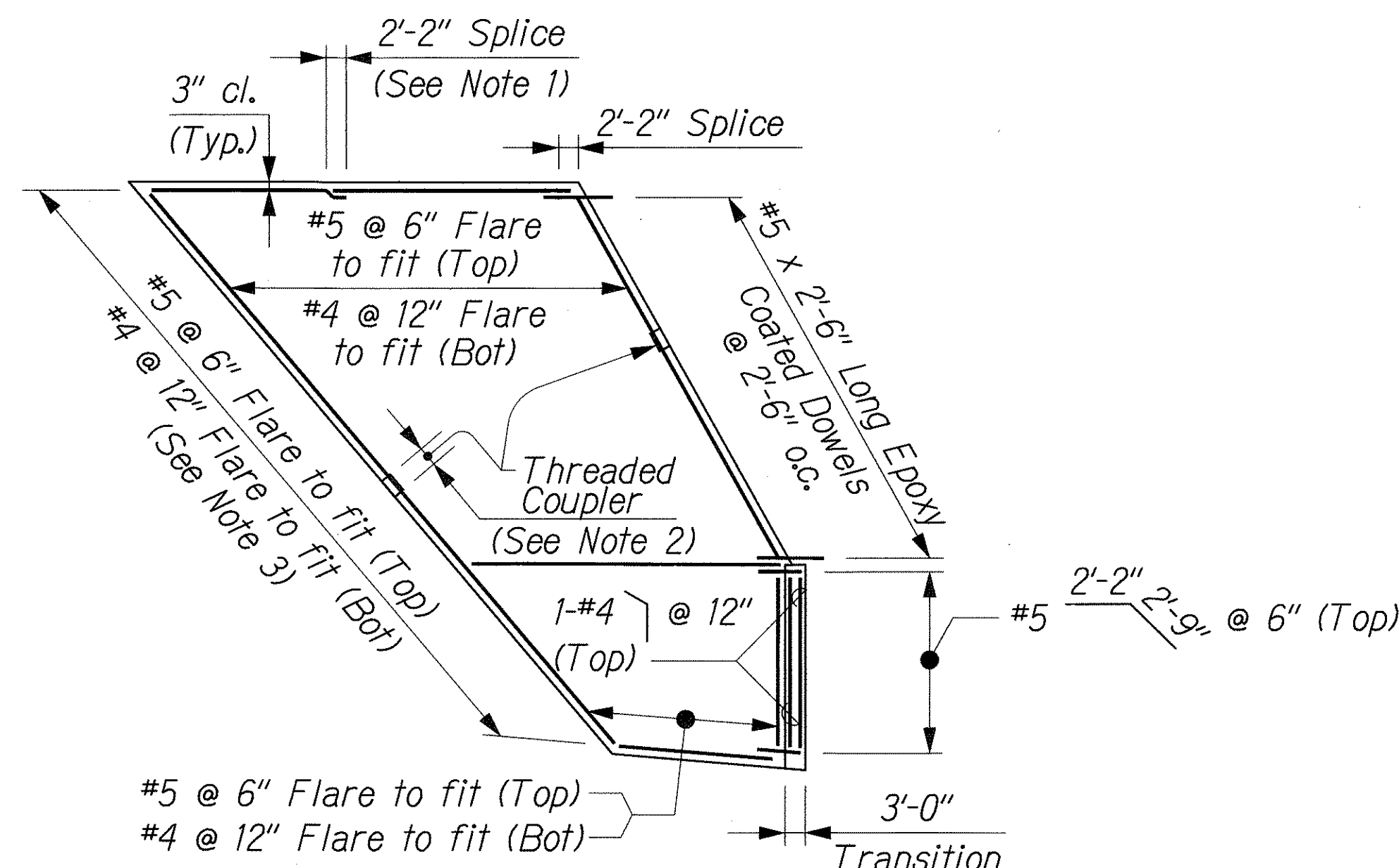


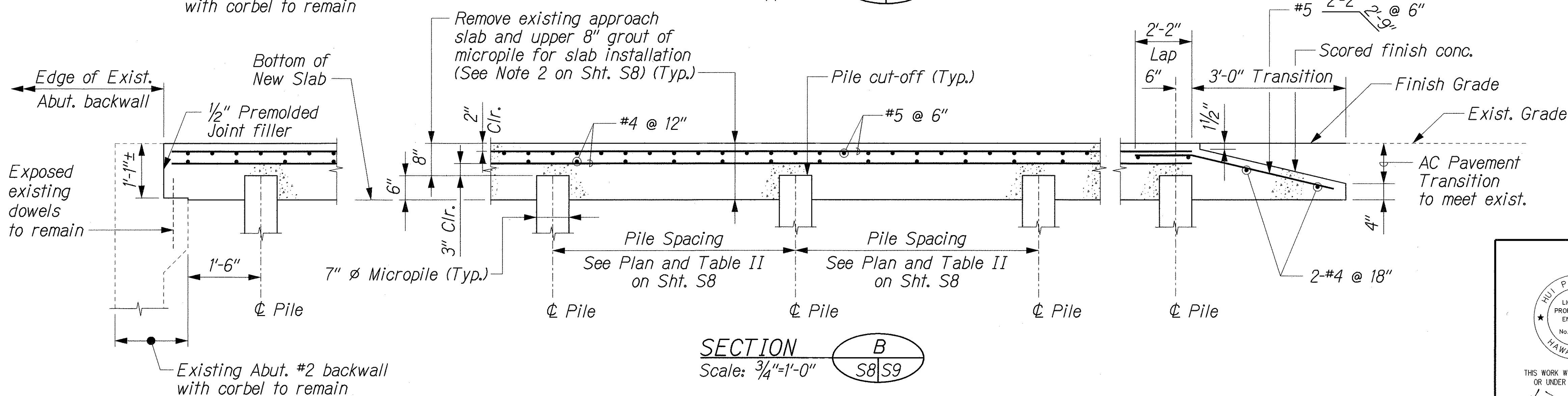
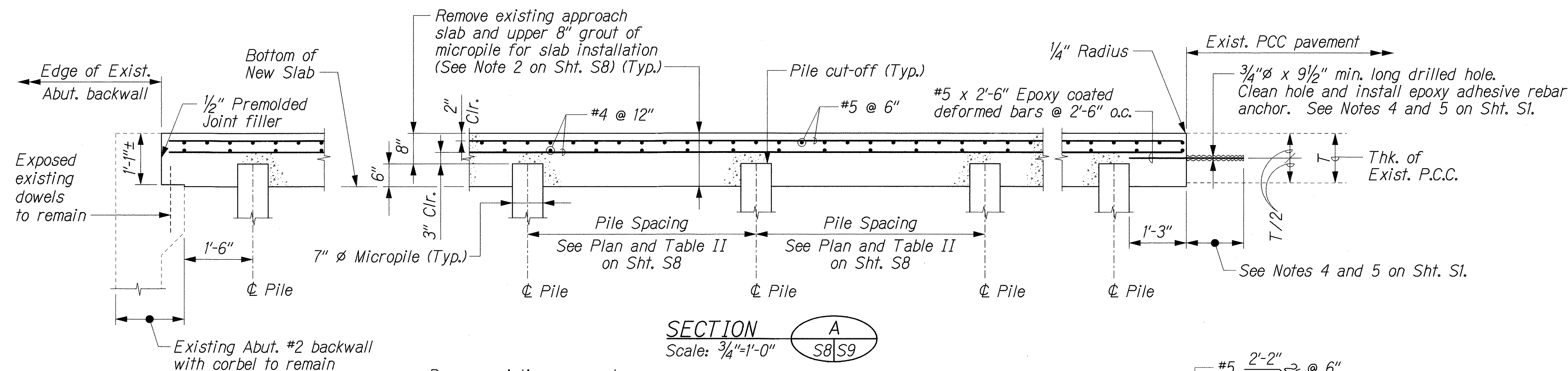
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(245)	2005	114	183



APPROACH SLAB REINFORCING PLAN
Not To Scale

NOTES:

1. Rebar splice locations shall be staggered at least 1'-0" apart or alternated to avoid forming all splices in one line.
2. Provide threaded couplers for all #4 and #5 bars at the end of construction joint of each phase as shown. Each threaded coupler shall be protected for next phase rebar connection during each phase construction.
3. The last longitudinal (parallel to traffic) rebar in each phase shall be placed at least 2" clear from the construction joint as shown.



