

PRIVATE STORM WATER SEWER PLANS FOR

# THE WARREN THEATER IN THE GATEWAY CENTER ADDITION

AN ADDITION TO THE CITY OF WICHITA  
SEDGWICK COUNTY, KANSAS

MICHAEL E. LINDEBAK, CITY ENGINEER

PRIVATE PROJECT NO. 1081-PPS  
INDEX NO. 607861

APPROVED AS NOTED  
BY CITY ENGINEER OF WICHITA

SANITARY SEWERS \_\_\_\_\_  
STORM SEWERS VRH 1/17/01  
DRIVEWAY APPROACHED \_\_\_\_\_  
WATER MAINS \_\_\_\_\_  
PAVING \_\_\_\_\_

## NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND ORDERED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE CONSIDERED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

## GENERAL NOTES

- THE TOPS OF INLETS AND MANHOLES AS NOTED ON THE PLANS MAY VARY SO AS TO MEET PROPOSED TOP OF CURB, ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL LOCATE INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS.
- ALL CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL 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 IN ACCORDANCE WITH STATE LAWS.
- TREES TO BE REMOVED ARE MARKED  $\times$ . ALL TREES WHICH IN THE OPINION OF THE FIELD ENGINEER CAN BE SAVED, SHALL BE SAVED.
- CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF CONSTRUCTION SCHEDULING.
- EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS COMPANIES AND IS EITHER FROM COMPANY UTILITY DRAWINGS OR COMPANY PROVIDED LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-FOUR (48) HOURS TO UTILITY COMPANIES TO STAYING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE CALL 682-2470  
OR 888-9470 (LOCAL WICHITA)

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF EMERGENCY:

CABLEVISION 263-2061  
K&E (GAS & ELECTRIC) 263-9622  
SOUTHWESTERN BELL TELEPHONE COMPANY 1-800-734-7590  
CITY OF WICHITA WATER & SEWER MAINS 262-6000  
COOPERATIVE REFINERY PIPELINE 1-800-982-4112

- RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND ORDERED BY A LICENSED PROFESSIONAL ENGINEER AS TO SUITABILITY, APPEARANCE, AND SITE LOCATION. LOCATIONS MUST BE APPROVED BY THE ENGINEER. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIALS NOT STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN SHOULD FOLLOW A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN AREAS OF THE UNLAWFUL STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURNED OR DISPOSED BEYOND APPROVED CONVEYANCE LIMITS WOULD REQUIRE ADDITIONAL ARCHITECTURAL NOTIFICATIONS UNLESS BURNED IN A FLOOD PLAIN APPROVED BURNER LOCATION.
- CONTRACTOR SHALL BE REQUIRED TO MAINTAIN ALL EXISTING AREAS OUTSIDE OF THE PROJECT SITE AND TO MAINTAIN ALL EXISTING AREAS OUTSIDE OF THE PROJECT SITE.

N 1694405.31  
E 1096368.77  
N 1694479.74  
E 1096368.77

N 1694405.31  
E 1096368.77

N 1694479.74  
E 1096368.77

N 1694415.73  
E 1096368.77

13TH STREET NORTH

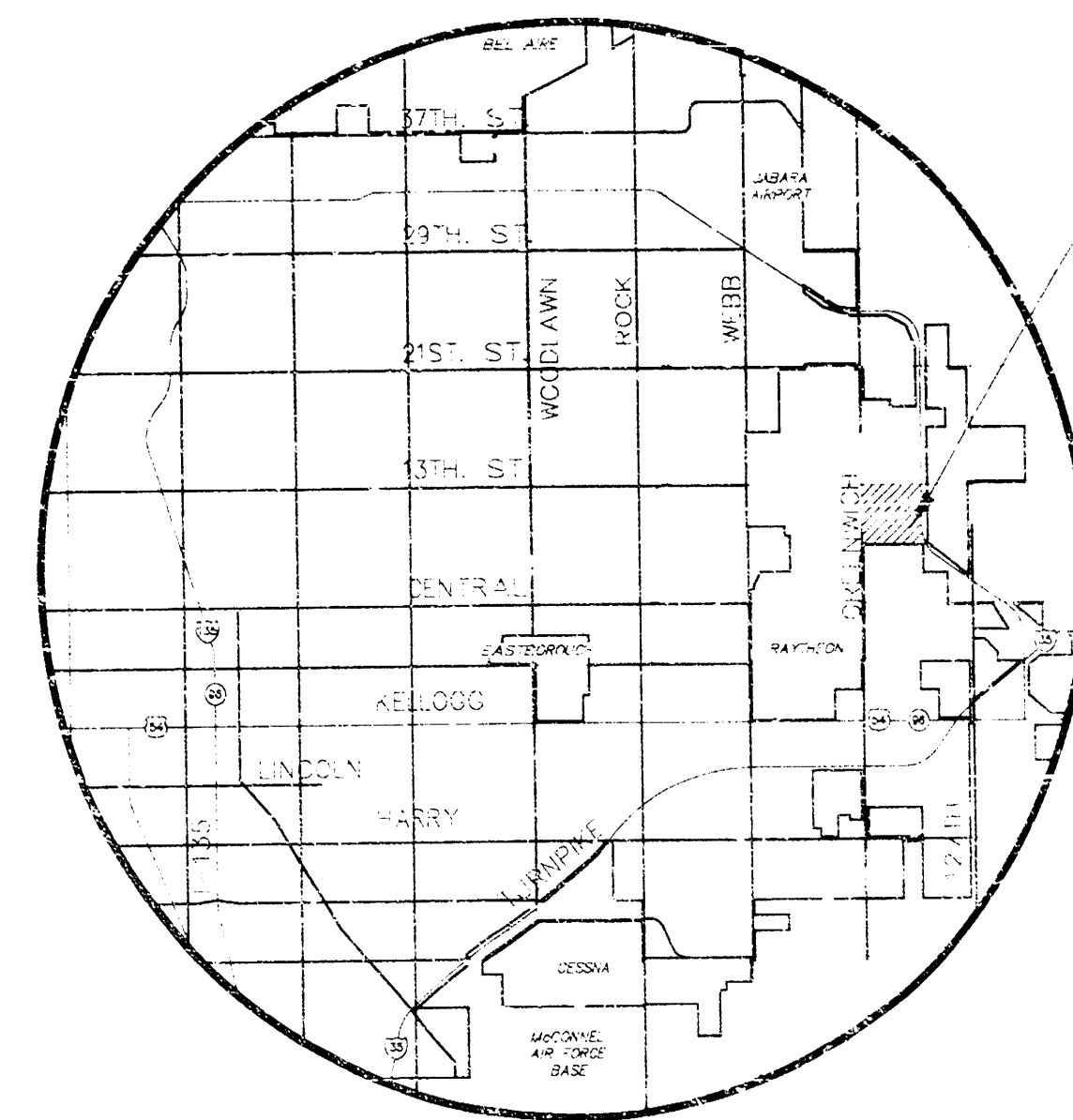
GREENWICH

GATEWAY CENTER ADDITION

KILLWOOD POND ADDITION

N 1694405.31  
E 1096368.77  
N 1694479.74  
E 1096368.77

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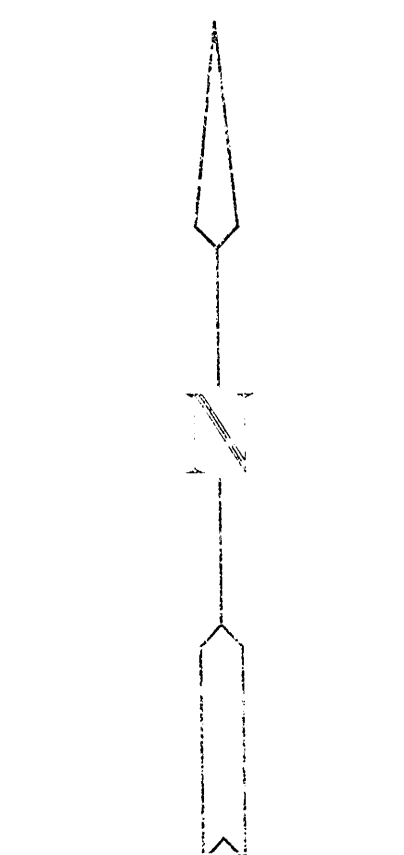
LOCATION MAP

## INDEX TO DRAWINGS

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| 4         | CURB INLET DETAILS |
| 5-7       | LINE 1             |
| 8         | LINE 2 & LINE 3    |
| 9         | FINAL PLAT         |

## BENCHMARK

BV#1 1 POST 878.63 NORTH 100 FT  
1420' W. 150' N. 150' E.  
ELEV. = 1589.80  
BV#2 1 BENCH MARK 0.00 100' N. 100' E.  
1420' W. 150' N. 150' E.  
ELEV. = 1589.80



ENGINEERING CONSULTANTS  
411 N. WEBB ROAD  
WICHITA, KS 67206  
316-684-9600

THE WARREN THEATER  
PROJECT NAME

KEY MAP  
SHEET TITLE

GJA

DESIGN BY

JANUARY 2001

DATE

GJR

DRAWN BY

00157\_DT

DRAWING NAME

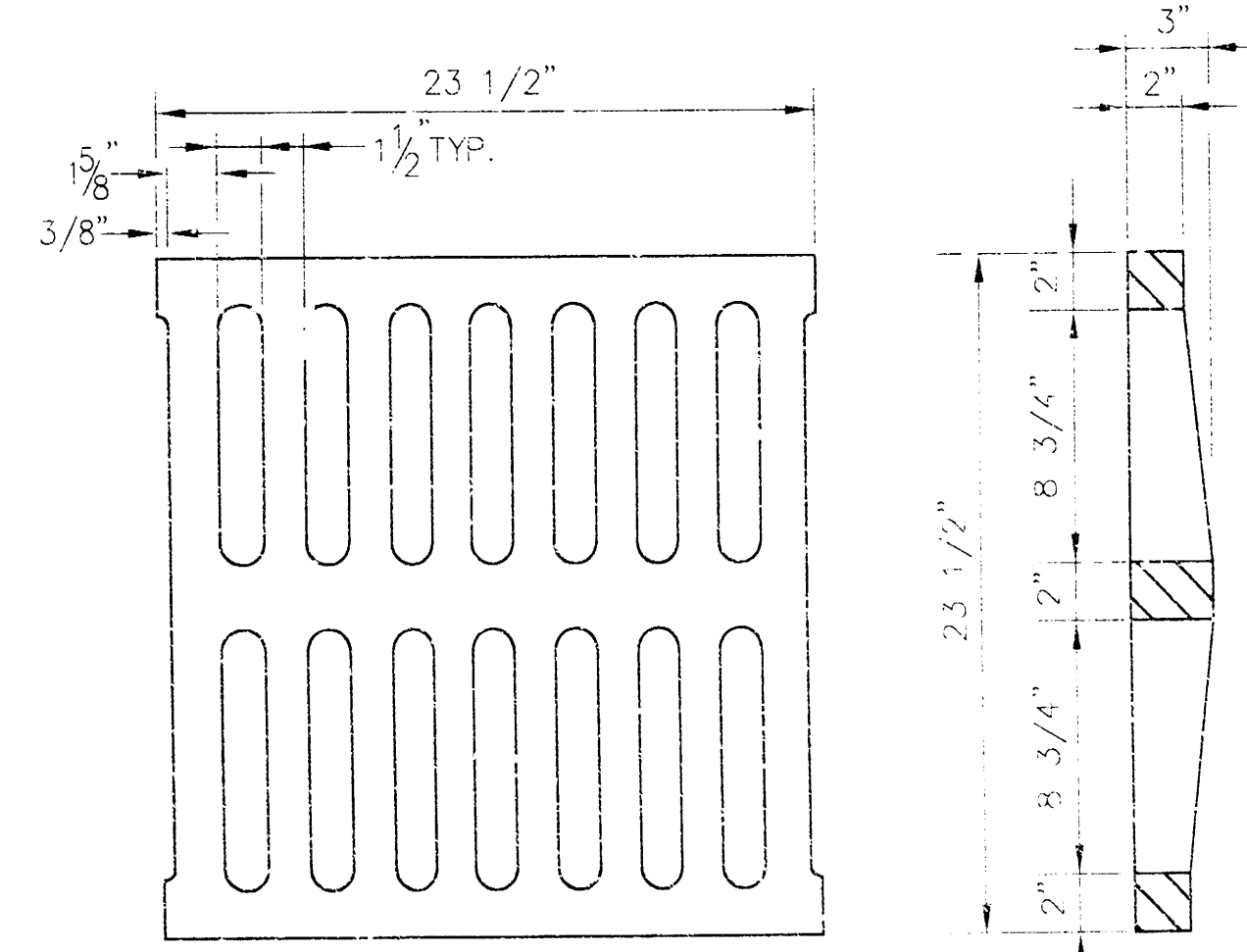
GJA

CHECKED BY

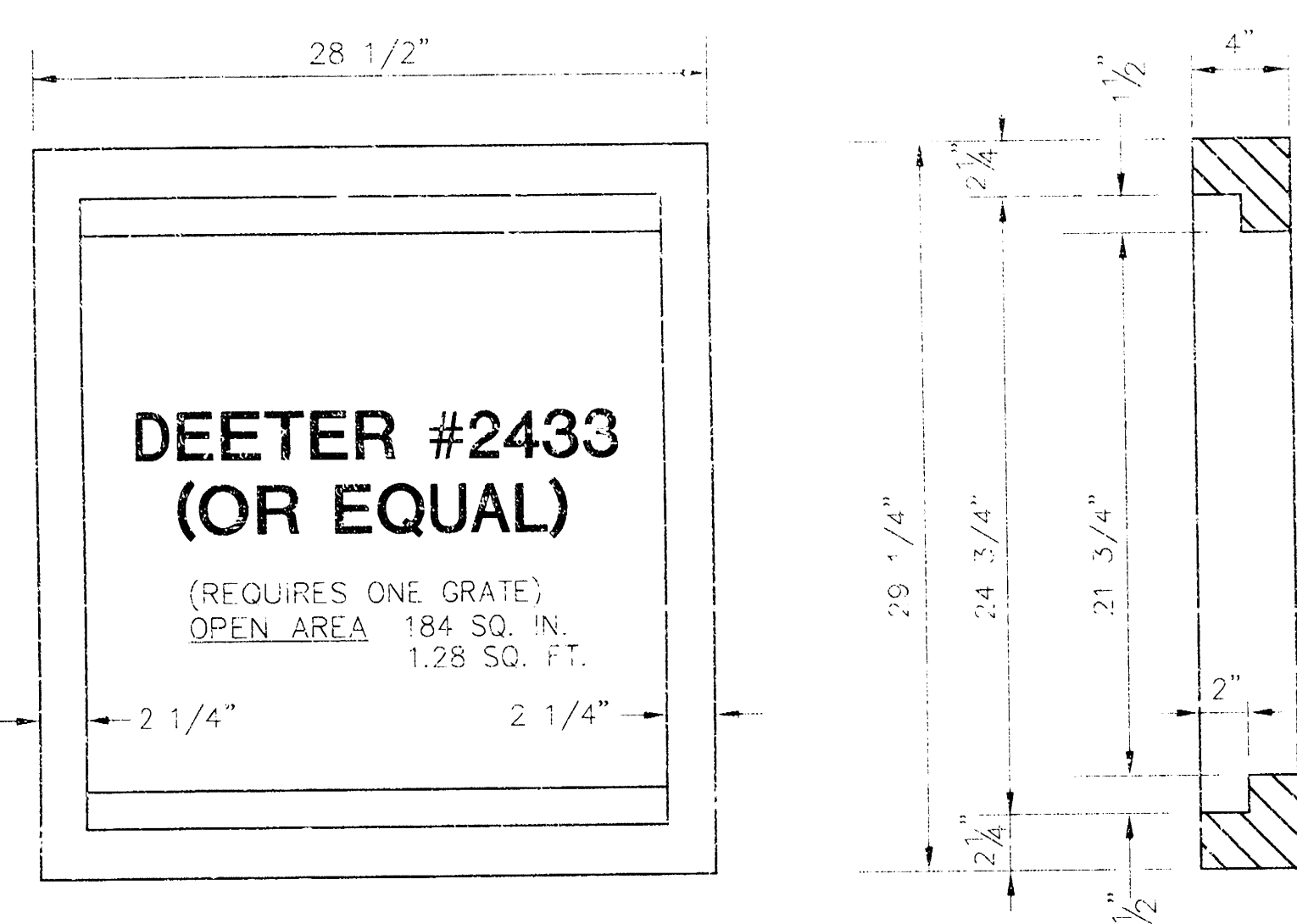
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SHEET OF

