

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

Note: Existing walk is to remain in place, and Contractor shall replace walk damaged while constructing R.C.B.C.

Channel & Curve Data
 $\Delta = 15^\circ$
 $R = 200'$
 $T = 26.33'$
 $C = 52.21'$
 $Eare = 52.36'$

Scale: 1" = 20'-0"

Sta. 0+25.15 (Channel)
 Sta. 0+30.30 (Pvt.)
 & 3'-9.5" x 6.0' R.C.B.C.

P.C. 0+04.03 (Channel Sta.)

P.T. 0+31.67 (Channel Sta.)

Remove R.C.D.

Remove Posts

Inlets & pipe by others

0+00

33rd

0+60

60'

50'

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Curve Data Channel &
 $\Delta = 15^\circ$
 $R = 200'$
 $T = 26.33'$
 $C = 52.21'$
 $Eare = 52.36'$

P.C. 1+59.09 (Channel Sta.)

P.T. 2+11.45 (Pvt. f Channel Sta.)

Inlets & pipe by others

Const. 2'-2.5' Std. Curb Inlets on Road

Remove CMP

Remove R.C.D.

Remove Posts

Inlets & pipe by others

Remove CMPA

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BILL OF MATERIALS

ITEM	QUANTITY	UNIT
Class A AE Concrete	201	C.Y.
Reinforcing Steel	27163	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' x 5' Inlets	2	Ea.
Pipe Removed	100	L.F.
Posts Removed	5	Ea.

Lump Sum Bid

Bid Items

GENERAL NOTES

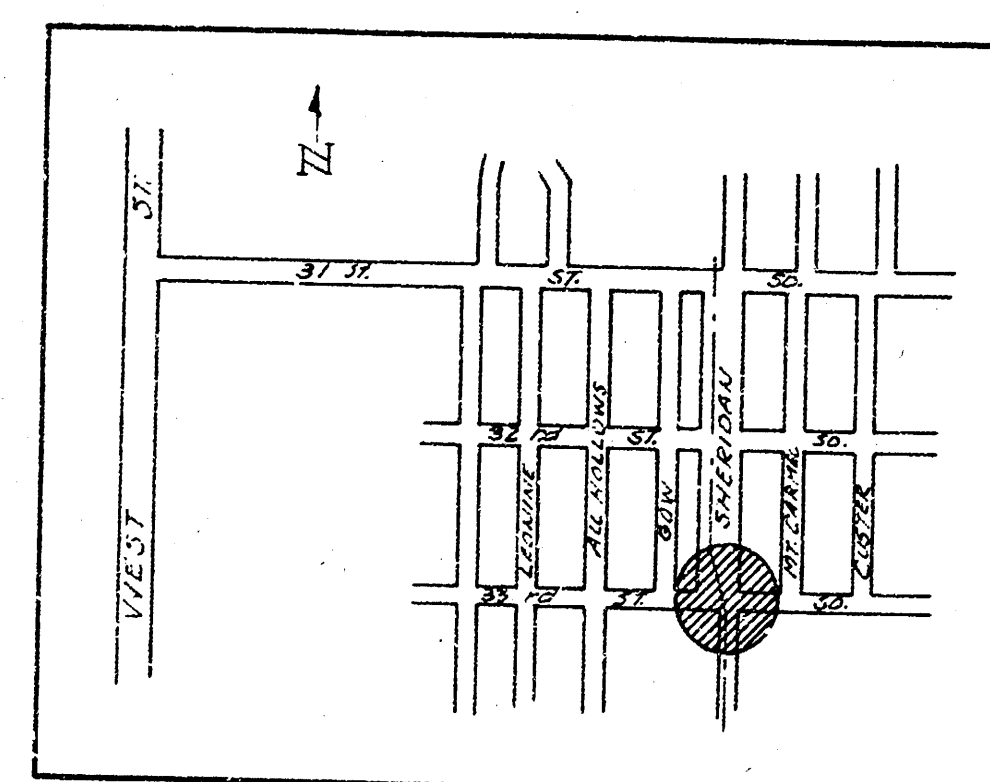
1. CLASS A AE CONCRETE SHALL BE USED THROUGHOUT THIS PROJECT. ALL REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS.
2. EARTHWORK ALL EARTHWORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR THE TOWALL. TOWALL EXCAVATION SHALL BE INCLUDED IN "LUMP SUM BID".
3. BACKFILL ALL BACKFILL AND 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. WEPPHOLS CHARGE AGGREGATE SHALL BE DEPOSITED BEHIND EACH WEPPHOLE TO OCCUPY A SPACE EXTENDING (15") IN ALL DIRECTIONS ABOVE WEPPHOLE 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. BIDDING 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.

3'-9.5" x 6.0' 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

1/6

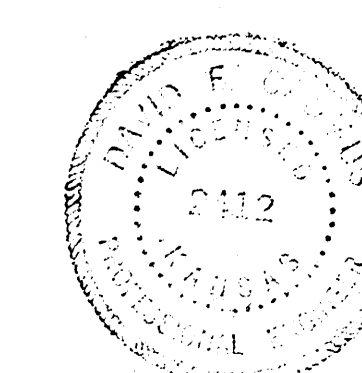
1/5

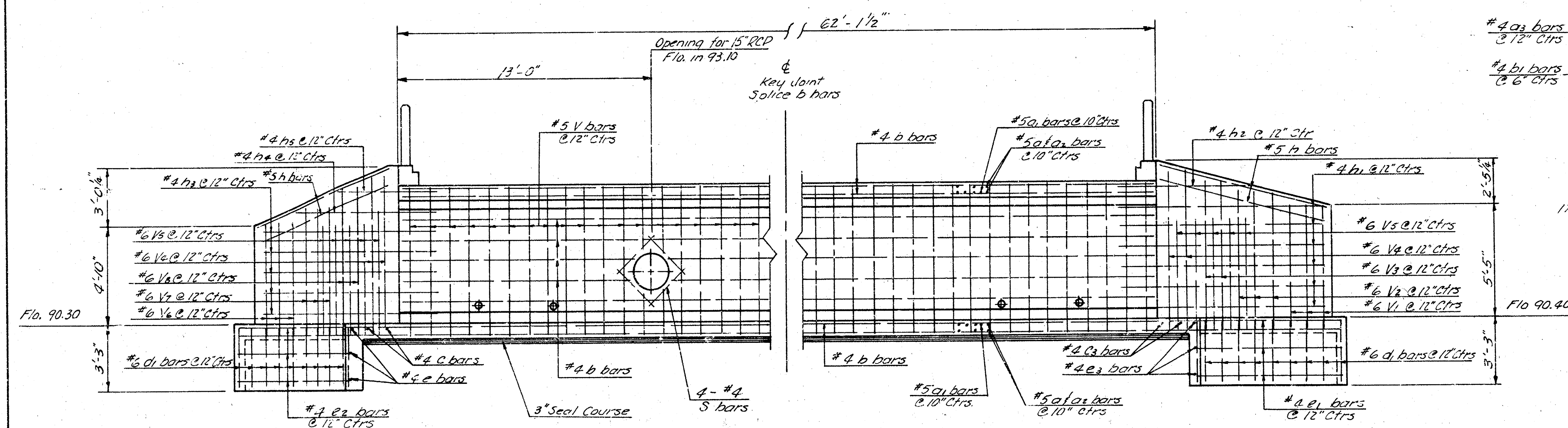
Survey U.C.G.
 P.C. 0+04.03
 E.C. 0+31.67
 Checked



