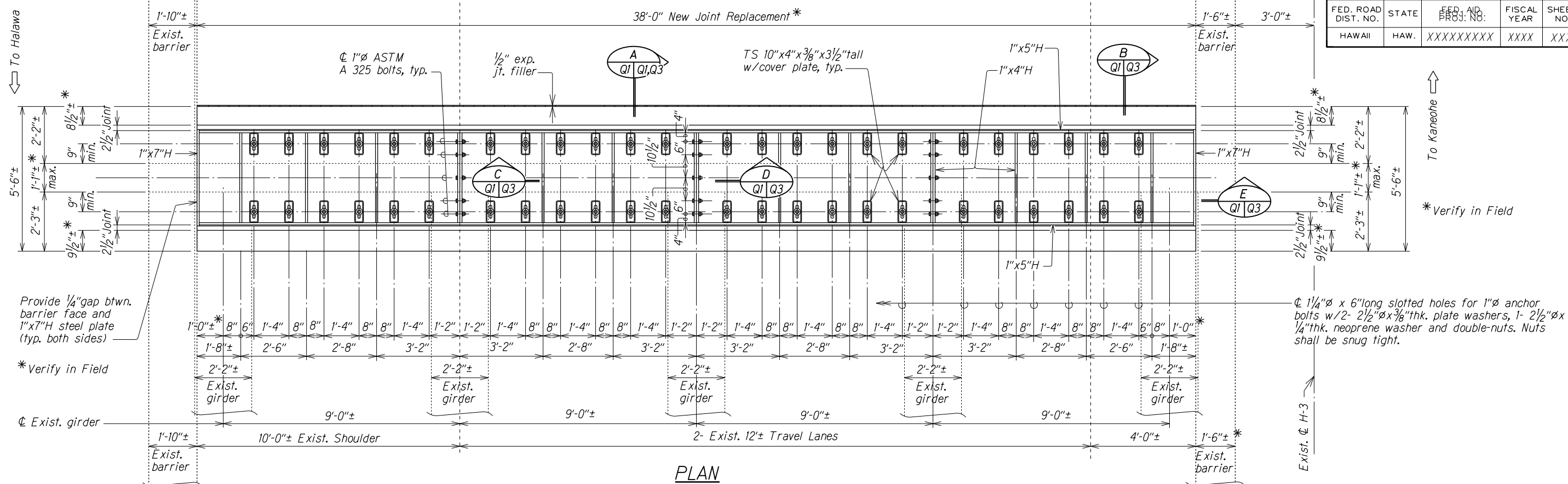


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	XXXXXXXXXX	XXXX	XXX	XXX



GENERAL NOTES

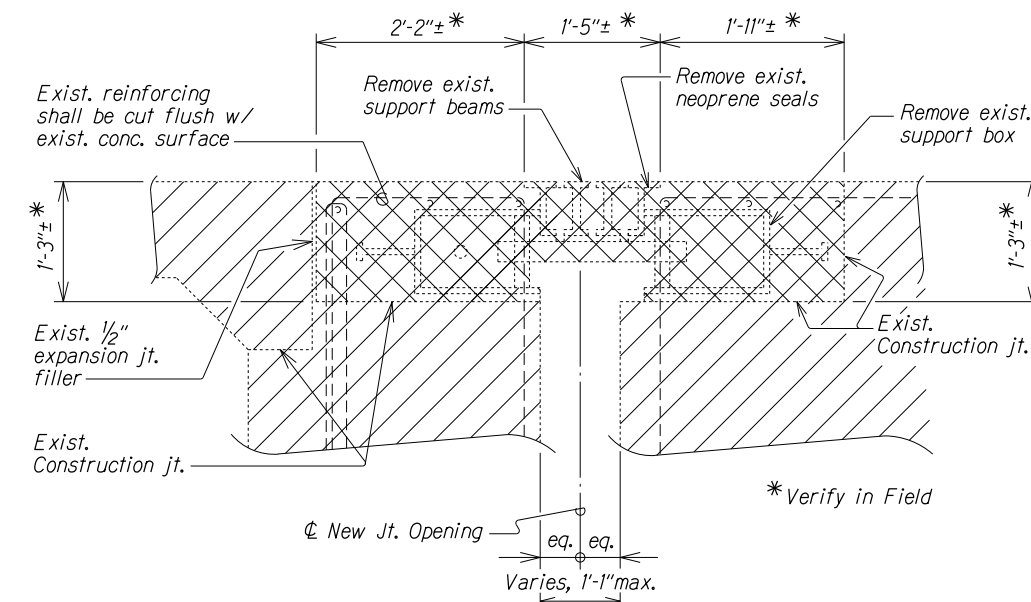
I. MATERIALS:

- A. All steel plates, rectangular bars and plate washers shall conform to ASTM A36 and be hot-dip galvanized after fabrication. Cover plates shall be fabricated from galvanized steel sheet conforming to ASTM A653.
- B. All rectangular steel tubes shall conform to ASTM A500, Grade A minimum and be hot-dip galvanized after fabrication.
- C. All bolts for steel to steel connections shall conform to ASTM A325, Type 1 and be hot-dip galvanized. Nuts shall conform to ASTM A563, Grade DH.
- D. Threaded rod anchor bolts shall conform to ASTM A193, Grade B7. Nuts shall conform to ASTM A563, Grade DH.
- E. Welds shall have a minimum ultimate strength of 70,000 psi. All welding shall be in accordance with the latest adopted AWS D1.5 "Bridge Welding Code".
- F. Deformed reinforcing bars for concrete reinforcement shall conform to ASTM A615, Grade 60.
- G. Structural concrete shall be a very-early-strength latex-modified concrete (VESLMC) with fibers and shall attain a minimum  $f'_C = 3,000$  psi in three (3) hours and a minimum  $f'_C = 4,000$  psi in twenty-eight (28) days. The nominal maximum size coarse aggregate shall be  $\frac{3}{8}$ -inch.
  - (1) The VESLMC shall use cement which is finished calcium-sulfoaluminate that contains no more than 2-percent C3A and not greater than 0.03 percent shrinkage in accordance with ASTM C 157.
  - (2) The VESLMC shall include a modified styrene butadiene copolymer latex that meets the requirements of FHWA Research Report RD-78-35.
  - (3) The VESLMC shall also include  $1\frac{1}{2}$ -inch length alkali-resistant (AR) fibers at 6 lb/cy.

