

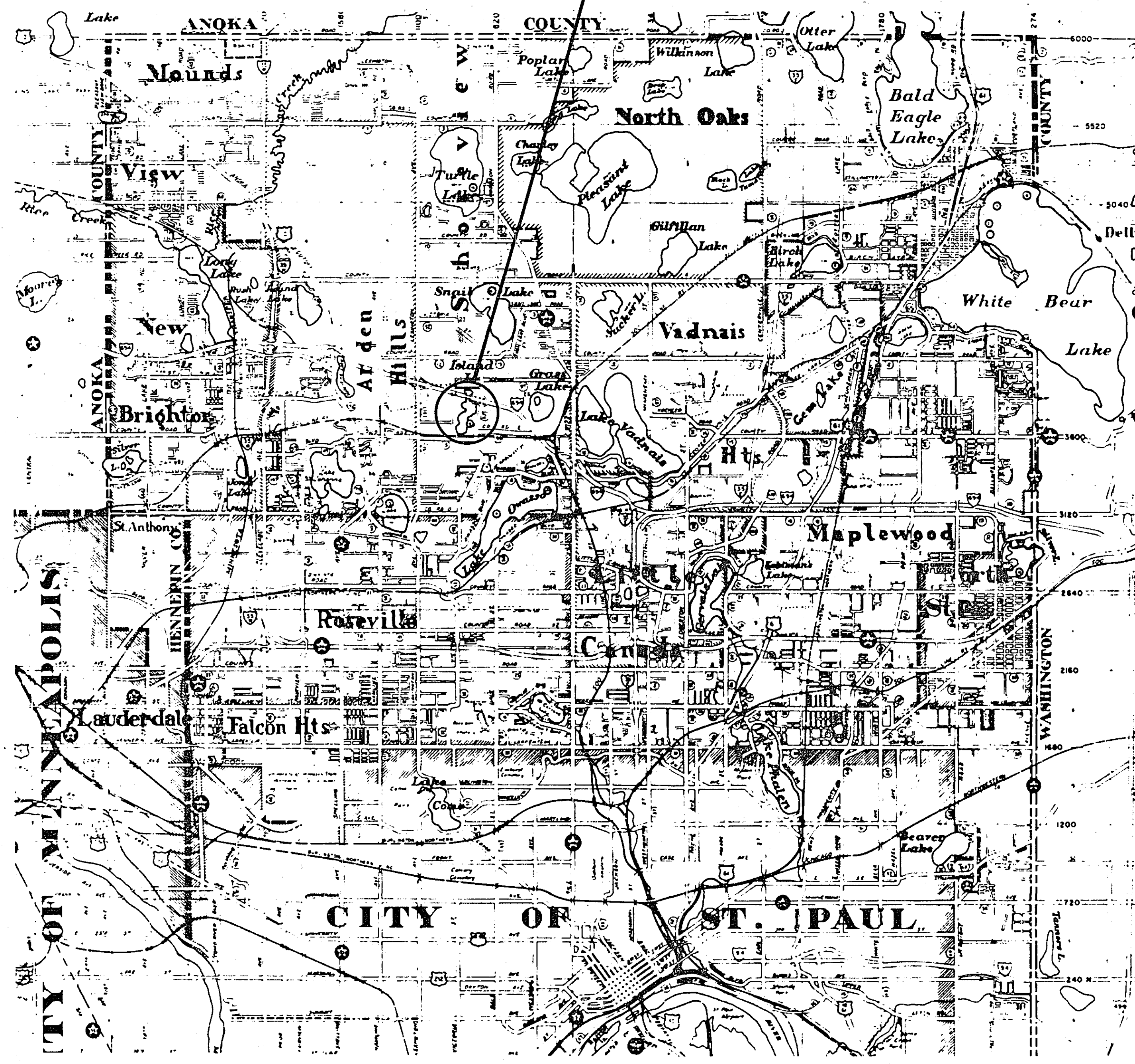
RAMSEY COUNTY
DEPARTMENT OF PUBLIC WORKS

ISLAND LAKE AERATION SYSTEM

CON. 47434

CONSTRUCTION PLANS FOR A PERMANENT
AERATION SYSTEM INCLUDING PUMP,
ELECTRIC SERVICE, AND AERATION CHUTE.

PROJECT SITE LOCATION



PLANS SYMBOLS

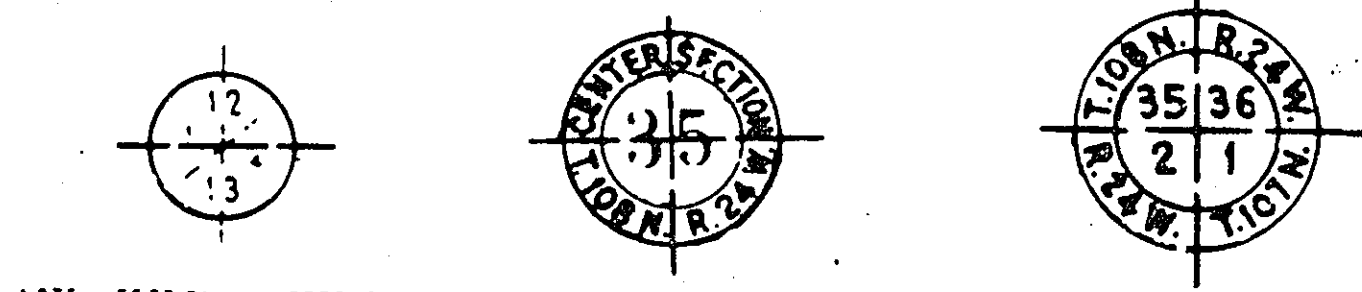
- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- RIGHT OF WAY LINE
- PRESENT RIGHT OF WAY LINE
- CONTROL OF ACCESS LINE
- PROPERTY LINE (Except Land Lines)
- HATCHED PLATED PROPERTY
- CORPORATE OR CITY LIMITS
- TRUNK HIGHWAY CENTER LINE
- RETAINING WALL
- RAILROAD
- RAILROAD RIGHT OF WAY LINE
- RIVER OR CREEK
- DRY RUN
- DRAINAGE DITCH
- DRAIN TILE
- CULVERT
- DROP INLET
- GUARD RAIL
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- RAILROAD SNOW FENCE
- STONE WALL OR FENCE
- HEDGE
- RAILROAD CROSSING SIGN
- RAILROAD CROSSING BELL
- ELECTRIC WARNING SIGN
- CROSSING GATE
- MEANDER CORNER
- SLOPE EASEMENT (CONST. LIMITS)

UTILITIES SYMBOLS

- POWER POLE LINE
- TELEPHONE OR TELEGRAPH POLE LINE
- JOINT TELEPHONE AND POWER ON POWER POLES
- ON TELEPHONE POLES
- ANCHOR
- STEEL TOWER
- STREET LIGHT
- PEDESTAL TELEPHONE CABLE TERMINAL
- GAS MAIN
- WATER MAIN
- CONDUIT
- TELEPHONE CABLE IN CONDUIT
- ELECTRIC CABLE IN CONDUIT
- TELEPHONE MANHOLE
- ELECTRIC MANHOLE
- BURIED TELEPHONE CABLE
- BURIED ELECTRIC CABLE
- AERIAL TELEPHONE CABLE
- SEWER, (SANITARY OR STORM)
- SEWER MANHOLE

INDEX OF PLAN SHEETS

SHEET NUMBER	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES & DETAILS
3	DETAILS
4	GRATE DETAIL
5	PLAN & PROFILE



THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

DESIGN SQUAD KMR DRB DATE 7/25/89
DRAWN BY KMH DRB CMD DATE 7/25/89
CHECKED BY JET DATE 7/25/89

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE 8/18/89 REG. NO. 14159 ENGR. James E. Johnson

