

PRECAST PANEL GENERAL NOTES:

1. General:

- A. Workmanship and materials shall conform to the AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014 including its subsequent interim revisions, HDOT Design Criteria for Bridges and Structures, August 8, 2014 and the Hawaii Standard Specifications for Bridge and Road Construction, 2005 as modified by the State of Hawaii Department of Transportation.
- B. Details noted as typical on structural drawings shall apply in all conditions unless specifically shown or noted otherwise.
- C. The Contractor shall be responsible for protection of the adjacent properties, structures, streets, and utilities during the construction period. Any damage or deteriorated property shall be restored to the same or better condition at no cost to the State.
- D. Elevations and details of the existing structures as shown on these plans are based on as-built drawings. The contractor shall be responsible for verifying all existing elevations and existing structure details and shall notify the Engineer of any discrepancies for further action.
- E. Details and information for pavement width, pavement thickness, pavement boundaries, pavement layout (plans and profiles), cross slope, roadway sections, and pavement sections are shown in the Civil drawings.
- F. For other requirements, see Section 416 - Jointed Precast Concrete Pavement (JPCP).
- G. Provide shop drawings for all joint layouts a minimum of 2 weeks prior to work for approval by the Engineer.

2. Design Criteria:

- A. Live Load ----- AASHTO HL-93 Loading

3. Concrete:

- A. Concrete shall be regular weight hard rock concrete and shall have the following minimum 28-day compressive strengths and water to cement ratios:
- | Structural Item | Minimum Compressive Strength f'c (28 days) | Maximum (W/C) |
|---------------------------------|--|---------------|
| 1. Jointed Precast Panels ----- | 6,000 psi | 0.40 |
| 2. All other concrete ----- | 4,500 psi | 0.45 |
- B. The use of any calcium chloride in any concrete is prohibited.
- C. Masterlife SRA20 shrinkage reducing admixture, Eclipse Plus shrinkage reducing admixture, or an approved equal, shall be included in the concrete mix for Item Nos. (1) and (2) under Note 3.(A). The required dosage shall be 128 ounces per cubic yard of concrete or as recommended by the manufacturer. Addition of shrinkage reducing admixture shall be as recommended by the manufacturer.
- D. Reinforcing bars, anchor bolts, inserts and other items to be cast in the concrete shall be secured in position prior to placement of concrete.
- E. For casting of panels, see special provision specification section 416.03(C). Immediately after pouring, use wet burlap, fog spraying, curing compound, or other approved method.
- F. Concrete Item No. (2) under Note 3.(A) may consist of a non-shrink, non-metallic, high compressive strength grout mixed with Pea Gravel. 30 lbs. of 3/8" pea gravel shall be added for every 50 lbs. of packaged, dry grout mix.
- G. Non-shrink Grout shall conform to Section 712.04 of the Standard Specification.
- H. Bedding and Dowel grout shall conform to Section 416.02 of the Special Provision Specification.

4. Reinforcing Steel:

- A. Reinforcing steel shall be deformed epoxy-coated bars conforming to ASTM A775, Grade 60 Unless Otherwise Noted. The Contractor has the option of replacing the epoxy-coated bars with plain deformed reinforcing steel that conforms to the requirements of ASTM A615, Grade 60, provided a migrating corrosion inhibitor amine carboxylate water-based admixture is added to the concrete mix. The minimum dosage shall be 24 ounces per cubic yard of concrete.
- B. Clear concrete coverage for reinforcing bars shall be as follows, unless otherwise noted:
1. Concrete cast against earth ----- 3"
2. Concrete formed and exposed to earth or weather ----- 2"
3. Jointed precast concrete panel top face ----- 2 1/2"
- C. Reinforcing steel shall be spliced only where indicated on plans. Provide lap splice length per typical details and schedule on this sheet, unless otherwise noted.
- D. Bar bends and hook shall be "standard hooks" in accordance with Typical Details on this sheet.
- E. The contractor shall not damage the epoxy coating on the dowels and deformed bars in any way during shipment, handling, or placement. Damaged epoxy coated dowels and deformed bars shall be replaced at no cost to the State. Repair of epoxy coating as approved by the Engineer shall meet ASTM A775.
- F. Dowel slots shall be thoroughly cleaned by sandblasting or other suitable means to remove all form release materials before installing the panels and grouting of the dowels.

MINIMUM SPLICE & EMBEDMENT LENGTHS

Bar Size	Lap Splice		Embedment		
	Top Bars	Other Bars	Straight		with Standard 90° Hook
			Top Bars	Other Bars	
#3, #4	29"	21"	17"	12"	7"
#5	36"	26"	21"	15"	9"
#6	43"	31"	26"	18"	10"
#7	54"	39"	32"	23"	12"
#8	71"	51"	42"	30"	14"
#9	90"	64"	53"	38"	15"

Notes:

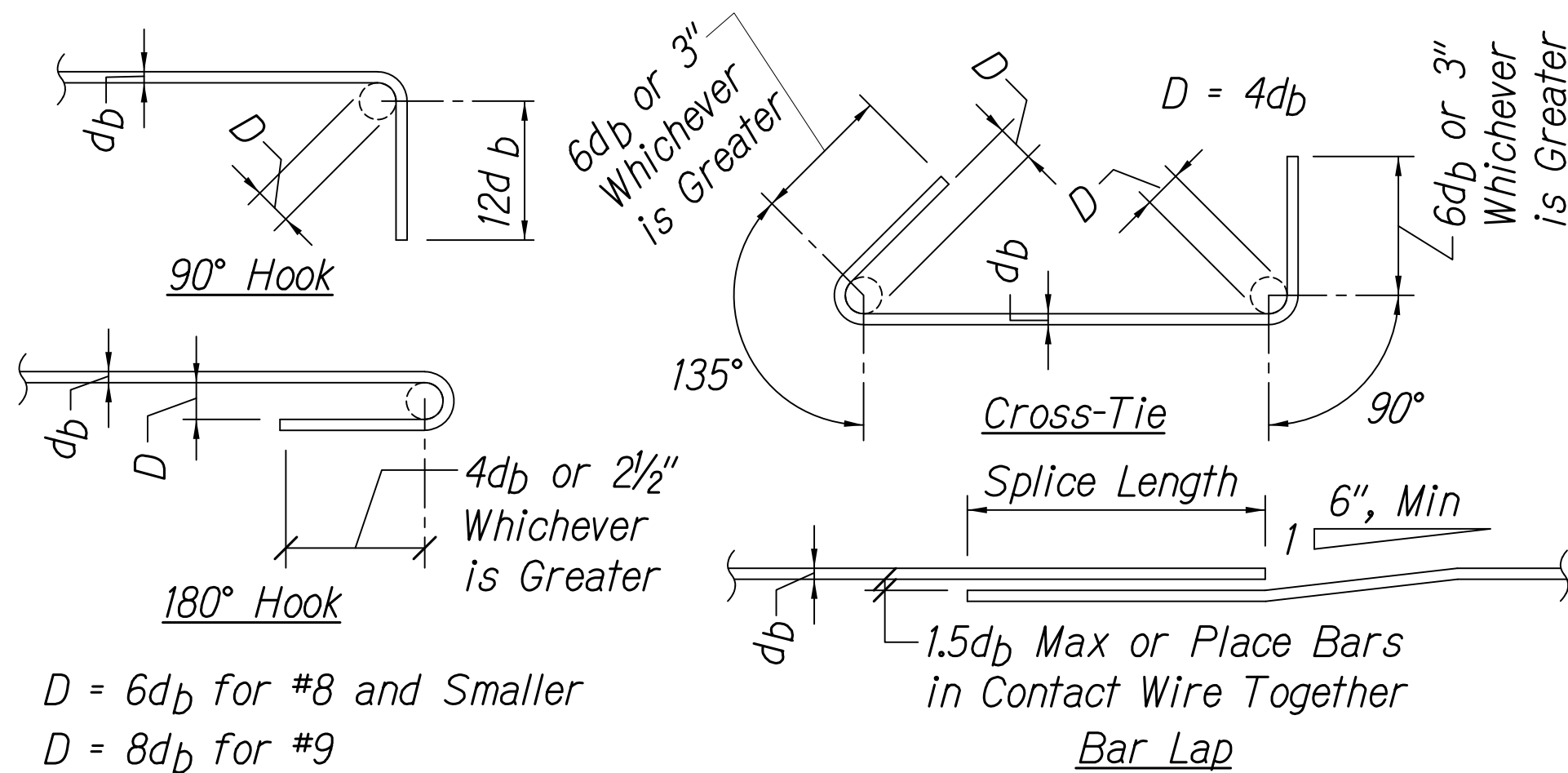
1. "Top Bars" are horizontal bars with 12" or more of concrete cast below.
2. Splice lengths may be reduced by multiplying the tabulated values by 0.765 if the centerline of splice of adjacent bars are staggered 6'-0" o.c. for #9 bars and smaller.
3. Embedment lengths for straight bars may be reduced by multiplying the tabulated values by 0.80 if the bars are spaced laterally not less than 6" center-to-center, with not less than 3" clear cover measured in the direction of the spacing.
4. Embedment lengths for bars with 90° hook are bars with side cover, normal to plane of hook, of not less than 2 1/2" and cover on bar extension beyond hook not less than 2". Increase embedment length by 43% for bars not meeting these requirements.

TYPICAL REBAR SPLICE AND EMBEDMENT LENGTH SCHEDULE

Not to Scale

1
S.O.1 | S.O.1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-112741	FY18	36	65

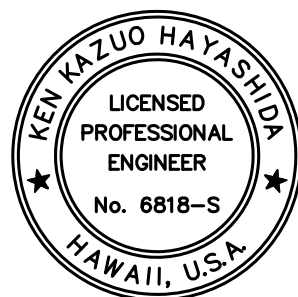


D = 6db for #8 and Smaller
D = 8db for #9

STANDARD HOOKS AND CROSS-TIE DETAIL

Not to Scale

2
S.O.1 | S.O.1



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PRECAST PANEL GENERAL NOTES AND TYPICAL DETAILS
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

Scale: As Shown Date: October 10, 2018

SHEET No. S.O.1 OF 65 SHEETS

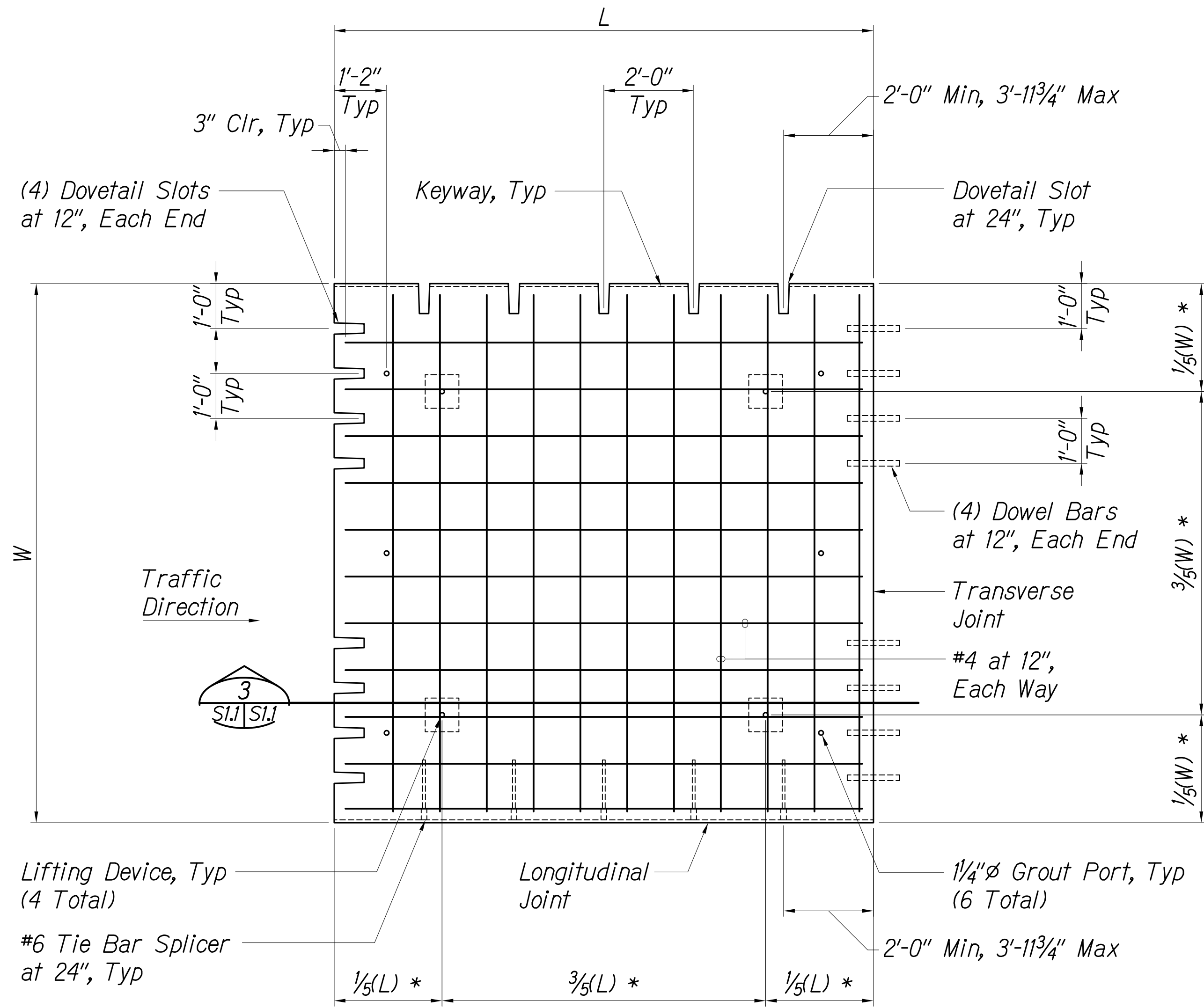
"AS-BUILT"

36

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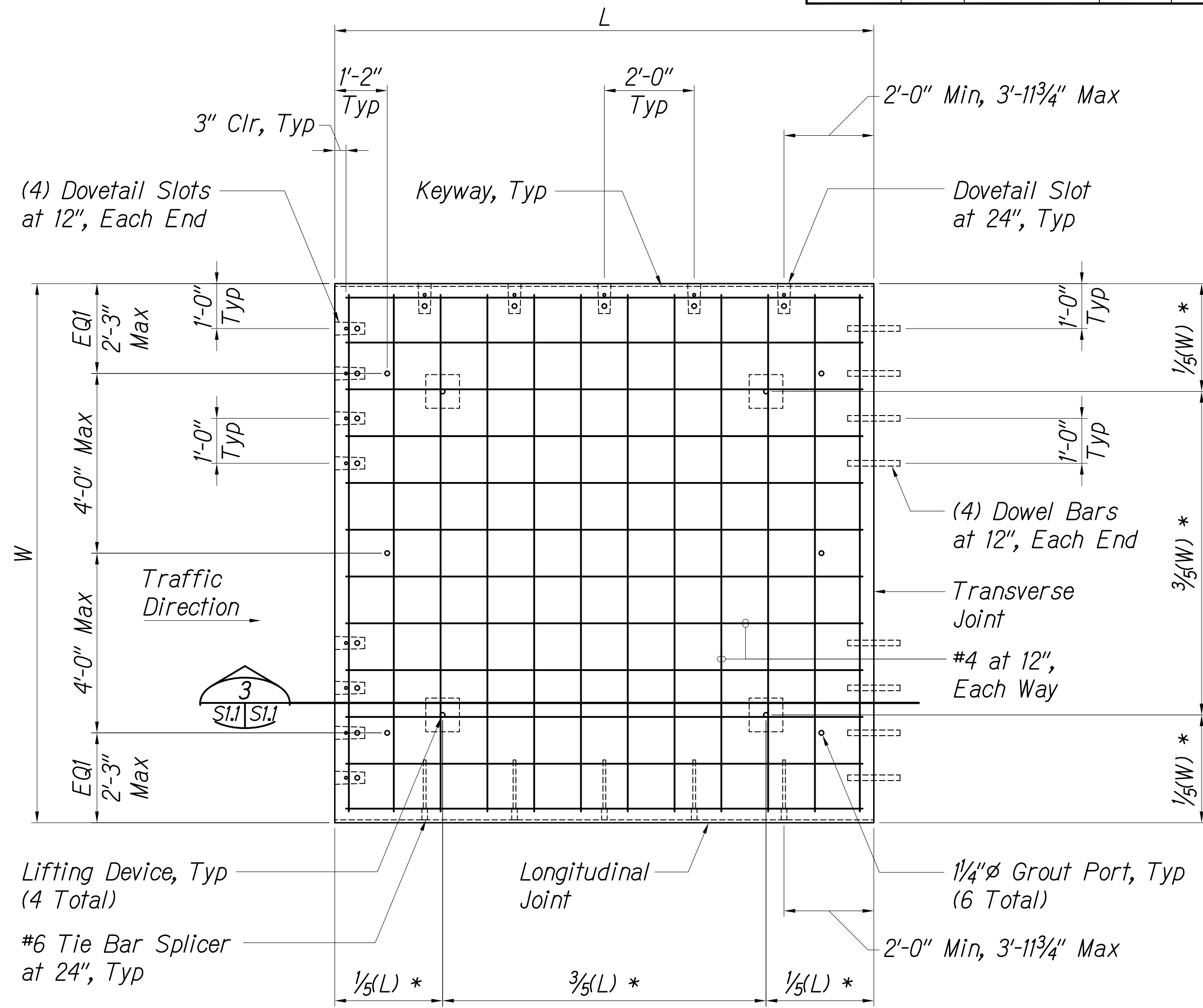
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NOTE BOOK	DRAWN BY	
No.	TRACED BY	
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* Lifting Device location tolerance shall be ±6"

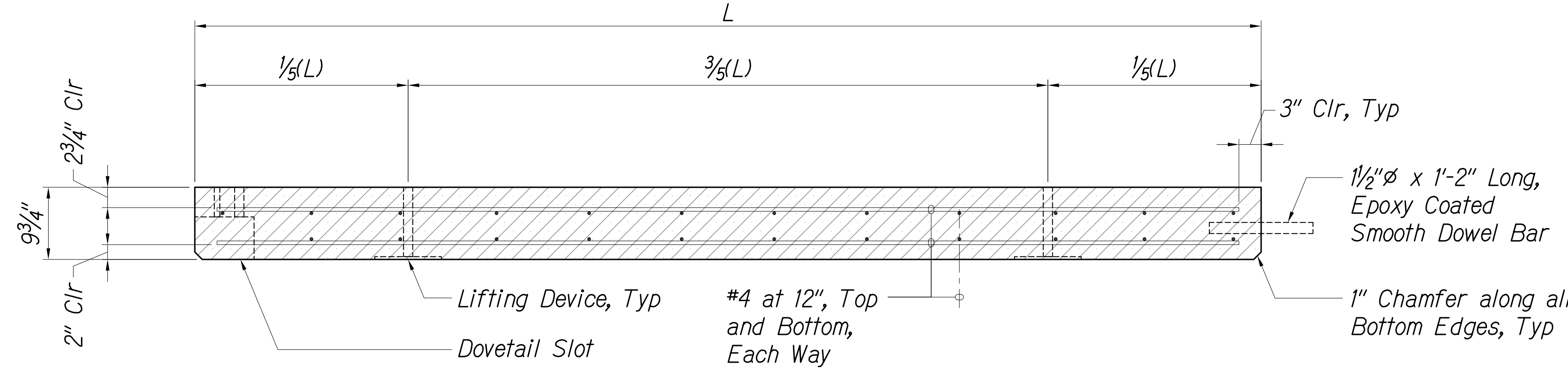


REBAR MAT (BOTTOM LAYER)
Not to Scale

* Lifting Device location tolerance shall be ±6"

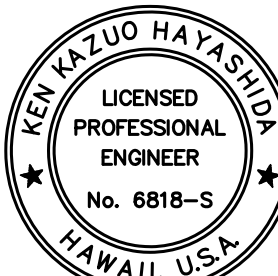


REBAR MAT (TOP LAYER)
Not to Scale



PANEL SECTION
Not to Scale

- Notes:
- 1/2"Ø x 1'-2" Long, Epoxy Coated Smooth Dowel Bars shall be used for transverse joints.
 - Orientation of grout channels and gaskets may vary.
 - For Grout Port and Joint Details, See Sheets SI.5 to SI.7.
 - Adjust reinforcement bars to accommodate dovetail slots, tie bar splicers, and dowel bars.
 - Shop drawings, tables, and shop cards will be provided by Fort Miller for each precast panel.



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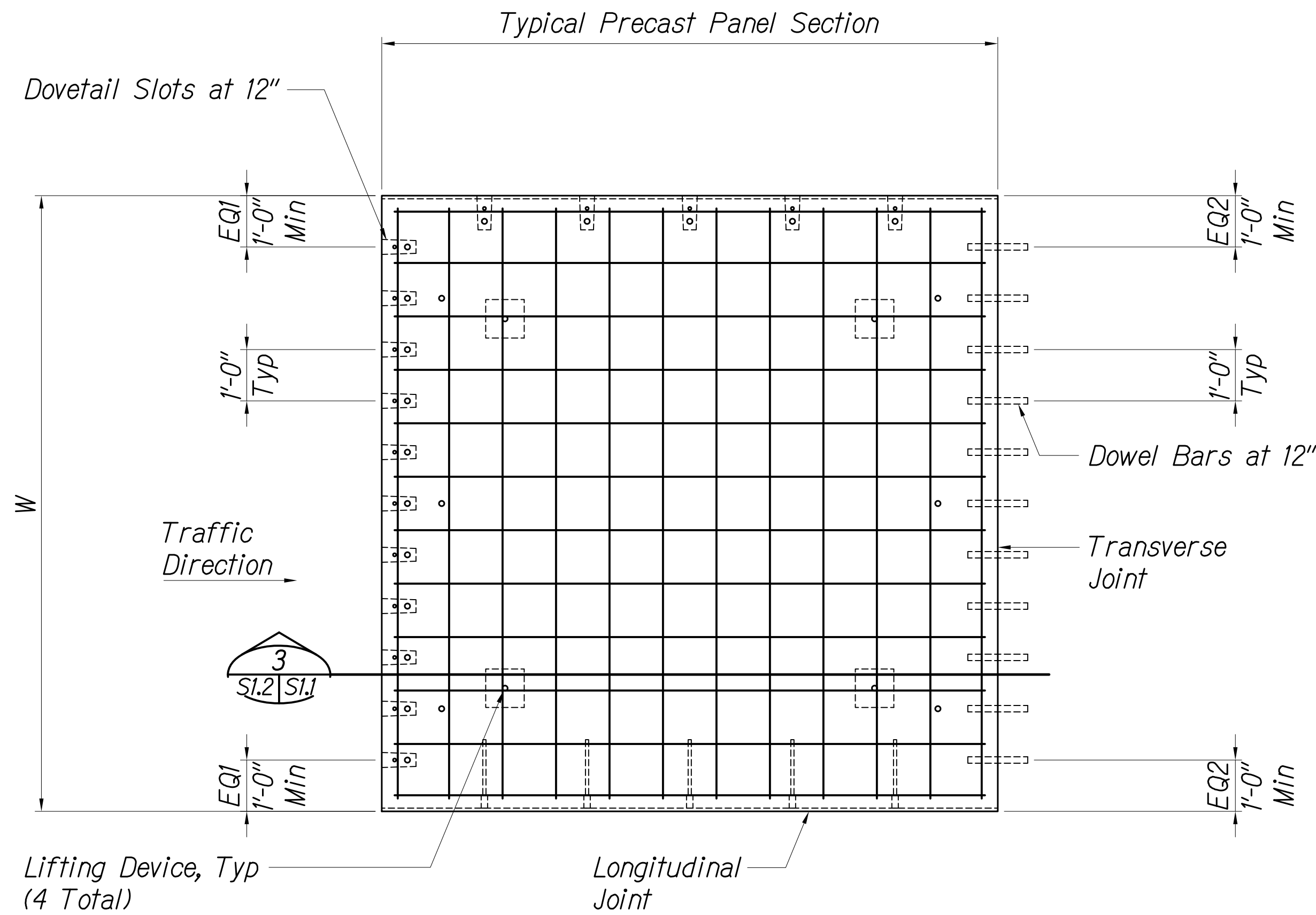
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL PRECAST PANEL
DETAILS - 1
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS
Scale: As Shown Date: October 10, 2018
SHEET No. SI.1 OF 65 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	38	65

Note:
1. For balance of information, see sheet S1.1.



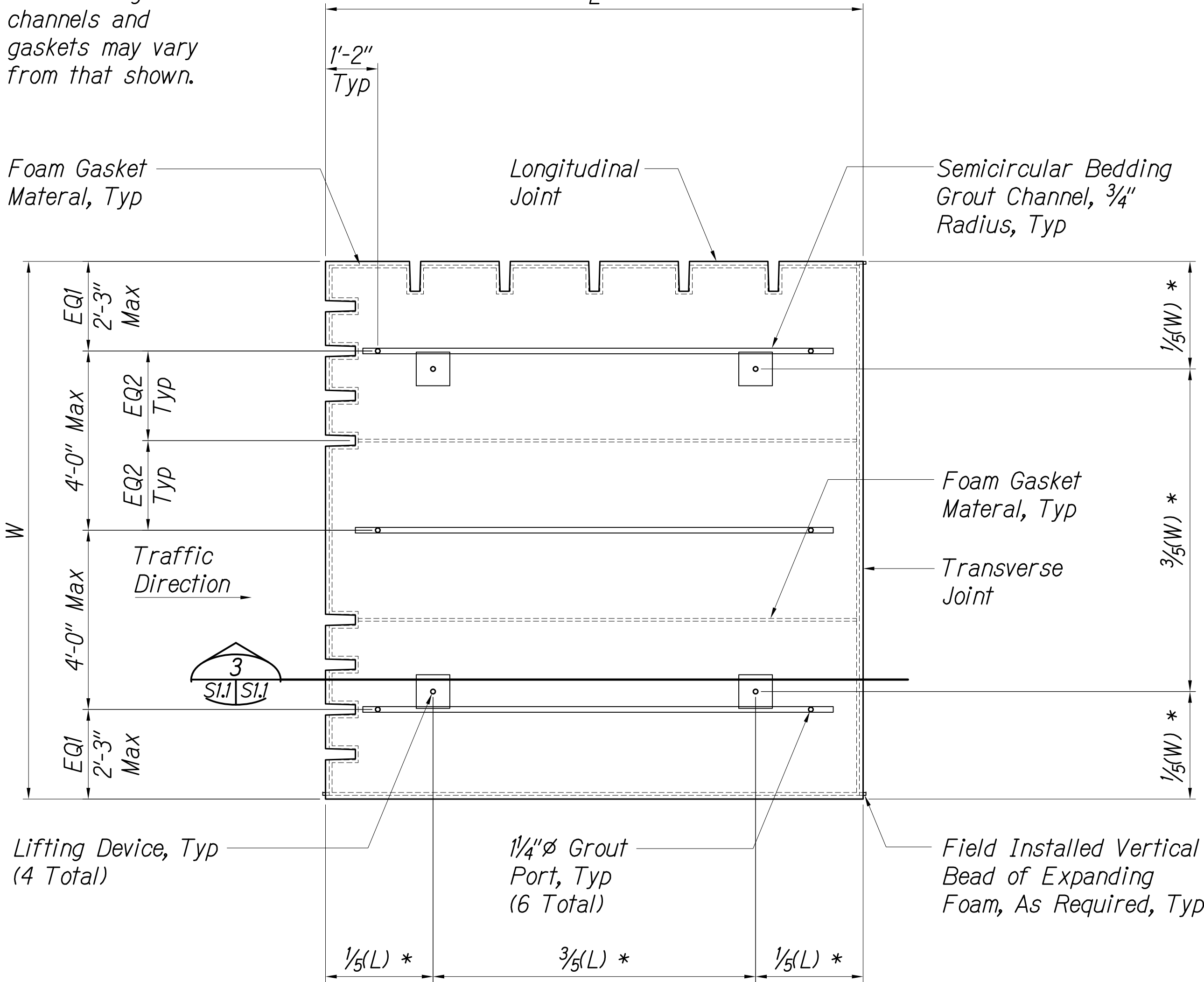
TYPICAL PRECAST PANEL DETAIL
(CONTINUOUS DOWEL BARS AND SLOTS)

Not to Scale

1
S-1.2 S-1.2

Note:
Orientation and number of grout channels and gaskets may vary from that shown.

* Lifting Device location tolerance shall be $\pm 6"$



BEDDING GROUT DISTRIBUTION PLAN

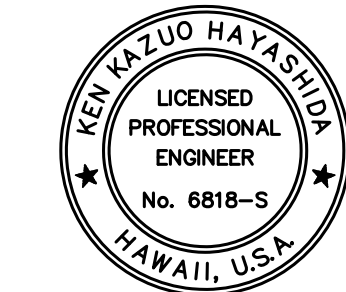
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2
S-1.2 S-1.2

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL PRECAST PANEL

DETAILS - 2

INTERSTATE ROUTE H-1

PORTLAND CEMENT CONCRETE PAVEMENT

REHABILITATION

VICINITY OF WAIMALU TO VICINITY OF HALAWA

PHASE 3 - ADDITIONAL PANELS

Scale: As Shown

Date: October 10, 2018

SHEET No. S1.2 OF 65 SHEETS

"AS-BUILT"

38

Note:
1. For balance of information, see sheet S11.



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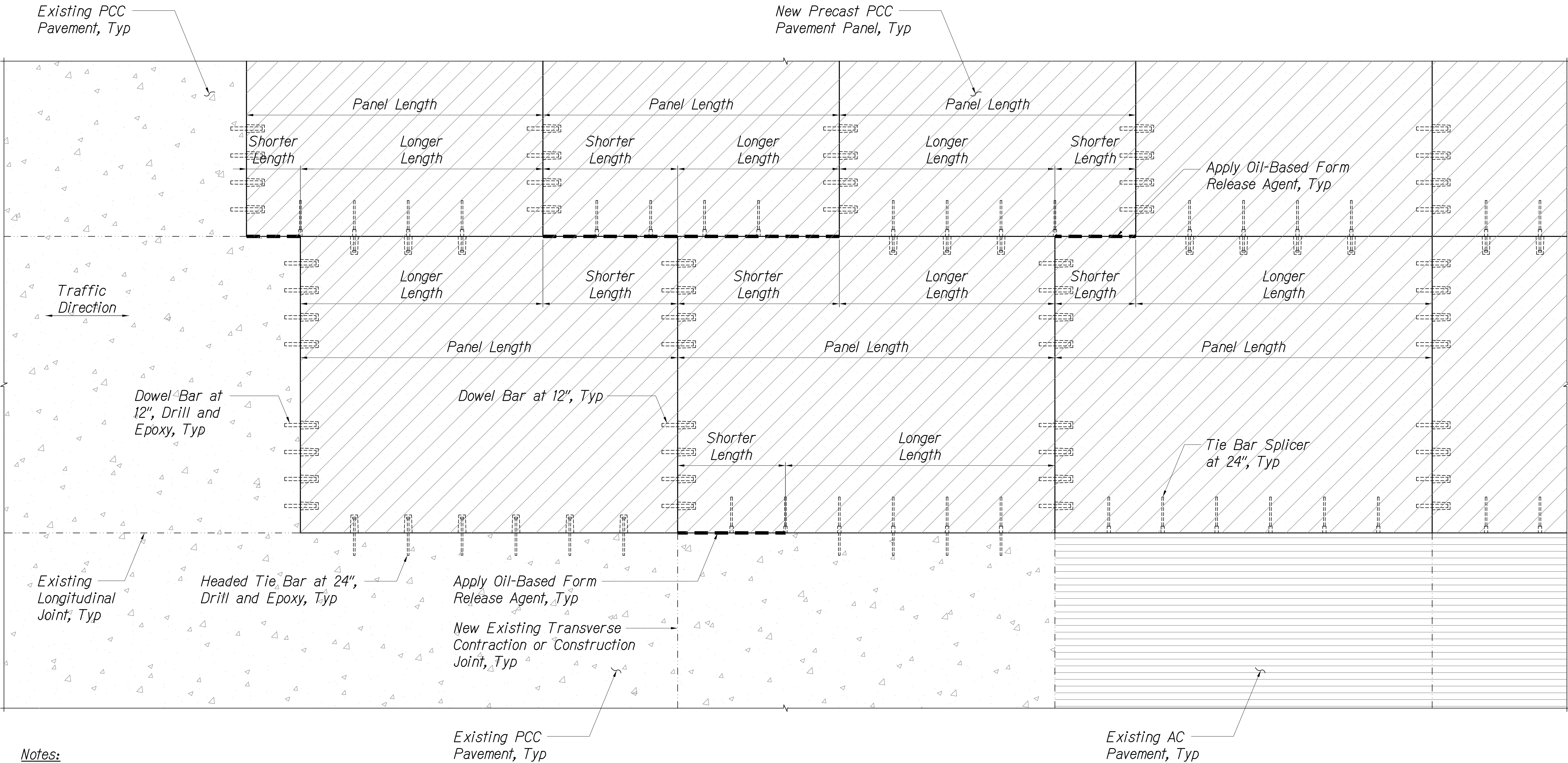
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SHEET No. S1.3 OF 65 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	40	65



- Notes:**
1. Along the longitudinal joints, each precast pavement panel shall be connected to no more than one adjacent panel with tie bars.
 2. At locations where there are misaligned transverse joints, a standard oil-based form release agent shall be added to the vertical concrete faces of the shorter lengths between the joints.

