

CITY OF WICHITA, KANSAS  
MICHAEL E. LINDEBAK, CITY ENGINEER

# STORM WATER SEWER NO. 299 (GOLDEN HILLS ADDITION)

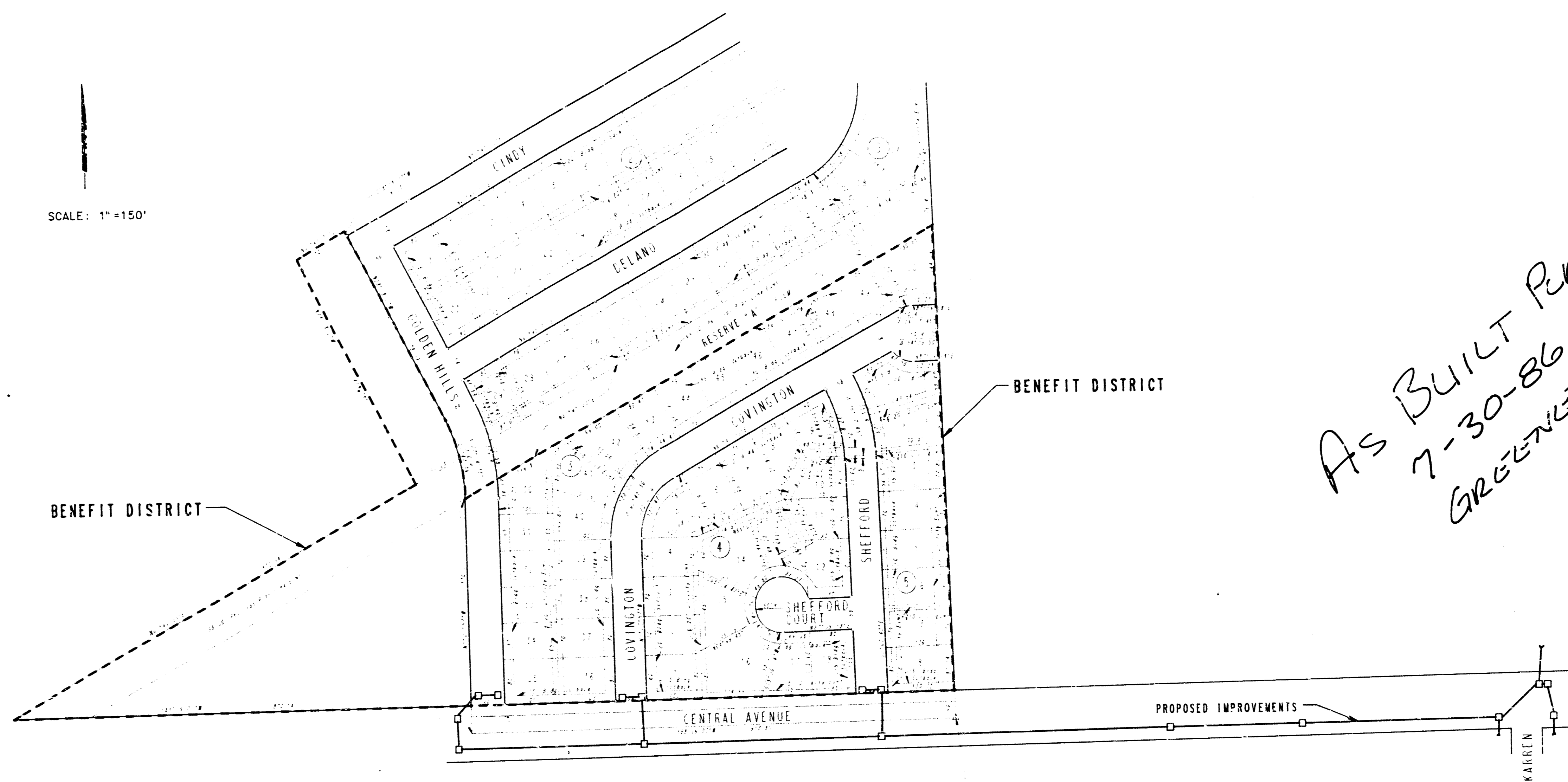
CITY OF WICHITA PROJECT NO. 468-76-245-81507-000-000-001

|          |                                     |
|----------|-------------------------------------|
| SURVEYED | DELMETER, FREUND & ASSOCIATES, P.A. |
| PLOTTED  | PAUSEWANG-P.E.C.                    |
| INKED    | CAD                                 |
| DESIGNED | BERRY-P.E.C.                        |

- INDEX OF SHEETS
- TITLE SHEET
  - LINE NO. 1- STA. 6+59 TO STA. 10+04.19
  - LINE NO. 1- STA. 10+04.19 TO STA. 12+00
  - LINE NO. 1- STA. 12+00 TO STA. 18+00
  - LINE NO. 1- STA. 18+00 TO STA. 24+00
  - LINE NO. 1- STA. 24+00 TO STA. 29+76.58
  - AUXILIARY PROFILES
  - STD. TYPE 1A CURB INLET (6" X 5'0" OPENING)
  - STD. TYPE 1A CURB INLET (6" X 10'0" OPENING)
  - STD. TYPE 1 CURB INLET (6" X 10'0" OPENING)
  - MANHOLE FRAME & COVER
  - CHANNEL & RIPRAP DETAILS
  - PROJECT CONSTRUCTION SIGN
  - CROSS-SECTIONS

PROJECT SURVEY CONTROL

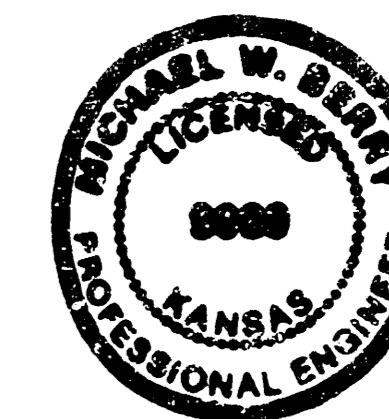
VERTICAL DATUM: CITY OF WICHITA DATUM  
 DATUM BENCH MARK: CITY OF WICHITA STANDARD BENCH MARK DISC.  
 S.E. COR. CENTRAL & 119TH ST. WEST  
 ELEV. = 156.93



*AS BUILT PLANS  
7-30-86  
GREENE*

SURVEYED UNDER PROJECT NO. 472-76-245-81507-000-000-001

APRIL, 1986  
 PLANS PREPARED BY  
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.  
 ENGINEERS  
 WICHITA, KANSAS



UTILITY SERVICE LINES, POLES, VALVE BOXES, METERS, AND ETC. ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO OR DURING CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

THE CONTRACTOR SHALL NOTIFY K.C. & E. AND/OR SOUTHWESTERN BELL AT LEAST 24 HOURS IN ADVANCE OF COMMENCEMENT OF WORK ADJACENT TO ANY OF THEIR UNDERGROUND FACILITIES.

PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL UNEARTH THE EXISTING TELEPHONE CONDUIT(S) AT LINE NO. 1 STA. 9+15, LINE NO. 1A STA. 0+20, LINE NO. 1C STA. 0+45, LINE NO. 1D STA. 0+45, AND LINE NO. 1E STA. 0+42 TO VERIFY THE ELEVATION OF THE CONDUIT(S) AT EACH LOCATION. IF THE ACTUAL ELEVATION VARIES BY MORE THAN 0.5 FOOT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE IF ADJUSTMENTS IN LOCATION OR ELEVATION OF THE PROPOSED IMPROVEMENTS WILL BE REQUIRED TO AVOID CONFLICT WITH THE TELEPHONE CONDUIT(S). ANY ALLOWED RELOCATION(S) IN PLAN OR PROFILE DIRECTED BY THE ENGINEER TO AVOID CONFLICT WITH THE TELEPHONE CONDUIT(S) SHALL BE PERFORMED AT NO ADDITIONAL COST.

ALL DISTURBED AREAS WITHIN THE PERMANENT DRAINAGE EASEMENT LT. CENTRAL AVENUE STA 36+14 SHALL BE SEED, FERTILIZED AND MULCHED IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS.

MATERIALS FOR ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE CONFORMING TO THE REQUIREMENTS OF THE CITY OF WICHITA STANDARD SPECIFICATIONS. GROUTING OF STONE RIPRAP SHALL NOT BE PERFORMED WHETHER THE BROKEN CONCRETE, FABRIC ENVELOPE, NOR THE PRE-MIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED.

EXCESS EXCAVATED MATERIAL FROM CHANNEL AND/OR STORM SEWER EXCAVATION SHALL BE STOCKPILED AT LOCATIONS WITHIN THE CENTRAL AVENUE RIGHT-OF-WAY OR TEMPORARY EASEMENTS AS DESIGNATED BY THE ENGINEER TO BE USED IN CONSTRUCTION OF THE STREET IMPROVEMENTS.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND PAVEMENT REMOVAL WHICH IS TO BE WASTED SHALL BE DISPOSED ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. THE CONTRACTOR, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.

ALL ENTRANCE AND CROSS ROAD PIPE CONFLICTING WITH CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR AND AS OTHERWISE NOTED ON THE PLANS. REMOVAL OF SUCH PIPES SHALL CONFORM TO THE APPLICABLE SECTION OF THE STANDARD SPECIFICATIONS. SUCH PIPE SHALL BE REPLACED WHERE NECESSARY TO MAINTAIN DRAINAGE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

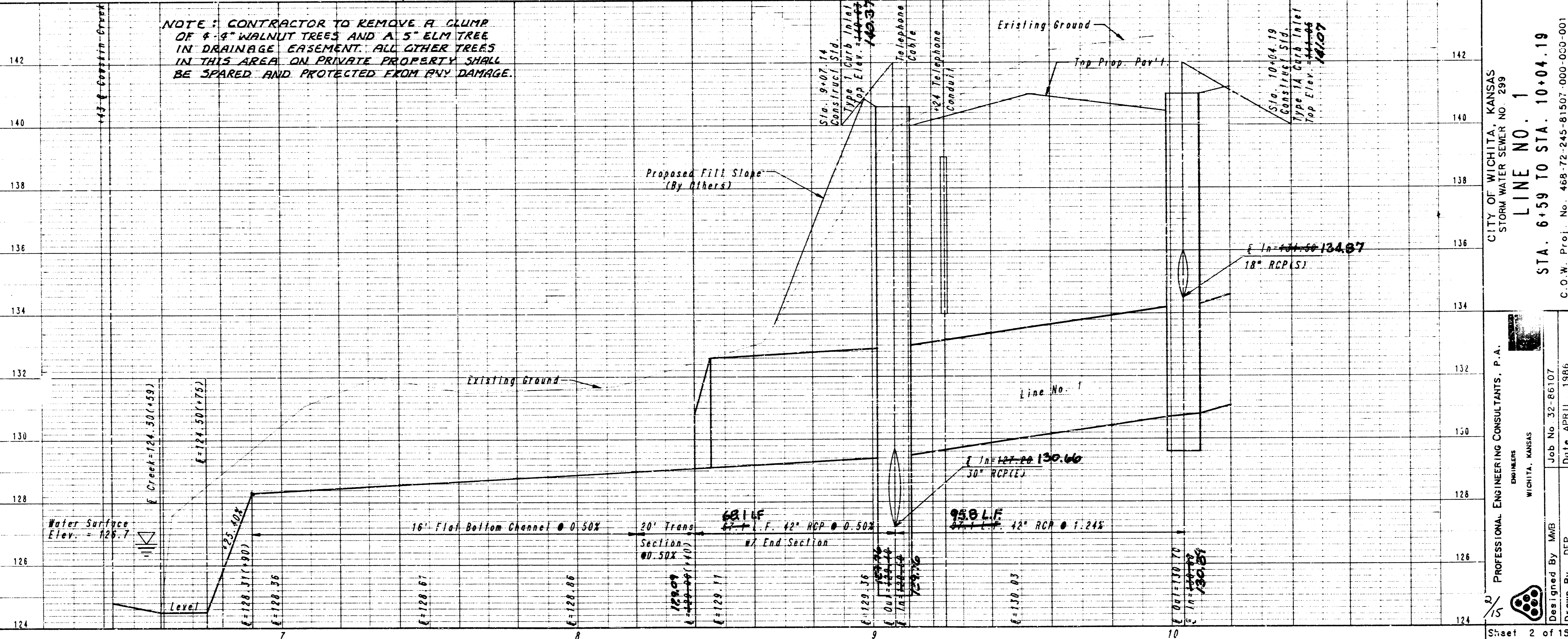
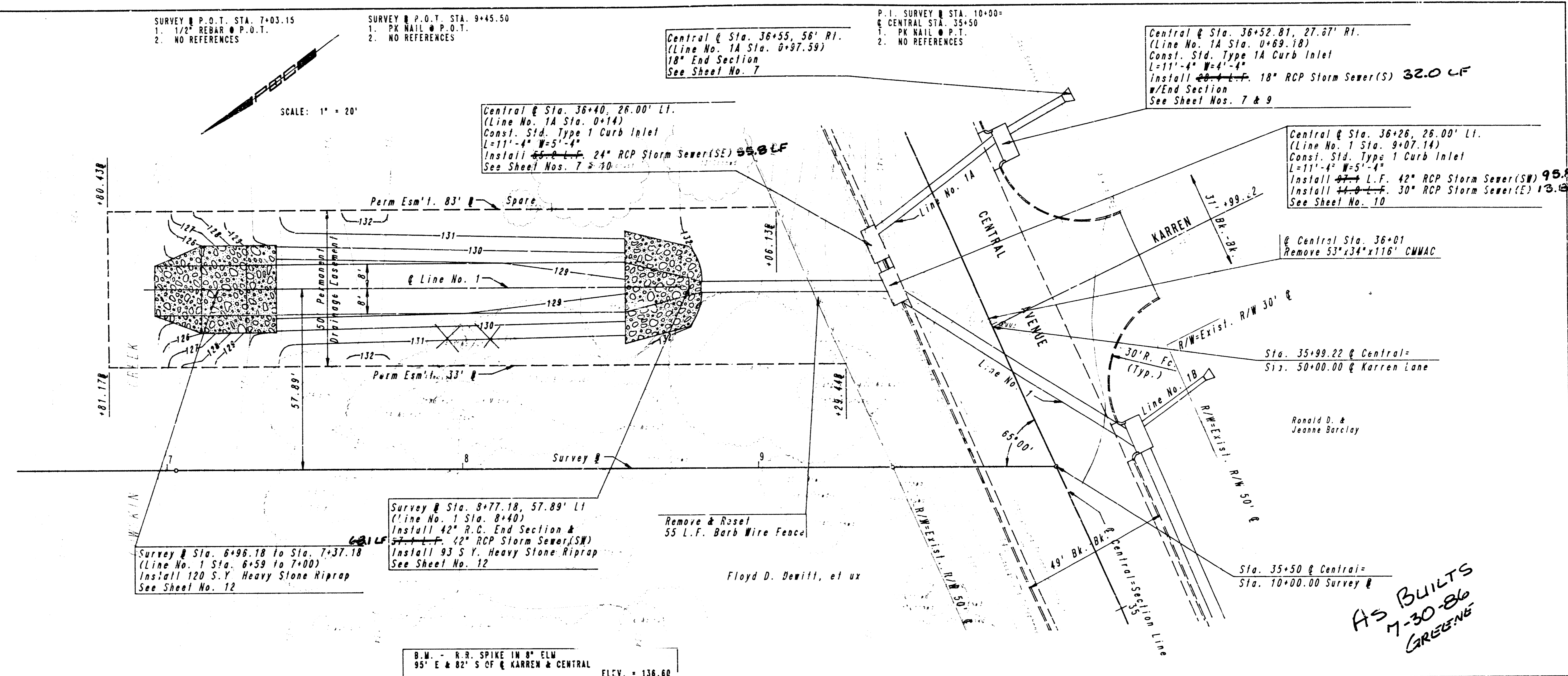
TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY OR EASEMENTS WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

THE STORM WATER SEWER CONTRACTOR SHALL SO SCHEDULE THIS WORK SO AS TO MAINTAIN A MEANS OF ACCESS FOR LOCAL TRAFFIC AT ALL TIMES TO GOLDEN HILLS ON THE NORTH AND KARREN LANE TO THE SOUTH, AS WELL AS TO RESIDENCES AT 11506 W. CENTRAL AND AT THE SE CORNER OF KARREN AND CENTRAL. ALSO, ACCESS SHALL BE PROVIDED AT EITHER COVINGTON (N) OR SHEFFORD AT ALL TIMES.

CONSTRUCTION TRAFFIC CONTROL DEVICES, INCLUDING SIGNS, BARRICADES AND/OR CHANNELIZING DEVICES, SHALL BE MAINTAINED BY THE CONTRACTOR ADJACENT TO HIS WORK AREA(S) IN ACCORDANCE WITH THE WICHITA BARRICADE MANUAL.

UTILITIES

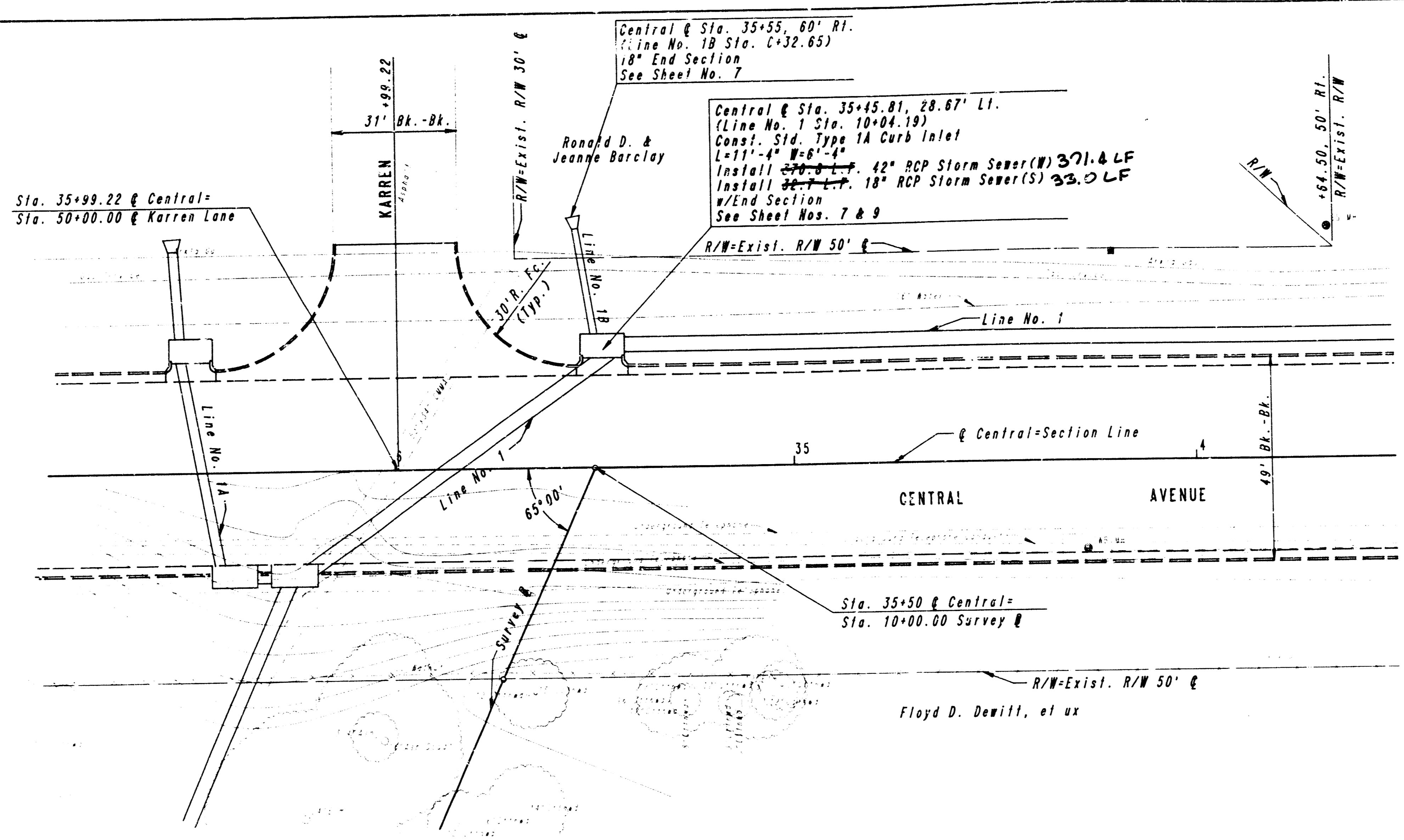
- |  |   |
|--|---|
| KANSAS GAS & ELECTRIC<br>1900 E. CENTRAL - 67214<br>DON MORGAN - 261-6434        | MULTIMEDIA CABLEVISION<br>101 E. DOUGLAS - 67202<br>DON SHUE - 269-2336 |
| SOUTHWESTERN BELL TELEPHONE<br>154 N. BROADWAY 67202<br>BOB ALLEY - 268-2245     | KPL GAS SERVICE<br>1021 E. 26TH ST. NO. 67219<br>JAMES SHIMP - 263-7511 |
| WICHITA WATER DEPARTMENT<br>455 N. MAIN - 67202<br>F. E. WITHROW, JR. - 268-4217 | ARKLA GAS CO.<br>1630 S. BAHR - 67209<br>JERRY WATKINS - 942-8350       |
| WICHITA SEWER MAINT. DIV.<br>455 N. MAIN - 67202<br>DARRELL BREWER - 268-4210    |   |



