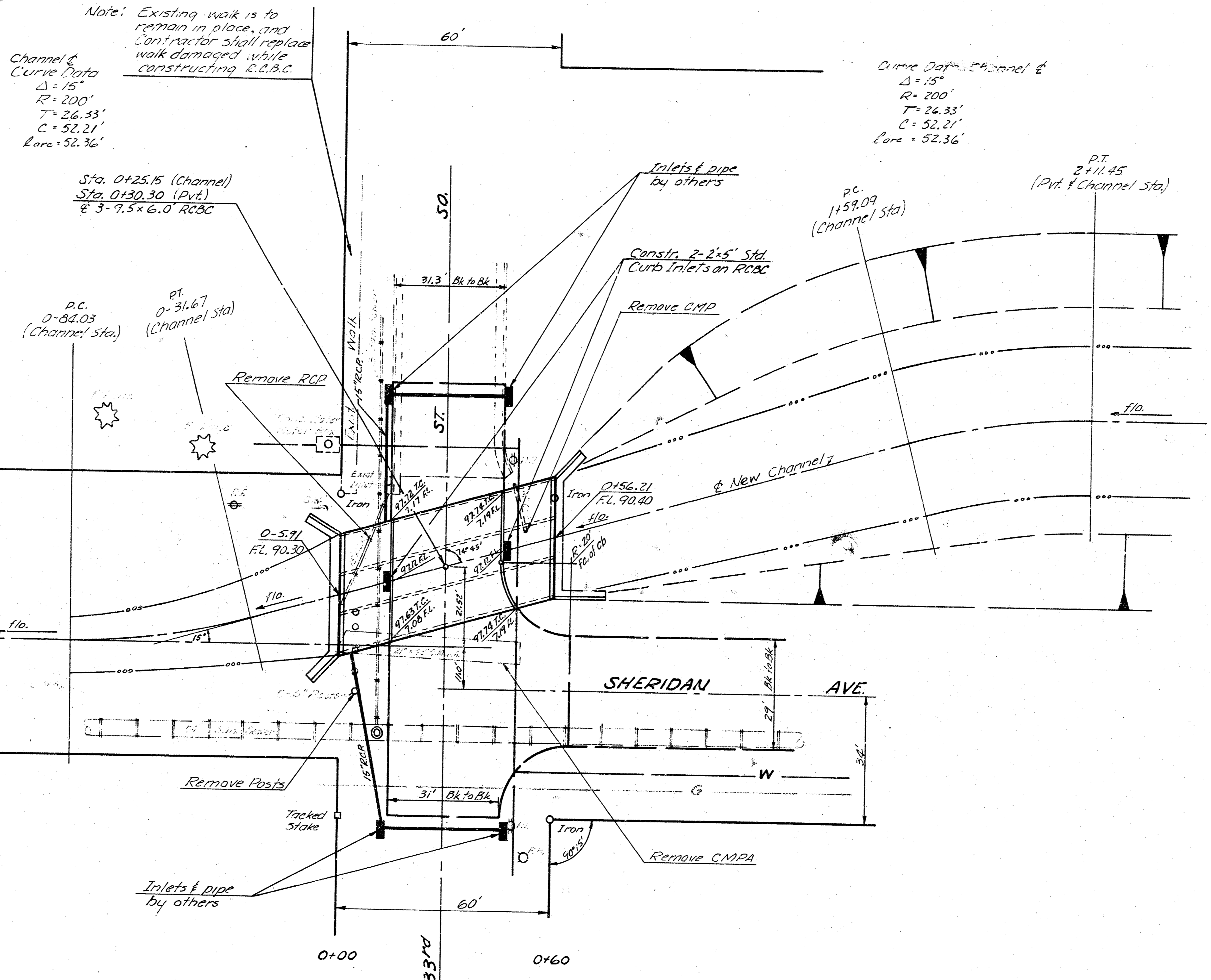
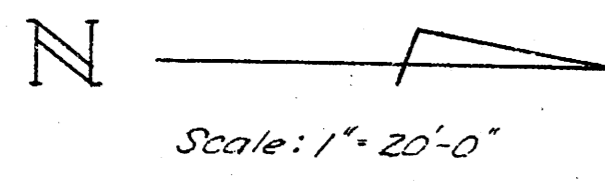


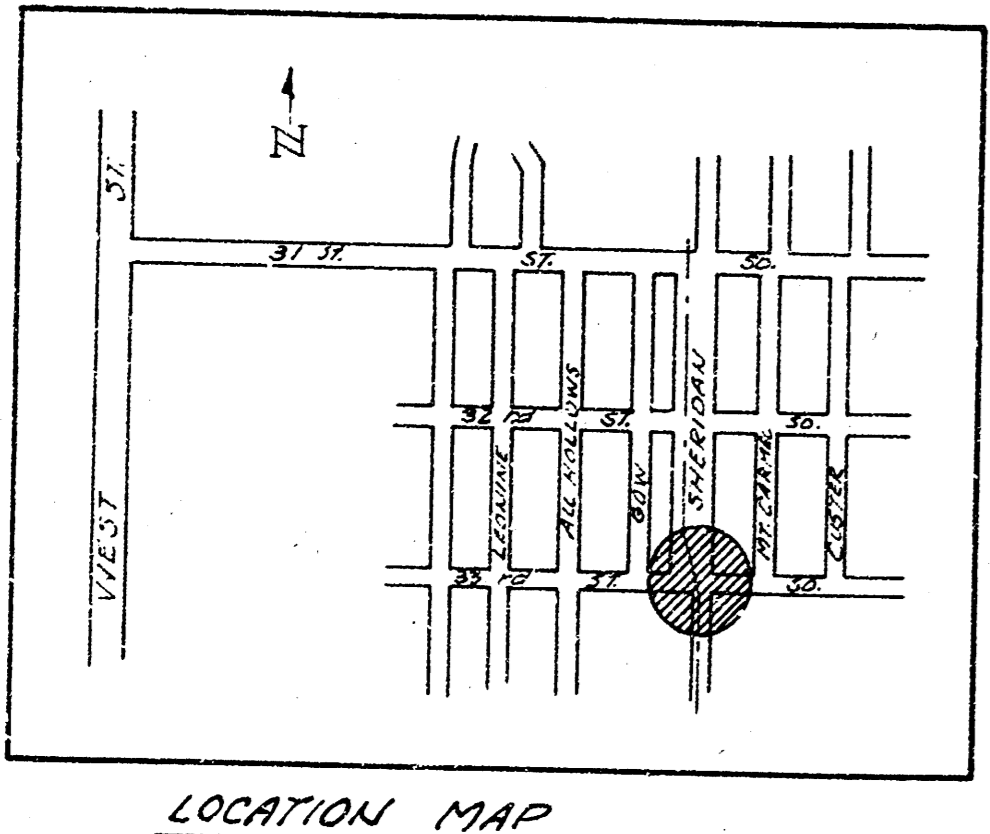
B.M. 18.44 "a" Cut N. end conc. M.H. on S.W. cor. Sheridan & 33rd St. So.



