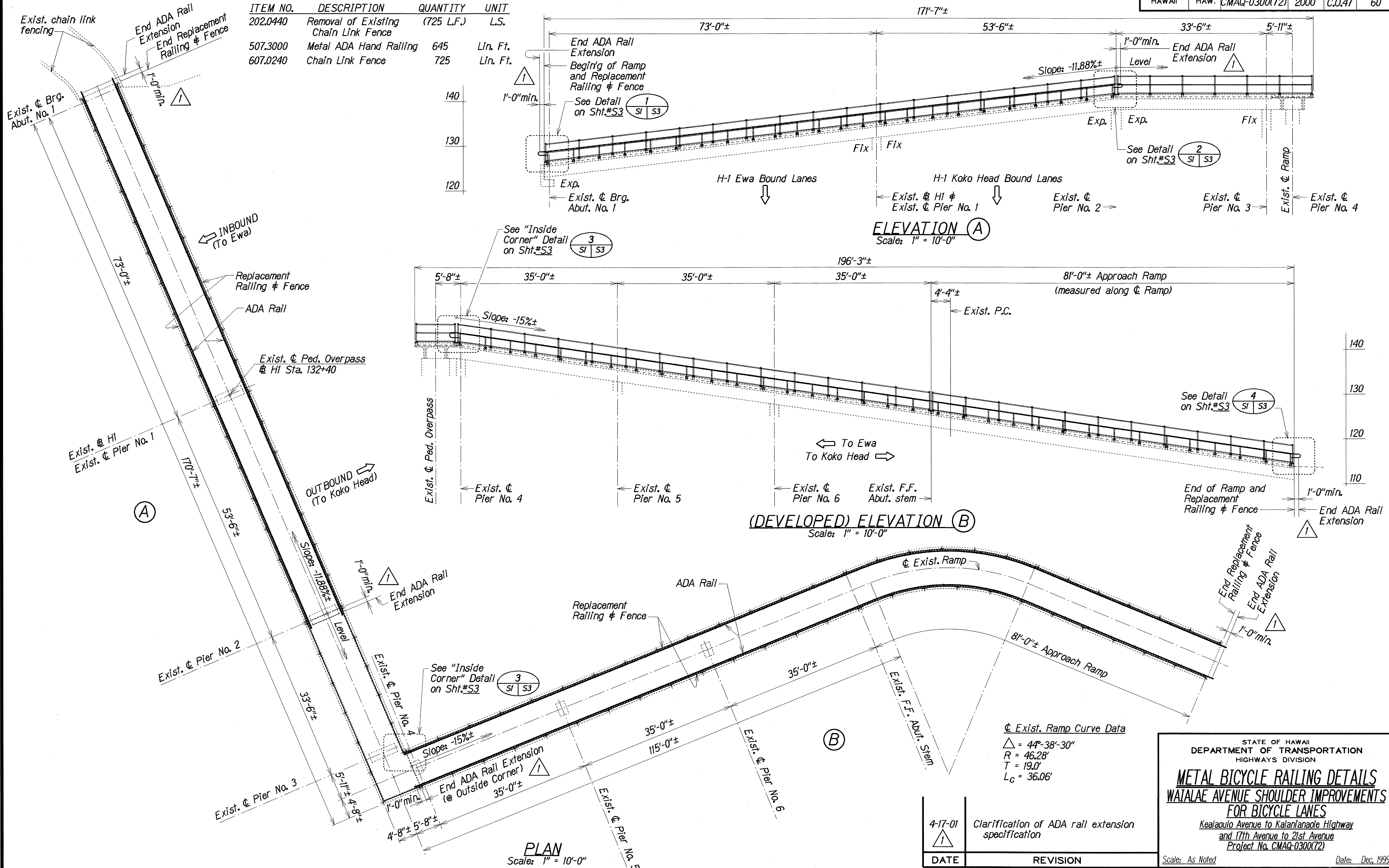


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(72)	2000	C.O.47	60

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.0440	Removal of Existing Chain Link Fence	(725 L.F.)	LS.
507.3000	Metal ADA Hand Railing	645	Lin. Ft.
607.0240	Chain Link Fence	725	Lin. Ft.



