Preliminary Field Check For Drip Systems

DATE: 11/7/25

INSPECTOR: Hendry

COMMENTS:

COMAL COUNTY
ENGINEER'S OFFICE

195 David Jonas Dr, New Braunfels, Texas 78132 (830)608-2090

Address: 305 High Oaks

Legal Description: The Oaks 11, LOT 38T

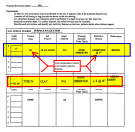
Dear Property Owner & Agent,
Thank you for your submission. We have reviewed the planning materials for the referenced permit application, and unfortunately, they are insufficient. To proceed with processing this permit, we require the following:

119066.pdf Markup Summary 10-29-2025

Brandon Mark Olvera (3)

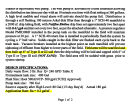
Subject: Group
Page Label: 3
Checkmark: Unchecked
Author: Brandon Mark Olvera
Date: 10/29/2025 11:57:05 AM

Our office will be conducting a site visit on 10-30-2025



Subject: Group
Page Label: 5
Checkmark: Unchecked
Author: Brandon Mark Olvera
Date: 10/29/2025 12:20:01 PM

Soil evaluation does not match permit 80454



Subject: Line
Page Label: 7
Checkmark: Unchecked
Author: Brandon Mark Olvera
Date: 10/29/2025 1:31:05 PM

Click highlighted area to see soil evaluation comment

| Brandon Olvera | Designated Representative OS0034792 |
| t: 830-608-2090 | e: olverb@co.comal.tx.us |

RECEIVED
By Kathy Griffin at 12:49 pm, Oct 02, 2025

COMAL COUNTY
ENGINEER'S OFFICE

OSSF DEVELOPMENT APPLICATION CHECKLIST

Staff will complete shaded items

		119066
Date Received	*Initials*	*Permit Number*

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

10/02/2025
Date

___ COMPLETE APPLICATION

Check No._____ Receipt No._____

INCOMPLETE APPLICATION
—— (Missing Items Circled, Application Refeused)

Revised: September 2019

RECEIVED
By Kathy Griffin at 12:48 pm, Oct 02, 2025

COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

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

Date September 16, 2025 Permit Number 119066

1. APPLICANT / AGENT INFORMATION

Owner Name	TIMOTHY & PATRICIA PURDY	Agent Name	GREG JOHNSON, P.E.
Mailing Address	2203 RED BIRD LANE	Agent Address	170 HOLLOW OAK
City, State, Zip	PATTISON, TEXAS 77423	City, State, Zip	NEW BRAUNFELS TEXAS 78132
Phone #	713-962-9944	Phone #	830-905-2778
Email	timotaopurdy@gmail.com	Email	gregjohnsonpe@yahoo.com

2. LOCATION

Subdivision Name THE OAKS Unit 11 Lot 38T Block

Survey Name / Abstract Number Acreage

Address 305 HIGH OAKS ROAD City CANYON LAKE State TX Zip 78133

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) EXISTING HOUSE

Number of Bedrooms 3

Indicate Sq Ft of Living Area 1900

☐ 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: $ EXISTING (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 9/22/2025 Date

Revised January 2021

THE OAKS, UNIT 11, LOT 38T

COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

Our office will be conducting a site visit on 10-30-2025

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) EXISTING HOOT 500-AN 600 GPD (#80454) **Absorption/Application Area (Sq Ft)** 2000

Gallons Per Day (As Per TCEQ Table III) 240

(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 P.E. or R.S. 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 CZP has been approved by the appropriate regional office.)

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

If yes, indicate the city: _____

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

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

September 19, 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):

11 UNIT/PHASE/SECTION _____ BLOCK 38T LOT THE OAKS SUBDIVISION

IF NOT IN SUBDIVISION: _____ ACREAGE _____ SURVEY

The property is owned by (insert owner's full name): TIMOTHY PURDY & PATRICIA PURDY

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 22 **DAY OF** Sept **,20** 25

X _____ TIMOTHY PURDY

X _____ PATRICIA PURDY

Owner(s) signature(s) Owner (s) Printed name (s)

TIMOTHY PURDY & PATRICIA PURDY **SWORN TO AND SUBSCRIBED BEFORE ME ON THIS** 22 **DAY OF** Sept **,20** 25

Christopher M. Briggs
Notary Public Signature

CHRISTOPHER M BRIGGS
Notary ID #130598520
My Commission Expires
March 29, 2028

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
10/01/2025 09:47:32 AM
TERRI 1 Pages(s)
202506031589

Bobbie Koepp

Olvera,Brandon

From: Greg Johnson <gregjohnsonpe@yahoo.com>
Sent: Thursday, October 30, 2025 8:26 AM
To: Olvera,Brandon
Cc: timotaopurdy@gmail.com
Subject: Re: 119066.pdf

THIS EMAIL ORIGINATED OUTSIDE THE ORGANIZATION.

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

Brandon,
The soils tested are Type III soils and match with the Soil Survey.
Previous design was aerobic spray and surface evaluation.
Thx,
Greg

Send for Greg W. Johnson, P.E.,R.S.)