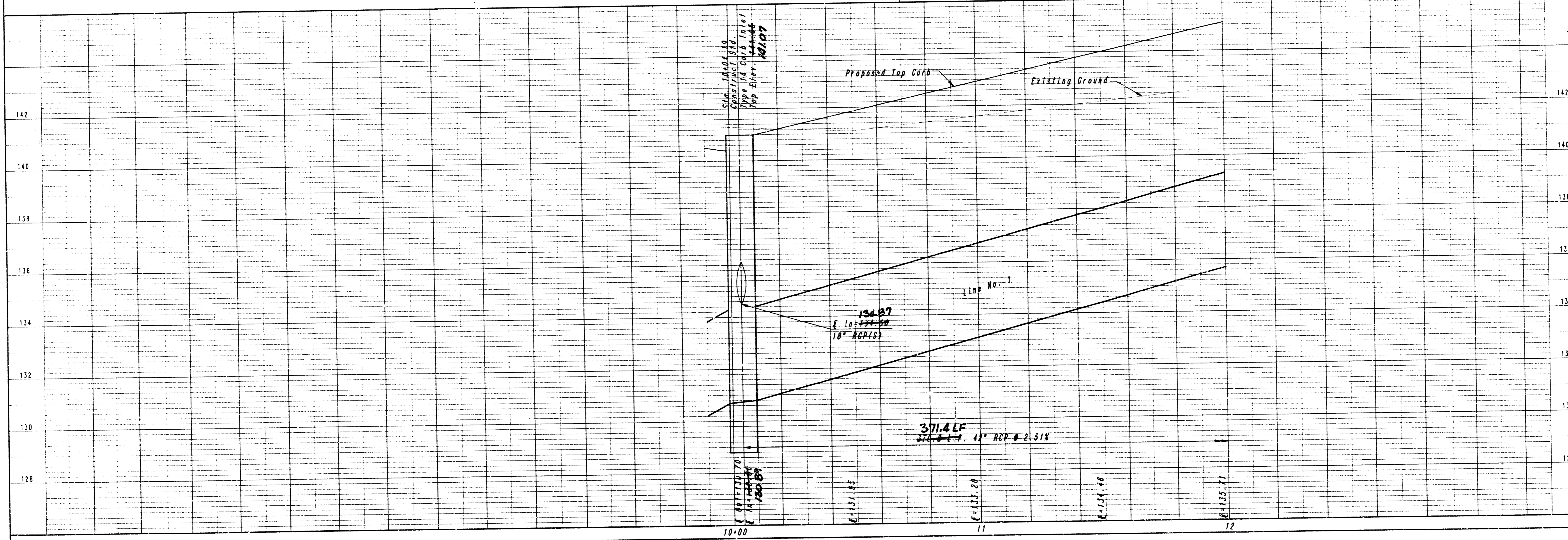
AS BUILTS  
7-30-86  
GREENE

CITY OF WICHITA, KANSAS  
STORM WATER SEWER NO. 239  
LINE NO. 1  
STA. 6+59 TO STA. 10+04.19  
C.O.W. Proj. No. 488-72-245-81507-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.  
WICHITA, KANSAS  
Job No. 32-86107  
Designed By MMB  
Drawn By DEP  
Date APRIL, 1986



B.M. - R.R. SPIKE IN 8" ELM  
 95° E & 82° S OF @ KARREN & CENTRAL  
 ELEV. = 136.60

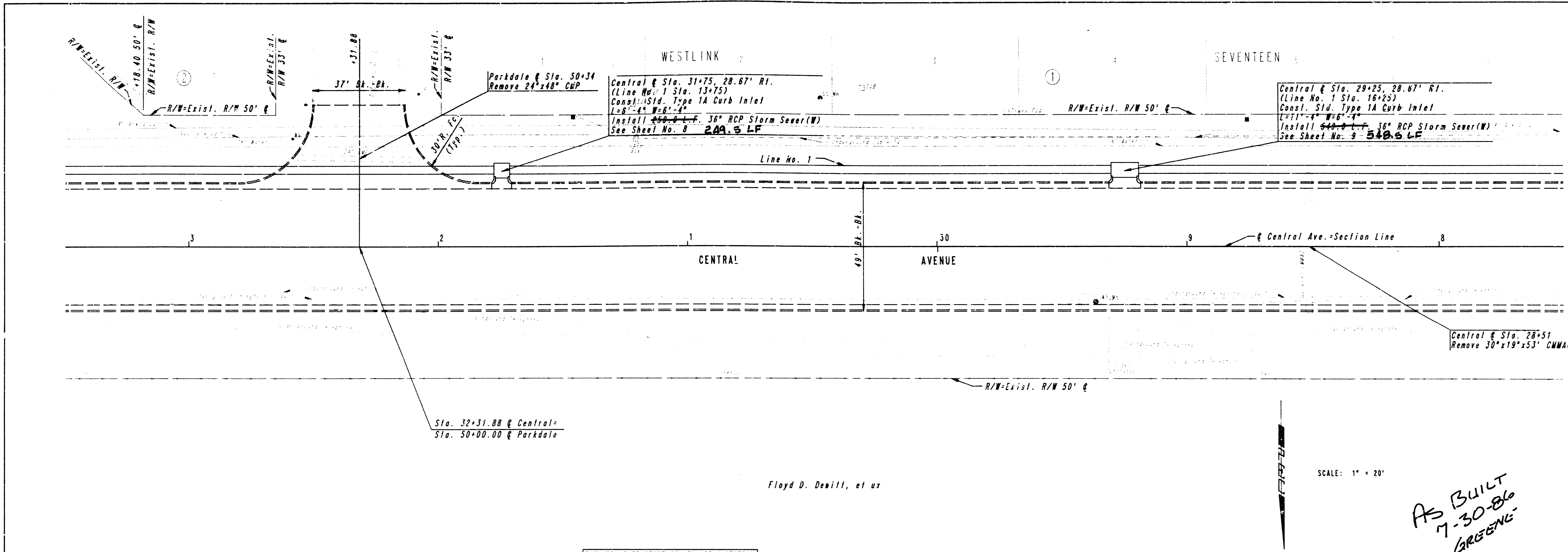


CITY OF WICHITA, KANSAS  
 STORM WATER SEWER NO. 289  
**LINE NO. 1**  
 STA. 10+04.19 TO STA. 12+00  
 C.O.W. Proj. No. 466-72-245-61507-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.  
 ENGINEERS  
 WICHITA, KANSAS  
 Job No. 32-86107  
 Date APRIL, 1986

Designed By: MWB  
 Drawn By: DEP

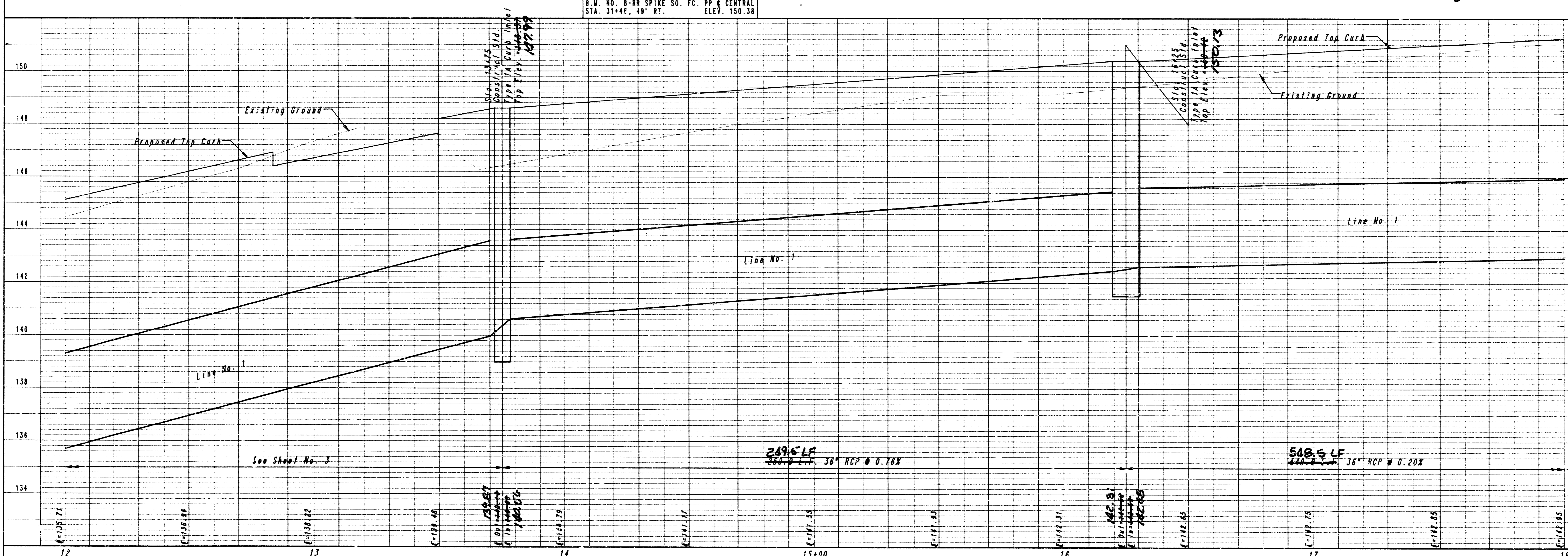
3/5  
 Sheet 3 of 15



Floyd D. Devill, et ux

SCALE: 1" = 20'

AS BUILT  
7-30-86  
GREENE

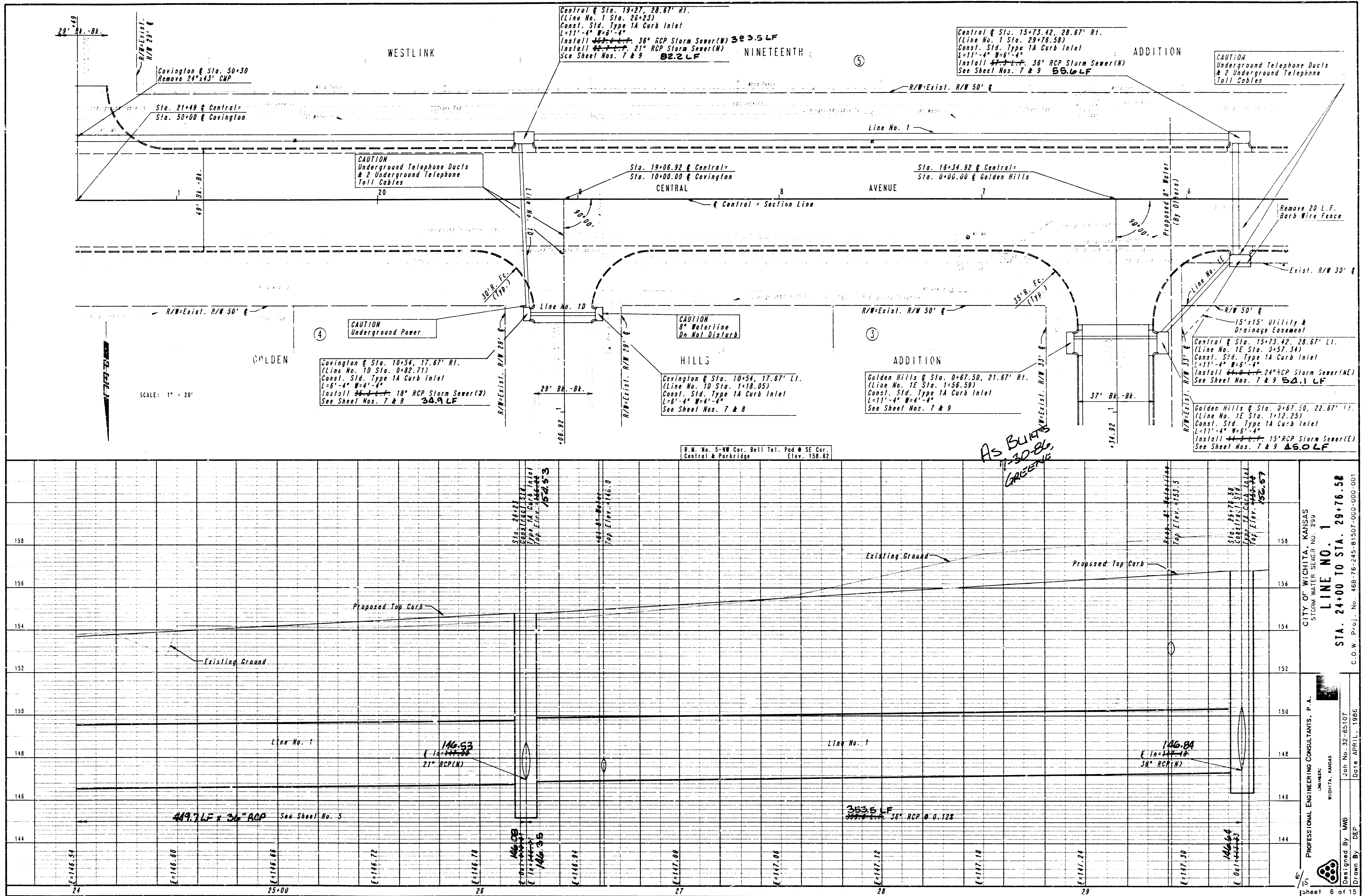


B.M. NO. 8-RR SPIKE SO. FC. PP & CENTRAL  
STA. 31+44, 49' RT. ELEV. 150.38

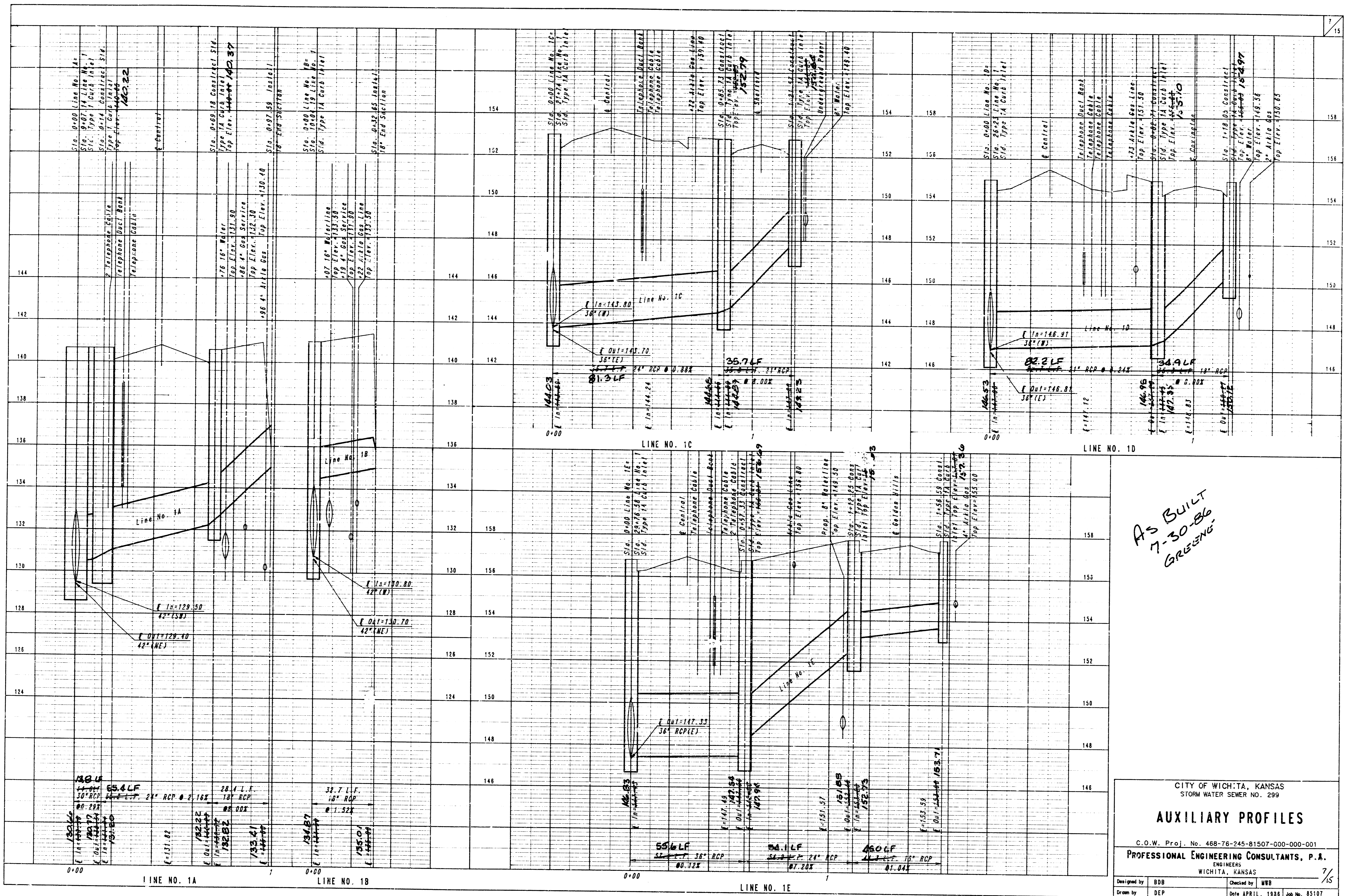
CITY OF WICHITA, KANSAS  
STORM WATER SEWER NO. 289  
LINE NO. 1  
STA. 12+00 TO STA. 18+00  
C.O.W. Proj. No. 468-76-245-81507-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.  
WICHITA, KANSAS  
Job No. 32-86107  
Date APRIL, 1986  
Designed By MMS  
Drawn By DEP  
Sheet 4 of 15





CITY OF WICHITA, KANSAS  
 STORM WATER SEWER NO. 299  
**LINE NO. 1**  
 STA. 24+00 TO STA. 29+76.58  
 C.O.W. Proj. No. 468-76-245-81507-000-001  
 PROFESSIONAL ENGINEERING CONSULTANTS, P.A.  
 WICHITA, KANSAS  
 Job No. 32-85107  
 Designed By: MB  
 Date: APRIL, 1986  
 Drawn By: DEP  
 Sheet 6 of 15



