

05436982

LAYOUT 11/3/04 INSP 4 \_\_\_\_\_  
INSP 2 11/8/04 INSP 5 \_\_\_\_\_  
INSP 3 \_\_\_\_\_ INSP 6 \_\_\_\_\_

ISSUE DATE: 10/21/2004

P 521553

APPROVAL DATE: 11/8/04

# PERMIT INDEXED

A 511371-G

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

05-436982

Van Sant Plumbing & Heating IS PERMITTED TO INSTALL  ALTER

ADDRESS: 3 N. Main Street, Mt. Airy PHONE NUMBER: 301-829-0444

SUBDIVISION: Koandah Garden Estates LOT NUMBER: 25

ADDRESS: 6804 Koandah Gardens Court M/I Homes of D.C., LLC

SEPTIC TANK CAPACITY (GALLONS): 1500 OUTLET BAFFLE FILTER REQUIRED

PUMP CHAMBER CAPACITY (GALLONS): TBD COMPARTMENTED TANK REQUIRED

NUMBER OF BEDROOMS: 4

SQUARE FEET PER BEDROOM: 180

6" - 12" Sidewall Observed

LINEAR FEET OF TRENCH REQUIRED: 240 HOUSE SERVED BY PUBLIC WATER

TRENCHES:	Trench to be 3.0 feet wide. Inlet 2.0 feet below original grade. Bottom maximum depth 4.0 feet below original grade. Effective area begins at 3.0 feet below original grade. 2.0 feet of stone below distribution pipe.
LOCATION:	Because of the topography, it is difficult to determine the trench placement. This will have to be established in the field during the layout inspection.
NOTES:	Basement gravity service is not proposed. A pumped system may still be necessary depending on the trench location.

PLANS APPROVED: Brian Baker (KN) DATE: 10/15/03

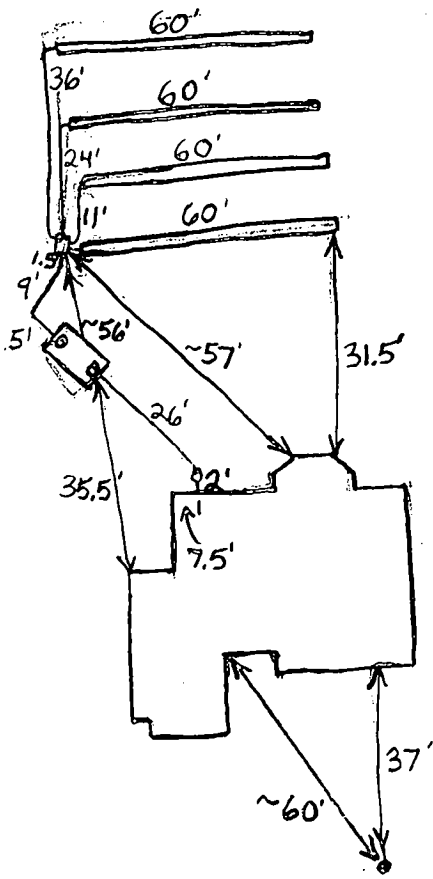
NOTES: PERMIT VOID AFTER 2 YEARS  
CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS  
WATERTIGHT SEPTIC TANKS REQUIRED  
ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL UNLESS SPECIFICALLY AUTHORIZED  
MANHOLE RISERS REQUIRED ON ALL SEPTIC 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**  
12/11/2004 B00144313 FINISH BASEMENT

A511371-G

NOT TO SCALE



HO-94-3703

ROAD

TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	2'	4'
NUMBER OF TRENCHES		4
TOTAL LENGTH		240'
ABSORPTION AREA		720 sq. ft.
DISTRIBUTION BOX LEVEL		Levelers
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		No

SEPTIC TANK DATA		
SEPTIC TANK 1 LEVEL	<input checked="" type="checkbox"/>	
CAPACITY	1500	GAL
SEAM LOC	Top	
TANK LID DEPTH	6"	
BAFFLES	Yes	
BAFFLE FILTER	No	
MANHOLE LOC	None	
6" PORT LOC	Front + Back	
WATERTIGHT TEST	No	
SEPTIC TANK 2 LEVEL	N/A	
CAPACITY		GAL
SEAM LOC		
TANK LID DEPTH		
BAFFLES		
BAFFLE FILTER		
MANHOLE LOC		
6" PORT LOC		
WATERTIGHT TEST		

2-Comp.

PRE-CONSTRUCTION 11/3/04 To install 4-60' trenches on the right side of the easement. Keep trenches on contour as best possible. (BB)

INSTALLATION 11/8/04 System finished. O.K. to cover everything. (BB)

FINAL INSPECTOR B. Baker

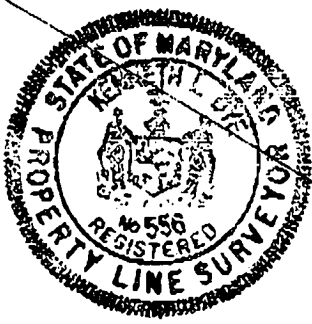
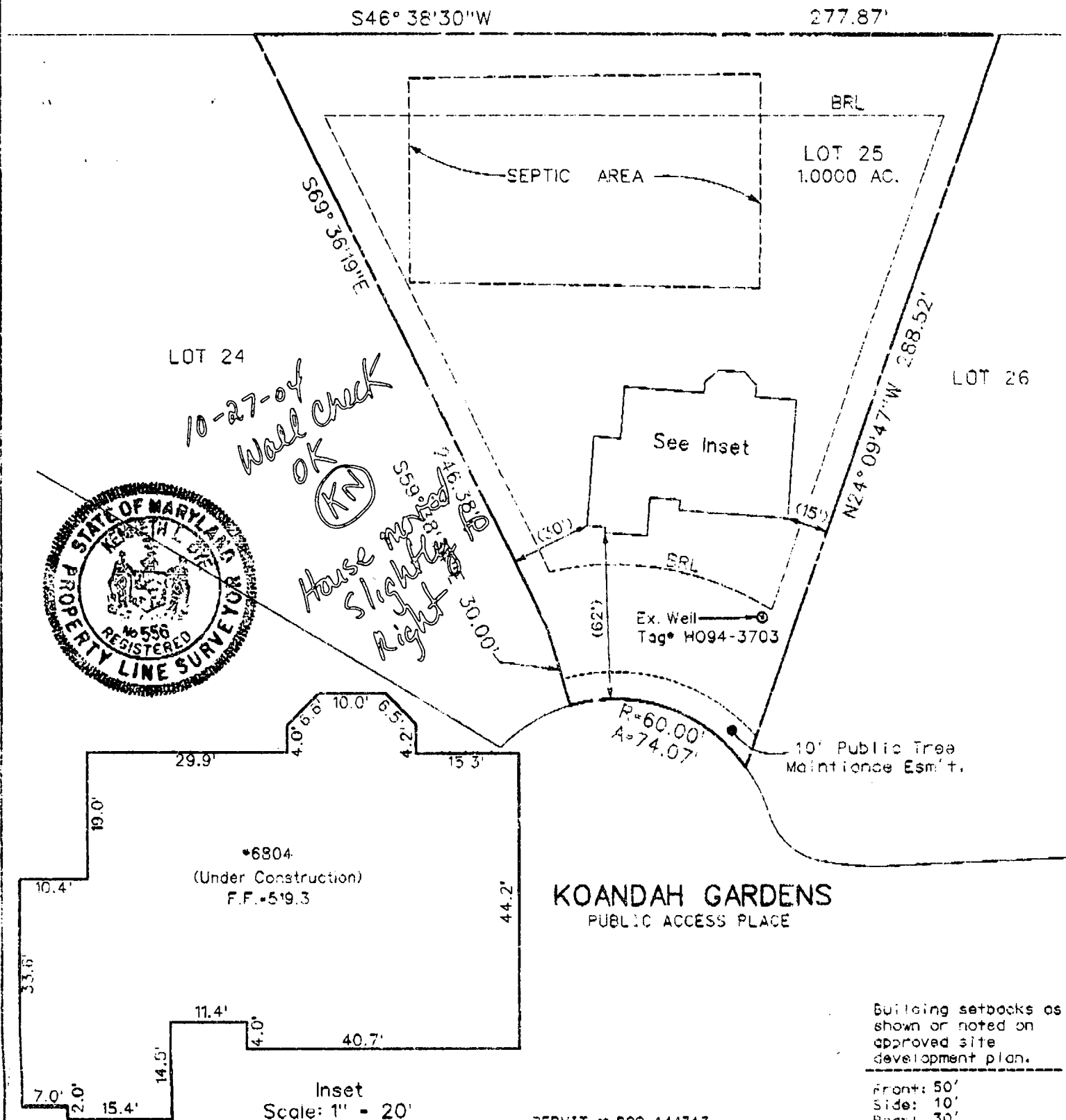
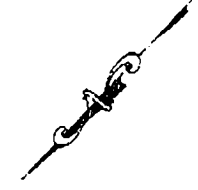
DATE OF APPROVAL 11/8/04