LOCATION MAP

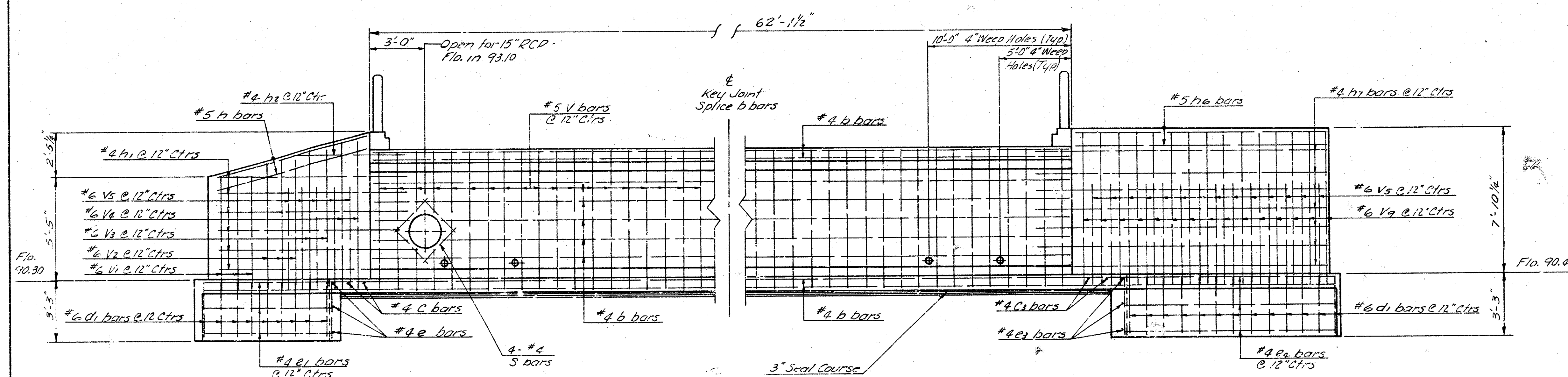
Note: Contractors for the R.C.B.C., Paving, and Sewers shall coordinate work efforts.





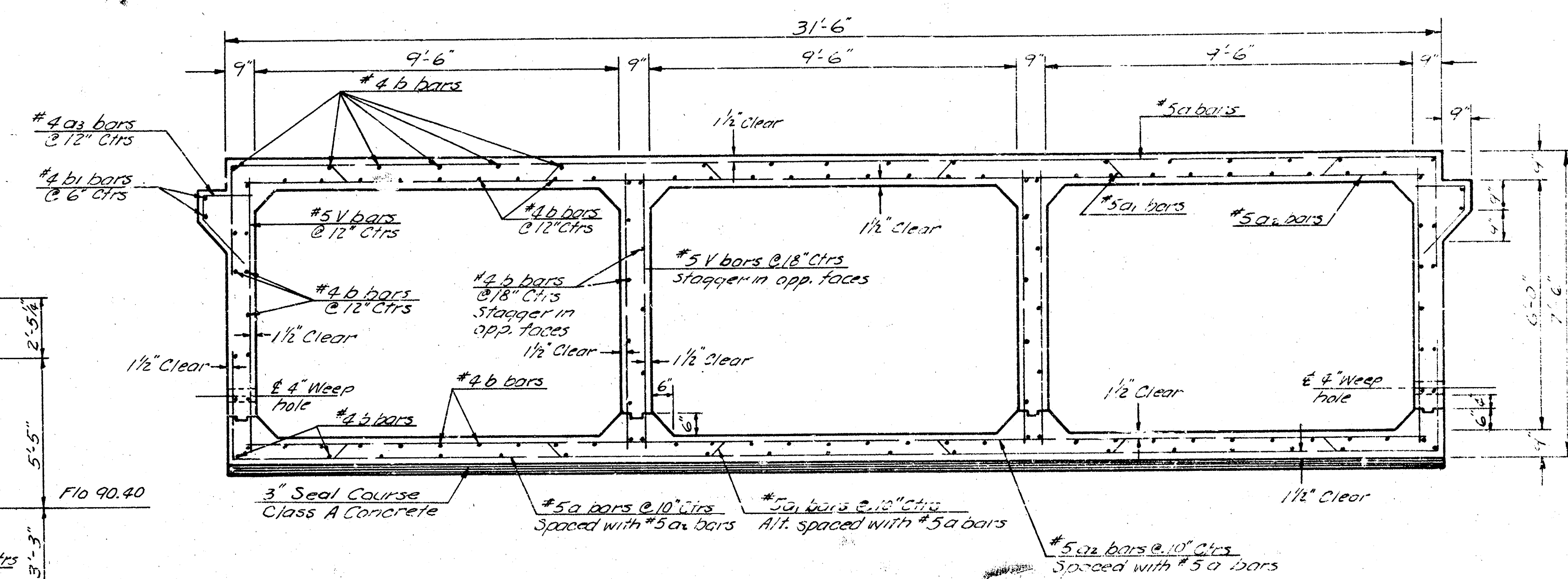
SECTION OF WEST WALL

Scale: 1" = 4'-0"



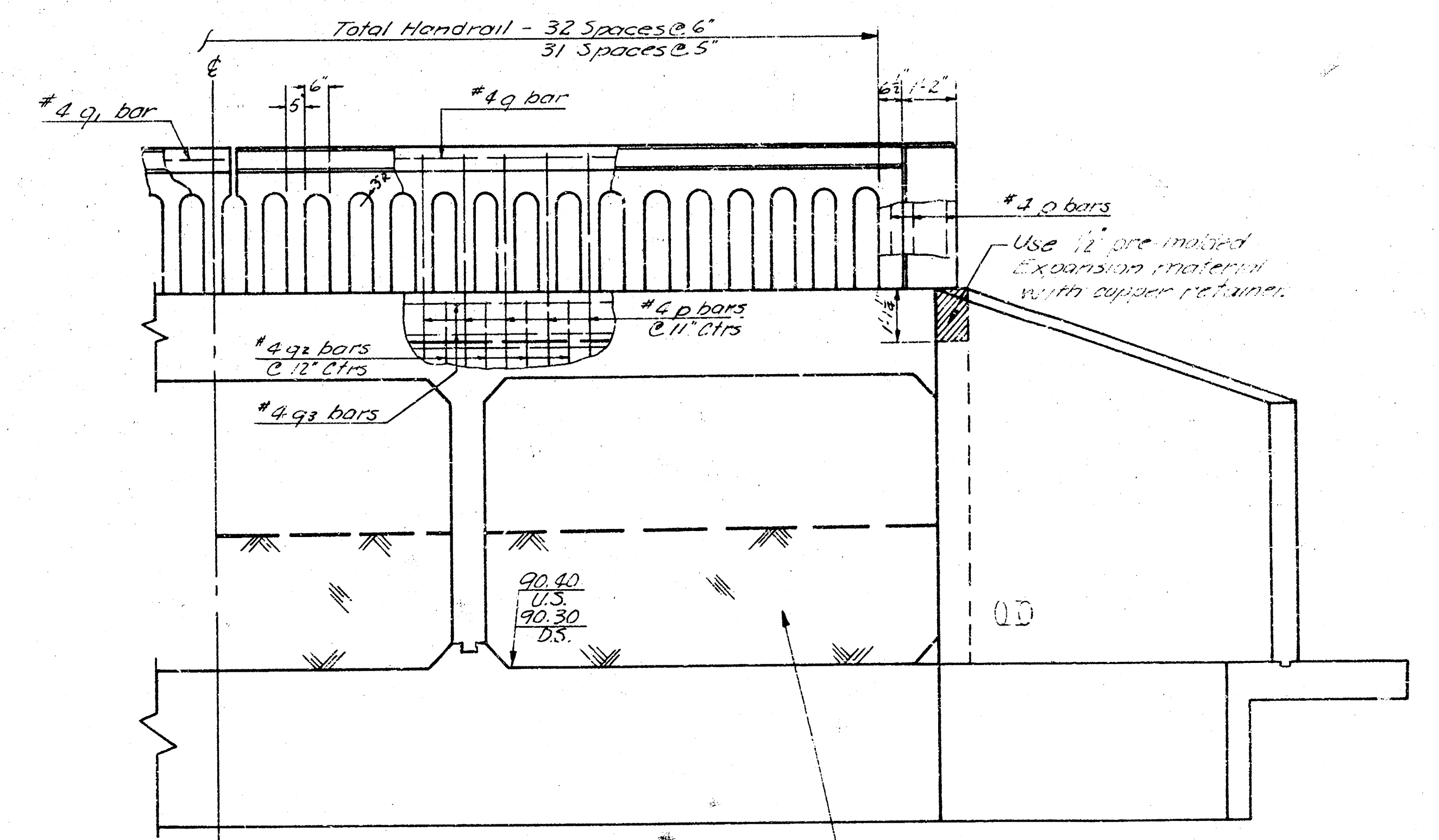
SECTION OF EAST WALL

Scale: 1" = 4'-0"