ORIGINAL PLAN	DATE	DEC 1999
DESIGNED BY	DATE	DEC 1999
DRAWN BY	DATE	DEC 1999
CHECKED BY	DATE	DEC 1999
APPROVED BY	DATE	DEC 1999

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**METAL BICYCLE RAILING DETAILS
FOR BICYCLE LANES**

Kealaolu Avenue to Kalanianaʻole Highway
and 17th Avenue to 21st Avenue
Project No. CMAQ-0300(72)

4-17-01
Clarification of ADA rail extension
specification

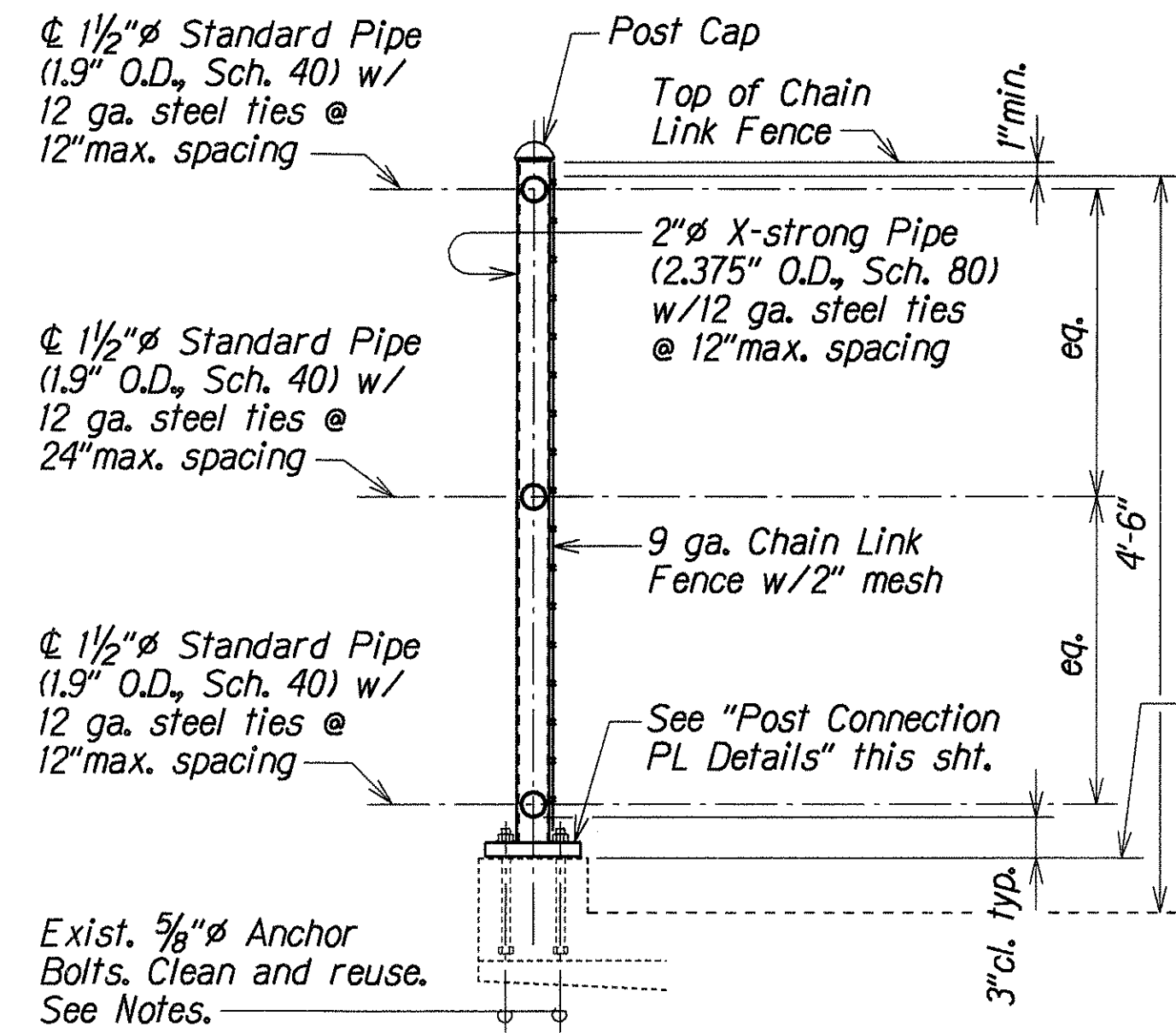
DATE

REVISION

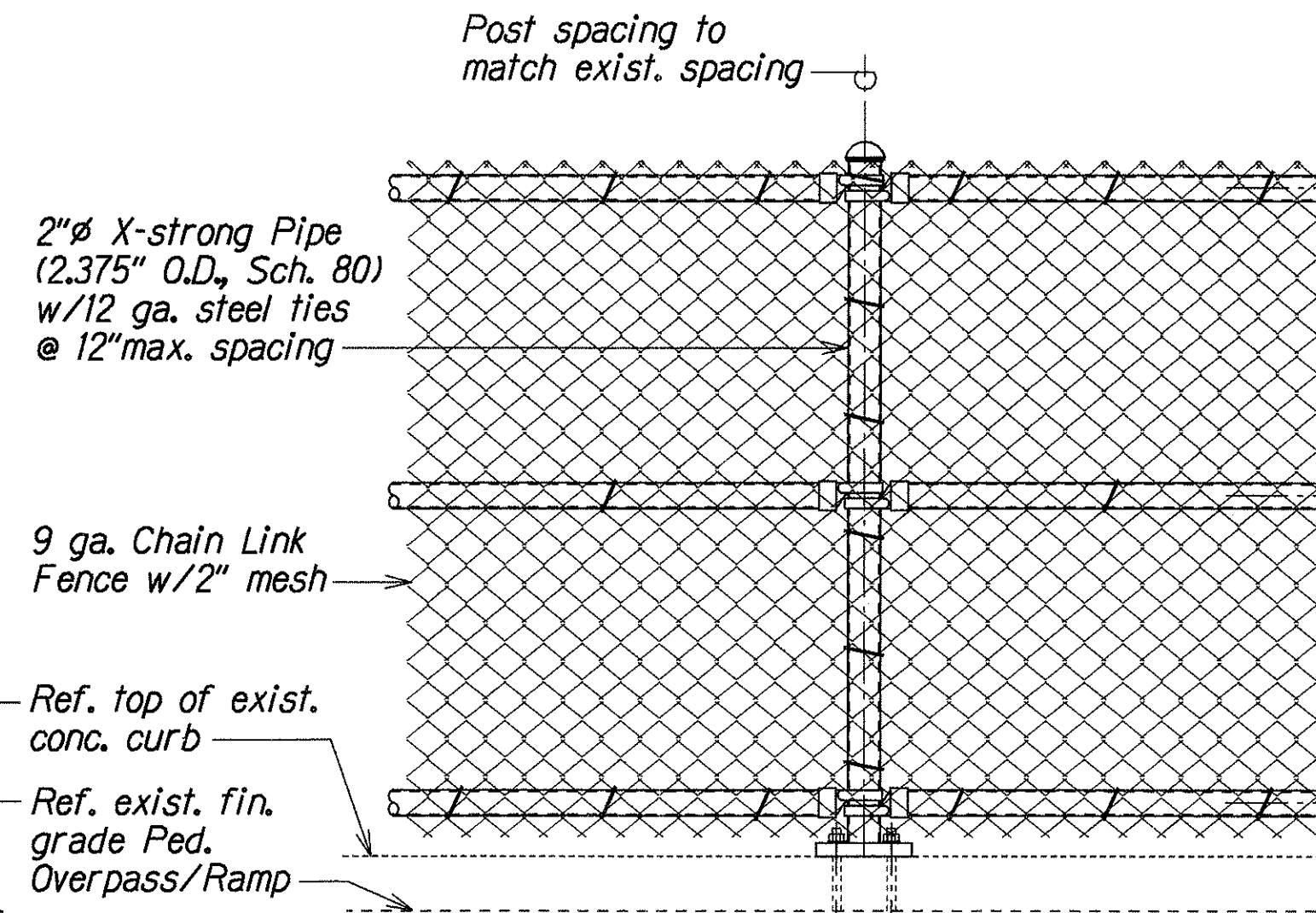
