
Sewerage and Water Board of New Orleans

Standard Drawings

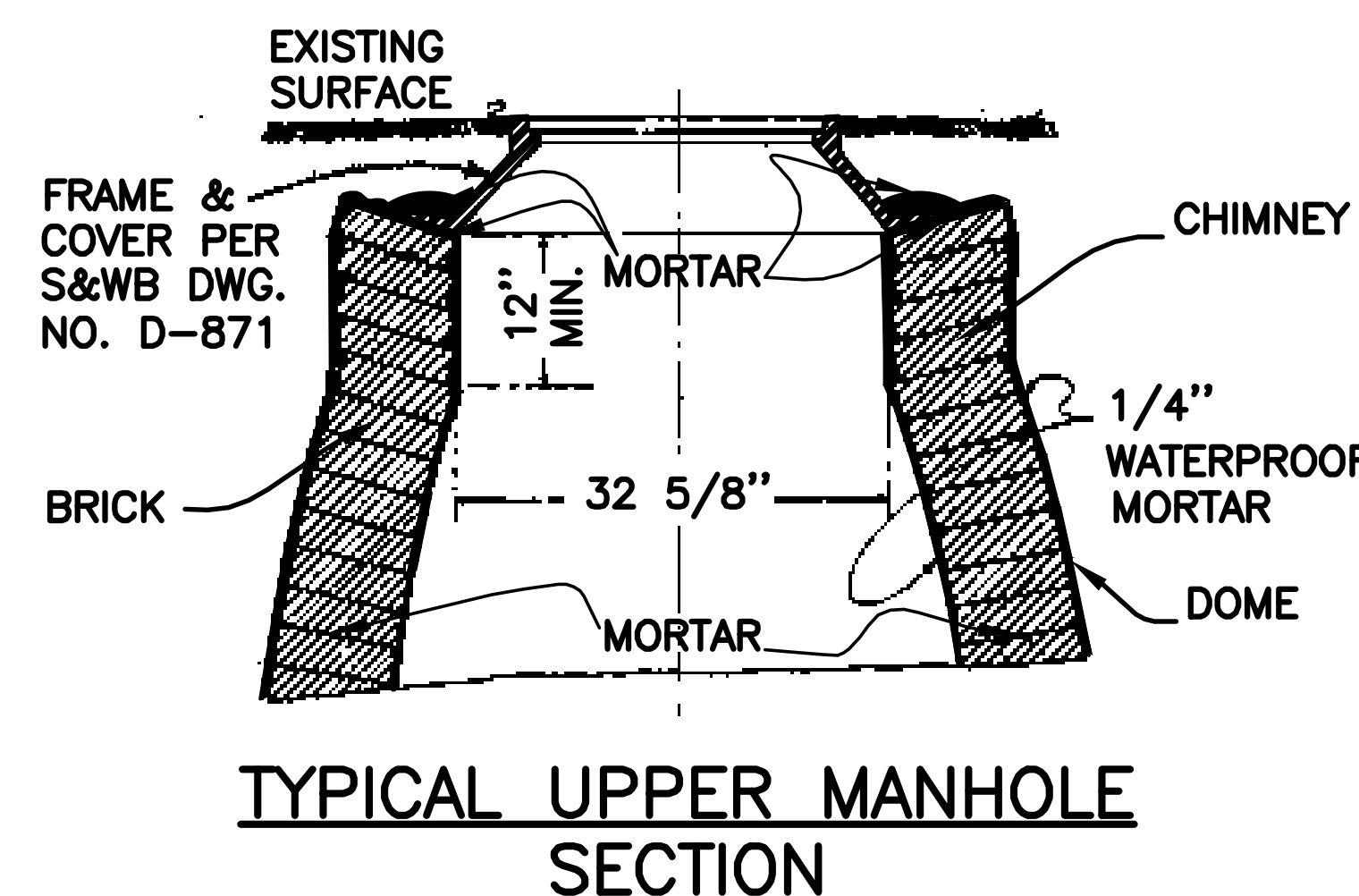
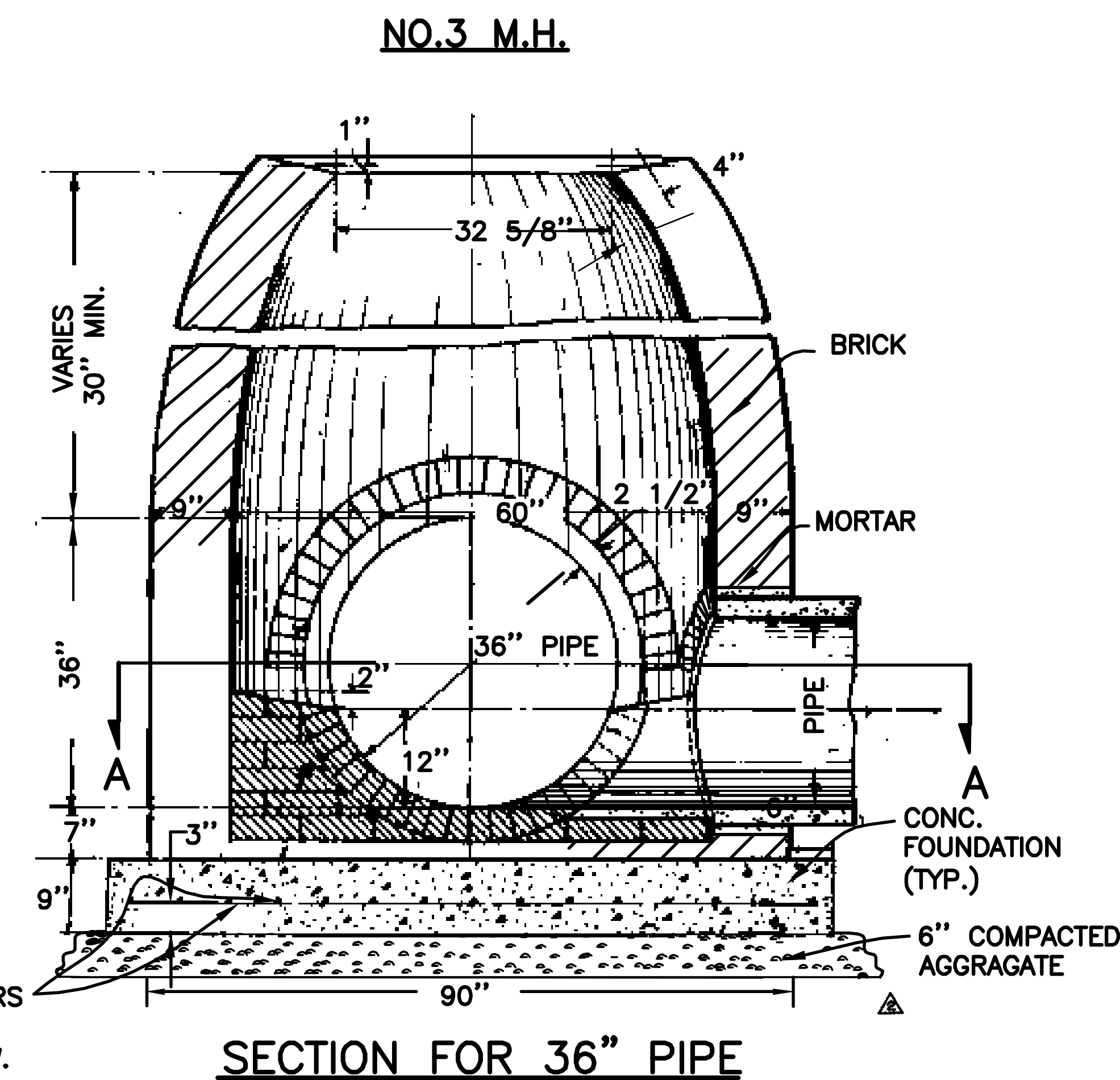
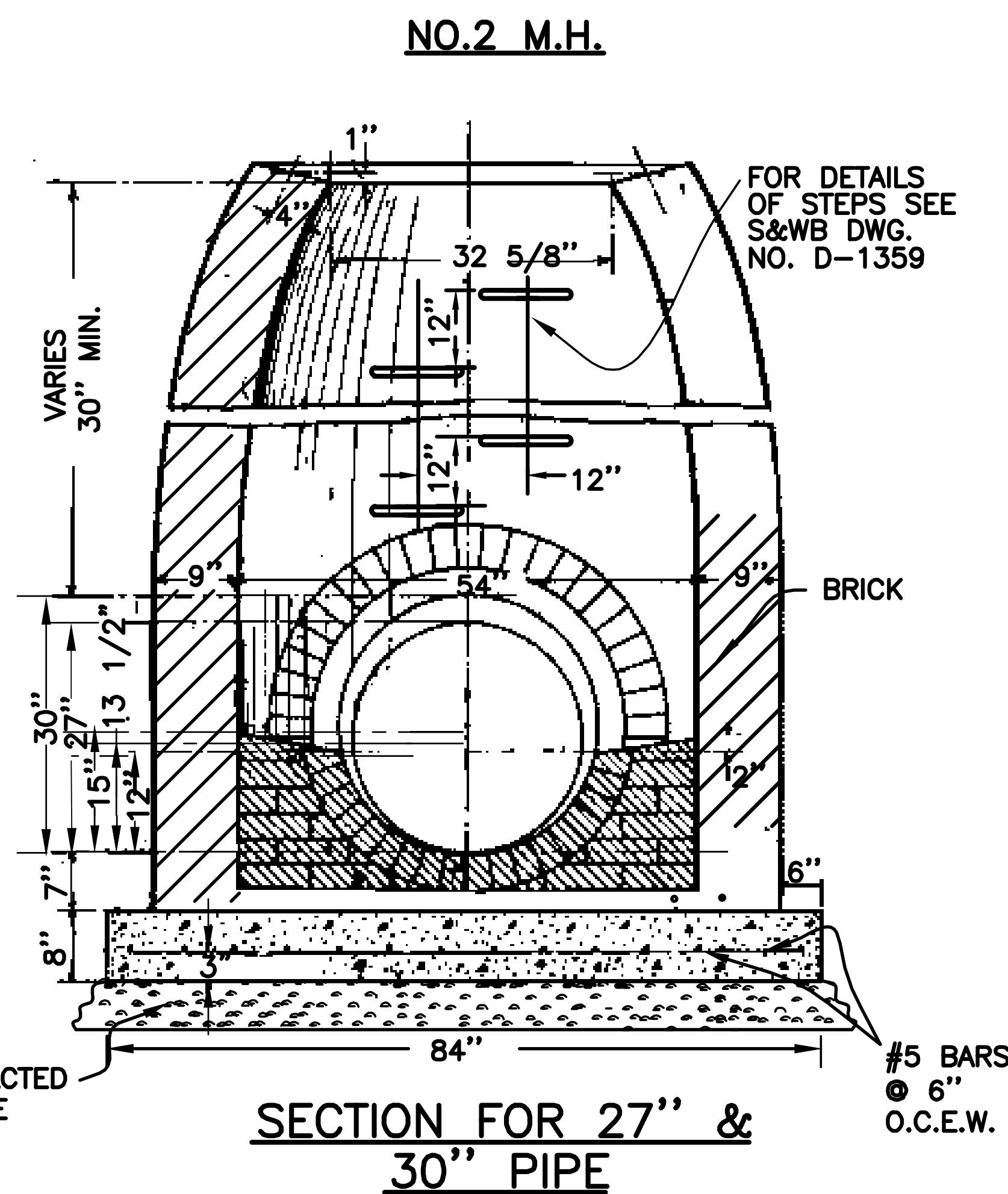
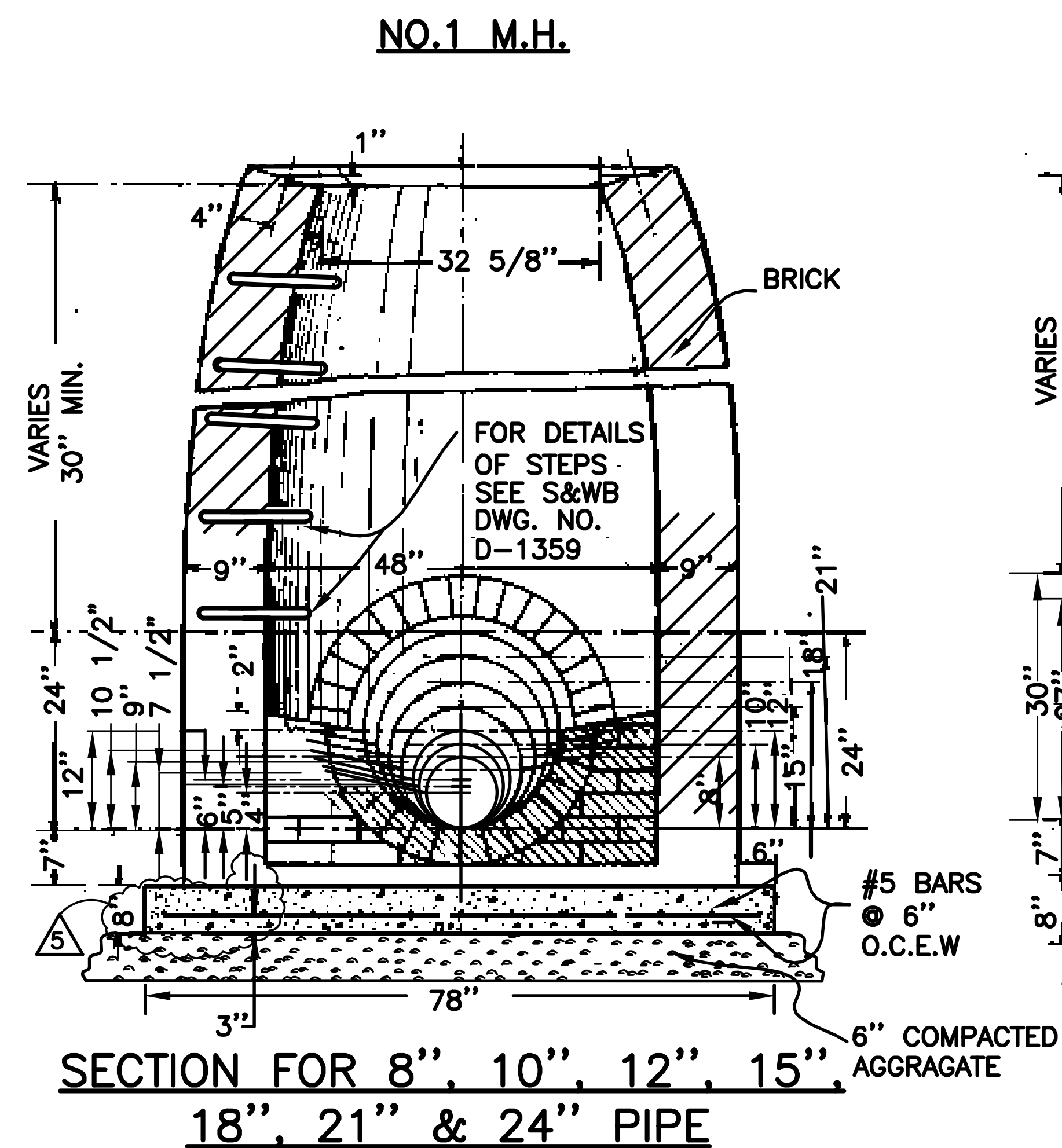


Revised October 25, 2018

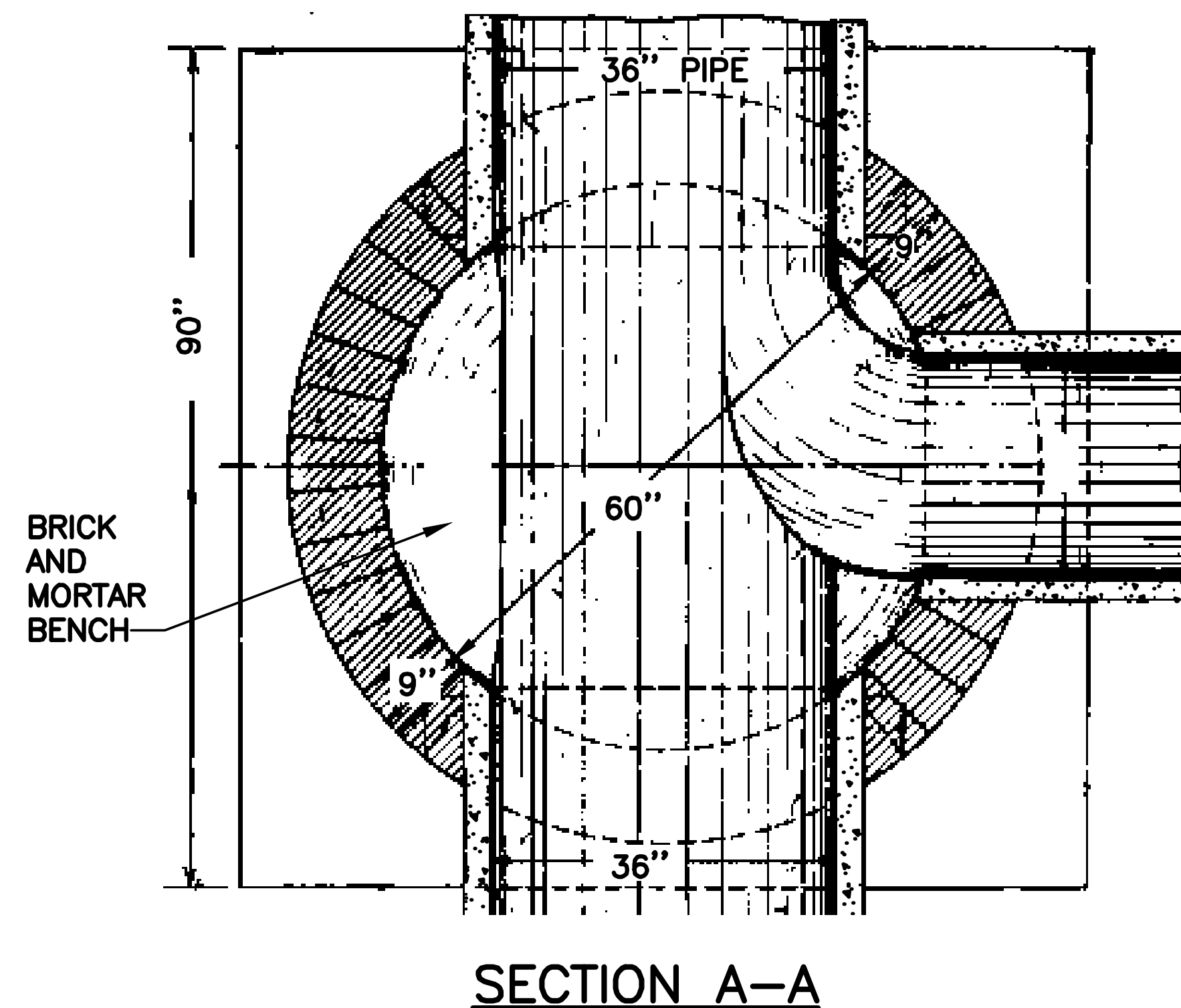
INDEX OF STANDARD DRAWINGS

- 1. D-870 General section of standard drain brick manhole
- 2. D-871 General plan of drain manhole frame & cover
- 3. D-873 Detail of standard single vertical catch basin #1, 2 & 3
- 4. D-873A Detail of standard double vertical catch basin
- 5. D-1359 Detail of steps for concrete & brick manholes
- 6. 2445-F-2 Rectangular frame and cover for meter or valve
- 7. 3143-E-1 Detail of sewer and water manhole castings
- 8. D-3264 Detail of standard 24"x 30" clear opening drop inlet catch basin
- 9. D-3340 Detail of standard manhole for circular pipe larger than 36"
- 10. D-3431-A Detail of standard single mountable catch basin
- 11. D-3431-B Detail of standard double mountable catch basin
- 12. D-3809 Typical sections of concrete pipe bedding from 12" to 42" pipe
- 13. D-3810 Typical sections of concrete pipe bedding from 48" to 72" pipe
- 14. D-3933 Typical sections of reinforced concrete arch pipe bedding from 22"x13 1/2" to 65"x 40"
- 15. D-3934 Typical sections of reinforced concrete arch pipe bedding from 73"x 45" to 122"x 78"
- 16. D-3937 Detail of standard manholes for large concrete arch pipe
- 17. 4697-E5-A Typical standard and non-standard open trench sections for sewer pipe installation
- 18. 6178-B-6 Typical sewer brick manhole and drop manhole
- 19. 6178-B-6A Typical pre-cast concrete manhole
- 20. 6179-F-2 Hydrant setting, details of valve box and cover, and valve manhole

21. 6312-E5-A Typical sewer service connection for sewer main less than or equal to 8" deep
22. 6312-E5-B Typical sewer service connection for sewer main greater than 8' deep
23. 7004-W Test connection on new water mains (4" to 16") flushing and chlorination
24. 7005-W Pressure test connection on new water mains (18" and larger), flushing and chlorination
25. 7134A-W Typical water service connection
26. 7134-W Water meter service connection for 5/8" and 1" fixed meter box
27. 7165-D Special fabricated steel cover for canal cleanout manhole
28. 7332-W 2" & 1 1/2" meter service connection
29. 8178-SD Typical sewer and drain siphon detail & pipe/wall connections
30. 8180-SD Manhole adjustment and rehabilitation
31. 8292-D Vertical catch basin two piece grate, frame and cover ductile iron
32. 8319-D Single combination catch basin – manhole structure
33. 8353-W1 Above ground assembly-fire and domestic
34. 8353-W2 Above ground assembly-fire only
35. 8353-W3 Above ground assembly-domestic only



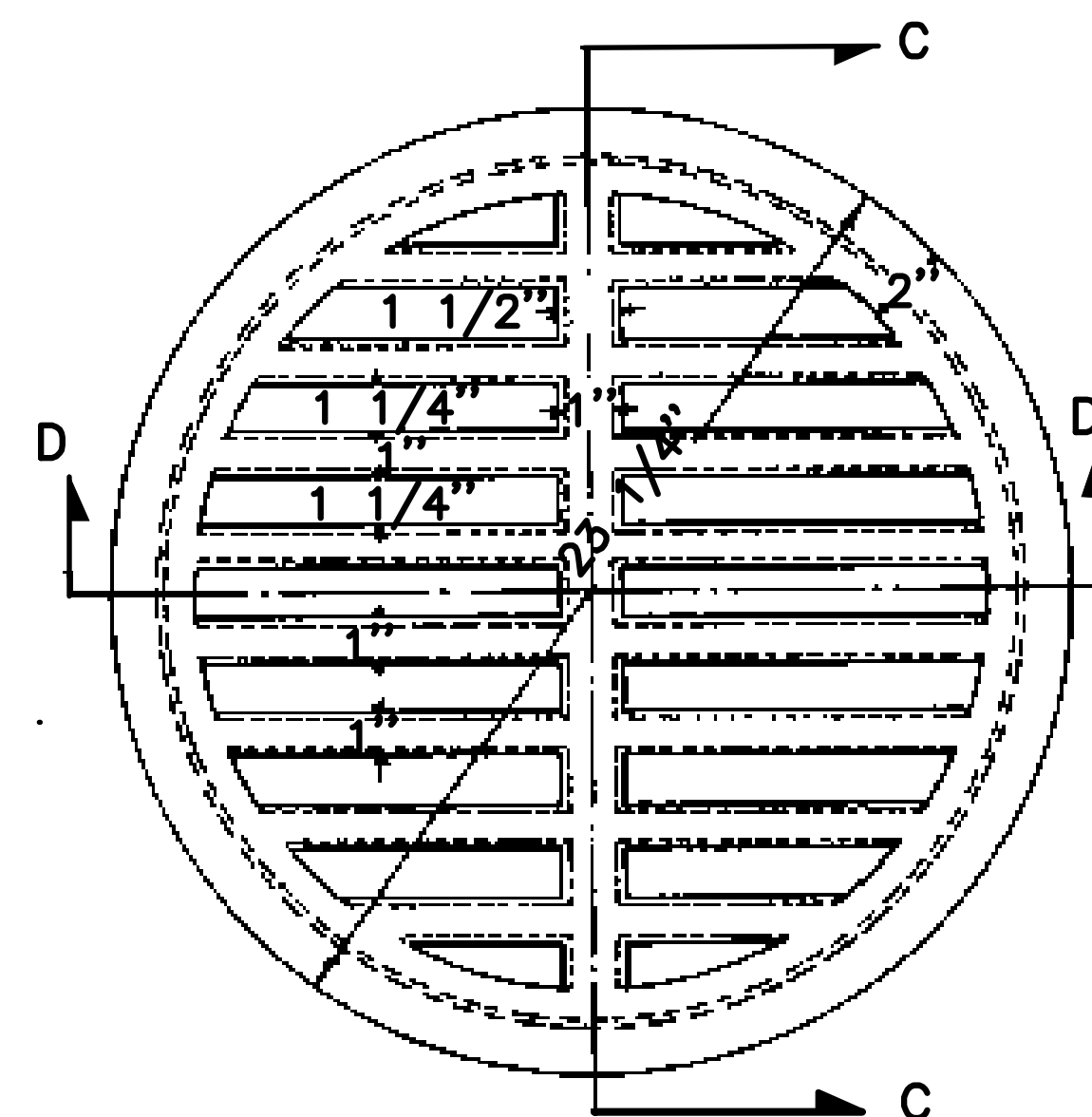
- NOTES:**
1. ALL MANHOLES, FRAMES AND COVERS SHALL BE AS SHOWN ON S&WB DWG. NO. D-871, GENERAL PLAN OF MANHOLE FRAME AND COVER.
 2. INSIDE & OUTSIDE BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATIONS.
 3. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS.
 4. SEE S&WB DWG. NO. 6178-B-6 FOR PRE-CAST MANHOLES.



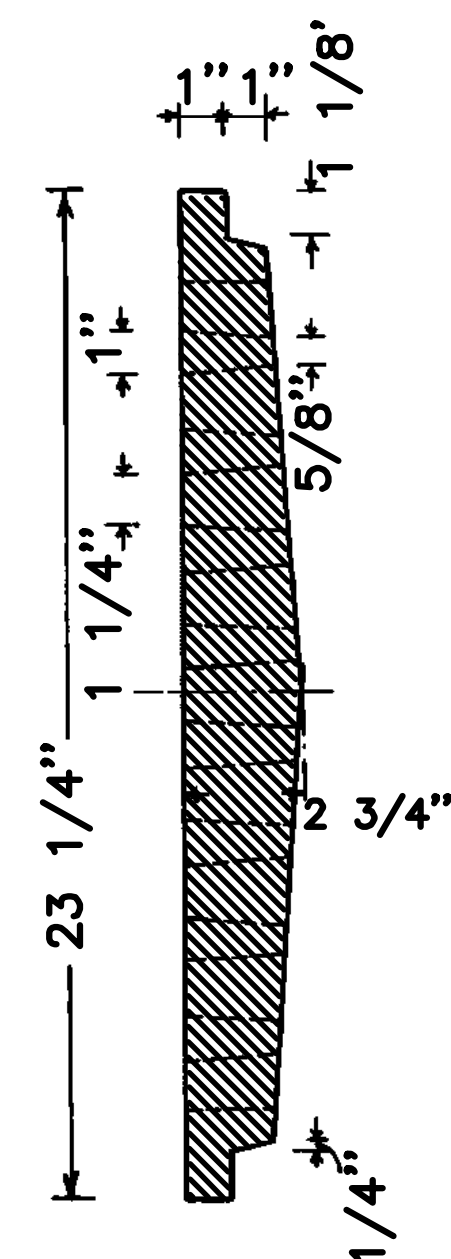
NO.3 M.H. - AS SHOWN
NO.1 & 2 M.H. - SIMILAR

SCALE: N.T.S.

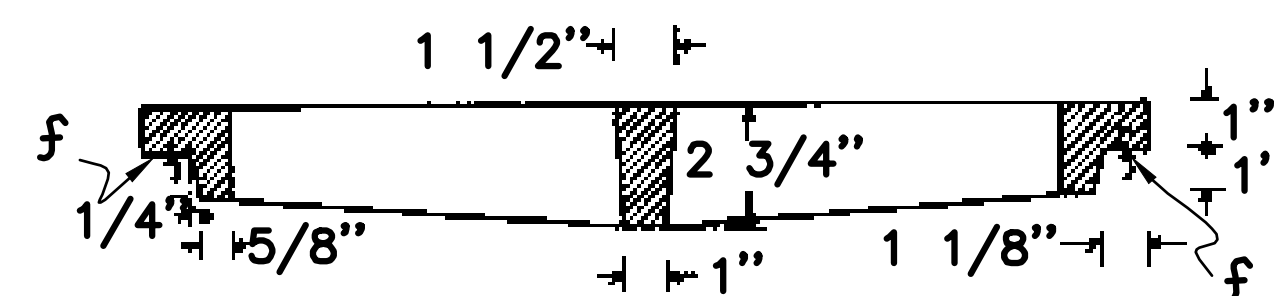
03-08-07	CHANGED COVERING AND CONCRETE FOUNDATION THICKNESS	D.M.C.
03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
7-11-88	GENERAL REVISION	M.L.L.
2-28-75	REPLACED LUMBER FOUNDATION WITH CONCRETE	R.C.B.
11-5-65	NOTE FOR PLASTERING	R.P.D.
REV.	DATE	DESCRIPTION
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
GENERAL SECTION OF STANDARD DRAIN BRICK MANHOLE		
DR. ZHONG CONY		
TRC.	CK.	AP.
DATE	SCALE	DWG. NO. D-870
7-1-88	1/4" = 1'-0"	SET NO.
SHEET NO.		



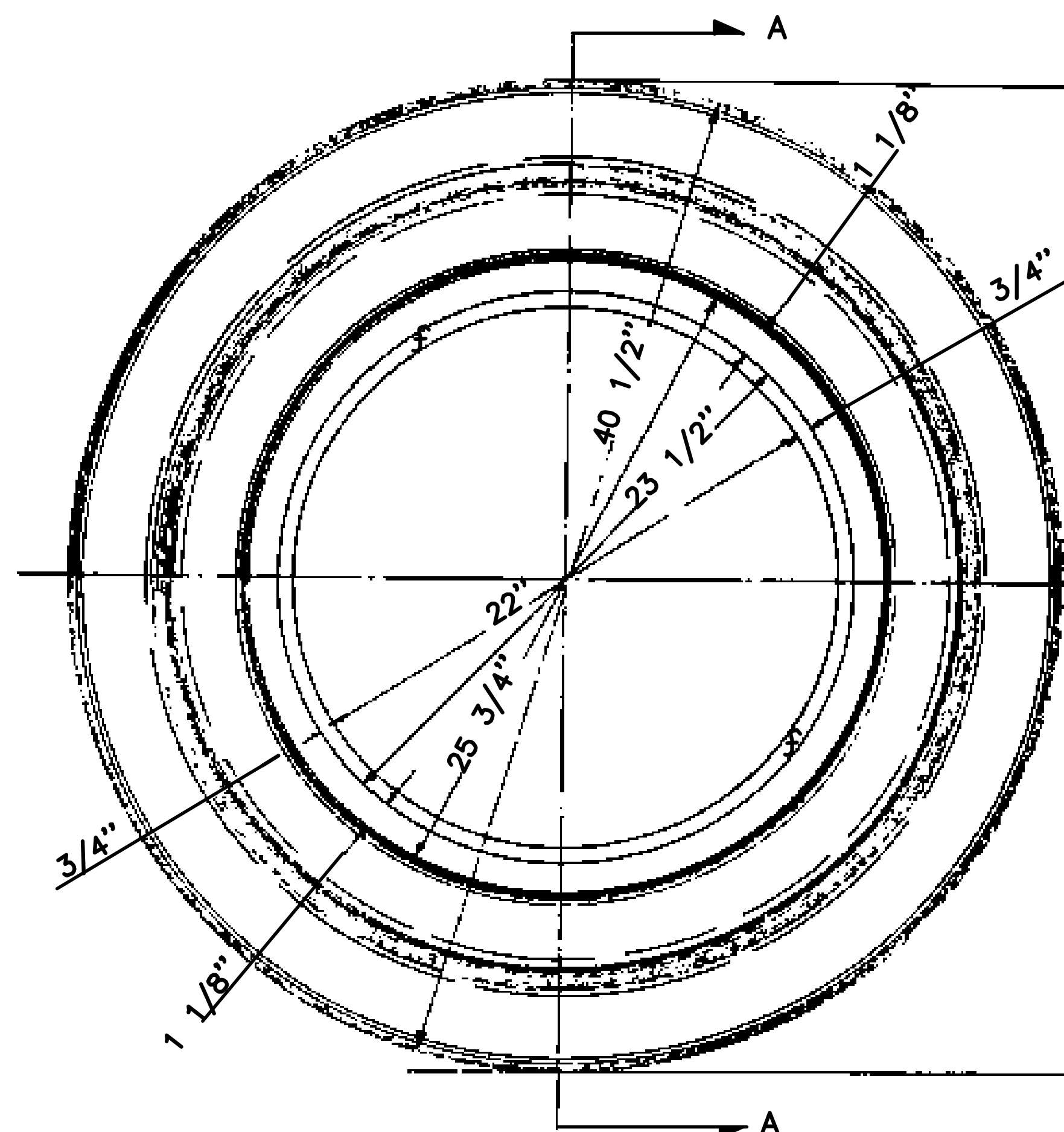
TOP VIEW OF OPEN GRATE
MANHOLE COVER



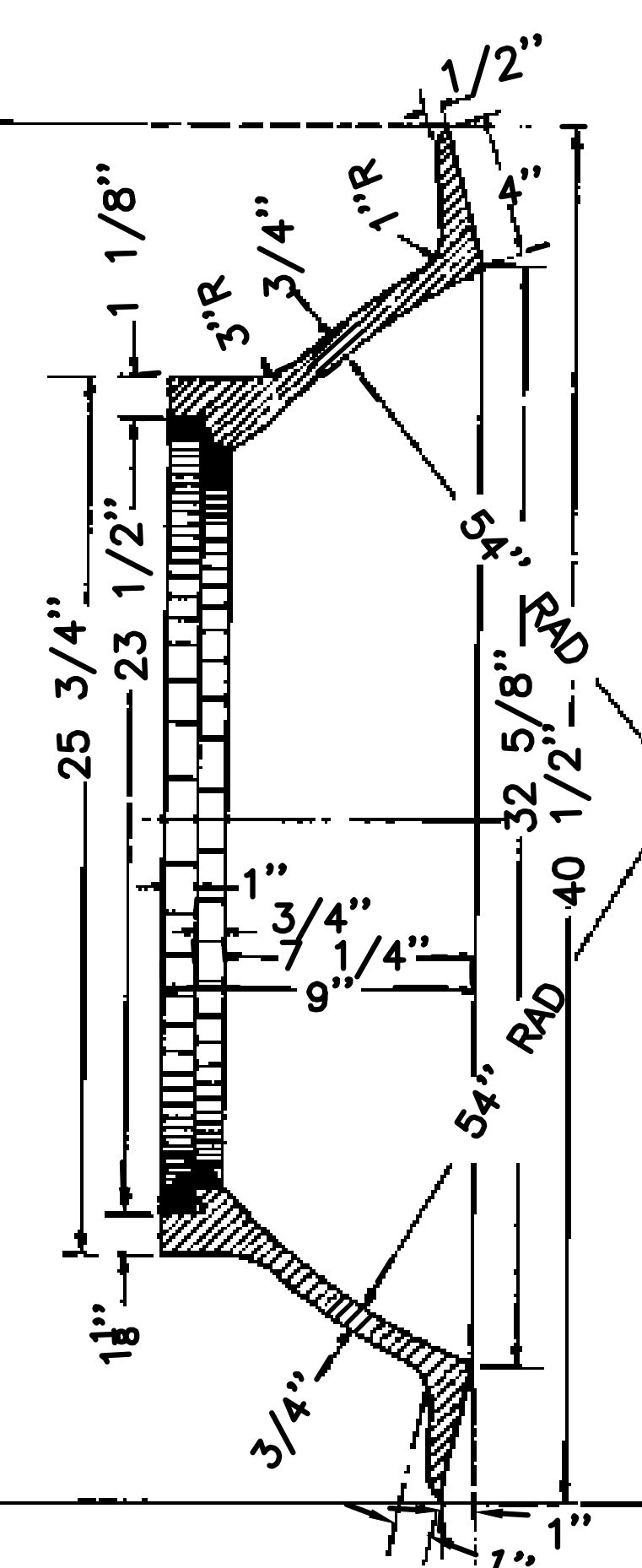
SECTION VIEW C-C



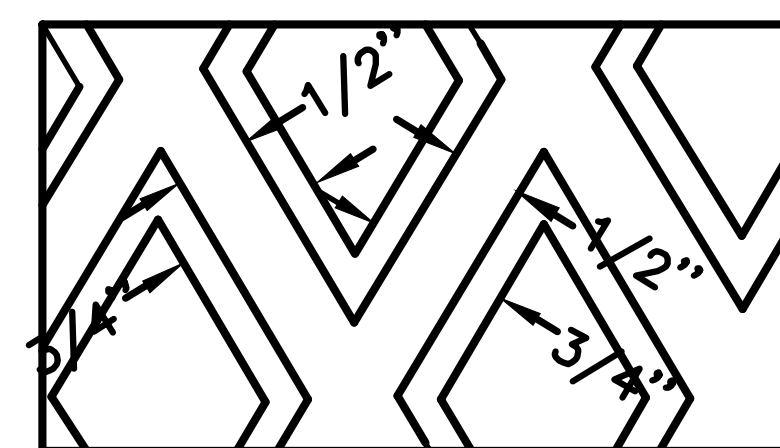
SECTION VIEW D-D



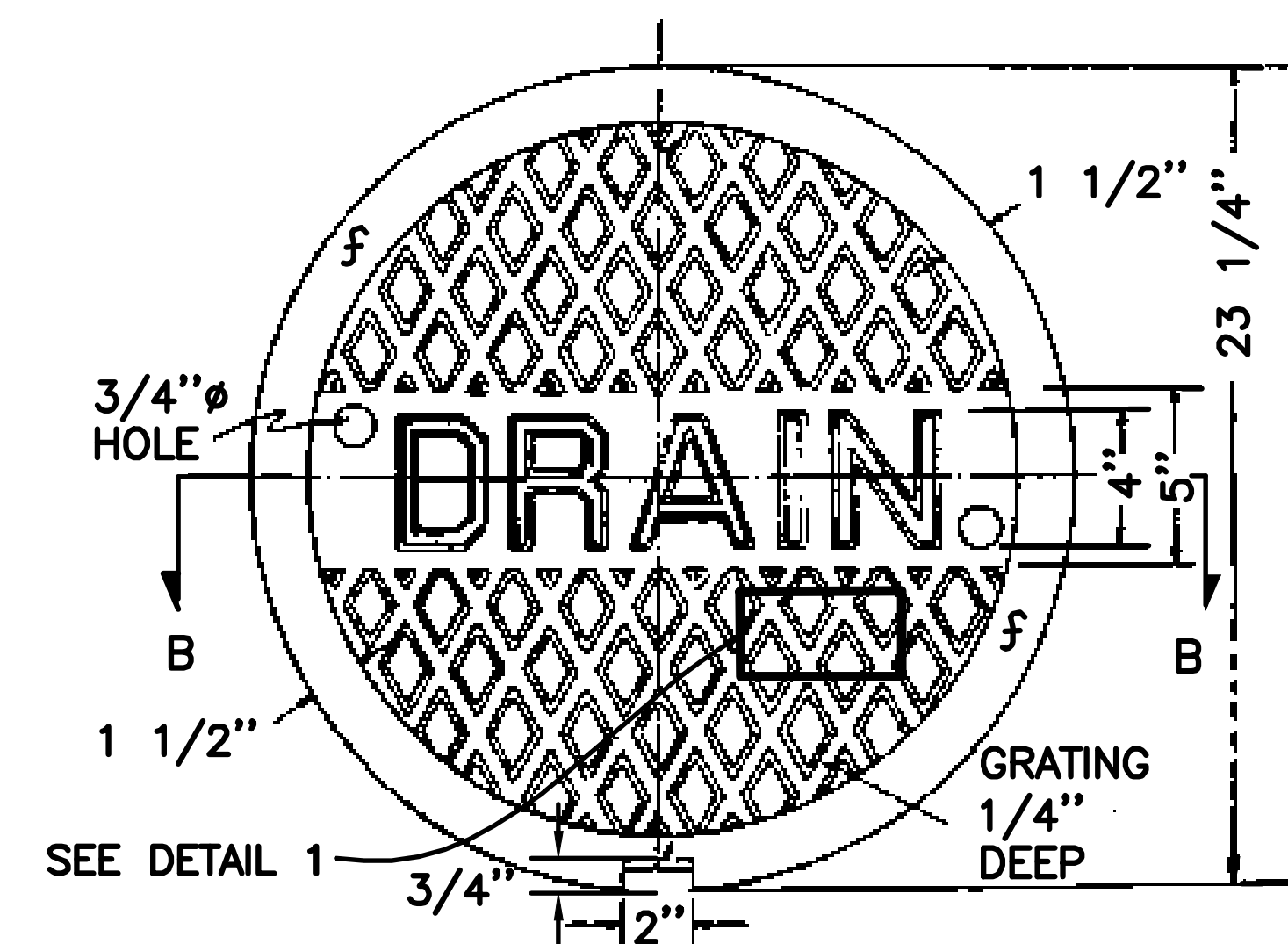
TOP VIEW OF MANHOLE FRAME



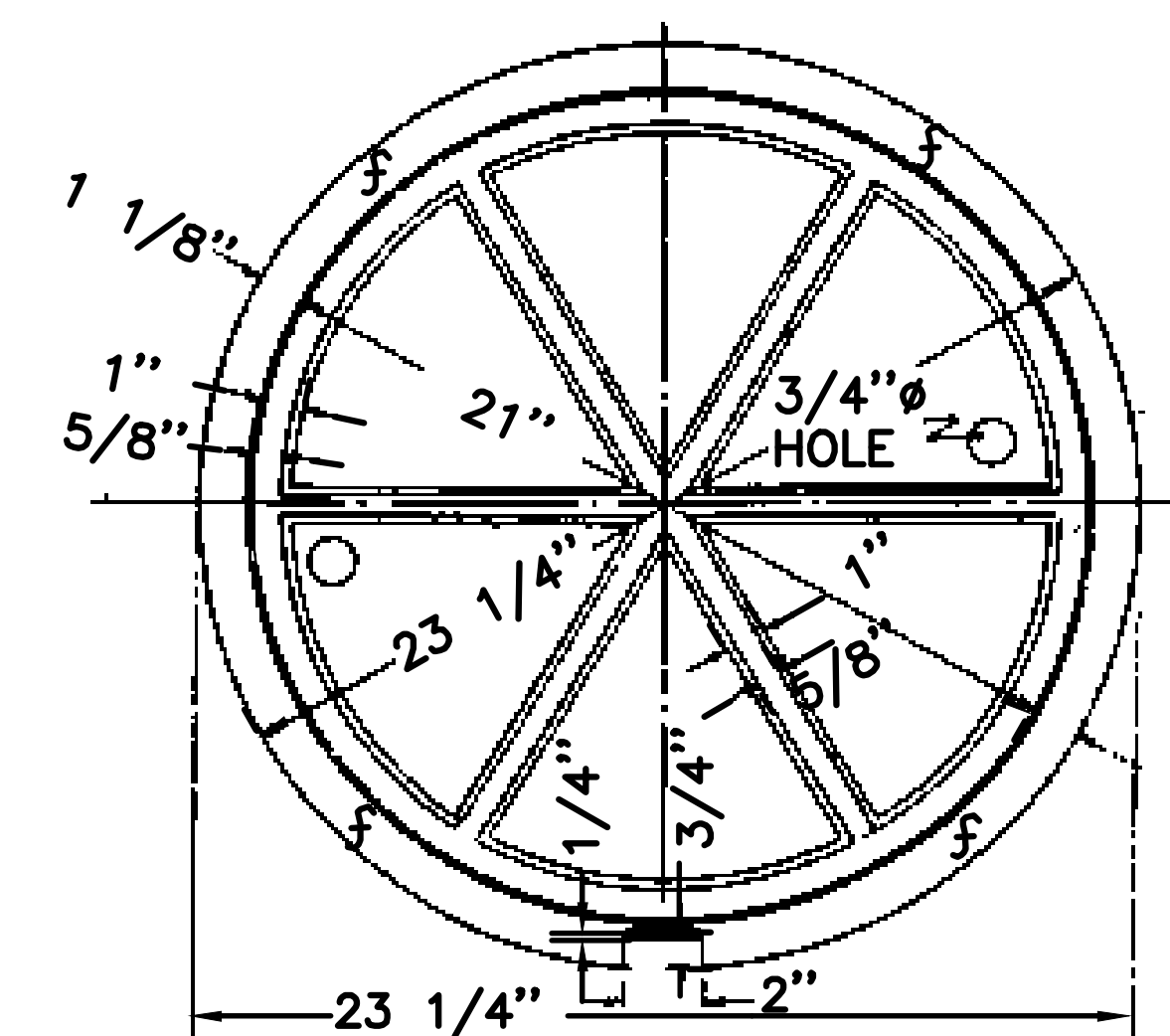
SECTION VIEW A-A



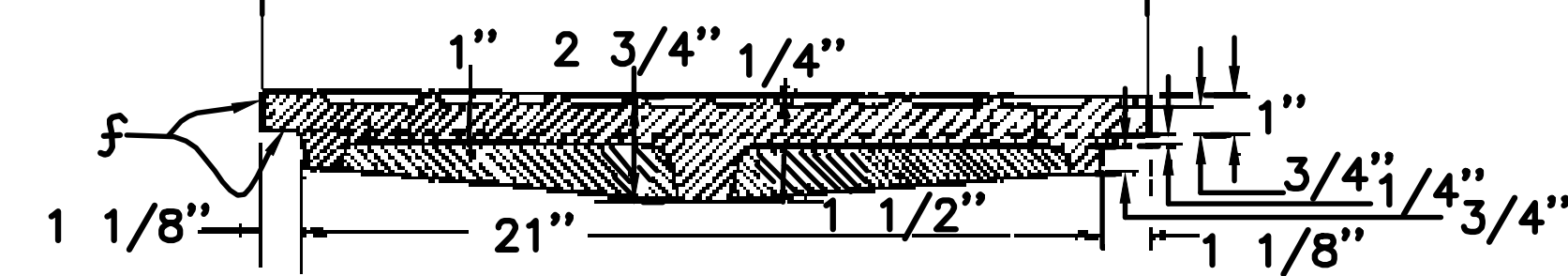
DETAIL 1



TOP VIEW OF MANHOLE COVER



BOTTOM VIEW OF MANHOLE COVER



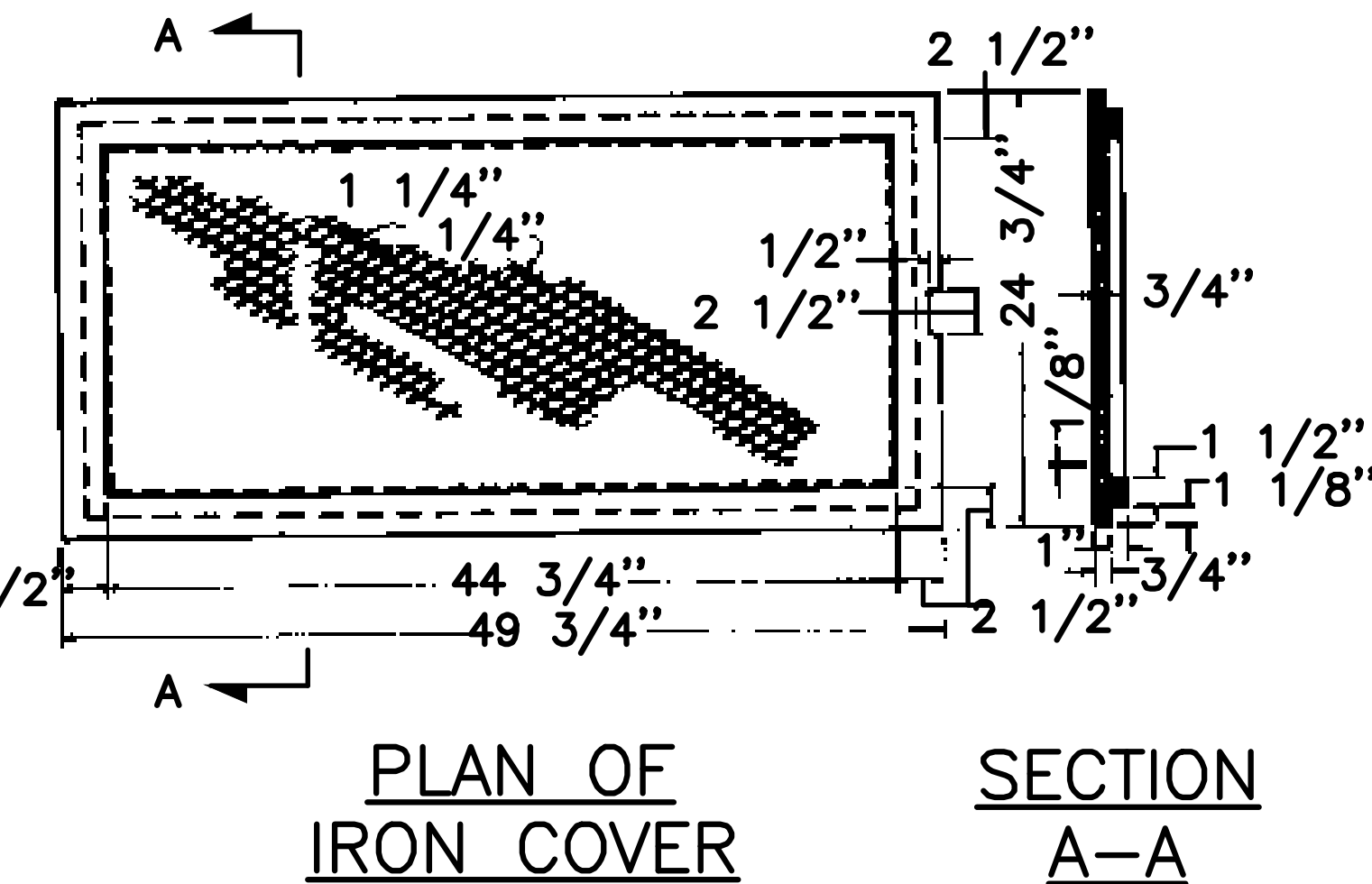
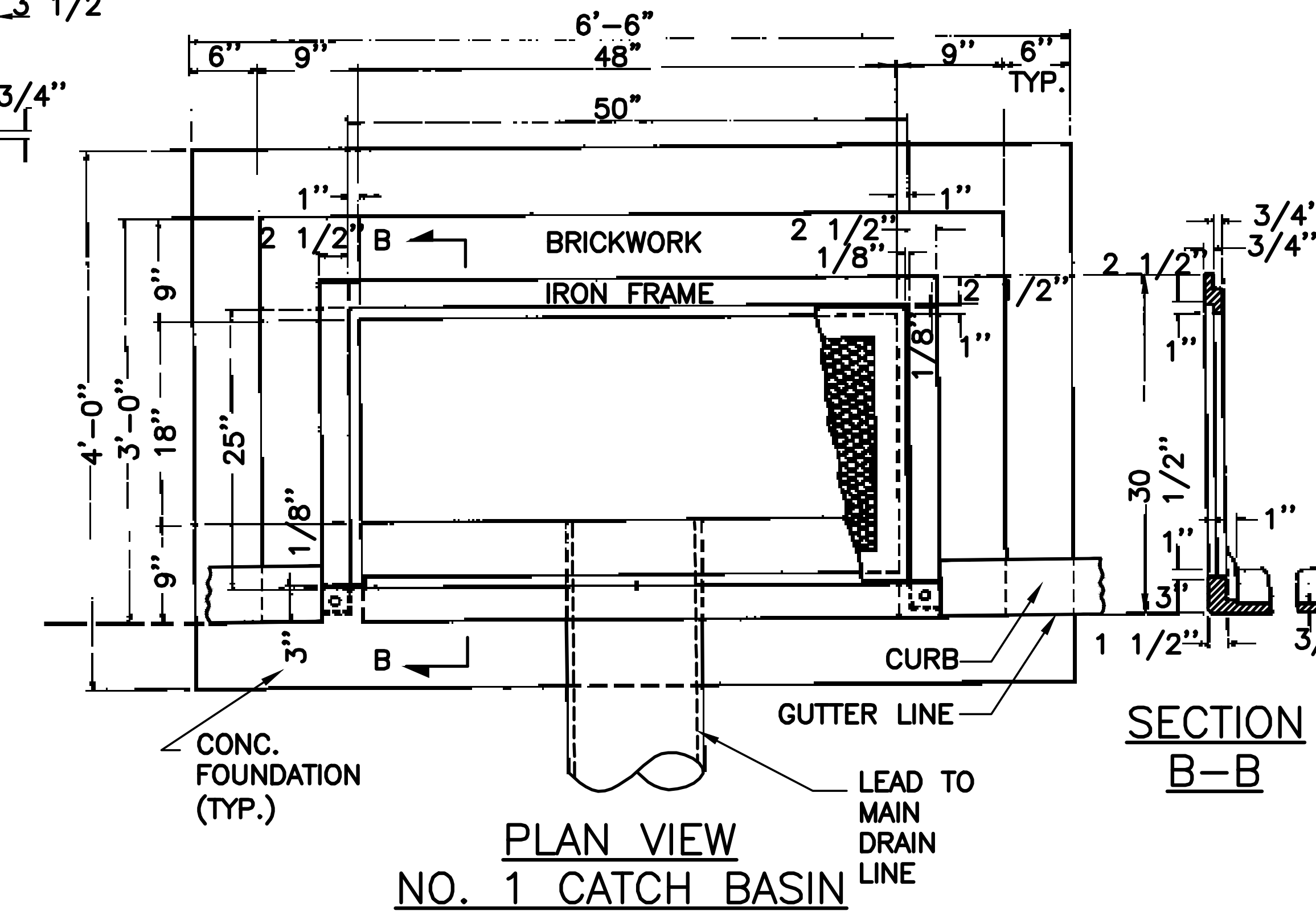
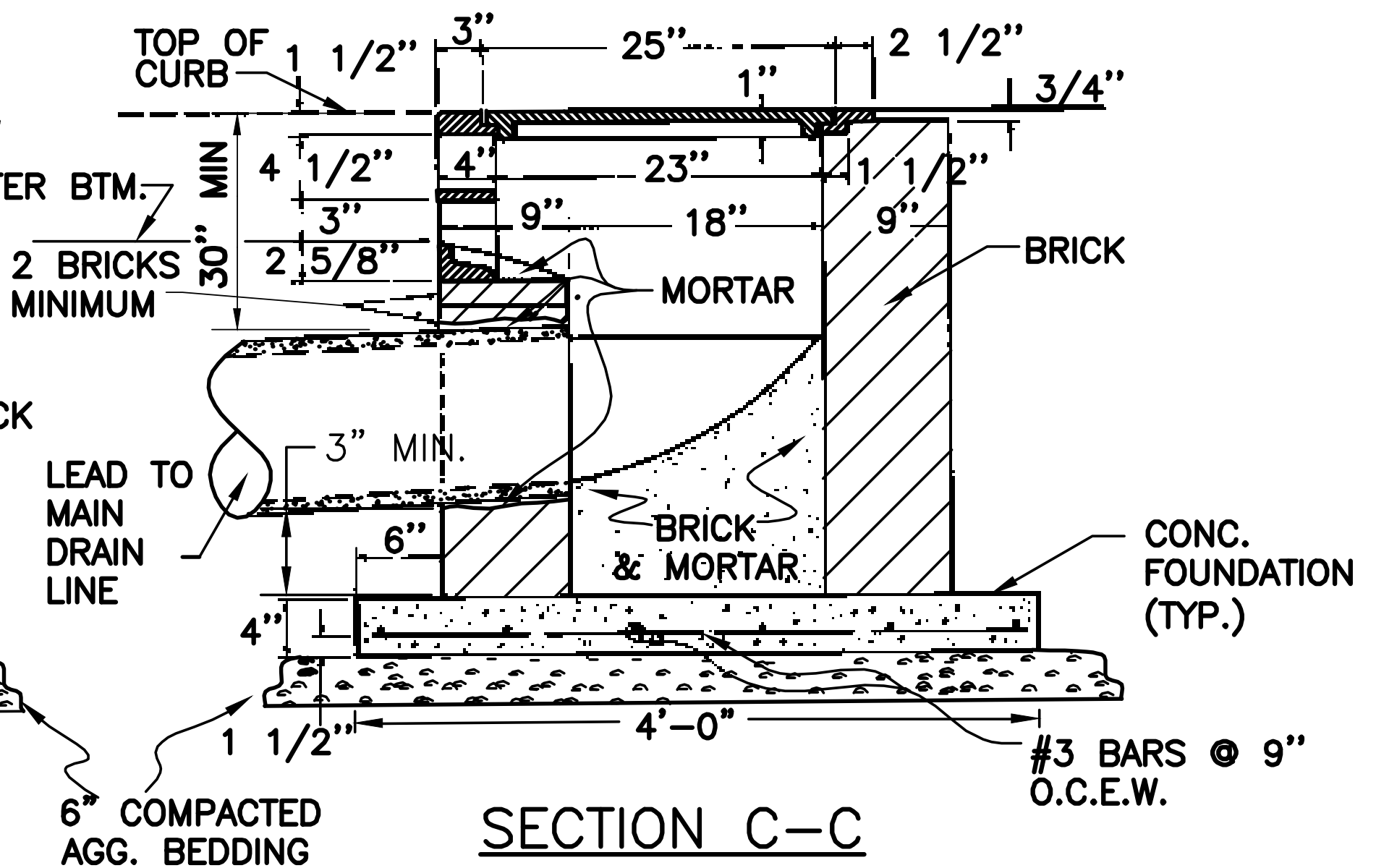
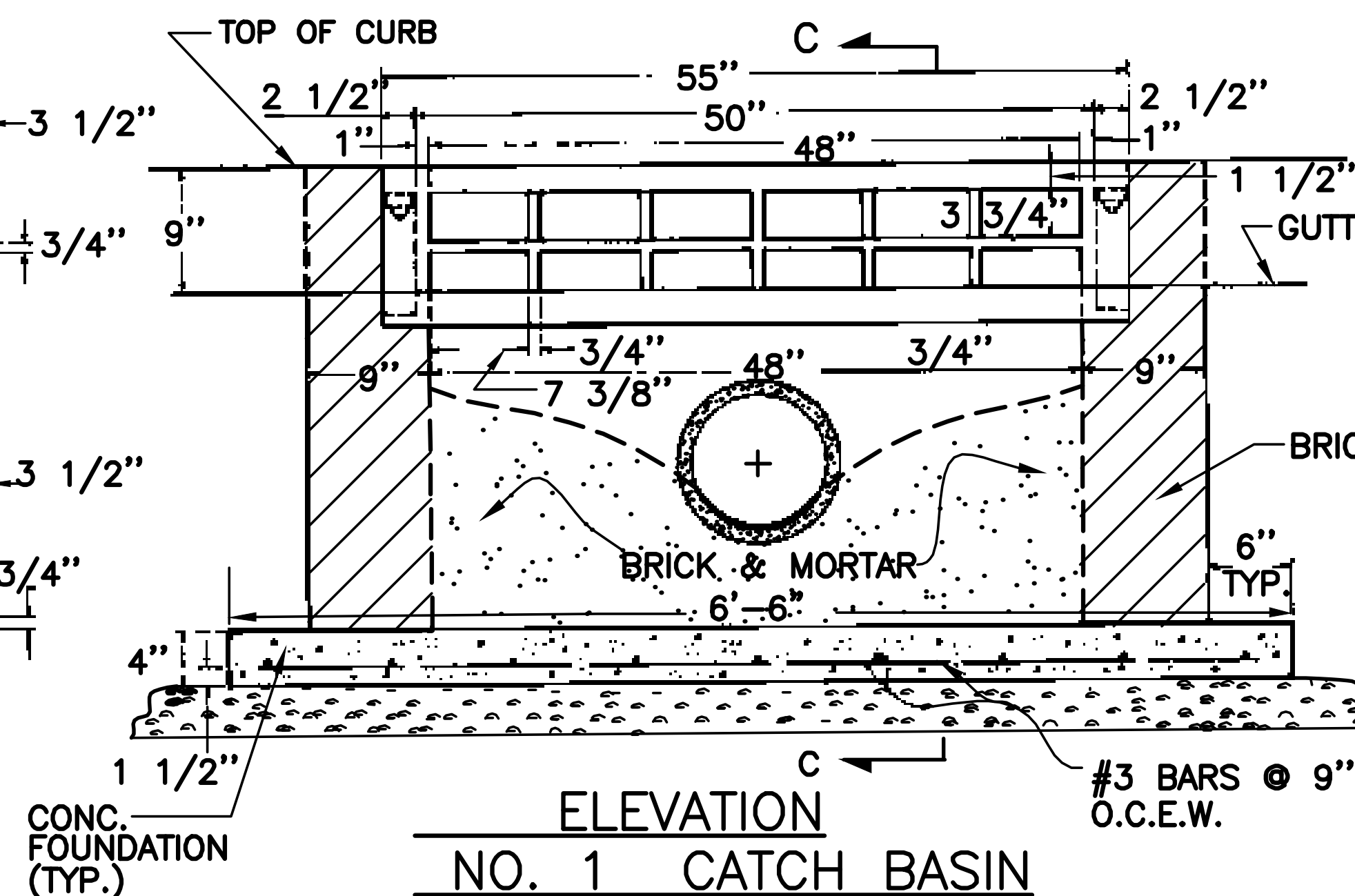
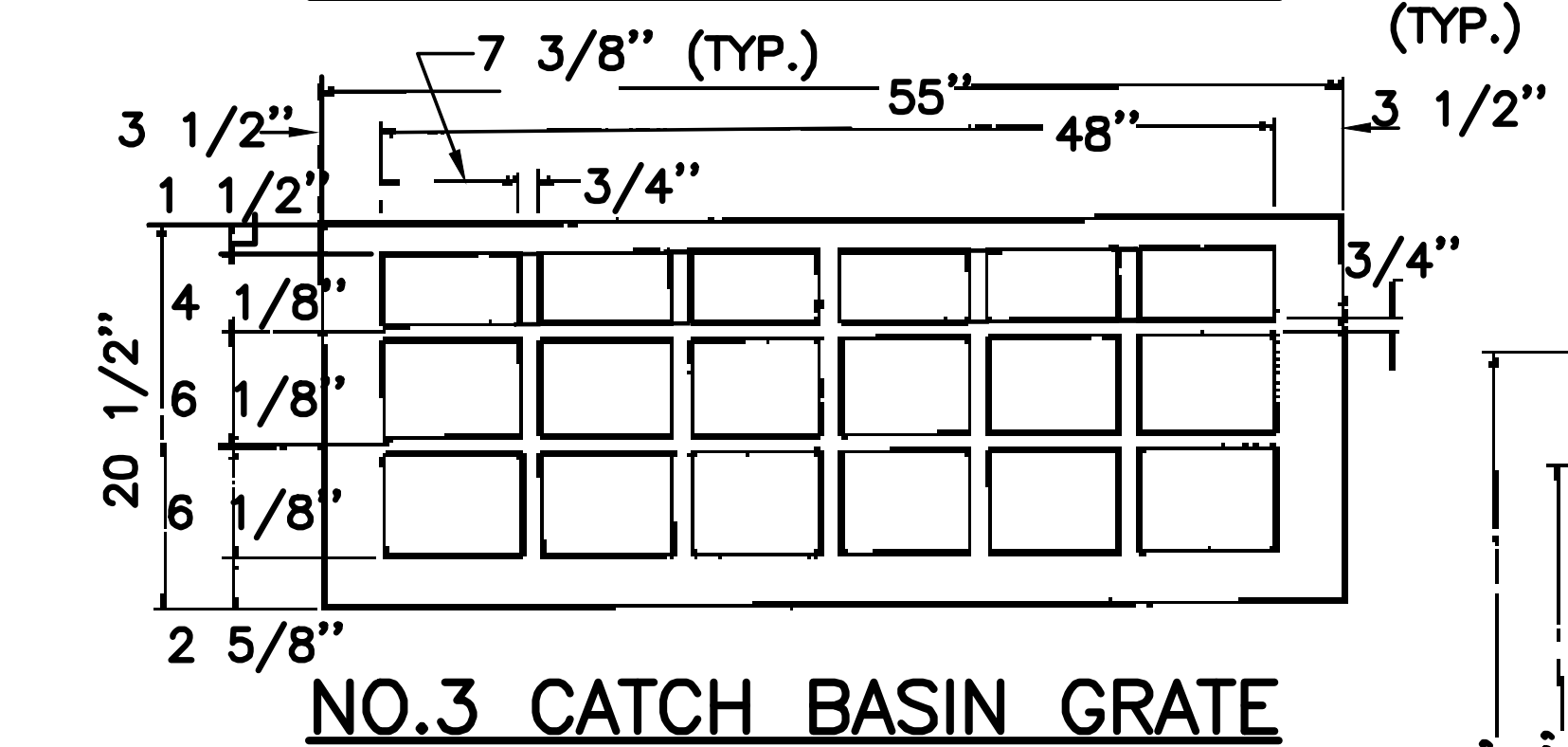
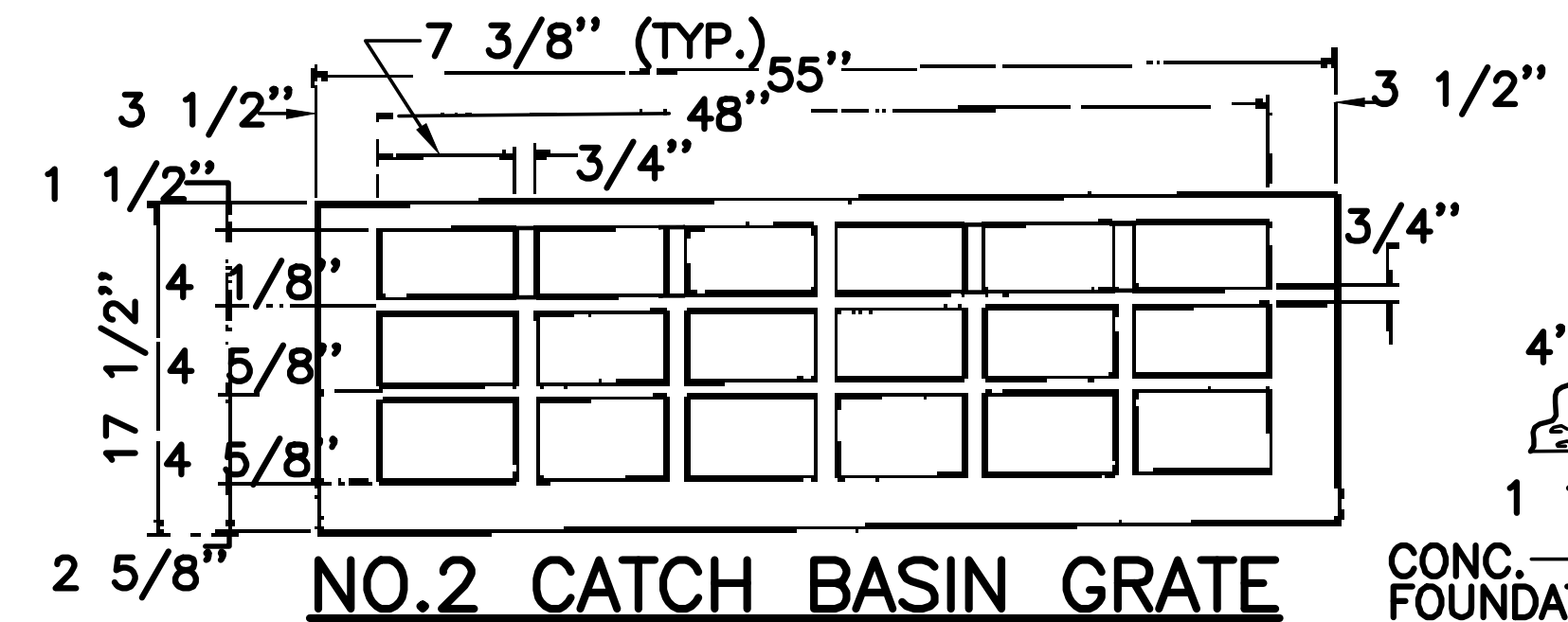
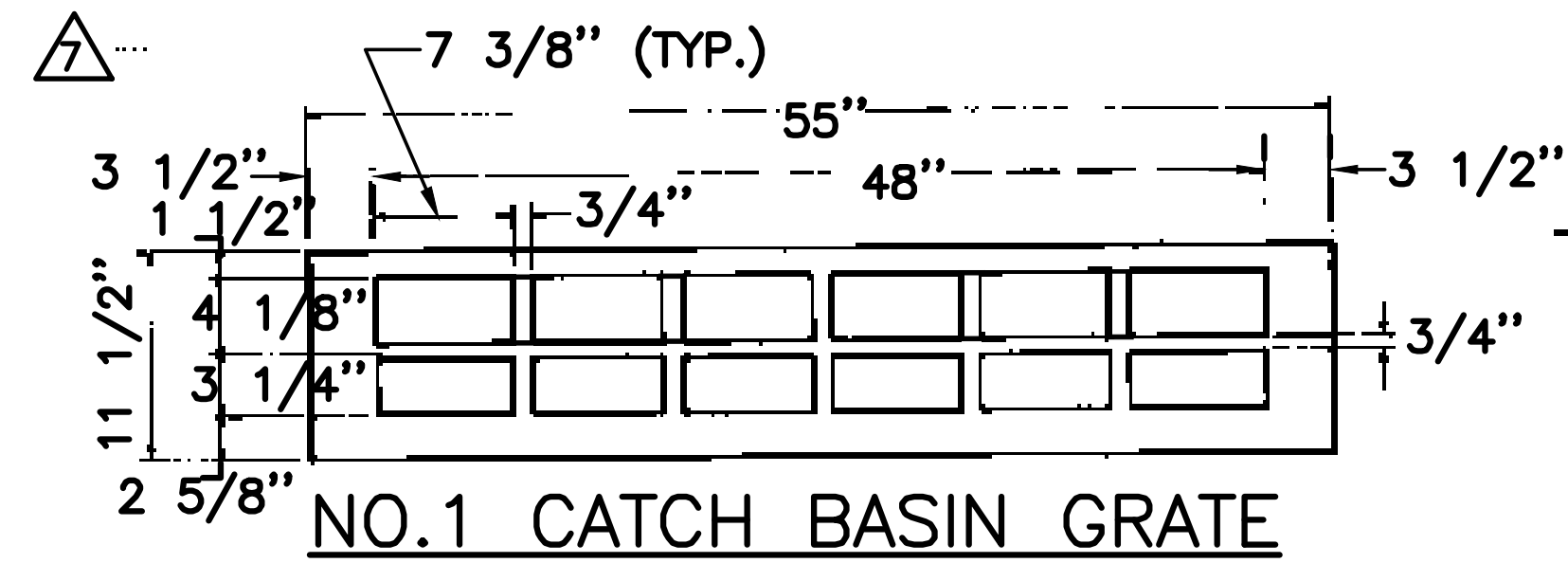
SECTION VIEW B-B

SCALE: N.T.S.

