LOT #52

CERTIFICATE OF COMPLETION/OPERATION PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE: 3339A DATE: 12/27/90

TC: 111 321 H L CRT

SERIAL № 13663

Name of Owner Joe Layton Juris.:

Address of Property 5134 Treewood Ct

Inspection Data:

Tank Material PC

Total Length of Drainfield 400

Number of Lines 4 @ 100'

Cover Depth 10"

Water Supply Source well

Distance to Water Source > 50

Excavation Inspected 12/27/90

Tank(s) Inspected 12/27/90

Wash Line Inspected NA

High Water Alarm Inspected -

PLOT

Design: 1990, 1500 ST, 1200 SET, CON, 12" stone cnl CTR# 3

The undersigned has inspected the Septic Tank System described above, and certifies it has been

☑ installed or constructed ☐ altered or repaired

☑ in accordance with the permit issued ☐ as detailed in the plot above

and meets the provisions of 10 NCAC 10A .1900, "Laws And Rules For Sanitary Sewage Collection, Treatment, And Disposal" in effect on the date of issuance of the permit. The issuance of this

☑ Certificate of Completion ☐ Operation Permit

does not in any way guarantee that the system will operate properly or relieve any person now or hereafter owning, controlling, or using such system from any liability resulting from the failure of the system to operate properly. This document is issued subject to those restrictions and conditions shown on the permit(s) and the provisions of 10 NCAC 10A .1900 in addition to those listed below under "COMMENTS." This document shall be null and void if any information contained in the application is untrue or if any additions are made to the property which would increase the requirements for said system.

COMMENTS: System did not need lift station. System designed for 3 bedroom house

Phillip S. Walker R.S.
Environmentalist

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

INSTALLATION, CONSTRUCTION, ALTERATION, AND/OR REPAIR PERMIT

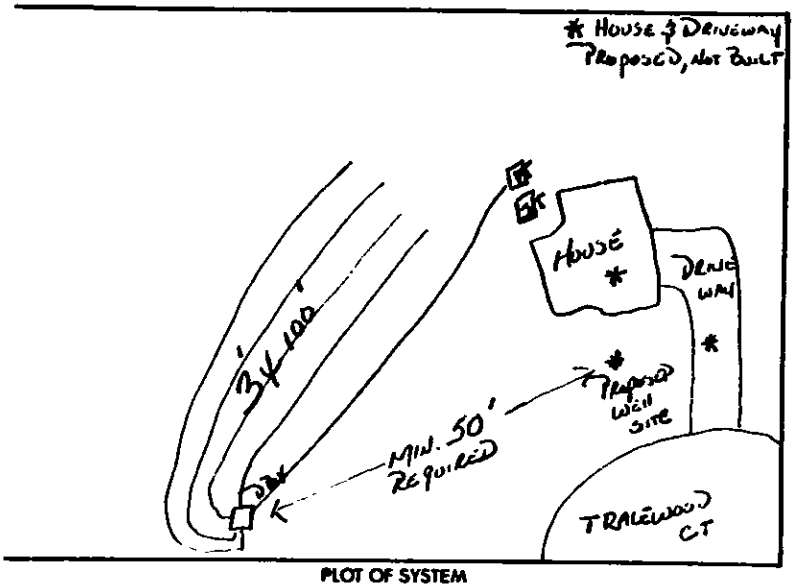
HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE: 3339A DATE: 10-18-90

TC: 111-321-14,15 & L

SERIAL Nº 14879

Permission is hereby given to _____ (Install) or Construct, _____ Alter or Repair the individual septic tank wastewater treatment system with subsurface, soil absorption, effluent discharge as specified herein at the described location. This permit is granted based upon the information supplied in the application dated 10-9-90. All work shall be completed on or before 1-18-91, after which date this permit shall be null and void. The system shall meet all of the construction requirements of 10 NCAC 10A .1900 which are in effect on the date of the granting of this permit. A Certificate of Completion or an Operation Permit must be obtained from the Mecklenburg County Health Department before any system can be covered up or placed into service. The issuance of this permit does not in any way guarantee that the system anticipated to be constructed will operate properly, or relieve any person now or hereafter owning, controlling or using such system from any liability resulting from the failure of the system to operate properly.



PLOT OF SYSTEM

Liquid Capacity of Septic Tank 1500 gallons

Liquid Capacity of Dosing Tank 1000 gallons

Tank Construction PVC

Absorption and/or Nitrification Lines:

Trench Width 3' feet

Total Line Length 400' feet

Number of Lines 4

Depth of Stone 10 inches

Distance from House >5 feet

Distance from Property Line >10 feet

Distance from Well >50 feet
NOT INSTALLED

NAME OF OWNER JOE LAYTON

LOCATION OF PROPERTY 5134 TRACEWOOD CT.

