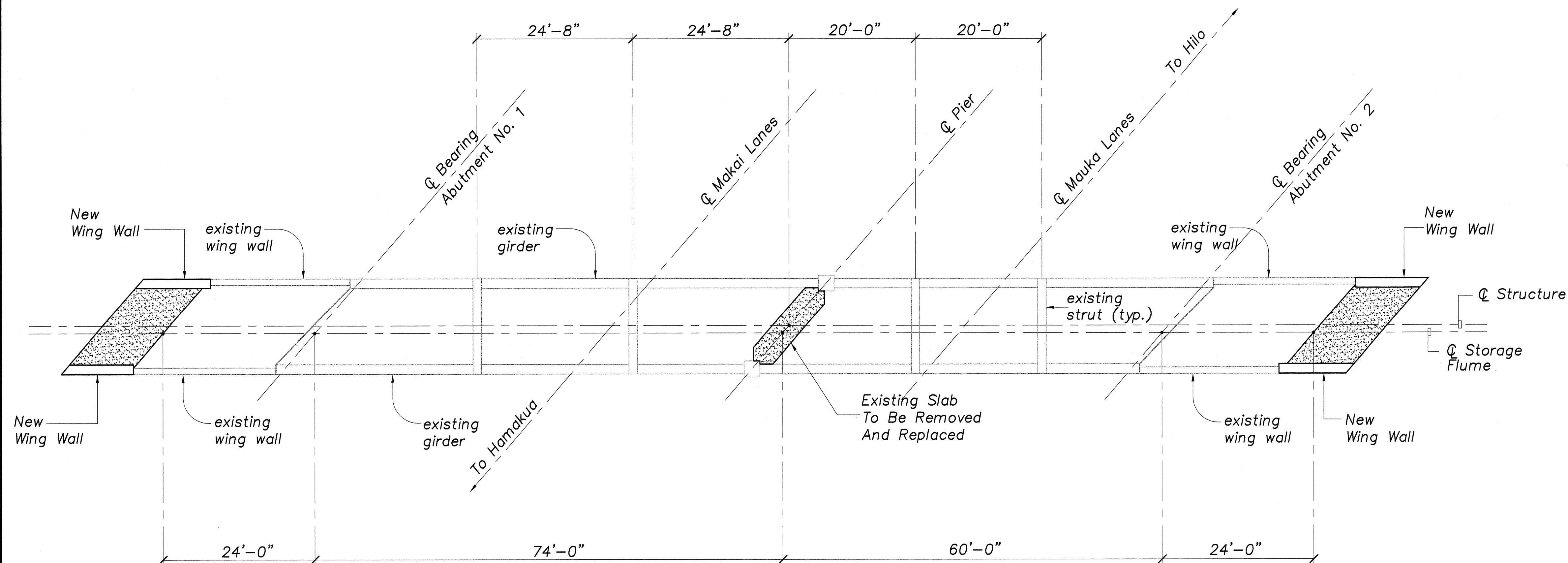
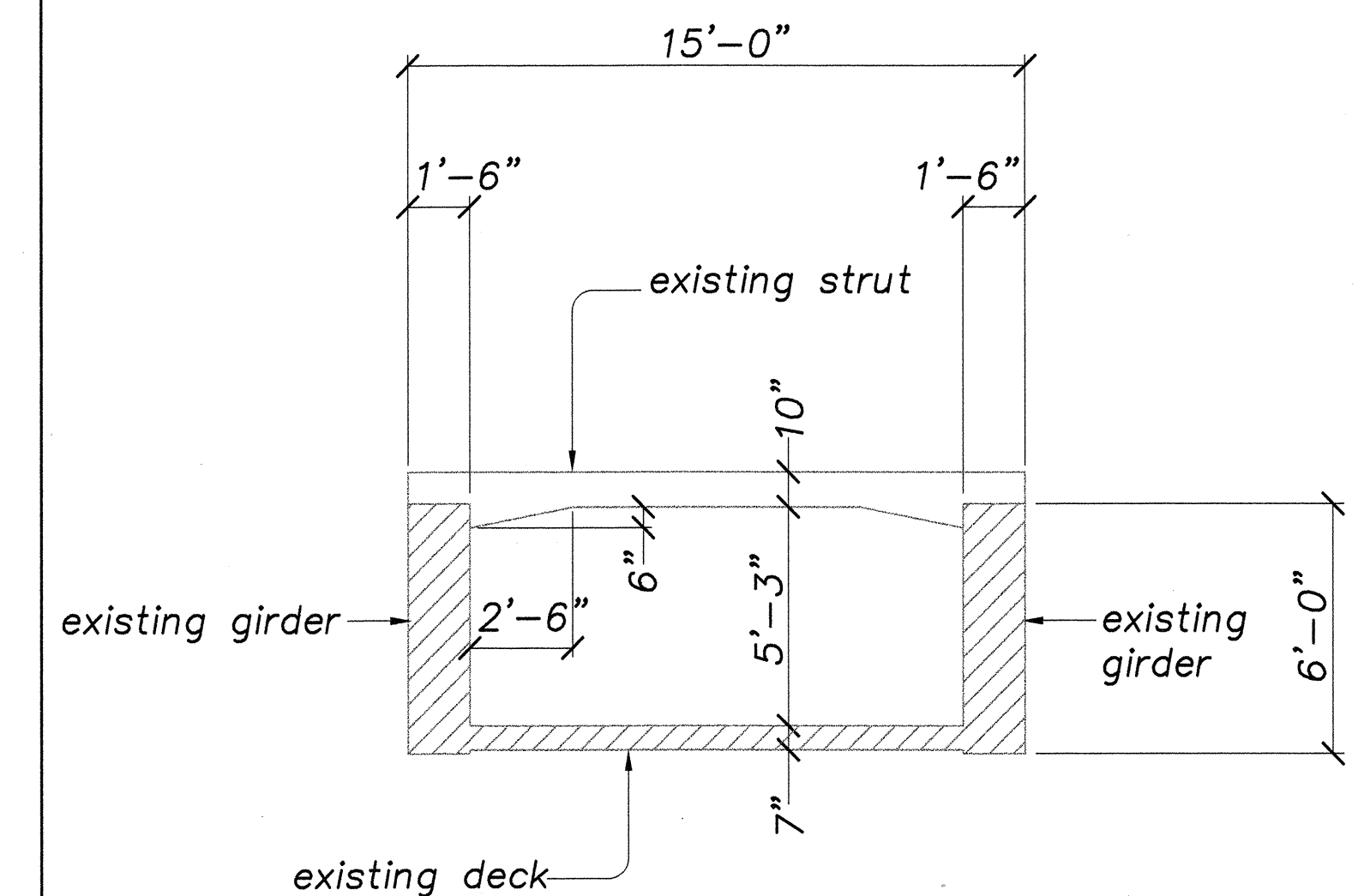


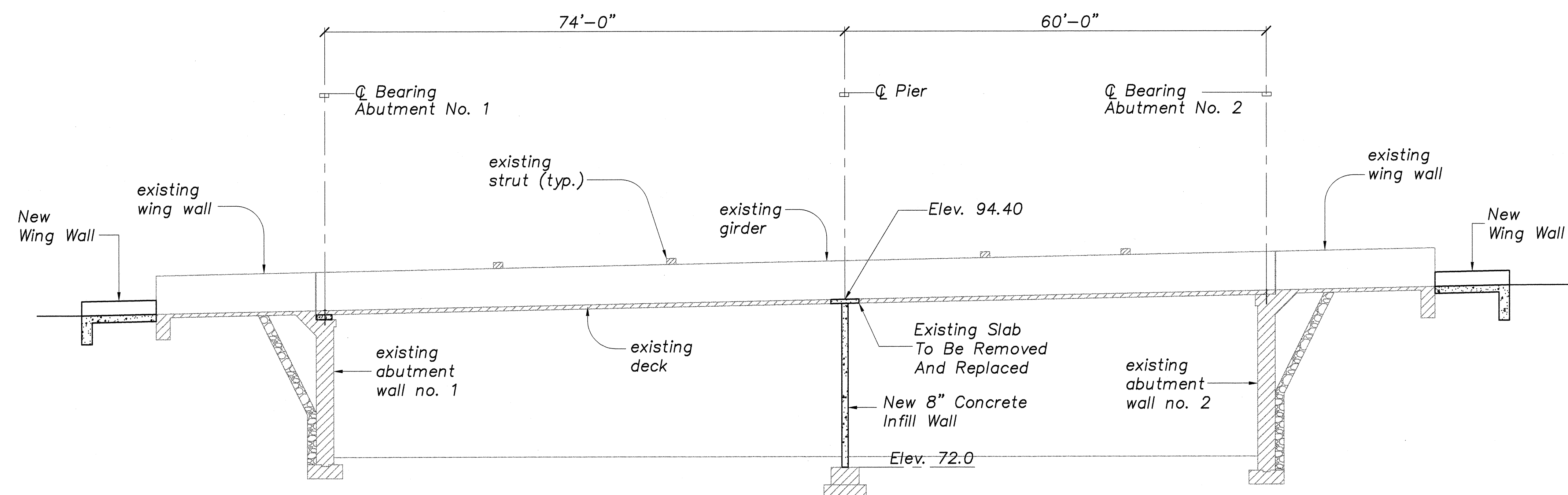
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | BR-019-2(42)       | 1999        | 20        | 38           |



**BRIDGE LAYOUT PLAN**  
Scale: 1"=10'-0"



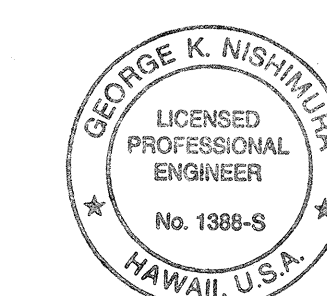
**TYPICAL DECK SECTION**  
Scale: 1/4"=1'-0"



