IREDELL COUNTY HEALTH DEPARTMENT

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

PERMIT # 222771

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

PIN # 4732056797 ✓

APPLICANT/OWNER: SDH Charlotte LLC

APPLICANT ADDRESS: 10130 Mallard Creek Rd #218 Charlotte NC 28262

SITE ADDRESS: ✓136 Autumn Mist Rd Statesville NC 28677

PHONE: 704-944-5557 ALT. PHONE --

SITE DIRECTIONS: OLD Mtn Rd TR Wallace Springs (R) on Autumn Mist Loton Right.

SAP CONTROLLED: ☒ YES ☐ NO

SUBDIVISION: ✓Autumn Brooke

SECTION: 1 LOT # 52 LOT AREA: 0.459 Acres

DESIGN FLOW: 480gpd L.T.A.R.: .30

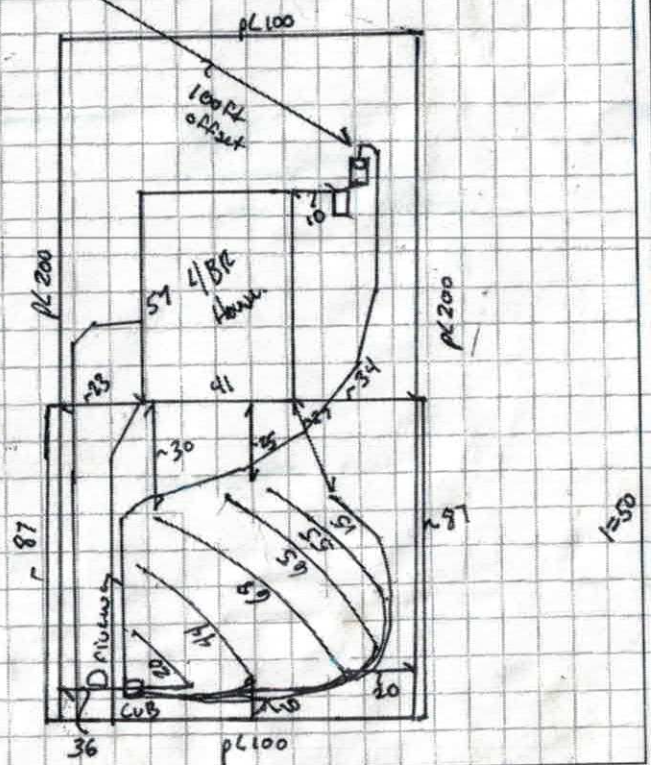
Septic Tank	1000 (gal)	STB	1060	Date		☒ New System ☐ Repair ☐ Expansion System Type: I II III (IV) V VI		☒ Residence	No. Bedrooms 4
Pump Tank	1000 (gal)	PT	1060	Date		System Description: LP PPBPS 50% Reduction		☐ Business	No. Persons 8
Pump Make		Model		Serial #		Repair System Description: OFFSITE LP PPBPS		☐ Other	No. Employees
# Nitrification Fields	1	# Lines	6	Linear Ft	267	Maintenance Agreement Required: ☒ YES ☐ NO		☐ Slab	☐ Crawl Space
Trench Width	24	Trench Bottom Depth(Low side)	30	Gravel Depth		☐ GRAVITY ☒ PRESSURE		☒ Basement w/plumbing	☐ Basement w/o plumbing

Water Supply: ☐ Private ☒ Public ☐ Community

Comments / Conditions: Install Septic drainlines on the Contour of the land and utilize Central Valve Box. Do not exceed max depth of 36 inches. Do not Drive, pave, pave, grade drainfield area.

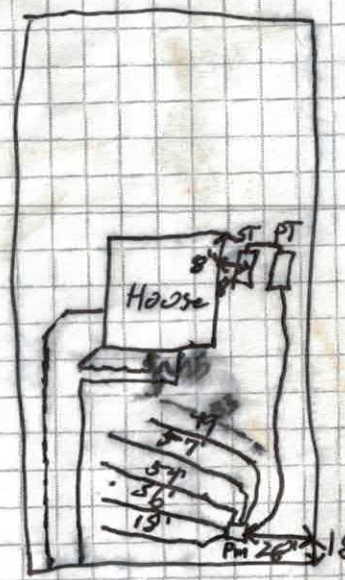
use 5/32 holes & 2 ft of Head.
220 gallon dose & 25 gpm 8.8 min Runtime 10.4 inch drawdown

INITIAL SITE SKETCH



AS BUILT SKETCH

Not to scale



5/17/19: checked first 5 lines and tanks. Only 1st and 2nd were connected to pm. Still needed to install last 53' line. Tanks were not connected to each other or lines

Off site repair is on Lot #59
PIN # 4732-15-2306

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: 8/27/18 Installed by: Specialty Septic

IMPROVEMENT PERMIT by: Benjamin A. Bolkin Date: 8/24/2018 OPERATION PERMIT by: Collin C. Cave Date: 8/2/18

AUTHORIZATION TO CONSTRUCT by: Benjamin A. Bolkin Date: 8/24/2018 Existing System Inspected by: _____ Date: _____