- H. Anchoring adhesive for threaded rod anchor bolts and deformed reinforcing bars shall be "Acrylic-Tie AT" as supplied by Simpson Strong-Tie, or an approved equal. Surface preparation and application shall be in accordance with the manufacturer's recommendations.
- I. Neoprene pads and washers shall be plain elastomeric pads with a minimum 60 hardness. Adhesive for pads shall be as recommended by the manufacturer.
- J. Polymer nosing system shall be "Silspec 900 Polymer Nosing System" as supplied by Silicone Specialties, Inc., or an approved equal. Surface preparation, mixing and installation shall be in accordance with the manufacturer's recommendations.
- K. Joint sealant shall be "Dow Corning 902 RCS Joint Sealant" as supplied by Dow Corning Corp., or an approved equal. Surface preparation and installation shall be in accordance with the manufacturer's recommendations.

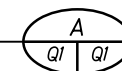
II. CONSTRUCTION NOTES:

- A. All work shall be in accordance with "Hawaii Standard Specifications for Road and Bridge Construction, 2005" unless otherwise noted.
- B. Contractor shall field verify the existing bridge dimensions and the existing expansion joint dimensions prior to fabrication of steel. Notify the engineer of any major discrepancies in the existing dimensions.
- C. All fabricated steel expansion plate sections shall be welded. All locations where steel plates and/or rectangular bars touch shall be welded with a minimum  $\frac{5}{16}$ " fillet weld, unless otherwise noted on the drawings.
- D. All fabricated steel expansion plate sections shall be hot-dip galvanized after fabrication. All hot-dip galvanized areas that are field welded shall be repaired in accordance with Section 501.03(G) of the Hawaii Standard Specifications.



DEMOLITION of EXISTING EXPANSION JOINT

DEMO  
Not to Scale



JOINT A  
HWY-OM-2021-51

FIGURE 1

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**BRIDGE NO. 3 (INBOUND)**

**PLAN, GENERAL NOTES and DEMOLITION of**  
**EXISTING EXPANSION JOINT**  
**INTERSTATE ROUTE H-3 REPLACEMENT OF EXPANSION JOINT**  
**Project No.**

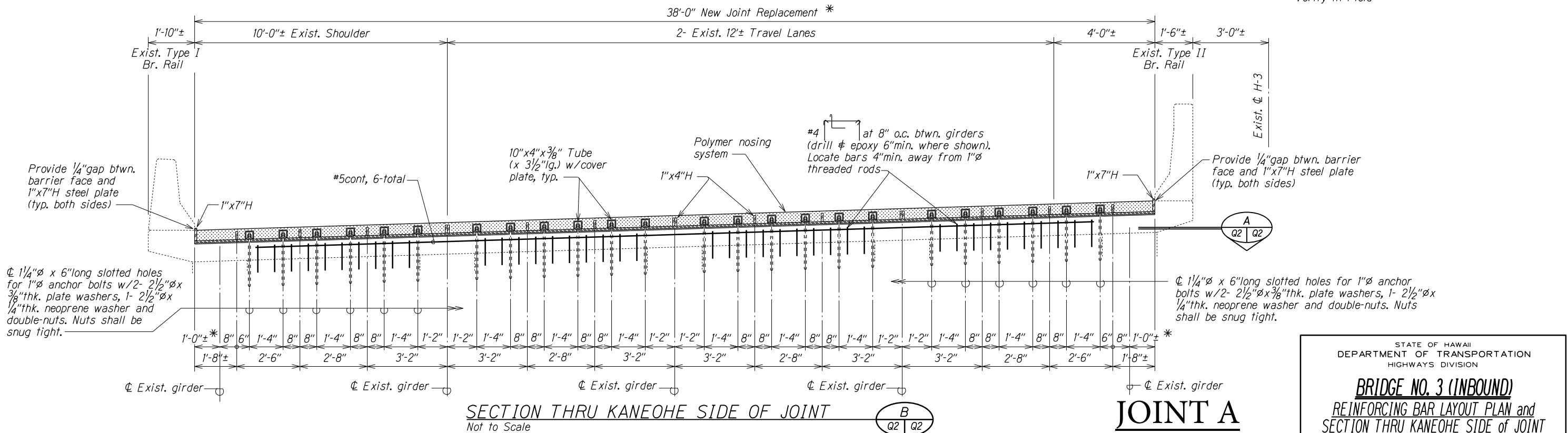
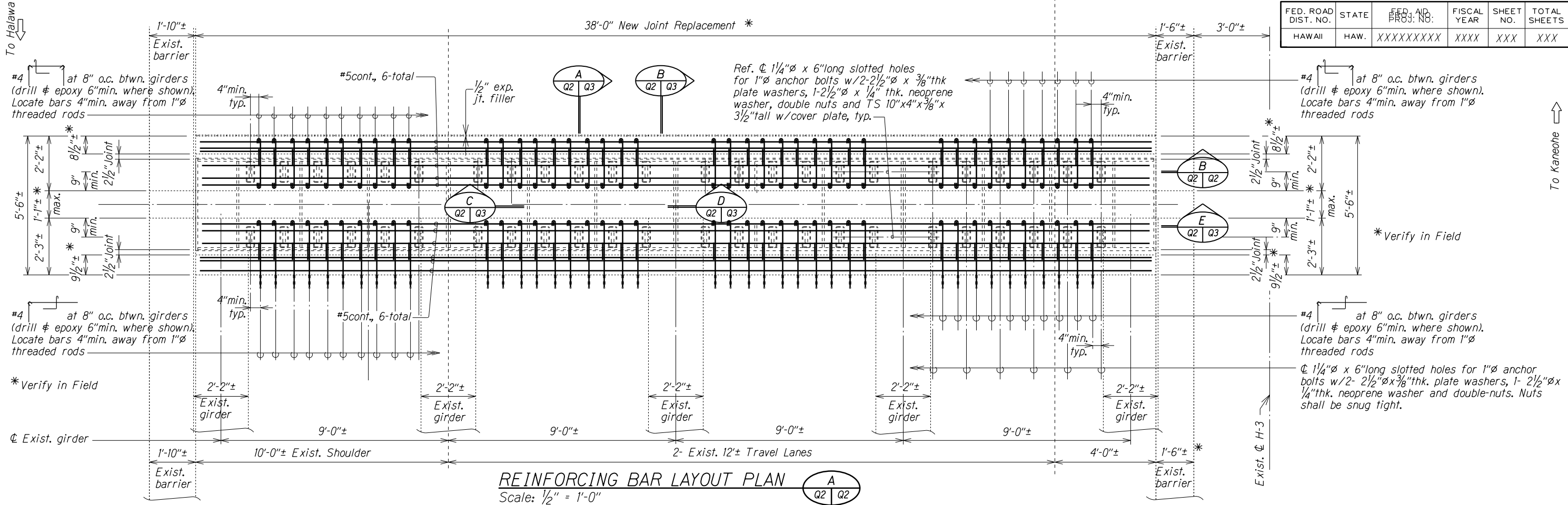
Scale: As Noted

Date: Xxx.Xxxx

SHEET No. 01 OF 3 SHEETS

XX XX

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	XXXXXXXXXX	XXXX	XXX	XXX



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**BRIDGE NO. 3 (INBOUND)**  
REINFORCING BAR LAYOUT PLAN and  
SECTION THRU KANEHOE SIDE of JOINT  
INTERSTATE ROUTE H-3 REPLACEMENT OF EXPANSION JOINT  
Project No.

Scale: As Noted      Date: XXX,XXXX

SHEET No. Q2 OF 3 SHEETS

**JOINT A**  
HWY-OM-2021-51  
FIGURE 2

DATE	2021/11/13
SURVEY PLOTTED BY	131repair
DESIGNED BY	131repair
QUANTITIES BY	131repair
CHECKED BY	131repair

**BEVEL CUT DETAIL**  
Not to Scale

Provide beveled cut in TS 4x10x $\frac{3}{8}$ , typ. at fillet welds

$\frac{1}{2}$

$\frac{5}{8}$

**COVER PLATE DETAIL**  
Not to Scale

90° Bend

90° Bend

4"

9 $\frac{1}{4}$ "

$\frac{3}{4}$ "

2 $\frac{1}{2}$ "

$\frac{3}{4}$ "

2 $\frac{1}{2}$ "

3 $\frac{1}{2}$ "

2

Q3 | Q3

F.F. Exist. bridge rail

Exist. Type I or Type II bridge rail

$t = 1"$

Provide  $\frac{1}{4}"$  gap btwn. barrier face and 1"x7"H steel plate (typ. both sides)

1"x7"H

$\frac{1}{2}$  t

(grind weld flush w/PL)

$\frac{1}{2}$ "thk. neoprene, glue to concrete surface, typ.

**TYPICAL SECTION**  
Scale: 3" = 1'-0"

E

Q1, Q2 | Q3

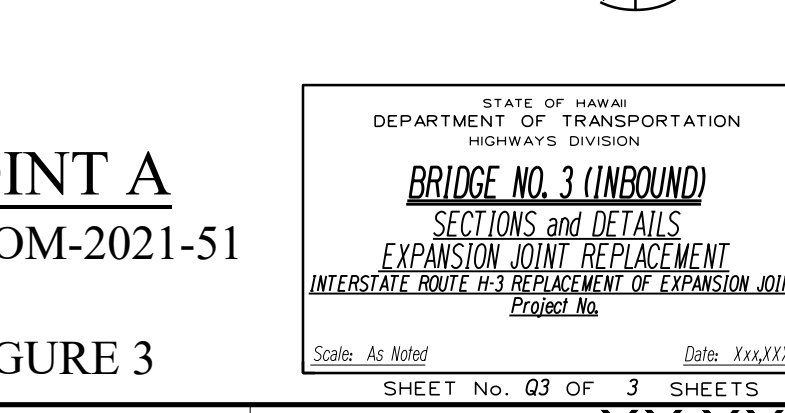
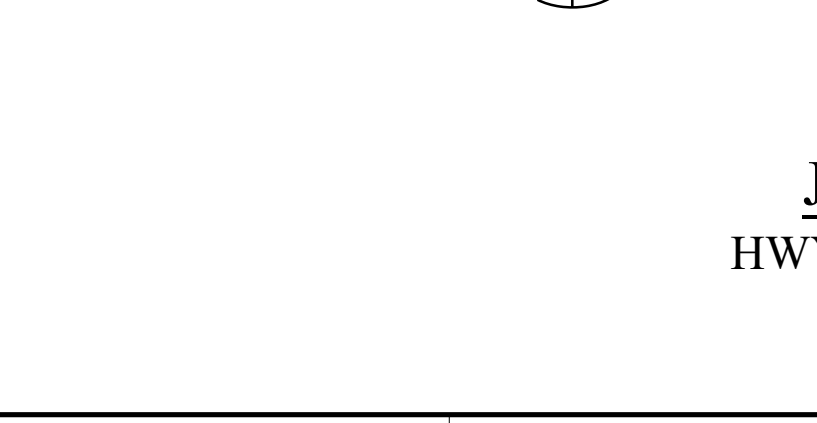
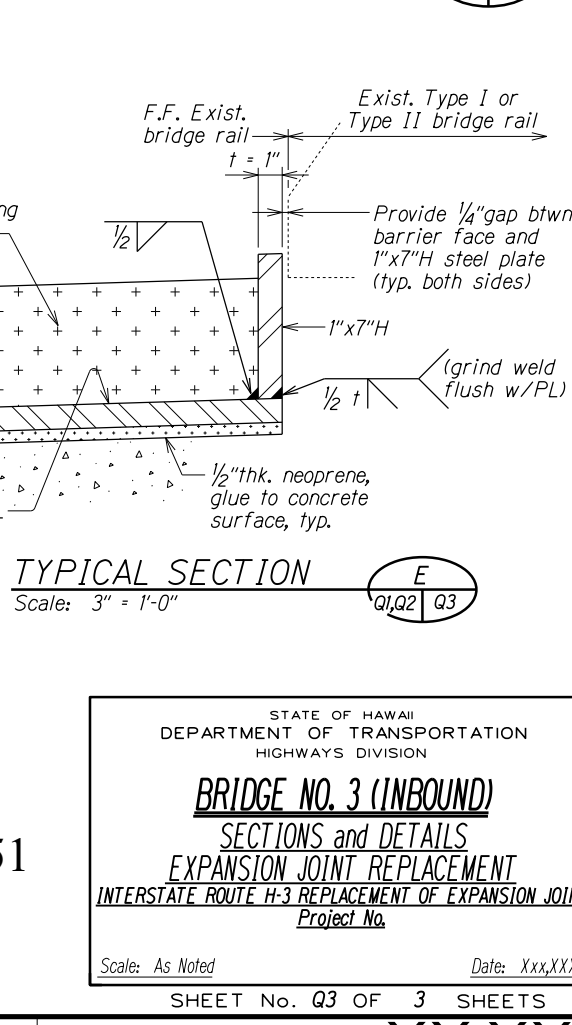
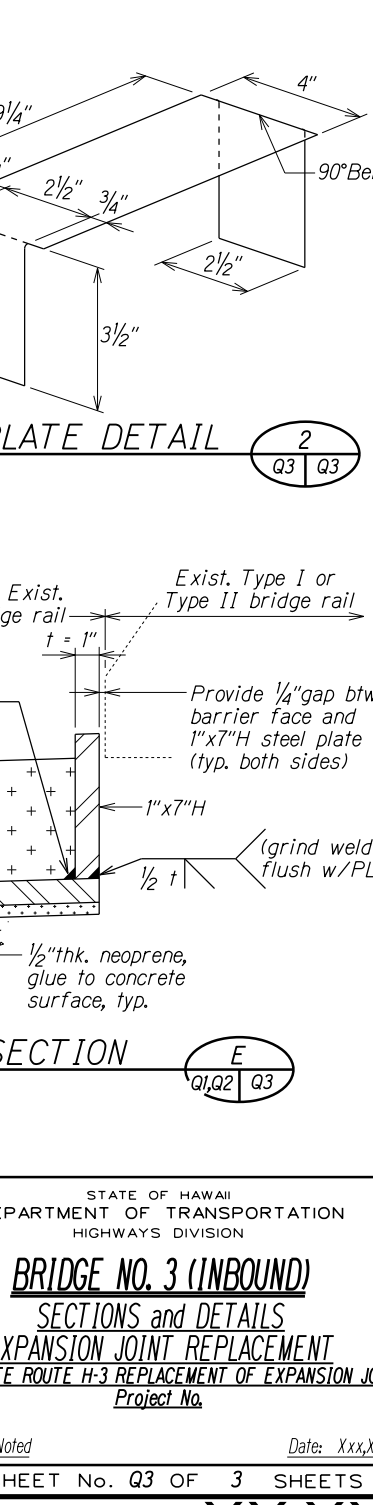
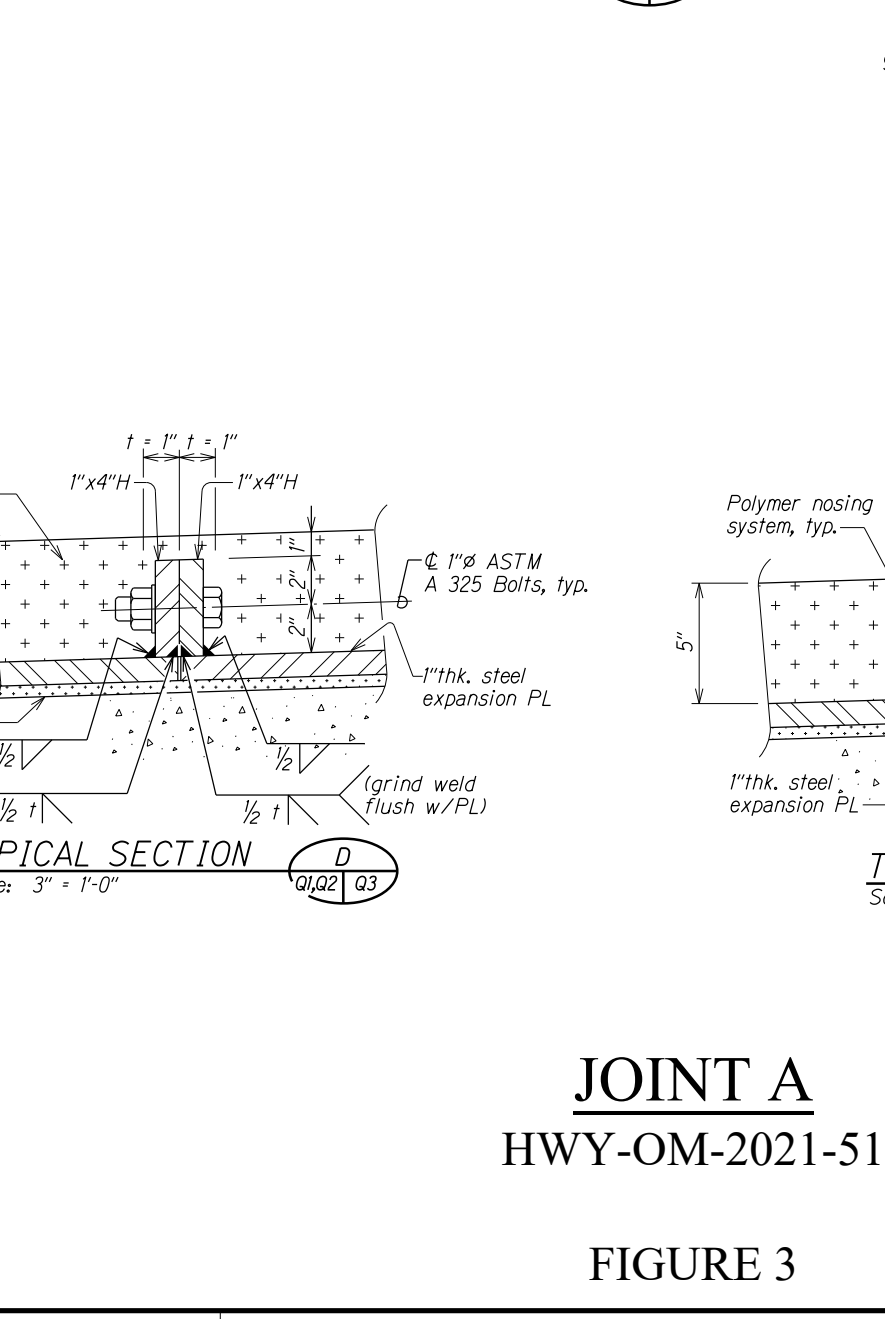
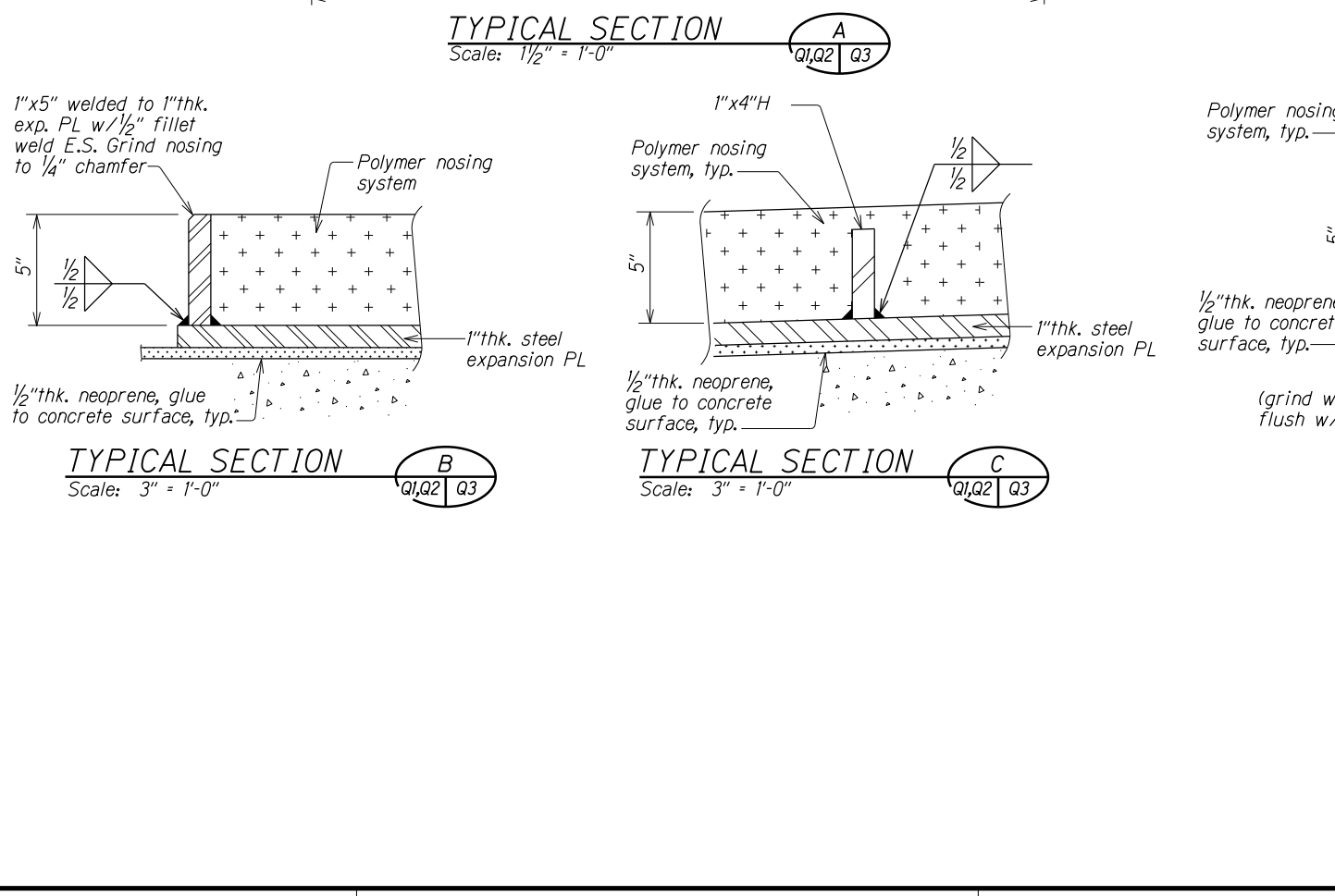
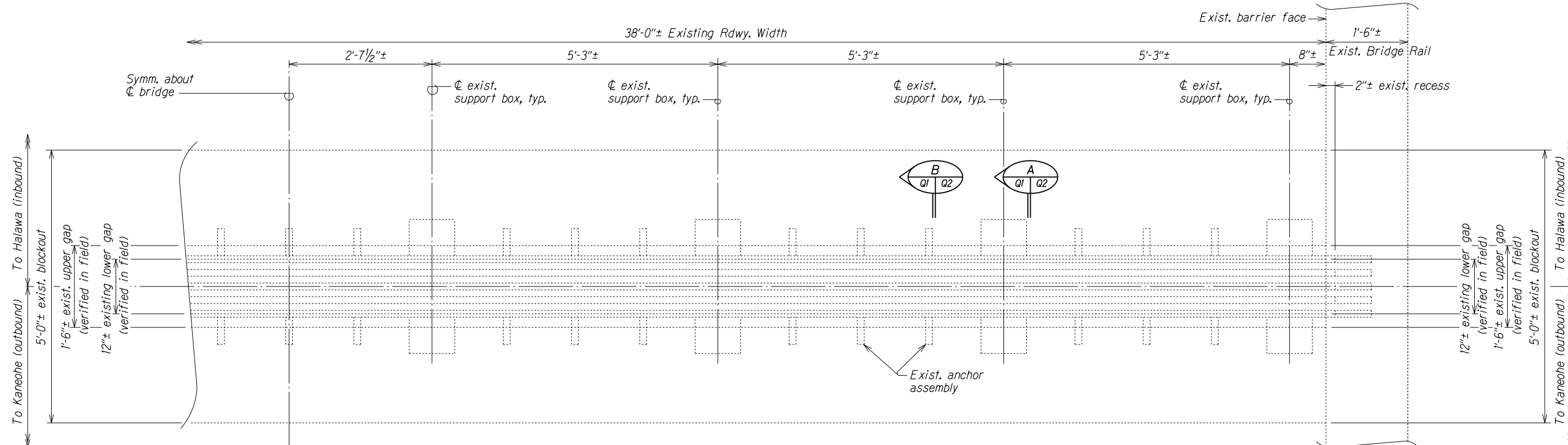


FIGURE 3

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	XXXXXXXXXX	XXXX	XXX	XXX



PLAN -- EXISTING EXPANSION JOINT

GENERAL NOTES

I. MATERIALS:

- A. All steel plates, rectangular bars and plate washers shall conform to ASTM A36 and be hot-dip galvanized after fabrication.
- B. All rectangular steel tubes shall conform to ASTM A500, Grade A minimum and be hot-dip galvanized after fabrication.
- C. All bolts for steel to steel connections shall conform to ASTM A325, Type 1 and be hot-dip galvanized. Nuts shall conform to ASTM A563, Grade DH.
- D. Threaded rod anchor bolts shall conform to ASTM A193, Grade B7. Nuts shall conform to ASTM A563, Grade DH.
- E. Welds shall have a minimum ultimate strength of 70,000 psi. All welding shall be in accordance with the latest adopted AWS D1.5 "Bridge Welding Code".
- F. Repair mortar shall be rapid-hardening, early-strength-gaining, cementitious patching material for concrete, such as SikaQuick 1000, or approved equal. Prior to placement of repair mortar, an epoxy bonding agent, such as Sika Armatec 110 EpoCem, shall be applied to the existing concrete surface. Surface preparation, mixing and application of the epoxy bonding agent and repair mortar shall be in accordance with the manufacturer's recommendations.
- G. Anchoring adhesive for threaded rod anchor bolts shall be "Acrylic-Tie AT" as supplied by Simpson Strong-Tie, or an approved equal. Surface preparation and application shall be in accordance with the manufacturer's recommendations.