TYPICAL PRECAST PANEL JOINT CONNECTION DETAIL
Not to Scale

1
S1.4 S1.4

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KEN KAZUO HAYASHIDA
LICENSED PROFESSIONAL ENGINEER
No. 6818-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL PRECAST PANEL
DETAILS - 4
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

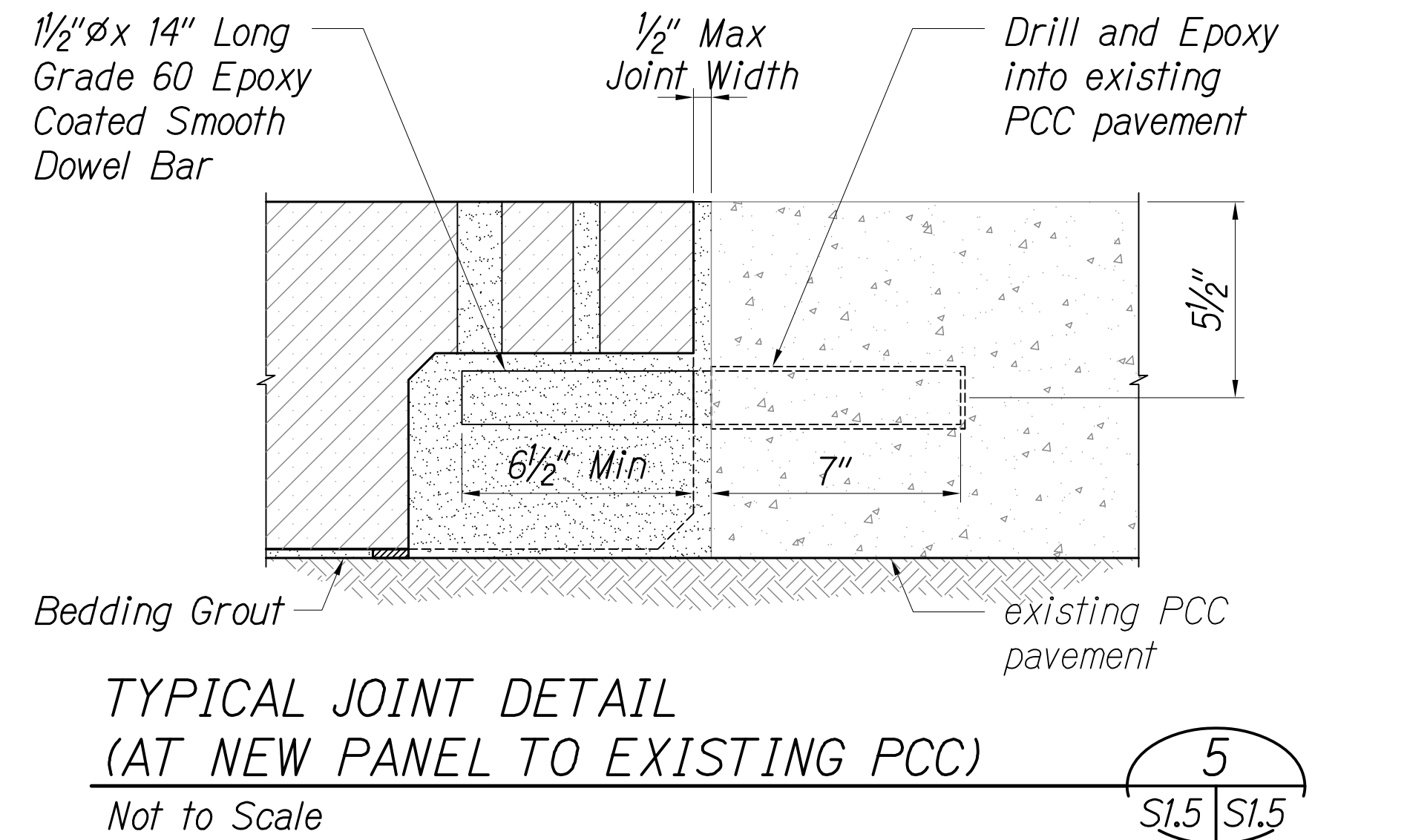
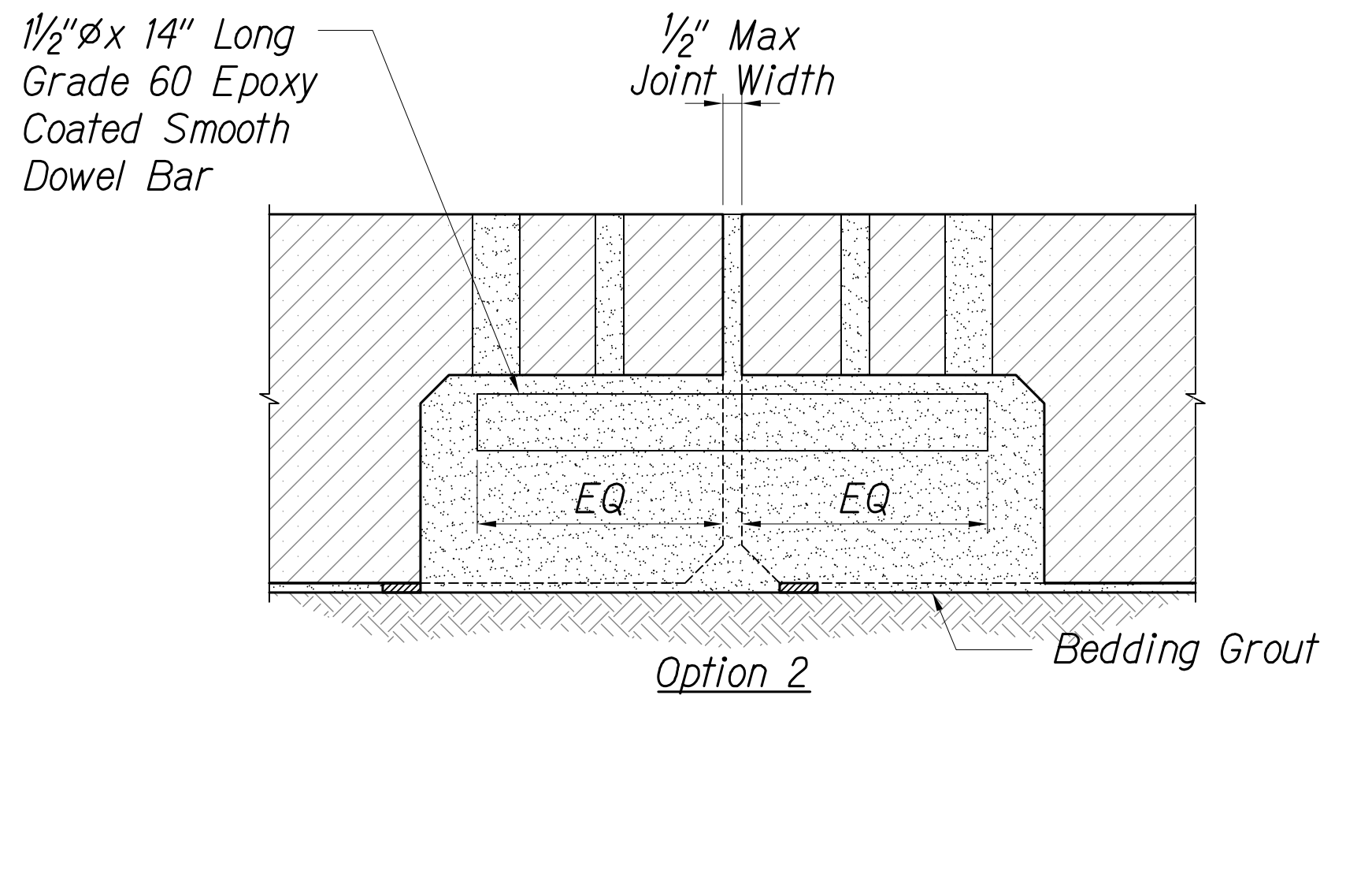
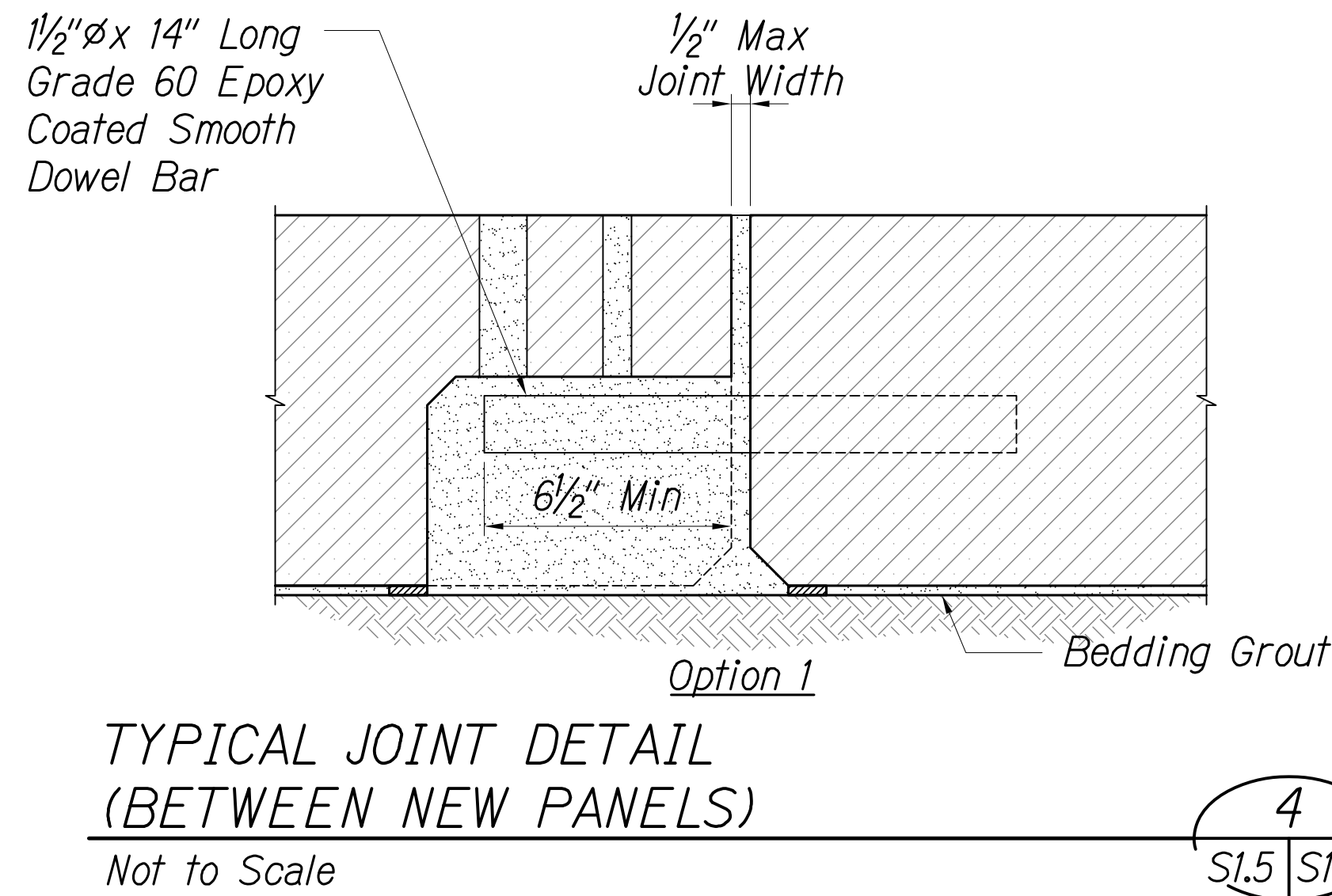
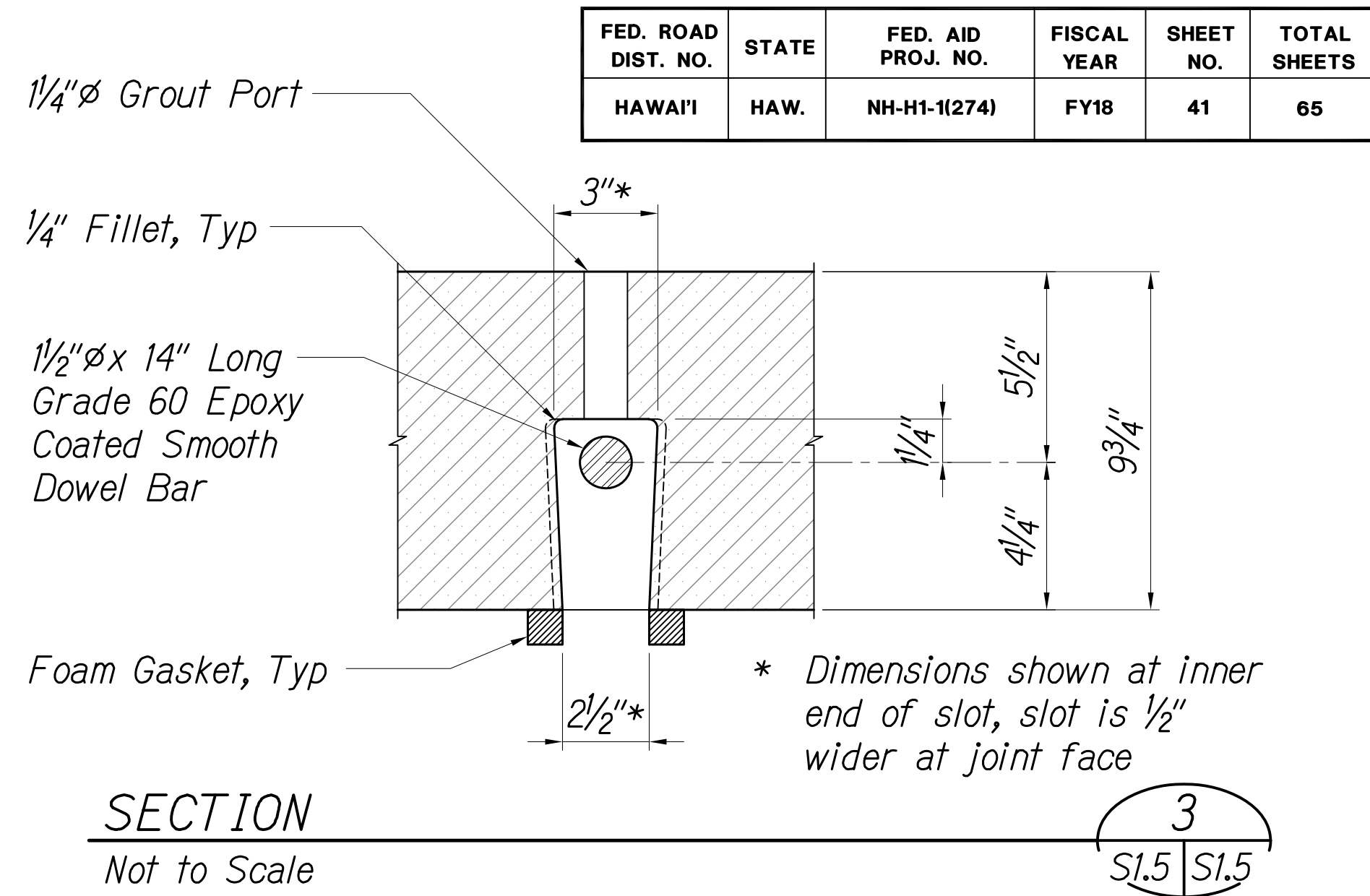
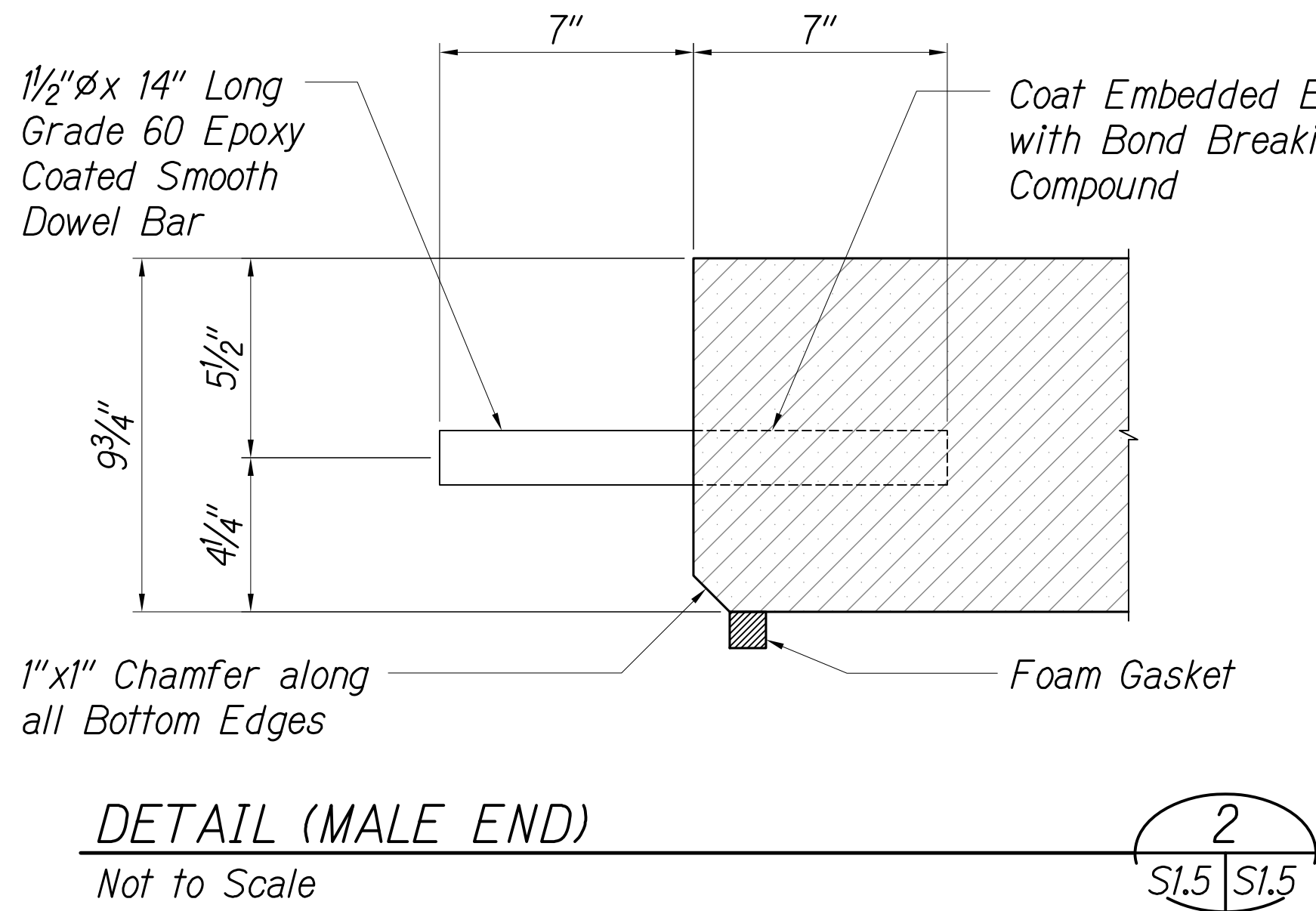
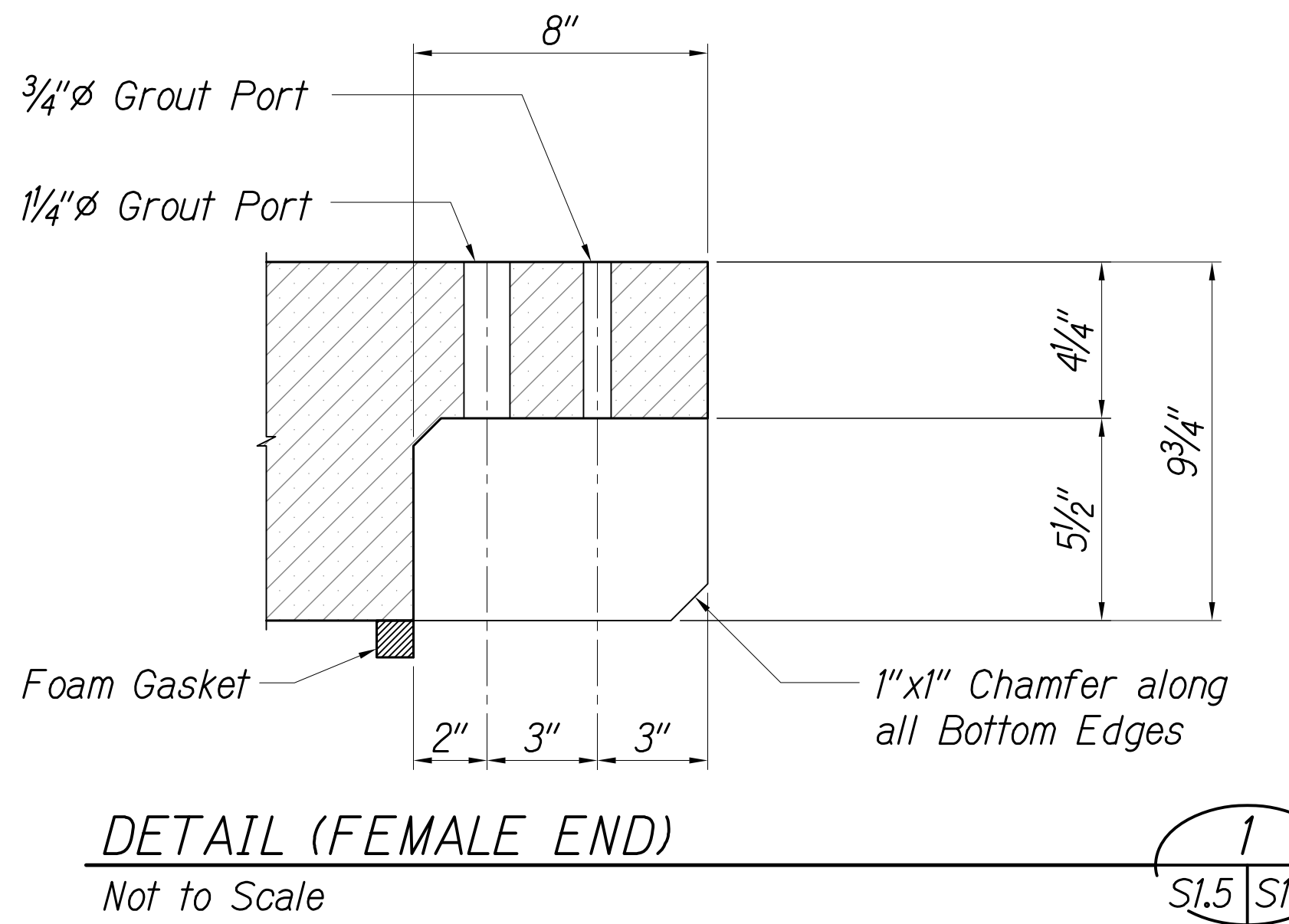
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SHEET No. S1.4 OF 65 SHEETS

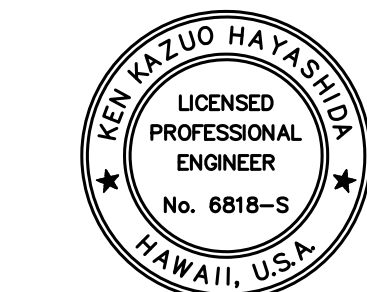
"AS-BUILT"

