

05-371473

B 1 36052

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please type

STATE PERMIT NUMBER
HO-15-0043
fill in this form completely

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13
Rathz Rosemary

15 Last Name Owner First Name 34

36 5030 Morningside Drive
Street or RFD 55

57 Dayton MD 70 State 72 Zip 76 21036

B 3 LOCATION OF WELL

8 COUNTY Howard 21

23 SUBDIVISION _____ 42

SECTION 44 46 LOT 48 50

52 NEAREST TOWN Dayton 71

DRILLER INFORMATION

Driller's Name C. John Hess 76 License No. 81 MWD 553

Firm Name Allied Environmental Services

Address PO Box 129 Annapolis Junction MD 20701

Signature John Hess Date 04/07/15

B 4 SOURCES OF DRILLING WATER

1. Public

2. _____

3. _____

11 STREET ADDRESS 5030W Morningside Dr 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH WEST EAST SOUTH

34 110 37 DISTANCE FROM ROAD ENTER FT OR MI 0 39

TAX MAP: 0028 BLK: 0020 PARCEL: 0209

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) _____ 8 _____ 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) _____ 14 _____ 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

22 INDUSTRIAL, COMMERCIAL, DEWATERING

PUBLIC WATER SUPPLY WELL

TEST, OBSERVATION, MONITORING

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL 3 Loops

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard A 2662 (13)

COUNTY NAME COUNTY NO.

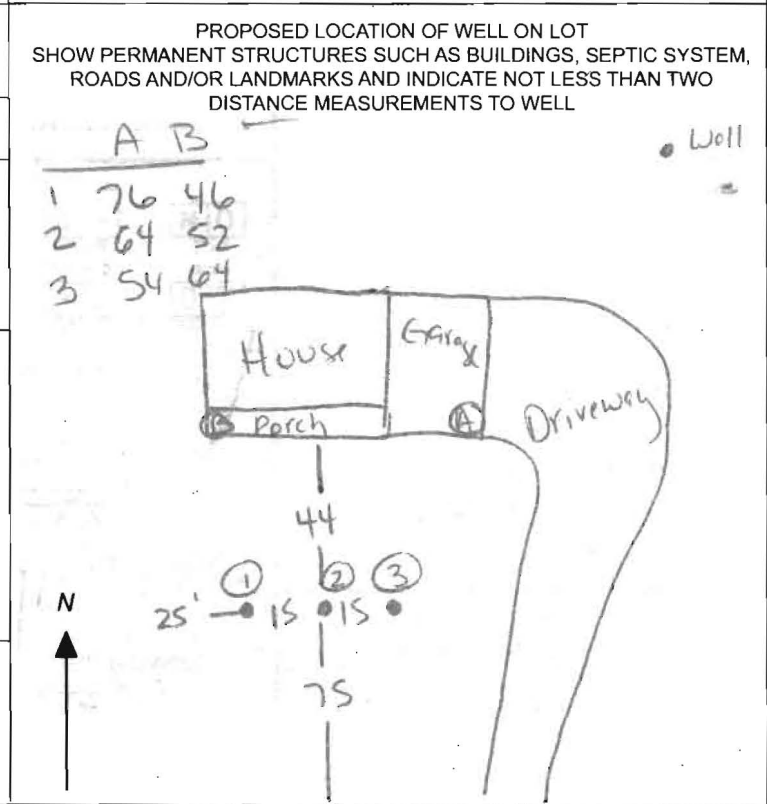
STATE SIGNATURE _____ INSERT S → 41

DATE ISSUED 4/20/15 Kim King 4/20/15

43 MM DD YY 48 CO SIGNATURE EXP. DATE

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH



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 DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39 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 DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 _____ 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER _____ G _____

PERMIT No. HO-15-0043

SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Suprem

C1 34403

SEQUENCE NO. (MDE USE ONLY)

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.

