IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 219484

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

PIN # 4665-26-0427 ✓

APPLICANT: CARBON CUSTOM HOMES APPLICANT ADDRESS: 6495 MOREHEAD RD HARRISBURG, NC

SITE ADDRESS: 754 FAITH RD. - Mrsvl. PHONE: 704-455-4500 ALT. PHONE:

SITE DIRECTIONS: 1155, TL FAITH, ON R

SUBDIVISION: Kim + Robert Hitselberger SECTION: - LOT # 2 LOT AREA: 8.498 AC DESIGN FLOW: 480 L.T.A.R.: 3

Septic Tank	1000	(gal)	STB	Date					
Pump Tank	1000	(gal)	PT	Date					
Pump Make	Hydromatic	Model	ENC10M2	Serial #					
# Nitrification Fields	1	# Lines	4 @ 100'	Linear Ft:	400'				
Trench Width	36"	Max Trench Bottom Depth	* 22" *	Gravel Depth	—				

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

System Description: PM-25% REDUCTION

Repair System Description: SAME

Maintenance Agreement Required: ☐ YES ☒ NO ☐ GRAVITY ☒ PRESSURE

☒ Residence ☐ Business ☐ Other ☐ Slab ☒ Crawl Space ☐ Basement w/plumbing ☐ Basement w/o plumbing

No. Bedrooms 4 No. Persons 8 No. Employees

Water Supply: ☒ Private ☐ Public ☐ Community

Comments / Conditions: 50'X60' SHOP OK TO BE BUILT BEHIND HOUSE. RA

5/24/17 Checked pressure (25#), alarm & electrical

INITIAL SITE SKETCH

SEE PLAN FROM THOMPSON ENVIRONMENTAL CONSULTING, INC.

AS BUILT SKETCH

4-17-17 CHECKED DRAIN LINES & TANKS RA

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: Diana Inman Date: 10-13-16 Installed by: Charles Beatty

IMPROVEMENT PERMIT by: RA-00-8 Date: 10-4-16 OPERATION PERMIT by: Marvin Dotson Date: 5/25/17

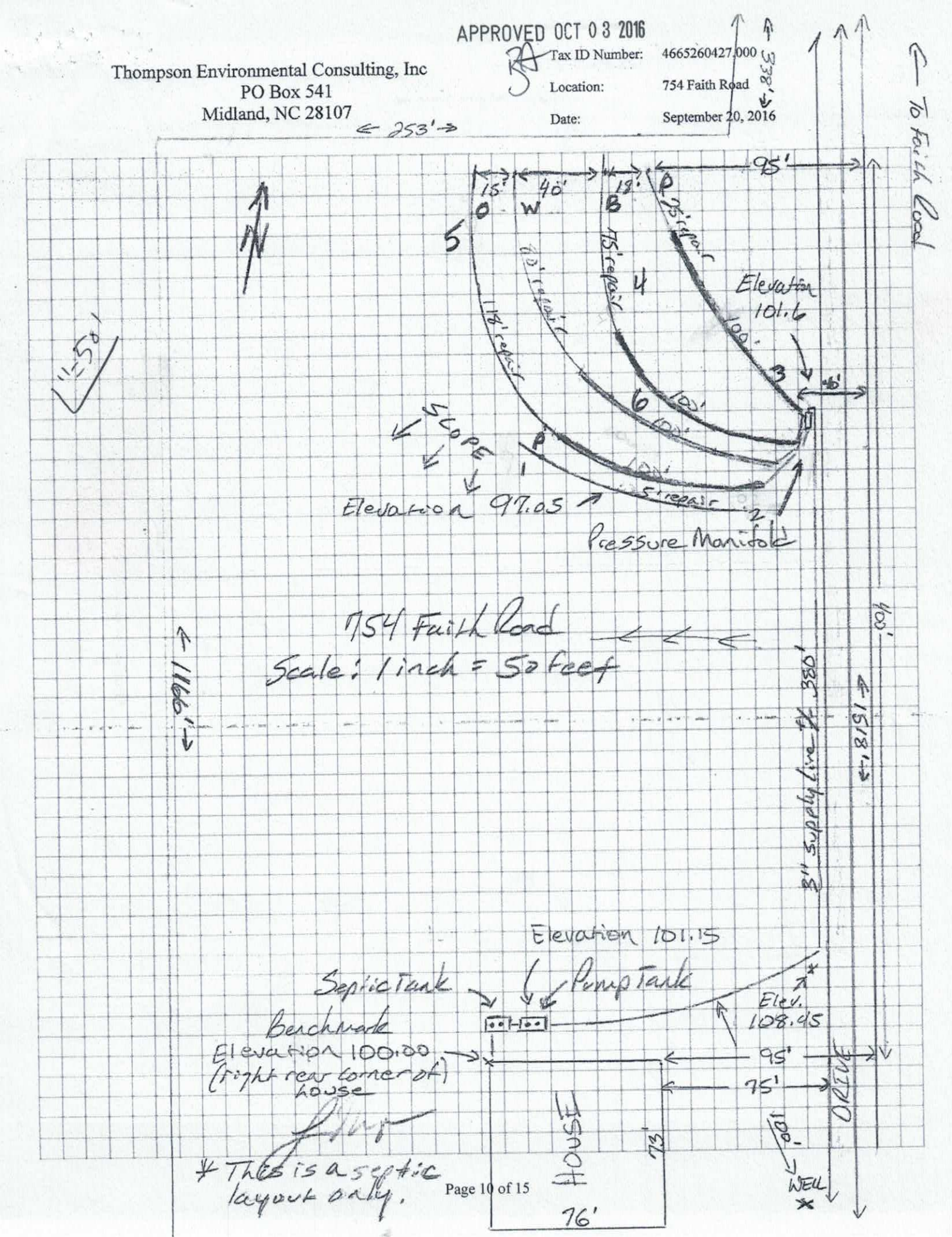
AUTHORIZATION TO CONSTRUCT by: RA-00-8 Date: 10-7-16 Existing System Inspected by: Date:

Health Dept. Copy - WHITE Applicant (Final Approval) - YELLOW Applicant (Conditional Approval) - PINK

APPROVED OCT 0 3 2016

Thompson Environmental Consulting, Inc
PO Box 541
Midland, NC 28107

Tax ID Number: 4665260427.000
Location: 754 Faith Road
Date: September 20, 2016



* This is a septic layout only.

APPROVED OCT 0 3 2016

BA

Residential Subsurface Wastewater Treatment and Disposal System Proposal

for

754 Faith Road
Mooresville, North Carolina

Tax Parcel # 80019115
September 26, 2016

Prepared for:

Kimberly Wentz
115 River Birch Circle
Mooresville, NC 28115



Prepared by:

Larry Thompson, REHS, PWS, LSS
Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541
Phone: 704-301-4881
Fax: 206-350-8895
larry@thompsonenv.com



cc: Iredell County Environmental Health

The building contractor must utilities are carefully planned and all portions of the proposed septic system. These areas must be protected from traffic and any form of encroachment at all times.