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



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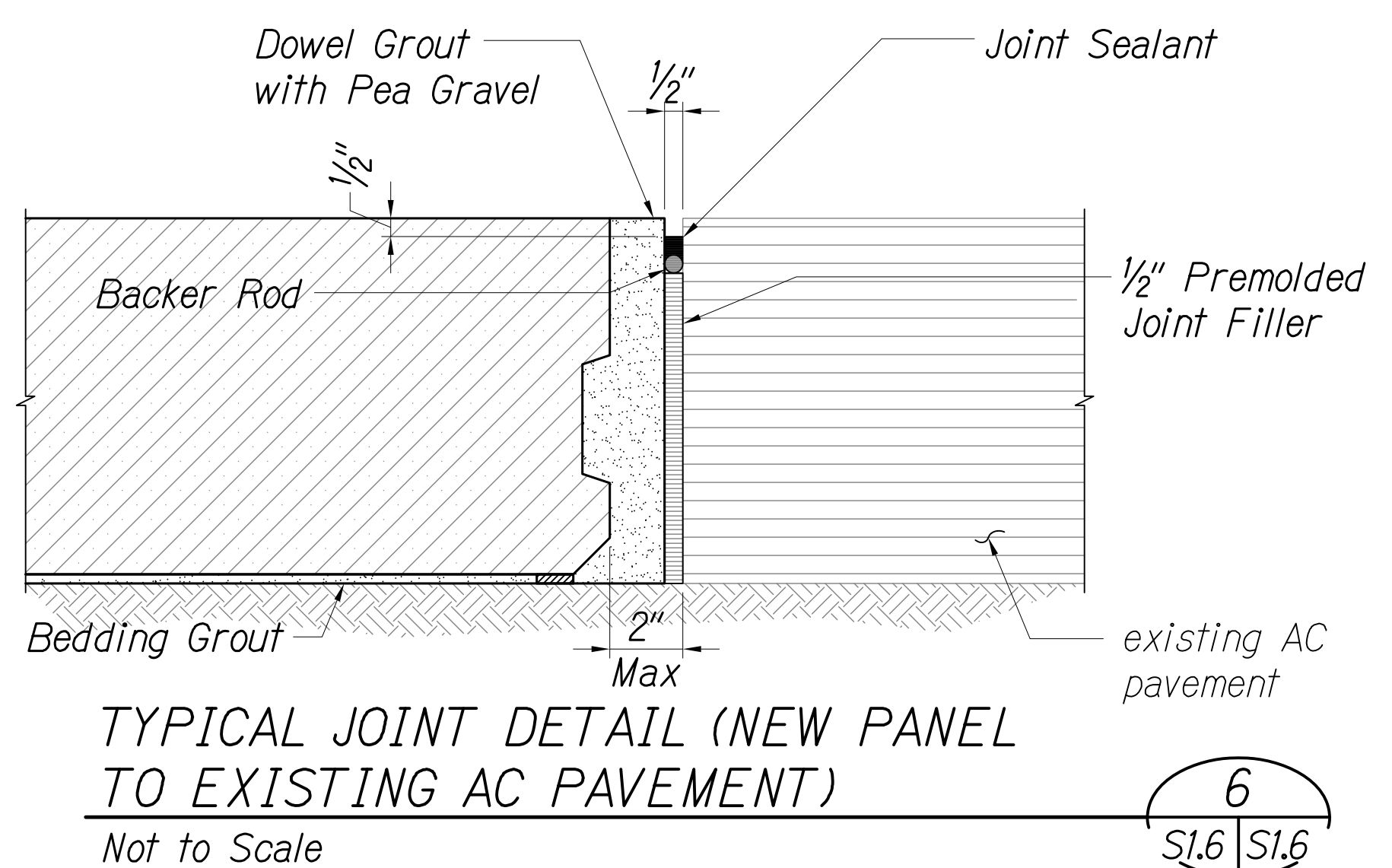
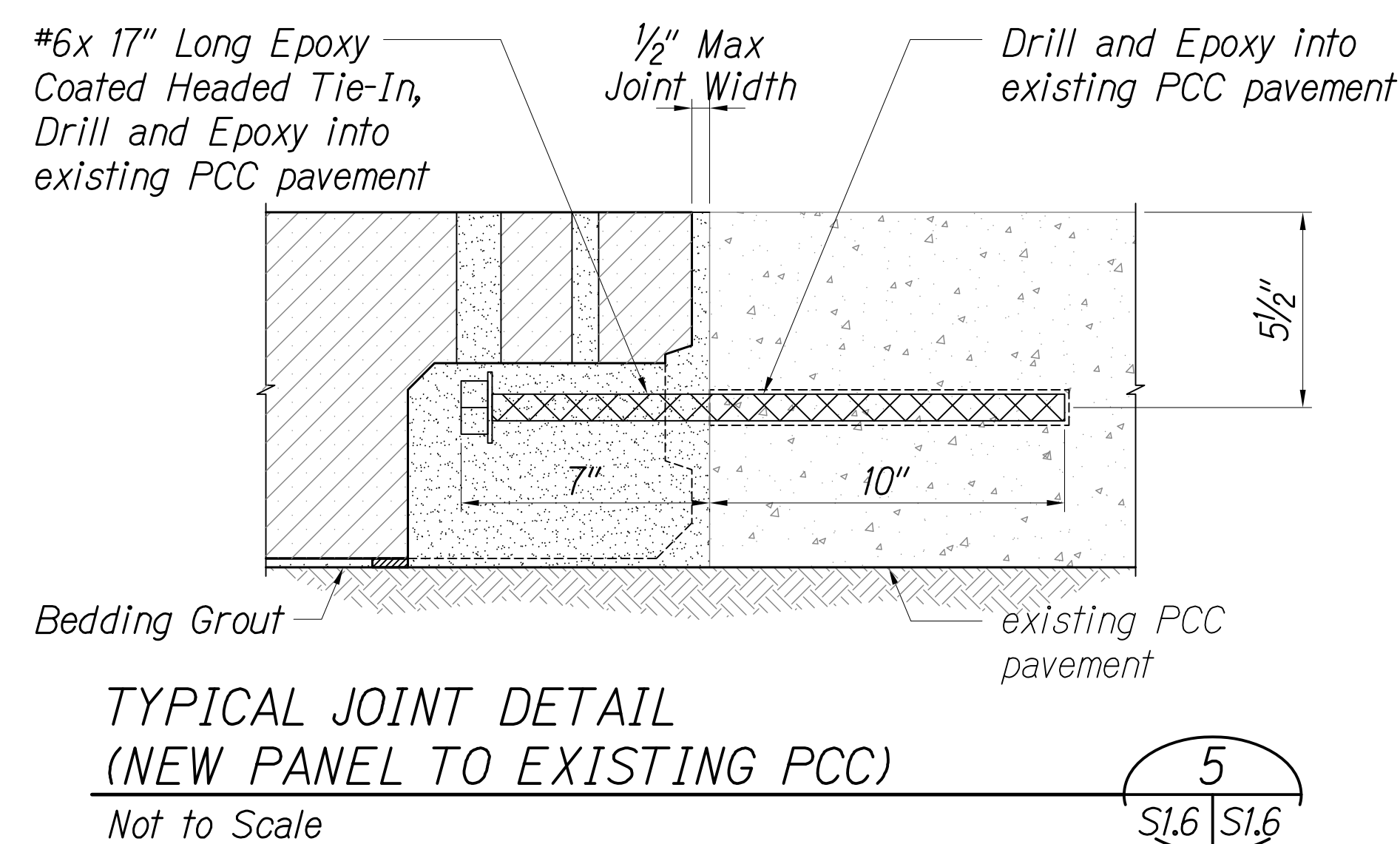
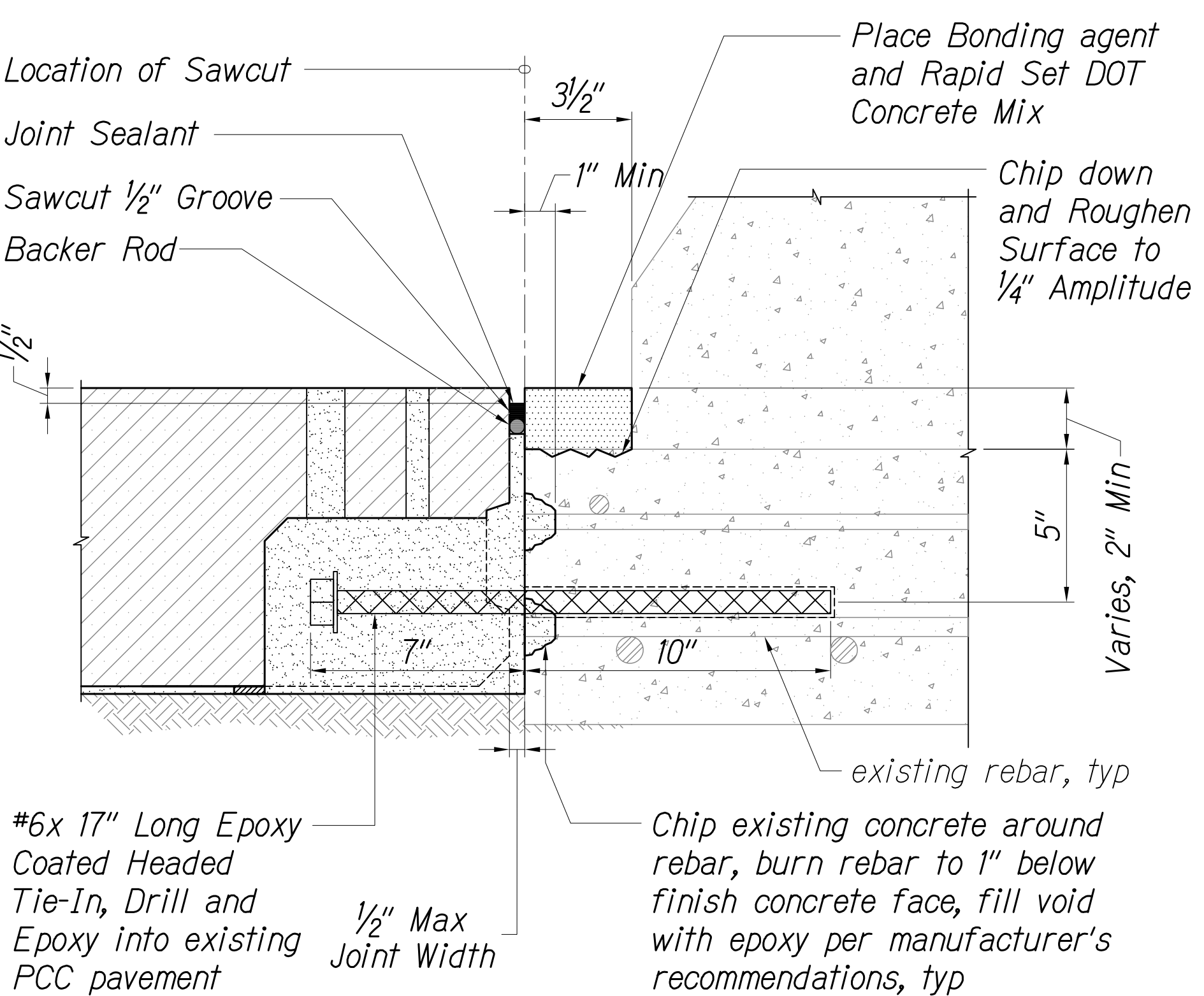
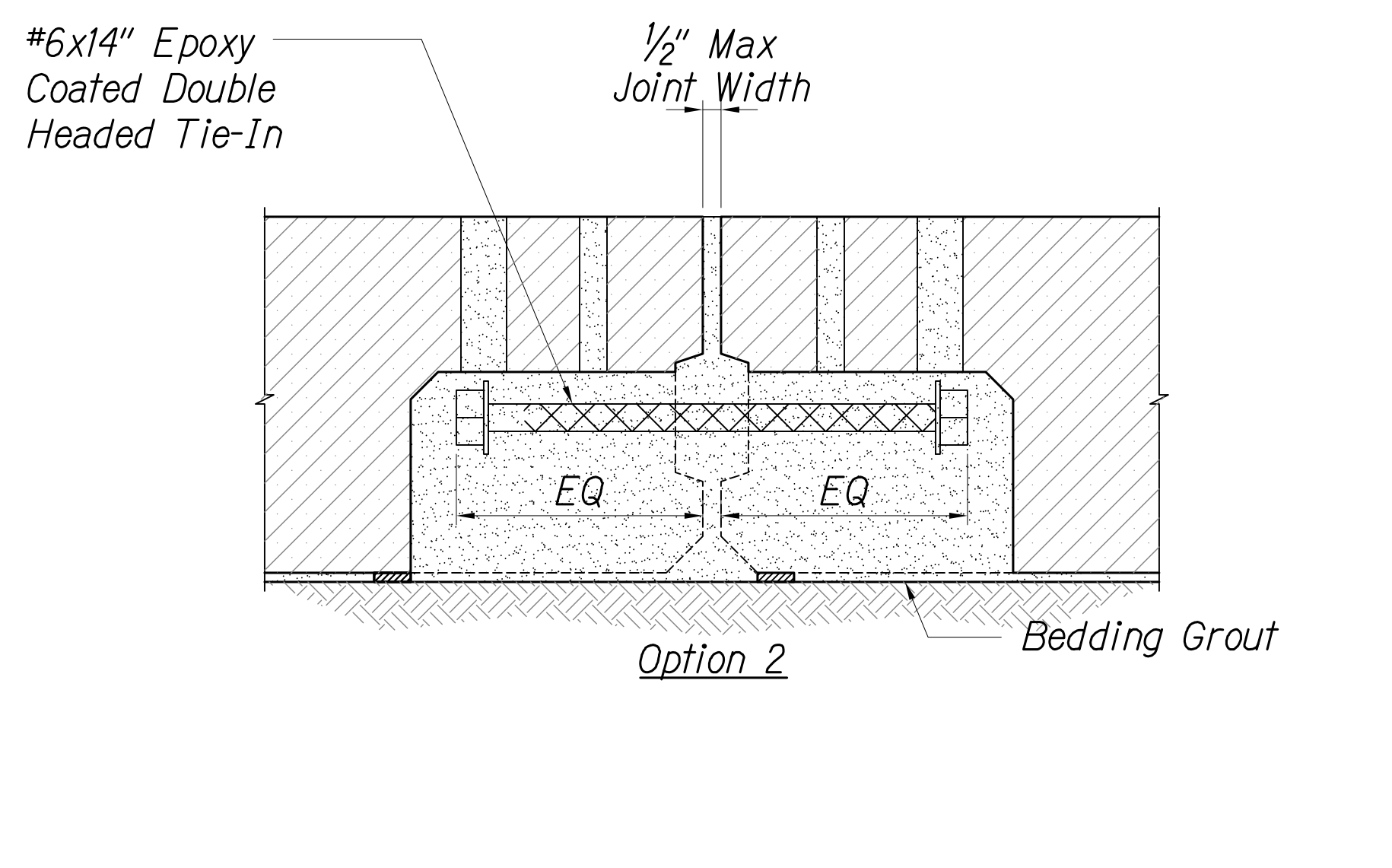
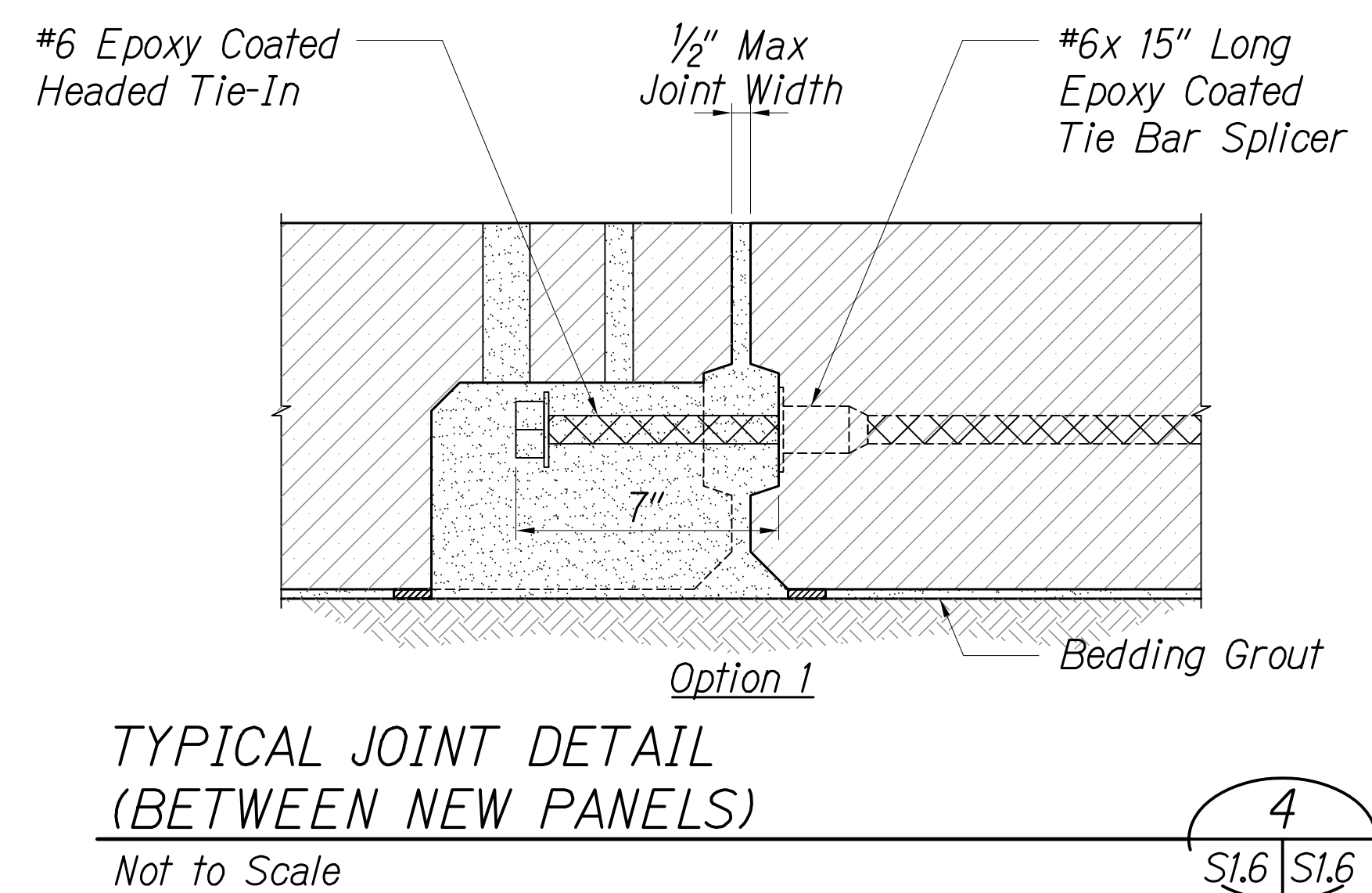
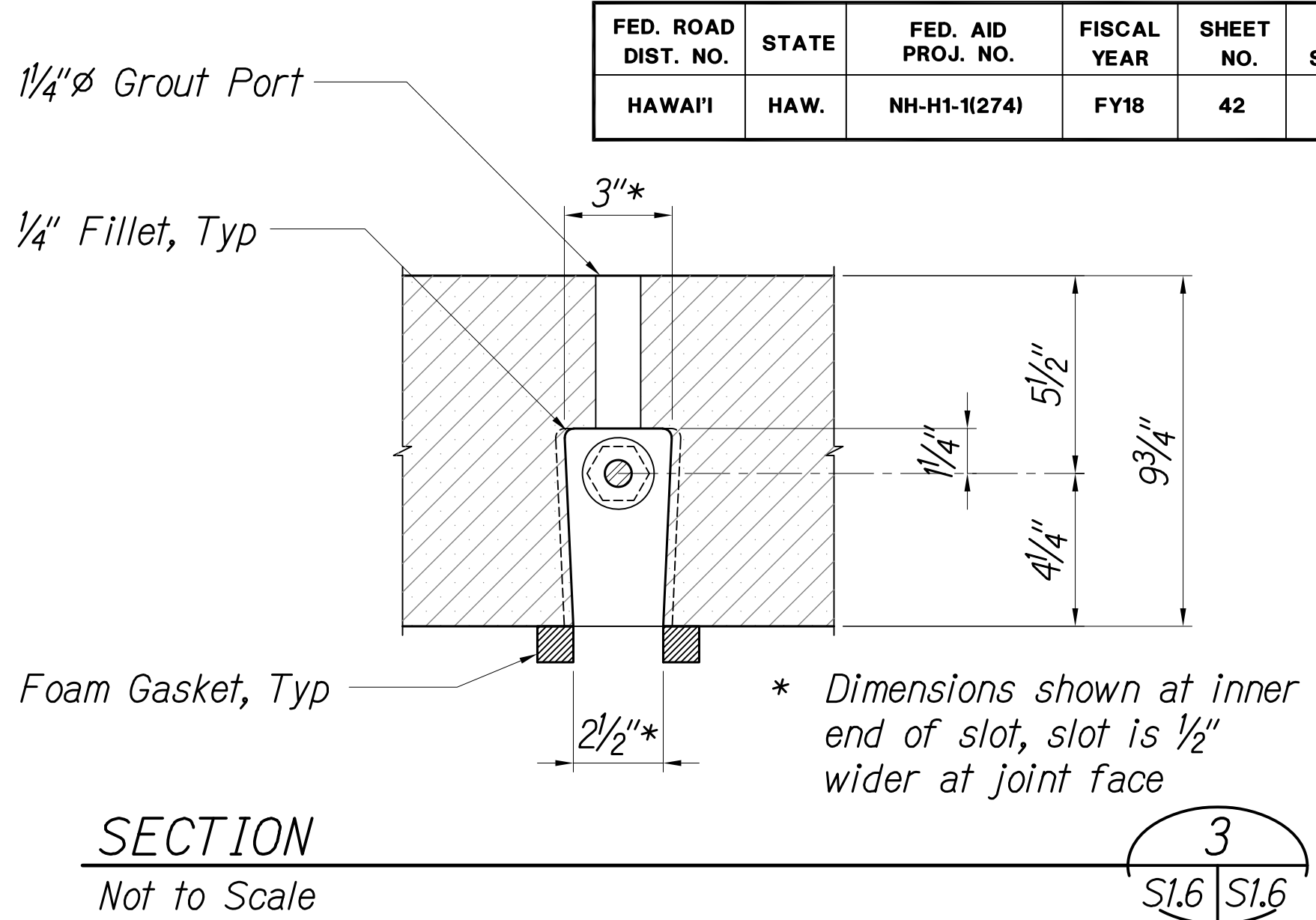
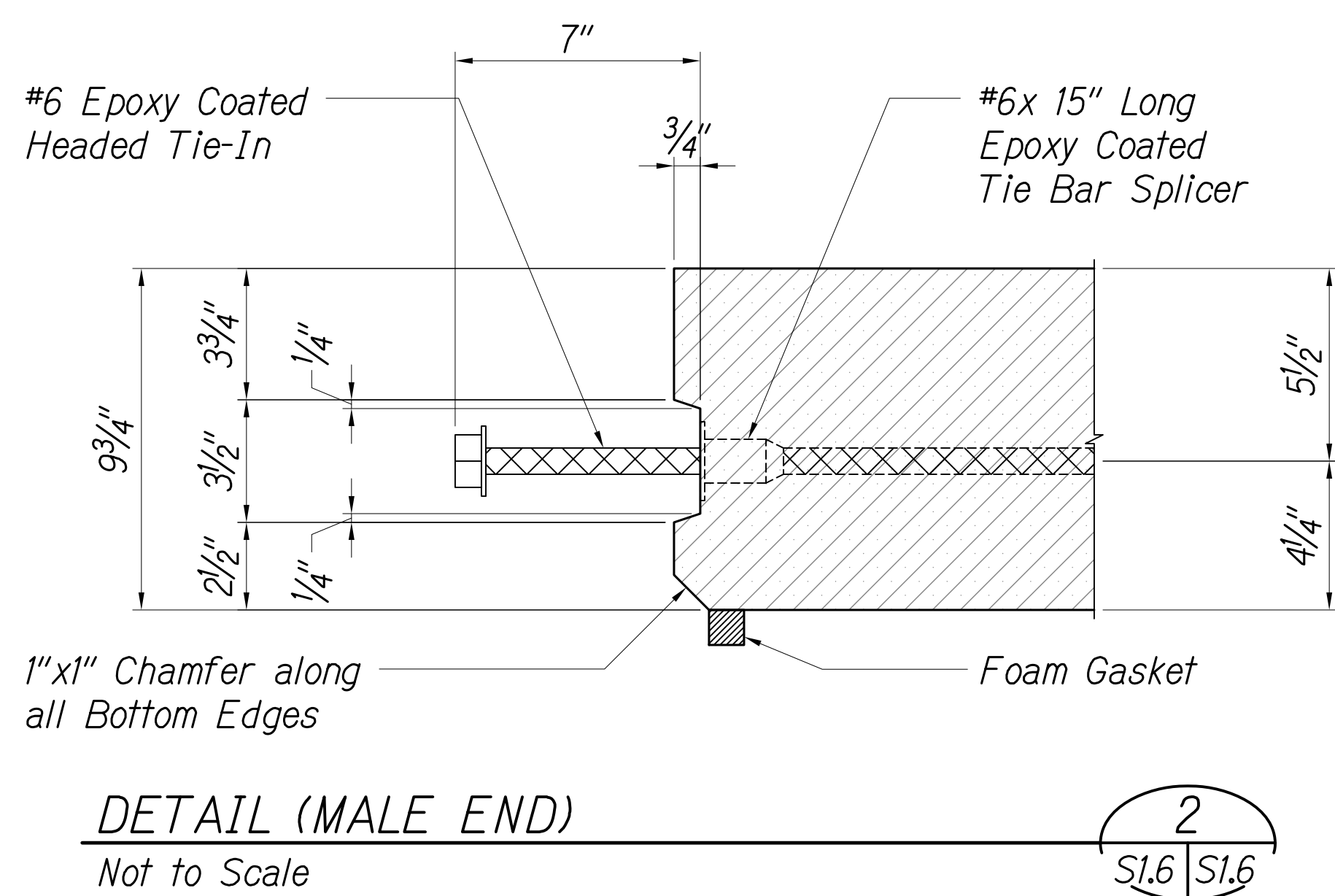
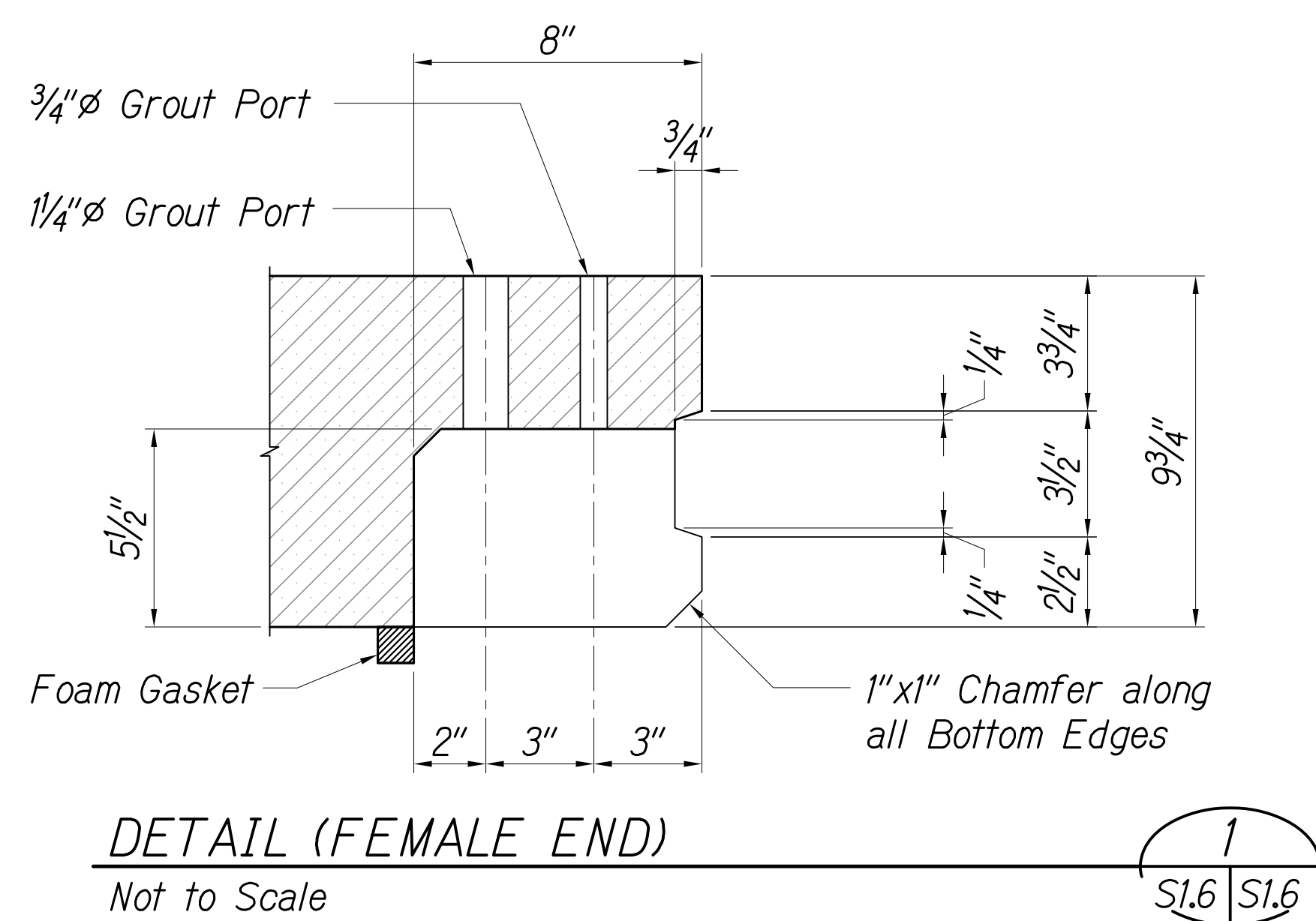


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EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL PRECAST PANEL
TRANSVERSE JOINT DETAILS**
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS
Scale: As Shown Date: October 10, 2018
SHEET No. S1.5 OF 65 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-112741	FY18	42	65



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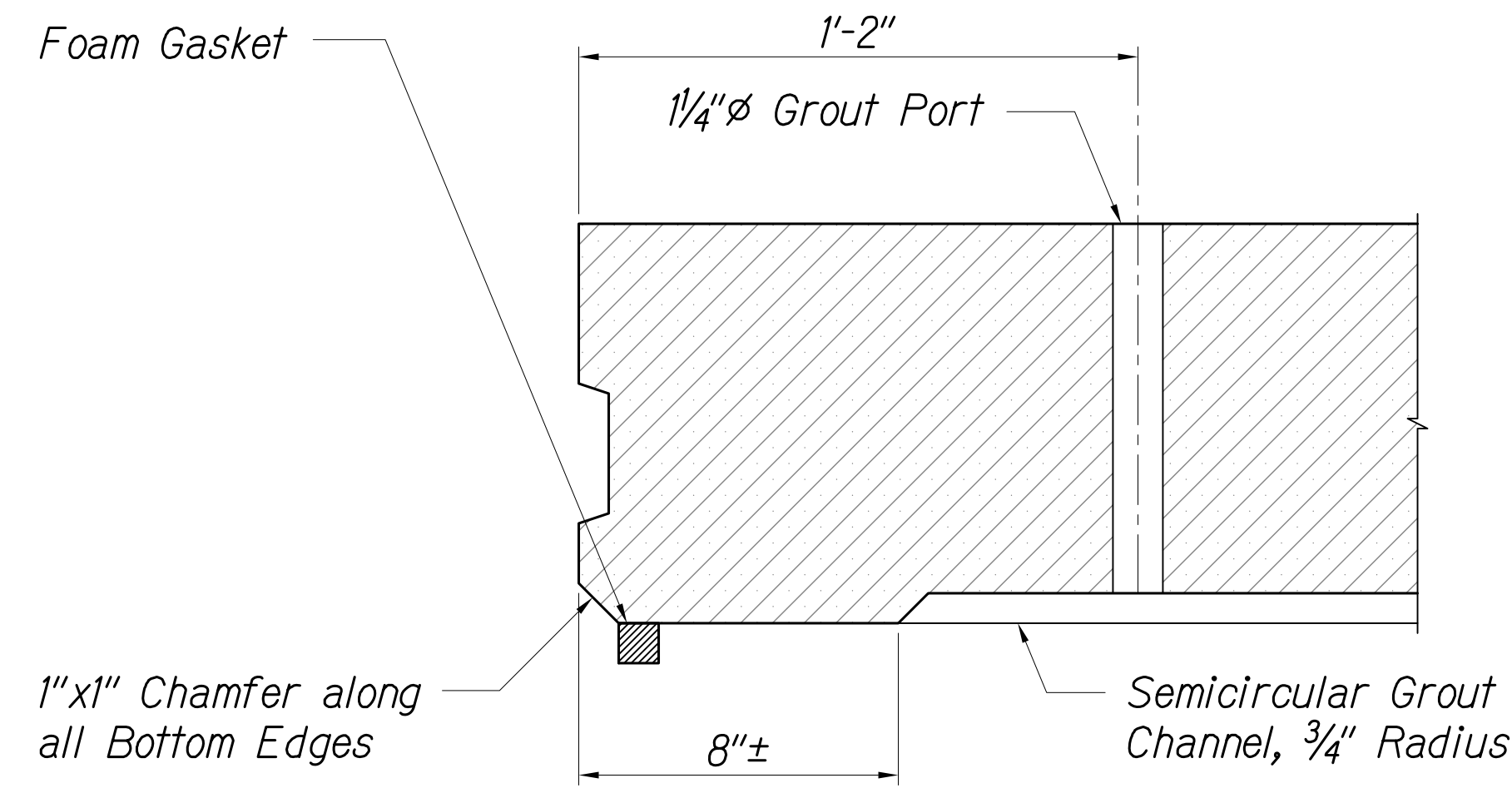
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KEN KAZUO HAYASHIDA
LICENSED PROFESSIONAL ENGINEER
No. 6818-S
HAWAII, U.S.A.

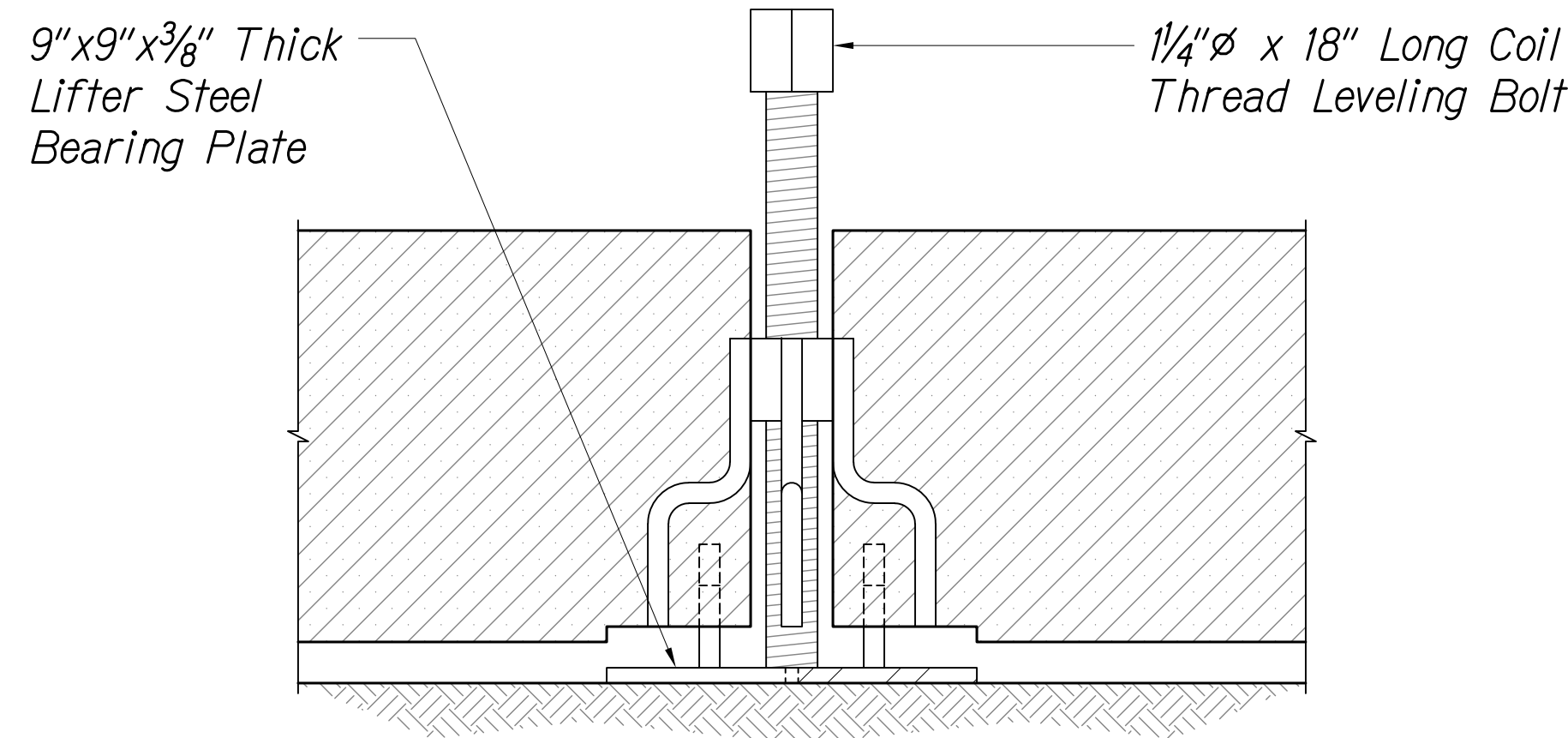
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL PRECAST PANEL
LONGITUDINAL JOINT DETAILS**
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS
Scale: As Shown Date: October 10, 2018
SHEET No. S1.6 OF 65 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	43	65



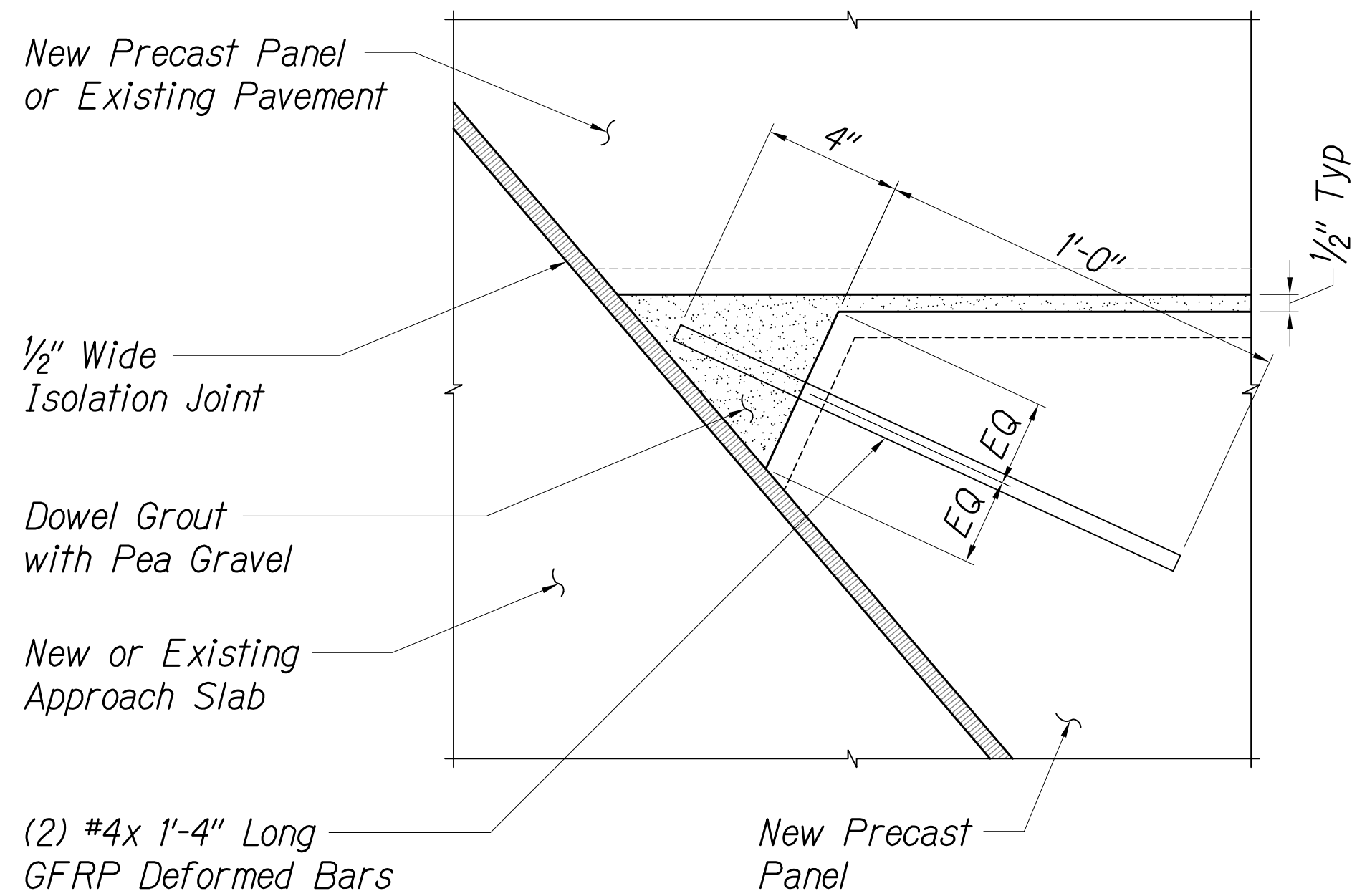
BEDDING GROUT CHANNEL DETAIL
Not to Scale

