

Comal County Environmental Health

OSSF Inspection Sheet

Installer Name: _____

OSSF Installer #: _____

1st Inspection Date: _____

2nd Inspection Date: _____

3rd Inspection Date: _____

Inspector Name: _____

Inspector Name: _____

Inspector Name: _____

Permit#:

Address:

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
1	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials		285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)				
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards		285.91(10) 285.30(b)(4) 285.31(d)				
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)		285.32(a)(1)				
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot		285.32(a)(3)				
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)		285.32(a)(5)				
6	PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(B) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(A) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(ii)(I)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

Inspector Notes:

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If Single Tank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1) (E) 285.91(2) 285.32(b)(1) (F) 285.32(b)(1)(E) (iii) 285.32(b)(1)(E)(ii) (II) 285.32(b)(1)(E)(ii) (I) 285.32(b)(1)(E) (i) 285.32(b)(1) (D) 285.32(b)(1)(C) (ii) 285.32(b)(1)(C) (i) 285.32(b)(1) (B) 285.32(b)(1) (A) 285.32(b)(1)(E)(iv)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used		285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
10	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
11	SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed						
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number						
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
18	DISPOSAL SYSTEM Drip Irrigation		285.33(c)(3)(A)-(F)				

**Comal County Environmental Health
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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
32	EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart		285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B) 285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)				
33	AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines.		285.32(c)(1)				
34	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions						
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.						
36	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
37	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						
38	PUMP TANK Secondary restraint system provided						
39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried						

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
40	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?		285.33(d)(2)(G)(iii)(II) 285.33(d)(2)(G)(iii)(III) 285.33(d)(2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)				
41	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G) (i)285.33(d)(2) (A)285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



COMAL COUNTY

ENGINEER'S OFFICE

Permit of Authorization to Construct an On-Site Sewage Facility Permit Valid For One Year From Date Issued

Permit Number: 118401
Issued This Date: 03/11/2025
This permit is hereby given to: MARIA T. ALVIDEREZ PAEZ & LARRY STOSPAL

To start construction of a private, on-site sewage facility located at:

1160 SEQUOIA TRL
CANYON LAKE, TX 78133

Subdivision: TAMARACK SHORES
Unit: 1
Lot: 51
Block: 0
Acreage: 0.2900

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Drip Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

Call (830) 608-2090 to schedule inspections.



COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

195 DAVID JONAS DR
NEW BRAUNFELS, TX 78132
(830) 608-2090
WWW.CCEO.ORG

Date December 27, 2024

Permit Number 118401

1. APPLICANT / AGENT INFORMATION

Owner Name MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL

Agent Name GREG JOHNSON, P.E.

Mailing Address 1172 SEQUOIA TRAIL

Agent Address 170 HOLLOW OAK

City, State, Zip CANYON LAKE TEXAS 78133

City, State, Zip NEW BRAUNFELS TEXAS 78132

Phone # 214-870-0450

Phone # 830-905-2778

Email stospal1@marshall.edu

Email gregjohnsonpe@yahoo.com

2. LOCATION

Subdivision Name TAMARACK SHORES Unit SEC 1 Lot 51 Block

Survey Name / Abstract Number Acreage

Address 1160 SEQUOIA TRAIL City CANYON LAKE State TX Zip 78133

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) IOUSE

Number of Bedrooms 2

Indicate Sq Ft of Living Area 1495

☐ Non-Single Family Residential

(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)

Type of Facility

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants

Restaurants, Lounges, Theaters - Indicate Number of Seats

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds

Travel Trailer/RV Parks - Indicate Number of Spaces

Miscellaneous

Estimated Cost of Construction: \$ 225,000 (Structure Only)

Is any portion of the proposed OSSF located in the United States Army Corps of Engineers (USACE) flowage easement?

☐ Yes ☒ No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)

Source of Water ☒ Public ☐ Private Well ☐ Rainwater Collection

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Signature of Owner

Date 2/18/2025

#118401

COMAL COUNTY
ENGINEER'S OFFICE

Revised

Efrain Gallegos

ON-SITE SEWAGE FACILITY APPLICATION
09/23/2025 1:27:48 PM

TAMARACK SHORES, SECTION 1, LOT 51

 195 DAVID JONAS DR
 NEW BRAUNFELS, TX 78132
 (830) 608-2090
 WWW.CCEO.ORG
Planning Materials & Site Evaluation as Required Completed By GREG W. JOHNSON, P.E.System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING

Size of Septic System Required Based on Planning Materials & Soil Evaluation

Tank Size(s) (Gallons) CLEARSTREAM 6000 NCSAbsorption/Application Area (Sq Ft) 1300Gallons Per Day (As Per TCEQ Table 111) 180

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)

Is the property located over the Edwards Recharge Zone? ☐ Yes ☒ No

(if yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? ☐ Yes ☒ No

(if yes, the R.S. or P.E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)

Is there at least one acre per single family dwelling as per 285.40(c)(1)? ☐ Yes ☒ NoIf there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? ☐ Yes ☒ No

(if yes, the R.S. or P.E. shall certify that the OSSF design will comply with all-provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? ☒ Yes ☐ NoIs there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No

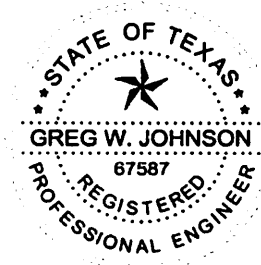
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? ☐ Yes ☒ No

(if yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to Construct will not be issued for the proposed OSSF until the UP has been approved by the appropriate reg

Is this property within an incorporated city? ☐ Yes ☒ No

If yes, indicate the city: _____

**FIRM #2585**

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

 Signature of Designer

December 29, 2024
 Date

AFFIDAVIT**THE COUNTY OF COMAL
STATE OF TEXAS****CERTIFICATION OF OSSF REQUIRING MAINTENANCE**

According to Texas Commission on Environmental Quality Rules for On-Site Sewage Facilities (OSSF's), this document is filed in the Deed Records of Comal County, Texas.

I

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (TCEQ) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the commission primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The commission, under the authority of the TWC and the Texas Health and Safety code, requires owner's to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the commission requires a recorded affidavit. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This recorded affidavit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any guarantee by the commission that the appropriate OSSF was installed.

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (insert legal description):

1 UNIT/PHASE/SECTION 51 BLOCK 51 LOT TAMARACK SHORES SUBDIVISION

IF NOT IN SUBDIVISION: _____ ACREAGE _____ SURVEY

The property is owned by (insert owner's full name): MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL

This OSSF must be covered by a continuous maintenance contract for the first two years. After the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days or maintain the system personally.

Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office.

WITNESS BY HAND(S) ON THIS 13 DAY OF February, 2025

X [Signature]

Owner(s) signature(s)

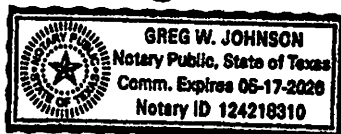
LARRY STOSPAL

Owner (s) Printed name (s)

LARRY STOSPAL

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 13 DAY OF

February, 2025
[Signature]
Notary Public Signature



Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
02/18/2025 08:05:34 AM
MARY 1 Pages(s)
202506004470



Bobbie Koepp

Higher Ratings LLC
2 Year Maintenance Service Contract

Property Address: 1160 SEQUOIA TRL CANYON LAKE, TX 78133
Permit #: _____ Contract Starting: Start date of License to Operate Ending: 2 years from start of LTO
Customer Name: PAEZ MARIA T A & LARRY STOSPAL Contact #: 214-870-0450

Higher Ratings LLC will maintain the OSSF system for a period of 2 years.

During this period, we will conduct a system inspection every 4 months. These inspections will consist of tests for chlorine residual, sludge sample, distribution system, electrical systems, operation of sewage plant system components, and code compliance to ensure all county codes are met.

This contract will not cover costs of service calls, labor, material not covered under warranty, or pumping of septic system. Parts that have voided warranty due to improper usage along with labor totaling \$200.00 or less will be replaced and billed; over \$200.00 in parts and labor will require homeowner's approval. Emergency service calls between scheduled visits will be billed at \$150.00 an hour for the first hour and \$25 for every 15 minutes after the first hour. Payments not received within 30 days from due date will be subjected to a \$20.00 late penalty and / or a 1.5% carrying charge, whichever is greater, in addition the reasonable attorney's fees and all costs of collection incurred by Contractor in collection of any unpaid debt(s). By signing this contract, the Client is authorizing the Contractor to remove any parts which were installed but not paid for at the end of 30 days. The Client is still responsible for any labor costs associated with the installation and remove of said parts.

Improper usage, such as shutting off power to the system, exceeding engineered-design capabilities, improper disposal of non-biodegradable materials (chemicals, solvents, grease, oil, paint, or any other substance not suitable for treatment) can result in system failure or poor performance and voided warranty.

State law requires homeowners to maintain their own chlorine residual. Chlorine tablets can be purchased if requested by our services.

Property owners will be responsible for all costs, if needed, for the required BOD and TSS laboratory samples as required by law.

All testing and reporting required by Comal County and Texas state regulations.

Septic system must be accessible Monday-Friday between the hours of 8am-5pm. If access is not available, there will be a charge of \$100.00 to make an additional visit to the property.

Response time for service calls will be addressed within 72 hours from the time the call was received. Service emergencies after 5pm and on weekdays will be considered after hours and billed at \$175.00 an hour with a minimum charge of 2 hours. Emergencies on Saturday and Sunday will also be billed at \$175.00 an hour with a minimum of 2 hours.

