

LAYOUT 10/9/02 1:00 INSP 4 \_\_\_\_\_  
 INSP 2 10/10/02 1:30 INSP 5 \_\_\_\_\_  
 INSP 3 10/15/02 1:00pm INSP 6 \_\_\_\_\_

ISSUE DATE: 9/19/2002

APPROVAL DATE: 10/15/02

517931  
 P 517924  
 A 514209

**PERMIT  
 INDEXED**

RPS# 366786

**ON-SITE SEWAGE DISPOSAL SYSTEM  
 HOWARD COUNTY HEALTH DEPARTMENT  
 BUREAU OF ENVIRONMENTAL HEALTH**

C Knudsen Bldr LLC (Fogle's)  
~~Wesmar Corporation~~ IS PERMITTED TO INSTALL  ALTER

ADDRESS: 5455 BALTIMORE NATIONAL AVE PHONE NUMBER: 410-365-2222  
~~13990 Triadelphia Mill Rd.~~

SUBDIVISION: Quartz Hill LOT NUMBER: 4

ADDRESS: 14501 OLD FREDERICK RD PROPERTY OWNER: C. Knudsen Development, LLC  
~~1190 Route 97~~

SEPTIC TANK CAPACITY (GALLONS): 1250 OUTLET BAFFLE FILTER REQUIRED

PUMP CHAMBER CAPACITY (GALLONS): N/A COMPARTMENTED TANK REQUIRED

NUMBER OF BEDROOMS: 4

SQUARE FEET PER BEDROOM: 180

LINEAR FEET OF TRENCH REQUIRED: 180 HOUSE SERVED BY PUBLIC WATER

TRENCHES:	Trench to be 2.0 feet wide. Inlet 2.5 feet below original grade. Bottom maximum depth 6.5 feet below original grade. Effective area begins at 2.5 feet below original grade. 4.0 feet of stone below distribution pipe.
LOCATION:	Place the distribution box near the top corner of the easement that is closest to the house. Run trenches on contour towards Old Frederick Road.
NOTES:	

PLANS APPROVED: Brian Baker OK 7/10/02 (SD) DATE: 6/05/2002

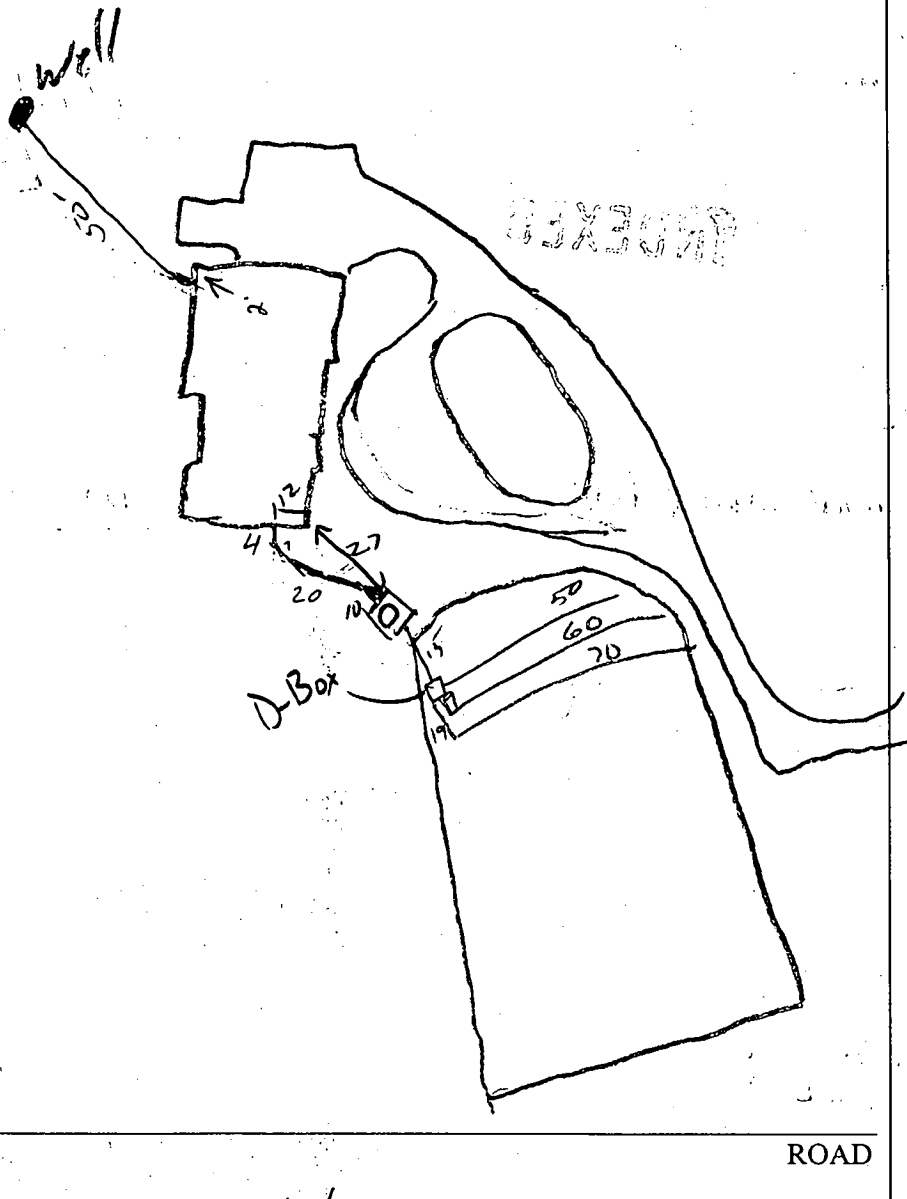
NOTES: PERMIT VOID AFTER 2 YEARS  
 CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS  
 WATERTIGHT SEPTIC TANKS REQUIRED  
 ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL UNLESS SPECIFICALLY AUTHORIZED  
 MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS UNLESS SPECIFICALLY AUTHORIZED  
 CONTRACTOR RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE REGULATIONS, GUIDELINES AND THE TERMS OF THIS PERMIT

**NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT**  
 ALL 410-313-2640 FOR INSPECTION OF SEPTIC SYSTEM

**BUILDING PERMIT SIGNED AND RETURNED**  
10/7/02 600138895 - PROPANE TANK

A514209

NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
2	2 1/2	6 1/2
NUMBER OF TRENCHES 3		
TOTAL LENGTH 180		
ABSORPTION AREA 720		
DISTRIBUTION BOX LEVEL <input checked="" type="checkbox"/>		
DISTRIBUTION BOX BAFFLE <input checked="" type="checkbox"/>		
DISTRIBUTION BOX PORT N/A		

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	<input checked="" type="checkbox"/>
CAPACITY	1250 GAL
SEAM LOC	top
TANK LID DEPTH	1
BAFFLES	<input checked="" type="checkbox"/>
BAFFLE FILTER	N/A
MANHOLE LOC	middle
6" PORT LOC	rear
WATERTIGHT TEST	water
SEPTIC TANK 2 LEVEL	<input type="checkbox"/>
CAPACITY	_____ GAL
SEAM LOC	_____
TANK LID DEPTH	_____
BAFFLES	_____
BAFFLE FILTER	_____
MANHOLE LOC	_____
6" PORT LOC	_____
WATERTIGHT TEST	_____

PRE-CONSTRUCTION 10/9/02 Lot stakes, contours as shown, layout per BP, house conn. changed (50)

INSTALLATION 10/15/02 Installed 50/60/70 as shown on plan. O.K. to back fill trenches (53)

FINAL INSPECTOR J. Hill 17 DATE OF APPROVAL 10/15/02

**BUILDING PERMIT SIGNED AND RETURNED**

11/1/02 PM

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
WATER AND SEWERAGE PROGRAM  
TEL: (410)313-2640 FAX: (410)313-2648

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: P.M. Bernard Plumbing Telephone #: 410-461-6599  
Address: 6402 Cavalier Dr  
Edersburg, Md. 21724

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer  
License # and name of individual responsible for the field installation:  
Name (Print): TIM BARNARD License# 7248

\*A licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.