Details

Kimberly Wentz has contracted with Thompson Environmental Consulting, Inc. (TEC) to develop a proposal for an on-site wastewater treatment and disposal system that would allow for the construction of a 4-bedroom single family residence, served by a private well, located at 754 Faith Road, Mooresville, North Carolina.

Based upon an investigation performed by TEC it was determined that a sufficient amount of "Suitable" Group IV soils are available on this property for the installation of a pump-to accepted system with a state approved 25% reduction in required drainline length for both the initial system as well as the repair system. The proposed residence will be served by a private water supply (well).

Ms. Wentz would like to request that Iredell County Environmental Health (ICEH) issue an Improvement Permit and Construction Authorization for a 4-bedroom residence based upon the following proposal.

Location

The subject property is located at 754 Faith Road, Mooresville, North Carolina. From downtown Mooresville, take Shearer's Road to Faith Road. Turn right onto Faith Road and the property will be located on the left. There is an address sign at the street.

References

Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A, Section .1900, Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, July 1, 2016.

Innovative Wastewater System No. IWWS-1993-2-R13; North Carolina Department of Environment and Natural Resources, Division of Environmental Health, On-Site Wastewater Section, May 1, 2015.

Primary Investigator's Credentials

NC Registered Sanitarian No. 1208
NC Licensed Soil Scientist No. 1287
NC Subsurface Septic System Operator No. 22199
NC Grade IV Wastewater System Installer/Inspector No. 1762/17621

Plans and Specifications

A. Septic Tank

1. The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1000 gallons in capacity.
2. The septic tank will be fitted with an approved effluent filter and riser for easy access and periodic maintenance.
3. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tank has had time to properly cure and is free of cracks or other structural deficiencies.

B. Pump Tank

1. The pump tank shall be State approved, of one-piece construction, watertight, structurally sound and 1000 gallons in capacity. Again, it is the responsibility of the septic tank contractor to thoroughly inspect each pump tank prior to accepting delivery.
2. All pipe penetrations into the tank shall be booted (i.e., C-293 boot with a stainless steel strap).
3. The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
4. Floats, pump and control circuits, and the control panel shall meet the requirements of Rule .1952(c). Panel and control equipment shall include lightning protection, be protected from unauthorized access, and remain accessible at all times to the system operator.
5. The pump and alarm controls shall be provided with manual circuit disconnects within a watertight, corrosion resistant, Nema 4x rated control panel. The control panel must be securely mounted outside, adjacent to the pump tank riser and at a minimum of 12 inches above finished grade. Pump and float control wiring should be long enough to reach from the tank to the control panel without splicing, routed through wire conduit, and sealed at the openings within the pump tank as well as the control panel enclosure. It is paramount that the conduit is properly sealed to prevent the escape of flammable gases from the pump tank. Furthermore, there must be two electrical circuits for the pump tank controls: one for the pump and one for the alarm controls.
6. Float switch tie downs must be made of a corrosion resistant material (per OWPS, all metal in the tanks shall be stainless steel). Floats should be mounted on a separate "float tree" rather than the pump supply line (see pump tank detail).
7. The pump removal system will be via a pump tether made of nylon rope or its equivalent. The tether material should be resistant to mildew and rot.

C. Pipes and Fittings

1. All discharge piping, connectors and supply lines should be made of SCH 40 PVC.

2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
3. The supply line from the pump tank to the pressure manifold shall be 3-inch Schedule 40 PVC (approximate length of supply line is 380 feet).
4. There shall be a threaded PVC union above each pump to facilitate easy removal of the pumps for maintenance or replacement.

D. Pressure Manifold

1. A pressure manifold shall be used to distribute wastewater equally to each of the sixteen drainlines.
2. The pressure manifold shall be contained within an adequately sized box/vault that will allow future repair lines to be installed and is designed to allow for drainage of effluent that may accumulate in it during flushing and head pressure adjustments. The box should be placed upon a gravel base.
3. A gate valve shall be provided at the pressure manifold box to allow for final pressure adjustment (2 foot of head pressure as per design).
4. The pressure manifold shall be constructed of SCH 80 PVC.
5. There shall be 4 taps (SCH. 80 PVC - direct thread or saddle) at ½ inch in diameter, each to have a true union ball valve that will allow for future removal/replacement.
6. The connecting pipe between the pressure manifold taps and the drain field shall be constructed of PVC.

E. Drain Field Installation

1. The drainfield has been previously laid out on-site utilizing metal stemmed flags. Once this area has been approved by the ICEH, the property owner/builder should mark this area and isolate it as much as possible from construction traffic. Prior to the system installation, the septic contractor shall contact the ICEH for a preconstruction conference at which time the drainfield area will be re-verified.
2. Under no circumstances shall any construction take place within the drain field area while the soil is in a wet condition. If the installer has doubts as to whether or not the drain field area is dry enough to begin construction, the ICEH should be contacted for permission to proceed with the installation.
3. The specified system the shallow placed innovative wastewater system "Biodiffuser" ARC 36 or other systems with a 25% reduction approval granted by the state.
4. The drainfield consists of four (4) lateral trenches to be constructed 3-foot wide by 100-feet in length.
5. The maximum trench depth for this system shall be **22 inches**.
6. The drainlines are to be fed equally via a pressure manifold.
7. Splash plates are required at the beginning of each drainline.
8. The laterals are to be installed on contour with the land, keeping the individual trench bottoms level from beginning to end.
9. The trenches should be left open for the final inspection by the ICEH.

F. Final Landscaping

1. Final cover over the drainfield shall a **minimum of 6 inches deep**. Additional soil cover may be required to achieve the required depth.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.
3. The drainfield area should be planted with grass as soon as possible to prevent erosion. The soil should be properly tilled, limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

G. Utility Conflicts

1. The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the ICEH as soon as possible.
2. Lawn irrigation should not be placed over the drain field area.

Maintenance

H. In General

1. The homeowner must maintain the drainfield area through periodic mowing. The drainfield must not be allowed to become overgrown.
2. The septic tank should be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 25 percent of the volume of the tank. In some situations, the tanks may need to be pumped more frequently. If using a garbage disposal, it is recommended that the tanks be cleaned out annually.
3. When it becomes necessary to clean the effluent filter, the filter should be removed and the accumulated debris washed back into the septic tank – not onto the ground.
4. Any damp areas, leakages or malfunctions in the drainfield area should be addressed immediately.
5. Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

I. Suggestions to the Homeowner

1. As previously mentioned, if you plan to use a garbage disposal in your home you should plan to have your septic and pump tanks cleaned out annually. Undigested waste will add a large amounts of solids to the septic tank and tend to degrade at a very slow rate.
2. Grease, cooking oils, coffee grounds and non-degradable solids (disposable diapers, cigarettes and solid paper wastes) should never be put into a septic tank.
3. Used motor oil or any oily liquids should not be disposed of in a septic tank.