NOTES:

1. f = MACHINED SURFACE.
2. FRAME & COVER SHALL CONFORM TO EAST JORDAN IRON WORK, INC. V-1501 FRAME & COVER OR APPROVED EQUAL.

	03-09-07	CHANGE COVER AND FRAME WEIGHTS	D.M.C.
	0-1-98	REISSUED	WLP
1.	0-5-65	REVISED CASTINGS WEIGHTS MET	
REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
GENERAL PLAN OF DRAIN MANHOLE FRAME & COVER			



- NOTES:**
- INSIDE & OUTSIDE OF BRICK WALLS, BENCHES & INVERTS, TO BE MORTARED WITH A WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATIONS.
 - FRAME & COVER IS THE SAME FOR ALL CATCH BASINS.
 - FOR DOUBLE VERTICAL CATCH BASIN, SEE S&WB DWGS. NO. D-873A.
 - CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS.
 - SEE S&WB DWG. NO. D-3264 FOR DROP INLETS.
 - SEE S&WB DWG. NO. D-3431-A & D-3431-B FOR MOUNTABLE CATCH BASINS.
 - FRAME & GRATE SHALL CONFORM TO EAST JORDAN IRON WORKS, V-4310 CURB INLET SERIES
 - SEE S&WB DWG. NO. D-8292 FOR TWO PIECE GRATE, FRAME AND COVER.
 - MAX. DEPTH OF CATCH BASIN CANNOT EXCEED 5' UNLESS APPROVED BY S&WB ENGINEER.

SCALE: N.T.S.

REV.	DATE	DESCRIPTION	BY
03-09-07		REVISED FRAME AND GRATES	D.M.C.
03-09-07		GENERAL REVISIONS	D.M.C.
1-4-94		REDRAWN	

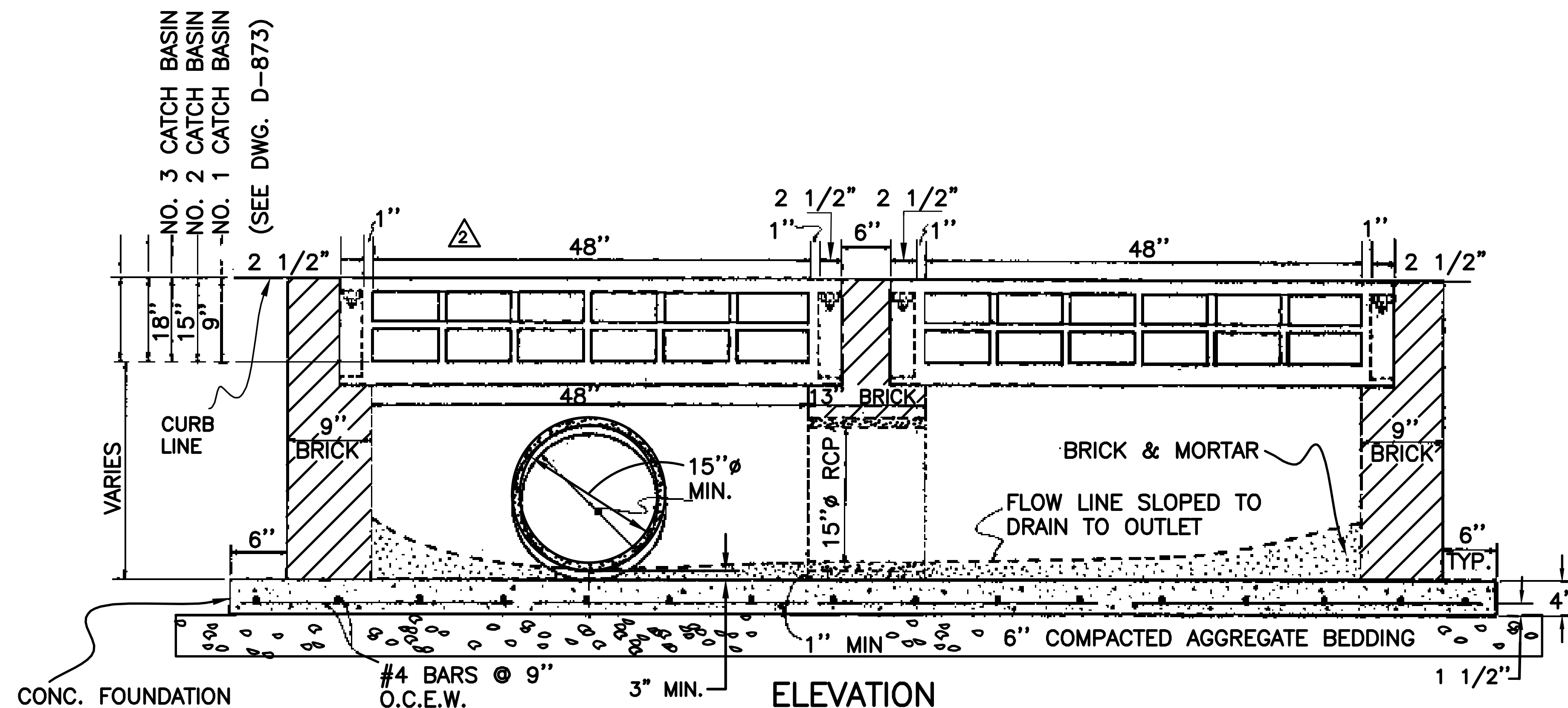
SEWERAGE AND WATER BOARD
OF NEW ORLEANS

DETAIL OF STANDARD
SINGLE VERTICAL CATCH BASIN
NUMBERS 1, 2 & 3

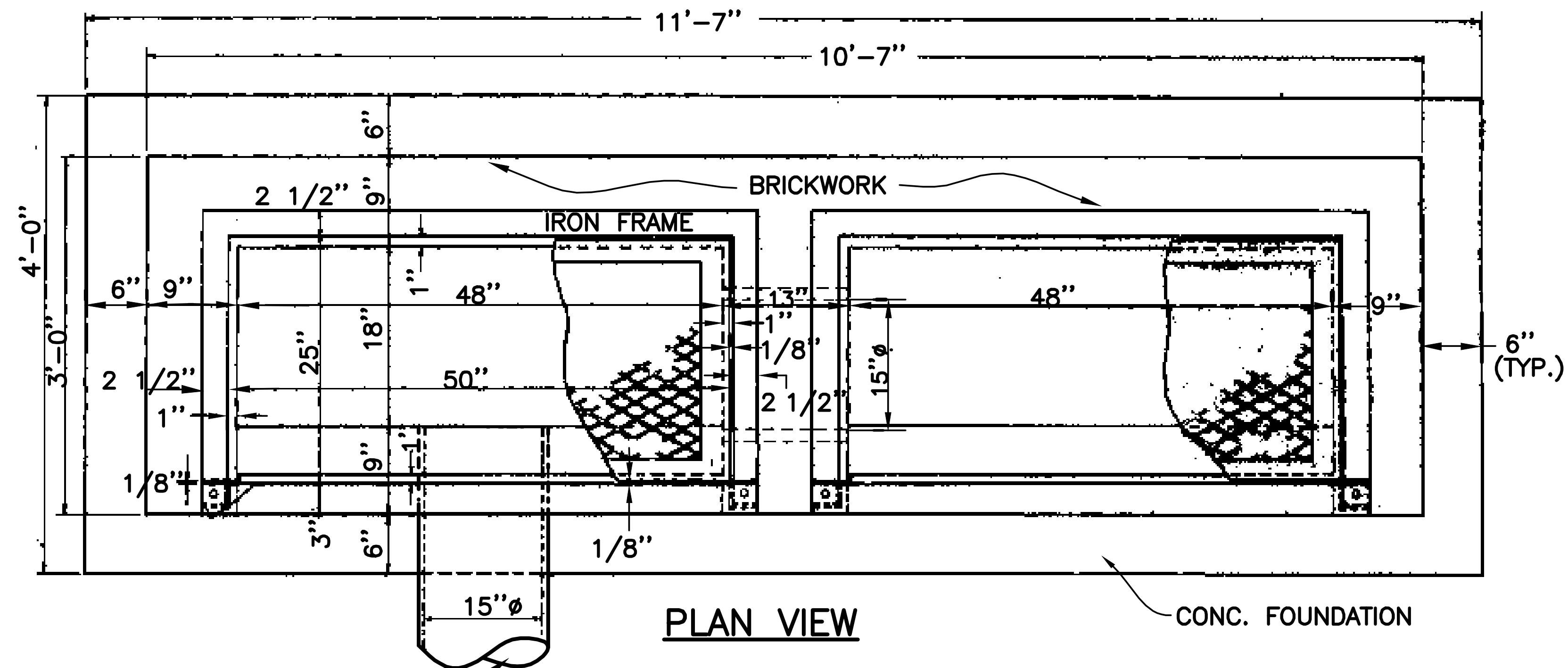
DR. *[Signature]*
TRC. *[Signature]*
CH. *[Signature]*
AP. *[Signature]*
SCALE: *[Signature]*

DWG. NO. D-873

DATE 1-4-94 SET NO. SHEET NO.



ELEVATION
(SEE NOTE NO. 1)



PLAN VIEW

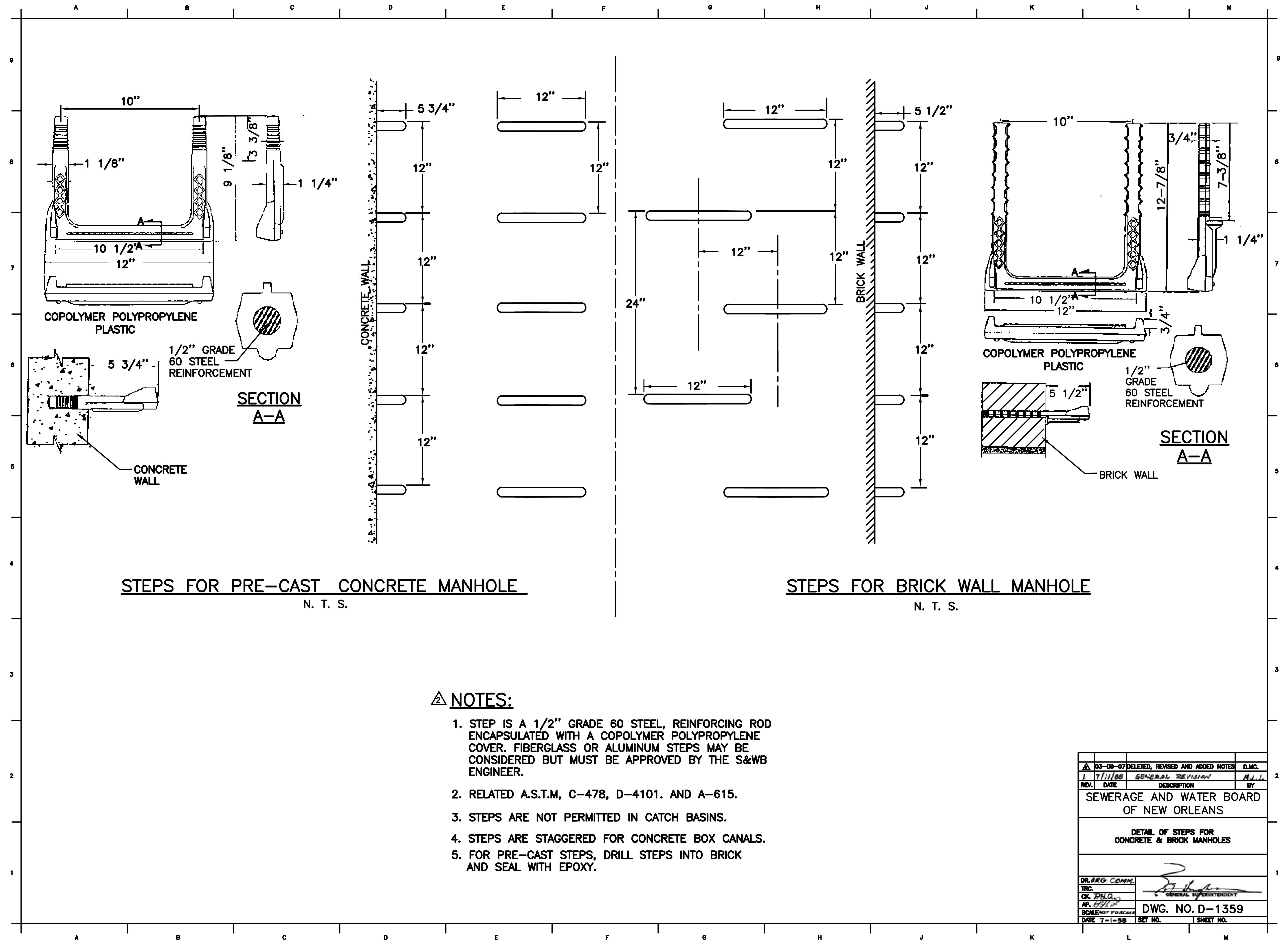
THIS LEAD SHALL BE CONNECTED TO MAIN DRAIN. THE LEAD CAN BE INSTALLED ON EITHER SIDE OF THE CATCH BASIN. THE BOTTOM OF CATCH BASIN MUST BE SLOPED TO DRAIN TOWARDS LEAD. CATCH BASIN LEAD MAY BE POSITIONED AT AN ANGLE AS REQUIRED TO ATTACH TO MAIN DRAIN LINE.

NOTES:

1. DOUBLE CATCH BASIN SHOWN. SEE S&WB DWG. NO. D-873 FOR SINGLE TYPE CATCH BASIN CASTINGS.
2. SEE S&WB DWG. NO. D-873 FOR SECTIONS & DETAILS OF CATCH BASINS 1, 2 & 3 AND METAL CASTING.
3. INSIDE & OUTSIDE OF BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH A WATERPROOFING COMPOUND, THICKNESS OF 1/4" IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
4. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
5. SEE S&WB DWG. NO. D-3264 FOR DROP INLETS.
6. SEE S&WB DWG. NO. D-3431-A & D-3431-B FOR MOUNTABLE CATCH BASINS.
7. SEE S&WB DWG. NO. D-8292 FOR TWO PIECE GRATE, FRAME AND COVER.
8. MAX. DEPTH OF CATCH BASIN CANNOT EXCEED 5' UNLESS APPROVED BY S&WB ENGINEER.
9. FRAME & GRATE SHALL CONFORM TO EAST JORDAN IRON WORKS, V-4310 CURB INLETS SERIES.

SCALE: N.T.S.

03-08-07	REVISED FRAME & GRATES	D.M.C.
03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
REV.	DATE	DESCRIPTION
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
DETAIL OF STANDARD DOUBLE VERTICAL CATCH BASIN		
DR. <i>AS</i>	<i>Joseph Sullivan</i> SEWERAGE AND WATER BOARD OF NEW ORLEANS	
TRC.		
CK. YSL		
AP. <i>YSL</i>		
SCALE AS SHOWN	DWG. NO. D-873A	
DATE 8-1-88	SHEET NO.	



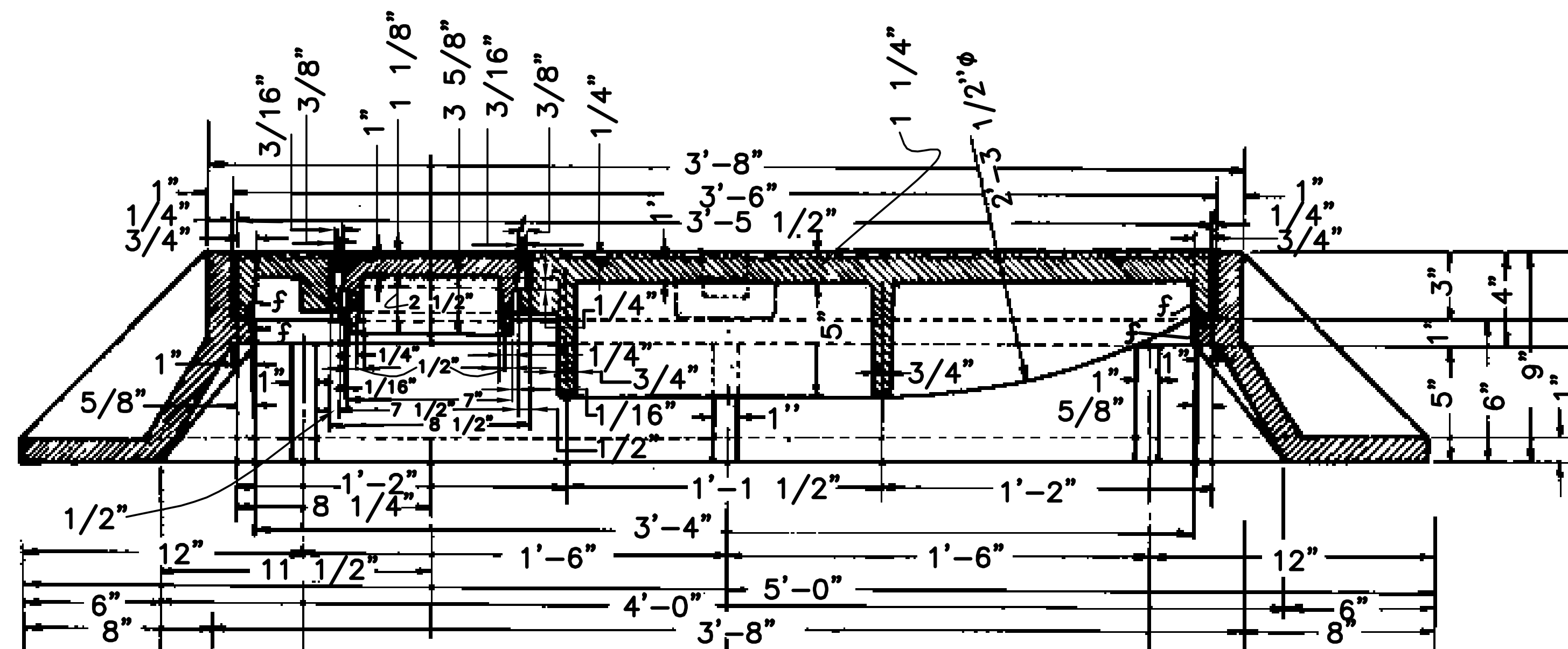
STEPS FOR PRE-CAST CONCRETE MANHOLE
N. T. S.

STEPS FOR BRICK WALL MANHOLE
N. T. S.

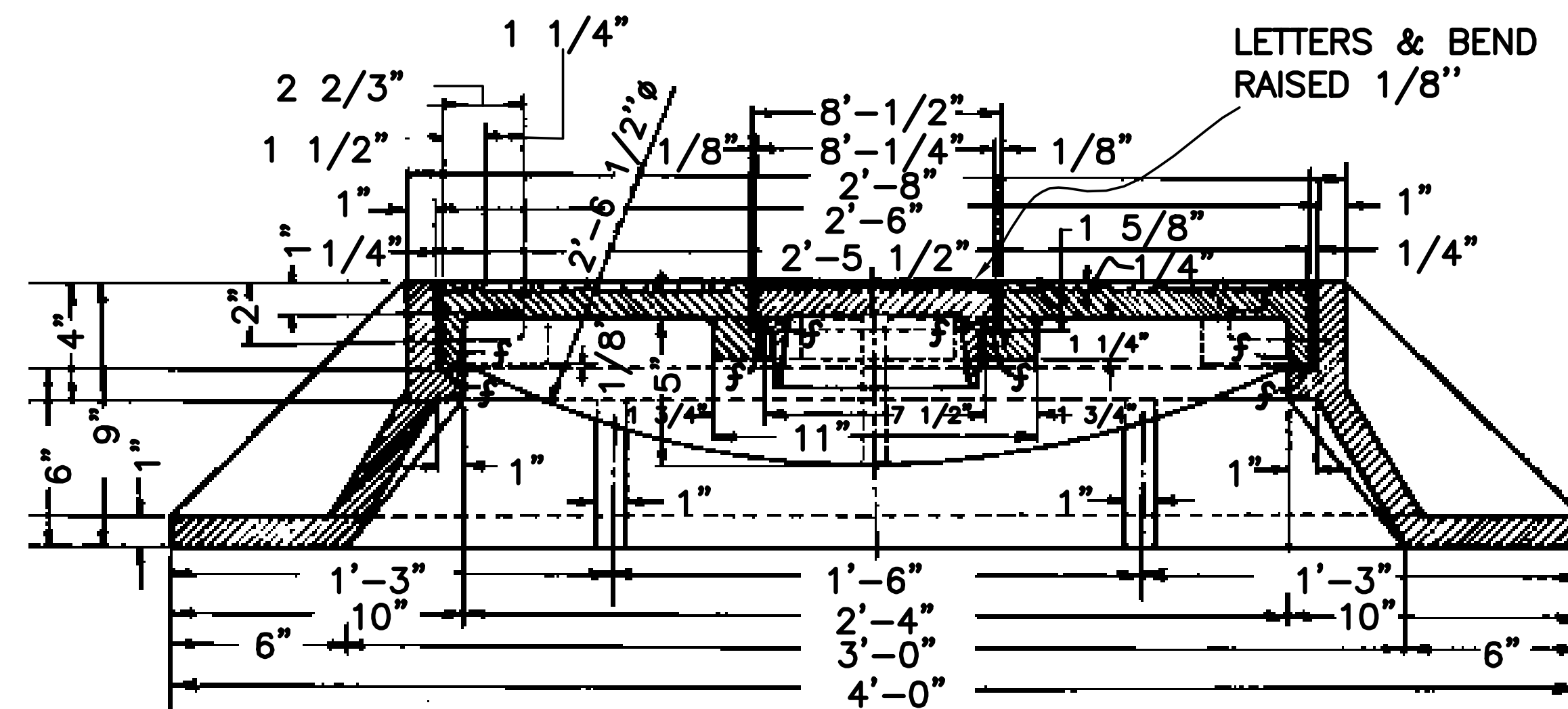
NOTES:

1. STEP IS A 1/2" GRADE 60 STEEL, REINFORCING ROD ENCAPSULATED WITH A COPOLYMER POLYPROPYLENE COVER. FIBERGLASS OR ALUMINUM STEPS MAY BE CONSIDERED BUT MUST BE APPROVED BY THE S&WB ENGINEER.
2. RELATED A.S.T.M, C-478, D-4101. AND A-615.
3. STEPS ARE NOT PERMITTED IN CATCH BASINS.
4. STEPS ARE STAGGERED FOR CONCRETE BOX CANALS.
5. FOR PRE-CAST STEPS, DRILL STEPS INTO BRICK AND SEAL WITH EPOXY.

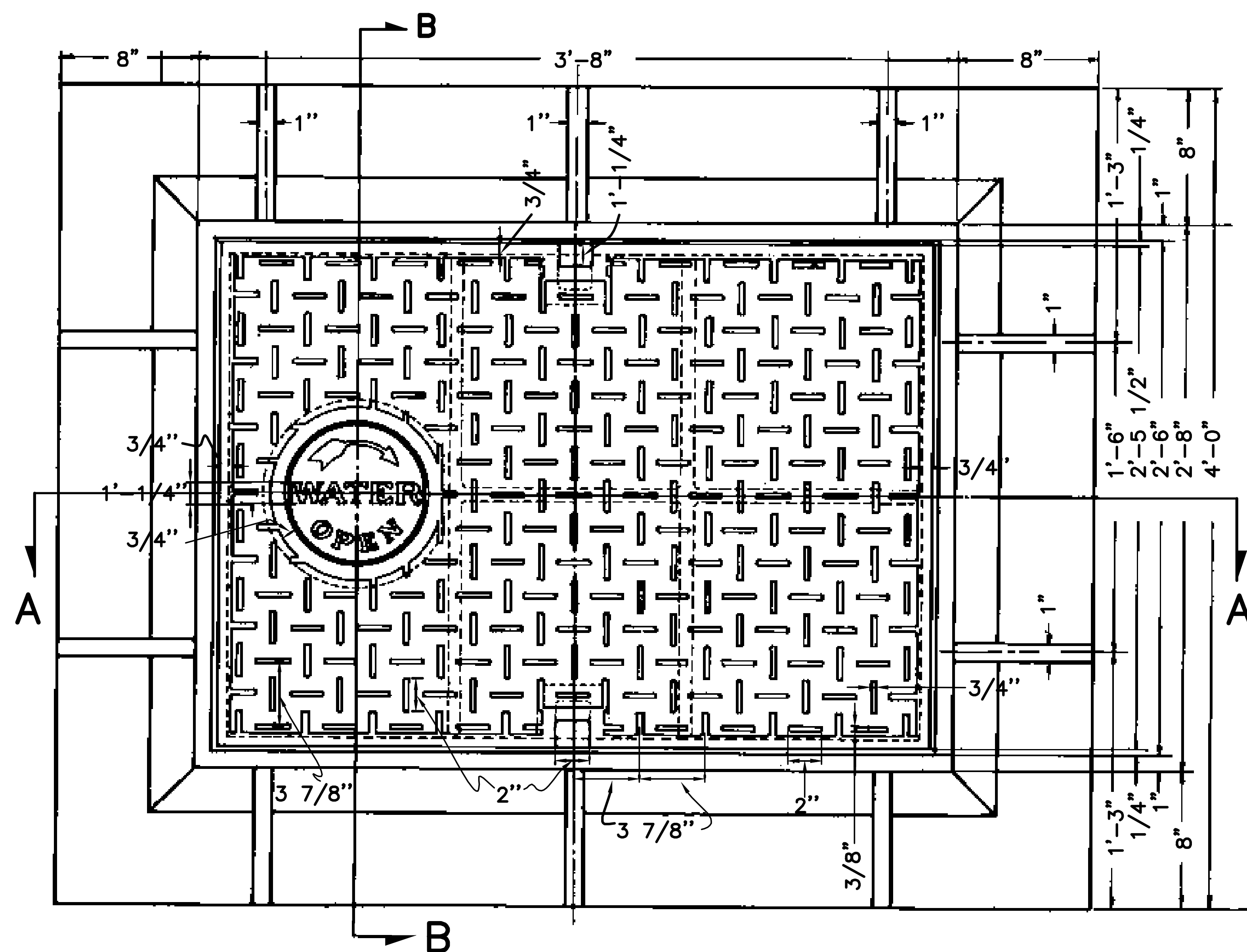
03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
1	7/11/88	GENERAL REVISION
REV.	DATE	DESCRIPTION
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
DETAIL OF STEPS FOR CONCRETE & BRICK MANHOLES		
DR. P.R.G. COMM. TRC. CK. P.H.Q. AP. 08/12		
SCALE: NOT TO SCALE		
DATE 7-1-88		
DWG. NO. D-1359		
SHEET NO.		



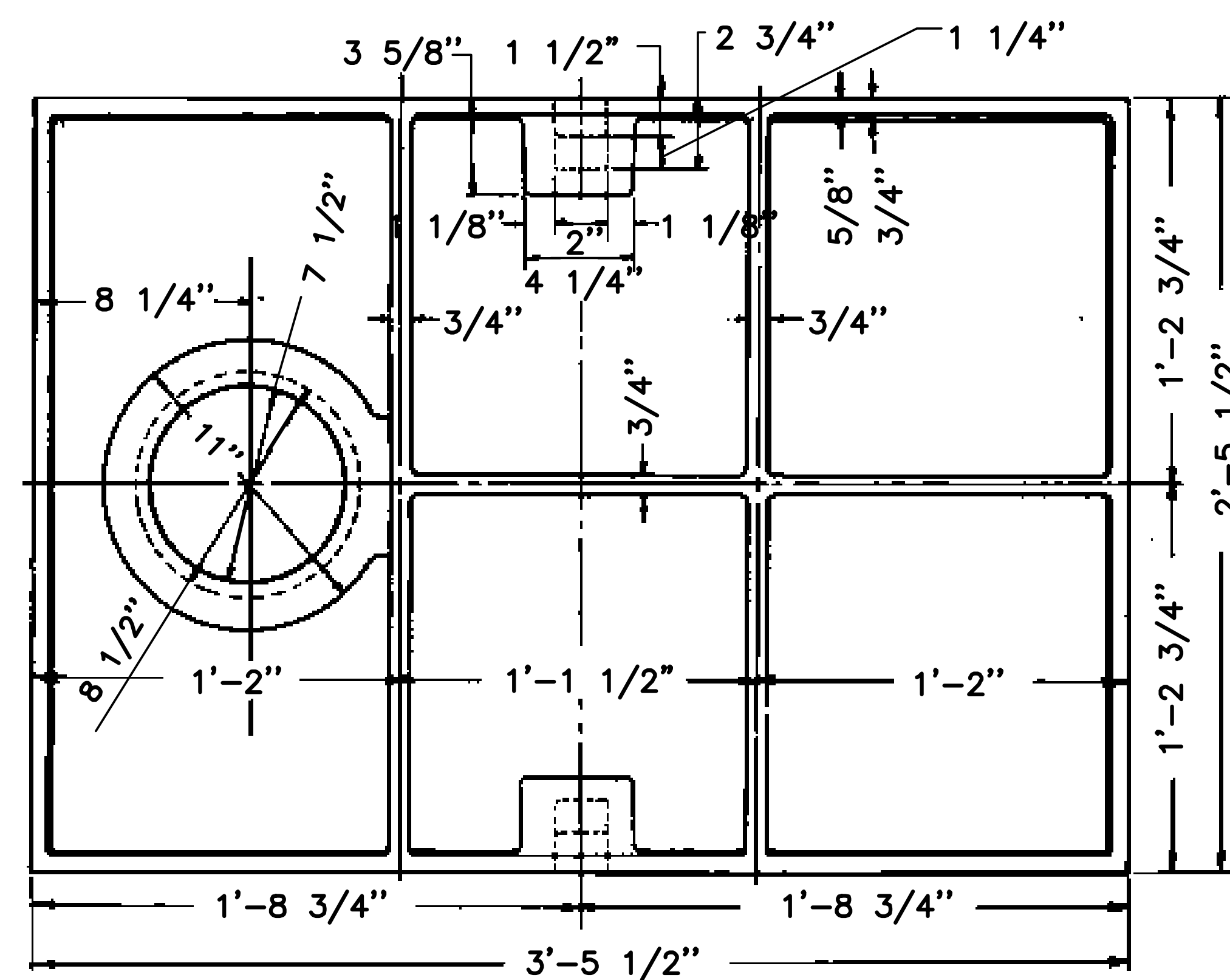
SECTION A-A



SECTION B-B



PLAN OF COVER & FRAME

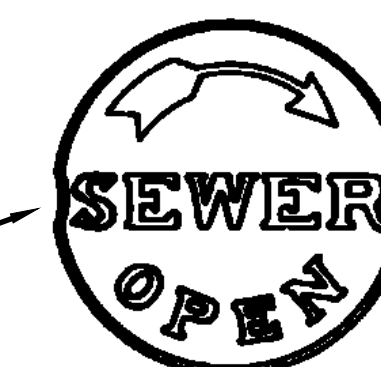


NOTES:

UNDER SIDE OF COVER

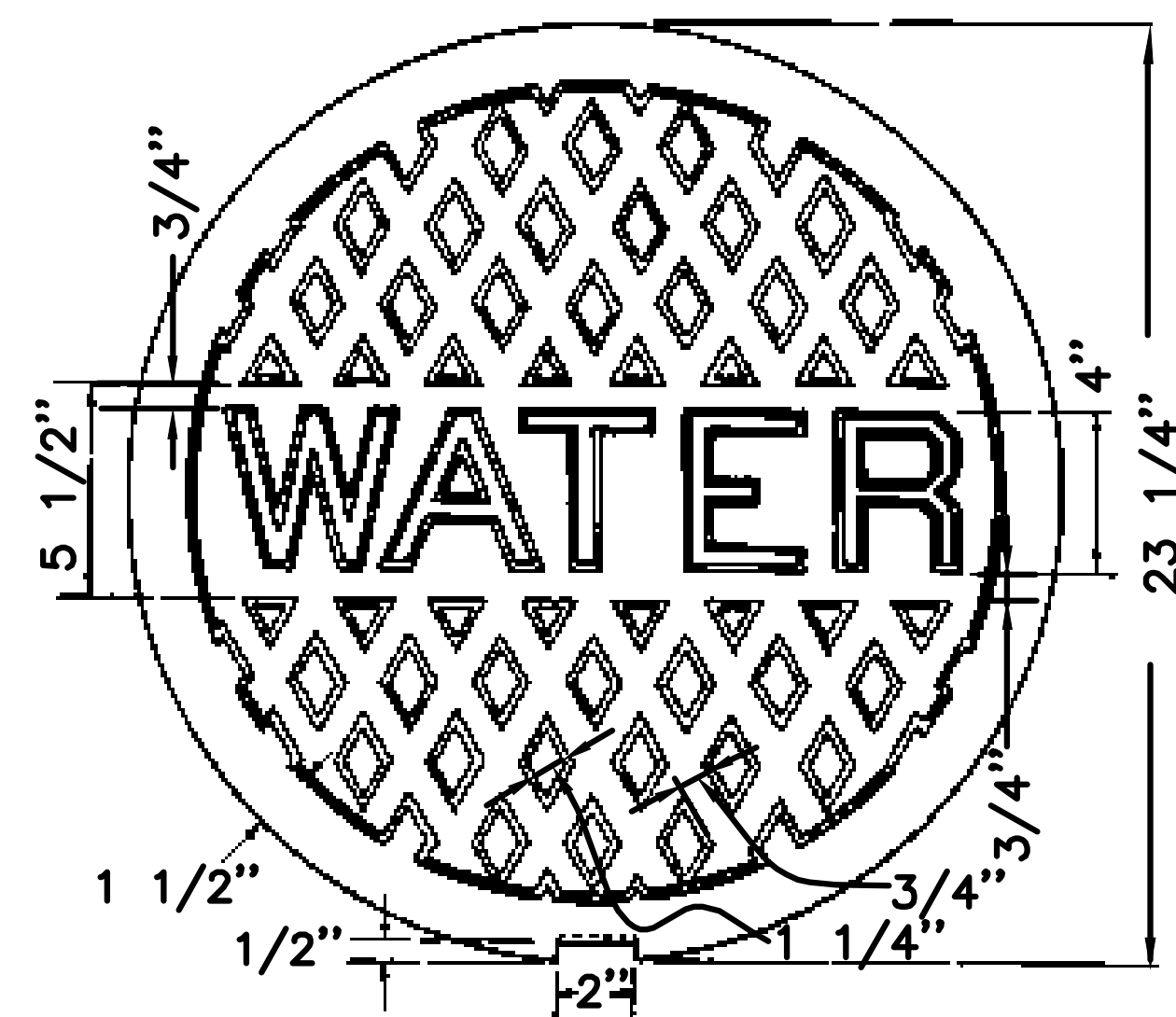
1. f = MACHINED SURFACE
2. FRAME & COVER SHALL CONFORM TO EAST JORDAN IRON WORKS, V-6399 FRAME & GRATE OR APPROVED EQUAL.

THIS COVER TO BE USED FOR SEWER MANHOLES ONLY

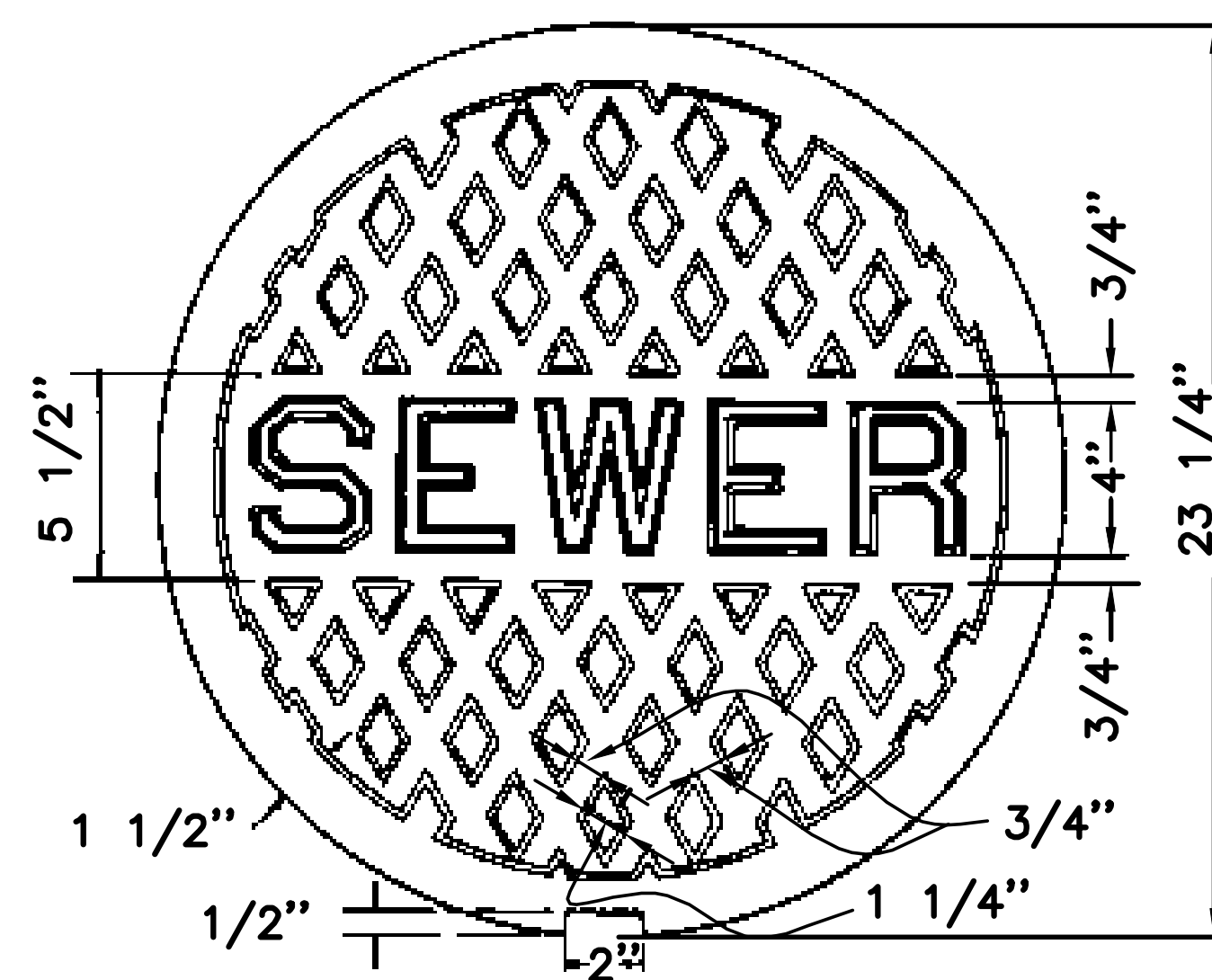


SCALE: N. T. S.

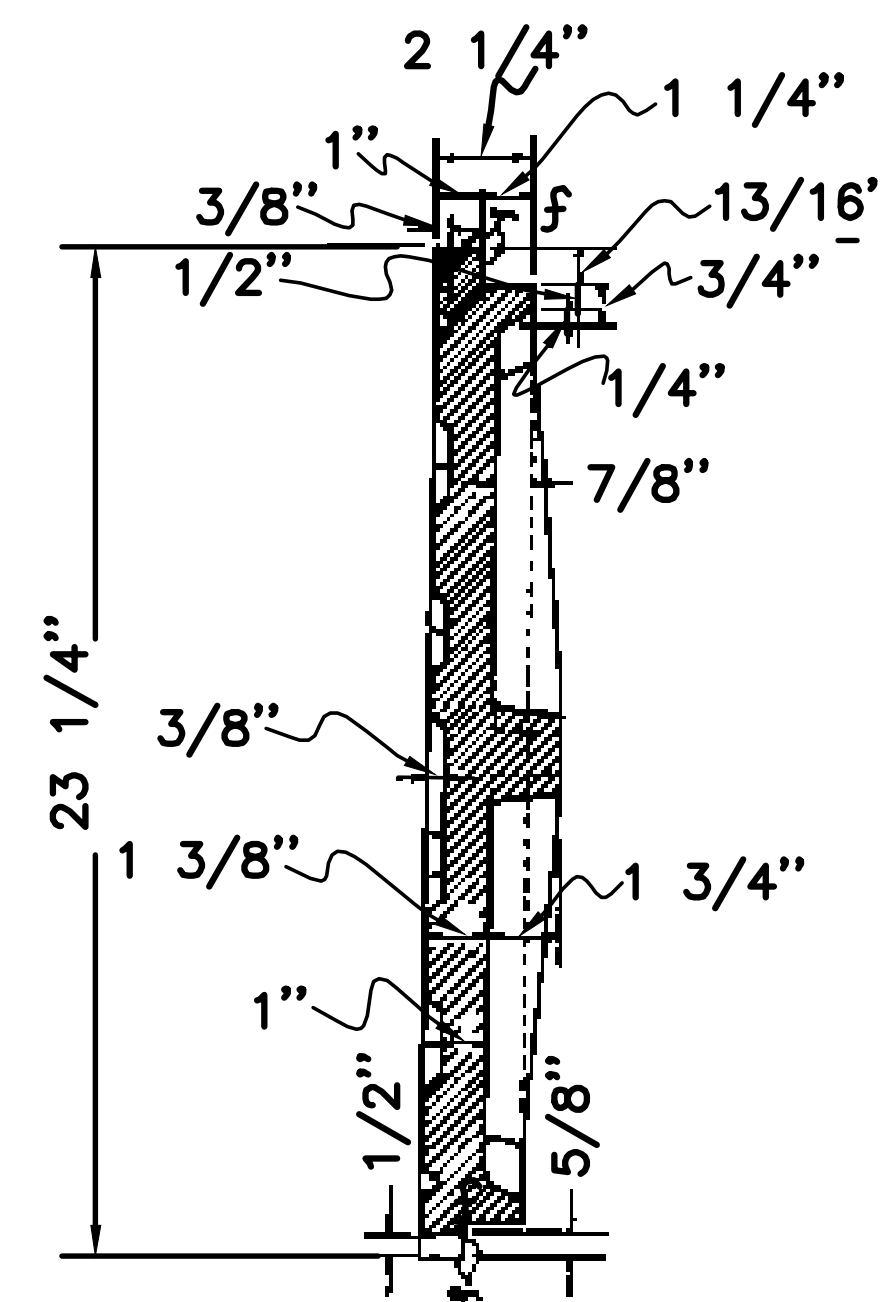
03-09-07	ADDED NOTE	D.M.C.
1	1-13-61 Added Cover For Sewer Manhole	R.J.M.
REV.	DATE	DESCRIPTION
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
RECTANGULAR FRAME AND COVER FOR METER OR VALVE		
DR. G. HENRY		
TRC.		
CK. G. HENRY		
AP. R.J.M.		
SCALE		
DATE 12/1/69	SET NO.	SHEET NO.
DWG. NO. 2445-F-2		



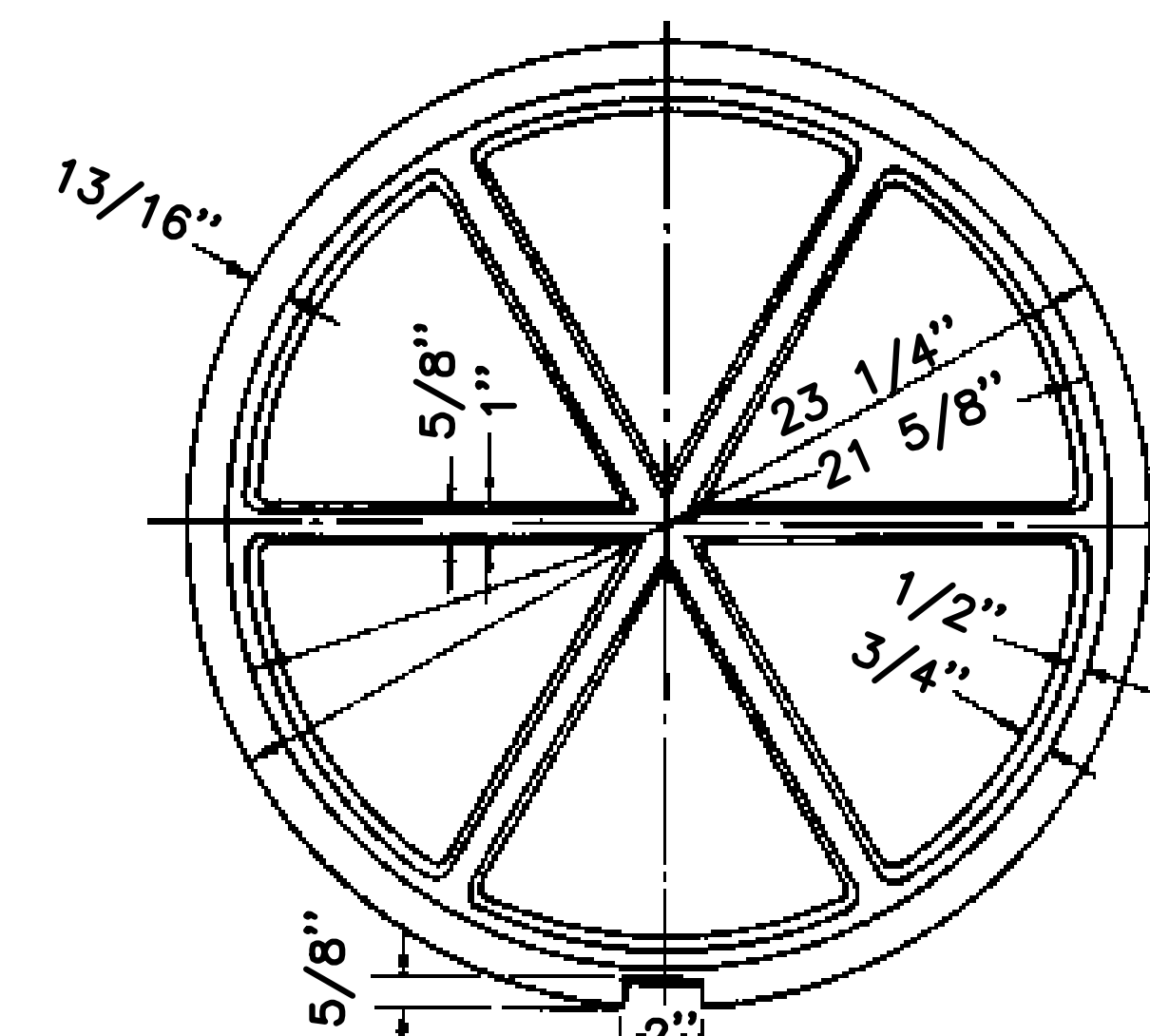
TOP VIEW OF WATER
MANHOLE COVER



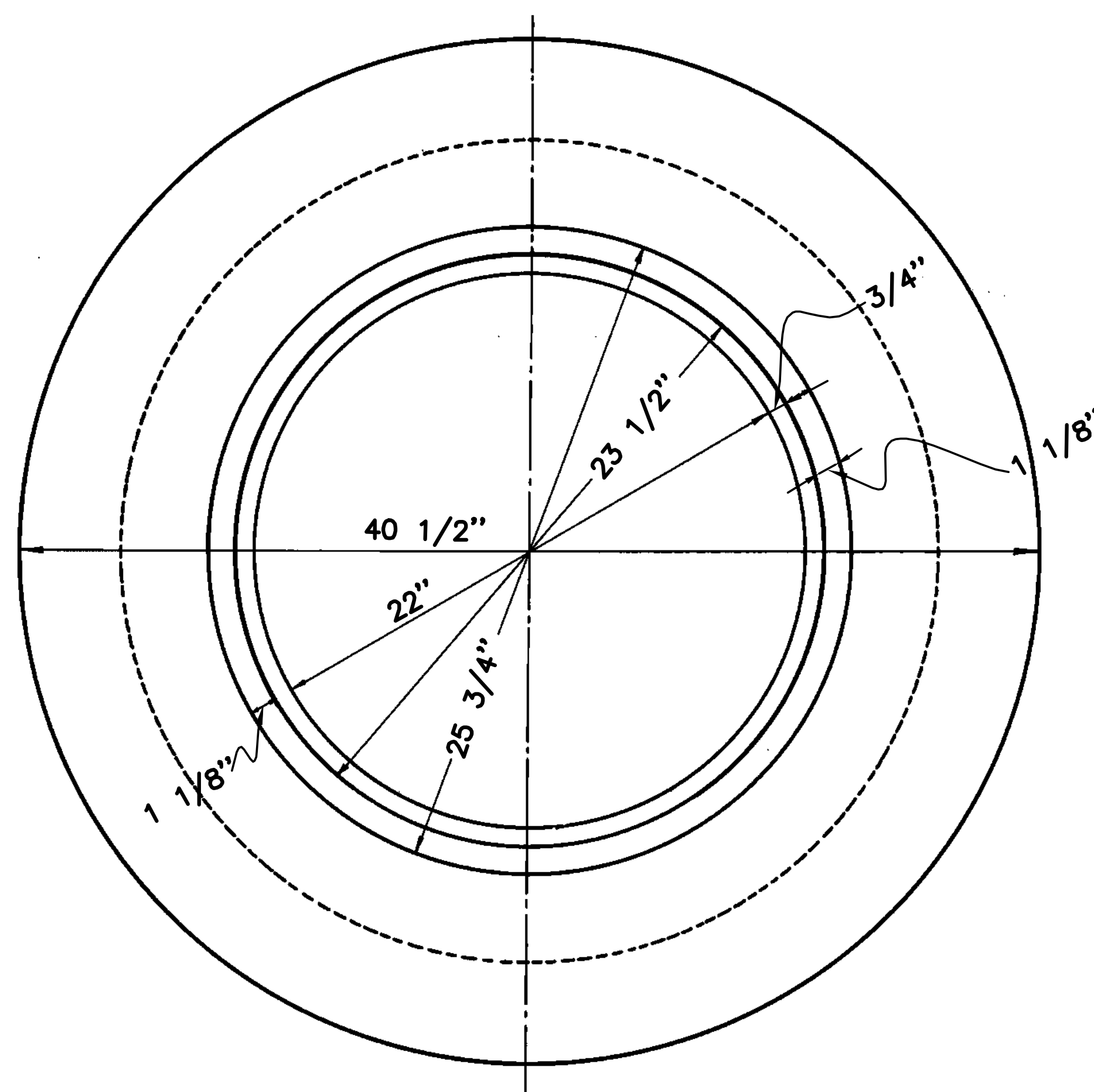
TOP VIEW OF SEWER
MANHOLE COVER



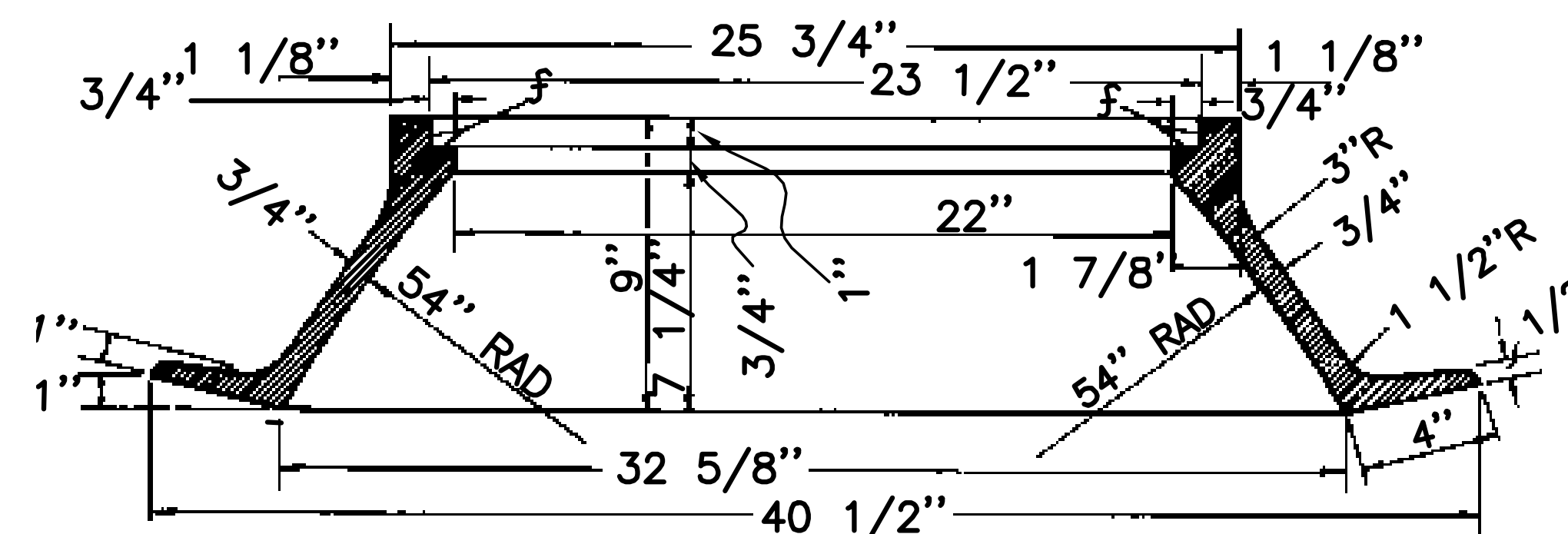
CROSS SECTION OF
MANHOLE COVER
(SEWER & WATER)



BOTTOM VIEW OF
MANHOLE COVER
(SEWER & WATER)



PLAN OF FLARING FRAME MANHOLE



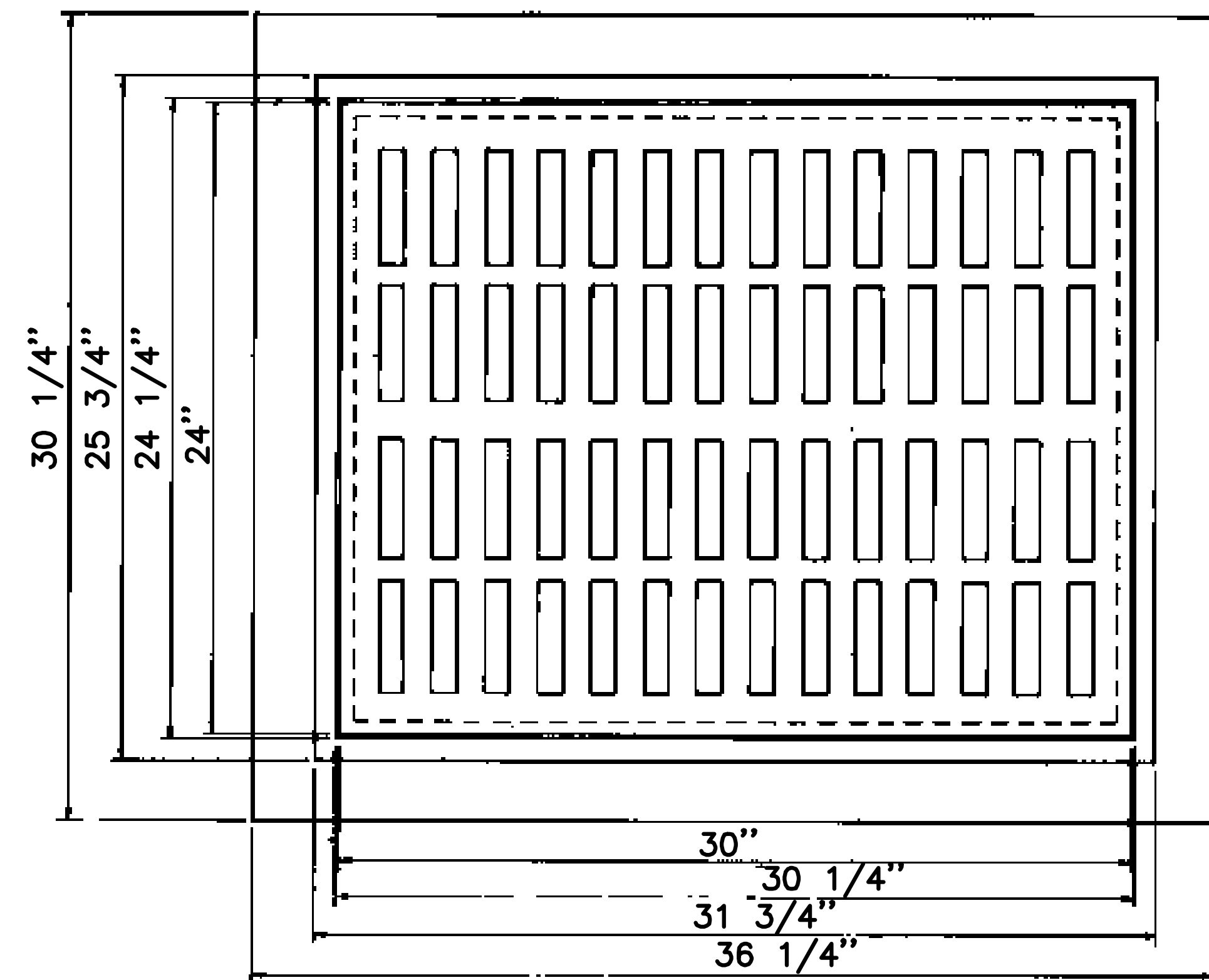
CROSS SECTION OF FLARING
MANHOLE FRAME
(SEWER & WATER)

NOTE:

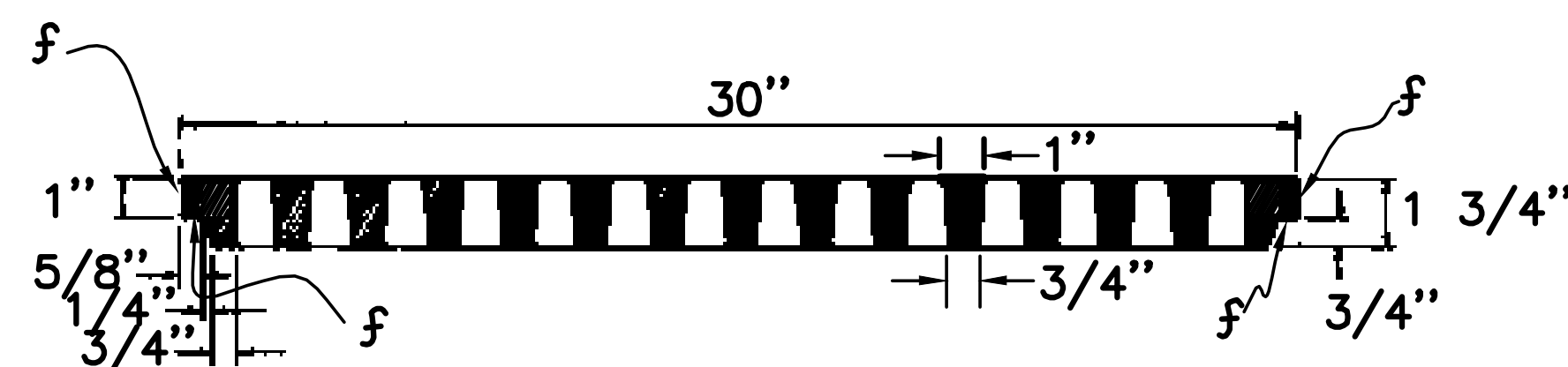
1. f = MACHINED SURFACE
2. FRAME & COVER SHALL CONFORM TO EAST JORDAN IRON WORKS, V-1501 FRAME AND COVER.

03-09-07	REVIEWED BY	DR. A. P. GENTILE
03-09-07	DESIGNED BY	DR. A. P. GENTILE
03-09-07	CHECKED BY	DR. A. P. GENTILE
03-09-07	APPROVED BY	DR. A. P. GENTILE
03-09-07	DATE	7/1/98
03-09-07	SCALE	GRAPHIC
03-09-07	SET NO.	1
03-09-07	SHEET NO.	1
03-09-07	DWG. NO.	3143-E-1

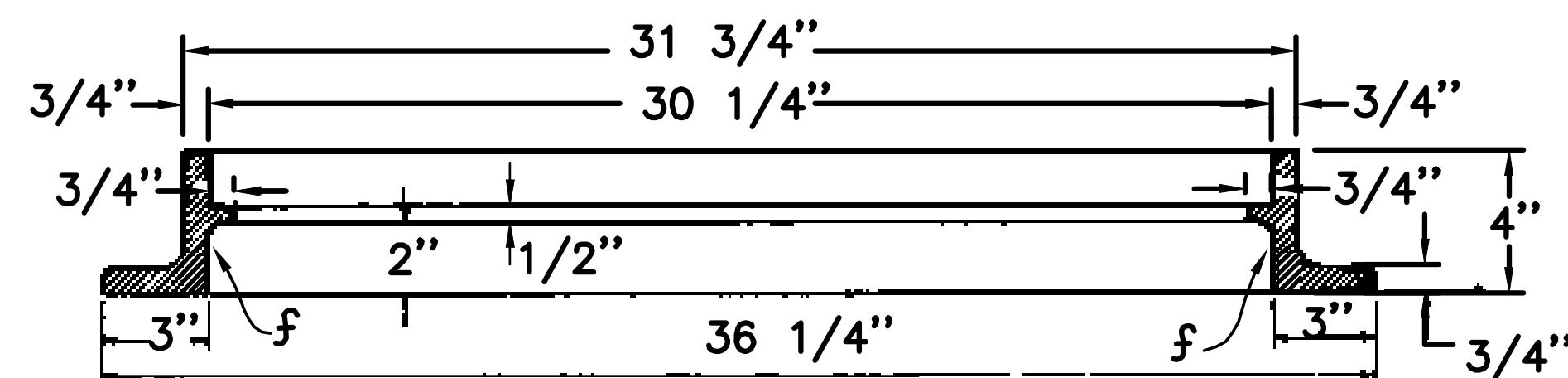
SCALE: N.T.S.



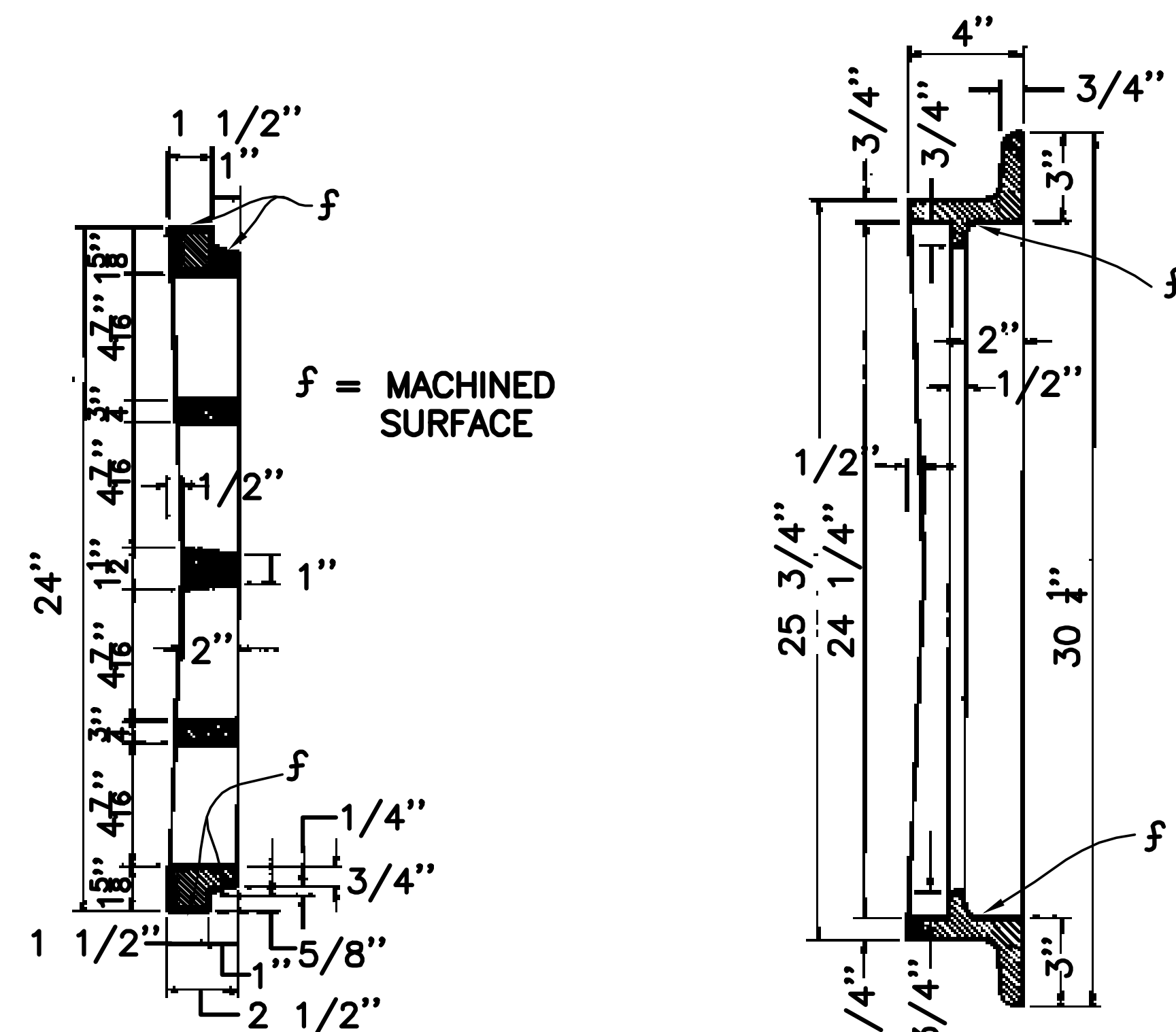
PLAN OF FRAME AND GRATE



LONGITUDINAL SECTION OF GRATE

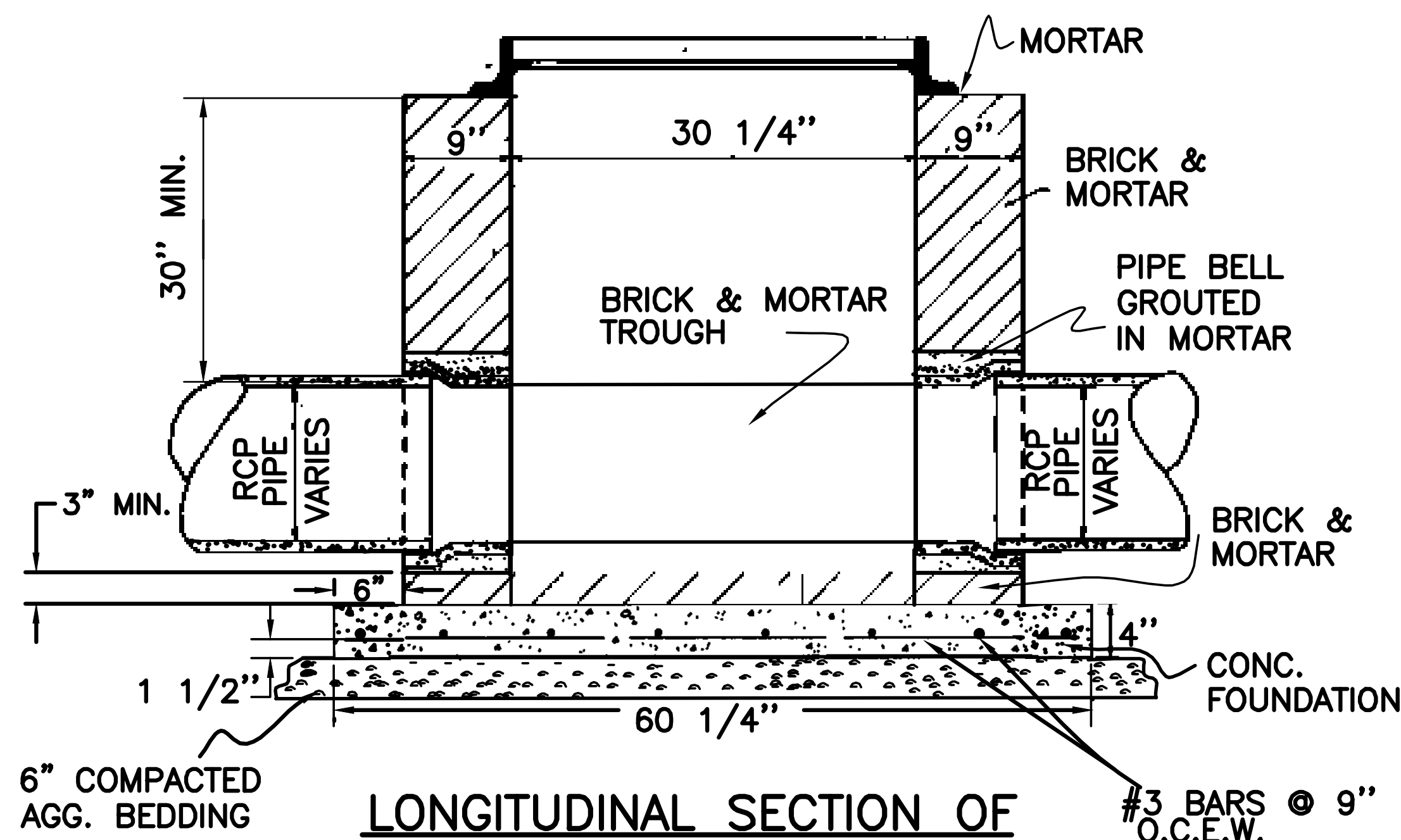


LONGITUDINAL SECTION OF FRAME



TRANSVERSE SECTION OF
GRATE

TRANSVERSE SECTION OF
FRAME



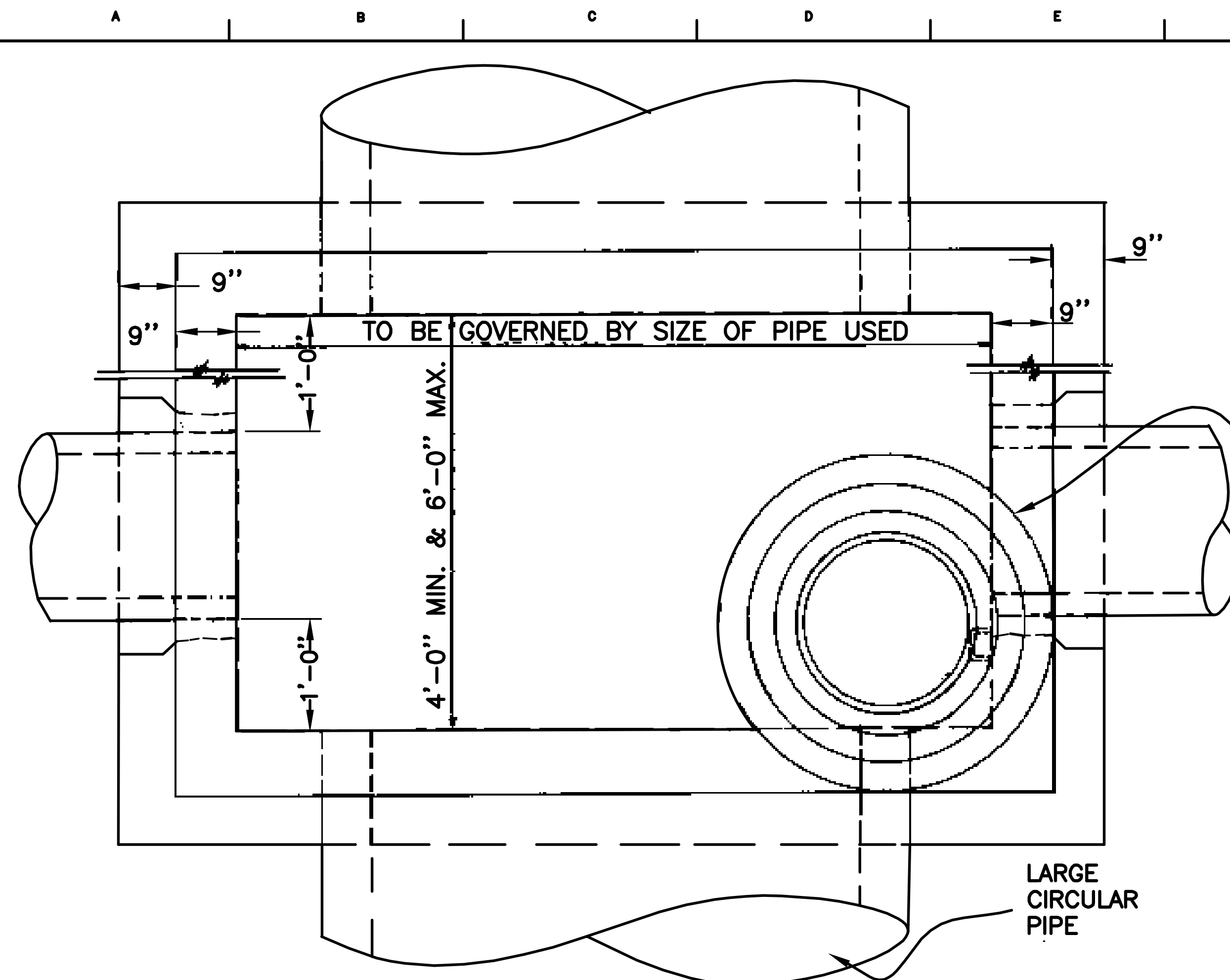
LONGITUDINAL SECTION OF
DROP INLET MANHOLE

NOTES:

1. WEIGHT OF FRAME 154 LBS.
2. WEIGHT OF COVER 278 LBS.
3. f = MACHINED SURFACE
4. INSIDE & OUTSIDE OF BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATION.
5. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
6. FRAME & GRATE SHALL CONFORM TO EAST JORDAN WORKS, INC. V-4430 GUTTER INLET OR APPROVED EQUAL.

