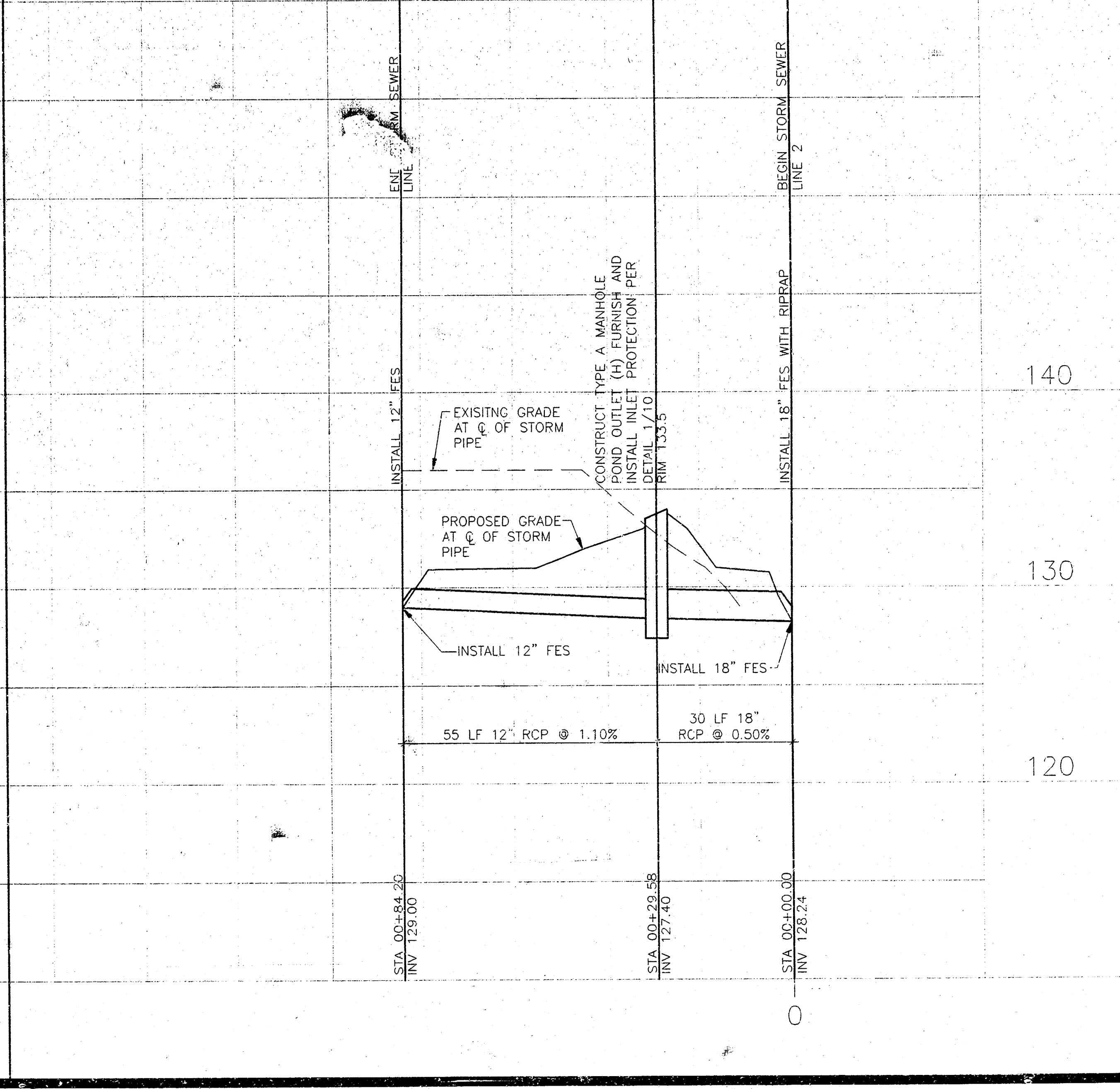
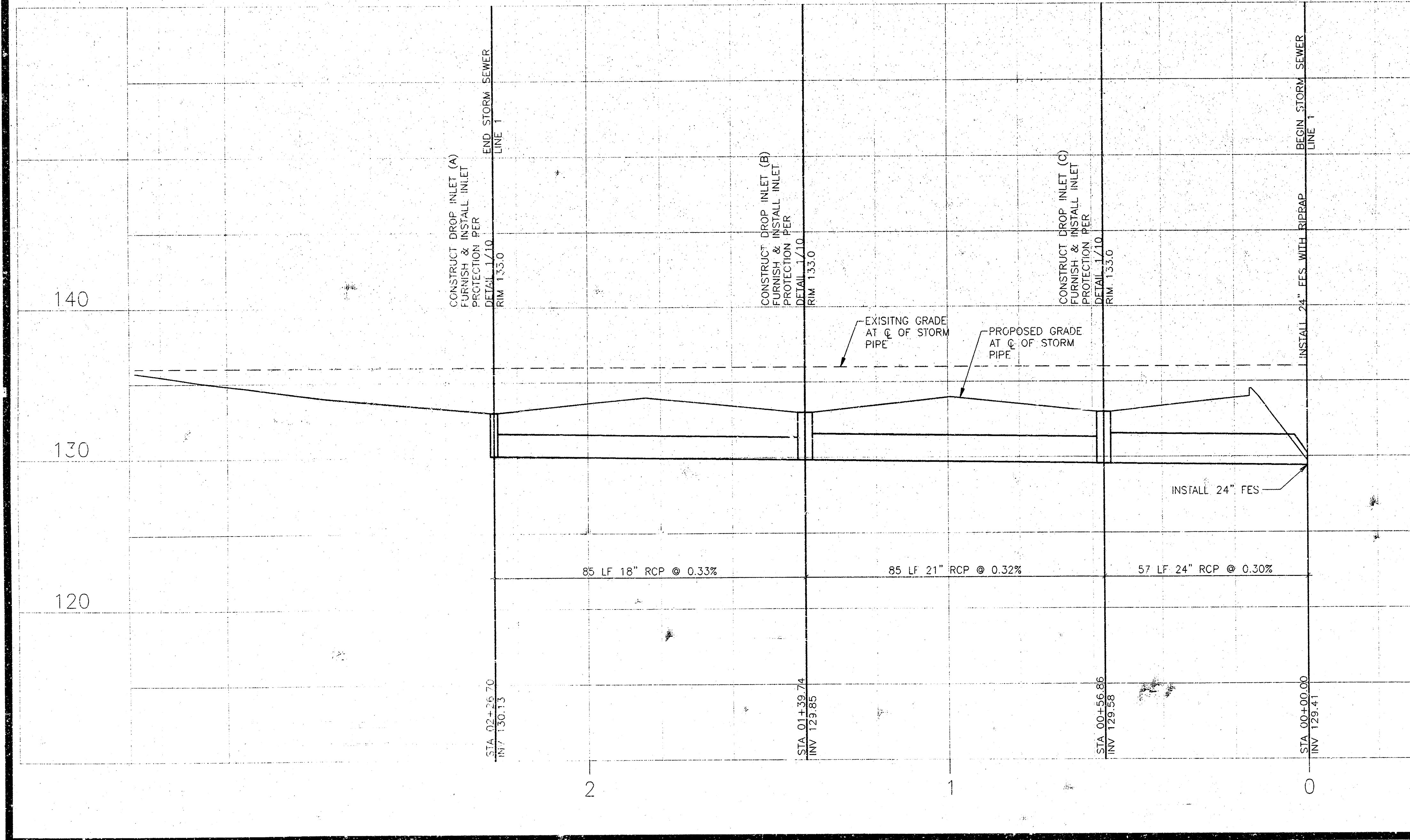
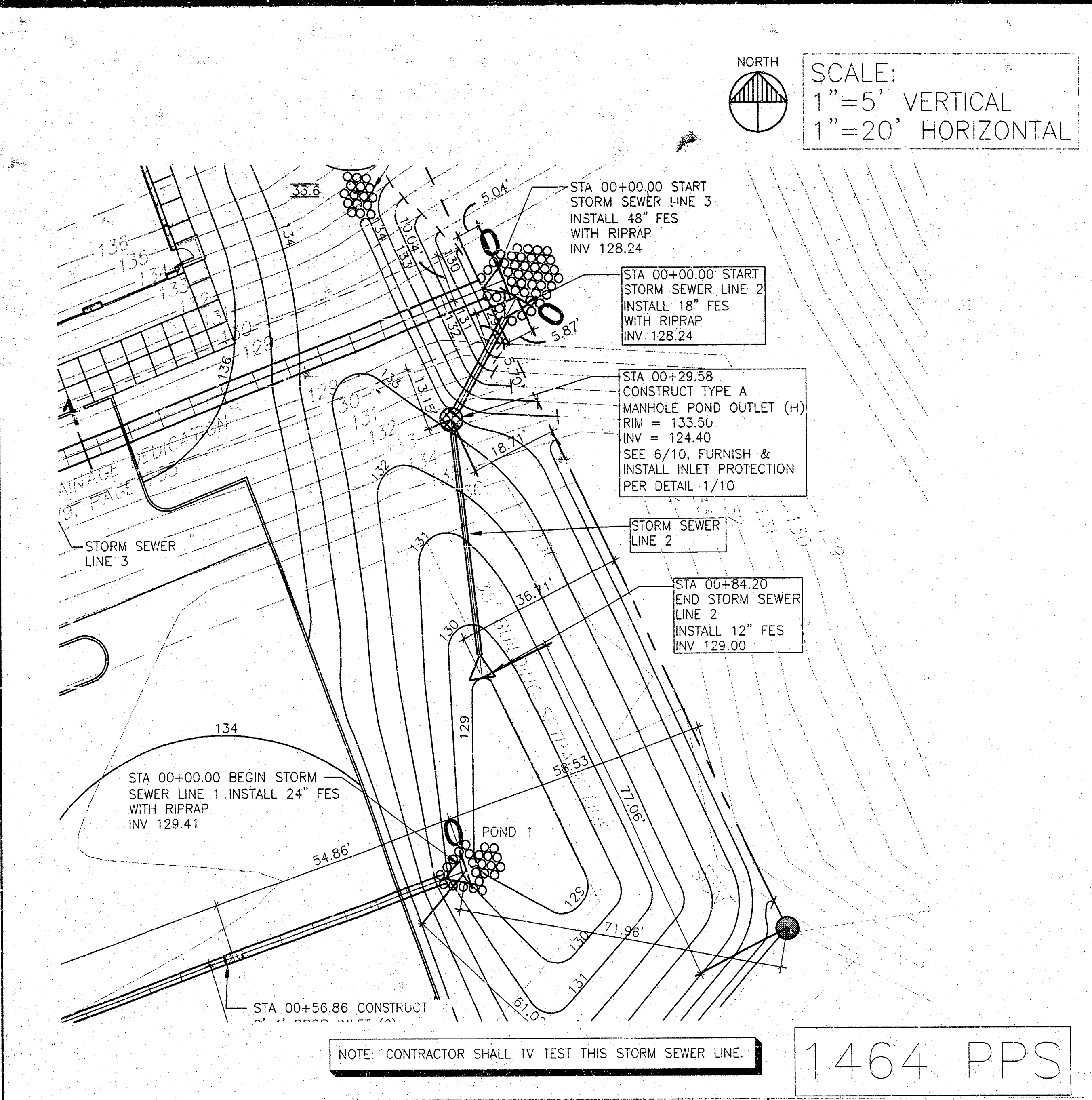
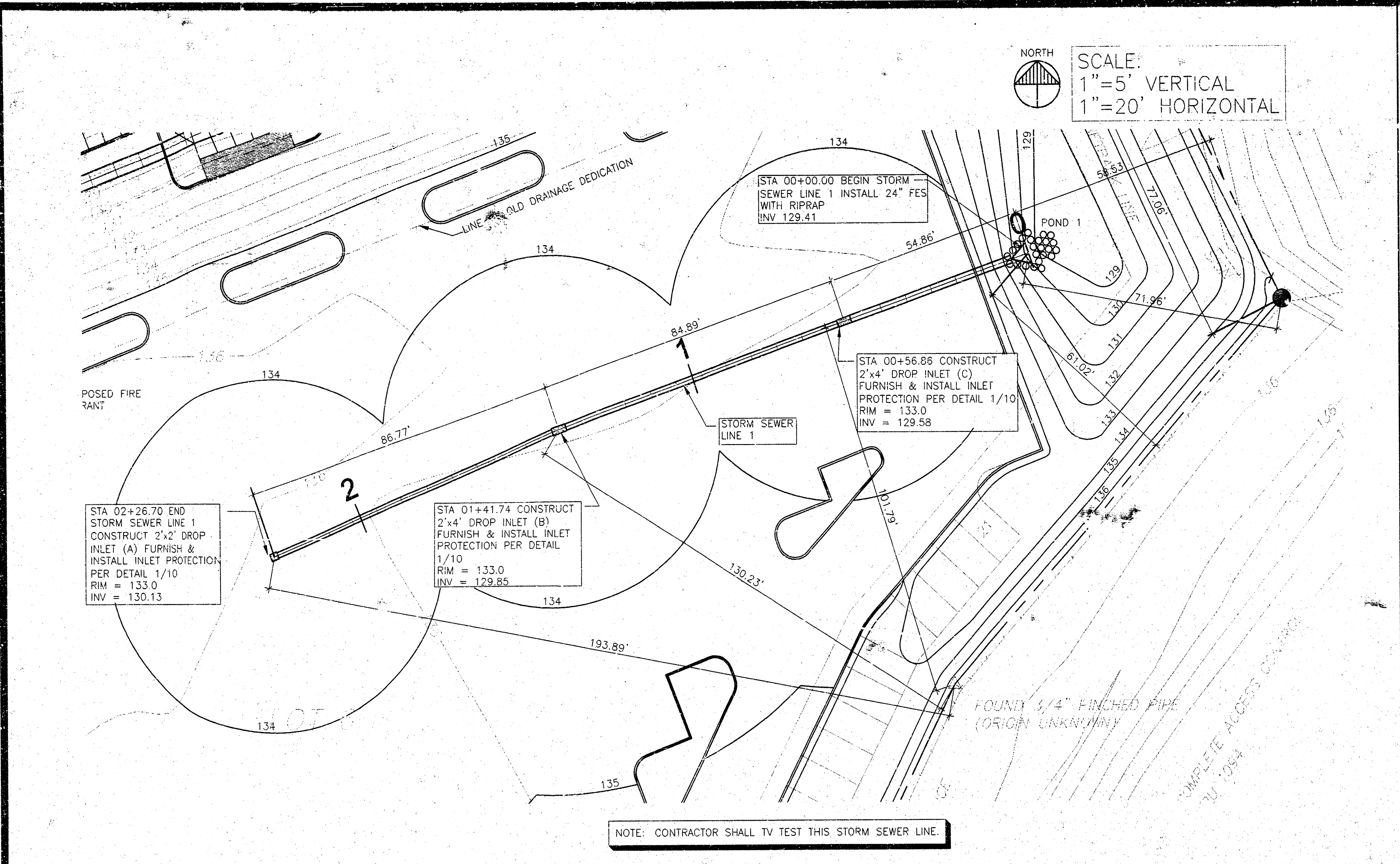




**PATRICK
G. BLEES**

ARCHITECTURE PLANNING DESIGN

PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@cmarch.com
CONTACT: GARY FAGERSTROM

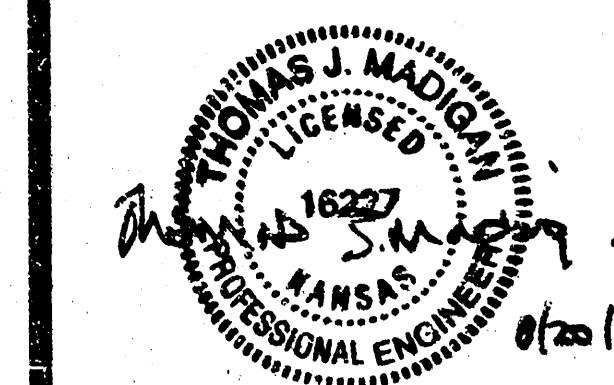
CONSULTANTS:

CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
THOMAS MADIGAN

STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9105
KEITH JACOBSON

LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7599 ANAGRAM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SJORDAL

SEAL:



slumberland

RIDGE PLAZA
8TH ADDITION
LOTS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209

SHEET TITLE:

LINE 1 & 2

REVISIONS:

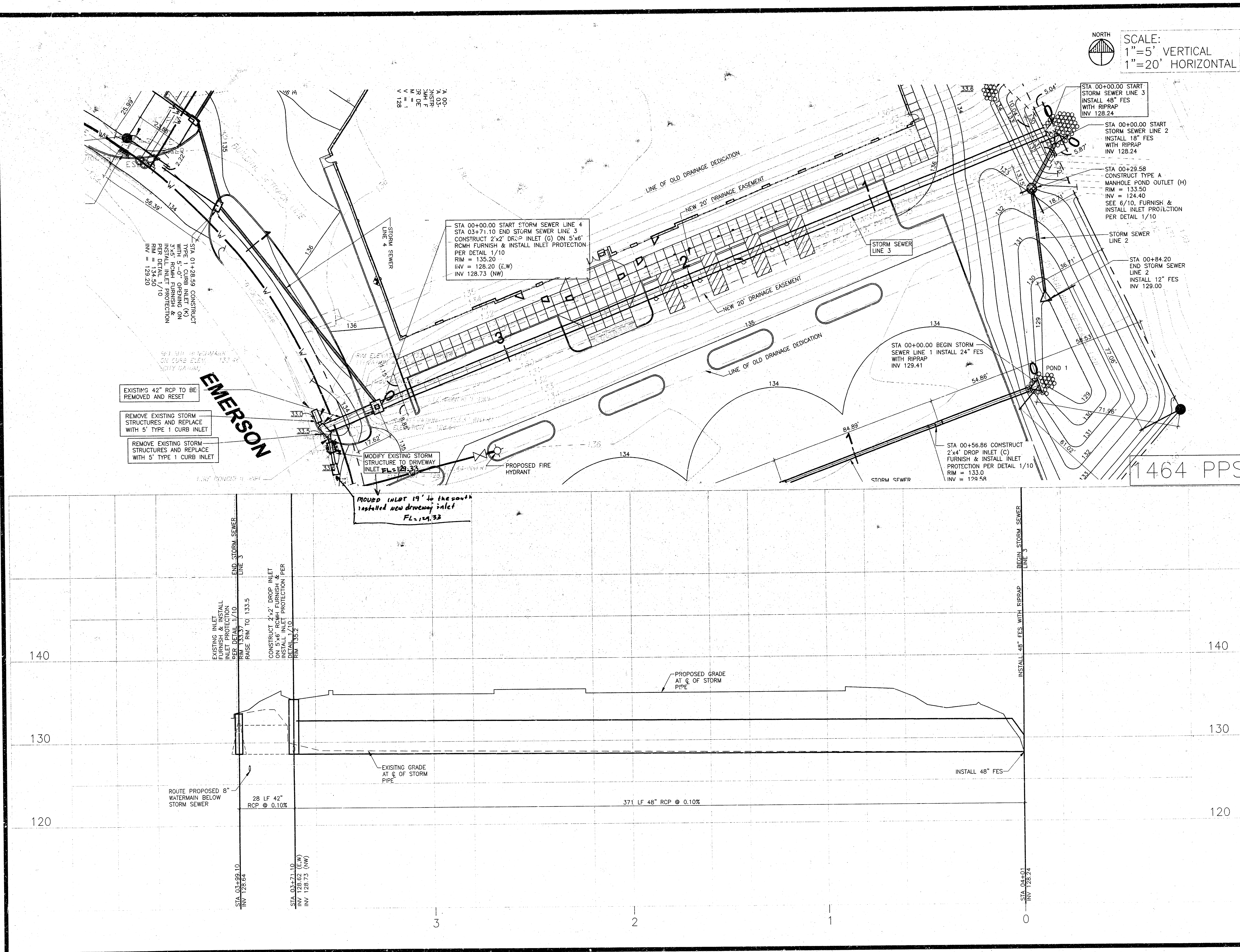
NO:	DATE:	BY:
2	05/19/04	NO REVISIONS THIS SHEET
3	06/02/04	NO REVISIONS THIS SHEET
4	06/30/04	NO REVISIONS THIS SHEET
5	07/16/04	NO REVISIONS THIS SHEET
6	08/09/04	CITY
7	08/20/04	NO REVISIONS THIS SHEET

PROJECT NO:	03109-15
DRAWING DATE:	08-20-04
DRAWN BY:	QAT

2

SHEET 2 OF 10
FILE: 03316 2-4

COPYRIGHT PATRICK G. BLEES, AIA 200

[illegible]

**PATRICK
G. BLEES**

ARCHITECTURE PLANNING DESIGN
PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@cmarch.com
CONTACT: GARY FAGERSTROM

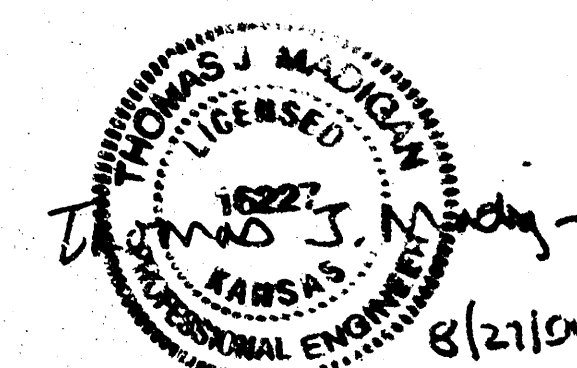
CONSULTANTS:

CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
THOMAS MADIGAN

STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9105
KEITH JACOBSON

LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7599 ANAGRAM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SJORDAL

SEAL:



slumberland

**RIDGE PLAZA
8TH ADDITION
LOTS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209**

SHEET TITLE:

LINE 3

REVISIONS:

NO:	DATE:	BY:
2	05/19/04	NO REVISIONS
3	06/02/04	THIS SHEET
4	06/30/04	NO REVISIONS
5	07/16/04	THIS SHEET
6	08/09/04	NO REVISIONS
7	08/20/04	THIS SHEET
		CITY
		CITY

PROJECT NO: 03109-15

DRAWING DATE: 08-20-04

DRAWN BY: QAV

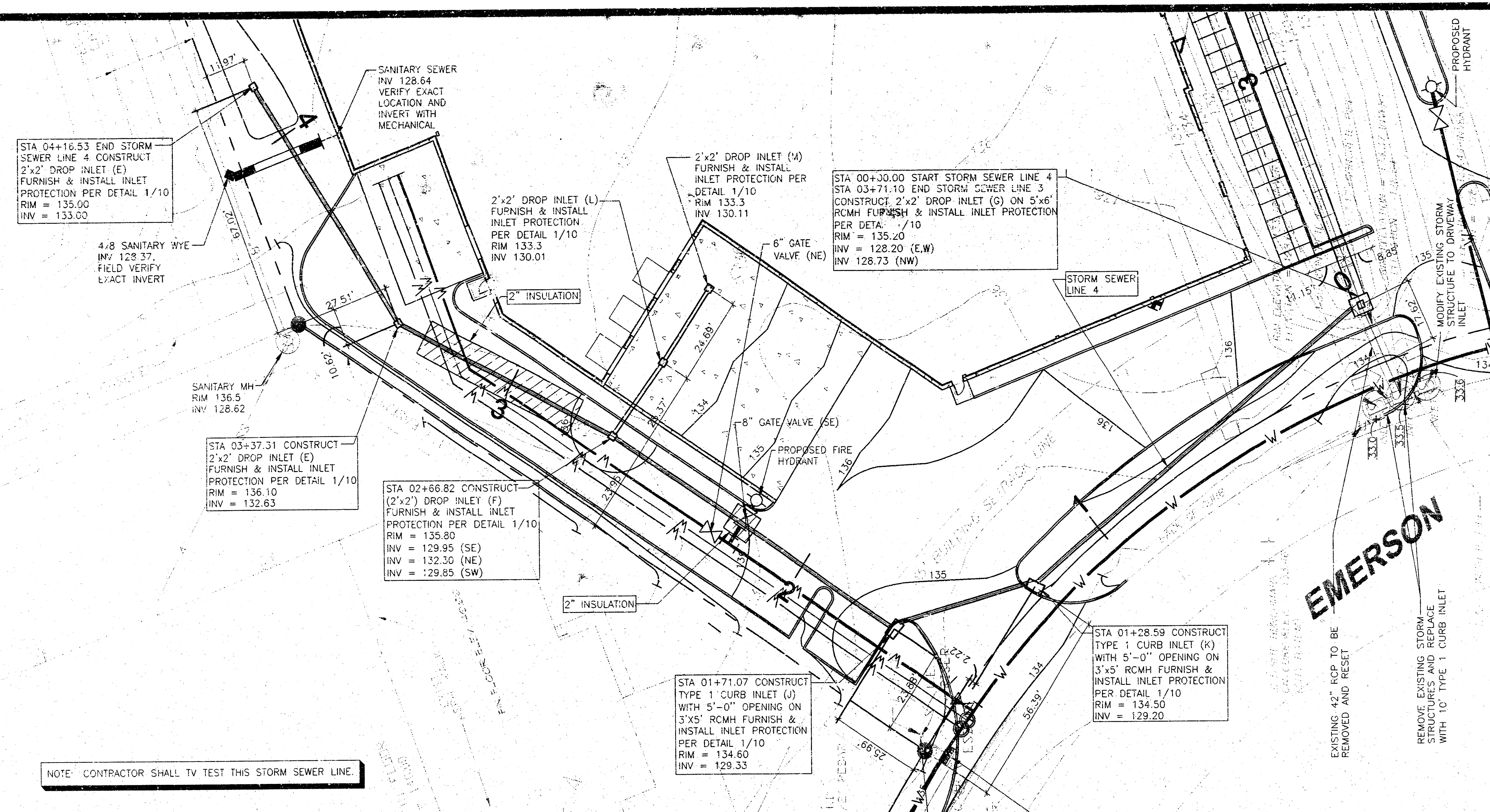
E

SHEET 3 OF 10

FILE: 03316 2-4

Copyright Patrick G. Brees, AIA 2004

	COLOR		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLOT 1	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 2	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 3	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 4	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 5	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 6	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 7	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 8	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 9	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 10	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 11	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 12	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 13	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 14	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 15	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 16	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 17	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 18	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 19	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 20	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 21	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 22	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 23	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 24	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 25	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 26	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 27	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 28	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 29	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 30	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 31	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 32	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 33	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 34	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 35	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 36	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 37	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 38	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 39	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 40	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 41	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 42	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 43	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 44	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 45	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 46	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 47	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 48	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 49	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 50	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 51	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 52	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 53	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 54	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 55	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 56	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 57	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 58	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 59	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 60	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 61	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 62	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 63	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 64	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 65	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 66	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 67	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 68	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 69	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 70	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 71	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 72	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 73	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 74	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 75	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 76	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 77	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 78	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 79	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 80	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 81	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 82	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 83	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 84	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 85	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 86	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 87	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 88	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 89	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 90	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 91	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 92	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 93	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 94	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 95	PEN	25	23	38	38	70	102	25	19	13	51	51	38	25	19	25	
PLOT 96	PEN	25															



NORTH

A circular compass rose with a vertical line and a horizontal line intersecting at the center. The top half is shaded with horizontal lines, and the bottom half is shaded with vertical lines. The word "NORTH" is written above the top half.