Comments: INSTALL 4 TRENCHES 3' x 100' AND 10" STONE, HOLD DEPTH OF TRENCHES TO 30".

Division or Section Head*

Environmentalist

* If this permit is for the installation or construction of a new system, it must be signed by the division or a section head of the Mecklenburg County Health Department in order to be valid. Only the signature of the Environmentalist is required where an existing system is being altered or repaired.

WHITE - HEALTH DEPARTMENT'S COPY • CANARY - ENVIRONMENTALIST'S COPY • PINK - OWNER OR AGENT'S COPY

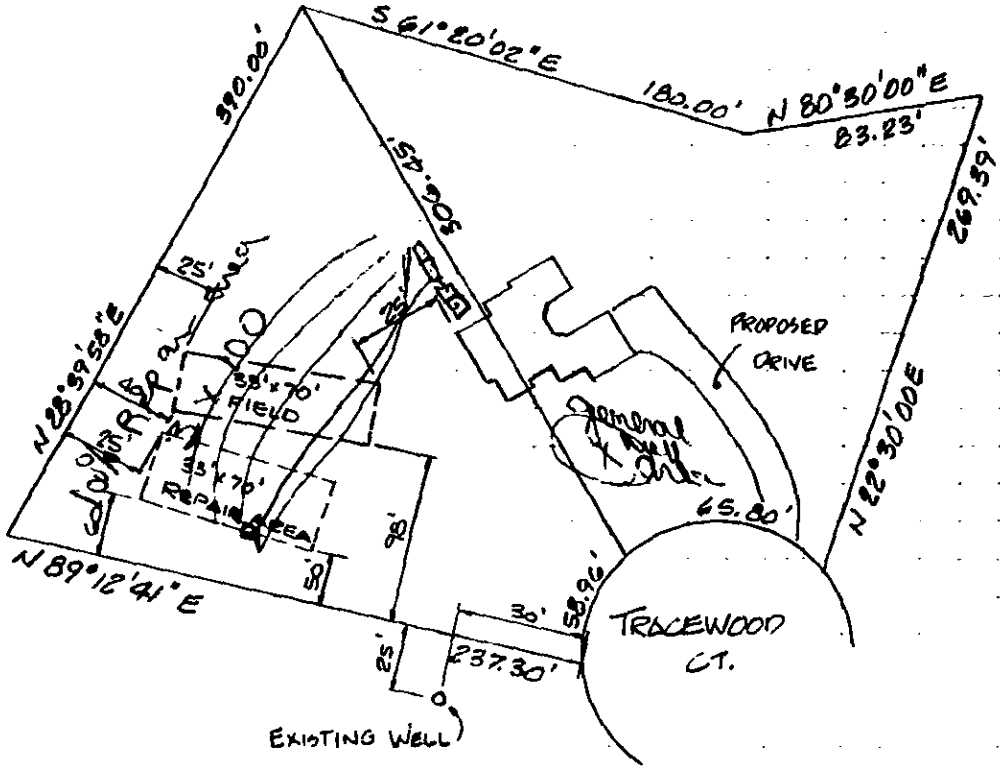
PROPOSED PLOT PLAN

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

FILE: ~~3339A~~ 3339A

TC: 111-091-16 PO

Draw in and name all roads adjoining the property. Draw in and accurately dimension the lot concerned. Accurately indicate property boundaries, proposed and/or existing structures and driveways, underground utilities, and wells and springs within 100 feet of the proposed building or drainfield.



1500 gallon septic tank
1000 gallon pump tank (if required)
400' drainfield

APPROVAL DATE 10/9/90

White - Health Department's Copy Canary - Environmentalist's Copy Pink - Owner's Copy

DATE 10-4-90

TO: CHARLOTTE-MECKLENBURG BUILDING STANDARDS
PERMIT ISSUING SECTION

FROM: MECKLENBURG COUNTY ENGINEERING

JURISDICTION Meck

111-321-15,14
PARCEL NUMBER

5134 Tracewood Ct
ASSIGNED STREET ADDRESS (ADDRESS OF RECORD)

14521 53
EXISTING STREET ADDRESS (IF DIFFERENT FROM ASSIGNED)

Northlake
PROJECT NAME (IF APPLICABLE)

THE ABOVE DESCRIBED LOCATION HAS BEEN CHECKED CONCERNING:

1.	SUBDIVISION REGULATIONS	✓	APPROVED	NOT APPROVED
2.	FLOODWAY REGULATIONS	✓	APPROVED	NOT APPROVED
3.	EROSION CONTROL REGULATIONS	✓	APPROVED	NOT APPROVED
4.	COMMERCIAL DRAINAGE PLAN	✓	APPROVED	NOT APPROVED
5.	PUBLIC UTILITY EASEMENT		PRESENT	✓ NOT PRESENT
6.	PROPERTY FRONTS ON THOROUGHFARE		YES	✓ NO
7.	DRIVEWAY PERMIT REQUIRED		YES	✓ NO

REMARKS: 14 new homes

NOTE: THIS FORM MUST BE TURNED IN AT THE CASHIERS OFFICE WHEN PAYING PERMIT FEE. CERTIFICATE OF OCCUPANCY WILL NOT BE GRANTED UNTIL TRANSPORTATION DIVISION GRANTS FINAL APPROVAL ON DRIVEWAY(S).

7/7/88
ALL OTHER FORMS OBSOLETE

☐ NEW ADDRESS

SIGNED: [signature]

APPLICATION FOR AN IMPROVEMENT PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

(OFFICE USE ONLY)
FILE: 3340A / 3339A
TC: 11-091-16 RC
SERIAL: № 21030
☑ L. ☐ CRT

JOB LOCATION

① ADDRESS: 5134 (Long Street Rd.) (Tracewood Court) STREET NO. STREET ② FILE: 3340A

③ JURISDICTION: _____ ④ TAX PARCEL NO.: _____

⑤ SUBDIVISION: North Lake ⑥ LOT: 53 ⑦ BLOCK: _____

OWNER

⑧ NAME: Joe (FIRST) P. (MIDDLE) Layton (LAST)

⑨ MAILING ADDRESS: 2134 Eastway Drive

⑩ CITY: Charlotte ⑪ STATE: NC ⑫ ZIP: 28205

⑬ PHONE: (WORK) 555-1022 (w) June + 377-5989 ⑭ (HOME) 563-3892

REQUEST

This request is for a(n):

⑮ ☑ New permit (3 BR Residence) ⑰ ☐ Authorization for mobile home exchange

⑯ ☐ Repair or alteration permit ⑱ ☐ Other (specify) _____

DESIGN CRITERIA

System will serve:

⑲ ☑ Residence ⑳ ☐ Mobile home ㉑ ☐ Business or place of public assembly

㉒ Number of bedrooms? 3 ㉓ Type? _____

㉔ Maximum occupancy? 4 ㉖ Maximum number of employees? _____

㉔ Basement? ☐ yes ☑ no ㉗ Maximum number of seats? _____

WATER SUPPLY

㉘ Water supply from (present or proposed):

A ☑ Individual well

B ☐ Municipal system

C ☐ Community well

D ☐ Community system

㉙ The undersigned, owner of the property described above as the "JOB LOCATION" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the MECKLENBURG COUNTY HEALTH DEPARTMENT to enter onto the property for the purpose of processing this request.

Signed: Joe Layton

Date: 8-29-90

IMPROVEMENT PERMIT

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws And Rules For Sanitary Sewage Collection, Treatment And Disposal in effect at the time of issuance of the permit and is subject to the following provisions:

... No work shall be conducted on the septic tank system until an installation, Construction, Alteration and/or Repair permit is issued by this Department.

... This permit is not transferable, and shall become null and void 36 months from the date of issuance. Right - Pump

May be required

Environmentalist — Date: 10/5/90

Director or Authorized Section Head — Date: 10-9-90

*This permit must be signed by the Director of Mecklenburg County Health Department or an authorized section head in order to be valid.

MECKLENBURG COUNTY ~~HEALTH DEPARTMENT~~
ENVIRONMENTAL HEALTH DIVISION

CHARGE SLIP

Date: 8-29-90

Name/Company: Joe B. Leggett

Sanitation _____

Vector Control _____

O.P.W.D. ✓

Service: App. Imp. Permit
Camp Stewart Rd/Mirth Lake
Subdiv. Lot 53

COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
PAID
AUG 29 1990

~~Fee # 33-40-00~~
Rec # 3340 A

$ 200.00

Check
#200.

NOTICE:

A processing fee of $15.00 will be charged for all returned checks in accordance with N.C. General Statute 25-3-512.

Completed by

Collected by

May be

MECKLENBURG COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

CHARGE SLIP

DATE: 7/18/89

NAME/COMPANY: [illegible] Co Gyro

C.C.

Sanitation _____

Vector Control _____

OPWD ✓

SERVICE: [illegible]

[illegible]

[illegible] PAYMENT

ENVIRONMENTAL HEALTH DIVISION

PAID

JUL 18 1989

FEE: 100.00

[illegible]

Completed By

[illegible]

Collected By

1082

APPLICATION FOR AN IMPROVEMENT PERMIT

HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

Mecklenburg County services are available without regard to ethnic origin, sex, or disability.