PEARL CITY VIADUCT APPROACH SLAB

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

16:00E H-1 REHAB/STRUC/ST-DET9.dgn

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Hui Pang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS - 1

INTERSTATE ROUTE H-1 REHABILITATION
EASTBOUND LANES
WAI'AU INTERCHANGE TO KAI'IAKANI STREET

Scale: As Shown Date: Jan. 24, 2006

SHEET No. S9 OF 14 SHEETS

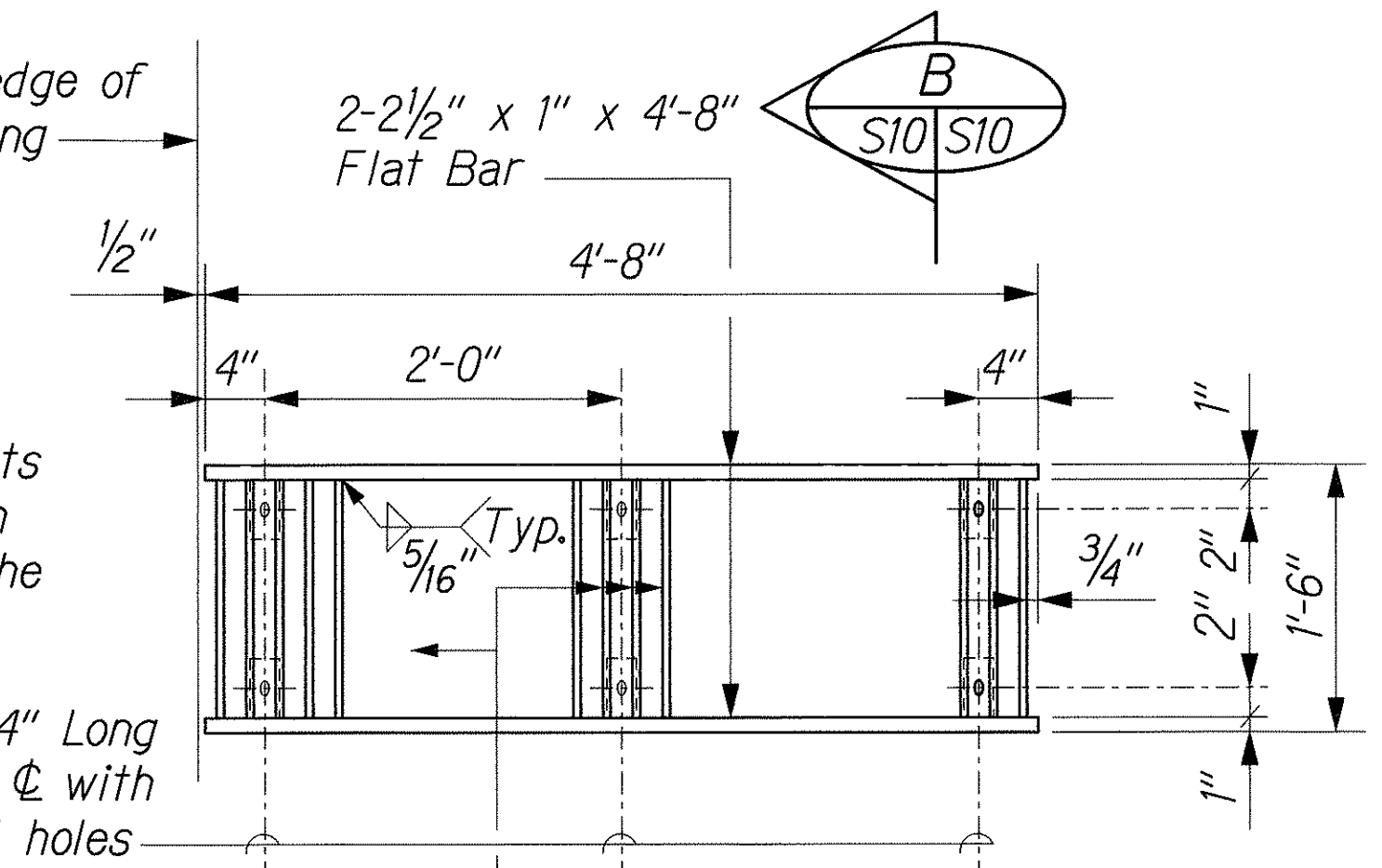
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-(245)	2005	115	183

NOTE A:

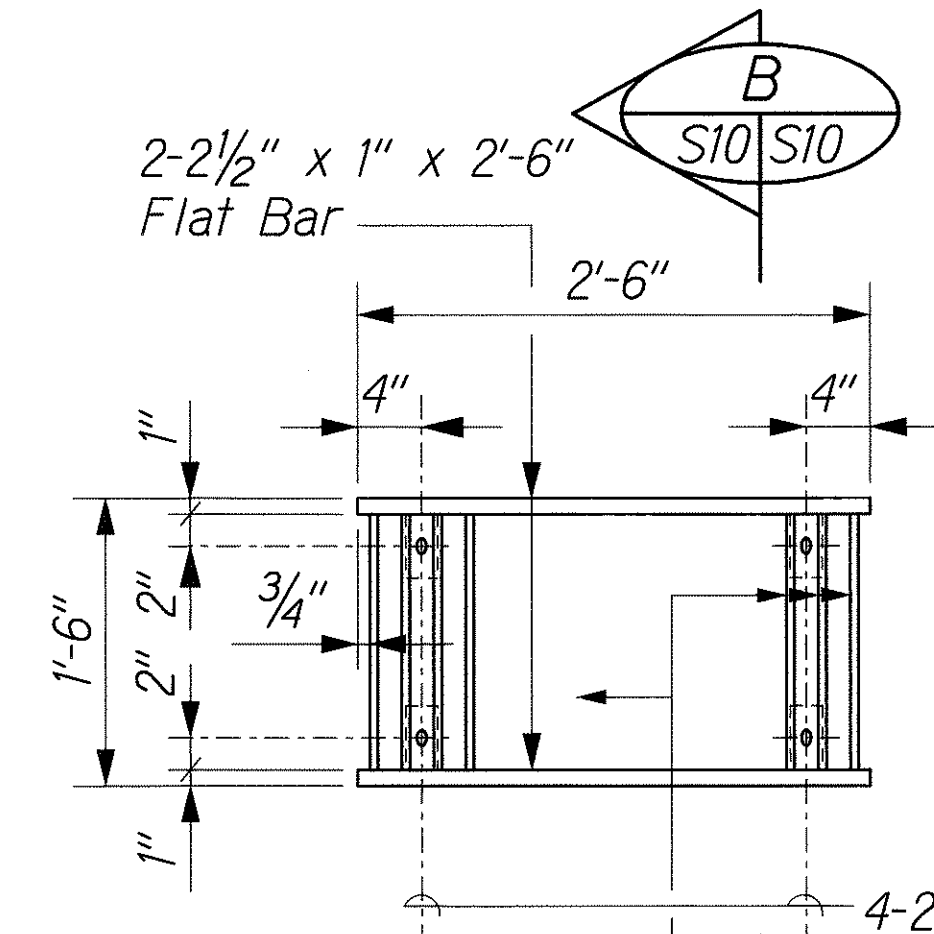
Shop drawings for grating shall be required. Leveling nuts shall be provided with grating to facilitate the placing of grating.

6-2" x 1/4" x 0'-4" Long grate connector Φ with 9/16" x 1" slotted holes

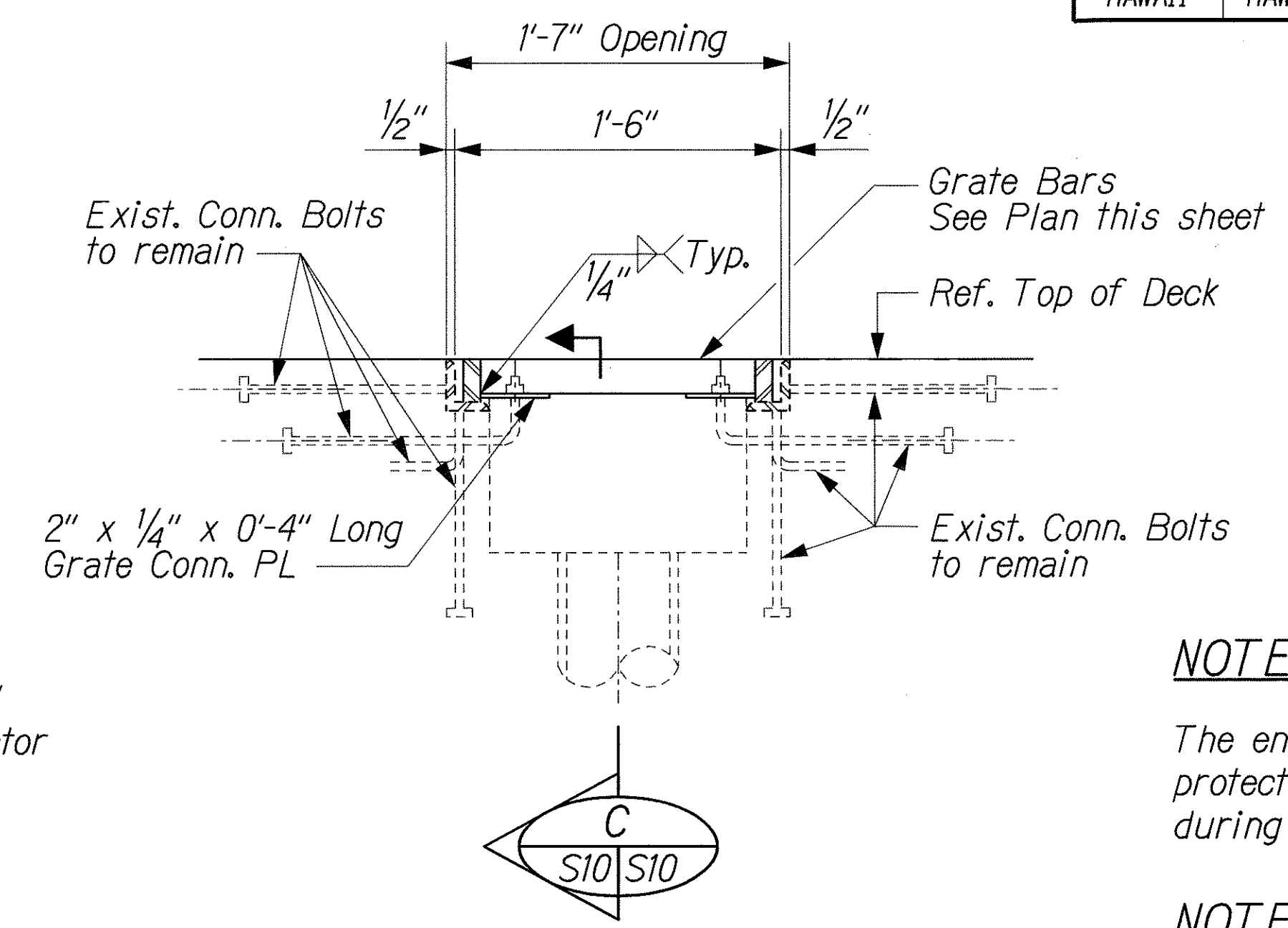
2" x 1/2" x 1'-4" grate bars @ 2" o.c. throughout butt welded as shown. See Detail this Sheet



