

Preliminary Field Check For Drip Systems



COMAL COUNTY

ENGINEER'S OFFICE

RE: *1316 Lonesome
Canyon Lake Acres 2
Lot 470 & 471
Known as "Drain" between Lots 469 and 472*

Dear Property Owner & Agent,

Thank you for your submission. We have reviewed the planning materials for the referenced permit application, and unfortunately, they are insufficient. To proceed with processing this permit, we require the following:

1. Indicate on all documents where it states Lot 470 and 471: *Known as "Drain" between Lots 469 and 472*
2. Note: there are no middle lot lines shown on the drain property.
3. Revise accordingly and resubmit.

If you have any questions, you can email me or call the office.

Thank You,

| **Brandon Olvera** | **Designated Representative OS0034792** |

| Comal County | www.cceo.org | f: 830-608-2078 | e: olverb@co.comal.tx.us |



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

		118412
<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

02/22/2025

Date

___ COMPLETE APPLICATION Check No. _____ Receipt No. _____

INCOMPLETE APPLICATION ___ (Missing Items Circled, Application Refused)
--



ON-SITE SEWAGE FACILITY APPLICATION

Date January 8, 2025

Permit Number 118412

1. APPLICANT / AGENT INFORMATION

Owner Name HIGHLAND VISTA DEVELOPMENT COMPANY
Mailing Address 2075 FM 2673 UNIT D
City, State, Zip CANYON LAKE TEXAS 78133
Phone # 830-832-8392
Email michael@highlandvistadev.com

Agent Name GREG JOHNSON, P.E.
Agent Address 170 HOLLOW OAK
City, State, Zip NEW BRAUNFELS TEXAS 78132
Phone # 830-905-2778
Email gregjohnsonpe@yahoo.com

2. LOCATION

Subdivision Name CANYON LAKE ACRES Unit 2 Lot 470 & 471 Block _____
Survey Name / Abstract Number _____ Acreage _____
Address 1316 LONESOME DRIVE City CANYON LAKE State TX Zip 78133

3. TYPE OF DEVELOPMENT

Single Family Residential
Type of Construction (House, Mobile, RV, Etc.) HOUSE
Number of Bedrooms 2
Indicate Sq Ft of Living Area 1300

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: \$ 260,000 (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.

Michael Coffey
Signature of Owner

2/5/25
Date



ON-SITE SEWAGE FACILITY APPLICATION

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) NUWATER B-550-PC Absorption/Application Area (Sq Ft) 1368

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

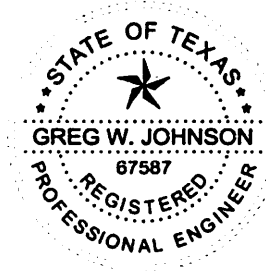
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)

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 of Designer

January 10, 2025
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):

2 UNIT/PHASE/SECTION _____ BLOCK 470 & 471 LOT _____ CANYON LAKE ACRES _____ SUBDIVISION _____

IF NOT IN SUBDIVISION: _____ **ACREAGE** _____ **SURVEY** _____

The property is owned by (insert owner's full name): HIGHLAND VISTA DEVELOPMENT COMPANY

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 5th DAY OF February, 2025

x Michael Coffe
Owner(s) signature(s)

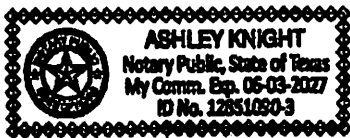
MICHAEL COFFER - MANAGER
Owner (s) Printed name (s)

MICHAEL COFFER

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 5th DAY OF

February, 2025

Ashley Knight
Notary Public Signature



AFFIDAVIT TO THE PUBLIC

THE COUNTY OF COMAL §
STATE OF TEXAS §

MICHAEL COFFER w/ HIGHLAND VISTA DEVELOPMENT

Before me, the undersigned authority, on this day personally appeared _____ who after being by me duly sworn, upon oath state that they are the owner of record of that certain tract or parcel of land lying and being situated in Comal County, Texas, and being more particularly described as follows:

2 UNIT/PHASE/SECTION _____ BLOCK 479 & 471 LOT _____ CANYON LAKE ACRES _____ SUBDIVISION

IF NOT IN SUBDIVISION: _____ ACREAGE _____ SURVEY

The property is owned by (insert owner's full name): HIGHLAND VISTA DEVELOPMENT COMPANY

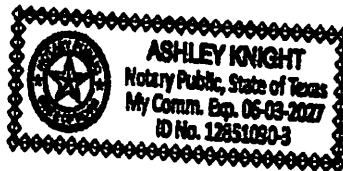
The undersigned further state that the on-site sewage facility for the referenced properties crosses the boundary between the properties. These properties cannot be sold separately and must be sold as one. Any buyer or transferee is hereby notified of this requirement.

WITNESS MY/OUR HAND(S) on this 5th day of February, 20 25.

X Michael Coffe
MICHAEL COFFER - MANAGER

SWORN TO AND SUBSCRIBED BEFORE ME on this 5th day of February, 20 25.

