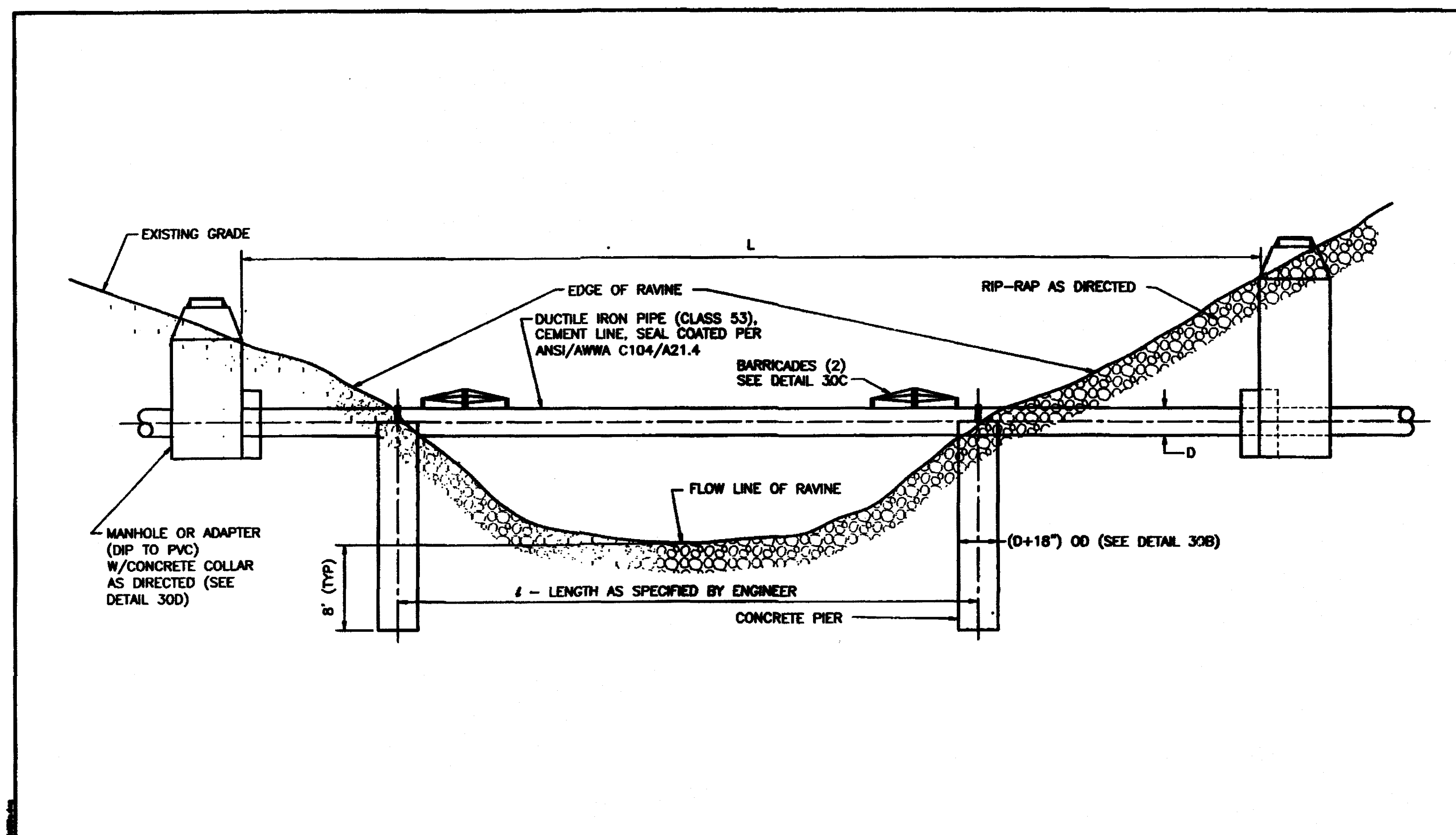
