

APPROVED:

DEVELOPMENT REVIEW COORDINATOR, ROANOKE COUNTY, VIRGINIA

DATE

RESIDENT ENGINEER, VIRGINIA DEPARTMENT OF HIGHWAYS & TRANSPORTATION

DATE

DEVELOPMENT PLANS

FOR
SECTION NO. 3

CANTERBURY PARK

SINGLE UNIT HOMES

ROANOKE COUNTY VIRGINIA

"AS BUILT" 27 OCTOBER 1988

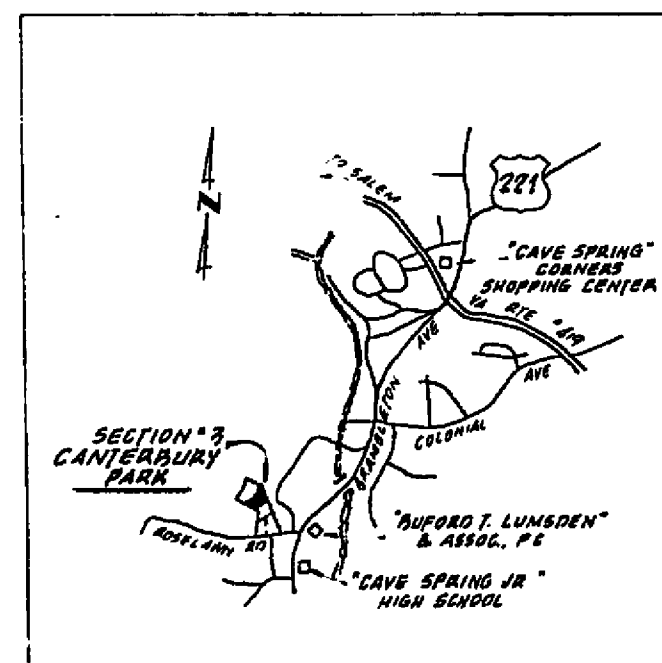
DATE: 17 OCTOBER 1986

DEVELOPER:

BOONE, BOONE & LOEB

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DESIGN DATA AND SPECIFICATIONS

- THIS WATER SYSTEM IS A PRESSURE BOOSTER SYSTEM FOR ALL LOTS ABOVE THE PUMP STATION (APPROXIMATE ELEVATION 1320) AND IS TO BE ISOLATED BY A CLOSED GATE VALVE AT THE DIVISION BETWEEN SECTION 2 AND SECTION 3 OF CANTERBURY PARK. THE SUCTION FOR THE PUMPS IS FROM ROANOKE COUNTY WATER SYSTEM SERVED BY THE PEAK FOREST TANK AT OVERFLOW ELEVATION 1380. THE ESTIMATED MAXIMUM STATIC PRESSURE AT THE PUMP STATION IS 20 PSI. THE ESTIMATED MAXIMUM PRESSURE AT THE PUMP STATION DURING PERIODS OF NORMAL DEMAND IS 50 PSI.
- NUMBER OF UNITS SERVED BY PUMP STATION AND WATER STORAGE SYSTEM.

CANTERBURY PARK - SECTION 3 -	21 LOTS
CANTERBURY PARK - FUTURE SECTIONS -	64 LOTS
ADJACENT COON PROPERTY -	15 LOTS
TOTAL -	101 LOTS
- PUMPS (2 REQUIRED)

Gould Model 3556 (5 5/16" IMP.) CENTRIFUGAL PUMP 3450 RPM (1 1/4" X 2" - 6) 5 HP; 230 VOLT SINGLE PHASE MOTOR - 91 GPM 120' T.D.H. DESIGN: 115 GPM 125' T.D.H. ESTIMATED OPERATION.

- PUMP CONTROLS TO ALLOW FOLLOWING PUMP OPERATIONS:
 - NORMAL DEMAND - ALTERNATING PUMPS
 - PEAK DEMAND - BOTH PUMPS IN OPERATION
 - SUCTION PRESSURE DROPS BELOW 10 PSI - NEITHER PUMP WILL OPERATECONTROLS TO CONSIST OF HEAVY DUTY PRESSURE SWITCHES SENSITIVE TO 1 FOOT (0.4 PSI) STORAGE TANK:

THE TANK HAS A CAPACITY OF 33,600 GALLONS (10' - 6" DIAMETER BY 52' HIGH). THE TANK IS TO BE LOCATED ALONG THE RIDGE LINE AND COMMON PROPERTY LINE BETWEEN CANTERBURY PARK AND THE COON PROPERTY. (SEE NOTE BELOW)

INTERIOR PAINT IS TO BE PETERSBURG PAINTS: PRIMER-60-P-1, COAT 1-60-A1 (1/4" THICK), COAT 2-WHITE 61-W-23 AND COAT 3-ALUMINUM 60-A-1, AT AN APPROXIMATE THICKNESS OF 1.5 MILS PER COAT (TOTAL MINIMUM THICKNESS OF 6 MILS).