AS BUILT  
7-30-86  
GREENE

CITY OF WICHITA, KANSAS  
STORM WATER SEWER NO. 299

**AUXILIARY PROFILES**

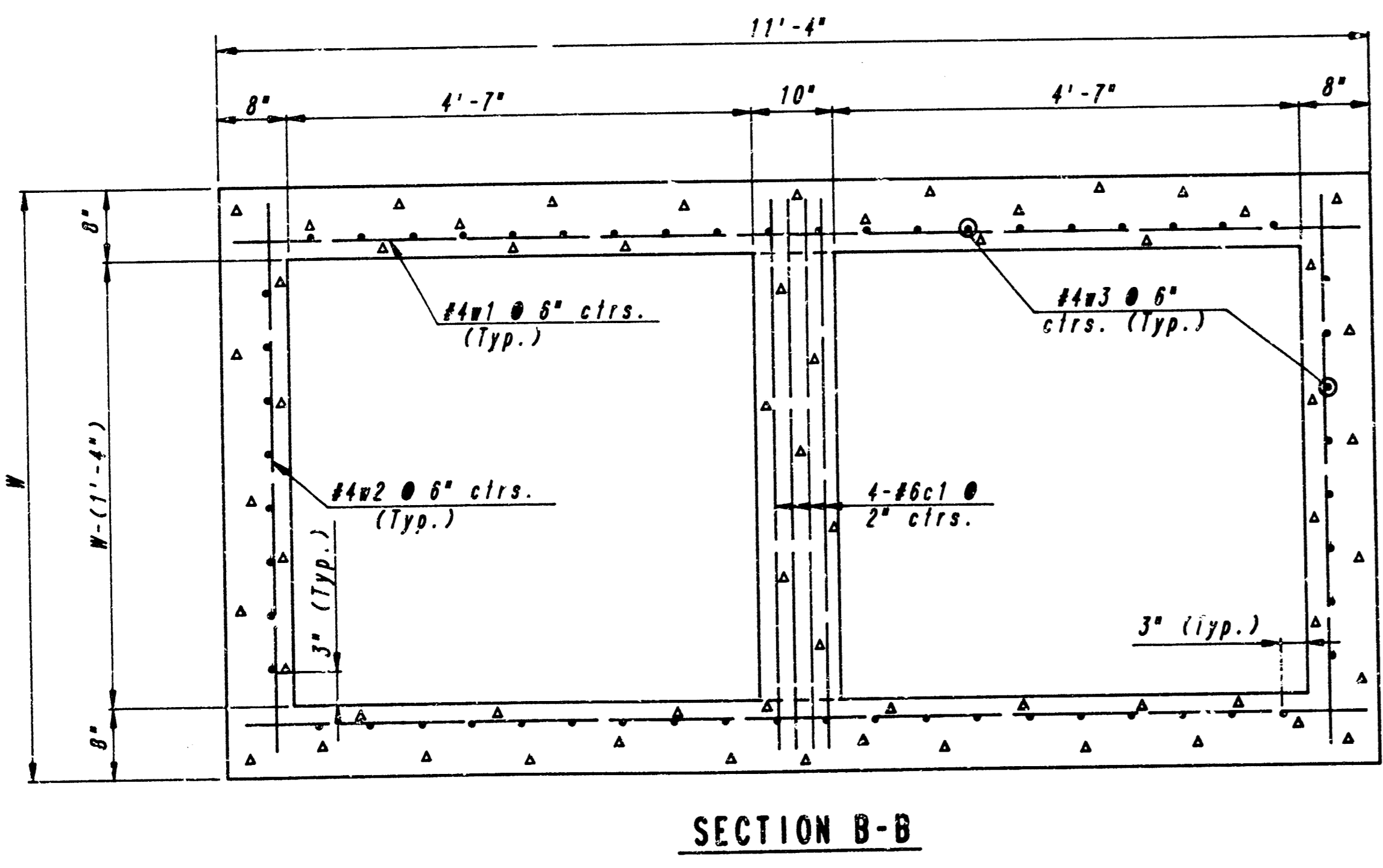
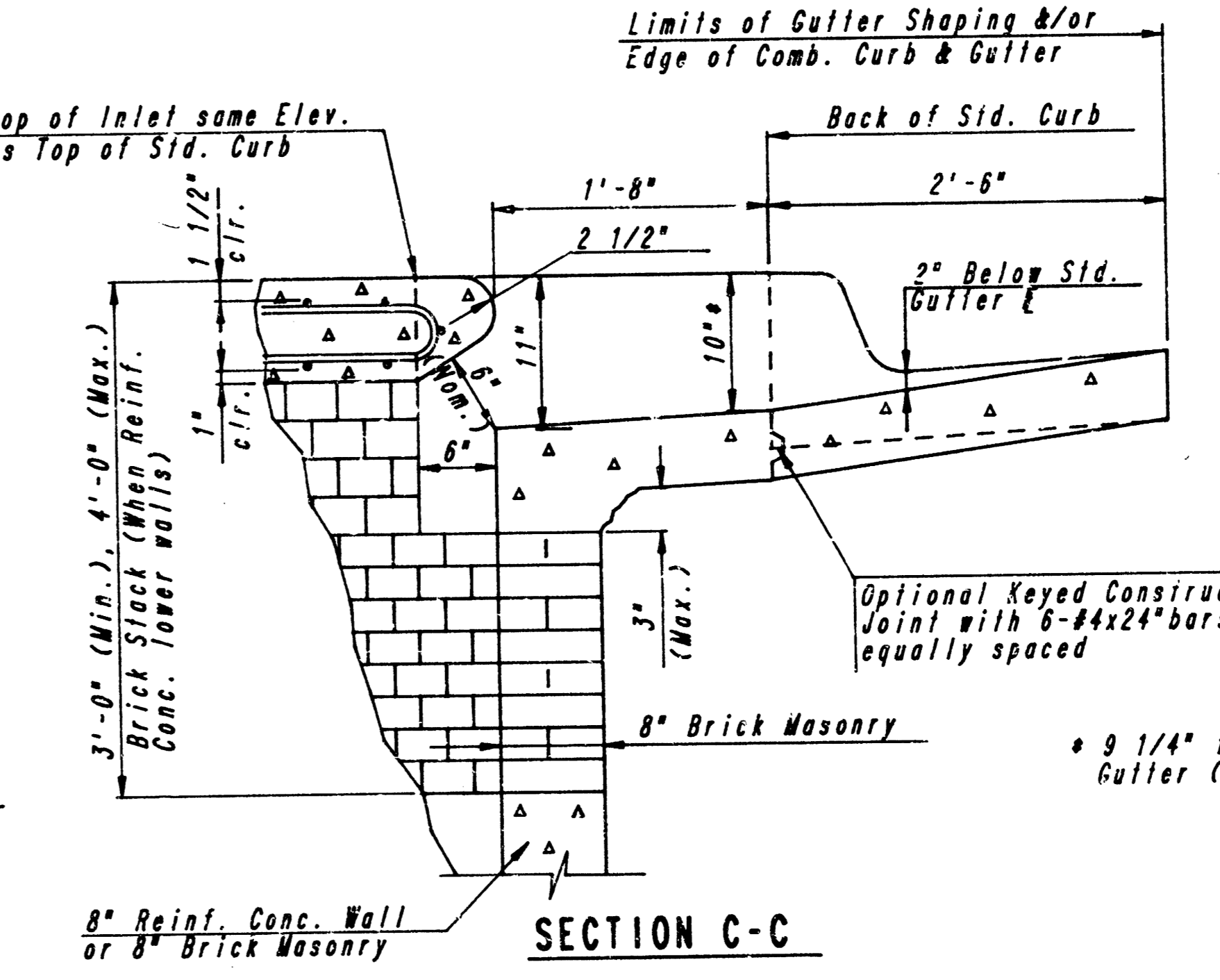
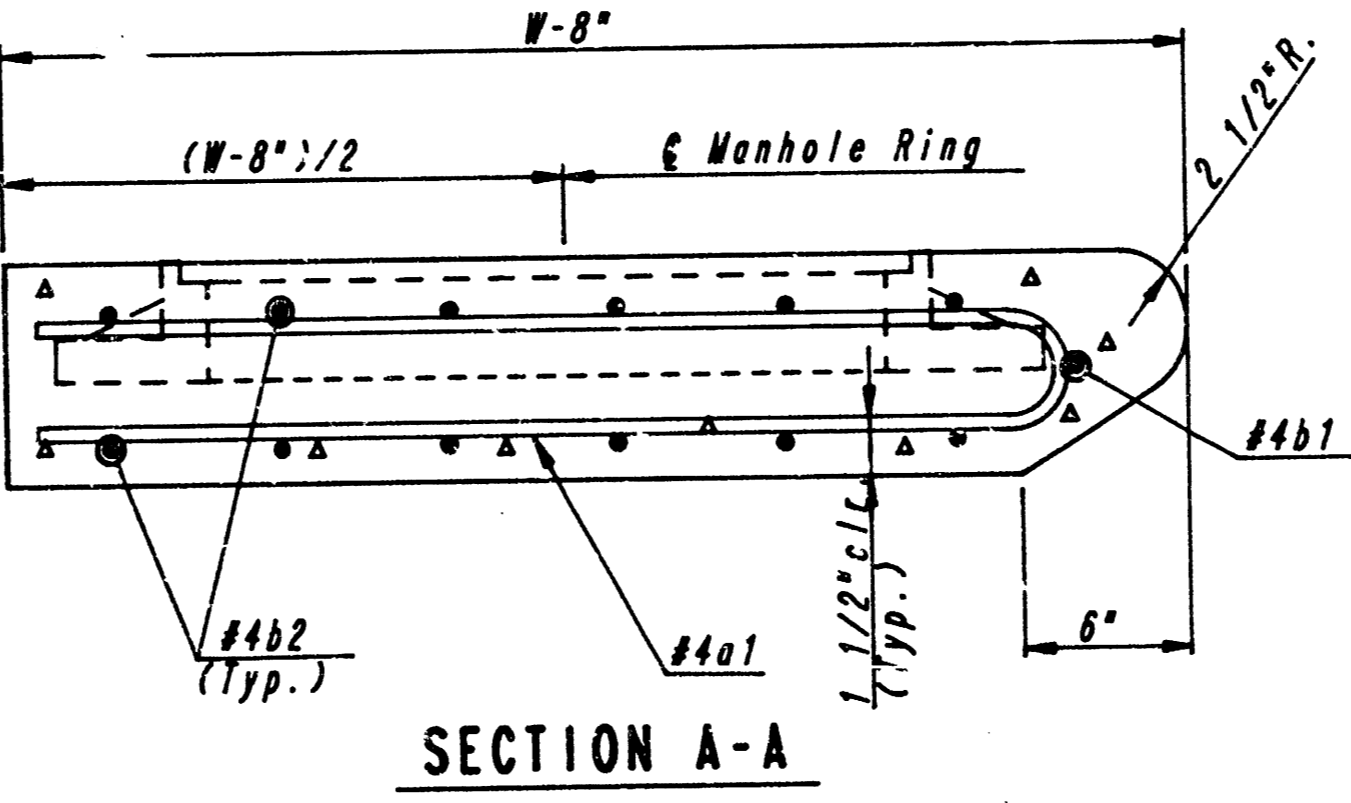
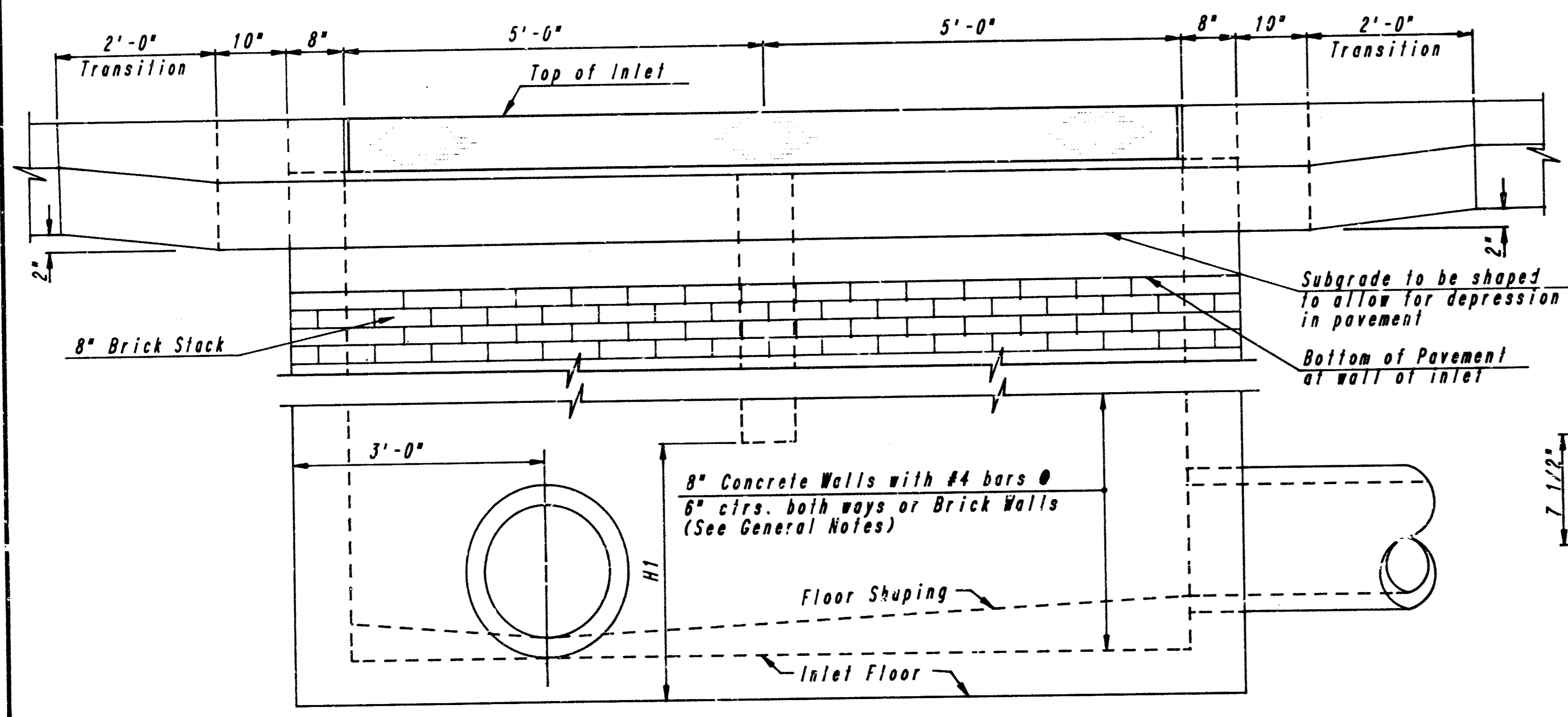
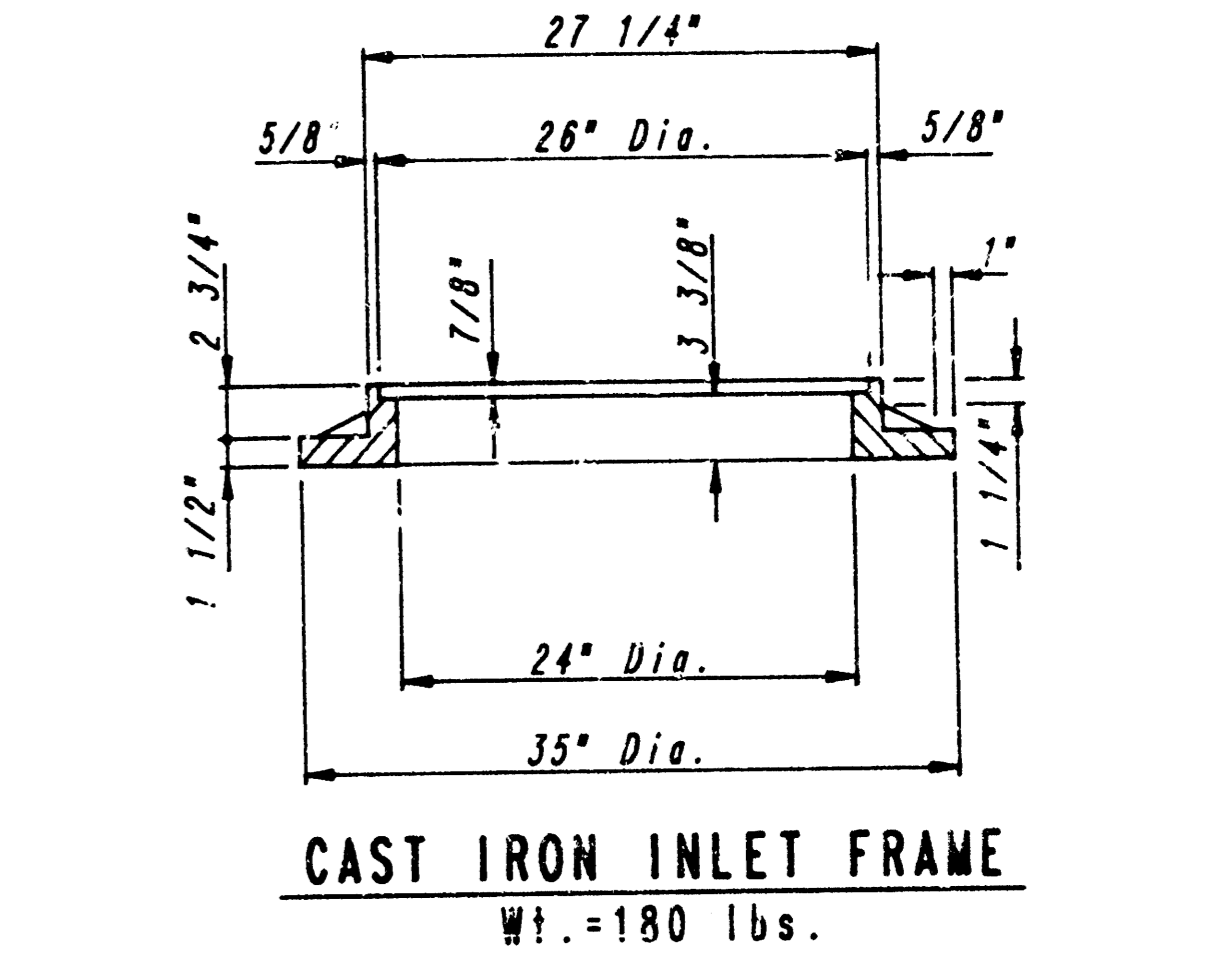
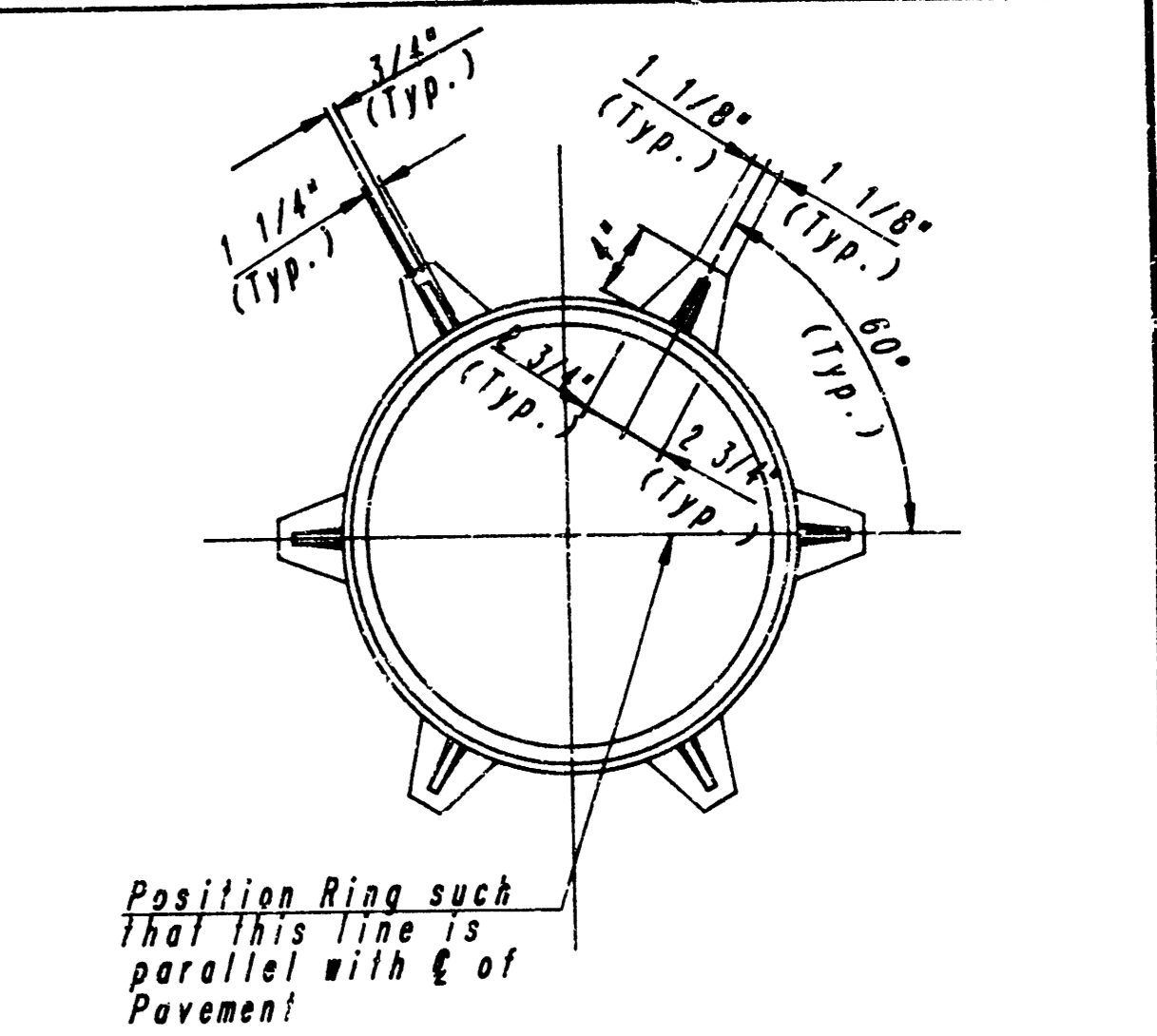
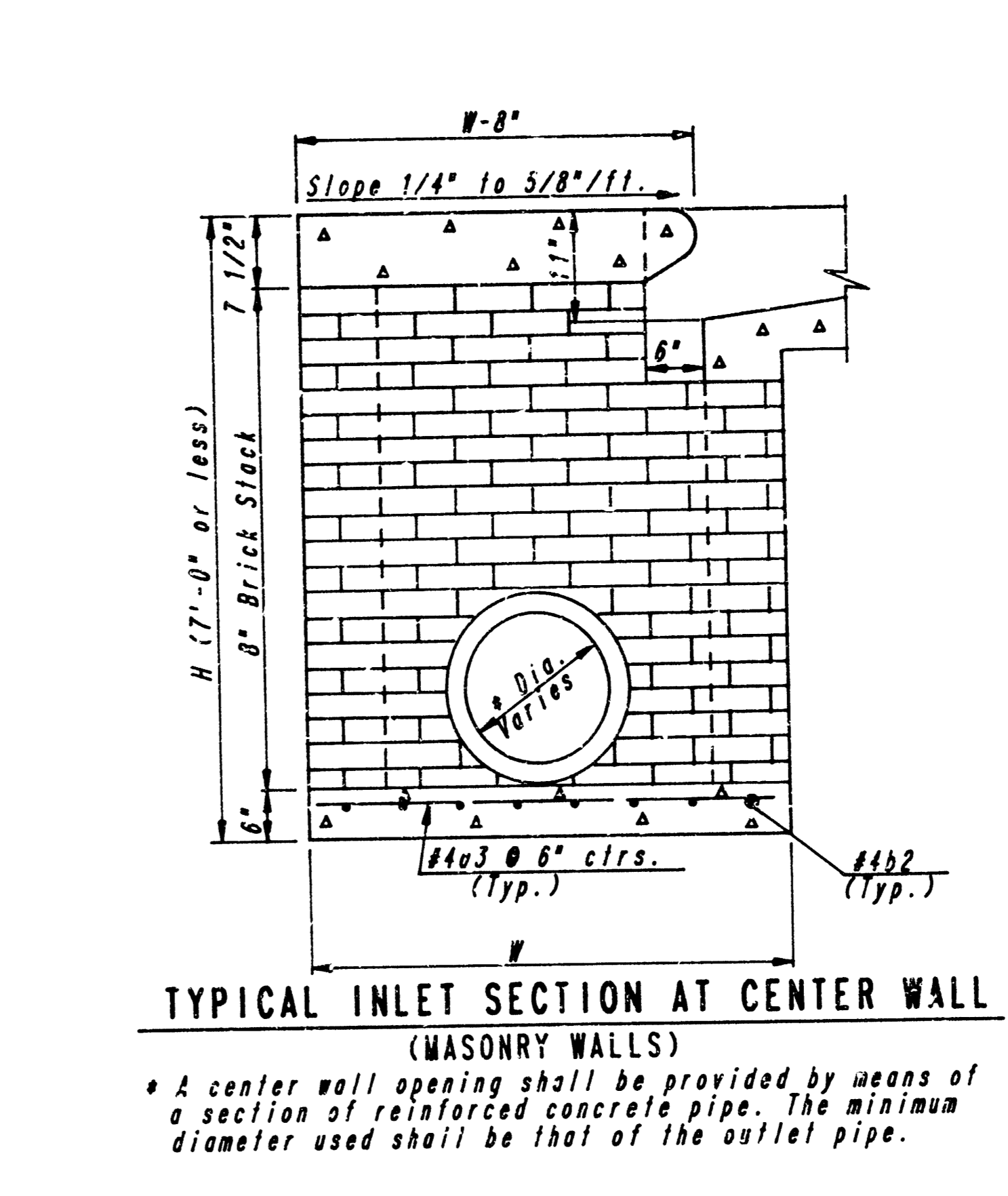
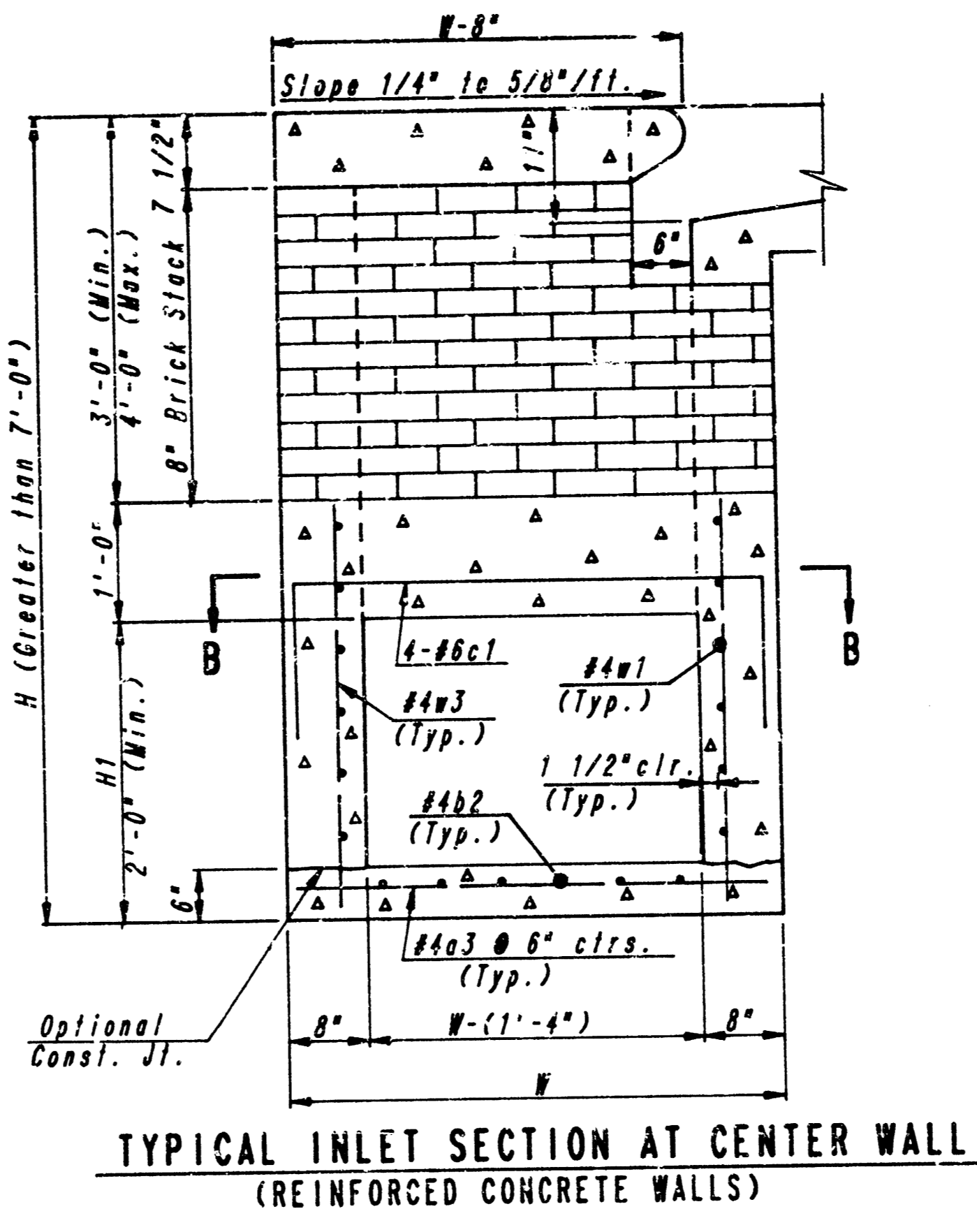
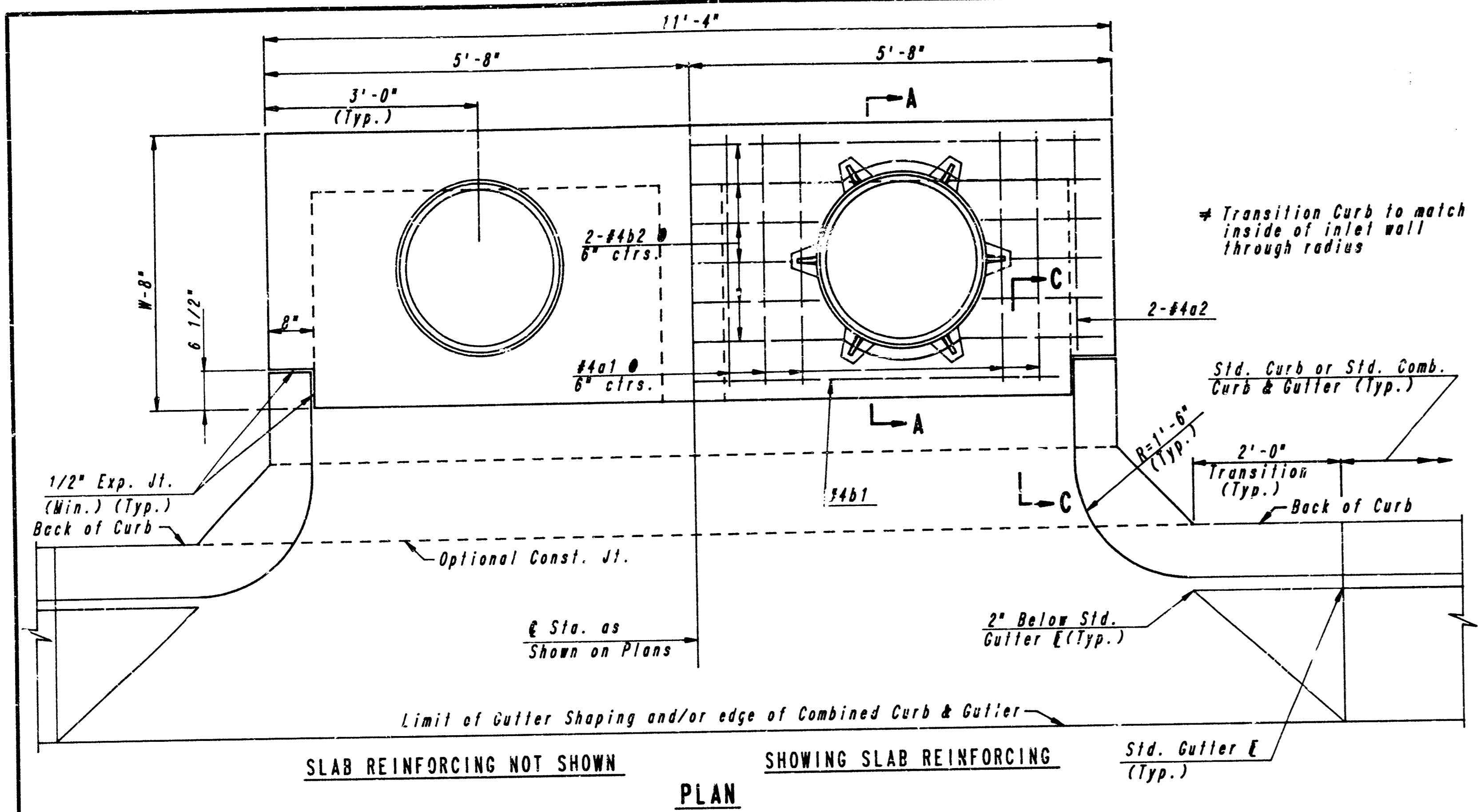
C.O.W. Proj. No. 468-76-245-81507-000-001