[Signature]
Notary Public Signature



Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
02/10/2025 01:21:31 PM
TAMMY 2 Pages(s)
202506003822



Bobbie Koepf

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 HIGHLAND VISTA DEVELOPMENT CO
Site Address 1316 LONESOME
City CANYON LAKE Zip 78133
Mailing Address 2075 FM 2673, UNIT D, C.L., TX 78133
County COMAL Map # CCEO 19, E3
Phone 830-832-8392

CANYON LAKE ACRES, UNIT 2, LOT 470 & 471 Email michael@highlandvistadev.com

I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between HIGHLAND VISTA DEVELOPMENT CO (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:

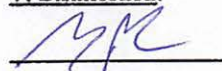
This Agreement may be terminated by either party for any reason, including for example, substantial failure of either party to perform in accordance with the terms of this Agreement, without fault or liability of the terminating party. The terminating party must provide written notice to the non-terminating 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.

IV. Services:

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:



Customer's Initials



Contractor's Initials

RC

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

VI. Electronic Monitoring:

Electronic Monitoring is not included in this Agreement.

VII. Performance of Agreement:

Commencement of performance by Contractor under this Agreement is contingent on the following conditions:

a. If this is an initial Agreement (new installation):

1. Contractor's receipt of a fully executed original copy or facsimile of this agreement and all documentation requested by Contractor.

If the above conditions are not met, Contractor is not obligated to perform any portion of this Agreement.

VIII. Customer's Responsibilities:

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:

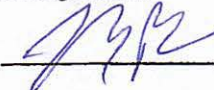
Contractor is hereby granted an easement to the OSSF for the purpose of performing services described herein. Contractor may enter the property during Contractor's normal business hours and/or other reasonable hours without prior notice to Customer to perform the Services and/or repairs described herein. 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 Customer's 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.



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.

XII. Severability:

If any provision of the "Proposal and Contract" shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of the "Agreement" is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

XIII. Fee for Services:

The Fee for Services does not include any fees for equipment, material, labor necessary for non-warranty repairs, unscheduled inspections, or Customer requested visits to the site.

XIV. Payment:

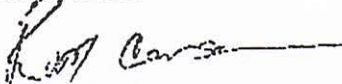
Full payment is due upon execution of this Agreement (Required of new Customer). For any other service(s) or repair(s) provided by Contractor the Customer shall pay the invoice(s) for said service(s) or repair(s) within thirty (30) days of the invoice date. The Contractor shall mail all invoices on the date of invoice. All payments not received within thirty (30) days from the invoice date will be subject to a \$29.00 late penalty and a 1.5% per month carrying charge, as well as any reasonable attorney's fees, and all collection and court costs incurred by Contractor in collection of unpaid debt(s). Contractor may terminate contract at any time for nonpayment for services. Any check returned to Contractor for any reason will be assessed a \$30.00 return check fee.

XV. Application or Transfer of payment:

The fees paid for this agreement may be transferred to subsequent property owner(s); however, this Agreement is not transferable. Customer shall advise the subsequent property owner(s) of the State requirement that they sign a replacement agreement authorizing Contractor to perform the herein described Services, and accepting Customer's Responsibilities. This replacement Agreement must be signed and received in Contractor's offices within ten (10) business days of date of transfer of property ownership. Contractor will apply all funds received from Customer first to any past due obligation arising from this Agreement including late fees or penalties, return check fees, and/or charges for services or repairs not paid within thirty (30) days of invoice date. Any remaining monies shall be applied to the funding of the replacement Agreement. The consumption of funds in this manner may cause a reduction in the termination date of effective coverage per this Agreement. See Section IV.


XVI. Entire Agreement:

This agreement contains the entire Agreement of the parties, and there are no other conditions in any other agreement, oral or written.


Rudy Carson

Block Creek Aerobic Services, LLC,
Contractor
MP# 0002036


Customer Signature


Date



Customer's Initials



RC

Contractor's Initials

Greg W. Johnson, P.E.
170 Hollow Oak
New Braunfels, Texas 78132
830/905-2778

January 10, 2024

Comal County Office of Environmental Health
195 David Jonas Drive
New Braunfels, Texas 78132-3760

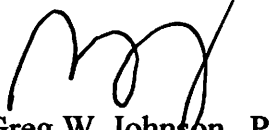
RE: Septic Design
LONESOME DRIVE
CANYON LAKE ACRES, UNIT 2, LOT 470 & 471
HIGHLAND VISTA DEVELOPMENT COMPANY

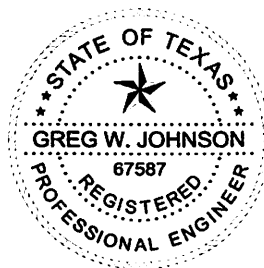
Brenda/Brandon,

A portion of the waterline is as close as five feet from the proposed drip field. A variance is required to Chapter 285 Table X & 290.44(e)(8). Equivalent protection will be maintained by sleeving the water service line with SCH-40 PVC within ten feet of the proposed drip field. I hereby request a variance to Chapter 285 Table X & 290.44(e)(8).