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER

ST/CO USE ONLY DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER, WELL SITE ADDRESS, TOWN, SUBDIVISION, SECTION, LOT

WELL LOG table with columns for DESCRIPTION, FEET (FROM, TO), and check if water bearing. Includes handwritten entries like Topsoil, Brn Soil, Brn Orgy Soil, Brn Clay, Weathered Rock, Med Cong Rock.

GROUTING RECORD: WELL HAS BEEN GROUTED (Y/N), TYPE OF GROUTING MATERIAL (Cement, Bentonite Clay), NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL.

CASING RECORD: casing types insert appropriate code below (Steel, Concrete, Plastic, Other), MAIN CASING TYPE, Nominal diameter, Total depth.

OTHER CASING (if used) diameter, depth, SCREEN RECORD: screen type or open hole (Steel, Brass, Open Hole, Plastic, Other).

DEPTH (nearest ft.) table with columns for casing types and depths.

PUMPING TEST: HOURS PUMPED, PUMPING RATE, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL, TYPE OF PUMP USED.

PUMP INSTALLED: DRILLER INSTALLED PUMP, TYPE OF PUMP INSTALLED, CAPACITY, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT.

NUMBER OF UNSUCCESSFUL WELLS, WELL HYDROFRACTURED (Y/N)

CIRCLE APPROPRIATE LETTER: A (Abandoned), E (Electric Log), P (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...

DRILLERS LIC. NO., DRILLERS SIGNATURE, LIC. NO.

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER): T (E.R.O.S.), W Q, TELESCOPE CASING, LOG INDICATOR, OTHER DATA.

LATITUDE 39.22623, LONGITUDE 76.98377, NOTES: Includes handwritten notes and a diagram of a well casing.



HOWARD COUNTY HEALTH DEPARTMENT

55801

DATE
4/18/15

WS

Received From

Allied Environmental Services ³⁰¹ PHONE # 716-8310

For

Well Permit / 5030
Morningstar Dr.