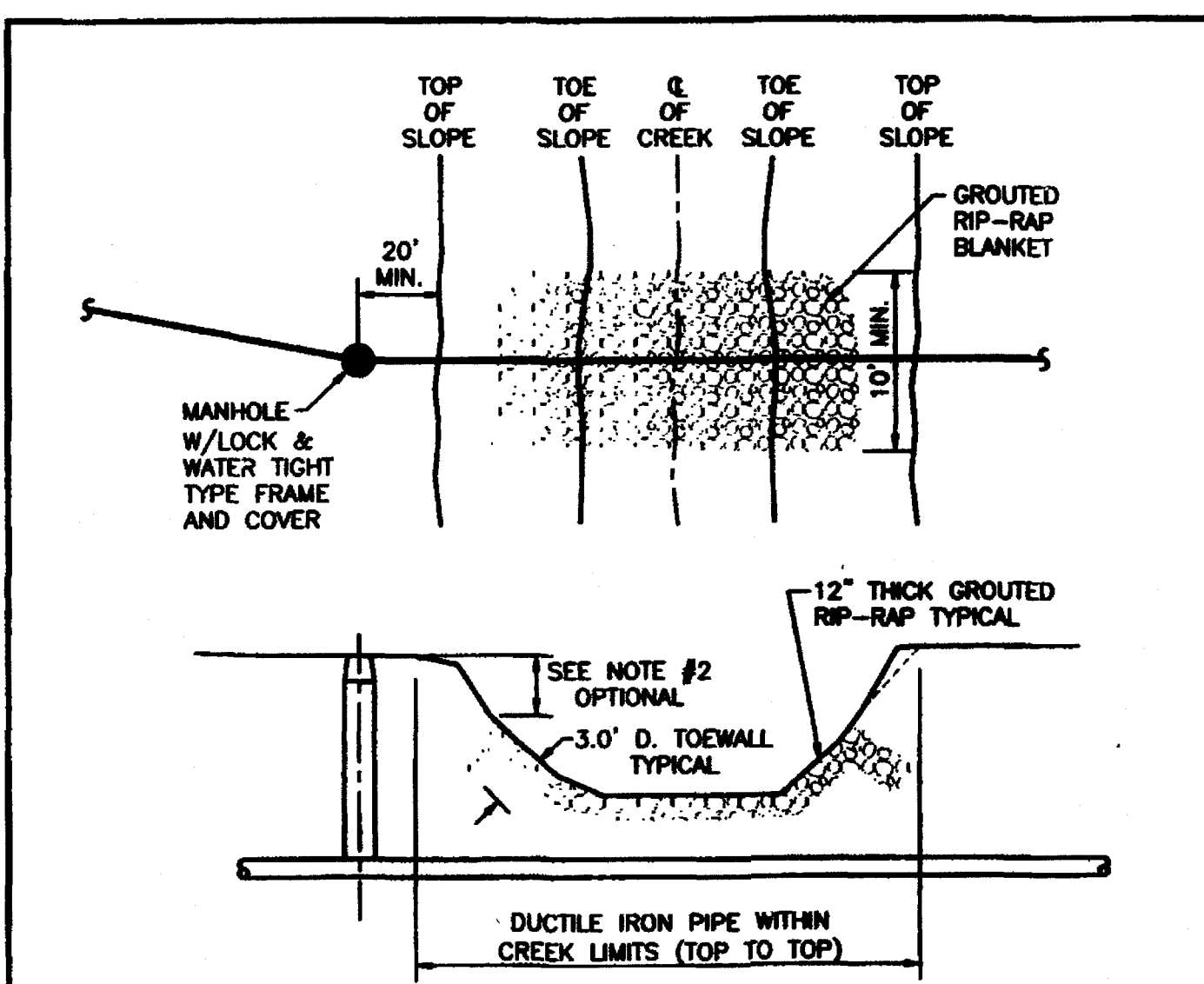


ISSUE	REMARKS/DATE
1	3-21-17 INITIAL SUBMITTAL
2	6-6-17 REVISED PER CITY COMMENTS
3	7-20-17 REVISED PER CITY COMMENTS
4	8-7-17 APPROVAL

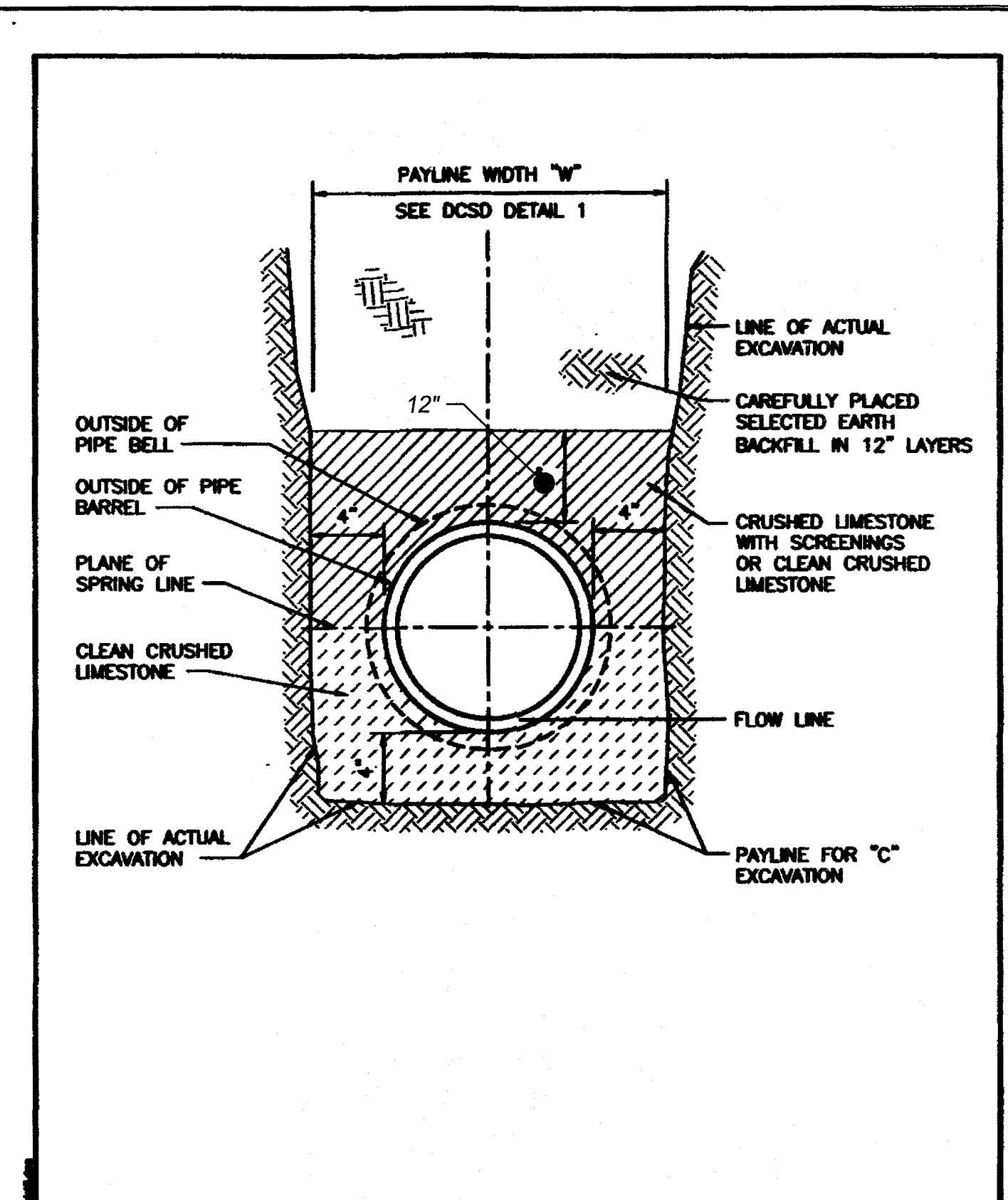


<b>Duckett Creek Sanitary District</b>			
AERIAL CREEK CROSSING DETAIL	BSM	KLA	30A
MDOB	1-9-01		

