1

STORM SEWER

Stover Amherst Highland Carlisle Gibson

CITY OF

ALBUQUERQUE—NEW MEXICO

STORM SEWER PROJECT

OCTOBER 1950

CITY MANAGER

CHAS. E. WELLS

CITY ENGINEER

E.O. BETTS

CHAIRMAN

ERNEST W. EVERLY

COMMISSIONERS

J.A. GILBERT

DON WILSON

PAUL BATSEL

CLYDE TINGLEY

CONSULTING ENGINEERS

HERKENHOFF AND TURNEY

SANTA FE

EDMUND ROSS

ALBUQUERQUE

HASIE AND GREEN

ALBUQUERQUE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	1	1		0	1	5	1				2	0													

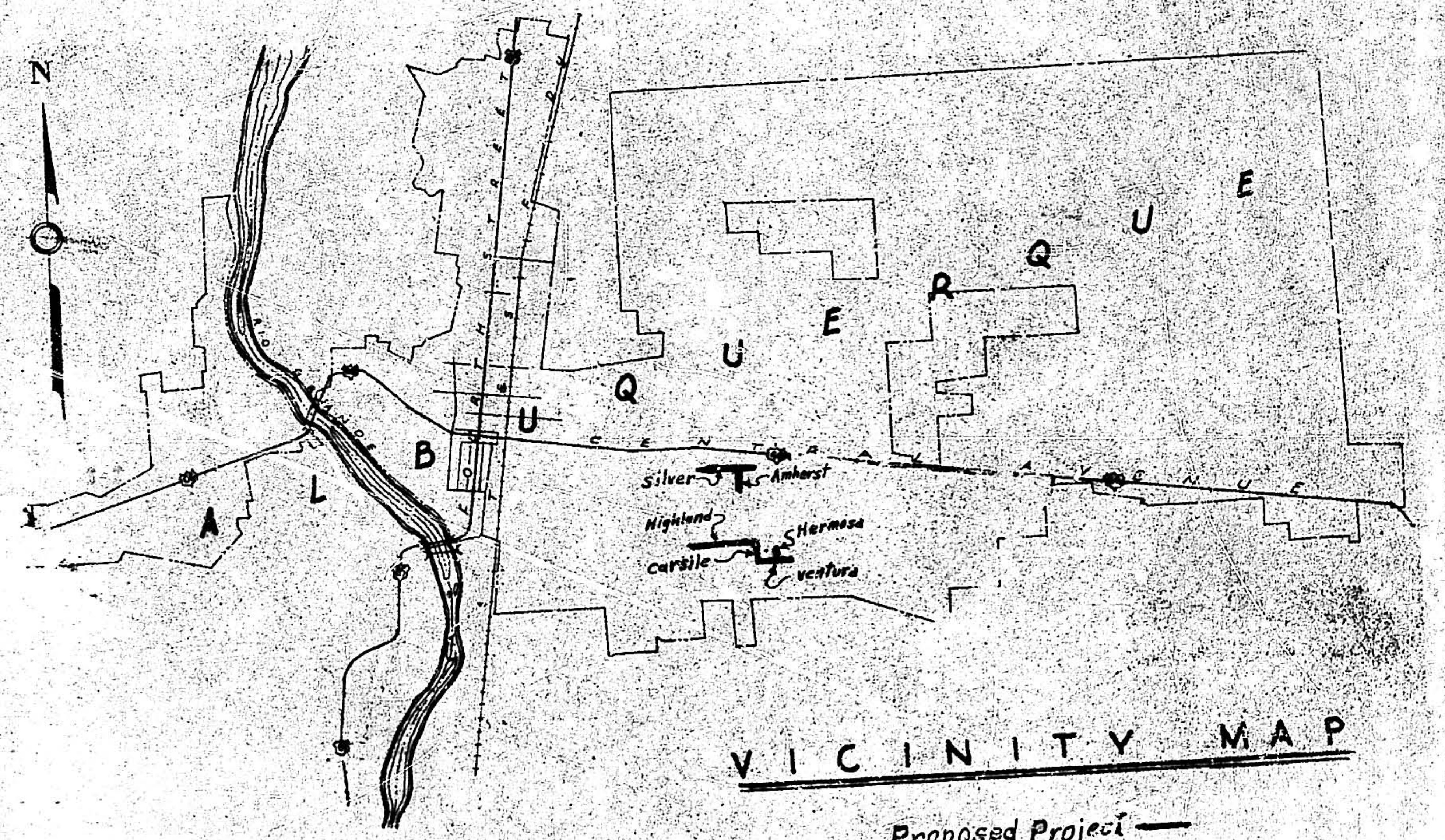
INDEX SHEET

1. TITLE SHEET
2. PROPOSED STORM SEWERS
3. STANDARD CATCH BASINS, TYPES B&C C-1 AND APPURTENANCES
4. STANDARD MANHOLE DESIGNS
5. TYPE A CURB INLET-STANDARD MANHOLE FRAME AND COVER
6. STANDARD METHOD OF REPAIRING CUTS IN PAVEMENT-ALSO-STANDARD LOCAL DEPRESSIONS FOR CATCH BASINS

7&8. STORM SEWER LINE-PLAN PROFILE

ESTIMATED PROJECT QUANTITIES

12" Storm Sewer Pipe Line Uncl. Dry Exc. 0'-6'	1, 991	L.F.
12" Storm Sewer Pipe Line Uncl. Dry. Exc. 6'-8'	150	L.F.
12" Storm Sewer Pipe Line Uncl. Dry. Exc. 8'-10'	100	L.F.
12" Storm Sewer Pipe Line Uncl. Dry. Exc. 10'-12'	59	L.F.
12" Storm Sewer Pipe Line Uncl. Dry. Exc. 12'-14'	159	L.F.
15" Storm Sewer Pipe Line Uncl. Dry. Exc. 0'-6'	660	L.F.
15" Storm Sewer Pipe Line Uncl. Dry Exc. 6'-8'	255	L.F.
15" Storm Sewer Pipe Line Uncl. Dry Exc. 8'-10'	60	L.F.
18" Storm Sewer Pipe Line Uncl. Dry Exc. [illegible]	131	L.F.
18" Storm Sewer Pipe Line Uncl. Dry. Exc. 6'-8'	780	L.F.
18" Storm Sewer Pipe Line Uncl. Dry Exc. 8'-10'	282	L.F.
18" Storm Sewer Pipe Line Uncl. Dry. Exc. 10'-12'	428	L.F.
18" Storm Sewer Pipe Line Uncl. Dry. Exc. 12'-14'	356	L.F.
18" Storm Sewer Pipe Line Uncl. Dry. Exc. 14'-16'	130	L.F.
21" Storm Sewer Pipe Line Uncl. Dry. Exc. 0'-6'	278	L.F.
21" Storm Sewer Pipe Line Uncl. Dry Exc. 6'-8'	926	L.F.
21" Storm Sewer Pipe Line Uncl. Dry. Exc. 8'-10'	592	L.F.
21" Storm Sewer Pipe Line Uncl. Dry Exc. 10'-12'	323	L.F.
21" Storm Sewer Pipe Line Uncl. Dry Exc. 12'-14'	65	L.F.
21" Storm Sewer Pipe Line Uncl. Dry Exc. 14'-16'	51	L.F.
24" Storm Sewer Pipe Line Uncl. Dry Exc. 0'-6'	319	L.F.
24" Storm Sewer Pipe Line Uncl. Dry Exc. 6'-8'	250	L.F.
24" Storm Sewer Pipe Line Uncl. Dry. Exc. 8'-10'	115	L.F.
24" Storm Sewer Pipe Line Uncl. Dry Exc. 10'-12'	66	L.F.
27" Storm Sewer Pipe Line Uncl. Dry Exc. 6'-8'	370	L.F.
Manholes 4' Type E 0'-6'	19	Each
Manhole Additional Height 4' Type E	64	V.F.
Single Grate Type C Inlet and Catch Basin	25	Each
Curb Inlet (Casting F-134)	10	Each
Remove Existing Conc. Curb & Gutter	245	L.F.
Constructing Conc. Curb and Gutter	298	L.F.
Cutting Flexible Type Pavement	3,600	L.F.
Connecting to Existing Manhole	4	Each



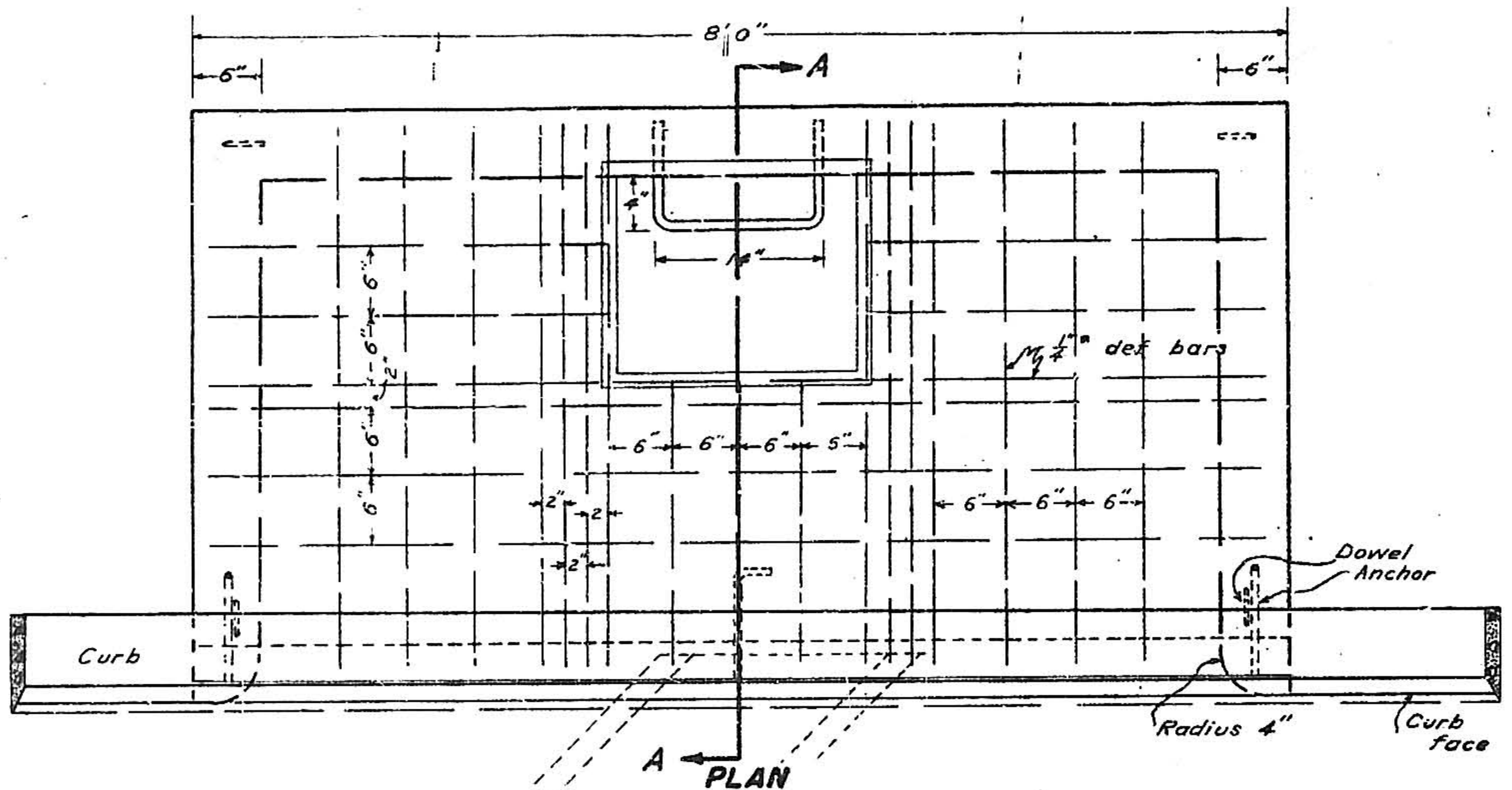
VICINITY MAP

Proposed Project —

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	1	1		0	2	5	1				2	1													

This is to certify that I am a Registered Professional Engineer, that the following maps or plans were prepared from field notes of actual surveys made by me or under my direction and that the same are true and correct to the best of my belief.

Coleman L. Hasie



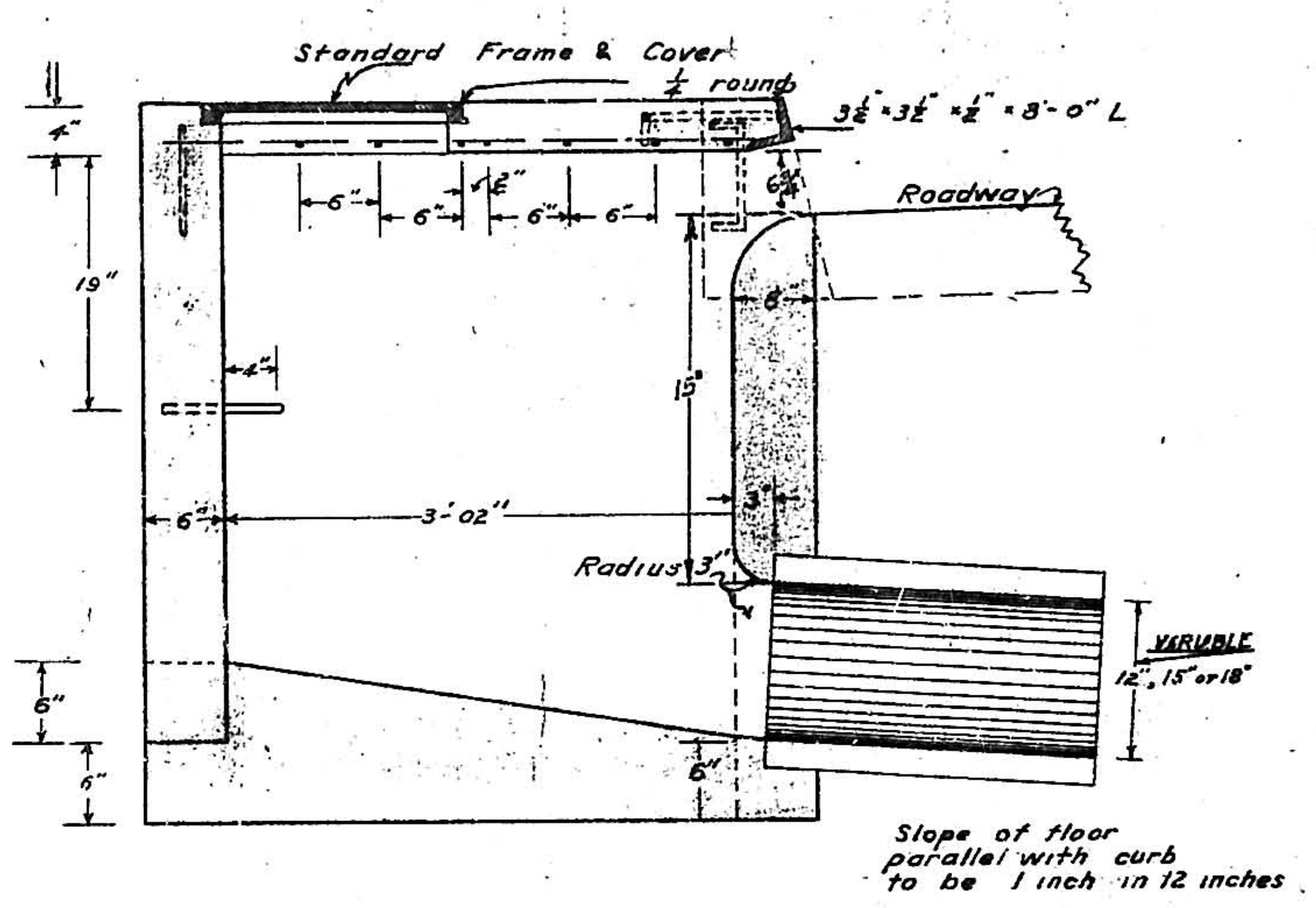
PLAN

STANDARD CATCH BASIN - TYPE B.

SCALE: 1 INCH = 1 FOOT

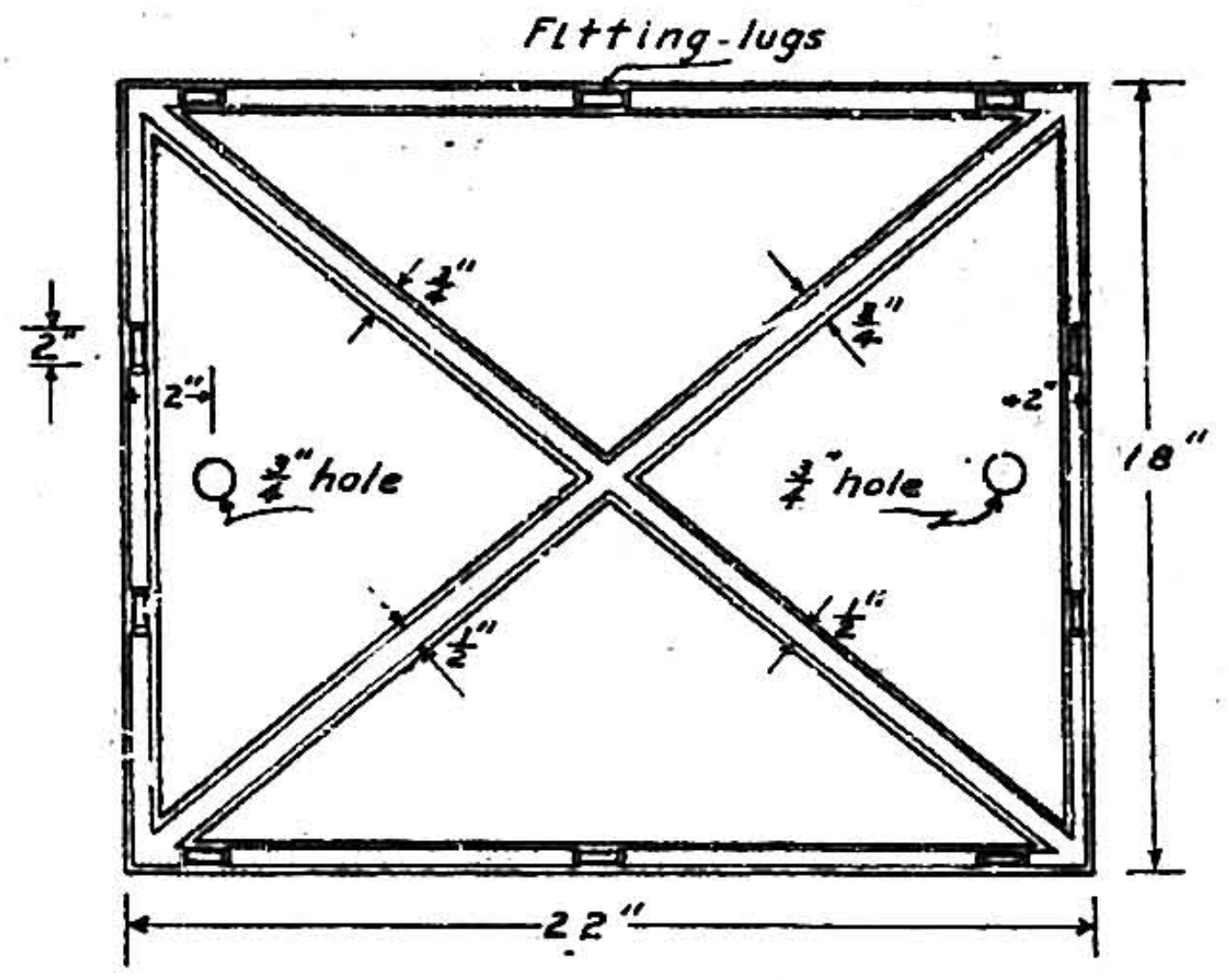
STEEL LIST

1-3½"×3½"×½" × 8'-0" L
14-½"■ def. bars 3'11" long
3-½"■ " " 2'0" "
6-½"■ " " 7'10" "
4-Dowels - see detail
3-Anchors " "
1-Step-¾" round-see plan

