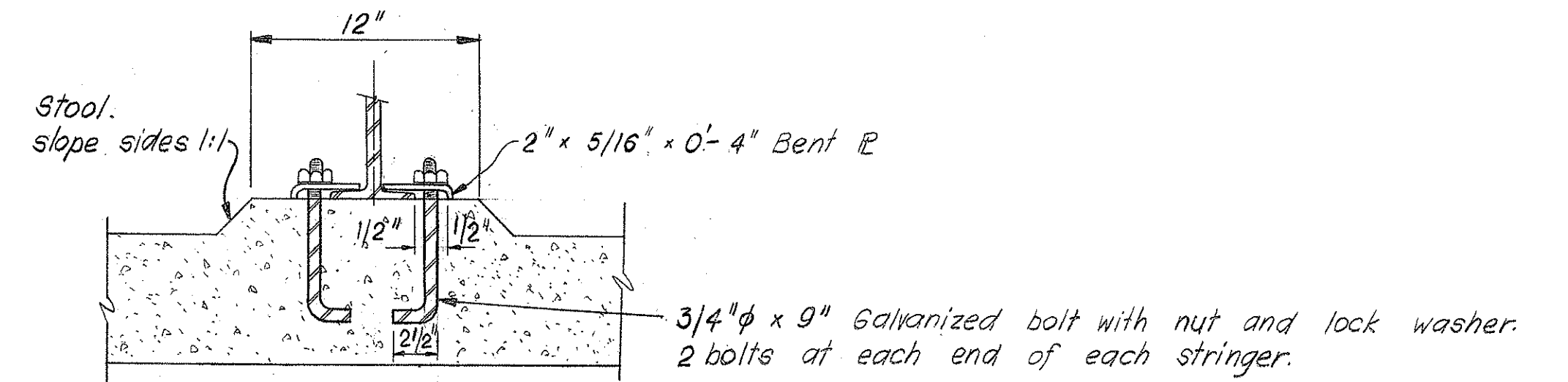
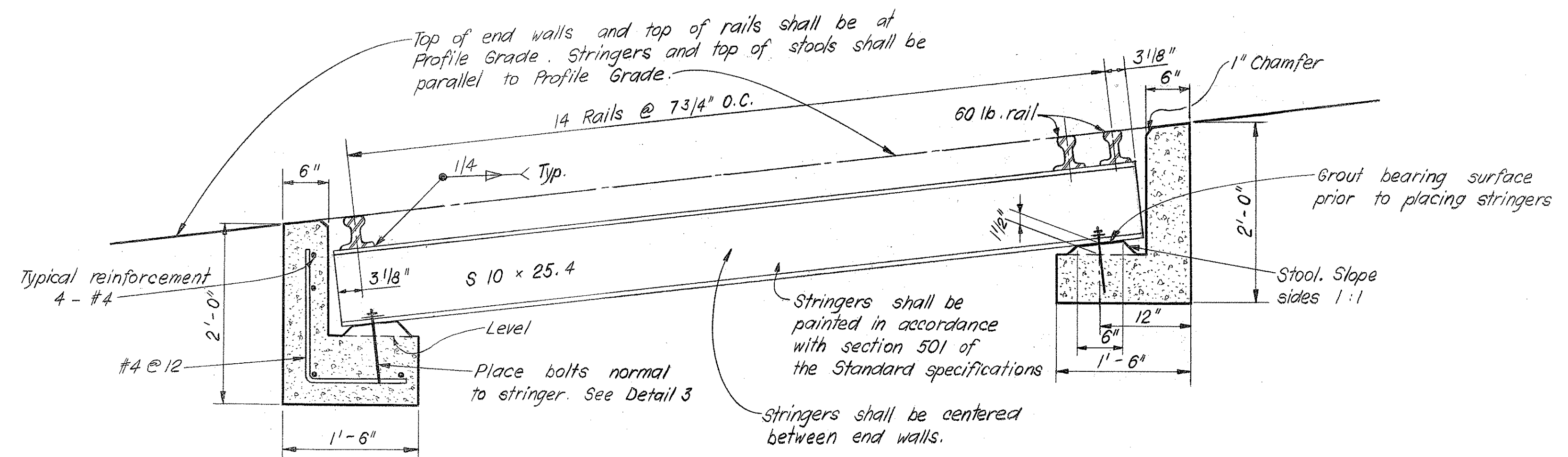