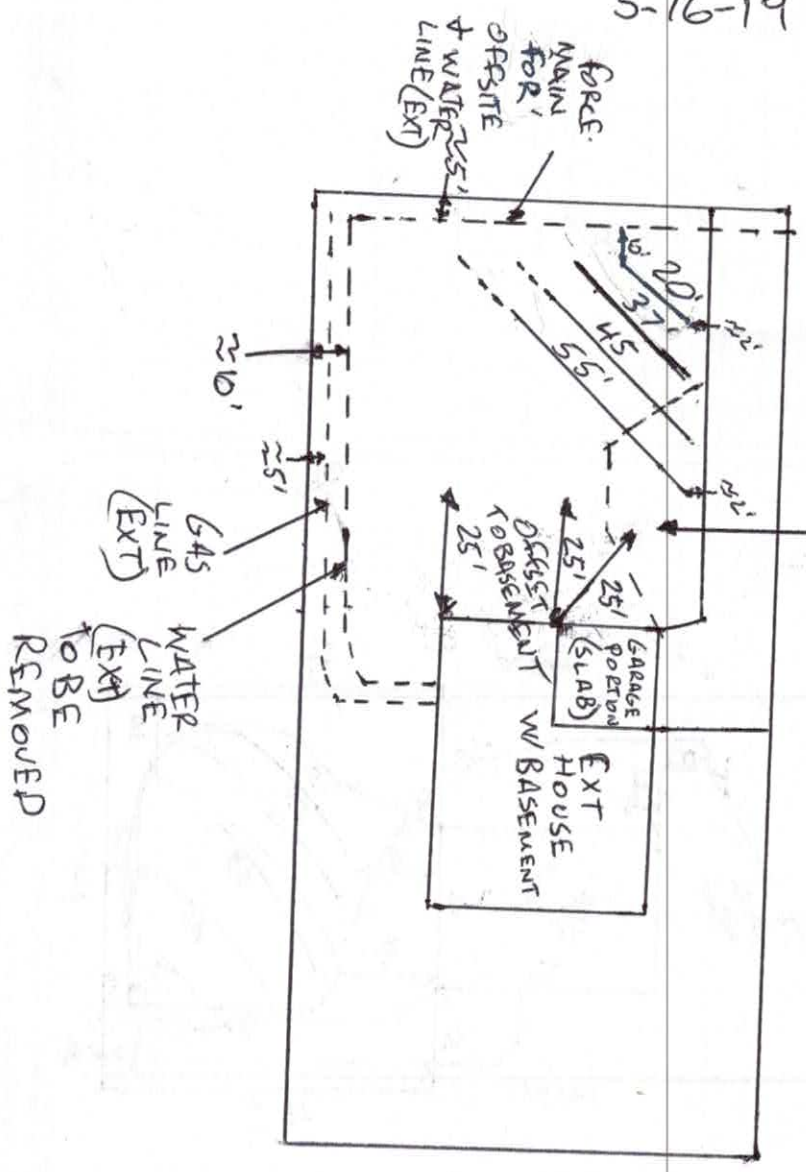
FOR SEPTIC FINAL INSPECTION: CALL 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inpsector to confirm your inspection time.

DRAWING NOT ENTIRELY ACCURATE PLEASE VERIFY ALL MEASUREMENTS

TRENCH LEVELNESS AND BOTTOM CHECKED ON 4 EXSISTING LINES

O.P. NOT TO BE SIGNED TILL WATER LINE IS REMOVED IF 10FT OFFSET CAN NOT BE MAINTAINED

5-16-19 BCW



CONTOUR TO BE BUMPED ON LINES ADDED TO MAINTAIN 8FT CENTERS AND TO MAXIMIZE AVAILABLE SPACE

FILL DIRT IN THIS AREA CALL BEN OR BRYANT IF YOU HAVE QUESTIONS

45FT LINE NEEDS 1 PANEL REMOVED

55FT LINE NEEDS 2 REMOVED UNLESS AVAILABLE SPACE FOR ADDITIONAL LINE IS NOT LARGE ENOUGH THEN SOME FILL TO BE REMOVED

	Date	Initials
Drain Lines Checked	5/20	BB
Tanks Checked	5/20	BB
Pressure Manifold or Valve Box Checked	5/20	BB
Pressure Head Set	8-21-19	CC
Electrical Checked	8-21-19	CC
Floats Set	8-21-19	CC
Alarm Checked	8-21-19	CC
Maintenance Contract Y, N	7-19-19	CC

* Move H20 Line

RECEIVED AUG 9 - 2018

RECEIVED ~~JUL 2 7~~ 2018

Paid $320.00 Online

IREDELL COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH DIVISION

#22271

(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 ___ 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:

SDH Charlotte LLC Applicant Name	10130 Mallard Creek Road #218 Charlotte NC 28262 Mailing Address	704-944-5557 Home Phone #	 Alternate Phone #
SDH Charlotte LLC Owner Name	10130 Mallard Creek Road #218 Charlotte NC 28262 Mailing Address	704-944-5557 Home Phone #	 Alternate Phone #

4. Property Information:

136 Autumn Mist Rd (Street Address) Autumn Brook (Subdivision Name) Lot 52 (Section/Phase and Lot Number)

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 due to _____
(✓) Other Confirming bedrooms on existing permit

Maximum Number of Bedrooms 4
Maximum Number of Occupants ___
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)* ( ) EXISTING SYSTEM installed ____ *Year*

( ) Alternative (✓) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other _____

8. Please Answer The Following ( ) Yes (✓) No Does the site contain any jurisdictional wetlands?
To The Best of Your Ability: ( ) 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?

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: _____ 7/27/18
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH DIVISION:

SITE PLAN WORKSHEET

SEE THE "SAMPLE SITE PLAN" BELOW. *INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT*!!!

Place an (X) beside each item as you complete the site plan:

X Property Line measurements are clearly identified...

X All proposed structures are indicated...

SHOW: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

X Front and side setbacks from property line...

X Area you prefer your septic system to be placed...

X Preferred driveway location and configuration, preferred well location...

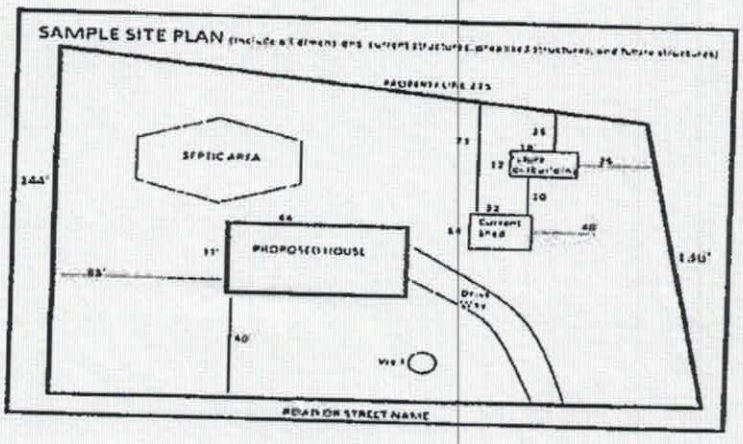
X North arrow, or other sufficient indicator of direction...

Circle N/A on the following if appropriate:

____ Location of septic systems and wells within 100' of your property. N/A

____ Location of easements and rights of ways on your property. N/A

____ Location of any designated wetlands on the property.. N/A



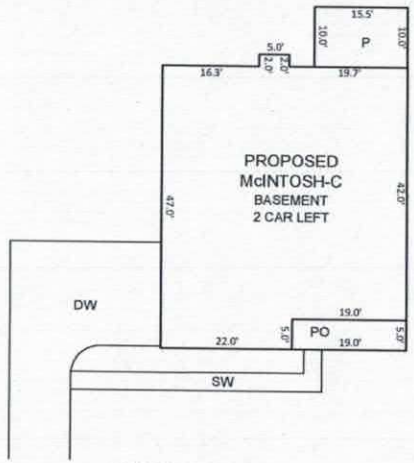
USE THIS SPACE TO DRAW YOUR SITE PLAN

Signature: _____

REQUIRED property owner or owner's legal representative signature.

