Storm Water Sewer #560

MAPLE SHADE ADDITION

PROJECT NO. 468-83358

OCA # 751310

GENERAL NOTES

1. Contractor will be required to provide a minimum advance notice of forty eight (48) hours to utility companies prior to starting any excavation as follows:

Kansas One-Call	687-2470

The Contractor must notify the following in case of an emergency:

Cox Communications	262-0661
Kansas Gas Service	383-8600
K.G.E. Electric	383-8600
Peoples Natural Gas Company	1-800-303-0357
Southwestern Bell Telephone Company	1-800-286-8313
City of Wichita Water Department	262-6000
City of Wichita Sewer Maintenance	262-6000

2. The Contractor shall give all property owners and/or tenants of developed property directly abutting the construction of this project a minimum of ten (10) days advance notice prior to start of construction.

3. 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.

4. This project is to be constructed in accordance with City of Wichita Standard Specifications for the Construction of City Projects, March 1998, and the latest edition of the Policy on Construction of Public Works Projects by Private Contract.

5. Any areas within public right of way which are disturbed by construction of this project shall be restored in accordance with Administrative Regulation AR78.

6. All storm sewer materials and construction to comply with City of Wichita standard specifications.

7. The Contractor shall seed, fertilize and mulch all disturbed areas per City specifications upon completion of construction.

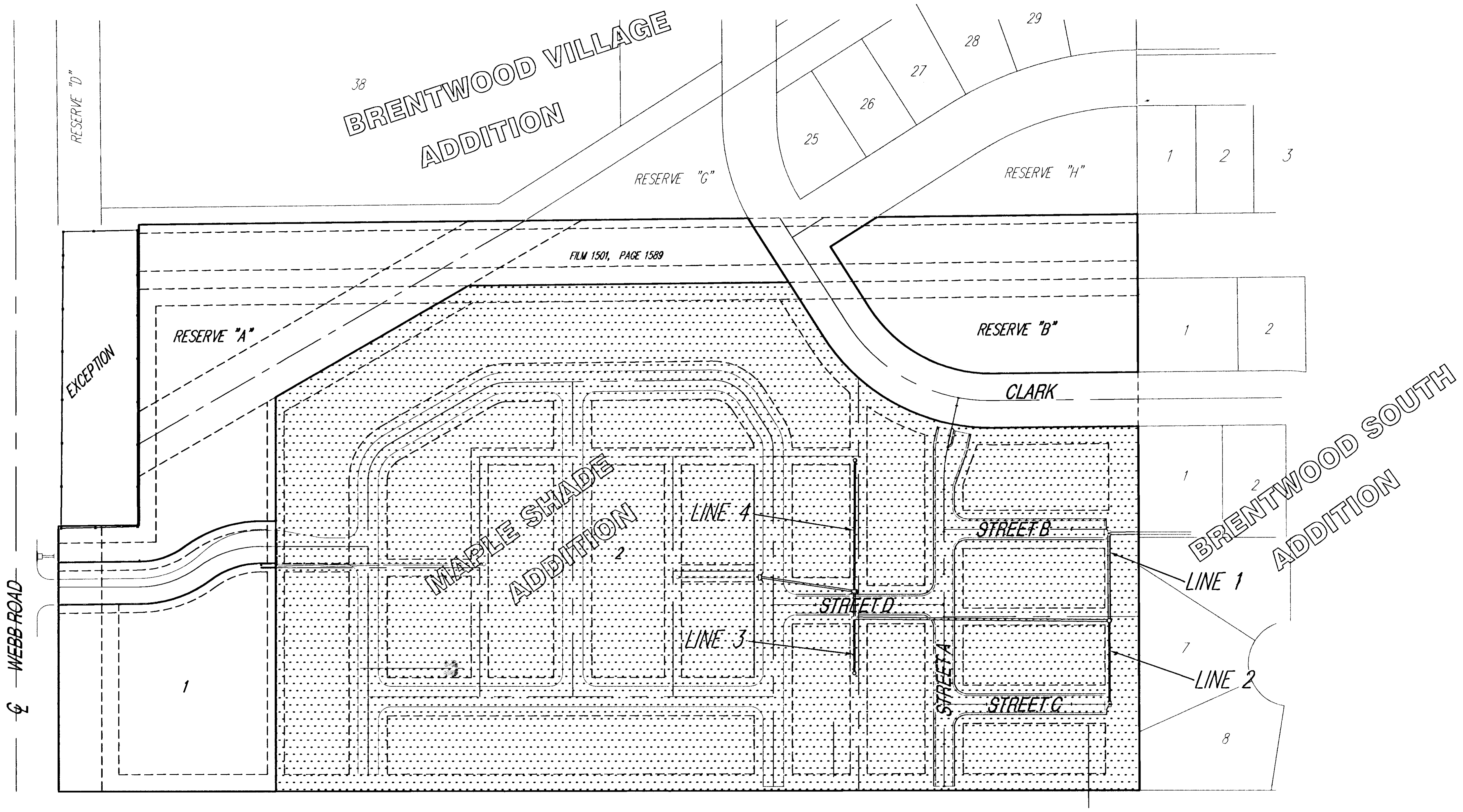
BENCH MARKS

BENCH MARK#1: USGS BRASS PLUG 28' S. & 530' W. OF CENTERLINE INTERSECTION OF CAPRI & PAWNEE
ELEV.=1386.25 NGVD

BENCH MARK #2: CITY OF WICHITA STD. DISC 20.8' W & 54.5' S. OF CENTERLINE INTERSECTION DALTON & PAWNEE
ELEV.=1379.60

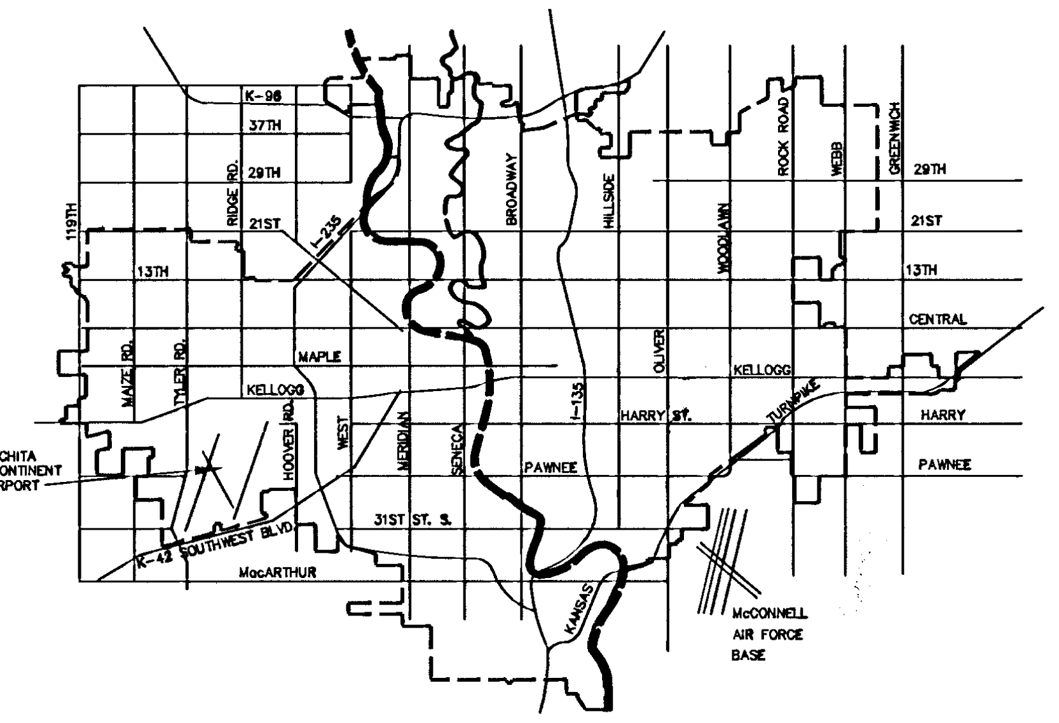
INDEX OF SHEETS

BOOKED
10-2-02
MCG
C-225



▨ **IMPROVEMENT DISTRICT**

Scale: 1" = 100'



VICINITY MAP

CHRISTOPHER MICHAEL BOHM
11631
2/27/02

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main
Wichita, Kansas 67203
www.rbkansas.com
(316) 264-8008
(316) 264-4621 fax
E-mail: info@rbkansas.com

"AS BUILTS" 8-14-02 TE

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, P.E. - CITY ENGINEER

DESIGN CMB
DRAWN EJG
REVISED
UTILITY
DATE Feb. 26, 2002
REVIEW

PROJECT NUMBER 468-83358
DRAWING FILE Storm Water Sewer

Maple Shade Addition
Incidental Drainage
WICHITA, KANSAS

Ruggles & Bohm, P.A.
Engineering, Surveying, Land Planning
924 North Main
Wichita, Kansas 67203
www.rbkansas.com
(316) 264-8008
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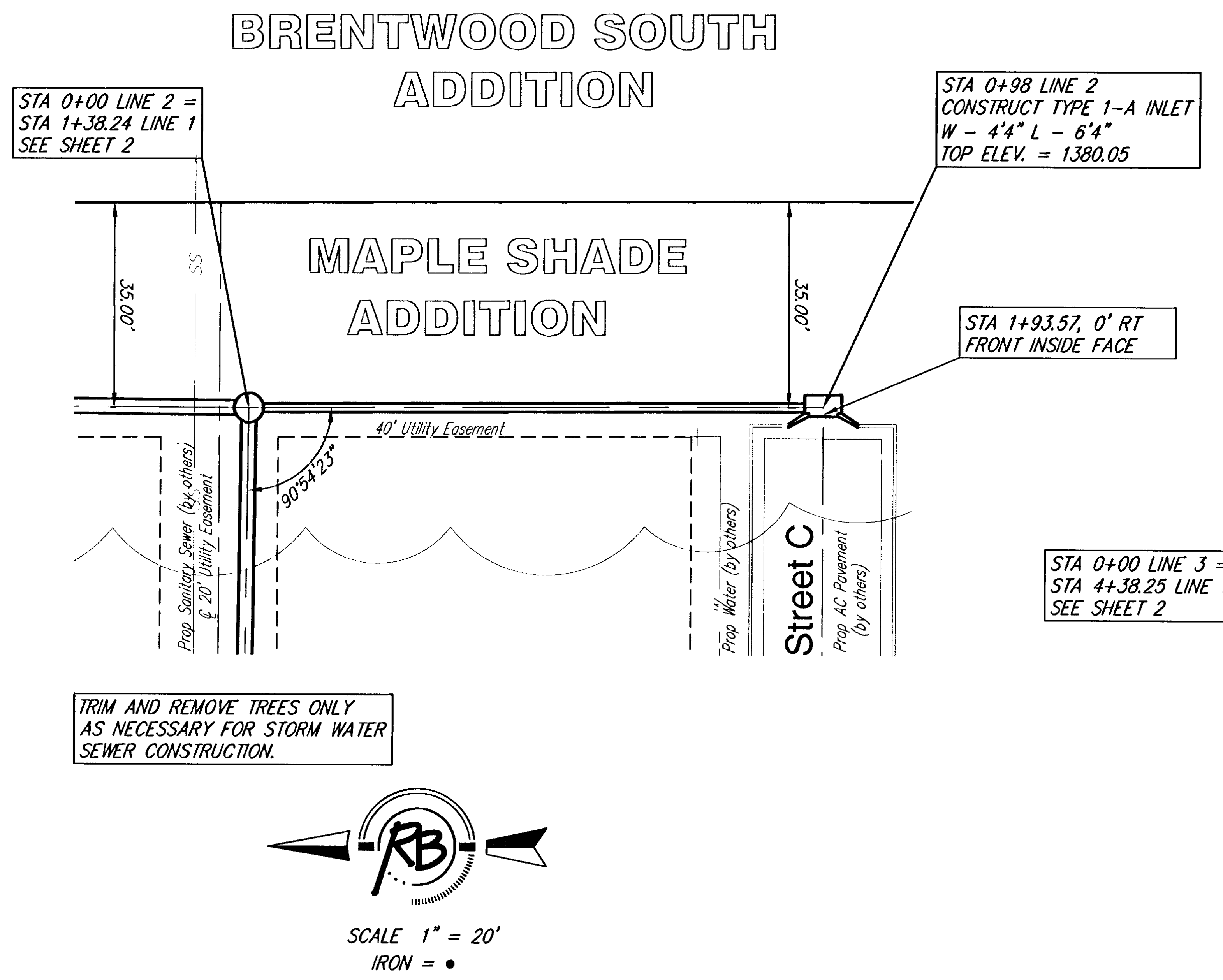
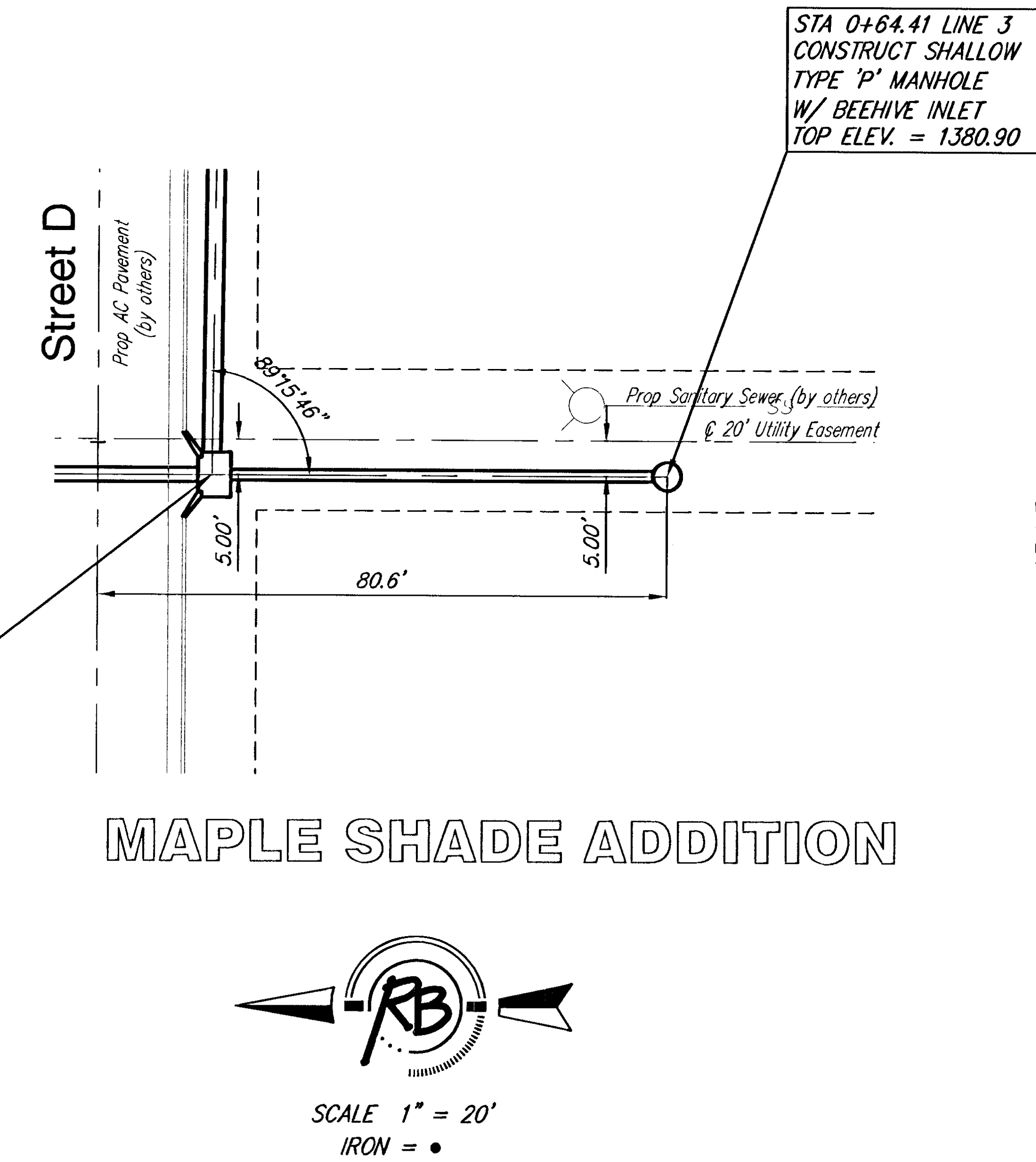
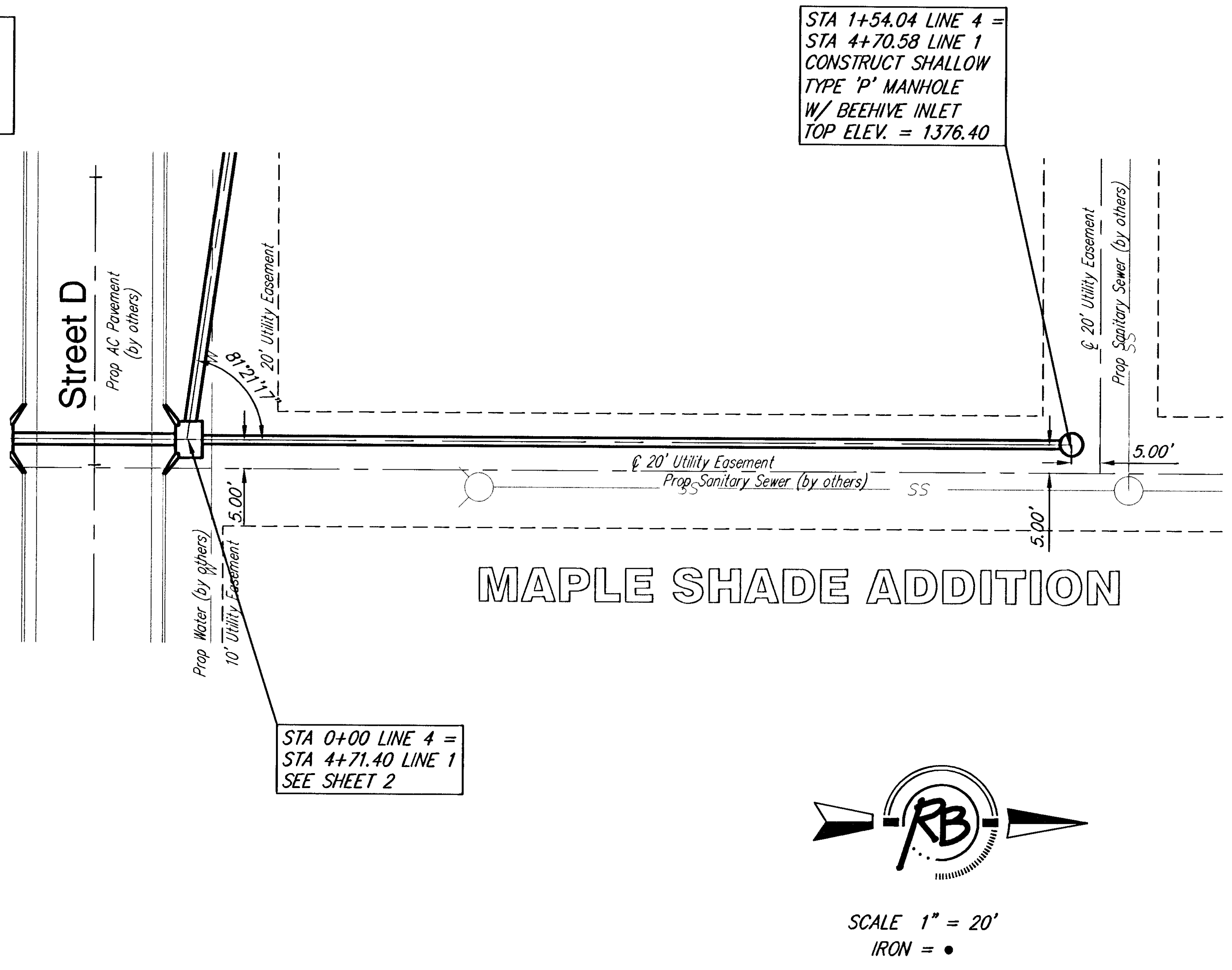
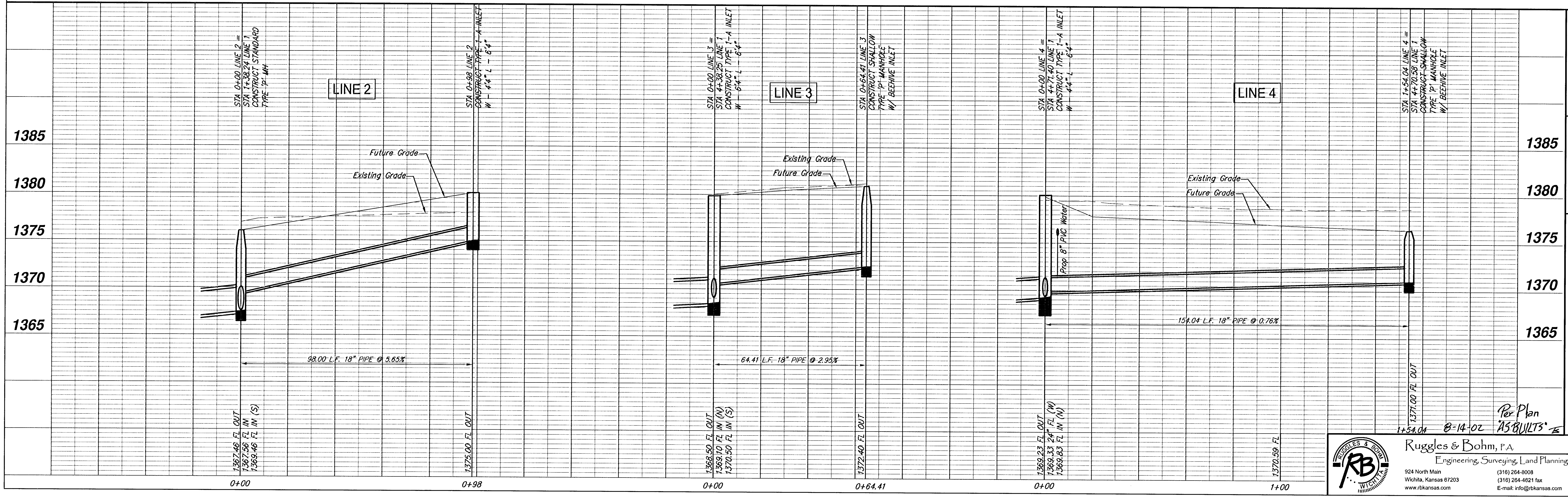
E-mail: info@rbkansas.com

SRB JOB 1934E
SHEET 2 OF 7









8-14-02 Per Plan "AS BUILTS" E

REVISED
DRAWN EJG
REVIEW
DESIGN CMB
DATE Feb. 26, 2002
UTILITY

PROJECT NUMBER 468-83358
DRAWING FILE Storm Water Sewer

Maple Shade Addition
Incidental Drainage
WICHITA, KANSAS

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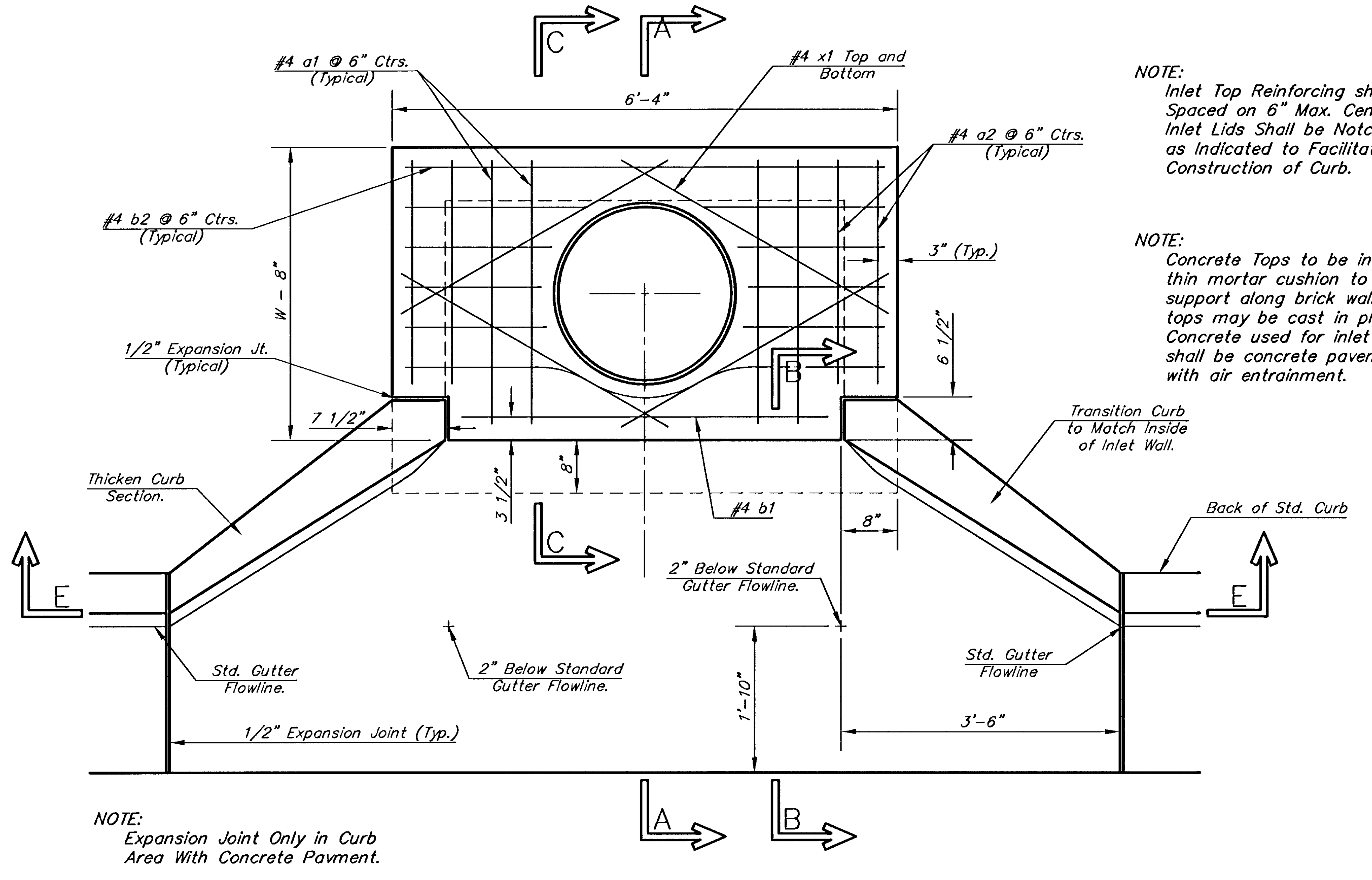
SRB JOB 1934E
SHEET 3 OF 7

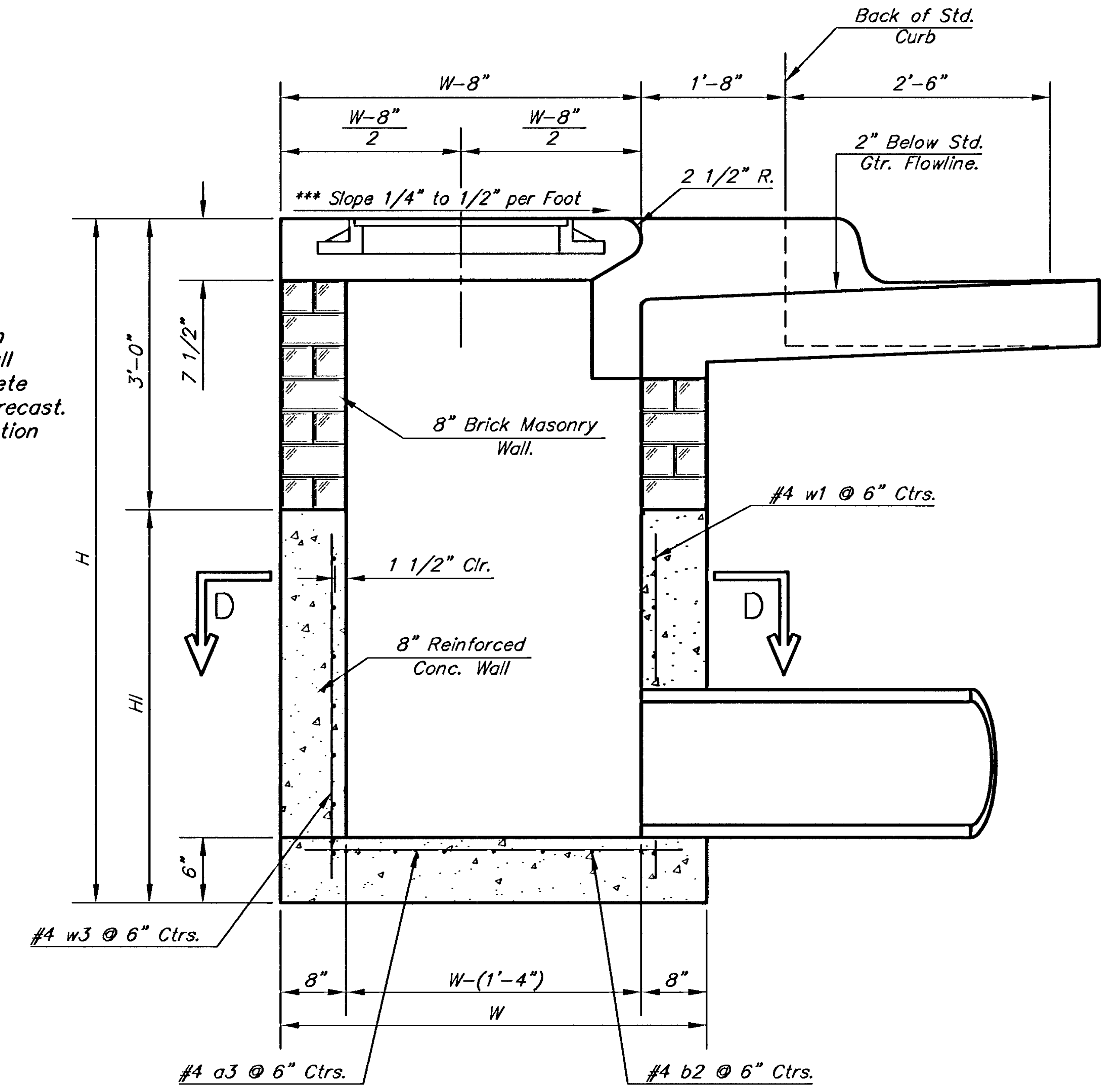


NOTE:
Inlet Top Reinforcing shall be Spaced on 6" Max. Centers. Inlet Lids Shall be Notched Out as Indicated to Facilitate Construction of Curb.

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

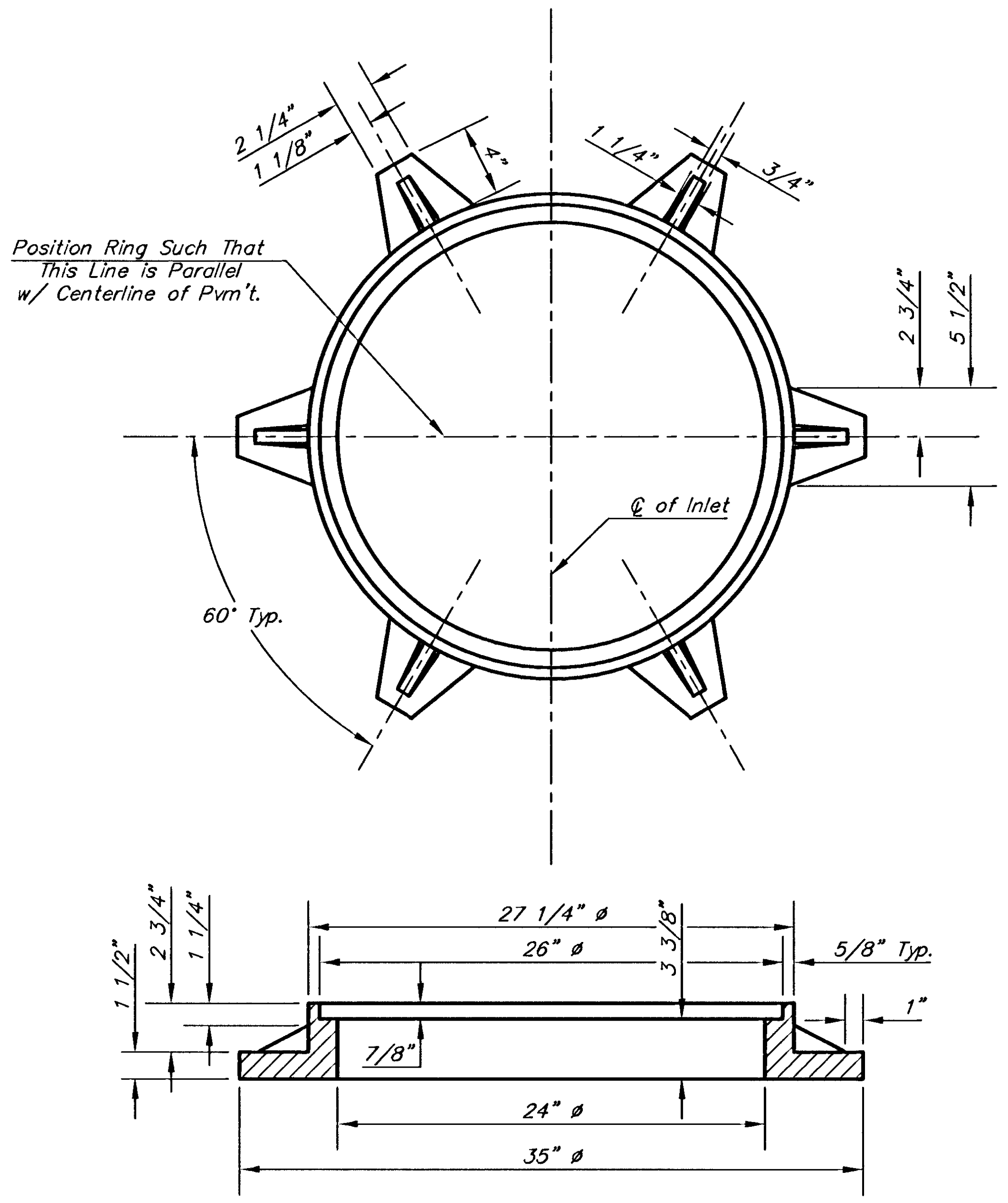
NOTE:
Expansion Joint Only in Curb Area With Concrete Pavment.