RAMSEY COUNTY

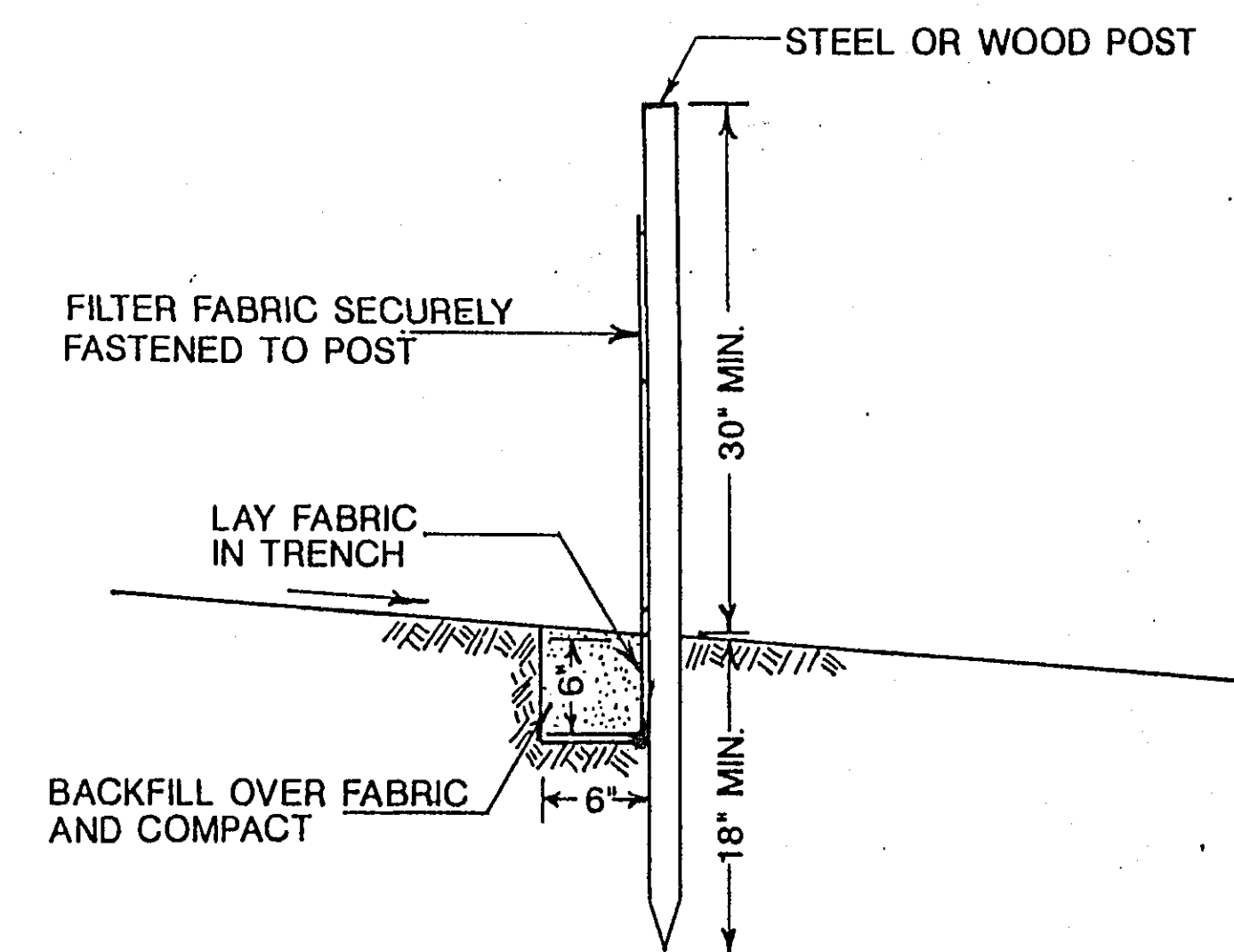
- RECOMMENDED FOR APPROVAL DSS TRAFFIC ENGR. DATE 8/21/89
- RECOMMENDED FOR APPROVAL KMR ENV. ENGR. DATE 8/18/89
- RECOMMENDED FOR APPROVAL JET MAINT. ENGR. DATE 8-21-89
- RECOMMENDED FOR APPROVAL LKF CONST. ENGR. DATE 8-21-89
- RECOMMENDED FOR APPROVAL PLR DESIGN ENGR. DATE 8-21-89
- RECOMMENDED FOR APPROVAL JAG CIV. ENGR. DATE 8-21-89
- RECOMM'D W. J. Leonard ENGR. DATE 8/21/89
- RECOMM'D Paul J. Schulz ASSISTANT CO. ENGINEER DATE 8/23/89
- RECOMMENDED FOR APPROVAL Samuel E. Wolfson COUNTY ENGINEER DATE 8-23-89
- APPROVED Z. A. Ungard CHAIR OF THE RAMSEY COUNTY BOARD DATE 9-12-89
- APPROVED James O. Mearns DIRECTOR RAMSEY COUNTY PARKS & RECREATION DATE 8-22-89
- APPROVED _____ DATE _____

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY:
DATE:

PLAN REVISIONS			
DATE	SHEET NO.	BY	BY

STATEMENT OF ESTIMATED QUANTITIES

ITEM NUMBER	CONTRACT ITEM	UNIT	ESTIMATED QUANTITY
2021.501	MOBILIZATION	L.S.	1
2105.523	COMMON BORROW	C.Y.	200
2105.525	TOPSOIL BORROW	C.Y.	20
2411.507	CONCRETE DIVERSION STRUCTURE	EA.	1
2501.515	15" RC APRON	EA.	1
2503.511	12" PVC PIPE SEWER, SDR 35	L.F.	979 977
2503.511	12" PVC OUTLET PIPE, SDR 35	L.F.	50 57
2503.511	18" PVC PIPE SEWER, SDR 35	L.F.	200 183
2503.511	15" RC PIPE SEWER	L.F.	9
2503.573	12" PVC 90 DEGREE BEND WITH FLANGE	EA.	1
2503.573	12" PVC 22.5 DEGREE BEND	EA.	6 7
2503.573	12" PVC TEE	EA.	1
2503.573	12" PVC PLUG	EA.	1
2503.573	27" PVC 90 DEGREE BEND	EA.	1
2503.573	27" X 18" PVC INCREASER	EA.	1
2503.573	AERATION CHUTE	EA.	1
2503.573	12" GATE VALVE	EA.	1
2503.573	27" GRATE	EA.	1
2503.573	MANHOLE GRATE	EA.	1
2503.573	DIVERSION STRUCTURE GRATE	EA.	2
2506.506	CONSTRUCT MANHOLE, DESIGN A OR F	L.F.	4
2506.508	PUMP SYSTEM	SYSTEM	1
2511.501	GROUTED RIP RAP, CLASS II	C.Y.	3.4
2511.515	GEOTEXTILE FILTER, TYPE III	S.Y.	22 10
2573.503	SILT FENCE	L.F.	280 0
2575.505	SODDING	S.Y.	720 800

