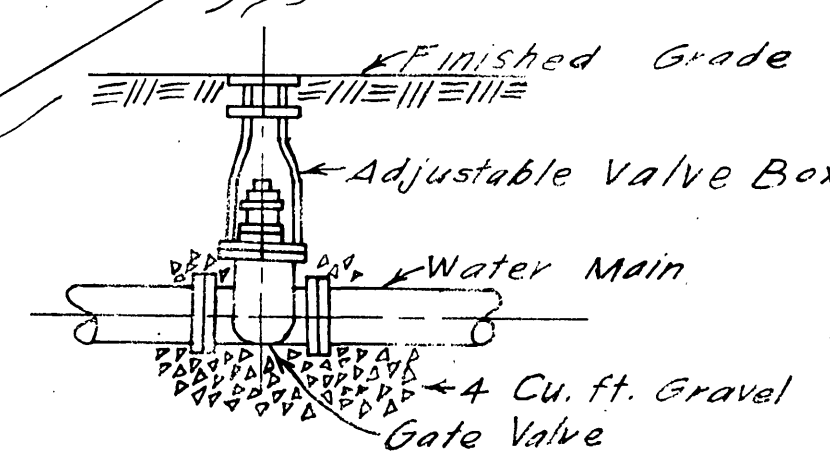


- SPECIFICATIONS**
1. The water main shall be constructed of thermoplastic tubing or pipe approved equal.
 2. The thermoplastic tubing shall be Class 160 NSF Potable Water rated with a strength of 500 p.s.i. under standard AWWA test procedures. Tubing shall have a uniform wall thickness and dimensions such that it can be adapted for use with standard water flare or compression type fittings. Tubing shall be clearly marked to show Potable Water, Class, Size and Manufacturer's name.
 3. Water lines shall be laid at least ten feet horizontally from a sanitary sewer, storm sewer, or manhole; the distance shall be measured edge to edge of pipe. When crossing a sanitary or storm sewer is necessary there shall be a vertical separation of 18" between the bottom of the water line and the top of the sewer line. The length of the water line shall be centered at the point of the crossing so that the joints shall be equidistant and as far as possible from the sewer main. Adequate structural support shall be provided to prevent deflection or joint separation of the sewer or water main. When the separation cannot be maintained, then the sewer shall be constructed of AWWA approved water pipe, pressure tested in place without leakage prior to backfilling. Also when joint water lines must pass under sewer lines, a minimum separation of 18 inches between the top of the water line and the bottom of the sewer line must be provided in addition to the above requirements for the sewer. No water main shall be installed closer than 30' from a septic system leaching field.
 4. All materials, construction, etc. shall meet all current specifications and requirements of The Virginia Department of Health.
 5. All water mains shall be tested at 2 times the working pressure for at least a 2 hour time period and there shall be no leakage.
 6. The water mains shall have a minimum cover of 3' 0". A continuous and uniform bedding shall be provided in the trench for all pipe. Stones and rocks found in the trench shall be removed for a depth of at least 6" below the bottom of the pipe and tamped selected fill bedding provided. After the pipe has been placed in the trench, the trench shall be backfilled with selected material thoroughly compacted using care not to damage the pipe.
 7. No fire hydrant shall be installed on any water main less than 6" in diam.
 8. The water mains shall be disinfected by placing Calcium Hypochlorite Tablets at the following rates per 100 lineal feet of water main: 0.16 lbs. in 8" main; 0.09 lbs. in 6" main; 0.05 lbs. in 4" mains and 0.03 lbs. in 3" mains. The tablets shall be placed in each section of pipe, also in hydrants, hydrant branches and all other appurtenances. All the tablets shall be attached to the top of the main with Permatex No. 1 as manufactured by the Permatex Co., Brooklyn, N.Y. or approved equal by the engineer. The water mains shall be filled slowly and let stand for 24 hrs; then the line flushed at 60 g.p.m. until all the chlorine has been removed. After the chlorine has been removed, 2 samples shall be collected 24 hrs. apart from the end of each line and tested for bacteriological quality and show the absence of coliform organisms before the line is put in service. The chlorine residual shall be not less than 50 p.p.m. at the beginning and 25 p.p.m. at the end of the disinfection period in accordance with AWWA standards.
 9. All pipe joints shall be made in accordance with the Manufacturer's instructions.
 10. Air release valves shall be located at all high points of water mains.
 11. Any construction prior to State Health Department approval of the Plans and Specifications will be at the sole risk of the developer.

Note: The velocity within the mains shall not exceed 1 fps during filling for disinfecting. Bacteriological samples shall be collected at no more than 2000 ft intervals.



WATER SYSTEM
to serve:
**WATER FRONT SECTION 9
GANGPLANK POINTE PHASE I**
property of
**GANGPLANK POINTE PARTNERSHIP
GILL'S CREEK MAG. DIST.
FRANKLIN COUNTY, VIRGINIA**

Prepared by:
William L. Law, Civil Engineer, Va. Cert. No. 1296
Box 420, Route 1, Bassett, Virginia 24055
May 1, 1984

Scale: 1 inch = 40 feet

