

STREET & STORM WATER IMPROVEMENTS TO

CARR AVENUE

Project Number
472-76-245-82483-000-001

Index Code
762344

CITY OF WICHITA, KANSAS

Michael E. Lindebak, City Engineer

DECEMBER, 1995

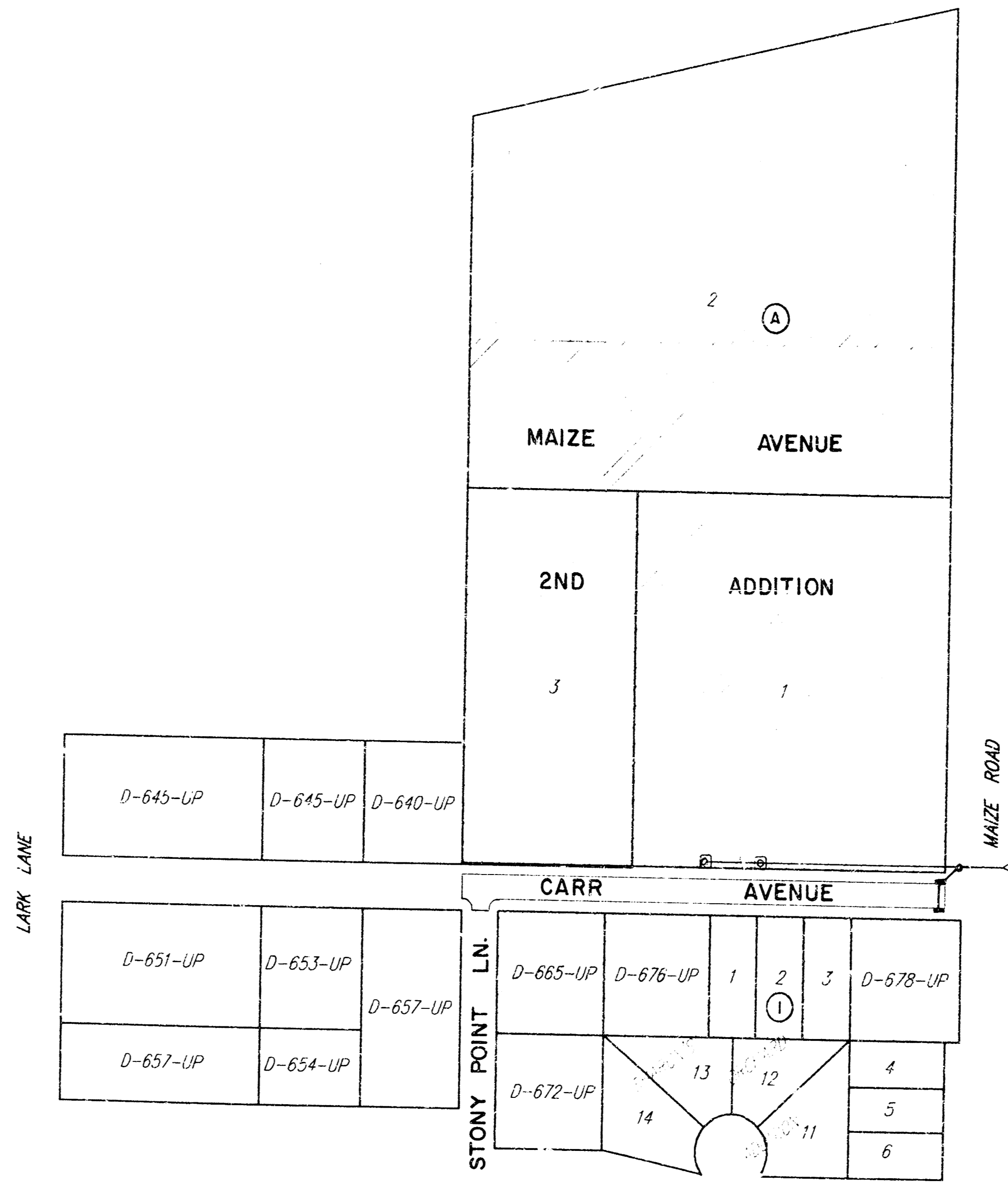
General Notes

- Utility service lines, poles, valve boxes, meters, et cetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.
- Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations that, in the opinion of the Engineer, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.
- A saw cut of at least one-half the depth of existing surface courses or one-fourth the depth of the existing total pavement thickness shall be provided at locations where proposed construction abuts an existing surface course or pavement for which partial removal of that surface or pavement is required. Saws joint to facilitate removal within three (3) feet of existing joints will not be permitted and for such instances the limits of removal shall extend to the existing joint. Such saw cuts will not be paid for directly and this cost shall be considered as subsidiary to the removal of the surface or pavement.
- This project includes provisions for the construction of Veh (c) Driveways.
- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.
- Limits of earthwork shall match existing ground elevations at the right-of-way line unless otherwise noted on the plans with a new finished grade elevation. When a new finished grade elevation is shown, the earthwork shall extend one foot beyond the right-of-way line and then sloped up or down using permissible slopes to match the existing ground surface.
- Contractor shall give property owners abutting this project, whose yards will be lower than the new finished grade elevations at the right-of-way line, an opportunity to utilize excess excavated material from the project to regrade their yards to drain to the new pavement. Contractor will be required to dump and spread the excess material as required by the specification when requested by the property owner. The Contractor shall ascertain that a dirt order form has been properly executed by the property owner before any such excess material is delivered to such properties.
- 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 in accordance with state laws.
- The Contractor shall adjust Water Valve Boxes and Fire Hydrants as directed by the Engineer at the price bid for said adjustments. The Water Department shall field locate water valves one time during construction when requested by the Contractor. It shall be the Contractor's responsibility to preserve such field location during the construction process. Water valves, water valve boxes or fire hydrants damaged during construction shall be repaired by the contractor at his own expense.
- All areas disturbed by construction shall be seeded with "FESCUE" immediately following construction in that area at a rate of 350 lbs./acre.
- Contractor will be required to provide notice to utility companies a minimum of twenty-four (24) hours prior to any excavation, as follows:

Kansas One-Call	687-2470
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The Contractor must notify the following in case of an emergency:

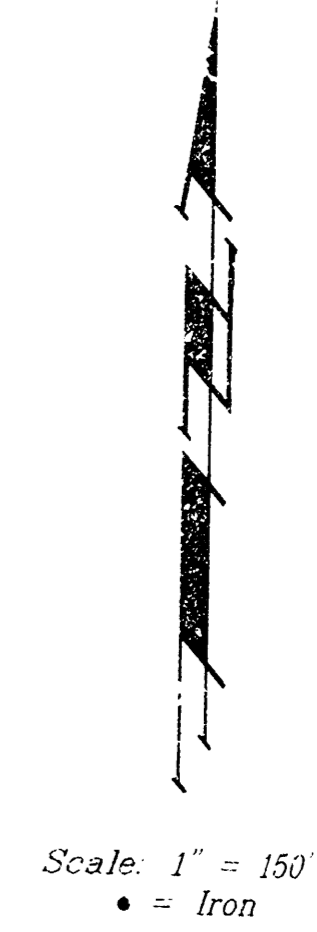
Cablevision	262-4270
or	263-2061
K.P.L. Gas Service Company	263-7511
Kansas Gas & Electric Company	264-1141
Arkla Gas Company	942-8350
or	263-8161
Southwestern Bell Telephone Company	1-571-2611
City of Wichita Water Department	268-4908
City of Wichita Sewer Maintenance	268-4071
- The Contractor shall give all property owners and/or tenants of developed property abutting the project limits a minimum of ten (10) days advance notice prior to start of construction.
- Mailboxes within the limits of the project shall be removed and replaced by the Contractor as approved by the Engineer. Contractor will be required to make satisfactory provisions for mail delivery to properties affected by this project during its construction.
- Traffic shall not be carried through construction on this project. Contractor shall contact affected property owners along Carr Lane so appropriate arrangements can be made during construction.



INDEX:

- TITLE SHEET
- 31'-9" TYP. PAVT SECTION
- SNS ASSEMBLY DETAILS
- 5 CARR AVENUE PAVING PLAN
- EARTHWORK X-SECTIONS
- DRAINAGE PLAN
- DROP INLET DETAIL
- TYPE II INLET DETAIL
- VALLEY GUTTER DETAIL
- SPECIAL SHALLOW TYPE 24" MANHOLE DETAIL

INCIDENTAL DRAINAGE
BOOKED
8-12-96
MAG
D-302



Benefit District:

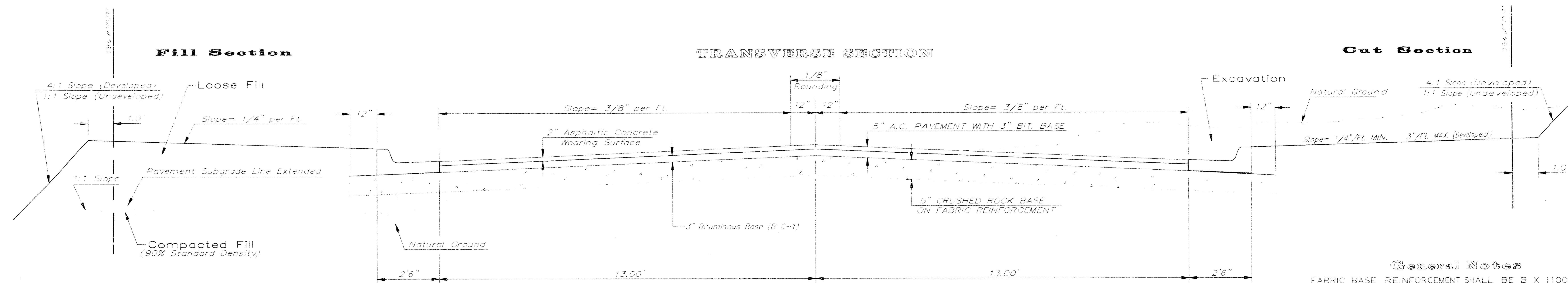
LINEAR FEET OF PAVING PROJECT = 663.7 L.F.
EXCAVATION = 1182 CU.YDS
BORROW = 0



BAUGHMAN COMPANY P. A.
ENGINEERING & SURVEYING
318/282-7271 • 315 ELLIS • WICHITA, KANSAS 67211

CARR AVENUE

TYPICAL 31' B-B PAVEMENT DETAILS

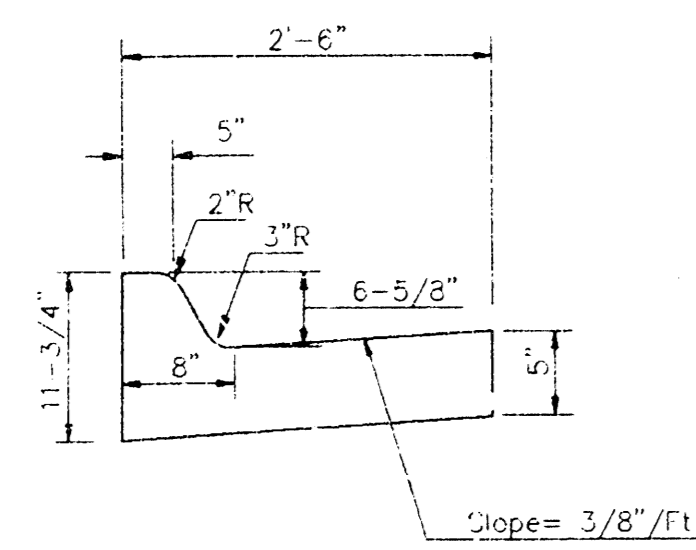


CRUSHED ROCK GRADATION REQUIREMENTS

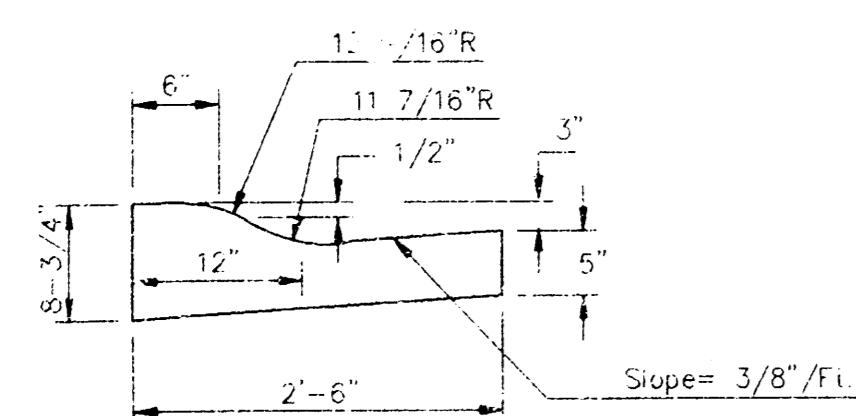
PERCENT OF AGGREGATE RETAINED

2-1/2"	0
3/4"	20 - 60
#4	50 - 80
#40	80 - 94
#200	90 - 98

ROCK QUALITY SHALL CONFORM TO THE REQUIREMENTS SPECIFIED BY THE KDOT 1990 EDITION STANDARD SPECIFICATION SUBSECTION 1102 FOR DURABILITY CLASS 1.