**PROFESSIONAL ENGINEERING CONSULTANTS, P.A.**  
ENGINEERS  
WICHITA, KANSAS

Designed by BOB      Checked by MWB  
Drawn by DEP      Date APRIL, 1986      Job No. 85107

7/15





| SLAB AND FLOOR REINFORCING |      |         |           |         |           |         |            |         |            |         |            |
|----------------------------|------|---------|-----------|---------|-----------|---------|------------|---------|------------|---------|------------|
|                            |      | W=4'-4" |           | W=5'-4" |           | W=6'-4" |            | W=7'-4" |            | W=8'-4" |            |
| MARK                       | SIZE | NO.     | LENGTH    | NO.     | LENGTH    | NO.     | LENGTH     | NO.     | LENGTH     | NO.     | LENGTH     |
| a1                         | #4   | 13      | 6'-7 1/4" | 13      | 8'-7 1/4" | 13      | 10'-7 1/4" | 13      | 12'-7 1/4" | 13      | 14'-7 1/4" |
| a2                         | #4   | 2       | 5'-0"     | 2       | 8'-0"     | 2       | 10'-0"     | 2       | 12'-0"     | 2       | 14'-0"     |
| a3                         | #4   | 20      | 4'-7"     | 20      | 5'-1"     | 20      | 6'-1"      | 20      | 7'-1"      | 20      | 8'-1"      |
| b1                         | #4   | 1       | 9'-8"     | 1       | 8'-8"     | 1       | 9'-8"      | 1       | 9'-8"      | 1       | 9'-8"      |
| b2                         | #4   | 38      | 11'-1"    | 24      | 11'-1"    | 30      | 11'-1"     | 36      | 11'-1"     | 42      | 11'-1"     |

| WALL REINFORCING |      |         |        |         |        |         |        |         |        |         |        |
|------------------|------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
|                  |      | W=4'-4" |        | W=5'-4" |        | W=6'-4" |        | W=7'-4" |        | W=8'-4" |        |
| MARK             | SIZE | NO.     | LENGTH | NO.     | LENGTH | NO.     | LENGTH | NO.     | LENGTH | NO.     | LENGTH |
| c1               | #6   | 4       | 6'-1"  | 4       | 7'-1"  | 4       | 8'-1"  | 4       | 9'-1"  | 4       | 10'-1" |
| w1               | #4   | ①       | 11'-1" | ①       | 11'-1" | ①       | 11'-1" | ①       | 11'-1" | ①       | 11'-1" |
| w2               | #4   | ①       | 4'-1"  | ①       | 5'-1"  | ①       | 6'-1"  | ①       | 7'-1"  | ①       | 8'-1"  |
| w3               | #4   | ②       | ②      | ②       | ②      | ②       | ②      | ②       | ②      | ②       | ②      |

\* Field bend or cut Reinforcing as required for clearance  
 ① 4(HI-6")x4 (AI-6") Rounded down to nearest 0.5'  
 ② 40x4(W-16") ③ HI+(8")

**GENERAL NOTES**

THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W=6'-4" OR LESS AND W=7'-0" OR LESS. WHEN W IS GREATER THAN 6'-4" AND H IS LESS THAN 7'-0", THE OUTSIDE WALLS BELOW THE BRICK STACK SHALL BE REINFORCED CONCRETE CONSTRUCTION AND THE CENTER WALL SHALL BE OF MASONRY CONSTRUCTION AS SHOWN FOR THE MASONRY WALL OPTION.

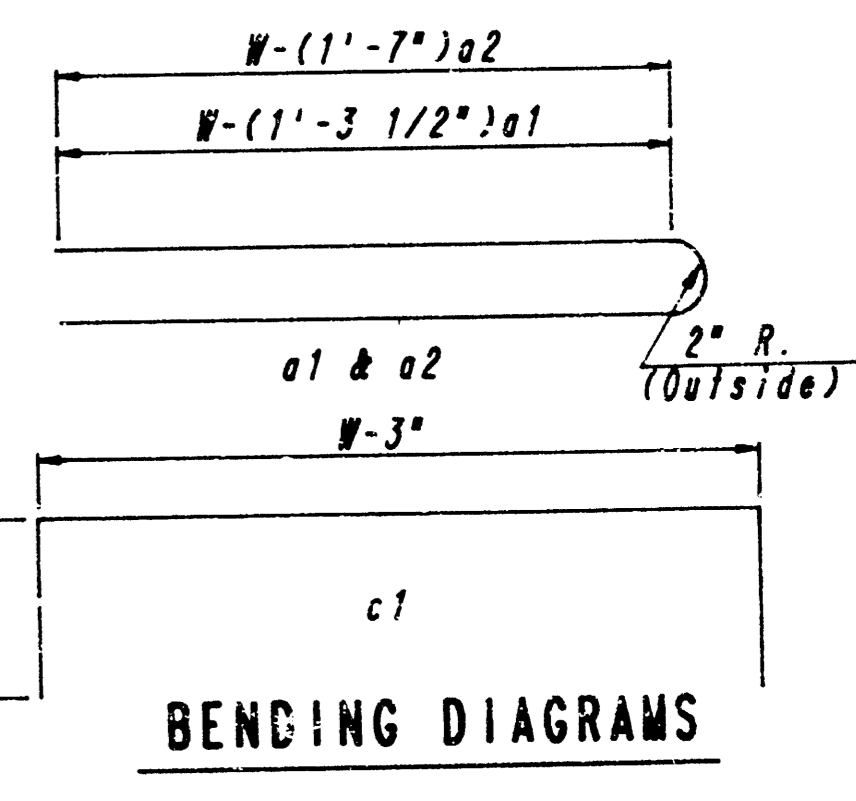
INLET INVERT SHALL BE SHAPED WITH A SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

CONCRETE SHALL BE CITY OF WICHITA STANDARD PAVING MIX. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL. INLET TOPS ARE TO BE PLACED ON A THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE PRECAST OR CAST IN PLACE. INLET TOPS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURBS.

UNLESS OTHERWISE NOTED, ALL BARS ARE #4 ON 6" MAX. CENTERS AND SHALL HAVE A MINIMUM CLEARANCE OF 1-1/2". BARS SHALL BE FIELD BENT OR CUT TO CLEAR MANHOLE RINGS AND PIPE OPENINGS.