TYPE GF I GRATING PLAN
Scale: 1"=1'-0"



TYPE GF II GRATING PLAN
Scale: 1"=1'-0"



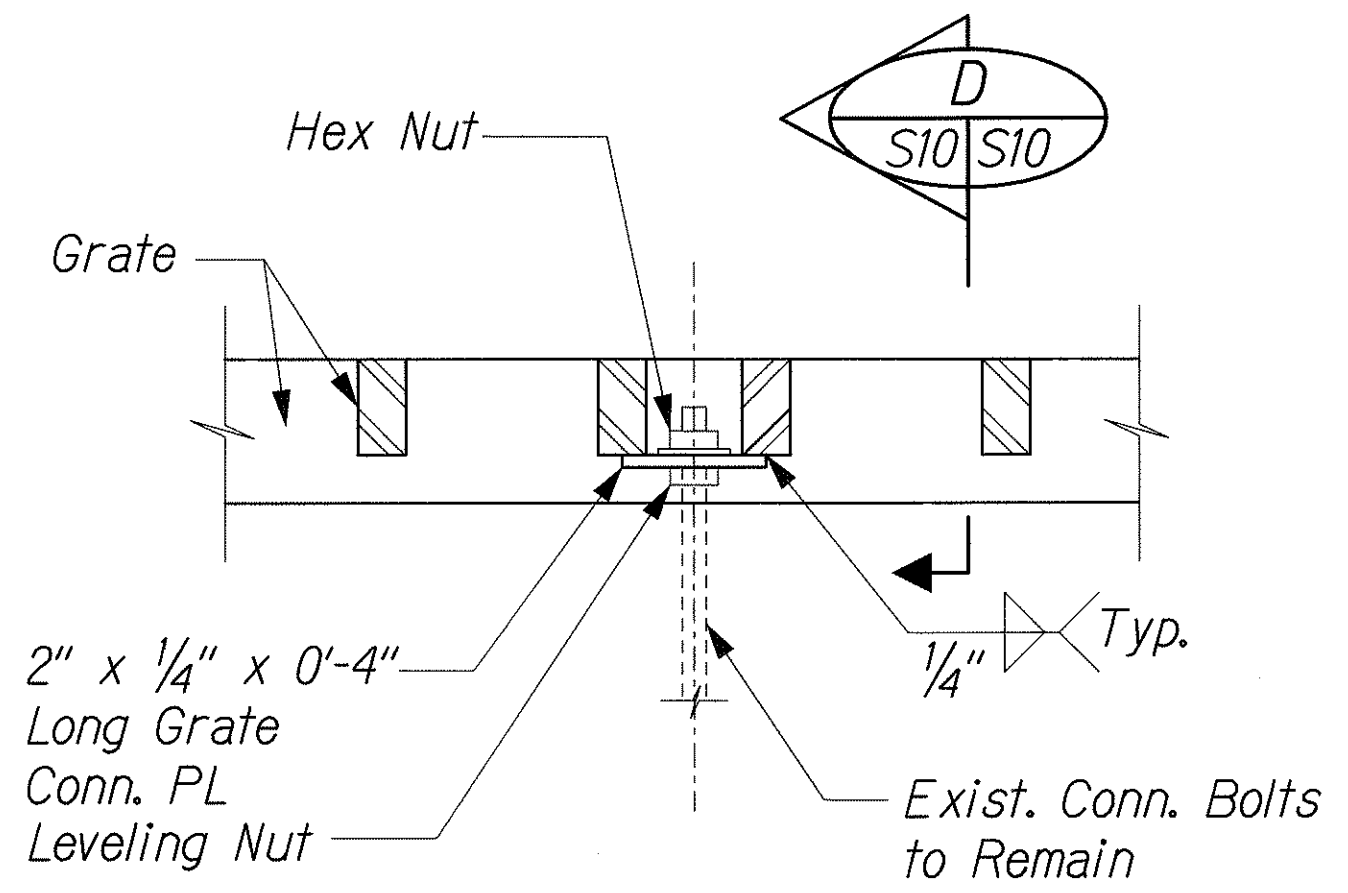
SECTION B
Scale: 1/2" = 1'-0"

NOTE B:

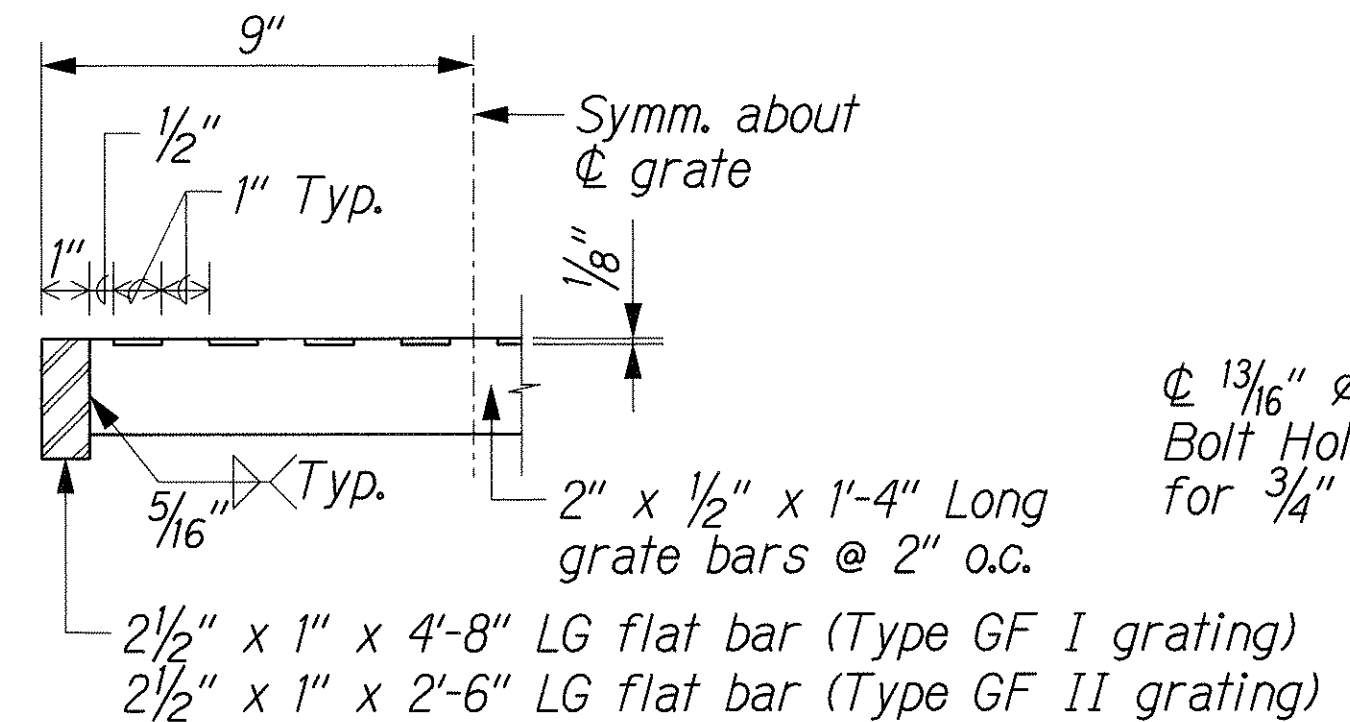
The end of threaded insert shall be protected for anchor bolt installation during the parapet concrete placement.

NOTE C:

The temporary steel cover $\#$ shall be removed immediately prior to placing closure pour.