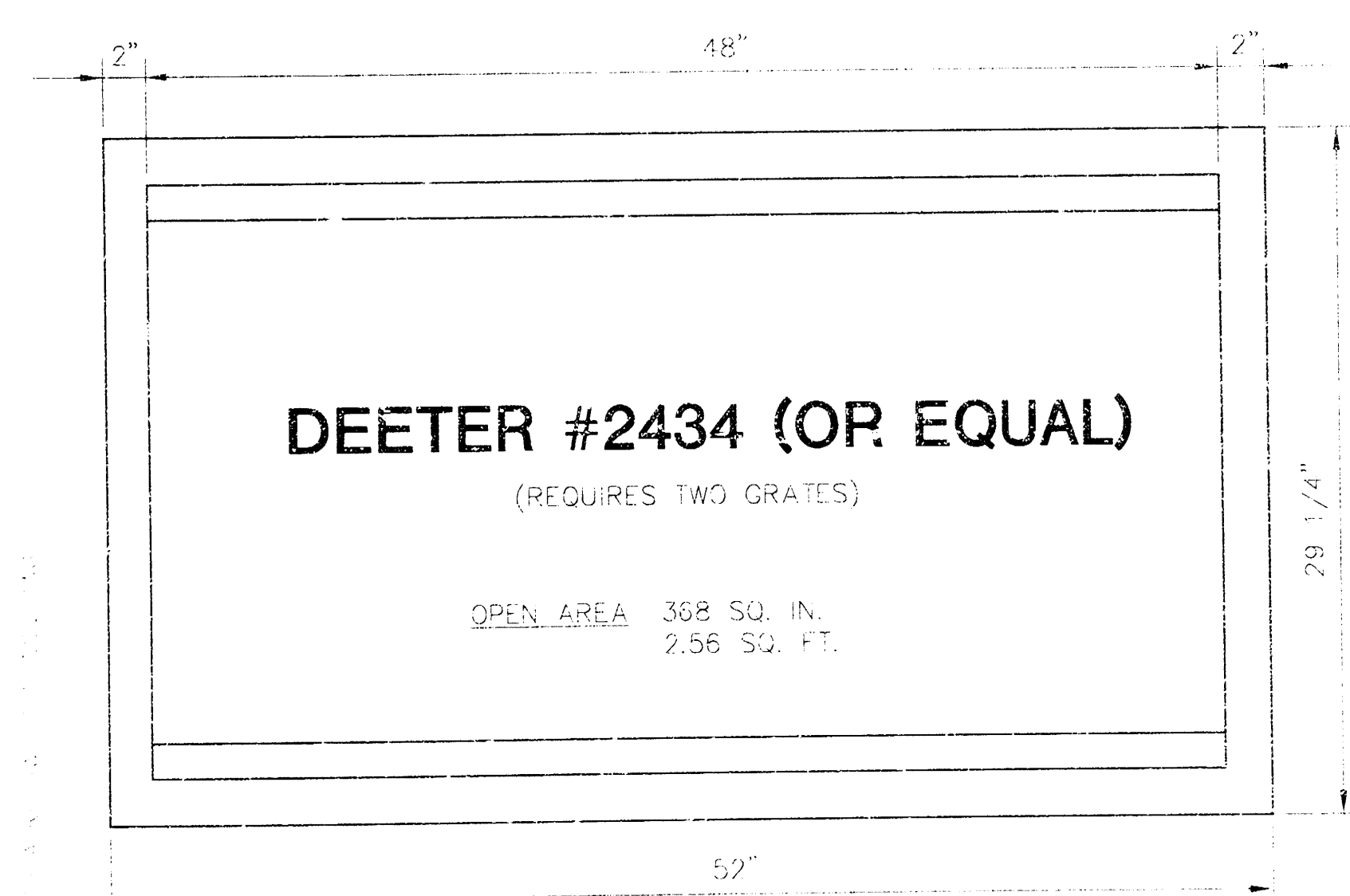
NOTE: GRATES SHALL BE IMPRINTED ON THE TOP SURFACE WITH "CITY OF WICHITA" USING LETTERS AT LEAST 1" IN HEIGHT. OTHER MARKING METHODS MAY BE USED ONLY IF APPROVED BY THE ENGINEER.



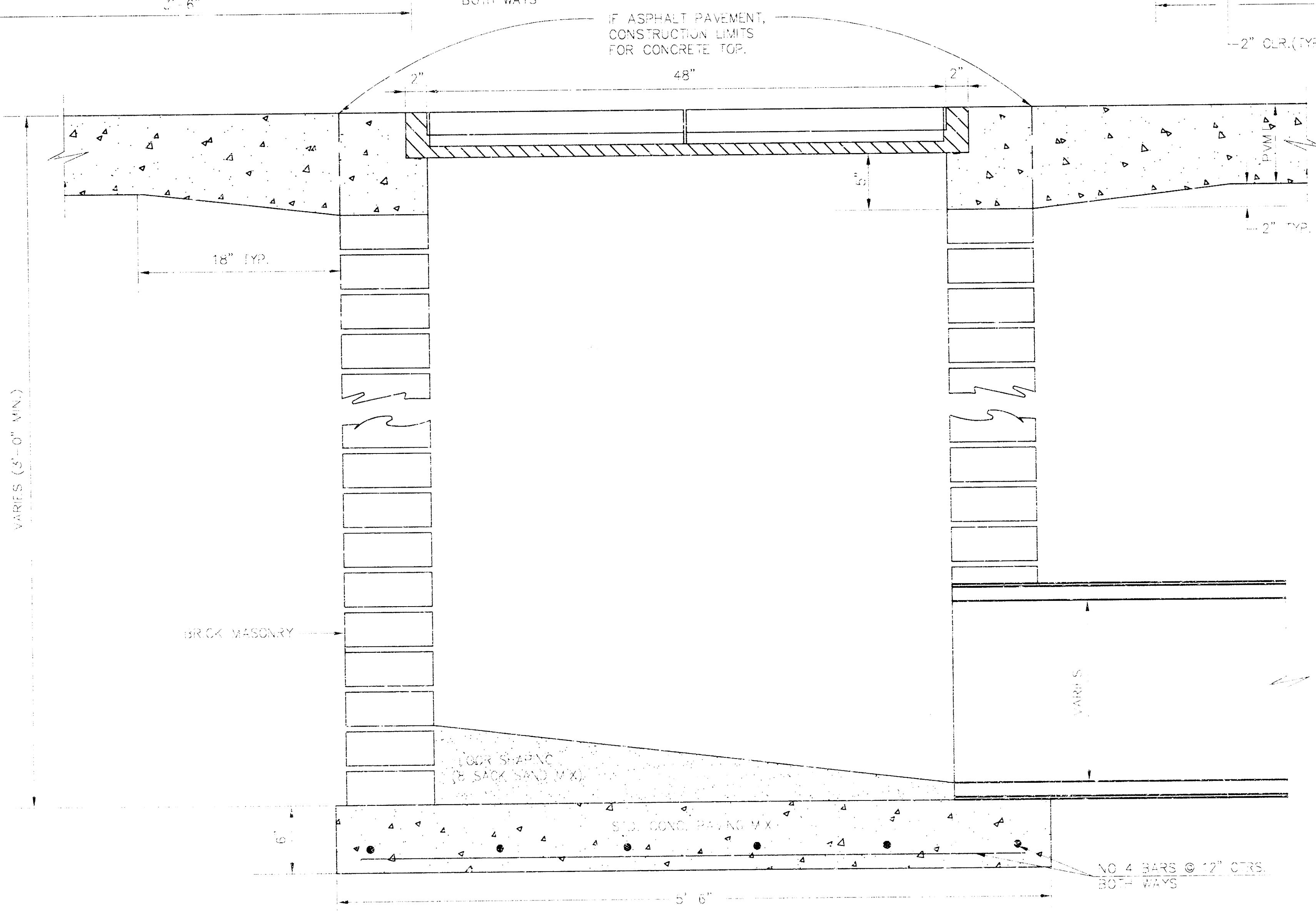
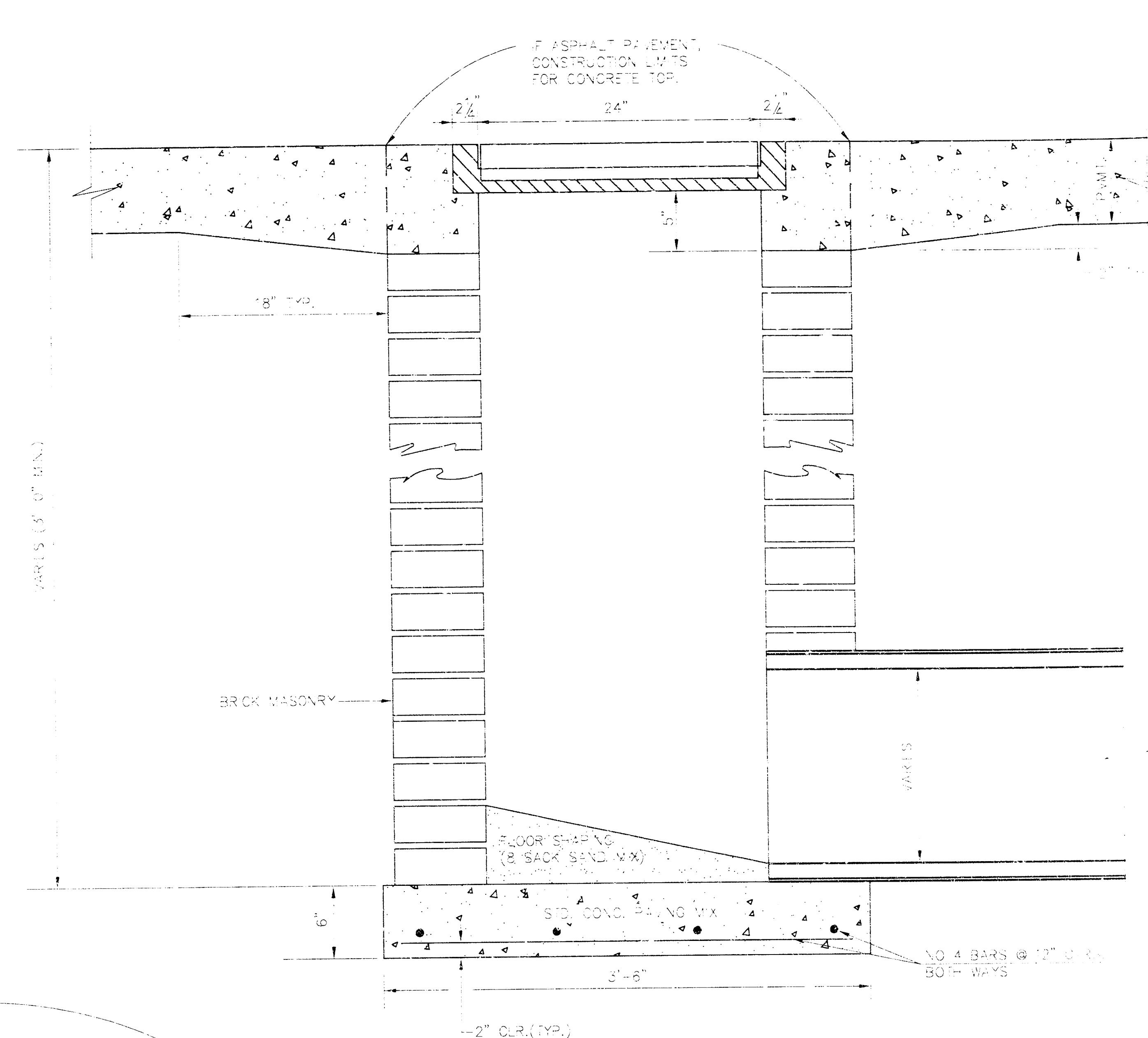
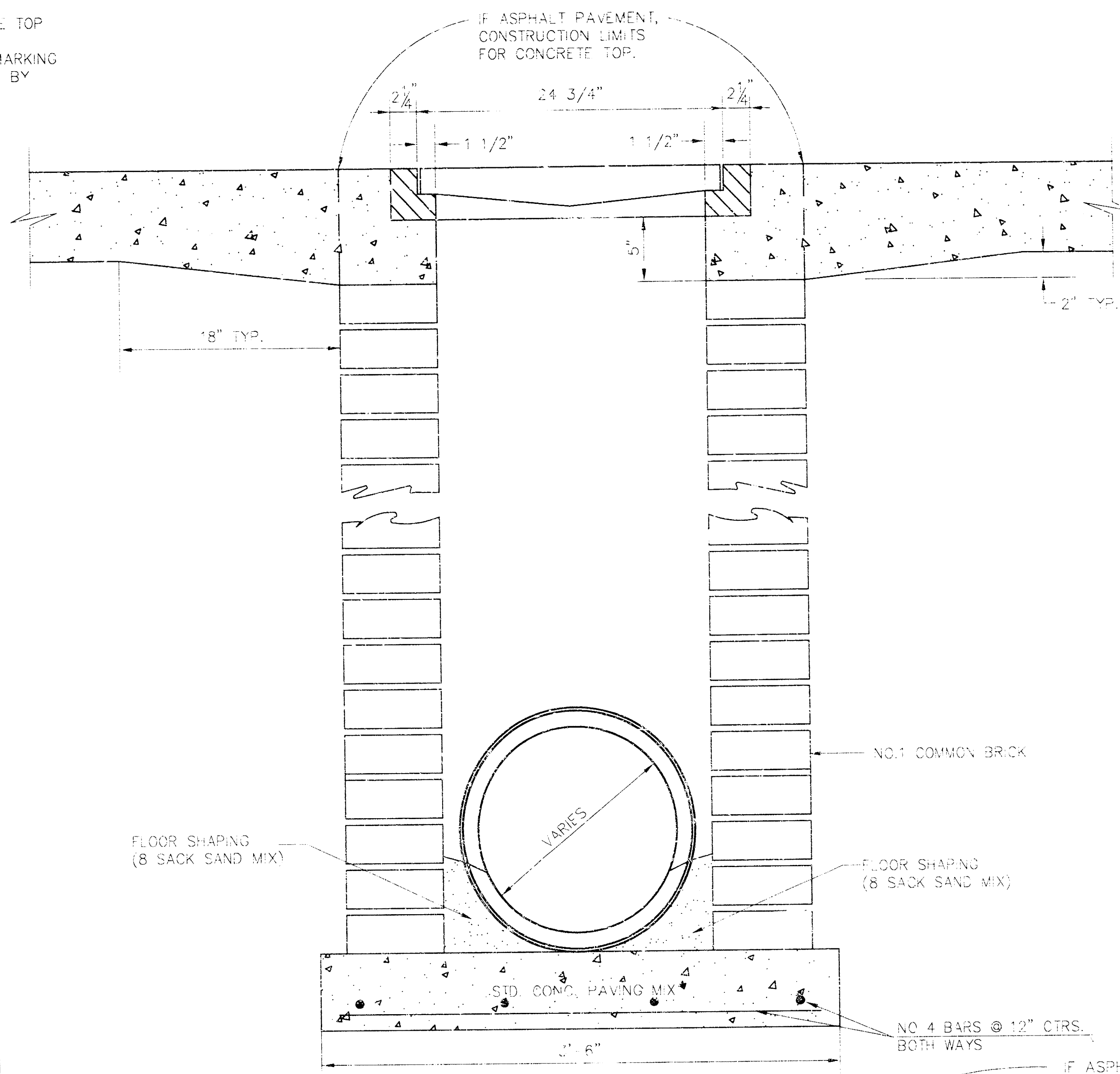
24"x24" GRATE DETAIL



