

LAYOUT 330 7/19/03 INSP 4 _____
 INSP 2 7/30/03 INSP 5 _____
 INSP 3 _____ INSP 6 _____

ISSUE DATE: 7/1/2003

P 519036

APPROVAL DATE: 7/30/03

A 49115

PERMIT

INDEXED

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

K & K Excavating IS PERMITTED TO INSTALL ALTER

ADDRESS: 14960 Frederick Road, Woodbine PHONE NUMBER: 410-442-1336

SUBDIVISION: Koandah Gardens Estate LOT NUMBER: 16

ADDRESS: 6801 Koandah Gardens PROPERTY OWNER: Dorr Property

SEPTIC TANK CAPACITY (GALLONS): 1500 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: 240 HOUSE SERVED BY PUBLIC WATER

TRENCHES:	Trench to be 3.0 feet wide. Inlet 4.0 feet below original grade. Bottom maximum depth 6.0 feet below original grade. Effective area begins at 4.0 feet below original grade. 2.0 feet of stone below distribution pipe.
LOCATION:	Place the distribution box as shown on the approved site plan. Run trenches on contour, 4-60' trenches.
NOTES:	No basement service by gravity. SHALLOW SYSTEM ONLY

PLANS APPROVED: Steven R. Krieg OK SRK 7/1/03 DATE: 2/24/2003

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

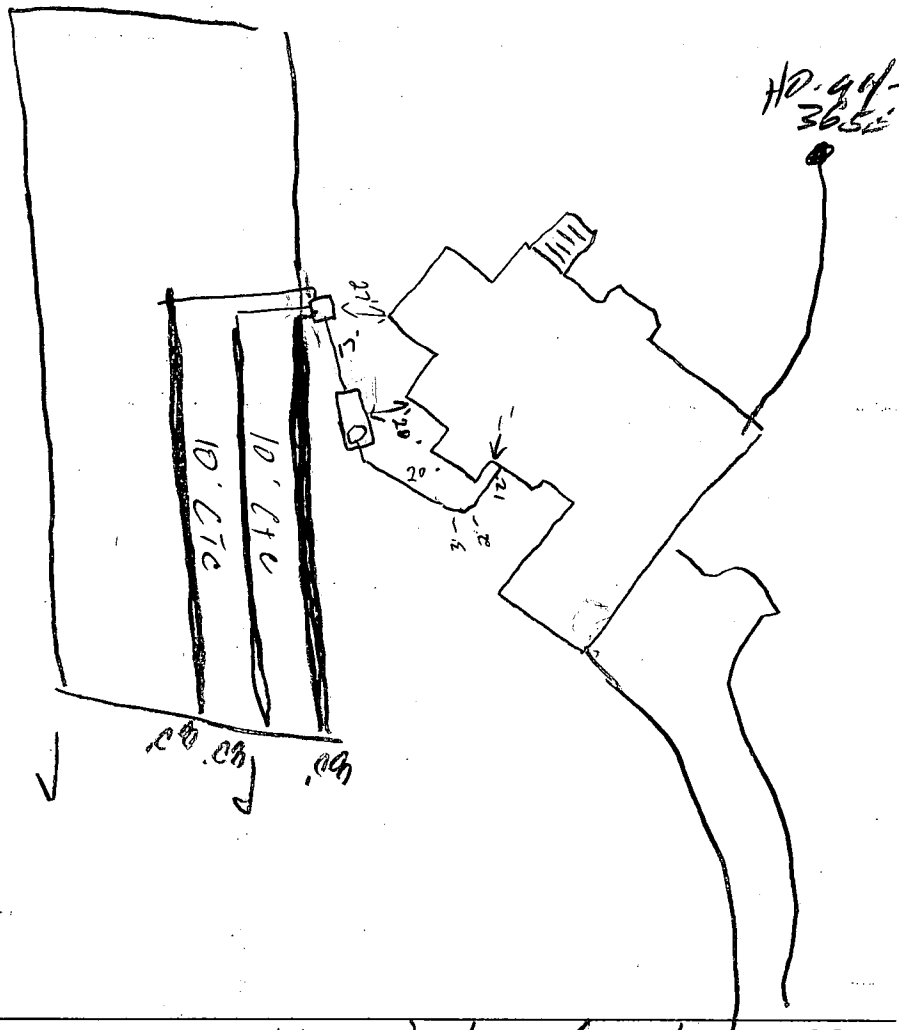
NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT

BUILDING PERMIT SIGNED AND RETURNED 313-2640 FOR INSPECTION OF SEPTIC SYSTEM

9-3-03 B00143844-116 PROPOSED TANK

49115

NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	4'	6.5'
NUMBER OF TRENCHES		3
TOTAL LENGTH		240'
ABSORPTION AREA		720 4
DISTRIBUTION BOX LEVEL		<input checked="" type="checkbox"/>
DISTRIBUTION BOX BAFFLE		<input checked="" type="checkbox"/>
DISTRIBUTION BOX PORT		<input type="checkbox"/>

