Site Address: 192 Winding Creek Dr. Troutman. C1

IREDELL COUNTY HEALTH DEPARTMENT

STATESVILLE 704-878-5305 MOORESVILLE 704-664-5281

IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM INSPECTION

PERMIT# 14517 PIN# 4730541952 DATE 5-14-07

OWNER OR APPLICANT STL HOMES TAX

ADDRESS 110 CHARLESTON DR SUITE 10B MOORESVILLE NC 28117 PHONE: Business 704-662-8467 Home

LOCATION STATE RTE 20 ⓒ TWIN CREEK ⓒ WINDING CREEK 1ST LND ON RT

SUBDIVISION TWIN CREEKS BLOCK / SECTION 2 LOT 44 LOT AREA .46 SITE CLASS. B DESIGN FLOW 480 L.T.A.R. .3

Septic Tank: 1000 Gallons: STB 1001 Date 9-18-07

Pump Tank: 1000 Gallons: PT 274 Date 9-7-07

Pump Make: ZOELLER Model A53-C Serial No. —

Nitrification Field: No Fields 1 Square Feet EXIST-1600 Linear Feet 270'

No Lines 4 Trench Width 36" Max Trench Bottom Depth 36" Gravel Depth N/A ☐ Gravity ☒ Pressure

☒ New System ☐ Repair ☐ Expansion System Type: I II III (IV) V VI

System Description: Low Pressure 50% REDUCTION

Repair System Description: NONE

Maintenance Agreement Required: ☒ Yes ☐ No

☒ House/Mod. Home ☐ Mobile Home ☐ Business ☐ Other

No. Bedrooms 4 No. Persons 8 No. Employees

Water Supply: ☐ Individual ☒ Public ☐ Community

☐ Slab ☒ Crawl Space ☐ Basement w/plumbing ☐ Basement wo/plumbing

Comments:/Conditions:

INITIAL SITE SKETCH

SEE ATTACHED "PAST TOPAZ" SYSTEM DESIGN BY ROLLINS SOIL & ENVIRONMENTAL

Comments:/Conditions: BUILDER OK'D TANK CHANGES MSL

MET BUILDER & DISCUSSED DECK PLACEMENT FROM SEPTIC System. His Deck plan will be 5' off septic from discussion meeting

AS BUILT SKETCH

BOWCO Filter JR 1500

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. Improvement Permit with plat valid without expiration ☐ Improvement Permit with site plan valid for sixty months ☒ Authorization to Construct is valid for a period equal to that of Improvement Permit – not to exceed sixty months.

