

C1 60533 SEQUENCE NO. (MDE USE ONLY)  
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

**STATE OF MARYLAND**  
**WELL COMPLETION REPORT**  
 FILL IN THIS FORM COMPLETELY  
 PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN  
 45 DAYS AFTER WELL IS COMPLETED.  
 COUNTY NUMBER

ST/CO USE ONLY  
 DATE Received MM DD YY 02 16 20  
 DATE WELL COMPLETED MM DD YY 03 03 20  
 Depth of Well 334 (TO NEAREST FOOT)

PERMIT NO.  
 FROM "PERMIT TO DRILL WELL"  
 HO-18-0184

OWNER Wilson, Michael & Amber  
 WELL SITE ADDRESS 5577 W2 Broadwater Ln TOWN Charlesville  
 SUBDIVISION Adams Beach SECTION 1 LOT 4

**WELL LOG**  
 Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Top Soil	0	1	
Red Soil	1	30	
Brn Soil	30	50	
Sandstone	50	52	
Brn Clay	52	70	
Weathered Rock	70	82	
Gray Rock	82	220	
Broken Rock	220	225	
Gray Rock	225	340	

3 Loops GRROUTING RECORD yes no  
 WELL HAS BEEN GROUTED (Circle Appropriate Box)  Y  N  
 TYPE OF GROUTING MATERIAL (Circle one)  
 CEMENT  CM BENTONITE CLAY  BC

NO. OF BAGS 39 NO. OF ROUNDS 750  
 GALLONS OF WATER 915  
 DEPTH OF GROUT SEAL (to nearest foot)  
 from 0 ft. to 334 ft.  
 (enter 0 if from surface)

CASING RECORD  
 casing types insert appropriate code below  
 ST STEEL  CO CONCRETE  
 PL PLASTIC  OT OTHER

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)  
 60 61 63 64 66 70

OTHER CASING (if used) diameter inch depth (feet) from to  
 E A C H C A S I N G

SCREEN RECORD screen type or open hole insert appropriate code below  
 ST STEEL  BR BRASS  HO OPEN HOLE  
 PL PLASTIC  OT OTHER

NUMBER OF UNSUCCESSFUL WELLS: \_\_\_\_\_  
 WELL HYDROFRACTURED  Y  N

C 2 DEPTH (nearest ft.)  
 1 2  
 E 8 9 11 15 17 21  
 A 23 24 26 30 32 36  
 C 38 39 41 45 47 51  
 S  
 R  
 E  
 N  
 SLOT SIZE 1 2 3  
 DIAMETER OF SCREEN (NEAREST INCH)  
 56 60  
 from to

CIRCLE APPROPRIATE LETTER  
 A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED  
 E ELECTRIC LOG OBTAINED  
 P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M 94 106  
 DRILLERS SIGNATURE  
 (MUST MATCH SIGNATURE ON APPLICATION)  
 LIC. NO. D

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)  
 T (E.R.O.S.) W Q  
 70 72 74 75 76  
 TELESCOPE CASING LOG INDICATOR OTHER DATA

**C 3 PUMPING TEST**

HOURS PUMPED (nearest hour) 8 9  
 PUMPING RATE (gal. per min.) 11 15  
 METHOD USED TO MEASURE PUMPING RATE  
 WATER LEVEL (distance from land surface)  
 BEFORE PUMPING 17 20 ft.  
 WHEN PUMPING 22 25 ft.  
 TYPE OF PUMP USED (for test)  
 A air  P piston  T turbine  
 C centrifugal  R rotary  O other (describe below)  
 J jet  S submersible

PUMP INSTALLED  
 DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO  
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29  
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35  
 PUMP HORSE POWER 37 41  
 PUMP COLUMN LENGTH (nearest ft.) 43 47  
 CASING HEIGHT (circle appropriate box and enter casing height)  
 + above } LAND SURFACE (nearest foot)  
 - below }

LATITUDE 39.22097  
 LONGITUDE 76.96298  
 (DEFAULT COORD. WGS 84)

Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or state law.