GENERIC TRENCH/DRAINFIELD  
 CONSTRUCTION DATA

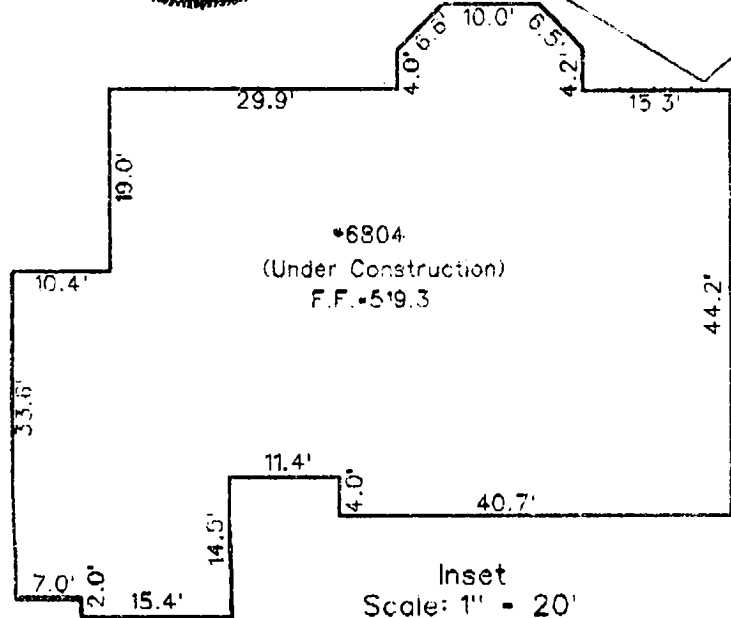
**FLOOD CERTIFICATION**

The house as shown on this property lies within Zone C, area of minimal flooding, as indicated on Federal Emergency Management Agency maps entitled "FIRM, Flood Insurance Rate Map"

FRED DAVIS  
4747/565



*10-27-04 Wall Check OK (KN)*  
*House marked slightly Right*



**KOANDAH GARDENS**  
PUBLIC ACCESS PLACE

Building setbacks as shown or noted on approved site development plan.

Front: 50'  
Side: 10'  
Rear: 30'

PERMIT # B00 144313

**PLEASE NOTE:**  
1) DIMENSIONS SHOWN WITHIN "( )" ARE COMPUTED TO AN ACCURACY OF PLUS OR MINUS ONE FOOT.  
2) NO TITLE REPORT WAS FURNISHED. THIS PROPERTY IS SUBJECT TO ALL APPLICABLE EASEMENTS, RIGHTS-OF-WAY, COVENANTS AND THOSE DOCUMENTS WHICH THE UNDERSIGNED HAS NOT BEEN PROVIDED.  
3) THIS PLAT IS A BENEFIT TO A CONSUMER ONLY INsofar AS IT IS REQUIRED BY A LENDER OR A TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH CONTEMPLATED TRANSFER, FINANCING OR REFINANCING.  
4) THIS PLAT IS NOT TO BE RELIED UPON FOR THE CONSTRUCTION OF FENCES, GARAGES, BUILDINGS OR FUTURE IMPROVEMENTS.  
5) THIS PLAT DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING OR REFINANCING.

Job No: 0711-08-50

Scale: 1" = 50'

**WALL CHECK DRAWING**

Date: September 20, 2004

Drawn: D.G.S.

Checked: K.L.D.

**FINAL LOCATION DRAWING**

Date:

Drawn:

Checked:

Project Director

**SURVEYOR'S CERTIFICATE**

I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF THAT THIS PLAT OF THE PROPERTY SHOWN ABOVE, DESCRIBED AS: LOT 25 AS SHOWN ON A PLAT OF SUBDIVISION KOANDAH GARDENS ESTATES IN HOWARD COUNTY, MARYLAND, WAS PREPARED UNDER MY SUPERVISION AND THAT THE EXISTING VISIBLE IMPROVEMENTS AS SHOWN HEREON WERE LOCATED BY RECOGNIZED SURVEYING PRACTICES AND UNLESS OTHERWISE INDICATED, NO OTHER VISIBLE EVIDENCE WAS OBSERVED OF APPARENT ENCROACHMENTS ACROSS THE PROPERTY LINES.

SIGNATURE: *[Signature]* DATE: September 20, 2004

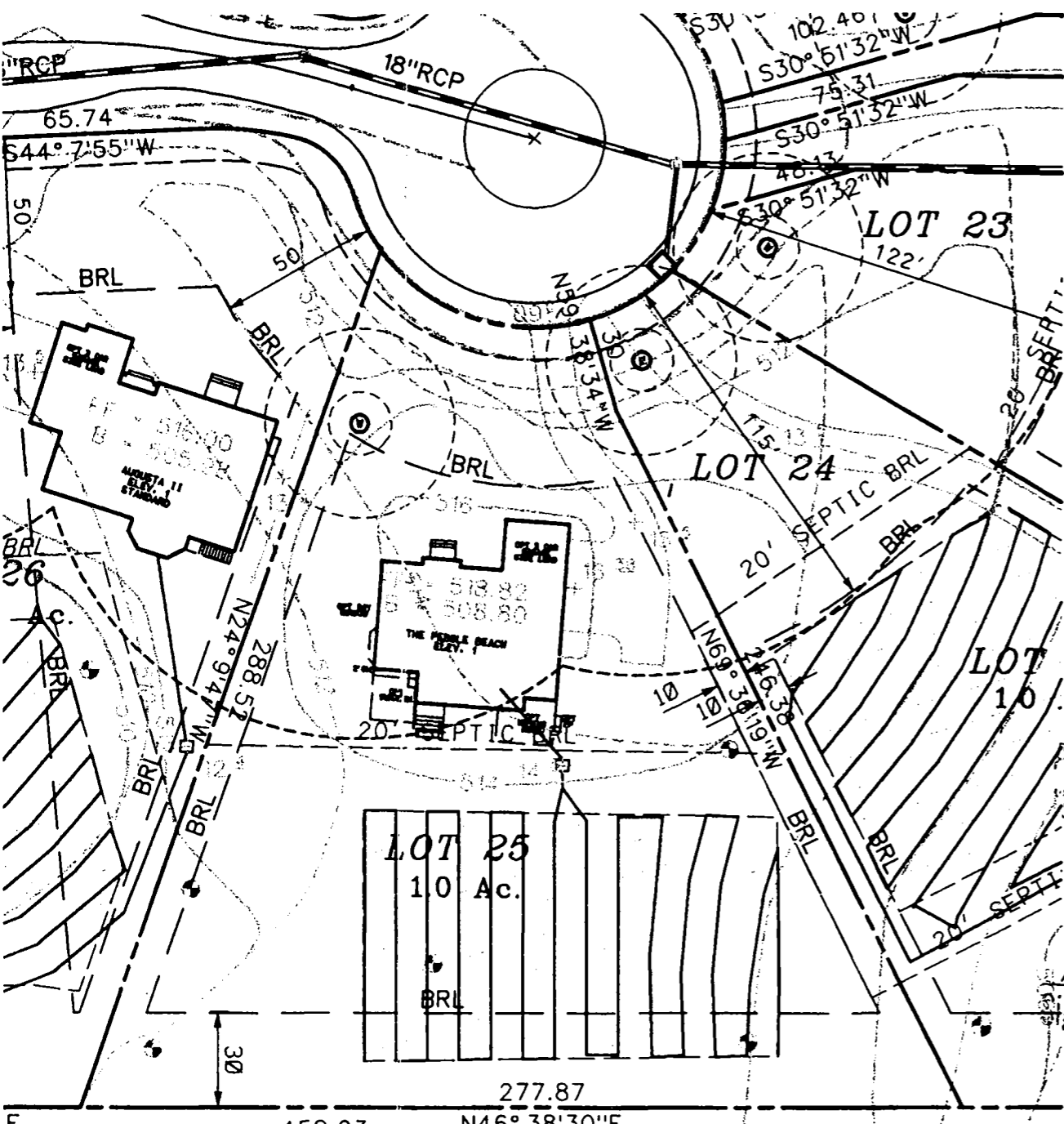
PRINTED NAME: Kenneth L. Dye TITLE: Property Line Surveyor MD. REG. NO.: 556



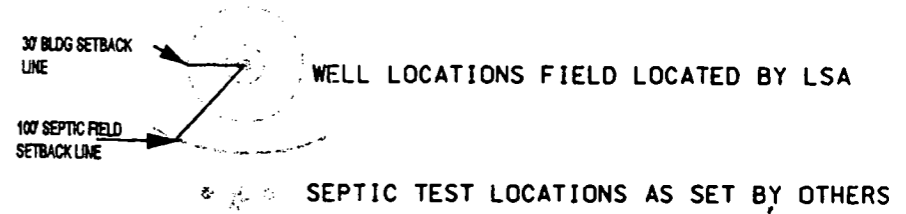
Loiederman Soltesz Associates, Inc.

**ROCKVILLE OFFICE**

1390 Piccard Drive, Suite 100 Rockville, MD 20850 t.301.948.2750 f.301.948.9067  
Engineering Planning Surveying Environmental Sciences www.LSAssociates.net



ZONING RR-DEO  
 MINIMUM LOT SIZE 1 AC.  
 PROPOSED WATER SYSTEM - PRIVATE- WELL  
 PROPOSED SEWER SYSTEM - PRIVATE- SEPTIC  
 ON-SITE TOPOGRAPHY OBTAINED FROM SHANABERGER & LANE - FEBRUARY 1987  
 UPDATED IN 1998 & JUNE 2000  
 OFF-SITE TOPOGRAPHY FROM HOWARD COUNTY  
 1"=200' AERIAL PHOTOGRAMETRY WITH 5' CONTOUR INTERVAL  
 PRIVATE SEWAGE AREA. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENT INTO THE PRIVATE SEWAGE EASEMENT.