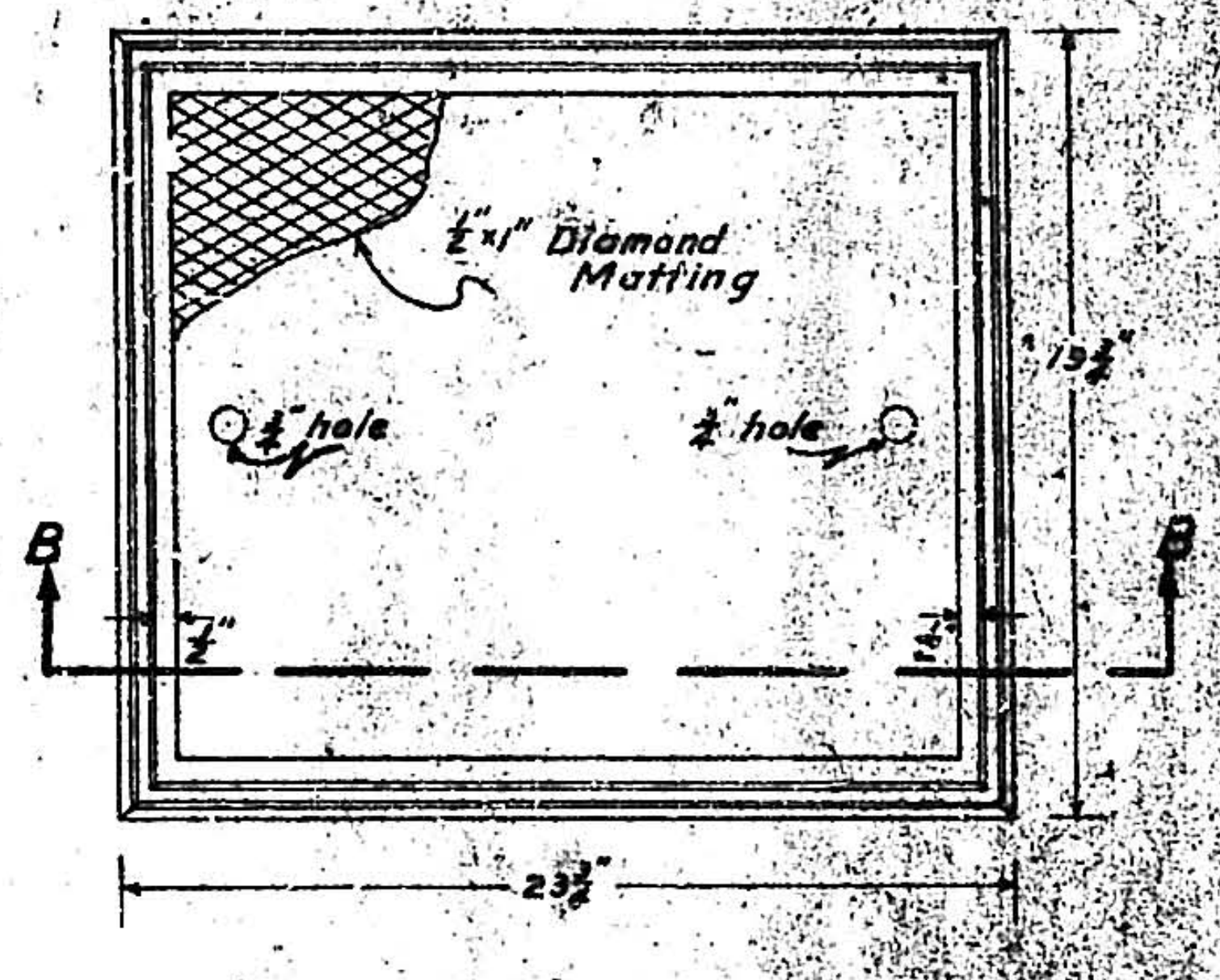


Slope of floor parallel with curb to be 1 inch in 12 inches

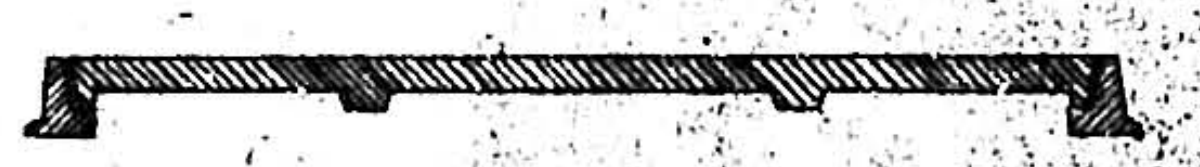
SECTION A-A



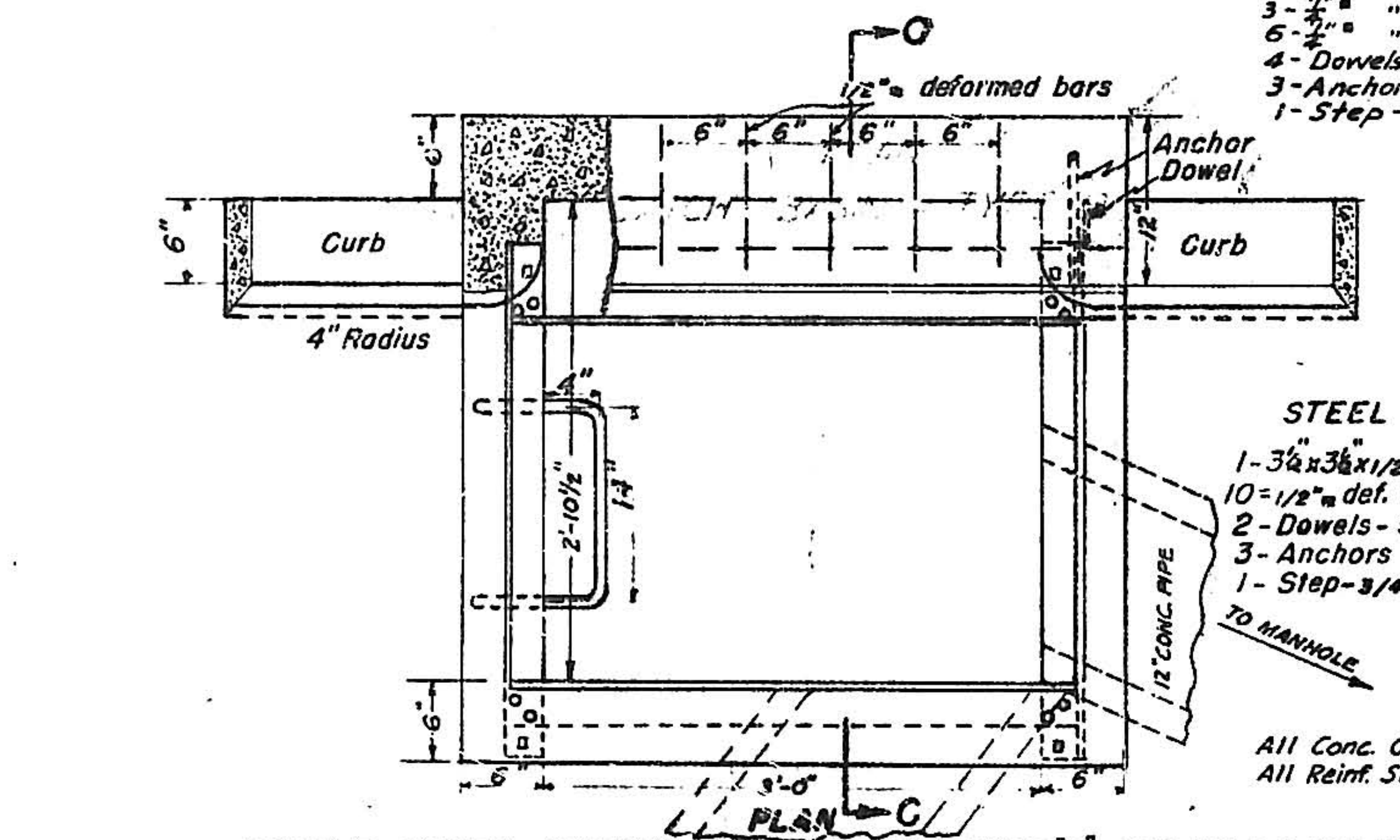
BOTTOM PLAN OF COVER
Scale 1" = 6"



PLAN OF FRAME AND COVER



SECTION B-B



STEEL LIST

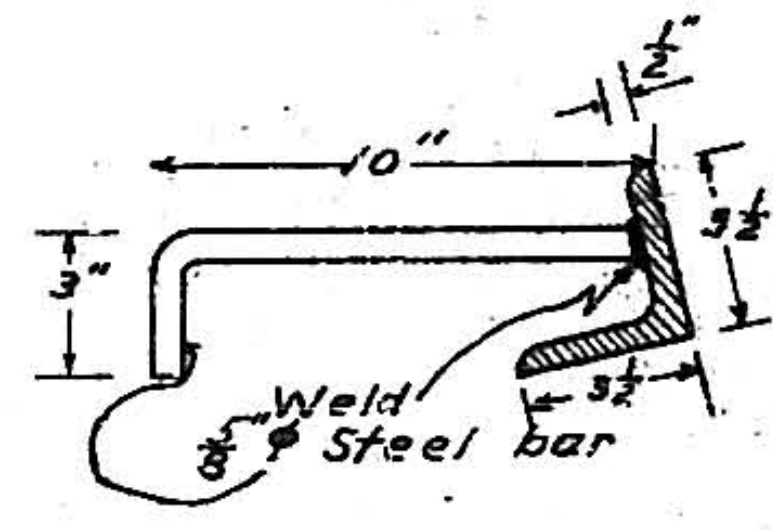
1-3½"×3½"×1/2"×4'-6" ∠
10=1/2"■ def. bars 11" long
2-Dowels- see detail
3-Anchors " "
1-Step-3/4" round-see detail

All Conc. Class "B" 3000#
All Reinf. Steel 18,000#

PLAN

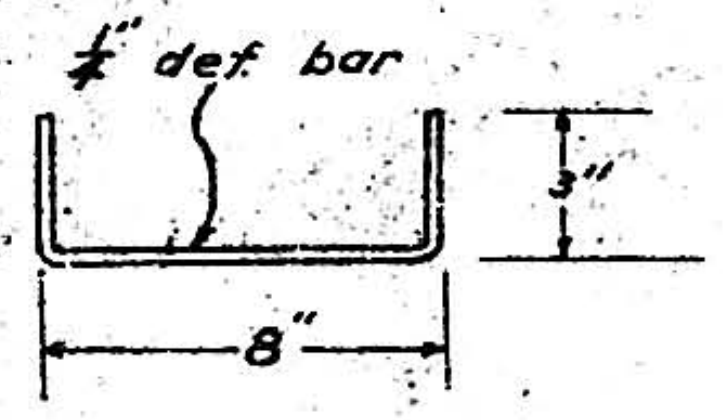
SINGLE GRATE INLET & CATCH BASIN - TYPE "C" - ONE-HALF STANDARD SIZE

SCALE: 1 INCH = 1 FOOT

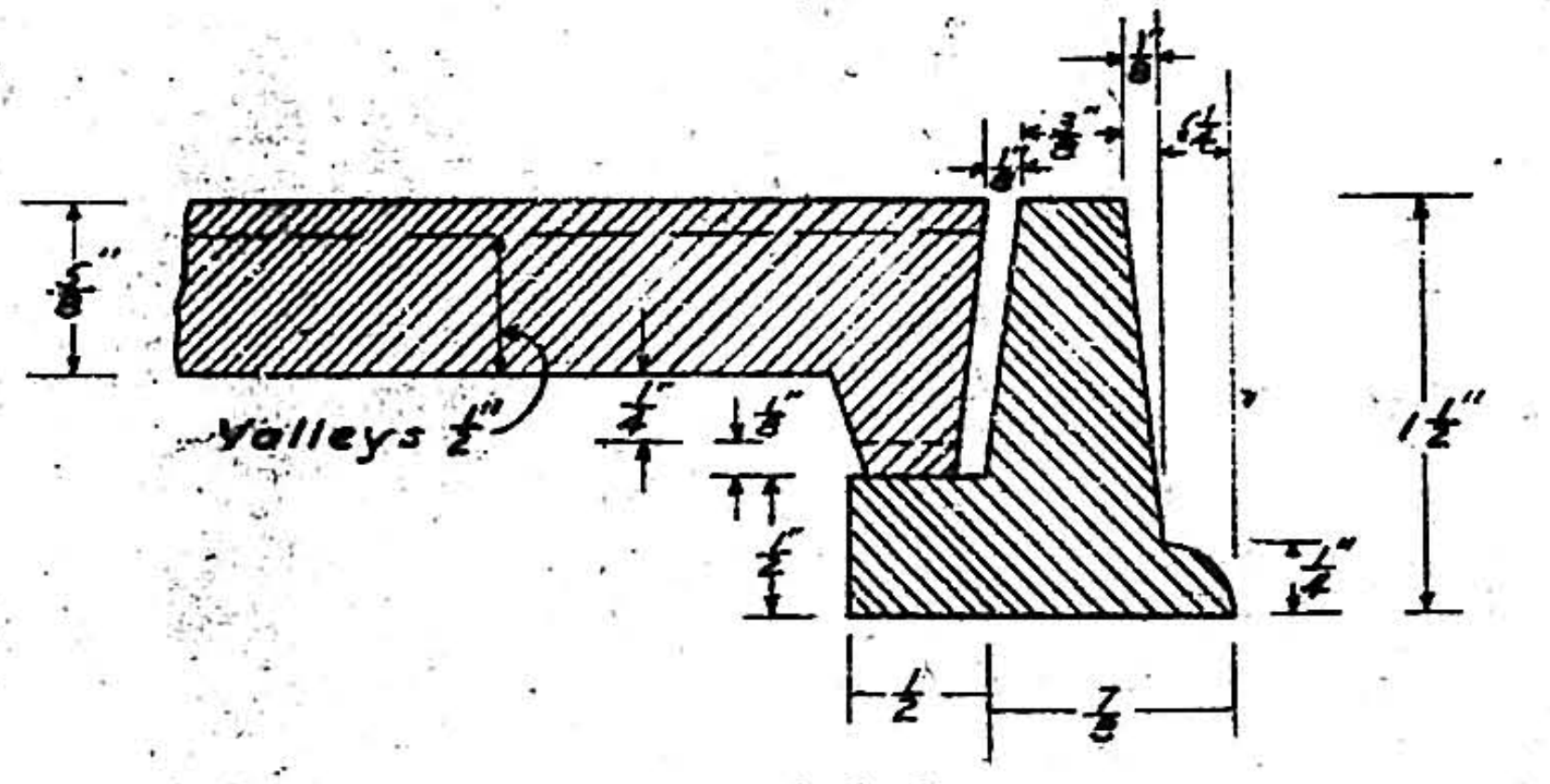


Dowel and anchor design are identical for both types of catch basins

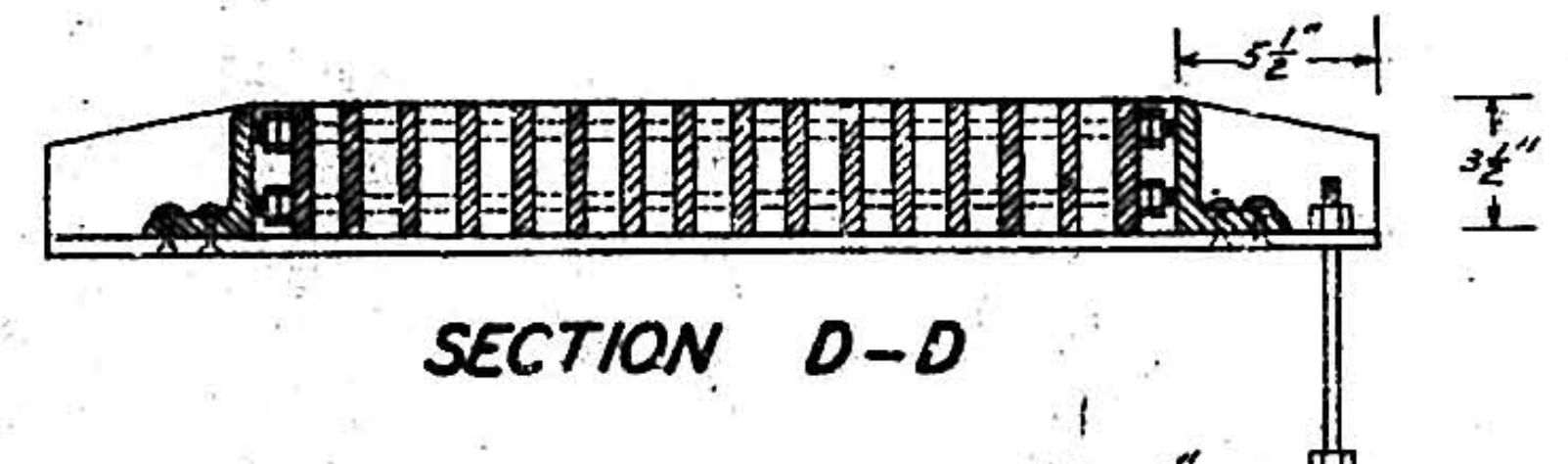
DETAIL OF ANCHOR



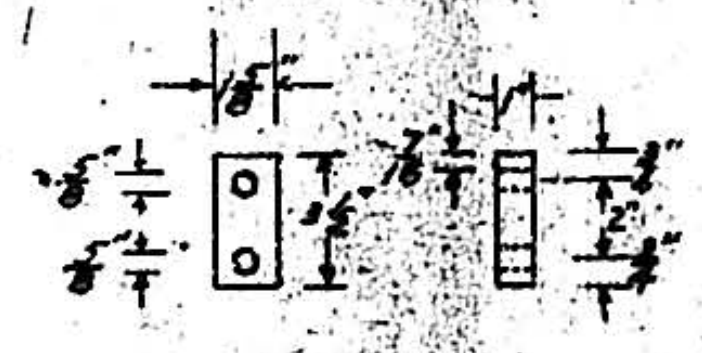
DETAIL OF DOWEL
To be used when top is poured separate



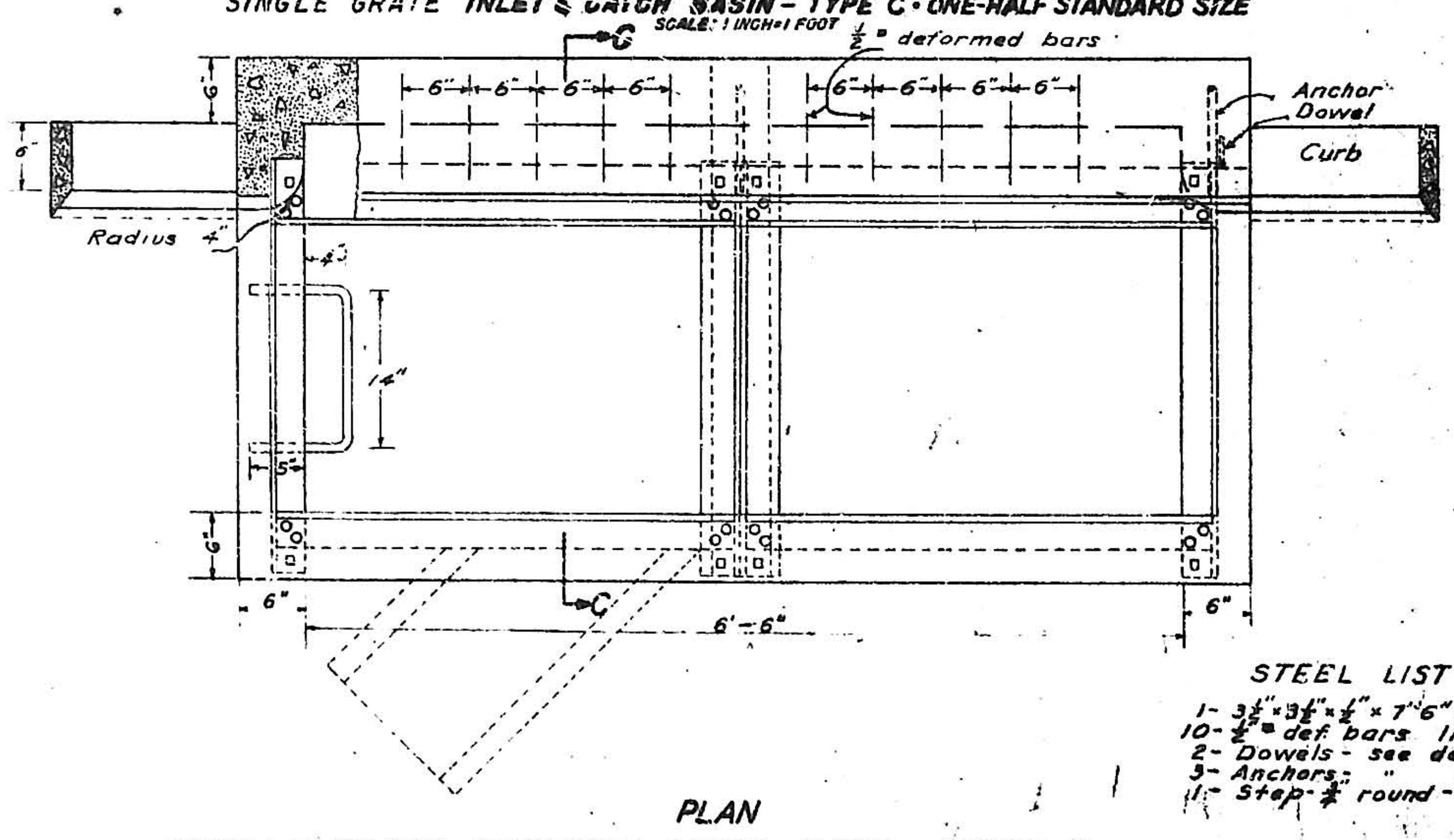
FRAME AND COVER CONNECTION
Scale 1" = 1"