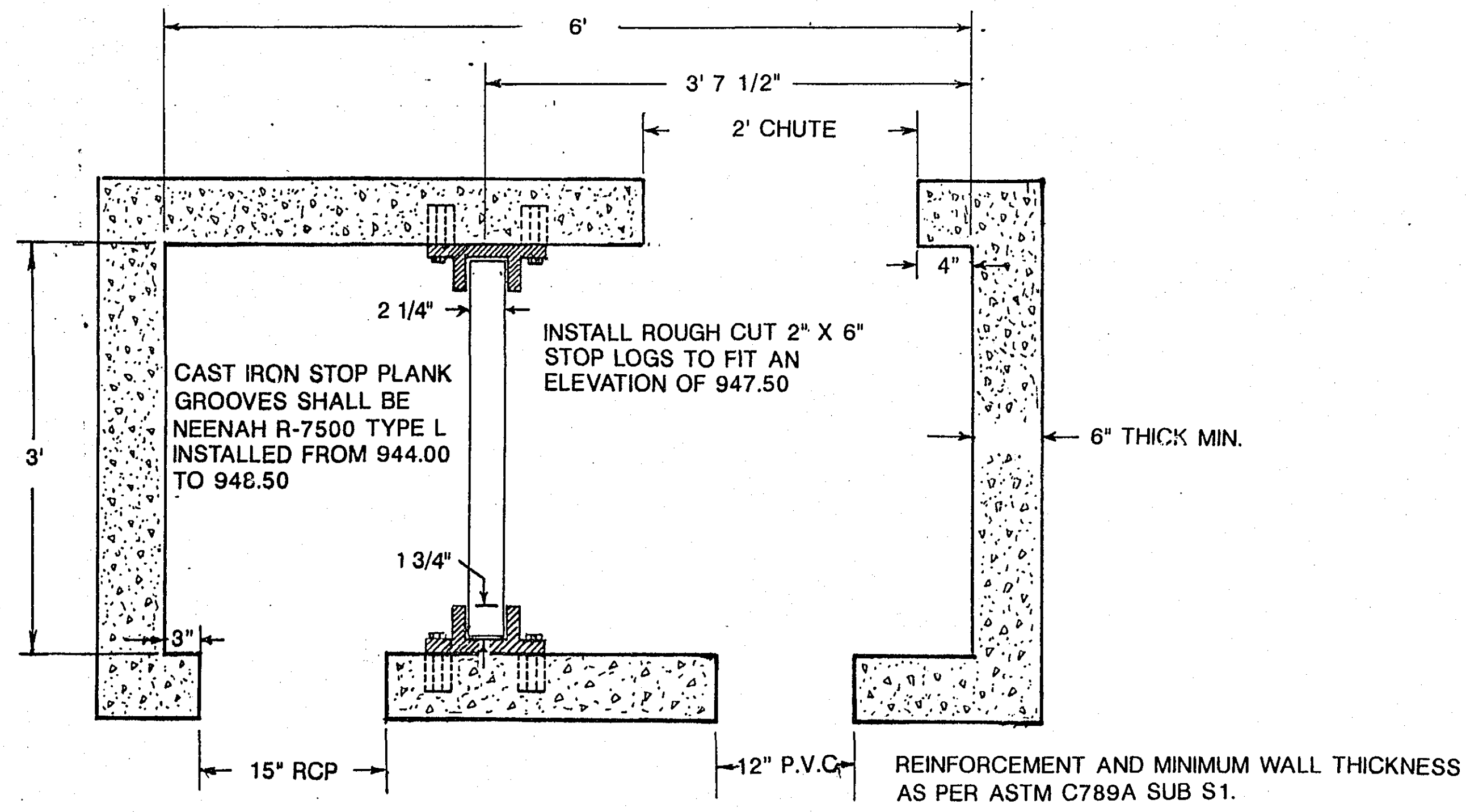


SEE PLAN SHEET FOR SILT FENCE LOCATIONS

SILT FENCE DETAIL
SCALE: NONE

ASBUILT PLAN
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DATE:

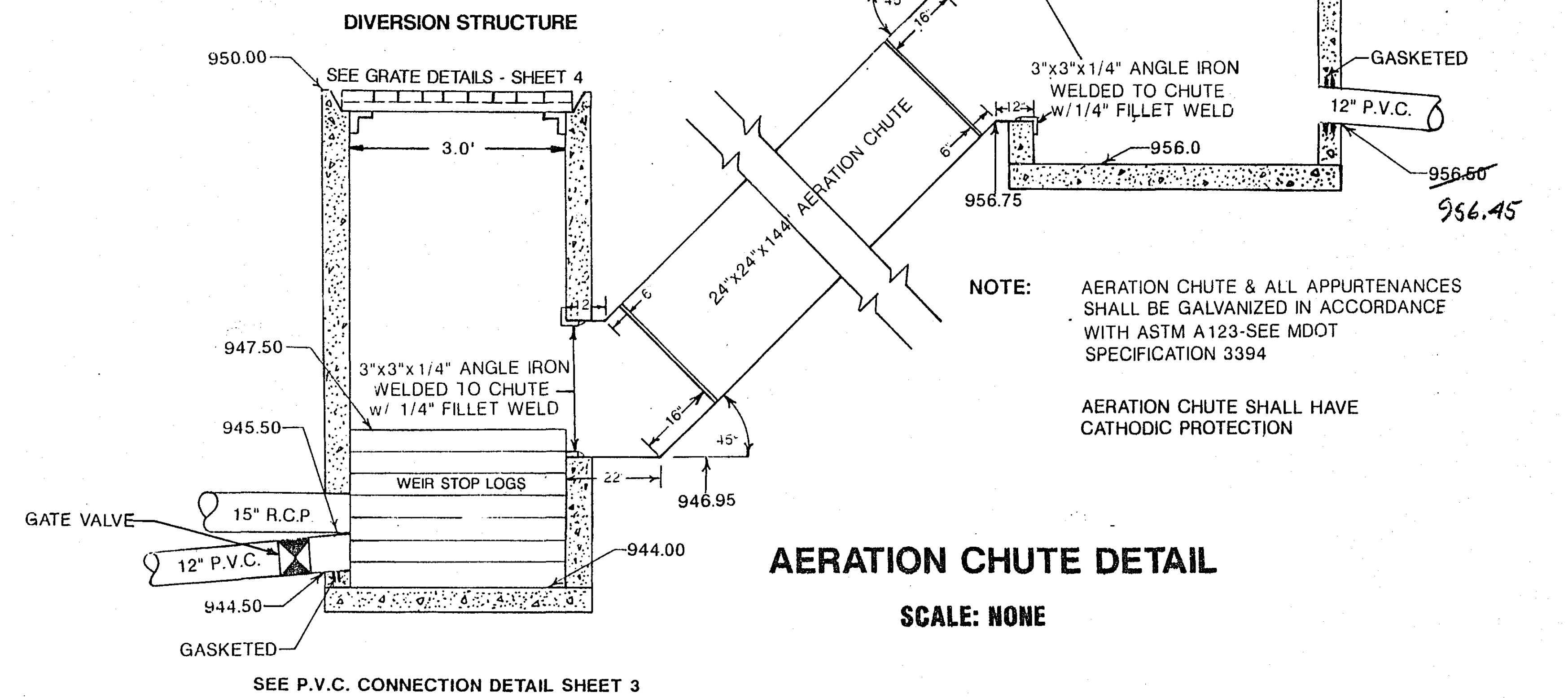


DIVERSION STRUCTURE DETAIL

SCALE: 1" = 1'-0"

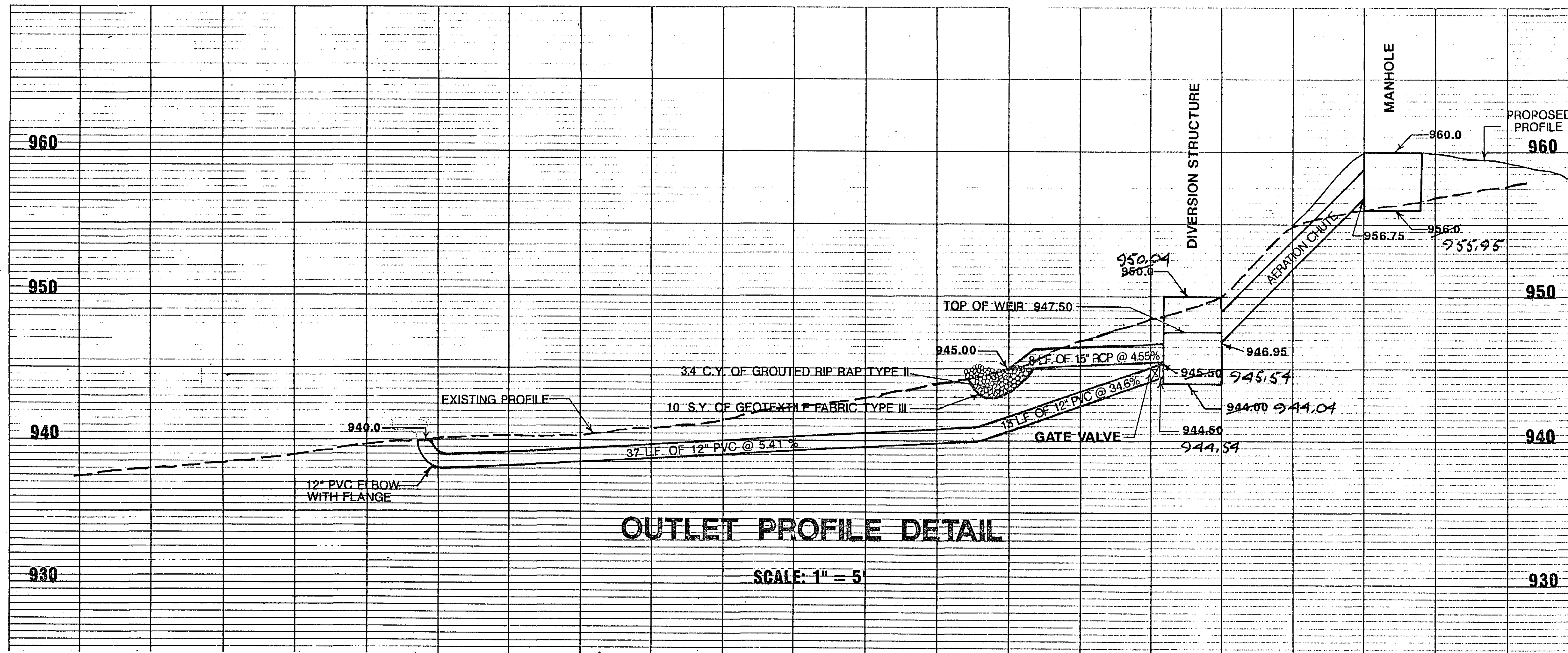
NOTE: MANHOLE CUTOUT SURFACES SHALL BE TREATED WITH NEAT CEMENT PRIOR TO GROUTING IN APPURTENANCES.