If I can be of further assistance please contact me.

Respectfully yours,


Greg W. Johnson, P.E., F#2585



Greg W. Johnson, P.E.
170 Hollow Oak
New Braunfels, Texas 78132
830/905-2778

January 10, 2025

Comal County Office of Environmental Health
195 David Jonas Drive
New Braunfels, Texas 78132-3760

RE: Permit
1316 LONESOME ~~DRIVE~~
CANYON LAKE ACRES, UNIT 2, LOTS 470 & 471
HIGHLAND VISTA DEVELOPMENT COMPANY

Brenda/Brandon,

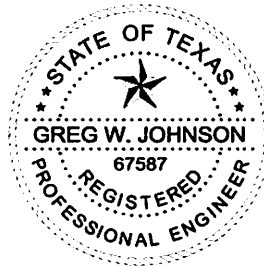
A concrete or rock berm will be installed to protect tank during from being impacted by the adjacent drainage ditch during a weather event. The berm is not a foundation, but serves to protect from potential damage / erosion around the tank during a major rain event.
I hereby respectfully request a variance to five foot setback from foundations.

If I can be of further assistance please contact me.

Respectfully yours,



Greg W. Johnson, P.E.



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

Date Soil Survey Performed: January 09, 2025

Site Location: CANYON LAKE ACRES, UNIT 2, LOTS 470 & 471

Proposed Excavation Depth: N/A

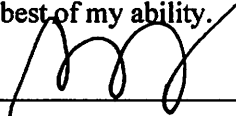
Requirements:

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> </u> SURFACE EVALUATION <u> </u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 8"	BROWN
1						
2						
3						
4						
5						

SOIL BORING NUMBER <u> </u> SURFACE EVALUATION <u> </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

01/09/25

Date

OSSF SOIL EVALUATION REPORT INFORMATION

Date: January 10, 2025

Applicant Information:

HIGHLAND VISTA DEVELOPMENT
Name: COMPANY
Address: 2075 F.M. 2673 UNIT "D"
City: CANYON LAKE **State:** TEXAS
Zip Code: 78133 **Phone:** (830) 832-8392

Site Evaluator Information:

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

Property Location:

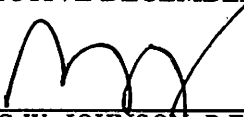
Lot SEE BELOW **Unit** 2 **Blk** ___ **Subd.** CANYON LAKE ACRES
Street Address: 1316 LONESOME
City: CANYON LAKE **Zip Code:** 78133
Additional Info.: LOTS 470 & 471

Installer Information:

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

Topography: Slope within proposed disposal area: 6 to 8 %
Presence of 100 yr. Flood Zone: YES ___ NO X
Existing or proposed water well in nearby area. YES ___ NO X
Presence of adjacent ponds, streams, water impoundments YES ___ NO X
Presence of upper water shed YES ___ NO X
Organized sewage service available to lot YES ___ NO ___

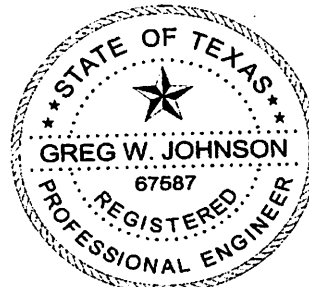
I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL ENGINEER AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 29, 2016).



GREG W. JOHNSON, P.E. 67587 - S.E. 11561

01/10/24

DATE



FIRM #2585

DRIP TUBING SYSTEM
DESIGNED FOR:
HIGHLAND VISTA DEVELOPMENT COMPANY
2075 FM 2673
CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Canyon Lake Acres, Unit 2, Lot 470 & 471, on Lonesome, the proposed system will serve a two bedroom residence (1300sf.) situated in an area with 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-inch SCH-40 pipe discharges from the residence into a NuWater B-550-400PT 600gpd aerobic plant containing a 353-gallon pretreatment tank, an aerobic treatment plant, and a 768-gallon pump chamber containing a submersible (FPS E-Series 20 gpm 1/2hp) well pump. The well pump is activated by a time controller allowing the distribution ten times per day with an 6 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 1368sf. drip tubing field, with *Netifim Bioline* 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 40psi 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 cycling a 1" ball valve. Solids caught in the Arkal disk 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 scarified and built up with 4" of Type II or Type III soil, 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 is required between drip tubing 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: 353 Gal

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

Pump tank size: 768 Gal

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

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 180 GPD/0.20 = 900 sf. (Actual 1368 sf.)

Total linear feet drip tubing: 684' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 342 emitters @ .61 gph @ 30 psi = 3.477gpm

Pump Requirement (cont.): FPS E-Series 20 pgm 1/2hp submersible well pump

Dosing volume: 50-70 gal.