SECTION D-D



SPACER

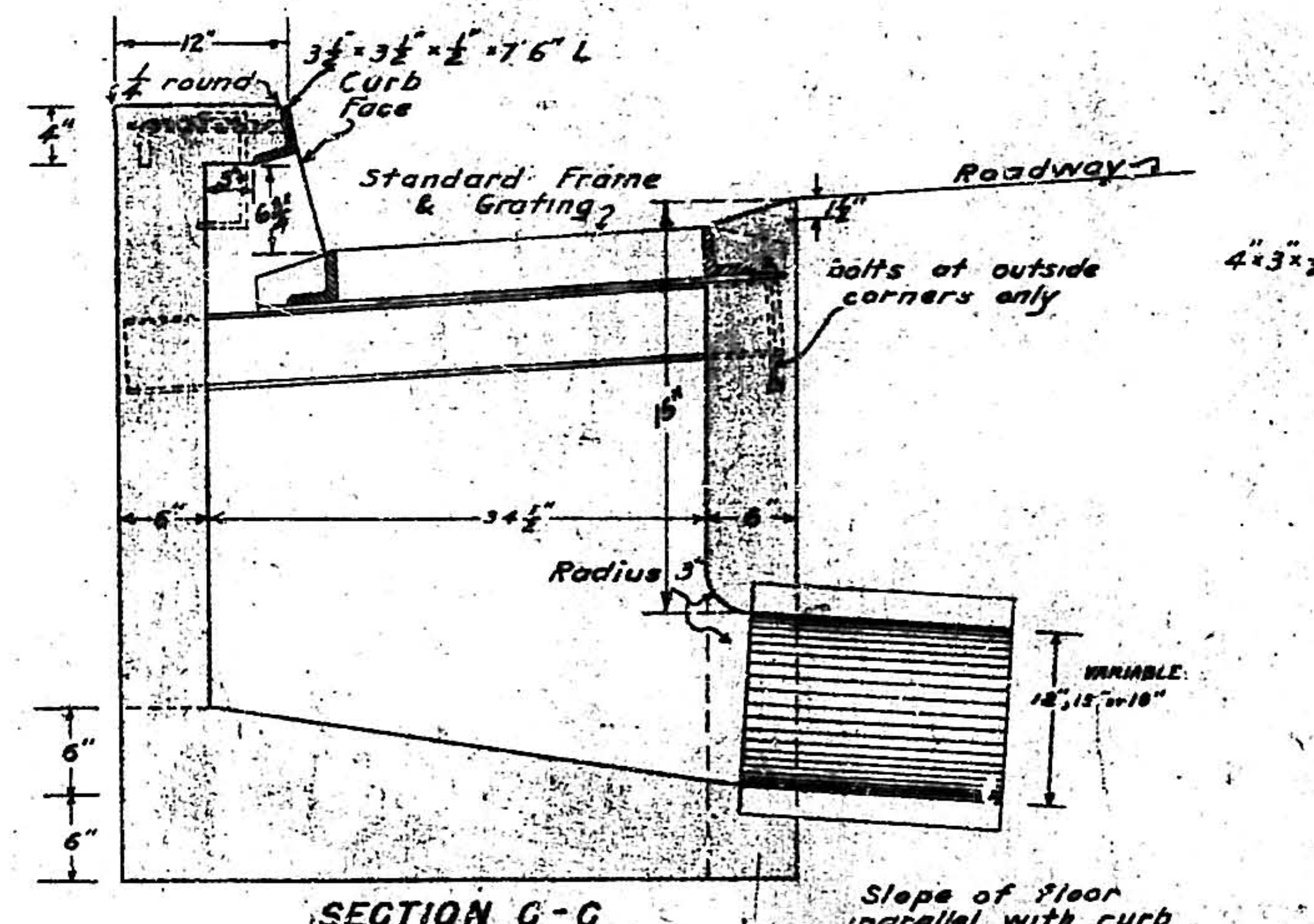


STEEL LIST

1-3½"×3½"×½"×7'6" L
10-½"■ def bars 11" long
2-Dowels - see detail
3-Anchors " "
1-Step-¾" round - see plan

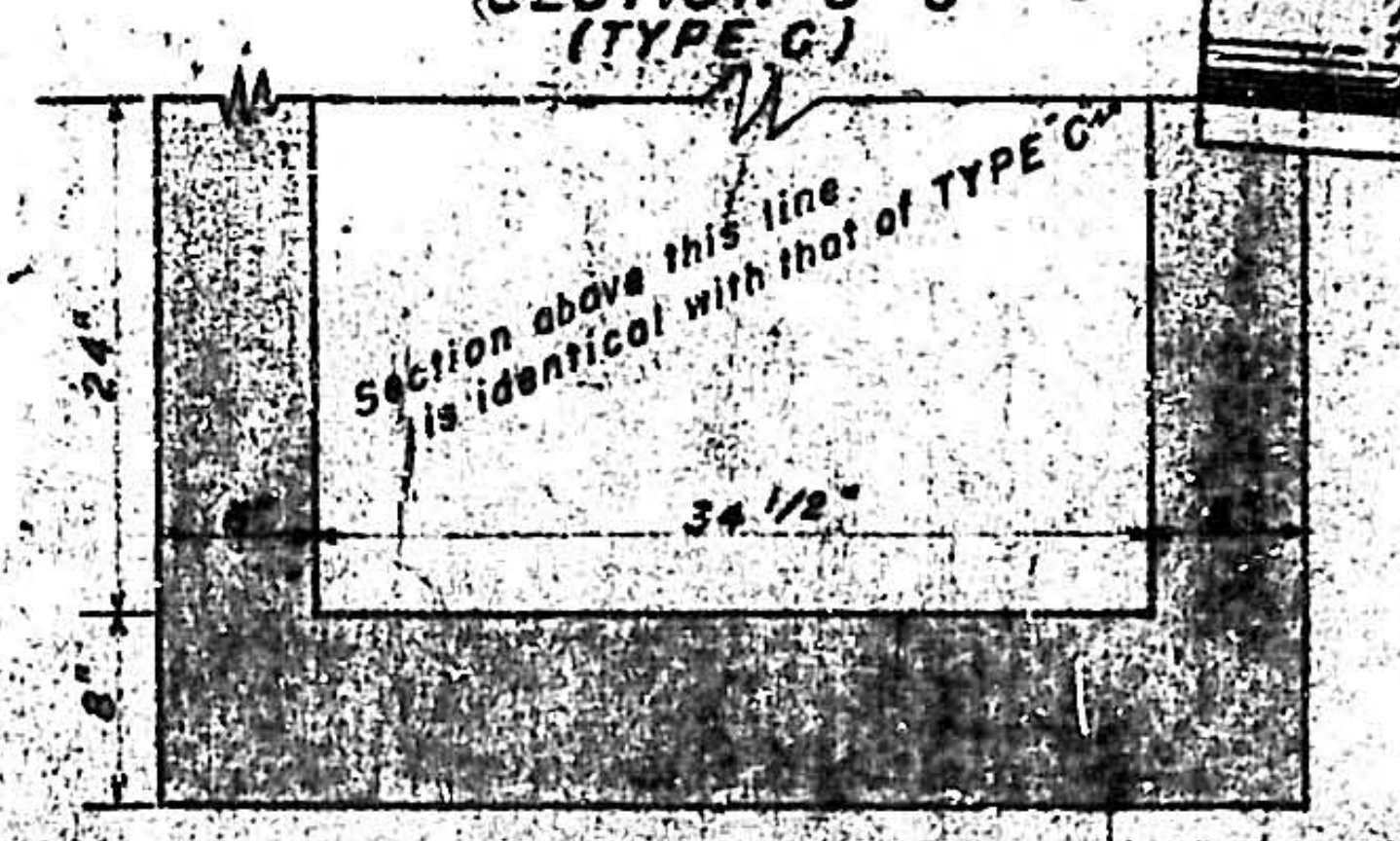
PLAN

DOUBLE GRATE STANDARD CATCH BASIN - TYPE C
Scale 1" = 12"

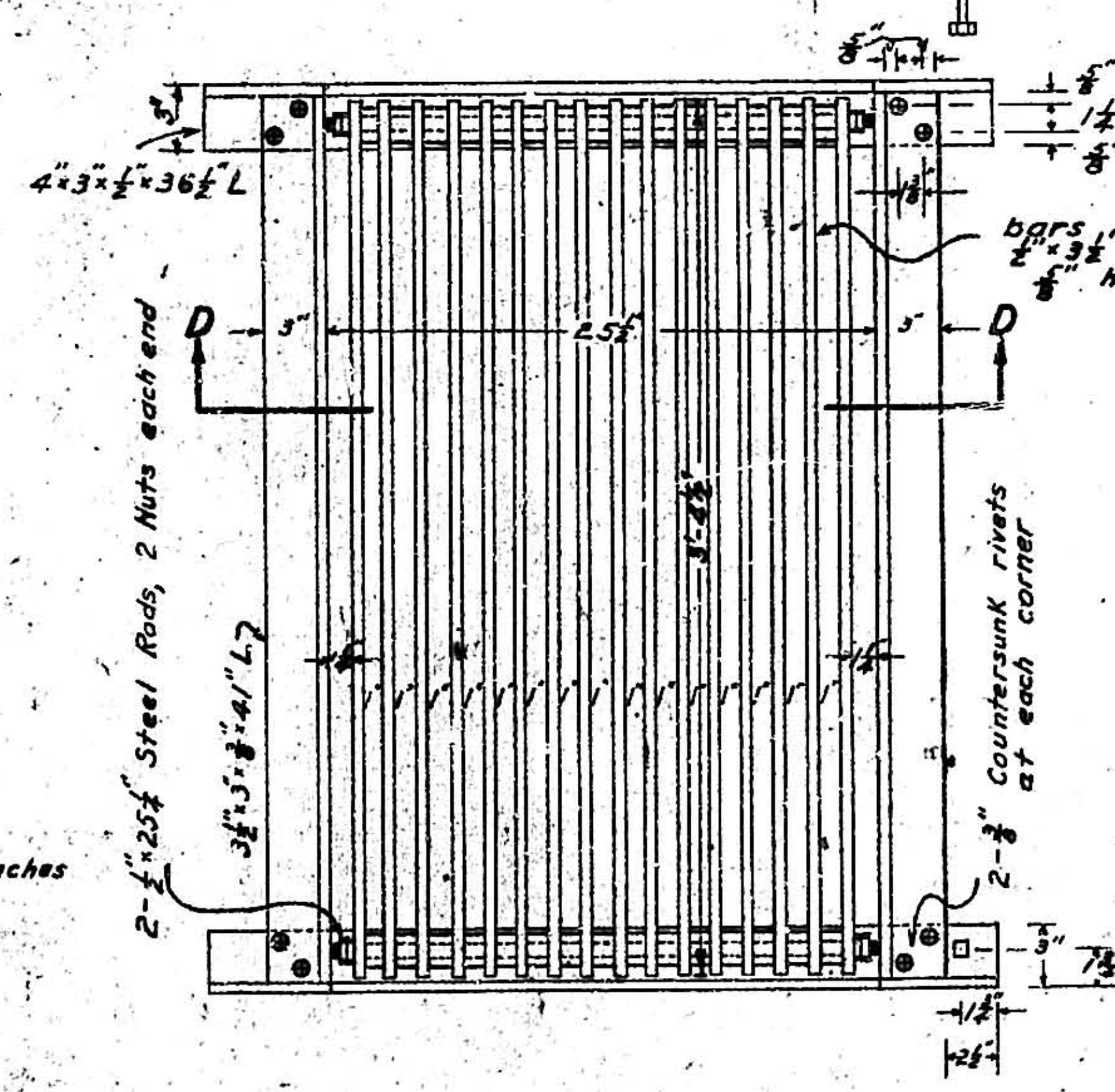


Slope of floor parallel with curb to be 1 inch in 12 inches

SECTION C-C
(TYPE C)

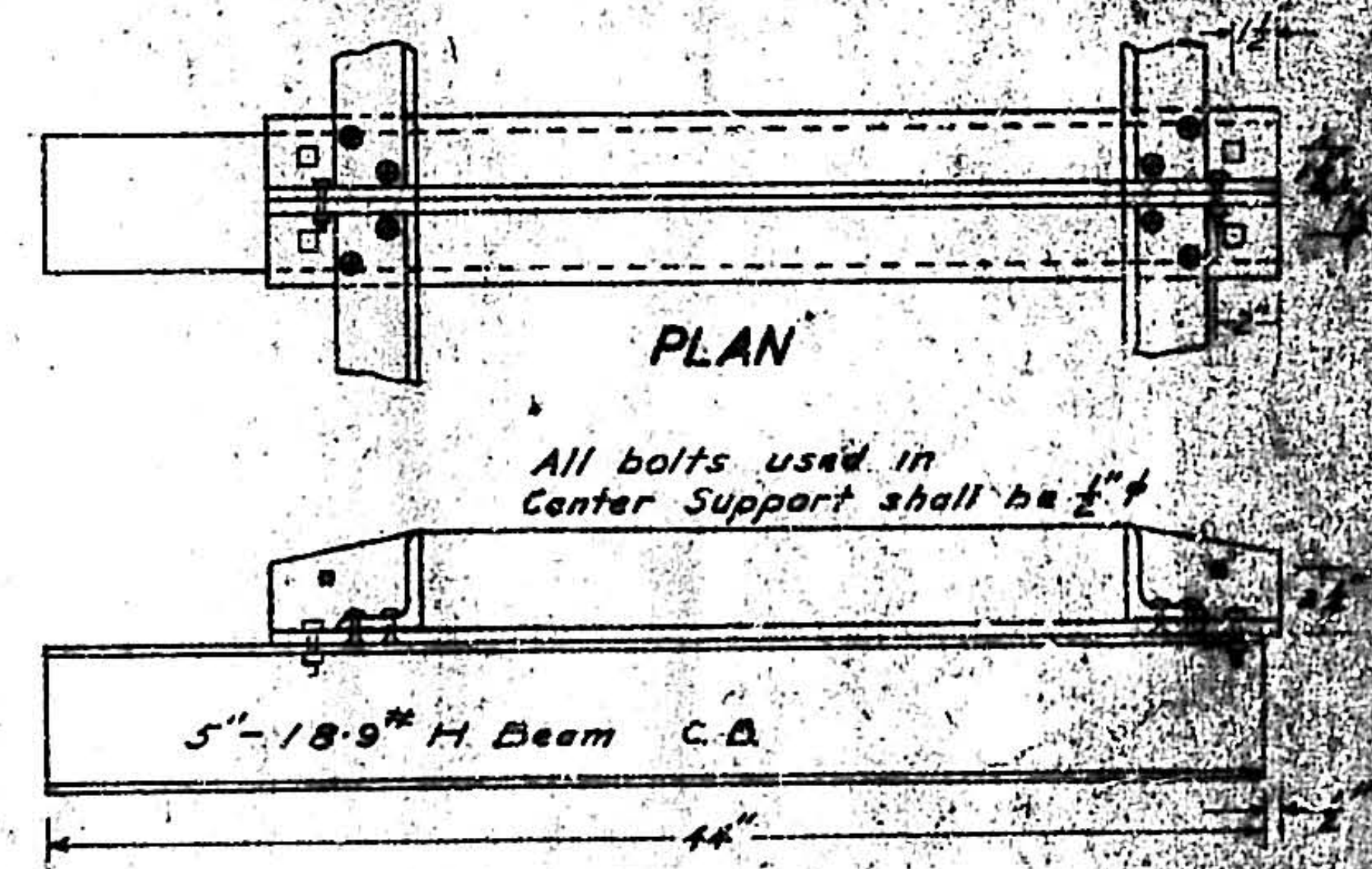


SECTION C-C
(TYPE C-1)


4"×3"×½"×36½" L
D
D
25½"
bars ½"×3½"×40⅝"
⅝" holes
2-½"×25½" Steel Rods, 2 Nuts each end
3½"×3"×½"×41" L
2-⅝" Countersunk rivets at each corner

PLAN

STANDARD FRAME AND GRATING
Scale ⅛" = 1"



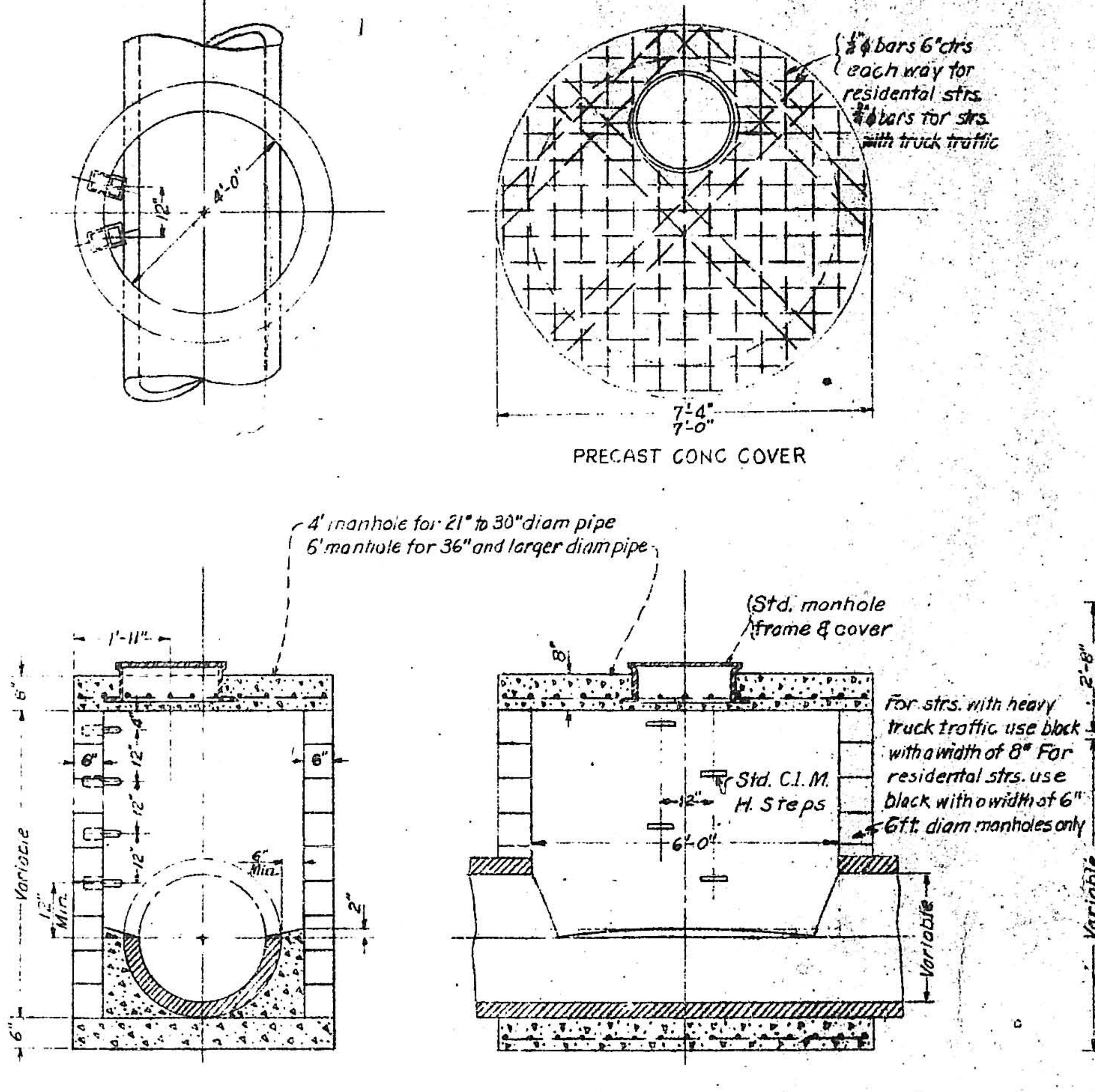
CENTER SUPPORT ASSEMBLY

CITY OF ALBUQUERQUE

STANDARD CATCH BASINS, TYPES B&C, C-1
AND APPURTENANCES

DESIGNED	CONSULTING ENGINEERS	DATE DESIGNED
TRACED	HASIE AND GREEN	DATE REVISED
CHECKED	HERKENHOFF AND TURNEY	
SCALE	EDMUND ROSS	SHEET 3 OF

08	511	0351	10

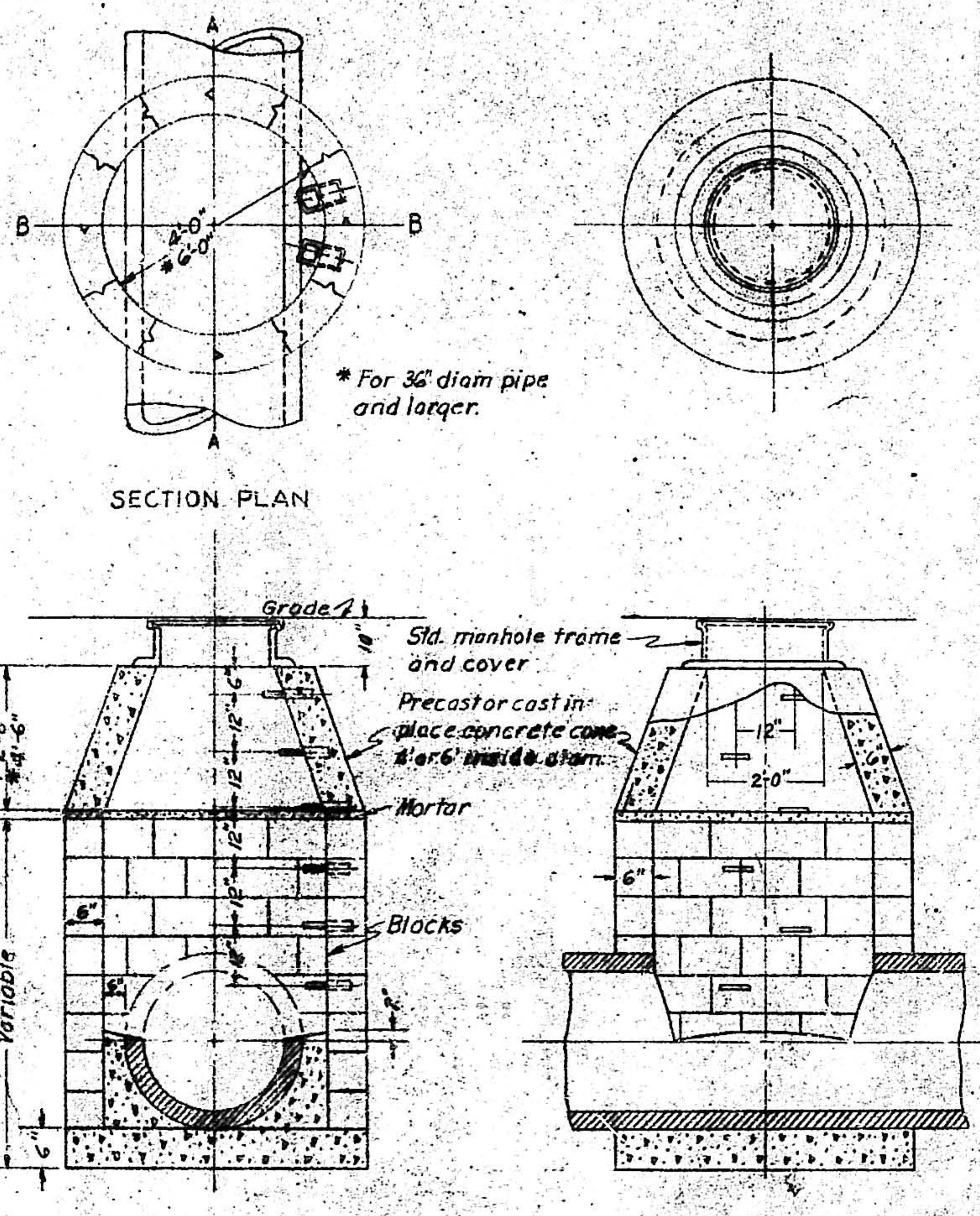

½" ϕ bars 6" ctrs each way for residental strs.
⅝" ϕ bars for strs. with truck traffic
7'-4"
7'-0"
4'-0"
12"
4' manhole for 21" to 30" diam pipe
6' manhole for 36" and larger diam pipe
1'-11"
Std. manhole frame & cover
For strs. with heavy truck traffic use block with a width of 8" For residental strs. use block with a width of 6" 6 ft. diam manholes only
Std. C.I.M. H. Steps
6'-0"
Variable
6" Min.