Client's Responsibilities: The Client is responsible for each and all the following:

1. Maintain chlorinator and provide proper chlorine supply, if OSSF is equipped with same.
2. Provide all necessary yard or lawn maintenance and removal of obstacles as needed to allow the OSSF to function properly, and to allow Contractor easy access to all parts of the OSSF.
3. Maintain a current license to operate and abide by the conditions and limitations of that license and all requirements for on-site sewage facilities (OSSF's) from the State and local regulatory agency, as well as manufacturer's recommendations.
4. Immediately notify the Contractor and Agency of all problems with, including the failure of the OSSF.
5. Upon receiving a written notification of services needed from the Contractor, it becomes the Client's responsibility to contact the Contractor to authorize the service. If the Client chooses to use a different contractor to perform the service, the Client is responsible for ensuring the contractor holds the proper license (installer II) and is certified by the manufacturer. Also, the Client is responsible for ensuring proper notification is given to the Agency, as required by the State and local Agency rules.
6. Provide the Contractor with water usage records, upon request, for evaluation by the Contractor of the OSSF performance.
7. Clients residing in Harris County should allow for samples at both the inlet and outlet to the OSSF to be obtained by the Contractor for the purpose of evaluating the OSSF's performance when requested by the Client. If these samples are sent to the lab for testing, the Client will directly pay the lab for the cost of the testing plus pay the Contractor for all man-hours expended in providing this additional service at the rate of \$75.00 per hour measured from office to site, site to lab, and lab to office, otherwise known as portal to portal.
8. Not allow the backwash from water treatment or water conditioning equipment to enter the OSSF.
9. Provide for pumping of tanks, when needed, at Client's expense.
10. Maintain site drainage to prevent adverse effects on OSSF.
11. Promptly and fully pay Contractor's bills, fees, or invoices as described herein.

Acceptance of Agreement

Owner Signature



Date

9/18/2025

Maintenance Provider

Majid Howiatdost Jr.

Date

9-3-2025

Contact us:

Majid Howiatdost Jr. EIT

9131 Alpine Trail St. San Antonio Tx 78250

Email: Mhowiatdost@yahoo.com

Ph: 210.389.8228

MP# OS0002768

SE# OS0036822

Installer II # OS0040164

RS# 5255

**ON-SITE SEWERAGE FACILITY
SOIL EVALUATION REPORT INFORMATION**

Date Soil Survey Performed: December 27, 2024

Site Location: 1160 SEQUOIA TRAIL - TAMARACK SHORES, SECTION 1, LOT 51

Proposed Excavation Depth: 6"

Requirements:

At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area.

Locations of soil boring or dug pits must be shown on the site drawing.

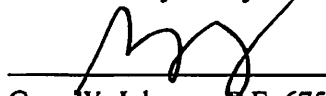
For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.

Describe each soil horizon and identify any restrictive features on the form. Indicate depths where features appear.

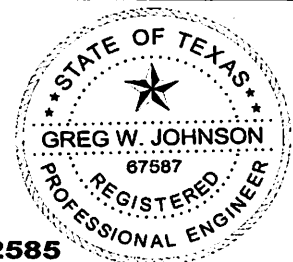
SOIL BORING NUMBER <u>1</u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	III	SILTY CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 24"	BROWN
24"						
1						
2						
3						
4						
5						

SOIL BORING NUMBER <u>2</u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	SAME	AS	ABOVE			
1						
2						
3						
4						
5						

I certify that the findings of this report are based on my field observations and are accurate to the best of my ability.


Greg W. Johnson, P.E. 67587-F2585, S.E. 11561

12/27/24
Date



FIRM #2585

Date: December 29, 2024

Site Evaluator Information:

Name: MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL
Address: 1172 SEQUOIA TRAIL
City: CANYON LAKE **State:** TX
Zip Code: 78133 **Phone:** 214-870-0450

Name: Greg W. Johnson, P.E., R.S., S.E. 11561
Address: 170 Hollow Oak
City: New Braunfels State: Texas
Zip Code: 78132 Phone & Fax (830)905-2778

Installer Information:

TAMARACK SHORES

Lot **51** Sect **1** Blk Subd.

Street Address: **1160 SEQUOIA TRAIL**

City: **CANYON LAKE** Zip Code: **78133**

Additional Info.:

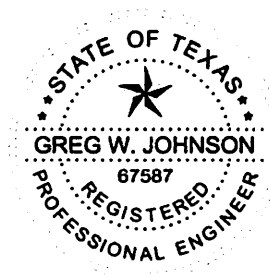
Name: _____
 Company: _____
 Address: _____
 City: _____ State: _____
 Zip Code: _____ Phone: _____

<u>Topography:</u> Slope within proposed disposal area:	<u>6-10</u>	%
Presence of 100 yr. Flood Zone:	YES <u> </u>	NO <u>x</u>
Existing or proposed water well in nearby area.	YES <u> </u>	NO <u>x</u>
Presence of adjacent ponds, streams, water impoundments	YES <u> </u>	NO <u>x</u>
Presence of upper water shed	YES <u> </u>	NO <u>x</u>
Organized sewage service available to lot	YES <u> </u>	NO <u>x</u>

I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL ENGINEER AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 29, 2016).

GREG W. JOHNSON, P.E. 67587 - F#2585

12/29/21
DATE



DRIP TUBING SYSTEM

DESIGNED FOR:

MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL
1172 SEQUOIA TRAIL
CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Tamarack Shores, Section 1, Lot 51, at 1160 Sequoia Trail, this septic will serve a two bedroom residence (1495 sf) in area with moderate depth Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 or 4-inch SCH-40 pipe discharges from the residence to a Clearstream 600 NC3T 600gpd aerobic plant containing a 400-gallon pretreatment tank, an aerobic treatment plant, and a 700-gallon pump chamber. The effluent pump in the ATU is activated by a time controller allowing the distribution ten times per day with an 8 minute run time with float setting at 180 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron disc filter (Arkal) then through a 1" SCH-40 manifold to a 1300sf. drip tubing field, with *Netifim* drip lines set approximately two feet apart with *0.61 gph* emitters set every two feet, as per the attached schematic. A pressure regulator PMR-MF 40 psi installed in the pump tank on the manifold to the field will maintain pressure at 40 psi. A 1" SCH-40 return line is installed to continuously flush the system to the pump tank by throttling a 1" ball valve. Solids caught in the disc filter are flushed each cycle back to the trash tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be excavated eight inches then field area scarified then 2" of Type II or Type III soil added, then the drip tubing will be laid and capped with 6" of Type II or Type III soil (*NOT SAND*). *A minimum of 12" soil required between drip and rock.* The field area will be sodded with grass prior to system startup. **Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2023).** This includes access limitation (<65lbs lid or hardware secured lid), inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap to prevent tank entry if the cap is unknowingly damaged or removed.

DESIGN SPECIFICATIONS:

Daily waste flow: 180 gpd Table III

Pretreatment tank size: 400 Gal

Plant Size: Clearstream 600 NC3T 600 gpd (TCEQ Approved)

Revised

Efrain Gallegos

09/23/2025 1:28:00 PM

Pump tank size: 700 Gal

Reserve capacity after High Level: 60 Gal (>1/3 day Req'd)

Application Rate: $R_a = 0.2$ gal/sf

Total absorption area: $Q/R_a = 180 \text{ GPD}/0.20 = 900 \text{ sf}$. (Actual 1300 sf.)

Total linear feet drip tubing: 650' *Netifim* drip tubing .61 GPH

Pump requirement: 325 emitters @ .61 gph @ 30 psi = 3.30 gpm

Pump Requirement (cont.): Dominator 0.5 hp submersible well pump

Dosing volume: 50-70 gal.

Pump Tank Calculations: 700 Gal (14.5 gal/in.)

Volume below working level = 12" = 148 gal

Working level = 180 gal = 15"

Reserve Requirement = >1/3 day = 60 gal. = 5"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

IN DRIP TUBING W/ NOM. DIA. 0.55" ID

$MSV = 2 \text{ FPS } (\pi d^3 / 4 * 7.48 \text{ gal/cf} * 60 \text{ sec/min})$

$MSV = 2(3.14159((.55/12)^3 / 4) * 7.48 * 60$

$MSV = 1.5 \text{ gpm MIN FLOW RATE} \times 2 = 3 \text{ gpm}$

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

$MSV = 2 \text{ FPS } (\pi d^3 / 4 * 7.48 \text{ gal/cf} * 60 \text{ sec/min})$

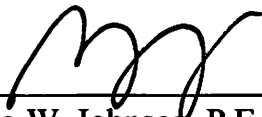
$MSV = 2(3.14159((1.049/12)^3 / 4) * 7.48 * 60$

$MSV = 5.4 \text{ GPM}$

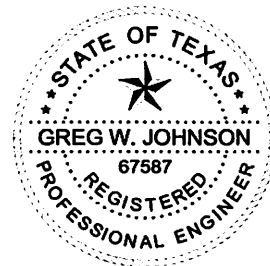
PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)

 04/30/2025

Greg W. Johnson, P.E. No. 67587 - F-2585
170 Hollow Oak
New Braunfels, Texas 78132 830/905-2778



Revised
Efrain Gallegos

09/23/2025 1:28:11 PM

INSTALL 1300 sf OF FIELD
USING 650' OF DRIP
TUBING. THERE SHALL BE
NO PARKING, DRIVING OR
STORAGE ON THE SEPTIC
FIELD AT ANY TIME FOR
ANY REASON.

*USE TWO WAY
CLEANOUT
**USE SCH-40 OR SDR-26
TO TANK

X= TEST HOLE

CLEARSTREAM
600NC3T AEROBIC
TREATMENT PLANT

SLEEVE WATER LINE WITH 2"-SCH-40
PVC PIPE WHEN ENTERING CLOSER
THAN 10' FROM SEPTIC SYSTEM
OR SEPTIC FIELD.

