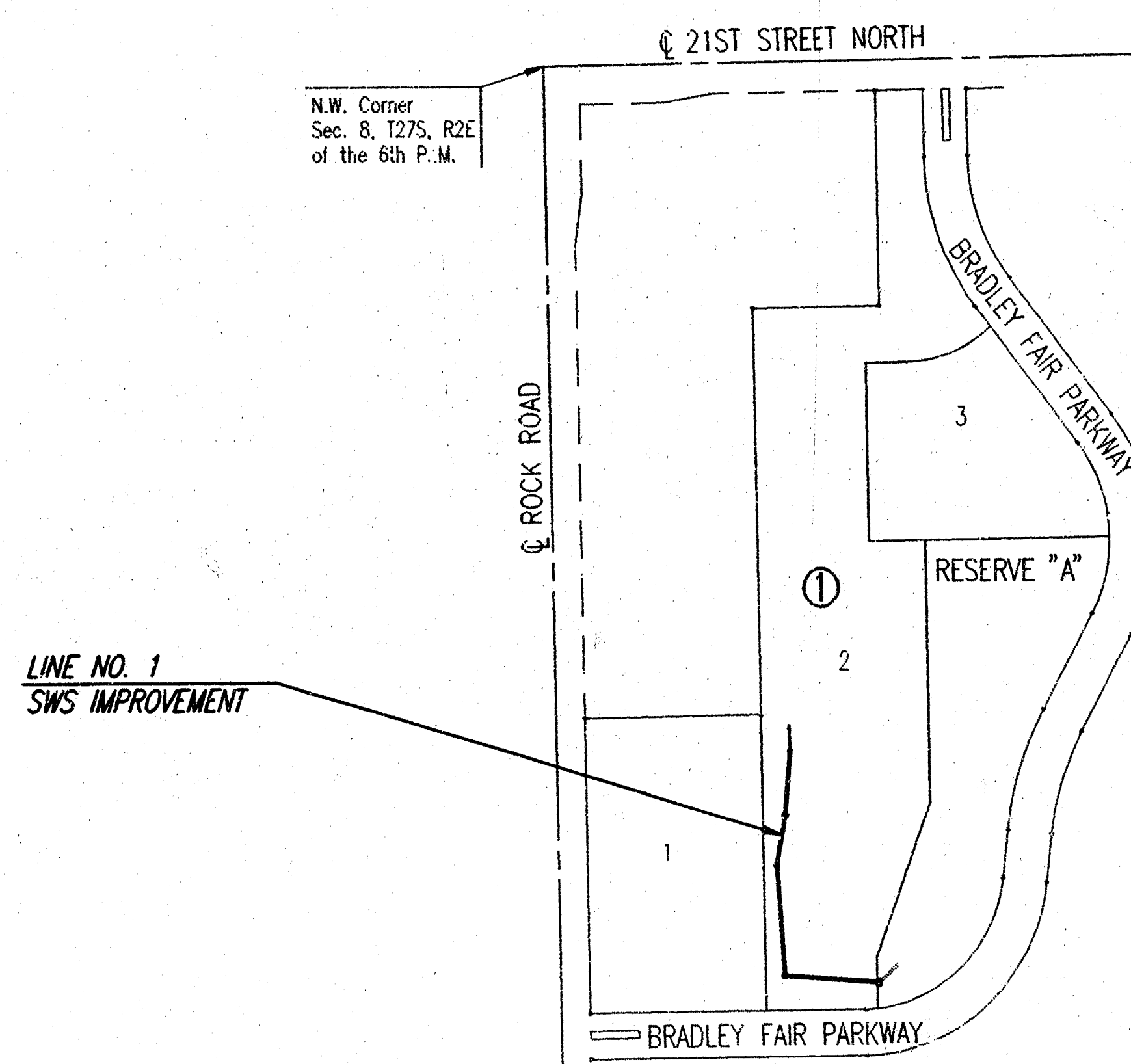
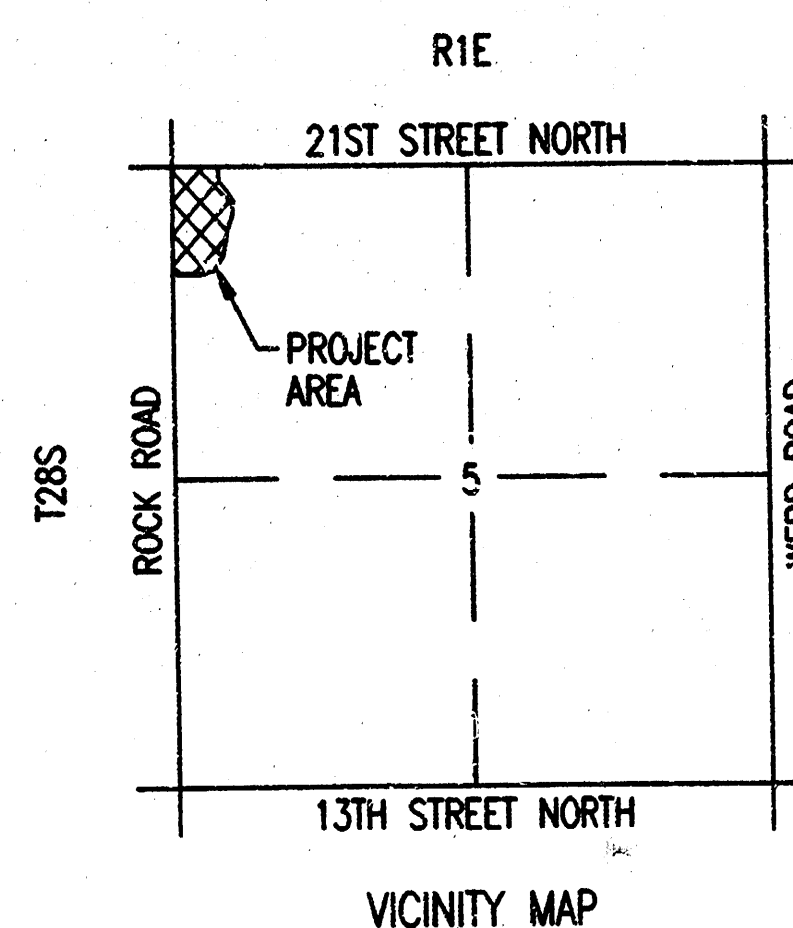


SHEET NO.	TOTAL SHEETS
1	7

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, P.E., CITY ENGINEER
STORM WATER SEWER AND
SANITARY SEWER IMPROVEMENTS
IN
BRADLEY FAIR 2ND ADDITION
BRADLEY FAIR SOUTH PLAZA WING
CITY OF WICHITA PRIVATE PROJECT NO. 773PPS(607861)

INDEX OF SHEETS

1. TITLE SHEET
2. PLAN
3. PLAN AND PROFILE
4. TYPE 22 CURB INLET DETAILS
5. R.C. MANHOLE DETAILS
6. INLET PROTECTION AND FLUME DRAIN DETAILS
7. SANITARY SEWER PLAN



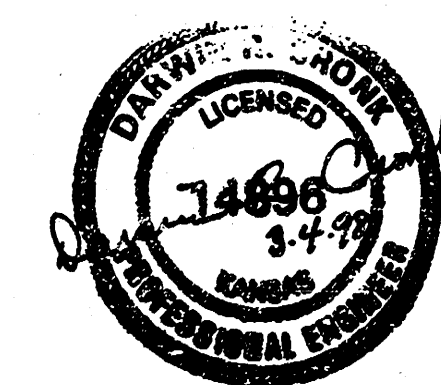
SCALE: 1" = 300'

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

SANITARY SEWERS VRH 3/4/98
STORM SEWERS VRH 3/4/98
DRIVEWAY APPROACHES _____
WATER MAINS _____
PAVING _____

MARCH 1998

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



GENERAL NOTES

UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO 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 THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. CONTRACTOR SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO BIDDING.

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.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED AS NOTED.

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.

EXCESS EXCAVATED MATERIAL AND EXCESS TOPSOIL SHALL BE STOCKPILED OR WASTED WITHIN THE PLAT LIMITS. THE CONTRACTOR SHALL CONTACT THE OWNER'S ENGINEER AT 262-2691 FOR INFORMATION PERTAINING TO THE ACCEPTABLE LOCATIONS FOR THE DISPOSITION OF EXCESS MATERIAL. WASTE MATERIAL SHALL BE GRADED SMOOTH AND SLOPED TO DRAIN.

CONTRACTOR SHALL PROVIDE A MINIMUM FORTY-EIGHT (48) HOUR ADVANCE NOTICE (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO BEGINNING ANY EXCAVATION, TO KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 687-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: K.S.G. GAS, PEOPLES NATURAL GAS, K.O.E. ELECTRIC, SOUTHWESTERN BELL TELEPHONE, MULTIMEDIA CABLEVISION, CITY OF WICHITA SEWER MAINTENANCE AND CITY OF WICHITA WATER DEPARTMENT.

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 AT NO COST TO THE OWNER.

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 LOCATIONS 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.

THE CONTRACTOR SHALL ADJUST WATER VALVE BOXES AS DIRECTED BY THE ENGINEER.

ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED, FERTILIZED, AND MULCHED ACCORDING TO CITY OF WICHITA STANDARDS AND SPECIFICATIONS.

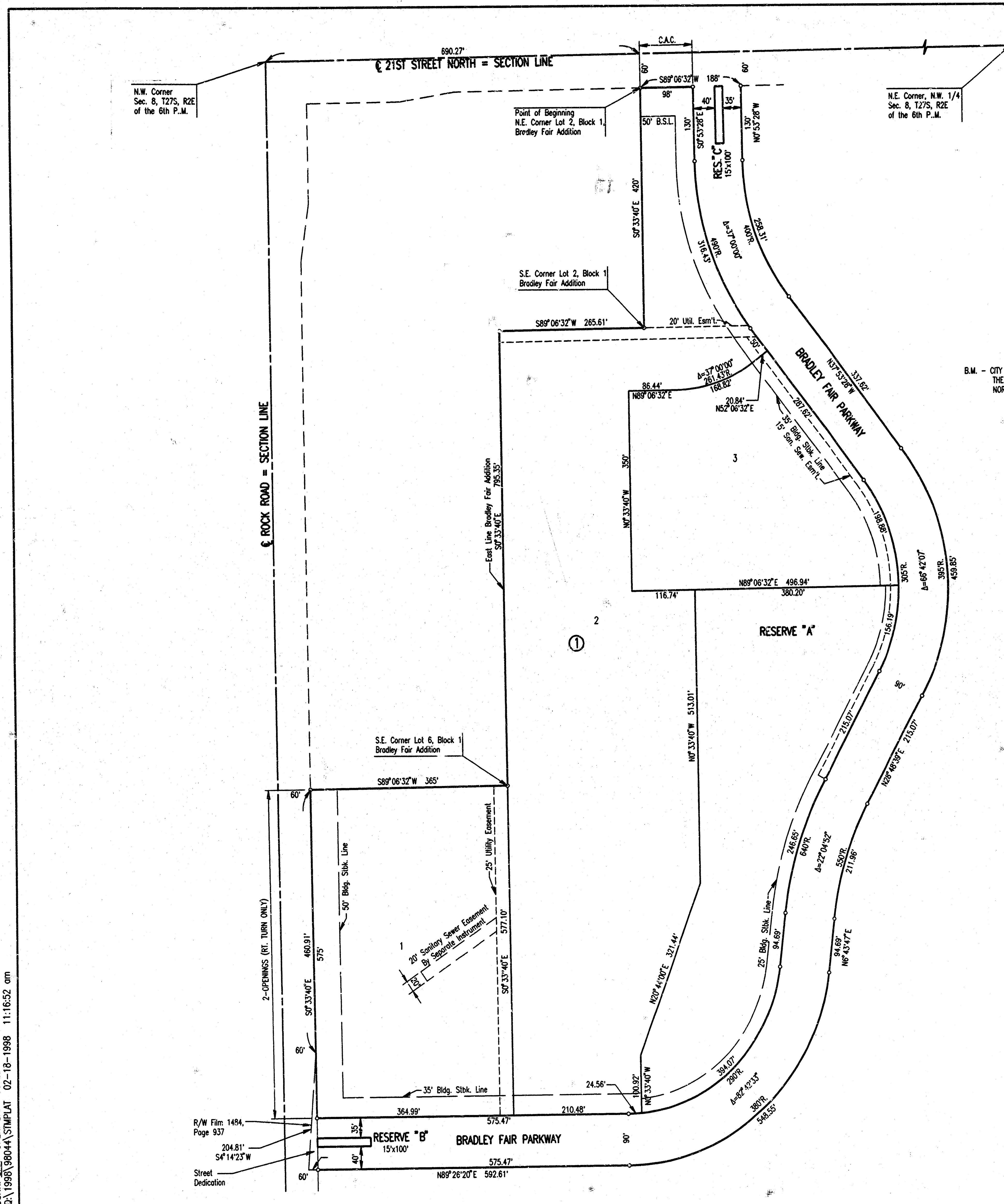
CONTRACTOR SHALL OBTAIN PERMIT FROM C.C.I. PRIOR TO INSTALLING SANITARY SEWER.