170 Hollow Oak

New Braunfels, TX 78132

Office/Fax (830) 905-2778

Email: gregjohnsonpe@yahoo.com

ON-SITE SEWERAGE FACILITY
SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed: **September 18, 2025**

Site Location: **The OAKS, UNIT 11, LOT 38T**

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 **SURFACE EVALUATION**

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0 – 6"	**III**	**CLAY LOAM**	**N/A**	**NONE OBSERVED**	**LIMESTONE @ 6"**	**BROWN**
1						
2						
3						
4						
5						

SOIL BORING NUMBER **SURFACE EVALUATION**

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

09/18/25
Date

OSSF SOIL EVALUATION REPORT INFORMATION

Date: September 19, 2025

Applicant Information:

Name: TIMOTHY & PATRICIA PURDY
Address: c/o 2203 RED BIRD LANE
City: PATTISON State: TEXAS
Zip Code: 77423 Phone: (713) 962-9944

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 38T Unit 11 Blk ___ Subd. The OAKS
Street Address: 305 HIGH OAKS ROAD
City: CANYON LAKE Zip Code: 78133
Additional Info.: _____

Installer Information:

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

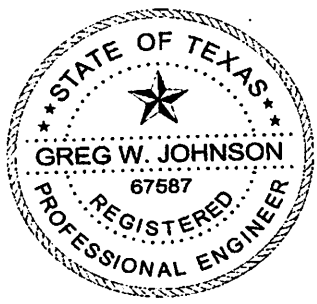
Topography: Slope within proposed disposal area: 6 to 10 %

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 X

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

09/19/25
DATE



FIRM #2585

AEROBIC TREATMENT
DRIP TUBING SYSTEM
DESIGNED FOR:
TIMOTHY & PATRICIA PURDY
2203 RED BIRD LANE
PATTISON, TEXAS 77423

SITE DESCRIPTION:

Located in the Oaks, Unit 11, Lot 38T, at 305 High Oaks Raod, the proposed system will serve an existing three bedroom residence (1900 sf.) situated in an area with shallow Type III soils as described in the Soil Evaluation Report. Native grasses, Mountain Cedar, and Oak trees were found throughout this property. 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 an existing Hoot 500AN 500 gpd aerobic plant (Permit #80454) containing 400-gallon pretreatment tank, an aerobic treatment plant, tablet chlorinator and a 760-gallon pump chamber containing a submersible (0.5 HP Blaster or equivalent) well pump. The well pump is activated by a time controller allowing the distribution ten times per day with an 10 minute run time with float setting at 360 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal disk filter then through a 1" SCH-40 manifold to a 2000 sf. 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 Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the 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 will be scarified and then built up 6" of Type II or III soil then the drip tubing will be laid and capped with 6" of Type II or Type III soil ***(NOT SAND)***. The field area will be sodded with grass prior to system startup.

DESIGN SPECIFICATIONS:

Daily waste flow: 3 Br. Res Q= 240 GPD Table X
Pretreatment tank size: 400 Gal
Plant Size: Hoot 500AN/CP- 500 gpd (TCEQ Approved)
Pump tank size: 760 Gal
Reserve capacity after High Level: 80 Gal (1/3 day Req'd) Actual 180 gal.
Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 240 GPD/0.20 = 1200 sf. (Actual 2000 sf.)
Total linear feet drip tubing: 1000' ***Netifim Bioline*** drip tubing .61 GPH
Pump requirement: 500 emitters @ .61 gph @ 30 psi = 5.0833 gpm
Pump Requirement (cont.): (0.5 HP Blaster)
MINIMUM SCOUR VELOCITY (**MSV**) > 2 FPS
IN DRIP TUBING W/ NOM. DIA. 0.55" ID

MSV = 2 FPS (Πd↑2)/4*7.48 gal/cf*60 sec/min
MSV = 2(3.14159((.55/12)↑2)/4)*7.48*60
MSV = 1.5 gpm PER LINE * 3 LINES = 4.5 GPM MIN FLOW RATE

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

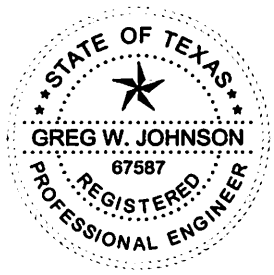
MSV = 2 FPS (Πd↑2)/4*7.48 gal/cf*60 sec/min
MSV = 2(3.14159((1.049/12)↑2)/4)*7.48*60
MSV = 5.4 GPM

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.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission On Environmental Quality. (Effective September 1, 2023)

