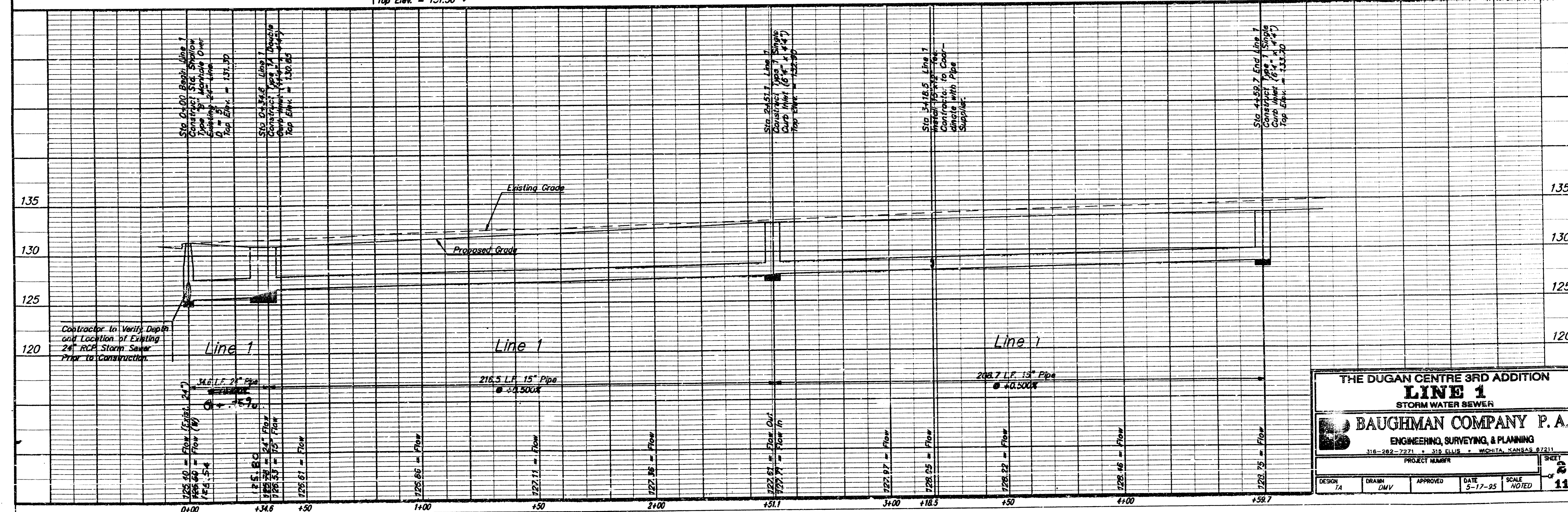
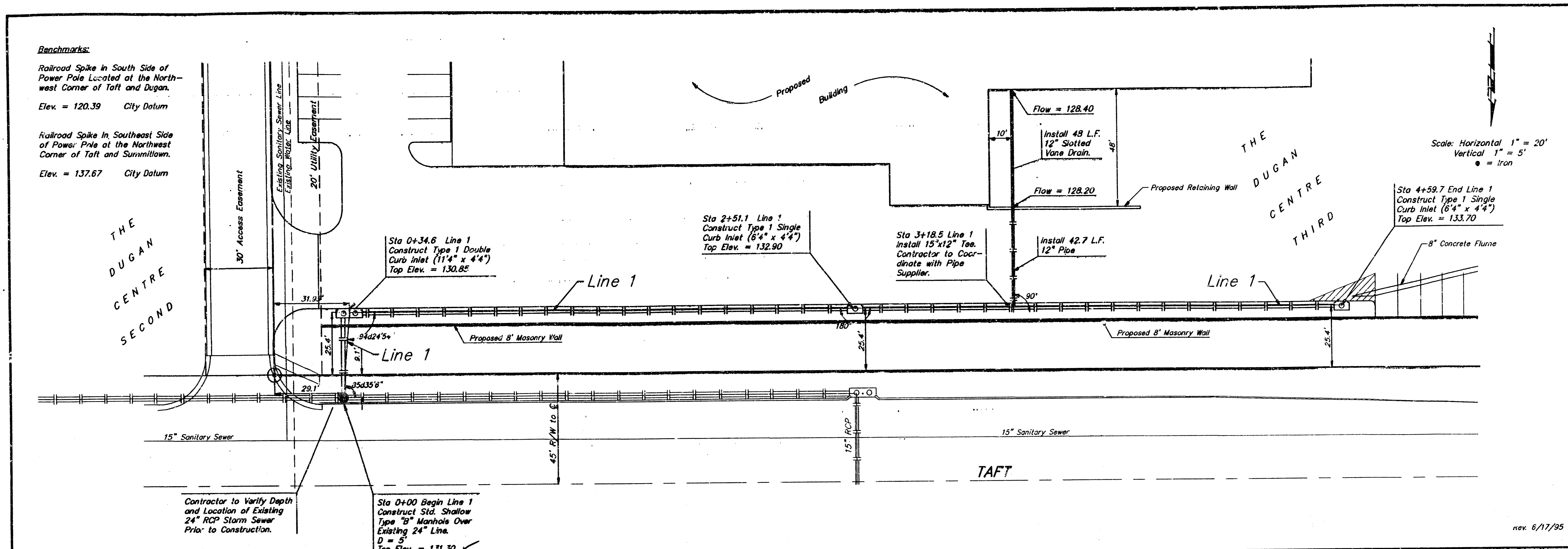


Benchmarks:

Railroad Spike in South Side of Power Pole Located at the Northwest Corner of Taft and Dugan.
Elev. = 120.39 City Datum

Railroad Spike in Southeast Side of Power Pole at the Northwest Corner of Taft and Summitlawn.
Elev. = 137.67 City Datum

Scale: Horizontal 1" = 20'
Vertical 1" = 5'
● = Iron



THE DUGAN CENTRE 3RD ADDITION
LINE 1
STORM WATER SEWER

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
318-282-7271 • 318 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER: _____ SHEET: **11**

DESIGN: TA DRAWN: DMV APPROVED: _____ DATE: 5-17-95 SCALE: NOTED

REV. 6/17/95

Benchmarks:

Railroad Spike in South Side of Power Pole Located at the Northwest Corner of Taft and Dugan.
Elev. = 120.39 City Datum

Railroad Spike in Southeast Side of Power Pole at the Northwest Corner of Taft and Summitlawn.
Elev. = 137.67 City Datum

Elev. = 137.67 City Datum

Sta 0+00 Begin Line 2
Install End Section and
Extend 24" Pipe North.
Install 20 S.Y. Light
Stone Rip Rap.

RESERVE
"A"

Design Water Surface
Elevation = 123.00

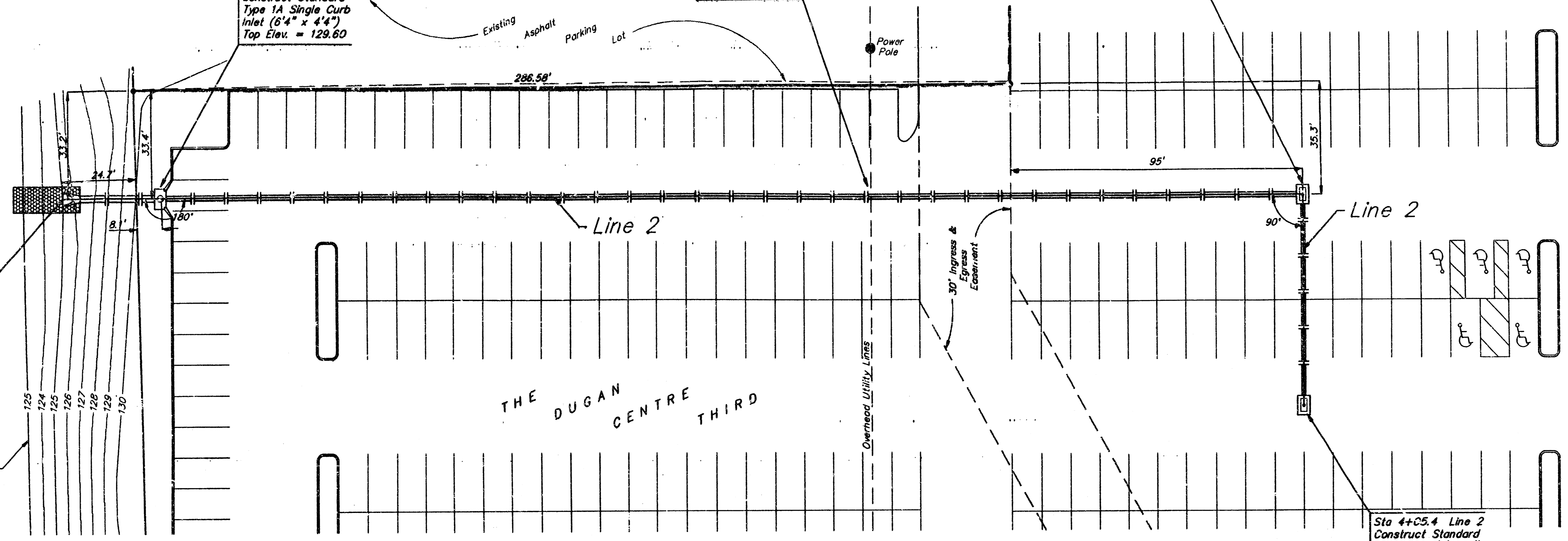
Sta 0+32.8 Line 2
Construct Standard
Type 1A Single Curb
Inlet (6'4" x 4'4")
Top Elev. = 129.60

PART OF LOT 2 THE DUGAN CENTRE

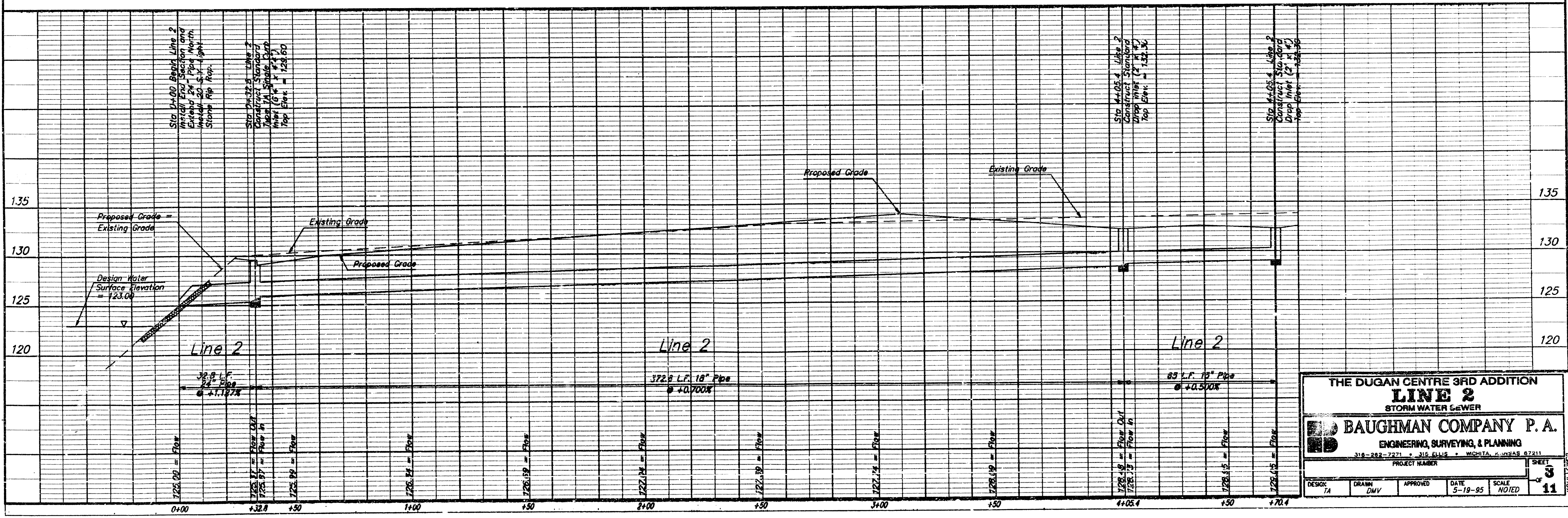
Caution! Overhead
Utility Lines in
Construction Area.

Sta 4+05.4 Line 2
Construct Standard
Drop Inlet (2' x 4')
Top Elev. = 132.30

Scale: Horizontal 1" = 20'
Vertical 1" = 5'
● = Iron



Rev. 6/17/95



THE DUGAN CENTRE 3RD ADDITION
LINE 2
STORM WATER SEWER

BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING, & PLANNING
318-282-7271 • 318 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER: _____
DESIGN: TA DRAWN: DMV APPROVED: _____ DATE: 5-19-95 SCALE: NOTED SHEET: 3 OF 11

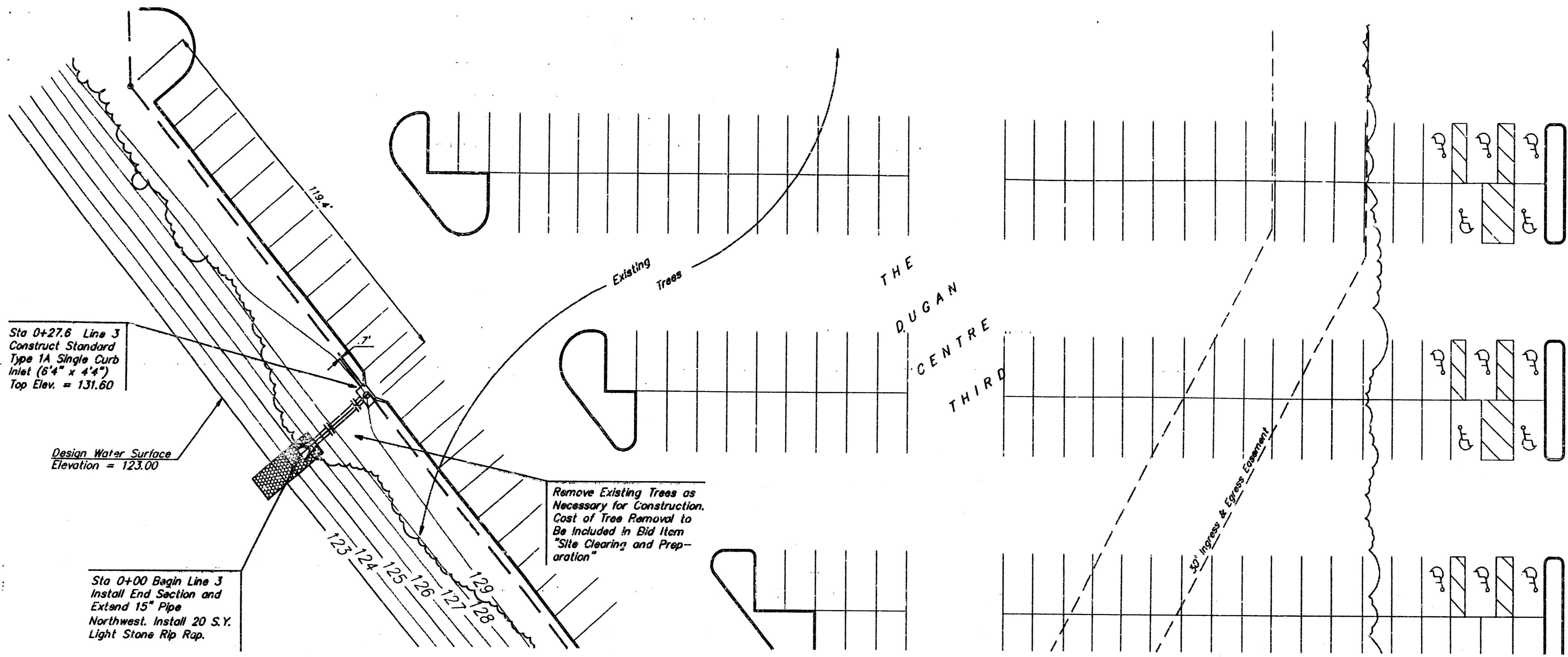
NOTE: 15/95

Benchmarks:

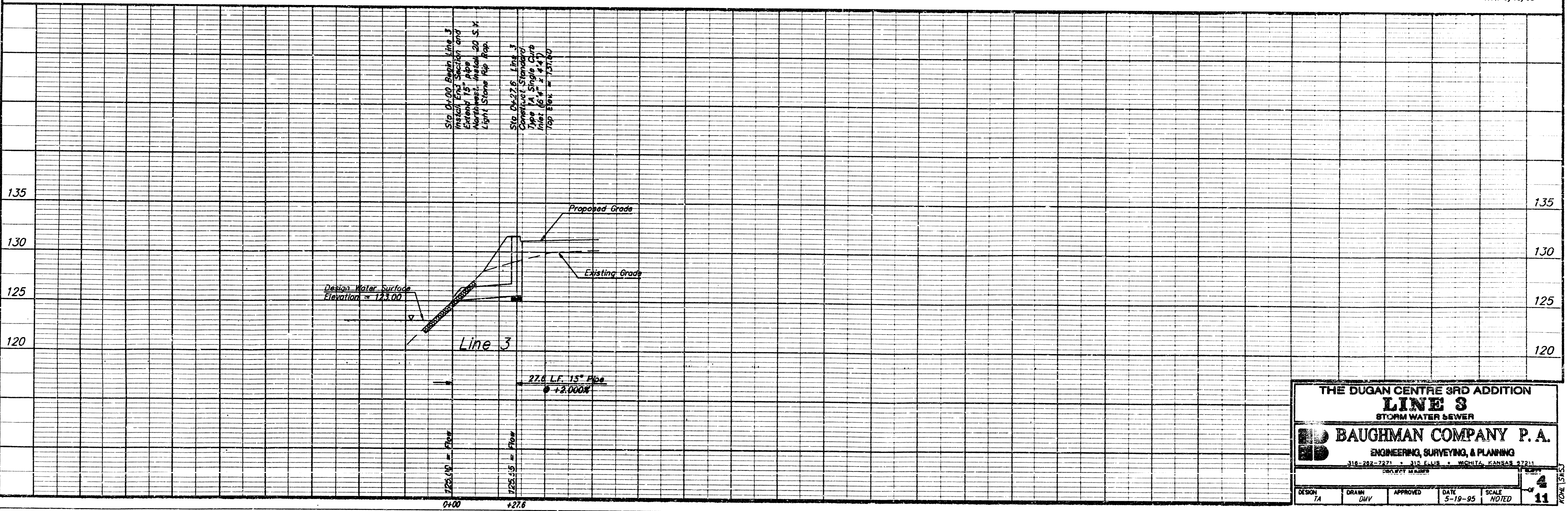
Railroad Spike in South Side of Power Pole Located at the Northwest Corner of Taft and Dugan.
Elev. = 120.39 City Datum

Railroad Spike in Southeast Side of Power Pole at the Northwest Corner of Taft and Summitlawn.
Elev. = 137.67 City Datum

Scale: Horizontal 1" = 20'
Vertical 1" = 5'
● = Iron



Rev. 6/15/95



THE DUGAN CENTRE 3RD ADDITION			
LINE 3			
STORM WATER SEWER			
BAUGHMAN COMPANY P. A.			
ENGINEERING, SURVEYING, & PLANNING			
316-282-2822 • 312 S. GALE • HOUSTON, KANSAS 67111			
PROPERTY MAPS			
DESIGN TA	DRAWN DMV	APPROVED	DATE 5-19-95
		SCALE NOTED	4 OF 11

Benchmarks:

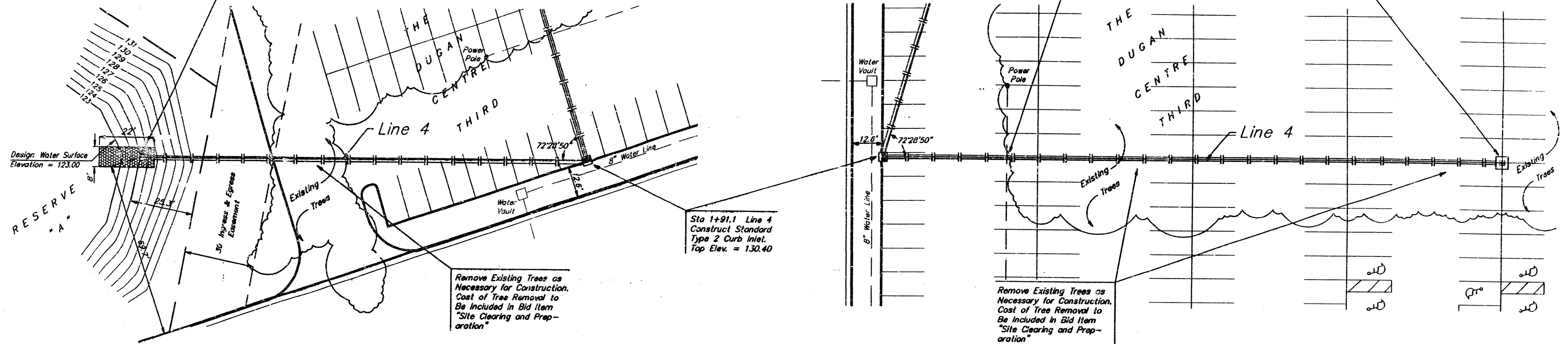
Railroad Spike in South Side of Power Pole Located at the Northwest Corner of Taft and Dugan.
Elev. = 120.39 City Datum

Railroad Spike in Southeast Side of Power Pole Located at the Northwest Corner of Taft and Summitlawn.
Elev. = 137.67 City Datum

Sta 0+00 Begin Line 4
Install End Section and
Extend 18" Pipe
Northeast. Install 20 S.Y.
Light Stone Rip Rap.