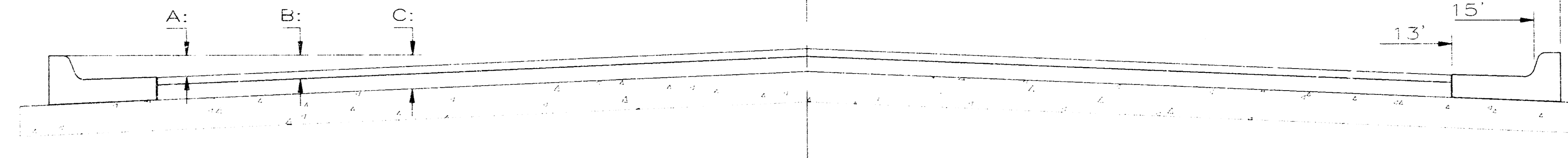


COMBINED CURB & GUTTER

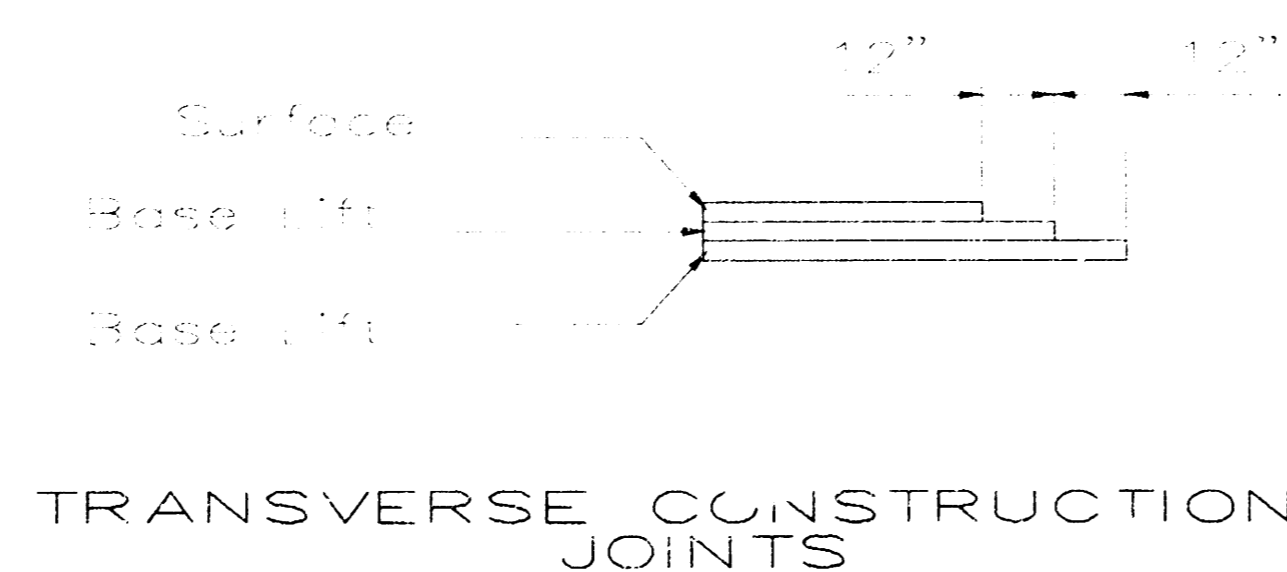


COMBINED ROLL TYPE CURB & GUTTER

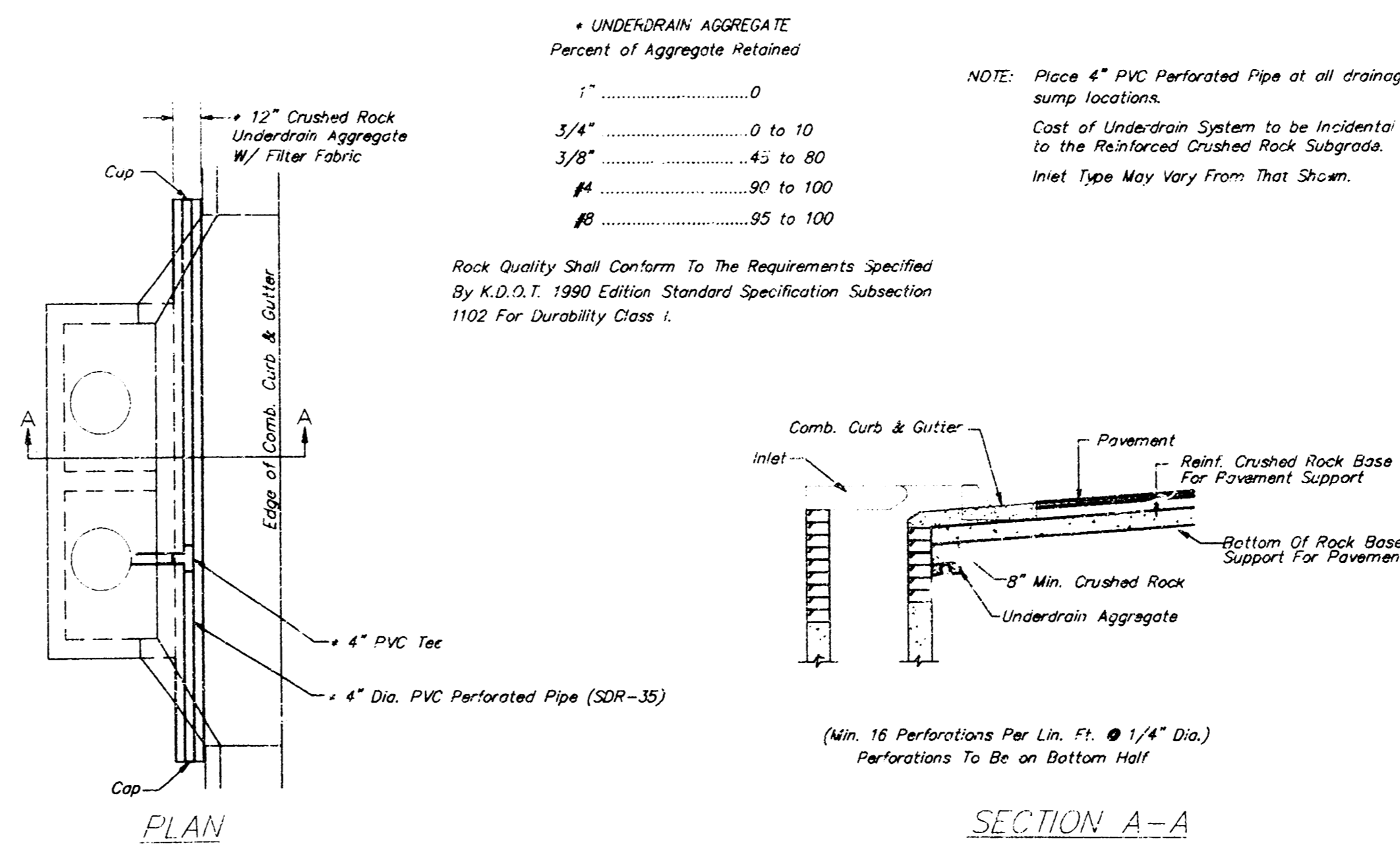
ELEVATION OFFSETS



	DISTANCE FROM CENTERLINE (LT. & RT.)										
	0'	2'	4'	6'	7.5'	10'	12'	13'	15'	15.5'	16.5'
A: Top of Curbs to Top of Surface Lift	0.10	0.14	0.21	0.27	0.32	0.39	0.46	0.49	-	-	-
B: Top of Curbs to Top of Upper Base Lift	0.27	0.31	0.37	0.44	0.48	0.56	0.62	0.65	-	-	-
C: Top of Curbs to Top of C.R. Subgrade	0.52	0.56	0.62	0.69	0.73	0.81	0.87	0.90	0.97	0.98	1.01



Transverse construction joints are to be constructed in flexible base pavements at locations where pavement joints existing flexible base pavement as shown by the detail. All costs associated with the construction of the transverse joint shall be included in the bid price for square yards 5" ASPHALTIC CONCRETE (3" BITUMINOUS BASE).



PAVEMENT UNDERDRAIN DETAIL
NOT TO SCALE

General Notes

FABRIC BASE REINFORCEMENT SHALL BE 3 X 1100 BY TENSAR CORPORATION OR LB0201 BY TENAX CORPORATION OR APPROVED EQUAL. FABRIC BASE REINFORCEMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

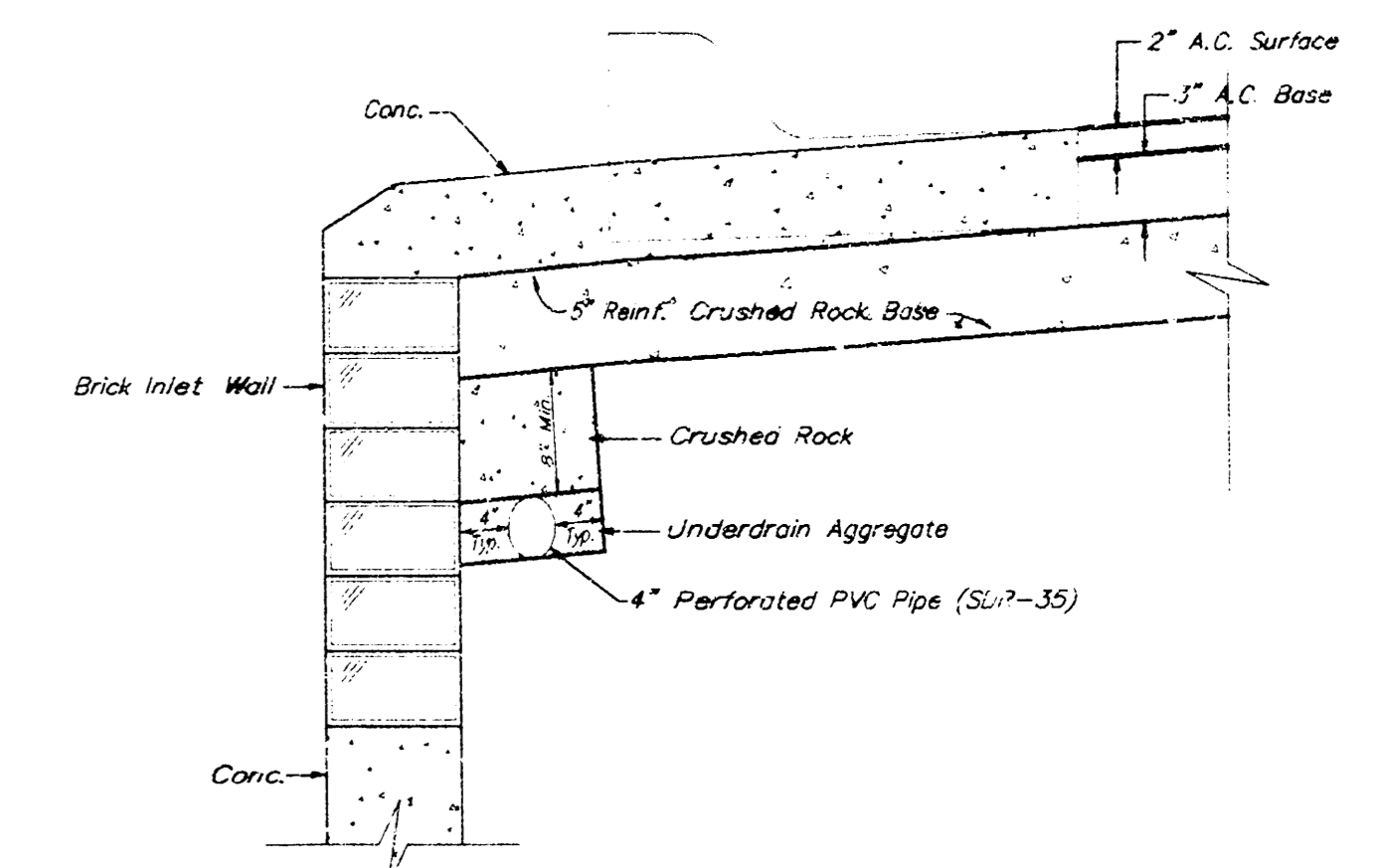
ROCK BASE IS TO BE COMPACTED AND SMOOTHED WITH A STEEL FACED ROLLER PRIOR TO PLACEMENT OF ASPHALT. TACK COAT WILL NOT BE APPLIED TO ROCK BASE.

A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 5" ASPHALTIC CONCRETE (3" BITUMINOUS BASE).