09/19/25

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



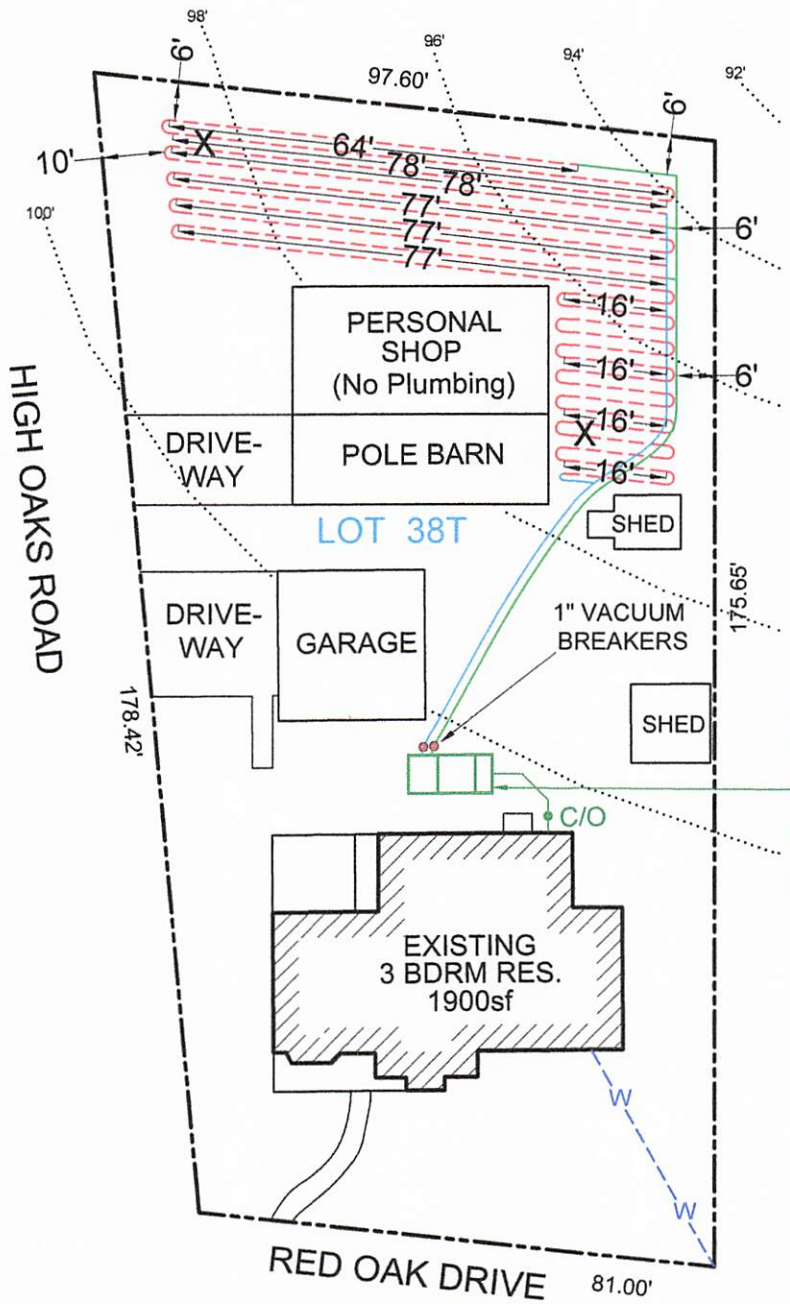
#119066

INSTALL 2000sf OF FIELD USING 1000' 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 OUTS
**USE SCH-40 OR SDR-26 TO TANK

