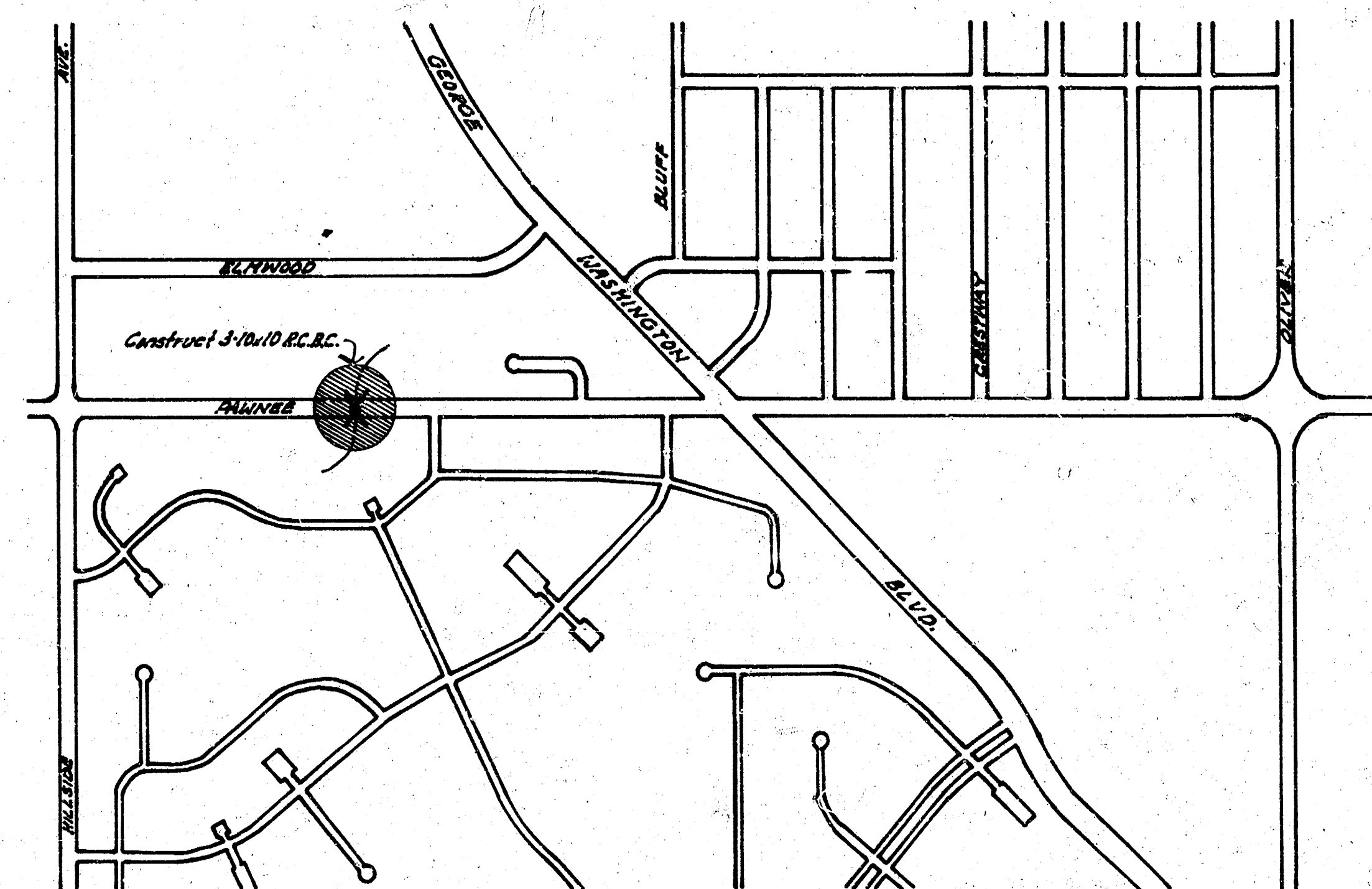
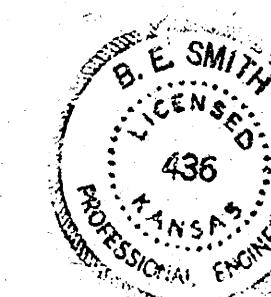




  
 N  
 114° 10' 36" P.E. S. 1/4 S.E. of P. Pole  
 on N.E. Corner of 31st St. 101st (Remond Ave.)