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

Volume below working level = 12" = 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 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 gpm MIN FLOW RATE x 2 = 3 gpm

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

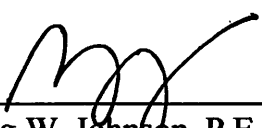
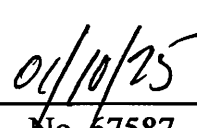
MSV = 2(3.14159((1.049/12)²/4)*7.48*60

MSV = 5.4 GPM

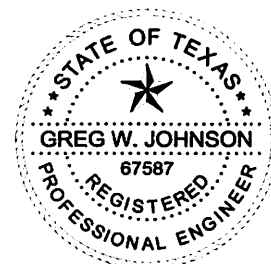
PIPE AND FITTINGS:

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)

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



INSTALL 1368sf OF FIELD USING 684' OF DRIP TUBING. THERE SHALL BE NO PARKING, DRIVING OR STORAGE ON THE SEPTIC FIELD AT ANY TIME FOR ANY REASON.

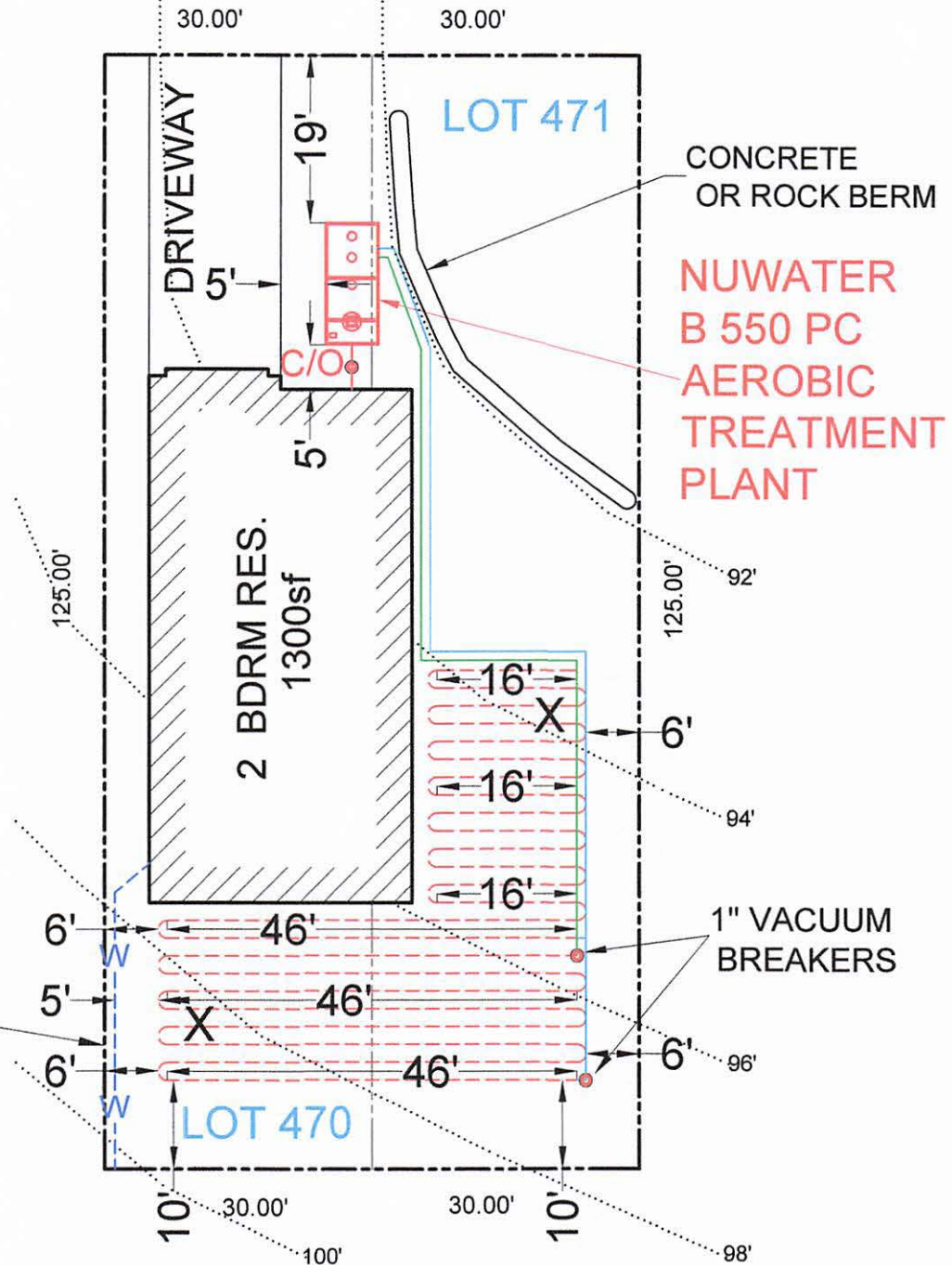
*USE TWO WAY CLEAN OUT
 **USE SCH-40 OR SDR-26 TO TANK

X= TEST HOLE

NOTE:
 NO OSSF SYSTEM CAN BE INSTALLED ON THE SAME PROPERTY AS THE SINGLE FAMILY DWELLING, DUE TO PLACEMENT OF HOUSE AND SIZE OF LOT. HIGHLAND VISTA DEVELOPMENT COMPANY OWNS BOTH PROPERTIES.