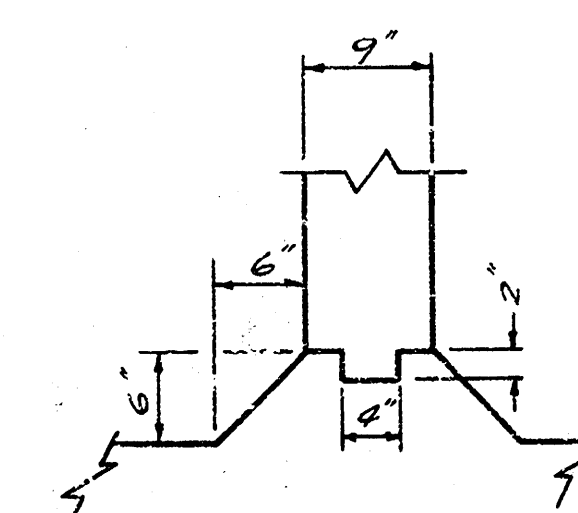
CROSS SECTION OF BOX

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



HALF END SECTION

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



CONSTRUCTION JOINT DETAIL

No Scale

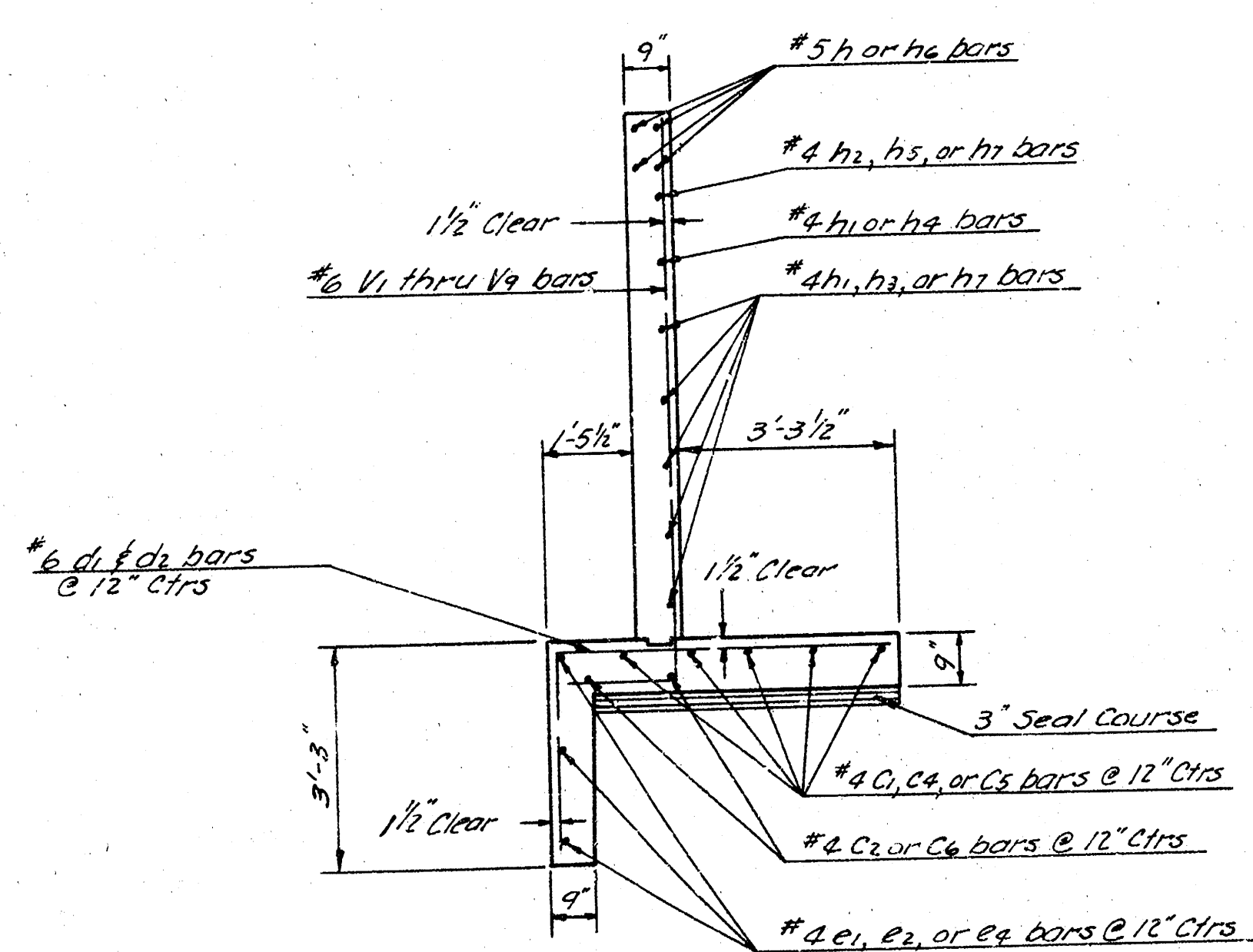
12 OZ. SHEET COPPER RETAINER

No Scale

3
6

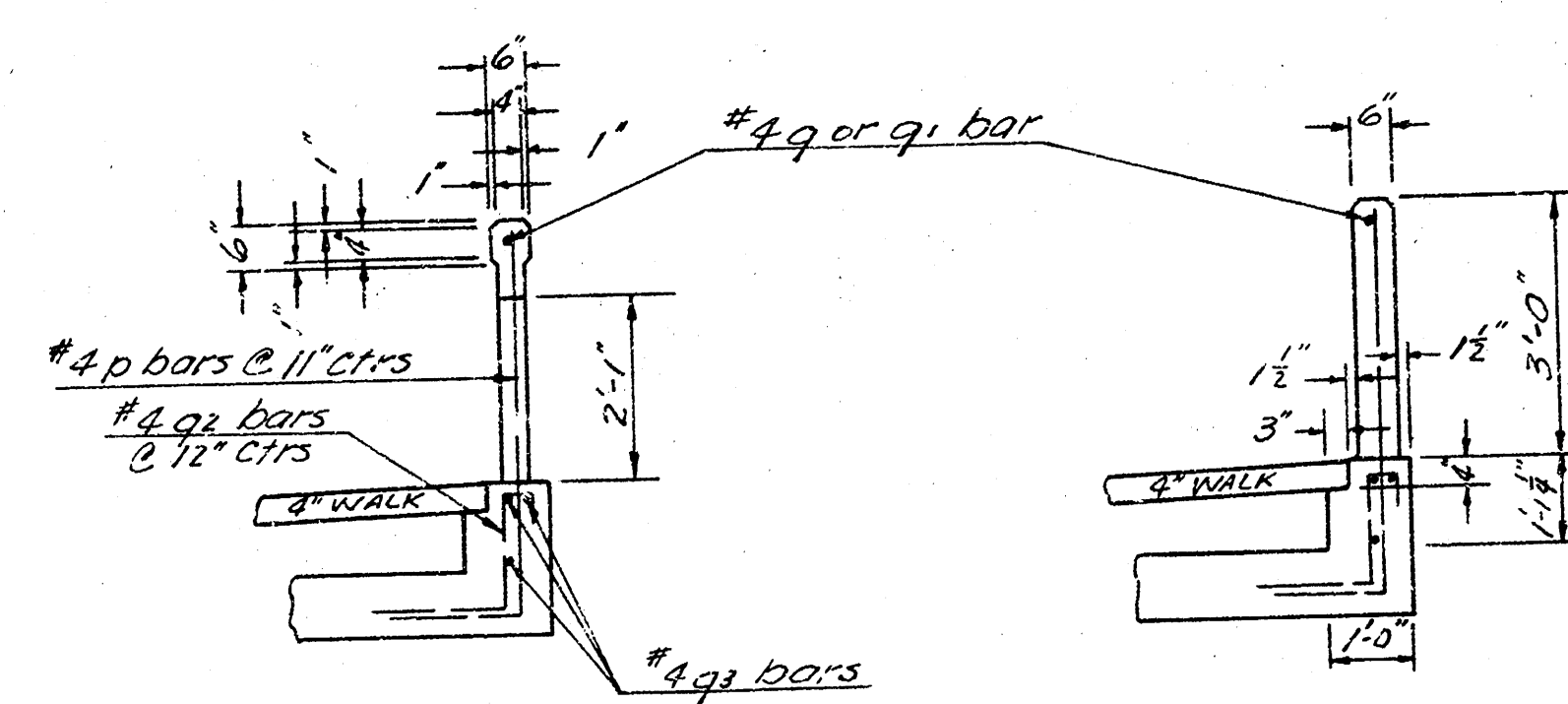
3'-9.5" x 6'-0" R.C.B.C.
SHERIDAN AVE. & 33rd ST. SO.
DAKS 574130

