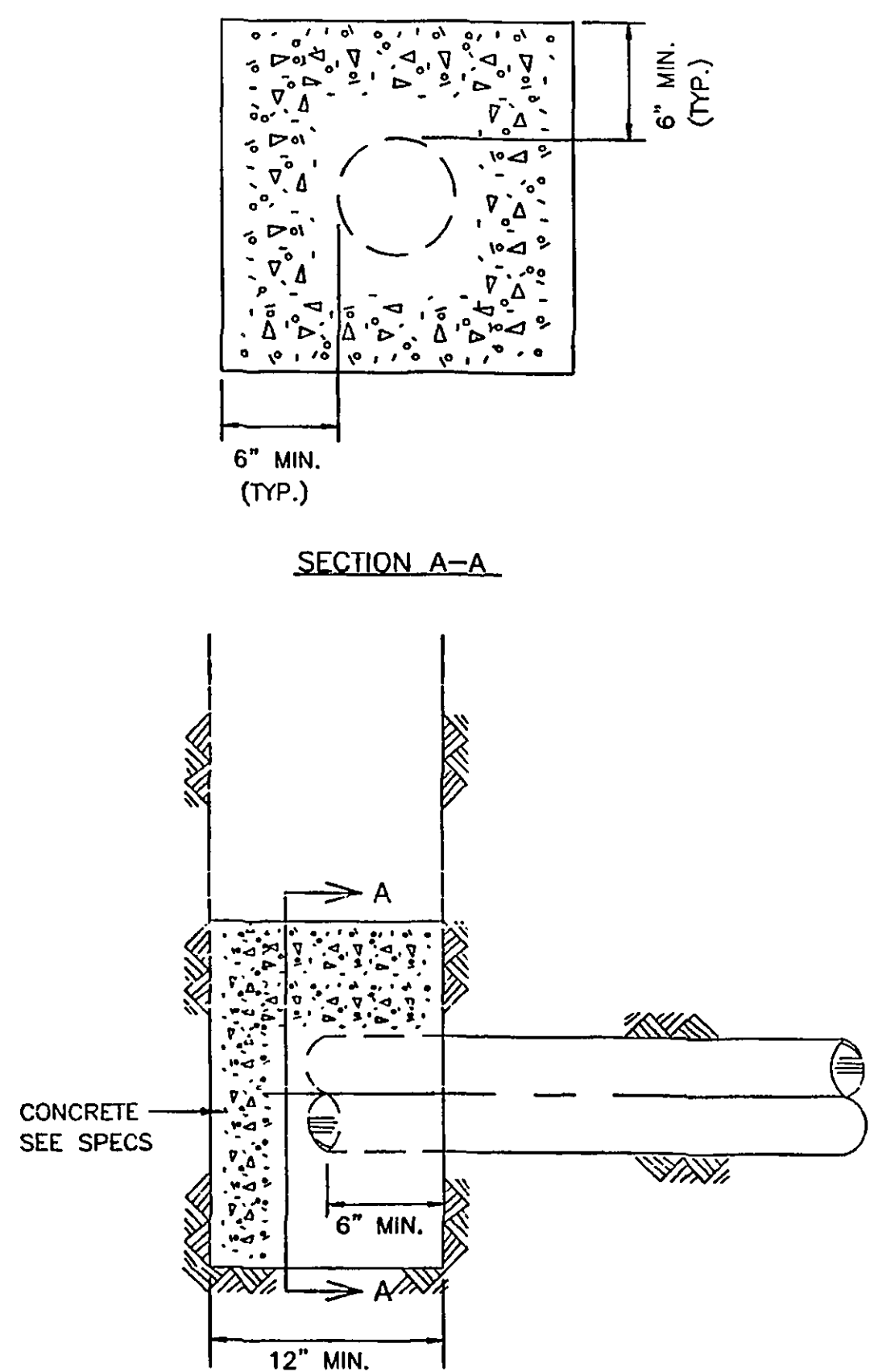