SINGLE 24"x24" FRAME DETAIL



DOUBLE 24"x24" FRAME DETAIL



| ORIFICE EQUATION                 |                |                |
|----------------------------------|----------------|----------------|
| $Q = C \cdot A \cdot \sqrt{2gh}$ |                | $C = 0.60$     |
| h (DEPTH)                        | #2433 (SINGLE) | #2434 (DOUBLE) |
| 0.1                              | 1.95 cfs       | 3.89 cfs       |
| 0.2                              | 2.75 cfs       | 5.50 cfs       |
| 0.3                              | 3.37 cfs       | 6.73 cfs       |
| 0.4                              | 3.89 cfs       | 7.78 cfs       |
| 0.5                              | 4.35 cfs       | 8.70 cfs       |
| 0.6                              | 4.77 cfs       | 9.53 cfs       |
| 0.7                              | 5.15 cfs       | 10.30 cfs      |
| 0.8                              | 5.50 cfs       | 11.01 cfs      |
| 0.9                              | 5.84 cfs       | 11.67 cfs      |
| 1.0                              | 6.15 cfs       | 12.30 cfs      |

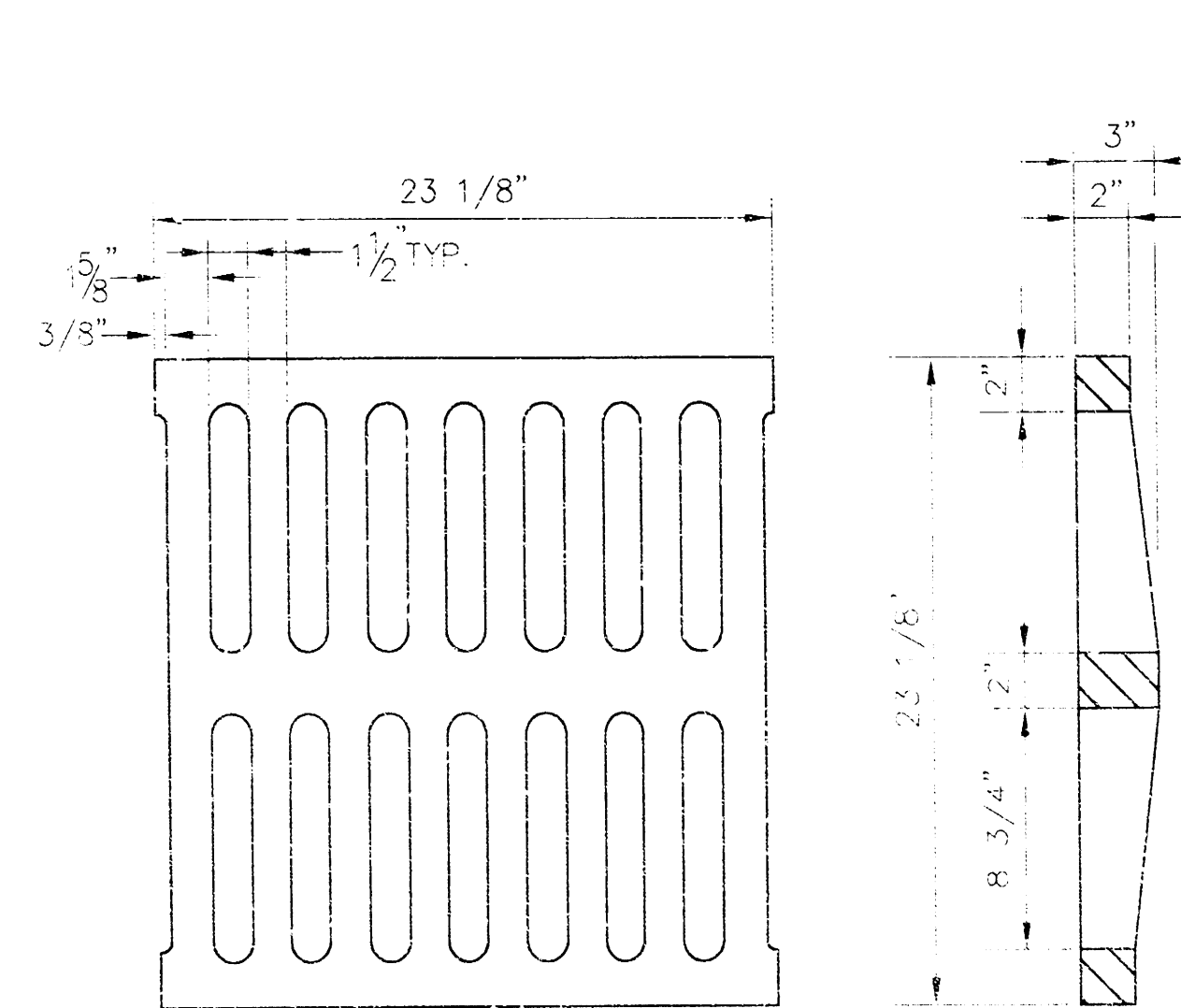
REVISED: 5-8-90 JNJ

## DROP INLET DETAILS

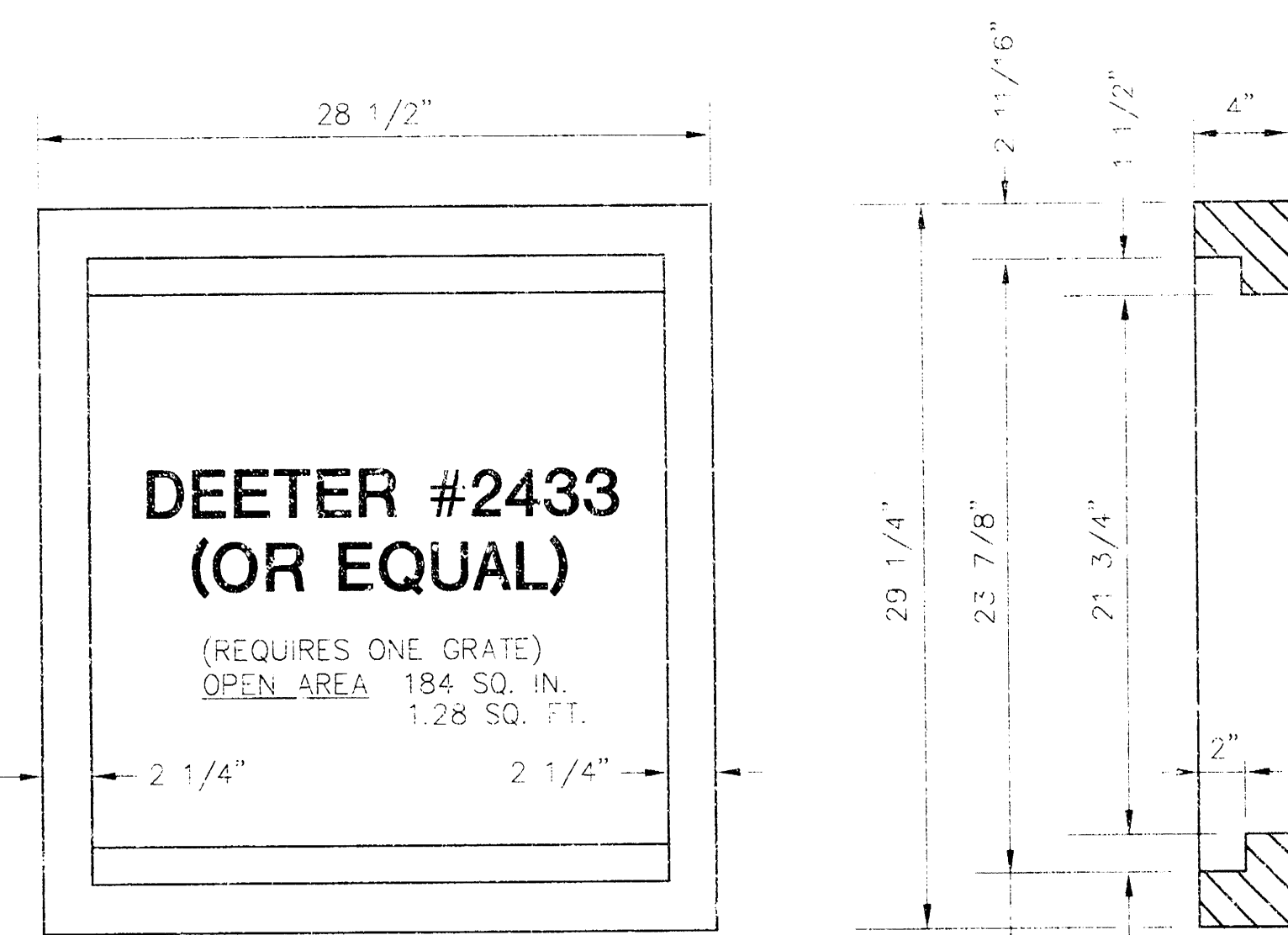
CITY OF WICHITA, KANSAS

|          |            |            |         |
|----------|------------|------------|---------|
| Design   | Checked by | Checked by |         |
| Drawn by | Date       | Date       | Job No. |

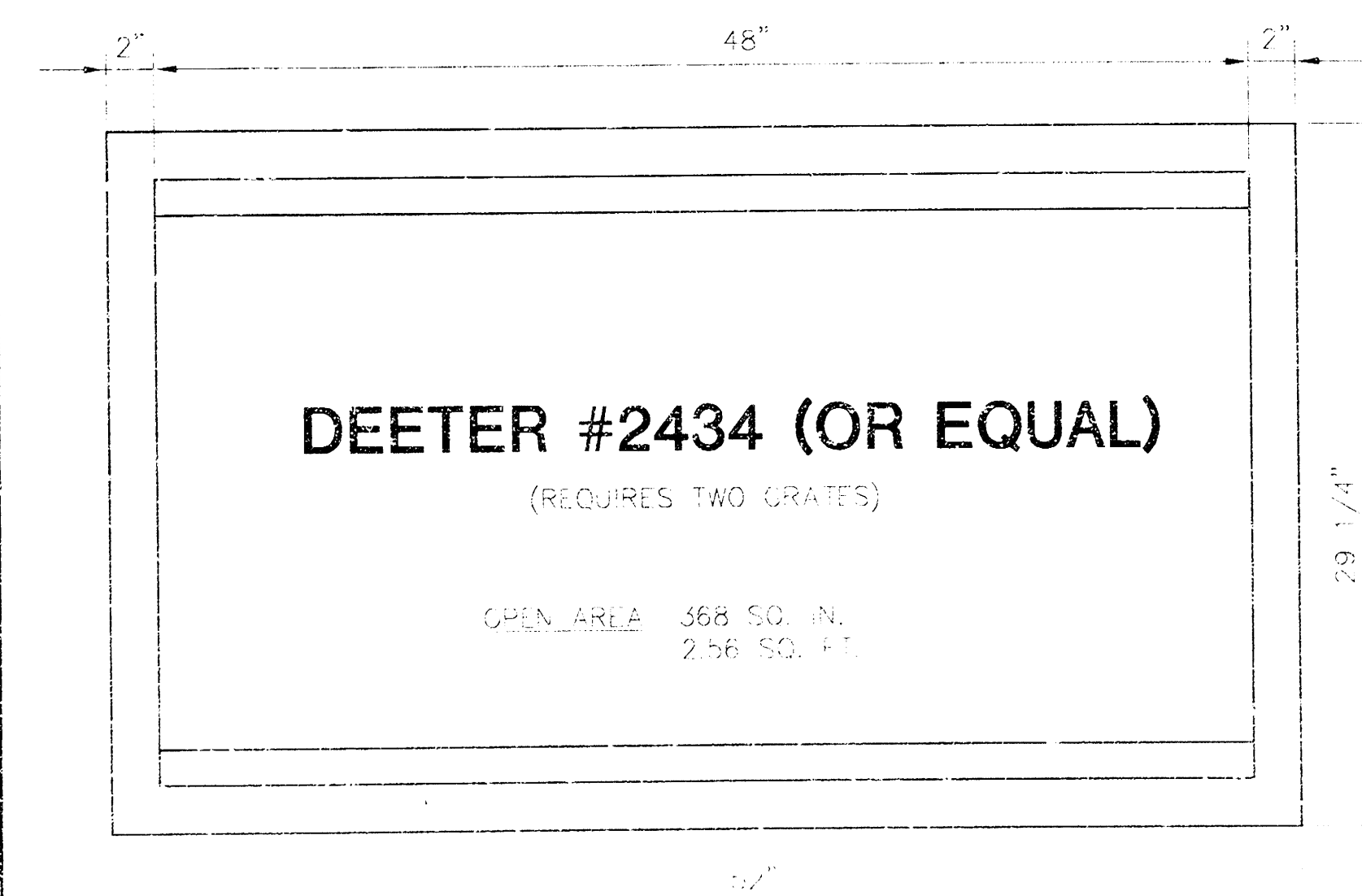
NOTE: GRATES SHALL BE IMPRINTED ON THE TOP SURFACE WITH "CITY OF WICHITA" USING LETTERS AT LEAST 1" IN HEIGHT. OTHER MARKING METHODS MAY BE USED ONLY IF APPROVED BY THE ENGINEER.