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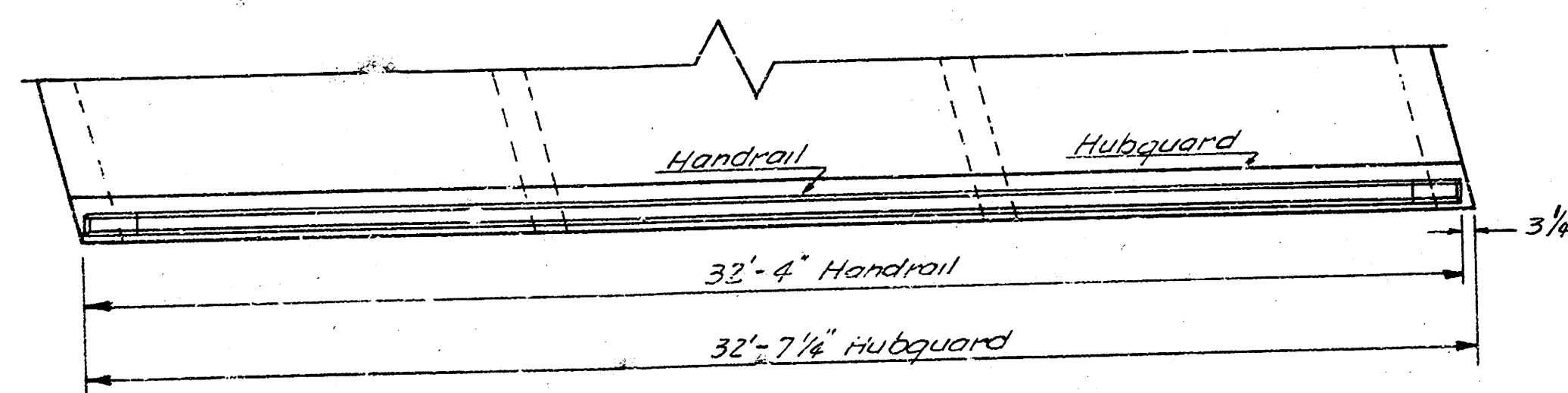
SECTION THRU WING WALL

Scale: $\frac{3}{8}$ " = 1'-0"



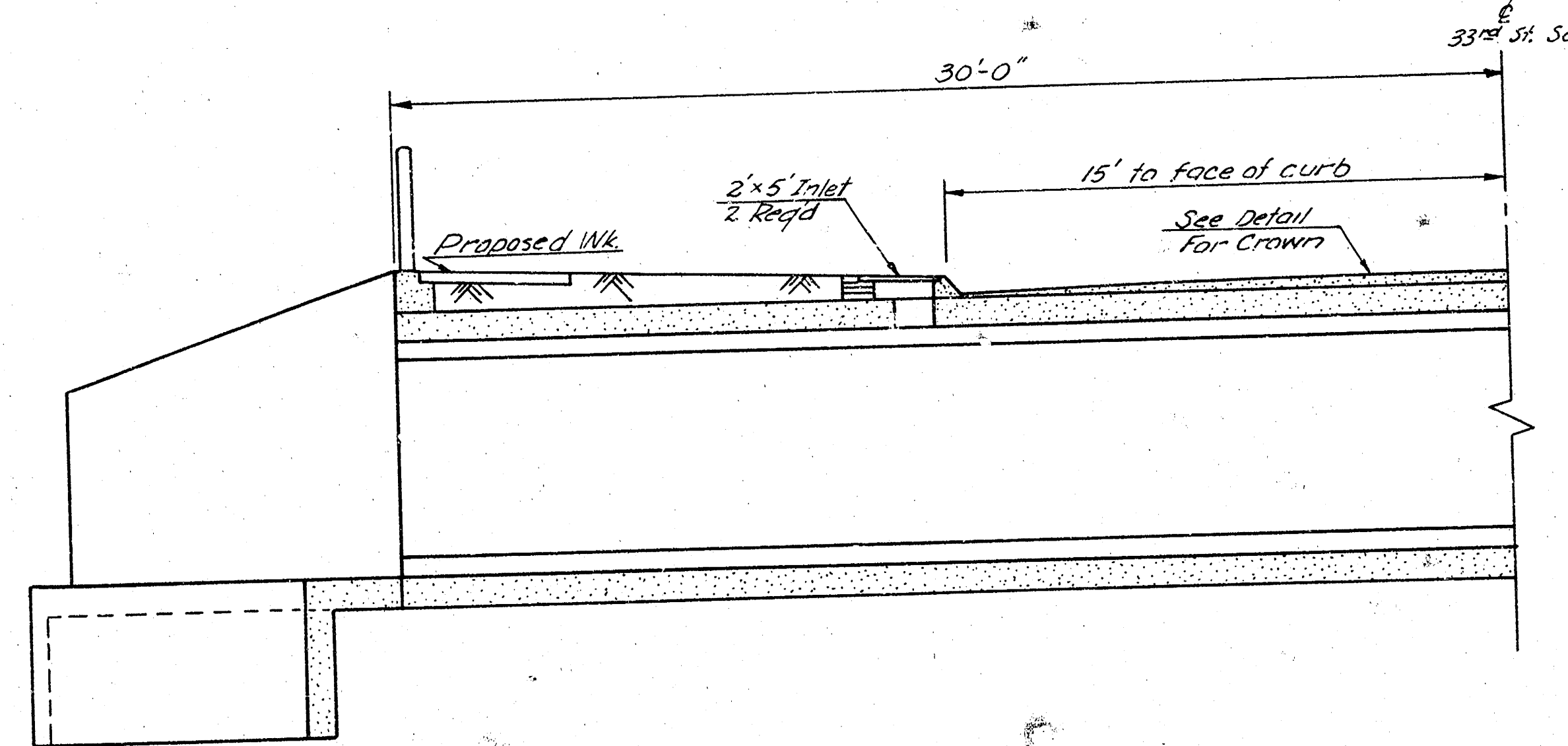
HANDRAIL DETAIL

Scale: $\frac{3}{8}$ " = 1'-0"