7/27/18

DATE

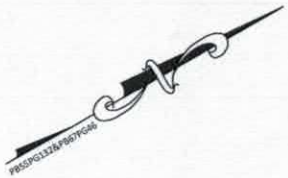


INSET SCALE: 1"=20'

NOTES:

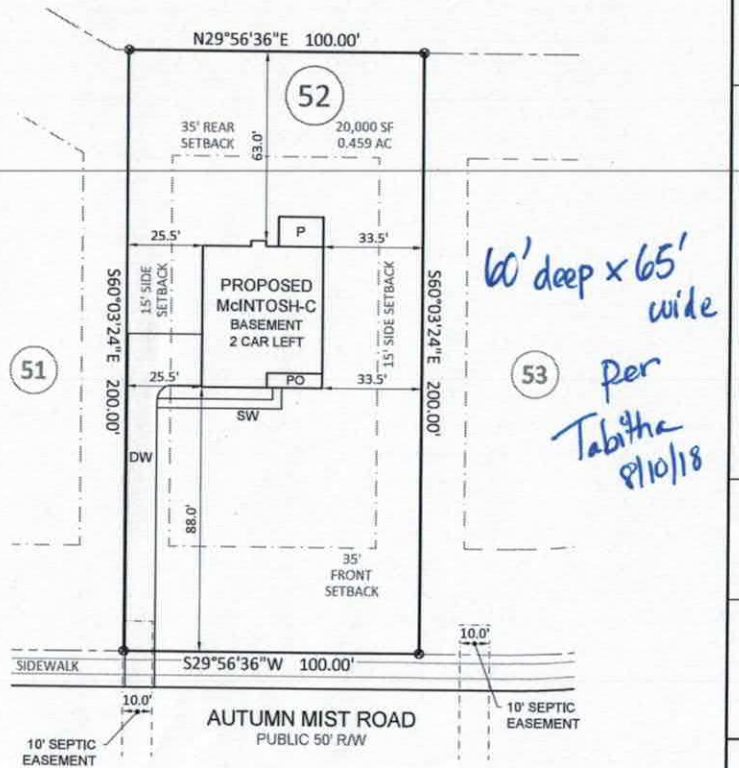
1. THIS SURVEY WAS PREPARED BY BATEMAN CIVIL SURVEY CO., UNDER THE SUPERVISION OF STEVEN P. CARSON, PLS.
2. THIS PLAN HAS BEEN PREPARED FOR LAYOUT AND PERMITTING PURPOSES ONLY.
3. PROPERTY LINES SHOWN WERE TAKEN FROM EXISTING FIELD EVIDENCE, EXISTING DEEDS AND PLATS OF PUBLIC RECORD, AND INFORMATION SUPPLIED TO THE SURVEYOR BY THE CLIENT
4. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES AND ALL BEARINGS ARE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM UNLESS OTHERWISE SHOWN.
5. THIS MAP IS NOT A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS.
6. THE BASIS OF NORTH AND ALL EASEMENTS, RIGHTS-OF-WAYS, BUFFERS, SETBACKS AND ADJOINERS, ETC. REFERENCED IN TITLE BLOCK
7. NO INVESTIGATION INTO THE EXISTENCE OF JURISDICTIONAL WETLANDS OR RIPARIAN BUFFERS PERFORMED BY THIS FIRM.
8. SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE
9. THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE "X" AS DEFINED BY HUD F.I.R.M. MAP NO. 3710473200J DATED MARCH 18, 2008. FLOODPLAIN AND FLOODWAY SHOWN HEREON ARE SCALED GRAPHICALLY FROM SAID PANEL.
10. ZONING IS RA/R-20.
11. SEPTIC LOCATION INFORMATION IS APPROXIMATE AS TRACED FROM IREDELL COUNTY HEALTH DEPARTMENT PERMIT.
12. A 10' UTILITY EASEMENT IS LOCATED AROUND THE PERIMETER OF ALL LOTS.
13. PROPERTY OWNER: SMITH DOUGLAS HOMES
    10130 MALLARD CREEK ROAD, SUITE 218
    CHARLOTTE, NC 28262

SCALE:
1" = 40 ft.



LOT INFORMATION:

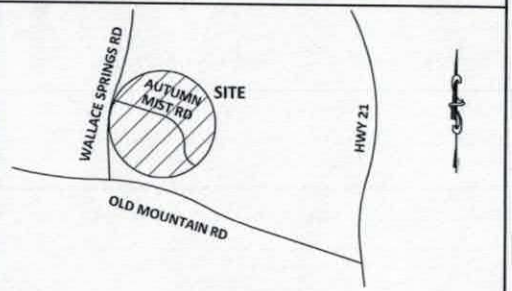
PIN: 4732056797
HOUSE = 1,842 SF
DRIVEWAY = 1,320 SF
SIDEWALK = 138 SF
PORCH = 95 SF
PATIO = 155 SF
TOTAL LOT AREA = 0.459 AC = 20,000 SF
TOTAL PROPOSED IMPERVIOUS = 3,550 SF
PERCENT IMPERVIOUS = 17.8 %



60' deep x 65' wide per Tabitha 8/10/18

REVISIONS: ADD SEPTIC INFO TO LOT & MOVE HOUSE PER REQUEST; REDO PLOT PLAN 7-23-18 NMW
MOVE HOUSE 18' FORWARD PER NEW SEPTIC LAYOUT PER REQUEST; UPDATE PLOT PLAN 8-3-18 NMW

Bateman Civil Survey Company
Engineers • Surveyors • Planners
2524 Reliance Avenue, Apex, NC 27539 Ph: 919.577.1080 Fax: 919.577.1081
www.batemancivilsurvey.com info@batemancivilsurvey.com
NCBELS Firm No. C-2378



VICINITY MAP

(Not to Scale)

LEGEND

PO = PORCH
SP = SCREENED PORCH/PATIO
CP = COVERED PORCH/PATIO
WD = WOOD DECK
SW = SIDEWALK
DW = CONC DRIVEWAY
P = CONC PATIO
⊗ = COMPUTED POINT
○ = IRON PIPE FOUND
● = IRON PIPE SET
● = DRILL HOLE FOUND
WM = WATER METER
CO = CLEAN OUT
AC = AIR CONDITIONER
Ⓢ = SEWER MANHOLE
EB = ELECTRIC BOX
Ⓒ = CABLE BOX
T = TELEPHONE PEDESTAL
CI = CURB INLET
☼ = LIGHT POLE
SFE = SEPTIC FIELD EASEMENT

BUILDING SETBACKS:

FRONT = 35 ft
REAR = 35 ft
SIDE = 15 ft
CORNER = 25 ft

I, STEVEN P. CARSON, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY DIRECT SUPERVISION FROM A SURVEY MADE UNDER MY SUPERVISION (PLAT BOOK REFERENCED IN TITLE BLOCK); THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION LISTED UNDER REFERENCES; THAT THE RATIO OF PRECISION AS CALCULATED IS 1:10,000+; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARD OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA.
L-4752
DATED:

PRELIMINARY

This map is of an existing parcel of land and is only intended for the parties and purposes shown. This map not for recordation. No title report provided.