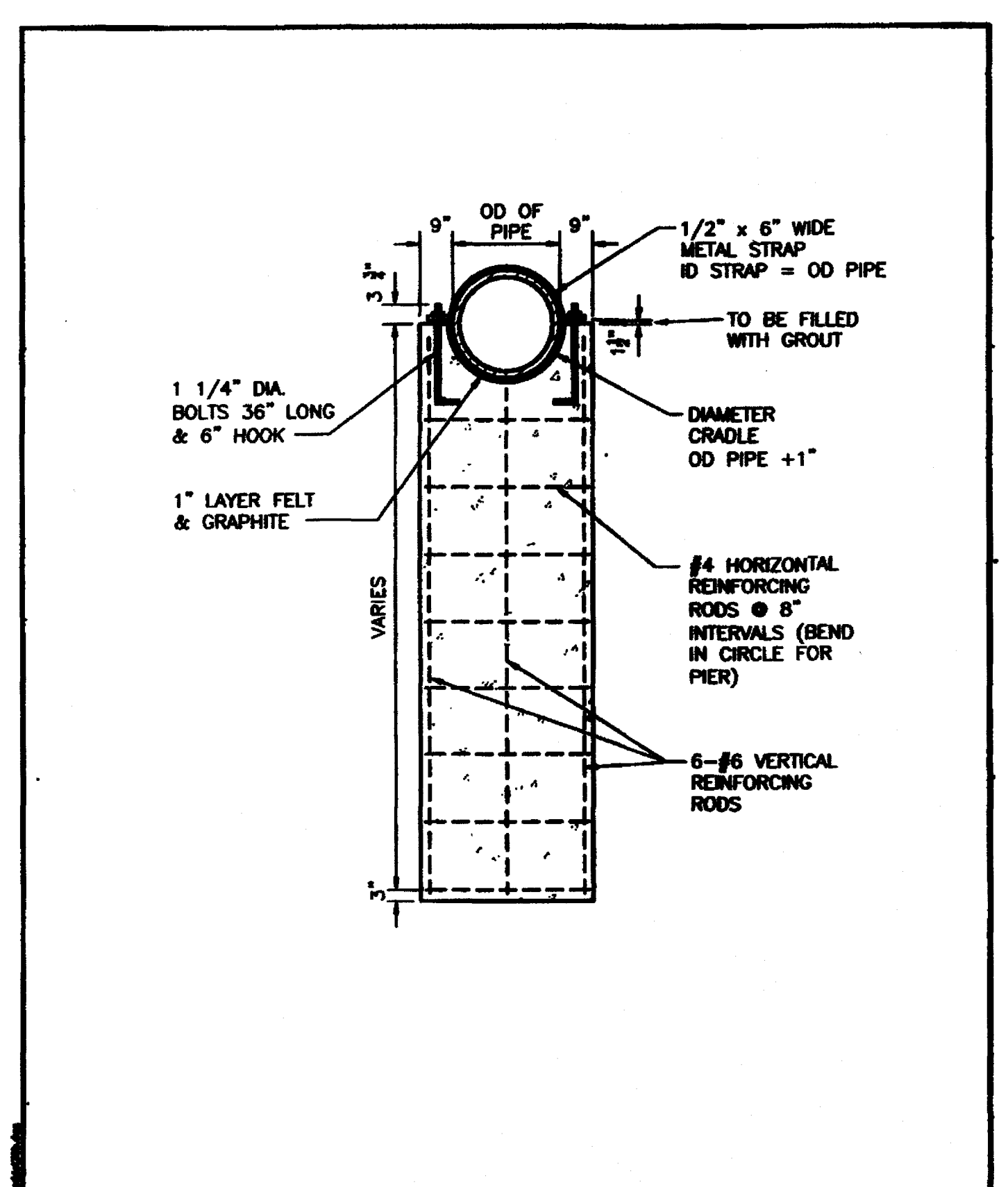


- NOTES:
- GROUTED RIP-RAP IS REQUIRED AT ALL CREEK CROSSINGS WHERE THE EMBANKMENTS CROSSED ARE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL RATIO SLOPE, AND ALSO WHERE THERE IS 3 FEET OR LESS COVER OVER THE TOP OF THE SEWER MAIN.
  - PLACE RIP-RAP ON LOWER 3/4 OF SLOPE, GRADE UPPER 1/4 OF SLOPE AT 1 VERTICAL TO 2 HORIZONTAL SLOPE FOR SOD OR 1 VERTICAL TO 2.5 HORIZONTAL SLOPE FOR SEED AND STRAW.
