

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(206)	1987	13	40

DRAINAGE SUMMARY

ITEM NO.		206.	603.	604.	604.	604.	609.	640.
		2020	2085	5010	5011	5020	2614	0102
UNIT USED		C.Y.	L.F.	EA	EA	EA	L.F.	L.F.
STRUCTURE	STATION	Structure Excavation for Drainage System	24-Inch Corrugated Steel Pipe, sht. t = 0.109" or 24-Inch Spiral Rib Steel Pipe, sht. t = 0.109" or 24-Inch Corrugated Alum. Pipe, sht. t = 0.075" or 24-Inch Spiral Alum. Pipe, sht. t = 0.075"	Type "ARJ" Catch Basin 4.00 Feet to 6.00 Feet	Type "ALJ" Catch Basin 4.00 Feet to 6.00 Feet	Concrete Drop Inlet 5.00 Feet to 6.00 Feet	Gutter, Type 2(61614)	1.0 Feet x 2.0 Feet (ss 1/1) Lined Trapezoidal Drainage Ditch
Type 2-61614 Gutter	H21.B. Sta. 449+02 o/s 11' Lt. to H21.B. Sta. 457+62 o/s 10' Lt.						860	
1.0 Feet x 2.0 Feet (ss 1/1) Lined Trap. Drainage Ditch	H21.B. Sta. 470+69.5 Lt. to H21.B. Sta. 471+13 Lt.							44
Conc. Drop Inlet	H21B Sta 47+15 Lt.					1		
Type ARJ C.B.	H1 Sta 75+25 Lt.			1				
Type ARJ C.B.	H1 Sta 77+35 Lt.			1				
Type ARJ C.B.	H1 Sta 79+50 Lt.	174	212	1				
Type ALJ C.B.	H1 Sta 96+00 Lt.	121	148		1			
Type ALJ C.B.	H1 Sta 97+50 Lt.				1			
TOTAL		295	360	3	2	1	860	44

GENERAL NOTES

1. Existing drainage system will be functional at all times during construction. Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance of flow. The cost shall be incidental to the various contract items.
2. Demolishing and removing a portion or the entire existing structure shall not be paid for separately, but shall be considered incidental to the various contract items.
3. Contractor shall verify the locations of all culverts in the field. Any culvert damaged during construction shall be repaired or replaced by the Contractor at his expense.

ORIGINAL PLAN

NO.

SURVEY PLOTTED BY

DRAWN BY

TRACED BY

DESIGNED BY

CHECKED BY

DATE

3-31-87	Change Alum. Pipe Sht. Thickness Revise Quantities for Structure Excavation & 24" Culvert.
DATE	REVISIONS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

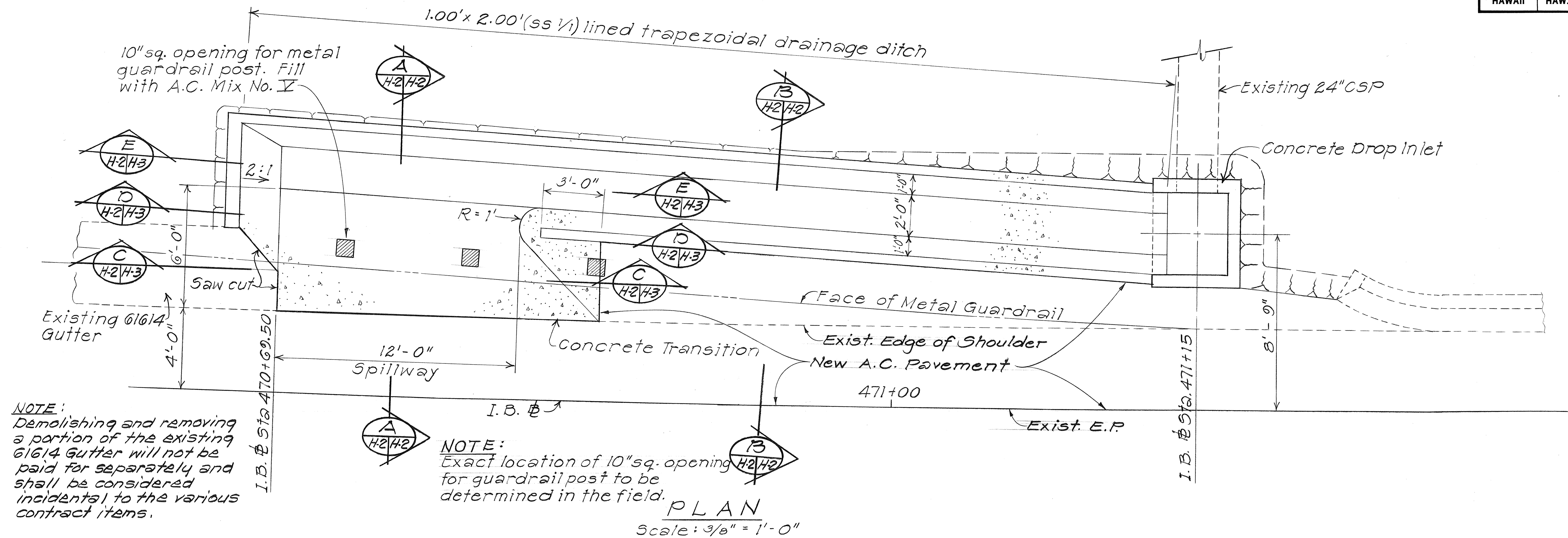
DRAINAGE DETAILS

INTERSTATE ROUTE H-1
ADDITIONAL LANES, PHASE II
F.A.I. Proj. No. IR-HI-1(206)