BUILDER TO VERIFY HOUSE MODEL, LOCATION, DIMENSIONS AND REVIEW TOTAL IMPERVIOUS NOTED ON THIS PLOT PLAN

PRELIMINARY PLOT PLAN

FOR

SMITH DOUGLAS HOMES

AUTUMN BROOK - PHASE 1, MAP 1 - LOT 52
136 AUTUMN MIST ROAD, STATESVILLE, NC
STATESVILLE TWP., IREDELL COUNTY

DATE: 6/28/18 DRAWN BY: NMW CHECKED BY: SPC

REFERENCE: PB 55, PG 132 & PB 67, PG 46 PROJECT # 170301 SCALE: 1" = 40'

P:\2017 Projects\170301 Autumn Brook IDC\dwg\170301 Autumn Brook IDC.dwg, 8/9/2018 8:24:12 AM, nwalker

IREDELL COUNTY HEALTH DEPARTMENT

STATESVILLE 704-878-5305 MOORESVILLE 704-684-5281

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

PERMIT# 22277 PIN# 4732164066.052 DATE 10-2-08

OWNER OR APPLICANT Autumn Brook LLC PHONE: Business 704-996-2277 Home

ADDRESS 323 Walnut St. Statesville NC 28677

LOCATION Hwy 21 S TR Old Mtn Rd TR Wallace Springs TR Autumn Mist on right

SUBDIVISION Autumn Brook BLOCK / SECTION LOT 52 LOT AREA .459Ac. SITE CLASS PS DESIGN FLOW 480gpd L.T.A.R. .33gpd/ft2

Septic Tank: 1000 Gallons; STB Date

Pump Tank: 1000 Gallons; PT Date

Pump Make: Model Serial No.

Nitrification Field: No Fields 1 Square Feet Linear Feet 300

No Lines 6 Trench Width 36" Max Trench Bottom Depth 36"

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

System Description: LPPPBPS

Repair System Description: LPPPBPS

Maintenance Agreement Required: ☒ Yes ☐ No

Gravel Depth 12" ☐ Gravity ☒ Pressure ☐ Slab ☒ Crawl Space ☐ Basement w/plumbing ☐ Basement w/o plumbing

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

No. Bedrooms 4 No. Persons 8 No. Employees

Water Supply: ☐ Individual ☒ Public ☐ Community

Comments/Conditions:

* per plan specs
updated site plan
Tanks must be no deeper than 3Ft. below finished grade or additional reinforcement shall be required