TOPOGRAPHY HAS NOT BEEN FIELD VERIFIED BY LSA  
 ULTIMATE LOCATION OF SEPTIC TRENCHES AND ELEVATION OF DISTRIBUTION SYSTEMS TO BE DETERMINED AT BUILDING PERMIT TIME FOR EACH LOT.

- BUILDING SETBACKS
- FRONT 50'
  - SIDE 10'
  - REAR 30'
  - FROM ARTERIAL 75'
- WELL SETBACKS
- FROM BUILDING 30'
  - FROM SEPTIC FIELD 100'
- SEPTIC SETBACKS
- FROM WELLS 100'
  - FROM BUILDING 20'

Approved Septic System Plan  
 Howard County Health Department

*Brian Baker* 10/15/03  
 Signature Date

Limit of disturbance - 3 AC.

Lot No.	Lowest Plumbing Elev.	SEPTIC SYSTEM					PERCOLATION TEST DATA							
		Septic Tank		Finish Grade Over Tank	Length of Initial System	Length of Total System	No. of Bedrooms	Test Site	Average Time (Min)	Depth of Test (Feet)	Test Site	Average Time (Min)	Depth of Test (Feet)	Test Site
25	515.5	512.00	511.7											

\* EJECTOR PUMP REQUIRED FOR BASEMENT PLUMBING.  
 \*\* EJECTOR PUMP REQUIRED FOR FINISHED FLOOR PLUMBING.

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: Van Sant Plbg. & Htg., Inc Telephone #: 301-829-0144  
Address: 3 North Main St  
Mt. Airy, MD 21771

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer  
License # and name of individual responsible for the field installation:  
Name (Print): LARRY VAN SANT License# 109316

\*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: Mr. James Telephone #: \_\_\_\_\_  
Subdivision: Koondan Garden Lot #: 25 Well Tag #: HO-94-5103  
Site Address: 1001 Koondan Garden Ch  
Highland MD 20777

Submersible Pump Data

Make: Saudo  
Model #: 1G5054a2  
Pump Capacity: \_\_\_\_\_ GPM  
Well Yield: \_\_\_\_\_ GPM

Pitless Adapter

Make: Unigard  
Model#: 5102  
Depth: 42 (36" min)  
NSF approved: Yes

Well Cap and Electric Conduit

Two piece watertight cap:   
Screened, vented well cap:   
Cap secured to casing:   
Conduit min 18" E.G.:   
Conduit secured to well cap:

Depth of well encountered at time of pump installation: 180 (feet)  
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: NO

Piping (In house)

Type: Polyethylene  
PSI: 20 (160 psi min)  
Depth of supply line: 12 (36" min)

House Connection

PVC sleeved to undisturbed soil at wall penetration:   
Approximate length of sleeve: ✓  
Sleeve caulked and sealed properly:

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: \_\_\_\_\_  
date: 11/24/04

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

Date Insp. Requested: \_\_\_\_\_ Date Insp. Approved: 11/9/04 (BB)

- 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
  - 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

**DRILLER: REMOVE COPY AND RETAIN FOR YOUR RECORDS. RETURN COUNTY COPY TO COUNTY ENVIRONMENTAL AGENCY. SUBMIT COPY TO OWNER. RETURN ALL OTHER PARTS TO DEPARTMENT OF ENVIRONMENT, 2500 BROENING HIGHWAY, BALTIMORE, MARYLAND 21224.**

<b>ci</b> 3907	SEQUENCE NO. (MDE USE ONLY)	<b>STATE OF MARYLAND WELL COMPLETION REPORT</b> FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)			COUNTY NUMBER <u>A311 371-G</u>

ST/CO USE ONLY DATE RECEIVED MM DD YY 8 13	DATE WELL COMPLETED MM DD YY 6 10 03	Depth of Well 22 180' 26 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" OK (SRK) 6/16/03 HO-94-3703 28 29 30 31 32 33 34 35 36 37
---	--	--	--

OWNER JANBORN JAMES  
 STREET OR RFD 6809 ROANDAH GARDENS COURT TOWN HIGHLAND  
 SUBDIVISION ROANDAH GARDEN ESTATE SECTION \_\_\_\_\_ LOT 25

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	
Sand	0	26	
Gray Mica Rock	26	180	✓

**GROUTING RECORD**

WELL HAS BEEN GROUTED (Circle Appropriate Box)  Y  N

TYPE OF GROUTING MATERIAL (Circle one)  
 CEMENT  CM BENTONITE CLAY  BC

NO. OF BAGS 10 NO. OF POUNDS 940  
 GALLONS OF WATER 60

DEPTH OF GROUT SEAL (to nearest foot)  
 from 0 ft. to 26 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 ST  
 Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 29

**OTHER CASING (if used)**

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

**SCREEN RECORD**

screen type or open hole (insert appropriate code below)

ST STEEL  BR BRASS  HO OPEN HOLE  
 PL PLASTIC  OT OTHER

**DEPTH (nearest ft.)**

HO 28 180

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED  Y  N

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. MSD024  
 DRILLERS SIGNATURE [Signature]  
 (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D

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

E A C H S C R E E N	SLOT SIZE 1		2		3	
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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

**PUMPING TEST**

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 15

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 24 ft.

WHEN PUMPING 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 29

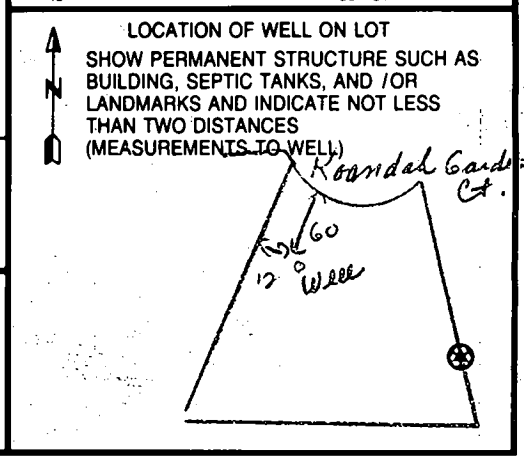
CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 \_\_\_\_\_ 35 \_\_\_\_\_

PUMP HORSE POWER 37 \_\_\_\_\_ 41 \_\_\_\_\_

PUMP COLUMN LENGTH (nearest ft.) 43 \_\_\_\_\_ 47 \_\_\_\_\_

CASING HEIGHT (circle appropriate box and enter casing height)

+ above } LAND SURFACE  
 - below } \_\_\_\_\_ (nearest foot)







B-1 5124

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 518588 please type

STATE PERMIT NUMBER

HO-94 3703 fill in this form completely 79

Date Received (APA) 05-24-03

OWNER INFORMATION

8 MM DD YY 13 Sandborn James 4967 Len Oaks Rd Denton Md 21036

B 3 LOCATION OF WELL

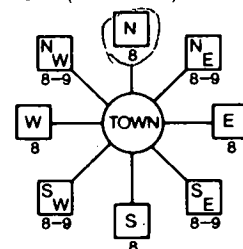
8 COUNTY Howard 21 Keandah Garden Estate 23 SUBDIVISION SECTION 44 46 LOT 25 48 50 Highland 52 NEAREST TOWN MILES FROM TOWN (enter 0 if in town) 0 MI 73 76 77 78

DRILLER INFORMATION

Driller's Name Joseph L. Mayne MS D 034 Firm Name Joseph L. Mayne Well Drilling Address 5512 Ridge Rd Mt. Airy 21771 Signature Joseph L. Mayne Date 3-31-03

B 4

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 Keandah Garden Ct. 30 NEAR WHAT ROAD ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH 34 50 37 WEST SOUTH EAST DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: 34 BLK 22 PARCEL 78

B 2 WELL INFORMATION APPROX. PUMPING RATE 5 GAL. PER MIN. AVERAGE DAILY QUANTITY NEEDED 500 GAL. PER DAY

USE FOR WATER (CIRCLE APPROPRIATE BOX)

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

HOWARD AS11371-G COUNTY NAME COUNTY NO STATE SIGNATURE INSERT S DATE ISSUED 05-29-03 Steve P. Krueger 5/29/04 CO SIGNATURE EXP DATE NORTH GRID 812 000 EAST GRID 492 000

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT

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 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

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

APPROP PERMIT NUMBER PERMIT No. HO-94 3703

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

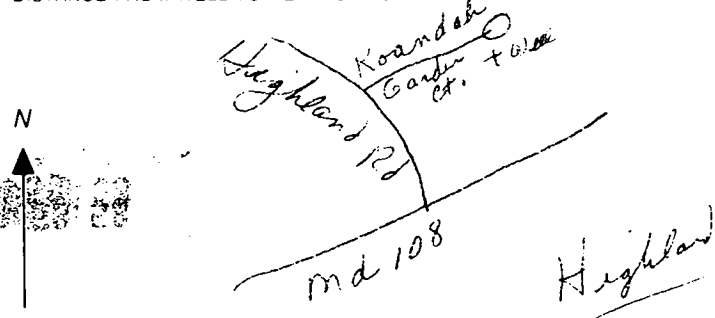
SOURCES OF DRILLING WATER

- 1. Well 2. 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 812 000 N 492 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