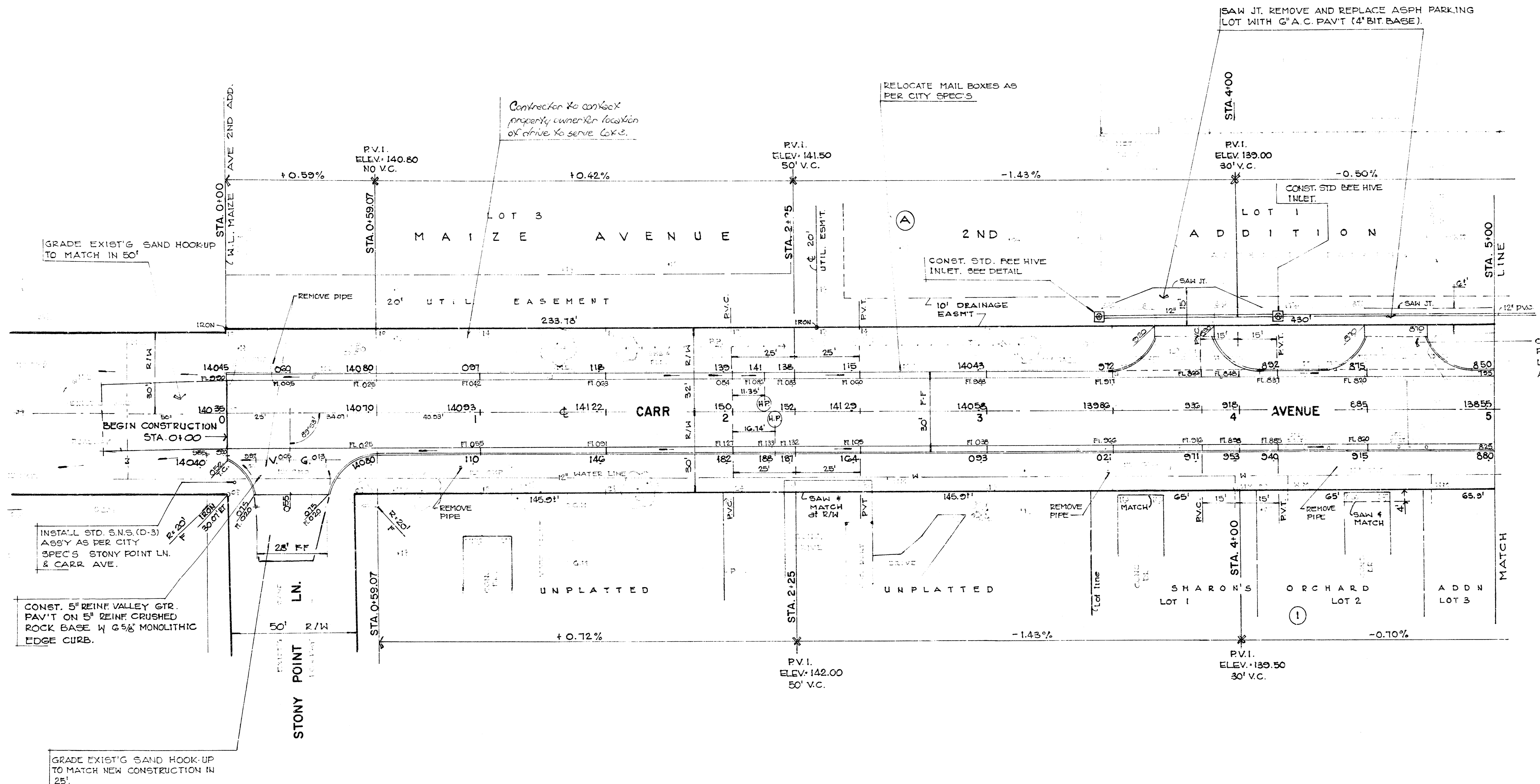
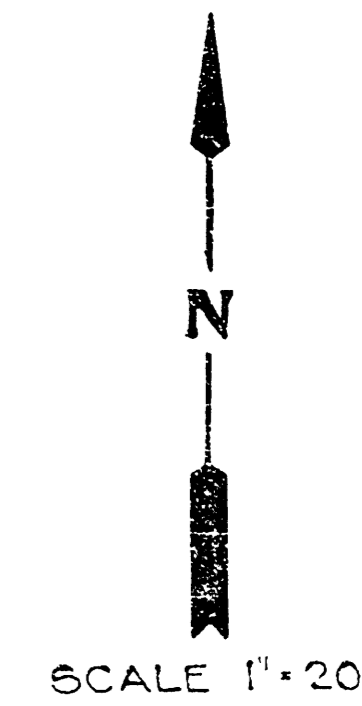


TRENCH DRAIN DETAIL FOR RES. STREETS
NOT TO SCALE

5 INCH Residential Asphaltic Concrete
Pavement w/ Crushed Rock Base on Fabric Reinforcement
City of Wichita, Kansas

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

DESIGN	DRAWN	APPROVED	DATE	SCALE	SHEET
					2
PROJECT NUMBER 472-73-245-82-439-000-000-001					OF 11



GRADE EXIST'G SAND HOOK-UP TO MATCH IN 50'

Contractor to contact property owner for location of drive to serve Lot 3.

RELOCATE MAIL BOXES AS PER CITY SPECS.

SAW JT. REMOVE AND REPLACE ASPH PARKING LOT WITH 6" A.C. PAVT (4" BIT BASE).

CONST. 8" CONC. DRIVEWAY PAVT. 20' RAD. TYPICAL FOR LOT 1, BLK A, MAIZE AVE 2ND ADD. (ONLY).

INSTALL STD. S.N.S. (D-3) ASSY AS PER CITY SPEC'S STONY POINT LN. & CARR. AVE.

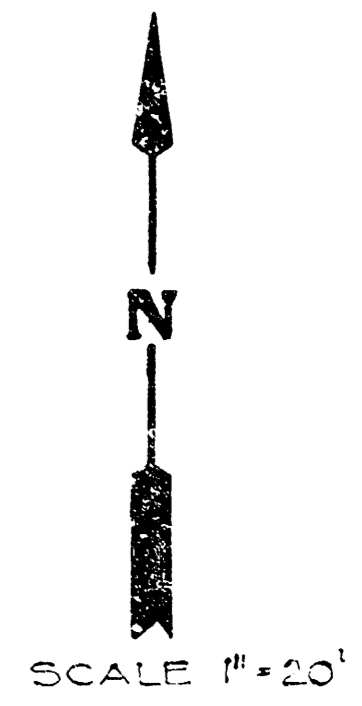
CONST. 5" REINF VALLEY GTR. PAVT ON 5" REINF CRUSHED ROCK BASE W 6 5/8" MONOLITHIC EDGE CURB.

GRADE EXIST'G SAND HOOK-UP TO MATCH NEW CONSTRUCTION IN 25'

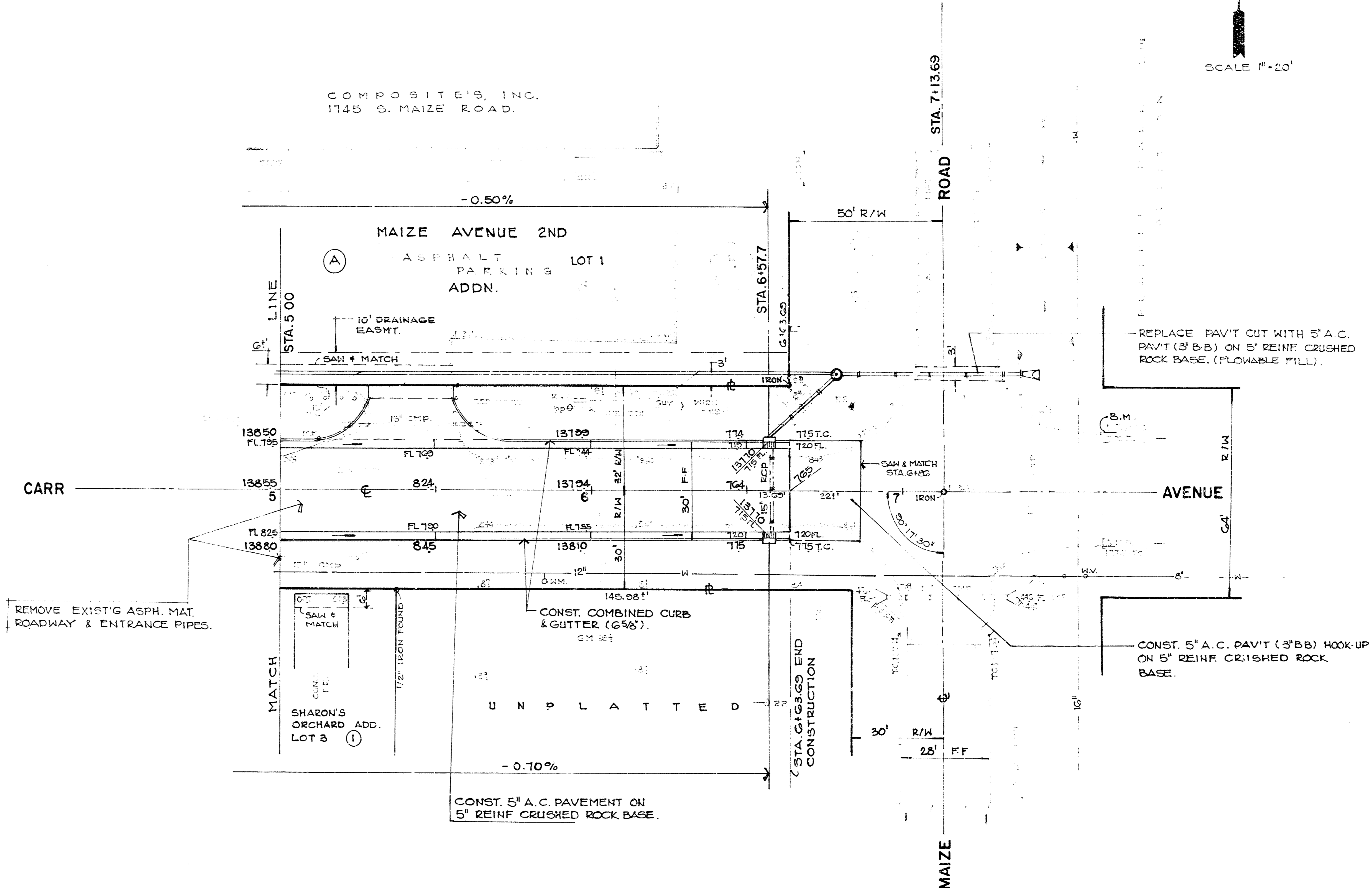
EARTHWORK TOTALS
 EXCAVATION = 1259.2 CU.YDS
 A.C. MAT VOL = 71.1
 TOTAL = 1181.5 CU.YDS

CARR AVENUE	
W.L. MAIZE AVENUE 2ND ADDITION. To MAIZE ROAD	
BAUGHMAN COMPANY P.A.	
ENGINEERING & SURVEYING	
318-242-7271 • 315 E. LUS • WICHITA, KANSAS 67211	
PROJECT NUMBER 472-76-245-82433-000-001	
DESIGNER	SHEET 4
DRAWN	OF 11
APPROVED	DATE
SCALE 1" = 20'	

B.M. 'D' CUT, TOP CURB, NE CORNER MAIZE ROAD & CARR AVENUE. ELEV. 131.48 CITY DATUM.



COMPOSITE'S, INC.
1745 S. MAIZE ROAD.