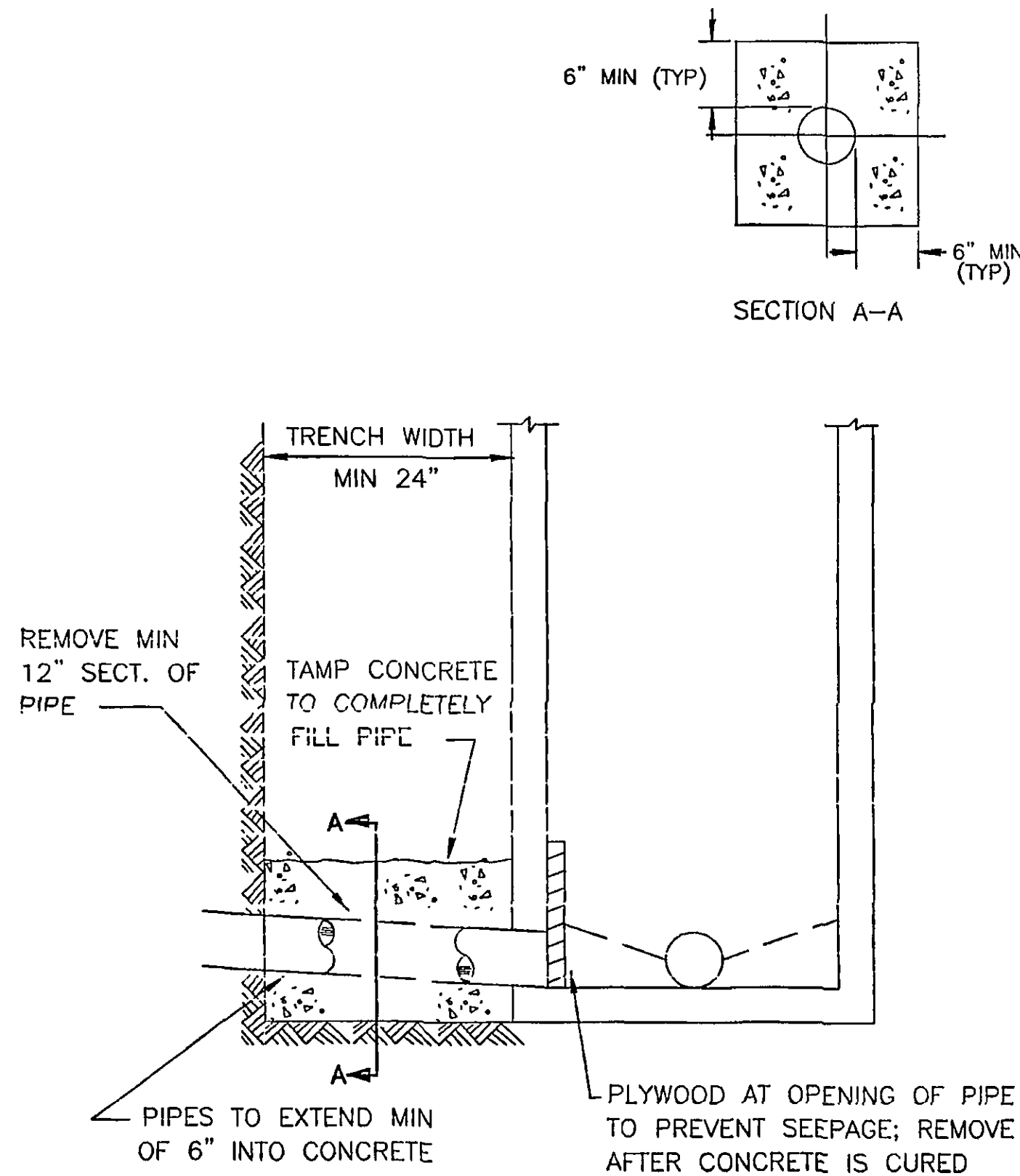