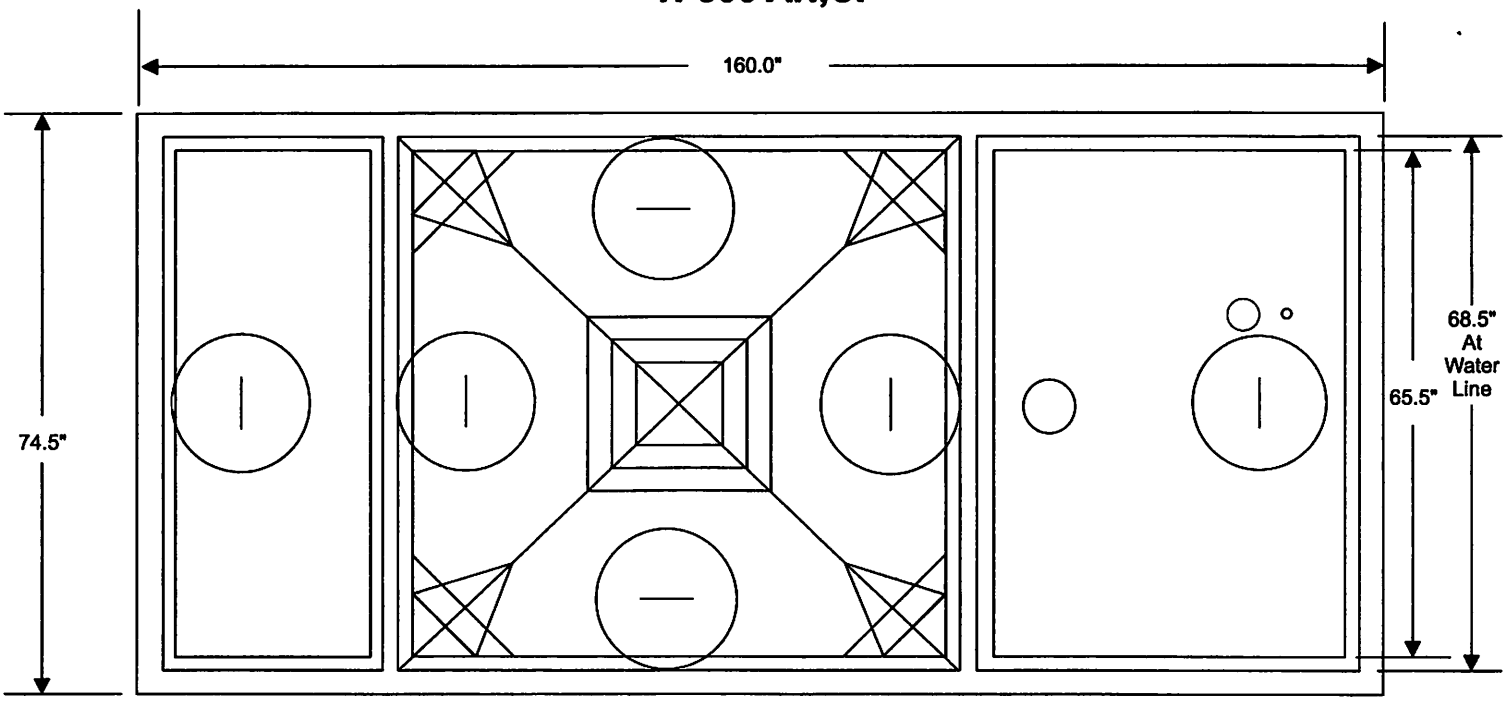
X= TEST HOLE

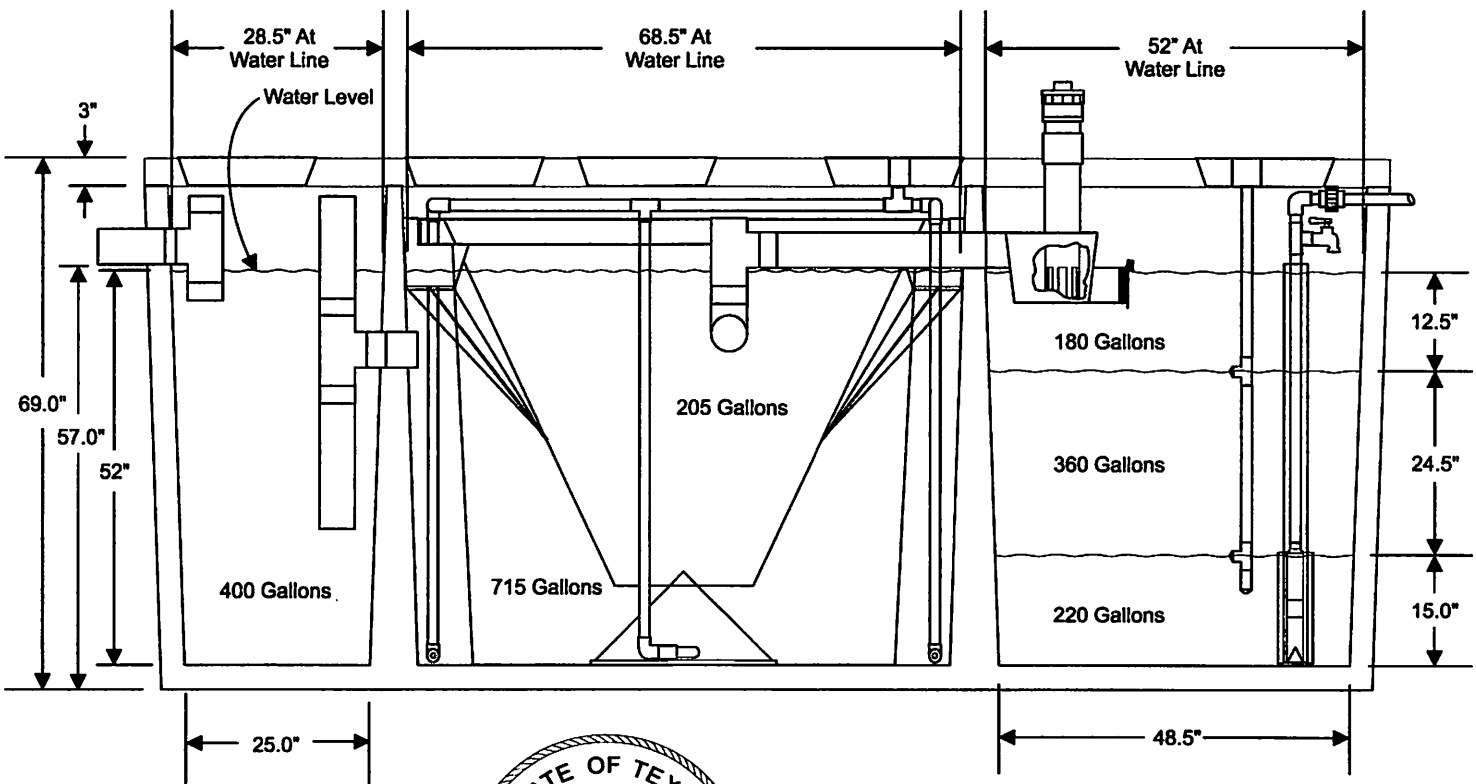
NOTE:
EXISTING SEPTIC FIELD TO BE ABANDONED.



OWNER: TIMOTHY & PATRICIA PURDY					DRAWN BY: EJS III
STREET ADDRESS: 305 HIGH OAKS ROAD					
LEGAL DESC: The OAKS		UNIT/SECTION/PHASE: 11		BLOCK:	LOT: 38T
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=30'	DATE: 9/19/2025	REVISED: 10/19/2025		

500 GPD NIGHT PUMPING SYSTEM
H-500 AN,CP





2.229' Avg. Length
5.600' Avg. Width
4.333' Depth

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED PROFESSIONAL ENGINEER

F-2585

09/19/25

4.187' Avg. Length
5.600' Avg. Width
4.333' Depth

760 Gallons
220 Gallons Remaining In Tank

540 Gallons Holding Capacity

Rev. 07

6/08/99

Arkal 1" Super Filter

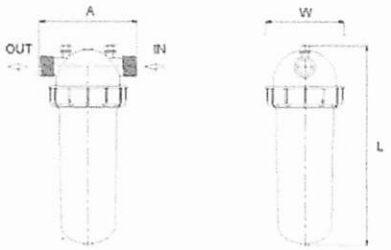
Catalog No. 1102 0_ _ _

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

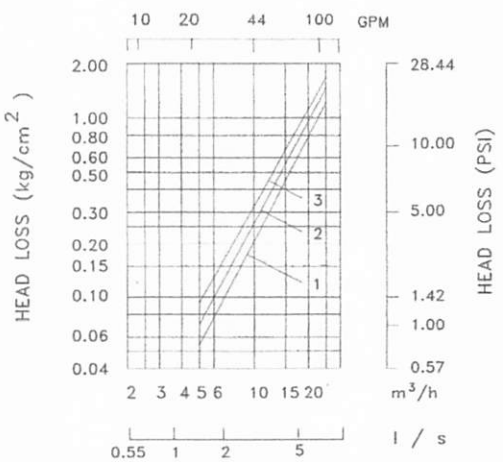
Inlet/outlet diameter	1" BSPT (male) 25.0 mm – nominal diameter 33.6 mm – pipe diameter (O. D.)	1" NPT (male)
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m^3/h (1.7 l/sec)	35 gpm
General filtration area	500 cm^2	77.5 in^2
Filtration volume	600 cm^3	37 in^3
Filter length L	340 mm	13 13/32"
Filter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



Disc filter, irrigation systems, irrigationglobal.com

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
¾-inch Female National Pipe Thread (FNPT)	¾-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