**Note:**  
Contractor shall verify all elevations shown on the drawings.

**SECTION ALONG BRIDGE CENTERLINE**  
Scale: 1"=10'-0"

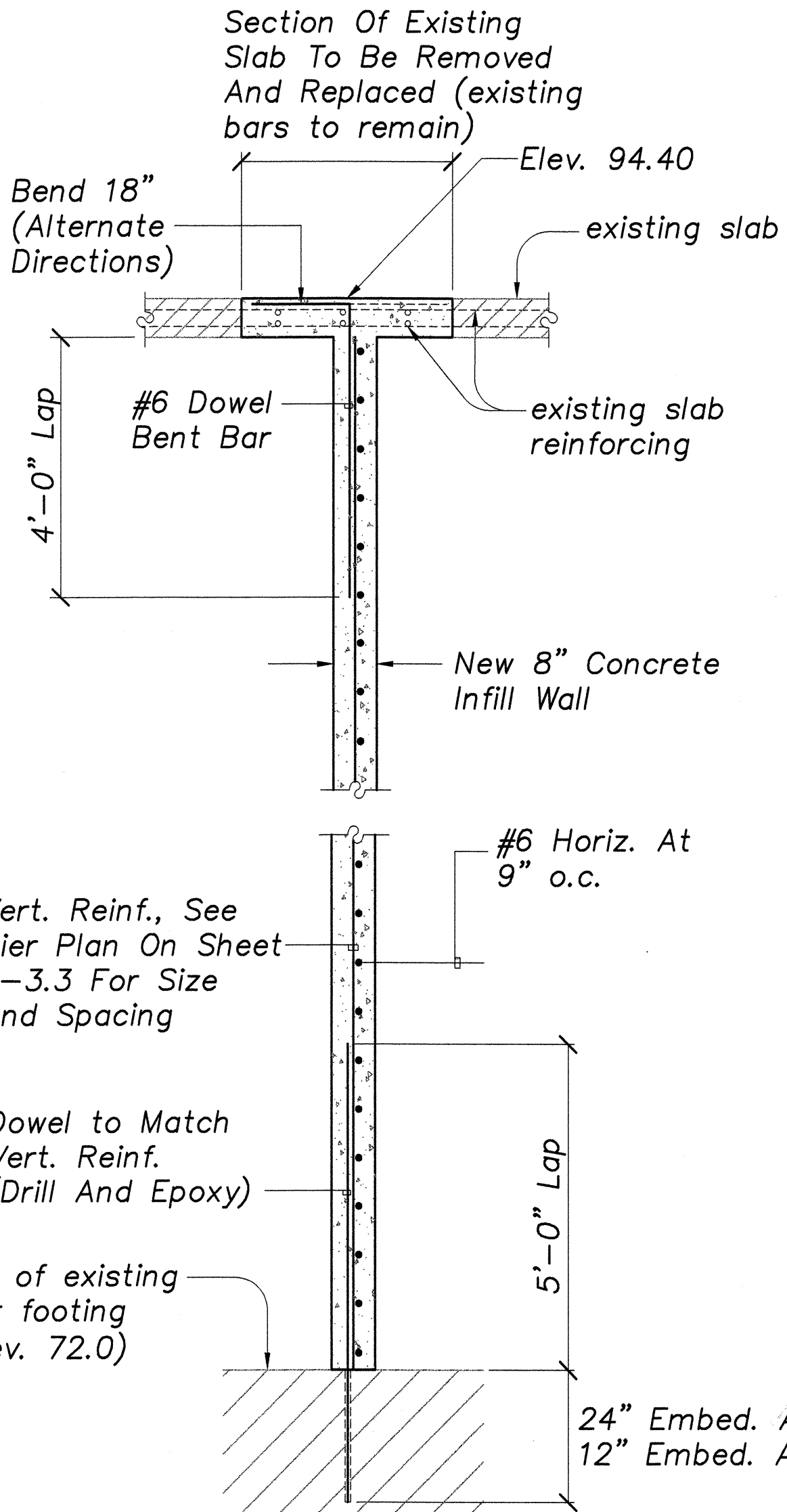
|                   |       |
|-------------------|-------|
| DATE              | _____ |
| SURVEY PLOTTED BY | _____ |
| DESIGNED BY       | _____ |
| CHECKED BY        | _____ |
| NO.               | _____ |



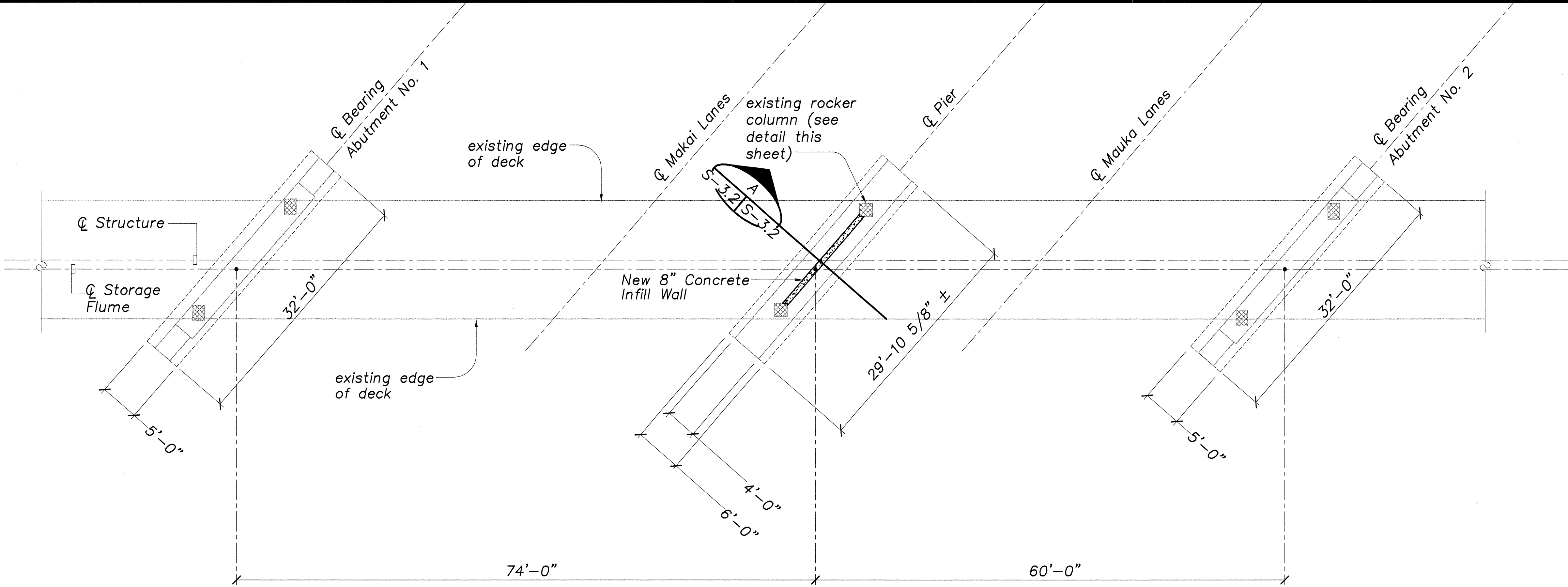
THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**HILO PLANTATION FLUME OVERPASS**  
**BRIDGE LAYOUT PLAN, AND**  
**BRIDGE SECTIONS**  
HAWAII BELT ROAD  
SEISMIC RETROFIT OF VARIOUS BRIDGES  
VICINITY OF HILO  
Federal Aid Project No. BR-019-2(42)  
SCALE: AS NOTED DATE: APRIL 1998  
**SHEET No. S-3.1 OF 38 SHEETS**

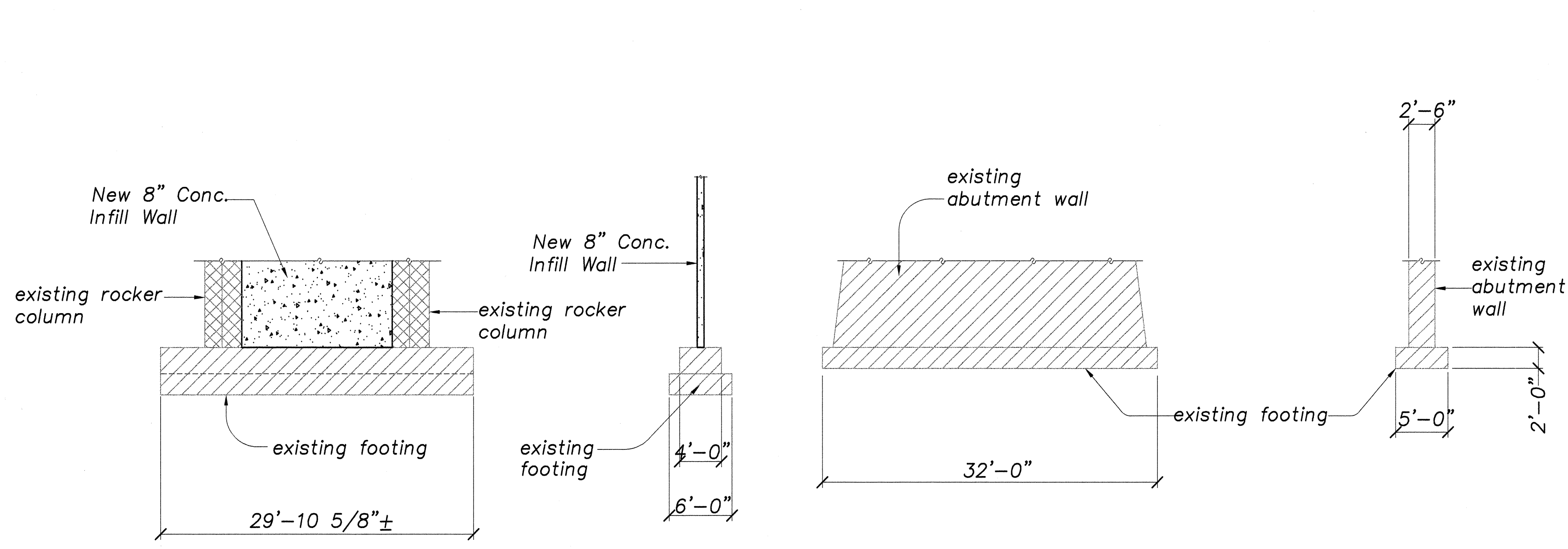
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | BR-019-2(42)       | 1999        | 21        | 38           |



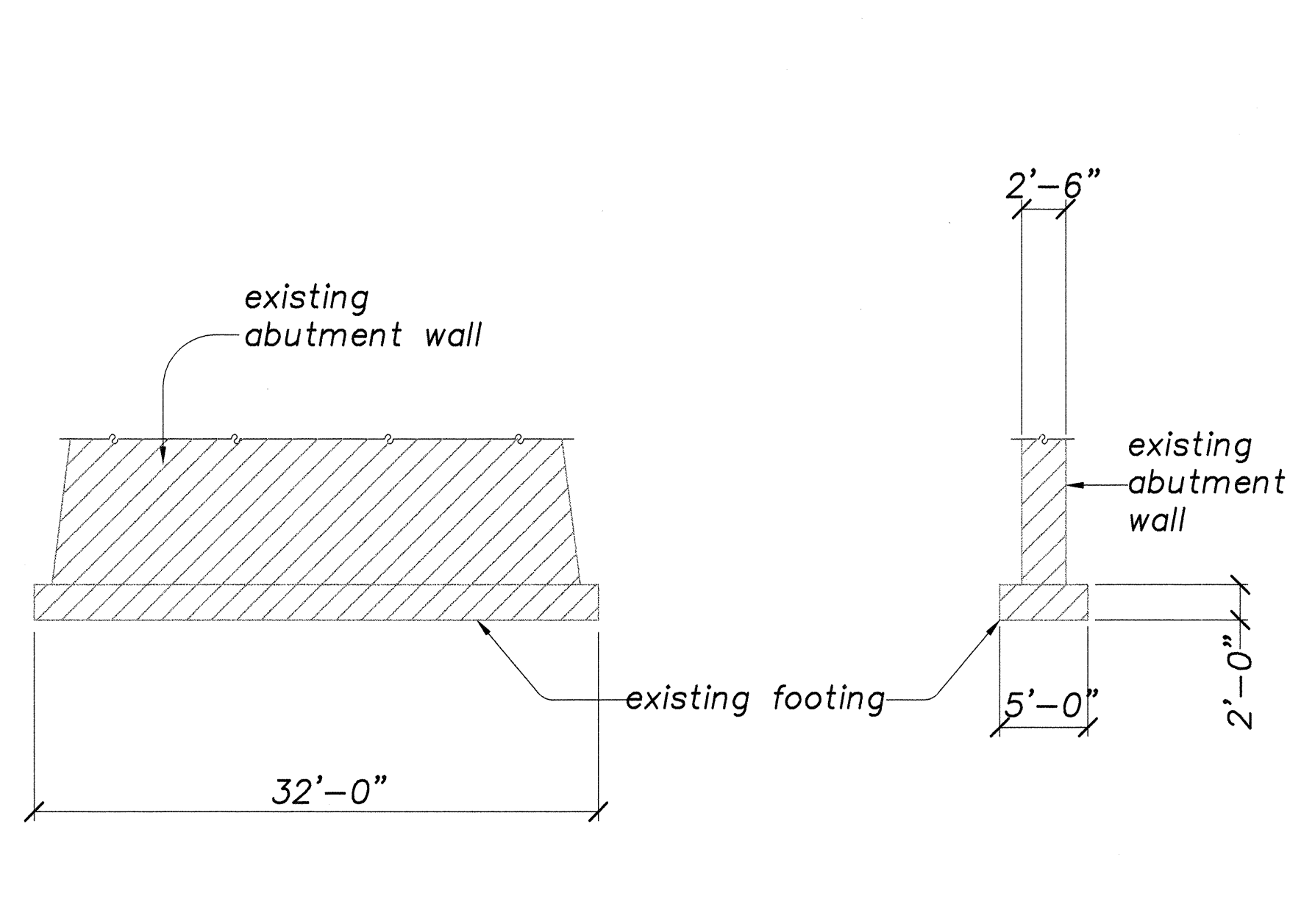
SECTION  
S-3.2, S-3.3, S-3.2 Scale: 1/2"=1'-0"