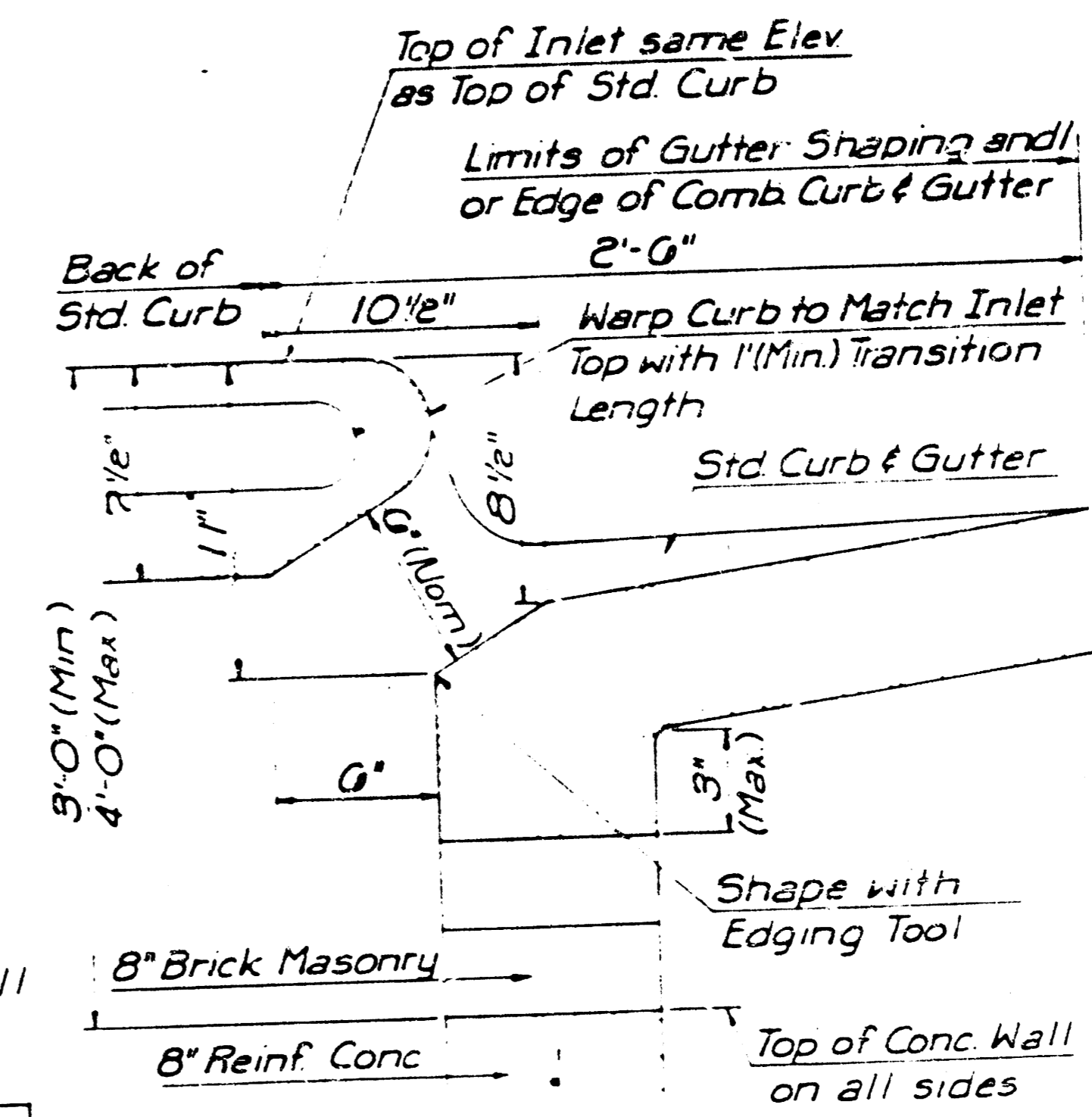
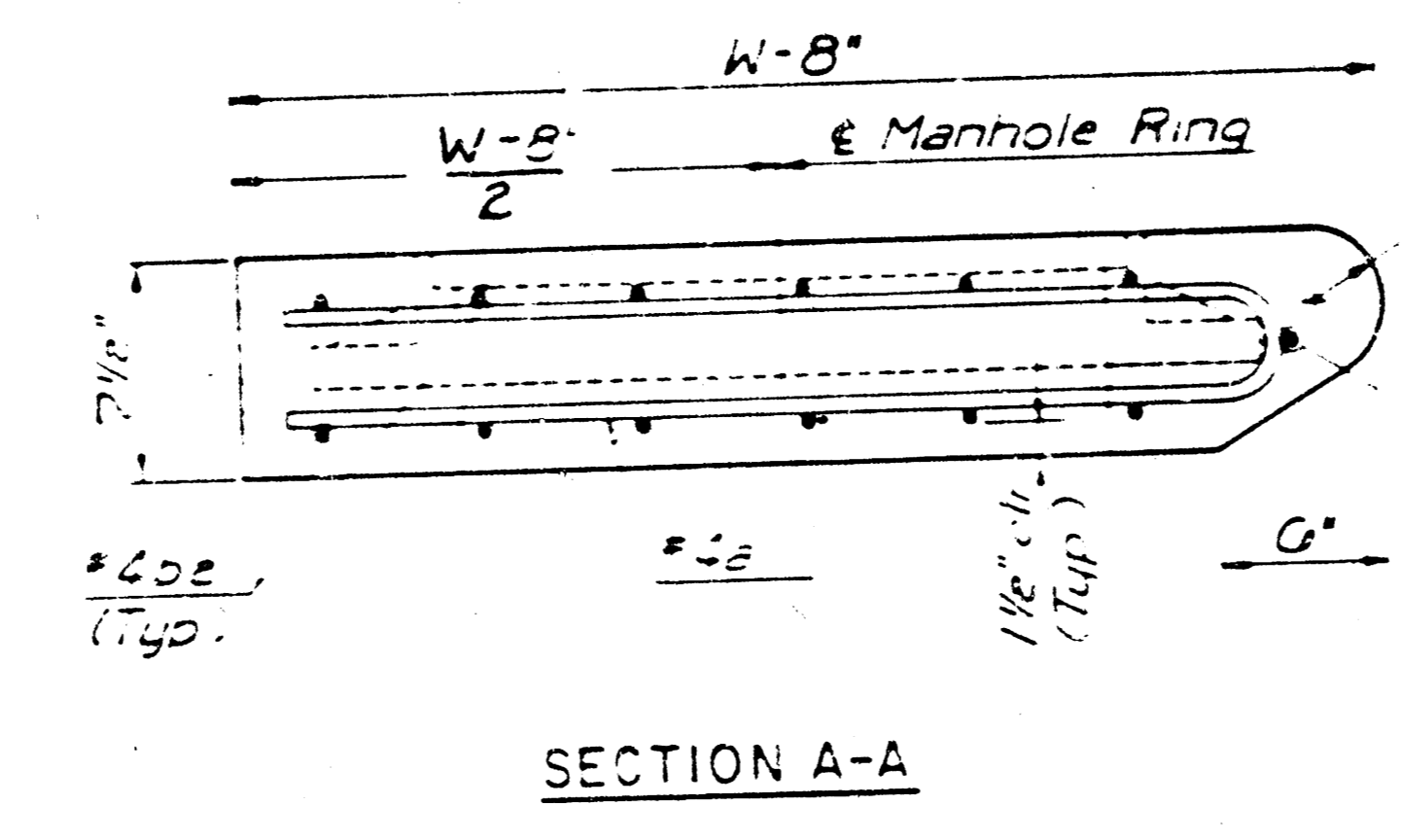
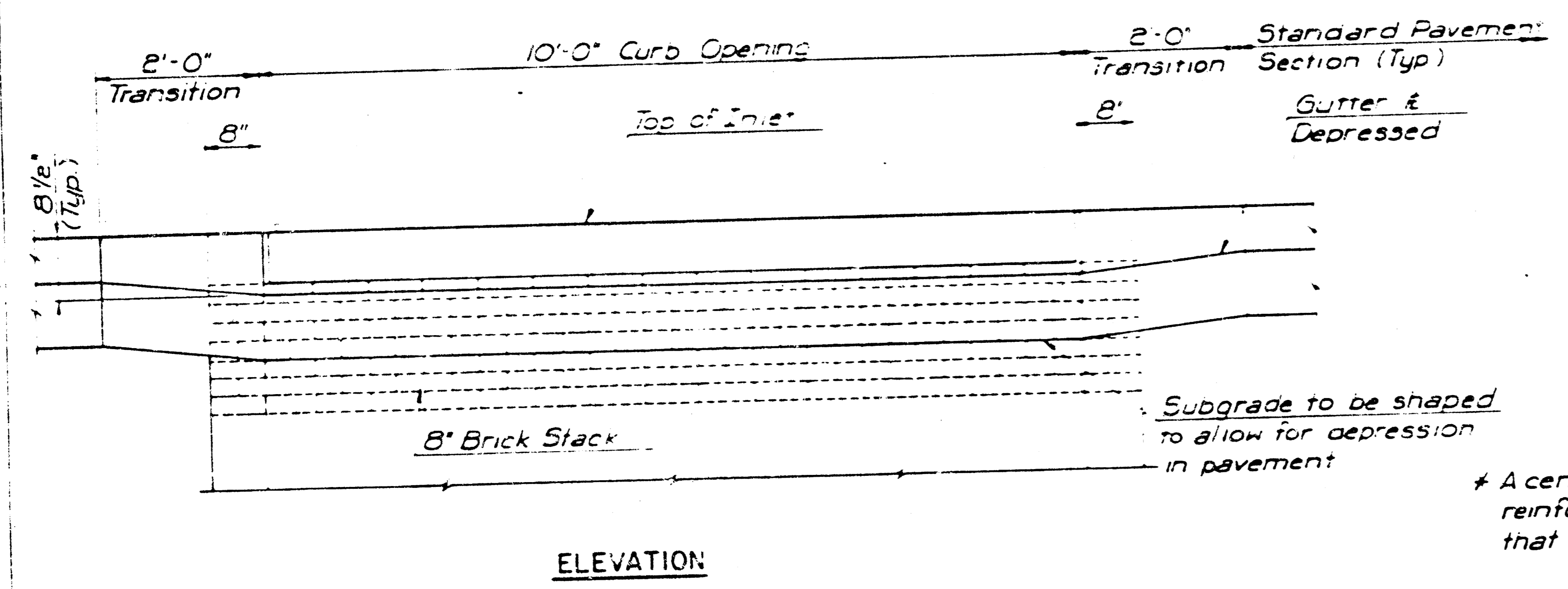
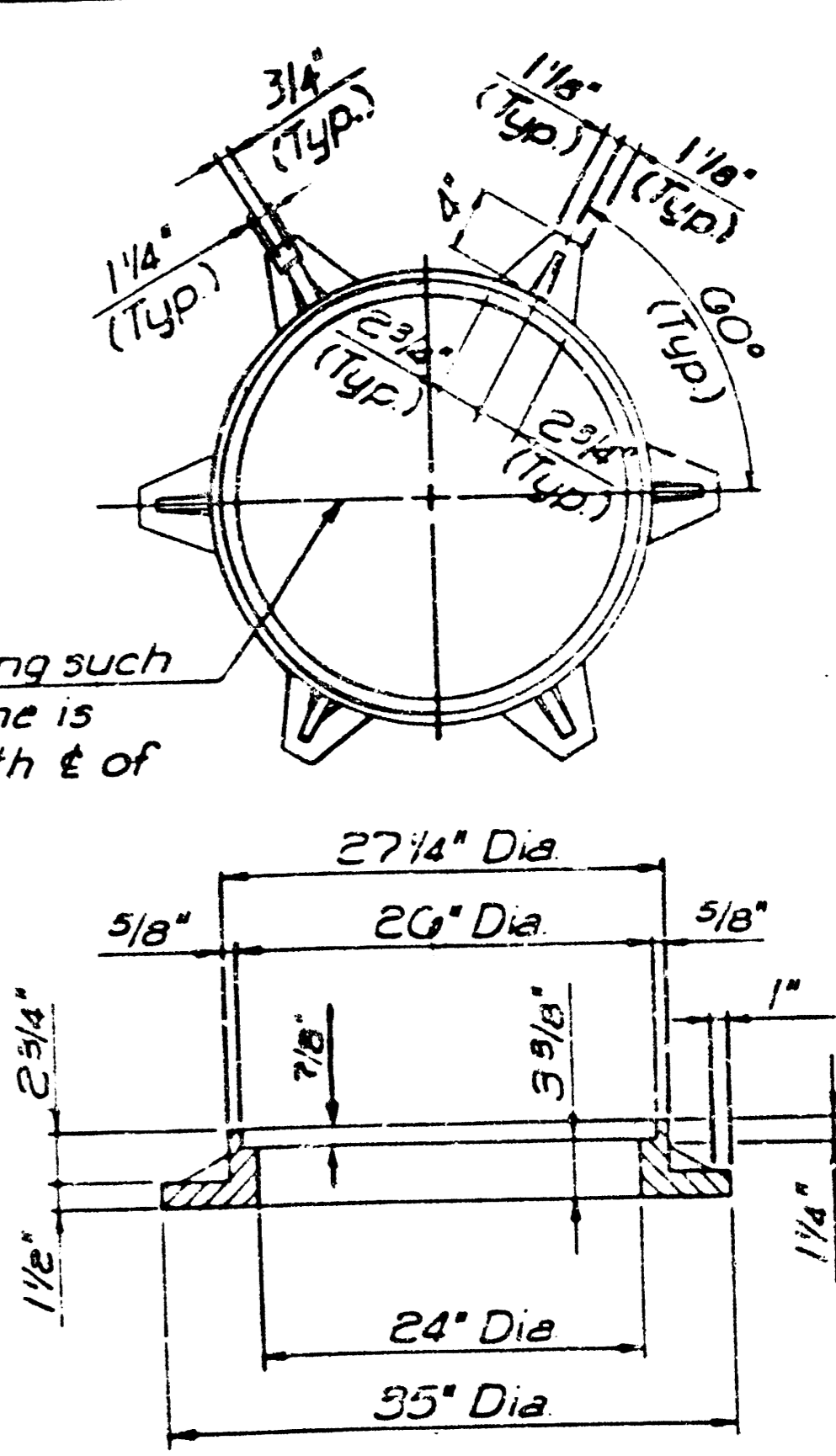
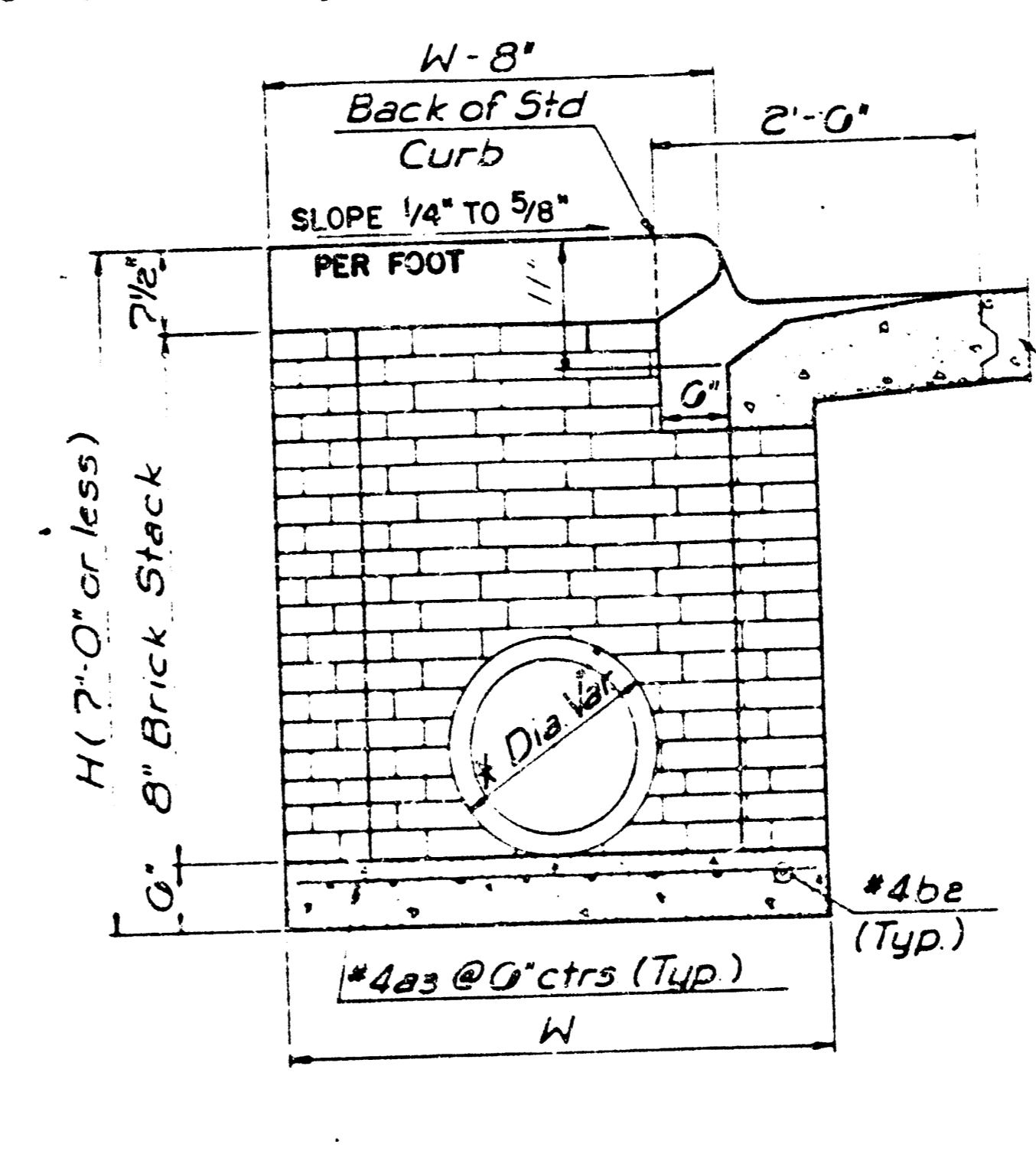
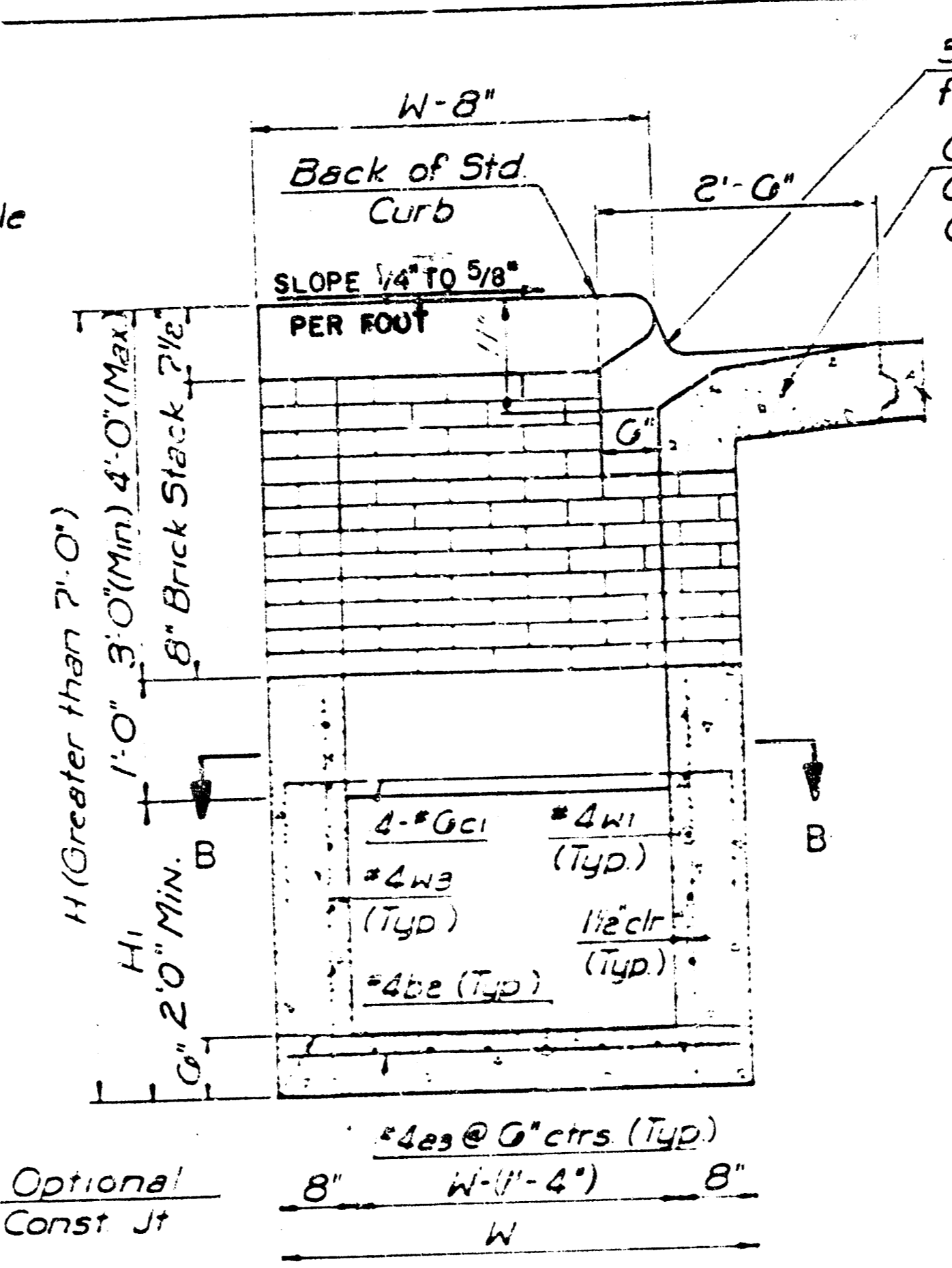
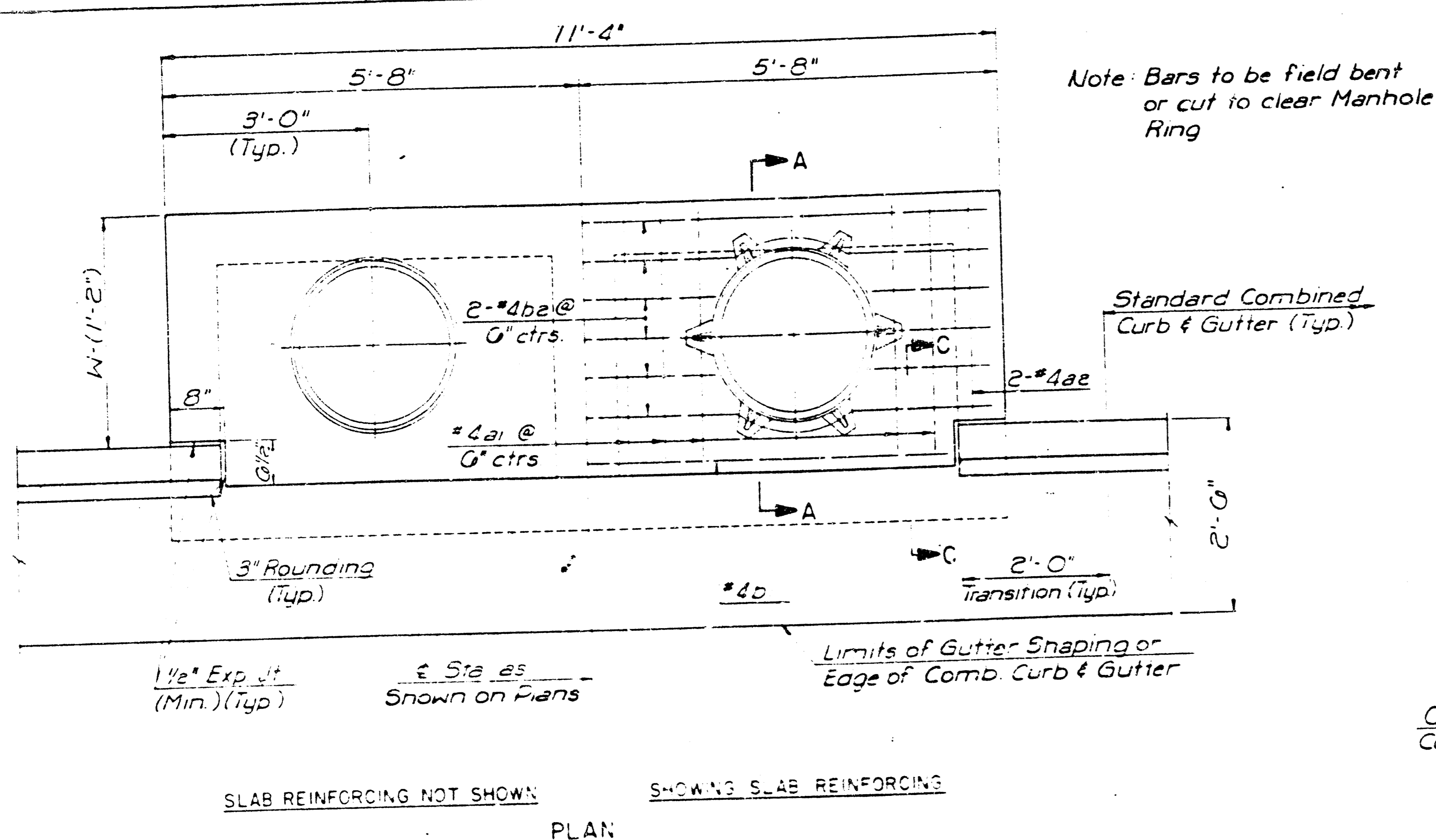
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

ADDITIONAL CURB AND/OR GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR "INLET HOOKUP".



CITY OF WICHITA, KANSAS  
 STORM WATER SEWER NO. 299  
**DETAIL STANDARD**  
**TYPE IA CURB INLET**  
 INLET OPENING - 6"x10'-0"  
 C.O.W. Proj. No. 489-76-245-81507-000-000-001  
**PROFESSIONAL ENGINEERING CONSULTANTS, P.A.**  
 ENGINEERS  
 WICHITA, KANSAS  
 9/15

Designed by \_\_\_\_\_ Checked by \_\_\_\_\_  
 Drawn by \_\_\_\_\_ Date April, 86 Job No. 86107



**GENERAL NOTES**

Concrete shall be C.O.W. Standard Paving Mix. All exposed edges shall be finished with an edging tool.

Reinforcing Bars shall be field bent or cut to clear pipes.

All bars are #4 bars at 6" Spacing and shall have a minimum clearance of 1 1/2" unless otherwise noted.

Floors of inlets shall be shaped with 5 Sack Sand Mix Concrete to increase drainage efficiency such that the inlet will be self cleaning between all inlet and/or outfall pipe(s).

The Contractor will be required to construct 8" Brick Masonry Walls between the concrete inlet base and top on this inlet when H=7'-0" or less and W=8'-4" or less.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

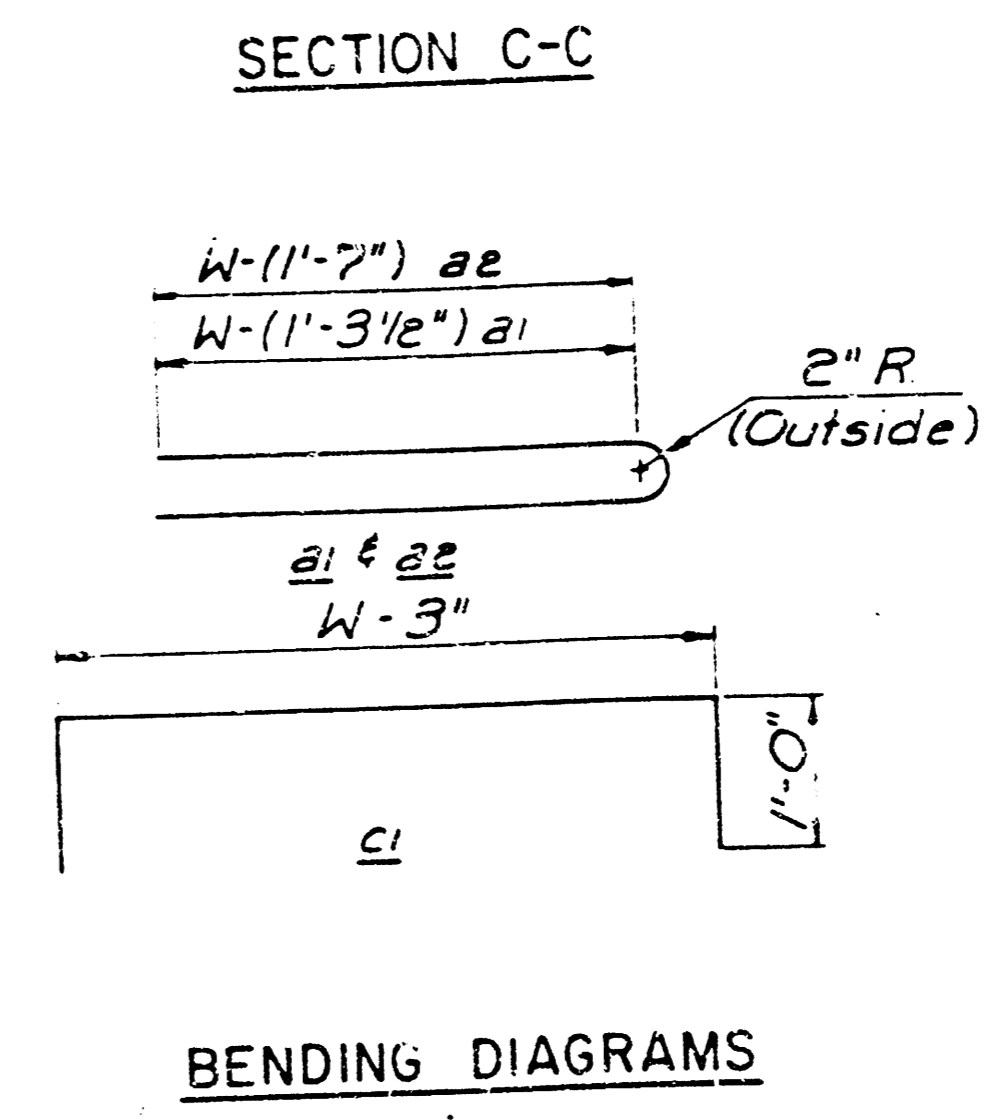
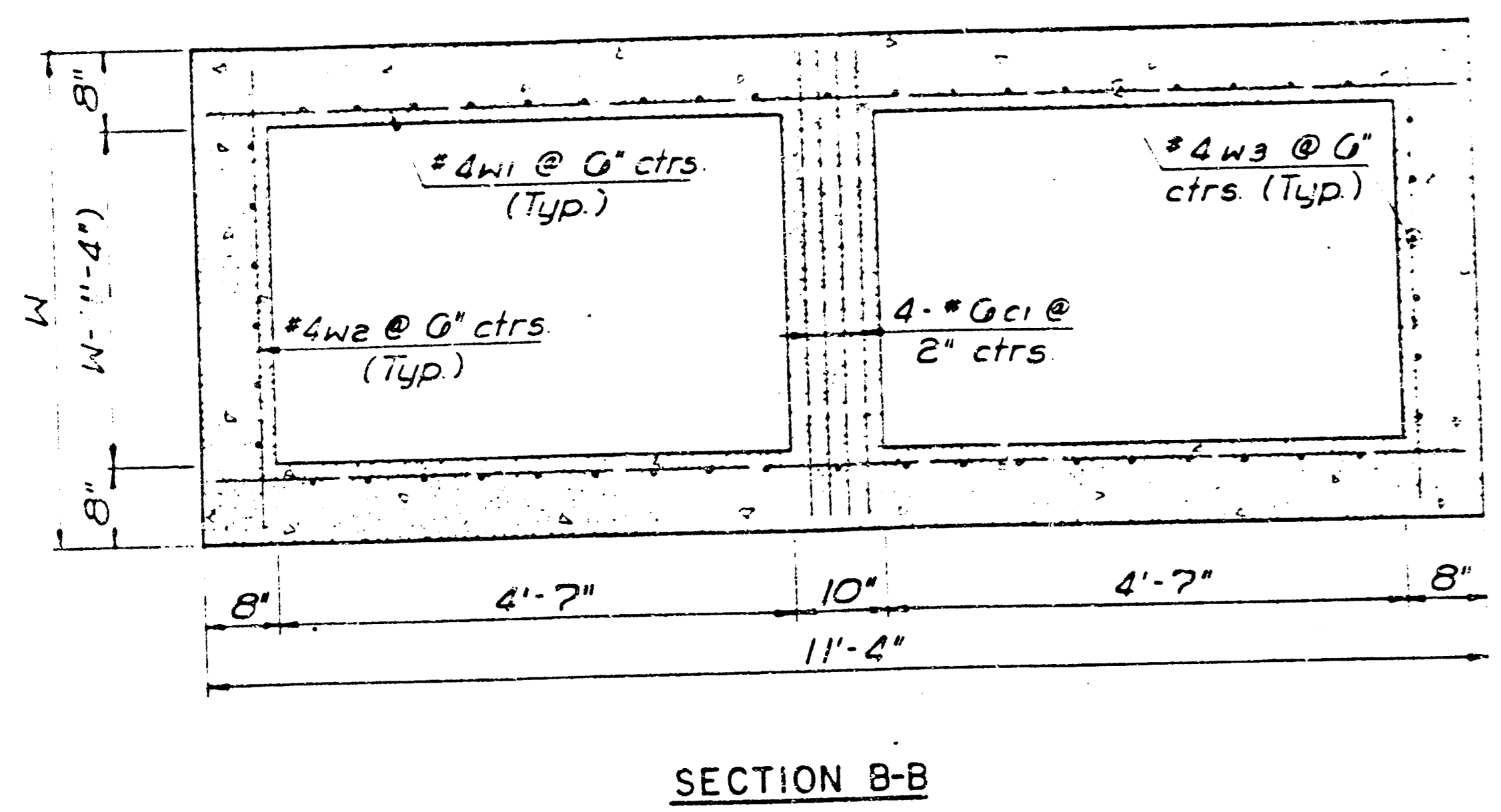
| SLAB AND FLOOR REINFORCING |      |         |           |         |           |         |            |         |            |         |            |
|----------------------------|------|---------|-----------|---------|-----------|---------|------------|---------|------------|---------|------------|
| Mark                       | Size | W=4'-4" |           | W=5'-4" |           | W=6'-4" |            | W=7'-4" |            | W=8'-4" |            |
|                            |      | No      | Length    | No      | Length    | No      | Length     | No      | Length     | No      | Length     |
| a1                         | #4   | 13      | 6'-7 1/4" | 13      | 8'-7 1/4" | 13      | 10'-7 1/4" | 13      | 12'-7 1/4" | 13      | 14'-7 1/4" |
| a2                         | #4   | 2       | 6'-0"     | 2       | 8'-0"     | 2       | 10'-0"     | 2       | 12'-0"     | 2       | 14'-0"     |
| a3                         | #4   | 20      | 4'-1"     | 20      | 5'-1"     | 20      | 6'-1"      | 20      | 7'-1"      | 20      | 8'-1"      |
| b1                         | #4   | 1       | 9'-8"     | 1       | 9'-8"     | 1       | 9'-8"      | 1       | 9'-8"      | 1       | 9'-8"      |
| b2                         | #4   | 18      | 11'-1"    | 24      | 11'-1"    | 30      | 11'-1"     | 36      | 11'-1"     | 42      | 11'-1"     |