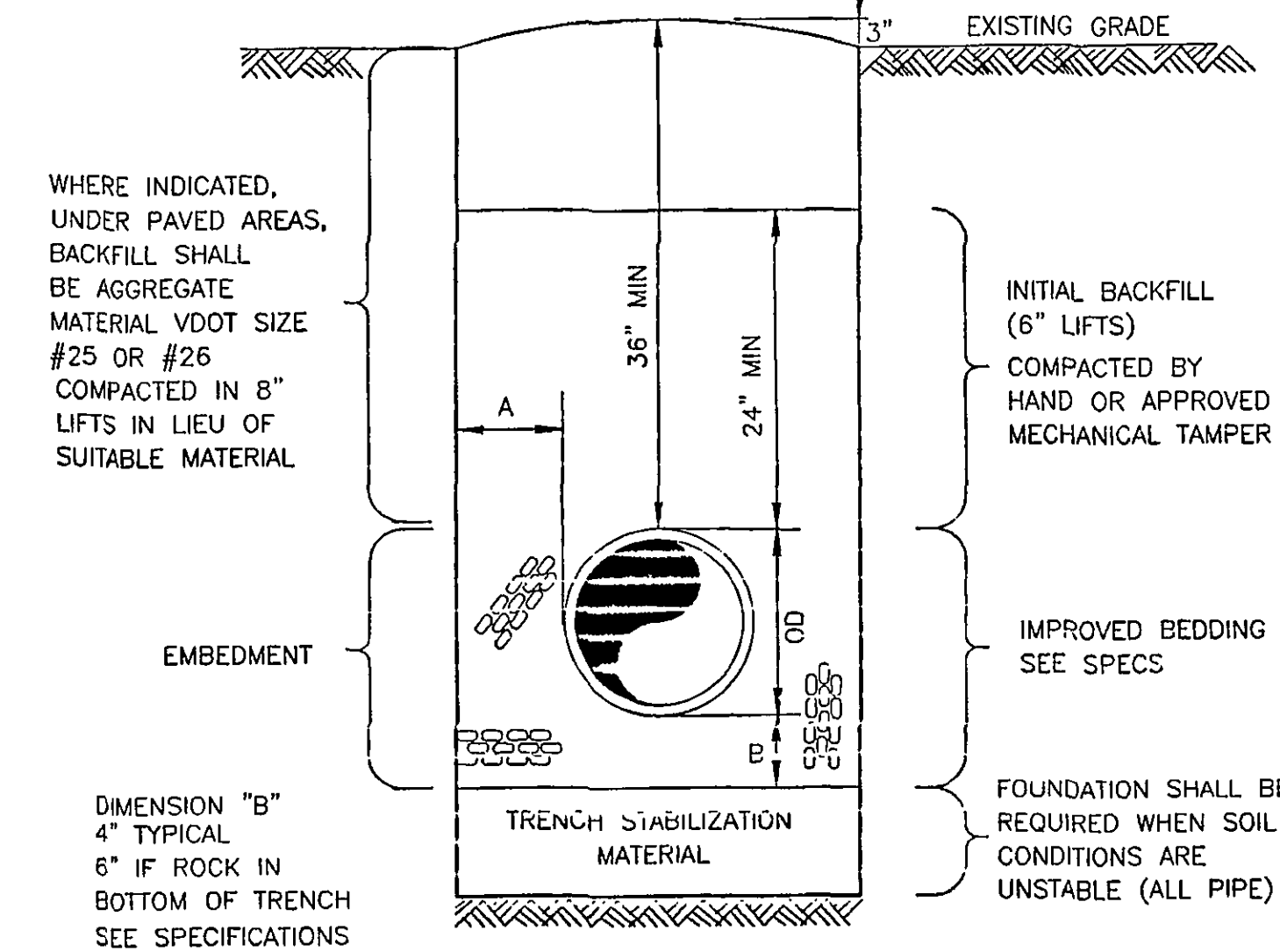


END PLUGGING ABANDONED SEWER LINE



PLUGGING ABANDONED LINE AT MANHOLE