NOTE: AERATION CHUTE SHALL BE A H&H MODEL 360 GALVANIZED CHUTE OR APPROVED EQUIV.



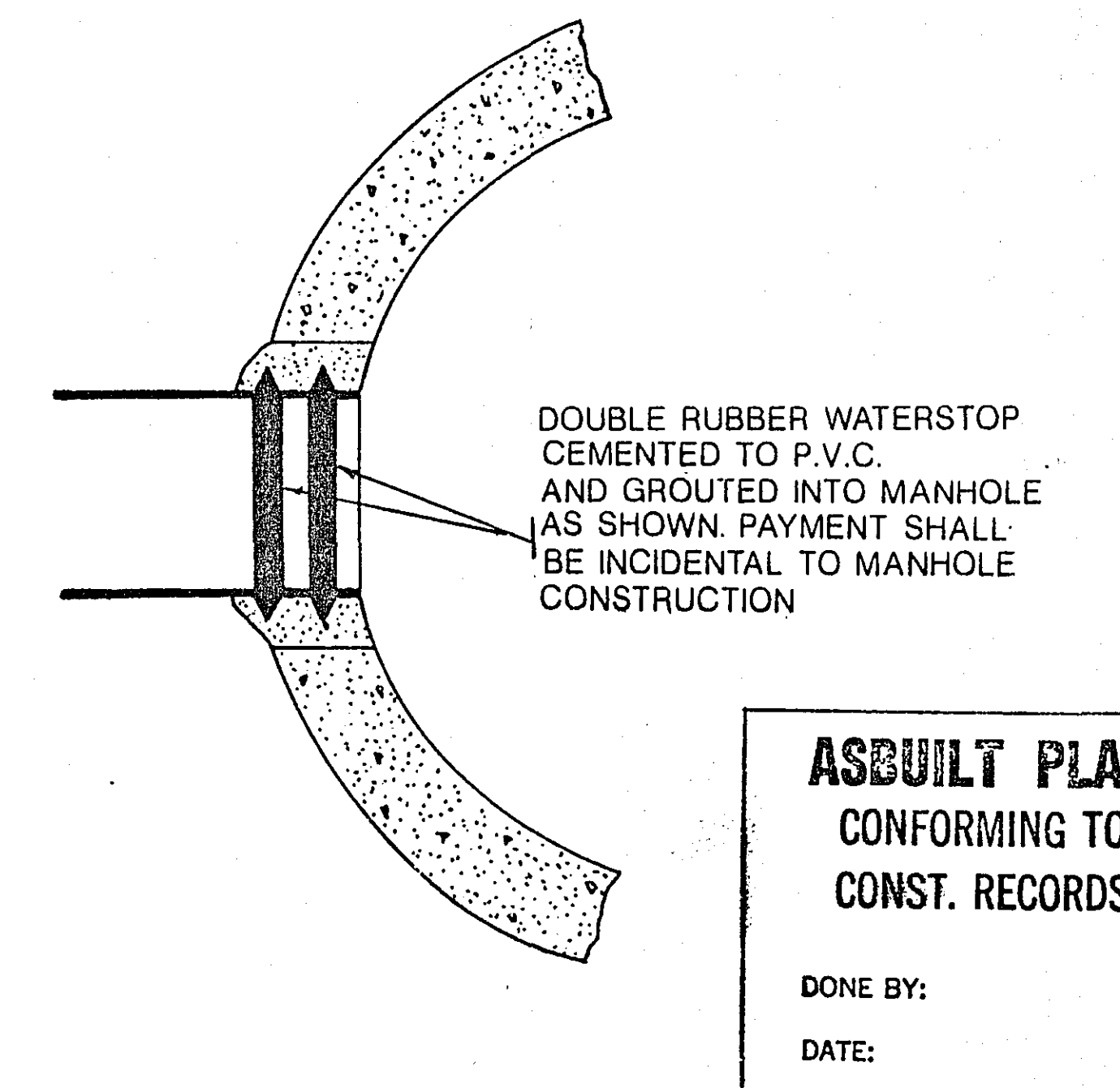
AERATION CHUTE DETAIL

SCALE: NONE



OUTLET PROFILE DETAIL

SCALE: 1" = 5'