1" VACUUM BREAKER

POOL
PAVILLION

POOL

LOT 51

6' UTILITY EASEMENT

DRIVEWAY

DRIVEWAY

2 BDRM RES.
1495 SF.

PROPANE

DRIP TUBING

ZONE 1	ZONE 2	TOTAL
21	30	
21	32	
21	32	
22	33	
22	33	
24	33	
24	8	
25	9	
25	9	
27	11	
27	11	
28	12	
28	12	
30	13	
	13	
	14	
345	305	650

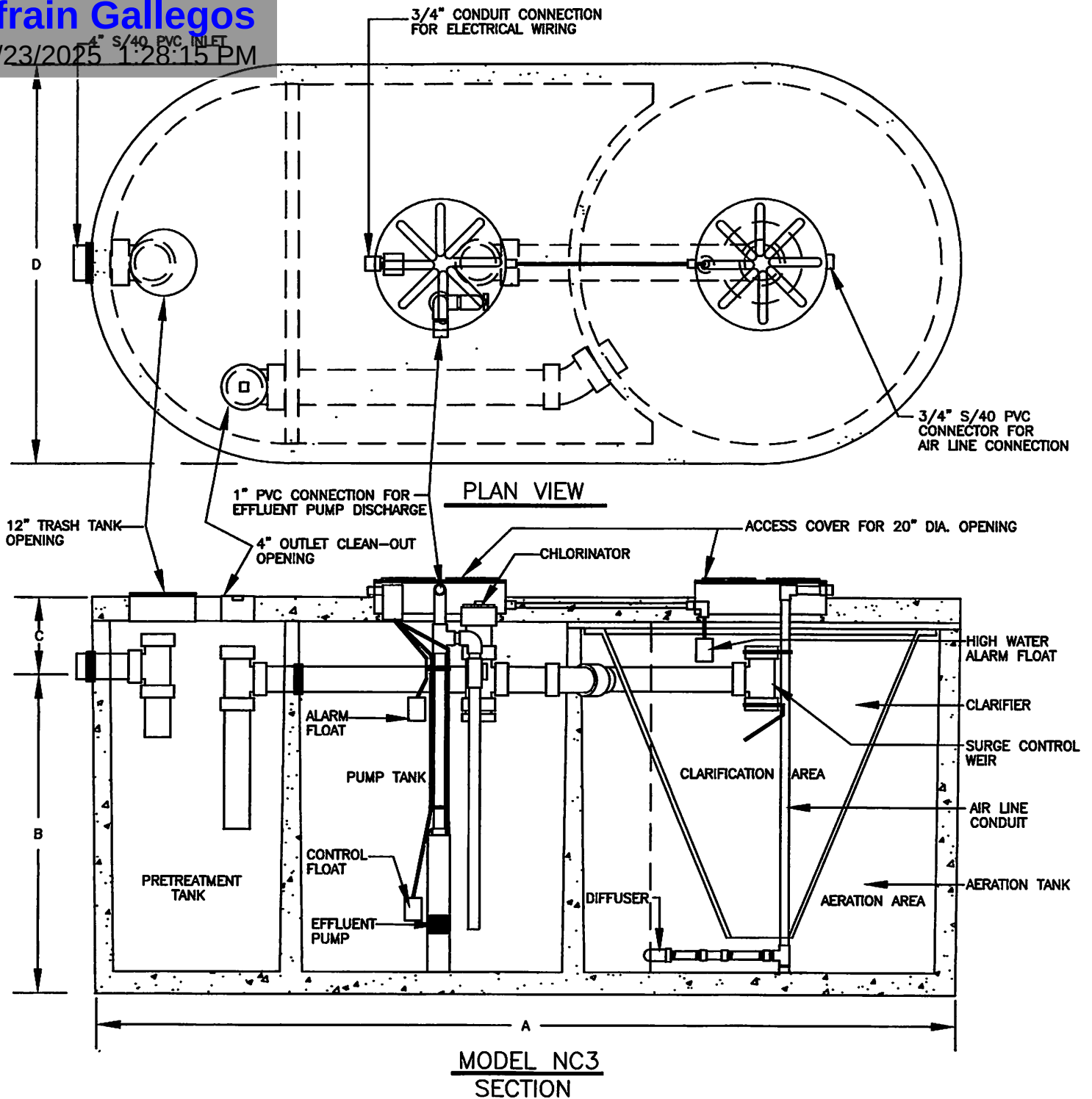
SEQUOIA TRAIL



OWNER: MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL		DRAWN BY: GWJ	
STREET ADDRESS: 1160 SEQUOIA TRAIL			
LEGAL DESC: TAMARACK SHORES	UNIT/SECTION/PHASE: 1	BLOCK: 1	LOT: 51
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=25'	DATE: 12/28/2024	REVISED: 04/30/2025

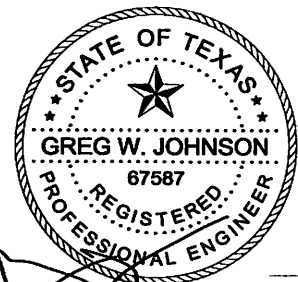
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DESIGN DRAWINGS



DIMENSIONAL DATA

MODEL	A	B	C	D
500NC3-500	12'-2"	60"	10"	75"
500NC3-750	13'-5"	60"	10"	75"
600NC3	12'-7"	60"	10"	82"



F-2585

100
04/30/25

Revised

Efrain Gallegos

TANK NOTES:

09/23/2025 1:28:18 PM

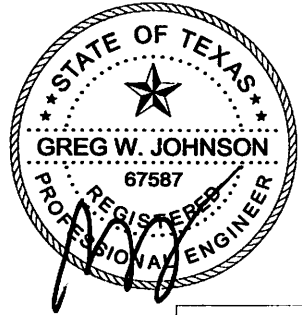
Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

A two way sanitary tee is required between residence and tank.

A minimum of 4" of sand, sandy loam, clay loam free of rock shall be placed under and around tanks

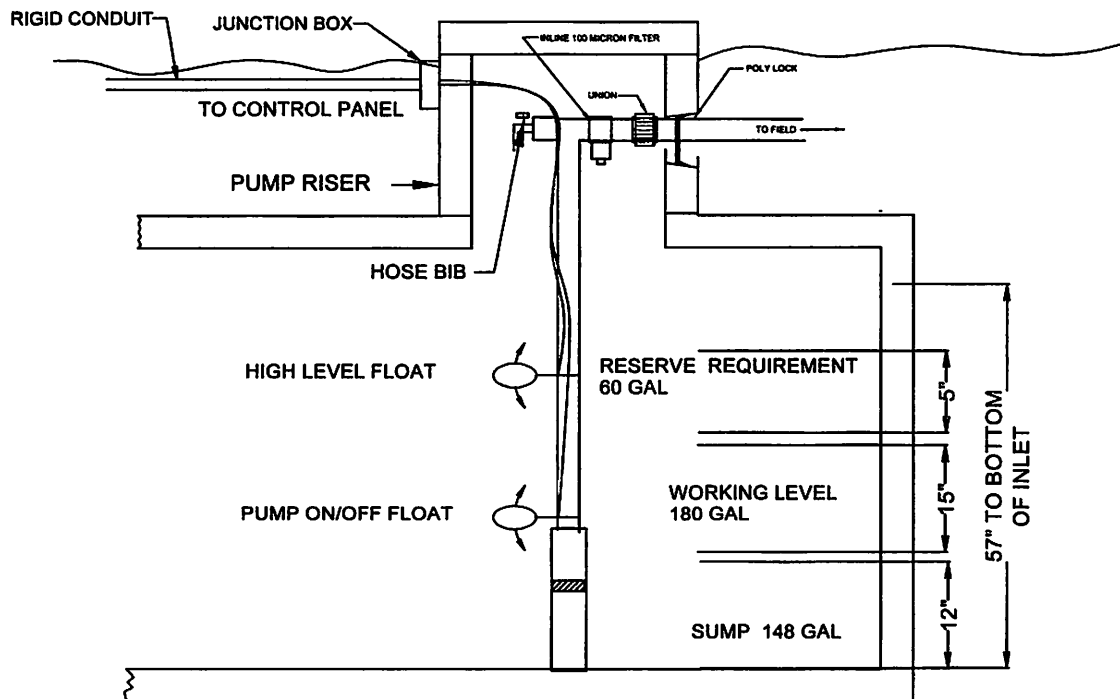
Tanks must be left uncovered and full of water for inspection by the permitting authority.



F-2585

04/30/25

ALL WIRING MUST BE IN COMPLIANCE WITH
THE MOST RECENT NATIONAL ELECTRIC CODE



TYPICAL PUMP TANK CONFIGURATION

CLEARSTREAM 600NC3T W/ 700 GAL PUMP TANK

Arkal 1" Super Filter

Catalog No. 1102 0 _ _ _

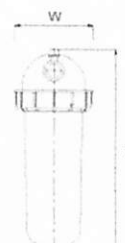
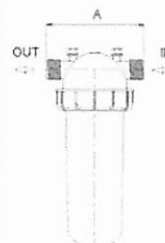
Features

- ♦ A "T" shaped filter with two 1" male threads.
- ♦ A "T" volume filter for in-line installation on 1" pipelines.
- ♦ The filter prevents clogging due to its enlarged filtering area that collects sediments and particles.
- ♦ Manufactured entirely from fiber reinforced plastic.
- ♦ A cylindrical column of grooved discs constitutes the filter element.
- ♦ Spring keeps the discs compressed.
- ♦ Screw-on filter cover.
- ♦ Filter discs are available in various filtration grades.