Scale: As Noted

Date: Dec. 1999

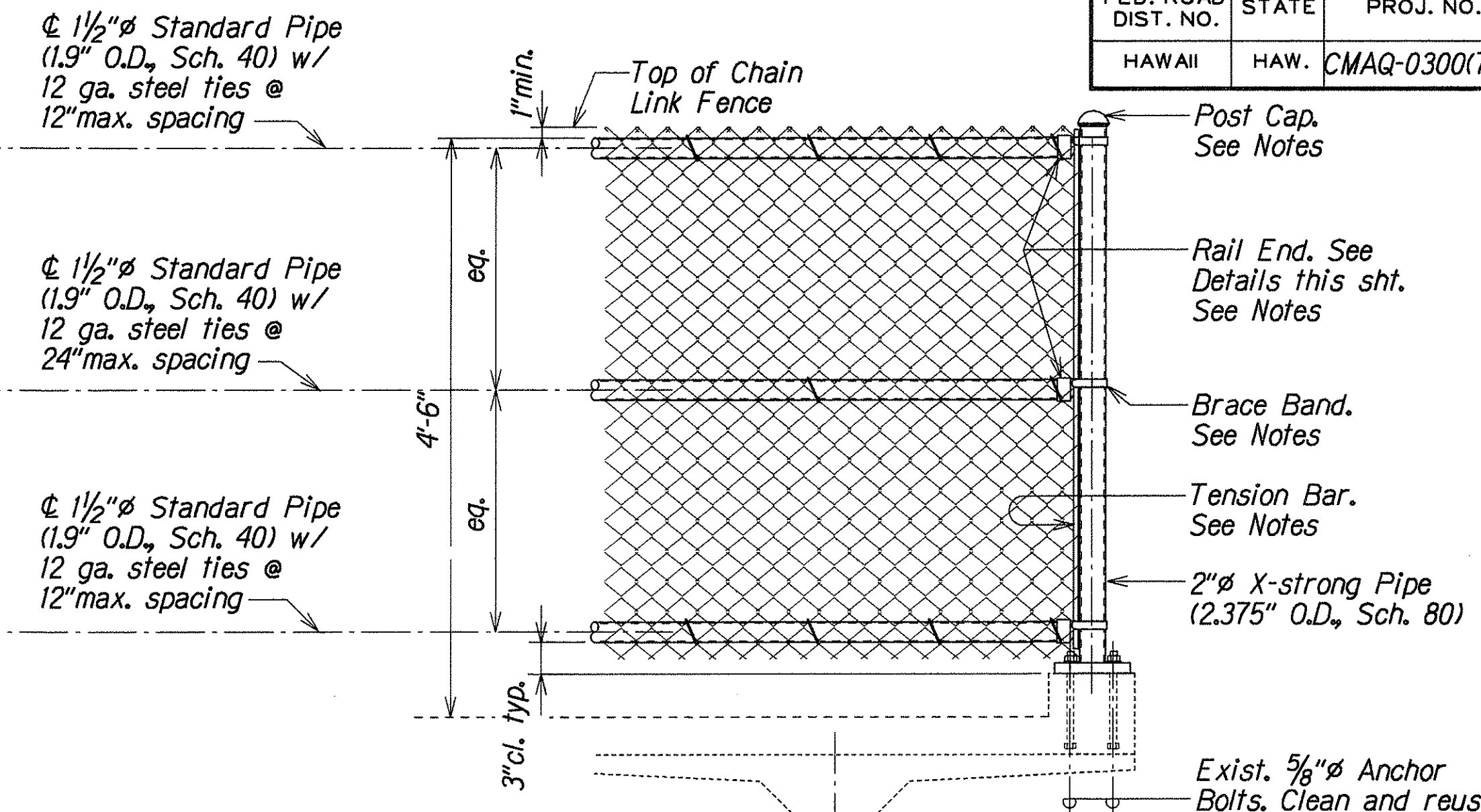
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(72)	2000	48	60



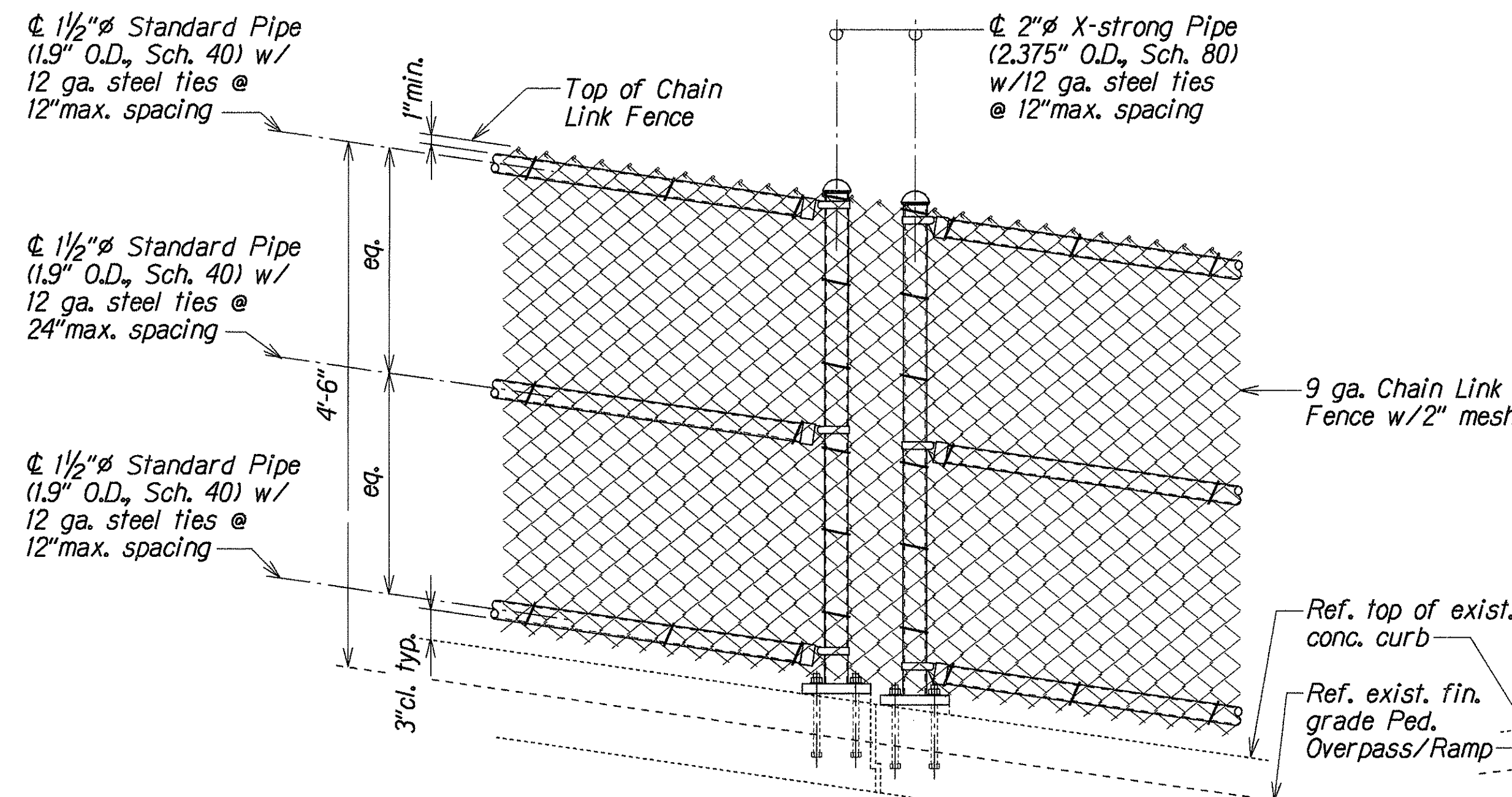
TYPICAL SECTION THRU FENCING
Scale: 1" = 1'-0"