**B 1** SEQUENCE NO. (MDE USE ONLY) **61401** **STATE OF MARYLAND** **APPLICATION FOR PERMIT TO DRILL WELL** **40-18-0189**  
 please type **567318** **fill in this form completely** 79

**1 2 3 6**  
 Date Received (APA) **02/19/20**  
**8 MM DD YY 13**  
**OWNER INFORMATION**  
**15** Last Name **Owner** First Name **34**  
**36** Street or RFD **55**  
**57** Town **70** State **72** Zip **76**  
 Wilson Michael D + Amber J  
 5577 Broadwater Lane  
 Clarksville MD 21029

**B 3** **LOCATION OF WELL**  
**8** COUNTY **21**  
**23** SUBDIVISION **42**  
**SECTION** **44** **46** **LOT** **48** **50**  
**52** NEAREST TOWN **71**  
 Howard  
 Adams Reach  
 Clarksville

**DRILLER INFORMATION**  
**76** Driller's Name **76** License No. **81**  
**Firm Name**  
**Address**  
**Signature** **Date**  
 Marshal Annette M S D 106  
 Allied Well Drilling  
 P.O. Box 129 Annapolis Junction MD 20701  
 Marshal Annette 02/18/2020

**B 4** **SOURCES OF DRILLING WATER**  
**11** STREET ADDRESS **30**  
**ON WHICH SIDE OF ROAD** **(CIRCLE APPROPRIATE BOX)**  
**34** **37** **DISTANCE FROM ROAD**  
**ENTER FT OR MI** **38** **39**  
**TAX MAP:** **0028** **BLK:** **PARCEL** **0395**  
 1 Public  
 2 3/2/20 - 1st bore  
 @ 340' 3 gpm,  
 82' of casing -  
 silt fence bag  
 in place. @

**B 2** **WELL INFORMATION**  
**1** **2** **APPROX. PUMPING RATE** **(GAL. PER MIN.)** **8** **12**  
**AVERAGE DAILY QUANTITY NEEDED** **(GAL. PER DAY)** **14** **20**

**NOT TO BE FILLED IN BY DRILLER**  
**HEALTH DEPARTMENT APPROVAL**  
**COUNTY NAME** **COUNTY NO.**  
**STATE SIGNATURE** **INSERT S** **41**  
**DATE ISSUED** **43** **MM** **DD** **YY** **48** **CO SIGNATURE** **EXP. DATE**  
 Howard  
 02/15/2020  
 DON: 3/2/2020  
 03/03/2020

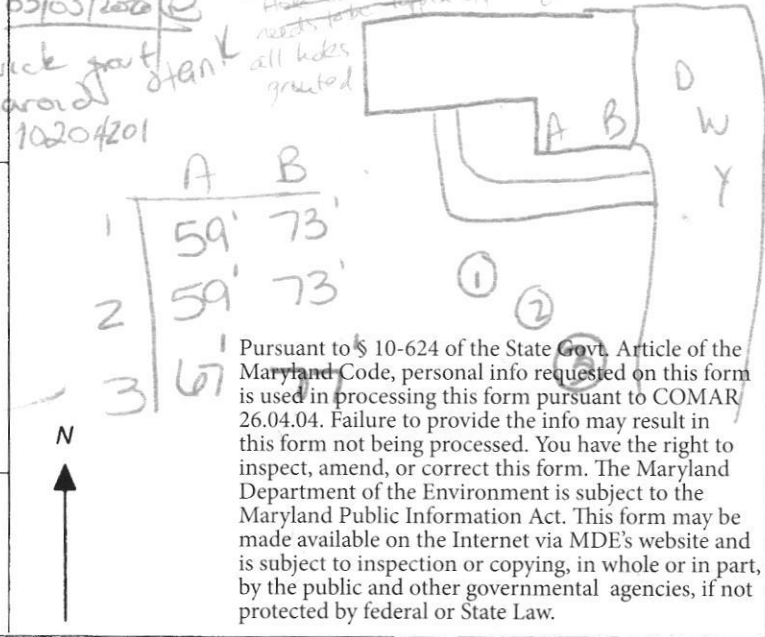
**USE FOR WATER** (CIRCLE APPROPRIATE BOX)  
 DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION  
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 INDUSTRIAL, COMMERCIAL, DEWATERING  
 PUBLIC WATER SUPPLY WELL  
 TEST, OBSERVATION, MONITORING  
 OPEN LOOP GEOTHERMAL  
 CLOSED LOOP GEOTHERMAL  
 3 loops