SCALE:
1"=5' VERTICAL
1"=20' HORIZONTAL

**PATRICK
G. BLEES**

ARCHITECTURE PLANNING DESIGN
PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@cmarch.com
CONTACT: GARY EGERSTROM

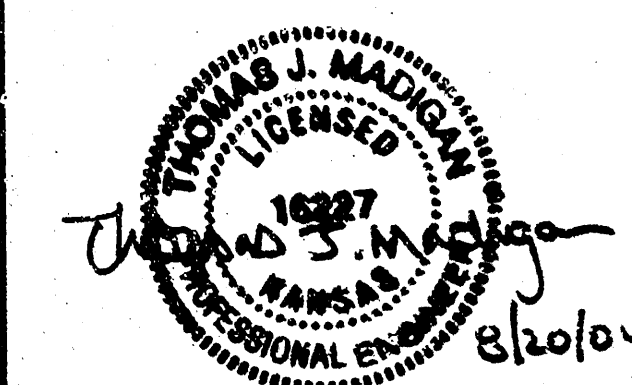
CONSULTANTS:

CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
THOMAS MADIGAN

STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9105
KEITH JACOBSON

LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7599 ANAGRAM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SIORDAL

SEAL:



464 PPS

slumberland

RIDGE PLAZA
8TH ADDITION
LOTS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209

SHEET TITLE:

STORM SEWER
LINE 4

REVISIONS:

NO:	DATE:	BY:
2	05/19/04	NO REVISIONS THIS SHEET
3	06/02/04	NO REVISIONS THIS SHEET
4	06/30/04	NO REVISIONS THIS SHEET
5	07/16/04	NO REVISIONS THIS SHEET
6	08/09/04	CITY
7	08/20/04	NO REVISIONS THIS SHEET

PROJECT NO: 03109-1

DRAWING DATE: 08-20-0

DRAWN BY: QA

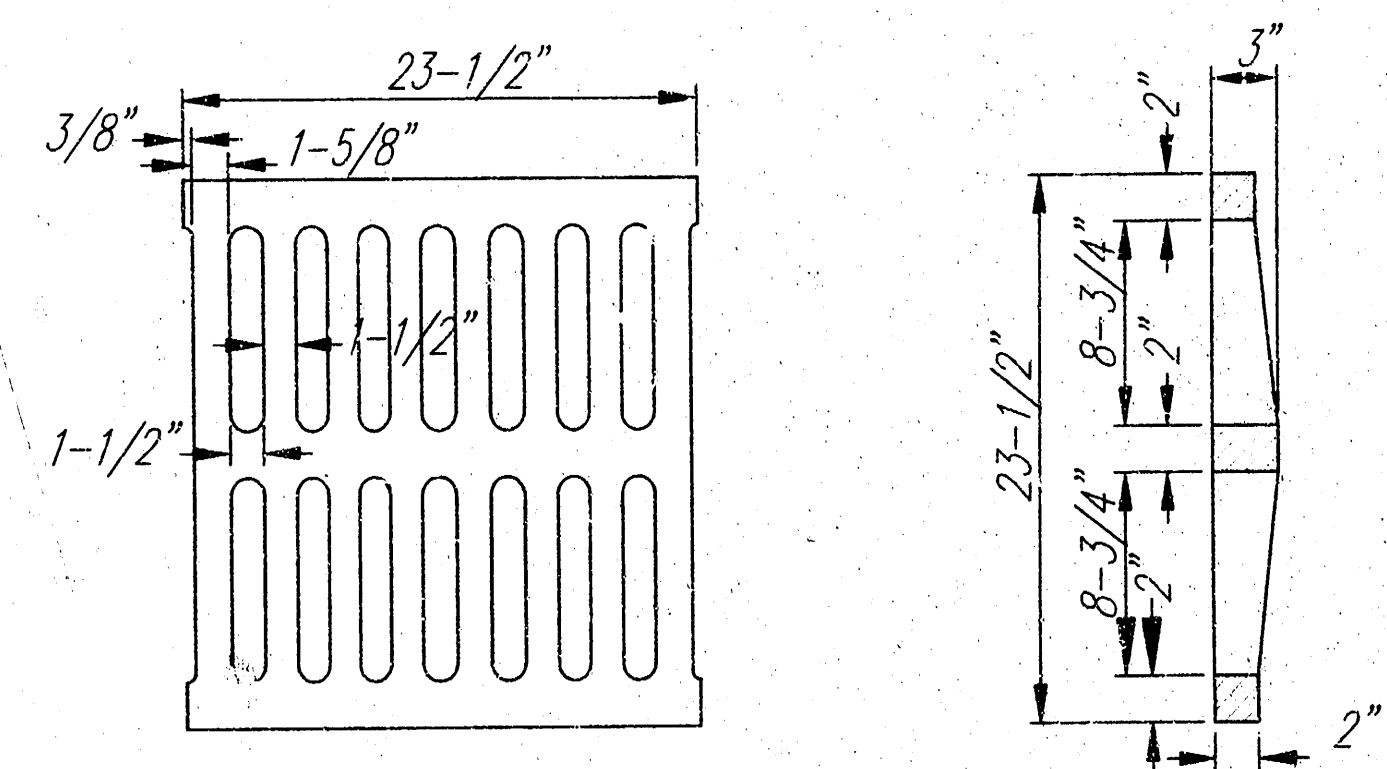
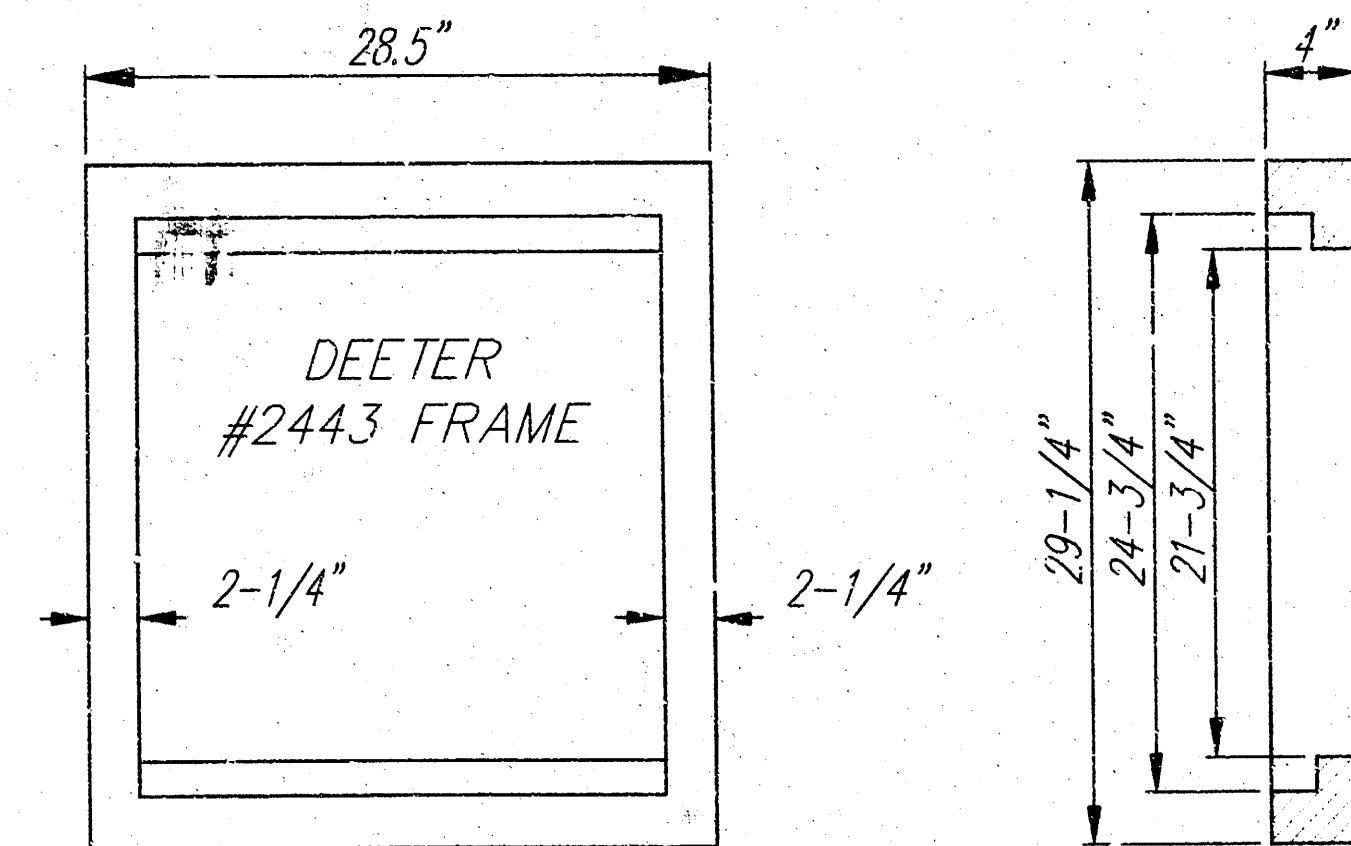
4

SHEET 4 OF 10

FILE: 03316 2-4

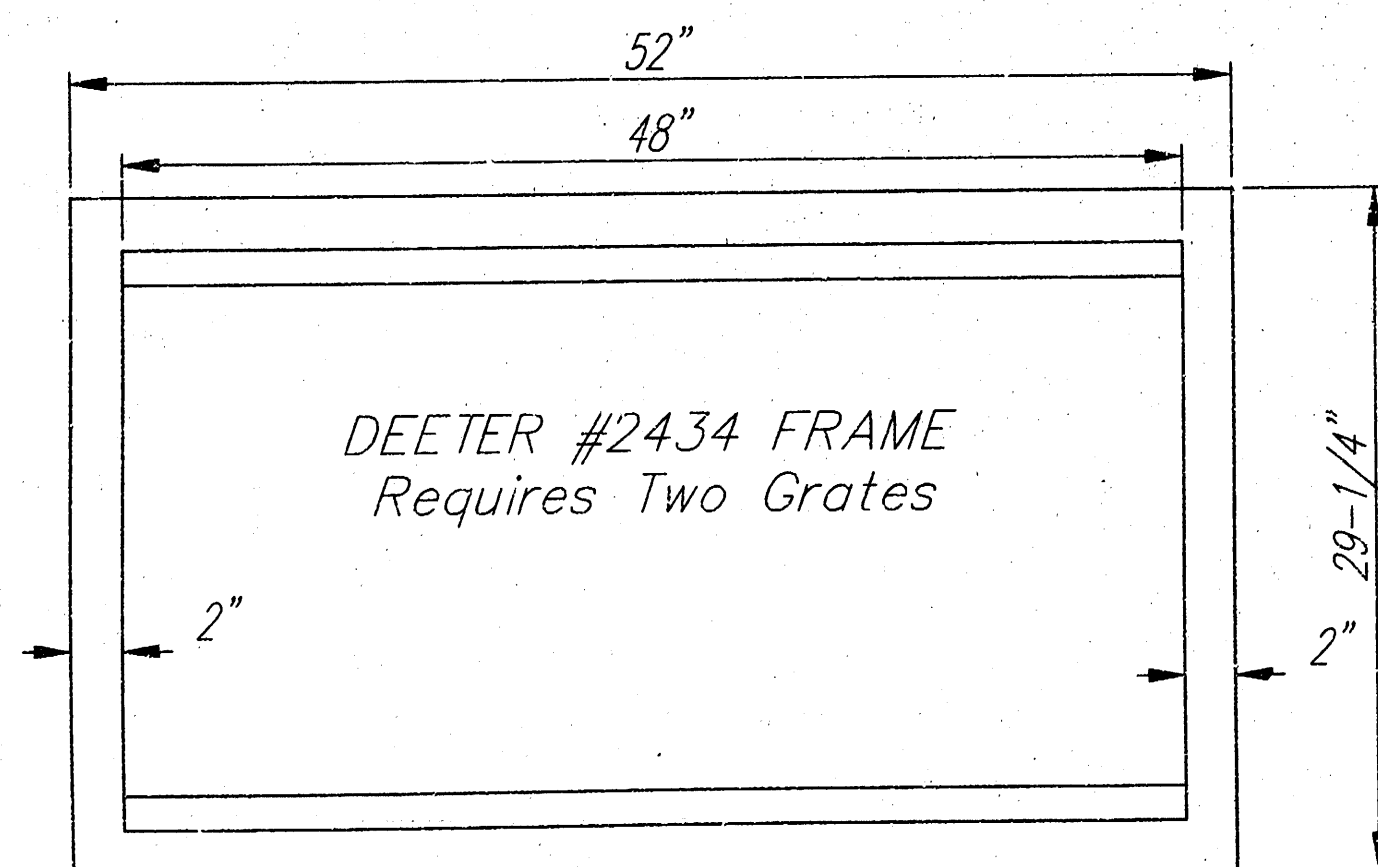
COPYRIGHT PATRICK G. BLEES, AIA 2004

COLOR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PEN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SHADE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PLOTTING GUIDE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



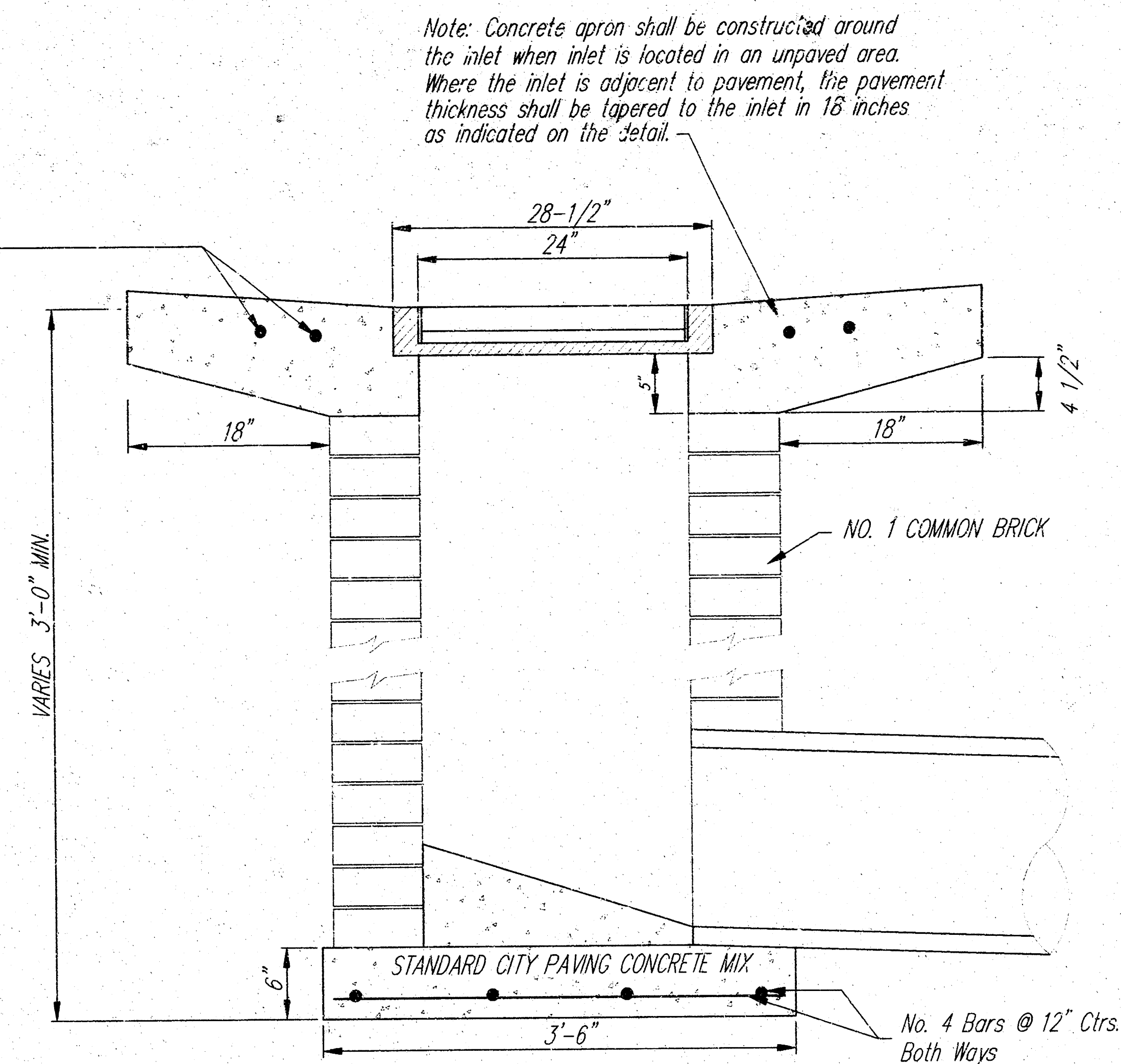
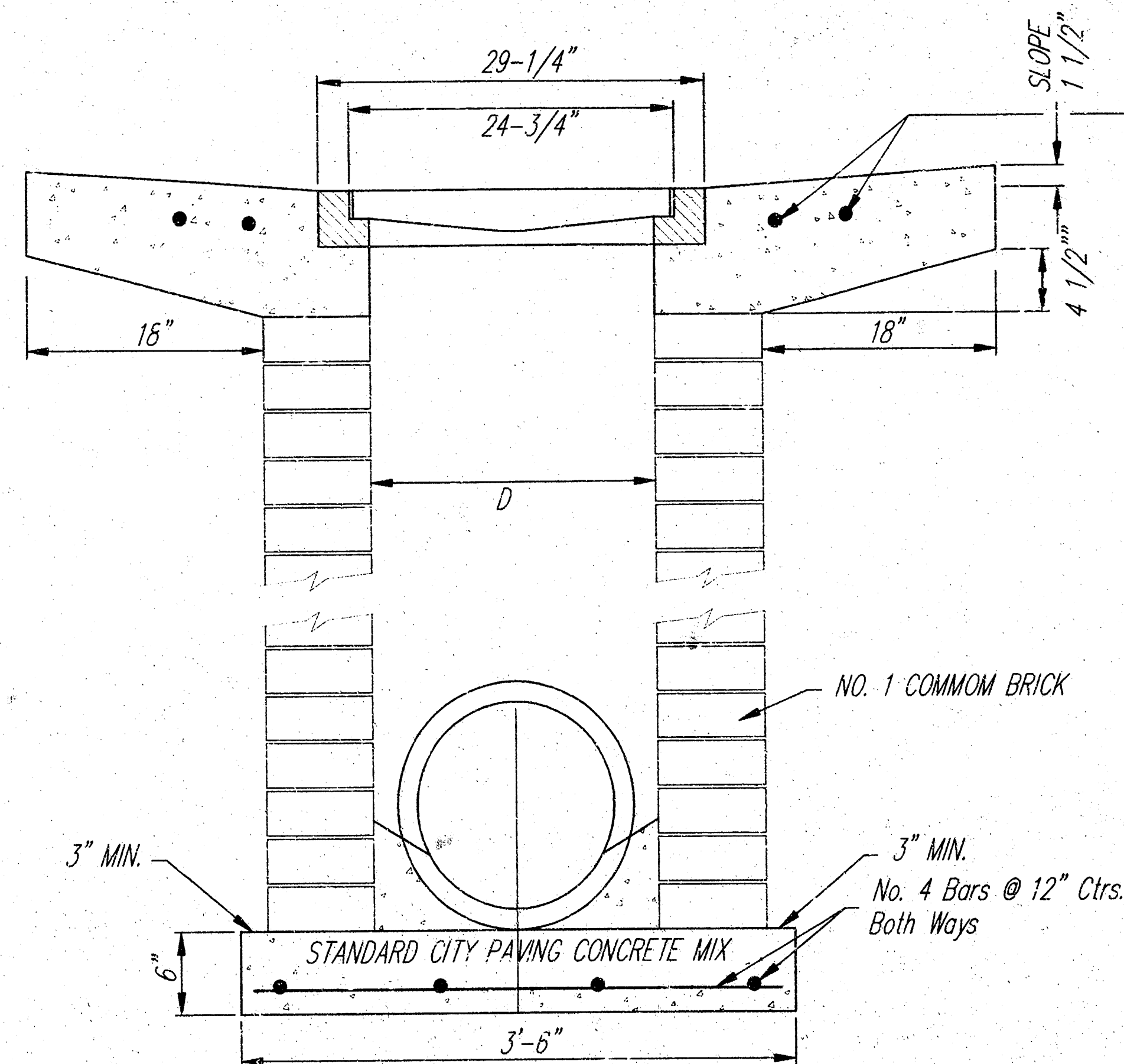
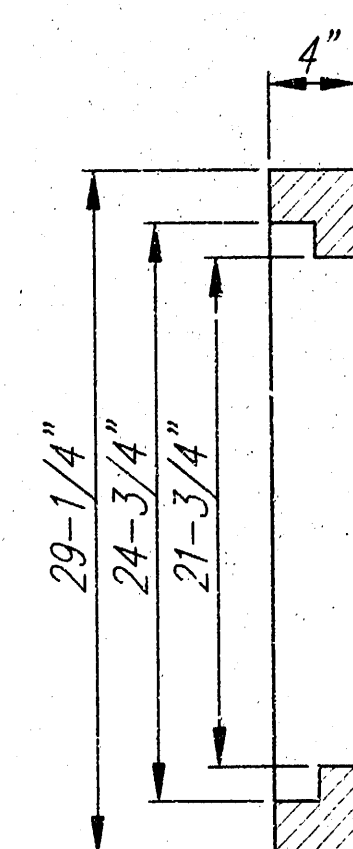
DEETER #2433 GRATE