INITIAL SITE SKETCH

See plans from Rollins Soil & Environmental Services

AS BUILT SKETCH

Non-Expiring Permit

Non-Expiring reviewed 12/17/12

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: date 10-7-08

Improvement Permit by: Judy Melville date 10-2-08

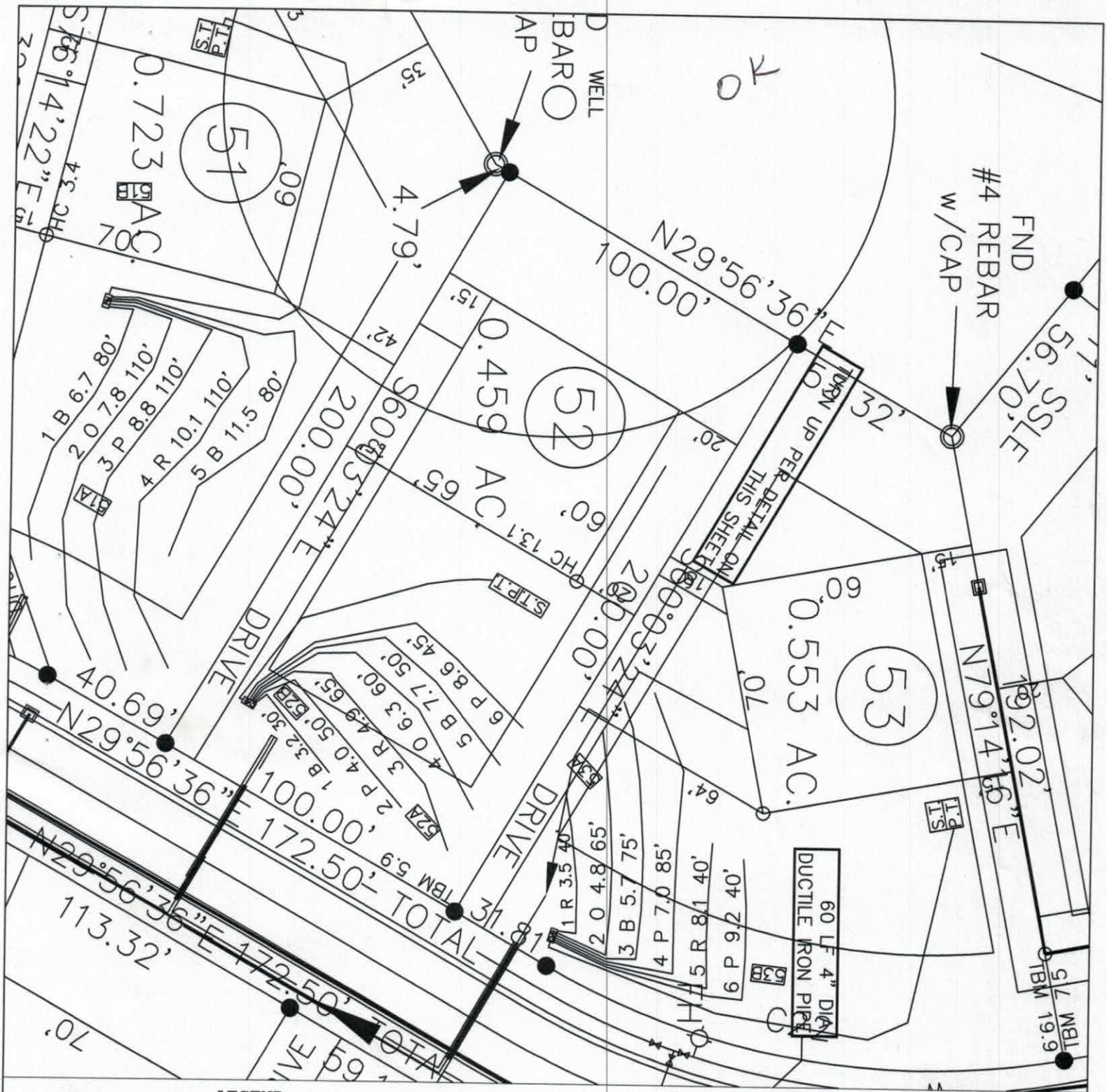
Authorization to Construct by: date

Installed by:

Operation Permit by: date

Existing System Inspection by: date

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



LEGEND

- HOUSE
- PIT
- SEPTIC LINES
- REPAIR LINES

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.

ROLLANS SOIL & ENVIRONMENTAL SERVICES
470 N. BROAD ST., SUITE D
MOORESVILLE, NC 28115
PHONE/FAX: (704) 658 - 1723
ASHLEY ROLLANS, NC LICENSED SOIL SCIENTIST
MOBILE: (704) 746 - 5046
EMAIL: ROLLANS@WINDSTREAM.NET

MAP TITLE: PRELIMINARY SOIL EVALUATION

PROJECT NAME: THE JOHNSON GROUP / AUTUMN BROOK

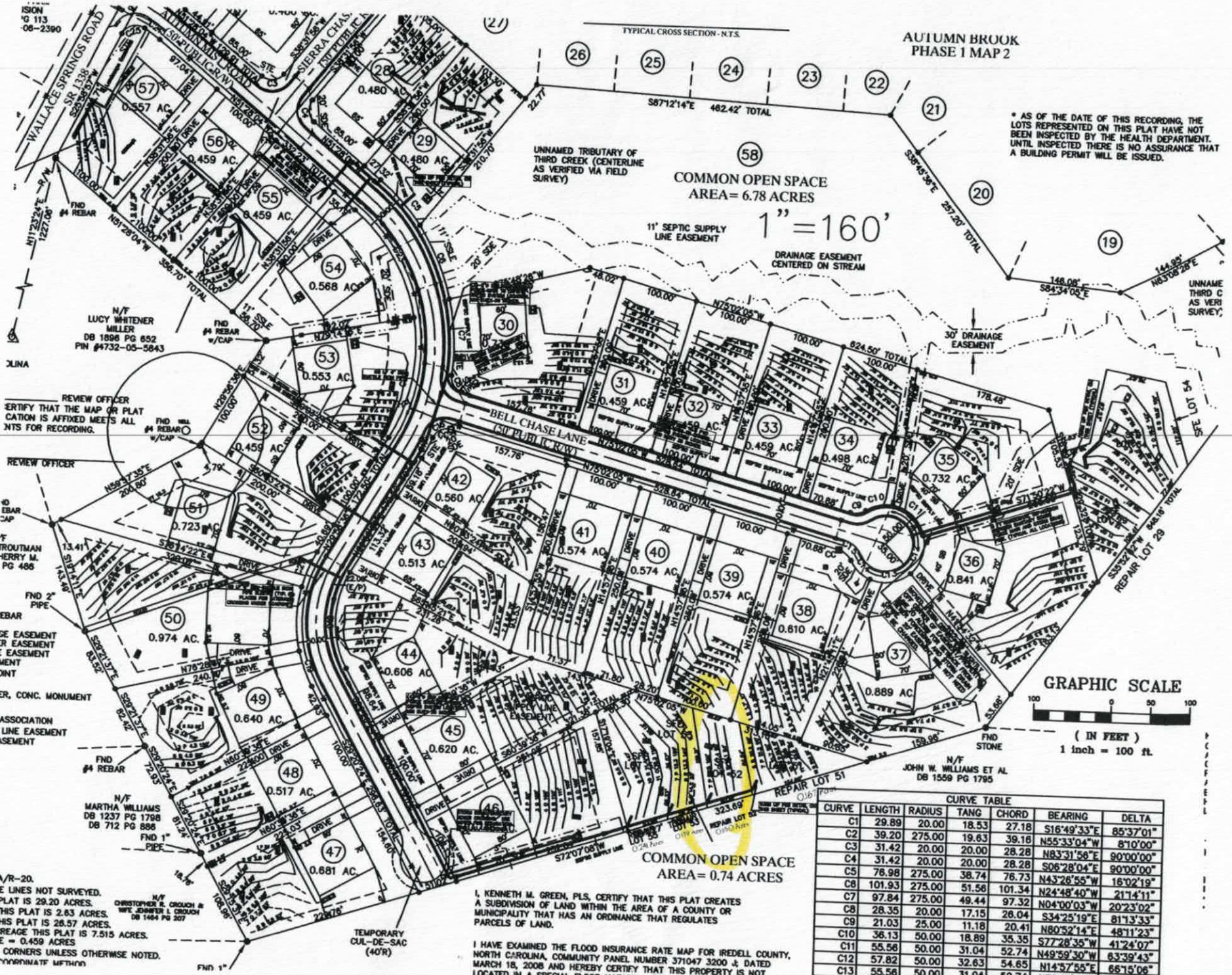
LOCATION/DATE: WALLACE SPRINGS ROAD IREDELL COUNTY, NORTH CAROLINA JUNE 2008

JOB # :	01-1439
FILE:	C: \JOBS\01-1439
PROJECT MGR.:	A.L.P
FIELD WORK:	A.L.P
DRAWN BY:	A.L.P

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MAP TITLE:	PRELIMINARY SOIL EVALUATION
PROJECT NAME:	THE JOHNSON GROUP / AUTUMN BROOK
LOCATION/DATE:	WALLACE SPRINGS ROAD IREDELL COUNTY, NORTH CAROLINA JUNE 2008
JOB # :	01-1439
FILE:	C:\JOBS\01-1439
PROJECT MGR.:	A.L.P
FIELD WORK:	A.L.P
DRAWN BY:	A.L.P