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL <input checked="" type="checkbox"/>	
CAPACITY	1500 GAL
SEAM LOC	Top
TANK LID DEPTH	1'
BAFFLES	<input checked="" type="checkbox"/>
BAFFLE FILTER	<input type="checkbox"/>
MANHOLE LOC	Front
6" PORT LOC	<input type="checkbox"/>
WATERTIGHT TEST	<input type="checkbox"/>
SEPTIC TANK 2 LEVEL <input type="checkbox"/>	
CAPACITY	_____ GAL
SEAM LOC	_____
TANK LID DEPTH	_____
BAFFLES	N/A
BAFFLE FILTER	<input type="checkbox"/>
MANHOLE LOC	_____
6" PORT LOC	_____
WATERTIGHT TEST	_____

Kuandah Gardens ROAD

PRE-CONSTRUCTION 7/29/03 - SRA Staked, stakes on one side on top of cut for drainage. Move 10' back from stake. OK to install (3)

INSTALLATION 8/0 trenches if builder allows tank to move (2)

7/30/03 Tank set, 1st trench installed (2)

7/30/03 OK to cover all work (2)

BUILDING PERMIT SIGNED AND RETURNED

FINAL INSPECTOR *[Signature]*

DATE OF APPROVAL 7/30/03

Sheet #1

NOTE: This lot appears to lie in an area classified as Zone-C, area of minimal flooding, as shown on FIRMI MAP of Howard Co., Md., Community Parcel Number 2A-004-400-37B, Panel 37 of 45, dated December 4, 1986.

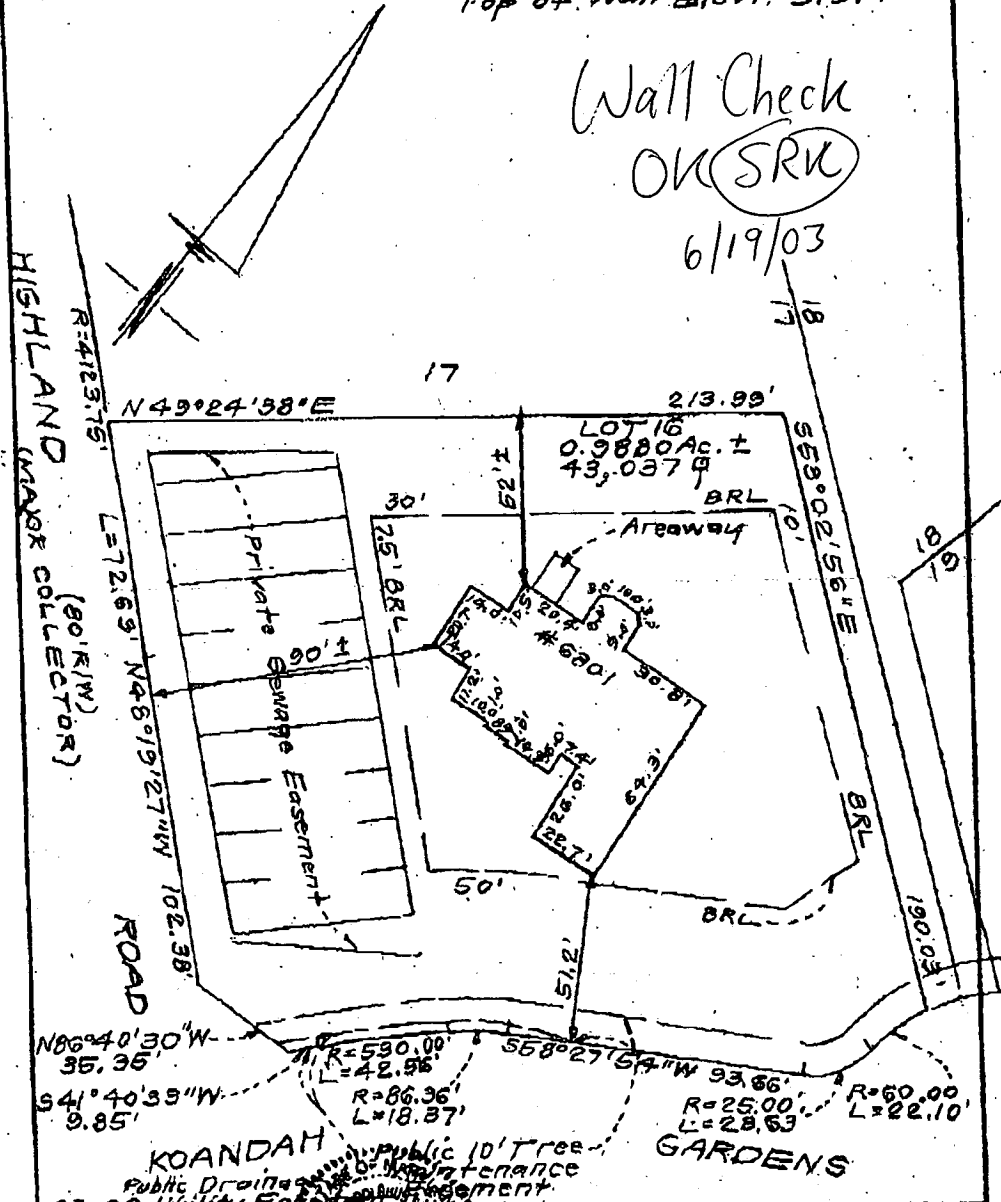
LOCATION DRAWING
6601 KOANDAH GARDENS
LOT 16
KOANDAH GARDENS ESTATES
LOTS 16-28
PRESERVATION PARCELA
(A RESUBDIVISION OF PARCELA 2)
PLAT NOS
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