- CASH
- CHECK

NO.
11602

One hundred sixty xx Dollars

\$ 160.00

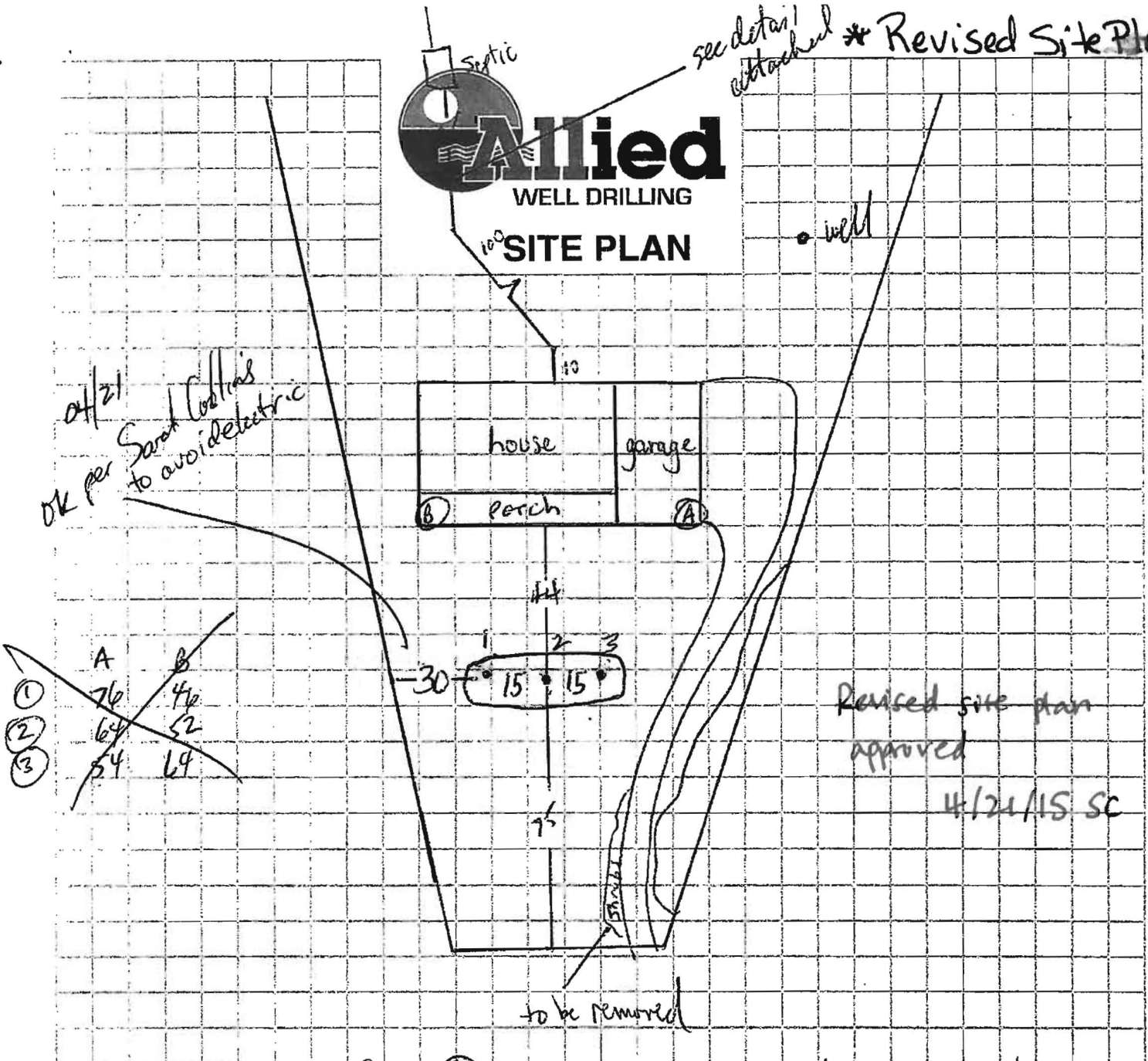
Received By

J King



see detail attached * Revised Site Plan *

SITE PLAN



Revised site plan approved
4/21/15 SC

04/21 electric runs from (A) near 1. Move field 5' towards driveway

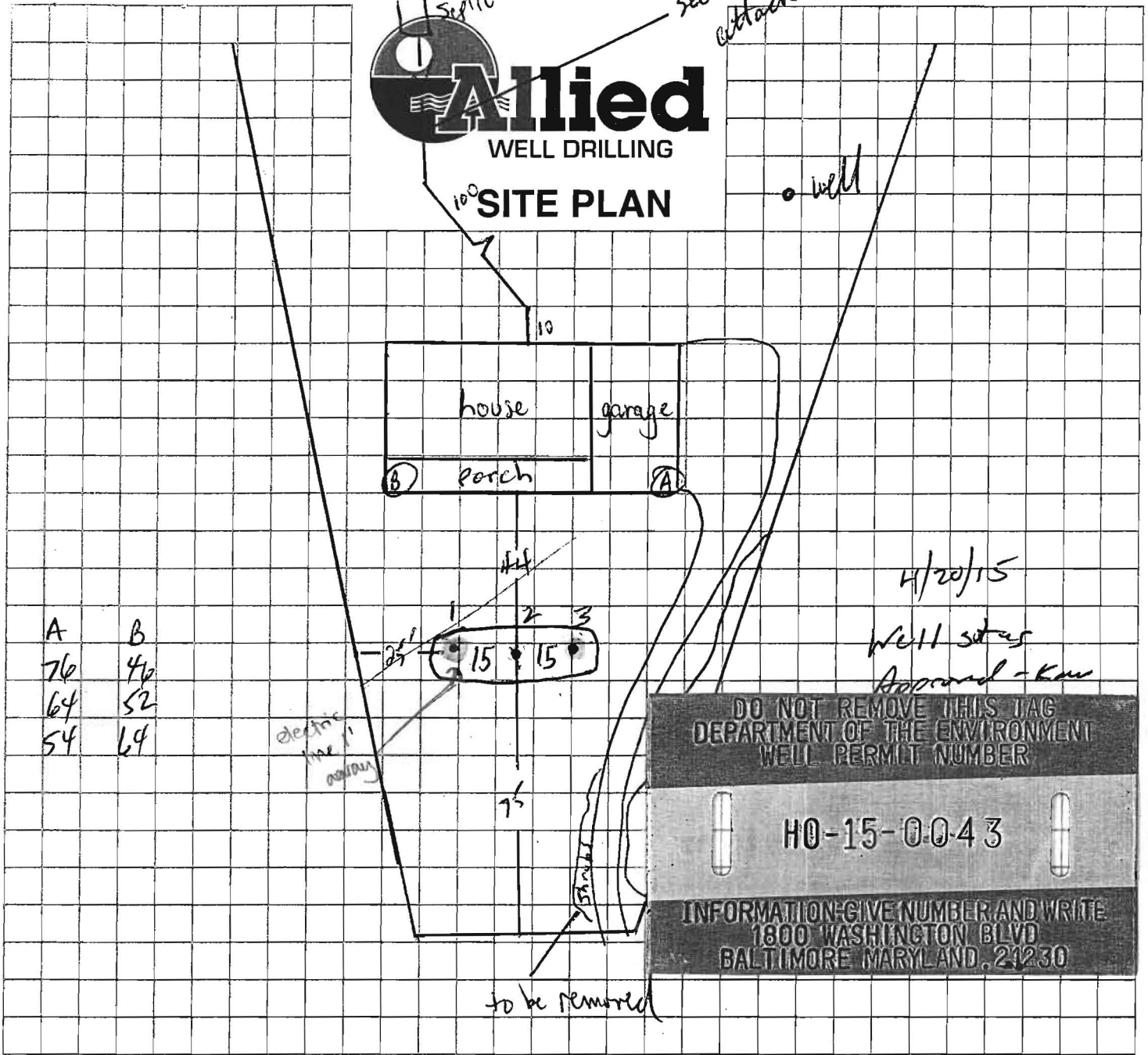
Sediment Control Protocol: silt fence

Distance From House: 44
 From Septic: 100+
 From Sewer: 1/2
 From Property Line: 25
 From Street: 75+

Trees Nearby: no issue
 Utility Issues: get marked
 Mats Needed: to leave drive, cross apron
 Access For H/U: to be done by others
 Neighboring Tags: _____

Comments: Suprem to clear shrubs for access

Person Completing Form: Guzzierchi



4/20/15
Well sites
Approved - Kaw

DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER

HO-15-0043

INFORMATION: GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD
BALTIMORE MARYLAND, 21230

