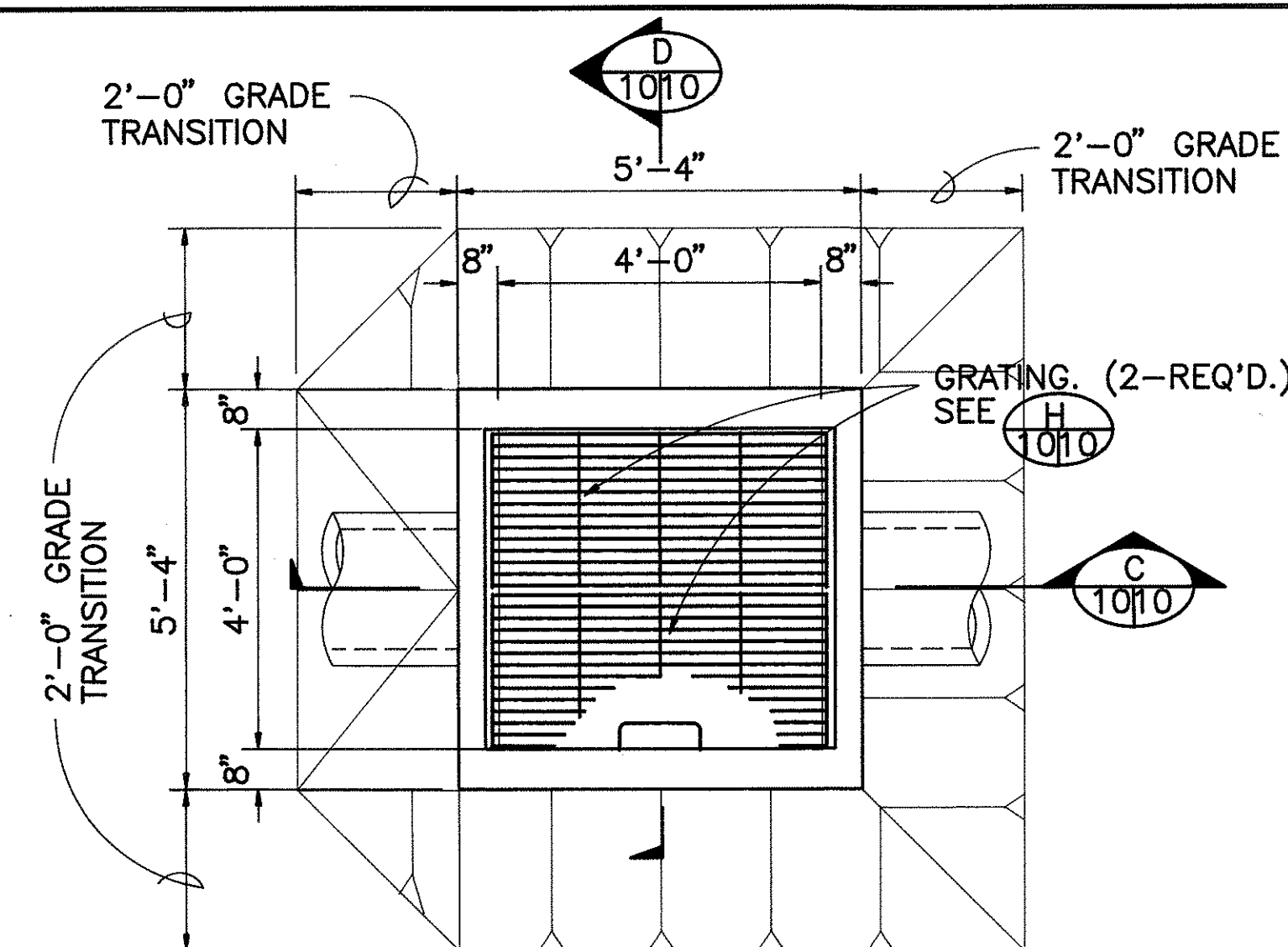
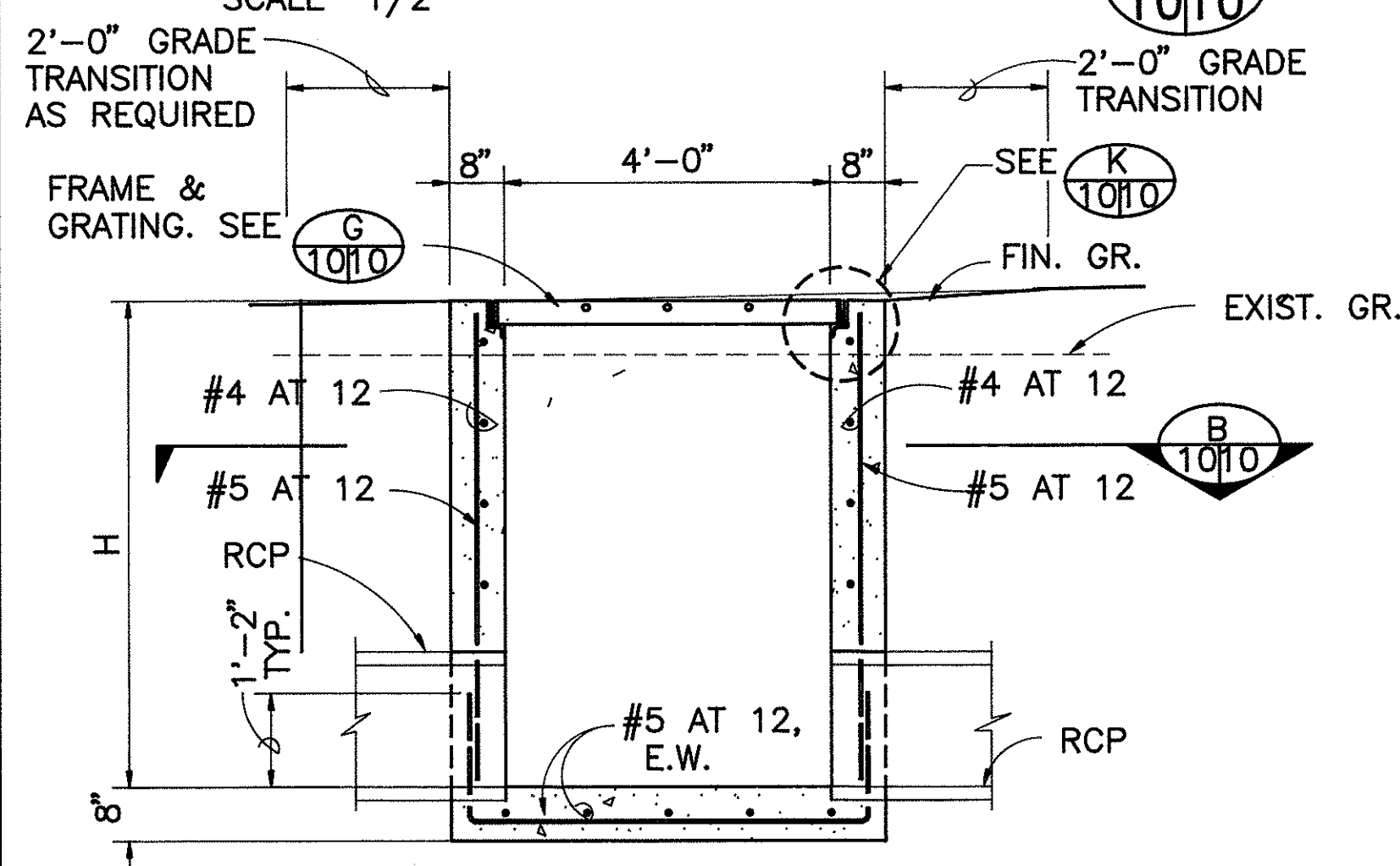