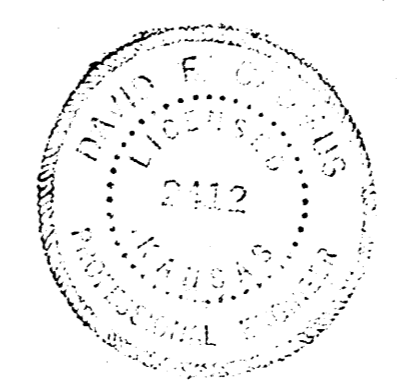
BILL OF MATERIALS		
ITEM	QUANTITY	UNIT
Class A AE Concrete	201	C.Y.
Reinforcing Steel	2716.3	LBS.
Hand Excavation	16.3	C.Y.
Concrete Handrail	65.2	L.F.
Common Excavation	782.9	C.Y.
Compacted Fill	75.7	C.Y.
Class A Concrete - Seal Course	21.4	C.Y.
2'x5' Inlets	2	Ea.
Pipe Removed	100	L.F.
Posts Removed	5	Ea.

- GENERAL NOTES
1. CLASS A AE CONCRETE SHALL BE USED THROUGHOUT THIS PROJECT. ALL REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS.
 2. EARTHWORK ALL EARTHWORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR THE TOPMALL. TOPMALL EXCAVATION SHALL BE INCLUDED IN "LUMP SUM BID".
 3. BACKFILL ALL BACKFILL AND EXCAVATION TO EXTEND TO (2') BEYOND SIDES OF BOX AND WING WALLS.
 4. BEVEL ALL EXPOSED EDGES OF CONCRETE WITH 3/4" TRIANGULAR MOUNDING.
 5. WEEPHOLES COARSE AGGREGATE SHALL BE DEPOSITED BEHIND EACH WEEPHOLE TO OCCUPY A SPACE EXTENDING (15") IN ALL DIRECTIONS ABOVE WEEPHOLE FLOW LINE. THIS WORK SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED A PART OF THE EXCAVATION WORK.
 6. SEAL COURSE A SEAL COURSE CONSISTING OF 3" CLASS "A" CONCRETE SHALL BE CONSTRUCTED ONLY WHERE SPECIFIED ON THE PLANS OR BY THE ENGINEER. NO REINFORCING SHALL BE PLACED UNTIL THE SEAL COURSE HAS GAINED SUFFICIENT STRENGTH TO PERMIT WORKING UPON IT WITHOUT DAMAGE.
 7. BEDDING OF CULVERT THE CULVERT SHALL BE BID AS A "LUMP SUM BID" EXCEPT FOR THE FOLLOWING ITEMS: CU. YDS. COMMON EXCAVATION, CU. YDS. COMPACTED FILL, CU. YDS. CLASS "A" CONCRETE, 2-2' x 5' CURB INLETS, L.F. FT. PIPE REMOVED, AND POSTS REMOVED.
 8. THE QUANTITIES SHOWN IN THE "BILL OF MATERIALS" OR ITEMS WHICH ARE INCLUDED IN THE "LUMP SUM BID" OF THE CULVERT ARE FOR "INFORMATION PURPOSES ONLY". THE CONTRACTOR MUST SATISFY HIMSELF TO THE "QUANTITIES" AND THE ENGINEER ASSUMES NO RESPONSIBILITIES FOR THEIR ACCURACY. THE CONTRACTOR WILL HAVE THE FULL RESPONSIBILITY FOR PROVIDING ALL MATERIALS ON THE DETAILED PLANS NECESSARY TO COMPLETE THE PROJECT.

Survey U.F.C.
 P.L.C.
 Exp. O.F.C.
 Checked



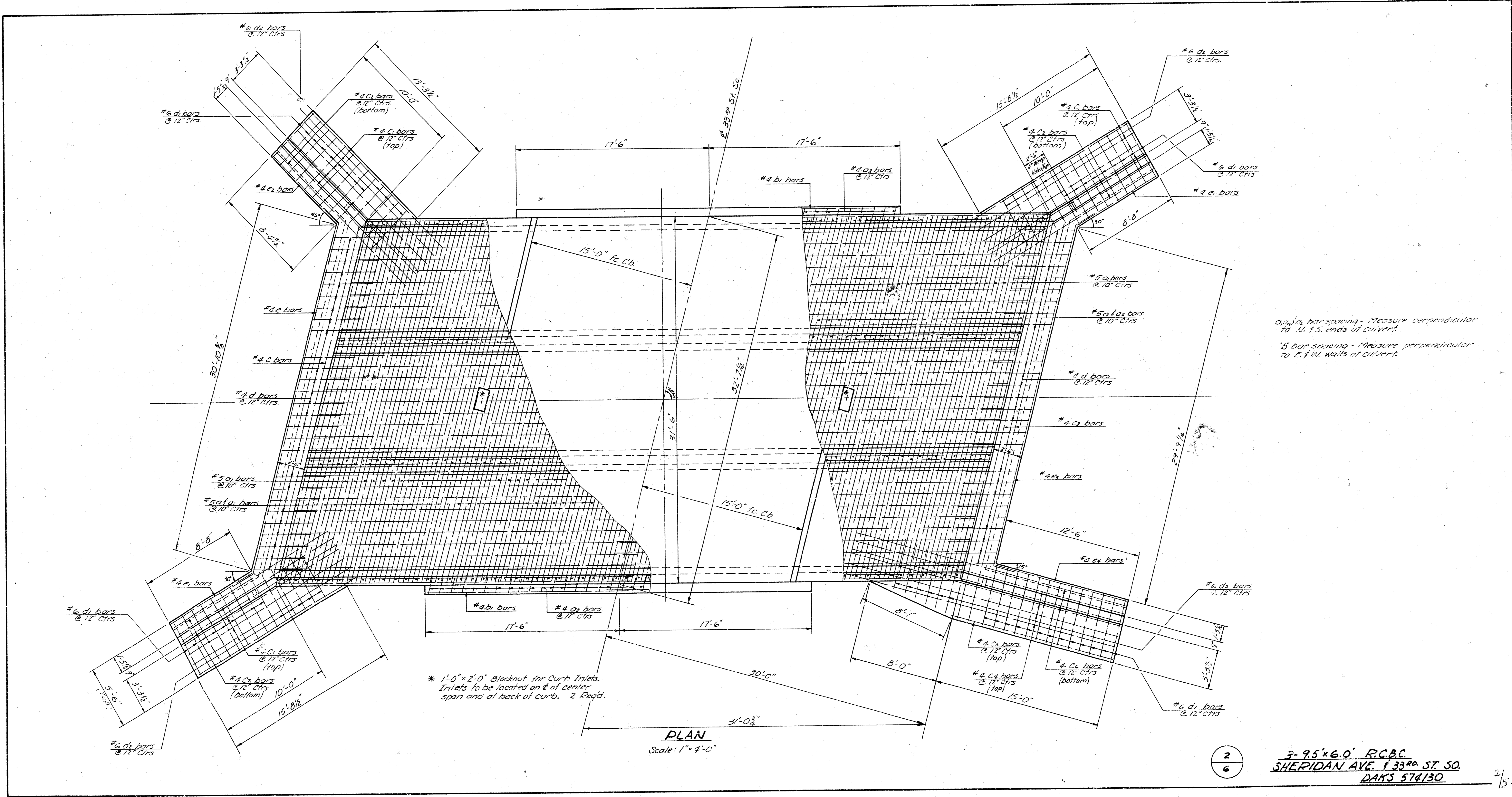
Note: Contractors for the R.C.B.C., Paving, and Sewers shall coordinate work efforts.