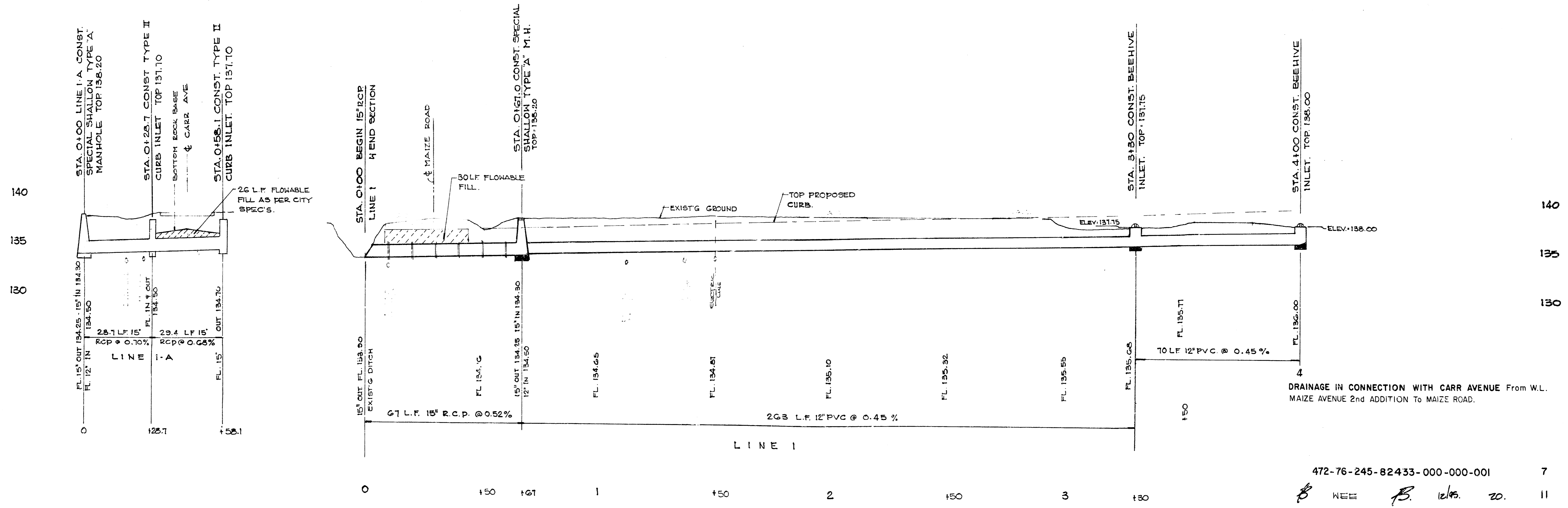
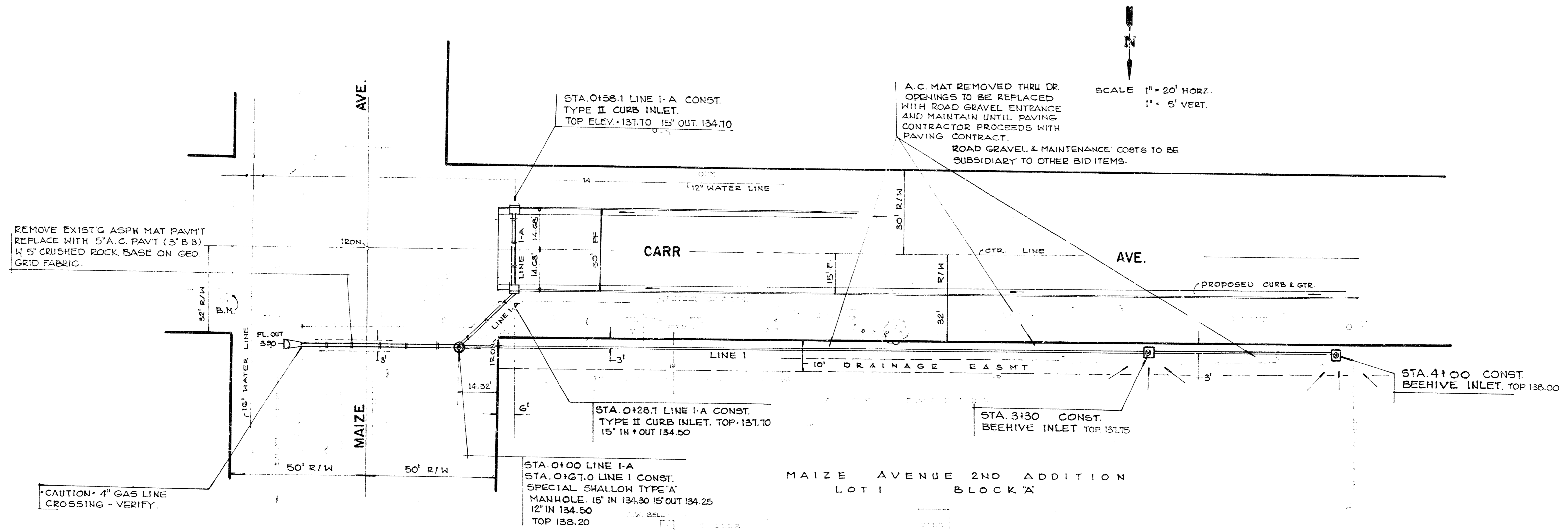
REPLACE PAV'T CUT WITH 5" A.C. PAV'T (3" B.B.) ON 5" REINF. CRUSHED ROCK BASE. (FLOWABLE FILL).

CONST. 5" A.C. PAV'T (3" B.B.) HOOK-UP ON 5" REINF. CRUSHED ROCK BASE.

CONST. 5" A.C. PAVEMENT ON 5" REINF. CRUSHED ROCK BASE.

CARR AVENUE	
W.L. MAIZE AVENUE 2ND ADDITION. To MAIZE ROAD	
BAUGHMAN COMPANY P. A.	
ENGINEERING & SURVEYING	
<small>316-262-7271 • 318 ELLIS • WICHITA, KANSAS 67211</small>	
PROJECT NUMBER	SHEET
472-76-245-82433-000-000-001	5
DESIGNER	SCALE
DATE	11
APPROVED	1" = 20'

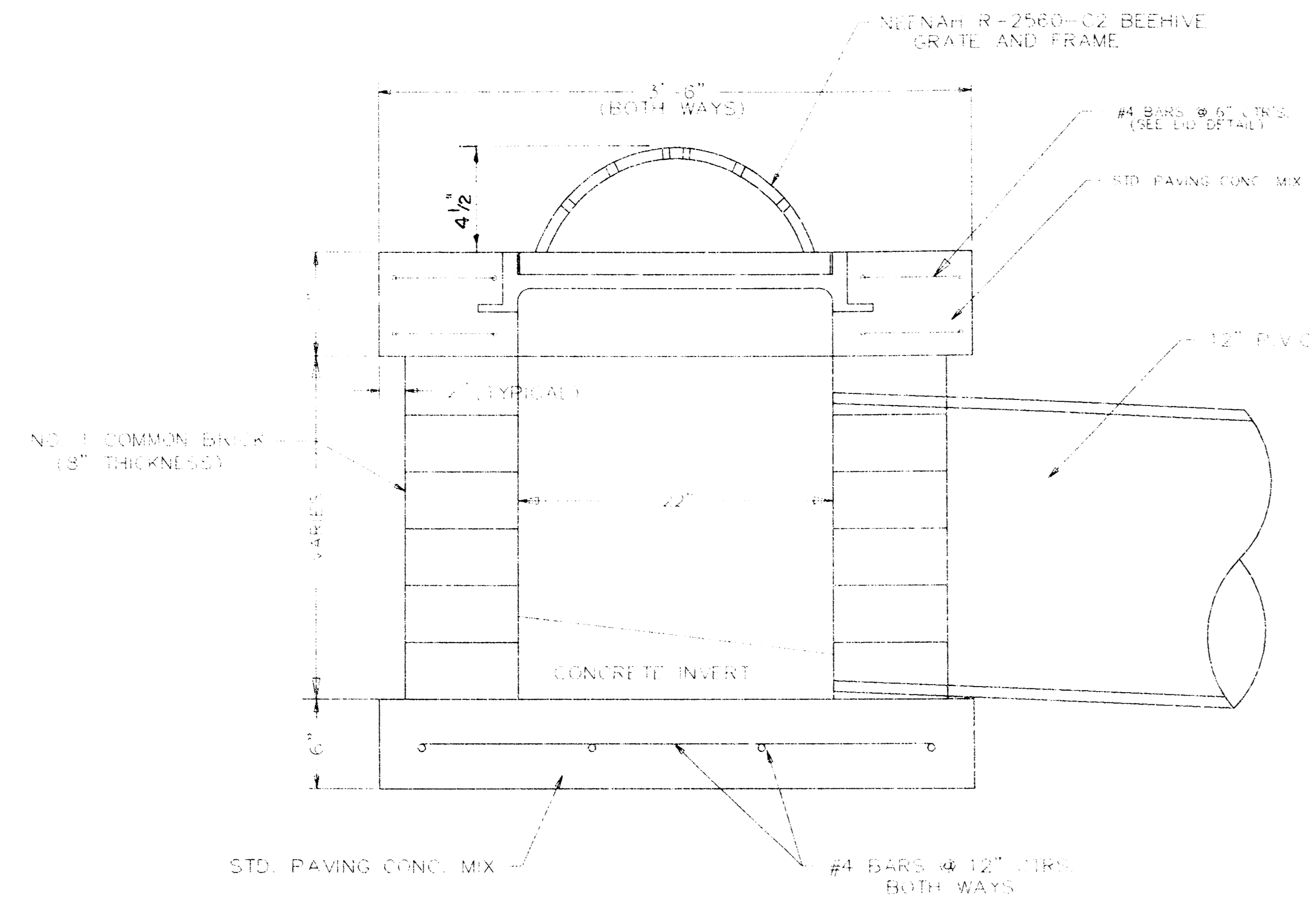
B.M. \square CUT TOP CURB, N.E. CORNER MAIZE ROAD & CARR AVE. ELEV. 131.48 CITY DATUM.



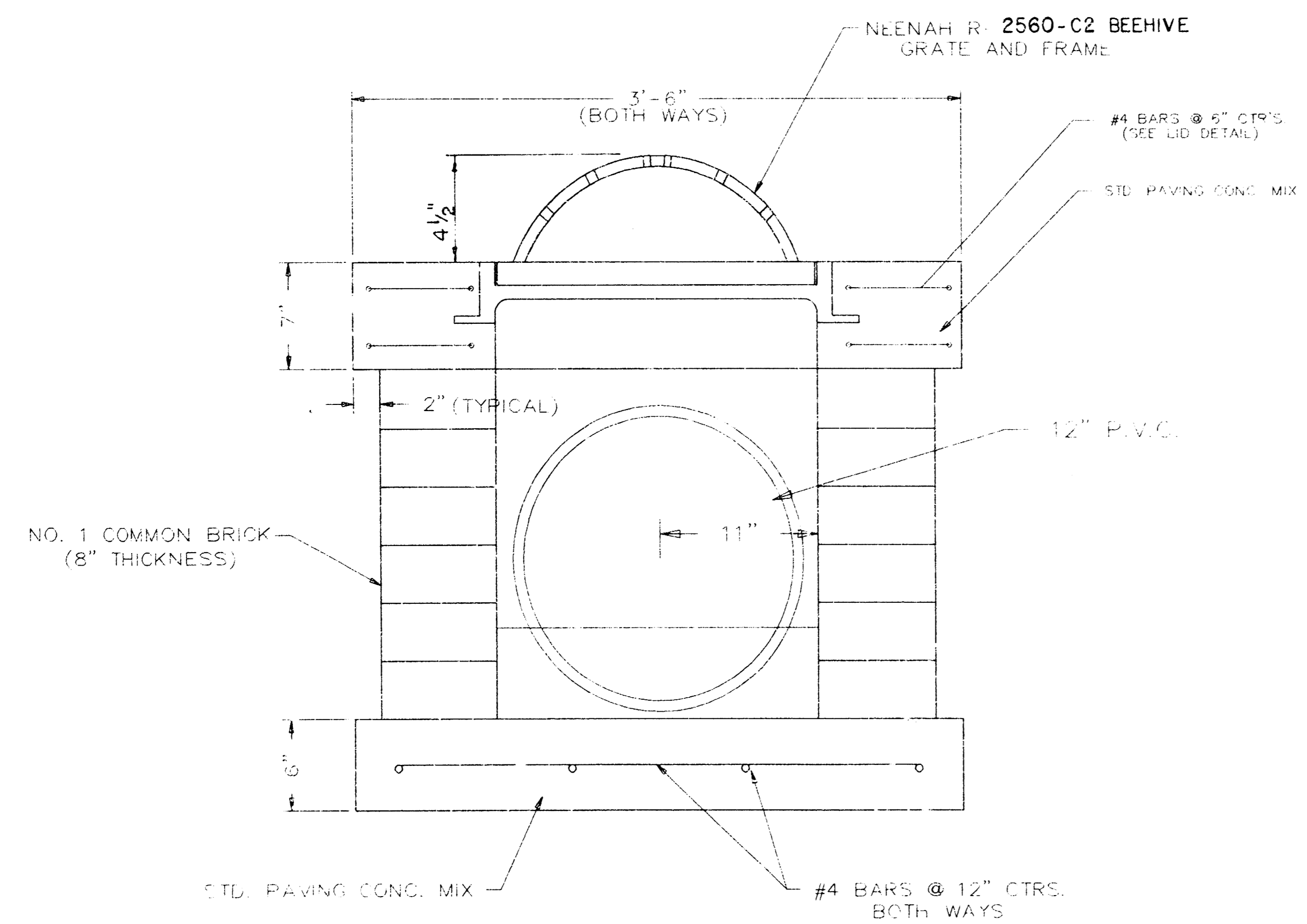
DRAINAGE IN CONNECTION WITH CARR AVENUE From W.L. MAIZE AVENUE 2nd ADDITION To MAIZE ROAD.

