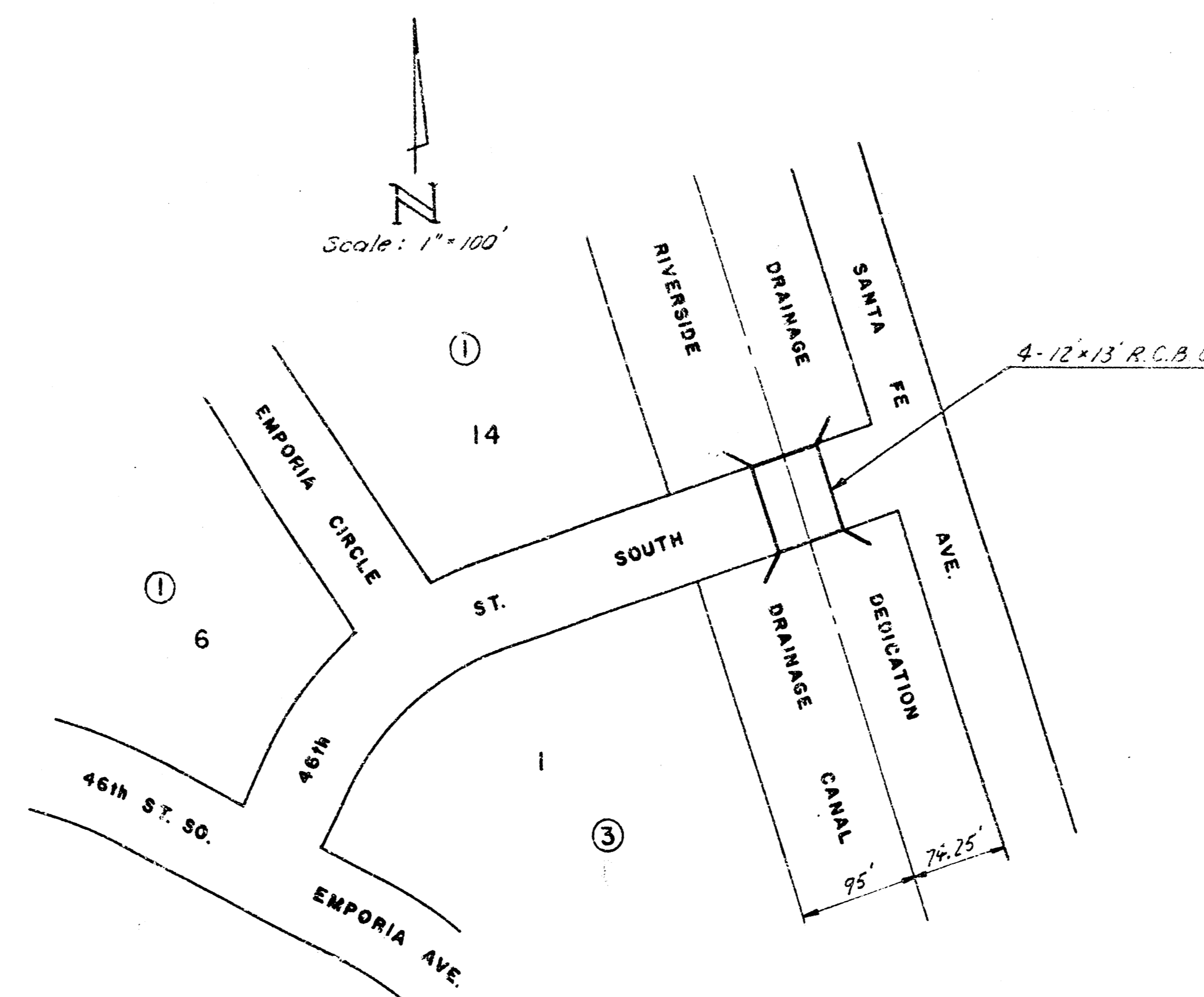


46th STREET SOUTH
W.L. LOT 14, BLK. I, SOUTH BROADWAY
INDUSTRIAL PARK ADDn TO W.L. SANTA FE
&
4-12'x13' R.C.B.C.
46th STREET SOUTH &
RIVERSIDE DRAINAGE CANAL
CITY OF WICHITA, KANSAS

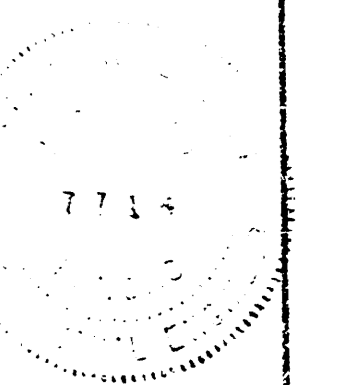
R.W. BRUGGEMAN DIRECTOR OF ENGINEERING / CITY ENGINEER

DATE:

PROJ. NO. 472 76 245 80756 000 000 001

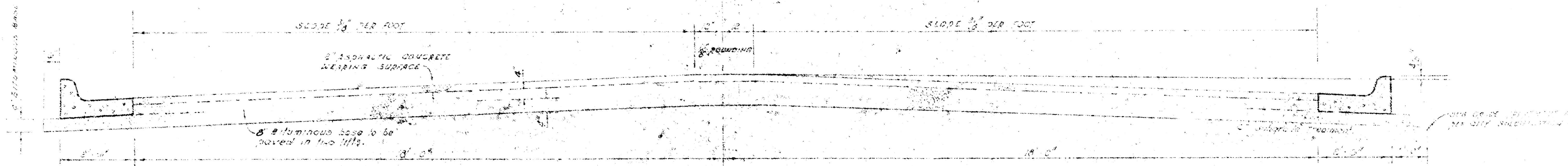


LOCATION MAP



1/14

**46th STREET SOUTH
W.L. LOT 14, BLK I, SOUTH BROADWAY INDUSTRIAL PARK
TO W.L. SANTA FE AVE.
&
4 - 12'x13' R.C.B.C. -
46th STREET SOUTH &
RIVERSIDE DRAINAGE CANAL**

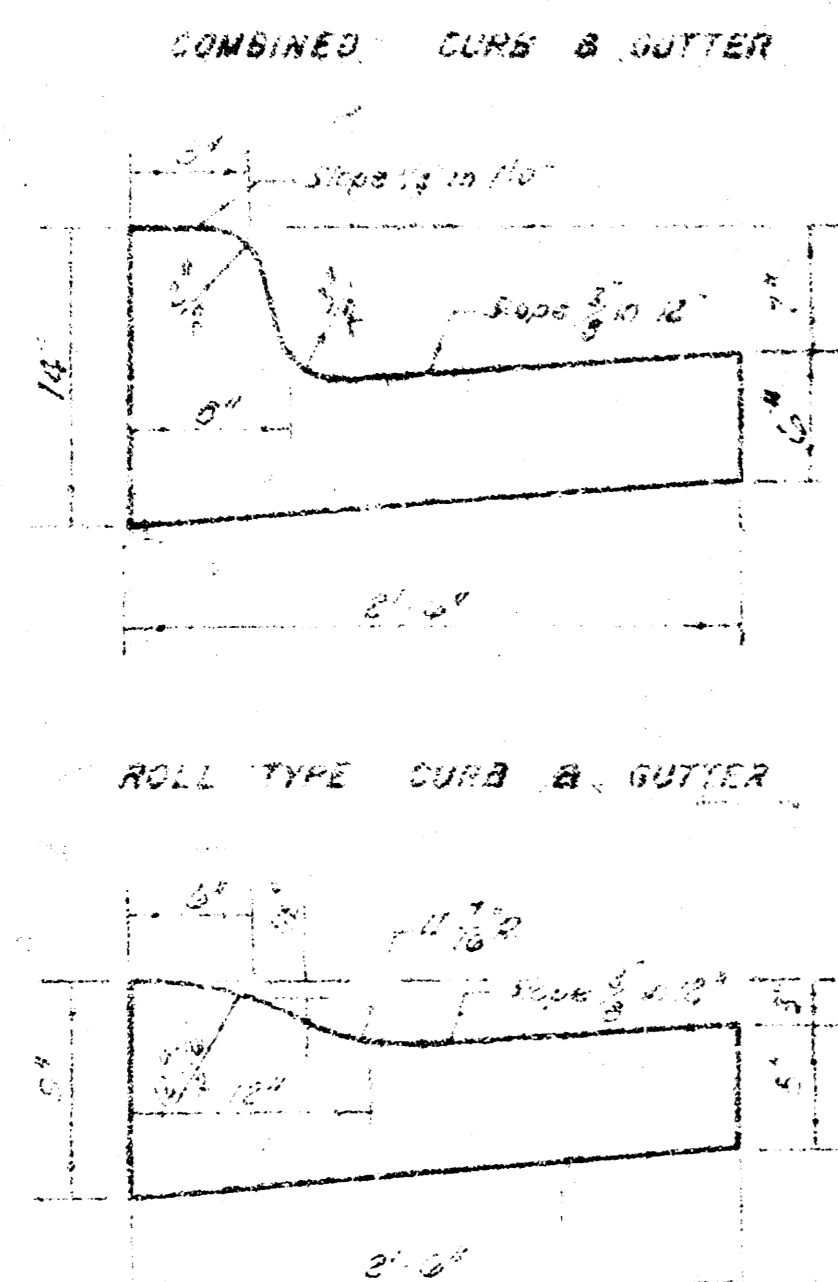


TYPICAL SECTION

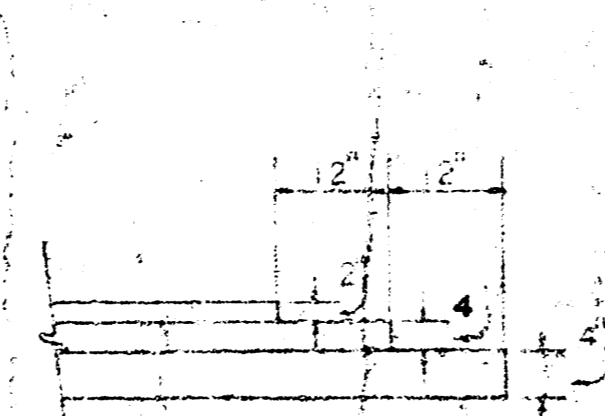
The 4" pavement below the curb shall be paid as 10' x 10' 4" pavement. The bituminous base under the curb shall be paid as 10' x 10' 4" bituminous base.