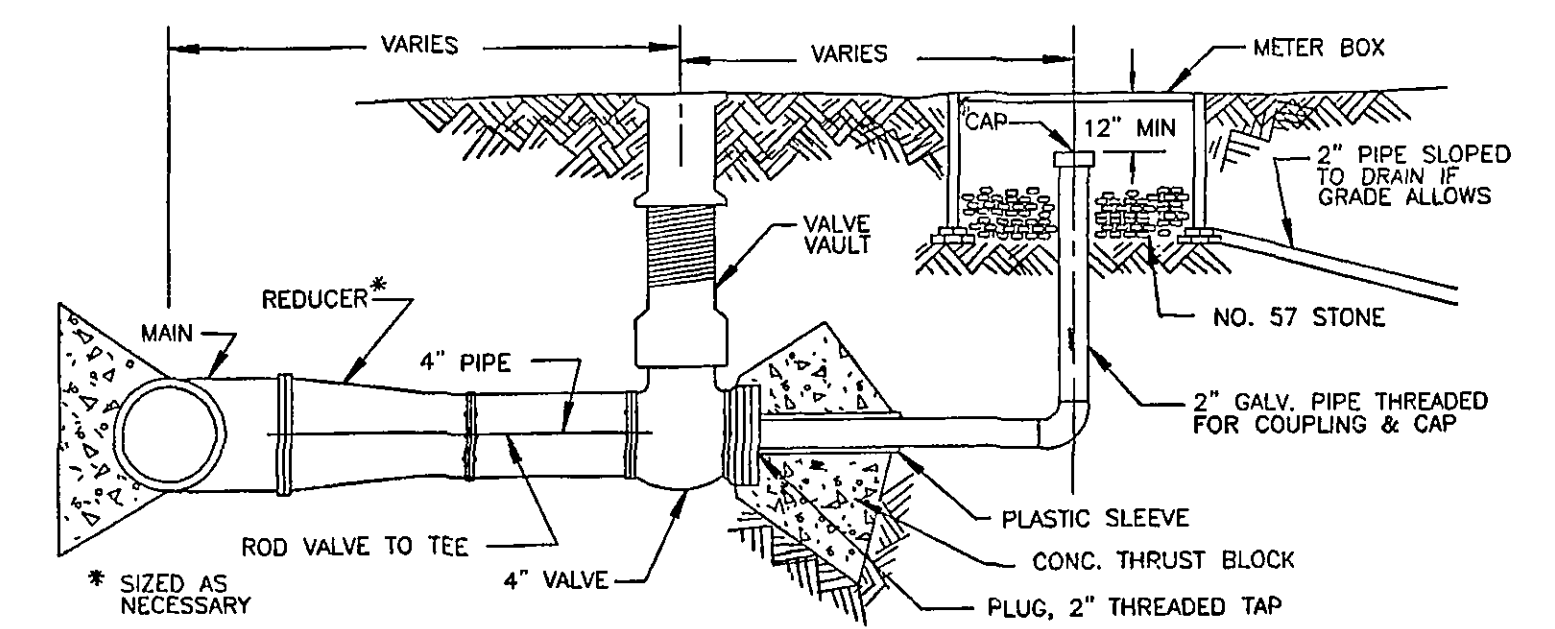
REMAINING BACKFILL SHALL NOT CONTAIN ROCK MATERIAL LARGER THAN 10" IN ANY DIMENSION