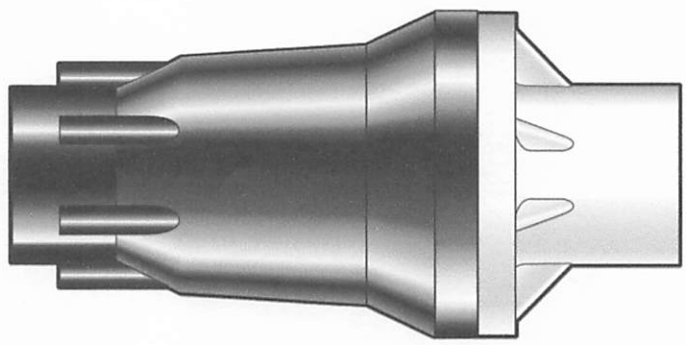
3/4" FNPT x 3/4" FNPT model *(shown on right)*

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

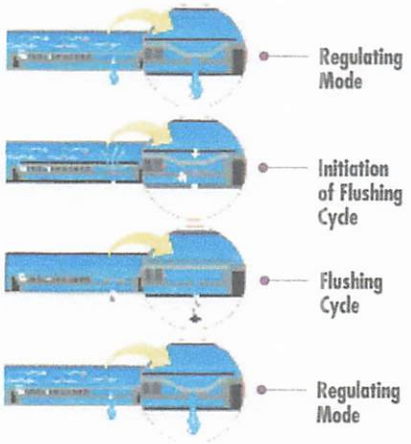
Model Numbers

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)

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.

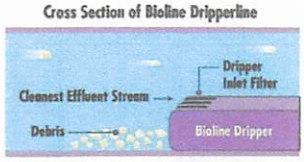
Quality Manufacturing with Specifications Designed to Meet Your Needs

- 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.

Cross Section of Bioline Dripperline



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"*

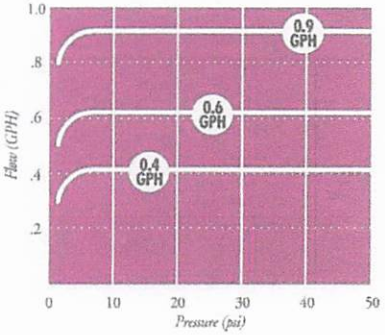
Recommended filtration: 120 mesh

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™

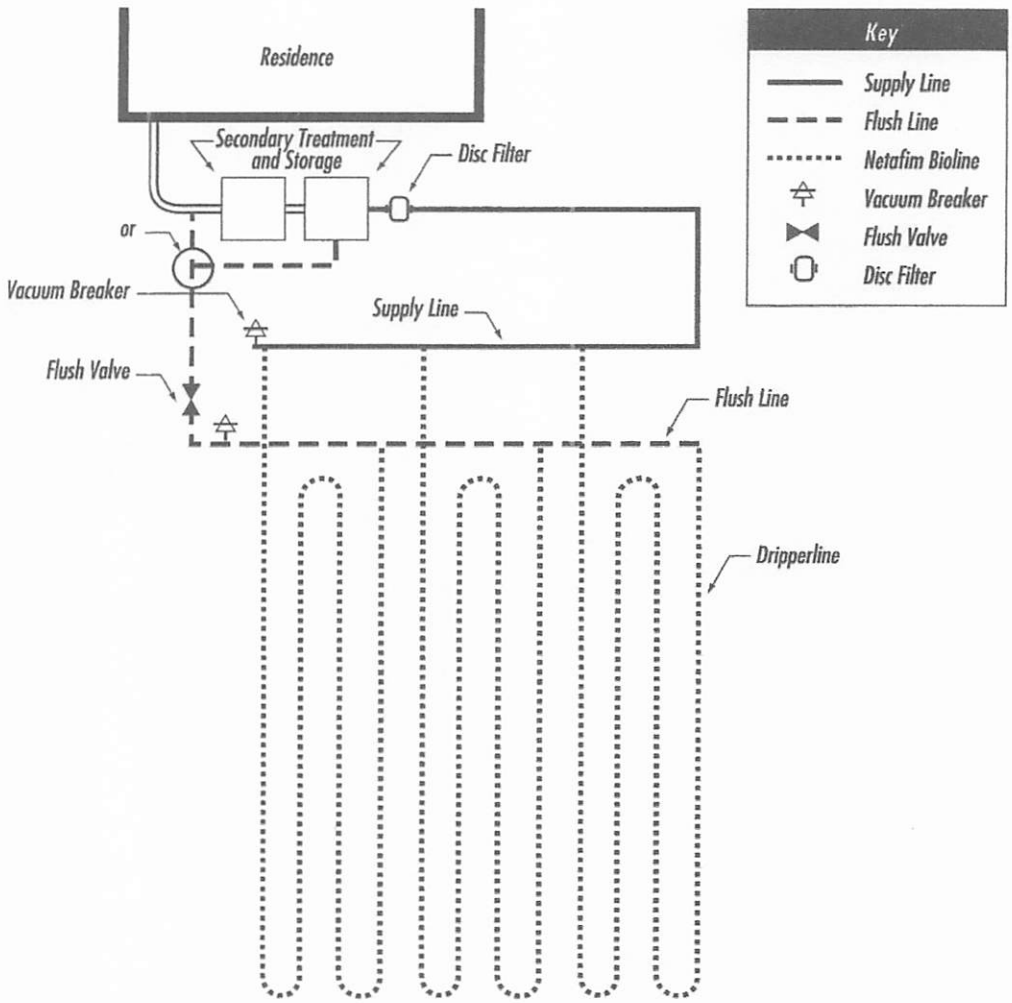
NETAFIM USA
5470 E. Home Ave. • Fresno, CA 93727
888.638.2346 • 559.453.6800
FAX 800.695.4753
www.netafimusa.com