PRECAST CONC COVER

SECT. 4 FOOT M.H.

SECT. 6 FOOT M.H.

STANDARD STORM SEWER MANHOLE TYPE "A"


A
B
4'-0"
* 6'-0"
* For 36" diam pipe and larger.
Grade
Std. manhole frame and cover
Precast or cast in place concrete cone 4' or 6' inside diam.
Mortar
Blocks
Variable
2'-0"
12"
6"

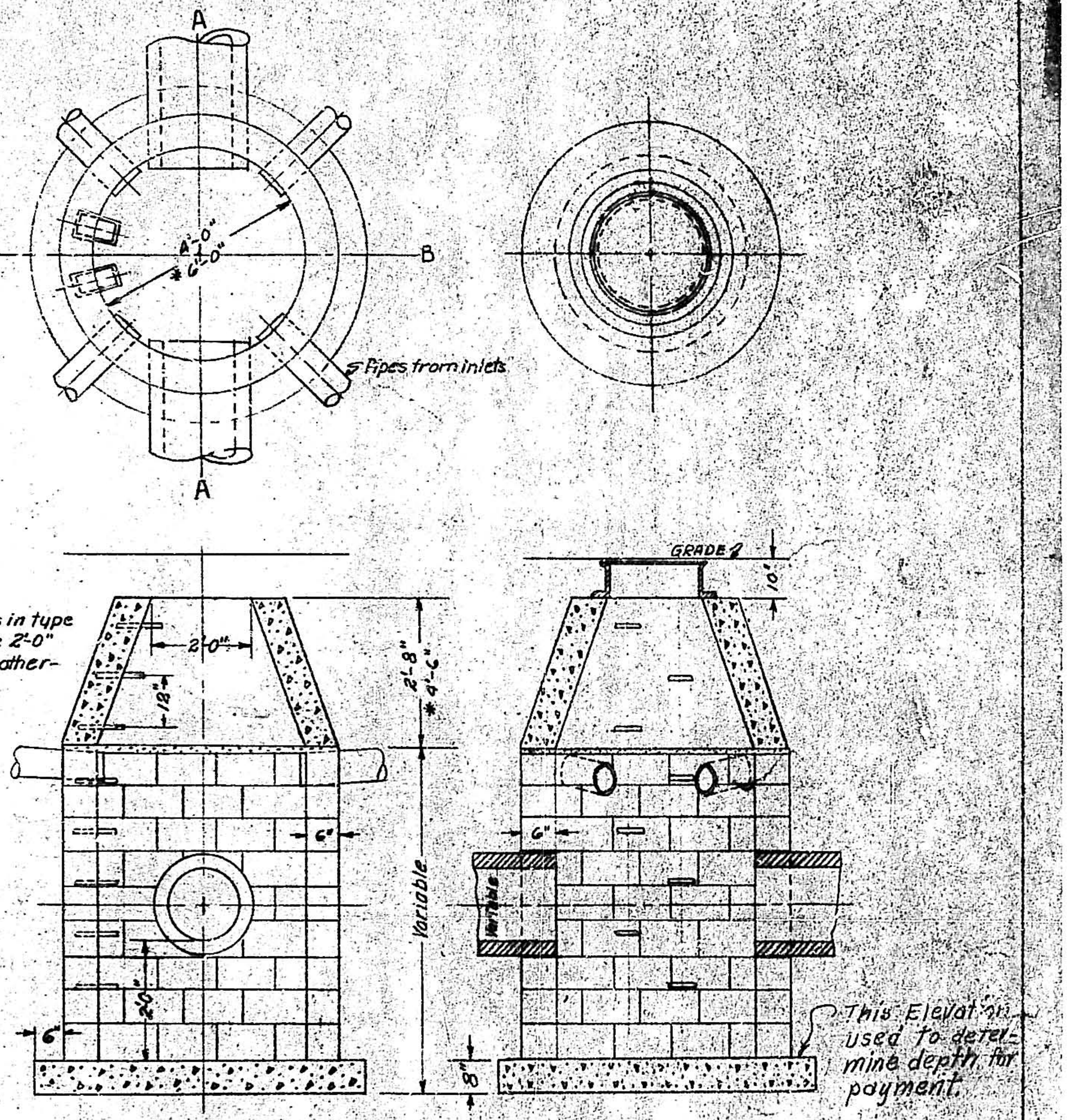
SECTION PLAN

SECTION B-B

SECTION A-A

STANDARD STORM SEWER MANHOLE TYPE "B"

NOTE:
All catch basins in type "C" manholes to be 2'-0" in depth unless otherwise noted.

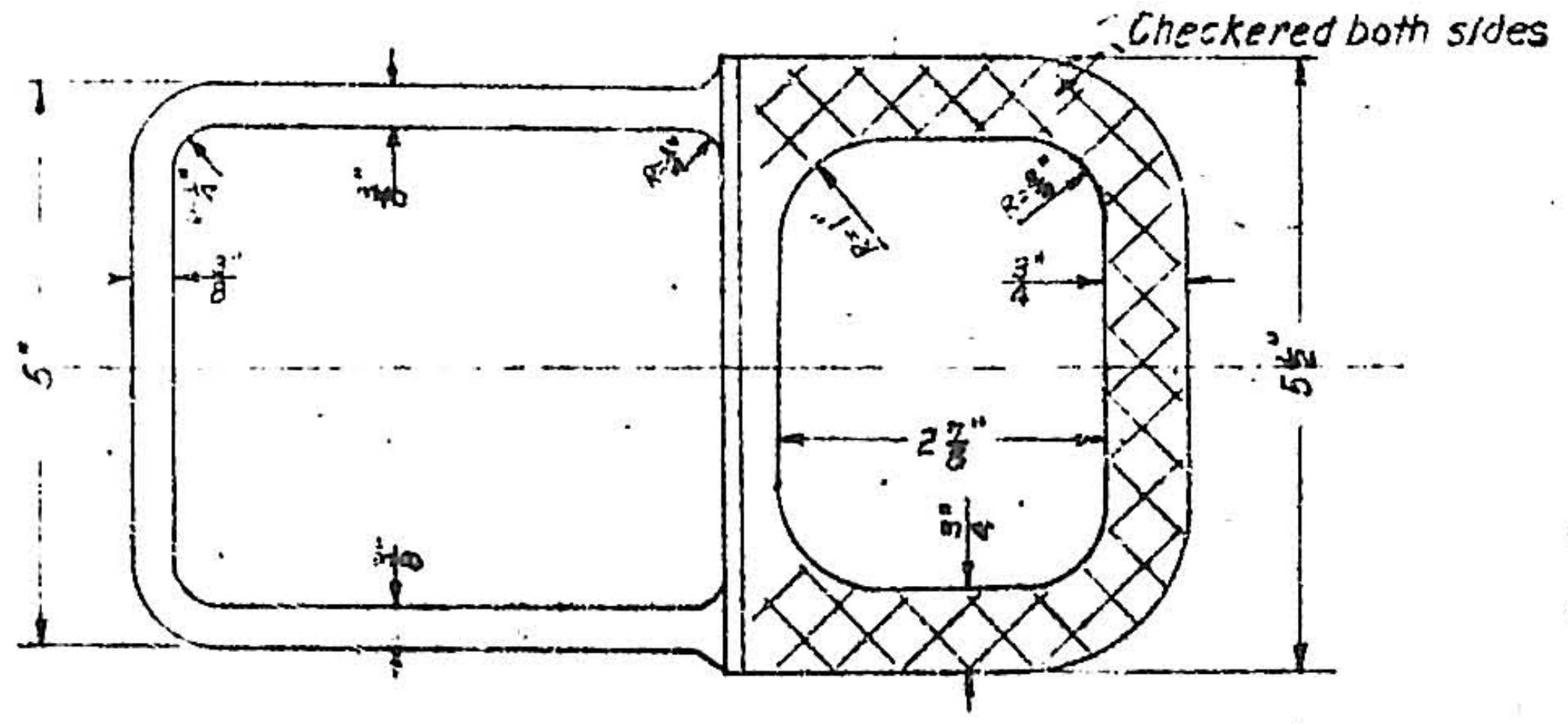


SECTION B-B

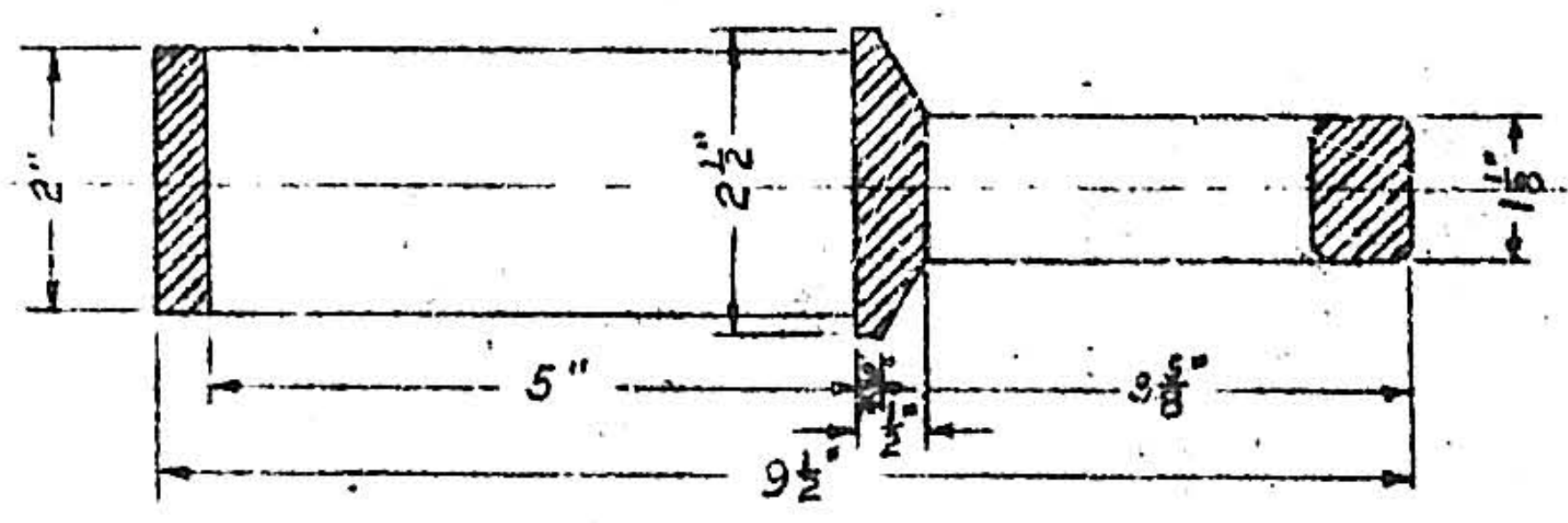
SECTION A-A

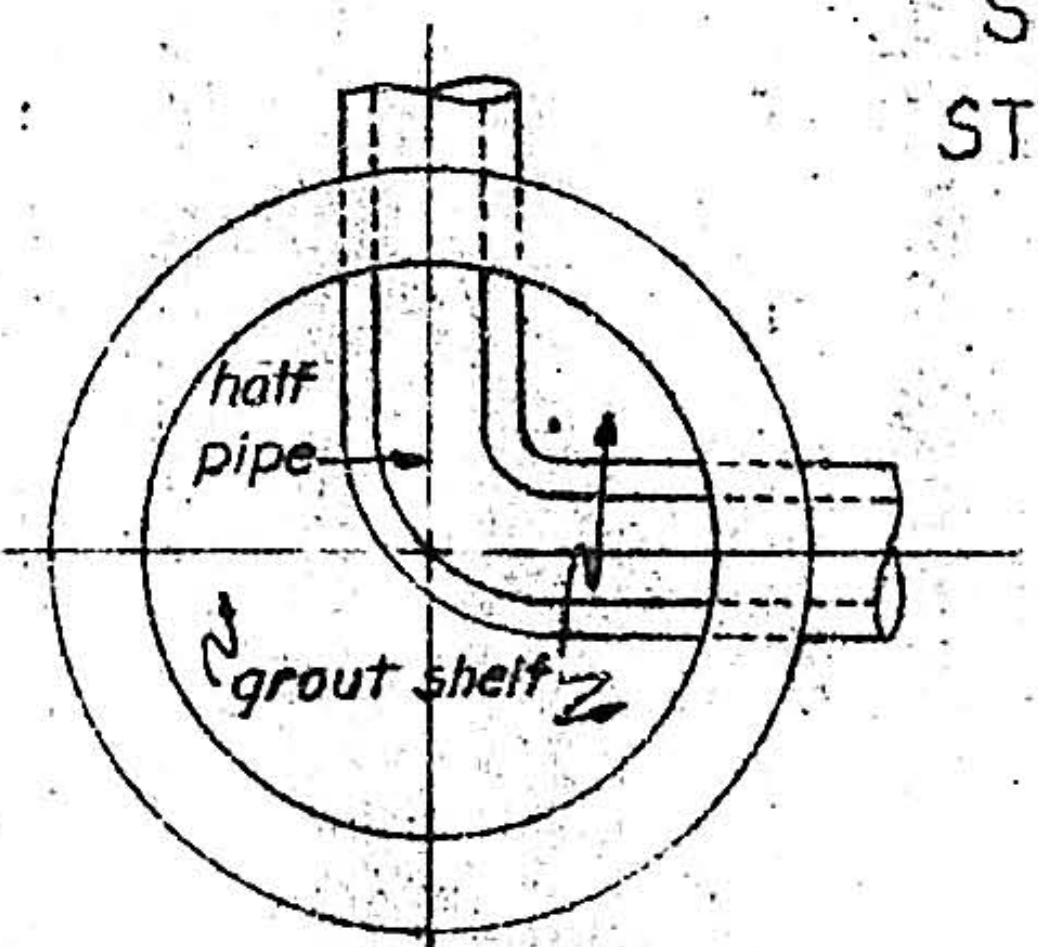
STANDARD STORM SEWER MANHOLE TYPE "C"

All conc. for manholes & blocks - class "B" 3000#/in² min.
All reinf. steel structure grade - 18000#/in²

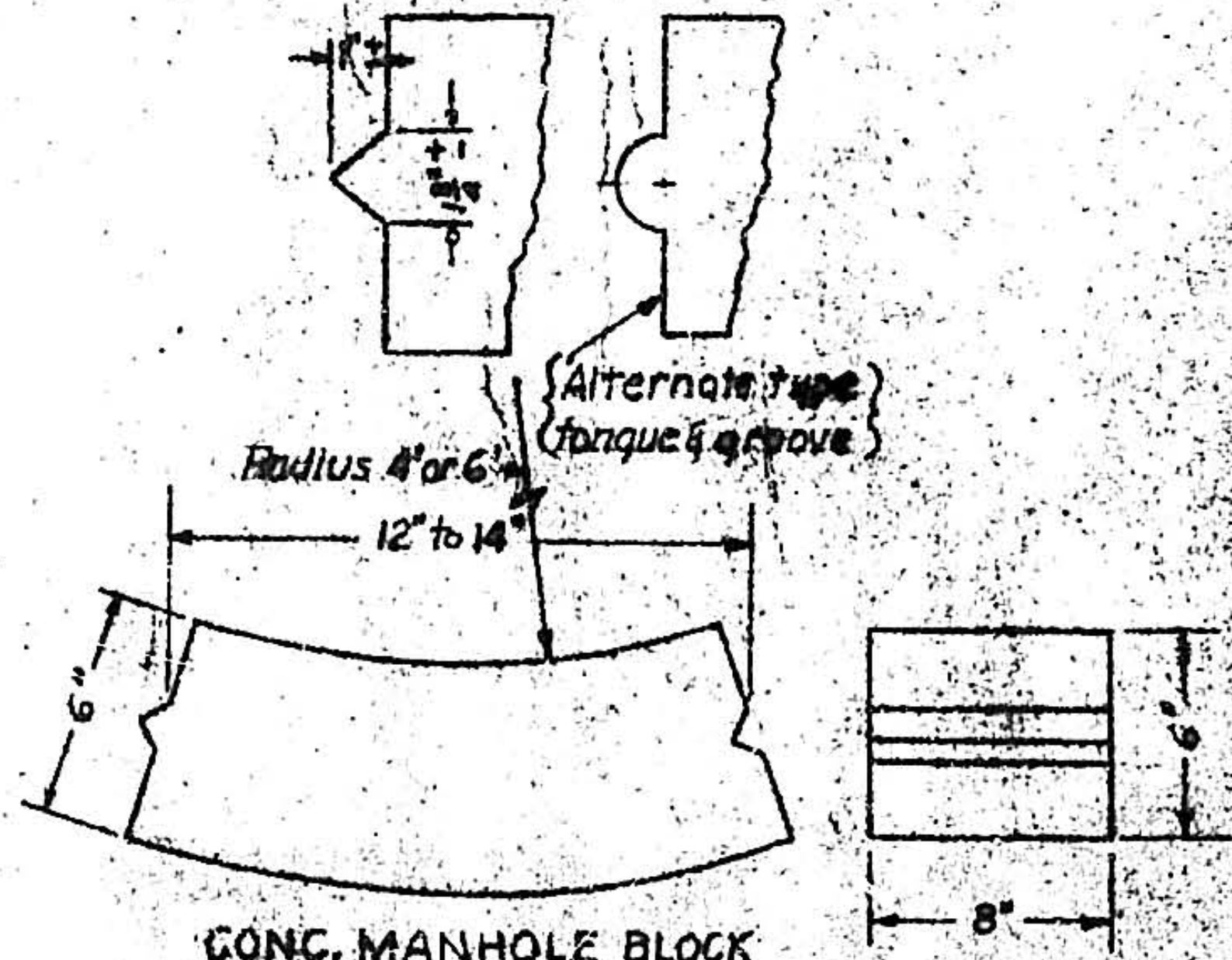


STANDARD MANHOLE STEP





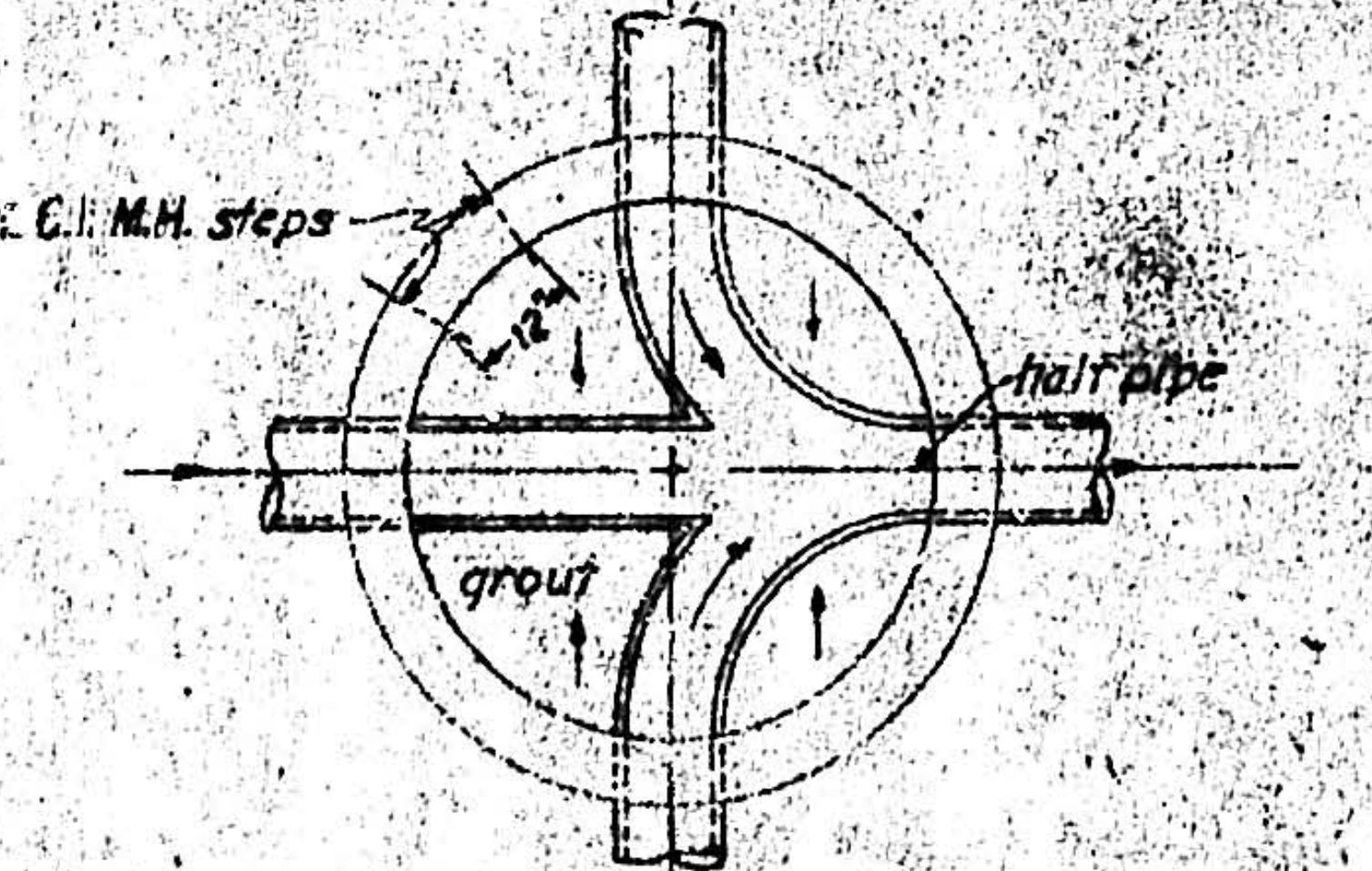
RIGHT ANGLE ENTRY AND EXIT TYPE "B" MANHOLE



CONC. MANHOLE BLOCK LOCK JOINT

MANHOLE SPECIFICATIONS

The contractor has the option of building the masonry walls of all manholes of solid concrete or block. If solid concrete is used, the walls must have a thickness of not less than six inches. Block for six inch walls must have a thickness of not less than eight(8) inches, and a width of not less than six(6) inches, a length of twelve(12) to fourteen (14) inches and shall be lock joint type. The concrete from which such blocks are constructed shall meet the specifications for class "A" as set forth in governing concrete specifications for this project. . Type of block must be approved by the Engineer and each block shall be molded with a curvature equal to and matching exactly that of the manhole being built. All concrete blocks shall conform in all respects to the standard specifications for "Conc. Masonry Units for construction of Catch Basin & Manholes" A.S.T.M. Designation C 139-39 or any subsequent revisions thereof. Cones may be poured in place, or precast and then grouted to manhole barrel. All manhole frames, covers and steps to be standard cast iron as shown. In wet sewer construction manhole barrels shall be constructed of poured conc. to a pre-determined elevation as shown on plan & profile sheets. Remainder of barrel may be constructed of curved conc. block set in water proof mortar.