P.V.C. MANHOLE CONNECTION DETAIL

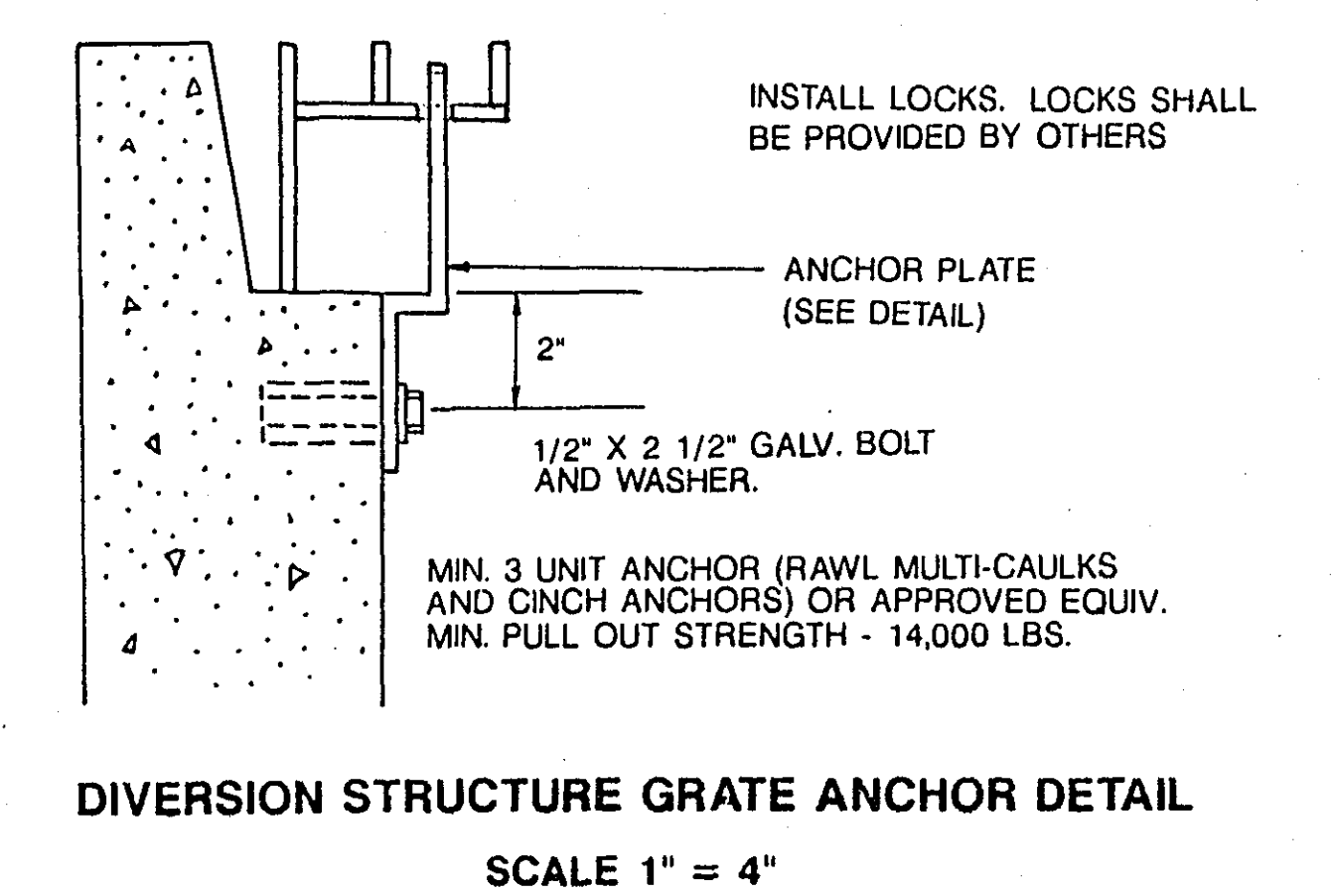
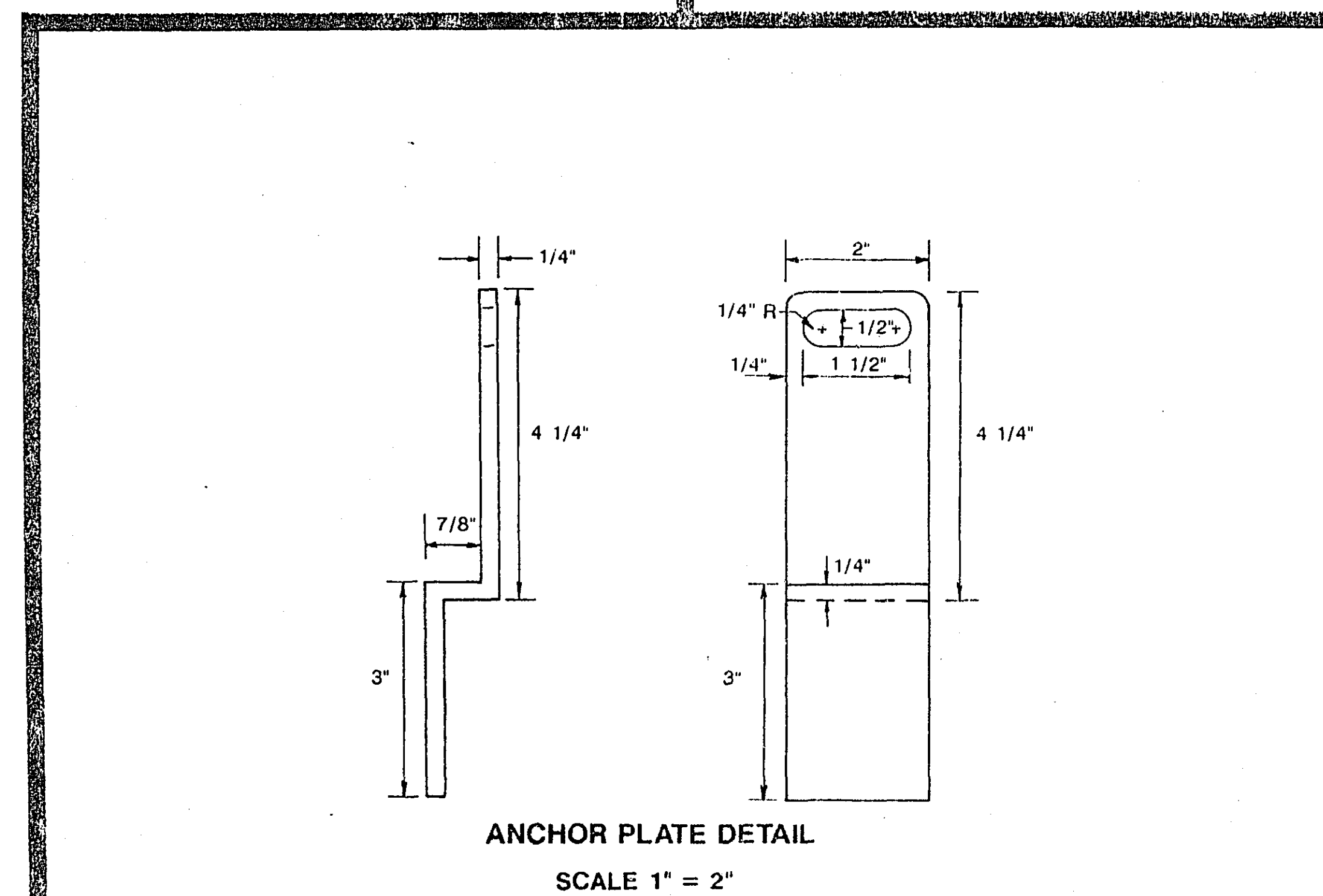
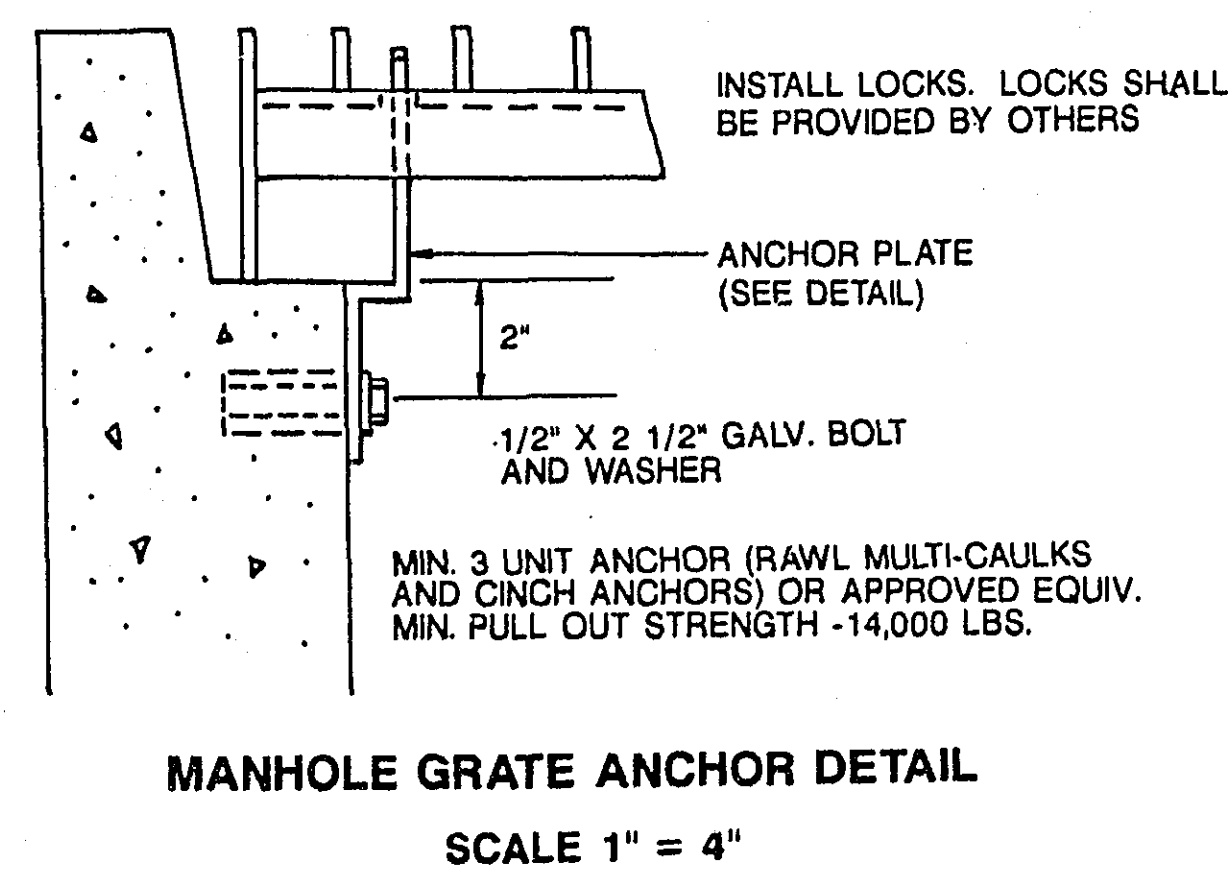