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

LONESOME



CANYON TRACE



OWNER: HIGHLAND VISTA DEVELOPMENT COMPANY			DRAWN BY: EJS III	
STREET ADDRESS: 1316 LONESOME				
LEGAL DESC: CANYON LAKE ACRES	UNIT/SECTION/PHASE: 2	BLOCK:	LOT: 470 & 471	
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=20'	DATE: 1/10/2025	REVISED:	

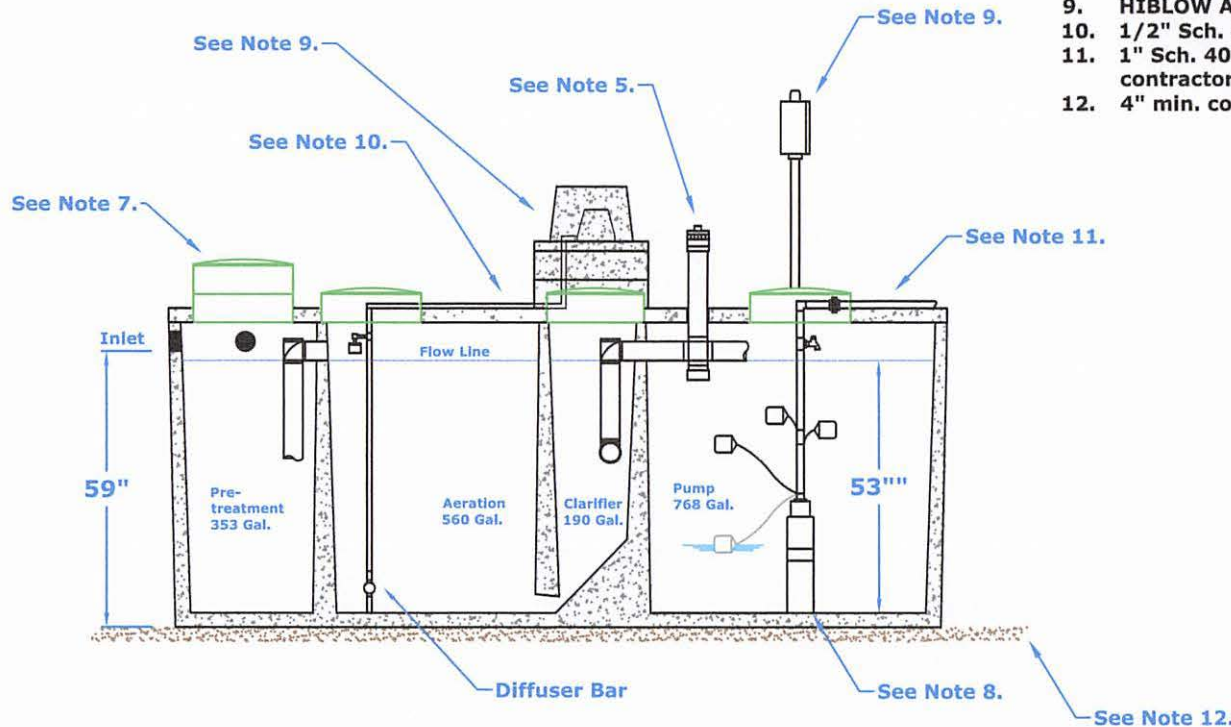
Assembly Details

OSSF



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

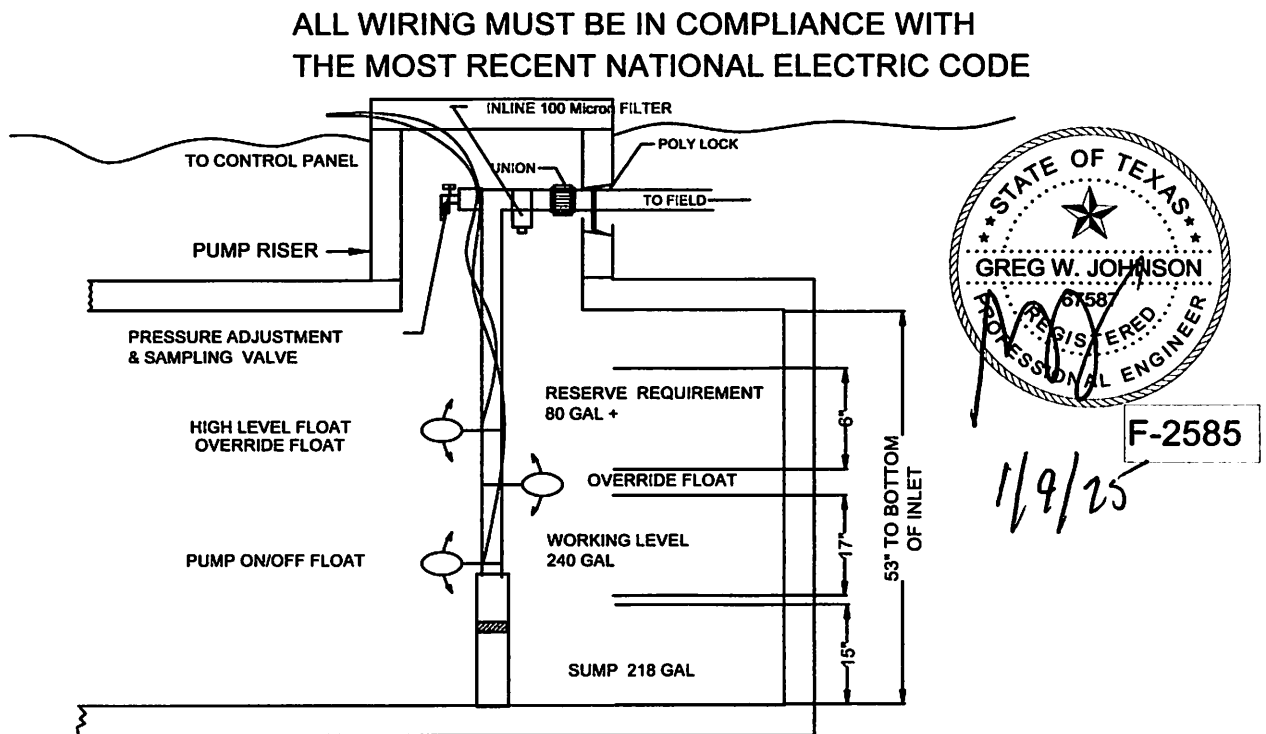
TANK NOTES:

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**

Arkal 1" Super Filter

Catalog No. 1102 0 _ _ _

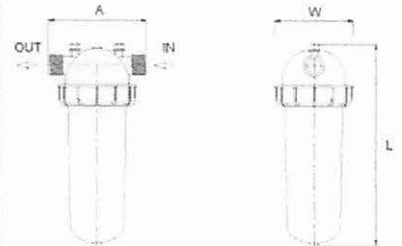
Features

- ◆ 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

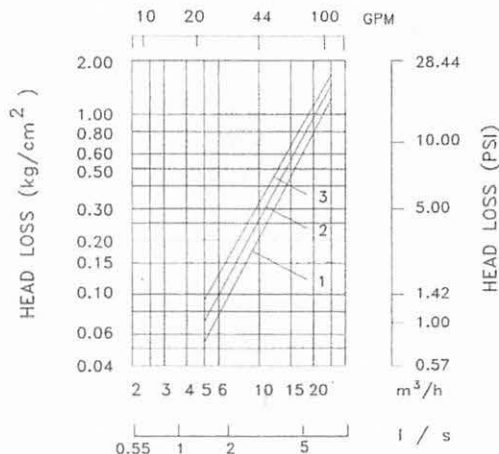
Inlet/outlet diameter	1" BSPT (male)	1" NPT (male)
	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m ³ /h (1.7 l/sec)	35 gpm