4" ASPHALTIC CONCRETE PAVEMENT WITH BITUMINOUS BASE

A TACK COAT OF EMULSIFIED ASPHALT 155-175 SHALL BE APPLIED AT AN APPROXIMATE RATE 0.03 GALLONS PER SQ YD BETWEEN LIFTS OF ASPHALTIC MATERIALS WHEN ORDERED BY THE ENGINEER. TACK COAT WILL NOT BE PAID FOR DIRECTLY AND SHALL BE CONSIDERED AS SUBSIDIARY TO PRICE BID FOR ASPHALTIC PAVEMENT. BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR GRADE AND GRADE. CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF 1' WITH JOINTS IN PRECEDING LIFTS AND SUCH THAT A JOINT WILL BE CONSTRUCTED ON THE PAVEMENT CENTERLINE IN THE TOP LIFT.



DETAIL OF TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAYMENTS AT LOCATIONS WHERE PAVEMENT TEMPORARILY ENDS TO FACILITATE FUTURE PAVEMENT CONSTRUCTION AS SHOWN BY DETAIL. THE COST OF CONSTRUCTING THE TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE MEASURED OR PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS OF ASPHALTIC CONCRETE PAVEMENT.

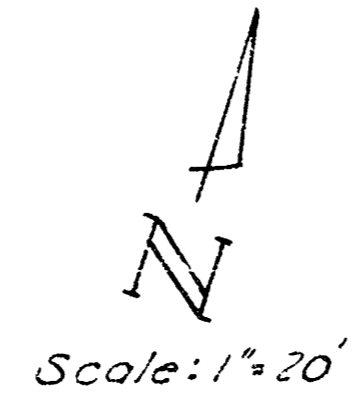
2/14

CITY OF WICHITA, KANSAS
DEPARTMENT OF PUBLIC WORKS - Engineering Division

DATE _____
PROJ. NO. 472 76 245 80756 000 000 001

B.M. 2+425 Broadway / 41° 31' S, 28' E, 28.3' N of Sec. Cor.
 B.M. 82-2 N. Side 47th St S, Approx. 50 W. of Santa Fe Ave. Square cut in N.E. Cor. Box Culvert

NOTE: Prior to beginning construction,
 Contractor shall call: State Oil Corp
 264-8378



EMPORIA CIRCLE

SANTA FE AVE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING POINTS TO BE SET AND FOR THE PROTECTION OF ALL UTILITIES WHICH ARE LOCATED UNDER OR ADJACENT TO THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES WHICH ARE LOCATED UNDER OR ADJACENT TO THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES WHICH ARE LOCATED UNDER OR ADJACENT TO THE PROJECT.

All curb inlets & S.W.S. pipe by others

$\Delta = 8^{\circ}12'09''$ $R = 250'$ $T = 1293'$ $L = 35.79'$ $L_c = 35.76'$
 CURVE DATA BASED ON $RAD_{\frac{1}{2}} = 4^{\circ}06'04.5''$

STA.	ARC	CHORD LENGTH	OFFSET	DEFLECTION	TOTAL DEFLECTION
0+30.78	11.09	12.33	0° 00' 00"	0° 00' 00"	
0+41.87	11.09	12.33	1° 06' 15"	1° 06' 15"	
0+50	18.13	19.04	1° 55' 34.27"	1° 55' 34.27"	
0+66.57	14.51	18.82	1° 53' 53.5"	4° 06' 04.5"	

Deflect. = 6.87552 mil/ft

NOTE: S.W.S. shown on this plan has been constructed.

NOTE: Trees to be removed are marked thus except that any trees marked for removal which in the opinion of the Engineer can be saved, shall be spared.

EARTHWORK

EXCAVATION	COMPACTED FILL
27.3 C.Y.	875.7 C.Y.
+10% 2.7	+10% 87.6
Total 30.0 C.Y.	Total 963.3 C.Y.

BORROW
 1227.2 C.Y.