4. Be aware of the amount of water that you are using in your home. Water saving fixtures and devices can be installed on sinks, toilets and showers to reduce the volume of wastewater that you are sending to your drain field.
5. Run dishwashers and washing machines only when you have a full load.
6. Use liquid detergents. Powdered detergents have binding agents in them that tend to solidify in the wastewater disposal system.
7. Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
8. Do not use chemical additives in your system. Studies have indicated that they do not increase the biological activity that naturally occurs in the septic system and in some cases certain additives have been found to be detrimental to the life of a system.

APPROVED OCT 0 3 2016

Design Specifics

Daily Design Flow:	480 GPD – 4 Bedroom House
Septic Tank Size:	1000 Gallons (minimum)
Pump Tank Size:	1000 Gallons (minimum)
Effluent Loading Rate:	Design = 0.3 GPD per sq. ft.
Drainfield Type:	Accepted 25% Reduction
Distribution Method:	Pressure Manifold (SCH 80 PVC w/ SCH 80 Taps) (4) ½ inch in diameter taps
Pump Requirements:	27.4 GPM at 16 Feet TDH
Recommended Pump:	Goulds WEO5H (or Equivalent)
Supply Line Length:	+/- 380 Linear Feet
Supply Line Diameter:	3 Inches
Number of Drainlines:	4
Drain Lines:	(4) 3' Wide x 100' Long
Total Trench Length:	400 Linear Feet
Drainline Spacing	9 Feet on Centers
Maximum Trench Depth:	22 Inches
Final Cover Requirement:	6 Inches (minimum)

APPROVED OCT 0 3 2016

BA

Repair Specifics

Effluent Loading Rate:	0.3 GPD per sq. ft.
Drainfield Type:	Accepted 25% Reduction
Maximum Trench Depth:	22 Inches Deep
Drainline Spacing:	9 Feet on Centers
Total Length of Drainline:	400 Linear Feet

* See septic layout for site locations and more details.

Department of Environment, Health, and Natural Resources
Division of Environmental Health
On-site Wastewater Section

APPROVED OCT 03 2016 3A

Property ID: 80019115
Lot #:
File #:
AppID:

SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM

Owner: Kimberly Wentz
Applicant:
Address: 115 River Birch Circle, Mooresville, NC 28115
Date Evaluated: 9/16/2016
Proposed Facility: Residence Design Flow (.1949) 480 GPD
Property Size: 8.498 Acres
Location of Site: 754 Faith Road, Mooresville, NC
Property Recorded: 2014
Water Supply: [ ] Public [ ] Individual [X] Well [ ] Spring [ ] Other
Evaluation Method: [X] 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	b PROFILE FACTORS .1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz
1	LS 8%	0-10	sbk/scl	fr/sexp	N/A	36"	III	
		10-24	sbk/c	fi/sexp				
		24-36	sbk/cl	fr/sexp				
		36+	m/cl	fr/sexp				
2	LS 6%	0-11	sbk/scl	fr/sexp	N/A	36"	III	
		11-28	sbk/c	fi/sexp				
		28-36	sbk/cl	fr/sexp				
		36+	m/cl	fr/sexp				
3	LS 6%	0-20	sbk/scl	fr/sexp	N/A	48"		
		20-48	sbk/c	fi/sexp				
4	LS 7%	0-12	sbk/scl	fr/sexp	N/A	48"		
		12-48	sbk/c	fi/sexp				
5	LS 7%	0-9	sbk/scl	fr/sexp	N/A	48"		
		9-48	sbk/c	fi/sexp				

Description	Initial System	Repair System
Available Space (.1945)	PS	PS
System Type(s)	IIIb	IIIb
Site LTAR	0.3	0.3

Other Factors (.1946):
Soil Evaluation By: Larry Thompson, LSS
Others Present:
Site Classification (.1948): Provisionally Suitable
Site Evaluation By:
Others Present:

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
CONTINUED

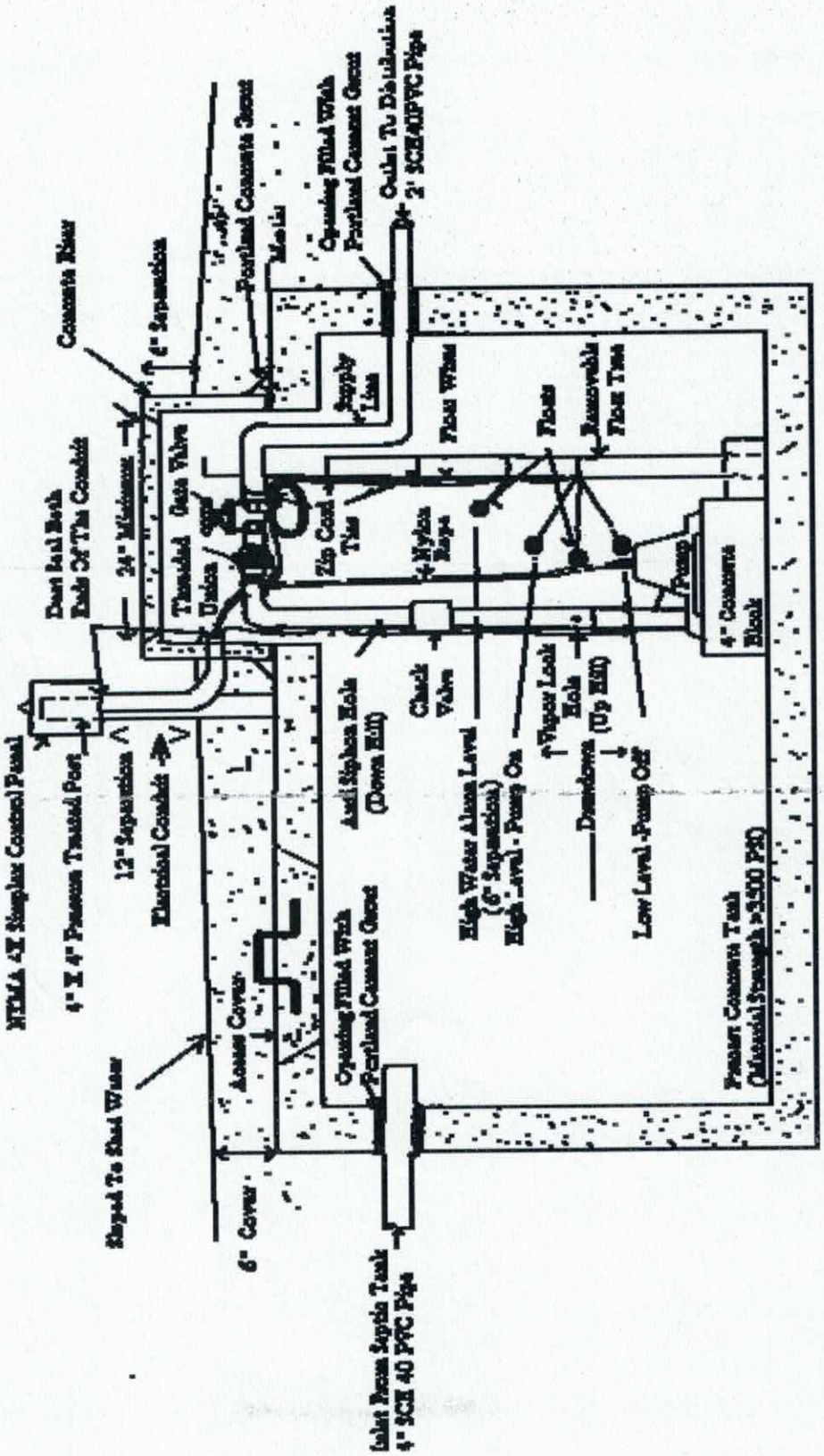
APPROVED OCT 0 3 2016
BA

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 (IN.)	.1956 Sapro Class	.1944 Restr Horiz	Profile Class & LTAR
6	7%	0-10	sbk/scl	fr/sexp	N/A	38"	III		PS 0.3
		10-30	sbk/c	fi/sexp					
		30-38	sbk/cl	fr/sexp					
		38+	m/cl	fr/sexp					

Thompson Environmental Consulting
PO Box 541
Midland, NC 28107-0541

Tax ID Number: 80019115
Location: 754 Faith Road
Date: September 26, 2016

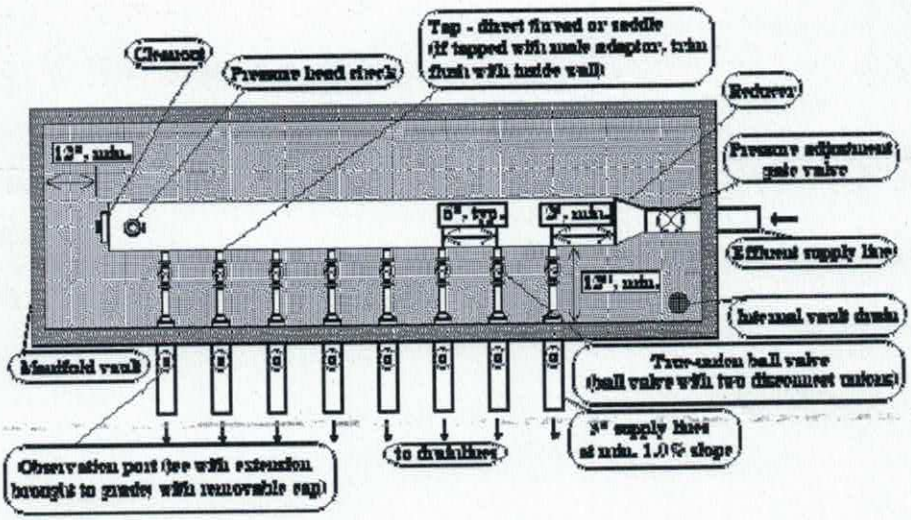
Recommended Pump Tank Design



Thompson Environmental Consulting, Inc.
PO Box 541
Midland, NC 28107-0541

Tax ID Number: 80019115
Location: 754 Faith Road
Date: September 26, 2016

Recommended Pressure Manifold Design
(Number of Taps May Vary)



GOULDS PUMPS

Submersible Effluent Pump

MODEL 3885

WE Series

PROSURANCE AVAILABLE FOR RESIDENTIAL APPLICATIONS.



APPLICATIONS

Specifically designed for the following uses:

- Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent systems

SPECIFICATIONS

Pump

- Solids handling capabilities: ¾" maximum.
- Discharge size: 2" NPT.
- Capacities: up to 140 GPM.
- Total heads: up to 128 feet TDH.
- Temperature: 104°F (40°C) continuous 140°F (60°C) intermittent.
- See order numbers on reverse side for specific HP, voltage, phase and RPM's available.

FEATURES

■ **Impeller:** Cast iron, semi-open, non-clog with pump-out vanes for mechanical seal protection. Balanced for smooth operation. Silicon bronze impeller available as an option.

■ **Casing:** Cast iron volute type for maximum efficiency. 2" NPT discharge.

■ **Mechanical Seal: SILICON CARBIDE VS. SILICON CARBIDE** sealing faces. Stainless steel metal parts, BUNA-N elastomers.

■ **Shaft:** Corrosion-resistant, stainless steel. Threaded design. Locknut on all models to guard against component damage on accidental reverse rotation.

■ **Fasteners:** 300 series stainless steel.

■ Capable of running dry without damage to components.

■ Designed for continuous operation when fully submerged.

MOTORS

■ Fully submerged in high-grade turbine oil for lubrication and efficient heat transfer.

■ Class B insulation on ⅓-1½ HP models.

■ Class F insulation on 2 HP models.

Single phase (60 Hz):

- Capacitor start motors for maximum starting torque.
- Built-in overload with automatic reset.
- SJTOW or STOW severe duty oil and water resistant power cords.
- ⅓ and ½ HP models have NEMA three prong grounding plugs.
- ¾ HP and larger units have bare lead cord ends.

Three phase (60 Hz):

- Class 10 overload protection must be provided in separately ordered starter unit.
- STOW power cords all have bare lead cord ends.

■ **Designed for Continuous Operation:** Pump ratings are within the motor manufacturer's recommended working limits, can be operated continuously without damage when fully submerged.

■ **Bearings:** Upper and lower heavy duty ball bearing construction.

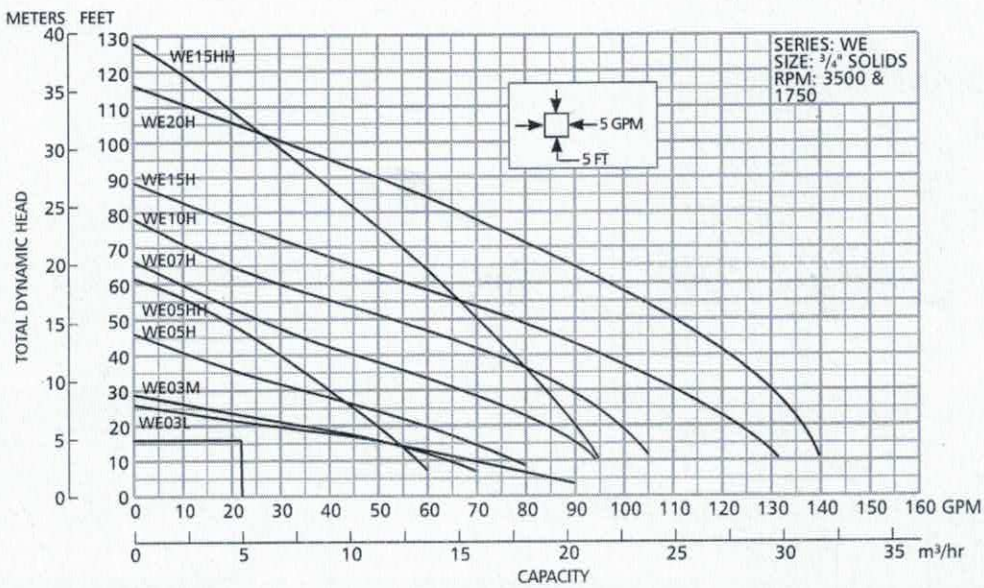
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.