(OFFICE USE ONLY)
FILE: 3339A 3340A
TC: 111321415
SERIAL: № 18749
☑ L ☐ CRT

JOB LOCATION

① ADDRESS: 5134 (STREET NO.) TRACEWOOD COURT (STREET) ② FILE:
③ JURISDICTION: ④ TAX PARCEL NO.: 11132115
⑤ SUBDIVISION: NORTHLAKE ⑥ LOT: 52 & 53 ⑦ BLOCK: 1

OWNER

(Joe B. Laytas)
⑧ NAME: NORTHLAKE (FIRST) DEVELOPMENT (MIDDLE) GROUP, INC. (LAST)
⑨ MAILING ADDRESS: 4814 HWY 74 [redacted] WEST
⑩ CITY: MONROE ⑪ STATE: NC ⑫ ZIP: 28110
⑬ PHONE: (WORK) 333-1414 ⑭ (HOME) (704) 753-1170

REQUEST

This request is for a(n):
⑮ ☑ New permit
⑯ ☐ Repair or alteration permit
⑰ ☐ Authorization for mobile home exchange
⑱ ☐ Other (specify)

DESIGN CRITERIA

System will serve:
⑲ ☑ Residence ⑳ ☐ Mobile home ㉑ ☐ Business or place of public assembly
㉒ Number of bedrooms? 3 ㉕ Type?
㉓ Maximum occupancy? 6 ㉖ Maximum number of employees?
㉔ Basement? ☐ yes ☒ no ㉗ Maximum number of seats?

WATER SUPPLY

㉘ Water supply from (present or proposed):
A ☒ Individual well
B ☐ Municipal system
C ☐ Community well
D ☐ Community system

㉙ The undersigned, owner of the property described above as the "JOB LOCATION" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the MECKLENBURG COUNTY HEALTH DEPARTMENT to enter on the property for the purpose of processing this request.

Signed: Joe Will
Date: 7-12-89

IMPROVEMENT PERMIT

The undersigned, an authorized agent of the MECKLENBURG COUNTY HEALTH DEPARTMENT, certifies that the Department has approved the Request for the Job Location contained in this document. This approval is granted in accordance with the provisions of Laws And Rules For Sanitary Sewage Collection, Treatment And Disposal in effect at the time of issuance of the permit and is subject to the following provisions:
... No work shall be conducted on the septic tank system until an Installation, Construction, Alteration and/or Repair permit is issued by this Department.
... This permit is not transferable and shall become null and void 36 months from the date of issuance. Lift pump may be required

Environmentalist — Date 10/9/90

Director or Authorized Section Head — Date

*This permit must be signed by the Director of Mecklenburg County Health Department or an authorized section head in order to be valid.

MECKLENBURG COUNTY

Department of Environmental Health
June 30th, 1987

Northlake Development Group, Inc.
3345 Mintwood Drive
Charlotte, NC 28212

RE: Property located at Tracewood Court 53/1
FILE: ~~3340A~~ 3339D
PARCEL: 11109116PO

Dear Sir:

At your request, a field investigation was conducted on the property designated above for the purpose of determining site suitability for the installation of a ground absorption sewage disposal system. Results of the investigation revealed that the lot contains soils which have been classified as PROVISIONALLY SUITABLE in accordance with the provisions of 10 NCAC 10A .1900. A copy of the Site Evaluation Report (Serial Number 14028) deliniating the soil types and there respective classifications is enclosed.

While this classification indicates the site is acceptable for the installation of a septic tank system, no specific system or plans have been approved. The area available for such an installation may impose limitations on the size and/or type construction permitted on the lot. Specific plan approval will be provided upon submission of an Application For An Improvement Permit with an ACCURATELY dimensioned plot plan detailing the location of current and/or proposed buildings, wells and sewage disposal systems and determination that the area is adequate to accomodate the proposed construction.

Please note that this classification may be revoked if any filling, grading or construction (including the drilling of a well) is performed on the lot which in the opinion of this Department renders any area previously designated suitable for system installation, unsuitable. Futhermore, this approval may be revoked should any changes occur in the regulations under which it was granted, if such changes would have prevented its approval had they been in effect on the date of issuance.

If there are any questions concerning this matter, do not hesitate to contact me.