Technical Data

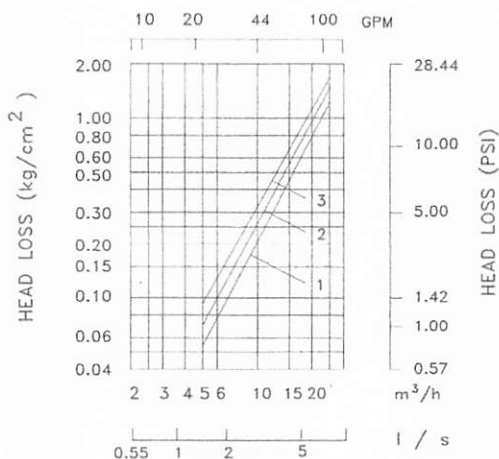
Inlet/outlet diameter	1" BSPT (male)	1" NPT (male)
	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m ³ /h (1.7 l/sec)	35 gpm
General filtration area	500 cm ²	77.5 in ²
Filtration volume	600 cm ³	37 in ³
Filter length L	340 mm	13 13/32"
Filter width W	130 mm	5 3/32"
Distance between end connections A	158 mm	6 7/32"
Weight	1.420 kg	3.13 lbs.
Maximum temperature	70° C	158 °F
pH	5-11	5-11



Filtration Grades

- Blue (400 micron / 40 mesh)
- Yellow (200 micron / 80 mesh)
- Red (130 micron / 120 mesh)
- Black (100 micron / 140 mesh)
- Green (55 micron)

Head Loss Chart



PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

Specifications

The pressure regulator shall be capable of operating at a constant, factory preset, non-adjustable outlet pressure of 6, 10, 12, 15, 20, 25, 30, 35, 40, 50, or 60 PSI (0.41, 0.69, 0.83, 1.03, 1.38, 1.72, 2.07, 2.41, 2.76, 3.45, or 4.14 bar) with a flow range between:

- 4 - 16 GPM (909 - 3634 L/hr) for 6 - 10 PSI models or
- 2 - 20 GPM (454 - 4542 L/hr) for 12 - 60 PSI models.

The pressure regulator shall maintain the nominal pressure at a minimum of 5 PSI (0.34 bar) above model inlet pressure and a maximum of 80 PSI (5.52 bar) above nominal model pressure*. Refer to the PRU performance curve to establish specific outlet pressures based on relative inlet pressure and flow rate. Always install downstream from all shut off valves. Recommended for outdoor use only. Not NSF certified.

All pressure regulator models shall be equipped with one of these inlet-x-outlet configurations:

Inlet

- ¾-inch Female National Pipe Thread (FNPT)
- 1-inch Female National Pipe Thread (FNPT)
- 1-inch Female British Standard Pipe Thread (FBSPT)

Outlet

- ¾-inch Female National Pipe Thread (FNPT)
- 1-inch Female National Pipe Thread (FNPT)
- 1-inch Female British Standard Pipe Thread (FBSPT)

The upper housing, lower housing, and internal molded parts shall be of engineering-grade thermoplastics with internal elastomeric seals and a reinforced elastomeric diaphragm. Regulation shall be accomplished by a fixed stainless steel compression spring, which shall be enclosed in a chamber isolated from the normal water passage.

Outlet pressure and flow shall be clearly marked on each regulator.

The pressure regulator shall carry a two-year manufacturer's warranty on materials, workmanship, and performance. Each pressure regulator shall be water tested for accuracy before departing the manufacturing facility.

The pressure regulator shall be manufactured by Senninger Irrigation in Clermont, Florida. Senninger is a Hunter Industries Company.

Physical

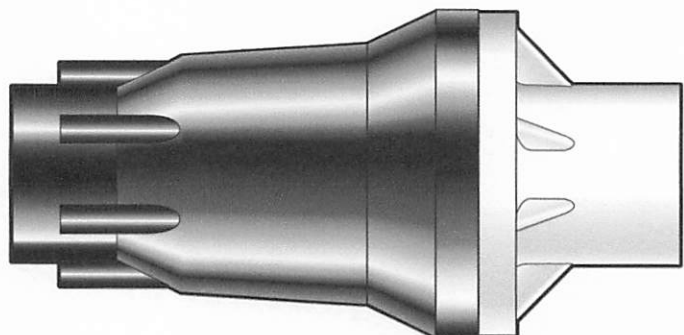
¾" FNPT x ¾" FNPT model (shown on right)

- Overall Length 5.2 inches (13.1 cm)
- Overall Width 2.5 inches (6.4 cm)

1" FNPT x 1" FNPT model

1" FBSPT x 1" FBSPT model

- Overall Length 5.8 inches (14.6 cm)
- Overall Width 2.5 inches (6.4 cm)



* Please consult factory for applications outside of recommended guidelines.



PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

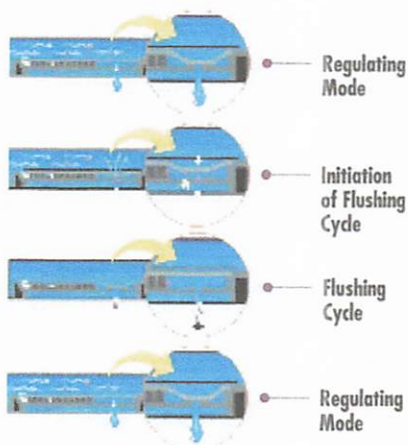
Model Numbers

Model #	Flow Range	Preset Operating Pressure	Maximum Inlet Pressure
PMR-6 MF	4 - 16 GPM (909 - 3634 L/hr)	6 PSI (0.41 bar)	80 psi (5.51 bar)
PMR-10 MF	4 - 16 GPM (909 - 3634 L/hr)	10 PSI (0.69 bar)	90 psi (6.20 bar)
PMR-12 MF	2 - 20 GPM (454 - 4542 L/hr)	12 PSI (0.83 bar)	90 psi (6.20 bar)
PMR-15 MF	2 - 20 GPM (454 - 4542 L/hr)	15 PSI (1.03 bar)	95 psi (6.55 bar)
PMR-20 MF	2 - 20 GPM (454 - 4542 L/hr)	20 PSI (1.38 bar)	100 psi (6.89 bar)
PMR-25 MF	2 - 20 GPM (454 - 4542 L/hr)	25 PSI (1.72 bar)	105 psi (7.24 bar)
PMR-30 MF	2 - 20 GPM (454 - 4542 L/hr)	30 PSI (2.07 bar)	110 psi (7.58 bar)
PMR-35 MF	2 - 20 GPM (454 - 4542 L/hr)	35 PSI (2.41 bar)	115 psi (7.93 bar)
PMR-40 MF	2 - 20 GPM (454 - 4542 L/hr)	40 PSI (2.76 bar)	120 psi (8.27 bar)
PMR-50 MF	2 - 20 GPM (454 - 4542 L/hr)	50 PSI (3.45 bar)	130 psi (8.96 bar)
PMR-60 MF	2 - 20 GPM (454 - 4542 L/hr)	60 PSI (4.14 bar)	140 psi (9.65 bar)

NETAFIM™

Bioline® Dripperline

Pressure Compensating Dripperline for Wastewater



Bioline's Self-Cleaning, Pressure Compensating Dripper is a fully self-contained unit molded to the interior wall of the dripper tubing.

As shown at left, Bioline is continuously self-cleaning during operation, not just at the beginning and end of a cycle. The result is dependable, clog free operation, year after year.



Product Advantages

The Proven Performer

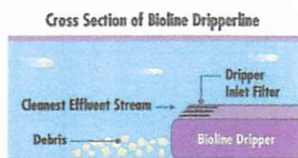
- Tens of millions of feet used in wastewater today.
- Bioline is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for many years of hard use in wastewater applications.

Quality Manufacturing with Specifications Designed to Meet Your Needs

- Pressure compensating drippers assure the highest application uniformity - even on sloped or rolling terrain.
- Excellent uniformity with runs of 400 feet or more - reducing installation costs.
- Highest quality-control standards in the industry: Cv of 0.25 (coefficient of manufacturer's variation).
- A selection of flows and spacings to satisfy the designer's demand for almost any application rate.

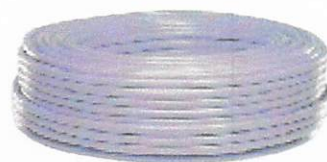
Long-Term Reliability

- Protection against plugging:
 - Dripper inlet raised 0.27" above wall of tubing to prevent sediment from entering dripper.
 - Drippers impregnated with Vinyzene to prevent buildup of microbial slime.
 - Unique self-flushing mechanism passes small particles before they can build up.



Root Safe

- A physical barrier on each Bioline dripper helps prevent root intrusion.
- Protection never wears out - never depletes - releases nothing to the environment.
- Working reliably for up to 15 years in subsurface wastewater installations.
- Additional security of chemical root inhibition with Techfilter - supplies Trifluralin to the entire system, effectively inhibiting root growth to the dripper outlets.



Applications

- For domestic strength wastewater disposal.
- Installed following a treatment process.
- Can be successfully used on straight septic effluent with proper design, filtration and operation.
- Suitable for reuse applications using municipally treated effluent designated for irrigation water.

Specifications

Wall thickness (mil): 45*

Nominal flow rates (GPH): .4, .6, .9*

Common spacings: 12", 18", 24"*

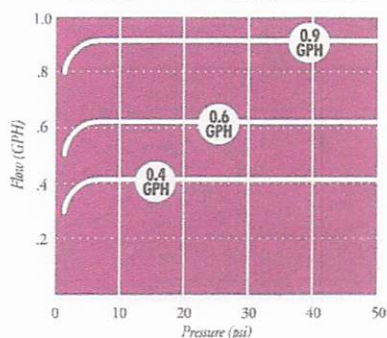
Recommended filtration: 120 mesh

Inside diameter: .570*

Color: Purple tubing indicates non-potable source

*Additional flows, spacings, and pipe sizes available by request. Please contact Netafim USA Customer Service for details.