■ **O-ring:** Assures positive sealing against contaminants and oil leakage.

AGENCY LISTINGS

Tested to UL 778 and CSA 22.2 108 Standards By Canadian Standards Association File #LR38549

Goulds Pumps is ISO 9001 Registered.



Goulds Pumps

ITT Industries

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Effective July, 2003
B3885

GOULDS PUMPS

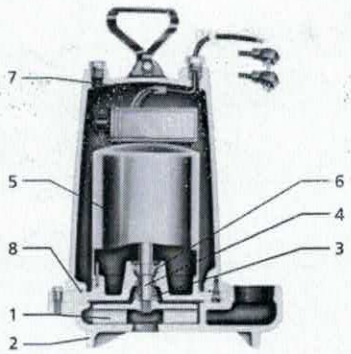
Submersible Effluent Pump

MODEL 3885

WE Series

COMPONENTS

Item No.	Description
1	Impeller
2	Casing
3	Mechanical Seal
4	Motor Shaft
5	Motor
6	Ball Bearings
7	Power Cable
8	Casing O-Ring



MODELS

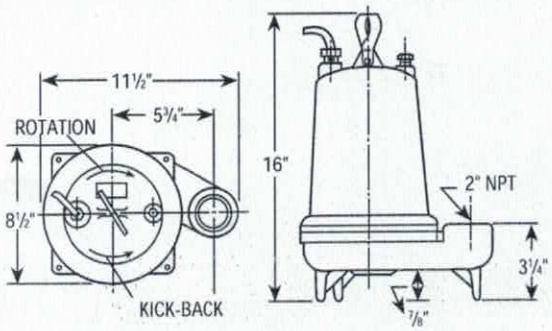
Order No.	HP	Volts	Phase	Max. Amp.	RPM	Solids	Wt. (lbs.)
WE0311L	⅓	115	1	10.7	1750	¾"	56
WE0318L		208		6.8			
WE0312L		230		4.9			
WE0311M		115		10.7			
WE0318M		208		6.8			
WE0312M		230		4.9			
WE0511H	½	115	1	14.5	3500		60
WE0518H		208		8.1			
WE0512H		230		7.3			
WE0538H		200	3	4.9			
WE0532H		230		3.3			
WE0534H		460		1.7			
WE0537H		575		1.4			
WE0511HH		115	1	14.5			
WE0518HH		208		8.1			
WE0512HH		230		7.3			
WE0538HH		200	3	4.9			
WE0532HH		230		3.6			
WE0534HH		460		1.8			
WE0537HH		575		1.5			
WE0718H	¾	208	1	11.0			70
WE0712H		230		10.0			
WE0738H		200	3	6.2			
WE0732H		230		5.4			
WE0734H		460		2.7			
WE0737H		575		2.2			
WE1018H	1	208	1	14.0			
WE1012H		230		12.5			
WE1038H		200	3	8.1			
WE1032H		230		7.0			
WE1034H		460		3.5			
WE1037H		575		2.8			
WE1518H	1½	208	1	17.5			80
WE1512H		230		15.7			
WE1538H		200	3	10.6			
WE1532H		230		9.2			
WE1534H		460		4.6			
WE1537H		575		3.7			
WE1518HH		208	1	17.5			
WE1512HH		230		15.7			
WE1538HH		200	3	10.6			
WE1532HH		230		9.2			
WE1534HH		460		4.6			
WE1537HH		575		3.7			
WE2012H	2	230	1	18.0			83
WE2038H		200	3	12.0			
WE2032H		230		11.6			
WE2034H		460		5.8			
WE2037H		575		4.7			

PERFORMANCE RATINGS (gallons per minute)

Order No.		WE03L	WE03M	WE05H	WE07H	WE10H	WE15H	WE05HH	WE15HH	WE20H
Total Head Feet of Water	HP	⅓	⅓	½	¾	1	1½	½	1½	2
	RPM	1750	1750	3500	3500	3500	3500	3500	3500	3500
	5	86	–	–	–	–	–	–	–	–
	10	70	63	78	–	–	–	58	–	–
	15	52	50	70	90	–	–	53	–	–
	20	27	35	60	83	98	123	49	90	136
	25	–	–	48	76	94	117	45	87	133
	30	–	–	35	67	88	110	40	83	130
	35	–	–	20	57	82	103	35	80	126
	40	–	–	–	45	74	95	30	77	121
	45	–	–	–	35	64	86	25	74	116
	50	–	–	–	25	53	77	–	70	110
	55	–	–	–	–	40	67	–	66	103
	60	–	–	–	–	30	56	–	63	96
	65	–	–	–	–	20	45	–	58	89
	70	–	–	–	–	–	35	–	55	81
	75	–	–	–	–	–	25	–	51	74
	80	–	–	–	–	–	–	–	47	66
	90	–	–	–	–	–	–	–	37	49
	100	–	–	–	–	–	–	–	28	30

DIMENSIONS

(All dimensions are in inches. Do not use for construction purposes.)