1/6

3-9.5x6.0' REINFORCED CONCRETE BOX CULVERT
 IN CONNECTION WITH PAVING OF
 SHERIDAN AVE. FROM
 S.L. 31ST ST. SO. TO S.L. 33RD ST. SO.
 CITY OF WICHITA, KANSAS
 R.W. LINN CITY ENGINEER
 DATE PROJ. NO. DAKS 574130

1/5



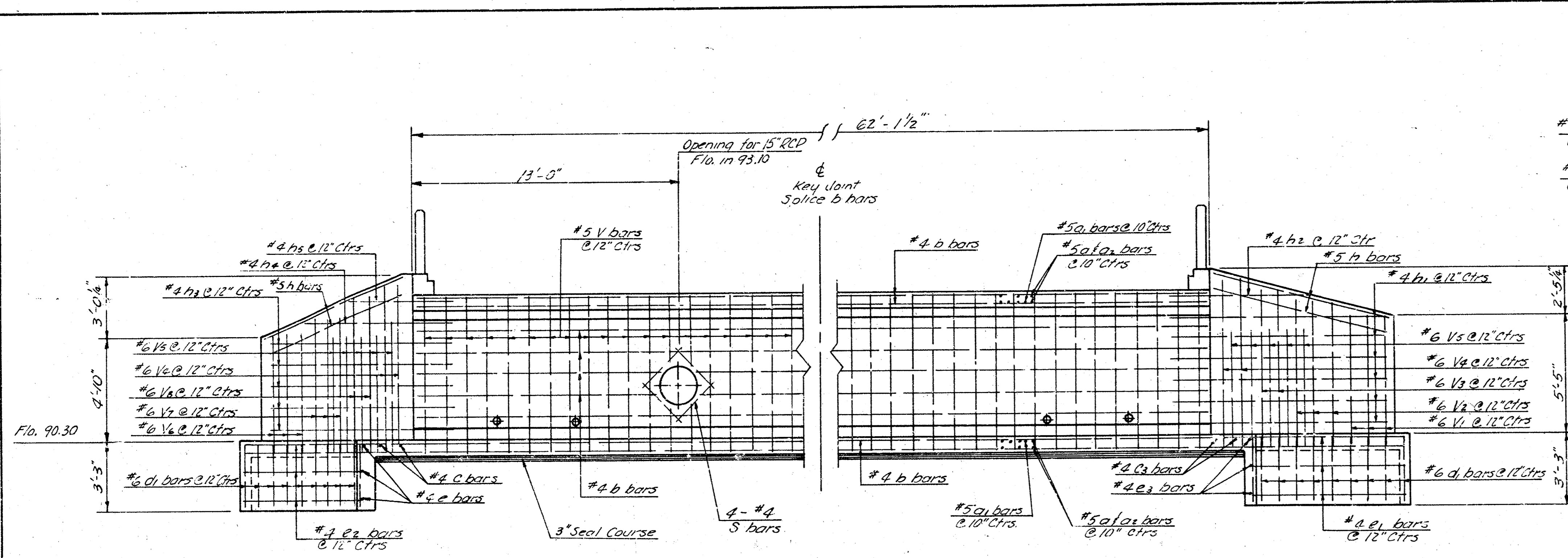
#4, #5 bar spacing - Measure perpendicular to E. & W. ends of culvert.
 #6 bar spacing - Measure perpendicular to E. & W. walls of culvert.

* 1'-0" x 2'-0" Blockout for Curb Inlets.
 Inlets to be located on E of center span and of back of curb. 2 Req'd.

