ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # 312951

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

PIN # 4636 -40 -2464

APPLICANT/OWNER: John Tommaw | APPLICANT ADDRESS: PO Box 1546 Cornelius NC 28031

SITE ADDRESS: 188 Garnet Drive | PHONE: - | ALT. PHONE 704-363-6131

SITE DIRECTIONS: BSL to Fisher Pines Dr Garnet Drive Lot on Right. | SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: CL+T | SECTION: 5 | LOT # 7 | LOT AREA: .77Ac | DESIGN FLOW: 480 | L.T.A.R.: .30

Septic Tank	1000	(gal)	STB 700	Date	3/8/22	☒ New System	☐ Repair	☐ Expansion	System Type: I II III IV V VI	☒ Residence	No. Bedrooms 4	Water Supply
Pump Tank	1000	(gal)	PT 363	Date	2/22/22	System Description:	LP- Pinnacle Blaze 50% Reduction			☐ Business	No. Persons 8	☒ Private
Pump Make	Zoeller	Model	N137	Serial #		Repair System Description:	LP- Pinnacle Blaze 50% Reduction			☐ Other	No. Employees	☐ Public
# Nitrification Fields	1	# Lines	3	Linear Ft	267	Maintenance Agreement Required:	☒ YES	☐ NO		☒ Slab	☐ Crawl Space	☐ Community
Trench Width	24	Trench Bottom Depth	34 mx	Gravel Depth	—		☐ GRAVITY	☒ PRESSURE		☐ Basement w/ plumbing	☐ Basement w/o plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11 . (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Thompson Environmental Consulting, Inc

LSS # 1287

AS BUILT SKETCH

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

Installed as permitted.

Lines 1&2 ✓
Tanks ✓ CW 3/29/22
Lic 3 + Supplier 3/30/2022

Alarm
Floats
Electrical CW 8/11/22
Pressure

MC attached

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: [signature] Date: 12/23/2020 Installed by: Specialty Septic

IMPROVEMENT PERMIT by: Benjamin A Bethea Date: 12/7/2020 OPERATION PERMIT by: D. Wiberg Date: 12/22/22

AUTHORIZATION TO CONSTRUCT by: Patrick J Bolelli Date: 12/22/2020 Existing System Inspected by: Date:

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

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # 312951

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

PIN # 4636 - 40 - 2464

APPLICANT/OWNER: John Tommasi | APPLICANT ADDRESS: PO Box 1546 Cornelius NC 28031

SITE ADDRESS: 189 Garnet Drive | PHONE: - | ALT. PHONE 704-363-6131

SITE DIRECTIONS: BSL to Isbell Pines Cir Garnet Drive Lot on Right. | SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: CL+T | SECTION: 5 | LOT # 7 | LOT AREA: .774c | DESIGN FLOW: 480 | L.T.A.R.: .30

Septic Tank	1000 (gal)	STB	7600	Date	2/8/22	☒ New System ☐ Repair ☐ Expansion	System Type: I II III IV V VI	☒ Residence	No. Bedrooms 4
Pump Tank	1000 (gal)	PT	363	Date	2/22/22	System Description: LP- Panel Bloxx 50% Reduction		☐ Business	No. Persons 8
Pump Make		Model		Serial #		Repair System Description: LP-Prolle Bloxx 50% Reduction		☐ Other	No. Employees
# Nitrification Fields	1	# Lines	3	Linear Ft	267	Maintenance Agreement Required:	☒ YES ☐ NO	☒ Slab	☐ Crawl Space
Trench Width	24	Trench Bottom Depth (~~trench~~)	34/mx	Gravel Depth	—		☐ GRAVITY ☒ PRESSURE	☐ Basement w/plumbing	☐ Basement w/o plumbing

Water Supply: ☒ Private ☐ Public ☐ Community

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11 . (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Thompson Environmental Consulting, Inc

LSS # 1287

AS BUILT SKETCH

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

Installed as permitted.

Lines 1&2 ✓
Tanks ✓ CW 3/29/22
Lic 3+ Sppl Cln
3/30/2022

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Owner / Applicant Signature: _____ Date: 12/23/2020 Installed by: Specialty Septic

IMPROVEMENT PERMIT by: Benjamin A Batts Date: 12/7/2020 OPERATION PERMIT by: _____ Date: _____

AUTHORIZATION TO CONSTRUCT by: Patrick J Bryant Date: 12/22/2020 Existing System Inspected by: _____ Date: _____

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

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 (BCK) | PERMIT # 312951.

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

PIN # 4636 - 40 - 2464.

APPLICANT/OWNER: John Tommaw | APPLICANT ADDRESS: PO Box 1546 Cornelius NC 28031.

SITE ADDRESS: 188 Garnet Drive | PHONE: - | ALT. PHONE 704-363-6131

SITE DIRECTIONS: BSL to Bishop Pines Dr on Garnet Drive Lot on Right. | SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: CL+T | SECTION: 5 | LOT # 7 | LOT AREA: .77Ac | DESIGN FLOW: 480 | L.T.A.R.: .30

Septic Tank	1000	(gal)	STB		Date		☒ New System	☐ Repair	☐ Expansion	System Type: I II III IV V VI	
Pump Tank	1000	(gal)	PT		Date		System Description:	LP- Panel Block 50% Reduction			
Pump Make			Model		Serial #		Repair System Description:	LP-Panel Block 50% Reduction			
# Nitrification Fields	1		# Lines	3	Linear Ft	267	Maintenance Agreement Required:	☐ YES	☐ NO		
Trench Width	24.		Trench Bottom Depth (~~trench~~)	34 max	Gravel Depth	—		☐ GRAVITY	☒ PRESSURE		

☒ Residence	No. Bedrooms	4	Water Supply
☐ Business	No. Persons	8	☒ Private
☐ Other	No. Employees		☐ Public
☒ Slab	☐ Crawl Space		☐ Community
☐ Basement w/plumbing		☐ Basement w/o plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11 . (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

Thompson Environmental Consulting, Inc

LSS # 1287.

AS BUILT SKETCH

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

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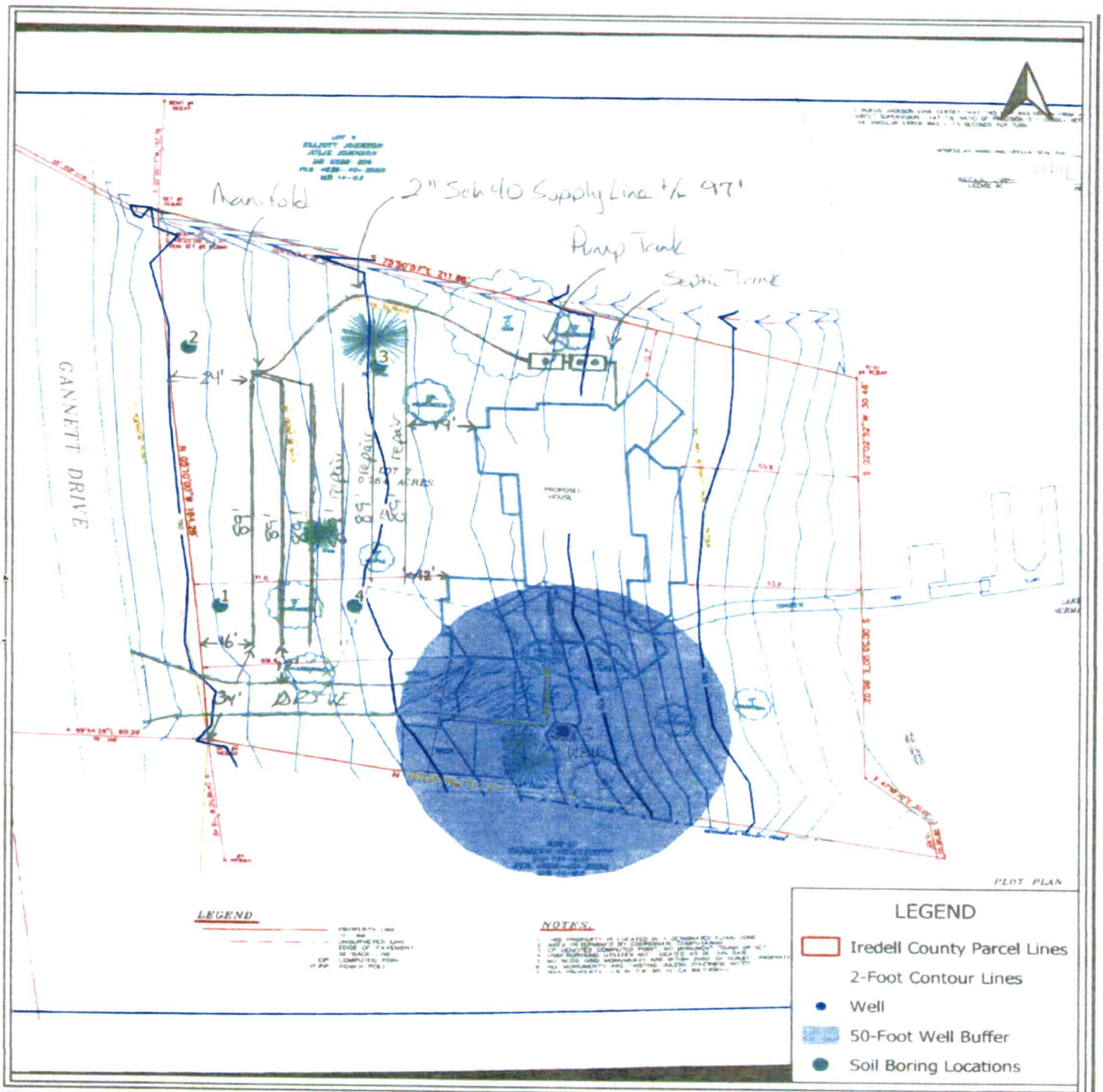
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Owner / Applicant Signature: [signature] Date: 12/23/2020 Installed by:

IMPROVEMENT PERMIT by: Benjamin A Betts Date: 12/7/2020 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: Patrick J Bagwell Date: 12/22/2020 Existing System Inspected by: Date:

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



Thompson Environmental Consulting	Prepared For: Alan Simonini	Proposed Septic Layout 188 Gannett Drive Mooresville, NC 28117 Iredell County	Date: November 2020 Scale: 0 20 40 ft TEC Job #: 20-109	Figure 2

Residential Subsurface Wastewater Treatment and Disposal System Proposal

for

188 Gannett Drive
Mooresville, NC 28117

Tax Parcel # 4636402464.000
November 24, 2020

Prepared for:

Simonini Homes
Attn: John Tammaro
PO Box 1546
Cornelius, NC 28031
980-722-1116



Prepared by:

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



AGENT AUTHORIZATION FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. _____ PHASE _____ PARCEL ID: 4636402464.000

STREET ADDRESS: 188 Gannett Drive
Mooresville, NC 28117

Please print:

Property Owner: Simonini Homes (John Tammaro)

Property Owner: _____

The undersigned, registered property owners of the above noted property, do hereby authorize

Larry Thompson, LSS, of Thompson Environmental Consulting, Inc.
(Contractor / Agent) (Name of consulting firm)

to act on my behalf and take all actions necessary for the processing, issuance and acceptance of this permit or certification and any and all standard and special conditions attached.

Property Owner's Address (if different than property above):
PO Box 1546, Cornelius, NC 28031

Telephone: 704-333-8999

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

From the Consultant: The NC LSS evaluation attached to this application is to be used to produce a design and construction features for permitting in accordance with Session Law 2018-112 Section 11. (c).

Owner Signature:
John Tammaro
john Tammaro (Nov 24, 2020 18:47 EST)

Date: Nov 24, 2020

Owner Signature: _____

Date: _____

Agent Authorization Form

Final Audit Report 2020-11-24

Created:	2020-11-24
By:	Larry Thompson (larry@thompsonenv.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAw5oABqJrUU4kNpag-0QPCMzmebfnLzlo

"Agent Authorization Form" History

Document created by Larry Thompson (larry@thompsonenv.com)
2020-11-24 - 11:46:03 PM GMT- IP address: 108.70.197.25

Document emailed to john Tammaro (john@simonini.com) for signature
2020-11-24 - 11:46:25 PM GMT

Email viewed by john Tammaro (john@simonini.com)
2020-11-24 - 11:46:55 PM GMT- IP address: 70.35.180.226

Document e-signed by john Tammaro (john@simonini.com)
Signature Date: 2020-11-24 - 11:47:40 PM GMT - Time Source: server- IP address: 70.35.180.226

Agreement completed.
2020-11-24 - 11:47:40 PM GMT

AGENT AUTHORIZATION FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. _____ PHASE _____ PARCEL ID: 4636402464.000

STREET ADDRESS: 188 Gannett Drive
Mooresville, NC 28117

Please print:

Property Owner: Simonini Homes (John Tammaro)

Property Owner: _____

The undersigned, registered property owners of the above noted property, do hereby authorize

Larry Thompson, LSS, of Thompson Environmental Consulting, Inc.
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Residential Subsurface Wastewater Treatment and Disposal System Proposal

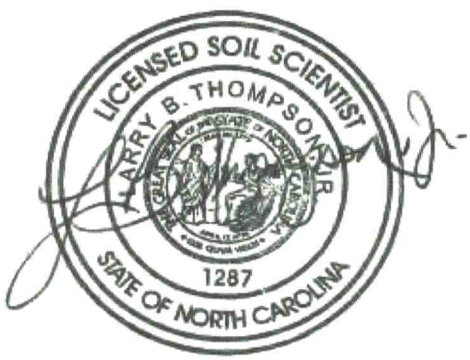
for

188 Gannett Drive
Mooresville, NC 28117

Tax Parcel # 4636402464.000
November 24, 2020

Prepared for:

Simonini Homes
Attn: John Tammaro
PO Box 1546
Cornelius, NC 28031
980-722-1116



Prepared by:

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



*Septic installer must be preapproved by Thompson Environmental Consulting.
*Septic drainfield area must be protected from construction traffic and grading throughout the life of the project. Orange barrier fencing is recommended to protect the septic drainfield area.

Details

Simonini Homes has contracted with Thompson Environmental Consulting, Inc. (TEC) to prepare Session Law 2018-114 Section 11 (c) septic proposal for a new 4-bedroom single family residence to be located at 188 Gannett Drive, Mooresville, North Carolina (Iredell County Parcel Number: 4636402464.000).

Based upon a soils investigation performed by TEC, it has been determined that a sufficient amount of "Suitable" Group IV soils are available for the installation **Pressure-Dosed Pre-Fabricated Permeable Block Panel System** (initial system and proposed repair system) at a 0.3 GPD/ft. sq. long term acceptance rate (LTAR). The property is served by a private well.

Simonini Homes would like to request that Iredell County Environmental Health (ICEH) issue the appropriate permits for a subsurface wastewater treatment and disposal system based upon the following proposal and the enclosed Licensed Soil Scientist Evaluation, which is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11. (c).

Location

From Mooresville, take Brawley School Road to Isle of Pines Road. Turn left onto Isle of Pines Road, travel 1.1 miles, and turn left onto Gannett Drive. Lot is located on the right in 0.4 miles.

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, April 2017.

Design, Installation and Maintenance of the T & J Panel Wastewater Treatment System; Sixth Edition, published by T & J Panel.

Primary Investigator's Credentials

NC Registered Sanitarian No. 1208
NC Licensed Soil Scientist No. 1287
SC Certified Professional Soil Classifier No. 111
NC Subsurface Septic System Operator No. 22199
NC Grade IV Wastewater System Installer No. 1762
NC Certified Wastewater System Inspector No. 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 1,000 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 1,000 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 97 feet).
4. The lateral distribution lines shall be 1¼ inch Schedule 40 PVC. Holes in the laterals should be drilled on site and at the 12 o'clock position (one hole per panel). Lateral hole size is 5/32 of an inch.
5. There shall be a threaded PVC union above each pump to facilitate easy removal of the pumps for maintenance or replacement.
6. The end of each lateral is to be provided with a "turn up", contained within a turf/gate valve box, that provides above ground access for periodic clean out and pressure head adjustment.

D. Valve Box

1. The control valves (gate valves) for each lateral distribution line shall be contained within one manifold box/vault of adequate size. The box should be placed upon a gravel base.
2. The supply manifold conveys effluent from the pump to the lateral distribution lines.
3. The supply manifold may be constructed by connecting a series of (4) 2" x 2" x 1¼" tees to the 2-inch supply line.

E. Backfill

1. Backfill sand shall be clean, washed, medium sand that is naturally occurring and falls within the gradation of ASTM C-33 specification (used in the ready-mix industry and is readily available).

F. Drainfield Installation

1. The drainfield and the proposed septic tank location have been marked on-site utilizing metal stemmed flags. Once this area has been approved by the county, 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 county 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 drainfield 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 environmental health specialist for this area should be contacted for permission to proceed with the installation.
3. The specified system is a Type IV pressure dosed pre-fabricated permeable block panel system – specifically the 16 inch high panel system manufactured by T&J Panel Wastewater Treatment System, Patent No. 4013559; telephone: 1-800-222-2577. The installer must follow the manufacturer's guidelines for installing the

T&J Panel System and should request an installation manual from the manufacturer prior to beginning construction.