EXTERIOR PRIMER IS TO BE PETERSBURG PAINT "MULTI-PRIME" WHITE (97-60-A1) FINISH COAT IS TO BE PETERSBURG "SILICON-ALKYD" MEDIUM GREEN (97-500) AT AN APPROXIMATE THICKNESS OF 1.5 MILS PER COAT (TOTAL MINIMUM THICKNESS OF 4.5 MILS). TANK BOTTOM TO BE COATED WITH HEAVY COAT OF BLACK ASPHALTUM.

5. DISINFECTION
A.1 STORAGE TANK
WATER CONTAINING 50 PPM CHLORINE SHALL BE PLACED IN THE TANK TO A DEPTH THAT WHEN THE TANK IS FILLED THE RESULTANT CHLORINE CONCENTRATION SHALL BE NOT LESS THAN 2 PPM. THE WATER CONTAINING 50 PPM CHLORINE SHALL BE HELD IN THE TANK FOR 24 HOURS BEFORE THE TANK IS FILLED. THE FULL TANK, IN TURN, SHALL BE ALLOWED TO STAND FOR 24 HOURS. AFTER WHICH THE TANK MAY BE PUT INTO SERVICE WITHOUT DRAINING THE WATER USED TO DISINFECT IT. TWO OR MORE SUCCESSIVE SAMPLES, TAKEN AT 24 HOUR INTERVALS AND ANALYZED BY A CERTIFIED LABORATORY, SHALL INDICATE BACTERIOLOGICALLY SATISFACTORY WATER BEFORE THE FACILITY IS RELEASED FOR USE. (ANNA 2592-B-0)

B.1 WATER MAINS
DISINFECTION IN ACCORDANCE TO ANNA 2592-B-0. APPLICATION OF 5 GRAM CALCIUM HYPOCHLORITE TABLET PER JOINT OF PIPE AND 1 OUNCE OF HYPOCHLORITE GRANULES PER 500 FEET OF PIPE. FILLING PIPE AT WATER FLOW RATE OF 1.0 F.P.S. OR LESS. ELIMINATION OF AIR POCKETS AND 24 HOUR CONTACT PERIOD. AFTER REQUIRED CONTACT PERIOD THE PIPELINE IS TO BE FLUSHED THOROUGHLY. WATER SAMPLES COLLECTED AT MAXIMUM 2000 FEET ALONG PIPELINE AND AT 24 HOURS APART SHALL BE BACTERIOLOGICALLY TESTED. A. TESTING SHALL BE SATISFACTORY PRIOR TO PUBLIC USE.

6. PIPING (MEETING ANNA STANDARDS FOR POTABLE-WATER USE)
INTERIOR PIPE AND FITTINGS AND EXTERIOR PIPE LESS THAN 4" IN DIAMETER TO BE STANDARD STRENGTH GALVANIZED STEEL WITH THREADED FITTINGS.

MAINS OF 4" AND 6" DIAMETER TO BE CLASS 51 AND CLASS 50 DUCTILE IRON PIPE RESPECTIVELY (MAXIMUM DEFLECTION FOR 18 FOOT JOINTS IS 19").

VALVES, T.E.S. BENDS AND FIRE HYDRANTS TO BE MECHANICAL JOINT CAST IRON CONSTRUCTION MEET ANNA STANDARDS FOR A PRESSURE CLASS OF 150 PSI.

PRESSURE AND LEAKAGE TESTING OF ALL WATER MAINS PER ANNA STANDARD: PRESSURE TEST 150 PSI FOR ONE HOUR; LEAKAGE TEST 150 PSI FOR TWO HOURS FOR MAXIMUM ALLOWABLE LEAKAGE OF 11.01 GPD. PER MILE OF PIPE, PER INCH OF DIAMETER.

WORKING PRESSURE - INDIVIDUAL LOTS
A.) ALL LOTS WITH A WORKING PRESSURE IN EXCESS OF 80 PSI AT THE METER WILL BE PROVIDED WITH INDIVIDUAL PRESSURE REDUCING VALVES.

B.) ALL LOTS WITH A WORKING PRESSURE LESS THAN 20 PSI AT THE METER WILL BE PROVIDED WITH THEIR OWN PRESSURE SYSTEM TO BE DESIGNED AT THE TIME OF DEVELOPMENT. THIS APPLIES SPECIFICALLY TO THE FOLLOWING LOTS:

7. SCREENS FOR OUTLET ENDS OF OVERFLOW, BLOWOFF AND DRAIN PIPES SHALL BE 1/2" X 1/2" MESH, MINIMUM 7 GAUGE, GALVANIZED HARDWARE CLOTH. THE HARDWARE CLOTH SHALL BE CRIMPED AROUND END OF PIPE AND SECURED WITH GALVANIZED STEEL WIRE.

8. ALL WATER FACILITIES SHALL BE IN ACCORDANCE TO ROANOKE COUNTY STANDARDS AND SPECIFICATIONS.

NOTE: BASED ON CURRENT DISCUSSIONS BETWEEN ROANOKE COUNTY AND THE DEVELOPER THE TANK SIZE WILL BE LARGER AND AT LEAST THE HEIGHT SPECIFIED.

* 78-465 BDL

RC-1239 SHEET # 1 OF 14

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