Signed: Mark S. Kay date 5-16-07

Improvement Permit by: [signature] date 5-14-07

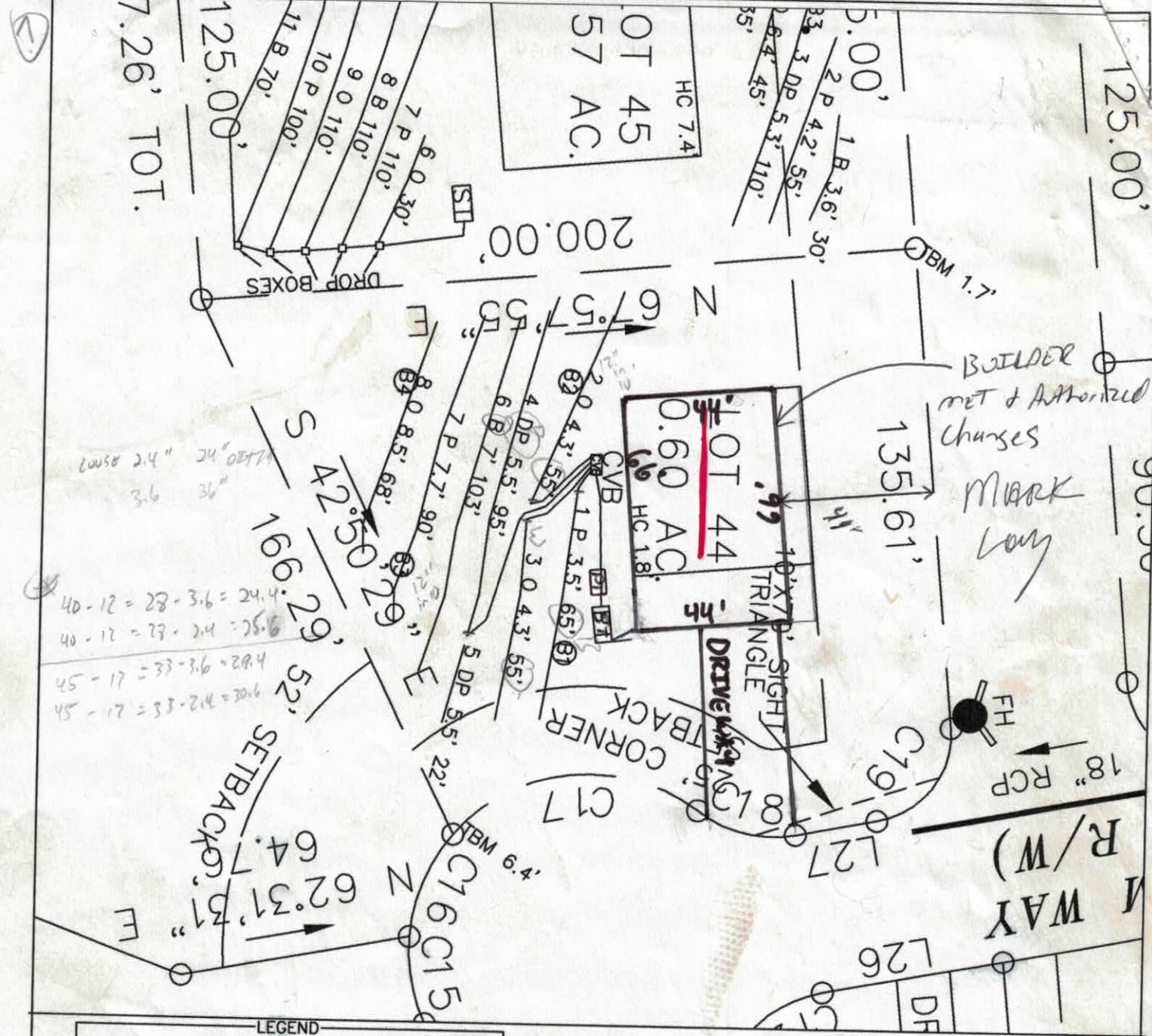
Authorization to Construct by: [signature] date 5-21-07

Installed by: Wayne Clontz

Operation Permit by: [signature] R.S. date 11-13-07

Existing System Inspection by: date

HEALTH DEPT. COPY: WHITE OWNER COPY (FINAL): YELLOW OWNER COPY (INITIAL): PINK



LEGEND

House Box.

System lines.

Repair lines.

House Corner Shot.

T.B.M.

GRAPHIC SCALE
1" = 40'

40 0 40 80

FOR PRELIMINARY PLANNING PURPOSES ONLY. ALL LOTS WILL REQUIRE FINAL APPROVAL BY THE COUNTY HEALTH DEPARTMENT ON A LOT BY LOT BASIS. THIS MAP SHOULD BY USED AS A GENERAL GUIDE, SOME ADJUSTMENTS WILL BE NECESSARY IN THE FIELD DUE TO SOIL VARIABILITY AND COMPLEX TOPOGRAPHIC FEATURES. THIS MAP ONLY REFLECTS EXISTING SOIL SUITABILITY FOR ON-SITE SEPTIC TANK SYSTEMS.

