INDEX TO BRIDGE DRAWINGS

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S0.2	BRIDGE GENERAL NOTES		
50.3	SYMBOLS AND ABBREVIATIONS		
		S7 . 1	KAPAKAHI STREAM BRIDGE - DECK FRAMING PLAN
		S7.2	KAPAKAHI STREAM BRIDGE - TYPICAL DECK SECTION
S1.1	WAIKELE STREAM BRIDGE - LAYOUT PLAN AND SECTION		AND INTERMEDIATE DIAPHRAGM
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S2.1	WAIKELE STREAM BRIDGE - DECK FRAMING PLAN	58.2	KAPAKAHI STREAM BRIDGE - ABUTMENT #2 - PLAN AND SECTION
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S3.1	WAIKELE STREAM BRIDGE - ABUTMENT #1 - PLAN AND ELEVATION	59.1	KAPAKAHI STREAM BRIDGE - DIAPHRAGM AT ABUTMENTS SECTION
53.2	WAIKELE STREAM BRIDGE - ABUTMENT #2 - PLAN AND ELEVATION		
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S3.4	WAIKELE STREAM BRIDGE - ABUTMENT - SECTIONS	S10 . 1	KAPAKAHI STREAM BRIDGE - TEMPORARY UTILITY SUPPORT
S3.5	WAIKELE STREAM BRIDGE - ABUTMENT DETAILS		FRAMING PLAN
		S10.2	KAPAKAHI STREAM BRIDGE - TEMPORARY UTILITY SUPPORT PLAN
S4.1	WAIKELE STREAM BRIDGE - DIAPHRAGM AT ABUTMENTS SECTION		AND SECTIONS
		S11.1	TYPICAL PRESTRESSED GIRDER DETAILS
S5.1	WAIKELE STREAM BRIDGE - TEMPORARY UTILITY SUPPORT	S11.2	TYPICAL PRESTRESSED GIRDER DETAILS
	FRAMING PLAN - STAGE 1	S11.3	TYPICAL PRESTRESSED GIRDER DETAILS
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S5.7	WAIKELE STREAM BRIDGE - TEMPORARY UTILITY SUPPORT SECTION - STAGE 3		
		S15.1	TYPICAL ELASTOMERIC BEARING PAD DETAILS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-BW-0300(8)	2019	118	171



ME OR UNDER MY SUPERVISION.

SIGNATURE EXPRINATION DATE OF THE LICENSE

DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INDEX TO BRIDGE DRAWINGS

<u>Philippine Sea Rd. to Waipahu Depot Street</u> Fed. Aid Proj. No. STP-BW-0300(8)

Scale: None

Date: Sept. 1, 2019

SHEET No. SO.1 OF 3 SHEETS

1. General Specifications: Hawaii Standard Specifications for Road and Bridge Construction, 2005, together with Special Provisions prepared for this contract.

2. Design Specifications:

- (A) AASHTO 2014 LRFD Bridge Design Specifications (Seventh Edition) and its subsequent interim specifications with interim supplements and modifications by the Highways Division, Department of Transportation, State of Hawaii.
- (B) HDOT Document dated August 8, 2014 with subject title "Design Criteria for Bridges and Structures".
- (C) Temporary shoring and falsework shall follow the current AASHTO Guide Design Specifications for Bridge Temporary Works.
- (D) The current version of the AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges.

3. Loads:

(A) Live Load: 85 PSF Maintenance Truck = Front Axle 12,000 lbs Rear Axle 23,000 lbs Distance Between Front and Rear Axle = 17'-0" Distance Between Outer Rear Wheels of the Same Axle = 7'-2"

(B) Seismic Loads: Acceleration coefficient - 0.19

4. Materials:

(A) All concrete strengths shall be as noted below:

<u>Item N</u>		Classes of <u>Concrete</u>	Compressive Strength <u>f'c (28 Days)</u>
(1)	Prestressed Girders	-	7500 PSI
(2)	Slab, Diaphragms, and End Bean	ns -	5000 PSI
(3)	Abutments	-	5000 PSI
(4)	Except as noted otherwise,	-	4000 PSI

All concrete shall have a maximum W/C Ratio of 0.45.

all others

- (B) For 16 1/2" Prestressed Octagonal Piles See Standard Plans B-12, B12A, B12B, and B-13.
- (C) All reinforcing steel shall be ASTM A 615 Grade 60 unless otherwise noted.
- (D) Reinforcing steel shall be ASTM A 706 where welded connections are required.
- (E) Prestressing steel shall be uncoated seven wire low-relaxation strand conforming to ASTM A 416, Grade 270.
- (F) Fiberglass reinforced plastic (FRP) shall conform to Special Provisions Section 720.
- (G) A migrating corrosion inhibitor amine carboxylate water-based admixture shall be added to the concrete mix for concrete material 4(A) item nos. 1, 2, 3, and 4(B) The minimum dosage shall be 1.5 pints per cubic yard of concrete. The admixture shall not affect the set time of the concrete.

4. Materials (Cont.):

(H) A migrating corrosion inhibitor amine carboxylate water-based admixture shall be added to the dry pack mortar, grout and non-shrink grout. The minimum dosage shall be 10 grams per 0.4 to 0.5 cubic feet of dry pack mortar, grout, or non-shrink grout.

5. Reinforcement:

- (A) The covering measured from the surface of the concrete to the face of any reinforcing bars shall be as follows, except as otherwise shown:
 - (1) Deck slabs a. Top bars = 2" with a tolerance of - 0 inch and +3/8 inch b. Bottom bars = 1 1/4" except as otherwise noted
 - (2) Prestressed girders = 1" to stirrups
 - (3) Wing walls = 2"
 - (4) Pile cap and beams = 2" to stirrups
 - (5) Concrete cast against and permanently exposed to earth = 3"
 - (6) All others unless otherwise noted = 2".
- (B) Reinforcing bars shall be detailed in accordance with the latest edition of the AASHTO LFRD Bridge Design Specifications unless otherwise noted.
- (C) Minimum clear spacing between parallel bars shall be 1 1/2 times the diameter of bars (for non bundled bars). In no case shall the clear distance between the bars be less than 1 1/2 times the maximum size of the coarse aggregate or 1 1/2".
- (D) All dimensions relating to reinforcing bars are to centers of bars unless otherwise noted.
- (E) Reinforcing bars shall be securely tied at all intersections and lap splices except where the spacing of intersections is less than one foot in each direction, in which case alternate intersections shall
- (F) All rebar inserts shall develop the full ultimate tensile strength of the rebar.

6. Girder Bearings, Hinge Blocks and Creep Blocks:

- (A) Top of girder concrete seat receiving elastomeric pads shall be finished with a trowel to a smooth level surface to the elevation shown on the plans. Grind down high spots as needed to provide on even bearing surface to 1/16"± tolerance.
- (B) Elastomeric pads: To prevent displacement, the bottom of bridge elastomeric bearing pads shall be secured to the concrete seats with adhesive approved with by the Engineer. Elastomeric pads shall conform to AASHTO M251 Specifications.

7. Construction Notes:

- (A) The Contractor shall temporarily shore all existing utility lines that is to remain. Shoring calculations and details shall be approved by the utility companies and the State.
- (R) The Contractor shall verify all dimensions and site conditions and shall report any discrepancies in writing to the Engineer before commencing work or ordering materials.
- (C) The Contractor shall verify all site conditions and not rely upon these plans for existing bridge elevations and azimuths, stream channel location, roads, roadway gutters, curbs and sidewalks, etc.. Conditions may differ from those shown.

7. Construction Notes - Cont.:

- (D) The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing and new structures from damage due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.
- (E) The Contractor shall verify the location of all utility lines and notify the respective owners before commencing with excavation, and any temporary piling or sheeting.
- (F) The Contractor shall submit working drawings and calculations for the proposed bracing/falsework details needed to protect the existing structures from increases in the existing load due to equipment, cranes, vehicles and fresh concrete, etc. The drawings and calculations shall be stamped by a licensed Structural Engineer and a licensed Civil Engineer specializing in geotechnical engineering in the State of Hawaii. The above work. including working drawings and calculations, shall be incidental to various Contract items. The drawings and calculations shall be found acceptable by the Engineer before any construction work is to proceed.
- (G) Except as otherwise noted, all vertical dimensions are measured plumb.
- (H) Construction joints may be relocated or additional ones added subject to the acceptance of the Engineer.
- (J) Unless otherwise noted, all exposed concrete edges shall be chamfered 3/4" x 3/4".
- (K) Where specified that the concrete surface is to be roughened and cleaned the concrete shall be roughened to a full amplitude of 1/4 of an inch.
- (L) The Contractor shall layout reinforcing to avoid conflicts between bars. Special attention shall be given to dowels and reinforcing extending from precast members.

8. General:

- (A) All items noted incidental will not be paid for separately.
- (B) Standard Plans refer to all structures in general, except for modifications as may be required for special conditions. For such modifications refer to the corresponding detailed drawings.

9. Foundation:

For boring logs and other geotechnical information, see foundation report by Geolabs, Inc. dated September 20, 2018.

- (A) Vertical Pile Load Capacity
 - (1) Extreme event limit state = 400 kips
 - (2) Strength limit state = 177 kips



SIGNATURE EXPIRATION DATE OF THE LICENSE

DEPARTMENT OF TRANSPORTATION

BRIDGE GENERAL NOTES

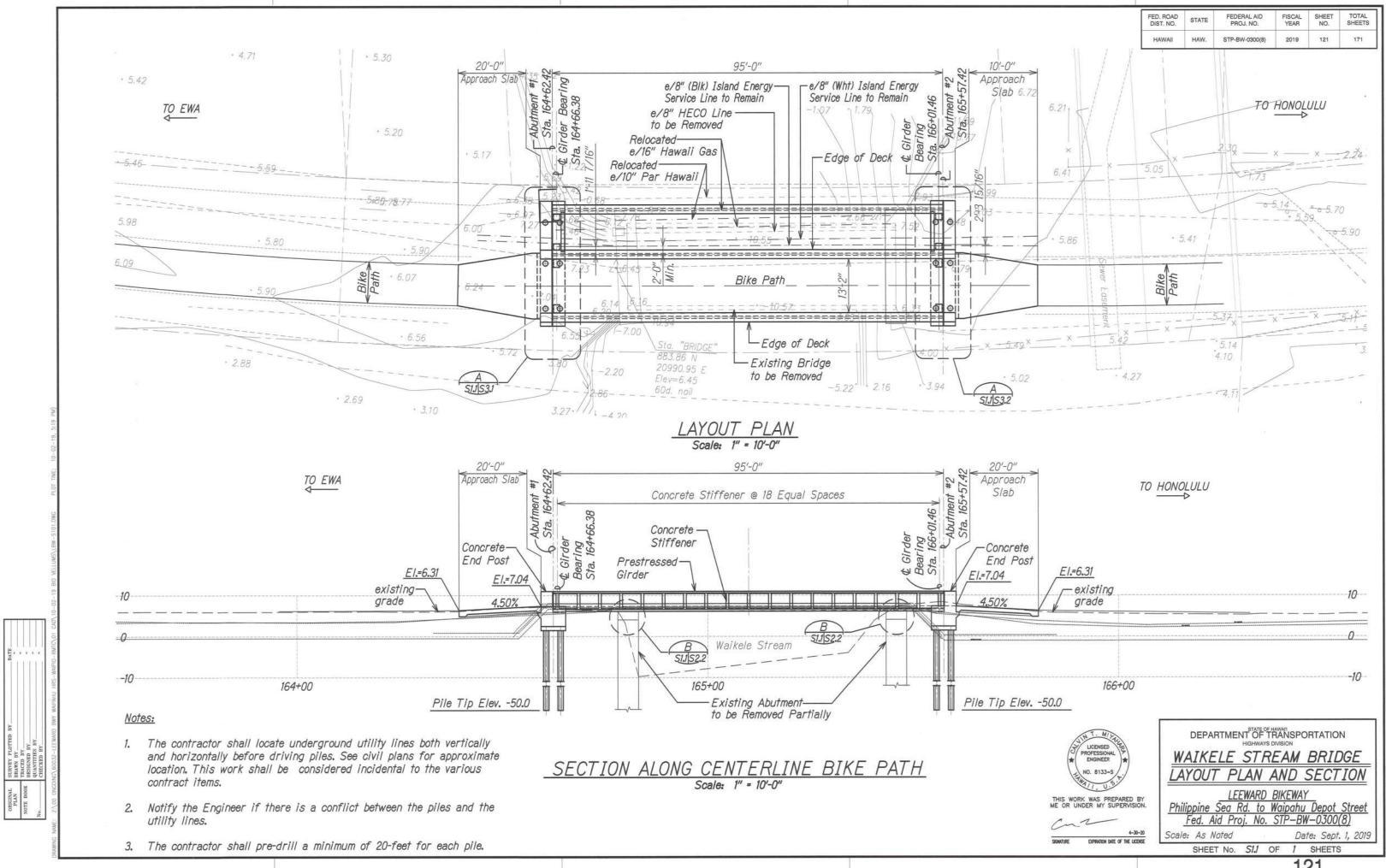
LEEWARD BIKEWAY Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8

Scale: None

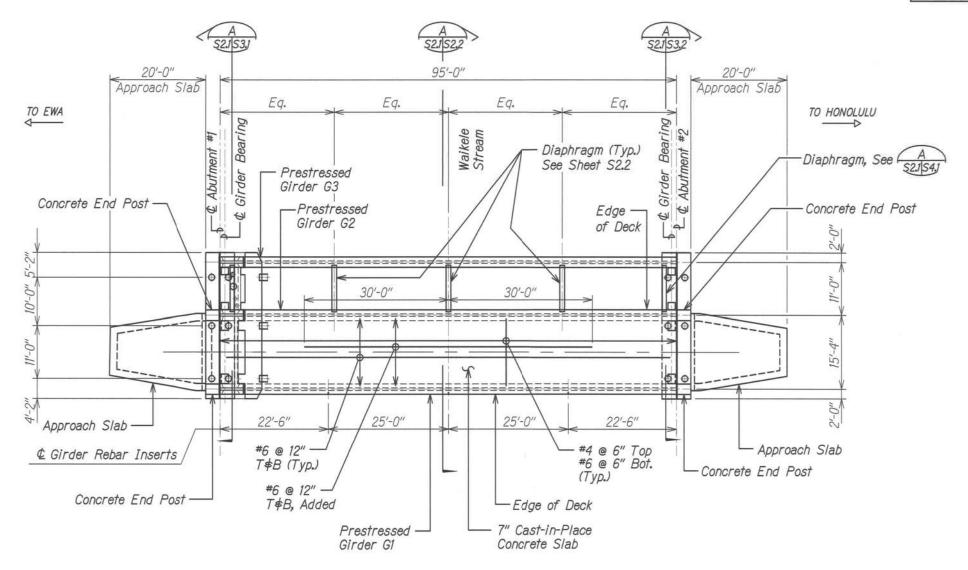
Date: Sept. 1, 2019

SHEET No. SO.2 OF 3 SHEETS

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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-BW-0300(8)	2019	122	171



DECK FRAMING PLAN

Scale: 1" = 10'-0"



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.



DEPARTMENT OF TRANSPORTATION

WAIKELE STREAM BRIDGE
DECK FRAMING PLAN

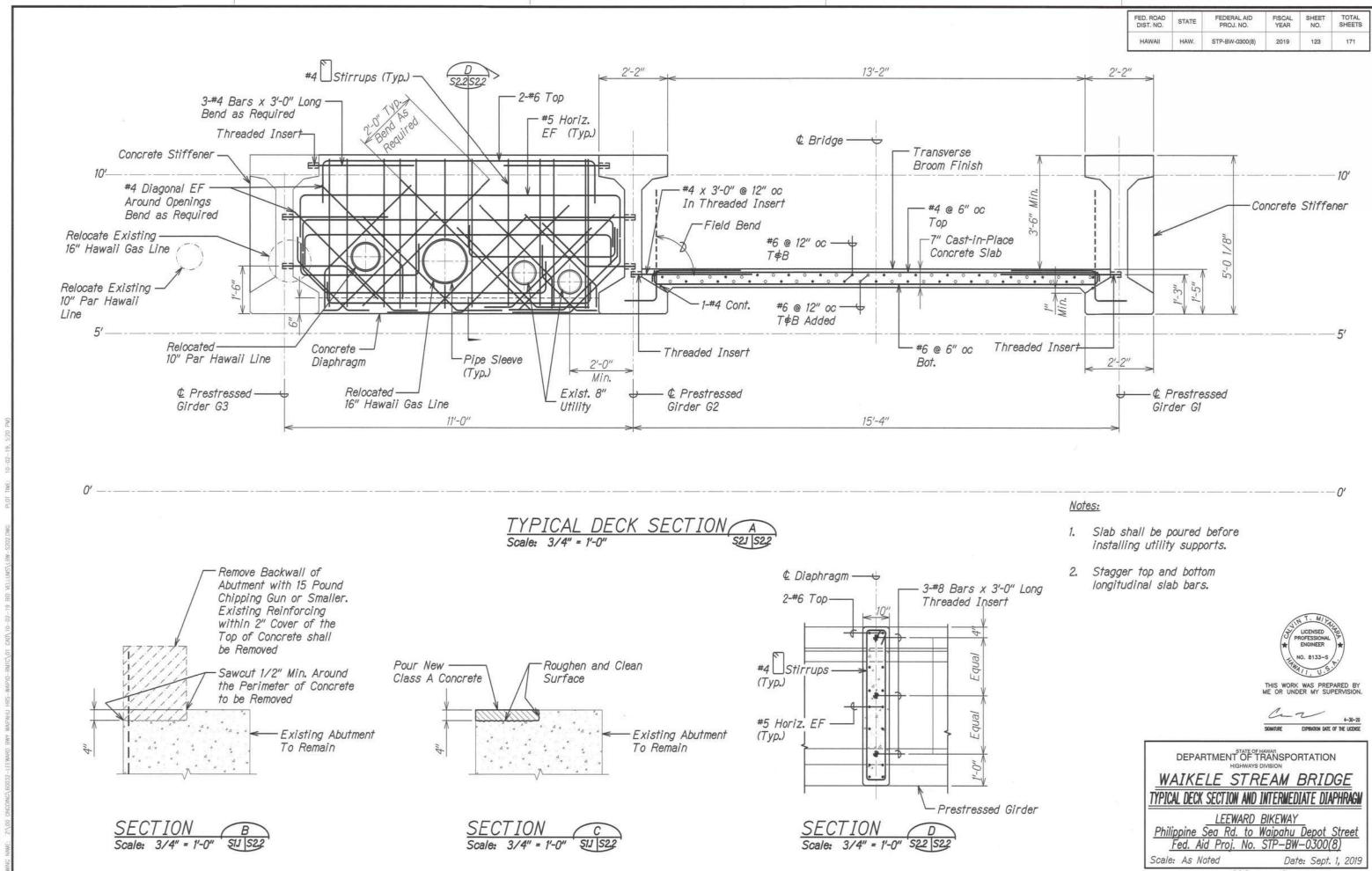
LEEWARD BIKEWAY
Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

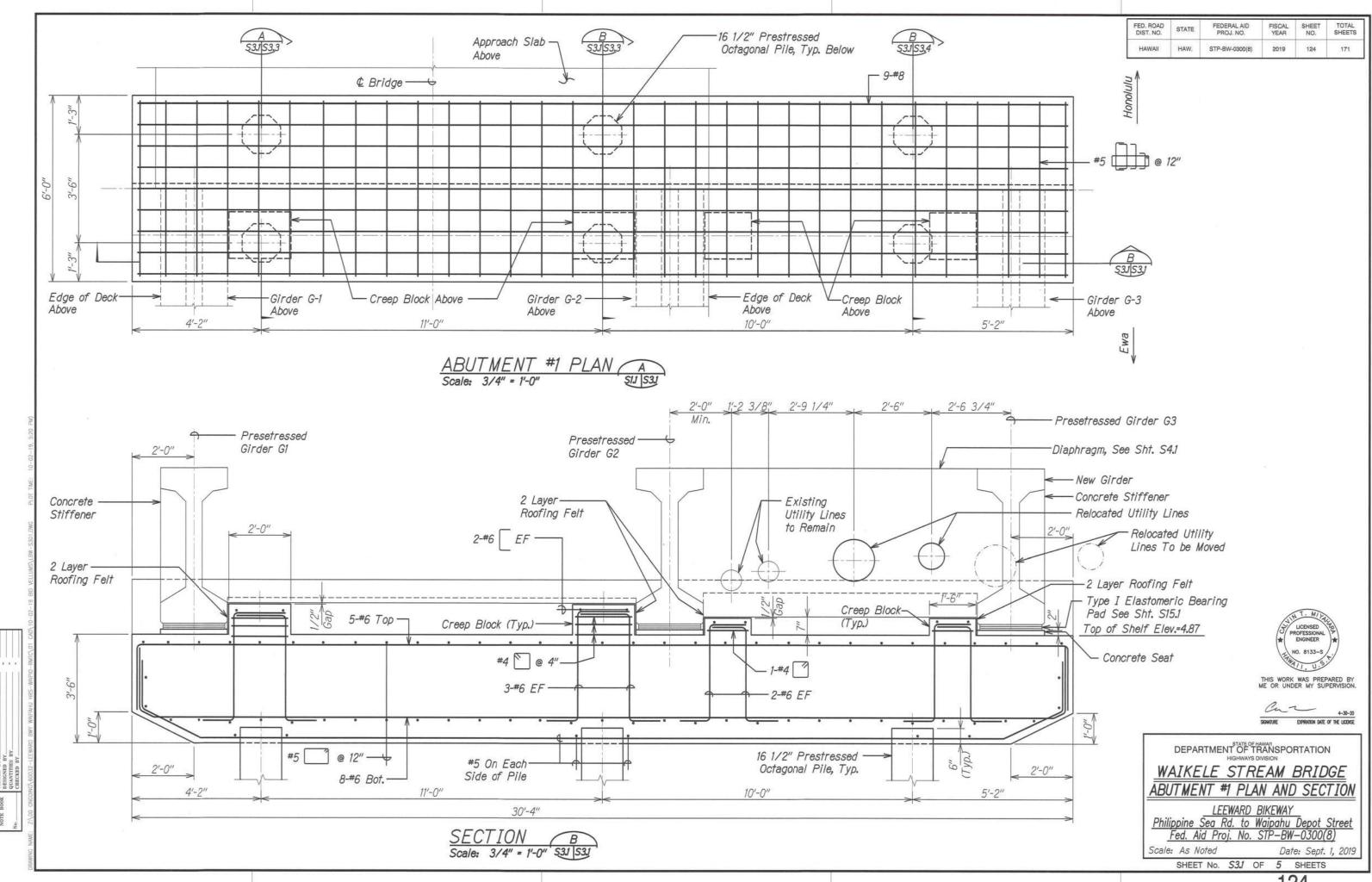
Date: Sept. 1, 2

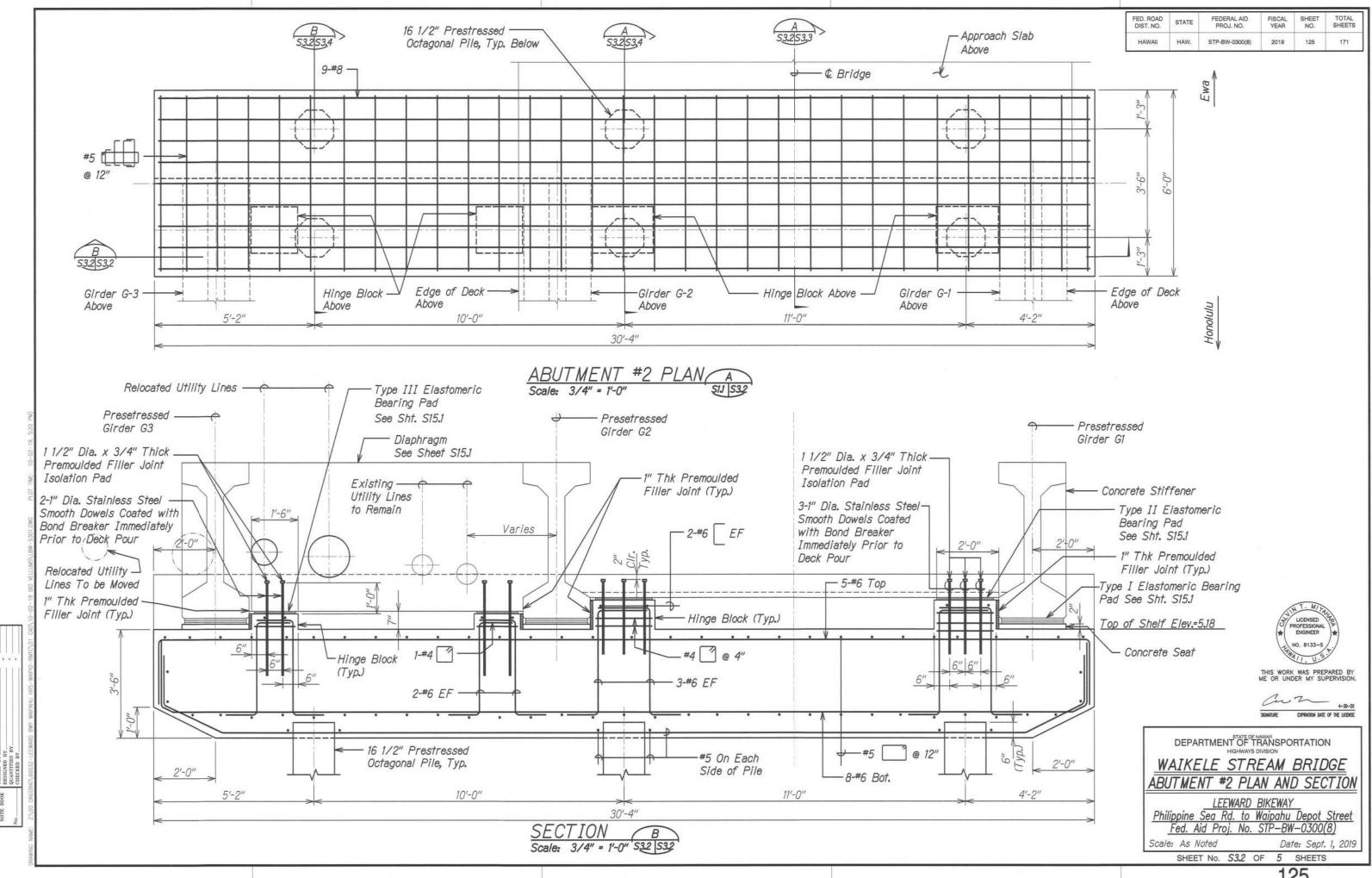
SHEET No. S2.1 OF 2 SHEETS

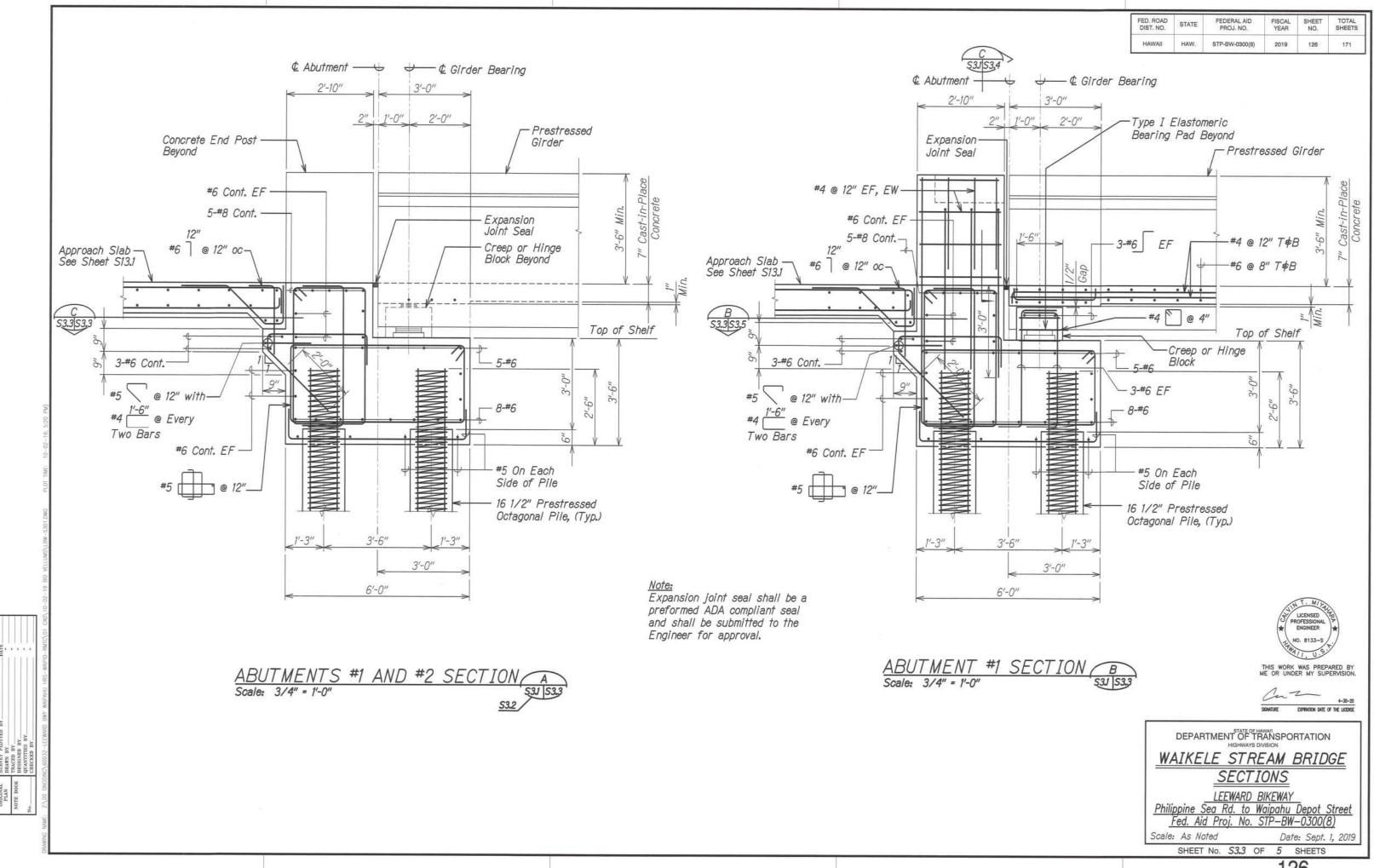
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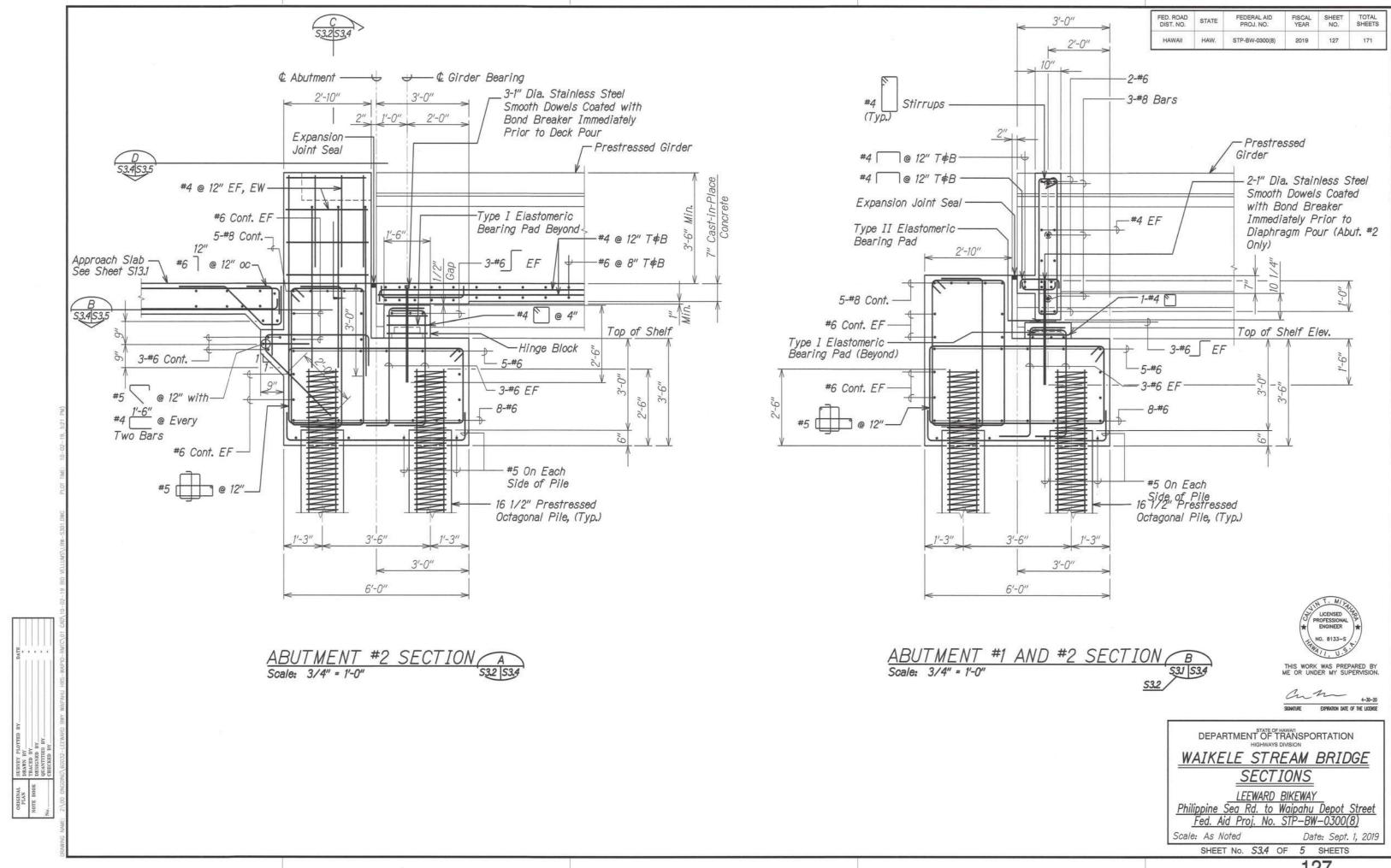


SHEET No. S2.2 OF 2 SHEETS

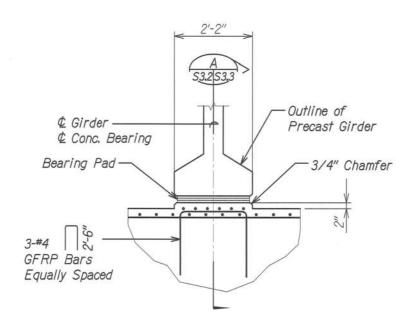




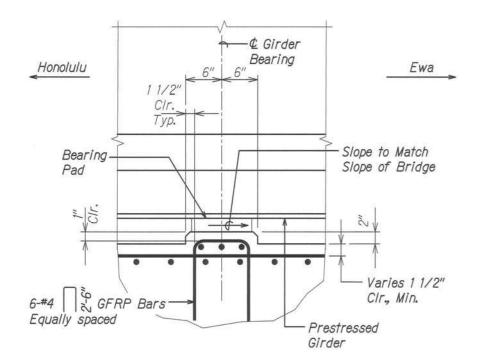




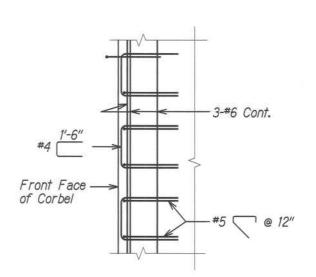




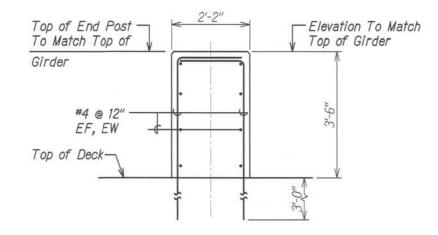




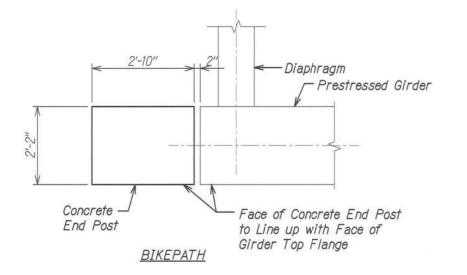
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Scale: 1 1/2" = 1'-0"		S3.5 S3.5



SECTION B Scale: 3/4" = 1'-0" 53.3 | 53.5 53.4, 58.3













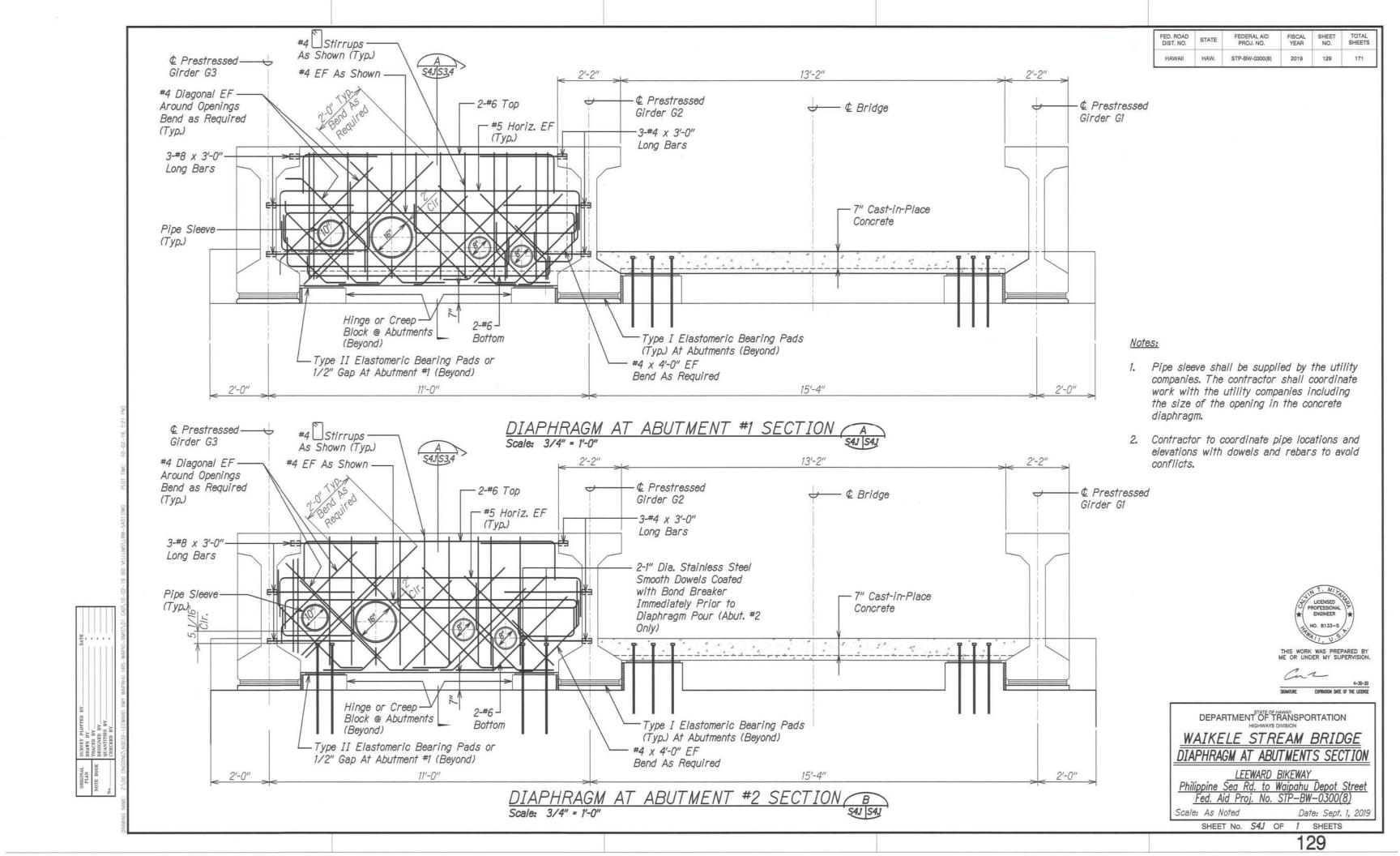
DEPARTMENT OF TRANSPORTATION

WAIKELE STREAM BRIDGE ABUTMENT DETAILS

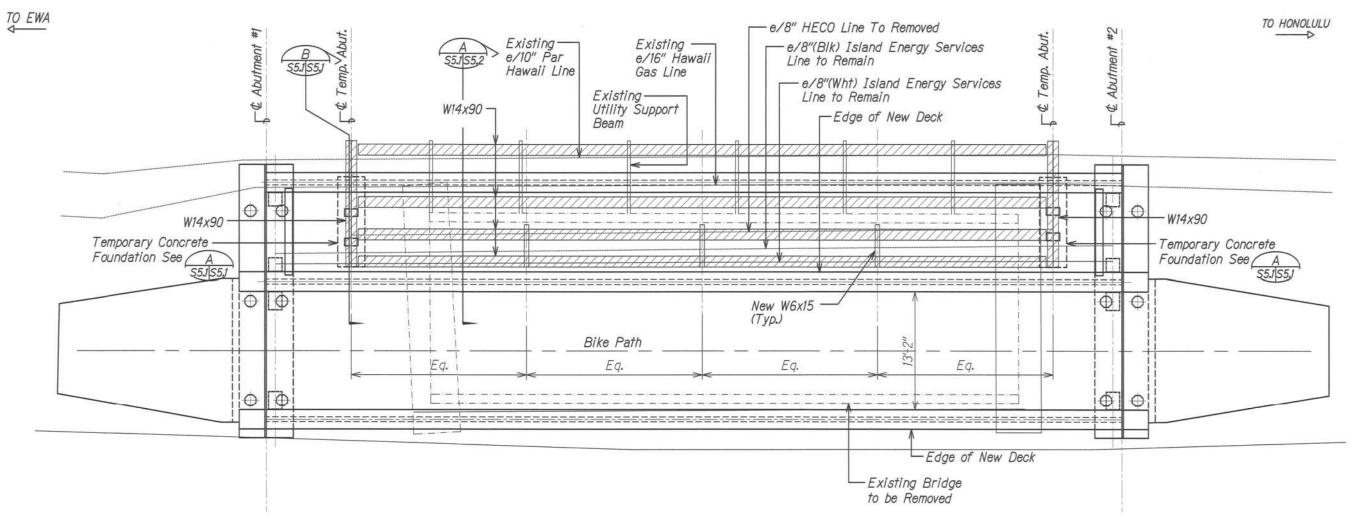
Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

Date: Sept. 1, 2019 SHEET No. 53.5 OF 5 SHEETS



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-BW-0300(8)	2019	130	171



TEMPORARY UTILITY SUPPORT FRAMING PLAN - STAGE 1

Scale: 3/16" = 1'-0"





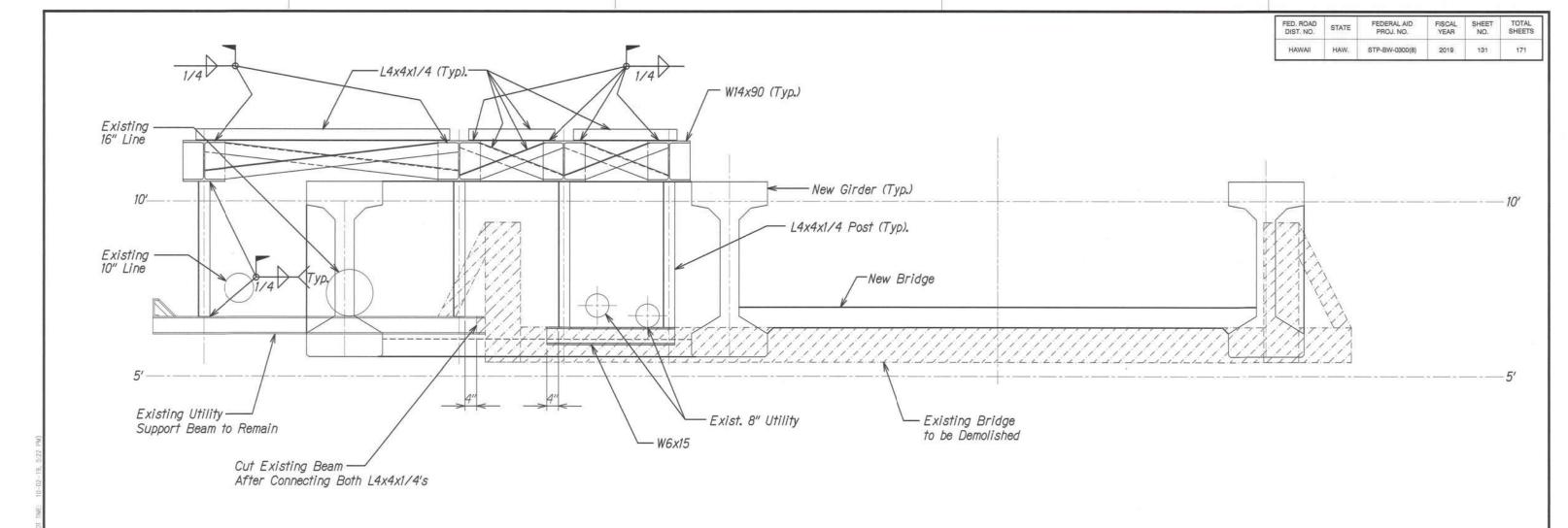
DEPARTMENT OF TRANSPORTATION WAIKELE STREAM BRIDGE

TEMP. UTILITY SUPPORT FRAMING PLAN-STAGE

Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

SHEET No. S5.1 OF 7 SHEETS



Stage 1:

- 1. Construct temporary foundations for utility supports.
- 2. Install new temporary steel beams (W14x90). Connect new W6x15s and L4x4x1/4s to W14x90.
- 3. Connect existing utility support beams to W14x90 with L4x4x1/4.
- 4. Install pipe brackets. (By Utility Company). The contractor shall coordinate work with the utility companies. Contractor is responsible for additional framing to support pipe brackets if brackets cannot be supported directly on support beams. The additional supports shall be acceptable to the utility companies.
- 5. Remove existing bridge except for portion of the utility support beams that is to remain.

Note:

The contractor shall support and brace the existing pipes (lines) as necessary during all phases of construction to insure the pipes are not damaged in any way.

TEMPORARY UTILITY SUPPORT SECTION - STAGE 1
Scale: 3/4" = 1'-0"



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WAIKELE STREAM BRIDGE
TEMPORARY UTILITY SUPPORT SECTION - STAGE I

Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

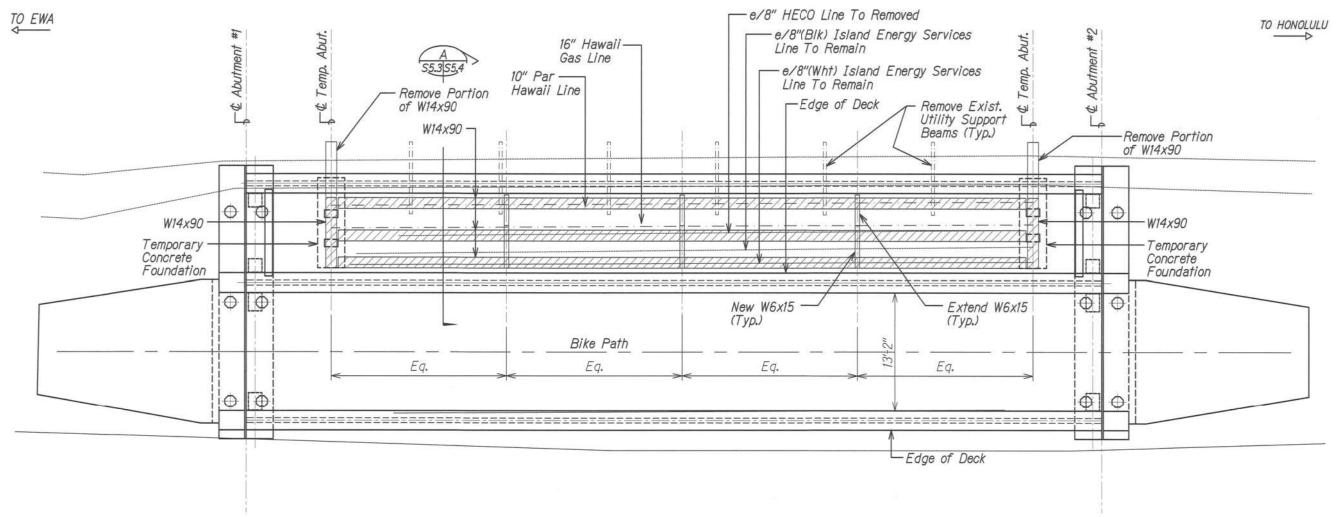
Scale: As Noted

Date: Sept. 1, 201

SHEET No. S5.2 OF 7 SHEETS

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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL
HAWAII	HAW.	STP-BW-0300(8)	2019	132	171



TEMPORARY UTILITY SUPPORT FRAMING PLAN - STAGE 2

Scale: 3/16" = 1'-0"





DEPARTMENT OF TRANSPORTATION

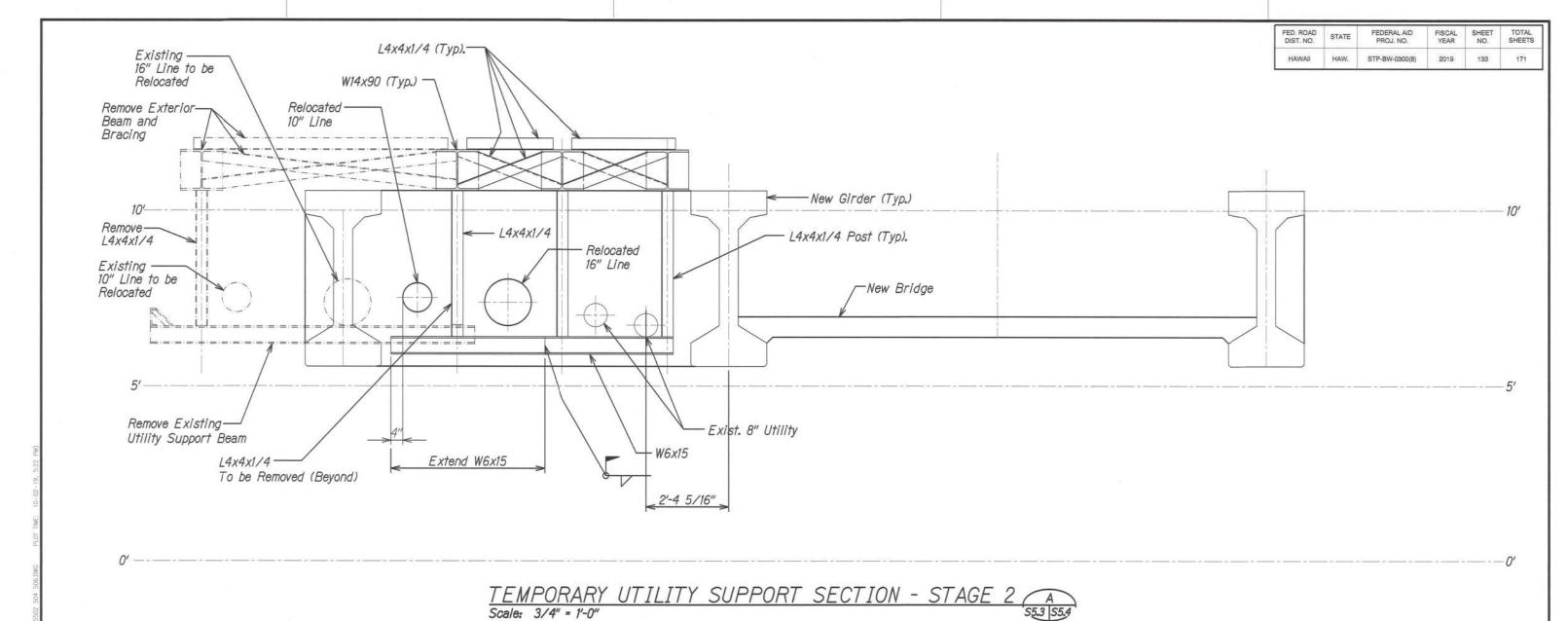
WAIKELE STREAM BRIDGE TEMP. UTILITY SUPPORT FRAMING PLAN-STAGE 2

<u>LEEWARD BIKEWAY</u>

<u>Philippine Sea Rd. to Waipahu Depot Street</u>
<u>Fed. Aid Proj. No. STP-BW-0300(8)</u>

Scale: As Noted

Date: Sept. 1, 2019 SHEET No. S5.3 OF 7 SHEETS



Stage 2:

- 1. Extend W6x15 and connect extended portion to W14x90 with New L4x4x1/4.
- 2. Piles shall be driven before relocating utility
- 3. Relocate 16" Gasco Line and 10" Tesoro Line. (Relocation of utility lines shall be done by the utility companies. The contractor shall coordinate the work with the utility companies).
- 4. Remove exterior W14x90 along with the bracing, L4x4x1/4, and the existing utility beams.





DEPARTMENT OF TRANSPORTATION

WAIKELE STREAM BRIDGE TEMPORARY UTILITY SUPPORT SECTION - STAGE 2

<u>LEEWARD BIKEWAY</u>

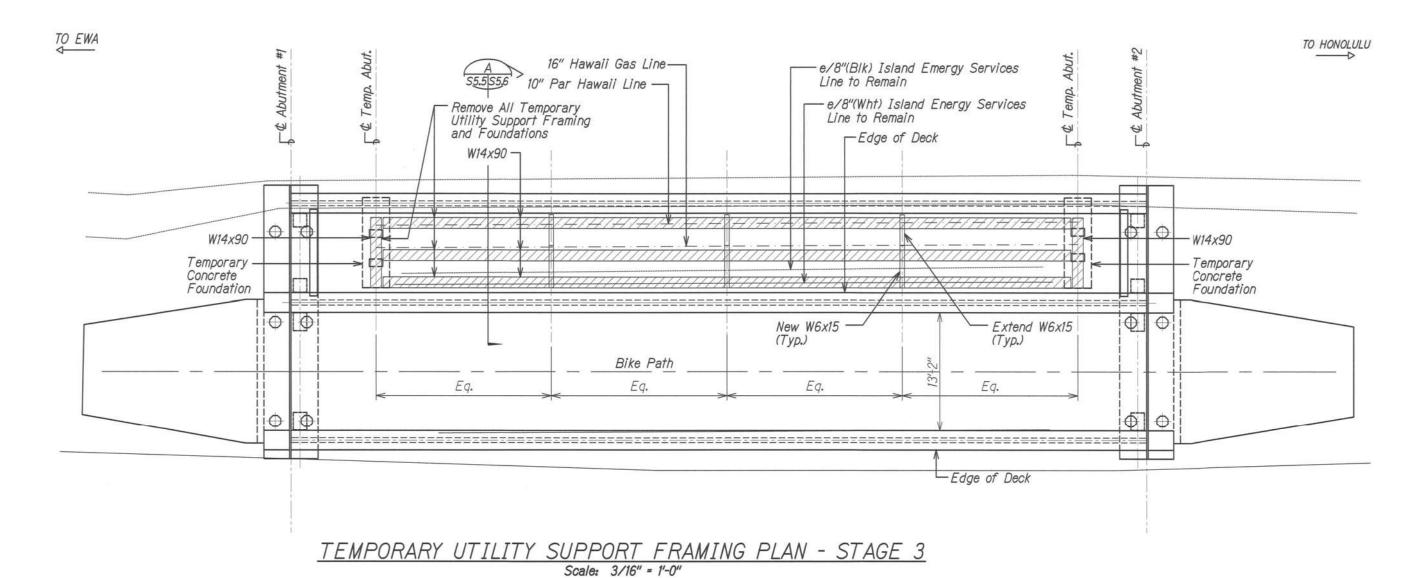
<u>Philippine Sea Rd. to Waipahu Depot Street</u>
<u>Fed. Aid Proj. No. STP-BW-0300(8)</u>

Scale: As Noted

Date: Sept. 1, 2019

SHEET No. S5.4 OF 7 SHEETS

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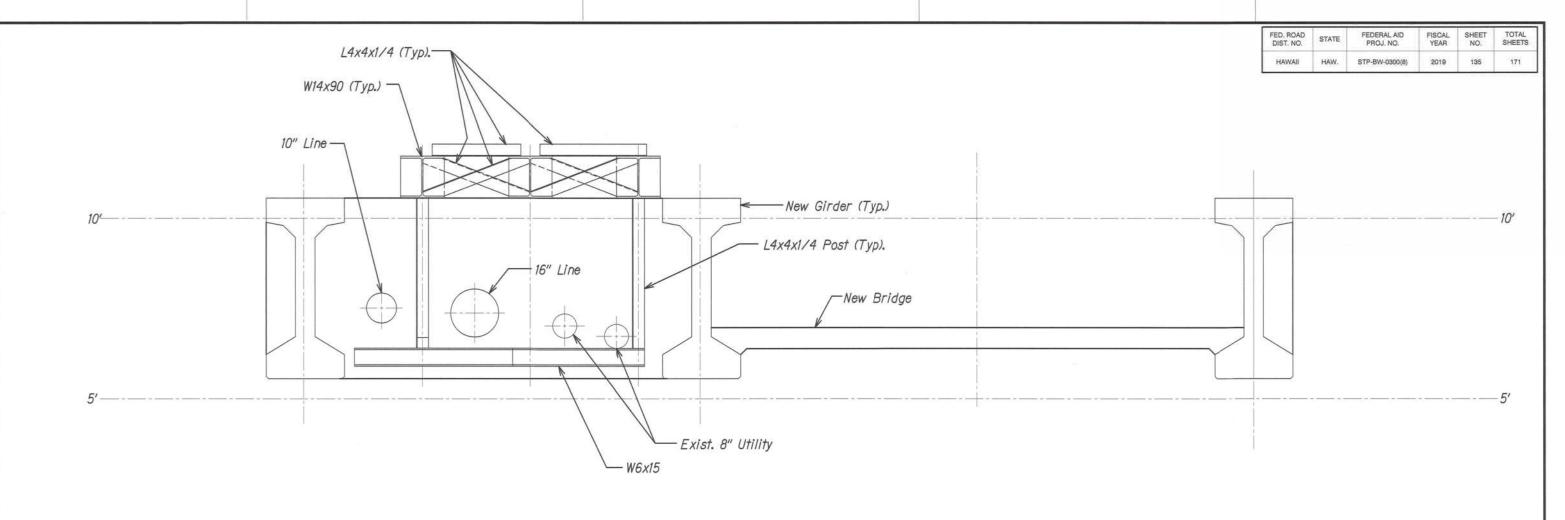
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

<u>WAIKELE STREAM BRIDGE</u> TEMP. UTLITY SUPPORT FRAMING PLAN-STAGE

LEEWARD BIKEWAY
Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted Date: Si

SHEET No. S5.5 OF 7 SHEETS



TEMPORARY UTILITY SUPPORT SECTION - STAGE 3 A
Scale: 3/4" = 1'-0"

Stage 3:

1. Install new prestressed concrete girders, bridge deck, and diaphragms.

2. Remove all temporary structural steel utility supports and temporary abutments after all utility lines are permanently installed.





DEPARTMENT OF TRANSPORTATION WAIKELE STREAM BRIDGE

TEMPORARY UTILITY SUPPORT SECTION - STAGE 3

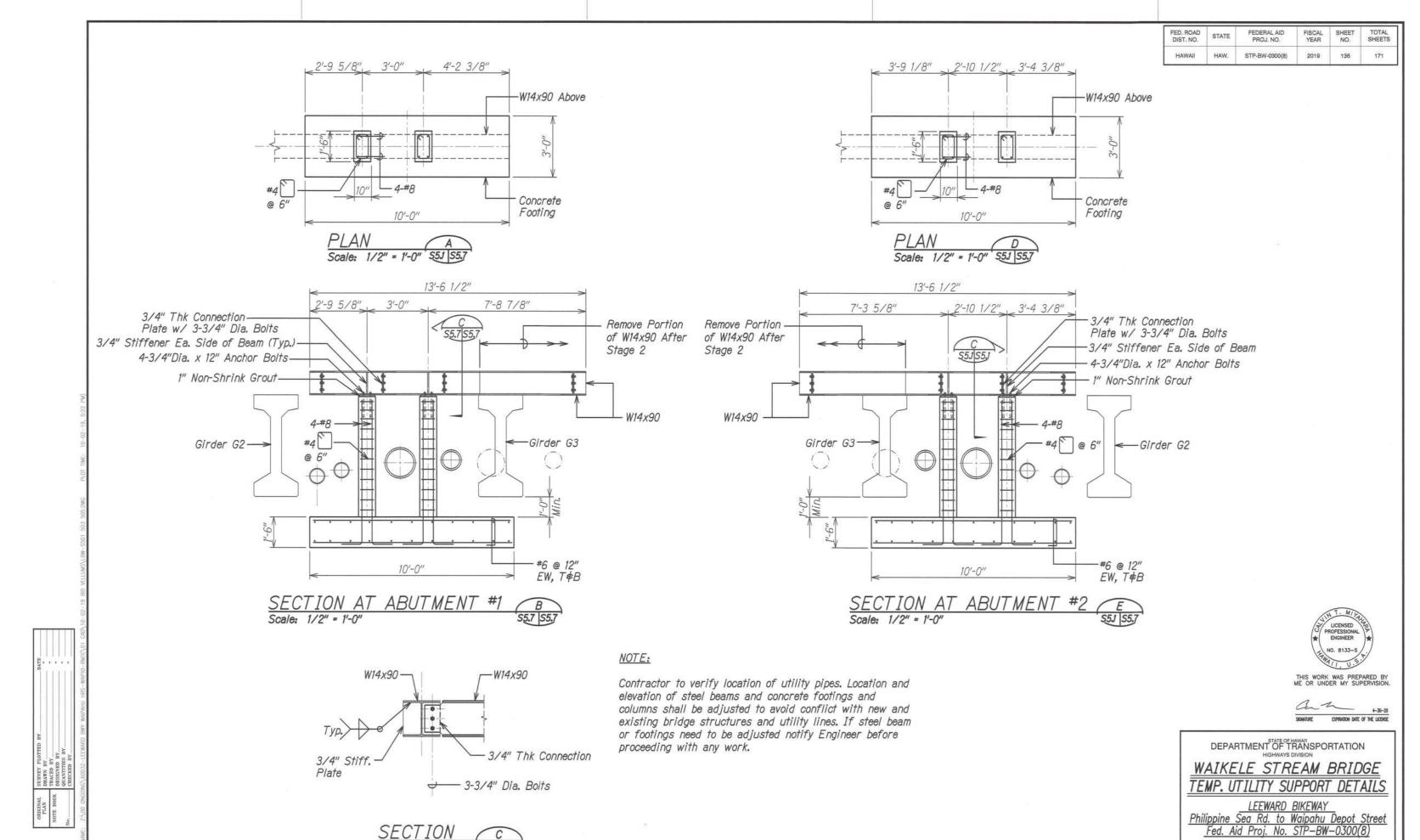
<u>LEEWARD BIKEWAY</u>

<u>Philippine Sea Rd. to Waipahu Depot Street</u>

<u>Fed. Aid Proj. No. STP-BW-0300(8)</u>

Scale: As Noted

SHEET No. 55.6 OF 7 SHEETS



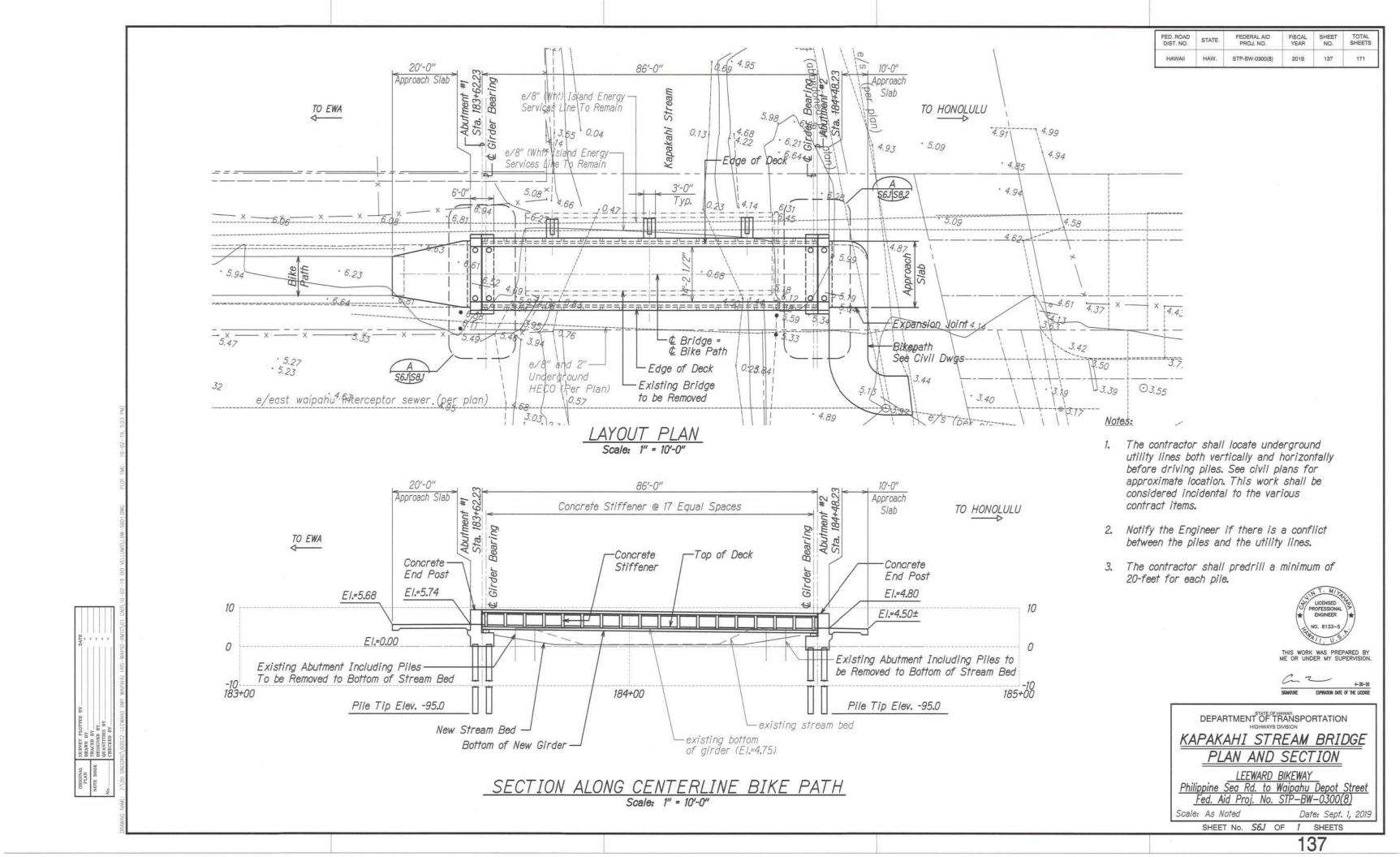
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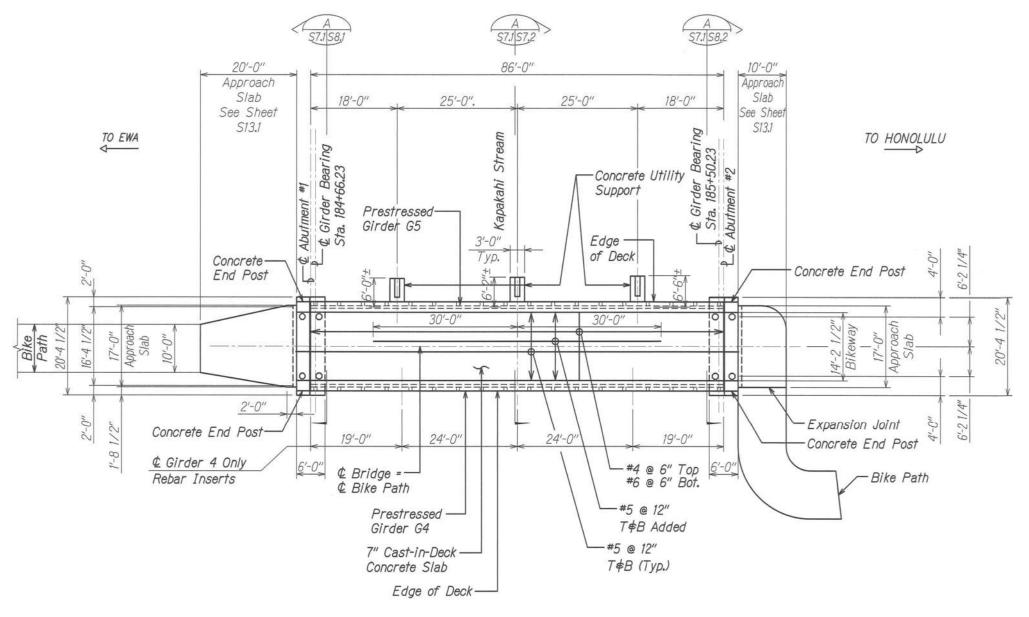
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SHEET No. S5.7 OF 7 SHEETS

Scale: As Noted



FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL
HAWAII	HAW.	STP-BW-0300(8)	2019	138	171



DECK FRAMING PLAN
Scale: 1" = 10'-0"



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SIGNATURE EXPIRATION DATE OF THE LICENSE

DEPARTMENT OF TRANSPORTATION

KAPAKAHI STREAM BRIDGE
DECK FRAMING PLAN

LEEWARD BIKEWAY

Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

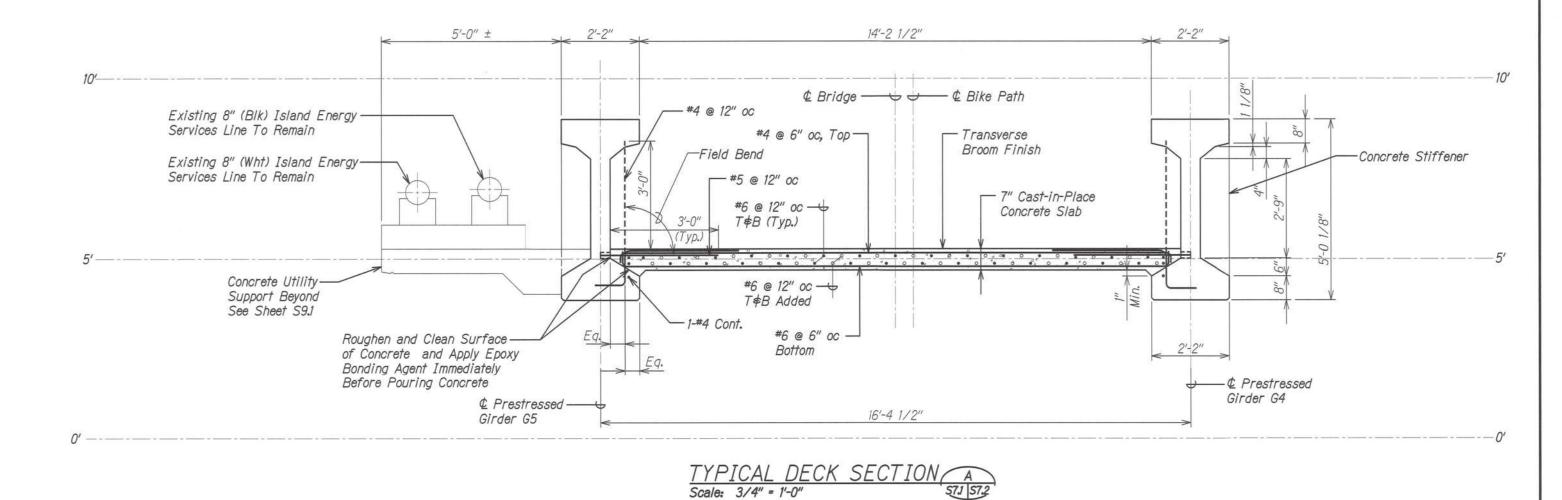
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SHEET No. S7.1 OF 2 SHEETS

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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL
HAWAII	HAW.	STP-BW-0300(8)	2019	139	171



Notes:

- 1. Slab shall be poured before installing utility supports.
- 2. Stagger top and bottom longitudinal slab bars.



an SIGNATURE EXPIRATION DATE OF THE LICENSE

DEPARTMENT OF TRANSPORTATION

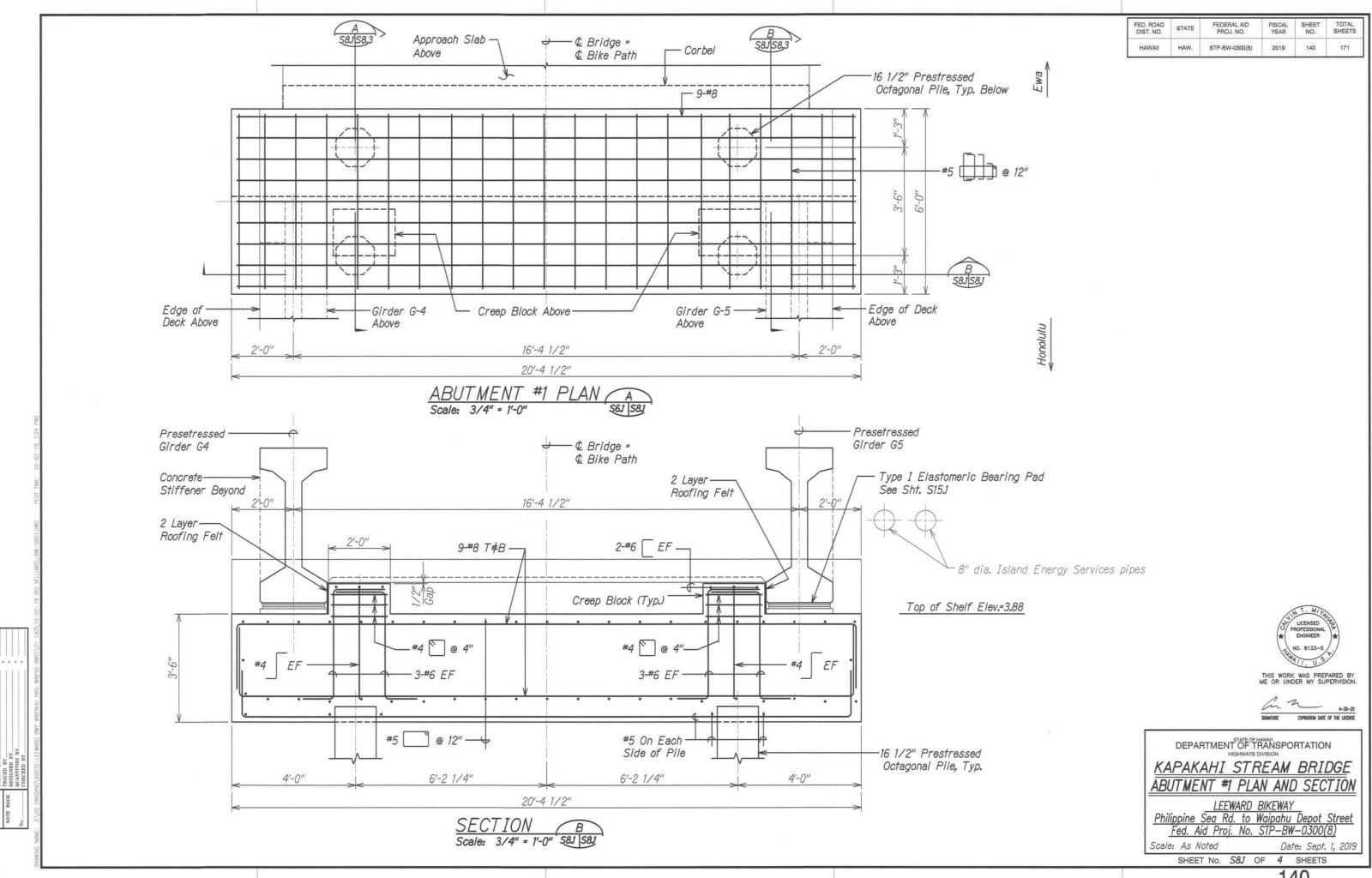
KAPAKAHI STREAM BRIDGE TYPICAL DECK SECTION AND INTERMEDIATE DIAPHRAGM

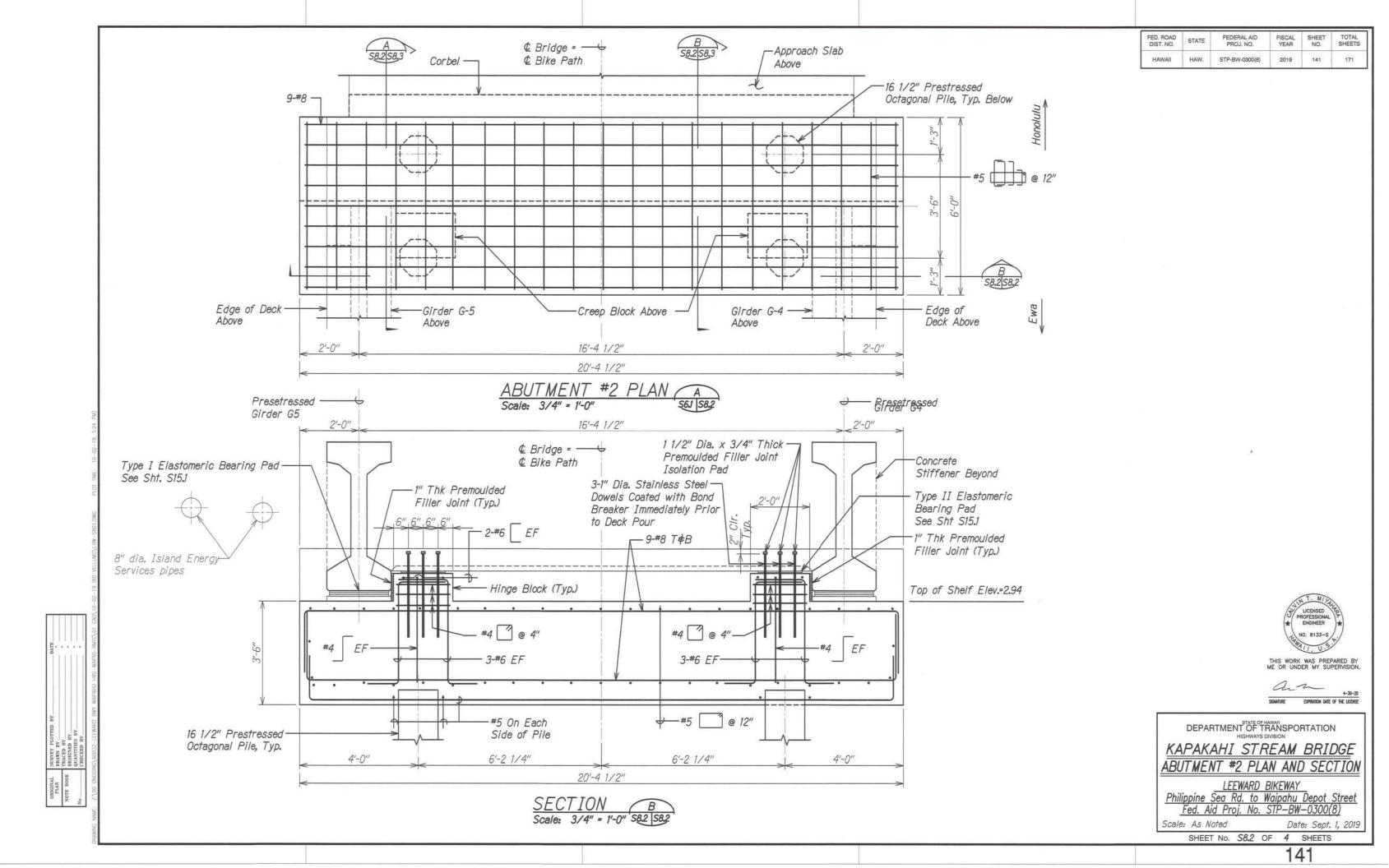
Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

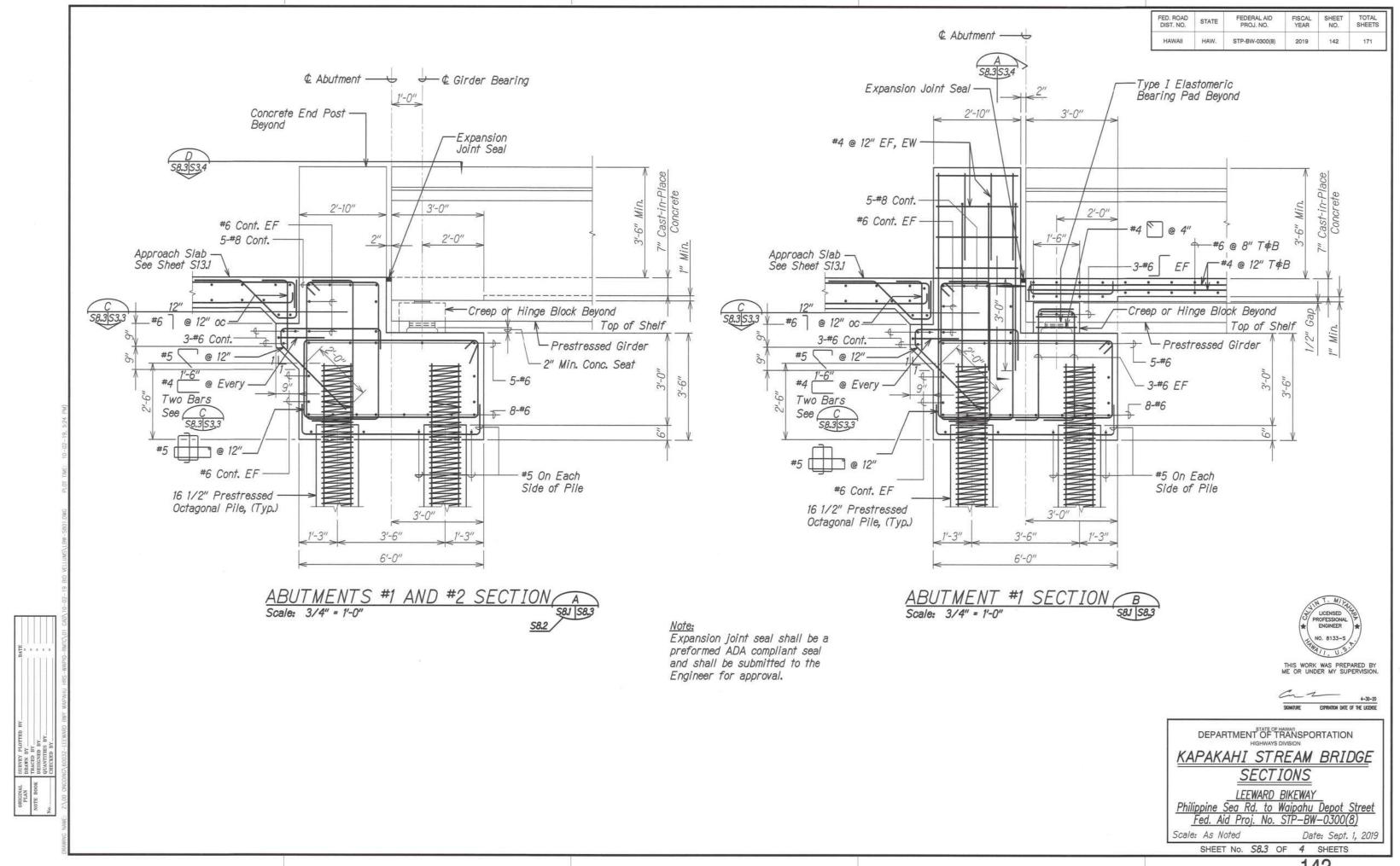
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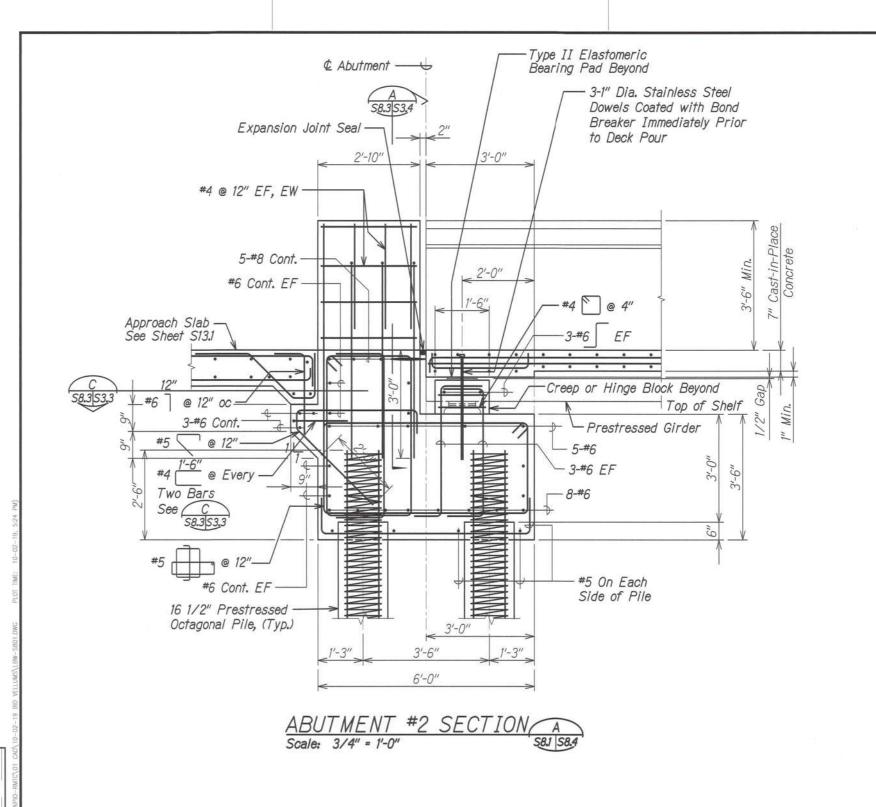
SHEET No. 57.2 OF 2 SHEETS











FED. ROAD STATE PROJ. NO. SHEET NO. 2019 143 171 HAW. STP-BW-0300(8)