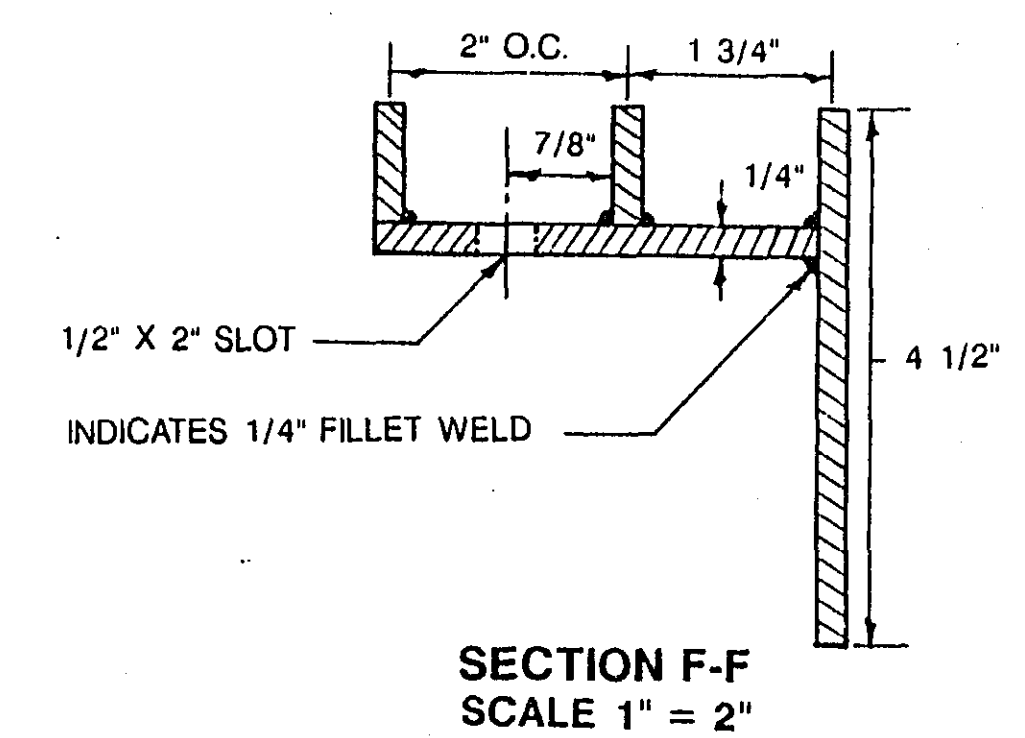
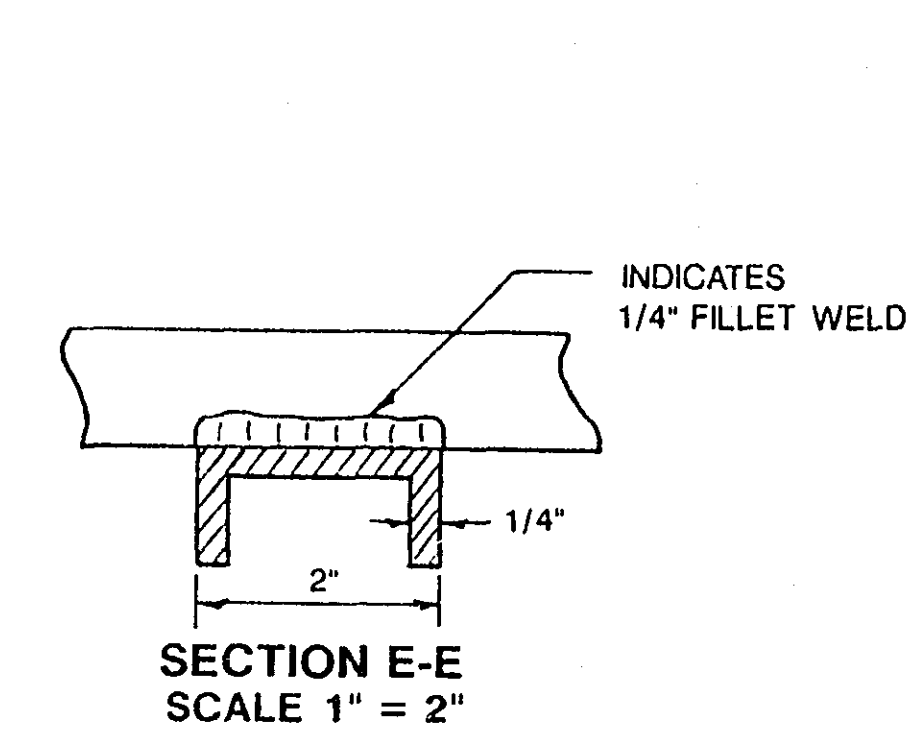
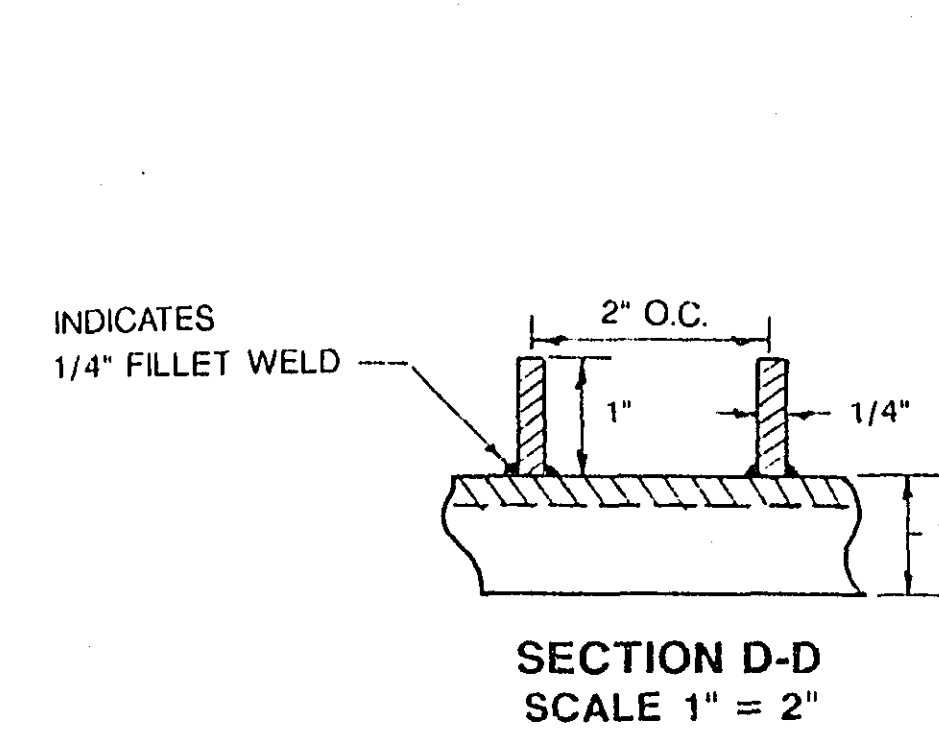
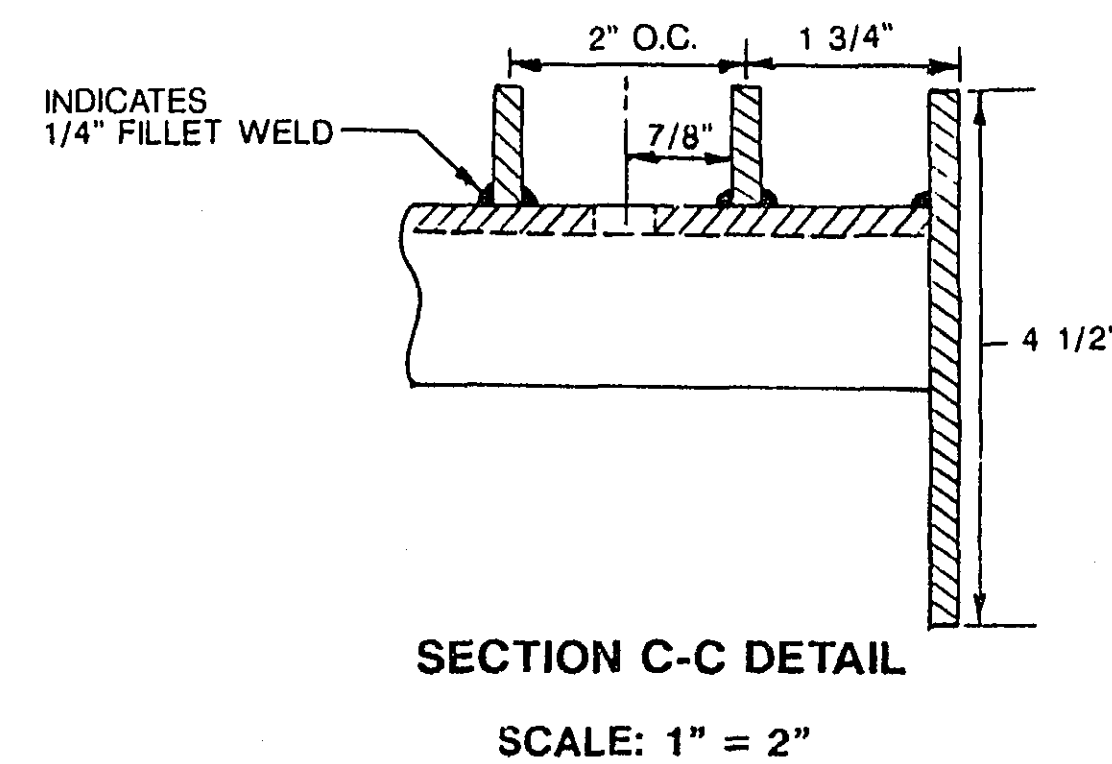