- H. Neoprene pads shall be plain elastomeric pads with a minimum 50 hardness. Adhesive for pads shall be as recommended by the manufacturer.
- I. Polymer nosing system shall be "Silspec 900 Polymer Nosing System" as supplied by Silicone Specialties, Inc., or an approved equal. Surface preparation, mixing and installation shall be in accordance with the manufacturer's recommendations.
- J. Joint sealant shall be "Dow Corning 902 RCS Joint Sealant" as supplied by Dow Corning Corp., or an approved equal. Surface preparation and installation shall be in accordance with the manufacturer's recommendations.

II. CONSTRUCTION NOTES:

- A. All work shall be in accordance with "Hawaii Standard Specifications for Road and Bridge Construction, 2005" unless otherwise noted.
- B. Contractor shall field verify the existing bridge dimensions and the existing expansion joint dimensions prior to fabrication of steel. Notify the engineer of any major discrepancies in the existing dimensions.
- C. All fabricated steel expansion plate sections shall be welded. All locations where steel plates and/or rectangular bars touch shall be welded with a minimum  $\frac{1}{4}$ " fillet weld, unless otherwise noted on the drawings.
- D. All fabricated steel expansion plate sections, anchor rods and assemblies, shall be hot-dip galvanized after fabrication. All hot-dip galvanized areas that are field welded shall be repaired in accordance with Section 501.03(G) of the Hawaii Standard Specifications.

JOINT B  
HWY-OM-2021-51

FIGURE 4

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

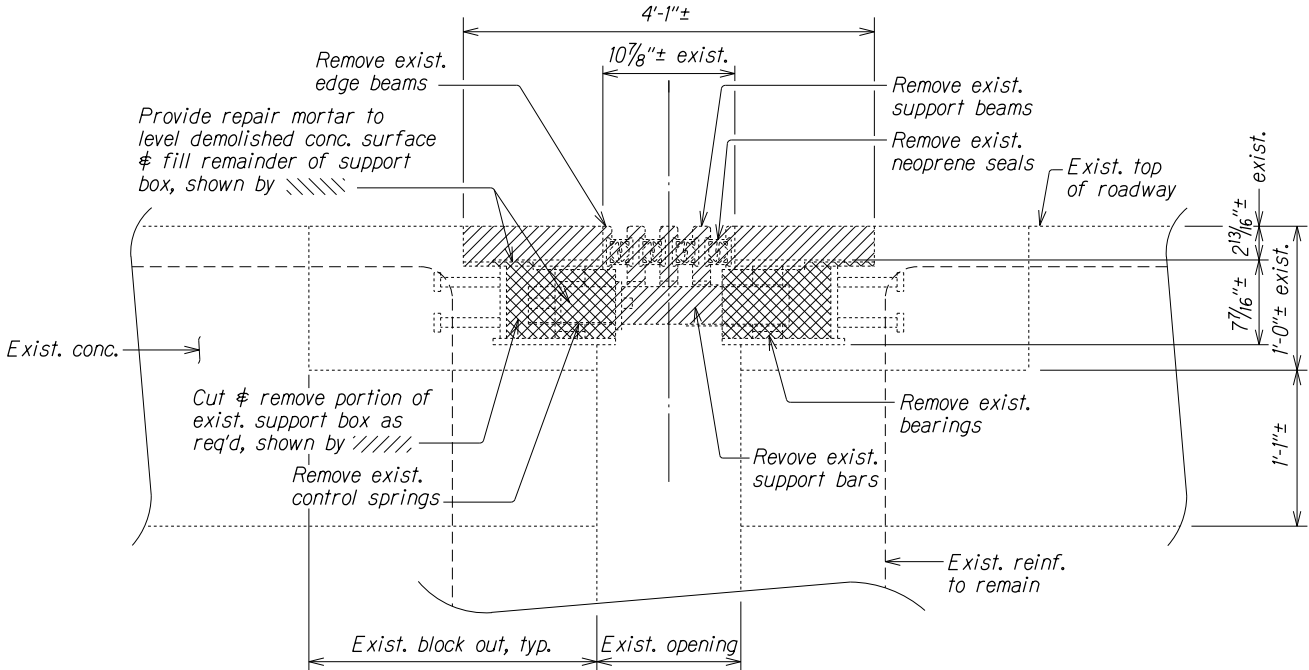
**WINDWARD VIADUCT INBOUND**  
**PLAN -- EXISTING EXPANSION JOINT,**  
**and GENERAL NOTES**  
**INTERSTATE ROUTE H-3 REPLACEMENT OF EXPANSION JOINT**  
**Project No.**

Scale: As Noted Date: Xxx,XXXX

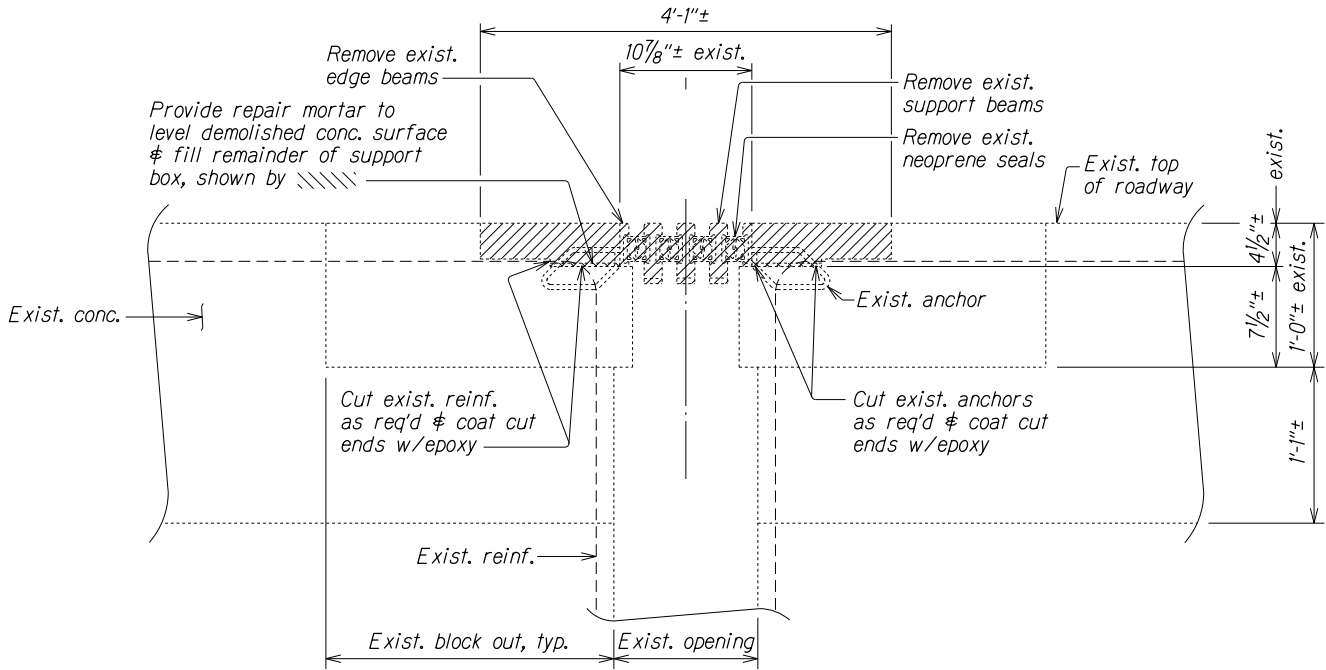
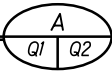
SHEET No. 01 OF 4 SHEETS