BIOLINE Flow Rate vs. Pressure



NETAFIM USA

5470 E. Home Ave. • Fresno, CA 93727
888.638.2346 • 559.453.6800
FAX 800.695.4753
www.netafimusa.com

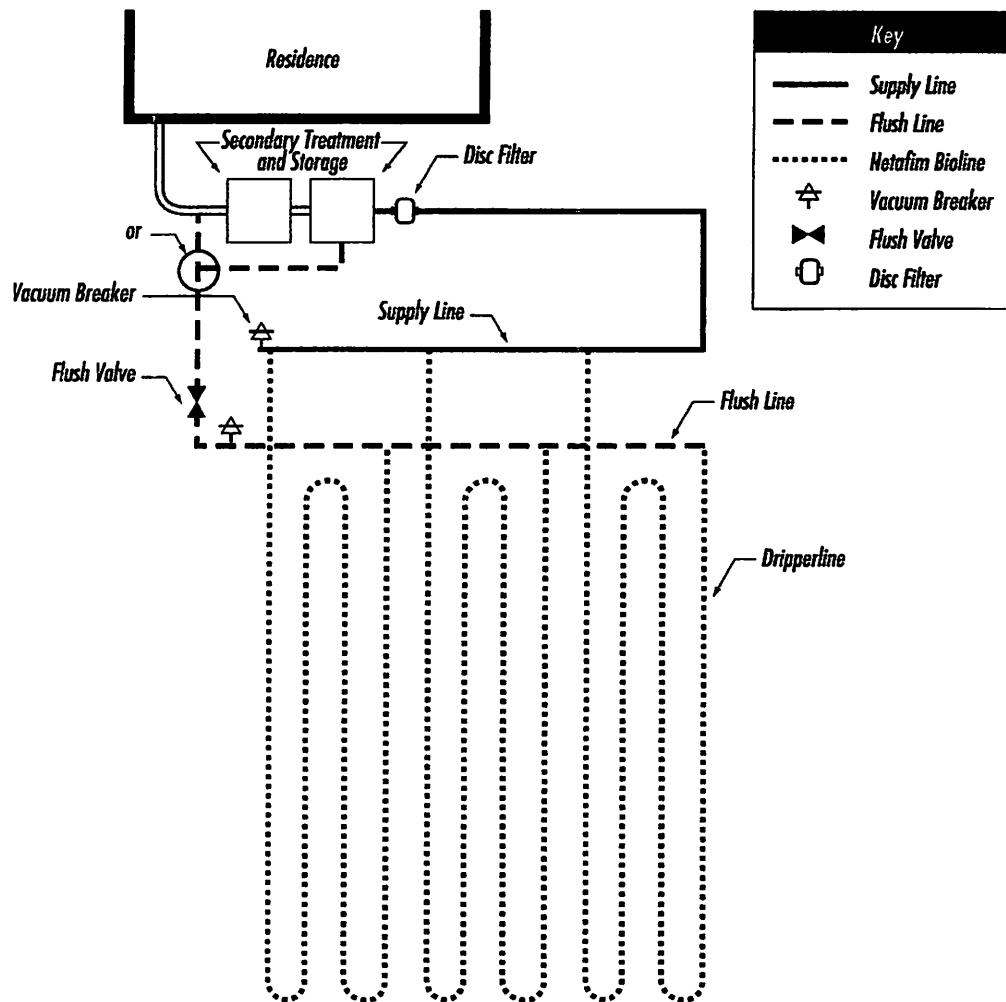
NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

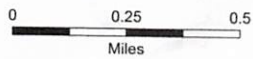
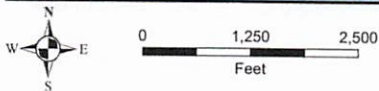
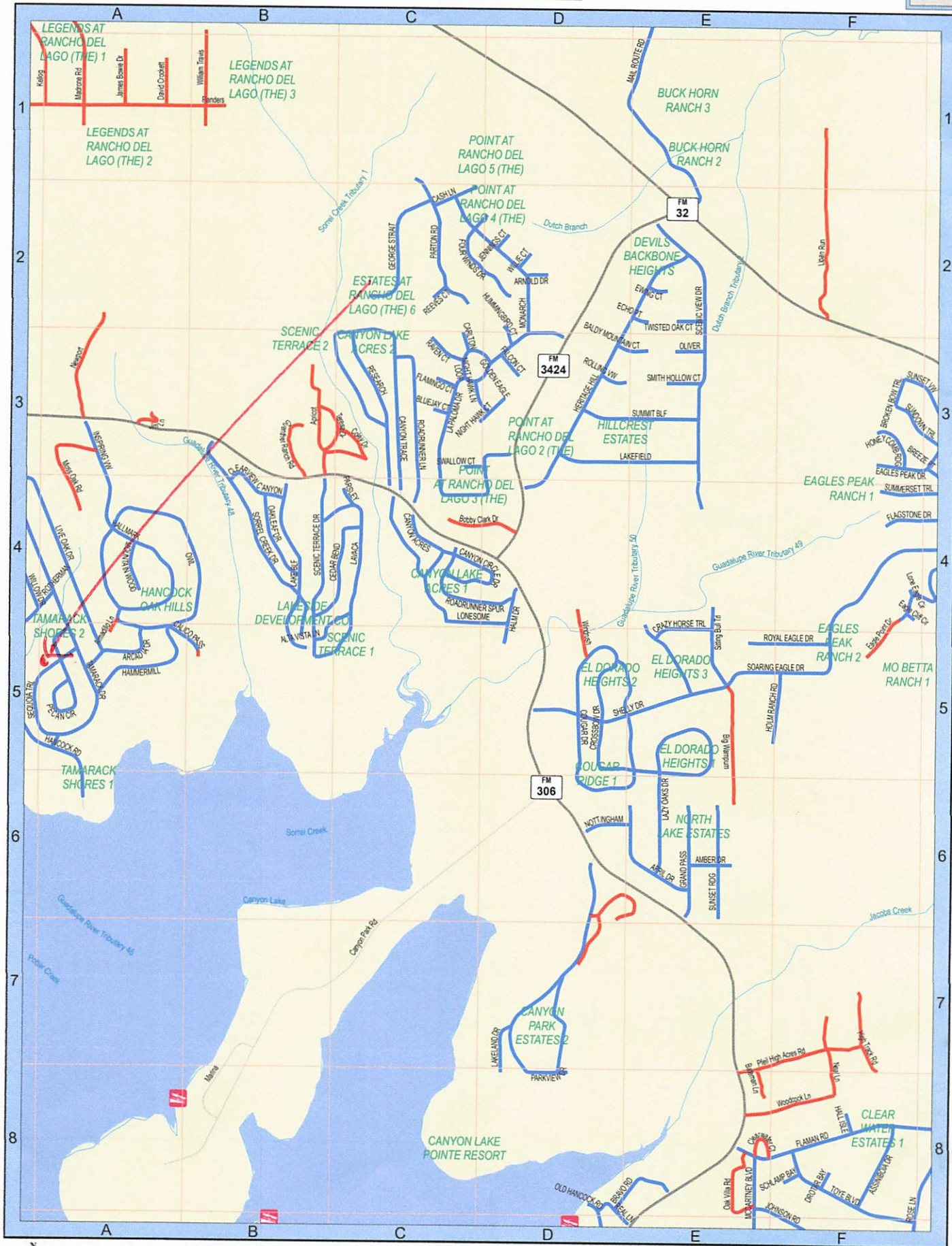
SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

Rectangular field with supply and flush manifold on same side and in same trench;

- Locate supply and flush manifold in same trench
- Dripperlines are looped at the end opposite the supply and flush manifolds
- The longest Bioline length should not exceed 400 ft. Drip fields 200 ft. in length might loop the Bioline once; drip dispersal fields under 100 ft. might be looped twice, as illustrated





CTOT 20-50657-AB

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS:
YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

GENERAL WARRANTY DEED

STATE OF TEXAS

§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF COMAL

§

THAT MILAGROS PANSAROLA RAYMUNDO, and RAYMOND CAPARAS OROSA, and ^{Maria}MARIFE OROSA, hereinafter called Grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) cash and other good and valuable consideration in hand paid by MARIA T. ALVIDREZ PAEZ, a single woman and LARRY STOSPAL, a single man, hereinafter called Grantee, the receipt and sufficiency of which is hereby acknowledged;

HAS GRANTED, SOLD and CONVEYED, and by these presents does GRANT, SELL and CONVEY unto the said Grantee the following described property situated in Comal County, Texas, to-wit:

Lot 51, TAMARACK SHORES, SECTION 1, an addition in Comal County, Texas, according to the map or plat recorded in Volume 4, page 7, Map and Plat Records of Comal County, Texas.

This conveyance is made subject to, all and singular, the restrictions, conditions, easements, and covenants, if any, applicable to and enforceable against the above described property as reflected by the records of the County Clerk of Comal County, Texas.

Taxes for the current year have been prorated and are thereafter assumed by Grantee.

POOR QUALITY

Grantor does hereby bind Grantor, Grantor's heirs, executors, administrators, and successors to warrant and forever defend, all and singular, the said premises unto the said Grantee, Grantee's heirs, executors, administrators, successors, and assigns against any person whomsoever claiming or to claim the same or any part thereof.

DATED this the 4th day of ~~July~~ ^{AUGUST}, 2020.

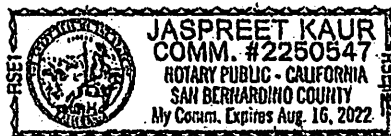
Milagros Pansarola Raymundo
MILAGROS PANSAROLA RAYMUNDO

Raymond Caparas Orosa
RAYMOND CAPARAS OROSA

Marif Orosa
MARIF OROSA

STATE OF CA §
COUNTY OF San Bernardino §

This instrument was acknowledged before me on this the 4th day of ~~July~~ ^{Aug}, August 2020, by MILAGROS PANSAROLA RAYMUNDO



Jaspreet Kaur
Notary Public, State of CA

STATE OF _____ §
COUNTY OF _____ §

This instrument was acknowledged before me on this the _____ day of July, 2020, by RAYMOND CAPARAS OROSA.