Name of Property Owner: Knudsen Homes Telephone #: 410-465-2222  
Subdivision: \_\_\_\_\_ Lot #: 4 Well Tag #: HO-94-3385 ✓  
Site Address: 14501 Old Federal Rd. Cockeville

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Roull</u>	Make: _____	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: _____	Model#: _____	Screened, vented well cap: _____
Pump Capacity <u>3</u> GPM	Depth: <u>36</u> " (36" min)	Cap secured to casing: _____
Well Yield: <u>2</u> GPM	NSF approved: <u>Y</u>	Conduit min 18" B.G.: _____
Depth of well encountered at time of pump installation: <u>100</u> (feet)		Conduit secured to well cap: <input checked="" type="checkbox"/>

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4  
Torque arrestors or Cable guards are required - Must circle one  
Safety rope, if used, attached to inside of well casing with eye bolt \_\_\_\_\_

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>Polyethylene</u>	PVC sleeved to undisturbed soil at wall penetration: <input checked="" type="checkbox"/>
PSI: <u>160</u> (160 psi min)	Approximate length of sleeve: <u>2</u>
Depth of supply line: <u>36</u> " (36" min)	Sleeve caulked and sealed properly: <input checked="" type="checkbox"/>

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: Timothy M. Bernard date: 10/29/02

For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: \_\_\_\_\_ Date Insp. Approved: \_\_\_\_\_  
Inspection Data: Pitless adapter and water supply line at least 36" below grade   
Two piece cap installed and attached to casing securely   
Elec. conduit extends at least 18" below grade/attached to cap properly  No }  
Safety rope installed inside of well casing   
Correct well tag attached properly and casing 8" above finished grade   
Water supply line sleeved adequately at house connection   
Adequate grout observed below pitless adapter

11/1/02 50  
12/6/02  
O.K. 50  
BB

C1 14485 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED. COUNTY NUMBER 13 A514207

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

ST/CO USE ONLY DATE RECEIVED MM DO YY 01 18 02

DATE WELL COMPLETED 01 18 02 Depth of Well 400 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO 94 3385

OWNER Knudson & Sons, Inc. STREET OR RFD RT 97 SUBDIVISION QUARTZ Hill SECTION MAPS BLK 4 TOWN COOKSVILLE LOT parcel 4

WELL LOG Not required for driven wells

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

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Entries: Brown Shale 0-98, Gray Granite 98-400.

GROUTING 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 22 NO. OF POUNDS 2068 GALLONS OF WATER 132 DEPTH OF GROUT SEAL (to nearest foot) 0

CASING RECORD

MAIN CASING TYPE ST Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 103

OTHER CASING (if used) diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole insert appropriate code below ST BR HO PL OT

DEPTH (nearest ft.)

Table with columns: T, E, A, C, H, S, R, E, N. Rows for depth intervals: 1-8, 8-11, 11-15, 15-17, 17-23, 23-24, 24-26, 26-30, 30-32, 32-38, 38-39, 39-41, 41-45, 45-47, 47-51. Slot size 1, 2, 3. Diameter of screen 56, 60.

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 TELESCOPE CASING 72 LOG INDICATOR 74 75 76 OTHER DATA

PUMPING TEST

HOURS PUMPED (nearest hour) 6.2 PUMPING RATE (gal. per min.) 2.9 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 52 ft. WHEN PUMPING 231 ft. TYPE OF PUMP USED (for test) 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 - below LAND SURFACE 3 (nearest foot)

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

See attached location

DRILLERS LIC. NO. MS024 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. D

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

FIELD DATA SHEET  
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 94-3385  
 Location of property (road) RT 97  
 Subdivision Quarty Hill LLC Lot Parcel Block      Plat      Sec.       
 Well Driller Joseph L. Mayne Owner Knudson + Sons Inc  
 Depth of well 400'  
 Distance of measuring point (M.P.) above ground 3'  
 Static water level (S.W.L.) below M.P. 52'

I. High rate pumping -- reservoir drawdown  
 Time pump started 6:30 Pumping rate 15 gpm  
 Total time 45 min to reach pumping water level 231 ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

TIME (in 15 minute intervals)	WATER LEVEL below M.P.	PUMPING RATE time to fill 5/1 gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
6:45	130'	4 sec	N/A	15 gpm
7:00	197	5		12
7:15	231	6		10
7:30	231	30		2
7:45	231	30		2
8:00	231	30		2
8:15	230	30		2
8:30	230	20		2
8:45	230	30		2
9:00	230	30		2
9:15	230	30		2
9:30	230	20		2
9:45	230	30		2
10:00	230	30		2
10:15	230	30		2
10:30	230	30		2
10:45	230	30		2
11:00	230	30		2
11:15	230	30		2
11:30	230	30		2
11:45	230	30		2
12:00	230	30		2
12:15	230	30		2
12:30	230	30		2
12:45	230	30		2
1:00	230	30		2
1:15	230	30		2
1:30	230	30		2

W516856-A

B 1 7754 SEQUENCE NO. (MDE USE ONLY)

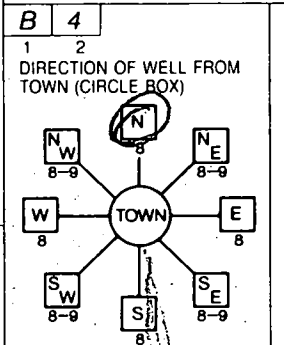
STATE OF MARYLAND  
PERMIT TO DRILL WELL  
please print or type

STATE PERMIT NUMBER  
HO-94-3385  
fill in this form completely

Date Received (APA) 030502  
OWNER INFORMATION  
8 MM DD YY 13  
Knudson & Sons Inc C.  
15 Last Name Owner First Name 34  
8455 Baltimore National Pike  
36 Street or RFD 55  
Ellicott City Md 21043  
57 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL  
Howard  
8 COUNTY 21  
Quartz Hill LLC  
23 SUBDIVISION 42  
SECTION Parcel 4 LOT Parcel 4  
44 46 48 50  
Cooksville  
52 NEAREST TOWN 71  
MILES FROM TOWN (enter 0 if in town) 1 M I  
73 76 77 78

DRILLER INFORMATION  
Joseph L. Wayne M S D Z Y  
76 License No. 81  
Joseph L. Wayne well Drilling  
Firm Name  
5512 Ridger Rd Mt Airy Md 21771  
Address  
Joseph L. Wayne 3/4/2002  
Signature Date



Old Frederick Road  
11 NEAR WHAT ROAD 30  
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
NORTH  
WEST EAST  
SOUTH  
34 210 37  
DISTANCE FROM ROAD FT  
ENTER FT OR MI 38 39  
TAX MAP: 8 BLK: 5 PARCEL 4

B 2 WELL INFORMATION  
APPROX. PUMPING RATE (GAL. PER MIN.) 5  
8 12  
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500  
14 20

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL  
HOWARD A514209  
COUNTY NAME COUNTY NO.  
STATE SIGNATURE INSERT S → 41  
DATE ISSUED 04 09 02 Kasia Jurek 04-09-03  
43 MM DD YY 48 CO SIGNATURE EXP. DATE  
NORTH GRID: 550 000 EAST GRID: 0785 000  
50 55 57 63

USE FOR WATER (CIRCLE APPROPRIATE BOX)  
 D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION  
 F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
22  I INDUSTRIAL, COMMERCIAL, DEWATERING  
 P PUBLIC WATER SUPPLY WELL  
 T TEST, OBSERVATION, MONITORING  
 G GEO-THERMAL

APPROXIMATE DEPTH OF WELL 300 FEET  
24 28

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

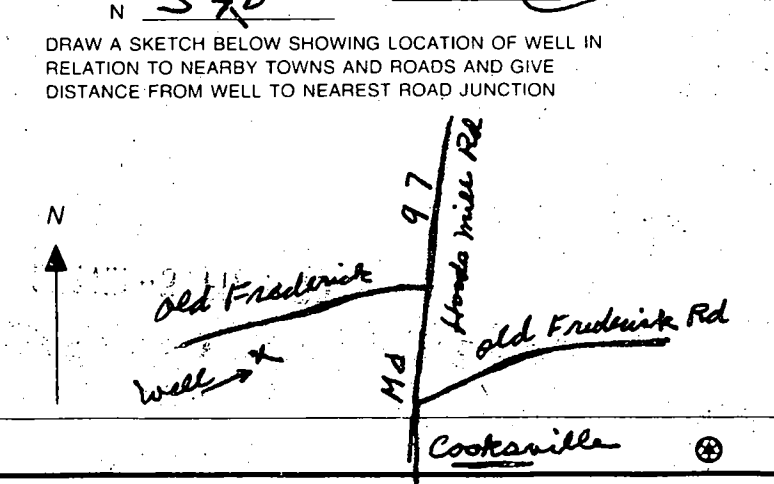
METHOD OF DRILLING (circle one)  
BORED (or Augered) JETTED Jetted & DRIVEN  
30 AIR ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)  
37 CABLE REVerse-ROTary DRive-POINT  
other