Sincerely,

Sylvia D. Daniel

Sylvia D. Daniel, R.S.
Environmental Health Supervisor
Environmental Resources Division

enclosure

MECKLENBURG COUNTY ENVIRONMENTAL HEALTH
SITE EVALUATION REPORT
SERIAL NUMBER 14028

File: ~~3340A~~ 3339A Action 4

Parcel: 11109116PO

☐ PC

Location: Tracewood Court

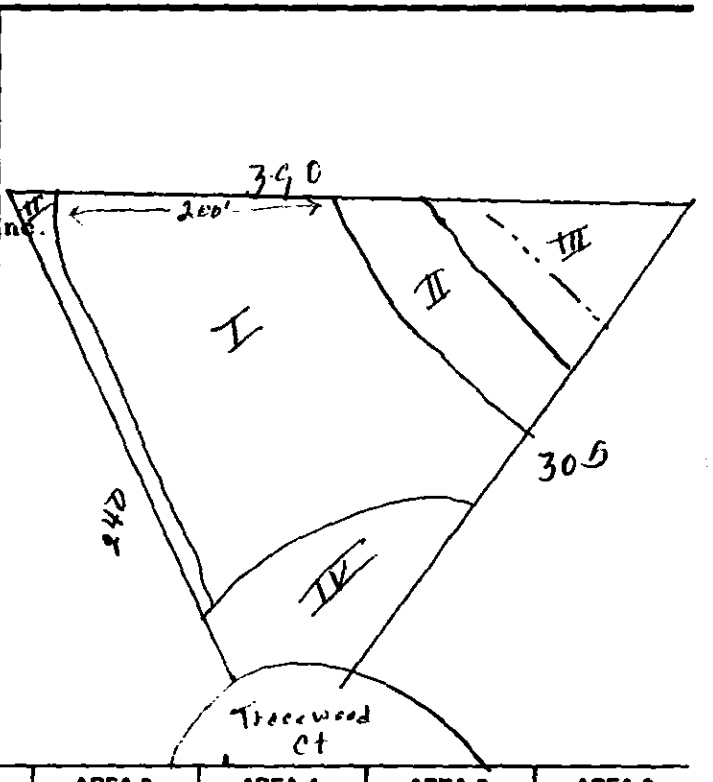
Subdivision:

Lot: 53/1 Block: Acres: 1.42

Owner: Northlake Development Group, Inc.
Address: 3345 Mintwood Drive
Charlotte, NC 28212

Comments: 10/9/90 Combined with Lot 52 (our File 3339A) to form the lot Jkiser

Described by: Willard B. Ramsey
Date: 6-29-87



*** EVALUATION KEY ***
S = Suitable U = Unsuitable
PS = Provisionally Suitable
The "Area Classification" below indicates the suitability of areas in the diagram.

FACTORS	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6
Topography	S (PS) U 2-10	S PS (U) Conv. Slopes	S (PS) U 0-2	S (PS) U 2-6	S PS U	S PS U
Texture	S (PS) U	S (PS) U	S PS (U)	S PS (U)	S PS U	S PS U
Structure	S (PS) U	S (PS) U	S PS (U)	S PS (U)	S PS U	S PS U
Drainage	S (PS) U	S (PS) U	S PS (U) Swampy	S PS (U) Slow	S PS U	S PS U
Depth	S (PS) U 40-42	S PS (U) Variable	S PS (U) 30-36	S (PS) U 36-40	S PS U	S PS U
Restrictive Horizons	S (PS) U	S (PS) U	S (PS) U	S PS U	S PS U	S PS U
Available Space	S (PS) U	S PS (U)	S PS (U)	S PS (U)	S PS U	S PS U
Other (specify)	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Soil Group/Series	IIe Cecil	IIe Gradual Cecil	IIIe Mondocac	IIIe Enon		
Area Classification	S (PS) U	S PS (U)	S PS (U)	S PS (U)	S PS U	S PS U

MECKLENBURG COUNTY
Department of Environmental Health

June 30th, 1987

Northlake Development Group, Inc.
3345 Mintwood Drive
Charlotte, NC 28212

RE: Property located at Tracewood Court 52/1
FILE: 3339A
PARCEL: 11109116PO

Dear Sir:

At your request, a field investigation was conducted on the property designated above for the purpose of determining site suitability for the installation of a ground absorption sewage disposal system. The results of this investigation showed the property to be classified UNSUITABLE for the installation of such a system. A copy of the Site Evaluation Report (Serial Number 14027) is enclosed.

State regulations provide that sites originally classified unsuitable may be utilized for the installation of alternate or modified sewage disposal systems provided the requirements of 10 NCAC 10A .1948 (c) are met. A reprint of this section is enclosed for your information.

Should you desire to file for permission to install an alternate or modified sewage treatment system on the property, please submit an Application For An Improvement Permit with an ACCURATELY dimensioned plot plan detailing the location of current and/or proposed buildings, wells and sewage disposal systems to this office. They will be reviewed, and if it is determined that the proposed system may reasonably be expected to function satisfactorily, an Improvement Permit will be issued by the Department upon completion by you, of a formal request for lot reclassification.

If I may be of any assistance, please feel free to call.

Sincerely,

Sylvia D. Daniel, R.S.
Environmental Health Supervisor
Environmental Resources Division

Enclosure (2)

MECKLENBURG COUNTY ENVIRONMENTAL HEALTH
SITE EVALUATION REPORT
SERIAL NUMBER 14027

File: 3339A Action 2

Parcel: 11109116PO ☐ PC

Location: Tracewood Court

Subdivision:

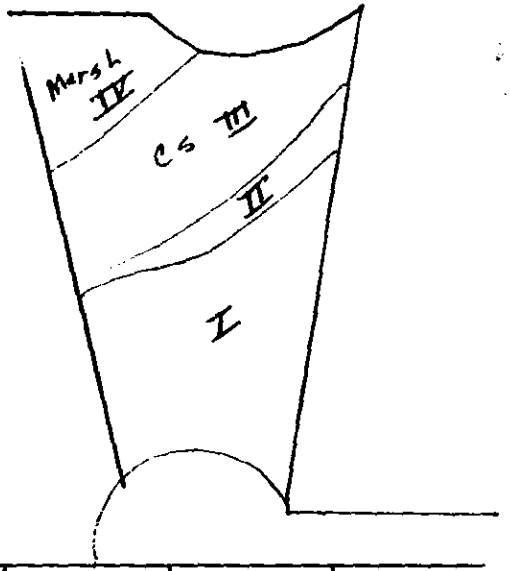
Lot: 52/1 Block: Acres: .73

Owner: Northlake Development Group, Inc.
Address: 3345 Mintwood Drive
Charlotte, NC 28212

Comments: 10/9/90 Combined with lot 53 to form one lot Dwg file #3340A

Described by: W. B. Ramsey

Date: 6-29-87



*** EVALUATION KEY ***

S = Suitable U = Unsuitable
PS = Provisionally Suitable
The "Area Classification" below indicates the suitability of areas in the diagram.

FACTORS	AREA 1	AREA 2	AREA 3	AREA 4	AREA 5	AREA 6
Topography	S (PS) U 2-8	S (PS) U 2-6	S PS (U) complex slopes	S (PS) U 0-1	S PS U	S PS U
Texture	S PS (U) 2-1Ck1	S (PS) U	S (PS) U	S PS (U)	S PS U	S PS U
Structure	S PS (U)	S (PS) U	S (PS) U	S PS (U)	S PS U	S PS U
Drainage	S PS (U) Slow	S (PS) U	S (PS) U	S PS (U) Swamp	S PS U	S PS U
Depth	S (PS) U 36-38	S (PS) U Hill	S PS (U) Various	S PS (U) 25-35	S PS U	S PS U
Restrictive Horizons	S (PS) U	S (PS) U	S (PS) U	S (PS) U	S PS U	S PS U
Available Space	S PS (U)	S PS (U)	S (PS) U	S PS (U)	S PS U	S PS U
Other (specify)	S PS U	S PS U	S PS U	S PS U	S PS U	S PS U
Soil Group/Series	IVe Enon	IVe Cecil	IVe Enon/Cecil	IVe Mencer		
Area Classification	S PS (U)	S PS (U)	S PS (U)	S PS (U)	S PS U	S PS U

APPLICATION FOR SOIL INVESTIGATION

MECKLENBURG COUNTY · ENVIRONMENTAL HEALTH ·

1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 376-4603

(OFFICE USE ONLY)

FILE: ~~3340A~~ 3339A

TC: 11/09/16

☐ PC ☐ REPT

JOB LOCATION

① ADDRESS: Tracewood Ct.

② SUBDIVISION: NorthLake ③ LOT: 53 ④ BLOCK: 1

⑤ PARCEL REFERENCE: BOOK NO.: 111 PAGE NO.: 09 PARCEL NO.: 16

⑥ DEED REFERENCE: BOOK NO.: PAGE NO.:

OWNER

⑦ NAME: NorthLake (FIRST) Development (MIDDLE) Group Inc (LAST)

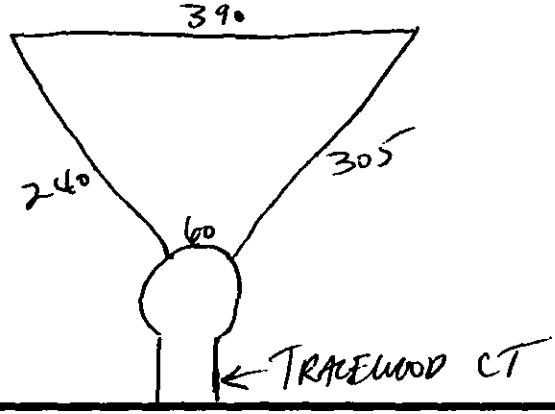
⑧ MAILING ADDRESS: 3345 Mintwood Dr.