Scale: Horizontal 1" = 20'
Vertical 1" = 5'
• = Iron

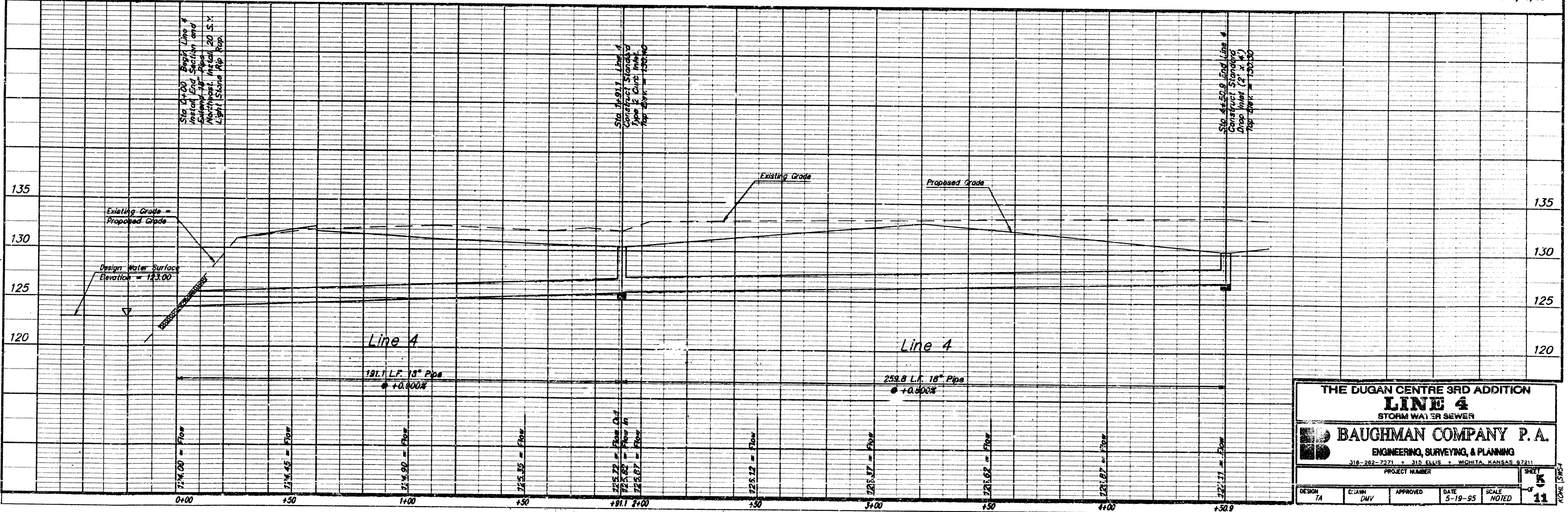
Scale: Horizontal 1" = 20'
Vertical 1" = 5'
• = Iron



Remove Existing Trees as Necessary for Construction. Cost of Tree Removal to Be Included in Bid Item "Site Clearing and Preparation"

Remove Existing Trees as Necessary for Construction. Cost of Tree Removal to Be Included in Bid Item "Site Clearing and Preparation"

Rev. 6/15/95



THE DUGAN CENTRE 3RD ADDITION
LINE 4
STORM WATER SEWER

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING
316-282-7171 • 312 ELLIS • WICHITA, KANSAS 67211

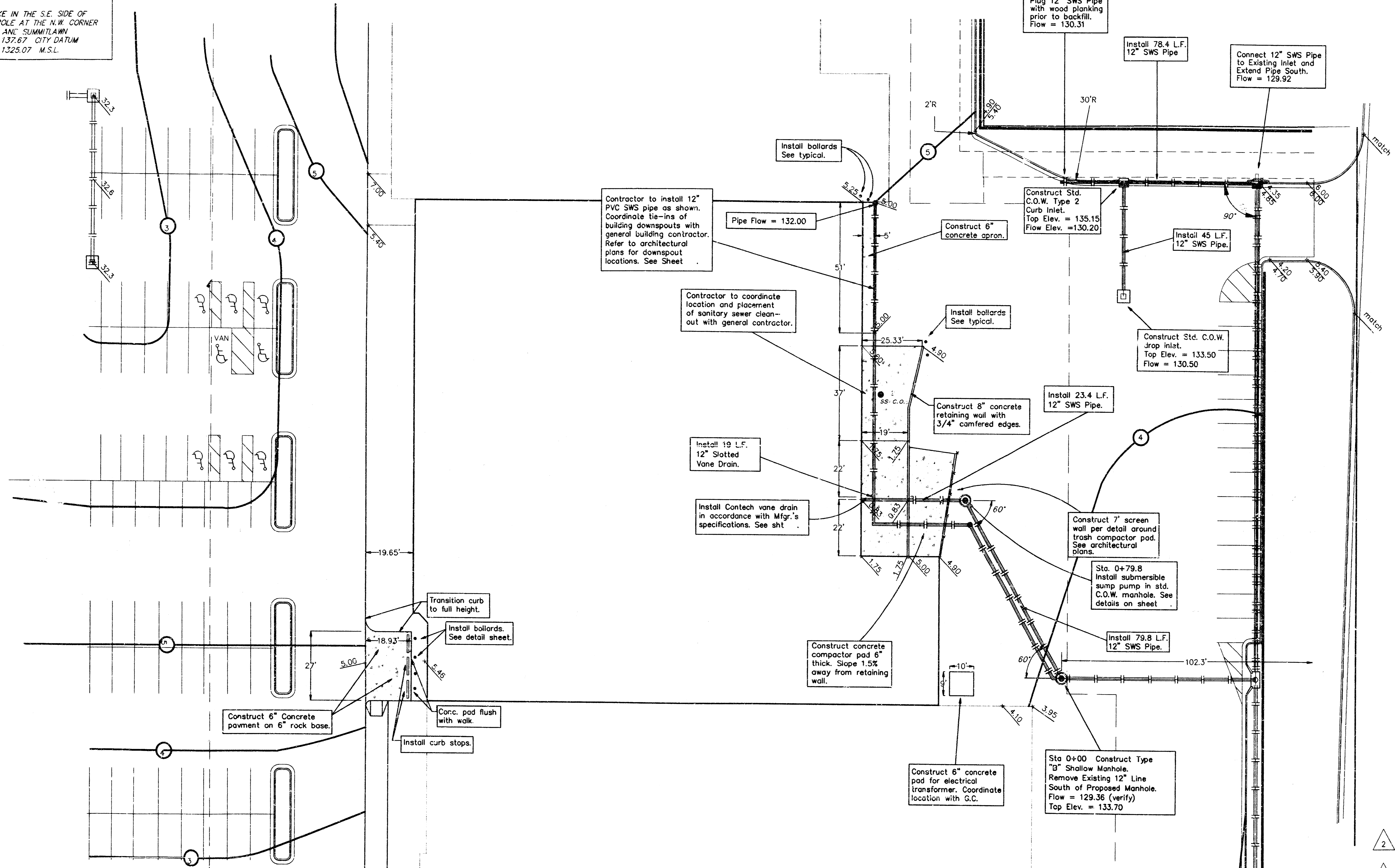
PROJECT NUMBER

DESIGN TA	DRAWN D.V.V.	APPROVED	DATE 5-19-95	SCALE NOTED	SHEET 11
--------------	-----------------	----------	-----------------	----------------	-------------

BENCHMARKS:
 R.R. SPIKE IN SOUTH SIDE OF
 POWER POLE AT THE N.W. CORNER
 OF TAFT AND DUGAN
 ELEV. = 120.39 CITY DATUM
 ELEV. = 1307.79 M.S.L.

R.R. SPIKE IN THE S.E. SIDE OF
 POWER POLE AT THE N.W. CORNER
 OF TAFT AND SUMMITLAWN
 ELEV. = 137.67 CITY DATUM
 ELEV. = 1325.07 M.S.L.

SCALE: 1" = 20'



- GENERAL NOTES:**
1. Storm sewer pipe designated as PVC shall be Contech A2000 pipe. Pipe not designated as PVC shall be Contech Ultra Flow. Storm sewer pipe shall be installed in accordance with the manufacturers specifications.
 2. Building contractor will be required to obtain a permit from Central Inspection prior to connecting building down-spouts to the stormwater drainage system.

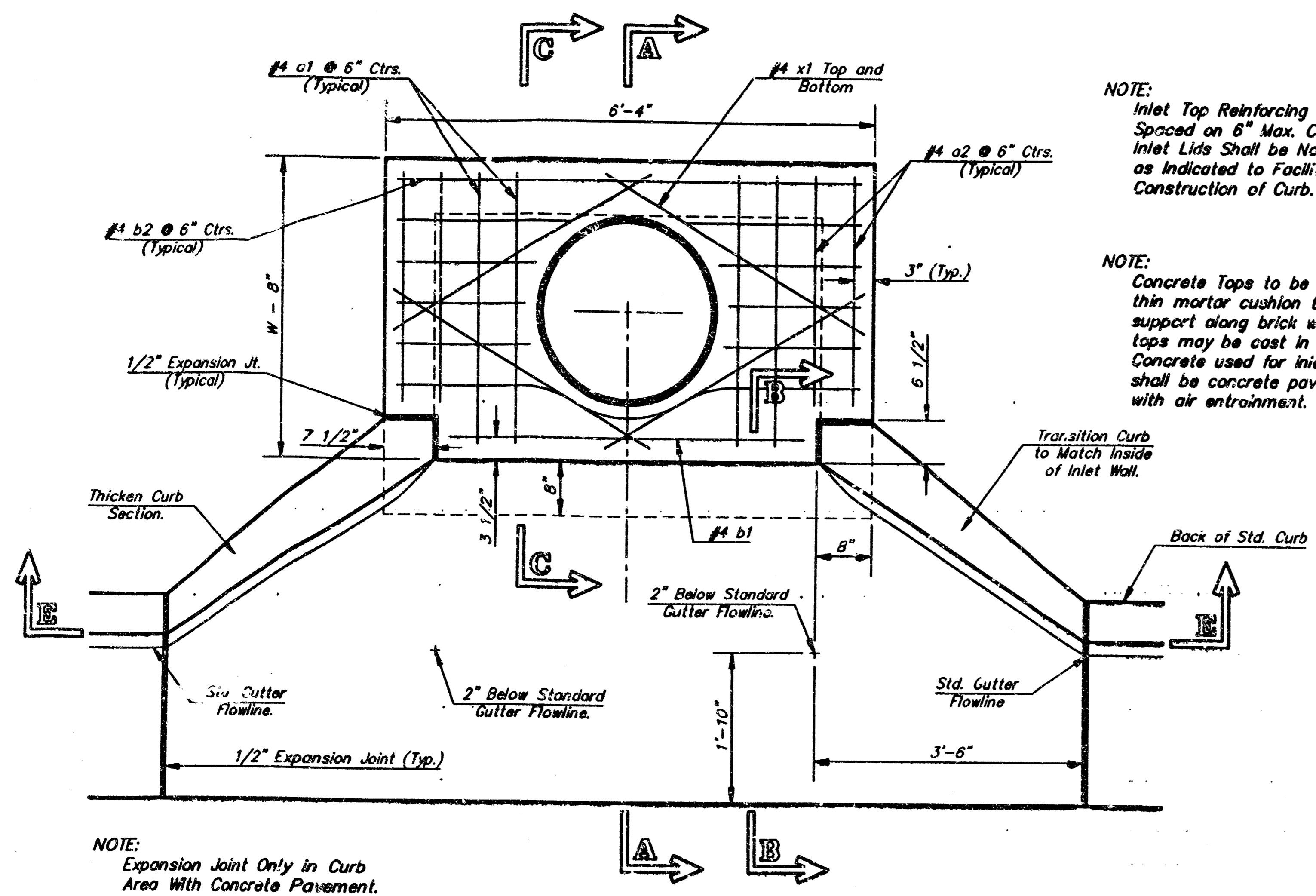
- 2 Revised Jan. 25, 1996
- 1 Revised Dec. 1, 1995

THE DUGAN CENTRE 3RD ADDITION
STORM SEWER
 ADDITIONS

BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 316-262-7271 • 315 FILLIS • WICHITA, KANSAS 67201

PROJECT NUMBER 580PPS(807881)		SHEET 5a
DESIGN 7A	DRAWN 7A	APPROVED DATE OCT.95
		SCALE NOTED

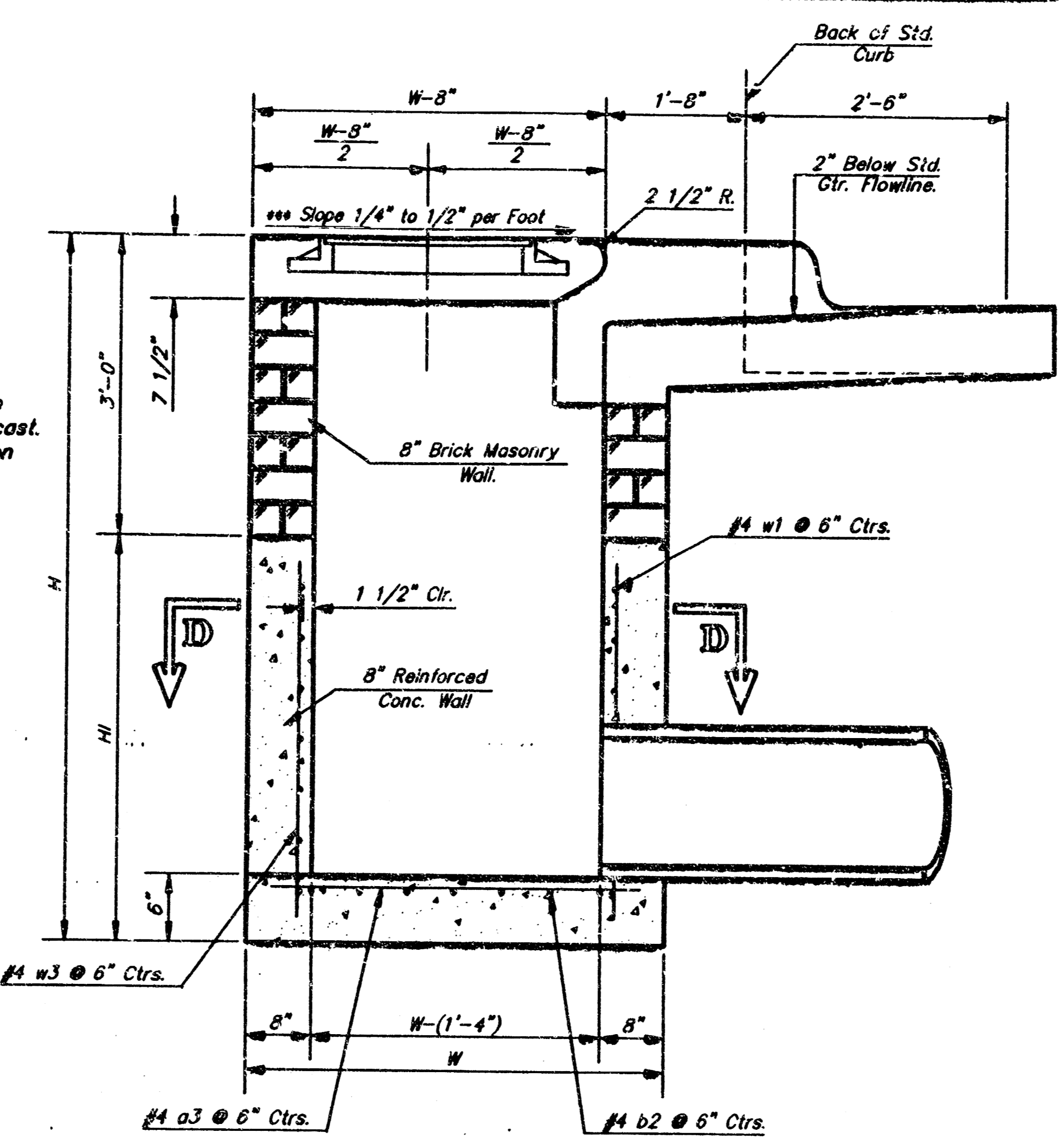
CIRCULATED 05/20/05



NOTE: Inlet Top Reinforcing shall be Spaced on 6" Max. Centers. Inlet Lids Shall be Notched Out as Indicated to Facilitate Construction of Curb.

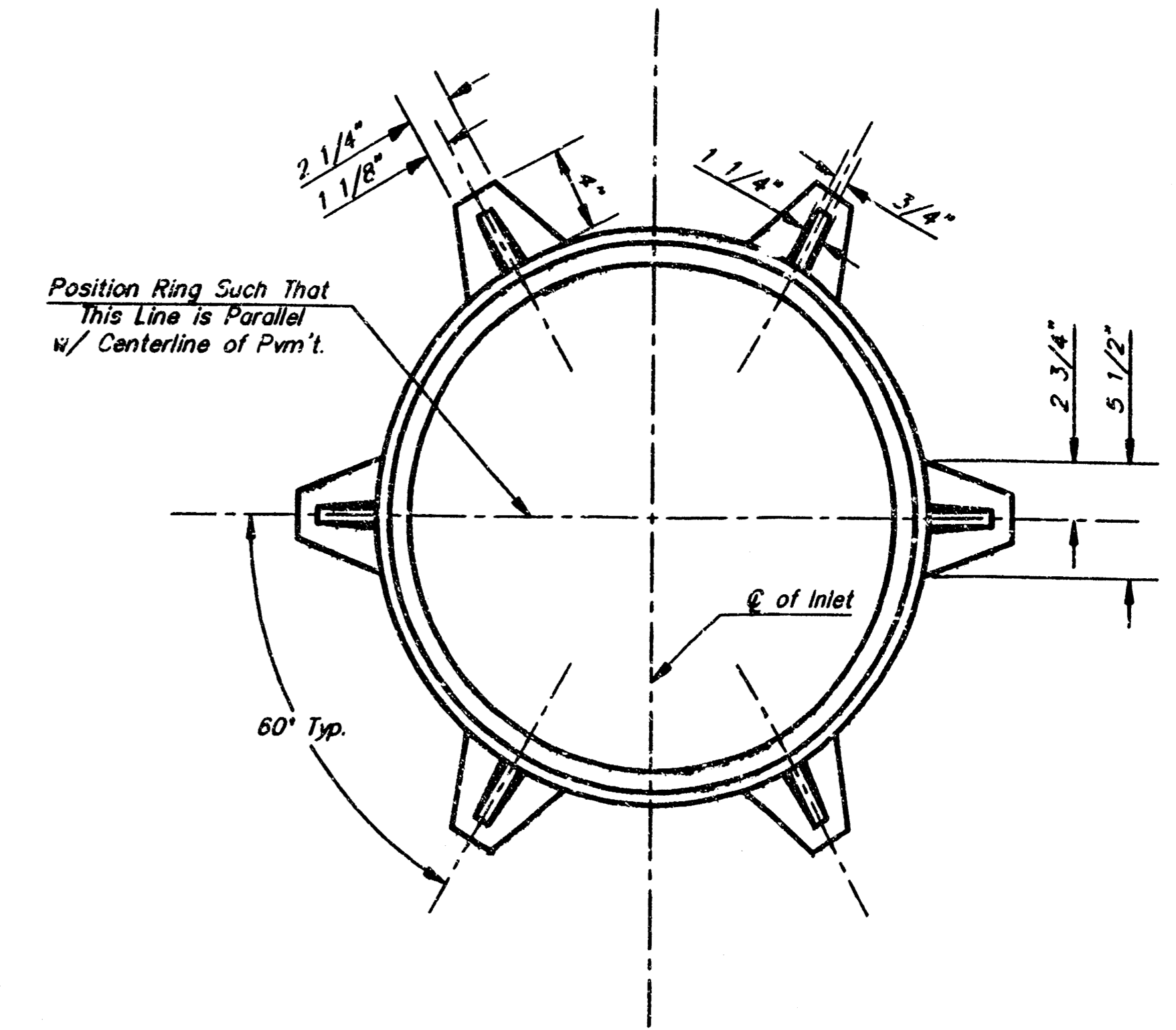
NOTE: Concrete Taps to be Installed on thin mortar cushion to insure full support along brick walls. Concrete taps may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix with air entrainment.

NOTE: Expansion Joint Only in Curb Area With Concrete Pavement.



SECTION A-A

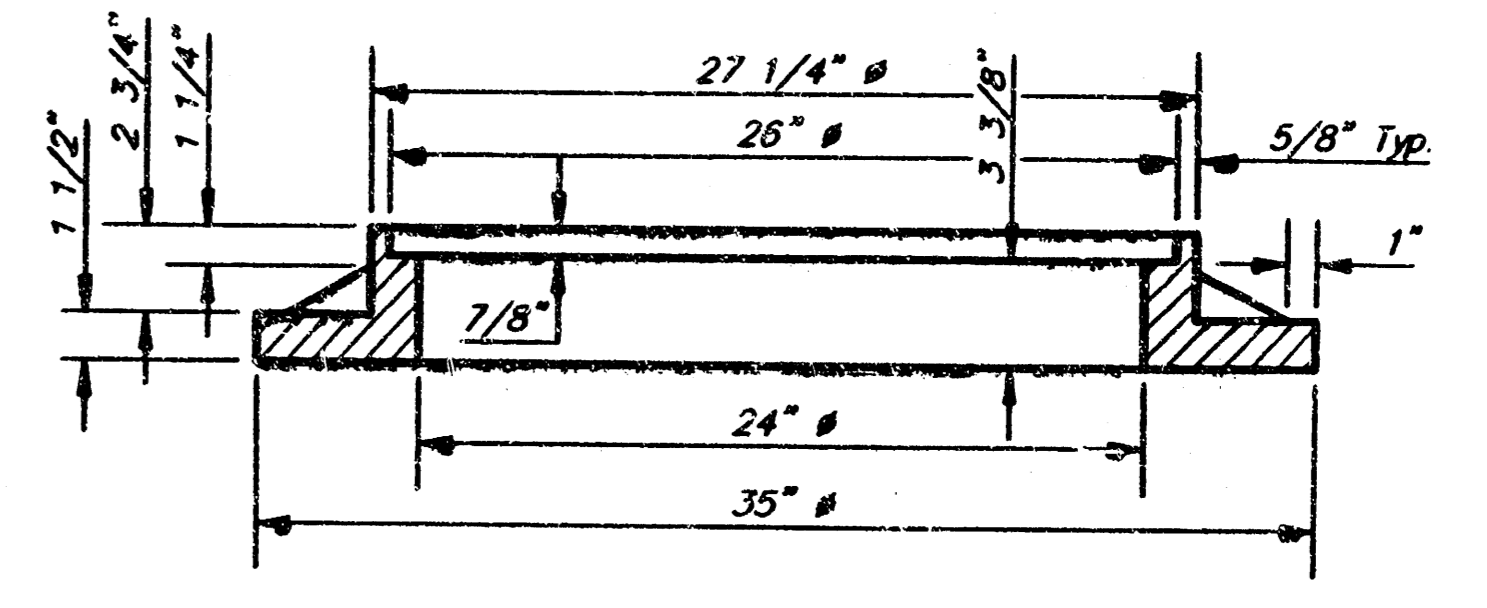
NOTE: Slope of inlet tops to Match Sidewalk or Parking Slopes within Limits Indicated.