1
SI.7 SI.7



TYPICAL LIFT/LEVELER DETAIL
Not to Scale

2
SI.7 SI.7



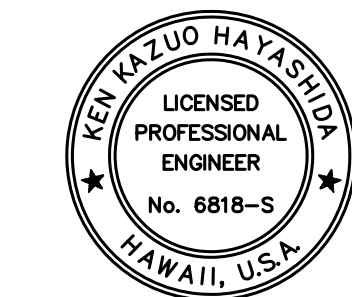
CHAMFER REINFORCING DETAIL
Not to Scale

3
SI.7 SI.7

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
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QUANTITIES BY	
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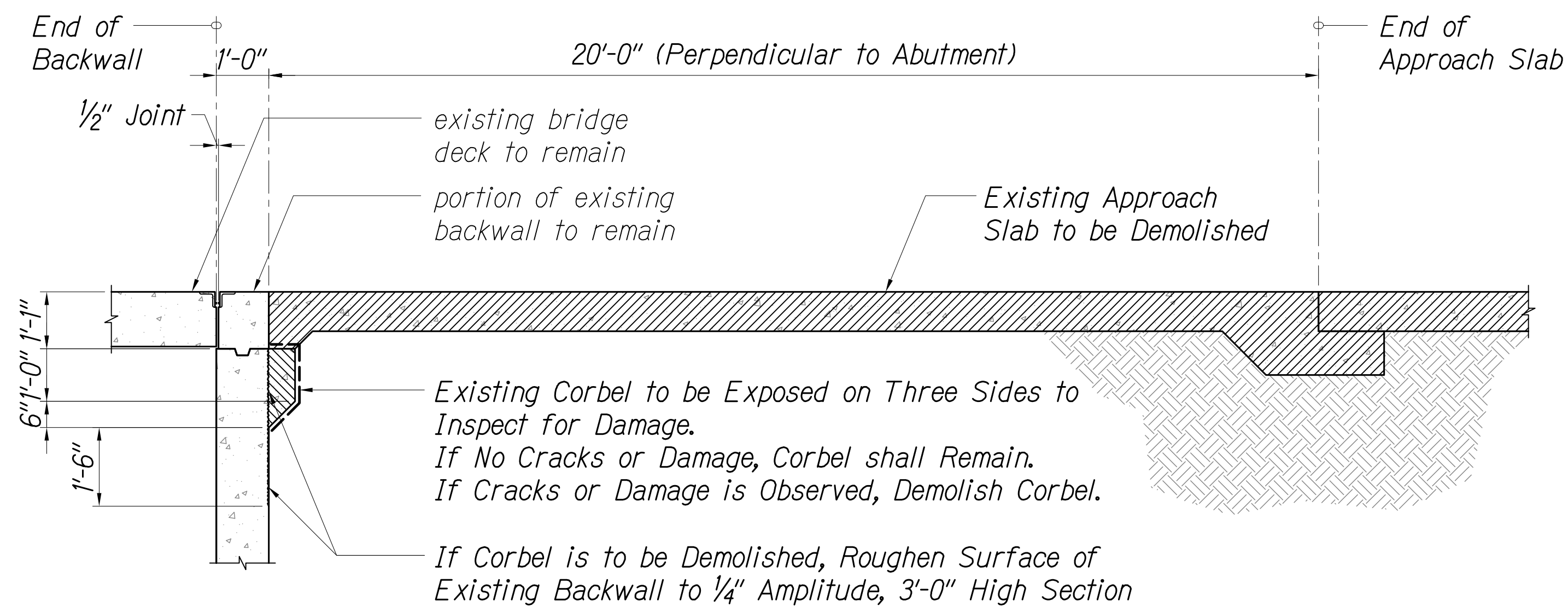
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL PRECAST PANEL
MISCELLANEOUS DETAILS**
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

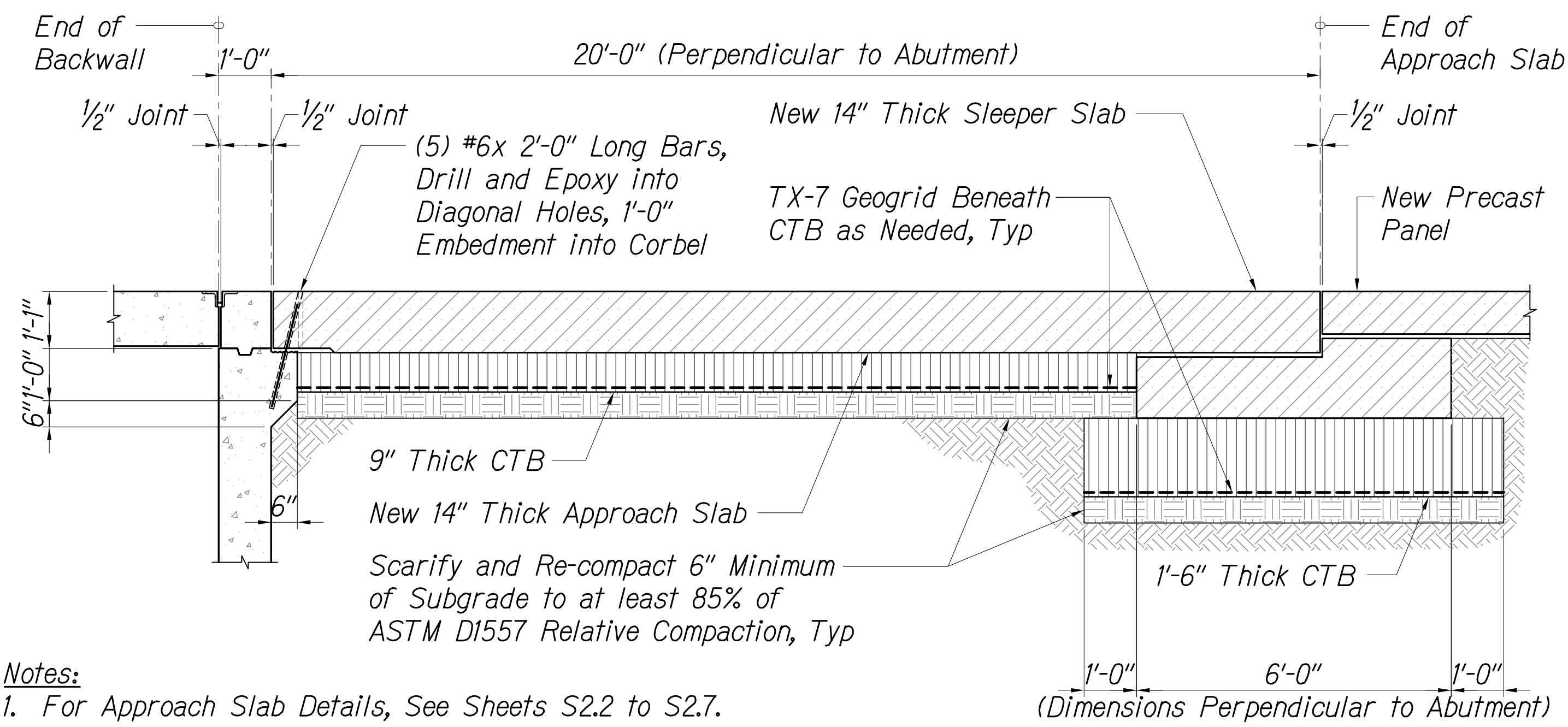
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	44	65



PEARL CITY VIADUCT
APPROACH SLAB DEMOLITION
Not to Scale

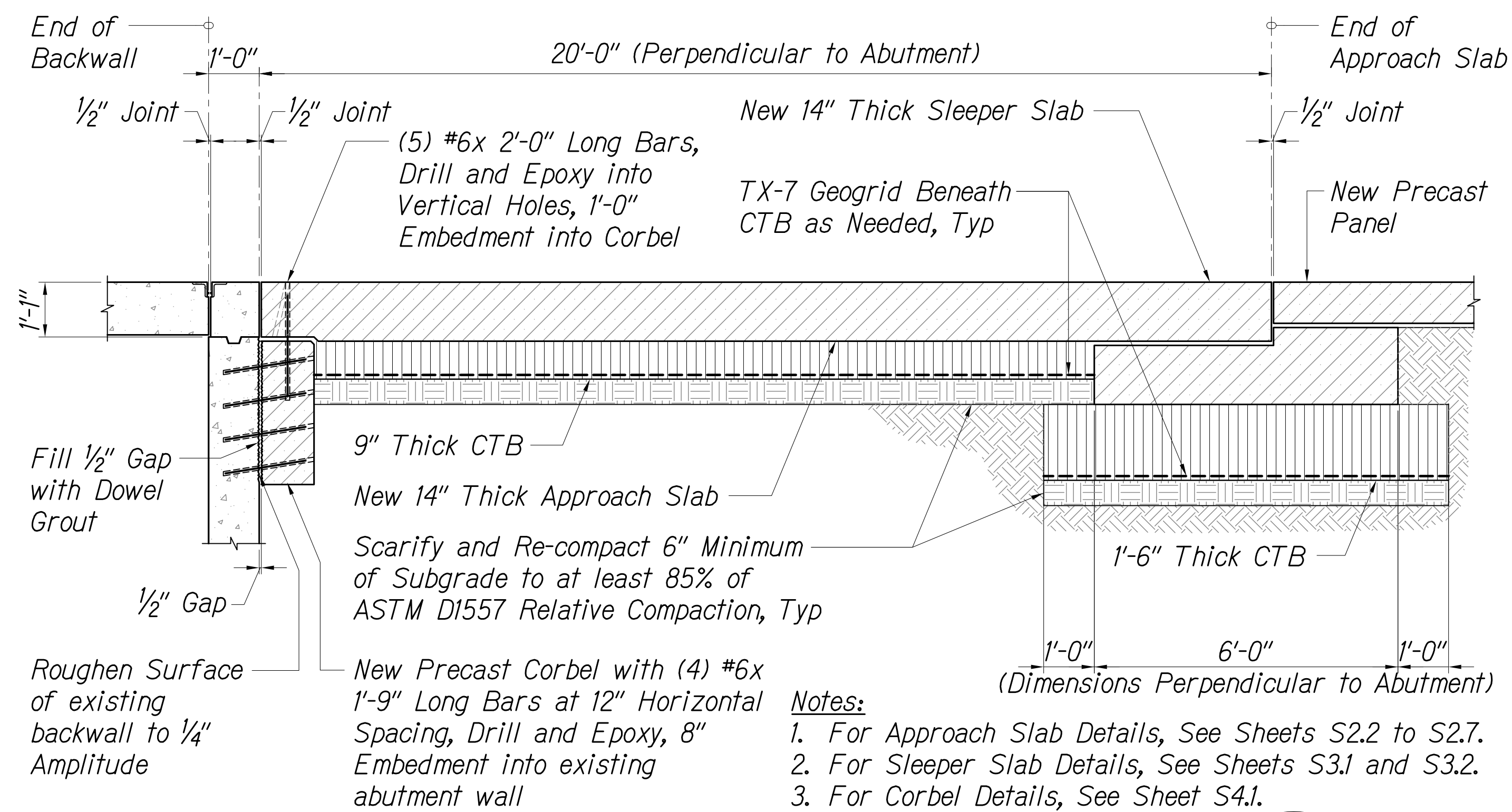
1
S2.1 S2.1



Notes:
1. For Approach Slab Details, See Sheets S2.2 to S2.7.
2. For Sleeper Slab Details, See Sheets S3.1 and S3.2.

PEARL CITY VIADUCT
PRECAST CONCRETE APPROACH SLAB RECONSTRUCTION
Not to Scale

2
S2.1 S2.1



Notes:
1. For Approach Slab Details, See Sheets S2.2 to S2.7.
2. For Sleeper Slab Details, See Sheets S3.1 and S3.2.
3. For Corbel Details, See Sheet S4.1.
4. For Balance of Information, See

PEARL CITY VIADUCT
PRECAST CONCRETE APPROACH SLAB (AT INBOUND LANE 6)
Not to Scale

3
S2.1 S2.1

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

P:\451-4500\4500-4508\1007 - Kiewit Design build of HI Widening\04 Drawings\Structural\AutoCAD\Format\Phase 3\2020-02-06 - As-Built - Copy\4458_S2-1-S2-3.dwg 2/16/2020 10:55 AM BRYAN LUM

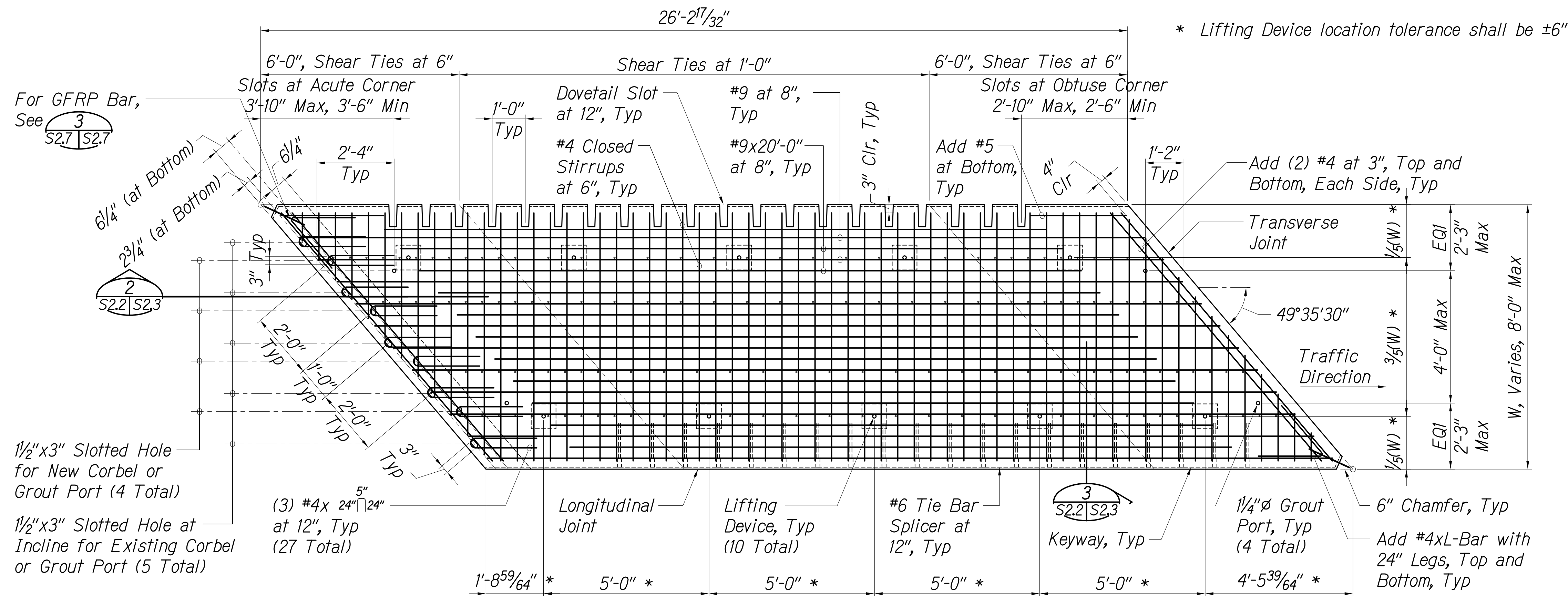
THESE PLANS HAVE BEEN PREPARED UTILIZING INFORMATION PROVIDED BY THE PROJECT CONTRACTOR. THE UPDATED CONSTRUCTION INFORMATION DEPICTED HEREIN HAS NOT BEEN VERIFIED FOR ACCURACY AND COMPLETENESS. NO REPRESENTATION IS BEING MADE TO ITS VALIDITY.

KEN KAZUO HAYASHIDA
LICENSED PROFESSIONAL ENGINEER
No. 6818-S
HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
SIGNATURE
April 30, 2020
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEARL CITY VIADUCT
APPROACH SLAB DETAILS
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS
Scale: As Shown Date: October 10, 2018
SHEET No. S2.1 OF 65 SHEETS

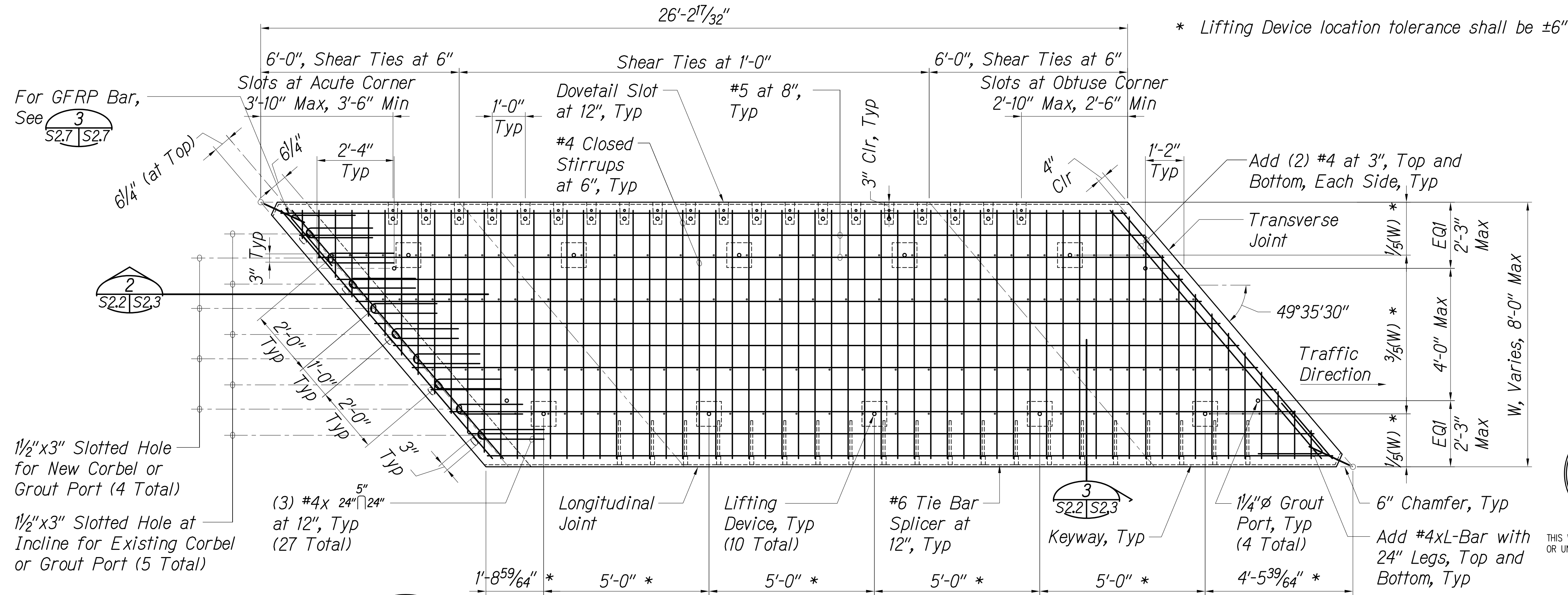
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	45	65



REBAR MAT (BOTTOM LAYER) 1 S2.2 | S2.2

Not to Scale

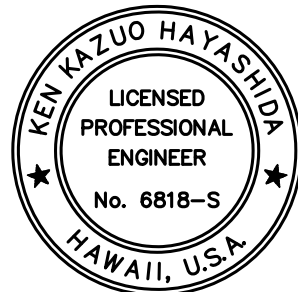


REBAR MAT (TOP LAYER) 2 S2.2 | S2.2

Not to Scale

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- Notes:
- Orientation of grout channels and gaskets may vary.
 - For Grout Port and Joint Details, See Sheets S2.4 to S2.7.
 - Adjust reinforcement bars to accommodate dovetail slots and tie bar splicers.
 - Shop Drawings will be provided by Fort Miller for each precast panel.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL PRECAST APPROACH
SLAB PANEL DETAILS
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

Scale: As Shown Date: October 10, 2018

SHEET No. S2.2 OF 65 SHEETS

"AS-BUILT"

45

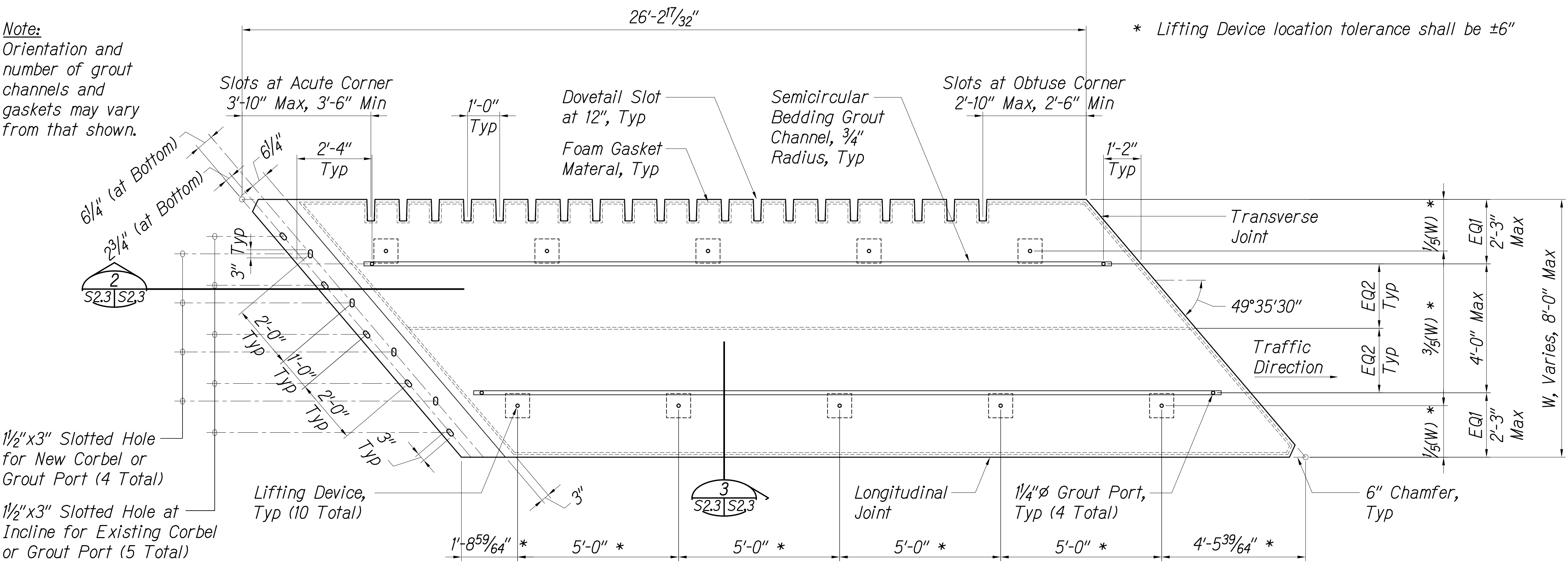
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DATE	SURVEY PLOTTED BY
NOTE BOOK	QUANTITIES BY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	46	65

Note:

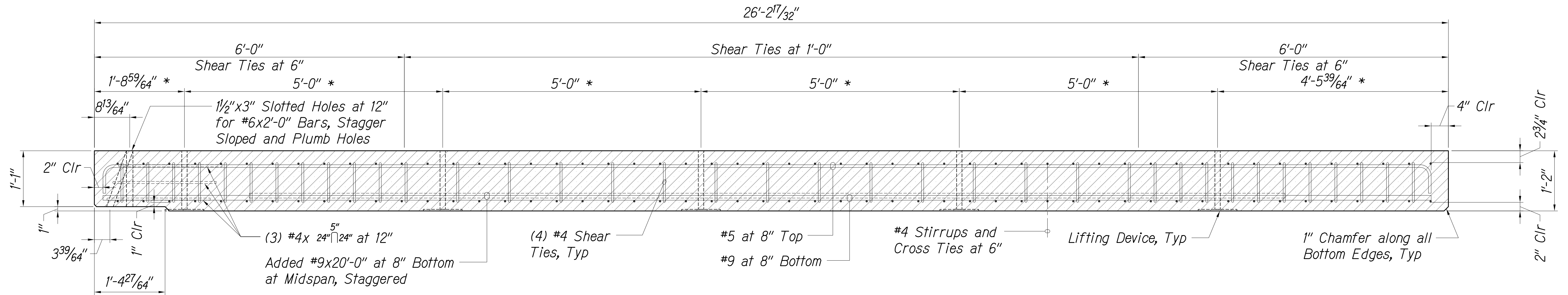
Orientation and number of grout channels and gaskets may vary from that shown.



BEDDING GROUT DISTRIBUTION PLAN

Not to Scale

1
S2.2, S2.3 S2.3



APPROACH SLAB LONGITUDINAL SECTION

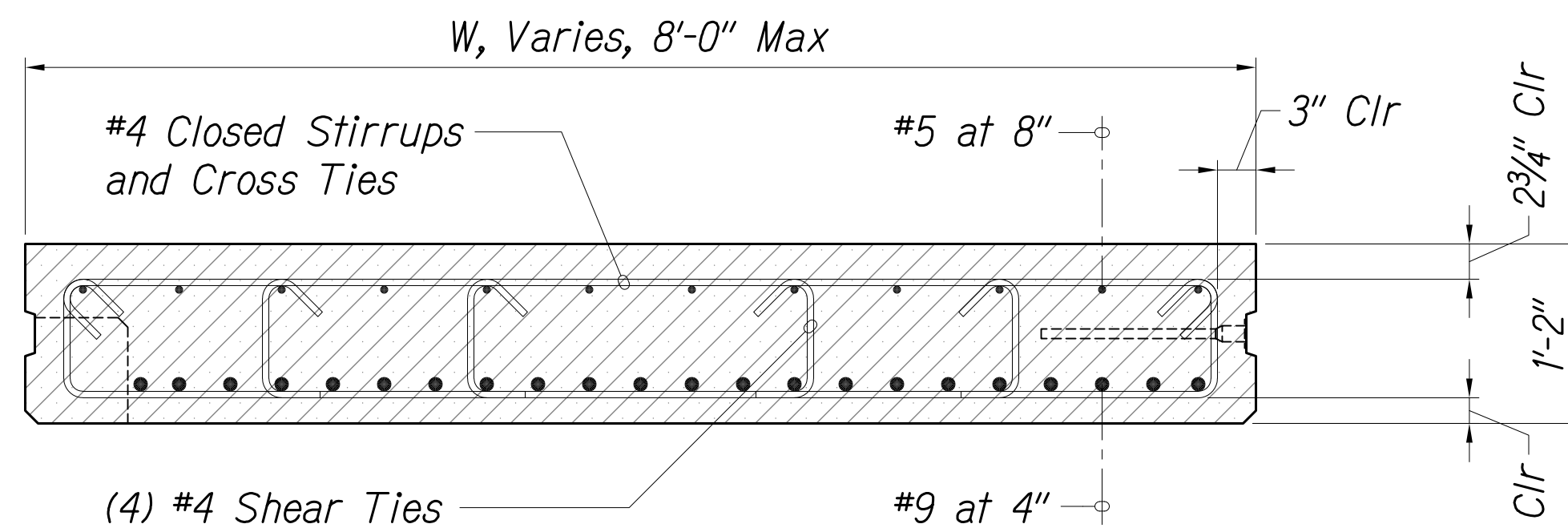
Not to Scale

2
S2.2, S2.3 S2.3

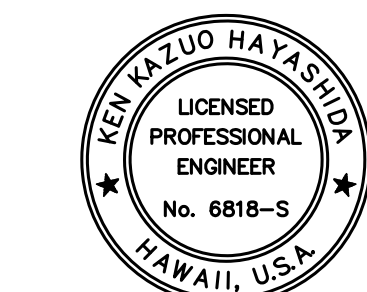
APPROACH SLAB TRANSVERSE SECTION

Not to Scale

3
S2.2, S2.3 S2.3



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SIGNATURE: [Signature] EXPIRATION DATE OF THE LICENSE: April 30, 2020

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL PRECAST APPROACH
SLAB PANEL AND CORBEL DETAILS**
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

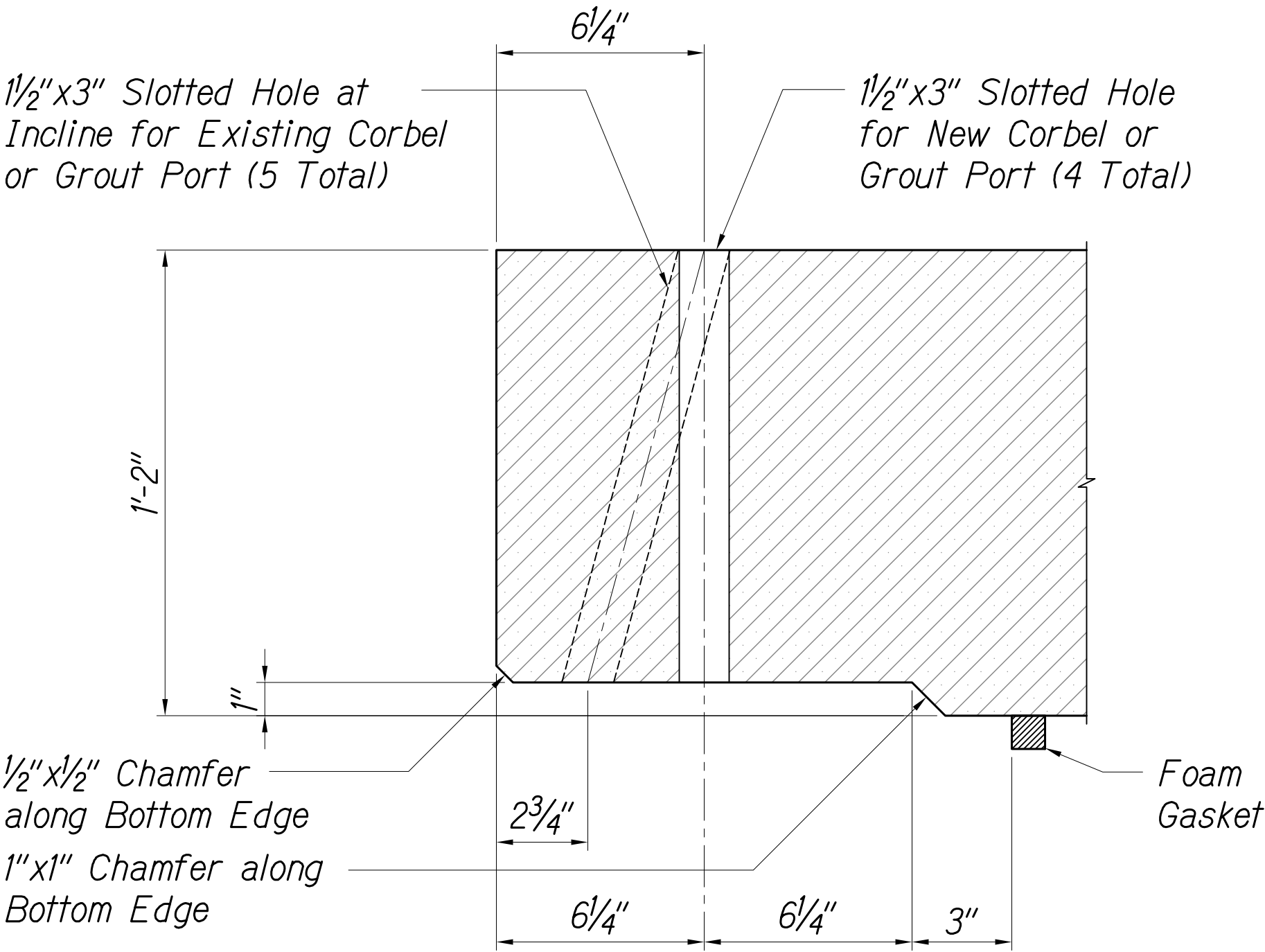
Scale: As Shown Date: October 10, 2018

SHEET No. S2.3 OF 65 SHEETS

"AS-BUILT"