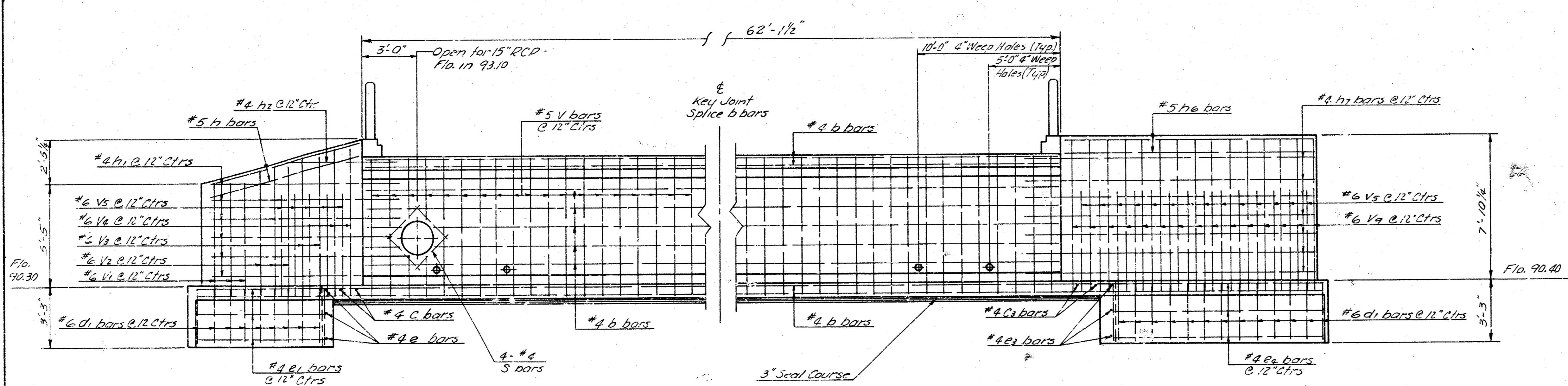
PLAN
 Scale: 1" = 4'-0"

2
 6

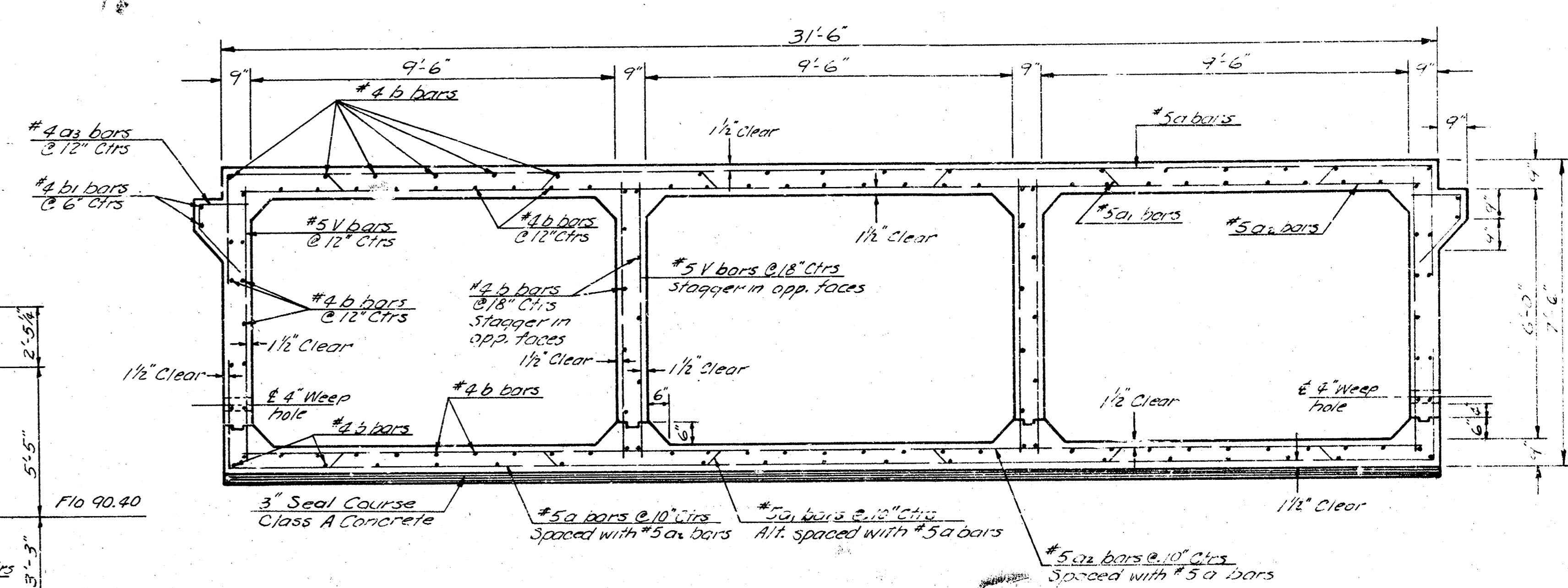
7-9.5x6.0 R.C.B.C.
 SHERIDAN AVE. E 33RD ST. SO.
 DAKS 574130



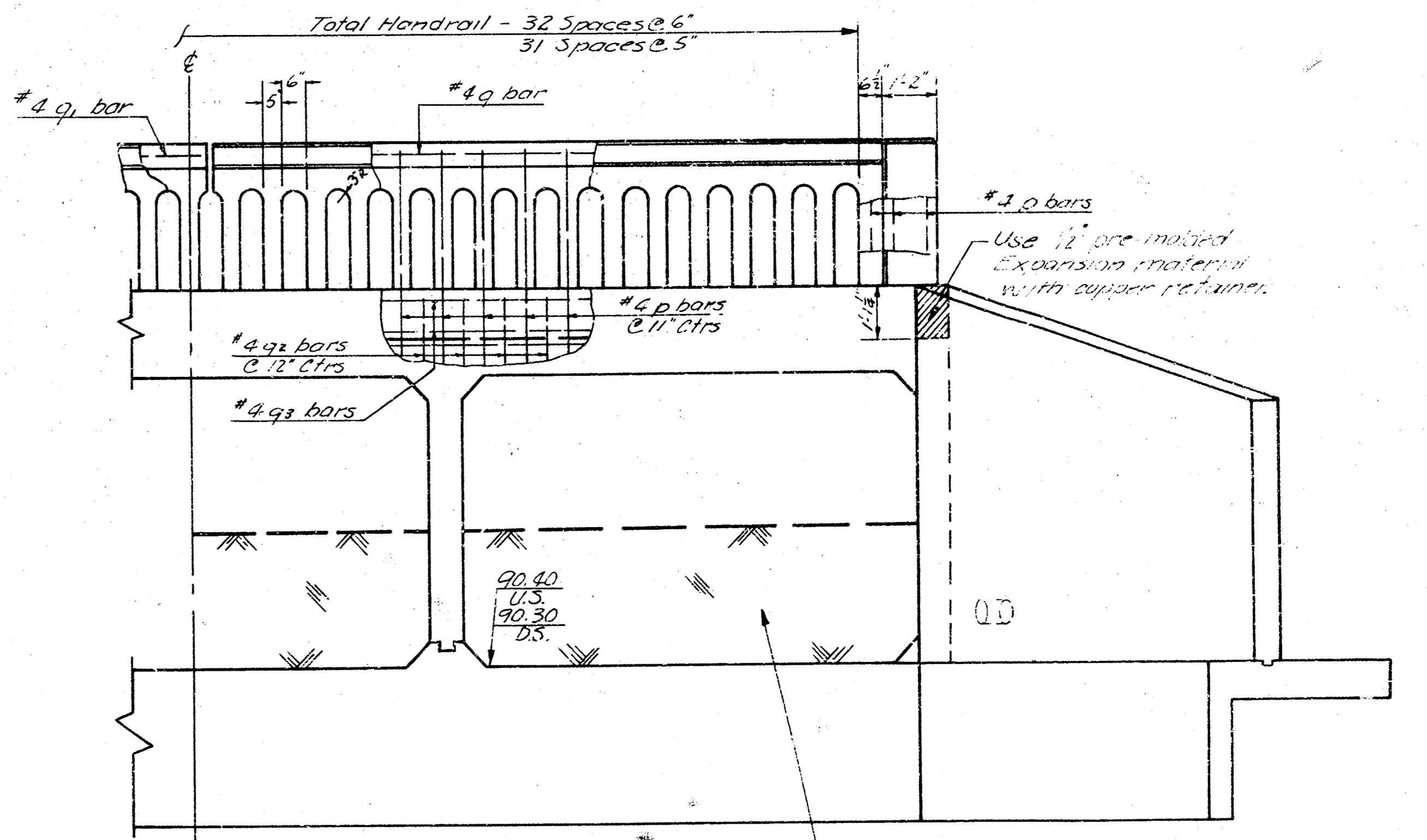
SECTION OF WEST WALL
Scale: 1" = 4'-0"