NORMAL ELEVATION
Scale: 1" = 1'-0"

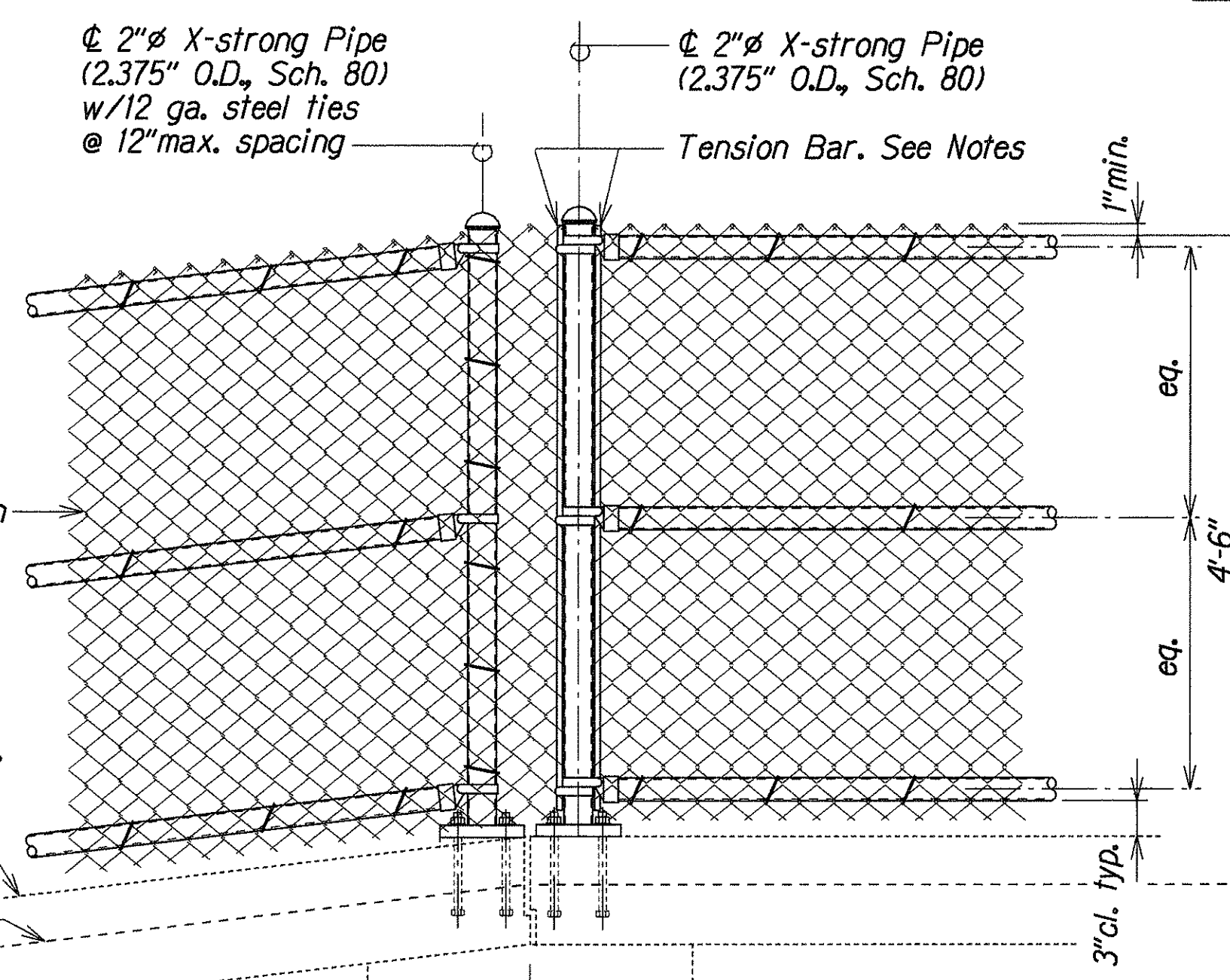


ELEVATION AT CORNERS AND NON-CONTINUOUS ENDS
Scale: 1" = 1'-0"