**APPROXIMATE DEPTH OF WELL** **24** **28** **FEET**  
**APPROXIMATE DIAMETER OF WELL** **6** **NEAREST INCH**

**PROPOSED LOCATION OF WELL ON LOT**  
**SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL**  
 Septic tank  
 3/4/20  
 Hole depth of tank  
 needs to be tipped off  
 all holes grouted  
 quick part barrel  
 10204201

**METHOD OF DRILLING** (circle one)  
**BORED** (or Augered) **JETTED** **Jetted & DRIVEN**  
**30** AIR-ROTary **AIR-PERcussion** **ROTARY** (Hydraulic Rotary)  
**37** CABLE **REVerse-ROTary** **DRive-POINT**  
 other \_\_\_\_\_

**REPLACEMENT OR DEEPEMED WELLS** (CIRCLE APPROPRIATE BOX)  
 THIS WELL WILL NOT REPLACE AN EXISTING WELL  
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED  
 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS  
 THIS WELL WILL DEEPEM AN EXISTING WELL  
**PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED** (IF AVAILABLE) **41** **52**



**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**  
**APPROP. PERMIT NUMBER** **G**  
**PERMIT No.** **40-18-0189**  
**70** **71** **72** **73** **74** **75** **76** **77** **78** **79**

**SPECIAL CONDITIONS**  
 NONE



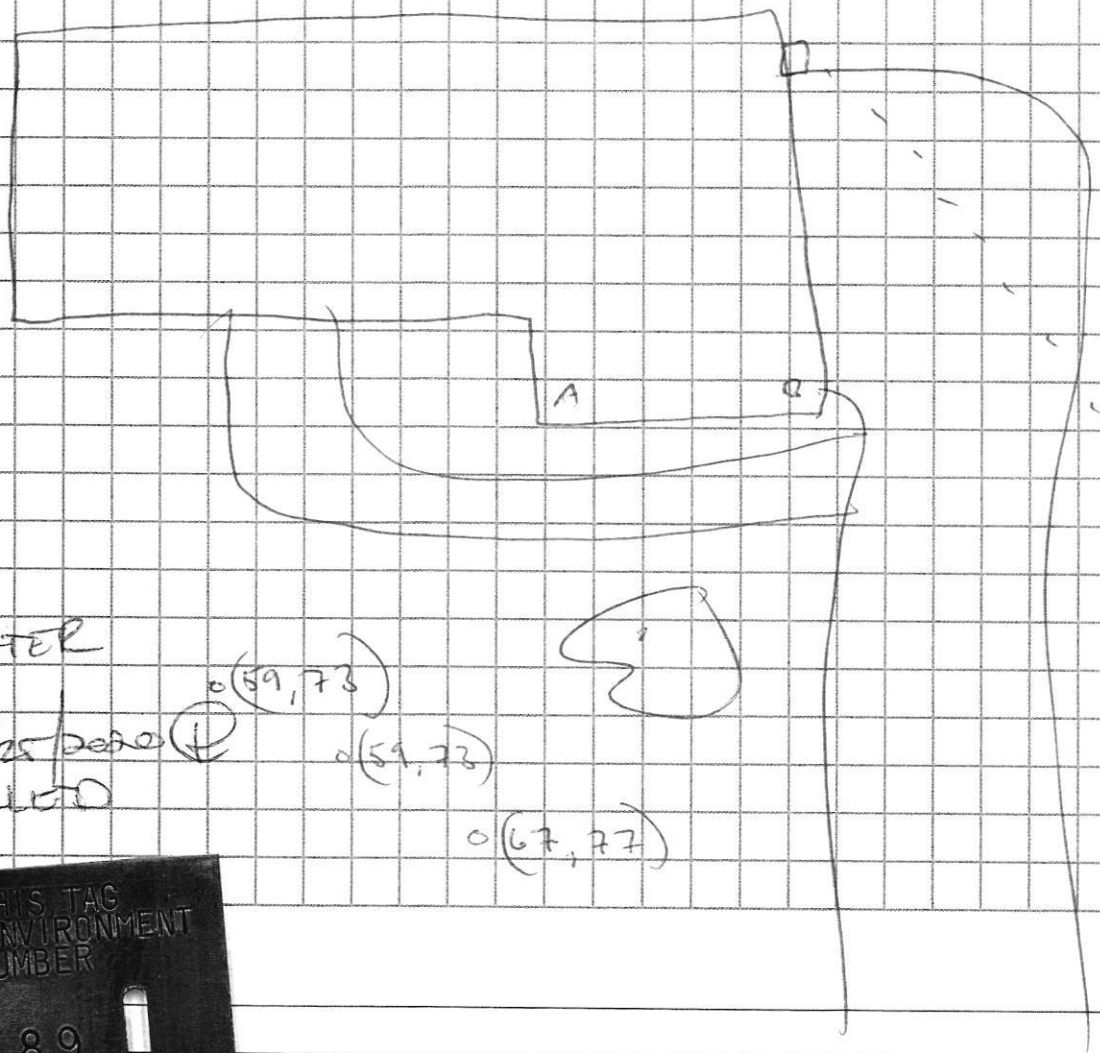
# SITE PLAN

Septic  
↑

Well

0 tank

0 40



5577 BROAD WATER

HO-18-0189

APPROVED 02/25/2020

SEALED BY ALLIED

0 (59, 73)

0 (59, 73)

0 (67, 77)