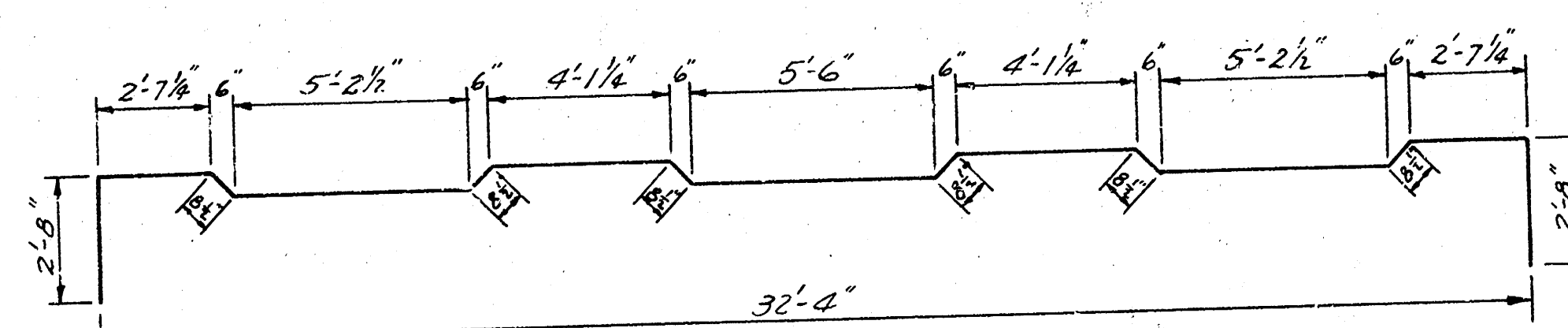
HANDRAIL LOCATION

Scale: 1" = 4'-0"

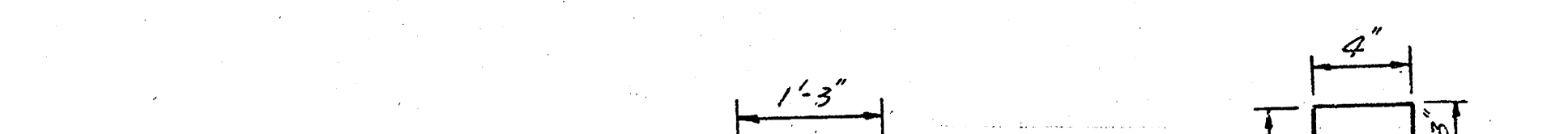


CROSS SECTION-BOX & PVT

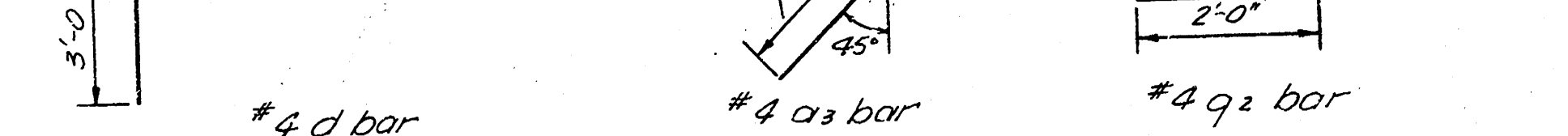
Scale: 1" = 4'-0"



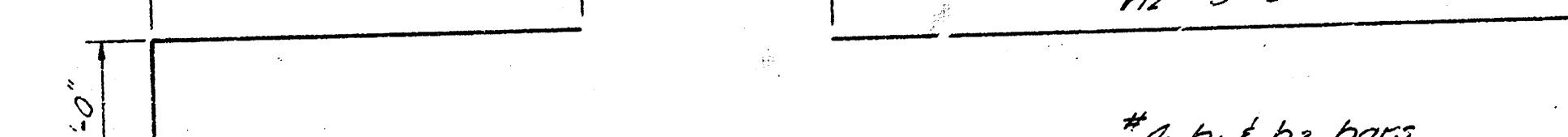
#5 a1 bar



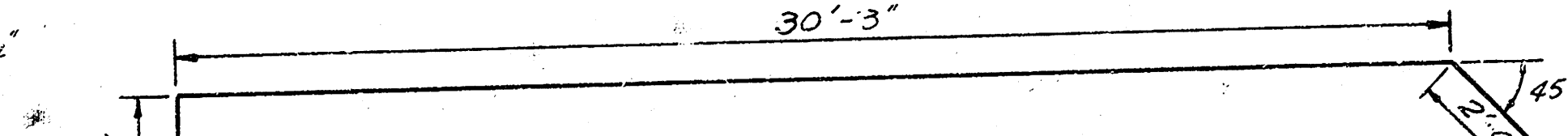
#4 d bar



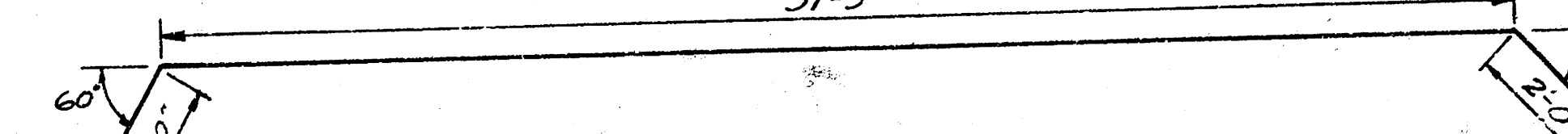
#4 d1 bar



#4 h1 & h2 bars

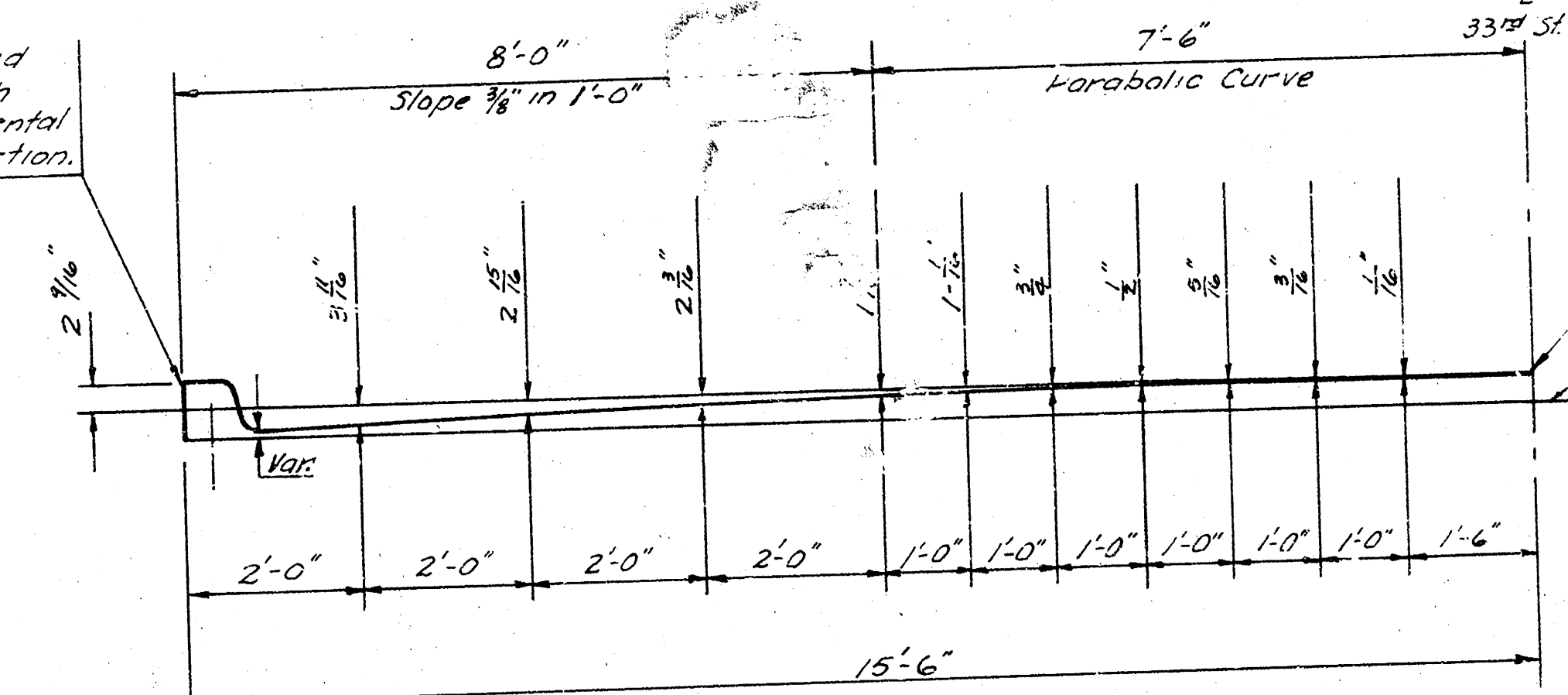


#4 e1 bar



#4 e bar

Construct standard integral curb with dowel steel incidental to R.C.C. construction.