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-06-91	1991	10	12



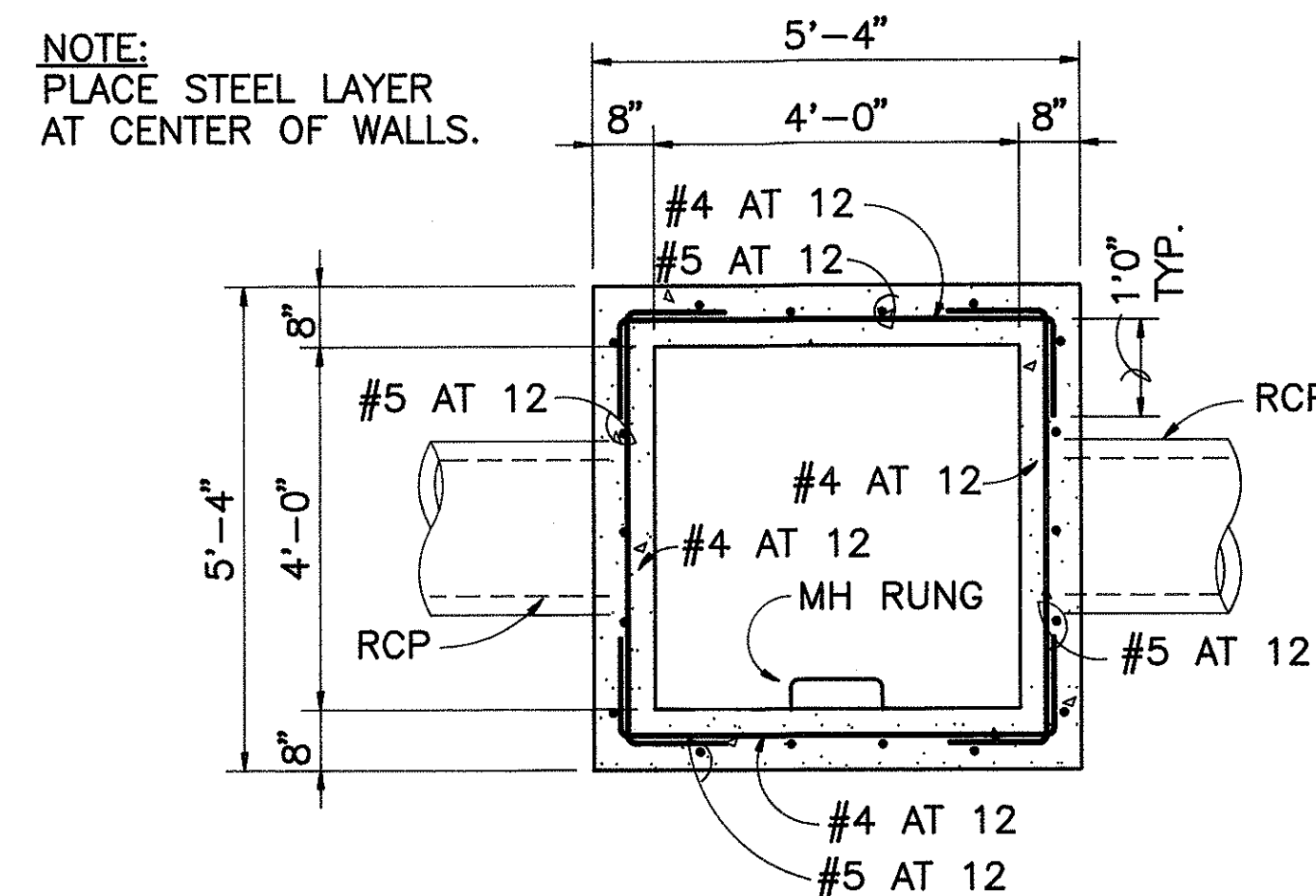
PLAN OF CONCRETE DROP INTAKE



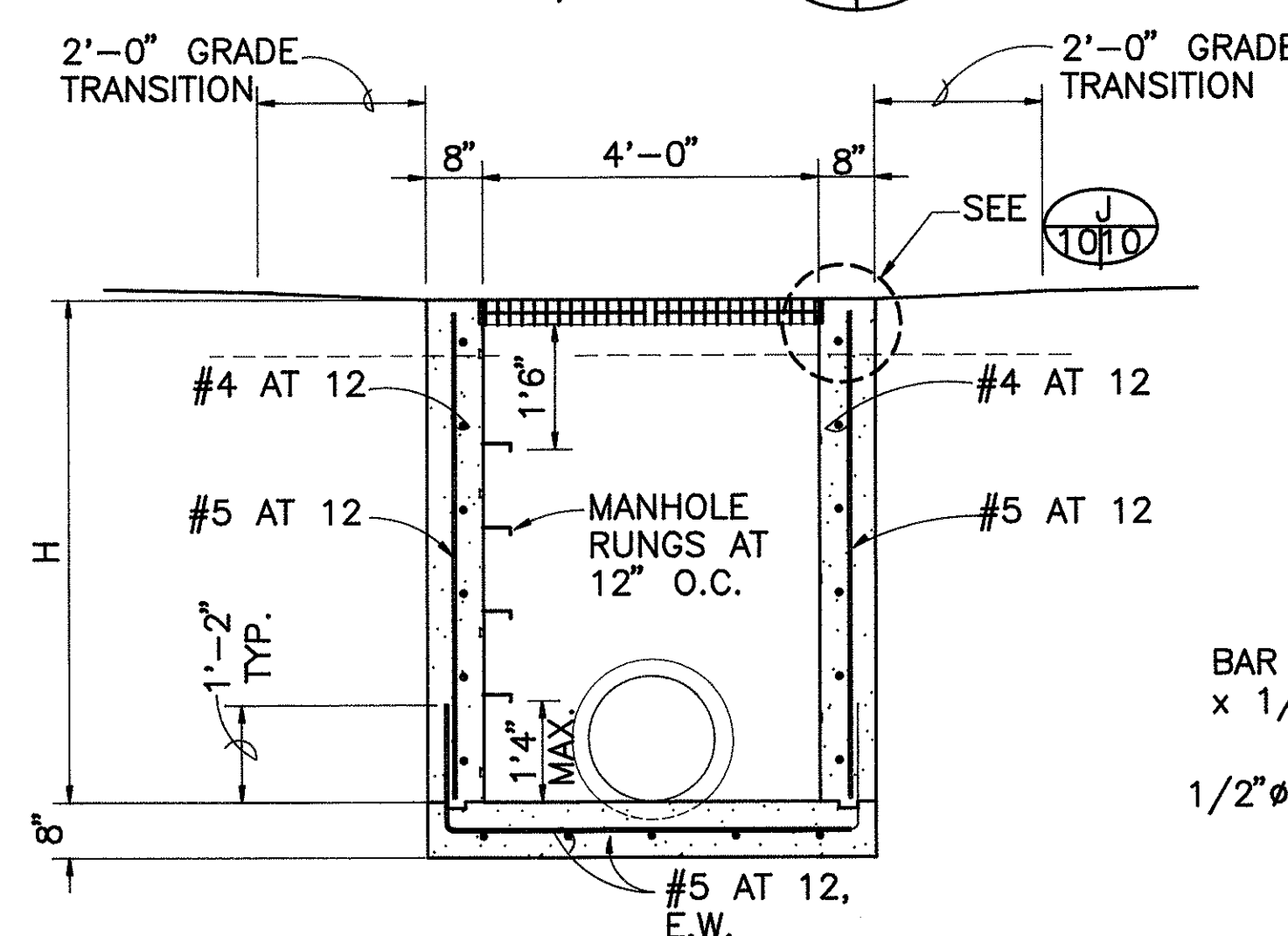
SECTION C
SCALE "1/2" 1010

DROP INTAKE SCHEDULE	
CB	H*
1	4.89'
2	4.89'
3	4.89'
4	10.07'