24"x24" GRATE DETAIL



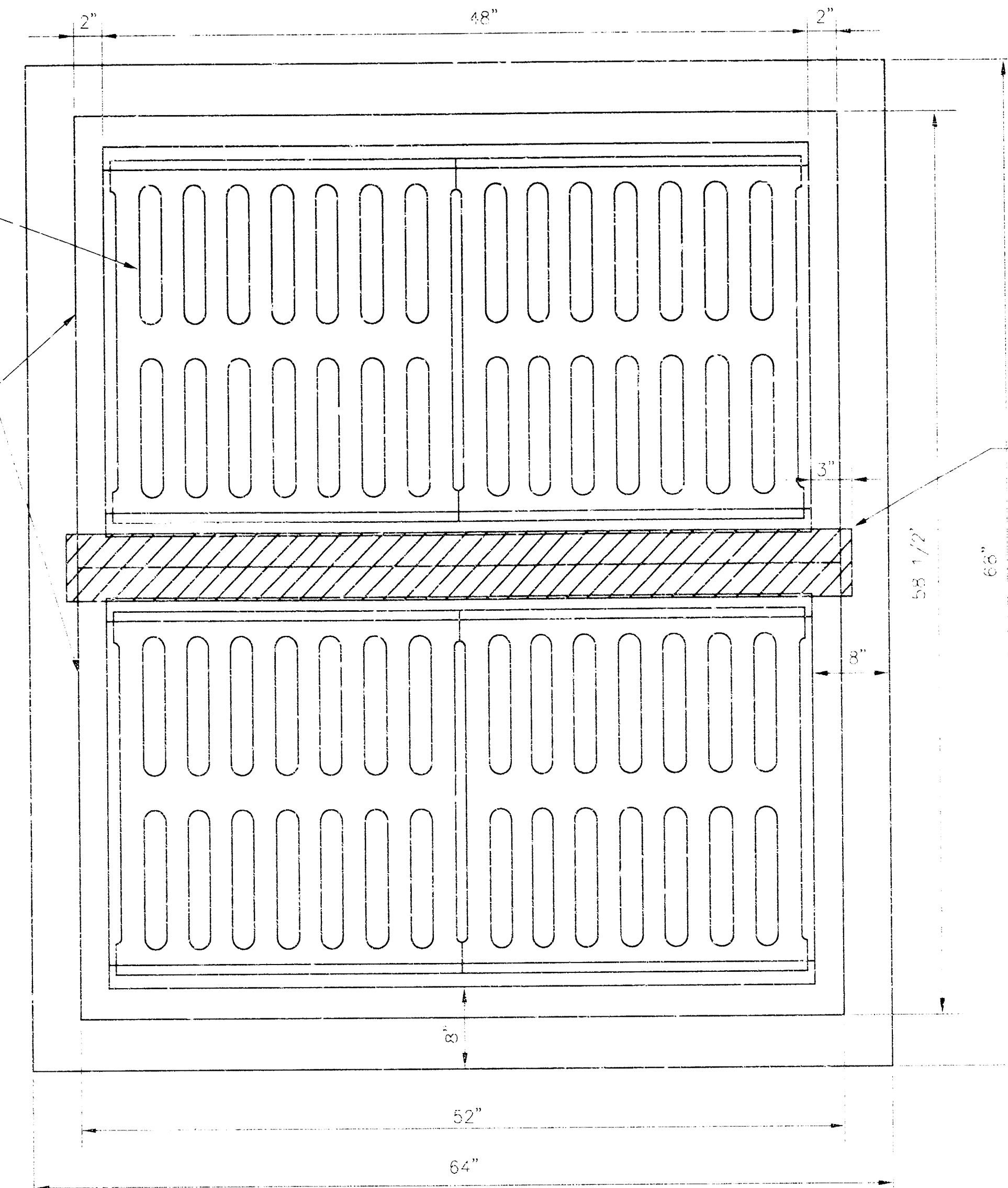
SINGLE 24"x24" FRAME DETAIL



DOUBLE 24"x24" FRAME DETAIL

DEETER #2433 (OR EQUAL)

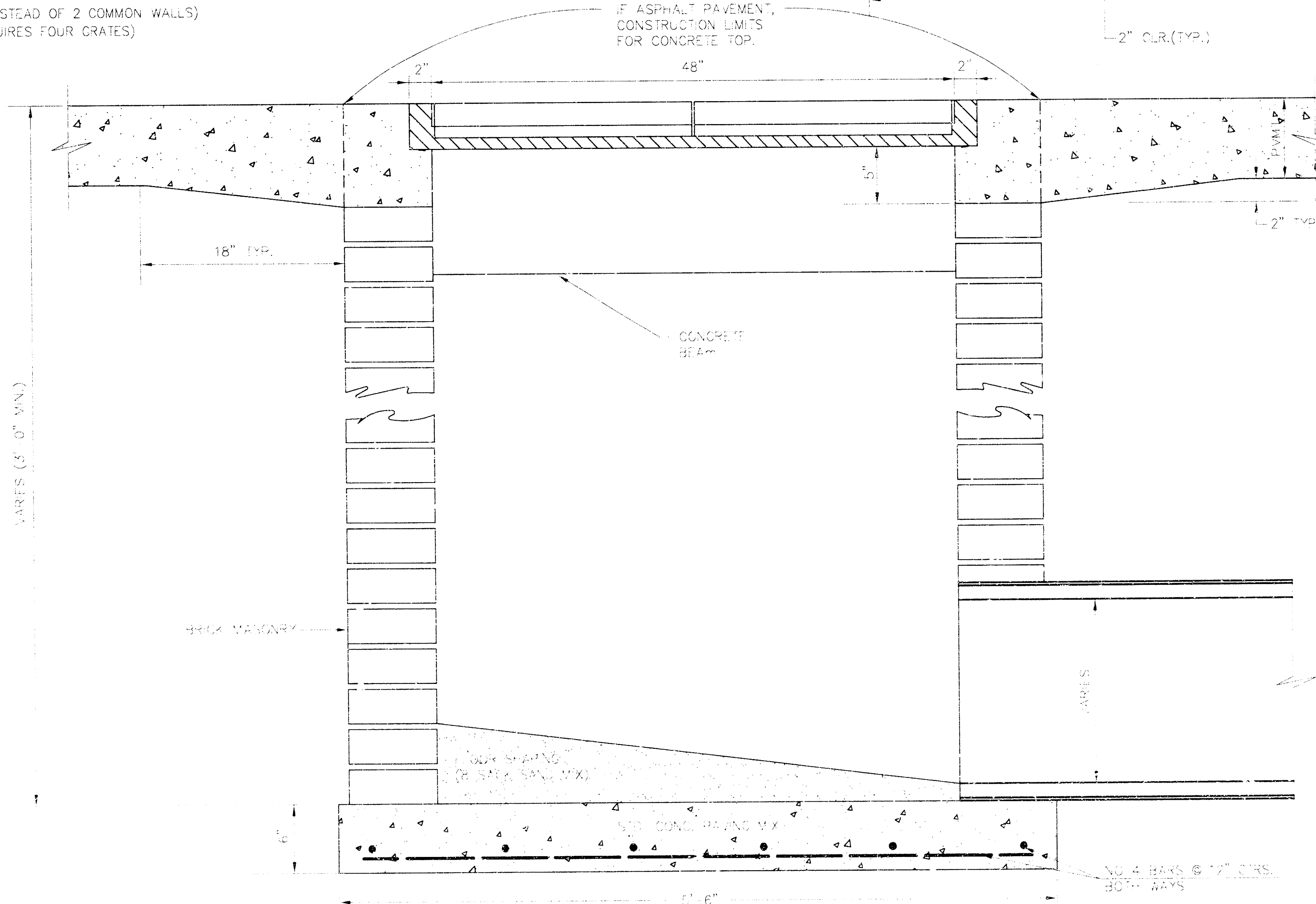
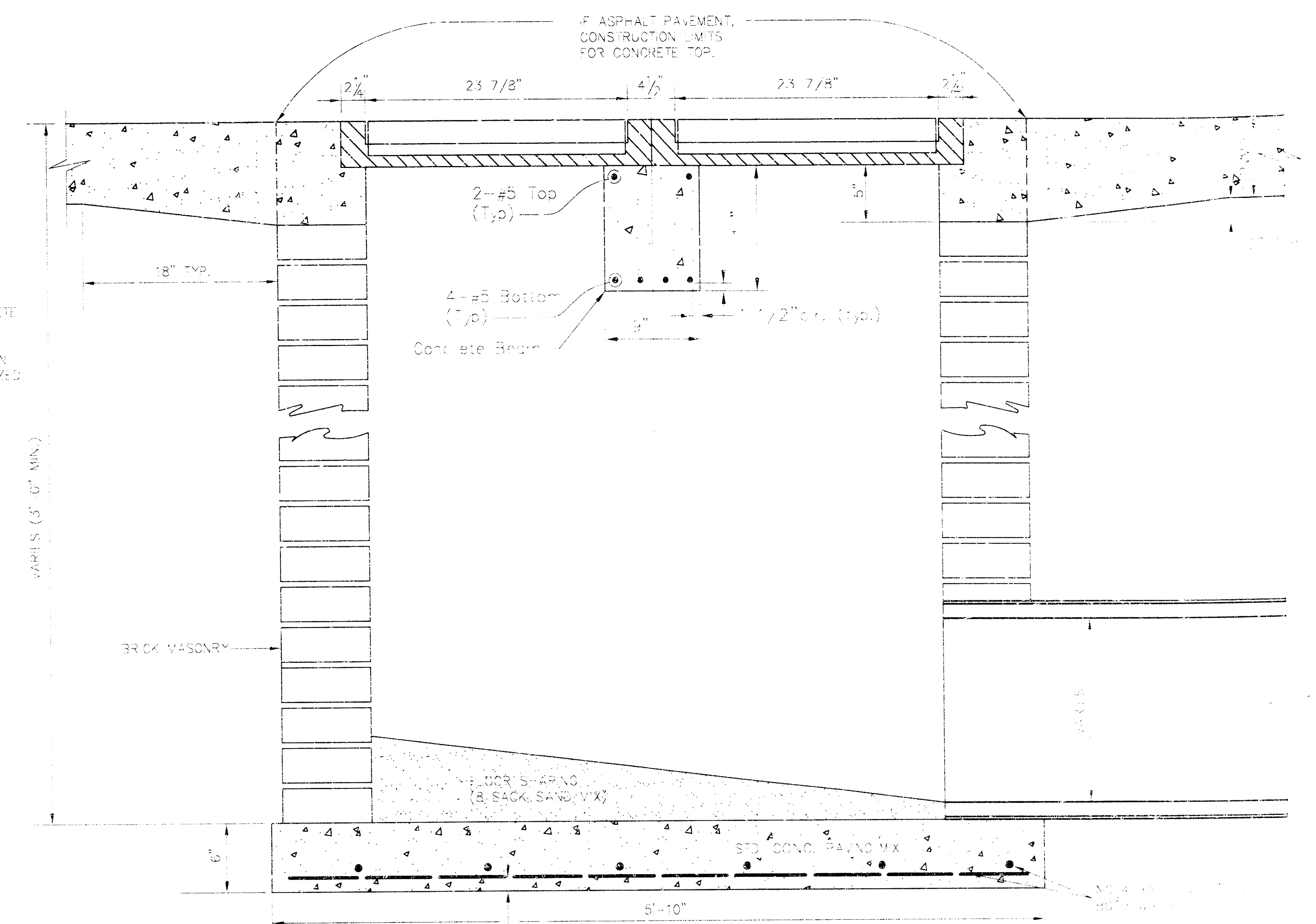
2-DOUBLE 24"x24" FRAMES



ALTERNATE 2-DOUBLE DROP INLET

(USING BEAM INSTEAD OF 2 COMMON WALLS)  
(REQUIRES FOUR GRATES)

REINFORCED CONCRETE BEAM OR 60" DIA. W6X25 BEAM FOR BRICK CONSTRUCTION (SHALL BE GALVANIZED AS SPECIFIED BY A.S.M.A. #23)