PLEASE REFER TO ATTACHED SOIL REPORT FOR ADDITIONAL SITE SPECIFIC INFORMATION

ROLLANS SOIL & ENVIRONMENTAL SERVICES
2120 GRAHAM ROAD
MOUNT ULLA, NC 28125
PHONE/FAX: (704)278-0989
ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704)746-5046
EMAIL: ROLLANSFORTC@AOL.COM

MAP TITLE: SITE PLAN & DRAINFIELD AREAS

PROJECT NAME:

LOCATION/DATE: IREDELL COUNTY, NORTH CAROLINA FEBRUARY 2007

JOB # : 01-1042
FILE: C:\JOBS\01-1042
PROJECT MGR.: C.B.F.
FIELD WORK: C.B.F. & A.L.P.
DRAWN BY: C.B.F.

LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant: Ryon-West Developers

Address: 127B Promenade Dr.
Mooresville, NC 28117
Phone: 704 361 1084
County: Iredell
Location: TWIN CREEKS LOT #44

Source of Wastewater Flow: 4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow: 480
System Flow: 25.83

Design Specifications

Drainfield Size: 270
Loading Rate (gpd/ft.^{2}): 0.3
Depth of Gravel in Trench: NA (PPBPS)
Gravel Size: NA (PPBPS)
Trench Depth: 36 in.
Trench Width: 36 in.
Septic Tank Size: 1000
Pump Tank Size: 1000

Estimated Supply Line Length: 38
Supply Line Diameter: 2 in. SCH 40 PVC
Supply Line Volume: 6.61
Dosing Volume: 151.96
Supply Manifold: N/A
Supply Manifold Length: N/A
Supply Manifold Volume: N/A

Recommended Float Controls: SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel: SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.

Pressure Head: 2 ft.
Friction Head: 0.48
Elevation Head: 3.70
Total Dynamic Head: 7.11

Threaded Union: In Tank
Gate Valves: 1 in Tank
1 per lateral
Check Valves: In Tank
Anti-Siphon Hole: NA
Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services

TWIN CREEKS LOT #44
LP PPBPS

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	810
TOTAL LATERAL LENGTH:	270
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	266.6666667
SUPPLY LINE LENGTH:	38
TOTAL DYNAMIC HEAD:	7.11
MANIFOLD SIZE:	N/A
DOSING VOLUME:	151.96
PUMP TANK DRAW DOWN*:	7.2
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	1000

**Pump tank draw down based on a volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

TWIN CREEKS LOT #44

Project #: 01-1042

LAYOUT FOR 4 BEDROOM HOME

May 2, 2007

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		6.4			100.00		
INSTR. 1			106.40				
HOUSE CNR				1.80	104.60		
P. TANK				2.60	103.80		
1	***PINK***			***3.90***	***102.50***	***66***	***65***
2	***ORANGE***			***4.30***	***102.10***	***60***	***55***
3	***ORANGE***			***4.30***	***102.10***	***60***	***55***
4	***DARK PINK***			***4.90***	***101.50***	***95***	***95***
5	DARK PINK			4.90	101.50	22	22
6	BLUE			5.40	101.00	103	103
7	PINK			5.60	100.80	90	90
8	ORANGE			7.40	99.00	68	68
					Total	**564**	**553**

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
**** System***	***270***	***0.3***	***MOD.***	***0.300***	***PPBPS***	***LOW PRESSURE***
Repair	283	0.25	MOD.	0.250	PPBPS	LOW PRESSURE

Notes:

** TBM located top of ground at EIP at corner of lot (see site plan)

**TBM is assumed to be 100'

**All measures in feet

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

**BS, HI, and FS indicate rod readings

CALCULATIONS

Location TWIN CREEKS

Project Number 01-1042

Lot No: Lot 44

No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.300	$^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	YES	
Supply Line Length	38	ft.
Supply Line Volume	6.612	gal.
Required Feet of Line	266.6667	ft.
Amount of Line from Layout	270	ft.
Gallons per Minute	25.83	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	gal.
# of Panels	63	
Dosing Volume	151.96	gal.