Notary Public, State of _____

STATE OF _____ §
COUNTY OF _____ §

This instrument was acknowledged before me on this the _____ day of July, 2020, by MARIF OROSA

POOR QUALITY

GRANTEE'S MAILING ADDRESS:

1172 Sequoia Trl

Canyon Lake TX 75133

722 DEEDS.
Capital Title Co. (KE)
GF #20-506657-NB

**CALIFORNIA ALL-PURPOSE
CERTIFICATE OF ACKNOWLEDGMENT**
(CALIFORNIA CIVIL CODE § 1189)

A notary public or other officer completing this certificate verifies only the identity of the individual, who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF Los Angeles

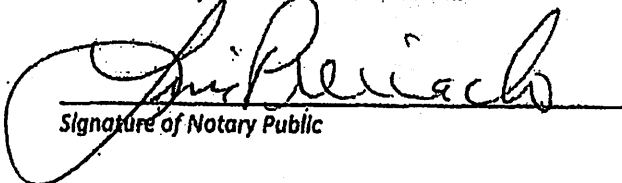
On 3RD AUG 2020 before me, Luis Preciado, Notary Public

personally appeared RAYMOND CAPARAS ROSA

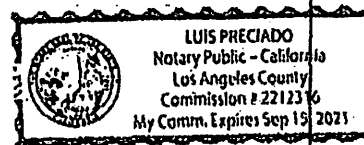
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.


Signature of Notary Public

Notary Seal)



ADDITIONAL OPTIONAL INFORMATION

Description of Attached Document

GENERAL

Title or Type of Document: WARRANTY DEED Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Additional Information: _____

**CALIFORNIA ALL-PURPOSE
CERTIFICATE OF ACKNOWLEDGMENT**
(CALIFORNIA CIVIL CODE § 1189)

A notary public or other officer completing this certificate verifies only the identity of the individual, who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF Los Angeles

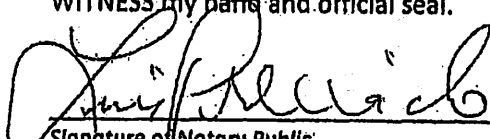
On 3rd AUG 2020 before me, Luis Preciado, Notary Public

personally appeared MARIFE AMI SUSMENA ROSA

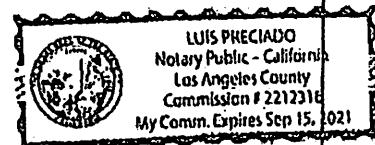
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.


Signature of Notary Public

Notary Seal)



ADDITIONAL OPTIONAL INFORMATION

Description of Attached Document

Title or Type of Document: GENERAL WARRANTY DEED Document Date: _____
Number of Pages: _____ Signer(s) Other Than Named Above: Filed and Recorded
Additional Information: Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
08/05/2020 02:38:00 PM
CHRISTY 5 Pages(s)
202006031965



Bobbie Koepf

From: [Ritzen,Brenda](#)
To: ["stospall@marshall.edu"](mailto:stospall@marshall.edu); ["\(gregjohnsonpe@yahoo.com\)"](mailto:gregjohnsonpe@yahoo.com)
Subject: RE: 118401.pdf
Date: Wednesday, May 7, 2025 10:53:00 AM
Attachments: [Pages from 118401.pdf](#)
[image001.png](#)

Dear Property Owner / Agent :

See attached. The 2 year initial maintenance contract included with your permit submittal has been voided by the maintenance provider. Please submit a new 2 year initial maintenance contract with a TCEQ authorized maintenance provider. Your permit to construct will be on hold until a new signed contract is received.

Thank you,



Brenda Ritzen
Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org

From: Ritzen,Brenda
Sent: Tuesday, March 11, 2025 2:57 PM
To: stospall@marshall.edu; '(gregjohnsonpe@yahoo.com)' <gregjohnsonpe@yahoo.com>
Subject: 118401.pdf

Dear Property Owner / Agent :

A copy of the Permit to Construct for the referenced permit submittal is attached.

Thank you,

From: [Helmke,Shelly K.](#)
To: [Ritzen,Brenda](#); [Olvera,Brandon](#)
Subject: FW: void contract putting in different system and went with another installer
Date: Wednesday, May 7, 2025 10:43:37 AM
Attachments: [Scan.pdf](#)

From: BCAS <bcas@blockcreek.com>
Sent: Wednesday, May 7, 2025 9:48 AM
To: Helmke,Shelly K. <helmks@co.comal.tx.us>
Subject: void contract putting in different system and went with another installer

This email originated from outside of the organization.

Do not click links or open attachments unless you recognize the sender and know the content is safe.

- Comal IT

VOID

WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT

Regulatory Authority COMAL

Block Creek Aerobic Services, LLC

444 A Old Hwy #9

Comfort, TX 78013

Off. (830) 995-3189

Fax. (830) 995-4051

Permit/License Number _____

Customer MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL

Site Address 1160 SEQUOIA TRAIL

City CANYON LAKE Zip 78133

Mailing Address 1172 SEQUOIA TRAIL, C.L., TX 78133

County COMAL Map # CCEO 19, A5

Phone 214-870-0450

Email stospali@marshall.edu

TAMARACK SHORES, SECTION 1, LOT 51

I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL (hereinafter referred to as "Customer") and Block Creek Aerobic Services, LLC. By this agreement, Block Creek Aerobic Services, LLC and its employees (hereinafter inclusively referred to as "Contractor") agree to render services at the site address stated above, as described herein, and the Customer agrees to fulfill his/her/their responsibilities, as described herein.

II. Effective Date:

This Agreement commences on LTO and ends on _____ for a total of two (2) years (initial agreement) or one (1) year (thereafter). If this is an initial agreement (new installation), the Customer shall notify the Contractor within two (2) business days of the system's first use to establish the date of commencement. If no notification is received by Contractor within ninety (90) days after completion of installation or where county authority mandates, the date of commencement will be the date the "License to operate" (Notice of Approval) was issued by the permitting authority. This agreement may or may not commence at the same time as any warranty period of installed equipment, but in no case shall it extend the specified warranty.

III. Termination of Agreement:

This Agreement may be terminated by either party for any reason, including for example, substantial failure of either party to perform in accordance with the terms of this Agreement, without fault or liability of the terminating party. The terminating party must provide written notice to the non-terminating party thirty (30) days prior to the termination of this Agreement. If this Agreement is terminated, Contractor will be paid at the rate of \$75.00 per hour for any work performed and for which compensation has not been received. After the deduction of all outstanding charges, any remaining monies from prepayment for services will be refunded to customer within thirty (30) days of termination of this Agreement. Either party terminating this Agreement for any reason, including non-renewal, shall notify in writing the equipment manufacturer and the appropriate regulatory agency a minimum of thirty (30) days prior to the date of such termination. Nonpayment of any kind shall be considered breach of contract and a termination of contract.

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Contractor will:

a. Inspect and perform routine upkeep on the On-Site Sewage Facility (hereinafter referred to as OSSF) as recommended by the treatment system manufacturer, and required by state and/or local regulation, for a total of three visits to site per year. The list of items checked at each visit shall be the: control panel, Electrical circuits, timer, Aeration including compressor and diffusers, CFM/PSI measured, lids safety pans, pump, compressor, sludge levels, and anything else required as per the manufacturer.

b. Provide a written record of visits to the site by means of an inspection tag attached to or contained in the control panel.

c. Repair or replace, if Contractor has the necessary materials at site, any component of the OSSF found to be failing or inoperative during the course of a routine monitoring visit. If such services are not covered by warranty, and the service(s) cost less than \$100.00, Customer hereby authorizes Contractor to perform the service(s) and bill Customer for said service(s). When service costs are greater than \$100.00, or if contractor does not have the necessary supplies at the site, Contractor will notify Customer of the required service(s) and the associated cost(s). Customer must notify Contractor of arrangements to affect repair of system with in two (2) business days after said notification.

d. Provide sample collection and laboratory testing of TSS and BOD on a yearly basis (commercial systems only).

e. Forward copies of this Agreement and all reports to the regulatory agency and the Customer.

f. Visit site in response to Customer's request for unscheduled services within forty-eight (48) hours of the date of notification (weekends and holidays excluded) of said request. Unless otherwise covered by warranty, costs for such unscheduled responses will be billed to Customer.

V. Disinfection:

MS

Customer's Initials

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all rights reserved

RC

Contractor's Initials

VOID

____ Not required; X required. The responsibility to maintain the disinfection device(s) and provide any necessary chemicals is that of the Customer.

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The customer is responsible for each and all of the following:

a. Provide all necessary yard or lawn maintenance and removal of all obstacles, including but not limited to dogs and other animals, vehicles, trees, brush, trash, or debris, as needed to allow the OSSF to function properly, and to allow Contractor safe and easy access to all parts of the OSSF.

b. Protect equipment from physical damage including but not limited to that damage caused by insects.

c. Maintain a current license to operate, and abide by the conditions and limitations of that license, and all requirements for and OSSF from the State and/or local regulatory agency, whichever requirements are more stringent, as well as the proprietary system's manufacturer recommendations.

d. Notify Contractor immediately of any and all alarms, and/or any and all problems with, including failure of, the OSSF.

e. Provide, upon request by Contractor, water usage records for the OSSF so that the Contractor can perform a proper evaluation of the performance of the OSSF.

f. Allow for samples at both the inlet and outlet of the OSSF to be obtained by Contractor for the purpose of evaluating the OSSF's performance. If these samples are taken to a laboratory for testing, with the exception of the service provided under Section IV (d) above, Customer agrees to pay Contractor for the sample collection and transportation, portal to portal, at a rate of \$35.00 per hour, plus the associated fees for laboratory testing.

g. Prevent the backwash or flushing of water treatment or conditioning equipment from entering the OSSF.

h. Prevent the condensation from air conditioning or refrigeration units, or the drains of icemakers, from hydraulically overloading the aerobic treatment units. Drain lines may discharge into the surface application pump tank if approved by system designer.

i. Provide for pumping and cleaning of tanks and treatment units, when and as recommended by Contractor, at Customer's expense.

j. Maintain site drainage to prevent adverse effects on the OSSF.

k. Pay promptly and fully, all Contractor's fees, bills, or invoices as described herein.