- NOTES:
1. The setback distance accuracy = 1'
 2. See Sheet #2 for Consumer Information.

Wall Check: 5-29-03
Top of Wall Elev.: 519.4

Wall Check
OK (SRK)

6/19/03



SURVEYOR'S CERTIFICATE

I hereby certify that a field survey of the property has been made under my supervision for the purpose of locating improvements hereon, and that they are located as shown on this plan.

CLARK, FINEPROCK & SACKETT, INC.
 CHARTERS - PLANNERS - SURVEYORS
 7135 MONTELEONE WAY, COLUMBIA, MARYLAND 21045
 TELEPHONE: BALTO. (410) 381-7300 • WASH. (301) 421-8100

DATE: 5-30-03	CHECKED BY: PAS
FILE NO: 11242-W	
SCALE: 1" = 40'	

Plat M.D.R. No. 15632

C1 3419

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.

COUNTY NUMBER

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

DATE RECEIVED MM DD YY

DATE WELL COMPLETED

DEPTH OF WELL

PERMIT NO. FROM "PERMIT TO DRILL WELL" OKSRK 3/31/03 20-94-3655

OWNER: Bay Country Land Co. STREET OR RFD: Koondah Garden Ct TOWN: Highland SUBDIVISION: Koondah Gardens SECTION: LOT: 16

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, FEET (FROM, TO), check if water bearing. Includes entries for Sand (0-46) and Gray Mica Rocks (46-245).

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box)

TYPE OF GROUTING MATERIAL (Circle one) CEMENT [CM] BENTONITE CLAY [BC] NO. OF BAGS 15 NO. OF POUNDS 1410 GALLONS OF WATER 90 DEPTH OF GROUT SEAL (to nearest foot) from 0 to 44 ft.

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) 50

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

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: 0

WELL HYDROFRACTURED [Y] YES [N] NO

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...

DRILLERS LIC. NO.: M SDe 24 DRILLERS SIGNATURE: [Signature]

LIC. NO.: M D

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

DEPTH (nearest ft.) 48 245

E A C H S C R E E N

SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 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

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 PUMPING TEST

HOURS PUMPED (nearest hour) 3

PUMPING RATE (gal. per min.) 12

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface) BEFORE PUMPING 28 ft. WHEN PUMPING 74 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 [X] 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

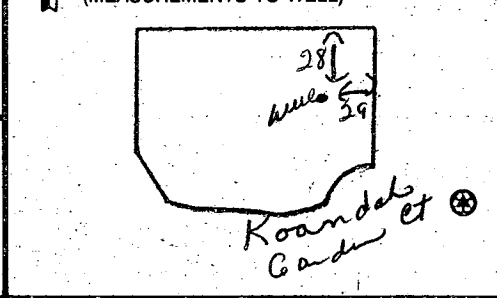
CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height) [A] above [] below LAND SURFACE 2 (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)



B 1 **5121**

SEQUENCE NO. (MDE USE ONLY)

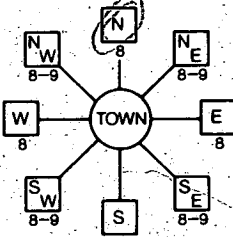

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
518585 please type

STATE PERMIT NUMBER
HO-94-3655
fill in this form completely

Date Received (APA) **3 21 03**
OWNER INFORMATION
8 MM DD YY 13
Bay Country Land Co.
15 Last Name Owner First Name 34
P.O. Box 1071
36 Street or RFD 55
Severna Park Md 21146
57 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL
Howard
8 COUNTY 21
Koondah Garden East
23 SUBDIVISION 42
SECTION 44-46 LOT **16** 48 50
Highland
52 NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) **0** M L J
73 76 77 78

DRILLER INFORMATION
Joseph E. Wayne **M 5 D 024**
Driller's Name 76 License No. 81
Joseph E. Wayne well Drilling
Firm Name
5512 Ridge Rd. Int. City Md 21771
Address
Joseph E. Wayne **3/20/03**
Signature Date

B 4
1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

11 NEAR WHAT ROAD 30
Koondah Gardens Ct
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 **180** 37 DISTANCE FROM ROAD 38 39
ENTER FT OR MI **FT**
TAX MAP: **34** BLK: **22** PARCEL: **78**

B 2 WELL INFORMATION
1 2 APPROX. PUMPING RATE (GAL. PER MIN.) **5**
8 **500** 12
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
Howard **49115**
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S →
DATE ISSUED **3 19 03** **Steven R. King** **3 19 04**
43 MM DD YY 48 CO SIGNATURE EXP. DATE 41
NORTH GRID **490 000** EAST GRID **810 000**
50 55 57 63

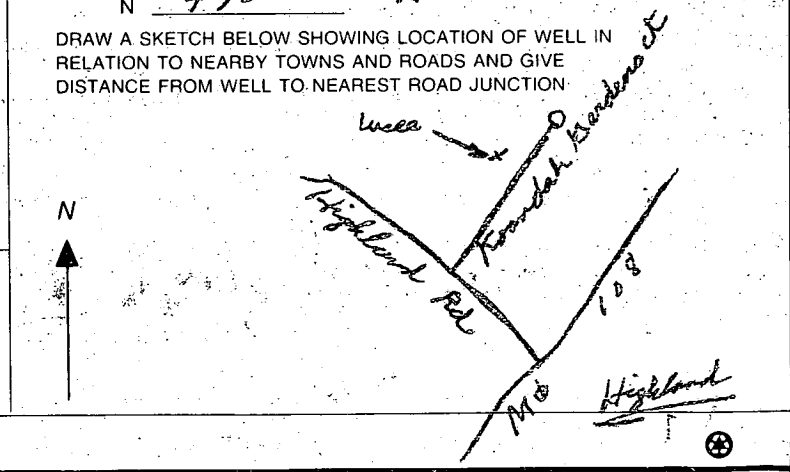
USE FOR WATER (CIRCLE APPROPRIATE BOX)
 DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
22 INDUSTRIAL, COMMERCIAL, DEWATERING
 PUBLIC WATER SUPPLY WELL
 TEST, OBSERVATION, MONITORING
 GEO-THERMAL

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 **810**
N **490**
000
000

APPROXIMATE DEPTH OF WELL **300** FEET
24 28
APPROXIMATE DIAMETER OF WELL **6** INCH
NEAREST

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

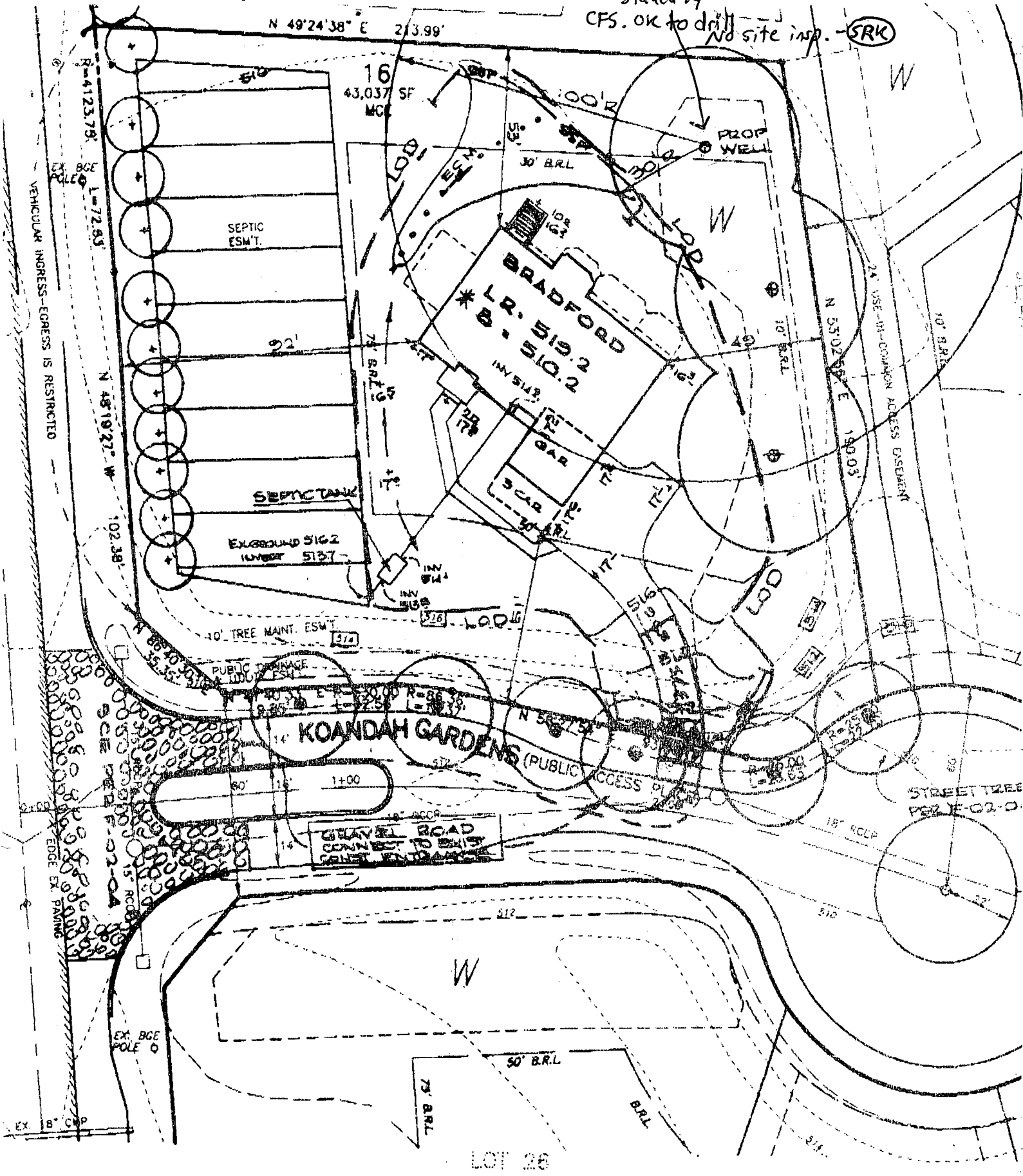
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
 THIS WELL WILL NOT REPLACE AN EXISTING WELL
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
39 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
 THIS WELL WILL DEEPEMED 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)
APPROX. PERMIT NUMBER **G**
PERMIT No. **HO-94-3655**
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS
NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

CFS. OK to drill No site insp. -SRK



Betty
 this is the site plan the health dept has.

Thanks
 Jayella

DEVELOPER'S/BUILDER'S CERTIFICATE

"I/We certify that all development and construction will be done according to this plan of development and plan for sediment and erosion control and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."

Steph Marzoff
 NAME

2/4/03
 DATE

63

13

Let #

up 19	in Jan 97	Test date	Test #	hole depth	Visial Hole depth	P/F	WT if any	
7	open space	4/28/93	11	12 @ 3 1/2'	13 1/2'	P	dry	dark Bl SCL to 3 1/2'; tan/gel/blue SL to 13'
			12	11 @ 4'	13 1/2'	P	dry	
			14	22 @ 3 1/2'	12'	P	dry	
			13	4 @ 4 1/2'	13'	P	dry	
			15	7 @ 3 1/2'	14'	P	water @ 13 1/2'	
16	out of area	4/2/97	184					Brown clay to 2 1/2', orange SC to 5', Tan SL 5-12 " " " " " " " Ch to 2 1/2' or SCL to 4', Tan 4-12 " Ch to 2' Ch 4' " " " Ch 2' Ch 4' " " red SCL to 3 1/2', SL below " " " " dark bl / tan/gel SCL to 3 1/2', SL below
			185	OK to 12'	12'	P	dry	
			186	10 @ 4 1/2' 2 @ 8'	12'	P	dry	
			187	OK 4'-8'	NA	P	dry	
			188	4 @ 4'	12'	P	dry	
	out of area	4/28/93	9	8 @ 4 1/2'	13 1/2'	P	dry	
			10	5 @ 4'	14'	P	dry	
			13	4 @ 4 1/2'	13'	P	dry	

Continued

COUNTY #

SOIL PROFILE

0' (6) (7)
 yel brn
 sa cl
 1/2' lm
 brn beige
 tan
 sand
 †
 sa lm
 10% frags

13' (8)
 dk. red
 sa cl lm
 4' brn.
 tan mica
 sa lm
 10% frags

13 1/2' (9) (10)
 dk. brn
 red
 sa cl lm
 tan beige
 sa lm
 10% frags

SEE ATTACHED

SOIL PROFILE

0'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
4/28/93	6 S	3 1/2	11:25	11:28	11:28	11:31	3
	6 V	13	H ₂ O @	12 1/2			
	7 S	4	11:46	11:50	11:50	12:00	10
	7 V	7	11:47	11:49	11:49	11:52	3
	7 V	14 1/2	H ₂ O @	14'			
	8 S	4 1/2	11:56	11:59	11:59	12:05	6
	8 V	13 1/2					
	9 S	4 1/2	12:04	12:05	12:05	12:13	8
	9 V	13 1/2					
	10 S	4	12:07	12:11	12:11	12:16	5
	10 V	14					

n=6

REMARKS _____ TOT 35

TYPE OF SOIL _____

TESTED BY _____ ALSO PRESENT J. Sanborn, R. Demmit, Hoemas

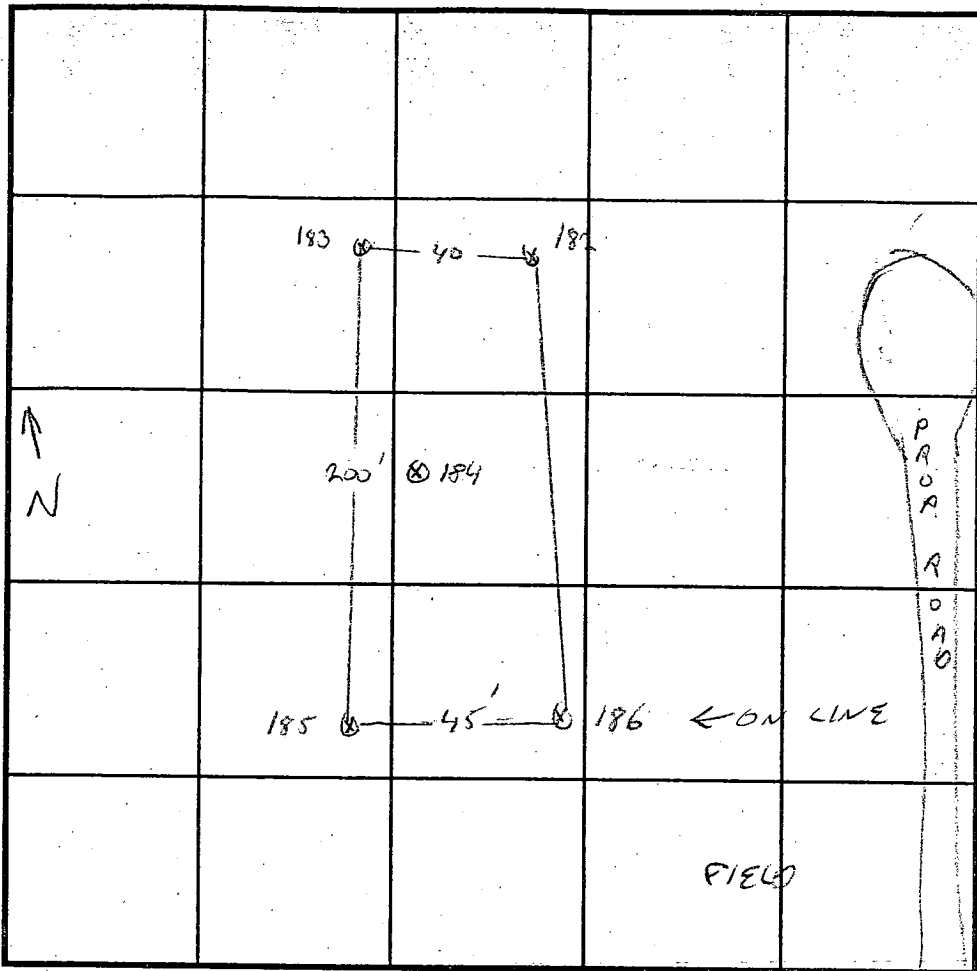
TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

INLET DEPTH _____ MAXIMUM BOTTOM DEPTH _____ SQ. FT/BEDROOM _____

A 57612
COUNTY #

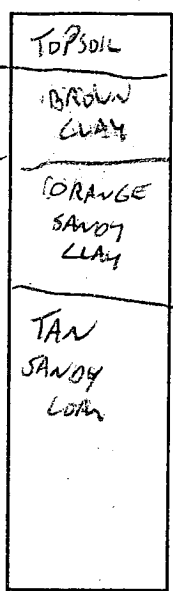
SOIL PROFILE

0'



SOIL PROFILE

0'



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

↓ TO AIGHLANA ROAD ↓

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
1/2/97	184	V ok to 12					
	186	4.5/12	2:56	3:01	3:01	3:11	10 MIN
		8	2:33	2:34	2:36	2:38	2 MIN
	182	4	SEE	LOT 18	PROFILE		7 MIN
		8	"	"	"		2 MIN