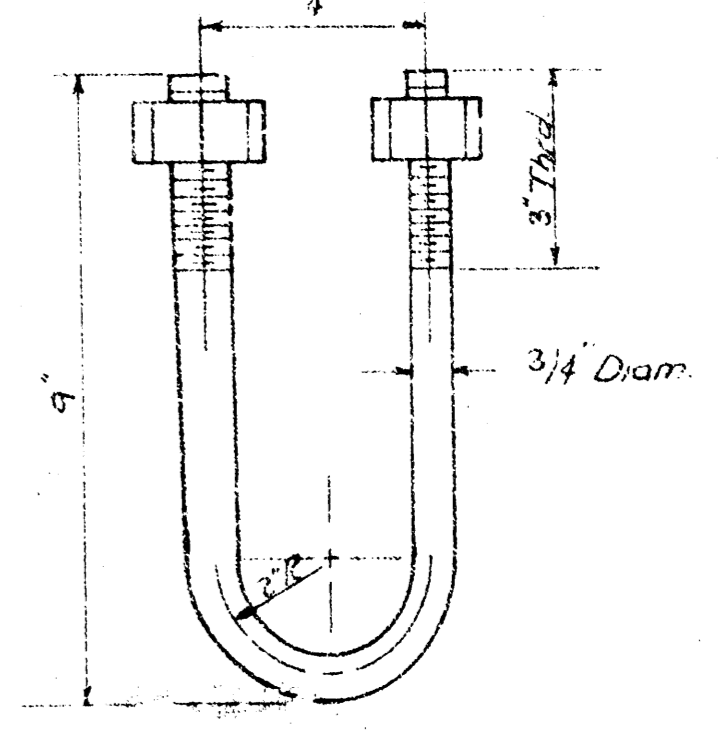
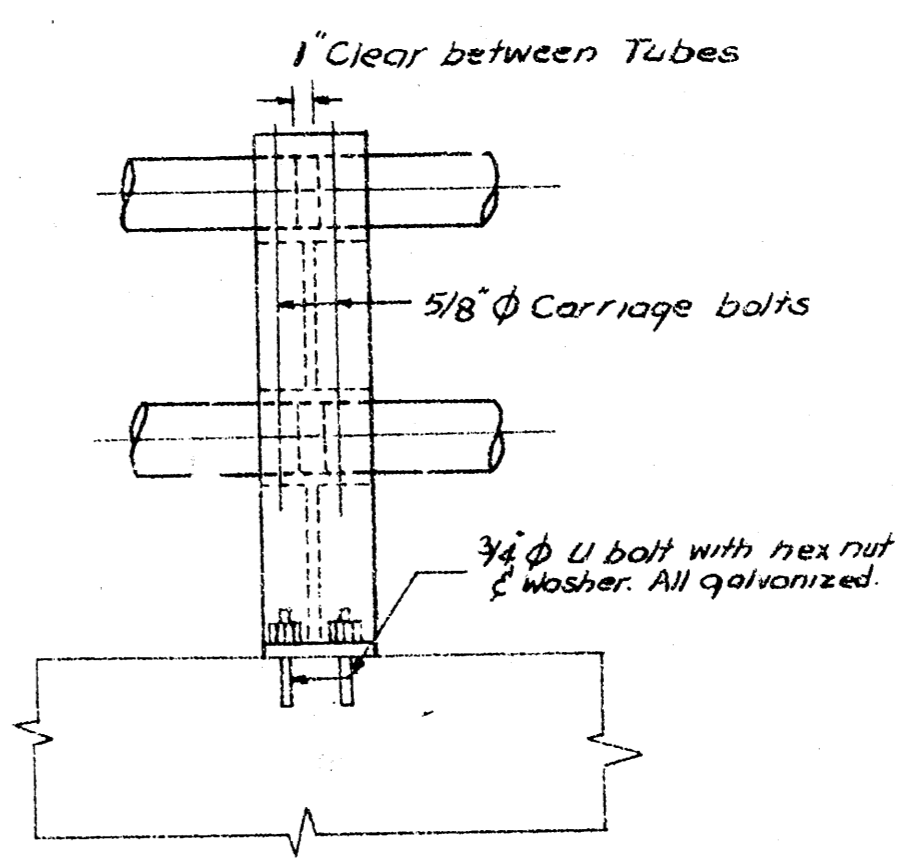
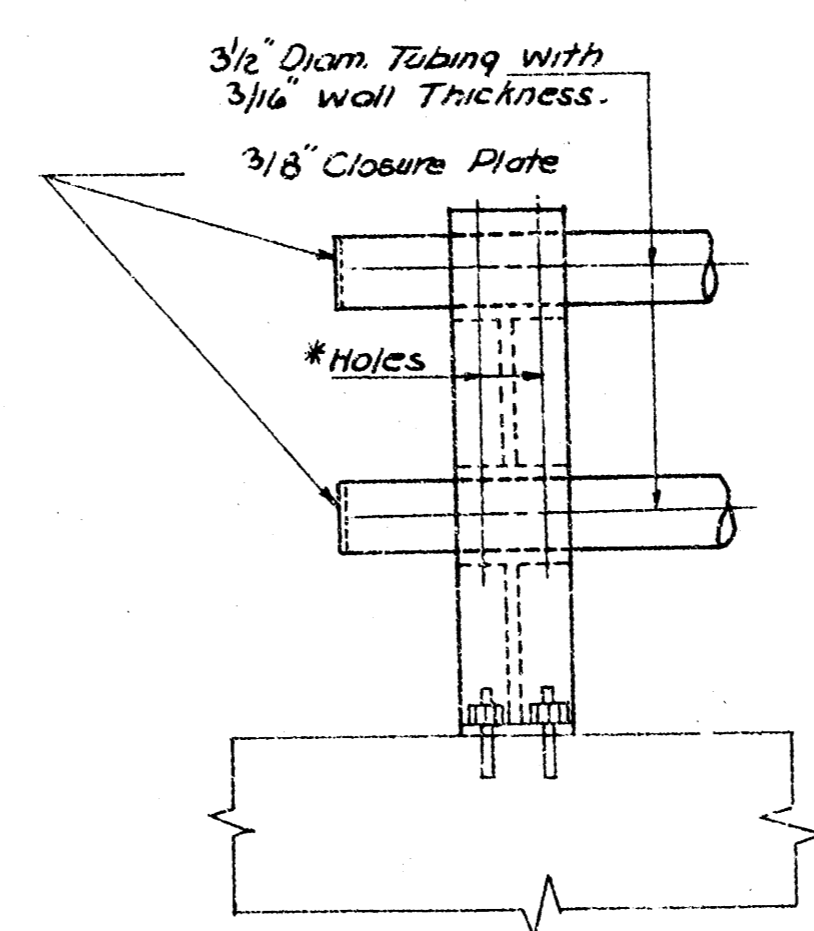
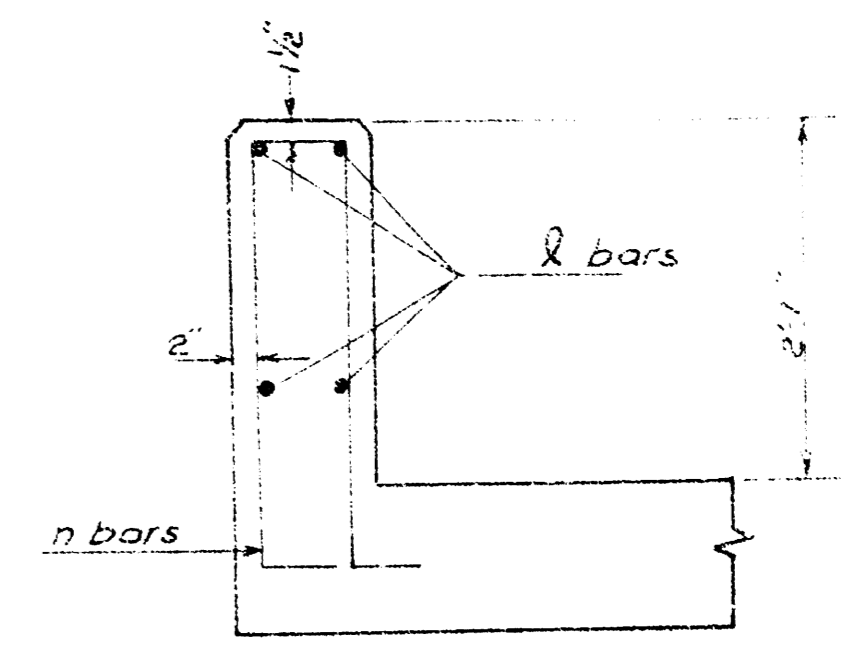
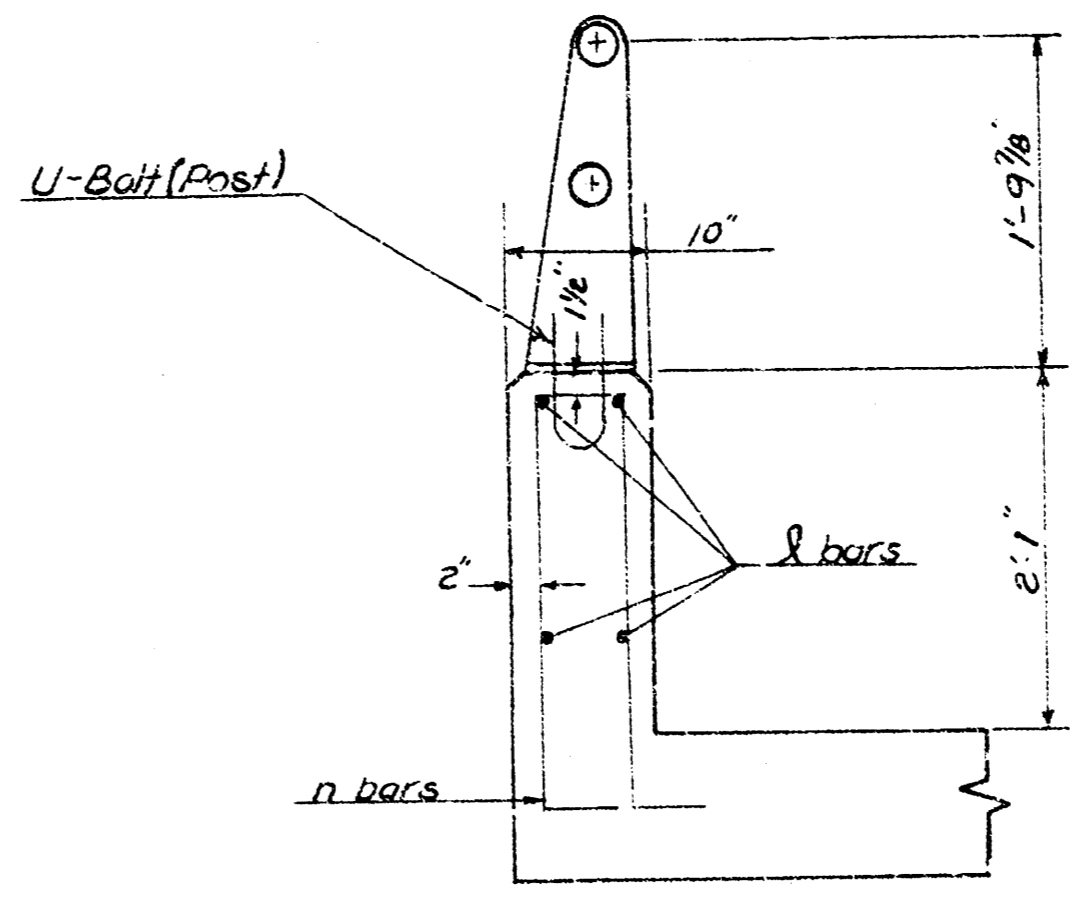