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM CONTRACTED BY THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR UNTIL SUCH INSPECTION IS ARRANGED FOR AND REQUIRED BONDS HAVE BEEN SUBMITTED TO AND APPROVED BY THE CITY; NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER. IMPROVEMENTS PERFORMED UNDER THIS PROJECT SHALL NOT BE ACCEPTED BY THE CITY UNTIL ALL APPLICABLE DOCUMENTATION HAS BEEN SUBMITTED TO THE CITY ENGINEER. THIS MAY INCLUDE: AS-BUILT DRAWINGS, INSPECTION LOGS, TEST DOCUMENTATION, TV TAPES, AND A CERTIFICATE OF COMPLETION. THE ABOVE SHALL BE PERFORMED BY THE CONSULTING FIRM CONTRACTED TO INSPECT THIS PROJECT.

SHEET NO.	TOTAL SHEETS
2	6

BRADLEY FAIR 2ND ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

25MP, DAR, OPER, DAR SCALE: 1"=100.00
02/19/98/98044/STPLAT 02-18-1998 11:16:52 am



SCALE: 1"=100'

B.M. - CITY OF WICHITA B.M. DISC. 45' NORTH AND 48' EAST OF THE INTERSECTION OF THE CENTERLINES OF 21ST STREET NORTH AND ROCK ROAD. ELEV. 214.568 CITY DATUM

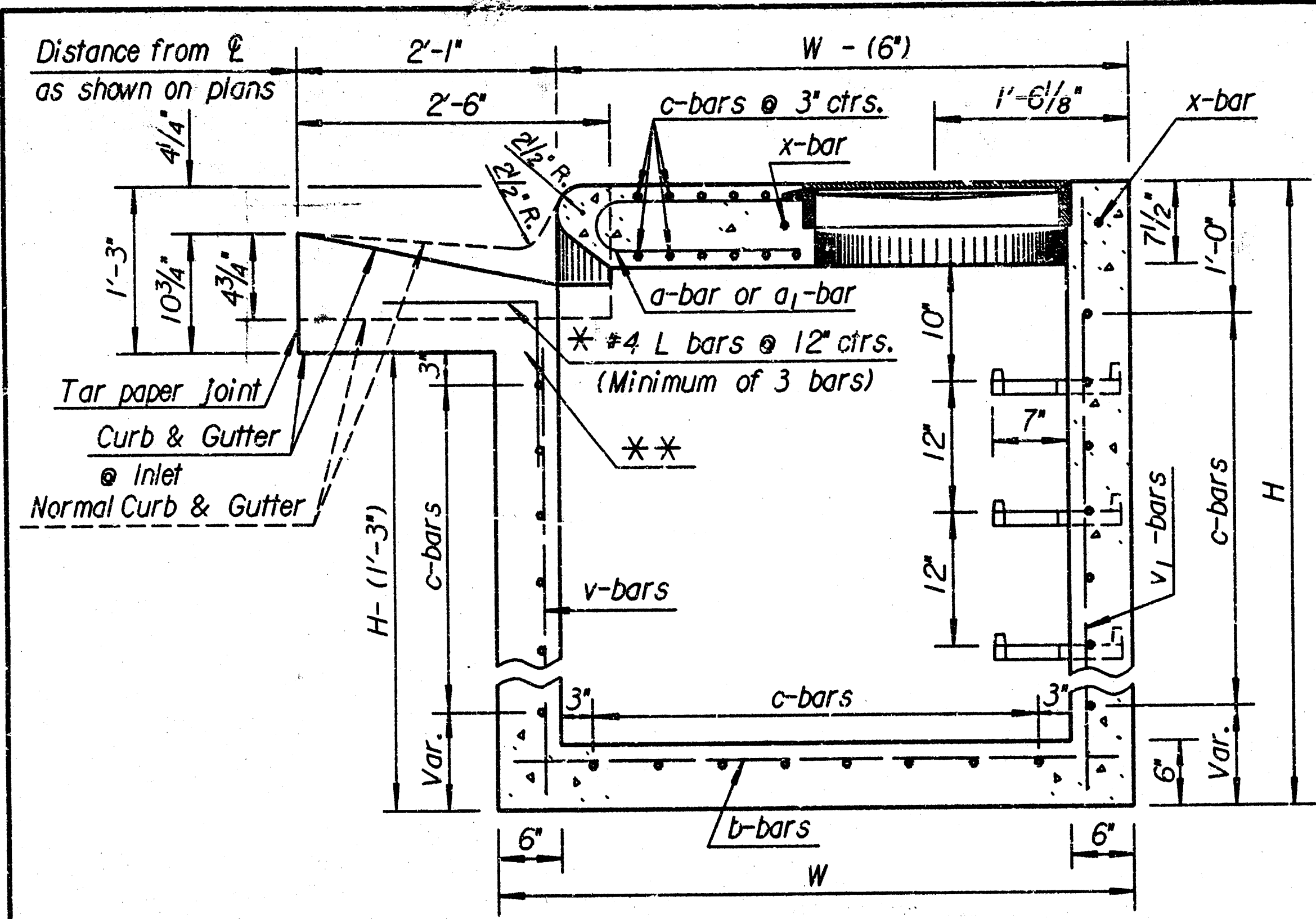
BRADLEY FAIR SOUTH PLAZA

PLAT

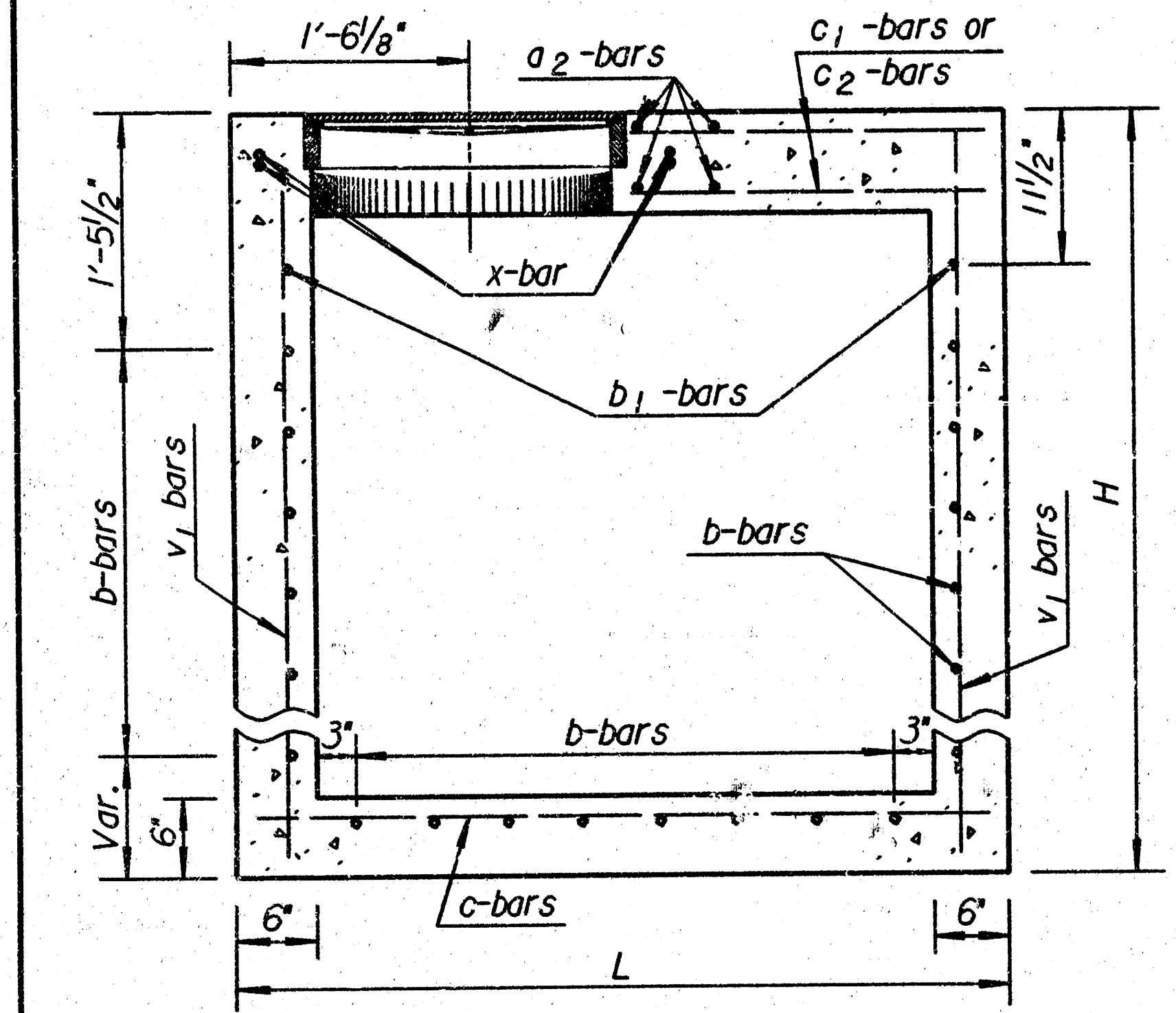
C.O.W. PROJ. NO. 773PPS (607861)

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

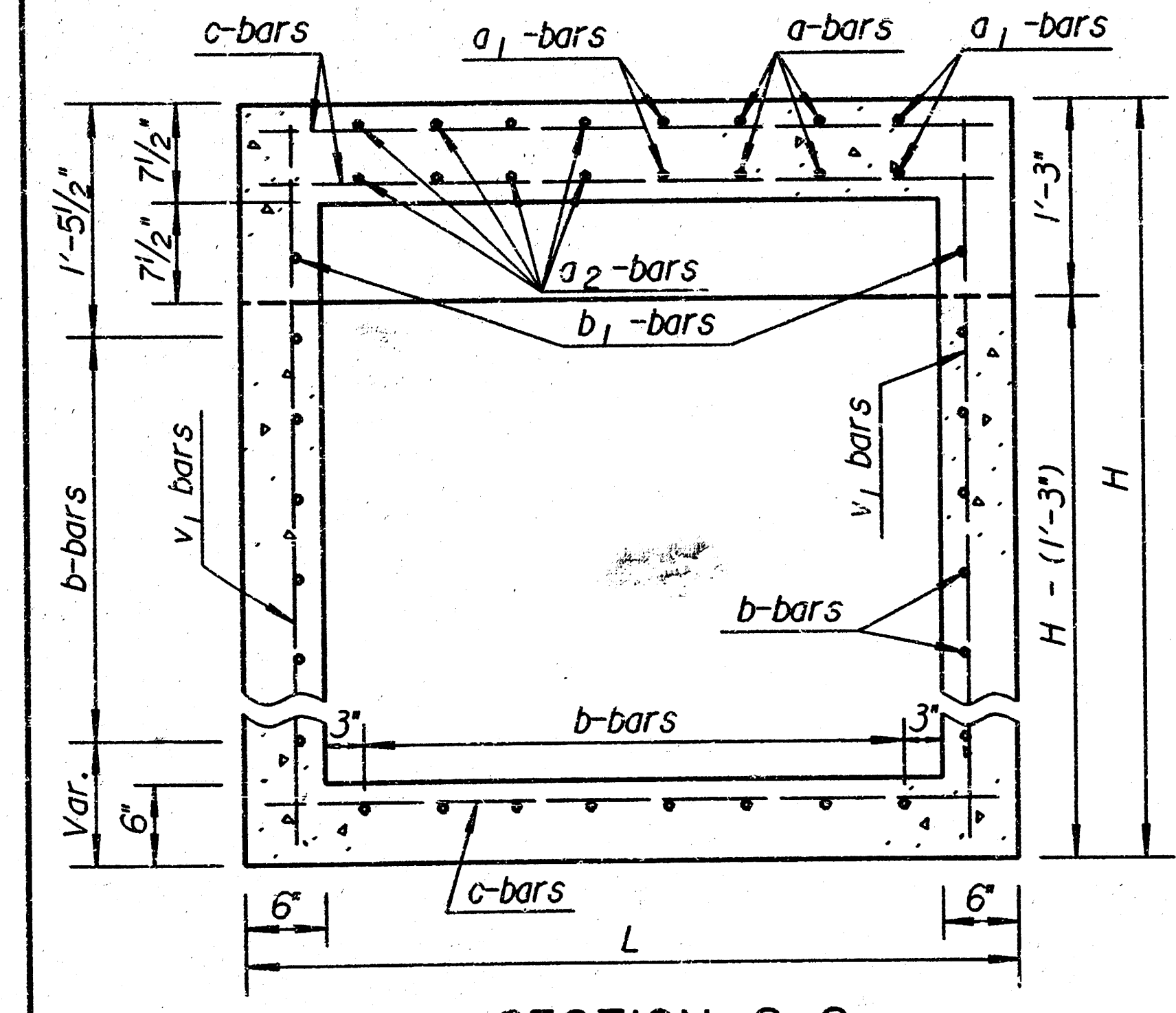
Designed by	DAR	Checked by	
Drawn by	DAR	Date	FEB., 1998 Job No. 98044