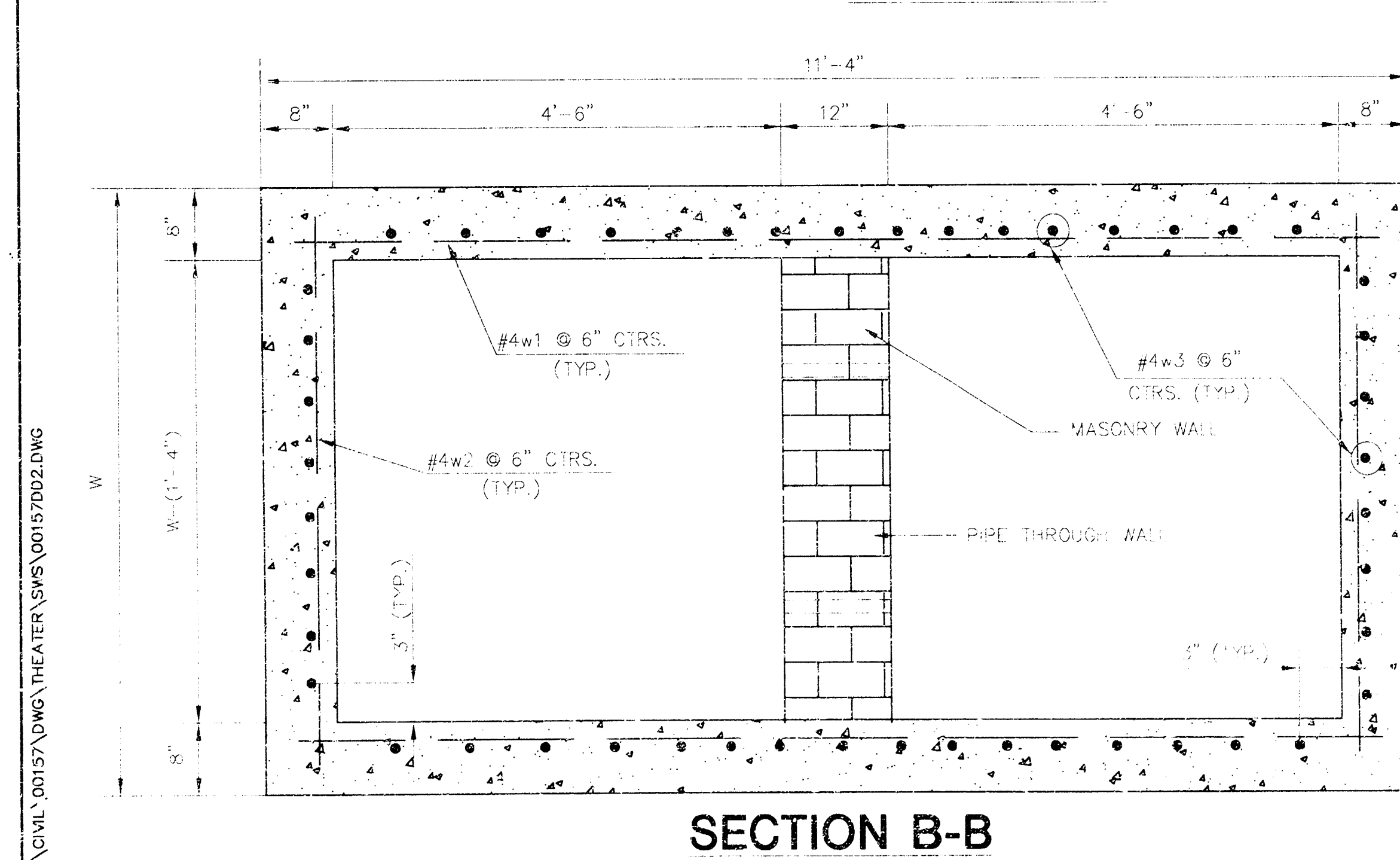
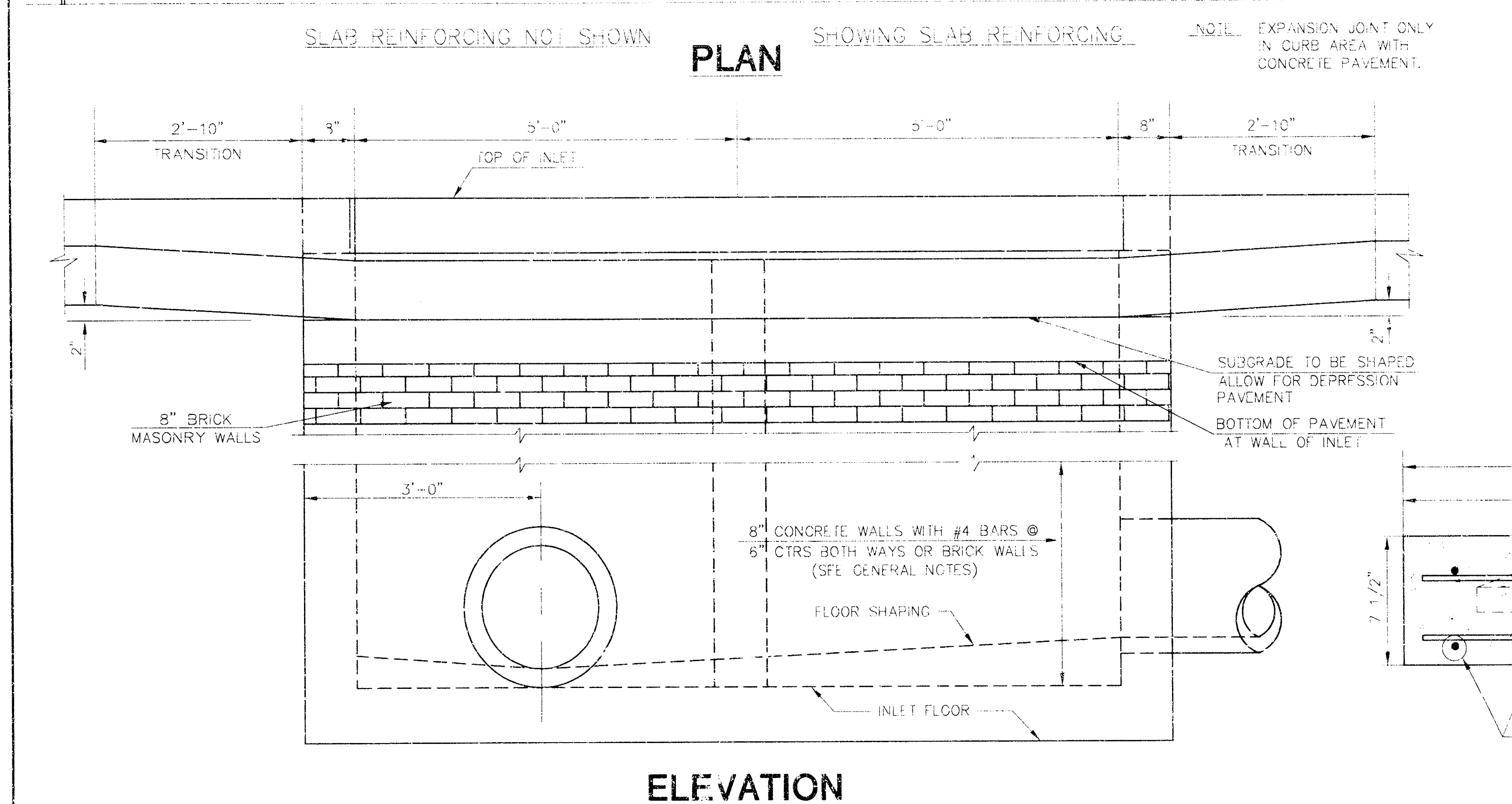
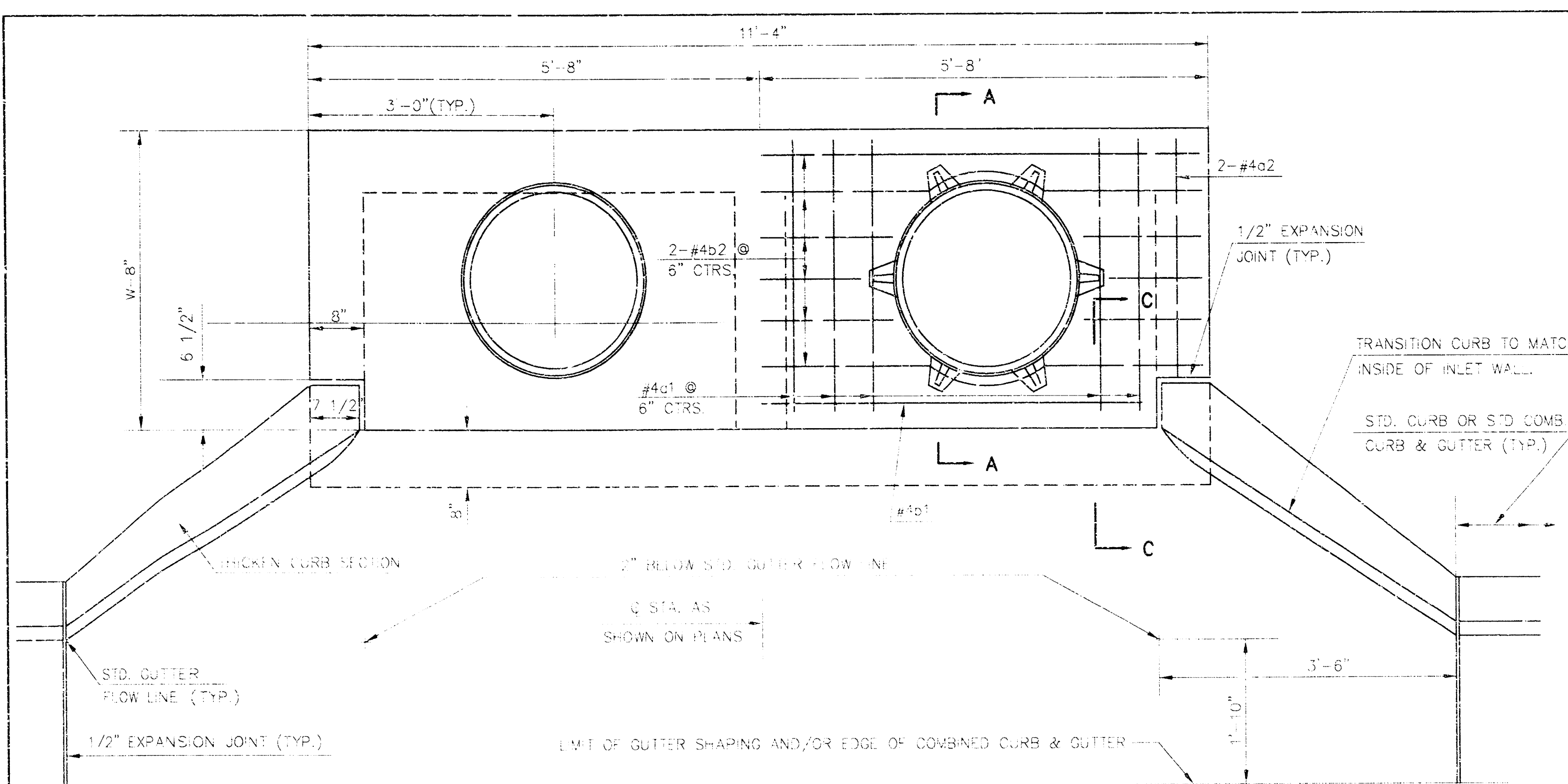
| ORIFICE EQUATION       |                |                |
|------------------------|----------------|----------------|
| $Q = C_d A \sqrt{2gh}$ |                |                |
| h (DEPTH)              | #2433 (SINGLE) | #2434 (DOUBLE) |
| 0.1                    | 1.39 cfs       | 2.78 cfs       |
| 0.2                    | 2.78 cfs       | 5.56 cfs       |
| 0.3                    | 4.17 cfs       | 8.34 cfs       |
| 0.4                    | 5.56 cfs       | 11.12 cfs      |
| 0.5                    | 6.94 cfs       | 13.89 cfs      |
| 0.6                    | 8.33 cfs       | 16.67 cfs      |
| 0.7                    | 9.72 cfs       | 19.44 cfs      |
| 0.8                    | 11.11 cfs      | 22.22 cfs      |
| 0.9                    | 12.50 cfs      | 25.00 cfs      |
| 1.0                    | 13.89 cfs      | 27.78 cfs      |

REVISED: 5-8-90 JNJ

## DROP INLET DETAILS

CITY OF WICHITA, KANSAS

|                    |                      |                      |              |
|--------------------|----------------------|----------------------|--------------|
| Design: C. G. L.   | Checked by: J. N. J. | Checked by: J. N. J. | Job No: 1000 |
| Drawn by: J. N. J. | Date: 10/1/90        | Date: 10/1/90        | Job No: 1000 |



| 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      | 5'-7 1/4" | 13      | 10'-7 1/4" | 13      | 12'-7 1/4" | 13      | 14'-7 1/4" |
| a2                         | #4   | 2       | 6'-0"     | 2       | 5'-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"      |
| a4                         | #4   | 1       | 9'-8"     | 1       | 9'-8"     | 1       | 9'-8"      | 1       | 9'-8"      | 1       | 9'-8"      |
| a5                         | #4   | 16      | 11'-1"    | 24      | 11'-1"    | 30      | 11'-1"     | 36      | 11'-1"     | 42      | 11'-1"     |