REMARKS LOT 17

TYPE OF SOIL _____

TESTED BY G. SAVAGE

ALSO PRESENT R. OENIT, OWNER

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____

TRENCH WIDTH _____

INLET DEPTH _____

MAXIMUM BOTTOM DEPTH _____

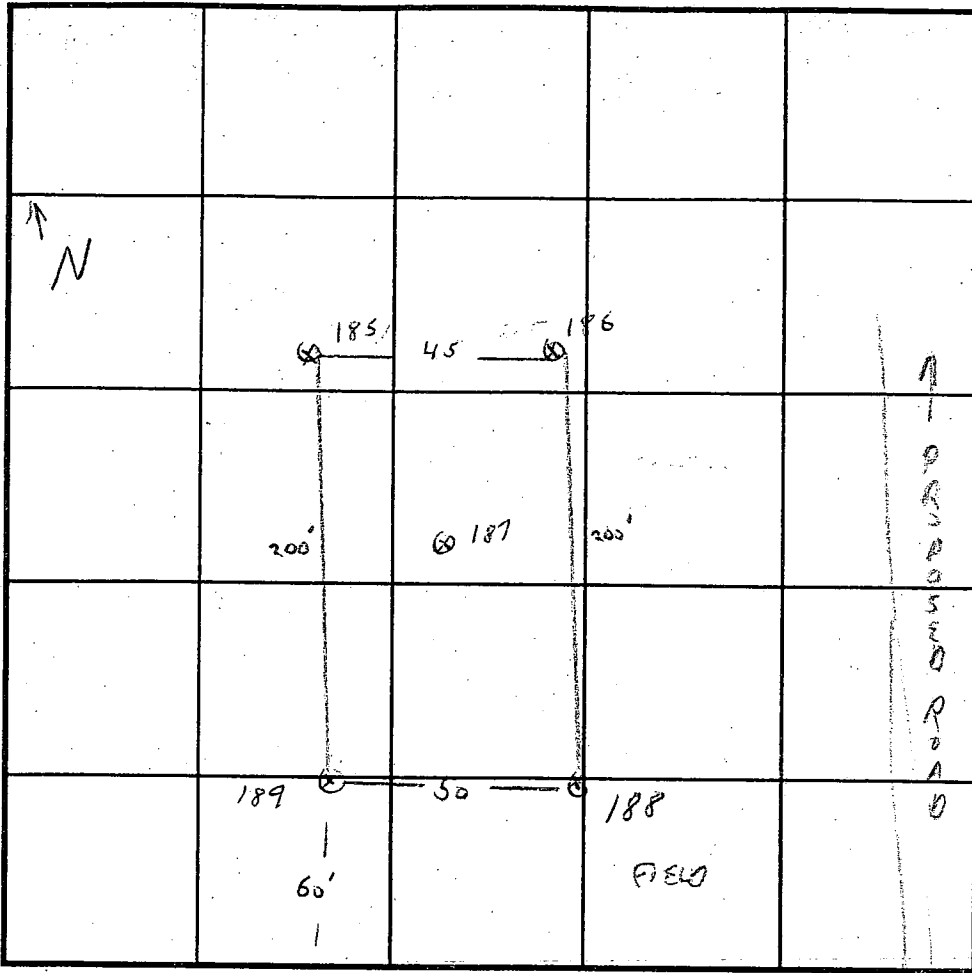
SQ. FT/BEDROOM _____

A57612

COUNTY #

SOIL PROFILE

0'



SOIL PROFILE

0'

TOPSOIL 187

BROWN CLAY LOAM 2.5

ORANGE SANDY CLAY LOAM 4

TAN/BROWN SCL 12

188/189

2

TOPSOIL

BROWN CL.

ORANGE CL.

4

TAN S.S.C.

12

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

HIGHLAND ROAD

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
1/2/97	187	V OK	4-8				
	188	4/12V	2:47	2:50	2:50	2:54	4:12V
	189	12V OK	4-8'				

REMARKS LOT 16

TYPE OF SOIL _____

TESTED BY G SAUGE ALSO PRESENT A DEBIT, OWNER

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

INLET DEPTH _____ MAXIMUM BOTTOM DEPTH _____ SQ. FT./BEDROOM _____

KOANDOAH GARDENS

SDA - Phase 1 - continued

SDA 11 (10,500 sf)

<u>Test</u>	<u>Yr.</u>	<u>Depth</u>	<u>Minutes</u>
185	1/97		no test
186	1/97	54"	10
187	1/97	48"	ok HCH - 4' to 8'
188	1/97	48"	4
189	1/97	12'	no test

Lot 16

Community Area SDA (30,250 sf) - 6 lots - 60,000 sf available

<u>Test</u>	<u>Yr.</u>	<u>Depth</u>	<u>Minutes</u>
2	4/93	42"	4
179	1/97	10'6"	no water
3	4/93	33"	3 ✓
20A	7/99	42"	3 ✓
20B	7/99	42"	8.5 - only present in 10' to 12' on test site
4	4/93	36"	3
20C	7/99	42"	2.7 ✓
A2A	7/99	40"	3 ✓
A2B	7/99	40"	19 ✓
20D		3'	2 npi ✓ (present in dry soil @ 6'-9')