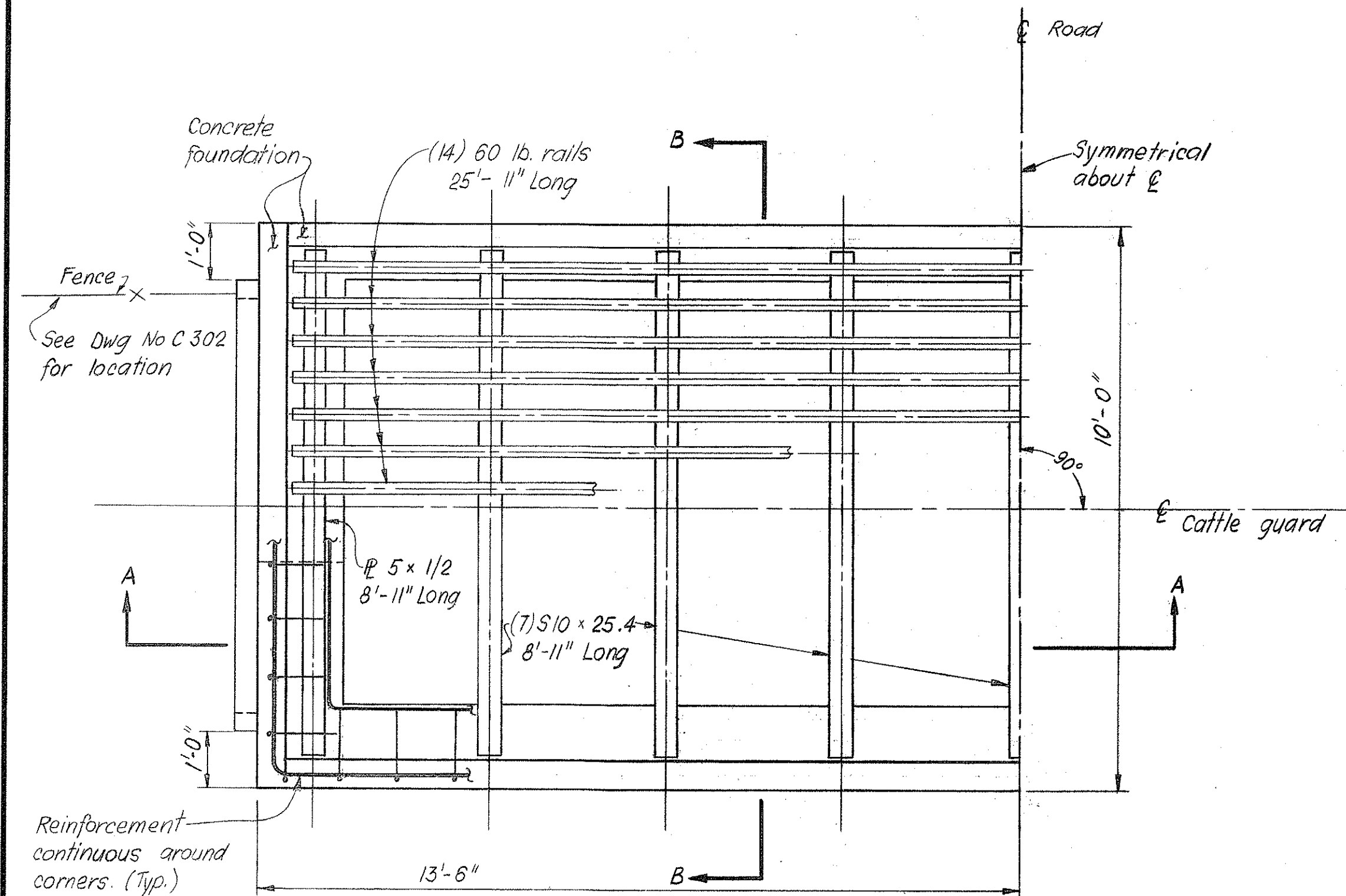
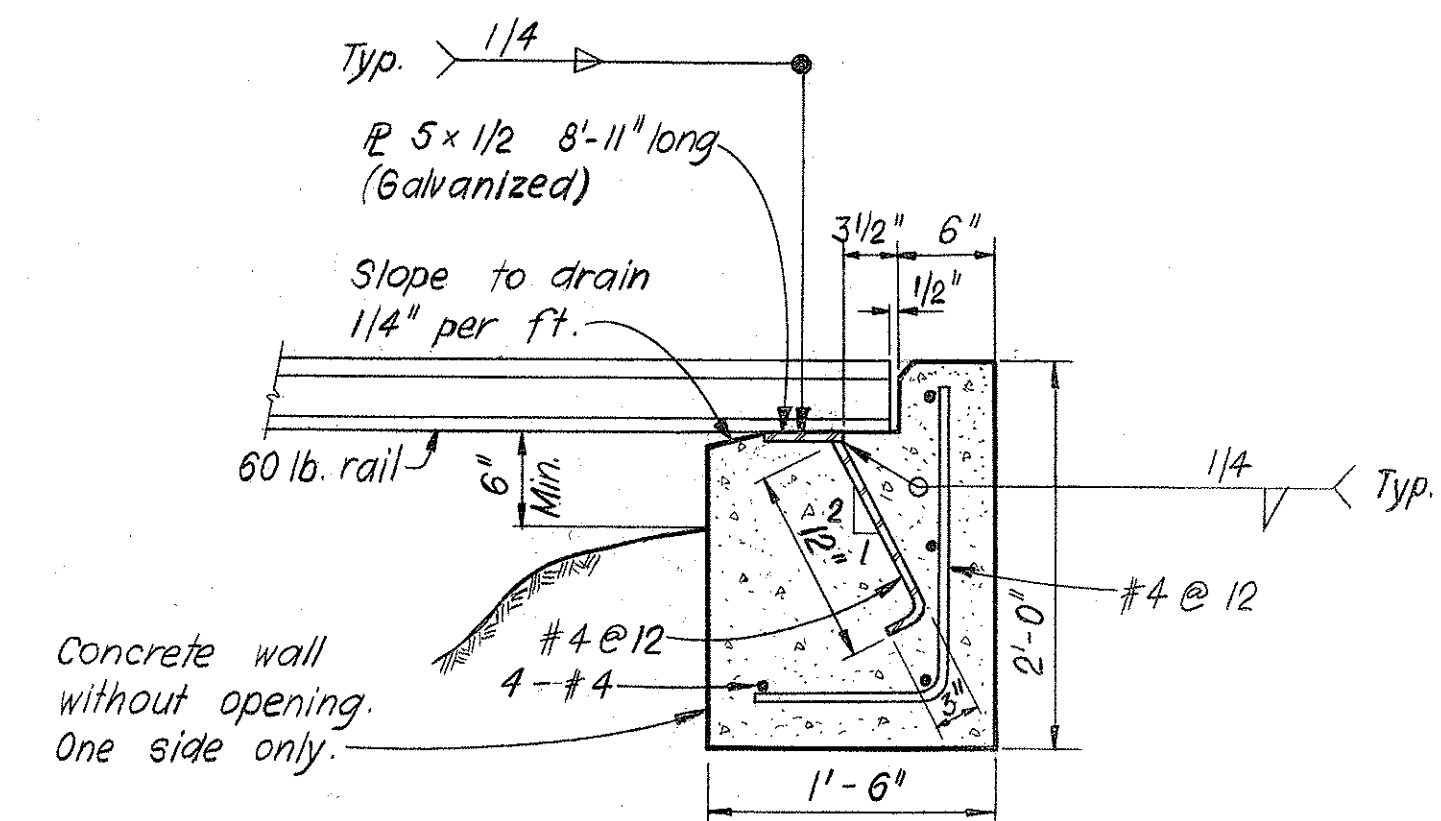
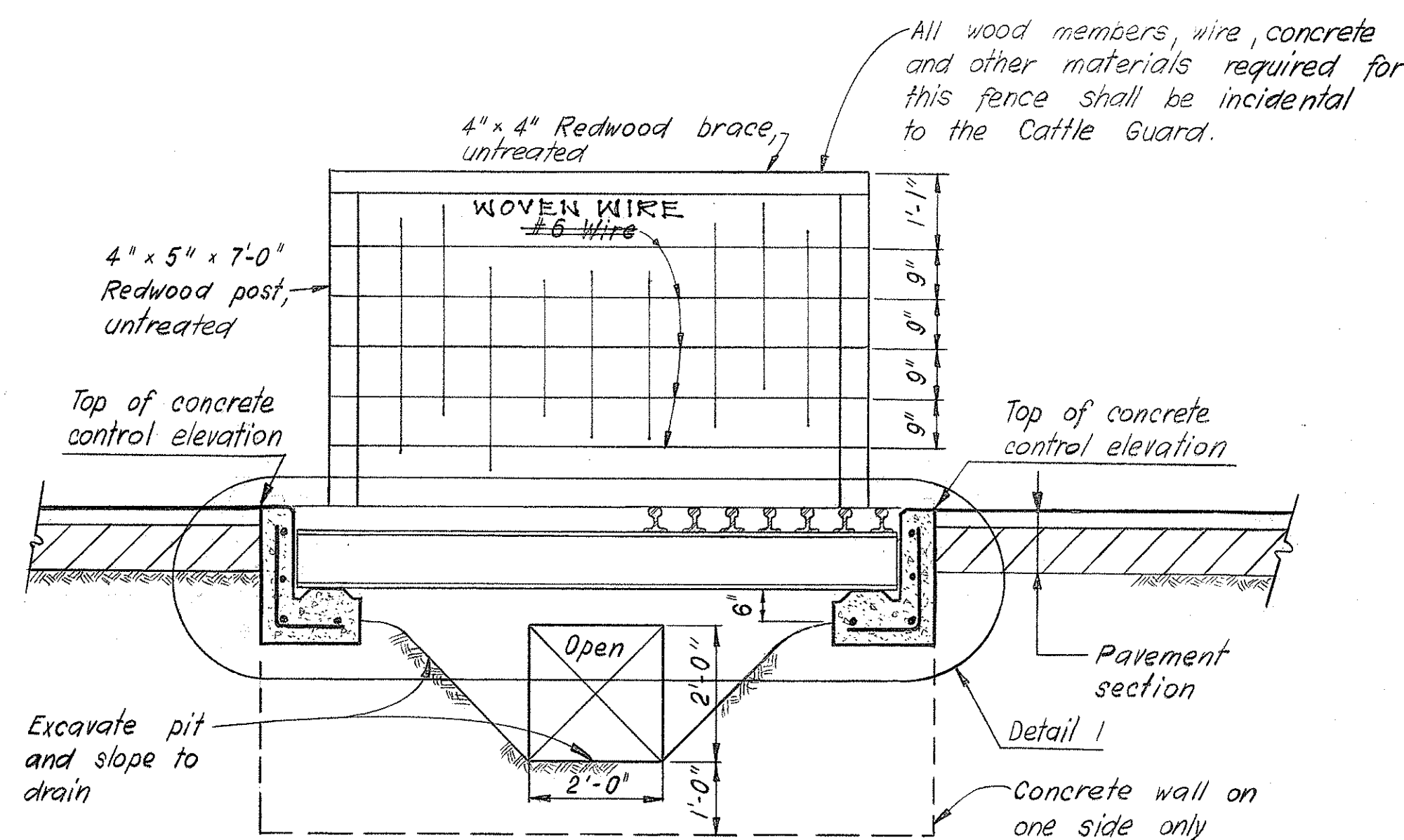