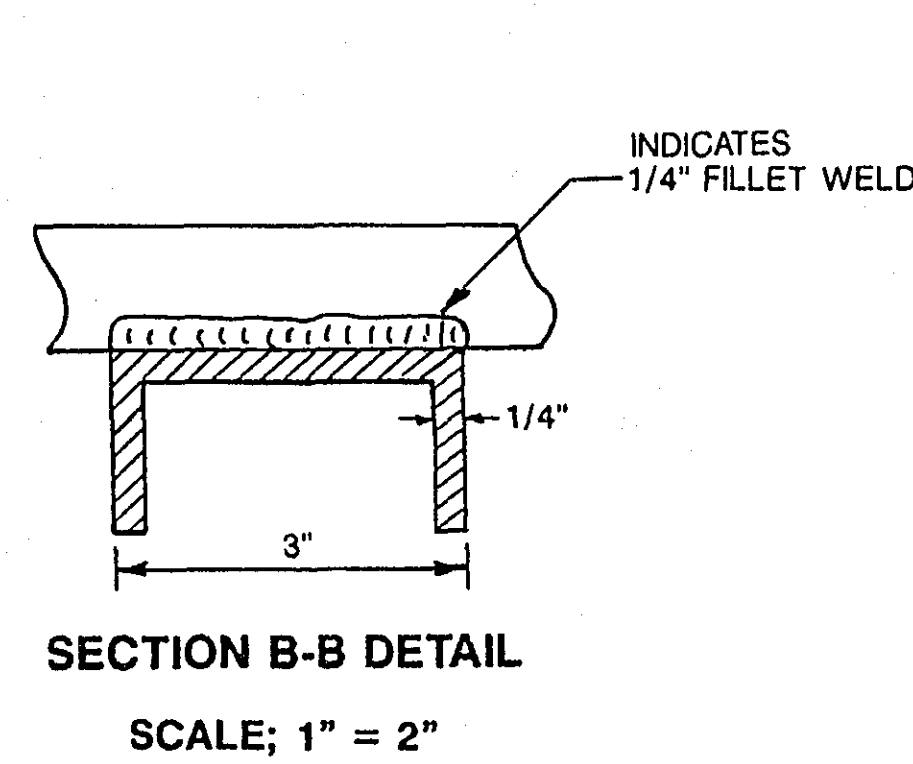
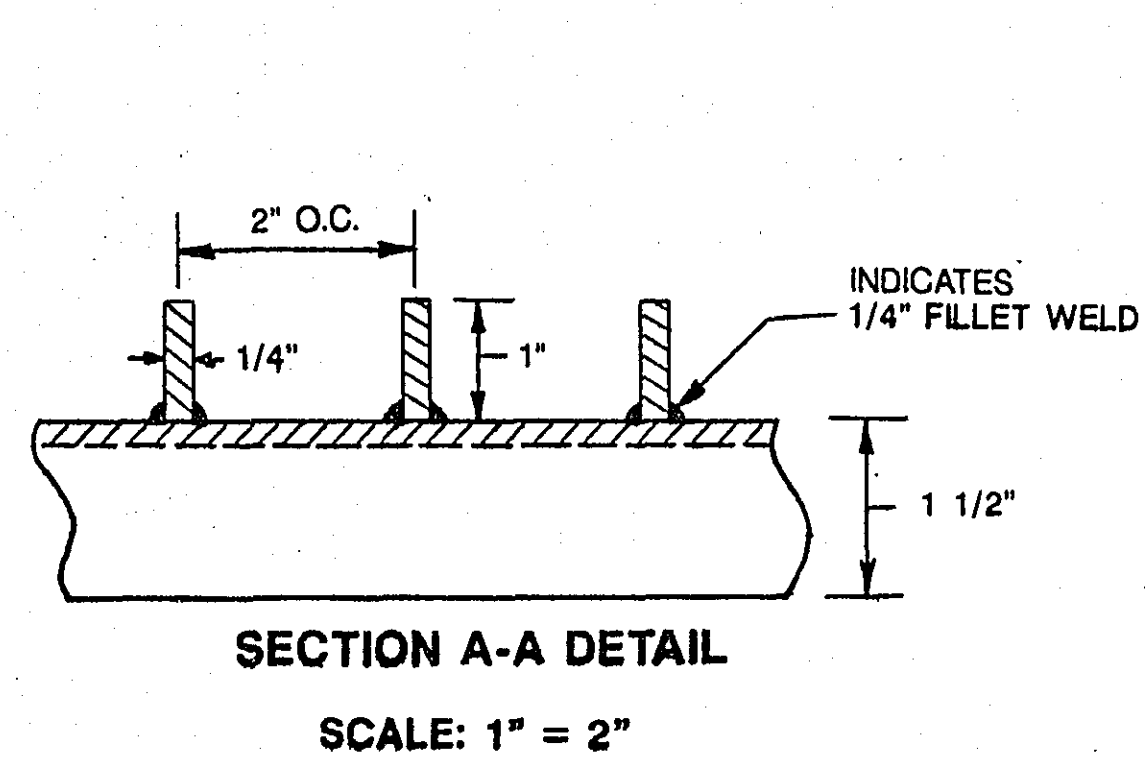
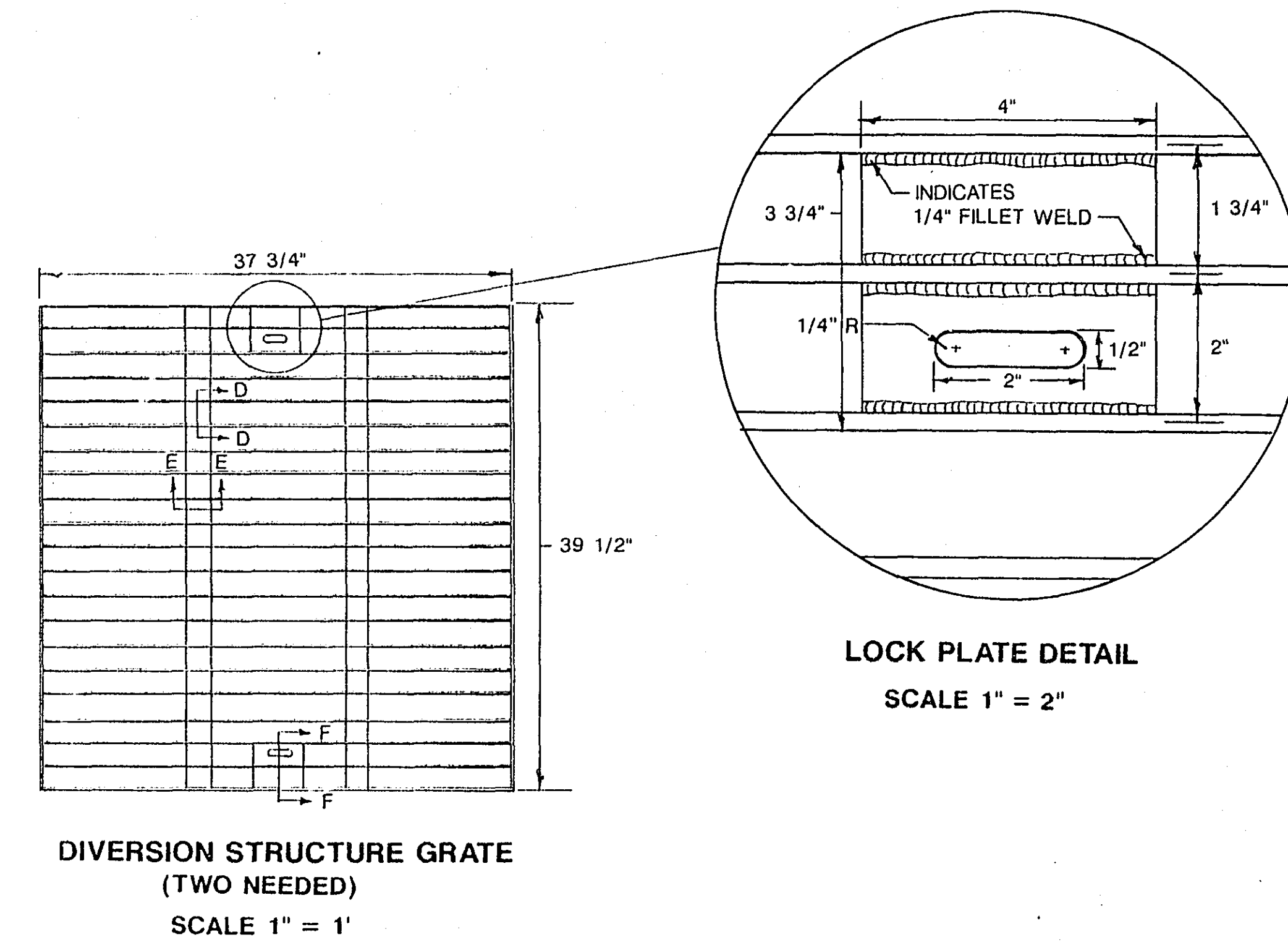
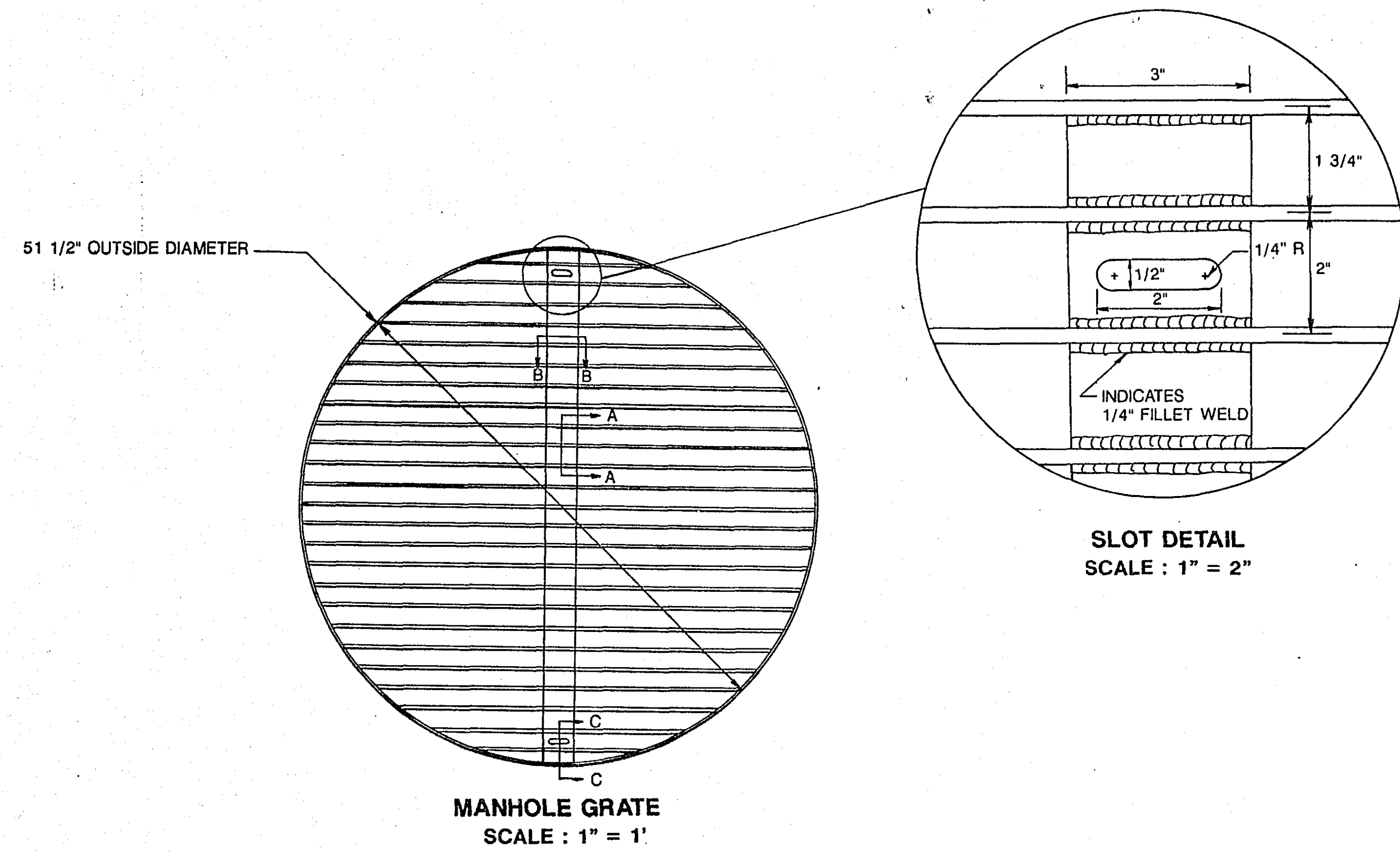
SCALE: NONE