⑨ CITY: Charlotte ⑩ STATE: N.C. ⑪ ZIP: 28212

⑫ PHONE: (WORK) 537-5576 (HOME) 545-9599

⑬ Accurately diagram and dimension lot.

Lot #53



⑭ The undersigned, owner of the property described above as the "JOB LOCATION" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the MECKLENBURG COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH to enter onto the property for the purpose of processing this request.

Signed: Kenneth C. Lynch

Mecklenburg County services are available without discrimination

Date: 5/12/16

WHITE - ENVIRONMENTAL HEALTH DEPARTMENT'S COPY ● CANARY - ENVIRONMENTALIST'S COPY ● PINK - OWNER'S COPY

APPLICATION FOR SOIL INVESTIGATION

MECKLENBURG COUNTY · ENVIRONMENTAL HEALTH

1200 BLYTHE BOULEVARD
CHARLOTTE, NC 28203
PHONE (704) 336-4803

(OFFICE USE ONLY)

FILE: 3339A

TC: 11/09/16

☐ PC ☐ REPT

JOB LOCATION

① ADDRESS: Tracewood Ct.

② SUBDIVISION: Northlake ③ LOT: 52 ④ BLOCK: 1

⑤ PARCEL REFERENCE: BOOK NO.: 111 PAGE NO.: 09 PARCEL NO.: 16

⑥ DEED REFERENCE: BOOK NO.: _____ PAGE NO.: _____

OWNER

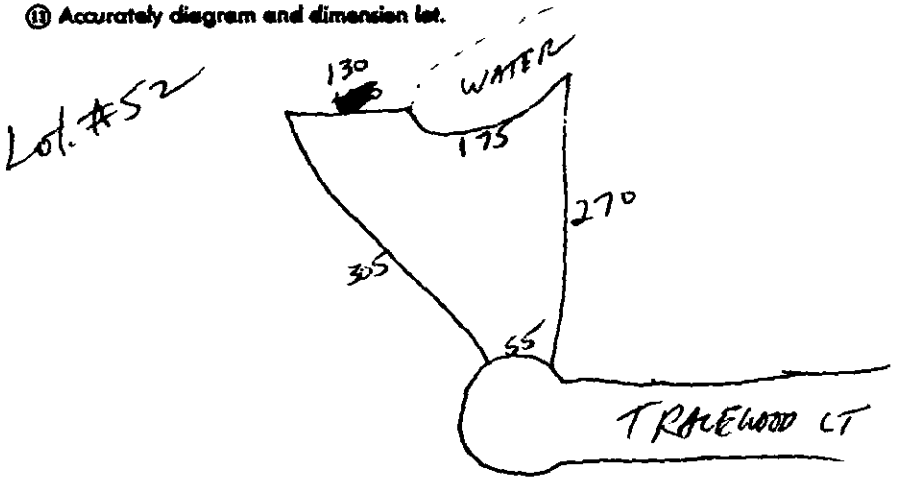
⑦ NAME: Northlake Development Group Inc.
(FIRST) (MIDDLE) (LAST)

⑧ MAILING ADDRESS: 3345 Muirwood Dr.

⑨ CITY: Charlotte ⑩ STATE: N.C. ⑪ ZIP: 28212

⑫ PHONE: (WORK) 537-5576 (HOME) 545-9599

⑬ Accurately diagram and dimension lot.



⑭ *The undersigned, owner of the property described above as the "JOB LOCATION" has read the foregoing application, acknowledges that the contents of same are true, and authorizes agents of the MECKLENBURG COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH to enter onto the property for the purpose of processing this request.*

Signed: D. C. Dale

Date: 5/12/89

Mecklenburg County services are available without regard to ethnic origin, sex, or disability

WHITE - ENVIRONMENTAL HEALTH DEPARTMENT'S COPY ● CANARY - ENVIRONMENTALIST'S COPY ● PINK - OWNER'S COPY

DAILY WASTE FLOW

USING 120 gpd / BEDROOM :

$Q = (120)(3\ \text{BEDROOM}) = 360$ GALLONS

LOADING RATE = 0.2 GPD/FT^2 → Design to use at 0.16

AREA = 360 GALLONS / 0.2 GPD/FT^2 = 1800 FT^2

DISTRIBUTION LINE LENGTH = 1800 / 6' = 300 L.F.

- USE FIELD 70' x 33' = 2310 FT^2
- SPACE LINES @ 6'
- USE 6 LINES x 65' LONG = 390 L.F.