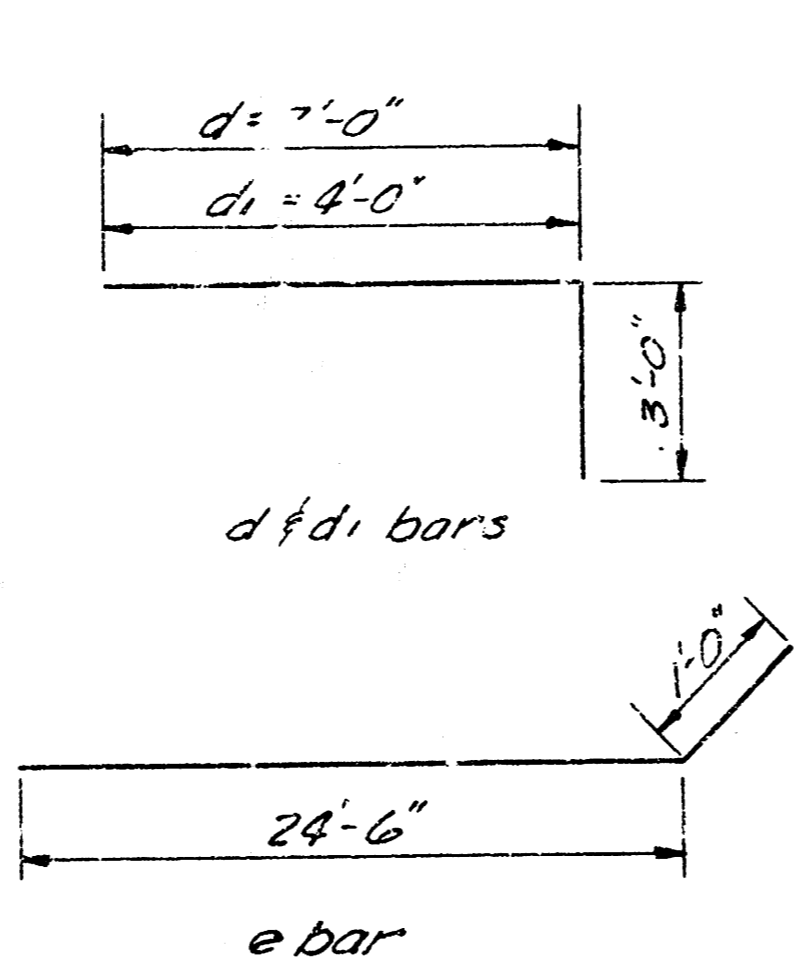
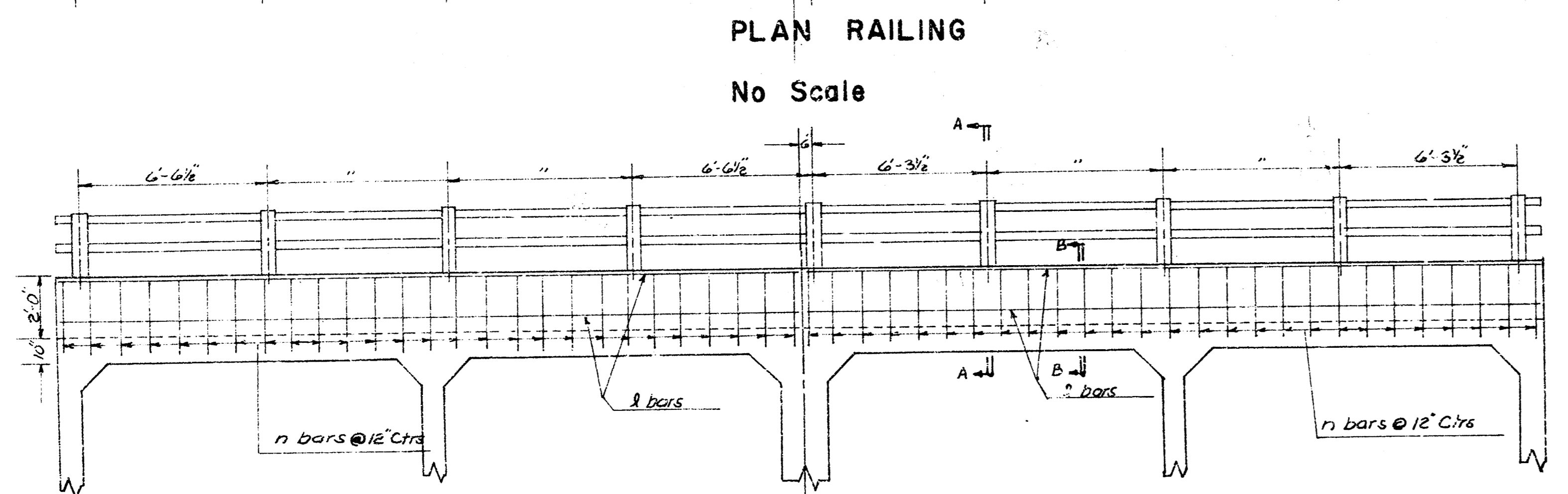
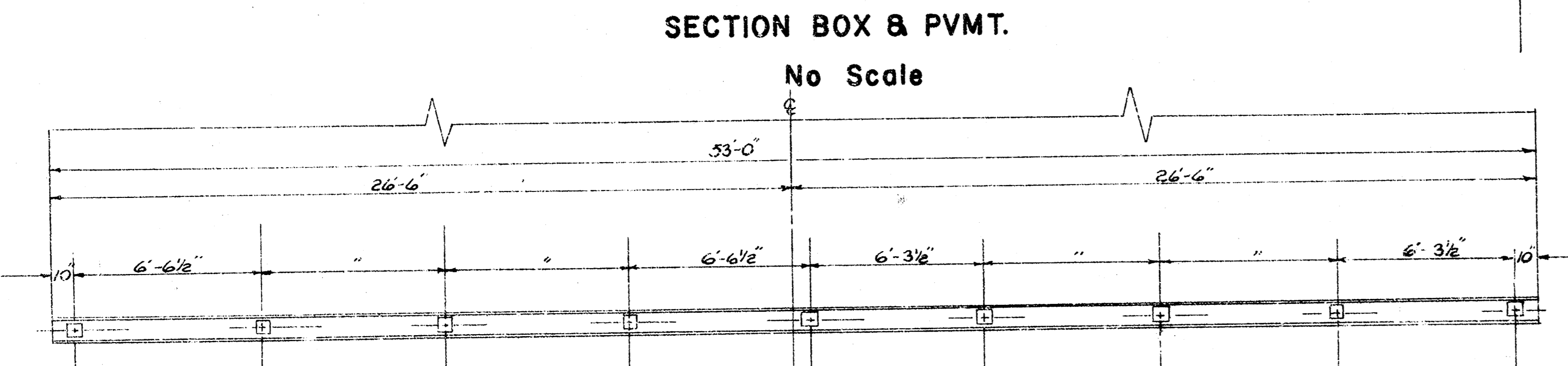
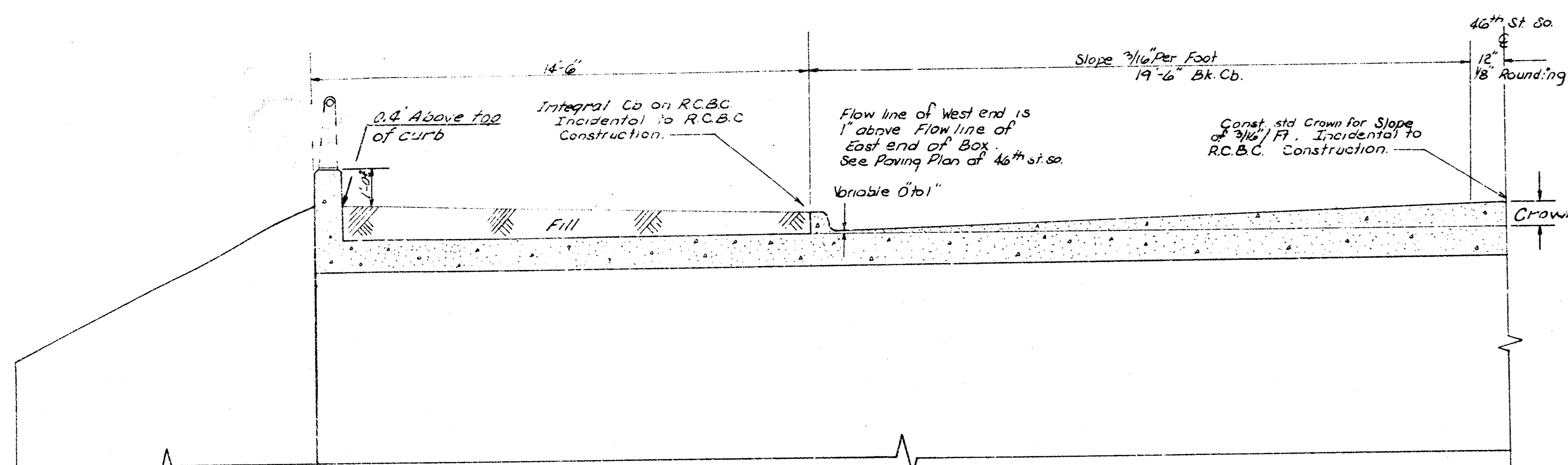
Total Manipulation = 1530.5 C.Y.

