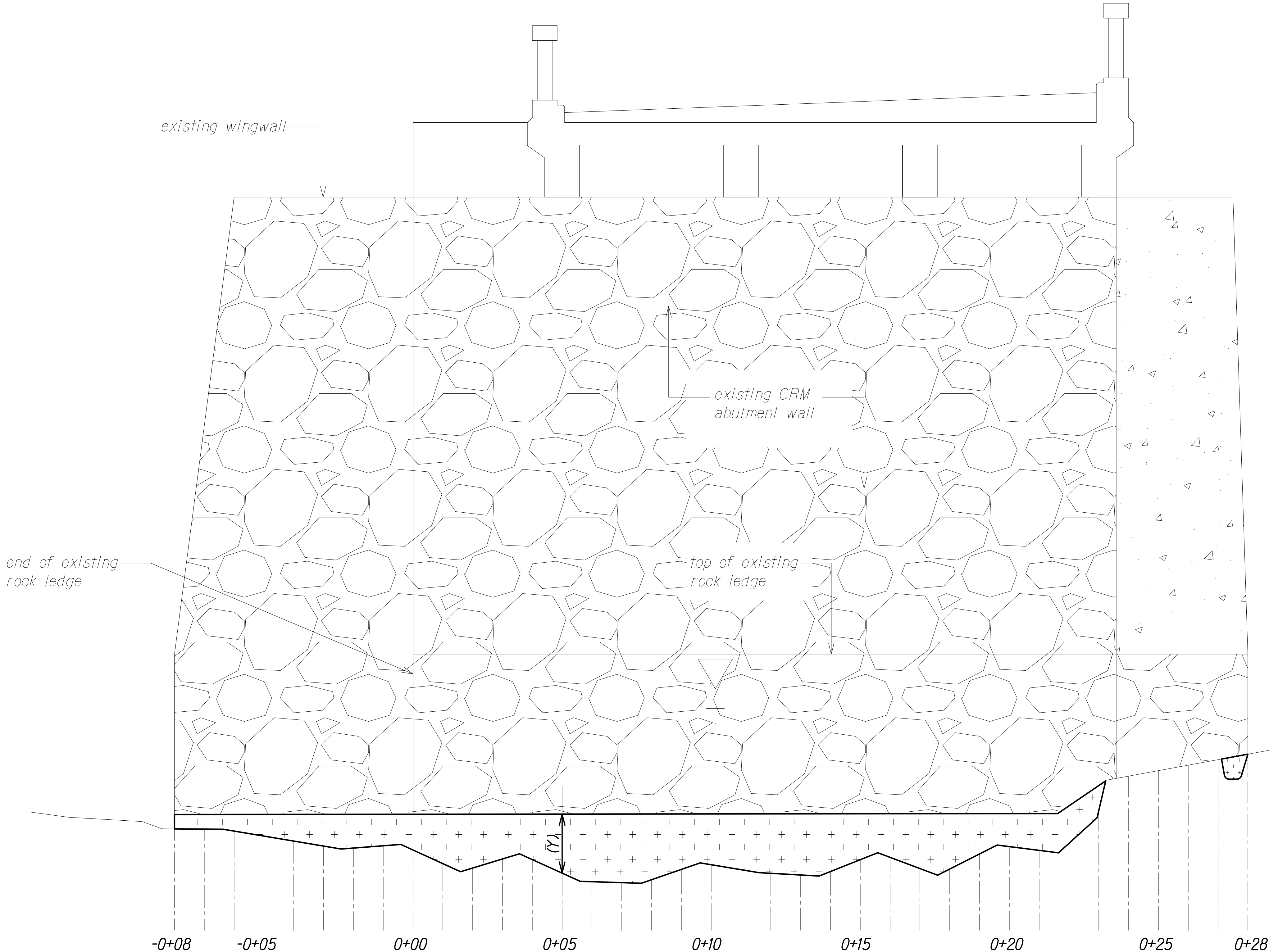
Upstream

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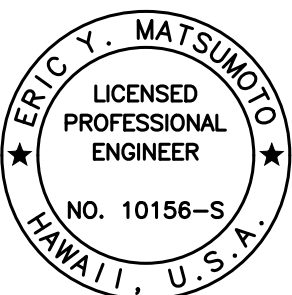


Approximate scour location, based on measurement taken on November 11, 2021, to be filled in its entirety with concrete grout filled concrete fabric bags.