30'-0" PAVEMENT CROWN

Scale: 1" = 2'-0"

Std. 30\"/>

Top slab of R.C.C.

dowel bar

FL

FL

BAR SCHEDULE									
BAR	S/ZE	LENGTH	NO.	LOCATION	SHAPE	SPACING	WEIGHT		
O	#5	32'-4"	144	BOX		10"	285.71		
O1	#5	32'-4"	144	BOX		10"	285.71		
O2	#5	32'-4"	144	BOX		10"	285.71		
O3	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O4	#4	3'-6"	68	BOX		12"	158.93		
O5	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O6	#4	3'-6"	68	BOX		12"	158.93		
O7	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O8	#4	3'-6"	68	BOX		12"	158.93		
O9	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O10	#4	3'-6"	68	BOX		12"	158.93		
O11	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O12	#4	3'-6"	68	BOX		12"	158.93		
O13	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O14	#4	3'-6"	68	BOX		12"	158.93		
O15	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O16	#4	3'-6"	68	BOX		12"	158.93		
O17	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O18	#4	3'-6"	68	BOX		12"	158.93		
O19	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O20	#4	3'-6"	68	BOX		12"	158.93		
O21	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O22	#4	3'-6"	68	BOX		12"	158.93		
O23	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O24	#4	3'-6"	68	BOX		12"	158.93		
O25	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O26	#4	3'-6"	68	BOX		12"	158.93		
O27	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O28	#4	3'-6"	68	BOX		12"	158.93		
O29	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O30	#4	3'-6"	68	BOX		12"	158.93		
O31	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O32	#4	3'-6"	68	BOX		12"	158.93		
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O71	#4	3'-6"	68	PVT. SEAT		12"	158.93		
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O81	#4	3'-6"	68	PVT. SEAT		12"	158.93		
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O96	#4	3'-6"	68	BOX		12"	158.93		
O97	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O98	#4	3'-6"	68	BOX		12"	158.93		
O99	#4	3'-6"	68	PVT. SEAT		12"	158.93		
O100	#4	3'-6"	68	BOX		12"	158.93		

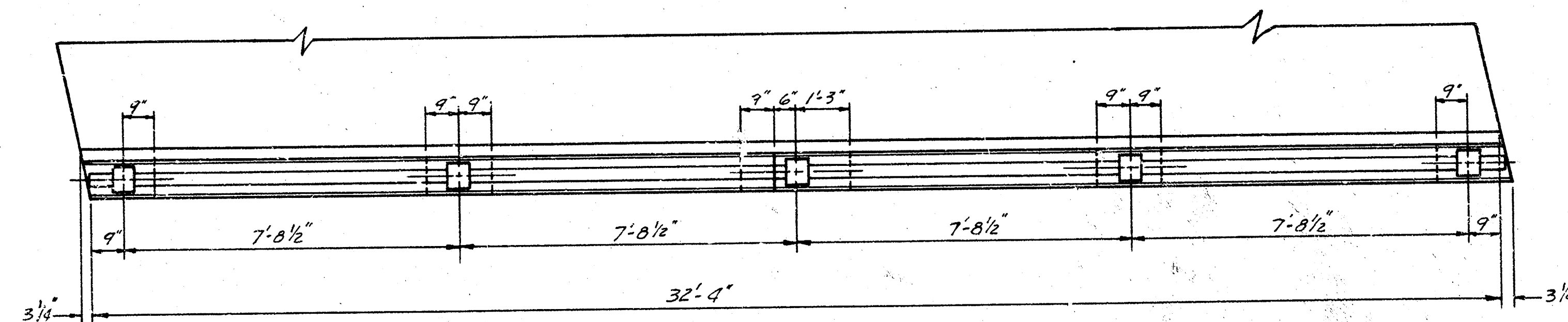
BENDING DIAGRAMS

No Scale

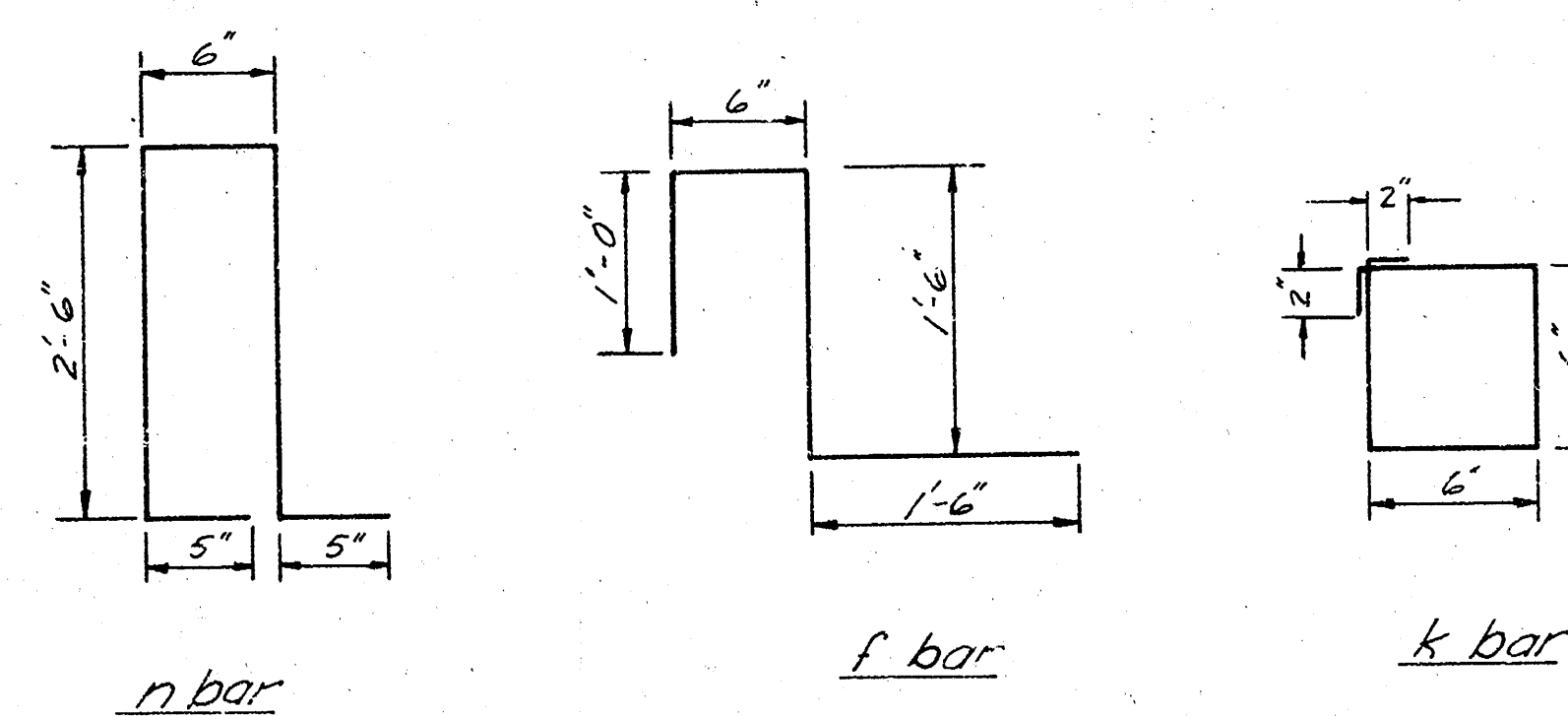
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3-95'x60' R.C.C.
SHERIDAN AVE. f 33rd ST. SQ.
DAK'S 574130