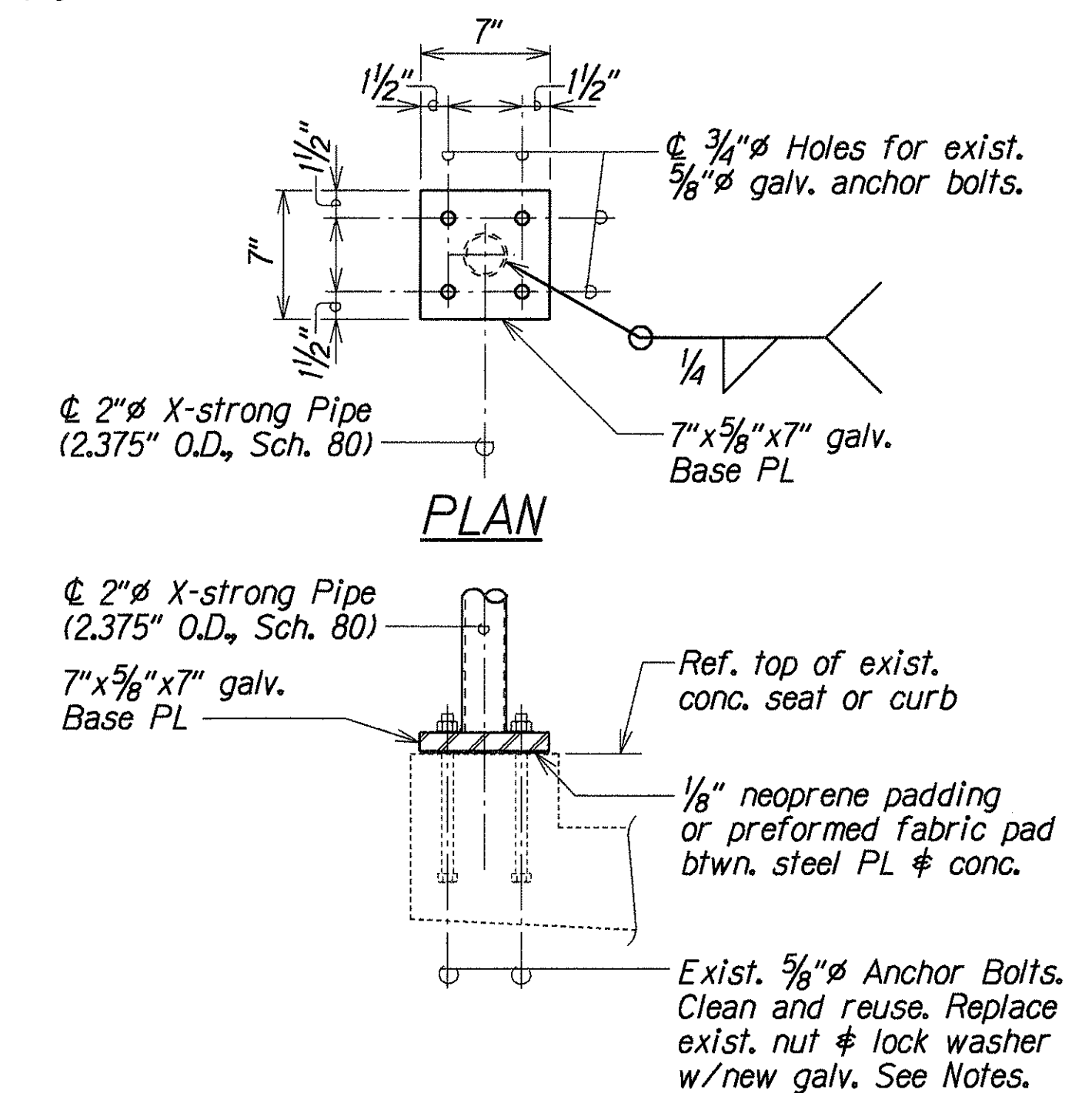


INTERMEDIATE

ELEVATIONS AT EXPANSION JOINTS
Scale: 1" = 1'-0"