NOTE: Excess dirt from channel excavation to be used for loose fill and compacted fill on 46th St. So.

46th STREET SOUTH
 W. L. LOT 14, BLK I, SOUTH
 BROADWAY INDUSTRIAL PARK
 TO W. L. SANTA FE AVE.
 CITY OF WICHITA, KANSAS

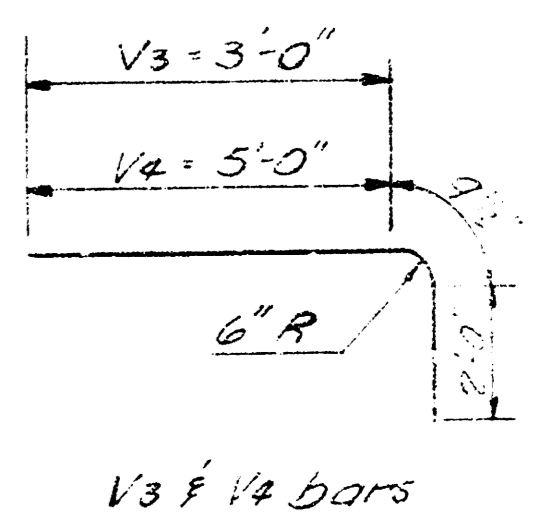
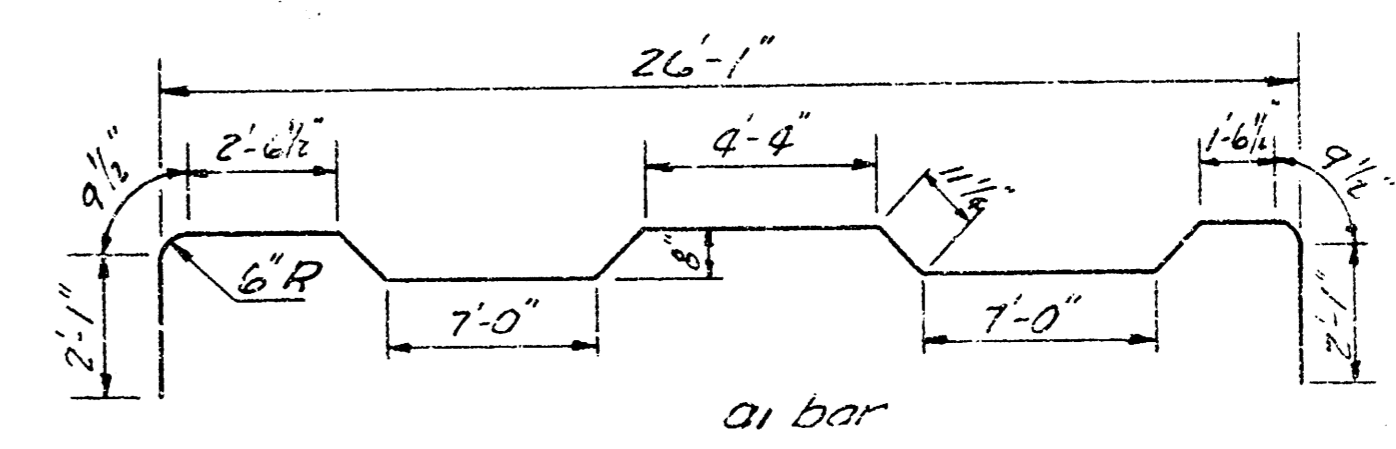
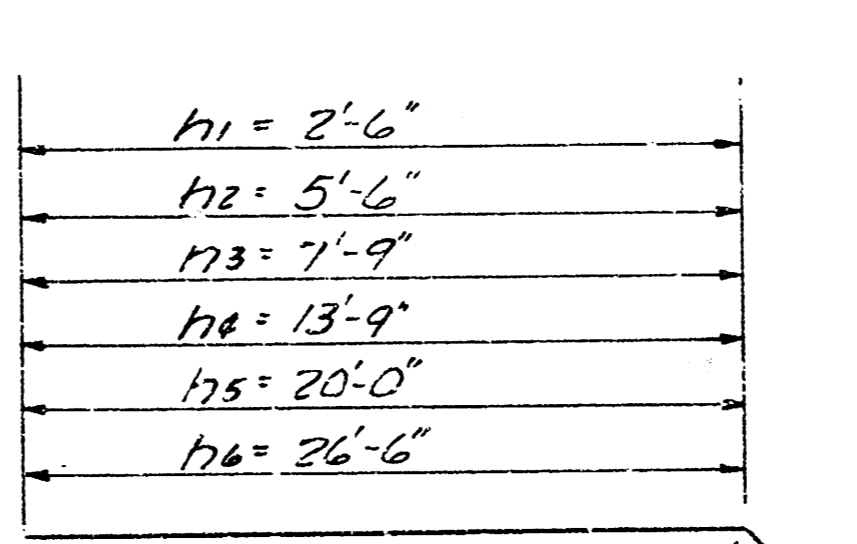
DATE _____
 PROJ. NO. 472 76 245 80756 000 000 001

3/12



* Holes 1 1/16 square holes in post under head and 1/16 round holes under nuts for 5/8 φ x 5 1/2 carriage bolts with hex nuts.

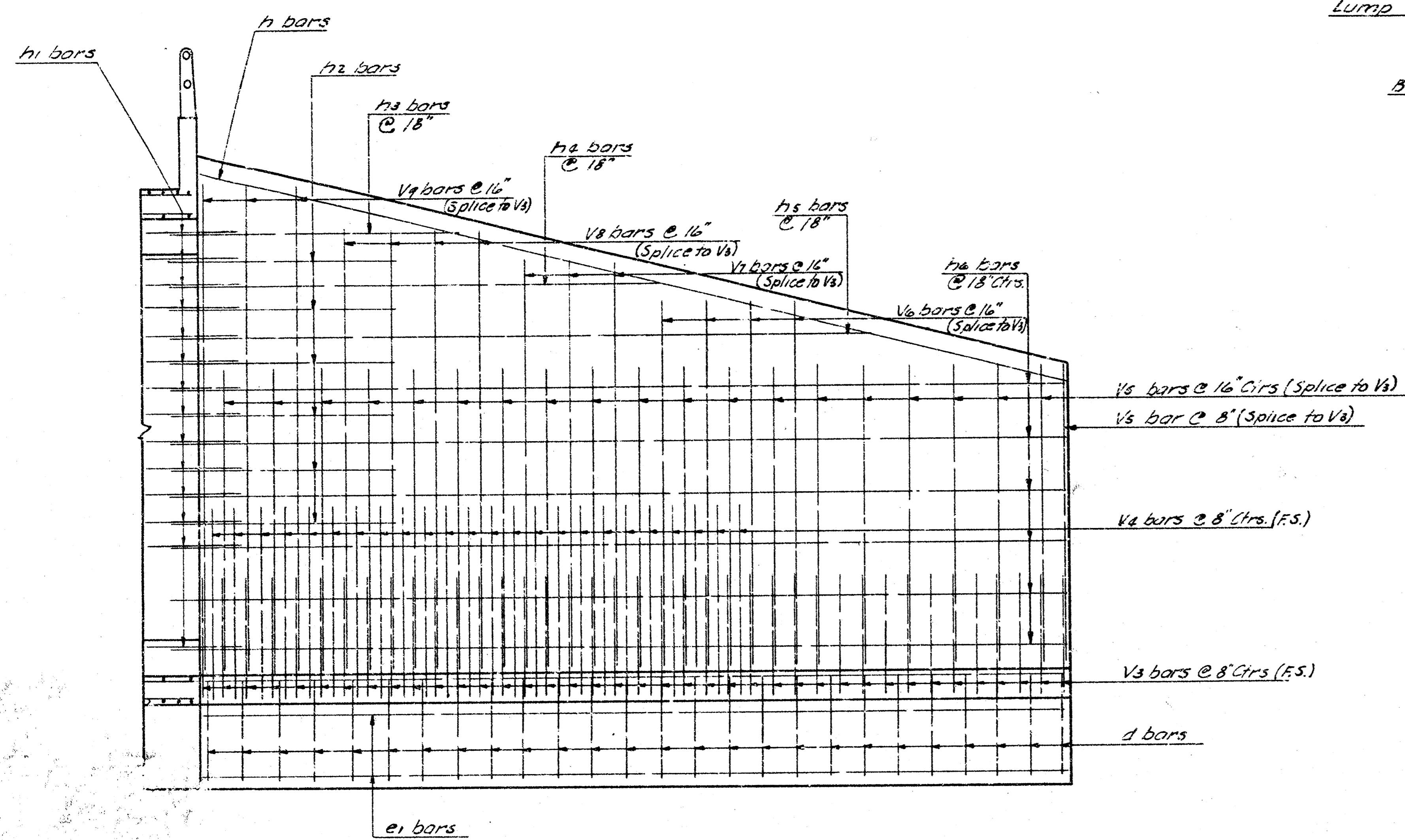
Note: Aluminum Handrail Aluminum posts shall be Reynolds Aluminum Highway Products Bridge Railing System No. BR19A or equal. Top and bottom rails shall be 3/4\"/>



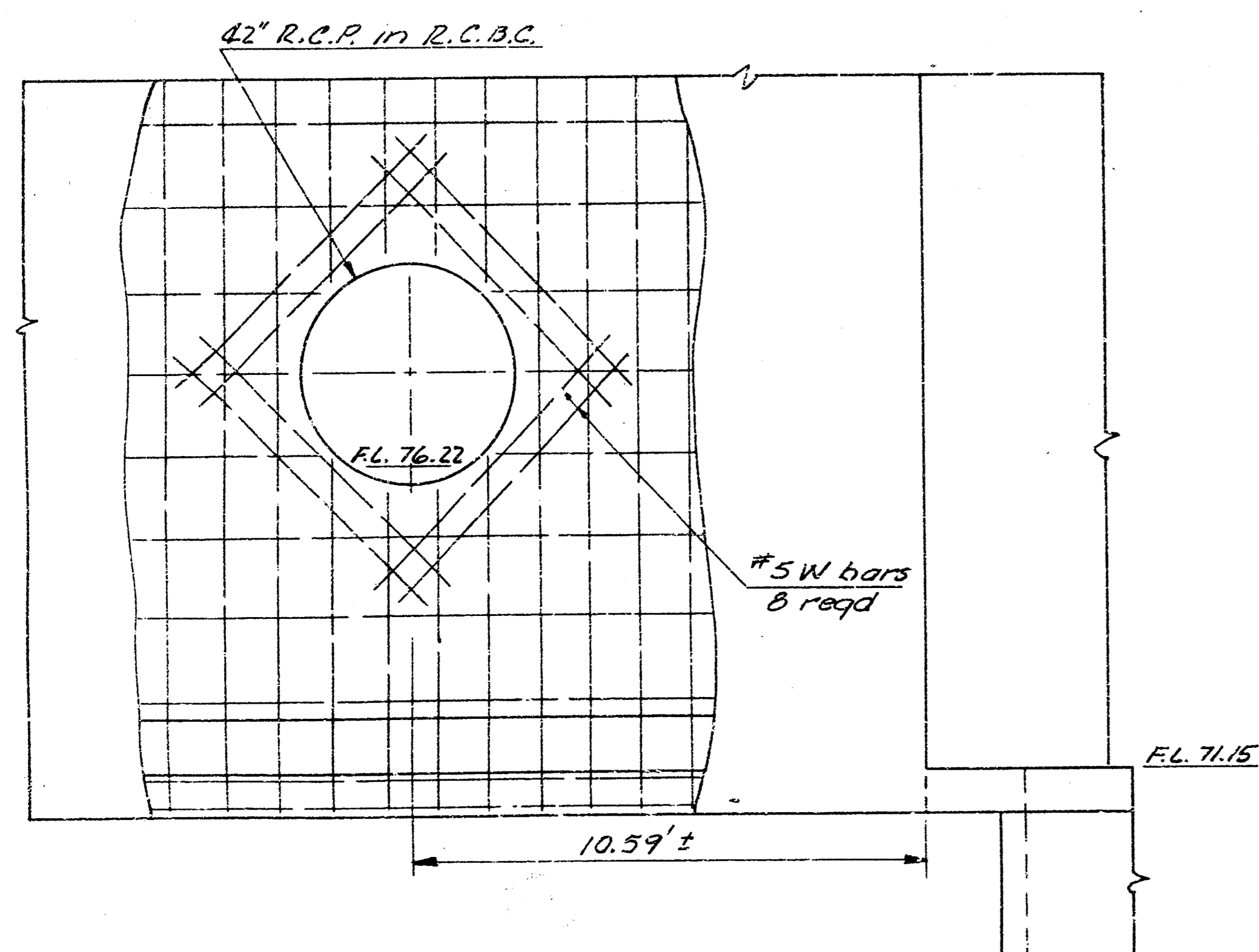
BENDING DIAGRAMS All dimensions are out to out of bars