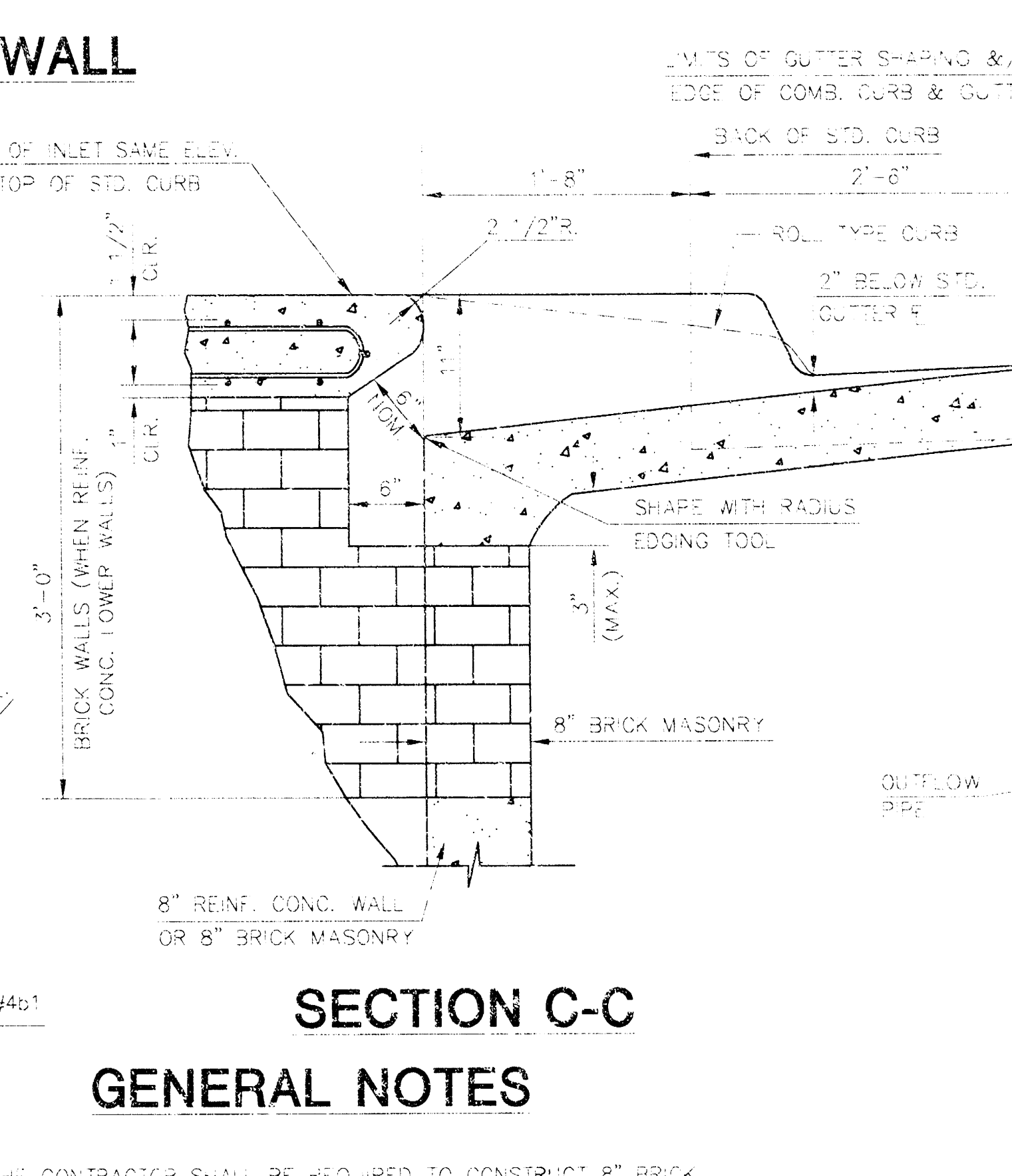
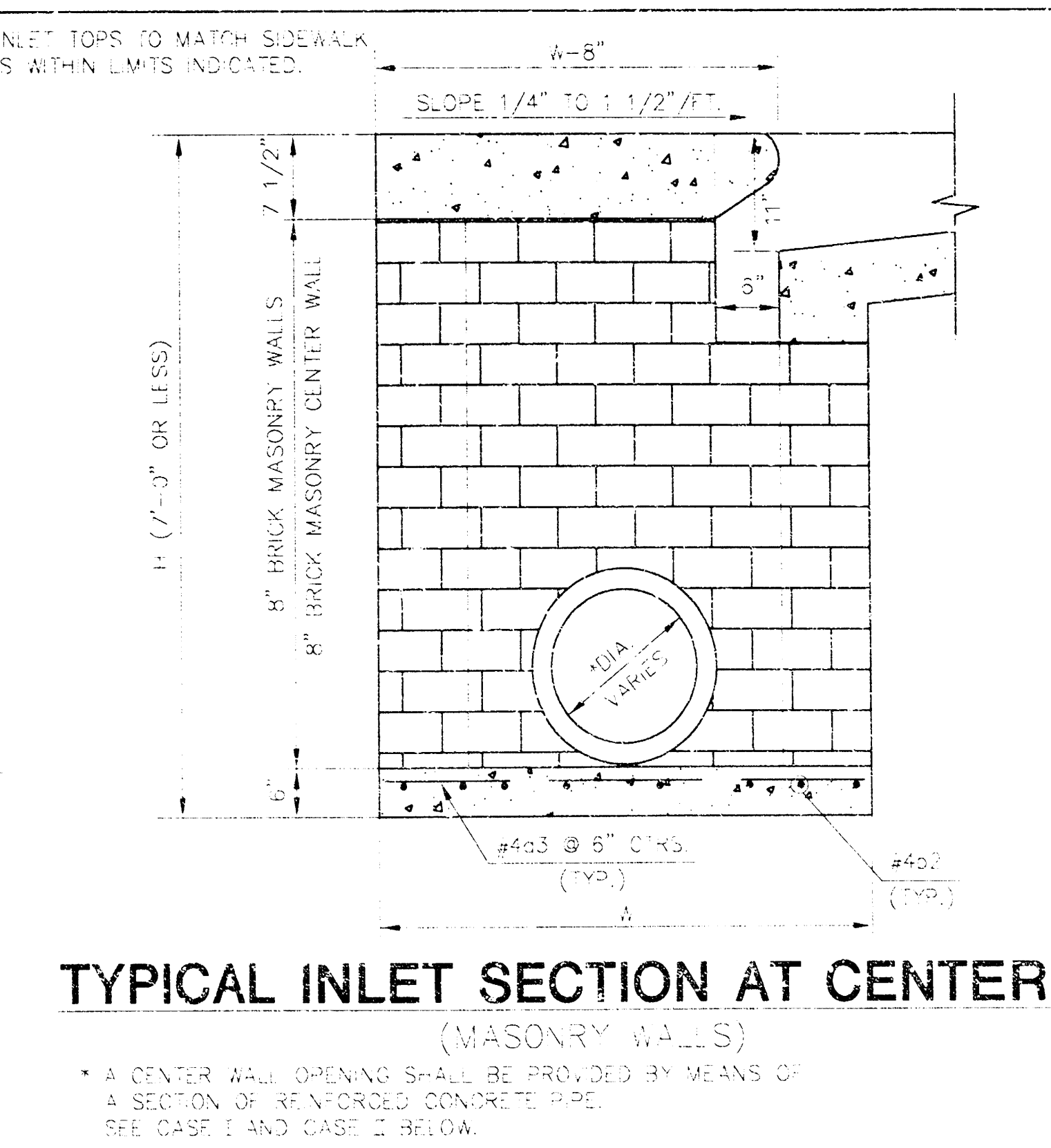
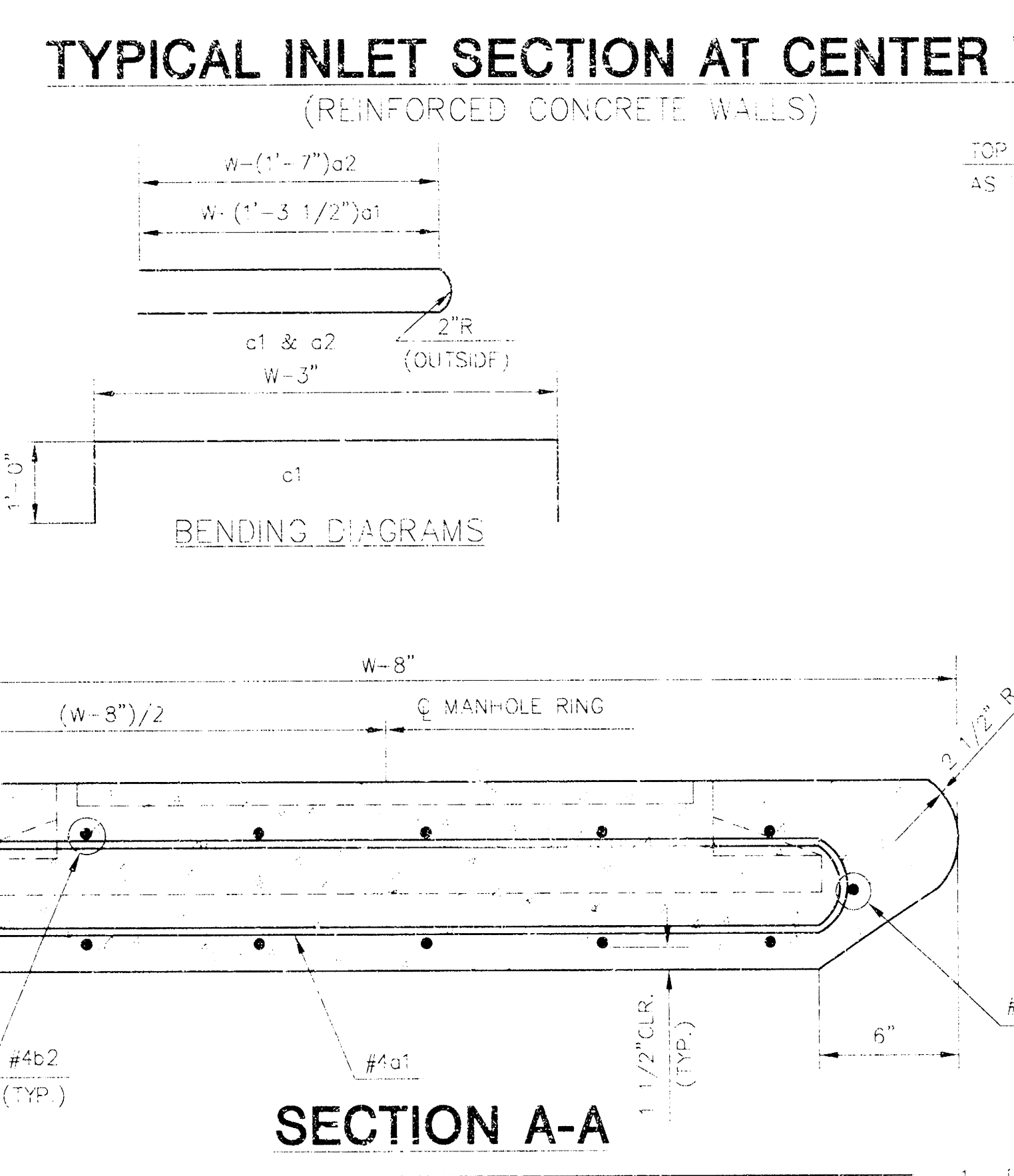
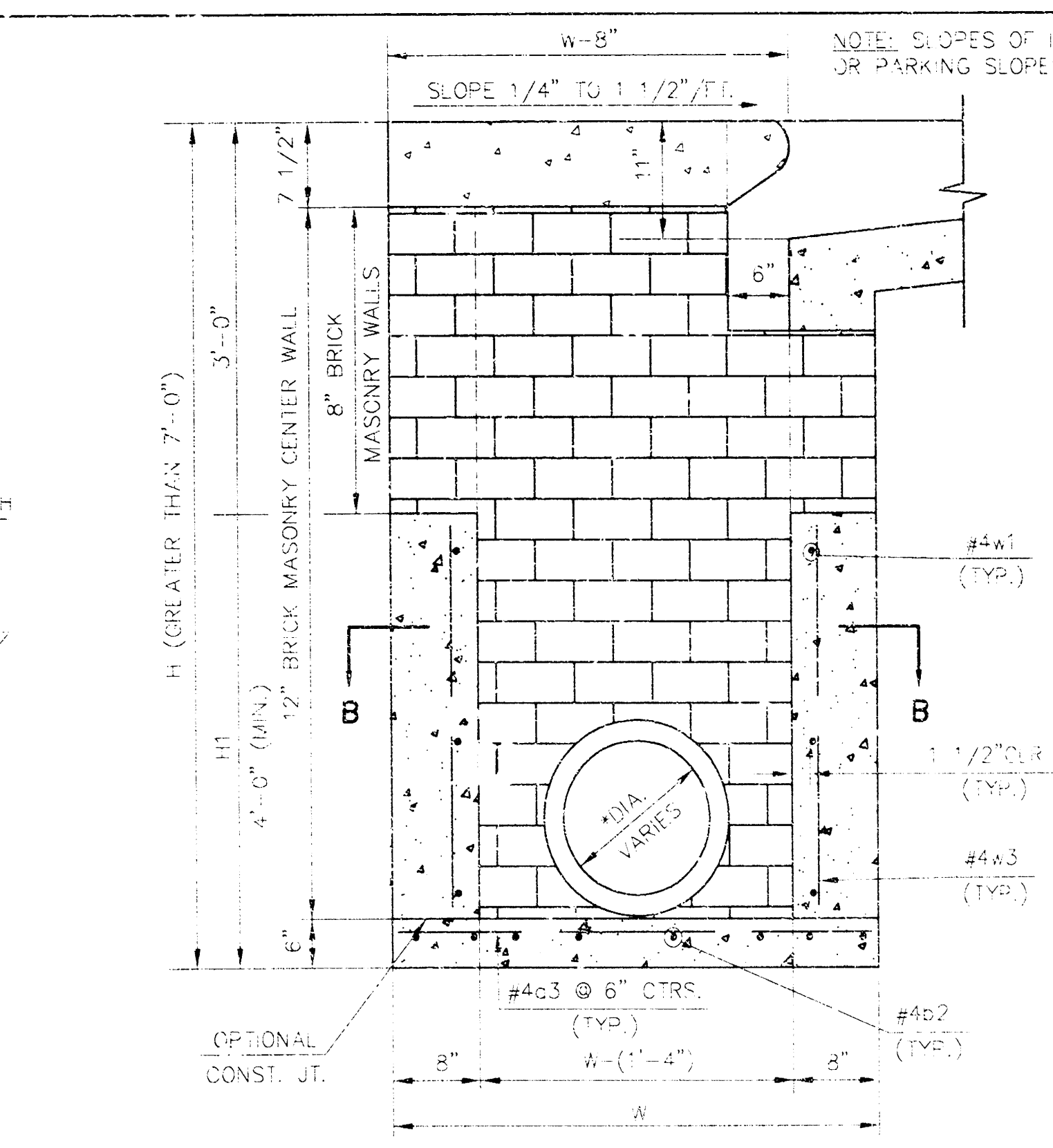
| WALL REINFORCING |      |         |        |         |        |         |        |         |        |         |        |
|------------------|------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
|                  |      | W=4'-4" |        | W=5'-4" |        | W=6'-4" |        | W=7'-4" |        | W=8'-4" |        |
| MARK             | SIZE | NO.     | LENGTH | NO.     | LENGTH | NO.     | LENGTH | NO.     | LENGTH | NO.     | LENGTH |
| a1               | #6   | 4       | 6'-1"  | 4       | 7'-1"  | 4       | 8'-1"  | 4       | 9'-1"  | 4       | 10'-1" |
| a2               | #6   | ①       | 11'-1" | ①       | 11'-1" | ①       | 11'-1" | ①       | 11'-1" | ①       | 11'-1" |
| a3               | #6   | ②       | 4'-1"  | ②       | 5'-1"  | ②       | 6'-1"  | ②       | 7'-1"  | ②       | 8'-1"  |
| a4               | #6   | ③       | ③      | ③       | ③      | ③       | ③      | ③       | ③      | ③       | ③      |

\* THIS BRID OR CUT REINFORCING AS REQUIRED FOR CLEARANCE

① 40# 6" x 4 (11'-6") ROUNDED DOWN TO NEAREST 0.5

② 40# 4" x 10"

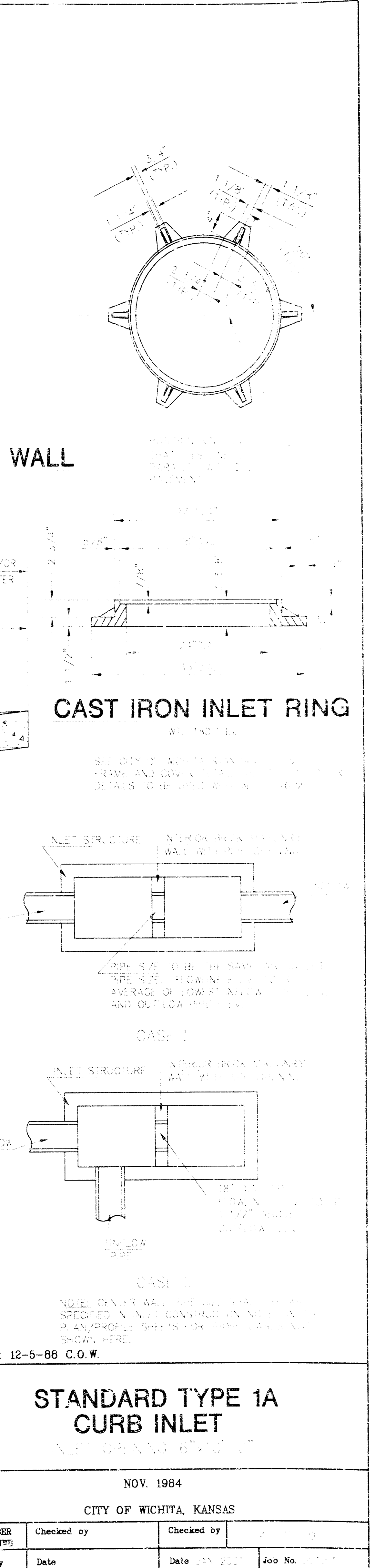
③ 11# (9")



GENERAL NOTES

- THE CONTRACTOR SHALL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THE INLET WHEN W=8'-4" OR LESS AND H=7'-0" OR LESS. WHEN W IS GREATER THAN 8'-4" AND H IS LESS THAN 7'-0", THE OUTSIDE INLET 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 B 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 TOPS TO BE AS FOLLOWS: ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET COUNS RIGID ON SHALL BE CONCRETE PAVEMENT MIX.
- INLET TOP REINFORCING SHALL BE SHAPED ON 6" MAX. CENTERS. INLET TOPS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB. BARS IN INLET TOP TO BE FIELD BENT OR CUT TO CLEAR MANHOLE RING.
- THE ENDS OF ALL PIPES INSTALLED IN INLET SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

| STANDARD CURB NOT PRECAST TYPE |       |               |                              |
|--------------------------------|-------|---------------|------------------------------|
| W                              | H     | CRST TOP SIZ. | TYPE OR SIZ. OF MANHOLE RING |
| 4'-4"                          | 5'-8" | 4"x11" 1/2"   | 24" & 30"                    |
| 5'-4"                          | 6'-8" | 4"x11" 1/2"   | 24" & 30"                    |
| 6'-4"                          | 7'-8" | 4"x11" 1/2"   | 36" & 42"                    |
| 7'-4"                          | 8'-8" | 4"x11" 1/2"   | 48" & 54"                    |
| 8'-4"                          | 9'-8" | 4"x11" 1/2"   | 60" & 66"                    |



REVISED: 12-8-88 C.O.W.

