CW

BLDR-2023-22549

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625

PERMIT # OSWP-2023-22550

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4639-41-1373 ✓

APPLICANT / OWNER: NORTHLAKE DEVELOPERS LLC | APPLICANT ADDRESS: 110 Nautical Point Court, Mooresville, NC 28117

SITE ADDRESS: 260 KENWAY LOOP, MOORESVILLE, NC 28117 ✓ | PHONE: 9808294090 | ALT. PHONE:

SITE DIRECTIONS:

SUBDIVISION: Woodleaf ✓ | SECTION: | LOT #: 48 ✓ | LOT AREA: 0.697 | DESIGN FLOW: 480 | L.T.A.R.: 0.3 | SAP CONTROLLED: YES ☐ NO ☑

Septic Tank: 1000 (gal)	STB:	Date:	☒ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 4	Water Supply: New Well
Pump Tank: (gal)	PT:	Date:	System Description: Gravity HPPBPS 50% reduction		☐ Business	No. Persons: 8	
Pump Make:	Model:	Serial #:	Repair System Description: LP PPBPS 50% reduction		☐ Other	No. Employees: 0	
# Nitrification Fields: 1	# Lines: 7	Linear Ft.: 280	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
Trench Width: 36	Trench Bottom Depth (Low side): 24		Gravel Depth:	☑ GRAVITY ☐ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions: This permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) using the signed and sealed LSS/LG Evaluation form attached here from: Soil and Forestry Services, PA. LSS 1231 AOWE 10027E

INITIAL SITE SKETCH

See revised site plan- house is larger but does NOT impact Septic. NO POOL allowed with new site plan

AS BUILT SKETCH

12-14-2023 TERRACE MUST BE REMOVED PRIOR TO O.P. BCW

INSTALLED PER SITE PLAN

Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION

☐ IMPROVEMENT PERMIT with plat valid without expiration. ☑ IMPROVEMENT PERMIT with site plan valid for 60 mos. ☑ AUTHORIZATION TO CONSTRUCT valid for period equal to IMPROVEMENT PERMIT–not to exceed 60 mo.

Owner / Applicant Signature: | Date:

IMPROVEMENT PERMIT by: Benjamin A Botkins | Date: 4/28/2023

AUTHORIZATION TO CONSTRUCT by: Benjamin A Botkins | Date: 4/28/2023

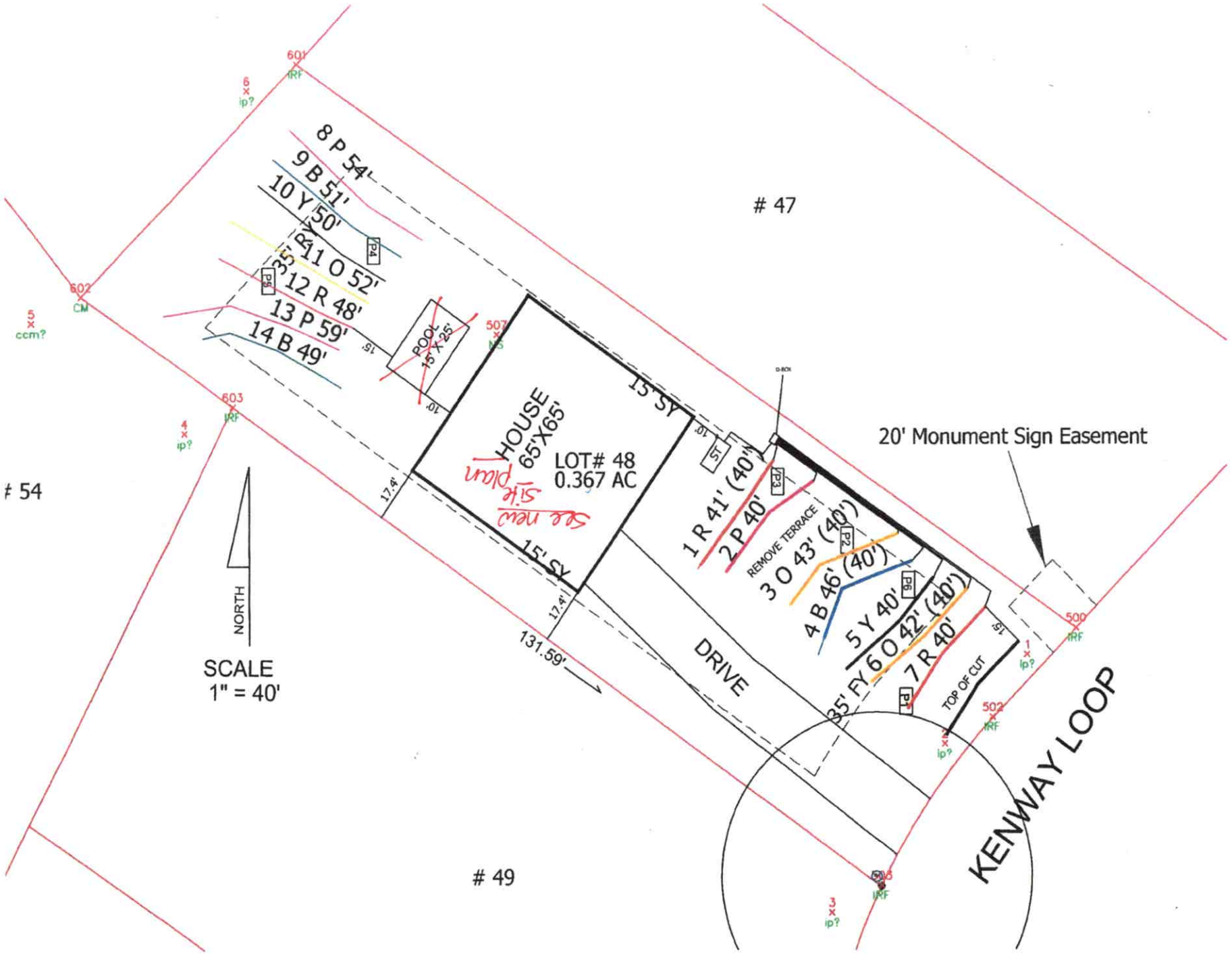
Installed By: ADON GARCIA

OPERATION PERMIT by: D.Meberg | Date: 4/16/24

Existing System Inspected By: | Date:

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 BETWEEN 8am-9am the day the inspection is needed.

updated floor plans D.Meberg 6/12/23


601
IRF
6
ip?
8 P 54'
9 B 51'
10 Y 50'
11 O 52'
12 R 48'
13 P 59'
14 B 49'
35'
15'
P4
P5
POOL
15' X 25'
10'
602
CM
5
ccm?
507
IRF
603
IRF
4
ip?
47
54
49
HOUSE
65'X65'
LOT# 48
0.367 AC
see new site plan
15' SY
17.4'
15' SY
17.4'
131.59'
NORTH
SCALE
1" = 40'
DRIVE
10'
ST
D-BOX
P3
1 R 41' (40')
2 P 40'
REMOVE TERRACE
P2
3 O 43' (40')
4 B 46' (40')
P6
5 Y 40'
6 O 42' (40')
7 R 40'
35' FY
P1
15'
TOP OF CUT
20' Monument Sign Easement
500
IRF
1
ip?
502
IRF
ip?
508
IRF
3
ip?
KENWAY LOOP

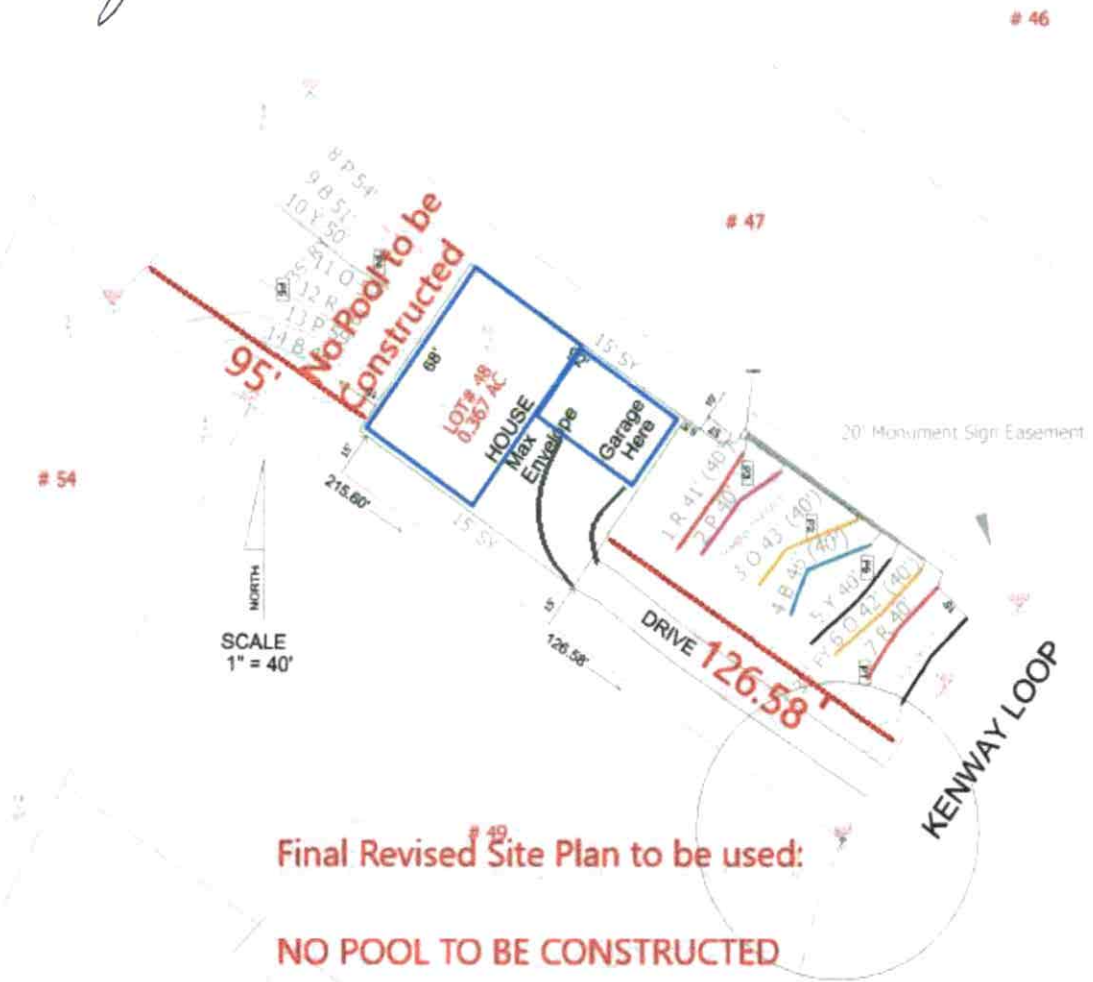
Acknowledgement Of Plans Submittal ONLY!