Station	(Y) High (Inches)	(X) Deep (Inches)
(-) 0+08	8	24
(-) 0+06	10	54
(-) 0+04	12	50
(-) 0+02	16	36
0+00	12	34
0+02	22	26
0+04	16	22
0+06	24	16
0+08	23	26
0+10	24	30
0+12	24	36
0+14	24	24
0+16	16	28
0+18	25	20
0+20	18	26
0+22	0	20
0+28	6	6



HANA ABUTMENT ELEVATION  
Scale: 1/2" = 1'-0"



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Signature: Eric Y. Matsumoto  
Expiration Date: 4-30-24

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**HANA ABUTMENT ELEVATION**  
NAILILIHAELE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)  
Scale: As Noted      Date: Jan. 2023

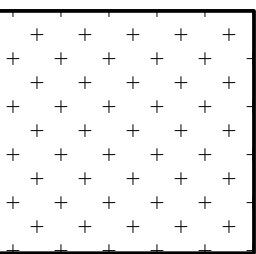
SHEET No. S6 OF 11 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\21-009 4-NAILILIHAELE BR-CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\NSR-S0006 HANA AB ELEV.DWG PLOT TIME: 01-09-23, 2:35 PM

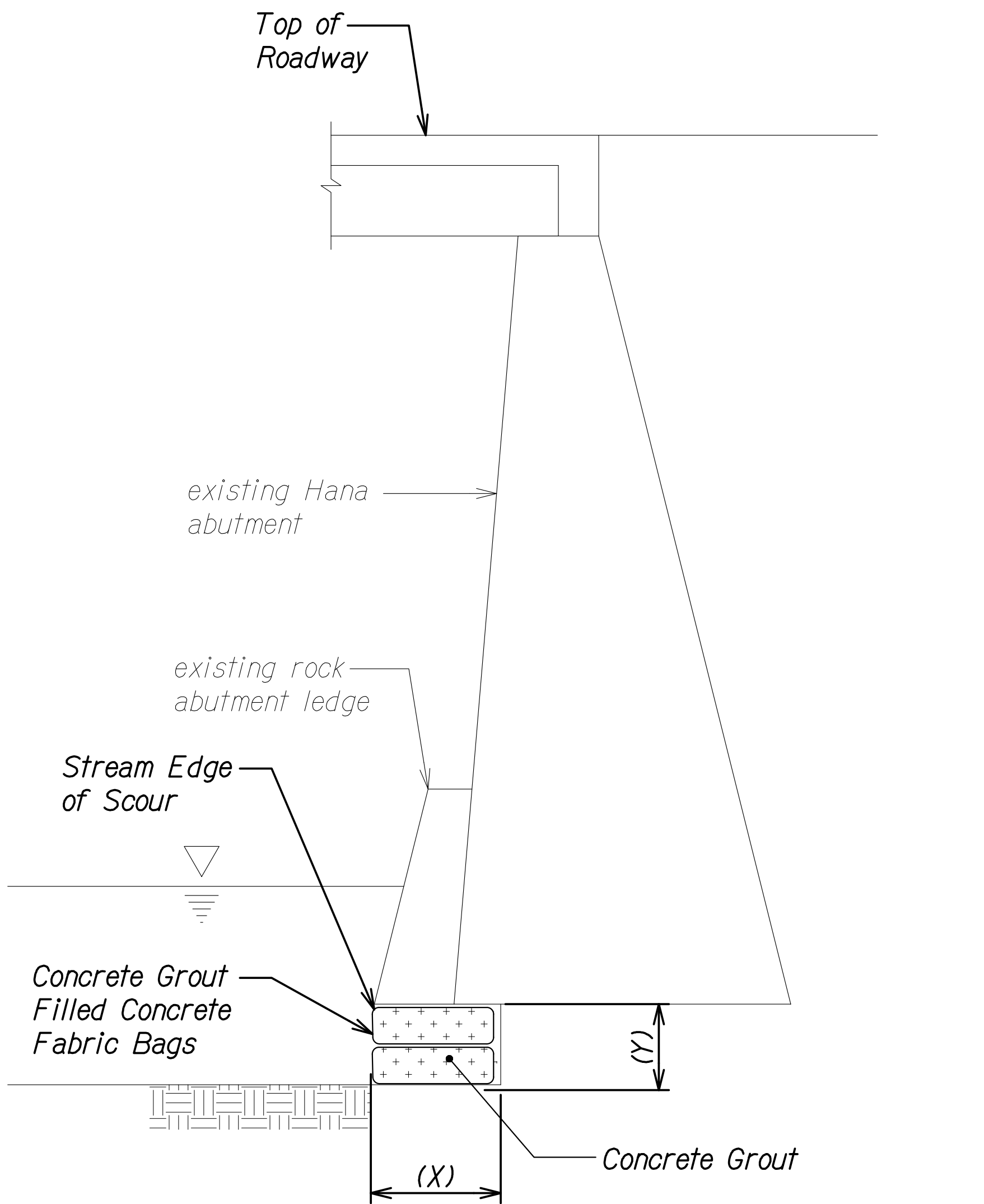
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	19	23