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

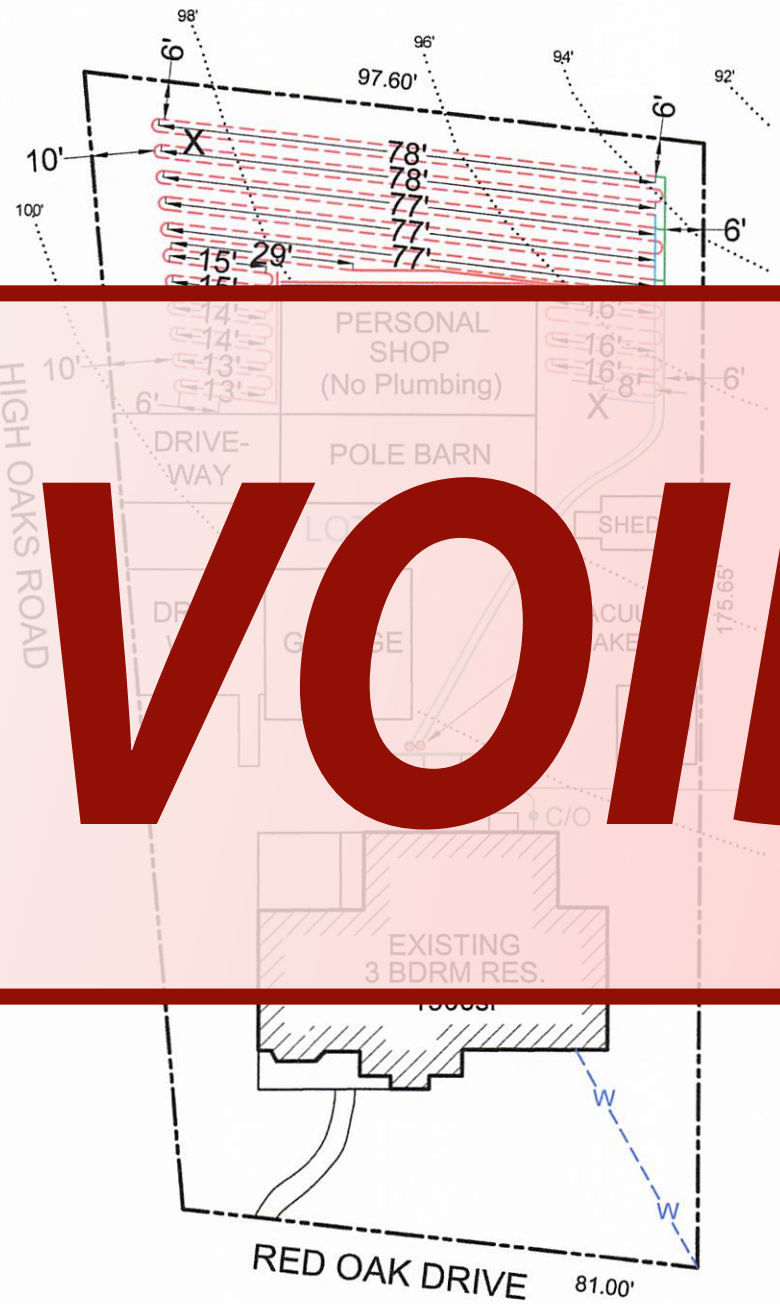


INSTALL 2000sf OF FIELD USING 1000' OF DRIP TUBING. THERE SHALL BE NO PARKING, DRIVING OR STORAGE ON THE SEPTIC FIELD AT ANY TIME FOR ANY REASON.

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

X= TEST HOLE

NOTE:
EXISTING SEPTIC FIELD TO BE ABANDONED.



VOID

STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED PROFESSIONAL ENGINEER

OWNER: TIMOTHY & PATRICIA PURDY				DRAWN BY: EJS III	
STREET ADDRESS: 305 HIGH OAKS ROAD					
LEGAL DESC: The OAKS		UNIT/SECTION/PHASE: 11	BLOCK:	LOT: 38T	
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=30'	DATE: 9/19/2025	REVISED:		

DATE
11/15/99

PERMIT#
80454

CCEO COPY

Comal County

OFFICE OF COMAL COUNTY ENGINEER

LICENSE TO OPERATE A PRIVATE SEWAGE FACILITY

OWNER(L)	FIRST	SUBDIVISION NAME
Lorance	David & Kathleen	The Oaks

STREET	UNIT	BLOCK	LOT	ACRES/TRACT
High Oaks & Red Oak Woods	XI		38T	

This license is authorization for the owner to operate and maintain a private facility at the location described in accordance to the rules and regulations for on-site sewerage facilities of Comal County, Texas, and the Texas Natural Resource Conservation Commission.

The license grants permission to operate the facility. It does not guarantee successful operation. It is the responsibility of the owner to maintain and operate the facility in a satisfactory manner.

Inspection and licensing of a facility indicates only that the facility meets certain minimum requirements. It does not impede any governmental entity in taking the proper steps to prevent or control pollution, to abate nuisance, or to protect the public health.

This license to operate is valid for an indefinite period. It may be transferred by the holder to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

THE FACILITY IS LICENSED FOR

☒SINGLE FAMILY RESIDENCE ☐BUSINESS/INSTITUTION	GALLONS PER DAY
	240

SQUARE FEET OF DWELLING	TYPE OF BUSINESS/INSTITUTION
1900	

THE FACILITY CONSISTS OF

SYSTEM TYPE	SYSTEM DESCRIPTION
Proprietary	Aerobic Treatment & Surface Irrigation