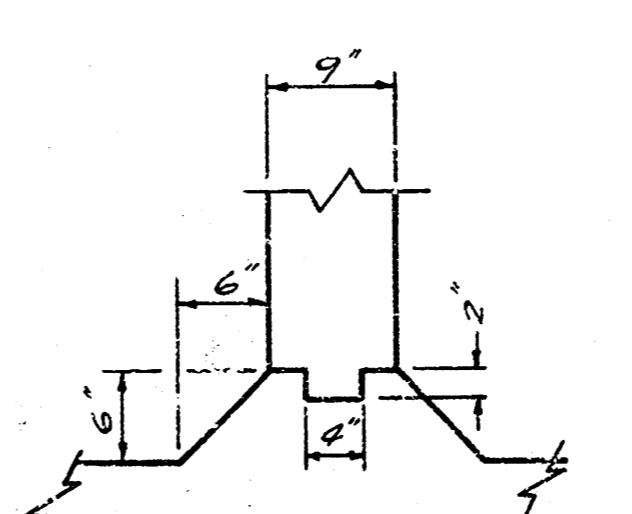
SECTION OF EAST WALL
Scale: 1" = 4'-0"



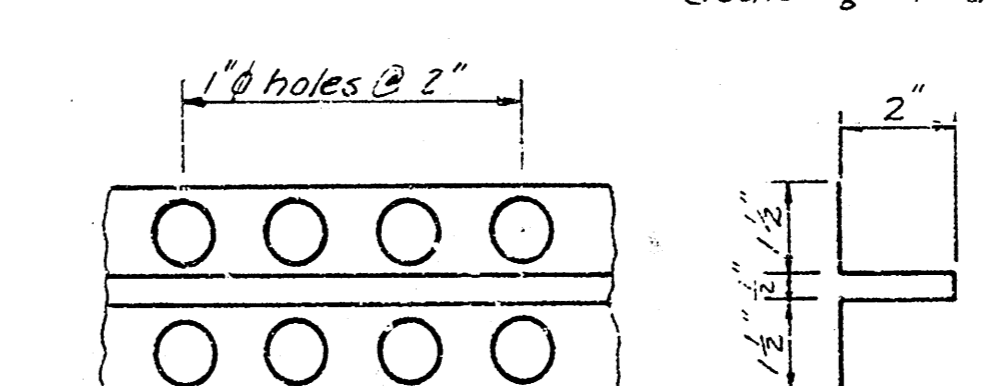
CROSS SECTION OF BOX
Scale: 3/8" = 1'-0"



HALF END SECTION
Scale: 3/8" = 1'-0"



CONSTRUCTION JOINT DETAIL
No Scale



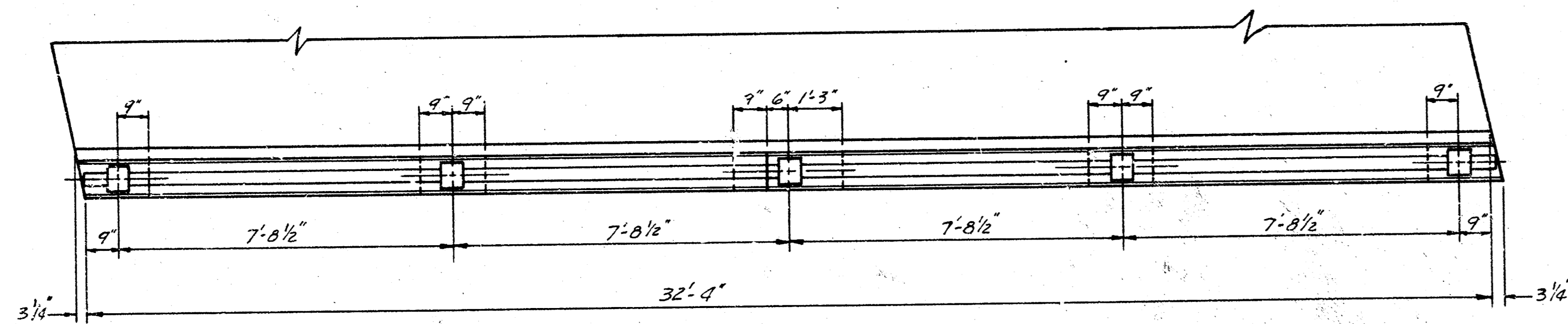
12 OZ. SHEET COPPER RETAINER
No Scale

Culvert Contractor to replace excavated material thru R.C.C. top fill to match FL. unless of the new concrete. No. 150. of 33rd St.