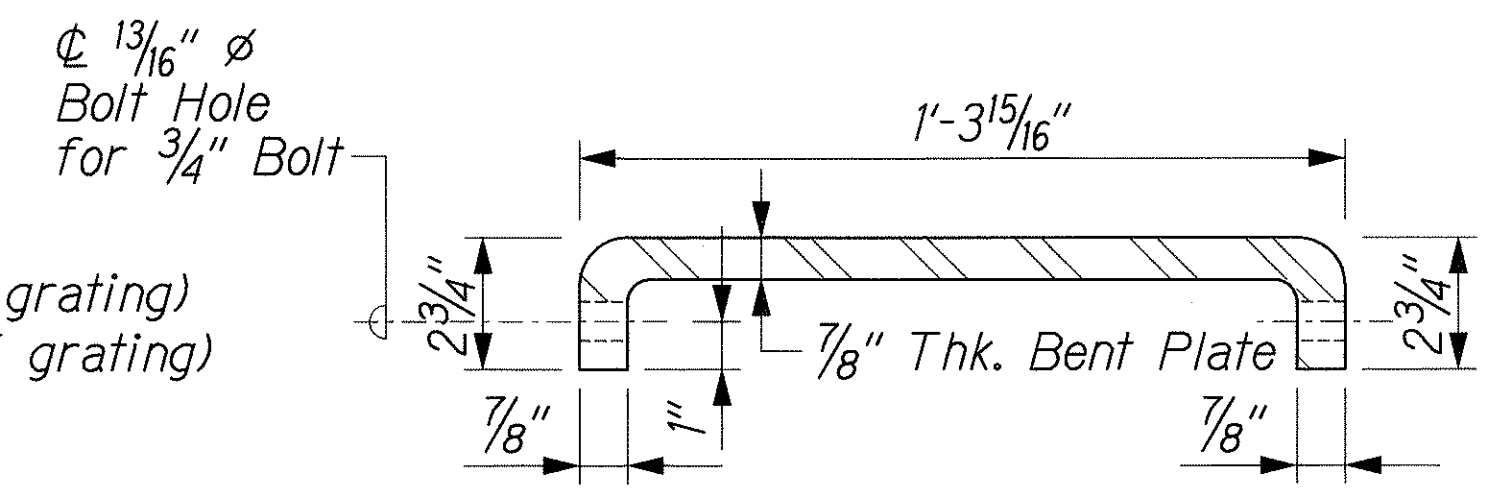


SECTION C
Not To Scale

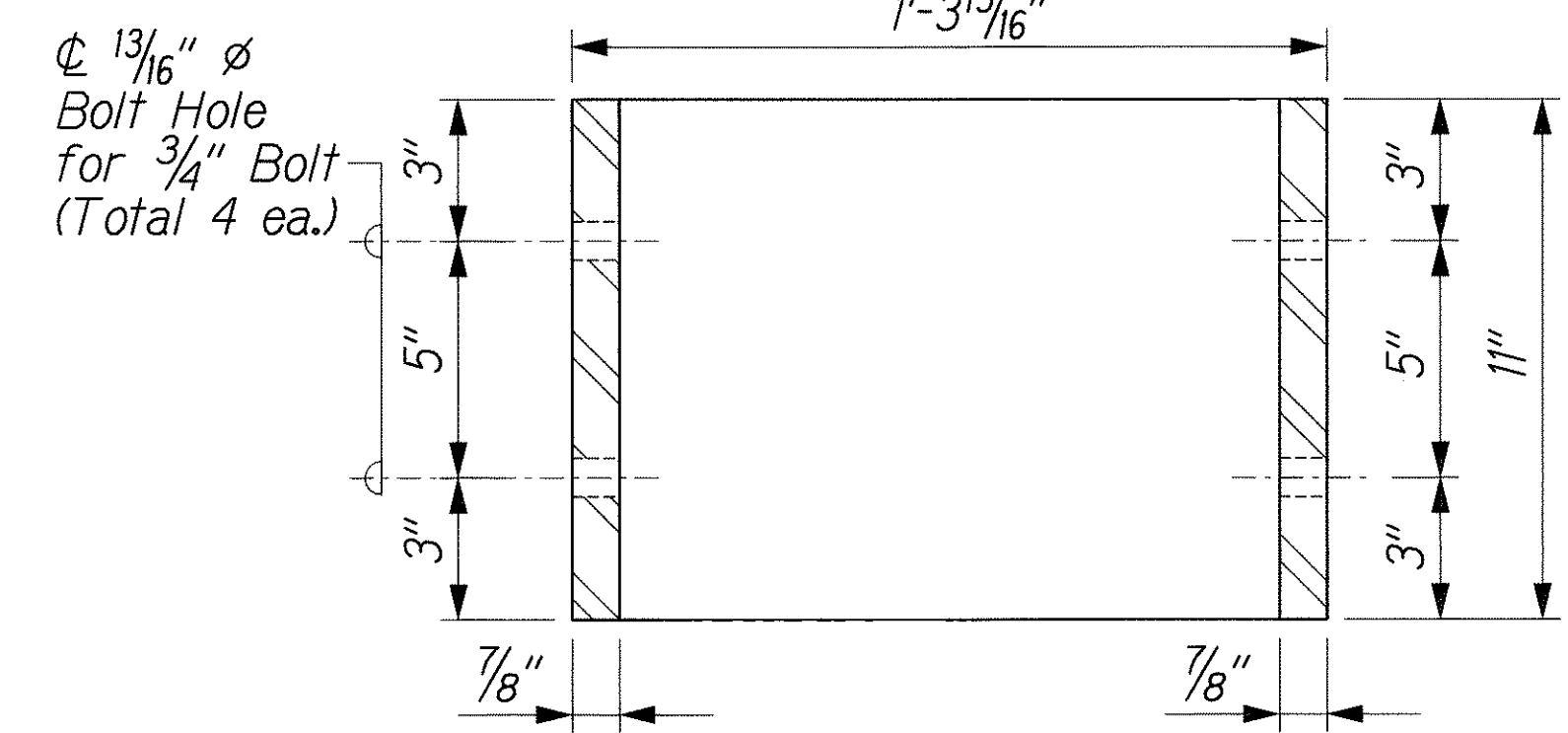


SECTION D
Not to Scale

GRATE BAR DETAIL

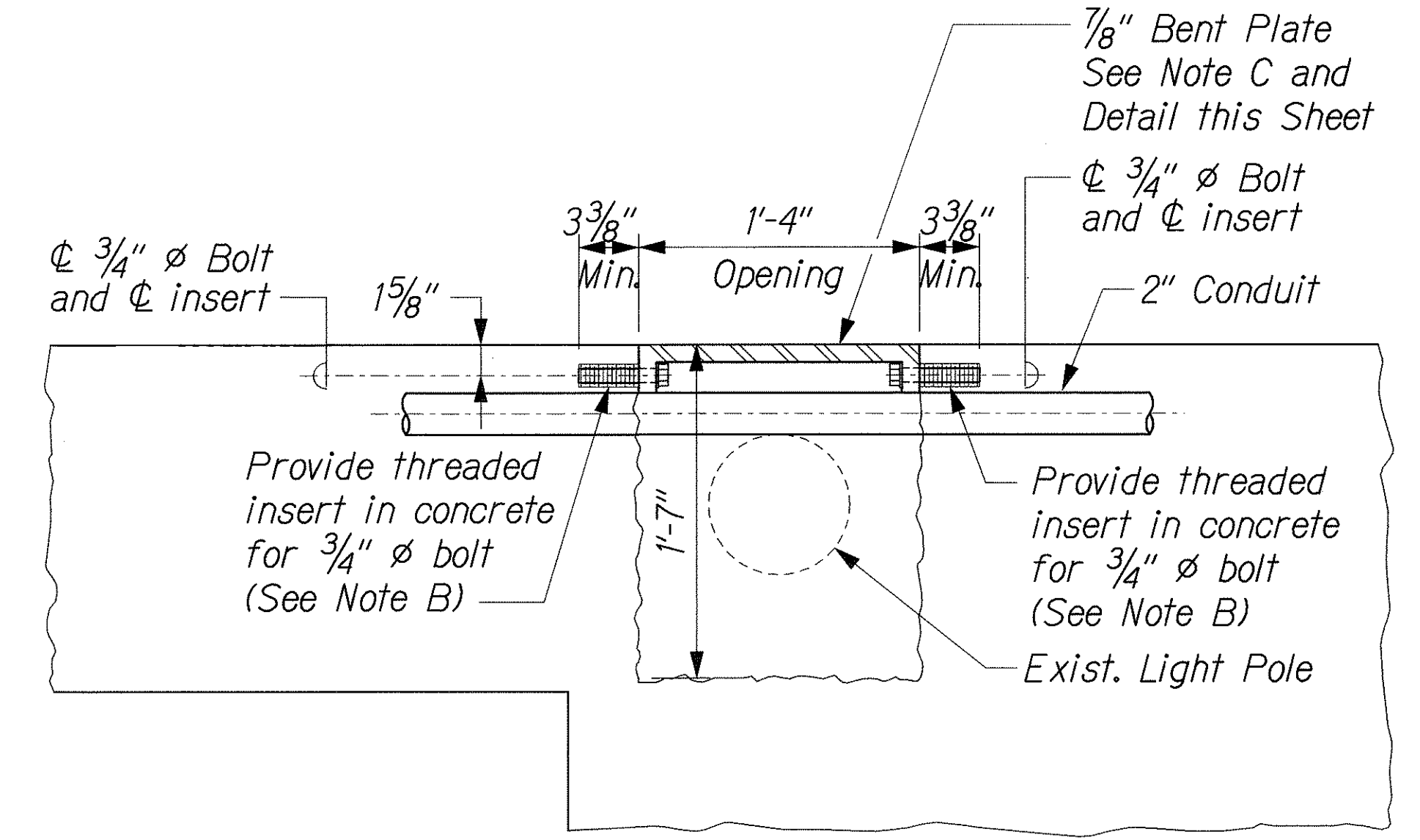


PLAN



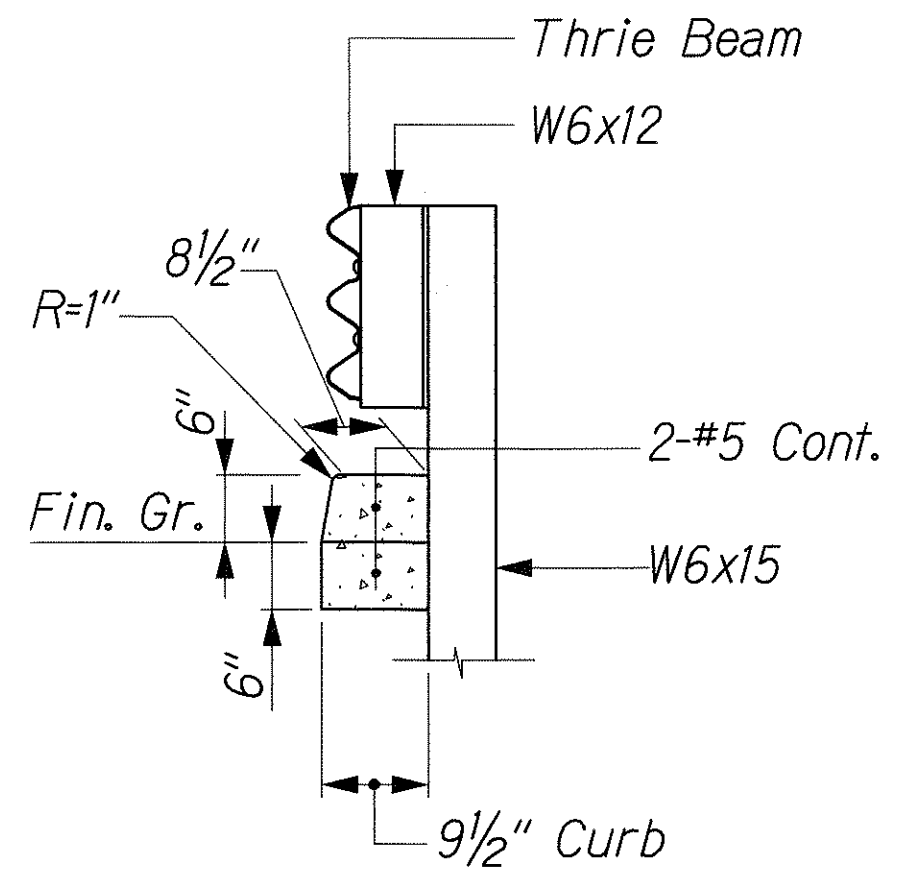
ELEVATION

7/8" BENT PLATE DETAIL
Not To Scale



PLAN

TEMPORARY STEEL COVER $\#$ FOR EXISTING LIGHT POLE
Not To Scale



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

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

J:\COE HI-REHAB\STRUCT\ST-DET10.dgn