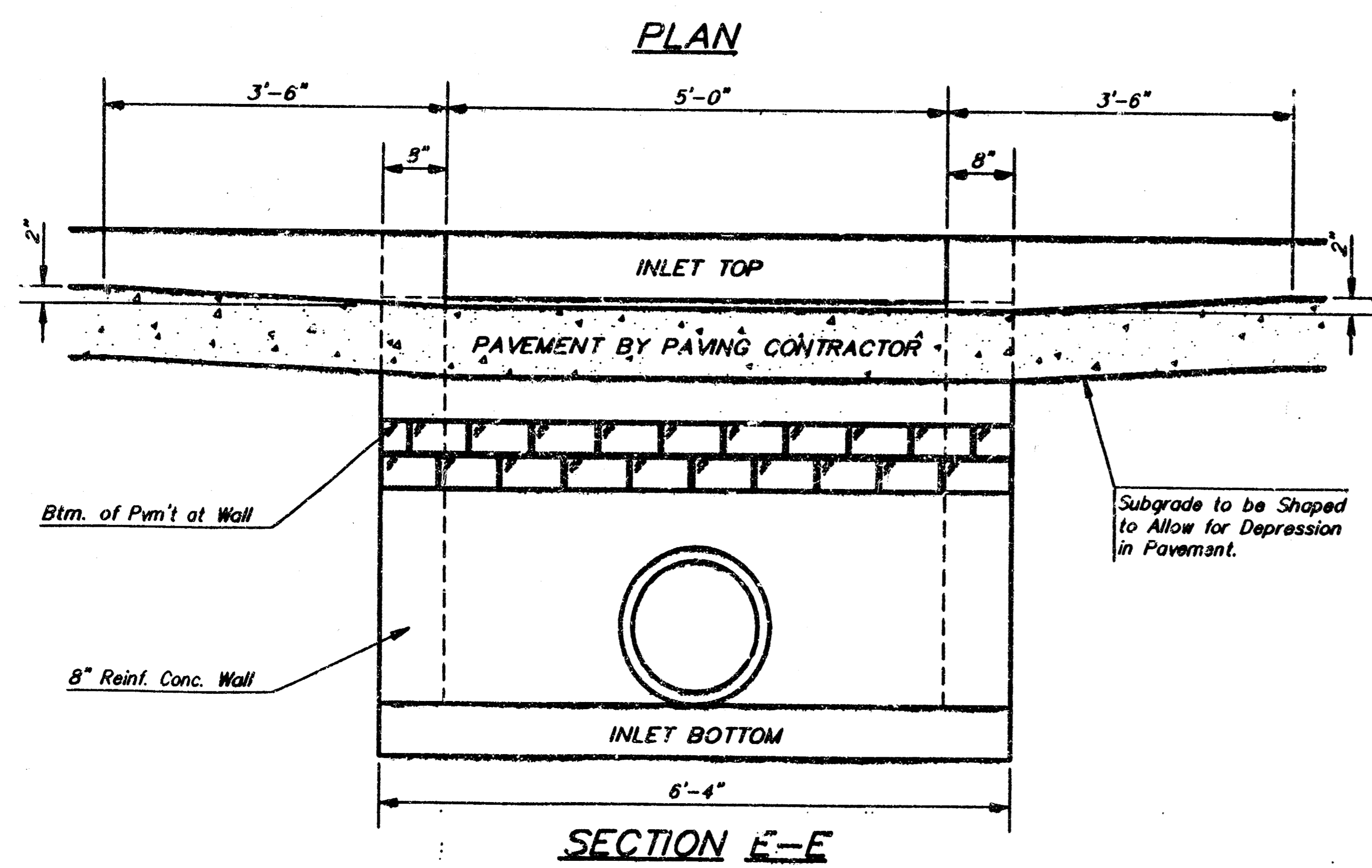
MANHOLE RING AND COVER

Weight = 180 Lbs.

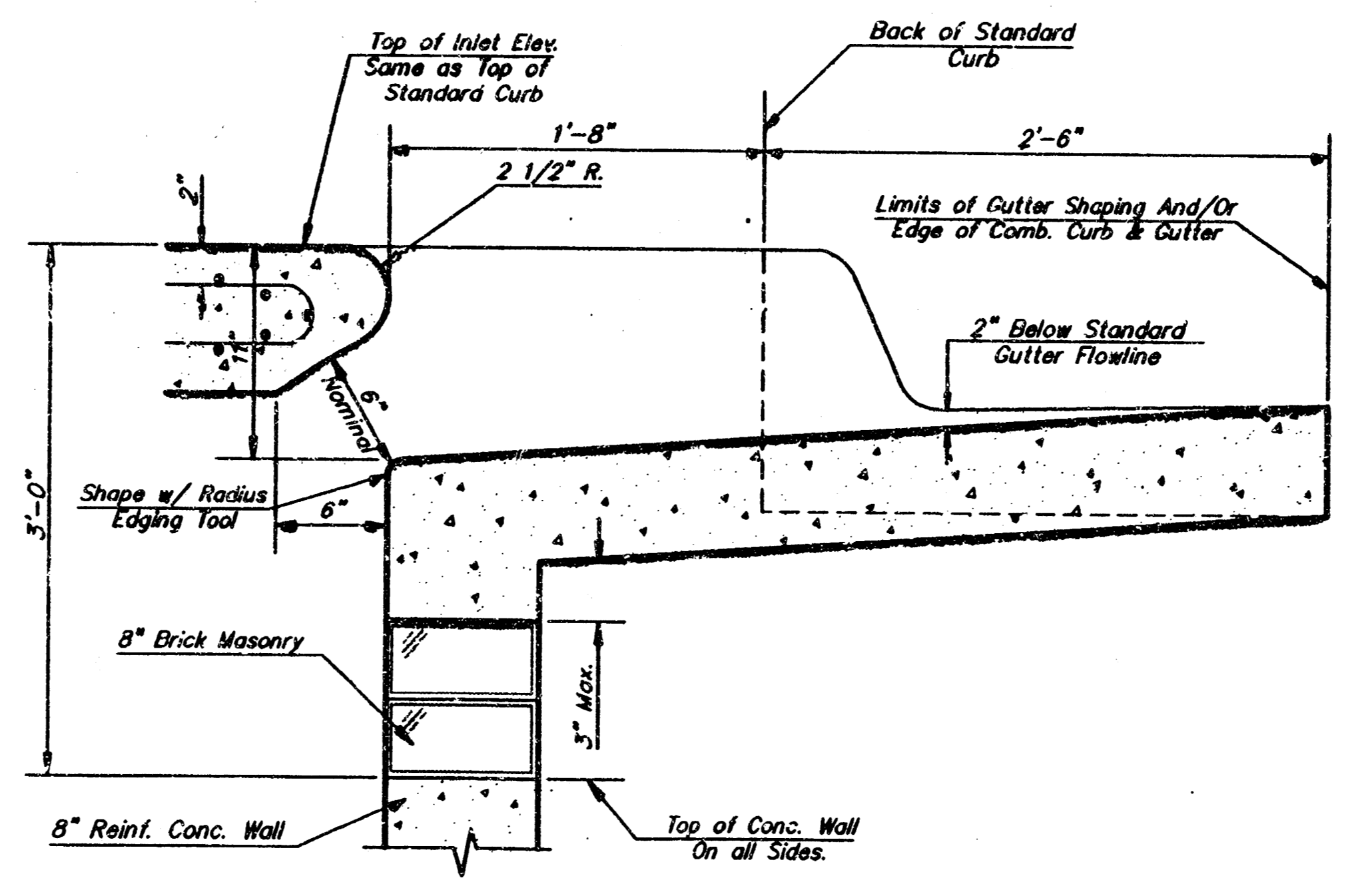
*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



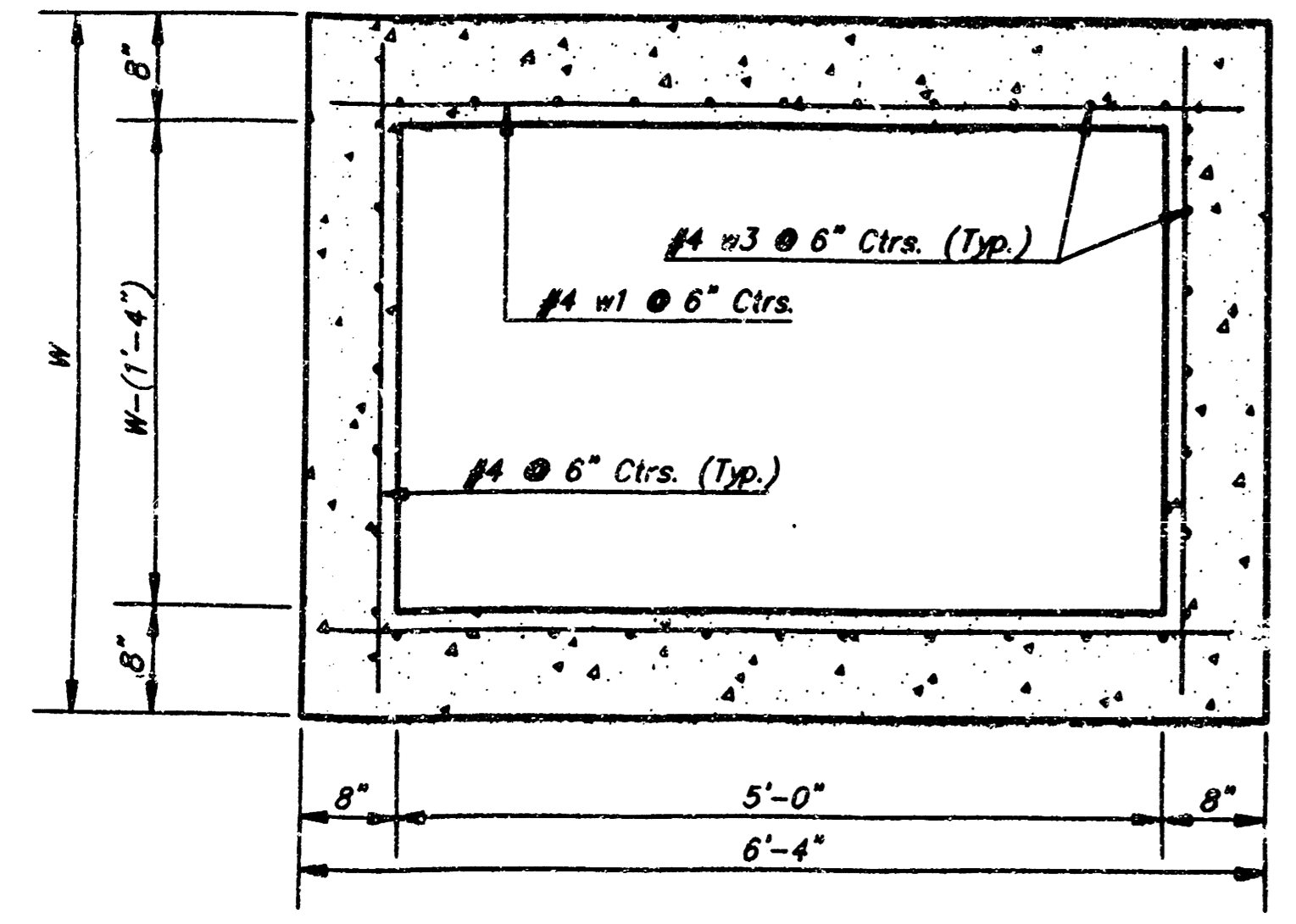
SECTION A-A



SECTION E-E



SECTION B-B



SECTION D-D

NOTE: Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet legs and top on this inlet when W=6'-4" and H=7'-0" or less.

Additional curb and gutter construction necessary to connect set-back inlet to pavement will be paid for at the unit price bid for each inlet hookup.

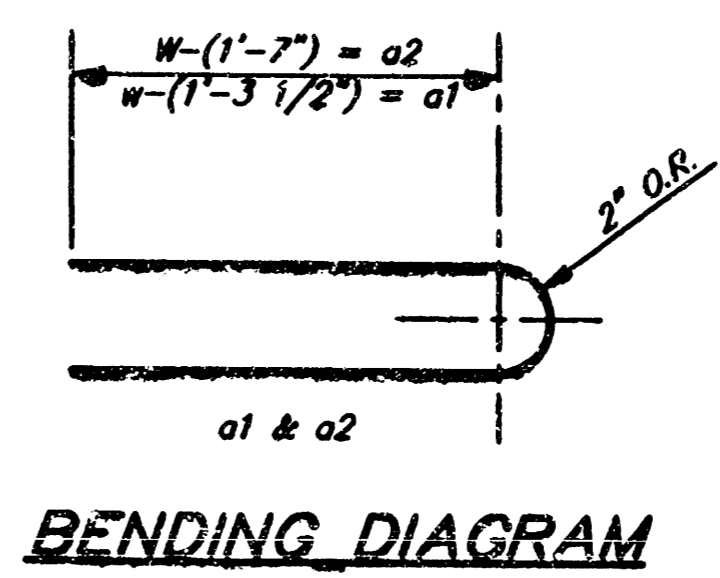
Inlet invert shall be shaped with 3 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self-cleaning between all inlet and/or outlet pipes.

The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.

PRECAST 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	6	5'-7"	6	8'-7"	8	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	6	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
w1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"

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
w1	#4	1	6'-1"	1	6'-1"	1	6'-1"	1	6'-1"	1	6'-1"
w2	#4	1	4'-1"	1	5'-1"	1	6'-1"	1	7'-1"	1	8'-1"
w3	#4	32	3"	35	3"	40	3"	44	3"	48	3"

* Field Bend or Cut Reinforcing as Required for Clearance.
 ① 4 (H - 12') (H - 21') Rounded down to nearest 0.5'
 ② H - 3'



BENDING DIAGRAM

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" x 6'-4" x 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8" x 6'-4" x 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8" x 6'-4" x 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8" x 6'-4" x 7 1/2"	48" & 54"	0.77±
8'-4"	7'-8" x 6'-4" x 7 1/2"	60" & 66"	0.90±

Revised - Feb. 16, 1989

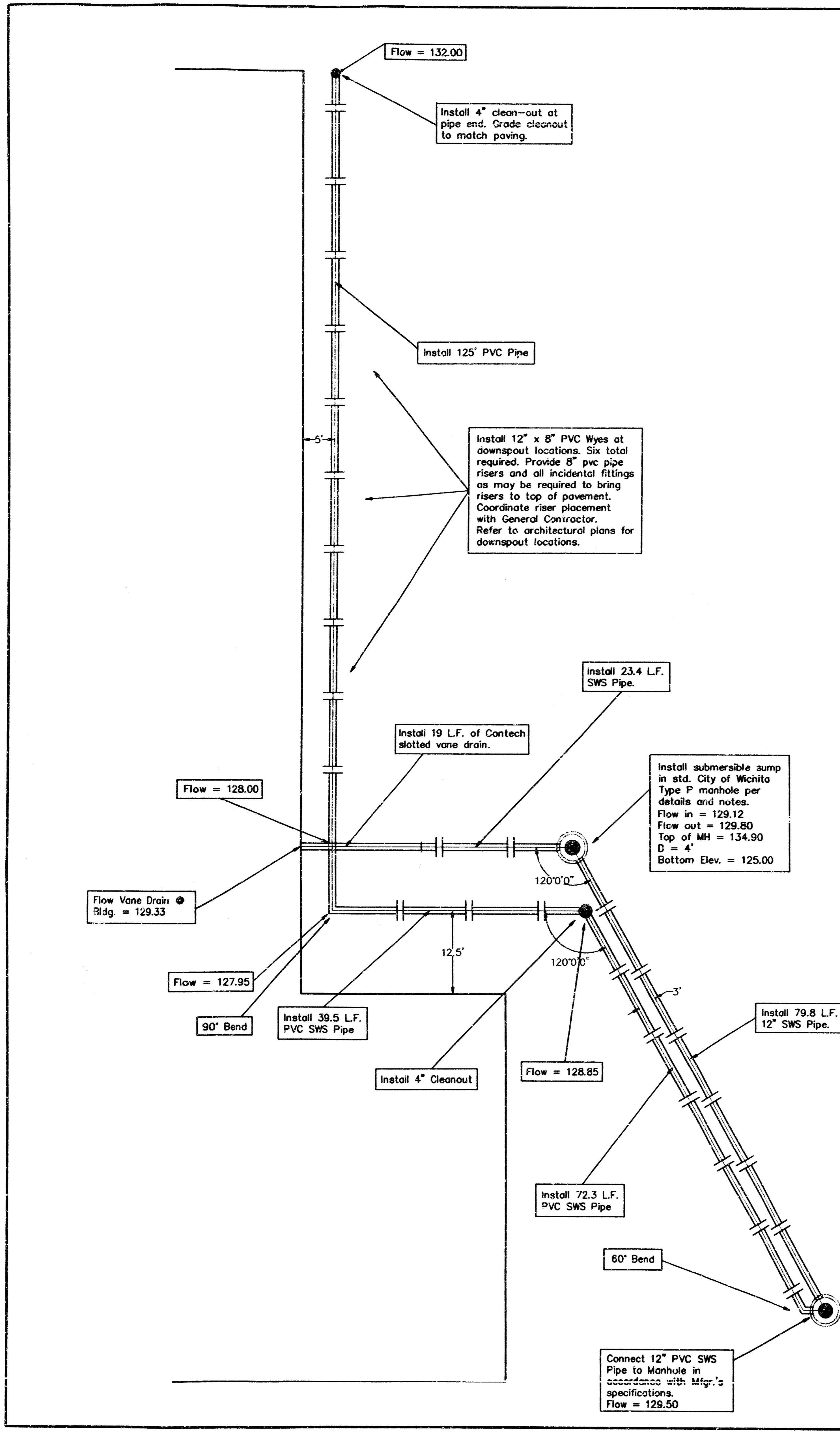
CITY OF WICHITA STANDARD TYPE 1A
Curb Inlet Details
 INLET OPENING = 6" x 6"

BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING
 316-282-7271 • 315 ELLIS • WICHITA, KANSAS 67211

PROJECT NUMBER: _____

DESIGN: _____ DRAWN: _____ APPROVED: _____ DATE: _____ SCALE: _____

SHEET 11 OF 11



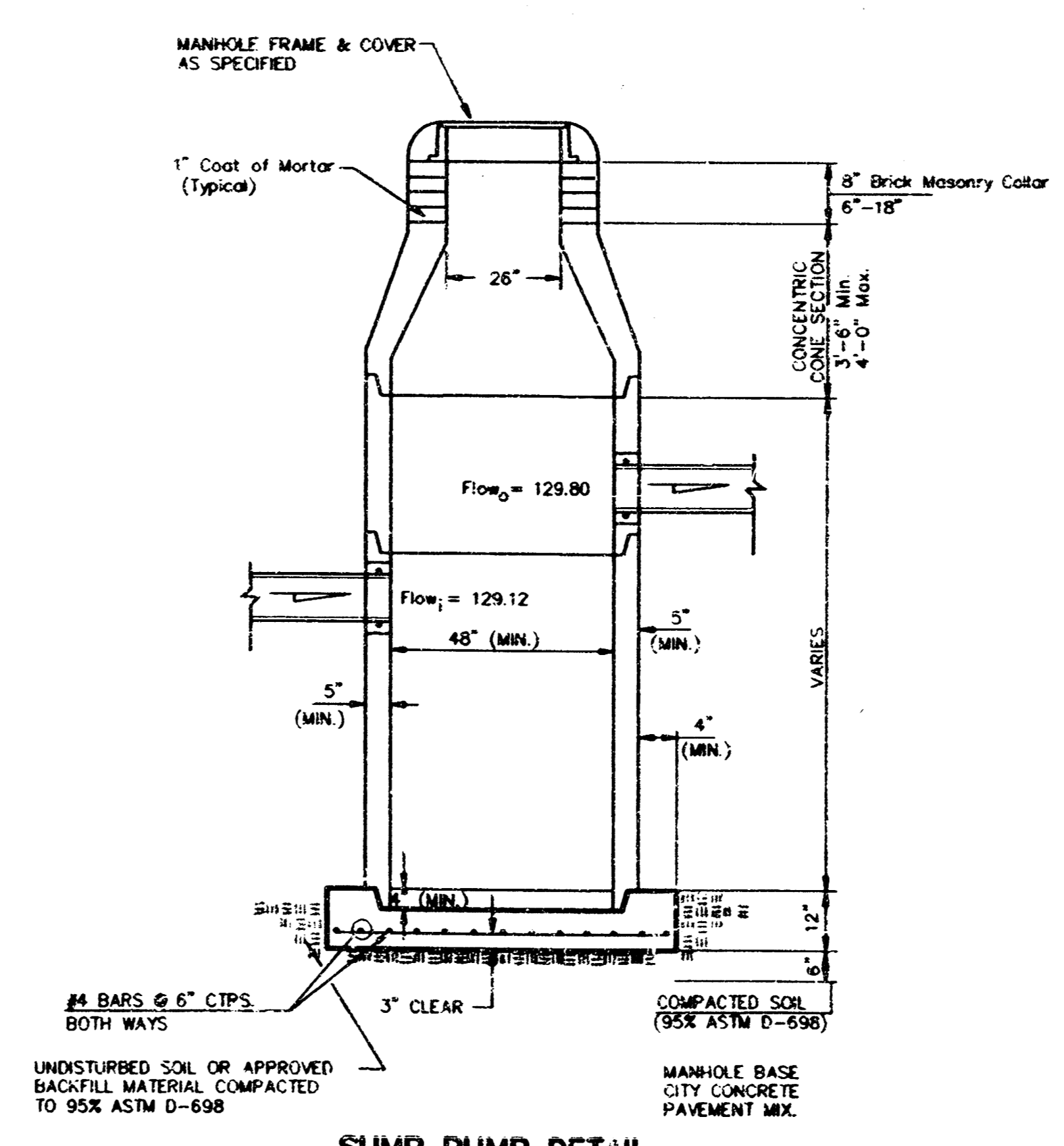
SCALE: 1" = 10'

SUMP PUMP NOTES:

- Submersible pump shall be equal to a Weil Model 2501 submersible simplex sump pump. Heavy duty case iron, double mechanical seal pump, with cast iron open impeller capable of pumping a 2" solid sphere. Stainless steel shaft with permanently lubricated single row, double seated bearings. NEMA-6 submersible hermetically sealed motor. Supply with appropriate length of neoprene jacketed power cable. Three inch discharge. Pump capacities 80 GPM @ 15' total head and 1 HP, 208/60/1, 1750RPM.
- Pump accessories shall include: 1) a NEMA 1 indoor simplex control panel with locking hinged cover (number 8111). Control panel shall include motor contactor, main disconnect switch, circuit breakers, control circuit transmitter, TOA selector switch, running pilot light, and terminal strip. 2) NEMA 6 (number 8231) simplex junction box with terminal strip. Junction box shall be installed in outdoor pit. 3) Number 8233 mercury float switches to cycle pump on-off. Supply with mounting accessories.
- Pump shall be installed in outdoor pit. Install piping union and ball valve in pump discharge pipe. Do not install check valve in discharge pipe. Securely anchor discharge pipe to inside walls of pit. Discharge pipe shall be Schedule 40 PVC with solvent welded joints.
- All electrical wiring and conduit is to be provided by and installed by electrical contractor per the National Electrical Code and/or the appropriate City of Wichita code.
- Junction box is to be installed above elevation 131.00 (city datum).
- Work to be coordinated by General Contractor with site, plumbing, mechanical, and/or electrical sub-contractors. Location of control panel box on inside of building to be coordinated by general contractor with building architect.