  - RIP-RAP TO BE "MSD 5" GRADATION, MINIMUM 12" THICK, GROUTED WITH 8 SACK MIX, SAND-CEMENT SLURRY, BROOM FINISH.
  - INCORPORATE A 3 FEET DEEP TOE WALL ON EMBANKMENT'S UPPER EDGE OF RIP-RAP.
  - TOP SURFACE OF RIP-RAP SHOULD NOT BE HIGHER THAN ADJACENT GROUND SURFACE.
  - IF PIPE HAS LESS THAN 12" COVER, A PAVED CHANNEL MAY BE REQUIRED.
  - DUCTILE IRON PIPE IS REQUIRED WITHIN THE CREEK LIMITS.

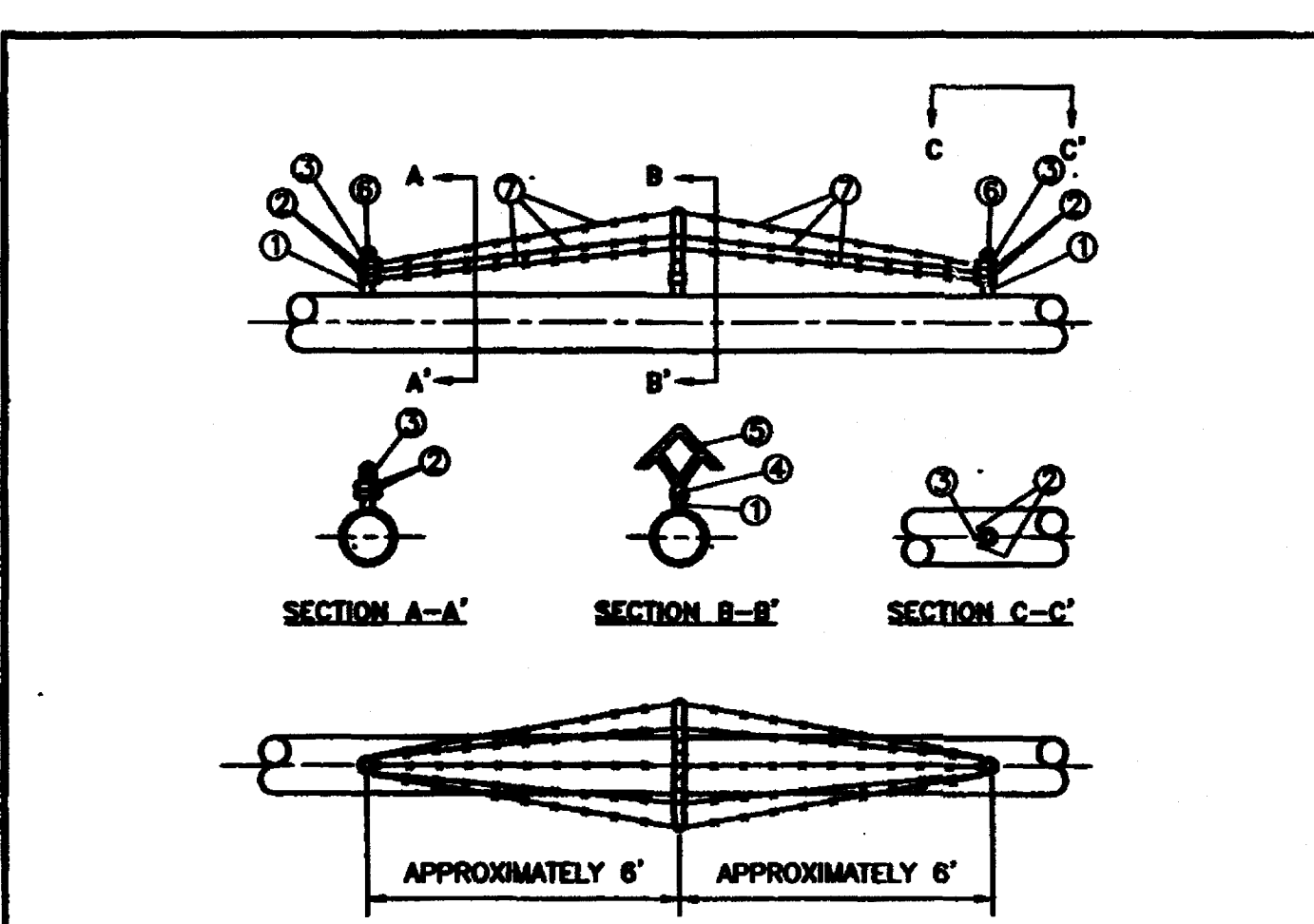
<b>Duckett Creek Sanitary District</b>			
TYPICAL CREEK CROSSING	BSM	KLA	24
MDOB	1-8-01		