| WALL REINFORCING |      |         |        |         |        |         |        |         |        |         |        |
|------------------|------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Mark             | Size | W=4'-4" |        | W=5'-4" |        | W=6'-4" |        | W=7'-4" |        | W=8'-4" |        |
|                  |      | No      | Length | No      | Length | No      | Length | No      | Length | No      | Length |
| c1               | #4   | 4       | 6'-1"  | 4       | 7'-1"  | 4       | 8'-1"  | 4       | 9'-1"  | 4       | 10'-1" |
| w1               | #4   | 1       | 11'-1" | 1       | 11'-1" | 1       | 11'-1" | 1       | 11'-1" | 1       | 11'-1" |
| w2               | #4   | 1       | 4'-1"  | 1       | 5'-1"  | 1       | 6'-1"  | 1       | 7'-1"  | 1       | 8'-1"  |
| w3               | #4   | 2       | 3      | 2       | 3      | 2       | 3      | 2       | 3      | 2       | 3      |

\* Field bend or cut Reinforcing as required for clearance

① 4 (H1-G') ② 40+4 (W-1) ③ H1-(10")



REVISED 12-21-1984

**DETAIL STANDARD TYPE I CURB INLET**

INLET OPENING = 6" x 10'-0"

CITY OF WICHITA

M. E. LINDEBAK, CITY ENGINEER

OCTOBER 1984

| PROJECT NO.                  | SHEET NO. | TOTAL SHEETS |
|------------------------------|-----------|--------------|
| 468-76-245-81507-000-000-001 | 11        | 15           |

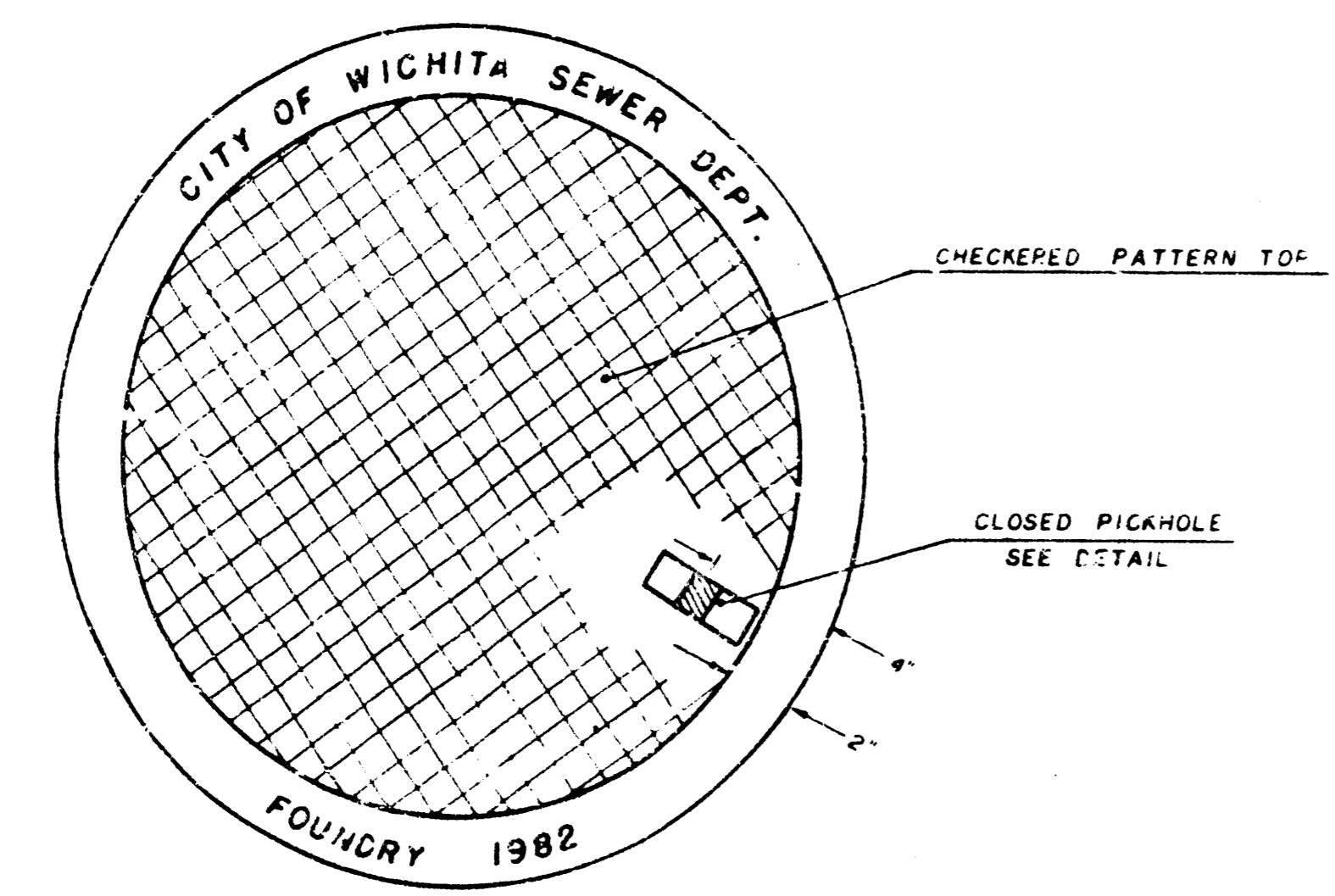
# MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN

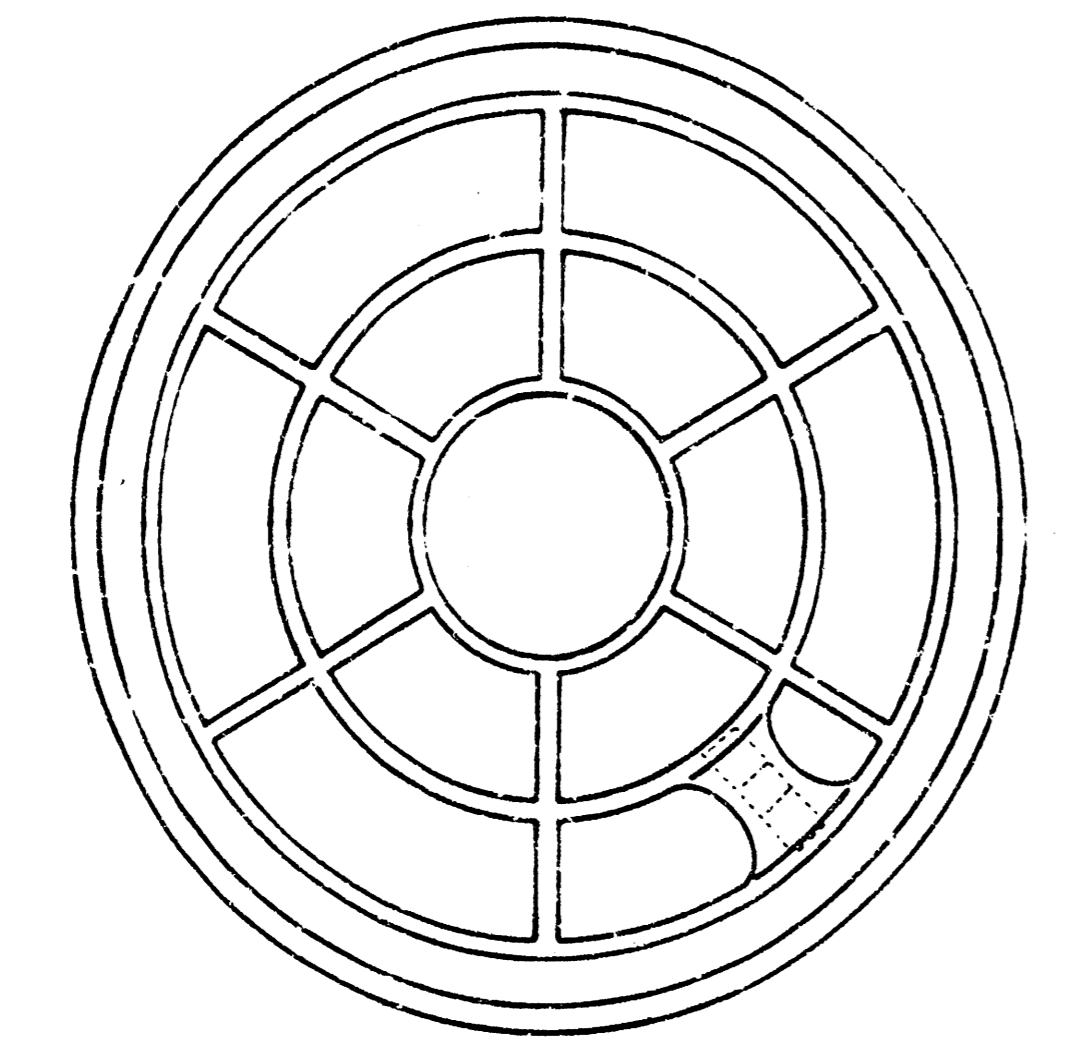
BY

City of Wichita, Kansas

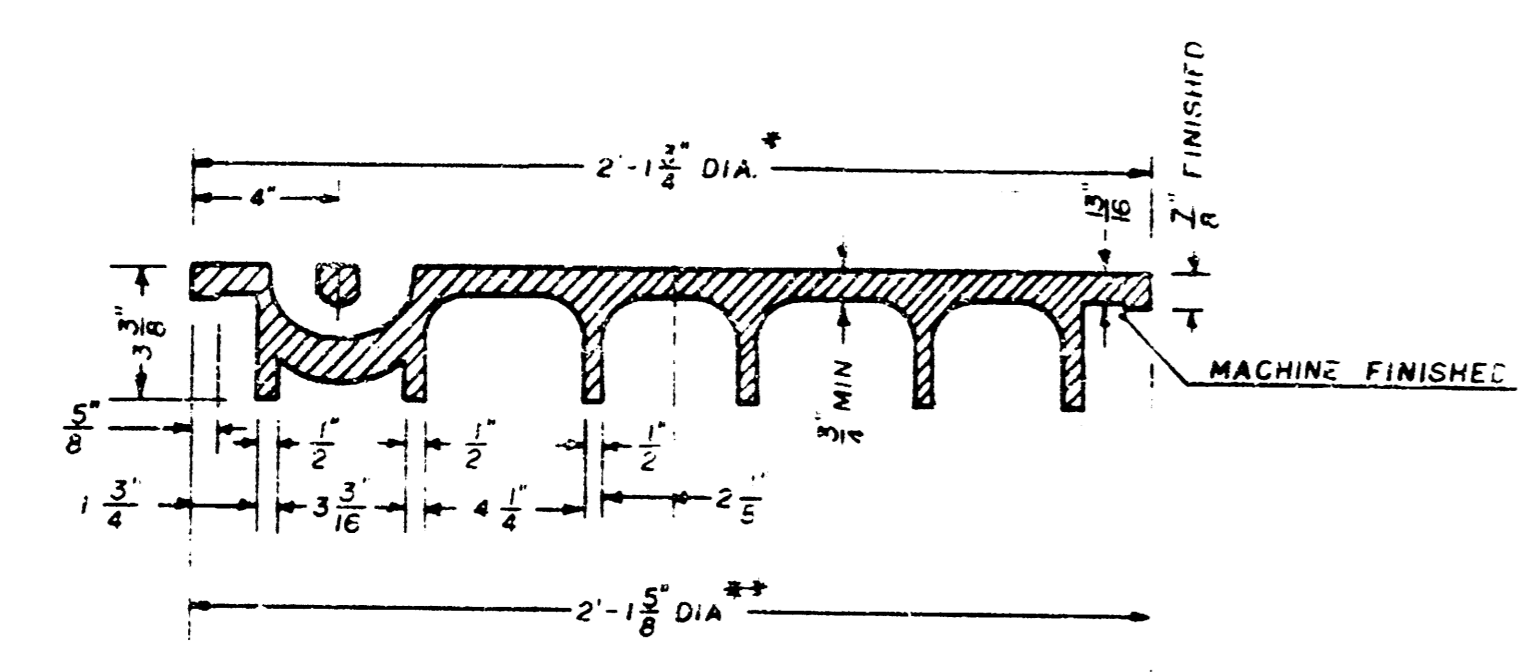
**MANHOLE COVER**  
Weight: 180 Lbs.