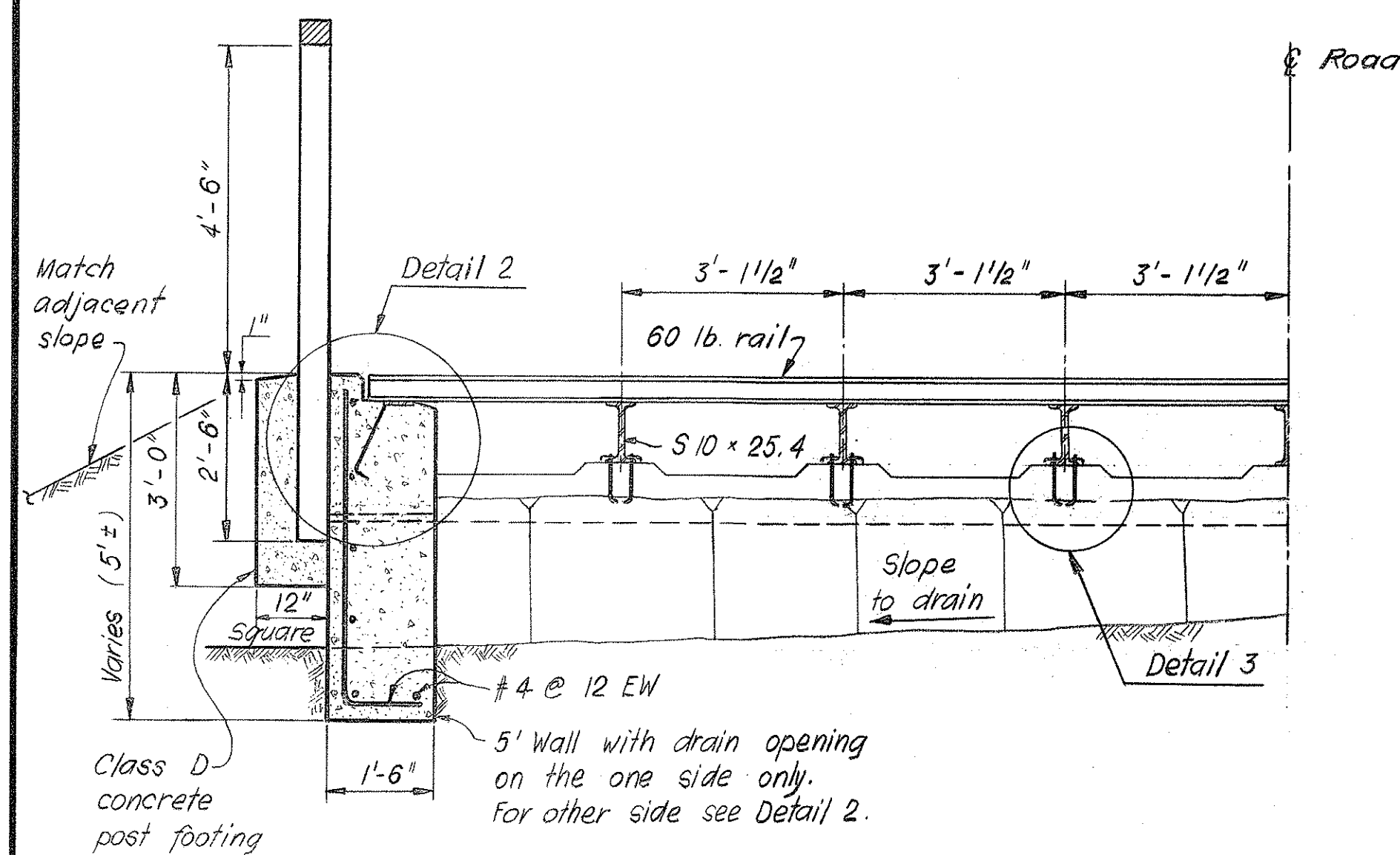
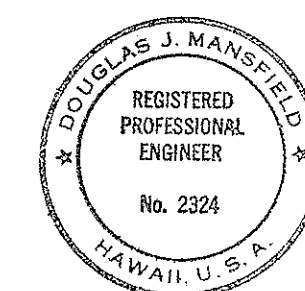


STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW.	BMD 66-343	FY 71-72	27	88



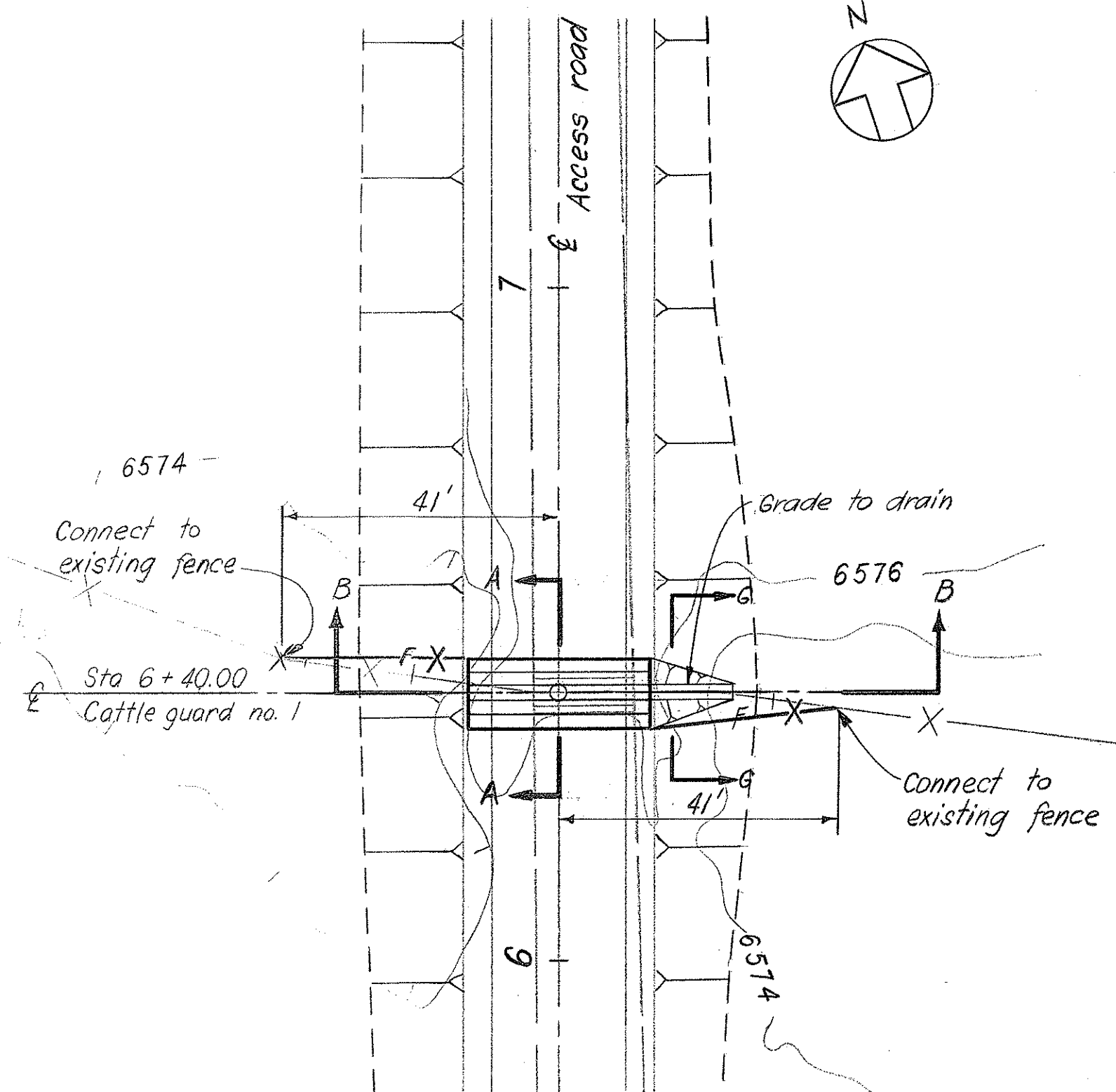
- NOTES**
- Concrete shall be Class A, except as noted.
 - Joints in rails shall be complete penetration welds and shall be located as approved by the Engineer.
 - For locations and control elevations see Dwg No C 302
 - Slope of adjacent roadway shall transition to plane of cattle guard within 50 feet each side.