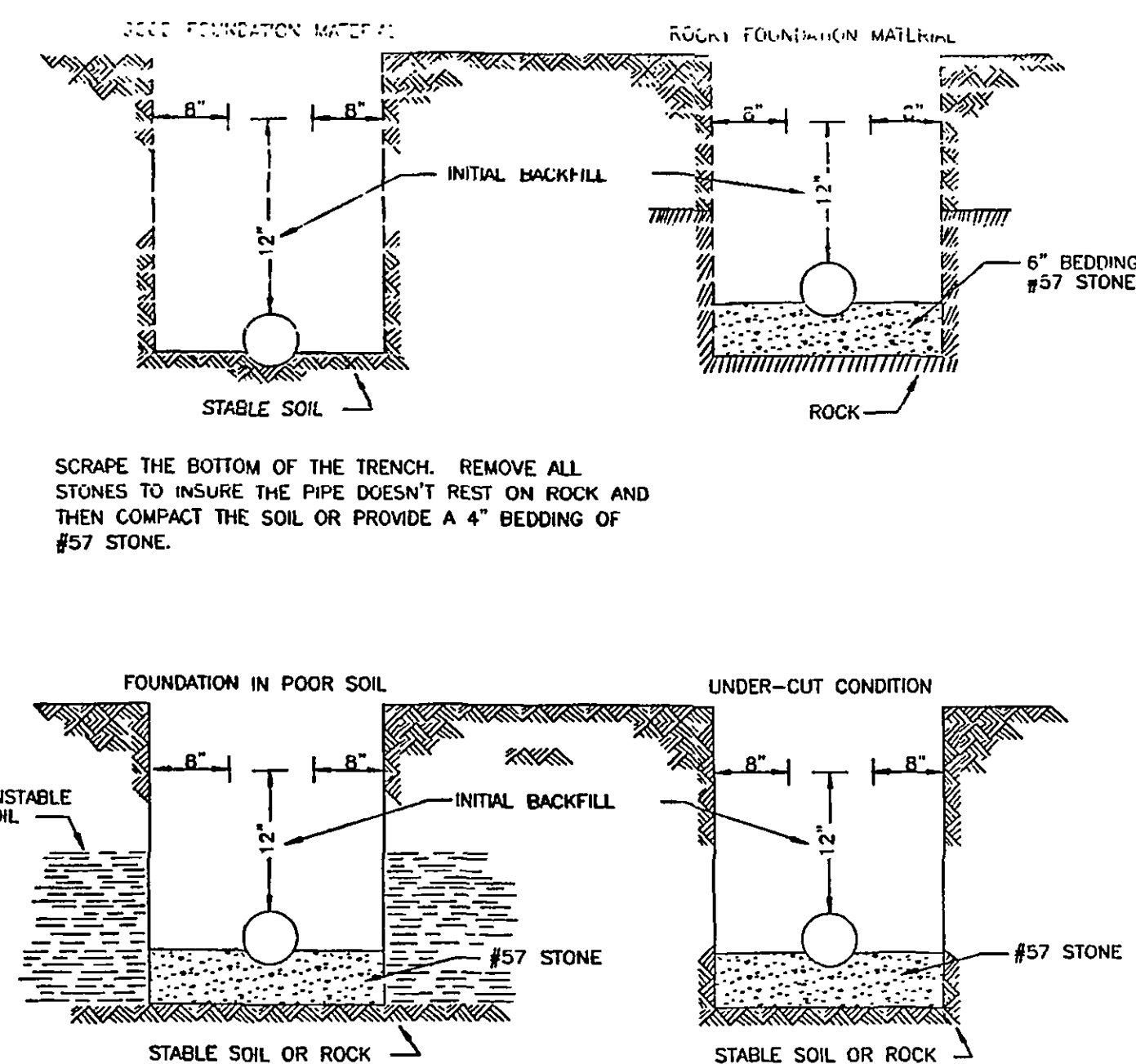
THE MAXIMUM TRENCH WIDTH (OD + 2A) SHALL BE MEASURED FROM THE PIPE INVERT TO ONE FOOT ABOVE THE TOP OF PIPE.

DIMENSION "A" SHALL BE 12" WHEN TRENCH IS 10 FEET OR LESS DEEP FROM INVERT OF PIPE, AND 18" WHEN THE TRENCH IS GREATER THAN 10 FEET DEEP.