SCALE: N.T.S.

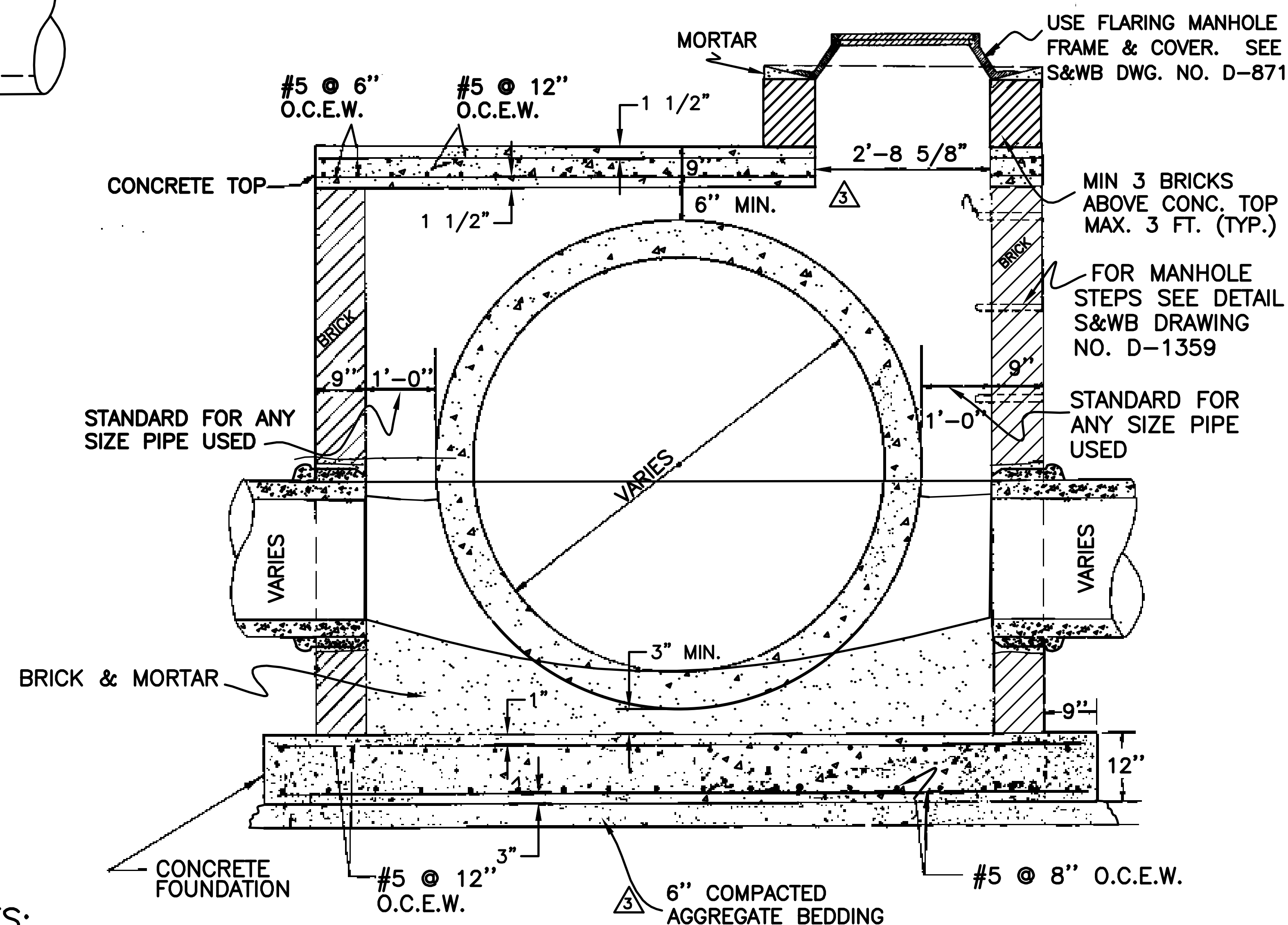
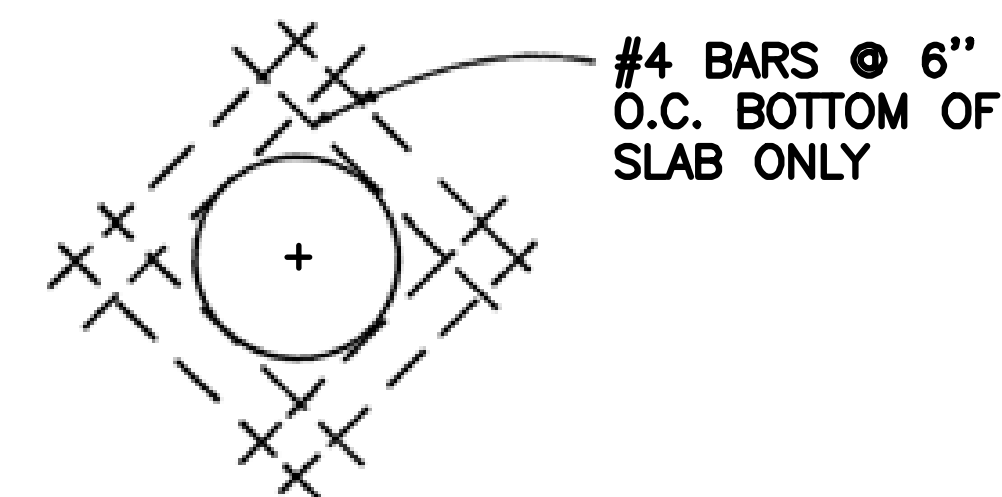
03-08-07 DELETED, REVISED AND ADDED NOTES	D.M.C.
12-1-85 REDRAWN, ADDED BARS TO GRATE	BY
REV. DATE DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS	
DETAIL OF STANDARD 24"x30" CLEAR OPENING DROP INLET CATCH BASIN	
DR. <i>[Signature]</i>	
TRC. <i>[Signature]</i>	
CK. <i>[Signature]</i>	
AP. <i>[Signature]</i>	
SCALE	DWG. NO. D-3264
DATE 12-8-85	SET NO. SHEET NO.



PLAN VIEW

FOR RE-STEEL
AROUND MANHOLE
OPENING SEE
DETAIL-1.

DETAIL-1



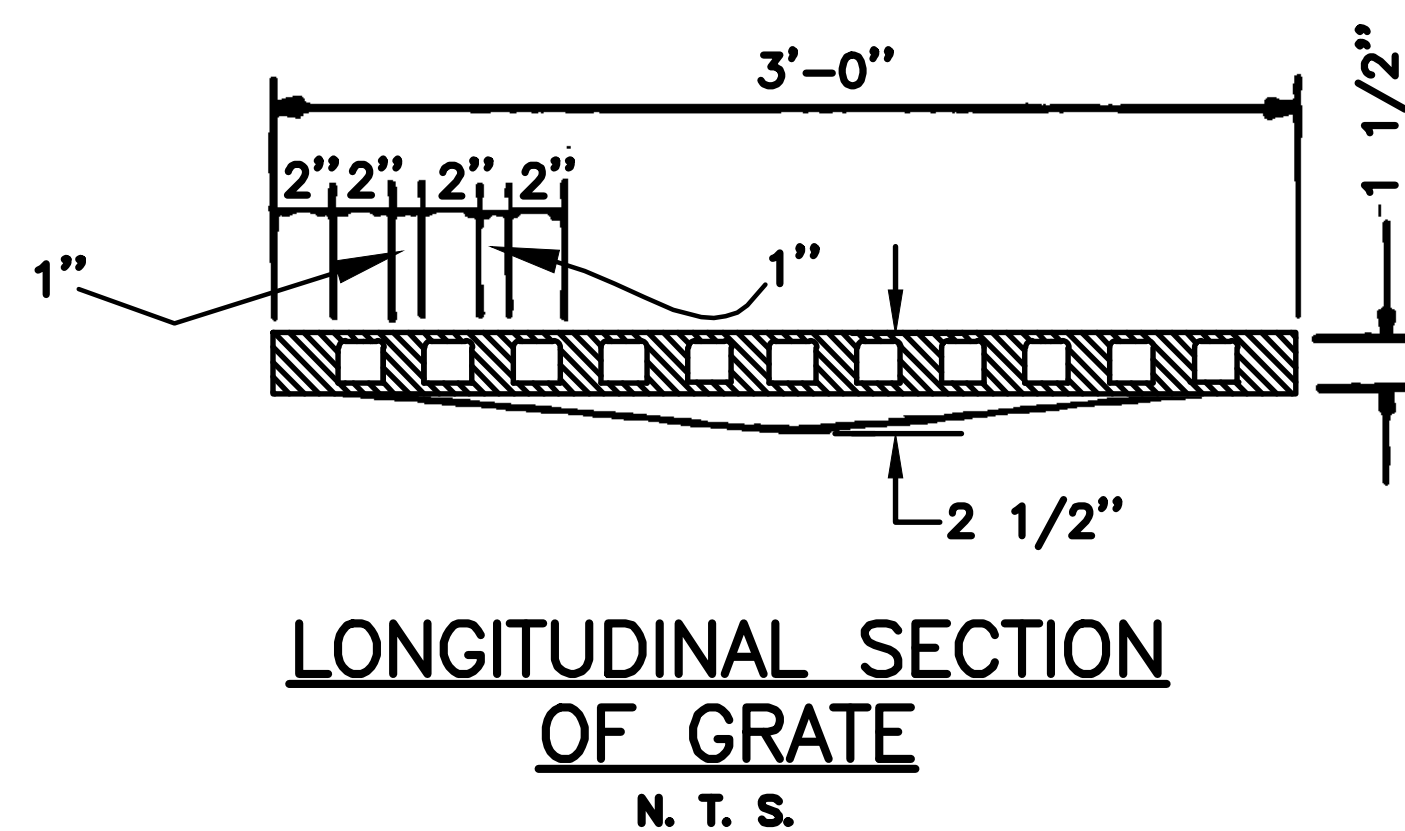
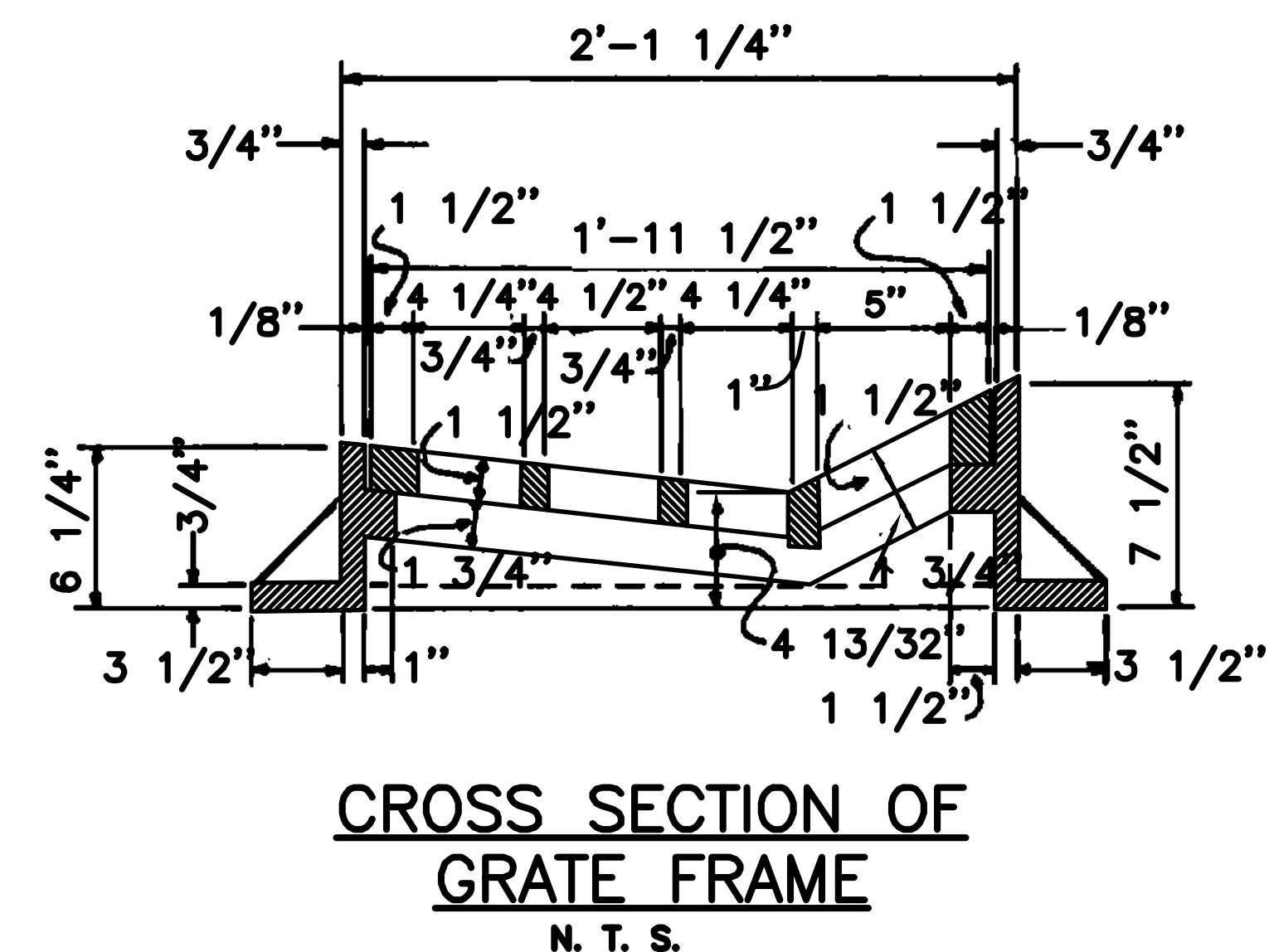
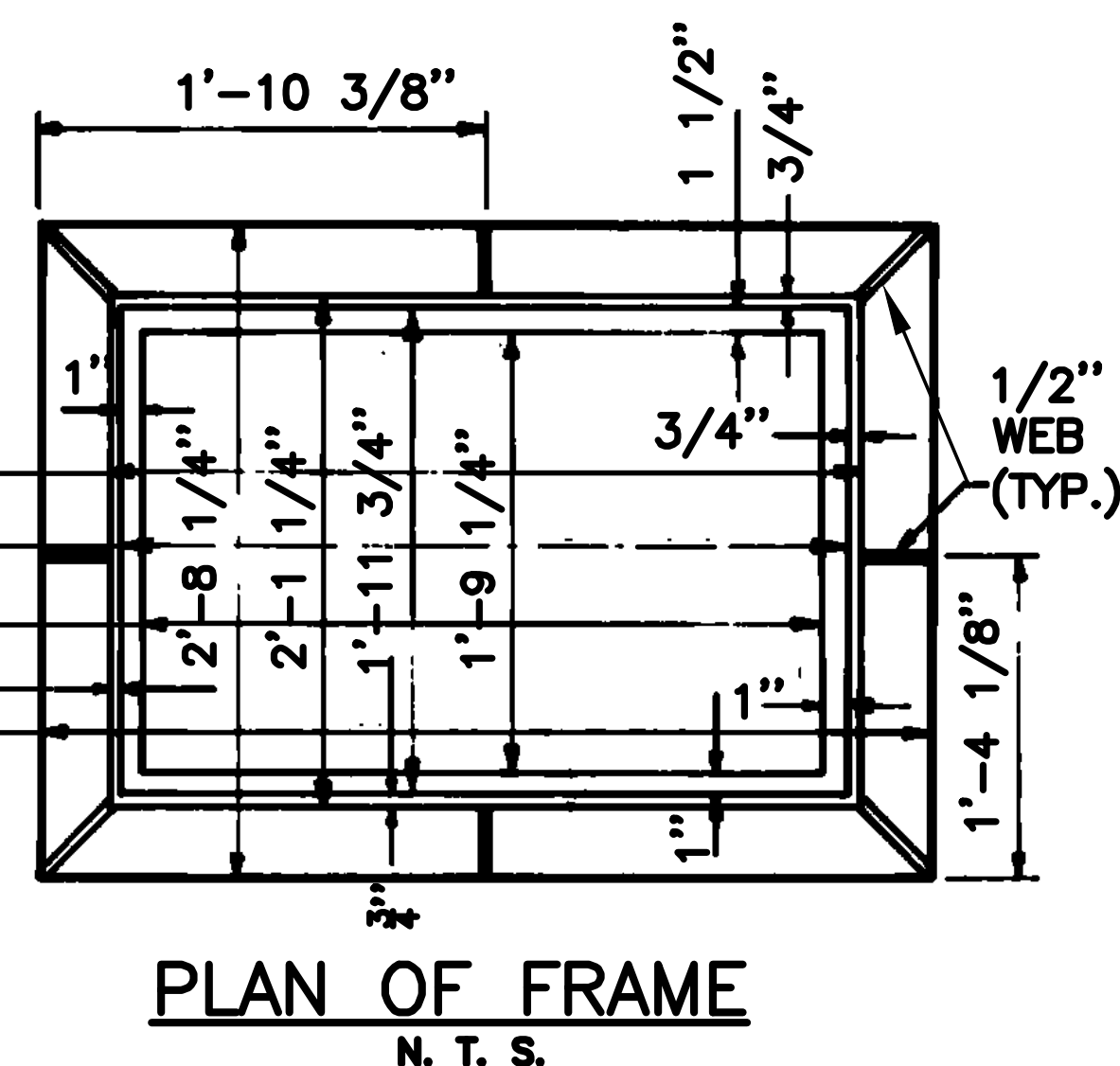
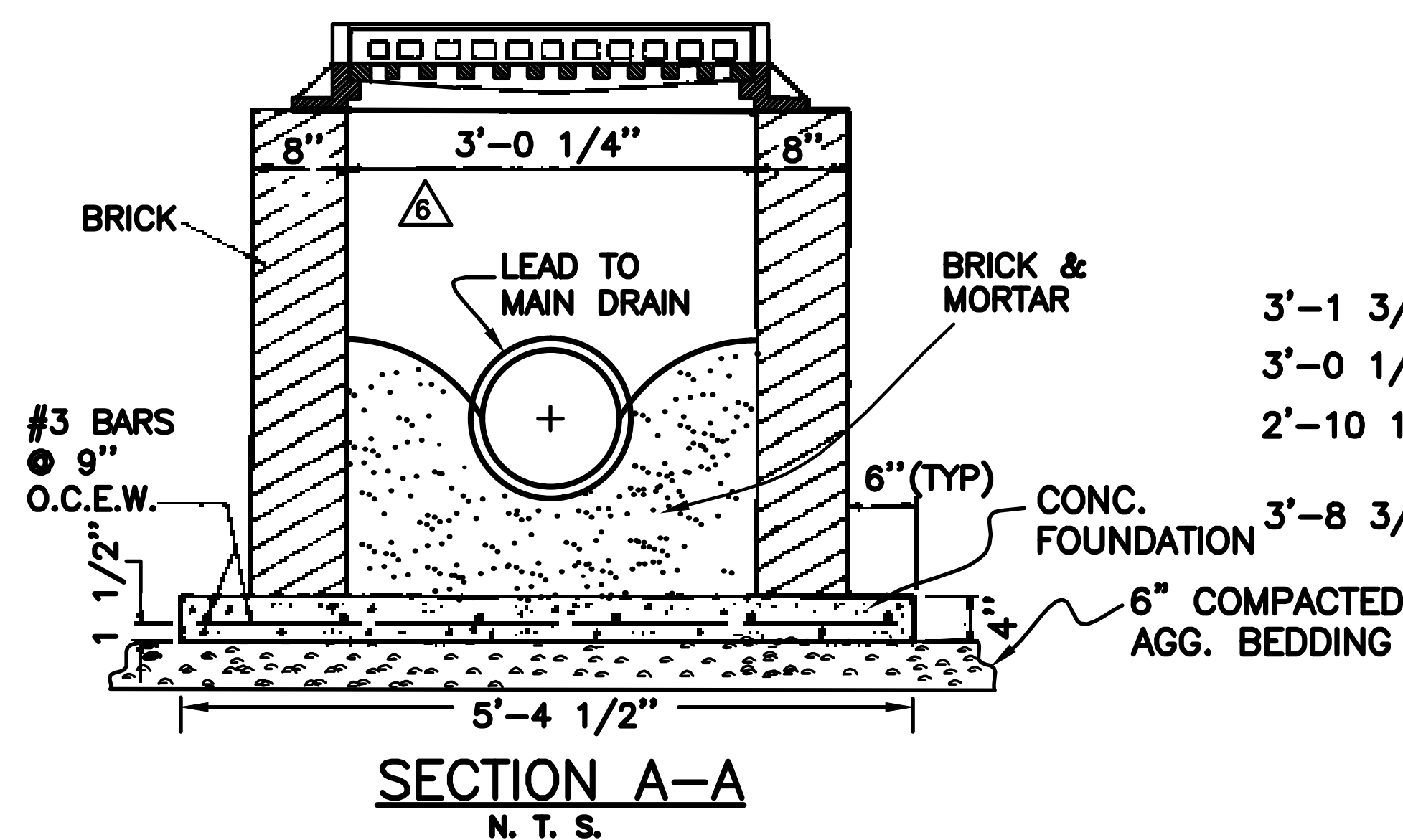
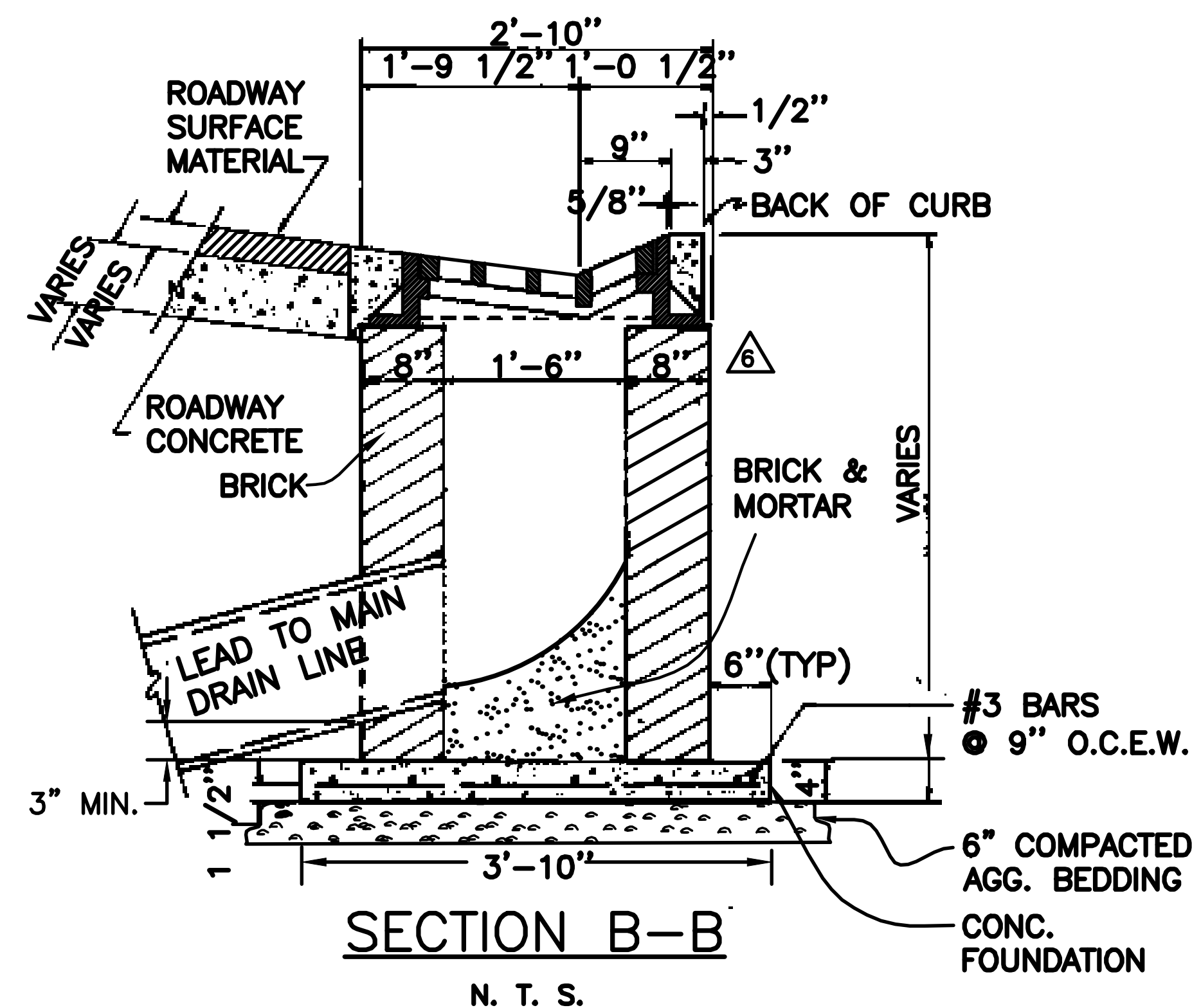
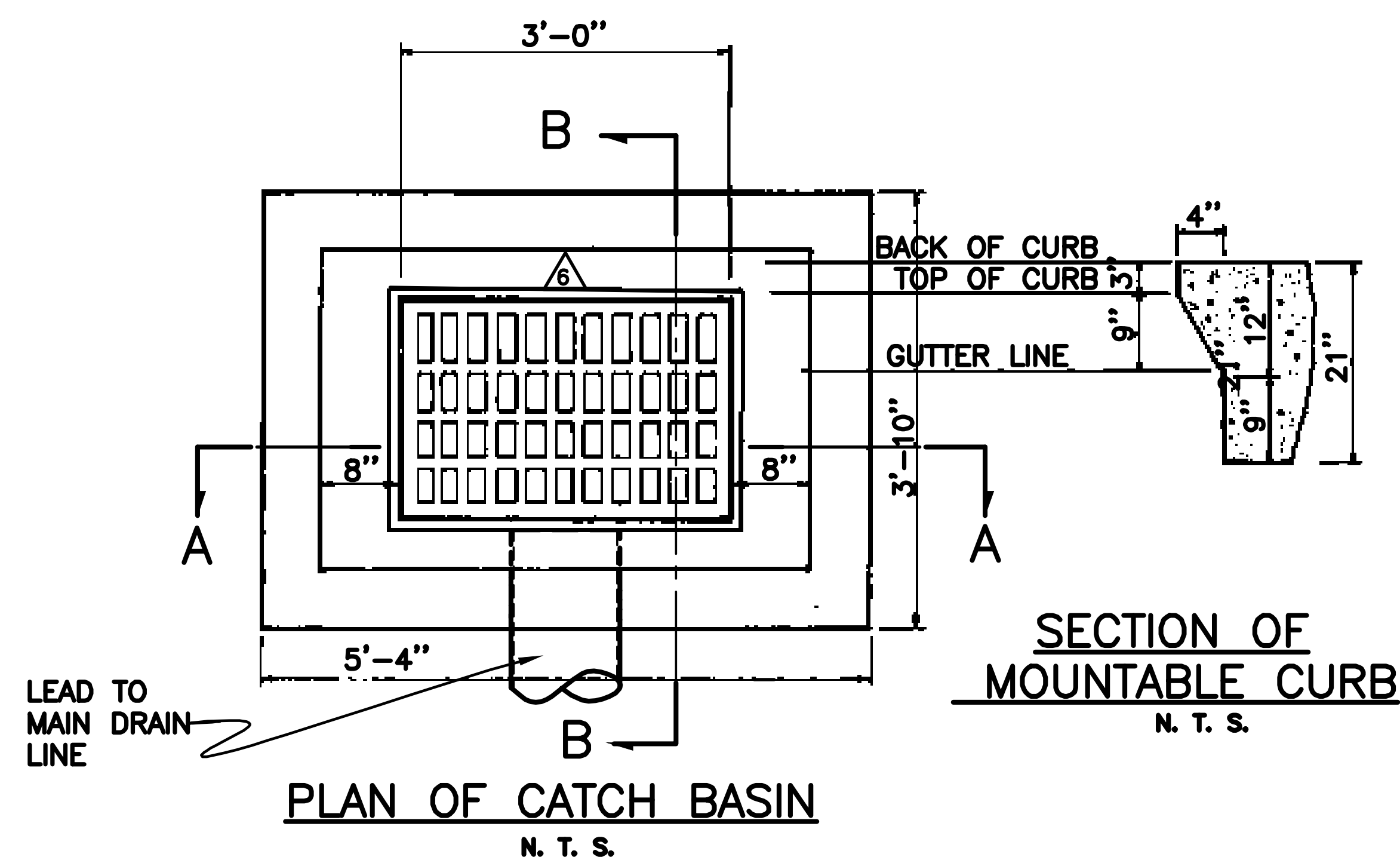
SECTION VIEW

NOTES:

1. INSIDE & OUTSIDE BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF $\frac{1}{4}$ " IN ACCORDANCE WITH SPECIFICATIONS.
2. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.

03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
2	9-5-67 NEW BOTTOM & STEEL	A.M.
1	11-8-65 NOTE FOR PLASTERING	R.P.D.
REV.	DATE	DESCRIPTION
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
DETAIL OF STANDARD MANHOLE FOR CIRCULAR PIPE GREATER THAN 36"		
DR. <i>A.P.E.</i>	<i>[Signature]</i> GENERAL SUPERINTENDENT	
TRC.		
CK.		
AP.		
SCALE 3/4"=1'-0"	DWG. NO. D-3340	
DATE 7-1-68	SHEET NO.	SHEET NO.

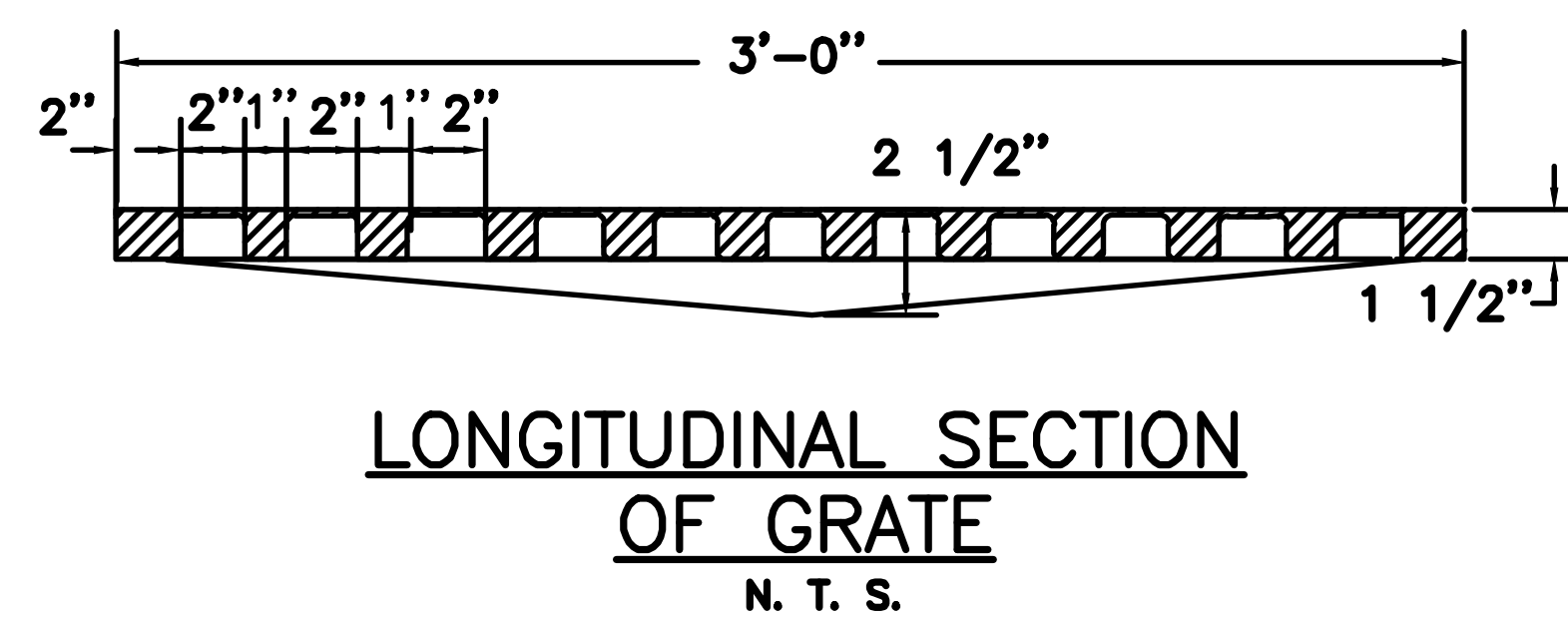
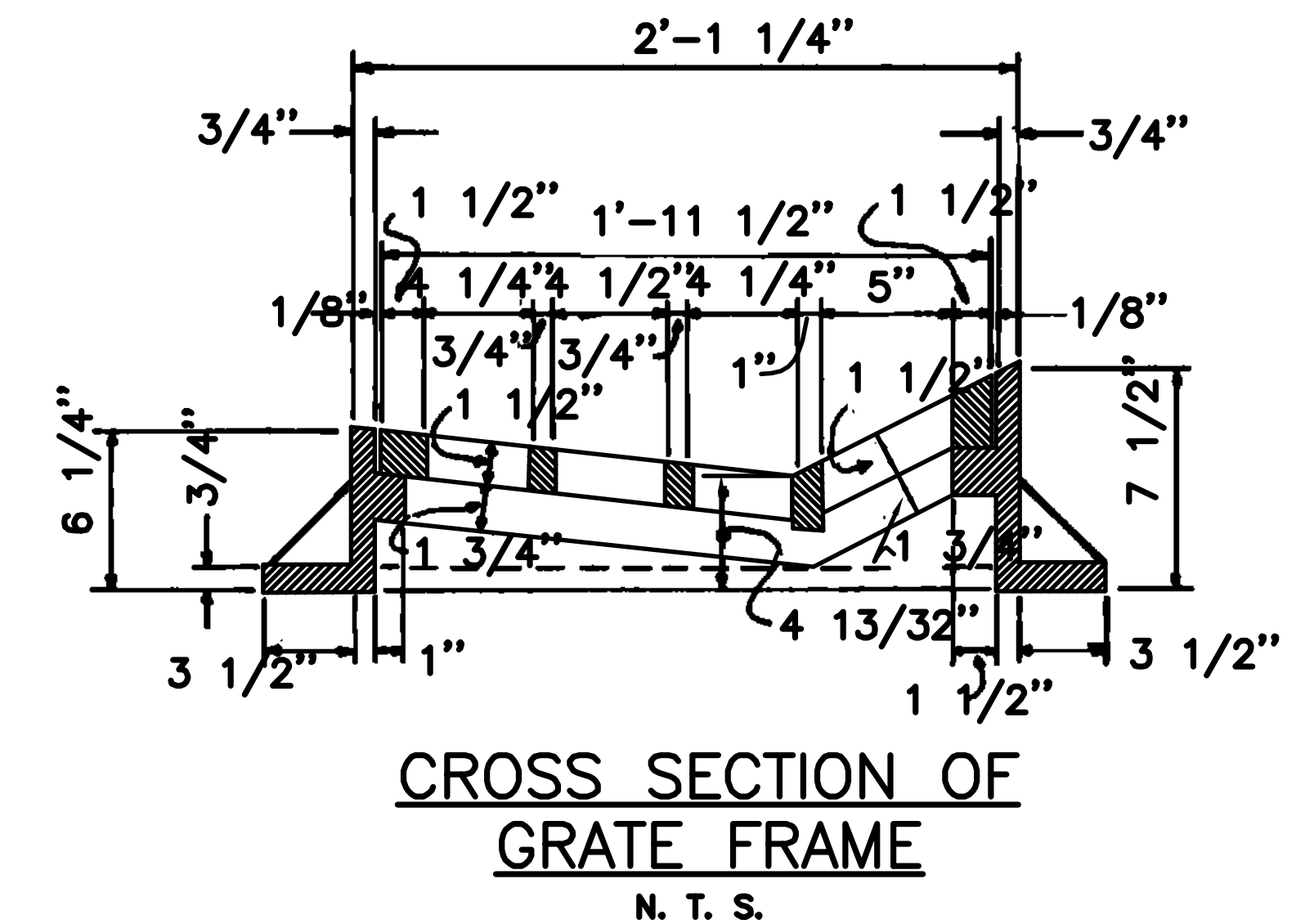
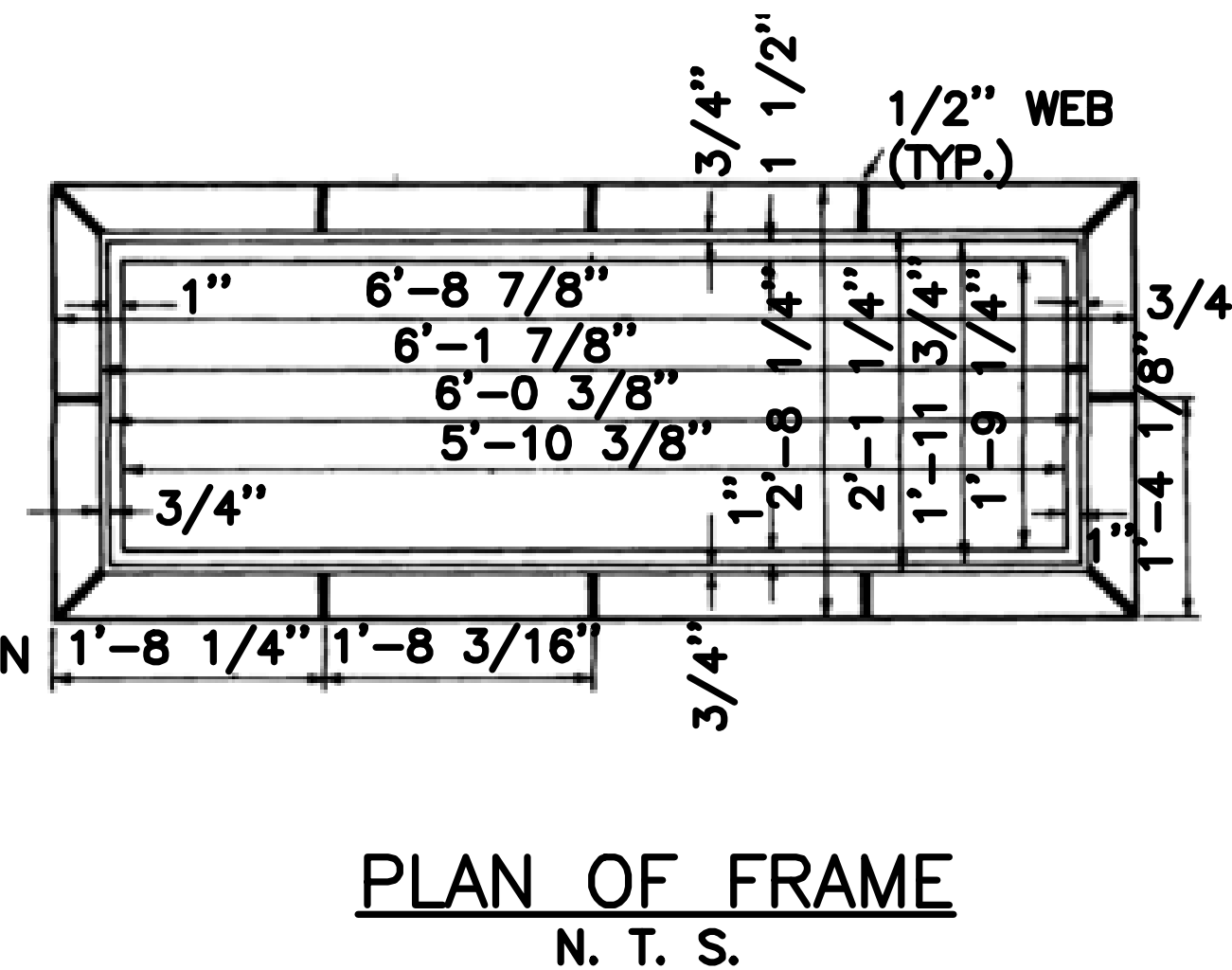
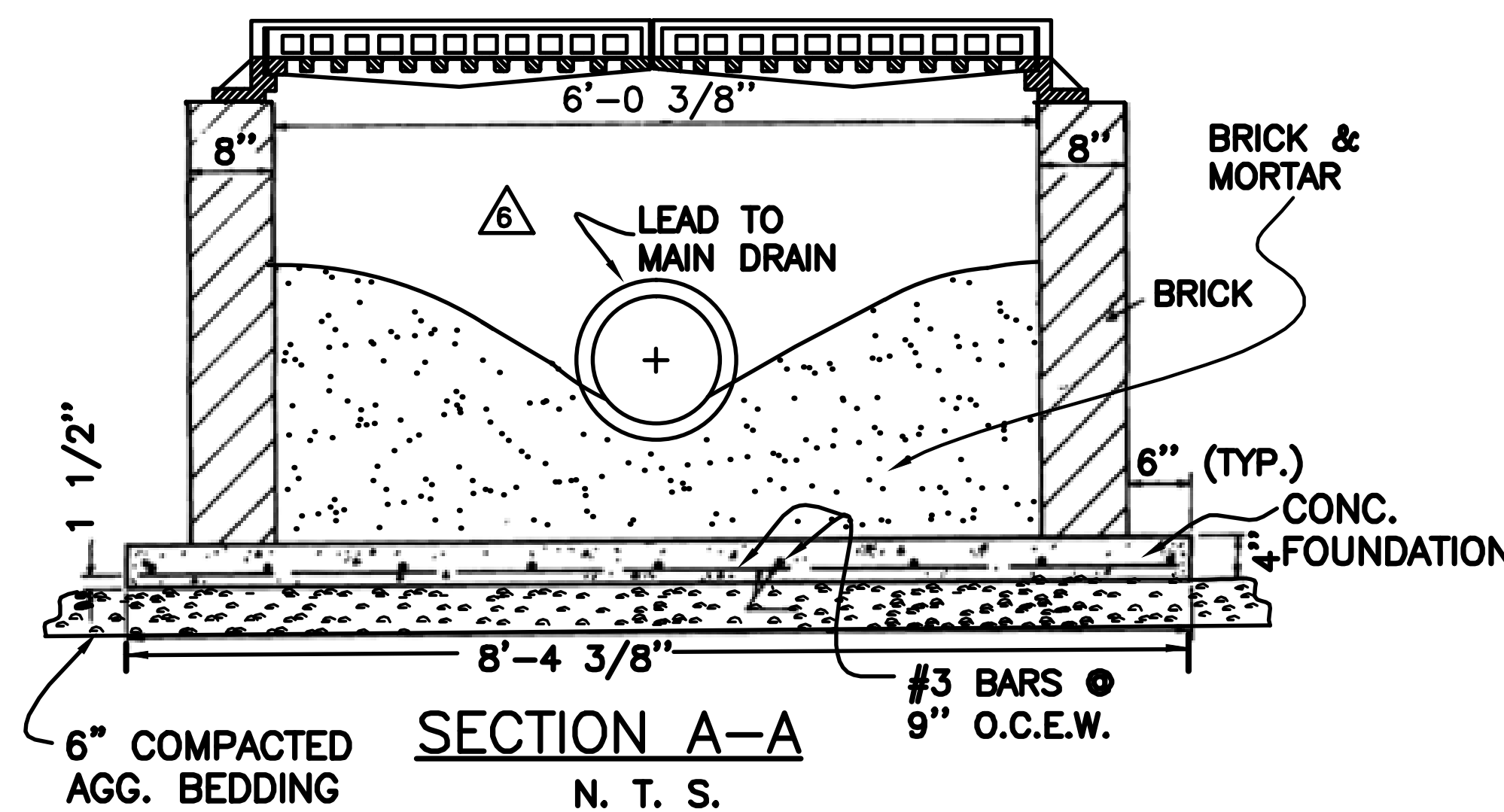
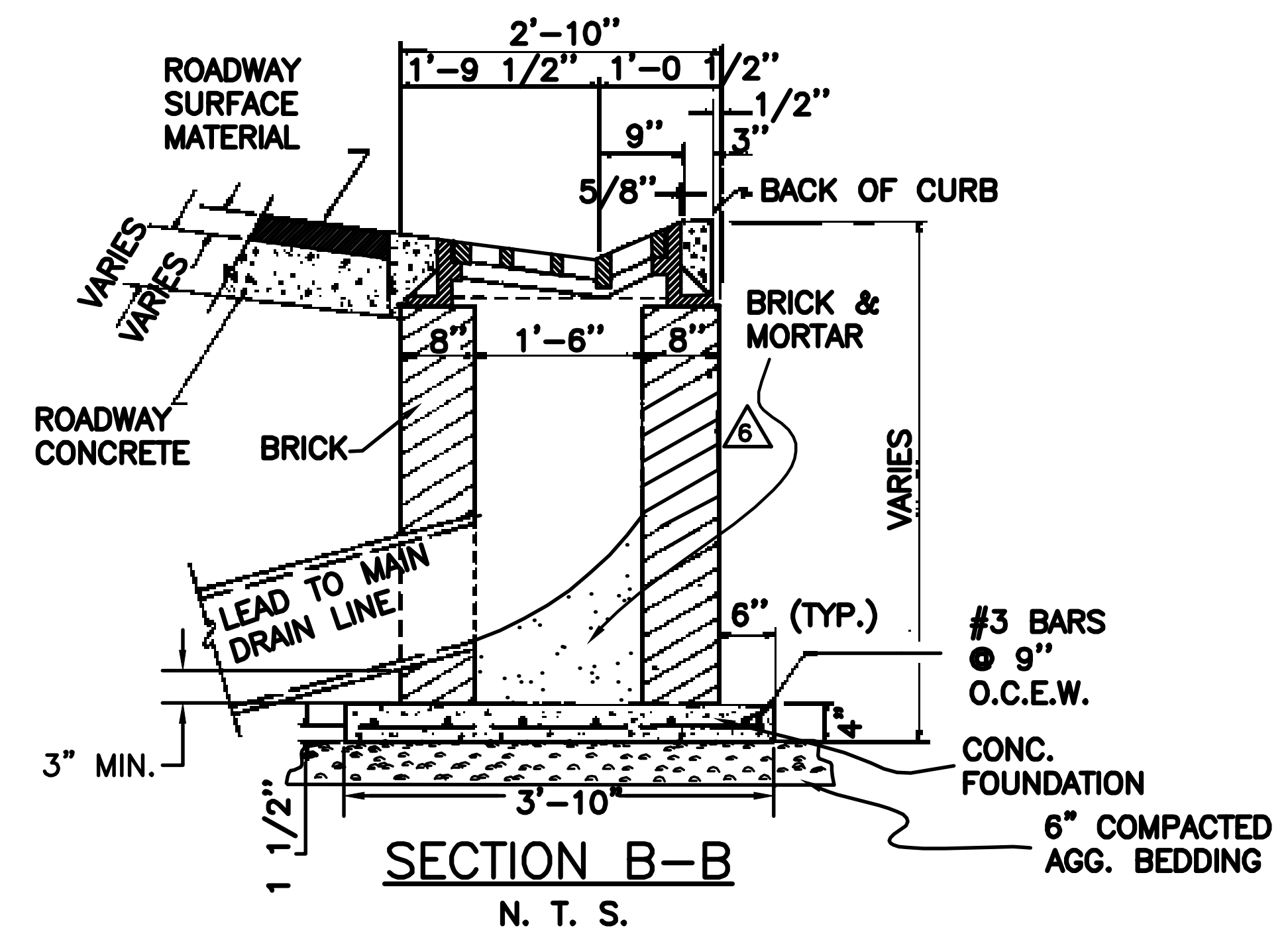
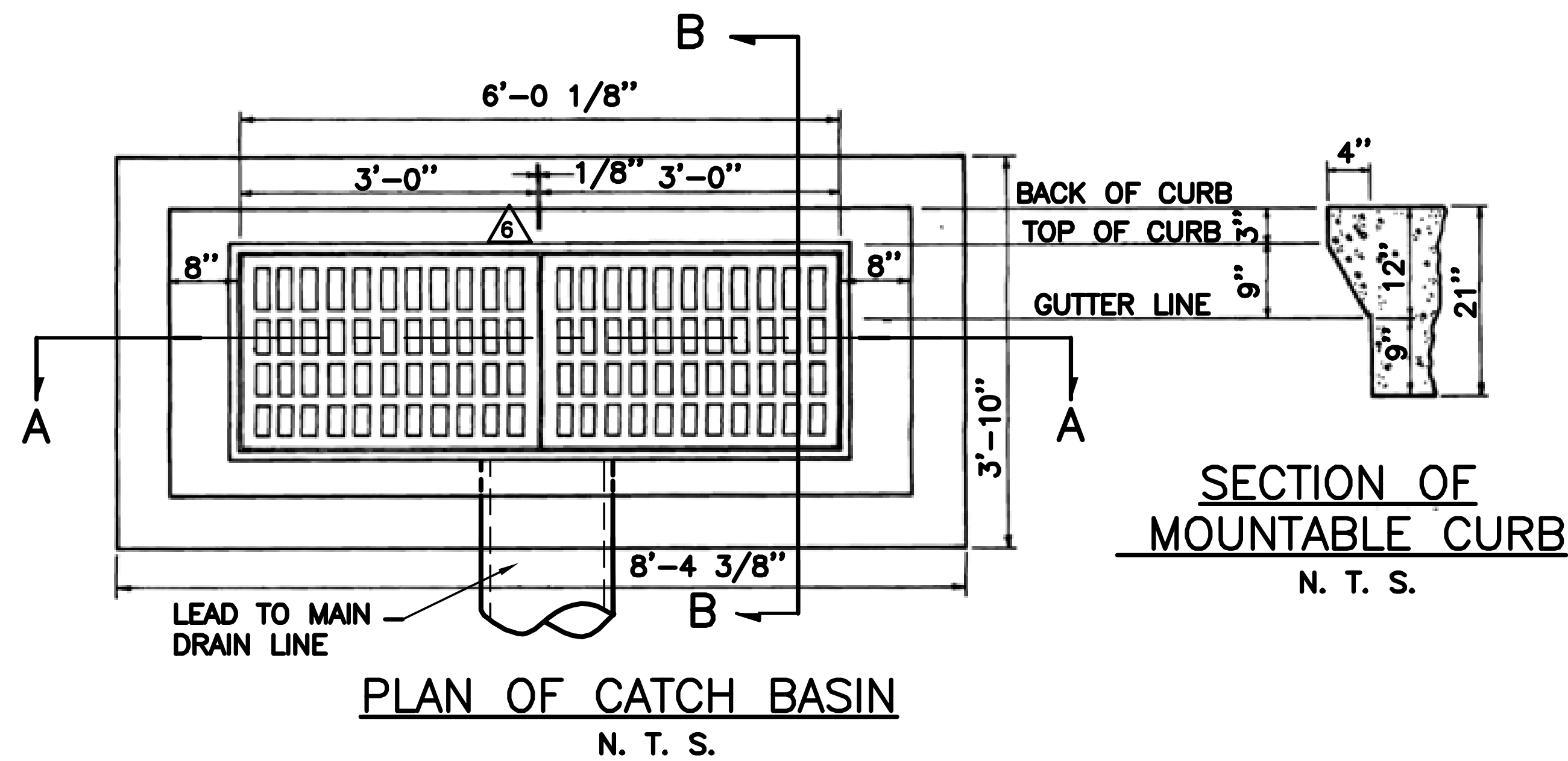
SCALE: N.T.S.



NOTES:

1. INSIDE & OUTSIDE BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATION.
2. THIS GRATE IS THE SAME AS THE GRATES ON DOUBLE MOUNTABLE CATCH BASIN SHOWN ON DWG. NO. D-3431-B.
3. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
4. FRAME & GRATE SHALL CONFORM TO EAST JORDAN IRON WORKS, INC. V-4510 GUTTER INLET OR APPROVED EQUAL.

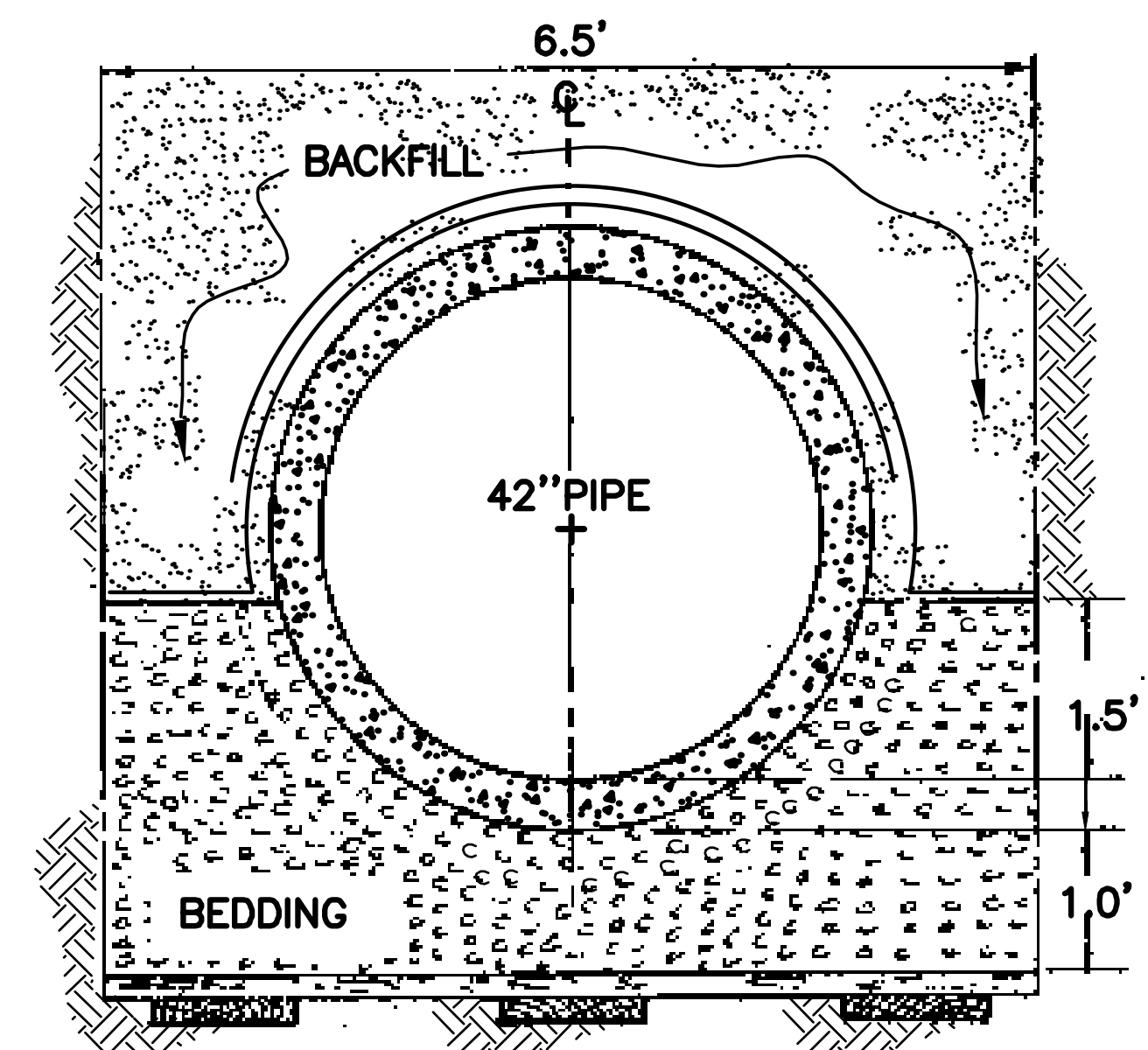
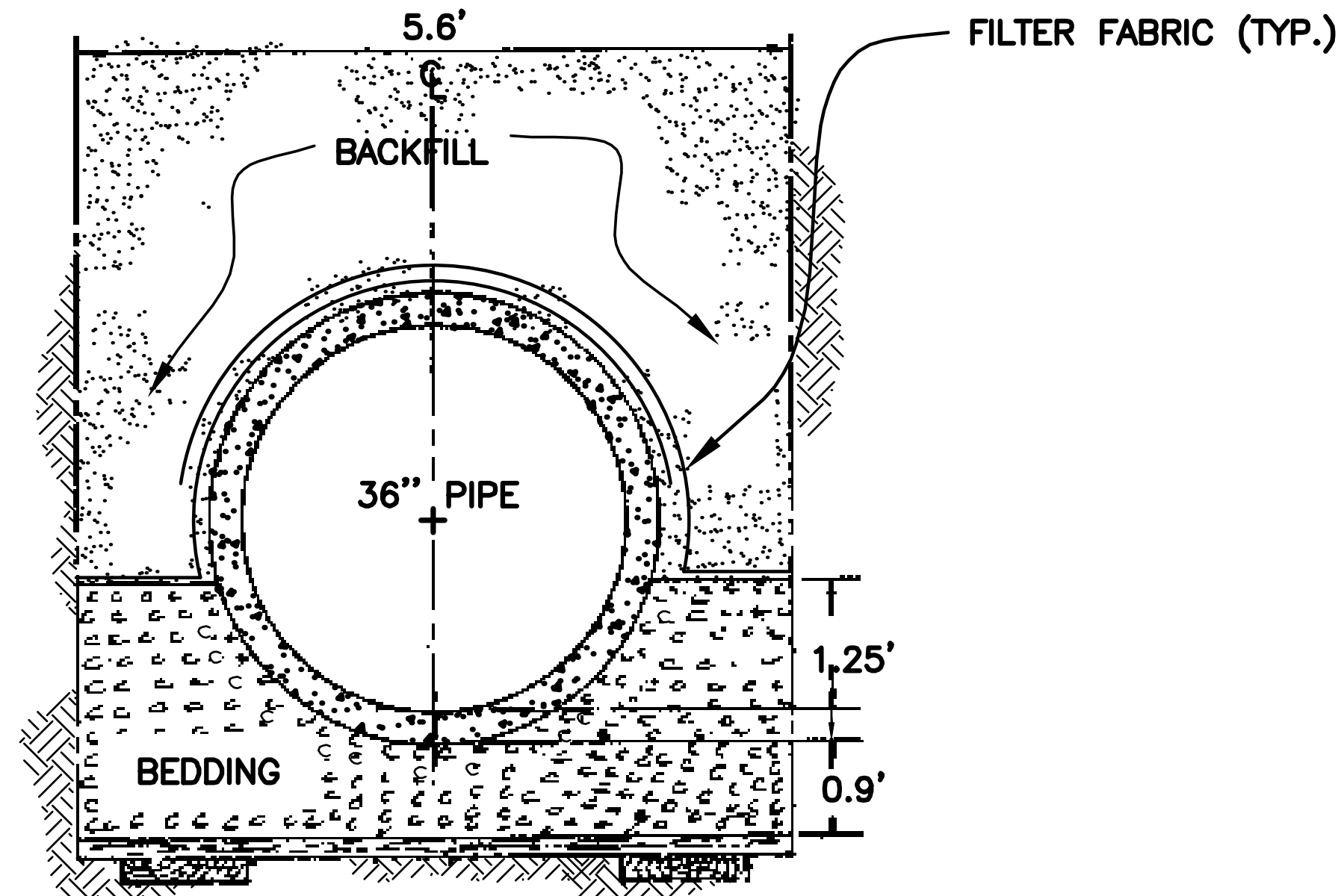
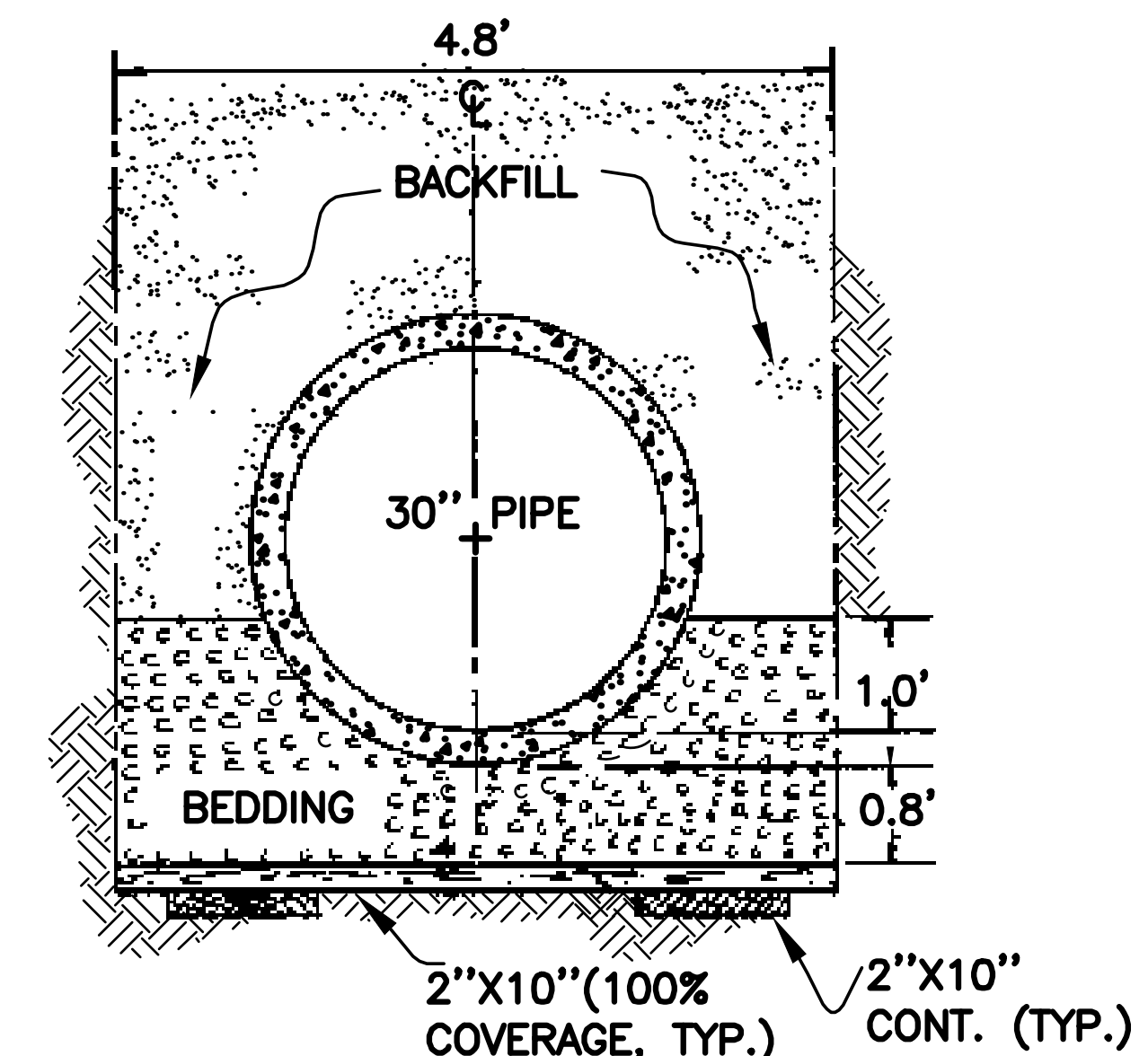
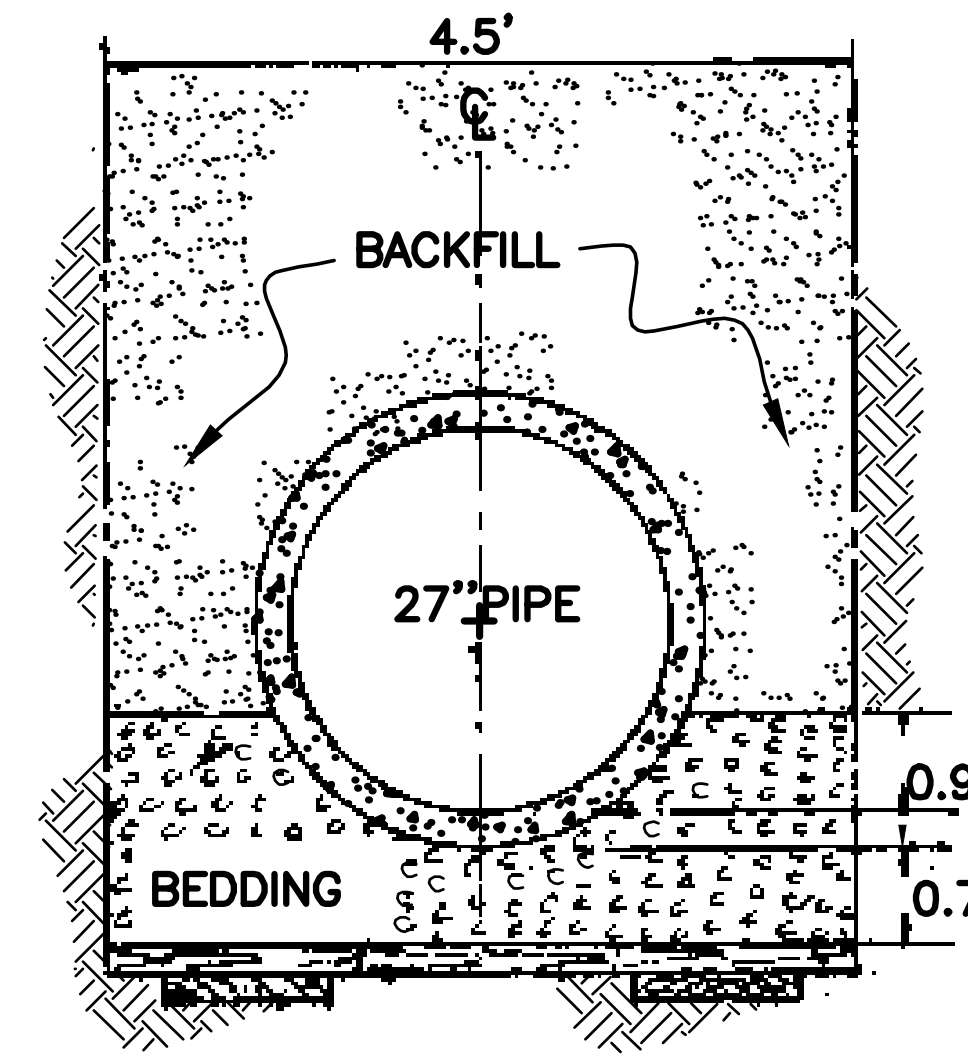
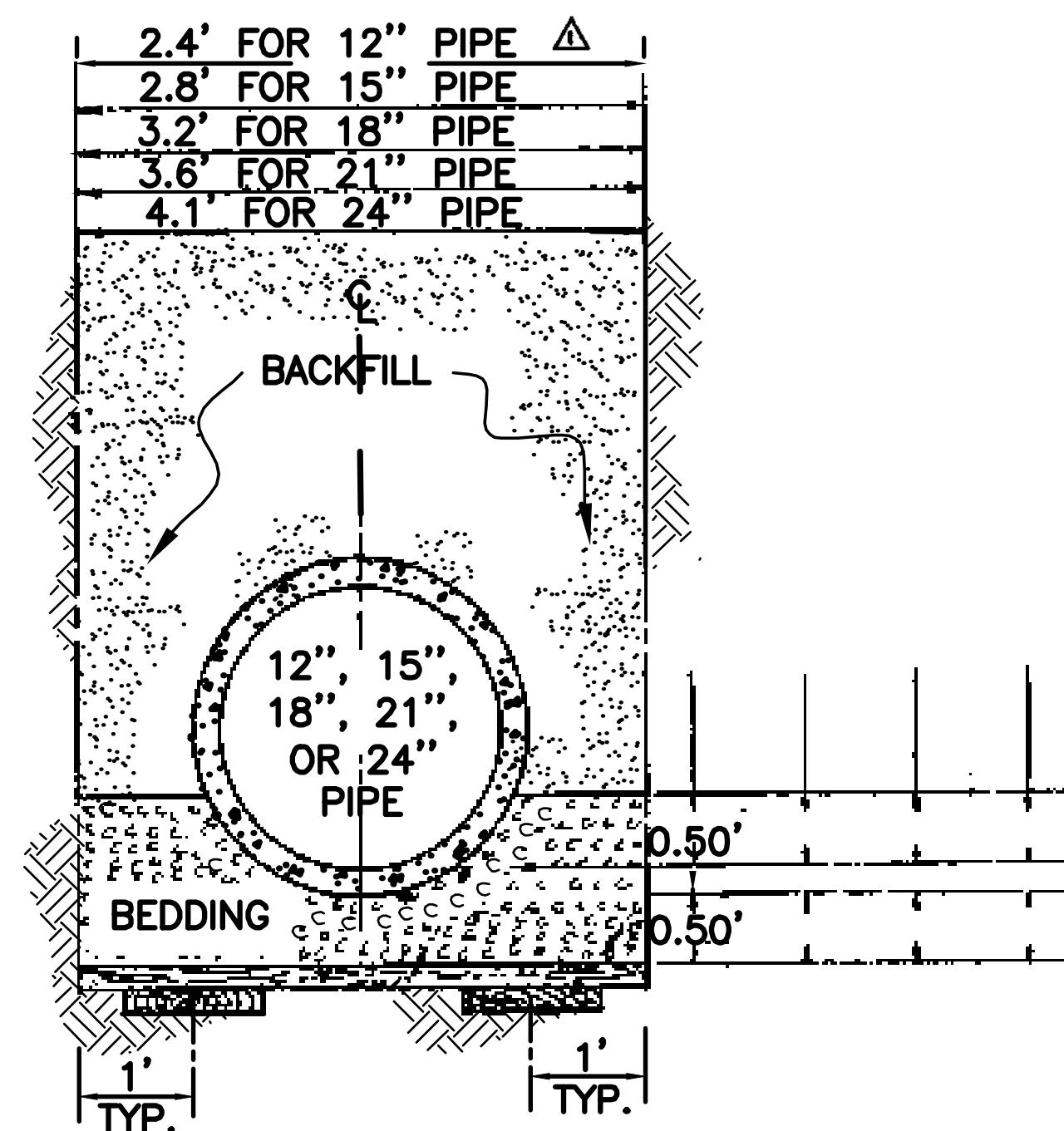
03-09-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
03-09-07	DELETED REQ. OF 10" STUB	D.M.C.
11-17-93	REDRAWN, ADDED HORIZONTAL BAR	
REV.	DATE	DESCRIPTION
BY		
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
DETAIL OF STANDARD SINGLE MOUNTABLE CATCH BASIN		
DR.		
TRC.		
CK.	JR	
AP.	AP	
SCALE AS SHOWN	DWG. NO. D-3431-A	
DATE 11-17-93	SET NO.	1 SHEET NO.