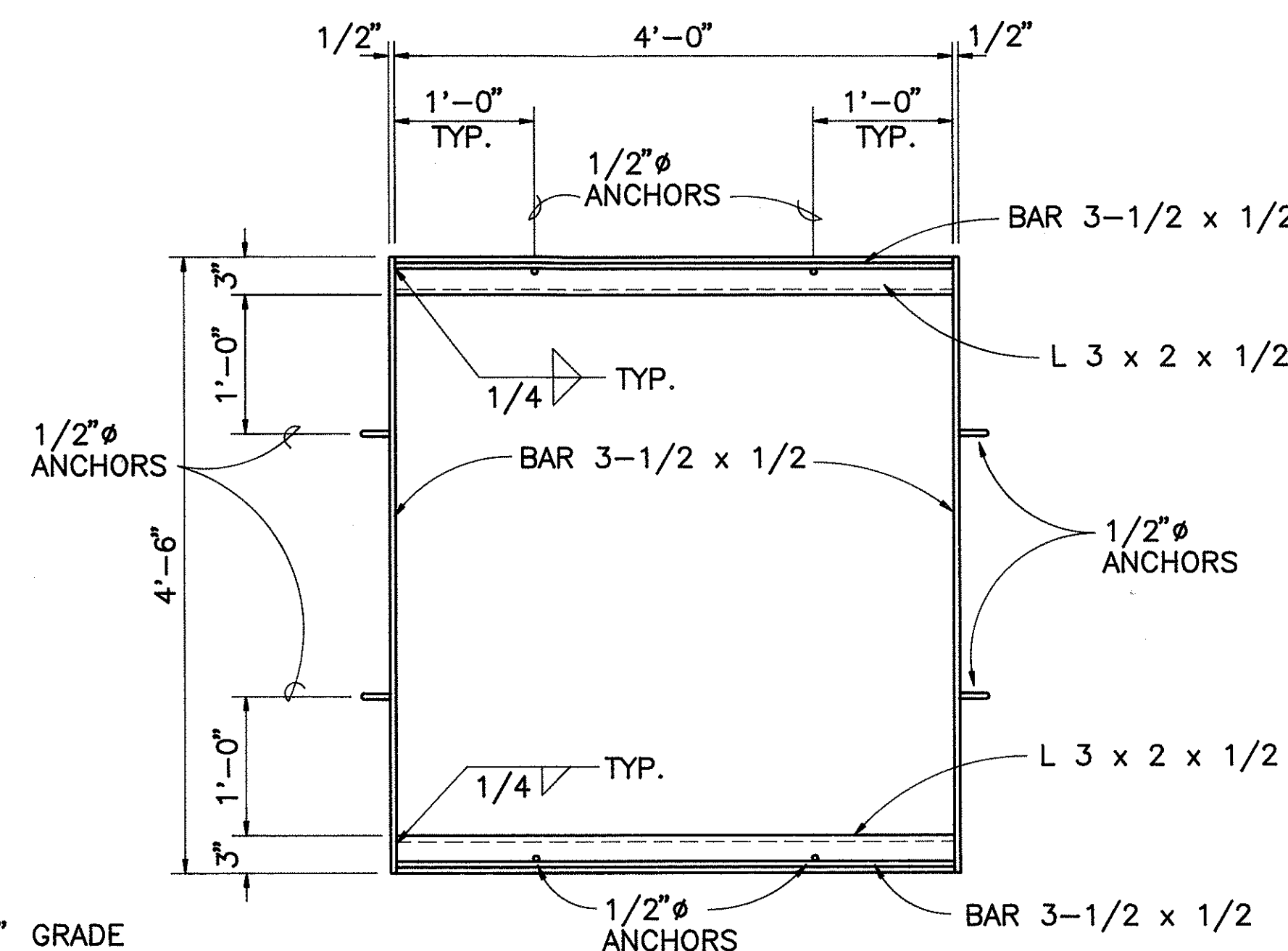
*** VERIFY**



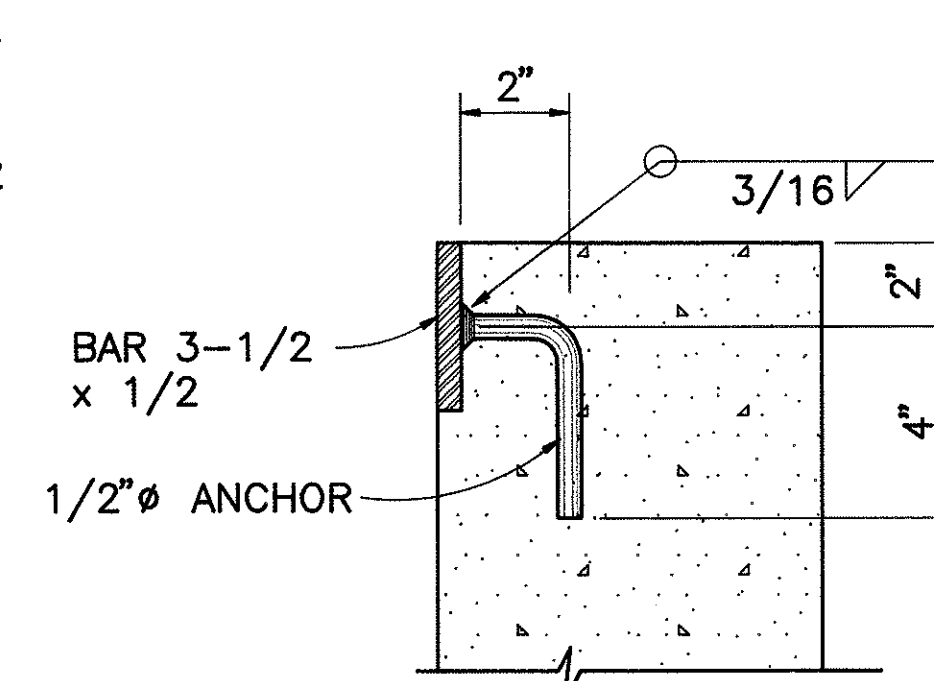
PLAN-SECTION B
SCALE "1/2" 1010



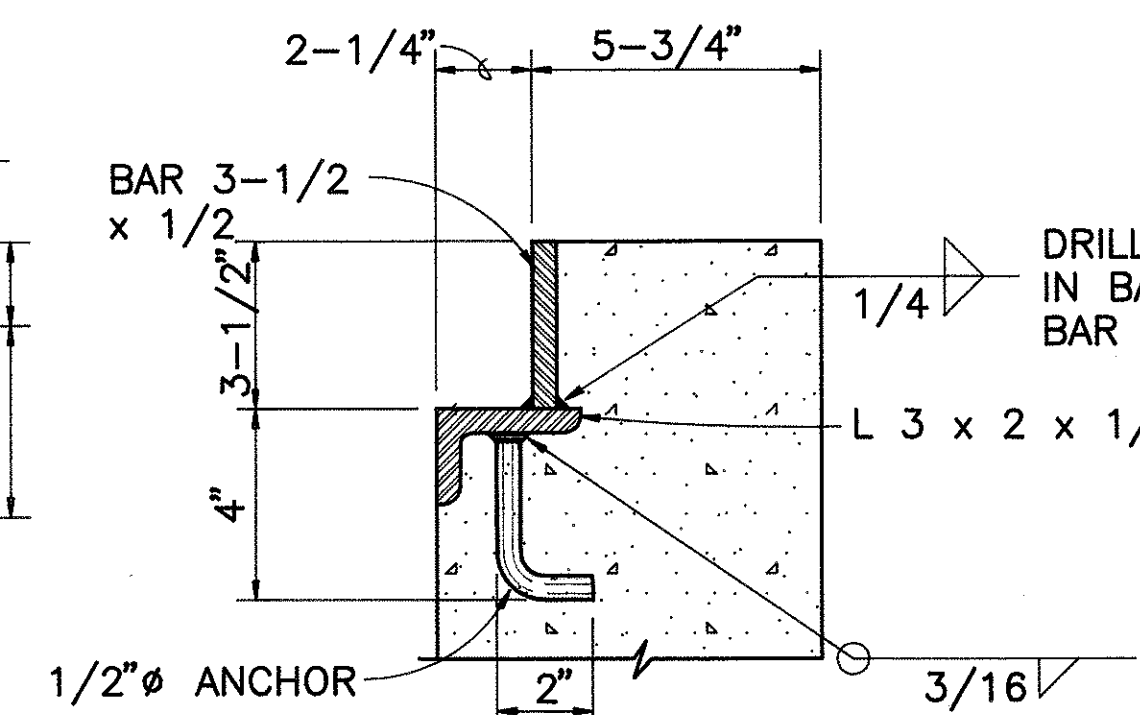
SECTION D
SCALE "1/2" 1010



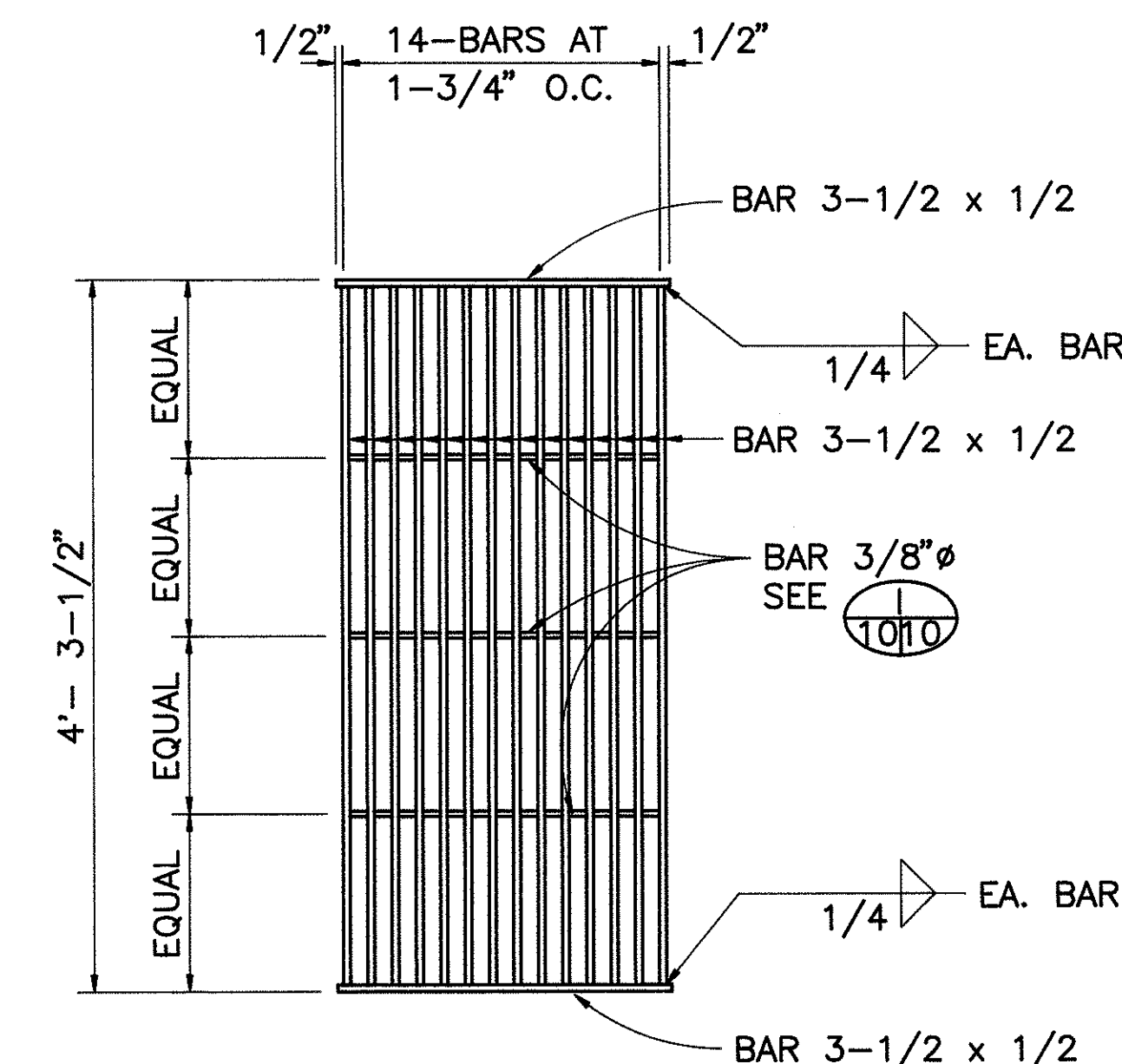
FRAME
DETAIL G
SCALE "3"