<b>Duckett Creek Sanitary District</b>			
PIPE BEDDING CLASS "C" (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)	BSM	KLA	3
MDOB	12-21-99		



<b>Duckett Creek Sanitary District</b>			
CONCRETE PIER DETAIL	BSM	KLA	30B
MDOB	1-9-01		



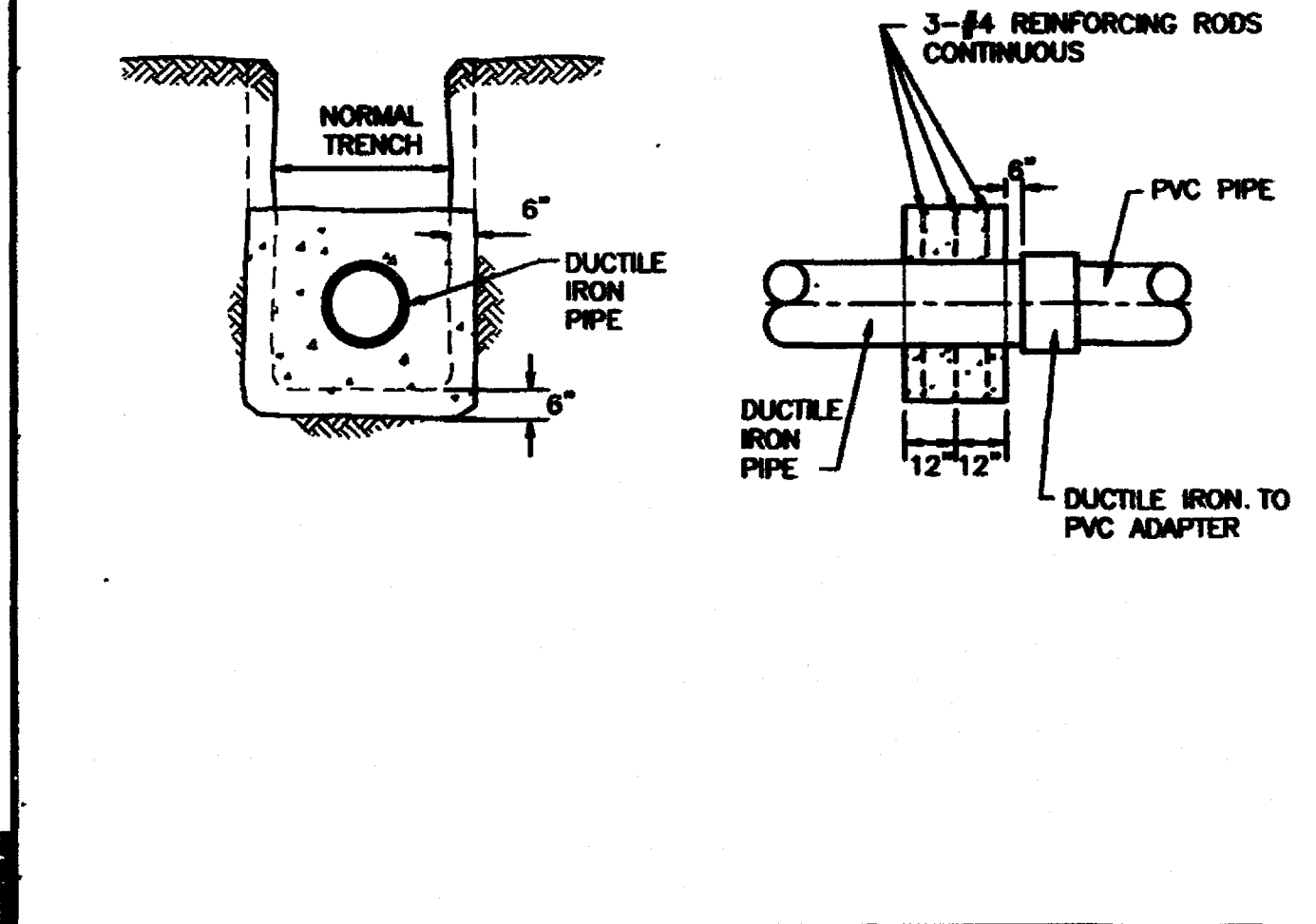
BILL OF MATERIAL			DESCRIPTION
NO.	QTY	SIZE	
1	Ø"	3/8" x 5"	NIPPLE, STL. SCRD.
2	Ø	1/2" x 5'	BRIDGE BARS, GRUY.
3	Ø	1/2" x 5'	BRIDGE BARS, GRUY.
4	2	Ø	UNIVERSAL BASE, GRUY.
5	2	Ø	UNIVERSAL BASE, GRUY.
6	2	Ø	W/SET SCREW
7	14	Ø	WIRE, BARBED, GRUY.