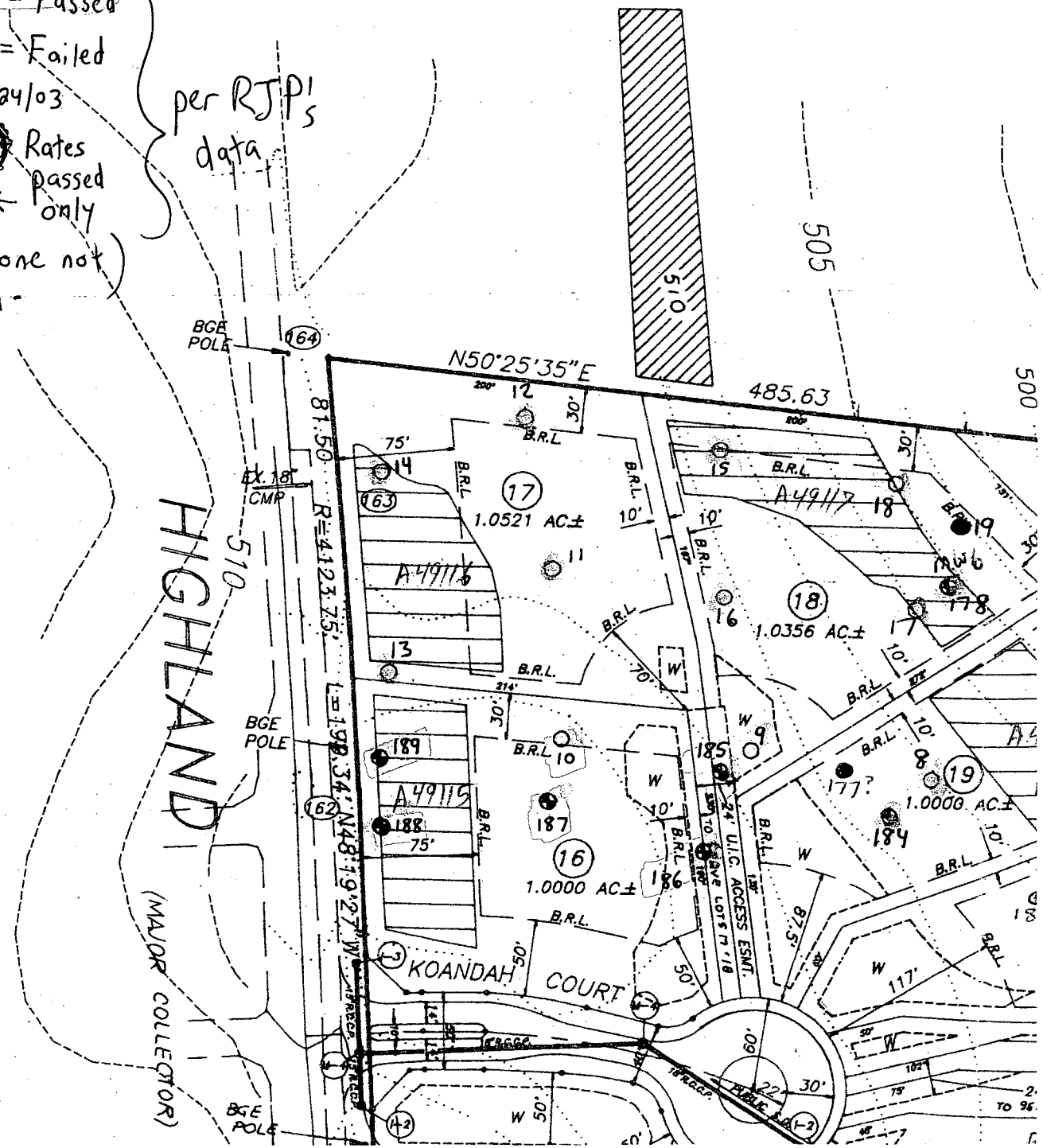
① Made 100 ft stream buffer

only present in 10' to 12' on test site

- EXPLORATION RESEARCH, INC., DATED SEPTEMBER 17, 1997 AND WAS SUBMITTED IN CONJUNCTION WITH
- THE GEOTECHNICAL STUDY FOR THIS PROJECT WAS PREPARED BY MARSHALL ENGINEERING, INC DATED JULY 6, 1998 AND APPROVED WITH S-99-07.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNINGHAM & ASSOC., INC DATED NOVEMBER, 1998 AND APPROVED WITH S-99-07.
- NO NOISE STUDY IS REQUIRED FOR THIS PROJECT.
- THE FLOODPLAIN STUDY FOR THIS PROJECT WAS PREPARED BY SHANABERGER AND LANE AND APPROVED IN CONJUNCTION WITH F-90-76.

○ ⊕ ⊗ ☆ = Passed
 ● ● ● ● ☆ = Failed
 SRK/FA 2/24/03
 Rates passed or record of excavation (treatment zone not verified) only
 per RJP's data

Approved Perc Cert



EX-BGC SOLELY N 48°19'27" W L=72.63' R=4123.75'

STREET TREES PER F-02.04

N 49°24'38" E 213.99'

16 43,037 SF MCE

SEPTIC ESMT.

SEPTIC TANK

EX-GROUND S162 INVERT S137

10' TREE MAINT. ESMT.

PUBLIC DRAINAGE

KOANDAH GARDENS (PUBLIC YARD)

* L.R. S19.2 B = S10.2

BRADFORD

3 CAR GAR

2 CAR GAR

30' B.R.L.

PROP WELL

N 53°02'56" E 190.03'

24' USE-IN-COMMON ACCESS EASEMENT

800143844

4/3/03

Proposed
+ P tank OK

(Signature)