ASBUILT PLAN
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DONE BY:
DATE:

MANHOLE GRATE DETAILS

DIVERSION STRUCTURE GRATE DETAILS

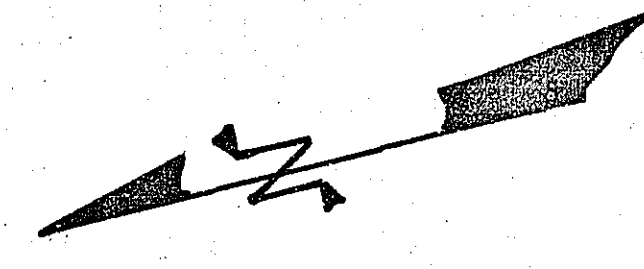


ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: _____

DATE: _____

ISLAND LAKE



SCALE: 1" = 50'

CONTRACTOR SHALL CONFINE ALL WORK ACTIVITIES WITHIN CONSTRUCTION LIMITS SHOWN. ANY CORRECTIVE WORK REQUIRED OUTSIDE THOSE LIMITS SHALL BE AT THE CONTRACTOR'S EXPENSE, AND BE SUBJECT TO APPROVAL BY THE ENGINEER.

CONTRACTOR SHALL SAFEGUARD ALL PARK AMENITIES (PICNIC TABLES, SHELTERS, ETC.) ANY DAMAGE TO SUCH STRUCTURES SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL ASSUME ALL COSTS ASSOCIATED WITH SUCH WORK.

NOTE:
CONTRACTOR SHALL SAFEGUARD EXISTING TREES. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY BY AN EXPERIENCED ARBORIST OR TO THE SATISFACTION OF THE ENGINEER. SHOULD DAMAGE REQUIRE SUBSEQUENT REMOVAL, REPLACEMENT WITH A TREE OF EQUAL VALUE UP TO \$250.00 SHALL BE PROVIDED PRIOR TO FINAL PAYMENT.

SILT FENCE SHALL BE INSTALLED AND MAINTAINED AT THE FOLLOWING LOCATIONS:
STA -1+10 LEFT 15' TO RIGHT 15'
STA 10+00 LEFT 15' TO RIGHT 15'

RECORD HIGH: 947.66 7/02/75
RECORD LOW: 938.40 DRY 1930'S
AVERAGE LEVEL SEPT.-DEC. 945.50

AS-BUILT PLAN
CONFORMING TO
CONST./RECORDS

DONE BY:
DATE:

