

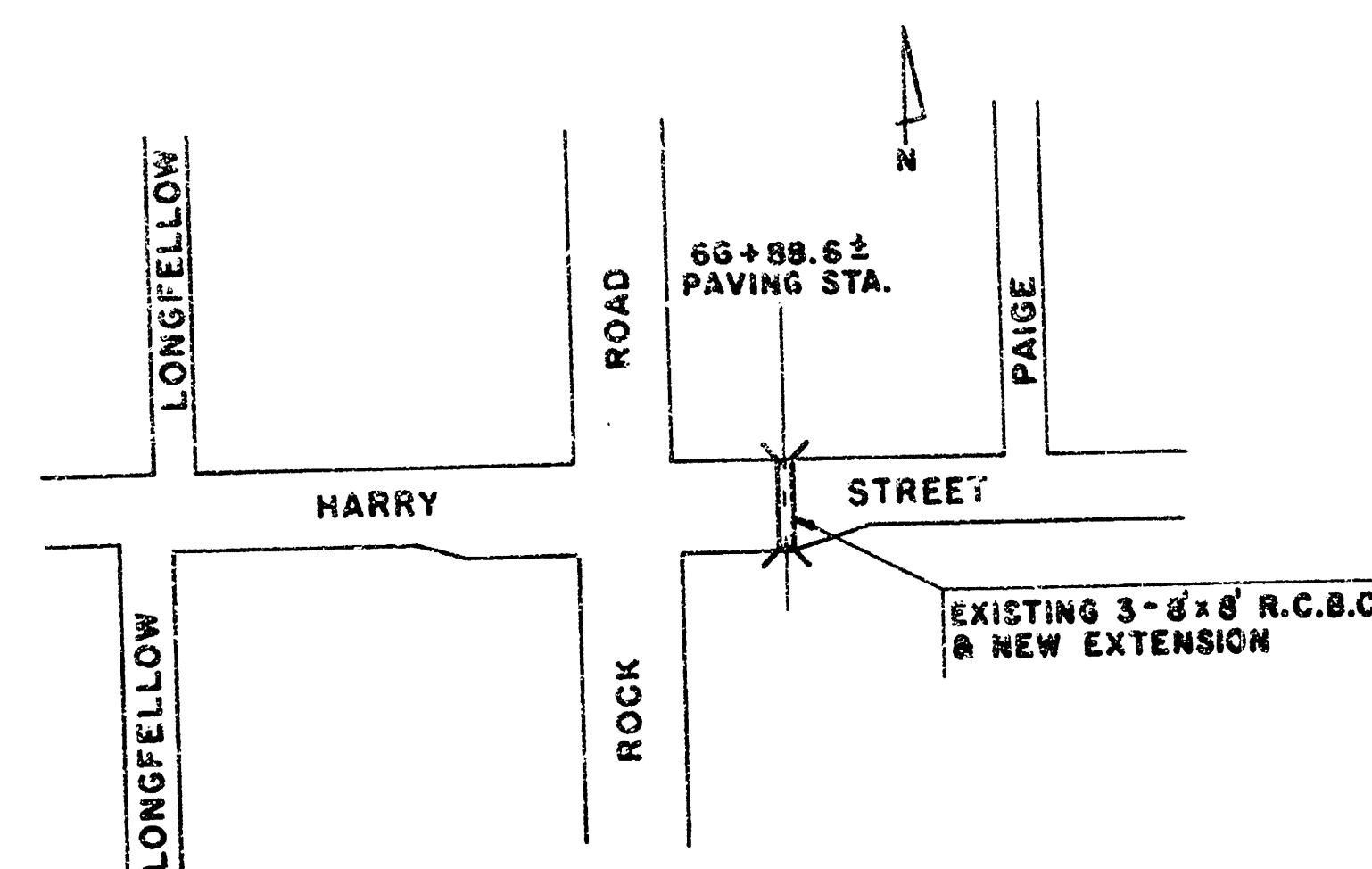
3-8'x8' R.C.B.C. EXTENSION  
IN CONNECTION WITH PAVING HARRY STREET  
FROM E.L. FABRIQUE TO E.L. EASTMOOR

CITY OF WICHITA, KANSAS

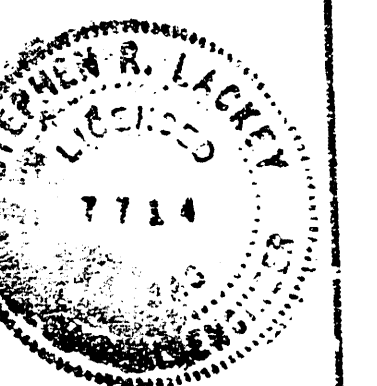
D.S. SELLERS ACTING CITY ENGINEER

DATE:

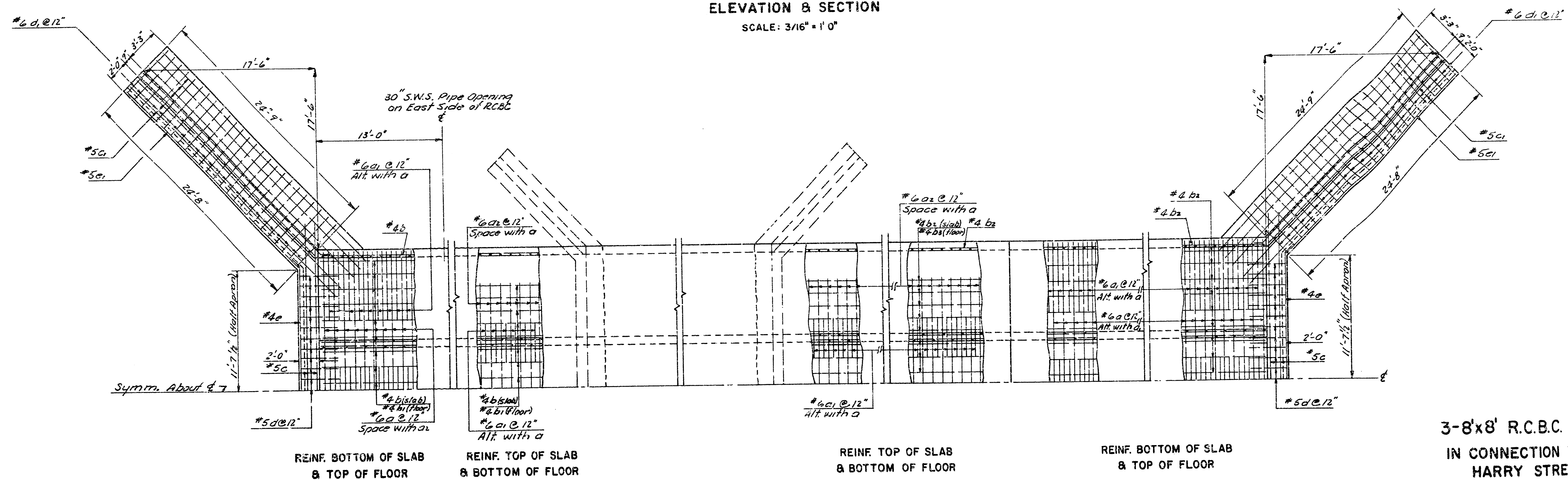
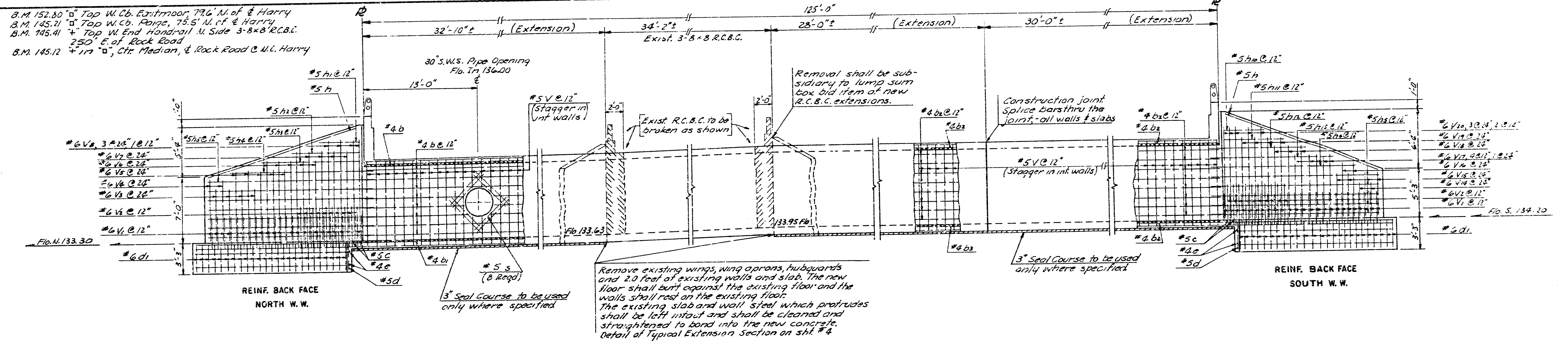
PROJ. NO. 472 76 245 80641 000 000 001



LOCATION MAP

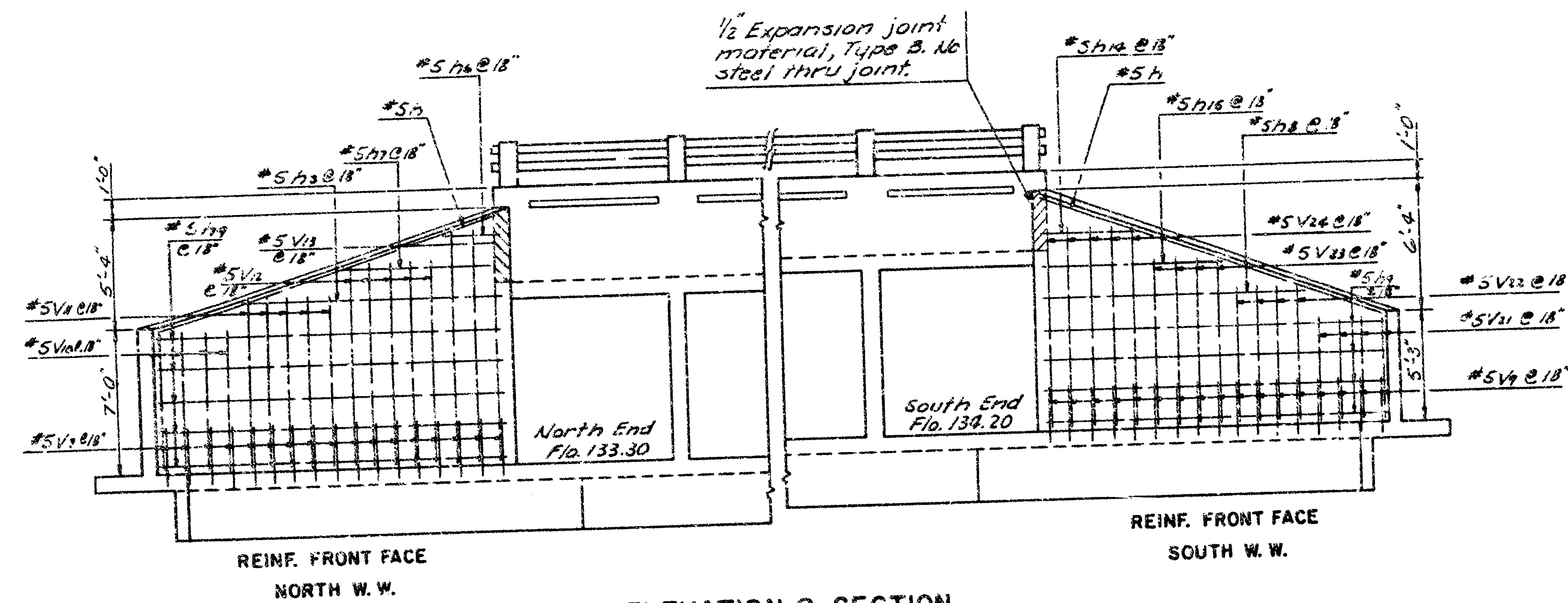




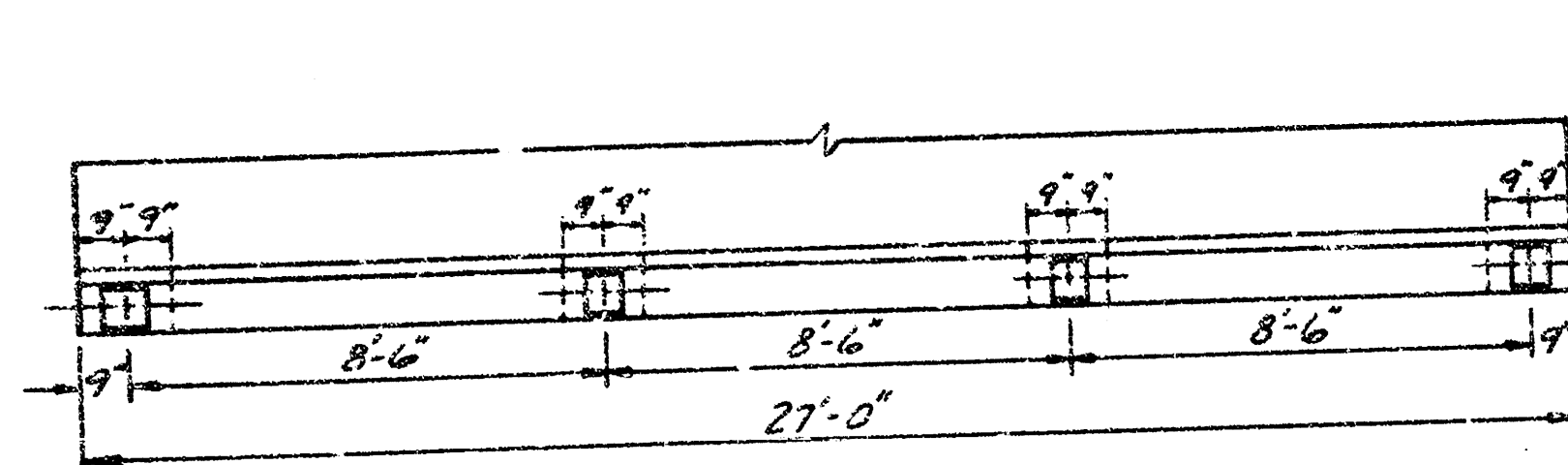


3-8'x8' R.C.B.C. EXTENSION  
 IN CONNECTION WITH PAVING  
 HARRY STREET FROM  
 E.L. FARRIQUE TO E.L. EASTMOOR  
 PROJ. NO. 472 76 245 80641 000 000 001 2/6

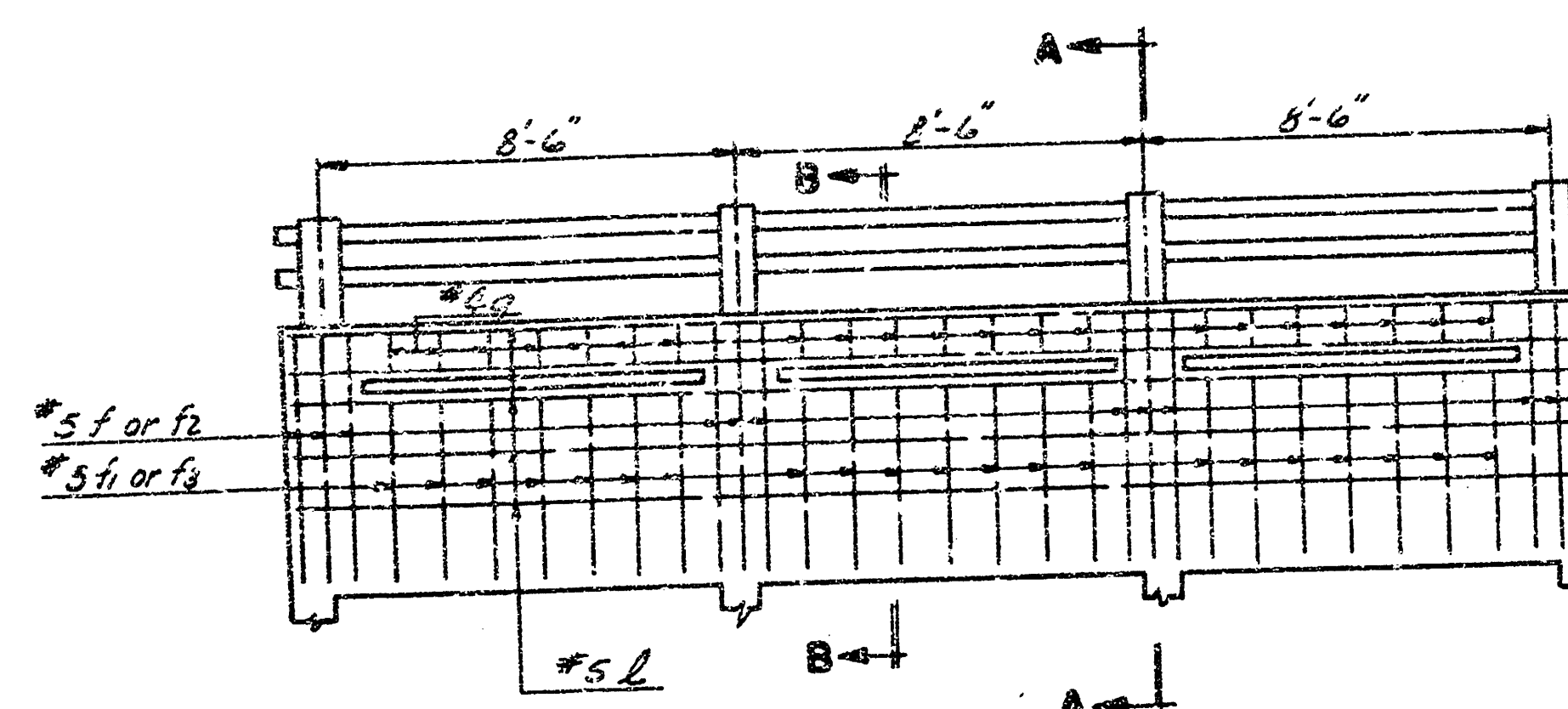




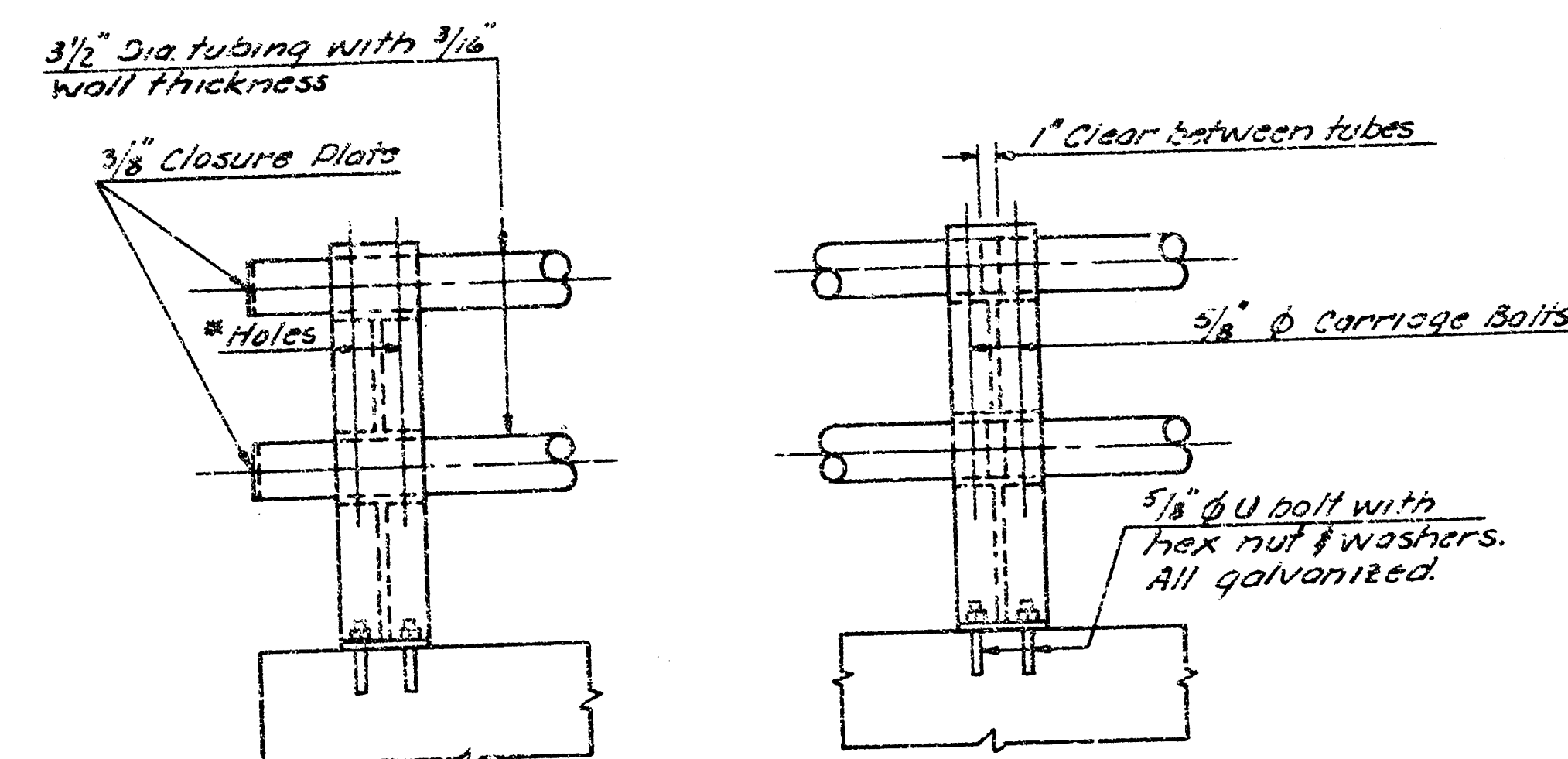
**ELEVATION & SECTION**  
SCALE: 3/16" = 1' 0"



**PLAN-RAILING**  
SCALE: 1/4" = 1' 0"



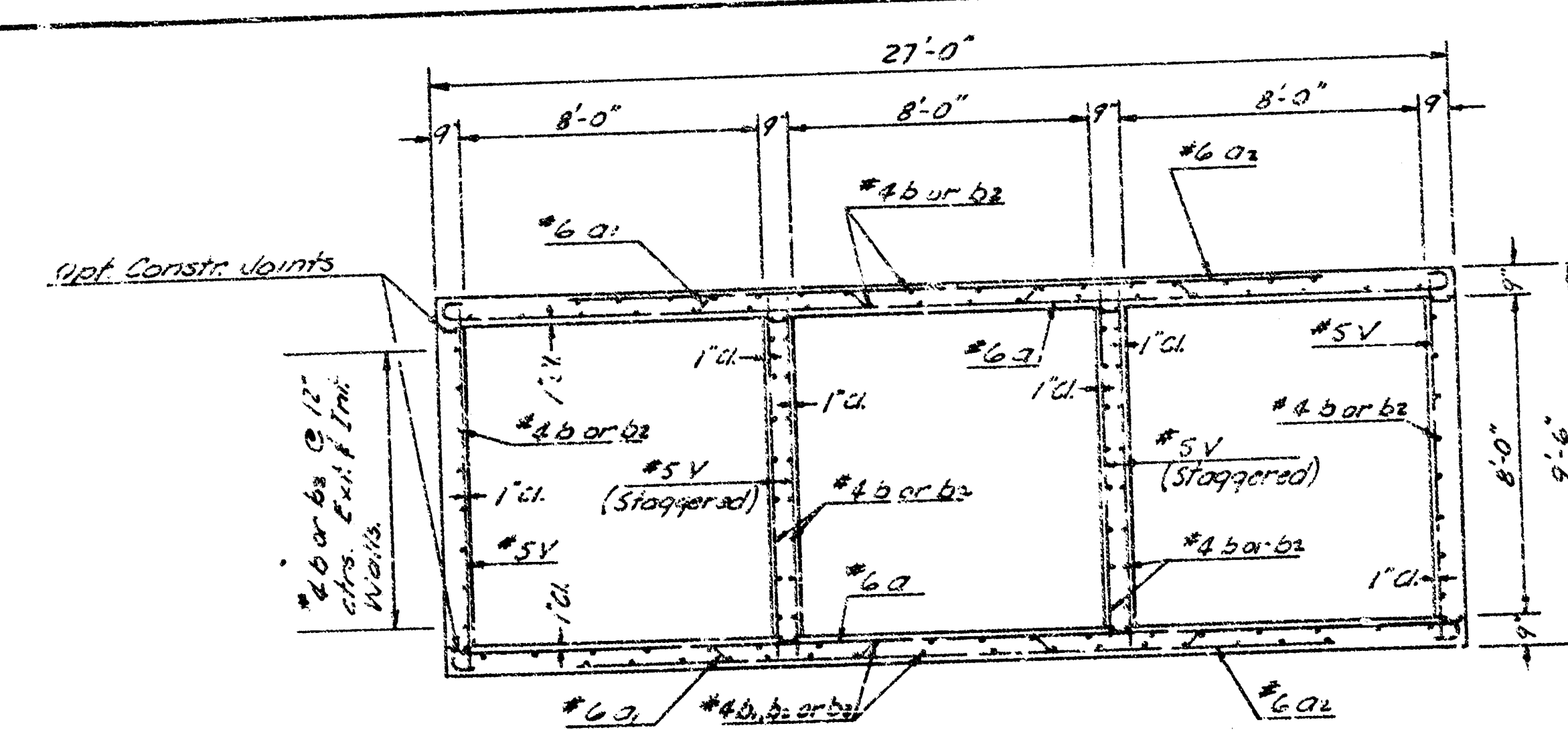
**SECTION-RAILING**  
SCALE: 1/4" = 1' 0"



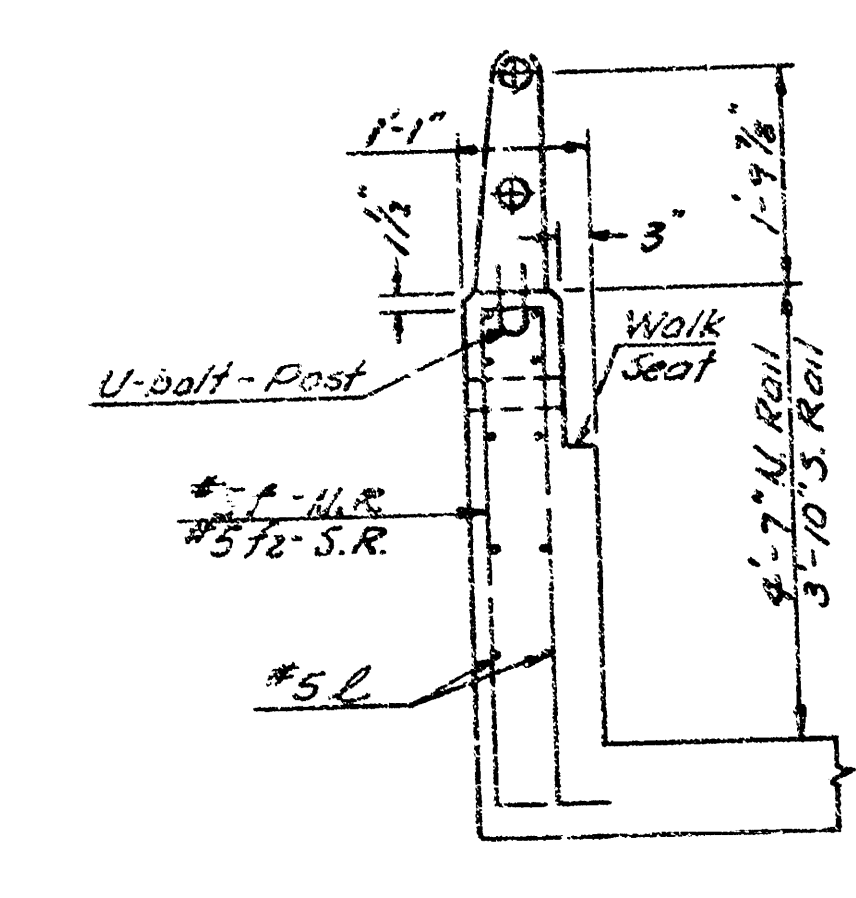
**DETAIL-ALUMINUM RAILING**  
NO SCALE

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

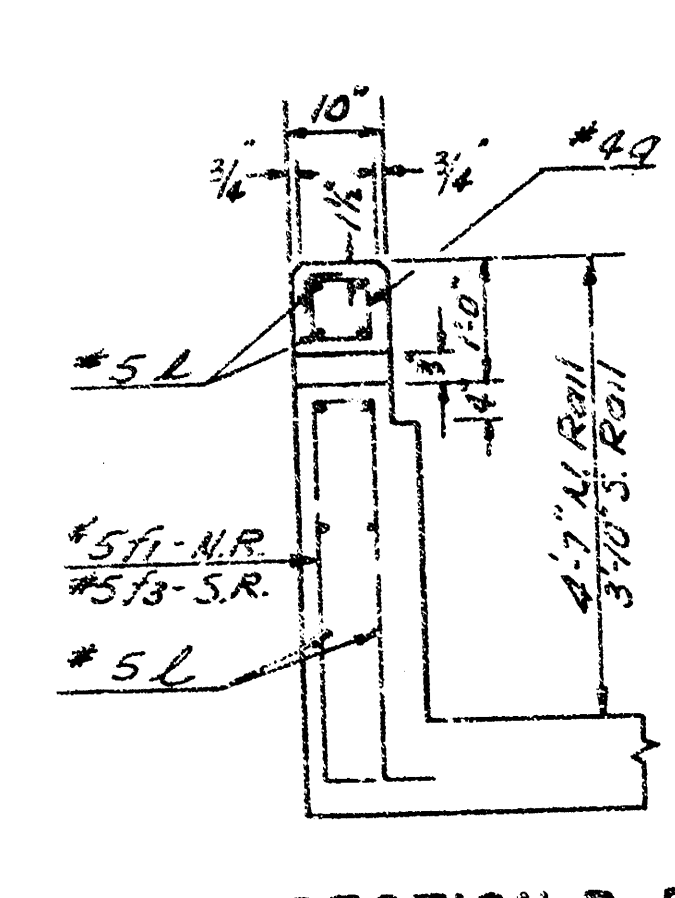
NOTE: Aluminum Handrail  
Aluminum posts shall be Reynolds Aluminum Highway Products Bridge Railing System, #2 R19A or equal.  
Top & bottom rails shall be 3 1/2" O.D. x 1/16" wall tube of 6063-T6 Aluminum.  
Aluminum shims between concrete and post base may be used. The space below posts shall be thoroughly caulked with Aluminastic compound or other approved material.