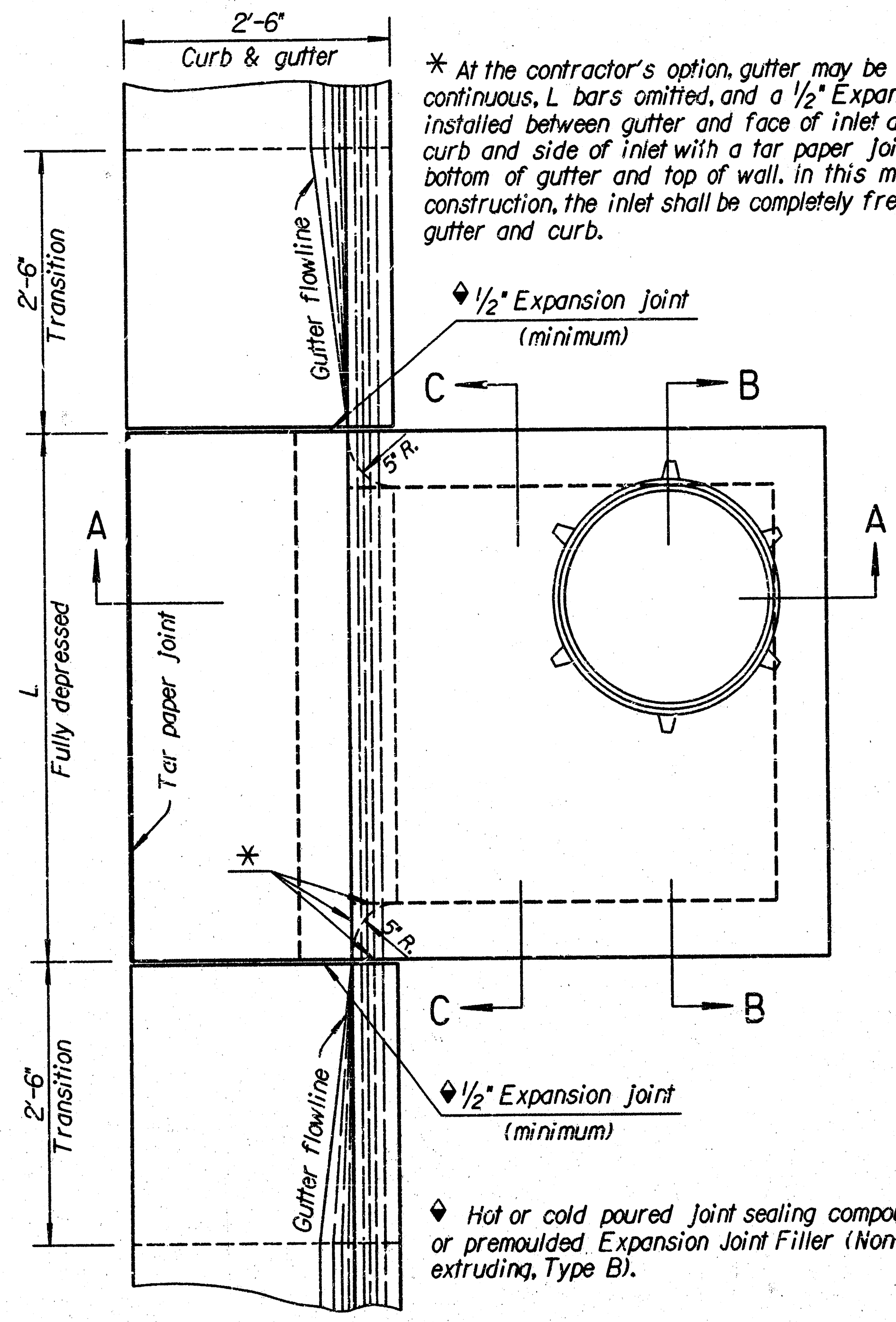
SECTION A-A



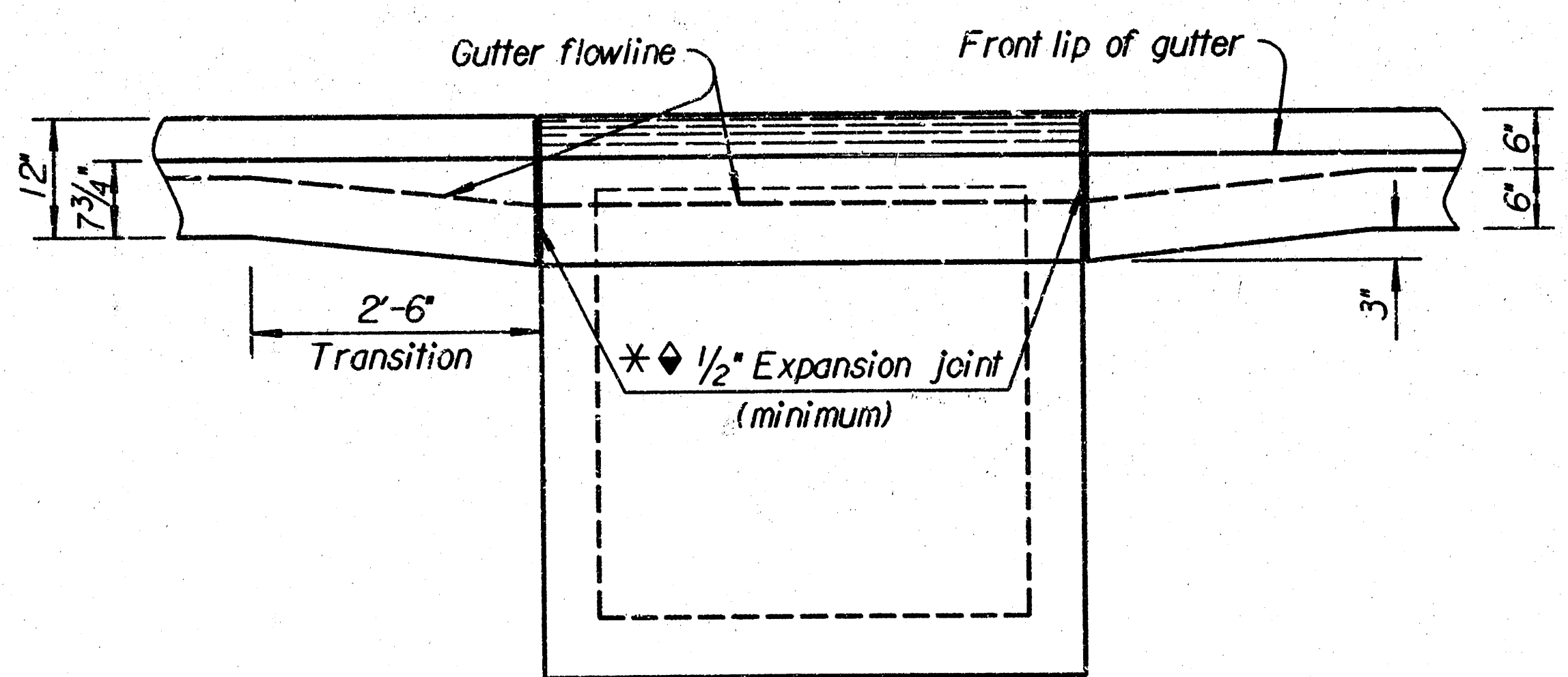
SECTION B-B



SECTION C-C

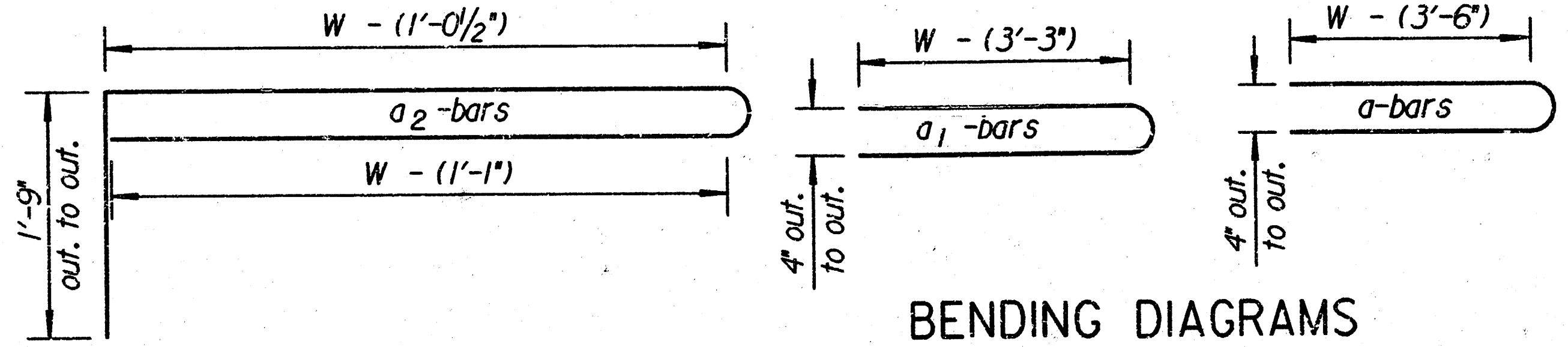


PLAN

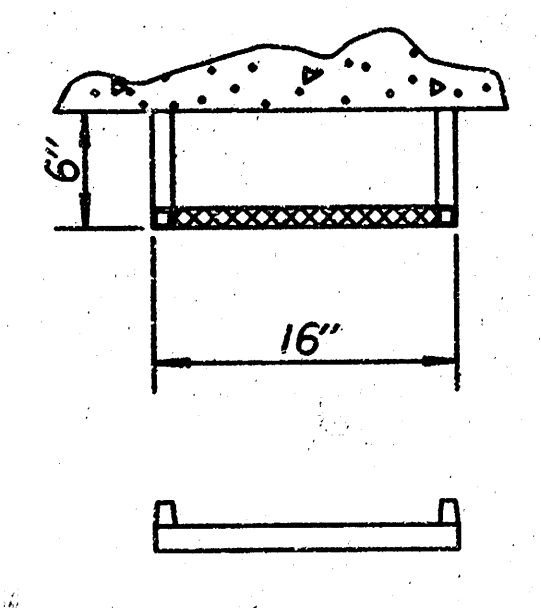


ELEVATION

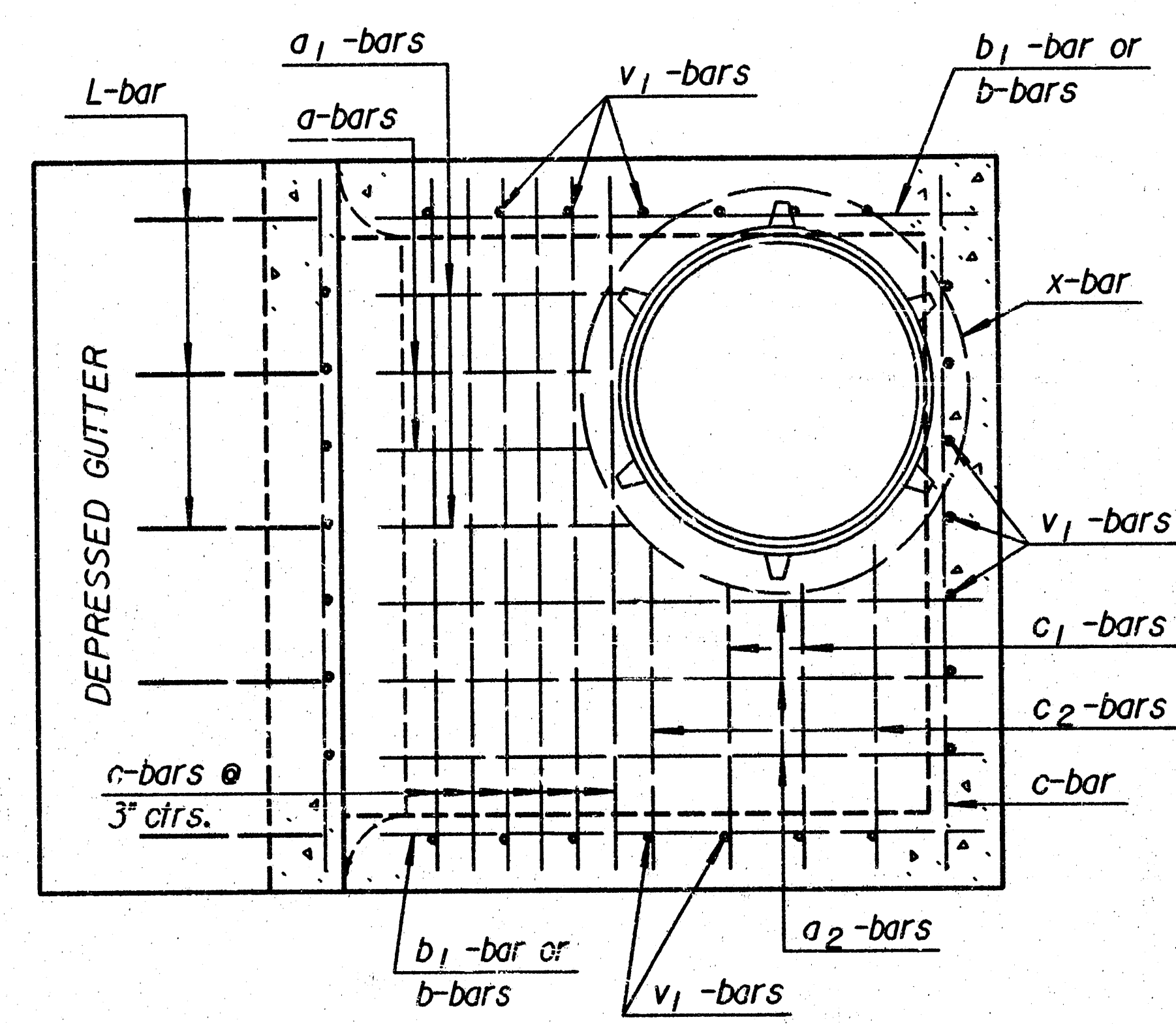
Note: Transition gutter from normal depth of 6" to 9" at inlet in 2'-6".
Curb and gutter sections shall be shaped as shown where required by the installation of curb inlets. This work will be subsidiary to other bid items.