PLAN



SECTION A–A

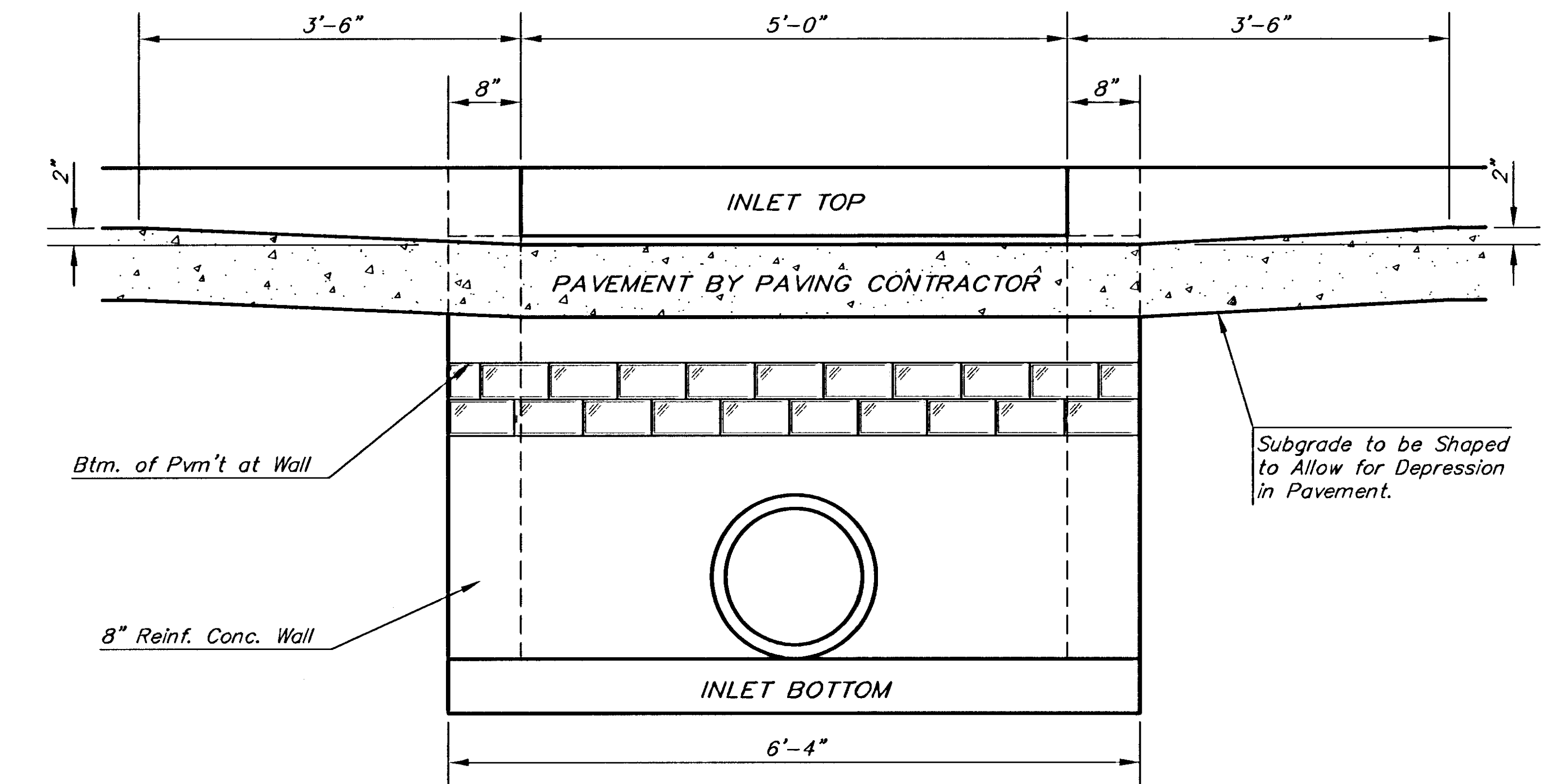
***NOTE: Slope of Inlet tops to Match Sidewalk or Parking Slopes within Limits Indicated.



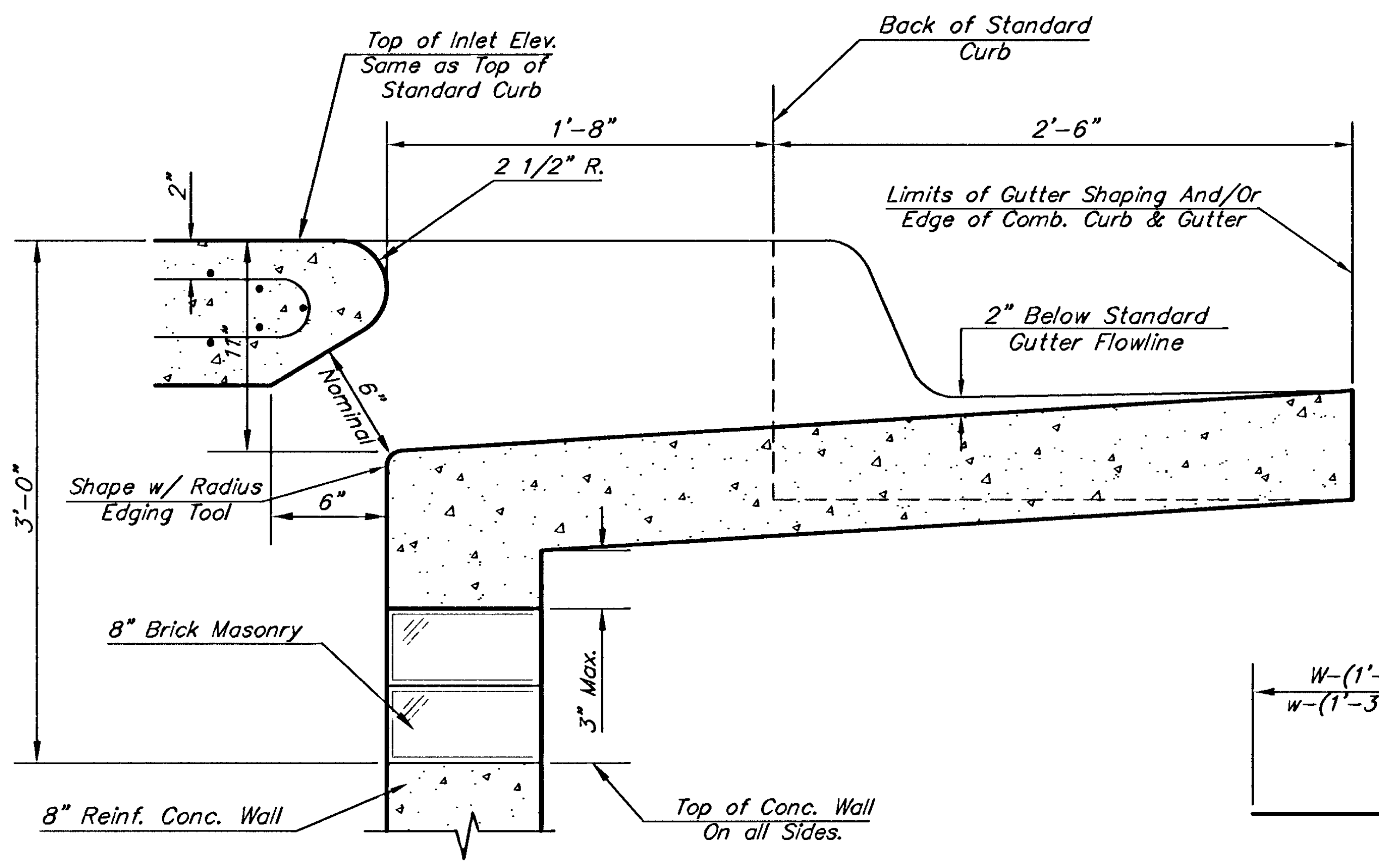
MANHOLE RING AND COVER

Weight = 180 Lbs.

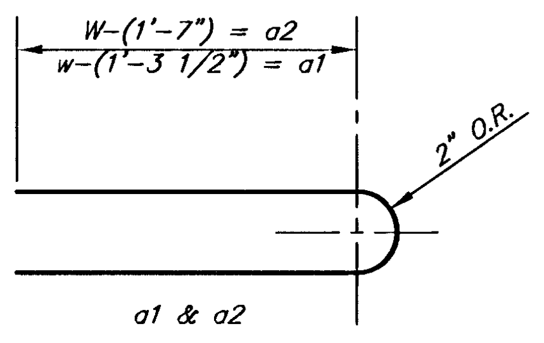
*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



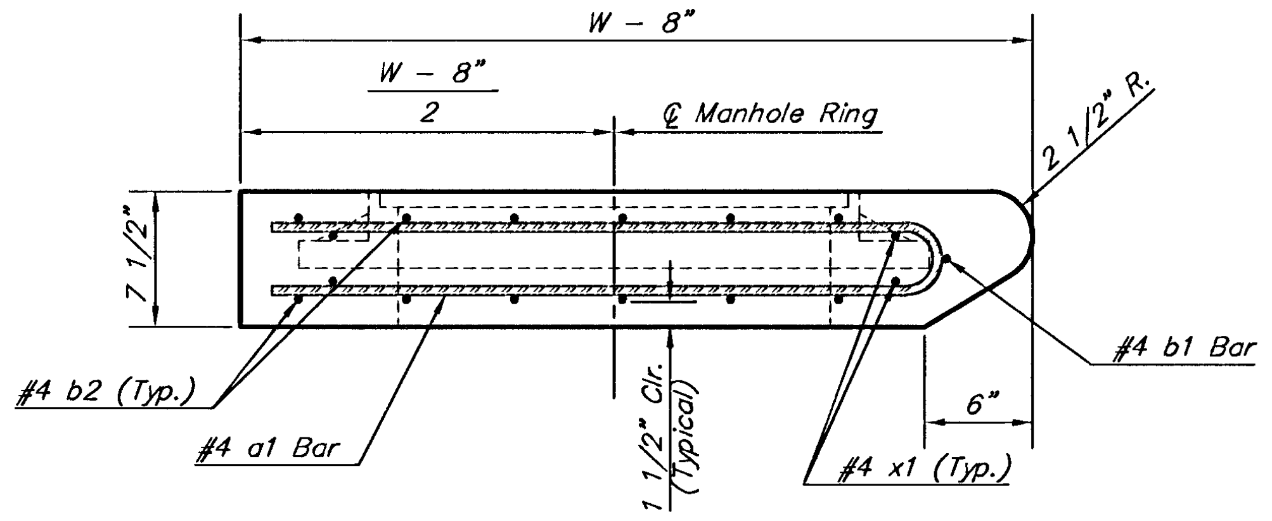
SECTION E–E



SECTION B–B

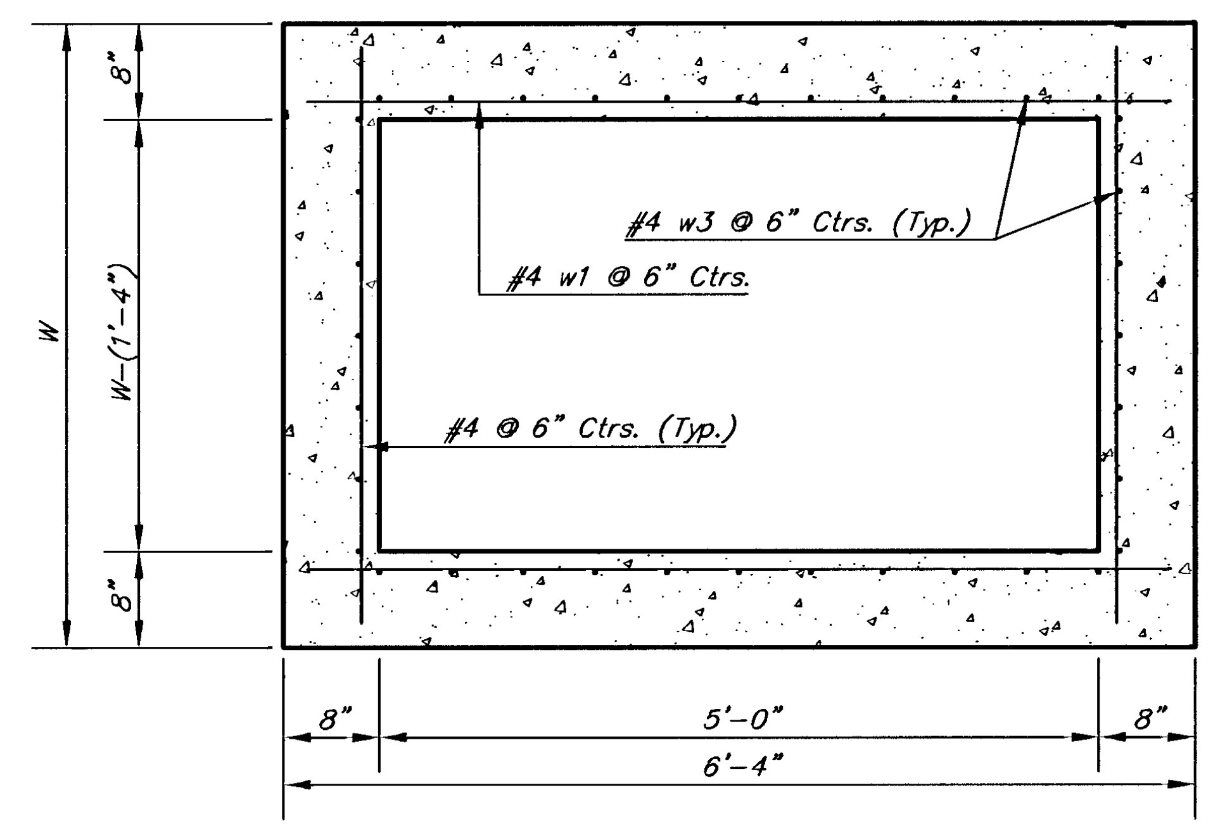


BENDING DIAGRAM



SECTION A–A

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±



SECTION D–D

NOTE: Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base 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 8 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											
		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
* a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	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"
x1	#4	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	5'-2"
WALL REINFORCING											
		W = 4'-4"		W = 5'-4"		W = 6'-4"		W = 7'-4"		W = 8'-4"	
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
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	②	36	②	40	②	44	②	48	②

* Field Bend or Cut Reinforcing as Required for Clearance.