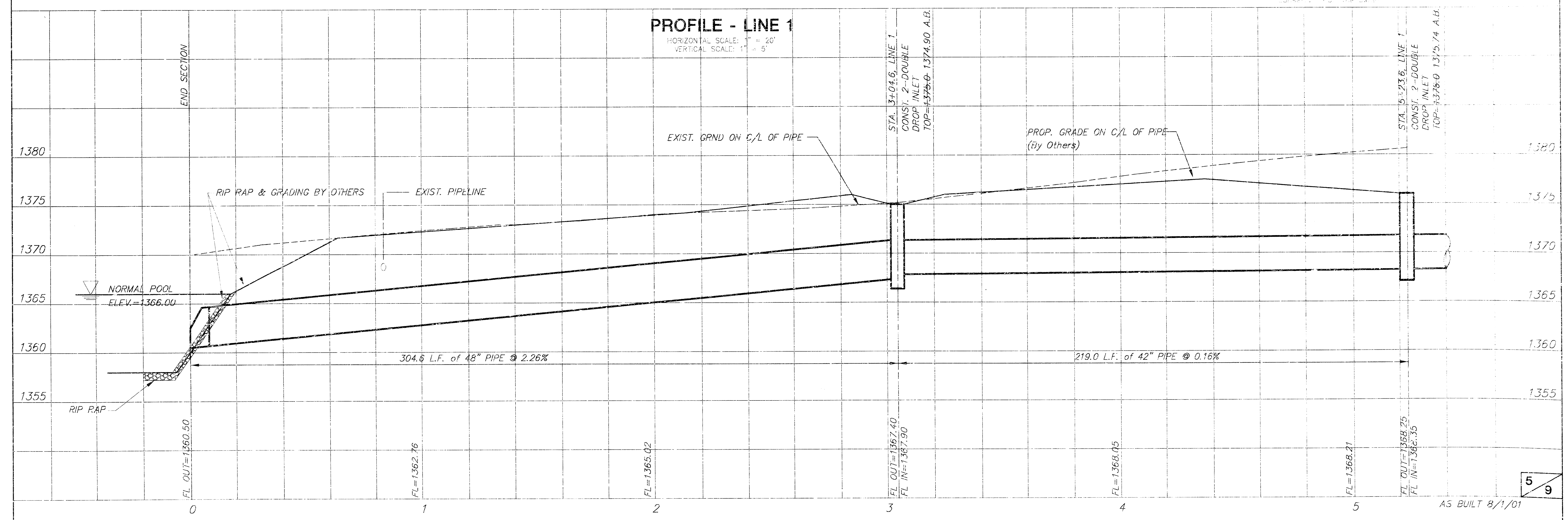
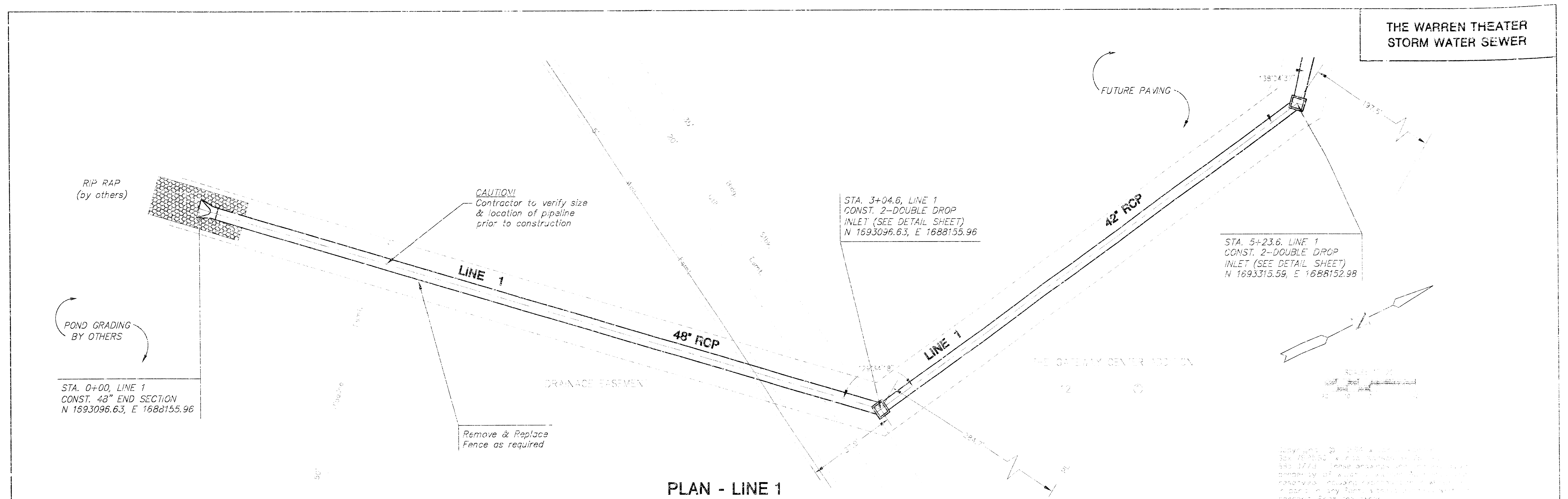
# STANDARD TYPE 1A CURB INLET

NOV. 1984

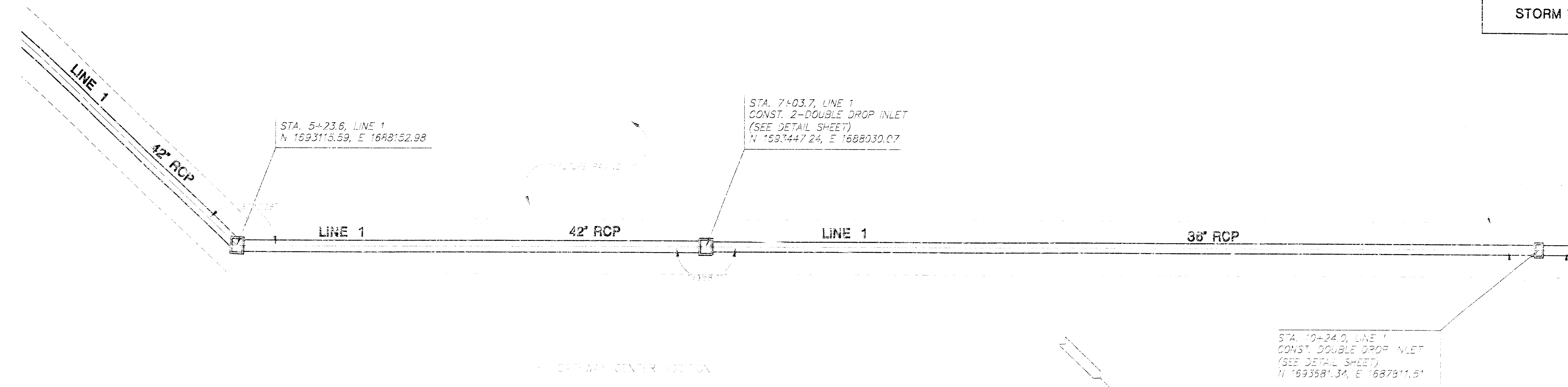
CITY OF WICHITA, KANSAS

|             |             |             |          |
|-------------|-------------|-------------|----------|
| Design: BER | Checked by: | Checked by: |          |
| Drawn by:   | Date:       | Date:       | Job No.: |

THE WARREN THEATER  
STORM WATER SEWER

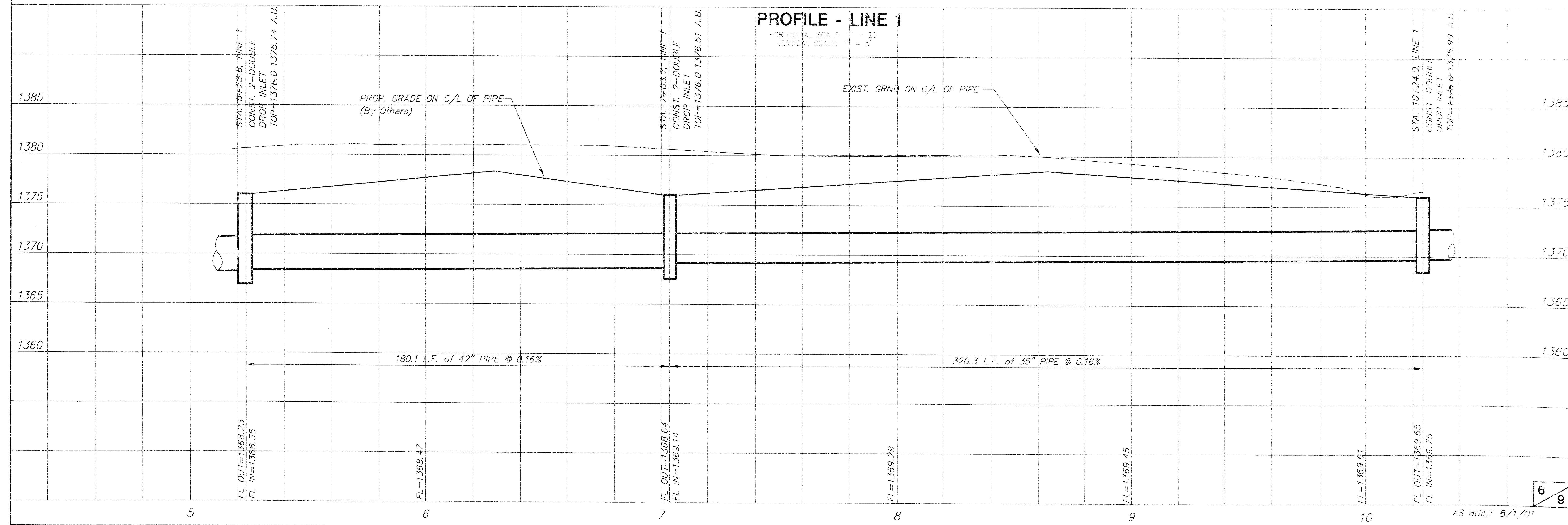


THE WARREN THEATER  
STORM WATER SEWER



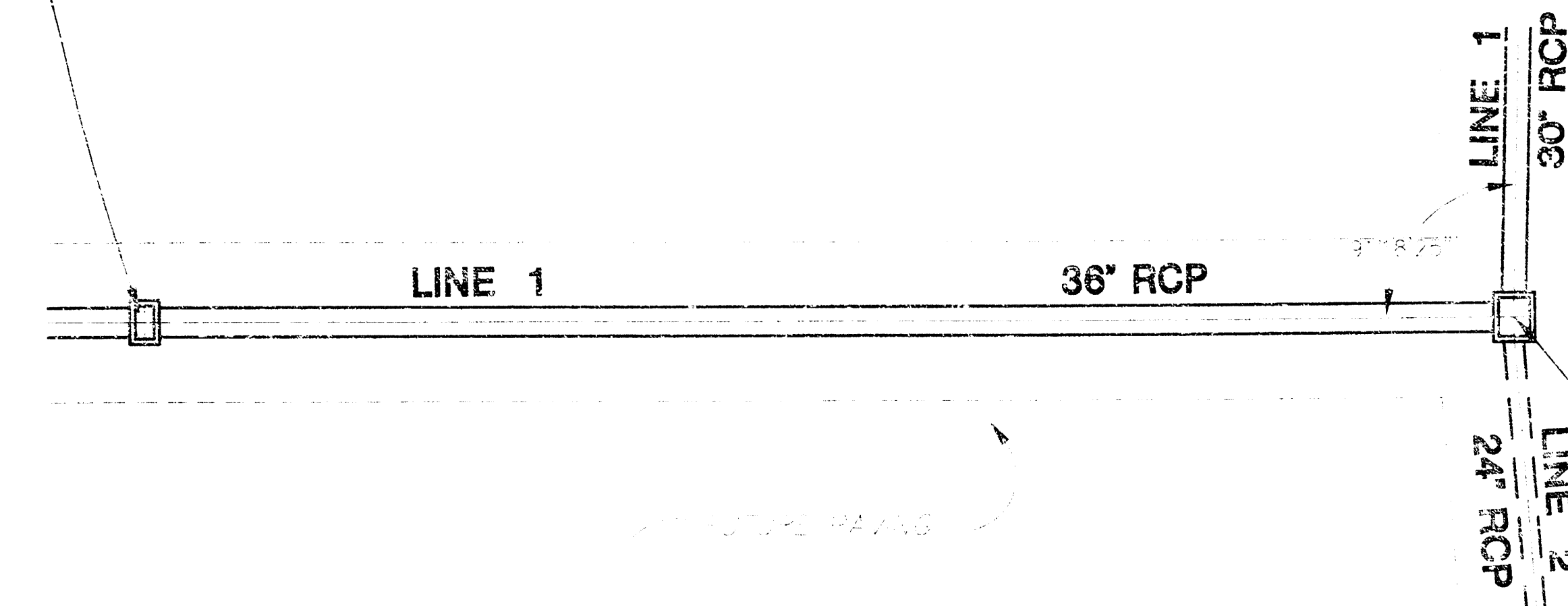
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PLAN - LINE 1



THE WARREN THEATER  
STORM WATER SEWER

STA. 10+24.0, LINE 1  
N 1693681.34, E 1687811.51



STA. 12+04.2, LINE 1 =  
STA. 0+00, LINE 2  
CONST. 2-DOUBLE DROP INLET  
(SEE DETAIL SHEET)  
N 1693813.04, E 1687688.55

LINE 1  
36" RCP  
LINE 2  
24" RCP

LINE 1

30" RCP

LINE 3  
18" RCP

STA. 14+96.9, LINE 1  
CONST. TYPE 1A CURB INLET  
(10'X4')  
(SEE DETAIL SHEET)  
N 1693624.68, E 1687477.77

LINE 1  
24" RCP

STA. 15+60.4, LINE 1  
CONST. TYPE 1A CURB INLET  
(10'X4')  
(SEE DETAIL SHEET)  
N 1693679.39, E 1687428.74

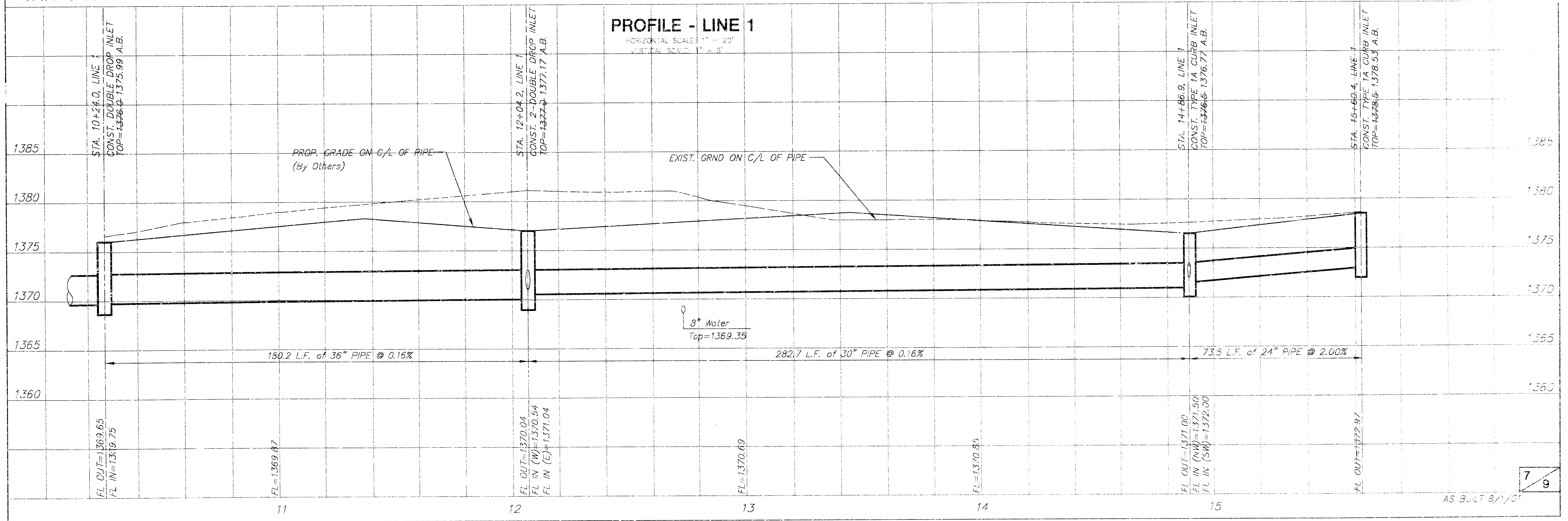
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PLAN - LINE 1