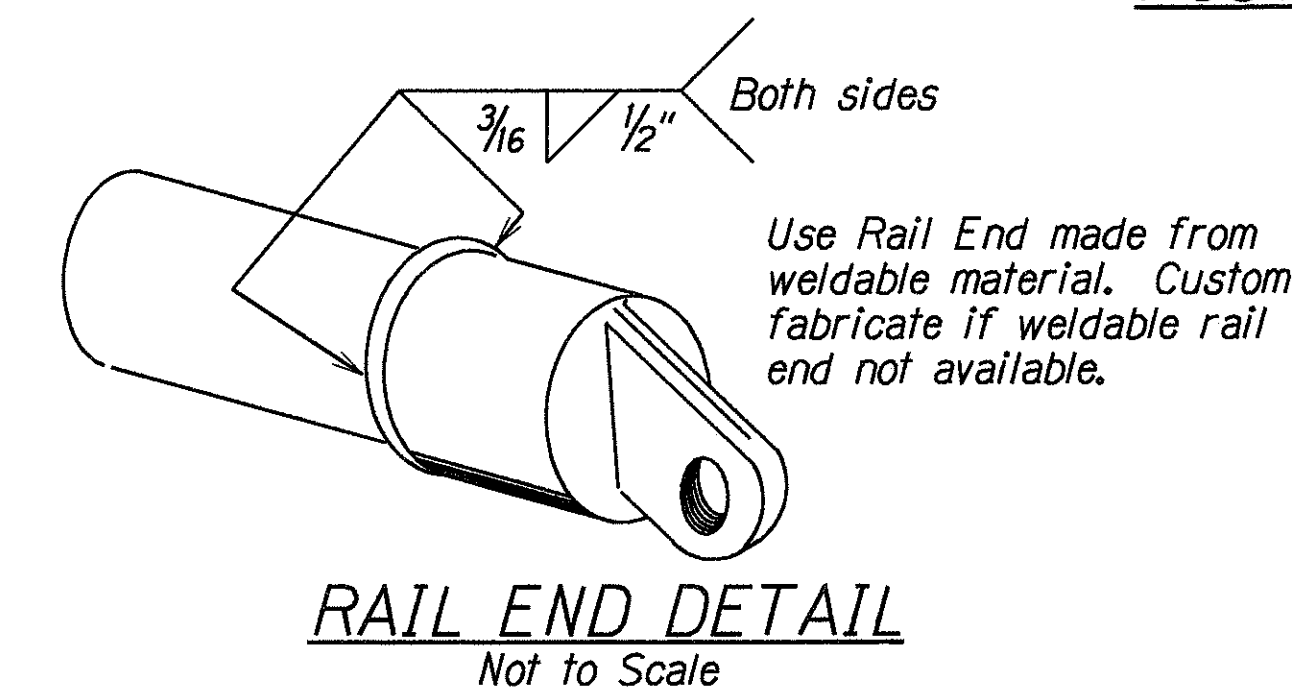
AT TOP OF RAMP



POST CONNECTION PL DETAILS
Scale: 1 1/2" = 1'-0"

NOTES:

- All dimensions shall be verified in the field by the Contractor before proceeding with work.
- Chain Link Fencing, tie wires, bars and accessories to be galvanized. Dab cut ends with cold galvanize.
- All fittings and accessories to conform to ASTM F 626.
- Posts and rails shall be hot-dip galvanized after fabrication. Posts and rails shall conform to ASTM A 53, Type E, Grade B.
- Meet or exceed the requirements of ASTM F 567--Standard Practice for Installation of Chain Link Fence.
- The existing conduit on the fence shall be removed and replaced on the new fence. The conduit shall be attached to a horizontal pipe member. This work shall be incidental to the Chain Link Fence.
- The Contractor shall use the existing anchor bolts where possible. The Engineer shall determine which anchor bolts are not acceptable. The Contractor shall remove and replace them with a 5/8-inch galvanized anchor bolts embedded a minimum of 7" into the concrete with epoxy. The epoxy shall be acceptable to the Engineer. This work shall be incidental to the Chain Link Fence.
- The Contractor shall avoid dropping any debris or other items on the roadway below. All necessary precautionary measures shall be considered incidental to the Chain Link Fence. Any damage or injuries caused by falling materials shall be the responsibility of the Contractor.