General filtration area	500 cm ²	77.5 in ²
Filtration volume	600 cm ³	37 in ³
Filter length L	340 mm	13 13/32"
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	Outlet
3/4-inch Female National Pipe Thread (FNPT)	3/4-inch Female National Pipe Thread (FNPT)
1-inch Female National Pipe Thread (FNPT)	1-inch Female National Pipe Thread (FNPT)
1-inch Female British Standard Pipe Thread (FBSPT)	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

3/4" FNPT x 3/4" 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

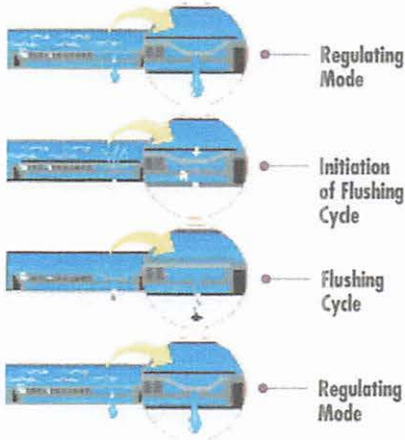
Model Numbers

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)



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

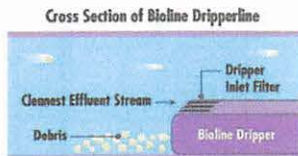
- Tens of millions of feet used in wastewater today.
- Bioline is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for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