GALLON TANK	SQUARE FEET ABSORPTION AREA	SWITCHING VALVE?YES/N
Hoot 500-AN	4740	No

SPECIAL CONDITIONS

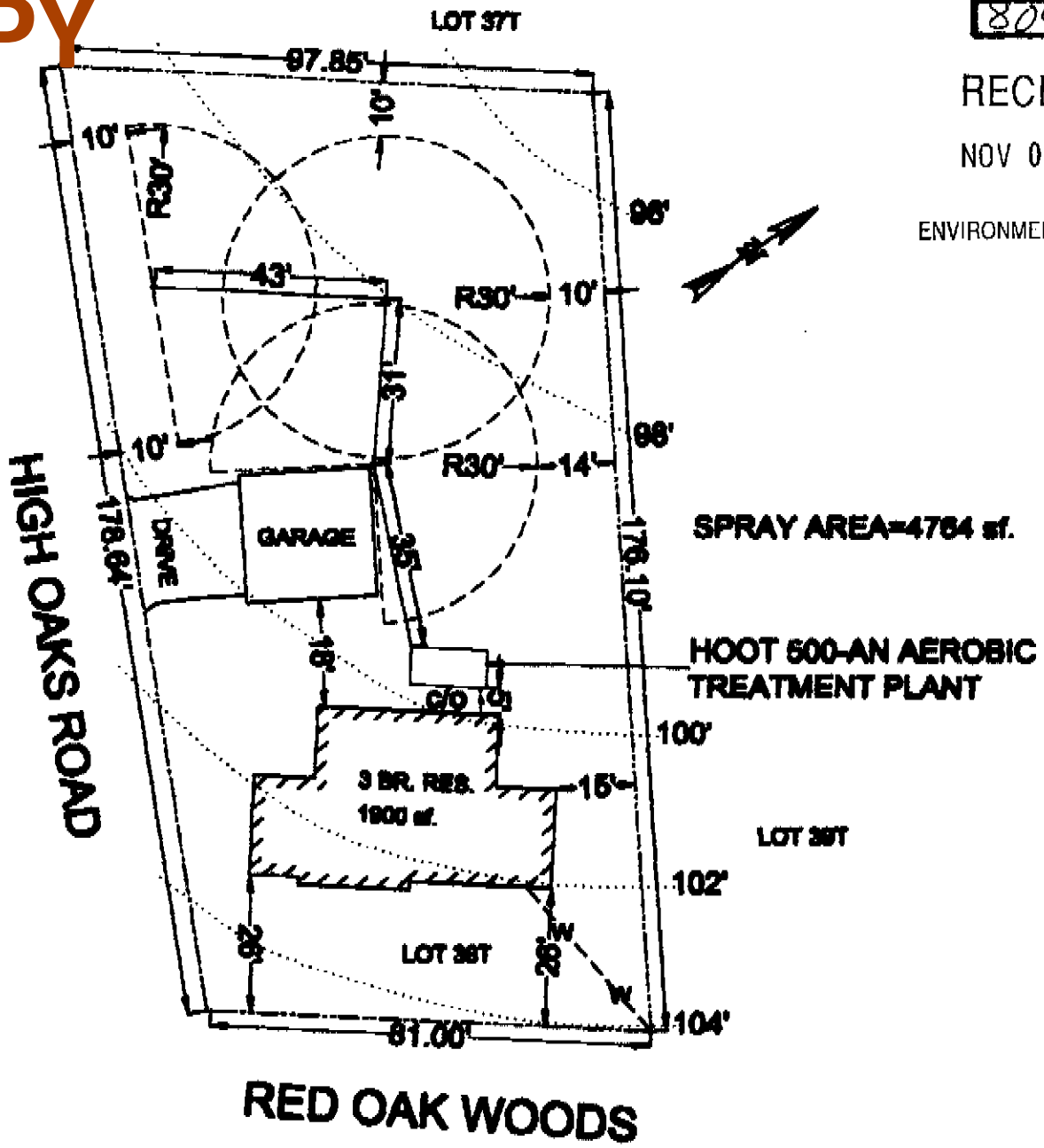
INSPECTOR	ENVIRONMENTAL HEALTH COORDINATOR
John Cedio	Brenda P. Ratz

195 David Jonas Drive • New Braunfels, Texas 78132-3760 • (830) 608-2090 FAX: (830) 608-2009

CCEO COPY

REVISED 80454

RECEIVED
NOV 0 8 1999
ENVIRONMENTAL HEALTH



STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

OWNER: DAVID & KATHLEEN LORANCE			DRAWN BY: nm
STREET ADDRESS: RED OAK WOODS			
SUBD: THE OAKS	UNIT: XI	BLOCK:	LOT: 38T
PREPARED BY: GREG W. JOHNSON, P.E.	SCALE: 1"=30'		REVISED: 8/31/99

Momentum Title, LLC
GF # 24-09-4458 JZ

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 with Vendor's Lien

Grantor: Jimmy Nathan Zarate LLC, a Texas Limited Liability Company

Grantor's Address: 5734 Flax Bourton Street, Humble Texas 77346

Grantee: Timothy Purdy and Patricia Purdy, husband and wife

Grantee's Address: 2203 Red Bird Lane, Pattison Texas 77423

Consideration: Ten and No/100 Dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and further consideration the execution and delivery by Grantee of their one Promissory Note dated July 17, 2024 ("Note"), herewith in the principal amount as shown in the Note, payable to the order of NETWORK FUNDING L.P. ("Lender"), at therein provided and bearing interest at the rates therein specified and providing for acceleration of maturity in event of default and for attorney's fees, the payment of which Note is secured by Deed of Trust of even date herewith to Travis C. Badger, Trustee

Property (including any improvements): Lot 38T, of THE OAKS SUBDIVISION, UNIT XI, according to the Map or Plat thereof recorded in Volume 3, Page 37, of the Map Records of Comal County Texas.

Reservations from Conveyance: None.

Exceptions to Conveyance and Warranty: This conveyance is made and accepted subject to all taxes and assessments by any taxing authority for the year 2024 and subsequent years; all easements and other encumbrances, rights of way, restrictions, covenants, oil and gas leases, mineral interests and water rights reserved or conveyed, and other matters shown on the community plat or otherwise of public record; all conditions and matters that an accurate survey or inspection of the Property would disclose; and all zoning and building codes and other governmental laws, rules and restrictions.