△ NOTES:

- INSIDE & OUTSIDE OF BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATIONS.
- BOTH GRATES ARE THE SAME AS THE GRATE FOR SINGLE MOUNTABLE CATCH BASIN SHOWN ON DWG. NO. D-3431-A.
- CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
- FRAME & GRATE SHALL CONFORM TO EAST JORDAN IRON WORKS, INC. V-4510 GUTTER INLET OR APPROVED EQUAL.

~~A~~	03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
~~A~~	03-08-07	DELETED REQ. OF 10" STOP	D.M.C.
~~A~~	8-8-95	REDRAWN, ADDED BARS TO GRATE	~~BY~~
REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
DETAIL OF STANDARD DOUBLE MOUNTABLE CATCH BASIN			
AP			
DR. <i>AS</i>	 GENERAL SUPERINTENDENT		
TRC.			
CK. J.P.			
AP. <i>AS</i>			
SCALE AS SHOWN		DWG. NO. D-3431-B ⁶	
DATE 8-15-95		SHEET NO.	



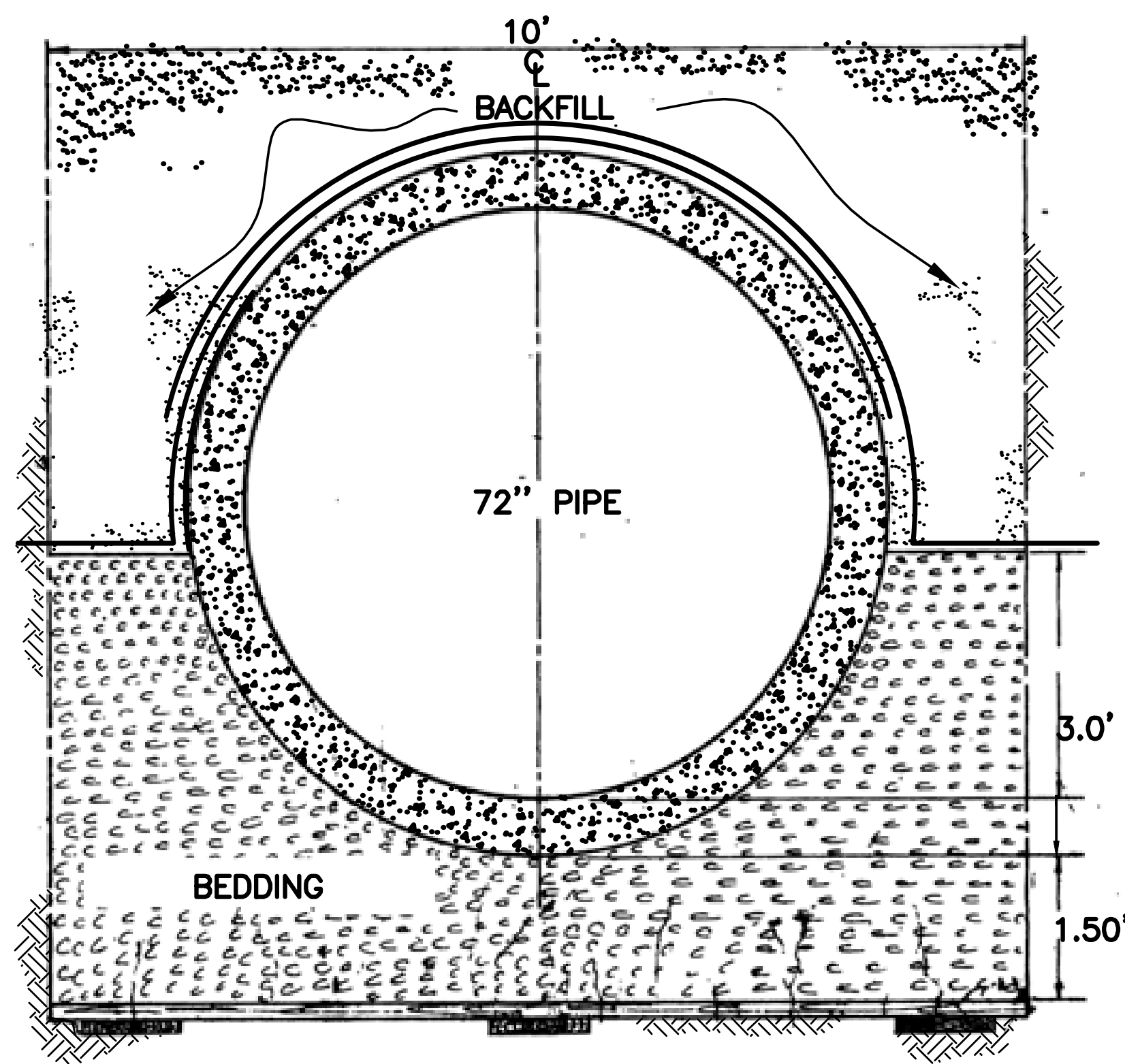
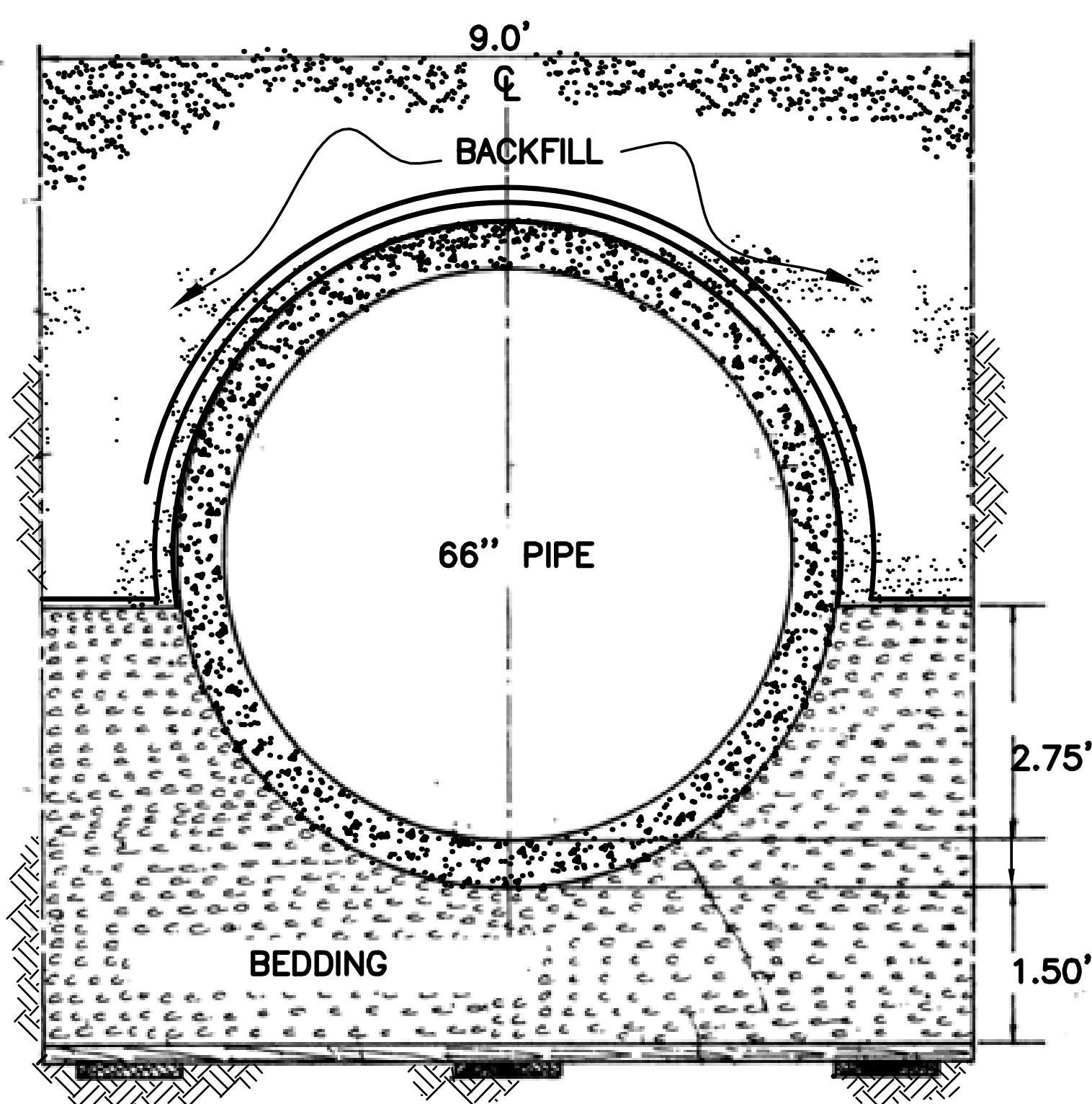
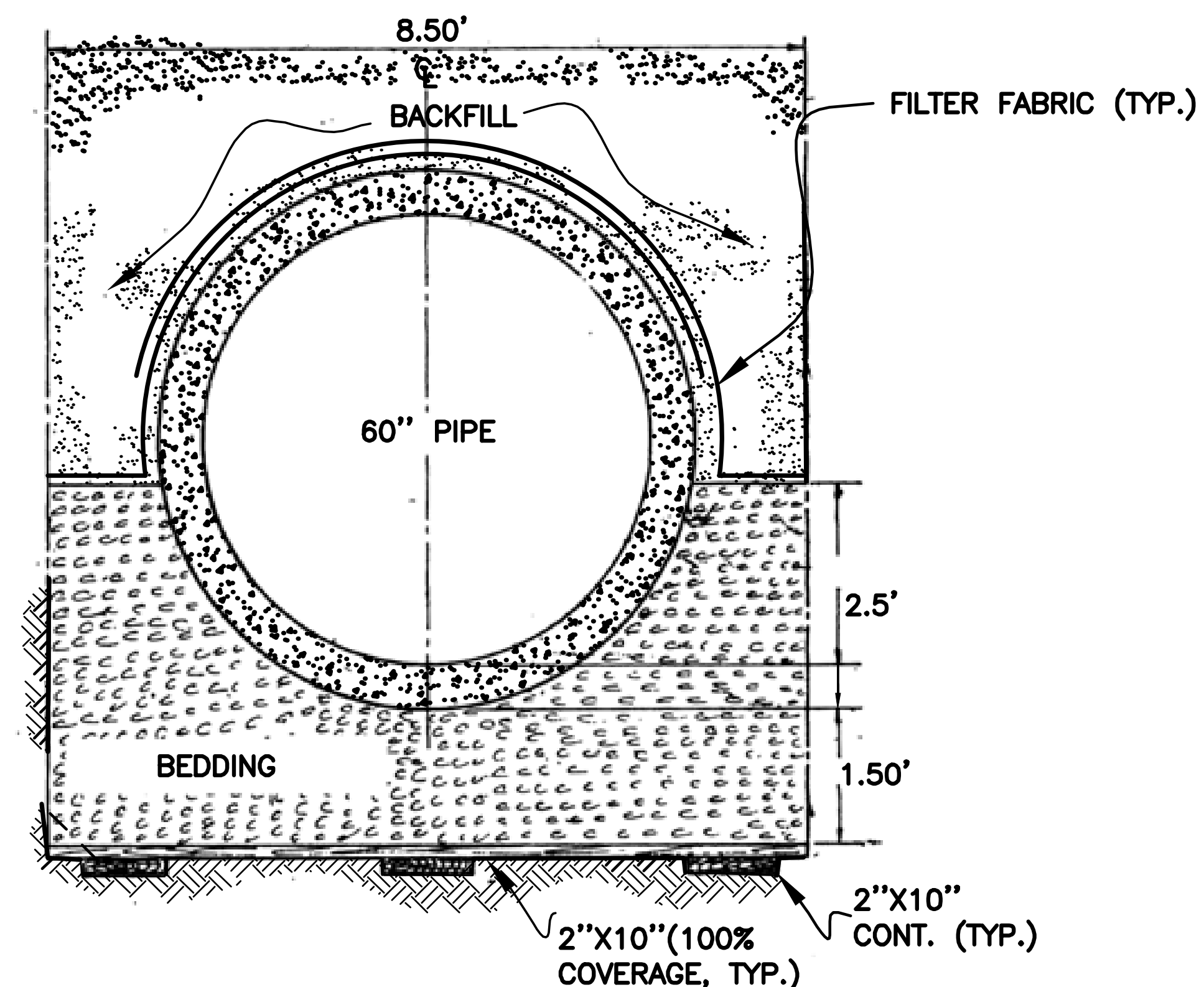
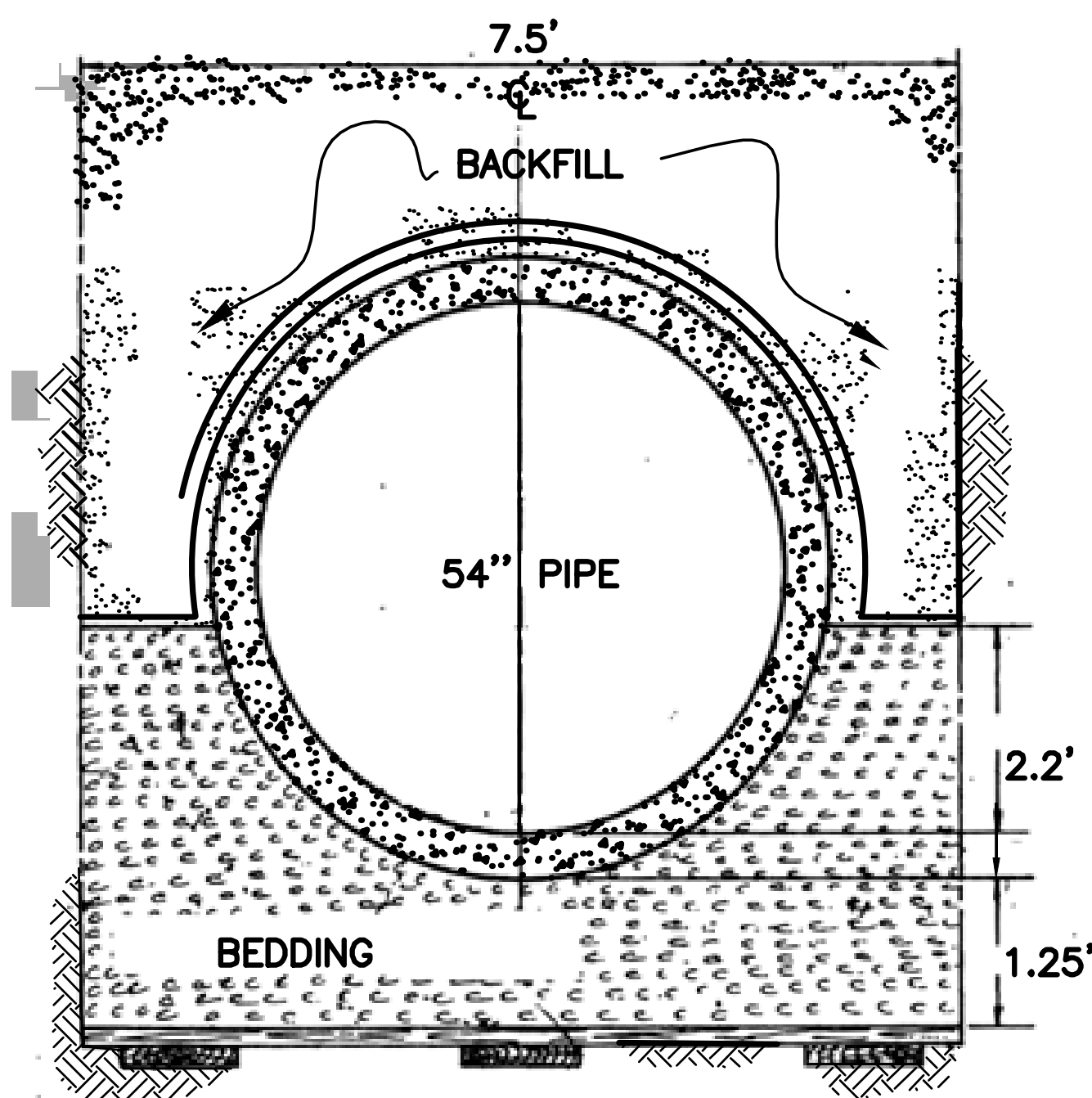
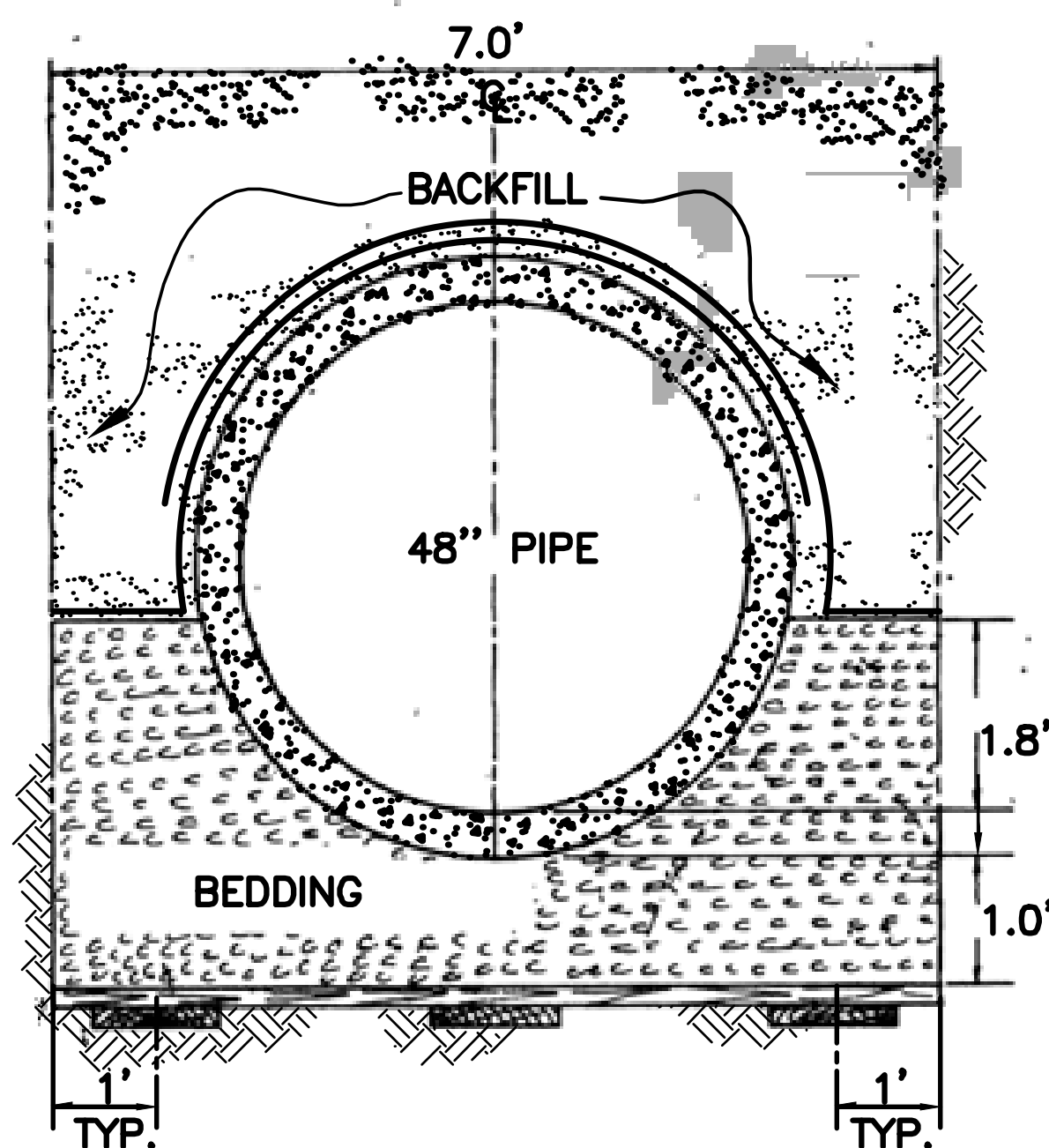
NOTES:

1. SECTIONS TO BE APPLICABLE FOR SIZE PIPE BEING INSTALLED.
2. FOUNDATION LUMBER SHALL CONSIST OF A CONTINUOUS TRANSVERSE LAYER OF 2" BOARDS (MIN. 8" WIDE) ON 2"x10" SILLS DRIVEN INTO SOIL.
3. BEDDING SHALL BE PUMPED SAND, INSTALLED IN 12" LIFTS AND COMPACTED TO 95% OF MAX. DENSITY. FOR PIPES 36" AND GREATER, BEDDING SHALL BE COMPACTED AGGREGATE.
4. BACKFILL MATERIAL TO BE PUMPED SAND INSTALLED IN 12" LIFTS AND COMPACTED TO 95% OF MAX. DENSITY.
5. IF THE WORKING SURFACE OF SOIL BENEATH THE PIPE IS CONSIDERED UNACCEPTABLE BY THE S&WB INSPECTOR, THE SOIL MUST BE REMOVED DOWN TO STABLE AND ACCEPTABLE MATERIAL, AND REPLACED WITH COMPACTED PUMPED SAND.
6. ALL PIPE JOINTS TO BE WRAPPED WITH 2" WIDE FILTER CLOTH WITH 3 FT. MIN. OVERLAP.
7. ALL PIPE TO BE RCP CLASS III UNLESS OTHERWISE NOTED.

CONCRETE PIPE BEDDING SECTIONS FROM 12" TO 42"

SCALE: N.T.S.

03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
03-08-07	DELETED AND REV. NOTES ADDED AND REV. FOR 12, 15, 18, 21, 24, 27, 30, 36, 42" PIPE	J.L.P.
REV.	DATE	DESCRIPTION
BY		
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
TYPICAL SECTIONS OF CONCRETE PIPE BEDDING FROM 12" TO 42" PIPE		
DR.	R.P.D.	
TRC.		
CK.		
AP.		
SCALE	DATE 11-15-83	SET NO.
DWG. NO. D-3809		SHEET NO. 1 OF 2



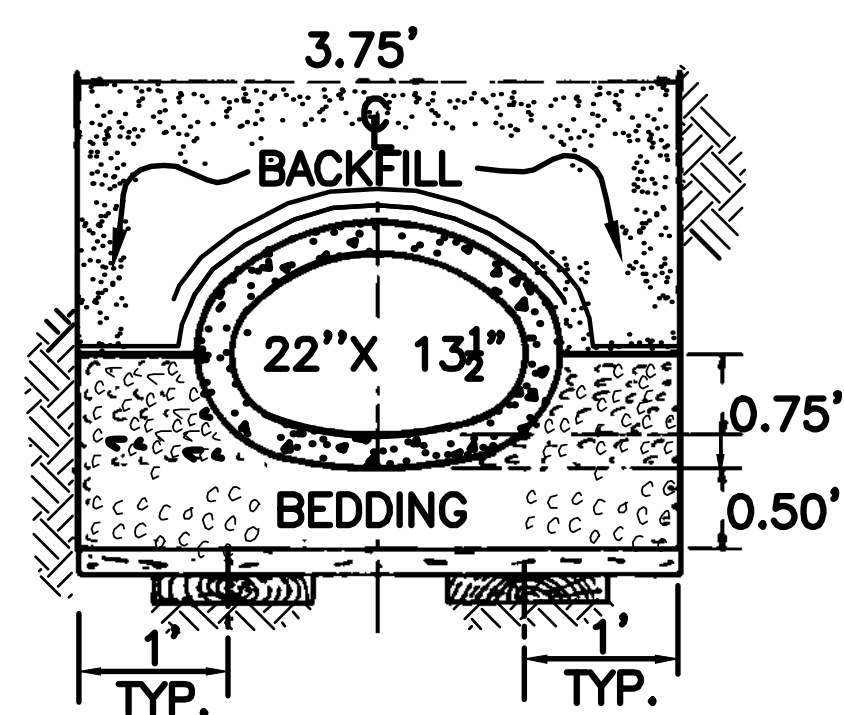
NOTE:

1. SECTIONS TO BE APPLICABLE FOR SIZE PIPE BEING INSTALLED.
2. FOUNDATION LUMBER SHALL CONSIST OF A CONTINUOUS TRANSVERSE LAYER OF 2" BOARDS (MIN. 8" WIDE) ON 2"X10" SILLS DRIVEN INTO SOIL.
3. BEDDING SHALL BE COMPACTED AGGREGATE.
4. BACKFILL MATERIAL TO BE PUMPED SAND INSTALLED IN 12" LIFTS AND COMPACTED TO 95% MAX. DENSITY.
5. IF THE WORKING SURFACE OF SOIL BENEATH THE PIPE IS CONSIDERED UNACCEPTABLE BY THE S&WB INSPECTOR, THE SOIL MUST BE REMOVED DOWN TO STABLE AND ACCEPTABLE MATERIAL, AND REPLACED WITH COMPACTED PUMPED SAND.
6. ALL PIPE JOINTS TO BE WRAPPED WITH 2' WIDE FILTER CLOTH WITH 3 FT. MIN. OVERLAP.
7. ALL PIPE TO BE RCP CLASS III UNLESS OTHERWISE NOTED.

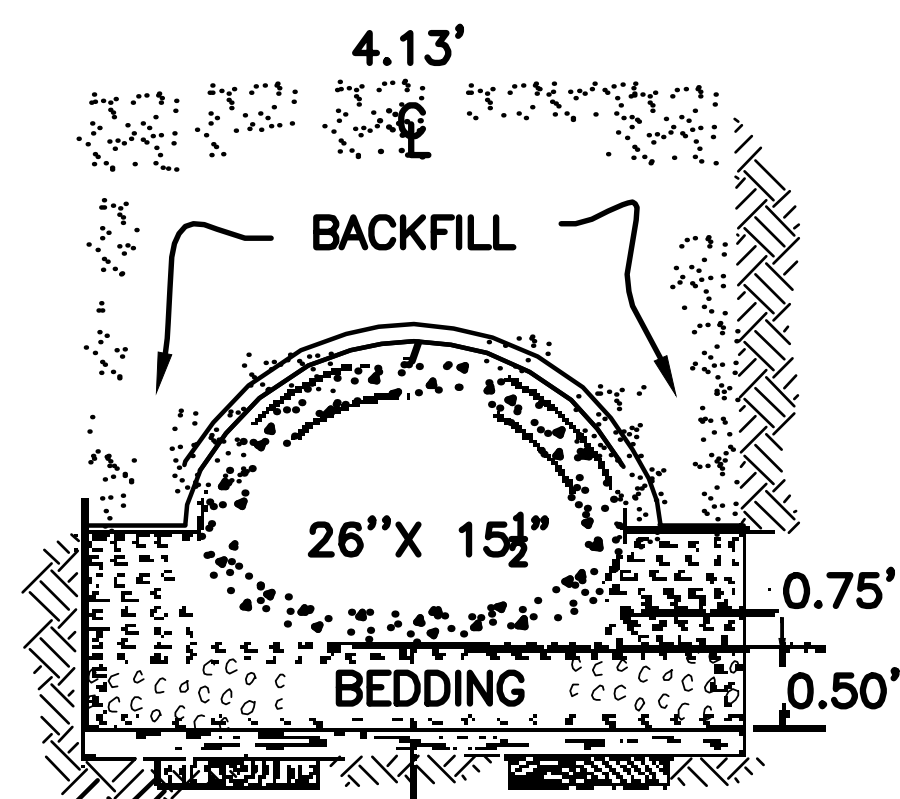
CONCRETE PIPE BEDDING SECTIONS FROM 48" TO 72"

SCALE: N.T.S.

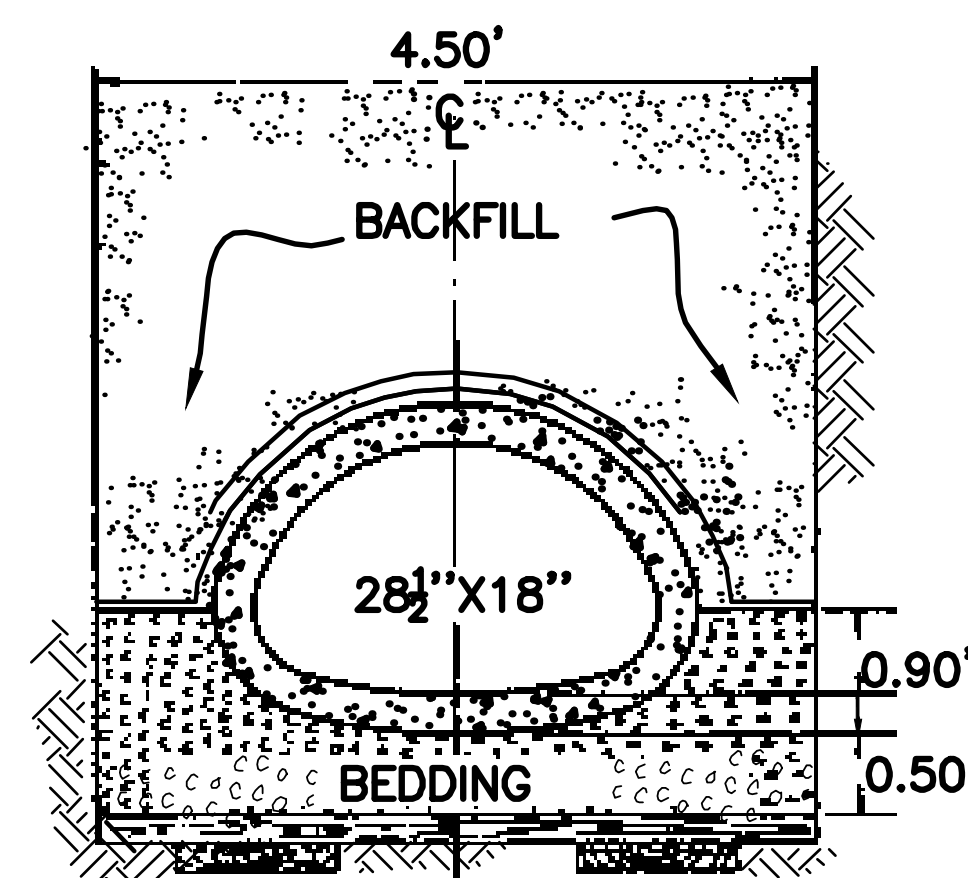
	03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
	03-10-10	DELETED AND REVISED NOTES	J.L.P.
REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL SECTIONS OF CONCRETE PIPE BEDDING FROM 48" TO 72"			
DR. R.P.D.			
TRC.			
DWG. NO. ~~D-3810~~			
AP- 			
SCALE GRAPHIC		DWG. NO. D-3810	
DATE 11-11-03		SHEET NO. 2 OF 2	



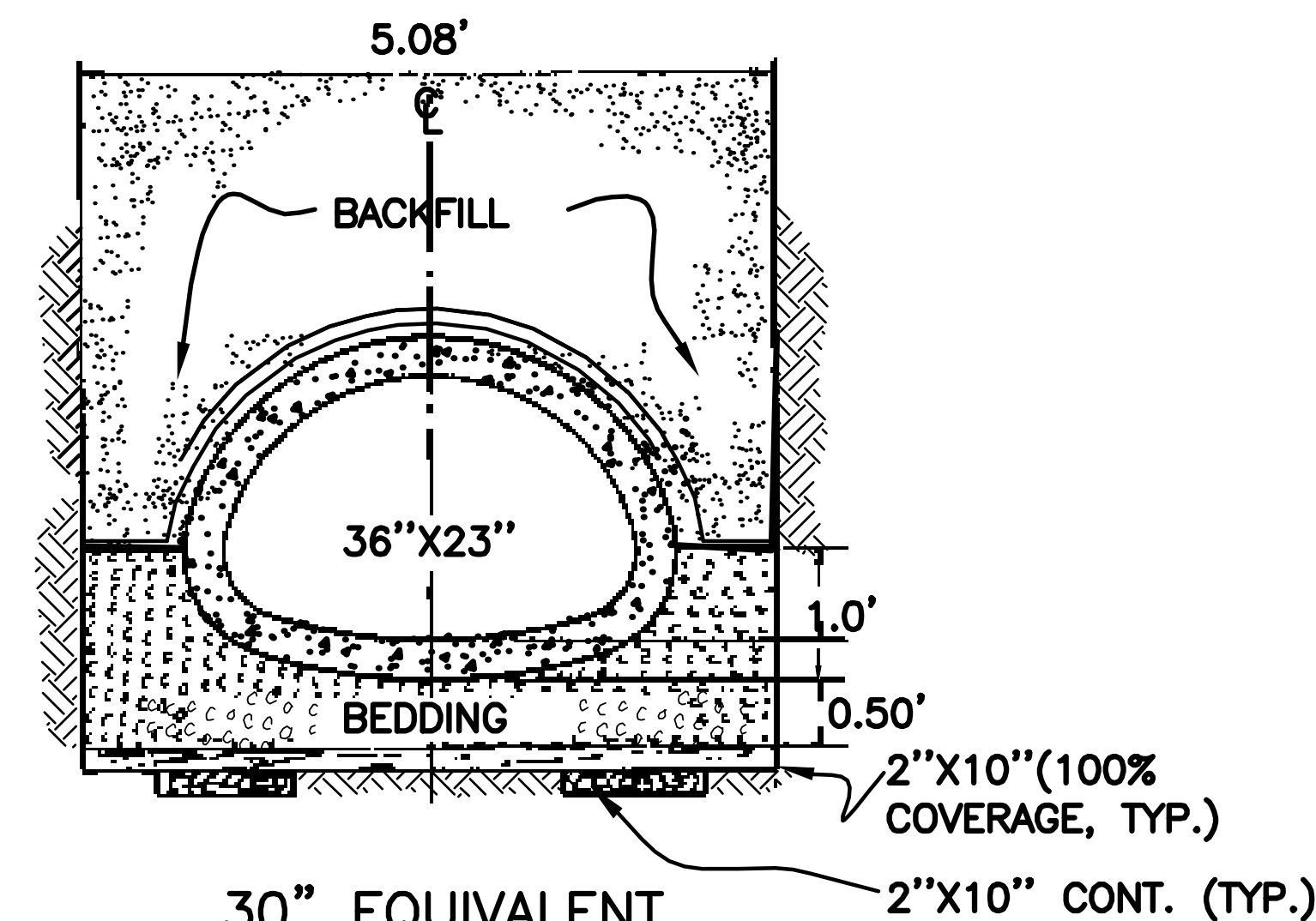
18" EQUIVALENT



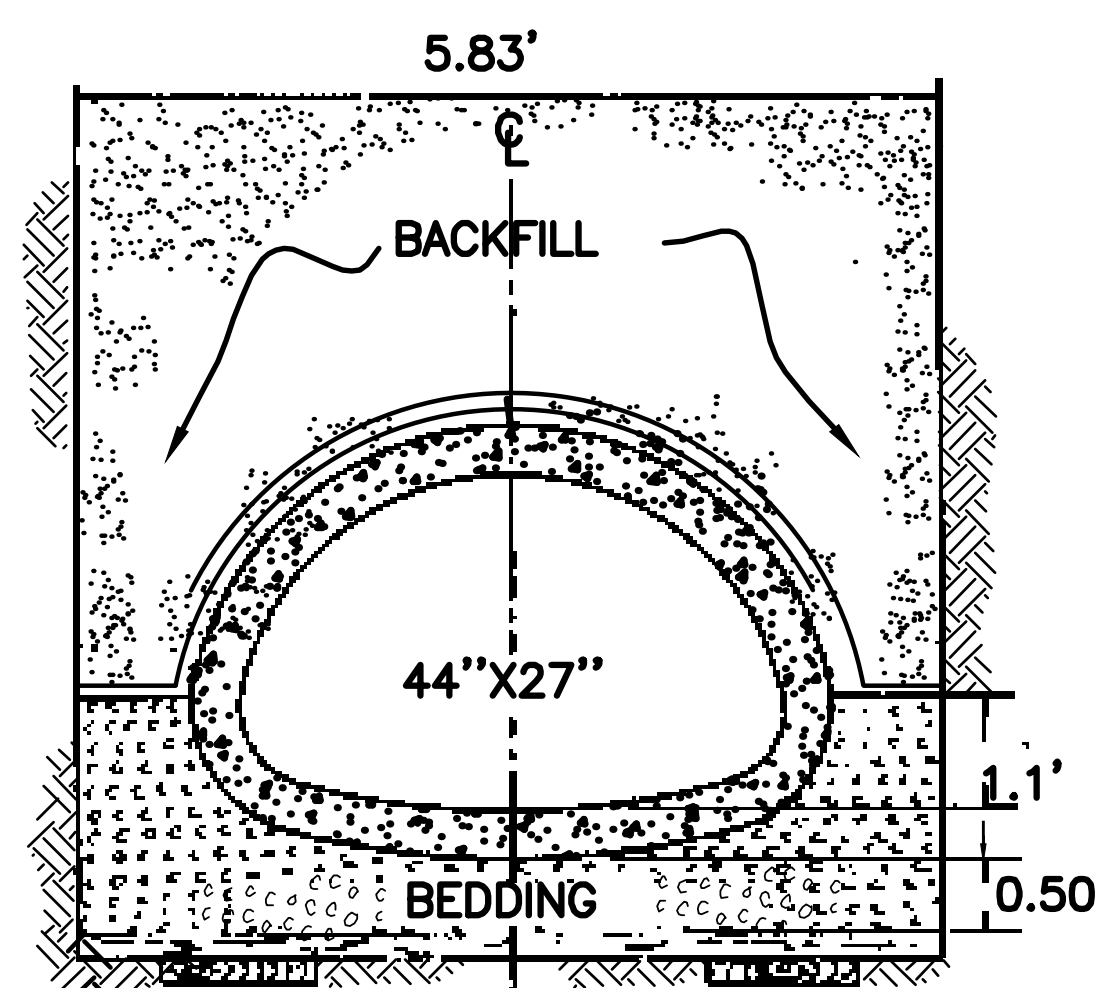
21" EQUIVALENT



24" EQUIVALENT



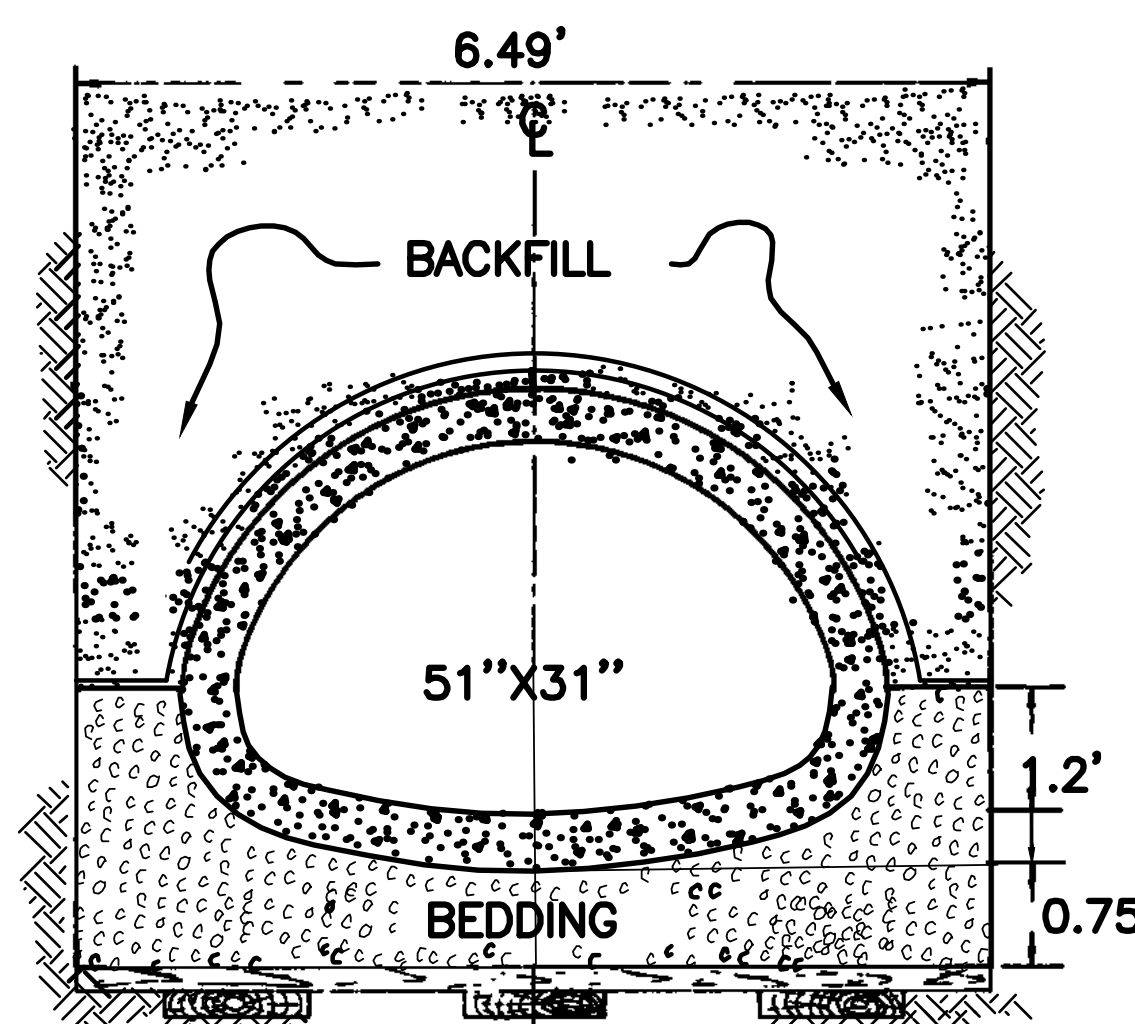
30" EQUIVALENT



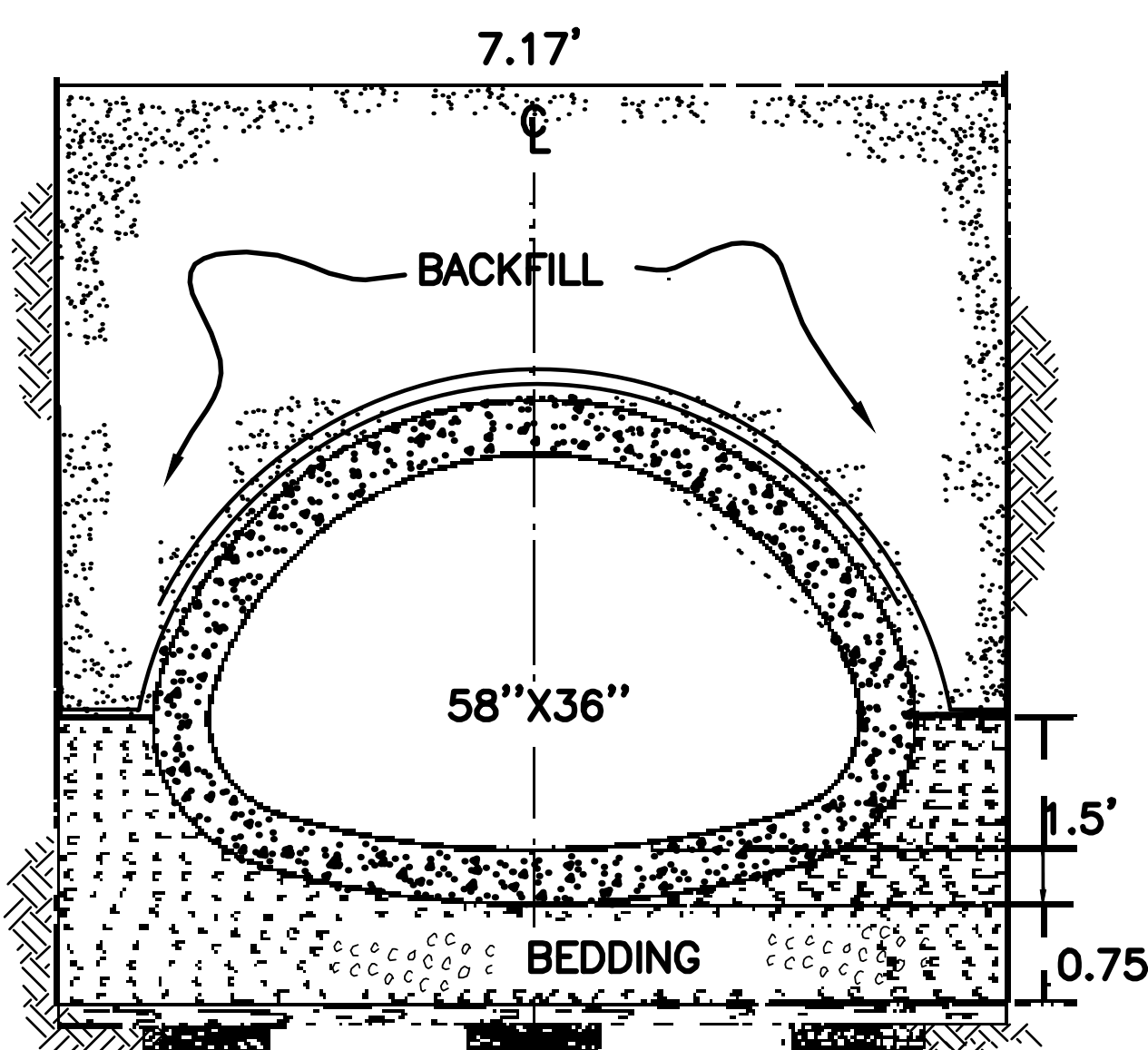
36" EQUIVALENT

NOTES:

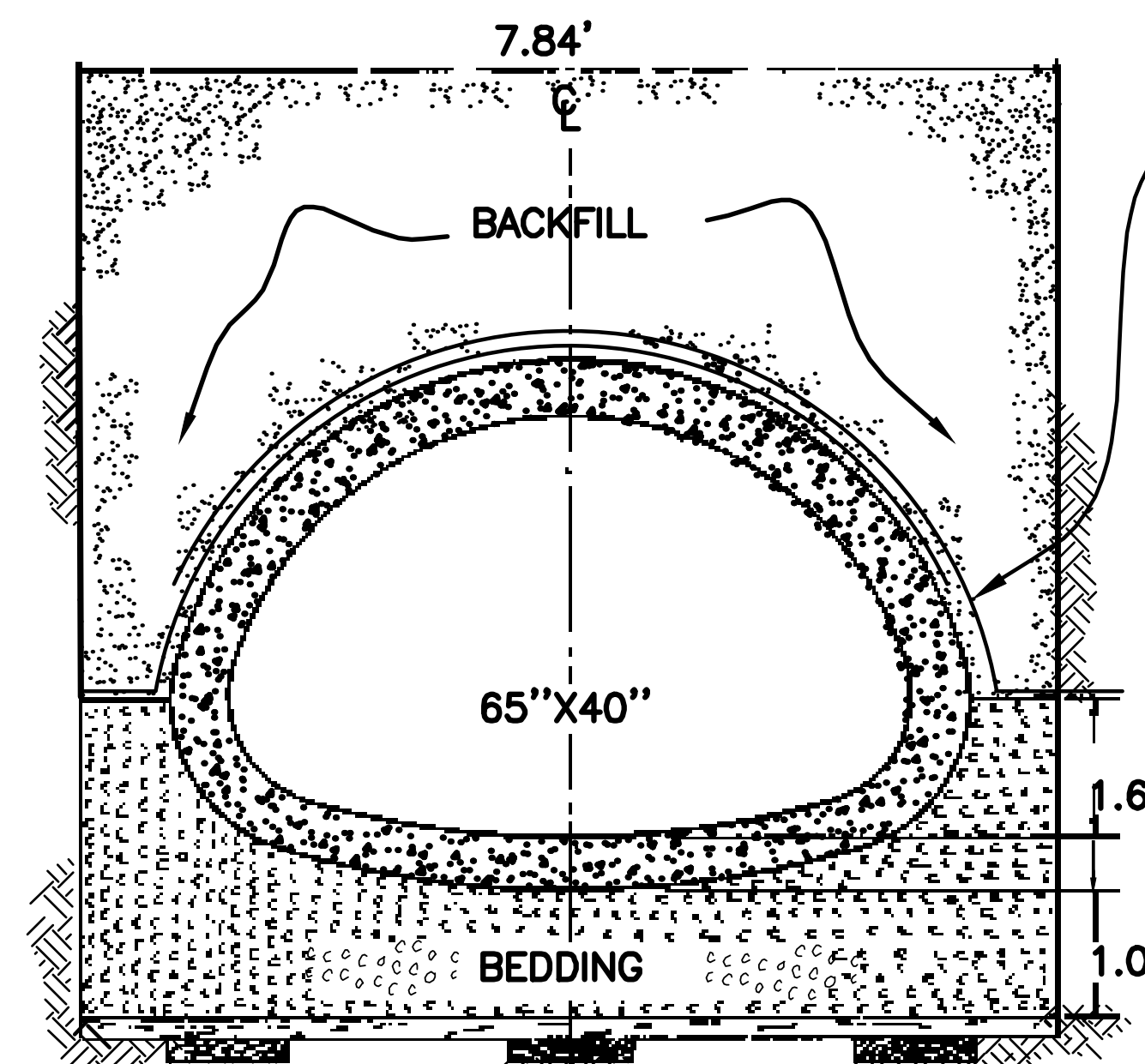
1. SECTIONS TO BE APPLICABLE FOR SIZE PIPE BEING INSTALLED.
2. FOUNDATION LUMBER SHALL CONSIST OF A CONTINUOUS TRANSVERSE LAYER OF 2" BOARDS (MIN. 8" WIDE) ON 2"X10" SILLS DRIVEN INTO SOIL.
3. BEDDING SHALL BE COMPACTED AGGREGATE.
4. BACKFILL MATERIAL TO BE PUMPED SAND INSTALLED IN 12" LIFTS AND COMPACTED TO 95% OF MAX. DENSITY.
5. IF THE WORKING SURFACE OF SOIL BENEATH THE PIPE IS CONSIDERED UNACCEPTABLE BY THE S&WB INSPECTOR, THE SOIL MUST BE REMOVED DOWN TO STABLE AND ACCEPTABLE MATERIAL, AND REPLACED WITH COMPACTED PUMPED SAND.
6. ALL PIPE JOINTS TO BE WRAPPED WITH 2' WIDE FILTER CLOTH WITH 3 FT. MIN OVERLAP.
7. ALL PIPE TO BE RCP CLASS III UNLESS OTHERWISE NOTED.



42" EQUIVALENT



48" EQUIVALENT

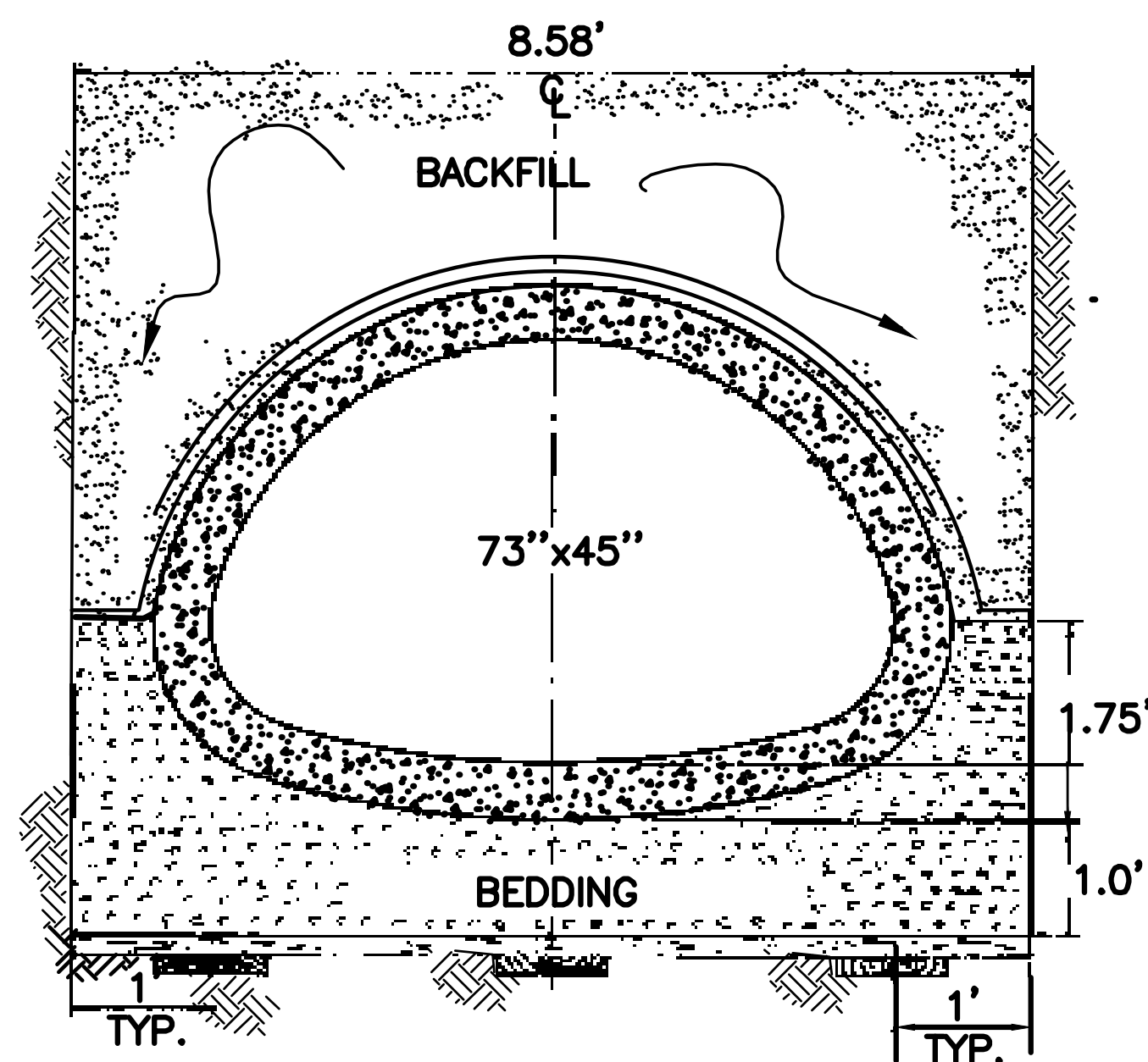


54" EQUIVALENT

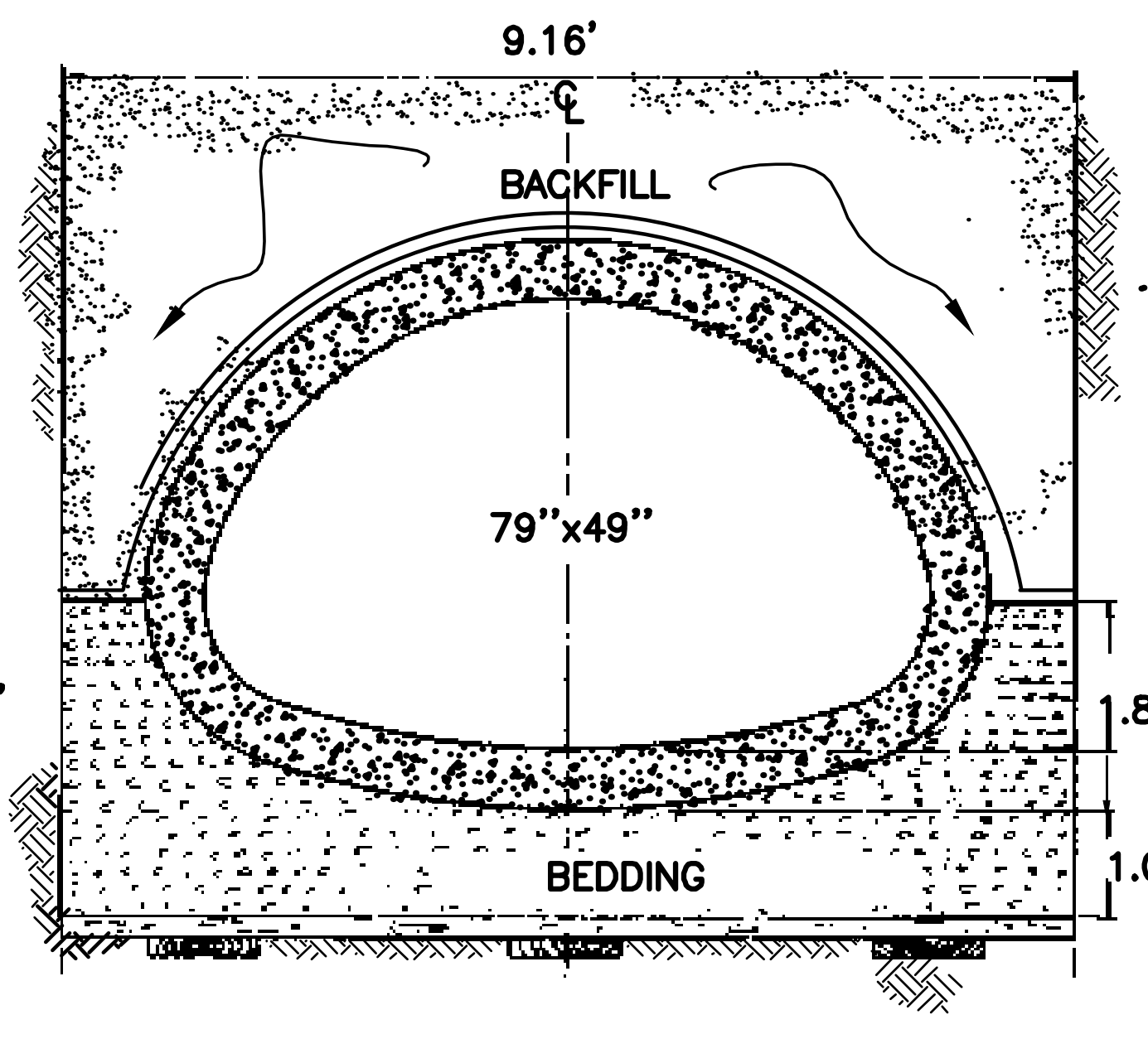
CONCRETE PIPE BEDDING SECTIONS FROM 22"X13 1/2" TO 65"X40"

SCALE: N.T.S.

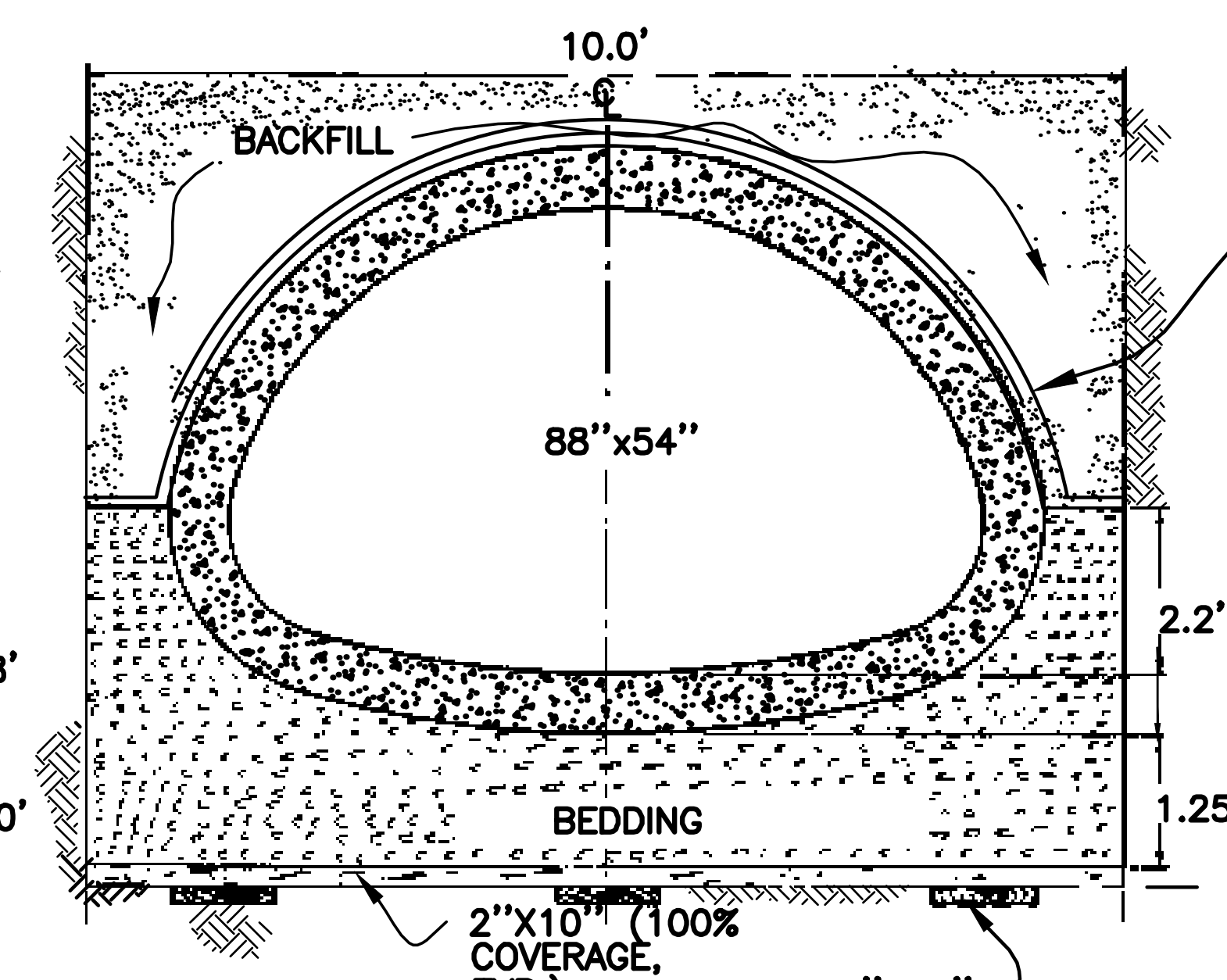
03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.	
2-82-76	DELETED AND ADDED REV. NOTES	J.L.R.	
REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL SECTIONS OF REINFORCED CONCRETE ARCH PIPE BEDDING FROM 22"x13 1/2" TO 65"x40"			
DR.	H. P. S.		
TRC.			
CK.			
AP.			
SCALE	GRAPHIC	DWG. NO. D-3933	
DATE	10-14-84	SHEET NO.	1 OF 2



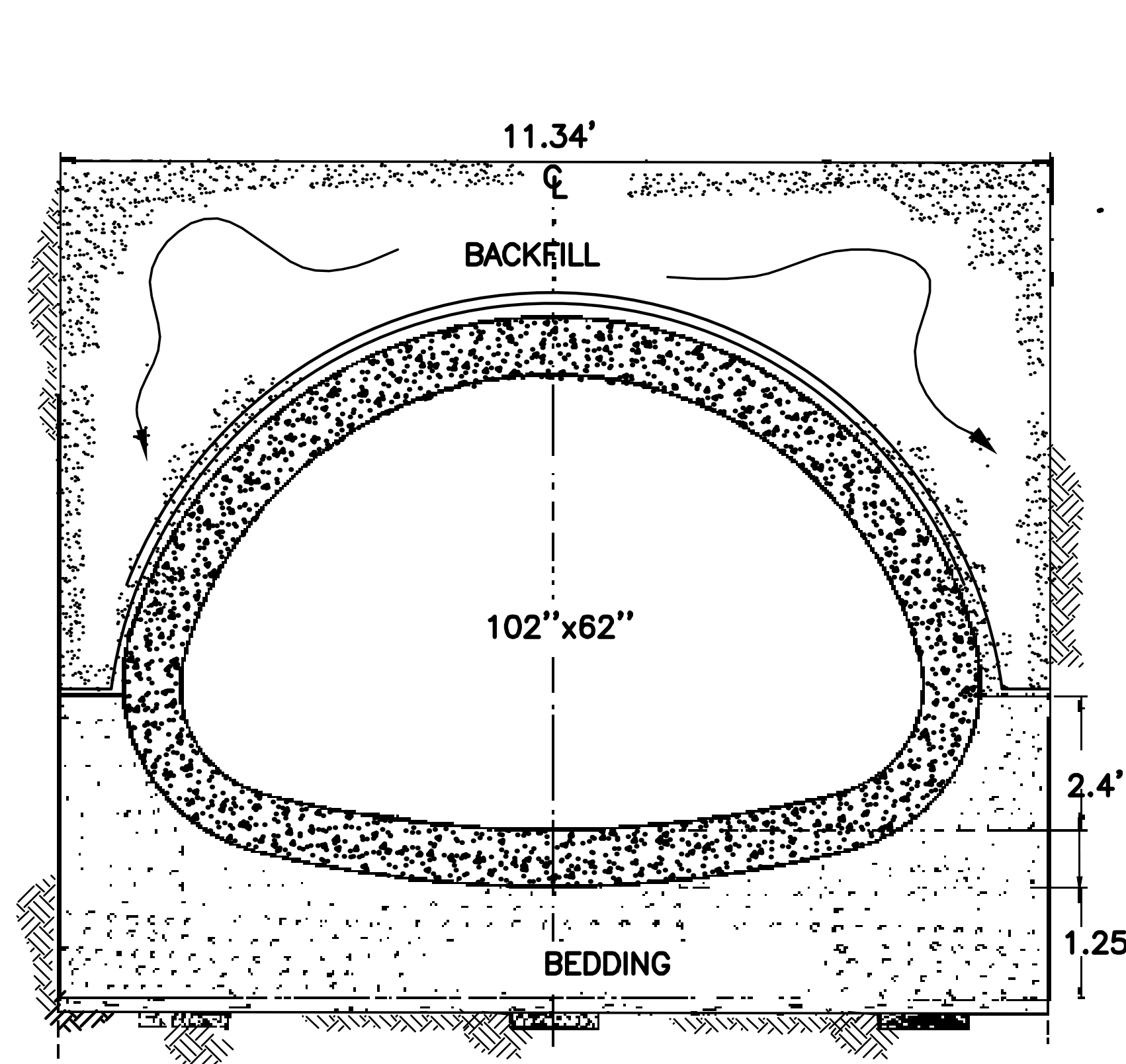
60" EQUIVALENT



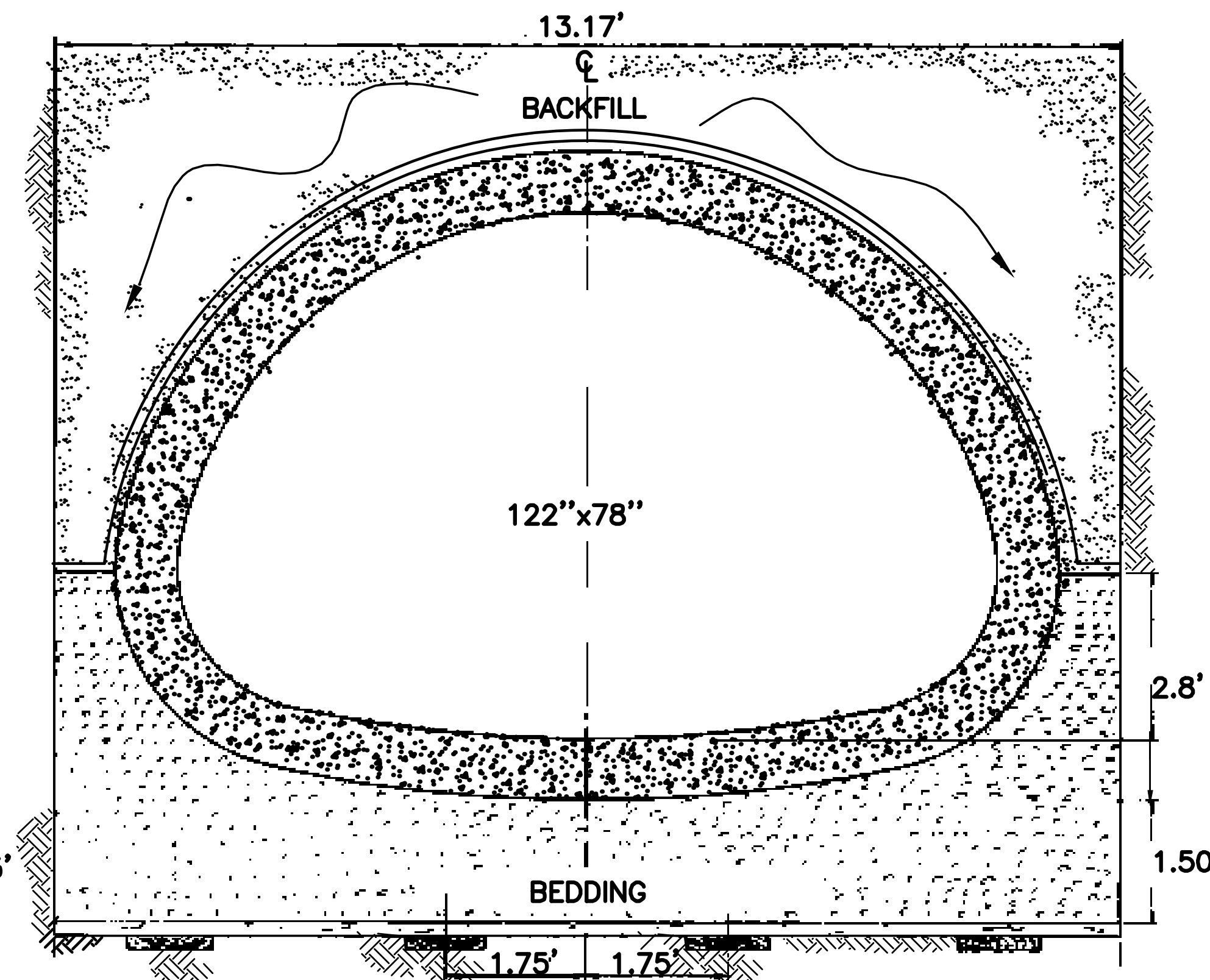
66" EQUIVALENT



72" EQUIVALENT CONT. (TYP.)