CATTLE GUARD TYPICAL DETAILS

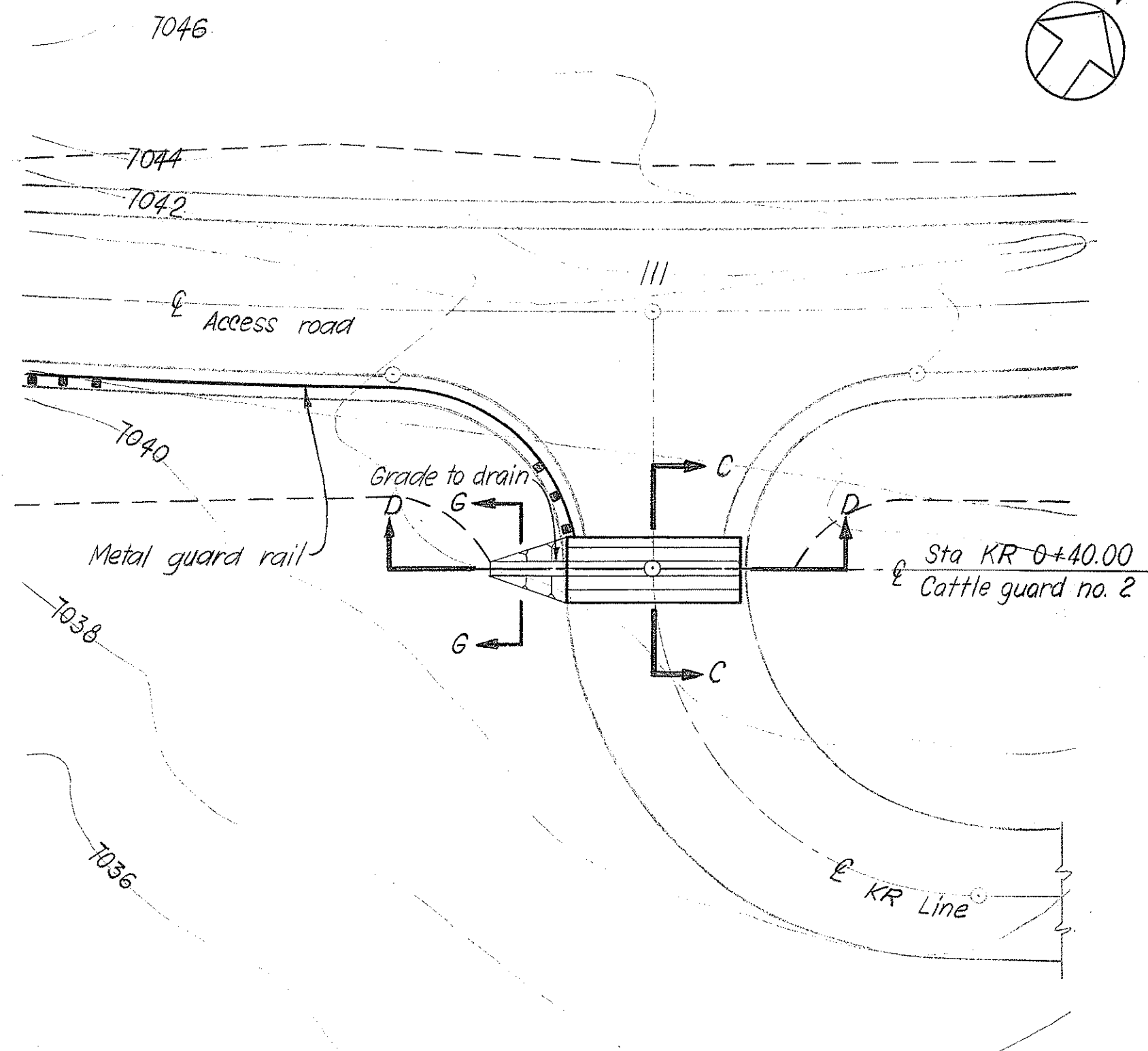


STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CATTLE GUARD DETAILS	
MAUNA KEA OBSERVATORY ACCESS ROAD	
PROJ. NO. BMD 66 - 343	
REVISD: SEP 1972 SCALE: AS NOTED	DATE: MARCH 1972
SHEET No. 1 OF 2 SHEETS C 301	

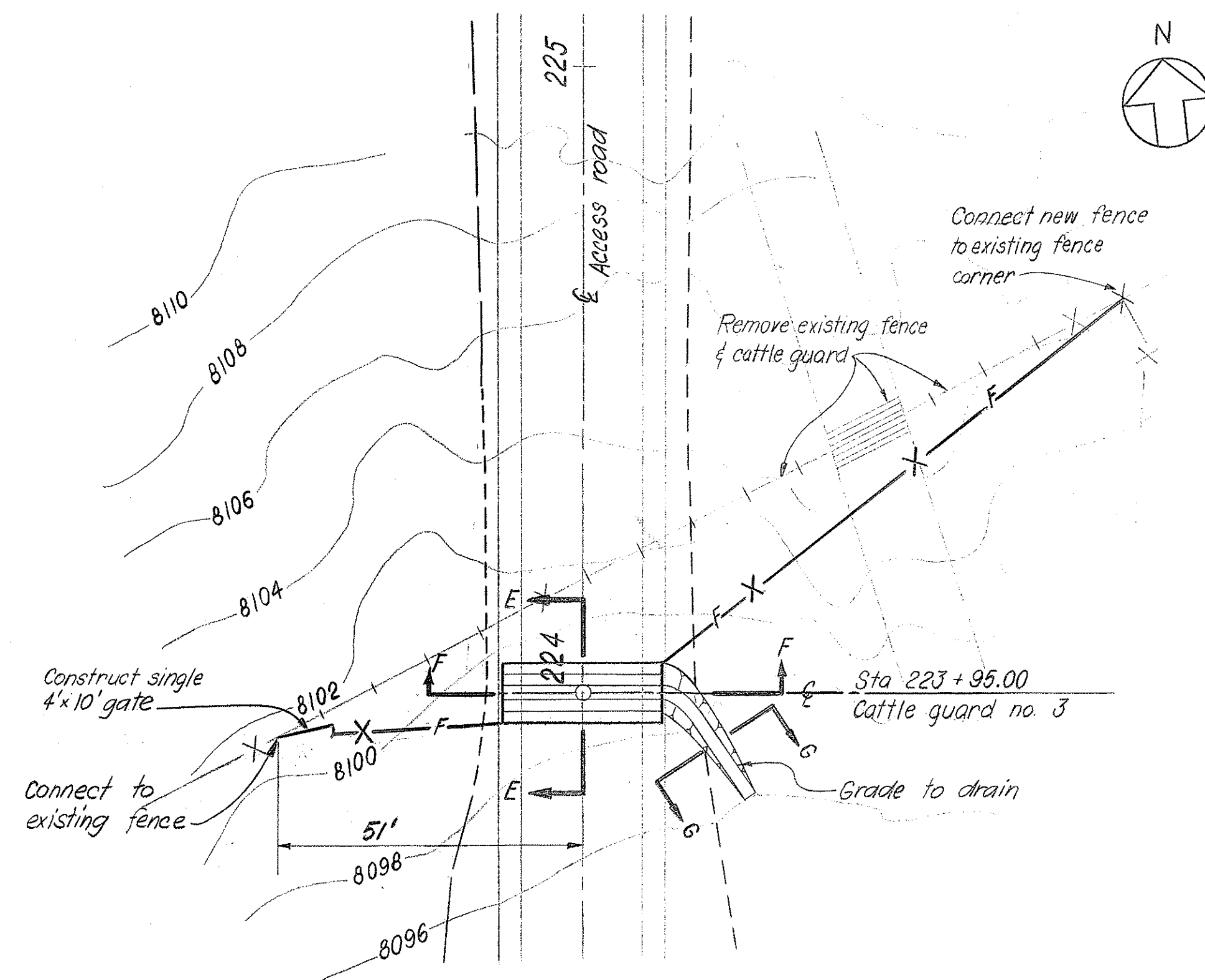
STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW.	BMD 66-343	FY 71-72	28	88



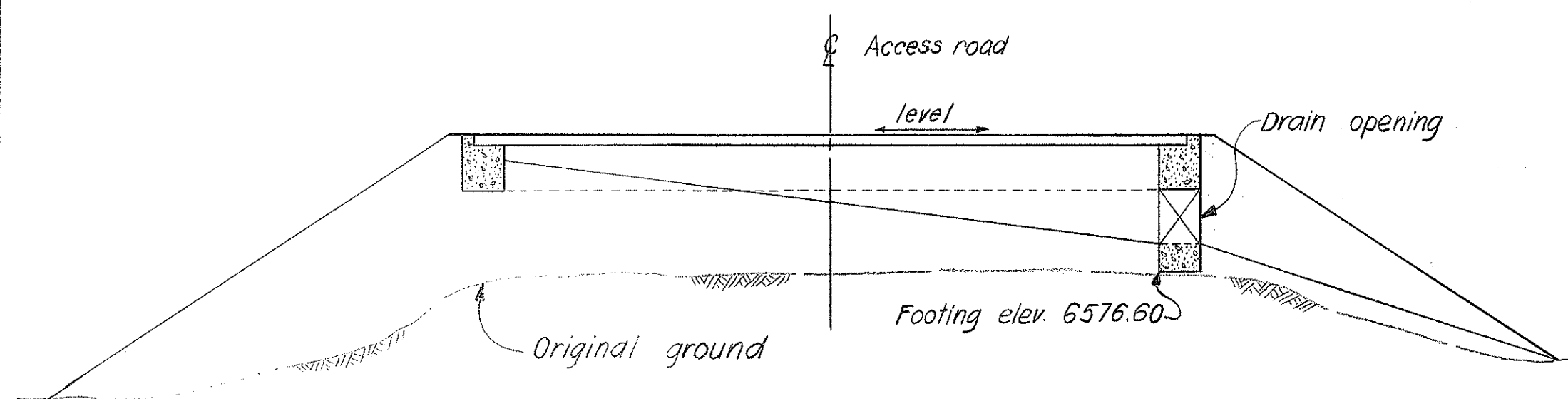
PLAN
SCALE: 1"=20'



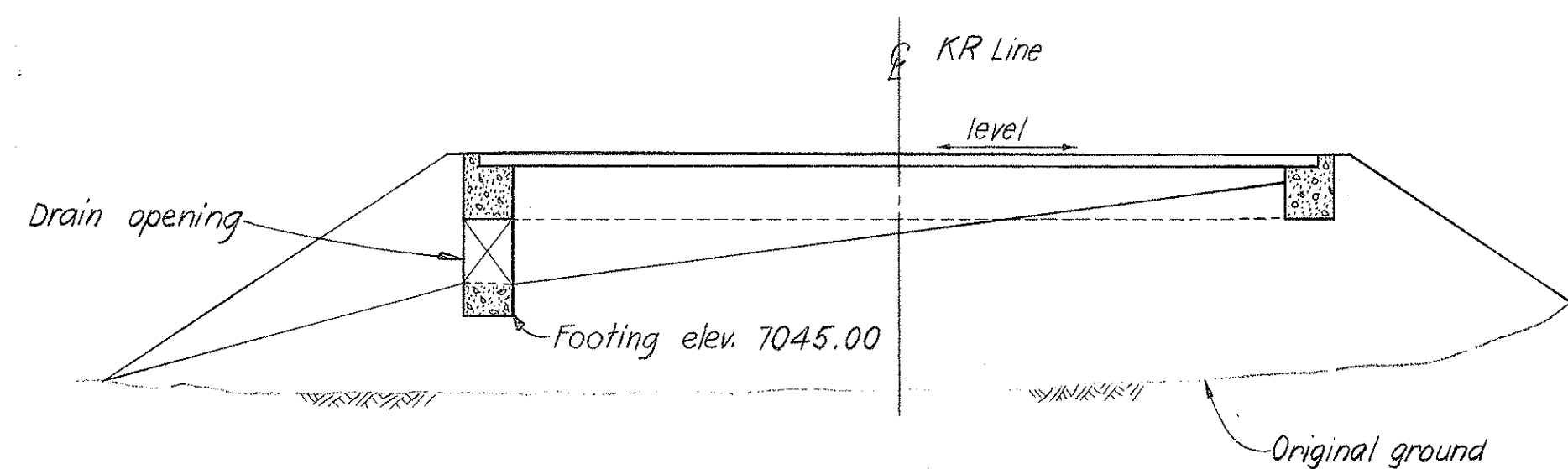
PLAN
SCALE: 1"=20'