5/14

4-12'x13' R.C.B.C.
46th ST. SOUTH &
RIVERSIDE DRAINAGE CANAL
CITY OF WICHITA, KANSAS
DATE
PROJ. NO. 472 76 245 80756 000 000 001



WINGWALL STEEL PATTERN (FS)
3/8"=1' 0"



DETAIL - OPENING FOR PIPE
NO SCALE

BILL OF MATERIALS		
ITEMS	QUANTITY	UNIT
Class A-AE Concrete	523.5	C.Y.
Reinforcing Steel	75,526.6	Lbs.
Hand Excavation	26.8	C.Y.
Aluminum Handrail	106.0	L.F.
Class A Concrete - Seal Course	34.4	C.Y.
* Excavation	4,432.6	C.Y.
* Compacted Fill	553.2	C.Y.
Type 3 Riprap	641.8	S.Y.

Lump Sum Bid
Bid Items

* Includes quantities for R.C.B.C. channel

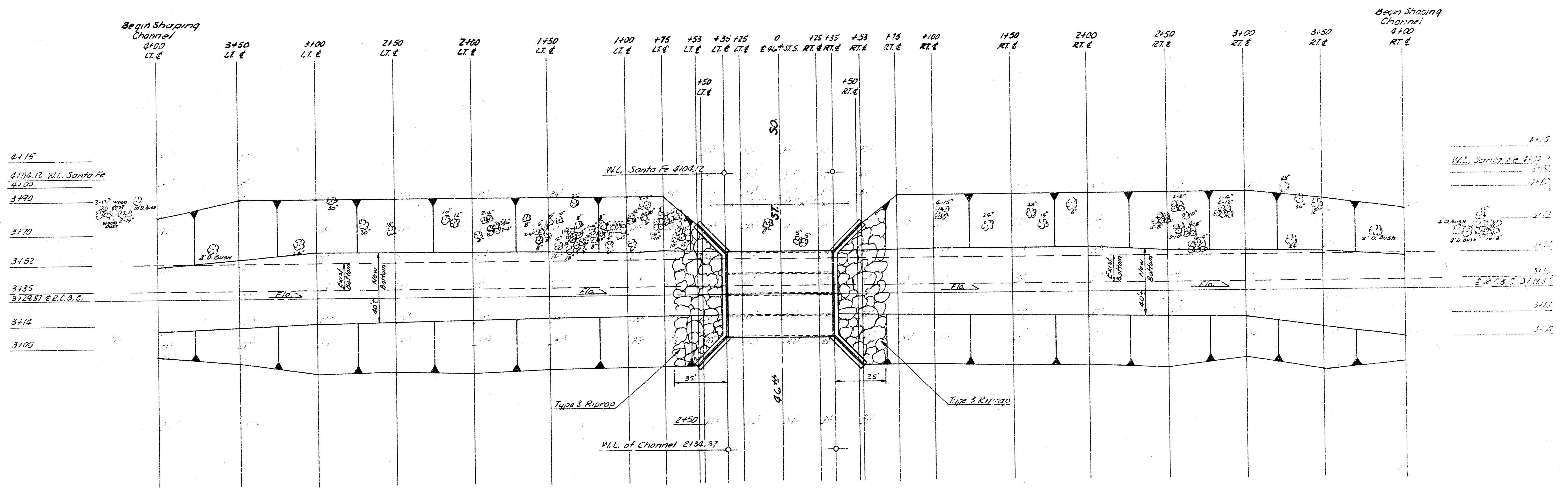
GENERAL NOTES

1. CLASS A-AE - CONCRETE SHALL BE USED THROUGHOUT ON THE STRUCTURE. THE REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS.
2. EARTHWORK - ALL EARTHWORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR THE TOPSOIL. "TOPSOIL EXCAVATION" SHALL BE INCLUDED IN "LUMP SUM BID".
3. BACKFILL - ALL BACKFILL AND EXCAVATION TO EXTEND TO 10' BEYOND SIDES OF BOX AND WING-WALLS.
4. BEVEL - ALL EXPOSED EDGES OF CONCRETE WITH 1/4" RADIUS OR MORE.
5. WEEPHOLES - COURSE AGGREGATE SHALL BE DEPOSITED BEHIND EACH WEEP HOLE TO OCCUPY A SPACE EXTENDING (15") IN ALL DIRECTIONS ABOVE WEEP HOLE PLAN 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 1" CLASS "A" CONCRETE SHALL BE CONSTRUCTED ONLY WHERE SPECIFIED ON THE PLANS OR BY THE INSPECTOR. 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" WHICH SHALL INCLUDE THE FOLLOWING ITEMS: CLASS A-AE CONCRETE, REINFORCING STEEL, HAND EXCAVATION, AND ALUMINUM HAND RAIL. ALL OTHER ITEMS SHALL BE INCLUDED AS BID ITEMS.
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 AS TO THE "QUANTITIES" AND THE INSPECTOR 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.

6/14

4-12'x13' R.C.B.C.
46th ST. SOUTH &
RIVERSIDE DRAINAGE CANAL
CITY OF WICHITA, KANSAS
DATE
PROJ. NO. 472 76 245 80756 000 000 001

N
Scale: 1"=30'

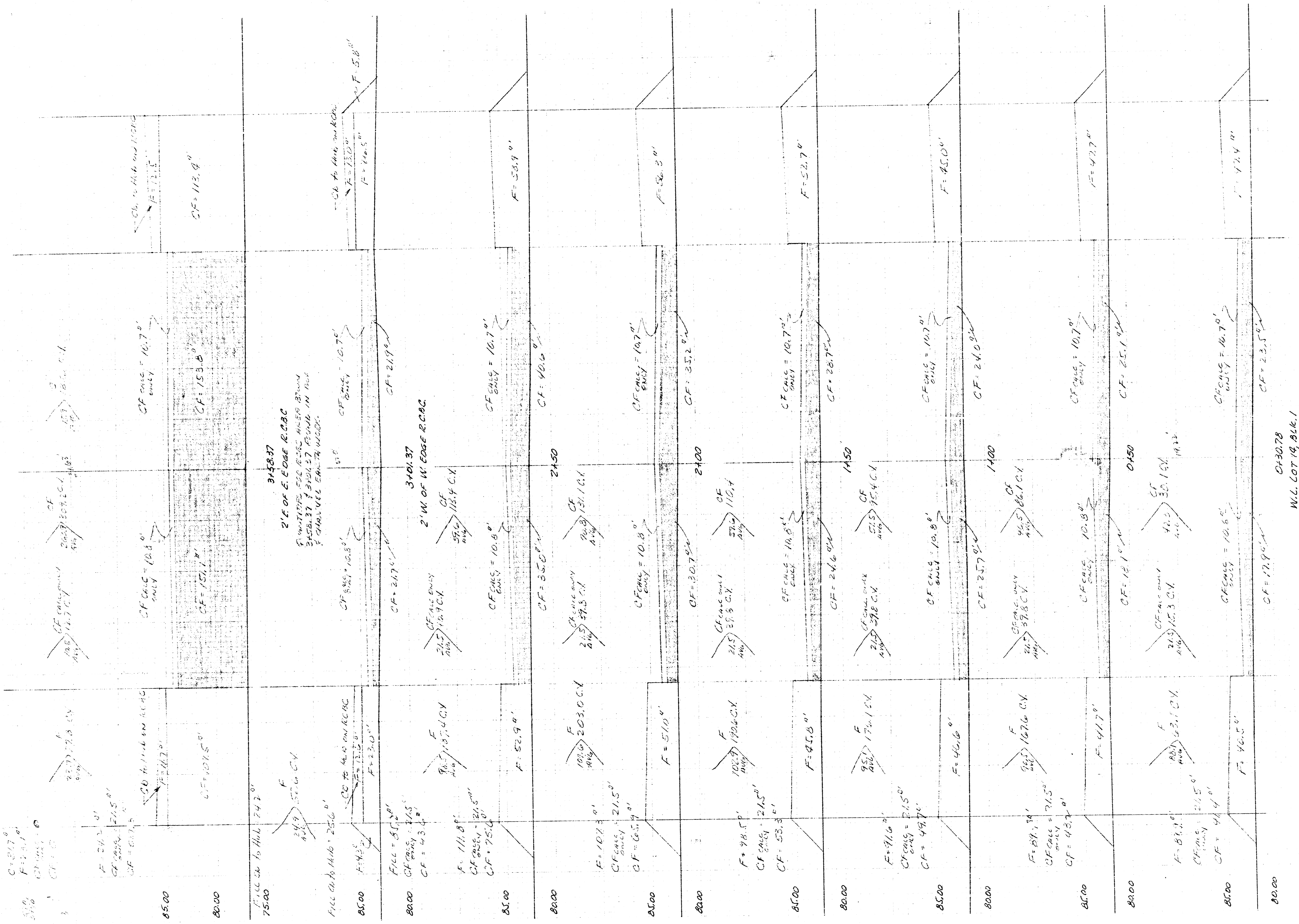


NOTE: Excess dirt from channel excavation to be used for loose fill and compacted fill on 46th St. So. Trees in area of channel excavation are not bid as separate removal item.