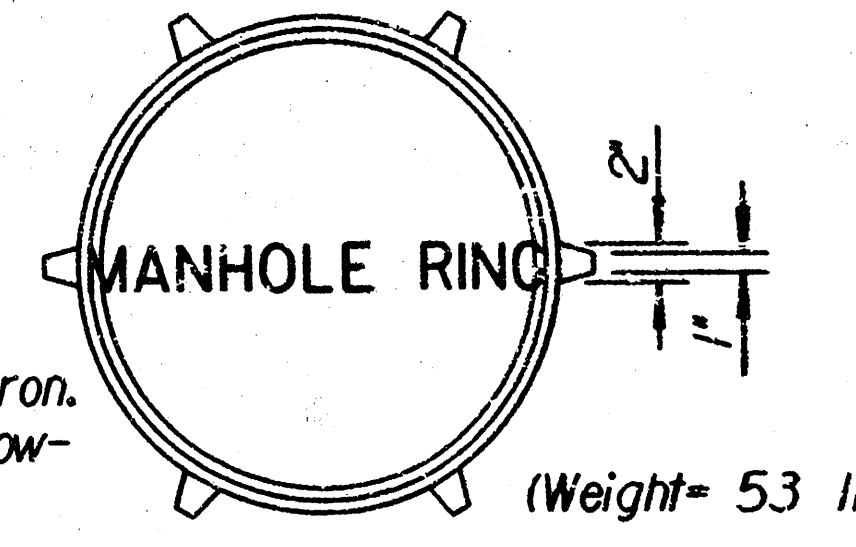
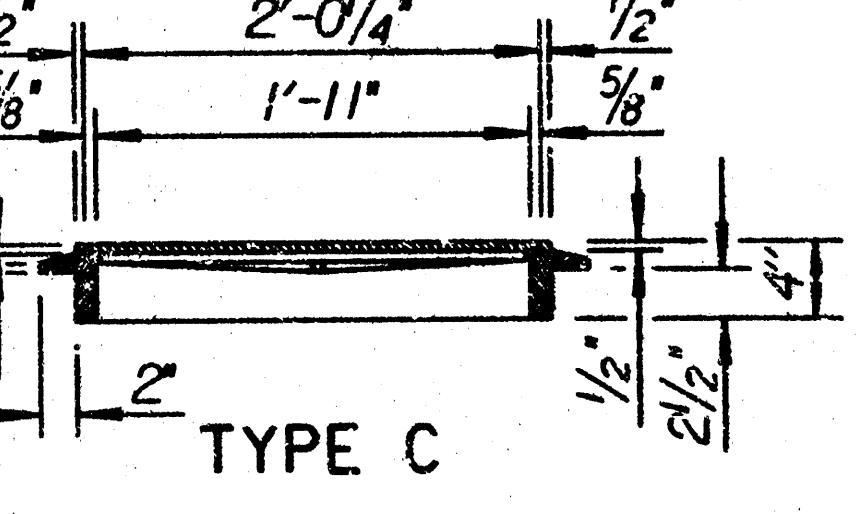
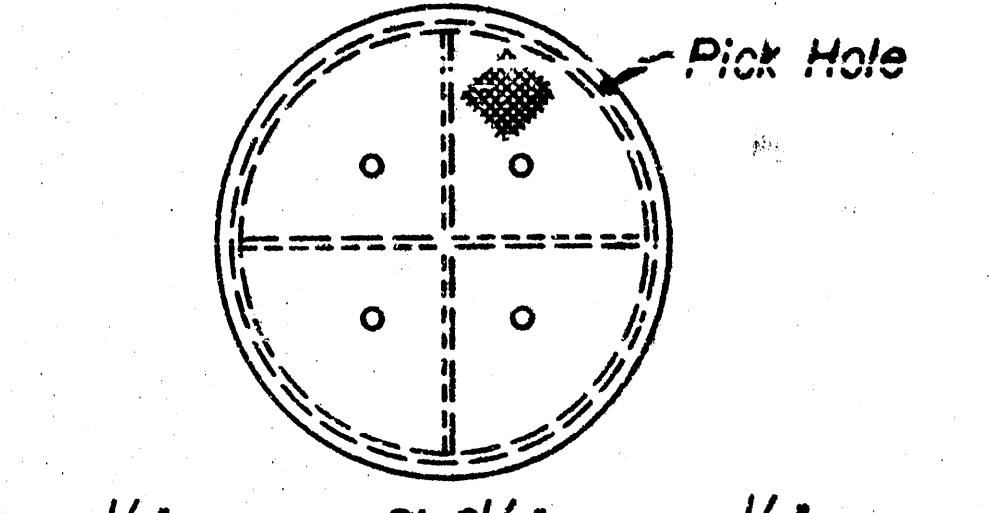
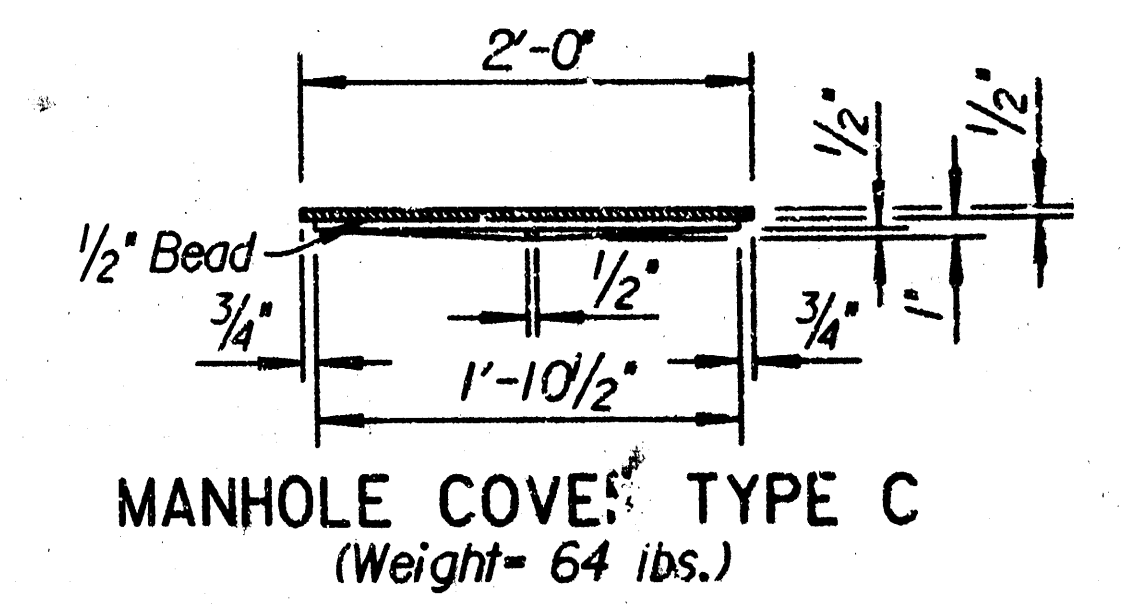
BENDING DIAGRAMS



STEP DETAILS



Reinforcing Steel Top View



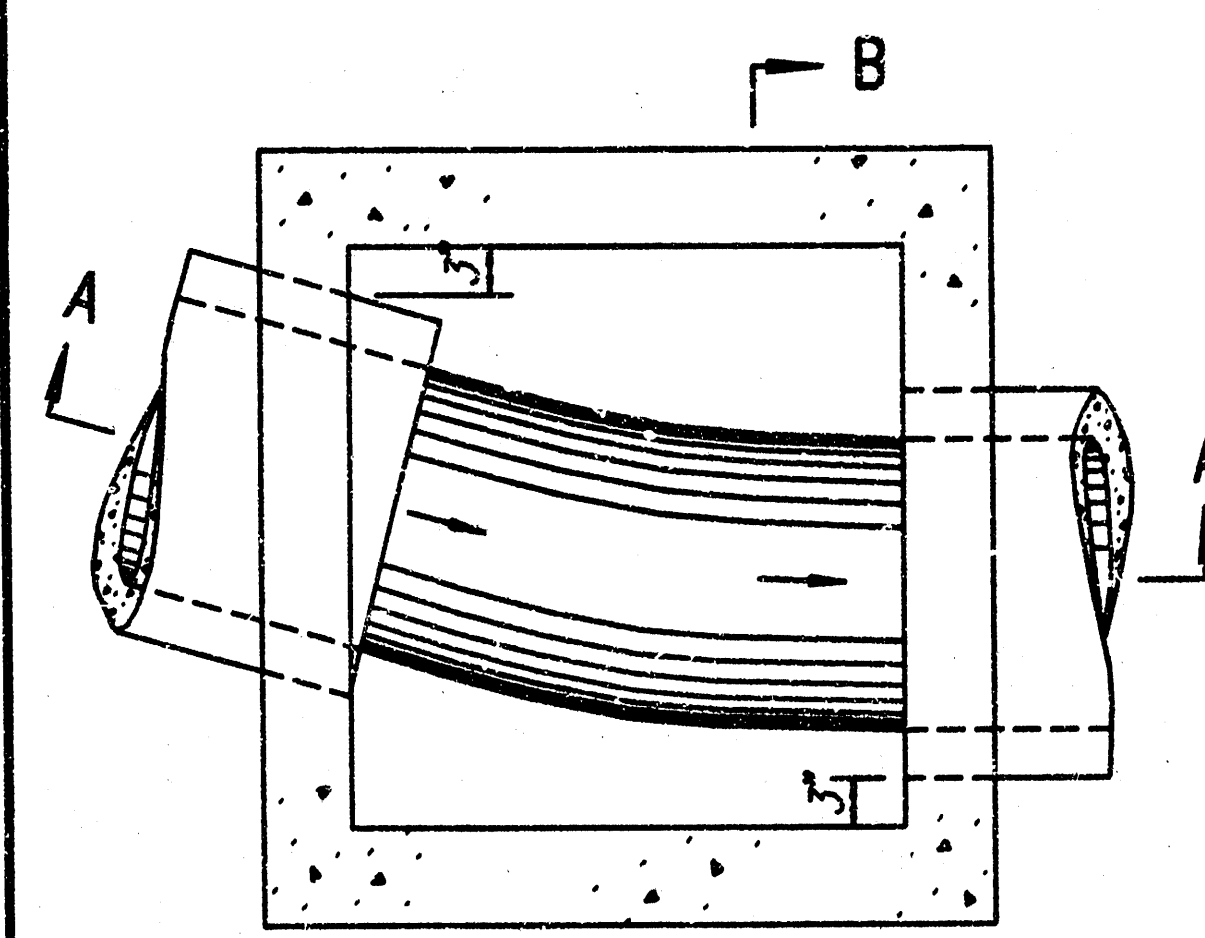
NOTE: All manhole castings are cast iron.
Weight of castings includes no allowance for fillets and overruns.

* LIGHT TYPE
MANHOLE COVER & RING
* Rings with four equally spaced lugs will be permitted.