4. The initial drain field consists of three (3) lateral trenches 2 feet wide by one 89 feet in length.
5. It is essential that the lateral trenches be constructed on contour with the land, with each trench being excavated level from beginning to end. The use of a tripod mounted engineer's level is essential to assure that each trench is constructed as level as possible.
6. The maximum trench depth for this system shall be **34 inches**. Each trench shall be placed on a minimum of 8 foot on centers.
7. Once trenches are dug, the side walls shall be raked and a light dusting of lime applied.
8. Backfill the trench with 6 inches of sand and level to grade. Once leveled, place 1 x 4- or 6-inch boards on top of the sand the entire length of each trench. Once the grade boards have been set, the panels may be set into the trench. The panels should be placed 6 inches apart.
9. Once the panels have been set, line the top chamber of each panel with 10 – 12 pounds of clean particle sand (medium sand blasting sand). Coverage depth should be approximately 1 inch thick. *Please note that this sand is not the same material specified for backfill.*
10. Tar seal rope, or approved foam, should be placed in the "U" outs of each end of the panel to form seals. Once the tar rope is in place, the 1¼ inch Schedule 40 PVC laterals can be added and the seal completed by the addition of more tar rope on the top and sides of the pipe. Now that the connection and seals are complete, a block cap is placed on each end of the panel so that all openings are covered.
11. The end of each lateral should be fitted with a short turn up topped by a threaded female coupling with cap. Each turn up must be fitted with a turf/gate valve box with lid fitted flush to finished grade.
12. Once the lateral has been installed and the panels closed, the trench is ready to be backfilled to the top with the sand used in the trench bottom. At this point, the trenches should be left open for the final inspection by the ICEH.

G. Proper Operation Check

1. After all components of the waste water disposal system have been installed and connected, the system shall be checked for proper operation.
2. With the electrical power turned off, fill the pump tank with water until the liquid rises to a level high enough to activate the high-water alarm float. Turn on the electrical power. The alarm, alarm light and pump should activate at this time.

H. Pressure Head Adjustment

1. The pressure head must be adjusted to match the design specifications. The pressure head is measured by the height of the liquid coming from the turn ups at the end of each lateral when the pump is running (utilizing stand pipes).
2. Prepare a length of pipe (stand pipe), cut to the desired head pressure height and fitted with a threaded adapter that will screw into the turn up couplings at the end

of each lateral. Thread the stand pipes into each lateral and then turn the power on to the pump, allowing the water to rise within the stand pipes. Adjust the gate valves within the supply manifold box to achieve the specified head pressure (liquid height in the stand pipes should equal the design head pressure).

3. Once the pressure head has been adjusted, allow the pump to run through the remainder of the cycle. The pump float switch will automatically turn the pump off if it is operating properly. Make sure that the effluent pump is completely submerged in the remaining water, making adjustments to the float switch(es) as needed. This completes the checks for proper operation of the pump, alarm and float switches.
4. At this point, the standpipes may be removed and replaced with the threaded turn up caps.

I. Final Landscaping

1. The drainfield shall be shaped to shed rainwater and be free from low spots.
2. The entire area of the drainfield 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.

J. Utility/Drive Conflicts

1. The builder and property owner must take special care in planning for utilities (water, power, gas, telephone, cable lines, etc.). All utilities shall be kept clear 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.
2. Water lines must be kept at least ten (10) feet from any portion of the septic system.
3. Irrigation systems should not be placed in the drain field area.
4. The builder must also take special care in planning for a drive into the property. The driveway must be installed along the property sideline to allow enough clearance for the proposed repair drainlines.

Maintenance

K. Operation and Maintenance

The designed system is classified as a Type IVa wastewater treatment and disposal system and will require ongoing maintenance. State regulations require that a system of this type be managed by a person certified (Certified Subsurface System Operator) by the North Carolina Department of Environment and Natural Resources to operate subsurface wastewater systems (Section .1961 Maintenance of Sewage Systems). A "Maintenance Contract" between the system owner and a Certified Operator will be required by ICEH prior to the issuance of a final system approval or Operation Permit.

1. The minimum inspection/maintenance and reporting frequency for a Type IVa system is twice a year by the Certified Operator. The local health department is required to inspect the system once every three years.
2. The septic and pump tanks shall be pumped out when the solids within the septic tank reach an elevation that is equivalent to 25% of the volume of the tank. In some situations, the tanks may need to be pumped more frequently; for example, if you are using a garbage disposal, it is recommended that the septic and pump tanks be cleaned out annually. Regardless, the Certified Operator will be able to advise when it is necessary to pump out tank solids.
3. Pressure head for laterals should be checked and adjusted semi-annually, flushing with clean water as necessary to remove any accumulated solids.
4. The effluent filters should be inspected semi-annually. When it becomes necessary to clean the effluent filters, the filters should be removed and the accumulated debris washed back into the septic or pump tank – not onto the lawn.
5. All piping and valves should be inspected semi-annually for damage and corrections/repairs made immediately.
6. The pump and float controls/switches should be inspected semi-annually to assure proper operation.
7. The drain field area should be maintained to prevent over growth of vegetation. Any damp areas, leakages or malfunctions should be addressed immediately.
8. Divert gutter downspouts and surface water runoff away from the septic and pump tanks.

L. Suggestions to the Homeowner

1. As previously mentioned, a garbage disposal is not recommended. The ground up garbage adds large amounts of solids into a septic tank that 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. Repair leaky faucets and toilets. Small drips equal large volumes of water over time and can over burden your drain field.
7. 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.

Design Specifics

Daily Design Flow:	480 GPD – 4 Bedrooms
Septic Tank Size:	1,000 Gallons
Pump Tank Size:	1,000 Gallons
Effluent Loading Rate:	Design = 0.3 GPD sq. ft. (50% reduction - PPBPS)
Supply Size:	2 Inch
Supply Line Length:	Approximately 97 Feet
Number and Size of Drainlines:	(3) 2' Wide x 89' Long
Total Length of Drainline:	267 Feet
Maximum Trench Depth:	34 Inches Deep
Drainline Spacing:	8 Foot on Centers
Total Number of Panels:	60
Lateral Hole Size:	5/32 inch
Hole Spacing:	1 per panel = 60 total
Dosing Volume:	216 gallons per dose
Flow Rate Through System:	24.6 gallons per minute
Elevation/Friction Head:	10 feet
Pressure Head:	2 feet
Pump Requirements:	24.6 GPM at 12 Feet TDH
Recommended Pump:	Goulds WEO3L or Equivalent
Depth of Water Pumped:	Determined by Tank Size (1 Cu. Ft. of water = 7.48 Gal.)

Repair Specifics

Effluent Loading Rate:	Design = 0.3 GPD per sq. ft. (50 % reduction - PPBPS)
Maximum Trench Depth:	34 Inches Deep

Drainline Spacing:	8 Foot on Centers
Total Length of Drainline:	267 Feet
Total Number of Panels Required:	60
Lateral Hole Size:	5/32 inch
Hole Spacing:	1 per panel = 60 total
Dosing Volume:	216 gallons per dose
Flow Rate Through System:	24.6 gallons per minute
Elevation/Friction Head:	10 feet
Pressure Head:	2 feet
Pump Requirements:	24.6 GPM at 12 Feet TDH
Depth of Water Pumped:	Determined by Tank Size (1 Cu. Ft. of water = 7.48 Gal.)

* See septic layout for site locations and more details.
* Total Dynamic Head for system is estimated based upon existing elevations, approximate pump off elevation, design pressure head and supply line length. Total Dynamic Head should be reconfirmed by septic contractor at the time of system installation based upon actual tank depth and pressure manifold height.