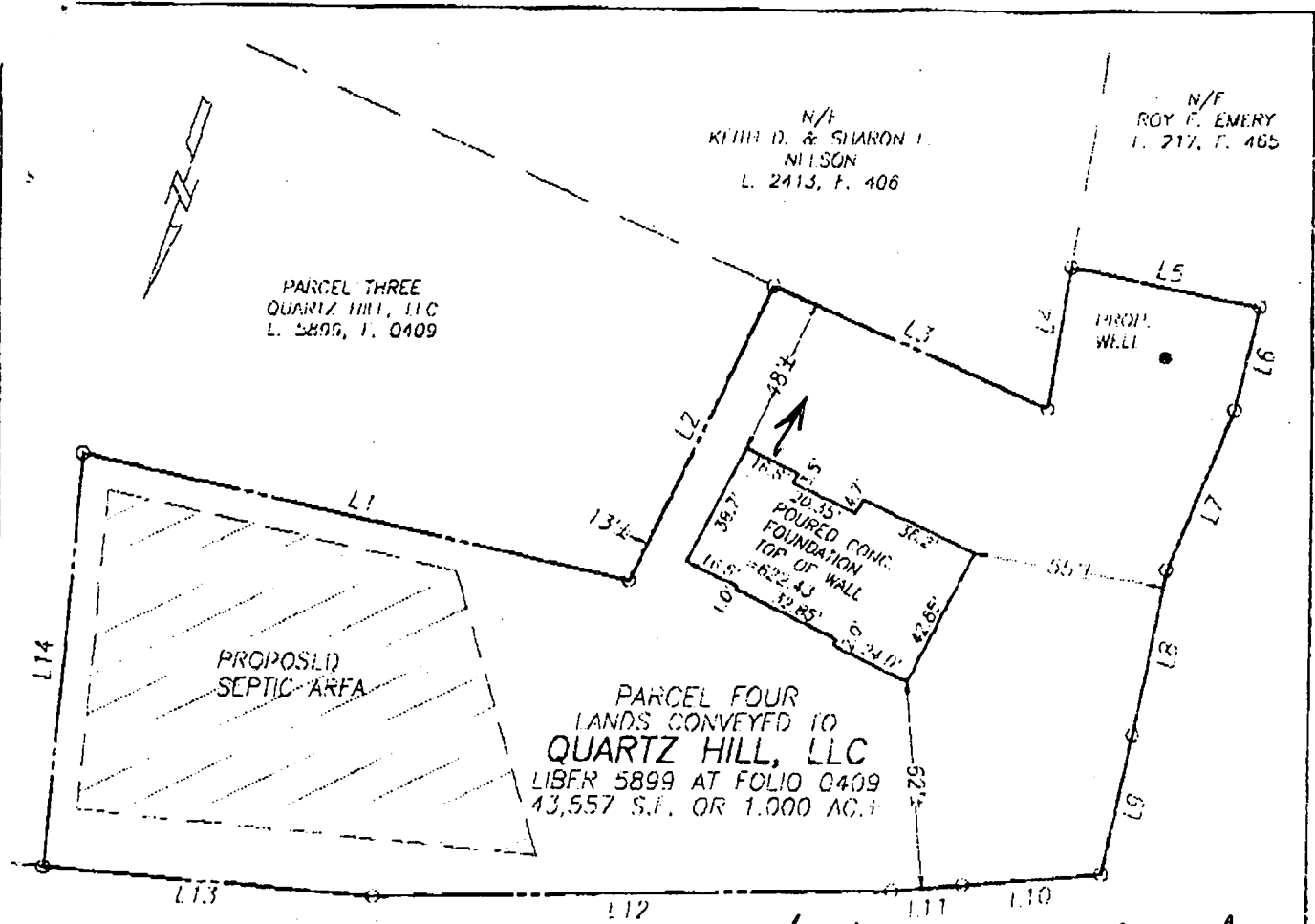
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)  
 N THIS WELL WILL NOT REPLACE AN EXISTING WELL  
 Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED  
39  S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS  
 D 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. HO-94-3385  
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS  
NOTE - APPROVING AUTHORITY'S SIGNATURE USE SEPARATE SHEET IF NEEDED

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X  
SOURCES OF DRILLING WATER  
1. well  
2.  
3.  
WRITE THE BOX NUMBER FROM THE MAP HERE  
E 790-85  
N 570  
000  
000





1190 Rte 97  
 OLD FREDERICK ROAD  
 (RELOCATED)  
 SHA PLAT #42994

9/13/02 House Moved Slightly. No effect on well or septic. (BB)

MINE CHAIN

NUMBER	DIRECTION	DISTANCE
L1	S 84°53'16" W	163.21'
L2	S 06°53'13" W	98.63'
L3	N 83°26'47" W	87.18'
L4	S 09°09'14" E	43.00'
L5	S 83°57'33" W	55.49'
L6	N 04°59'40" W	51.79'
L7	N 03°10'01" E	52.20'
L8	N 07°49'18" W	50.25'
L9	N 06°51'41" W	45.04'
L10	N 66°58'05" E	40.25'
L11	N 66°58'05" E	20.34'
L12	N 70°45'26" E	150.75'
L13	N 76°28'04" E	96.07'
L14	S 13°31'56" E	124.76'

Van Mar



WALL CHECK DRAWING  
 PARCEL FOUR  
 LANDS CONVEYED TO  
 QUARTZ HILL, LLC  
 LIBER 5899 AT FOLIO 0409  
 14501 OLD FREDERICK ROAD