_____ Date _____

_____ Date 6/8/23

Danielle Wieberg

Approved



Final Revised Site Plan to be used:

NO POOL TO BE CONSTRUCTED

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 4/25/2023 (*Date*) by BB (*Initials*)

Permit Number: OSWP - 2023-22550

G.S. 130A-335(a4) states the following: *'If a local health department fails to act on an application for an improvement permit submitted pursuant to subsection (a3) of the section within 10 business days of receipt of a complete application, the local health department shall issue the improvement permit.'*

In accordance with G.S. 130A-335(a3) the improvement permit application is:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Owner on _____ (*Date*)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the LSS and the Owner on _____ (*Date*)

State Authorized Agent: _____ Date: _____

☒ Complete

State Authorized Agent: Benjamin A Botkins Date of Issuance: 4/28/2023

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: 4/28/2028

See attached site sketch

County: Iredell

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4634411373

Issued To: Northlake developers LLC

Property Location: 260 Kenway loop Mooresville NC, 28117

Subdivision: _____ Lot #: 48 Block: _____ Section: _____

LSS Report Provided: Yes ☒ No ☐

If yes, name and license number of LSS: Samuel Ashley Rollins #1231

New ☒ Repair ☐ Expansion ☐ System Relocation ☐

Proposed Structure: Single Family Residence

Proposed Wastewater System Type: HPPBPS Gravity (Initial) PPBPS (Repair)

Fill System: ☐ Yes ☒ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area please provide a fill plan)

Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.3 Proposed LTAR (Repair): 0.3

Design Wastewater Strength: ☒ domestic ☐ high strength ☐ industrial process

Number of bedrooms: 4 Number of Occupants: 8 Other: _____

Pump Required: ☐ Yes ☒ No ☐ May be required based upon final location and elevations of facilities

Artificial Drainage Required: ☐ Yes ☒ No If yes, please specify details: _____

Type of Water Supply: ☒ Private well ☐ Public well ☐ Municipal Supply ☐ Spring ☐ Other: _____

Drainfield location meets requirements of Rule .1945: Yes ☒ No ☐

Drainfield location meets requirements of Rule .1950: Yes ☒ No ☐

Permit valid for: ☒ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

See design

Licensed Soil Scientist Print Name: Samuel A. Rollins

Licensed Soil Scientist Signature: Samuel A Rollins Date: 4/14/23

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

County: Iredell

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4639411373

Issued To: Northlake Developers LLC

Property Location: 260 Kenway loop Mooresville NC, 28117

AOWE/PE Plans/Evaluations Provided: Yes ☒ No ☐ If yes, name and license number of AOWE/PE: Samuel Ashley Rollins #10027E

Facility Type: Single Family Residence

☒ New ☐ Expansion ☐ Repair System Relocation ☐

Basement? ☐ Yes ☒ No Basement Fixtures? ☐ Yes ☐ No

Type of Wastewater System** HPPBPS Gravity (Initial) PPBPS (Repair)

Design Daily Flow: 480 GPD Wastewater Strength: ☒ domestic ☐ high strength ☐ industrial process

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☒ No

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 280 feet Trench/Bed Spacing: 8 feet on center

Drainfield square footage: 8960 Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft²

Soil Cover: 6" min inches Slope Adjusted Maximum Trench/Bed Depth: 24 inches (LOW SIDE)

Aggregate Depth: _____inches above pipe _____inches below pipe _____inches total

Pump Tank Size (if applicable): _____ gallons Requires more than 1 pump? ☐ Yes ☐ No

Pump Requirements: _____ ft. TDH vs. _____ GPM Grease Trap Size (if applicable): _____ gallons

Distribution Method: ☐ Serial ☒ D-Box or Parallel ☐ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ☒ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.1937(h)]: Yes ☐ No ☒

Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: ☐ Yes ☒ No

Declaration of Restrictive Covenants: ☐ Yes ☒ No

****If applicable:**

I understand the system type specified is different from the type specified on the application. I accept the specifications of this permit.

Owner/Legal Representative Print Name: _____

Owner/Legal Representative Signature: _____ Date: _____

Pre-Construction Conference Required: Yes ☐ No ☐

Conditions: see design

The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.

AOWE/PE Print Name: Samuel A. Rollins

AOWE/PE Signature: Samuel A Rollins Date: 4/14/23

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

ONSITE WASTEWATER EVALUATOR 10027E

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 4/26/2023 (*Date*) by BB (*Initials*)

Permit Number: OSWP - 2023- 22550

G.S. 130A-335(a6) states the following: *'If a local health department fails to act on an application for a construction authorization submitted pursuant to subsection (a5) of the section within 10 business days of receipt of a complete application, the local health department shall issue the construction authorization.'*

In accordance with G.S. 130A-335(a5) the construction authorization application is:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Owner on _____ (*Date*)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the AOWE/PE and the Owner on _____ (*Date*)

State Authorized Agent: _____ Date: _____

☒ Complete

State Authorized Agent: Benjamin A Botkins Date of Issuance: 4/28/2023

This Construction Authorization is issued pursuant to G.S. 130A-335(a2), (a5), and (a6) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner. Final landscaping shall be constructed to divert water and establish vegetative cover.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: 4/28/2028

See attached site sketch

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Project#: 23-0023
April 11th, 2023

Northlake Developers, LLC.
Attn: *Bruce Kososki*
Email: bruce@northlakedevelopers.com

RE: Soil & Site Evaluation for a 4 Bedroom Residence at 260 Kenway Loop, 0.697 ac Parcel, PIN# 4639411373, Mooresville, NC 28117, Iredell County, NC.

Bruce:

At your request Soil & Forestry Services of the Carolinas (S&FS) has performed soil/site evaluations on parcel noted above. The Lot size is noted on the attached survey map & soil evaluation form. The purpose of our work was to identify soil areas with potential to support subsurface wastewater disposal systems and provide design details for Session Law submittals to Iredell County Health Department.

Site Conditions

At the time of our evaluation land cover on the property was mostly wooded of the property. Topography within the evaluated area was gently to moderate slope near the house site with moderate percentage of slope in the proposed drainfield area. Property lines and corners were marked at the time of the evaluation by Jordan Grant Surveying. The Surveyor provided an Autocad File of the survey as a basemap. The proposed septic layout was located via GPS and tape measures which were used to produce the attached *Site Plan*. The house envelope was pinned in the field by the builder. There is also a future pool location illustrated on the Site Plan.

Methodology

We evaluated soil areas through the use of backhoe pits. Soil morphological conditions including color, texture, structure, etc. were reviewed in the field with six pit locations on the property flagged and located via GPS. All of the pits are located in the proposed septic layout. Soil suitability was determined by referencing 15A NCAC 18A.1900 "Laws and Rules for Sewage Treatment and Disposal Systems". *Soil & Site Evaluation Forms* were utilized to record the soil morphological data for each pit. The house envelope was located via GPS. An on-ground layout of system and repair was performed using a laser level. Pin flag locations of the layout were also located by survey and tape measure. Detailed system & repair information is summarized in the following paragraph for this Lot.

260 Kenway Loop (*See Attached Design*)
The septic layout for this lot (8' centers) yielded a total of 698 linear feet of line. Some of these lines were trimmed to accommodate the pool. The net linear footage is 643. The primary system is proposed as 280 linear feet of Modified Conventional (HPPBPS) drainfield with gravity distribution. Trench depth (LOW SIDE) is specified at 24 inches. The repair system is proposed as 267 linear feet of Modified Conventional (PPBPS) drainfield with low pressure distribution. Trench depth (LOW SIDE) is specified at 32 inches. There is 363 linear feet available for repair.

Session Law Requirements

All information needed to issue the IP must be submitted with the application. The application shall include all information described in 15A NCAC 18A .1937(d) and be accompanied by a signed and dated statement from the applicant (owner or owner's legal representative) that reads as follows:

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

Owner Date

Print Name_____
Signature_____ _____

The LSS evaluation shall include a statement bearing the LSS seal and signature that reads as follows:

"The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."

Disclaimer
This report reflects the findings of S&FS, PA. *This LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2)."* Any site modifications that impact the proposed septic areas on the site may nullify this design for 260 Kenway Loop, Mooresville, NC 28117. System design requirements and site requirements shall be adhered to for installation and Operations Permits to be issued by the local Health Department. If you have questions regarding these requirements a Pre-Construction meeting should be scheduled to discuss. Please contact S&FS if you have any questions regarding this report or the attached information. S&FS also offers septic system inspection, wetland delineation and forestry services.