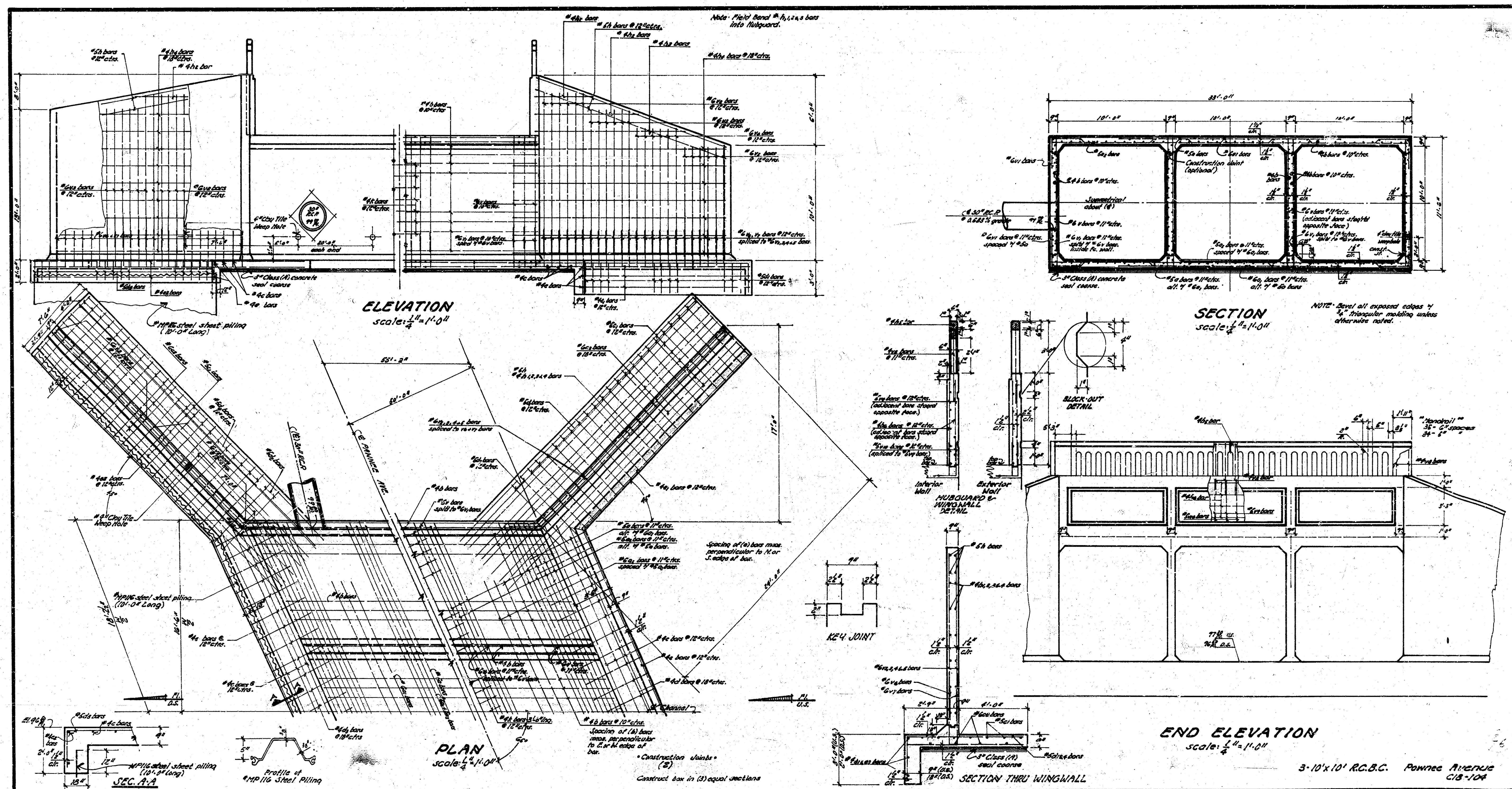
• LOCATION MAP •

**3-10x10 Reinf. Conc. Box Culvert**  
 in connection with paving **Remond Ave.**  
 Hillside Avenue to Oliver Street.



**City of Wichita, Kansas**  
 B.E. Smith  
 Date: NOV. 1969  
 City Engineer  
 Proj. No. C18-104

16  
 101st



| BAR SCHEDULE |      |        |     |          |       |        |
|--------------|------|--------|-----|----------|-------|--------|
| Bar          | Size | Length | No. | Location | Shape | Height |
| a            | #4   | 37'-1" | 210 | Box      | U     | 11"    |
| a1           | #4   | 36'-8" | 210 | "        | U     | 11"    |
| a2           | #4   | 36'-8" | 210 | "        | U     | 11"    |
| b            | #4   | 36'-8" | 210 | Box      | U     | 10"    |
| c            | #4   | 36'-8" | 2   | Open     | U     | 10"    |
| c1           | #4   | 36'-8" | 2   | Wingwall | U     | 10"    |
| c2           | #4   | 36'-8" | 2   | "        | U     | 10"    |
| d            | #4   | 36'-8" | 16  | "        | U     | 10"    |
| d1           | #4   | 36'-8" | 16  | Open     | U     | 10"    |
| d2           | #4   | 36'-8" | 16  | Wingwall | U     | 10"    |
| d3           | #4   | 36'-8" | 16  | "        | U     | 10"    |
| e            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| e1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| e2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| f            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| f1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| f2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| g            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| g1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| g2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| h            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| h1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| h2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| i            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| i1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| i2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| j            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| j1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| j2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| k            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| k1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| k2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| l            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| l1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| l2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| m            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| m1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| m2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| n            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| n1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| n2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| o            