Note: Dosing Volume based on 33% of # of panels times 3.6 gal/panel

Tank Draw Down	7.2	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	5.88	minutes
Elevation Head	3.7	ft.
Pressure Head	2	ft.
Friction Factor	1.27	ft./100 ft. *(From the interpolater.)*
Friction Head	0.48	ft.
Total Dynamic Head (+15%)	7.11	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

IREDELL COUNTY HEALTH DEPARTMENT

Application For Improvement Permit and/or Authorization To Construct, Existing System Inspection

(THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED - APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS)

1. APPLICATION FOR: ✓ Improvement Permit ___Authorization To Construct ___BOTH ___Existing System Inspection

2. Page 2: *Site Plan Worksheet* Form MUST Accompany This Application
   The following optional attachments may also be submitted: ___ Survey Plat, Scaled no more than 1 Inch = 60 Feet
   Place check ( ) beside whichever is submitted if applicable ___ Custom Site Plan, Scaled no more than 1 Inch = 60 Feet

3. **Applicant Information:**

Applicant Name	Mailing Address	Home Phone	Work Phone
S & L HOMES INC	110 CHARSTON DR. SUITE F 108 MOORESVILLE NC 28117		662-8467
RYON-WEST DEVELOPERS	215 CRYSTAL CIRCLE MOORESVILLE, NC 28117		

4. **Property Information:**

Street Address	Subdivision Name	Section/Phase and Lot Number
	TWIN CREEKS	44

Driving Directions: _____

****

5. **RESIDENTIAL Site Development Information:** *(Check or Complete ALL that apply)*

(✓) New, Single Family Residence
( ) New, Multi-Family Residence
( ) Expansion of Existing Septic System
( ) Repair To Failing Septic System

Maximum Number of Bedrooms 4
Maximum Number of Occupants 8
If Expansion, Current Number of Bedrooms ___

(✓) Crawl Space Foundation?
( ) Concrete Slab Foundation?
( ) Basement w/Plumbing?
( ) Basement w/out Plumbing?

IF Non- Residential Site Development:
Type of Business _____
Square Footage of Building _____
Maximum Number of Employees _____
Maximum Number of Seats _____

****

6. **Proposed Water Supply:**

( ) New Well ( ) Existing Well ( ) Community Well (✓) City Water ( ) Other Public Water

****

7. **Desired Septic System Type:** *(You may rank in order of preference, if any)*

( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other_____ (✓) No Preference

****

8. **Please Answer The Following To The Best of Your Ability:**

( ) Yes (✓) No Does the site contain any jurisdictional wetlands?
( ) Yes (✓) No Is any non-domestic sewage (i.e. industry) to be generated?
( ) Yes (✓) No Is the site subject to approval by any other public agency?