GENERAL NOTES:

- Storm sewer pipe designated as PVC shall be Contech A2000. Pipe shall be installed in accordance with the manufacturer's recommendations. Contractor to furnish and install all fittings as necessary to meet intent of plans.



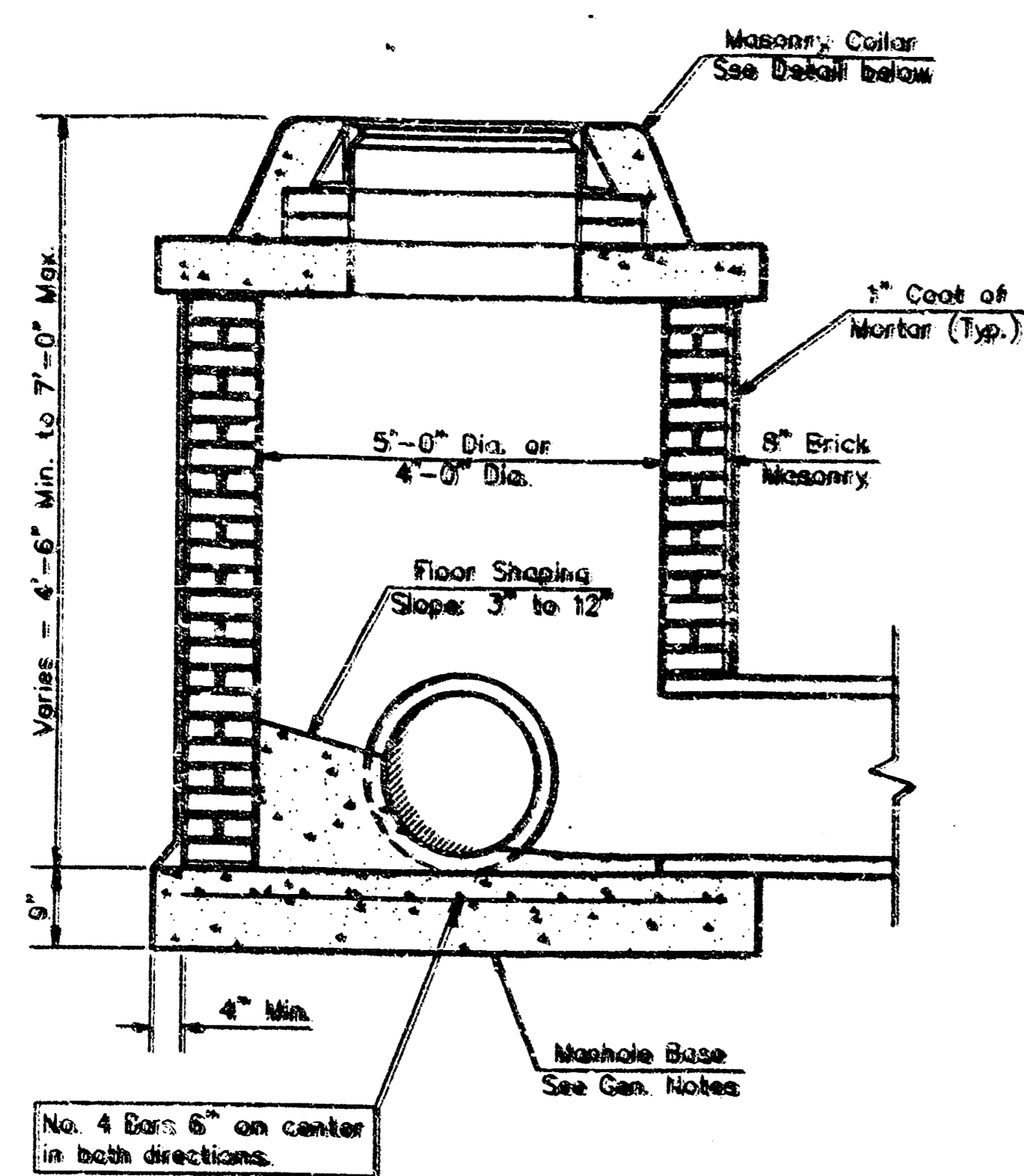
THE DUGAN CENTRE THIRD ADDITION
SWS DETAILS
 CIRCUIT CITY

BAUGHMAN COMPANY P.A.
 ENGINEERING, SURVEYING, & PLANNING
 316-262-7271 • 312 E. 6th St. • WICHITA, KANSAS 67211

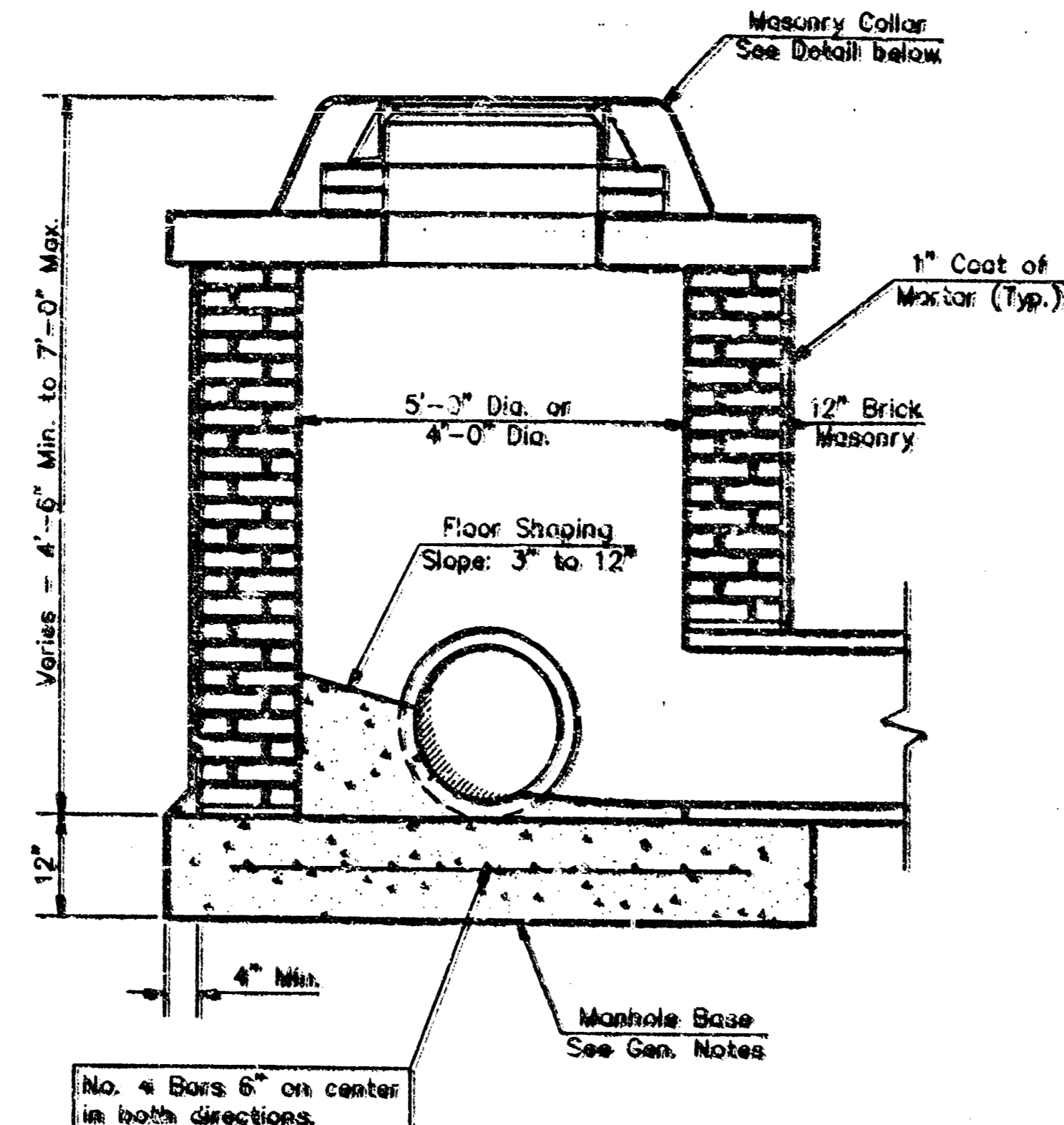
PROJECT NUMBER
580PPS(607861)