SEPTIC TANK VOLUME = 2 (360 GAL.) = 700 GALLONS
(USE 1025 GALLONS)

PRESSURE HEAD

LINE	ELEVATION	STATIC DIFFERENCE	PRESSURE HEAD
1 (HIGHEST)	187	0'	1.5'
2	186.5	0.5'	2'
3	186	1'	3'
4	185.8	1'	3'
5	185.5	1'	3'
6 (LOWEST)	185	2'	5'

FLOW RATE PER HOLE PER LINE

(USING 5' SPACING, USE $^{65}/_{5}$' = 13 HLS/LINE ϕ $^{5}/_{32}$"ϕ HOLES)

LINE	PRESSURE HEAD	FLOW RATE/HOLE	FLOW RATE/LINE
1	1.5'	0.35 GPM	4.6 GPM
2	2'	0.41	5.3
3	3'	0.50	6.5
4	3'	0.50	6.5
5	3'	0.50	6.5
6	5'	0.64	8.3 (WITHIN 45%) (N. G.)

BALANCE SYSTEM TO WITHIN 10%:

LINE	PRESSURE HEAD	FLOW RATE/HOLE	HLS/LINE	FLOW RATE/LINE
1	1.5'	($^{5}/_{32}$"ϕ) 0.35 GPM	15	5.25 GPM
2	2'	($^{5}/_{32}$"ϕ) 0.41	12	4.9
3	3'	($^{1}/_{8}$"ϕ) 0.32	15	4.8
4	3'	($^{1}/_{8}$"ϕ) 0.32	15	4.8
5	3'	($^{1}/_{8}$"ϕ) 0.32	15	4.8
6	5'	($^{1}/_{8}$"ϕ) 0.4	12	4.9

(WITHIN 6.7%, O.K.

Dosing Rate

5.25
4.9
4.8
4.8
4.8
4.9
29.45 GPM = Total Dosing Rate (say 30 GPM)

Pump Design

Using 2"ø supply line x 50' long @ 30 GPM,

Friction Head = 1.2 (50'/100') 1.54 = 1.16 ft.

Pressure Head = 1.5 ft.

Static Head = 9 ft.

Total = 11.66 ft.

Use Pump 30 GPM @ 12' TDH.

COMPUTER _____ DATE _____

DOSING VOLUME

2" SUPPLY LINE VOLUME = $(50/100)(16.2) =$ 8 GALLONS

1½" LATERAL LINE VOLUME = $(390/100)(9.2) =$ 36 GALLONS

MIN. DOSING VOLUME = $8 + 5(36) =$ 188 GALLONS

USING 188 GALLONS PER DOSE YIELDS $390/188 = 2.1$ DOSES/DAY

PUMP FLOAT SETTINGS

DOSING DEPTH = $(188/1025)(50) = 9.2" \approx \underline{9"}$

PLACE HIGH-WATER ALARM SWITCH 4" ABOVE PUMP ON

CHECK VALVE

STORAGE VOLUME = $8 + 36 =$ 44 GALLONS

360 GPD (.25) = 90 GALLONS

44 GALLONS < 90 GALLONS (NO CHECK VALVE NEEDED)

DESIGN SPECIFICATIONS

Daily waste flow	360	gal.
Septic tank size	1025	gal.
Pumping tank size	1025	gal.
Effluent loading rate	0.16	gal/ft²/day
Absorption area	2250	ft.²
Total length of laterals	390	ft.
Lateral diameter	1.5	in.
Lateral configuration	6/65	No. and length of lines
Supply line length	50	ft.
Supply line diameter	2	in.
Manifold placement	CENTER	
Hole size*		in.
Hole spacing		ft.
Number of holes (SEE ATTACHMENT)		
Flow per hole		gpm
Total flow		gpm
Elevation head	9	ft.
Friction head	1.16	ft.
Pressure head	1.5	ft.
Total head	11.66	ft.
Pump requirements	30	gpm @ 12 ft. of head
Storage volume in laterals	36	gal.
Storage volume in supply line	8	gal.
Total storage volume	44	gal.
Dosing volume	188	gal.
Dosing depth	9	in.
Check valve needed ?	No	

* Note: Data on hole size, spacing, pressure head and flow must be listed for each line for systems where lines are different (such as sloping lots).

Effluent Loading Rate for LPP Systems (.16) unless otherwise specified by this department.

LATERAL SCHEDULE

LATERAL	HOLE SIZE	# HOLES	FLOW PER HOLE	FLOW
1	5/32"	15	0.35 GPM	5.25 GPM
2	5/32"	12	0.41	4.9
3	1/8"	15	0.32	4.8
4	1/8"	15	0.32	4.8
5	1/8"	15	0.32	4.8
6	1/8"	12	0.4	4.9
			TOTAL	29.45 GPM