CURVE TABLE						
CURVE	LENGTH	RADIUS	TANG	CHORD	BEARING	DELTA
C1	29.89	20.00	18.53	27.18	S16°49'33"E	85°37'01"
C2	39.20	275.00	19.63	39.16	N55°33'04"W	8°10'00"
C3	31.42	20.00	20.00	28.28	N83°31'56"E	90°00'00"
C4	31.42	20.00	20.00	28.28	S06°28'04"E	90°00'00"
C5	76.98	275.00	38.74	76.73	N43°26'55"W	16°02'19"
C6	101.93	275.00	51.56	101.34	N24°48'40"W	21°14'11"
C7	97.84	275.00	49.44	97.32	N04°00'03"W	20°23'02"
C8	28.35	20.00	17.15	26.04	S34°25'19"E	81°13'33"
C9	21.03	25.00	11.18	20.41	N80°52'14"E	48°11'23"
C10	36.13	50.00	18.89	35.35	S77°28'35"W	41°24'07"
C11	55.56	50.00	31.04	52.74	N49°59'30"W	63°39'43"
C12	57.82	50.00	32.63	54.65	N14°57'55"E	66°15'06"
C13	55.56	50.00	31.04	52.74	N79°55'20"E	63°39'43"
C14	36.13	50.00	18.89	35.35	S47°32'45"E	41°24'07"

I, KENNETH M. GREEN, PLS, CERTIFY THAT THIS PLAT CREATES A SUBDIVISION OF LAND WITHIN THE AREA OF A COUNTY OR MUNICIPALITY THAT HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND.

I HAVE EXAMINED THE FLOOD INSURANCE RATE MAP FOR IREDELL COUNTY, NORTH CAROLINA, COMMUNITY PANEL NUMBER 371047 3200 J; DATED MARCH 18, 2008 AND HEREBY CERTIFY THAT THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY

ROLLANS ***Soil & Environmental Services, Inc.***
470 N Broad Street, Suite D, Mooresville, NC 28115 Phone: (704) 658-1723 Fax: (704) 658-1724

Ashley Rollans, NC Licensed Soil Scientist
Mobile: (704) 746-5046
Email: rollans.ashley@yahoo.com

Brady Freeman, Registered Sanitarian
Mobile: (704) 746-6497
Email: bfree209@yahoo.com

Attached is a proposed design for a PPBPS Septic System with low pressure distribution for a 4 bedroom single family residence on Lot # 52 in Autumn Brook Subdivision, Iredell County, North Carolina.

Contents:

	Page
Information for the Installer	1
Design Information	
Design Specifications	2-3
Layout Specifications	4
System Tapsheet	5
Site Plan/System Plan	6-7
Calculations	8
Profile Descriptions	9

July 14, 2008
Project #: 01-1439
Design By: Rollans Soil & Environmental Services

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 DENR, 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.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Design precludes foundation drains.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as a PPBPS installation.
- Repair is specified as a PPBPS installation.
- Backfill 4 - 6" of material (County Approved) over panels, rake trench walls, lime side-walls, install trenches 36" wide and have no more than 1/4" fall in 10 feet.
- Backfill against house to achieve positive drainage.
- All gulleys near system and repair areas must be filled with provisionally suitable material.

LP PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant:	The Johnson Group
Address:	132 Court Street Statesville, NC 28677
Phone:	704-881-0098
County:	Iredell
Location:	AUTUMN BROOK LOT 52
Source of Wastewater Flow:	4 Bedroom Single Family Residence
Estimated Gallons Per Day Flow:	480
System Flow:	28.7

Design Specifications

Drainfield Size:	300
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:	90
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	15.66
Dosing Volume:	168.84
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:	1.60
Elevation Head:	13.10
Total Dynamic Head:	19.21
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 per lateral
Check Valves:	In Tank
Anti-Siphon Hole:	YES
Additional Comments:	Soil suitability was performed by Rollans Soil & Environmental Services

AUTUMN BROOK LOT 52
LP PPBPS

DESIGN FLOW (gpd):	480
SOIL APPLICATION RATE (gpd/ft.^{2}):	0.3
TOTAL AREA TRENCH BOTTOM:	900
TOTAL LATERAL LENGTH:	300
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	266.6666667
SUPPLY LINE LENGTH:	90
TOTAL DYNAMIC HEAD:	19.21
MANIFOLD SIZE:	N/A
DOSING VOLUME:	168.84
PUMP TANK DRAW DOWN*:	8.0
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.*

AUTUMN BROOK LOT 52

Project #: 01-1439

LAYOUT FOR 4 BEDROOM HOME

July 14, 2008

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM		5.9			100.00		
INSTR. 1			105.90				
HOUSE CNR				13.10	92.80		
P. TANK				11.30	94.60		
1	***BLUE***			***3.20***	***102.70***	***37***	***30***
2	***PINK***			***4.00***	***101.90***	***64***	***50***
3	***RED***			***4.90***	***101.00***	***89***	***65***
4	***ORANGE***			***6.30***	***99.60***	***61***	***60***
5	***BLUE***			***7.70***	***98.20***	***52***	***50***
6	***PINK***			***8.60***	***97.30***	***45***	***45***
7	PINK			16.50	89.40	100	100
8	ORANGE			17.40	88.50	90	90
9	BLUE			18.10	87.80	84	84
					Total	**622**	**574**

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
****System***	***300***	***0.300***	***MOD.***	***0.300***	***PPBPS***	***LOW PRESSURE***
Repair	304	0.300	MOD.	0.300	PPBPS	LOW PRESSURE

Notes:

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

** OFFSITE REPAIR TBM located at rear corner lot 37/38. (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

LP PPBPS TAPSHEET -AUTUMN BROOK LOT# 52

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	Number of Panels
1	***BLUE***	***102.70***	***30***	0.156	**0.41**	90	7
2	***PINK***	***101.90***	***50***	0.156	**0.41**	150	12
3	***RED***	***101.00***	***65***	0.156	**0.41**	195	15
4	***ORANGE***	***99.60***	***60***	0.156	**0.41**	180	14
5	***BLUE***	***98.20***	***50***	0.156	**0.41**	150	12
6	***PINK***	***97.30***	***45***	0.156	**0.41**	135	10
	total	**feet =**	**300**	**gal/min =**	**28.7**		70
			Des. Flow	**480**			
			Pump Run=	**5.88**			
			soil LTAR	**0.3**			
			LTAR +5%	**0.315**			
			LTAR with mod.	**0.6**			
			LTAR with mod.. + 5%	**0.63**			

.156 equals 5/32 inch hole

CALCULATIONS

Location AUTUMN BROOK

Project Number 01-1439

Lot No: Lot 52

No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.300	$^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	YES	
Supply Line Length	195	ft.
Supply Line Volume	33.93	gal.
Required Feet of Line	266.6667	ft.
Amount of Line from Layout	300	ft.
Gallons per Minute	28.7	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	gal.
# of Panels	70	
Dosing Volume	168.84	gal.