4/5



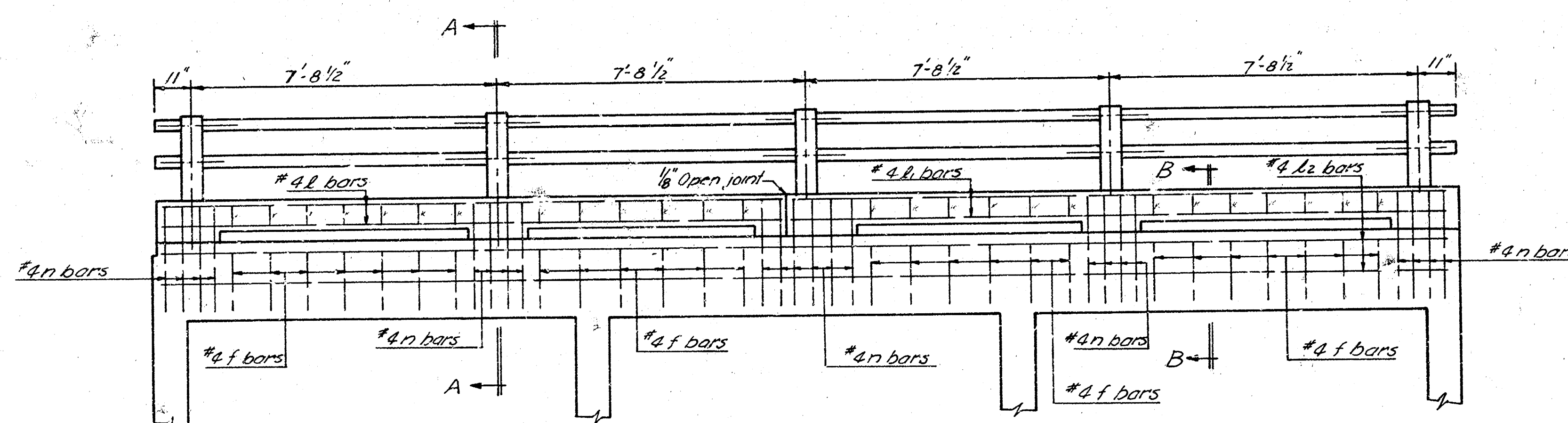
PLAN OF RAILING
3/8" = 1'-0"



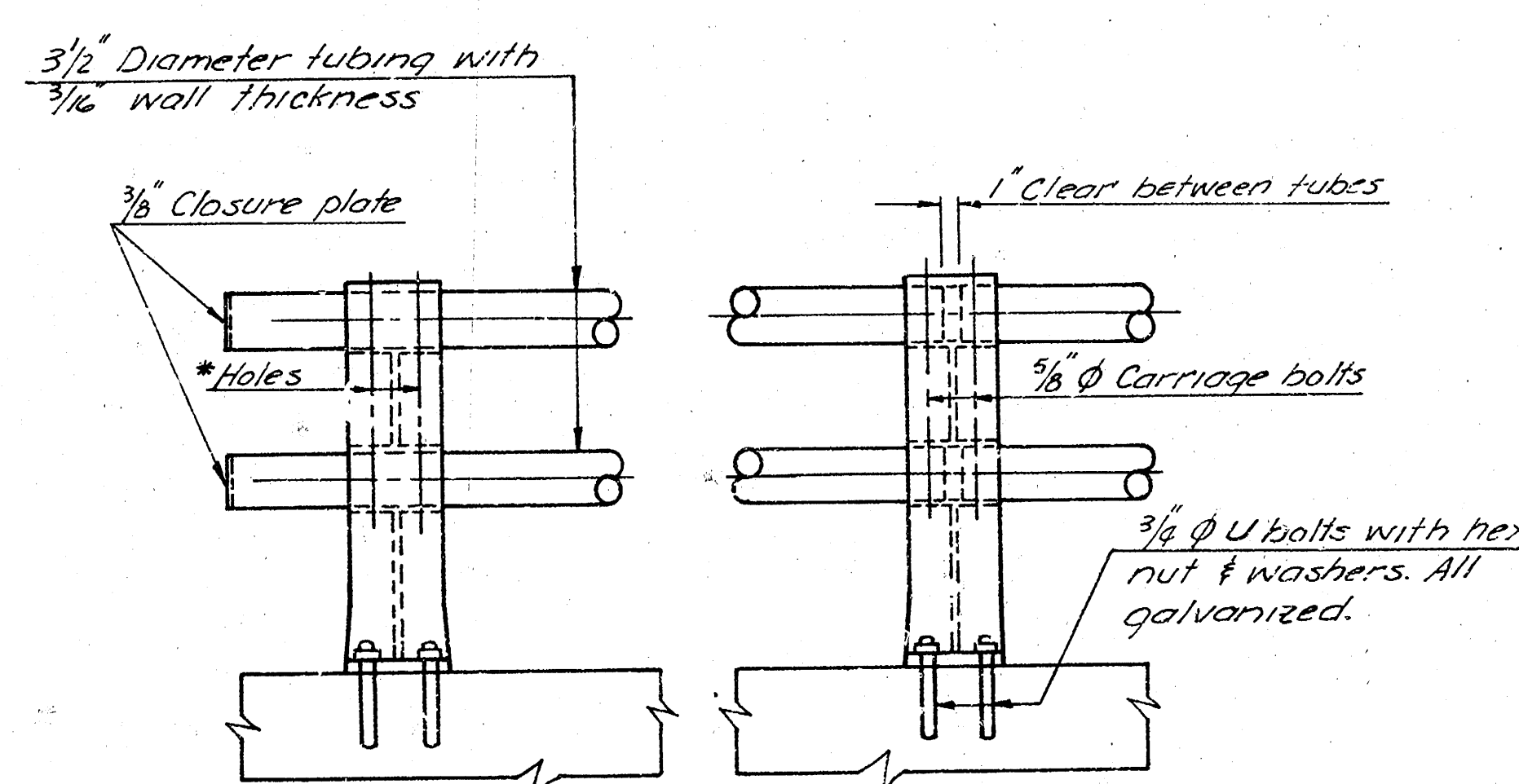
BENDING DIAGRAMS
No Scale

BAR SCHEDULE					
BAR	SIZE	LENGTH	NO.	SHAPE	WEIGHT*
* L	#4	15'-5"	8		82.40
* L ₁	#4	16'-5"	8		87.75
* L ₂	#4	32'-1"	8		171.04
* n	#4	6'-4"	44		186.05
* f	#4	4'-6"	52		156.31
* k	#4	2'-4"	52		80.93

* These bars replace the p, g₁, g₂, & g₃ bars used for the concrete handrail & mudguard.