Sincerely,



S. Ashley Rollans, LSS
Attachment: *Septic Design*

SOIL & FORESTRY SERVICES
OF THE CAROLINAS, PA

www.soilandforestryservices.com

Attached is a proposed design for an Modified Conventional Septic System (HPPBPS) with gravity dist. for a 4 bedroom single family residence at 260 Kenway Loop, Lot 48, PIN#(4639411373) Mooresville 28117, Iredell County, NC.

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Subdivision Plat---------- 10

LICENSED SOIL SCIENTIST
SAMUEL A. ROLLANS
1231
STATE OF NORTH CAROLINA

April 11, 2023
Project #: 23-0023
Design By: Soil & Forestry Services of the Carolinas, PA

INFORMATION FOR THE INSTALLER:

The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.

- Tanks shall be approved by NC DHHS, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as a gravity HPPBPS installation.
- Repair is specified as a PPBPS with low pressure distribution installation.
- **Remove Terrace between Lines 2 & 3 to shed water.**

GRAVITY HPPBPS SYSTEM
FOR WASTEWATER TREATMENT

Applicant:	Northlake Developers LLC
Address:	110 Nautical point ct Mooresville, NC 28117
Phone:	980.829.4090
County:	Iredell
Location:	260 Kenway loop Mooresville, NC 28117
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480
System Flow:	N/A

Design Specifications

Drainfield Size:	280	
Loading Rate (gpd/ft.^{2}):	0.3	
Depth of Gravel in Trench:	N/A	
Gravel Size:	N/A	
Max.Trench Depth (LOW SIDE):	24 in.	Repair Trench Bottom 32 in.
Trench Width:	36 in.	
Septic Tank Size:	1000	

Estimated Supply Line Length:	22
Supply Line Diameter:	4 in. SCH 40 PVC
Supply Line Volume:	1.31
Dosing Volume:	N/A
Supply Manifold:	N/A
Supply Manifold Length:	N/A
Supply Manifold Volume:	N/A
Recommended Float Controls:	N/A
Recommended Control Panel:	N/A
Pressure Head:	N/A
Friction Head:	N/A
Elevation Head:	N/A
Total Dynamic Head:	N/A
Threaded Union:	N/A
Gate Valves:	N/A
Check Valves:	N/A
Anti-Siphon Hole:	N/A
Additional Comments:	Soil suitability was performed by Soil & Forestry Services of the Carolinas

260 Kenway loop

HPPBPS SYSTEM

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	840
TOTAL LATERAL LENGTH:	280
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	267
SUPPLY LINE LENGTH:	22
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	N/A

Layout Specifications - 260 Kenway Loop

Project #: 23-0023

LAYOUT FOR 4 BEDROOM HOME 4/11/2023

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
INSTR. 1							
1	***Red***					***41***	***40***
2	***Pink***					***40***	***40***
3	***Orange***					***43***	***40***
4	***Blue***					***46***	***40***
5	***Yellow***					***40***	***40***
6	***Orange***					***42***	***40***
7	***Red***					***40***	***40***
8	Pink					54	54
9	Blue					55	51
10	Yellow					56	50
11	Orange					60	52
12	Red					58	48
13	Pink					70	59
14	Blue					53	49
					Total	698	643

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION	TRENCH DEPTH
**** System***	***280***	***0.300***	**MOD. CONV**	***0.300***	***HPPBPS***	***GRAVITY***	***24"***
Repair	363	0.300	MOD. CONV	0.300	PPBPS	LOW PRESSURE	32"

Notes: **All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

**Nitrification lines were located by GPS & Tape Measure

CALCULATIONS

Location 260 kenway loop
Mooresville, NC 28117
Project Number 23-0023

Lot No: 48

No. of Bedrooms 4

Design Flow 480 $^{gal}/_{day}$

LTAR 0.300 $^{gal}/_{ft^2\ day}$

PPBPS? (YES OR NO) YES

Supply Line Length 22 ft.

Supply Line Volume 14.366 gal.

Required Feet of Line 266.6667 ft.
Amount of Line from Layout 280 ft.

Gallons per Minute N/A $^{gal}/_{min}$

Required Septic Tank Capacity 1000 gal.
Septic Tank Size 1000 gal.

Panel Volume N/A gal.
# of Panels 63
Dosing Volume N/A gal.

Tank Draw Down N/A

Pump Run Time

Elevation Head N/A ft.
Pressure Head N/A ft.
Friction Factor N/A ft./100 ft. *(From the interpolater.)*
Friction Head N/A ft.

Total Dynamic Head (+15%) N/A ft.