11/8/02

44711035107462

STA. 176+00.00

STA. 179+67.75

BASE LINE OF RIGHT OF WAY - RELOCATED  
MD. RTE. 97  
S.H.A. PLAT NO. 42994

STA. 177+18.56

RIGHT OF WAY FOR REL

STA. 7+59.76

STA. 7+20.0

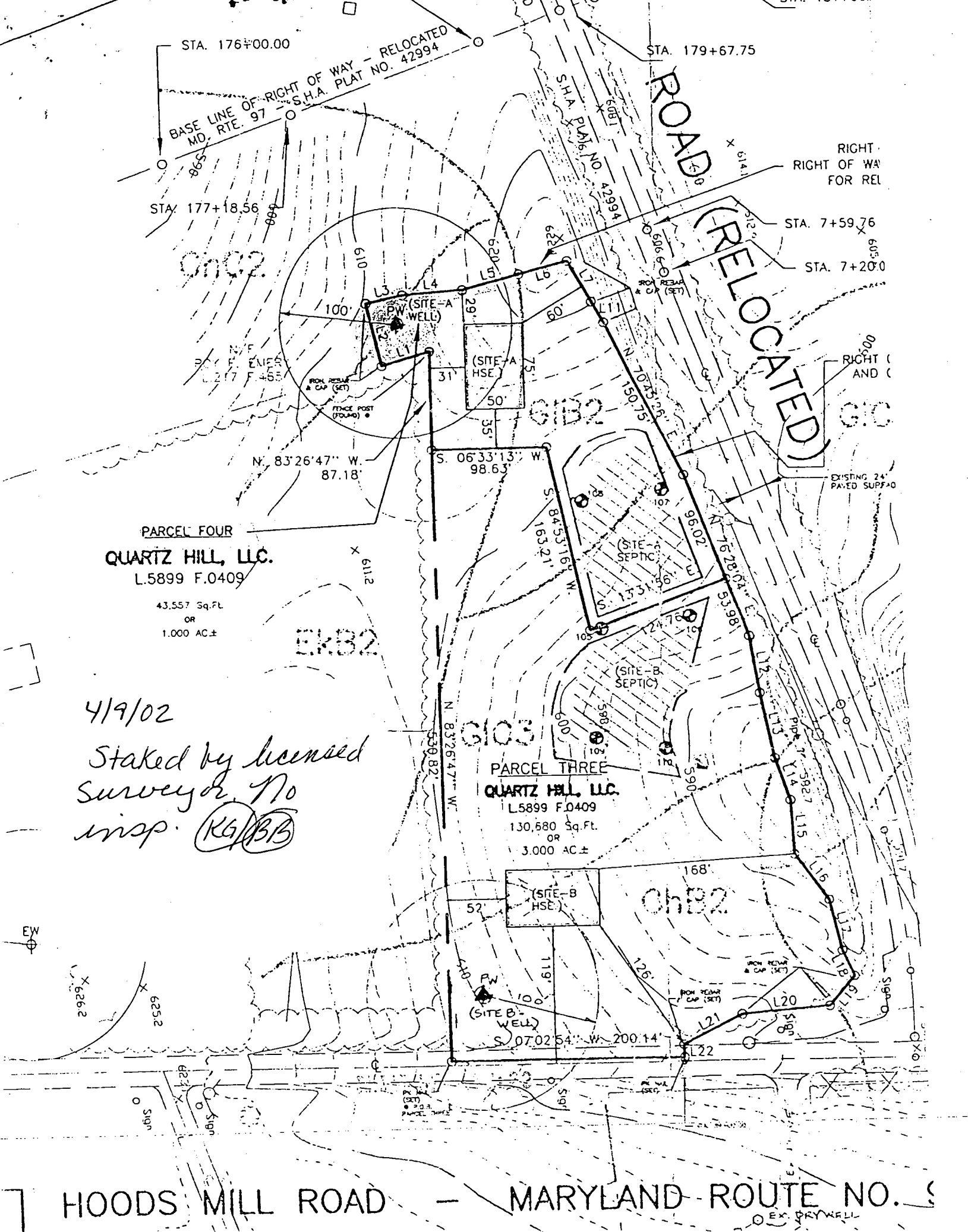
PARCEL FOUR  
QUARTZ HILL, LLC.  
L5899 F.0409

43,557 Sq.Ft.  
OR  
1,000 AC ±

4/19/02  
Staked by licensed  
Surveyor No  
insp. *(KG/BIB)*

PARCEL THREE  
QUARTZ HILL, LLC.  
L5899 F.0409  
130,580 Sq.Ft.  
OR  
3,000 AC ±

ROAD (RELOCATED)



HOODS MILL ROAD - MARYLAND ROUTE NO. 9

STA. 176+00.00

STA. 179+67.75

STA. 181+00.00

BASE LINE OF RIGHT OF WAY - RELOCATED  
MD. RTE. 97 S.H.A. PLAT NO. 42994

STA. 177+18.56

STA. 7+59.76

STA. 7+20.00

ROAD (RELOCATED)

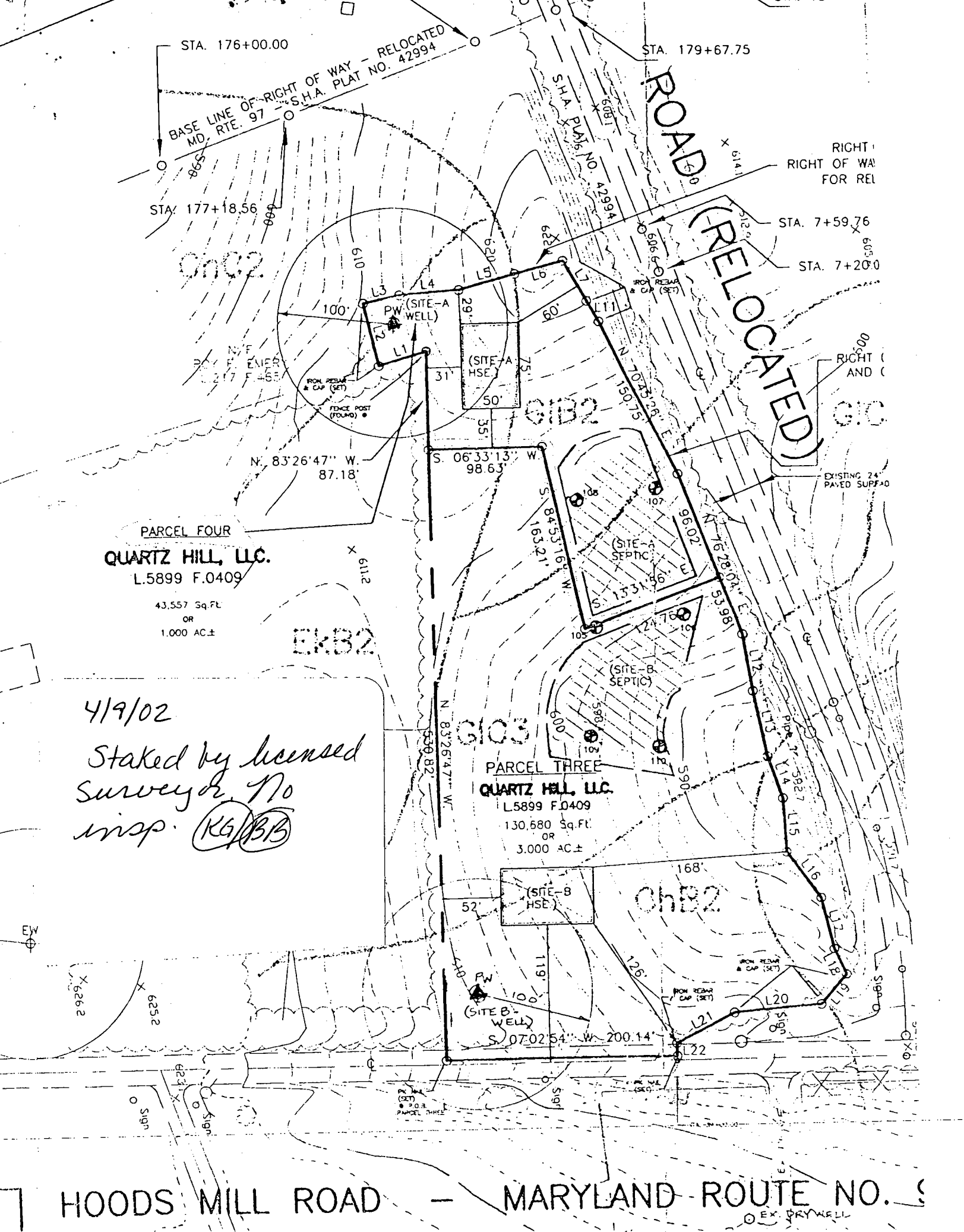
PARCEL FOUR  
QUARTZ HILL, LLC.  
L.5899 F.0409

43,557 Sq.Ft.  
OR  
1,000 AC±

4/19/02  
Staked by licensed  
Surveyor, No  
insp. (KG/BB)

PARCEL THREE  
QUARTZ HILL, LLC.  
L.5899 F.0409  
130,680 Sq.Ft.  
OR  
3,000 AC±

HOODS MILL ROAD - MARYLAND ROUTE NO. 9



# APPLICATION

PERCOLATION TESTING

A 514209

P \_\_\_\_\_

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH

3525-H ELLICOTT MILLS DRIVE/ELLICOTT CITY, MARYLAND 21043  
TELEPHONE: 313-2840

DISTRICT \_\_\_\_\_

DATE 8/24/2000

TO: THE COUNTY HEALTH OFFICER  
ELLICOTT CITY, MARYLAND

I HEREBY APPLY FOR THE NECESSARY TEST PRIOR TO APPLICATION FOR PERMIT TO CONSTRUCT (OR RECONSTRUCT) A SEWAGE DISPOSAL SYSTEM.

PROPERTY OWNER GOLSTEIN MARION TRUSTEE

ADDRESS 13828 VINTAGE LANE, SILVER SPRING 20910 PHONE \_\_\_\_\_

AGENT OR PROSPECTIVE BUYER JOHN CONGEDO, MARBLE SOURCE UNLIMITED

ADDRESS 10907 GUILFORD RD, ANNAPOLIS JCT, MD PHONE (301) 470-2007

PROPERTY LOCATION:

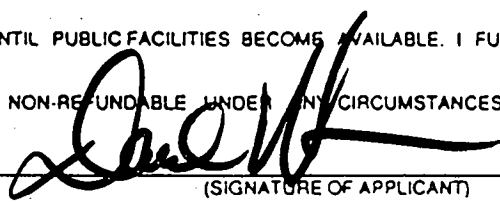
SUBDIVISION CONGEDO ESTATES II LOT NO. #

ROAD AND DESCRIPTION W. ROUTE 97, COOKSVILLE, MD 21723

TAX MAP 8 PARCEL # 33

SIZE OF LOT 1 ACRE TYPE BLDG. SINGLE FAMILY DWELLING  
(SINGLE FAMILY DWELLING OR COMMERCIAL)

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE. I FULLY UNDERSTAND THE FEE CONNECTED WITH THE FILING OF THIS PERC TEST APPLICATION IS NON-REFUNDABLE UNDER ANY CIRCUMSTANCES. I ALSO AGREE TO COMPLY WITH ALL M.O.S.H.A. REQUIREMENTS IN TESTING THIS LOT.