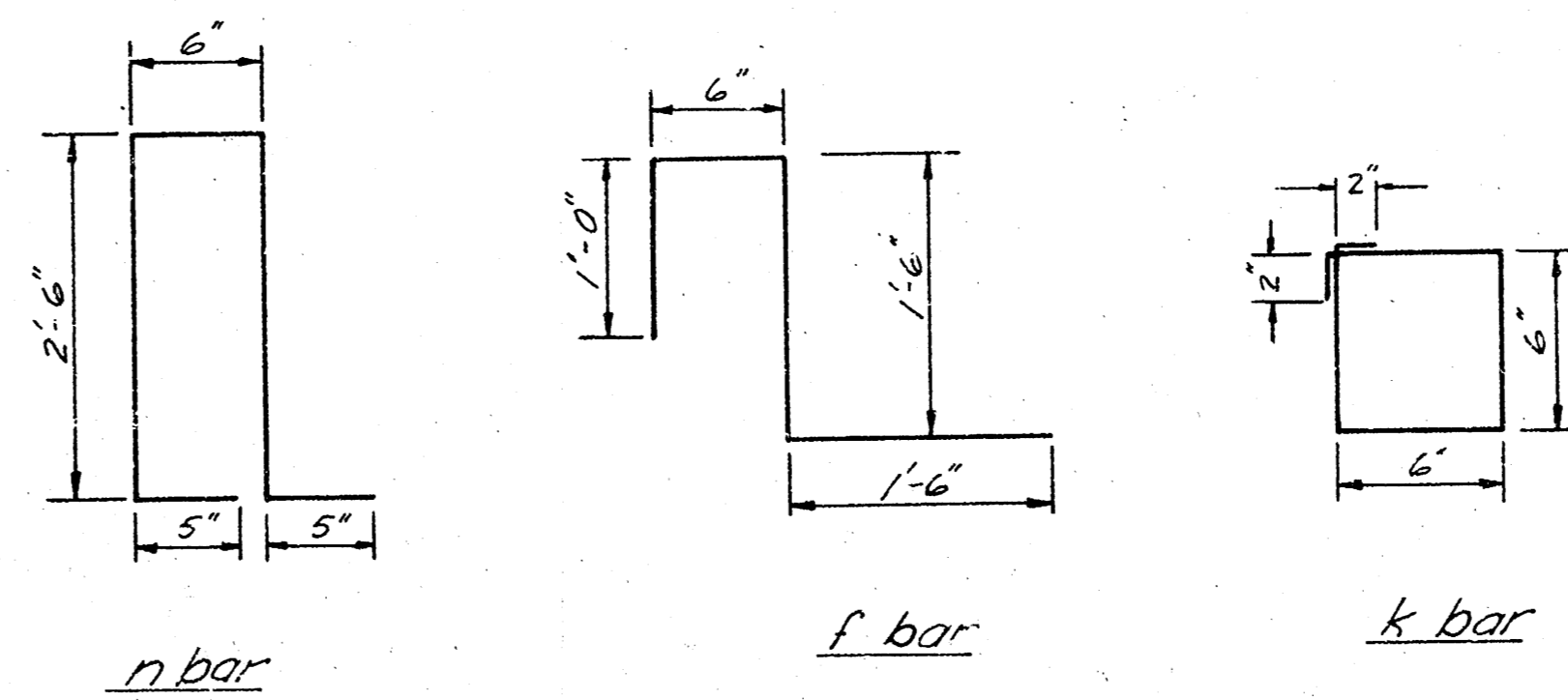
3-9.5' x 6.0' R.C.C. SHERIDAN AVE. & 33rd ST. SO. DAKS 574130

3/6

3/15



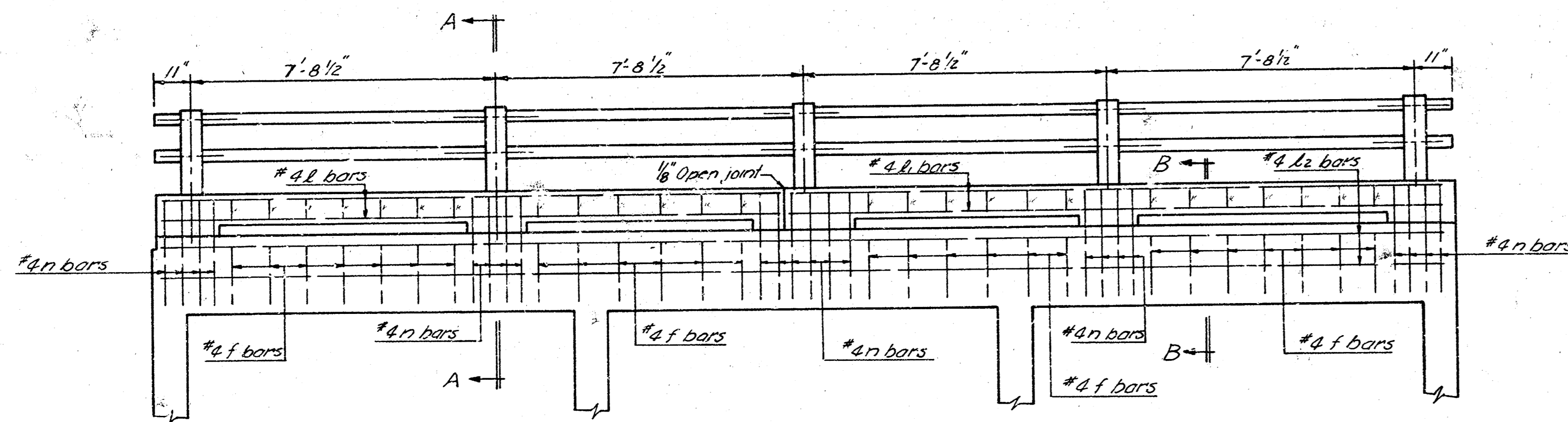
PLAN OF RAILING
3/8" = 1'-0"