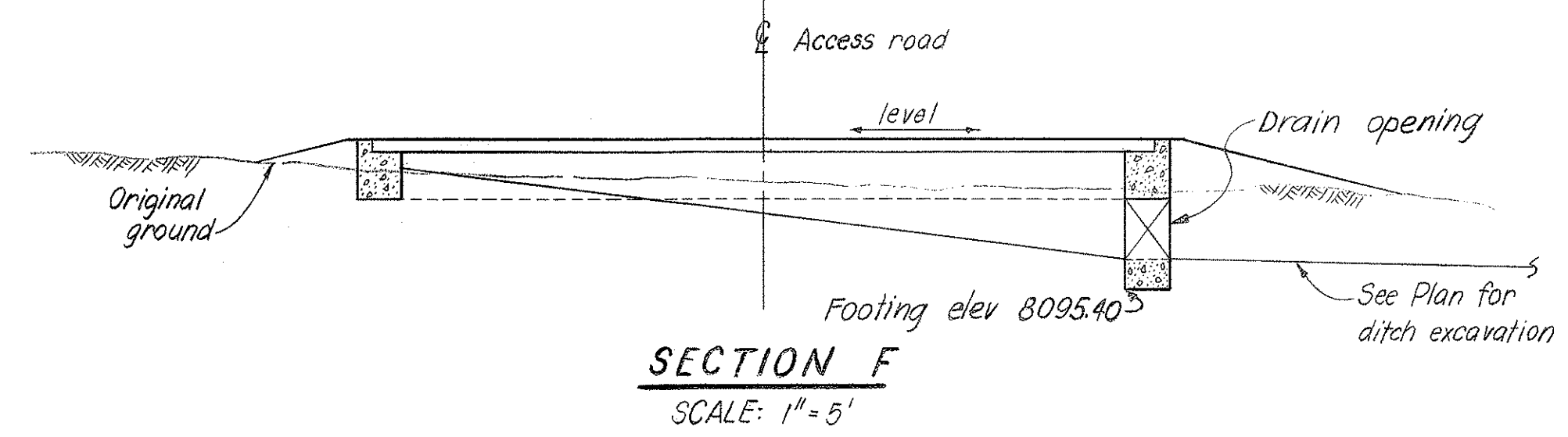
PLAN
SCALE: 1"=20'



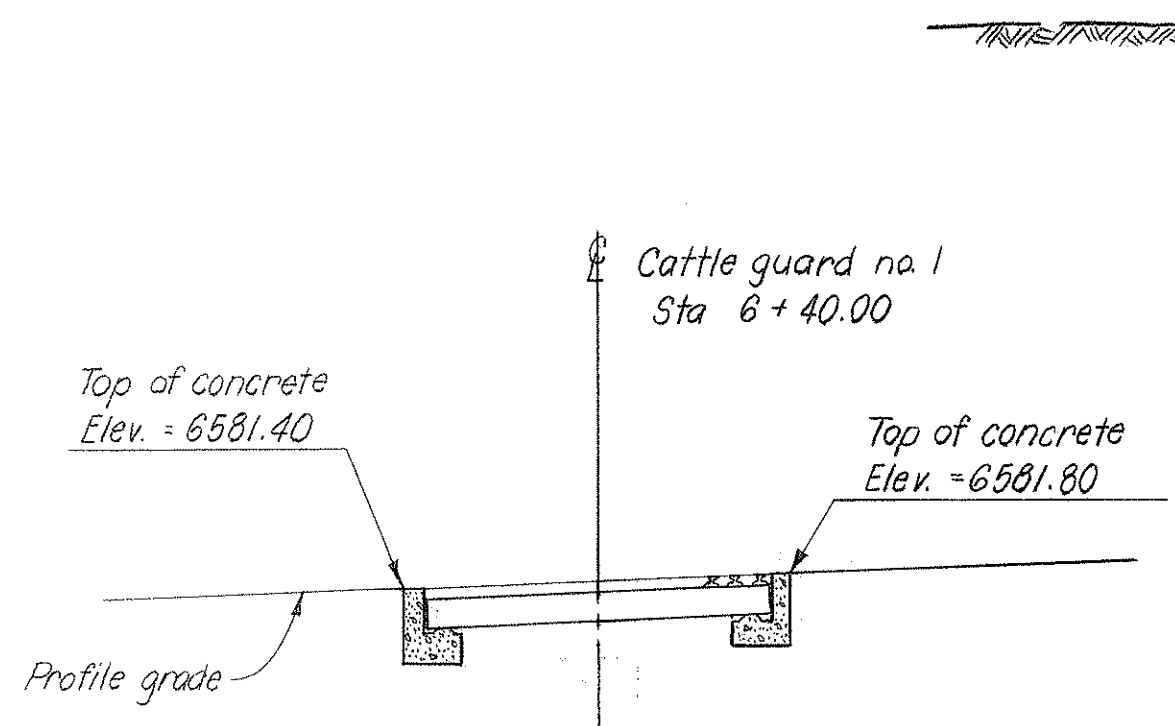
SECTION B
SCALE: 1"=5'