DESIGN TA	DRAWN TA	APPROVED	DATE JAN96
			SCALE

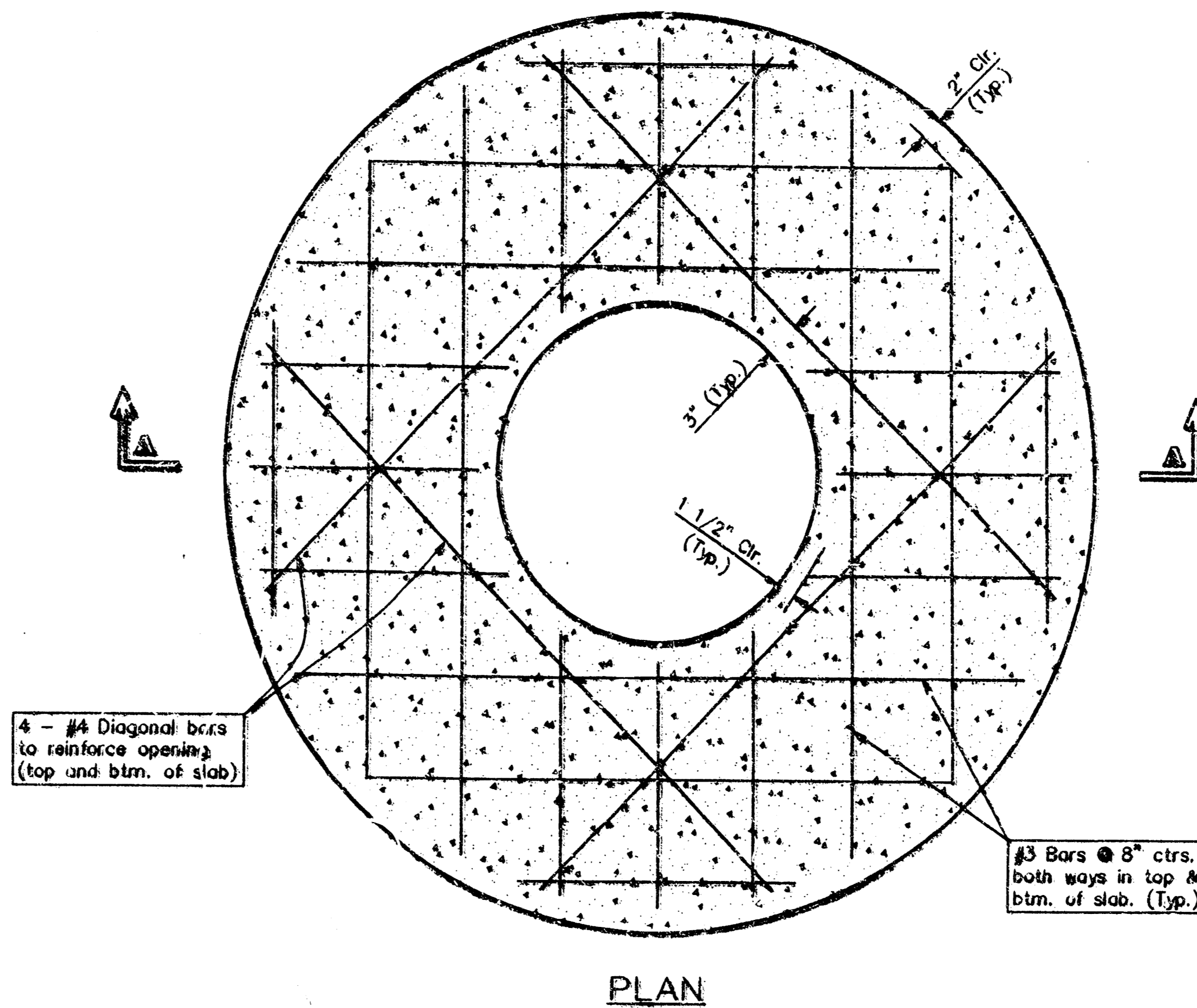
5b



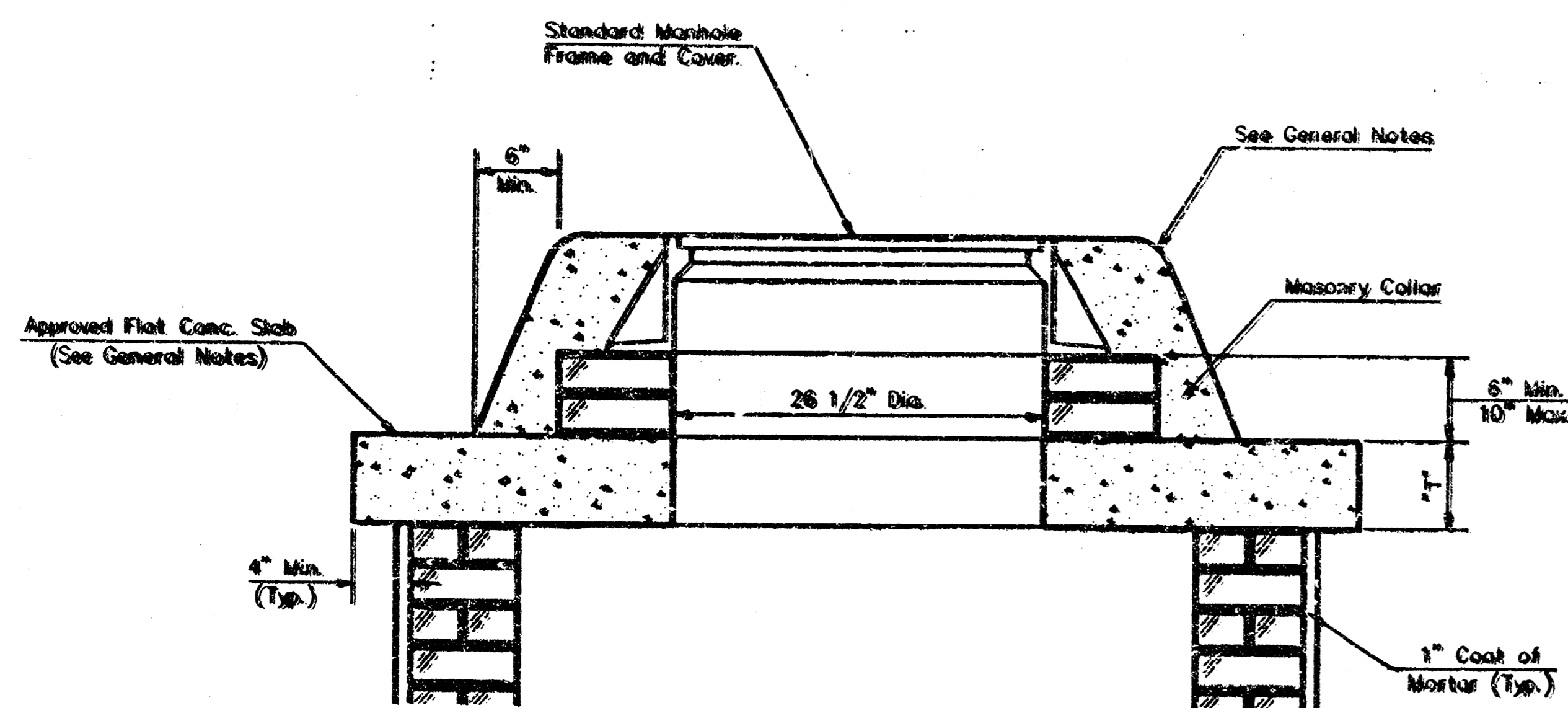
SHALLOW TYPE "A" MANHOLE



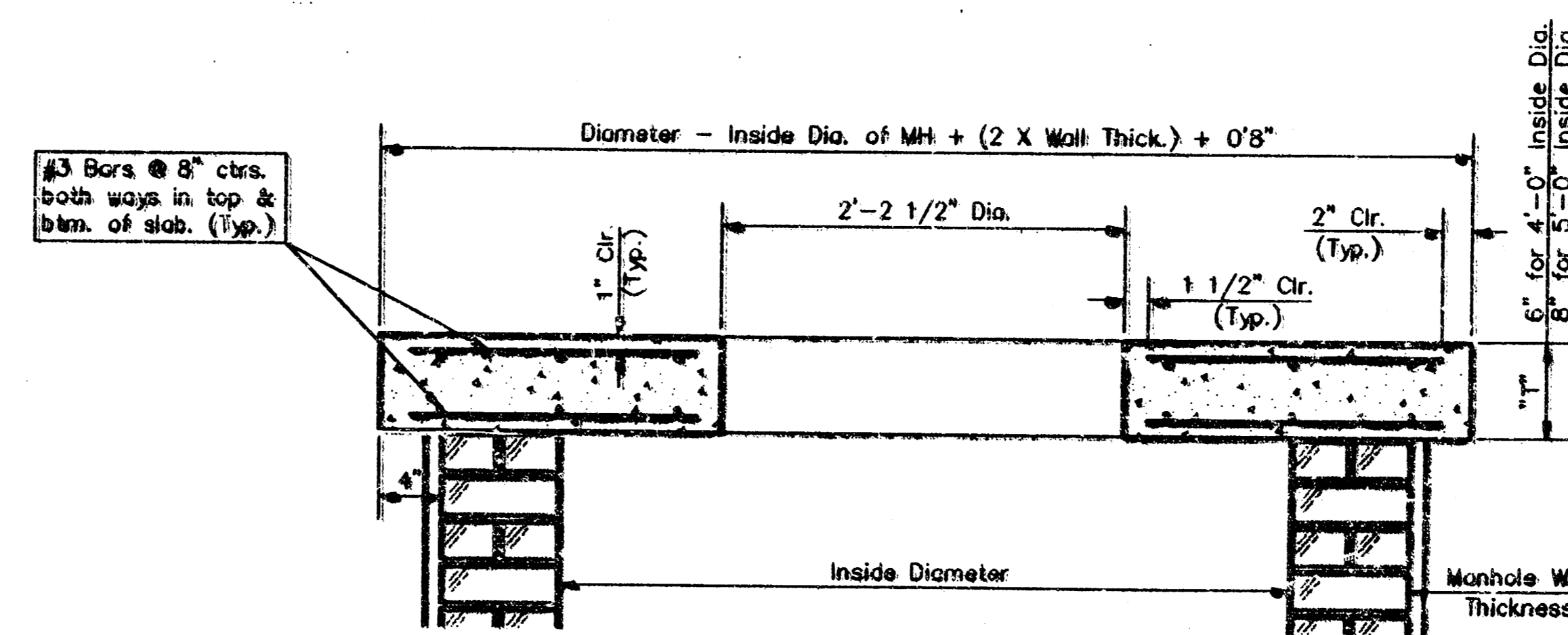
SHALLOW TYPE "B" MANHOLE



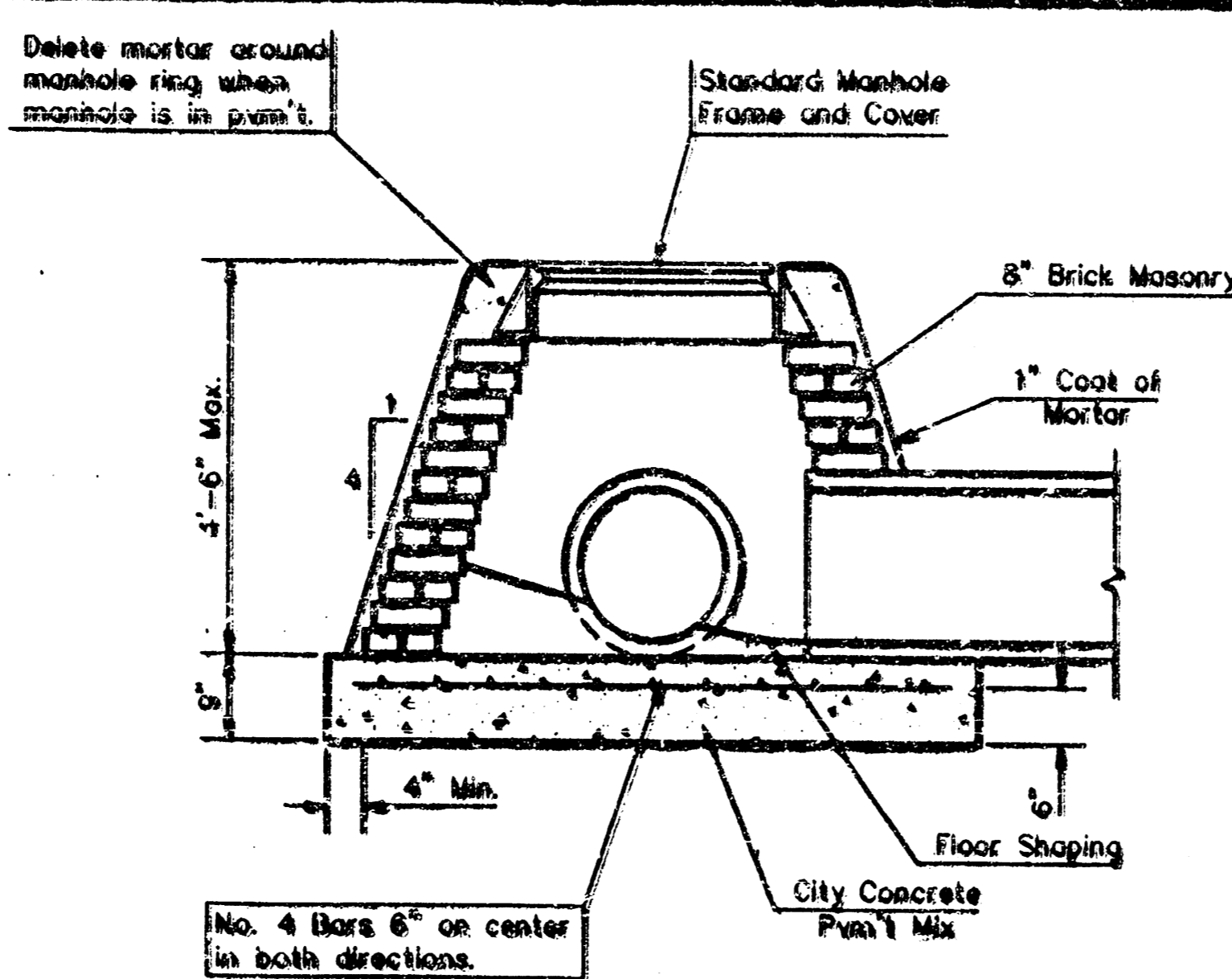
PLAN



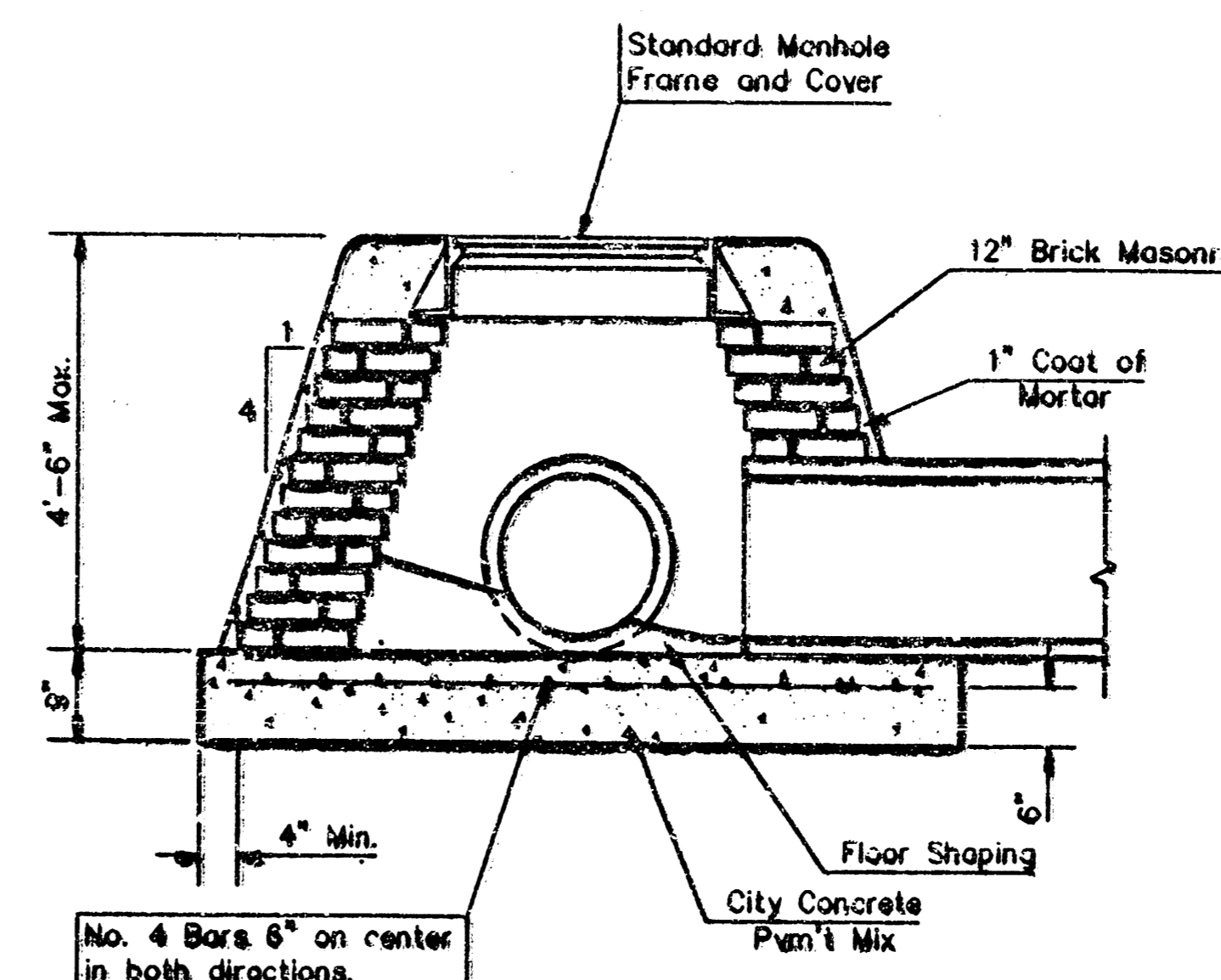
MASONRY COLLAR DETAIL



**SECTION A-A
FLAT CONCRETE SLAB DETAILS**



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

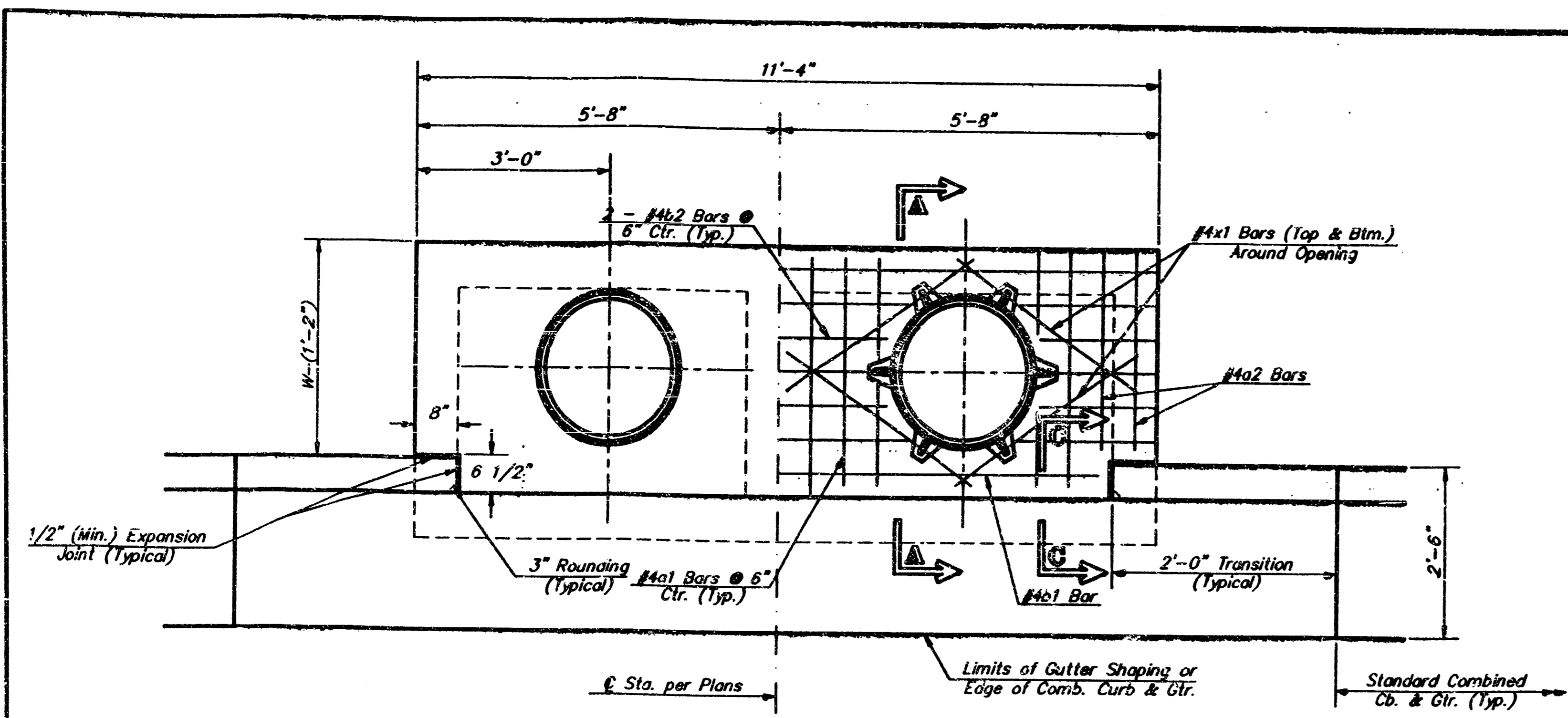
GENERAL NOTES

- Mortar used in masonry construction shall contain 3 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. Manholes constructed where pipe sizes are smaller than 24" shall have an inside diameter of 4". Manholes constructed where pipe sizes are 24" or larger shall have an inside diameter of 5". Completed manhole shall be without leaks and water tight.
- Reinforcing steel shall be installed in the manhole bases and shall consist of no. 4 bars placed on 6" centers in both directions. The manhole base reinforcement shall be placed 6" above the bottom of the manhole base. All costs for furnishing and installing reinforcing steel shall be included in the unit price bid for the manhole.
- The floors of all manholes shall be shaped with flow channels such that the manholes will be self cleaning and free of areas where solids could be deposited as sewage flows through the manhole from all inlet pipes to the outlet pipe. Flow channels shall be formed to match the bottom halves of the inflowing pipe and the outflowing pipe as shown by the drawings. Manhole floors shall have slopes of 3 inches per foot in the areas outside of the flow channels sloped toward the flow channels. Pipes laid through manholes shall have the top half removed to next lines for the full inside diameter of the manhole. Manhole floors shall then be sloped around the bottom half of the pipe which forms the flow channel.
- Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. When clay pipe is used, the cradle shall extend to the first joint outside the manhole. The cradle shall be terminated at the clay pipe joint in a manner which will maintain the flexibility of the joint. Cost of cradle within manhole excavation or to clay pipe joints adjacent to manhole shall be included in the unit price bid for the manhole.
- Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the standard specifications and as shown in the standard detail drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C82-87.

**CITY OF WICHITA, KANSAS
STD. SHALLOW MANHOLES**

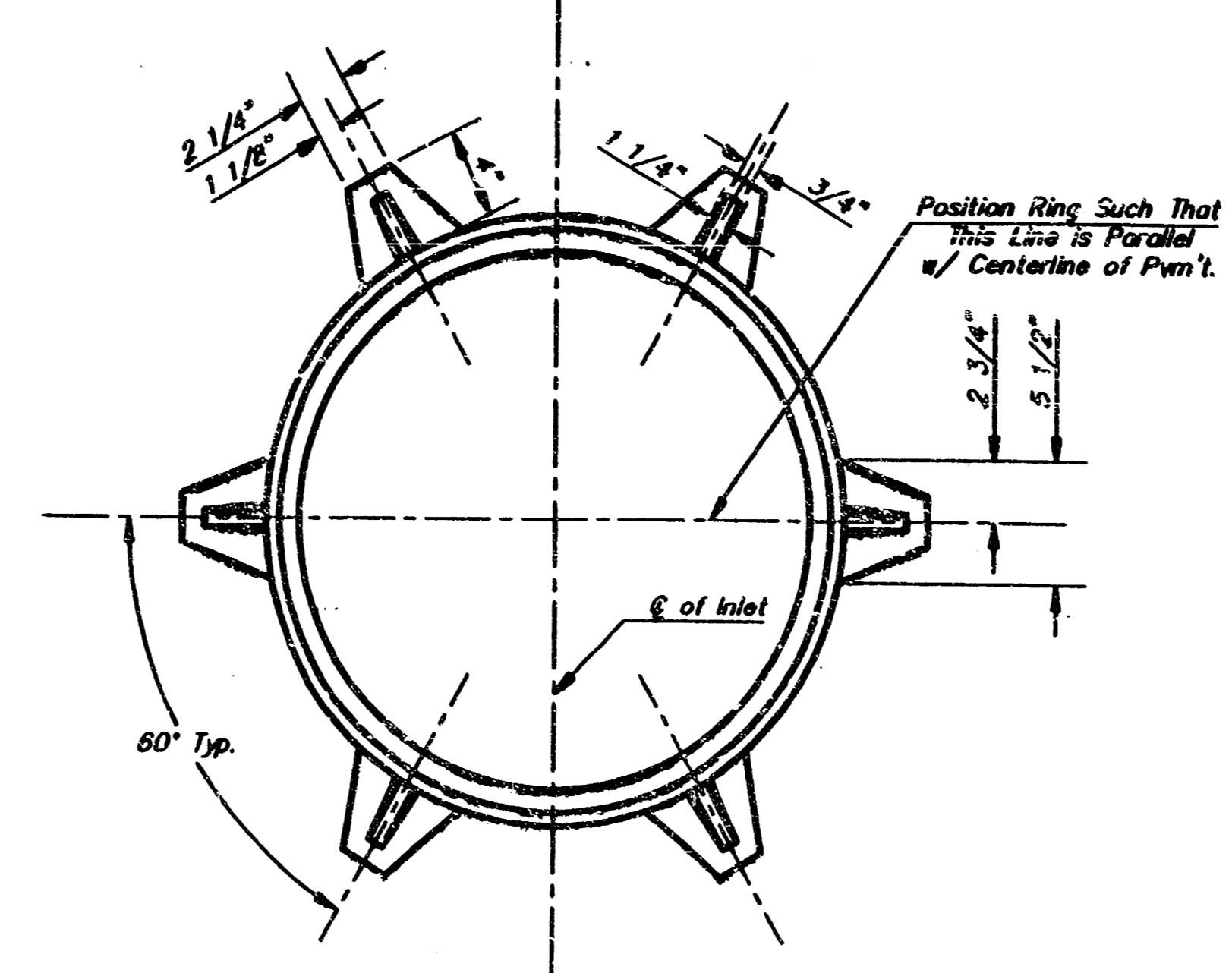
BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING, & PLANNING

DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
					6
					11



PLAN

Left Side Shown Without Slab Reinforcing,
Right Side Shown With Slab Reinforcing



MANHOLE RING AND COVER

See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.

PRECAST 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"	13	8'-7"	13	10'-7"	13	12'-7"	13	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	23	4'-1"	23	5'-1"	23	6'-1"	23	7'-1"	23	8'-1"
b1	#4	1	9'-9"	1	9'-9"	1	9'-9"	1	9'-9"	1	9'-9"
b2	#4	23	11'-1"	29	11'-1"	35	11'-1"	41	11'-1"	47	11'-1"
x1	#4	16	3'-10"	16	4'-2"	16	4'-6"	16	4'-10"	16	5'-2"

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
w1	#4	1	11'-1"	1	11'-1"	1	11'-1"	1	11'-1"	1	11'-1"
w2	#4	1	4'-1"	1	3'-1"	1	6'-1"	1	7'-1"	1	8'-1"
w3	#4	52	2'-0"	56	2'-0"	60	2'-0"	64	2'-0"	68	2'-0"

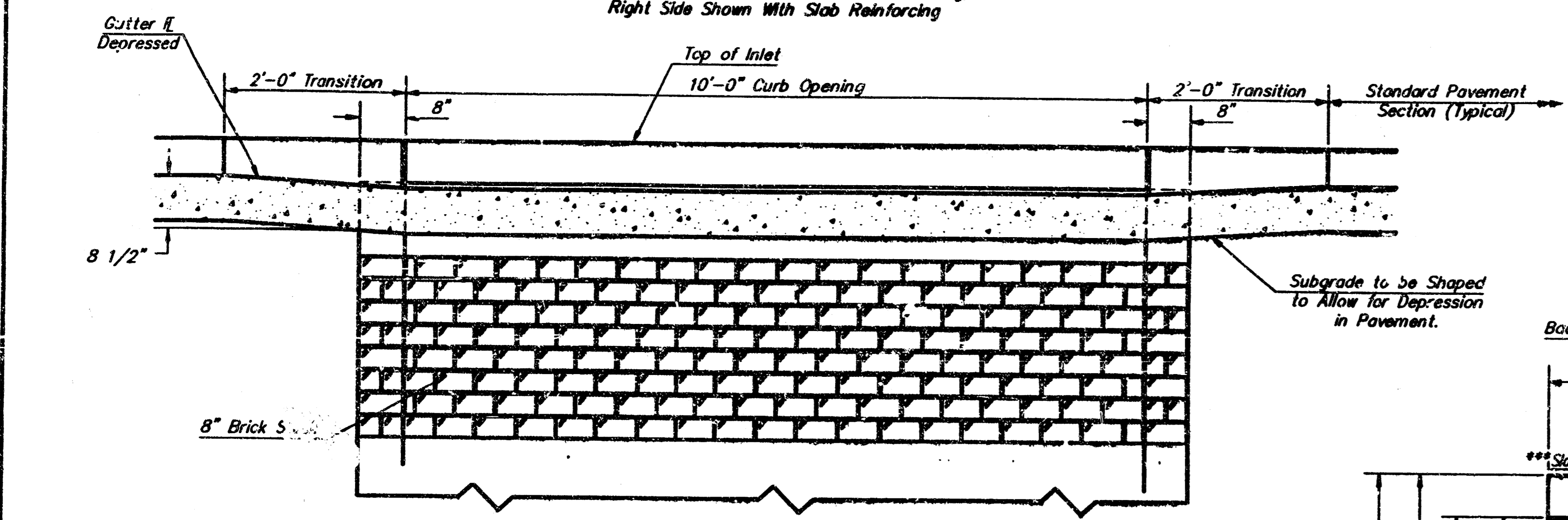
* Field Bend or Cut Reinforcing as Required for Clearance.
 ① 4 (H - 12") (H - 21") Rounded down to nearest 0.5"
 ② H - 3"

STANDARD CURB INLET PRECAST TOPS

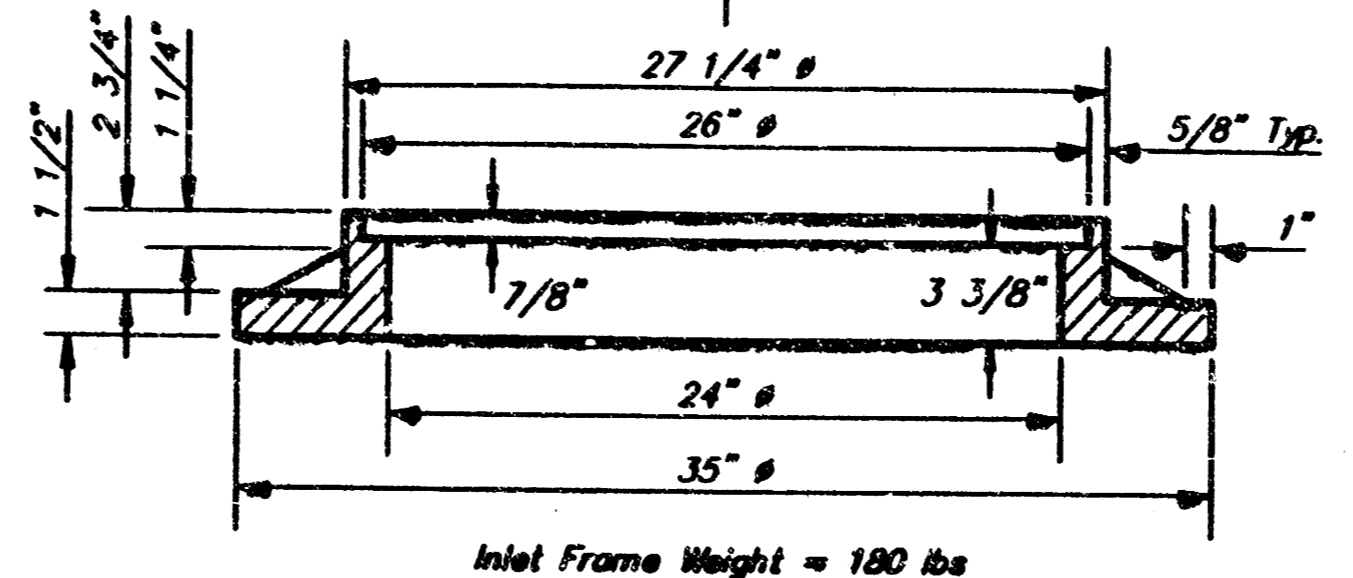
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" x 11'-4" x 7 1/2"	21" & SMALLER	0.83±
5'-4"	4'-8" x 11'-4" x 7 1/2"	24" & 30"	1.09±
6'-4"	5'-8" x 11'-4" x 7 1/2"	36" & 42"	1.35±
7'-4"	6'-8" x 11'-4" x 7 1/2"	48" & 54"	1.61±
8'-4"	7'-8" x 11'-4" x 7 1/2"	60" & 66"	1.87±

BENDING DIAGRAM

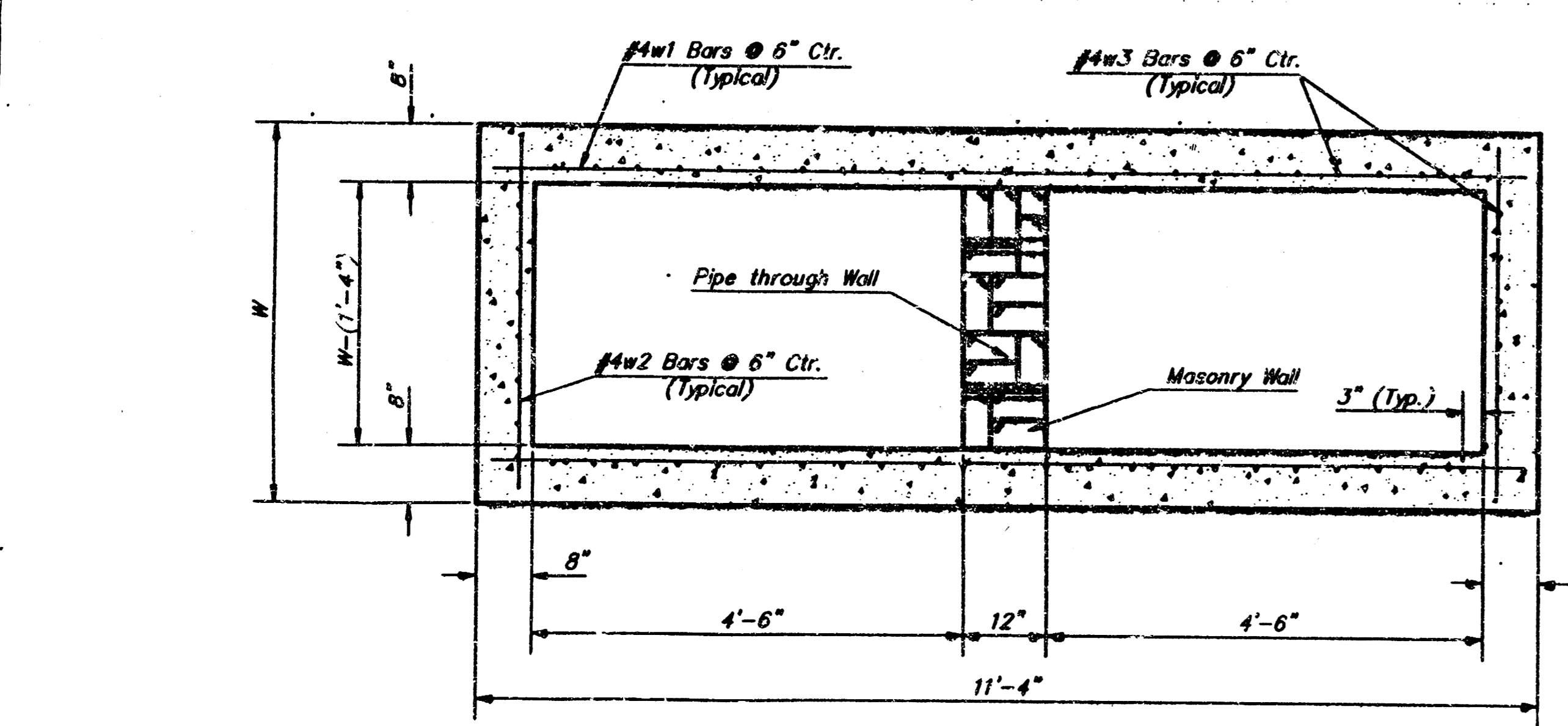
Concrete tops to be installed on this mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast.