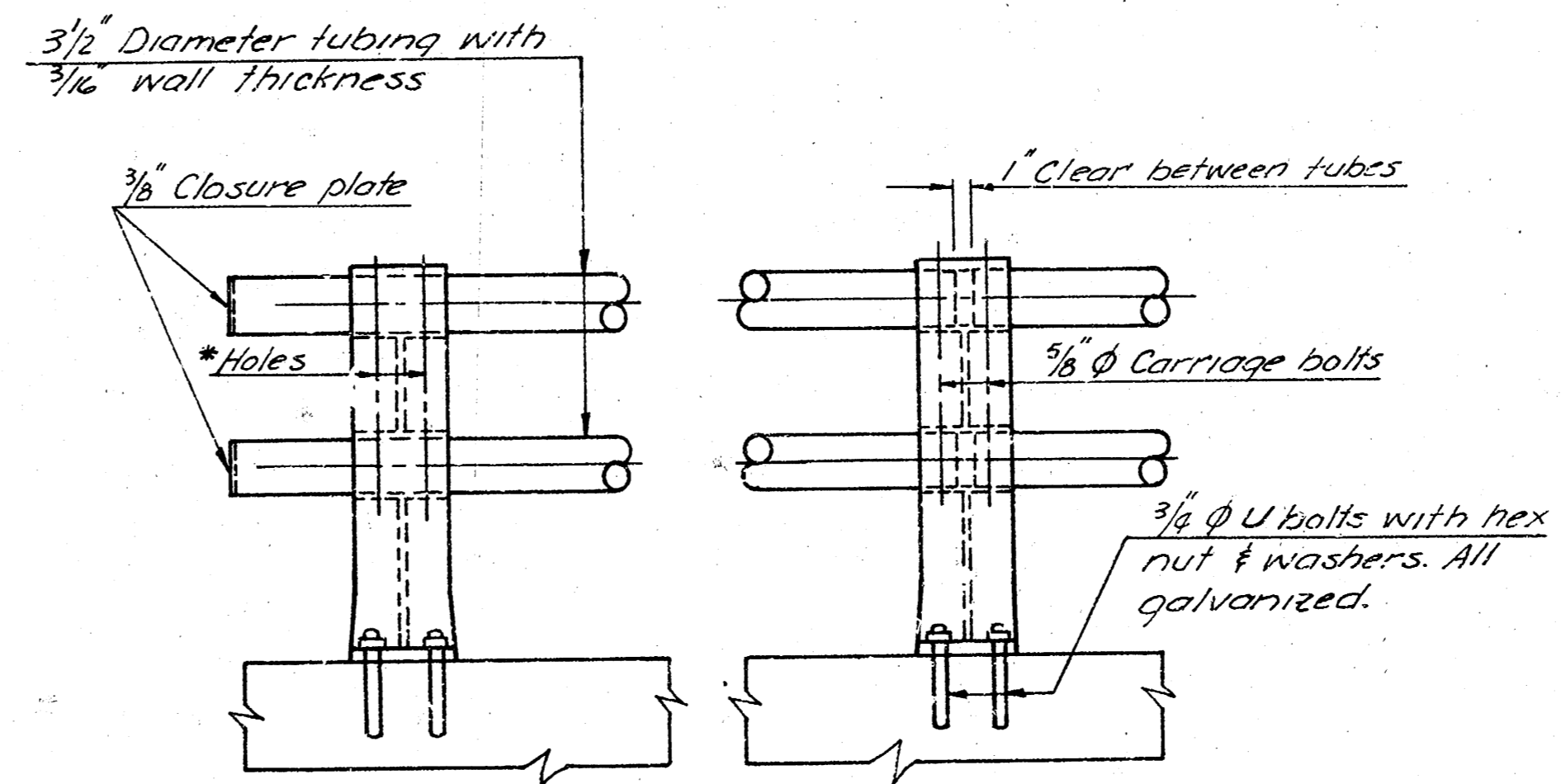
BENDING DIAGRAMS
No Scale

BAR SCHEDULE				
BAR	SIZE	LENGTH	NO.	WEIGHT*
n	#4	15'-5"	8	82.40
f	#4	16'-5"	8	82.75
k	#4	32'-1"	8	171.24
n	#4	6'-0"	44	186.05
f	#4	4'-6"	52	156.31
k	#4	2'-4"	52	80.93

* These bars replace the p, q, r, s, t, u, v, w, x, y, z bars used for the concrete handrail & fudgeguard.