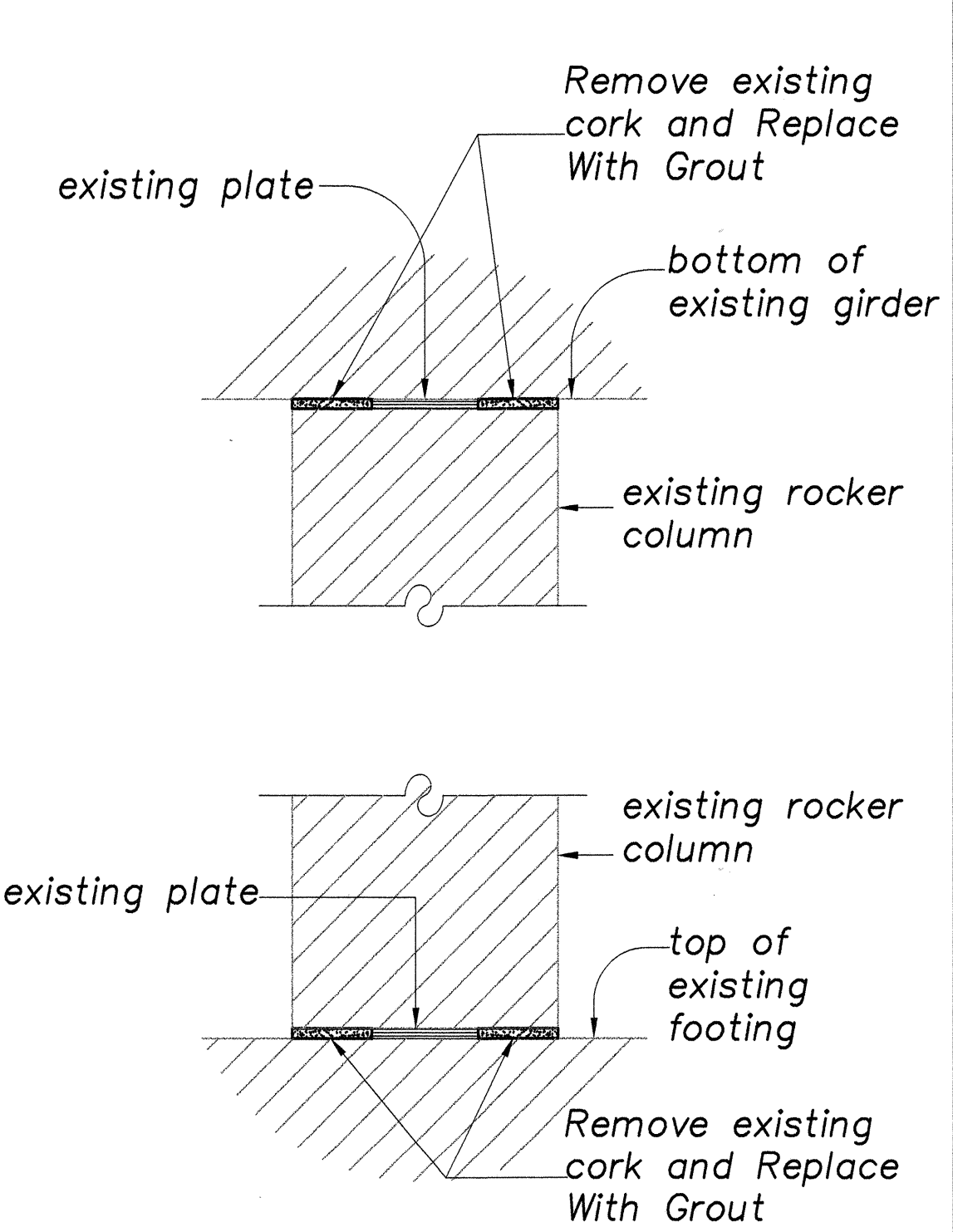
BRIDGE FOUNDATION PLAN  
Scale: 1/8"=1'-0"



PIER FOOTING ELEVATION  
Scale: 1/8"=1'-0"

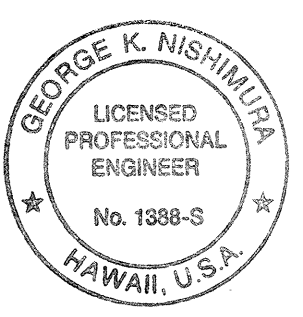


ABUTMENT WALL FOOTING ELEVATION  
Scale: 1/8"=1'-0"



COLUMN ROCKER DET.  
Scale: 1"=1'-0"

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



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**HILO PLANTATION FLUME OVERPASS**

**BRIDGE FOUNDATION PLAN,  
DETAILS AND SECTIONS**

HAWAII BELT ROAD  
SEISMIC RETROFIT OF VARIOUS BRIDGES  
VICINITY OF HILO  
Federal Aid Project No. BR-019-2(42)

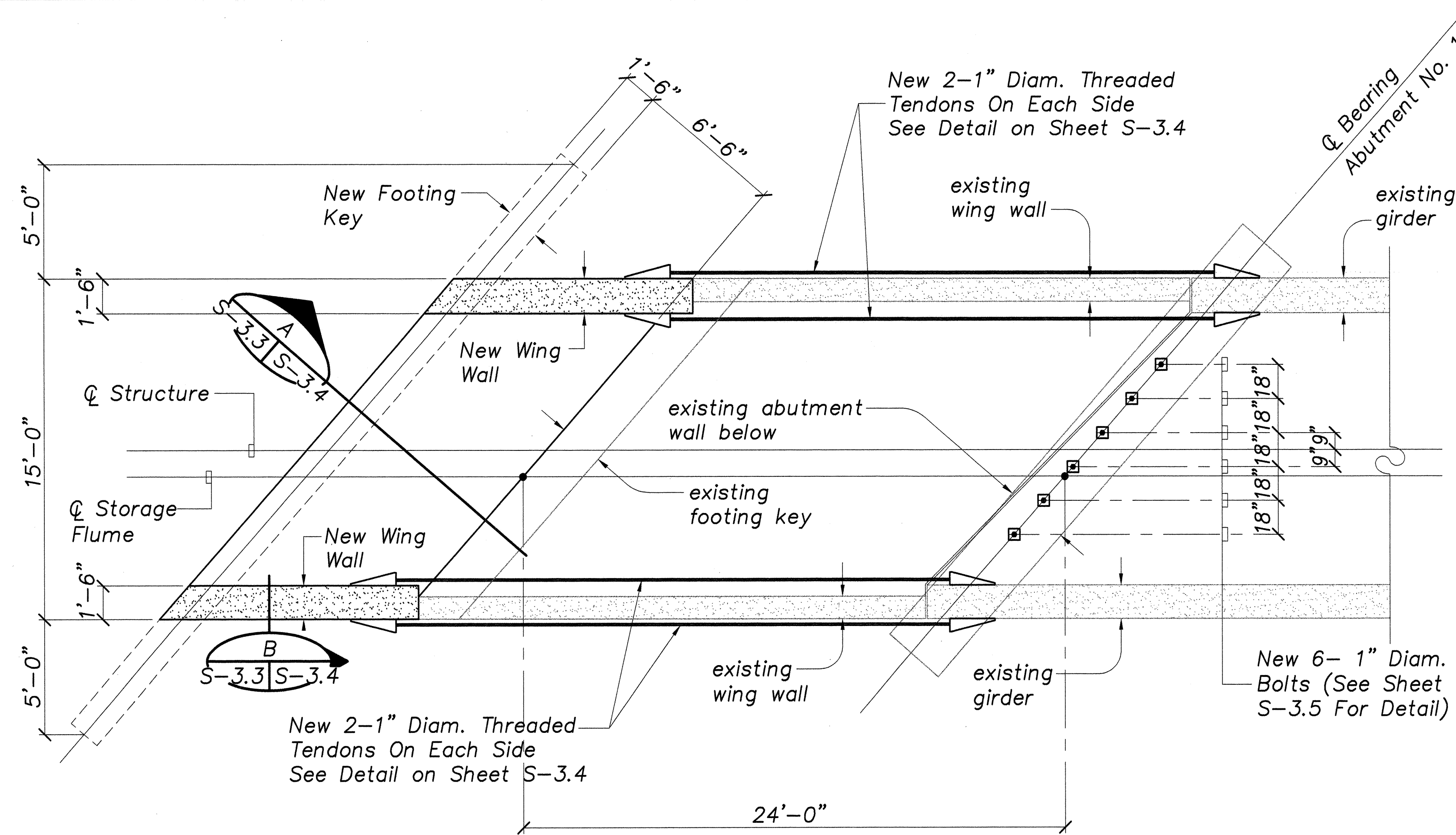
SCALE: AS NOTED      DATE: APRIL 1998

**SHEET No. S-3.2 OF 38 SHEETS**

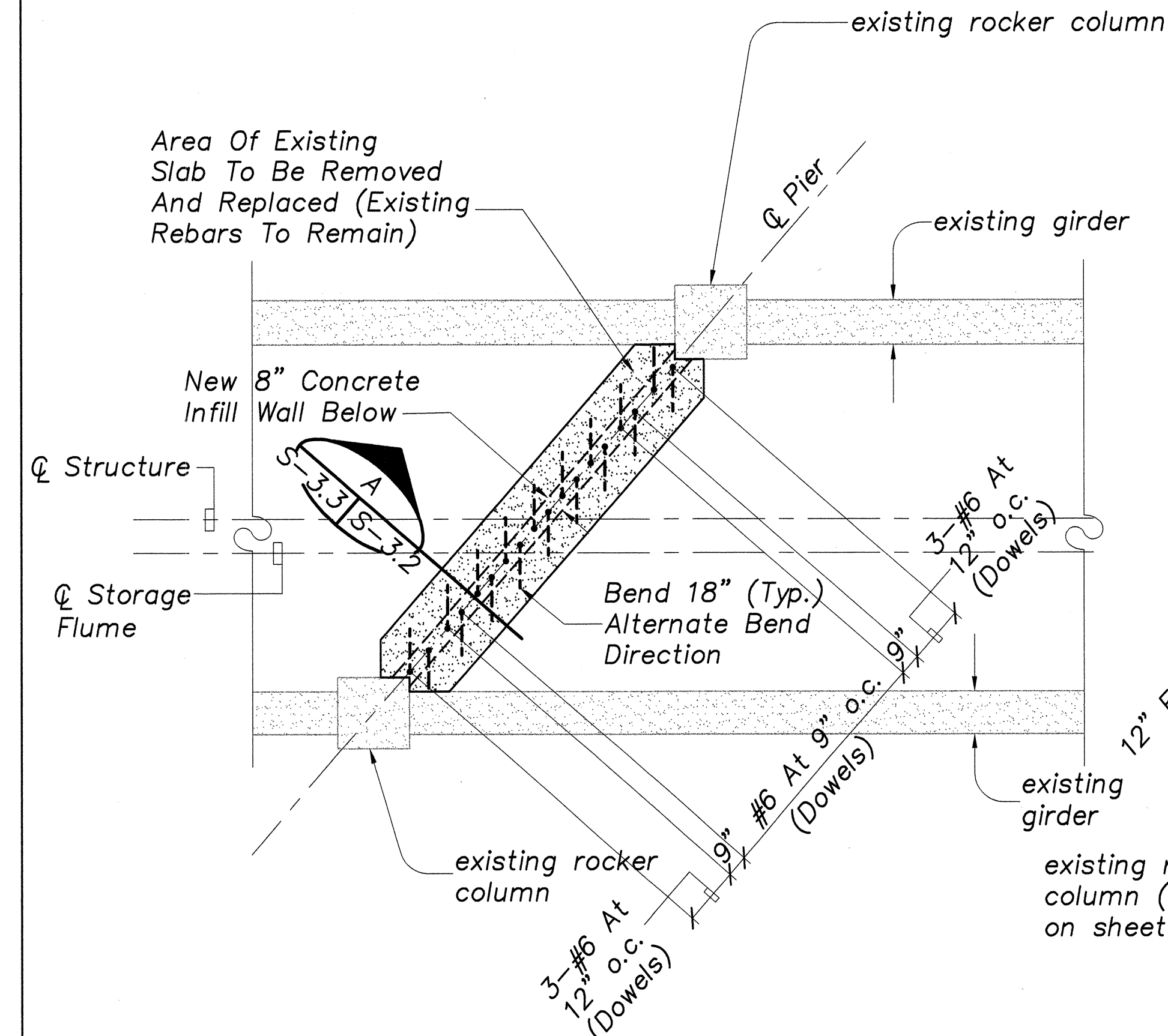
THIS WORK WAS PREPARED BY  
ME UNDER MY SUPERVISION.

*[Signature]*

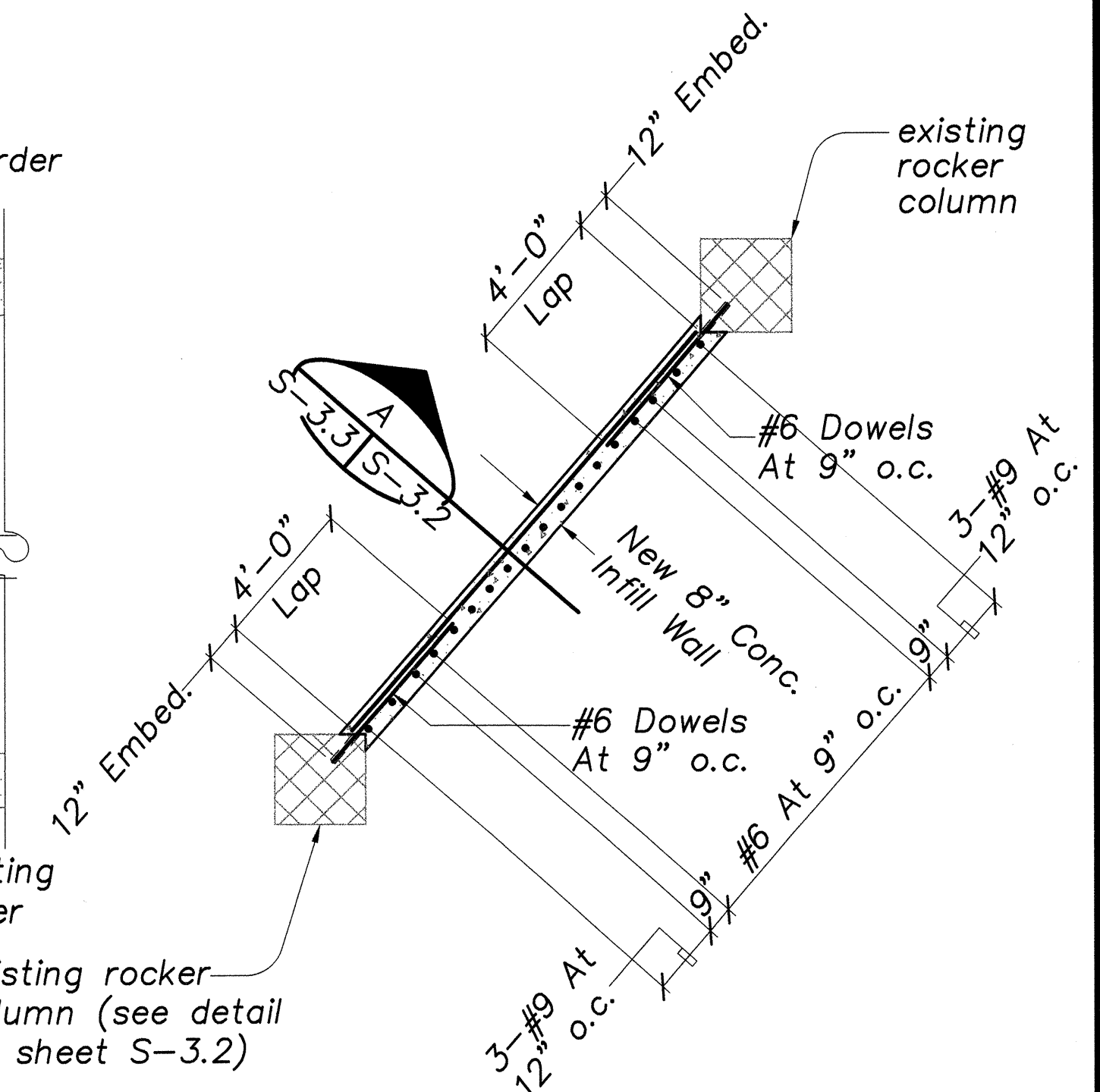
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | BR-019-2(42)       | 1999        | 22        | 38           |



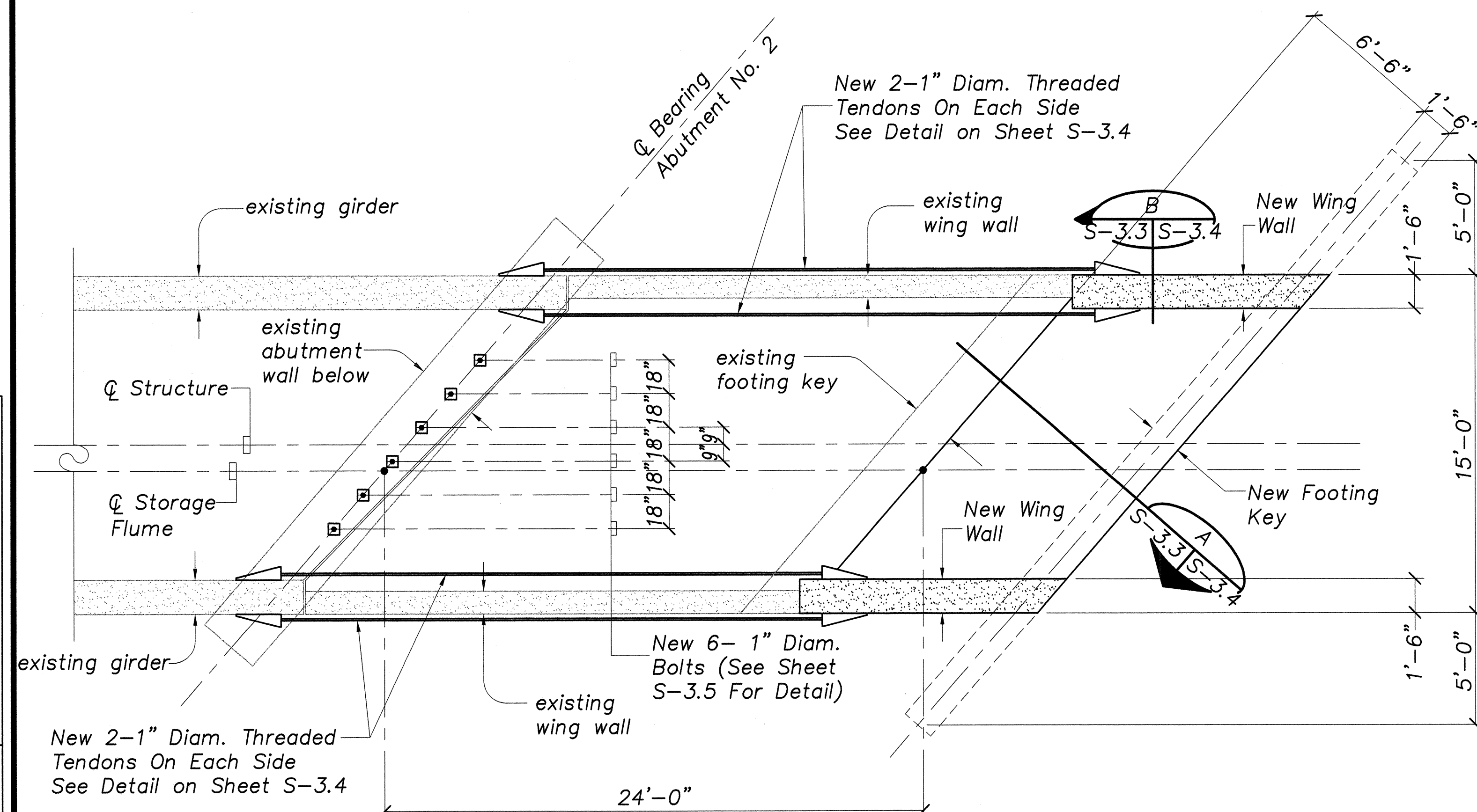
**ABUTMENT NO. 1 PLAN**  
Scale: 1/4"=1'-0"



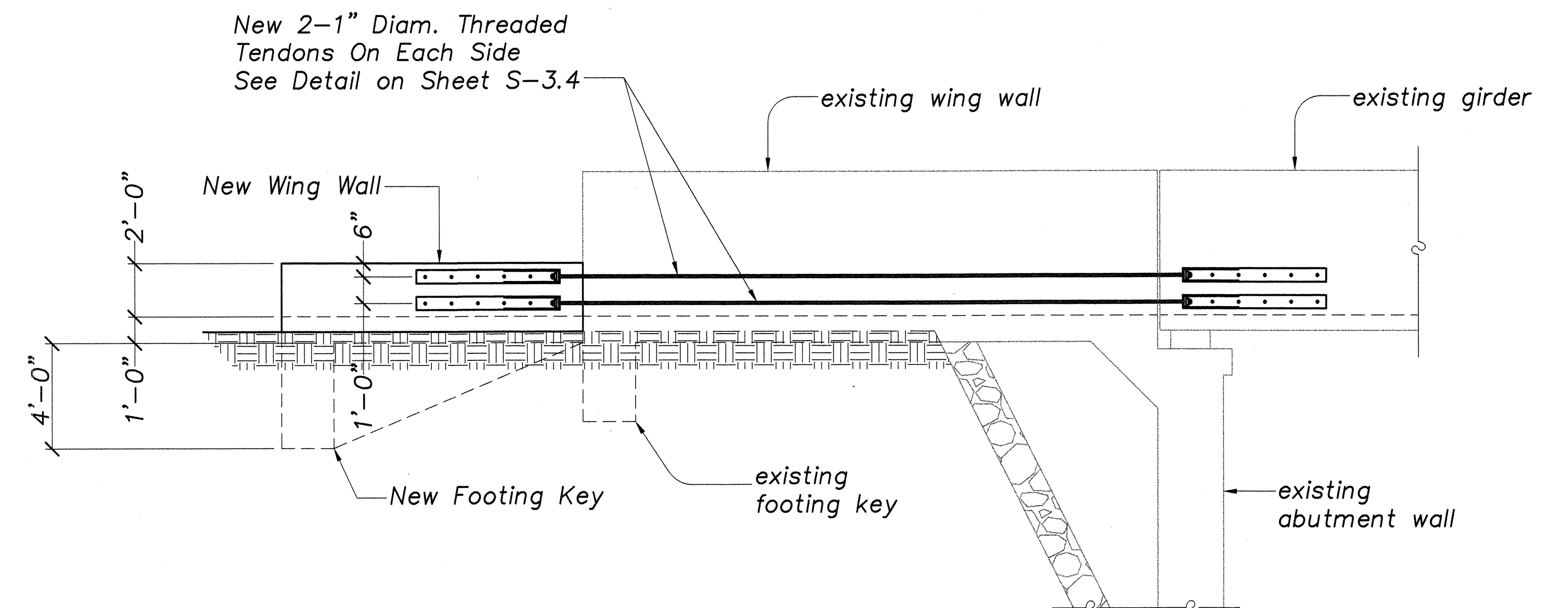
**PIER PLAN**  
Scale: 1/4"=1'-0"



**PLAN AT INFILL WALL**  
Scale: 1/4"=1'-0"

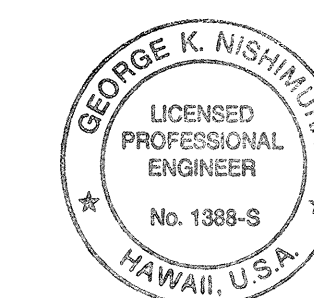


**ABUTMENT NO. 2 PLAN**  
Scale: 1/4"=1'-0"



**ABUTMENT / WING WALL ELEVATION**  
Scale: 1/4"=1'-0"

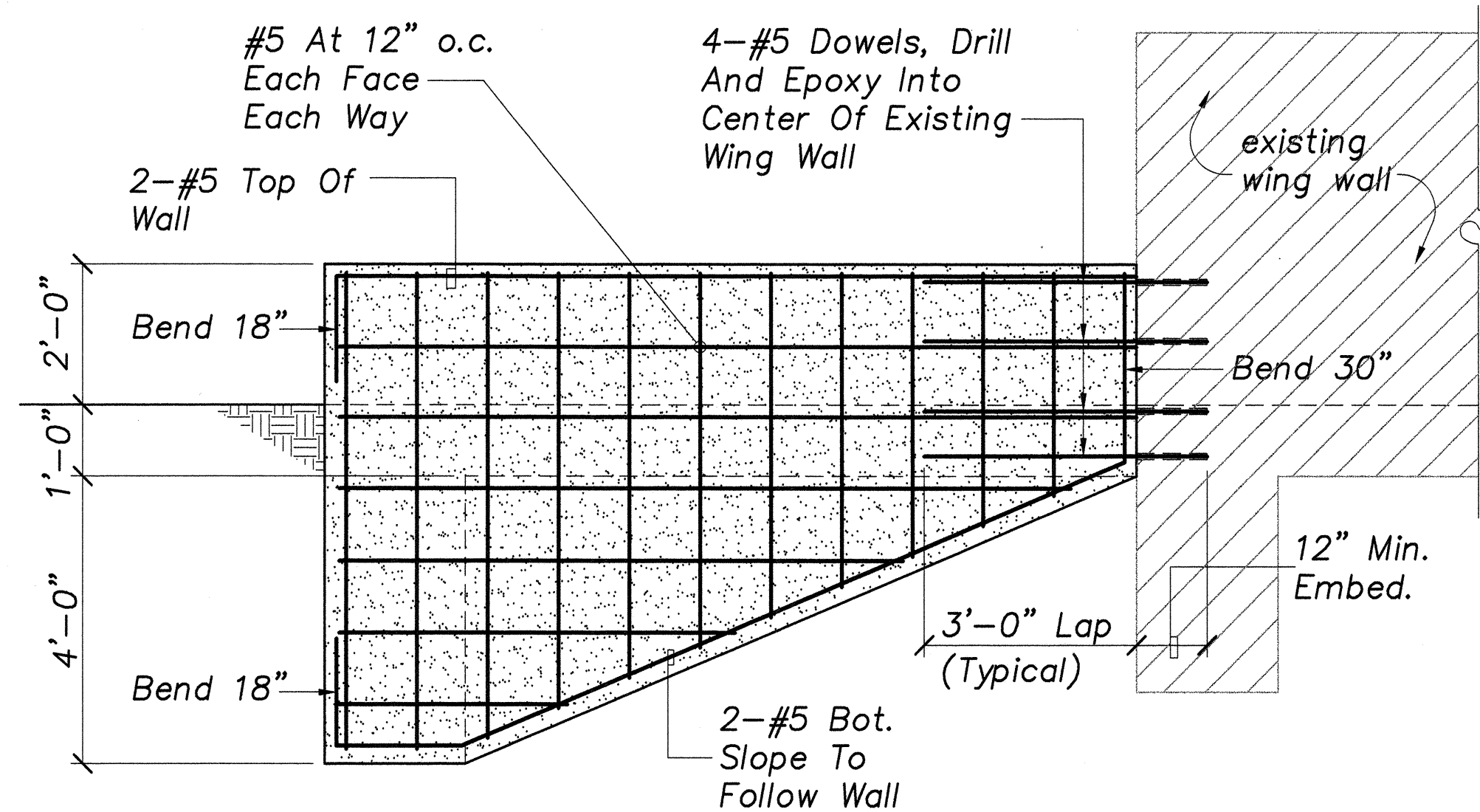
|                   |       |
|-------------------|-------|
| DATE              | _____ |
| SURVEY PLOTTED BY | _____ |
| DRAWN BY          | _____ |
| TRACED BY         | _____ |
| CHECKED BY        | _____ |
| ORIGINAL PLAN     | _____ |
| NOTE BOOK         | _____ |
| No.               | _____ |



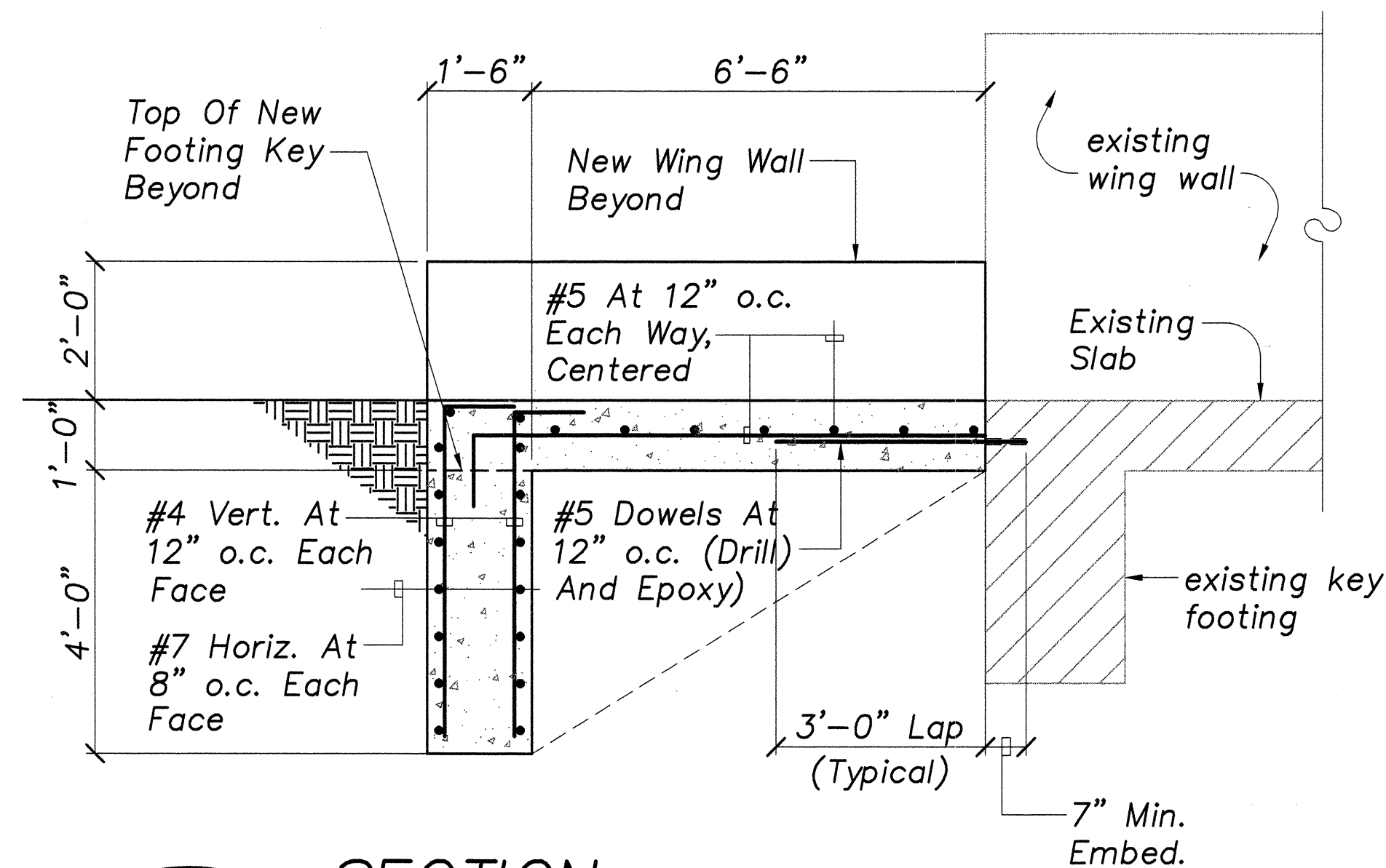
THIS WORK WAS PREPARED BY  
MECHANICAL SUPERVISOR

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**HILO PLANTATION FLUME OVERPASS**  
**ABUTMENT DETAILS AND**  
**PIER DETAILS**  
HAWAII BELT ROAD  
SEISMIC RETROFIT OF VARIOUS BRIDGES  
VICINITY OF HILO  
Federal Aid Project No. BR-019-2(42)  
SCALE: AS NOTED DATE: APRIL 1998  
**SHEET No. S-3.3 OF 38 SHEETS**

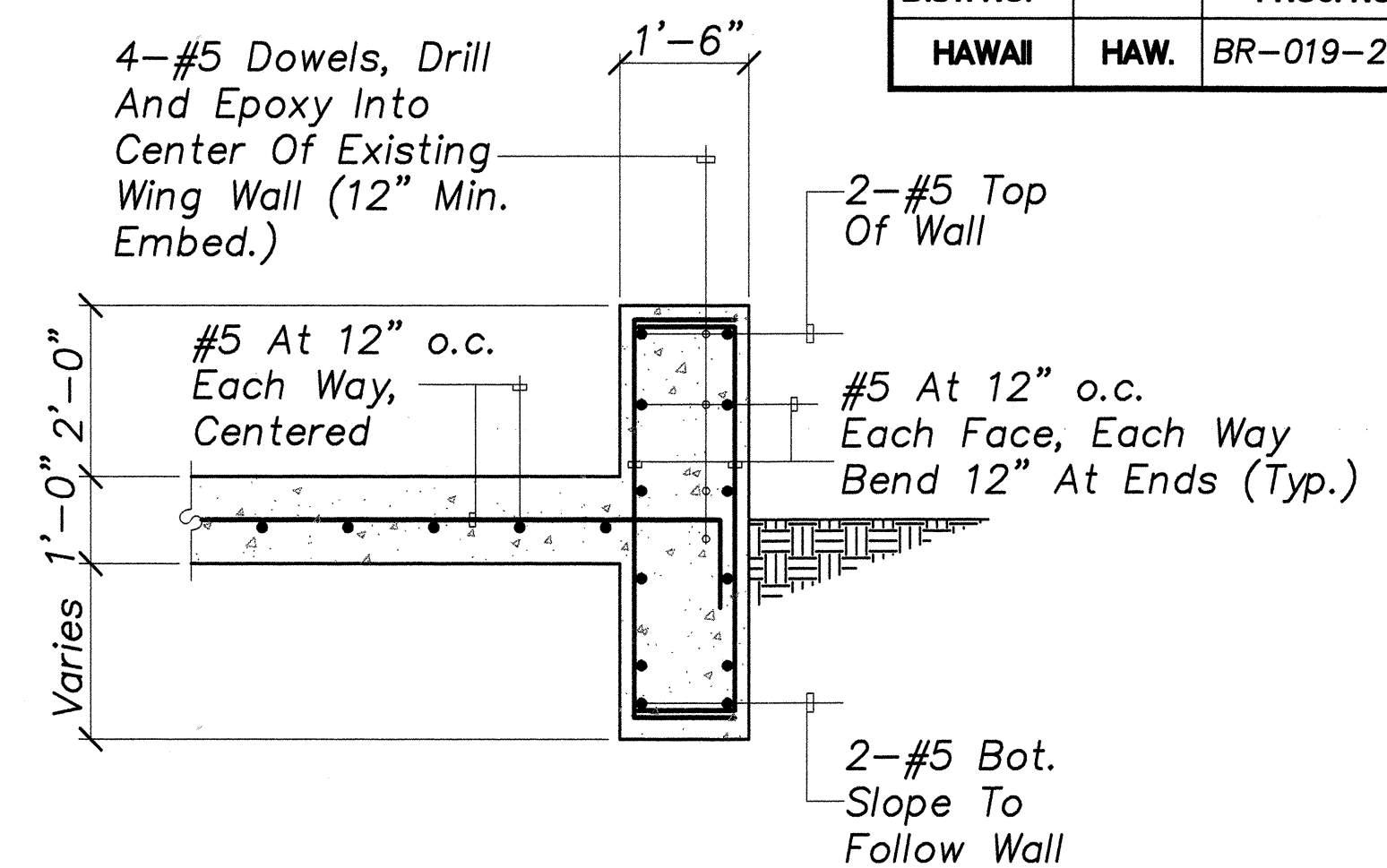
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | BR-019-2(42)       | 1999        | 23        | 38           |



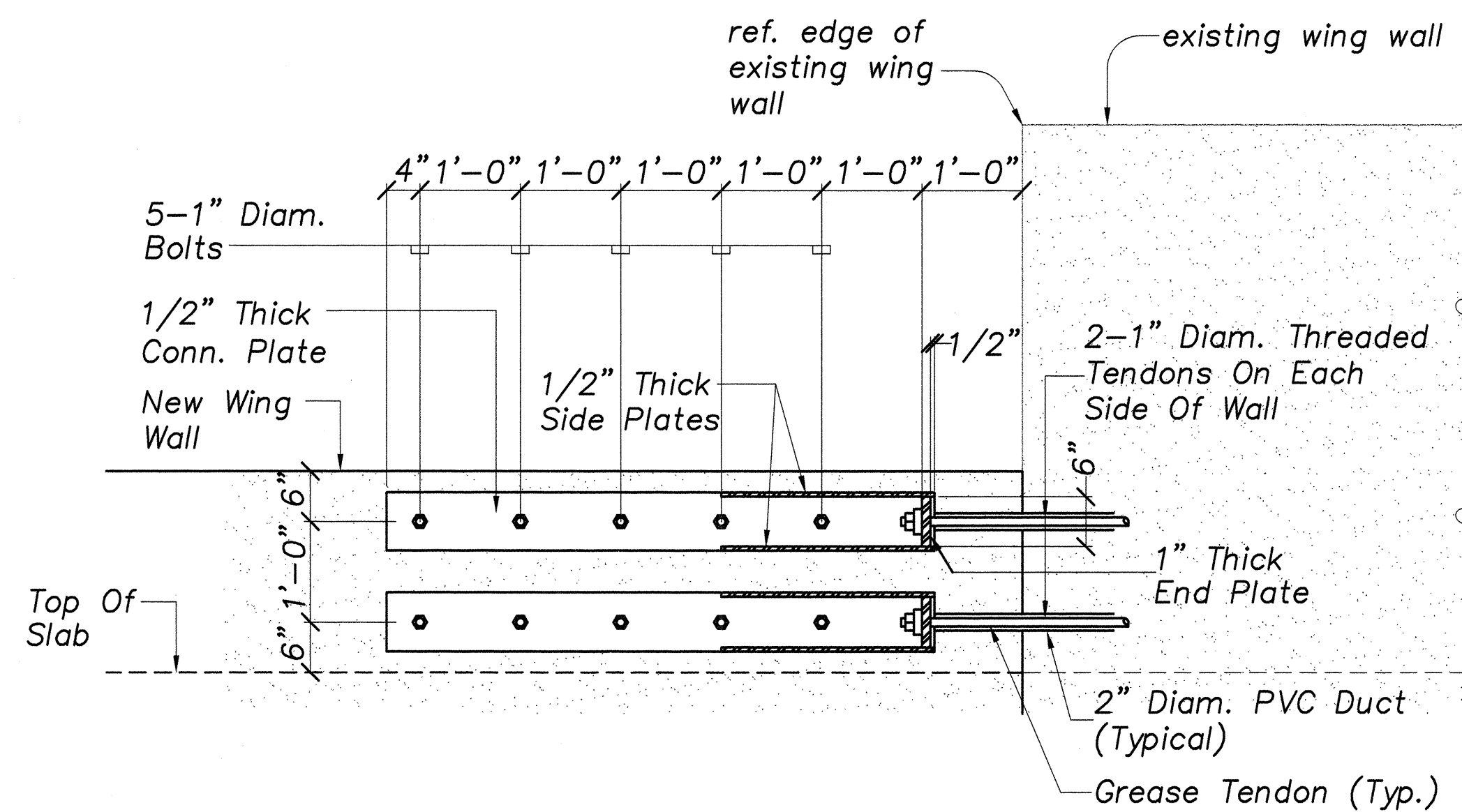
**WING WALL ELEVATION**  
Scale: 1/2"=1'-0"



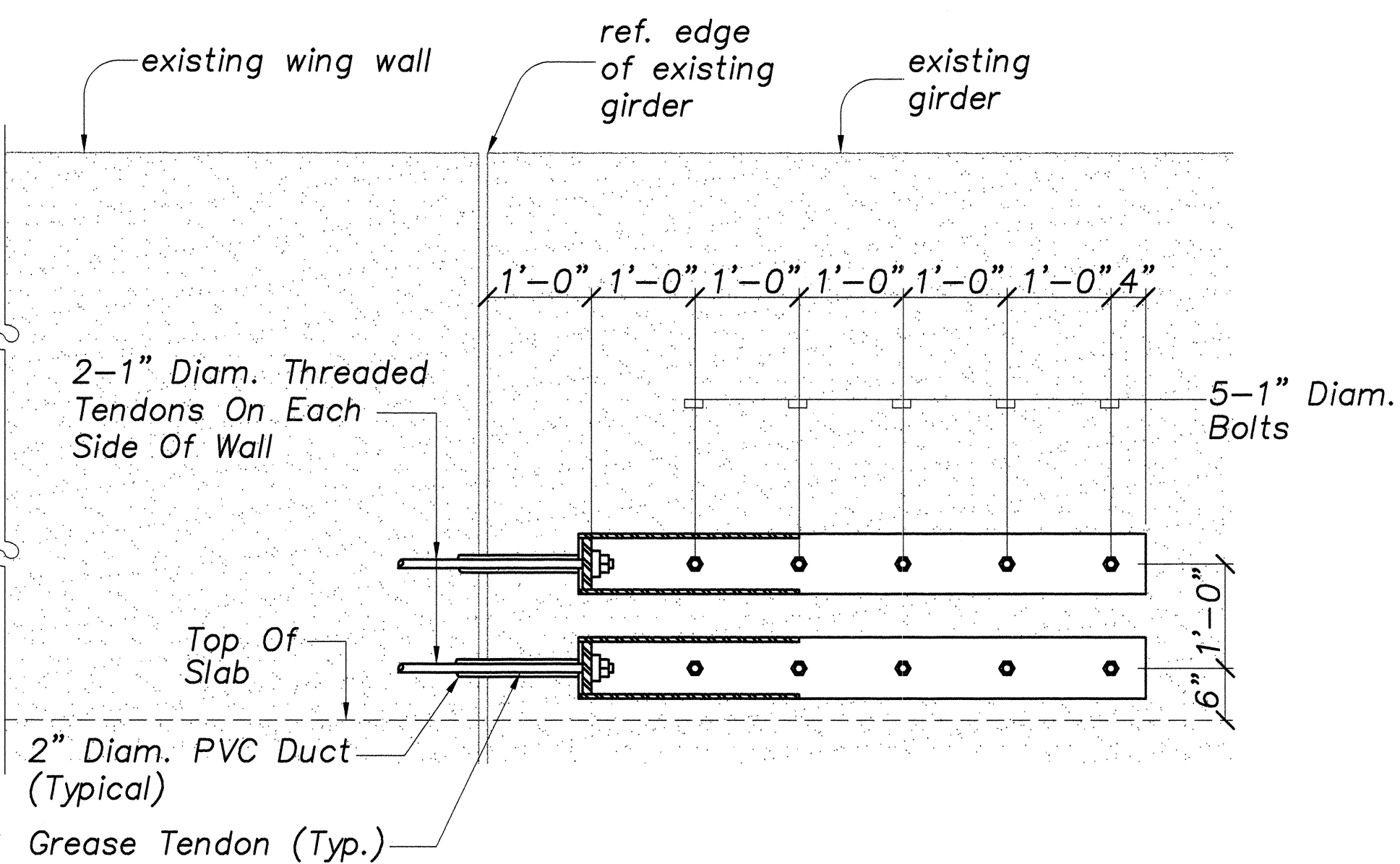
**SECTION A**  
S-3.3 | S-3.4 Scale: 1/2"=1'-0"