Scale: As Noted Date: Feb. 1987

SHEET No. H1 OF 6 SHEETS

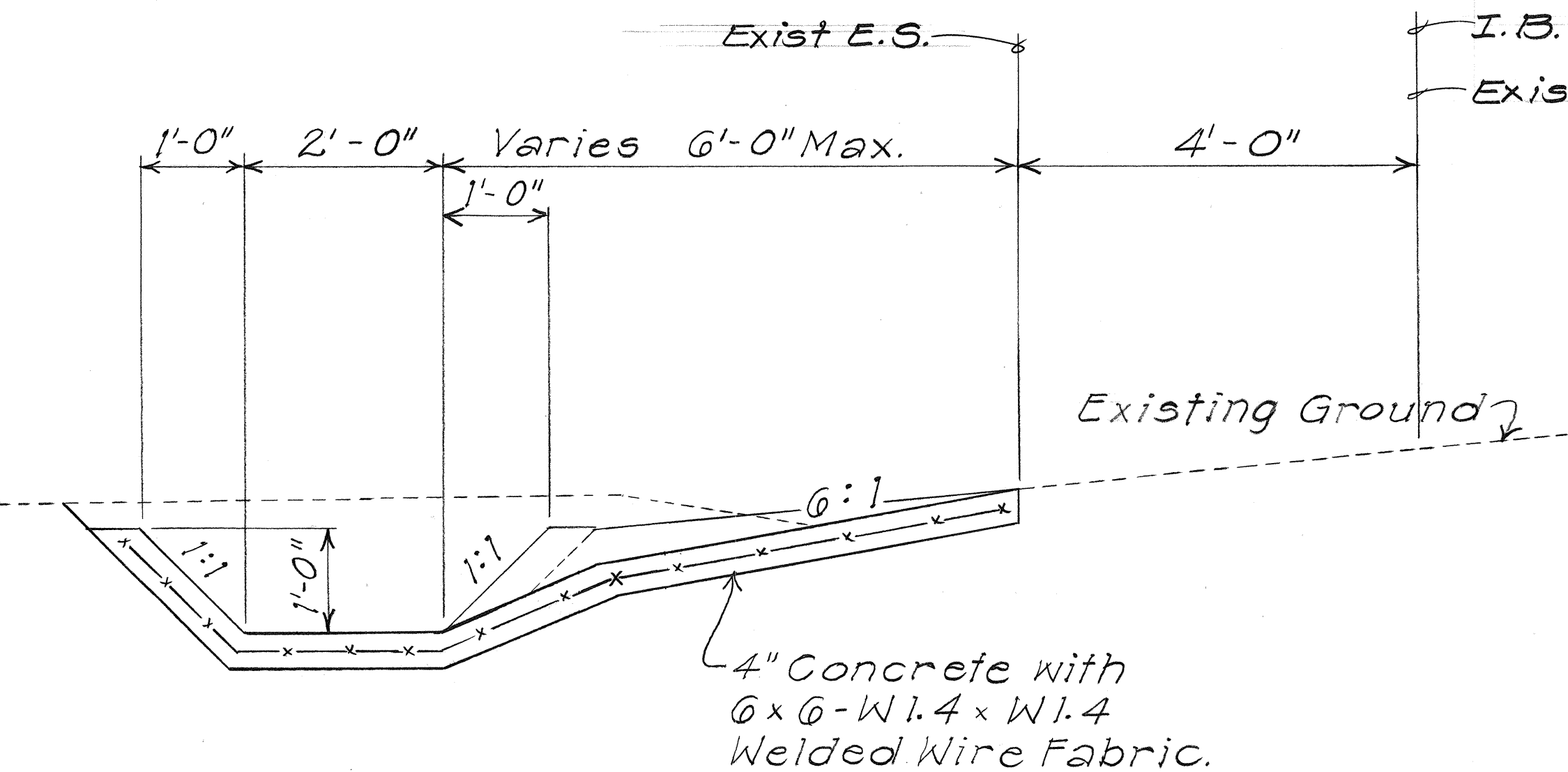
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(206)	1987	14	40



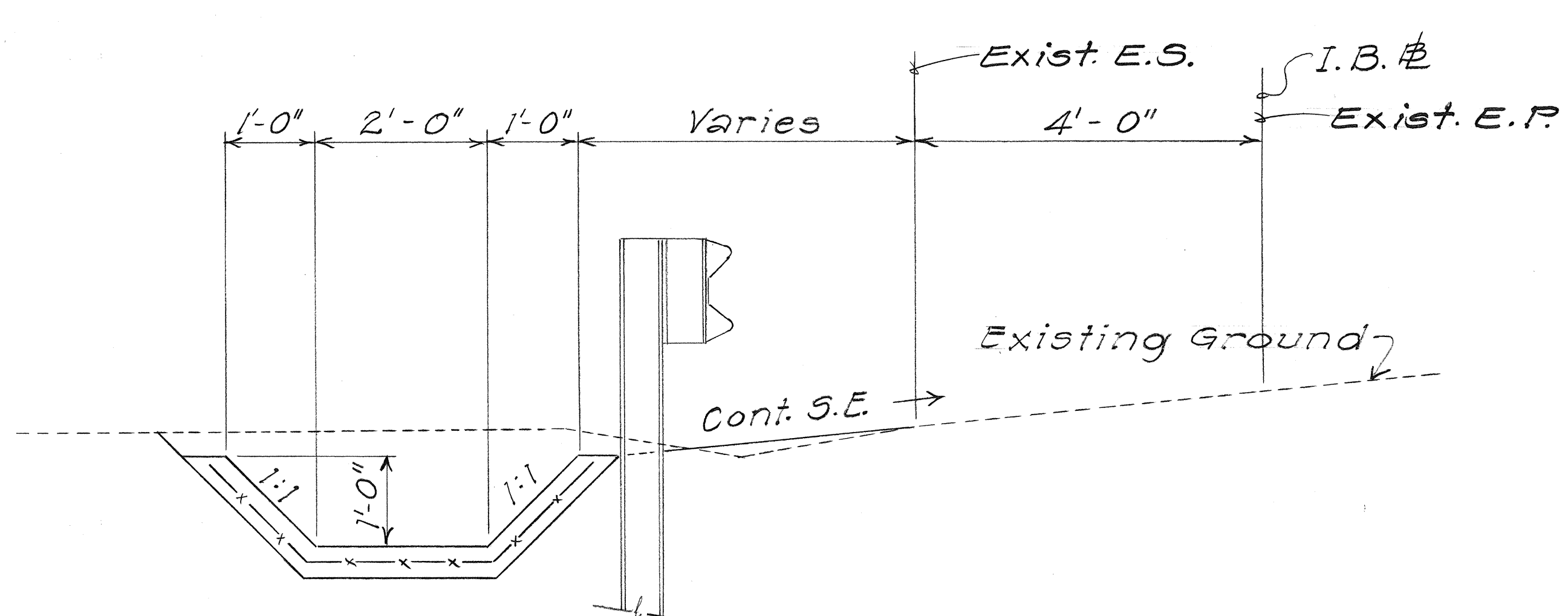
NOTE:
Demolishing and removing
a portion of the existing
61614 Gutter will not be
paid for separately and
shall be considered
incidental to the various
contract items.