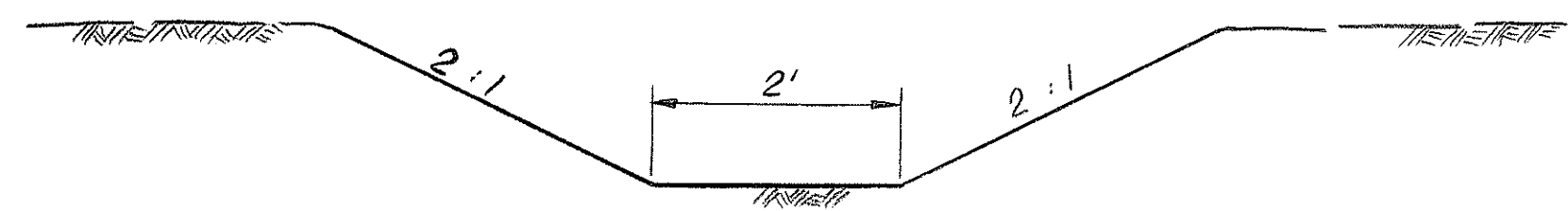
SECTION D
SCALE: 1"=5'



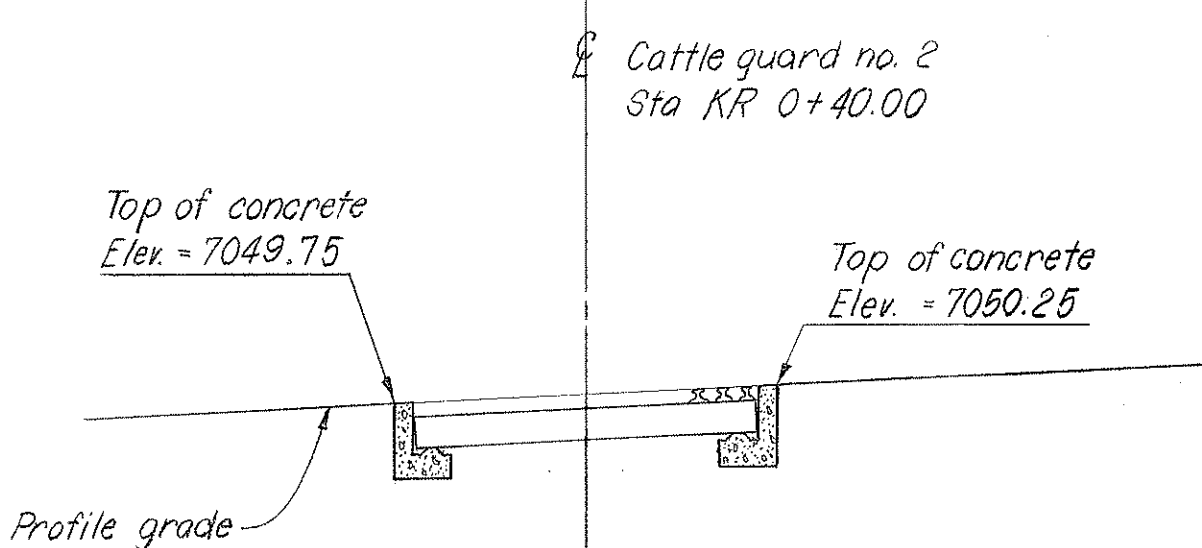
SECTION F
SCALE: 1"=5'



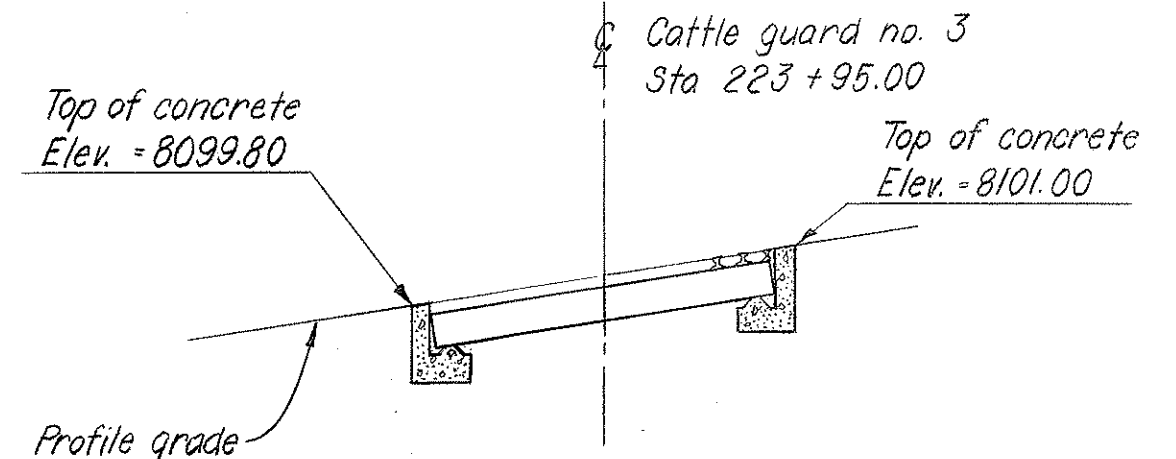
SECTION A
SCALE: 1"=5'
CATTLE GUARD NO. 1



SECTION G
NO SCALE



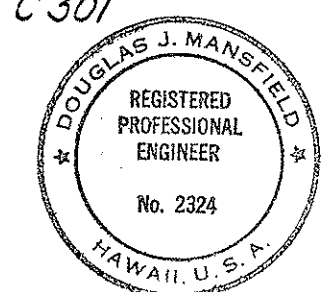
SECTION C
SCALE: 1"=5'
CATTLE GUARD NO. 2



SECTION E
SCALE: 1"=5'
CATTLE GUARD NO. 3

NOTES

1. For fence & gate details see Standard Details Dwg No DD 607.3
2. For construction details see Dwg No C301



This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CATTLE GUARD DETAILS

MAUNA KEA OBSERVATORY ACCESS ROAD
PROJ. NO. BMD 66 - 343

SCALE: AS NOTED DATE: MARCH 1972

SHEET No. 2 OF 2 SHEETS C302

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