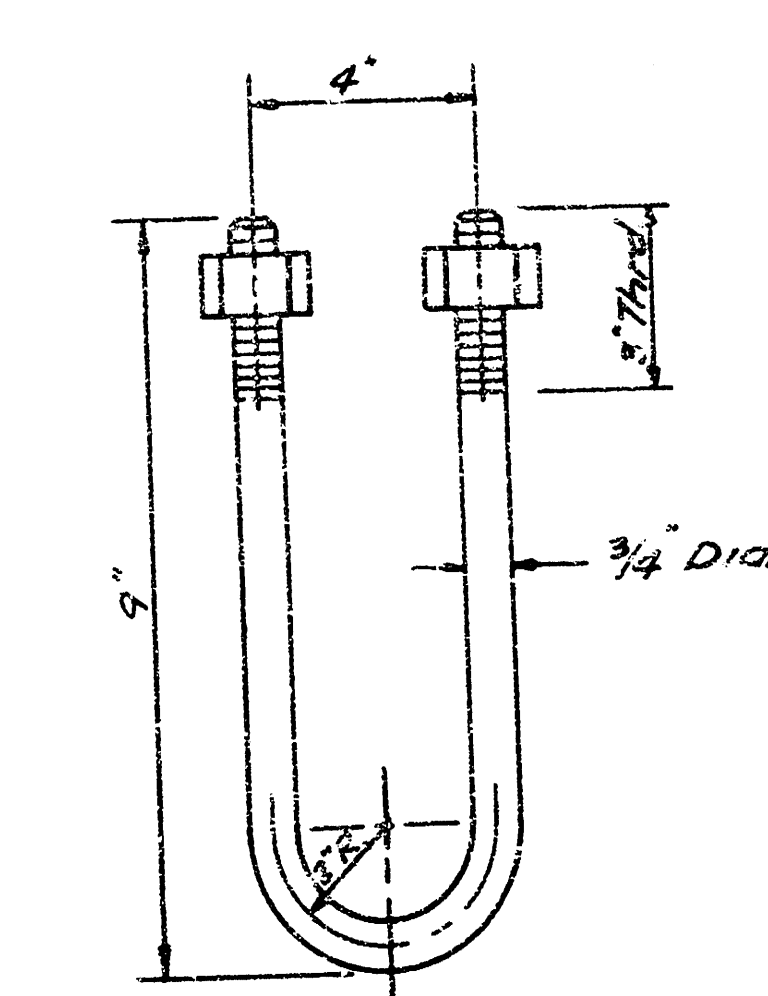
**BOX SECTION**  
SCALE: 1/4" = 1' 0"