DETAIL J
SCALE "3" 1010

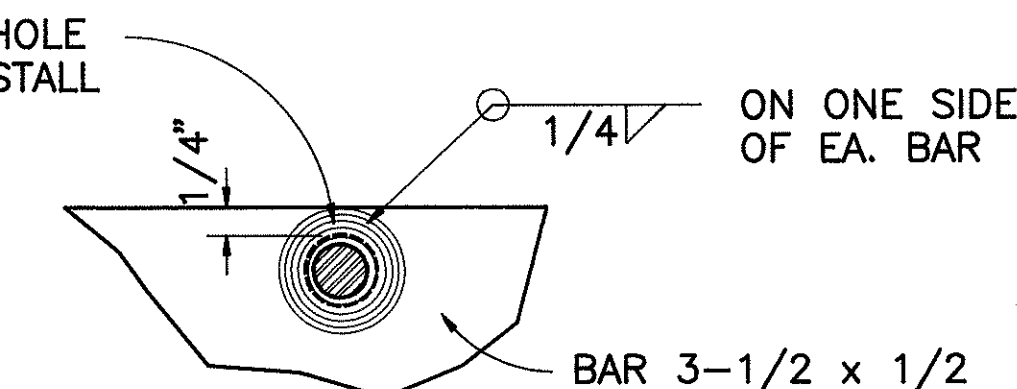


DETAIL K
SCALE "3" 10/10

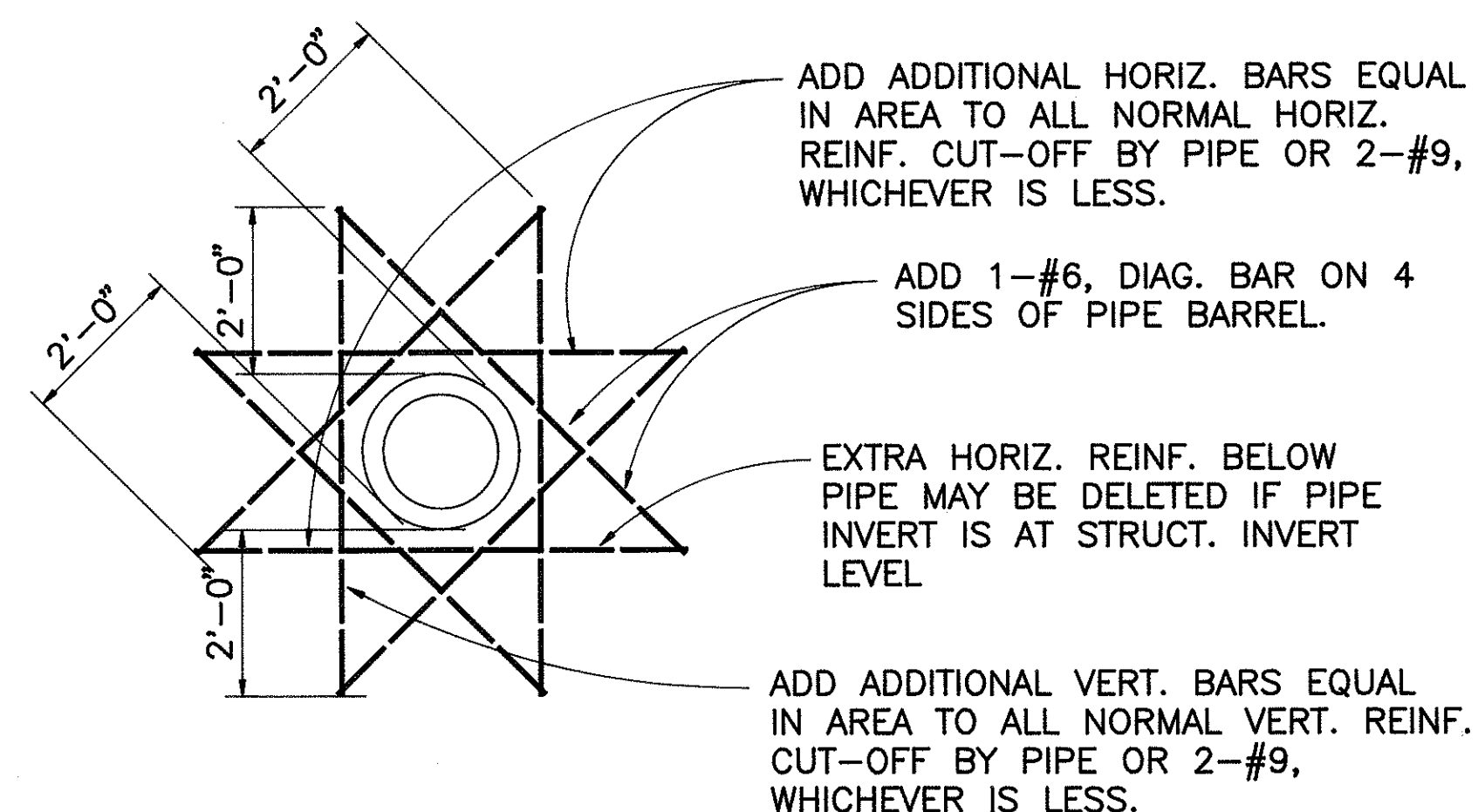


GRATING (2-REQUIRED)

DETAIL H
SCALE "3" 1010

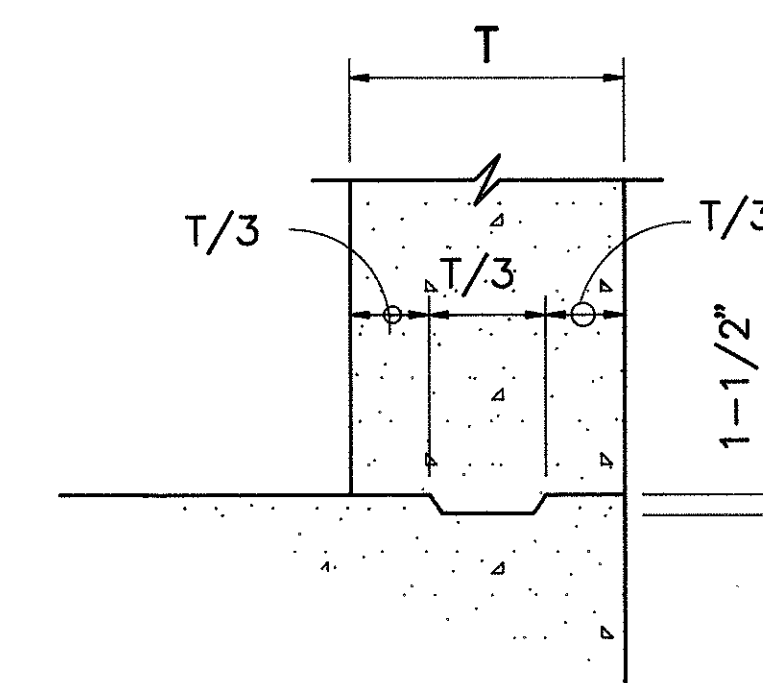


DETAIL 
NOT TO SCALE



WHEREVER INTERSECTING WALLS OR SLABS PREVENT THE 2'-0" EXTENSION BEYOND THE PIPE BARREL SHOWN, BEND BARS INTO SUCH INTERSECTING WALL OR SLAB TO ATTAIN THE 2'-0" MINIMUM EXTENSION.

ADDED REINFORCEMENT E
 AROUND PIPE OPENINGS 10,1110
 NO SCALE

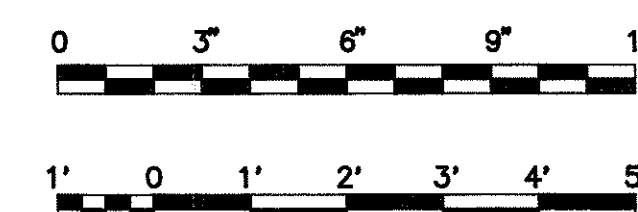


KEY DETAIL F
NO SCALE 1010


GRAPHIC SCALES

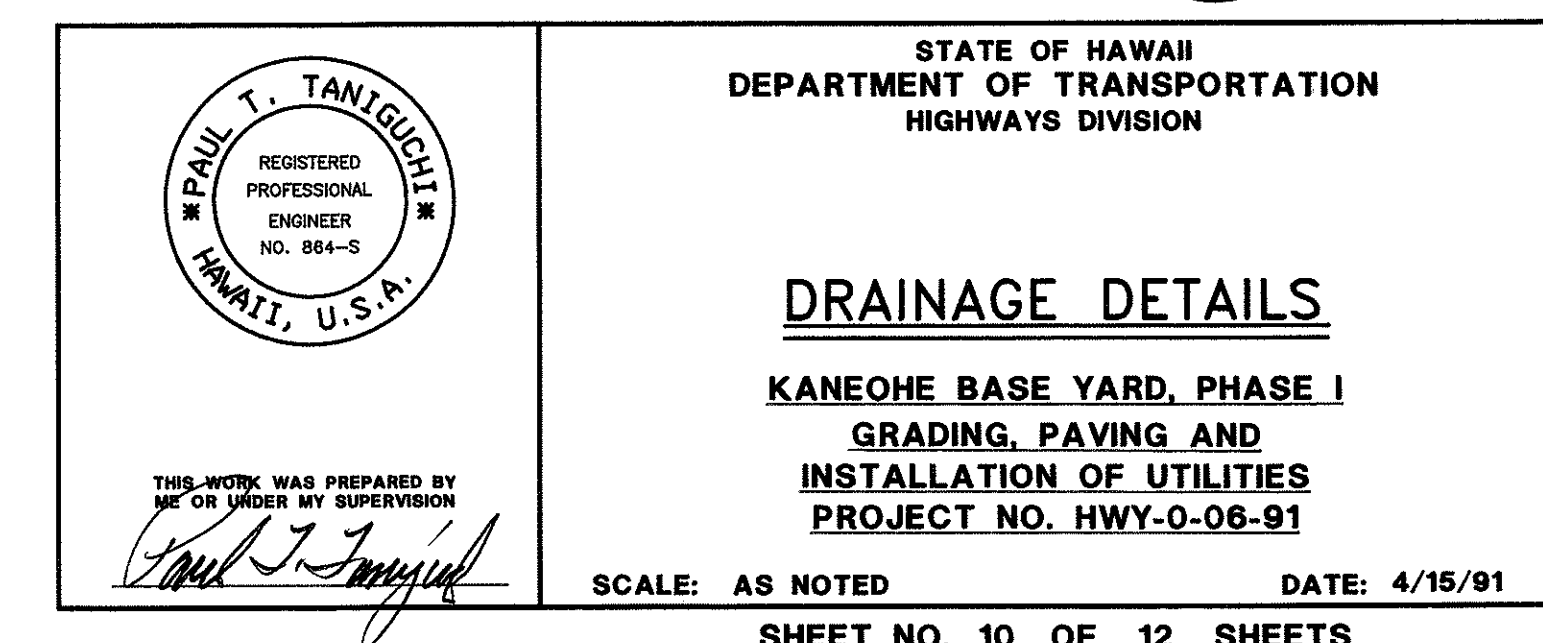
SCALE "3"

SCALE "1/2"