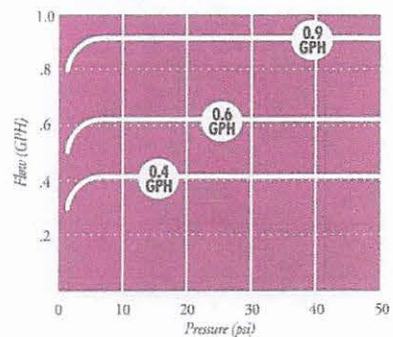
Recommended filtration: 120 mesh

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

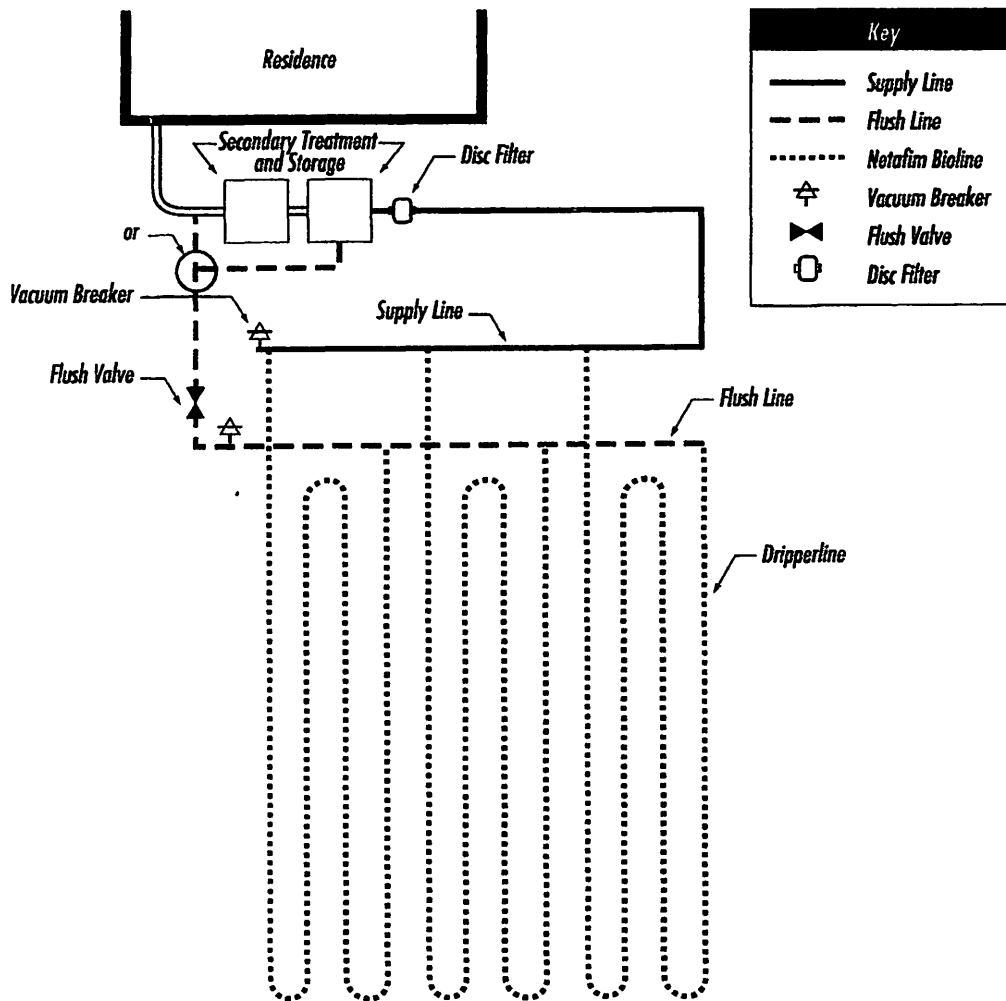
NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

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



GF# 2483874/STC/AK

General Warranty Deed

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.

Date: November 22, 2024

Grantor: Andrea Huibregtse and Shawn Sudbury

Grantee: Highland Vista Development Company

2075 FM 2673, Unit D, Canyon Lake, TX 78133

Consideration: Ten and No/100ths (\$10.00) Dollars, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged and confessed.

Property (including any improvements): Lots 470 and 471, of CANYON LAKE ACRES, UNIT NO. 2, an addition in Comal County, Texas, according to the map or plat thereof recorded in/under Volume 1, Page 50 of the Plat Records of Comal County, Texas.

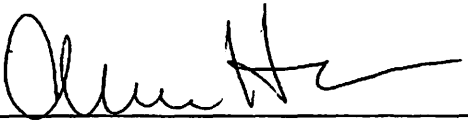
Reservations from Conveyance: None.

Exceptions to Conveyance and Warranty: Validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing restrictions, reservations, covenants, conditions, oil and gas leases, mineral interests, and water interests outstanding in persons other than Grantor, and other instruments, other than conveyances of the surface fee estate, that affect the Property; validly existing rights of adjoining owners in any walls and fences situated on a common boundary; any discrepancies, conflicts, or shortages in area or boundary lines; any encroachments or overlapping of improvements; and taxes for the current year, which Grantee assumes and agrees to pay, and subsequent assessments for that and prior years due to change in land usage, ownership, or both, the payment of which Grantee assumes.

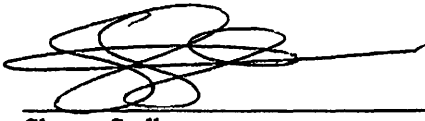
Grantor, for the Consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever. Grantor binds Grantor and Grantor's heirs and successors to warrant and forever defend all and singular the Property to Grantee and Grantee's heirs,

successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

When the context requires, singular nouns and pronouns include the plural. Additionally, this instrument may be executed in multiple counterparts and by different parties in separate counterparts, which, when taken together, shall constitute one original instrument.