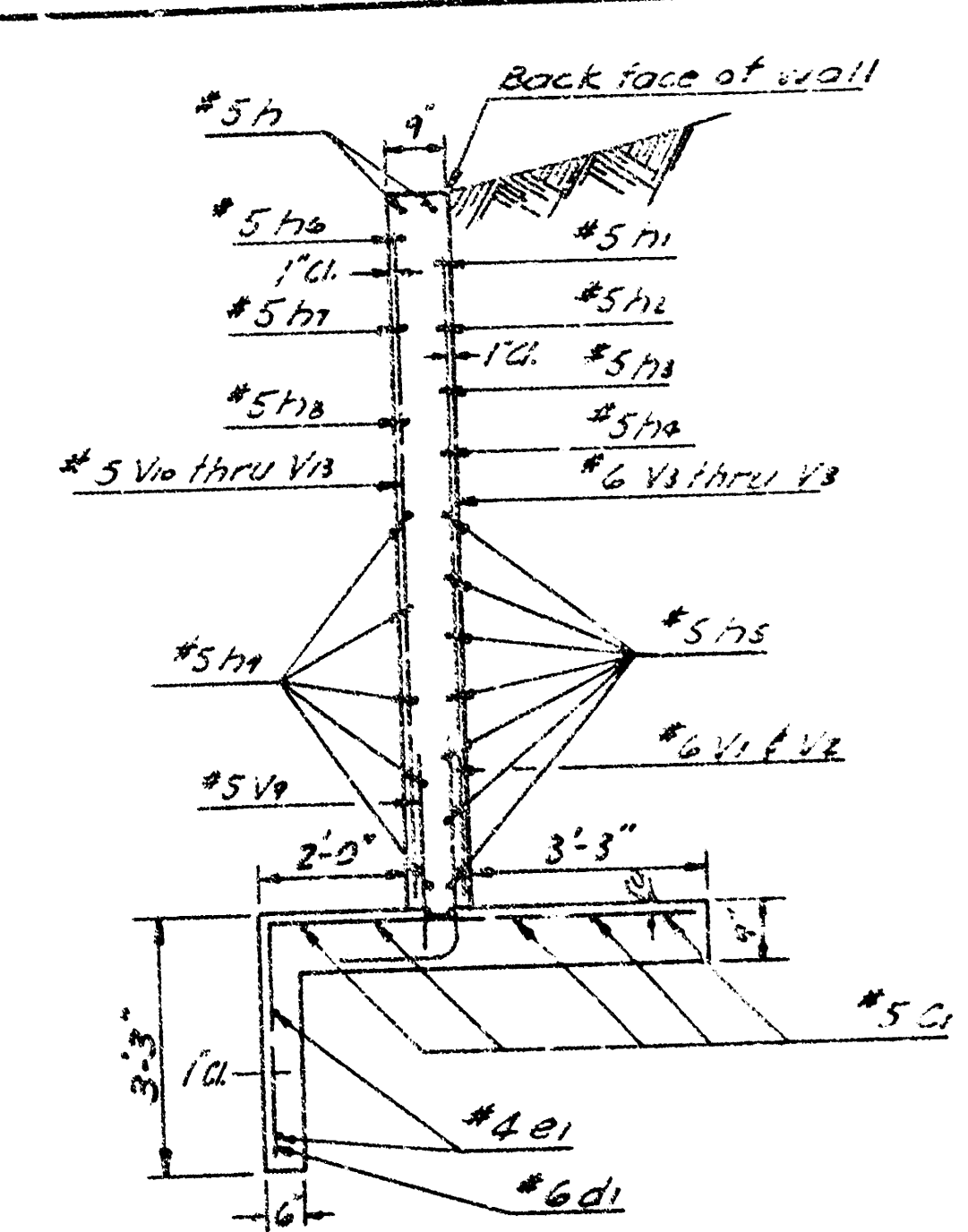
**SECTION A-A**  
NO SCALE



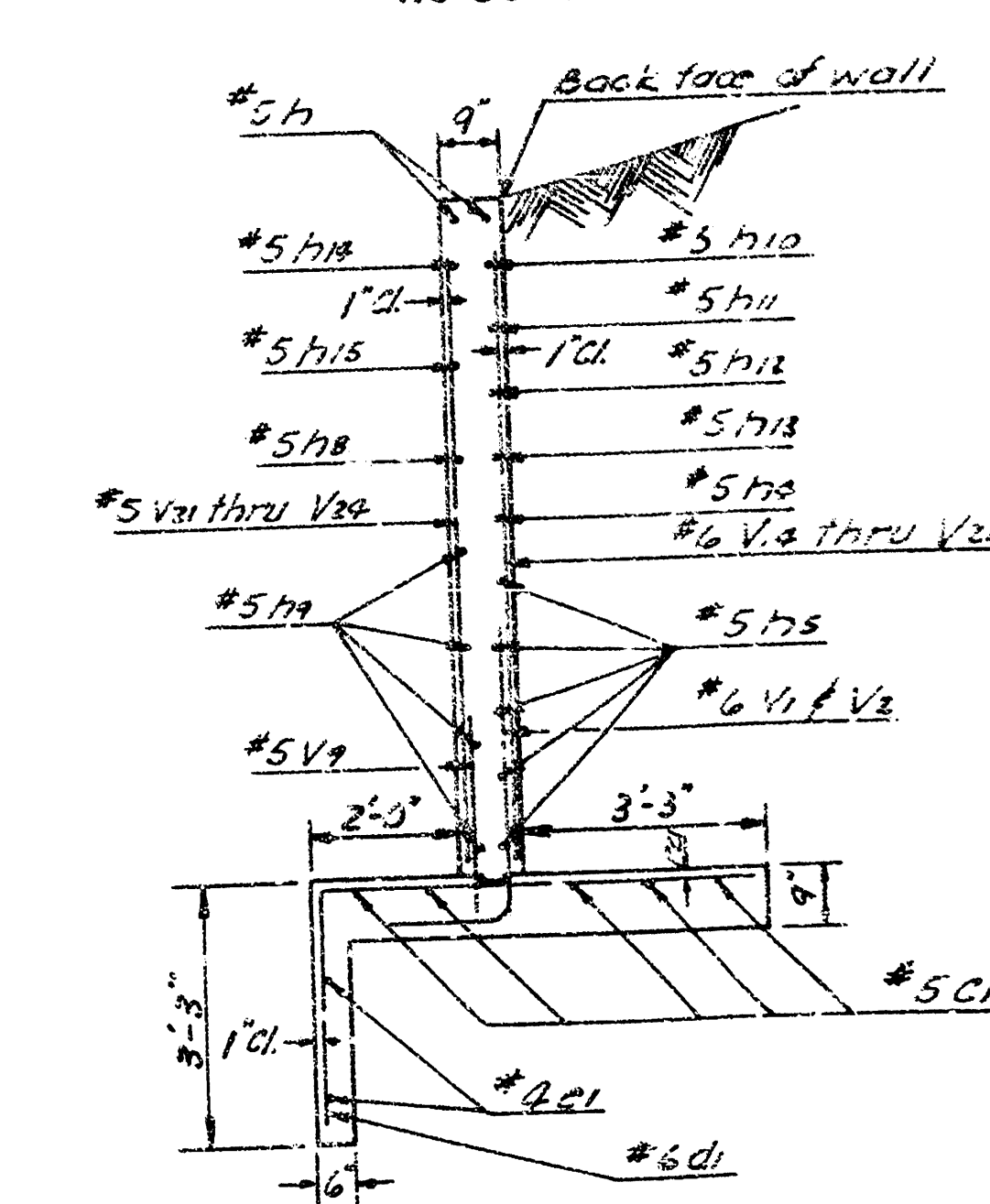
**SECTION B-B**  
NO SCALE



**GALVANIZED U BOLT**  
NO SCALE



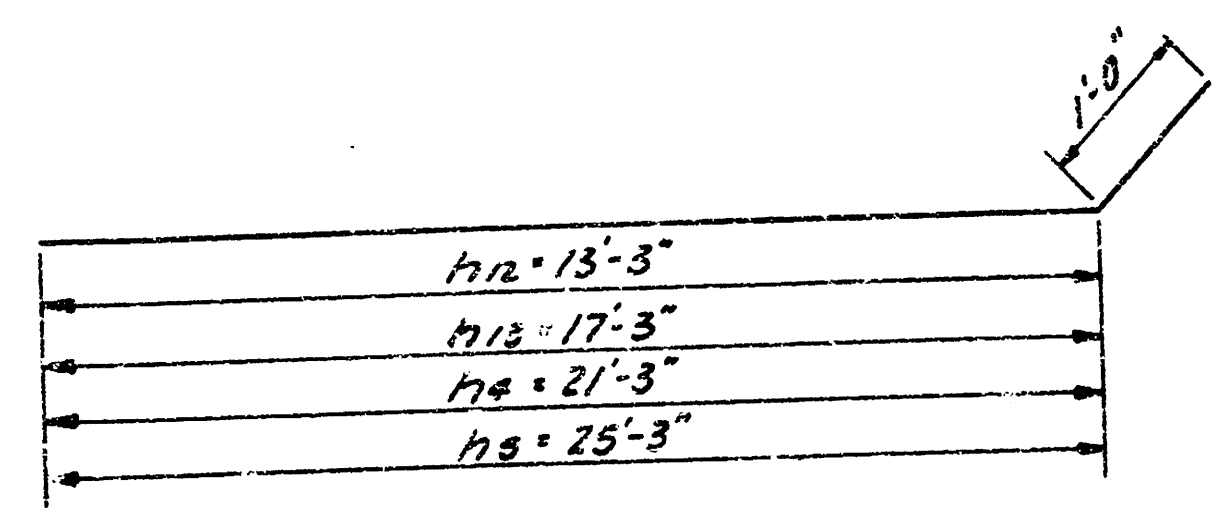
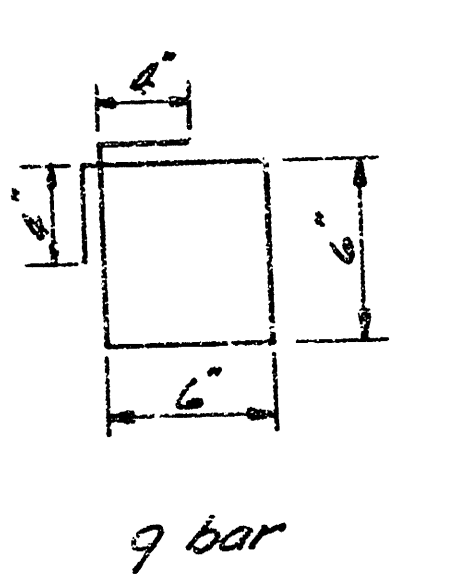
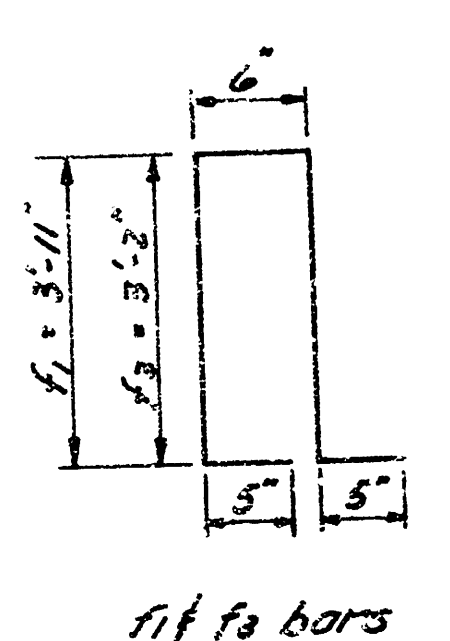
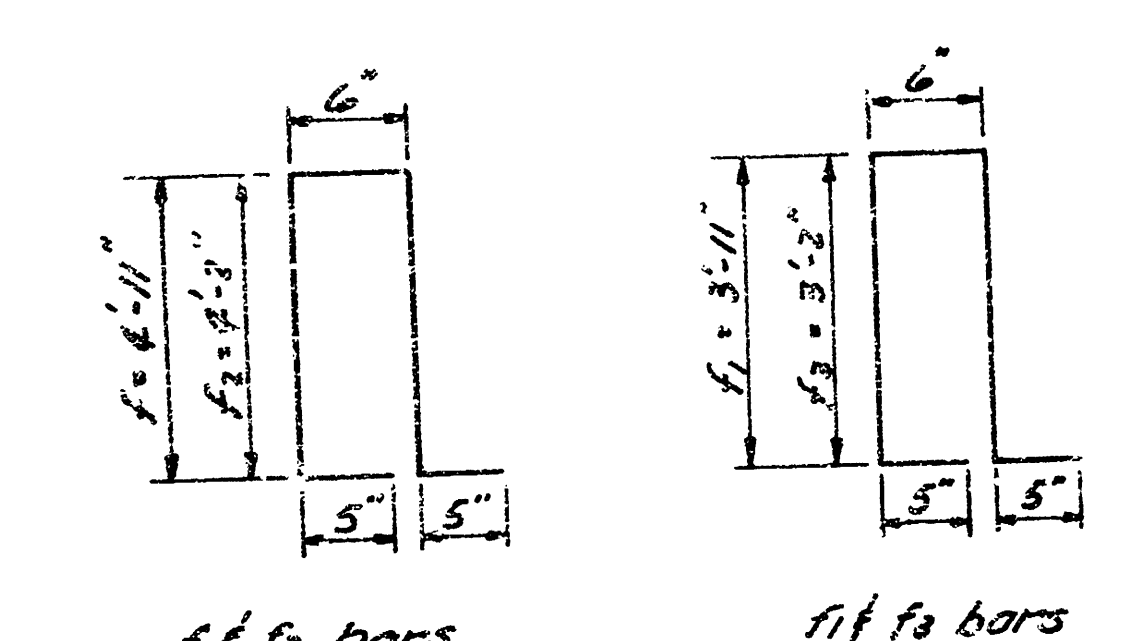
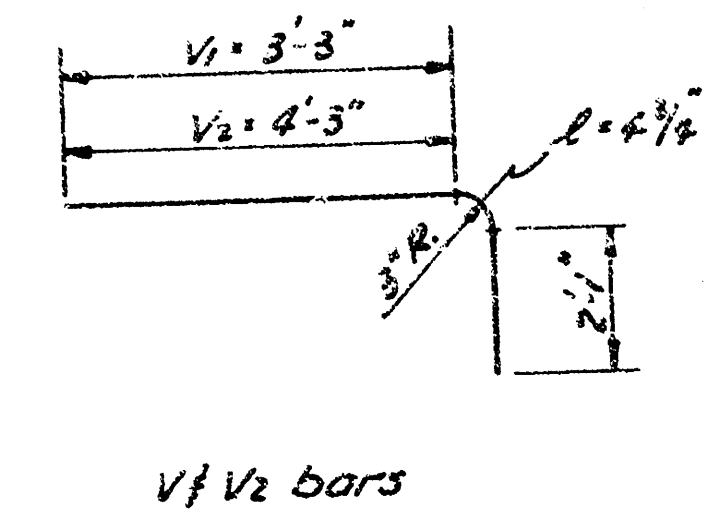
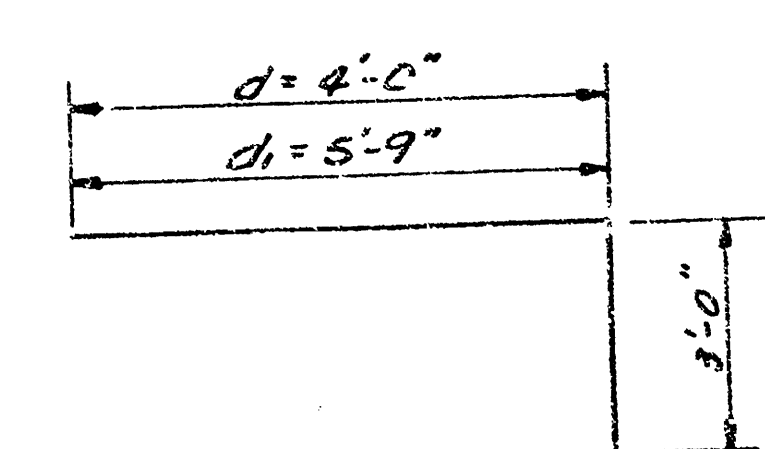
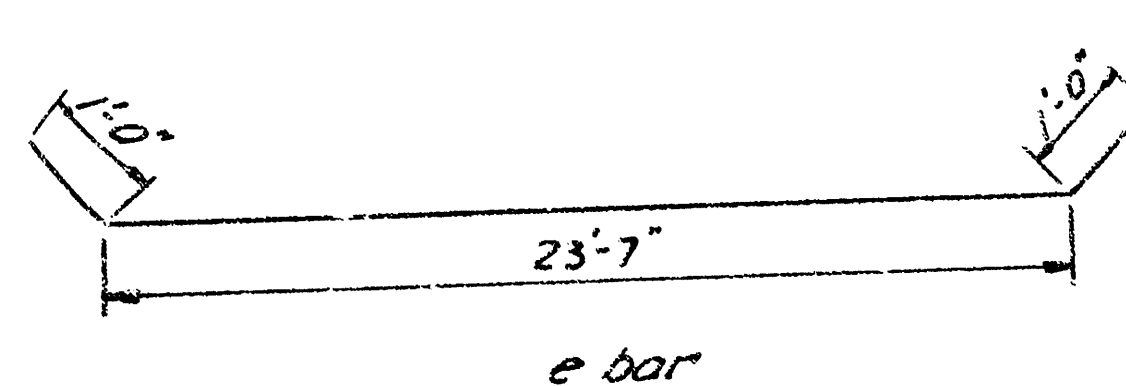
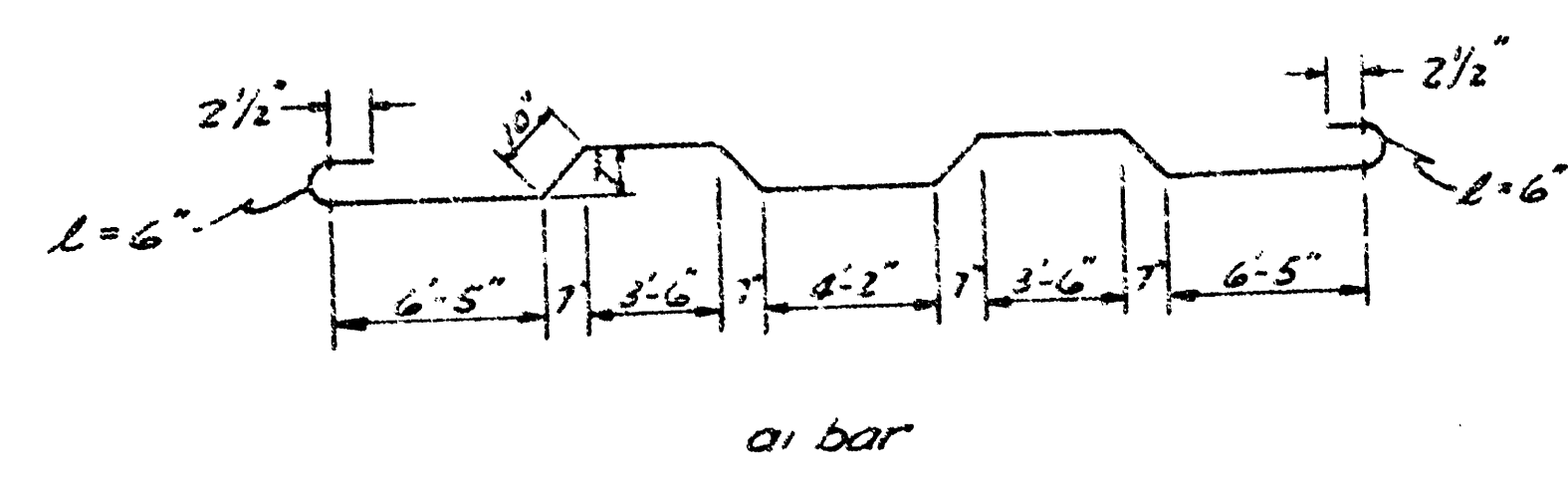
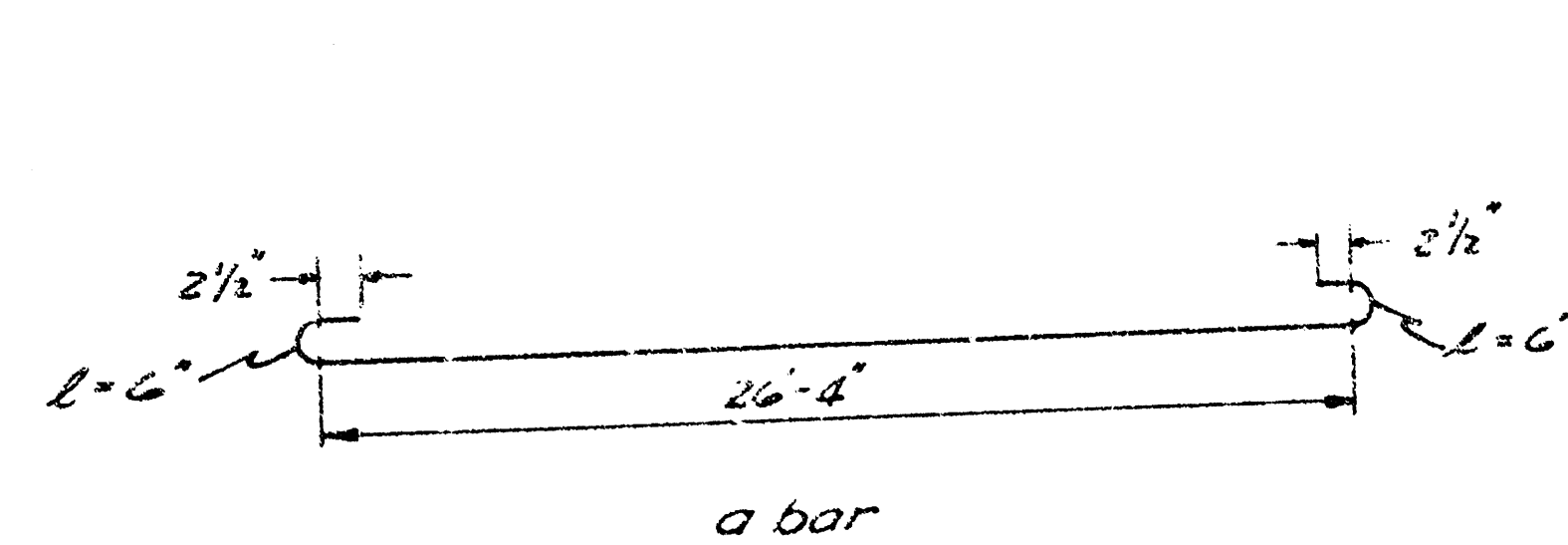
**SECTION NORTH WINGWALL**  
NO SCALE