24" x 24" Frame and Grate Detail

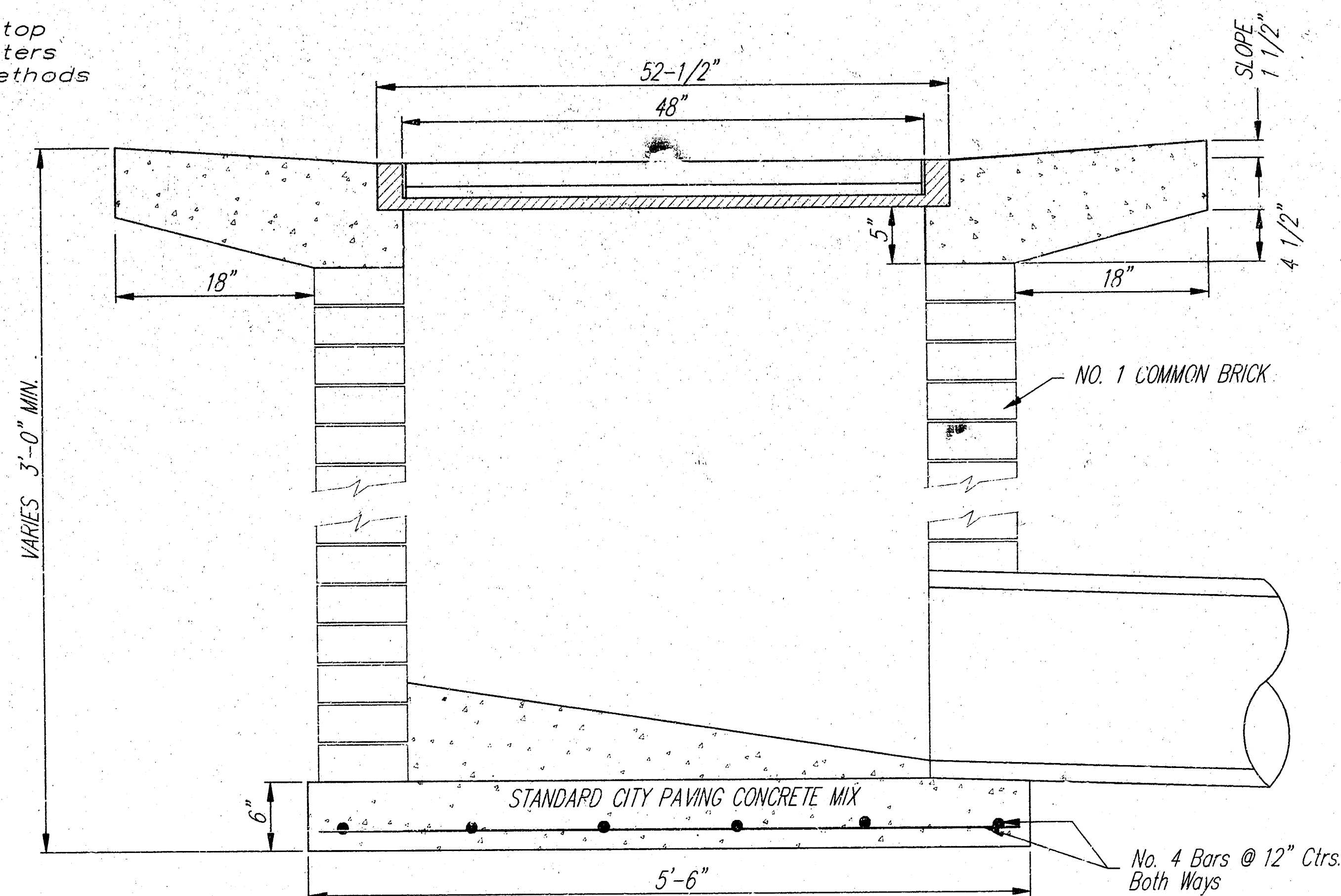


Double 24" x 24" Frame Detail

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



Note: Concrete apron shall be constructed around the inlet when inlet is located in an unpaved area. Where the inlet is adjacent to pavement, the pavement thickness shall be tapered to the inlet in 18 inches as indicated on the detail.



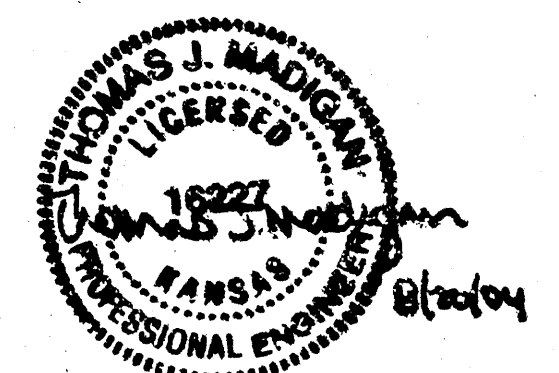
PATRICK G. BLEES

ARCHITECTURE PLANNING DESIGN
PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@patrickgblees.com
CONTACT: GARY FAGERSTROM

CONSULTANTS:

CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENUM 1/2 N. SUITE 10
PLYMOUTH, MN 55441
763-577-9119
THOMAS MADDOCK
STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENUM 1/2 N. SUITE 10
PLYMOUTH, MN 55441
763-577-9105
KEITH JACOBSON
LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7589 ANAGRAM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SJORDAL

SEAL:



slumberland

RIDGE PLAZA
8TH ADDITION
LOIS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209

SHEET TITLE:

CITY OF WICHITA
DROP INLET
SINGLE & DOUBLE

REVISIONS:

NO.	DATE	BY	NO. REVISIONS
1	05/19/04	THIS SHEET	NO REVISIONS
2	06/02/04	THIS SHEET	NO REVISIONS
3	06/30/04	THIS SHEET	NO REVISIONS
4	07/16/04	THIS SHEET	NO REVISIONS
5	08/09/04	CITY	NO REVISIONS
6	08/20/04	THIS SHEET	NO REVISIONS

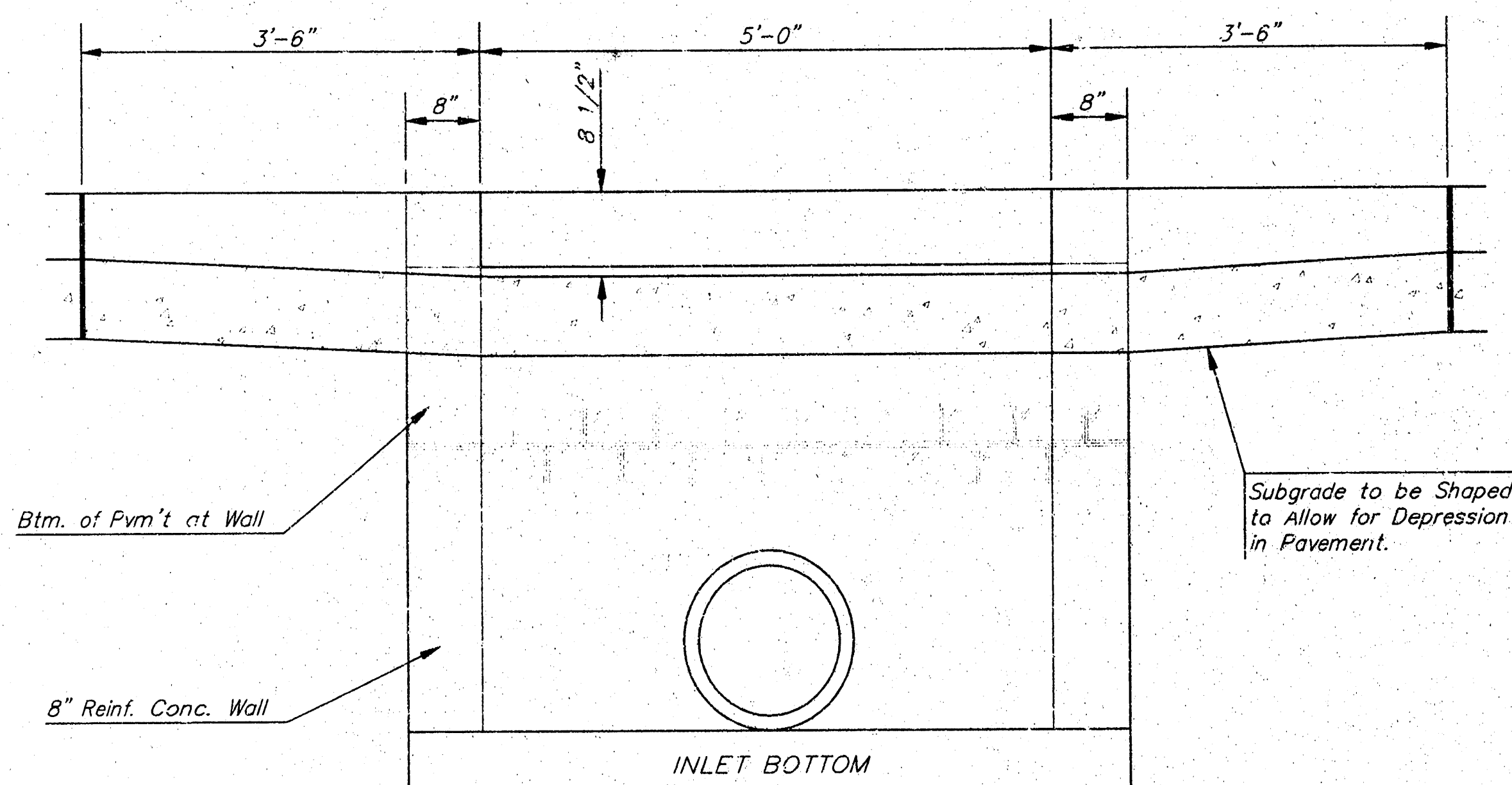
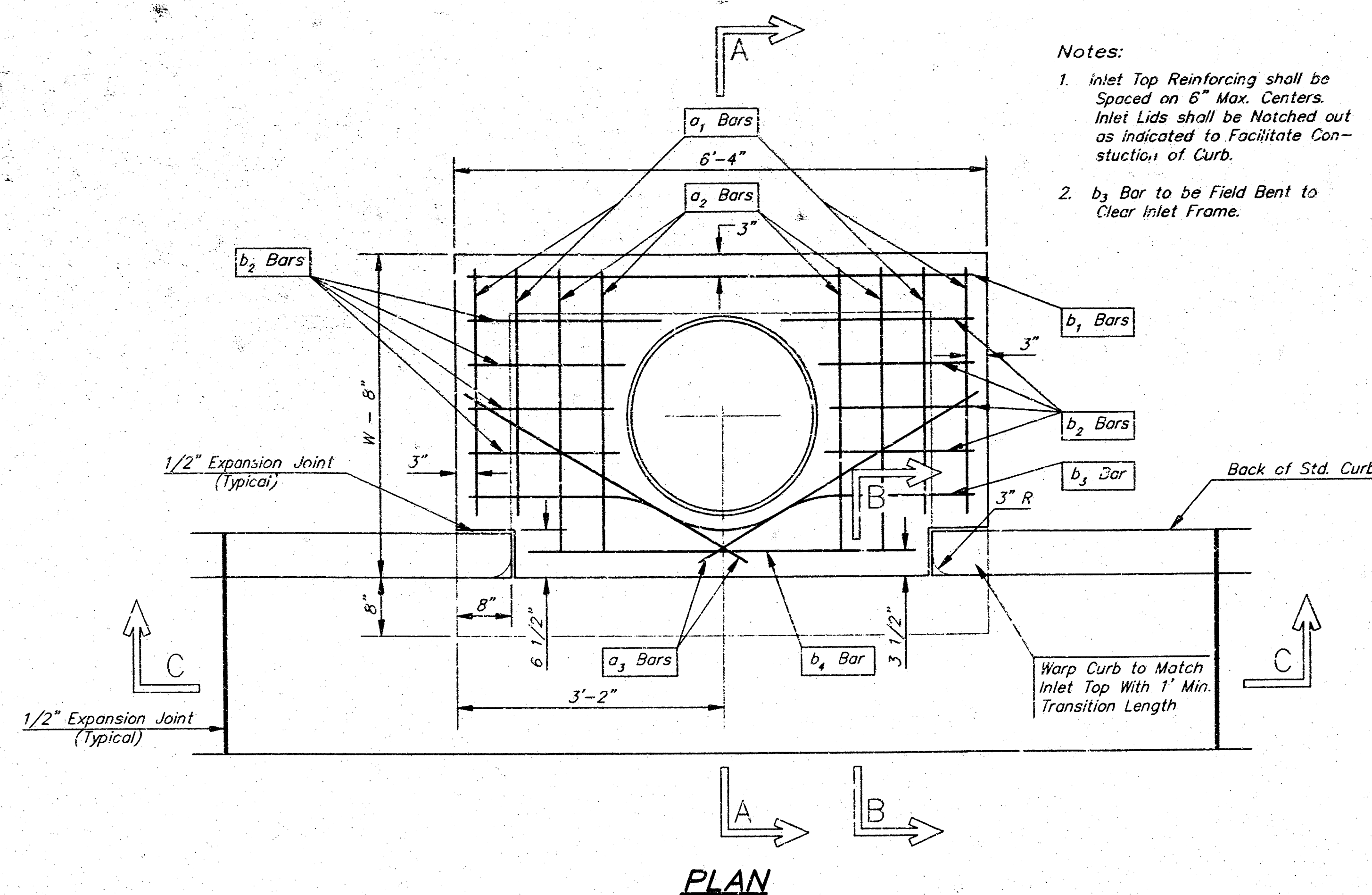
PROJECT NO: 03109-15
DRAWING DATE: 08-20-04
DRAWN BY: QAV

5

SHEET 5 OF 10
FILE: 03316 5

COPYRIGHT PATRICK G. BLEES, AIA 2004

COLOR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SCALE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



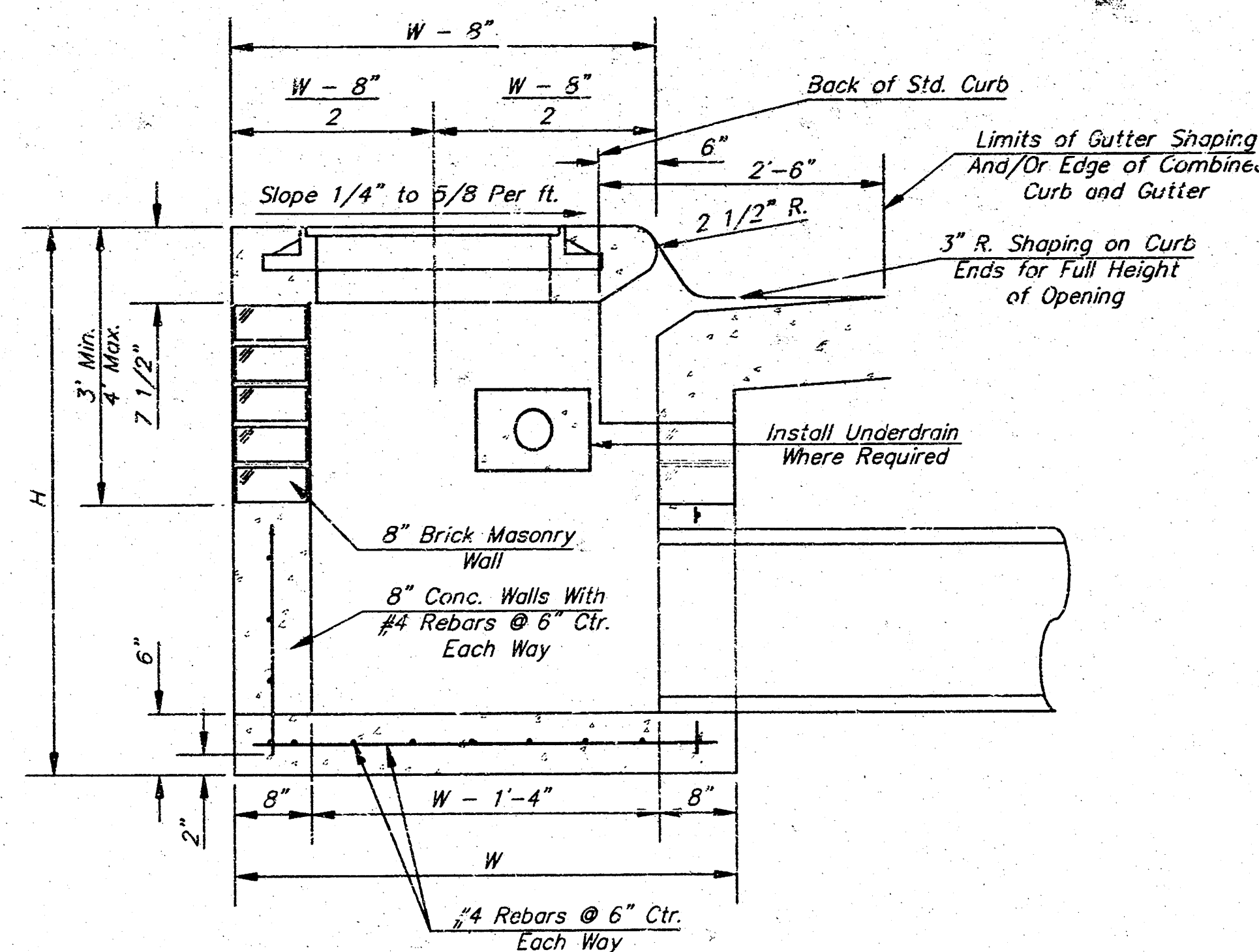
SECTION C-C

STEEL SCHEDULE

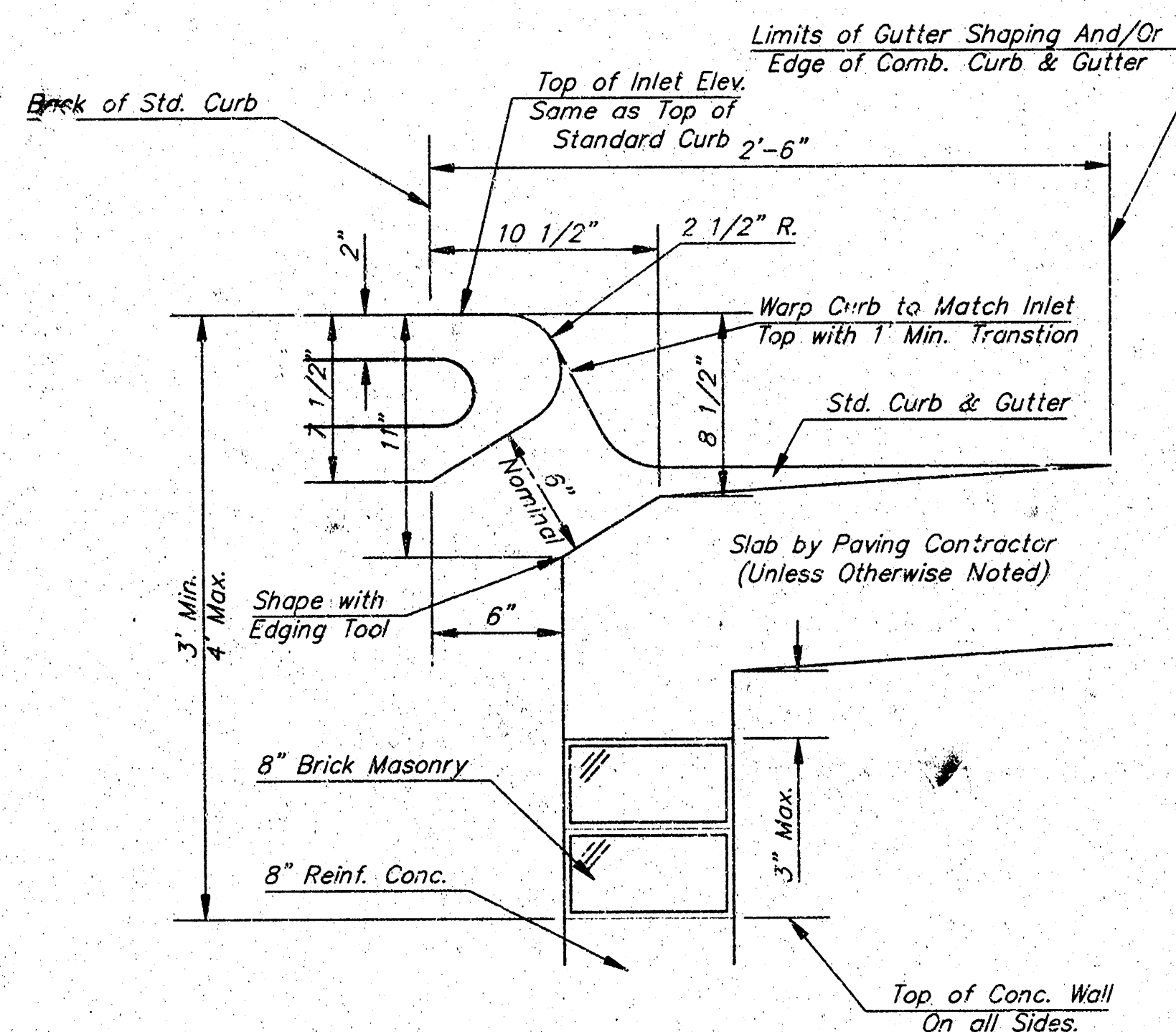
BAR	a ₁	a ₂	a ₃	b ₁	b ₂	b ₃	b ₄	WT. Lbs.
NUMBER	4	4	2	1	3	5	7	9
SIZE	#4	#4	#4	#4	#4	#4	#4	#6
LENGTH	W=3'-0"	5'-7"	6'-7"	4'-0"	6'-1"	-	-	-
	W=4'-0"	7'-7"	8'-7"	5'-0"	-	6'-1"	-	-
	W=5'-0"	9'-7"	10'-7"	6'-0"	-	-	6'-1"	-
	W=6'-0"	11'-7"	12'-7"	7'-0"	-	-	-	6'-1"
	W=7'-0"	13'-7"	14'-7"	8'-0"	-	-	-	-

Note: a₃ Bars to be Placed Approx. 2" Below Top of Inlet Cover.