46

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	47	65

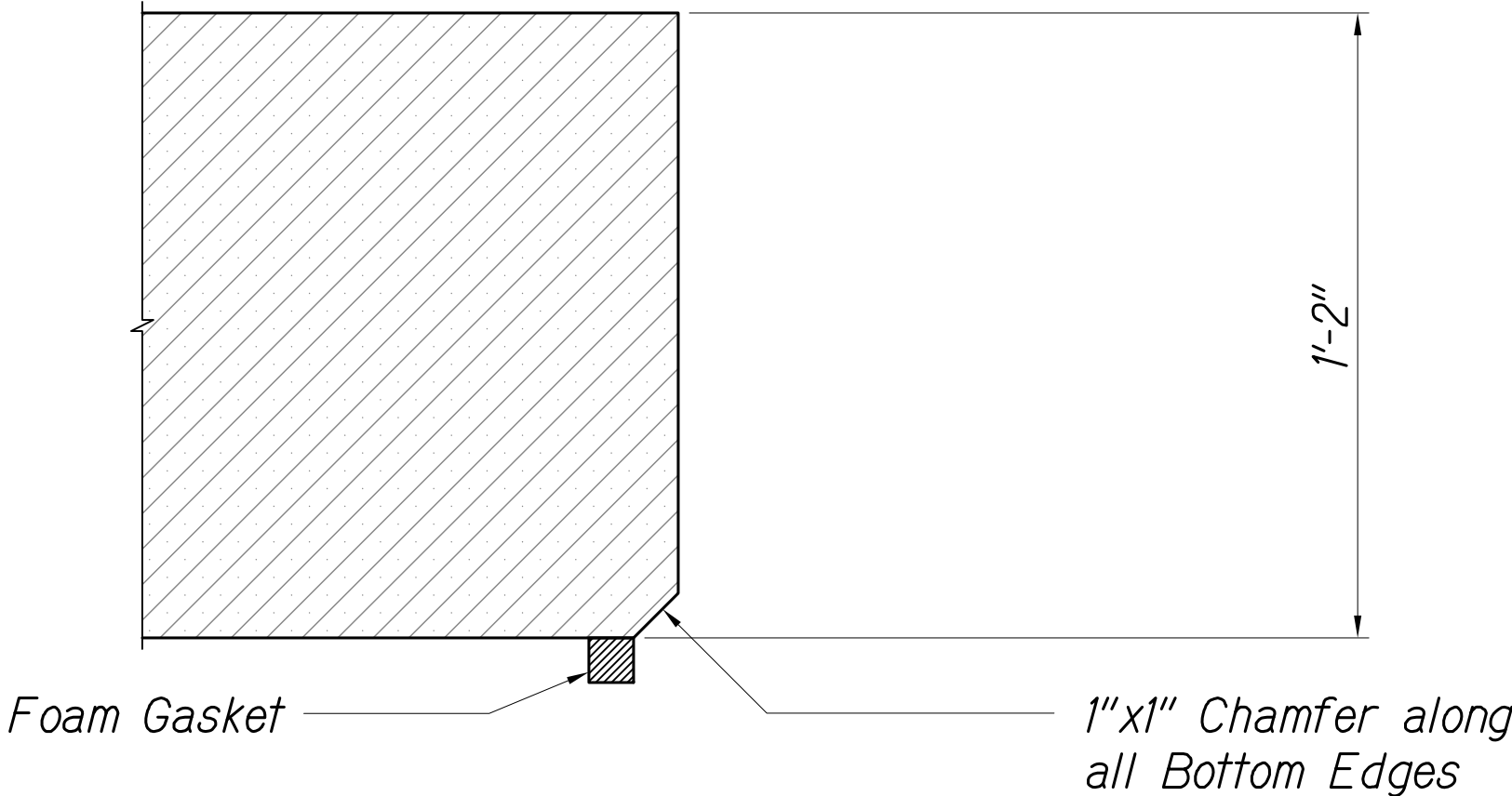


DETAIL (AT VIADUCT BACKWALL - PERPENDICULAR TO ABUTMENT)

Not to Scale

1

S2.4 | S2.4

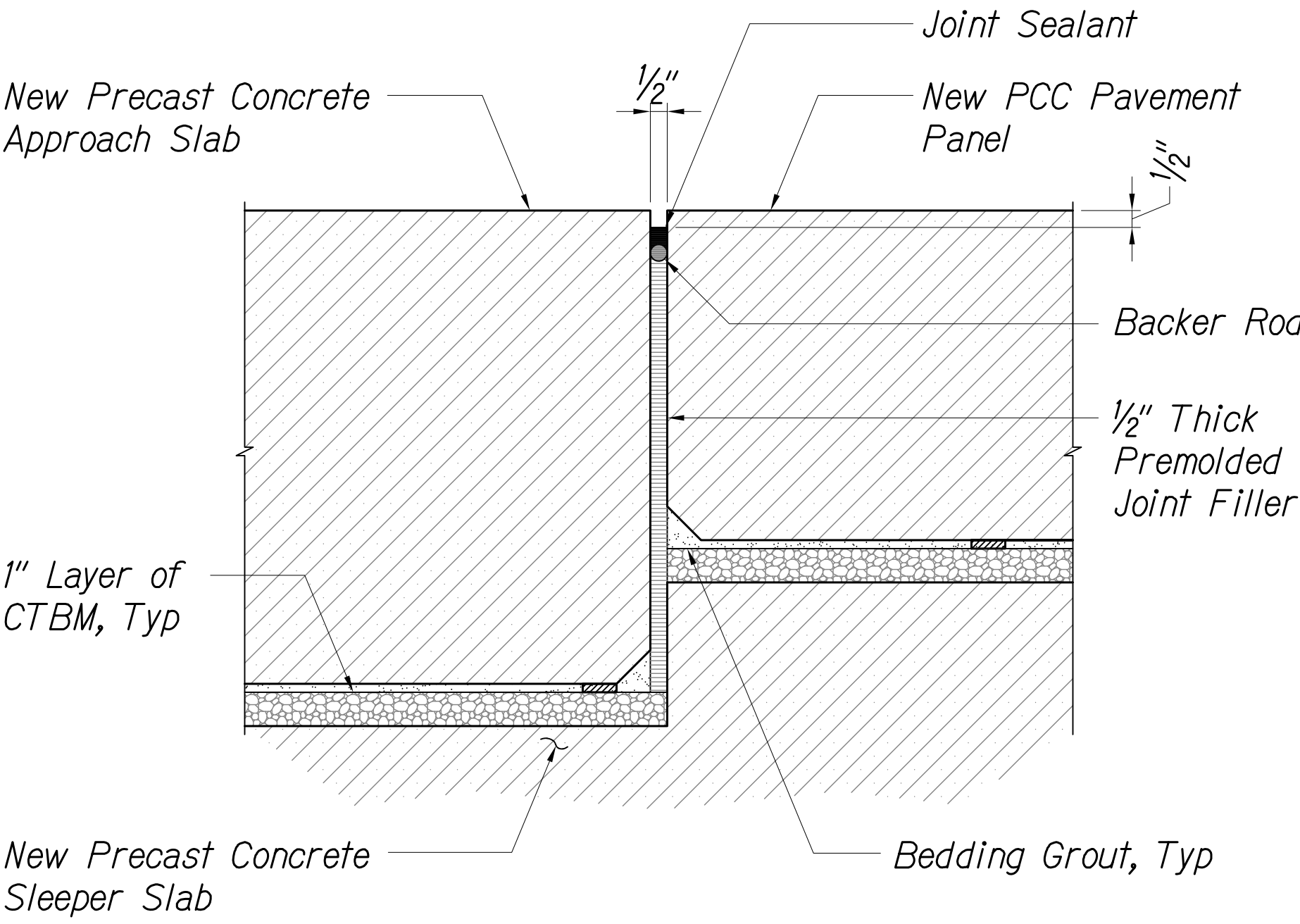


DETAIL (AT SLEEPER SLAB - PERPENDICULAR TO ABUTMENT)

Not to Scale

2

S2.4 | S2.4

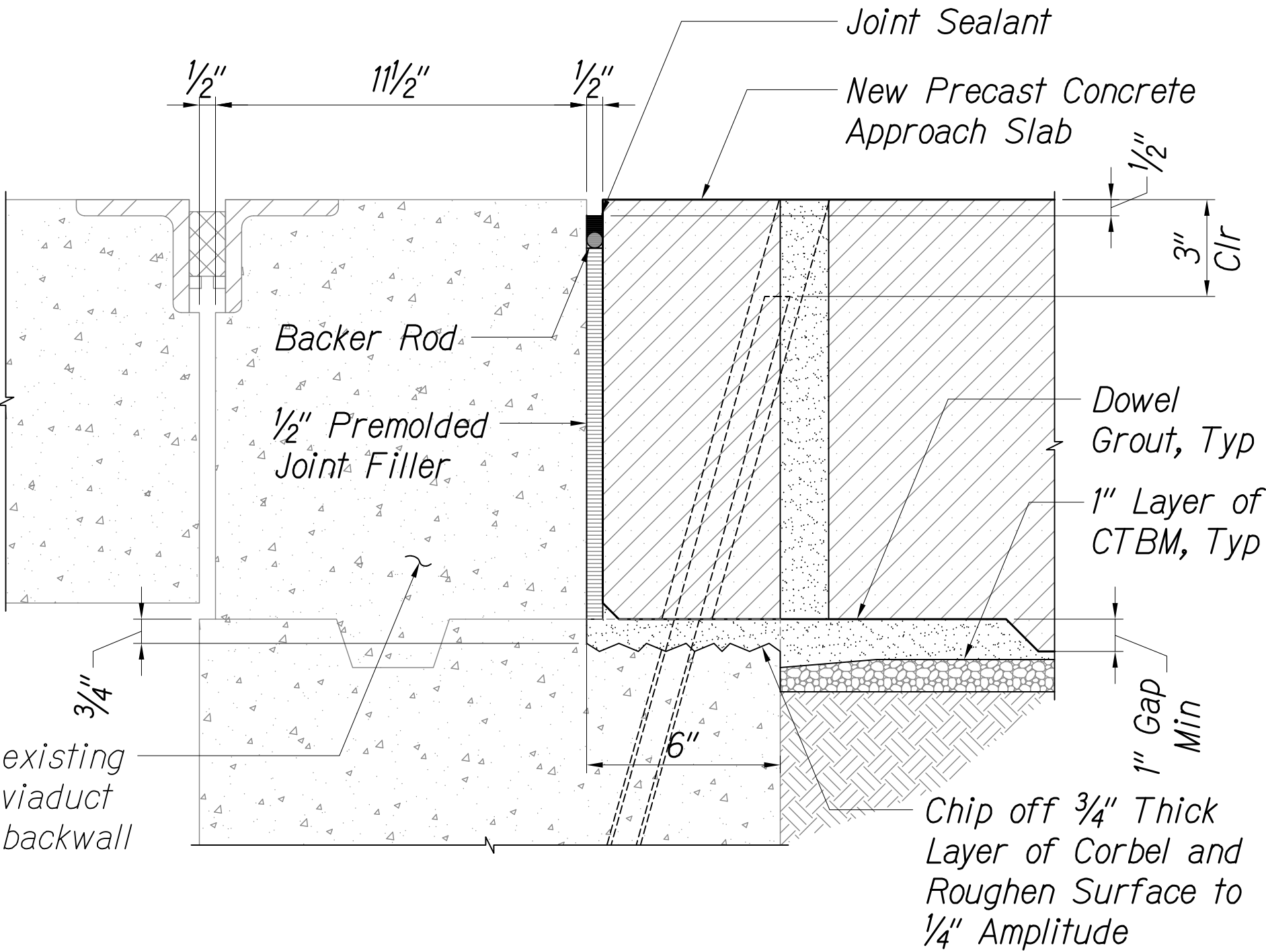


TYPICAL JOINT DETAIL (AT SLEEPER SLAB)

Not to Scale

3

S2.4 | S2.4

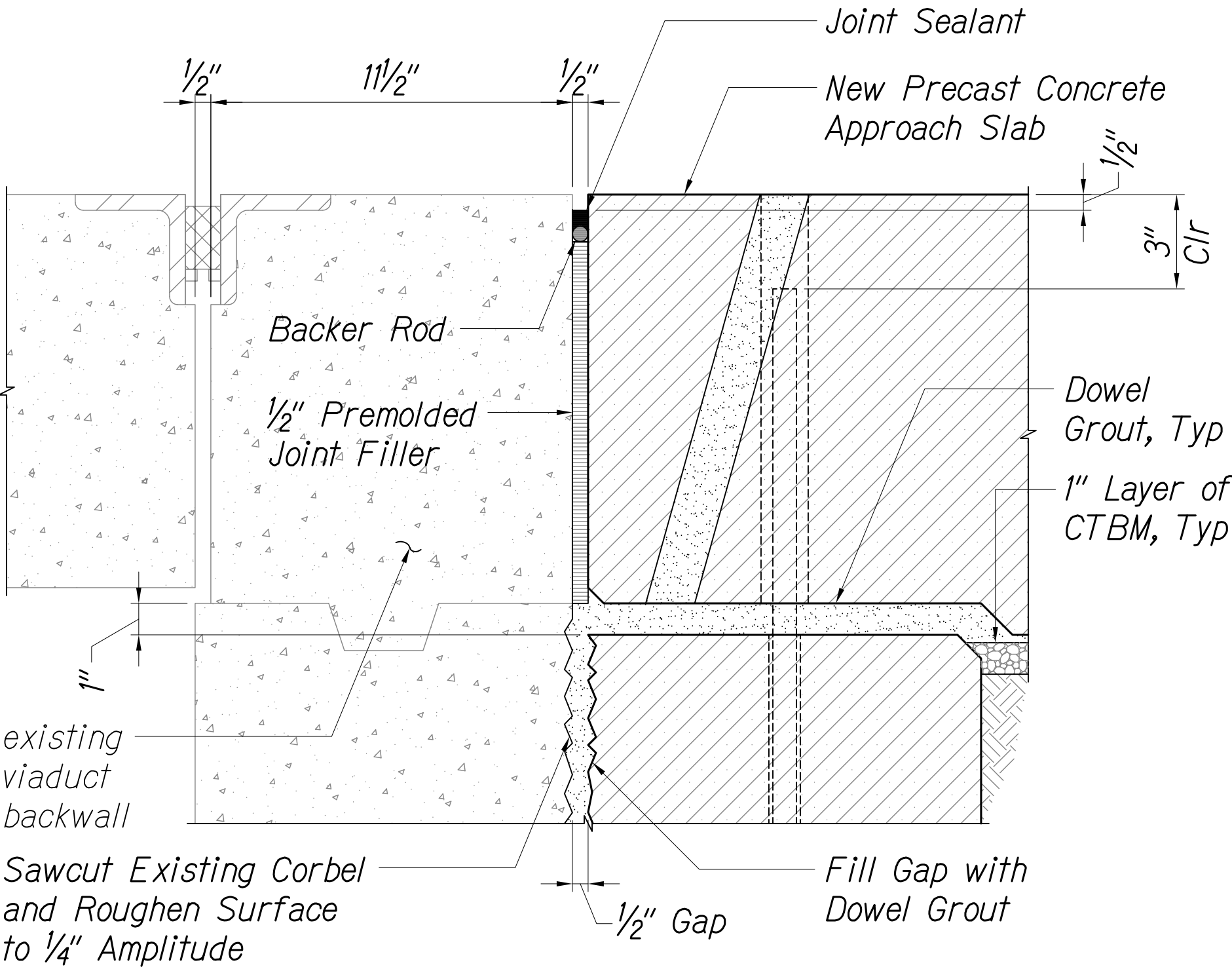


TYPICAL JOINT DETAIL USING EXISTING CORBEL (AT VIADUCT BACKWALL - PERPENDICULAR TO ABUTMENT)

Not to Scale

4

S2.4 | S2.4



TYPICAL JOINT DETAIL USING NEW CORBEL (AT VIADUCT BACKWALL - PERPENDICULAR TO ABUTMENT)

Not to Scale

5

S2.4 | S2.4

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL PRECAST APPROACH SLAB
TRANSVERSE JOINT DETAILS
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

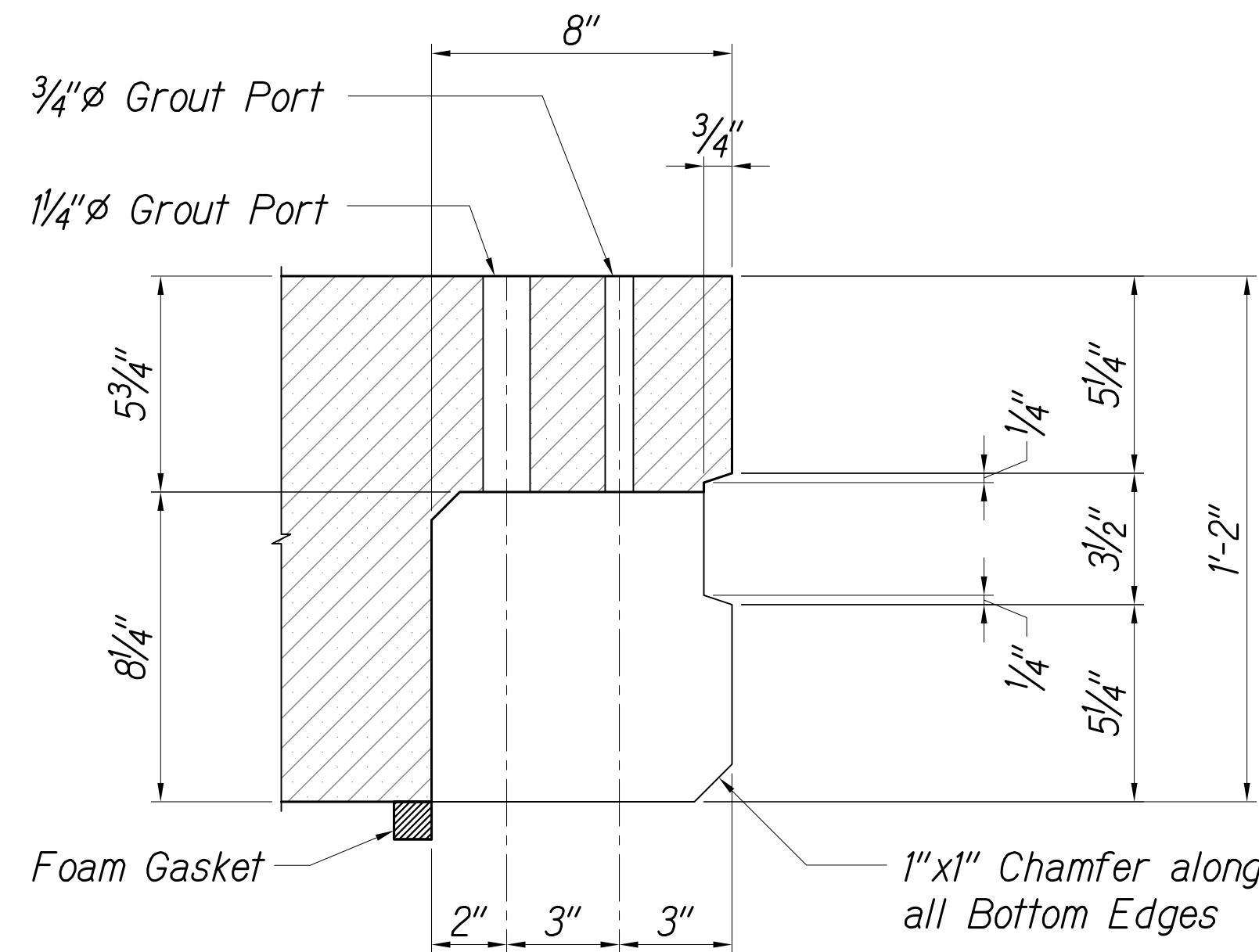
Scale: As Shown Date: October 10, 2018
SHEET No. S2.4 OF 65 SHEETS

"AS-BUILT"

PL\451-4500\4508-1007 - Kiewit Design build of HI Widening\004 Drawings\Structural\AutoCAD Format\Phase 3\2020-02-06 - As-Built - Copy\4508-S2-4-S2-7.dwg 2/6/2020 10:56 AM BRYN LUM

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

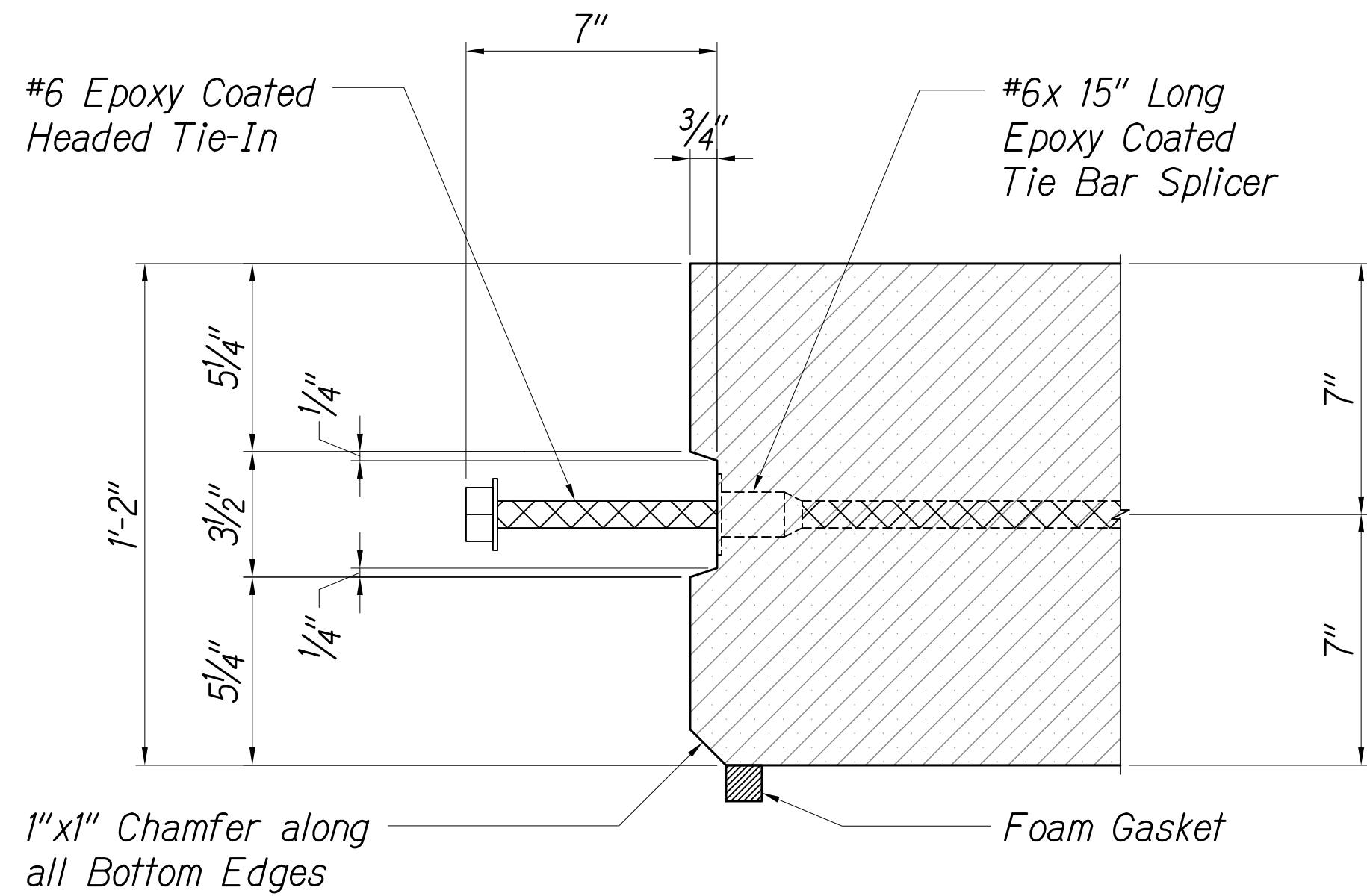
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	48	65



DETAIL (FEMALE END - BETWEEN
NEW SLAB SECTIONS OR BETWEEN
EXISTING MEDIAN SLAB - WB SIDE)

Not to Scale

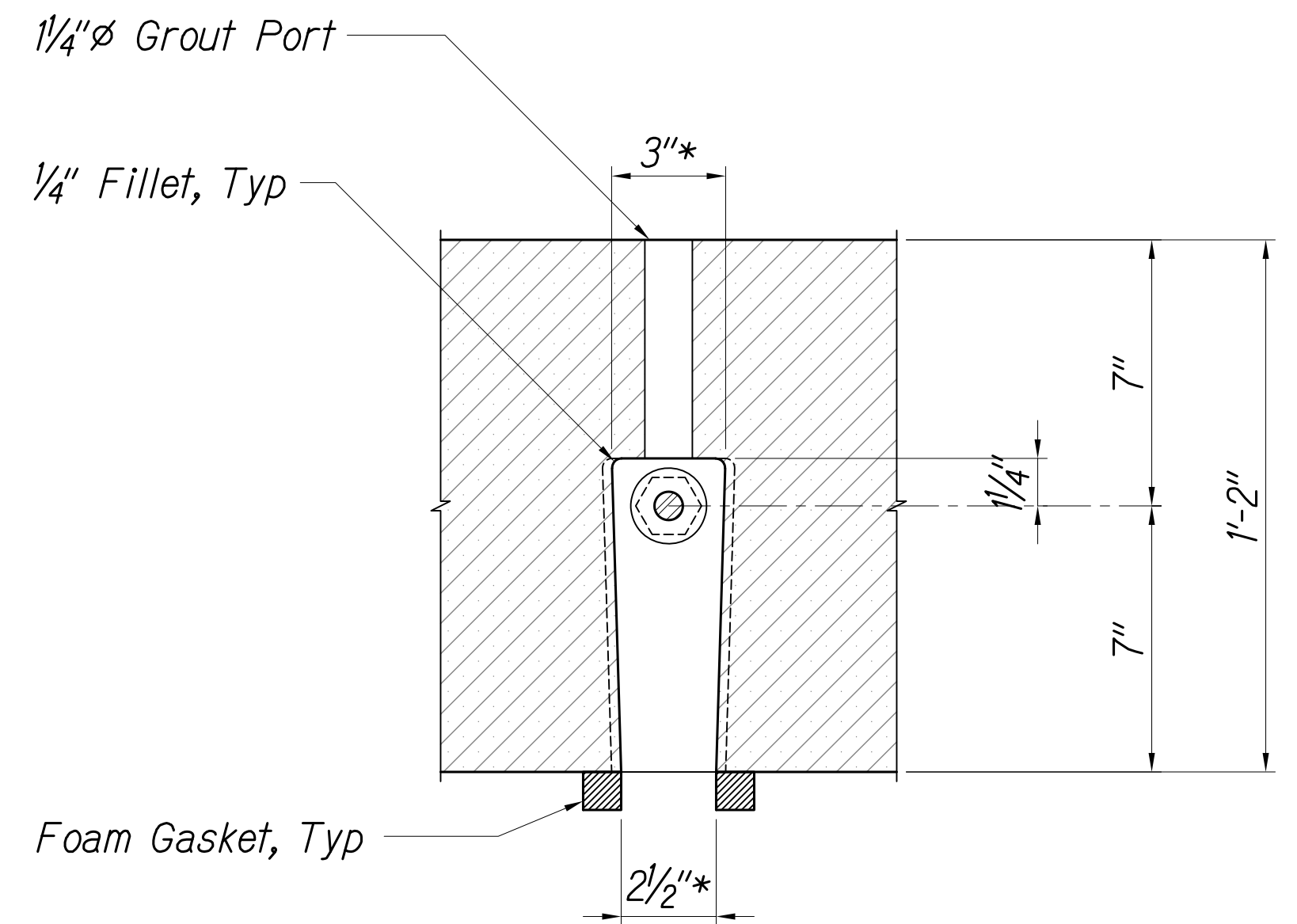
1
S2.5 | S2.5



DETAIL (MALE END -
BETWEEN NEW SLAB SECTIONS)

Not to Scale

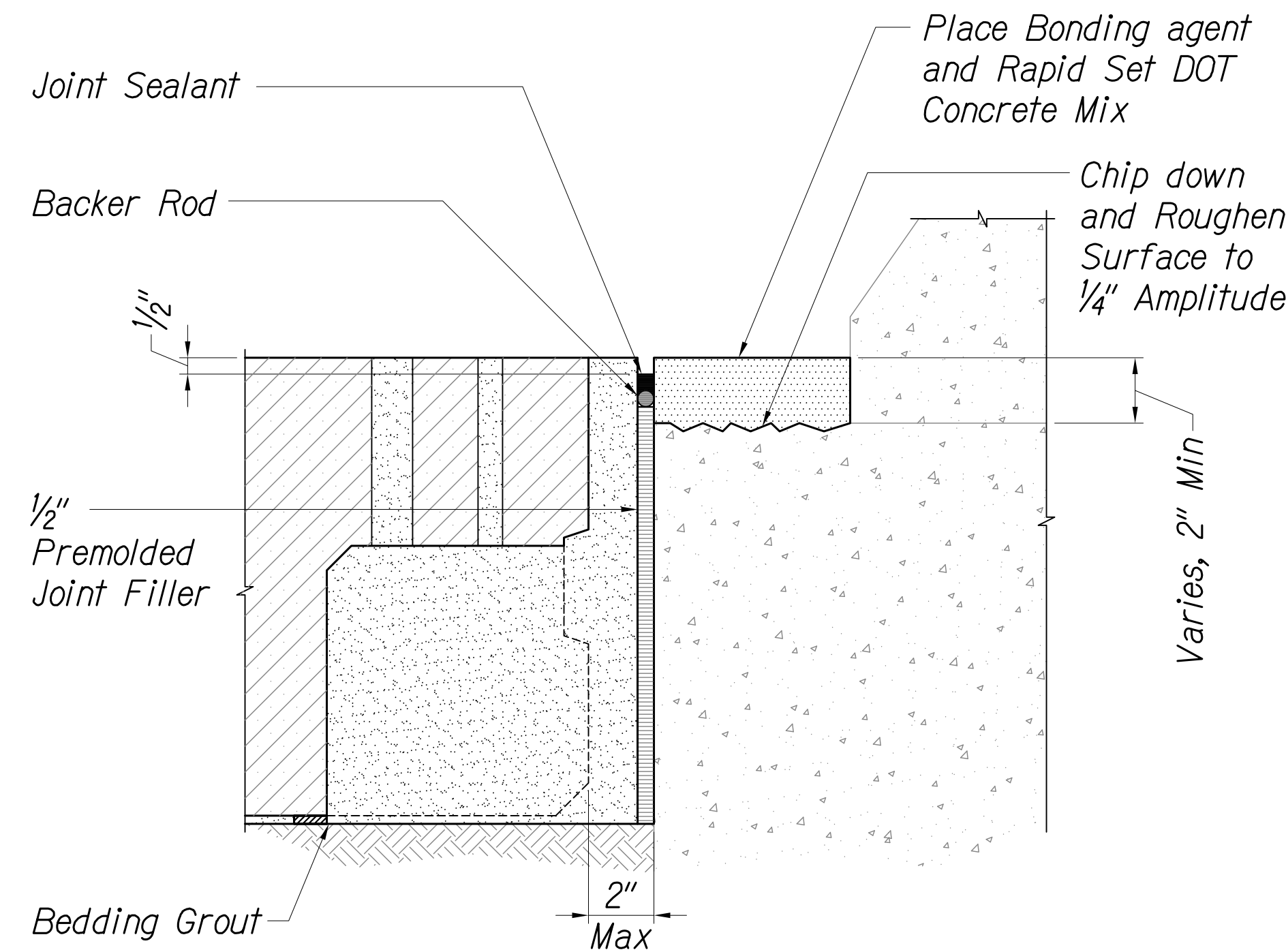
2
S2.5 | S2.5



* Dimensions shown at inner
end of slot, slot is 1/2"
wider at joint face

SECTION
Not to Scale

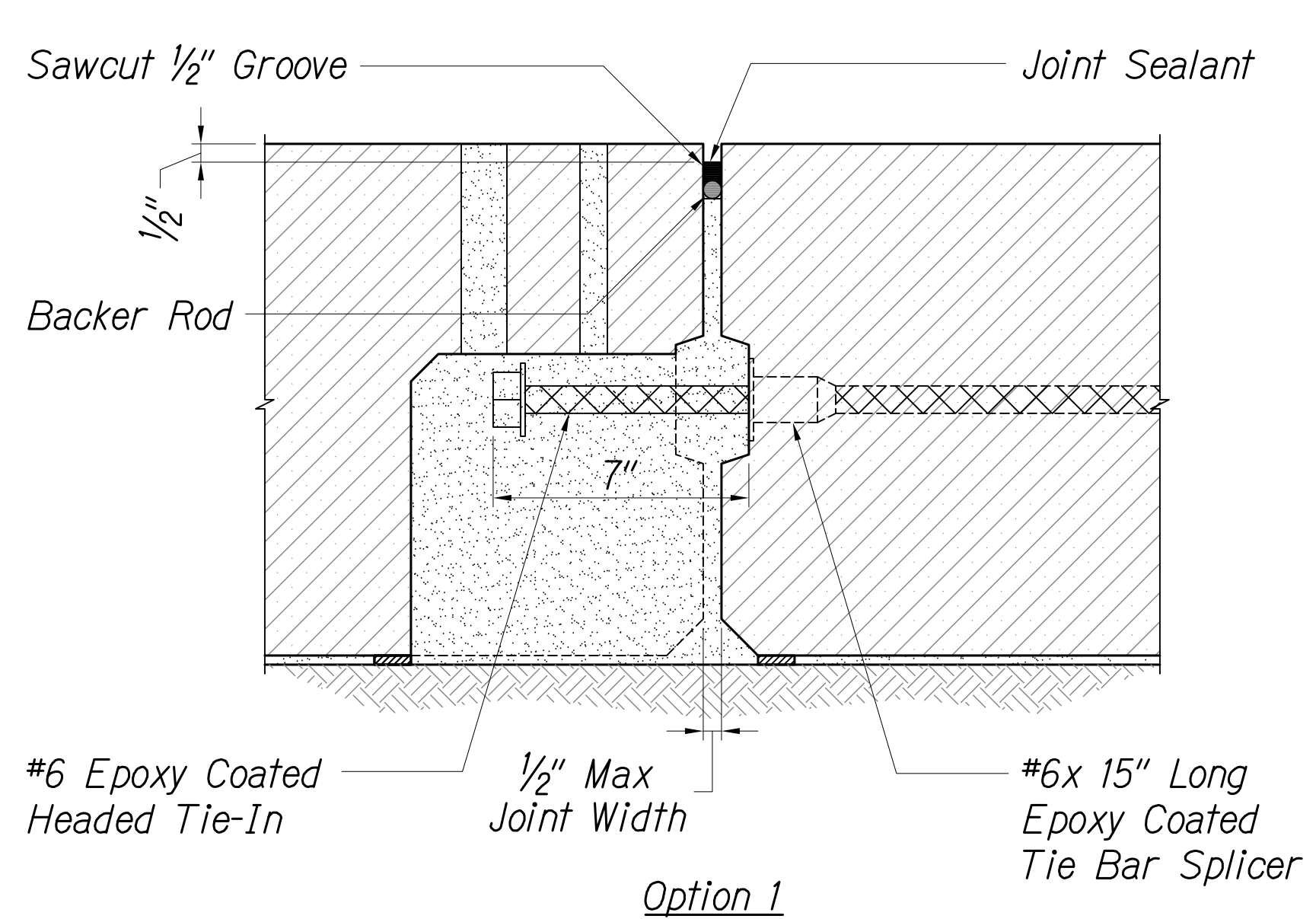
3
S2.5 | S2.5



TYPICAL JOINT DETAIL (NEW PANEL TO
EXISTING MEDIAN SLAB - WB SIDE)