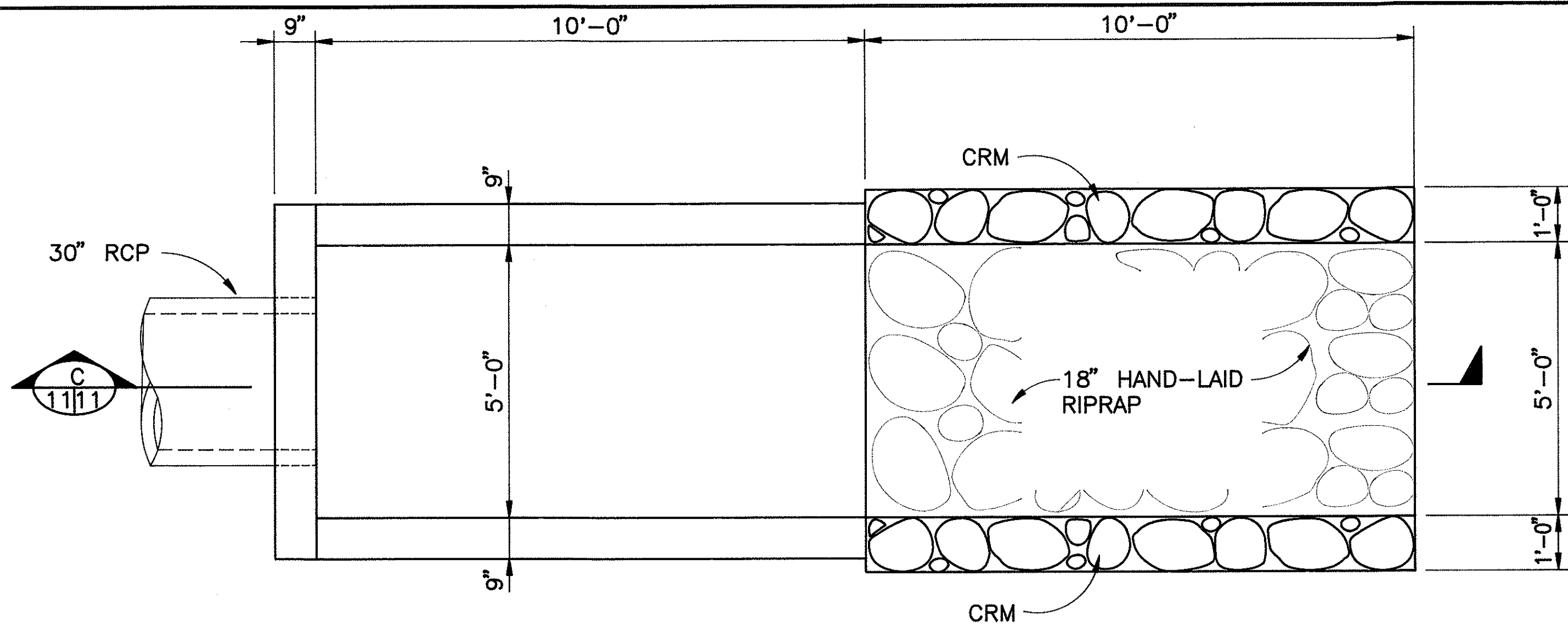


NOTES ON SPECIAL DRAIN STRUCTURES

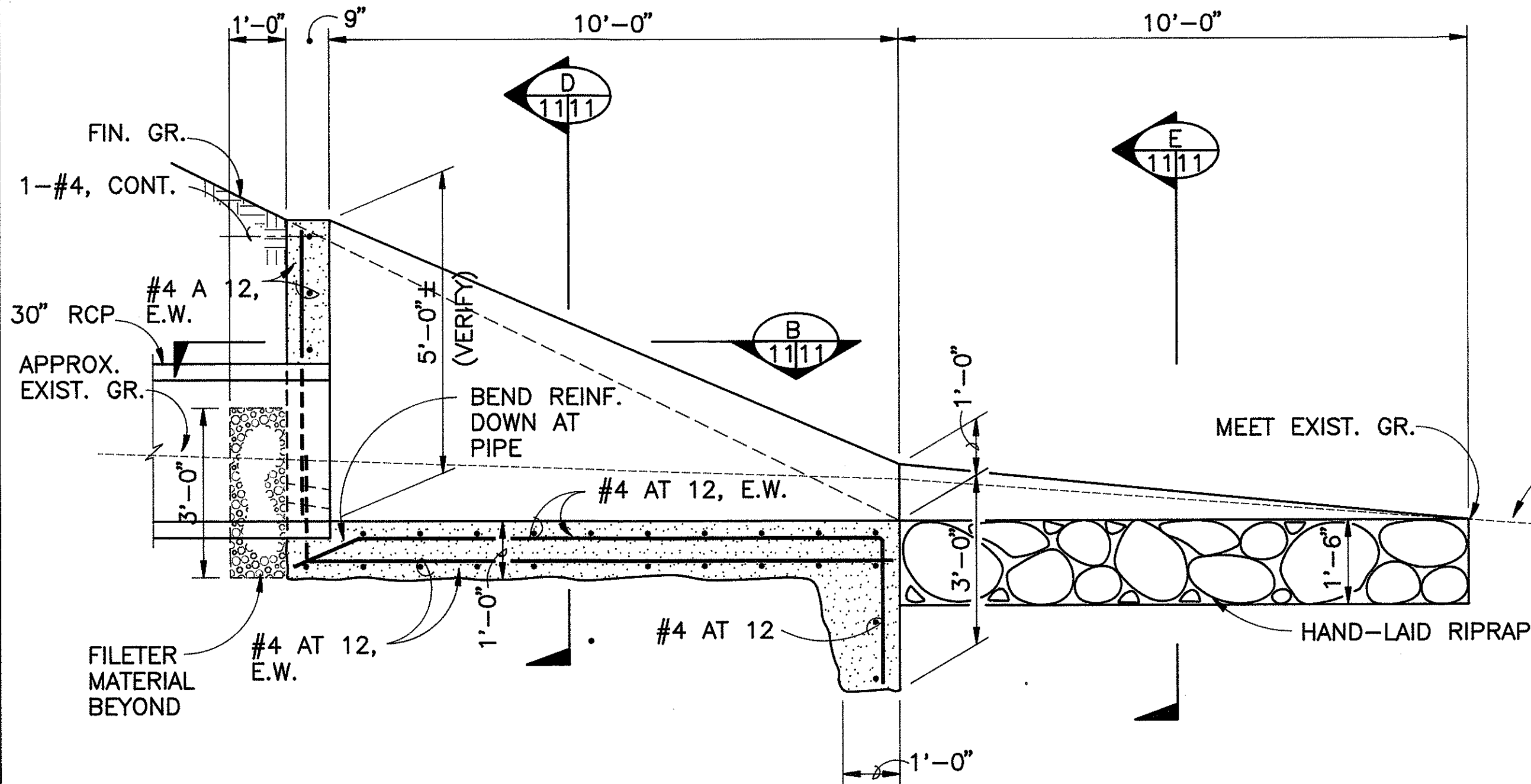
1. CONCRETE SHALL BE CLASS "A".
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 40.
3. STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36. ALL STRUCTURAL STEEL INCLUDING GRATES, FRAMES AND BOLTS SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
4. STRUCTURE EXCAVATION AND BACKFILL, CONCRETE, REINFORCING STEEL, STEEL FRAME AND GRATING, AND MANHOLE RUNGS SHALL BE INCIDENTAL TO CONCRETE DROP INTAKE.
5. ALL CONSTRUCTION KEY JOINTS SHALL CONFORM TO 



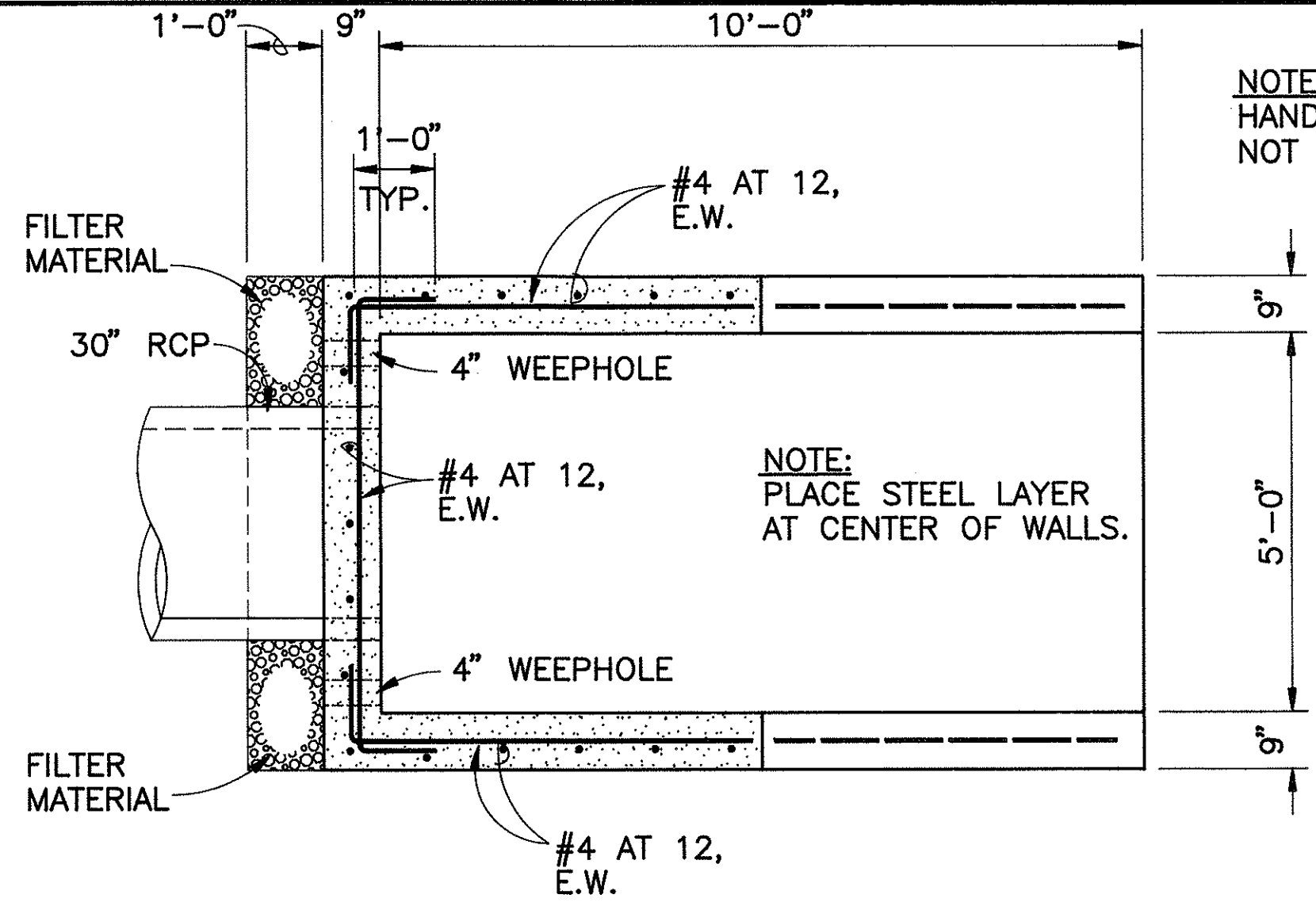
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-06-91	1991	11	12