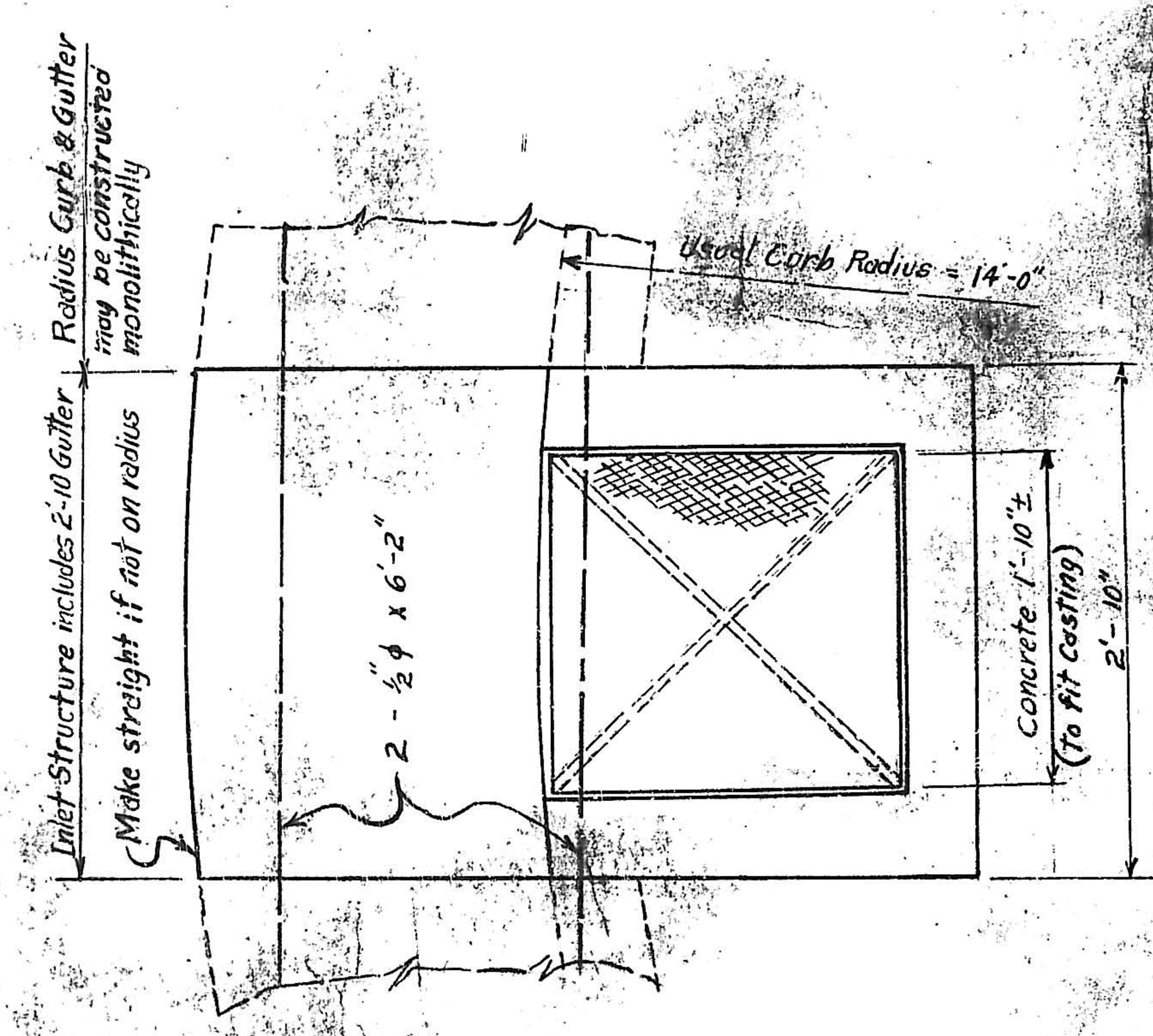
TWO RIGHT ANGLE ENTRANCES INTO MAIN FLOW LINE TYPE "B" M.H.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8	5	1	1	0	4	5	1			1	0																

CITY OF ALBUQUERQUE

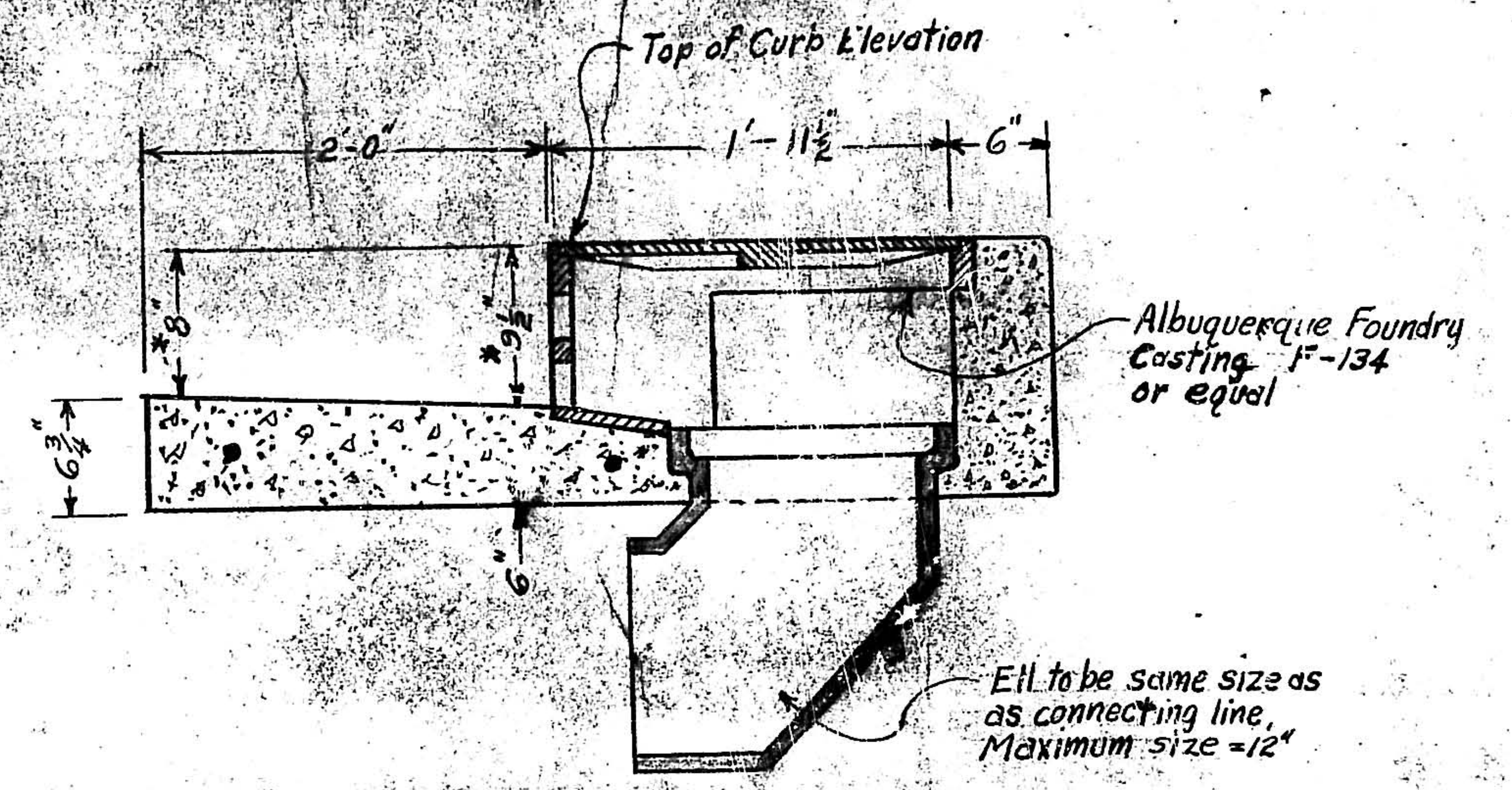
STANDARD MANHOLE DESIGNS.

DESIGNED	CONSULTING ENGINEERS	DATE DESIGNED
TRACED	HASIE AND GREEN	DATE REVISED
CHECKED	HERKENHOFF AND TURNEY	
SCALE	EDMUND ROSS	4 SHEET OF


Radius Curb & Gutter may be constructed monolithically
Inlet Structure includes 2'-10 Gutter
Make straight if not on radius
Usual Curb Radius = 14'-0"
2 - ½"φ x 6'-2"
Concrete 1'-10" ±
(to fit Casting)
2'-10"

PLAN - CURB INLET (CASTING F-134)

Scale 1½" = 1'


Top of Curb Elevation
2'-0"
1'-11½"
6"
*8"
*9½"
6¾"
6"
Albuquerque Foundry Casting F-134 or equal
Ell to be same size as as connecting line, Maximum size =12"

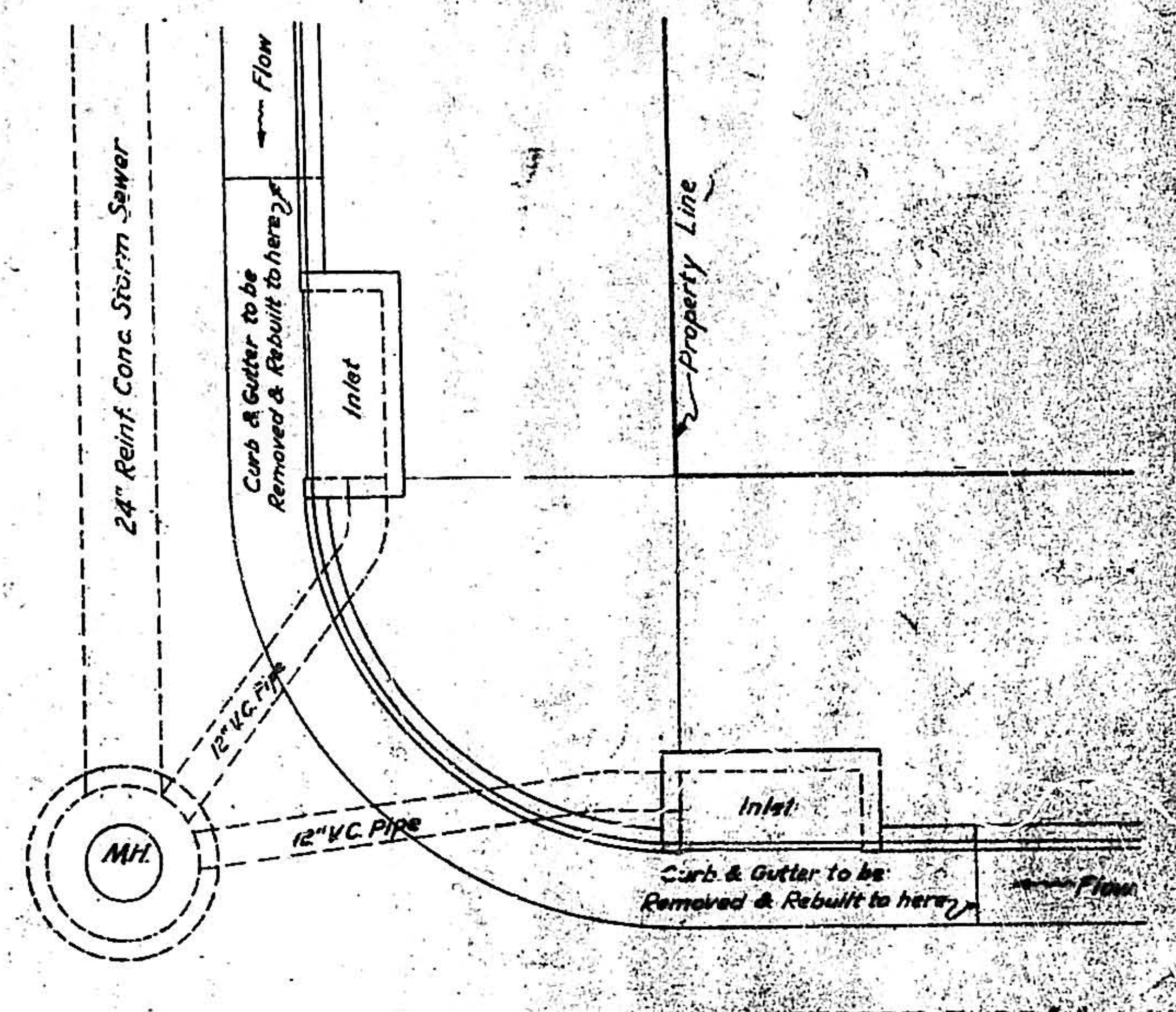
SECTION — CURB INLET

* Note— Usually the Inlet will be placed in the mid-point of the radius. The 8" dimension will diminish to 7¼" at the tangent point of the radius and the 9½" diminishes to 8". These dimensions may be modified by the Engineer for special circumstances.

Radius Curb & Gutter not included unless specified.

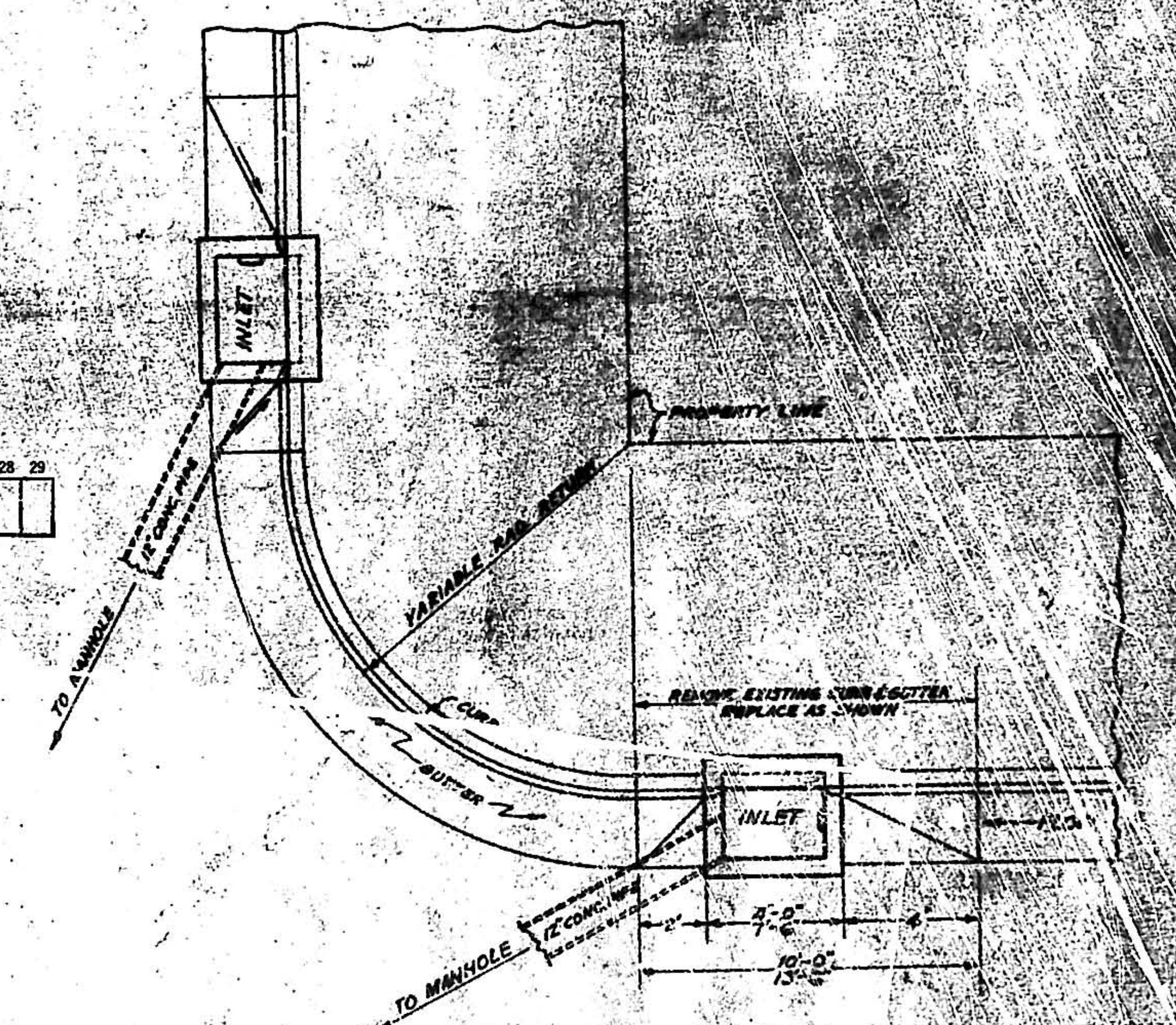
When constructed in existing curb remove 7"

08 511 0551 10

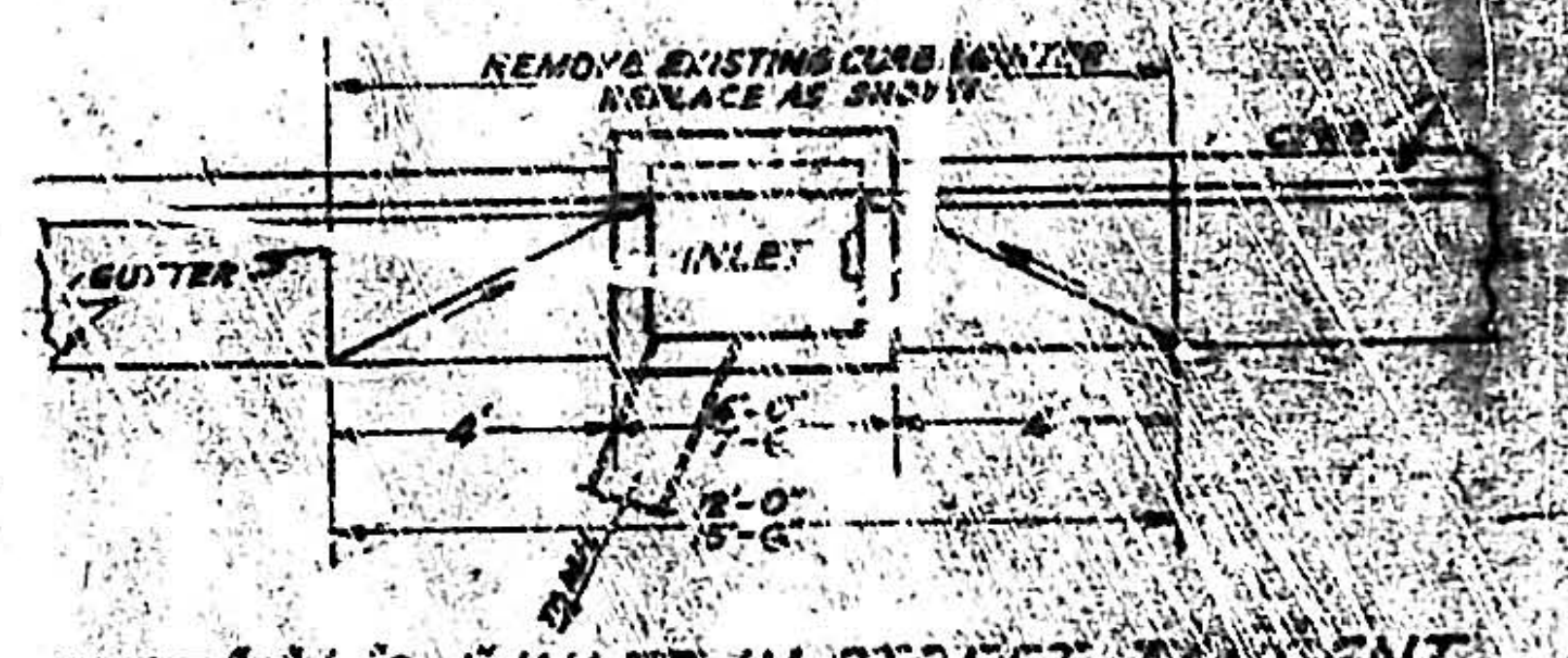

24" Reinf Conc Storm Sewer
Flow
Curb & Gutter to be Removed & Rebuilt to here
Inlet
Property Line
12" V.C. Pipe
MH
Inlet
Curb & Gutter to be Removed & Rebuilt to here
Flow

LOCATION OF INLETS IN STREET-TYPE "A"