(SIGNATURE OF APPLICANT)

APPROVED BY \_\_\_\_\_ FOR \_\_\_\_\_ DATE \_\_\_\_\_

DISAPPROVED BY \_\_\_\_\_ FOR \_\_\_\_\_ DATE \_\_\_\_\_

HOLD PENDING FURTHER TESTS \_\_\_\_\_

REASONS FOR REJECTION OR HOLDING \_\_\_\_\_

PERCOLATION TEST PLAT/PRELIMINARY PLAT - TITLE OR I.D. # \_\_\_\_\_ DATE \_\_\_\_\_

SITE DEVELOPMENT PLAN/FINAL PLAT - TITLE OR I.D. # \_\_\_\_\_ DATE \_\_\_\_\_

## THIS IS NOT A PERMIT

20  
11/18/00  
10:00

COUNTY #

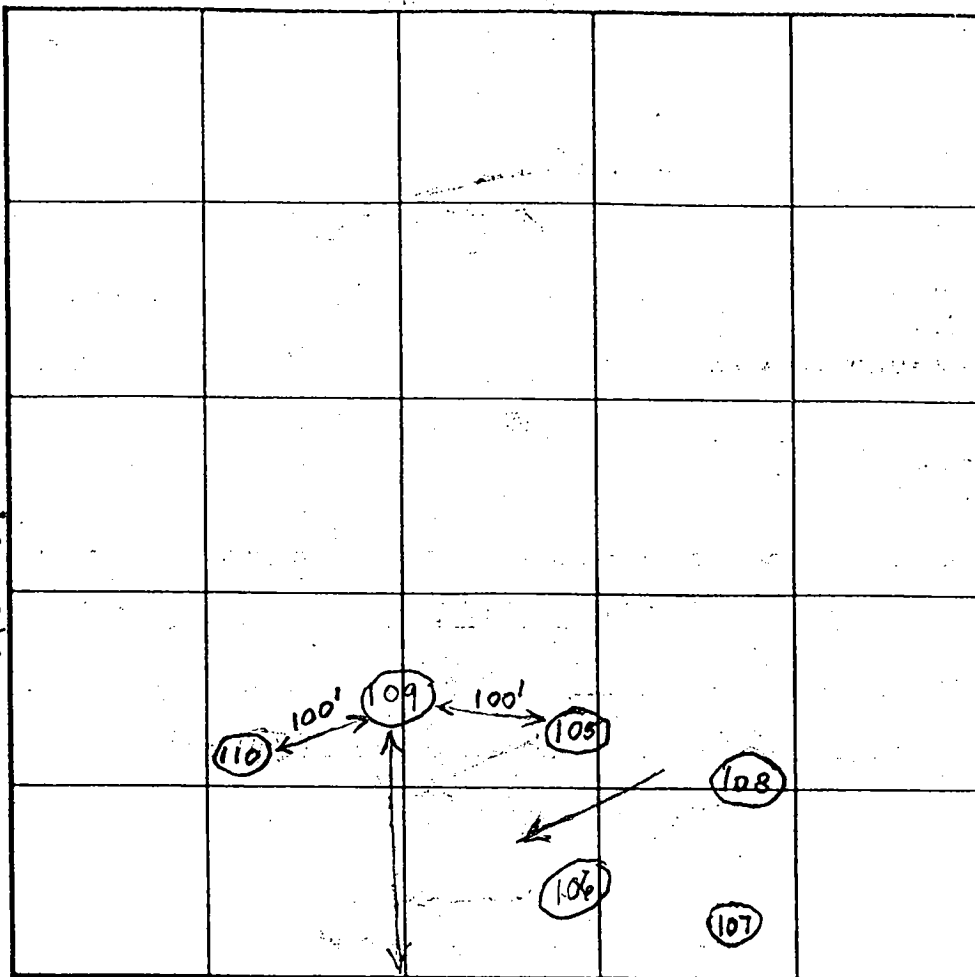
SOIL PROFILE

0' (106)  
 Red Brown  
 Clay Loam

5'  
 Light  
 Brown  
 Si Sa  
 Loam

~10%  
 Rock

Route 97



SOIL PROFILE

0' (107)  
 Red Brown  
 clay Loam

2.5'  
 Light  
 Brown  
 Si Sa  
 Loam

~15%  
 Rock

14'

(110)

Red Brown  
 Clay Loam

7'  
 Red Brown  
 sa Si Loam

~10%  
 Rock

12.5'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE. Old Fredericke Road

DATE	TEST NO.	DEPTH	PRE-WET		TEST · 1" DROP		TIME
			START	STOP	START	STOP	
9/18/00	106	6' / 12.5V	12:27	12:28	12:28	12:31	3
	105	6' / 14'V	12:57	Pulled - Slow			Slow
	108	4.5' / 14'V	1:10	1:11	1:11	1:14	3
	107	5.5' / 14'V	1:20	1:21	1:21	1:24	3
	* 105	8.0'	1:46	1:48	1:48	1:53	5
	109	4.5' / 12'V	2:13	2:20	2:20	2:30	10
	110	7.5' / 12.5V	2:59	3:06	3:06	3:16	10

REMARKS Holes 105-110 are O.K.

TYPE OF SOIL

TESTED BY B. Baker, A. McMillen

ALSO PRESENT

TRENCH DESIGN DATA AVERAGE PERCOLATION TIME

3

TRENCH WIDTH

2

INLET DEPTH

2 1/2

MAXIMUM BOTTOM DEPTH

6 1/2

SO FT/BEDROOM

1.80

(105)

Red  
 Brown  
 clay  
 Loam

Or. Brown  
 clay  
 Loam

Or. Brown  
 Si Sa Loam  
 ~10%  
 Rock

(108, 109)

Red Brown  
 clay  
 Loam

Light  
 Red  
 Brown  
 Si Sa  
 Loam

~10%  
 Rock

14'

2.5'

14'

STA. 177+18.56

RIGHT OF WAY LINE OF THROUGH HIGHWAY FOR RELOCATED MD. RTE. 97

STA. 7+59.76

STA. 7+20.06

STA. 5+50.0

RIGHT OF WAY LINE AND RIGHT OF WAY LINE OF THROUGH AND OLD FREDERICK ROAD (RELOCATED)