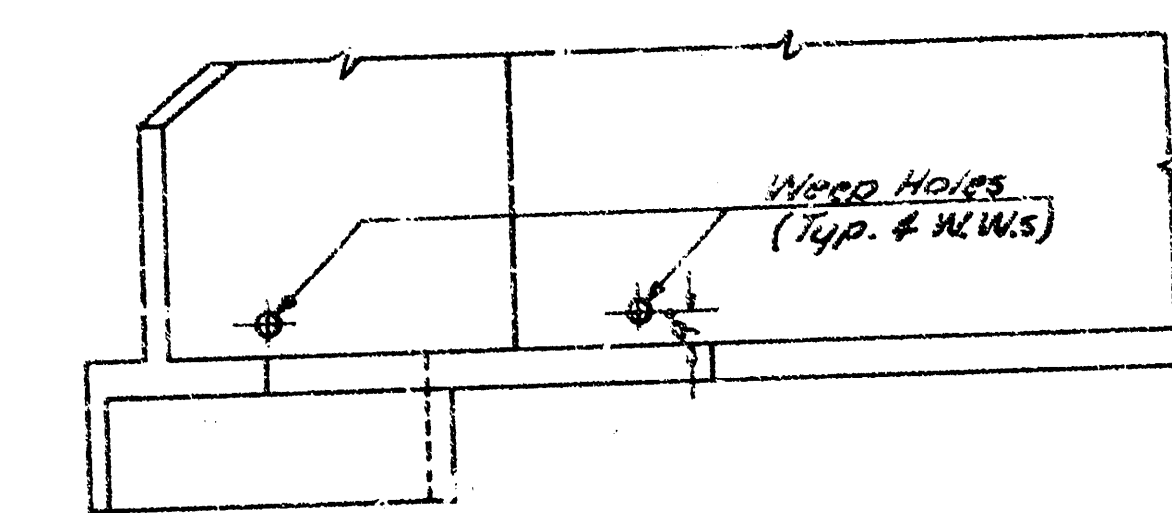
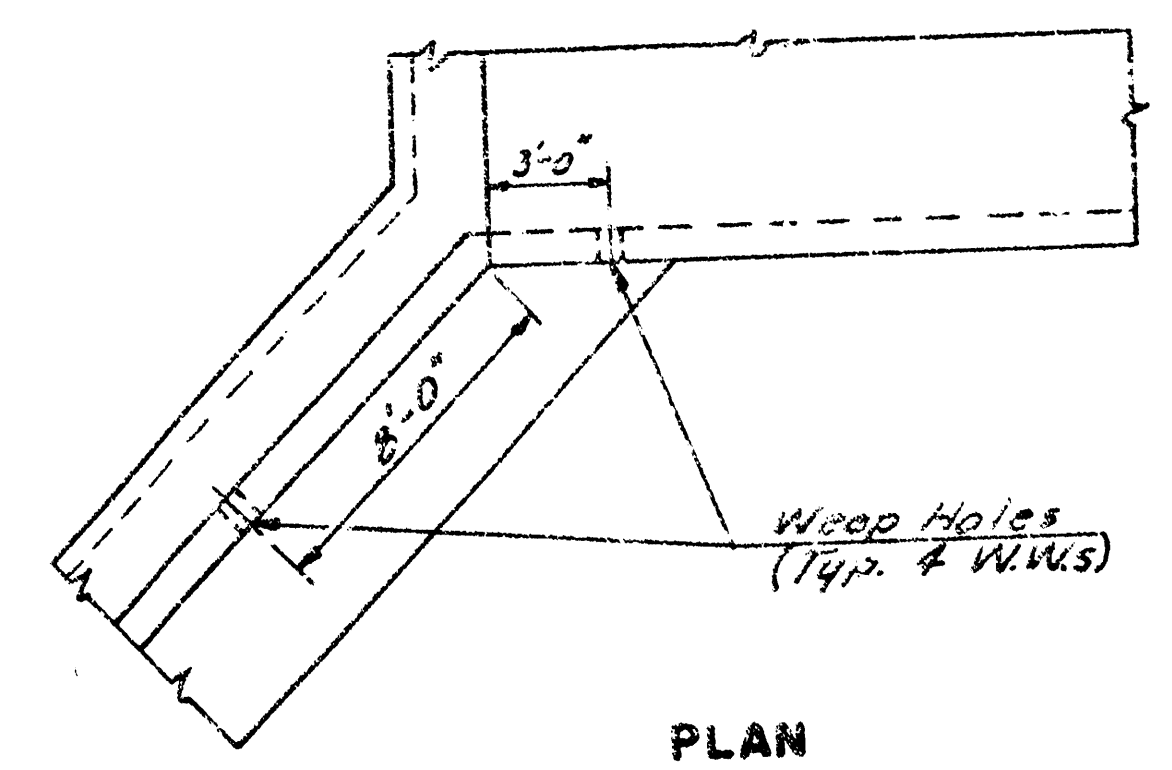
**SECTION SOUTH WINGWALL**  
NO SCALE