472-76-245-82433-000-000-001

WEE B. 12/95 20. 11



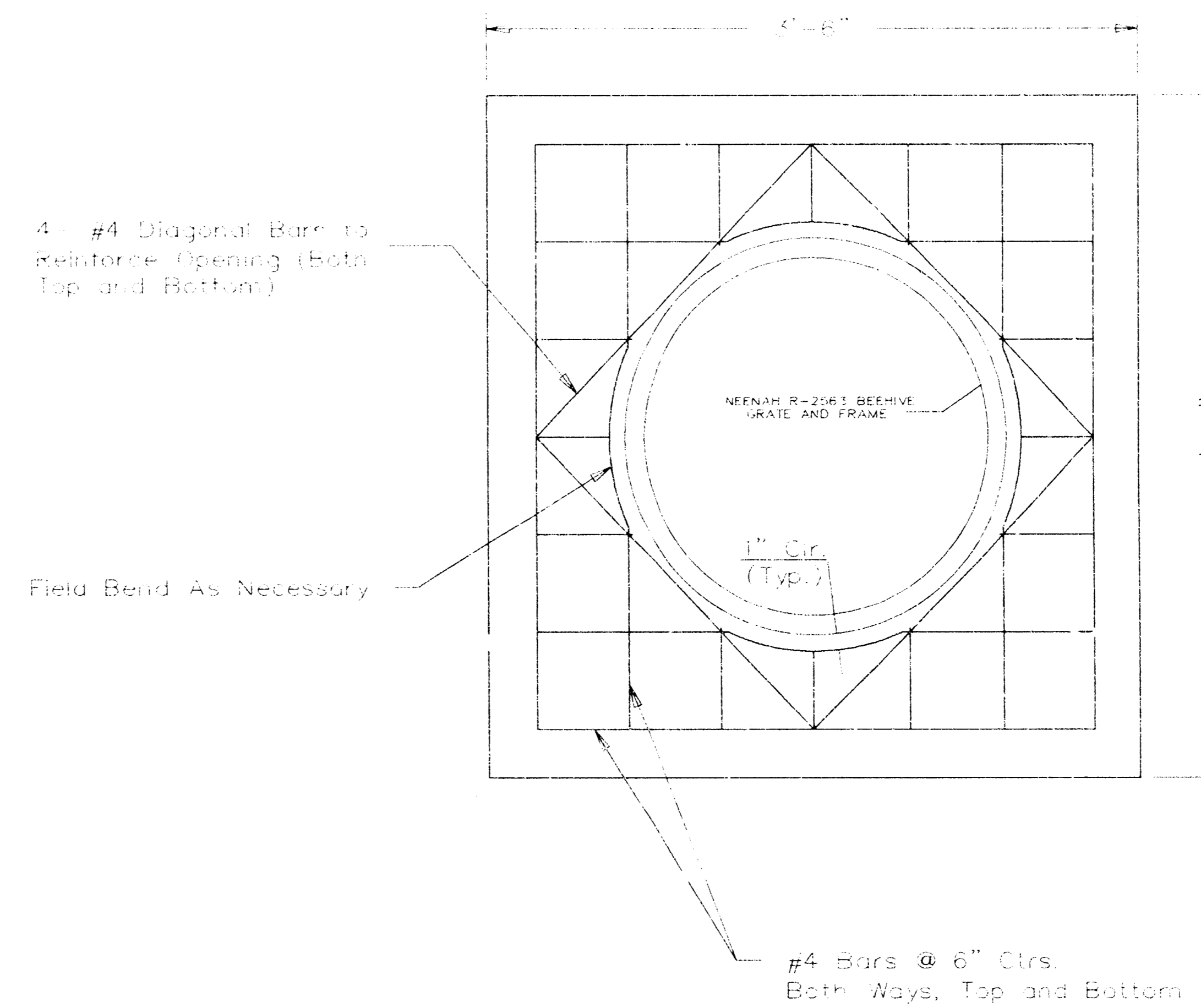
SIDE VIEW



VIEW FROM CURB LINE

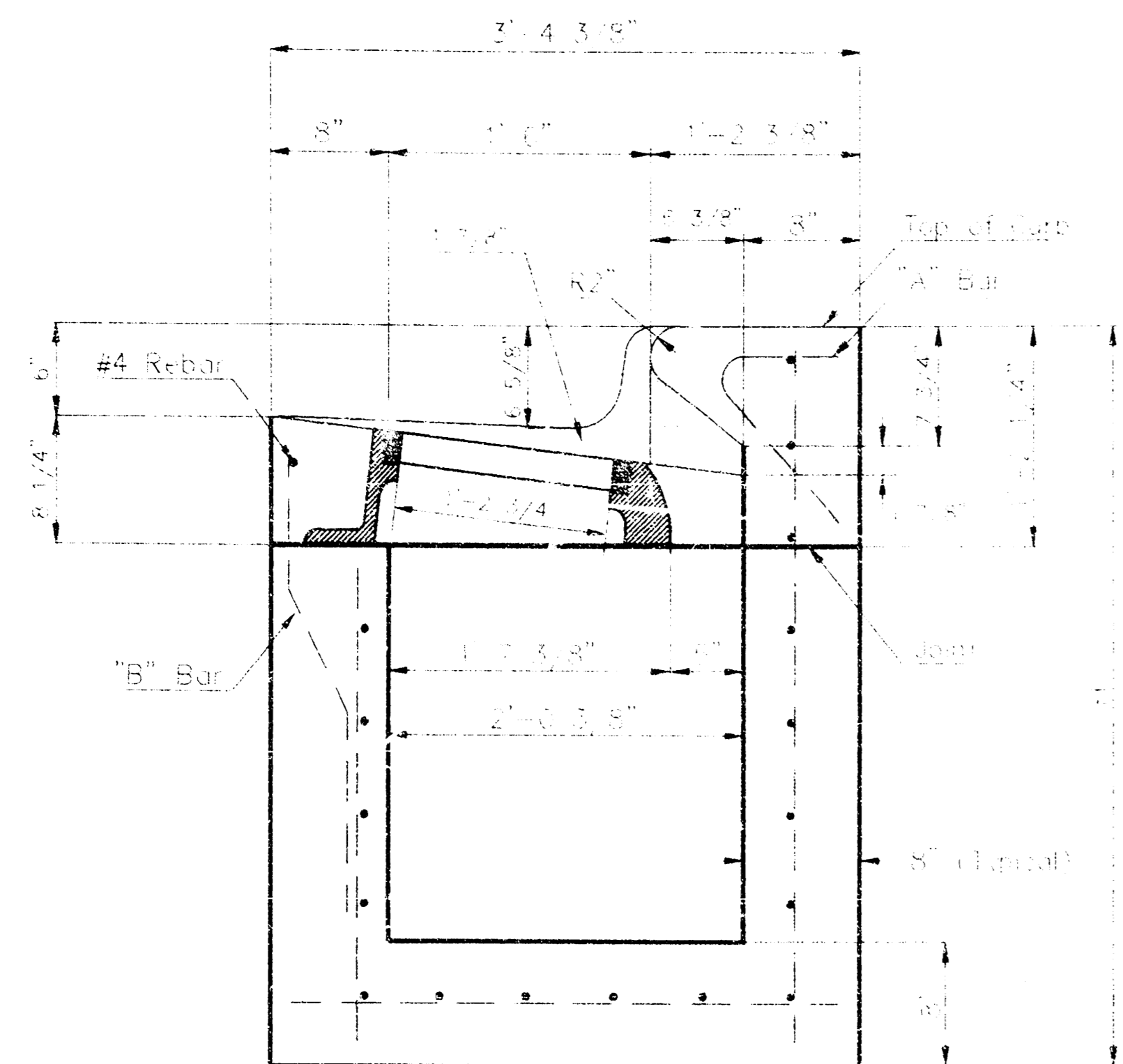
GENERAL NOTES

- INLET INVERT SHALL BE SHARED WITH ADJACENT MAINTENANCE TO DRAINAGE CHANNEL AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT NO INLET WILL BE SELF-CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
- CONCRETE CURB TO BE NOTICED ON THIN MORTAR COURSE TO INSURE FULL SUPPORT AGAINST BRICK WALLS. CONCRETE CURB MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE C&G PAVEMENT MIX.
- INLET TOP REINFORCING SHALL BE 1/2" x 1/2" IN. MAX. CENTER TO CENTER. BARS IN INLET TOP TO BE FIELD BEND OR CUT TO CLEAR BEEHIVE MANHOLE INLET RING.
- THE ENDS OF ALL REINFORCING BARS SHALL BE CUT OFF FLUSH WITH THE INLET FACE OF THE INLET WALL.

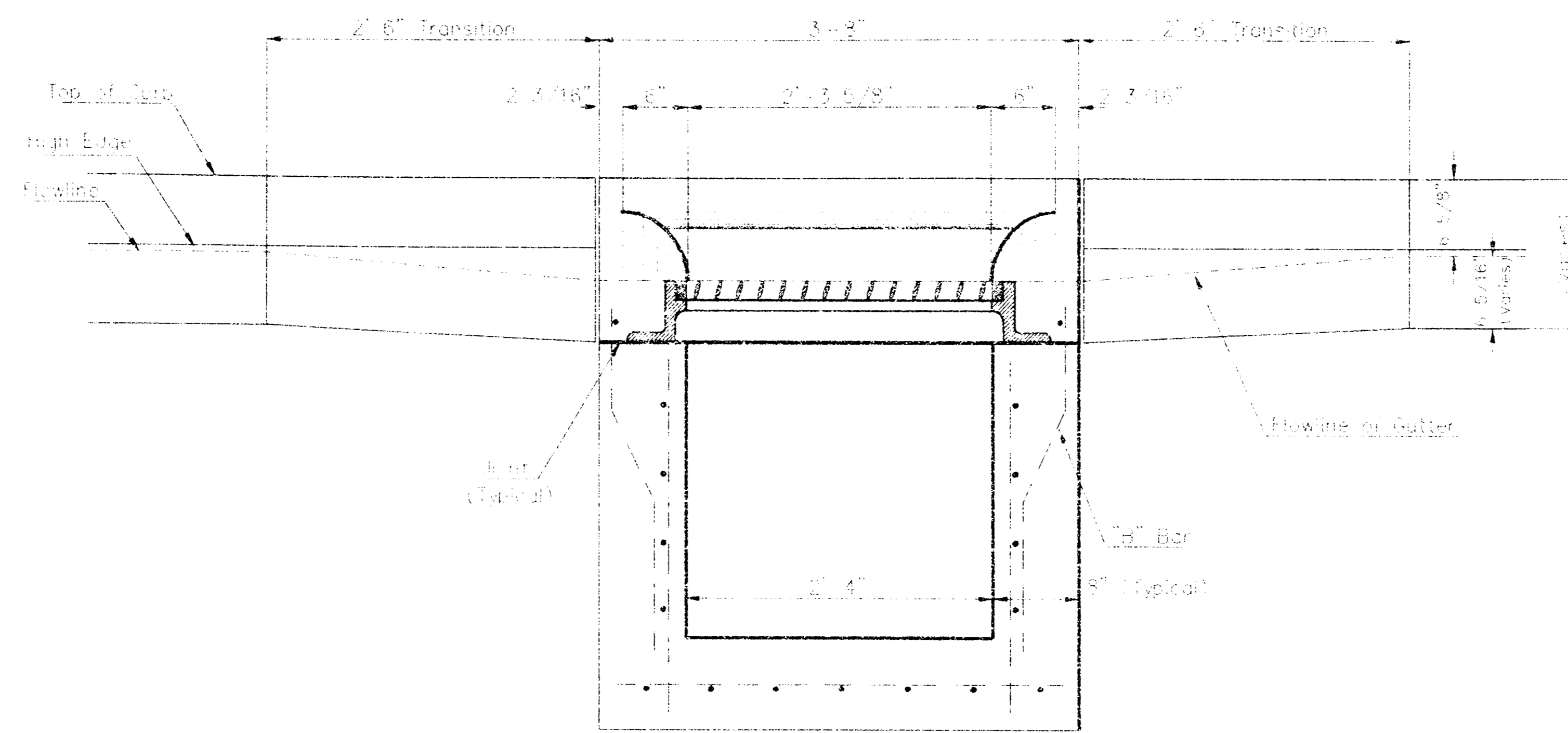


LID REINFORCEMENT DETAIL

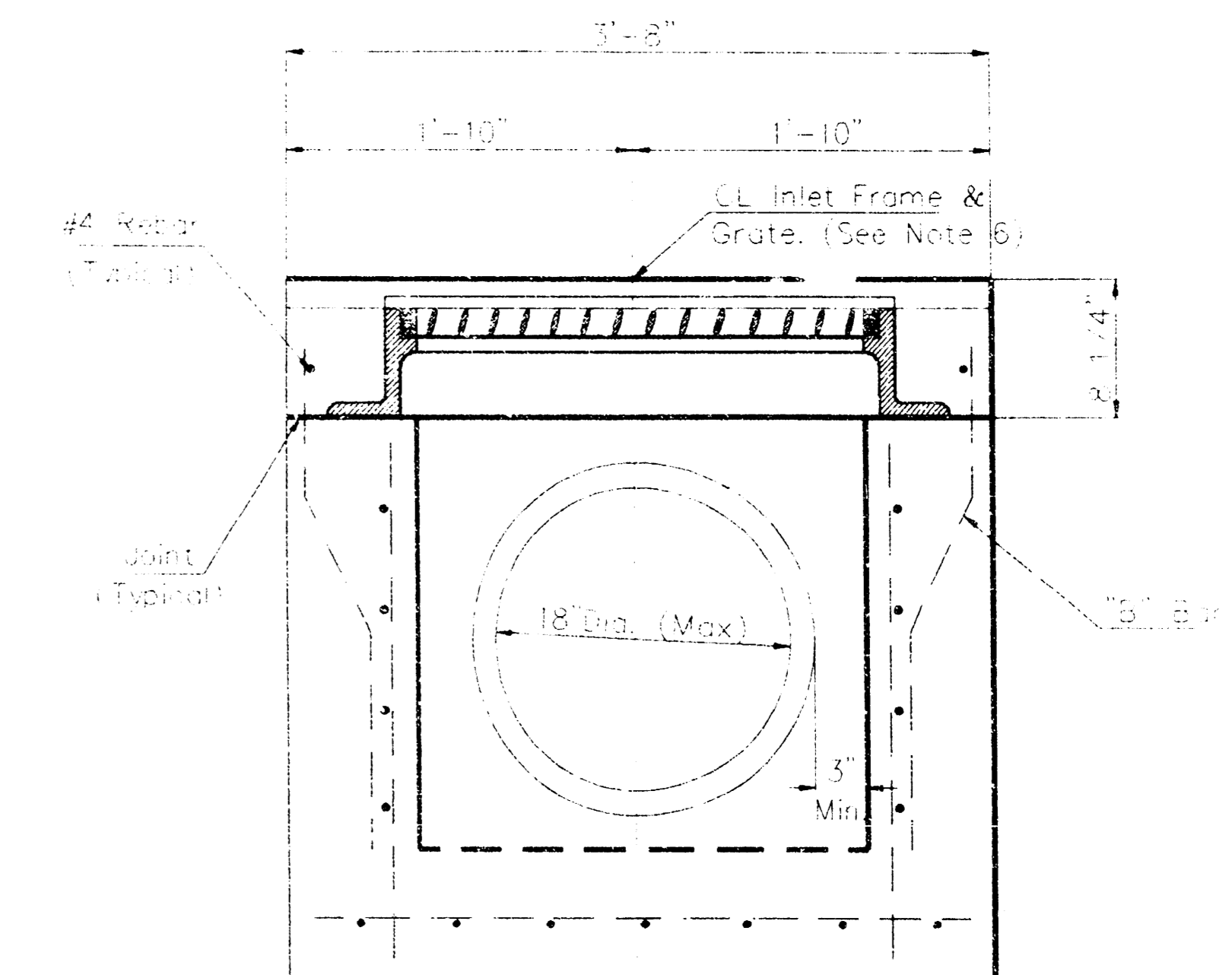
BEEHIVE INLET DETAIL					
BAUGHMAN COMPANY P. A. SURVEYING & ENGINEERING 316/262-7271 • 316 ELLIS • WICHITA, KANSAS 67211					REV.
PROJECT NUMBER 472-76-245-82433-000-000-001					SHEET 8
DESIGN <i>B</i>	DRAWN	APPROVED <i>B</i>	DATE	SCALE	OF 11