FRICTION FACTOR
INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

Sheet 1 of 1
PROPERTY ID #: 4639411373
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
(complete all fields in full)

OWNER: Northlake Developers LLC
ADDRESS: 110 Nautical Point Ct Mooresville NC 28117
PROPOSED FACILITY: 4BR Residence
LOCATION OF SITE: 260 Kenway Loop

APPLICATION DATE:
DATE EVALUATED: 2/23/2023
PROPERTY SIZE: 0.697
PROPERTY RECORDED: Yes

WATER SUPPLY: ☒ Private ☒ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut
TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPR CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	L/15%	0-45 45-58	RBCLWFSBK VARLMASS	FRSSSP FRSSS	COM TO MANY SAP	~~58~~ 45	PS		PS 0.325
2	L/14%	0-45 45-50	RBCLWFSBK VARLMASS	FRSSSP FRSSSP	COM SAP	45	PS		PS 0.325
3	L/10%	0-21 21-52	BRCWMSBK/ABK RBCLWFSBK	FRSSSP FRSSS	FEW SAP	52			PS 0.3-0.325
4	L/5%	0-32 32-53	BRCWMSBK RBCLWFSBK	FRSSP FRSSSP	WR VEIN	53			PS 0.3
5	L/5%	0-9 9-33 33-51	BSCLWFSBK BRCWMSBK RBCLWFSBK	FRSSSP FRSSSP FRSSP	FEW TO COM SAP	51			PS 0.3
6	L/11%	0-7 7-44 44-52	BRCWMFSBK RBCLWFSBK VARLMASS	FRSSS FRSSS FRSSSP	COM SAP	44	PS		PS 0.325
7								N/A	
8								N/A	
9								N/A	
10								N/A	

LICENSED SOIL SCIENTIST SAMUEL A. ROLLANS STATE OF NORTH CAROLINA 1231

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Types(s)	MPPAPS	MPPAPS w/LP
Site LTAR	0.3	0.3

OTHER FACTORS (.1946): PS
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Ashley Rollans
OTHER(S) PRESENT: Chad Wagner & Mason Freeman

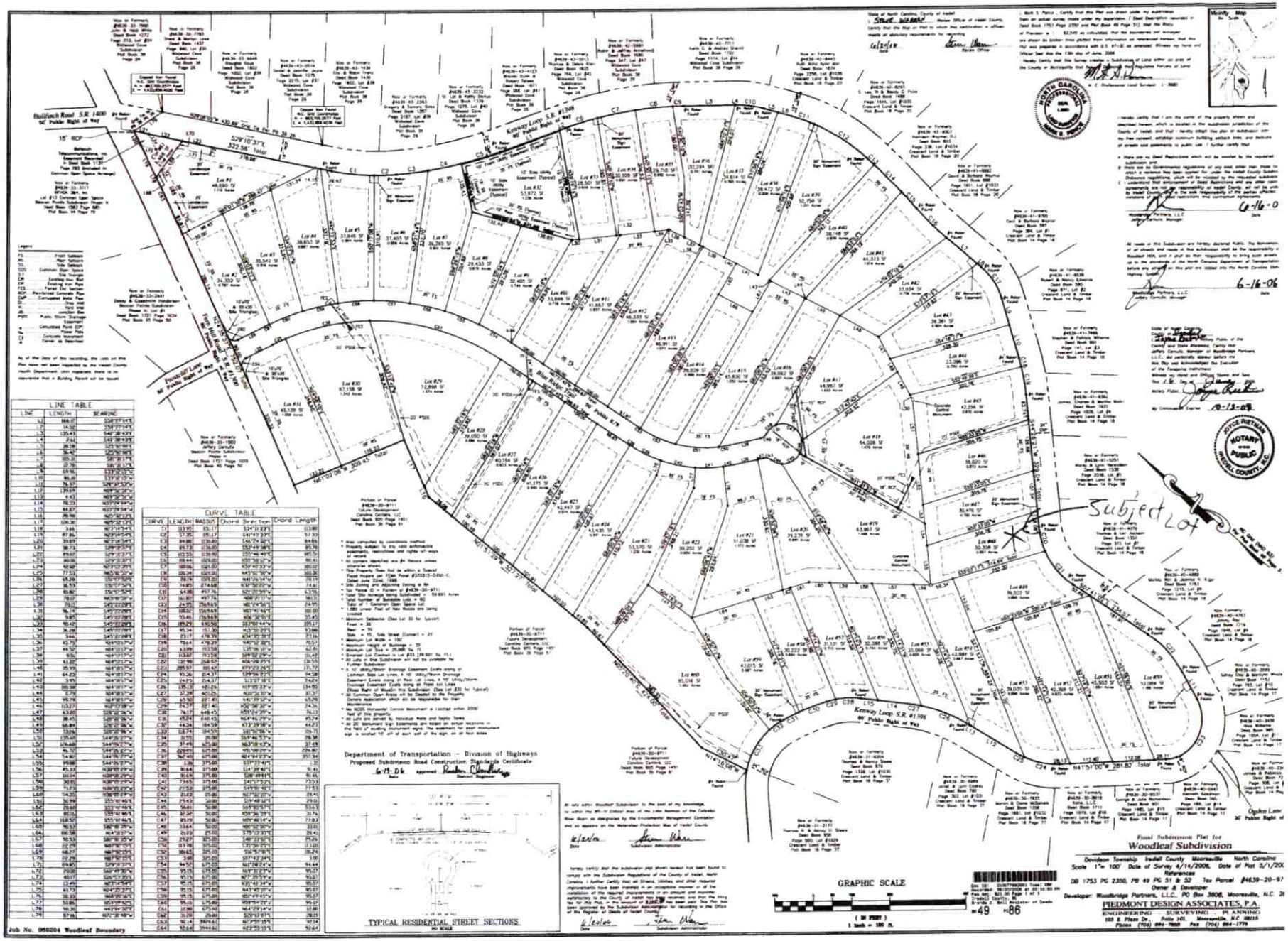
COMMENTS:

GRAVITY HPPBPS SPECIFICATIONS - 260 Kenway loop

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	# of Panels
1	***Red***	*N/A*	***40***	*N/A*	*N/A*	120	9
2	***Pink***	*N/A*	***40***	*N/A*	*N/A*	120	9
3	***Orange***	*N/A*	***40***	*N/A*	*N/A*	120	9
4	***Blue***	*N/A*	***40***	*N/A*	*N/A*	120	9
5	***Yellow***	*N/A*	***40***	*N/A*	*N/A*	120	9
6	***Orange***	*N/A*	***40***	*N/A*	*N/A*	120	9
7	***Red***	*N/A*	***40***	*N/A*	*N/A*	120	9
						840	63

total	**feet =**	**280**	**gal/min =**	**N/A**
		Des. Flow	**480**	
		Pump Run=	**N/A**	
		soil LTAR	**0.3**	
		LTAR +5%	**0.315**	
		LTAR with mod.	**0.6**	
		LTAR with mod.. + 5%	**0.63**	



LINE TABLE		
LINE	LENGTH	BEARING
L1	166.0'	S39°07'14"E
L2	19.52'	S39°07'14"E
L3	135.43'	S42°38'43"E
L4	7.44'	S42°38'43"E
L5	39.78'	S29°10'37"E
L6	36.42'	S29°10'37"E
L7	105.3'	S81°31'11"E
L8	37.76'	S81°31'11"E
L9	69.96'	S33°08'03"W
L10	96.68'	S33°08'03"W
L11	76.52'	S29°37'53"W
L12	139.69'	N69°36'06"W
L13	4.43'	N69°36'06"W
L14	78.73'	N33°09'54"E
L15	44.82'	N33°09'54"E
L16	99.98'	N67°36'06"W
L17	109.36'	N67°36'06"W
L18	3.66'	N73°31'54"E
L19	87.86'	N73°31'54"E
L20	39.89'	N73°31'54"E
L21	38.73'	S89°28'37"E
L22	83.82'	S89°28'37"E
L23	78.02'	N45°02'08"E
L24	7.05'	S45°02'08"E
L25	9.95'	S45°02'08"E
L26	90.44'	S45°02'08"E
L27	36.28'	S45°02'08"E
L28	3.66'	S45°02'08"E
L29	42.33'	N64°51'17"W
L30	44.52'	N64°51'17"W
L31	8.5'	N64°51'17"W
L32	53.06'	N64°51'17"W
L33	35.95'	N64°51'17"W
L34	87.86'	N64°51'17"W
L35	39.45'	N64°51'17"W
L36	3.95'	N64°51'17"W
L37	39.78'	N64°51'17"W
L38	36.42'	N64°51'17"W
L39	53.06'	N64°51'17"W
L40	35.95'	N64°51'17"W
L41	87.86'	N64°51'17"W
L42	39.45'	N64°51'17"W
L43	3.95'	N64°51'17"W
L44	100.38'	N64°51'17"W
L45	39.78'	N64°51'17"W
L46	113.23'	N64°51'17"W
L47	20.00'	N64°51'17"W
L48	38.45'	S26°08'06"W
L49	66.84'	S26°08'06"W
L50	13.06'	S26°08'06"W
L51	135.45'	S44°05'27"W
L52	126.68'	S44°05'27"W
L53	96.12'	S44°05'27"W
L54	14.82'	S44°05'27"W
L55	99.08'	S44°05'27"W
L56	45.33'	N28°08'29"W
L57	39.04'	N28°08'29"W
L58	39.78'	N28°08'29"W
L59	71.73'	N28°08'29"W
L60	54.35'	N28°08'29"W
L61	20.00'	S33°16'46"E
L62	20.00'	S33°16'46"E
L63	158.52'	S55°16'46"E
L64	158.52'	S55°16'46"E
L65	90.53'	S80°16'25"W
L66	39.78'	S80°16'25"W
L67	90.53'	S80°16'25"W
L68	62.29'	N69°36'06"W
L69	62.29'	N69°36'06"W
L70	62.29'	N69°36'06"W
L71	69.85'	S29°10'37"E
L72	70.00'	S60°49'23"W
L73	40.17'	S29°10'37"E
L74	13.49'	N73°31'54"E
L75	61.73'	N24°23'27"E
L76	39.33'	N69°36'06"W
L77	39.33'	N69°36'06"W
L78	90.30'	N69°36'06"W
L79	87.96'	N70°30'48"W