Not to Scale

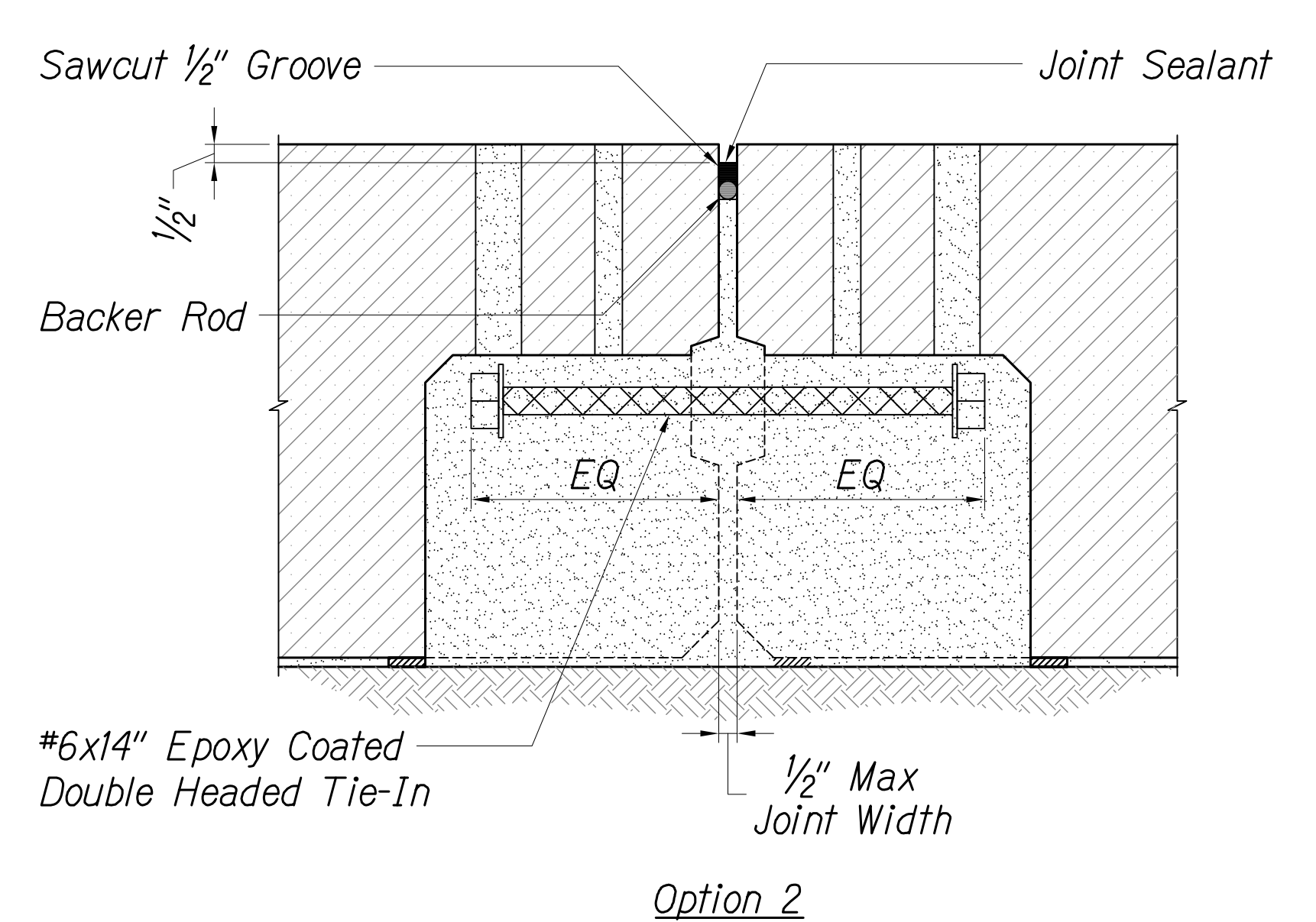
5
S2.5 | S2.5



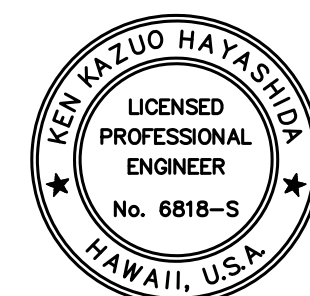
TYPICAL JOINT DETAIL
(BETWEEN NEW PANELS)

Not to Scale

4
S2.5 | S2.5



Option 2



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AND COMPLETENESS. NO
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL PRECAST APPROACH SLAB
LONGITUDINAL JOINT DETAILS - 1
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

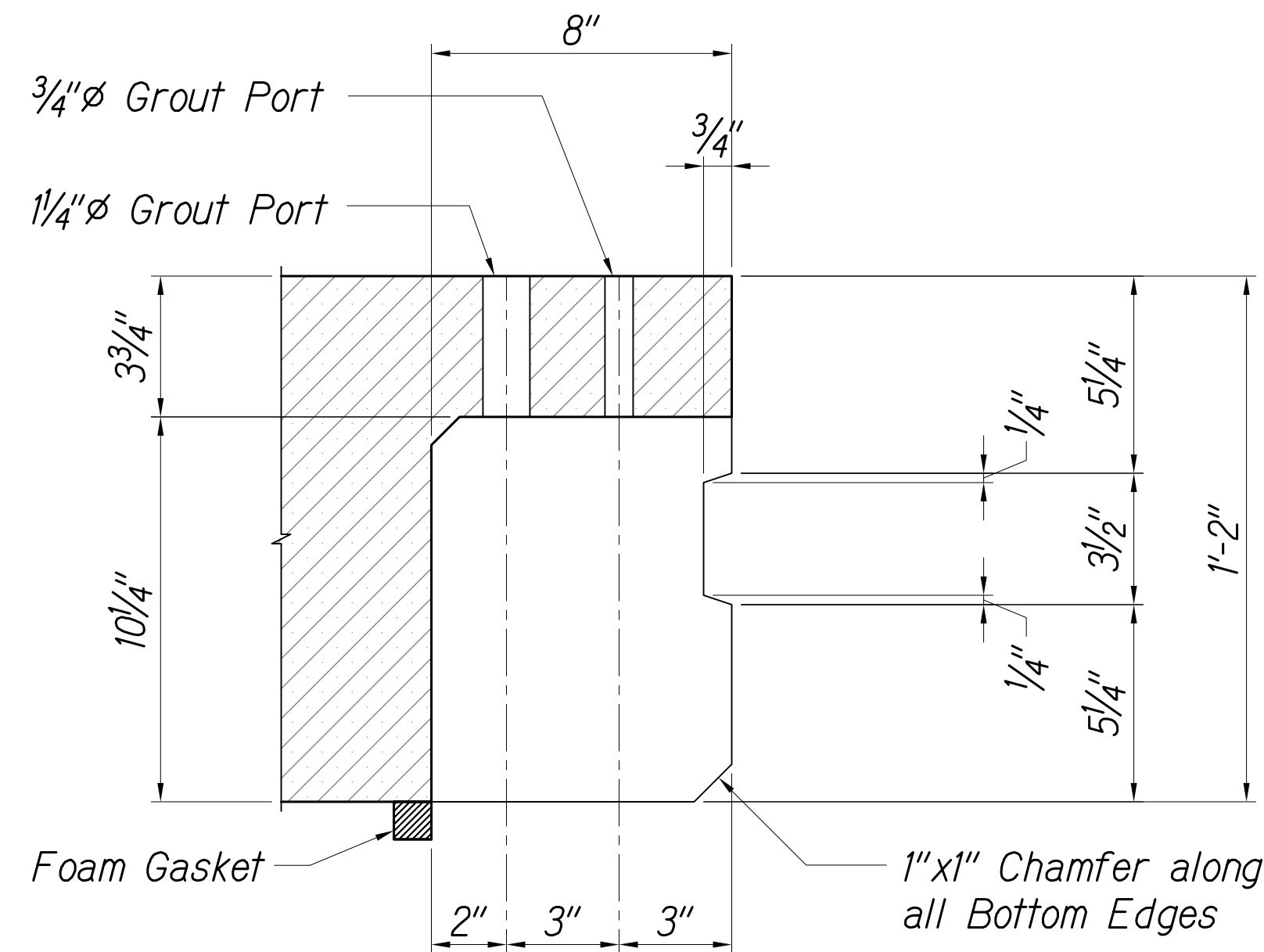
Scale: As Shown Date: October 10, 2018

SHEET No. S2.5 OF 65 SHEETS

"AS-BUILT"

48

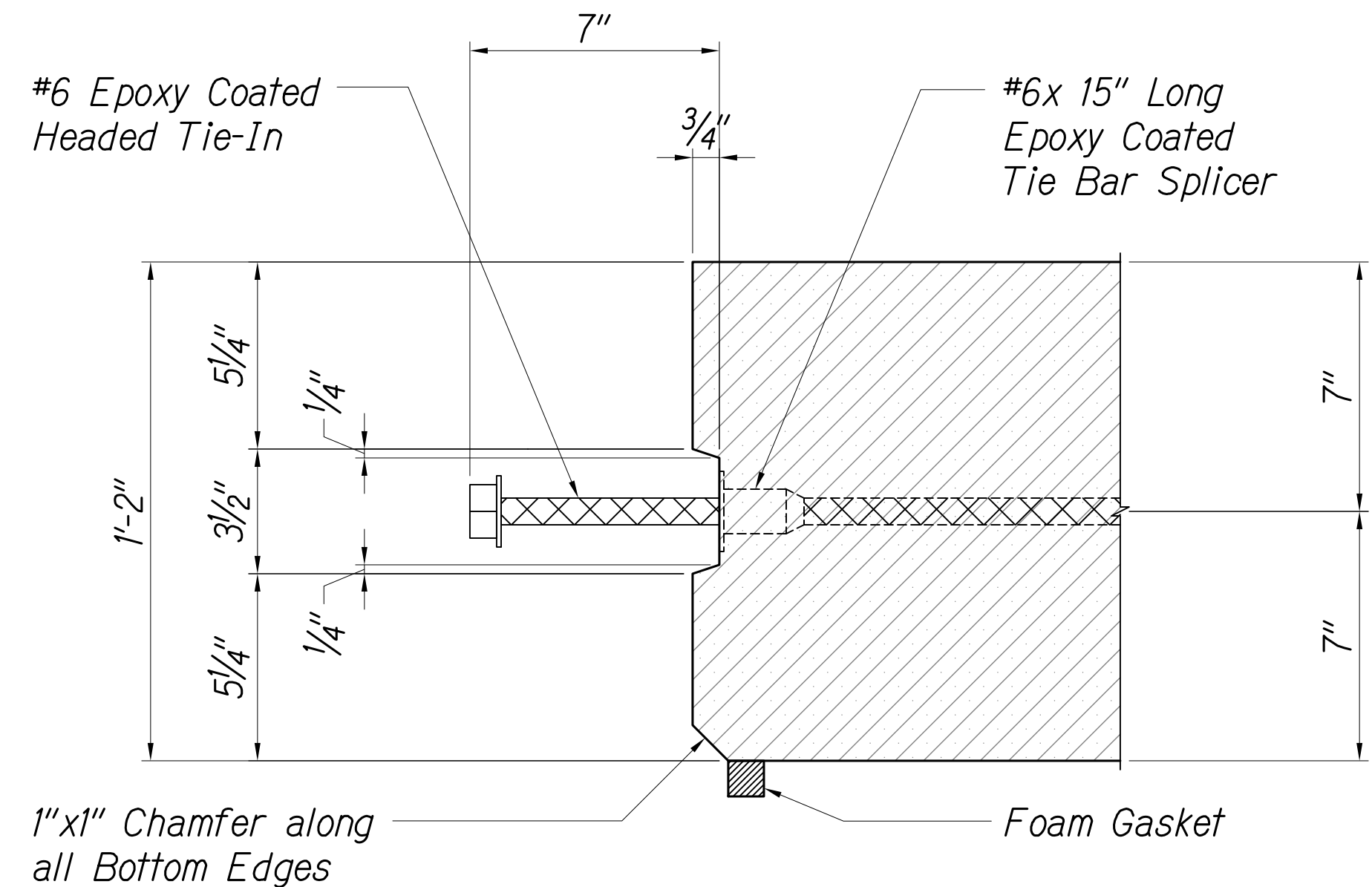
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	49	65



DETAIL (FEMALE END - BETWEEN NEW
SLAB AND EXISTING APPROACH OR
EXISTING MEDIAN SLAB - WB SIDE)

Not to Scale

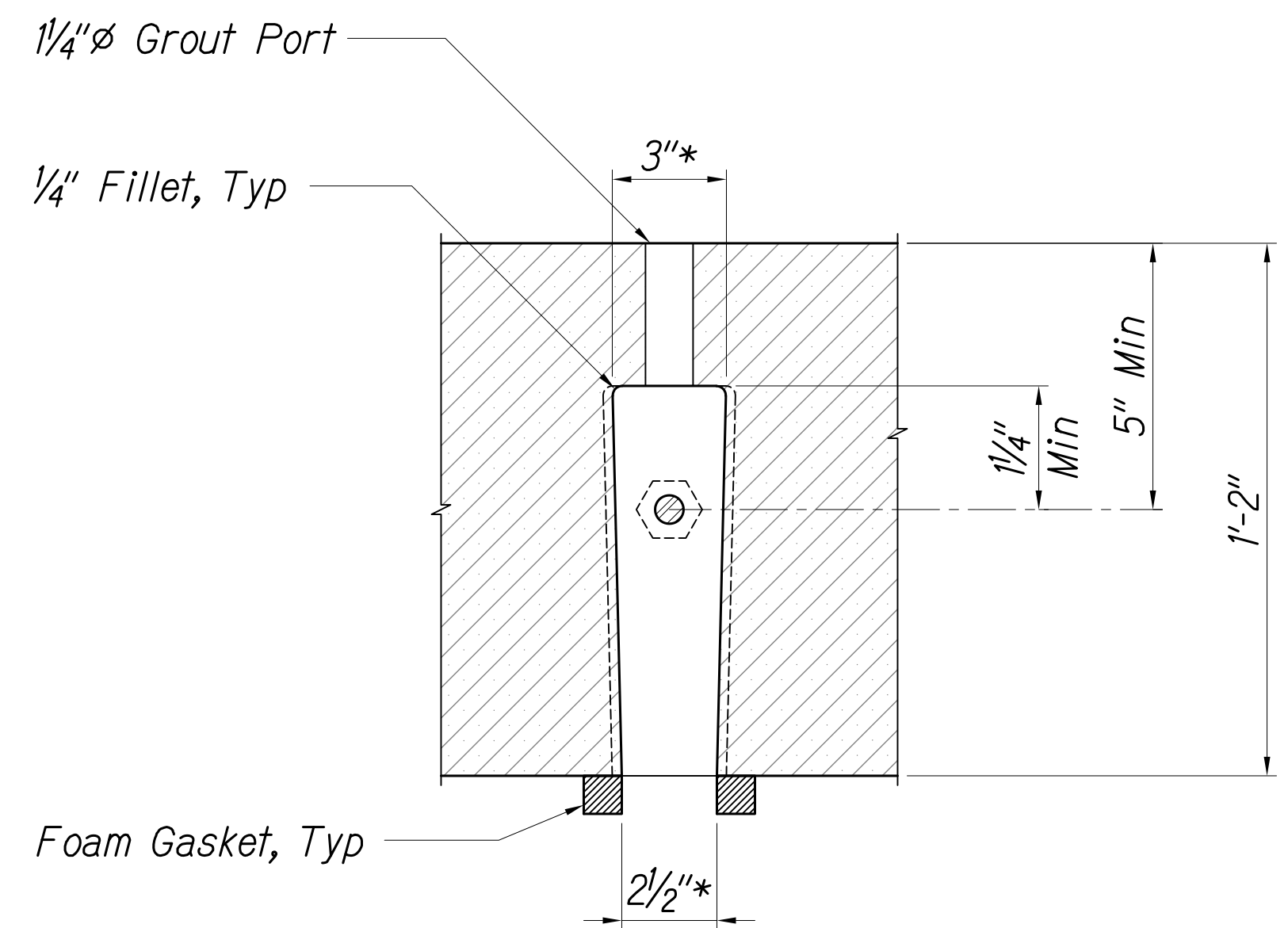
1
S2.6 S2.6



DETAIL (MALE END -
BETWEEN NEW SLAB SECTIONS)

Not to Scale

2
S2.6 S2.6

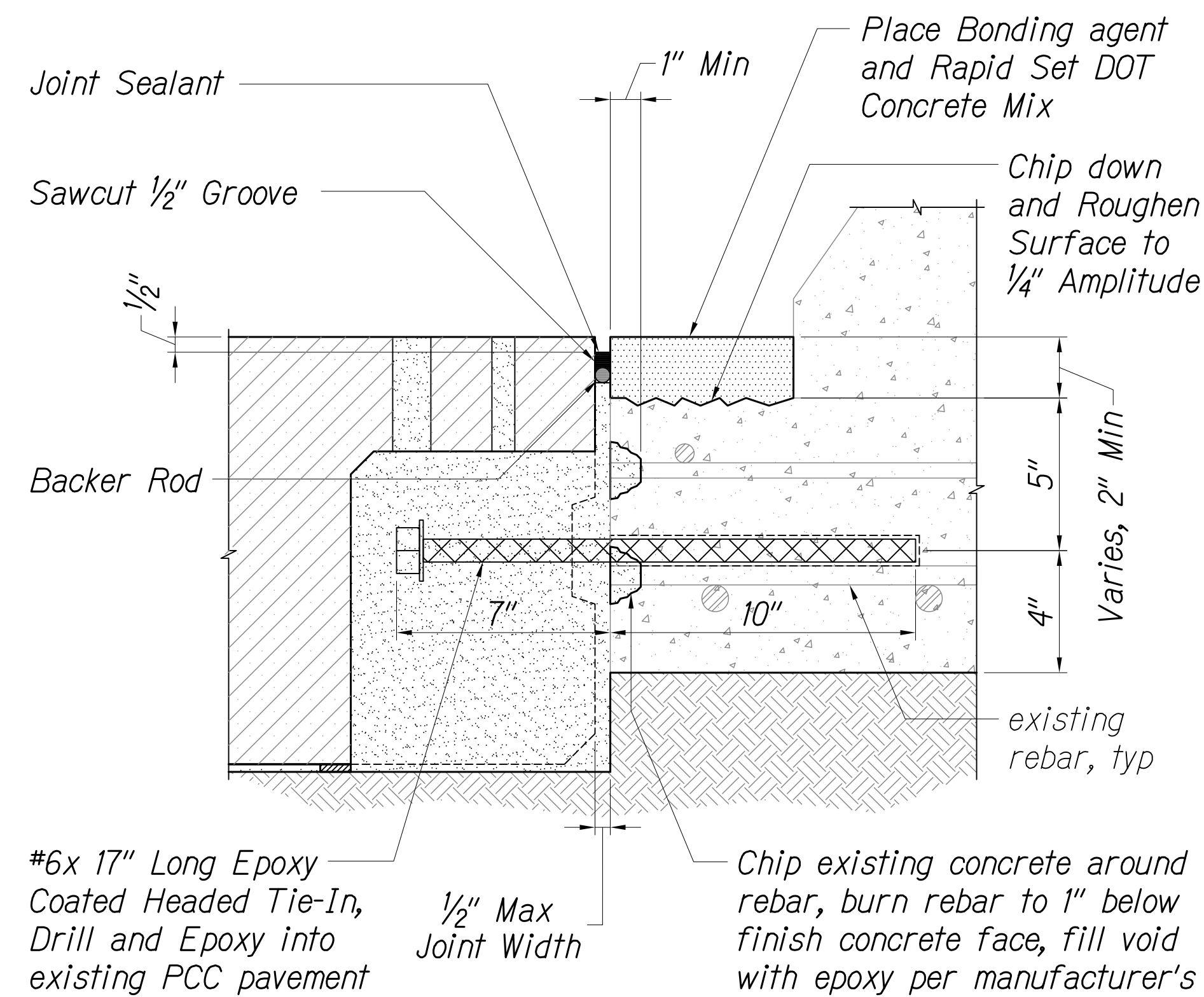


* Dimensions shown at inner
end of slot, slot is 1/2"
wider at joint face

SECTION

Not to Scale

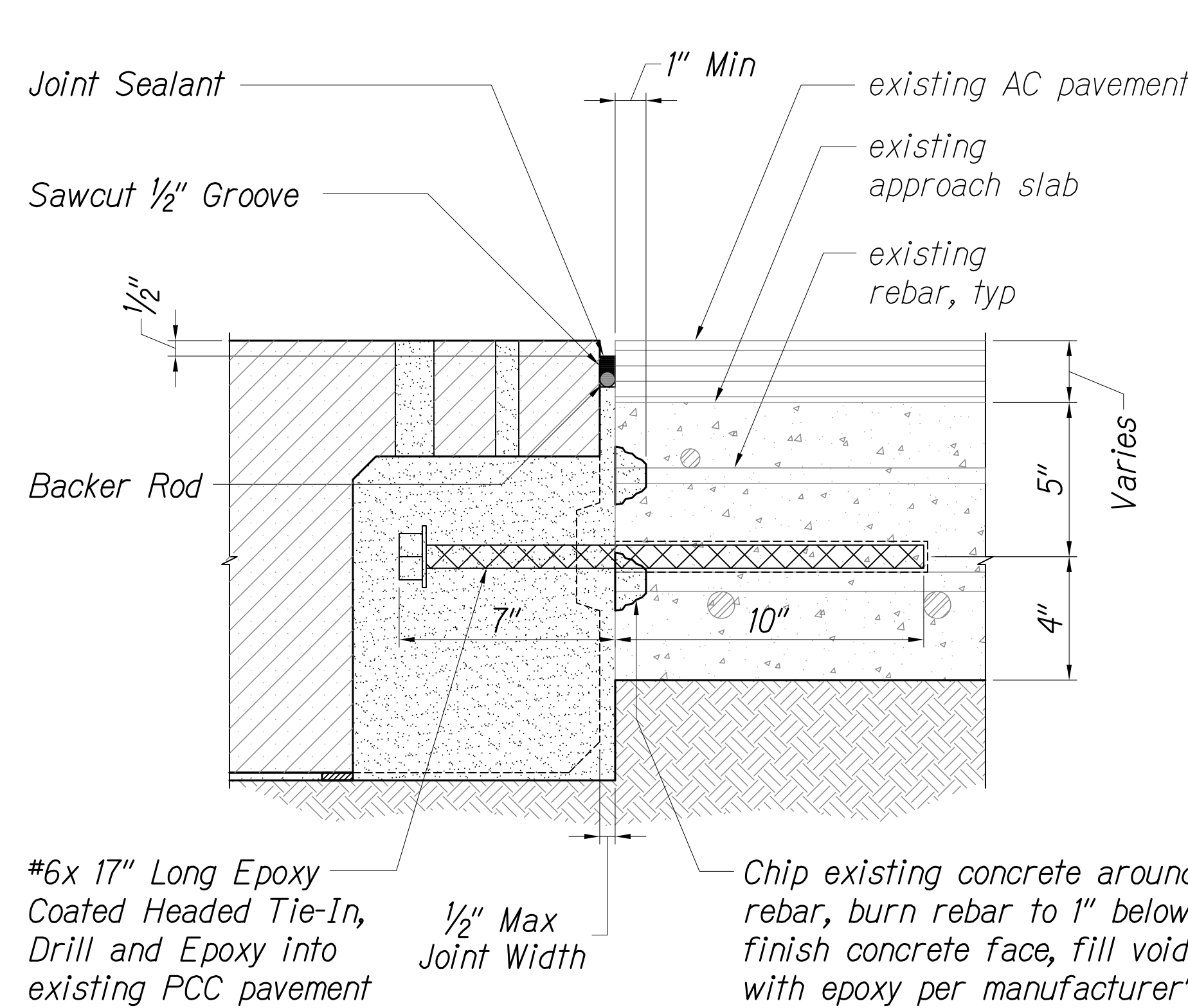
3
S2.6 S2.6



TYPICAL JOINT DETAIL (NEW PANEL TO
EXISTING MEDIAN SLAB - EB SIDE)

Not to Scale

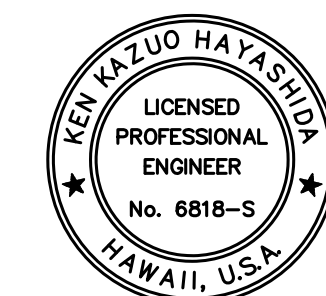
4
S2.6 S2.6



TYPICAL JOINT DETAIL (NEW
PANEL TO EXISTING APPROACH SLAB)

Not to Scale

5
S2.6 S2.6



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EXPIRATION DATE
OF THE LICENSE

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THE UPDATED CONSTRUCTION
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AND COMPLETENESS. NO
REPRESENTATION IS BEING
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL PRECAST APPROACH SLAB
LONGITUDINAL JOINT DETAILS - 2
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

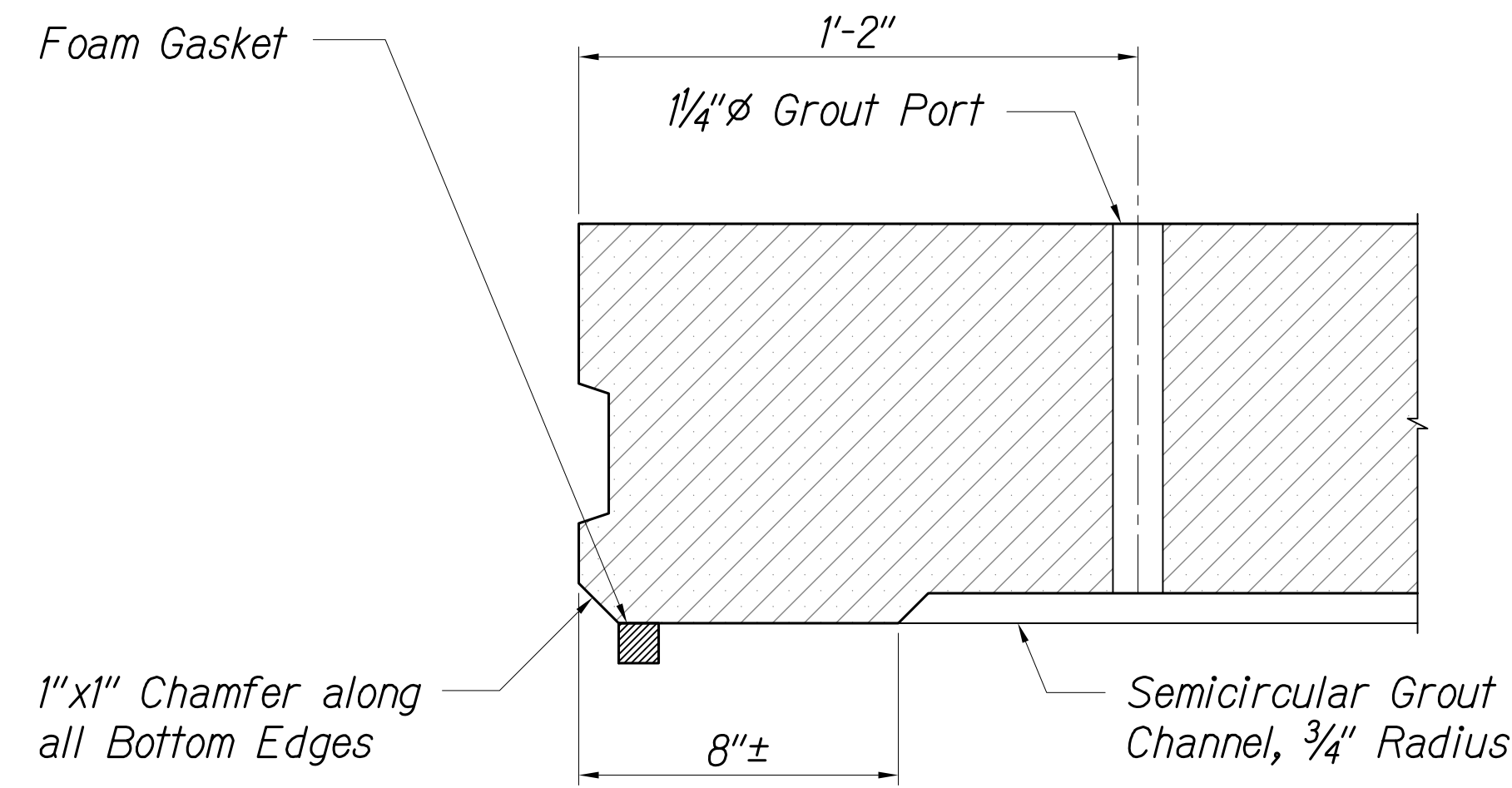
Scale: As Shown Date: October 10, 2018

SHEET No. S2.6 OF 65 SHEETS

"AS-BUILT"

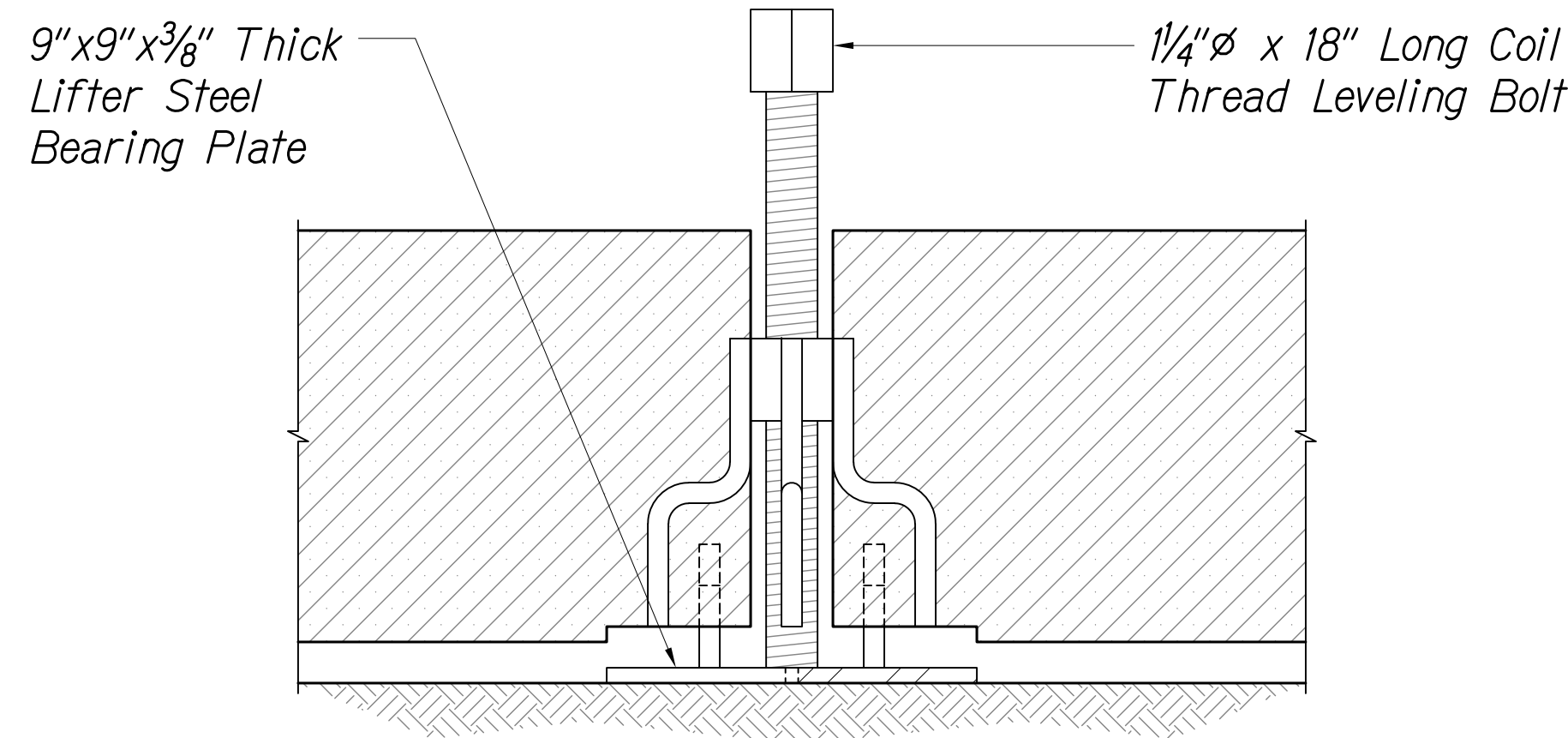
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	50	65



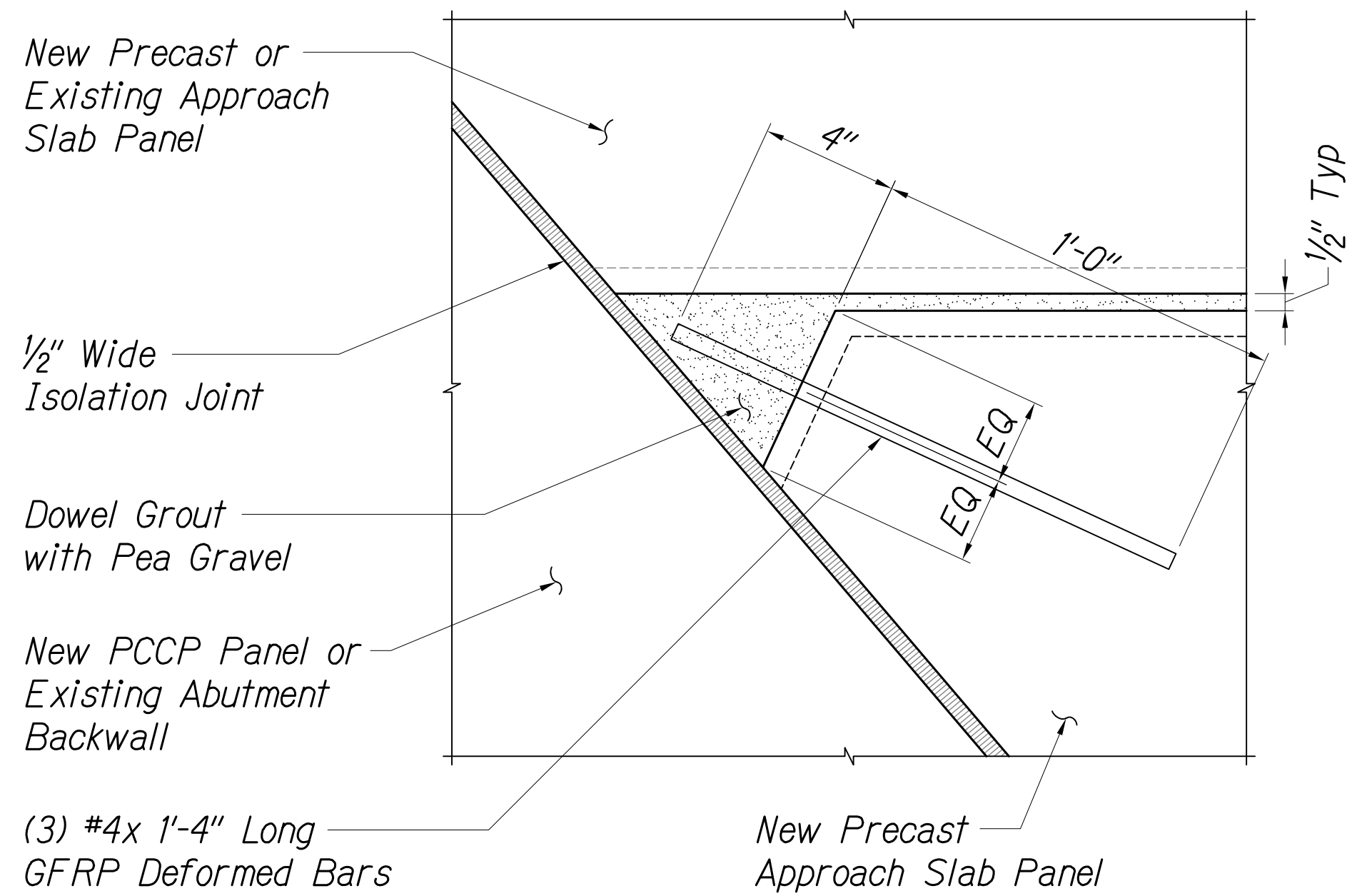
BEDDING GROUT CHANNEL DETAIL
Not to Scale

1
S2.7 | S2.7



TYPICAL LIFT/LEVELER DETAIL
Not to Scale

2
S2.7 | S2.7



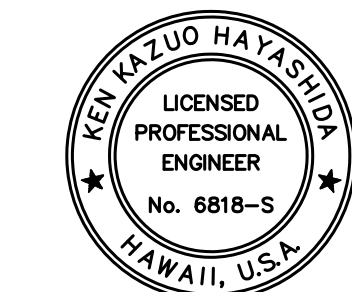
CHAMFER REINFORCING DETAIL
Not to Scale

3
S2.7 | S2.7

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

P:\451-4500\4509-1007 - Kent Design build of HI Widening\04 Drawings\Structural\AutoCAD\Format\Phase 3\2020-02-06 - As-Built - Copy\459_S2-4-S2-7.dwg 2/6/2020 10:56 AM BRYN LUM

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL PRECAST APPROACH SLAB
MISCELLANEOUS DETAILS
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

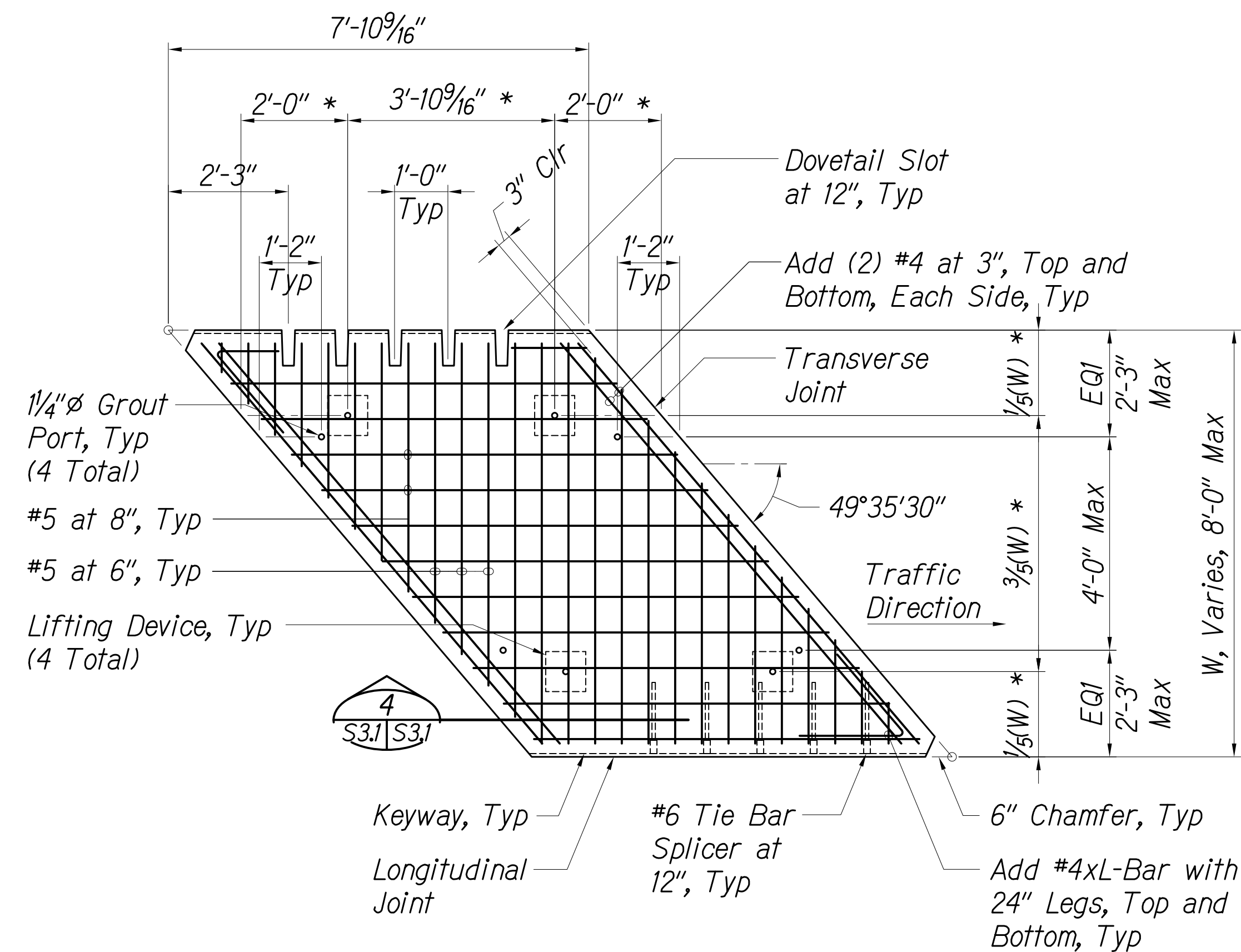
Scale: As Shown Date: October 10, 2018

SHEET No. S2.7 OF 65 SHEETS

"AS-BUILT"

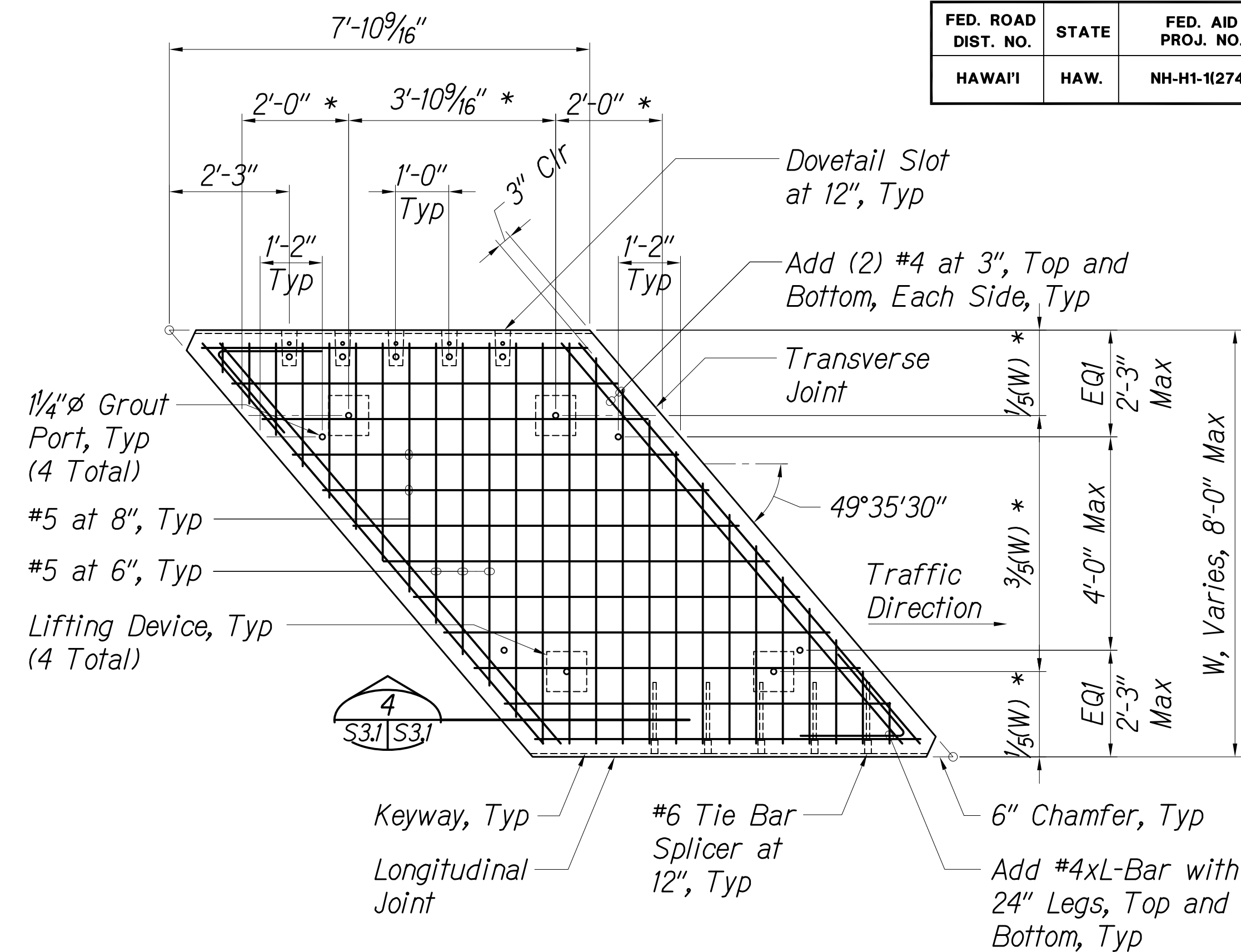
50

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	51	65



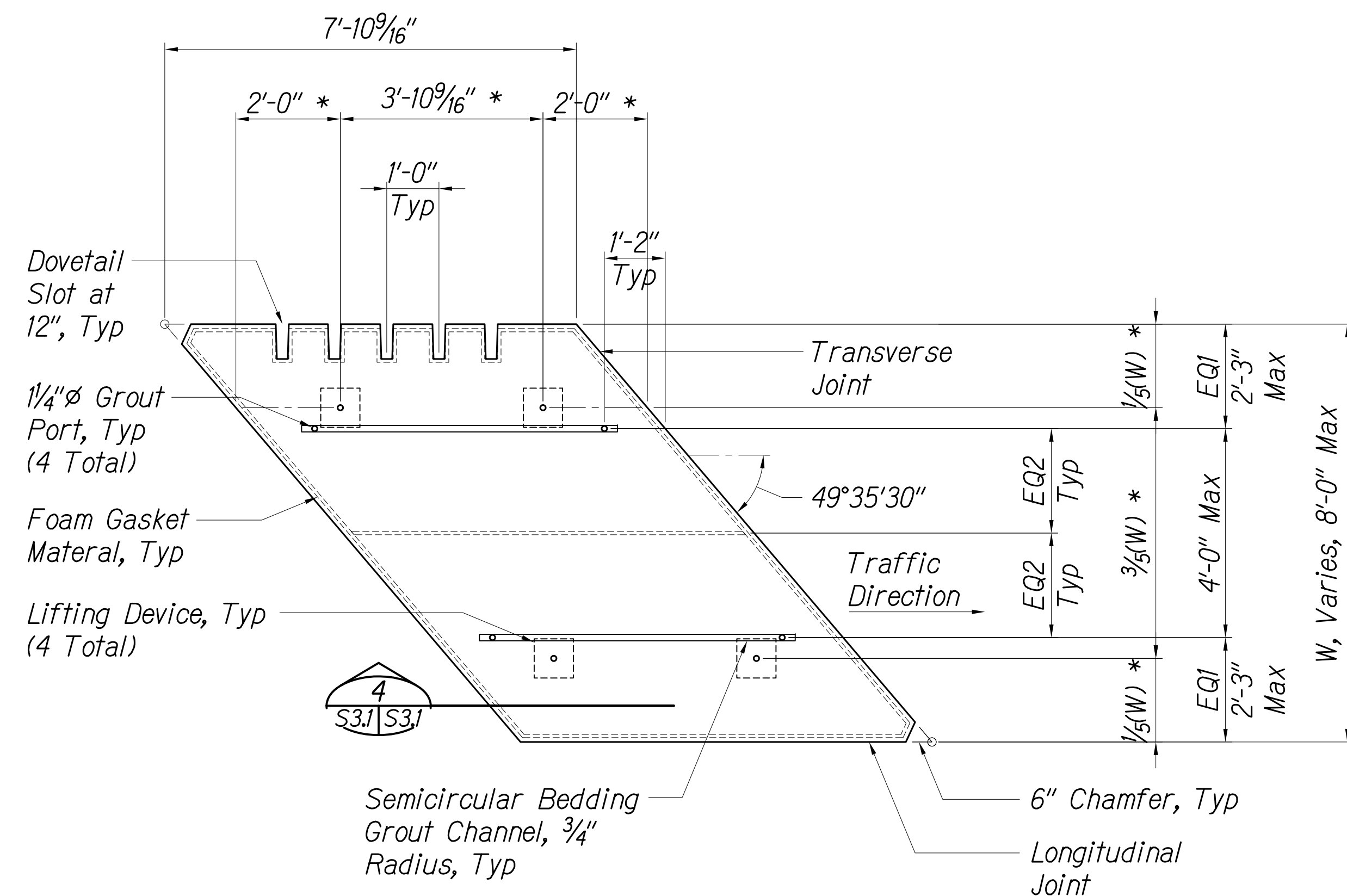
REBAR MAT (BOTTOM LAYER) 1
Not to Scale S3.1 | S3.1

* Lifting Device location tolerance shall be ±6"



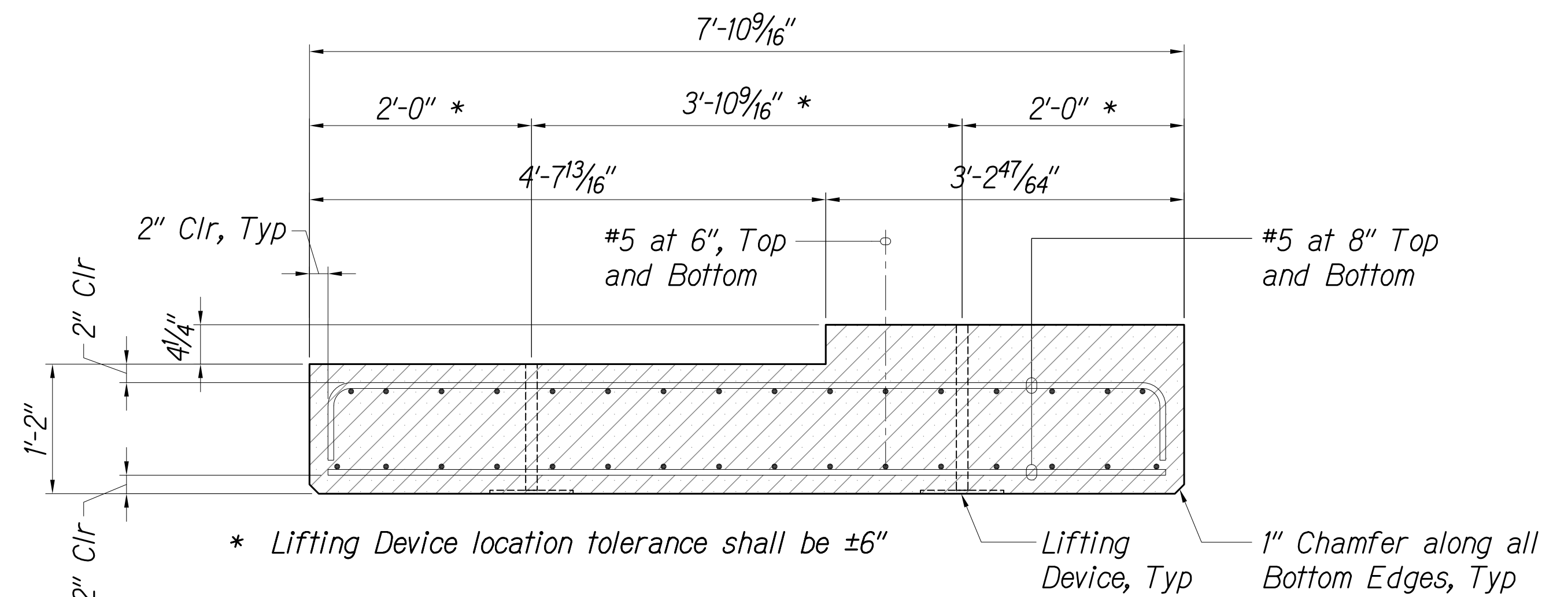
REBAR MAT (TOP LAYER) 2
Not to Scale S3.1 | S3.1

* Lifting Device location tolerance shall be ±6"



BEDDING GROUT DISTRIBUTION PLAN 3
Not to Scale S3.1 | S3.1

* Lifting Device location tolerance shall be ±6"

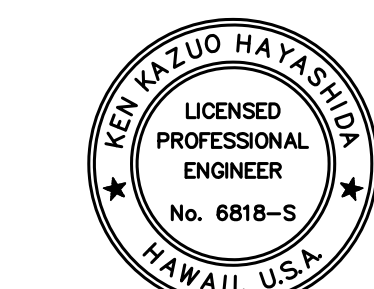


SLEEPER SLAB SECTION 4
Not to Scale S3.1 | S3.1

Notes:

- Orientation of grout channels and gaskets may vary.
- For Grout Port and Joint Details, See Sheets S2.7 and S3.2.
- Adjust reinforcement bars to accommodate dovetail slots and tie bar splicers.
- Shop Drawings will be provided by Fort Miller for each precast panel.

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EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL PRECAST SLEEPER SLAB PANEL DETAILS
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

Scale: As Shown Date: October 10, 2018

SHEET No. S3.1 OF 65 SHEETS

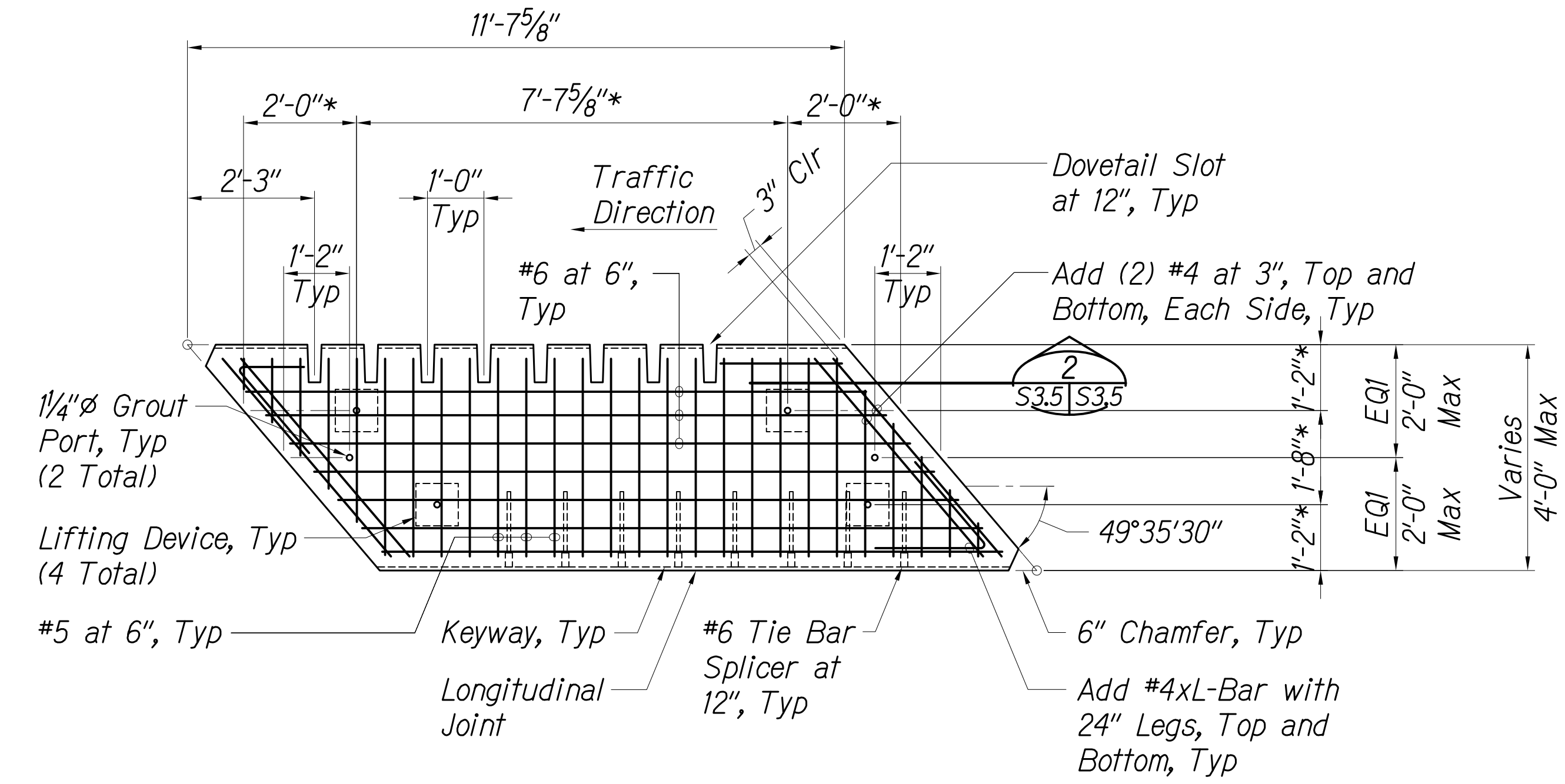
"AS-BUILT"

51

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

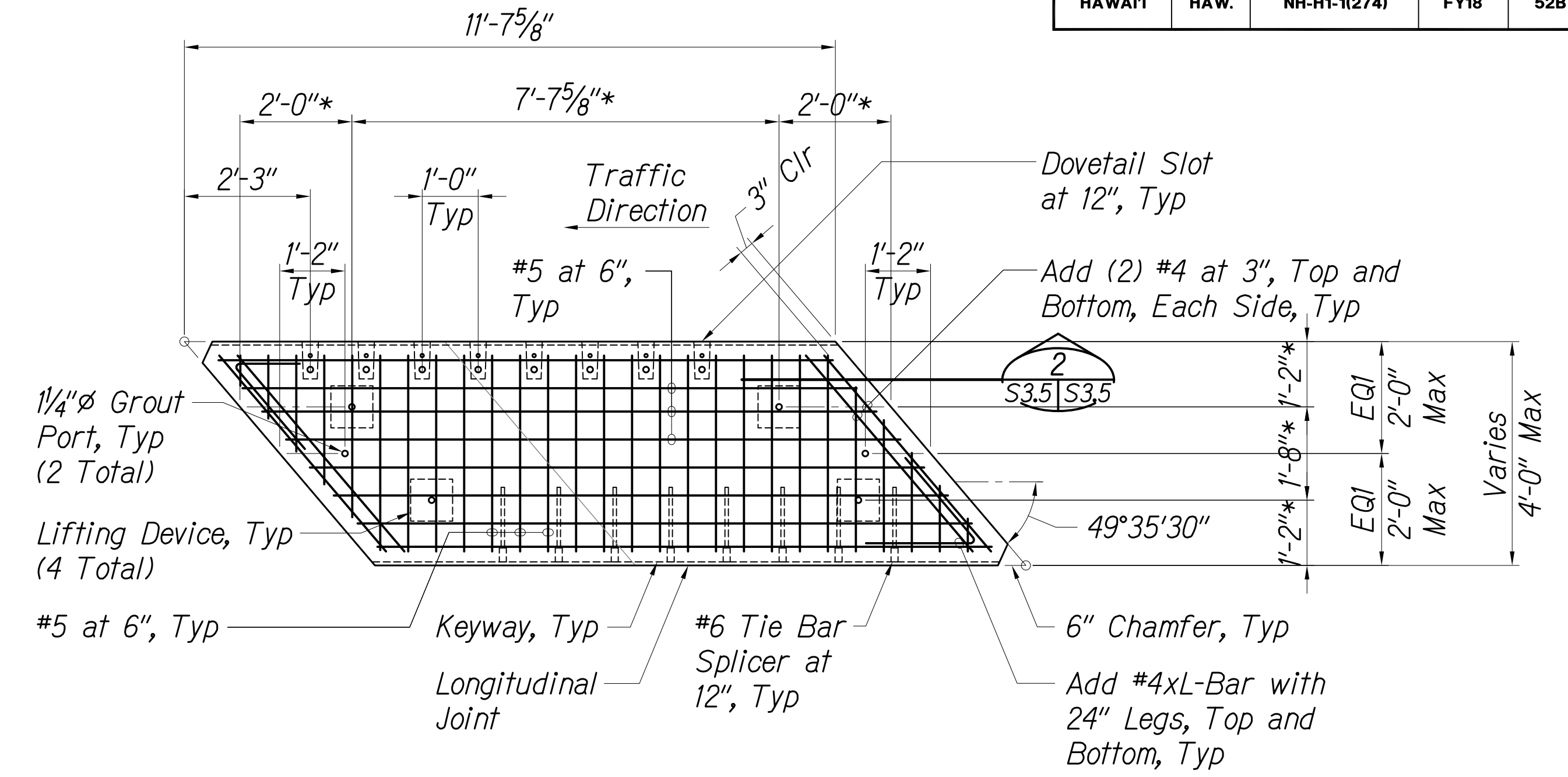
P:\451-4500\4500-1807 - Kiewit Design build of HI Widening\04 Drawings\Structural\AutoCAD_Sheet\Phase 3\2020-02-06 - As-Built - Copy\4500_S3-1.dwg 2/6/2020 10:56 AM BRYAN LUM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	52B	65



REBAR MAT (BOTTOM LAYER) 1
Not to Scale S3.4 S3.5

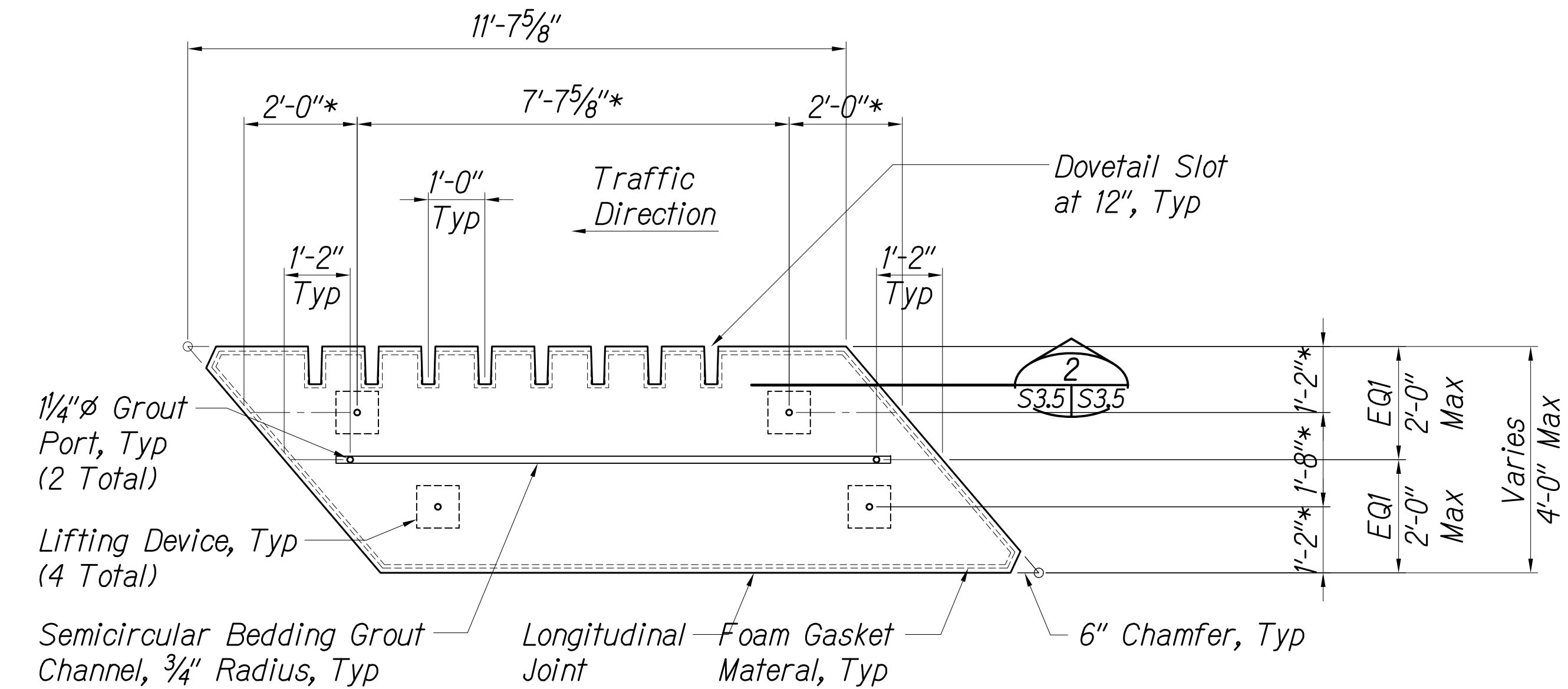
* Lifting Device location tolerance shall be ±6"



REBAR MAT (TOP LAYER) 2
Not to Scale S3.4 S3.5

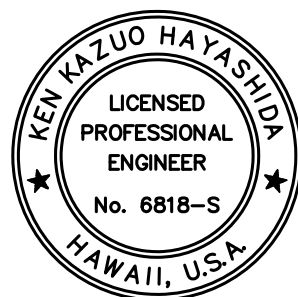
* Lifting Device location tolerance shall be ±6"

Note:
Details on this sheet used for sleeper slabs in outbound lanes 5 and 6.