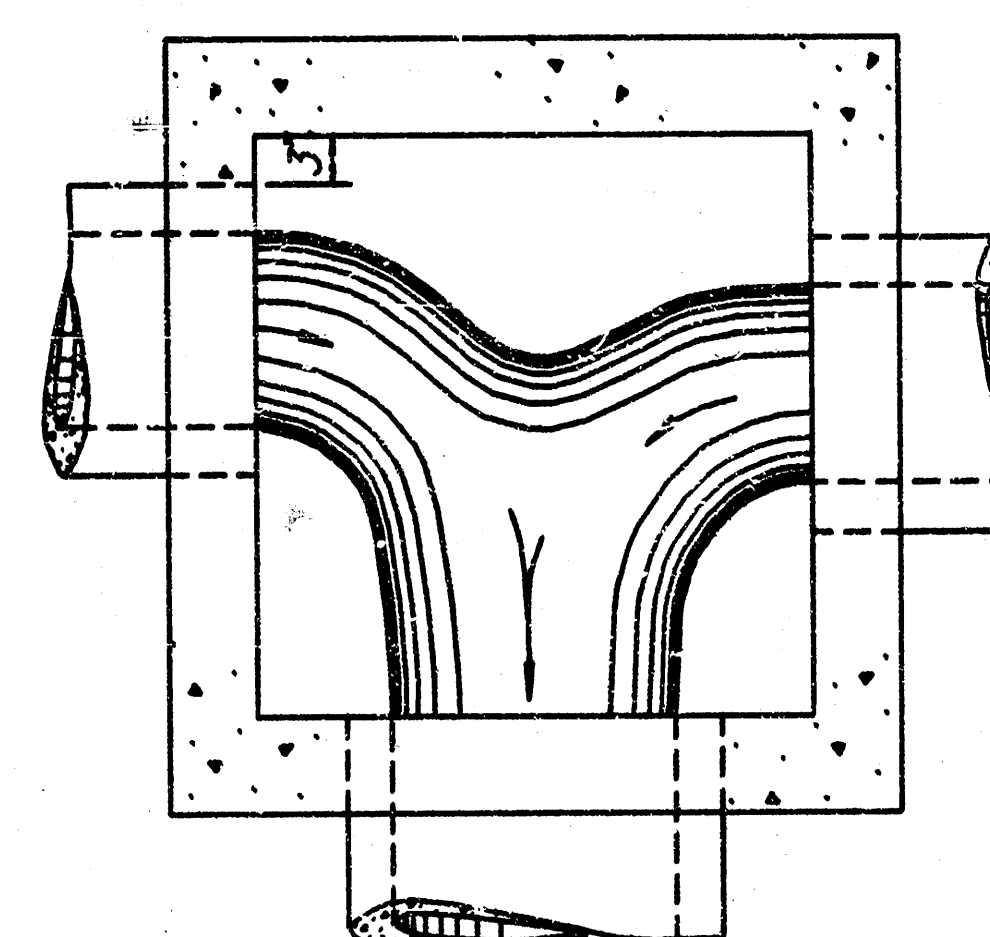
KANSAS DEPARTMENT OF TRANSPORTATION	
TYPE 22 CURB INLET	
STD. NO. 646	
DESIGNED	2-27-92
DETAIL	QUANTITIES
DESIGN	QUANTITY
APPROVAL	APPROVED
DESIGNED	QUANTITIES
DETAIL	QUANTITY
DESIGN	QUANTITY

Note: Use Class A Concrete throughout. All exposed edges shall be finished with an edging tool.
At the contractor's option Class A Concrete (AE) or mix used in concrete pavement may be used throughout.
In general, pipes will enter and leave manhole at various positions. Where possible bend bars around pipes.
Floor of manhole to be shaped as shown in various "EXAMPLES" with unreinforced Class "A" Concrete.
Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert.
Top reinforcing bars to be adjusted accordingly.
All castings shall be gray iron and shall comply with the KDOT Standard Specifications.
All exposed cast iron surfaces not subjected to traffic shall be painted with a coat of inorganic zinc primer and then with a topcoat or a field coat of organic zinc, each coat to be 3 to 4 mils.
No deductions in concrete quantities shall be made for pipe openings or additions to concrete quantities shall be made for shaping floor of manholes.
When so ordered by the Engineer, the top of the manhole shall be sloped slightly to approximately fit the ground line or other conditions.
Dimensions and weights of cast iron as shown on this sheet are minimum. Larger dimensions and/or heavier weights of cast iron may be used.
Steps shall be installed in all storm sewer inlets when specified in the plans or when "it is equal to or greater than six feet. Steps shall comply with the KDOT Standard Specification.

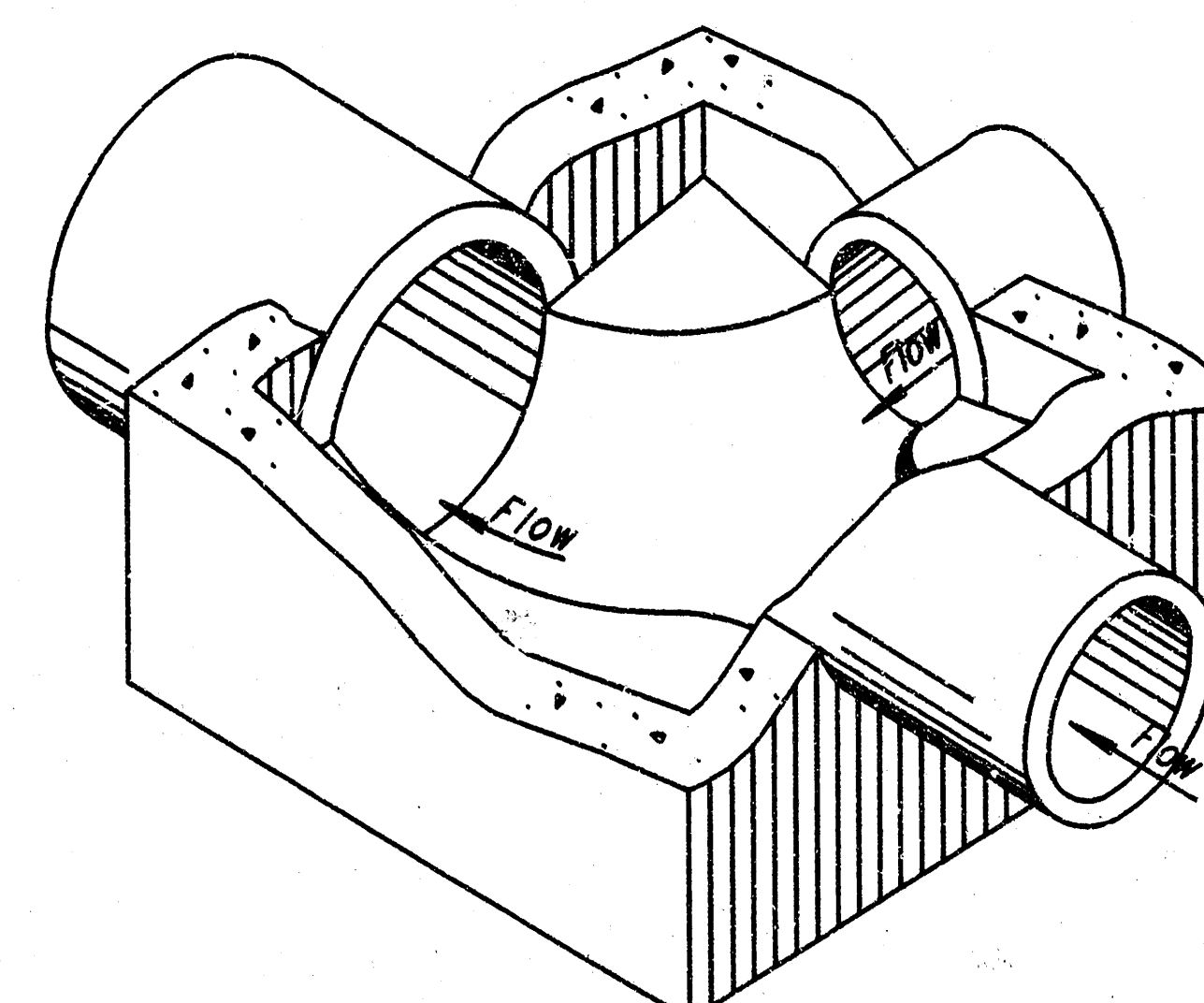
PROJECT NO.	SHEET NO.	TOTAL SHEETS
773PPS (807881)	5	8



PLAN - FLOOR (Example I)

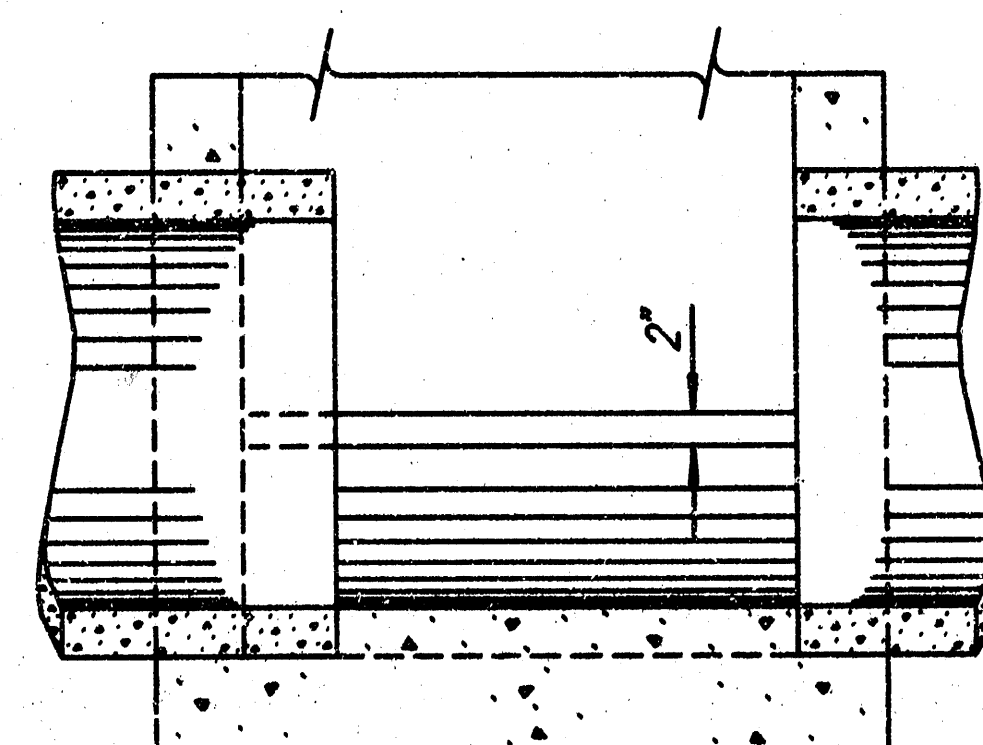


PLAN - FLOOR (Example III)

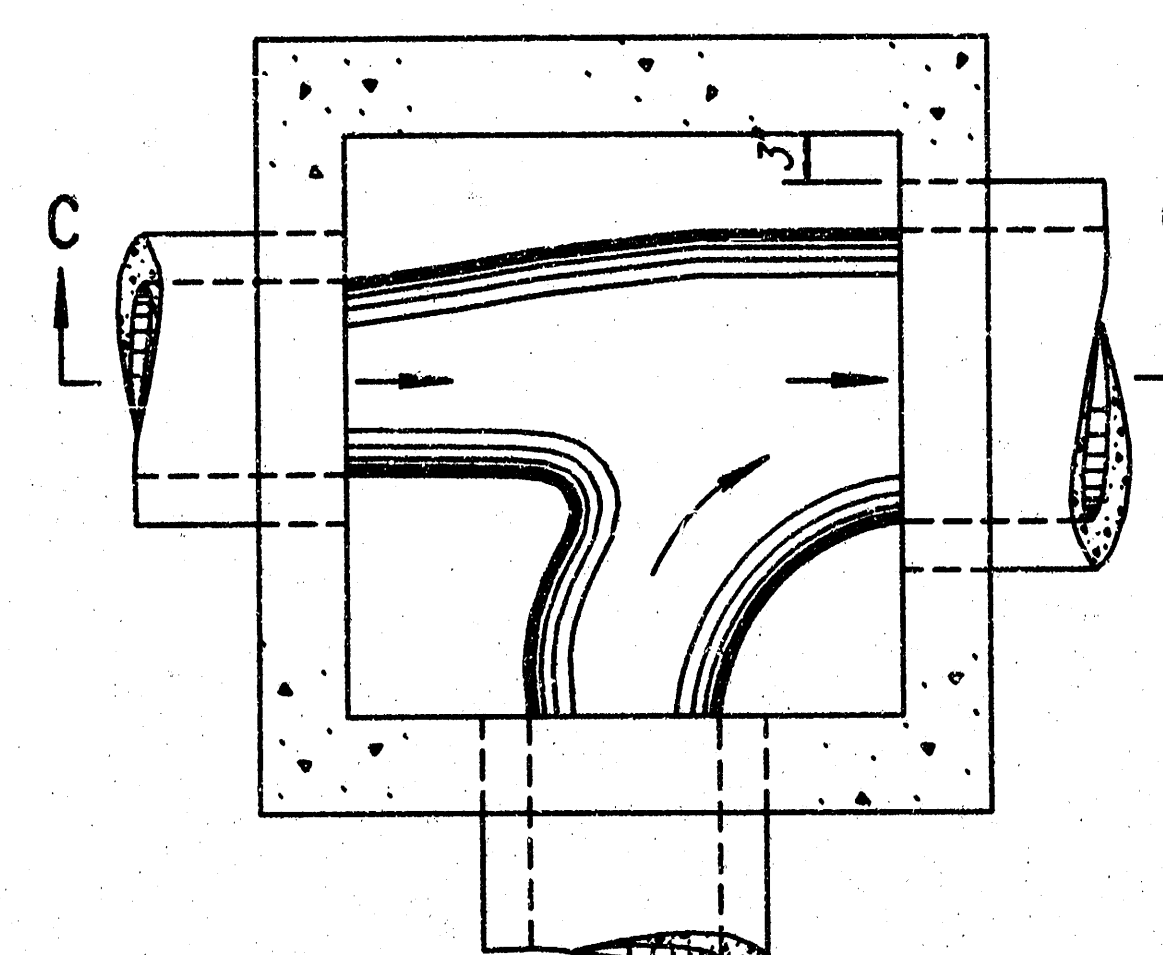


Floor of manhole shall be shaped as shown in the examples to increase hydraulic efficiency.