NOTE:
Exact location of 10\"sq. opening
for guardrail post to be
determined in the field.

PLAN
Scale: 3/8" = 1'-0"



SECTION A
H-2/H-2



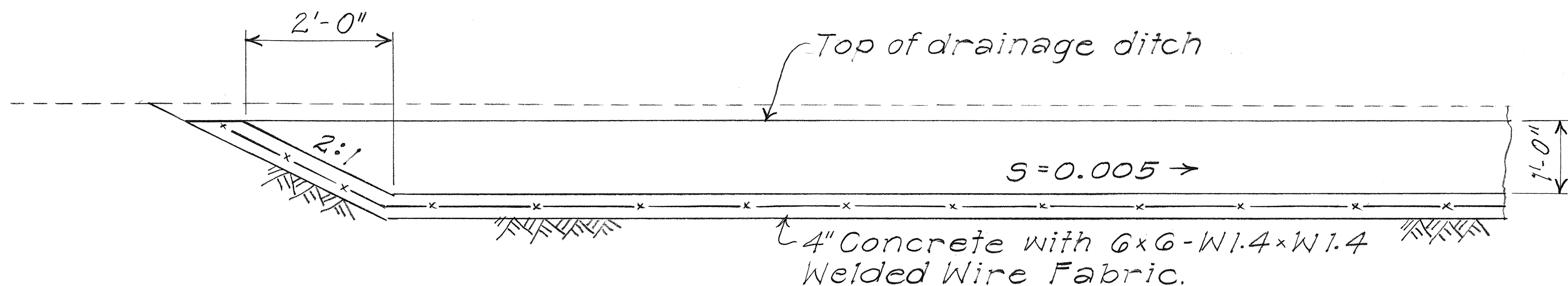
SECTION B
H-2/H-2

DETAIL OF LINED DRAINAGE DITCH AND SPILLWAY
Scale: 3/4" = 1'-0"

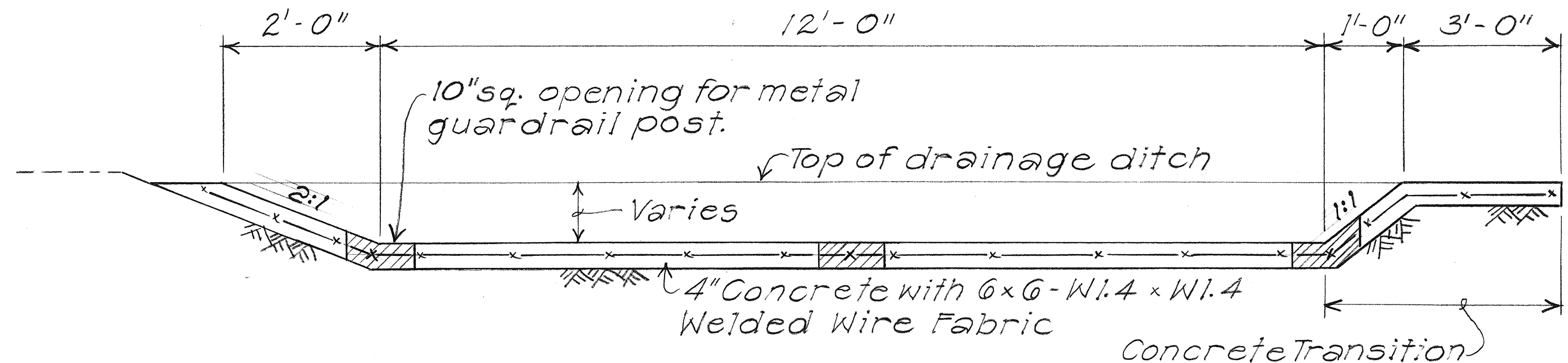
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE DETAILS
INTERSTATE ROUTE H-1
ADDITIONAL LANES, PHASE II
F.A.I. Proj. No. IR-HI-1(206)
Scale: As Noted Date: Feb. 1987
SHEET No. H2 OF 6 SHEETS

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

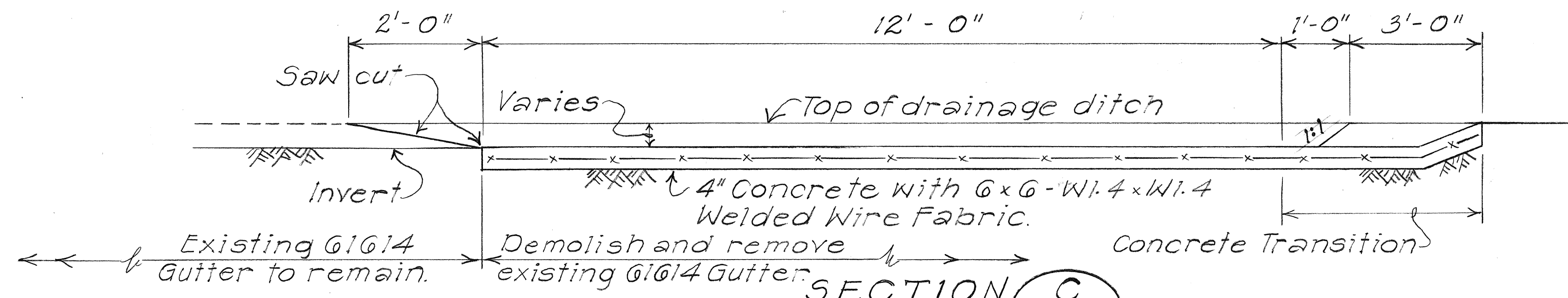
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(206)	1987	15	40



SECTION E
H-2/H-3

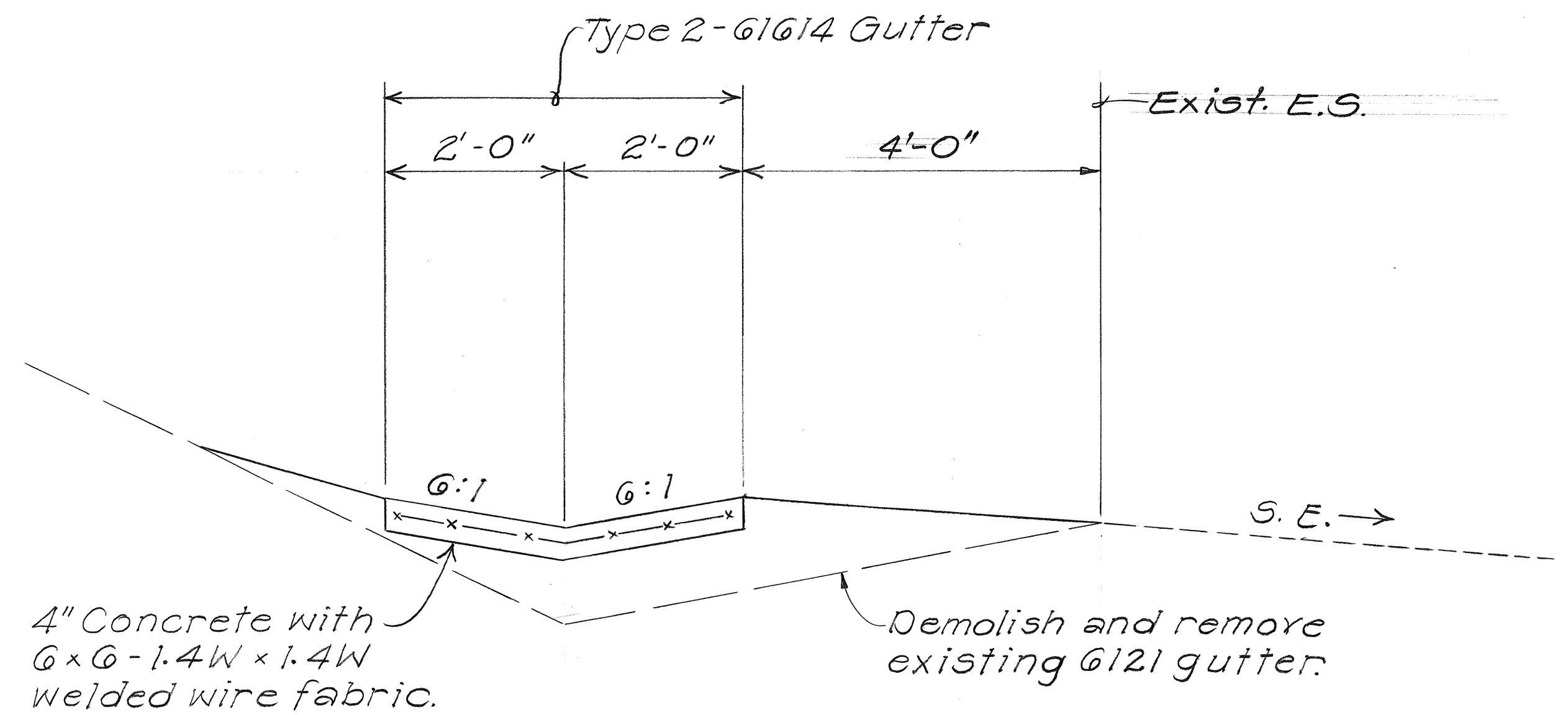


SECTION D
H-2/H-3

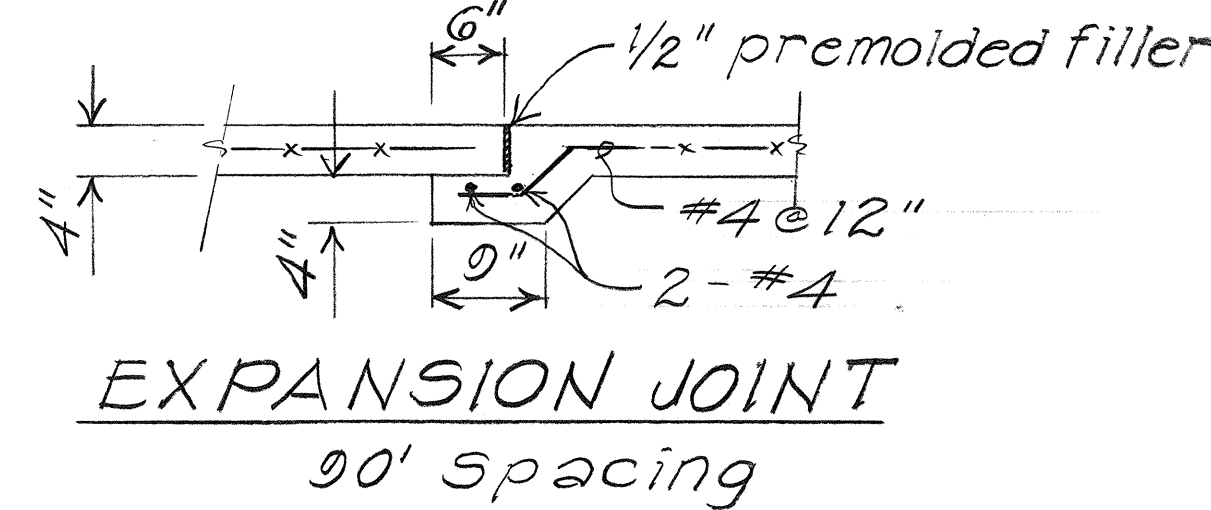
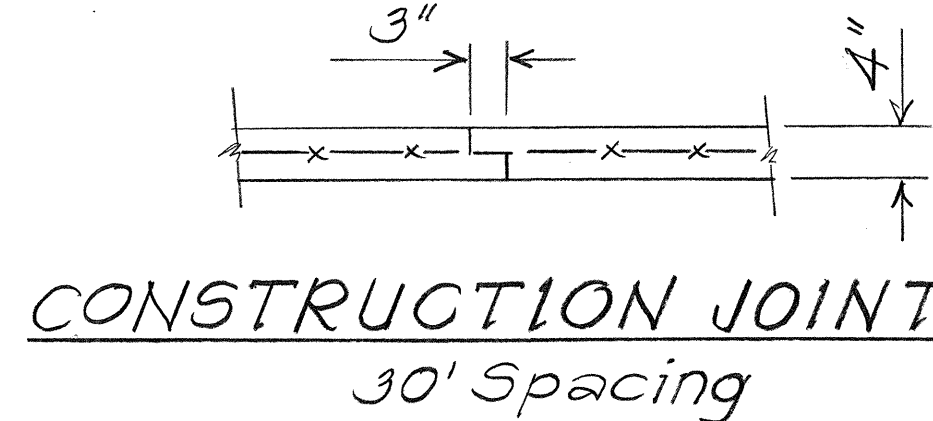


SECTION C
H-2/H-3

DETAIL OF LINED DRAINAGE DITCH AND SPILLWAY
Scale: 3/4" = 1'-0"



TYPICAL SECTION



TYPE 2 - G1614 GUTTER DETAIL

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

NOTE:
Provide 10' Transition to Existing Concrete Drop Inlet at H-2 I.B. Sta. 457+02 1/2 10' Lt.

ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
NO.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

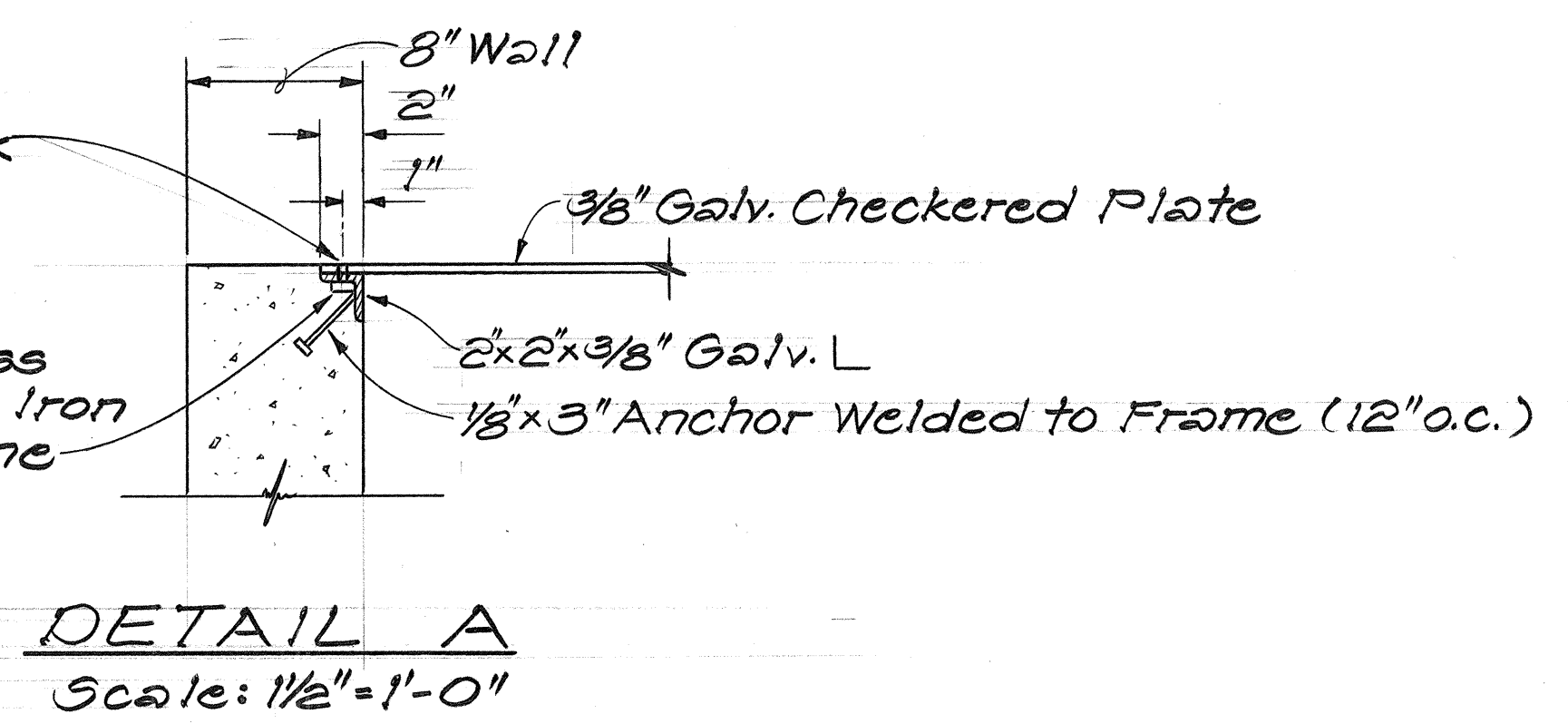
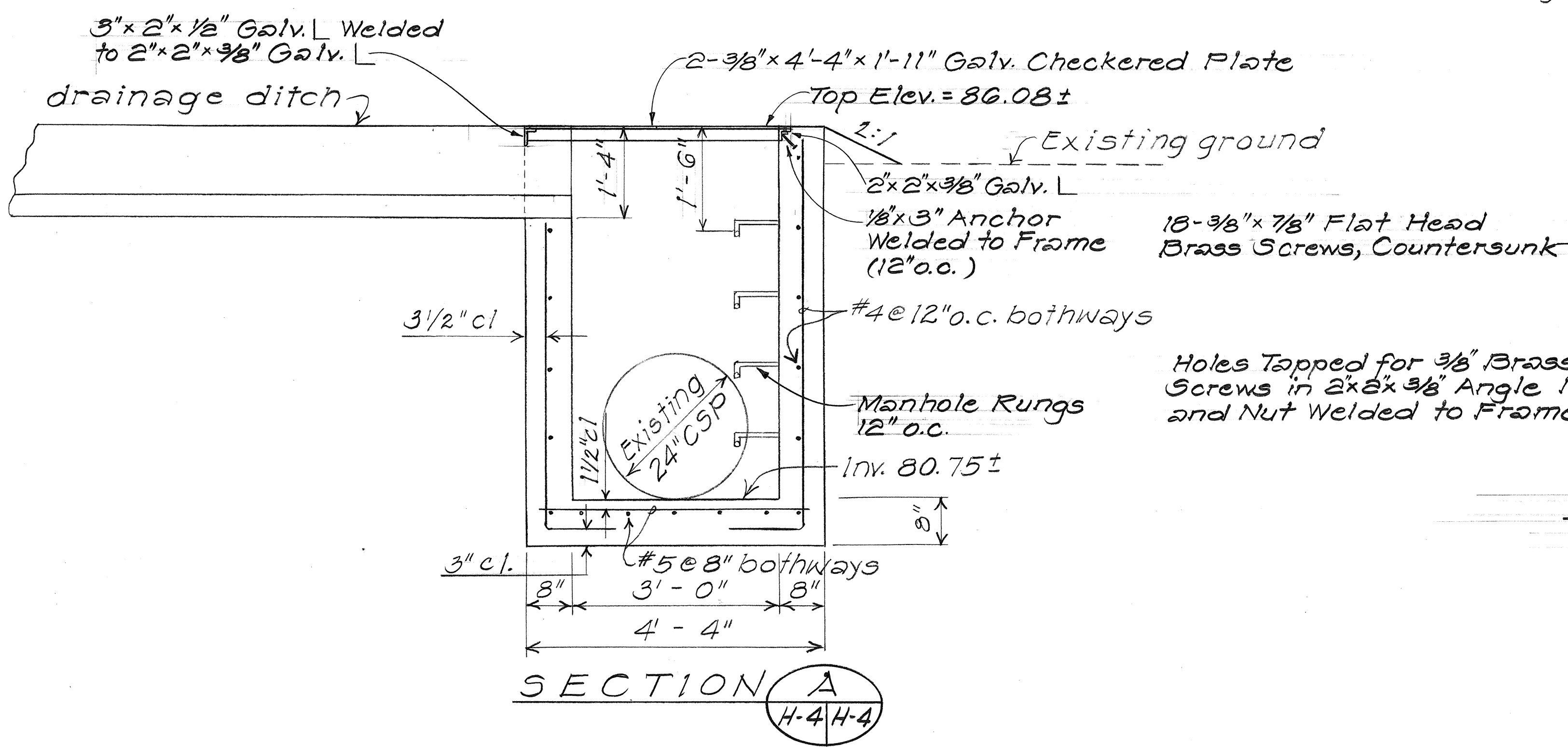
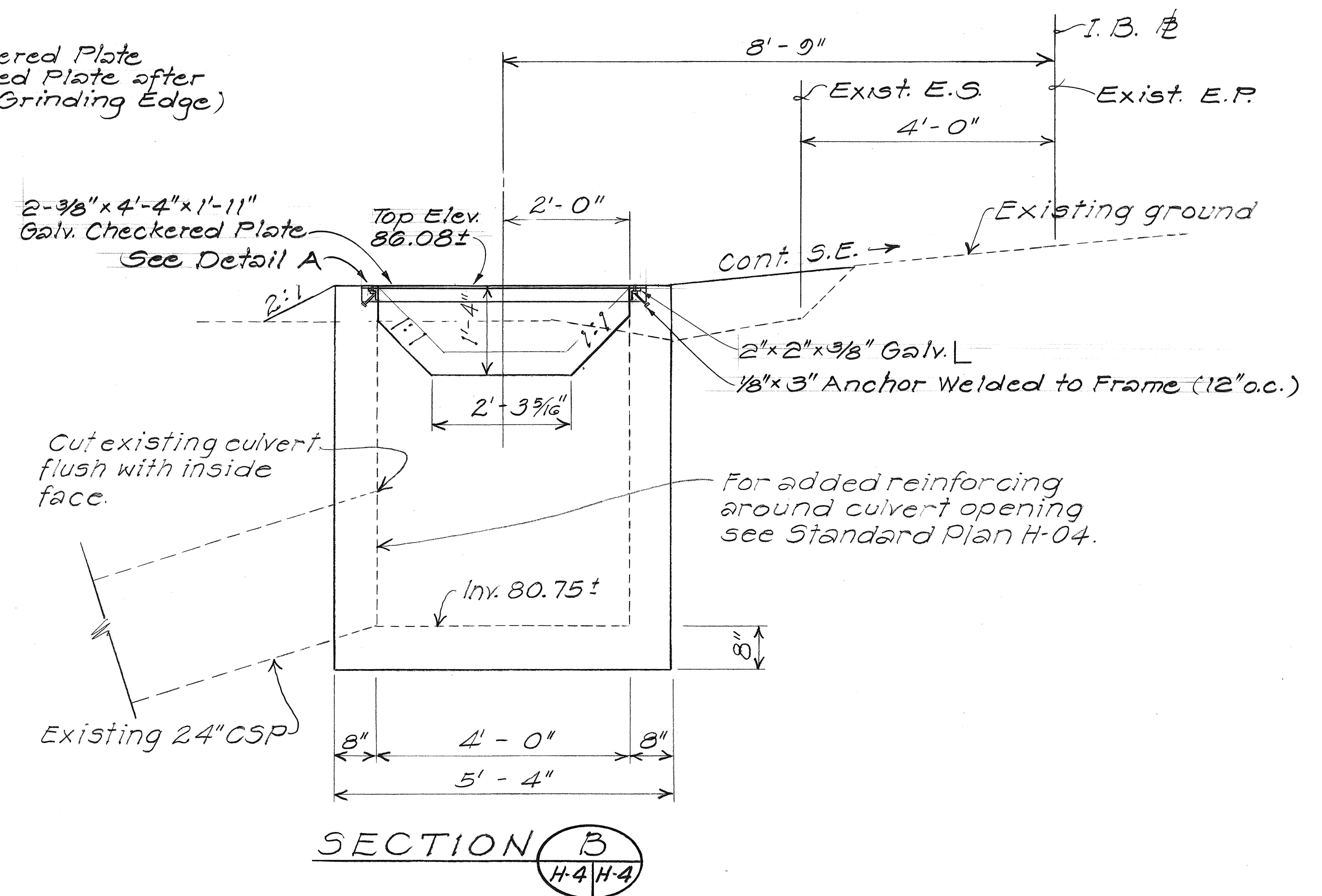
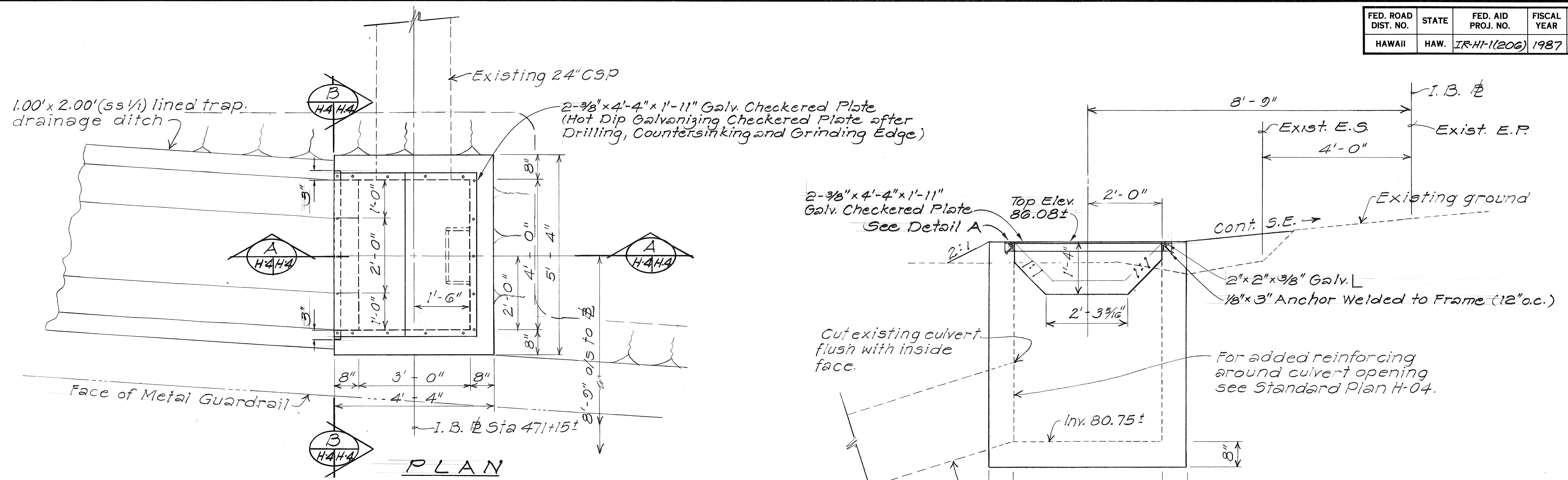
DRAINAGE DETAILS