BEDDING GROUT DISTRIBUTION PLAN 3
Not to Scale S3.4 S3.5

* Lifting Device location tolerance shall be ±6"



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**MODIFIED TYPICAL PRECAST
SLEEPER SLAB DETAILS - 2**
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

Scale: As Shown Date: October 10, 2018

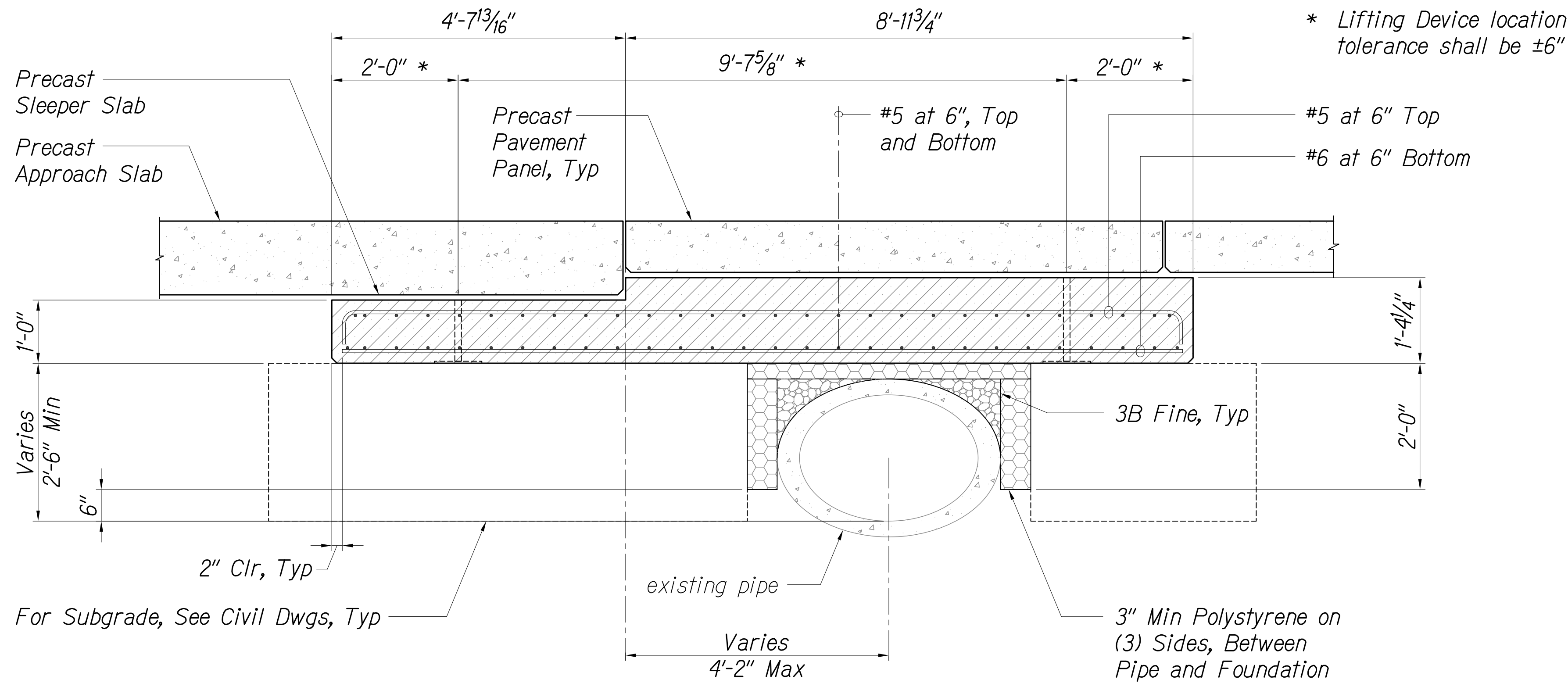
SHEET No. S3.4 OF 65 SHEETS

"AS-BUILT"

52B

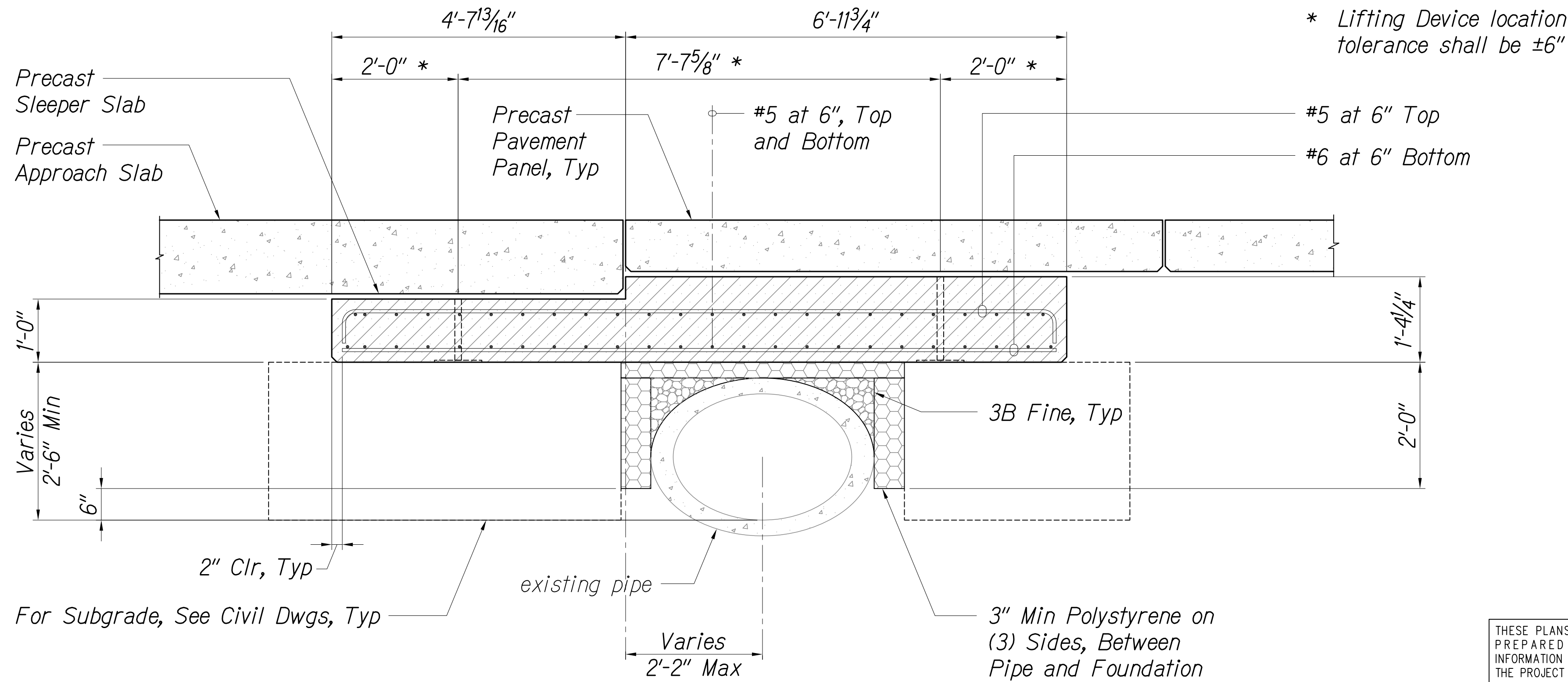
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	52C	65



SLEEPER SLAB SECTION AT LANES 3, 4, AND 5
Not to Scale

1
S3.3 | S3.5



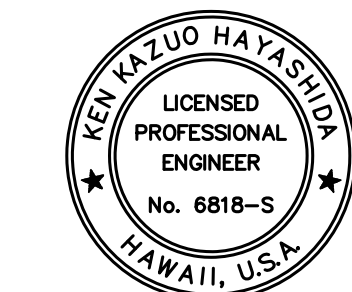
SLEEPER SLAB SECTION AT LANES 5 AND 6
Not to Scale

2
S3.4 | S3.5

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

P:\451-4500\4500-4508\H001 - Kiewit Design build of HI Widening\004 Drawings\Structural\AutoCAD\Format\Phase 3\2020-02-06 - As-Built - Copy\4508_S3-5.dwg 2/6/2020 10:56 AM BRYAN LUM

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE: [Signature] EXPIRATION DATE OF THE LICENSE: April 30, 2020

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MODIFIED TYPICAL PRECAST SLEEPER SLAB SECTIONS
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

Scale: As Shown Date: October 10, 2018

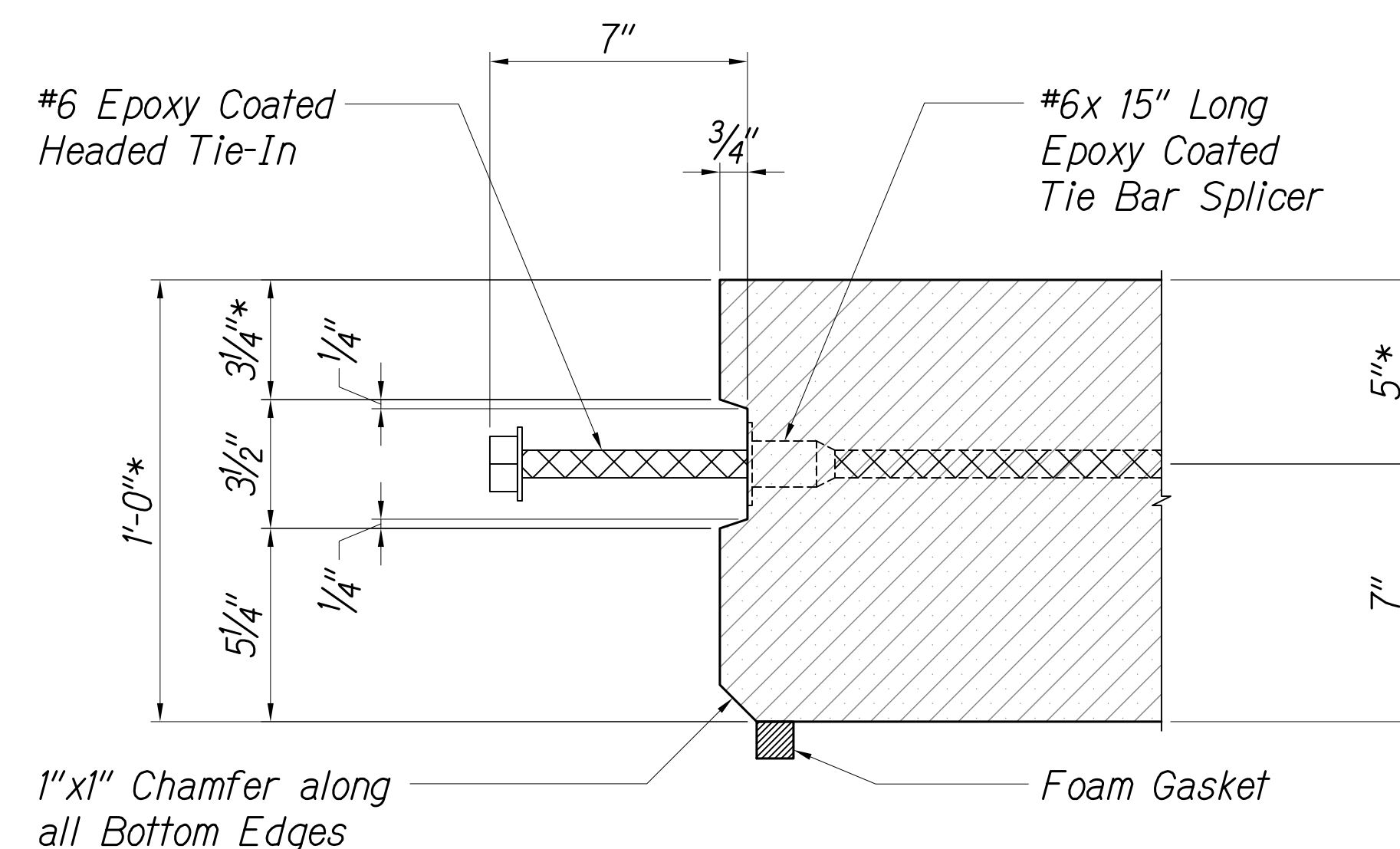
SHEET No. S3.5 OF 65 SHEETS

"AS-BUILT"

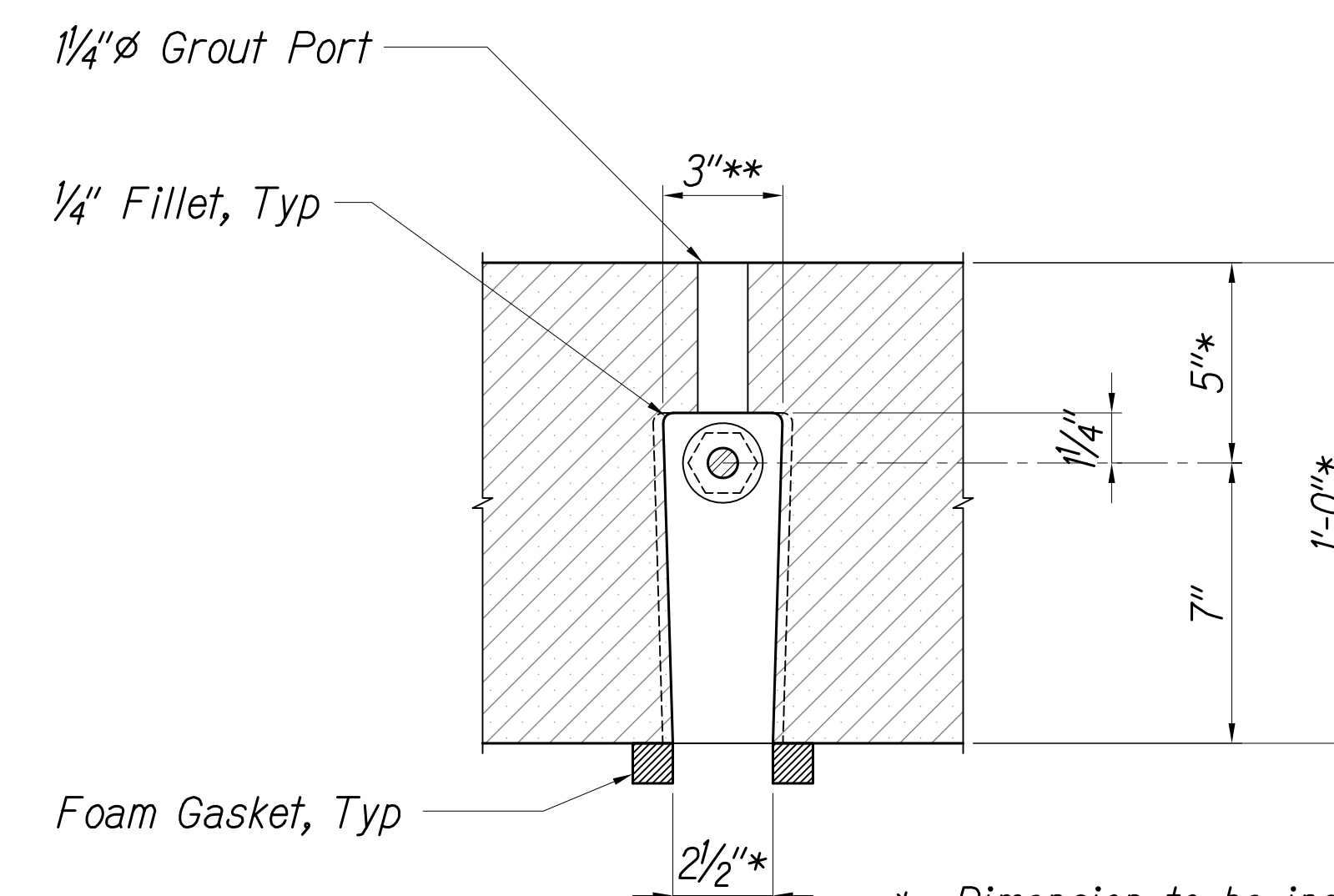
52C

[illegible]

* Dimension to be increased by 4 1/4" at locations beneath typical pavement panel



* Dimension to be increased by 4 1/4" at locations beneath typical pavement panel

$$\begin{array}{c} \text{2} \\ \hline S3.6 \mid S3.6 \end{array}$$


* Dimension to be increased by 4 1/4" at locations beneath typical pavement panel

**** Dimensions shown at inner end of slot, slot is $\frac{1}{2}$ " wider at joint face**

$$\begin{array}{c} \text{3} \\ \hline \text{S3.6} \mid \text{S3.6} \end{array}$$

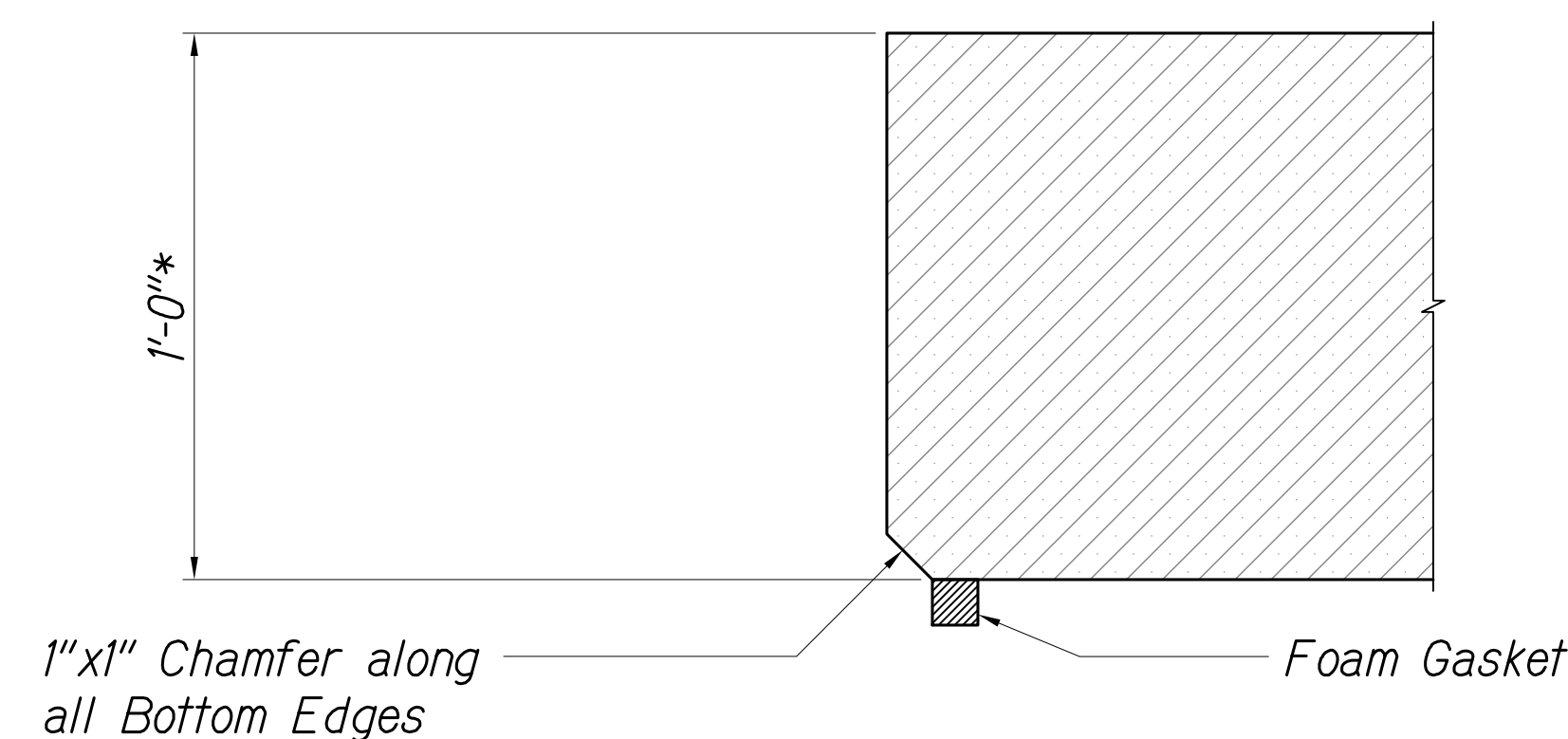
7"

1/2" Max Joint Width

#6 Epoxy Coated Headed Tie-In

#6x 15" Long Epoxy Coated Tie Bar Splicer

Not to Scale



* Dimension to be increased by 4 1/4" at locations beneath typical pavement panel

$$\begin{array}{c} \text{5} \\ \hline \text{S3.6} \mid \text{S3.6} \end{array}$$

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OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MODIFIED TYPICAL PRECAST
SLEEPER SLAB JOINT DETAILS
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS

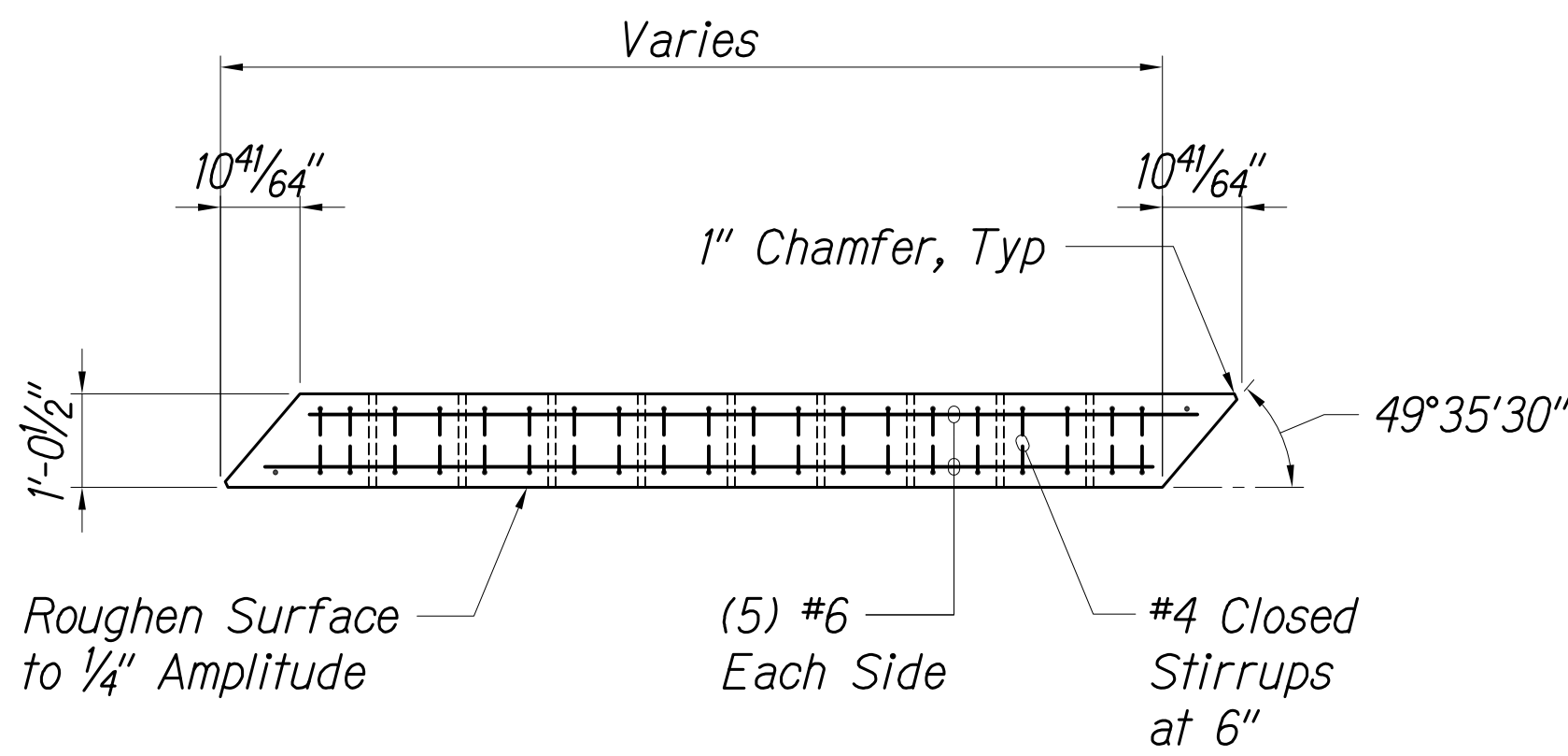
Scale: As Shown Date: October 10, 2018

SHEET No. S3.6 OF 65 SHEETS

"AS-BUILT"

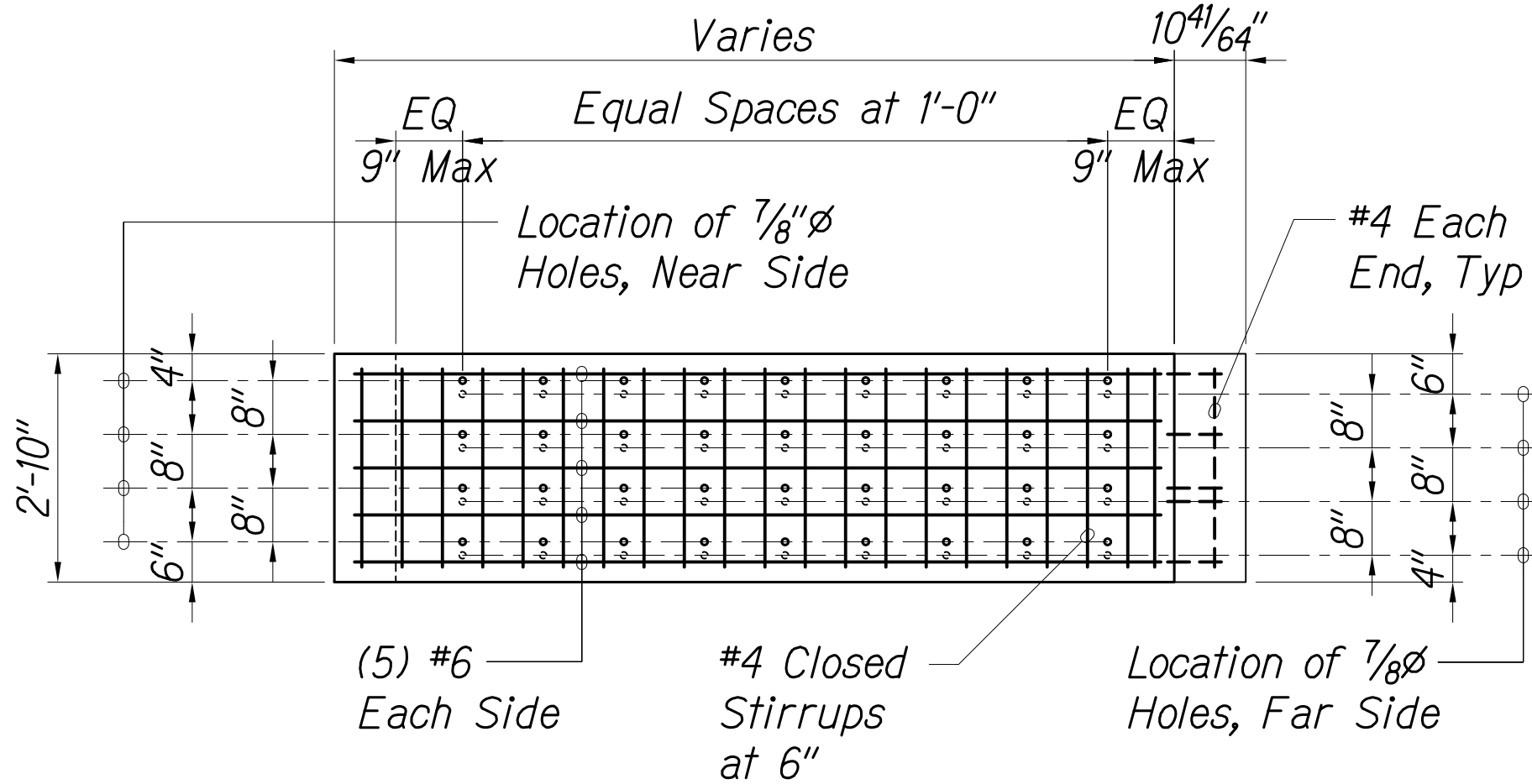
52D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(274)	FY18	53	65



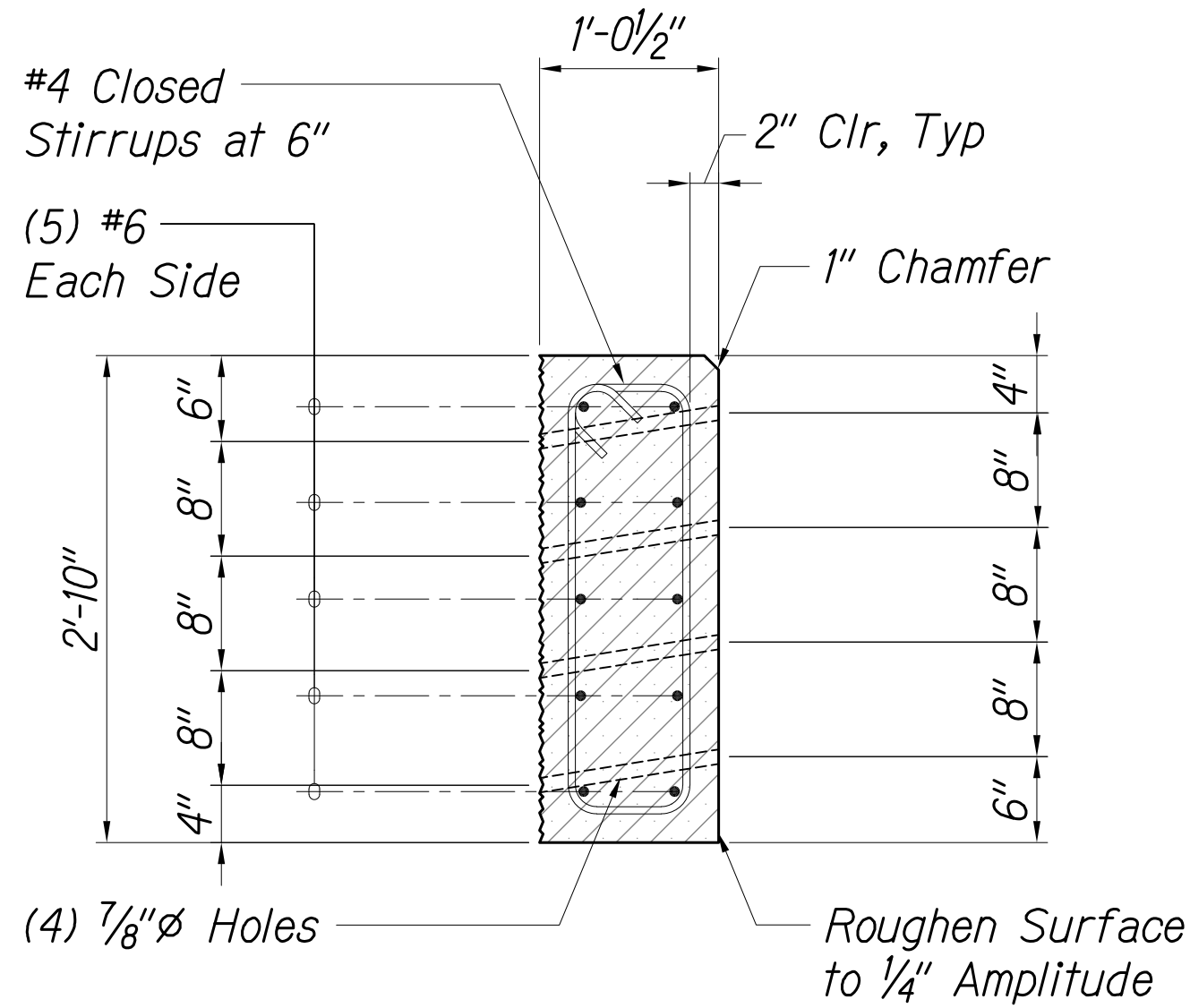
CORBEL PLAN
Not to Scale

1
S4.1 | S4.1



CORBEL ELEVATION
Not to Scale

2
S4.1 | S4.1



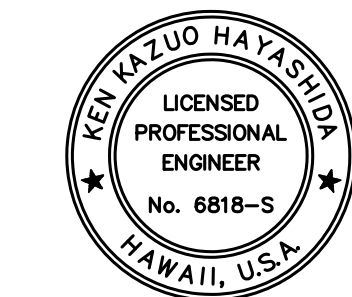
CORBEL SECTION
Not to Scale

3
S4.1 | S4.1

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

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Signature: [Signature] April 30, 2020
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPICAL PRECAST
CORBEL DETAILS**
INTERSTATE ROUTE H-1
PORTLAND CEMENT CONCRETE PAVEMENT
REHABILITATION
VICINITY OF WAIMALU TO VICINITY OF HALAWA
PHASE 3 - ADDITIONAL PANELS
Scale: As Shown Date: October 10, 2018
SHEET No. S4.1 OF 65 SHEETS