W	PRE-CAST TOP SIZE	PIPE SIZE	CUL. YD. CONC.
3'-0"	3'-8" 6'-4" 7 1/2"	21" & SMALLER	0.38±
4'-0"	4'-8" 6'-4" 7 1/2"	24" & 30"	0.51±
5'-0"	5'-8" 6'-4" 7 1/2"	36" & 42"	0.64±
6'-0"	6'-8" 6'-4" 7 1/2"	48" & 54"	0.77±
7'-0"	7'-8" 6'-4" 7 1/2"	60" & 66"	0.90±



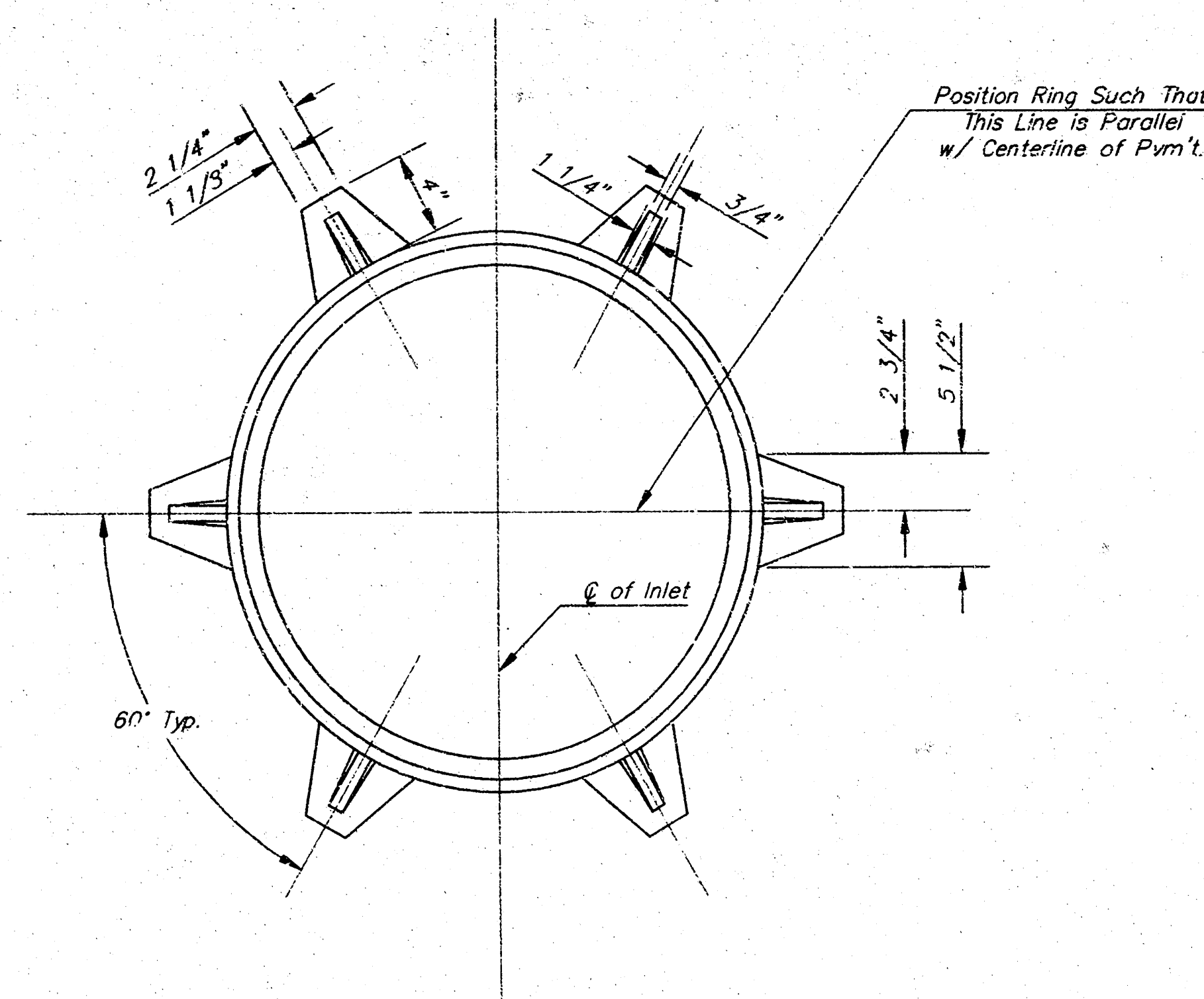
SECTION A-A



SECTION B-B

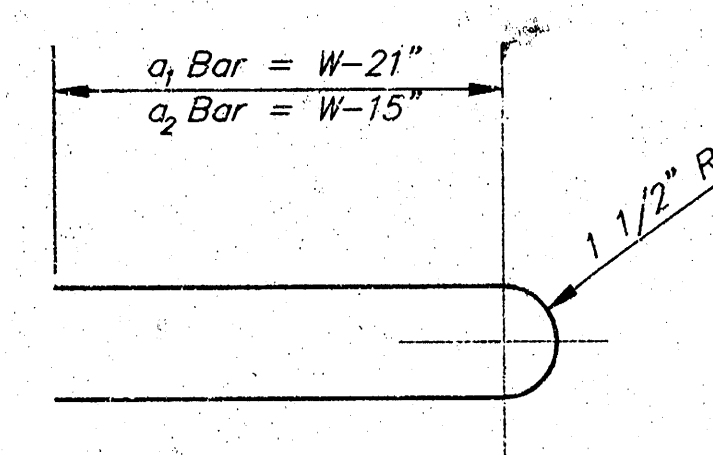
GENERAL NOTES

- 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.
- Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=5'-0" and H=7'-0" or less.
- 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.



MANHOLE RING AND COVER

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



BENDING DIAGRAM

PATRICK G. BLEES

ARCHITECTURE PLANNING DESIGN
PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@cmarch.com
CONTACT: GARY FAGERSTROM

CONSULTANTS:

CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
THOMAS MADGAN
STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9105
KEITH JACOBSON
LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7599 ANADROM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SJORDAL

SEAL:



slumberland

RIDGE PLAZA
8TH ADDITION
LOTS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209

SHEET TITLE:

CITY OF WICHITA
STANDARD TYPE 1
CURB INLET 5'-0" OPENING

REVISIONS:

NO.	DATE	BY
1	05/19/04	NO REVISIONS
2	06/02/04	NO REVISIONS
3	06/30/04	NO REVISIONS
4	07/16/04	NO REVISIONS
5	08/09/04	CITY
6	08/20/04	NO REVISIONS

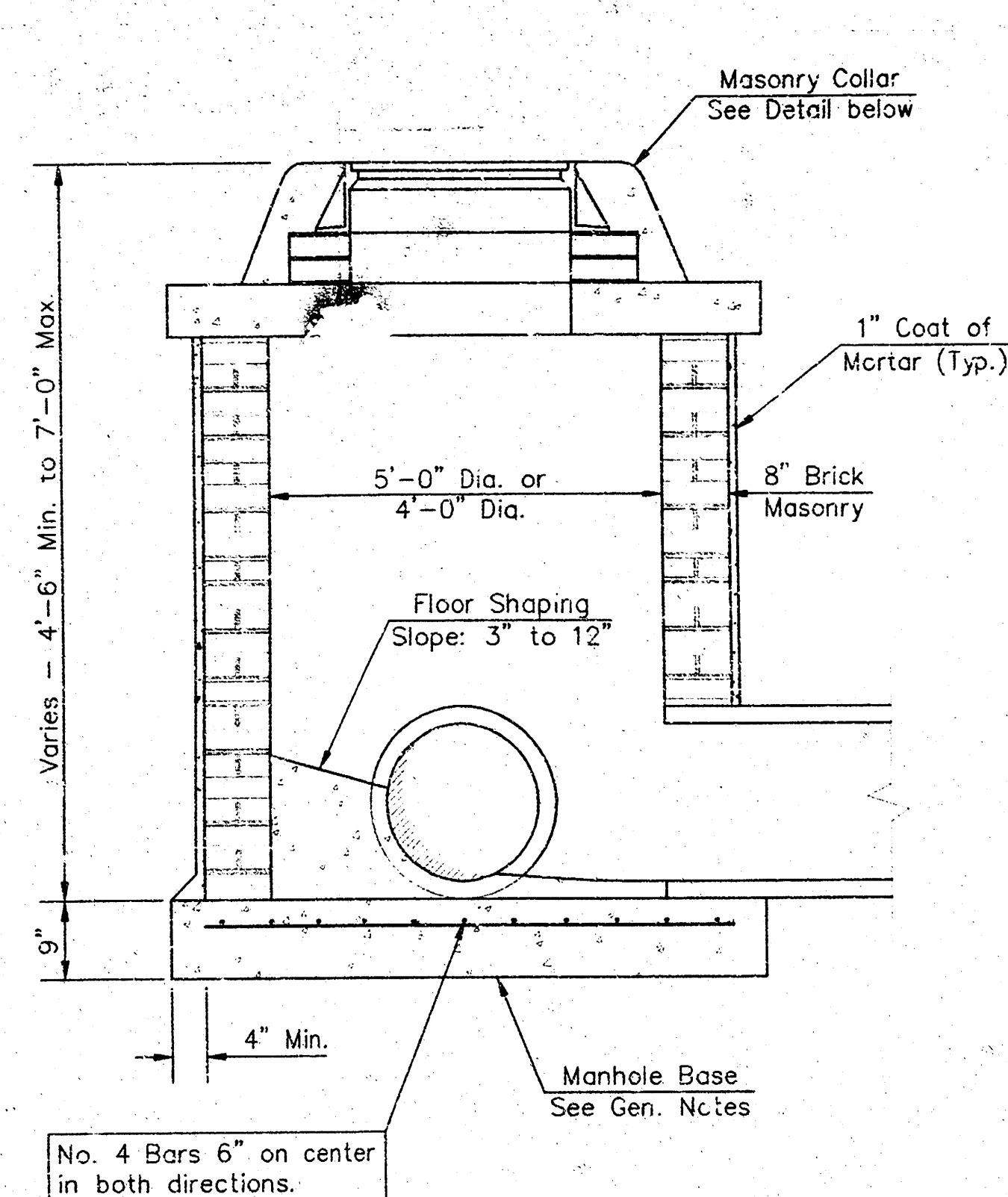
PROJECT NO: 03109-15
DRAWING DATE: 08-20-04
DRAWN BY: QAY

6

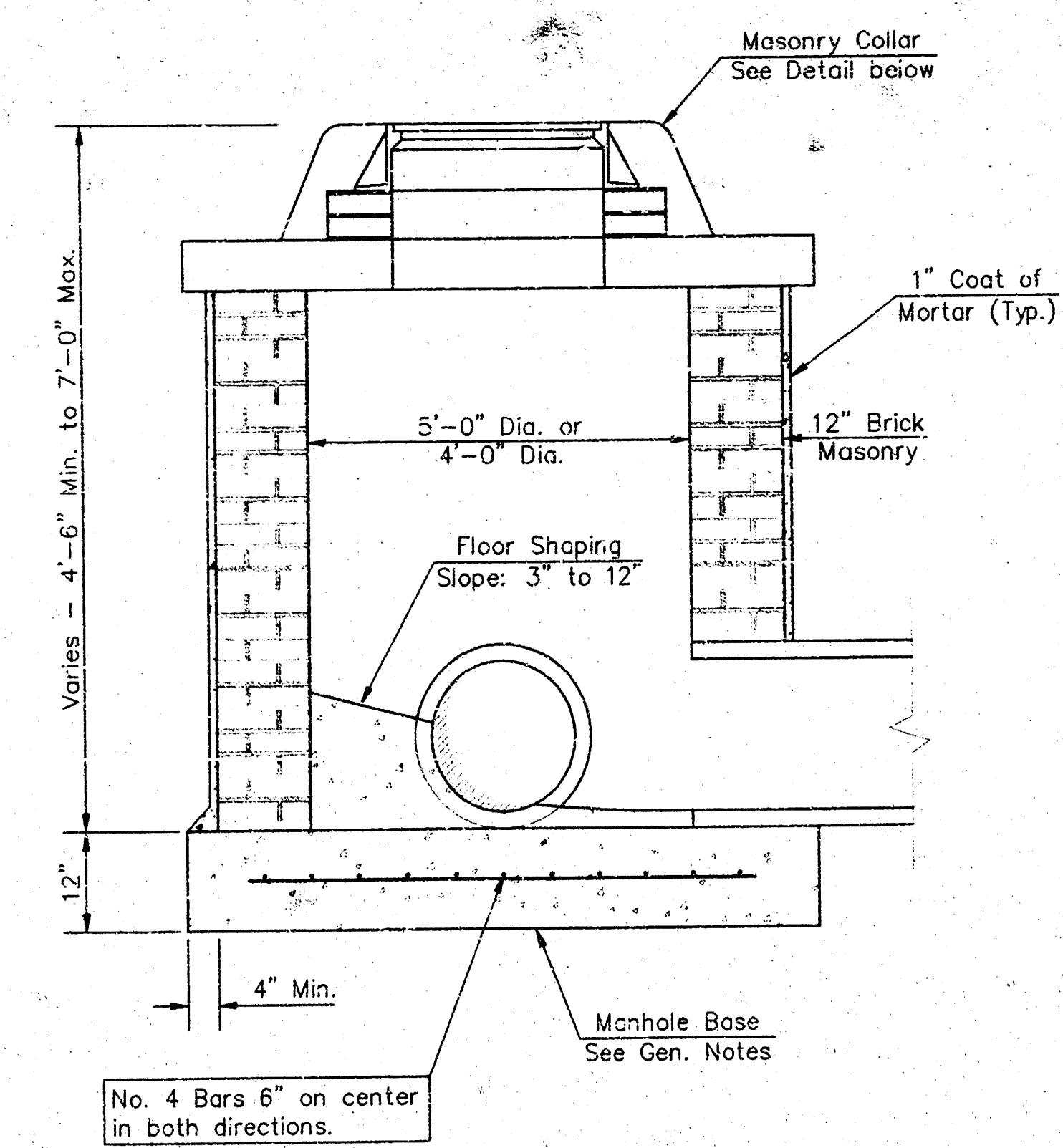
SHEET 6 OF 10
FILE: 03316 6

COPYRIGHT PATRICK G. BLEES, AIA 2004

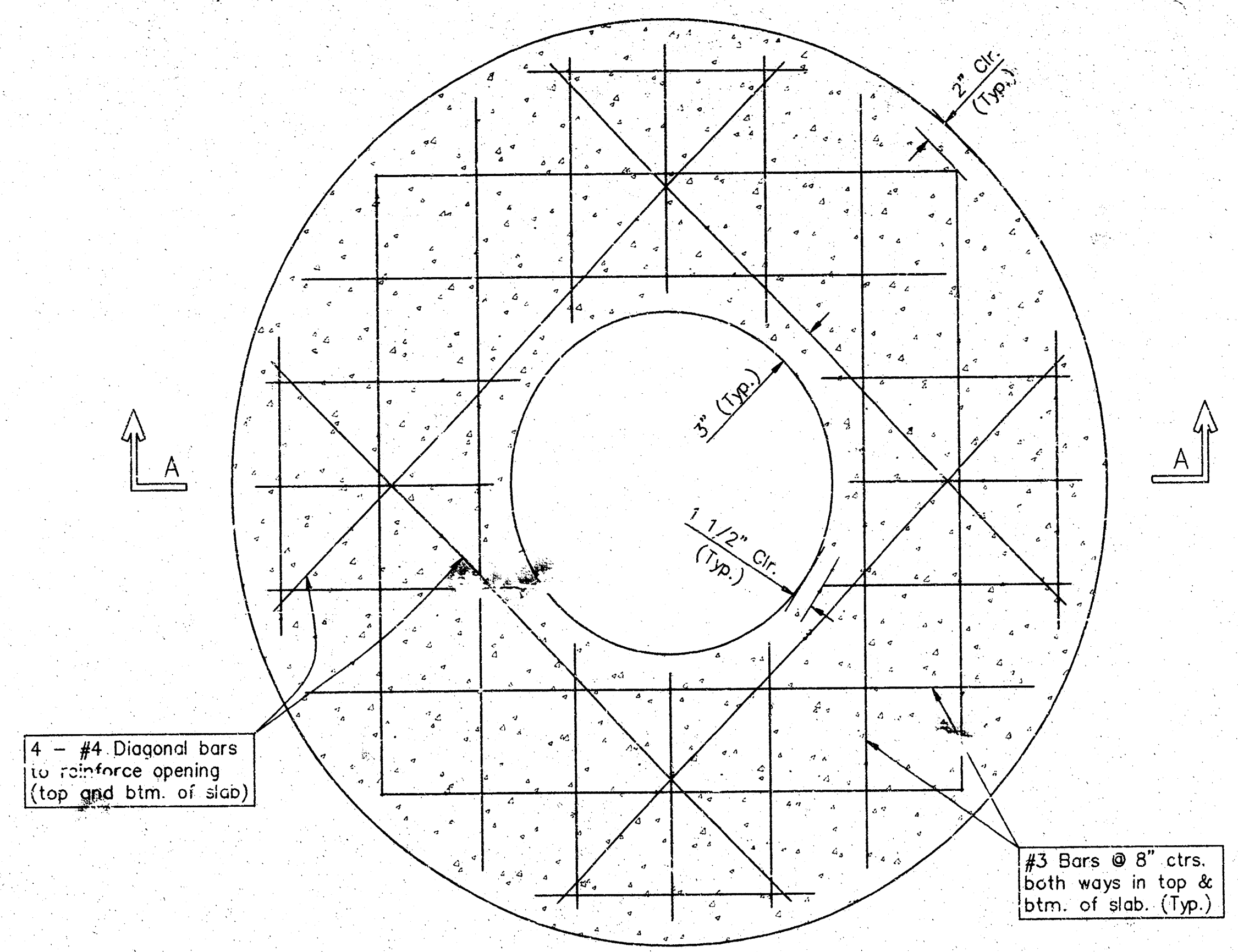
COLOR PLOTTER GUIDE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