① 4 (HI – 12") (HI – 21") Rounded down to nearest 0.5'

② HI – 3"

THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL – SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

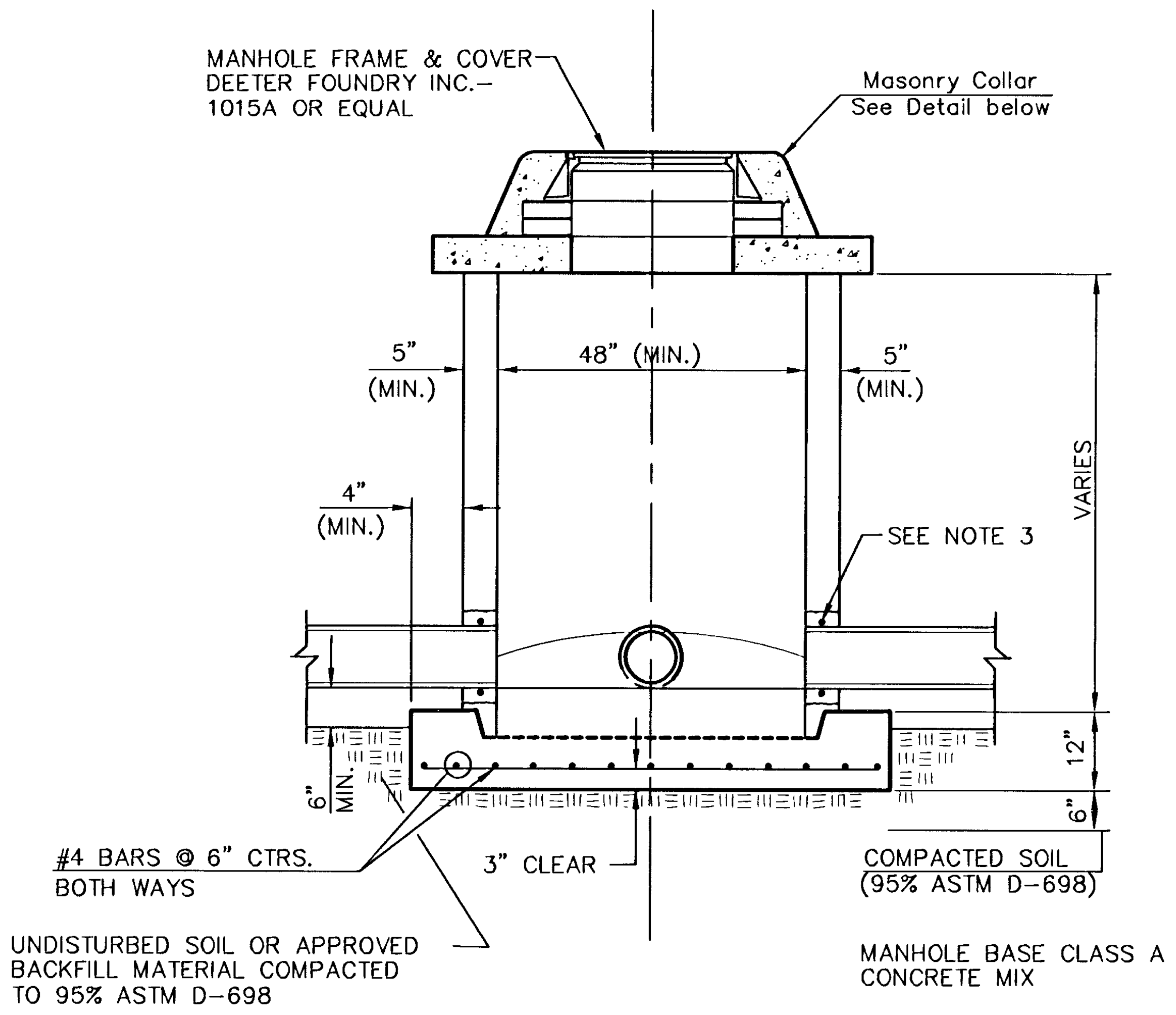
STANDARD TYPE 1-A
CURB INLET
OPENING = 6"x5'-0"