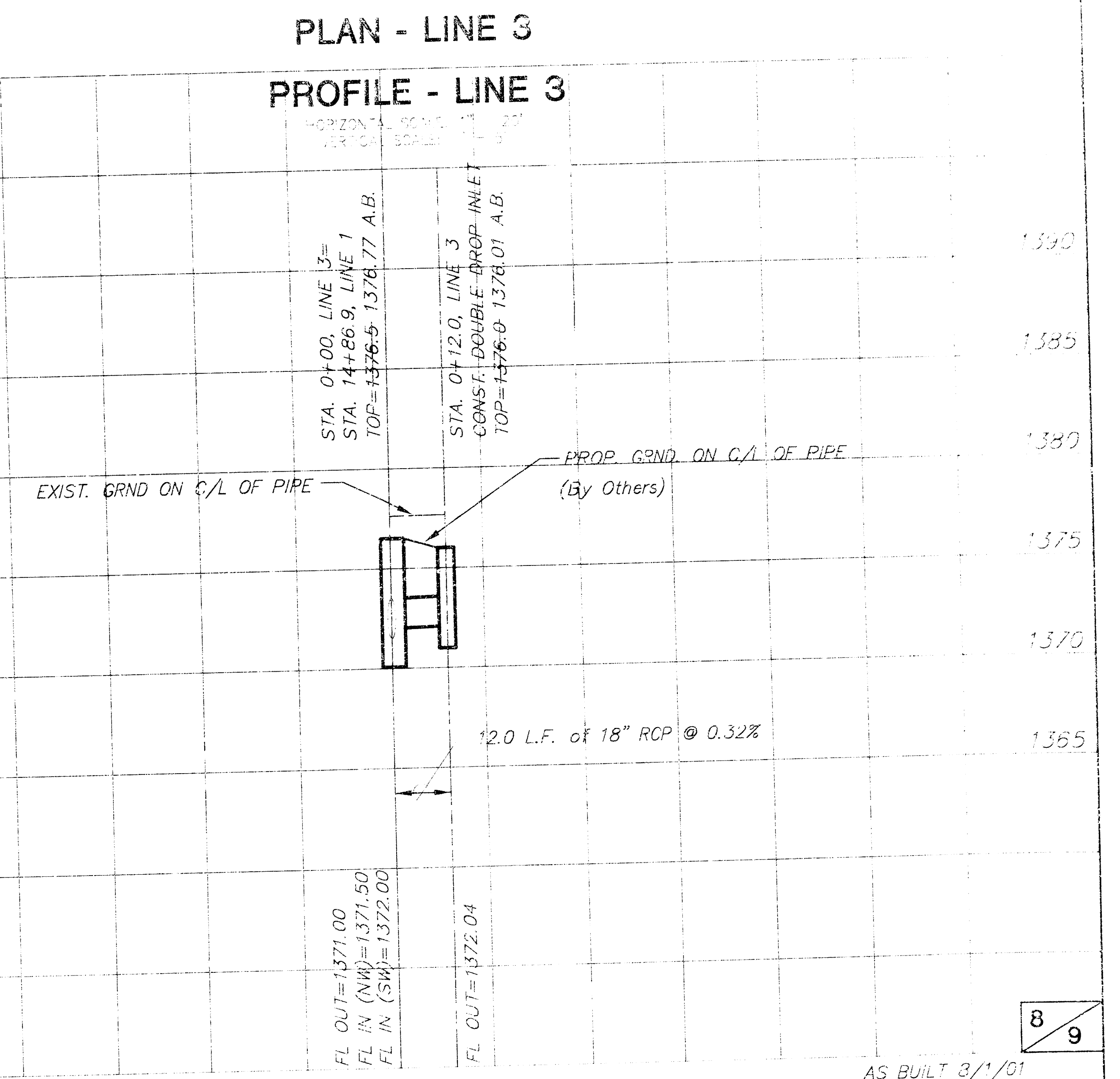
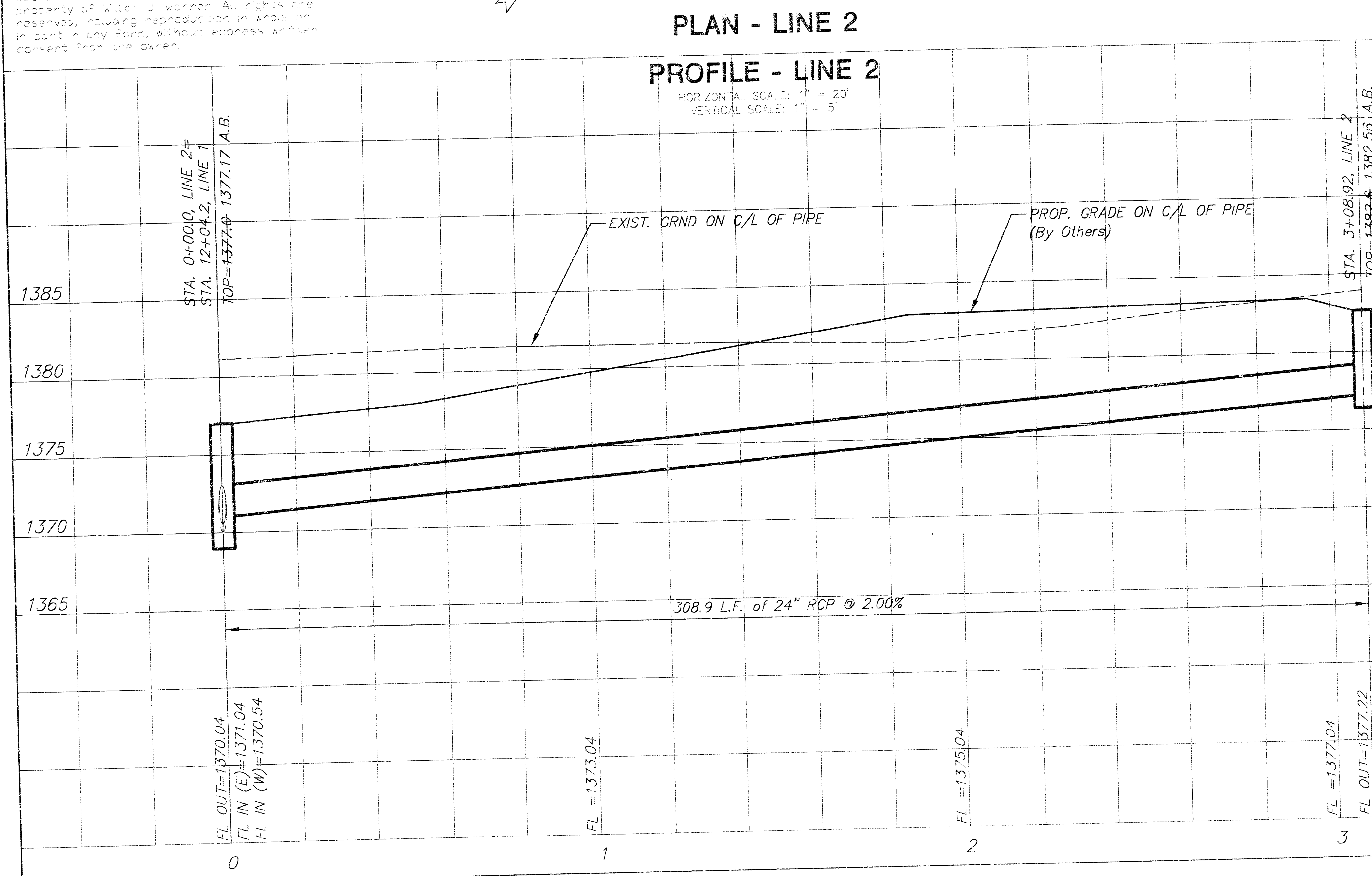
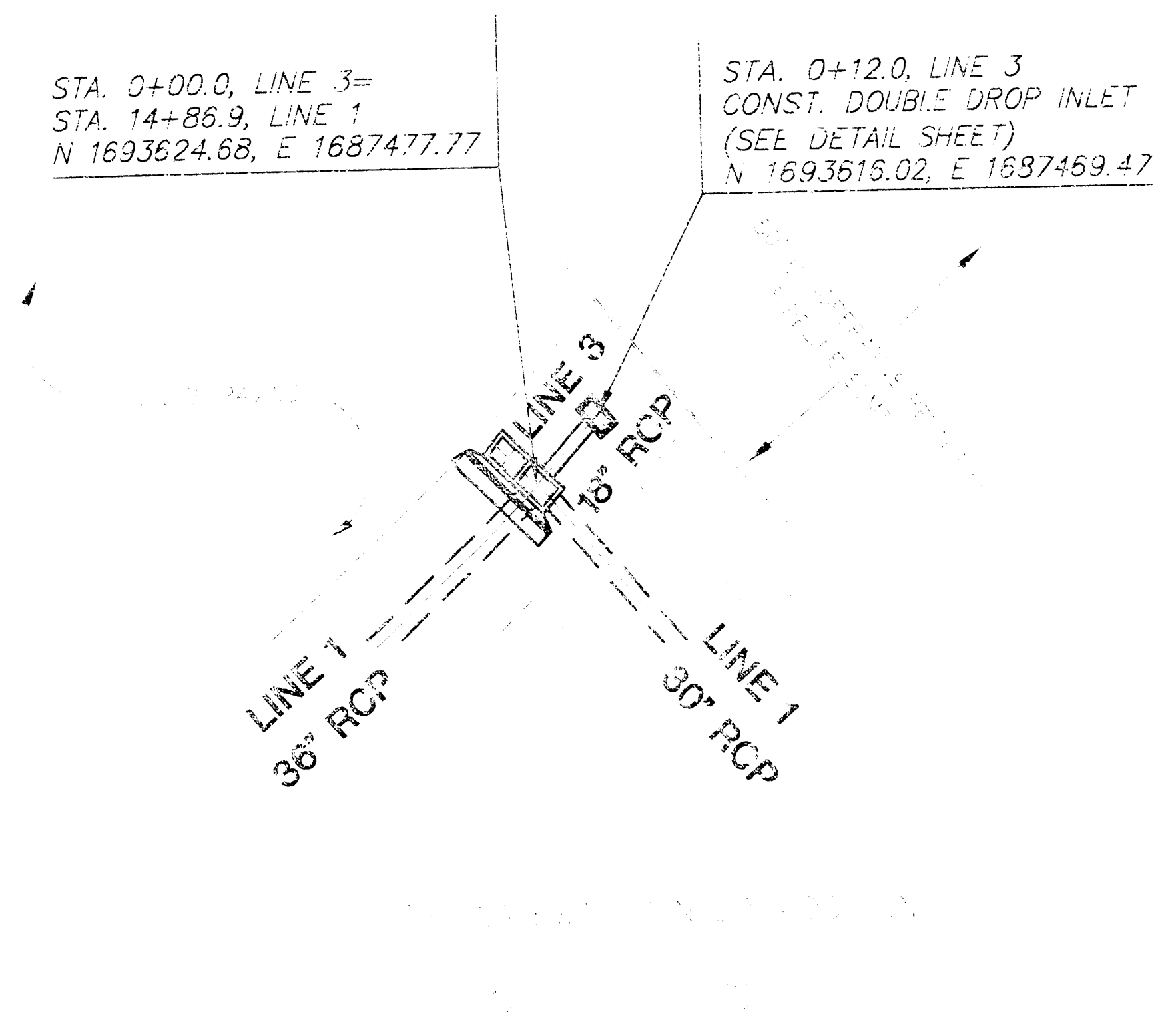
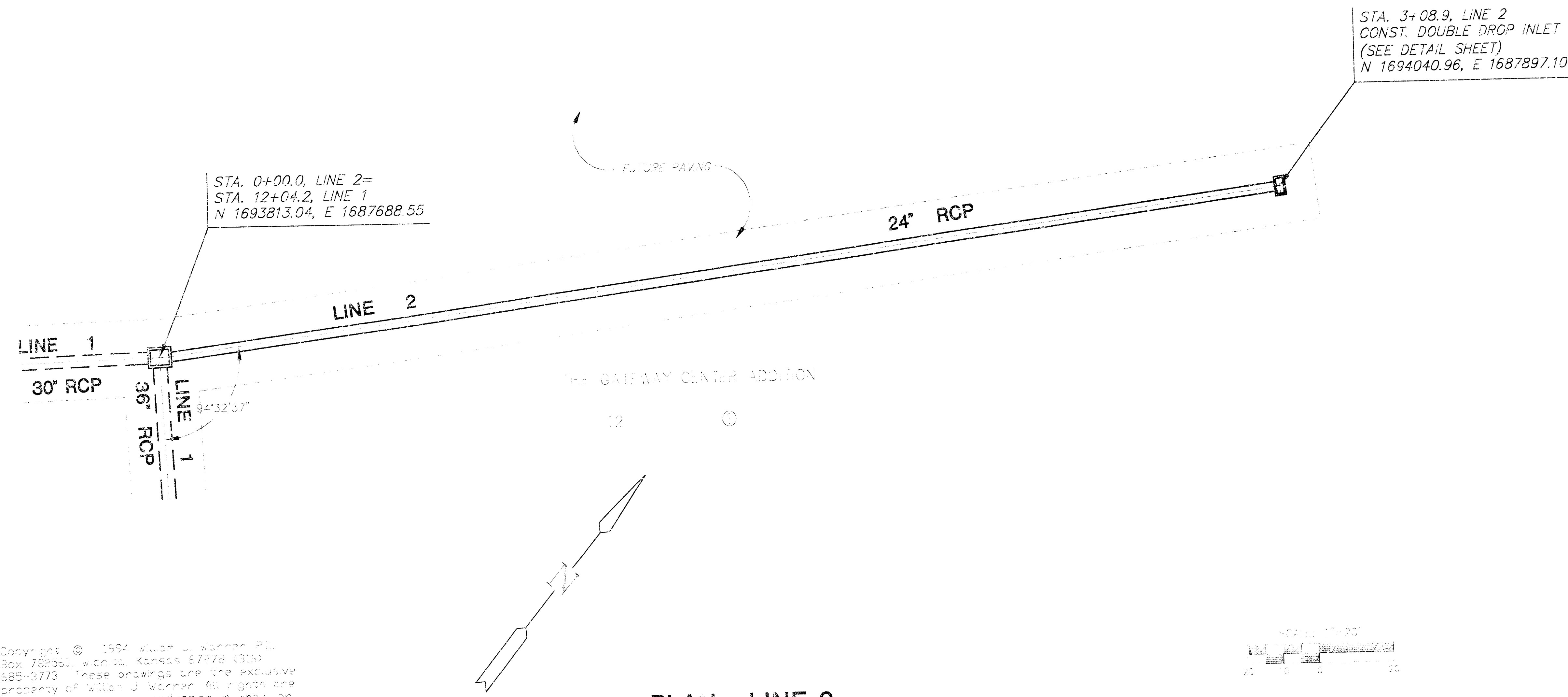
PLAN - LINE 1

PROFILE - LINE 1

HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 5'



THE WARREN THEATER  
STORM WATER SEWER



AS BUILT 3/1/01

\\MSFC\100\EW\OWA\FTP\A\JFK Tue Jan 15 12:47:50 2001