84" EQUIVALENT



96" EQUIVALENT

**CONCRETE PIPE BEDDING SECTIONS
FROM 73"x45" TO 122"x78"**

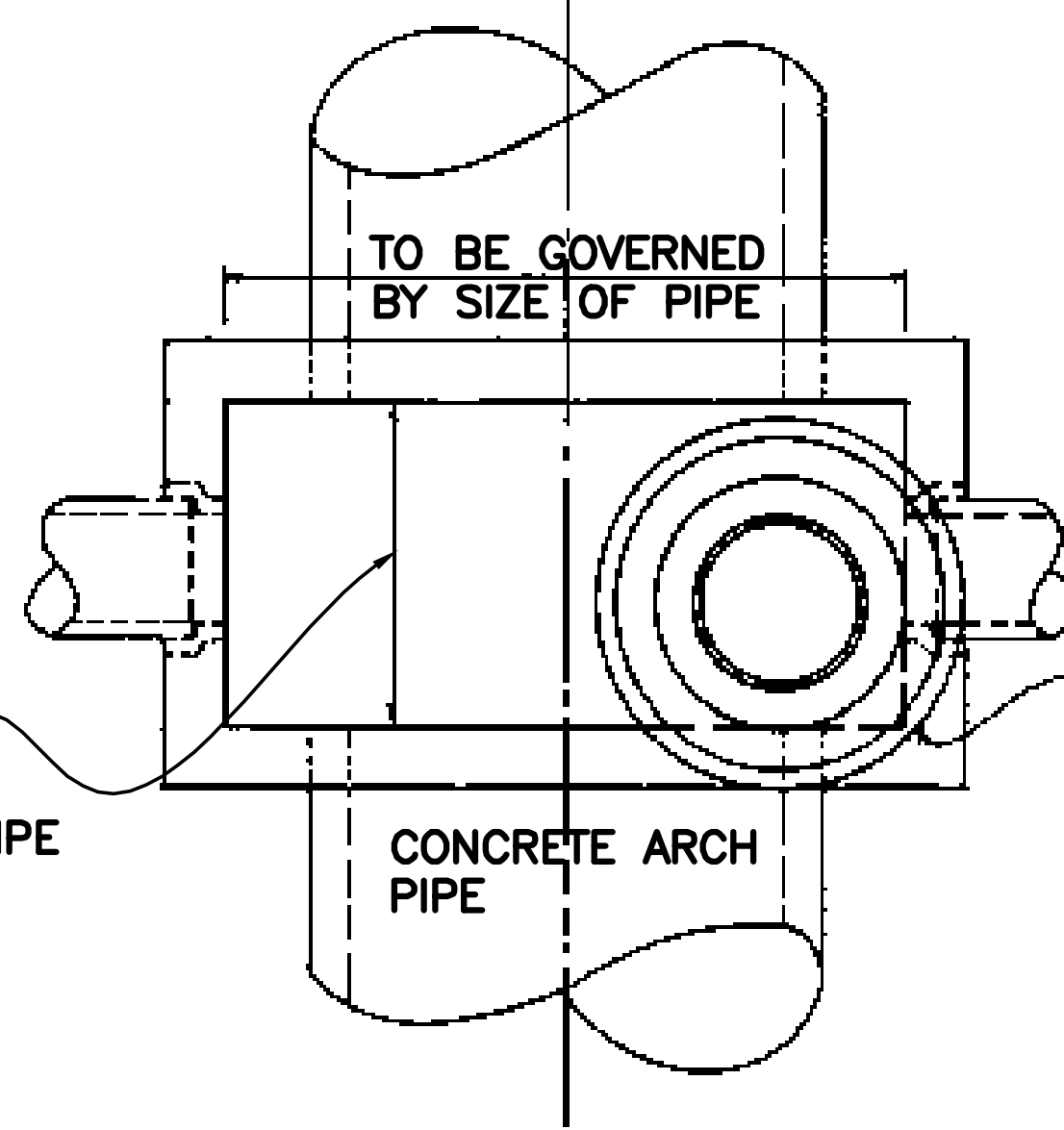
NOTES:

1. SECTIONS TO BE APPLICABLE FOR SIZE PIPE BEING INSTALLED.
2. FOUNDATION LUMBER SHALL CONSIST OF A CONTINUOUS TRANSVERSE LAYER OF 2" BOARDS (MIN. 8" WIDE) ON 2"x10" SILLS DRIVEN INTO SOIL.
3. BEDDING SHALL BE COMPACTED AGGREGATE.
4. BACKFILL MATERIAL TO BE PUMPED SAND INSTALLED IN 12" LIFTS AND COMPACTED TO 95% OF MAX. DENSITY.
5. IF THE WORKING SURFACE OF SOIL BENEATH THE PIPE IS CONSIDERED UNACCEPTABLE BY THE S&WB INSPECTOR, THE SOIL MUST BE REMOVED DOWN TO STABLE AND ACCEPTABLE MATERIAL, AND REPLACED WITH COMPACTED PUMPED SAND.
6. ALL PIPE JOINTS TO BE WRAPPED WITH 2' WIDE FILTER CLOTH WITH 3 FT. MIN. OVERLAP.
7. ALL PIPE TO BE RCP CLASS III UNLESS OTHERWISE NOTED.

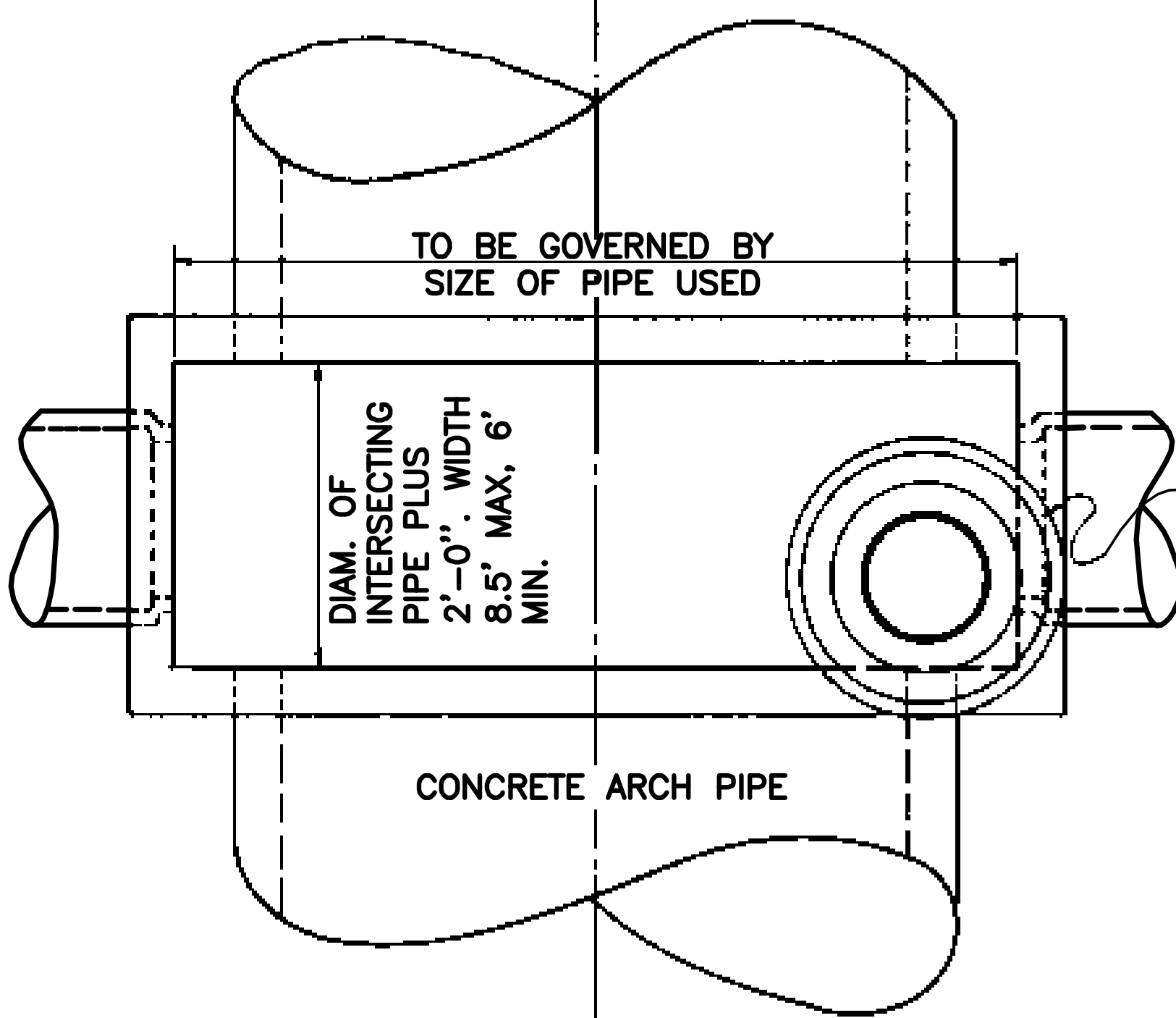
SCALE: N.T.S.

REV.	DATE	DESCRIPTION	BY
1	03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
2	03-27-76	DELETED AND ADDED REV NOTES	J.L.P.
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL SECTIONS OF REINFORCED CONCRETE ARCH PIPE BEDDING FROM 73"x45" TO 122"x78"			
DR.	R.P.D.	51 H. H. H.	
TNC.		GENERAL SUPERINTENDENT	
CK.		DWG. NO. D-3934	
AP.		DATE 10-26-66 SET NO. 2 OF 2	

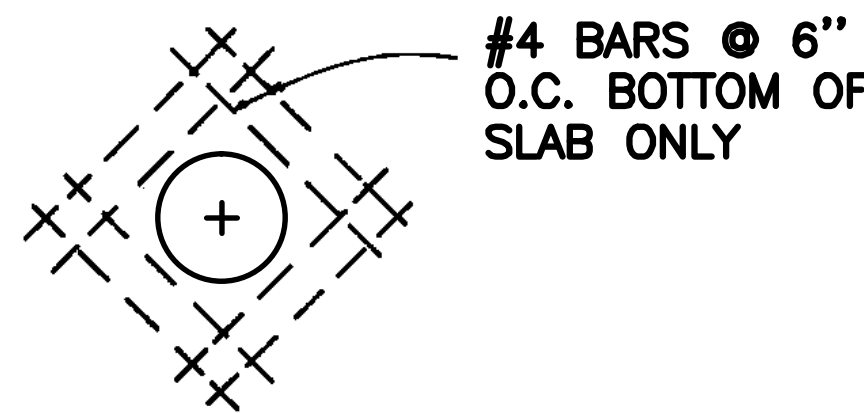
DIAM. OF
INTERSECTING PIPE
PLUS 2'-0"
WIDTH, 4' MIN.
6' MAX.



PLAN VIEW



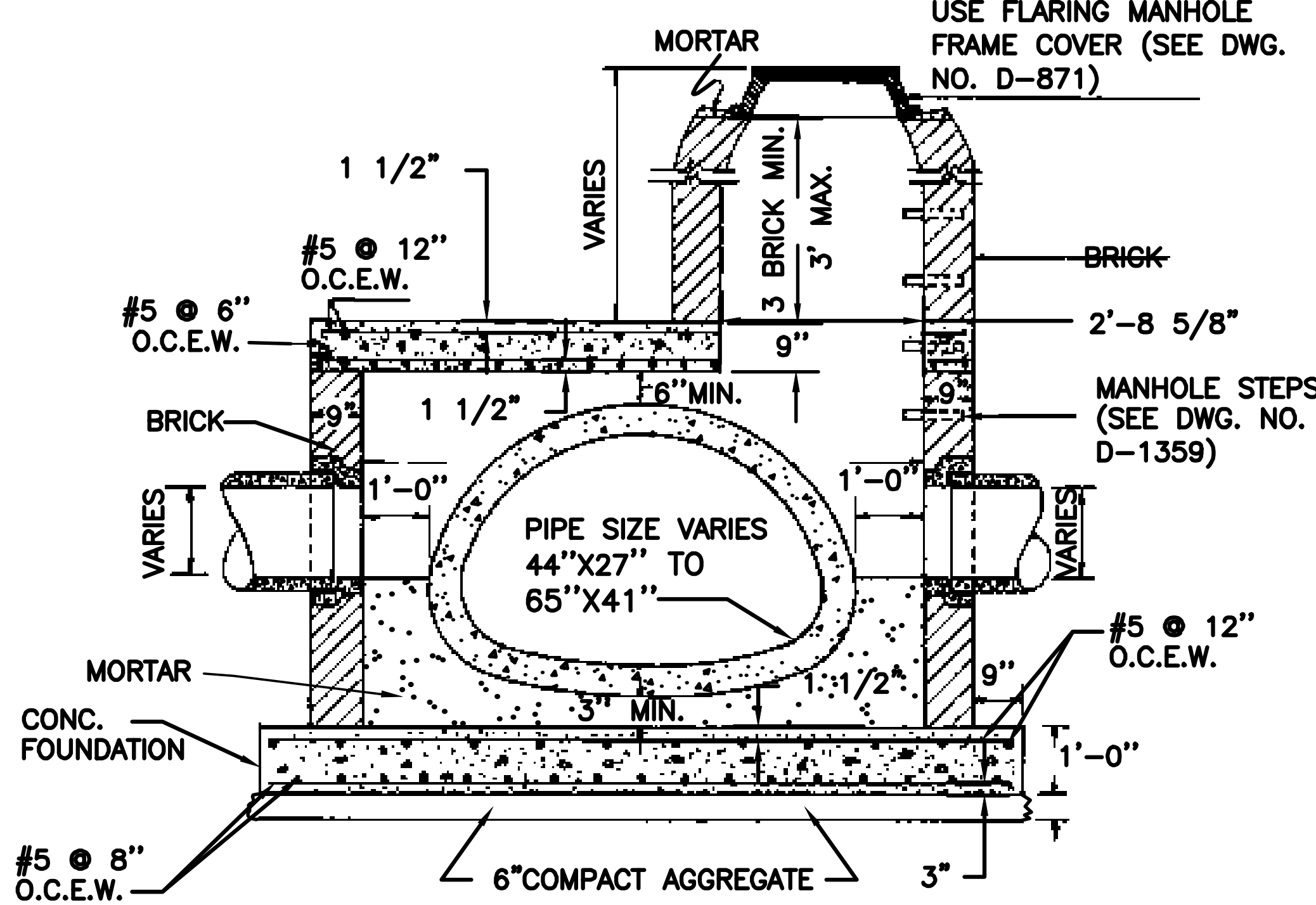
PLAN VIEW



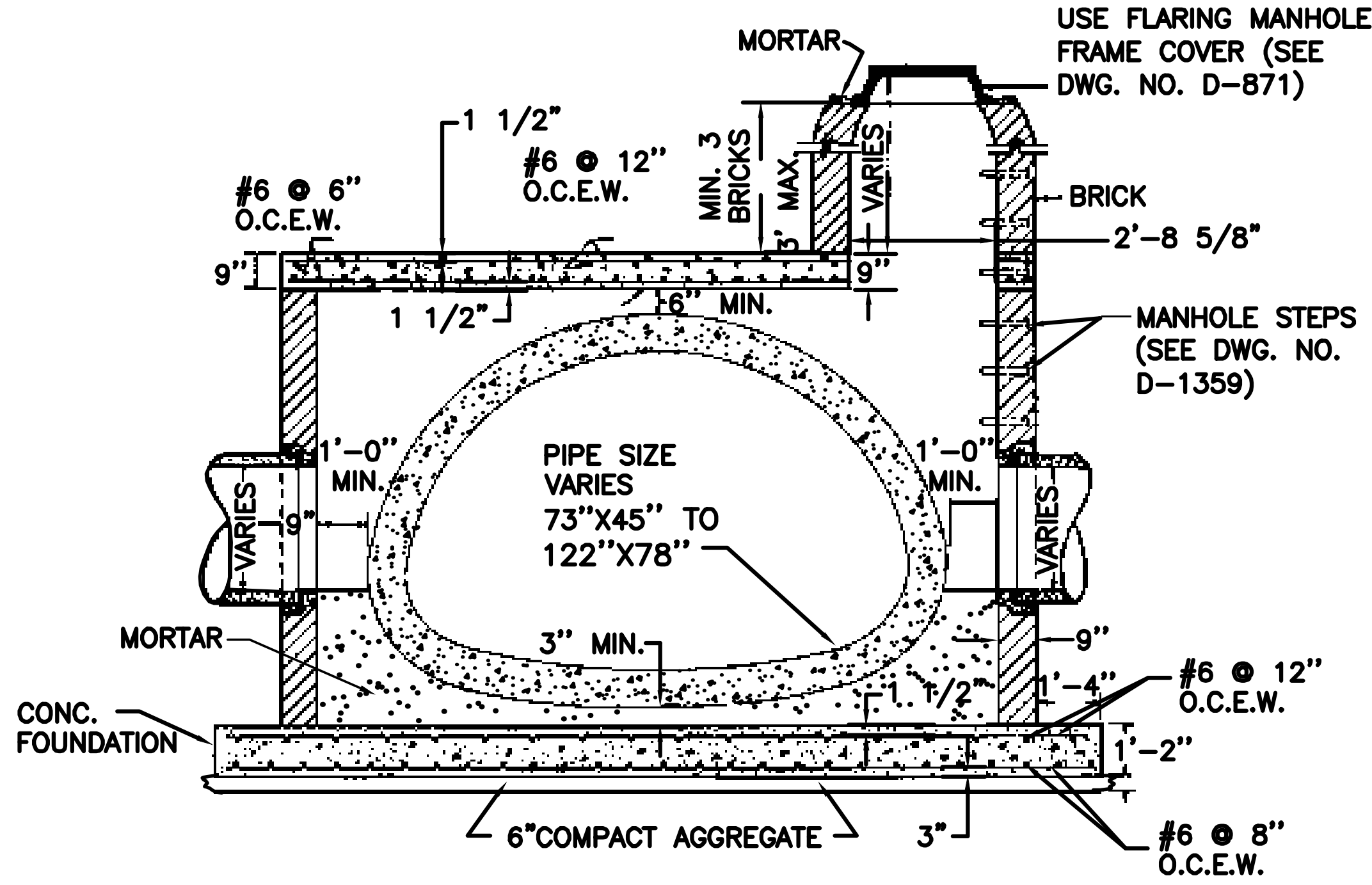
DETAIL-1

NOTES:

1. FOR ARCH PIPE SIZES SMALLER THAN SHOWN ON THIS DRAWING, USE STANDARD ROUND MANHOLE AS INDICATED ON DWG. NO. D-870.
2. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
3. INSIDE & OUTSIDE BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATION.



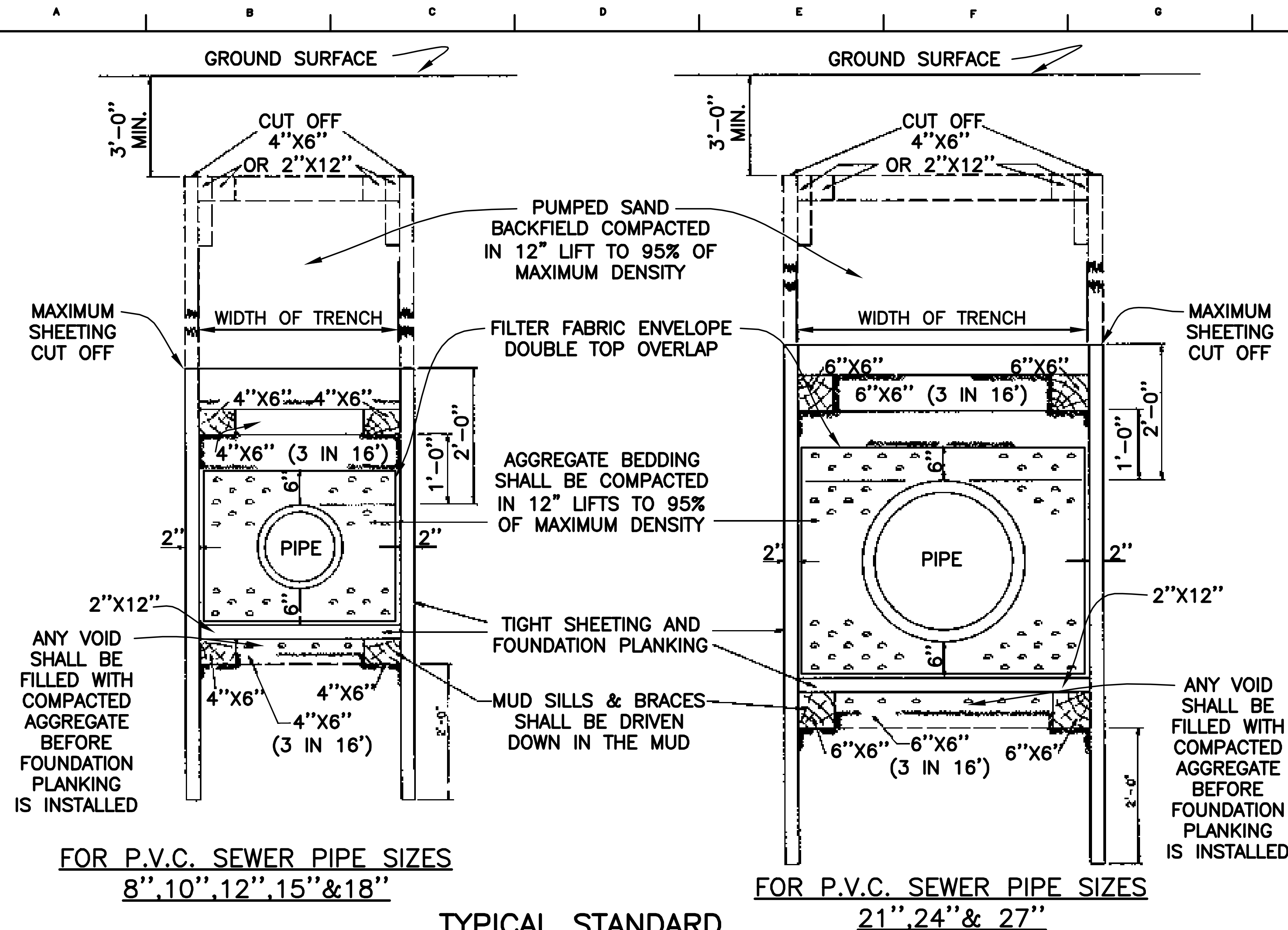
SECTION VIEW



SECTION VIEW

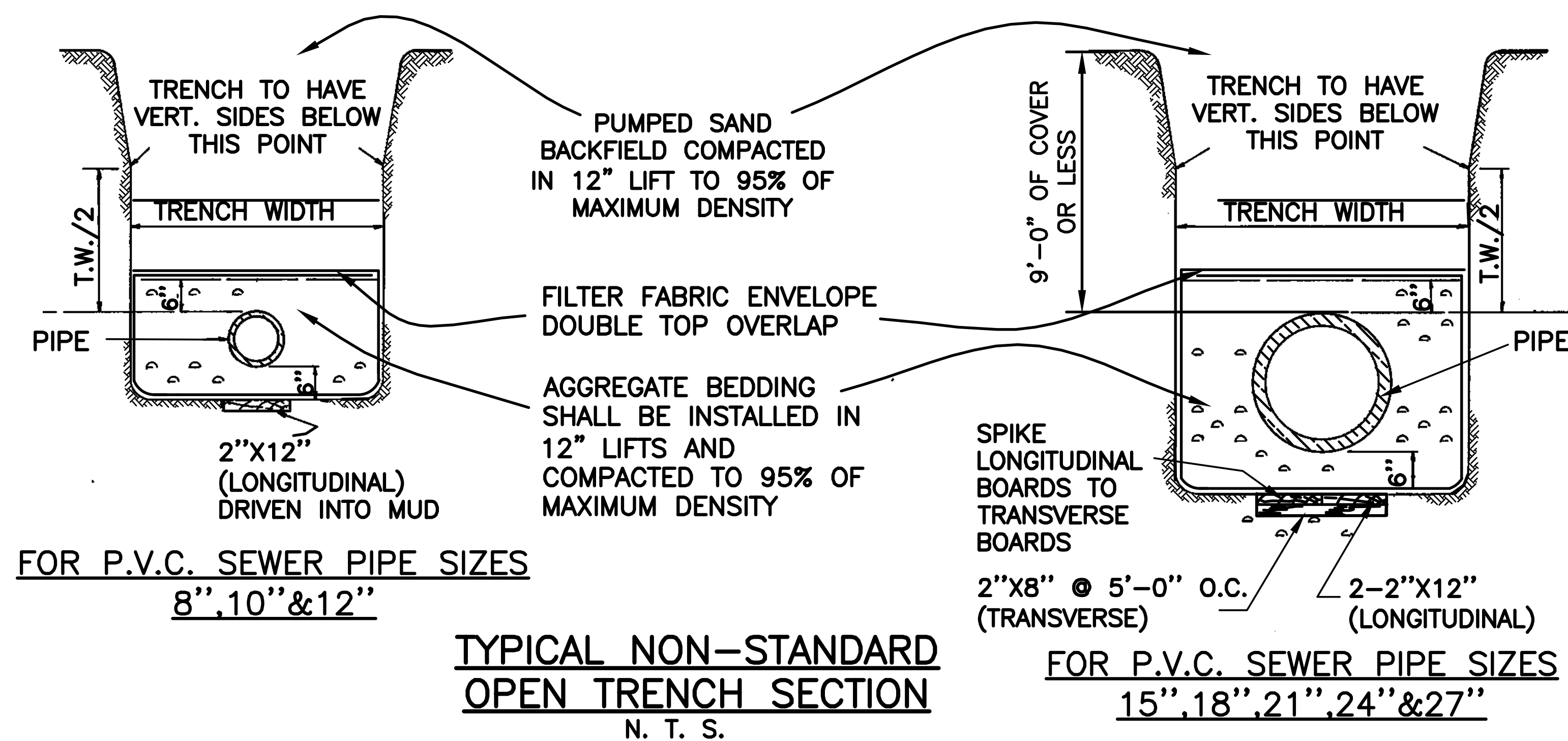
SCALE: N.T.S.

03-08-07	DELETED, REVISED AND ADDED NOTES	D.M.C.
2	7-11-88	GENERAL REVISION
1	10-7-76	REV. DET. SMALLER M.H.
REV.	DATE	DESCRIPTION
BY		
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
DETAIL OF STANDARD MANHOLES FOR LARGE CONCRETE ARCH PIPE		
DR.	H.P.D.	
TRC.		
CK.		
AP.		
SCALE GRAPHIC	DWG. NO. D-3937	
DATE 11-10-88	SET NO.	SHEET NO.



TYPICAL STANDARD SHEETING TRENCH SECTION

N. T. S.



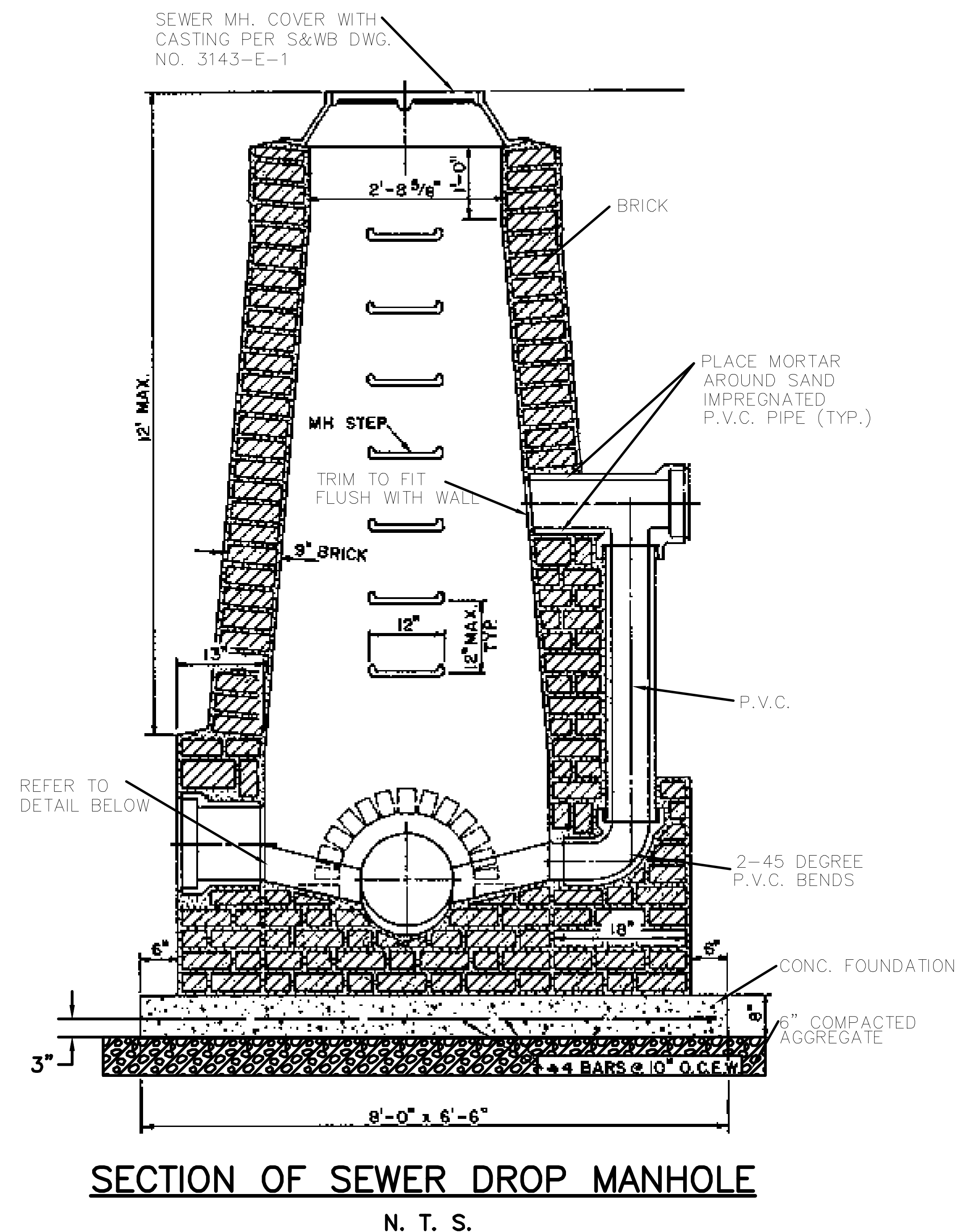
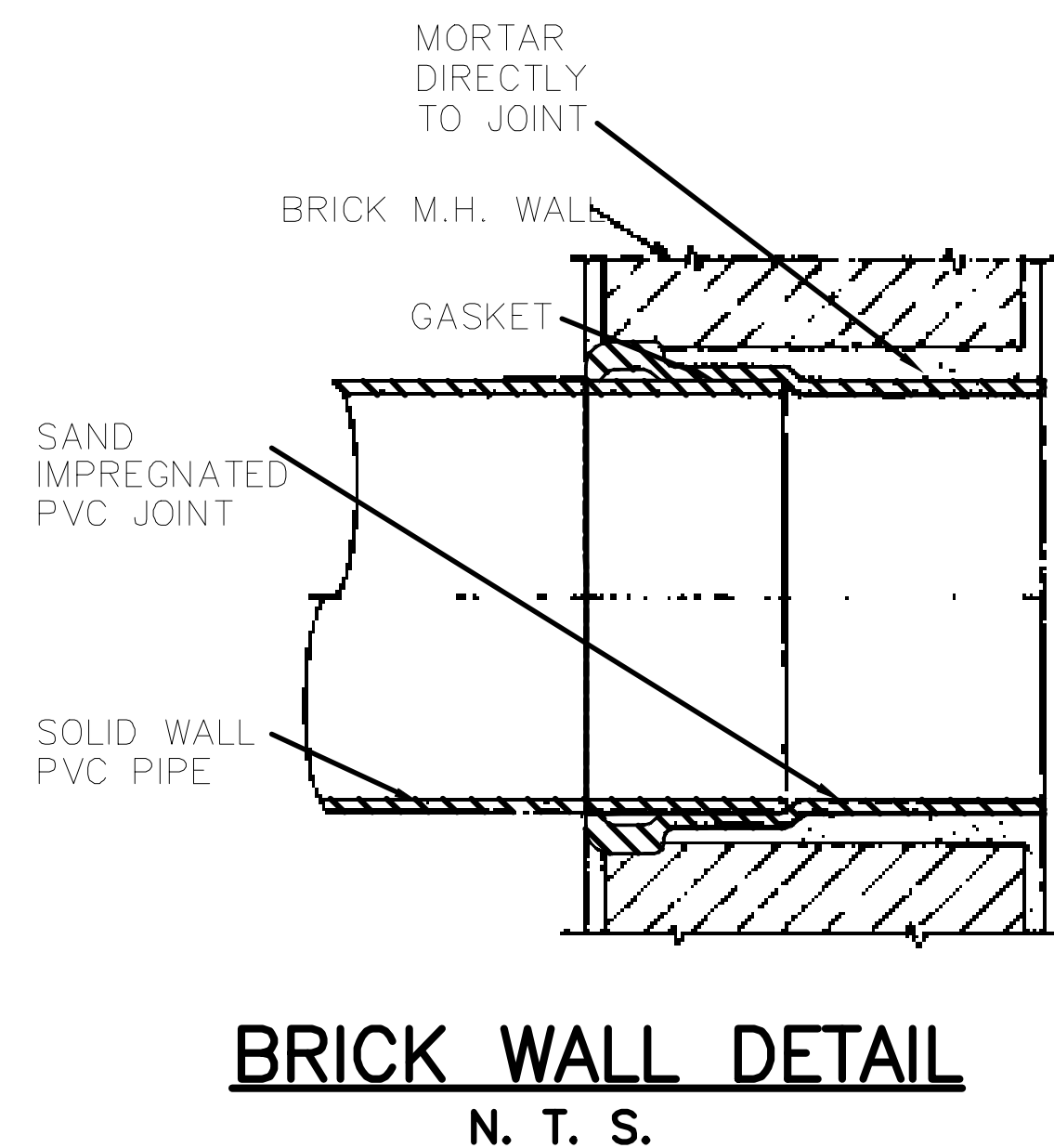
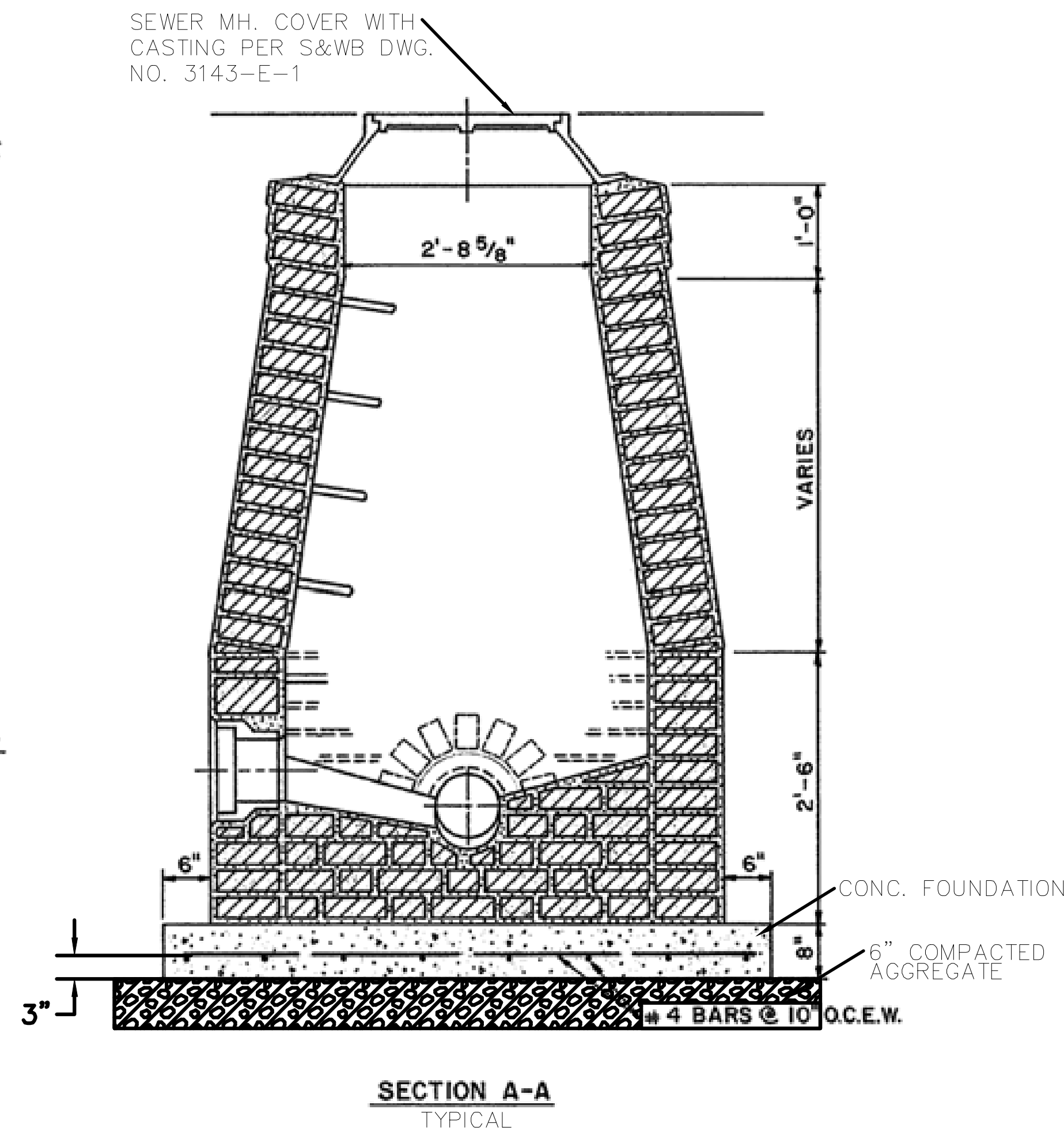
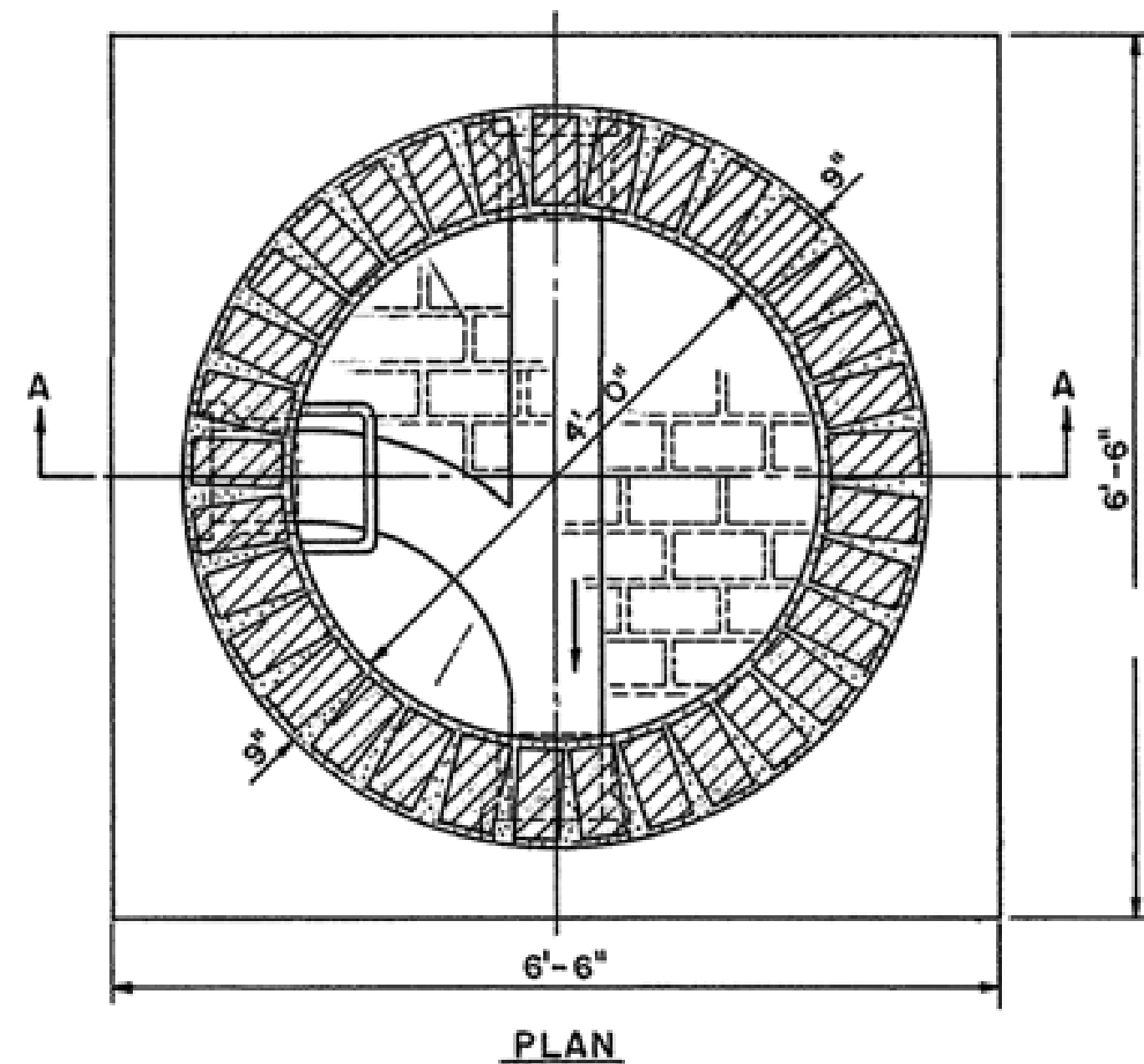
TYPICAL NON-STANDARD OPEN TRENCH SECTION

N. T. S.

NOTES

- CONTRACTOR SHALL USE STANDARD SHEETING, BRACING AND FOUNDATION LUMBER AS SHOWN ON THIS DRAWING FOR THE FOLLOWING CONDITIONS:
 - WHEN THE COVER OVER THE PIPE EXCEEDS NINE (9) FEET.
 - WHEN IN THE OPINION OF THE S&WB ENGINEER, TRENCH CONDITIONS DICTATE THAT STANDARD SHEETING BRACING AND FOUNDATION LUMBER ARE REQUIRED.
- WHEN STANDARD SHEETING, BRACING AND FOUNDATION LUMBER ARE NOT REQUIRED, THE NONSTANDARD OPEN TRENCH SECTION SHOWN ON THIS DRAWING SHALL BE USED.
- ANY SHEETING AND BRACING SHOWN ON THIS DRAWING IS INTENDED FOR PROTECTION OF THE PIPE, AFTER INSTALLATION IS COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGN AND IMPLEMENTATION FOR ANY SHEETING AND/OR BRACING REQUIRED FOR THE SAFETY OF HIS EMPLOYEES AND TO PROTECT HIS OPERATIONS DURING CONSTRUCTION.
- ANY ADDITIONAL SHEETING DRIVEN BELOW THE "MAXIMUM SHEETING CUTOFF" SHOWN ON THE DRAWING MUST BE LEFT IN PLACE.
- STANDARD SHEETING AND BRACING SHALL BE INSTALLED BY FIRST DRIVING THE WOOD SHEETING. THEN THE MUD SILLS SHALL BE DRIVEN INTO THE SOIL, PROPERLY BRACED, AND ALL VOIDS FILLED WITH COMPACTED AGGREGATE BEFORE FOUNDATION LUMBER PLANKING IS INSTALLED. THE STANDARD BOTTOM SHALL NOT BE INSTALLED AS A PREFABRICATED BOX.
- MAXIMUM TRENCH WIDTH ALLOWED SHALL BE FOUR FEET FOR 8" AND 10" PIPE. FOR LARGER DIAMETER PIPE, THE MAXIMUM TRENCH WIDTH ALLOWED SHALL BE THREE FEET PLUS THE OUTSIDE DIAMETER OF THE PIPE.
- IF THE WORKING SURFACE OF SOIL BENEATH THE PIPE IS CONSIDERED UNACCEPTABLE, BY THE S&WB ENGINEER, THE SOIL MUST BE REMOVED DOWN TO STABLE AND ACCEPTABLE MATERIAL, AND REPLACED WITH COMPACTED PUMPED SAND.
- THE CONTRACTOR SHALL NOT USE NAILS OR SPIKES TO HOLD SHEETING OR BRACING BELOW PIPE.

	03-09-07	GENERAL REVISIONS	D.M.C.
9	3-16-84	DWG. UPDATED	SHP
REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL STANDARD AND NON STANDARD SHEETING AND OPEN TRENCH SECTIONS FOR SEWER PIPE INSTALLATION			
DR. SHP			
TRC			
OK			
AP. 			
SCALE NONE			
DATE 3-16-84		SET NO.	DWG. NO. 4697-E5-A
			SHEET NO.

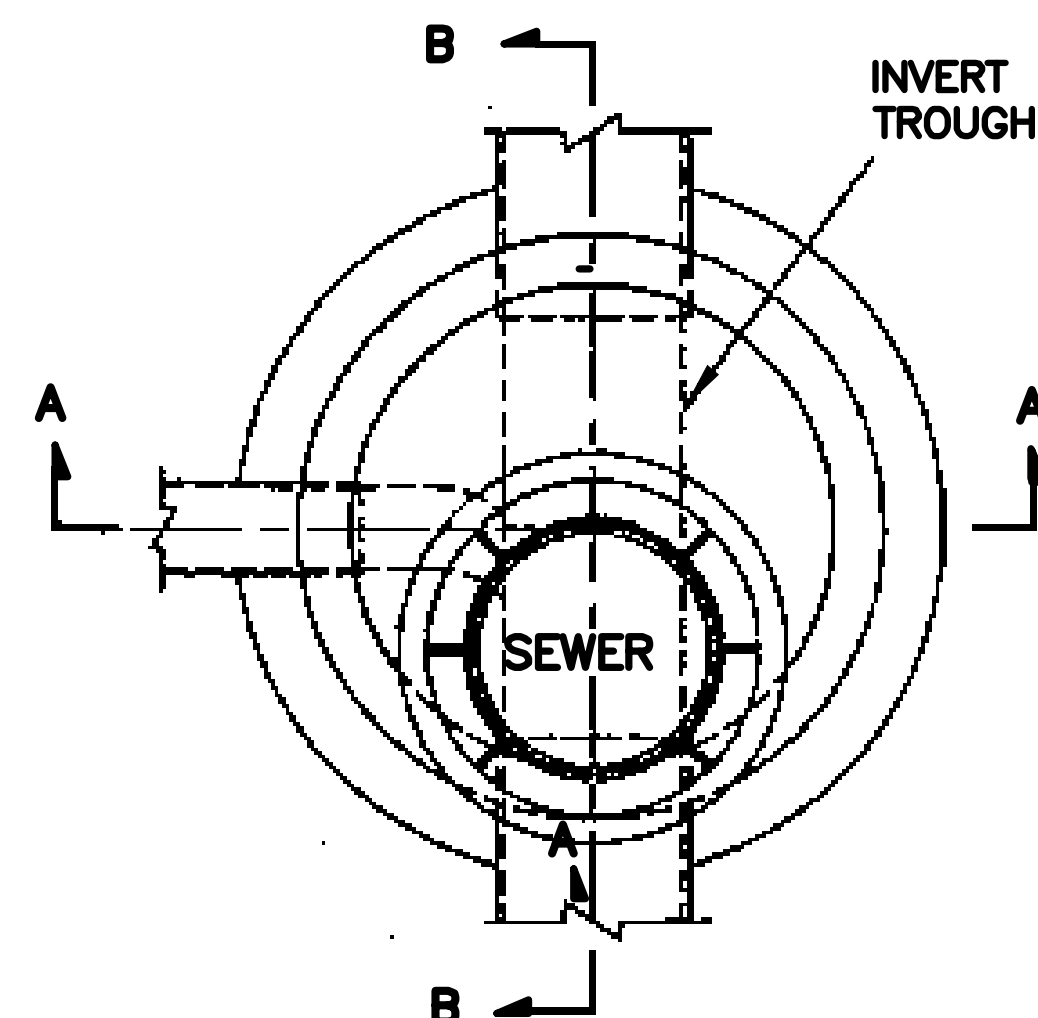


NOTES:

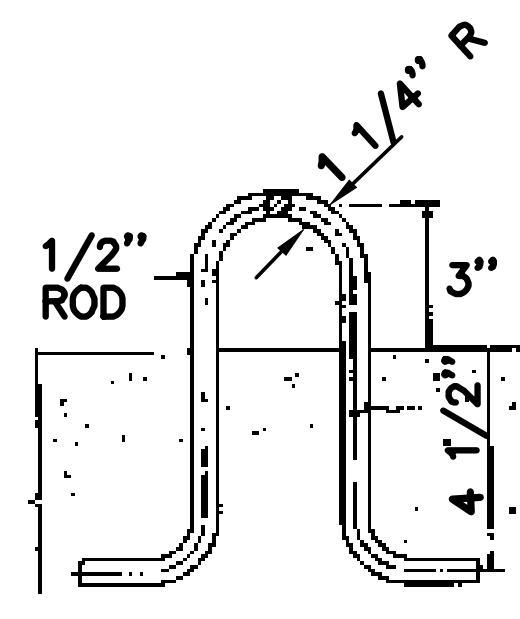
1. MANHOLE WALL THICKNESS IS 9" TO A DEPTH OF 12' AND 13" THICK BELOW 12' DEPTH.
2. MANHOLES THAT EXCEED 17' IN DEPTH SHALL USE A 10" CONCRETE SLAB IN LIEU OF AN 8" CONCRETE SLAB.
3. SEWER MANHOLE WALLS SHALL BE MADE ADEQUATELY RESISTANT TO HARSH AGGRESSIVE CHEMICALS BY EITHER AN APPROVED CONCRETE BATCH ADDITIVE OR PROTECTIVE WATERPROOFING COMPOUND.
4. A DROP CONNECTION SHALL BE CONSTRUCTED WHERE THE INFLOW INVERTS ARE 18" OR MORE ABOVE THE OUTFLOW INVERTS.
5. REFERENCE DWG. NO. D-1359 FOR STEPS.
6. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS.

SCALE: N.T.S.

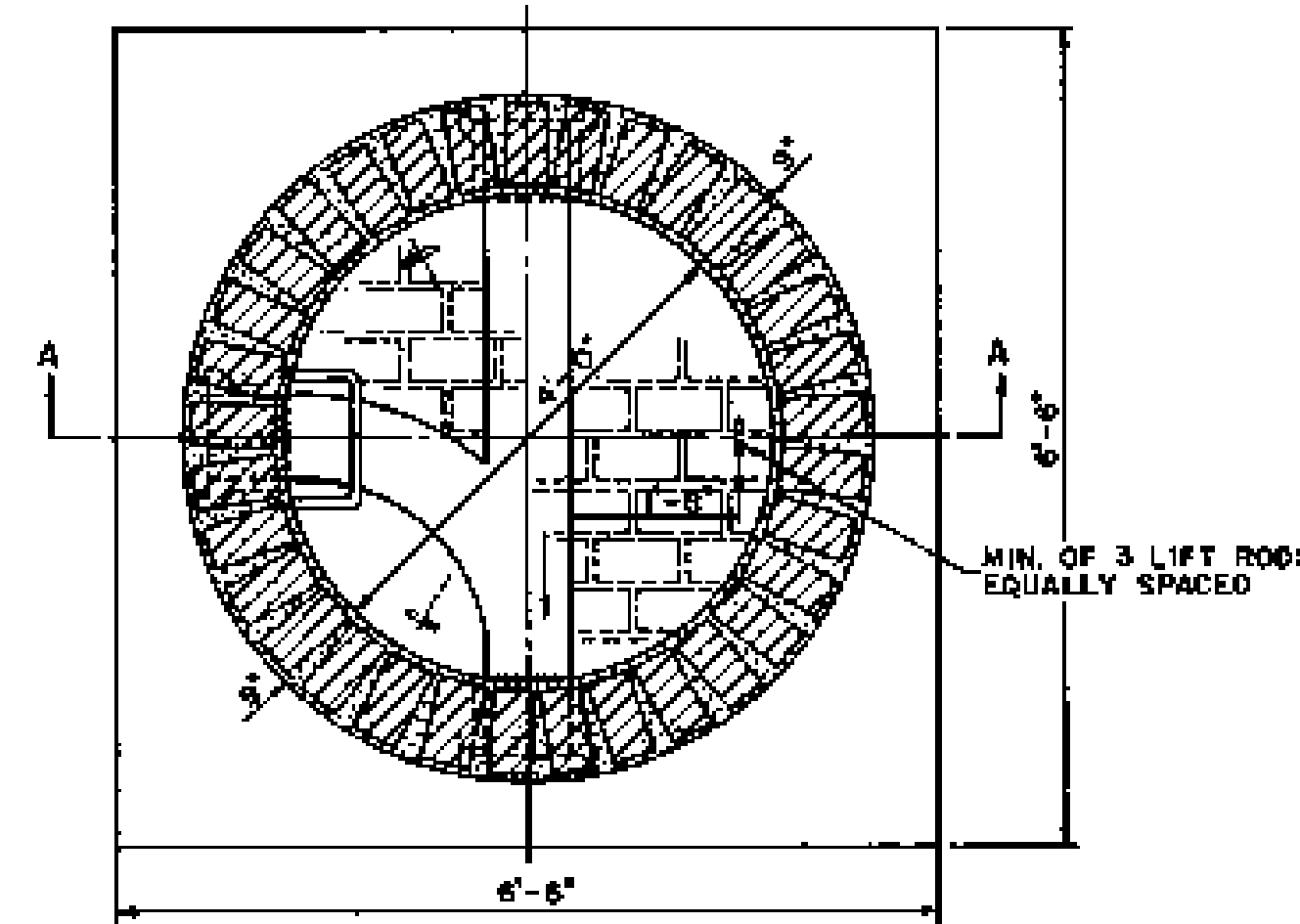
REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL SEWER BRICK MANHOLE AND DROP MANHOLE			
DR. D. MCGRAY		 GENERAL SUPERINTENDENT	
TRC. M. JOHNSON			
AP. J. BECKER			
SCALE NONE			
DATE 03-08-07	SET NO.	DWG. NO. 6178-B-6	SHEET NO.



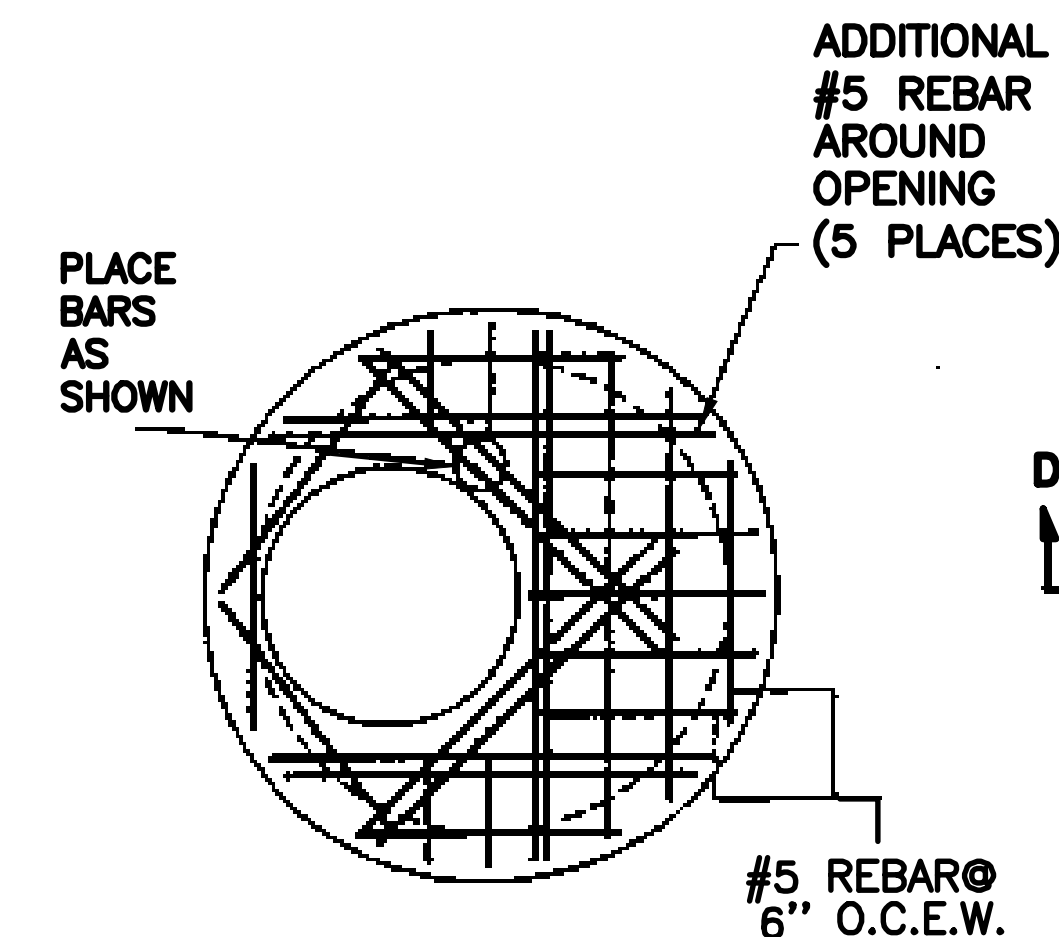
PLAN VIEW



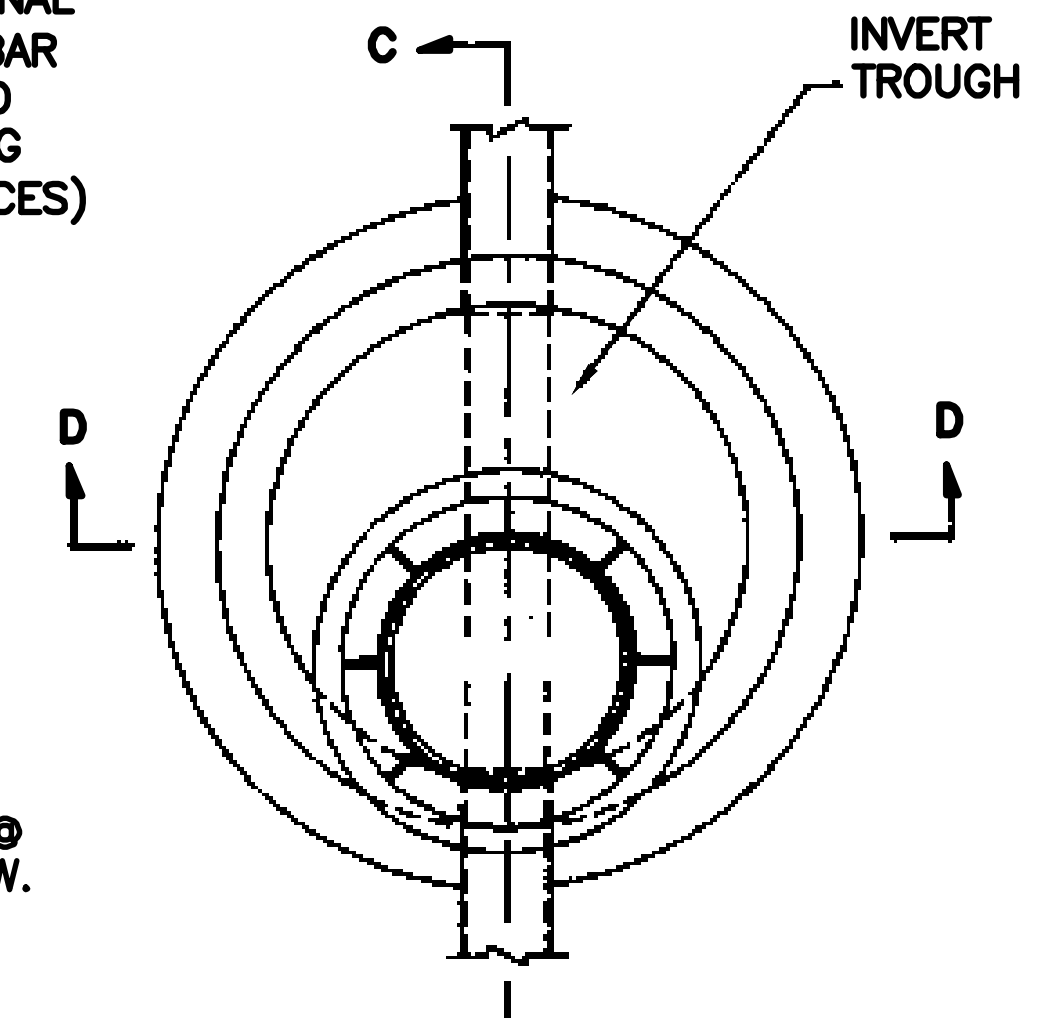
LIFTING EYE
DETAIL



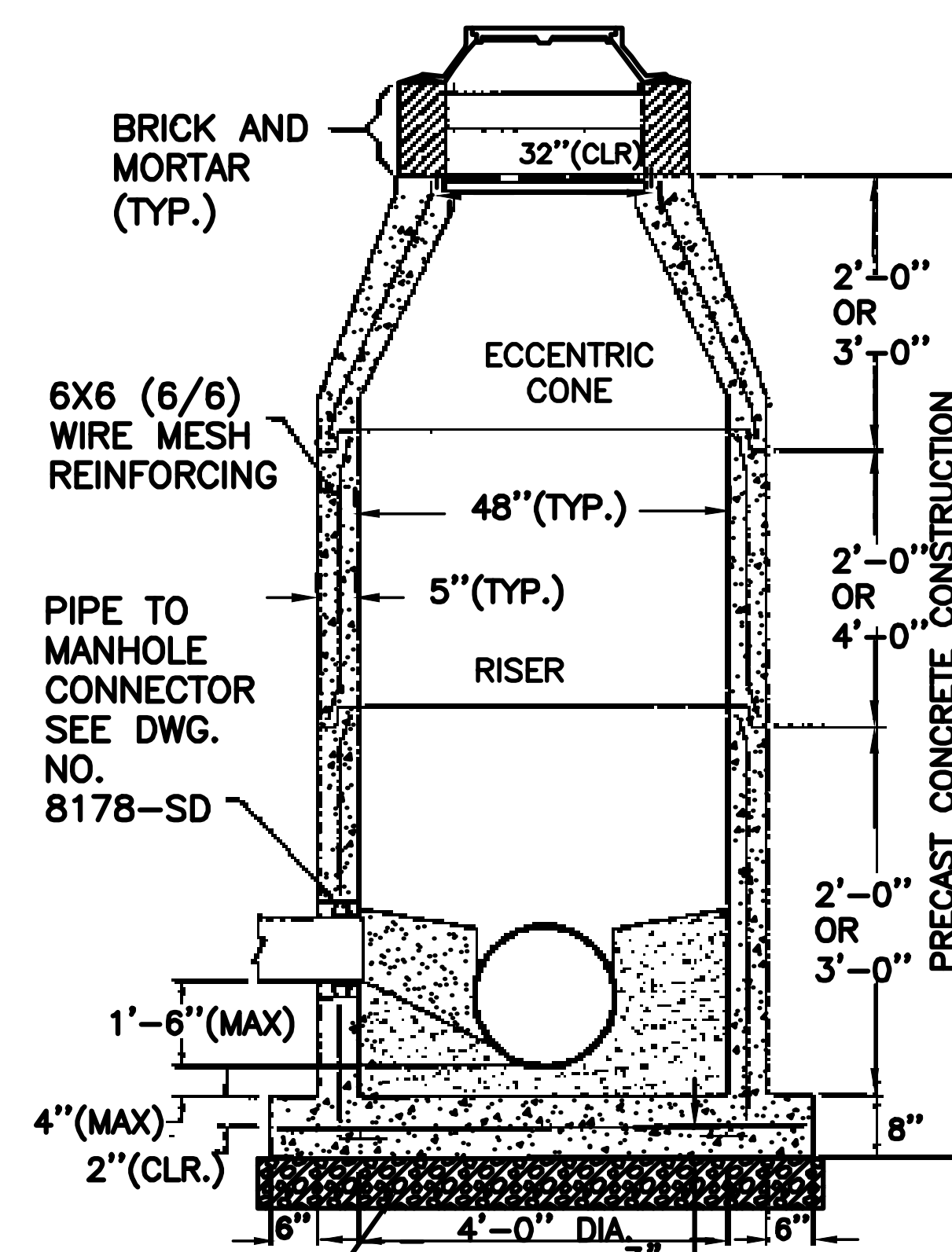
PLAN OF MANHOLE
TROUGH



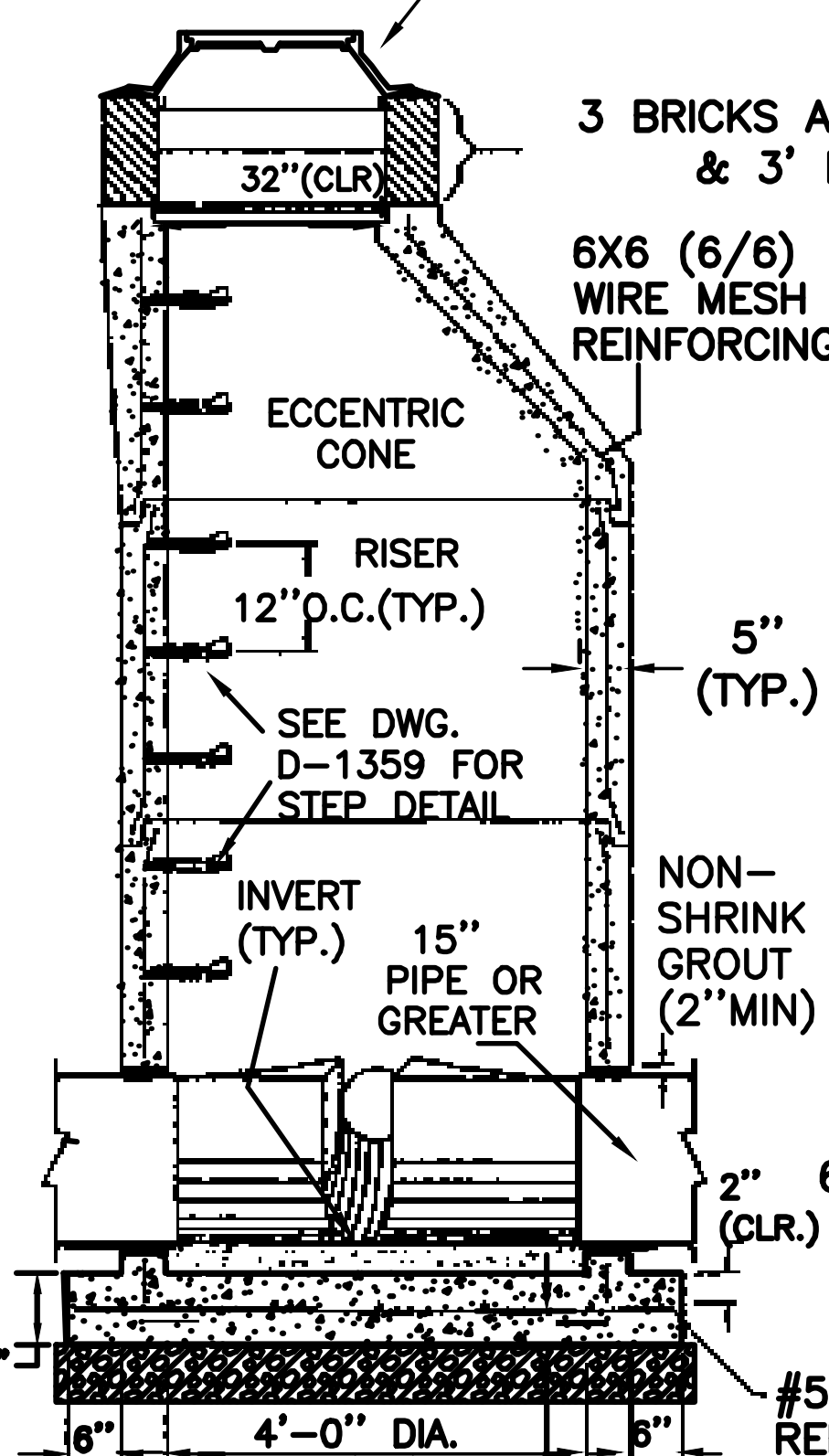
CONCRETE TOP
SLAB PLAN



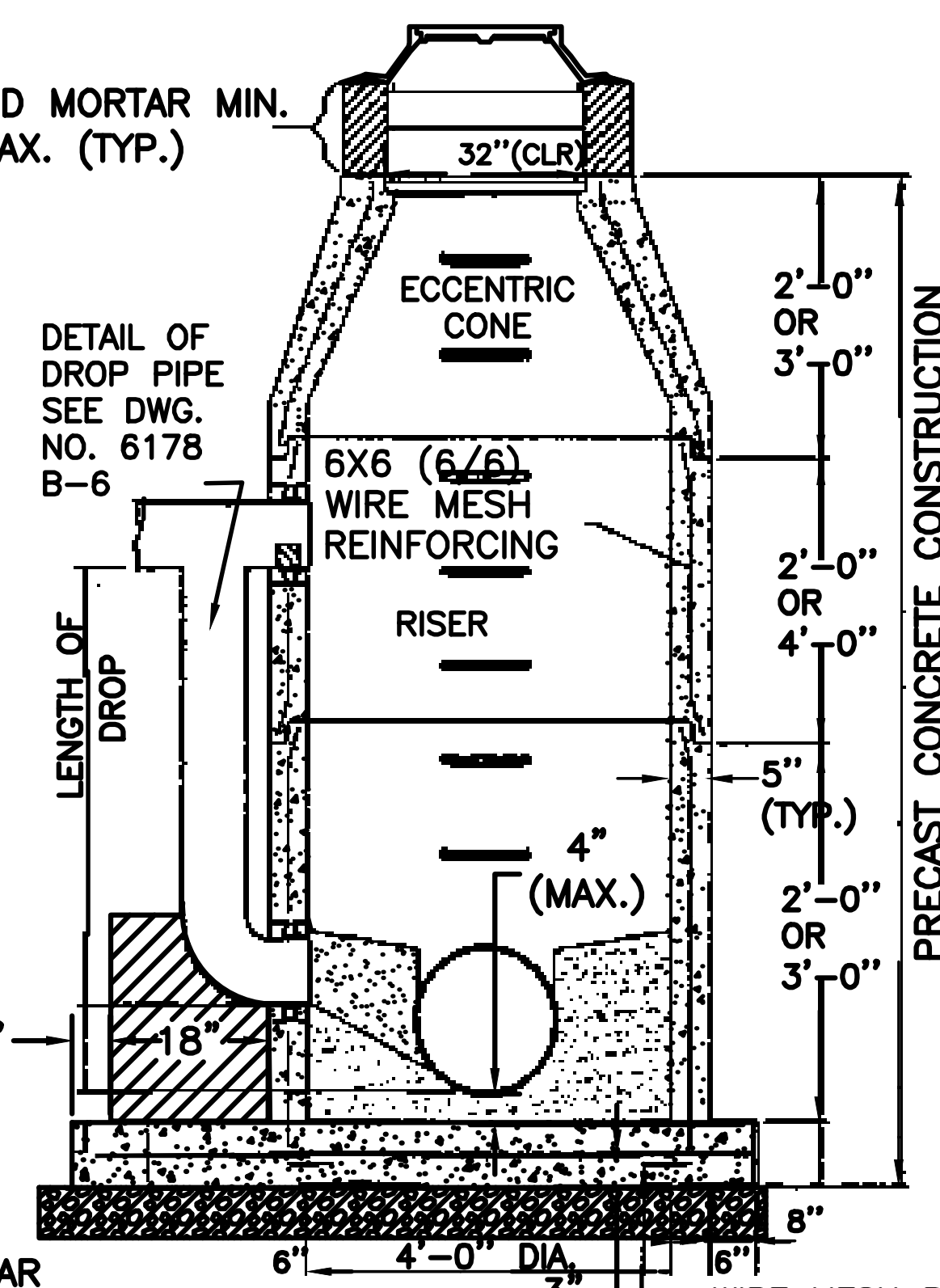
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION E-E

6" COMPACTED
AGGREGATE (TYP.)