M. E. LINDEBAK P.E. – CITY ENGINEER

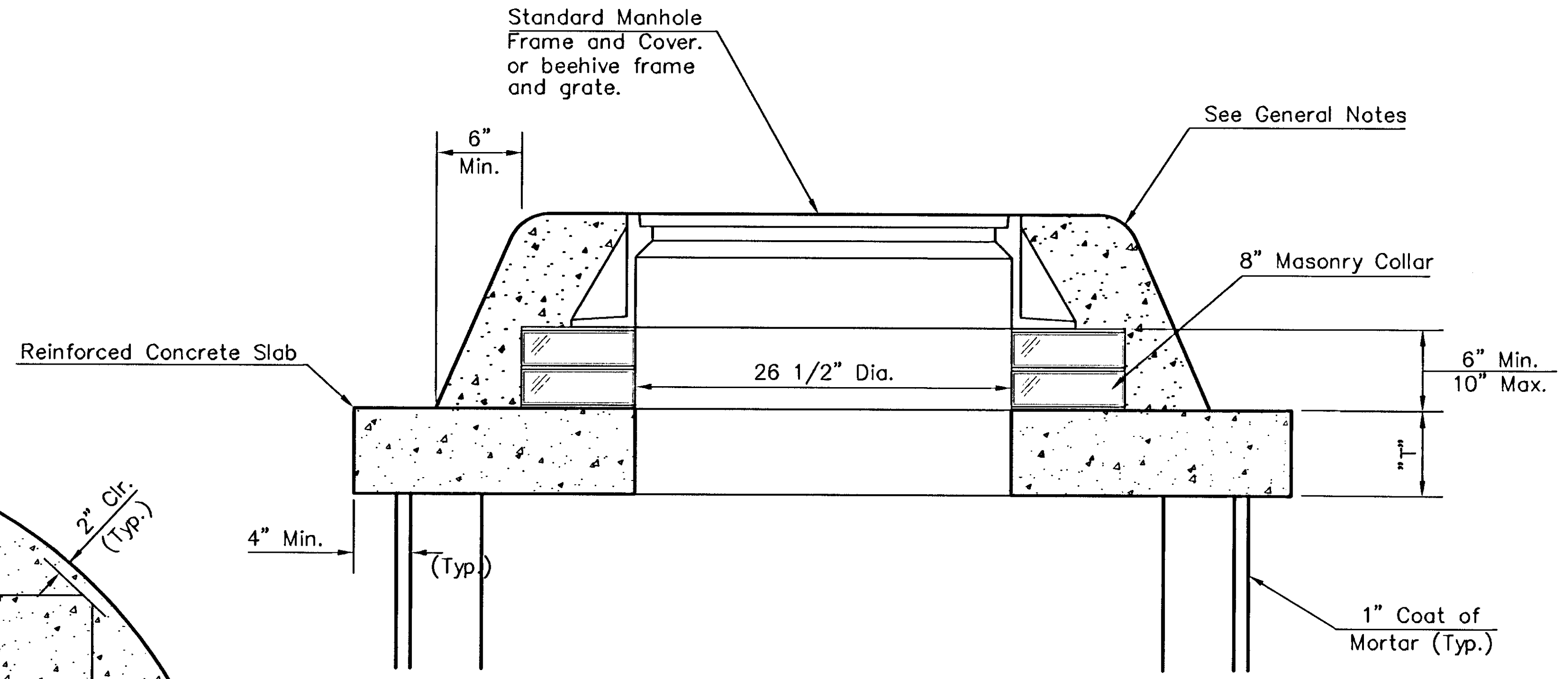
PROJECT NUMBER	OCA #
468-83358	751310

DATE
MAR 96

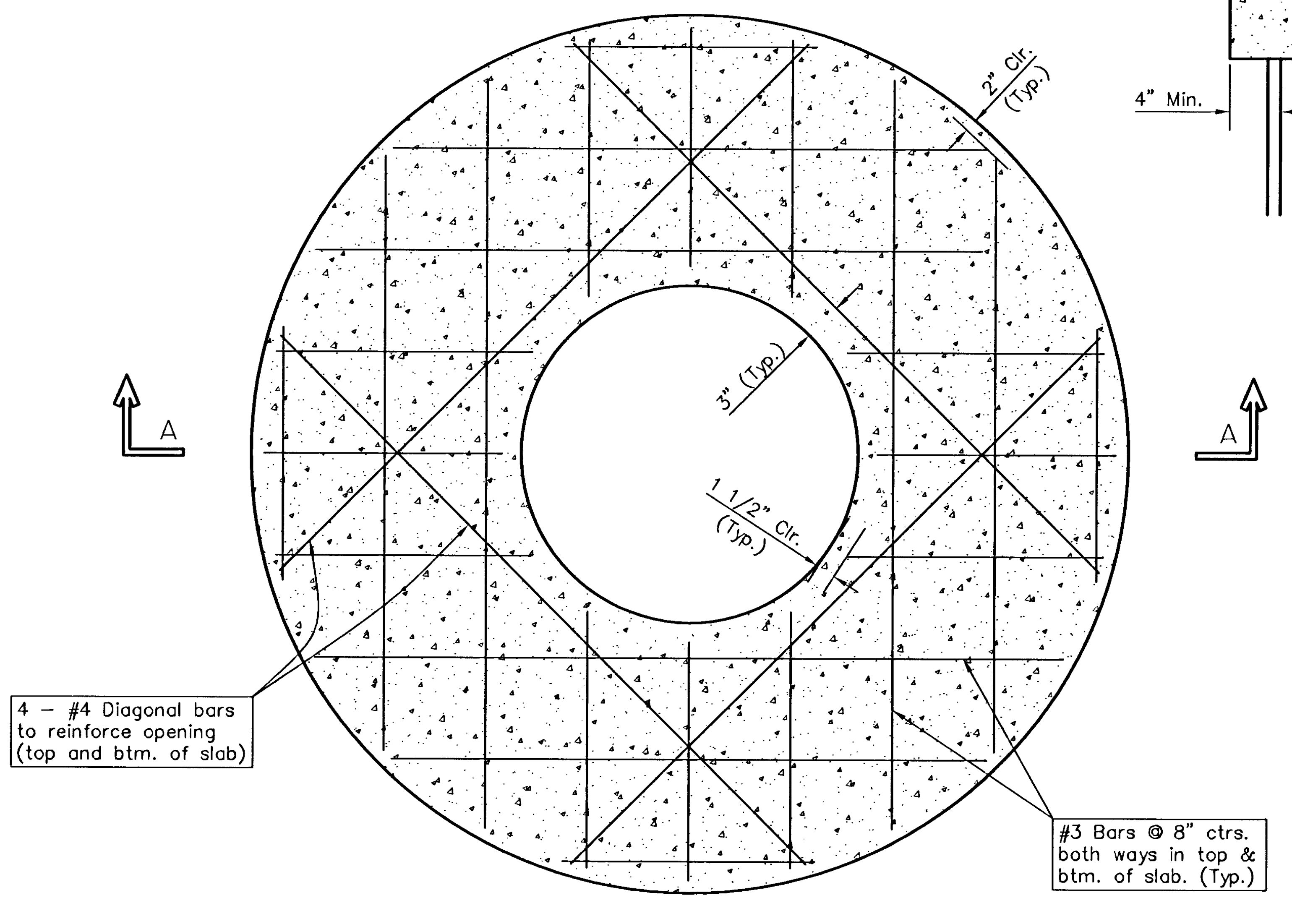
SHEET 4 OF 7



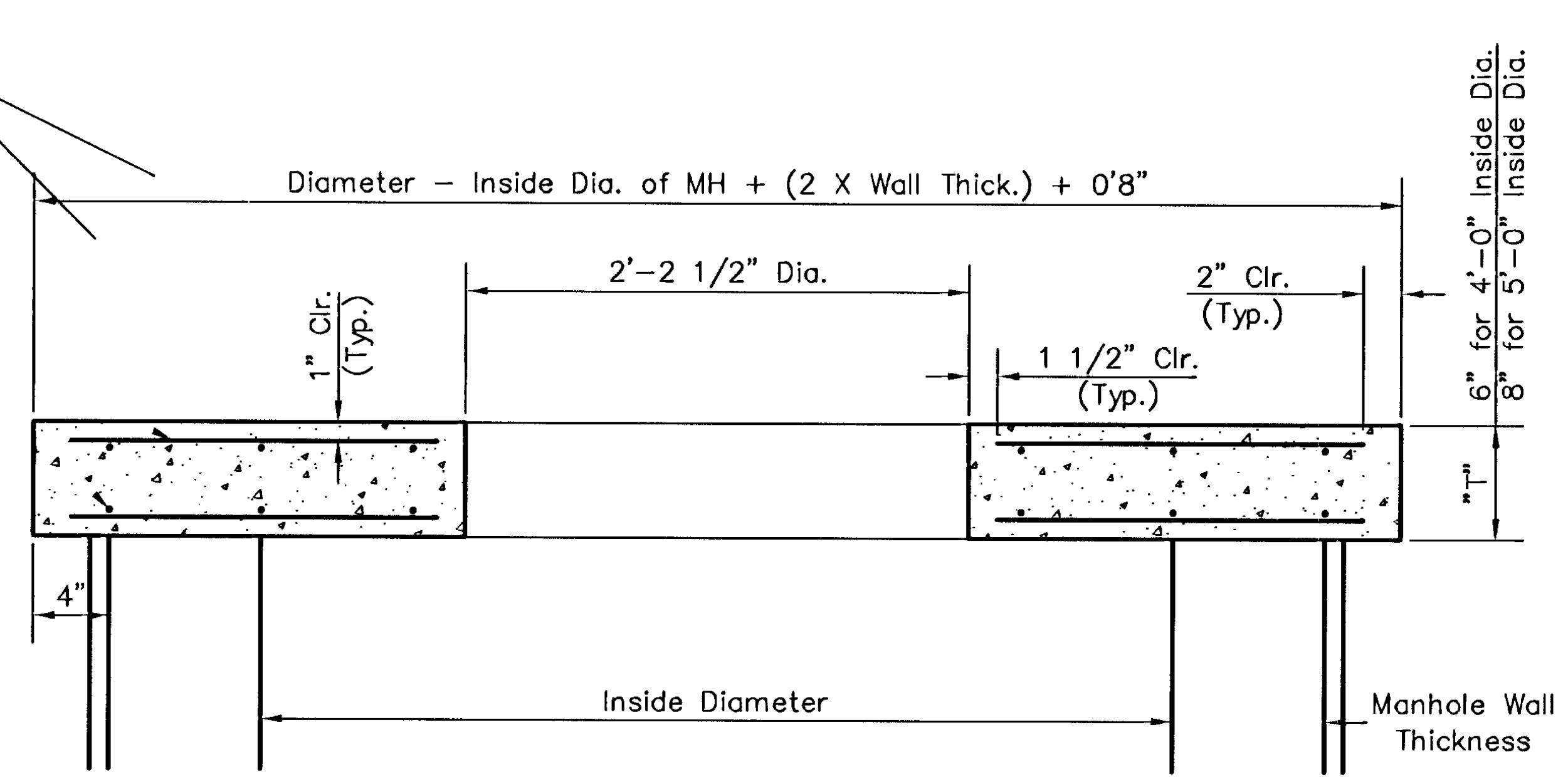
SHALLOW TYPE "P" MANHOLE



MASONRY COLLAR DETAIL

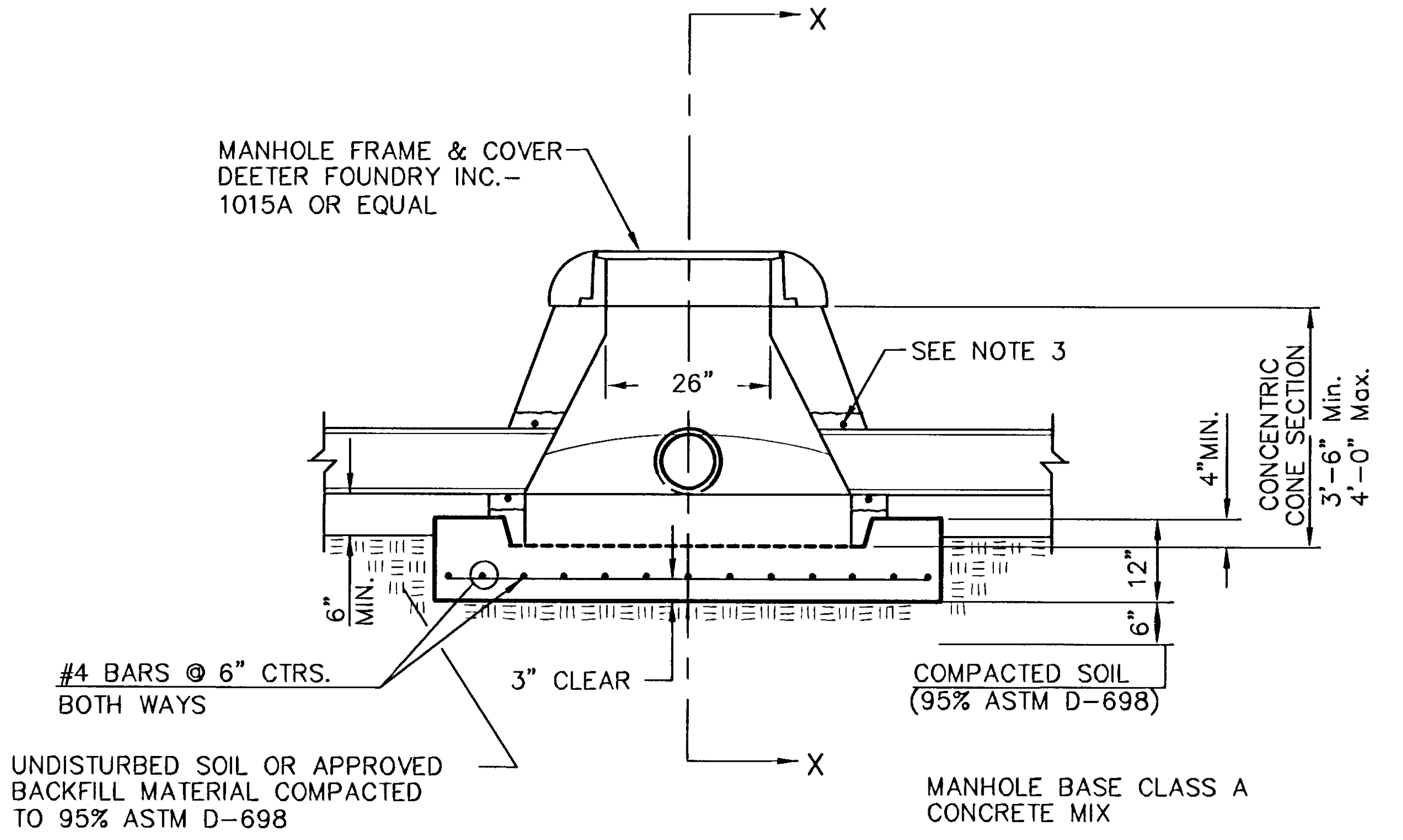


PLAN

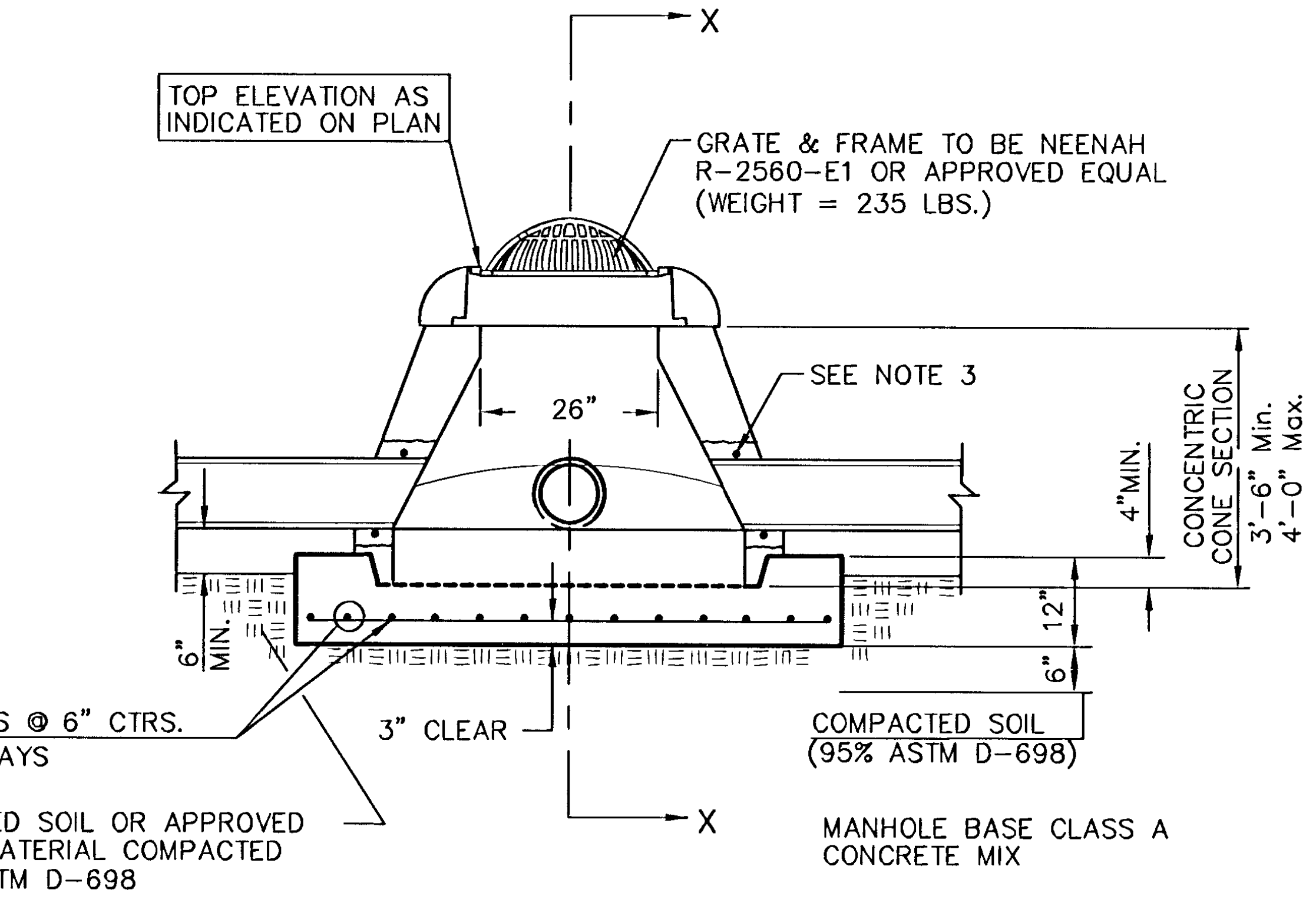


SECTION A–A

CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "P" MANHOLE



SPECIAL SHALLOW TYPE "P" MANHOLE WITH BEEHIVE FRAME & GRATE

GENERAL NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS TNEMEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL BE CLASS A CONCRETE THROUGHOUT. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. 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.
11. 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 AT LEAST 3" 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.
12. 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 EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. 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.
13. 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 MAHOLE. 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.
14. 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 DRAWING.
15. ALL BRICK USED IN MANHOLE CONSTRUCTION SHALL MEET GRADE SW OF ASTM C652 OR C62-87.