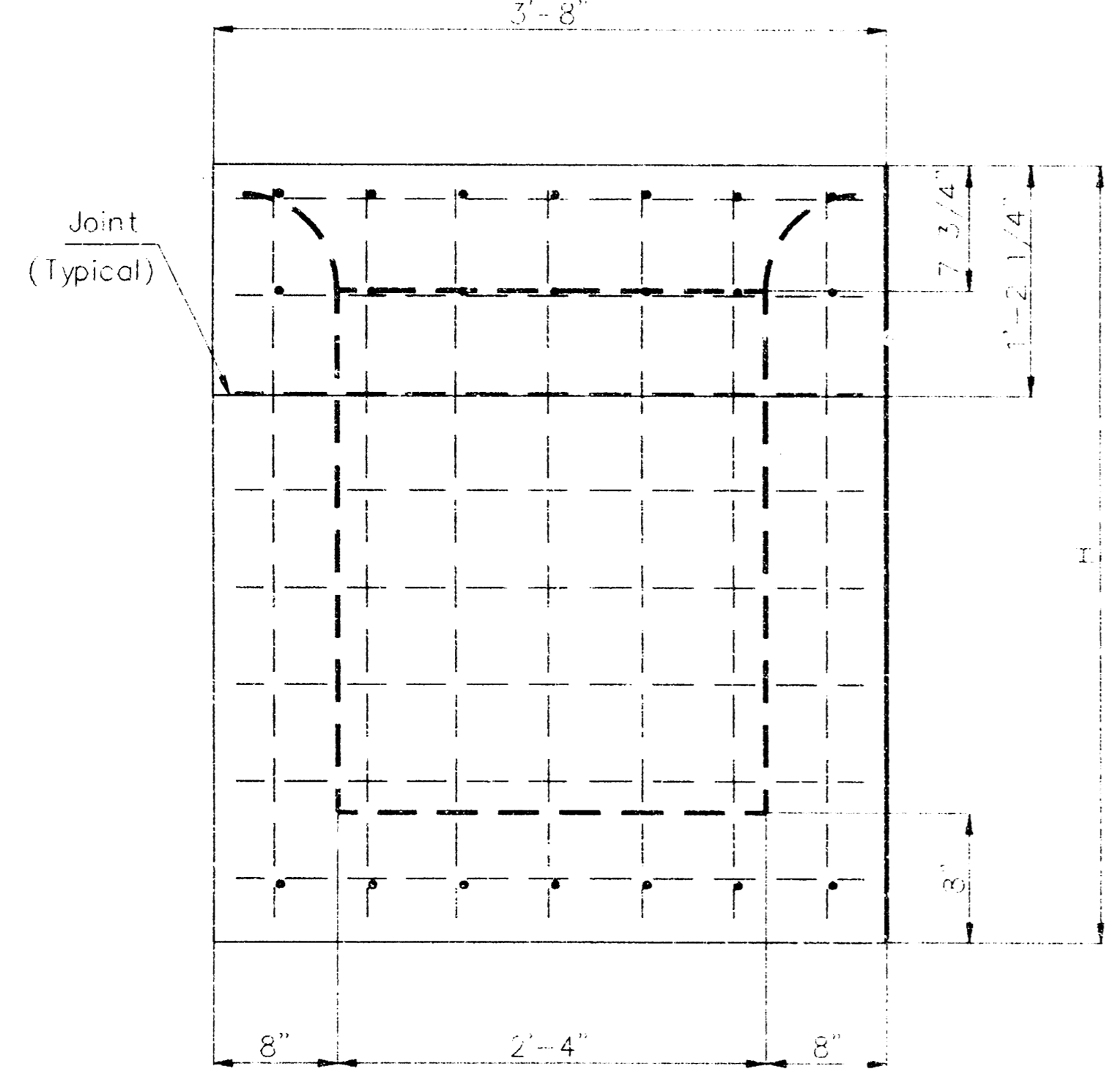
SECTION A-A



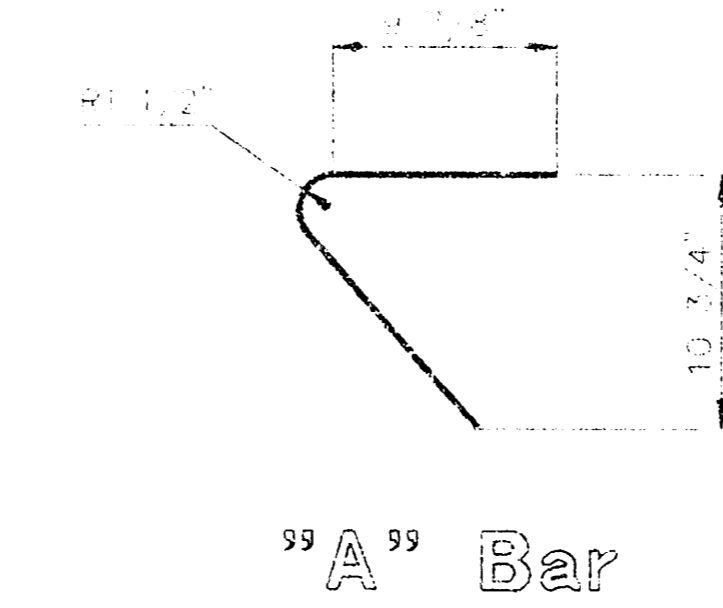
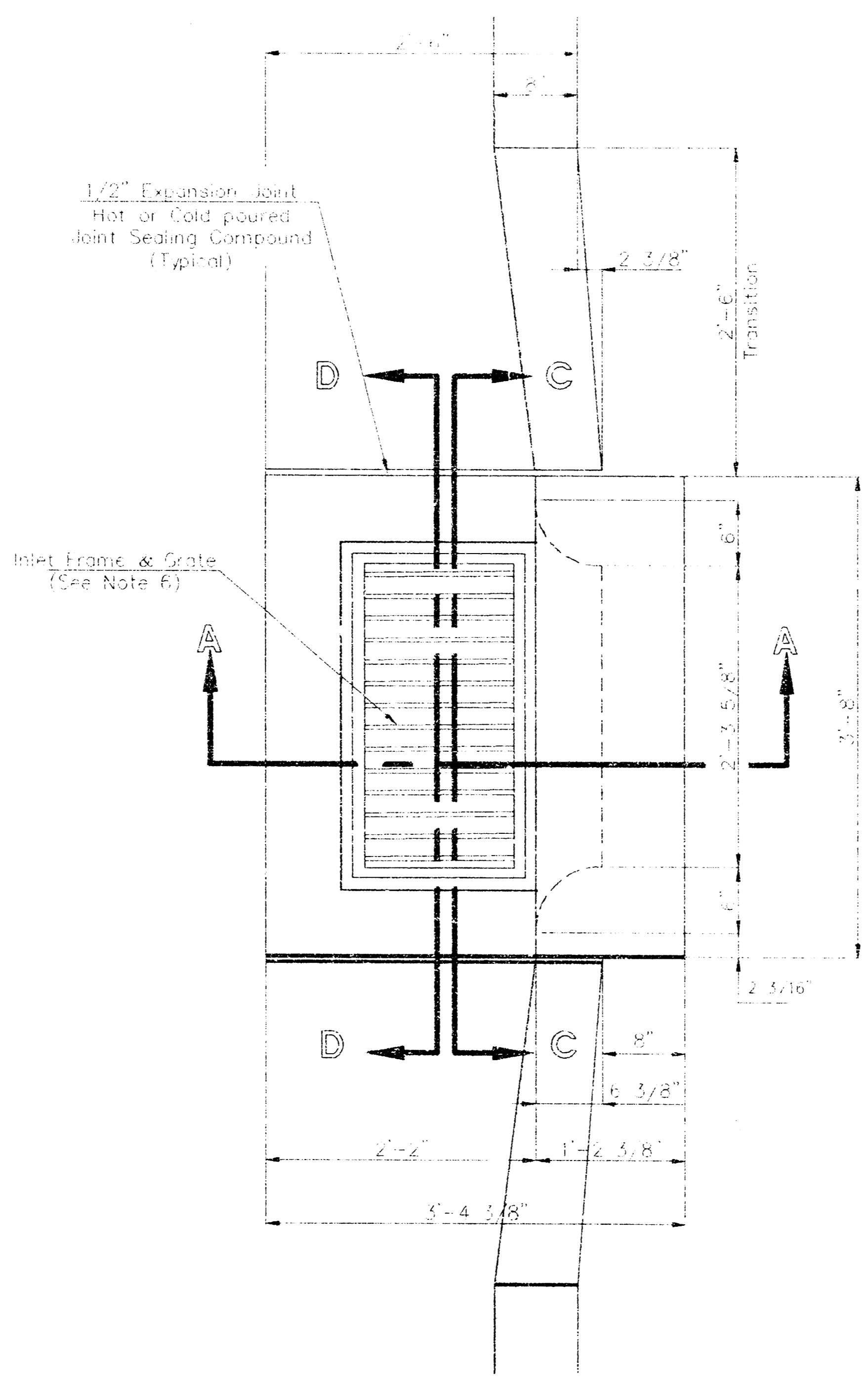
SECTION C-C