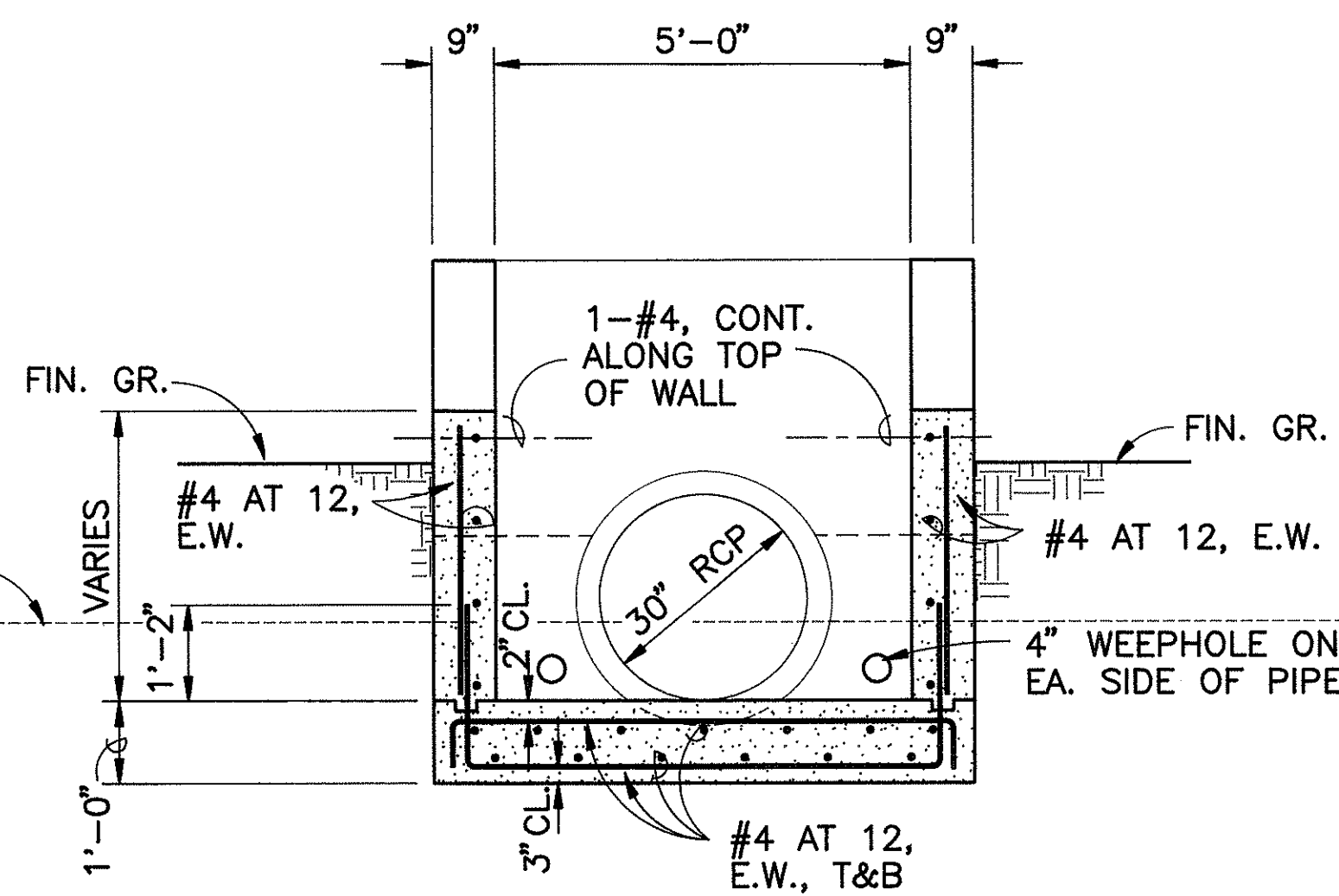
PLAN OF HEADWALL A
SCALE "1/2"



SECTION C
SCALE "1/2"

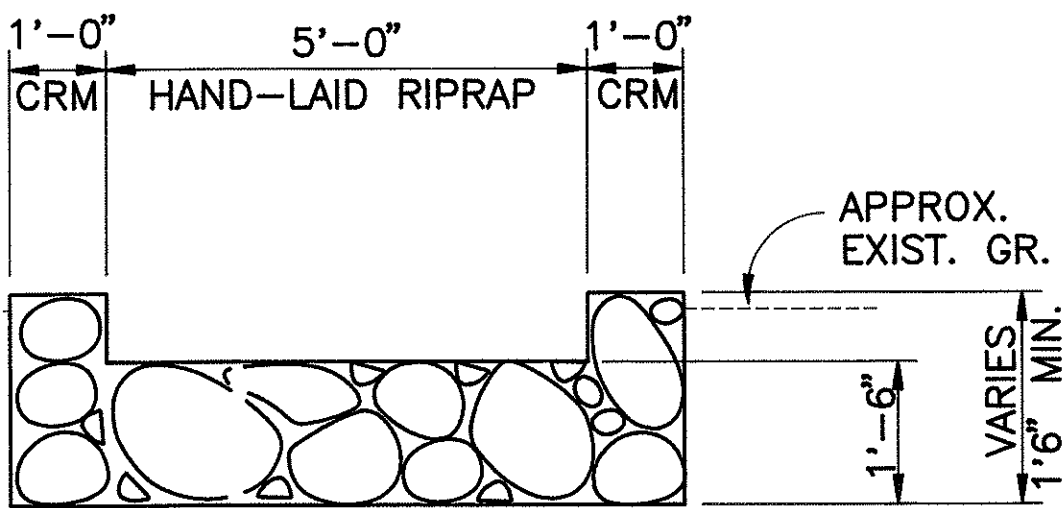


PLAN-SECTION B
SCALE "1/2"



SECTION D
SCALE "1/2"

NOTE:
FOR ADDITIONAL REINFORCING
AROUND PIPE, SEE SECTION E



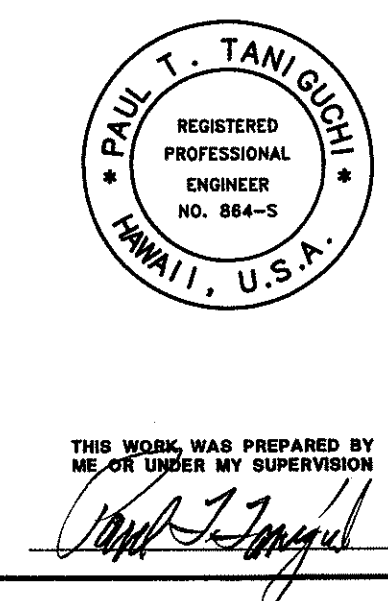
SECTION E
SCALE "1/2"

NOTE:
SEE SHEET 10 FOR NOTES ON SPECIAL DRAIN STRUCTURES.

ORIGINAL PLAN	DATE
DESIGNED BY	
CHECKED BY	
NO.	

GRAPHIC SCALE

SCALE "1/2"