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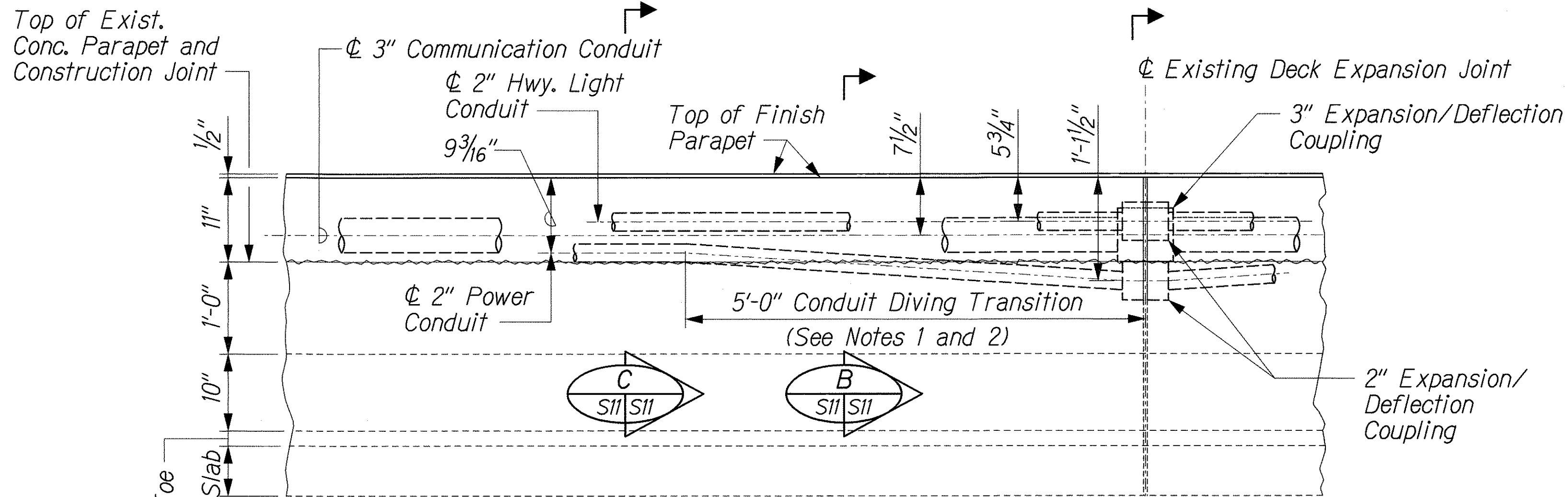
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS - 2

INTERSTATE ROUTE H-1 REHABILITATION
EASTBOUND LANES
WAI'AU INTERCHANGE TO KAIMAKANI STREET

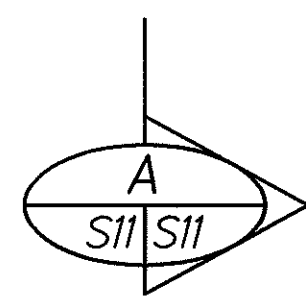
Scale: As Shown Date: Jan. 24, 2006

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(245)	2005	116	183



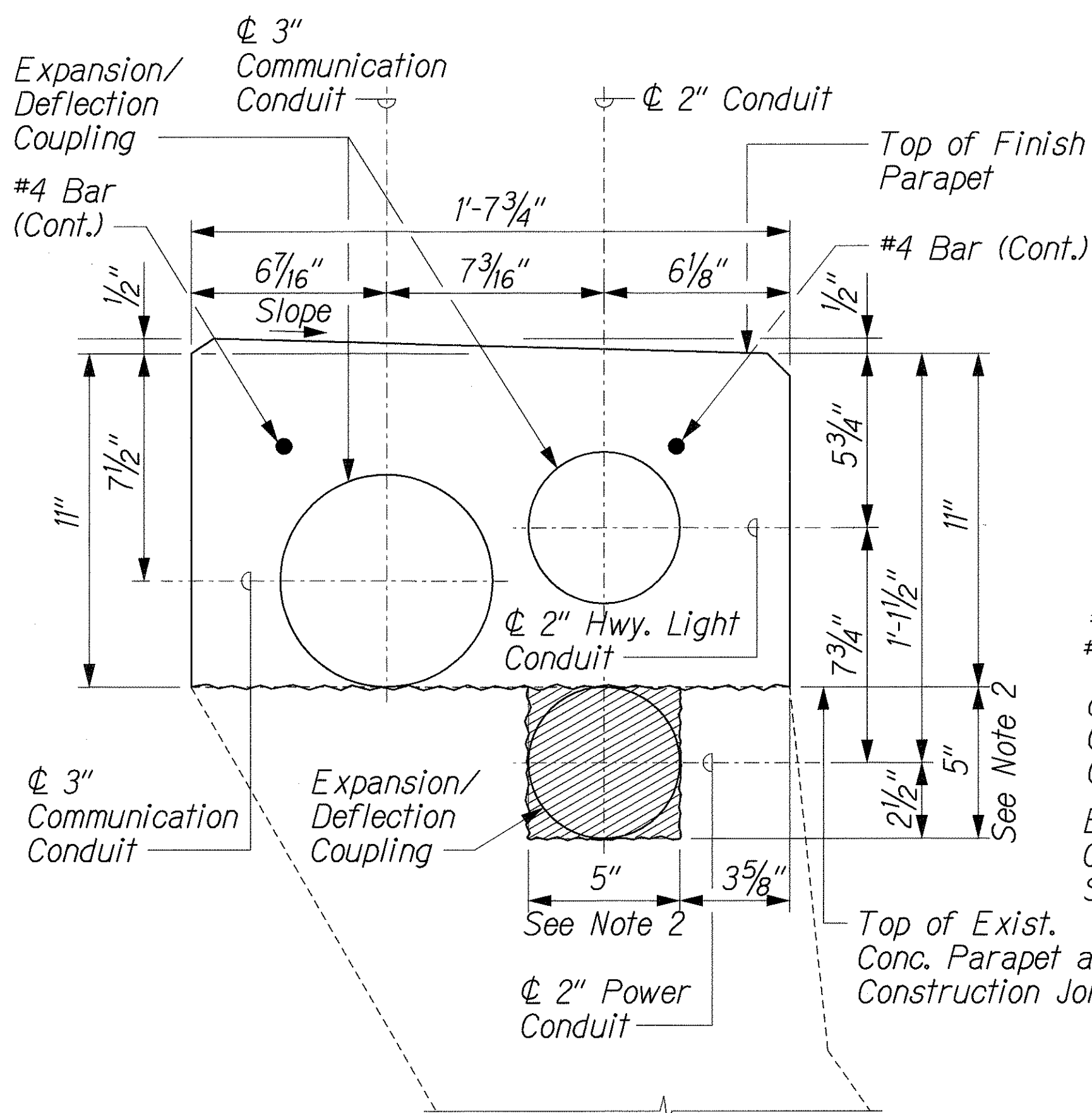
CONDUITS IN PARAPET ELEVATION AT BRIDGE

Scale: 1" = 1'-0"