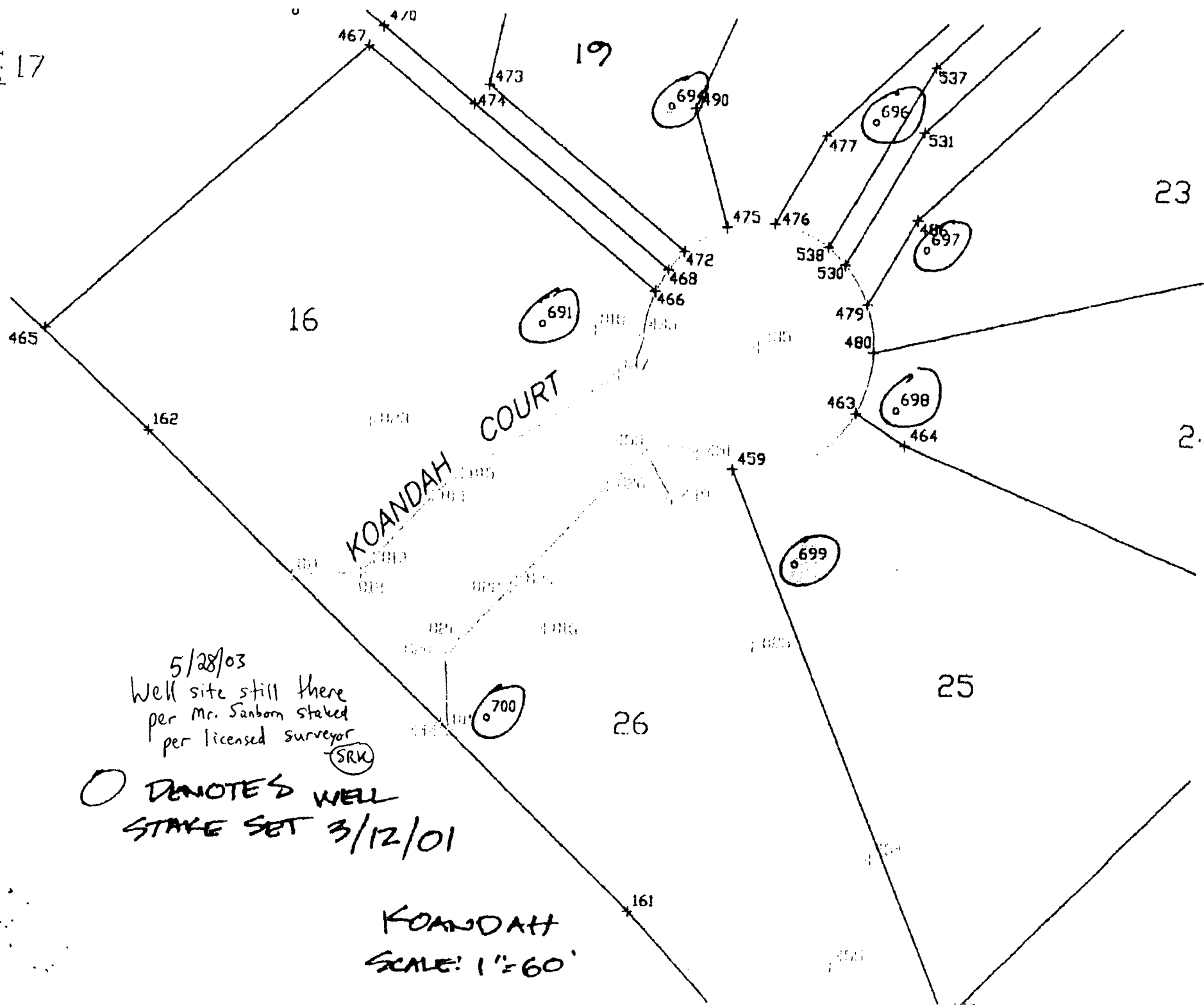
SPECIAL CONDITIONS



R. 17

T10T615693

SECTION 16



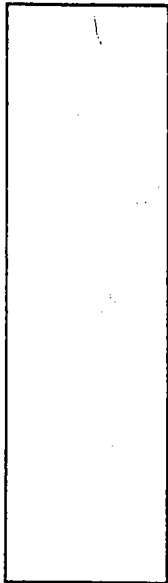
5/28/03  
 Well site still there  
 per Mr. Sanborn staked  
 per licensed surveyor

(SRK)

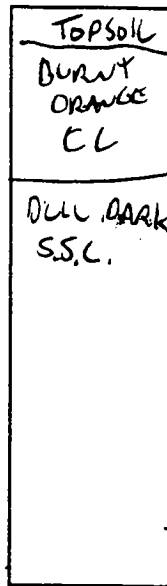
○ DENOTES WELL  
 STAKE SET 3/12/01

KOANDAH  
 SCALE: 1"=60'

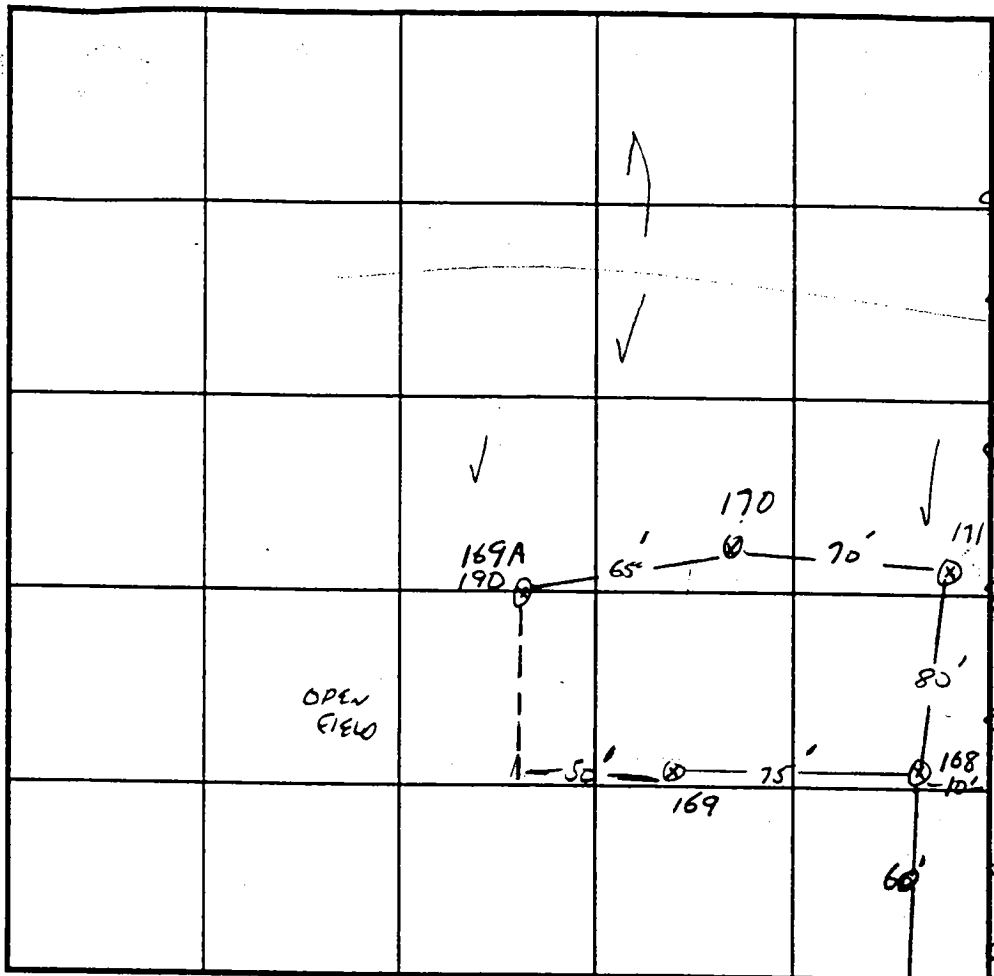
SOIL PROFILE



SOIL PROFILE



(68)



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

← HIGHLAND ROAD →

169+  
TOPSOIL A  
BROWN CLAY LOAM  
5'  
BURNY ORANGE S.S.C.  
7  
GREY SANDY LOAM  
FEW BANDS OF WHITE SAND w/ ORANGE MOTTLED  
12  
DRY

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
1/2/97	168	4 / 12V	11:00	11:03	11:03	11:10	7 MIN
		8 VOLTS					
	169	7 / 12V	11:09	11:09	11:09	11:11	2 MIN
		3	11:05	11:08	11:08	11:13	5 MIN
	190 169A	3 / 12V	11:15	11:16	11:16	11:20	4 MIN
		8 VOLTS					
	170	3.5 / 12V	11:20	11:22	11:22	11:27	5 MIN
		8 VOLTS					
	171	4	11:23	11:27	11:27	11:36	9 MIN