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

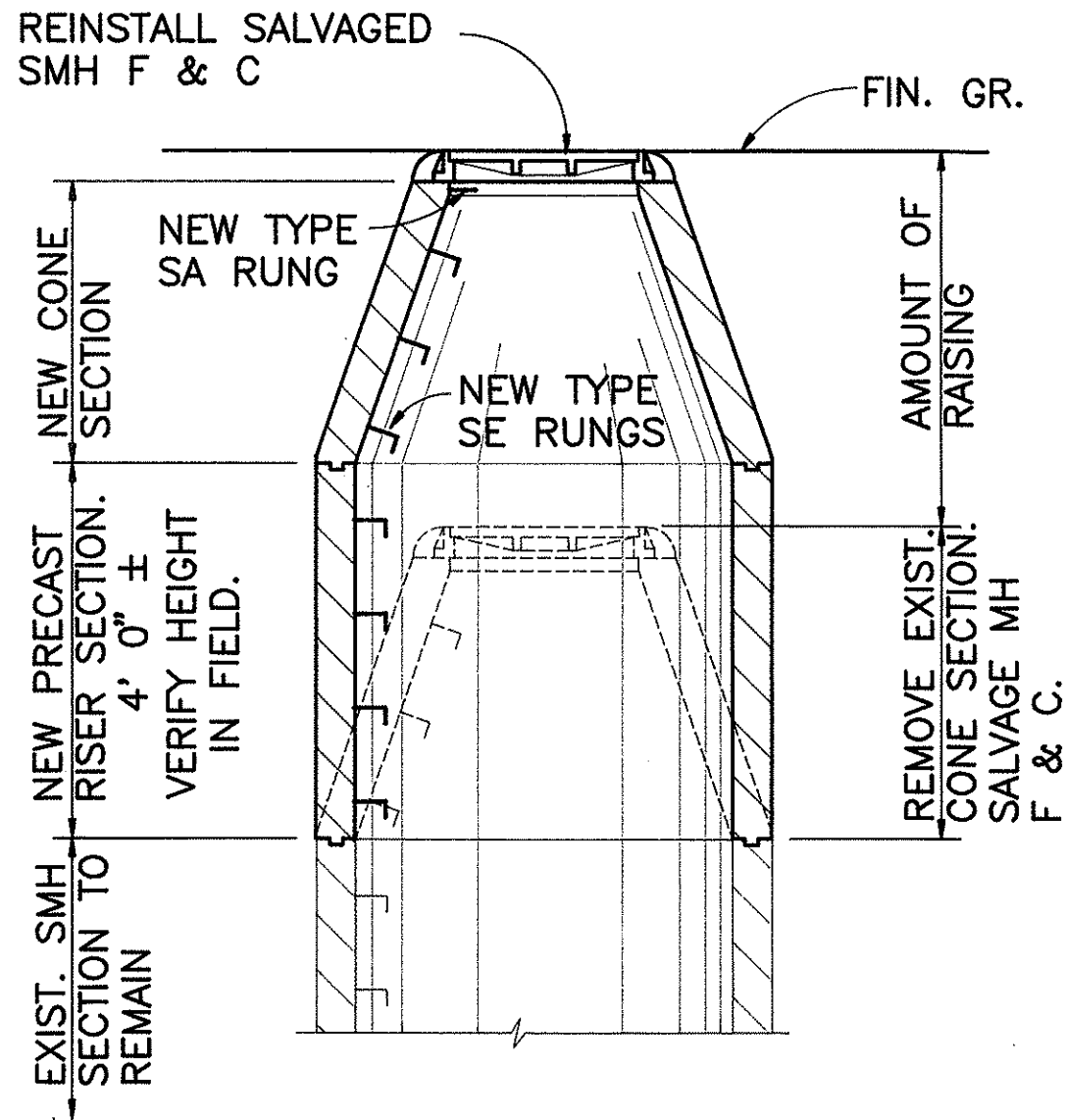
DRAINAGE DETAILS

KANEHOE BASE YARD, PHASE I
GRADING, PAVING AND
INSTALLATION OF UTILITIES
PROJECT NO. HWY-0-06-91

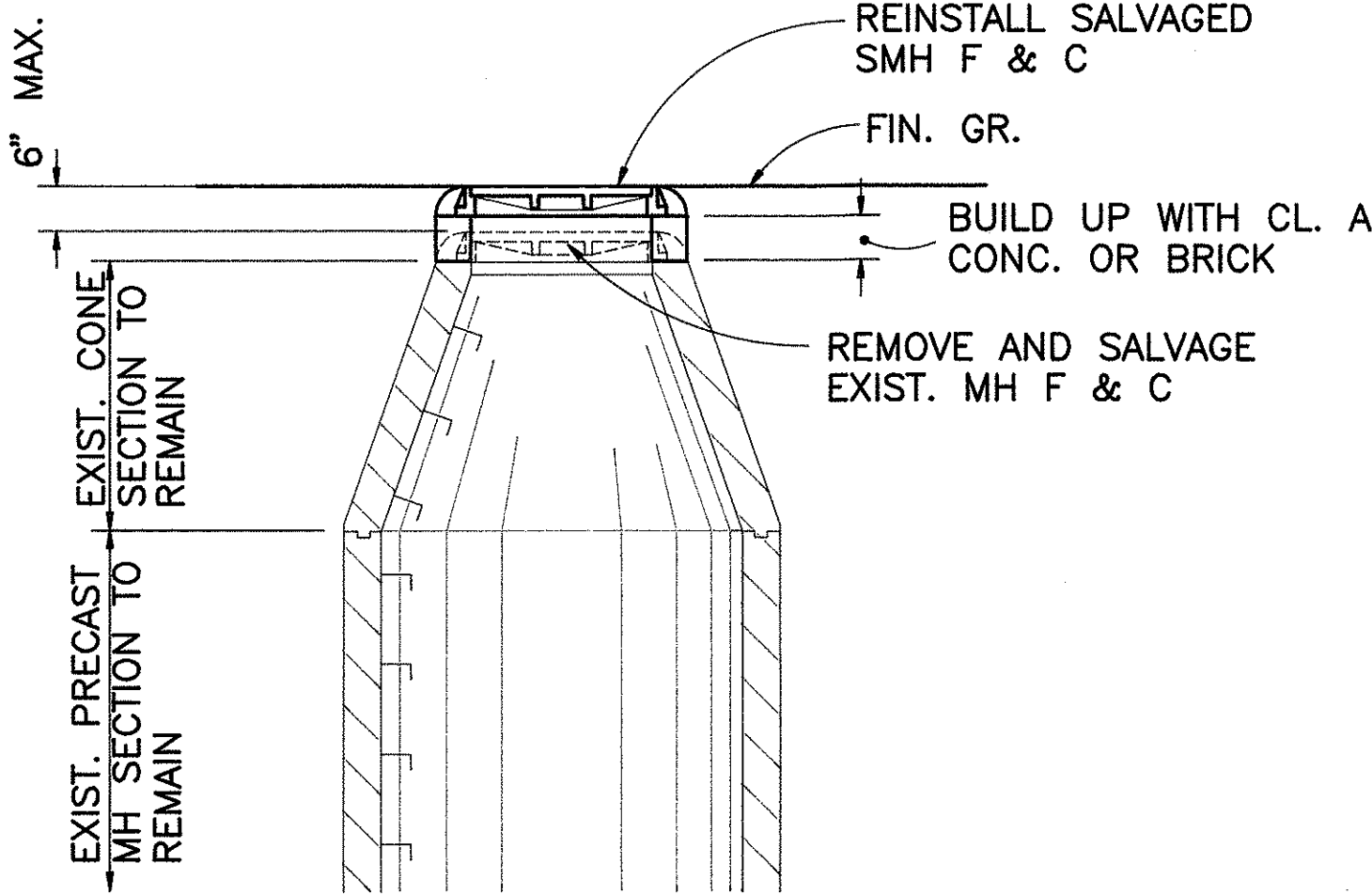
SCALE: AS NOTED DATE: 4/15/91

SHEET NO. 11 OF 12 SHEETS

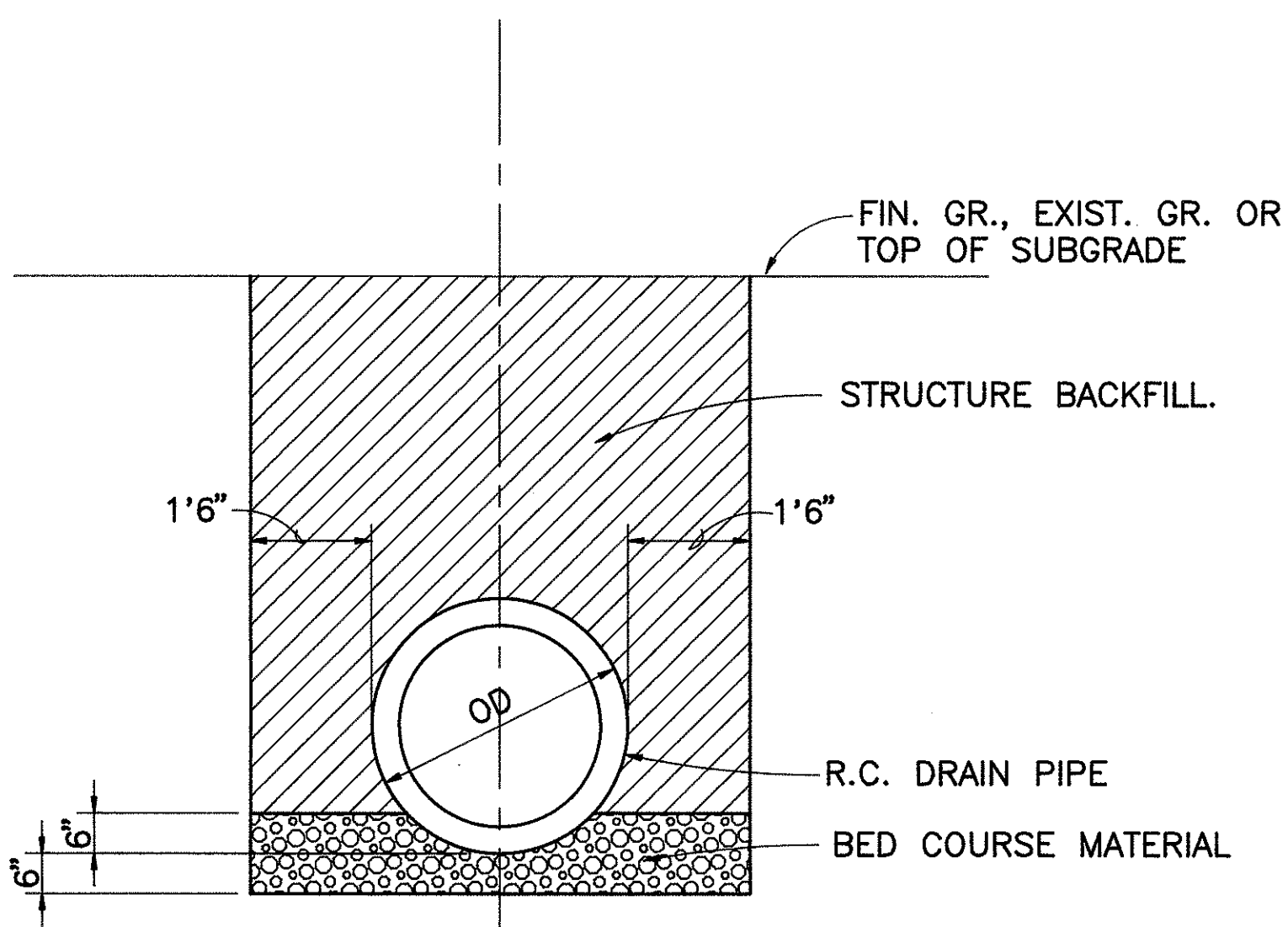
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-06-91	1991	12	12