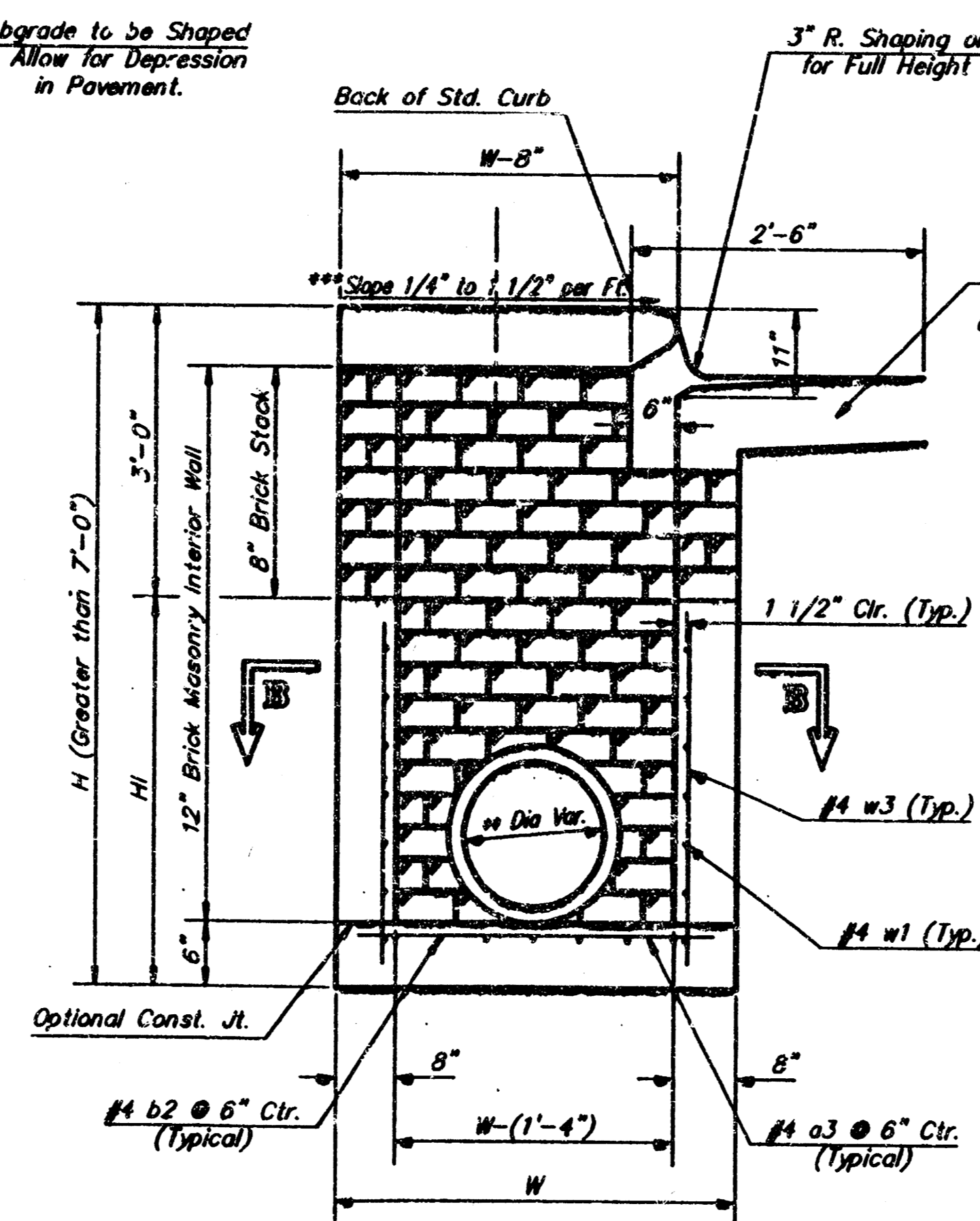
ELEVATION



SECTION A-A

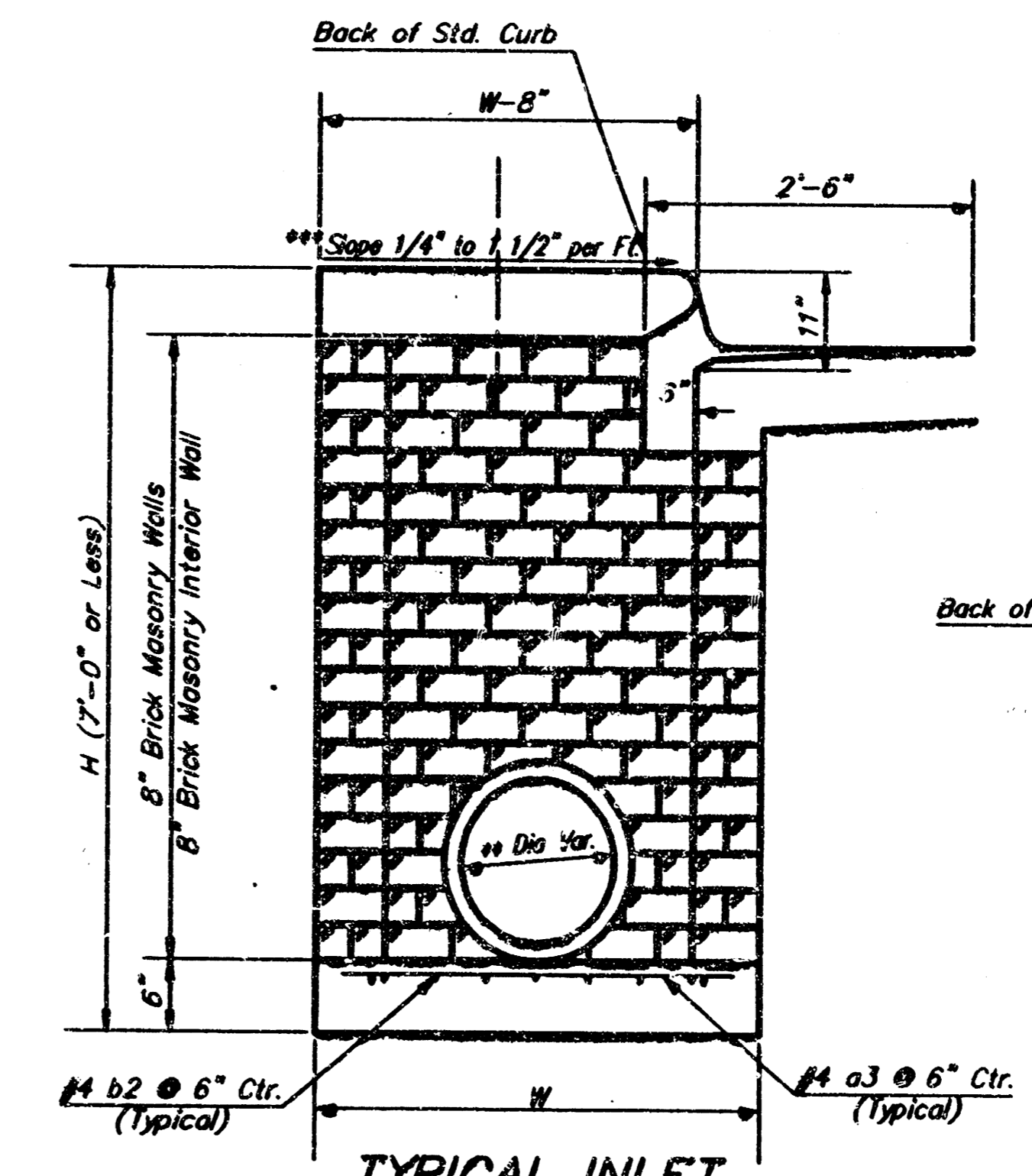


SECTION B-B

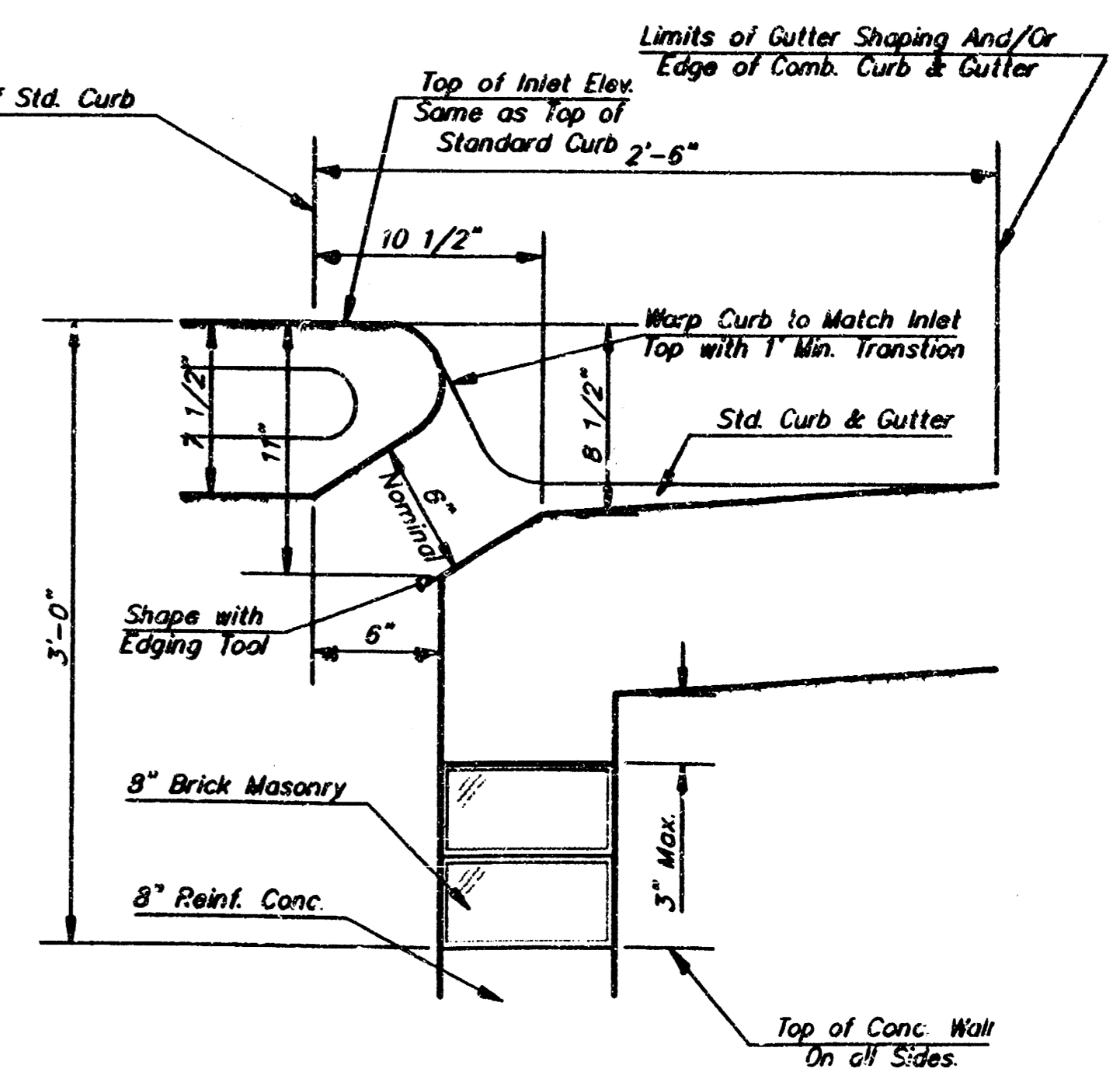


TYPICAL INLET SECTION AT CENTER WALL (REINFORCED CONCRETE WALLS)

NOTES:
 ** A center wall opening shall be provided by means of a section of reinforced concrete pipe. See Case I and Case II below.
 *** Slope of inlet tops to match sidewalk of parking slopes within limits indicated

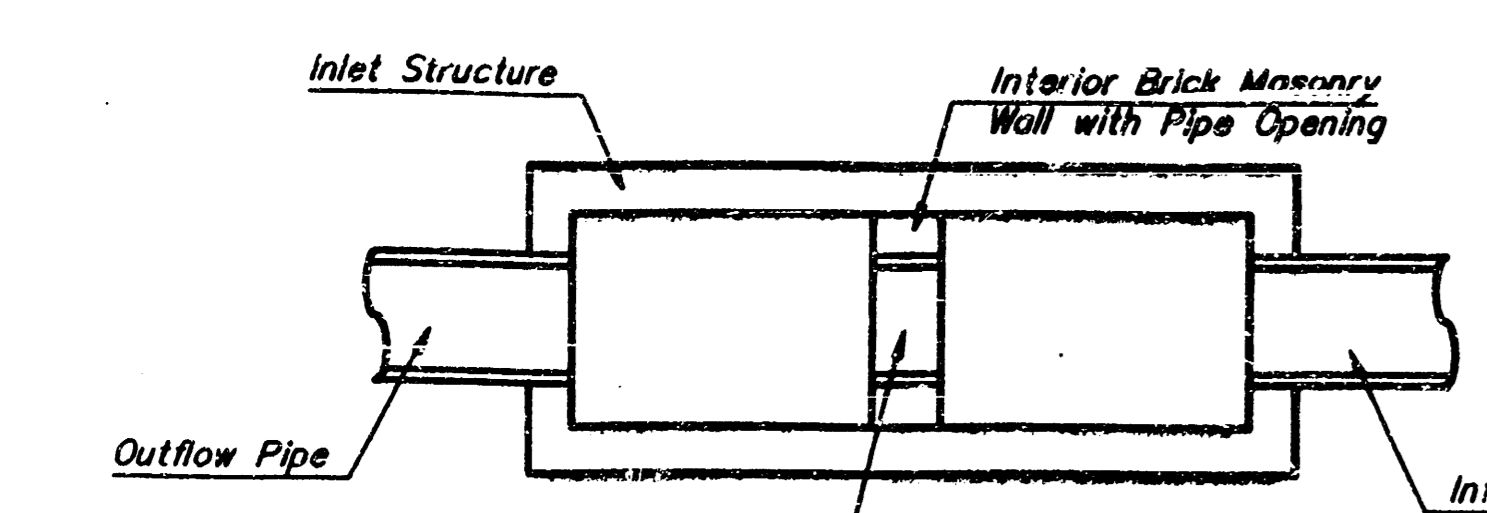


TYPICAL INLET SECTION AT CENTER WALL (MASONRY WALLS)



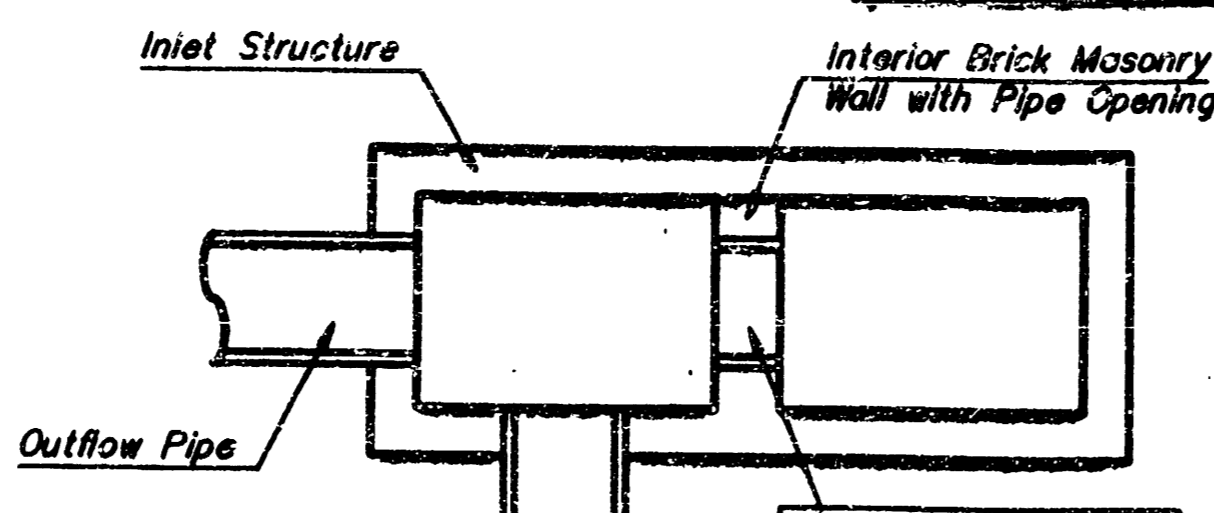
SECTION C-C

Revised - Feb. 16, 1989



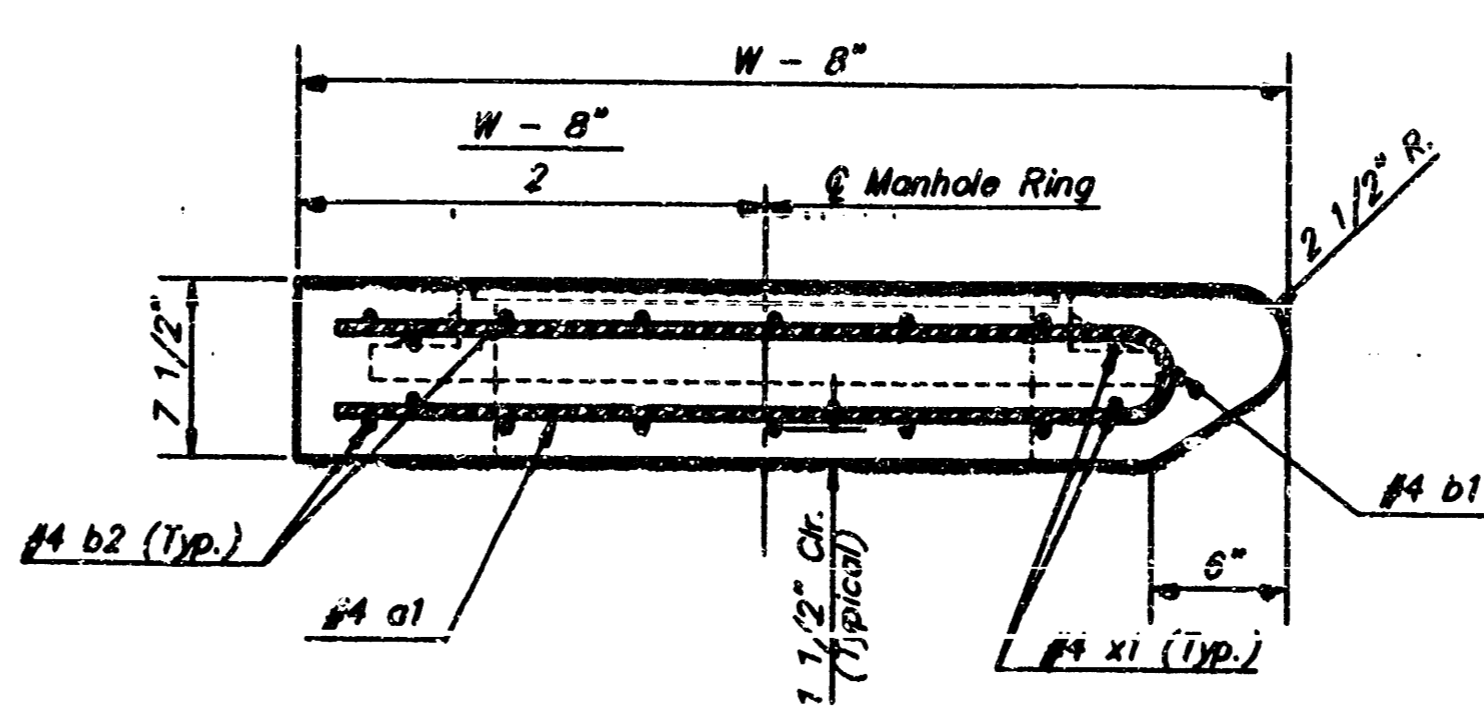
CASE I

Pipe Size to be the Same as Outlet Pipe Size. Flowline Elev. to be Average of Lowest Inflow Pipe Elev. and Outflow Pipe Elev.



CASE II

NOTE:
 Center Wall Pipe Size shall be as Specified in Inlet Construction Notes on the Plan/Profile Sheets for those Cases not Shown Here.