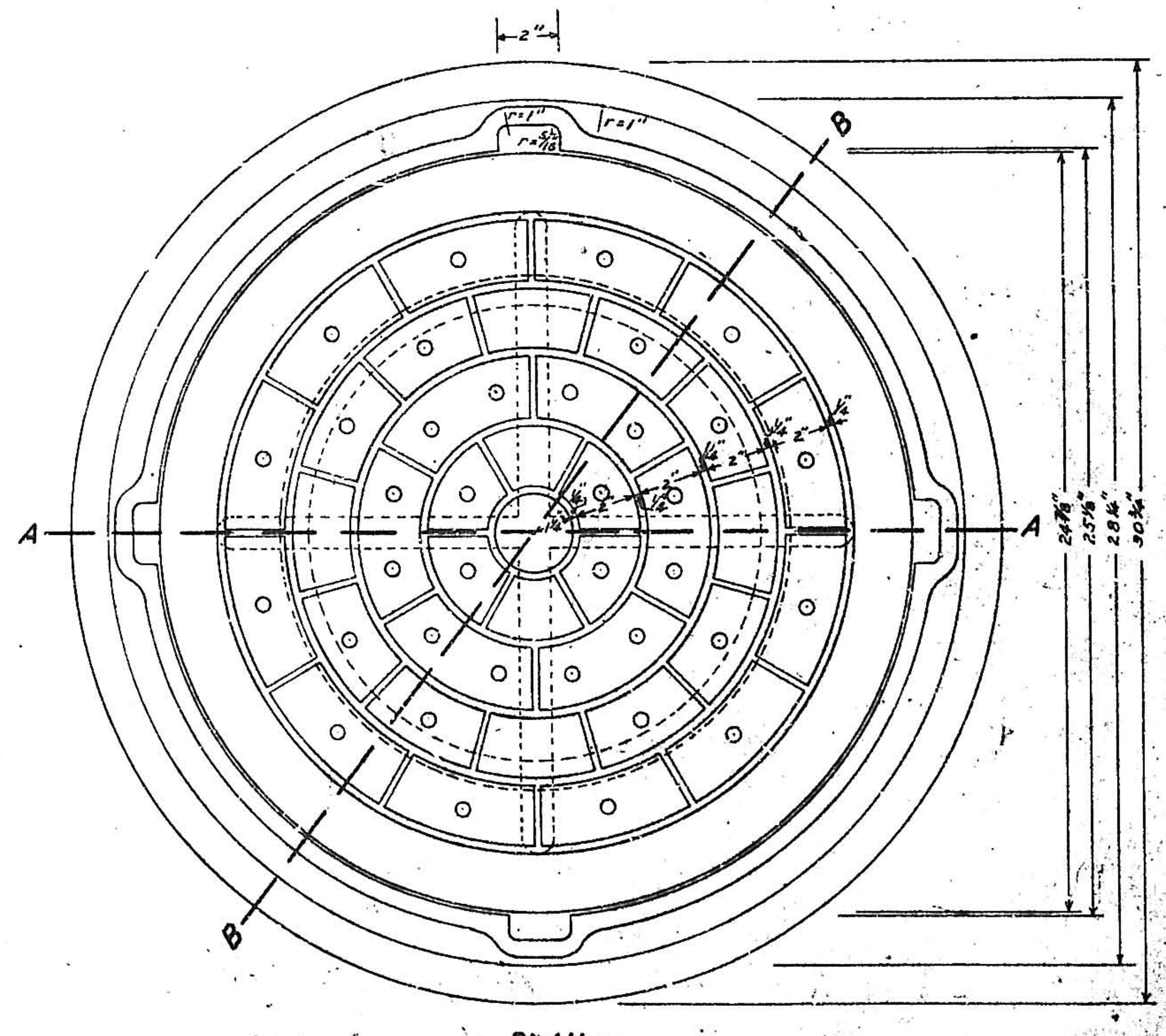
Scale ¼"=1'-0"



LOCATION OF TYPE "C" & "C-1" INLETS IN STREET



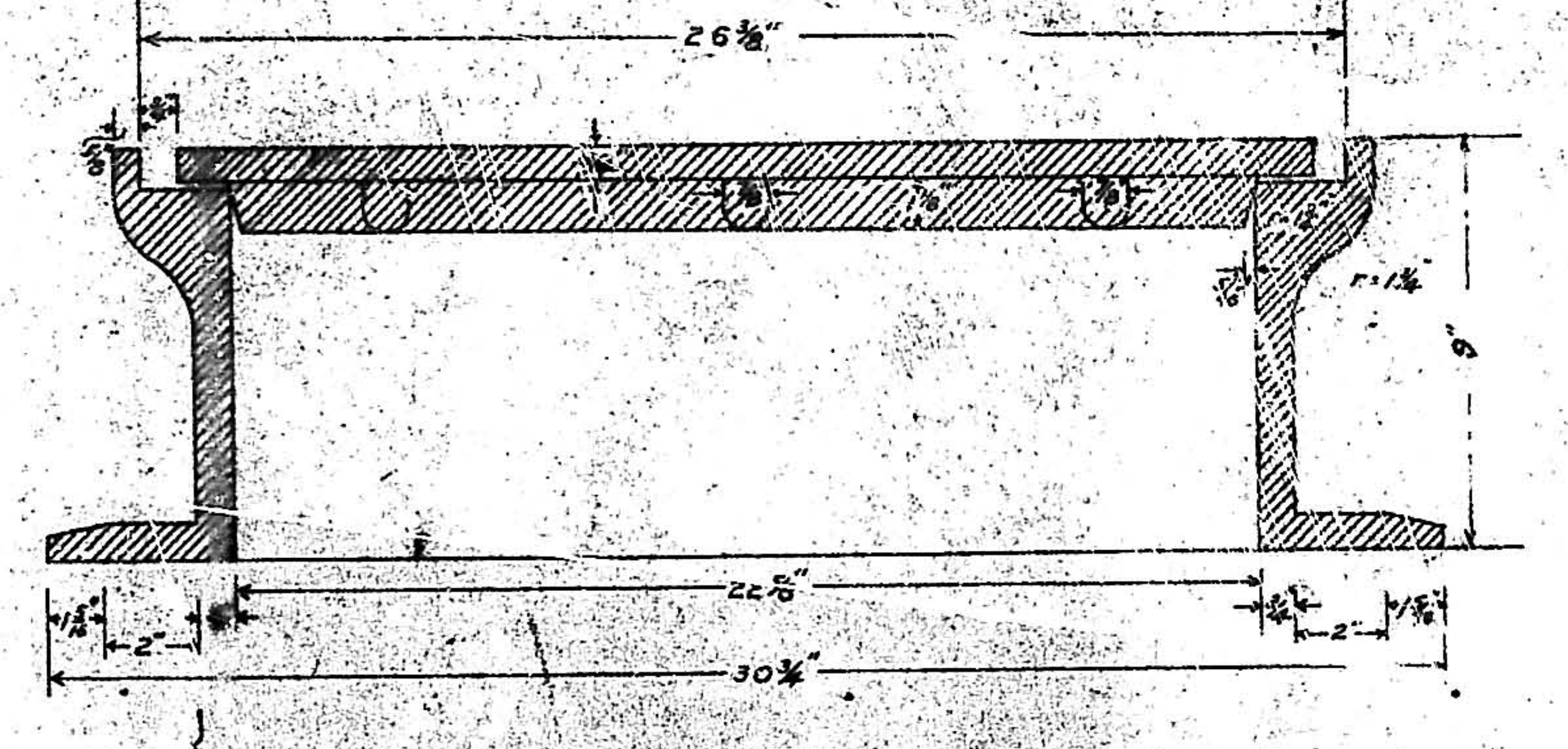
LOCATION OF TYPE "C" & "C-1" INLET IN STREET TANGENT



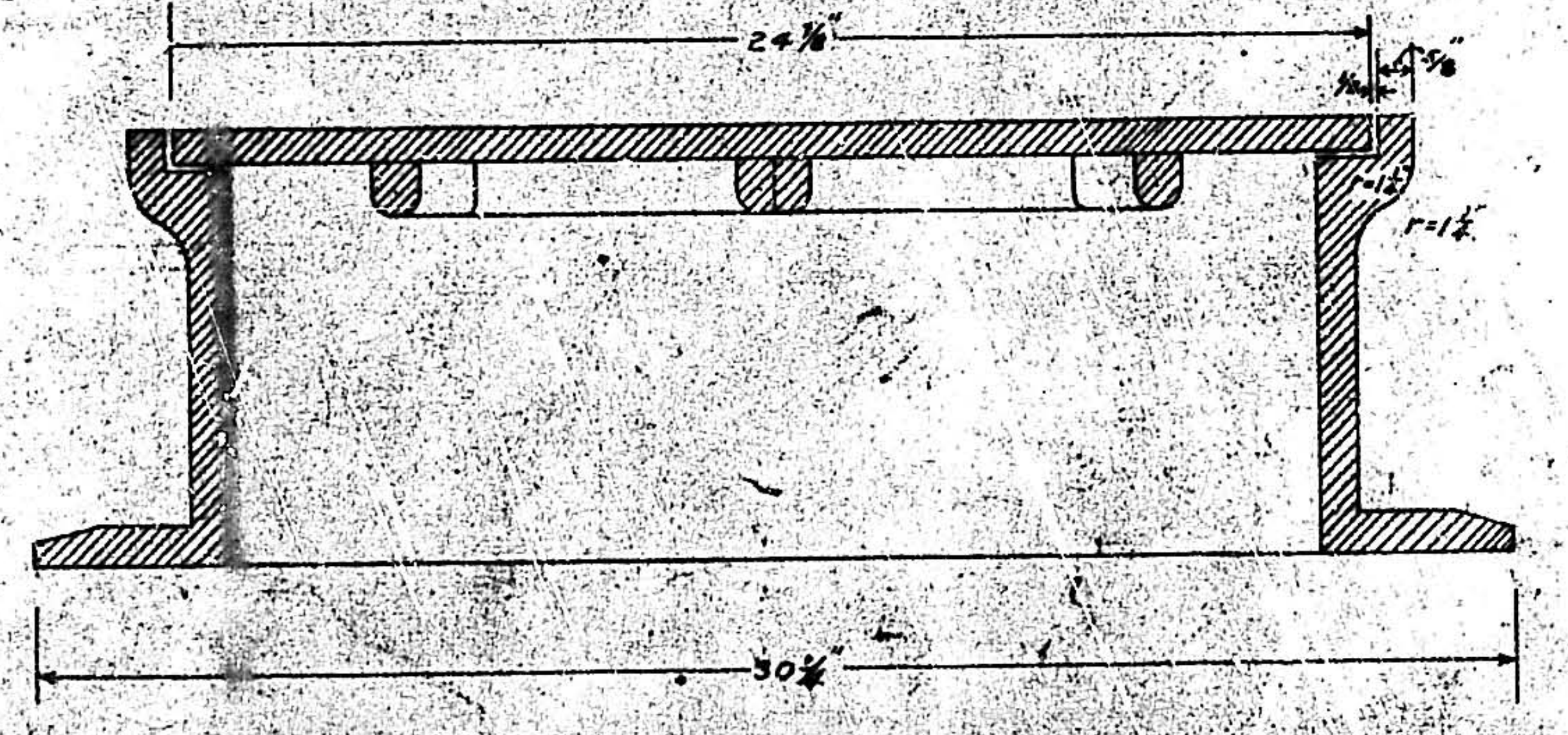
PLAN

STANDARD MANHOLE FRAME AND COVER

Scale: ¼"=1"



SECTION A-A



SECTION B-B

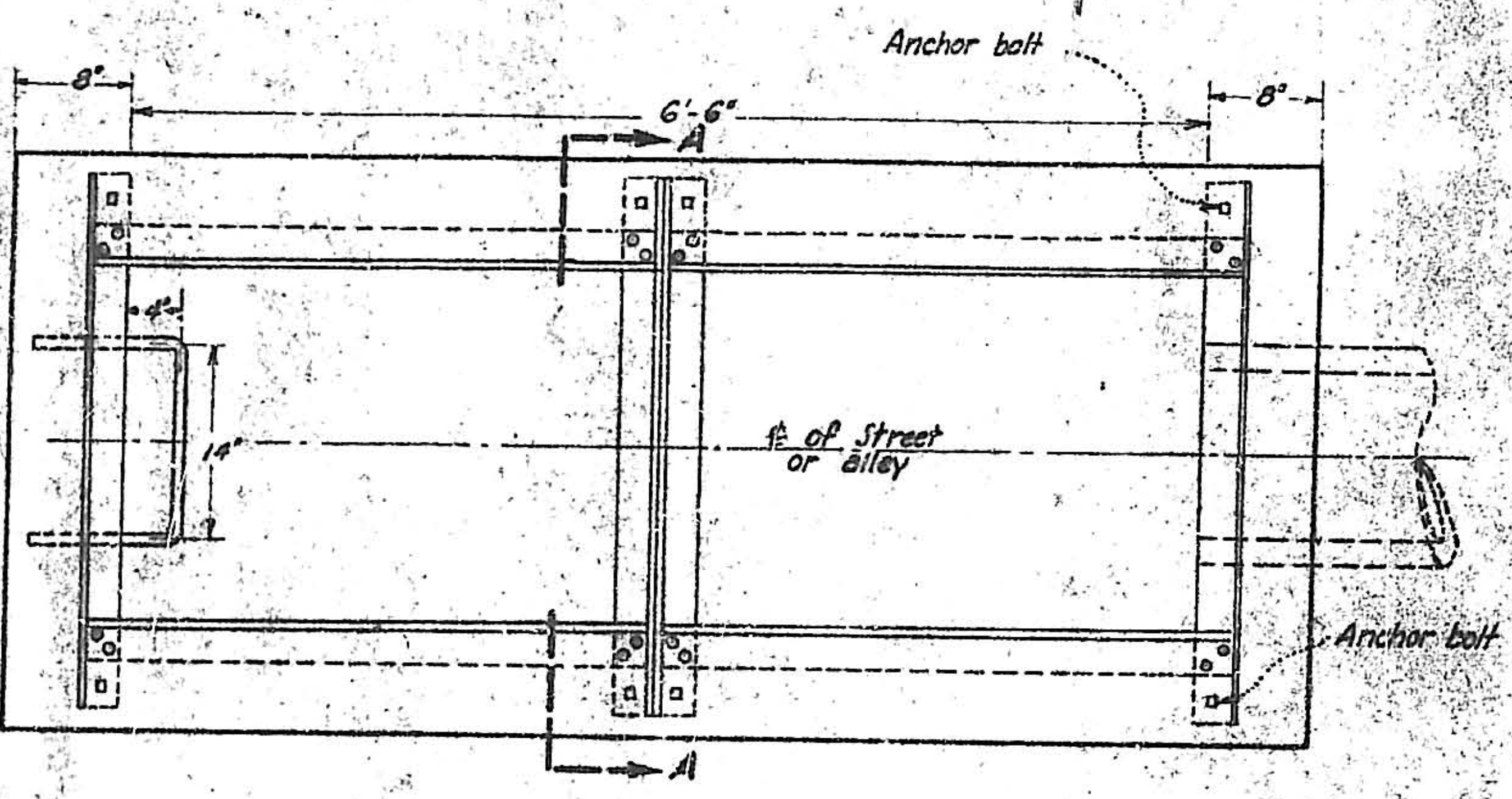
Scale: ¼"=1"

CITY OF ALBUQUERQUE

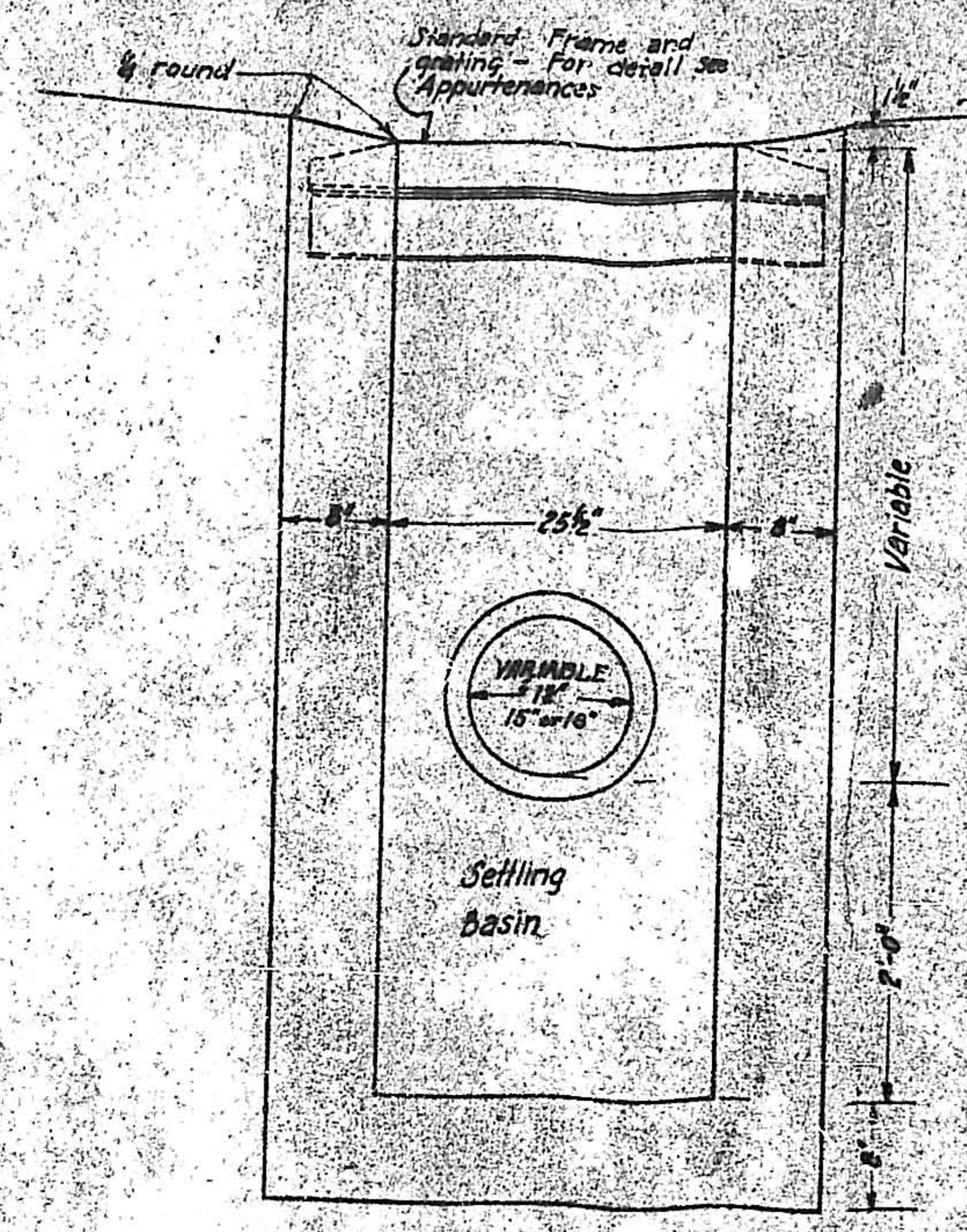
TYPE A CURB INLET

STANDARD MANHOLE FRAME AND COVER

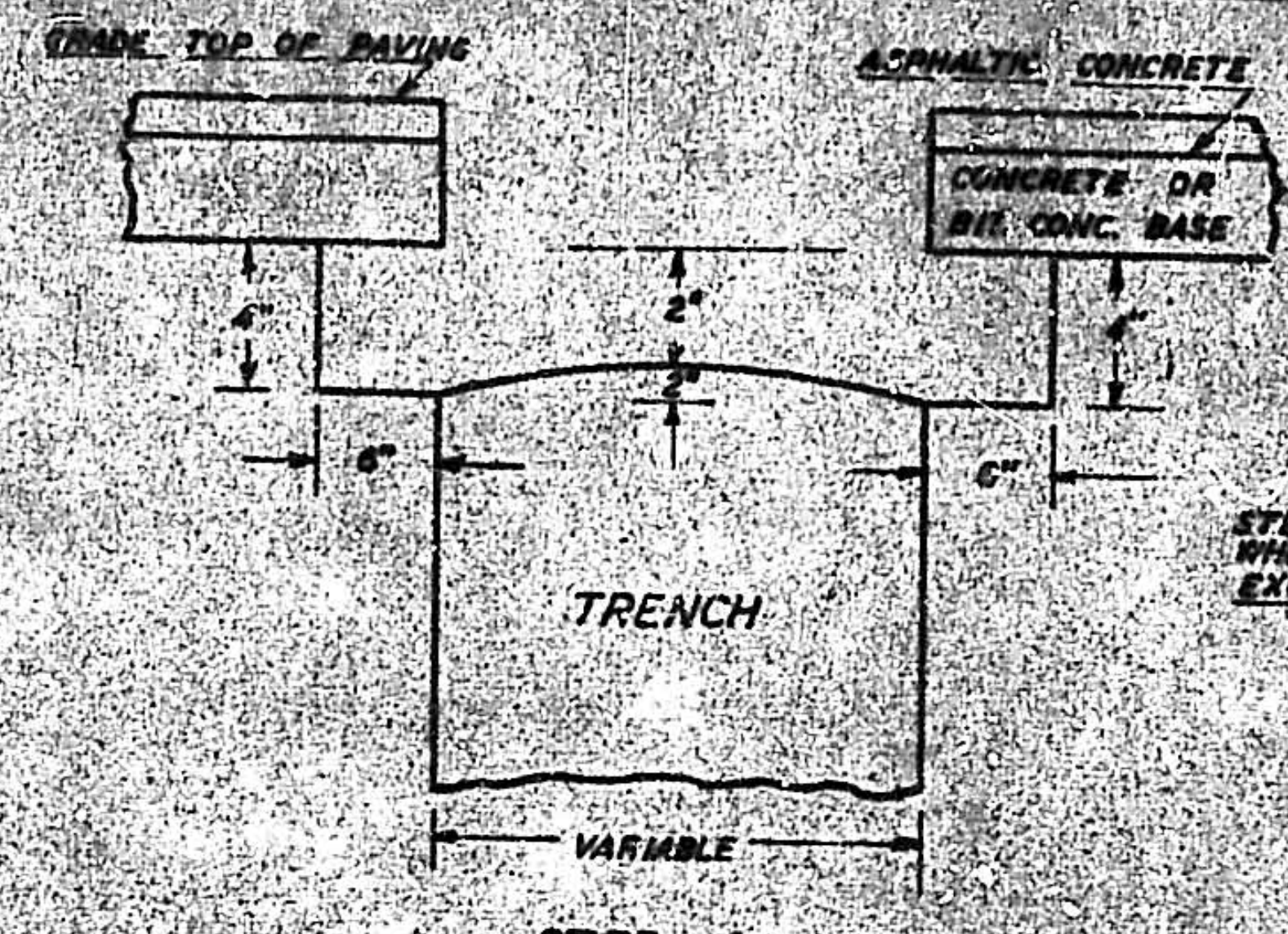
DESIGNED	CONSULTING ENGINEERS	DATE DESIGNED
TRACED	HASIE AND GREEN / HERKENHOFF AND TURNEY EDMUND ROSS	DATE REVISED
CHECKED		
SCALE		5 SHEET OF