Note: Dosing Volume based on 67% of # of panels times 3.6 gal/panel

Tank Draw Down	8.0	*Generic Draw Down of 21 gal.per in.*
Pump Run Time	5.88	minutes
Elevation Head	21.8	ft.
Pressure Head	2	ft.
Friction Factor	1.78	ft./100 ft. *(From the interpolater.)*
Friction Head	3.47	ft.
Total Dynamic Head (+15%)	31.36	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

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet 1 of 1
PROPERTY ID #:
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: The Johnson Group
ADDRESS: 132 Court St. Statesville NC 28677
PROPOSED FACILITY: 4 BRM
PROPOSED DESIGN FLOW (.1949): 480 gpd
LOCATION OF SITE: Autumn Brook Subdivision (off Wallace Springs Rd) Lot 52
WATER SUPPLY: ☐ Private ☑ Public ☐ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☐ Auger Boring ☑ Pit ☐ Cut
TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

APPLICATION DATE 6/08
DATE EVALUATED: 4/08
PROPERTY SIZE: 0.454 Ac
PROPERTY RECORDED: No

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 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
PS2A 1	LSS 5-10%	0-6	BSCL Gr	SS, SP, Fr SExP	—	55"	—	—	PS .3
		6-23	RC MFSBK	SS, SP, Fr SExP					
		23-55	RCL WSBK	SS, SP, Fr SExP	Many sap				
PS2B 2	LSS 5-10%	0-27	RC MFSBK	SS, SP, Fr SExP	—	48"	PS	—	PS .3
		27-48	RCL WSBK	SS, SP, Fr SExP	Com sap				
		48-52	Var SL Saprock	SS, SP, Fr SExP					
PS6C 3	SS 5-10% offsite area	0-6	BSL Gr	SS, SP, Fr SExP	—	54"	—	—	PS .3
		6-33	RC MFSBK	SS, SP, Fr SExP					
		33-54	RCL WFSBK	SS, SP, Fr SExP	Com sap				
PS2C 4		0-10	mod BK RC	fr		10"	PS		.4
		10-34	RSL sap	fr					
		34-60	LS sap	vfr					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY:
OTHER(S) PRESENT:

COMMENTS:

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

Sheet ___ of ___
PROPERTY ID #: _____
COUNTY: _____

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

lot 52

OWNER: _____
ADDRESS: _____ APPLICATION DATE _____
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): _____ DATE EVALUATED: _____
LOCATION OF SITE: _____ PROPERTY SIZE: _____
WATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☐ Other _____ PROPERTY RECORDED: _____
EVALUATION METHOD: ☐ Auger Boring ☑ Pit ☐ Cut TYPE OF WASTEWATER: ☐ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
1		0-16	ABK C	Fi, SEXP					PS .3
		16-41	WABKBCCL	Fi, SEXP					
		41-62	massive, LSAP	VFr, SEXP					
2		0-5	SCL, W SBK	Fr, SEXP					PS .3
		5-37	C, SBK	Fi, SEXP					
		37-55	SL SAP	mass. VFr					
3									
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

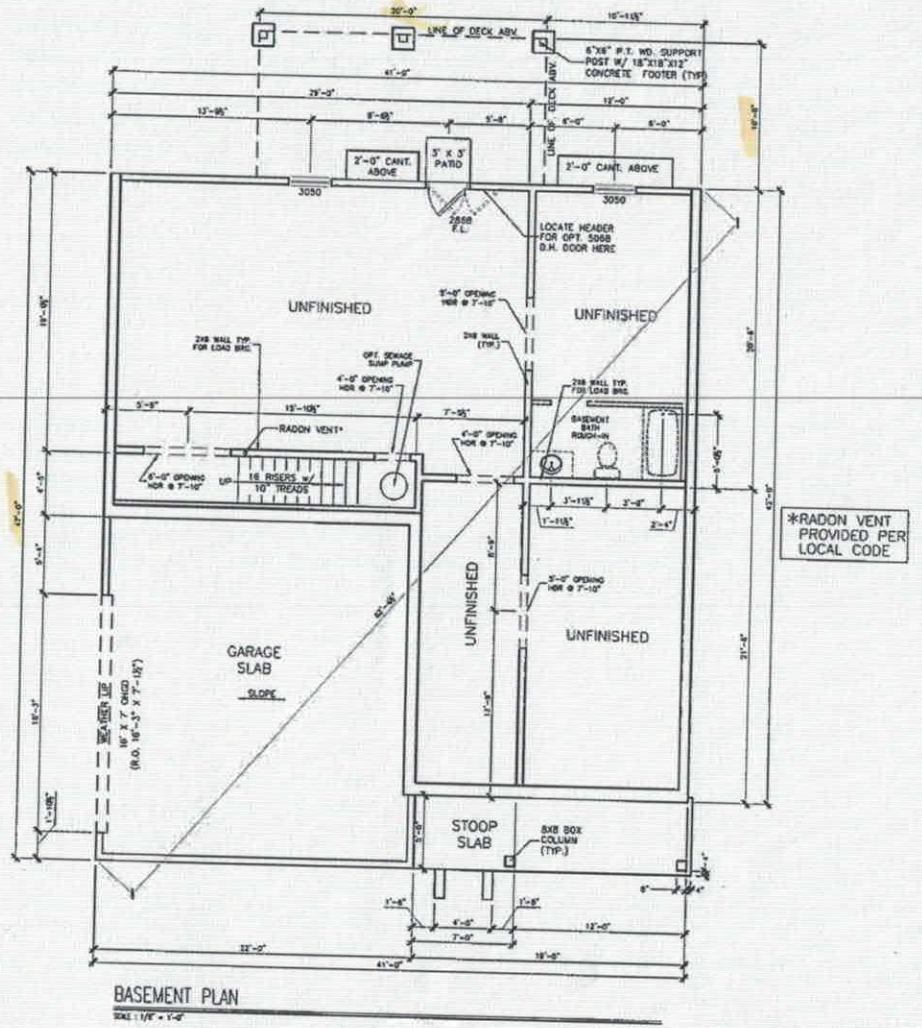
OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: _____
OTHER(S) PRESENT: _____

COMMENTS: _____

AUTUMN BROOK
LOT 52

Acknowledgement Of Plans Submitted ONLY!