PPBPS Design Worksheet								File #:			
								Tax #:	4636402464		
System Requirements								Address:	188 Gannett Drive		
Design Flow	480	gpd							Mooresville, NC 28117		
LTAR	0.300	gpd/ft.^2	*Design Rate - Not Assigned Rate					Consultant:	Larry Thompson		
Linear footage	533	ft. (conventional)						Phone:	704-301-4881		
Linear footage	267	ft. (50% Reduction)									
								Reviewed By:			
Design Layout								Date:			
Laterals	Length (ft)	# Panels									
Line # 1	89	20									
Line # 2	89	20									
Line # 3	89	20									
Totals	**267**	**60**	Trench length is short by 3 feet - additional storage gained by 3 foot wide trenches vs. 2 foot wide trenches.								
Absorption Area											
Length (ft)	Width (ft)	Area (ft^2)									
267	2	534									
System Pressure Head	2	ft.	Value selected by system designer (must be between 2-5 ft.)								
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)								
Flow Rate per Orifice	0.41	gpm	Determined from orifice flow design table (value dependent on pressure head & orifice diameter)								
Total System Flow Rate	24.6	gpm	Total number of panels required multiplied by the orifice flow rate								
System Dose Volume	216.00	gal.	Total number of panels required multipled by 3.6 gal./panel								
Pump Run Time	8.78	min.	System dose volume divided by the total system flow rate								
Pump Tank Drawdown	10.80	in.	1,000 gal. Infiltrator pump tank - volume is approximately 20 gallons per inch								
Comments:											
1. Install system using 2 ft. wide trenches.											
2. Install drainlines on 8 ft. centers, level, and on contour.											
3. System design requires effluent pump for distribution.											

T & J Panels	
Linear Feet	# Panels
50	11
60	14
70	16
80	18
90	21
100	23

14162

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

Sheet 1 of 1
PROPERTY ID #: 4636402467.000
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: William H. & Katherine Gaither
ADDRESS: 542 Williamson Road, Ste 2, Mooresville NC 28117
PROPOSED FACILITY: Res PROPOSED DESIGN FLOW (.1949): 480gpd
LOCATION OF SITE: 188 Garnett Drive, Mooresville, NC 28117
WATER SUPPLY: ☒ Private ☐ Public ☒ Well ☐ Spring ☐ Other Lot #7
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut
DATE EVALUATED: 8-25-20
PROPERTY SIZE: 0.77ac
PROPERTY RECORDED: 5-1-1969
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	LS 4%	0-9	GR/SL	FR/NS/NP/MOD	—	49"	—	—	PS 0.3
		9-22	SBK/SCL	FR/SS/SP/SER					
		22-49	SBK/C	FI/S/P/SER					
2	LS 5%	0-8	GR/SL	FR/NS/NP/MOD	—	50"	—	—	PS 0.3
		8-13	SBK/SCL	FR/SS/SP/SER					
		13-50	SBK/C	FI/S/P/SER					
3	LS 5%	0-4	GR/SL	FR/NS/NP/MOD	—	48"	—	—	PS 0.3
		4-48	SBK/C	FI/S/P/SER					
4	LS 4%	0-8	GR/SL	FR/NS/NP/MOD	—	48"	—	—	PS 0.3
		8-16	SBK/SCL	FR/SS/SP/SER					
		16-48	SBK/C	FI/S/P/SER					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	PPBPS	PPBPS
Site LTAR	0.3	0.3

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

LICENSED SOIL SCIENTIST LARRY B. THOMPSON 1287 STATE OF NORTH CAROLINA

COMMENTS: *Proposed house will cover existing septic drainfield.

Updated February 2014

The LSS Evaluation is being submitted pursuant to and meets the requirements of SL 2018-114 Section 11.(c).

LEGEND

use the following standard abbreviations

LANDSCAPE POSITION	GROUP	SOIL TEXTURE	CONVENTIONAL .1955 LTAR*	LPP .1957 LTAR*	MINERALOGY/ CONSISTENCE	STRUCTURE
CC (Concave Slope)	I	S (Sand)	1.2 - 0.8	0.6 - 0.4	SEXP (Slightly Expansive)	G (Single Grain)
CV (Convex Slope)		LS (Loamy Sand)			EXP (Expansive)	M (Massive)
D (Drainage Way)						CR (Crumb)
DS (Debris Slump)	II	SL (Sandy Loam)	0.8 - 0.6	0.4 - 0.3 .		GR (Granular)
FP (Flood Plain)		L (Loam)				SBK (Subangular Blocky)
FS (Foot Slope)						ABK (Angular Blocky)
H (Head Slope)	III	Si (Silt)	0.6 - 0.3	0.3 - 0.15		PL (Platy)
L (Linear Slope)		SiCL (Silty Clay Loam)				PR (Prismatic)
N (Nose Slope)		CL (Clay Loam)				
R (Ridge)		SCL (Sandy Clay Loam)			**MOIST**	**WET**
S (Shoulder Slope)		SiL (Silt Loam)				
T (Terrace)					VFR (Very Friable)	NS (Non-sticky)
	IV	SC (Sandy Clay)	0.4 - 0.1	0.2 - 0.05	FR (Friable)	SS (Slightly Sticky)
		SiC (Silty Clay)			FI (Firm)	S (Sticky)
		C (Clay)			VFI (Very Firm v. Very Sticky)	VS (Very Sticky)
		O (Organic)	None	None	EFI (Extremely Firm)	NP (Non-plastic)
						SP (Slightly Plastic)
						P (Plastic)
						VP (Very Plastic)

*Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

NOTES

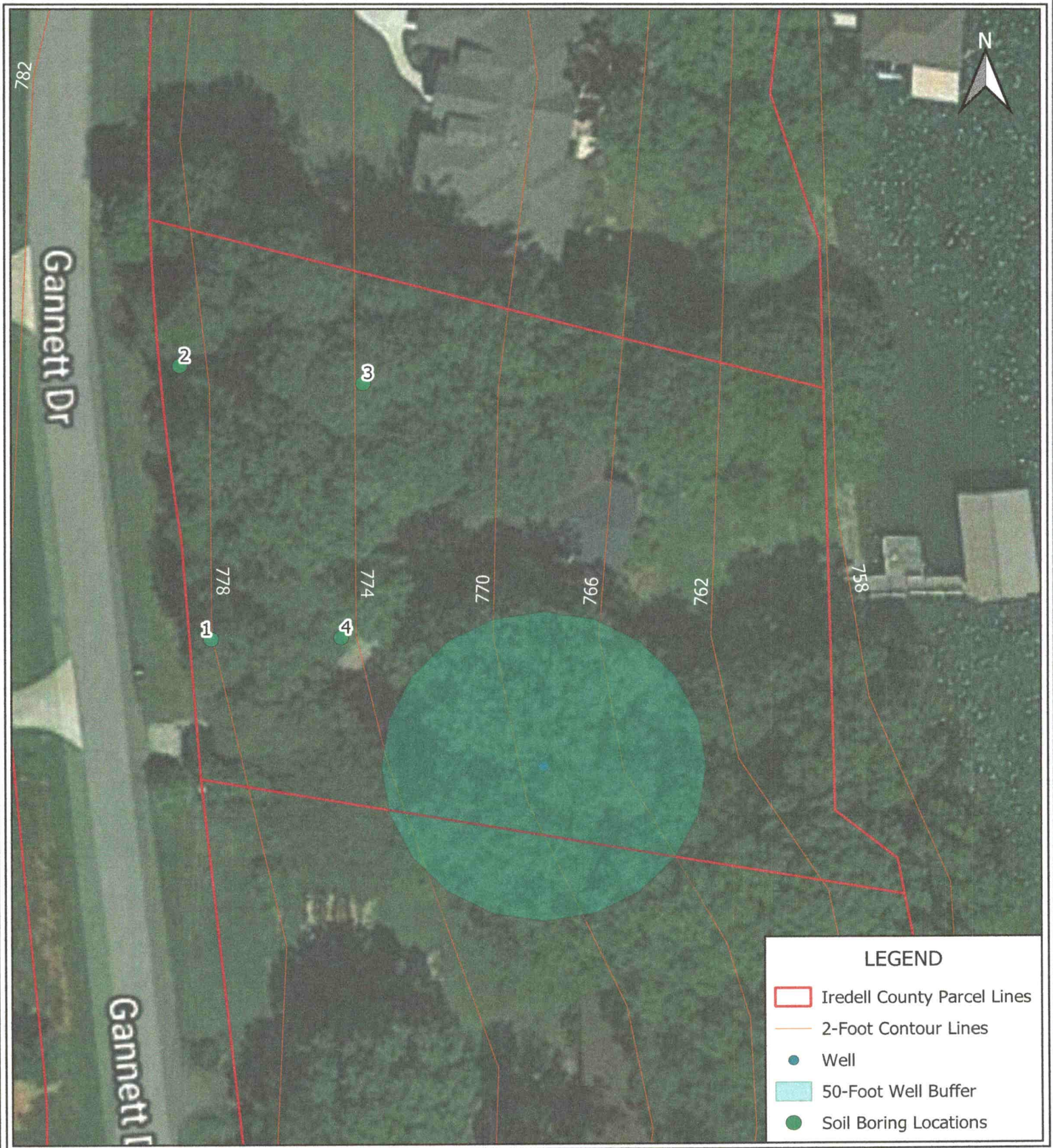
HORIZON DEPTH	In inches below natural soil surface
DEPTH OF FILL	In inches from land surface
RESTRICTIVE HORIZON	Thickness and depth from land surface
SAPROLITE	S(suitable) or U(unsuitable)
SOIL WETNESS	Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION	S (Suitable), PS (Provisionally Suitable), or U (Unsuitable)

Evaluation of saprolite shall be by pits.