REMARKS Lot 23 LOCATE WELL + SEPTIC FOR ADJACENT PROPERTY

TYPE OF SOIL \_\_\_\_\_

TESTED BY G. SAUCE ALSO PRESENT R. DEWITT, OWNER

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME \_\_\_\_\_ TRENCH WIDTH \_\_\_\_\_

INLET DEPTH \_\_\_\_\_ MAXIMUM BOTTOM DEPTH \_\_\_\_\_ SQ. FT./BEDROOM \_\_\_\_\_

AS7612

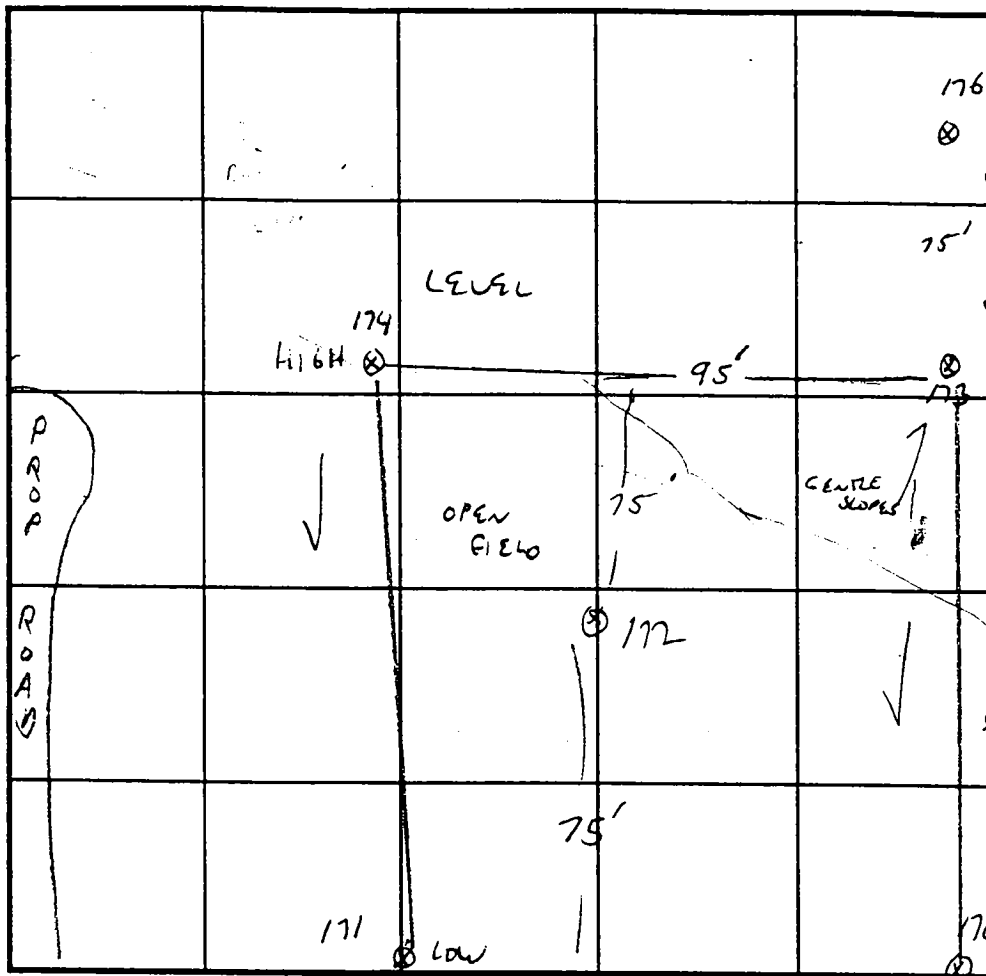
COUNTY #

SOIL PROFILE

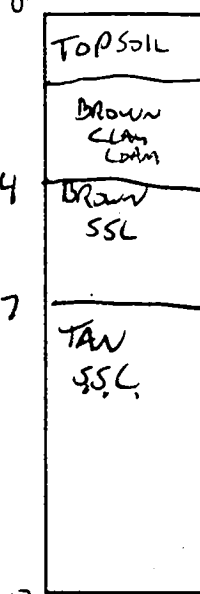
0' [Empty box for soil profile data]

[Empty box for soil profile data]

[Empty box for soil profile data]



SOIL PROFILE



172 TYPICAL

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

↓ TO HIGHWAY ROAD ↓

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
1/2/97	172	3.5/12V 8 Volc	11:33	11:38	11:38	11:45	7min
	173	3/12V	11:40	11:45	11:45	11:53	8min
		7	11:41	11:43	11:43	11:46	3min
	174	4/11V	11:56	11:58	11:58	12:02	4min

REMARKS LOT 22

TYPE OF SOIL \_\_\_\_\_

TESTED BY G. SAVAGE ALSO PRESENT R. DEMIT, OWNER

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME \_\_\_\_\_ TRENCH WIDTH \_\_\_\_\_

INLET DEPTH \_\_\_\_\_ MAXIMUM BOTTOM DEPTH \_\_\_\_\_ SQ. FT./BEDROOM \_\_\_\_\_

**KOANDOAH GARDENS**  
**Phase I**  
**Septic Disposal Areas (SDA)**

**SDA 1 (11,700 sf)**

Test	Yr.	Depth	Minutes
11	4/93	36"	12
12	4/93	48"	11
13	4/93	54"	4
14	4/93	42"	22

*Lot 17*

**SDA 2 (11,875 sf)**

Test	Yr.	Depth	Minutes
2	4/93	42"	4
17	4/93	62"	16
18	4/93	42"	9
178	1/97	8'6"	no test - water

**SDA 3 (11,300 sf)**

Test	Yr.	Depth	Minutes
8	4/93	54"	6
7	4/93	48"	10
183	1/97	12'	no test - water
182	1/97	48"	7 (adj. area)

*Lot 19*

**SDA 4 (10,000 sf)**

Test	Yr.	Depth	Minutes
181	1/97	11'	no test
180	1/97	42"	4
6	4/93	42"	3

*Lot 20*

**SDA 5 (10,000 sf) Needs W.S. eval.**

Test	Yr.	Depth	Minutes
21A	7/99	42"	5 ✓
21B	7/99	40"	2.9 ✓ (No collection recorded)
A2D	7/99	33"	10
21C	7/99	38"	15.5 ✓
21D	7/99	39"	10 ✓
A2C	- water level @ 8' ft on 7/9/99 (Summer drought year)		
A2E	-	42"	15 ✓

**SDA 6 (10,230 sf) Needs W.S. eval**

Test	Yr.	Depth	Minutes
22D	7/99	42"	28 ✓
22B	7/99	39"	7 ✓
22C	7/99	38"	7 ✓
22A	7/99	40"	2.5 ✓

*water @ 10' in July drought year - very back side @ 6' ft*

**SDA 7 (10,440 sf) Needs W.S. eval**

RATG: 20 mpi *area @ Head of Swale*

Test	Yr.	Depth	Minutes
23D	7/99	38"	5.7 min Fail
23B	7/99	39"	45 Fail regular pre test
23C	7/99	40"	11 ✓
195	1/97	48"	3
23A	- water table @ 8 1/2 ft on 7/9/99 (drought year summer) - Fail @ 37 (37 mpi) + 44 (55 mpi)		

**SDA 8 (10,080 sf) Needs W.S. eval**

*area @ Head of Swale*

Test	Yr.	Depth	Minutes
24A	7/99	41"	14 ✓
24B	7/99	47"	2 ✓
196	1/97	24"	2
175	1/97	42"	18
176	1/97	43"	12

*see 23A - water table @ 8 1/2' in July*

*Lot 24*

**SDA 9 (10,010 sf)**

Test	Yr.	Depth	Minutes
170	1/97	42"	5
171	1/97	48"	9
172	1/97	42"	7
173	1/97	36"	18
174	1/97	48"	11