PLAN
STANDARD CATCH BASIN TYPE - D
Scale 1"=1'

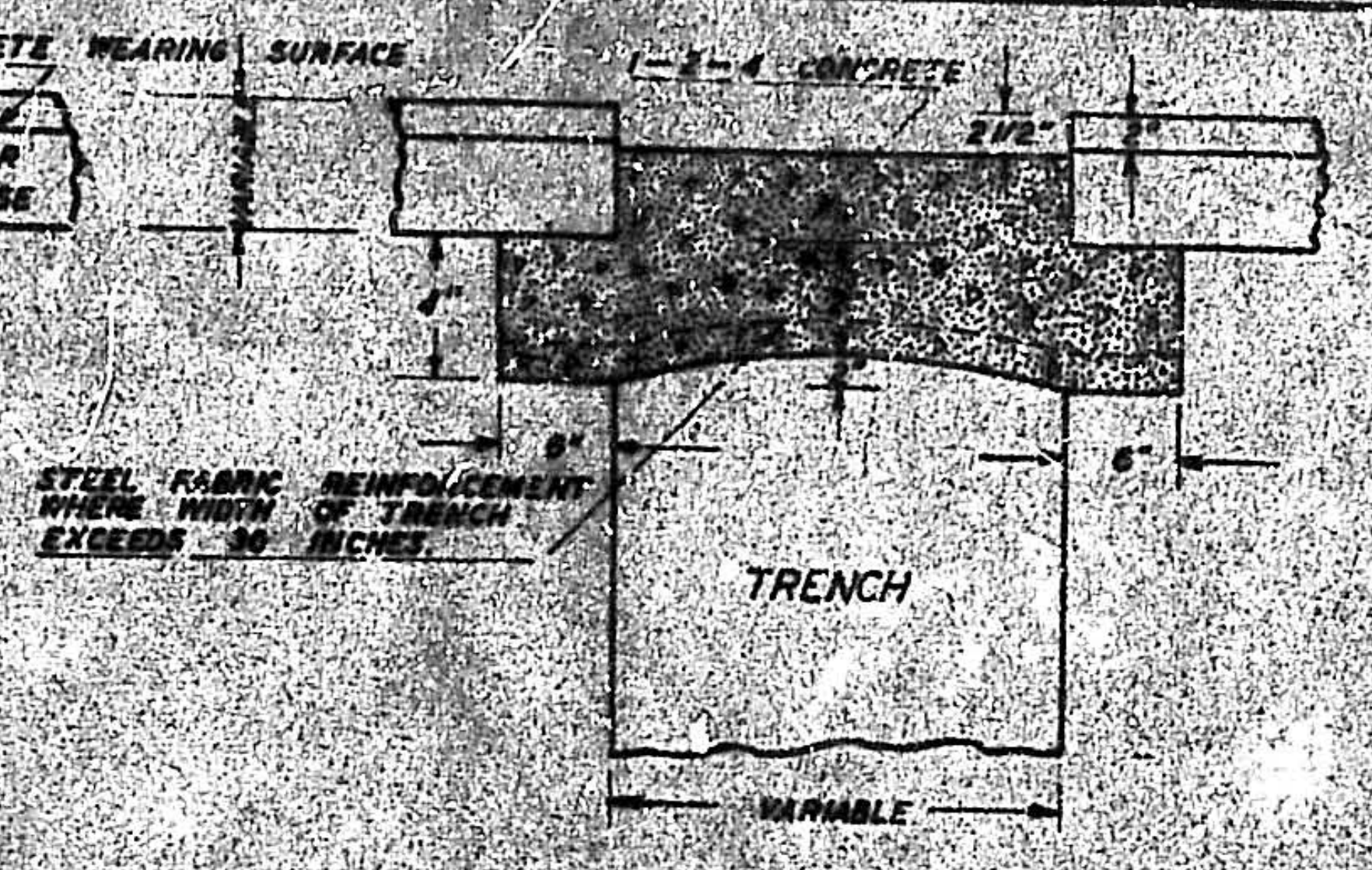


SECTION A-A


GRADE TOP OF PAVING
ASPHALTIC CONCRETE WEARING SURFACE
CONCRETE OR BIT. CONC. BASE
4"
2"
2"
6"
6"
TRENCH
VARIABLE

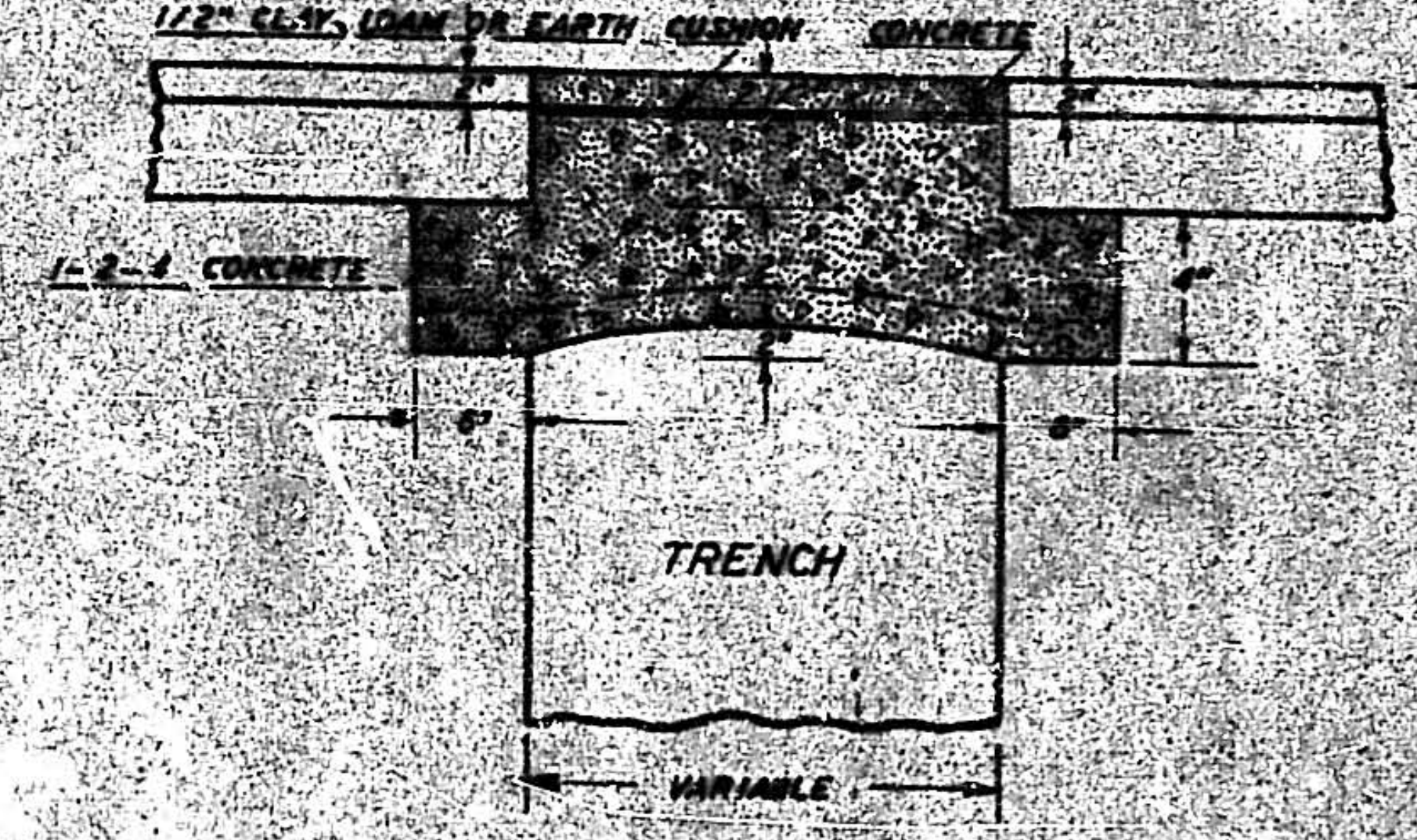
STEP 1.

(A). BACKFILL AND HAND-TAMP THE OPEN TRENCH IN SUCCESSIVE LAYERS OF NOT MORE THAN SIX INCHES IN THICKNESS.
(B). SQUARE UP EXPOSED EDGES OF PAVING IN A NEAT MANNER.
(C). EXCAVATE DIRECTLY UNDER EDGE OF PAVING A TRENCH 6 WIDE AND 4 DEEP AS SHOWN ABOVE.
(D). ARCH BACKFILL IN CENTER OF TRENCH MAKING THE CROWN AT CENTER 2 BELOW BOTTOM EDGE OF PAVING.
(E). DEPTH OF PATCH WILL VARY ACCORDING TO TYPE OF PAVING TO BE REPAIRED.


1-2-4 CONCRETE
2 1/2"
VARIABLE
4"
6"
6"
STEEL FABRIC REINFORCEMENT WHERE WIDTH OF TRENCH EXCEEDS 30 INCHES.
TRENCH
VARIABLE

STEP 2.

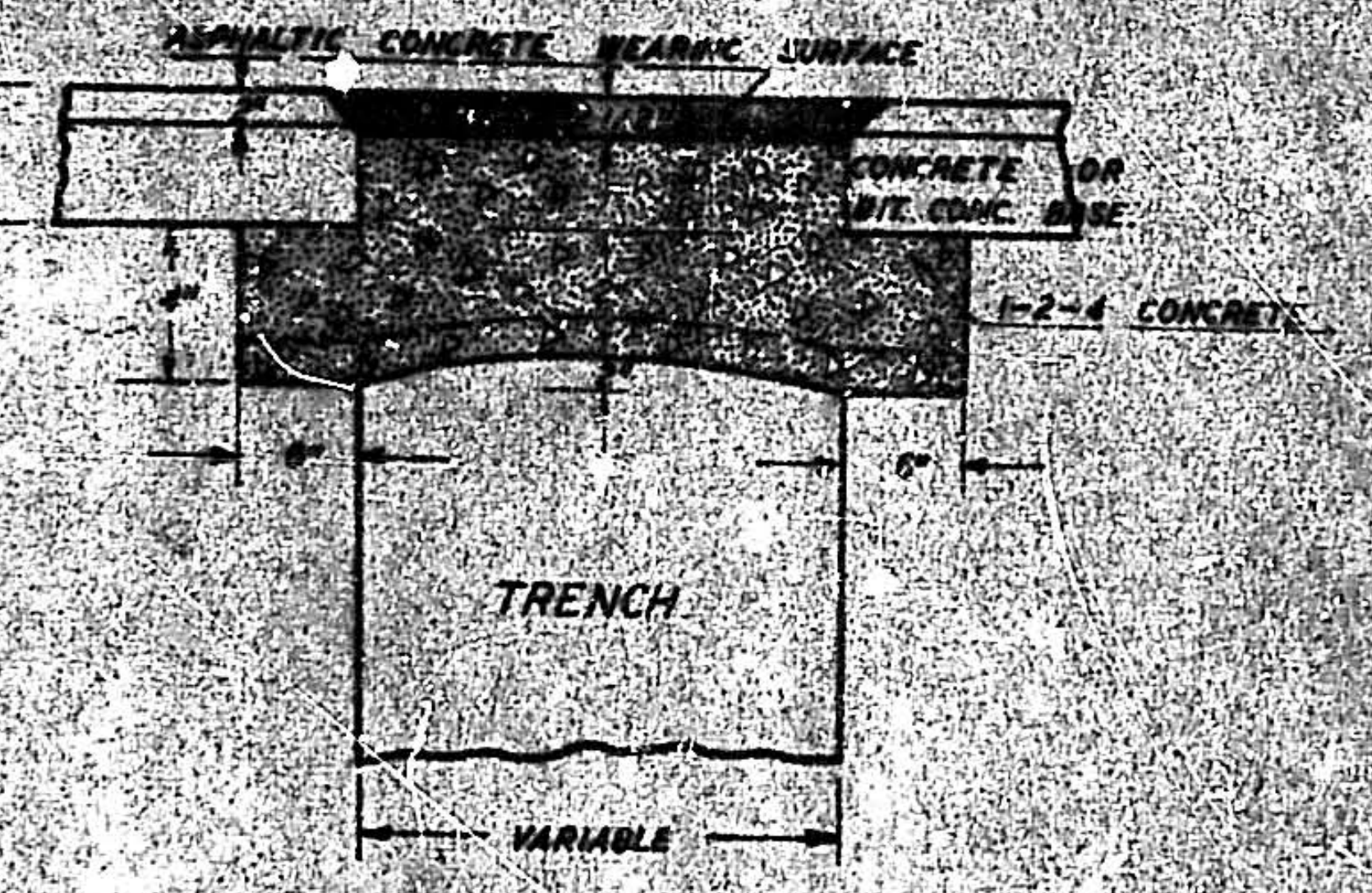
(A). WASH OFF THE EXPOSED PAVING EDGES AND WET THE SUBGRADE LIGHTLY.
(B). FILL WITH A 1-2-4 MIX CONCRETE TO WITHIN 2 1/2 OF GRADE OR TOP OF PAVING TAMP THE CONCRETE THOROUGHLY ESPECIAL CARE BEING TAKEN TO COMPLETELY FILL AND TAMP THE CONCRETE INTO THE TRENCH UNDER EDGE OF PAVING.
(C). WHERE THE WIDTH OF TRENCH EXCEEDS 30 INCHES PLACE ONE LAYER OF STEEL FABRIC REINFORCEMENT WEIGHING NOT LESS THAN 35 POUNDS PER 100 SQ. FT., 2" ABOVE THE BOTTOM OF THE CONCRETE.
(D). STRIKE THE SURFACE OF THE CONCRETE OFF ROUGHLY WITH A SHOVEL BUT DO NOT FINISH SMOOTH.



STEP 3.

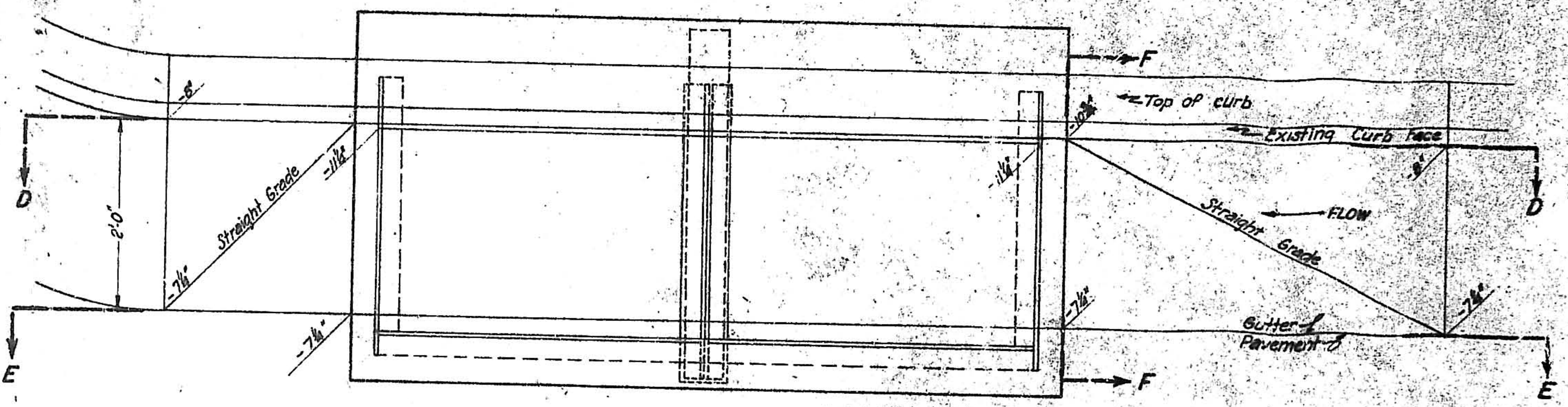
(A). AFTER THE CONCRETE PLACED IN STEP 2. HAS TAKEN ITS INITIAL SET PLACE A 1/2" LAYER OF CLAY, LOAM OR ORDINARY EARTH (NOT SAND) OVER THE SURFACE OF THE CONCRETE.
(B). FILL REMAINDER OF CUT WITH 1-2-4 MIX CONCRETE TO TOP OF PAVING AND FINISH WITH WOODEN FLOAT.
(C). BARRICADE AGAINST TRAFFIC FOR AT LEAST 24 HOURS AFTER PLACING TOP COURSE. AT NIGHT PLACE LANTERNS OR TORCHES BY THE BARRICADES.

NOTE: TO REPAIR CUTS IN PLAIN CONCRETE, ALLEY PAVING. PREPARE THE OPENING AS IN STEP 1. FILL WITH 1-2-4 MIX CONCRETE AND FINISH FLUSH WITH TOP OF PAVING.

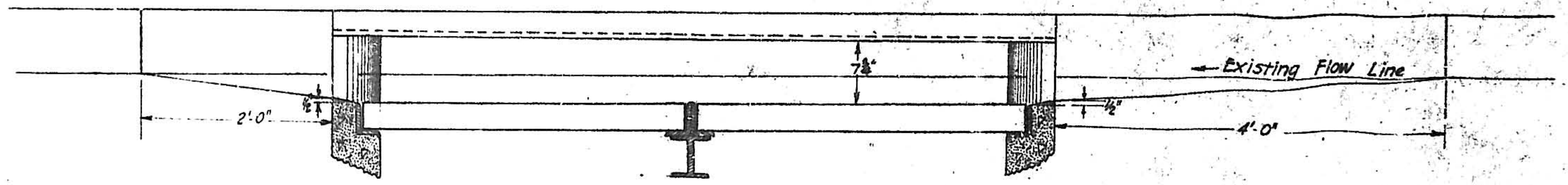

ASPHALTIC CONCRETE WEARING SURFACE
2"
CONCRETE OR BIT. CONC. BASE
4"
1-2-4 CONCRETE
6"
6"
TRENCH
VARIABLE

STEP 4.

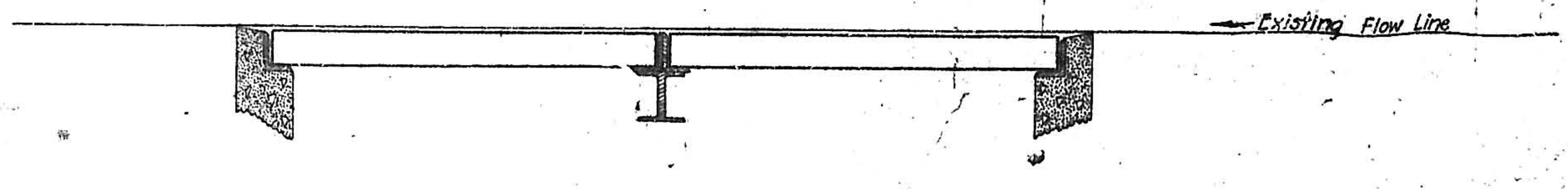
(A). BREAK AND CHIP OUT THE 2" TOP COURSE OF CONCRETE AND 1/2" LAYER OF DIRT.
(B). CUT BACK THE EDGE OF PRESENT ASPHALTIC CONCRETE SURFACE ON AN ANGLE OF 45° WITH VERTICAL OR 1 TO 1 SLOPE.
(C). CLEAN OUT, CUT AND SWEEP CLEAN WITH HEAVY BROOM.
(D). HAUL AWAY AND DISPOSE OF ALL WASTE MATERIALS.
(E). REPAIR CUT WITH ASPHALTIC CONCRETE WEARING SURFACE IN ACCORDANCE WITH CITY PAVING SPECIFICATIONS. THE SURFACE FINISH TO BE THE SAME TYPE AS THAT OF PAVING SURROUNDING THE PATCH.
(F). THE STREET IN VICINITY OF PATCH SHALL BE THOROUGHLY CLEANED UP BEFORE BEING OPENED TO TRAFFIC.