SHALLOW TYPE "P" MANHOLE DETAILS
WITH BEEHIVE INLET

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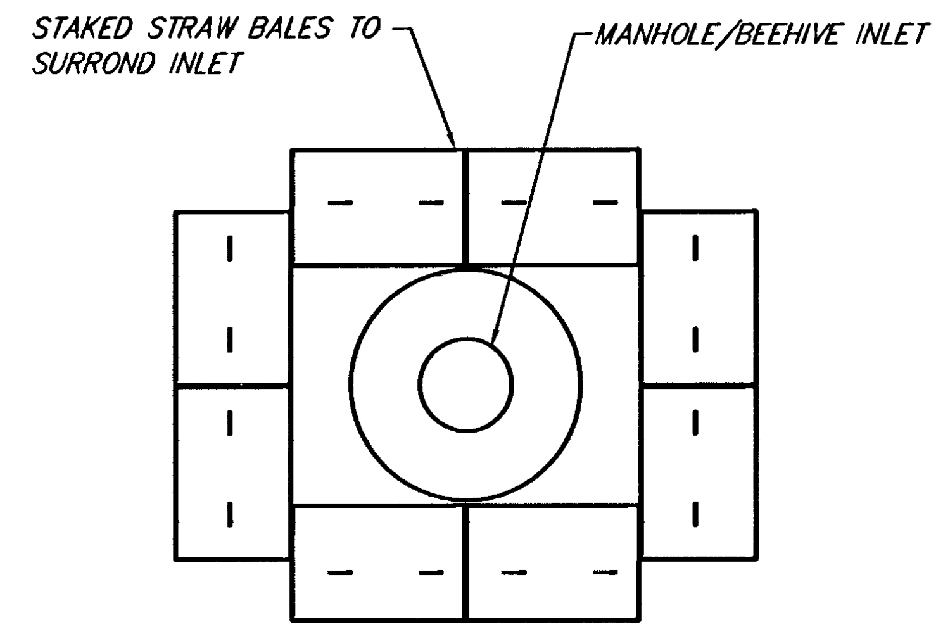
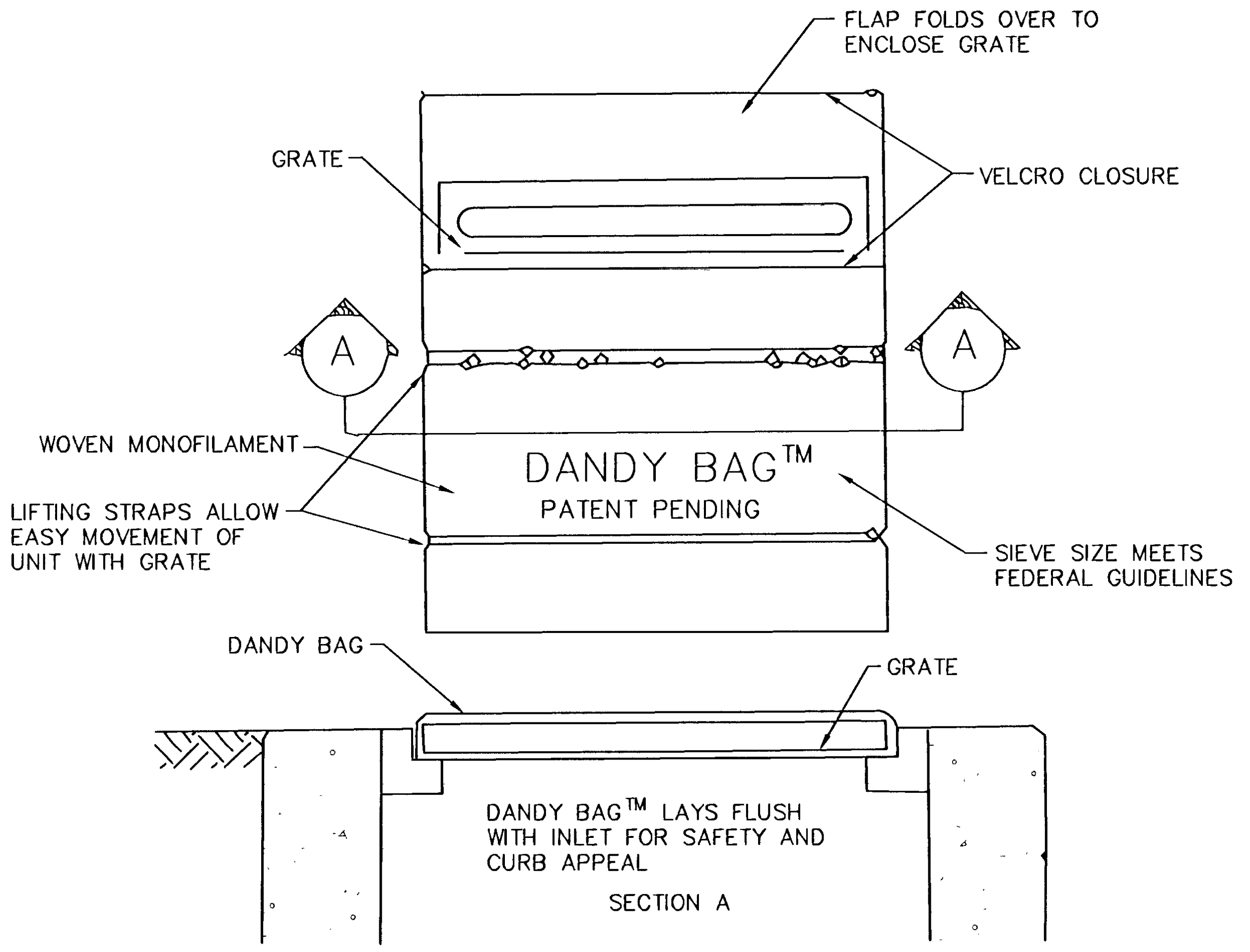
E-mail: info@rbkansas.com

DESIGN C.O.W.
DRAWN C.O.W.
REVIEW
UTILITY
DATE July 13, 1998
SRB JOB 1934E
SHEET 5 OF 7
DRAWING FILE (SRB)Beehive Manhole Detail
PROJECT NUMBER 468-83358



STRAW BALE INLET SEDIMENT BARRIER DETAIL

DANDY BAG™ PATENT PENDING SPECIFICATIONS AND FACT SHEET



Installation: Stand grate on end. Place Dandy Bag™ over grate. Roll grate over so that open end is up. Pull up slack.

Tuck flap in and press velcro strips together. Be sure end of grate is completely covered by flap or Dandy Bag™ will not work properly.

Holding handles, carefully place Dandy Bag™ with grate inserted into catch basin frame.

Maintenance: With a stiff bristle broom or square point shovel. Remove silt & other debris off surface after each event. Remove fine material from inside envelope as needed.

Inspection: Remove unit with grate inside, inspect catch basin and replace unit.

MINIMUM AVERAGE FABRIC VALUES

PROPERTIES	TEST METHOD	TEST METHOD
Grab Tensile Strength (lbs)(warp/fill)	ASTM D 2632	360/260
Grab Elongation (%)(warp/fill)	ASTM D 4632	27/15
Trapezoid Tear (lbs)(warp/fill)	ASTM D 4593	100/80
Puncture (lbs)	ASTM D 4833	130
Mullen Burst (psi)	ASTM D 3786	515
Ultra-Violent Resistance (% @ 500 hrs.)	ASTM D 2355	90%
Apparent Opening Size (U.S. sieve size)	ASTM D 4751	30
Permitivity (sec^{-1})	ASTM D 4891	110
Permeability k (cm/sec)	ASTM D 4491	05
Open Area (%)	COE0221586	11%
Mass per Unit Area (oz/SY)	ASTM D 5261	58
Water Flow Rate (gpm/sf)	ASTM D 4891	110

DANDY PRODUCTS Inc
800-591-2284
614-875-2280 local
2011-R Harrisburg Pike
Grove City, Ohio 43123
FAX 614-875-6305
e-mail: dandy@oscine1.com

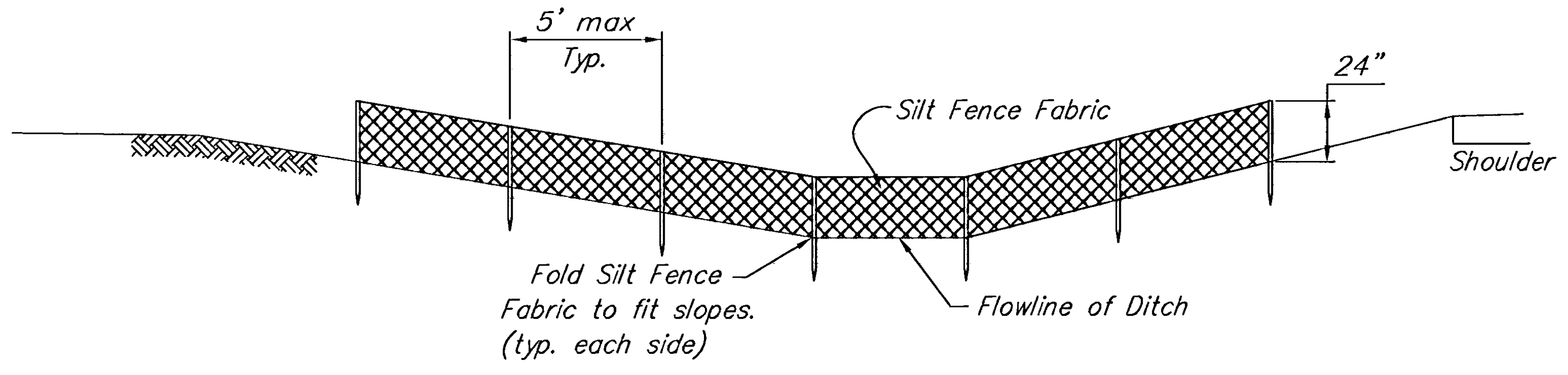
GENERAL NOTES

STRAW OR HAY BALE NOTES:

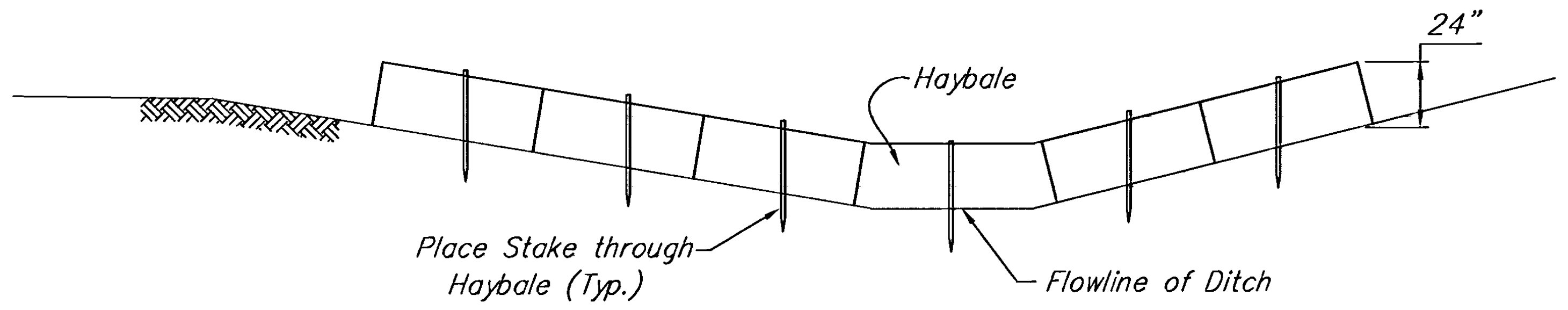
1. Place Bales tightly together, with loose straw or hay wedged between Bales to close off any openings.
2. Wood Stakes shall be 2" x 2" (nom.) x 4'-0" long (min.)
3. Use as many Bales as necessary to completely block the entire width of ditch flowline, with excess Bale length cut into fore and back slopes.
4. Use as many Bales as necessary on fore and back slopes to insure water does not flow around barrier.
5. Use only twine to bind bales. The use of wire binding is prohibited because it does not readily biodegrade.