Legend:

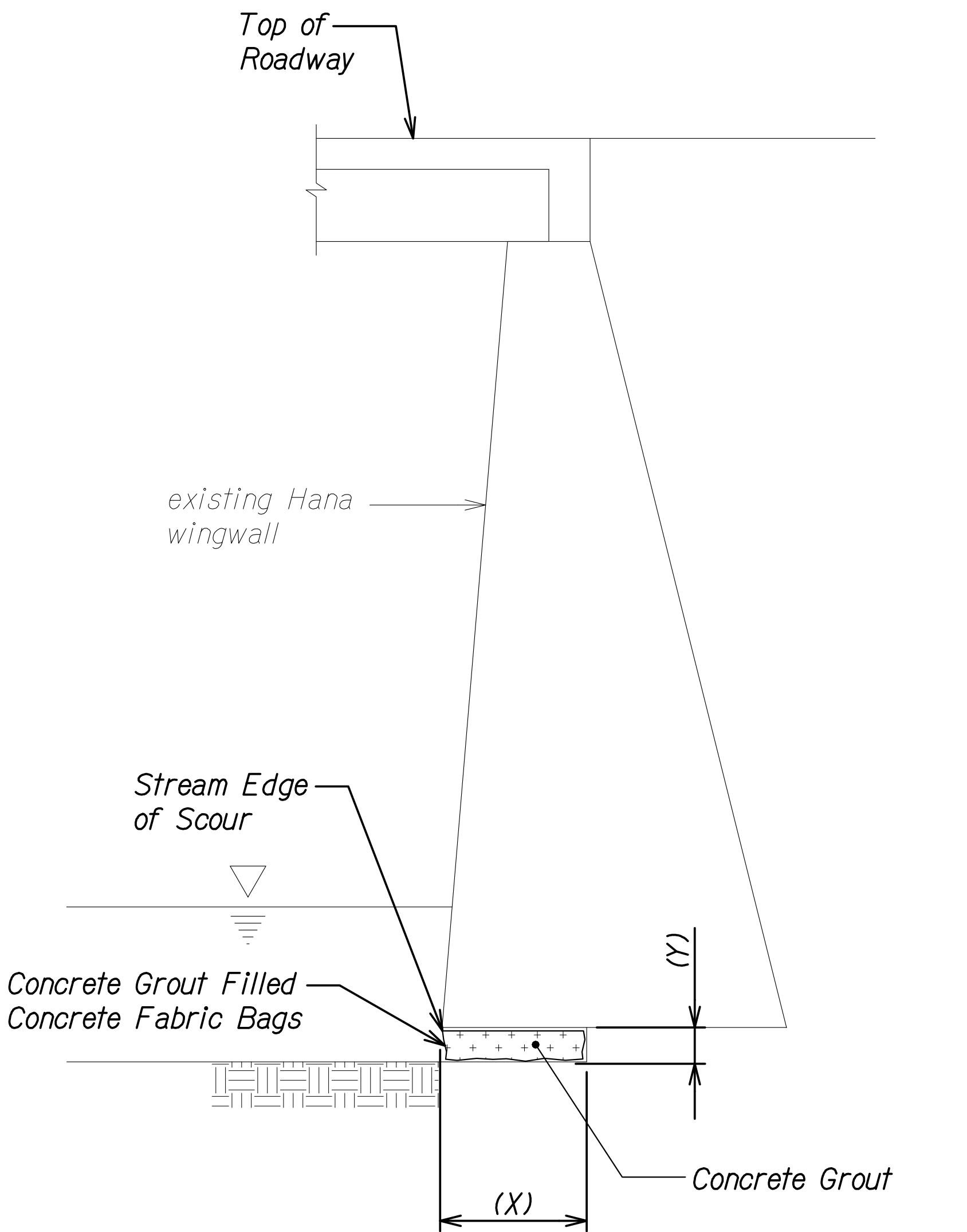


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(-) 0+06	10	54
(-) 0+04	12	50
(-) 0+02	16	36
0+00	12	34
0+02	22	26
0+04	16	22
0+06	24	16
0+08	23	26
0+10	24	30
0+12	24	36
0+14	24	24
0+16	16	28
0+18	25	20
0+20	18	26
0+22	0	20
0+28	6	6



HANA ABUTMENT SECTION  
AT BRIDGE CENTERLINE  
Scale: 3/8" = 1'-0" A  
S4 | S7



HANA WINGWALL SECTION  
AT DOWNSTREAM  
Scale: 3/8" = 1'-0" B  
S4 | S7

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

DRAWING NAME: Z:\00 ONGOING\21-009 4-NAAILIHALE BR-CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\NSR-50007 HANA AB SECT.DWG PLOT TIME: 01-09-23, 2:36 PM

ERIC Y. MATSUMOTO  
LICENSED PROFESSIONAL ENGINEER  
NO. 10156-S  
HAWAII, U.S.A.