IX. Access by Contractor:

Contractor is hereby granted an easement to the OSSF for the purpose of performing services described herein. Contractor may enter the property during Contractor's normal business hours and/or other reasonable hours without prior notice to Customer to perform the Services and/or repairs described herein. Contractor shall have access to the OSSF electrical and physical components. Tanks and treatment units shall be accessible by means of man ways, or risers and removable covers, for the purpose of evaluation as required by State and/or local rules and the proprietary system manufacturer. It is Customers responsibility to keep lids exposed and accessible at all times.

X. Limit of Liability:

Contractor shall not be held liable for any incidental, consequential, or special damages, or for economic loss due to expense, or for loss of profits or income, or loss of use to Customer, whether in contract tort or any other theory. In no event shall Contractor be liable in an amount exceeding the total Fee for Services amount paid by Customer under this Agreement.

XI. Indemnification:

Customer (whether one or more) shall and does hereby agree to indemnify, hold harmless and defend Contractor and each of its successors, assigns, heirs, legal representatives, devisees, employees, agents and/or counsel (collectively "Indemnitees") from and against any and all liabilities, claims, damages, losses, liens, causes of action, suits, fines, judgments and other expenses (including, but not limited to, attorneys' fees and expenses and costs of investigation), of any kind, nature or description, (hereinafter collectively referred to as "Liabilities") arising out of, caused by, or resulting, in whole or in part, from this Agreement.

CS

Customer's Initials



RC

Contractor's Initials

THIS INDEMNIFICATION APPLIES EVEN IF SUCH LIABILITIES ARE CAUSED BY THE CONCURRENT OR CONTRIBUTORY NEGLIGENCE OR BY THE STRICT LIABILITY OF ANY INDEMNITEE.

Customer hereby waives its right of recourse as to any Indemnitee when Indemnification applies, and Customer shall require its insurer(s) to waive its/their right of subrogation to the extent such action is required to render such waiver of subrogation effective. Customer shall be subrogated to Indemnitees with respect to all rights Indemnitees may have against third parties with respect to matters as to which Customer provides indemnity and/or defense to Indemnitees. No Indemnification is provided to Indemnitees when the liability or loss results from (1) the sole responsibility of such Indemnitee; or, (2) the willful misconduct of such Indemnitee. Upon irrevocable acceptance of this Indemnification obligation, Customer, in its sole discretion, shall select and pay counsel to defend Indemnitees of and from any action that is subject to this Indemnification provision. Indemnitees hereby covenant not to compromise or settle any claim or cause of action for which Customer has provided Indemnification without the consent of Customer.

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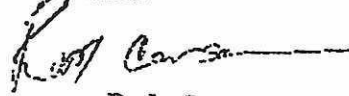
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Rudy Carson

Block Creek Aerobic Services, LLC,
Contractor
MP# 0002036


Customer Signature

2/13/25
Date

VOID


Customer's Initials

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RC

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VOID

WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT

Regulatory Authority COMAL
Block Creek Aerobic Services, LLC
444 A Old Hwy #9
Comfort, TX 78013
Off. (830) 995-3189
Fax. (830) 995-4051

TAMARACK SHORES, SECTION 1, LOT 51

Permit/License Number _____
Customer MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL
Site Address 1160 SEQUOIA TRAIL
City CANYON LAKE Zip 78133
Mailing Address 1172 SEQUOIA TRAIL, C.L., TX 78133
County COMAL Map # CCEO 19, A5
Phone 214-870-0450
Email stospali@marshall.edu

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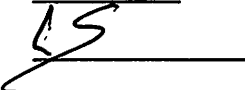
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Customer's Initials



RC

Contractor's Initials

VOID

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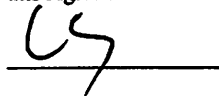
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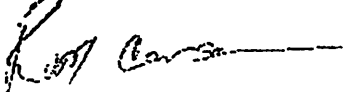
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Rudy Carson

Block Creek Aerobic Services, LLC,
Contractor
MP# 0002036



Customer Signature

2/13/25

Date



Customer's Initials

© 1/14/2016
copyright
all rights reserved

RC

Contractor's Initials



COMALCOUNTY
ENGINEER'S OFFICE

ON SITE SEWAGE FACILITY APPLICATION



TAMARACK SHORES, SECTION 1, LOT 51

195 DAVID JONAS DR
NEW BRAUNFELS, TX 78132
(830) 608-2090
WWW.CCEO.ORG

Planning Materials & Site Evaluation as Required by TCEQ GREG W. JOHNSON, P.E.

System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING

Size of Septic System Required Based on Planning Materials & Soil Evaluation

Tank Size(s) (Gallons) NUWATER B-550-PC Absorption/Application Area (Sq Ft) 1276

Gallons Per Day (As Per TCEQ Table 111) 180

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)

Is the property located over the Edwards Recharge Zone? ☐ Yes ☒ No

(if yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? ☐ Yes ☒ No

(if yes, the R.S. or P.E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)

Is there at least one acre per single family dwelling as per 285.40(c)(1)? ☐ Yes ☒ No

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? ☐ Yes ☒ No

(if yes, the R.S or P.E. shall certify that the OSSF design will comply with all-provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? ☒ Yes ☐ No

Is there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No

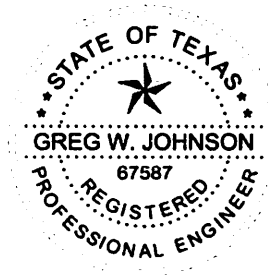
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? ☐ Yes ☒ No

(if yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to Construct will not be issued for the proposed OSSF until the UP has been approved by the appropriate reg

Is this property within an incorporated city? ☐ Yes ☒ No

If yes, indicate the city: _____



FIRM #2585

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

[Signature]
Signature of Designer

December 29, 2024
Date

VOID

DRIP TUBING SYSTEM

DESIGNED FOR:

TERIA T. ALVIDREZ PAEZ & LARRY STOSPAL
1172 SEQUOIA TRAIL
CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Tamarack Shores, Section 1, Lot 51, at 1160 Sequoia Trail, this septic will serve a two bedroom residence (1495 sf) in area with moderate depth Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 or 4-inch SCH-40 pipe discharges from the residence to a NuWater B550-400PT 600gpd aerobic plant containing a 353-gallon pretreatment tank, an aerobic treatment plant, and a 768-gallon pump chamber. The effluent pump in the ATU is activated by a time controller allowing the distribution ten times per day with an 8 minute run time with float setting at 180 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron disc filter (Arkal) then through a 1" SCH-40 manifold to a 1276sf. drip tubing field, with *Netifim* drip lines set approximately two feet apart with *0.61 gph* emitters set every two feet, as per the attached schematic. A pressure regulator PMR-MF 40 psi installed in the pump tank on the manifold to the field will maintain pressure at 40 psi. A 1" SCH-40 return line is installed to continuously flush the system to the pump tank by throttling a 1" ball valve. Solids caught in the disc filter are flushed each cycle back to the trash tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be excavated eight inches then field area scarified then 2" of Type II or Type III soil added, then the drip tubing will be laid and capped with 6" of Type II or Type III soil (*NOT SAND*). *A minimum of 12" soil required between drip and rock/tank.* The field area will be sodded with grass prior to system startup. Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2023). This includes access limitation (<65lbs lid or hardware secured lid), inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap to prevent tank entry if the cap is unknowingly damaged or removed.

DESIGN SPECIFICATIONS:

Daily waste flow: 180 gpd Table III

Pretreatment tank size: 353 Gal

Plant Size: NuWater B-550-400PT 600 gpd (TCEQ Approved)

VOID

Reserve Capacity after High Level: 60 Gal (>1/3 day Req'd)

Application Rate: $R_a = 0.2$ gal/sf

Total absorption area: $Q/R_a = 180$ GPD/ $0.20 = 900$ sf. (Actual 1276 sf.)

Total linear feet drip tubing: 638' *Netifim* drip tubing .61 GPH

Pump requirement: 319 emitters @ .61 gph @ 30 psi = 3.24 gpm

Pump Requirement (cont.): FPS E-Series 0.5 hp submersible well pump

Dosing volume: 50-70 gal.

Pump Tank Calculations: 768 Gal (14.5 gal/in.)

Volume below working level = 15" = 218 gal

Working level = 180 gal = 12.5"

Reserve Requirement = >1/3 day = 60 gal. = 4.25"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

IN DRIP TUBING W/ NOM. DIA. 0.55" ID

$MSV = 2 \text{ FPS } (\pi d^2 / 4) * 7.48 \text{ gal/cf} * 60 \text{ sec/min}$

$MSV = 2(3.14159((.55/12)^2)/4) * 7.48 * 60$

$MSV = 1.5 \text{ gpm MIN FLOW RATE} \times 3 = 4.5 \text{ gpm}$

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

$MSV = 2 \text{ FPS } (\pi d^2 / 4) * 7.48 \text{ gal/cf} * 60 \text{ sec/min}$

$MSV = 2(3.14159((1.049/12)^2)/4) * 7.48 * 60$

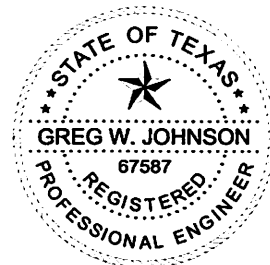
$MSV = 5.4 \text{ GPM}$

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)


12/29/24
Greg W. Johnson, P.E. No. 67587 - F-2585
170 Hollow Oak
New Braunfels, Texas 78132 830/905-2778