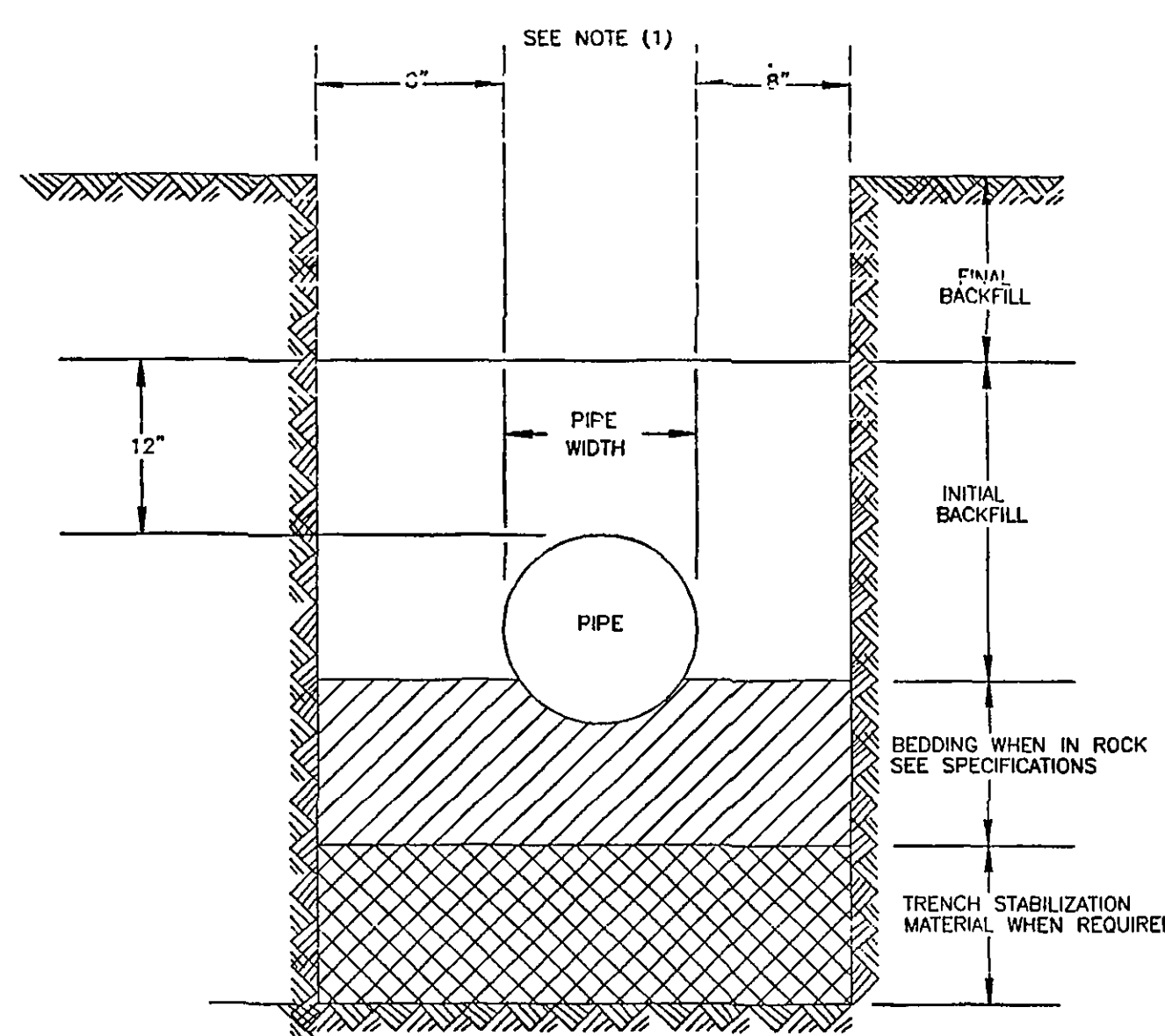
TRENCH DETAILS FOR GRAVITY PIPES



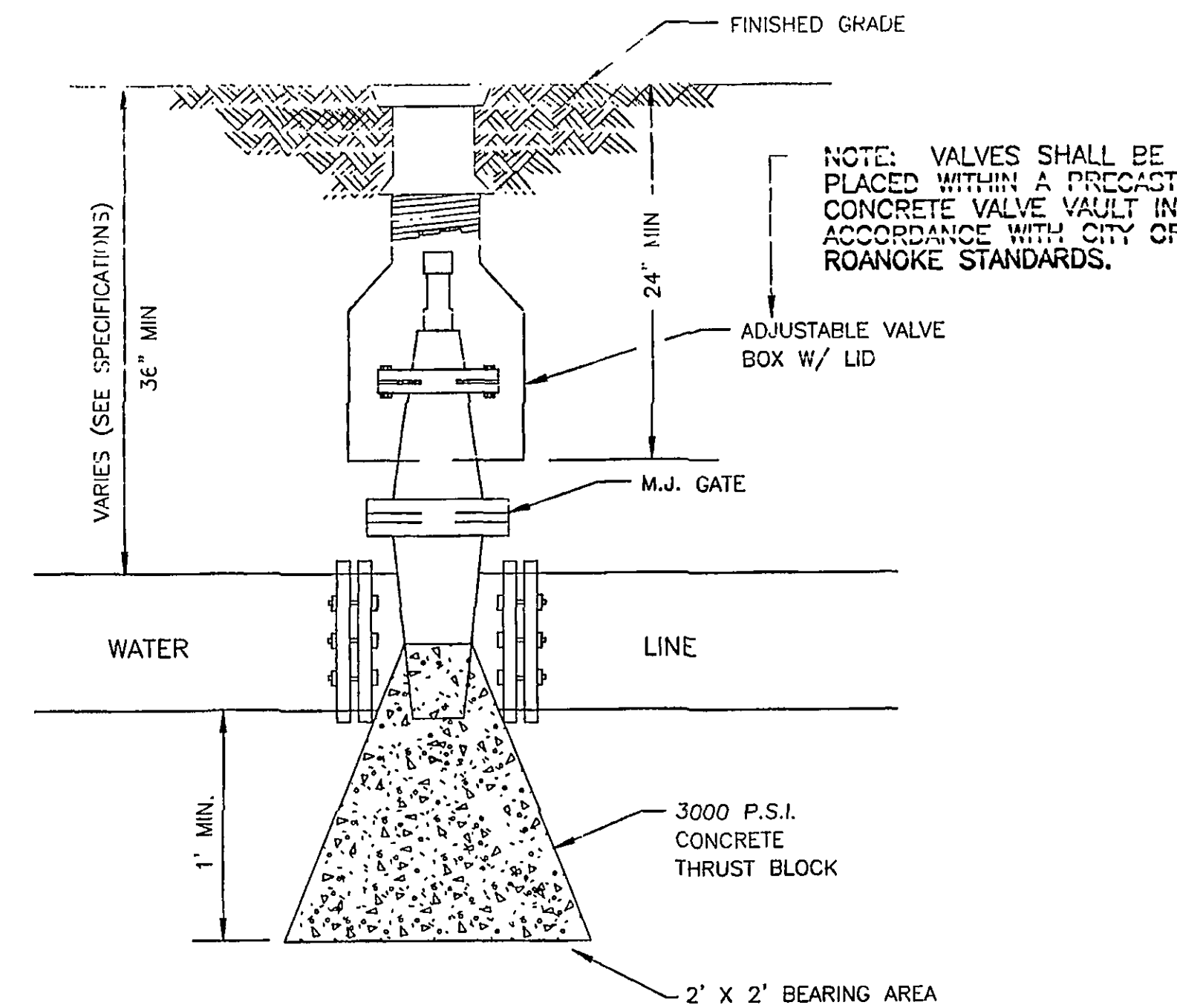
BLOW-OFF ASSEMBLY



- NOTE:
1. NO ROCKS SHALL BE ALLOWED WITHIN 12" OF THE WATER LINES.
 2. NO ROCKS LARGER THAN 6" IN ANY DIMENSION SHALL BE ALLOWED ABOVE THE INITIAL.
 3. THE INITIAL BACKFILL SHALL BE PLACED AND COMPACTED IN 6" LIFTS.
 4. NO ORGANIC OR FROZEN MATERIAL OR DEBRIS SHALL BE ALLOWED IN THE TRENCH.
 5. BELL HOLES SHALL BE DUG OUT IN ALL CASES.