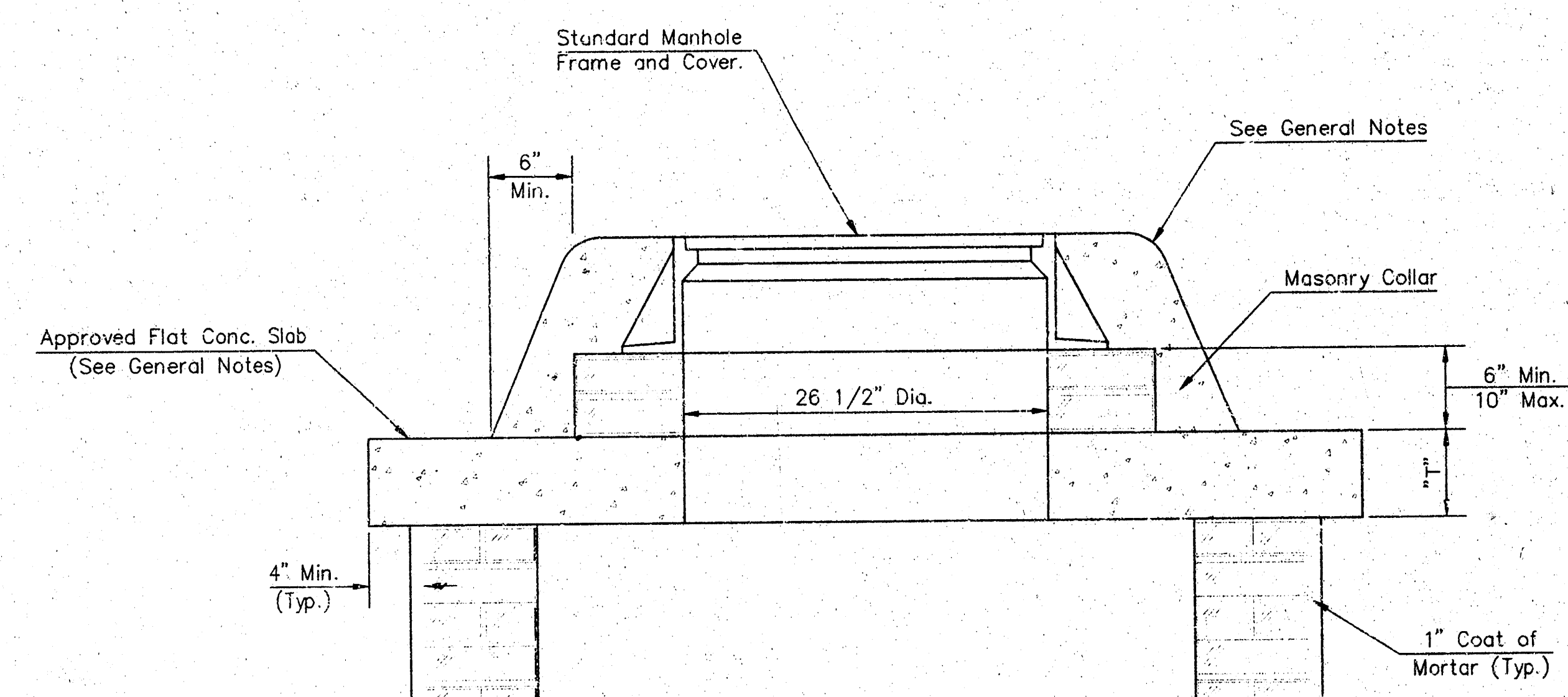
SHALLOW TYPE "A" MANHOLE



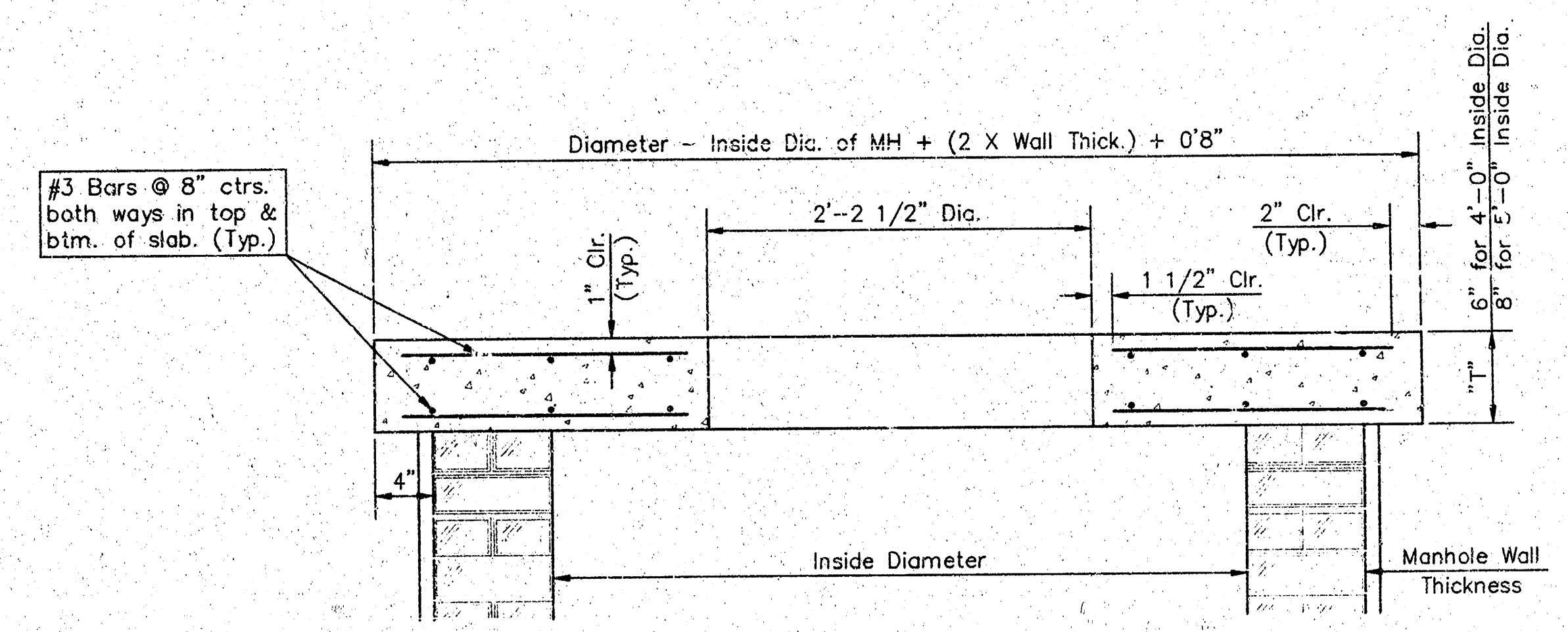
SHALLOW TYPE "B" MANHOLE



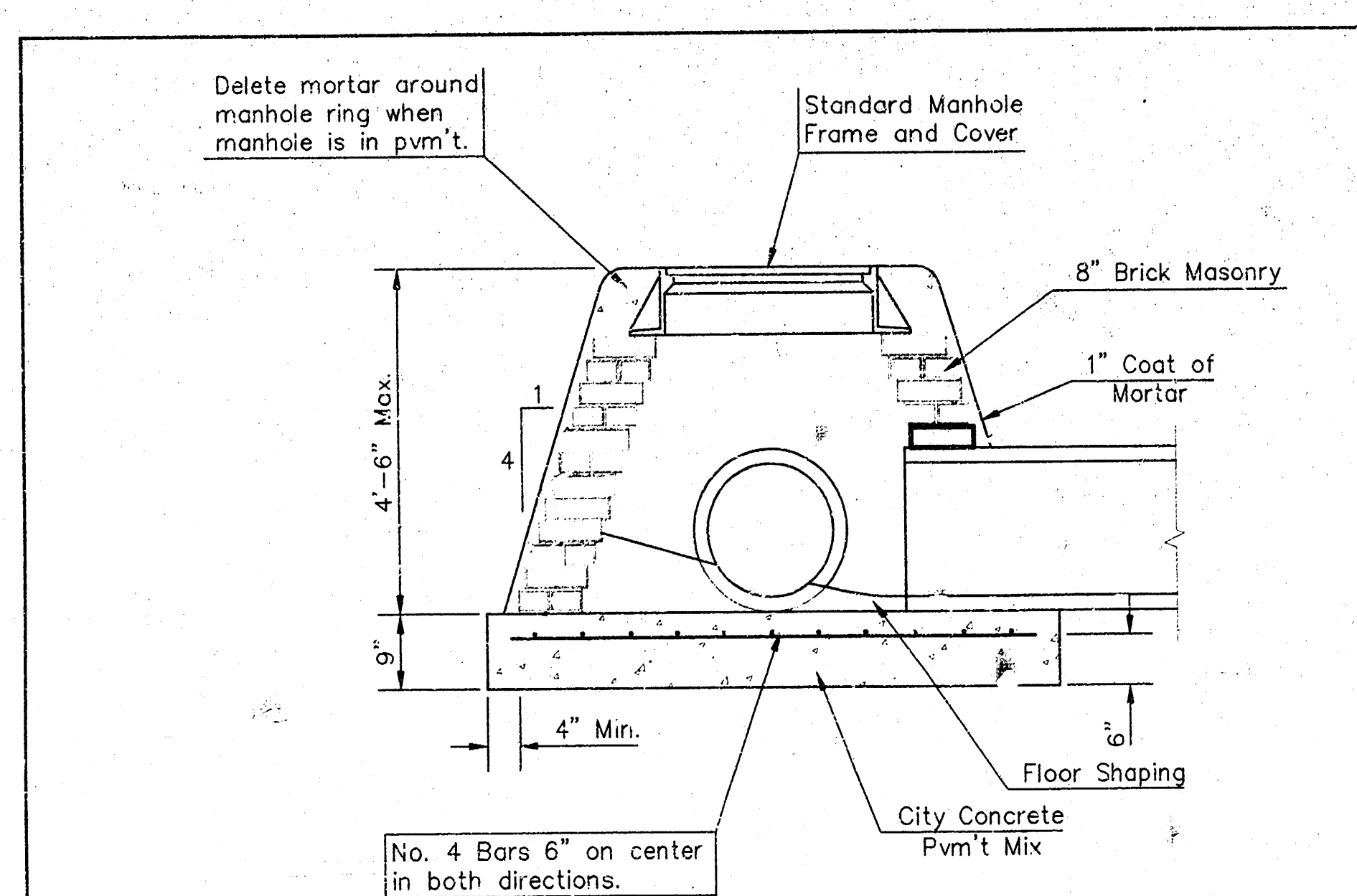
PLAN



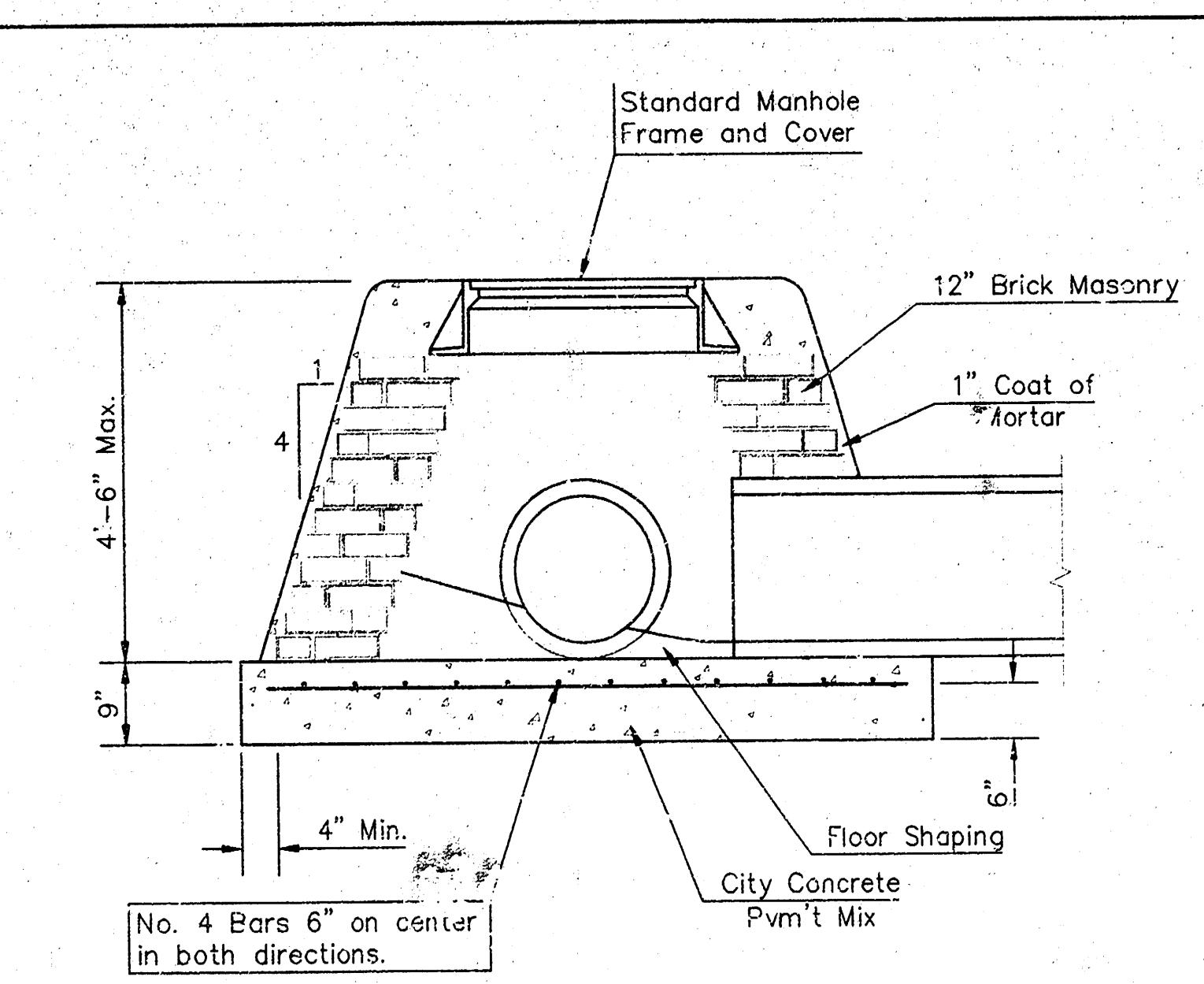
MASONRY COLLAR DETAIL



SECTION A-A
FLAT CONCRETE SLAB DETAILS



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

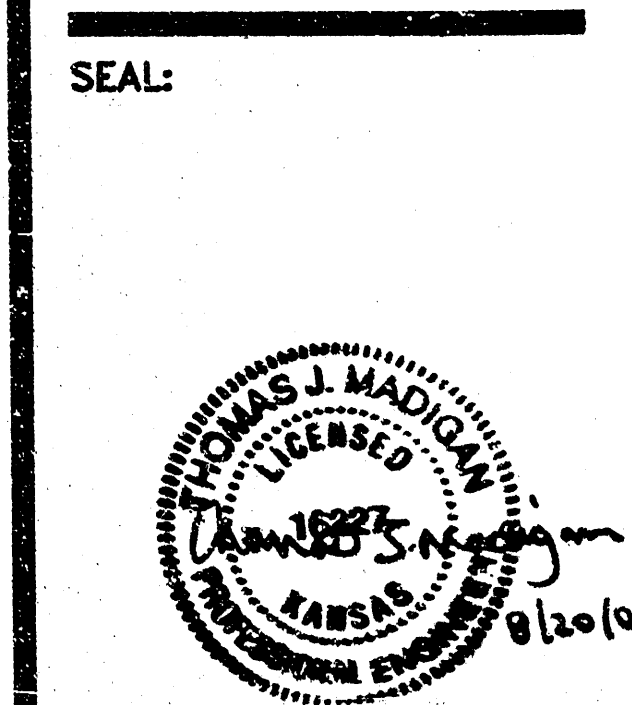
GENERAL NOTES

1. 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 with 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
7. 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.
8. All brick used in manhole construction shall meet Grade SW of ASTM C652 or C64-87.

PATRICK G. BLEES

ARCHITECTURE PLANNING DESIGN
PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@emarch.com
CONTACT: GARY FAGERSTROM

CONSULTANTS:
CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
THOMAS MADIGAN
STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
KEITH JACOBSON
LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7599 ANAGRAM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SJORDAL



slumberland
RIDGE PLAZA
8TH ADDITION
LOTS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209

SHEET TITLE:
CITY OF WICHITA
STANDARD/SPECIAL SHALLOW
MANHOLES TYPE "A" & "B"

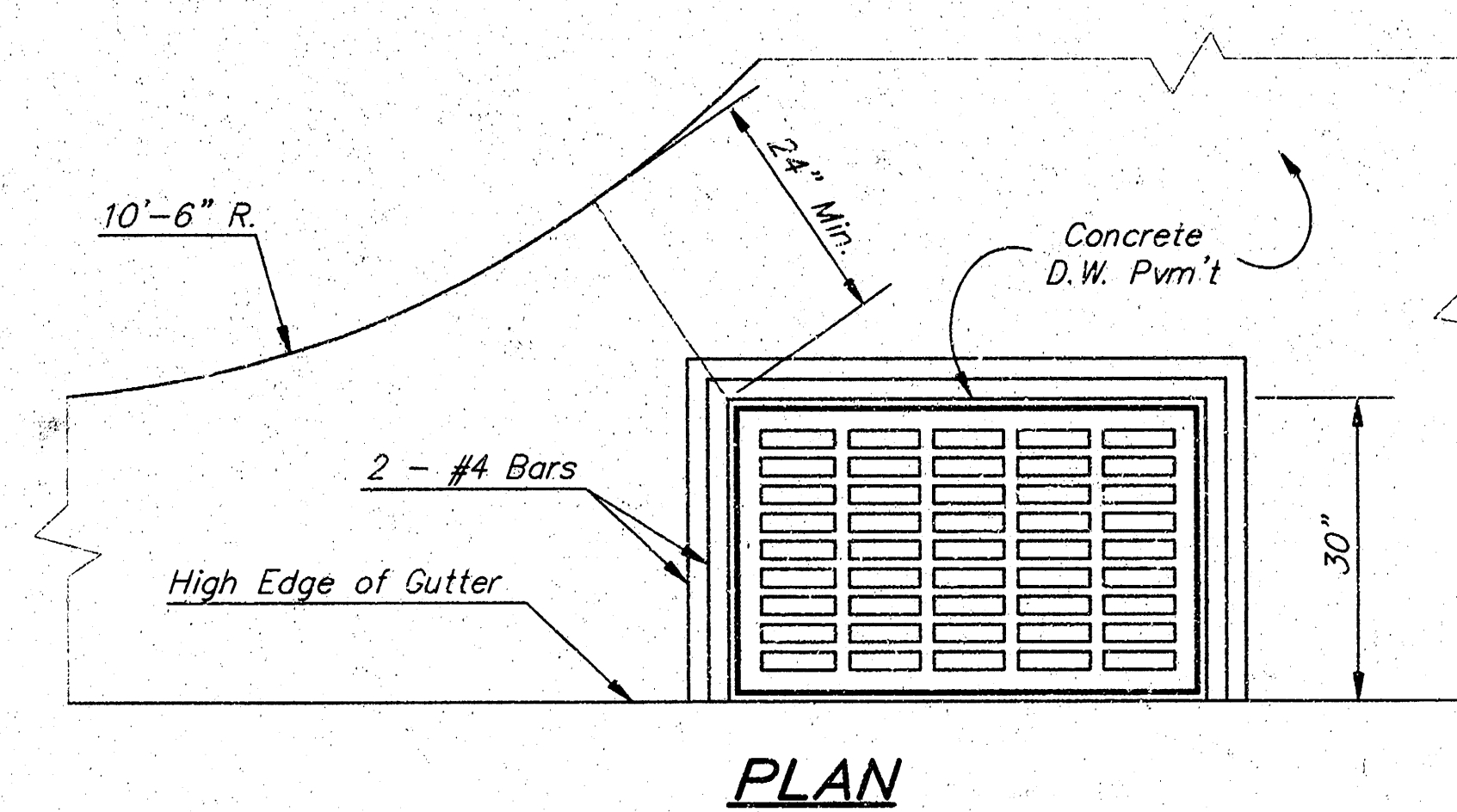
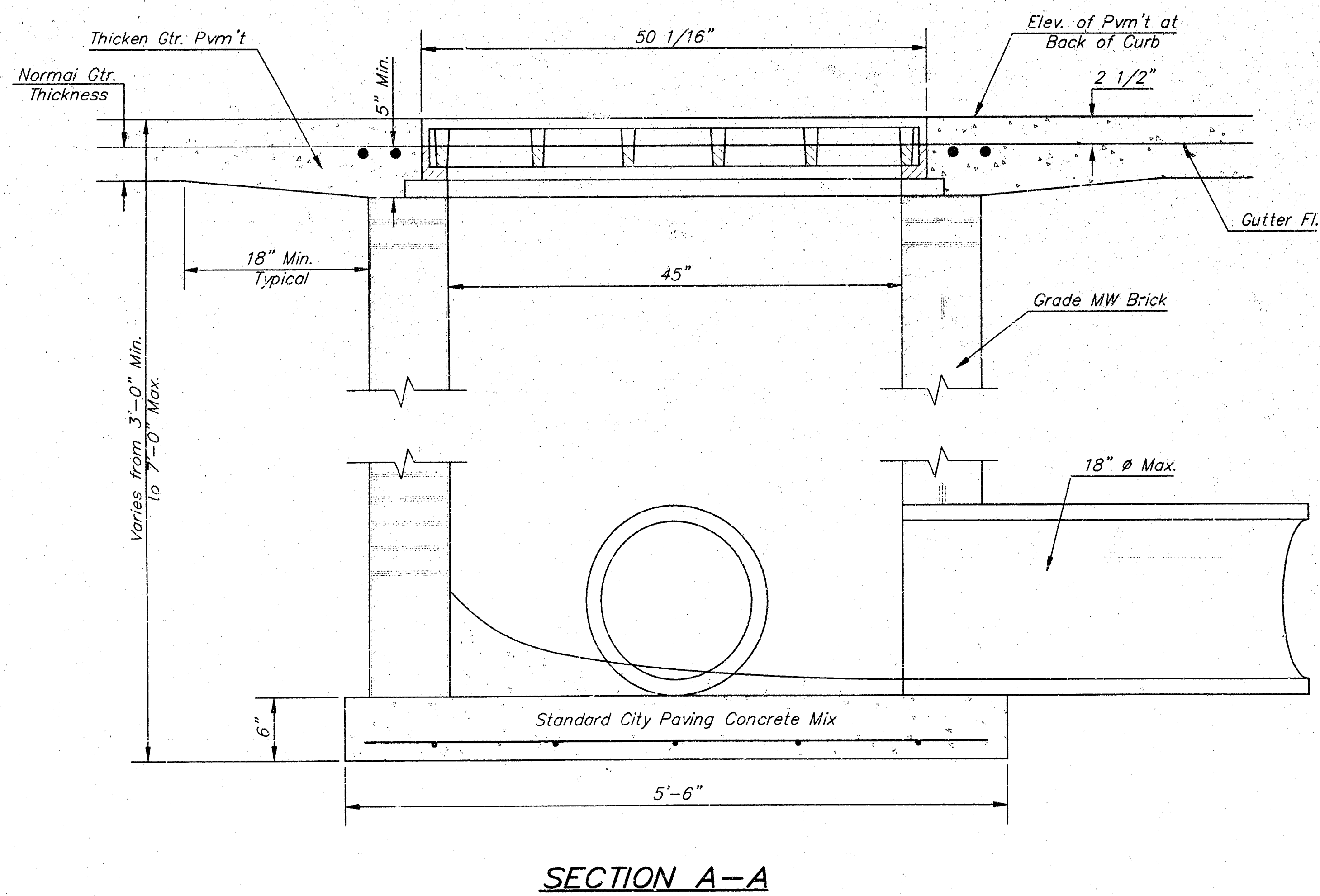
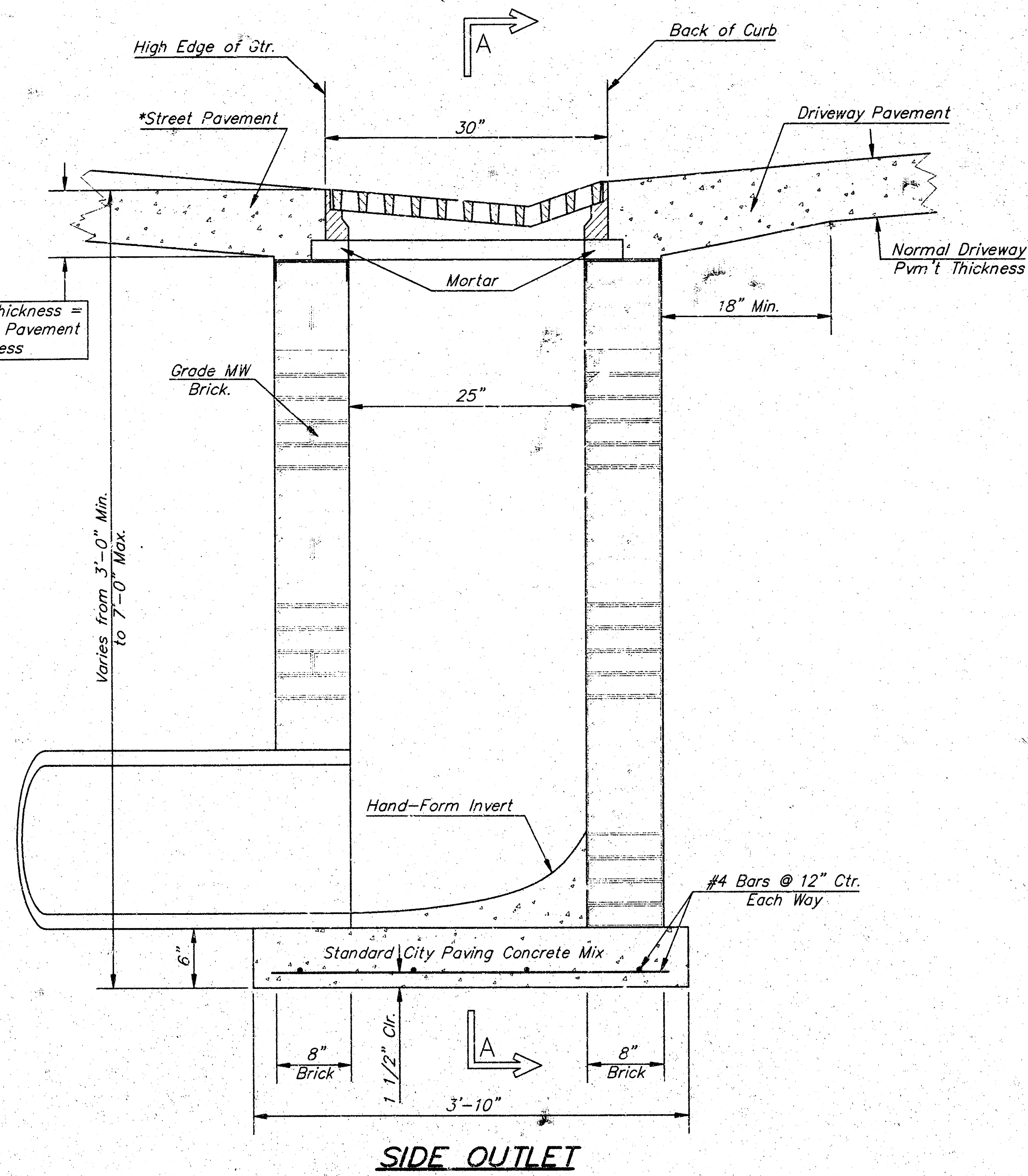
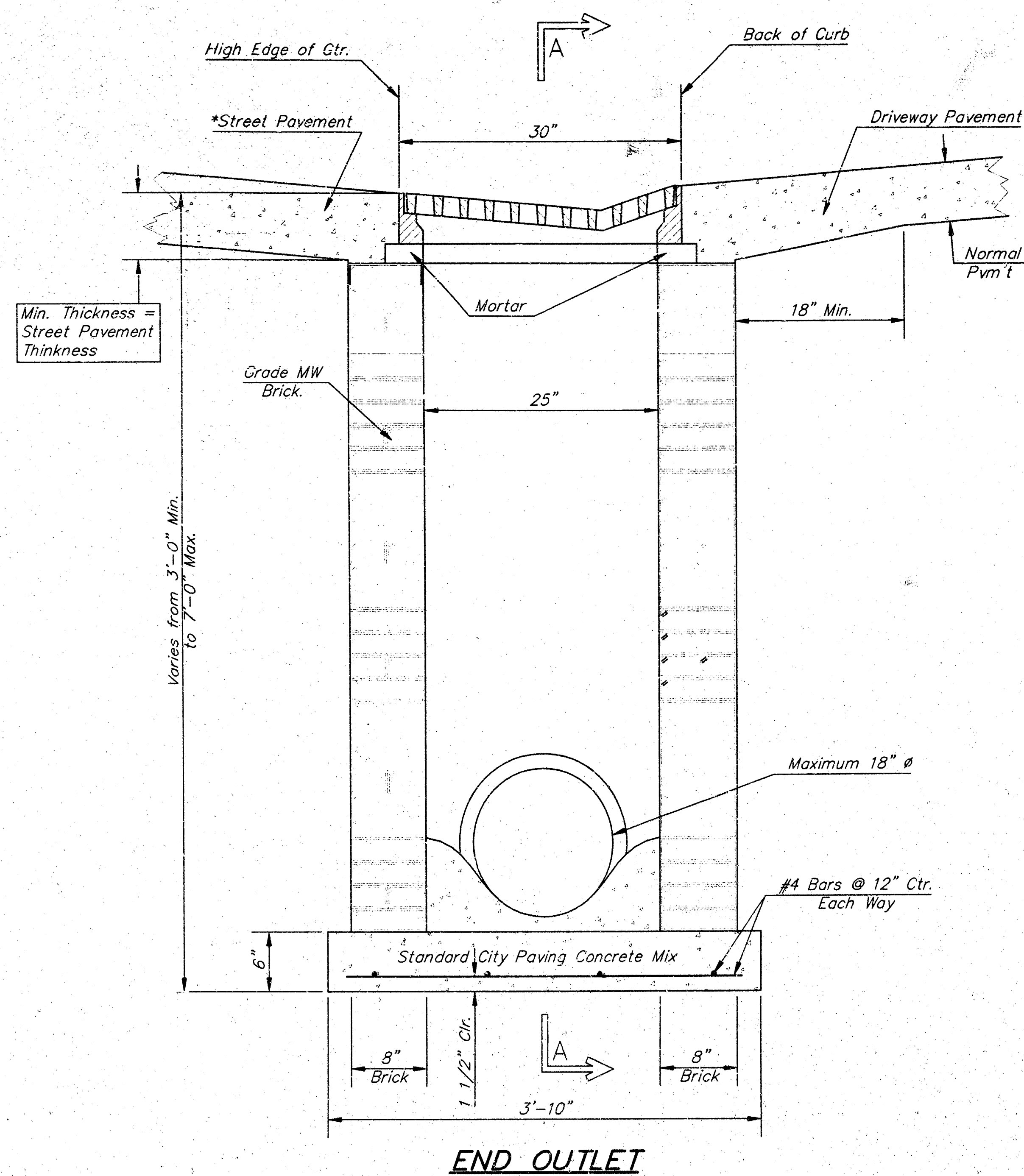
REVISIONS:		
NO.	DATE	BY
1	05/19/04	NO REVISIONS
2	06/02/04	THIS SHEET
3	06/30/04	NO REVISIONS
4	07/16/04	THIS SHEET
5	08/09/04	NO REVISIONS
6	08/20/04	THIS SHEET