STANDARD MANHOLE DETAIL

SCALE: N.T.S.

STANDARD MANHOLE
FRAME AND COVER SEE
DWG. NO. D-871 OR
DWG. NO. 3143-E-1 FOR
MANHOLE CASTINGS

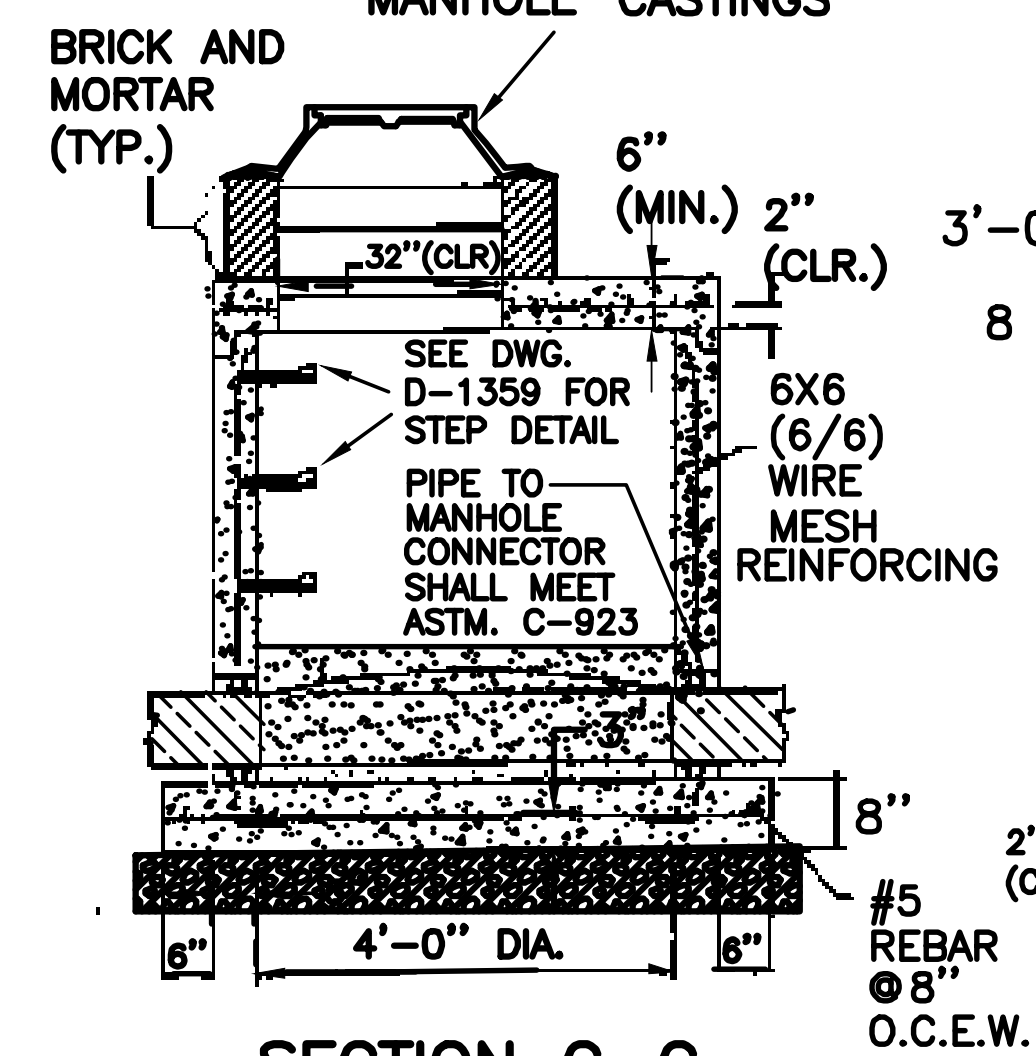
3 BRICKS AND MORTAR MIN.
& 3' MAX. (TYP.)

DETAIL OF
DROP PIPE
SEE DWG.
NO. 6178
B-6

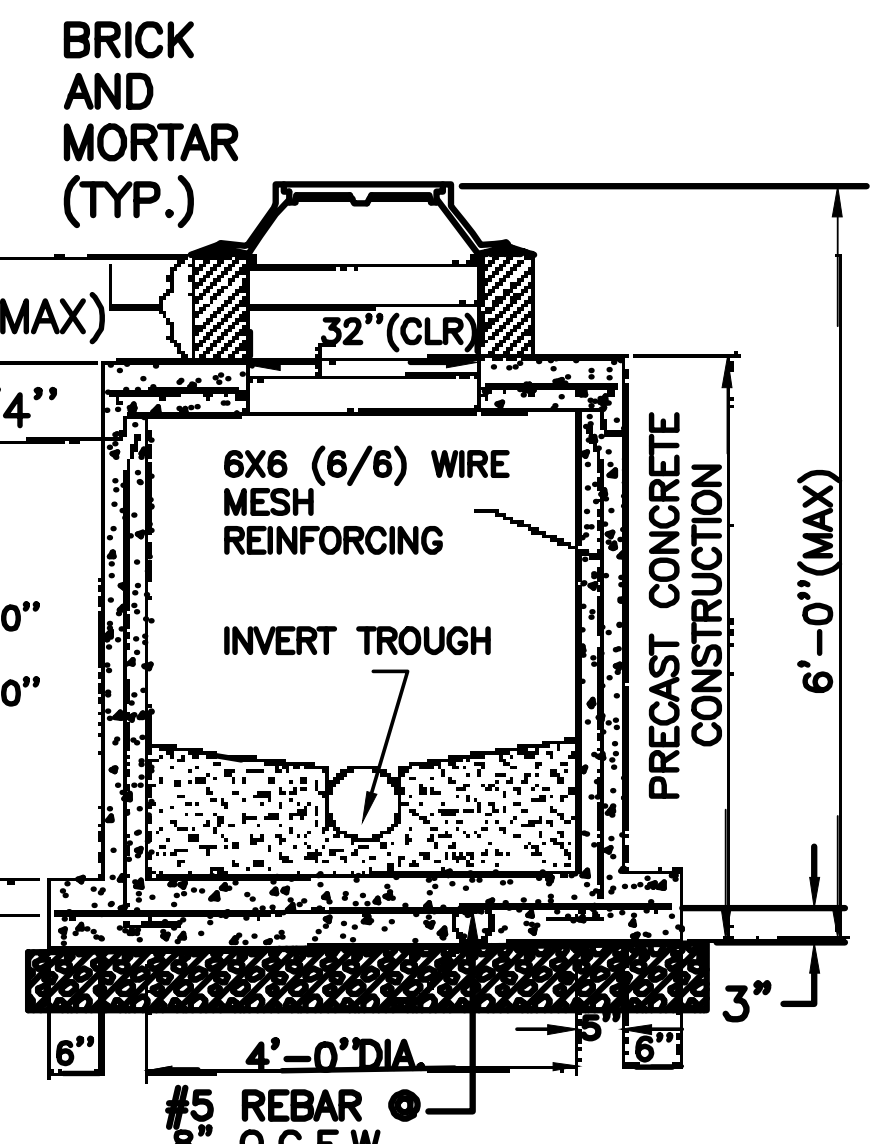
WIRE MESH REINF.
SHALL BE BENT NOT
LESS THAN 6" UNDER
BASE SLAB REINF.

STANDARD DROP
MANHOLE DETAIL

STANDARD MANHOLE
FRAME AND COVER SEE
DWG. NO. D-871 OR
DWG. NO. 3143-E-1 FOR
MANHOLE CASTINGS



SECTION C-C

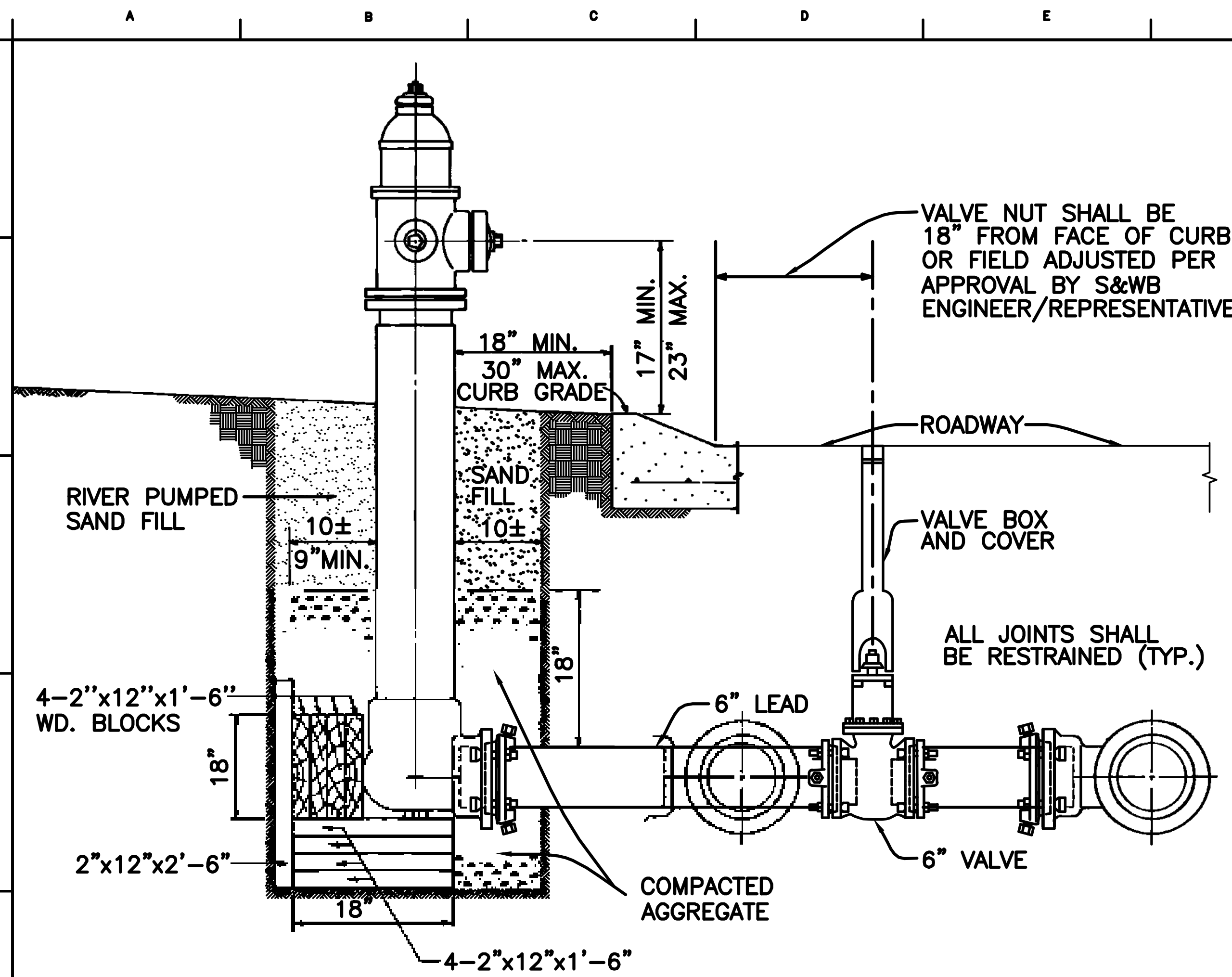


SECTION D-D

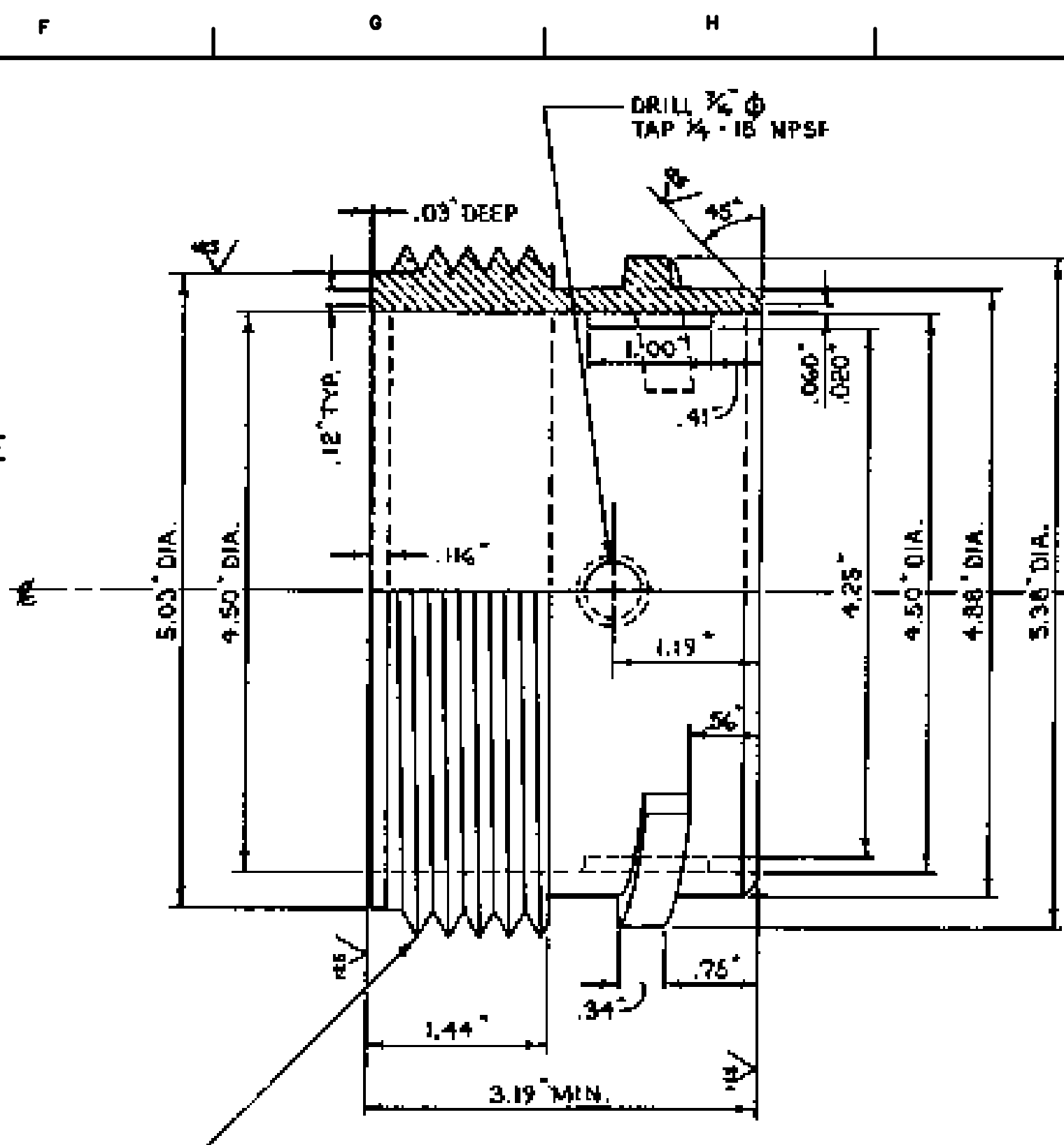
NOTES:

1. REINFORCING STEEL TO MEET A.S.T.M. A-615 GRADE 60. CONCRETE TO BE 4000 P.S.I. IN 28 DAYS, TYPE II CEMENT, REINFORCING TO MEET A.A.S.H.O. HD-40.
2. JOINTS BETWEEN PRECAST UNITS WILL BE SEALED WITH A RUBBER GASKET TO MEET A.S.T.M. C-443.
3. PRECAST CONCRETE STRUCTURE TO MEET A.S.T.M. C-478.
4. 6"-15" PIPE, USE RESILIENT BOOT CONNECTOR.
5. 16" OR LARGER PIPE, USE MIN. 2" NON-SHRINK GROUT.
6. MANHOLES THAT EXCEED 17' IN DEPTH SHALL USE A 10" THICK BASE IN LIEU OF AN 8" THICK BASE.
7. SEWER MANHOLE WALLS SHALL BE MADE ADEQUATELY RESISTANT TO HARSH AGGRESSIVE CHEMICALS BY EITHER AN APPROVED CONCRETE BATCH ADDITIVE OR PROTECTIVE WATERPROOFING COMPOUND.
8. A DROP CONNECTION SHALL BE CONSTRUCTED WHERE THE INFLOW INVERTS ARE 18" OR MORE ABOVE THE OUTFLOW INVERTS.
9. REFERENCE DWG. NO. D-1359 FOR STEPS.

REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL PRE-CAST CONCRETE MANHOLE			
DWG. NO. 6178-B-6A			
DR.	D. MCGRAY	<i>[Signature]</i> GENERAL SUPERINTENDENT	
TRC.	M. JOHNSON		
AP.	J. BECKER		
SCALE	NONE		
DATE	03-09-07	SET NO.	SHEET NO.



△ TYPICAL HYDRANT SETTING
N. T. S.

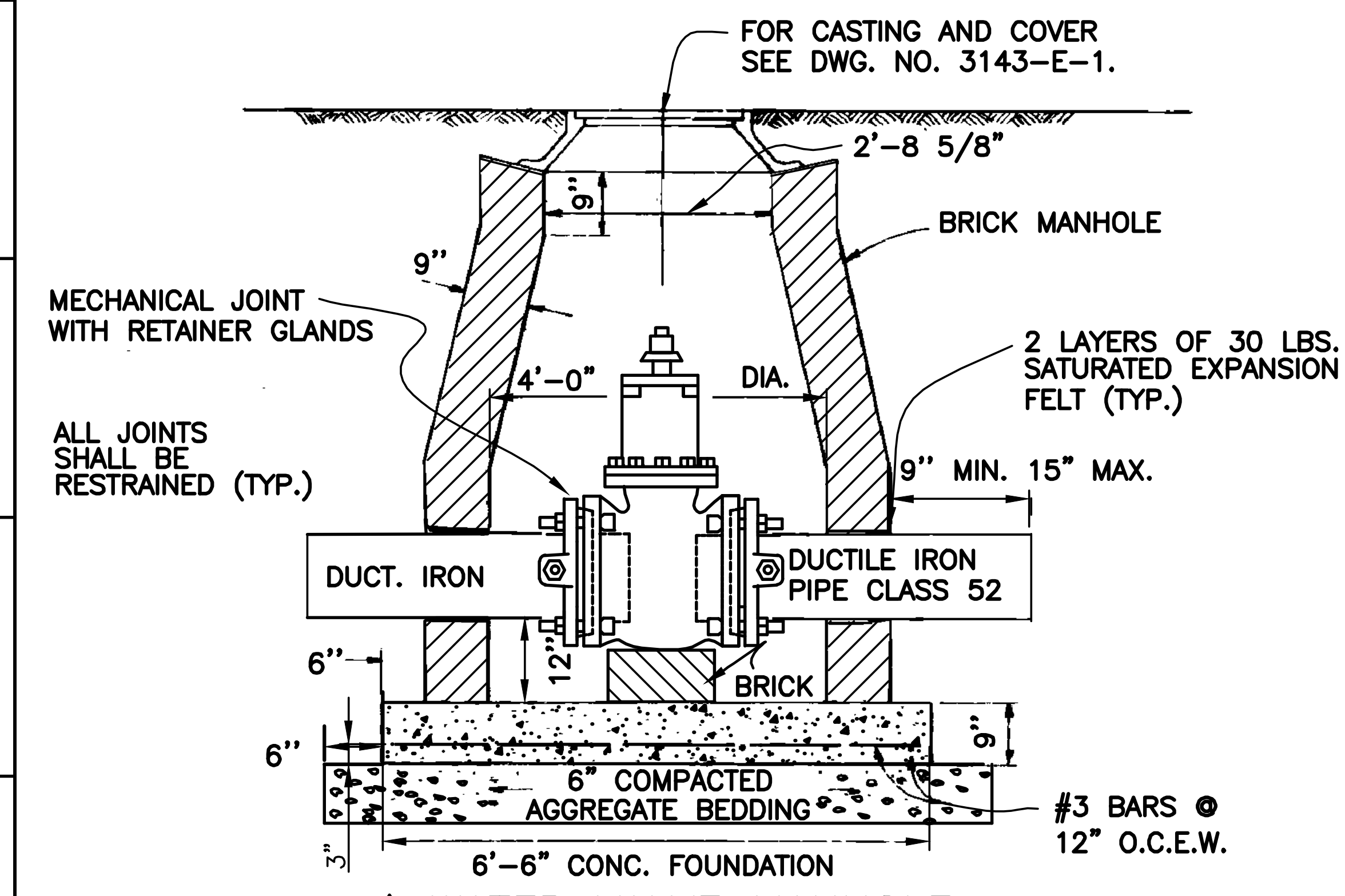


STEAMER NOZZLE THREADS:
MAJOR DIAMETER 5.427" MAX. 5.427" MIN.
MINOR DIAMETER 5.132" MAX.
THREAD DEPTH 1.624"
PITCH DIAMETER 5.295" MAX. 5.295" MIN.
THREADS PER. INCH 4

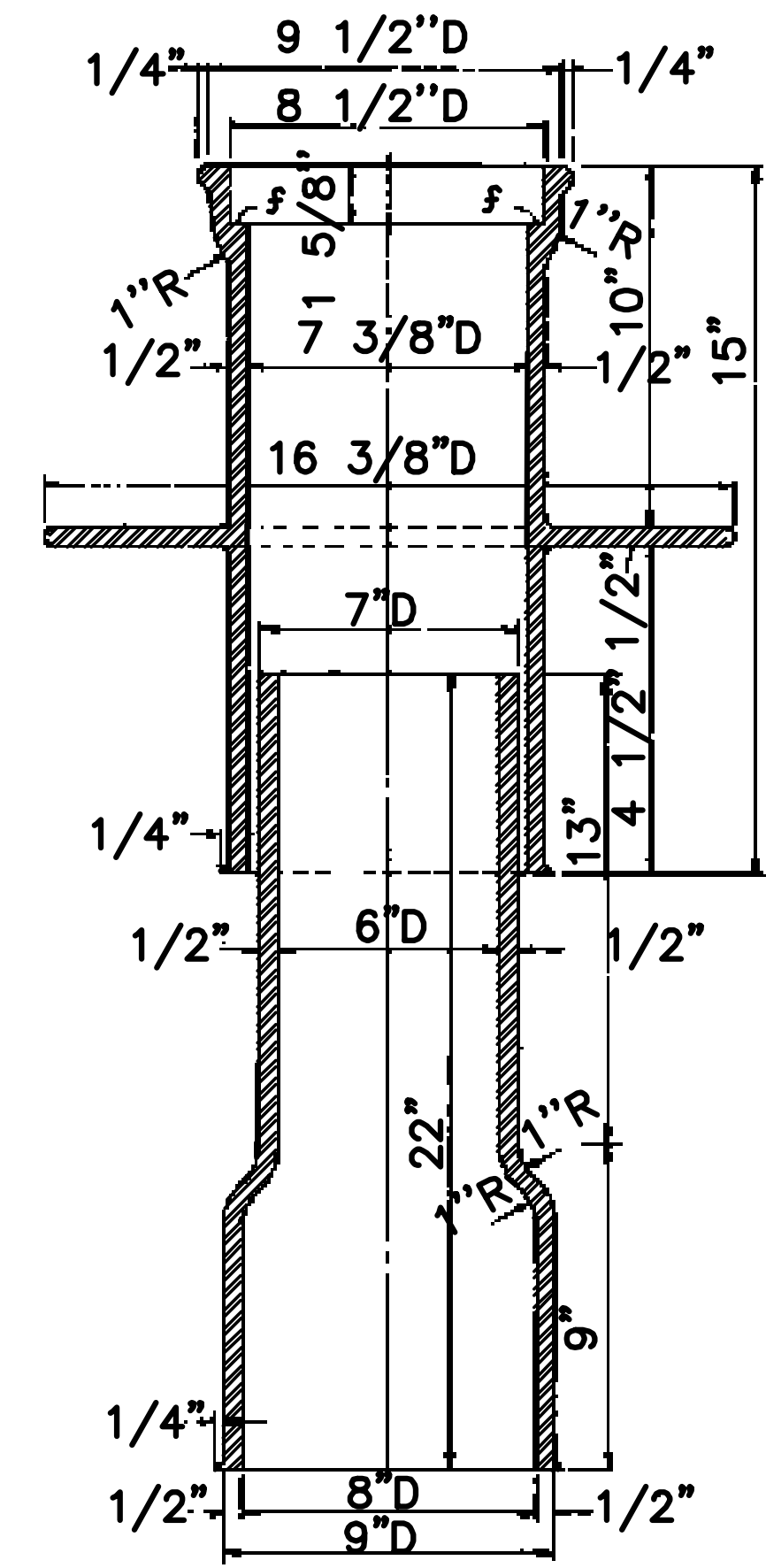
NOSE NOZZLE THREADS:
MAJOR DIAMETER 3.180" MAX. 3.141" MIN.
MINOR DIAMETER 2.964" MAX.
THREAD DEPTH 1.0828"
PITCH DIAMETER 3.072" MAX. 3.058" MIN.
THREADS PER. INCH 6

△ NOTES:

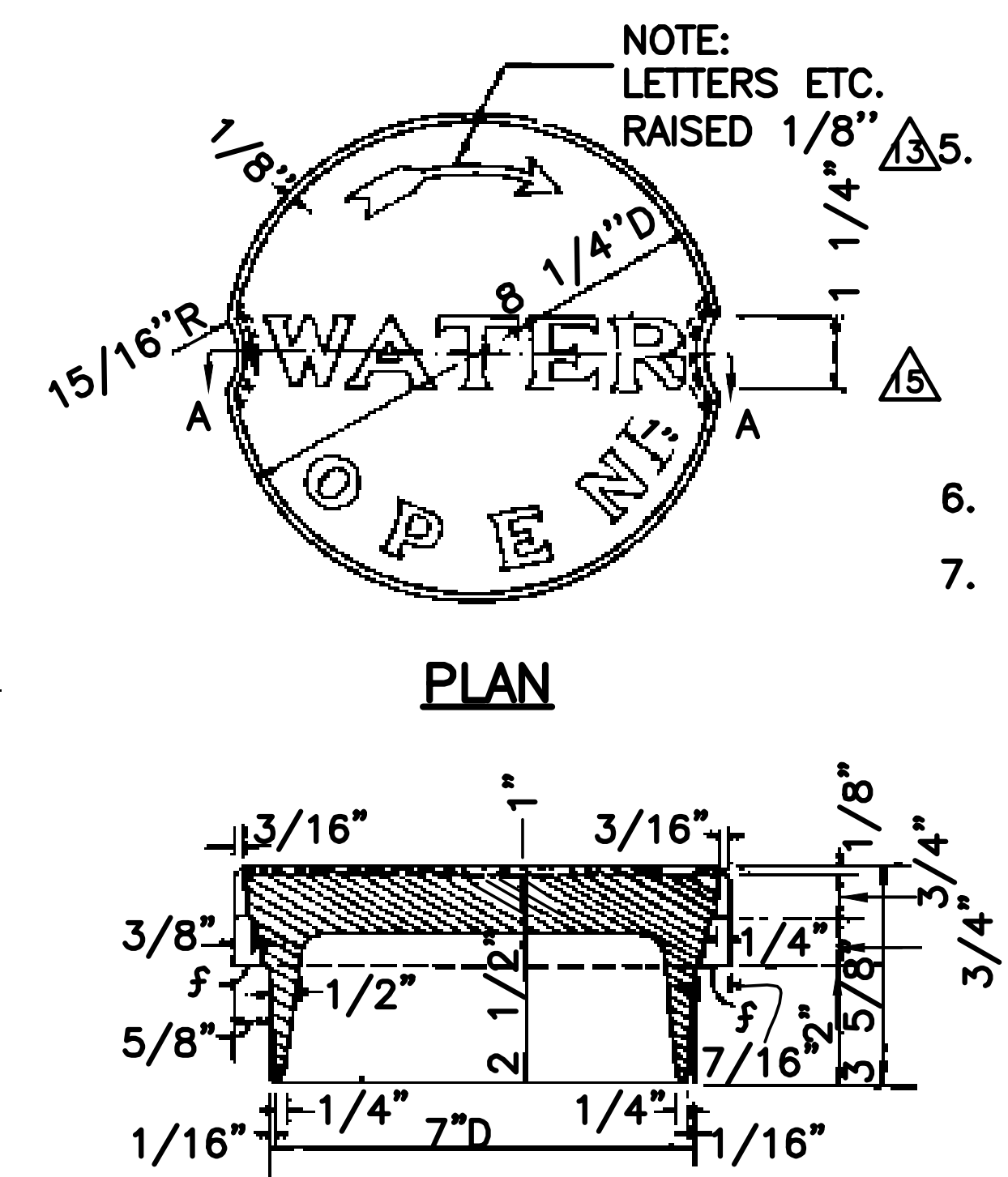
- f = MACHINED SURFACE
- INSIDE & OUTSIDE OF BRICK WALLS, BENCHES & INVERTS TO BE MORTARED WITH WATERPROOFING COMPOUND, THICKNESS OF 1/4" IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
- CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
- VALVES 4" TO 12" SHALL BE S&WB R.D. WOOD GATE VALVES (SEE S&WB DWG. NO. 11897-W-62) OR AMERICAN R.D. ROTATING GATE DISC VALVE C 500. VALVES 16" AND LARGER SHALL BE AMERICAN R/D GATE VALVES.
- HYDRANTS SHALL BE 5" BREAKAWAY FIRE HYDRANT BRONZE TRIM (SEE S&WB DWG. NO. 11825-W-62), 5 1/4" AMERICAN DARLING FIRE HYDRANT B-62-B, S&WB MUELLER HYDRANT A473 OR K81D GUARDIAN HYDRANT: KENNEDY VALVE (DWG NO. 80783-NOLA).
- ALL JOINTS SHALL BE RESTRAINED.
- VALVE BOX FRAME & COVER SHALL CONFORM TO EAST JORDAN IRON WORKS, INC. V-8451 VALVE BOX FRAME AND COVER OR APPROVED EQUAL.



△ WATER VALVE MANHOLE
(FOR SIZES 4" THRU 12")
N. T. S.



SECTION OF VALVE BOX
(FOR USE WITH METER VAULTS ONLY)
N. T. S.

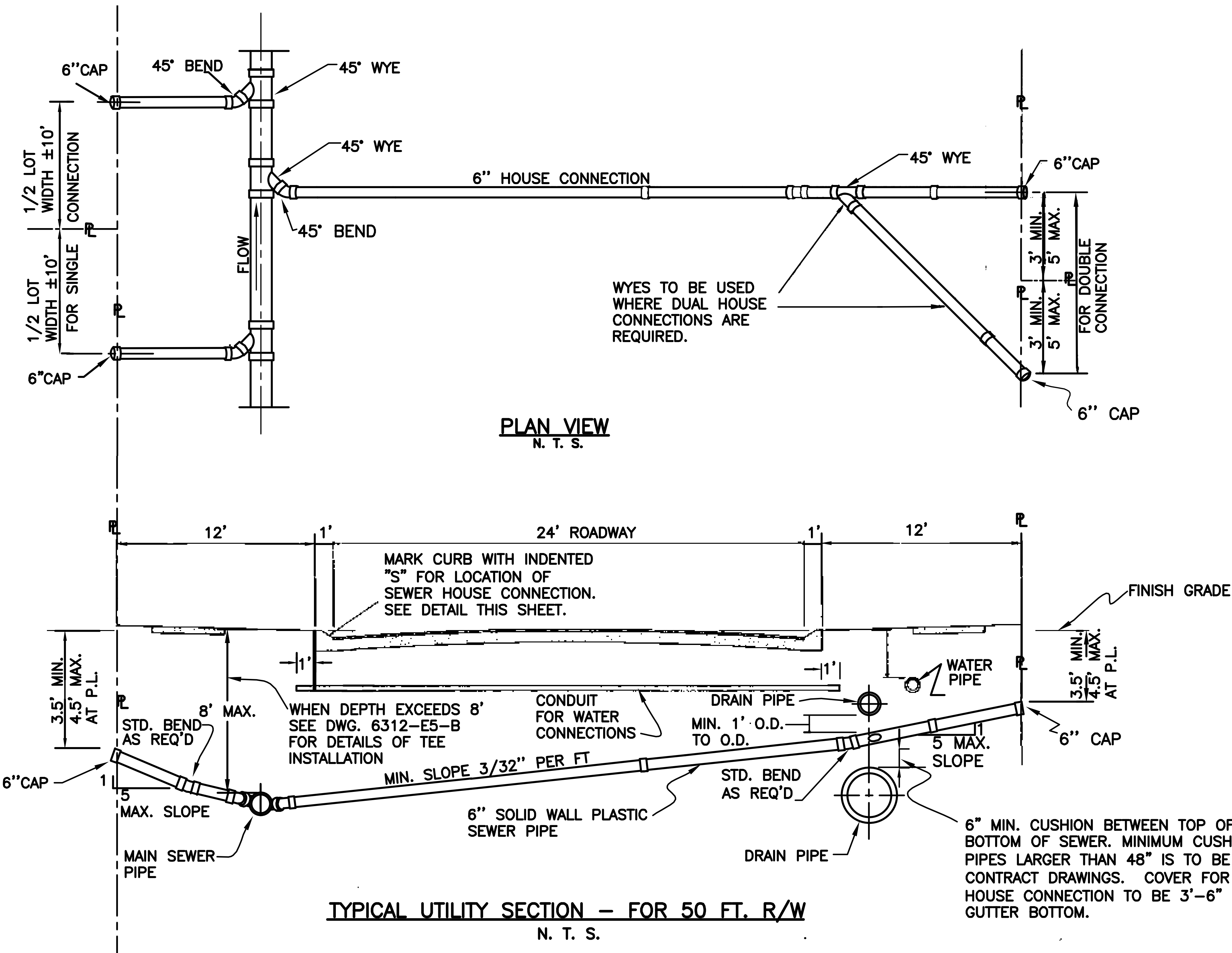


VALVE BOX COVER
N. T. S.

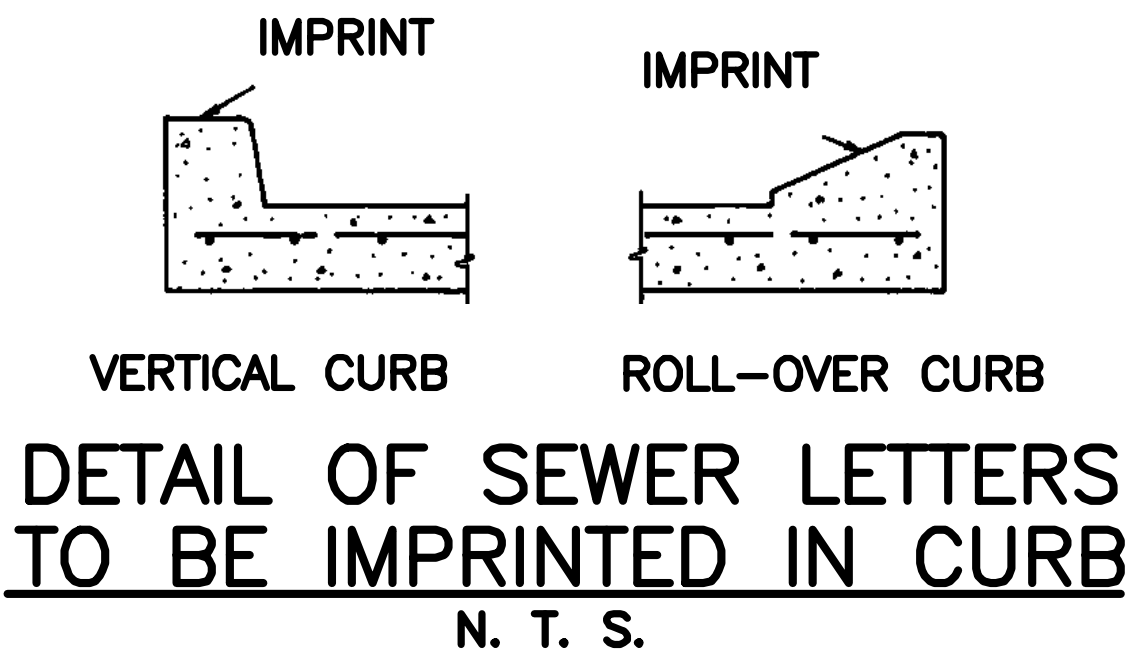
REV.	DATE	DESCRIPTION	BY
10-25-18		REVISION TO NOTE #5	D.M.C.
10-08-15		REVISED FIRE HYDRANT	D.M.C.
04-18-13		REVISIONS TO NOTES #4 & #5	D.M.C.
03-08-07		DETAILS OF WATER MANHOLE CASTING AND LARGE VALVE MANHOLE FRAME & COVER DELETED.	D.M.C.
03-08-07		DRAWING UPDATED	D.M.C.
03-08-07		DELETED, REVISED AND ADDED NOTES	D.M.C.
9-18-83		DRAWING UPDATES	S.H.P.
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
HYDRANT SETTING, DETAILS OF VALVE BOX AND COVER AND VALVE MANHOLE			
DR. DRAFTING DEPT.	AP. <i>[Signature]</i>		
TRC.	DWG. NO. 6179-F-2		
CK.	SCALE NONE		
DATE 9-20-79	SET NO.	SHEET NO.	

NOTES:

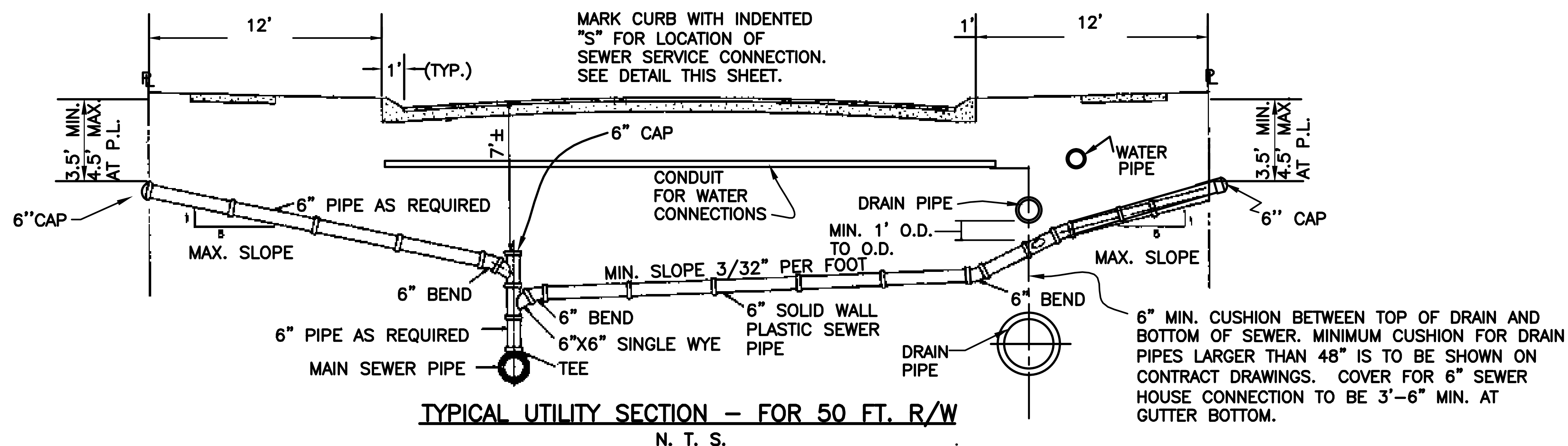
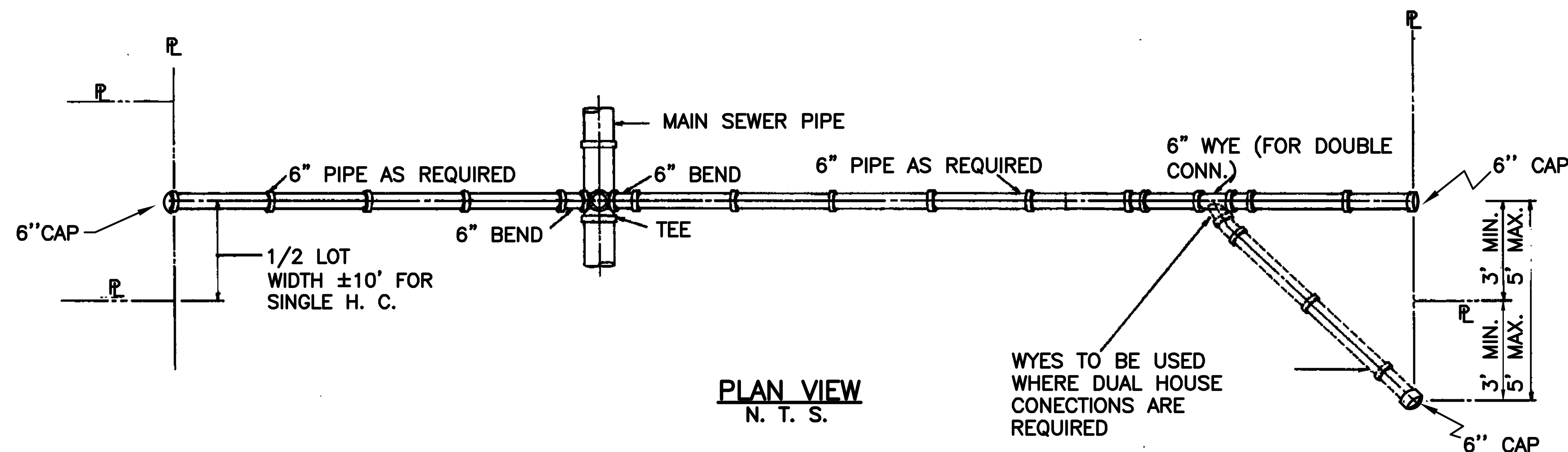
- 1. THE LOCATION OF THE SEWER SERVICE CONNECTIONS SHALL BE IMPRINTED IN THE CURB WITH AN "S". (SEE DETAIL)
- 2. THE USE OF DOUBLE WYES ARE NOT ALLOWED.



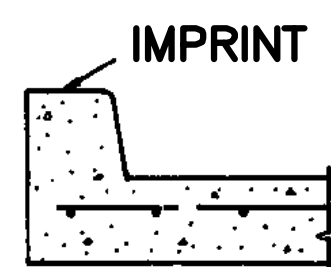
LETTER "S" TO BE 1/4" DEEP



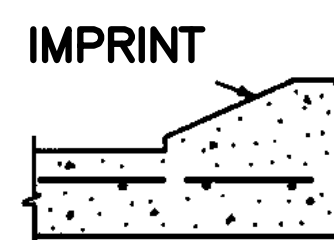
REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL SEWER SERVICE CONNECTION FOR SEWER MAIN LESS THAN OR EQUAL TO 8' DEEP			
DR.	D. MCGRAY	 GENERAL SUPERINTENDENT	
TRC.	M. JOHNSON		
AP.	J. BECKER		
SCALE	NONE		
DATE 03-09-07 SET NO.		DWG. NO. 6312-E5-A	
		SHEET NO.	



LETTER "S" TO BE 1/4" DEEP



VERTICAL CURB



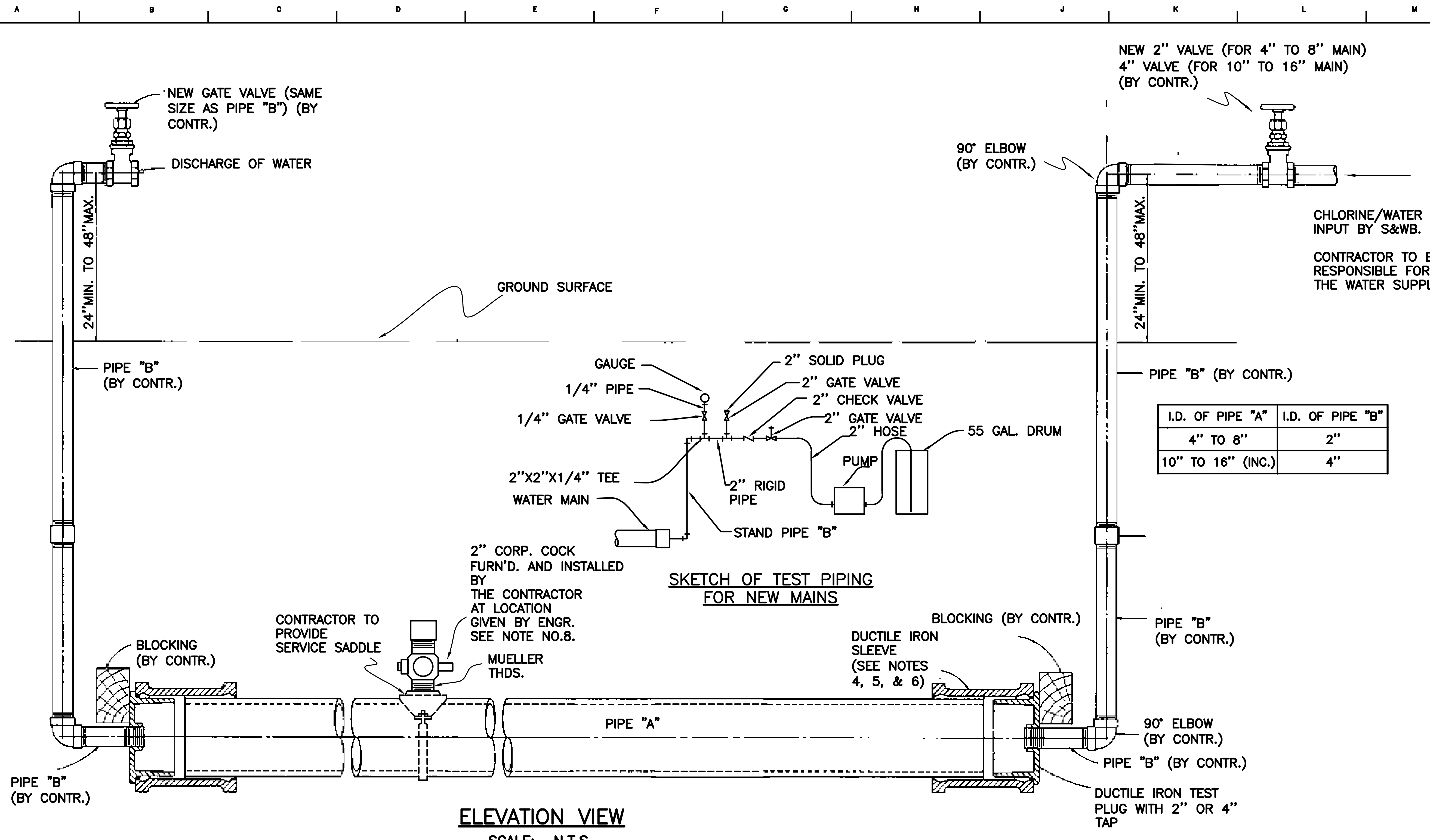
ROLL-OVER CURB

**DETAIL OF SEWER LETTERS
TO BE IMPRINTED IN CURB**
N. T. S.

NOTES:

1. THE LOCATION OF THE SEWER SERVICE CONNECTIONS SHALL BE IMPRINTED IN THE CURB WITH AN "S". (SEE DETAIL)
2. FOR SEWER MAIN INSTALLATION SEE S&WB DWG. NO. 4697-E-5-A.
3. THE USE OF DOUBLE WYES ARE NOT ALLOWED.

REV.	DATE	DESCRIPTION	BY
		SEWERAGE AND WATER BOARD OF NEW ORLEANS	
		TYPICAL SEWER SERVICE CONNECTION FOR SEWER MAIN GREATER THAN 8' DEEP	
DR.	D. McCRAY	 GENERAL SUPERINTENDENT	
TRC.			
CK.	M. JOHNSON		
AP.	J. BECKER		
SCALE	NONE	DWG. NO. 6312-E5-B	
DATE	03-09-07	SHEET NO.	

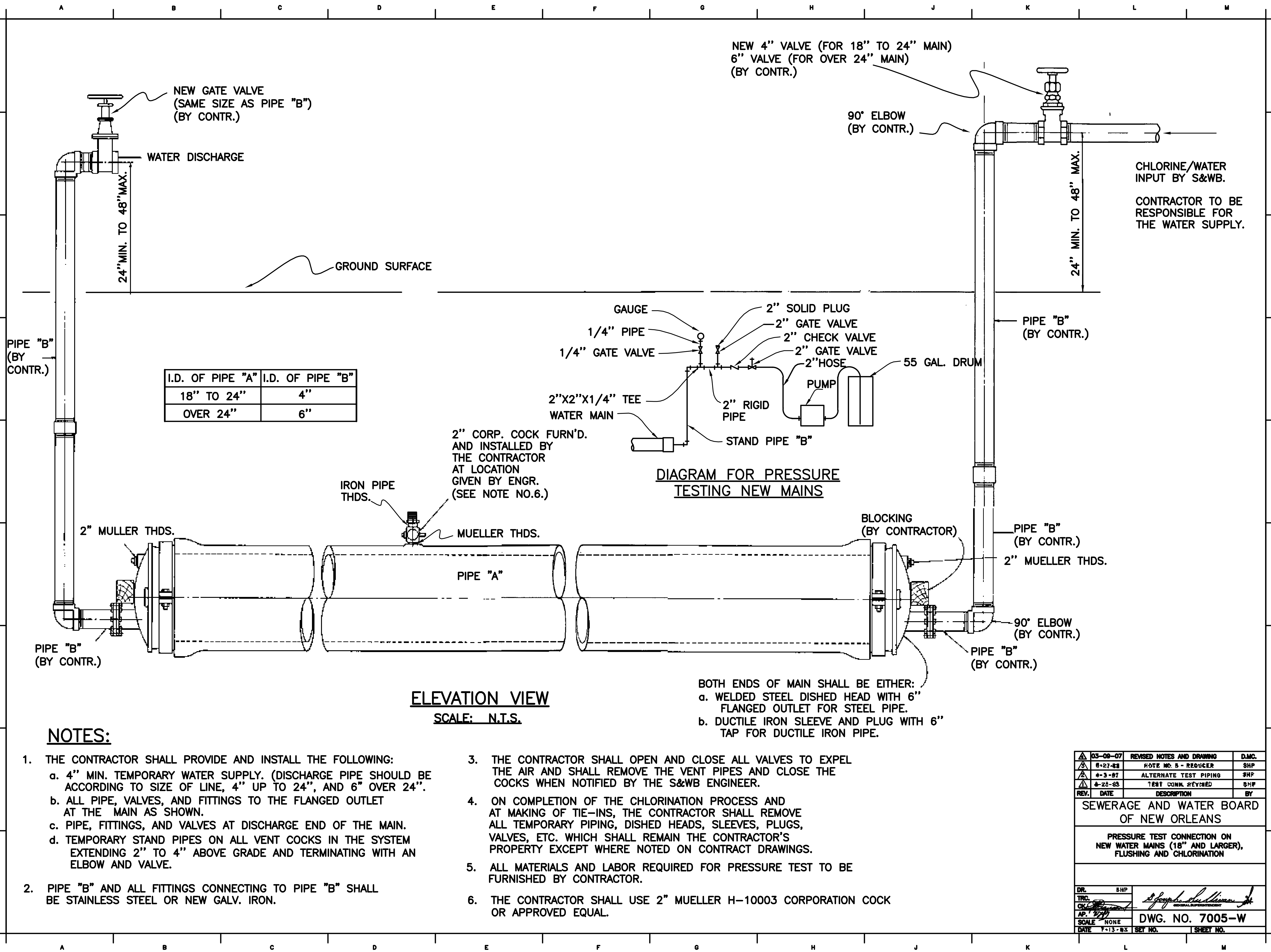


NOTES:

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING:

 - a. 2" MIN. TEMPORARY WATER SUPPLY, (4" SUPPLY ON 10" TO 16")
 - b. ALL PIPE, VALVES, AND FITTINGS TO THE TEST PLUG AT THE MAIN AS SHOWN.
 - c. 2" CORP. COCK FOR INJECTION OF CHLORINE IN 16" MAINS ONLY.
 - d. TEMPORARY STAND PIPES ON ALL VENT COCKS IN THE SYSTEM EXTENDING 2' TO 4' ABOVE GRADE AND TERMINATING WITH AN ELBOW AND VALVE.
2. PIPE "B" AND ALL FITTINGS CONNECTING TO PIPE "B" SHALL BE STAINLESS STEEL OR NEW GALV. IRON.
3. THE CONTRACTOR SHALL OPEN AND CLOSE ALL VALVES TO EXPEL THE AIR AND SHALL REMOVE THE VENT PIPES AND CLOSE THE COCKS WHEN NOTIFIED BY THE S&WB ENGINEER.
4. FOR DUCTILE IRON PIPE, USE DUCTILE IRON SLEEVE AND TAP PLUG (2" OR 4" AS SHOWN) OR FITTINGS AS SPECIFIED FOR P.V.C. PIPE.
5. FOR P.V.C. PIPE USE A DUCTILE IRON CAP WITH RUBBER RING GASKET, FOLLOWER GLAND, NUTS, AND BOLTS.
6. ALL MATERIALS AND LABOR REQUIRED FOR PRESSURE TEST, TO BE FURNISHED BY CONTRACTOR.
7. THE CONTRACTOR SHALL USE 2" MUELLER H-10003 CORPORATION COCK OR APPROVED EQUAL.
8. ON COMPLETION OF THE CHLORINATION PROCESS AND AT MAKING OF TIE-INS, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY PIPING, DISHED HEADS, SLEEVES, PLUGS, VALVES, ETC. WHICH SHALL REMAIN THE CONTRACTOR'S PROPERTY EXCEPT WHERE NOTED ON CONTRACT DRAWINGS.

03-09-07	REVISED NOTES AND DRAWING	D.M.C.
5-27-88	NOTE NO. 8 - REDUCER	SHP
4-3-87	ALTERNATE TEST PIPING	SHP
8-28-83	TEST CONN. REVISED	SHP
REV.	DATE	DESCRIPTION
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
TEST CONNECTION ON NEW WATER MAINS (4" TO 16"), FLUSHING AND CHLORINATION		
DR.	SHP	
TRC.		
CH.		
AP.		
SCALE	NONE	
DATE	7-18-83	SHEET NO.
DWG. NO. 7004-W		



NOTES:

1.

THE CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING:
a. 4" MIN. TEMPORARY WATER SUPPLY. (DISCHARGE PIPE SHOULD BE ACCORDING TO SIZE OF LINE, 4" UP TO 24", AND 6" OVER 24".
b. ALL PIPE, VALVES, AND FITTINGS TO THE FLANGED OUTLET AT THE MAIN AS SHOWN.
c. PIPE, FITTINGS, AND VALVES AT DISCHARGE END OF THE MAIN.
d. TEMPORARY STAND PIPES ON ALL VENT COCKS IN THE SYSTEM EXTENDING 2" TO 4" ABOVE GRADE AND TERMINATING WITH AN ELBOW AND VALVE.
2.

PIPE "B" AND ALL FITTINGS CONNECTING TO PIPE "B" SHALL BE STAINLESS STEEL OR NEW GALV. IRON.
3.

THE CONTRACTOR SHALL OPEN AND CLOSE ALL VALVES TO EXPEL THE AIR AND SHALL REMOVE THE VENT PIPES AND CLOSE THE COCKS WHEN NOTIFIED BY THE S&WB ENGINEER.
4.

ON COMPLETION OF THE CHLORINATION PROCESS AND AT MAKING OF TIE-INS, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY PIPING, DISHED HEADS, SLEEVES, PLUGS, VALVES, ETC. WHICH SHALL REMAIN THE CONTRACTOR'S PROPERTY EXCEPT WHERE NOTED ON CONTRACT DRAWINGS.
5.

ALL MATERIALS AND LABOR REQUIRED FOR PRESSURE TEST TO BE FURNISHED BY CONTRACTOR.
6.

THE CONTRACTOR SHALL USE 2" MUELLER H-10003 CORPORATION COCK OR APPROVED EQUAL.

03-09-07	REVISED NOTES AND DRAWING	D.M.C.
6-27-83	NOTE NO. 5 - REQUIRER	SHP
4-3-87	ALTERNATE TEST PIPING	SHP
4-20-83	TEST CONN. REYR'D	SHP
REV.	DATE	DESCRIPTION
BY		
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
PRESSURE TEST CONNECTION ON NEW WATER MAINS (18" AND LARGER), FLUSHING AND CHLORINATION		
DR.	SHP	
TIC.		
CK.		
AP.		
SCALE	NONE	DWG. NO. 7005-W
DATE	7-13-83	SHEET NO.

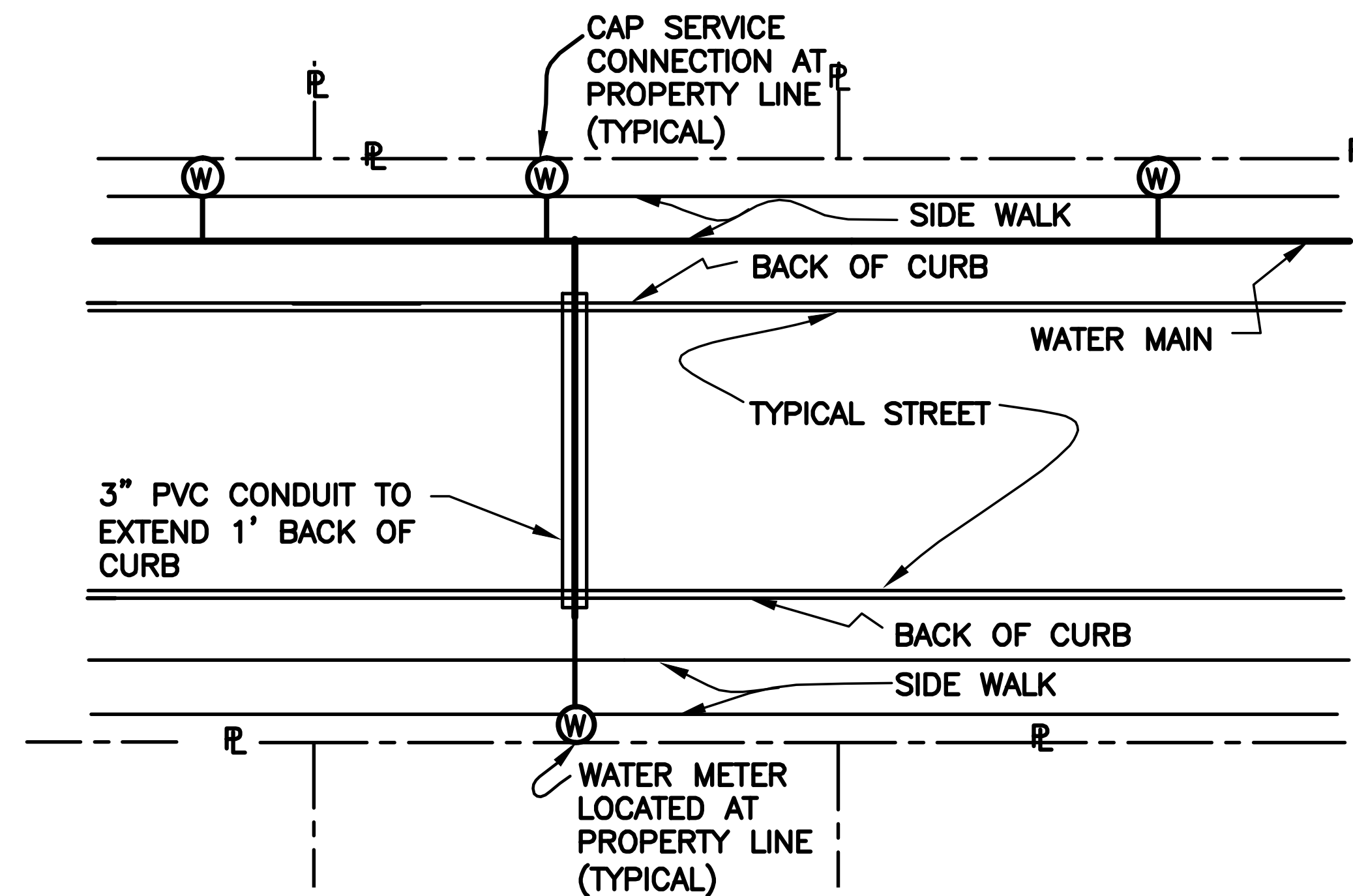
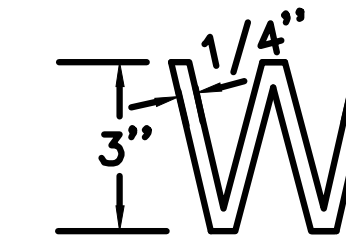
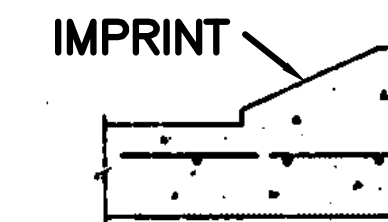
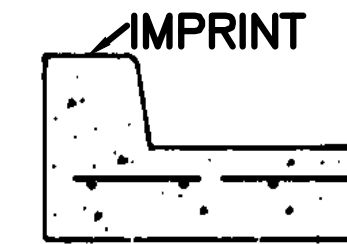


DIAGRAM OF WATER METER SERVICE CONNECTION



LETTER "W" TO BE 1/4" DEEP



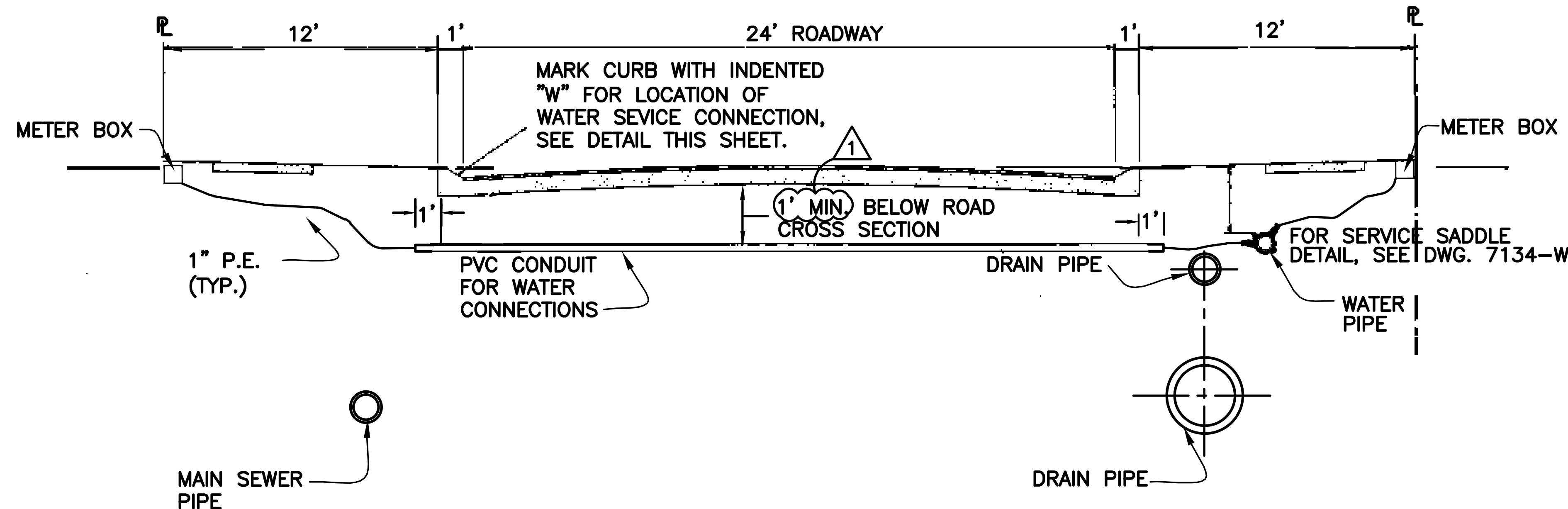
VERTICAL CURB

ROLL-OVER CURB

DETAIL OF WATER LETTERS TO BE IMPRINTED IN CURB
N. T. S.