Long-term Acceptance Rate (LTAR): gal/day/ft^2

Show profile locations and other site features (dimensions, reference or benchmark, and North).





Thompson Environmental Consulting

Prepared For:

Alan Simonini

Soil and Site Evaluation

188 Gannett Drive
Mooresville, NC 28117

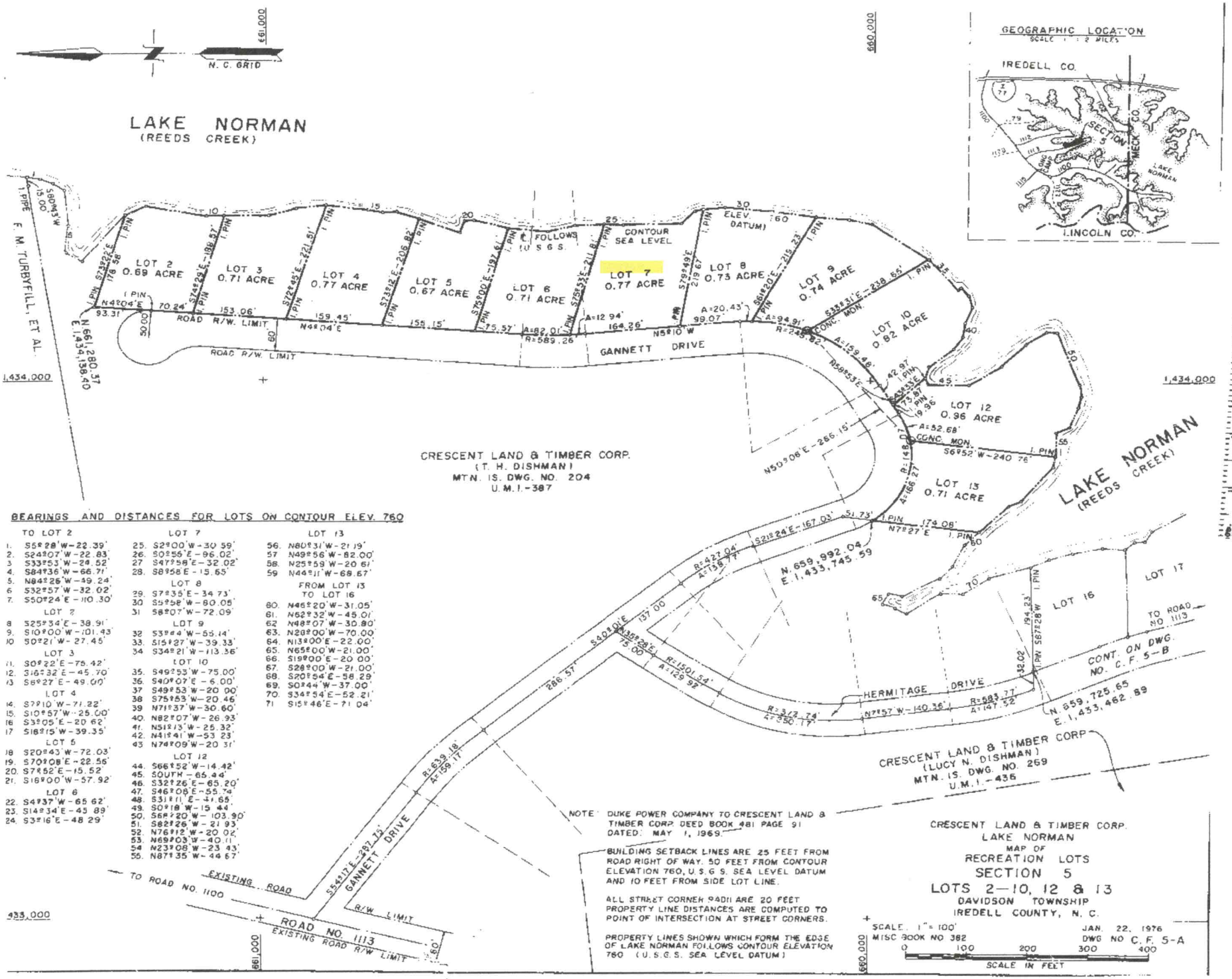
Iredell County

Date:
August 2020

Scale:
0 20 40 ft

TEC Job #:
20-109

Figure
1



BEARINGS AND DISTANCES FOR LOTS ON CONTOUR ELEV. 760

TO LOT 2

1. S5°28'W-22.39'
2. S24°07'W-22.83'
3. S33°53'W-24.52'
4. S84°36'W-66.71'
5. N84°26'W-49.24'
6. S32°57'W-32.02'
7. S50°24'E-110.30'

LOT 2

8. S25°34'E-38.91'
9. S10°00'W-101.43'
10. S0°21'W-27.45'

LOT 3

11. S0°22'E-75.42'
12. S16°32'E-45.70'
13. S6°27'E-49.00'

LOT 4

14. S7°10'W-71.22'
15. S10°57'W-25.00'
16. S3°05'E-20.62'
17. S18°15'W-39.35'

LOT 5

18. S20°43'W-72.03'
19. S70°08'E-22.56'
20. S7°52'E-15.52'
21. S16°00'W-57.92'

LOT 6

22. S4°37'W-65.62'
23. S14°34'E-45.89'
24. S3°16'E-48.29'

LOT 7

25. S2°00'W-30.59'
26. S0°56'E-96.02'
27. S47°58'E-32.02'
28. S8°58'E-15.65'

LOT 8

29. S7°35'E-34.73'
30. S5°58'W-80.05'
31. S6°07'W-72.09'

LOT 9

32. S3°44'W-55.14'
33. S15°27'W-39.33'
34. S34°21'W-113.36'

LOT 10

35. S49°53'W-75.00'
36. S40°07'E-6.00'
37. S49°53'W-20.00'
38. S75°53'W-20.46'
39. N71°37'W-30.60'
40. N82°07'W-26.93'
41. N51°13'W-25.32'
42. N41°41'W-53.23'
43. N74°09'W-20.31'

LOT 12

44. S66°52'W-14.42'
45. SOUTH-65.44'
46. S32°26'E-65.20'
47. S46°08'E-55.74'
48. S31°11'E-41.65'
49. S0°18'W-15.44'
50. S6°20'W-103.90'
51. S82°26'W-21.93'
52. N76°12'W-20.02'
53. N69°03'W-40.11'
54. N23°08'W-23.43'
55. N87°35'W-44.67'

LOT 13

56. N80°31'W-21.19'
57. N49°56'W-82.00'
58. N25°59'W-20.61'
59. N44°11'W-68.67'

FROM LOT 13 TO LOT 16

60. N46°20'W-31.05'
61. N62°32'W-45.01'
62. N48°07'W-30.80'
63. N28°00'W-70.00'
64. N13°00'E-22.00'
65. N65°00'W-21.00'
66. S19°00'E-20.00'
67. S28°00'W-21.00'
68. S20°54'E-58.29'
69. S0°44'W-37.00'
70. S34°54'E-52.21'
71. S15°46'E-71.04'

NOTE: DUKE POWER COMPANY TO CRESCENT LAND & TIMBER CORP. DEED BOOK 481 PAGE 91 DATED: MAY 1, 1969.

BUILDING SETBACK LINES ARE 25 FEET FROM ROAD RIGHT OF WAY, 50 FEET FROM CONTOUR ELEVATION 760, U.S.G.S. SEA LEVEL DATUM AND 10 FEET FROM SIDE LOT LINE.

ALL STREET CORNER RADII ARE 20 FEET. PROPERTY LINE DISTANCES ARE COMPUTED TO POINT OF INTERSECTION AT STREET CORNERS.

PROPERTY LINES SHOWN WHICH FORM THE EDGE OF LAKE NORMAN FOLLOWS CONTOUR ELEVATION 760 (U.S.G.S. SEA LEVEL DATUM)

CRESCENT LAND & TIMBER CORP.
LAKE NORMAN
MAP OF
RECREATION LOTS
SECTION 5
LOTS 2-10, 12 & 13
DAVIDSON TOWNSHIP
IREDELL COUNTY, N. C.