PROJECT NO: 03109-15
DRAWING DATE: 08-20-04
DRAWN BY: OAV

7
SHEET 7 OF 10
FILE: 03316 7

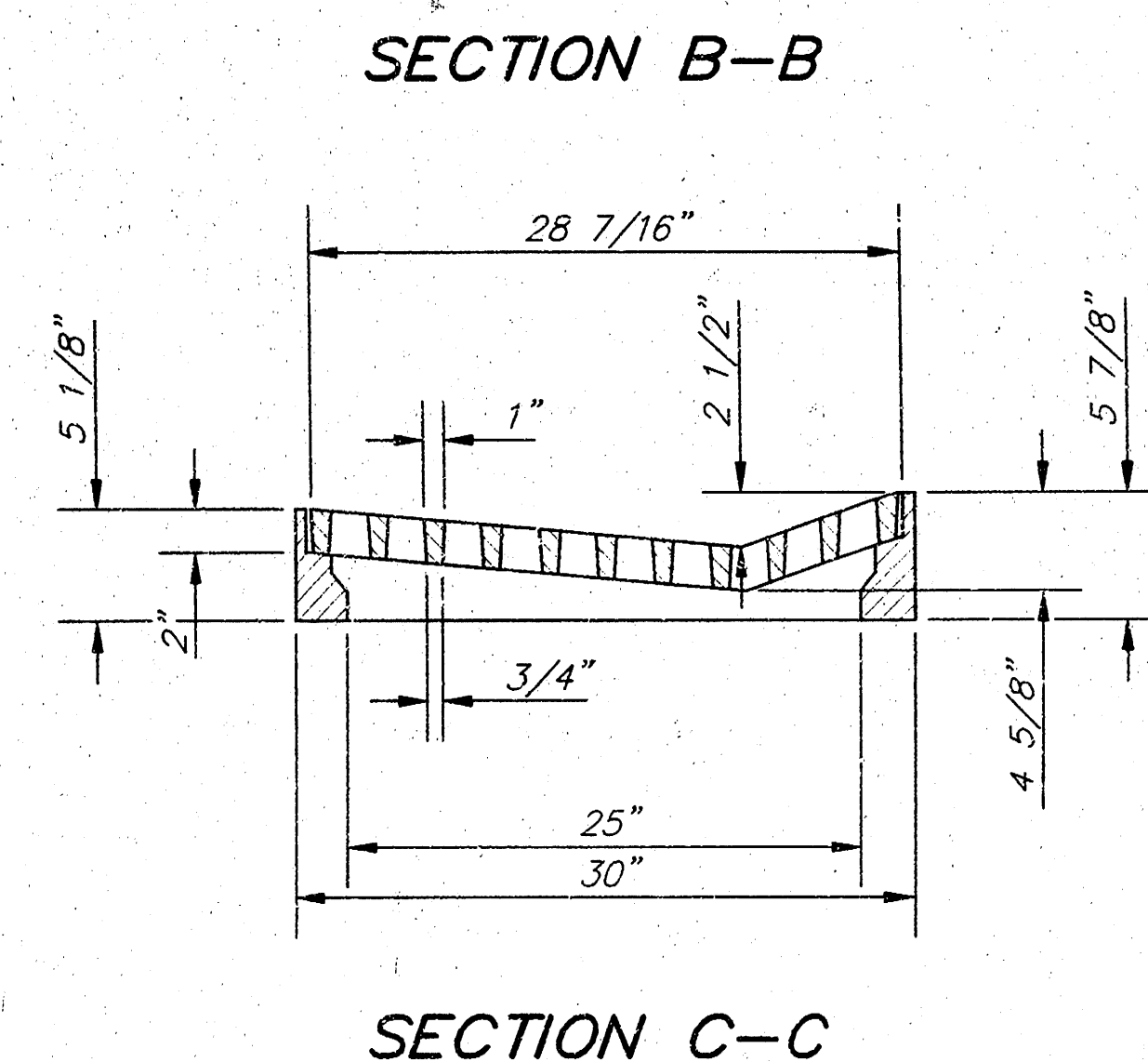
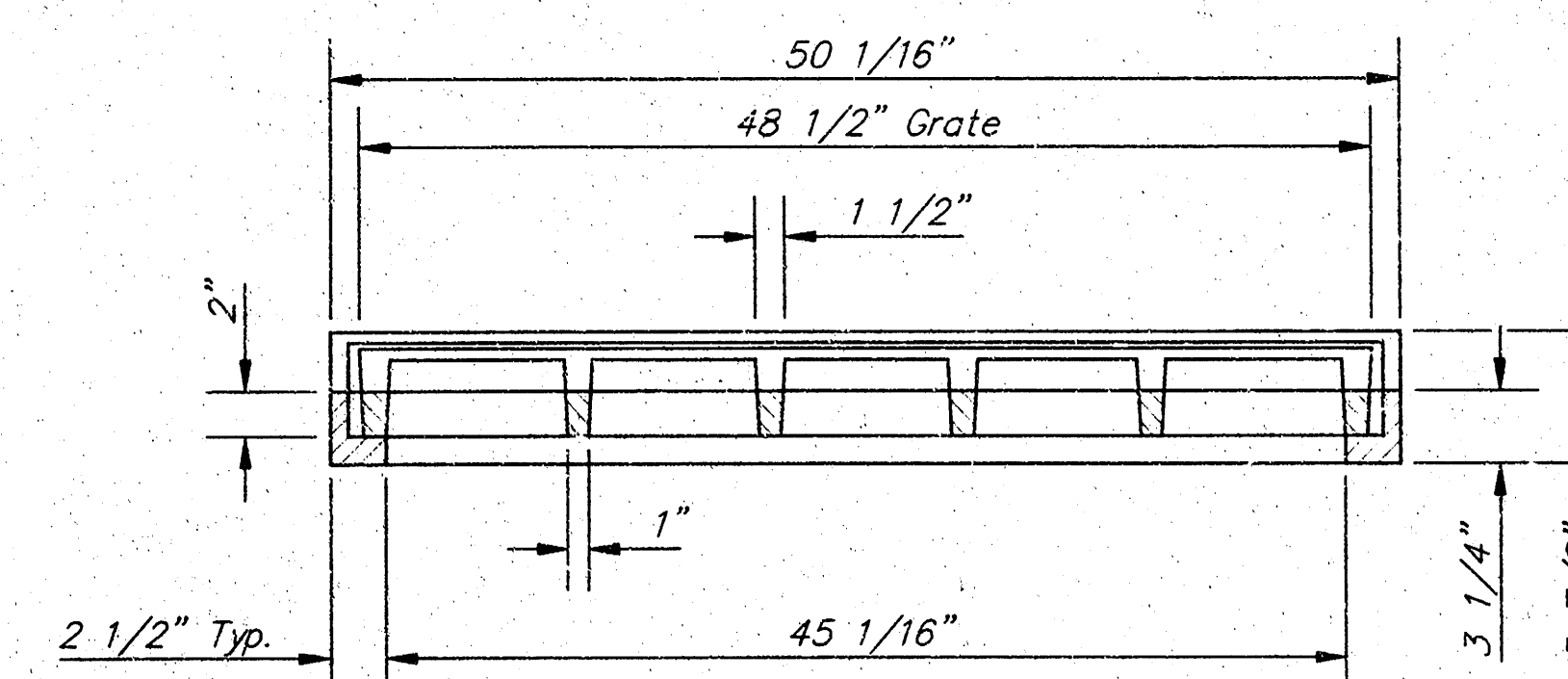
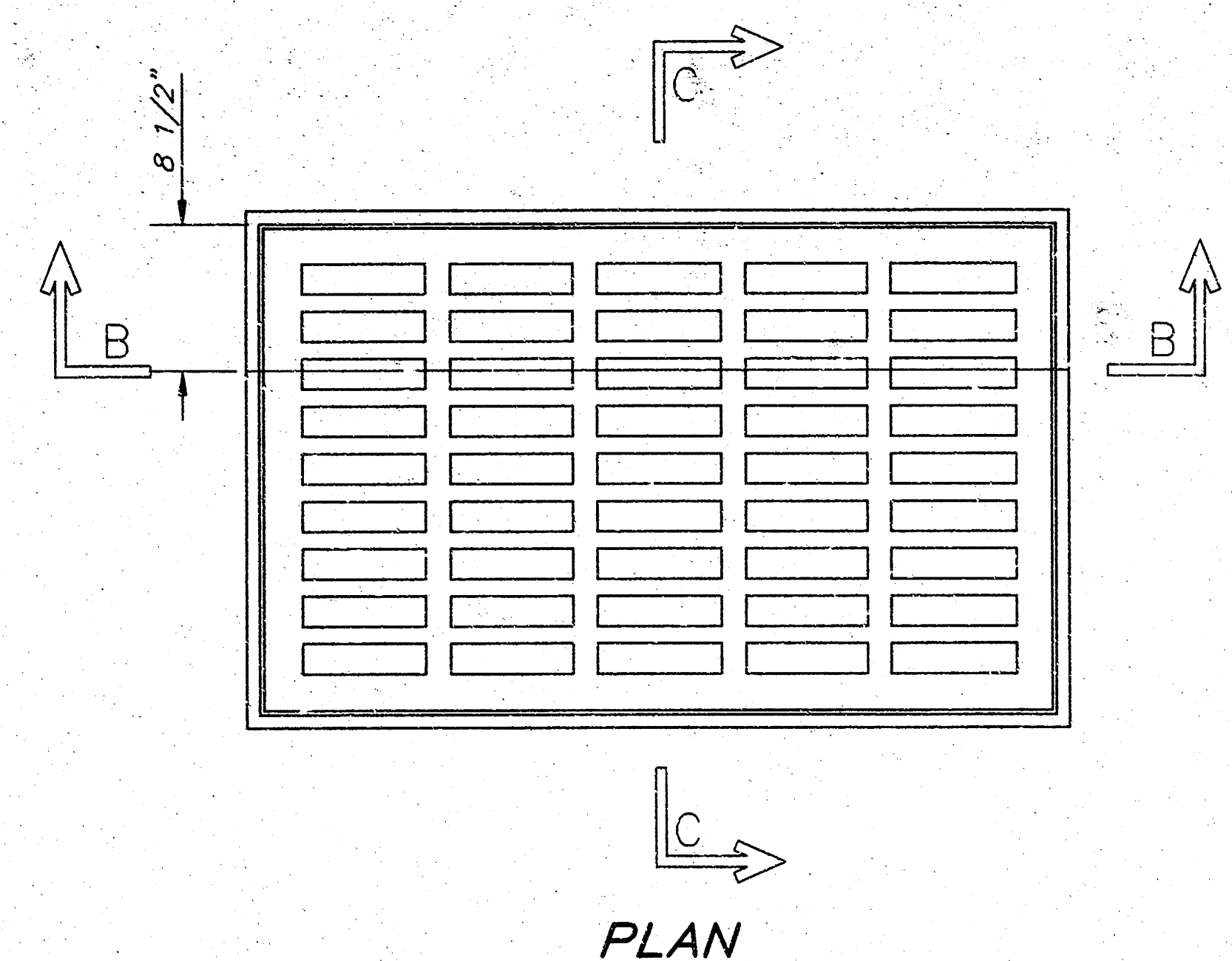
COPYRIGHT PATRICK G. BLEES, AIA 2004

PLOTTER GUIDE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
COLOR																
PEN		35	25	39	38	70	1.02	25	.19	.73	.81	.38	.25	.19	.23	
SHADE	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	25%	35%	35%	10%	50%



GENERAL NOTES

1. *Grate frame to be installed on thin mortar cushion to insure full support along brick walls. Concrete used for inlet construction shall be concrete pavement mix.*
2. *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.*
3. *The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.*
4. *Inlet Frame and Grate to be Deeter #2095 of approved equal*



DEETER #2095 FRAME & GRATE
TOTAL WEIGHT: 705 lbs.

**PATRICK
G. BLEES**

ARCHITECTURE PLANNING DESIGN

PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@cmarch.com
CONTACT: GARY FAGERSTROM

CONSULTANTS:

CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
THOMAS MADIGAN

STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9105
KEITH JACOBSON

LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7599 ANAGRAM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SJORDAL

SEAL:



slumberland

RIDGE PLAZA
8TH ADDITION
LOTS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209

SHEET TITLE:

CITY OF WICHITA
DRIVEWAY GRATED
INLET SINGLE

REVISIONS:

NO:	DATE:	BY:
2	05/19/04	NO REVISIONS THIS SHEET
3	06/02/04	NO REVISIONS THIS SHEET
4	06/30/04	NO REVISIONS THIS SHEET
5	07/16/04	NO REVISIONS THIS SHEET
6	08/09/04	CITY
7	08/20/04	NO REVISIONS THIS SHEET

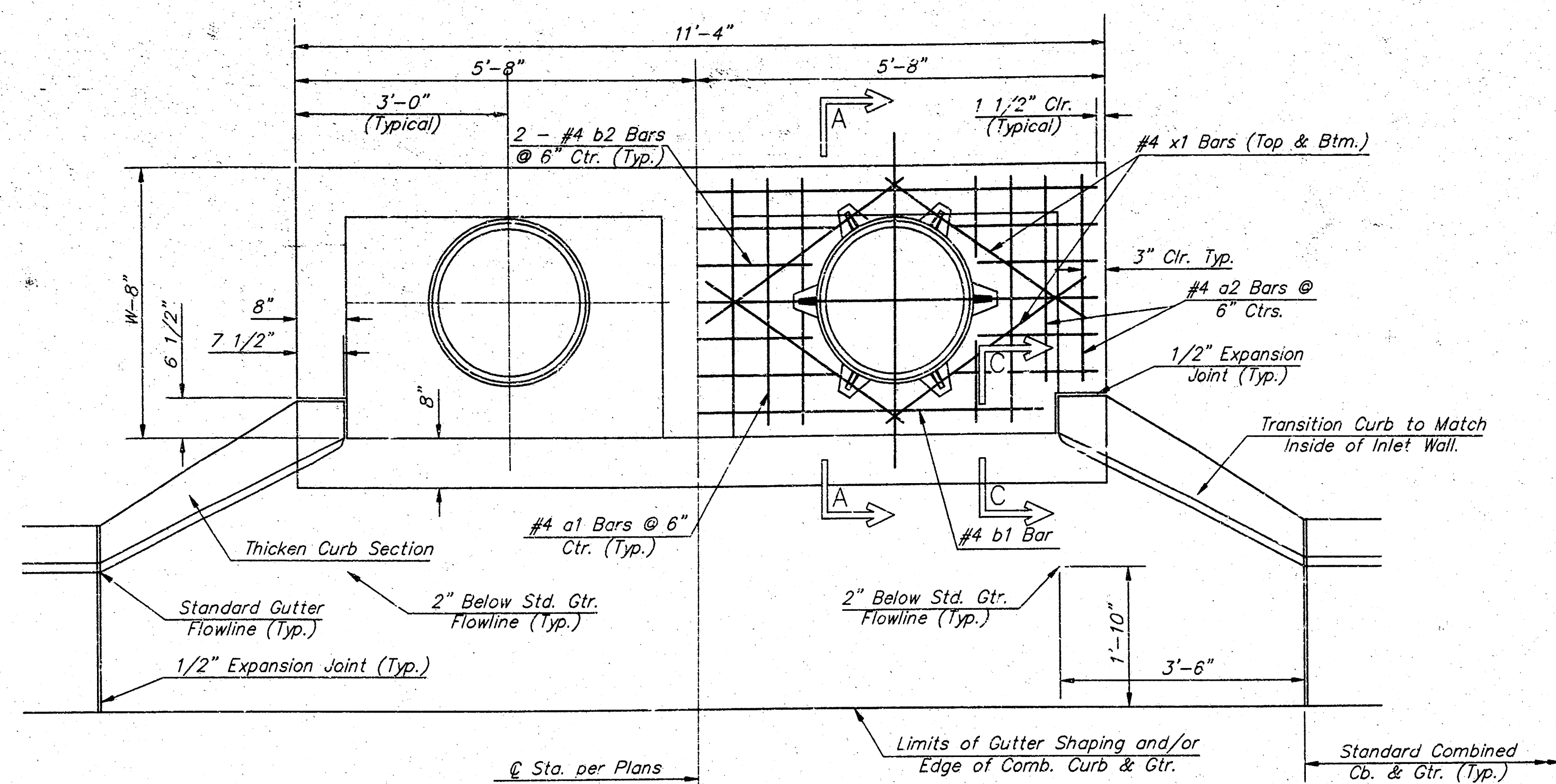
PROJECT NO: 03109-15
DRAWING DATE: 08-20-04
DRAWN BY: QAW

8

SHEET 8 OF 10
FILE: 03316 8

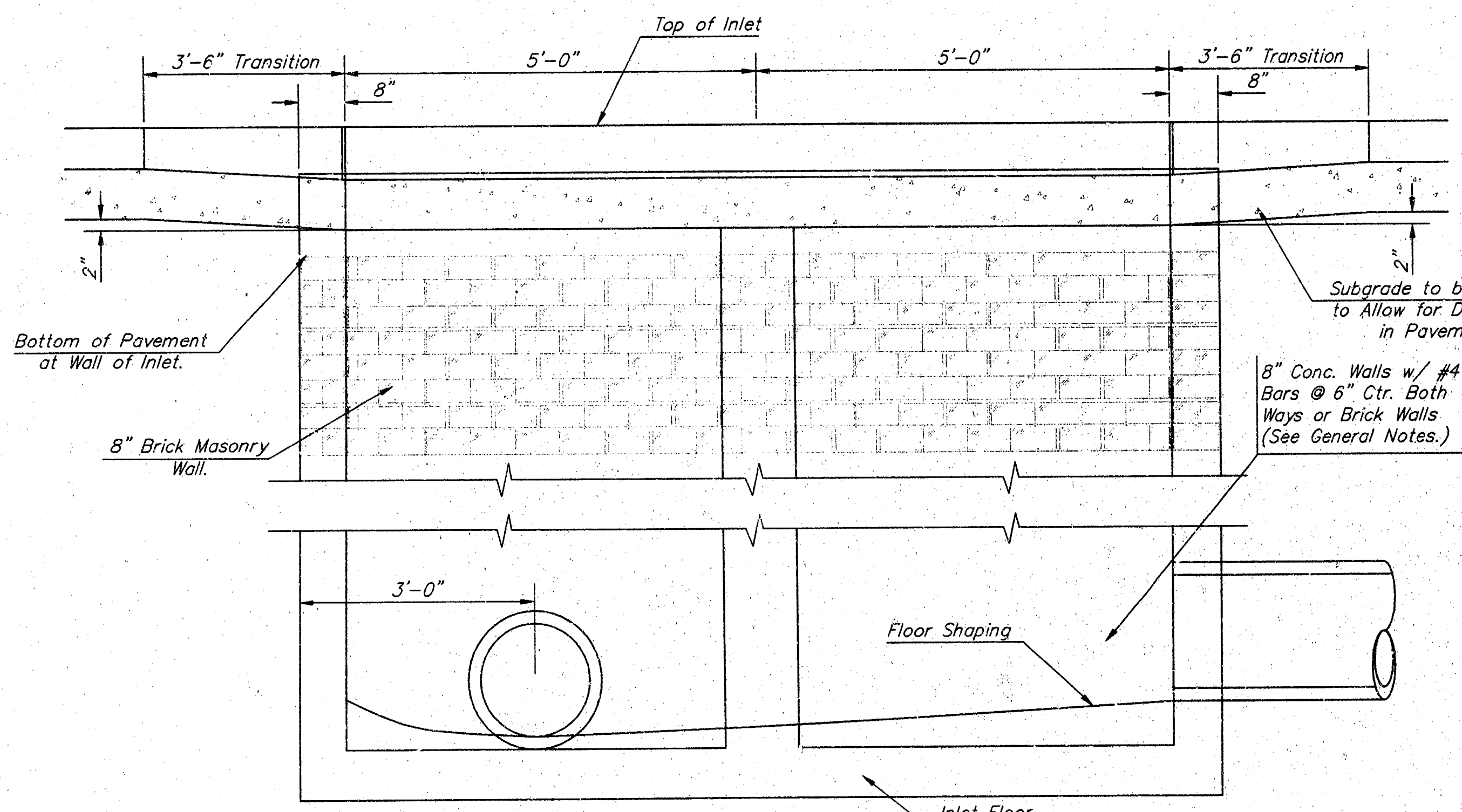
COPYRIGHT PATRICK G. BLEES, AIA 2004

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
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

