

WELL NO. 3
WELL HEAD DETAIL

N.T.S.

TWIN COVES SUBDIVISION - WELL NO. 3

WELL NO. 3 IS AN EXISTING WELL SERVING THE TWIN COVES SUBDIVISION WATERWORKS WITH A RATED YIELD OF 8.8 GPM. THE WELL WAS DRILLED ON OR ABOUT SEPTEMBER 25, 1990 BY GORDON-HODGES AND SON OF ROCKY MOUNT, VIRGINIA AND THE 48-HR DRAW DOWN TEST AND RECOVERY REPORT WERE ACCOMPLISHED BY AMERICAN WATER TESTING CO. OF DANVILLE, VIRGINIA ON OR ABOUT OCTOBER 27, 1996. THE WELL HEAD DESIGN PROVIDED BELOW IS BASED ON THE ABOVE REFERENCED REPORTS. A 1 1/2 HP PUMP WOULD HAVE BEEN SELECTED FOR THIS INSTALLATION AS SHOWN IN THE SCHEDULE.

THE SPECIFICATIONS FOR THE WELL PUMP IN PLACE ARE NOT KNOWN BUT THE OWNER HAS BEEN ADVISED BY THE INSTALLING PLUMBER THAT A 1 HP PUMP MIGHT HAVE BEEN SET AT 300 FT BUT THE EXACT SIZE OR MANUFACTURER OF THE PUMP OR ITS PLACEMENT DEPTH IS NOT KNOWN. PER THE REPORTS NOTED ABOVE, THE DRAW DOWN TEST WAS ACCOMPLISHED WITH THE ORIGINAL PUMP IN PLACE WITH THE PUMP AT AN ESTIMATED PUMP DEPTH OF 266 FT.

THE WELL OUTPUT IS CURRENTLY REGULATED TO APPROXIMATELY 7.0 GPM.

WELL HEAD SPECIFICATION

WELL PUMP

THE WELL PUMP FOR WELL NO. 3 SHALL BE SUBMERSIBLE WELL PUMP MEETING THE MANUFACTURER SPECIFICATIONS FOR THE PUMP AS SPECIFIED AS MANUFACTURED BY GOULDS PUMPS, INC., OR EQUAL.

THE SUBMERSIBLE WELL PUMP SHALL HAVE THE CAPACITY AT THE TOTAL DYNAMIC HEAD AND HORSEPOWER NOTED ON THE PLANS. THE PUMP SHALL BE DESIGNED FOR CONTINUOUS OPERATION WITHOUT DAMAGE TO THE MOTOR. IMPELLER DESIGN SHALL BE SUCH TO RESULT IN AN ABRASION RESISTANT CONFIGURATION. DIFFUSERS AND IMPELLERS SHALL BE CONSTRUCTED OF THERMOPLASTIC. BOWLS SHALL BE STAINLESS STEEL. PUMP CASINGS SHALL ALSO BE STAINLESS STEEL. EACH WELL PUMP SHALL BE INSTALLED WITH A POSITIVE SEALING, CAST BRONZE CHECK VALVE WITH CAST BRONZE POPPET MONEL SPRING AND STAINLESS STEEL SELF-LOCKING NUT PLUS RETAINER.

THE WELL PUMP SHALL BE FITTED WITH AN ELECTRIC MOTOR CONSTRUCTED OF CORROSION RESISTANT STAINLESS STEEL. A BUILT IN SURGE PROTECTOR SHALL BE PROVIDED. THE MOTORS SHALL BE SIMILAR IN DESIGN AND CONSTRUCTION TO FRANKLIN ELECTRIC MOTORS OR EQUAL.

WELL CAP

WATERTIGHT WELL CAP SHALL BE A CAST-IRON CAP WITH ZINC PLATED SET SCREWS AND BOLTS. UNIT SHALL INCLUDE NEOPRENE O-RING SEAL AROUND CASING. USE CAMPBELL/MARTINSON WTC6M FOR NOMINAL SIX (6) INCH WELL CASING OR EQUAL. WATERTIGHT WELL CAP SHALL BE A UNIT CERTIFIED FOR THIS USE AND APPROVED FOR USE BY THE VIRGINIA DEPARTMENT OF HEALTH.

PITLESS ADAPTER

PITLESS ADAPTER SHALL BE A SOLID RED BRASS CASTING WITH EXTRA HEAVY WALLS WITH MOLDED GASKET AND SOLID BRASS COLLAR. USE 1 1/4 INCH CAMPBELL/MARTINSON B-SERIES, MODEL NO. B-20 OR EQUAL FOR THE 1 1/2" RISER PIPE. PITLESS ADAPTER SHALL BE A UNIT CERTIFIED BY PITLESS ADAPTER STANDARD - 1 AND APPROVED FOR USE BY THE VIRGINIA DEPARTMENT OF HEALTH. ATTACH RISER PIPE TO PITLESS ADAPTER WITH THE APPROPRIATE THREADED COUPLINGS.

REDUCING ADAPTER

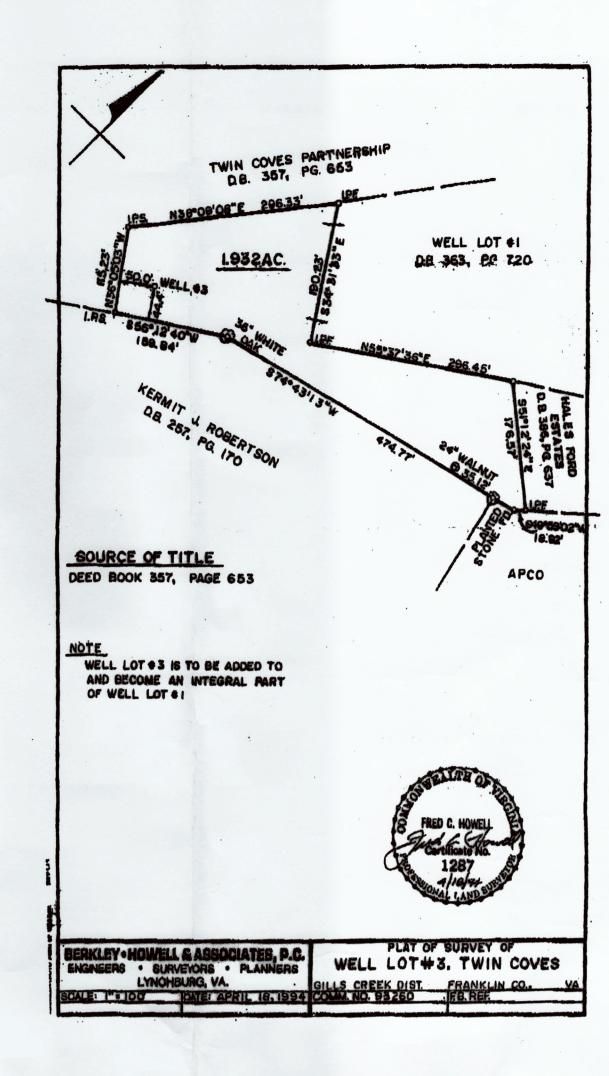
RED BRASS INSERT FITTINGS FOR TRANSITION
FROM 1 1/4" DIA. GALVANIZED STEEL RISER PIPE AND
PITLESS ADAPTOR TO THE ONE (1) INCH DIA.
POLYETHYLENE PIPE ON SITE SHALL BE USED. USE
CAMPBELL INSERT FITTINGS OR EQUAL. USE IRON
REDUCING COUPLINGS AS MANUFACTURED BY CAMPBELL
OR EQUAL. USE TWO (2) STAINLESS STEEL WORM
CLAMPS AT TRANSITION TO POLYETHYLENE ROLL SITE
PIPE.

RISER CHECK VALVE

USE BRASS CHECK VALVES IN THE WELL RISER.
USE CAMPBELL PART NO. CX-8 OR EQUAL. CHECK
VALVE MAY ALSO BE INCLUDED AS PART OF THE
SUBMERSIBLE WELL PUMP.

TORQUE RESISTOR (STOP)

PROVIDE AND INSTALL TORQUE (STOP) OR
RESISTOR DIRECTLY ABOUVE EACH SUBMERSIBLE WELL
PUMP. USE STAINLESS STEEL CLAMPS. TORQUE STOP
SHALL BE SUITABLE FOR USE IN CLASS I B PUBLIC,
NON-COMMUNITY WATER SUPPLES.



WELL HEAD SPECIFICATIONS

WELL NO. 3

RATED YIELD 8.8 GPM

GOULDS MODEL 13GS15412,

OR APPROVED EQUAL

PUMP CAPACITY 12 GPM • 300' TDH

THROTTLE 8.8± GPM 6 340' TDH (147 PSI)
SERVICE

HORSEPOWER / 1 1/2 HP, 230 V
VOLTAGE

DISER PIPE 1 1//T CALVANIZED STEEL PIPE

PITLESS 1 1/4"
ADAPTER

1 1/4"
GALVANIZED STEEL PIPE

TORQUE STOP 1 1/4" X 1"

(RESISTOR)

TEES SEE WATERWORKS BUILDING PLAN,
SHEET 2 OF 3

CHECK VALVES MUELLER, WATTS OR EQUAL

GATE VALVES MUELLER, WATTS OR EQUAL, SEE WATERWORKS
METER BUILDING PLAN, SHEET 2 OF 3

(PUMP 1º METER
BUILDING) USE MAGNETIC DRIVE, POSITIVE DISPLACEMENT

USE MAGNETIC DRIVE, POSITIVE DISPLACEMENT DISC METERS WITH BRONZE CASE. METER SHALL RECORD FLOW IN GALLONS. REFERENCE WATERWORKS BUILDING PLAN,

SHEET 2 OF 3.

DISCHARGE 1 PE PIPE TO PUMP BUILDING PIPING

WELL HEAD

(ON-SITE)

AIR RELEASE HOFFMAN MODEL 79 OR EQUAL •

PUMP STARTER FRANKLIN STARTER OR EQUAL AS REQUIRED FOR THE WELL PUMP.

FINAL DRAFT

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REVISIONS

NO. DATE

SCALES
AS SHOWN

PROJ. NO. DIV.
99363

SHEET NO.
3 OF 3

DRAWING NO.

WELL

DATE: 2-21-02

TECHNICIAN: TWM

CHECKED BY: BCP