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| o1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| o2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| p            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| p1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| p2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| q            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| q1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| q2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| r            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| r1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| r2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| s            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| s1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| s2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| t            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| t1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| t2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| u            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| u1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| u2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| v            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| v1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| v2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| w            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| w1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| w2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| x            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| x1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| x2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| y            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| y1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| y2           | #4   | 36'-8" | 5   | "        | U     | 10"    |
| z            | #4   | 36'-8" | 5   | "        | U     | 10"    |
| z1           | #4   | 36'-8" | 5   | Wingwall | U     | 10"    |
| z2           | #4   | 36'-8" | 5   | "        | U     | 10"    |

# GENERAL NOTES

CLASS A-A CONCRETE: Shall be used throughout this project. All Reinforcing Steel shall conform to A.S.T.A. Specifications.

EARTHWORK: All earthwork shall be considered as "Common Excavation" except for the Lowwall, Trench excavation shall be included in the "Lump Sum Bid".

BACKFILL: Shall be compacted to the bottom of new pavement grade. All backfill & excavation to extend to (2') beyond sides of box & wingwalls.

SEEDING: Coarse aggregate shall be deposited behind each "weephole" to occupy a space extending (18") in all directions above weephole flowline. This work shall not be paid for directly, but shall be a part of the excavation work.

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 reinforcement shall be placed until the seal course has gained sufficient strength to permit working upon it without injury.