*Lot 25*

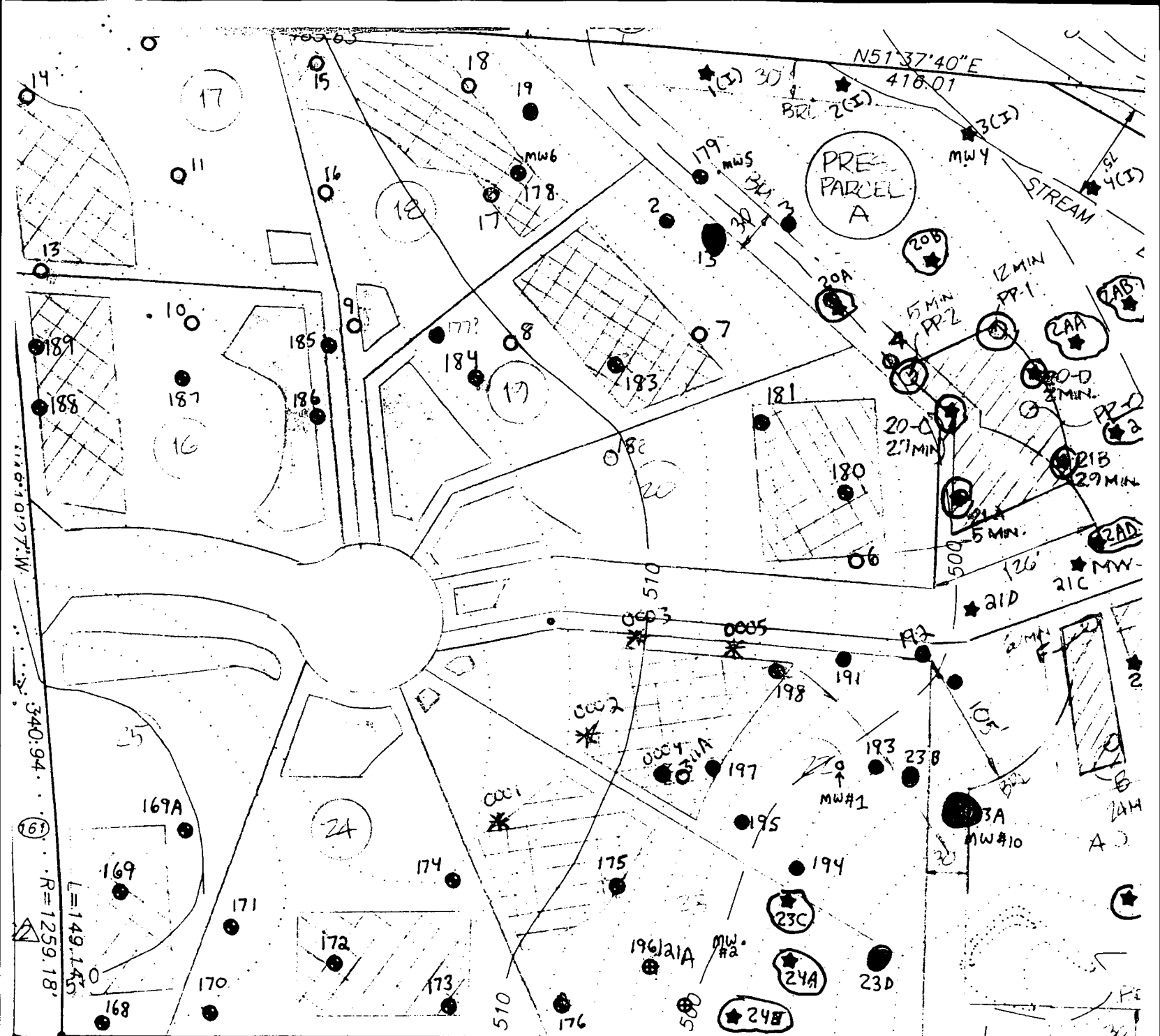
**SDA 10 (10,080 sf)**

Test	Yr.	Depth	Minutes
168	1/97	48"	7
169	1/97	36"	5
169A	1/97	36"	4

Lot # 2

Koondal Garden Review 8/17/99 Continued from 8/10/99

Lot #	on Jan 99 Test Date	Test #	Rate - depth (Mpi) -	Visual hole depth	P/F	Remarks
25 NA10 (tested by GS)	23 1/2/99	168	7 @ 4'	12'	P	dry
		169	5 @ 3' 2 @ 7'	12'	P	dry
		170	5 @ 3 1/2'	12'	P	"
		171 (190)	9 @ 4'	12'	P	"
		169A	4 @ 3'	NA	P	"
<p>burst Orange CL to 5' OK @ 8' CL to 5'</p> <p>OK @ 8' (No data assume same as 168/169)</p> <p>OK @ 8'</p>						
24 DA9	22 1/2/99	172	7 @ 3 1/2'	12'	P	dry
		173	8 @ 3' 3 @ 7'	12'	P	"
		174	4 @ 4'	11'	P	"
<p>Brown CL to 4'</p> <p>Typical Case 172</p> <p>Typical (see 172)</p> <p>Lot 24 OK as proposed</p>						
23 DA8	21 1/2/99	175	18 @ 3 1/2'	12'	P	"
		176	12 @ 4'	11'	P	"
		196 (21A)	2 @ 2' 2 @ 5'	10'	?	water @ 10'
		24				
		24A				
<p>orange SCL to 3' OK @ 8'</p> <p>NA OK @ 8'</p> <p>Brown CL to 2', Br SCL to 4'</p> <p>tan/gray/brn SL to orange (4-10')</p>						
22 DA7	20 1/2/99	(20A) 195	3 @ 4'	8 1/2'	F	water @ 8 1/2'
		196	2 @ 2'			water @ 10'
	1/2/99	197	slow @ 5 1/2'	10 1/2'	F	water @ 10 1/2'
		198	No Test	11'		dry @ 11'
		23C				
		23B				
		23A				
191 (High)	4 @ 2' 2 @ 6'	11'		water @ 11'		
192	2 @ 3 1/2' slow @ 4'	8 1/2'	F	water @ 8 1/2'		
<p>dark brown CL to 6'</p> <p>10/8/99 from 7' orange to 11' 10'</p> <p>Scaly clay to water table</p> <p>only 35' from 191 to water @ 11'</p> <p>orange CL to 3 1/2'</p> <p>dark brn SSL; white gray low chrome pebbles; blk/or mottled</p> <p>@ 8' questionable U.T.</p> <p>dark orange sandy to 3'; dark brn mottled &amp; black banding @ 3'</p> <p>Dry &amp; Filled - Not tested - water</p> <p>195 (20A)</p> <p>in dark Summer</p> <p>activated water sidewall @ 8 1/2' + low</p> <p>dark brn low sand @ 6'</p>						
21	7/8/99	22A	No test			water @ 9' 10" (10')
		22D				
		22B				
		22C				



M. 110°10'07\"/>

340.94

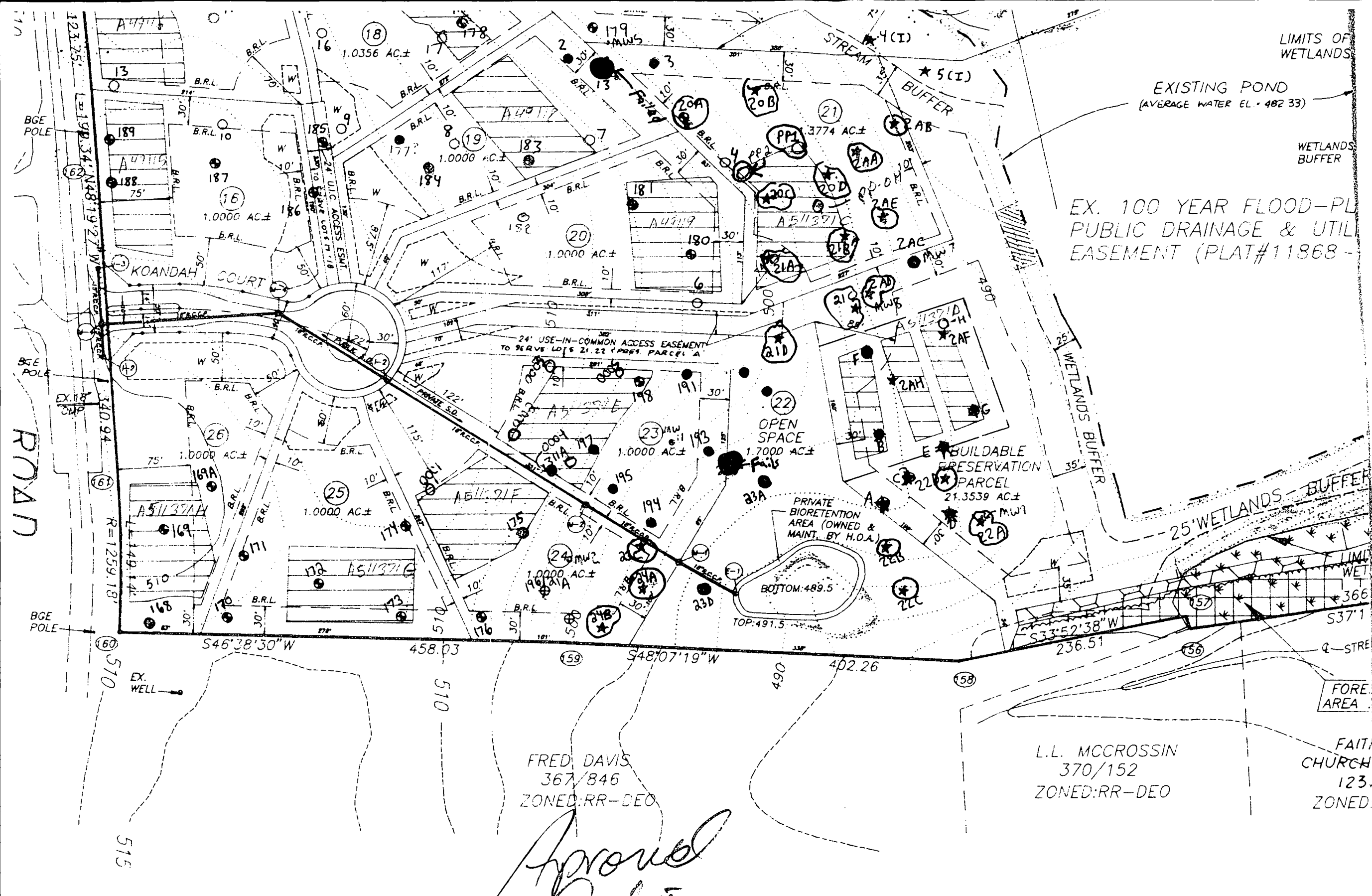
L=149.145  
 R=1259.18

510

515

*From Approved*  
*Perce Cert FA*

FRED DAVIS  
 367/846



EX. 100 YEAR FLOOD-PL  
PUBLIC DRAINAGE & UTIL  
EASEMENT (PLAT#11868 -

FRED DAVIS  
367/846  
ZONED: RR-DEO

L.L. MCCROSSIN  
370/152  
ZONED: RR-DEO

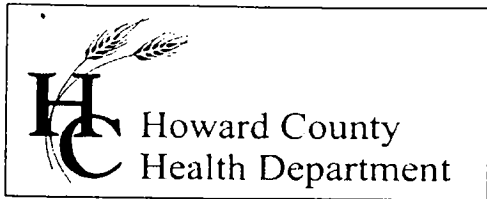
FAITH  
CHURCH  
1234  
ZONED:

*Approved  
Prelim*

Approved by DPZ 3/1/01

APPROVED FOR PRIVATE WATER  
& PRIVATE SEWER SYSTEMS  
HOWARD COUNTY HEALTH DEPT.  
*Donna [Signature]* 2/28/01  
COUNTY HEALTH OFFICER DATE





7178 Columbia Gateway Drive, Columbia Maryland 21046  
(410) 313-1771 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

December 16, 2004

M.I. Homes of DC, LLC  
5101 Mountville Road, Suite B  
Frederick, MD 21703

**SENT VIA FACSIMILE 301-874-0015**

RE: Koandah Garden Estates, Lot 25  
6804 Koandah Gardens Court  
Highland, MD 20777  
BP #: B00144313  
Well Permit # HO-94-3703

Dear Sir:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 11/08/2004. Final approval of the well line connection to the dwelling was approved on 11/08/2004.**

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking. The water sample results were found to be in compliance with COMAR water quality standards.

**INTERIM CERTIFICATE OF POTABILITY**

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-94-3703. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

Date of Water Samples: 12/10/2004 & 12/14/2004  
Date of Well Completion: 06/10/2003

Approving Authority,

Stuart Oster, R. S.  
Well & Septic Program

cc: Building Inspector's Office  
Community Health Services  
File

OR TO RESIDENTIAL OCCUPANCY TO INSURE  
VEHICLE PER THE FOLLOWING MINIMUM

OF SERVING MORE THAN 1 RESIDENCE)  
OF COMPACTED "CRUSHER RUN" BASE WITH  
(1/2" MIN.)  
DE, MAX. 10% GRADE CHANGE AND MIN. 45'

ES)--CAPABLE OF SUPPORTING 25 GROSS TONS (HEAVY TRUCK TRAILERING)  
ABLE OF SAFELY PASSING 100-YEAR FLOOD WITH  
TH OVER DRIVEWAY SURFACE;  
IT TO ENSURE ALL WEATHER USE.

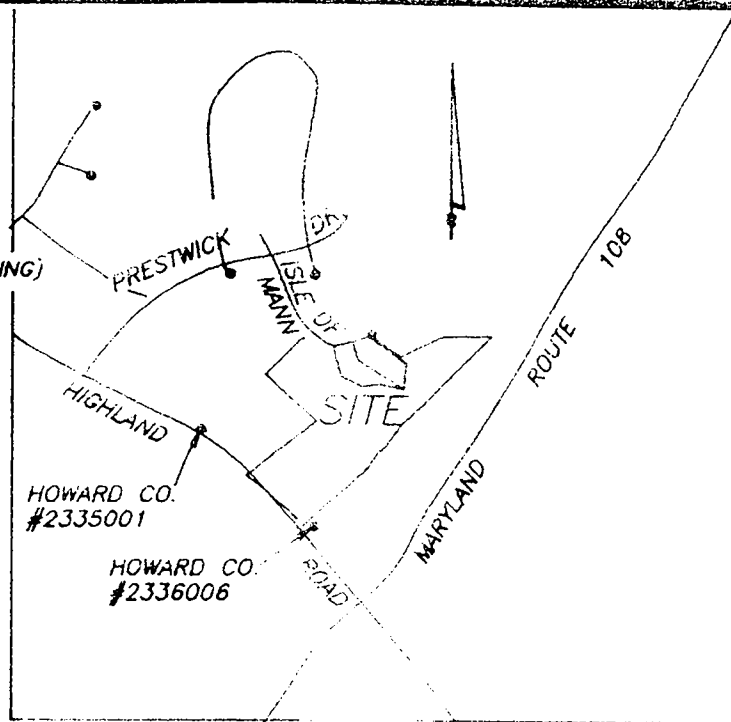
N IS HEREBY DEDICATED TO THE HOMEOWNERS  
F THIS SUBDIVISION, AND RECORDING REFERENCES  
N AND RESTRICTIONS ARE SHOWN HEREON.

ED FOR KOANDAH COURT BY MEANS OF A PRIVATE  
E LOT 22.

FOR THIS PROJECT WAS PREPARED BY  
I SEPTEMBER 17, 1997 AND WAS SUBMITTED IN

PROJECT WAS PREPARED BY SHANBERGER AND LANE  
H F-90-76.

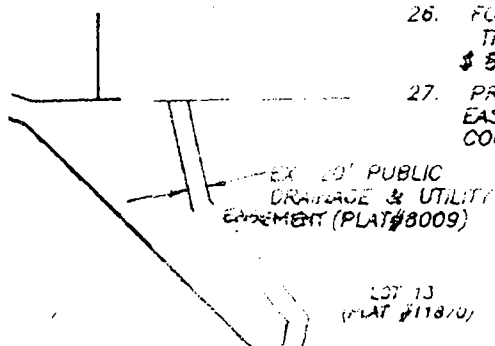
IT HAS BEEN ESTABLISHED TO FULFILL THE  
OF THE HOWARD COUNTY CODE AND FOREST  
PLANNING OR CONSTRUCTION IS PERMITTED WITHIN THE  
HOWEVER, FOREST MANAGEMENT PRACTICES AS  
CONSERVATION EASEMENT ARE ALLOWED.  
1. FOREST CONSERVATION EASEMENTS  
ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS  
SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES  
KNOWN AS "FOREST CONSERVATION AREA", LOCATED IN,  
AND, ANY CONVEYANCES OF THE AFORESAID LOTS/PARCELS  
HEREIN RESERVED, WHETHER OR NOT EXPRESSLY  
SAID LOT(S)/PARCELS. DEVELOPER SHALL EXECUTE AND  
HEREIN RESERVED UNTO HOWARD COUNTY WITH A  
THE FOREST CONSERVATION AREA UPON COMPLETION  
ACCEPTANCE BY HOWARD COUNTY, AND IN THE CASE OF  
LOT(S), UPON COMPLETION OF THE DEVELOPERS  
CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT  
THE COUNTY, AND THE RELEASE OF DEVELOPERS  
IT. THE COUNTY SHALL ACCEPT THE EASEMENTS  
RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.



VICINITY MAP

SCALE: 1"=2000'

KOANDAH GARDENS  
ESTATES  
(PLAT #8009)



22. LANDSCAPING FOR LOTS 16-28 IS PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN ON FILE WITH THE APPROVED ROAD CONSTRUCTION PLANS IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
23. THIS PLAT COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY ON-SITE RETENTION (2.05 ACRES RETENTION) & OFFSITE RETENTION (4.18 AC.).
24. THIS SUBDIVISION IS RECEIVING 3 DEO UNITS FROM THE HOLTZINGER PROPERTY (PLAT #11870, TAX MAP 1 & 6, PARCEL 7)
25. LANDSCAPING SURETY HAS BEEN PROVIDED IN THE AMOUNT OF \$ 17,250.00 FOR PERIMETER LANDSCAPING AND \$ 4800.00 FOR STREET TREES.
26. FOREST CONSERVATION OBLIGATIONS ARE MET THROUGH RETENTION. SURETY HAS BEEN PROVIDED IN THE AMOUNT OF \$ 54,275.76
27. PRESERVATION PARCEL 'A' IS OWNED BY JAMES M. & EMILIE S. SANBORN WITH EASEMENT RIGHTS GRANTED TO THE HOMEOWNERS ASSOCIATION AND HOWARD COUNTY, MD.
28. THE HOA ARTICLES OF INCORPORATION WERE ACCEPTED BY THE STATE ON 8/29/2002 *ifiling# 1800361987422668*
29. THIS PLAN IS SUBJECT TO COMPLIANCE WITH THE FOURTH EDITION OF THE SUBDIVISION REGULATIONS. IN ADDITION, BECAUSE IT HAD PRELIMINARY PLAN APPROVAL PRIOR TO NOVEMBER 1, 2001, IT IS SUBJECT TO THE OCTOBER 18, 1993, ZONING REGULATIONS.