NOTES:

- "BILL OF MATERIALS" PROVIDES SUFFICIENT MATERIAL FOR TWO BARRICADES.
- LOCATION OF BARRICADES ON PIPING SYSTEM TO BE AS SPECIFIED ON APPROVED CONSTRUCTION DRAWINGS.
- TWO BARRICADES WILL BE REQUIRED, ONE AT EACH END OF THE CROSSING AS A DETERRENT AGAINST FOOT TRAFFIC. IN SOME INSTANCES ADDITIONAL BARRICADES MAY BE REQUIRED.
- COAT ANY EXPOSED PIPE WITH MASTIC, STOCK #51857.

<b>Duckett Creek Sanitary District</b>			
AERIAL CROSSING BARRIER DETAIL	BSM	KLA	30C
MDOB	1-9-01		

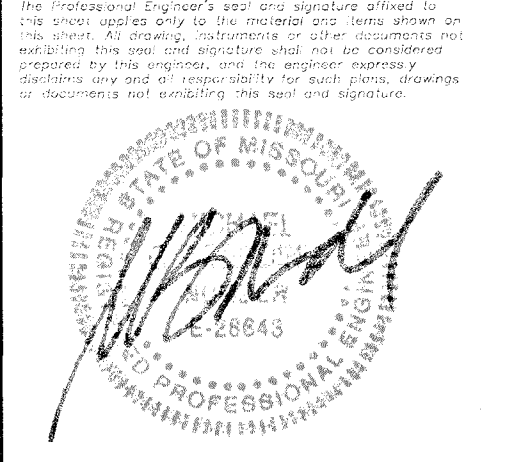
CROSSING NO.	TOTAL LENGTH OF PIPE L	LENGTH BETWEEN C OF PIPE SUPPORTS S	CARRIER PIPE OUTSIDE DIAMETER D	CARRIER PIPE WALL THICKNESS (IN.) T
1				
2				



<b>Duckett Creek Sanitary District</b>			
AERIAL CROSSING CONCRETE COLLAR DETAIL	BSM	KLA	30D
MDOB	1-9-01		

PROJECT TITLE  
**COBBLESTONE CROSSING**  
OF FALLON, MISSOURI

THE **STERLING** CO.  
ENGINEERS & SURVEYORS  
5055 New Baumgardner Road  
St. Louis, Missouri 63129  
Ph. 314-487-0440 Fax 314-487-8944  
www.sterling-eng-sur.com  
Corporate Certificate of Authority #001348



Date: 8/7/2017  
Michael G. Boering  
License No. MO E-28643  
Civil Engineer

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SANITARY SEWER DETAILS

P+Z No. 29-16.01  
City No.  
Date: Aug. 7, 2017  
Job No. 16-08-239

Page No.  
**DTL-4**  
IMP