~~JM~~ 7/30/18 BD B. Date 8/2/2018



BASEMENT PLAN

SCALE: 1/8" = 1'-0"

FOUNDATION PLAN
BASEMENT PLAN
MCINTOSH

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DATE: 7/2/18
PICKED BY: C
JOB NO: 2921
PLAN: ALL REV: C
SHEET NO: A4.1

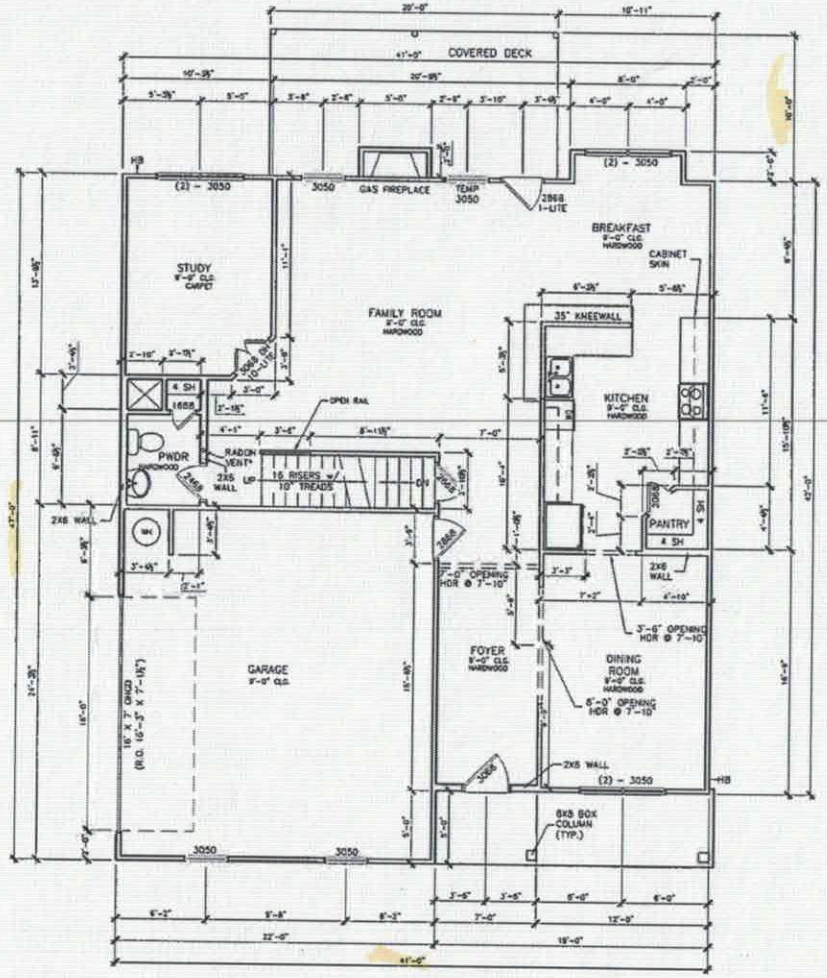
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AUTUMN BROOK
LOT 52

Acknowledgement Of Plans Submitted ONLY

~~JPA~~ 7/30/18 Date

~~BAB~~ 8/24/2018 Date



FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

*RADON VENT PROVIDED PER LOCAL CODE

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FLOOR PLANS
FIRST FLOOR
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CK	AW
DATE	7/2/18
PACKAGE DATE	C
JOB NO	2921
PLAN	ALL
REV	C
SHEET NO	A5.1

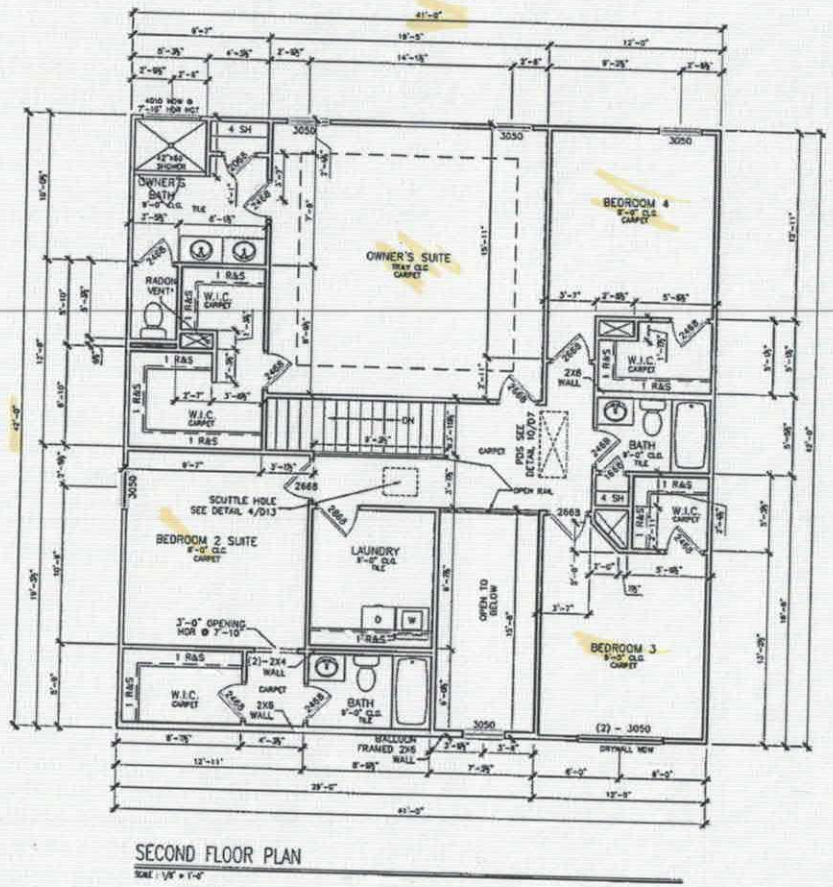
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AUTUMN BROOK
LOT 52

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BAB 8/24/2018



SECOND FLOOR PLAN

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

*RADON VENT PROVIDED PER LOCAL CODE

REFER TO MANUFACTURER'S SPECS. FOR DRAIN LOCATIONS ON DETAIL SHEETS D12,D12.1,D12.2 & D12.3

BY	DATE	REVISION

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FLOOR PLANS
SECOND FLOOR
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ELEV	ALL / C
SHEET NO	A5.2

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