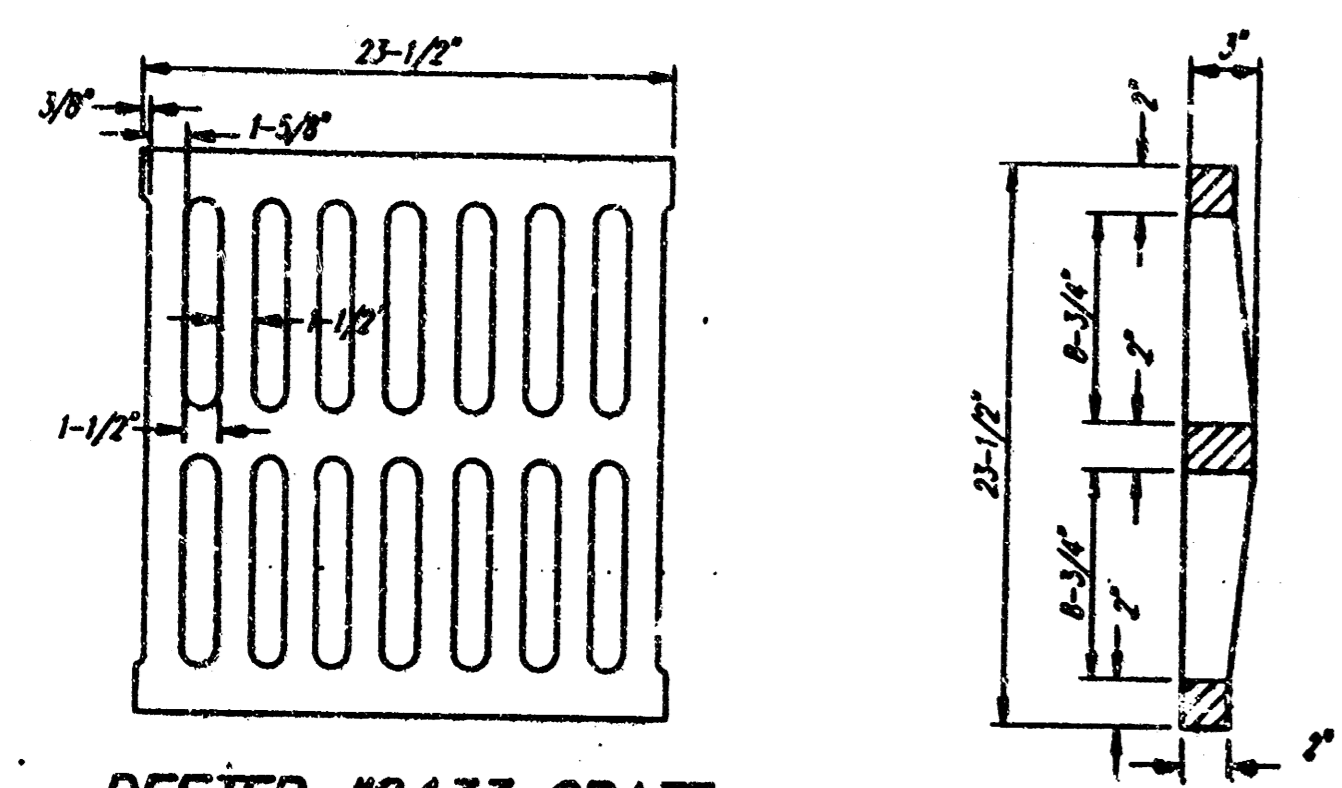
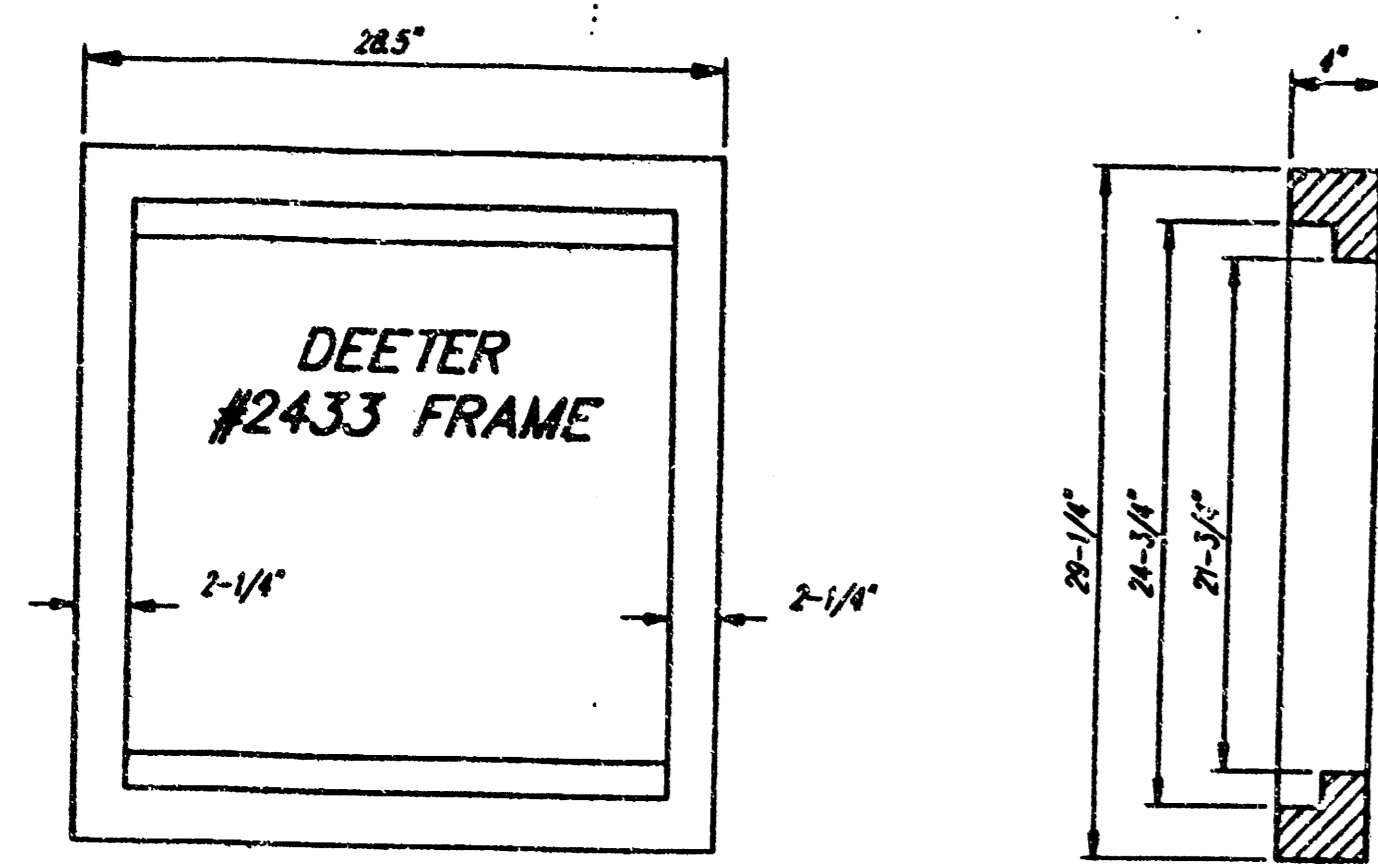
SECTION A-A

CITY OF WICHITA STANDARD TYPE 1 CURB INLET DETAILS
 INLET OPENING = 6" X 10'-0"

BAUGHMAN COMPANY P. A.
 ENGINEERING, SURVEYING, & PLANNING

PROJECT NUMBER: _____ SHEET: **8** OF **11**

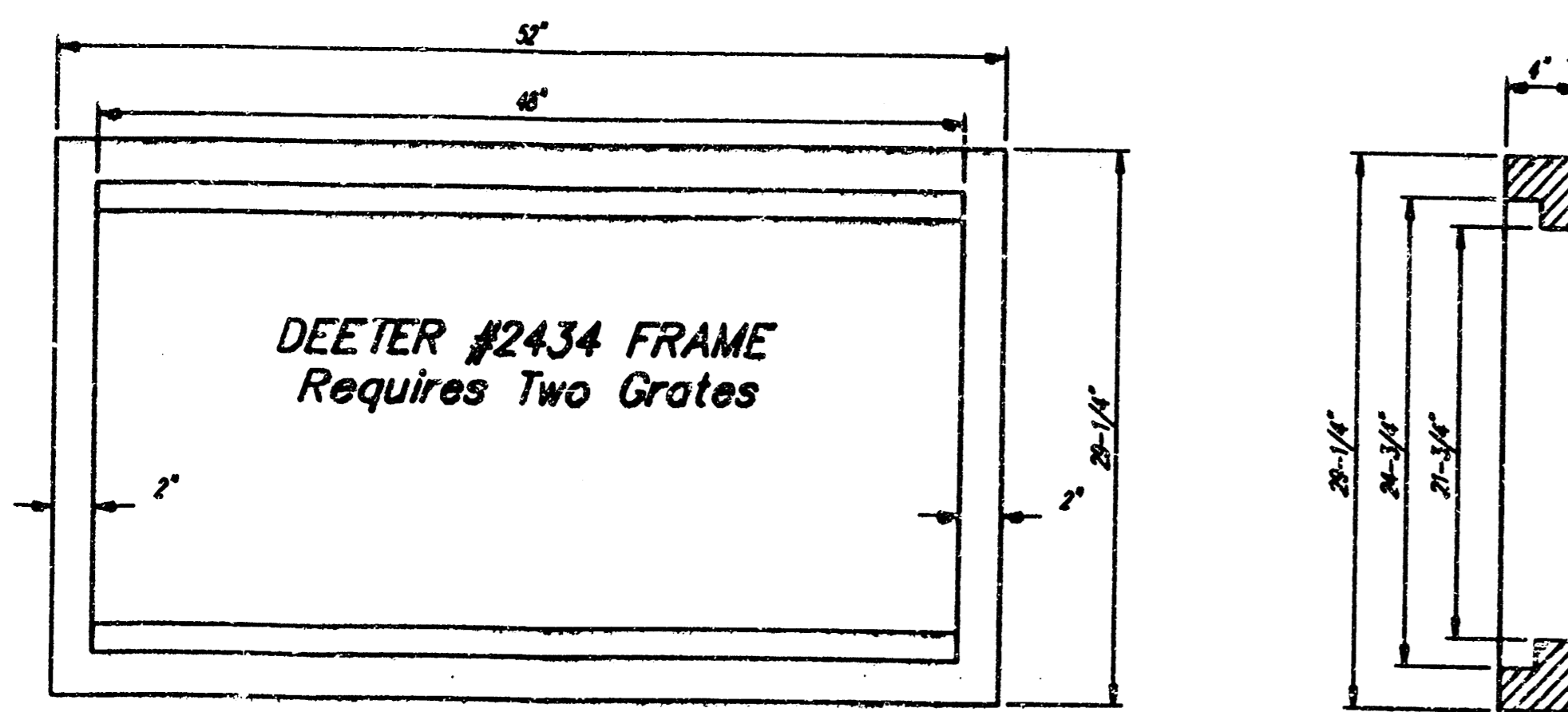
DESIGN: C.O.W. DRAWN: STAFF APPROVED: _____ DATE: _____ SCALE: NONE



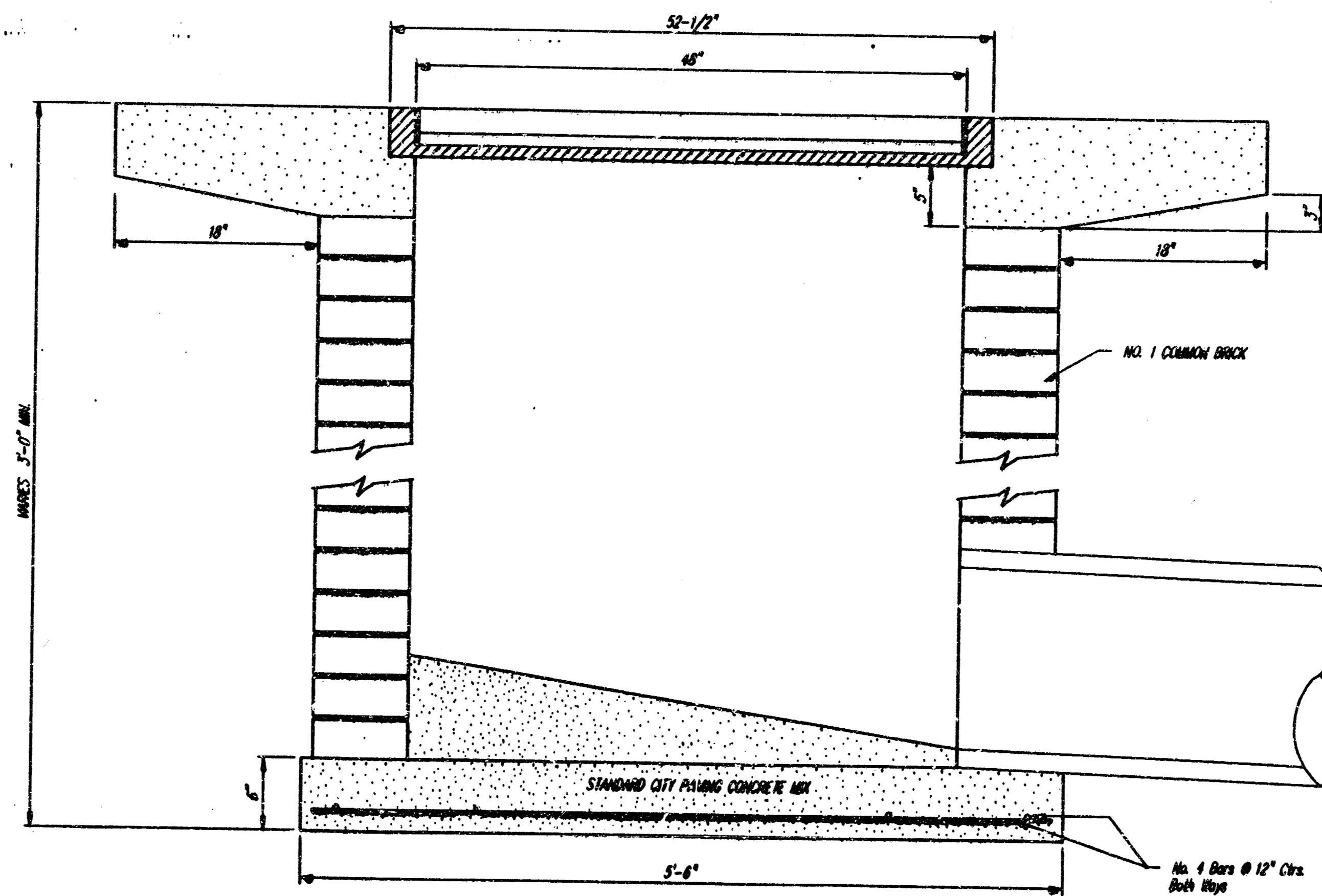
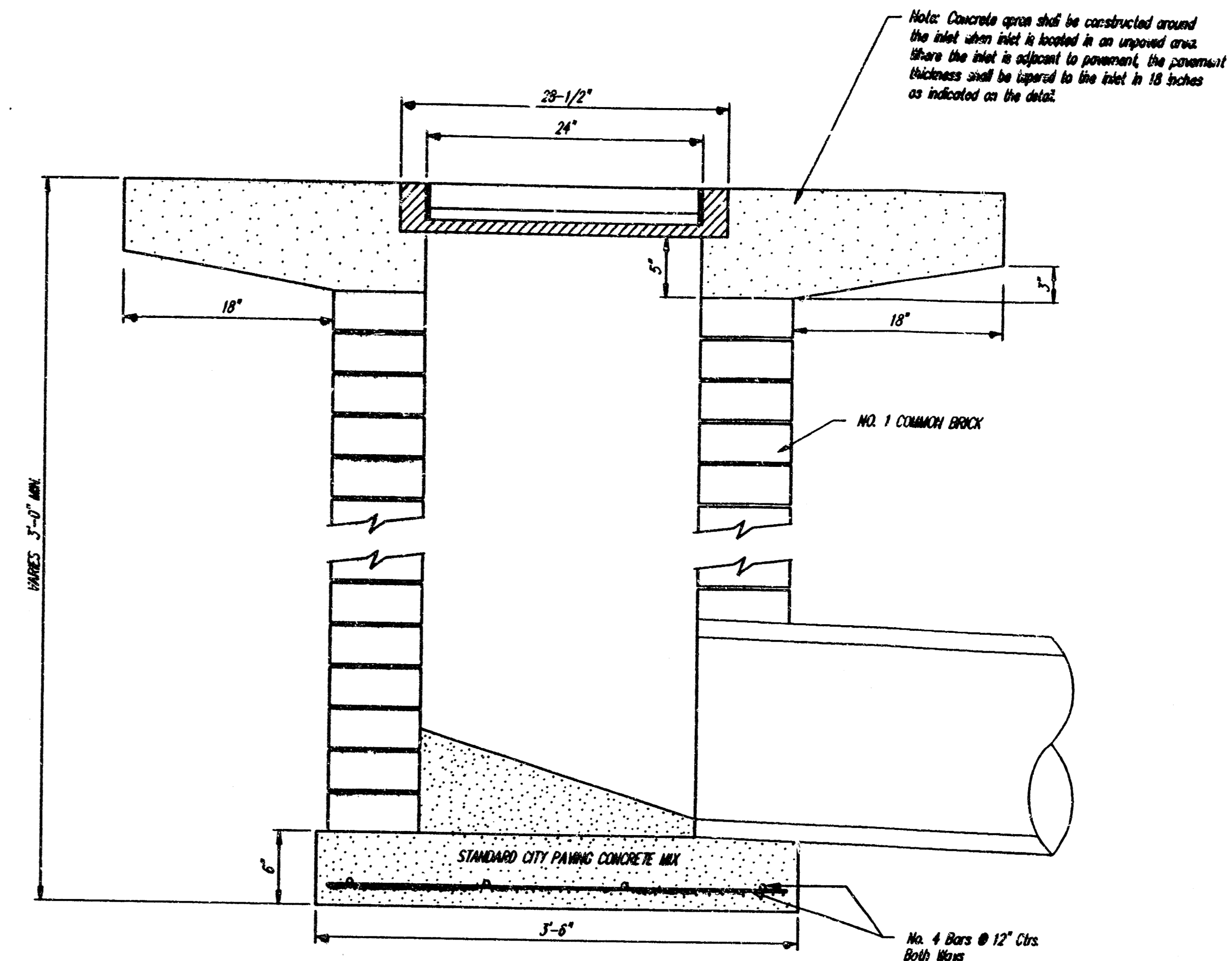
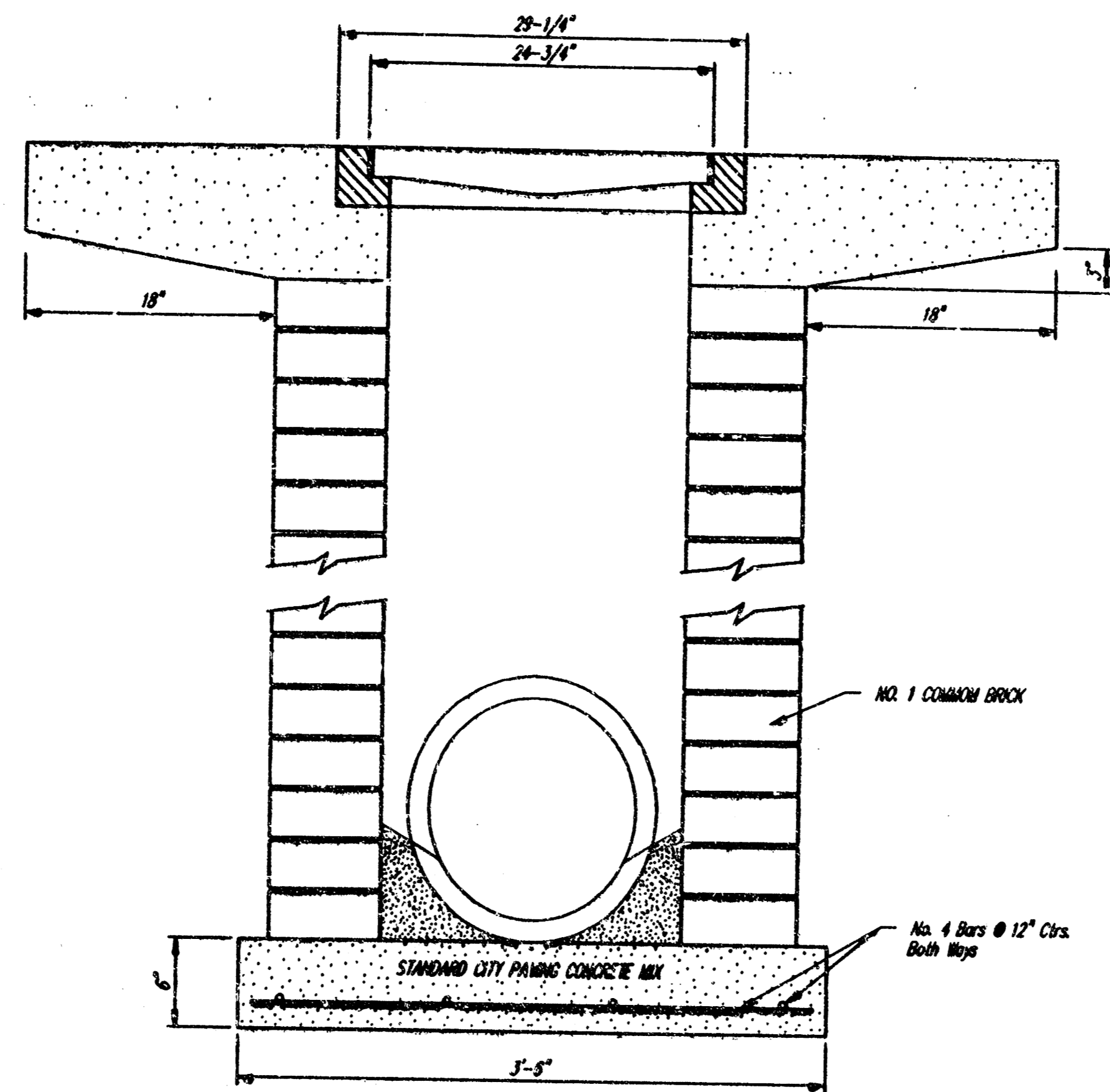
DEETER #2433 GRATE

24" x 24" Frame and Grate Detail

NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters of least 1" in height. Other marking methods may be approved by the engineer.