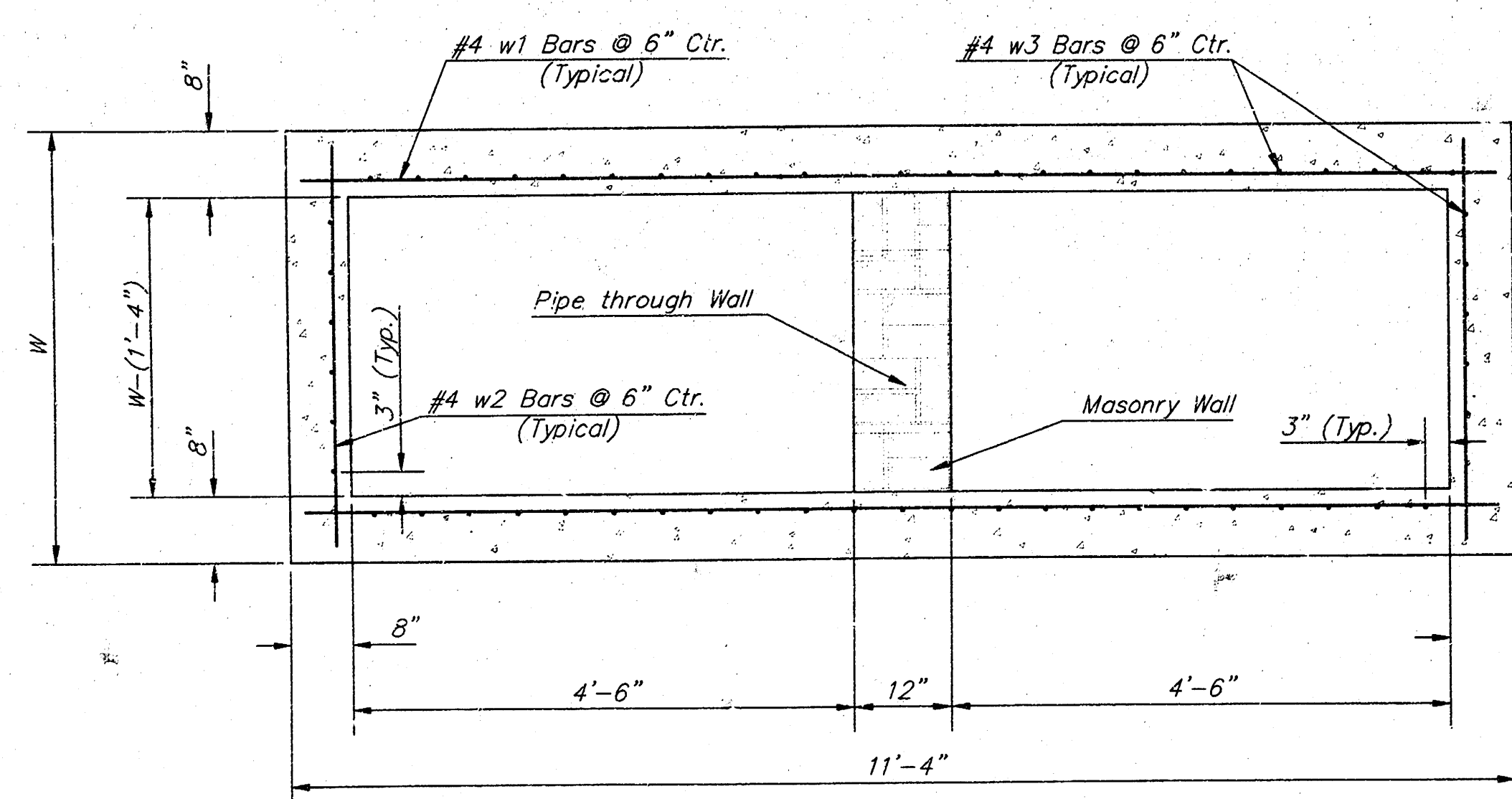


PLAN

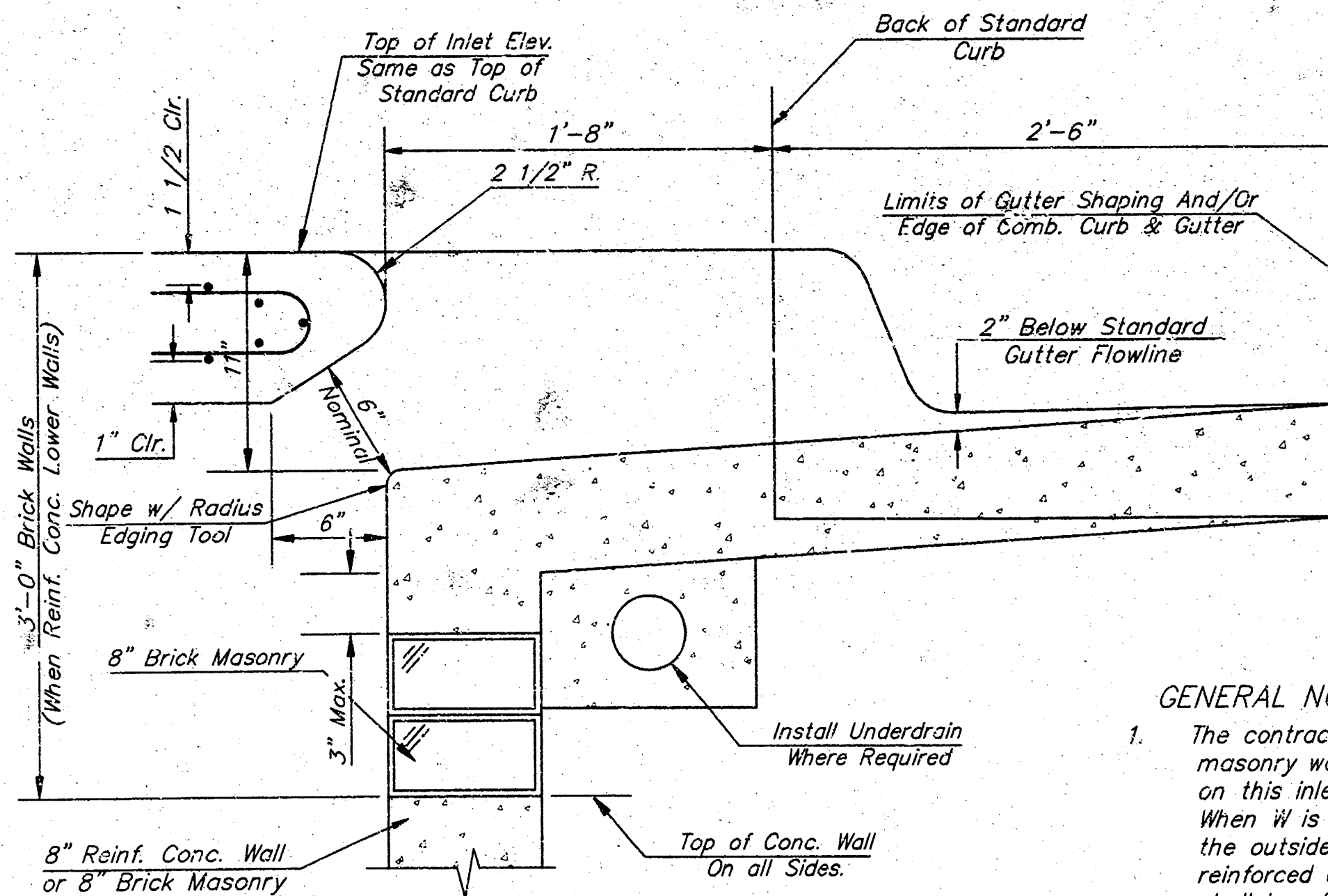
*Left Side Shown Without Slab Reinforcing,
Right Side Shown With Slab Reinforcing



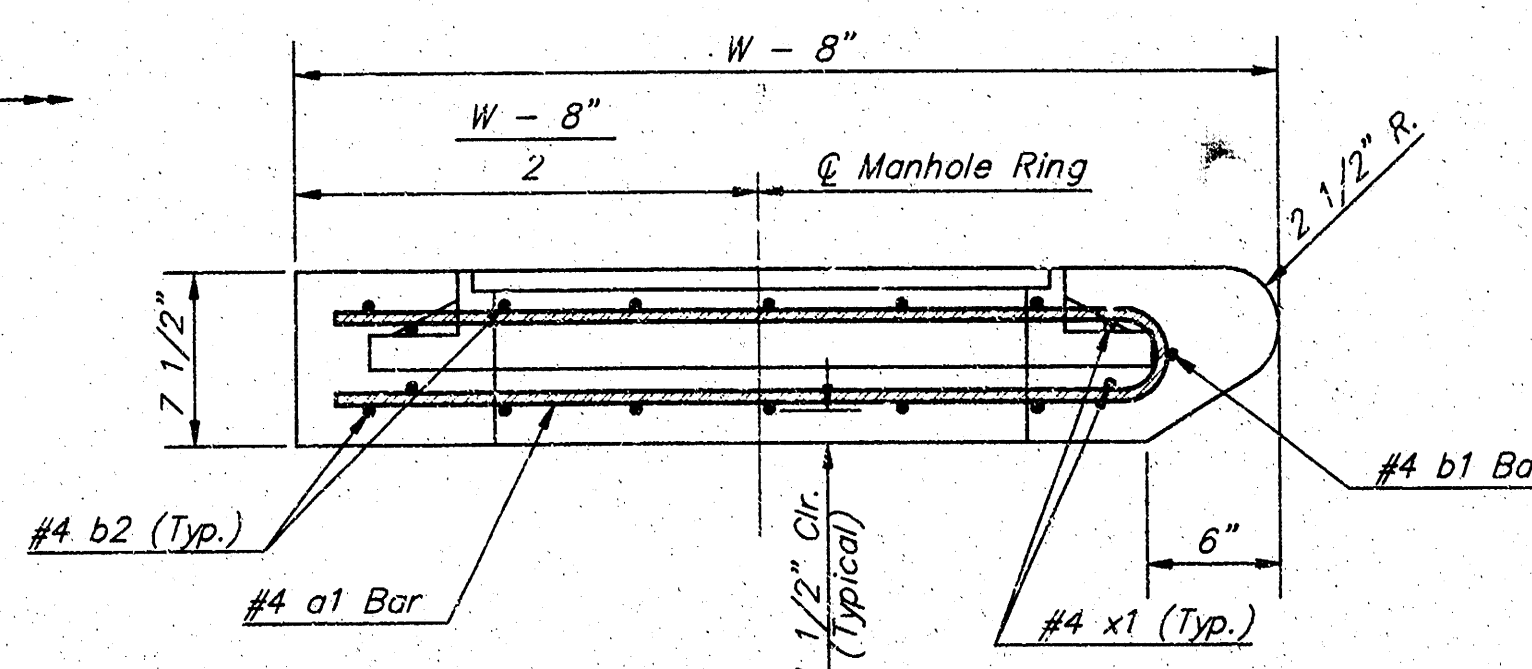
ELEVATION



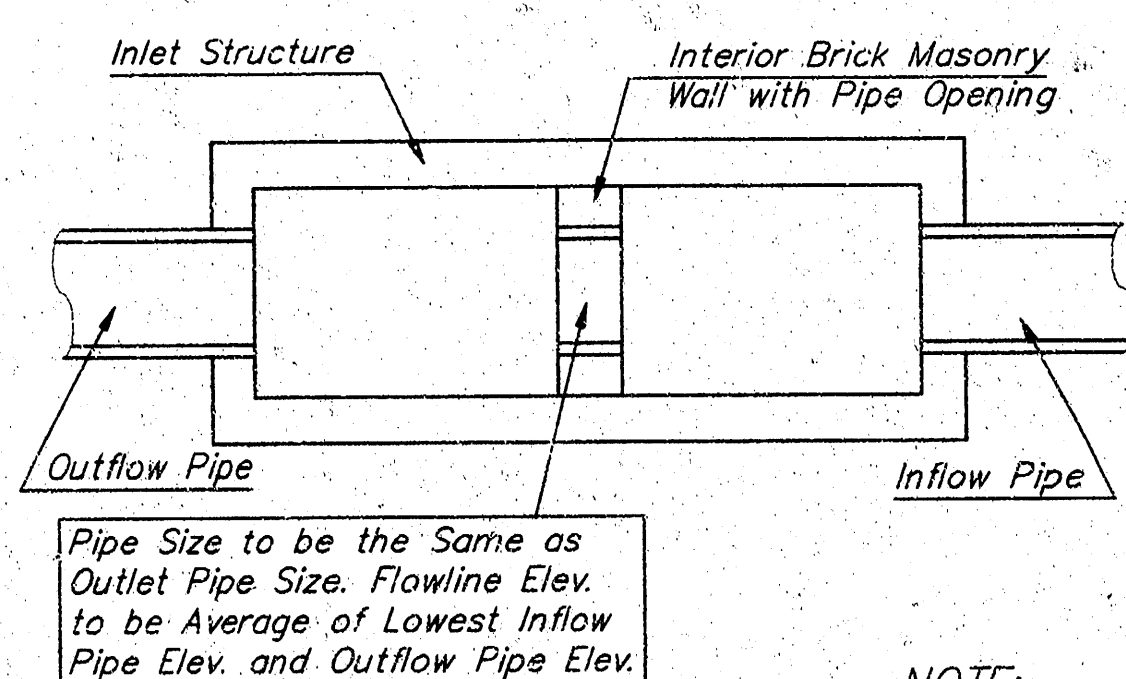
SECTION B-B



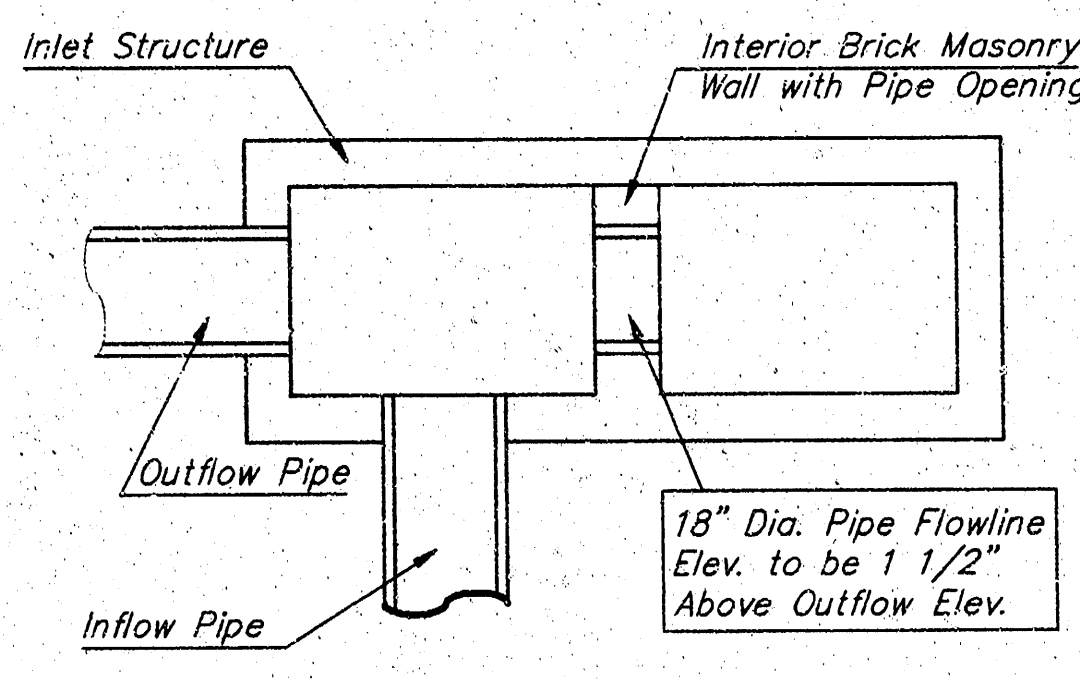
SECTION C-C



SECTION A-A

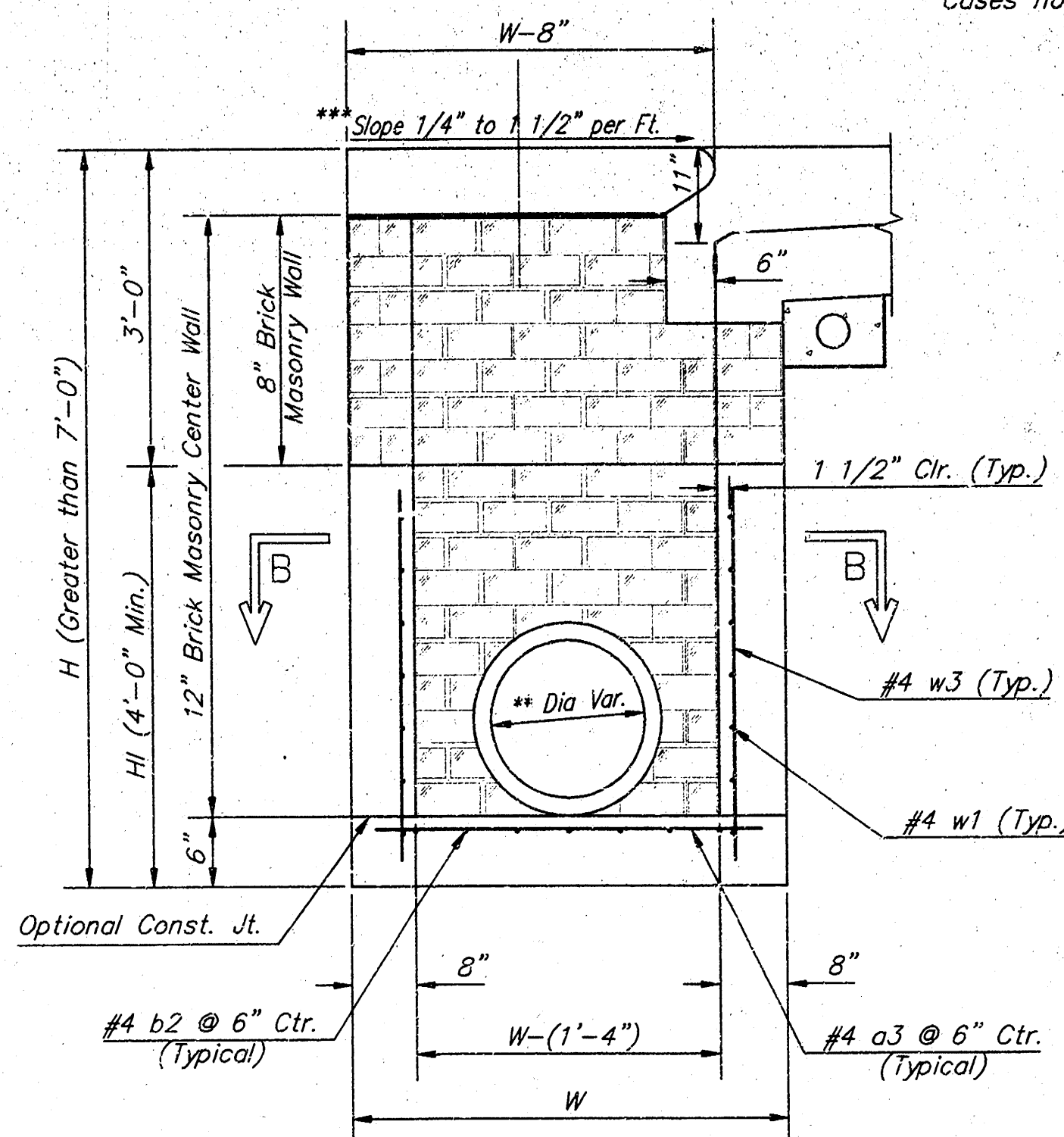


CASE I

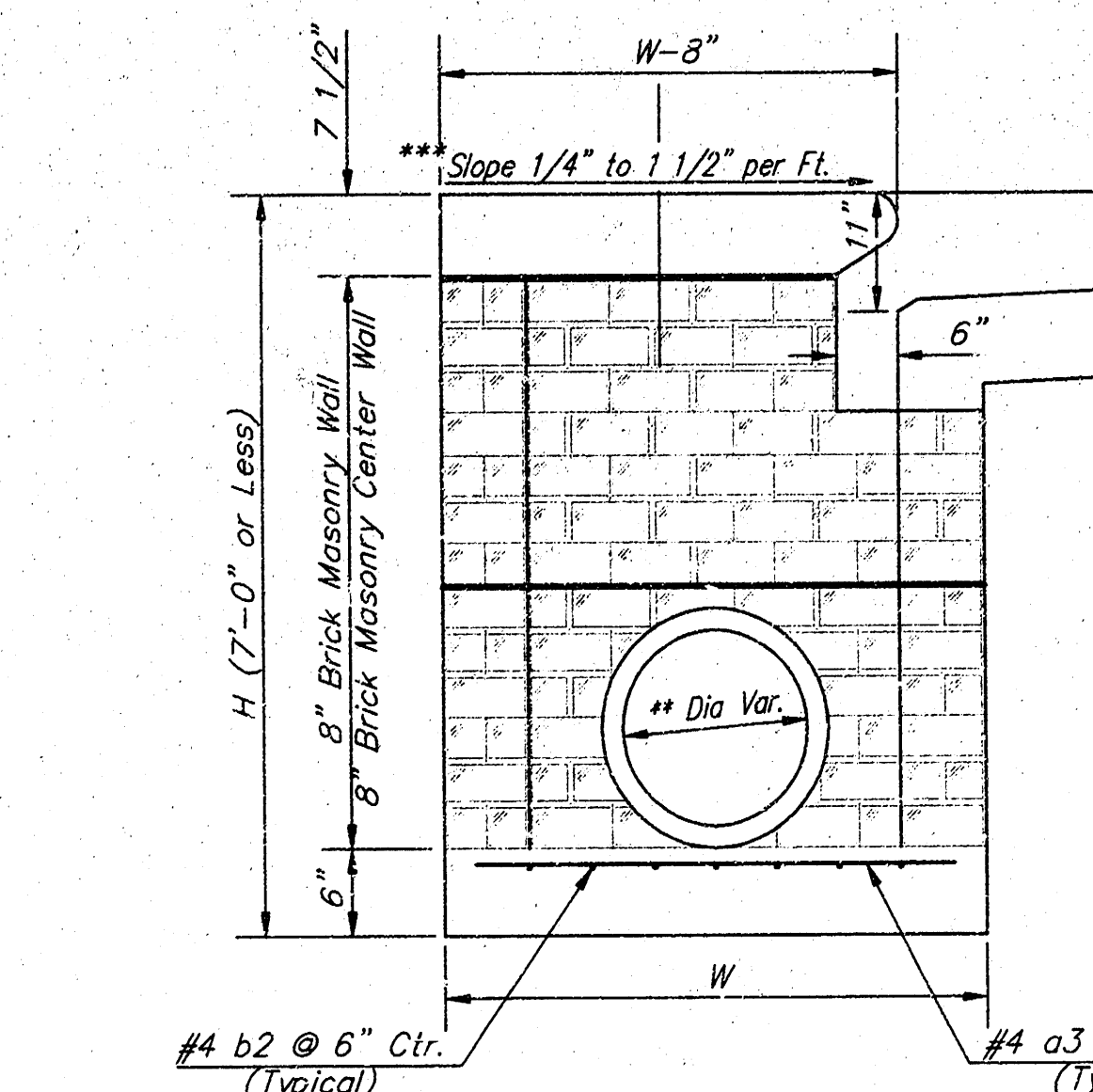


CASE II

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



TYPICAL INLET SECTION AT CENTER WALL
(Reinforced Concrete Walls)



TYPICAL INLET SECTION AT CENTER WALL
(Masonry Walls)

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

PRECAST SLAB AND FLOOR REINFORCING											
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
a1	#4	13	6'-0"	13	8'-0"	13	10'-0"	13	12'-0"	13	14'-0"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	23	4'-0"	23	5'-0"	23	6'-0"	23	7'-0"	23	8'-0"
b1	#4	1	9'-0"	1	9'-0"	1	9'-0"	1	9'-0"	1	9'-0"
b2	#4	23	11'-0"	29	11'-0"	35	11'-0"	41	11'-0"	47	11'-0"
b3	#4	16	3'-0"	16	4'-0"	16	5'-0"	16	6'-0"	16	7'-0"

WALL REINFORCING											
MARK	SIZE	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH
w1	#4	1	11'-0"	1	11'-0"	1	11'-0"	1	11'-0"	1	11'-0"
w2	#4	1	4'-0"	1	5'-0"	1	6'-0"	1	7'-0"	1	8'-0"
w3	#4	52	56	60	64	68	72	76	80	84	88

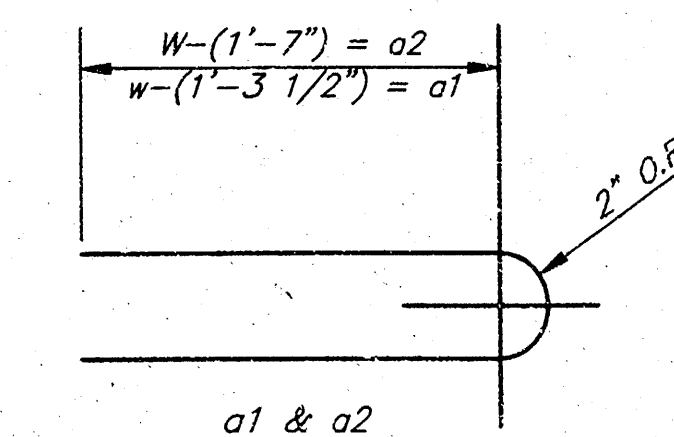
* Field Bend or Cut Reinforcing as Required for Clearance.

① 4 (H1 - 12") (H1 - 21") Rounded down to nearest 0.5"

② H1 - 3"

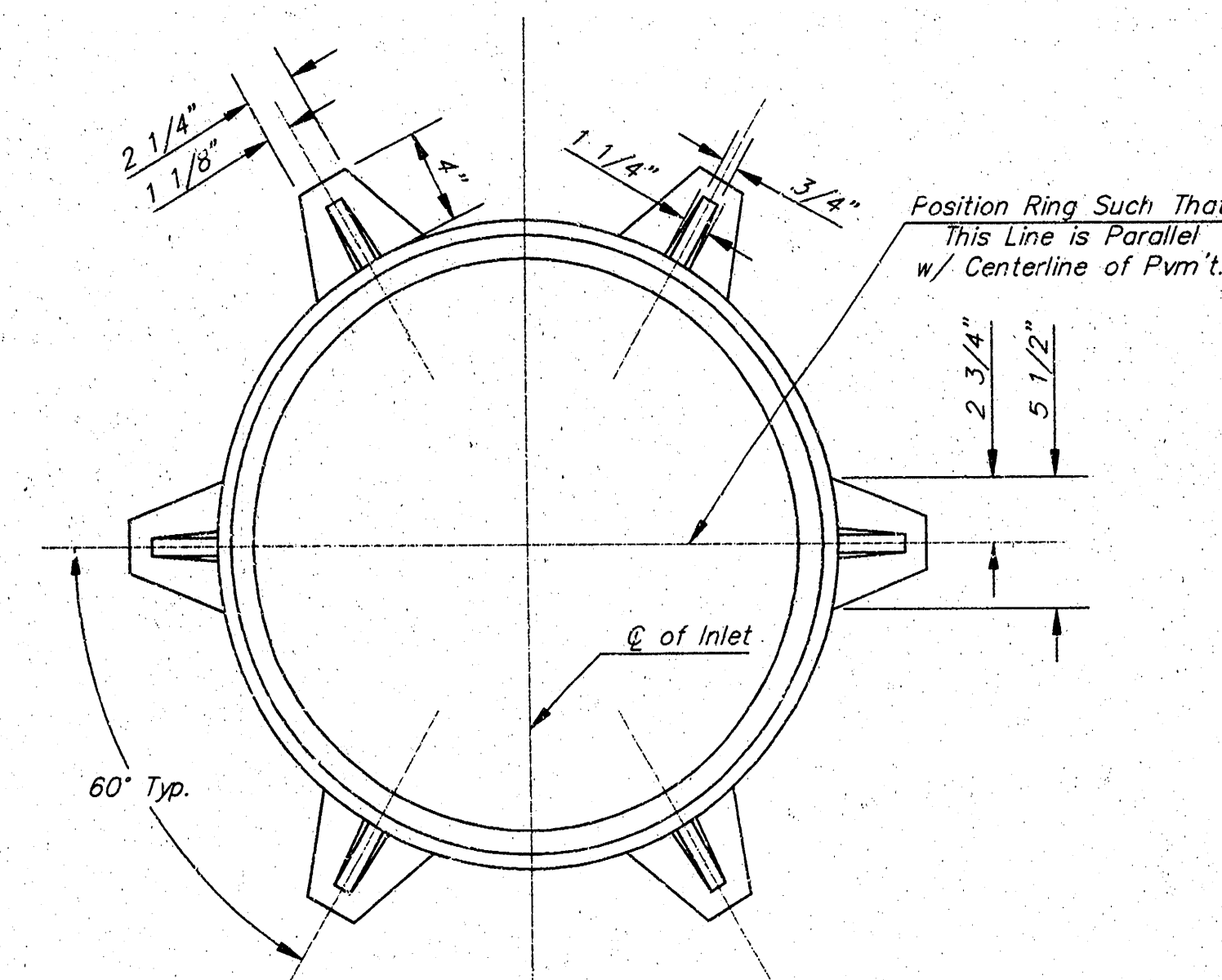
GENERAL NOTES:

- The contractor shall be required to construct 8" brick masonry walls between the concrete inlet base and top on this inlet when W=5'-0" or less and H=7'-0" or more. When W is greater than 5'-0" and H is more than 7'-0" the outside inlet walls below the brick stack shall be reinforced concrete construction and the center wall shall be of masonry construction as shown for the masonry wall option.
- 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.
- 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.
- Inlet top reinforcing shall be spaced on 6" max. centers. Inlet lids shall be notched out as indicated to facilitate construction of curb. Bars in inlet top to be field bent or cut to clear manhole ring.
- The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.