XX XX

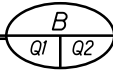
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	XXXXXXXXXX	XXXX	XXX	XXX



LIMITS of REMOVAL at EXISTING EXPANSION JOINT SUPPORT BOX  
Not to Scale



LIMITS of REMOVAL at EXISTING EXPANSION JOINT ANCHOR ASSEMBLY  
Not to Scale



JOINT B  
HWY-OM-2021-51  
  
FIGURE 5

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**H-3 WINDWARD VIADUCT INBOUND**  
**LIMITS of REMOVAL at EXISTING EXPANSION JOINT**  
**SUPPORT BOX and ANCHOR ASSEMBLY**  
**INTERSTATE ROUTE H-3 REPLACEMENT of EXPANSION JOINT**  
*Project No.*

Scale: As Noted  
Date: Xxx,XXXX

SHEET No. Q2 OF 4 SHEETS

XX XX

SURVEY PLOTTED BY: XXX  
DATE: APR 2018

ORIGINAL PLAN: h3b297

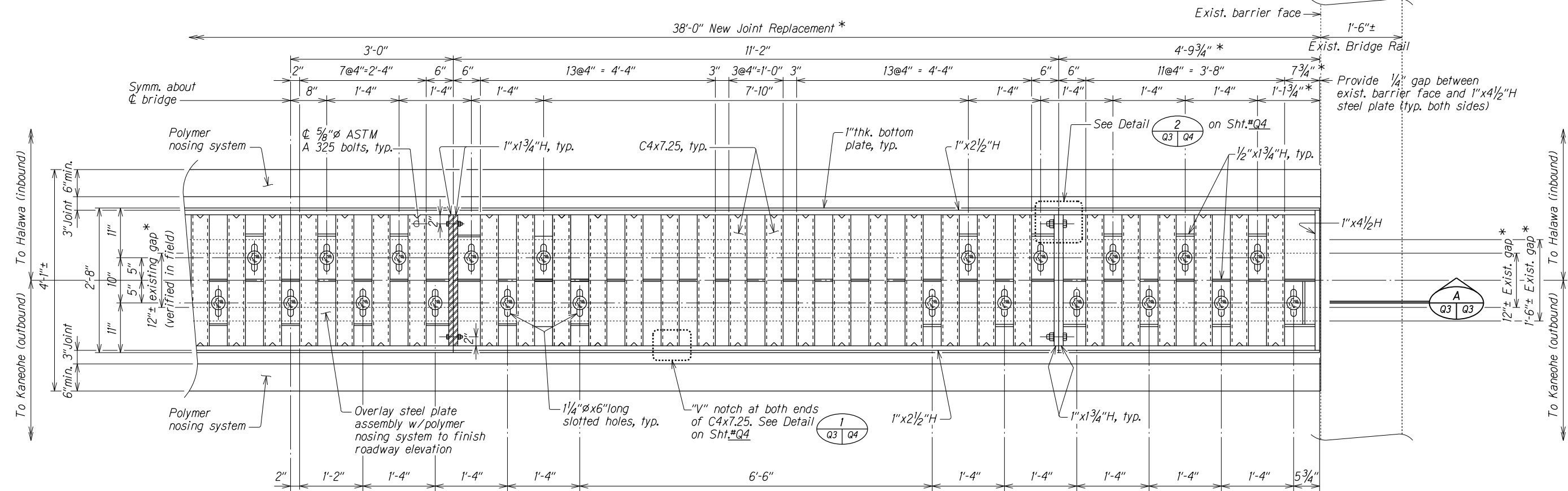
NOTE BOOK: repair-q2.dwg

DESIGNED BY: XXX  
CHECKED BY: XXX  
DATE: APR 2018

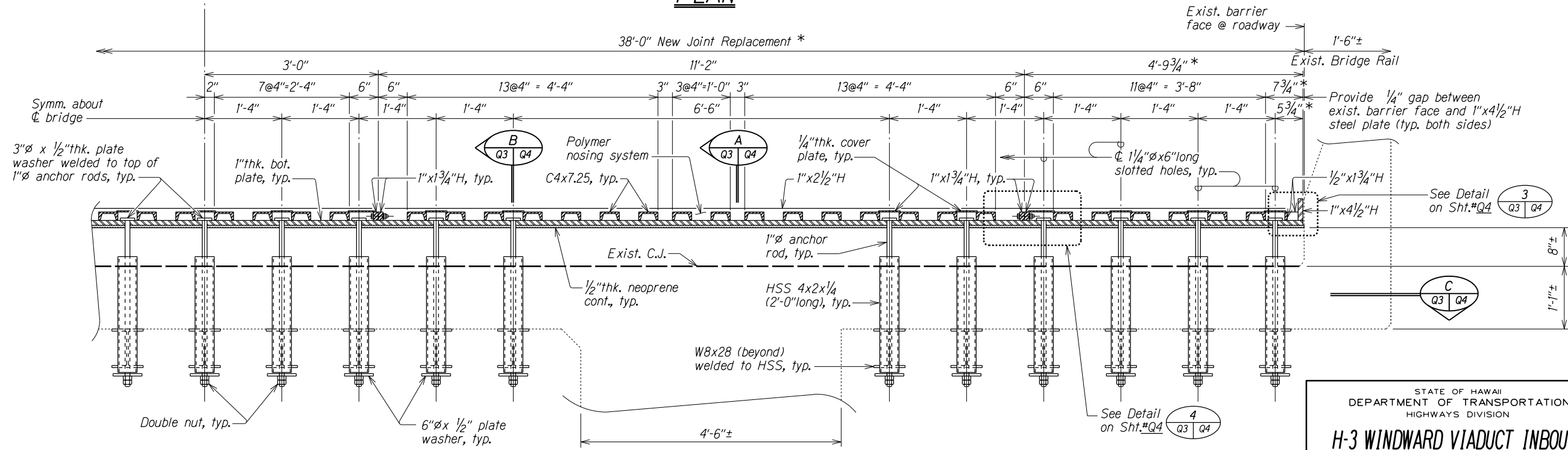
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	XXXXXXXXXX	XXXX	XXX	XXX