**PARCEL FOUR**  
**QUARTZ HILL, LLC.**  
L.5899 F.0409

43,557 Sq.Ft.  
OR  
1.000 AC±

**PARCEL THREE**  
**QUARTZ HILL, LLC.**  
L.5899 F.0409

130,680 Sq.Ft.  
OR  
3.000 AC±

SHARON L. ELSON  
L.5 F.406

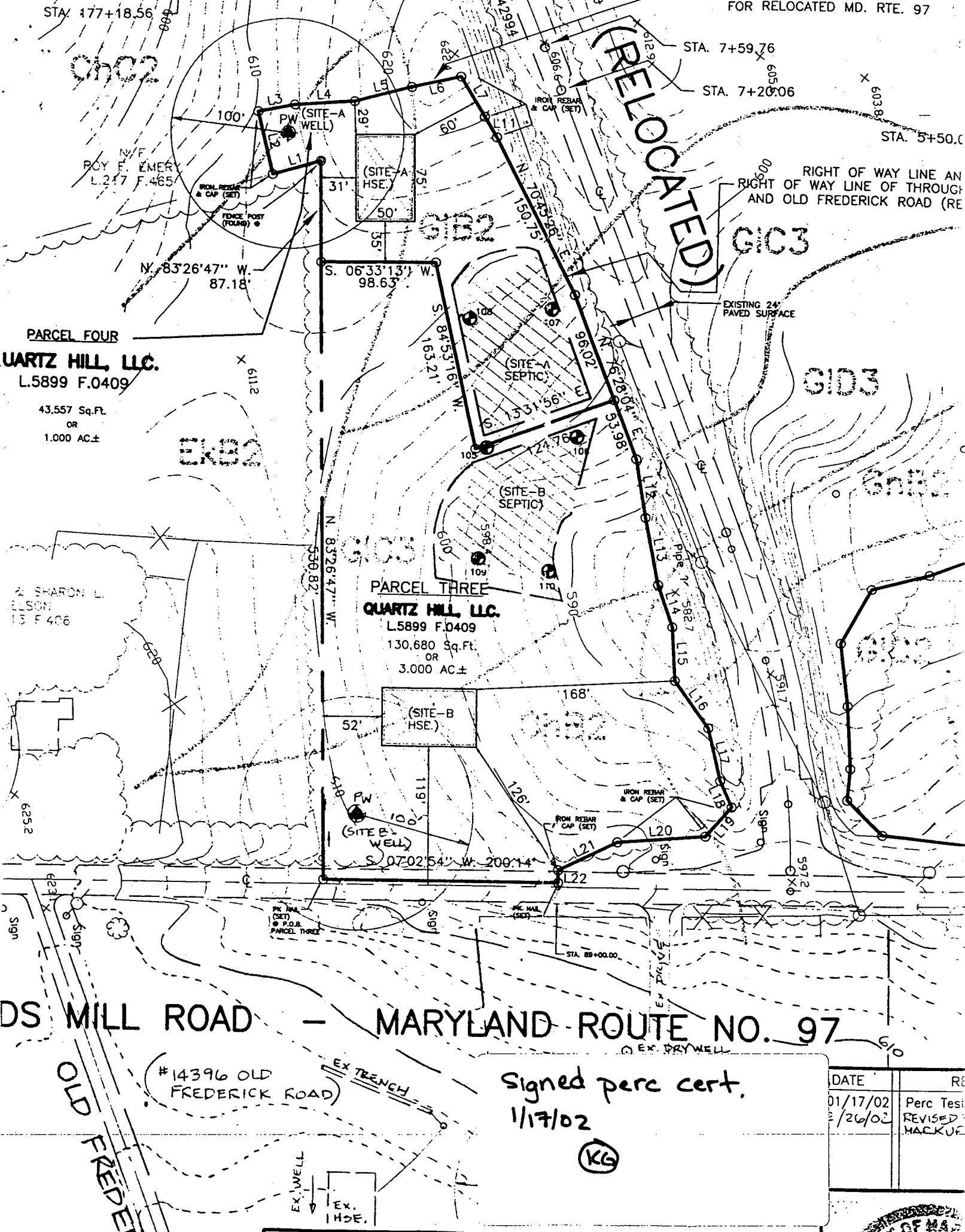
**DS MILL ROAD — MARYLAND ROUTE NO. 97**

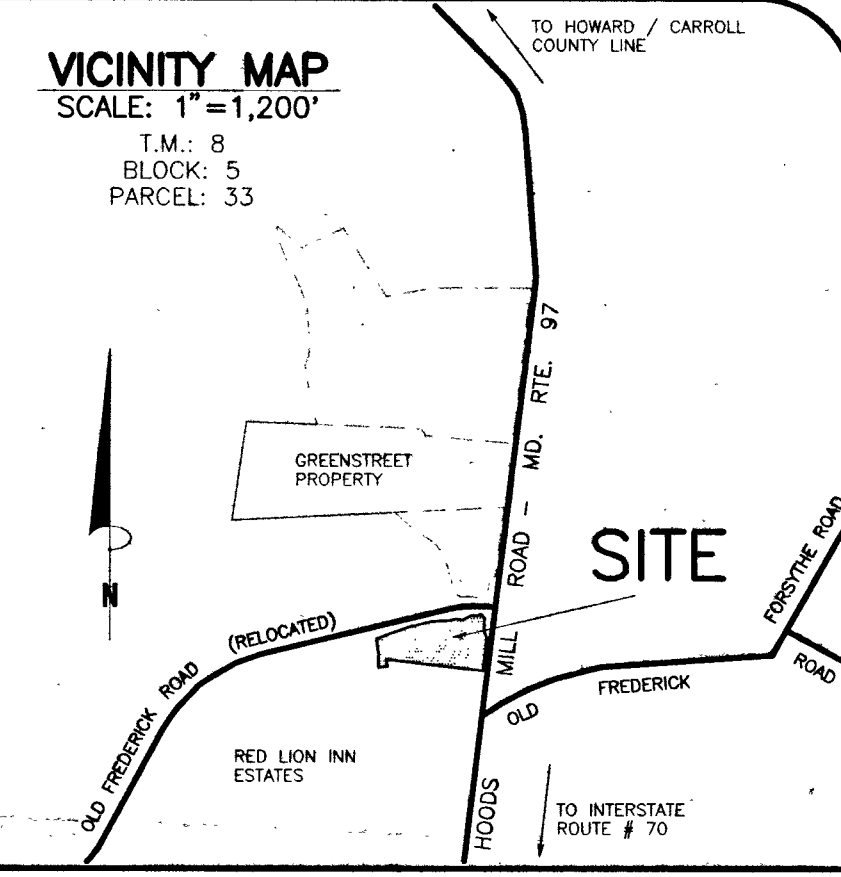
#14396 OLD FREDERICK ROAD

Signed perc cert.  
1/17/02

(KG)

DATE	REVISION
01/17/02	Perc Tesi
2/26/02	REVISED
	MACKUP



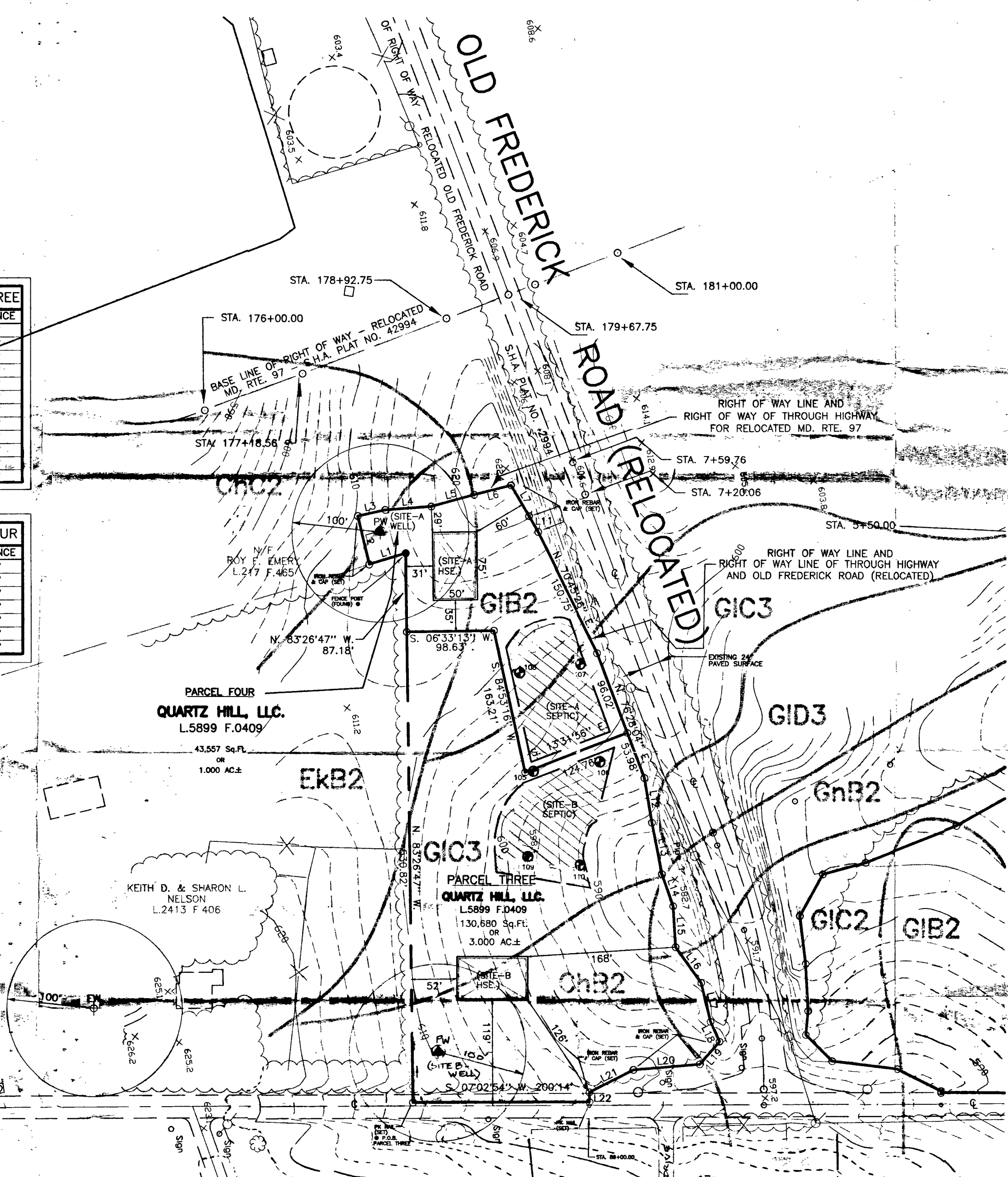


**LINE TABLE FOR PARCEL THREE**

NUMBER	DIRECTION	DISTANCE
L11	N. 66°58'05" E.	20.34'
L12	N. 87°46'40" E.	50.99'
L13	N. 86°17'30" E.	88.61'
L14	N. 78°03'08" E.	38.37'
L15	S. 85°59'19" E.	46.18'
L16	N. 61°30'10" E.	49.62'
L17	N. 84°03'55" E.	46.37'
L18	N. 72°52'28" E.	24.63'
L19	S. 41°22'23" E.	33.87'
L20	S. 02°29'28" W.	75.24'
L21	S. 19°30'00" E.	55.90'
L22	S. 82°56'06" E.	10.80'