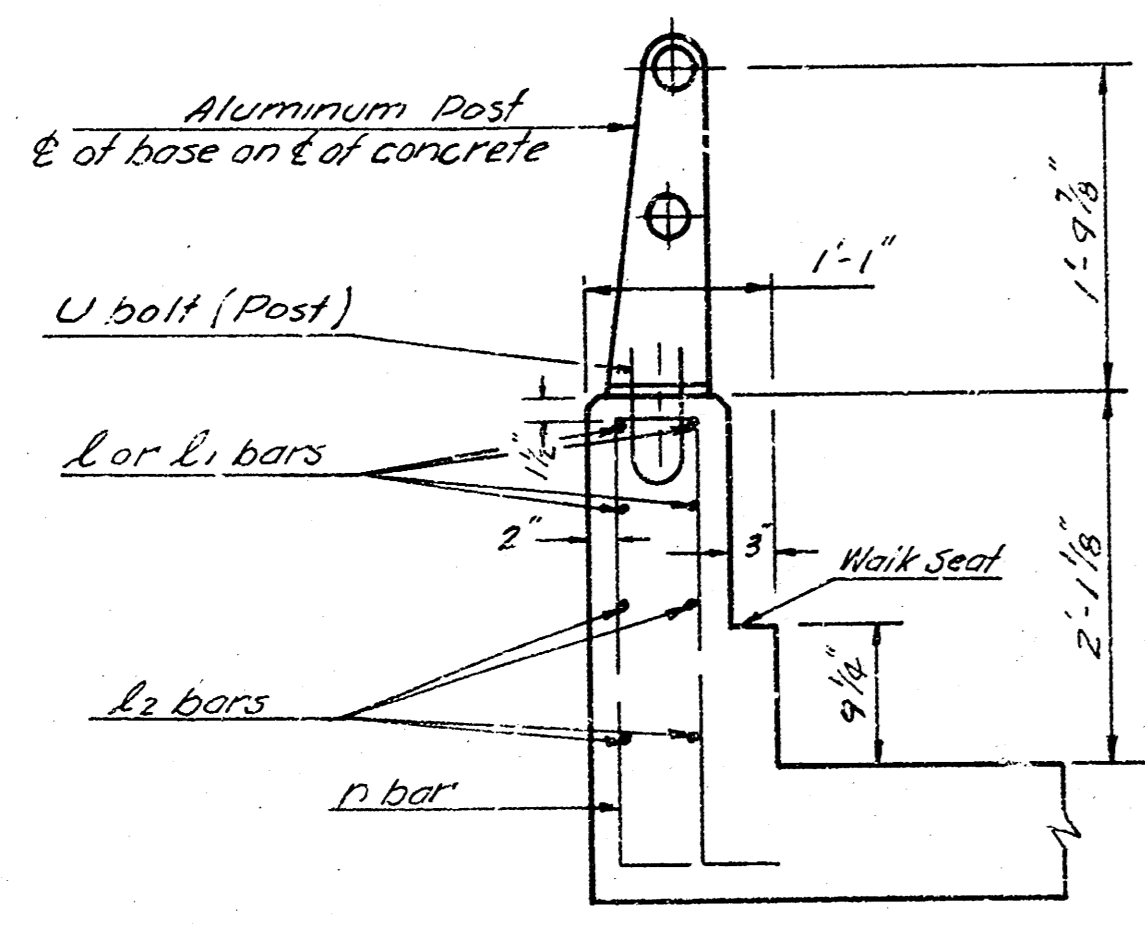


END SECTION OF RAILING
3/8" = 1'-0"

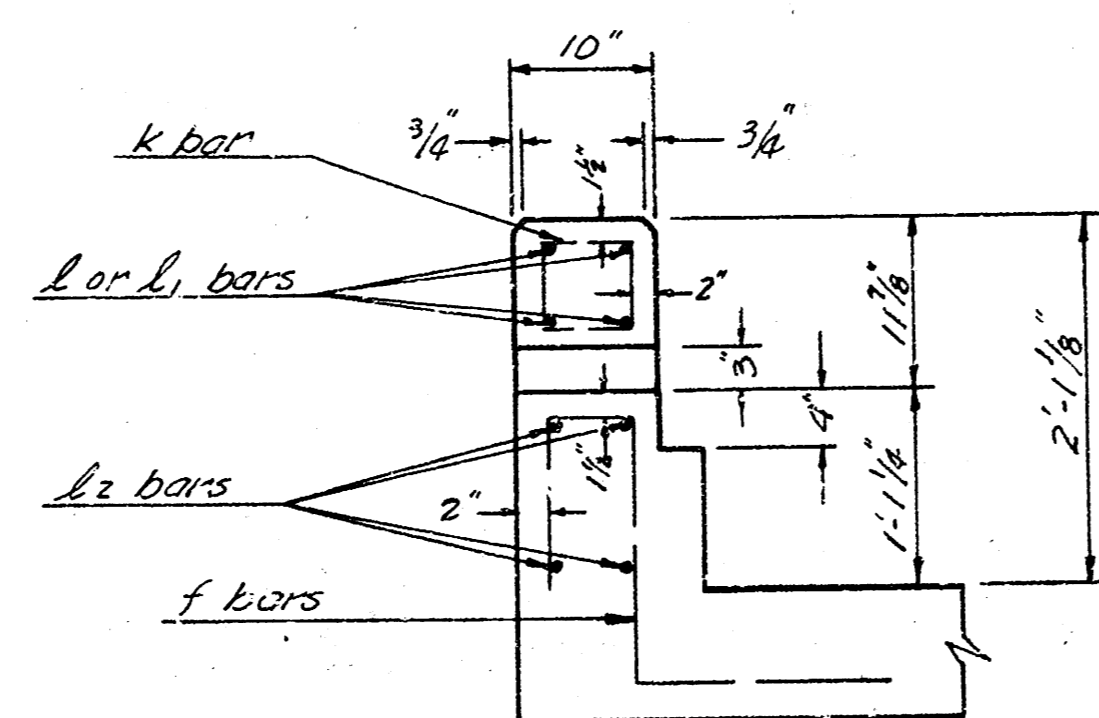


Holes: 1/16" square holes in post under head and 1/16" round holes under nuts for 3/8" dia x 5/16" carriage bolts with hex nuts.

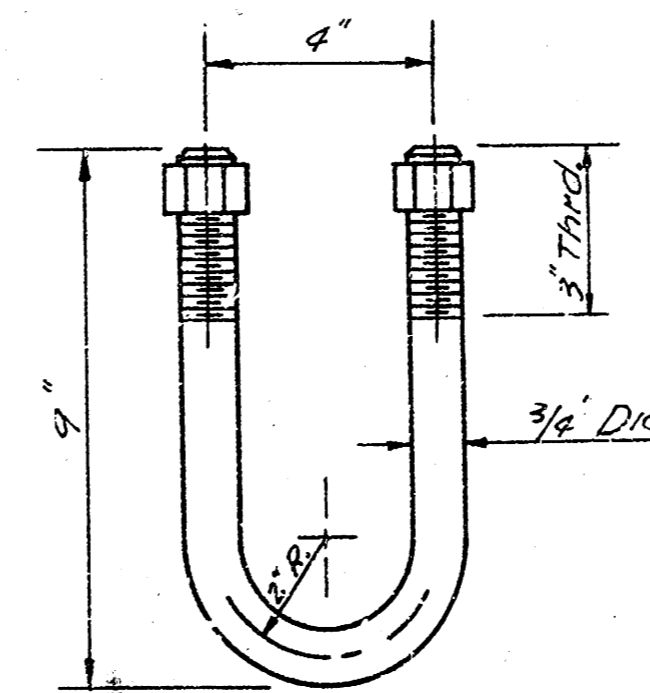
RAIL & POST CONNECTIONS
No Scale



SECTION A-A
3/8" = 1'-0"



SECTION B-B
3/8" = 1'-0"



GALVANIZED U-BOLT DETAIL
No Scale

Notes: Aluminum Handrail.
Aluminum posts shall be Reynolds Aluminum Highway Products Bridge Railing System No. BR-19A or equal.
Top & bottom rails shall be 3/8" O.D. x 3/16" wall tube of 6063-T6 Aluminum.
Aluminum shims between concrete and post base may be used. The space below posts shall be thoroughly caulked with Alumilastic compound or other approved material.

NOTE:
Substitution of the aluminum handrail for the concrete handrail, and the changes in dimensions and quantities as a result of the substitution, shall be considered a part of the original lump-sum bid price for the culvert, and no additional cost shall be added for the material substitution or quantity changes.

REVISED HANDRAIL 10-31-75
3-9.5" x 6.0" R.C.B.C.
SHERIDAN AVE. # 33 RD ST. SO.
DAKS 574130