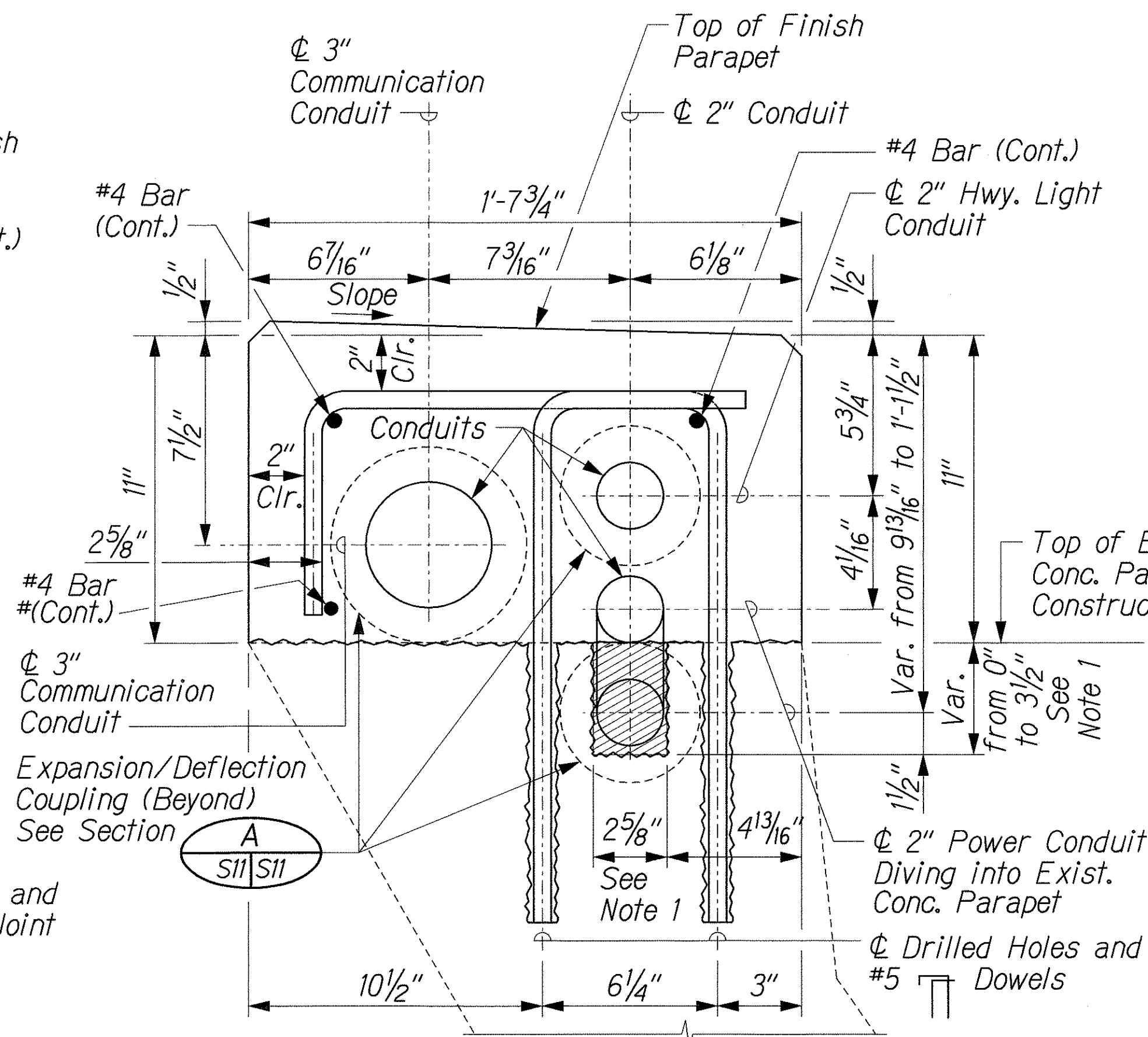
NOTES:

- For construction at the diving transition area of 2" power conduit, the Contractor shall chip a 2 5/8" wide diving trench in the existing concrete parapet for conduit placement. Expose the existing rebar in the conduit trench. Do not cut the exposed highway light conduit, if any. Cut portion of the horizontal legs of the existing parapet rebar which interferes with the placement of the diving 2" power conduit. Place the 2" power conduit as shown and drill dowel holes and install the #5 dowels with spacing as shown. Construct the concrete railing upgrade and fill the trench.
- For construction at the expansion/deflection coupling area of 2" power conduit, the Contractor shall chip a 5" wide by 5" deep trench in the existing concrete parapet for coupling placement. Expose the existing rebar in the conduit trench. Do not cut the exposed highway light conduit, if any. Cut portion of the horizontal legs of the existing parapet rebar which interferes with the placement of the coupling. Place the expansion/deflection coupling as shown. Construct the concrete railing upgrade and fill the trench.
- Adjust the locations of conduits to avoid the existing highway light standard without interruption of conduit placement.



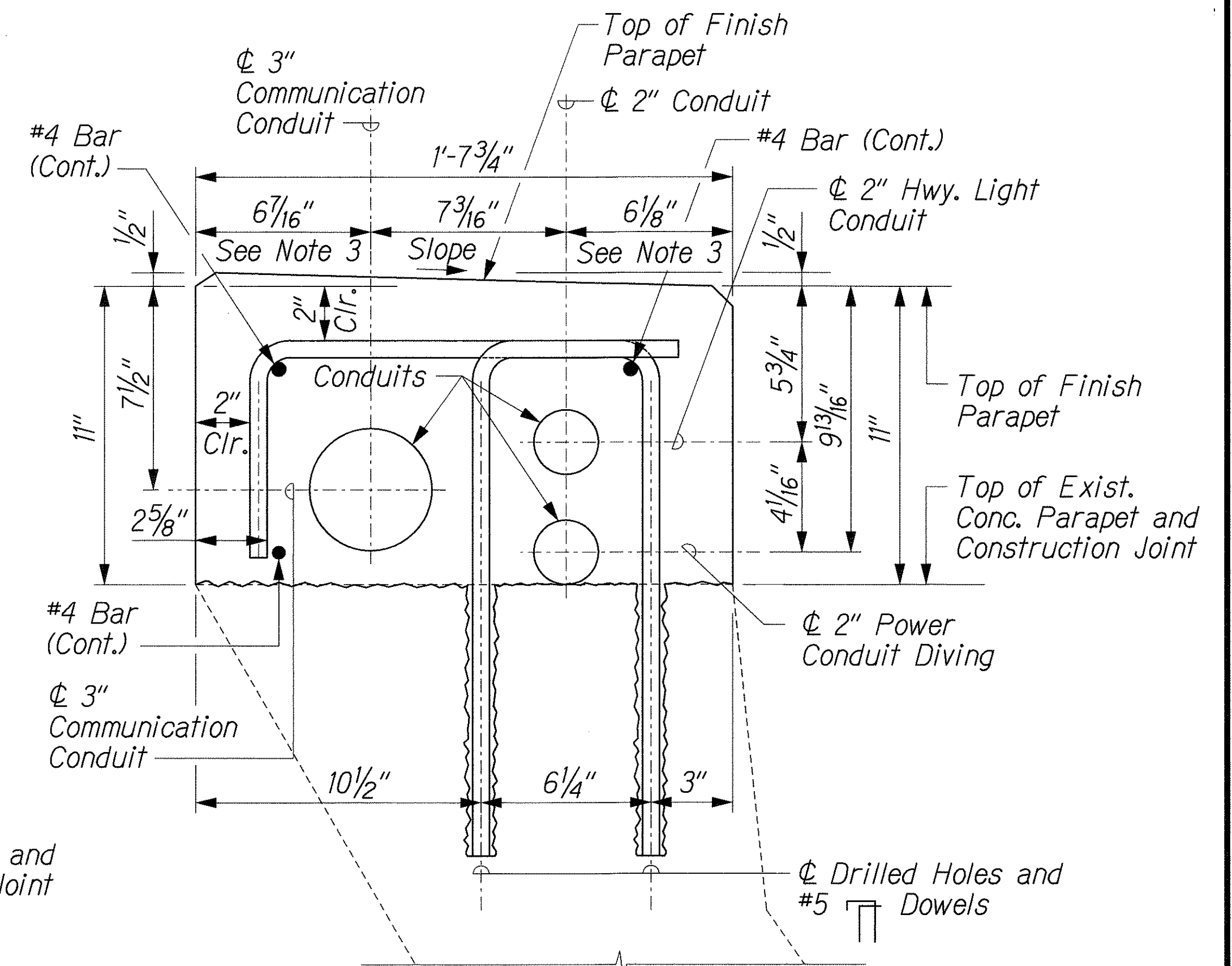
SECTION A

Scale: 3" = 1'-0"



SECTION B

Scale: 3" = 1'-0"



SECTION C

Scale: 3" = 1'-0"

S11, S12

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
QUANTITIES BY	_____
TRACED BY	_____
DRAWN BY	_____
ORIGINAL PLAN	_____

16 COE HI-REHAB/STRUCT/ST-DET11.dgn

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Hui Pang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