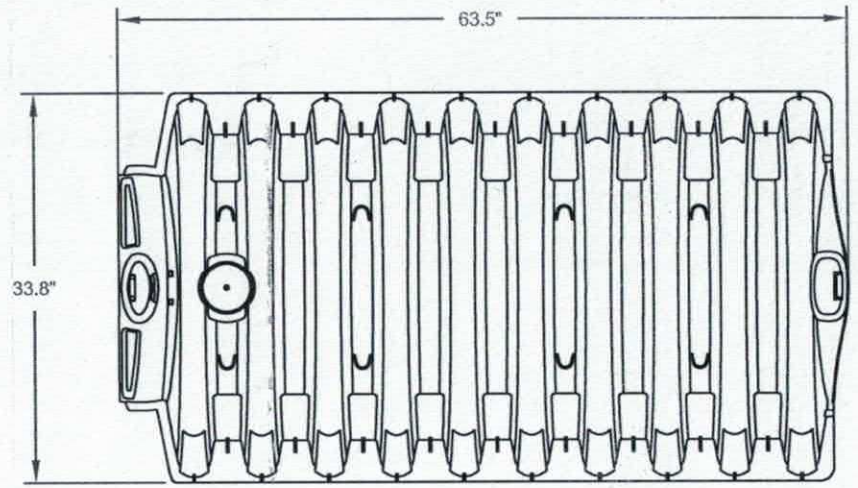
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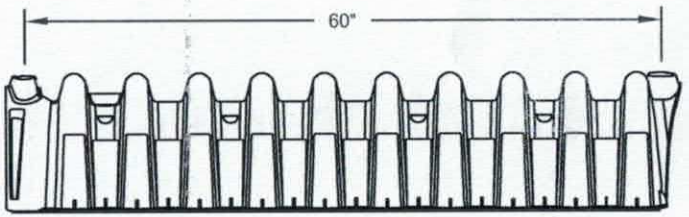
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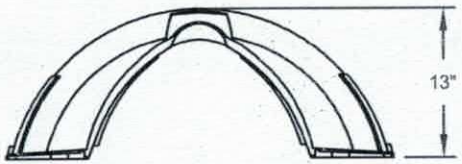
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

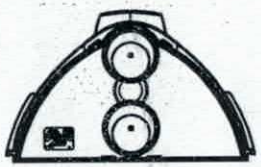
Goulds Pumps

ITT Industries

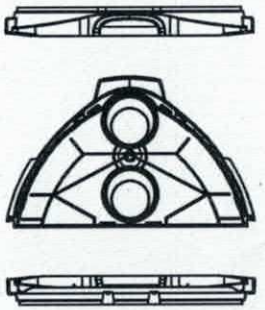












END CAP
FRONT VIEW

END CAP
SIDE VIEW

END CAP
REAR/TOP VIEW

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REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

ARC 36 CHAMBER & END PLATES

DRAWING NUMBER: STD-903

Arc™

DRAWN BY	ETC
DATE	5.15.07
CHK'D BY	
SCALE	NTS
SHEET	1 OF 1

TIM BARBEE
MONROE, NC
704-589-0595
tbarbee5@carolina.rr.com

The Wentz Residence
May 24, 2017
754 Faith Road Mooresville, NC

Wastewater System Summary

The 4 bedroom septic-wastewater system has been installed by Charles Beatty Grading with the warranty period starting June 1, 2017.
The pump is a Little Giant 6EN-CIM-20 series effluent pump, installed in the pump tank on a 4" block. The pump is covered under warranty for a period of 3 years.
The control panel is a Rhombus 1121W series, 3-float system, private labeled by Atlantic Manufacturing in Salisbury. The control panel has a one-year warranty.
The bottom float, or "off" float is connected to the float tree at a height of about 16" above the tank floor, and should turn off at approximately the same height as the top of the pump, which is about 15" above the tank floor, including the block. All floats are connected with a 4" teather length.
The "on" float for the demand-dose based panel is attached to the float tree at approximately 20" above the tank floor and should activate at about 21" above the floor. This will provide approximately 6" of draw down per dose, which at about 20 gallons per inch will be 120 gallons per dose. This will equal ¼ of the daily design flow of 480 GPD. This should allow for adequate rest time for the drainfield between doses.
The high-level alarm float is set 4" above the "on" float and will allow approximately one day's worth of emergency storage space in the pump tank.
The 2" supply line to the pressure manifold is provided with a air-release valve at the highest point. The pressure manifold is equipped with a 2" throttle valve, a 4" cleanout and for, ½" schedule 80 taps. The 4 chamber lines, 100' long each, are connected to the pressure manifold with 3" cellcore PVC pipe and have a minimum of 3" fall into the start of the chamber line.

RECEIVED JUN 16 2016

Paid $500.00

219484

Jun.09.2016 16:25 bonds 219484 7044554502 PAGE. 7

IREDELL COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH DIVISION

THIS APPROVED PERMIT DOCUMENT WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS ALTERED OR CHANGED, OR IF THIS SITE IS ALTERED. THIS IMPROVEMENT PERMIT IS VALID FOR EITHER COMMENTS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED. APPLICATIONS WITH PLANS MONTHS. APPLICATIONS WITH COMPLETE SOIL/SITE PLAN WITHOUT EXPIRATION. SEE 15A NCAC 18A .1938 FOR DETAILS.

1. APPLICATION FOR: ✓ Improvement Permit ___ Authorization To Construct ___ Existing System Inspection

2. Form 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 = 50 Feet
Please 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 #	Alternate Phone #
Car Bon Custom Homes LLC	6495 Morehead Rd Harrisburg NC 28075	Phone# 704-455-9500	
Owner Name	Mailing Address	Home Phone #	Alternate Phone #
Kimberly Wentz	115 River Birch Cir Mooresville NC 28115	704-453-3050	

4. Property Information:

Street Address	Subdivision Name	Section/Phase and Lot Number
754 Faith Rd Mooresville NC		Lot #2

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 _____

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: 3
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 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?

I have read this application and certify that the information provided is complete, true, 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: _____ 6/8/16
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

Applications for permits require the "signature of the owner or owner's legal representative" (15A NCAC 18A .1937). If the owner does not sign the application himself or herself, they can submit any one of the following documents to designate their legal representative:

Power of Attorney; Real Estate Contract; Estate executor; Bankruptcy trustee; Court ordered guardianship

In the absence of the above documentation, the property owner may provide the local health department with documentation that designates a legal representative. A property owner may:

Complete this form to document his or her legal representative, or provide his or her own form that contains the information in this form.

If there are multiple property owners, then all property owners must sign the form that designates a legal representative.

By signing a form that designates a legal representative for purposes of 15A NCAC 18A .1937, the property owner authorizes that representative to act on their behalf in matters pertaining to the application and permitting process, including signing or receiving any application, document or permit. The owner retains full responsibility to meet all permit conditions specified by the local health department.

I, Kimberly Wentz, am the legal owner(s) of the property located at 115 River Birch Cir. Mooresville NC 28115, identified as PIN (Parcel Identification Number) 4664-26-0429.000 located in Iredell County, North Carolina.