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Eric Y. Matsumoto  
SIGNATURE  
4-30-24  
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

HANA ABUTMENT SECTIONS

NAAILIHALE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)

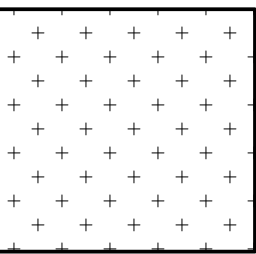
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SHEET No. S7 OF 11 SHEETS

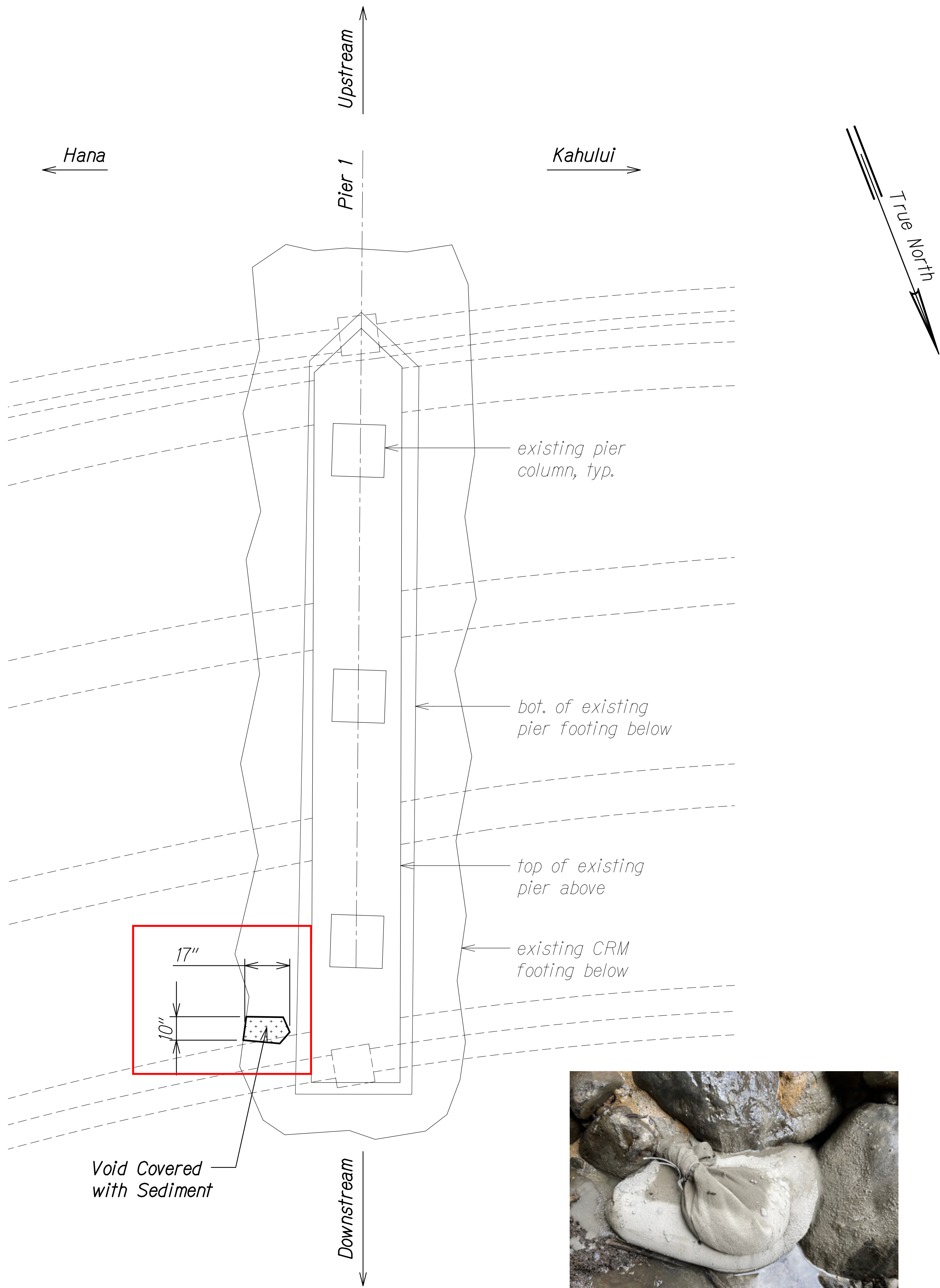


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	20	23

LEGEND:



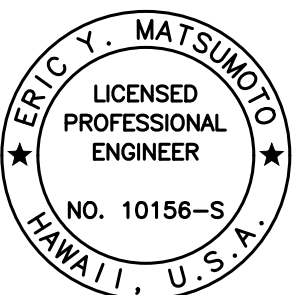
Approximate scour location, based on measurement taken on November 11, 2021, to be filled in its entirety with concrete grout filled concrete fabric bags.



PIER 1 FOUNDATION PLAN  
Scale: 1/2" = 1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
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	QUANTITIES BY	
	CHECKED BY	

DRAWING NAME: Z:\00 ONGOING\21-009 4-NAAILIHALE BR-CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\NSR-S0008 PIER 1 FDN PLAN.DWG PLOT TIME: 01-09-23, 2:38 PM)



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Signature: *Eric Y. Matsumoto*  
EXPIRATION DATE OF THE LICENSE: 4-30-24

AS-BUILT DRAWINGS  
This certifies that the dimensions and details shown on this sheet reflect the dimensions and details and specifications as constructed in the field  
GLOBAL SPECIALTY CONTRACTORS, INC.  
Signature: *SG* Date: 5/14/24

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

PIER 1 FOUNDATION PLAN

NAAILIHALE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)

Scale: As Noted Date: Jan. 2023

SHEET No. S8 OF 11 SHEETS

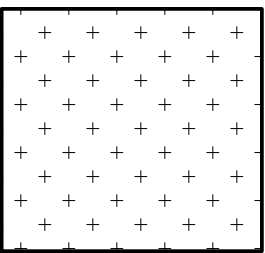


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	21	23

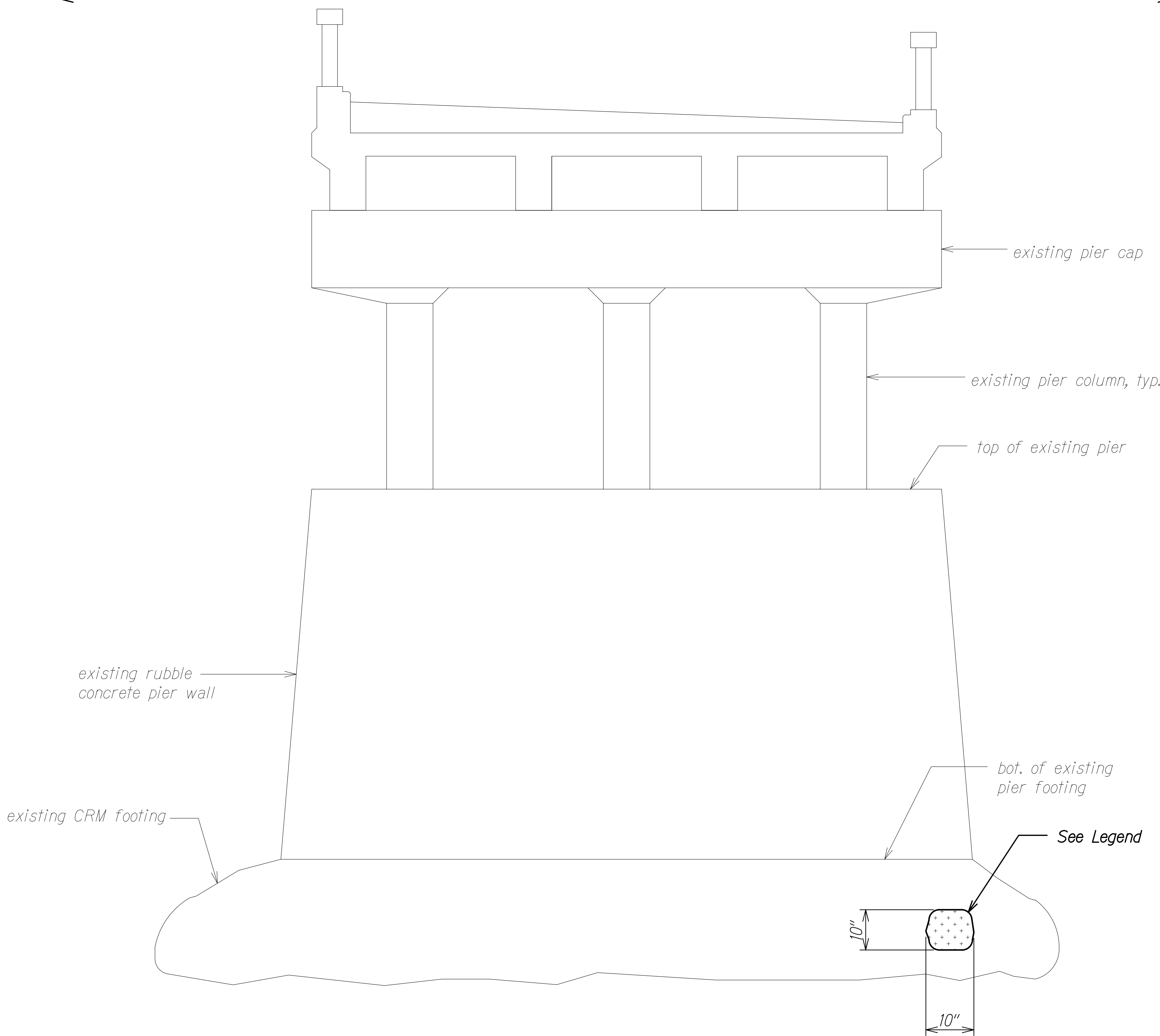
← Upstream

Downstream →

**LEGEND:**

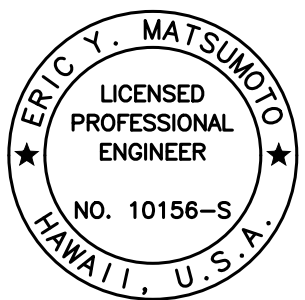


Approximate scour location, based on measurement taken on November 11, 2021, to be filled in its entirety with concrete grout filled concrete fabric bags.



**PIER 1 ELEVATION**

Scale: 1/2" = 1'-0"



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*Eric Y. Matsumoto*  
SIGNATURE  
4-30-24  
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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**PIER 1 ELEVATION**

NAILIILHALE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)

Date: Jan. 2023

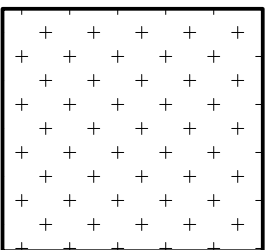
SHEET No. S9 OF 11 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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	CHECKED BY	

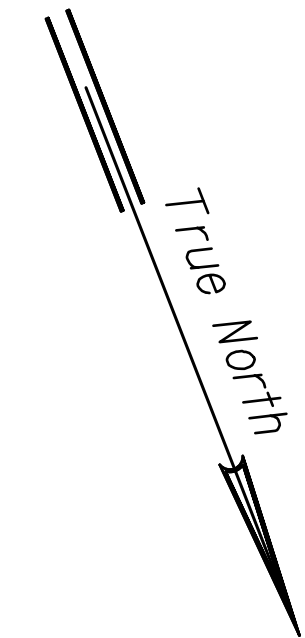
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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	22	23