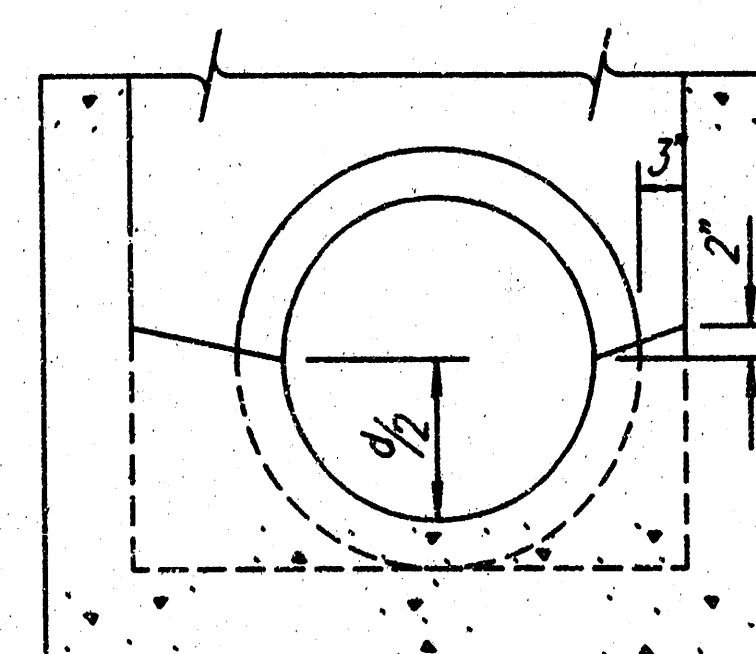
ISOMETRIC VIEW (Example IV)



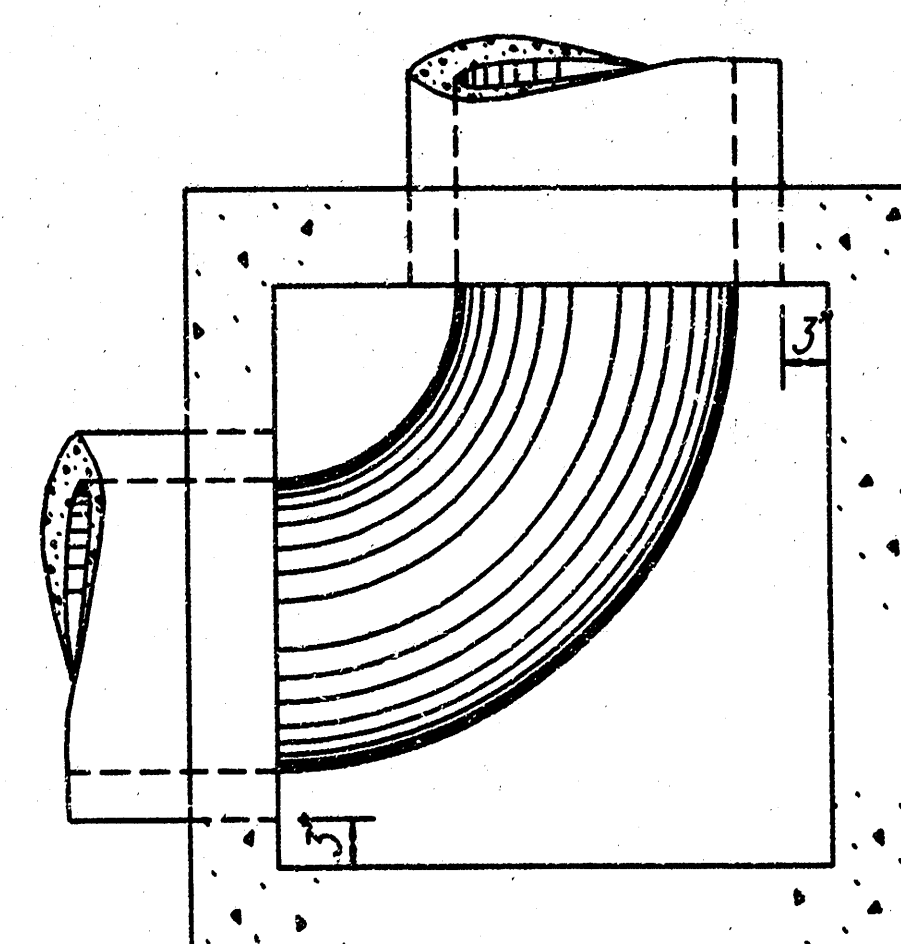
SECTION A-A (Example I)



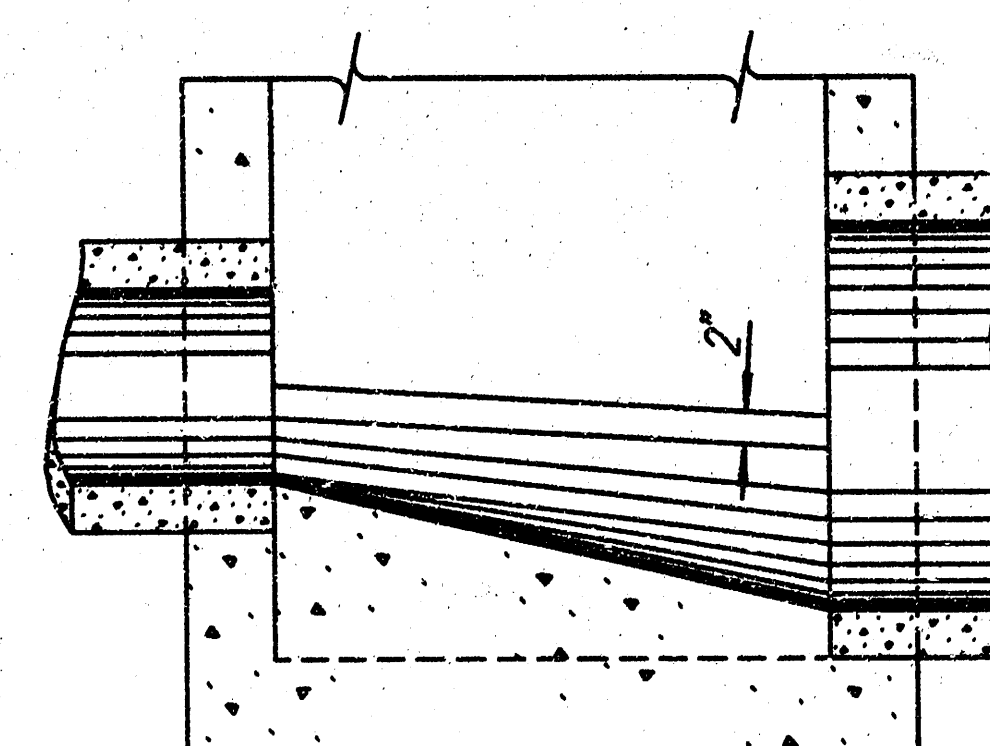
PLAN - FLOOR (Example IV)



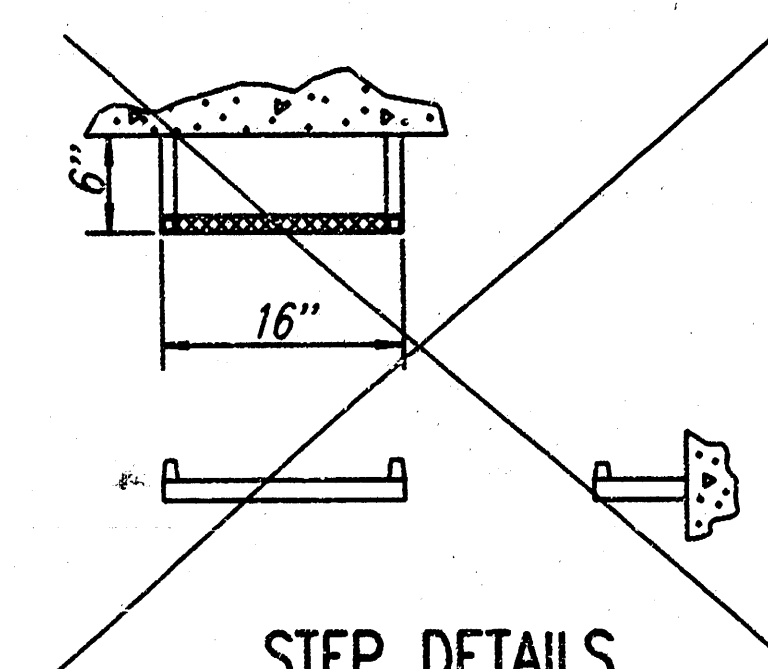
SECTION B-B (Example I)



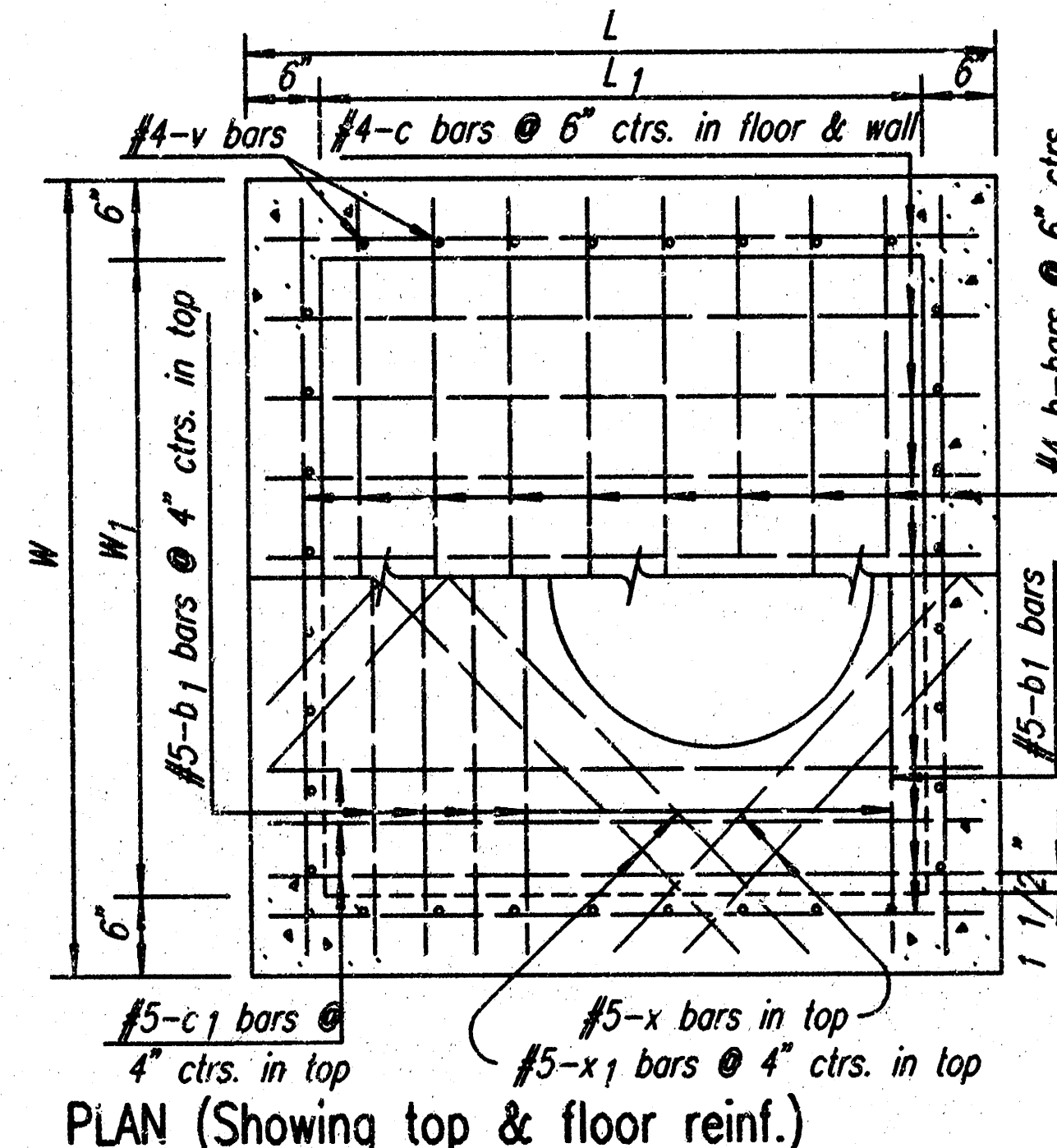
PLAN - FLOOR (Example II)