SCALE 1" = 100' JAN. 22, 1976
MISC BOOK NO 382 DWG NO C. F. 5-A

0 100 200 300 400
SCALE IN FEET

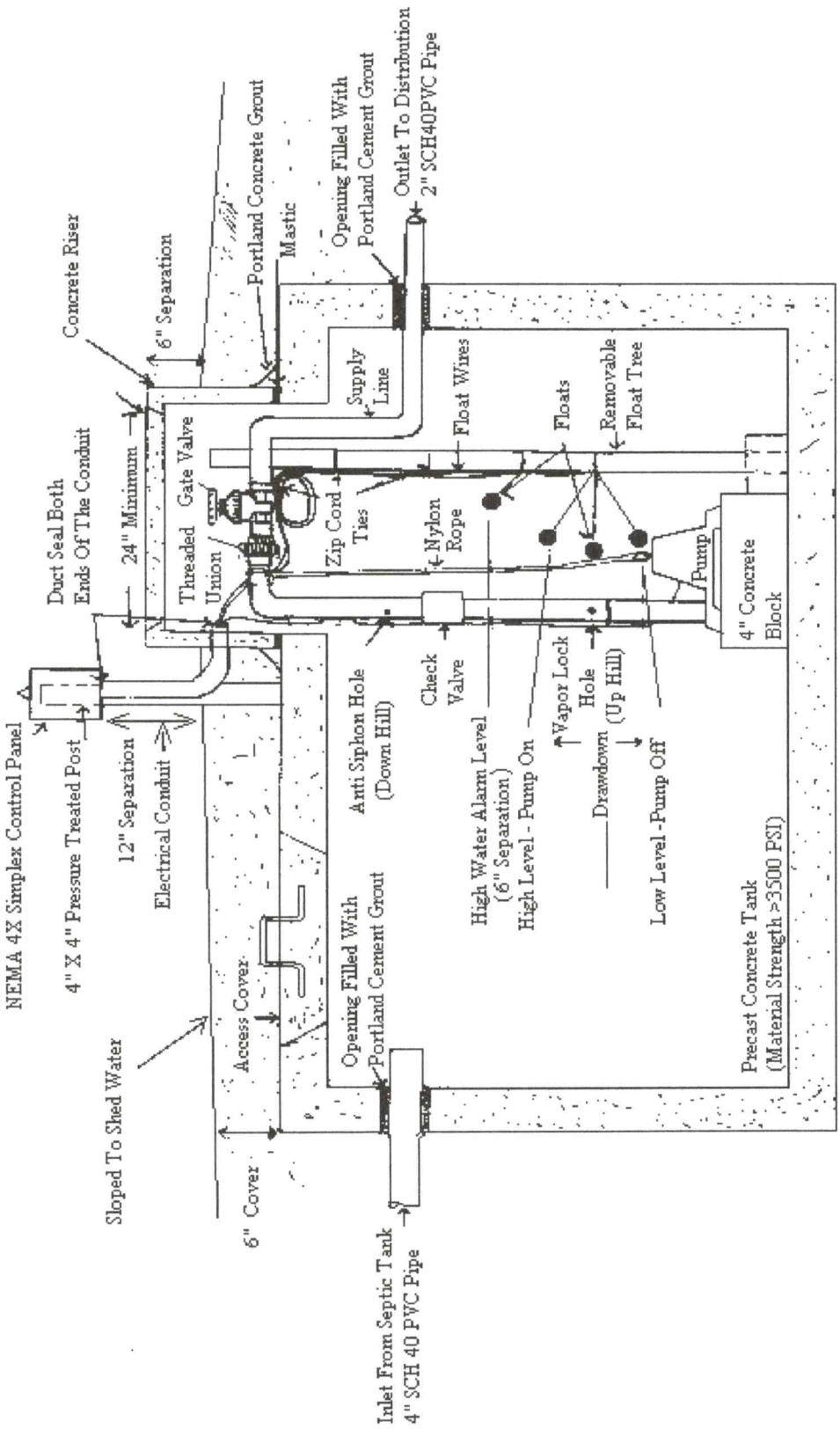
Thompson Environmental Consulting, Inc
PO Box 541
Midland, NC 28107-0541

Tax ID Number: 4636402464.000

Location: 188 Gannett Drive

Date: November 24, 2020

Recommended Pump Tank Design



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: 104ºF (40ºC) continuous 140ºF (60ºC) 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.

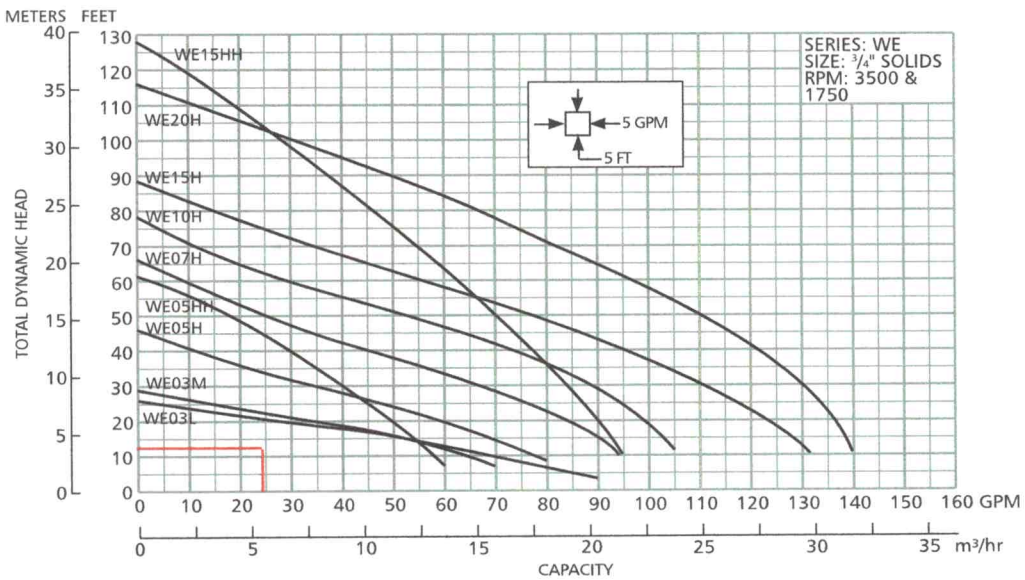
■ **Power Cable:** Severe duty rated, oil and water resistant. Epoxy seal on motor end provides secondary moisture barrier in case of outer jacket damage and to prevent oil wicking. Standard cord is 20'. Optional lengths are available.

■ **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

www.goulds.com

GOULDS PUMPS

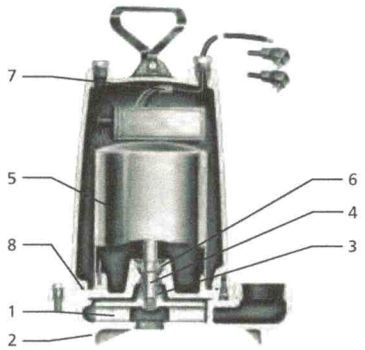
Submersible Effluent Pump

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

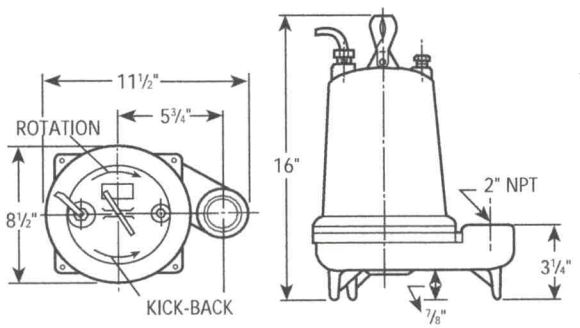
Order No.	HP	Volts	Phase	Max. Amp.	RPM	Solids	Wt. (lbs.)
WE0311L	1/3	115	1	10.7	1750	3/4"	56
WE0318L		208		6.8			
WE0312L		230		4.9			
WE0311M		115		10.7			
WE0318M		208		6.8			
WE0312M		230		4.9			
WE0511H	1/2	115	1	14.5	3500		60
WE0518H		208		8.1			
WE0512H		230		7.3			
WE0538H		200	3	4.9			
WE0532H		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	3/4	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	1 1/2	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	1/3	1/3	1/2	3/4	1	1 1/2	1/2	1 1/2	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.)



Goulds Pumps and the ITT Engineered Blocks Symbol are registered trademarks and tradenames of ITT Industries.