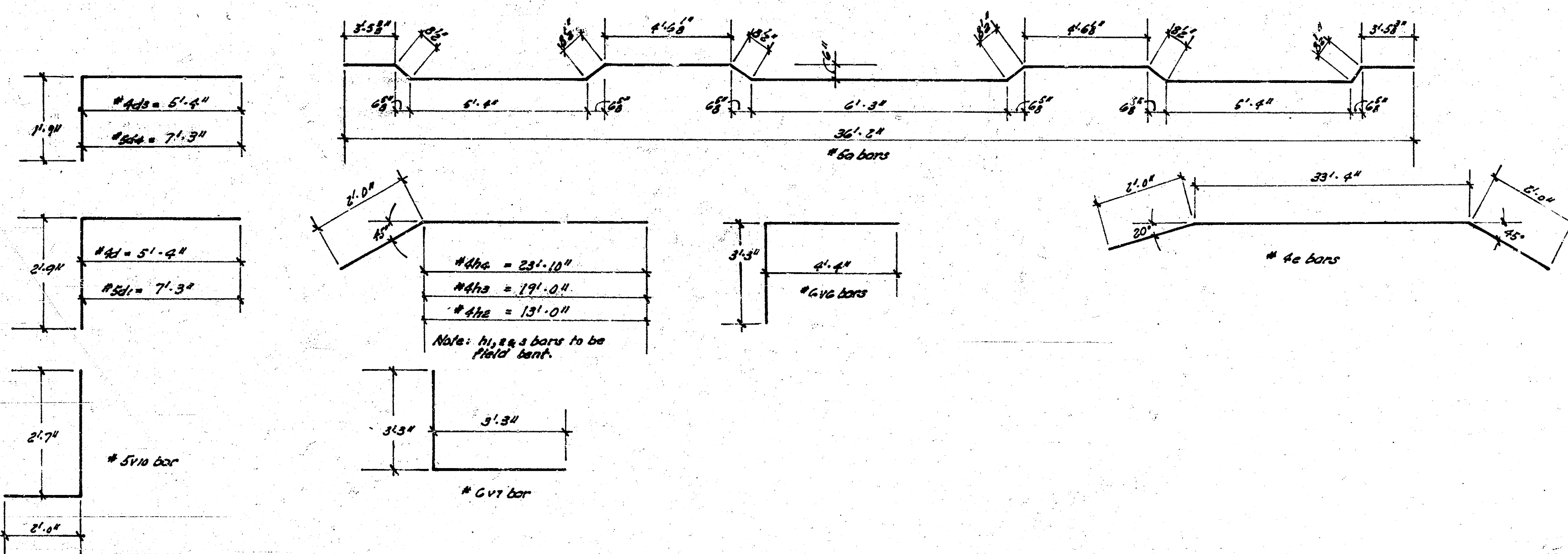
BIDDING OF CULVERT: The Culvert shall be bid as a "Lump Sum Bid" except for the following items: Clearing, Filling, Conc. Rip-Rap, C&G Common Excavation, C&G Compacted Fill, C&G Loose Fill, C&G Class (M) Conc., Alling & L&G R.C.P. Quantities shown in the Bill of Materials are items included in the Lump Sum Bid. Culvert are for information only. The Contractor must verify himself to the quantities the Engineer assumes no responsibility for their accuracy. The Contractor will have full responsibility for providing all materials shown on the detailed plans, necessary to complete this project.