Sediment Control Protocol: silt fence

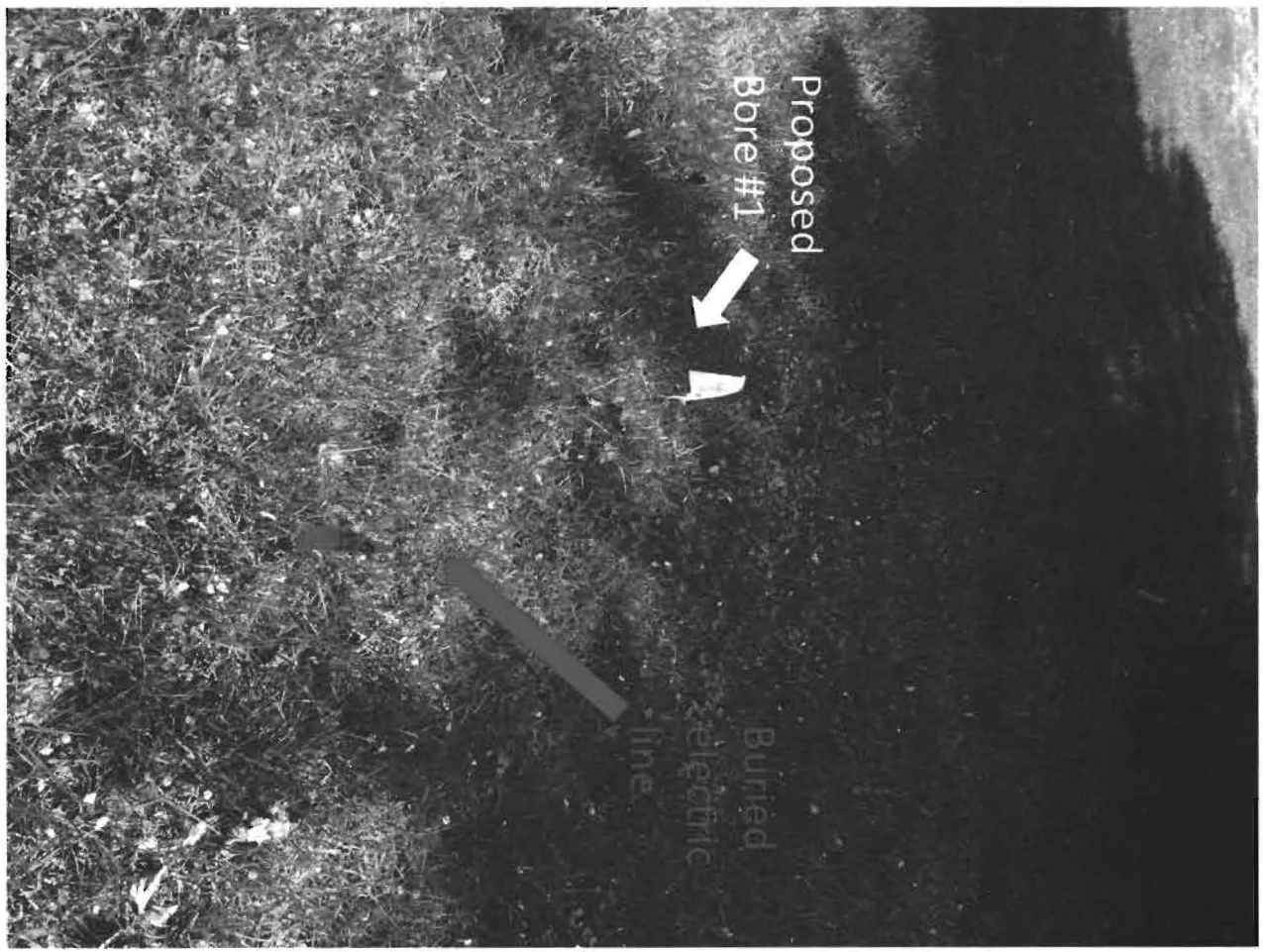
Distance From House: 44
 From Septic: 100+
 From Sewer: n/a
 From Property Line: 25
 From Street: 75+

Trees Nearby: no issue
 Utility Issues: get marked
 Mats Needed: to leave drive, cross apron
 Access For H/U: to be done by others
 Neighboring Tags: _____

Comments: Supreme to clear shrubs for access

Person Completing Form: Guizzardi

4/20/15
5030 Morning Star Dr.





GRADE

EACH BORE HOLE (TYP.)