PRINTED IN U.S.A.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Goulds Pumps

ITT Industries

RECEIVED NOV 3 0 2020

IREDELL COUNTY HEALTH DEPARTMENT *ENVIRONMENTAL HEALTH DIVISION*

(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)

Paid $1200.00

1. **APPLICATION FOR:** ___Improvement Permit X Authorization To Construct ___ Existing System Inspection

2. **Page 2: *Site Plan Worksheet* Form MUST Accompany This Application**

Session Law AP-312951

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:**

John Tammaw	PO Box 1546 Cornelius NC 28031		980 722 1116
Applicant Name	**Mailing Address**	**Home Phone #**	**Alternate Phone #**
William + Katherine Gaither	20108 Chapel Point Cornelius NC 28031		704-363-6131
Owner Name	**Mailing Address**	**Home Phone #**	**Alternate Phone #**

4. **Property Information:**

188 Gannett Drive	CL+T 55	7
Street Address	**Subdivision Name**	**Section/Phase and Lot Number**

Driving Directions: From Mooresville, take Brawley School Road to Isle of Pines Road. Turn left onto Isle of Pines Road, travel 1.1 miles, and turn left onto Gannett Drive. Lot is located on the right in 0.4 miles.

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

(X) 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 4
If Expansion, Current Number of Bedrooms ___

( ) Crawl Space Foundation?
(X) 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:**

(X) 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 (X) Other PPBPS

8. **Please Answer The Following** ( ) Yes (X) No Does the site contain any jurisdictional wetlands?
To The Best of Your Ability: ( ) Yes (X) No Is any non-domestic sewage (i.e. industry) to be generated?
( ) Yes (X) 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:** _____ 12-Nov-2020

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…

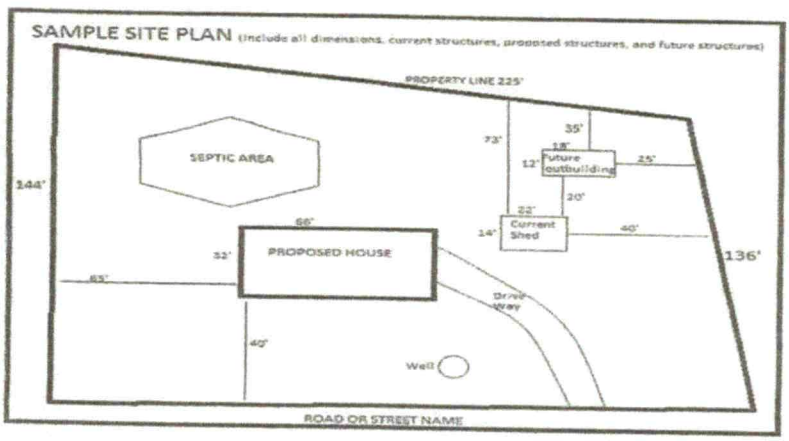
X North arrow, or other sufficient indicator of direction…

Circle N/A on the following if appropriate:

X Location of septic systems and wells within 100' of your property… N/A

X 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.

11-24-20

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, William + Katherin Gaither, am the legal owner(s) of the property located at 188 Gannett Drive, Mooresville, identified as PIN (Parcel Identification Number) 4636402464.000, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) John Tammaro, Alan Simonini Homes, 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.

William Gaither 11/19
Signature of Owner(s) Date

Signature of Witness 18-Nov-2020
Date

William Gaither

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 · NC

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

APPLICATION NUMBER
312951 Issue Date:

Permit Type: ZONING

Parcel Number	Street Address	Jurisdiction
4636402464.000	188 GANNETT DR	Iredell County

Owner Information	Applicant Information
Name: GAITHER WILLIAM H+KATHERINE M	Name: LARRY THOMPSON
Address:	Address: P. O. BOX 541
,	MIDLAND , NC 28107
Phone:	Phone: (704)301-4881

Use Requested	Zone Code
Single Family Dwelling	R20

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
0.77	35	50	15	15	WSIV-CA Catawba/Lake Norman	YES

Remarks
SFD

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. The applicant further acknowledges that enforcement of deed restrictions, plat conditions and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

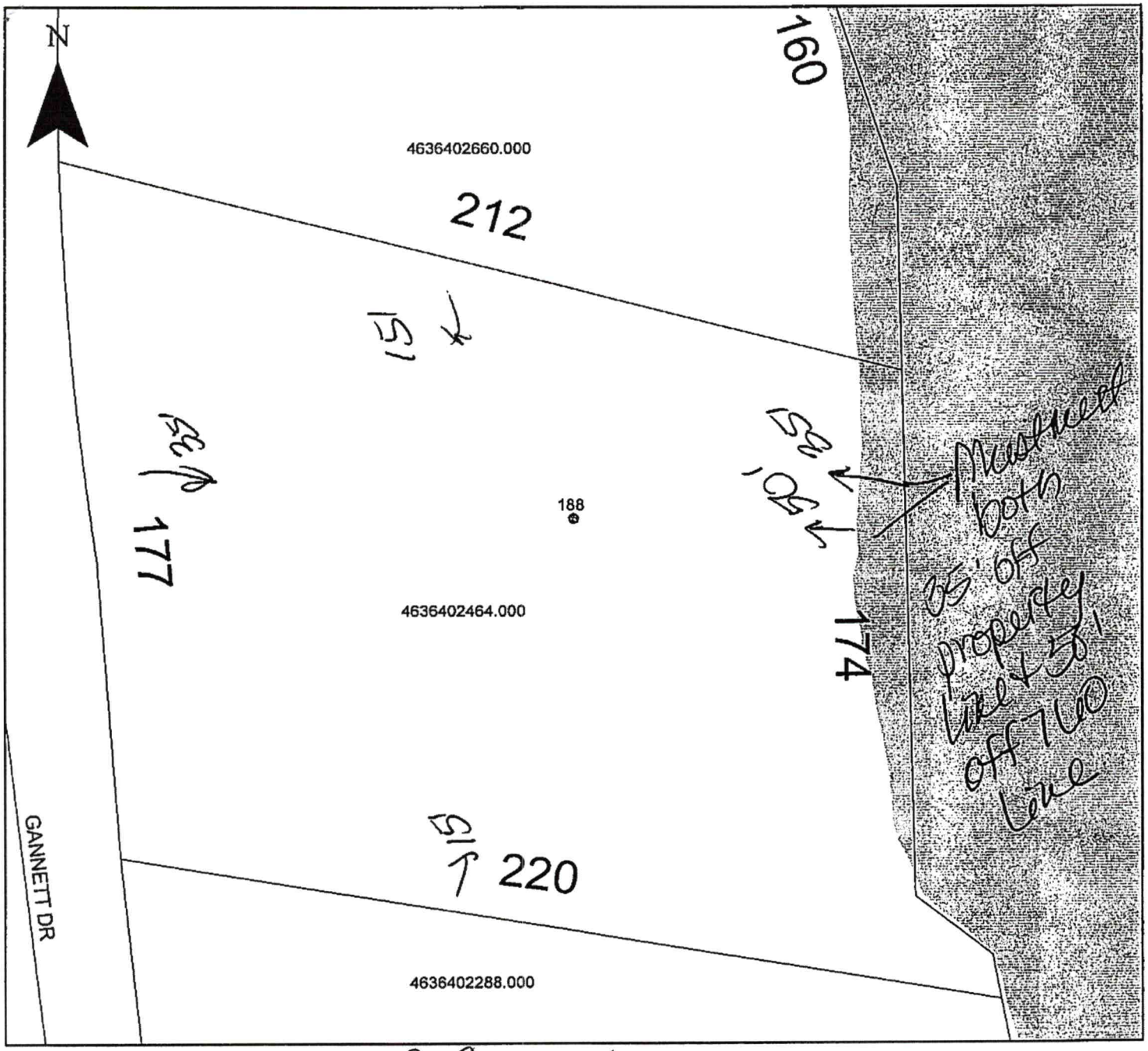
Date: 11/30/2020

Signature of Owner/Contractor

Permit Number	312951

TOTAL FEES:	$77.25

ZONING DISCLAIMER



Property Address 188 Gannett

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. Applicant further acknowledges that the enforcement of deed restrictions, plat conditions, and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

Applicant

11-30-20
Date

STATE OF NORTH CAROLINA
COUNTY OF IREDELL

CONTRACT FOR INSPECTIONS OF ON-SITE WASTEWATER SYSTEMS TYPE II, III, IV and V

This Contract is entered into this 28th day of November 2022 by and between TCW Wastewater Management, Inc., a North Carolina company of Mecklenburg County, North Carolina (hereinafter "TCW") and **Bill and Katherine Gaither**

Preamble

TCW is contracting with The Owner to provide inspection services as described on Attachment A for the fees or charges also shown in Attachment A.