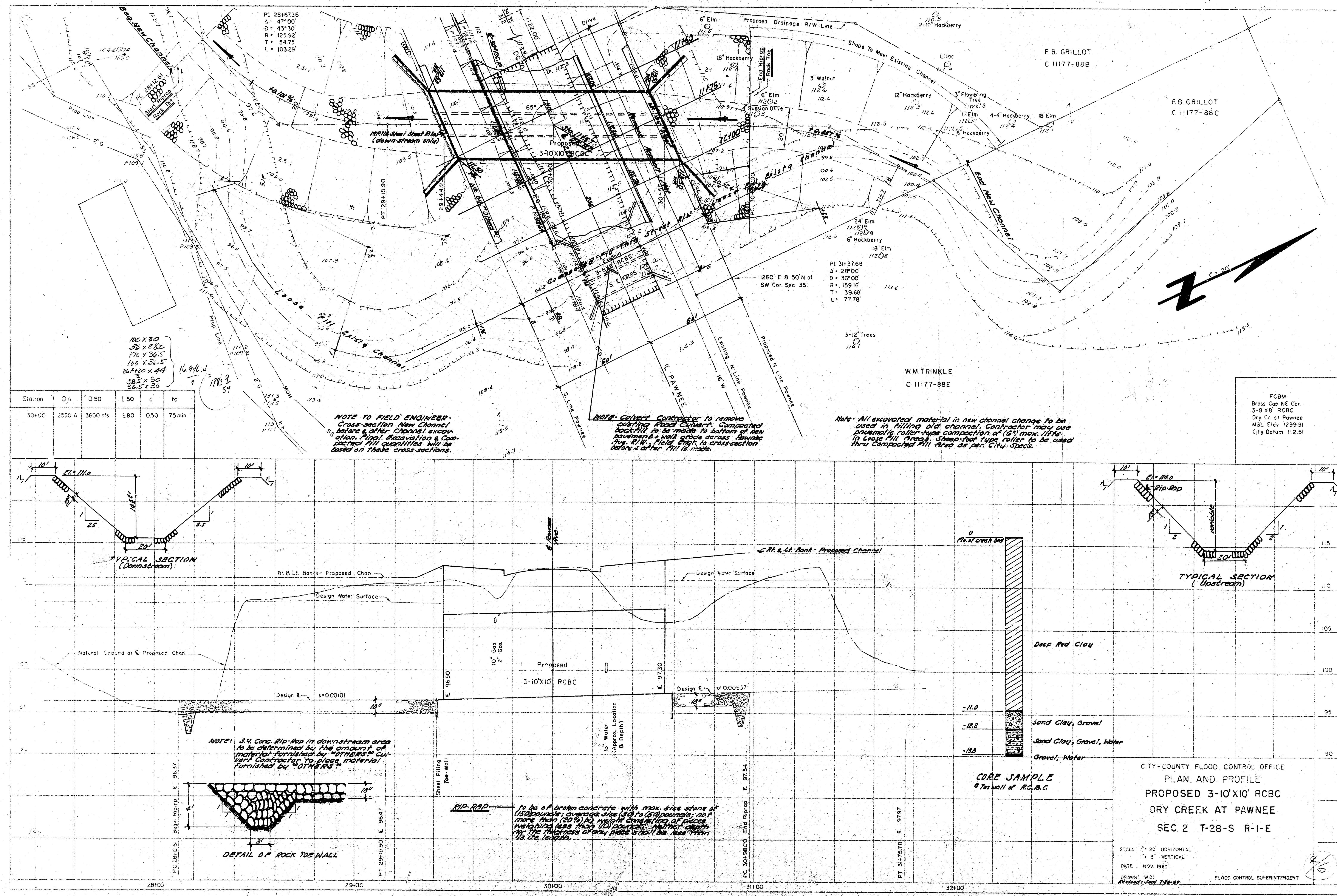
| BILL OF MATERIALS        |          |      |
|--------------------------|----------|------|
| ITEM                     | Quant    | Unit |
| Class A-A Concrete       | 428.62   | CY   |
| Reinforcing Steel        | 71,085.0 | Lbs. |
| Concrete Handrail        | 76.8     | LF   |
| Hand Excavation          | 10.42    | CY   |
| W&G 16' C&G Sheet Piling | 816.0    | LF   |
| Conc. Rip-Rap            | 270.0    | Yd   |
| Common Excavation        | 745.6    | CY   |
| Compacted Fill           | 848.0    | CY   |
| Loose Fill               | 697.0    | CY   |
| Class (M) Concrete       | 41.2     | CY   |
| Asphalt Mat Rem.         | 462.0    | SY   |
| 30" R.C.P.               | 4        | EA   |
| Existing Structure Rem.  | 1        | EA   |
| Clearing Right of Way    |          |      |

Lump Sum Bid Items

Bid Items

(A) CLEARING R/W - Clearing R/W item will include the following: Tree rem., tree rem., existing structure rem., sign, curb, etc. or any other obstruction hindering the construction of this project.





Survey  
 Plan  
 Profile  
 Cross-section

| Station | QA     | Q50      | 150  | c    | tc     |
|---------|--------|----------|------|------|--------|
| 30+00   | 2550 A | 3600 cfs | 2.80 | 0.50 | 75 min |