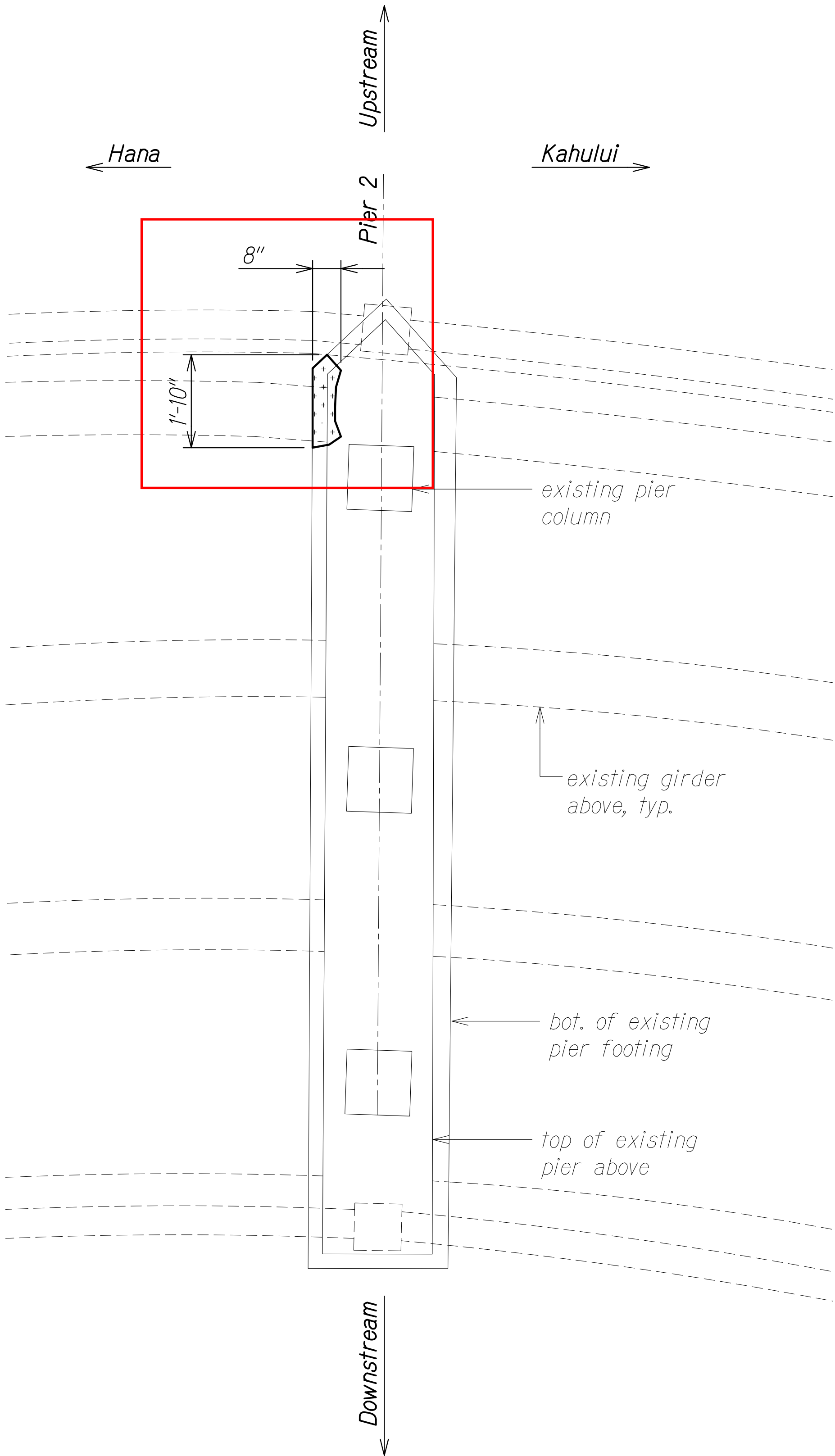
LEGEND:



Approximate scour location, based on measurement taken on November 11, 2021, to be filled in its entirety with concrete grout filled concrete fabric bags.



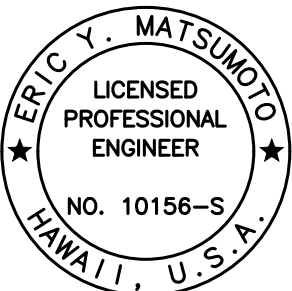
Poured In Place Segment  
22" L x 8" H x 8" D



PIER 2 FOUNDATION PLAN  
Scale: 1/2" = 1'-0"

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

DRAWING NAME: Z:\00 ONGONG\21-009 4-NAIILIHAELE BR-CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\NSR-S0010 PIER 2 FDN PLANDWG PLOT TIME: 01-09-23, 2:37 PM)



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

SIGNATURE: *Eric Y. Matsumoto* EXPIRATION DATE: 4-30-24 OF THE LICENSE

AS-BUILT DRAWINGS  
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GLOBAL SPECIALTY CONTRACTORS, INC.  
Signature: *SG* Date: 5/14/24

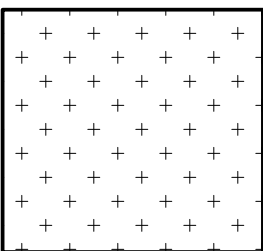
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**PIER 2 FOUNDATION PLAN**  
NAILIILHAELE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)  
Scale: As Noted Date: Jan. 2023  
SHEET No. S10 OF 11 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-24(008)	2023	23	23