The Owner owns or controls the property upon which a ground absorption sewage treatment system ("System") is installed, such System being designated as a type II, III, IV or V system under the Rules for Sanitary Sewage Collection, Treatment and Disposal found at 15A N.C. Admin. Code 18A .1900 et seq.; and 15A N.C. Admin. Code 18A.1961 requires that a condition of the Operation Permit for certain systems be that a properly executed inspection contract between the System Owner and a management entity shall be in effect for as long as the System is in use. TCW is a management entity which employees certified operators of a type authorized by 15A N.C. Admin. Code 18a.1961 to manage and inspect type II, III, IV, and V systems.

In consideration of the premises and of the mutual covenants and promises contained in this Agreement, it is hereby agreed by and between the Owner and TCW as stipulated below

Conditions of the Contract

A. TCW, in consideration of the payment by the Owner as set out in the schedule of services and charges in Attachment A, incorporated herein, agrees

1) To provide the services set out in Attachment A according to the minimum schedule of inspections/services required by regulations for the lots or parcels set out in Attachment B.

2) To report results of the inspections to the local environmental regulatory agency having jurisdiction as required by applicable laws or regulations.

3) If inspections indicate the need for System repairs

   a) to notify the local environmental regulatory agency within 48 hours.
   b) to give notice to the "Owner" of needed repairs, and, if the necessary repairs are outside the scope of the routine maintenance described in Attachment A, then The Owner may request TCW to provide an estimate. At the authorization of The Owner TCW will perform the necessary repairs at TCW's then prevailing charges for services and materials

4) If TCW's services are terminated, TCW will notify the local environmental regulatory agency within 48 hours.

CLT 7 95

B. The Owner, in consideration of the services performed, agrees

1) To pay TCW for its services according to the schedule of charges as set out in Attachment A.

2) Within 30 days of receipt of notice of repairs under A (3) above, the Owner(s) must provide proof that repairs have been performed by a licensed or qualified entity and the System is functioning properly or request and authorize TCW to complete the needed repairs.

3) To notify TCW promptly of any emergency or malfunction known to it which may violate environmental, health, or other laws and regulations, and to authorize immediate repair as necessary to restore the System to proper function and operation

4) To use reasonable efforts to provide and to maintain at all times, such access to the Systems as is reasonably necessary for TCW to comply with its obligations under this Agreement.

C. **Terms of the Agreement**

1) This Agreement shall be effective for one year from the date of this contract and will be automatically renewed from year-to-year thereafter, unless written notice of termination and non-renewal is given to the other party not less than 60 days prior to the end of the then current annual contract year

2) The real property to be serviced under this contract is listed on Attachment B.

3) This Agreement automatically terminates if the Operation Permit for the system is revoked and all appeals of the revocation are exhausted or time for making an appeal has passed.

4) The parties may terminate at the end of the then current term by consent of each party or by not less than 60 days written notice to the other party prior to the end of the then current contract year, and not less than 30 days written notice to the local environmental regulatory agency.

5) This Agreement may be terminated for cause for breach which remains unremedied after 15 days written notice to the defaulting party

D. **Limited Warranty**

TCW'S SOLE DUTIES AND RESPONSIBILITIES UNDER THIS AGREEMENT IS TO PROVIDE INSPECTION AND ROUTINE MAINTENANCE ONLY AS SPECIFIED IN THIS AGREEMENT. INSPECTIONS WILL COMPLY WITH APPLICABLE CODES, LAWS, AND REGULATIONS IN FORCE AT THE TIME OF THE INSPECTION AND REPORT WORK AND MATERIALS USED IN REPAIRS ARE WARRANTED ONLY TO BE OF GOOD WORKMANSHIP, FREE OF DEFECTS, AND CONFORM TO THE SYSTEMS SPECIFICATIONS AND EQUAL TO THE ORIGINAL PARTS AND EQUIPMENT. THE OWNER'S SOLE REMEDY UNDER THIS EXPRESS WARRANTY IS REPAIR OR REPLACEMENT AND CONSEQUENTIAL DAMAGE OR DAMAGES FOR DELAY ARE LIMITED TO TOTAL SUMS PAID TCW UNDER THIS AGREEMENT FOR THE PARTICULAR LOT OR PARCEL FOR THE THEN CURRENT YEAR. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE, ARE EXPRESSLY AND SPECIFICALLY EXCLUDED. REPAIRS, REPLACEMENTS, ADDITIONS AND CHANGES BY OTHERS TO THE SYSTEMS COVERED BY THIS AGREEMENT WITHOUT PRIOR NOTICE TO TCW OR ACCEPTANCE OF THE WORK BY TCW DURING THE TERM OF THIS AGREEMENT VOIDS ANY WARRANTY GRANTED HEREIN AS TO TCW.

E. **Miscellaneous**

1) Transfer of rights, responsibilities, and duties under this Agreement by any party shall be valid only on written notice and consent signed by all parties, which consent shall not be unreasonably or arbitrarily withheld.

2) TCW may perform its duties and responsibilities by subcontract but TCW will remain directly liable and responsible to the Owner under the terms of this Agreement.

3) Waiver of default or a breach of the Agreement by any party shall not operate nor be construed as a waiver of further or subsequent defaults or breach of this Agreement. Failure to take action in any default or breach does not bear action on such default at any time subsequent to such breach or default.

4) This Agreement constitutes the entire agreement of the parties, incorporating, and superseding all prior representations and negotiations and may not be changed or amended except in writing signed by the parties. The Agreement shall be interpreted under North Carolina law. Any part of the Agreement declared void, illegal, or unenforceable will not affect other provisions of the Agreement.

5) Disputes arising under this Agreement shall be determined by any method of Alternative Dispute Resolution the parties choose, including but not limited to, mediation or arbitration, under the Uniform Arbitration Act of North Carolina or its equivalent, or such means or methods as the parties agree to in writing.

6) Notices are deemed delivered if delivered in person, by certified or registered mail; by courier; or delivery service, if properly receipted, charges and postage prepaid, as follows:

Owner: Mr. & Mrs. Bill Gaither
188 Gannett Dr
Mooresville, NC 28117

Operator:
TCW Wastewater Management, Inc
5600 Lakeview Rd
Charlotte, NC 28269

Environmental Regulatory Agency:

Iredell County Environmental Health
610 E. Center St
Mooresville, NC 28115

A party may change its address my giving notice in the manner provided above.

Each party has executed this Agreement with full power, authority, and legal right to enter into; to bind itself to the rights, duties and responsibilities under this Agreement, which is binding on the parties, their successors and assigns, heirs and personal representatives, on the date first above written.

WITNESS:

OWNER:

Katherine Gaither

William Gaither

TCW Wastewater Management, Inc.

BY Lee Boyd

EXHIBIT A
TYPE II, III, IV

MONITORING & INSPECTION PLAN

1. **COST:** **INITIAL CONTRACT YEAR:**

$ 350.00 (2 required inspections)
$ N/A (0 required lab)
$ 350.00 Total Initial Year

RENEWAL YEARS:

$ TBD (2 required inspections)
$ N/A (0 required lab)
$ TBD Total Renewal Years

a. The Owner shall pay to TCW the aforementioned sums for each parcel listed on Attachment B. The initial annual fees are payable upon the execution of the contract. Annual billings will be made thereafter and payable within 30 days of billing. The annual billings will be made on the anniversary dates. The annual renewal fees may increase no more than 5% per year. The Owner shall pay to TCW his normal and customary fees for any authorized work performed on the System as a result of non-scheduled service or maintenance calls. These fees are due and payable within 30 days of billing. Payments due to TCW, and unpaid by the Owner after 30 days, shall be assessed late payment fee of 15% per month. accruing monthly on the unpaid balance.

2. **PERFORMANCE DUTIES:**

- Inspections and services that meet state requirements, i.e., inspections of System using an itemized check list, monitoring "septic tanks" to insure proper operation, and make adjustments of imbalances to systems through the distribution devices.
- Inspection report copies are sent to the environmental regulatory agency (if applicable) and homeowner
- Emergency service calls at an additional charge.
- 24-hour availability at an additional charge.
- The Owner will be advised of any repairs needed and estimated cost or repairs. Repairs will not be made without Owner authorization.
- The Owner will be advised when pumping is recommended

Bacteria Additive Option – Additional $60 per year:

- The addition of a bacterial product into the individual septic tank as needed to maintain the proper level of bacteria.

EXHIBIT B

1. PHYSICAL ADDRESS OF SYSTEM(S):

188 Gannett Dr
Mooresville, NC 28117

CL&T Lot 7 Ph 5

b. _____

c. _____

d. _____