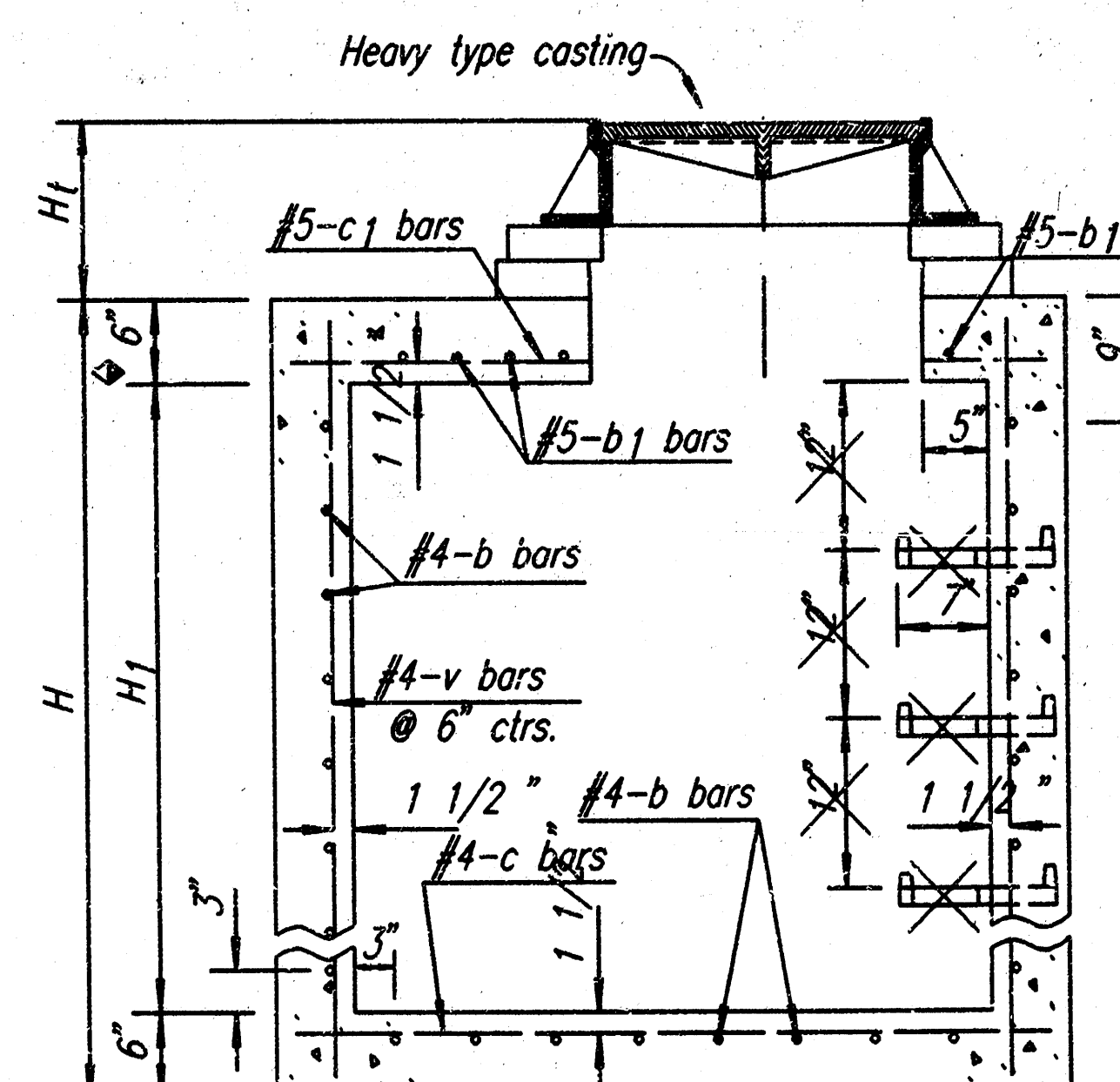
SECTION C-C (Example IV)



STEP DETAILS

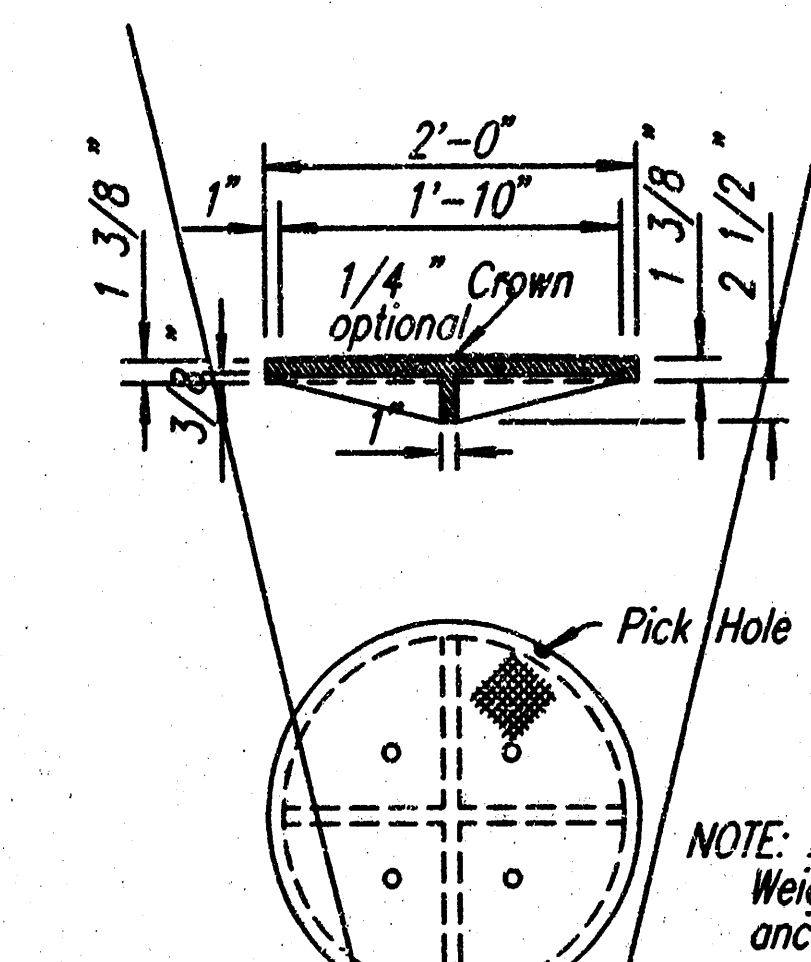


PLAN (Showing top & floor reinf.)

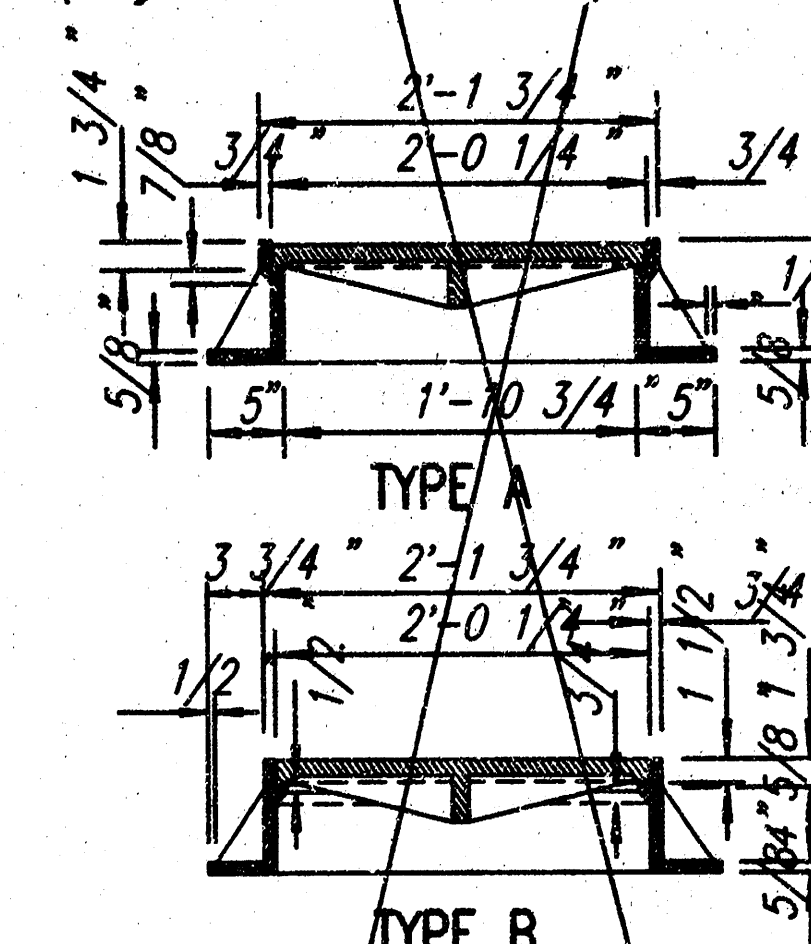


Where dimension "L" or "W" is greater than 6'-0" use 8" slab thickness.
SECTION (Exclusive of floor shaping)

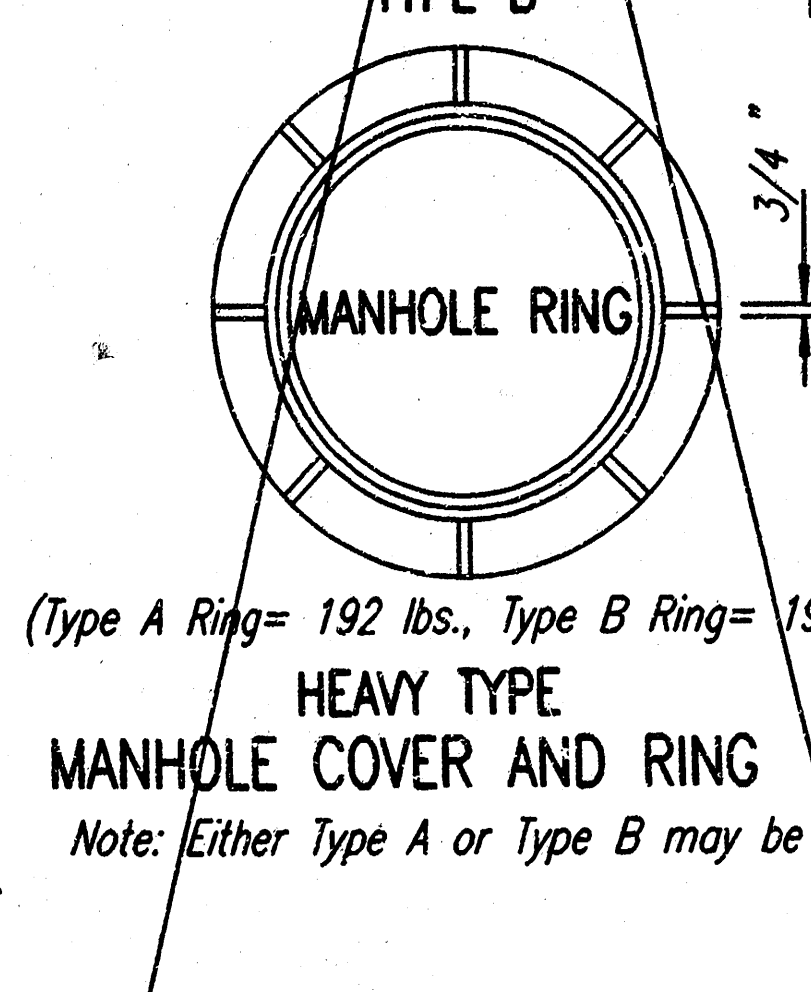
Note: Use 4000 p.s.i. compressive strength concrete throughout. All exposed edges shall be finished with an edging tool.
In general, pipes will enter and leave manhole at various positions. Where possible bend bars around pipes.
Floor of manhole shall be shaped as shown in various "EXAMPLES" with unreinforced concrete.
Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert. Top reinforcing bars shall be adjusted accordingly.
All castings shall be gray iron and shall comply with the Specifications.
All exposed cast iron surfaces not subjected to traffic shall be painted with a coat of inorganic zinc primer and then with a topcoat or a field coat of organic zinc, each coat to be 3 to 4 mils.
The top of the manhole shall be sloped slightly to approximately fit the ground line or other condition as directed by the Engineer.
Dimensions and weights of cast iron as shown on this sheet are minimum. Larger dimensions and/or heavier weights of cast iron may be used.
The Contractor has the option of using precast manholes, as approved by the Engineer.
Steps shall not be installed on this project.
Manhole Frame and Cover shall be per City of Wichita standards.