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.

But it is expressly agreed that the VENDOR'S LIEN, as well as the Superior Title in and to the above-described premises, is retained against the above-described property, premises and improvements until the above-described Note and all interest thereon are fully paid according to the face, tenor, effect and reading thereof, when this Deed shall become absolute.

That Lender at the instance and request of the Grantee herein, having advanced and paid in cash to the Grantor herein that portion of the purchase price of the herein described property as is, evidenced by the hereinbefore described Note, the Vendor's Lien, together with the Superior Title to said property, is retained herein for the benefit of Lender, and the same are hereby TRANSFERRED and ASSIGNED to said Lender, its successors and assigns.

Executed this 17 day of July 2024.

GRANTOR:
JIMMY NATHAN ZARATE LLC, A TEXAS LIMITED LIABILITY COMPANY

By: _____
as MANAGING MEMBER of JIMMY NATHAN ZARATE LLC, A TEXAS LIMITED LIABILITY COMPANY

State of Texas

County of Bexar

This instrument was acknowledged before me on the 17 day of July 2024, by Jimmy Nathan Zarate, LLC as managing member of JIMMY NATHAN ZARATE LLC, A TEXAS LIMITED LIABILITY COMPANY.

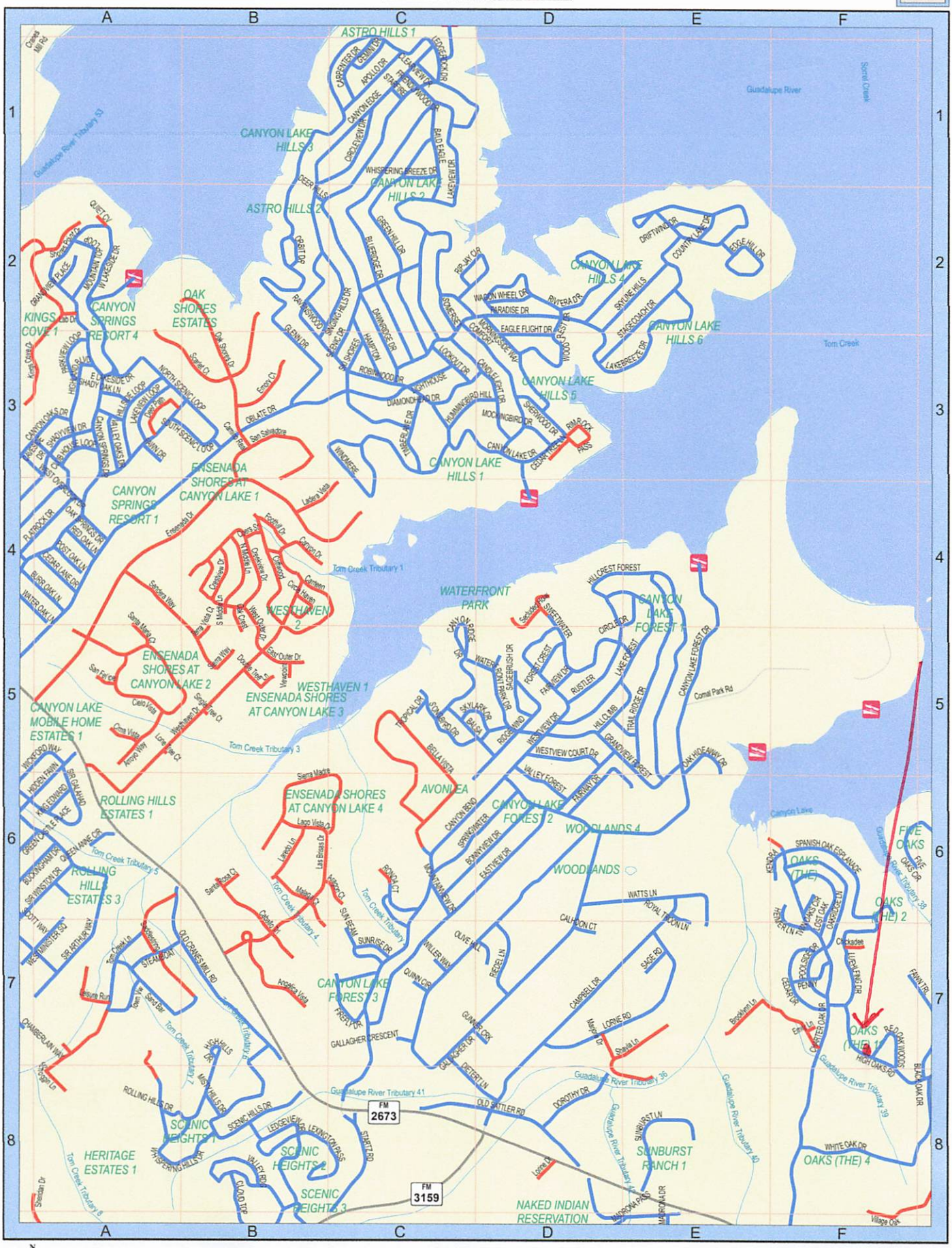
JACKELYN G KELLY
Notary ID #132021676
My Commission Expires
May 21, 2027

Notary Public, State of Texas

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
07/17/2024 03:17:17 PM
TERRI 2 Pages(s)
202406021405
Bobbie Koepp

PREPARED IN THE LAW OFFICE OF:
Jackie Lynn Ward, Attorney at Law, PLLC
Inwood Village Building 1
2722 West Bitters Rd., Suite 218
San Antonio, Texas 78248

↑ SEE PAGE 8 ↑



N
W E
S

0 1,250 2,500
Feet

0 0.25 0.5
Miles

Produced by the Comal County Engineer's Office - 7/17/2023