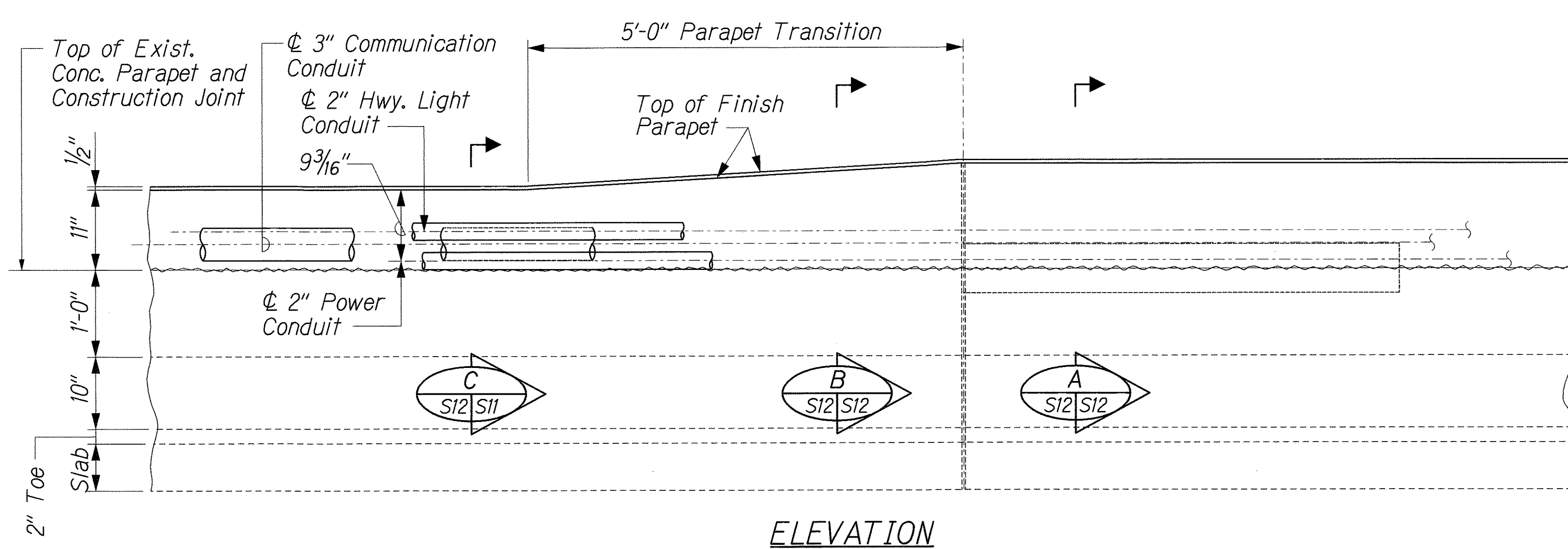
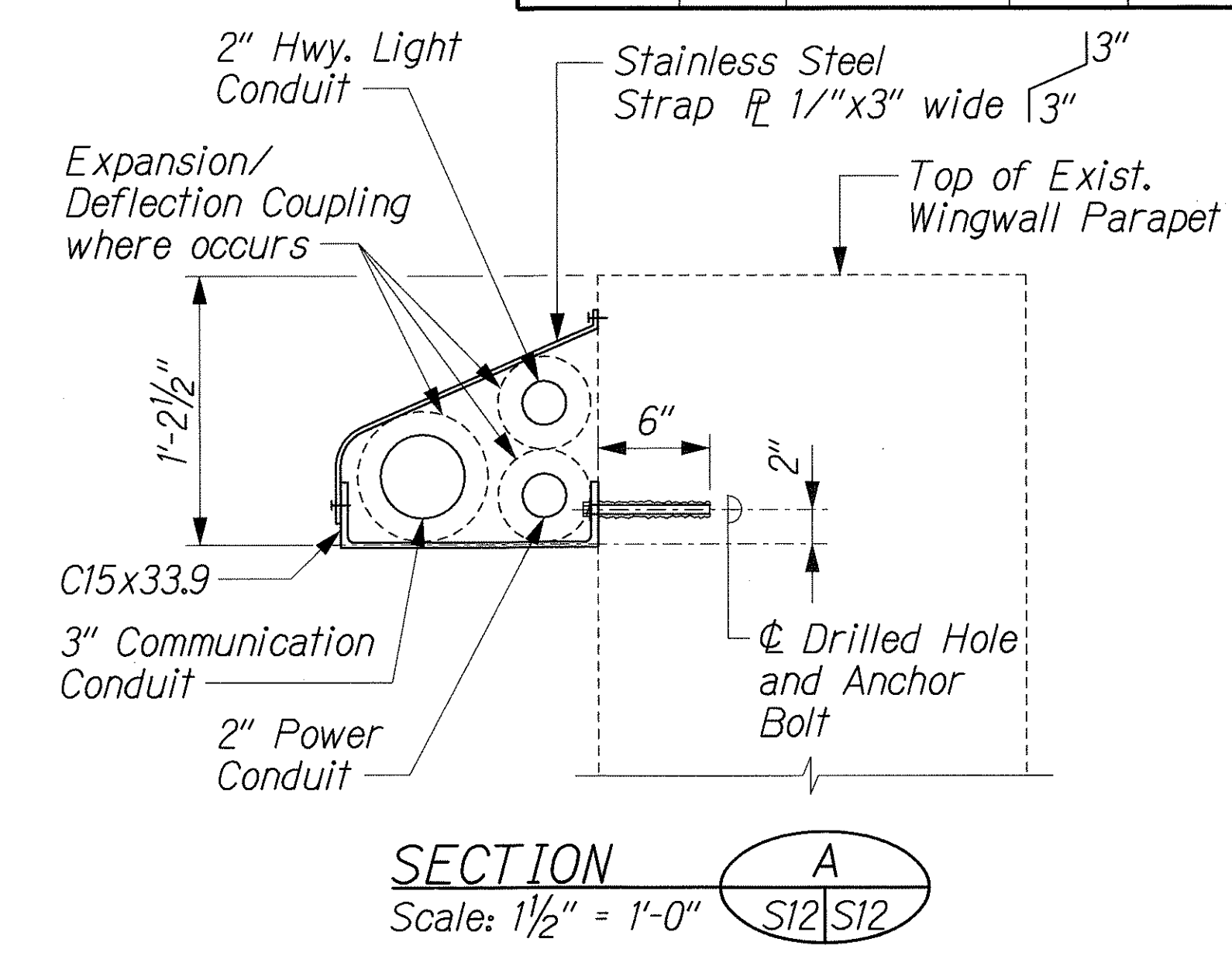
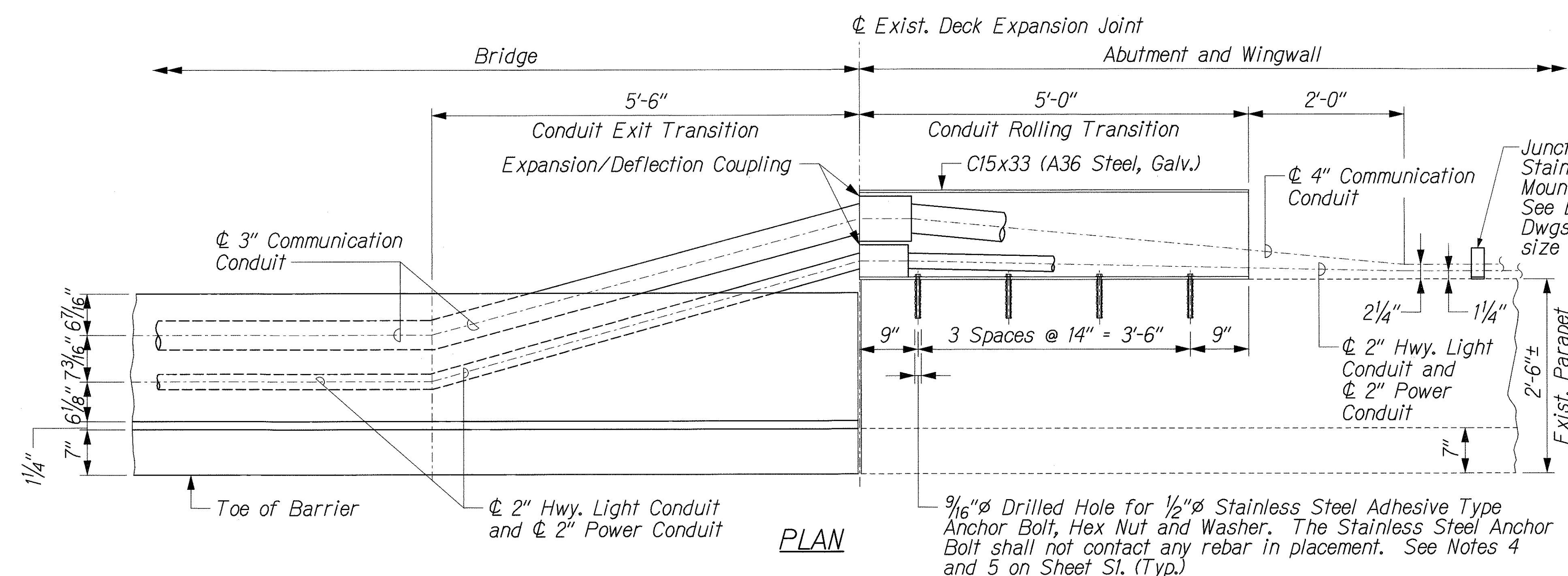
MISCELLANEOUS DETAILS - 3