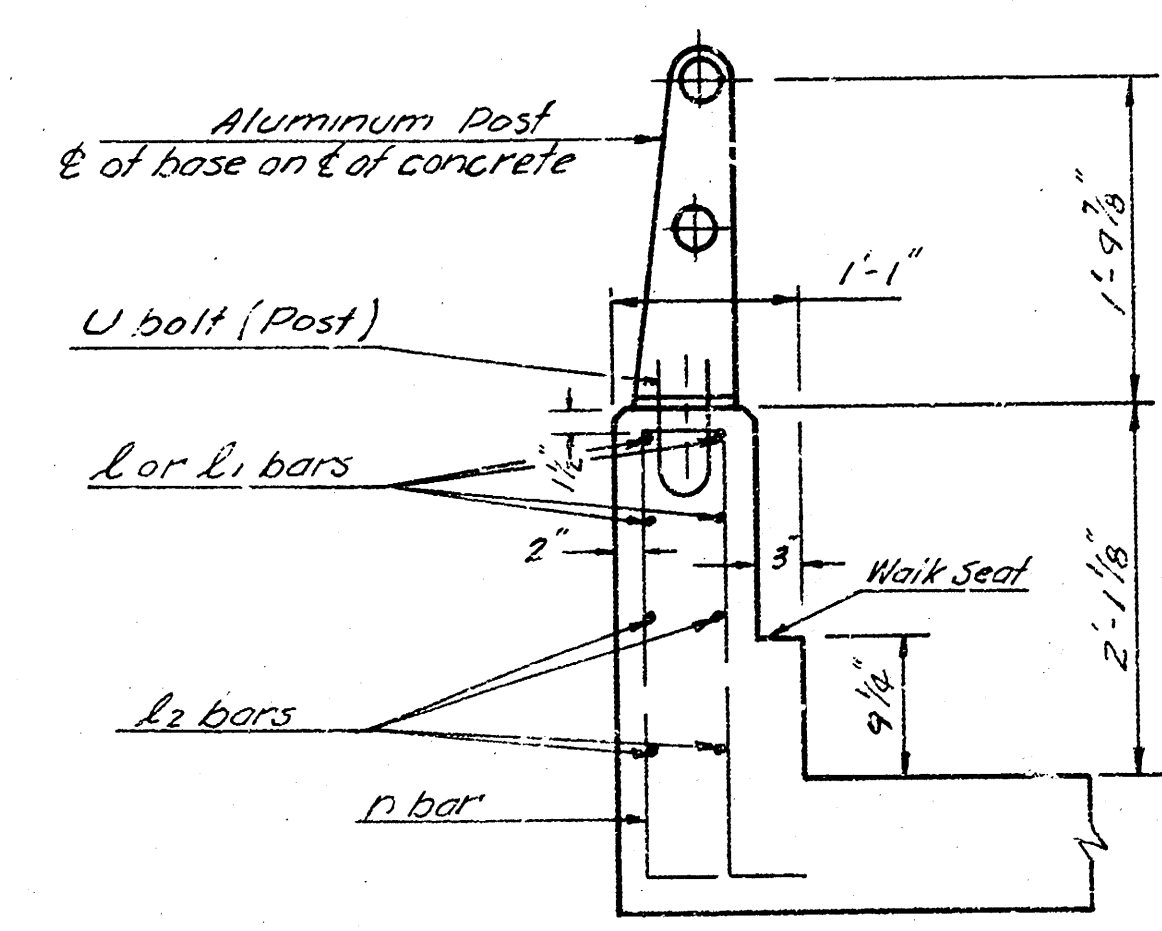


END SECTION OF RAILING
3/8" = 1'-0"

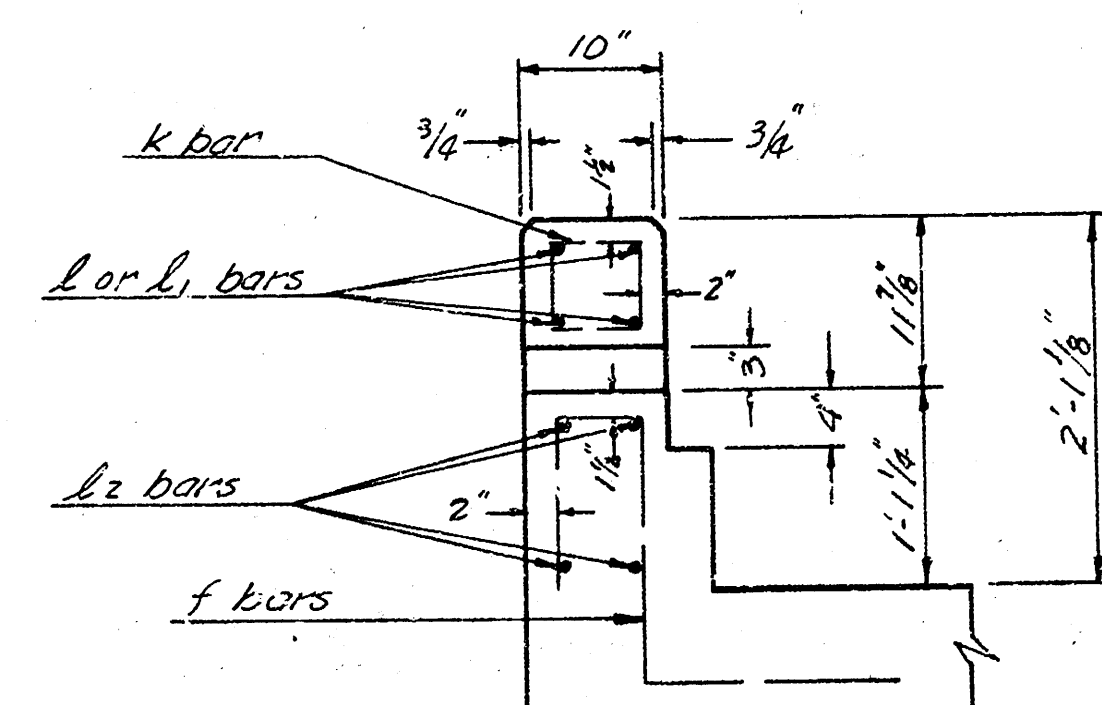


Holes: 1 1/8" square holes in post under head and 1 1/8" round holes under nuts for 3/8" ϕ $\times$ 5 1/2" carriage bolts with hex nuts.

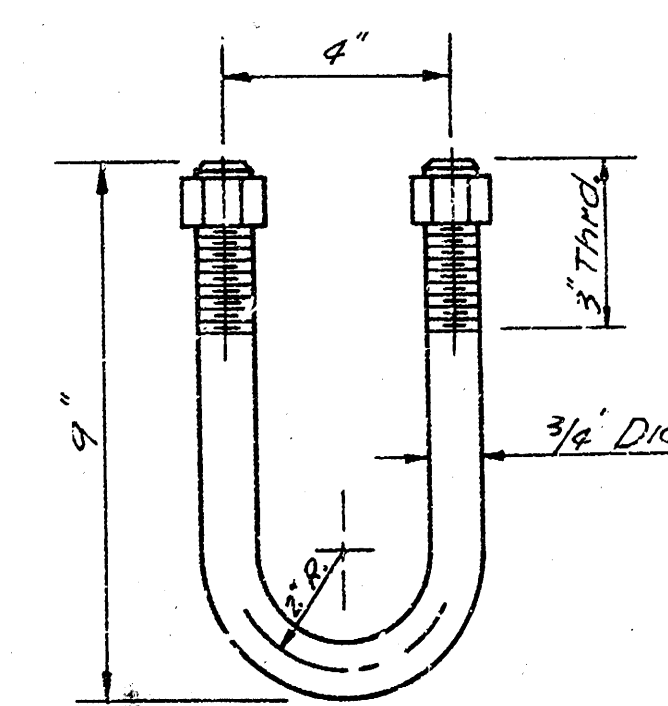
RAIL & POST CONNECTIONS
No Scale



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. 2R19A or equal.
Top & bottom rails shall be 3 1/8" O.D. $\times$ 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 Aluminastic 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" $\times$ 6.0" R.C.B.C.
SHERIDAN AVE. & 33RD ST. SO.
DAKS 574130