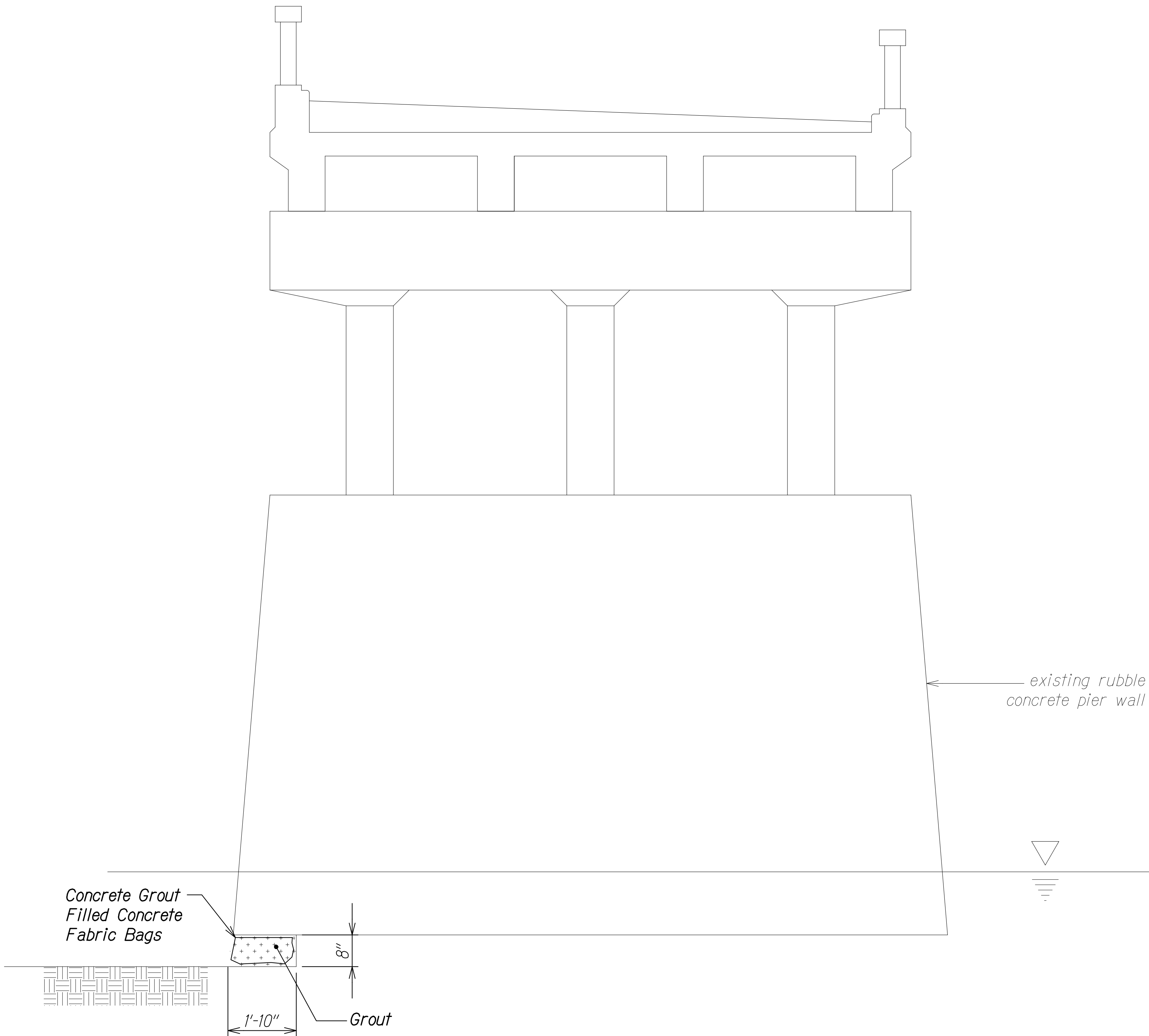
← Upstream

Downstream →

**LEGEND:**

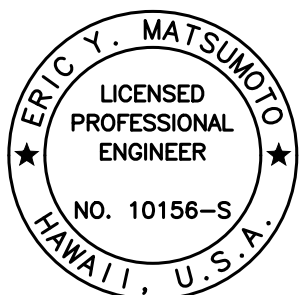


Approximate scour location, based on measurement taken on November 11, 2021, to be filled in its entirety with concrete grout filled concrete fabric bags.



**PIER 2 ELEVATION**

Scale: 1/2" = 1'-0"



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*Eric Y. Matsumoto*  
SIGNATURE  
4-30-24  
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**PIER 2 ELEVATION**

NAILILIHAELE STR. BR. EMERGENCY REPAIRS  
ROUTE 360, MILE POST 6.2  
Fed. Aid Proj. No. ER-24(008)

Scale: As Noted      Date: Jan. 2023

SHEET No. 511 OF 11 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\21-009 4-NAILILIHAELE BR-CRITICAL FINDINGS MAUI\01 CAD\01-09-23 BID\NSR-S0011 PIER 2 ELEV.DWG PLOT TIME: 01-09-23, 2:37 PM)