MANHOLE COVER TYPE A & B
(Weight=134 lbs., without 1/4" Crown= 125 lbs.)



MANHOLE COVER TYPE C
(Weight= 84 lbs.)



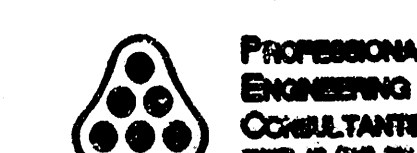
(Type A Ring= 192 lbs., Type B Ring= 198 lbs.)
HEAVY TYPE
MANHOLE COVER AND RING
Note: Either Type A or Type B may be used.

* LIGHT TYPE
MANHOLE COVER & RING
* Rings with four equally spaced lugs will be permitted.

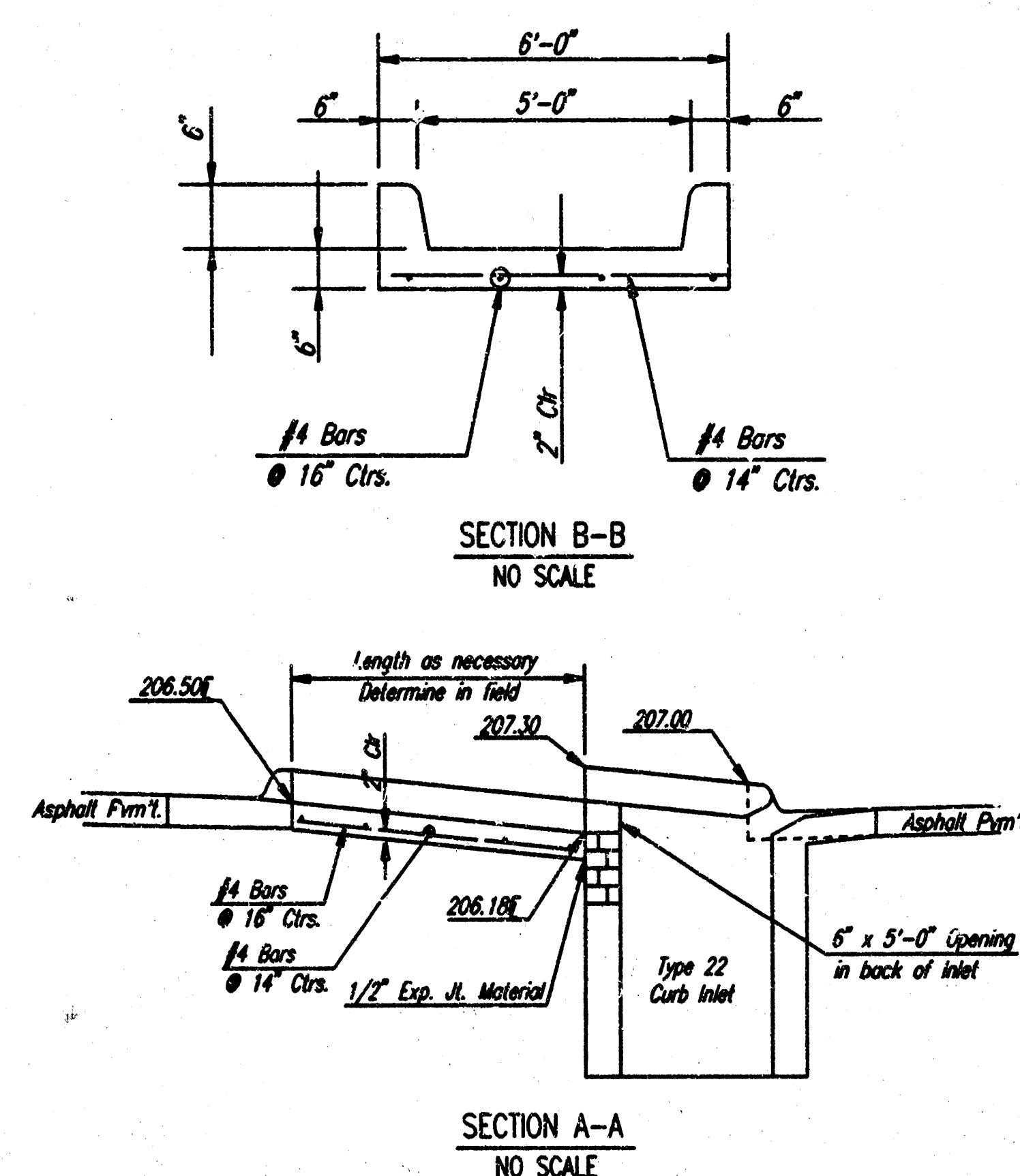
NO.	DATE	REV.	DESCRIPTION	BY	APP'D.
28	1-31-92	Rev. per latest notes, ent. on CADD		R.J.S.	J.P.D.
29	1-31-92	Rev. per latest notes, ent. on CADD		R.J.S.	J.P.D.

KANSAS DEPARTMENT OF TRANSPORTATION
REINFORCED
CONCRETE MANHOLE
STD. NO. 633

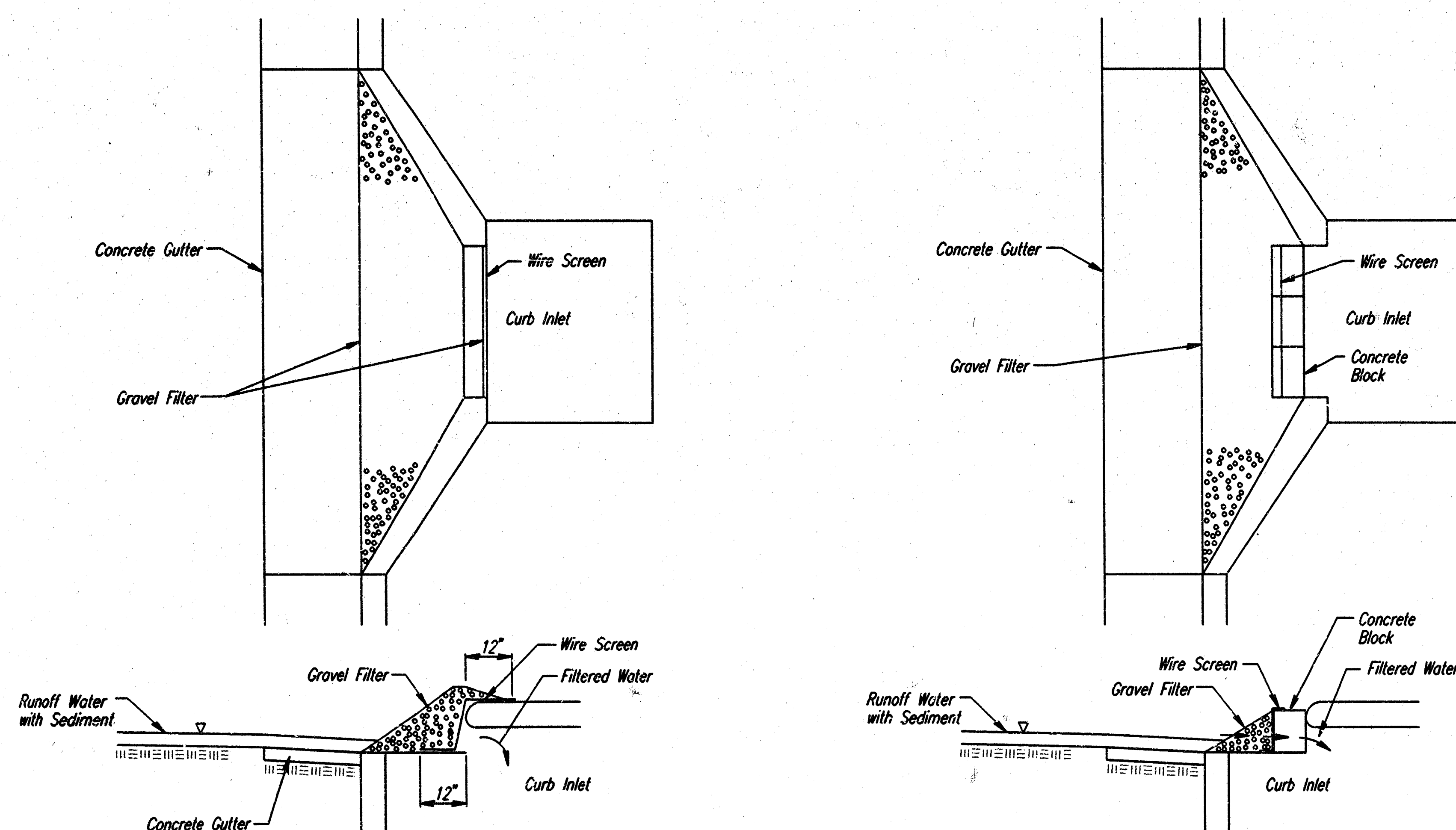
THIS SHEET ADAPTED FROM A KDOT STANDARD
DETAIL SHEET.



PROJECT NO.	SHEET NO.	TOTAL SHEETS
773PPS (807861)	6	6



FLUME DRAIN SECTIONS



CURB INLET PROTECTION
GRAVEL AND WIRE MESH FILTER

CURB INLET PROTECTION
BLOCK AND GRAVEL FILTER

GENERAL NOTES INLET PROTECTION

- INLET PROTECTION METHOD MAY BE ANY OF THE APPLICABLE TYPES SHOWN, AT THE CONTRACTORS OPTION.
- GRAVEL FILTER SHALL BE A DURABLE, WELL-GRADED SAND-GRAVEL OR CRUSHED STONE, MAXIMUM 1-1/2 IN. SIPE. AS AN ALTERNATE GRAVEL FILLED BAGS OF BURLAP OR OTHER FABRIC MAY BE USED. WHERE BAGS ARE USED, THE WIRE SCREEN, WHERE SHOWN, MAY BE OMITTED.
- FILTER FABRIC, WHERE USED, SHALL BE RESISTANT TO ULTRAVIOLET LIGHT. MATERIALS MAY BE SUPPLIED BY THE FOLLOWING MANUFACTURERS:

MIRAF, INC.	-	100X
HOECHST FIBERS INDUSTRIES	-	TREVIRA 1115
EXXON	-	TYPAR 3301 W

MATERIALS SUPPLIED BY THE ABOVE NAMED MANUFACTURERS SHALL BE ACCEPTED UPON VISUAL INSPECTION BY THE ENGINEER. OTHER COMPARABLE MATERIALS MAY BE USED IF APPROVED BY THE ENGINEER.
- INLET PROTECTION SHALL BE ERECTED AS SOON AS THE STRUCTURE HAS BEEN BACKFILLED. MEASURES SHALL BE TAKEN TO PRECLUDE ENTRY OF SEDIMENT INTO THE STORM WATER SEWER SYSTEM DURING CONSTRUCTION OF THE STRUCTURE.
- REMOVAL AND DISPOSAL OF ACCUMULATED SILT AND DEBRIS AND/OR REMOVAL AND RECONSTRUCTION OF INLET PROTECTION INSTALLATIONS SHALL BE PERFORMED THROUGHOUT THE PROJECT LIFE WHENEVER DEBRIS REACHES ONE-THIRD THE BARRIER HEIGHT, OR AS DEEMED NECESSARY BY THE ENGINEER. ULTIMATE REMOVAL AND DISPOSAL OF INLET PROTECTION AND DEBRIS WILL BE PERFORMED BY THE DEVELOPER.

BRADLEY FARM SOUTH PLAZA			
INLET PROTECTION AND FLUME DRAIN DETAILS			
PROFESSIONAL ENGINEERING CONSULTANTS, P.A. ENGINEERS WICHITA, KANSAS			
Designed by	MWB, GDD	Checked by	
Drawn by	DEP	Date	FEB., 1998
		Job No.	98044

REVISED 1/95

10 03 04 00

DWG. DIB. OFFS. DIB. SCALE: 1-1.00
02-18-1998 11:21:45 am
02-18-1998 11:21:45 am