NOTE:

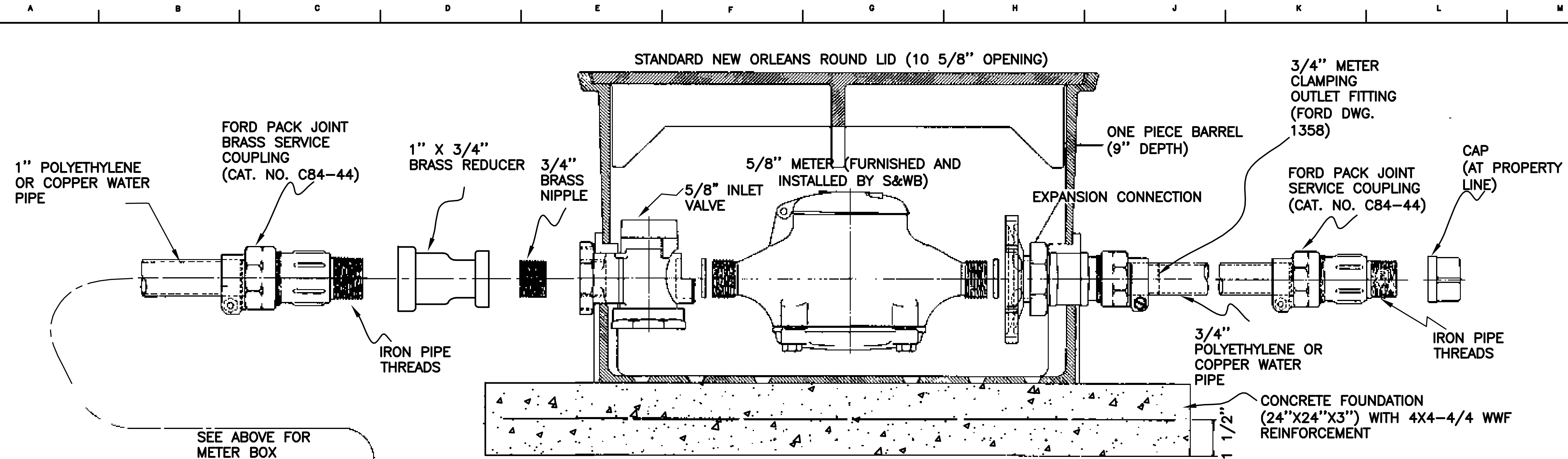
1. TUBING MATERIAL SHALL BE TYPE "K" COPPER OR POLYETHYLENE PE 3406 AND SHALL CONFORM TO THE LATEST ISSUE OF ASTM D-2737 AND D-1248 FOR TYPE 3 OR 4 GRADE P-34 CLASS "C".
2. WATER SERVICE CONNECTION TO BE NEAR CENTERLINE OF LOT, MIN. OF 5' HORIZONTALLY FROM SEWER H.C.
3. THE LOCATION OF THE WATER SERVICE CONNECTIONS SHALL BE IMPRINTED IN THE CURB WITH AN "W". (SEE DETAIL)
4. ALL BRONZE/BRASS FITTINGS, CONNECTORS, CORPORATION STOPS AND APPURTENANCES SHALL BE OF DOMESTIC MANUFACTURE, SHALL BE MADE OF LEAD FREE BRONZE/BRASS, AND MEET ALL REQUIREMENTS OF AWWA, ASTM AND ANSI FOR USE IN THE POTABLE WATER DISTRIBUTION SYSTEMS.



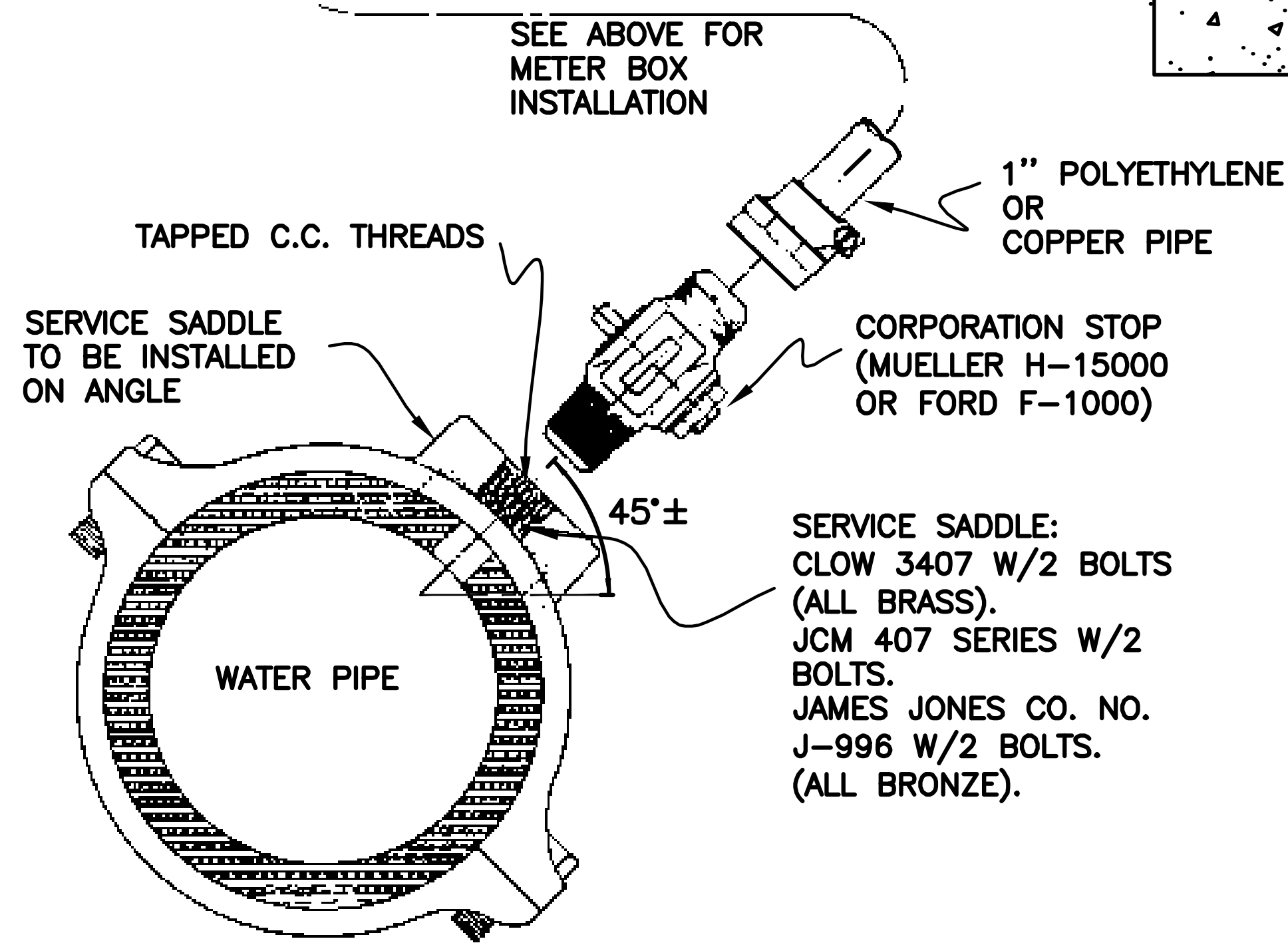
TYPICAL UTILITY SECTION - FOR 50 FT. R/W
N. T. S.

SCALE: N.T.S.

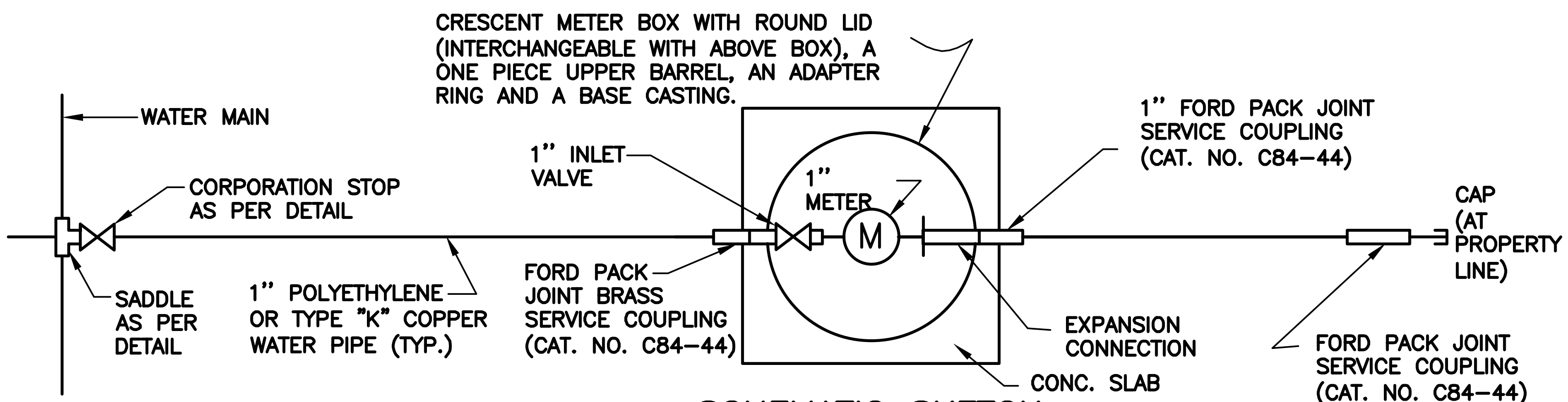
REV.	DATE	DESCRIPTION	BY
04.18.13		ADDITIONAL NOTE	DMC
10.05.12		GENERAL REVISIONS	DMC
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL WATER SERVICE CONNECTION			
DR.	D. McCRAY	<i>[Signature]</i> GENERAL SUPERINTENDENT	
TRC.			
CHK.	M. JOHNSON		
AP.	J. BECKER		
SCALE	NONE	DWG. NO. 7134A-W	
DATE	03-08-07	SHEET NO.	1



5/8" METER BOX INSTALLATION



SERVICE SADDLE



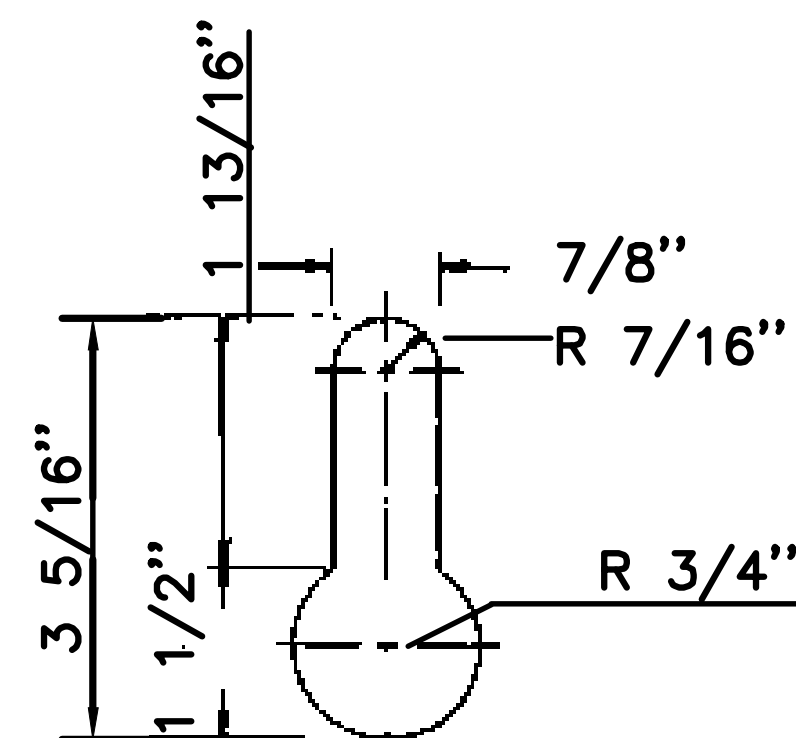
**SCHEMATIC SKETCH
1" WATER METER SERVICE CONNECTION**

NOTE:

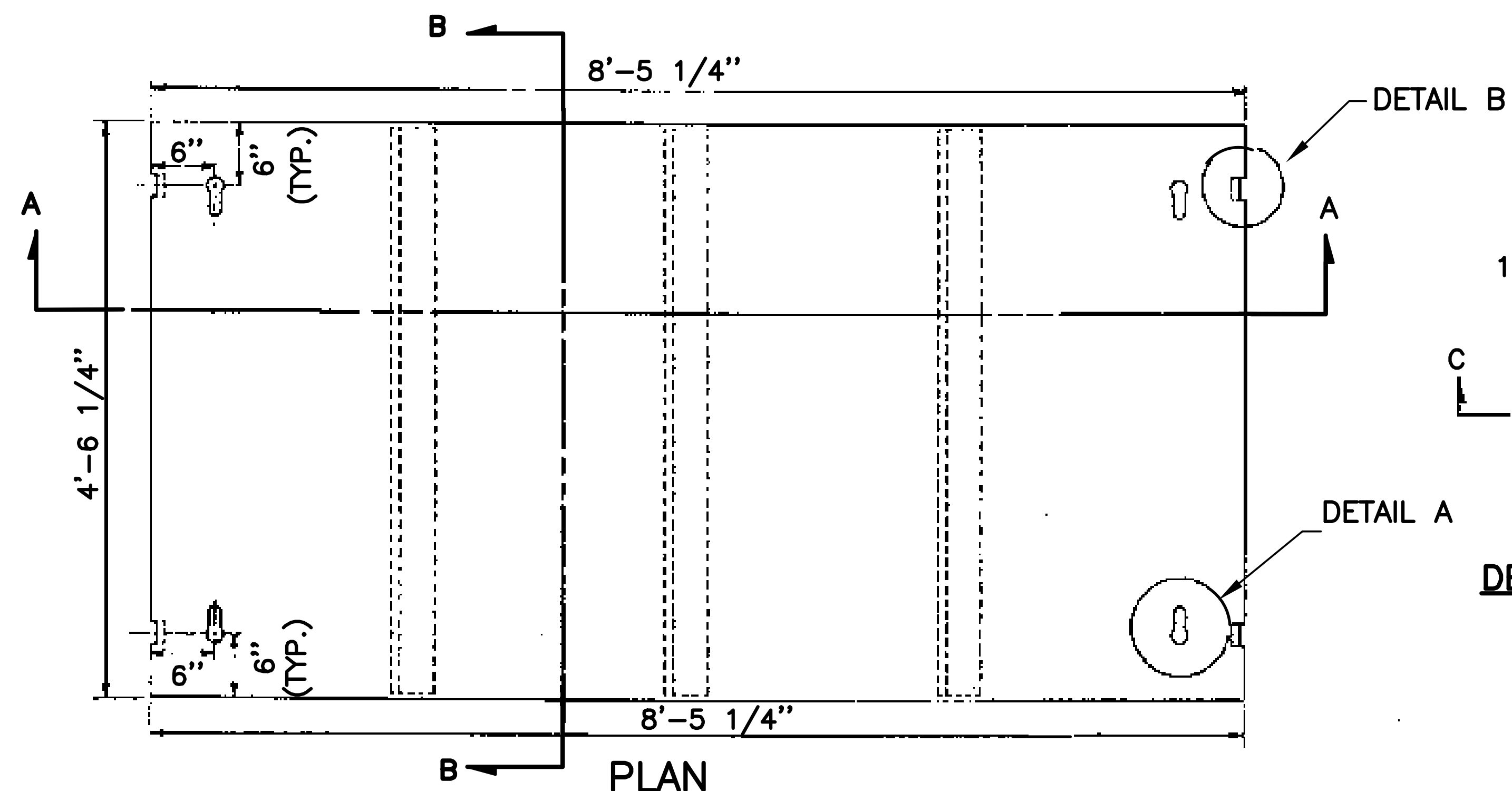
1. TUBING MATERIAL SHALL BE TYPE "K" COPPER OR POLYETHYLENE PE 3406 AND SHALL CONFORM TO THE LATEST ISSUE OF ASTM D-2737 AND D-1248 FOR TYPE 3 OR 4 GRADE P-34 CLASS "C".
2. WATER SERVICE CONNECTION TO BE NEAR CENTERLINE OF LOT, MIN. OF 5' HORIZONTALLY FROM SEWER H.C.
3. ALL BRONZE/BRASS FITTINGS, CONNECTORS, CORPORATION STOPS AND APPURTENANCES SHALL BE OF DOMESTIC MANUFACTURE, SHALL BE MADE OF LEAD FREE BRONZE/BRASS, AND MEET ALL REQUIREMENTS OF AWWA, ASTM AND ANSI FOR USE IN THE POTABLE WATER DISTRIBUTION SYSTEMS.

SCALE: N.T.S.

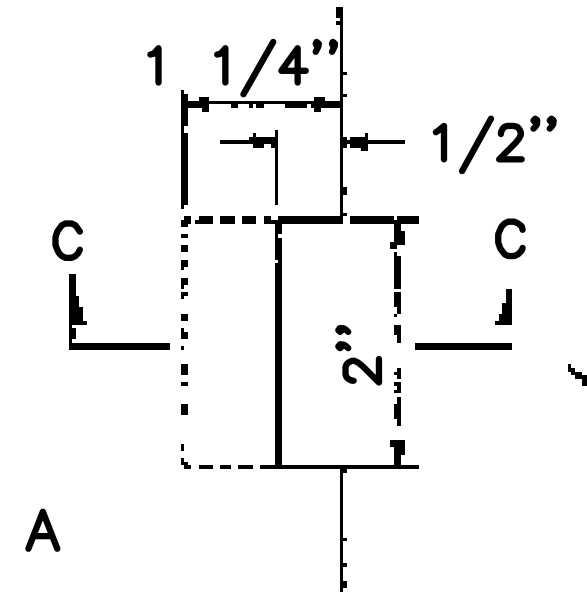
REV.	DATE	DESCRIPTION	BY
04.18.13		ADDITIONAL NOTE	DMC
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
WATER METER SERVICE CONNECTION FOR 5/8" AND 1" FIXED METER BOX			
DR.	D. McCRAY	<i>[Signature]</i> GENERAL SUPERINTENDENT	
TRC.			
CHK.	M. JOHNSON		
AP.	J. BECKER		
SCALE	NONE	DWG. NO. 7134-W	
DATE	03-08-07	SHEET NO.	



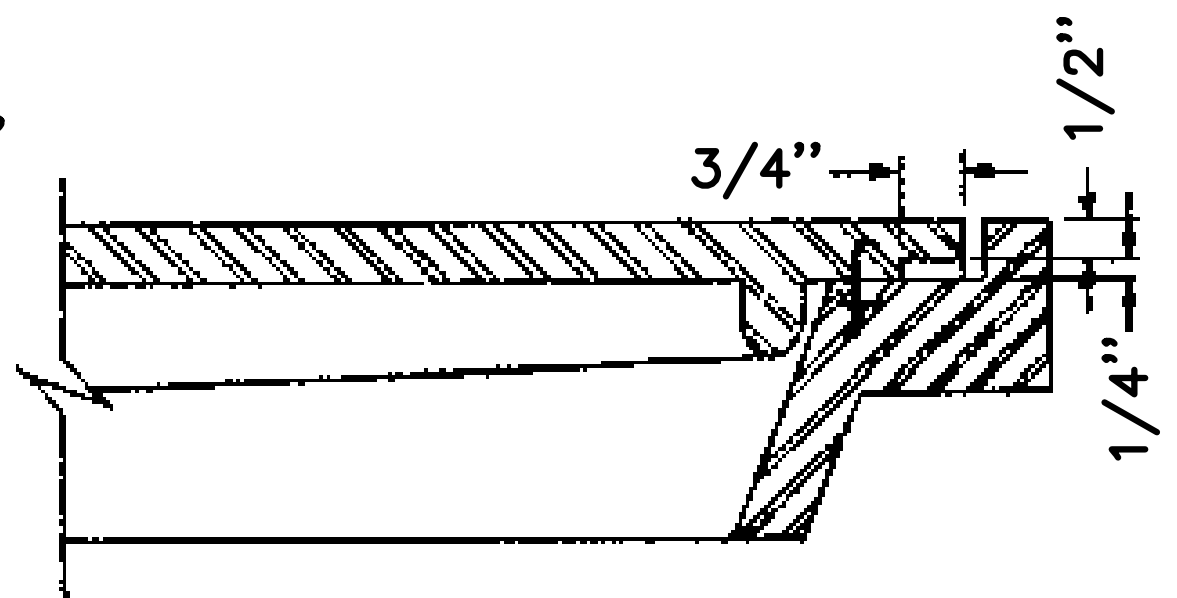
DETAIL - A
(4 REQ'D)



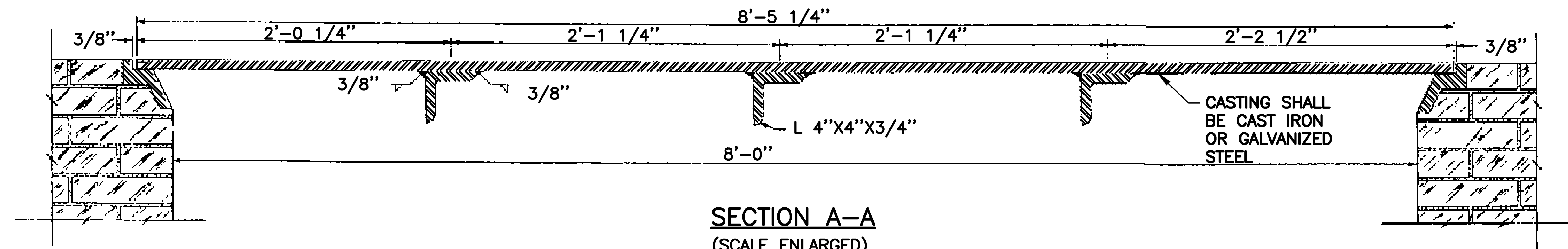
PLAN



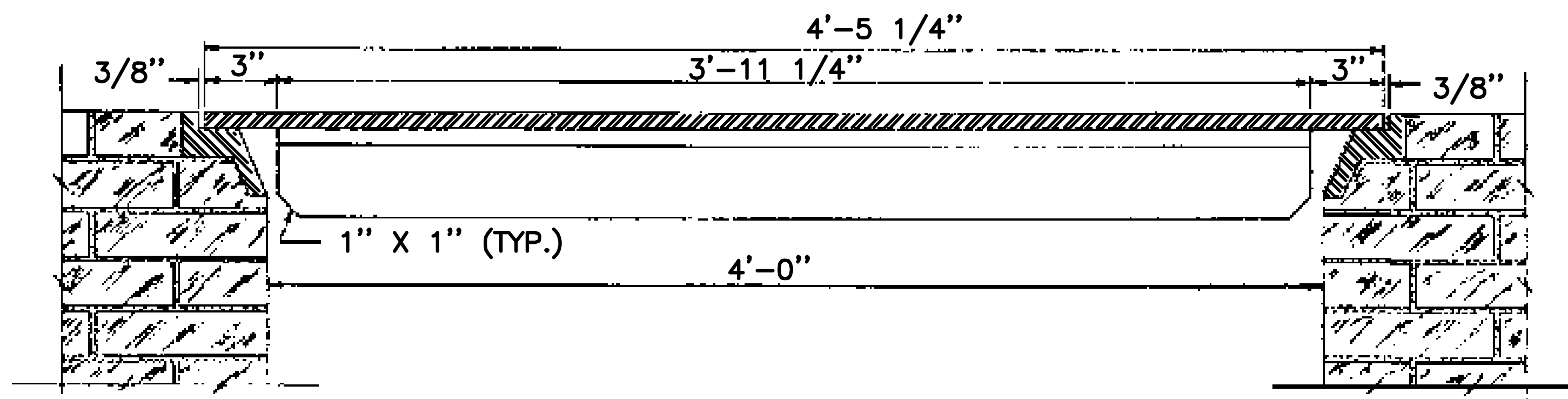
DETAIL - B
(4 REQ'D)



SECTION C-C
N. T. S.



SECTION A-A
(SCALE ENLARGED)



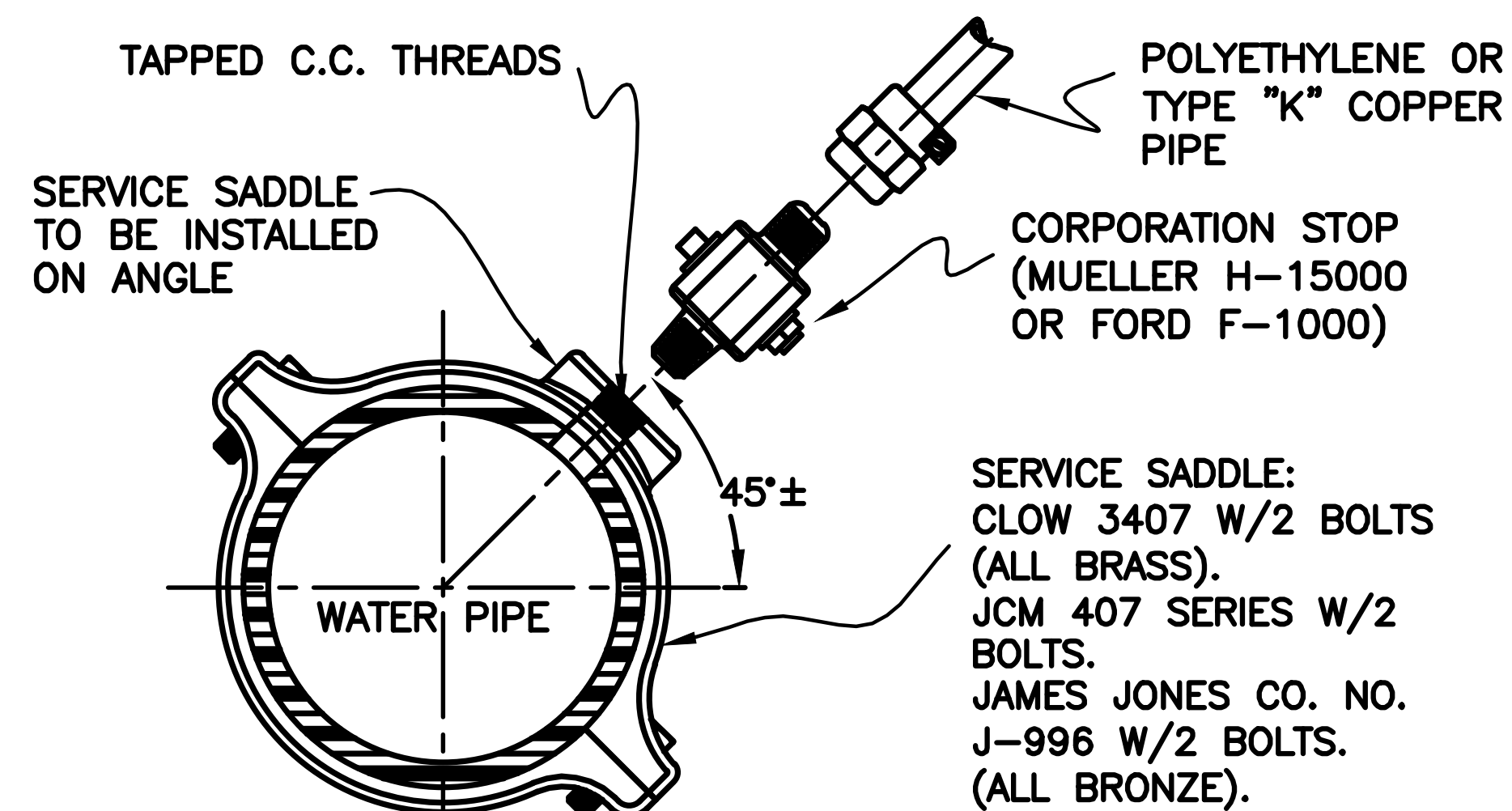
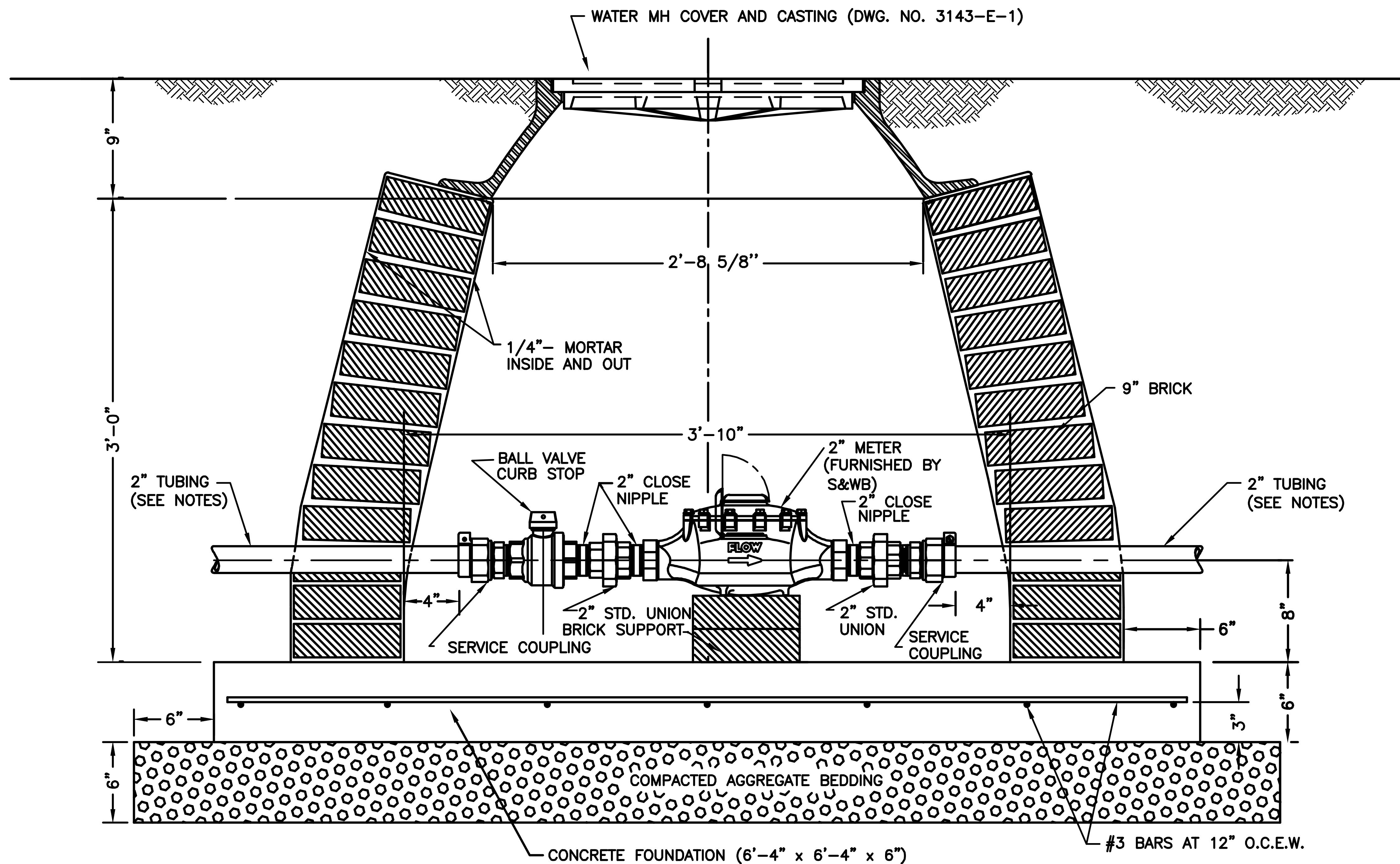
SECTION B-B
(SCALE ENLARGED)

NOTES:

1. MANHOLE COVER TO BE GALVANIZED STRUCTURAL GRADE STEEL. (ASTM. A-36 OR EQUAL)

SCALE: N.T.S.

REV.	DATE	DESCRIPTION	BY
		SEWERAGE AND WATER BOARD OF NEW ORLEANS	
		SPECIAL FABRICATED STEEL COVER FOR CANAL CLEANOUT MANHOLE	
DR.	D. McCray		
TRC.			
CK.	M. JOHNSON		
AP.	J. BECKER		
SCALE	NONE	DWG. NO. 7165-D	
DATE	03-08-07	SET NO.	SHEET NO.



TAP AND SERVICE SADDLE

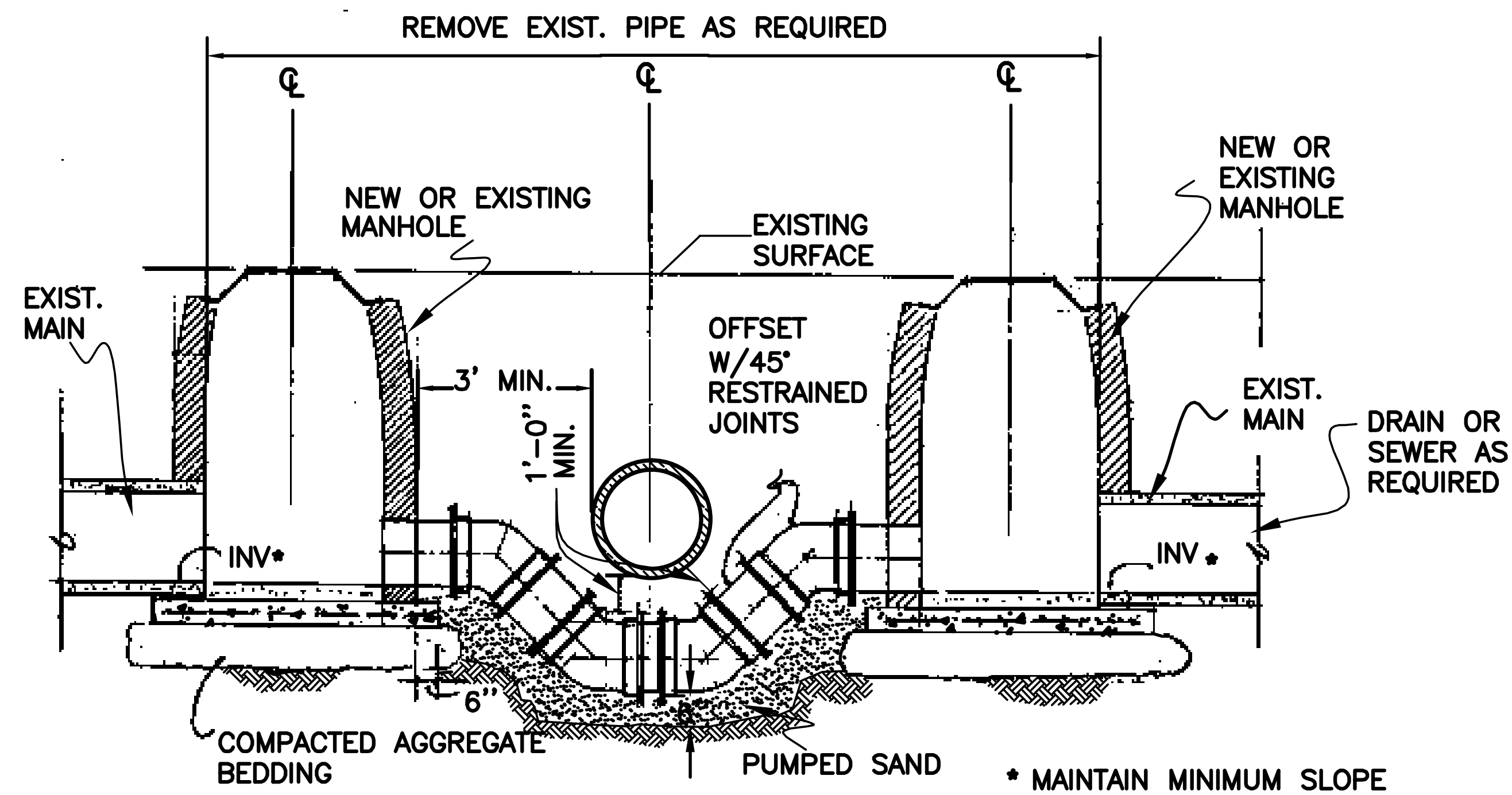
2" AND 1 1/2" DOMESTIC METER SERVICE

NOTES:

1. TUBING MATERIAL SHALL BE POYLETHYLENE PE 3406 OR PE 3408, TYPE "K" COPPER PIPE AND CONFORM TO THE LATEST ISSUE OF ASTM D-2737 AND D-1248 FOR TYPE III OR IV GRADE P-34 CLASS C.
2. WHERE A 1 1/2" METER IS REQUIRED, ALL TUBING, COUPLINGS, FITTINGS, ETC. SHALL BE THE SAME AS FOR A 2" CONNECTION, EXCEPT THEY SHALL BE 1 1/2" SIZE.
3. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
4. ALL BRONZE/BRASS FITTINGS, CONNECTORS, CORPORATION STOPS AND APPURTENANCES SHALL BE OF DOMESTIC MANUFACTURE, SHALL BE MADE OF LEAD FREE BRONZE/BRASS, AND MEET ALL REQUIREMENTS OF AWWA, ASTM AND ANSI FOR USE IN THE POTABLE WATER DISTRIBUTION SYSTEMS.

SCALE: N.T.S.

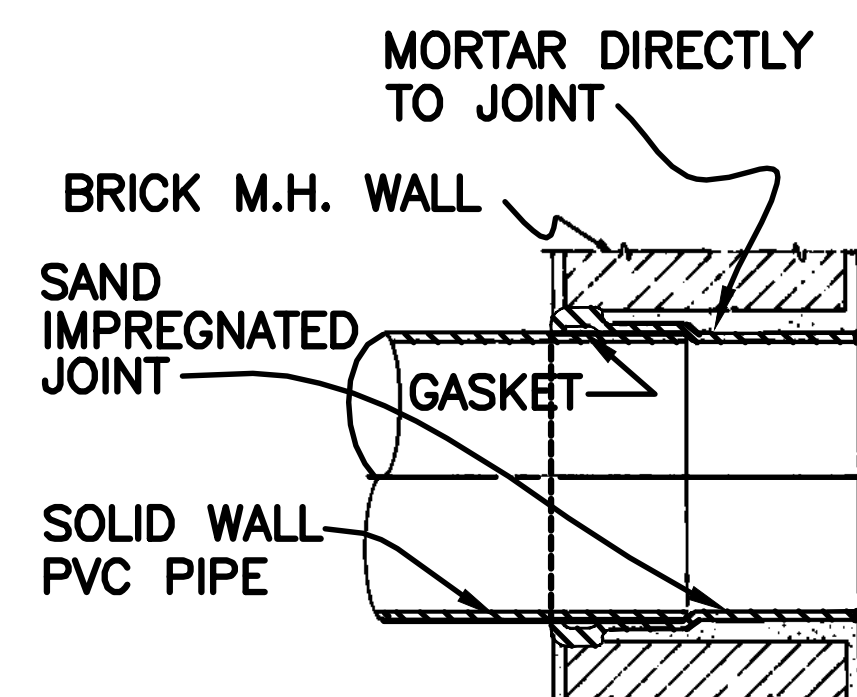
REV.	DATE	DESCRIPTION	BY
4	03-09-07	GENERAL REVISIONS	D.M.C.
3	02-28-03	COMPLETELY REVISED AND REDRAWN	OF
A	02/20/01	ADDED OPT. SERVICE CONNECTION	BY
2	10/29/96	REMOVED 4" TO 10" METER DETAILS	WD
1	04/02/96	VOID TYPE II AND III METER DETAILS	DP
-	01/05/84	INITIAL RELEASE	SHF
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
2" AND 1 1/2" METER SERVICE CONNECTION			
DWG. NO. 7332-W			



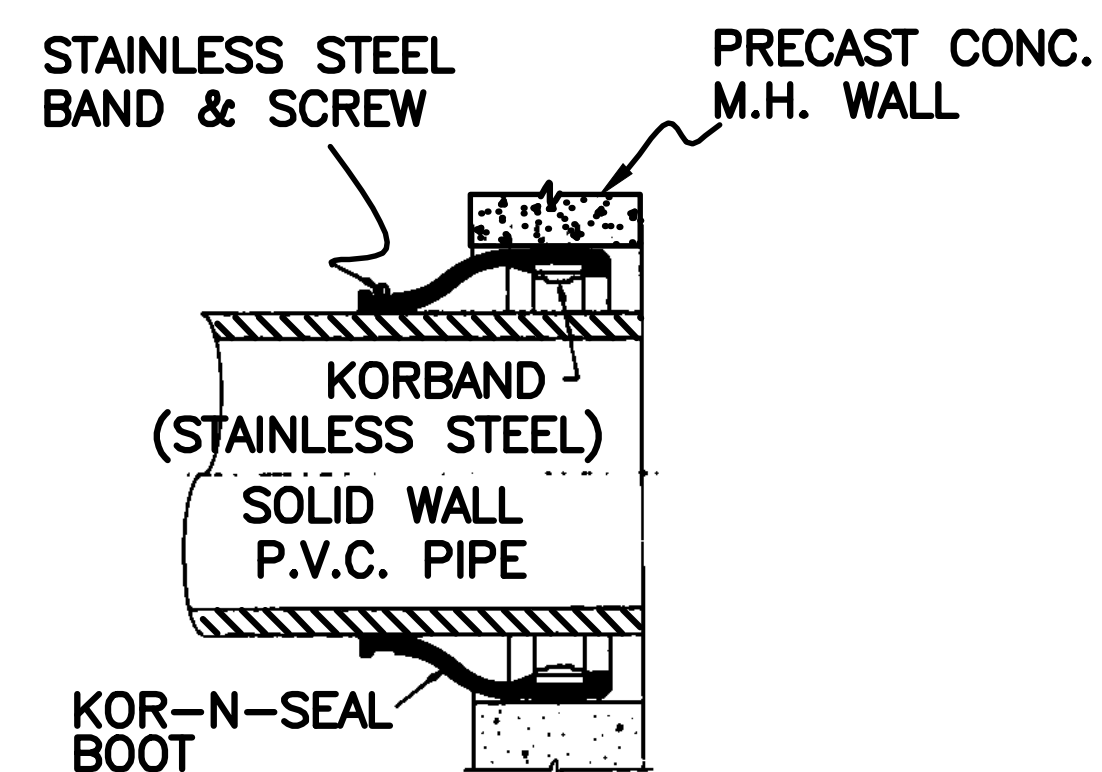
TYPICAL DRAIN & SEWER SIPHON DETAIL
N. T. S.

NOTES:

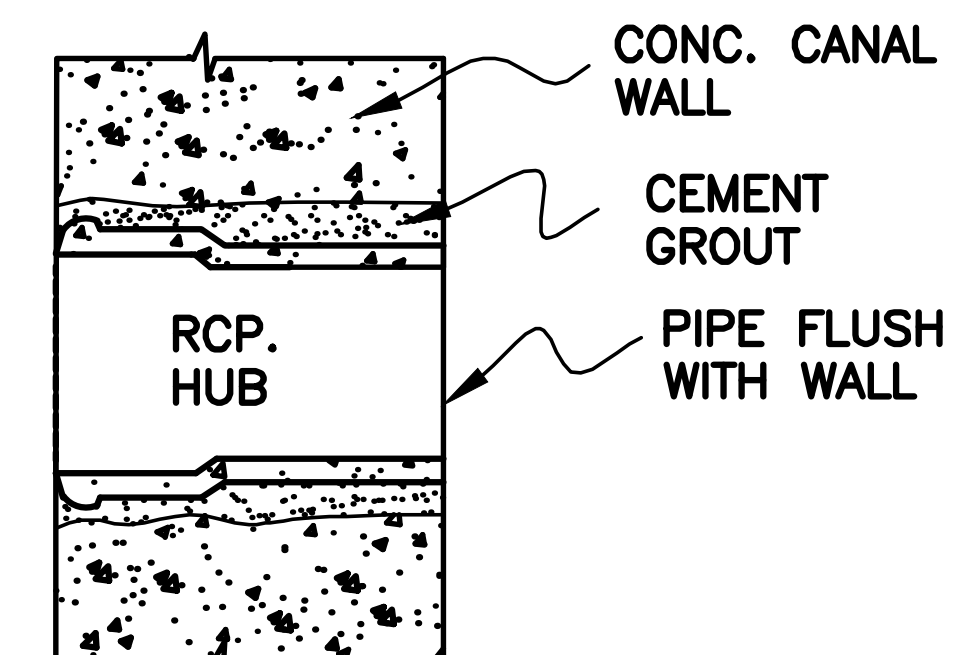
1. ALL FITTINGS AND PIPE TO BE APPROVED BY S&WB ENGINEER.
2. SIPHON AND LOCATION OF MANHOLES MUST BE APPROVED BY THE S&WB ENGINEER.
3. INSIDE & OUTSIDE OF BRICK WALLS, BENCHES, & INVERTS TO BE MORTARED WITH A WATERPROOFING COMPOUND, THICKNESS OF 1/4" IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
4. REFER TO S&WB DWG. NO. D-870 FOR NEW DRAIN MANHOLE OR DWG. NO. 6178-B-6 FOR NEW SEWER MANHOLE.



BRICK WALL



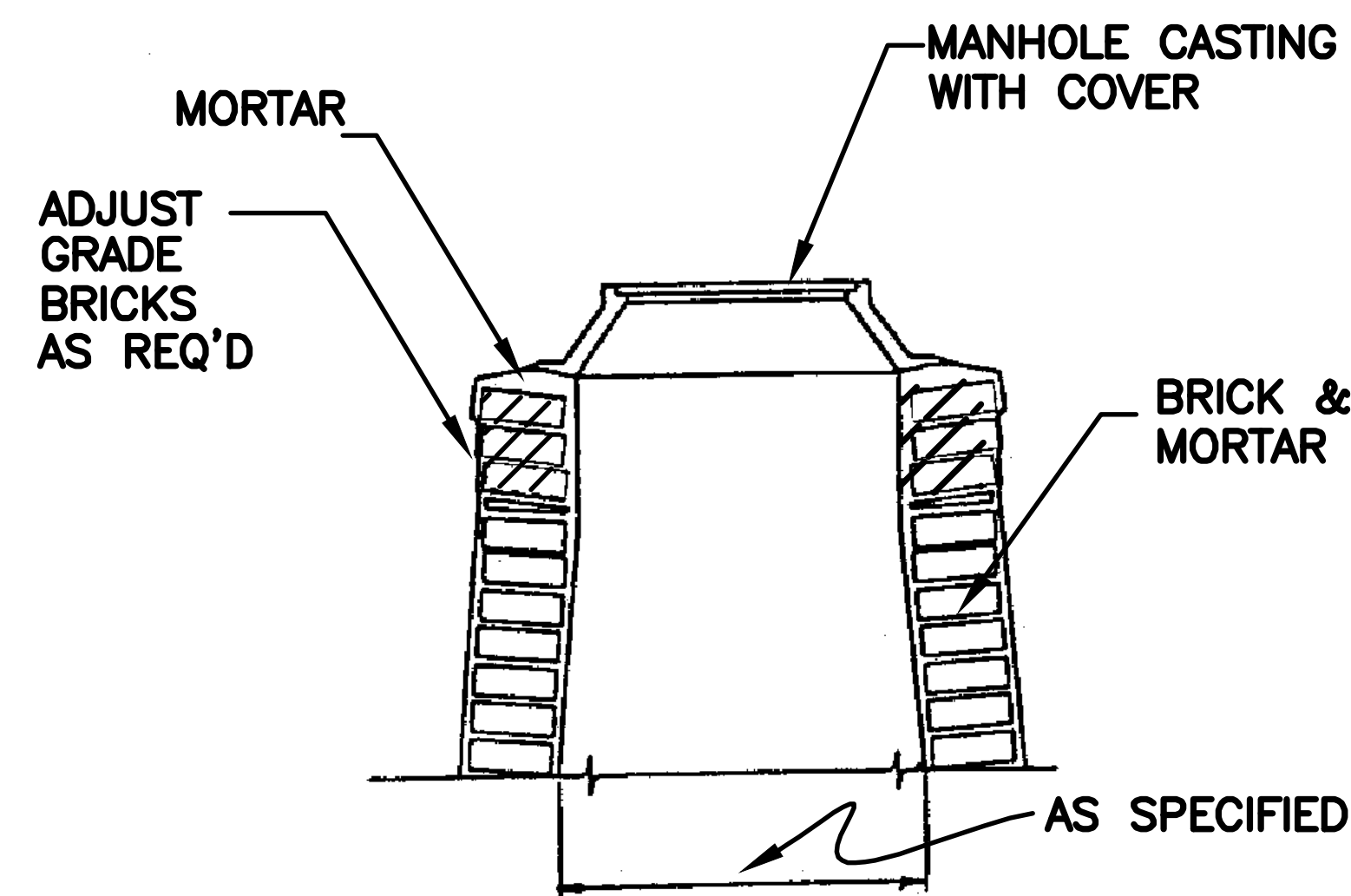
PRECAST CONC. WALL



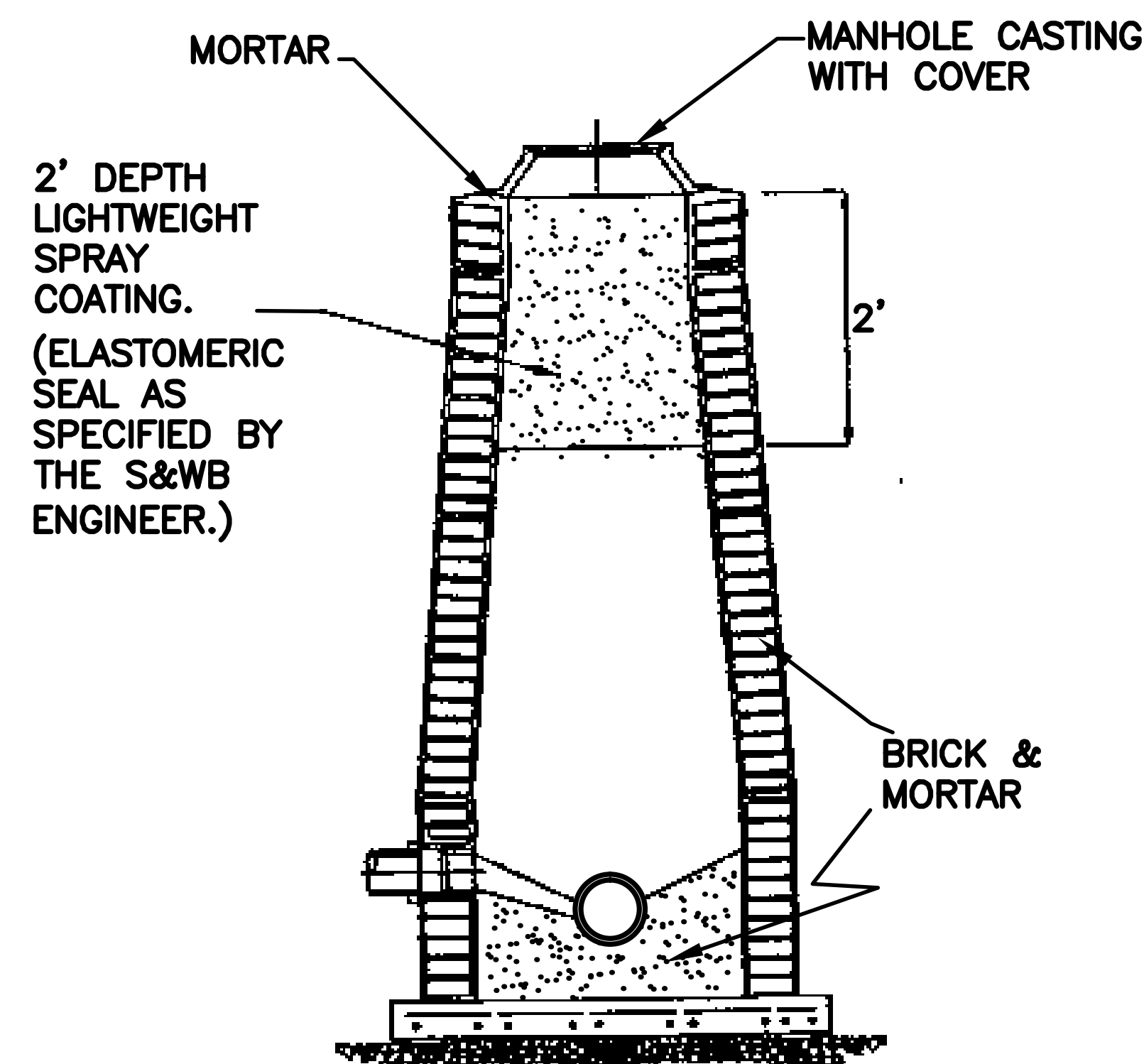
CONCRETE CANAL WALL

MANHOLE CONNECTORS

REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
TYPICAL SEWER AND DRAIN SIPHON & PIPE/WALL CONNECTORS			
DR.	D. McCRAY	 GENERAL SUPERINTENDENT	
TNC.	M. JOHNSON		
AP.	J. BECKER		
SCALE	NONE		
DATE 03-08-07		DWG. NO. 8178-SD	
SHEET NO.		T SHEET NO.	



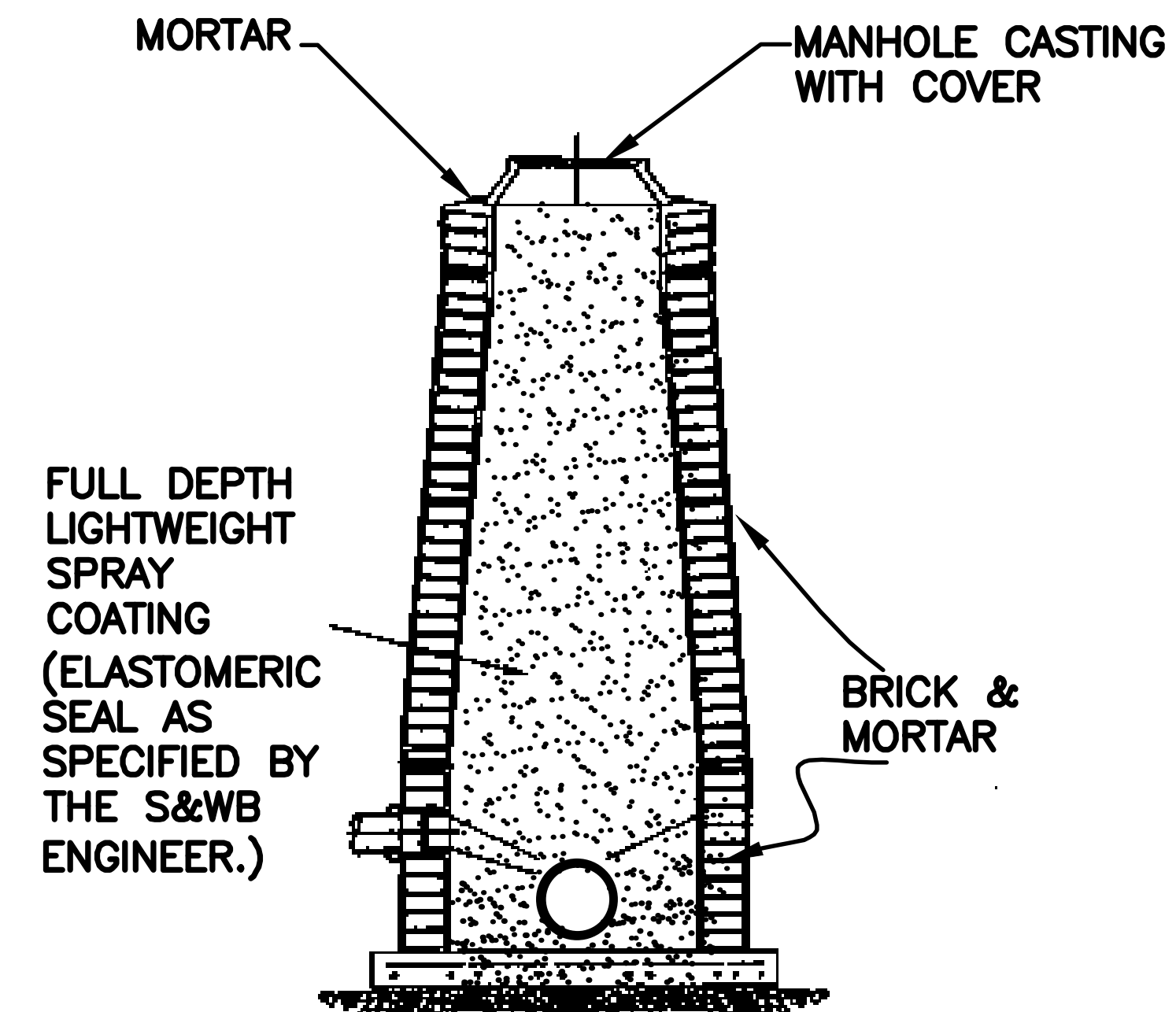
ADJUST OR REPLACE EXISTING
MANHOLE FRAME AND COVER



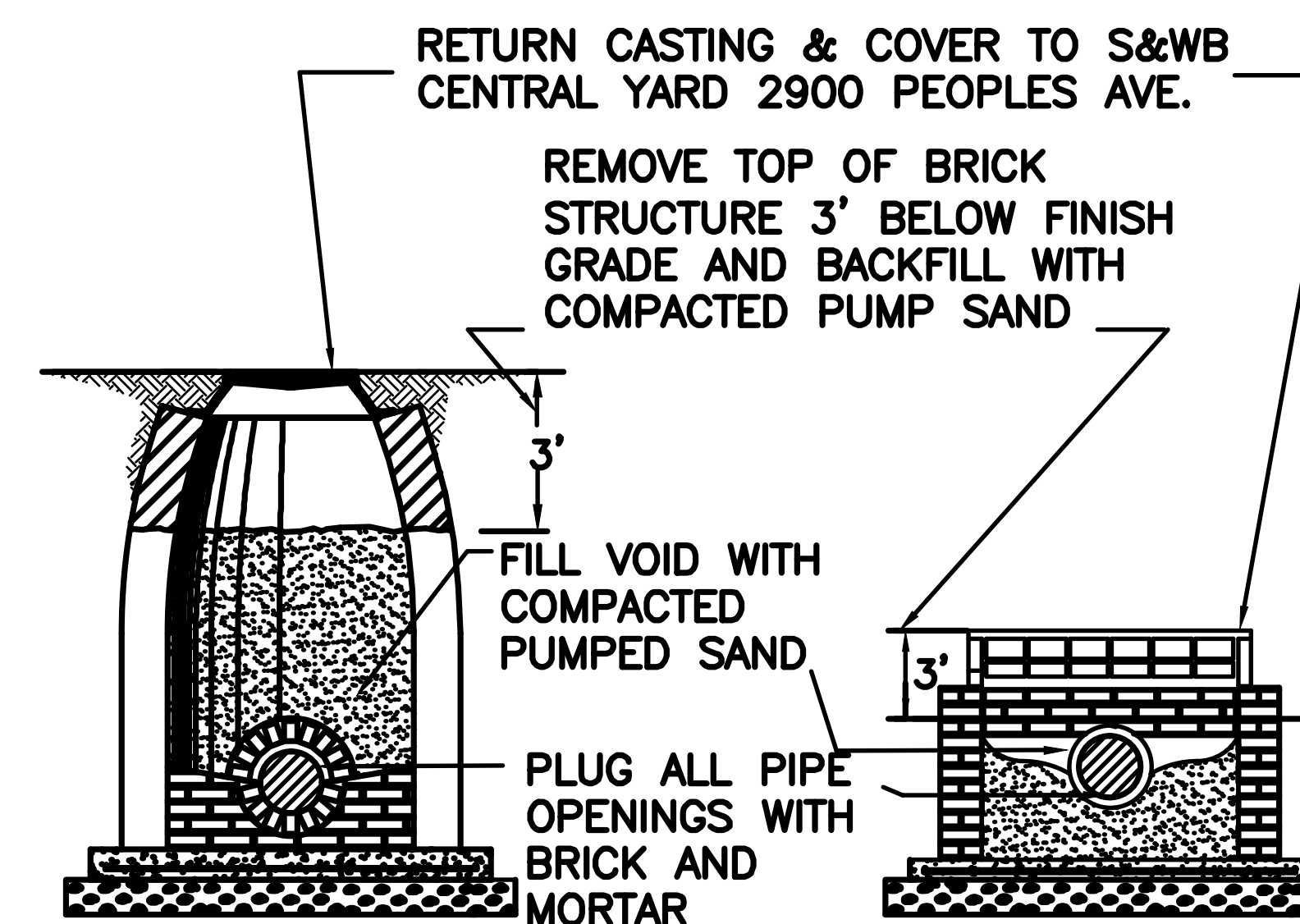
MANHOLE REHABILITATION 2' DEPTH
WITH SPRAY APPLIED STRUCTURAL
CEMENTITIOUS LINER

NOTES:

1. LOCATION OF LINER MAY VARY AS SPECIFIED BY THE S&WB ENGINEER.



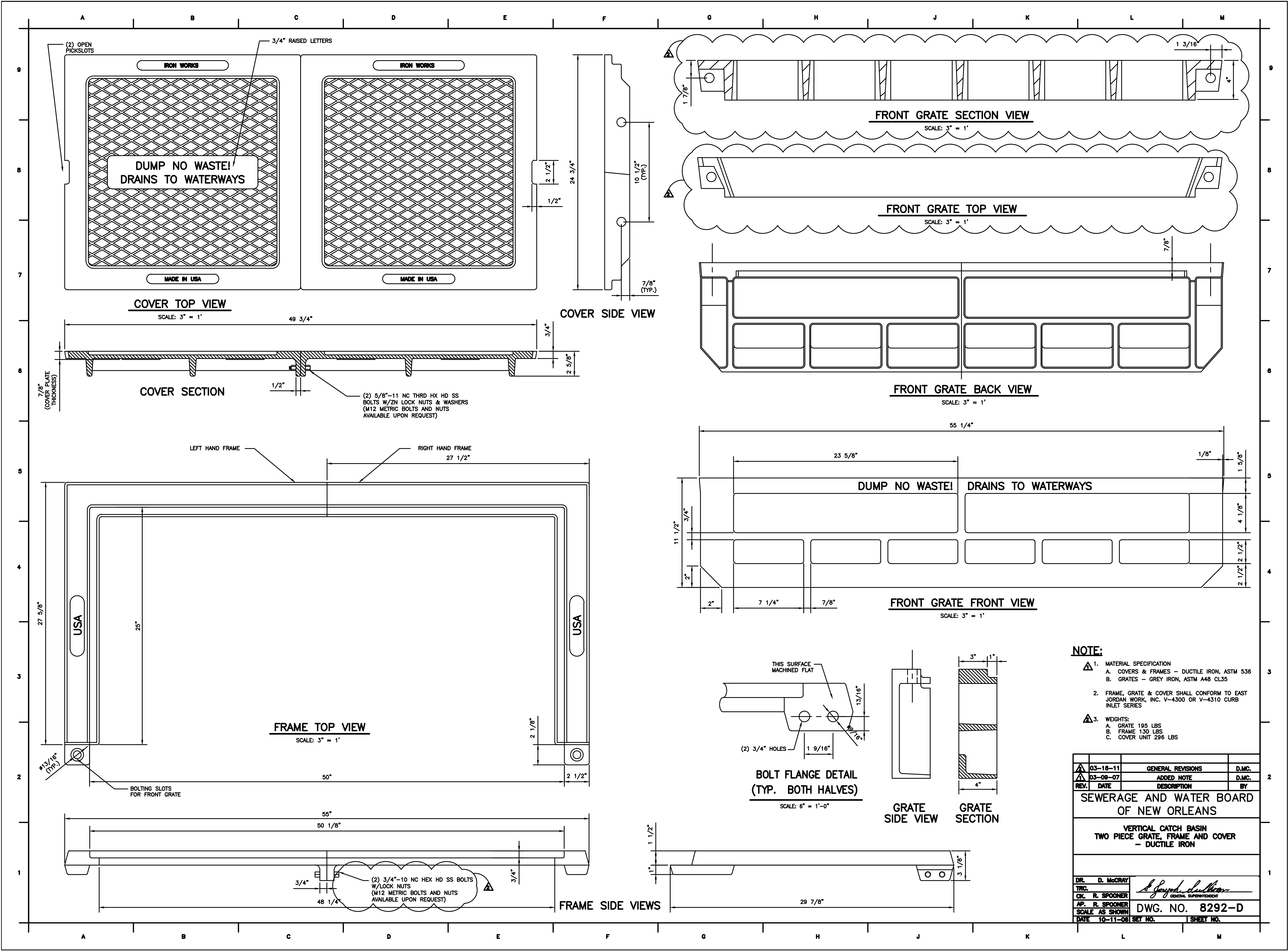
MANHOLE REHABILITATION FULL
DEPTH WITH SPRAY APPLIED
STRUCTURAL CEMENTITIOUS LINER

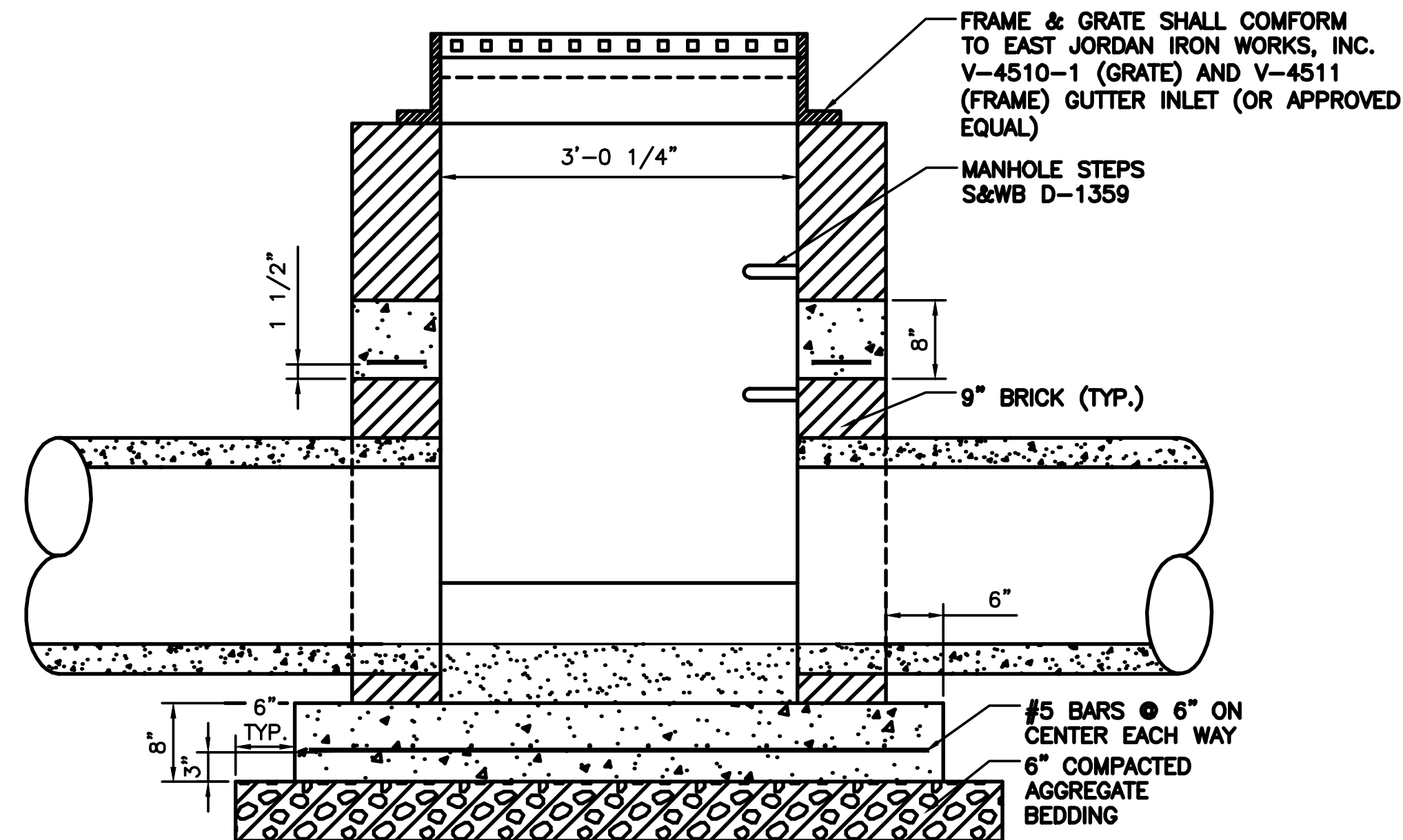


TYPICAL ABANDON MANHOLE
AND CATCH BASIN DETAIL

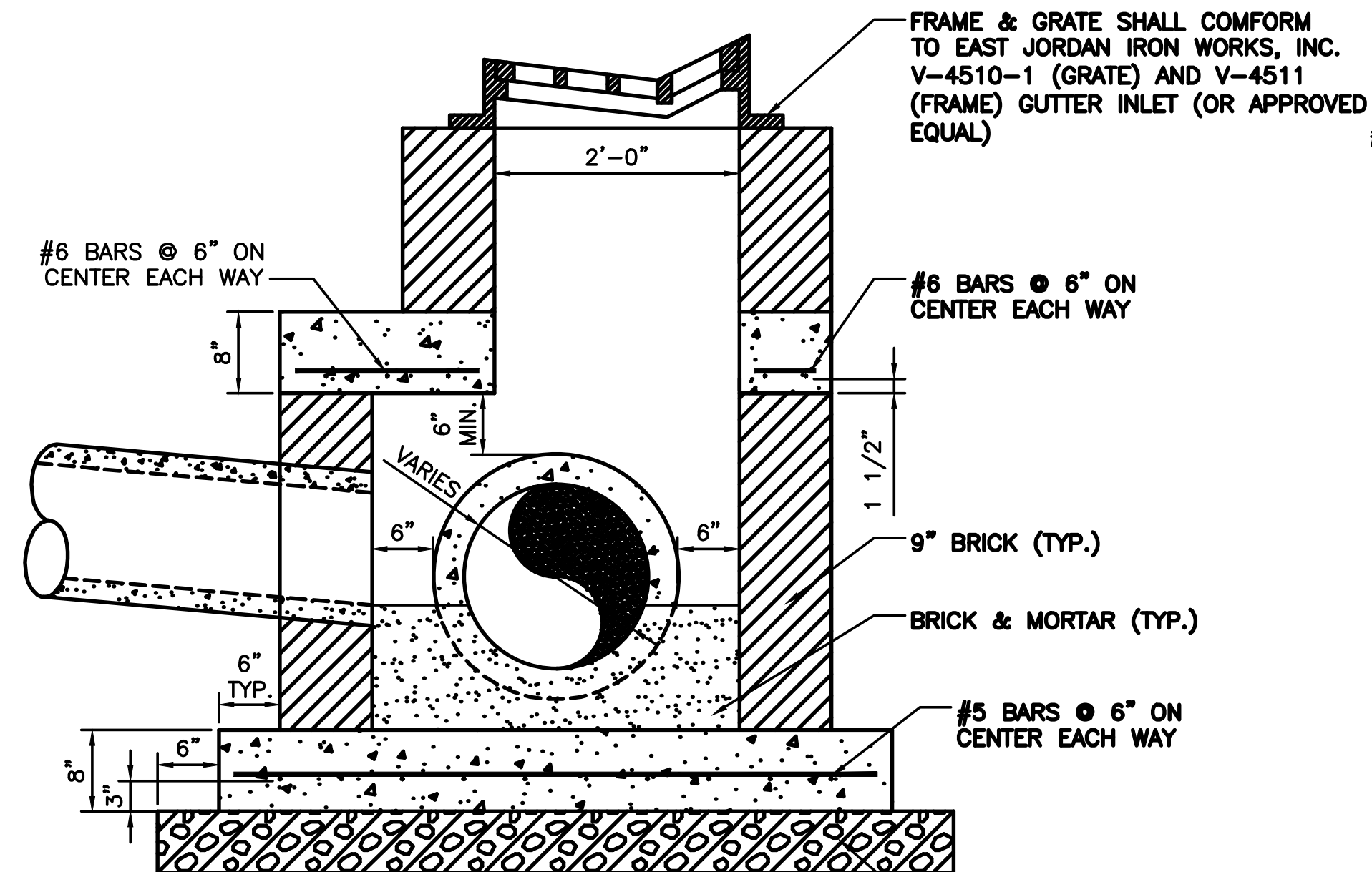
SCALE: N.T.S.

REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
MANHOLE ADJUSTMENT AND REHABILITATION			
DR.	D. McCRAY	<i>[Signature]</i> GENERAL SUPERINTENDENT	
TRC.	M. JOHNSON		
AP.	J. BECKER	DWG. NO. 8180-SD	
SCALE	NONE	DATE 03-08-07 SET NO. SHEET NO.	

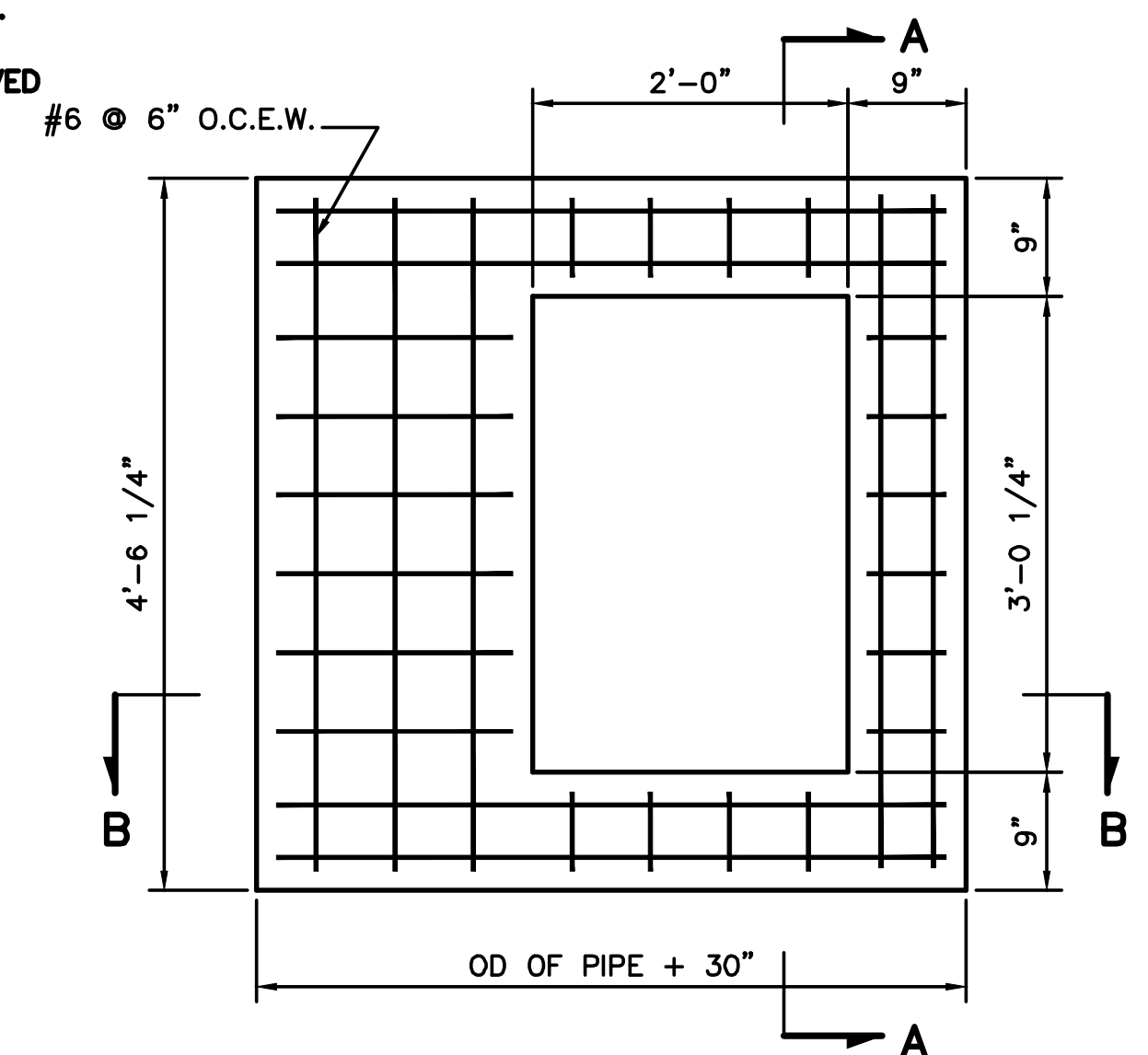




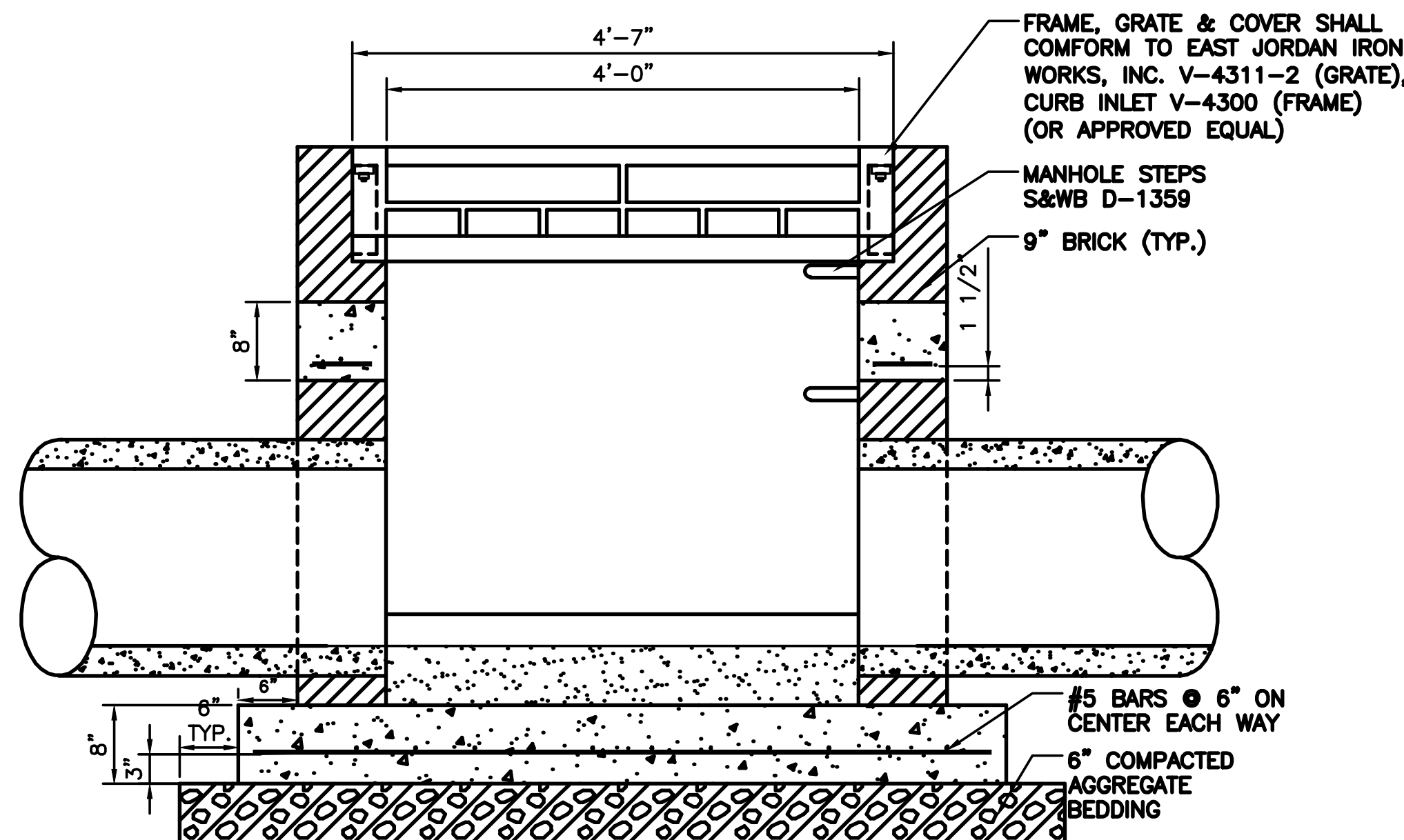
COMBINATION MANHOLE AND MOUNTABLE CATCH BASIN - SECTION A-A
SCALE: 1" = 1'-0"



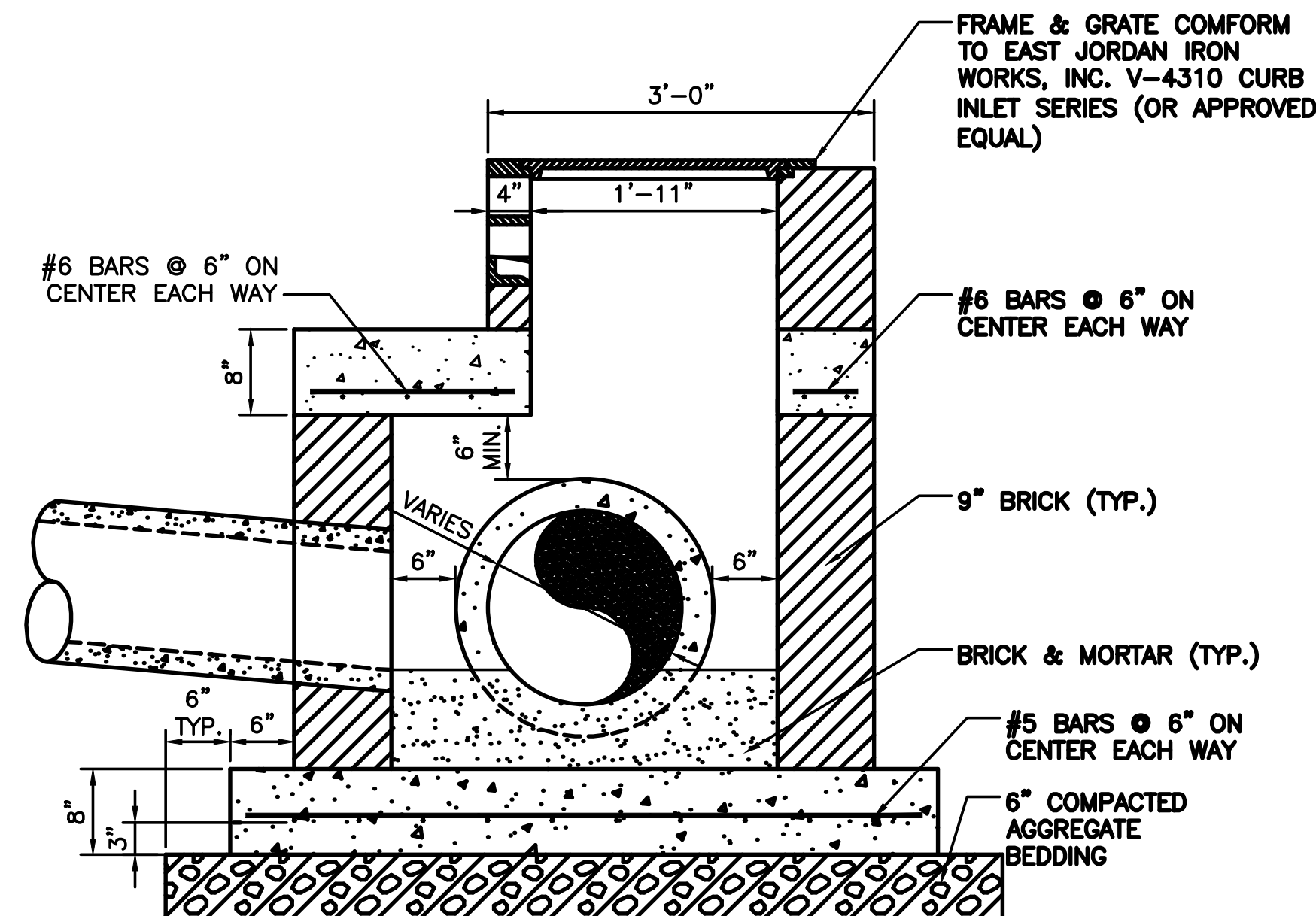
COMBINATION MANHOLE AND MOUNTABLE CATCH BASIN - SECTION B-B
SCALE: 1" = 1'-0"



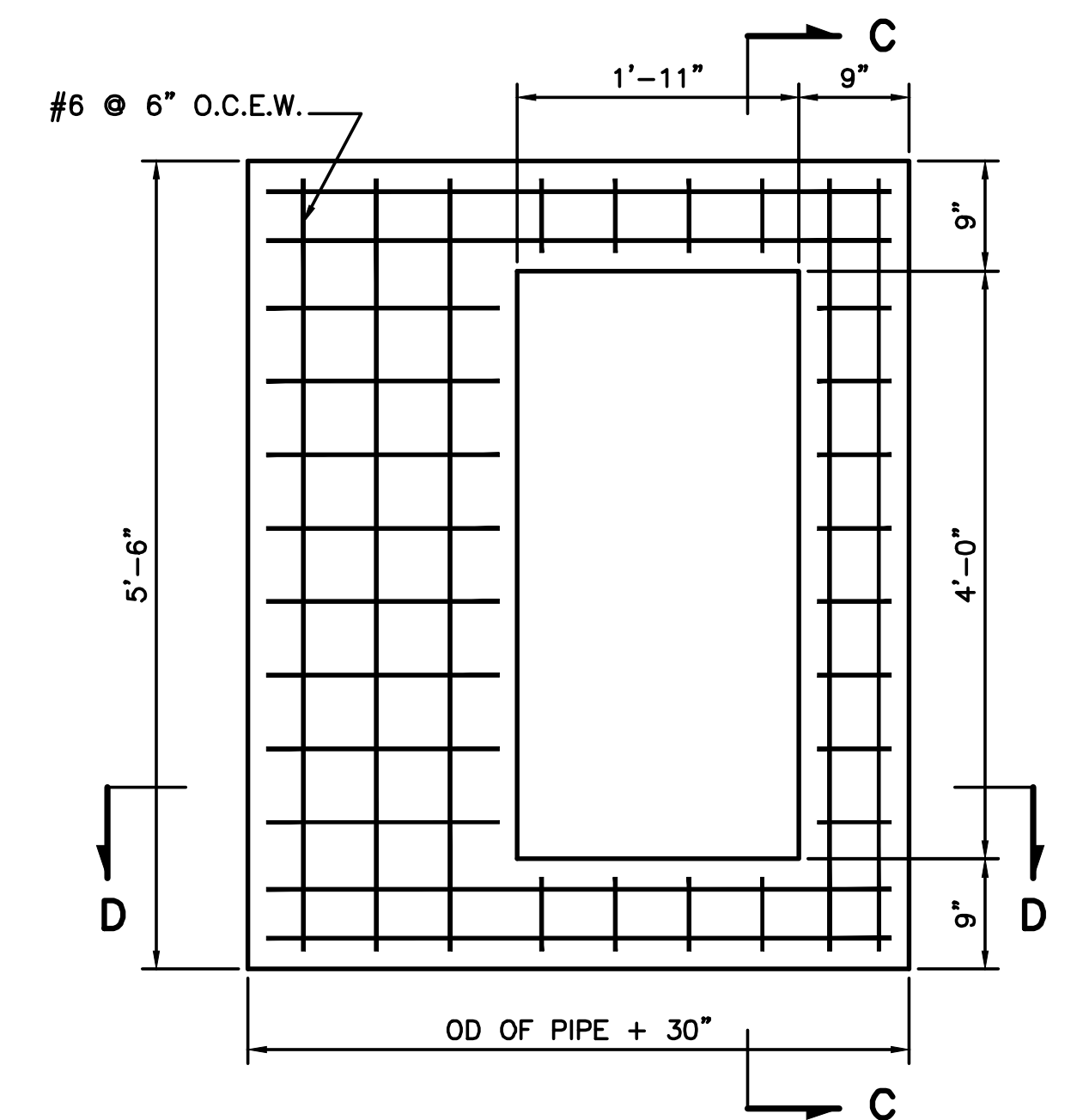
PLAN VIEW OF CONCRETE TOP SLAB (MOUNTABLE)
SCALE: 1" = 1'-0"



COMBINATION MANHOLE AND VERTICAL CATCH BASIN - SECTION C-C
SCALE: 1" = 1'-0"



COMBINATION MANHOLE AND VERTICAL CATCH BASIN - SECTION D-D
SCALE: 1" = 1'-0"

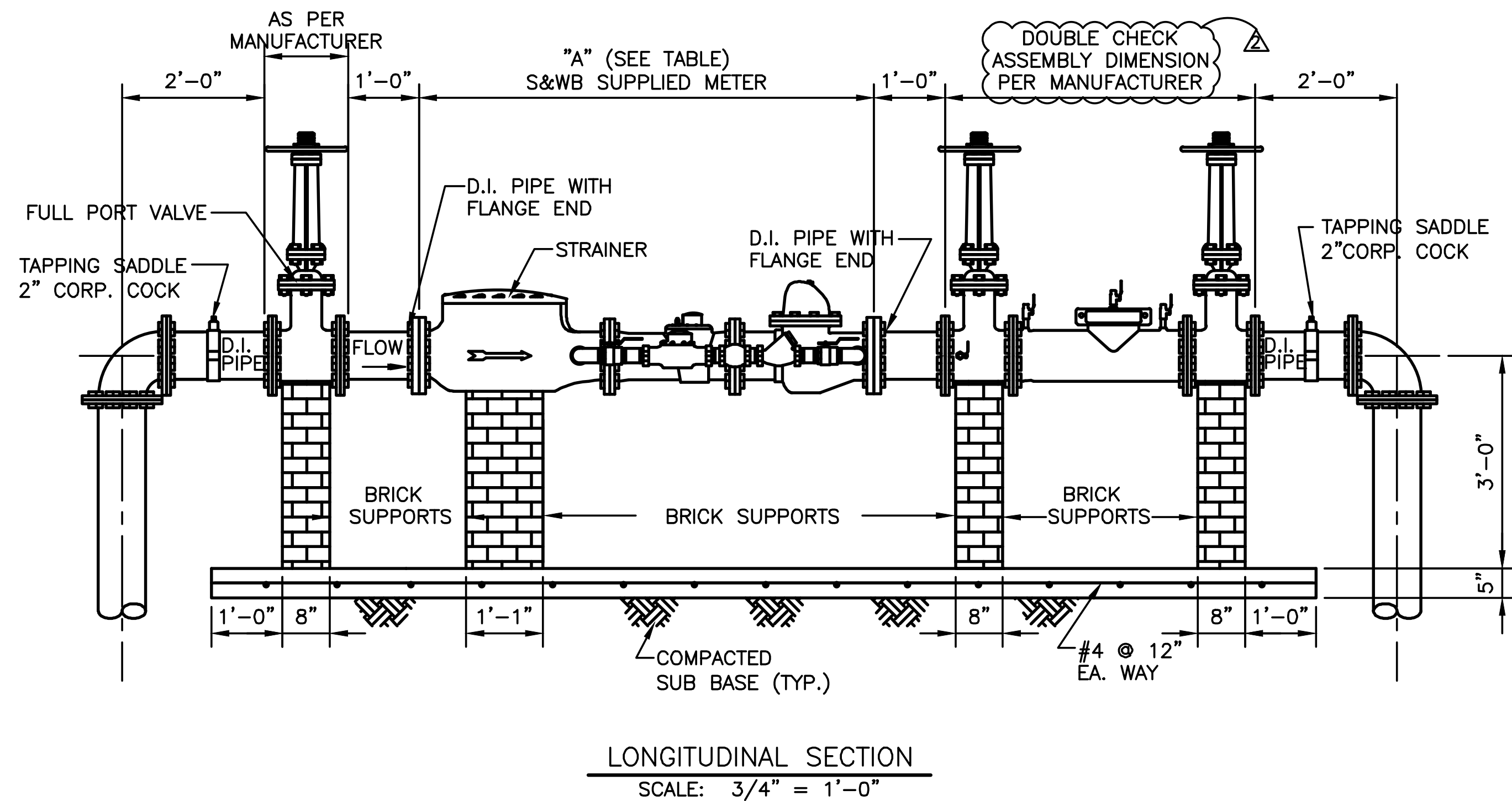
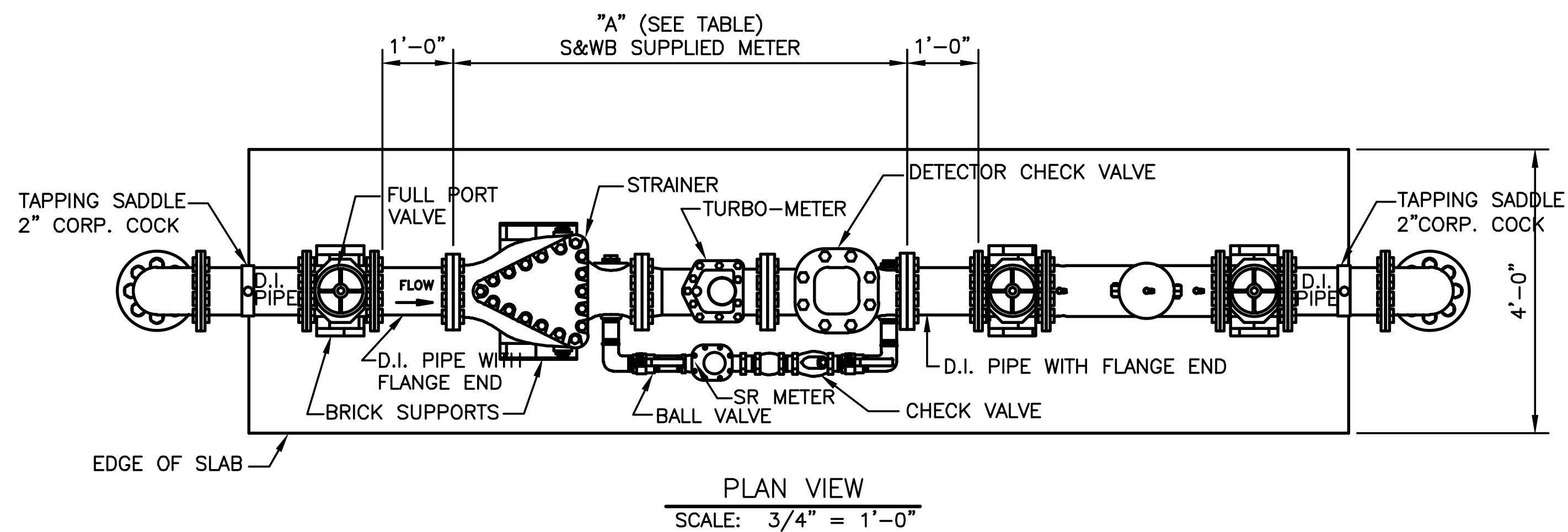


PLAN VIEW OF CONCRETE TOP SLAB (VERTICAL)
SCALE: 1" = 1'-0"

NOTES:

1. INSIDE & OUTSIDE OF BRICK WALLS, BENCHES & INVERTS, TO BE MORTARED WITH A WATERPROOFING COMPOUND FOR THICKNESS OF 1/4" IN ACCORDANCE WITH SPECIFICATIONS.
2. CONCRETE TO HAVE A MIN. COMPRESSIVE STRENGTH OF 3,000 P.S.I. IN 28 DAYS.
3. SEE S&WB DWG. NO. D-3431-A FOR DETAILED MEASUREMENTS OF MOUNTABLE CATCH BASIN.
4. SEE S&WB DWG. NO. D-873 FOR DETAILED MEASUREMENTS OF VERTICAL CATCH BASIN.

REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
SINGLE COMBINATION CATCH BASIN - MANHOLE STRUCTURE			
DR. D. McCRAY			
TRC.			
CK. B. JONES			
AP. R. SPOONER			
SCALE 1"=1'		DWG. NO. 8319-D	
DATE 06-08-08		SET NO.	SHEET NO.

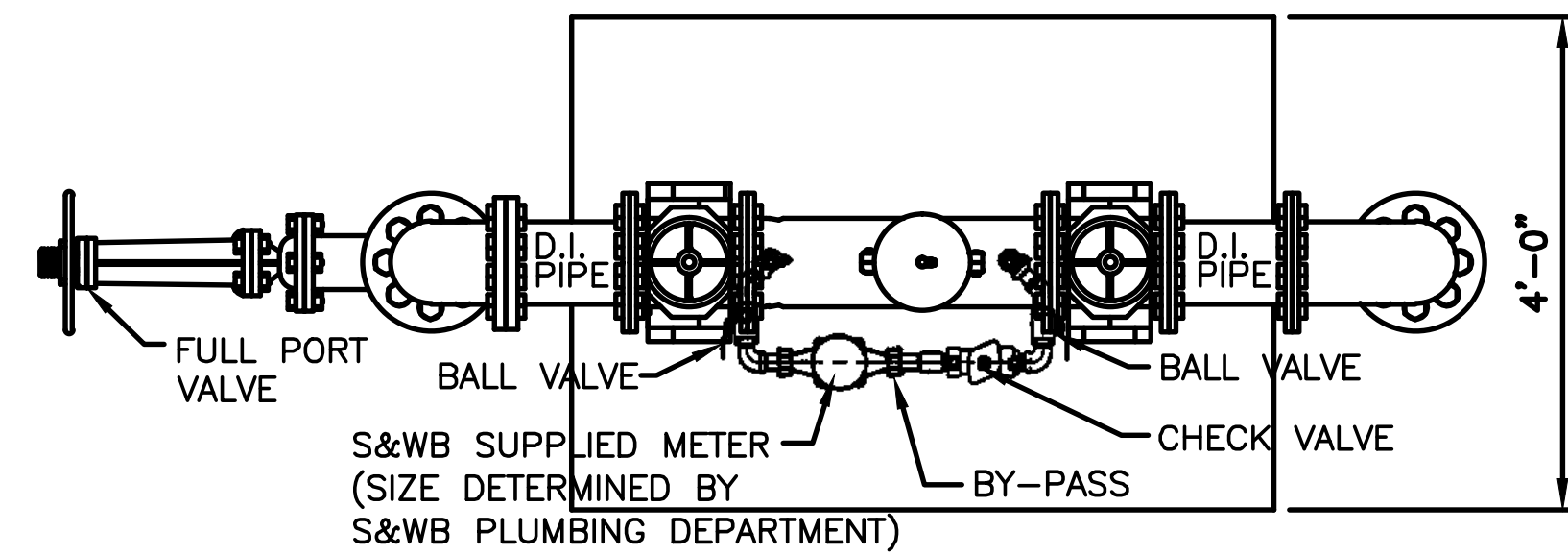


NOTES:

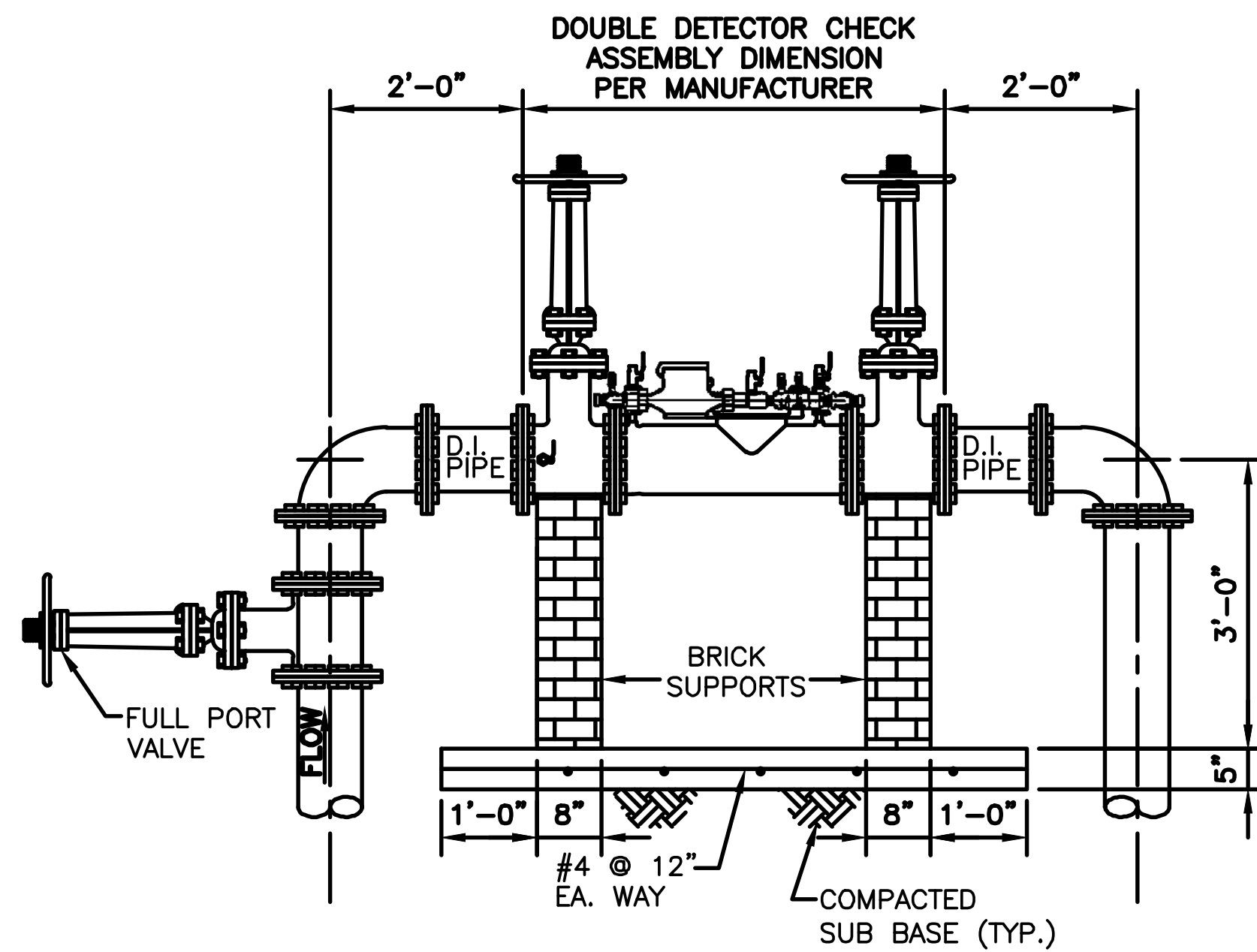
1. THE METER SHALL BE INSTALLED AS RECEIVED FROM THE S&WB METER DEPARTMENT AND MAY NOT BE MODIFIED IN ANY MANNER.
2. THE METER LOCATION SHALL NOT EXCEED 15' INSIDE THE PROPERTY LINE.
3. BACKFLOW PREVENTERS MUST BE LISTED AND CERTIFIED IN ACCORDANCE WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
4. CONTRACTOR TO VERIFY WHICH TYPE OF METER WILL BE SUPPLIED BY THE S&WB METER DEPARTMENT.

S&WB SUPPLIED TURBO METER	"A" DIMENSION IN INCHES	
	SENSUS	BADGERMETER INC.
4"	52"	33"
6"	68"	45"
8"	77"	53"
10"	90"	68"

06/20/13	GENERAL REVISIONS	DMC
05/02/13	GENERAL REVISIONS	DMC
01/26/11	REVISED "A" DIMENSION IN INCHES FOR 10"	DMC
REV.	DATE	DESCRIPTION
SEWERAGE AND WATER BOARD OF NEW ORLEANS		
FIRE AND DOMESTIC		
ABOVE GROUND ASSEMBLY DETAIL		
DR. D. McCRAY	 GENERAL SUPERINTENDENT	
TRC. B. JONES		
AP. J. ARNOLD	DWG. NO. 8353-W1	
SCALE. AS NOTED	DATE. 08-14-08	SET NO.
		SHEET NO.



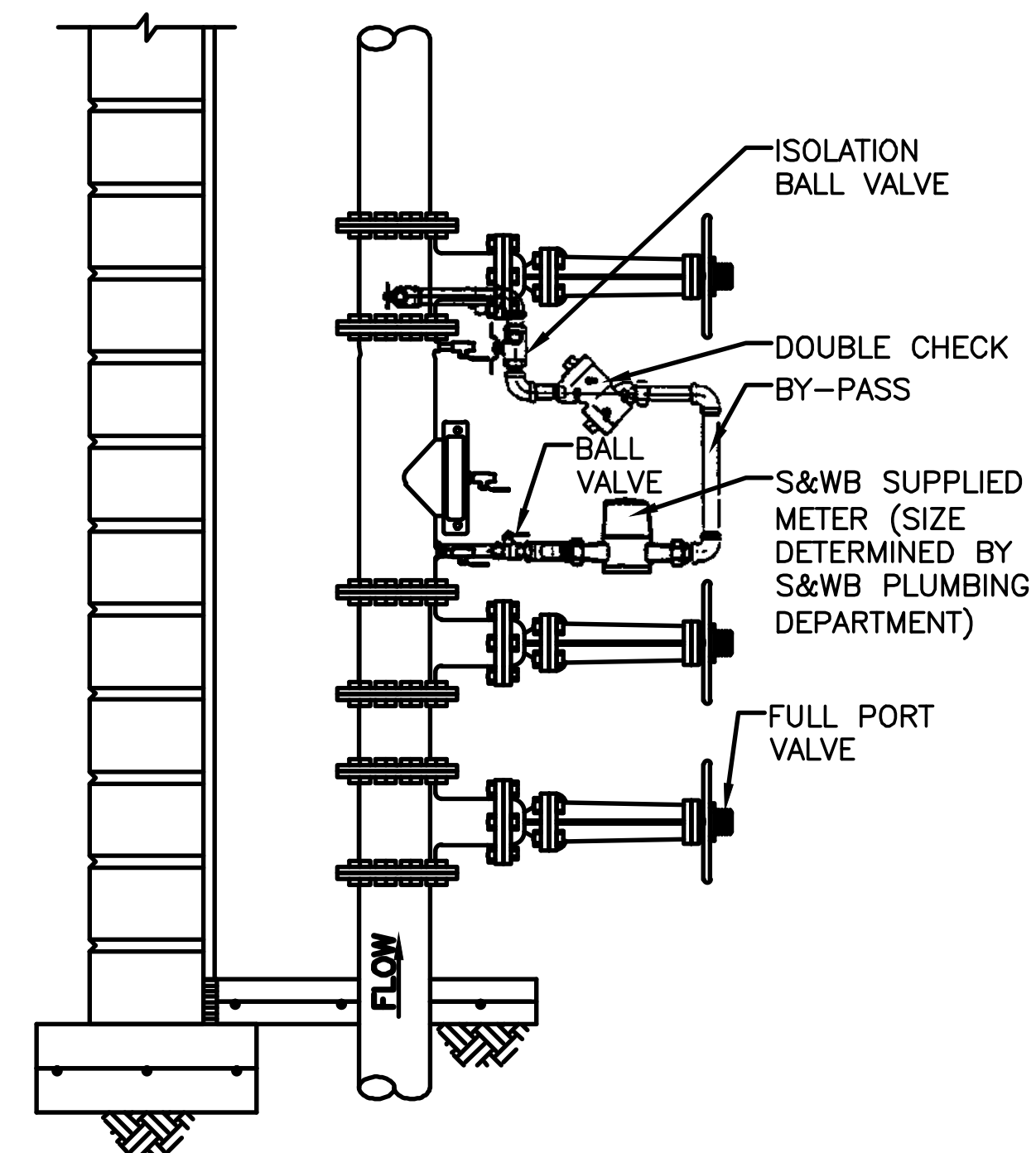
PLAN VIEW
SCALE: 3/4" = 1'-0"



**DOUBLE DETECTOR CHECK ASSEMBLY
BACKFLOW PREVENTER DETAIL
HORIZONTAL INSTALLATION**
SCALE: 3/4" = 1'-0"

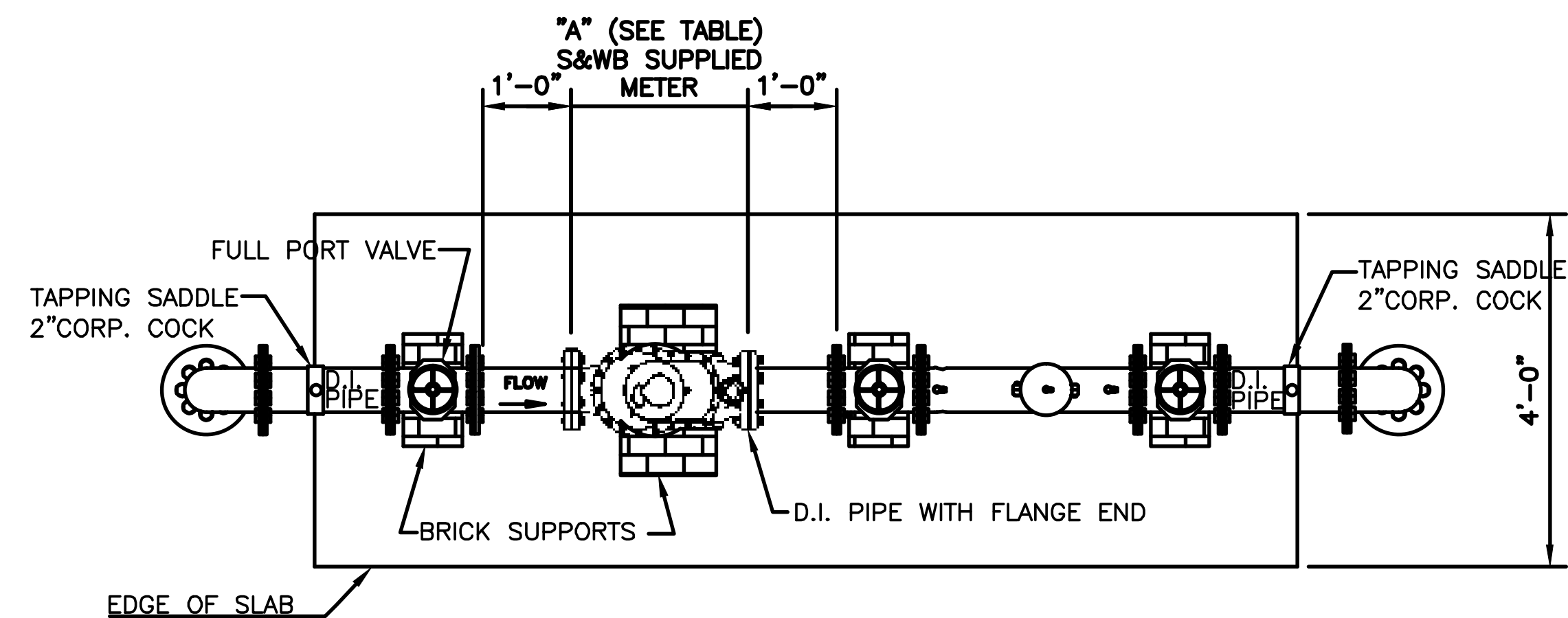
NOTES:

1. THE METER SHALL BE INSTALLED AS RECEIVED FROM THE S&WB METER DEPARTMENT AND MAY NOT BE MODIFIED IN ANY MANNER.
2. THE METER LOCATION SHALL NOT EXCEED 15' INSIDE THE PROPERTY LINE.
3. DOMESTIC SERVICE CAN BE TAPPED BEFORE FULL PORT VALVE.
4. BACKFLOW PREVENTERS MUST BE LISTED AND CERTIFIED IN ACCORDANCE WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.

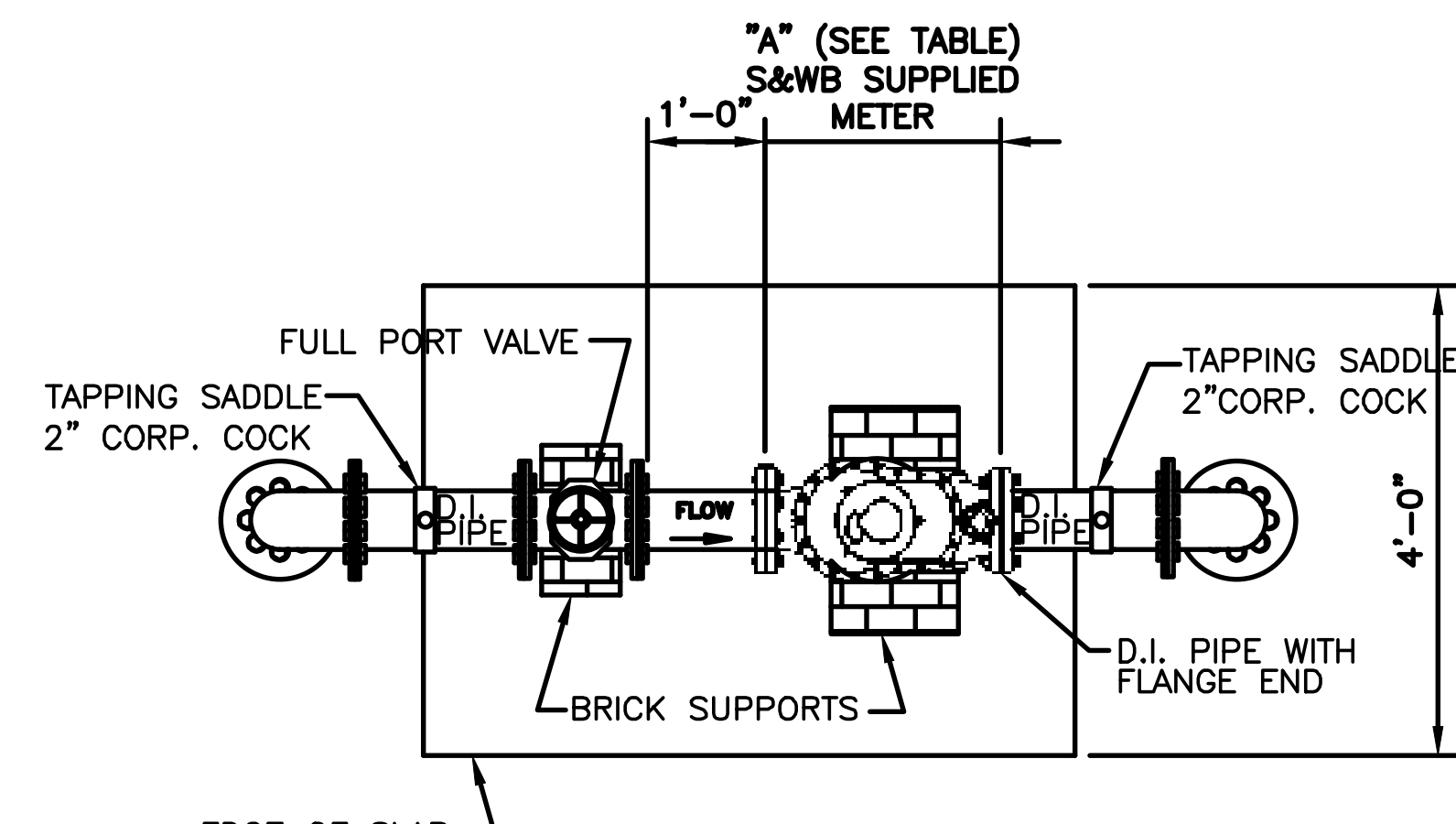


**DOUBLE DETECTOR CHECK ASSEMBLY
BACKFLOW PREVENTER DETAIL
VERTICAL INSTALLATION**
SCALE: 3/4" = 1'-0"

REV.	DATE	DESCRIPTION	BY
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
FIRE ONLY			
ABOVE GROUND ASSEMBLY DETAIL			
DR.	D. McCRAY	 GENERAL SUPERINTENDENT	
TRC.			
CK.	B. JONES		
AP.	J. ARNOLD		
SCALE.	AS NOTED	DWG. NO. 8353-W2	
DATE.	08-14-08	SET NO.	SHEET NO.

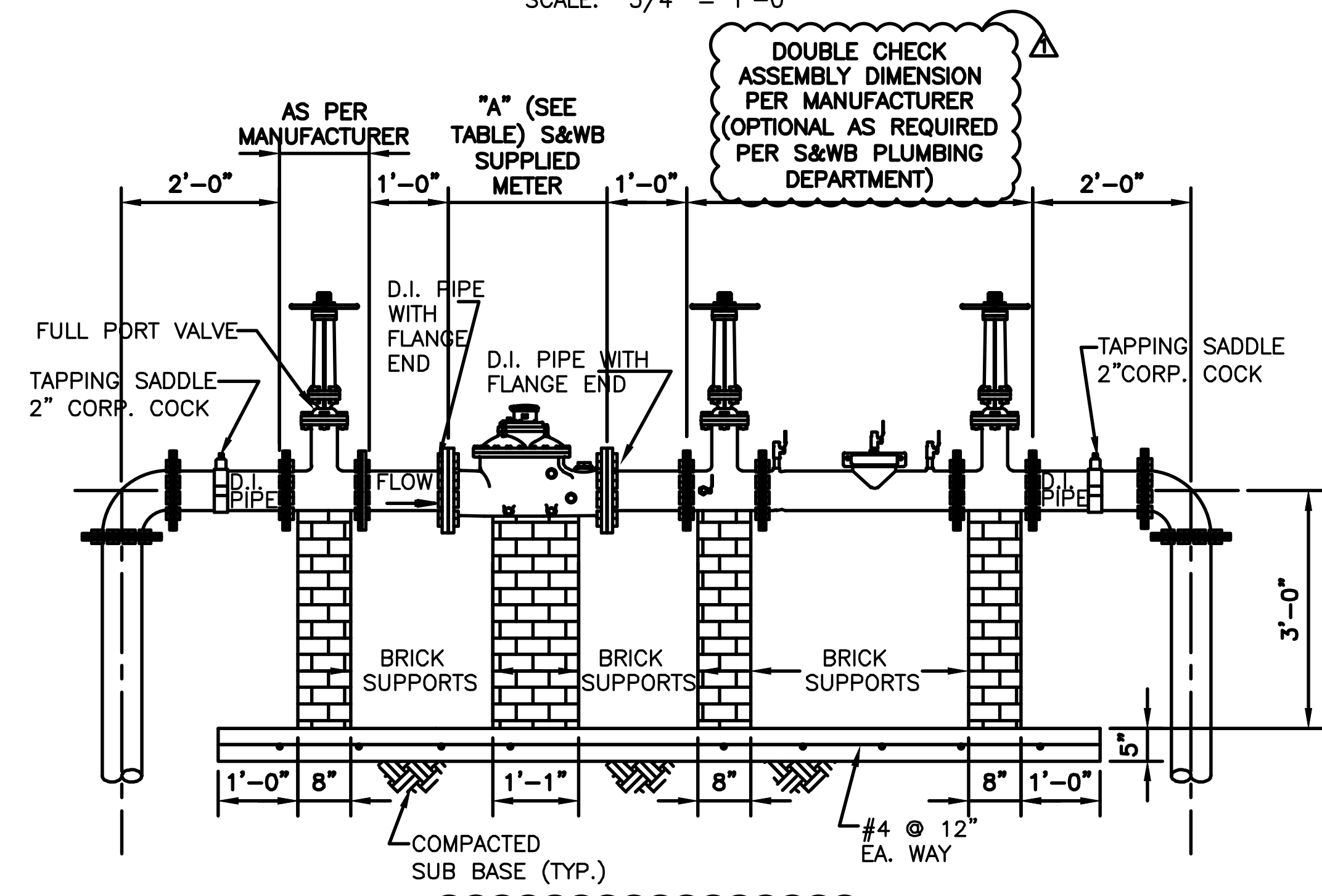


PLAN VIEW
SCALE: 3/4" = 1'-0"

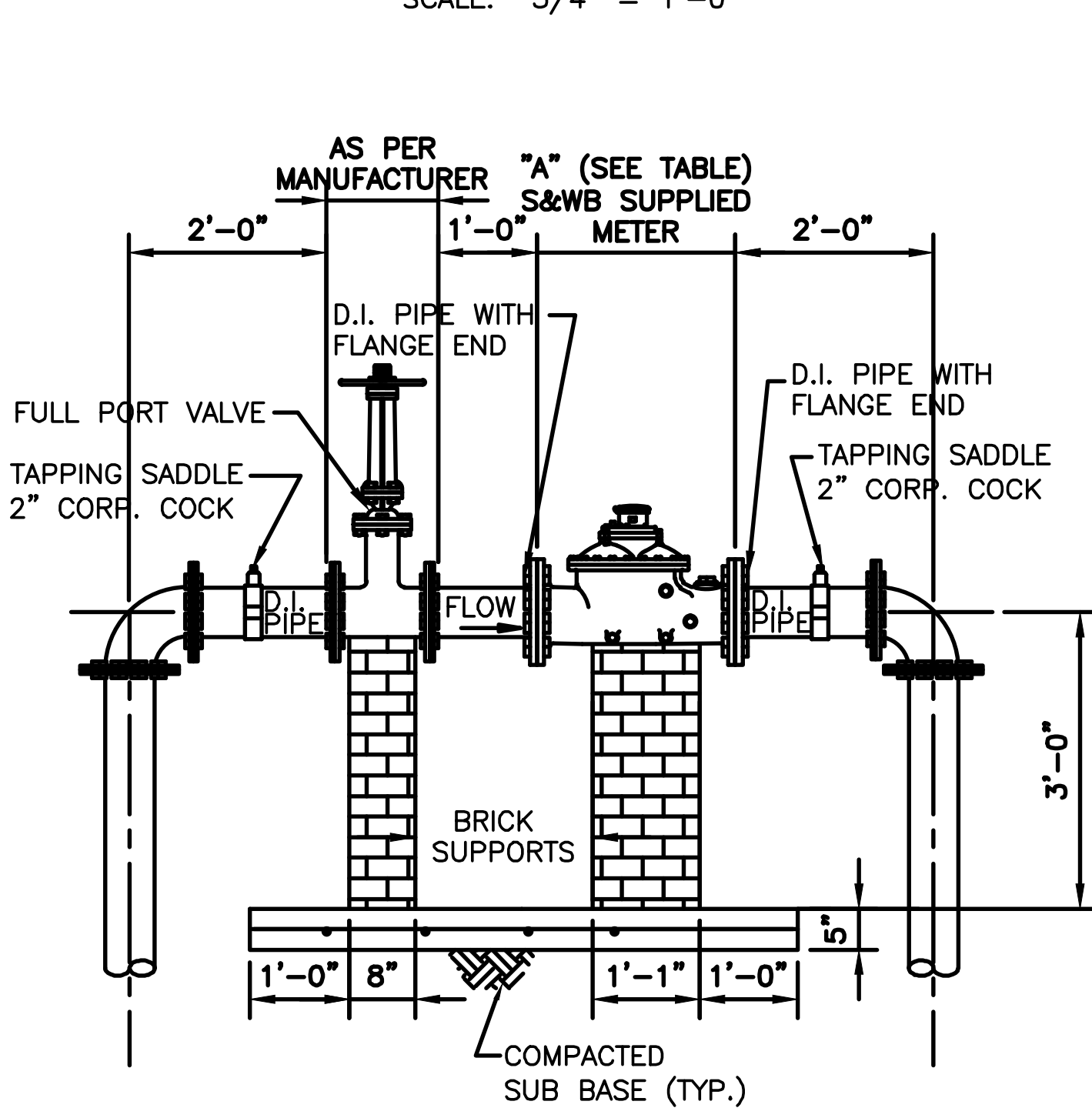


PLAN VIEW
SCALE: 3/4" = 1'-0"

DOMESTIC ONLY	
S&WB SUPPLIED COMPOUND METER	"A" DIMENSION IN INCHES
4"	20"
6"	24"



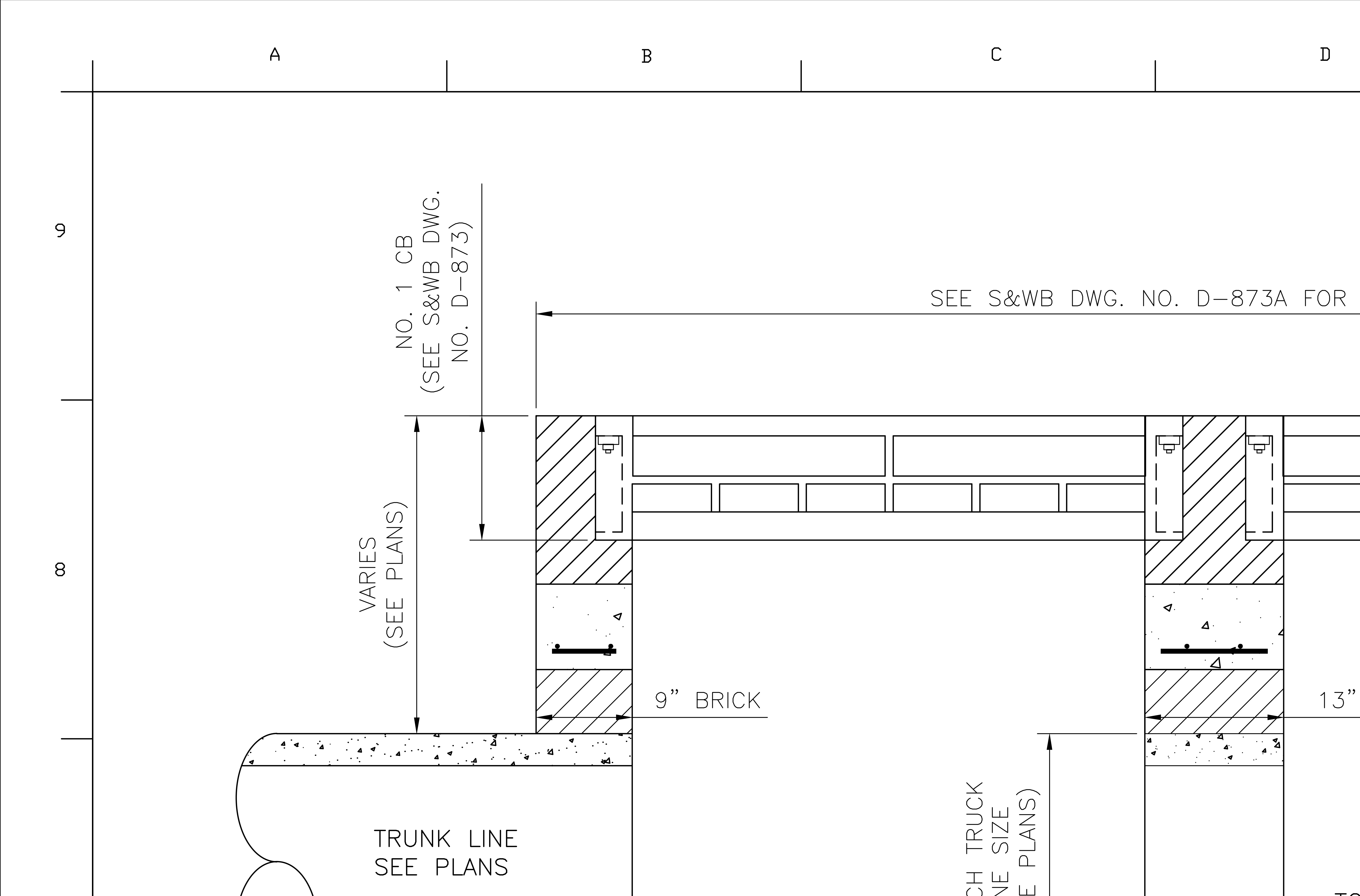
LONGITUDINAL SECTION WITH DOUBLE CHECK ASSEMBLY
SCALE: 3/4" = 1'-0"

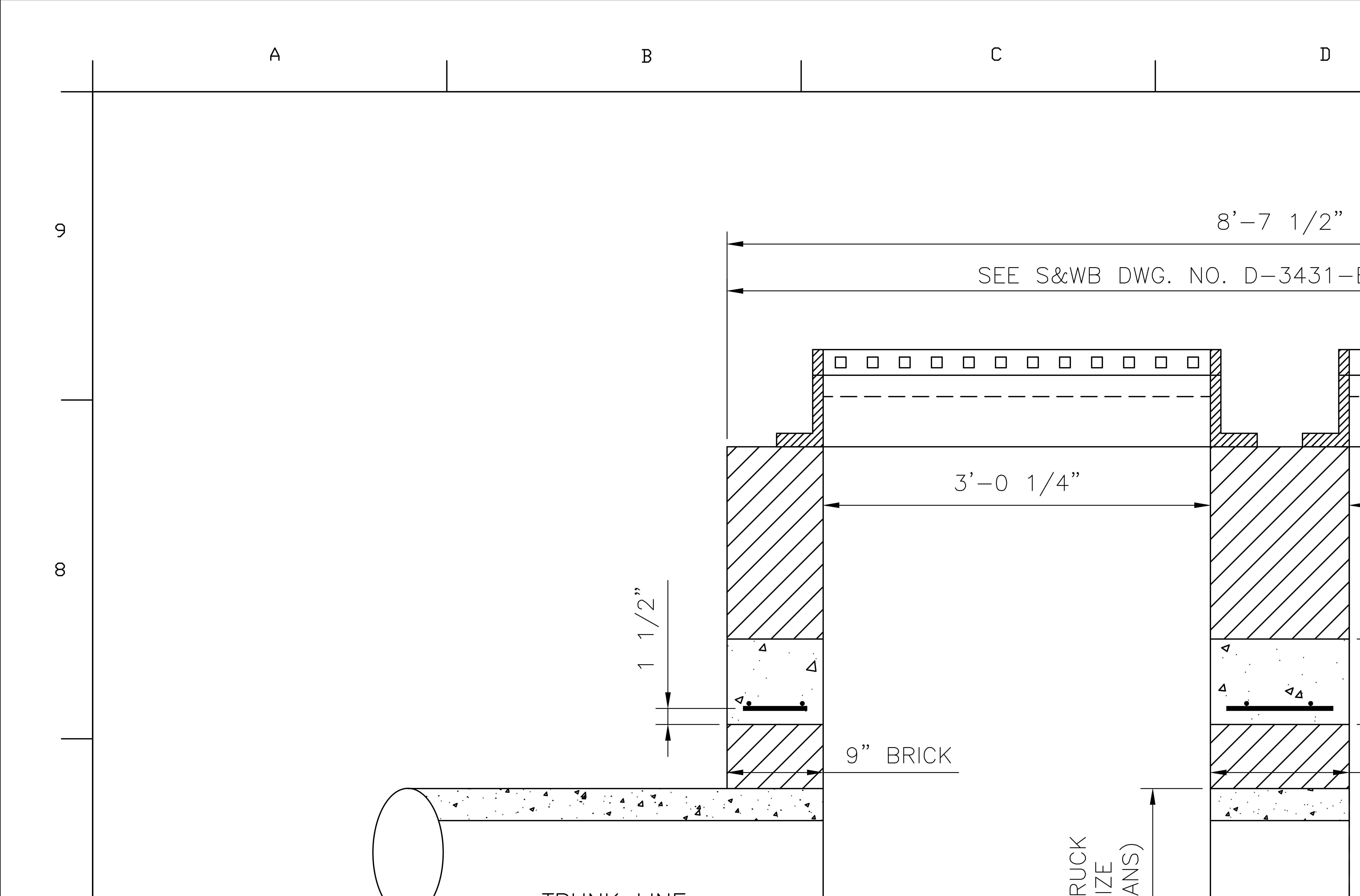


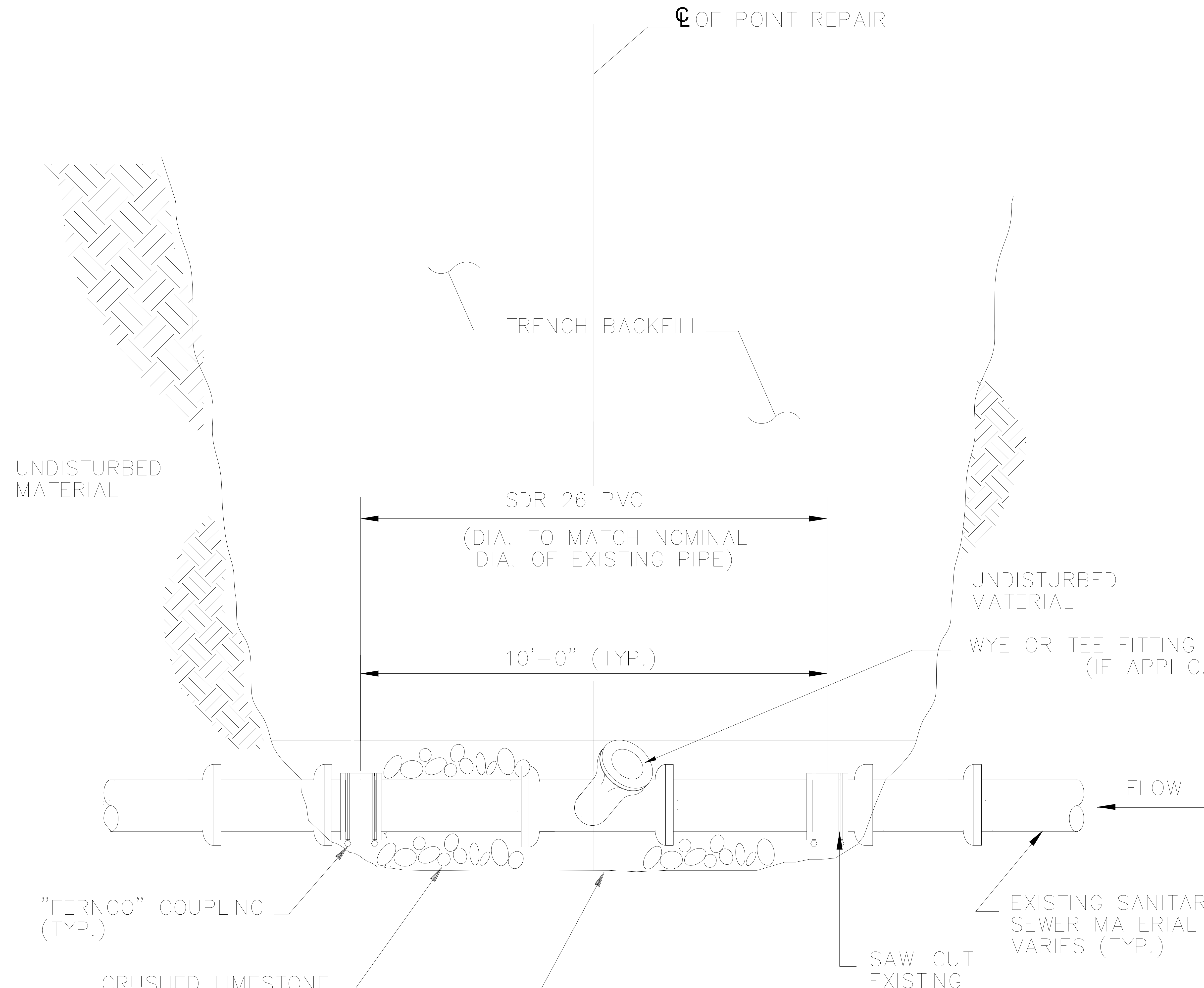
LONGITUDINAL SECTION WITHOUT DOUBLE CHECK ASSEMBLY
SCALE: 3/4" = 1'-0"

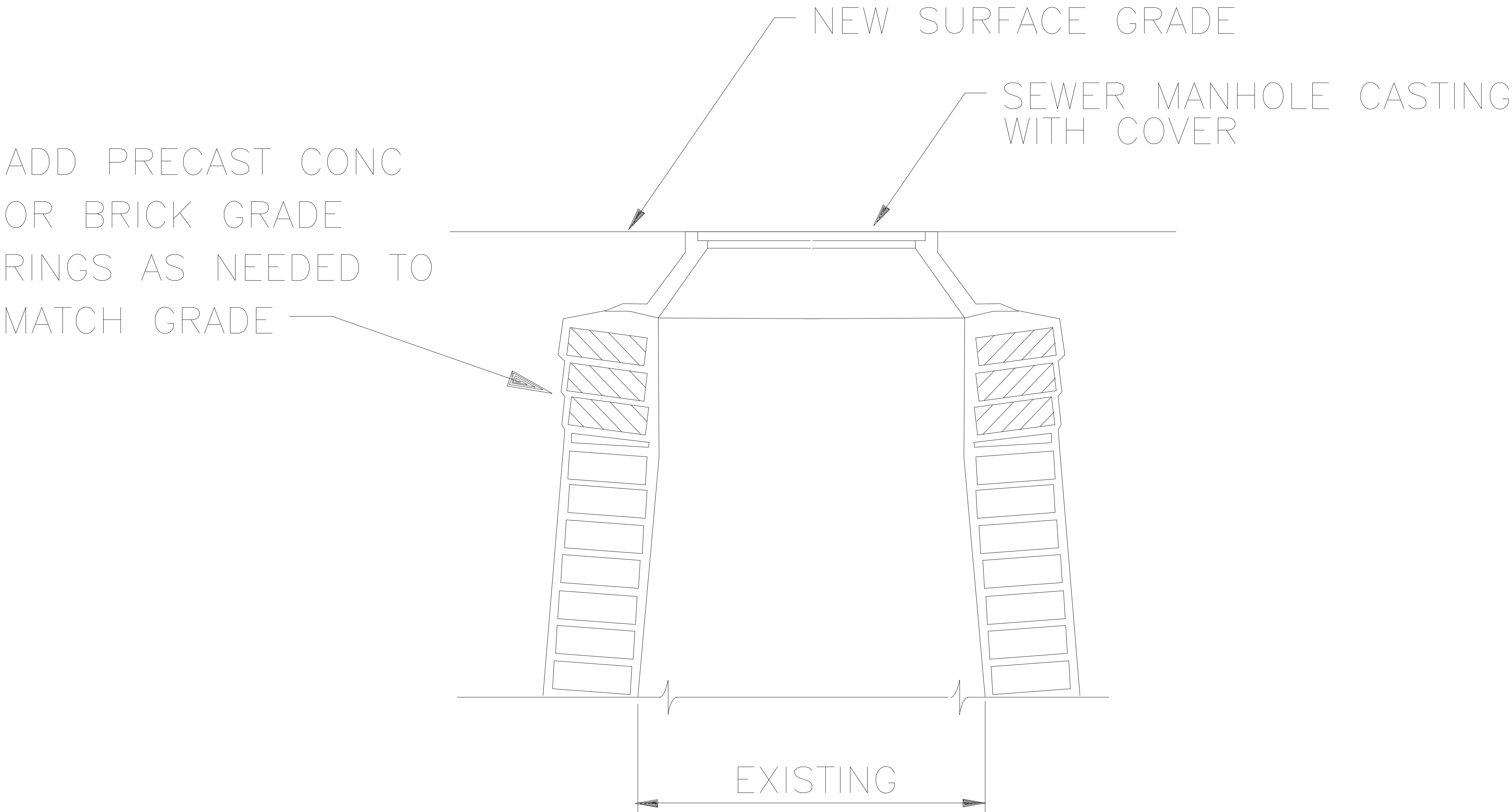
- NOTES:**
1. THE METER SHALL BE INSTALLED AS RECEIVED FROM THE S&WB METER DEPARTMENT AND MAY NOT BE MODIFIED IN ANY MANNER.
 2. THE METER LOCATION SHALL NOT EXCEED 15' INSIDE THE PROPERTY LINE.
 3. BACKFLOW PREVENTERS MUST BE LISTED AND CERTIFIED IN ACCORDANCE WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.

REV.	DATE	DESCRIPTION	BY
12/20/12		GENERAL REVISIONS	DMC
SEWERAGE AND WATER BOARD OF NEW ORLEANS			
DOMESTIC ONLY			
ABOVE GROUND ASSEMBLY DETAIL			
DR.	D. McCRAY		
TRC.			
CK.	B. JONES	GENERAL SUPERINTENDENT	
AP.	J. ARNOLD	DWG. NO. 8353-W3	
SCALE.	AS NOTED		
DATE.	08-14-08	SET NO.	SHEET NO.









**ADJUST OR REPLACE EXISTING
MANHOLE FRAME AND COVER**

NTS