BENDING DIAGRAM

W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
3'-0"	3'-8" 11'-4" 7 1/2"	21" & SMALLER	0.83±
4'-0"	4'-8" 11'-4" 7 1/2"	24" & 30"	1.09±
5'-0"	5'-8" 11'-4" 7 1/2"	36" & 42"	1.35±
6'-0"	6'-8" 11'-4" 7 1/2"	48" & 54"	1.61±
7'-0"	7'-8" 11'-4" 7 1/2"	60" & 66"	1.87±



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.

PATRICK G. BLEES

ARCHITECTURE PLANNING DESIGN

PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@patrickblees.com
CONTACT: GARY FAGERSTROM

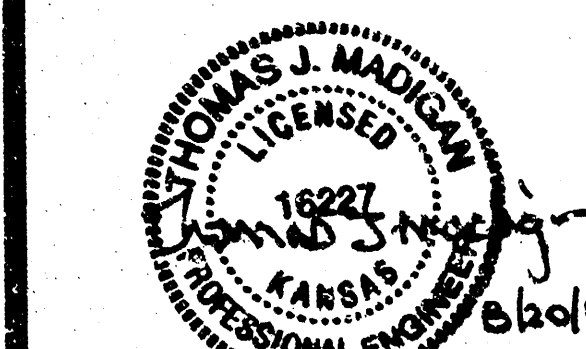
CONSULTANTS:

CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
THOMAS MADIGAN

STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N, SUITE 10
PLYMOUTH, MN 55441
763-577-9118
KEITH JACOBSON

LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7599 ANAGRAM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SICARDAL

SEAL:



slumberland

RIDGE PLAZA
8TH ADDITION
LOTS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209

SHEET TITLE:

CITY OF WICHITA
STANDARD TYPE 1-A
CURB INLET 10'-0" OPENING

REVISIONS:

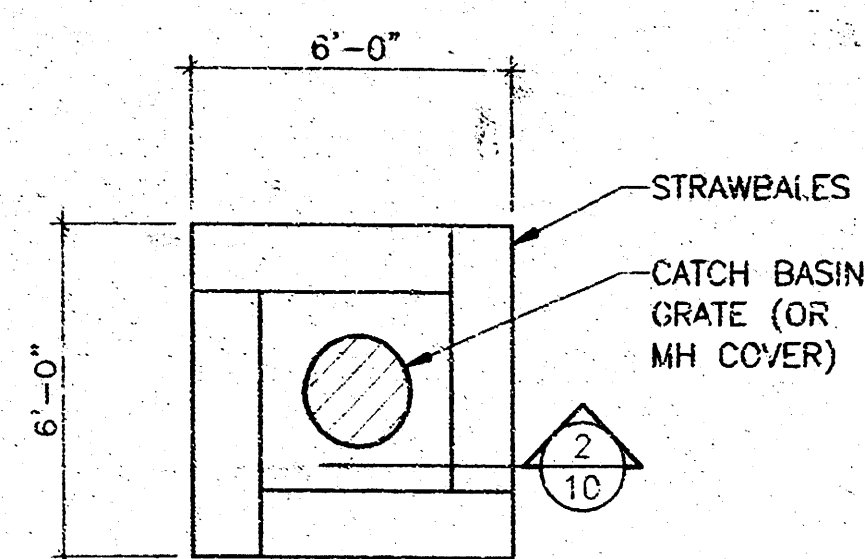
NO.	DATE	BY	REVISIONS
1	05/19/04	NO REVISIONS	
2	06/02/04	NO REVISIONS	
3	06/30/04	NO REVISIONS	
4	07/16/04	NO REVISIONS	
5	08/09/04	NO REVISIONS	
6	08/20/04	NO REVISIONS	
7			

PROJECT NO: 03109-15
DRAWING DATE: 03-20-04
DRAWN BY: OAV

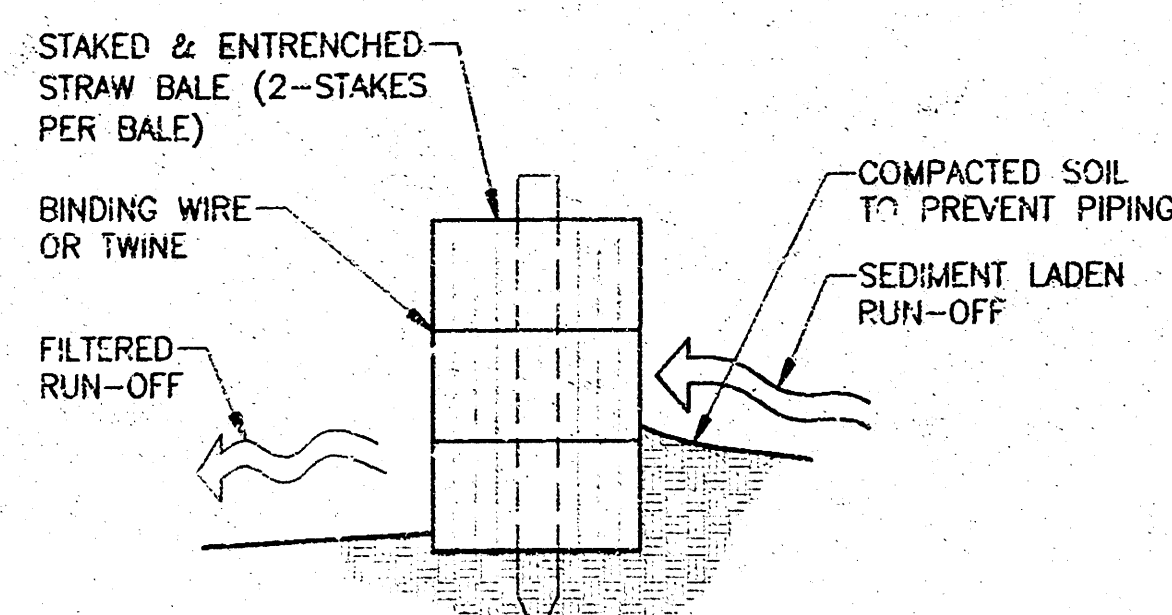
9

SHEET 9 OF 10
FILE: 03316 9

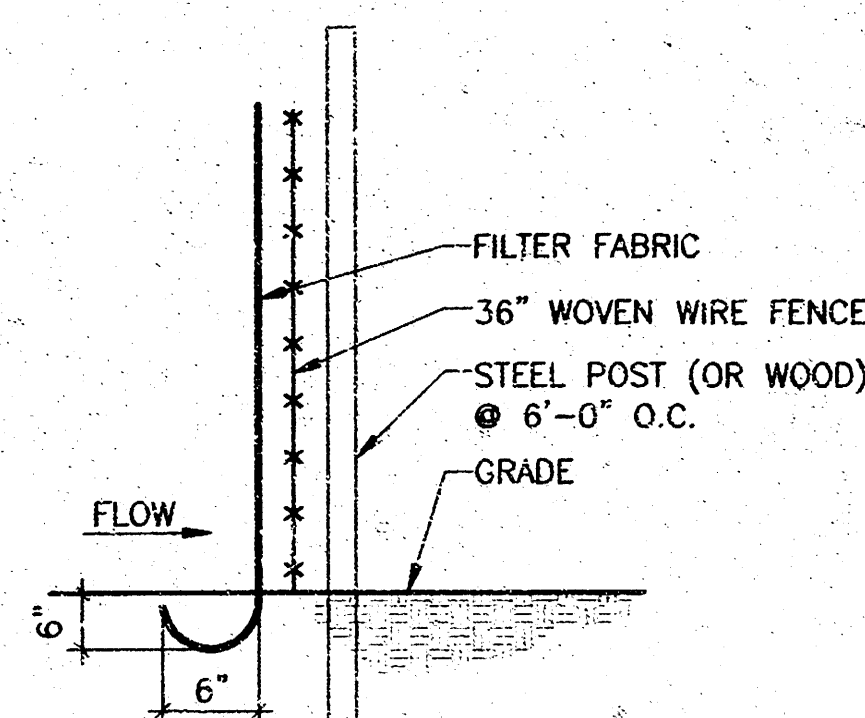
COPYRIGHT PATRICK G. BLEES, AIA 2004



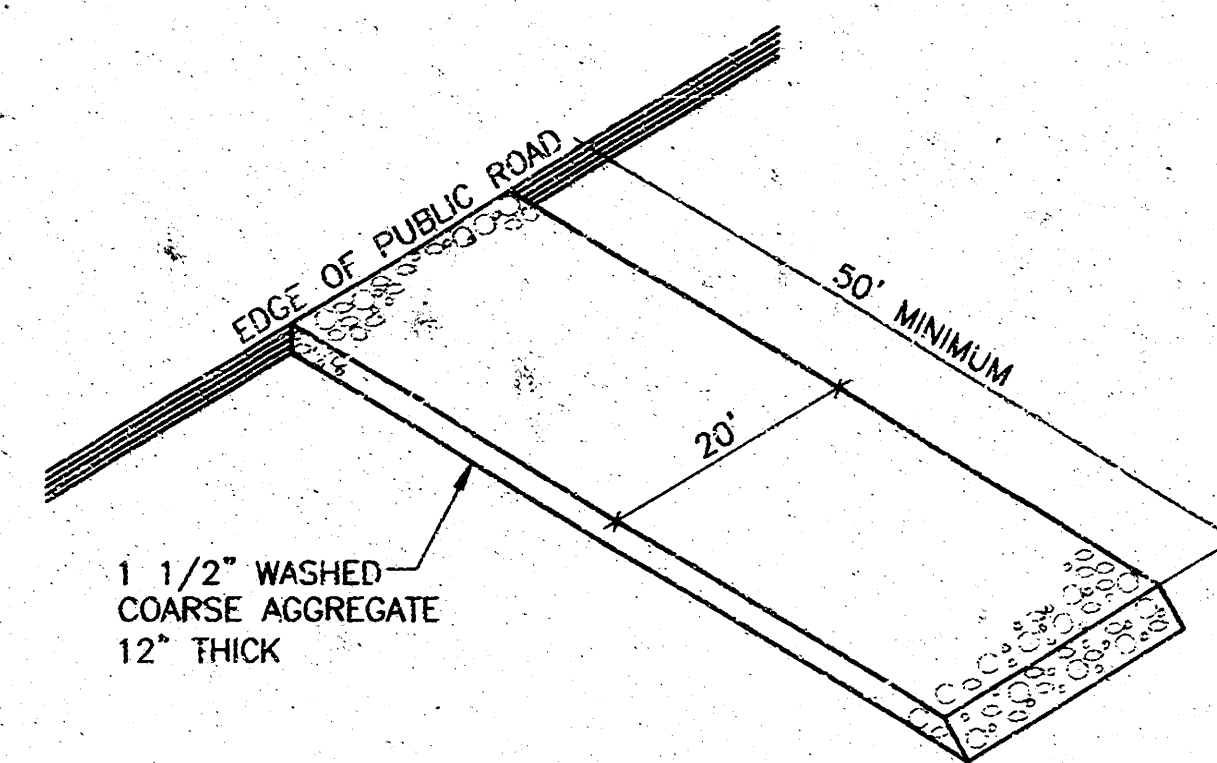
1 STRAWBALES @ STORM WATER INLET PROTECTION NO SCALE



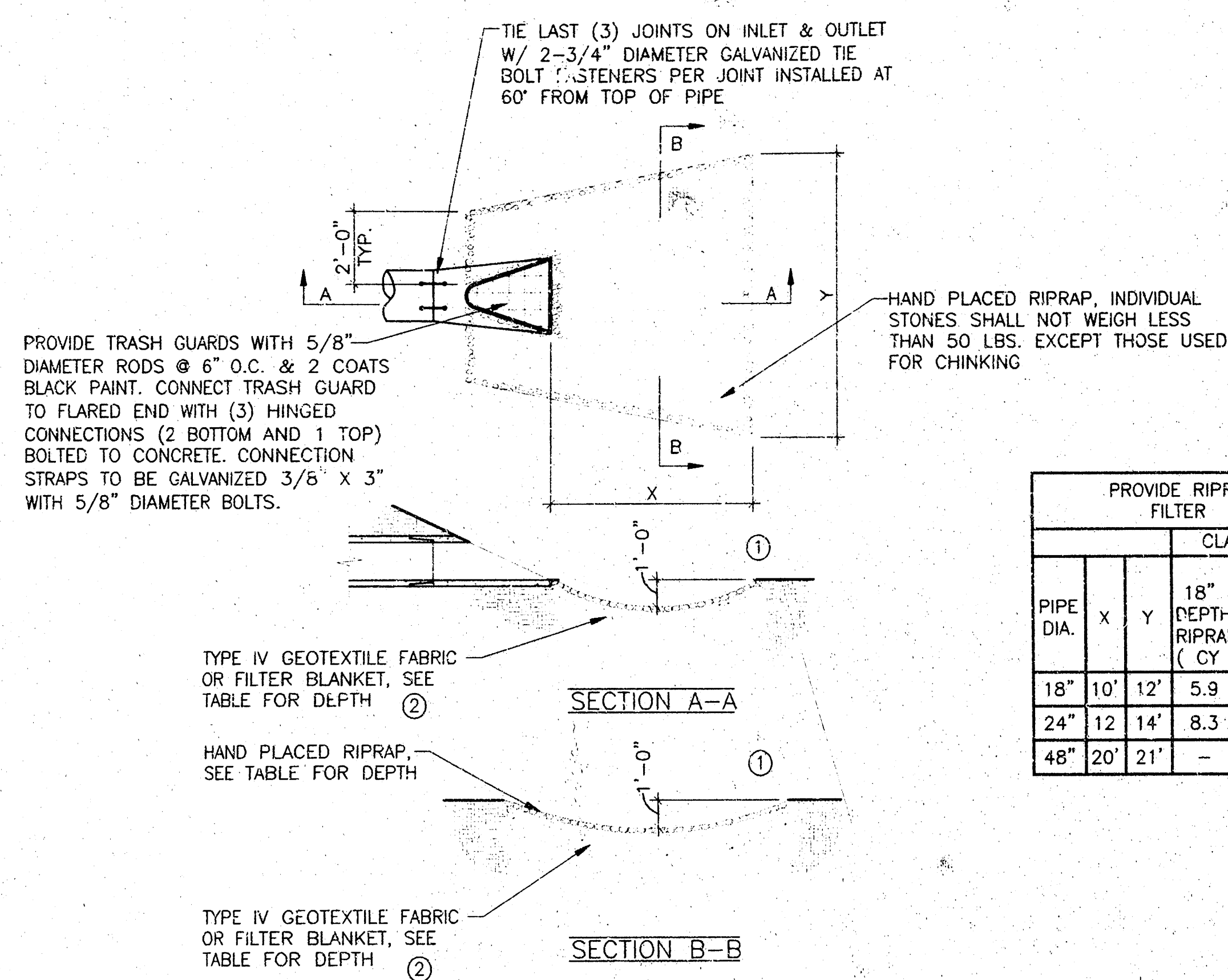
2 STRAWBALE BARRIER NO SCALE



3 SILT FENCE DETAIL NO SCALE



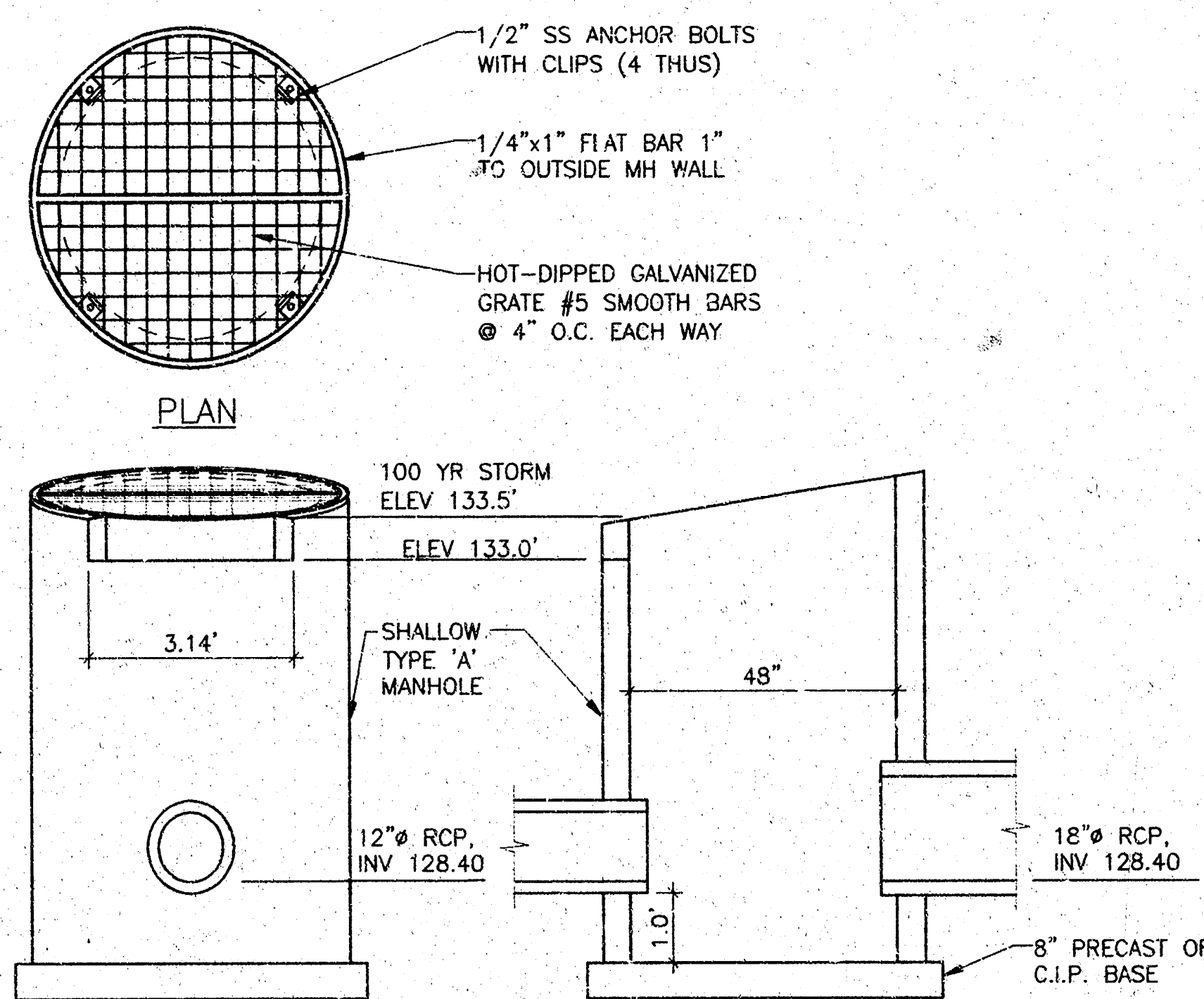
4 GRAVEL CONSTRUCTION ENTRANCE NO SCALE



		CLASS III		CLASS IV	
PIPE DIA.	X	18" DEPTH RIPRAP (CY)	9" DEPTH GRAN. FILTER (CY)	24" DEPTH RIPRAP (CY)	12" DEPTH GRAN. FILTER (CY)
18"	10'	12'	5.9	3.0	-
24"	12'	14'	8.3	4.2	-
48"	20'	21'	-	-	25.8
					12.9

5 RIPRAP AT RCP FLARED END SECTION (FES) NO SCALE

NOTES: 1 FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5'.
2 THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE A GEOTEXTILE FABRIC, SPEC. 3601, FOR THE GRANULAR FILTER BLANKET U.N.O. THE FABRIC SHOULD COVER THE AREA OF THE RIPRAP AND EXTEND UNDER THE CULVERT APRON 3 FEET.



6 DETENTION POND OUTLET STRUCTURE NO SCALE

PATRICK G. BLEES

ARCHITECTURE PLANNING DESIGN

PATRICK G. BLEES, AIA
NORTHWESTERN BUILDING
219 N. 2ND ST., SUITE 301
MINNEAPOLIS, MN 55401
PHONE: (612) 338-6677
FAX: (612) 338-2995
E-MAIL: info@omni.com
CONTACT: GARY FAGERSTROM

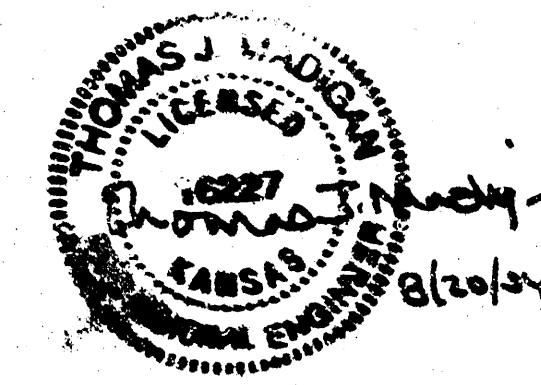
CONSULTANTS:

CIVIL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N. SUITE 10
PLYMOUTH, MN 55441
763-577-9118
THOMAS MADRAN

STRUCTURAL ENGINEER
VAN SICKLE ALLEN AND ASSOC
2955 XENIUM LN N. SUITE 10
PLYMOUTH, MN 55441
763-577-9105
KEITH JACOBSON

LANDSCAPE ARCHITECT
WESTWOOD PROF. SERVICES, INC.
7599 ANAGRAM DRIVE
EDEN PRAIRIE, MN 55344
952-937-5150
DAN SJORDAL

SEAL:



slumberland

RIDGE PLAZA
8TH ADDITION
LOTS 4 AND 5, BLOCK B
444 S EMERSON STREET
WICHITA, KS 67209

SHEET TITLE:

DETAILS

REVISIONS:

NO.	DATE	BY
1	05/19/04	NO REVISIONS
2	06/02/04	THIS SHEET
3	06/30/04	NO REVISIONS
4	07/16/04	THIS SHEET
5	08/09/04	NO REVISIONS
6	08/20/04	THIS SHEET

PROJECT NO: 03108-15
DRAWING DATE: 08-20-04
DRAWN BY: QAV

10

SHEET 10 OF 10
FILE: 03316 10

COPYRIGHT PATRICK G. BLEES, AIA 2004