INTERSTATE ROUTE H-1
ADDITIONAL LANES, PHASE II
F.A.I. Proj. No. IR-HI-1(206)

Scale: As Noted Date: Feb. 1987

SHEET No. H3 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(206)	1987	16	40

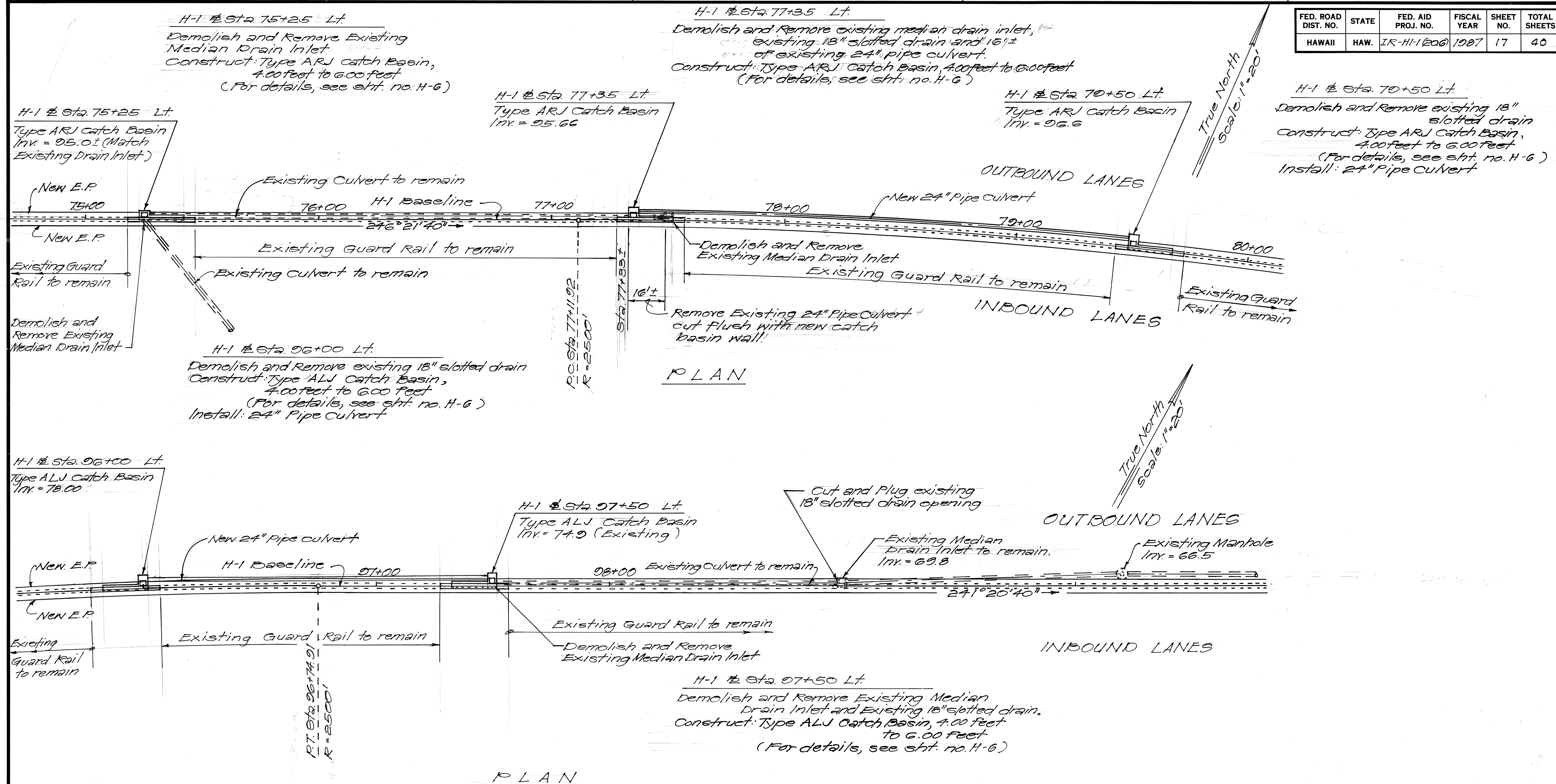


DETAIL OF CONCRETE DROP INLET

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

REVISION		SHEET No. H3 OF 6 SHEETS	
7-22-87	Removed 2 x 2 x 12 Ga. Galv. Sq. Tube Post & Rail. Added 3/8" Checkered Plate Cover & Frame.	DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION DRAINAGE DETAILS INTERSTATE ROUTE H-1 ADDITIONAL LANES, PHASE II F.A.I. Proj. No. IR-HI-1(206) Scale: As Noted Date: Feb. 1987	
4-3-87	Added 2"x2"x12 Ga. Galv. Sq. Tube Post & Rail Painted Yellow.		
DATE	REVISION		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(206)	1987	17	40

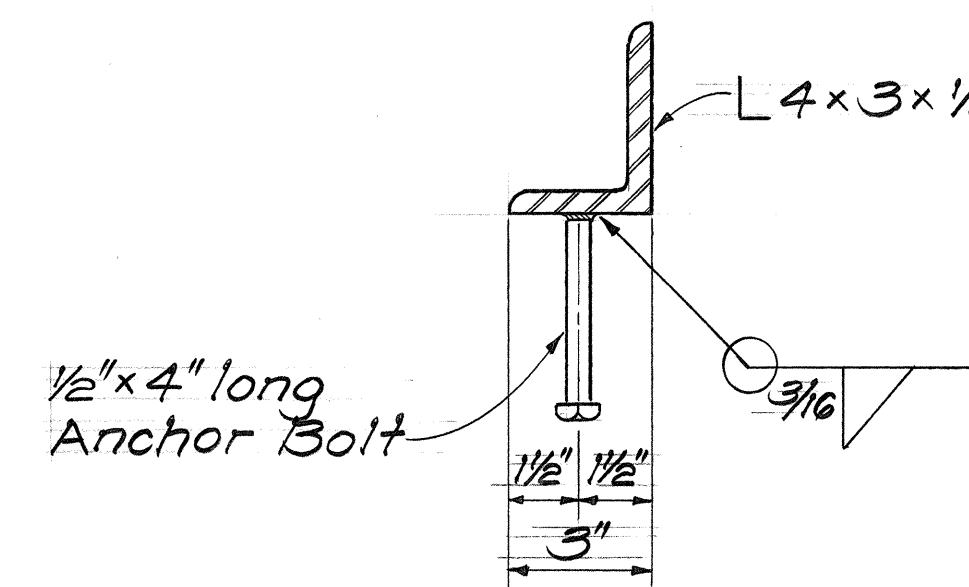


ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
NO.	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
DRAINAGE PLAN
INTERSTATE ROUTE H-1 ADDITIONAL LANES, PHASE II
F.A.I. Proj. No. IR-HI-1(206)
Scale: As Shown Date: Feb. 1987
SHEET No. 17 OF 6 SHEETS

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



ADD. 18