TOP VIEW



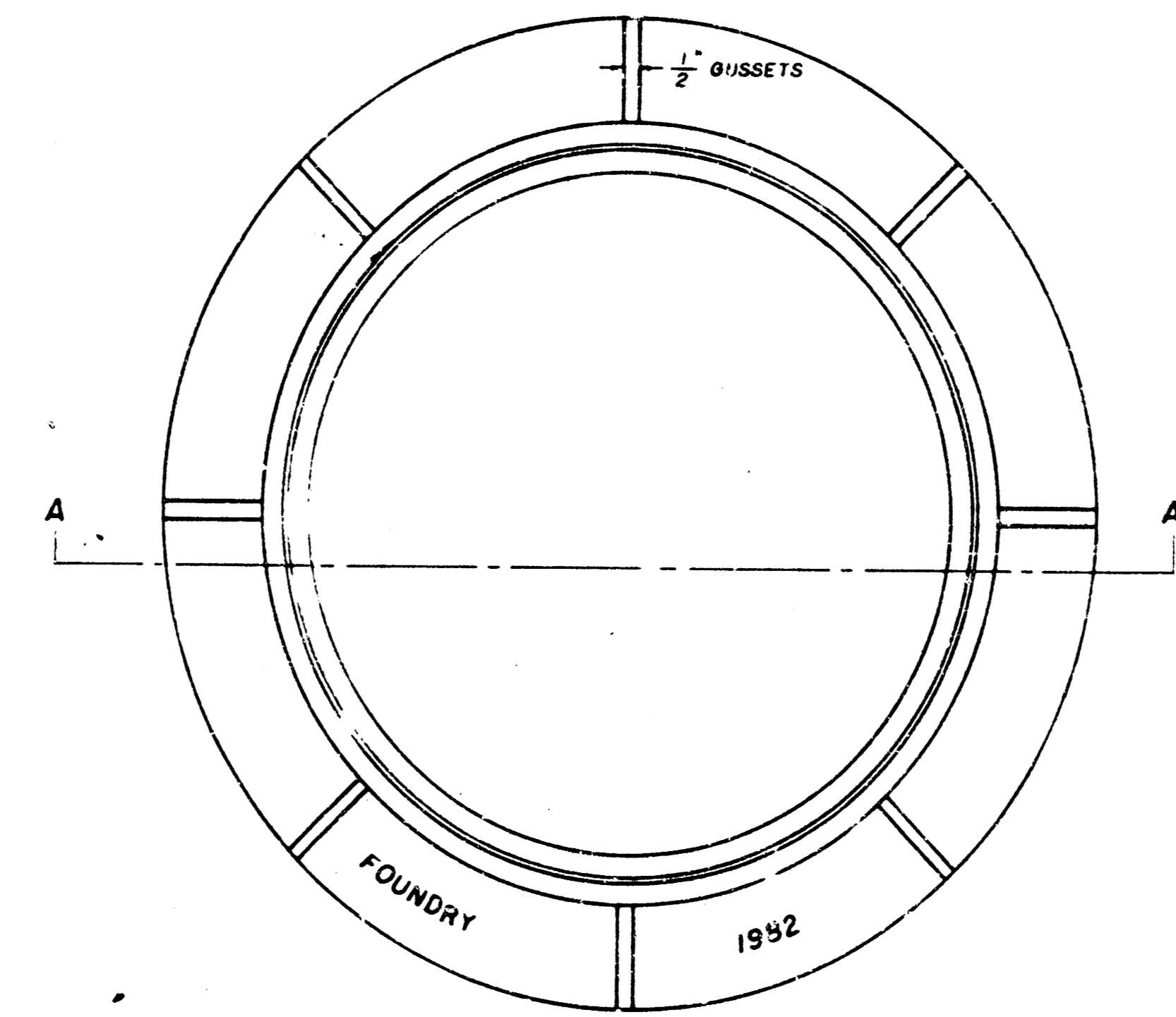
BOTTOM VIEW



SECTION VIEW

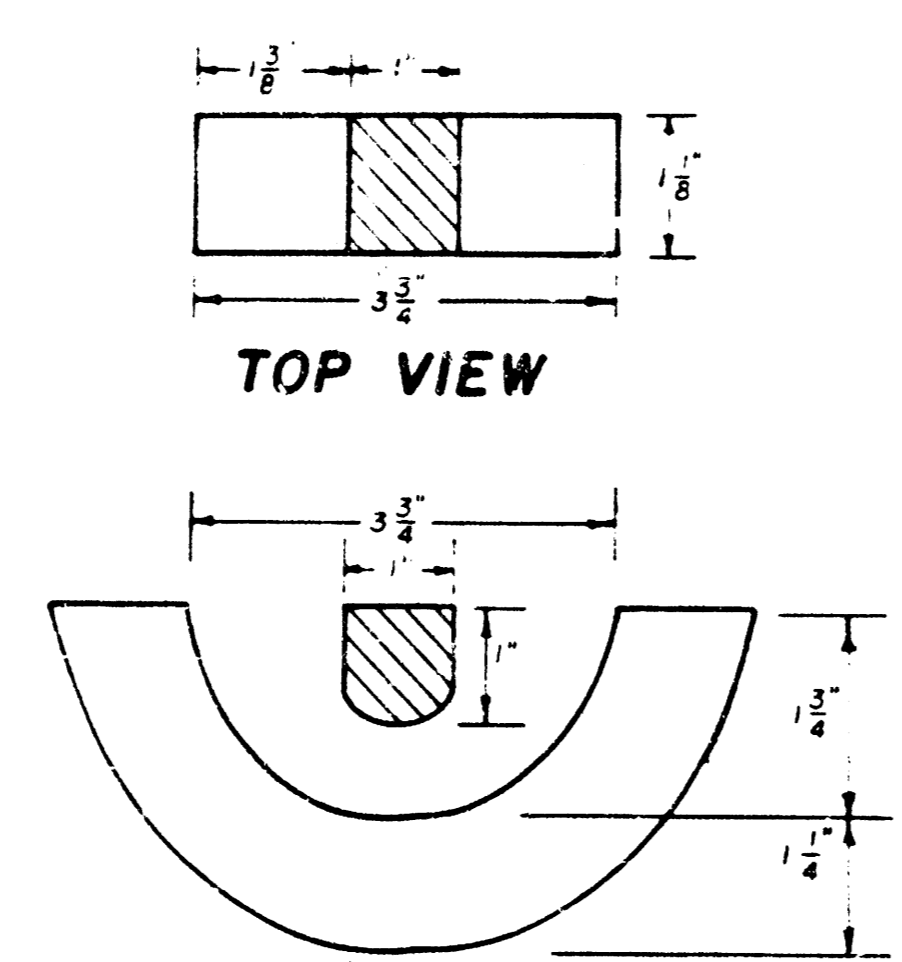
\* OUTSIDE DIA TOP OF COVER  
\*\* OUTSIDE DIA BOTTOM OF COVER

**MANHOLE FRAME**  
Weight: 240 Lbs.

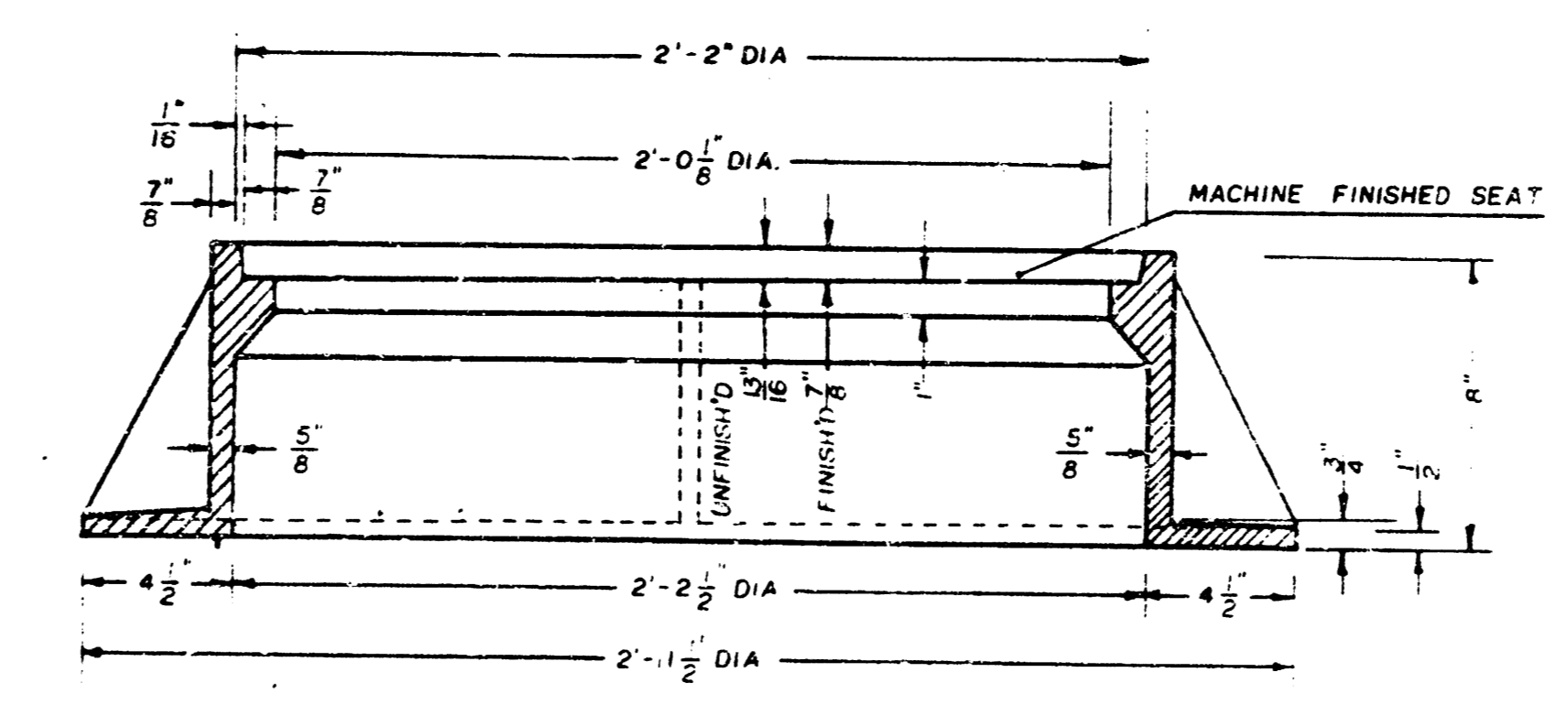


TOP VIEW

**PICKHOLE DETAIL**



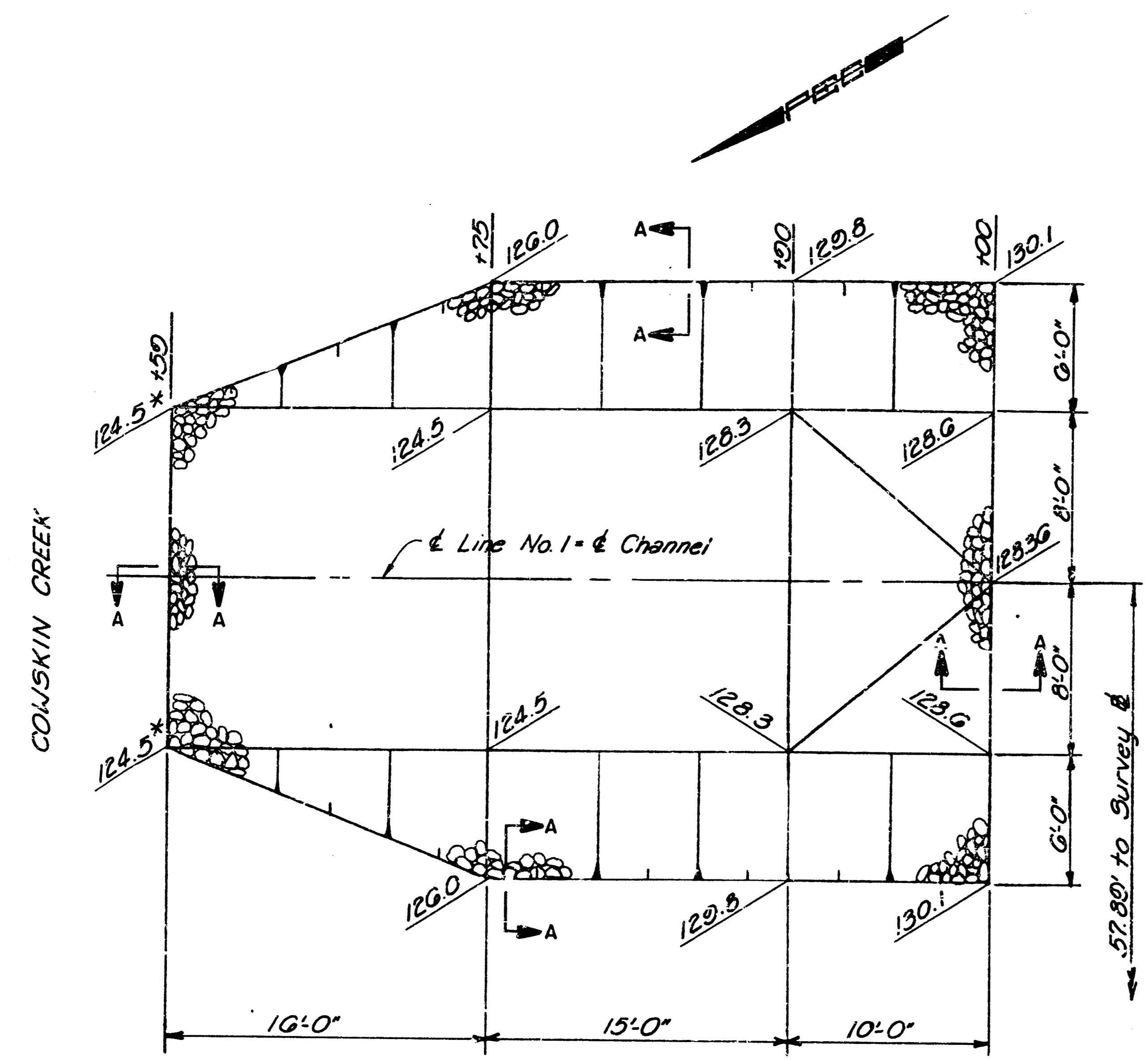
SECTION VIEW



SECTION A-A

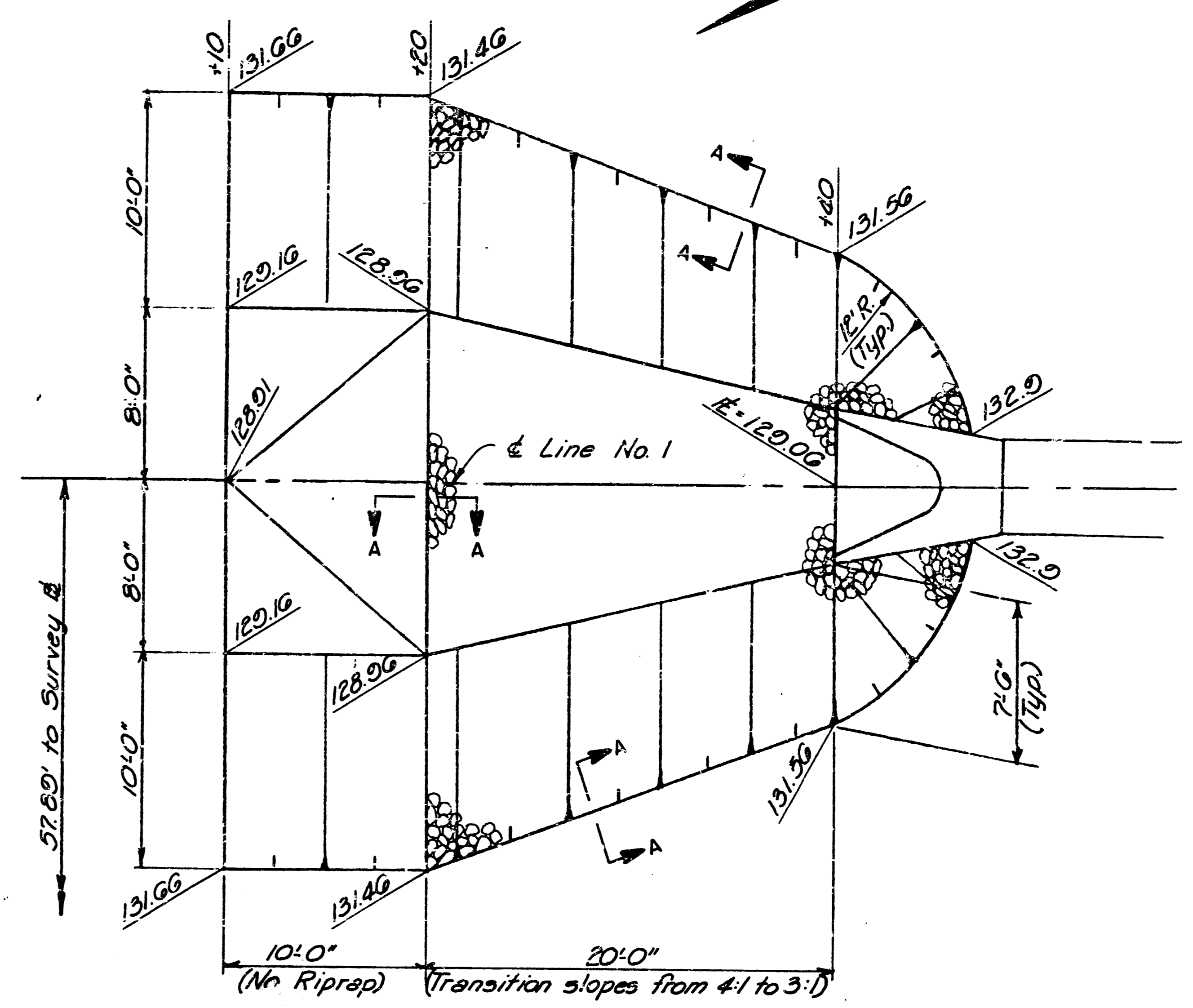
**GENERAL NOTES**

- MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.
- MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.
- MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.
- THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
- THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

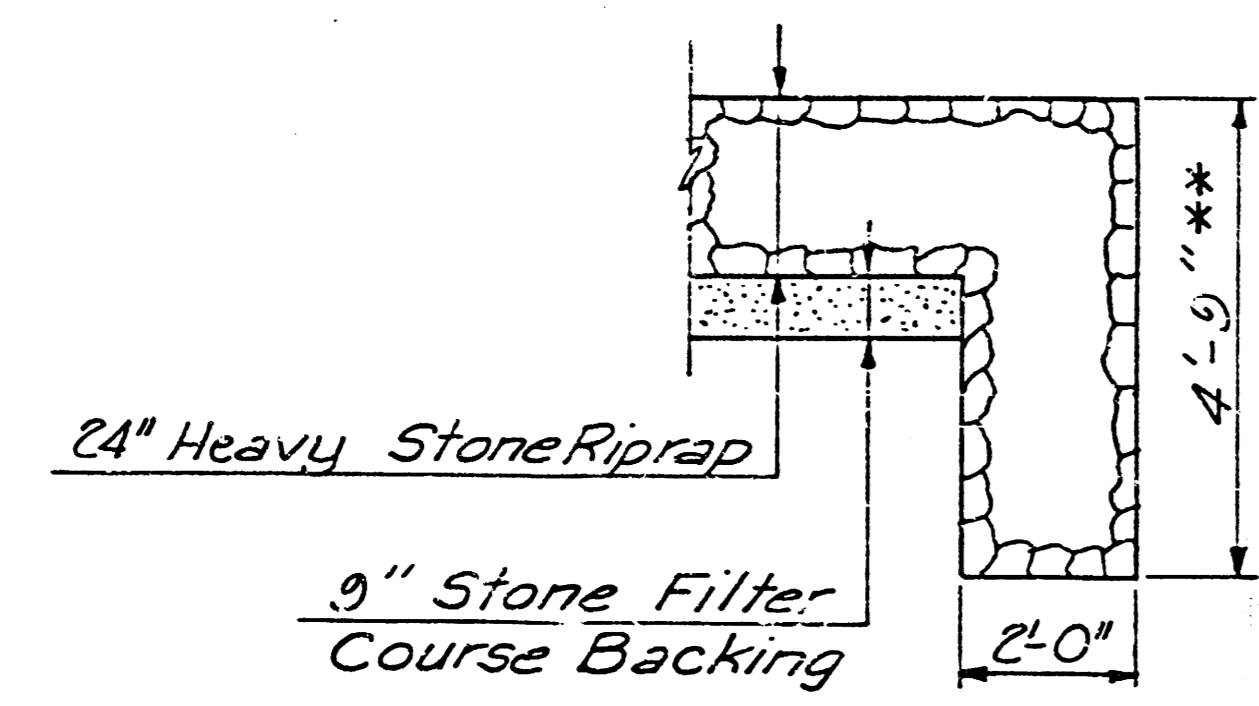


\*Match Exist. Elevations

STA. 6+59 TO STA. 7+00 LINE NO. 1

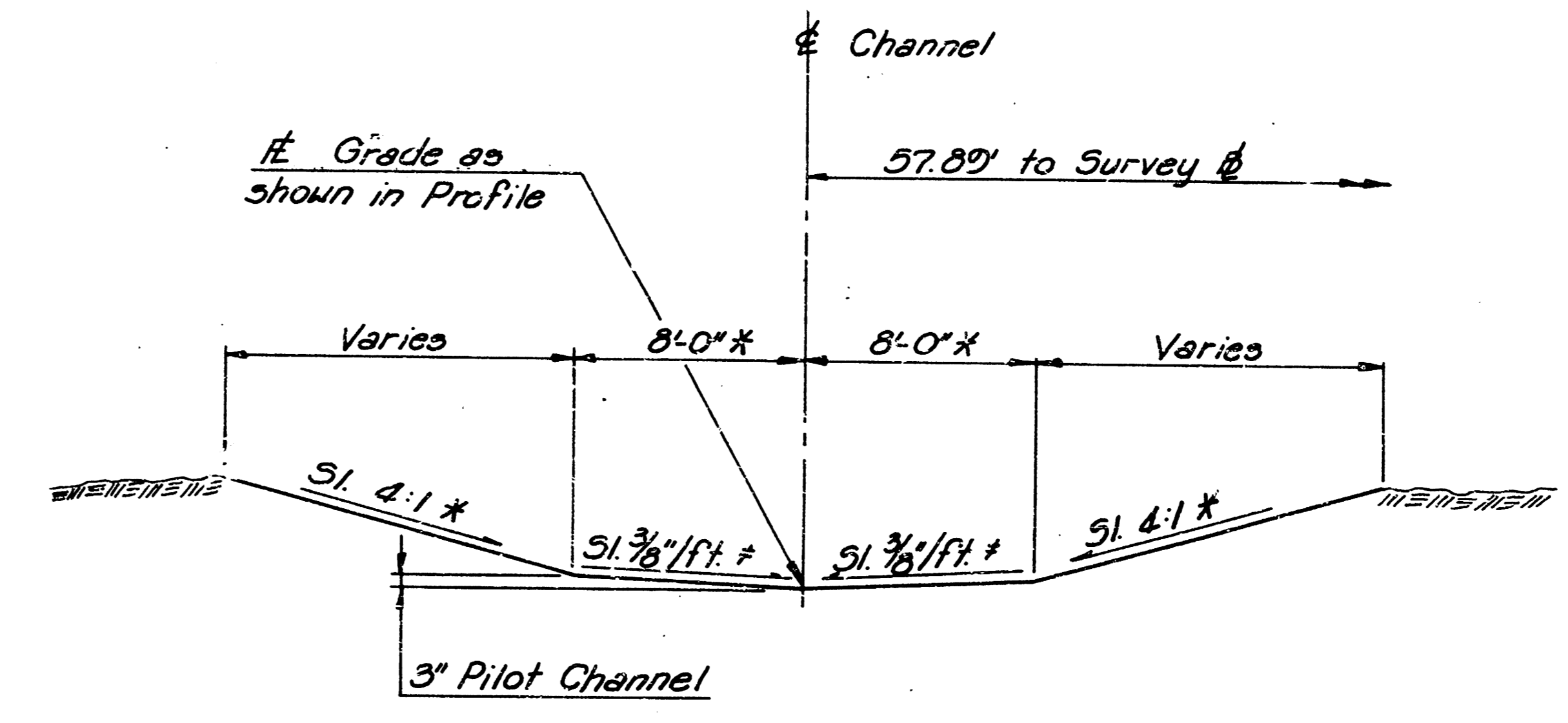


STA. 8+20 TO STA. 8+47 LINE NO. 1



SECTION A-A  
(TYPICAL)

\*\* No additional payment will be made for additional thickness for toe walls.