**HOWARD COUNTY  
PERMIT APPLICATION**

PERMIT NUMBER

B-144-313

Building Address: 6804 Kandah Gardens Ct.  
Highland, Md. 20777

Suite/Apt. #: \_\_\_\_\_ SDP/WP/Petition #: \_\_\_\_\_

Census Tract 60510 Subdivision Kandah Gardens Estates

Section \_\_\_\_\_ Area \_\_\_\_\_ Lot 25

Tax Map 40 Parcel 78 Grid 4

Zoning RR100 Map Coordinates 14B12 Lot size 1 ac

Existing Use Vacant lot

Proposed Use single family dwelling

Estimated Construction Cost \$ 150,000

Description of Work construct single family dwelling

Occupant or Tenant M/I Homes of D.C. L.L.C.

Contact Name John Berger

Address 5101 Mountville Rd. Suite B

City Frederick State MD Zip Code 21703

Phone 301-874-0013 Fax 301-874-0015

Property Owner's Name M/I Homes of D.C. L.L.C.

Address 5101 Mountville Rd suite B

City Frederick State MD Zip Code 21703

Home Phone 301-874-0013 Work Phone 301-874-0013

Applicant's Name & Mailing Address, (if other than stated hereon):

Same

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Contractor Company M/I Homes of D.C. L.L.C.

Contact Person John Berger

Address 5101 Mountville Rd. Suite B

City Frederick State MD Zip Code 21703

License No. 3418

Phone 301-874-0013 Fax 301-874-0015

Engineer or Architect Company Snyder, Egbue & Assoc.

Contact Person \_\_\_\_\_

Address 3959 Pender Dr. Suite 300

City Fairfax State VA Zip Code 22030

Phone 703-218-8404 Fax \_\_\_\_\_

**BUILDING DESCRIPTION - COMMERCIAL**

**BUILDING DESCRIPTION - RESIDENTIAL**

**Building Characteristics**

**Utilities**

Height: \_\_\_\_\_  
No. of stories: \_\_\_\_\_  
Gross area, sq. ft. per floor: \_\_\_\_\_  
Use group: \_\_\_\_\_  
Construction type:  
 Reinforced Concrete  
 Structural Steel  
 Masonry  
 Wood Frame  
 State Certified Modular

Water Supply:  
 Public  
 Private  
Sewage Disposal:  
 Public  
 Private  
Electric Yes  No   
Gas Yes  No   
Heating System:  
Electric  Oil   
Natural Gas   
Propane Gas   
Sprinkler system: N/A   
 Full  
 Partial  
 Other Suppression  
# of Heads \_\_\_\_\_

**Building Characteristics**

**Utilities**

SF Dwelling  SF Townhouse   
Depth \_\_\_\_\_ Width \_\_\_\_\_  
1st floor: 70' 72'  
2nd floor: 44' 58'  
Basement: 54' 72'  
Finished Basement  Unfinished Basement   
Crawl space  Slab on Grade   
No. of Bedrooms 4  
Multi-family dwellings:  
No. of efficiency units: \_\_\_\_\_  
No. of 1 BR units: \_\_\_\_\_  
No. of 2 BR units: \_\_\_\_\_  
No. of 3 BR units: \_\_\_\_\_  
Other Structure: \_\_\_\_\_  
Dimensions: \_\_\_\_\_  
Footings: \_\_\_\_\_  
Roof: \_\_\_\_\_  
 State Certified Modular  
 Manufactured Home

Water Supply:  
 Public  
 Private  
Sewage Disposal:  
 Public  
 Private  
Electric Yes  No   
Gas Yes  No   
Heating System:  
Electric  Oil   
Natural Gas   
Propane Gas   
Sprinkler system: N/A   
 NFPA #13D  
 NFPA #13R  
Other: \_\_\_\_\_

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: John Berger  
Title/Company: V.P. of Construction M/I Homes

Print Name: John M. Berger  
Date: 9/30/03

Checks payable to: **DIRECTOR OF FINANCE OF HOWARD COUNTY**  
\*\* PLEASE WRITE NEATLY AND LEGIBLY. \*\*  
- FOR OFFICE USE ONLY -

AGENCY DATE SIGNATURE APPROVAL  
 Land Development, DPZ  
 State Highways  
 Building Official  
 Dev. Engineering, DPZ  
 Health 10/15/03 Brian Baker  
 Fire Protection

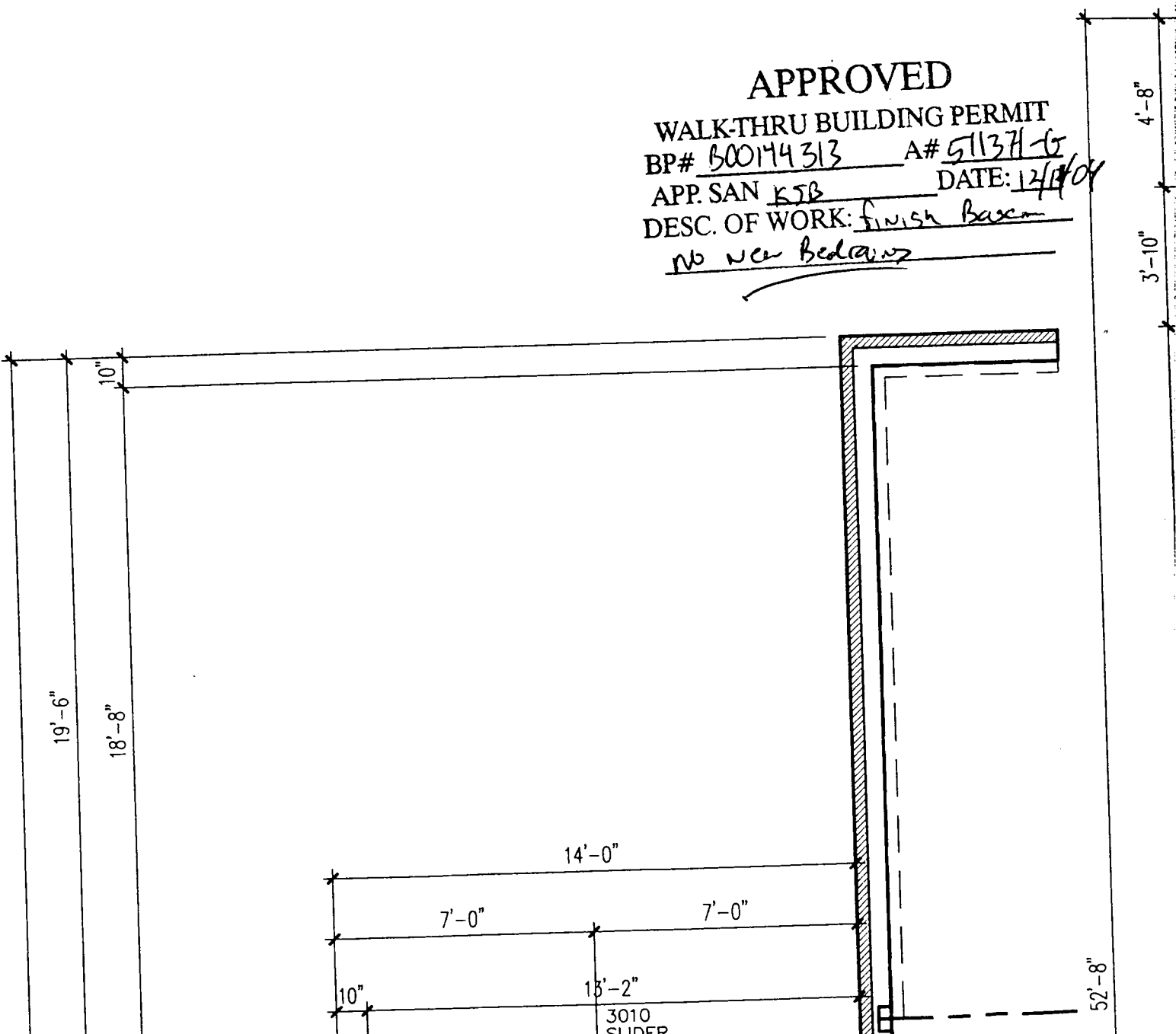
DPZ SETBACK INFORMATION  
Front: \_\_\_\_\_  
Rear: \_\_\_\_\_  
Side: \_\_\_\_\_  
Side St.: \_\_\_\_\_  
All minimum setbacks met?  
YES  NO   
Is Entrance Permit required?  
YES  NO   
Historic District?  
YES  NO   
Lot Coverage for New Town Zone \_\_\_\_\_  
SDP/Red-line approval date \_\_\_\_\_

PROPERTY ID#: 59678  
Filing fee \$ 100.00  
Permit fee \$ \_\_\_\_\_  
Excise tax \$ \_\_\_\_\_  
Add'l per. fee \$ \_\_\_\_\_  
TOTAL FEES \$ \_\_\_\_\_  
Sub-total paid \$ \_\_\_\_\_  
Balance due \$ \_\_\_\_\_  
Check # 1032  
Validation # 35795  
Accepted by: [Signature]

Is Sediment Control approval required prior to issuance?  
YES  NO

CONTINGENCY CONSTRUCTION START:   
ONE STOP SHOP:

Distribution of Copies- White: Building Official Green: LDD, DPZ Yellow: DED, DPZ Pink: Health Gold: SHA



**APPROVED**  
 WALK-THRU BUILDING PERMIT  
 BP# 500174313 A# 511371-5  
 APP. SAN KJB DATE: 12/17/04  
 DESC. OF WORK: Finish Basement  
No new Bedrooms