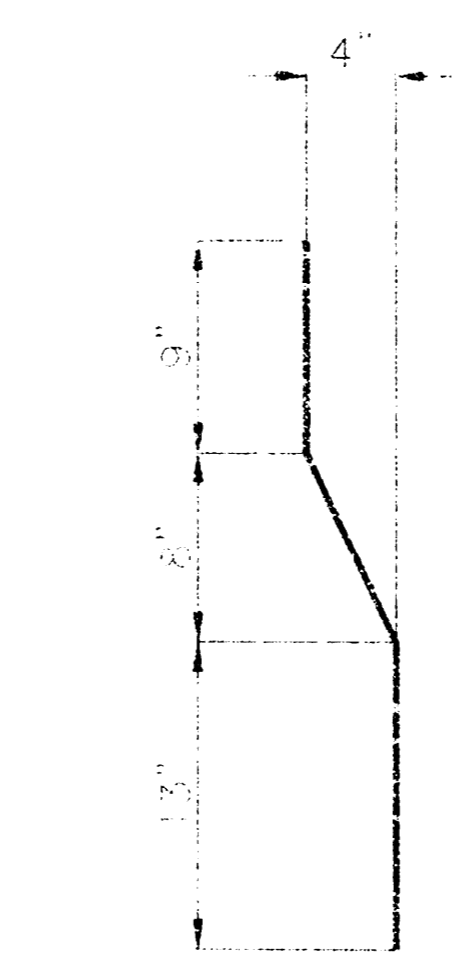
SECTION D-D



REAR WALL



"A" Bar



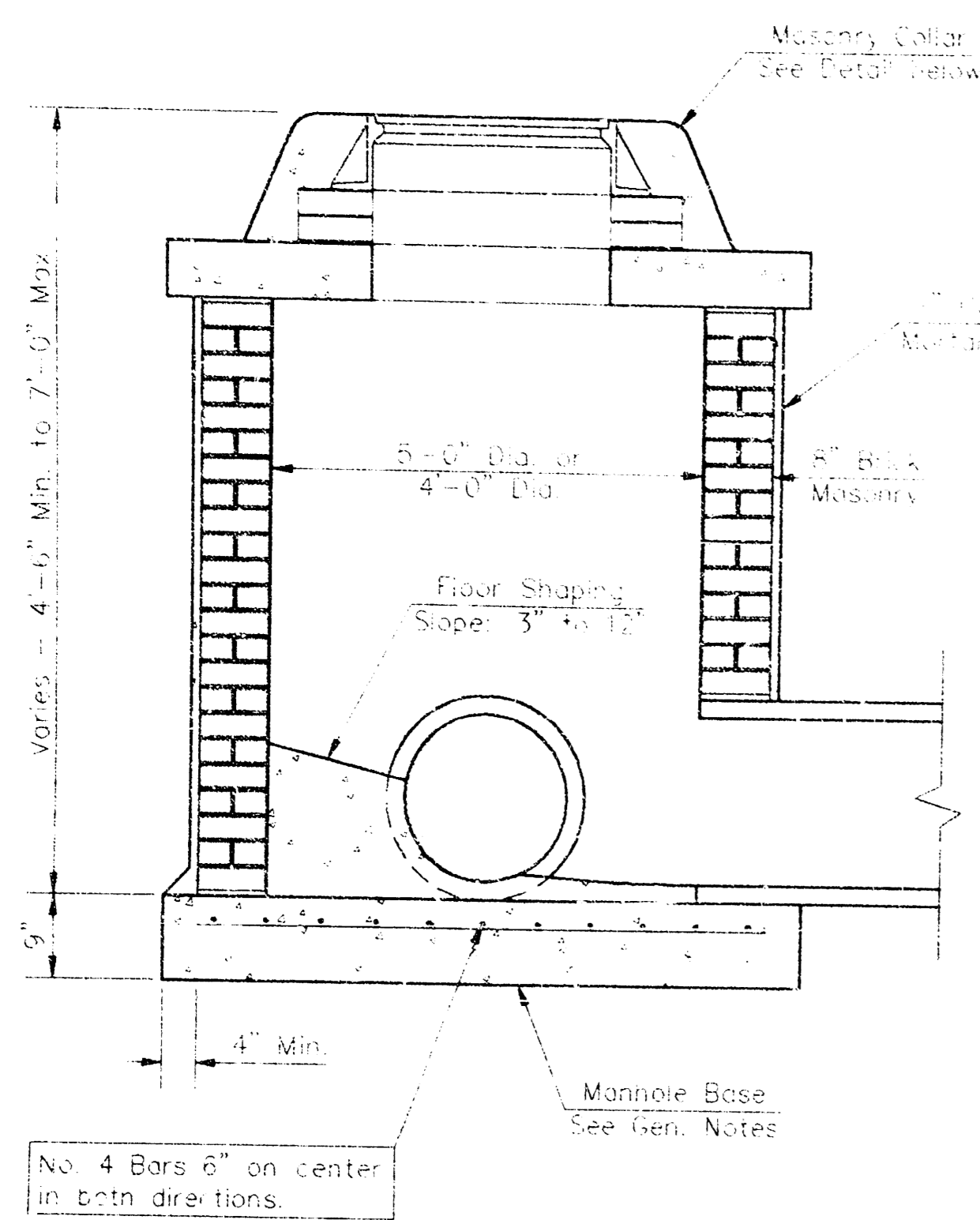
"B" Bar

General Notes

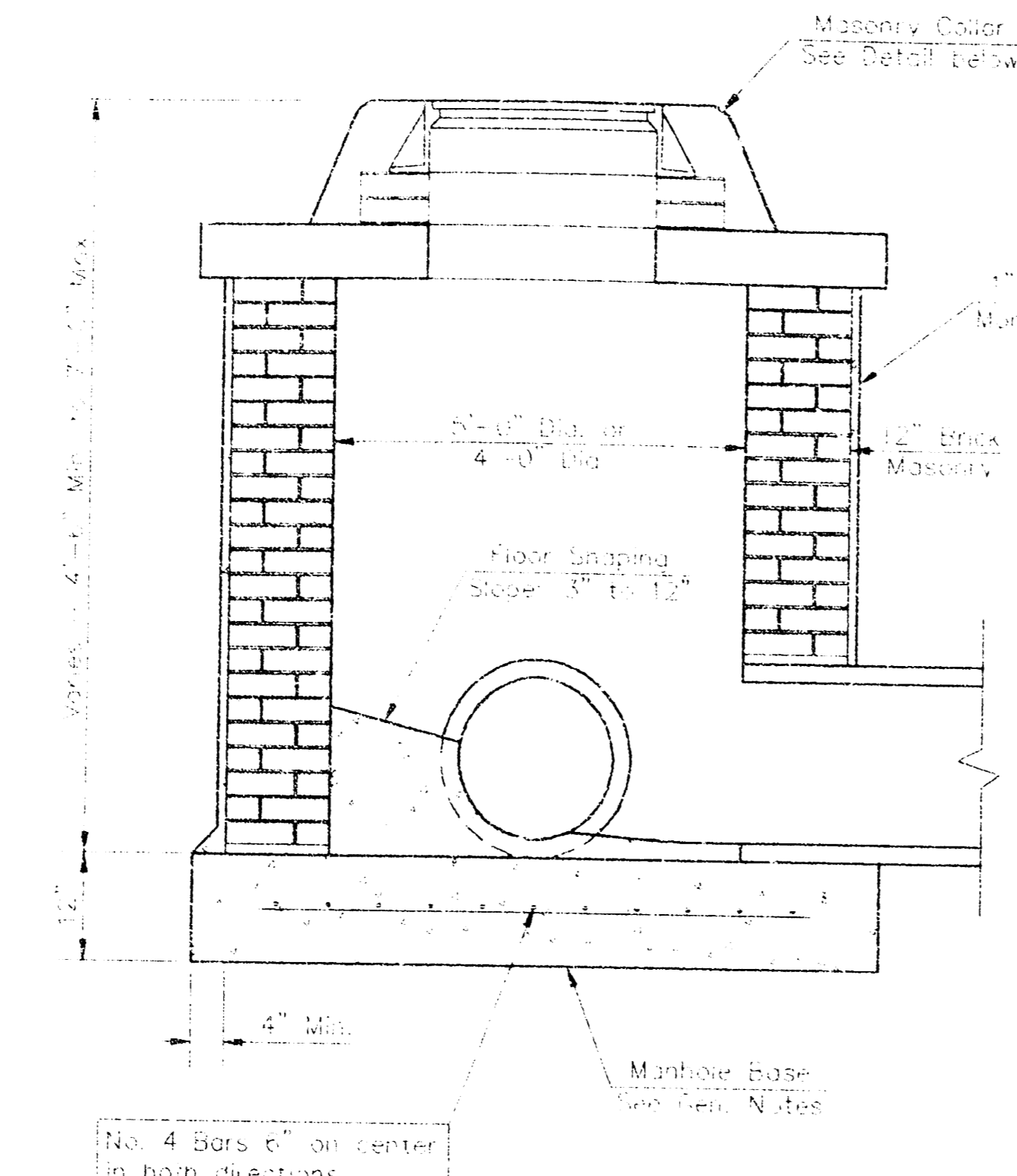
1. Use the concrete mix specified for the City of Wichita concrete pavement throughout. All exposed edges shall be finished with an edging tool. Reinforcing bars shall be bent around pipe.
2. Inlet invert shall be shaped with 3 sack mix concrete to create flow channels and to increase hydraulic efficiency 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

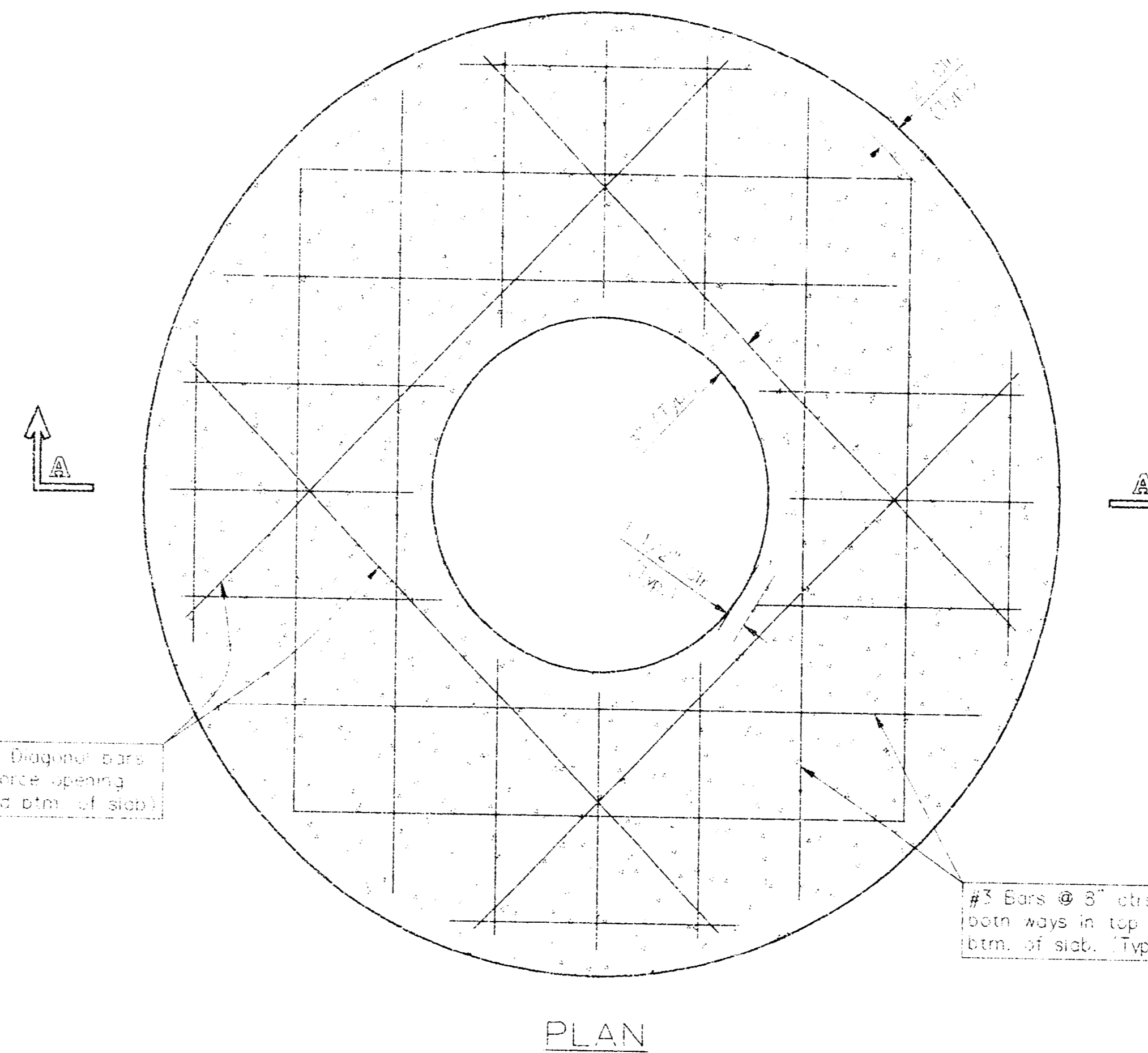
<p>DETAIL STANDARD TYPE II CURB INLET CITY OF WICHITA, KANSAS INLET OPENINGS = 6" x 2'-3 5/8" January, 1987</p>	
<p>PROJECT NUMBER 472-76-245-82433-000-000-001</p>	<p>SHEET OF 9 11</p>
<p>BAUGHMAN COMPANY P.A. ENGINEERING & SURVEYING 316/282-7271 • 315 ELLIS • WICHITA, KANSAS 67211</p>	