**LINE TABLE FOR PARCEL FOUR**

NUMBER	DIRECTION	DISTANCE
L1	S. 09°09'14" E.	43.00'
L2	S. 83°57'33" W.	55.49'
L3	N. 04°59'40" W.	31.79'
L4	N. 03°10'01" E.	52.20'
L5	N. 07°49'18" W.	50.25'
L6	N. 06°51'41" W.	43.04'
L7	N. 66°58'05" E.	40.25'



**NOTES:**

1. THE EXISTING TOPOGRAPHY IS BASED ON AERIAL PHOTOGRAMMETRY WITH 2 FOOT CONTOUR INTERVALS PREPARED BY POTOMAC AERIAL SURVEYS, DATED JANUARY 13, 2001 AND IS BASED ON HOWARD COUNTY GEODETIC SURVEY CONTROL MONUMENT 08CA - VERTICAL CONTROL: NGVD29.
2. THE HORIZONTAL DATUM SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLAN COORDINATE SYSTEM. HOWARD COUNTY MONUMENT Nos. 08CA 08FB WERE USED FOR THIS PROJECT.

APPROVED:  
FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.  
HOWARD COUNTY HEALTH DEPARTMENT

*[Signature]* 2/27/02  
HOWARD COUNTY HEALTH OFFICER DATE

THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL.

IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENTS. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.

EXISTING PERCOLATION TEST SITE: (FAILED) (PASSED)

PROPOSED HOUSE SITE: PROPOSED WELL: EXISTING WELL:

NOTE: THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF ANY PROPERTY BOUNDARIES UNLESS OTHERWISE SHOWN HEREON.

HOODS MILL ROAD - MARYLAND ROUTE NO. 97

OLD FREDERICK ROAD

#14396 OLD FREDERICK ROAD

#1215 HOODS MILL RD.

I CERTIFY THAT THE LOCATIONS SHOWN HEREON ARE BASED ON FIELD LOCATIONS DONE UNDER MY DIRECT SUPERVISION, AND ARE CORRECT, TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

*Sourabh Munshi* 1/17/02  
SOURABH G. MUNSHI, PROF. L. S., MD. REG. # 10770 DATE

DATE	REVISIONS
01/17/02	Perc Test Locations
2/26/02	REVISED PER. WD HACKUP.



PERCOLATION CERTIFICATION PLAT  
(PARCEL THREE & FOUR)  
LANDS CONVEYED TO  
**QUARTZ HILL, LLC.**  
Liber 5899 at Folio 0409  
SITUATED ON THE WEST SIDE OF HOODS MILL ROAD - MARYLAND ROUTE #97  
FOURTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE: 1"=100' APRIL, 2001

**VANMAR ASSOCIATES, INC.**  
Engineers Surveyors Planners  
310 South Main Street P.O. box 328  
Mount Airy, Maryland 21771  
(301) 829 2890 (301)831 5015 (410) 549 2751

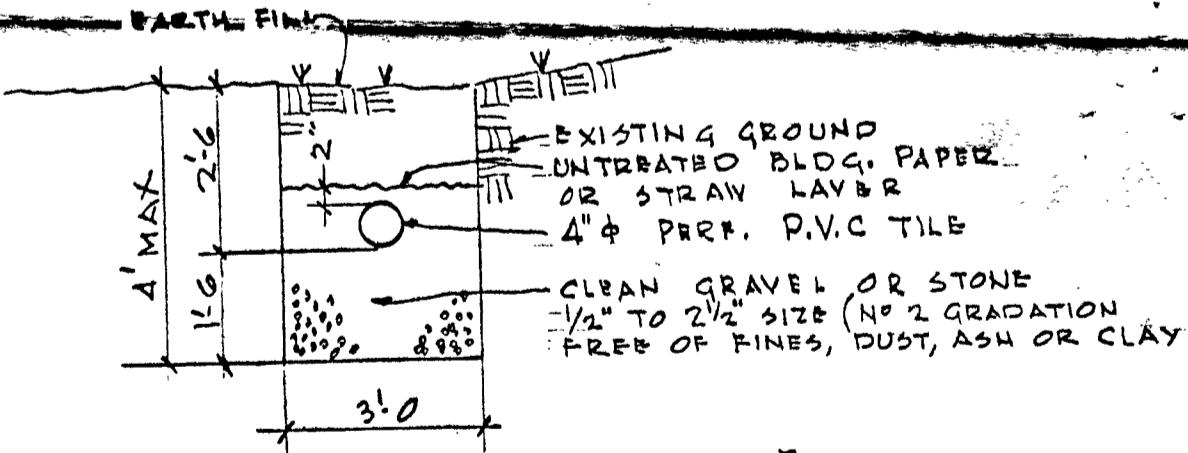
2410 867-8435

PARCEL / LOT THREE  
QUARTZ HILL, LLC  
L. 5899 P. 0409

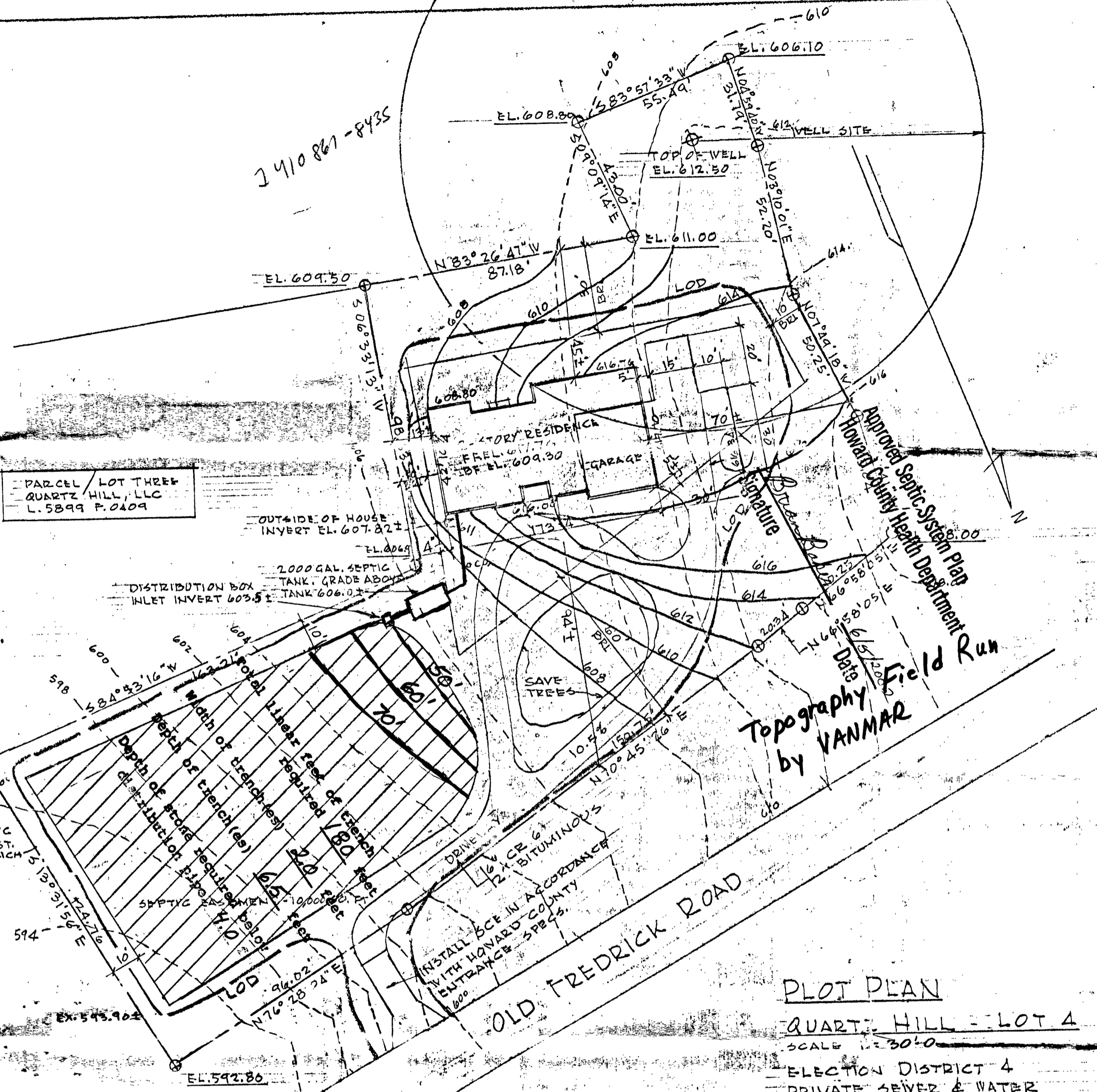
**SEWAGE DISPOSAL SYSTEM NOTES**

1. INSTALLATION SHALL CONFORM TO HEALTH DEPT. REGULATIONS.
2. USE "SHALLOW TRENCH" DISPOSAL SYSTEM. EACH TRENCH LENGTH 100' MAX. WIDTH 3' WITH 1'-6" TO 2'-0" OF STONE BELOW DISTRIBUTION PIPE. MAX DEPTH OF TRENCH SHALL BE 4'-0".
3. BOTTOM OF TRENCH LEVEL.
4. PROVIDE 3 LINES OF 4" φ PERF. PVC TILE.