**3'-8"x8' R.C.B.C. EXTENSION  
IN CONNECTION WITH PAVING  
HARRY STREET FROM  
E.L. FABRIQUE TO E.L. EASTMOOR**

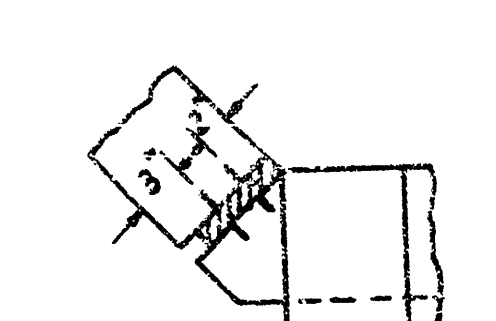




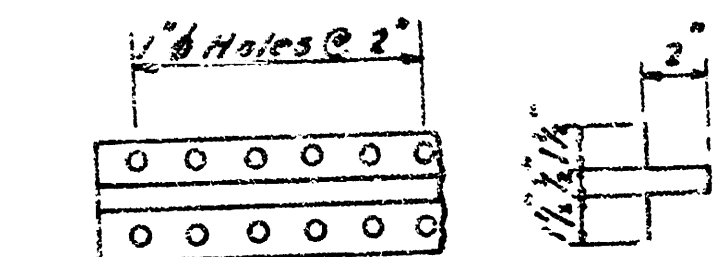
BENDING DIAGRAMS  
NO SCALE



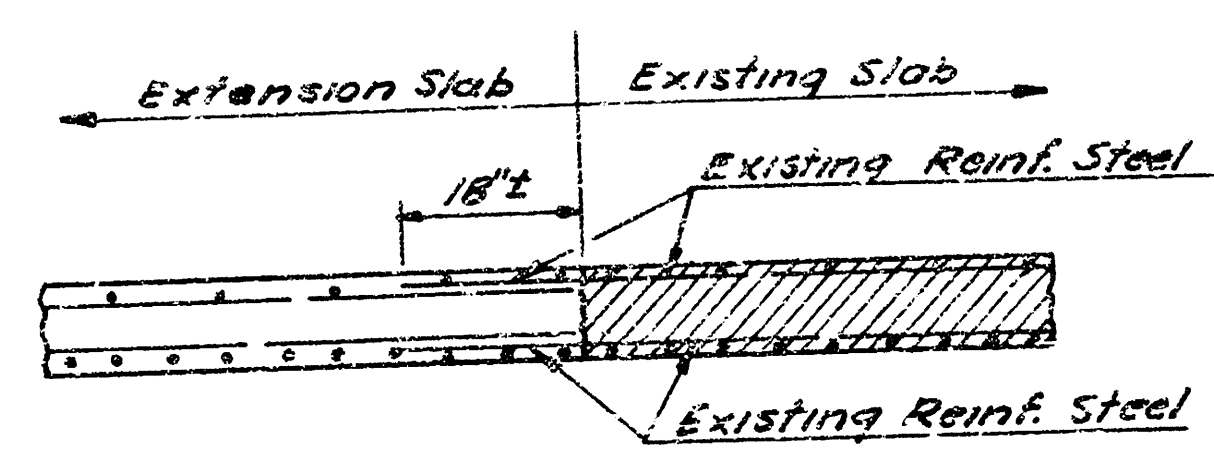
WEEPHOLE LOCATIONS  
NO SCALE



WING EXP. JOINT



12 OZ. SHEET COPPER RETAINER  
8 REQD



TYPICAL EXTENSION SECTION  
NO SCALE

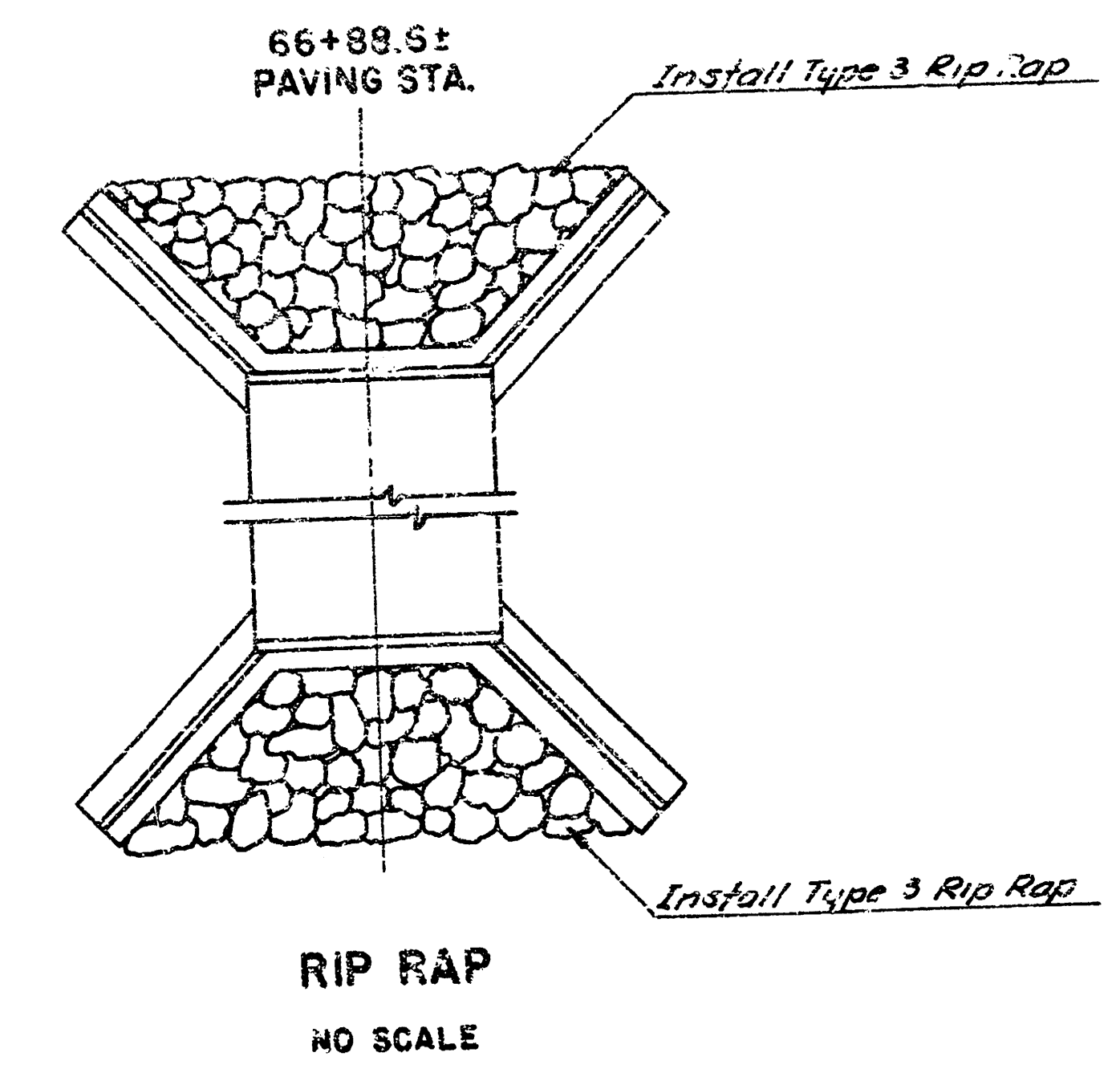
| BILL OF MATERIALS                  |          |      |
|------------------------------------|----------|------|
| ITEMS                              | QUANTITY | UNIT |
| Class A-AE Concrete                | 283.7    | C.Y. |
| Reinforcing Steel                  | 40857.3  | Lbs. |
| Hand Excavation                    | 20.2     | C.Y. |
| Aluminum Handrail                  | 54.0     | L.F. |
| Portion of Exist. R.C.B.C. Removed |          |      |
| Class A Concrete Seal Course       | 23.7     | C.Y. |
| Excavation                         | 502.3    | C.Y. |
| Compacted Fill                     | 203.4    | C.Y. |
| Rip Rap                            | 157.7    | S.Y. |

Lump Sum Bid

Bid Items

GENERAL NOTES

- CLASS A-AE - CONCRETE SHALL BE USED THROUGHOUT ON THE STRUCTURE. THE REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS.
- SAFTWORK - ALL EARTHWORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR THE TOWHALL. TOWHALL EXCAVATION SHALL BE INCLUDED IN "LUMP SUM BID".
- BACKFILL - ALL BACKFILL AND EXCAVATION TO EXTEND TO (2') BEYOND SIDES OF BOX AND WING-SALLS.
- SEVEL - ALL EXPOSED EDGES OF CONCRETE WITH 3/4" TRIANGULAR MOUNDING.
- WEAPHOLES - COURSE AGGREGATE SHALL BE DEPOSITED BEHIND EACH WERPHOLE TO OCCUPY A SPACE EXTENDING (15') IN ALL DIRECTIONS ABOVE WERPHOLE FLOW LINE. THIS WORK SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED A PART OF THE EXCAVATION WORK.
- SEAL COURSE - A SEAL COURSE CONSISTING OF 1" 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.
- REDDING 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, ALUMINUM HAND RAIL, AND PORTION OF EXISTING R.C.B.C. REMOVED. ALL OTHER ITEMS SHALL BE INCLUDED AS BID ITEMS.
- 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 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.
- THROUGH TRAFFIC TO BE MAINTAINED DURING CONSTRUCTION AT ALL TIMES.