INTERSTATE ROUTE H-1 REHABILITATION
EASTBOUND LANES
WAI'AU INTERCHANGE TO KAIMAKANI STREET

Scale: As Shown Date: Jan. 24, 2006

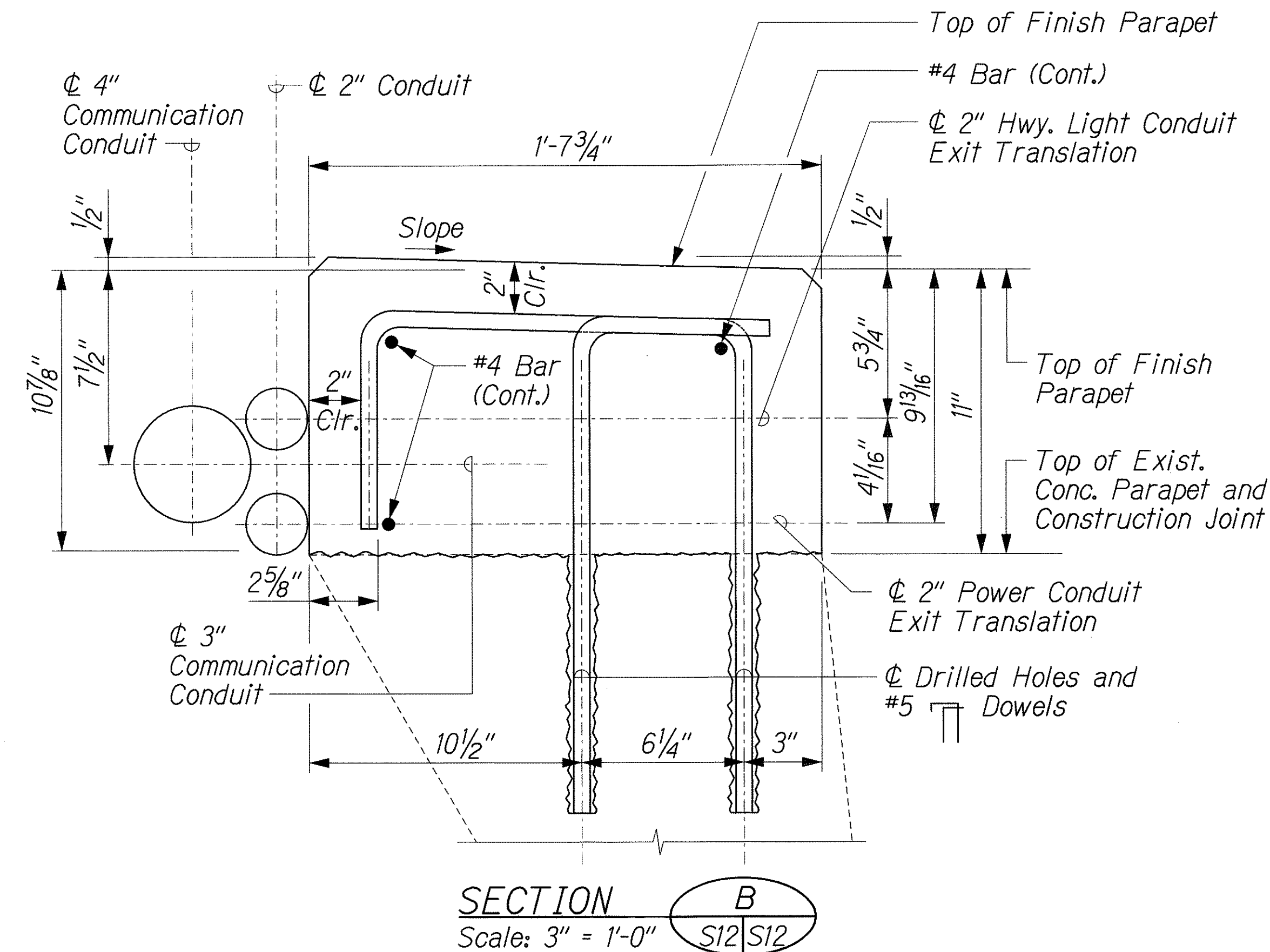
SHEET No. S11 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(245)	2005	117	183



CONDUITS IN PARAPET ELEVATION AT ABUTMENT AND WINGWALL

Scale: 1" = 1'-0"



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
N.	DESIGNED BY	
	CHECKED BY	

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No. 3865-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS - 4

INTERSTATE ROUTE H-1 REHABILITATION
EASTBOUND LANES
WAI'AU INTERCHANGE TO KAIMAKANI STREET

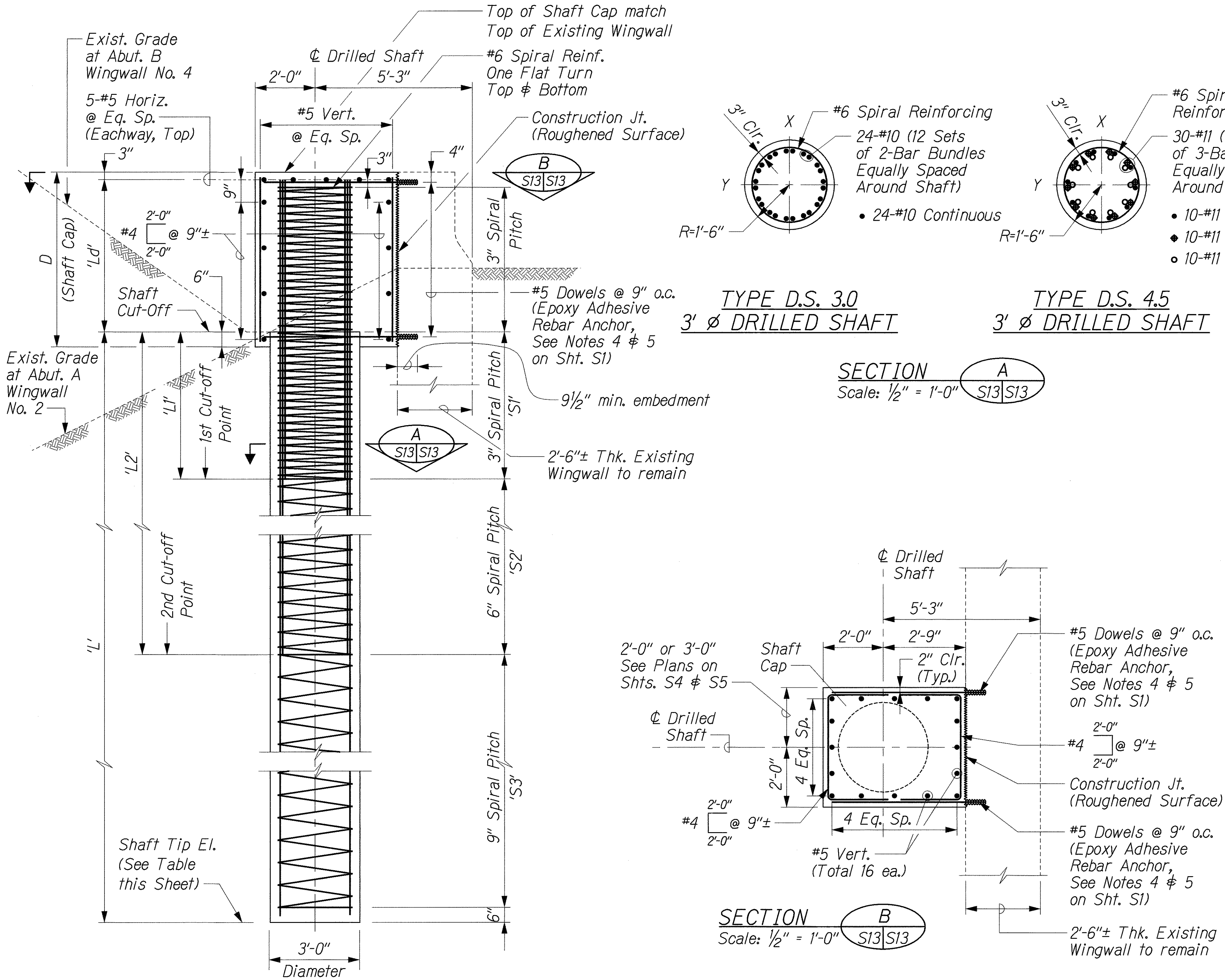
Scale: As Shown Date: Jan. 24, 2006

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-K(245)	2005	118	183

NOTES:

- Materials:
A) Concrete shall be $f'c = 4500$ psi strength at 28 days in place.
B) Reinforcing steel shall be ASTM A 615 Grade 60.
- Spiral Reinforcement:
A) Lap splice length for #6 spiral reinforcement shall be 3'-0".
B) Spiral may be discontinuous at pile cap reinforcement to allow for placing pile cap reinforcement. The discontinuous spirals shall be terminated with a 135 degree hook around the vertical reinforcement.
- Minimum vertical reinforcement at the tip of shaft shall be the cut-off reinforcement as shown.
- Provide sizing hoops as a guide for fabrication of the rebar cage.
- Provide temporary stiffeners to strengthen the rebar cage during lifting. Stiffeners shall be removed prior to concrete placement.
- The rebar cage shall be fabricated and stored so as to avoid distortion during transportation to the job site and to avoid contamination with mud or other deleterious material.
- For all drilled shafts, the Contractor shall control the required drilled hole size within the specified construction tolerance. Provide temporary steel casing to control the upper drilled hole size and keep hole from collapsing. The inside diameter of steel casing shall be at least 36 inches.
- Provide concrete or other non-corrosive centering devices, as a guide for the placement of the rebar cage in the drilled hole.
- For slump of concrete, see Special Provisions.
- Slurry may be used to contain the drilled hole from collapsing during construction. See Special Provisions.
- Placement of concrete shall be by use of tremie or pump line displacing concrete from the bottom of hole upward until a gray color of concrete with minimum strength of 4,500 psi appears at the top of hole.
- The Contractor shall protect the nearby properties from damage during construction of drilled shafts.
- Install debris and muck barrier before starting drilled shaft construction.
- There may be weathered rock encountered during shaft drilling at Wingwalls No. 2 and 4. The Contractor shall provide equipment capable to core the encountered weathered rock. See reference boring log sheets.

Location	Drilled Shaft Type	D	Ld	L	L1 (ft)	L2 (ft)	S1 (ft)	S2 (ft)	S3	Estimated Shaft Tip El.
Abut. B (Koko Head Abut.) Wingwall No. 4	3'-0" Diameter Shaft Type D.S. 3.0	3'-9"	3'-0"	8'-0"	8	-	8	-	N/A	73.45
Abut. A (Ewa Abut.) Wingwall No. 2	3'-0" Diameter Shaft Type D.S. 4.5	5'-10"	5'-1"	40'-0"	28	35	28	7	balance	0.86



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS - 5

INTERSTATE ROUTE H-1 REHABILITATION
EASTBOUND LANES
WAI'AU INTERCHANGE TO KAIMAKANI STREET
Scale: As Shown Date: Jan. 24, 2006

SHEET No. S13 OF 14 SHEETS

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118