Andrea Huibregtse

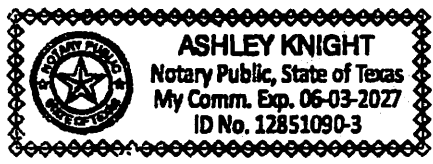


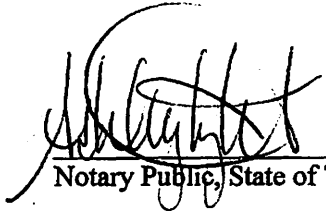
Shawn Sudbury

THE STATE OF TEXAS
COUNTY OF Comal

2024

This instrument was acknowledged before me on this 22nd day of November, 2024, by Andrea Huibregtse and Shawn Sudbury.



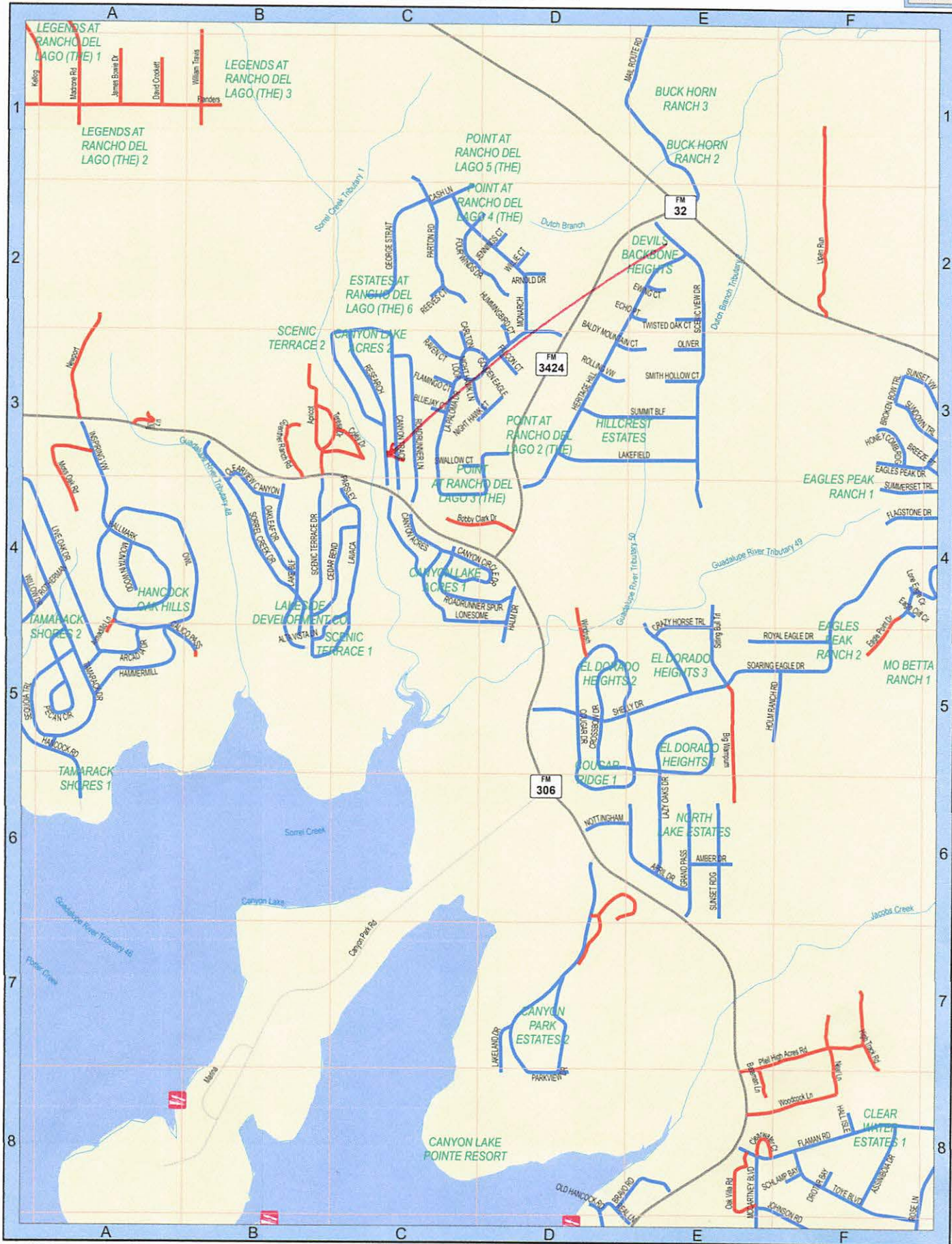


Notary Public, State of Texas

After Recording Return To:
Highland Vista Development Company
2075 FM 2673, Unit D
Canyon Lake, TX 78133

Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
11/22/2024 02:30:29 PM
CHRISTY 2 Pages(s)
202406035919

 *Bobbie Koepf*



SEE PAGE 20