From Street: \_\_\_\_\_

Comments: \_\_\_\_\_

Person Completing Form: \_\_\_\_\_

Trees Nearby: \_\_\_\_\_

Utility Issues: \_\_\_\_\_

Mats Needed: \_\_\_\_\_

Access For H/U: \_\_\_\_\_

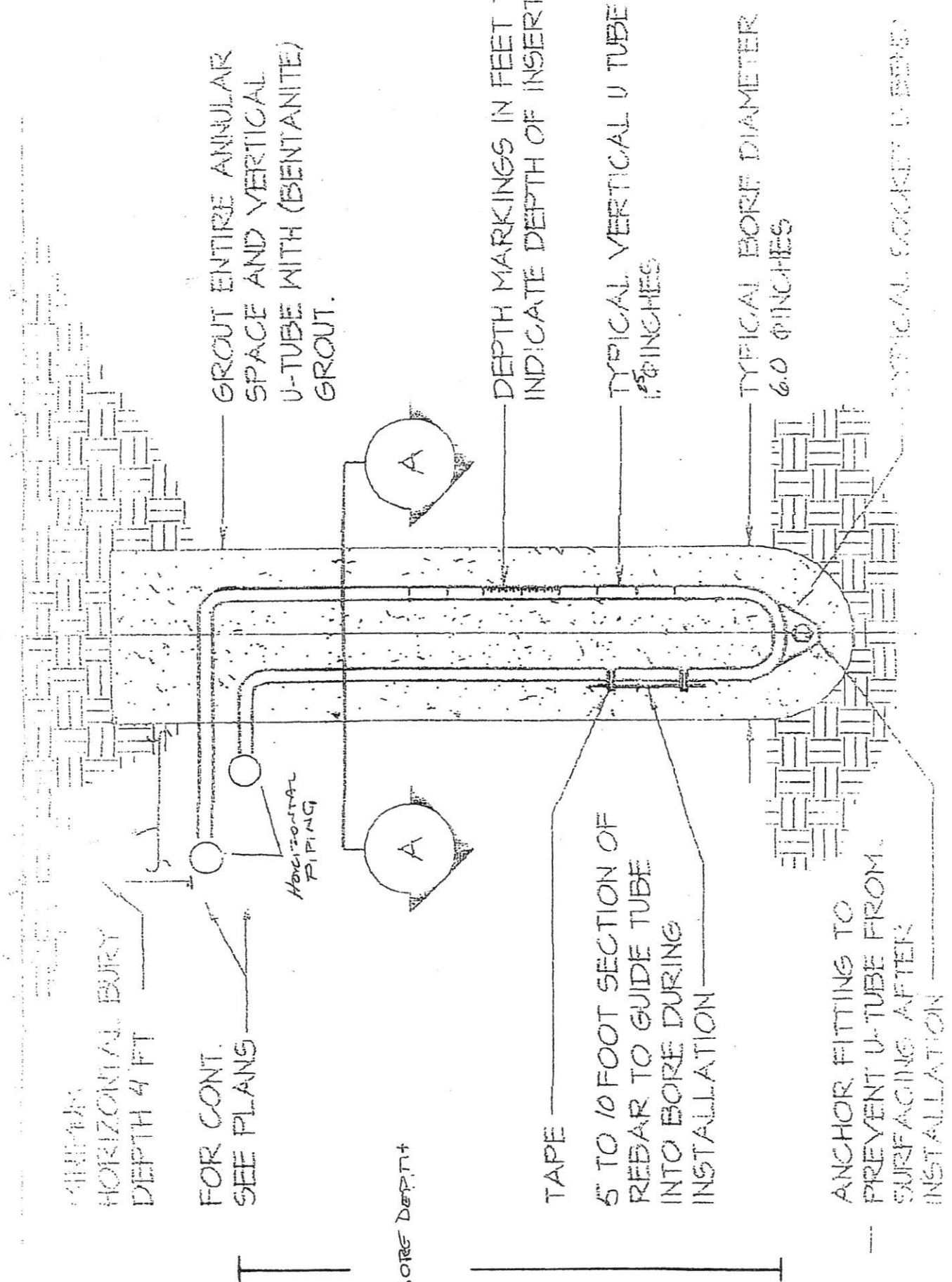
Neighboring Tags: \_\_\_\_\_

## HOWARD COUNTY GROUTING PROCEDURE

Boreholes will be grouted from the bottom to the top via a tremie pipe and positive displacement pump. Bentonite grout, known as Quik-Grout will be used according to the manufacturer's specifications to achieve a consistency of at least 20% solids (24 gallons potable water/50 lb. sack of grout) and a permeability no more than  $2.5 \times 10^{-8}$  cm/sec. Grouting will be completed immediately after installing the geothermal loop and no later than twenty-four (24) hours after installing the geothermal loop. Open boreholes/annular space will be protected as necessary to prevent the entry of surface water or pollutants.

EACH BORE HOLE (TYP.)

GRADE



GRADE

HORIZONTAL BURY DEPTH 4 FT

FOR CONT. SEE PLANS

HORIZONTAL PIPING

BORE DEPTH

GROUT ENTIRE ANNULAR SPACE AND VERTICAL U-TUBE WITH (BENTANITE) GROUT.

DEPTH MARKINGS IN FEET TO INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U TUBE 1.5" Ø INCHES

TYPICAL BORE DIAMETER 6.0" Ø INCHES

TYPICAL SOCKET U-BEND

TAPE

5" TO 10" FOOT SECTION OF REBAR TO GUIDE TUBE INTO BORE DURING INSTALLATION

ANCHOR FITTING TO PREVENT U-TUBE FROM SURFACING AFTER INSTALLATION