KEITH D. & SHARON L.  
NELSON  
L. 2413 P. 406

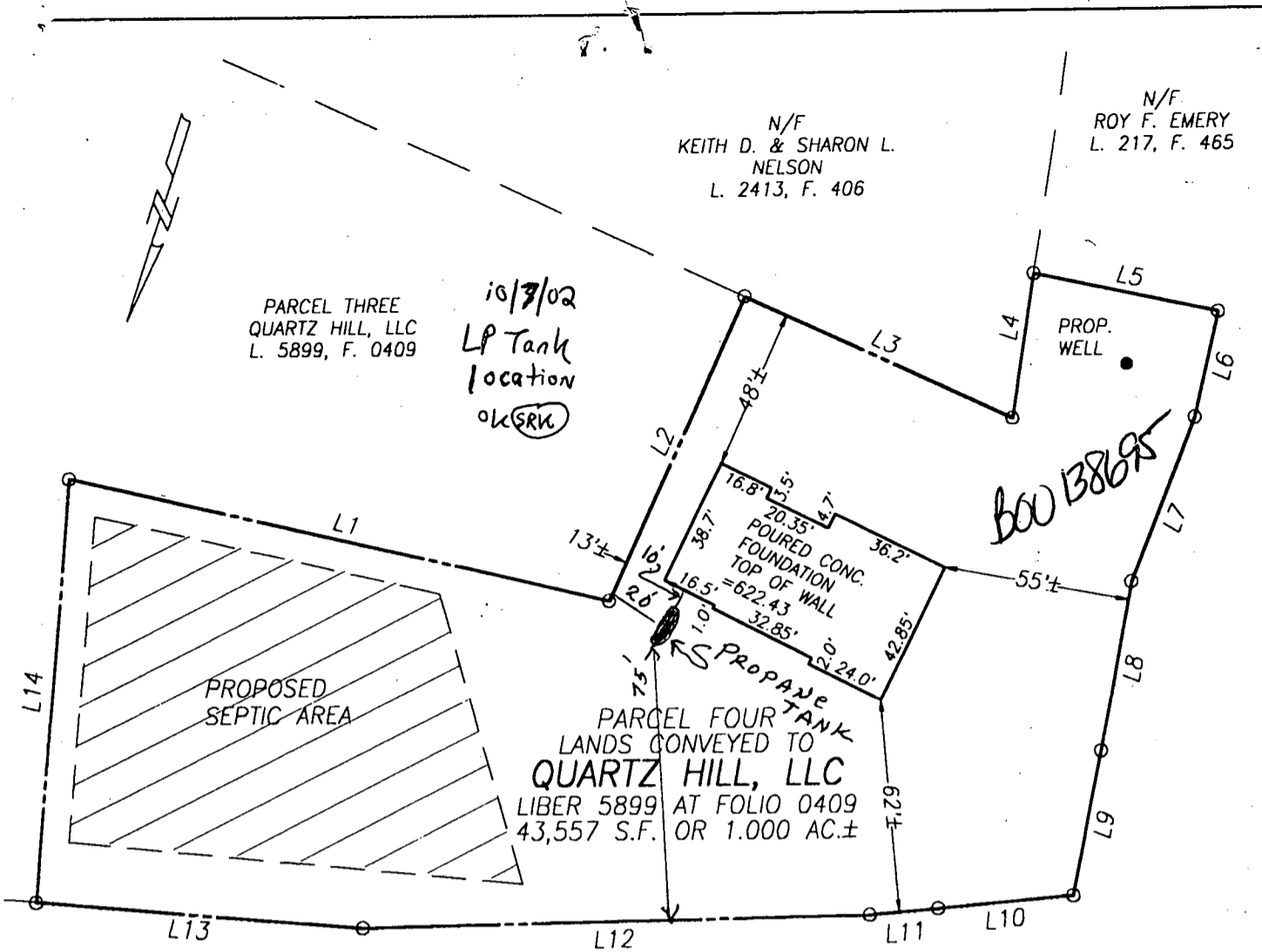


**SHALLOW TRENCH TILE FIELD**  
NO SCALE



**PLOT PLAN**  
QUARTZ HILL - LOT 4  
SCALE 1" = 30'-0"  
ELECTION DISTRICT 4  
PRIVATE SEWER & WATER  
1 ACRE ±

drawing no. <b>P-1</b>	model <b>CUSTOM HOUSE</b>	scale <b>1" = 30'</b>	date <b>4/15/02</b>	revisions		certification	BUILDER - C KNUDSEN BUILDERS LLC OWNER - MR & MRS WILLIAM WYATT
	project <b>QUARTZ HILL</b>			date	remarks		
	address <b>MR &amp; MRS WILLIAM WYATT</b>						<b>C KNUDSEN BUILDERS LLC</b> 8455 balto national pike, ellicott city, maryland 21043 410 465-2222
	<b>LOT 4</b>						



N/F  
 KEITH D. & SHARON L. NELSON  
 L. 2413, F. 406

N/F  
 ROY F. EMERY  
 L. 217, F. 465

PARCEL THREE  
 QUARTZ HILL, LLC  
 L. 5899, F. 0409

10/7/02  
 LP Tank  
 location  
 ok SRK

PARCEL FOUR  
 LANDS CONVEYED TO  
**QUARTZ HILL, LLC**  
 LIBER 5899 AT FOLIO 0409  
 43,557 S.F. OR 1.000 AC.±

OLD FREDERICK ROAD  
 (RELOCATED)  
 SHA PLAT #42994

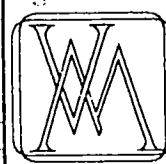
LINE CHART		
NUMBER	DIRECTION	DISTANCE
L1	S 84°53'16" W	163.21'
L2	S 06°33'13" W	98.63'
L3	N 83°26'47" W	87.18'
L4	S 09°09'14" E	43.00'
L5	S 83°57'33" W	55.49'
L6	N 04°59'40" W	31.79'
L7	N 03°10'01" E	52.20'
L8	N 07°49'18" W	50.25'
L9	N 06°51'41" W	43.04'
L10	N 66°58'05" E	40.25'
L11	N 66°58'05" E	20.34'
L12	N 70°45'26" E	150.75'
L13	N 76°28'04" E	96.02'
L14	S 13°31'56" E	124.76'



WALL CHECK DRAWING  
 PARCEL FOUR  
 LANDS CONVEYED TO  
**QUARTZ HILL, LLC**  
 LIBER 5899 AT FOLIO 0409  
 14501 OLD FREDERICK ROAD  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 50' JUNE, 2002

- NOTES:
- FOOTINGS AND FOUNDATION ARE IN PLACE AS SHOWN.
  - TOP OF WALL ELEV. = 622.43

I CERTIFY THIS PLAT TO BE CORRECT; IT IS THE RESULT OF AN ACTUAL FIELD SURVEY, BASED ON DATA FOUND AMONG THE LAND RECORDS OF HOWARD COUNTY, MARYLAND, AS REFERENCED HEREON.



**VANMAR ASSOCIATES, INC.**  
 Engineers Surveyors Planners  
 310 South Main Street P.O. box 328  
 Mount Airy, Maryland 21771  
 (301) 829 2890 (301) 831 5015 (410) 549 2751

REFERENCE	JOB NO.
L. 5899, F. 0409	A0-4471

File name: T:\EP\JOBS\AO-4471\LOTS\LOT4\WC