SILT FENCE NOTES:

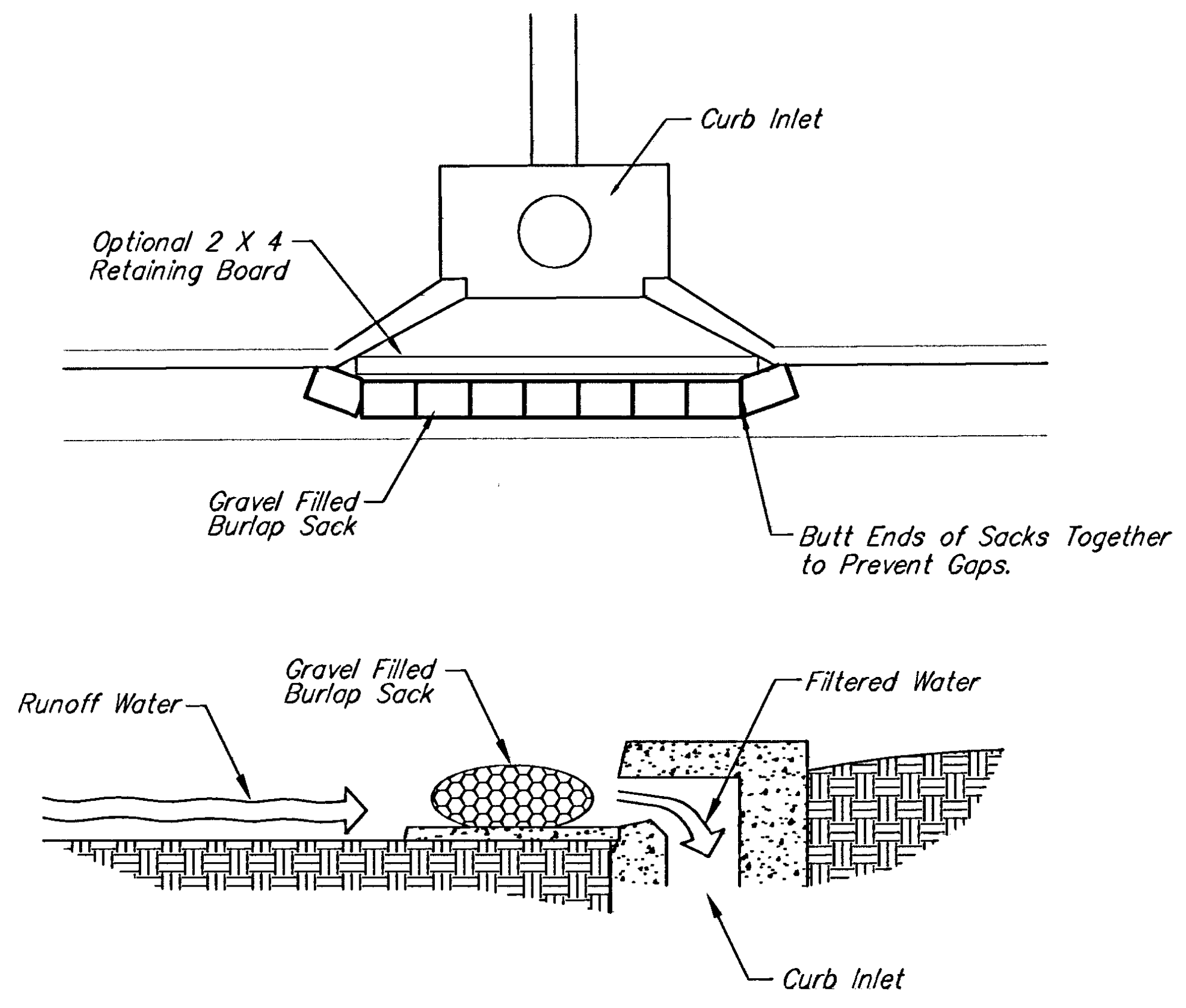
1. Wood Stakes shall be 2" x 2" (nom.) x 5'-0" long (min.)
2. Attach Fence Fabric to wood stakes with staples, wire, or nails.
3. Use as many wood stakes as necessary to achieve a maximum spacing of 5' across ditch cross section.



SILT FENCE DITCH CHECK



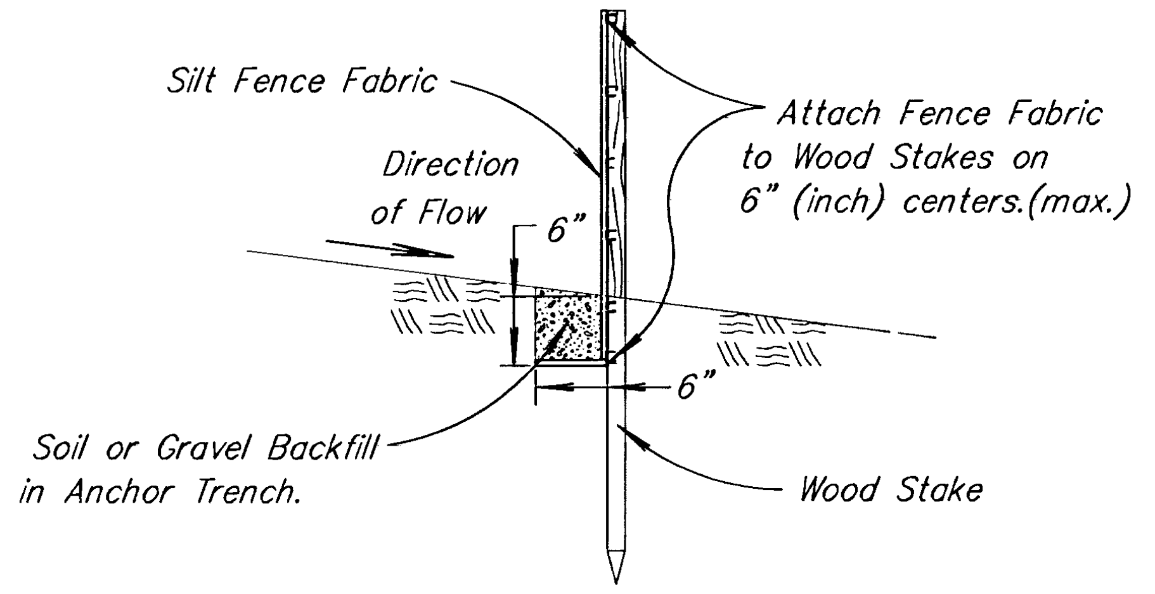
HAY BALE DITCH CHECK



Note: Sacks to be filled with 1" to 3" Clean Gravel

CURB INLET SEDIMENT BARRIER

TEMPORARY DITCH CHECK SPACING	
DITCH ℄ SLOPE (%)	SPACING INTERVAL (Ft.)
1.0	200
1.5	133
2.0	100
2.5	80
3.0	66
3.5	57
4.0	50
4.5	44
5.0	40
5.5	38
6.0	35
6.5	30
7.0	28
7.5	26
8.0	25
8.5	23
9.0	22
9.5	21
10.0	20



SILT FENCE DITCH CHECK SECTION

NOTE: For clarity of details, this view has been enlarged.

EROSION CONTROL SUMMARY			
	Gravel Sediment Barriers	Hay Bales	Silt Fence Ditch Check (L.F.)
Inlets	–	–	–
Manholes	–	–	–
Other	–	–	–

Note: For Information Only

MISCELLANEOUS EROSION CONTROL DETAILS

Ruggles & Bohm, P.A.
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924 North Main
Wichita, Kansas 67203
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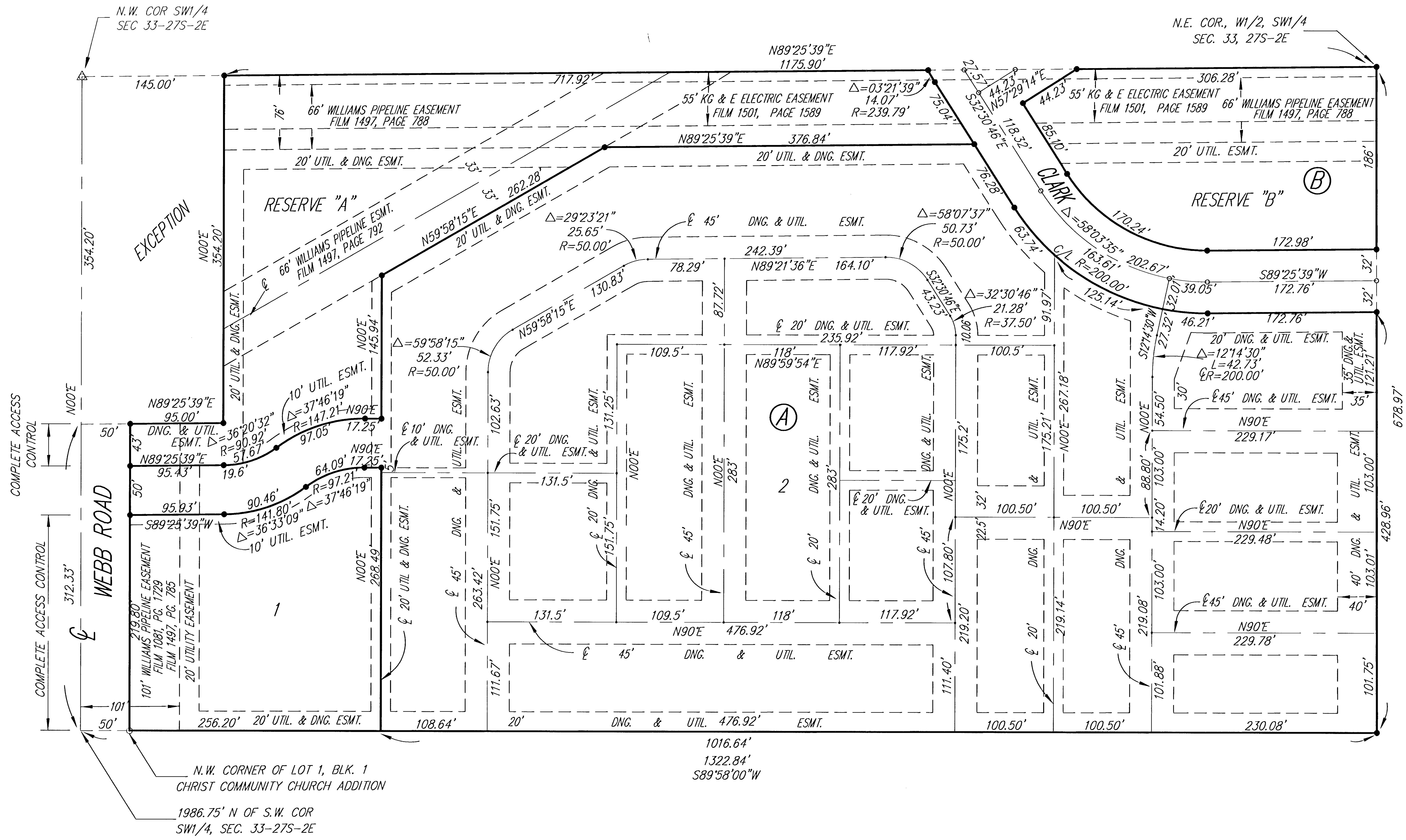
(316) 264-8008
(316) 264-4621 fax
E-mail: info@rbkansas.com

DRAWING FILE: Sediment Barrier Details
PROJECT NUMBER: 468-83358
DESIGN
DRAWN
REVIEW
UTILITY
DATE: Feb. 26, 2002
SRB JOB 1934E
SHEET 6 OF 7



Scale 1" = 60'

- △ = 3/4" IRON PIPE (FOUND)
- ○ = 1/2" IRON PIPE (FOUND)
- ● = 1/2" REBAR W/SRB CAP (SET)

Please contact Western Resources (or its successor) Electric Transmission Engineering Department (currently 785-575-8219) before conducting any proposed construction activities that could place people, equipment, or facilities within Western Resources' easement, shown on this plat, designated as Film 1501, Page 1589, dated December 29, 1994.

MAPLE SHADE ADDITION
FINAL PLAT
WICHITA, KANSAS

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DESIGN	CMB
DRAWN	RA
REVIEW	
UTILITY	
DATE	Feb. 25, 2002
SRB JOB	1934E
SHEET	7 OF 7
DRAWING FILE	plat copy
PROJECT NUMBER	468-83358

1V-11-05-03