ann SIGNATURE EXPRAISION DATE OF THE LICENSE

DEPARTMENT OF TRANSPORTATION

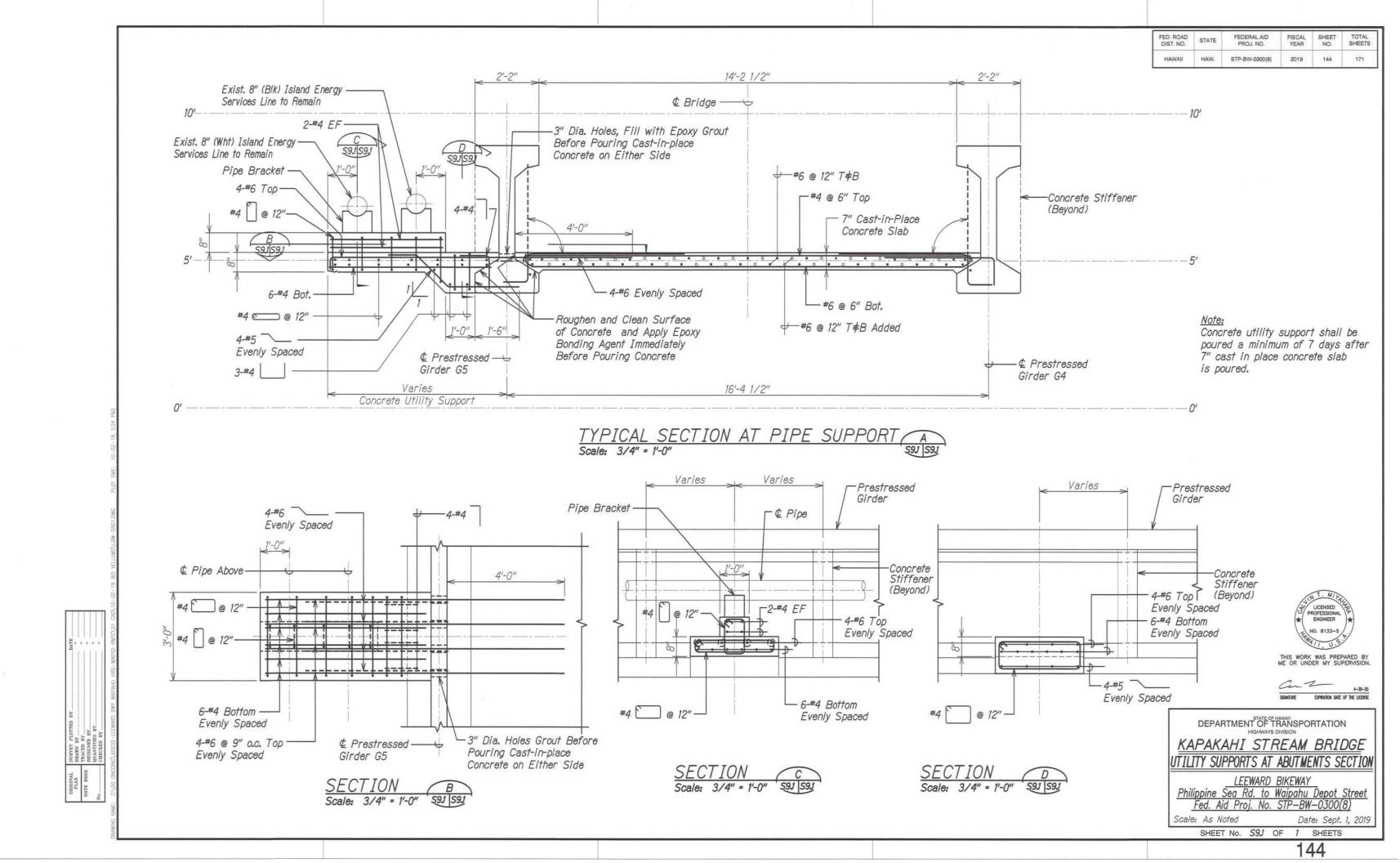
KAPAKAHI STREAM BRIDGE SECTION

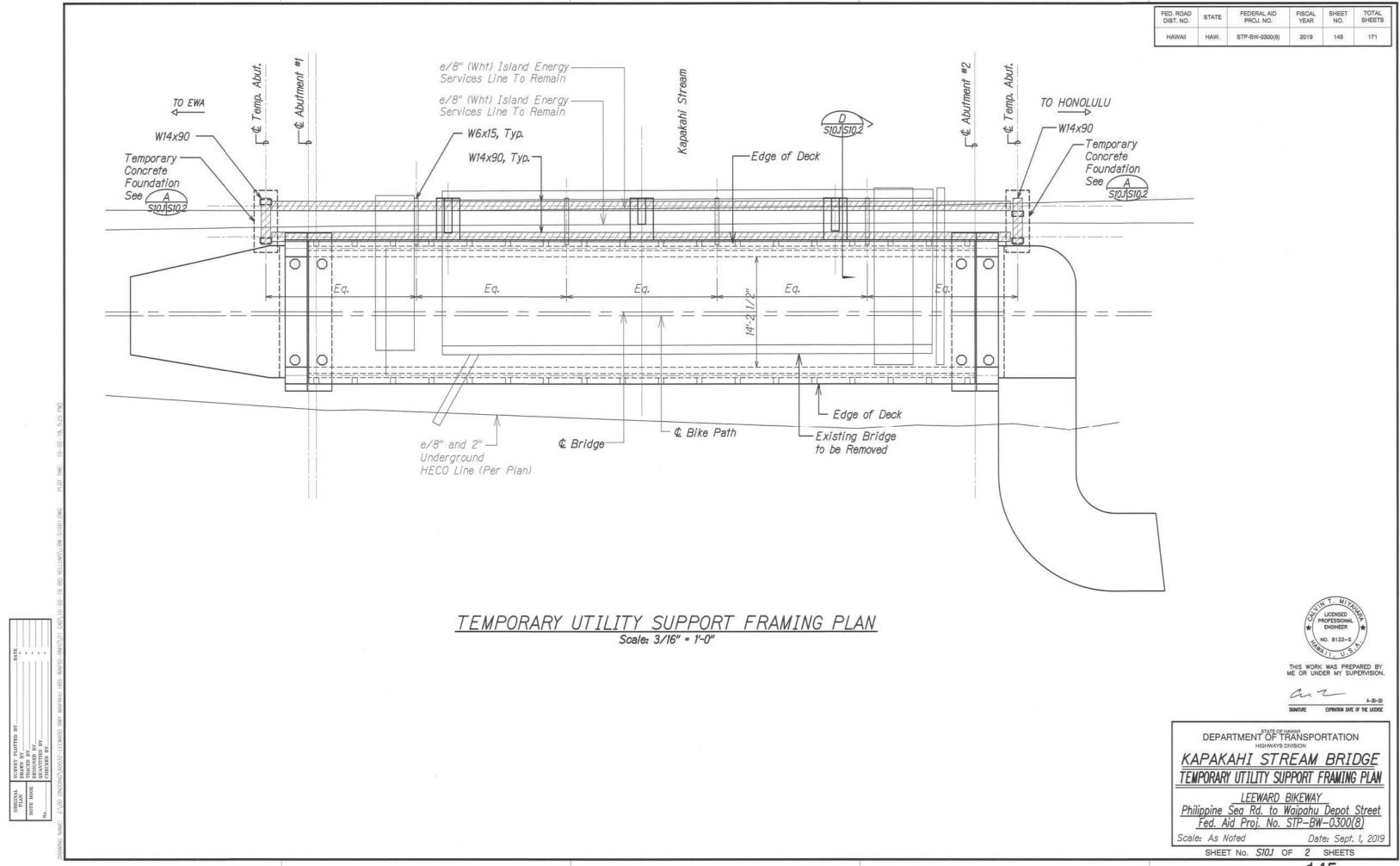
Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

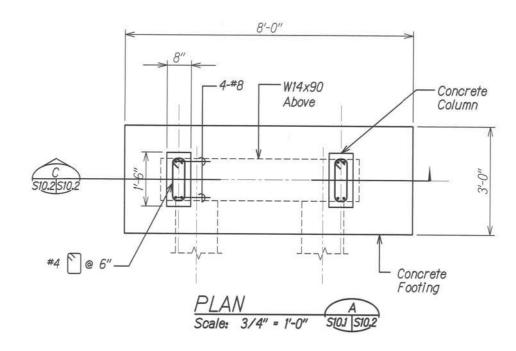
Date: Sept. 1, 2019

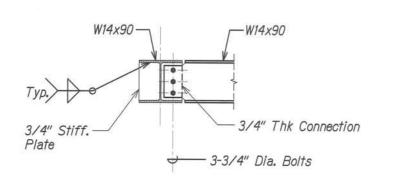
SHEET No. S8.4 OF 4 SHEETS

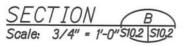




FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL
HAWAII	HAW.	STP-BW-0300(8)	2019	146	171





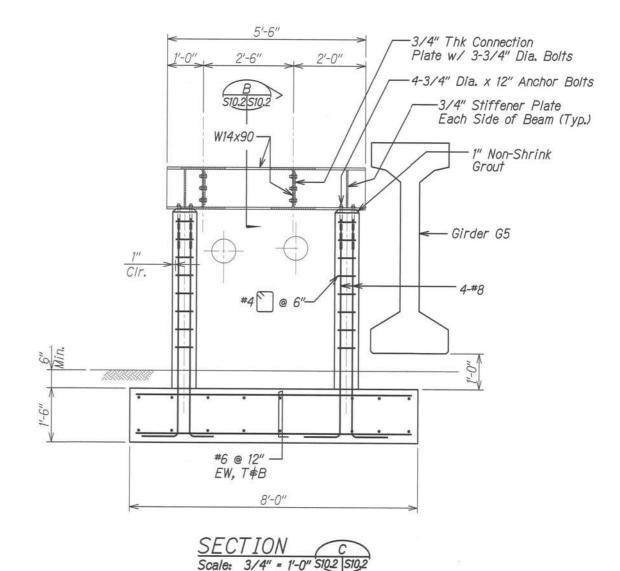


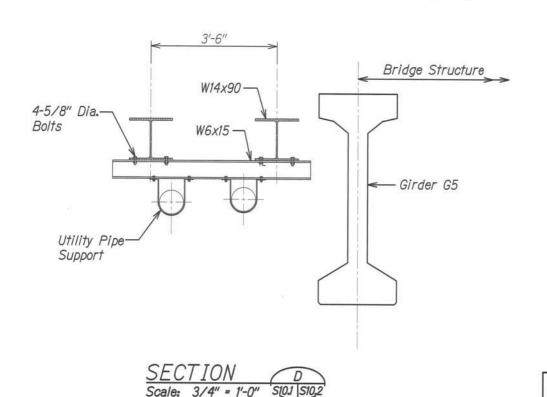
CONSTRUCTION SEQUENCE:

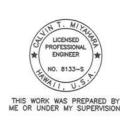
- 1. Install temporary utility support foundations and framing.
- Connect existing lines to temporary utility support. Connection to be done by utility company. Coordination with utility company shall be done. Schedule and details shall be submitted for approval.
- 3. Demolish existing bridge.
- 4. Construct new bridge and connect existing utility lines to new bridge.
- 5. Remove temporary utility support foundations and framing.

NOTE:

Contractor to verify location of utility pipes. Location and elevation of steel beams and concrete footings and columns shall be adjusted to avoid conflict with new and existing bridge structures.







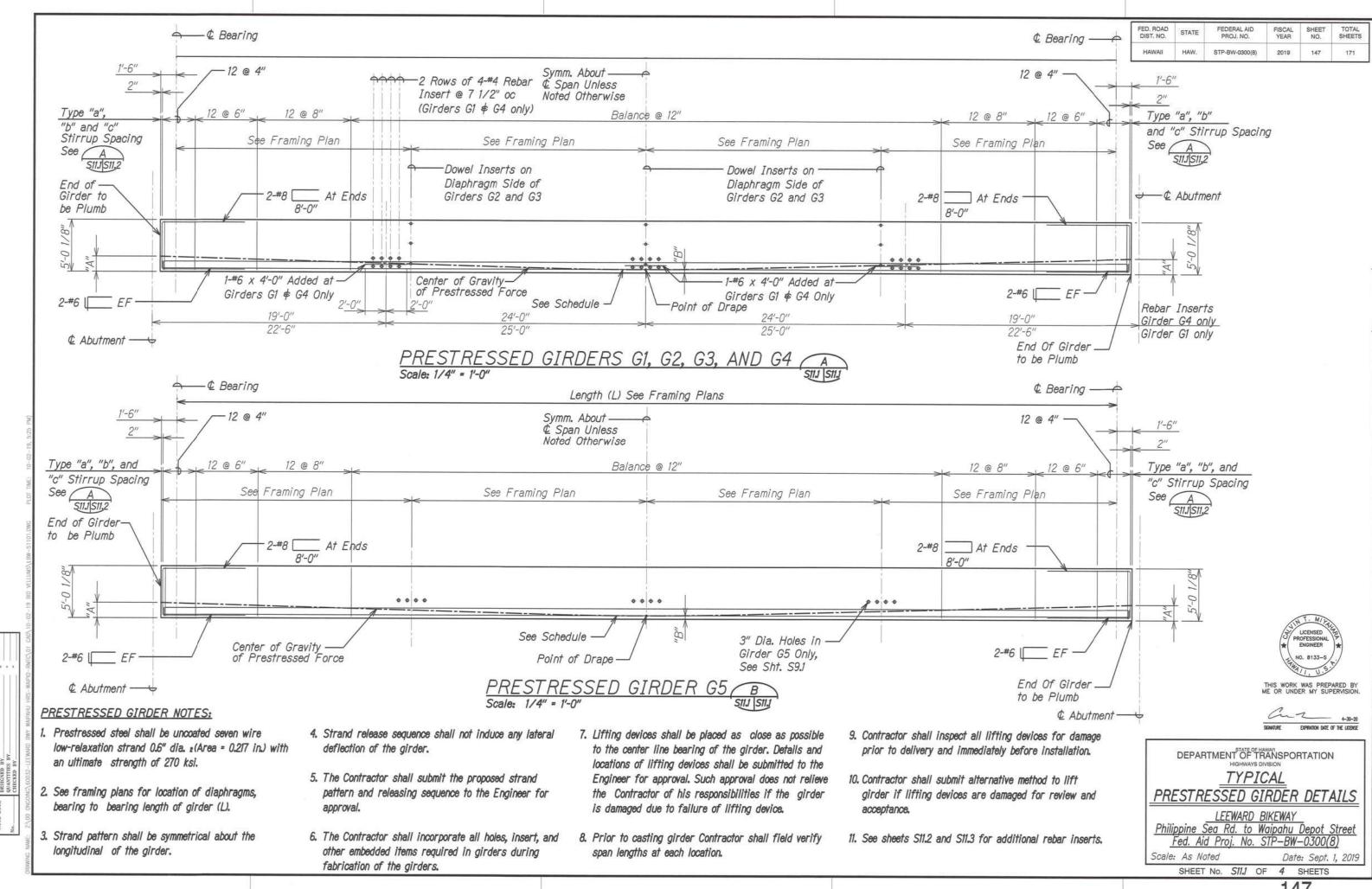
EXPIRATION DATE OF THE LICENSE

DEPARTMENT OF TRANSPORTATION KAPAKAHI STREAM BRIDGE TEMPORARY UTILITY SUPPORT PLAN AND SECTIONS

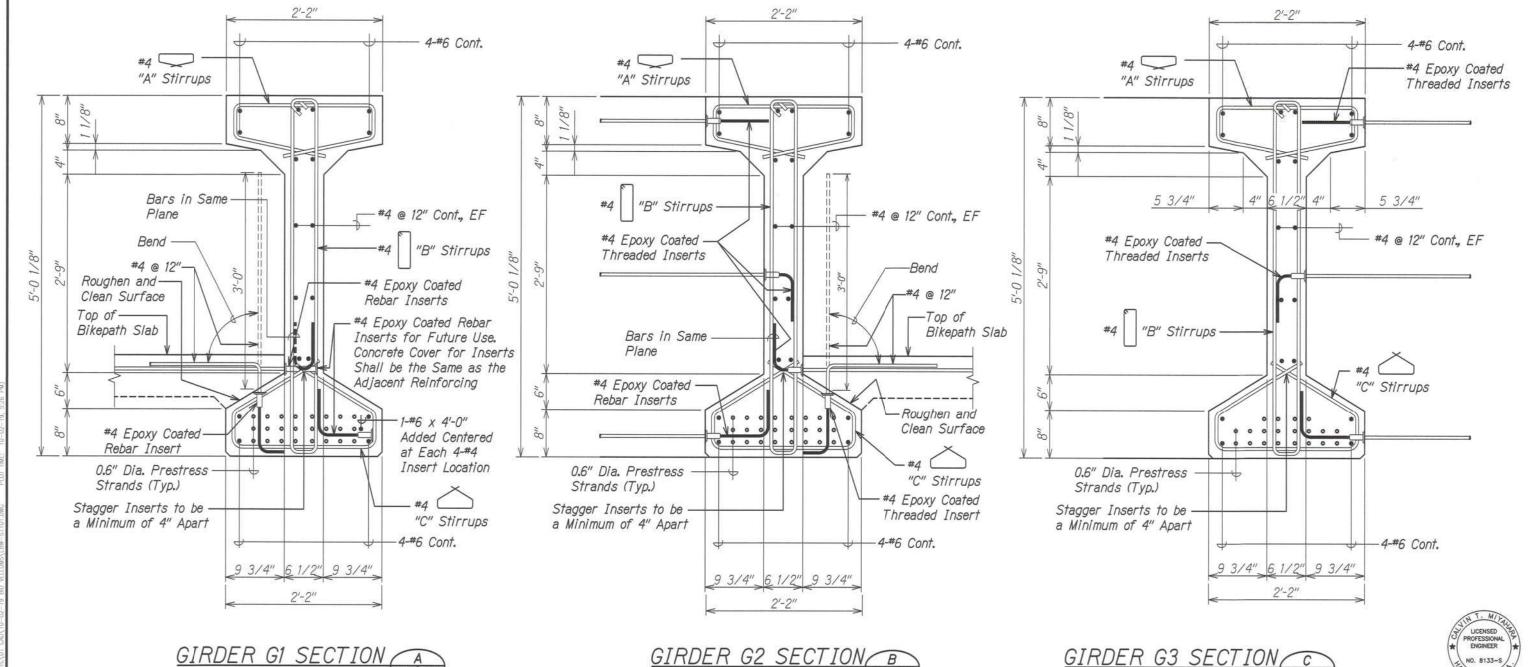
LEEWARD BIKEWAY Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