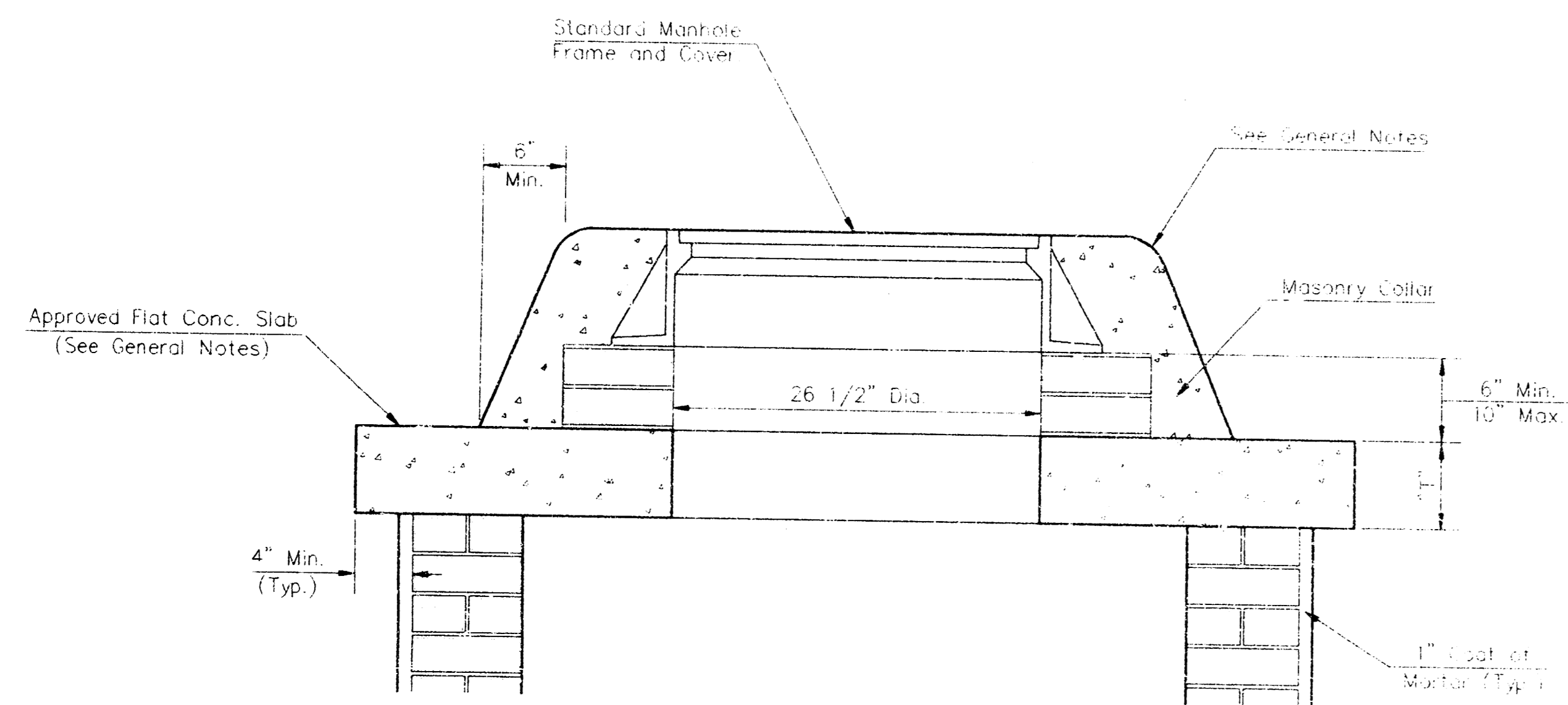
SHALLOW TYPE "A" MANHOLE



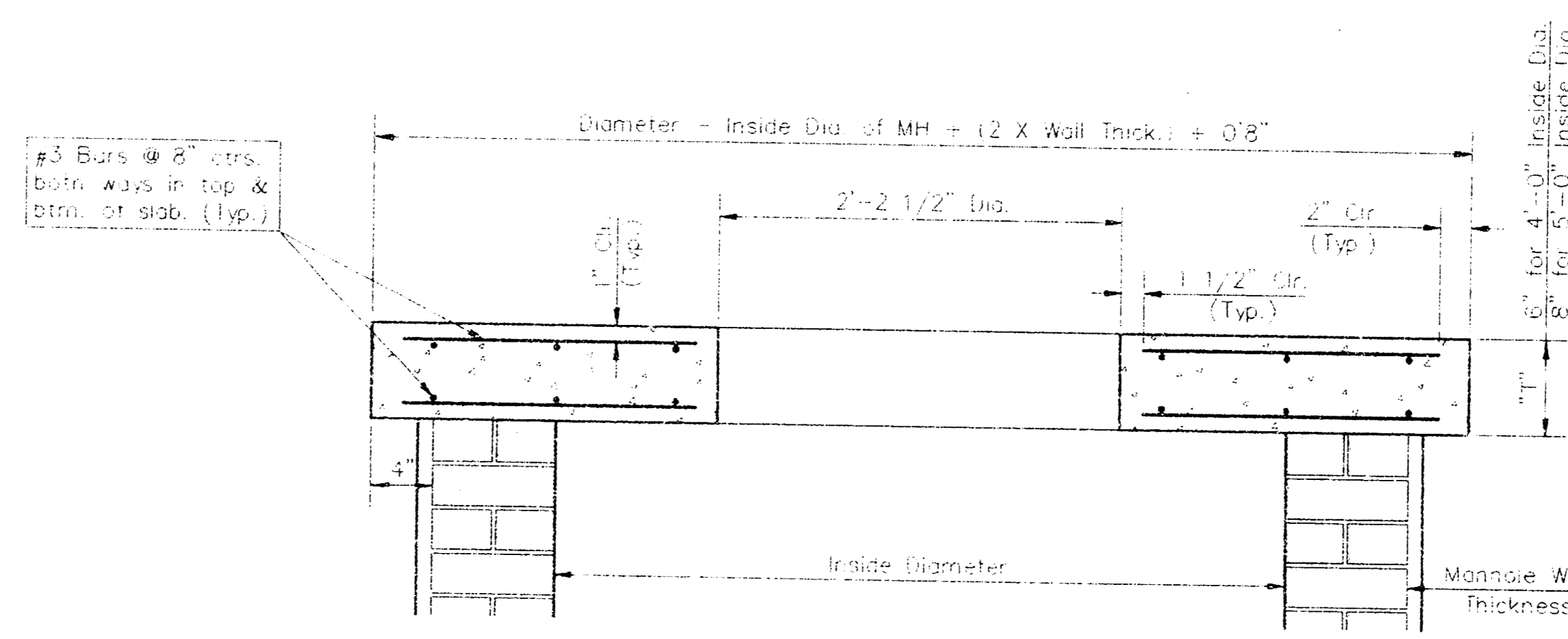
SHALLOW TYPE "B" MANHOLE



PLAN

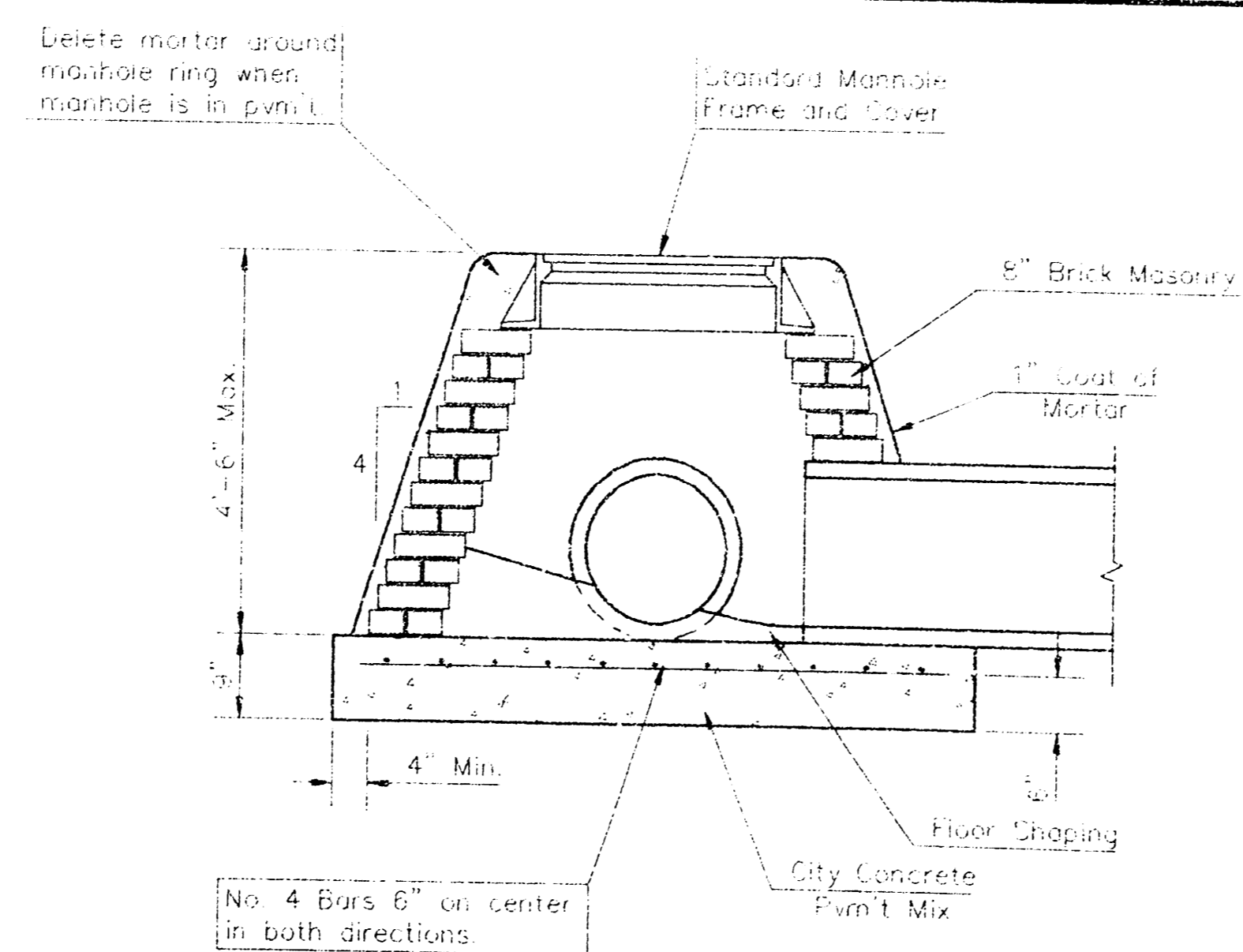


MASONRY COLLAR DETAIL

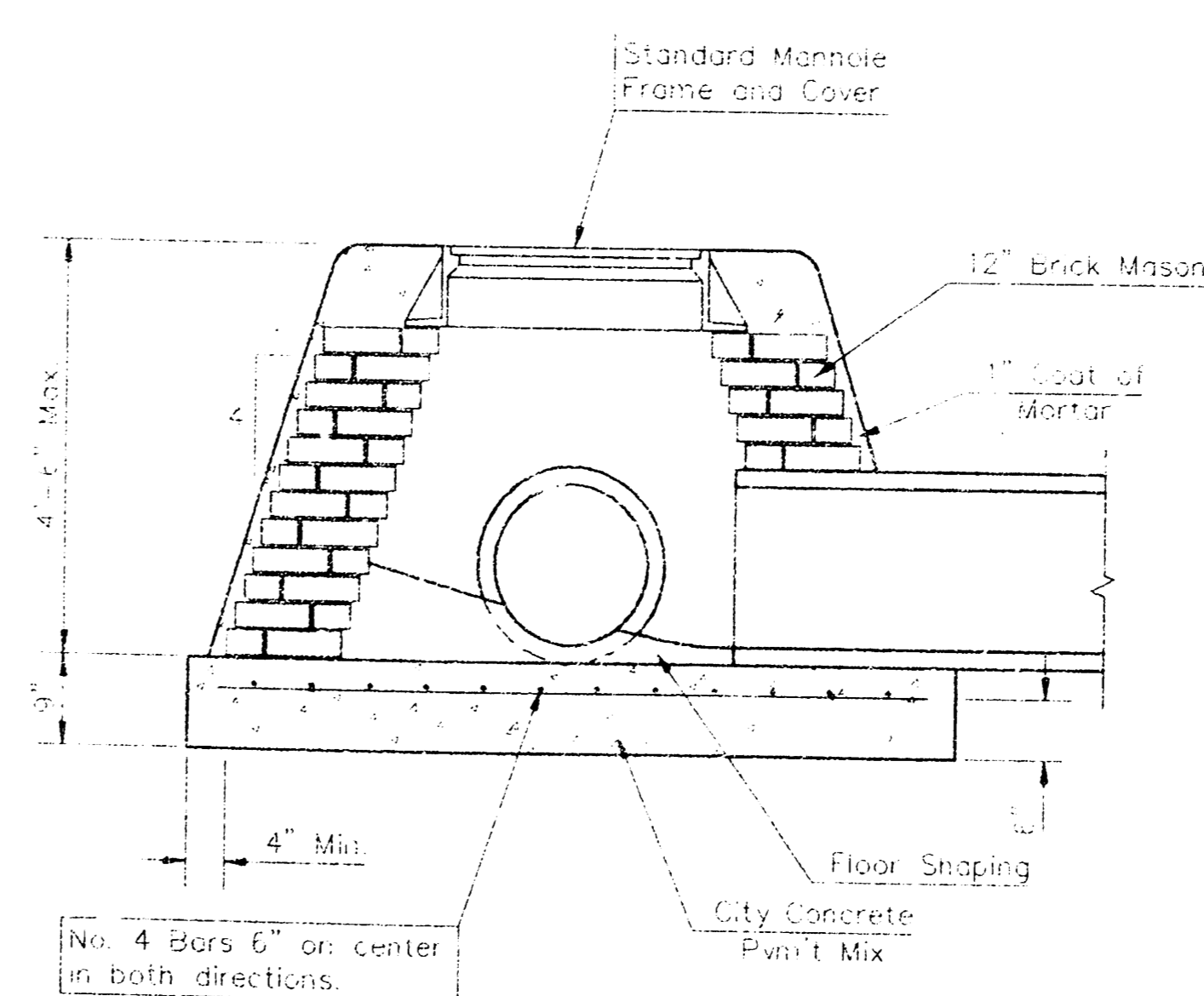


SECTION A-A

FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

- Mortar used in masonry construction shall contain 8 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 manholes 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 pipes 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 neat lines for the full inside diameter of the manhole. Manhole floors shall then be shaped 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 C62-B7.

CITY OF WICHITA, KANSAS
STANDARD SHALLOW MANHOLES
 TYPE 'A' AND TYPE 'B'

PROJECT NUMBER
 472-76-245-82433-000-000-001

SHEET 11 OF 11

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