MINIMUM

HORIZONTAL BURY
DEPTH 4 FT

FOR CONT.
SEE PLANS

HORIZONTAL
PIPING

BORE DEPTH

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

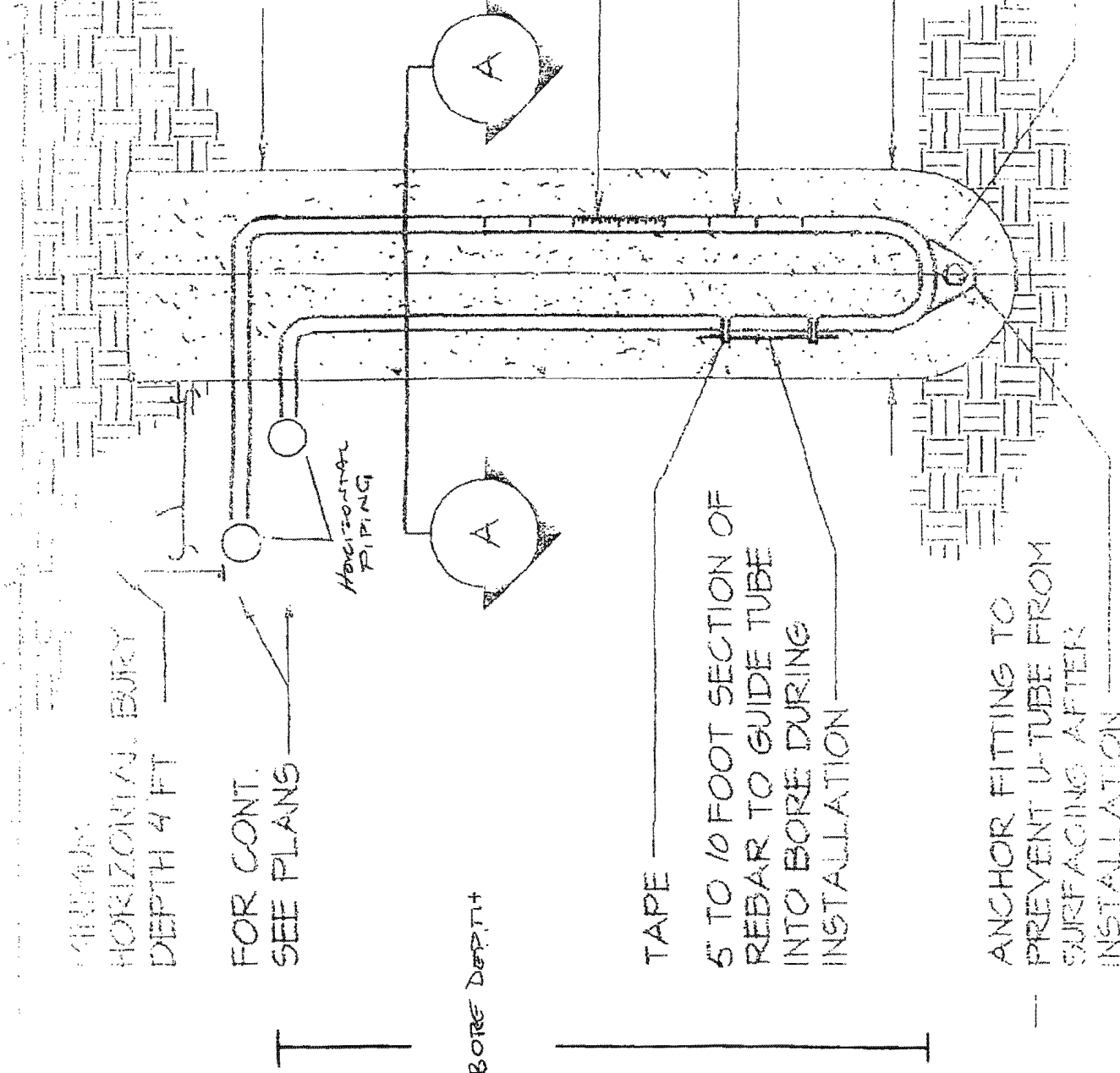
GROUT ENTIRE ANNULAR
SPACE AND VERTICAL
U-TUBE WITH (BENTANITE)
GROUT.

DEPTH MARKINGS IN FEET TO
INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U TUBE
1.8 INCHES

TYPICAL BORE DIAMETER
6.0 INCHES

TYPICAL SOCKET U-BEND



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 $2.5 \text{ E}(-08) \text{ cm/sec}$. 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.