Double 24" x 24" Frame Detail

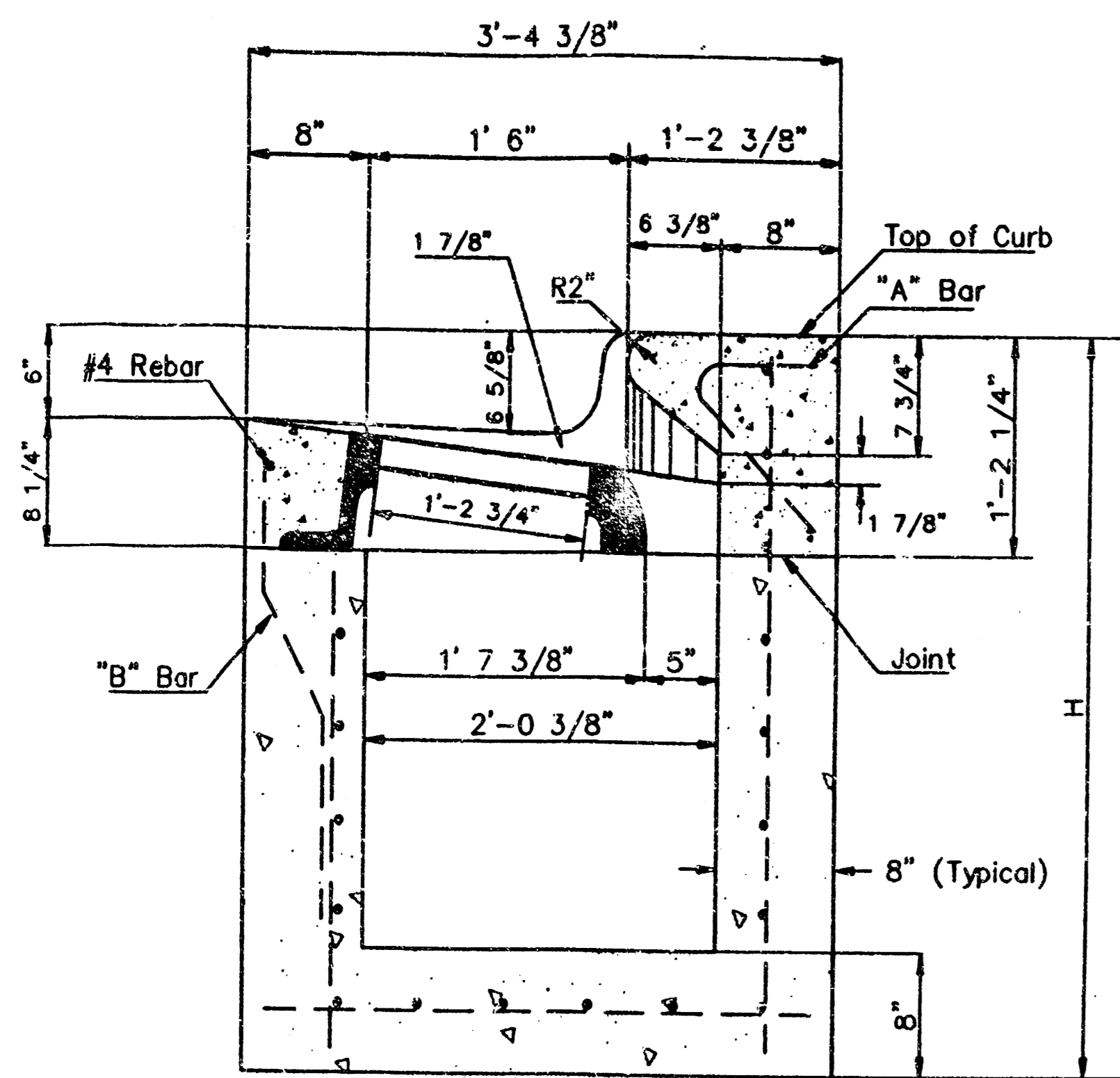


City of Wichita Standard
Drop Inlet

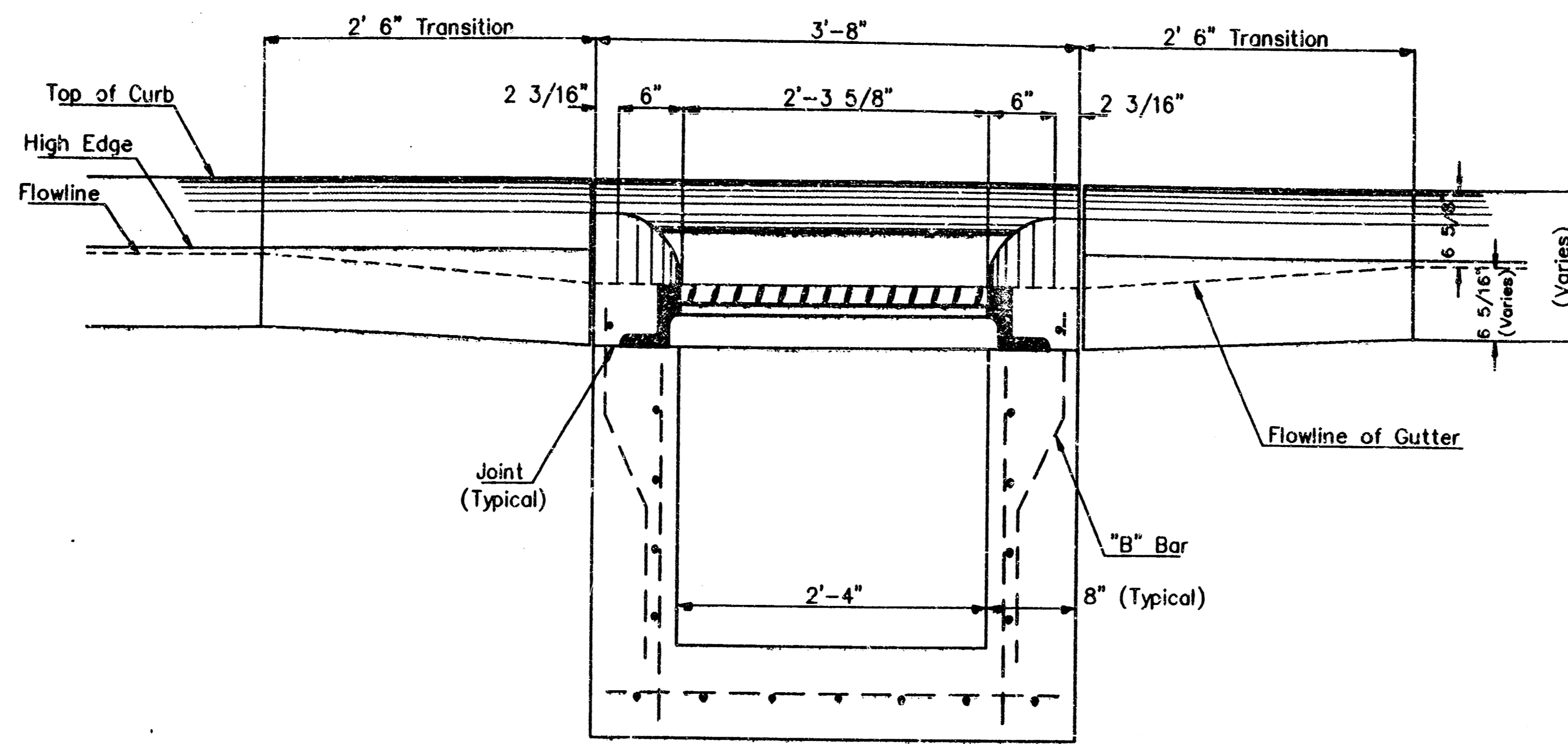
BAUGHMAN COMPANY P. A.
ENGINEERING, SURVEYING, & PLANNING
318-282-7271 • 318 ELLIS • WICHITA, KANSAS 67211

DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
					9
					OF 11

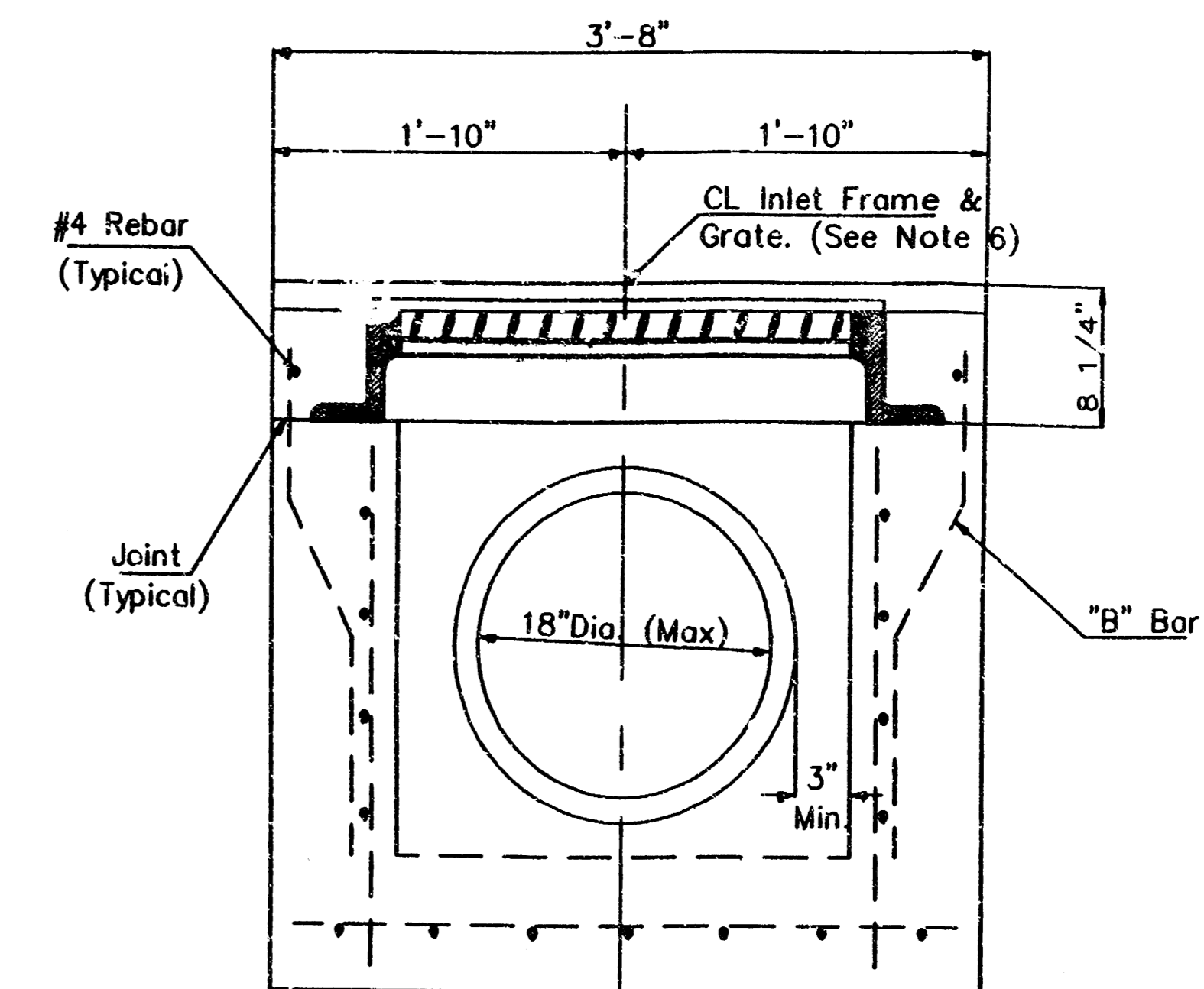
DETAILS (DROPINLET)



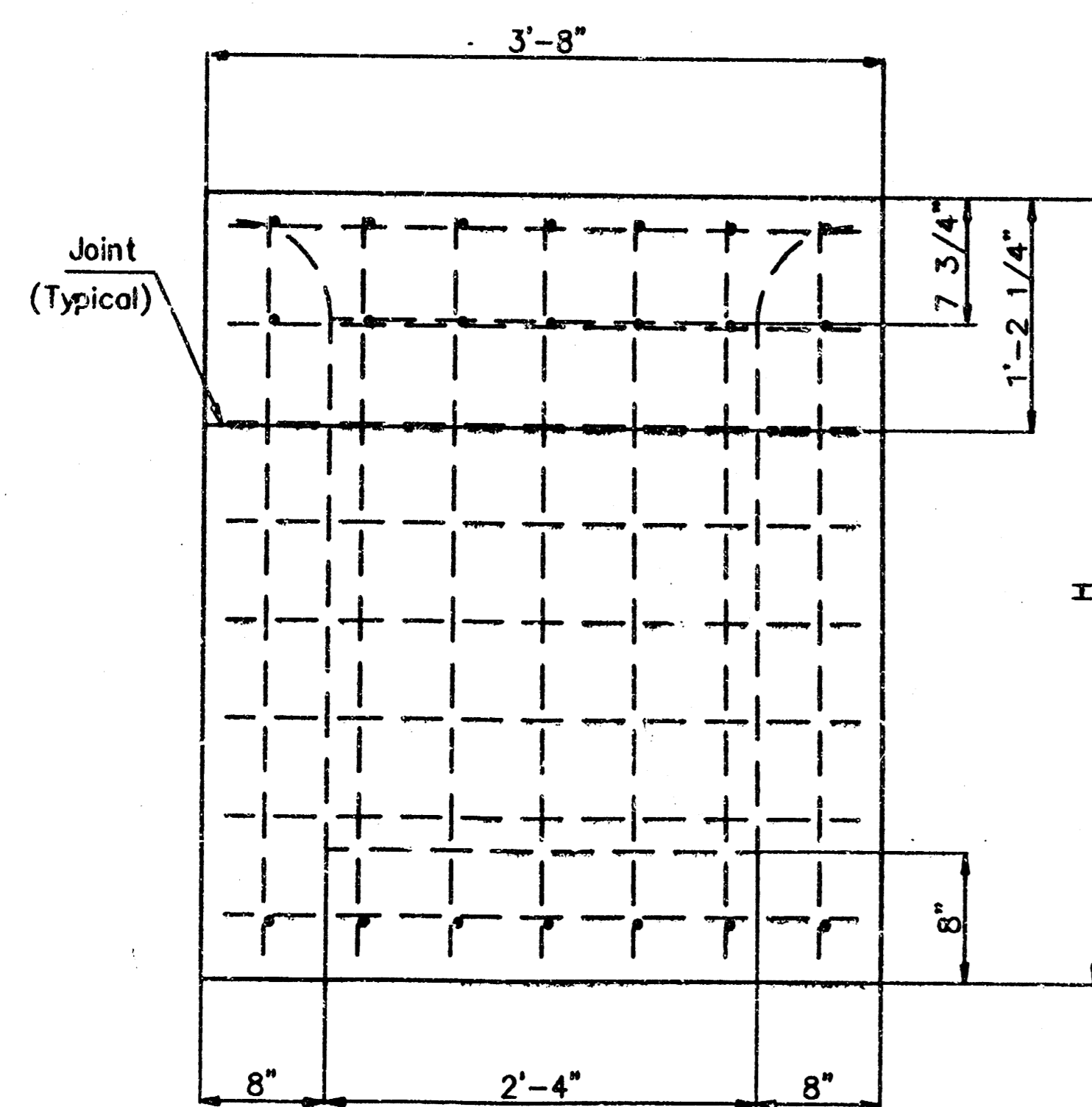
SECTION A-A



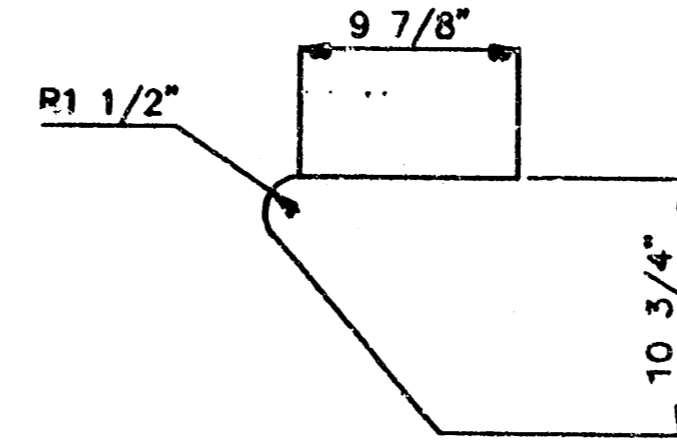
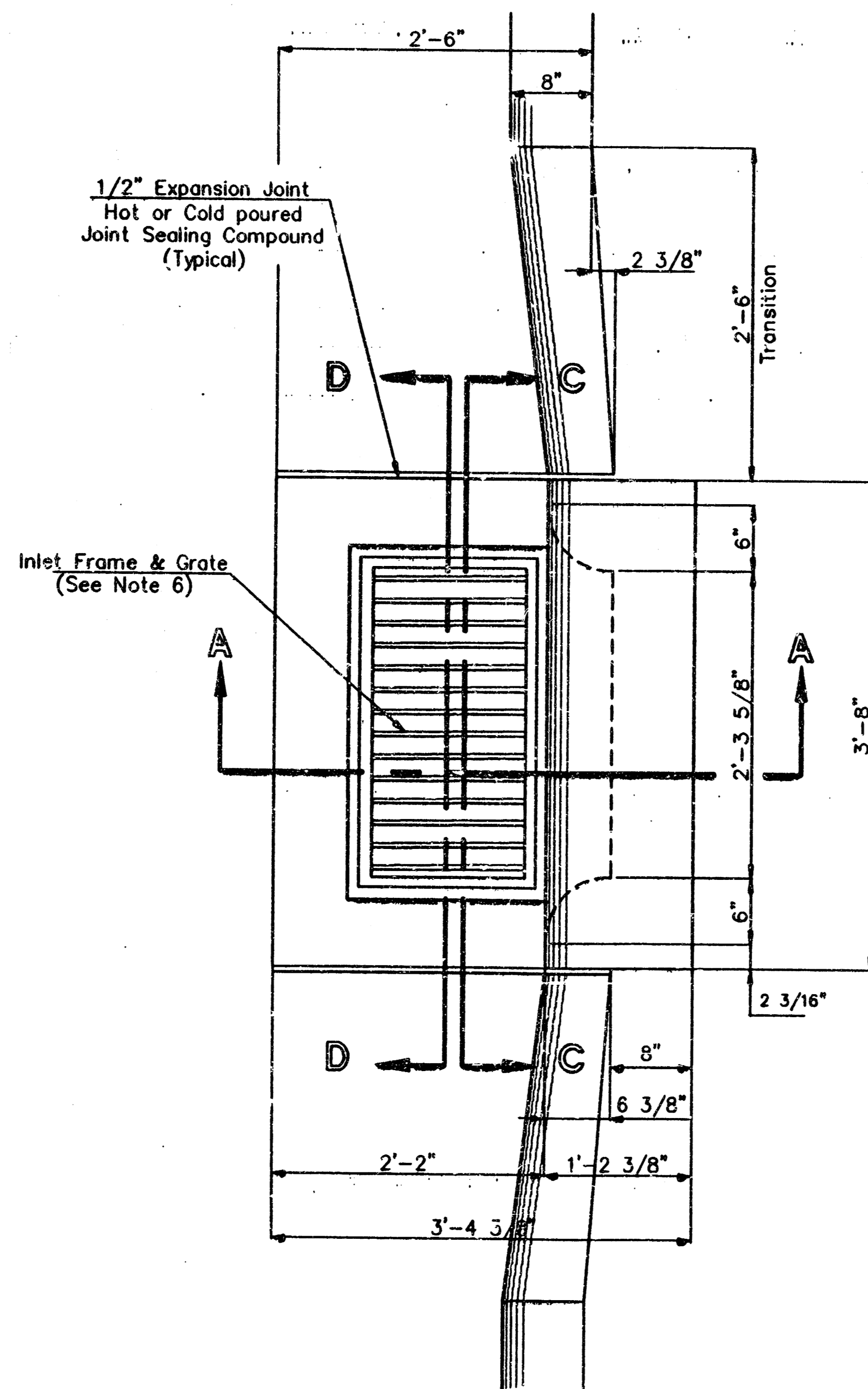
SECTION C-C



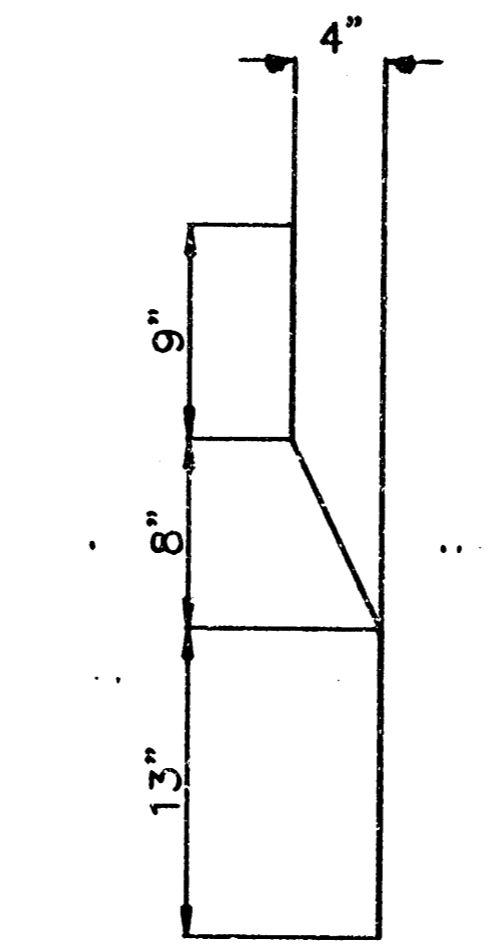
SECTION D-D



REAR WALL



"A" Bar



"B" Bar

General Notes

1. Use the concrete mix specified for the City of Wichita concrete pavement throughout. All exposed edges shall be finished with an edging tool. Reinforcing bars shall be bent around pipe.
2. Inlet invert shall be shaped with 8 sack 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.
3. All bars are #4 with 6" spacing and shall have a minimum clearance of 1 1/2" inches unless otherwise noted on the plans.
4. When directed by the Engineer, a small opening may be required in the back of the inlet in order to drain a low area. Reinforcing bars will extend through the openings. No deductions in concrete quantities will be made for these openings.
5. No deductions will be made in pay length of curb, gutter, or curb and gutter through the inlet area.
6. Use Neenah R-3289 HV Single Inlet Frame and Grate or approved equal. Inlet frame to be proof load tested to 40,000 lbs. on unsupported side.
7. Reinforcing bars shall be cut or bent around pipes. No deduction in concrete quantities shall be made for pipe openings.
8. The vanes of the grate shall be oriented with respect to the flow arrows shown on the plans.

Redrawn Jan.1992

CITY OF WICHITA				
STD. TYPE II CURB INLET				
INLET OPENINGS - 6" X 2'-3 5/8"				
BAUGHMAN COMPANY P. A.				
ENGINEERING, SURVEYING, & PLANNING				
316-782-7271 • 316 ELKS • WICHITA, KANSAS 67211				
PROJECT NUMBER				
DESIGN	DRAWN	APPROVED	DATE	SCALE
	JAN. 87			
				10
				11