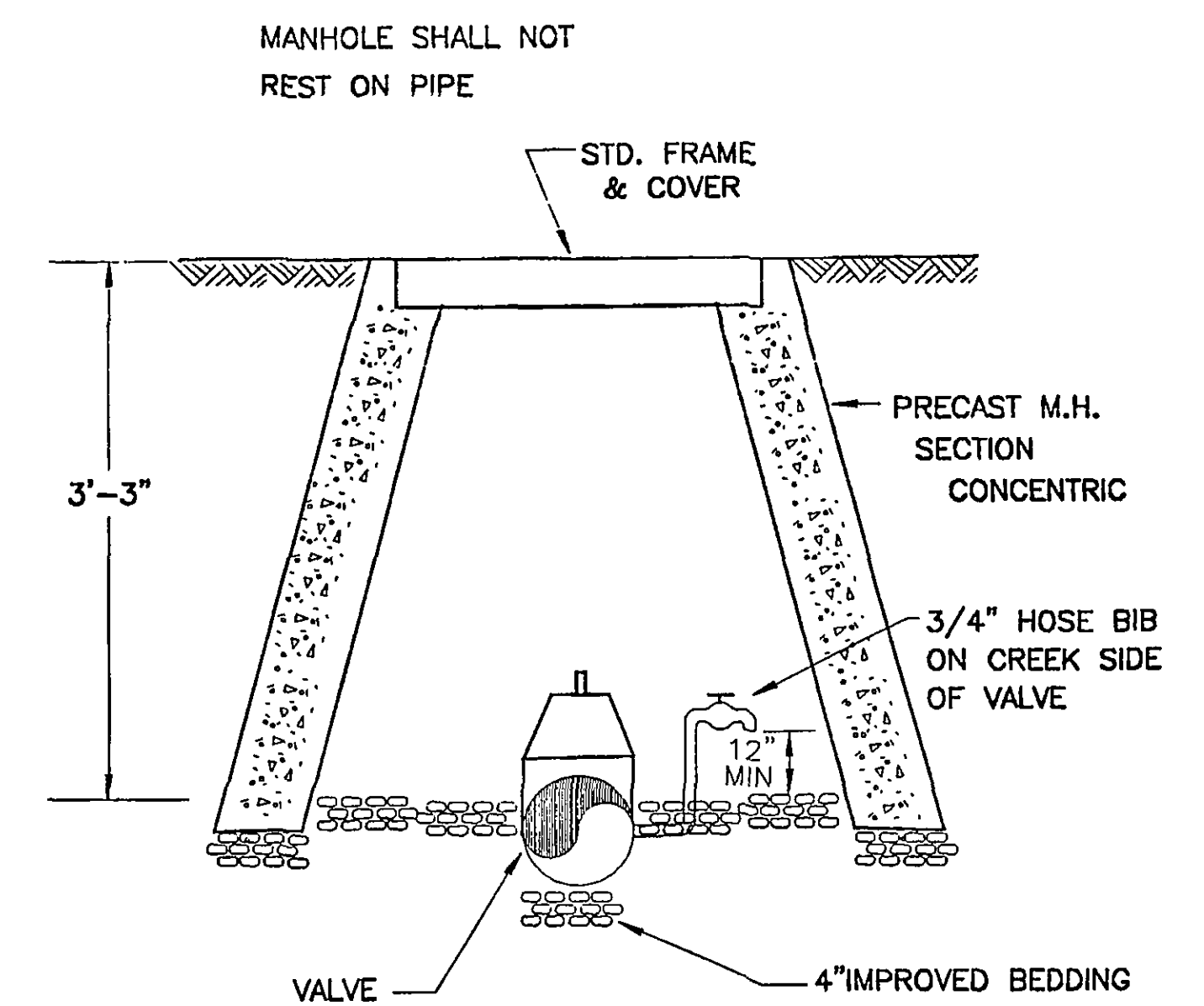


TRENCH INSTALLATION FOR PRESSURE PIPE



- NOTES:
1. IN REMOTE AREAS, VALVE BOXES SHALL EXTEND SIX(6) INCHES ABOVE GRADE
 2. TAR PAPER OR PLASTIC SHALL BE PLACED AROUND END OF WATER MAIN AND AROUND VALVES WHERE CONCRETE ANCHOR BLOCK IS POURED.

TYPICAL GATE VALVE INSTALLATION



VALVE VAULT WITH SAMPLE TAP

TRENCH INSTALLATION DUCTILE IRON PIPE

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COMMONWEALTH OF VIRGINIA
11/2/98
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PROFESSIONAL ENGINEER
NO. 015232

REV.	DATE	DESCRIPTION	BY	APP.	DATE
					NOVEMBER 1998
					COMM. NO. 1440A

BRAMBLETON AVENUE BRIDGE
REPLACEMENT PROJECT
CITY OF ROANOKE, VIRGINIA
MISCELLANEOUS DETAILS

SHEET
16
1440A-DETAILS

PROJECT NO. 6315