I do hereby authorize (print legal representative/company name) Carbon Custom Homes LLC, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

- Application for Improvement Permit (IP) / Authorization to Construct (AC)
- ~~Improvement Permit (IP) / Authorization to Construct (AC)~~
- ~~Application for soil-site evaluation (new/repair)~~
- ~~Application/permit for private drinking water well/well abandonment~~
- Application for Compliance Inspection

I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

Kimberly Wentz 6-9-16 — 6/9/16

Signature of Owner(s) Date — Signature of Witness Date

Please return this signed form to the appropriate office:

Mooresville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

Statesville - Environmental Health
adrienne.shea@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677

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:

____ Property Line measurements are clearly identified... ____ All proposed structures are indicated...

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

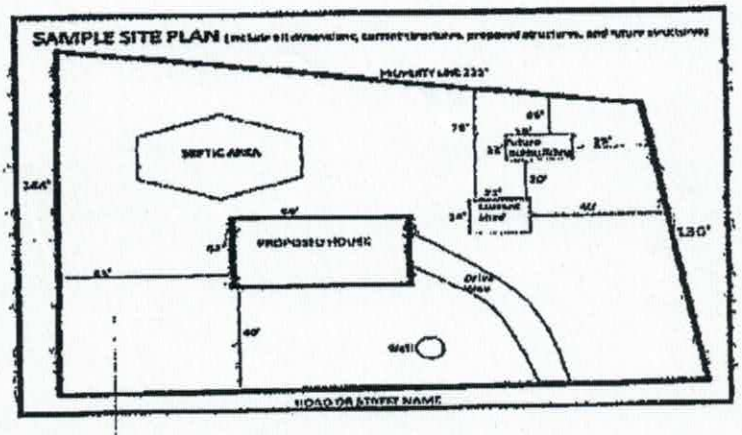
____ Front and side setbacks from property line... ____ Preferred driveway location and configuration, preferred well location...

____ Area you prefer your septic system to be placed... ____ North arrow, or other sufficient indicator of direction...

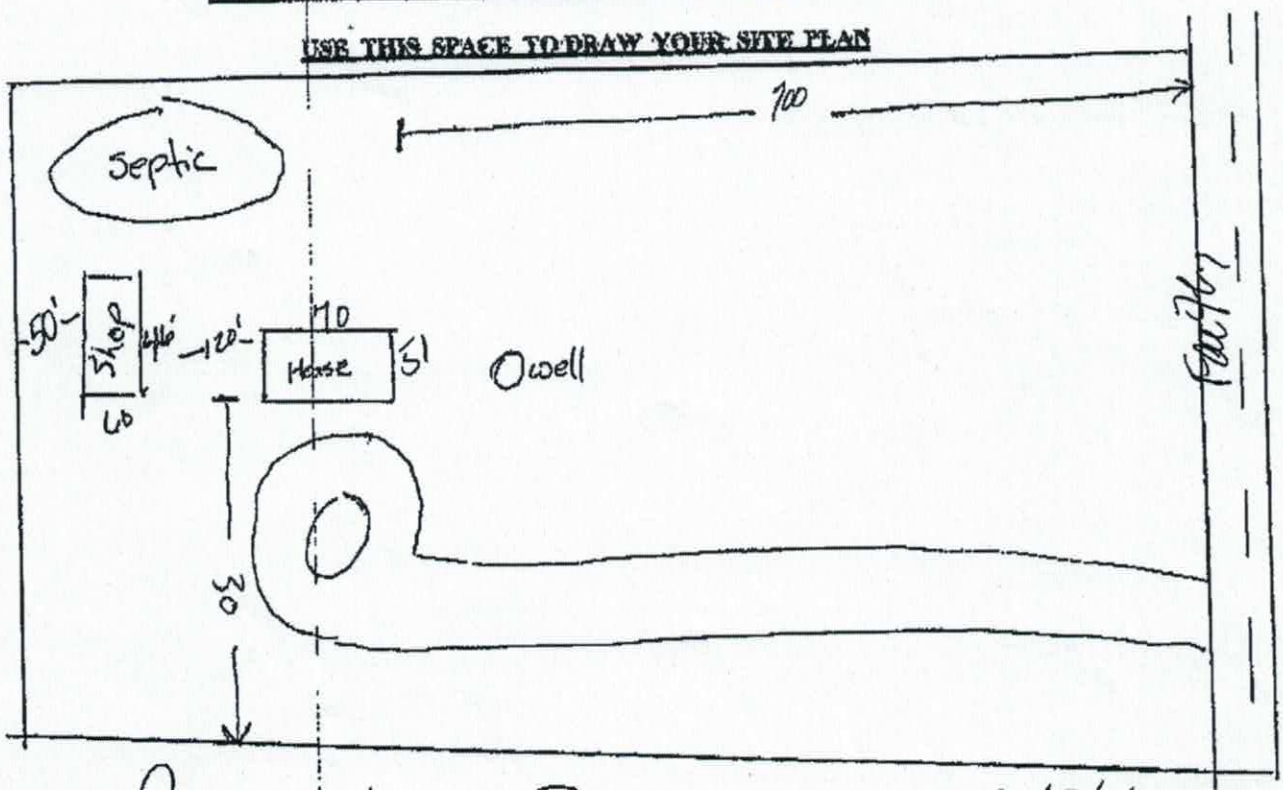
Circle N/A on the following if appropriate:

____ 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

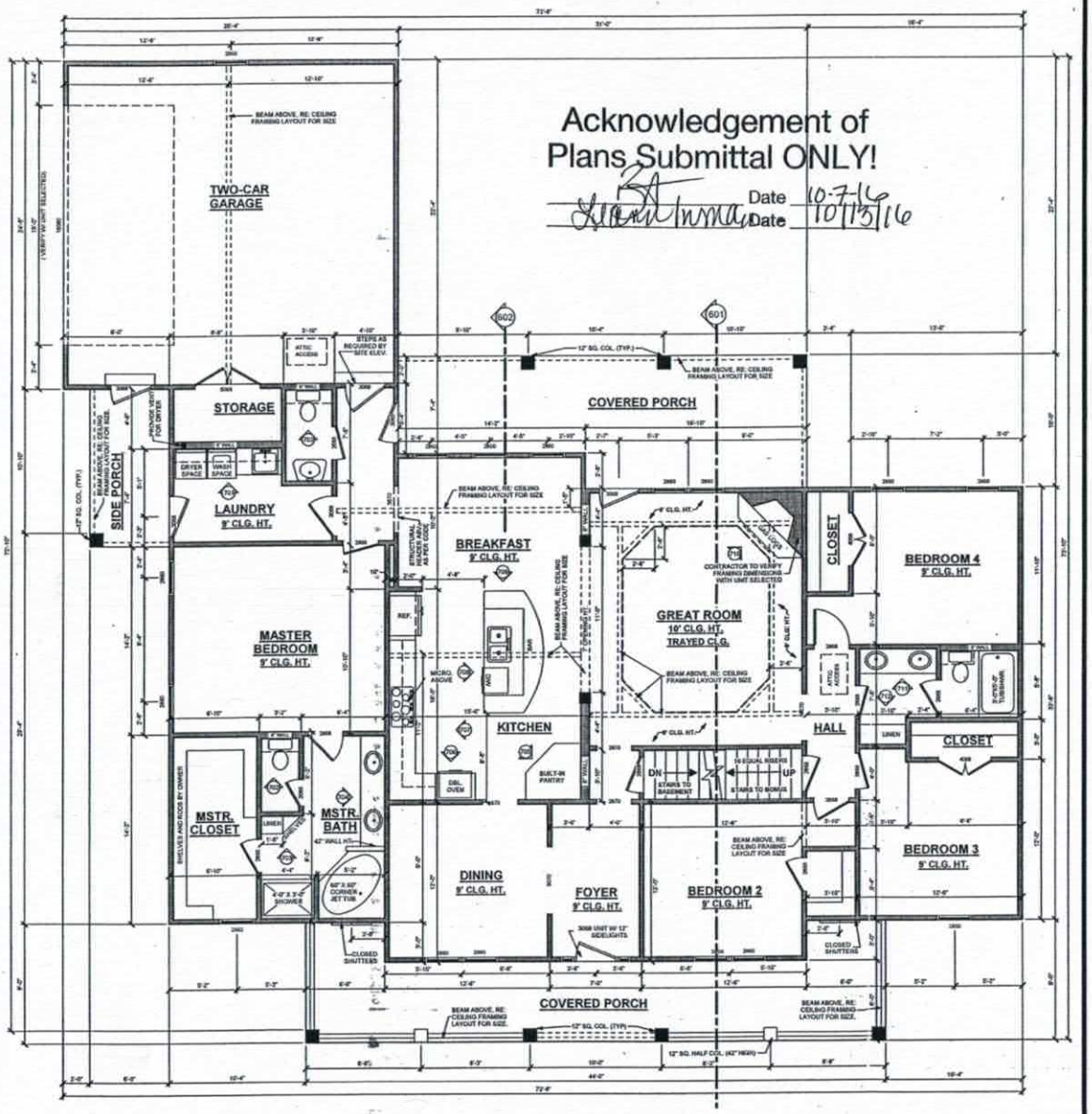


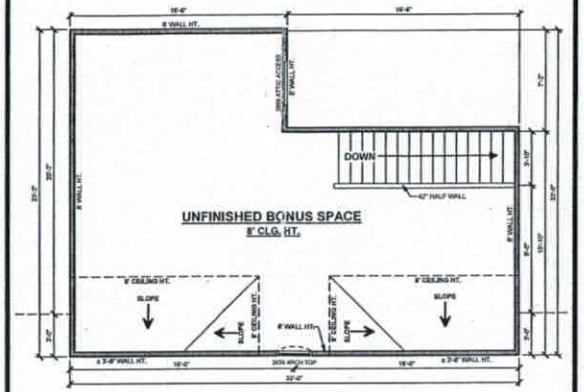
USE THIS SPACE TO DRAW YOUR SITE PLAN



Signature: Leann Inman 6/8/16

REQUIRED property owner or owner's legal representative signature. DATE





NOTES:

CONTRACTOR TO VERIFY ALL DIMENSIONS & EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.

DOOR & WINDOW SIZES ARE GIVEN IN FEET & INCHES IN WIDTH & HEIGHT RESPECTIVELY.

DOOR EXAMPLE: 3068, 3'-0" WIDE BY 6'-8" TALL.
WINDOW EXAMPLE: 2040, 2'-0" WIDE BY 4'-0" TALL.

CONTRACTOR SHALL VERIFY ALL INTERIOR FINISHES, FLOOR COVERINGS, AND TRIM SIZES & CONFIGURATIONS WITH OWNER PRIOR TO CONSTRUCTION.

IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CLEARANCES OF THE ITEMS MENTIONED ABOVE PRIOR TO CONSTRUCTION.

REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WALL FINISHES.

REFER TO MANUFACTURERS SPECS FOR ROUGH OPENING DIMENSIONS, FOR DOORS AND WINDOWS.

ALL BEAM SIZES TO BE VERIFIED BY STRUCTURAL ENGINEER.

CONTRACTOR SHALL MAKE ALL NECESSARY MODIFICATIONS DURING CONSTRUCTION PROCESS TO COMPLY WITH LATEST INTERNATIONAL RESIDENTIAL CODES, LATEST EDITION, OR APPLICABLE CODES AT TIME.

AREAS:	2336	S.F. HEATED
	1299	S.F. UNHEATED (MAIN FLOOR)
	576	S.F. UNHEATED (BONUS)
	4211	S.F. TOTAL UNDER ROOF
		MASONRY NOT INCLUDED

HPG-2336R

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

HOUSE PLAN GALLERY, INC.
6659 HWY. 98 WEST, HATTIESBURG MS, 39402
EMAIL: HOUSEPLANGALLERY@COMCAST.NET \\ FAX: (601) 264-4483
DIMENSIONS AND CONDITIONS TO BE VERIFIED BY CONTRACTOR. © COPYRIGHTED - ANY AND ALL UNAUTHORIZED REPRODUCTION PROHIBITED

DATE: 05/01/08
DRAWN BY: A.L.B.
CHECKED BY: G.S.M.
PLAN NUMBER HPG-2336R
FLOOR PLAN
SHEET NUMBER 3

PROFESSIONAL MEMBER

IREDELL COUNTY

PO Box 788
349 North Center St.
Statesville, NC 28677

APPLICATION NUMBER
219484
Issue Date: 06/16/2016

Permit Type: ZONING-IREDELL COUNTY

Parcel Number	Street Address	Jurisdiction
4665260505.000	754 FAITH ROAD	

Owner Information	Applicant Information	Contractor Information
Owner: WENTZ KIMBERLY B+ROBERT H WITT SCHECK Address: 115 RIVER BIRCH CIRCLE MOORESVILLE, NC 28115 Phone:	Applicant: CARBON CUSTOM HOMES LL Address: 6495 MOREHEAD RD HARRISBURG, NC 28075 Phone: 704-455-4500	Contractor: CARBON CUSTOM HOMES LL Address: 6495 MOREHEAD RD HARRISBURG, NC 28075 Phone: License Type License Number

Project Description

NEW SINGLE FAMILY - IREDELL

Scope of Work

SFD

Permit Details:

	TECHNOLOGY FEE - PLANNING	Amount:	2.25
	IREDELL COUNTY ZONING	Amount:	75.00
		Amount:	
		Amount:	
		Amount:	
		Amount:	
		Amount:	

I hereby certify that all information in this application is correct and all work will comply with the state code and all other applicable state and local laws, ordinances and regulations. The respective department will be notified of any changes in the approved plans, a change of contractor, and/or specifications for the project permitted herein. This application becomes a permit only when validated and approved.

Date: 06/16/2016

Signature of Owner/Contractor

ANY PERMIT ISSUED EXPIRES SIX (6) MONTHS AFTER ISSUANCE IF NO INSPECTIONS HAVE BEEN MADE. ANY PERMIT ISSUED SHALL EXPIRE TWELVE (12) MONTHS AFTER LAST INSPECTION IF THE WORK IS DISCONTINUED.

Permit Number	71746	TOTAL FEES:	$ 77.25