CHANNEL EXCAVATION

7/14

4-12'x13' R.C.B.C.
46th ST. SOUTH &
RIVERSIDE DRAINAGE CANAL
PROJ. NO. 472 76 245 80756 000 000 001



40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40

46th STREET SOUTH
 W. L. LOT 14, BLK 1, SOUTH
 BROADWAY INDUSTRIAL PARK
 TO W. L. SANTA FE AVE.

3/14

PROJ. NO. 472 76 245 80756 000 000001

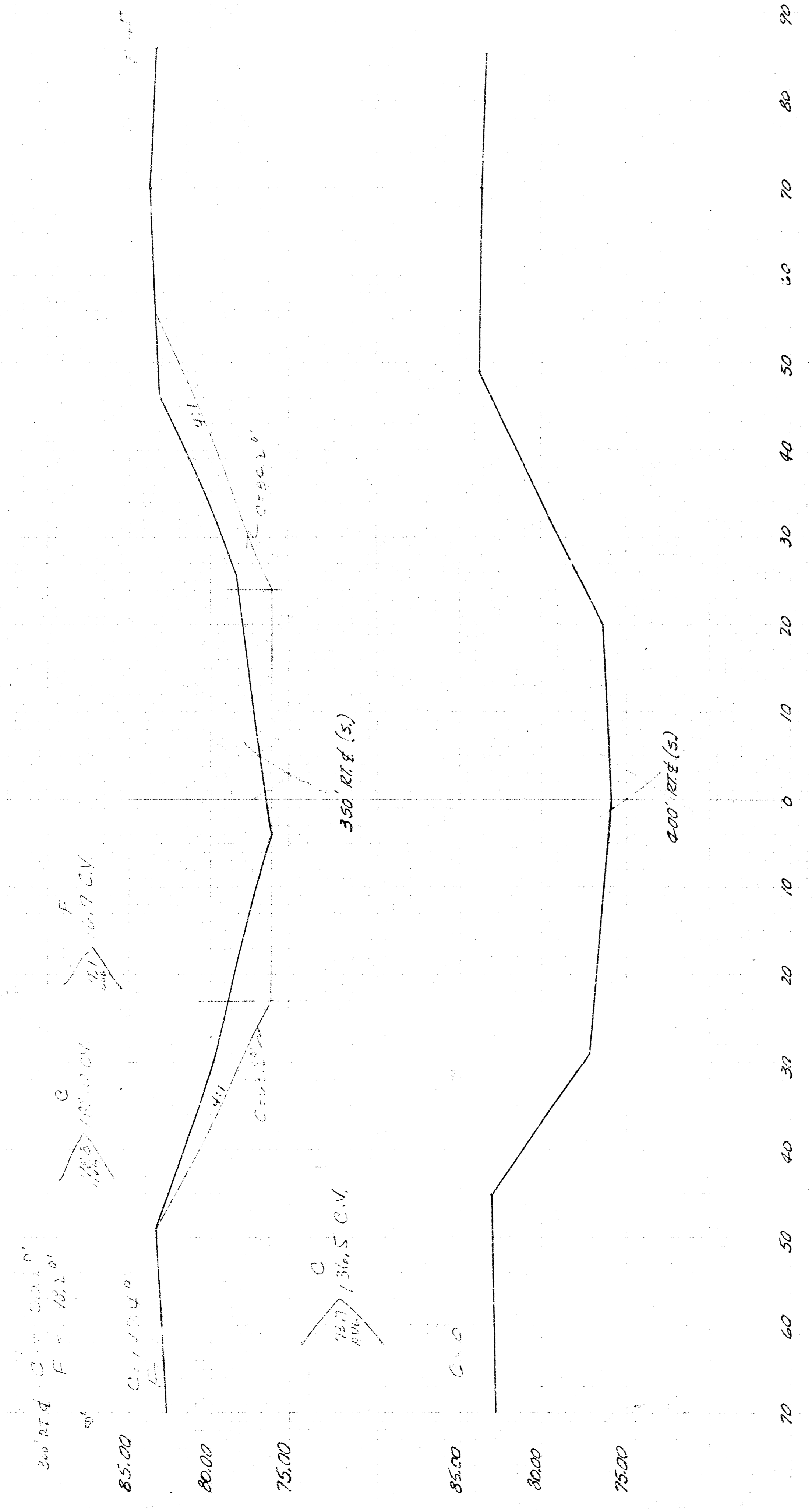


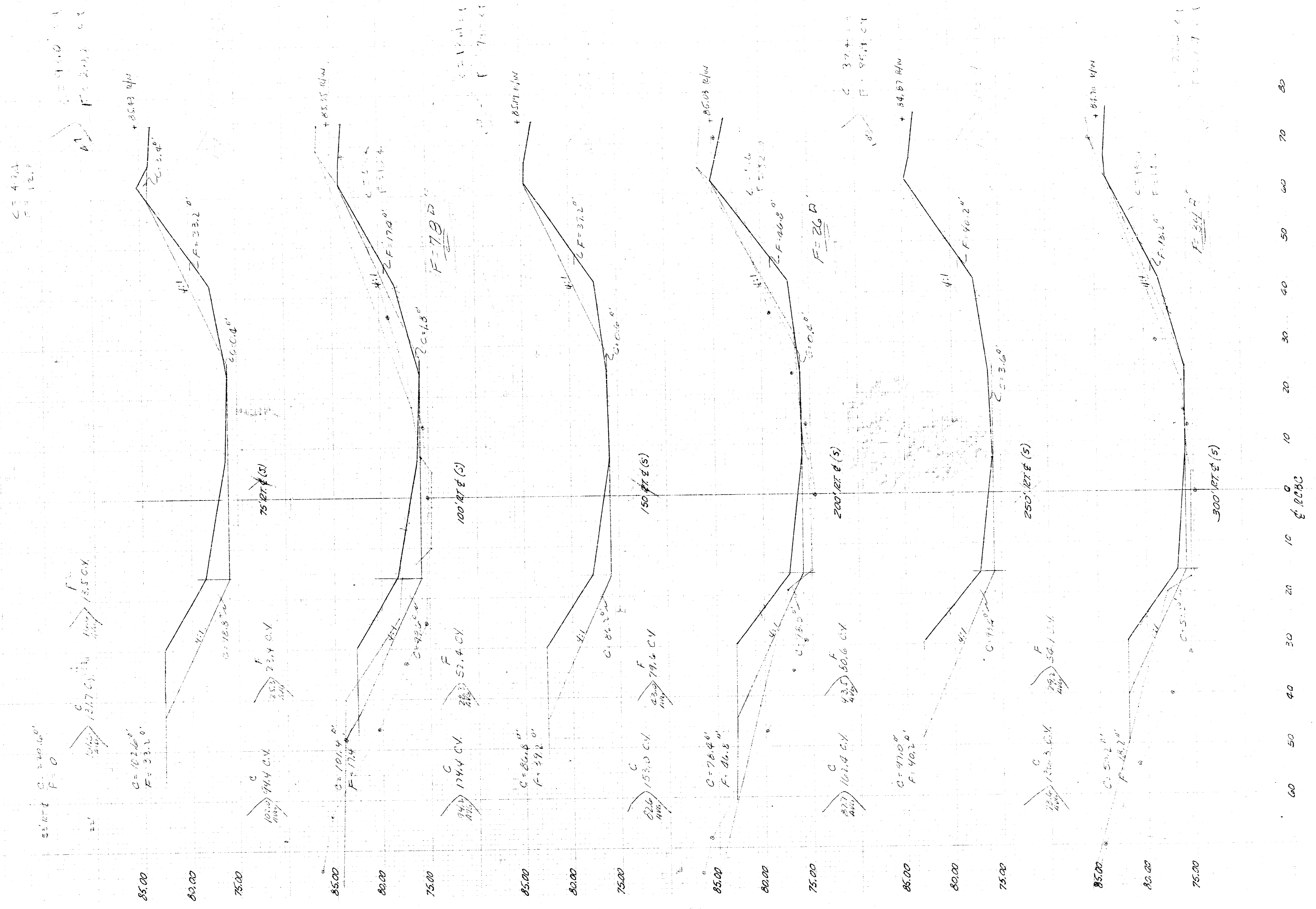
EXHIBIT - THIS SHEET
 ESCAL 345' C.V. 15.7' C.V.

DIT 1
 EXHIBIT - THIS SHEET
 ESCAL 345' C.V. 15.7' C.V.