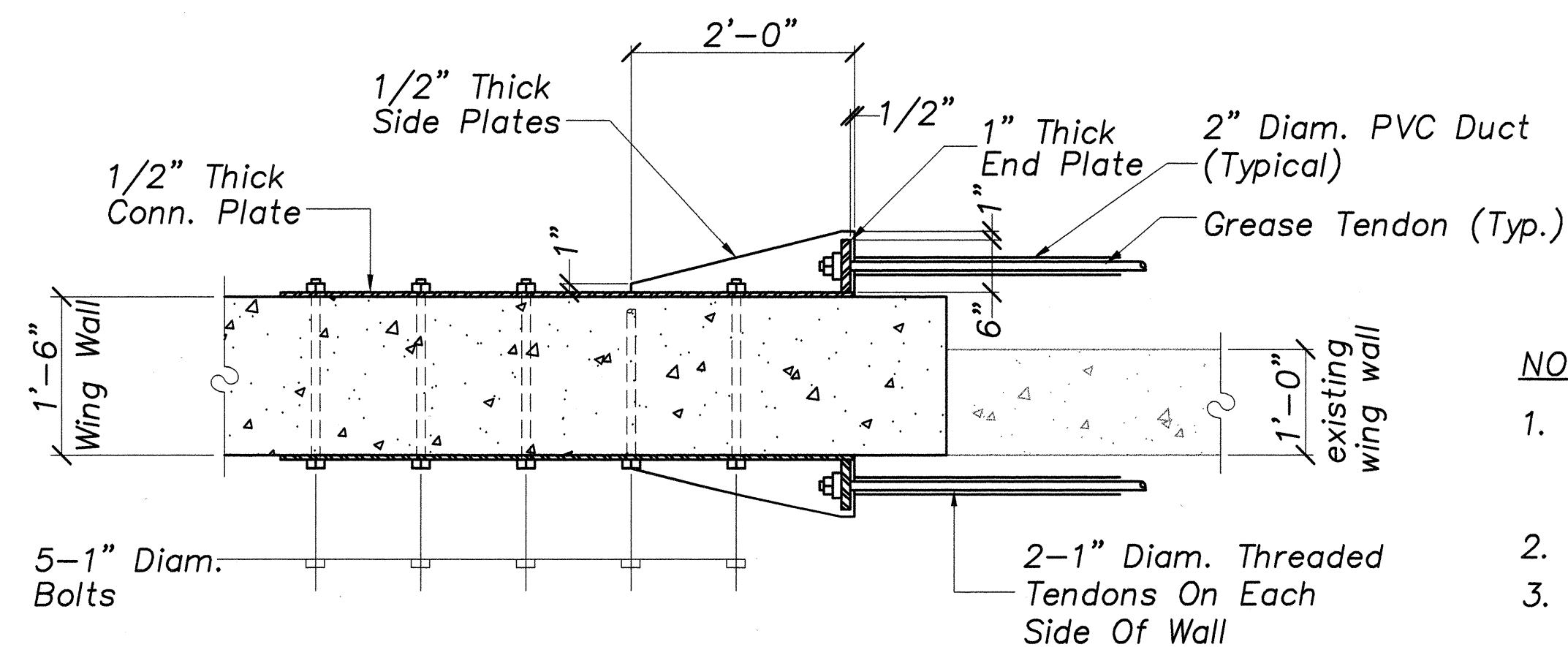
**SECTION B**  
S-3.3 | S-3.4 Scale: 1/2"=1'-0"



**ELEVATION AT NEW WING WALL**



**ELEVATION AT EXISTING GIRDER**

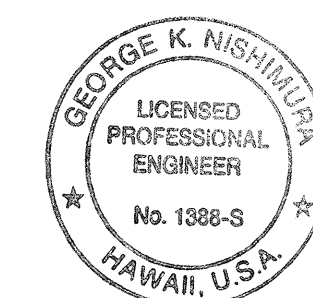


**TYPICAL PLAN / SECTION**

**THREADED TENDON CONNECTION DETAIL**  
Scale: 3/4"=1'-0"

**NOTES:**

1. AT ABUTMENT NO. 2, ANCHORS FOR THREADED TENDONS AT THE EXISTING GIRDER END SHALL BE BACKED OFF 1/4" DURING A WEATHER TEMPERATURE OF 70° F TO 80° F.
2. TACK WELD ALL NUTS TO BOLTS OR TENDONS AFTER INSTALLATION COMPLETE.
3. ALL EXPOSED PORTIONS OF THE THREADED TENDONS SHALL BE GREASED AND ENCASED WITH A 2 INCH DIAMETER PVC DUCT. ALL JOINTS IN THE PVC DUCTS SHALL BE SEALED WATER TIGHT.



THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.  
*[Signature]*

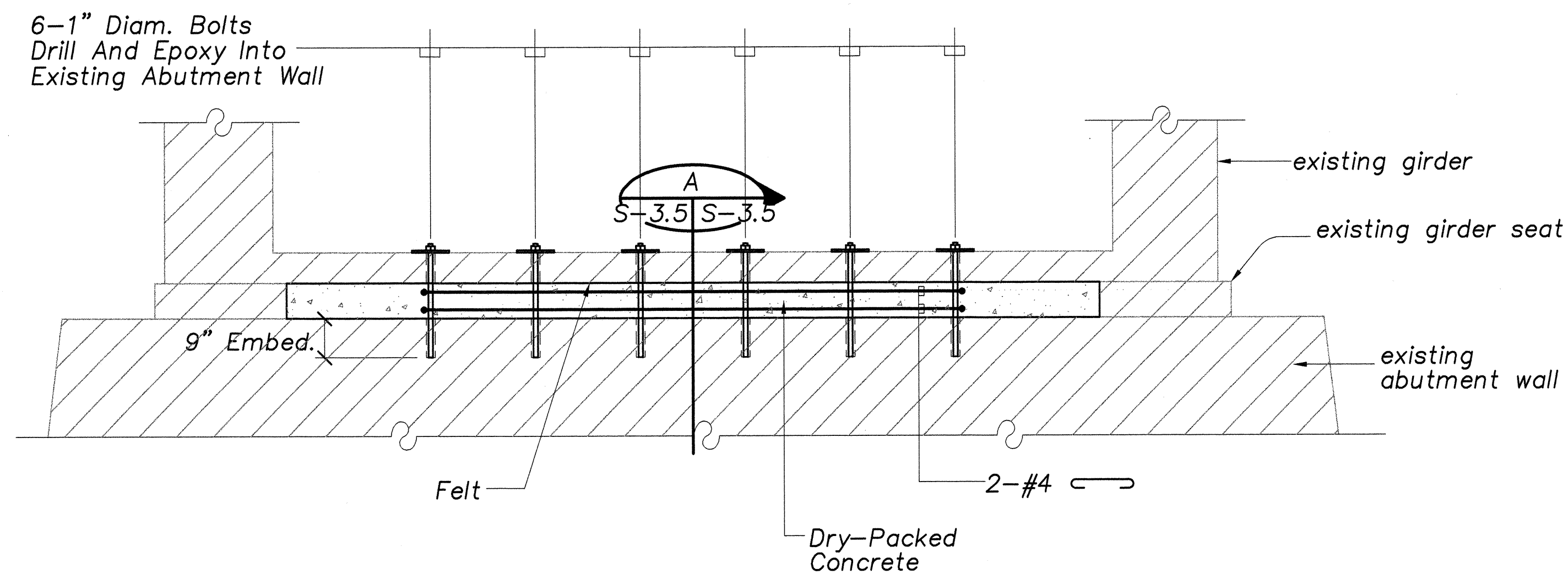
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**HILO PLANTATION FLUME OVERPASS**  
**MISC. SECTIONS AND DETAILS**

HAWAII BELT ROAD  
SEISMIC RETROFIT OF VARIOUS BRIDGES  
VICINITY OF HILO  
Federal Aid Project No. BR-019-2(42)

SCALE: AS NOTED DATE: APRIL 1998

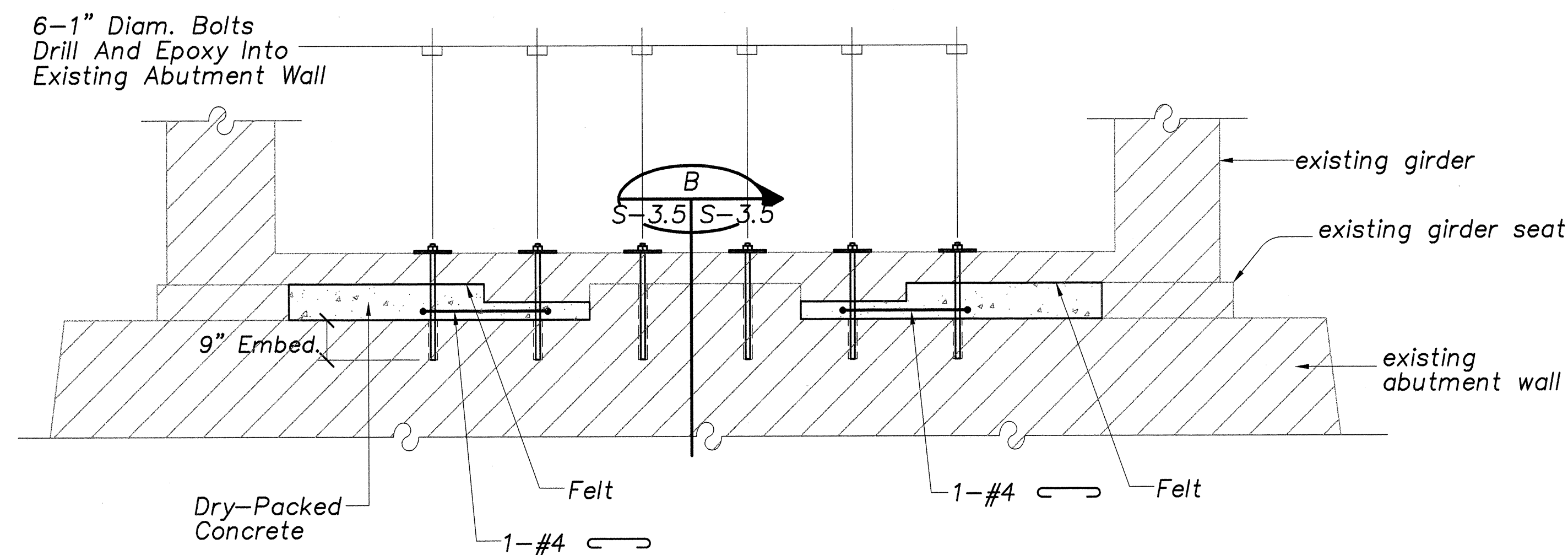
**SHEET No. S-3.4 OF 38 SHEETS**

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | BR-019-2(42)       | 1999        | 24        | 38           |