\* Dimensions to be field-verified prior to start of work



PLAN



SECTION

A Q3 Q3

JOINT B

HWY-OM-2021-51

FIGURE 6

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**H-3 WINDWARD VIADUCT INBOUND**

PLAN and SECTION of  
REPLACEMENT EXPANSION JOINT

INTERSTATE ROUTE H-3 REPLACEMENT of EXPANSION JOINT  
Project No.

Scale: As Noted Date: XXX,XXXX

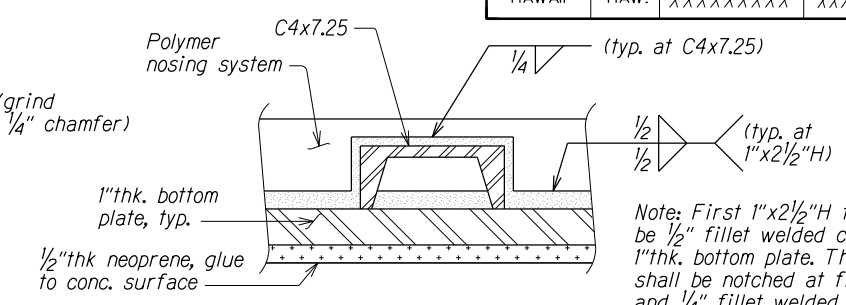
SHEET No. Q3 OF 3 SHEETS

XXXX

SURVEY PLOTTED BY	DATE
h3b297	APR 2018
DESIGNED BY	DATE
h3b297	APR 2018
CHECKED BY	DATE
h3b297	APR 2018

h3b297

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

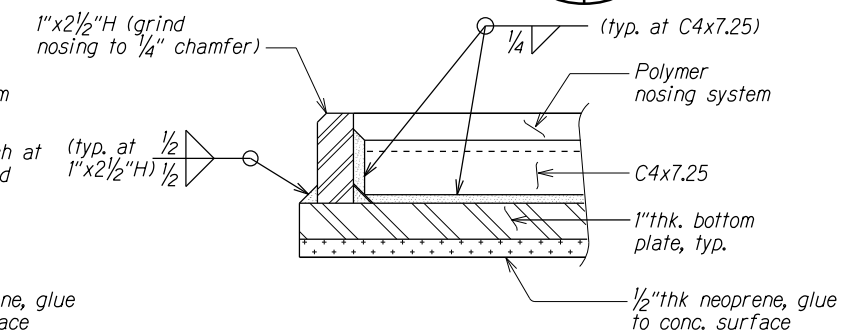


**SECTION**

Scale:  $1\frac{1}{2}" = 1'-0"$


**D**

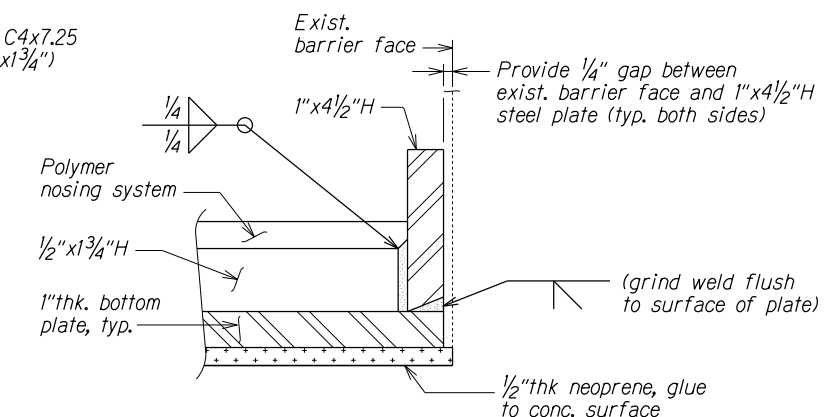
Q4 | Q4



**SECTION**

Scale:  $1\frac{1}{2}" = 1'-0"$

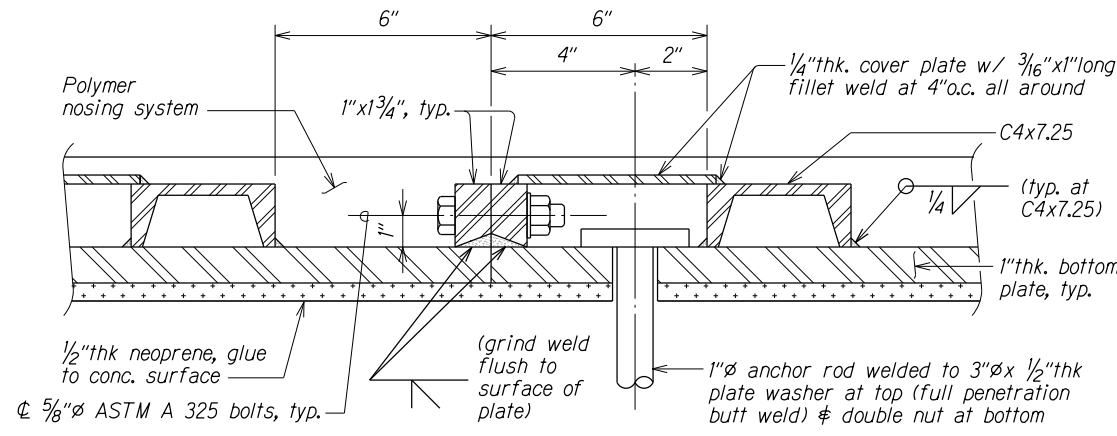




DETAIL

Scale: 1" = 1'-0"

3  
Q3 | Q4



DETAIL

Scale:  $1\frac{1}{2}" = 1'-0"$

4
Q3   Q4

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**H-3 WINDWARD VIADUCT INBOUND**  
SECTIONS and DETAILS of  
NEW EXPANSION JOINT  
INTERSTATE ROUTE H-3 REPLACEMENT of EXPANSION JOINT  
Project No.

Scale: As Noted Date: Xxx.Xxxx

SHEET No. 04 OF 4 SHEETS