RAIL END DETAIL
Not to Scale

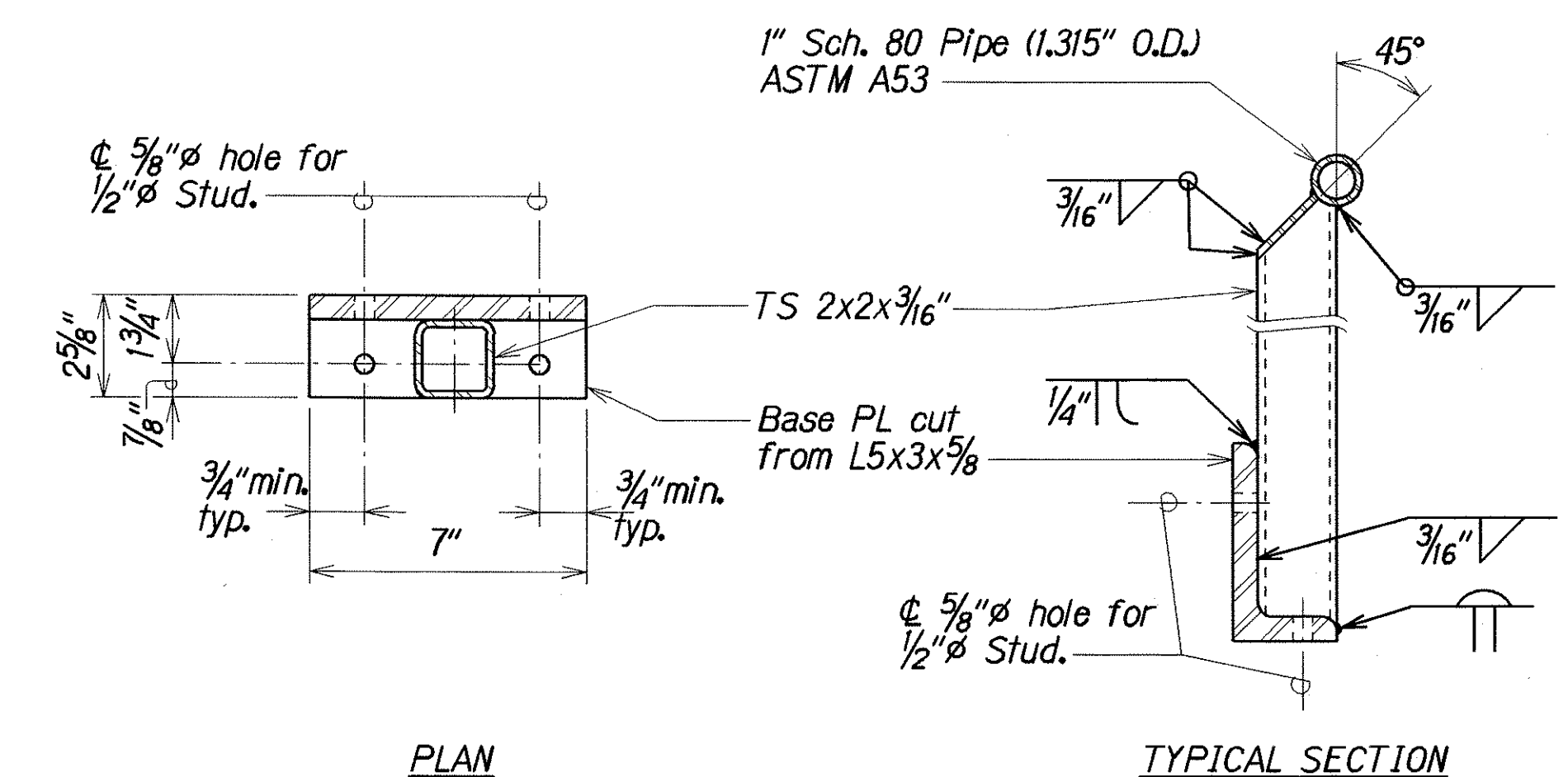
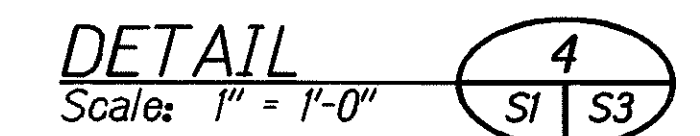
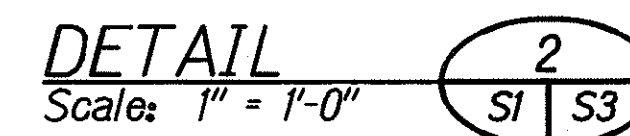
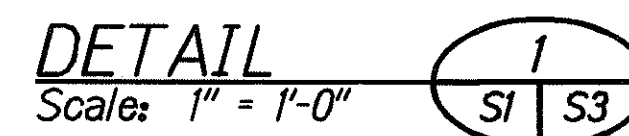
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

METAL BICYCLE RAILING DETAILS
WAILAE AVENUE SHOULDER IMPROVEMENTS
Kealaolu Avenue to Kalanianaʻole Highway
and 17th Avenue to 21st Avenue
Project No. CMAQ-003(72)

Scale: As Noted Date: Dec, 1999

SHEET No. S2 OF 3 SHEETS

TYPICAL SECTION THRU ADA RAIL
Scale: 1" = 1'-0"



TYPICAL SECTION

SECTION A
Scale: 1" = 1'-0" S3 | S3

ADA RAIL POST CONNECTION DETAILS
Scale: $1\frac{1}{2}" = 1'-0"$

4-16-01 	Clarification of ADA rail extension specification
DATE	REVISION

Scale: As Noted Date: Dec. 1999