RIP RAP  
NO SCALE

| BAR SCHEDULE |      |           |     |         |
|--------------|------|-----------|-----|---------|
| BAR          | SIZE | LENGTH    | NO. | WEIGHT  |
| a            | #6   | 27'-9"    | 132 | 758.55  |
| a1           | #6   | 28'-9"    | 182 | 785.12  |
| a2           | #6   | 20'-0"    | 182 | 546.73  |
| b            | #4   | 38'-6"    | 32  | 1859.77 |
| b1           | #4   | 37'-0"    | 32  | 715.14  |
| b2           | #4   | 37'-0"    | 198 | 4105.18 |
| b3           | #4   | 37'-0"    | 34  | 654.65  |
| c            | #5   | 37'-0"    | 4   | 133.10  |
| c1           | #5   | 39'-0"    | 20  | 604.98  |
| d            | #5   | 7'-0"     | 36  | 335.35  |
| d1           | #6   | 3'-9"     | 100 | 1311.15 |
| e            | #4   | 25'-7"    | 4   | 65.35   |
| e1           | #5   | 24'-8"    | 8   | 205.35  |
| f            | #5   | 11'-2"    | 12  | 187.80  |
| f1           | #5   | 9'-2"     | 21  | 260.15  |
| f2           | #5   | 9'-8"     | 12  | 121.03  |
| f3           | #5   | 7'-8"     | 21  | 148.00  |
| g            | #4   | 2'-8"     | 42  | 78.71   |
| g1           | #5   | 25'-0"    | 8   | 208.00  |
| h            | #5   | 5'-4"     | 2   | 11.27   |
| h1           | #5   | 10'-6"    | 2   | 21.90   |
| h2           | #5   | 15'-6"    | 2   | 37.35   |
| h3           | #5   | 22'-3"    | 4   | 72.31   |
| h4           | #5   | 22'-3"    | 24  | 657.99  |
| h5           | #5   | 3'-5"     | 2   | 7.15    |
| h6           | #5   | 10'-11"   | 2   | 22.78   |
| h7           | #5   | 18'-5"    | 4   | 72.35   |
| h8           | #5   | 24'-5"    | 18  | 458.46  |
| h9           | #5   | 6'-6"     | 2   | 11.56   |
| h10          | #5   | 9'-6"     | 2   | 17.31   |
| h11          | #5   | 14'-3"    | 2   | 28.19   |
| h12          | #5   | 18'-3"    | 2   | 33.77   |
| h13          | #5   | 6'-5"     | 2   | 11.27   |
| h14          | #5   | 12'-5"    | 2   | 22.77   |
| h15          | #5   | 26'-0"    | 20  | 532.79  |
| i            | #5   | 5'-0"     | 8   | 41.72   |
| j            | #5   | 9'-3"     | 380 | 3600.5  |
| j1           | #6   | 5'-8 1/2" | 100 | 421.34  |
| j2           | #6   | 6'-8 1/2" | 40  | 271.58  |
| j3           | #6   | 5'-7"     | 8   | 59.53   |
| j4           | #6   | 6'-7"     | 4   | 113.35  |
| j5           | #6   | 7'-7"     | 10  | 123.87  |
| j6           | #6   | 8'-7"     | 10  | 143.99  |
| j7           | #6   | 9'-7"     | 10  | 127.13  |
| j8           | #6   | 10'-7"    | 8   | 212.77  |
| j9           | #5   | 3'-0"     | 8   | 50.06   |
| j10          | #5   | 6'-0"     | 10  | 85.81   |
| j11          | #5   | 8'-2"     | 10  | 100.16  |
| j12          | #5   | 9'-8"     | 4   | 69.34   |
| j13          | #5   | 11'-1"    | 4   | 72.53   |
| j14          | #5   | 5'-9"     | 4   | 57.88   |
| j15          | #5   | 4'-9"     | 4   | 39.53   |
| j16          | #5   | 6'-9"     | 10  | 101.99  |
| j17          | #5   | 7'-9"     | 4   | 69.84   |
| j18          | #5   | 8'-9"     | 8   | 105.16  |
| j19          | #5   | 9'-9"     | 10  | 146.45  |
| j20          | #5   | 5'-0"     | 8   | 41.72   |
| j21          | #5   | 6'-0"     | 8   | 56.24   |
| j22          | #5   | 8'-0"     | 8   | 66.75   |
| j23          | #5   | 9'-0"     | 10  | 79.07   |

3-8x8' R.C.B.C. EXTENSION  
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HARRY STREET FROM  
E.L. FABRIQUE TO E.L. EASTMOOR  
PROJ. NO. 472 76 245 80641 000 000 001 1/6







$$\text{EARTHWORK TO W.W.}$$

$$\text{BASE} = 2(60 \times 75 \times 24.75) = \frac{222.8}{2.7} = 8.3 \text{ C.Y. (C)}$$

$$\text{EXCAV. BACK FACE W.W.} = 3.25 \left( \frac{4.5 \times 3.1}{2} \right) 24.75 = \frac{30.57}{2.7} = 11.3 \text{ C.Y. (C)}$$

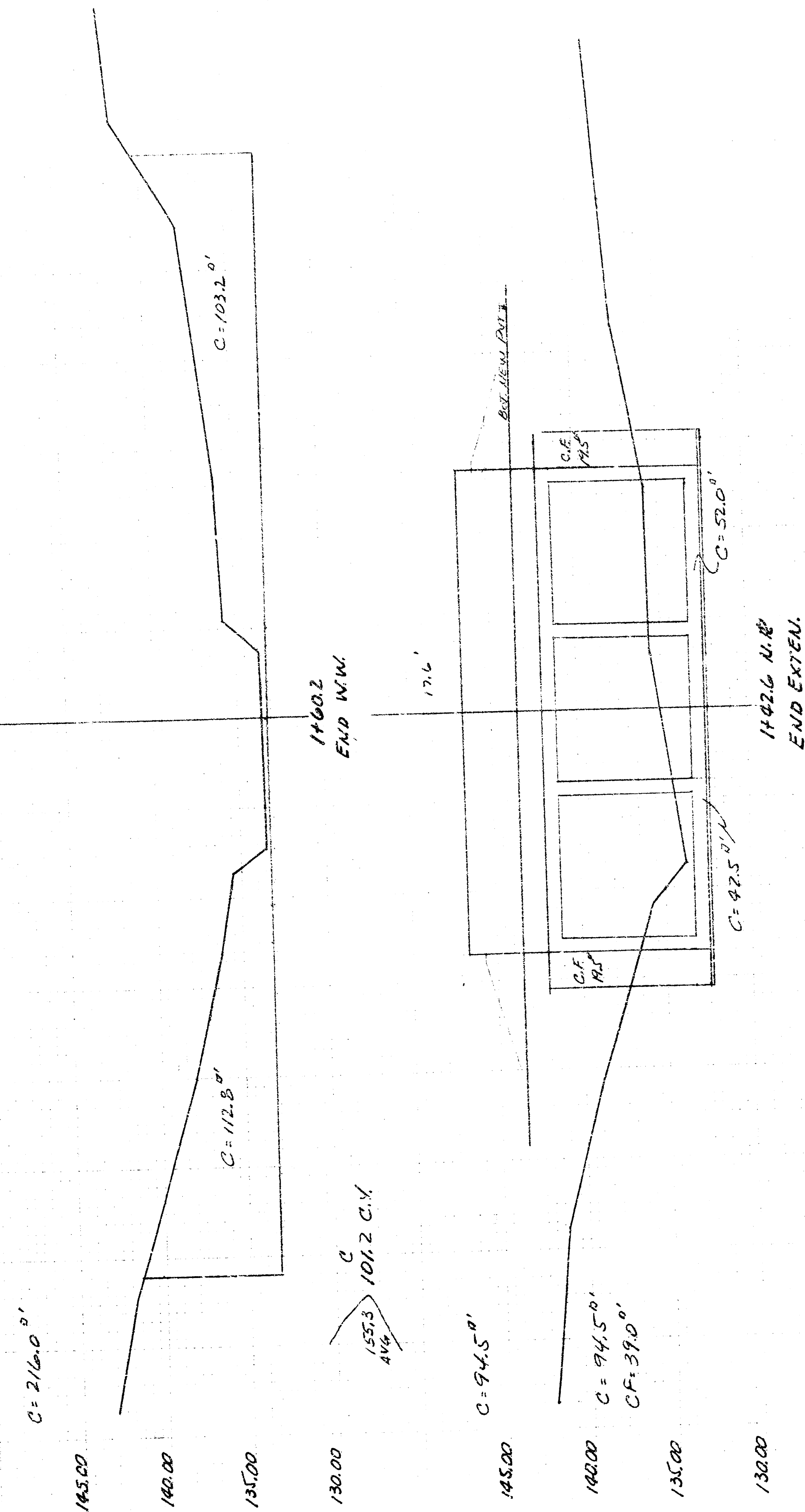
$$\text{CONA FILL} = 2 \left[ (2.0 \times 7.0 \times 12.33) (24.75) \right] = \frac{727.3}{2.7} = 35.5 \text{ C.Y. (C.F.)}$$

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EARTHWORK THIS SHEET  
 EXCAV. HAND EXCAV. 20.2 C.Y.  
 C.F. 66.4 C.Y.

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