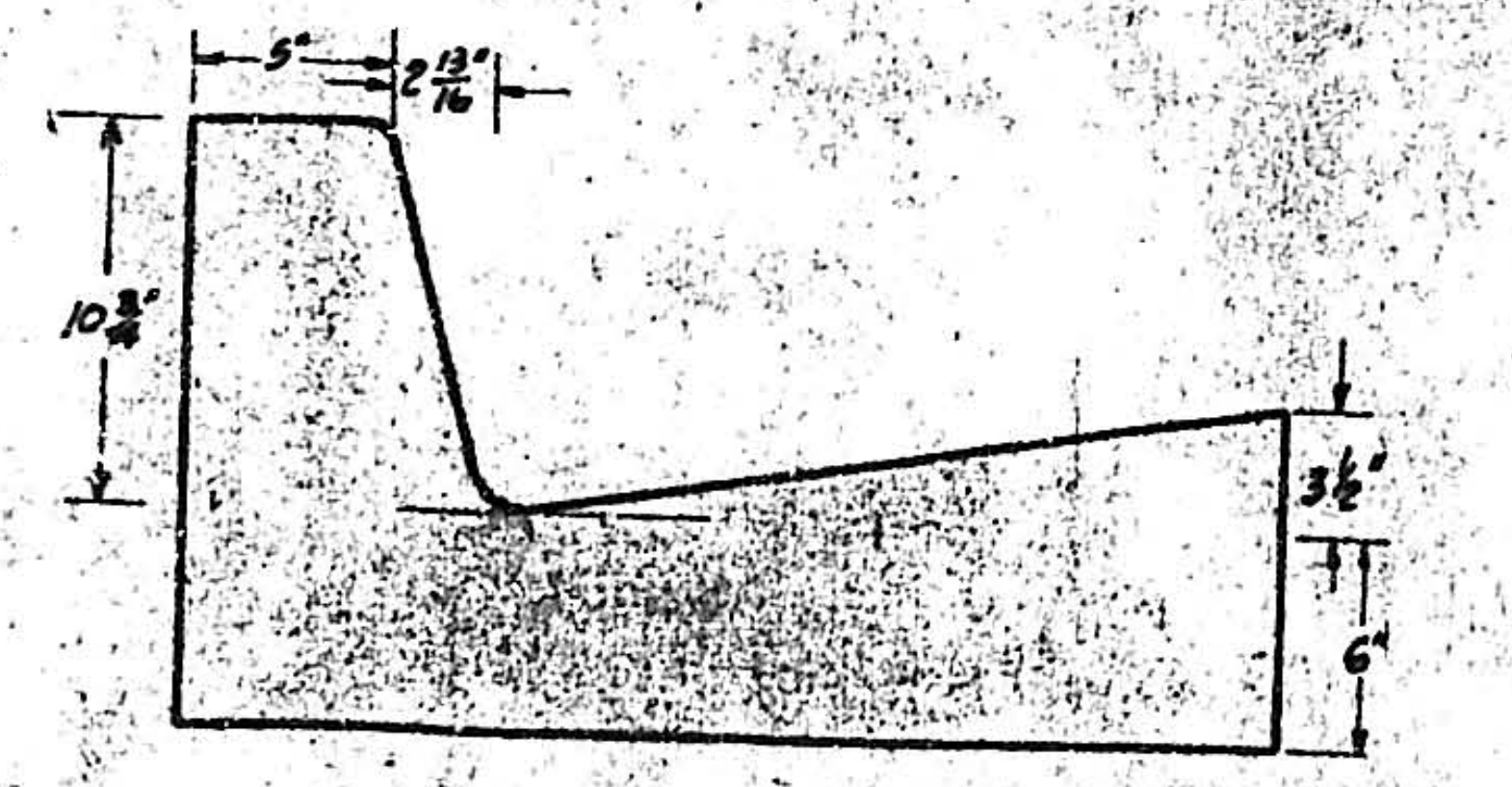
PLAN
STANDARD LOCAL DEPRESSIONS FOR CATCH BASINS
TYPES A,B AND C & C-1



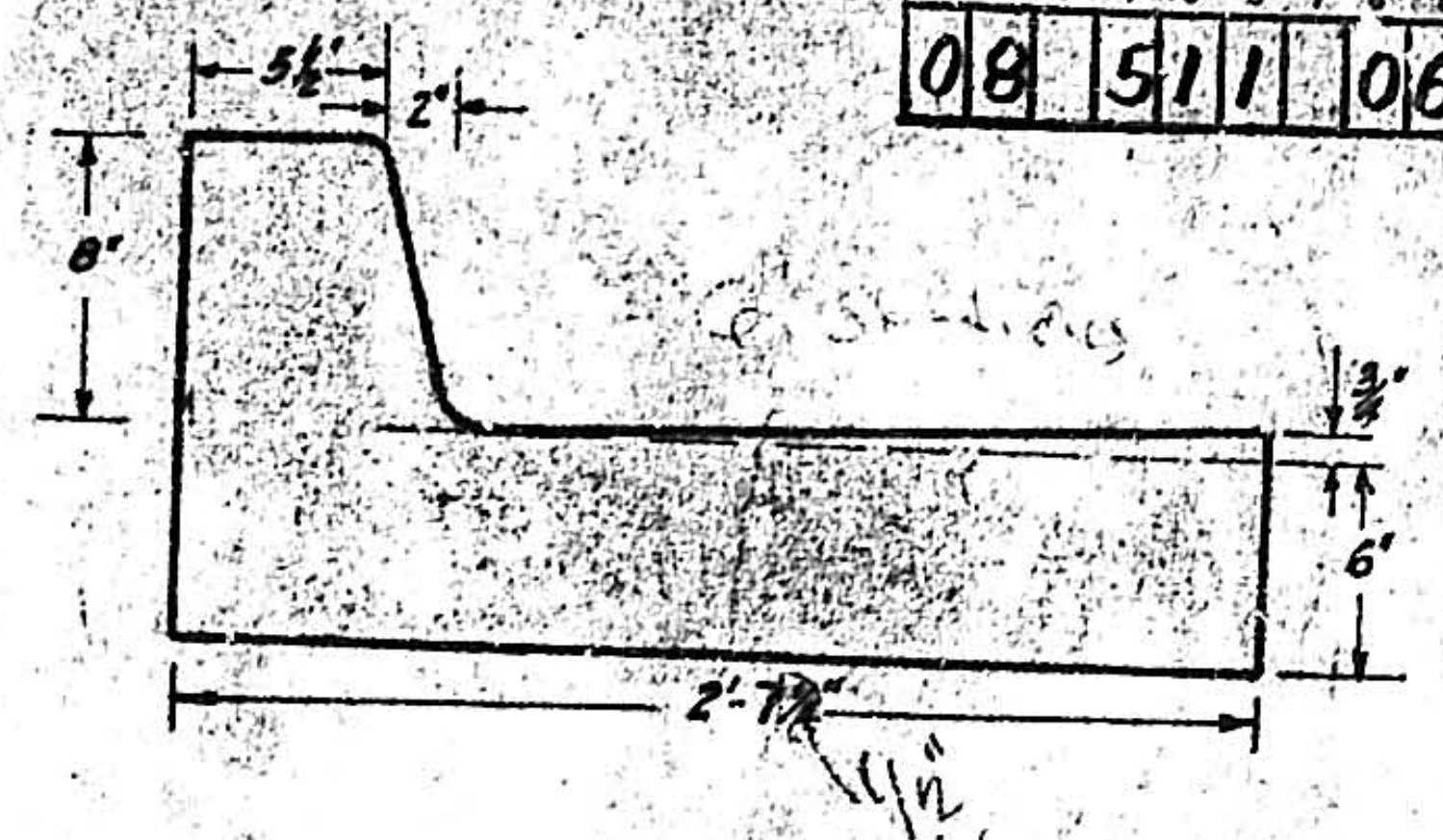
SECTION D-D



SECTION E-E



SECTION F-F



STANDARD SECTION
CURB AND GUTTER

08 511 0651 10

CITY OF ALBUQUERQUE

STANDARD METHOD OF REPAIRING CUTS IN PAVEMENTS - ALSO - STANDARD LOCAL DEPRESSIONS FOR CATCH BASINS

DESIGNED	CONSULTING ENGINEERS	DATE DESIGNED
TRACED	HASIE AND GREEN HERKENHOFF AND TURMEY EDMUND ROSS	DATE REVISED
CHECKED		
SCALE		6 SHEET OF 8

N
Existing 15" Storm Sewer 5' North ℄
San. Sew 3' South ℄
6" Gas 10' South ℄
B.M. El. 5202.27
2 Existing Catch Ba. Type Inlets. Type C double grate
SILVER
STREET
2 Proposed "Type C" Single Grate Catch Basins + Inlet. 12" Connections
B.M. 5209.95
San. Sew. M.H. ℄ and Silver St. for North & South Line. San. Sew. M.H. 3' right ℄ for East and West Lines
San. Sew. M.H. ℄ Silver St. for North & South Lines. San. Sew. M.H. 5' South ℄ for East and West Lines
Proposed "Type C" Single Grate Catch Basin. 12" Connecting Line
Curb Inlet-casting F-134 12" Connection
San. Sew. M.H. 5' South ℄ Silver St. for N.E. & West line.
Proposed "Type C" Single Grate Catch Basins Connect with 12" Pipe
San. Sew. M.H. ℄ Silver St. and Carlisle St. for South and West line
B.M. Top F.H. West Side Carlisle El. 5223.75
WELLESLEY
TULANE
AMHERST
CARLISLE
2" Gas line
Sta. 0+00 identical with Sta. 7+49³ on Silver Street
Curb - 32' width
AMHERST
ST.
AVE
COAL
San. Sew. 15' E of ℄ for Stall Sewer.
10' W
B.M. "+" on top N.W. Cor. Amherst & Coal El. 52..07
2 PROPOSED "TYPE C" SINGLE Grate Catch Basins 12" Connecting lines
San. Sew. 5' S ℄
Gas line 10' S ℄
End of 48' Pavement 1+32
Sta. 6+5?
○ Manhole -- Proposed
◇ " -- In Place
Storm Sewer -- Proposed
" " -- In place
1
2
3
4
5
6
7
8
9
10+00
12
0+00
ELEV. 5210
ELEV. 5200
ELEV. 5220
ELEV. 5210
EXISTING
PROPOSED
PROPOSED
PROPOSED
PROPOSED
PROPOSED
5240
5230
El. 5202.56
San. Sew.
San. Sew. Inv. El. 5203.62
Grades
15" Conc. Pipe S=1.212% V=5.3'/sec
600 - 0' to 6' - 15"
15" Conc. Pipe S=.60% V=4.0 Ft/sec.
154' - 6-8'
12" Conc. Pipe S=.362% V=2.5 Ft/sec
364.6' 0' to 6'
12" Conc. Pipe - S=4.74% - V=9.5 Ft/sec.
300' 0 to 6'
100' 6 to 8'
50' 8 to 10'
50' 10 to 12'
159' 12 to 14'
12" Conc. Pipe S=10.17% V=4.5'/sec
50' 8-10
50' 6-8
51' 0-6
PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
DATE
PROFILE
NOTE BOOK
NO.
PLOTTED
GRADES CHECKED
B. M.'s NOTED
STRUCTURE NOTATIONS CHECKED
DATE

Face to Face of Curbs = 32' on Silver from Wellesley to Tulane, 40' on Silver from Tulane to Amherst and 40' Amherst to Carlisle

See Standard Drawings for limits of Removing old Curb & Gutter

All Water Lines approx. 3' Underground.
All Gas Lines Approx. 2½' Underground.

SHEET QUANTITIES

Depth	12"	15"
0-6	948	600
6-8	150	155
8-10	100	
10-12	50	
12-14	159	
Totals	1175	755

1 - Curb Inlet (Casting F-134)
6 - Single Grate Type Catch Basin
5 - Type "B" MH 0-6' / Existing MH to Basin
M.H. Additional Height - 6'
Cut Flexible Type Pavement 123? L.F.
Remove Existing Curb & Gutter 37 L.F.
Construct Curb & Gutter 40 L.F.

06 511 0751 01 57162

Sheet Quantities

4' Type B standard M.H. (E-6)	11	Ea.
Extra Depth-4' Type B M.H.	40.2	V.F.
Single Grate Type C Inlet and Catch Basin	18	Ea.
Curb Inlet Castings F-134	4	Ea.
Remove Existing Con. C.&G.	128	L.F.
Constructing Conc. C.&G.	208	L.F.
Connecting to existing M.H.	3	Ea.
Cutting Flexible Type Pavement	2013	L.F.

Conc. Pipe

Depth	12"	18"	21"	24"	27"
2-6'	893'		278	319	
6-8'		430'	920'	250'	370'
8-10'		190'	592	115	
10-12'		273'	323	66	
12-14'		121'	65		
14-16'			51		
	893'	1014'	2235	750	370

Sheet 8

2

PRINCETON AVE.
VASSAR AVE.
GIRARD AVE.
DARTMOUTH AVE.
RICHMOND AVE.
BRYN MAWR AVE.
HIGHLAND AVE.
12" SAN. SEWER
22" WATER LINE
8" SAN. SEWER
4" WATER LINE
4" GAS LINE
2 Existing Catch Basins.
T.C.- 5181.57
T.G.- 5180.57
12" Connections
2 Proposed "Type C" SINGLE Grate INLET AND CATCH BASINS.
T.C.- 5181.58
T.G.- 5180.58
BM. ON CURB
construct 10 L.F. of Conc. C.4G. at each inlet
T.C.-- 5186.44
T.G.-- 5185.44
24" STUB
12" Connections
2 PROPOSED "TYPE C" SINGLE GRATE INLET AND CATCH BASINS.
T.C.-- 5186.64
T.G.-- 5185.64
construct 10 L.F. of Con. C4G. at each inlet.
T.C.-- 5197.79
T.G.-- 5196.79
12" Connections
2 PROPOSED "TYPE C" SINGLE GRATE INLET AND CATCH BASINS.
T.C.-- 5197.91
T.G.-- 5196.81
Remove and Replace 10 L.F. of Conc. C4G. at each inlet.
T.C.-- 5207.42
T.G.-- 5208.42
12" Connections
2 PROPOSED "TYPE C" SINGLE GRATE INLET AND CATCH BASINS.
T.C.-- 5209.36
T.G.-- 5208.36
BM. ON CURB EL. 5209.46
Construct 10 L.F. of Conc. C4G. at each inlet.
T.C.- 5219.25
T.G.- 5218.25
12" Connections
2 PROPOSED "TYPE C" SINGLE GRATE INLET AND CATCH BASINS.
T.C.-- 5219.31
T.G.-- 5218.51
Remove and Replace 10 L.F. of Conc. C4G. at each inlet.
SCALE-1"=100'
21" CONC. PIPE
24" CONC. PIPE - S=1.50% - V=9.2 FT./SEC.
21" CONC. PIPE
GRADE
BRYN MAWR AVE.
WELLESLEY AVE.
TULANE AVE.
AMHERST AVE.
CARLISLE AVE.
HIGHLAND AVE.
VENTURA AVE.
CARLISLE AVE.
HERMOSA AVE.
22" Water Line
T.C.-- 5227.90
T.G.-- 5226.90
12" Connections
2 PROPOSED "TYPE C" SINGLE GRATE INLET AND CATCH BASINS.
T.C.-- 5227.46
T.G.-- 5226.46
Construct 10 L.F. of Conc. C4G at each inlet
12" Connections
2 PROPOSED "TYPE C" SINGLE GRATE INLET AND CATCH BASINS.
T.C.-- 5239.50
T.G.-- 5238.50
T.C.-- 5239.65
T.G.-- 5238.65
BM. ON CURB S.E. COR. TULANE & HIGHLAND AVE. EL. 5239.66
Remove and Replace 10 L.F. of Conc. C4G. at each inlet.
8" SAN. SEWER
12" WATER LINE
T.C.-- 5251.96
T.G.-- 5250.96
6" WATER LINE
12" Connections
2 PROPOSED "TYPE C" SINGLE GRATE INLET AND CATCH BASINS.
T.C.-- 5252.50
T.G.-- 5251.50
Remove and Replace 10 L.F. of Conc. C4G. at each inlet
2" GAS LINE
12" Connections
2 PROPOSED "TYPE C" SINGLE GRATE INLET AND CATCH BASINS.
T.C.-- 5267.33
T.G.-- 5266.33
T.C.-- 5267.46
T.G.-- 5266.46
Remove and Replace 10 L.F. of Conc. C4S. at each inlet.
STATIONS IDENTICAL
NOTE: USE EXISTING CURB INLETS & MANHOLE
6" GAS LINE
6" WATER LINE
PLUG OUTLET FROM EXIST. STORM SEWER M.H. TO SAN. SEWER M.H. CUT INTO EXISTING STORM SEWER M.H. TO RECEIVE NEW 18" PIPE
2 Proposed Curb Inlet castings J-134 12" Connections
Remove and Replace 7 L.F. of Conc. C.4G. at each inlet
T.C.-- 5267.11
T.G.-- 5266.71
T.C.-- 5266.59
T.G.-- 5265.59
STATIONS IDENTICAL
2 Proposed Curb Inlet Castings J-134 12" connections
T.C.-- 5274.99
T.G.-- 5273.99
Remove and Replace 7 L.F. of Conc. C.4G. at each inlet
57162
57172
SCALE-1"=100'
STA. IDENTICAL WITH END OF ABOVE. SEE ABOVE NOTES FOR DATA AT THE INTERSECTION.
21" CONC. PIPE - S=1.40% - V=8.0 FT./SEC.
18" CONC. PIPE
GRADE

NOTE: T.C.-- TOP OF CURB.
T.G.-- TOP OF GRATE.
ALL WATER LINES APPROX. 3' UNDERGROUND AND ALL GAS LINES 2½'.

ELEVATIONS FOR TOP OF CURB AND TOP OF GRATE TO BE VERIFIED IN THE FIELD.

NOTE: ALL SAN. SEWERS ARE IN CENTER OF ALLEYS. WATER LINES ARE 4' WEST. GAS LINES ARE 4' EAST.

Sheet Quantities

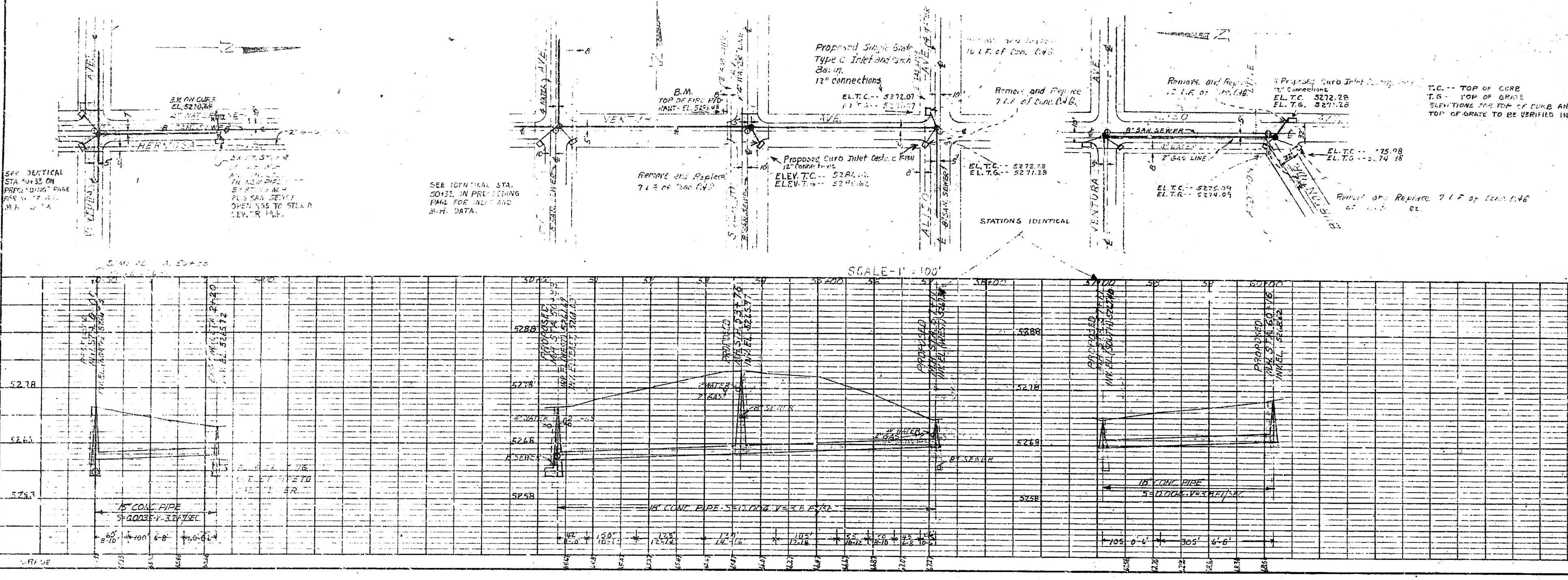
4' Type B Standard M.H. (G-6)	11	Ea.
Extra Depth-4' Type B M.H.	77	V.F.
Single Grate Type C Inlet and Catch Basin	18	Ea.
Curb Inlet Castings J-134	4	Ea.
Remove Existing Conc. C4G.	128	L.F.
Constructing Conc. C4G.	208	L.F.
Connecting to existing M.H.	3	Ea.
Cutting Flexible Type Pavement	2,015	L.F.

Conc. Pipe

Depth	12"	18"	21"	24"	27"
0-6'	893'		278'	319'	
6-8'		430'	726'	250'	370'
8-10'		190'	592'	115'	
10-12'		273'	323'	66'	
12-14'		126'	65'		
14-16'			37'		
	893'	1019'	2235'	750'	370'

PLATE V—PLAN-PROFILE D. P. R. & E. S. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

Sheet 8



Sheet Quantities					
4' Type B Standard M.H. (0-5')					Ea.
Extra Depth - 4' Type B M.H.				[illegible]	L.F.
Single Grate Type C Inlet and Catch Basin					[illegible]
Curb Inlet Castings F-134				[illegible]	[illegible]
Remove Existing Conc. C.&G.				[illegible]	L.F.
Constructing Conc. C.&G.				[illegible]	L.F.
Connecting to existing M.H.				1	Ea.
Cutting Existing Type Pavement				[illegible]	L.F.
Conc. Pipe					
Depth	12"	15"	18"		
0-6'	150'	60	131		
6-8'		100	[illegible]		
8-10'		60	72		
10-12			55		
12-14			250		
14-[illegible]			130		
Total	150'	220'	1088'		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	1	1		0	9	5	1				0	1									5	7	1	7	2

PLAN

PROFILE

PLATE 2—PLAN-PROFILE © F. & R. R. E. STANDARD
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