Date: Sept. 1, 2019 SHEET No. S10.2 OF 2 SHEETS









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

GIRDER G2 SECTION B Sti2 Sti2

GIRDER G3 SECTION C
Scale: 1 1/2" = 1'-0" Stiz | S



an SIGNATURE EXPIRATION DATE OF THE LICENSE

DEPARTMENT OF TRANSPORTATION

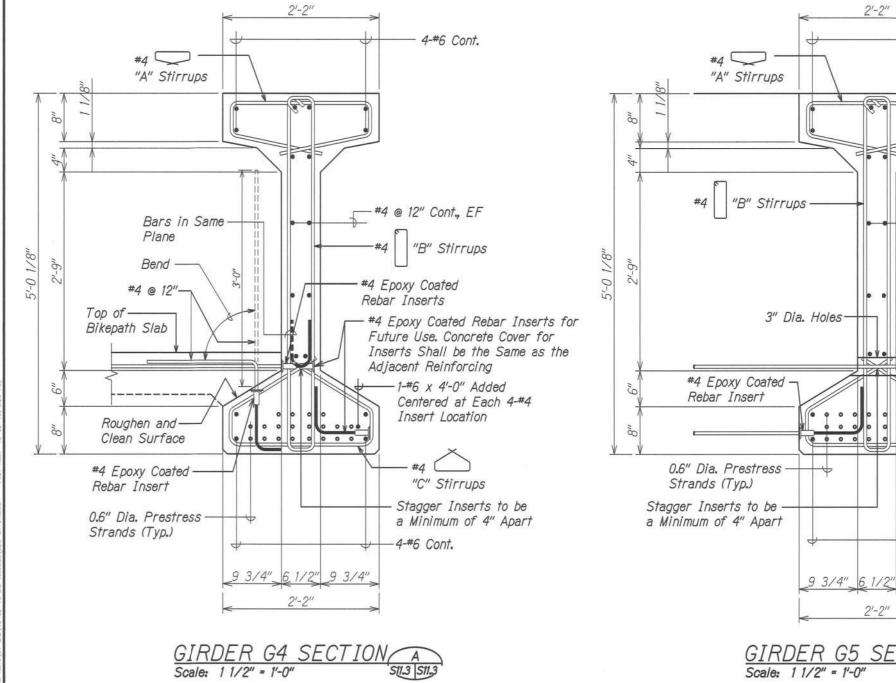
TYPICAL PRESTRESSED GIRDER DETAILS

LEEWARD BIKEWAY
Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

Date: Sept. 1, 2019 SHEET No. S11.2 OF 4 SHEETS

FED, ROAD DIST, NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL
HAWAII	HAW.	STP-BW-0300(8)	2019	149	171



4-#6 Cont. #4 @ 12" Cont., EF -Bend -#4 @ 12" -Top of Bikepath Slab Roughen and Clean Surface #4 Epoxy Coated Rebar Insert "C" Stirrups -4-#6 Cont. 9 3/4" 6 1/2" 9 3/4". 2'-2"

GIRDER G5 SECTION B SIL3 SIL3

Note:

3" Dia. holes shall be grouted before pouring concrete slab. Grout shall be 5,000 psi non-shrink grout.



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TYPICAL PRESTRESSED GIRDER DETAILS

LEEWARD BIKEWAY
Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

SHEET No. S11.3 OF 4 SHEETS

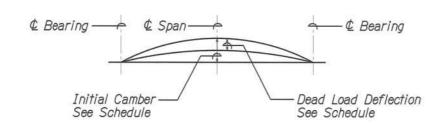


FED. ROAD DIST. NO. STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL	
HAWAII	HAW.	STP-BW-0300(8)	2019	150	171

		PRES	STRESS	ED GIRD	ER SCHE	DULE	
	Girder Working Mark Force (Kips)		Location of Center of Gravity of Prestress Strand		Initial Camber	Dead Load Deflection	Remarks
		"A"	"B"				
e e	G1	816	4.25"	4.25"	1.02"	-0.55"	
Waikele Bridge	G2	816	4.25"	4.25"	1.02"	-0.63"	
BW	G3	680	3.85"	3.85"	0.84"	-0.08"	
ihi e	G4	680	3.85"	3.85"	0.84"	-0.39"	
Kapakahi Bridge	G5	680	3.85"	3.85"	0.84"	-0.44"	
Ka							

GIRDER CAMBER NOTES:

- 1. The initial camber includes the effect of the prestress force and the weight of the girder after removal from the bed. Positive values shown for initial a net upward deflection. The maximum camber immediately prior to erection of girders shall not exceed the initial camber multiplied by a factor of 2 plus a one-inch tolerance.
- 2. The dead load deflection includes the combine effects of the weight of slab and diaphragm.
- 3. Contractor shall camber the deck form work as required to account for the calculated dead load deflection in order to provide the specified finish deck elevation.
- 4. All cambers and deflections are in the inches.



GIRDER CAMBER DIAGRAM
Scale: None



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<u>TYPICAL</u> PRESTRESSED GIRDER DETAIL

LEEWARD BIKEWAY
Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

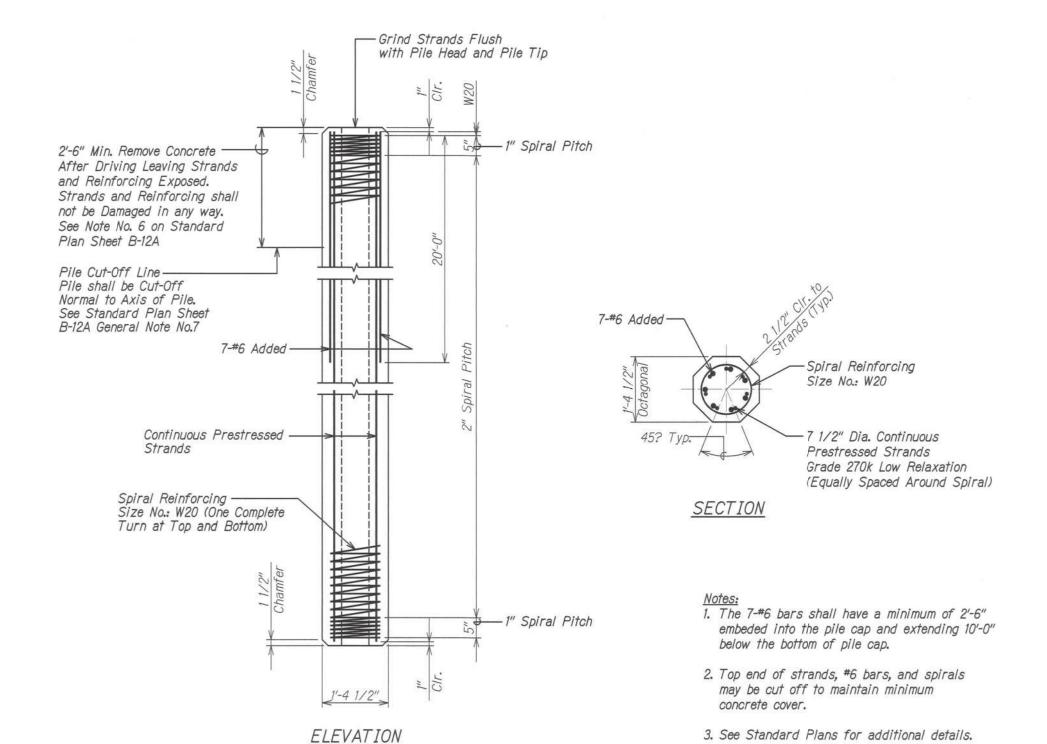
Scale: As Noted

Date: Sept. 1, 2019

SHEET No. S11.4 OF 4 SHEETS

MING NAME: ZYDO ONGOING\60032-LEF

FED. ROAD	PROJ. NO.	FISCAL	SHEET	TOTAL	
DIST. NO. STATE		YEAR	NO.	SHEETS	
HAWAII	HAW.	STP-BW-0300(6)	2019	151	171



PRESTRESSED CONCRETE PILE DETAILS

Scale: Not to Scale





DEPARTMENT OF TRANSPORTATION

TYPICAL PRESTRESSED CONCRETE PILE DETAILS

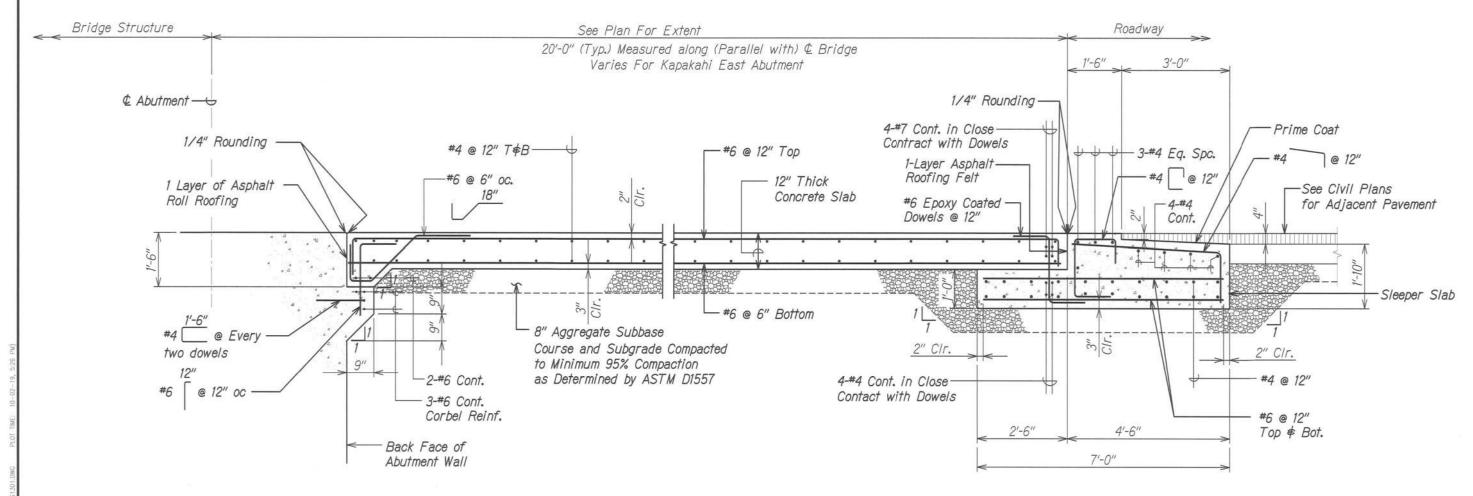
Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

Date: Sept. 1, 2019

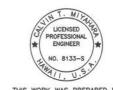
SHEET No. S12.1 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW,	STP-BW-0300(8)	2019	152	171



TYPICAL APPROACH SLAB (A)
Scale: 3/4" = 1'-0"

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DEPARTMENT OF TRANSPORTATION

TYPICAL APPROACH SLAB

<u>LEEWARD BIKEWAY</u>

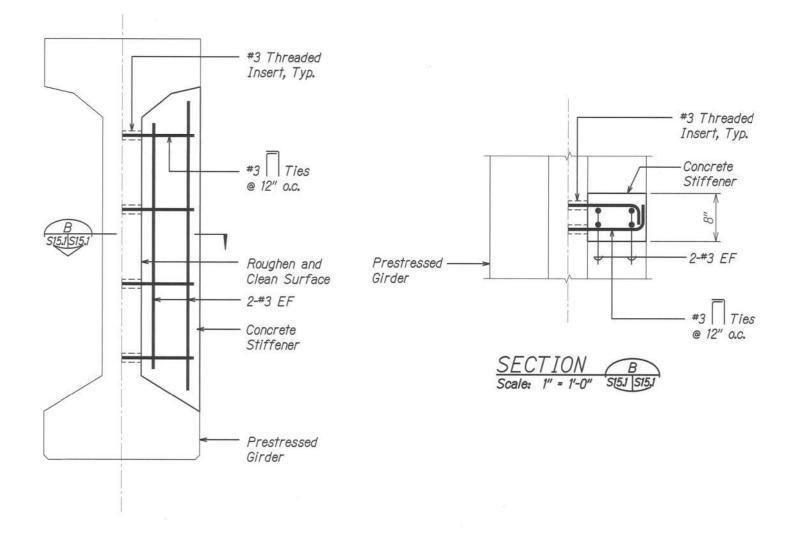
<u>Philippine Sea Rd. to Waipahu Depot Street</u>
<u>Fed. Aid Proj. No. STP-BW-0300(8)</u>

Scale: As Noted

SHEET No. S13.1 OF 1 SHEETS



FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-BW-0300(8)	2019	153	171



CONCRETE STIFFENER A
Scale: 1 1/2" = 1'-0"
S15.1 S15.1



SIGNATURE EXPIRATION DATE OF THE LICENSE

DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

CONCRETE STIFFENER

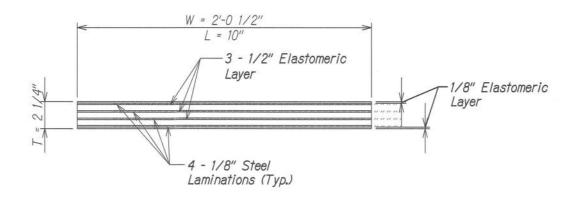
Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

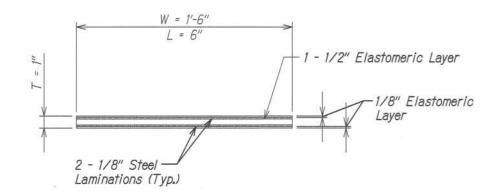
Date: Sept. 1, 2019

SHEET No. S14.1 OF 1 SHEETS 153

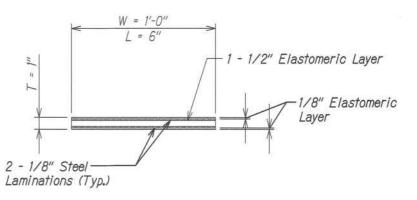
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL
HAWAII	HAW.	STP-BW-0300(8)	2019	154	171

















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LEEWARD BIKEWAY

Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

Scale: As Noted

SHEET No. S15.1 OF 1 SHEETS