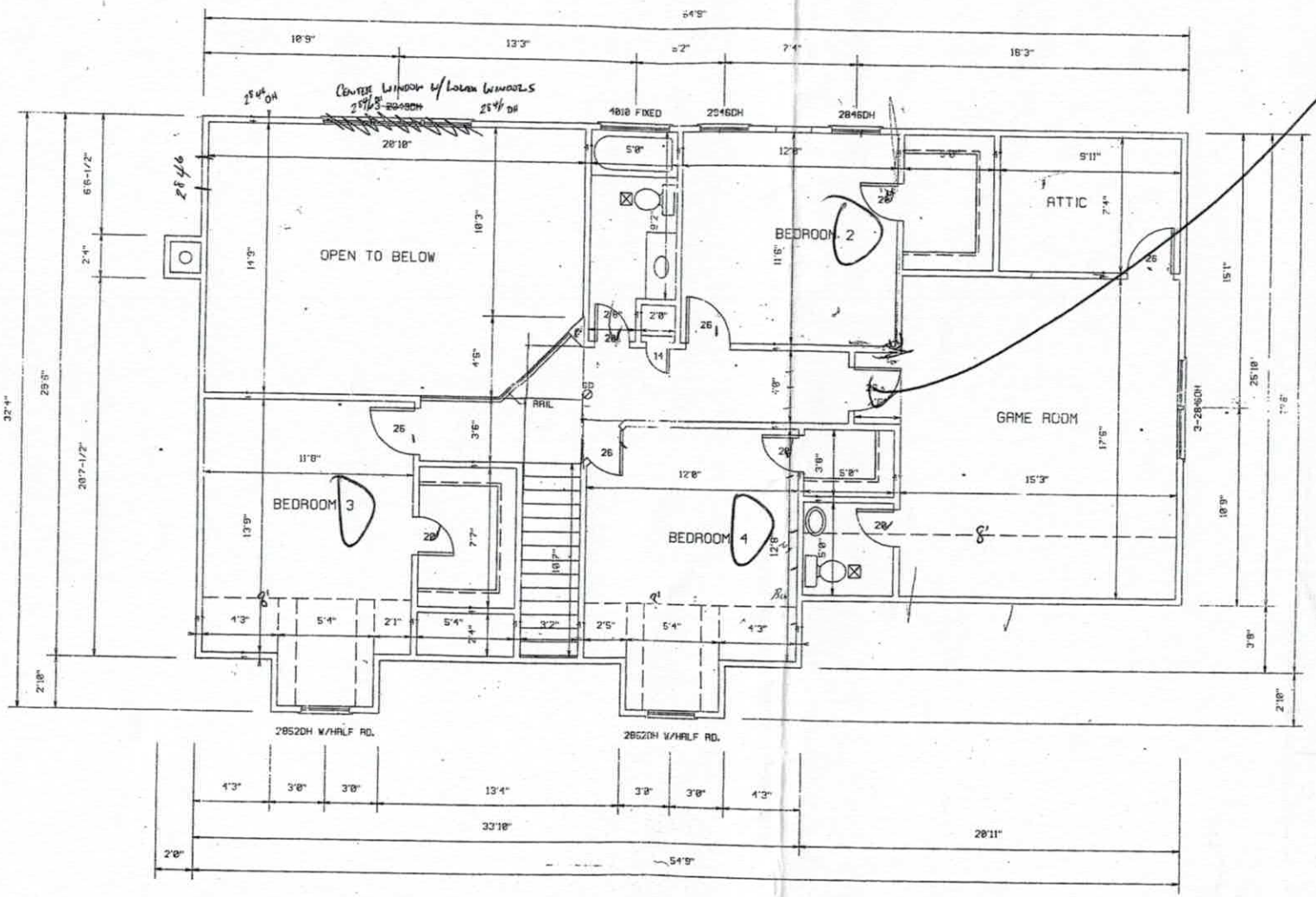
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I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

9. Signature: _____ 5/2/07
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

FIRST FLOOR PLAN

GENERAL NOTES:
(1) PLANS PROVIDE
BE THE GENERAL



SECOND FLOOR PLAN

SCALE:1/4"=1'-0"

36" wide dirt

Iredell County
Planning & Enforcement
227 S. Center St. PO Box 788
Statesville, NC 28687
704-878-3113

OPER PE

Zoning Permit
Permit Number: 141517ZO

Printed: 3/13/2007

Master #: 141517

Associated Permits:
141517ZO Zoning

Applicant

Name: S&L Homes Inc
Address: 110 Charleston Drive Suite 108
Mooresville, NC 28117
Phone: 704-662-8467

Parcel

Parcel Number: 4730541952.000
Address: 192 Winding Creek
Troutman, NC 28116
Subdivision: Twin Creek Estates PH2
Zoning: RA
Township: 1500
Area: .06
Lot(s): 44
Directions to Parcel: exit 42 right into troutman, left on autum leaf, left on perth, state park rd, left on twin creek, left on winding creek.

Owners

Name: S&L Homes Inc
Address: 110 Charleston Drive Suite 108
Mooresville, NC 28117
Phone: 704-662-8467

Contractors

Fees and Receipts:

Number	Description	Amount
FEE-147416-07	Zoning - Permit / Inspection	$45.00
FEE-147434-07	Environmental Health - Type I or II Fast Track	$200.00
	Total Fees:	**$245.00**
REC-80112-07		$245.00
	Total Receipts:	**$245.00**

Conditions