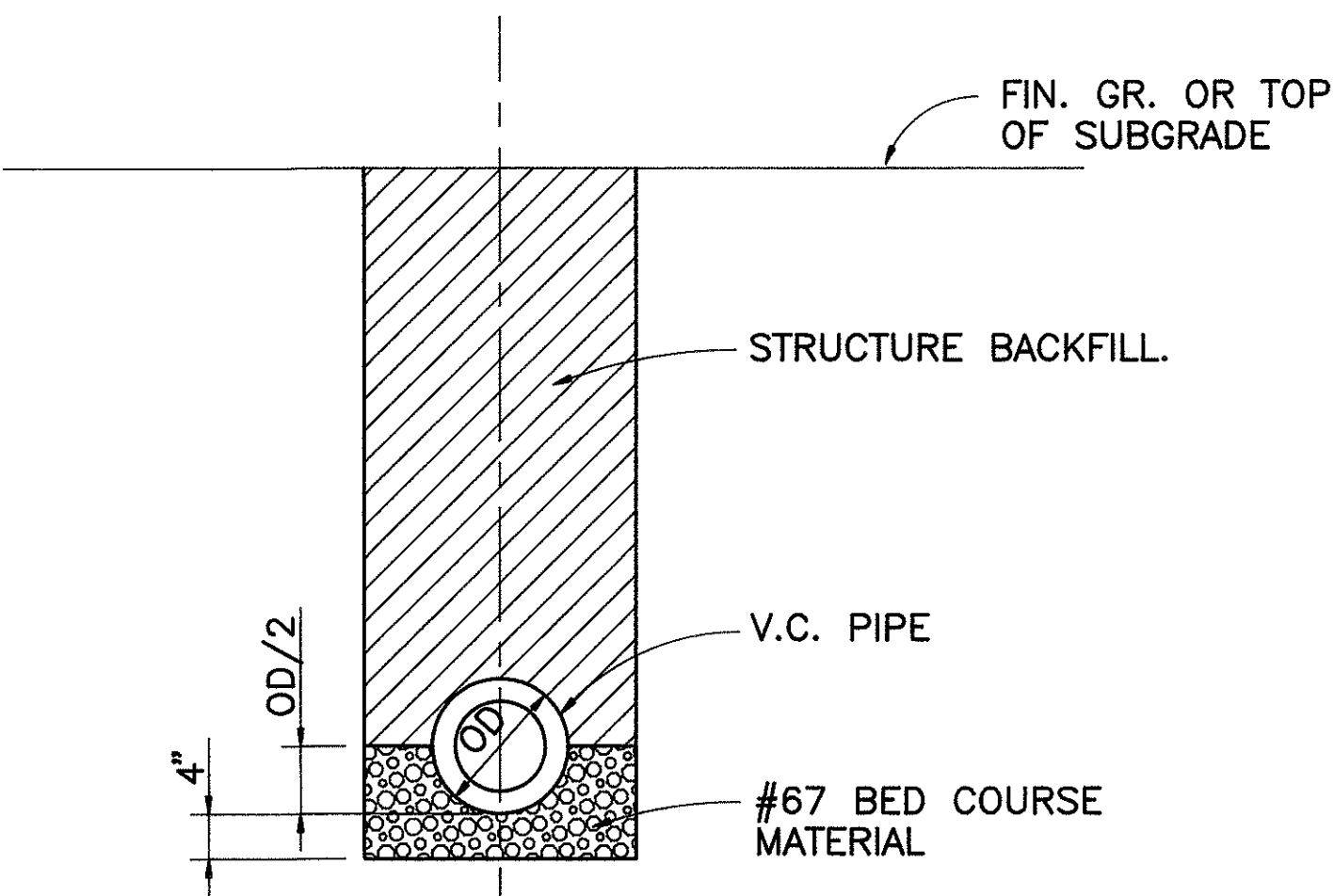
RAISING SEWER MANHOLE DETAIL
SCALE "1/2"
A
5,7/12



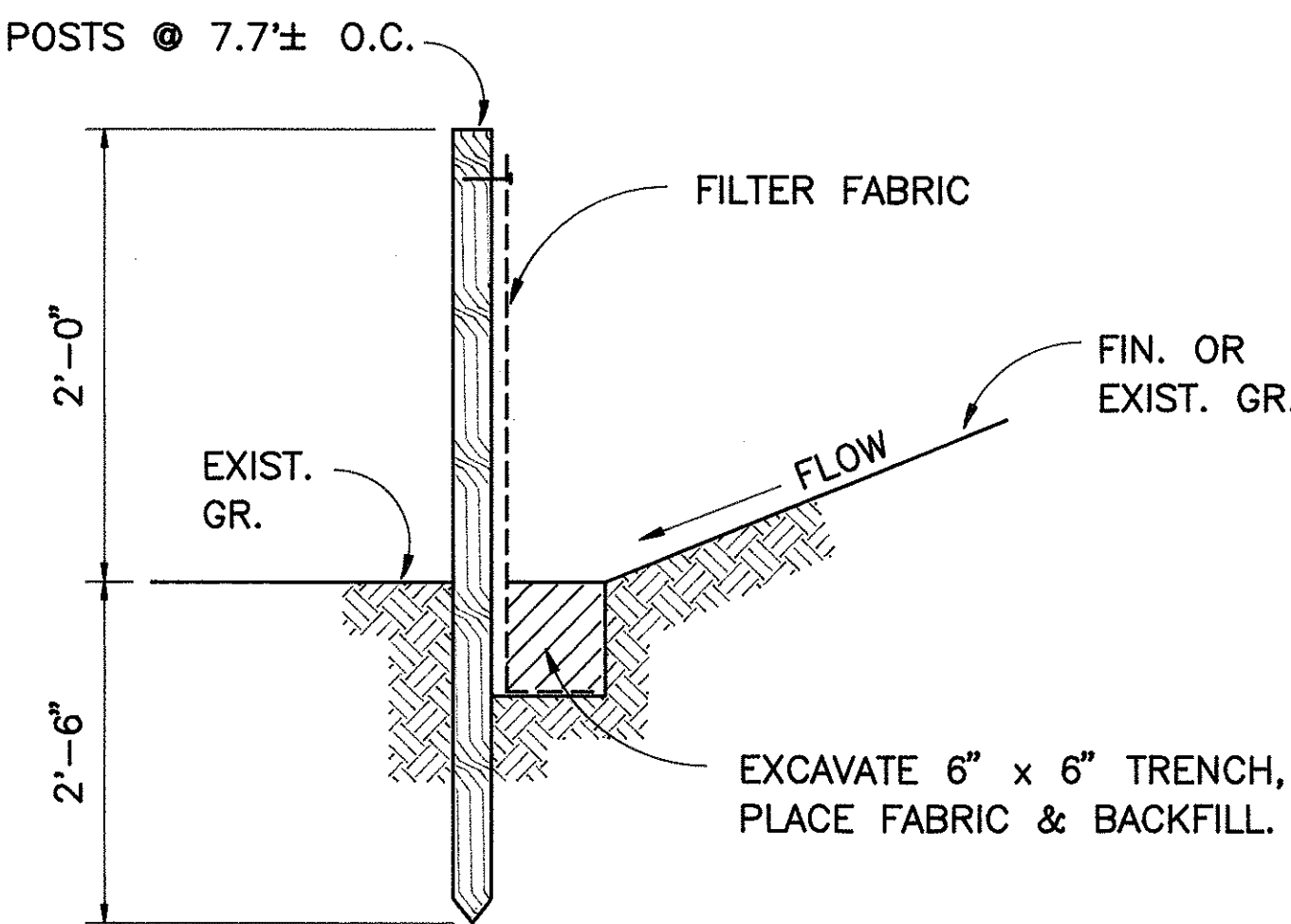
GRADE ADJUSTMENT FOR SEWER MANHOLE DETAIL
SCALE "1/2"
B
5,7/12



TYPICAL DRAIN LINE TRENCH DETAIL
NOT TO SCALE

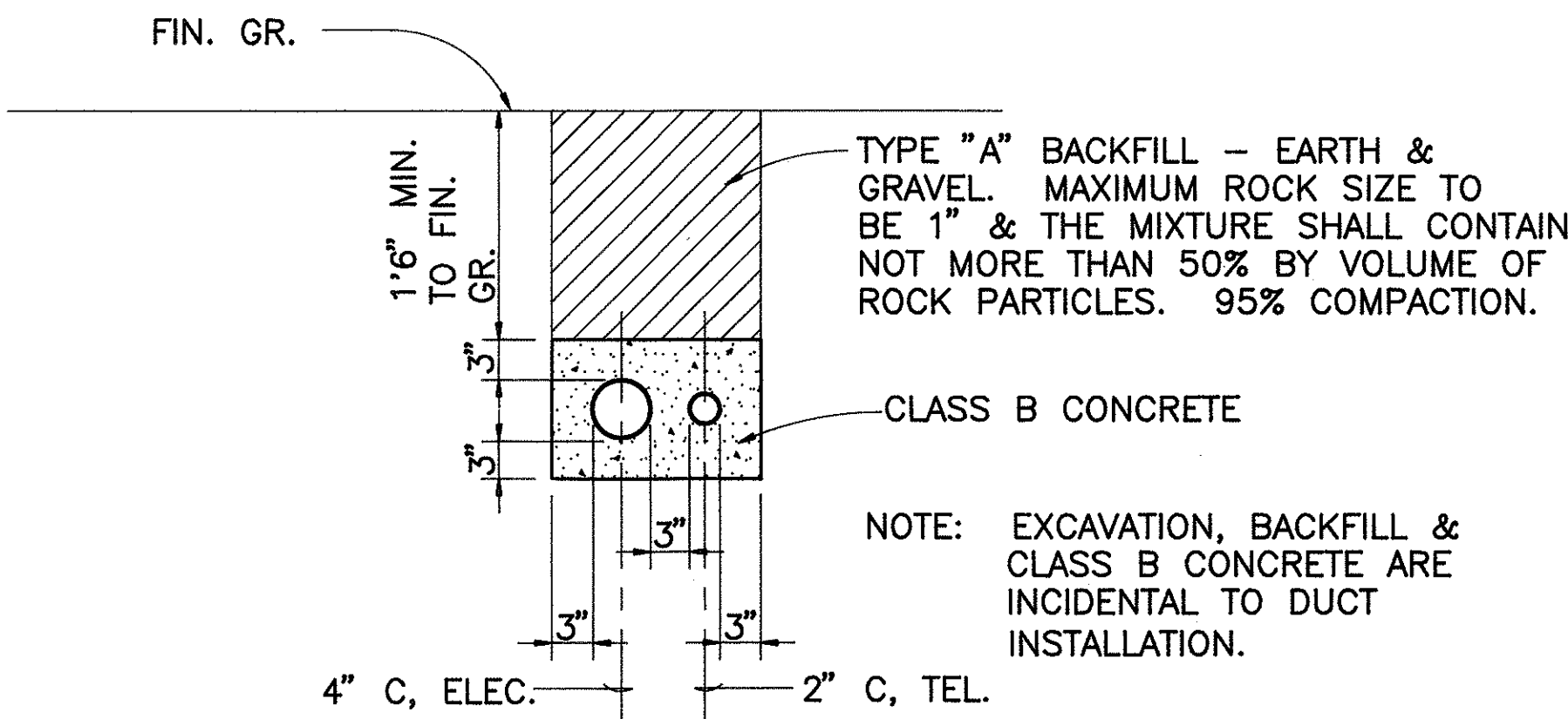


TYPICAL SEWER TRENCH DETAIL
NOT TO SCALE

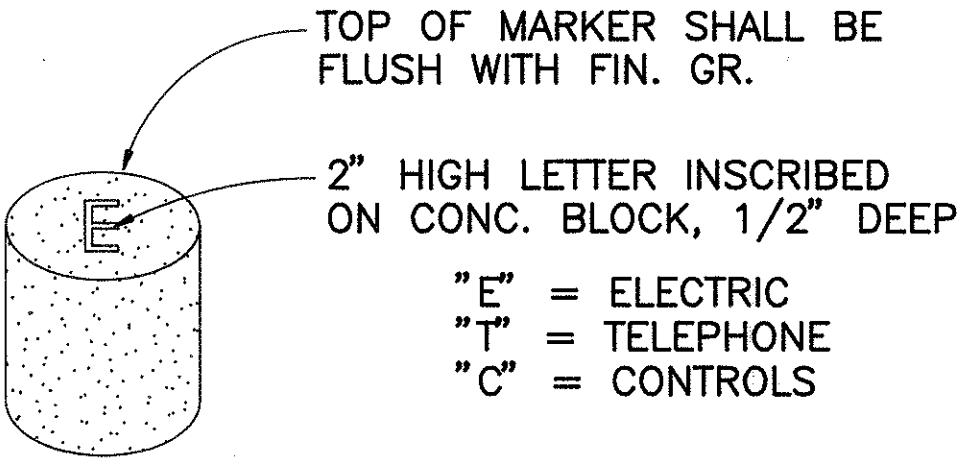


- NOTES:**
1. SEDIMENT CONTROL FENCE SHALL BE "ENVIROFENCE" SEDIMENT CONTROL SYSTEM AS MANUFACTURED BY MIRAFI, INC. OR APPROVED EQUAL. INSTALLATION OF SEDIMENT CONTROL FENCE SHALL BE DONE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
 2. SEDIMENT CONTROL FENCE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO TEMPORARY POLLUTION CONTROL.

SEDIMENT CONTROL FENCE
NOT TO SCALE



TYPICAL CONCRETE ENCASED DUCT SECTION
NOT TO SCALE



CONC. MARKER FOR DUCT STUB OUT
NOT TO SCALE

NOTE:
USE 1 LB. COFFEE CAN FOR FORMING CONC. MARKER.
REMOVE CAN PRIOR TO INSTALLATION

GRAPHIC SCALE

SCALE "1/2"
1' 0' 1' 2' 3' 4' 5'

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
NO.	

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Paul T. Taniguchi

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE, SEWER & ELECTRIC DETAILS

KANELOE BASE YARD, PHASE I
GRADING, PAVING AND
INSTALLATION OF UTILITIES
PROJECT NO. HWY-0-06-91

SCALE: AS NOTED
DATE: 4/15/91
SHEET NO. 12 OF 12 SHEETS