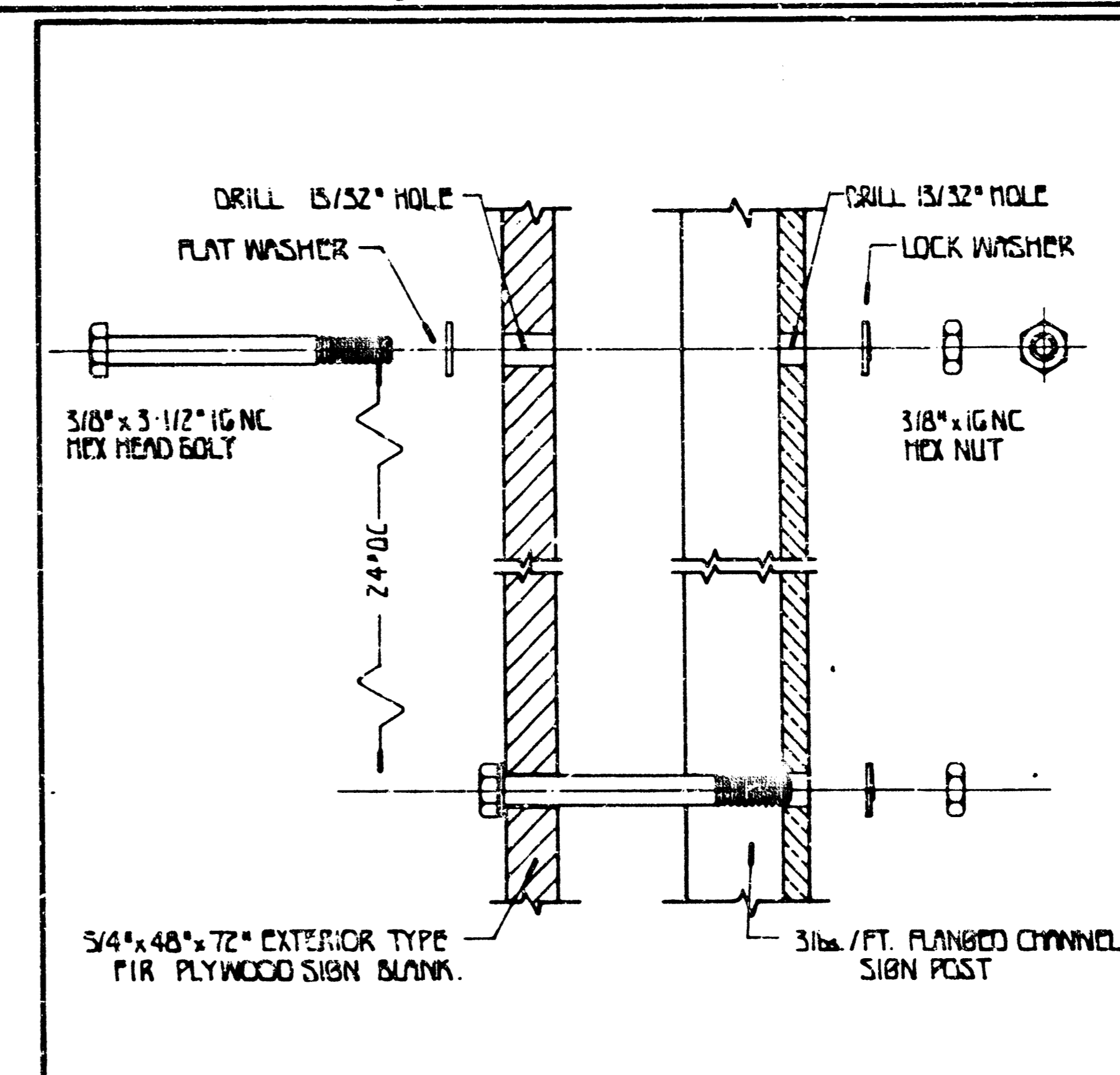
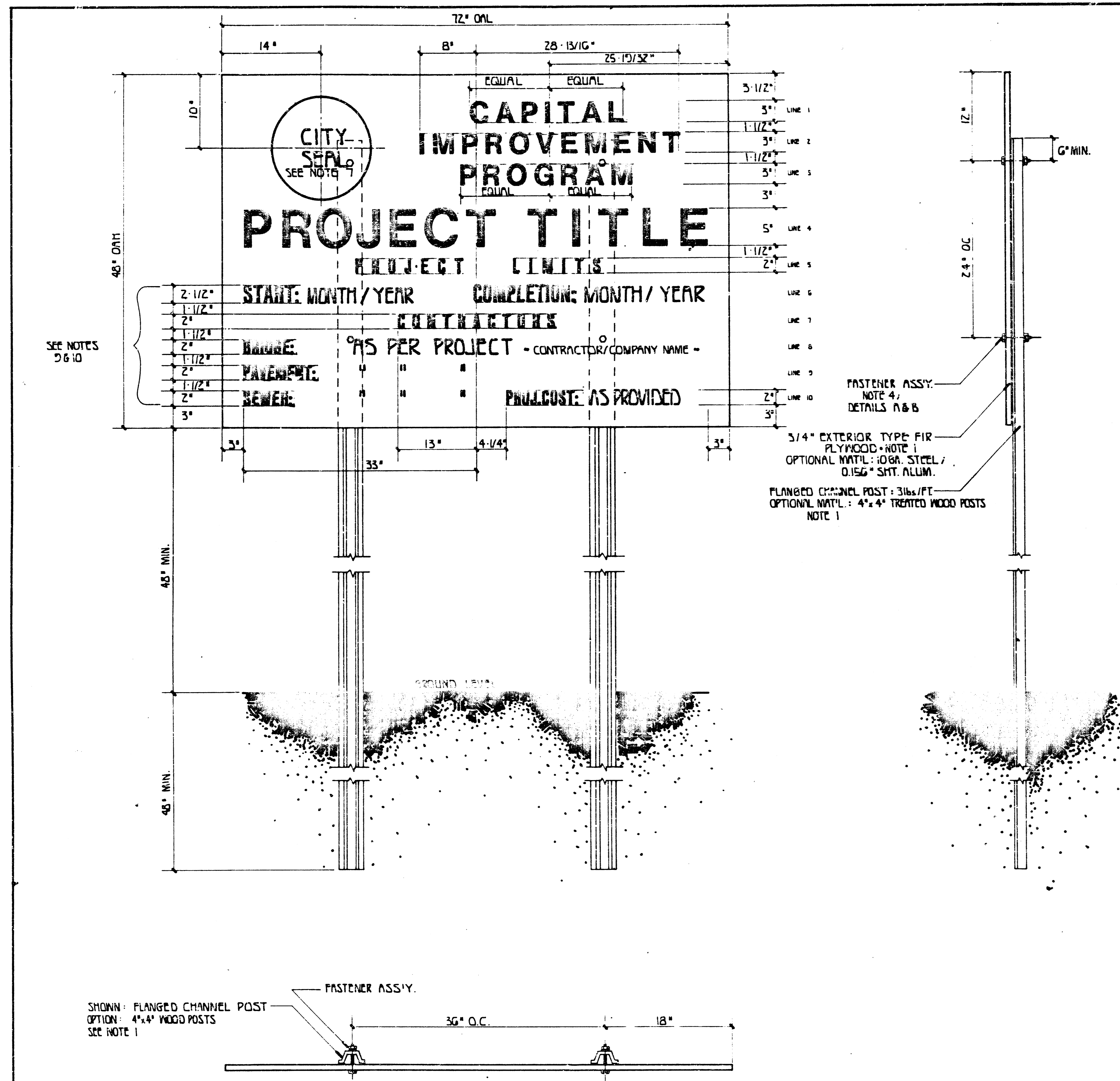
TYPICAL SECTION  
STA. 6+59 TO STA. 8+40 LINE NO. 1

\*Varies thru transition section  
Sta. 8+20 to Sta. 8+40.

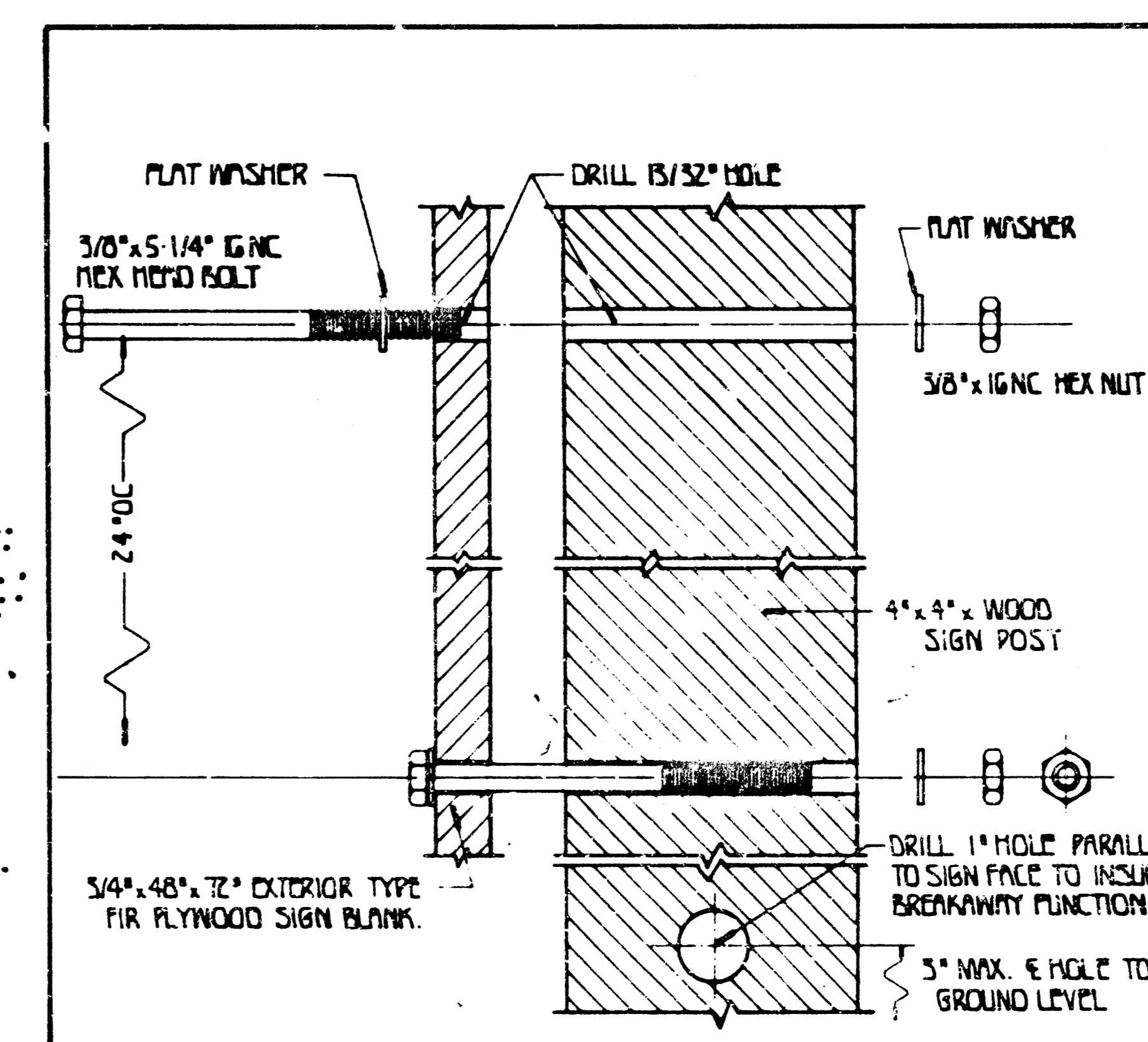
\* Level Sta. 6+59 to Sta. 6+90 &  
Sta. 8+20 to Sta. 8+40.  
Varies Sta. 6+90 to Sta. 7+00 &  
Sta. 8+10 to Sta. 8+20.

CHANNEL AND  
RIPRAP DETAILS

|  |                      |               |
|--|----------------------|---------------|
| PROFESSIONAL ENGINEERING CONSULTANTS, P.A. |                      |               |
| ENGINEERS<br>WICHITA, KANSAS               |                      |               |
| Designed by<br>M.W.B.                      | Checked by<br>V.J.K. | 12/15         |
| Drawn by<br>V.J.K.                         | Date<br>April, 1986  | Job No. 86107 |



DETAIL A: PLYWOOD / FLANGED CHANNEL POSTS



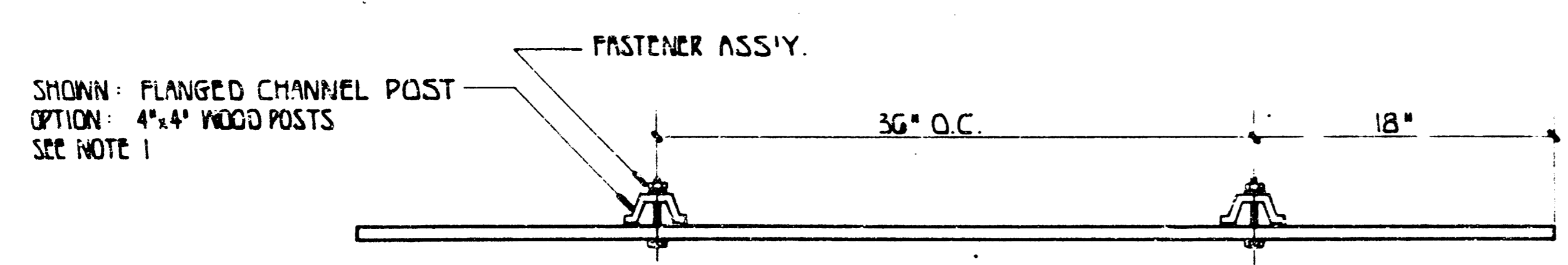
DETAIL B: PLYWOOD / 4x4 WOOD POSTS

|                          |           |              |
|--------------------------|-----------|--------------|
| PROJECT NO.              | SHEET NO. | TOTAL SHEETS |
| 468-76-245-01507-000-001 | 13        | 15           |

- MATERIALS:** THE SIGN SHALL BE MANUFACTURED FROM BACKING MATERIALS COMPOSED OF (1.) METAL - 10GA. STEEL OR 0.156" THK. FLAT SHEET ALUMINUM; (2.) 3/4" EXTERIOR TYPE FIR PLYWOOD.  
THE SIGN POSTS SHALL BE (1.) FLANGED CHANNEL POSTS - 3 1/2" PER FOOT OR; (2.) 4"x4" COMMERCIAL GRADE, TREATED WOOD SIGN POSTS.
- COLOR:** THE FRONT, BACK, AND ALL EDGES OF THE SIGN SHALL BE PAINTED ONE COAT OF WHITE PRIMER TO BE FOLLOWED BY TWO COATS OF SEMI-GLOSS WHITE ENAMEL. ALL ENAMEL PRINTS SHALL BE OPACQUE AND OF EXTERIOR QUALITY.  
WHITE: SIGN BLANK; BLACK: LEGEND
- LEGEND AND INTERLINE SPACING:** ALL LEGEND SHALL BE SERIES "C" ALPHABET AS IS SPECIFIED IN THE STANDARD ALPHABETS FOR HIGHWAY SIGN PUBLICATION. INTERLINE SPACING SHALL BE AS SPECIFIED ON THE LAYOUT WITH EXCEPTION OF LINES 4 & 5. USE APPROPRIATE LETTER SERIES TO CENTER VARIABLE LENGTH PROJECT TITLE AND PROJECT LIMITS DESCRIPTION ON LINES 4 & 5 RESPECTIVELY. LEGEND SHALL BE BLACK ENAMEL.
- HARDWARE:** ALL BOLTS, NUTS, AND WASHERS SHALL BE ELECTROPLATED WITH ZINC OR CADMIUM. SEE DETAIL A AND B.
- LOCATION OF SIGNS:** SIGNS SHALL BE CREATED WITHIN THE STREET RIGHT OF WAY AT LOCATIONS AS DESIGNATED ON THIS SHEET OR, AS DIRECTED BY THE FIELD ENGINEER. THE SIGN SHALL FACE APPROACHING TRAFFIC AND BE LOCATED SO AS NOT TO OBSCURE OR DISTURB FROM THE EFFECTIVENESS OF OTHER OFFICIAL STREET SIGNING AND MARKERS OR OBSTRUCT THE VISION OF MOTORISTS. SIGNS SHALL BE CREATED IN ADVANCE OF ISSUING WORK ORDER.
- THE CONTRACTOR SHALL SUPPLY ALL SIGN CONSTRUCTION MATERIALS AND SHALL BE RESPONSIBLE FOR ITS FABRICATION, INSTALLATION, MAINTENANCE, AND REMOVAL.
- THE 14" DIA. CITY SEAL MAY BE PURCHASED FROM THE DEPARTMENT OF ENGINEERING, CITY OF WICHITA.
- PRIOR TO SIGN FABRICATION, THE CONTRACTOR SHALL CONTACT THE CHIEF ENGINEER, DEPT. OF ENG., TO OBTAIN THE REQUIRED INFORMATION FOR SIGN LEGEND.
- ONLY THE TYPE(S) OF WORK CONTRACTED WILL APPEAR ON INDIVIDUAL PROJECT SIGNS. ALL OTHER TYPES OF CONSTRUCTION NOTED ON LAYOUT WILL BE OMITTED. THE CONSTRUCTION CONTRACTED WILL BE POSITIONED ON LINE 3 VERTICALLY, AND HORIZONTALLY AS DIMENSIONED ON LAYOUT.  
  
EXAMPLE: IF THE PROJECT IS FOR PAVING ONLY, THE WORD = PAVEMENT = AND CONTRACTOR'S NAME ARE ALL THAT ARE PRINTED AS DESCRIBED ABOVE. THE WORDS = BRIDGE = AND = SEWER = ARE OMITTED FROM THE SIGN.  
  
WHERE TWO TYPES OF WORK ARE CONTRACTED, THEY SHALL BE POSITIONED ON LINES 4 & 5 VERTICALLY, AND AS DIMENSIONED ON LAYOUT HORIZONTALLY.  
= PROJ. COST = AND DOLLAR AMOUNT WILL BE POSITIONED AS SHOWN ON LAYOUT.

SEE NOTES 2 & 10

PASTER ASSY. NOTE 4; DETAILS A & B  
3/4" EXTERIOR TYPE FIR PLYWOOD + NOTE 1  
OPTIONAL MAT'L: 10GA. STEEL / 0.156" SMT. ALUM.  
FLANGED CHANNEL POST: 3 1/2"/FT.  
OPTIONAL MAT'L: 4"x4" TREATED WOOD POSTS  
NOTE 1



Note #1 750' East of G 119th St.  
Note #2 700' East of G Meize Road

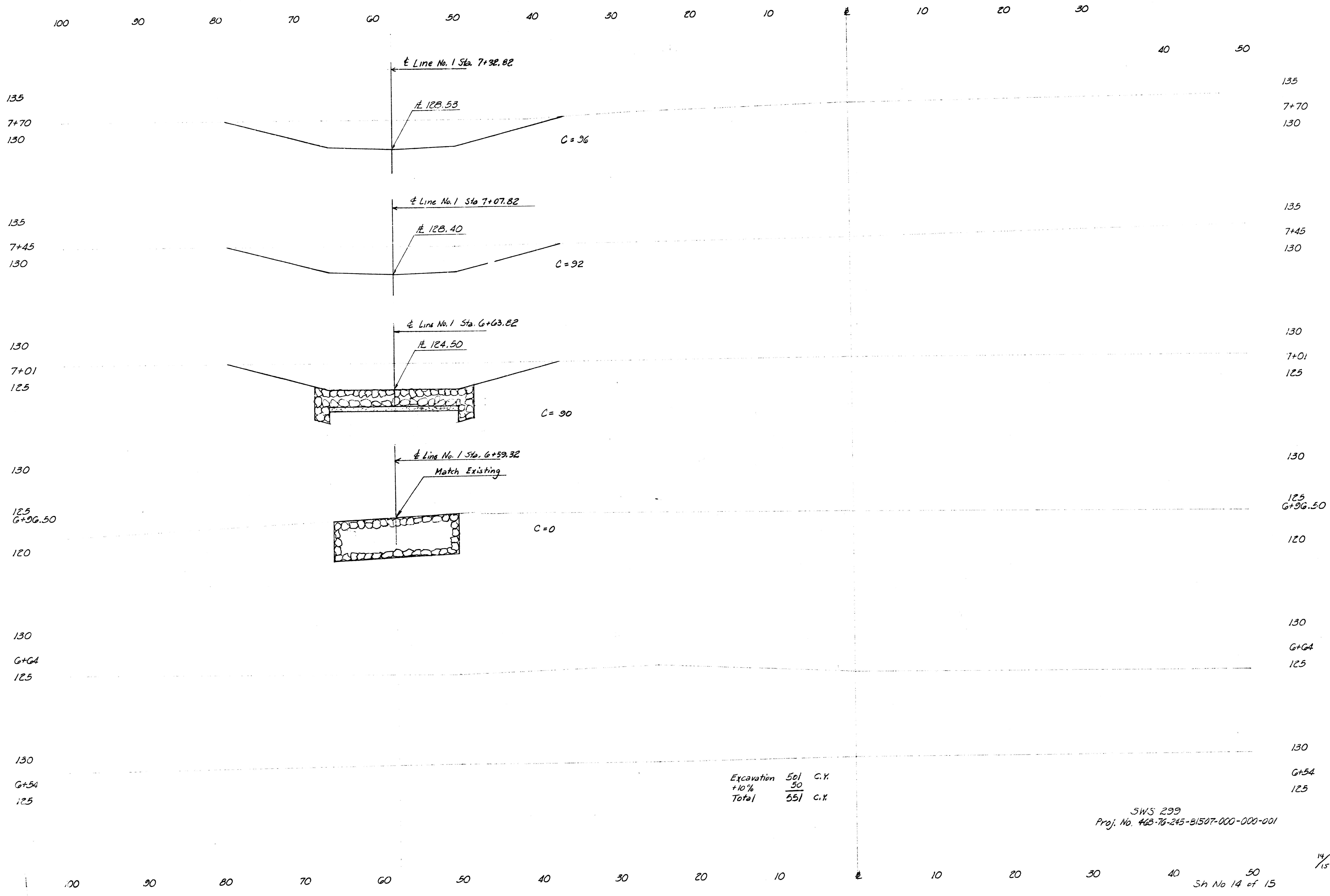
LINE 4: CENTER AND ADJUST TO FIT (VARIABLE PROJECT TITLE) 5" UC  
LINE 5: (VARIABLE PROJECT LIMITS DESCRIPTION) 2" UC

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |   |   |   |           |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|---|---|-----------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| C | 1 | 5 | 6 | A | 1 | 5 | 6 | T | 1 | 5 | 6 | A | 1 | 5 | 6 | L | 1 | 5 | 6 | M | 1 | 5 | 6 | P | 1 | 5 | 6 | R | 1 | 5 | 6 | O | 1 | 5 | 6 | U | 1 | 5 | 6 | V | 1 | 5 | 6 | W | 1 | 5 | 6 | X | 1 | 5 | 6 | Y | 1 | 5 | 6     | Z | 1 | 5 | 6         | 3" UC |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| S | 5 | 6 | T | 1 | 5 | 6 | A | 1 | 5 | 6 | R | 1 | 5 | 6 | T | 1 | 5 | 6 | C | 1 | 5 | 6 | O | 1 | 5 | 6 | M | 1 | 5 | 6 | P | 1 | 5 | 6 | L | 1 | 5 | 6 | E | 1 | 5 | 6 | T | 1 | 5 | 6 | I | 1 | 5 | 6 | O | 1 | 5 | 6 | H     | 1 | 5 | 6 | 2 1/2" UC |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
| C | 1 | 5 | 6 | O | 1 | 5 | 6 | T | 1 | 5 | 6 | A | 1 | 5 | 6 | C | 1 | 5 | 6 | T | 1 | 5 | 6 | O | 1 | 5 | 6 | R | 1 | 5 | 6 | S | 1 | 5 | 6 | B | 1 | 5 | 6 | R | 1 | 5 | 6 | G | 1 | 5 | 6 | E | 1 | 5 | 6 | P | 1 | 5 | 6     | A | 1 | 5 | 6         | V     | 1 | 5 | 6 | W | 1 | 5 | 6 | X | 1 | 5 | 6 | Y | 1 | 5 | 6 | Z | 1 | 5 | 6 | 2" UC |
| S | 5 | 6 | E | 1 | 5 | 6 | W | 1 | 5 | 6 | E | 1 | 5 | 6 | R | 1 | 5 | 6 | P | 1 | 5 | 6 | R | 1 | 5 | 6 | O | 1 | 5 | 6 | J | 1 | 5 | 6 | I | 1 | 5 | 6 | C | 1 | 5 | 6 | O | 1 | 5 | 6 | S | 1 | 5 | 6 | T | 1 | 5 | 6 | 2" UC |   |   |   |           |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |

| RE / LT. OF CENTERLINE | STATION | LOCATION     |
|------------------------|---------|--------------|
| Rt                     | 568     | Central Ave. |
| Lt                     | 568     | Central Ave. |

DO NOT SCALE: FOR INFORMATION ONLY

|  |                                  |
|--|----------------------------------|
| PROJECT CONSTRUCTION SIGN LAYOUT DETAILS |                                  |
| CITY OF WICHITA, KANSAS                  |                                  |
| M. E. LINDEBAK<br>CITY ENGINEER          | DATE: 03/19/15<br>DRAWN BY: SPAT |
| NO SCALE                                 |                                  |



SWS 299  
 Proj. No. 463-76-245-B1507-000-000-001