17/14

4-12'x13'R.C.B.C.
 46th ST. SOUTH &
 RIVERSIDE DRAINAGE CANAL

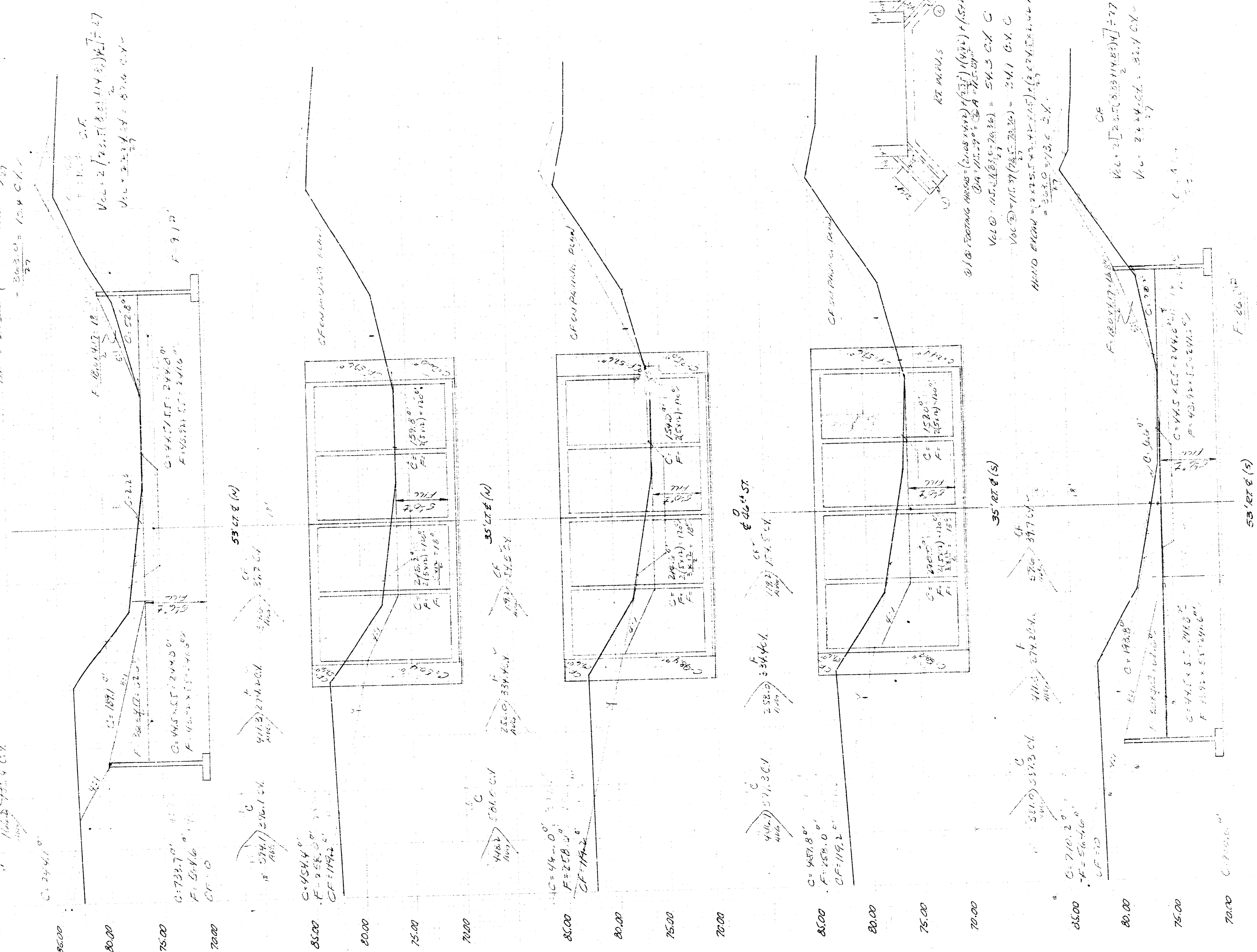
PROJ. NO. 472 76 245 80756 000 000 001



APPROVED: [Signature]
 DATE: [Date]
 TITLE: [Title]

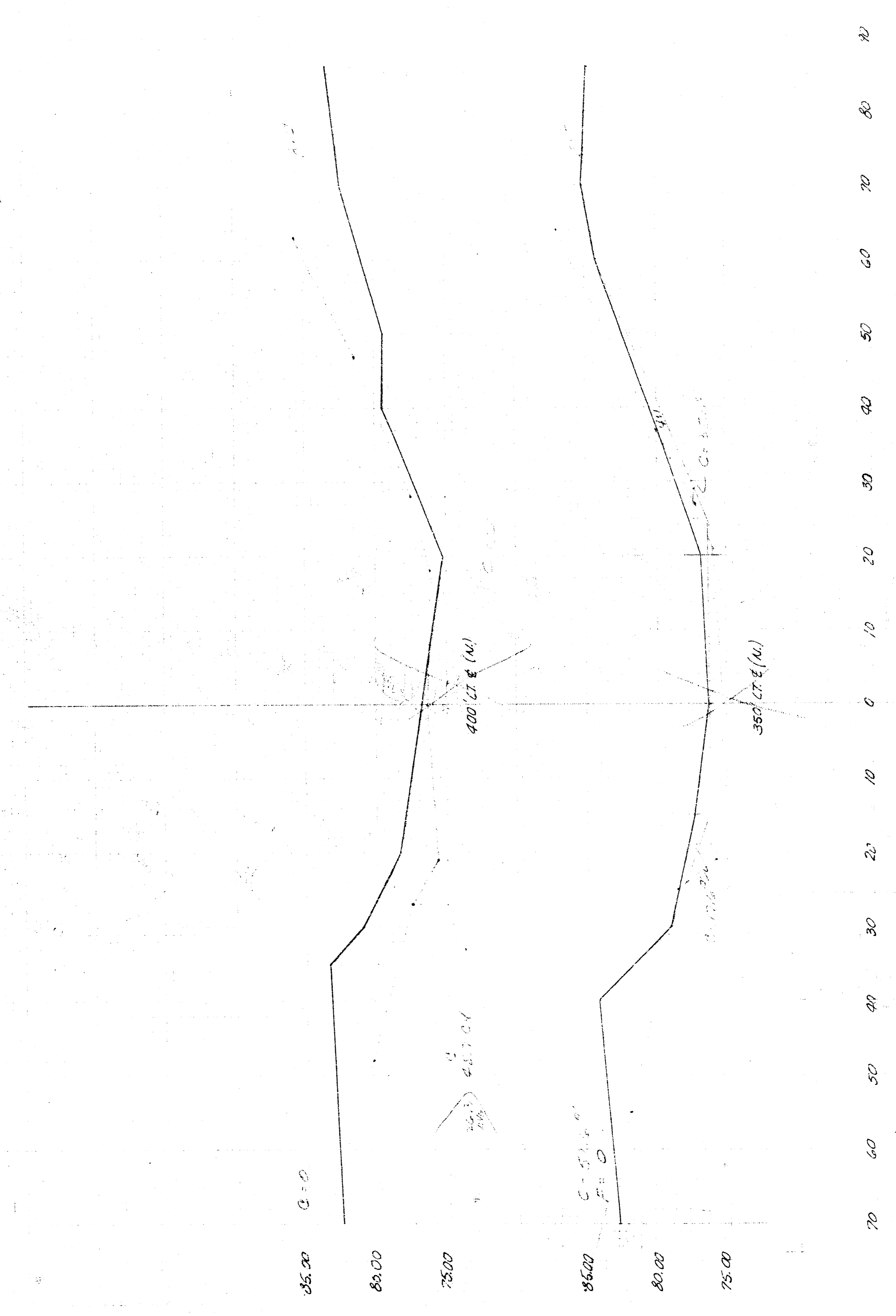
11/14

1/2" FOOTING DIMENSIONS (2008 IBC) = 18" (18") x 18" (18")
 1/4" FOOTING DIMENSIONS (2008 IBC) = 12" (12") x 12" (12")
 1/8" FOOTING DIMENSIONS (2008 IBC) = 8" (8") x 8" (8")
 1/4" FOOTING DIMENSIONS (2008 IBC) = 12" (12") x 12" (12")
 1/8" FOOTING DIMENSIONS (2008 IBC) = 8" (8") x 8" (8")
 1/4" FOOTING DIMENSIONS (2008 IBC) = 12" (12") x 12" (12")
 1/8" FOOTING DIMENSIONS (2008 IBC) = 8" (8") x 8" (8")



80.00
 75.00
 70.00
 65.00
 60.00
 55.00
 50.00
 45.00
 40.00
 35.00
 30.00
 25.00
 20.00
 15.00
 10.00
 5.00
 0.00
 5.00
 10.00
 15.00
 20.00
 25.00
 30.00
 35.00
 40.00
 45.00
 50.00
 55.00
 60.00
 65.00
 70.00
 75.00
 80.00

12/14
 4-12' x 13' RCBC
 46th ST. SOUTH &
 RIVERSIDE DRAINAGE CANAL
 PROJ. NO. 472 76 245 80756 000 000 001



4-12' x 13' R.C.B.C.
 46th ST. SOUTH &
 RIVERSIDE DRAINAGE CANAL
 PROJ. NO. 472 76 245 80756 000 000 001

14/12

4-12' x 13' R.C.B.C.
 46th ST. SOUTH &
 RIVERSIDE DRAINAGE CANAL
 PROJ. NO. 472 76 245 80756 000 000 001