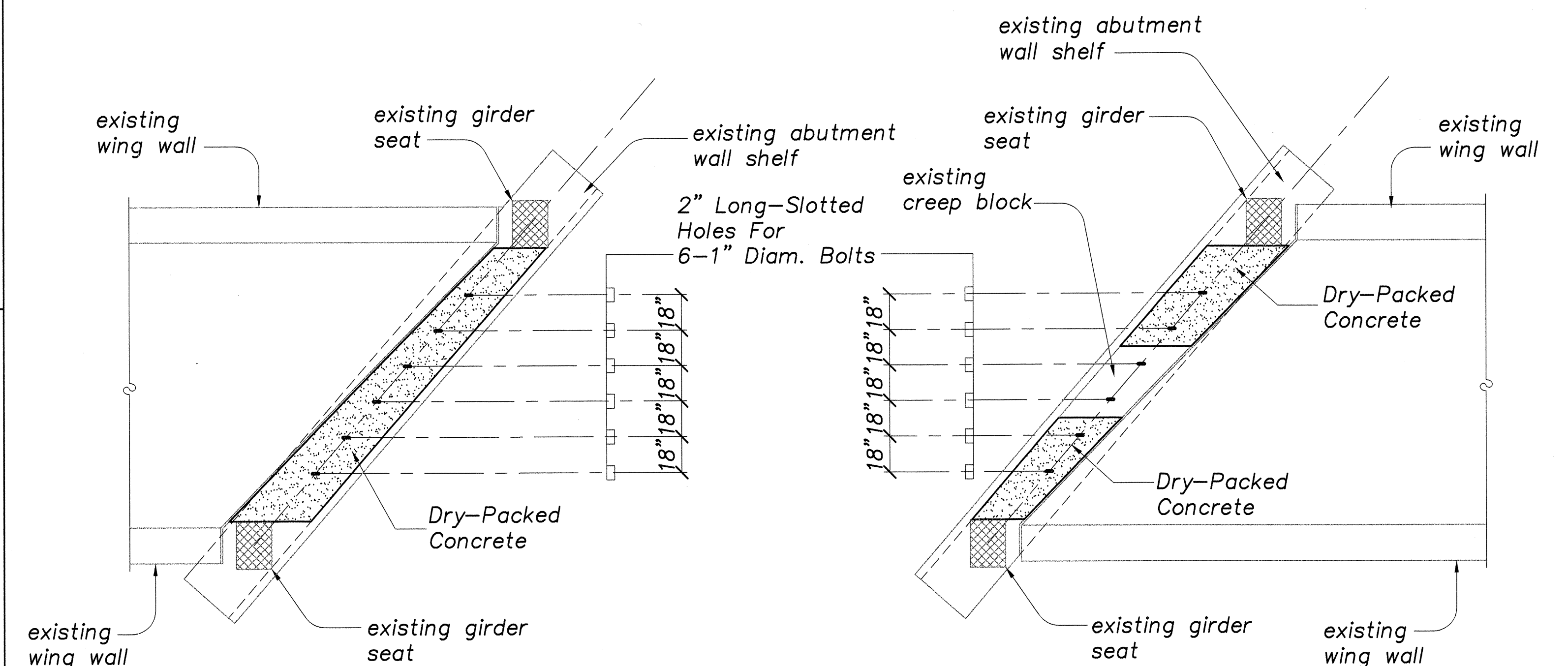
### ABUTMENT WALL NO. 1 ELEVATION

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



### ABUTMENT WALL NO. 2 ELEVATION

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

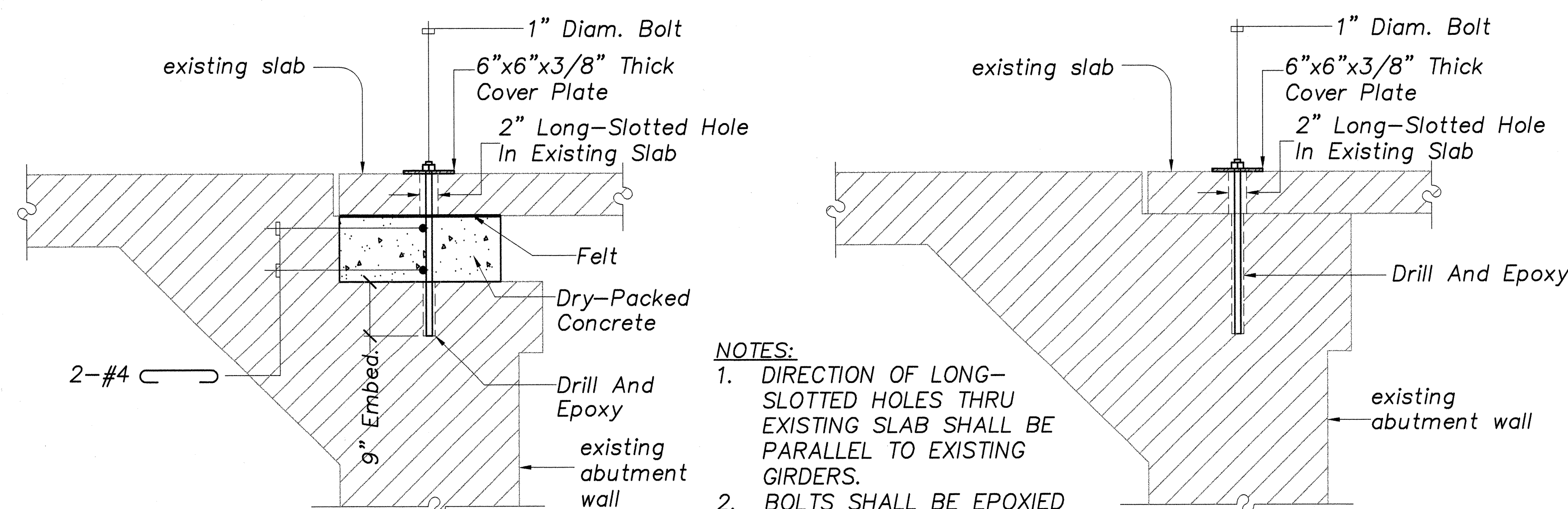


### ABUTMENT WALL NO. 1

### ABUTMENT WALL NO. 2

### PLAN AT ABUTMENT WALL SHELF

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



#### NOTES:

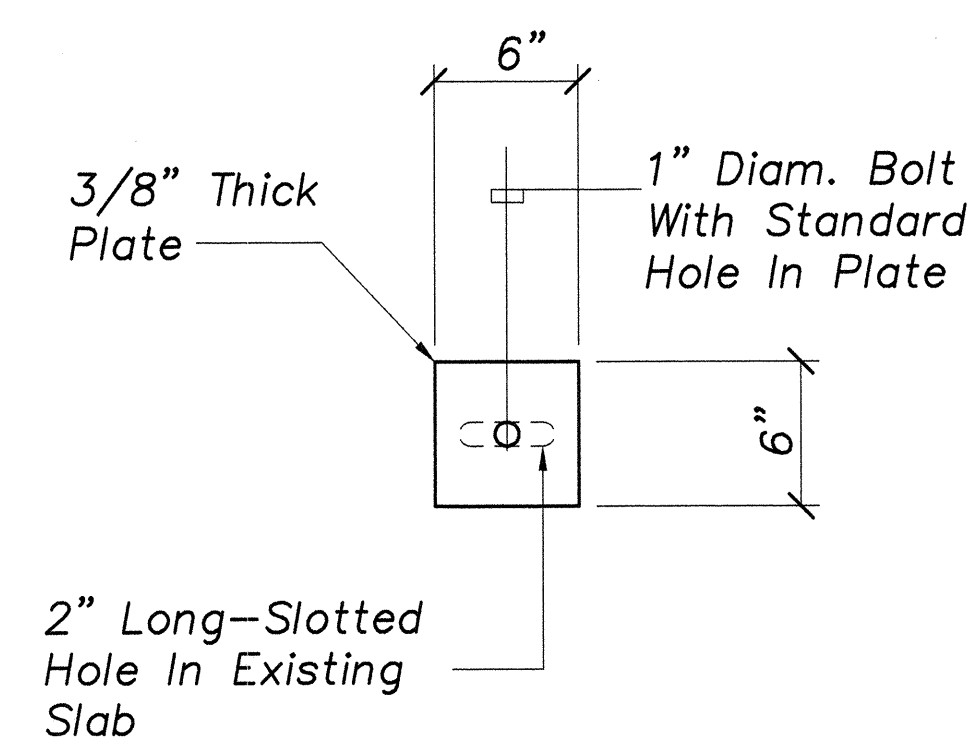
1. DIRECTION OF LONG-SLOTTED HOLES THRU EXISTING SLAB SHALL BE PARALLEL TO EXISTING GIRDERS.
2. BOLTS SHALL BE EPOXIED TO EXISTING ABUTMENT WALL ONLY.

### ABUTMENT SECTION

Scale: 3/4"=1'-0"

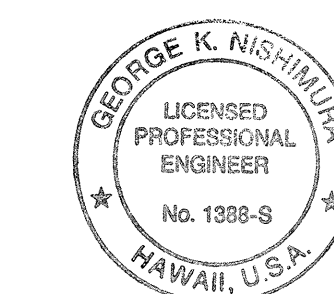
### ABUTMENT SECTION

Scale: 3/4"=1'-0"



### COVER PLATE DETAIL

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



THIS WORK WAS PREPARED BY  
MECHANICAL SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HILO PLANTATION FLUME OVERPASS  
ABUTMENT DETAILS AND SECTIONS

HAWAII BELT ROAD  
SEISMIC RETROFIT OF VARIOUS BRIDGES  
VICINITY OF HILO  
Federal Aid Project No. BR-019-2(42)

SCALE: AS NOTED DATE: APRIL 1998

SHEET No. S-3.5 OF 38 SHEETS

DATE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
NO. \_\_\_\_\_