VO

X= TEST HOLE



1" VACUUM BREAKER

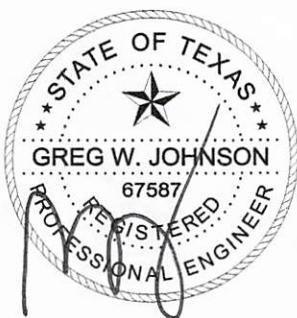
POOL
PAVILLION

POOL

POOL EQUIPMENT

LOT 51

6' UTILITY EASEMENT



SEQUOIA TRAIL

OWNER: MARIA T. ALVIDREZ PAEZ & LARRY STOSPAL		DRAWN BY: GWJ	
STREET ADDRESS: 1160 SEQUOIA TRAIL			
LEGAL DESC: TAMARACK SHORES		UNIT/SECTION/PHASE: 1	BLOCK: LOT: 51
PREPARED BY: GREG W. JOHNSON, P.E. F#002585		SCALE: 1"=25'	DATE: 12/28/2024 REVISED:

Assembly Details

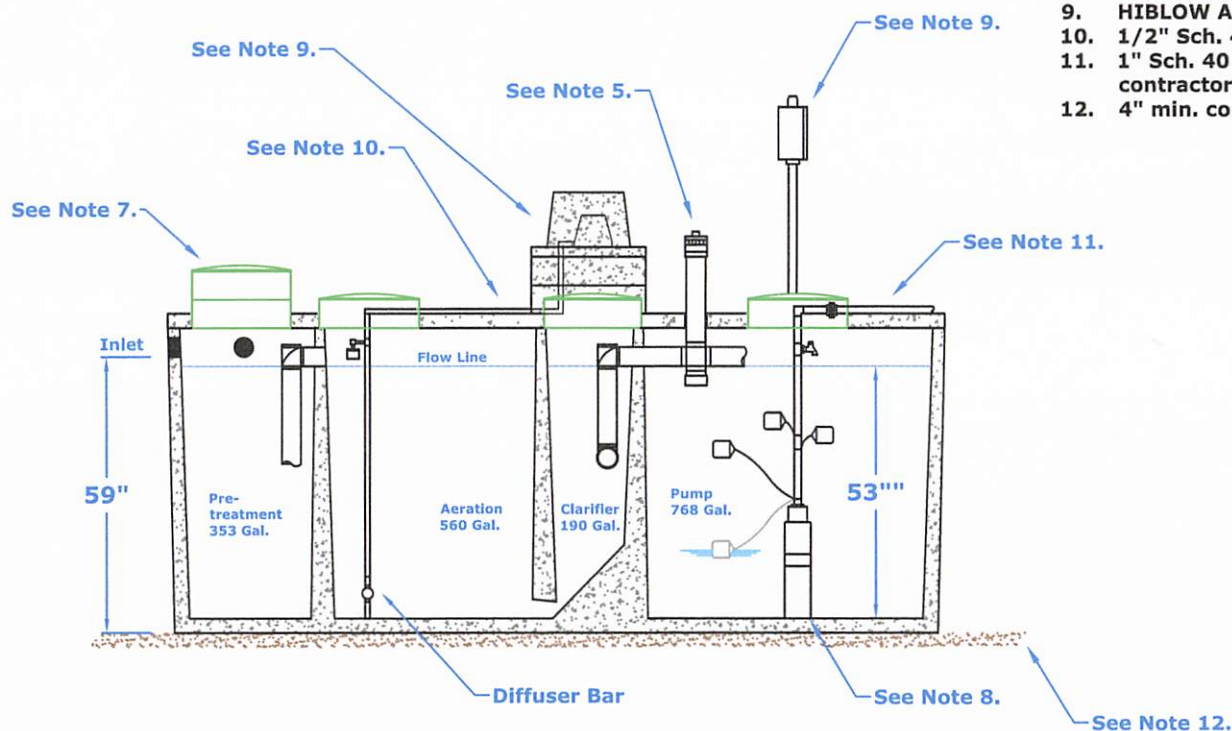
OSSF

VOID



GENERAL NOTES:

1. Plant structure material to be precast concrete and steel.
2. Maximum burial depth is 30" from slab top to grade.
3. Weight = 14,900 lbs.
4. Treatment capacity is 600 GPD. Pump compartment set-up for a 360 GPD Flow Rate (4 bedroom, < 4,000 sq/ft living area). Please specify for additional set-up requirements. BOD Loading = 1.62 lbs. per day.
5. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
6. Bio-Robix B-550 Control Center w/ Timer for night spray application. Optional Micro Dose (min/sec) timer available for drip applications. Electrical Requirement to be 115 Volts, 60 Hz, Single Phase, 30 AMP, Grounded Receptacle.
7. 20" Ø access riser w/ lid (Typical 4). Optional extension risers available.
8. 20 GPM 1/2 HP, high head effluent pump.
9. HIBLOW Air Compressor w/ concrete housing.
10. 1/2" Sch. 40 PVC Air Line (Max. 50 Lft from Plant).
11. 1" Sch. 40 PVC pipe to distribution system provided by contractor.
12. 4" min. compacted sand or gravel pad by Contractor



DIMENSIONS:

Outside Height: 67"
Outside Width: 63"
Outside Length: 164"

MINIMUM EXCAVATION DIMENSIONS:

Width: 76"
Length: 176"

NuWater B-550 (600 GPD)
Aerobic Treatment Plant (Assembled)

Model: B-550-PC-400PT

March, 2012 - Rev 1
By: A.S.

Scale:

* All Dimensions subject to allowable specification tolerances.

Dwg. #: ADV-B550-3

Advantage
Wastewater Solutions llc

Advantage Wastewater Solutions llc.
444 A Old Hwy No 9
Comfort, TX 78013
830-995-3189
fax 830-995-4051

VOID

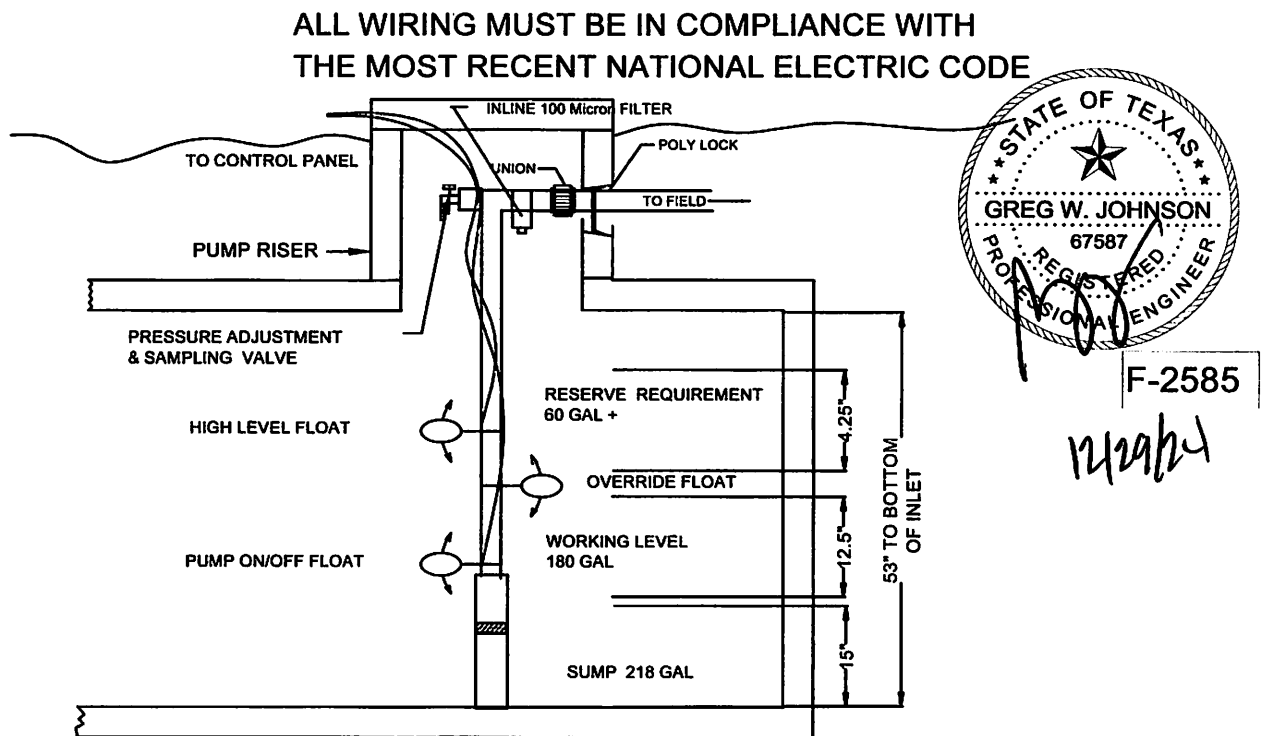
TANK NOTES:

Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

A two way sanitary tee is required between residence and tank.

A minimum of 4" of sand, sandy loam, clay loam free of rock shall be placed under and around tanks



TYPICAL PUMP TANK CONFIGURATION
NU-WATER 550PC -400PT 768 GAL PUMP TANK



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

		118401
<i>Date Received</i>	<i>Initials</i>	<i>Permit Number</i>

Instructions:

Place a check mark next to all items that apply. For items that do not apply, place "N/A". This OSSF Development Application Checklist **must** accompany the completed application.

OSSF Permit

- ☒ Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate
- ☒ Site/Soil Evaluation Completed by a Certified Site Evaluator or a Professional Engineer
- ☒ Planning Materials of the OSSF as Required by the TCEQ Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications.
- ☒ Required Permit Fee - See Attached Fee Schedule
- ☒ Copy of Recorded Deed
- ☒ Surface Application/Aerobic Treatment System
 - ☒ Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public
 - ☒ Signed Maintenance Contract with Effective Date as Issuance of License to Operate

I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application.

Signature of Applicant

02/18/2025

Date

___ COMPLETE APPLICATION	
Check No. _____	Receipt No. _____

INCOMPLETE APPLICATION
___ (Missing Items Circled, Application Refused)