CURVE TABLE				
CURVE	LENGTH	RADIUS	Chord Direction	Chord Length
C1	133.95'	65.17'	S34°01'23"E	113.80'
C2	127.35'	65.17'	S41°47'23"E	107.93'
C3	84.88'	230.00'	S46°24'06"E	84.86'
C4	89.73'	230.00'	S57°49'38"E	89.76'
C5	69.50'	230.00'	S70°46'49"E	69.25'
C6	68.44'	1426.00'	N20°38'12"W	68.43'
C7	68.06'	1426.00'	N18°40'33"W	68.05'
C8	69.77'	1426.00'	N16°42'54"W	69.76'
C9	78.79'	1375.00'	N68°26'14"W	78.77'
C10	14.82'	1426.00'	N15°39'09"W	14.81'
C11	64.88'	937.76'	N21°05'59"W	63.76'
C12	84.80'	937.76'	N18°27'11"W	84.51'
C13	219.70'	2764.65'	N81°04'47"E	219.64'
C14	100.02'	2764.65'	N83°41'46"E	100.00'
C15	155.46'	2764.65'	N86°28'15"E	155.43'
C16	199.06'	1426.00'	S31°09'49"E	199.01'
C17	95.34'	151.30'	N15°30'03"E	93.80'
C18	23.17'	478.79'	N34°35'35"E	23.16'
C19	73.64'	478.79'	N41°16'10"E	73.57'
C20	63.99'	153.58'	S39°06'18"W	62.81'
C21	63.72'	153.58'	S51°52'19"W	63.27'
C22	120.98'	268.50'	N04°09'25"E	119.95'
C23	285.97'	181.47'	S75°22'28"E	171.72'
C24	164.20'	214.37'	S39°39'39"E	159.98'
C25	24.23'	214.37'	S13°37'18"E	24.21'
C26	135.13'	425.26'	N19°05'23"W	134.55'
C27	27.39'	425.26'	N26°50'55"W	27.37'
C28	63.30'	227.41'	N41°39'58"W	63.09'
C29	74.37'	227.41'	N50°58'30"W	74.36'
C30	76.12'	648.45'	N59°05'39"W	76.07'
C31	45.24'	648.45'	N64°46'29"W	45.24'
C32	44.26'	164.58'	S73°29'58"W	44.12'
C33	10.75'	25.00'	S85°25'36"W	10.67'
C34	33.15'	25.00'	S39°46'15"W	30.38'
C35	37.48'	675.00'	N62°58'39"W	37.47'
C36	62.85'	675.00'	N70°08'09"W	62.87'
C37	167.40'	675.00'	N82°44'23"W	167.34'
C38	3.26'	375.00'	S01°37'34"E	3.26'
C39	91.64'	375.00'	S14°39'46"E	91.41'
C40	90.69'	375.00'	S28°48'01"E	90.46'
C41	73.65'	375.00'	S41°17'23"E	73.53'
C42	67.52'	375.00'	S49°00'40"E	77.53'
C43	21.83'	25.00'	N27°50'37"W	21.14'
C44	79.43'	50.00'	N09°08'49"W	71.12'
C45	56.61'	50.00'	S69°53'57"E	53.63'
C46	50.02'	50.00'	N59°06'39"E	47.96'
C47	93.19'	50.00'	N09°48'14"W	77.83'
C48	13.64'	50.00'	N80°52'30"W	13.61'
C49	80.65'	325.00'	S76°53'33"E	80.47'
C50	29.27'	325.00'	S68°22'06"E	29.26'
C51	33.78'	325.00'	S61°20'03"E	33.60'
C52	30.65'	325.00'	S54°31'18"E	30.64'
C53	3.98'	325.00'	S51°43'24"E	3.98'
C54	94.52'	675.00'	N61°28'24"W	94.44'
C55	95.15'	675.00'	N69°37'24"W	95.07'
C56	95.15'	675.00'	N77°45'24"W	95.07'
C57	95.15'	675.00'	N85°53'24"W	95.07'
C58	95.15'	675.00'	S86°08'37"W	95.07'
C59	95.15'	675.00'	S77°59'37"W	95.07'
C60	95.15'	675.00'	S69°51'37"W	95.07'
C61	10.88'	675.00'	S61°47'09"W	10.88'
C62	31.09'	25.00'	S29°53'07"E	28.19'
C63	90.15'	3969.61'	N67°35'15"W	90.14'
C64	92.64'	3944.61'	N67°33'33"E	92.64'

Job No. 060204 Woodleaf Boundary