



# COMAL COUNTY

ENGINEER'S OFFICE

## License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date: 08/31/2022 Permit Number: 113579

Location Description: 1731 FULLER DR  
CANYON LAKE, TX 78133

Subdivision: Canyon Lake Estates  
Unit: a  
Lot: 35  
Block: A  
Acreage: 0.2600

Type of System: Aerobic  
Drip Irrigation

Issued to: TRP Properties LLC

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 Commission on Environmental Quality.

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.

Alterations to this permit including, but not limited to:

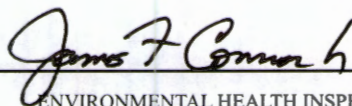
- Increase in the square feet of living area
- Increase in the number of bedrooms
- A change of use (i.e. residential to commercial)
- Relocation of system components (including the relocation of spray heads)
- Installation of landscaping
- Adding new structures to the system

may require a new permit. **It is the responsibility of the owner to apply for a new permit, if applicable.**

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. The holder may transfer it to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

Licensing Authority  
Comal County Environmental Health

  
ENVIRONMENTAL HEALTH INSPECTOR

OS0032485



Assistant  
OS0034792

ENVIRONMENTAL HEALTH COORDINATOR

# 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 Evapo-transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

**Comal County Environmental Health  
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
19	DISPOSAL SYSTEM Drip Irrigation		285.33(c)(3)(A)-(F)				
20	DISPOSAL SYSTEM Soil Substitution		285.33(d)(4)				
21	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(4) 285.33(a)(3) 285.33(a)(1) 285.33(a)(2)				
22	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(3) 285.33(a)(2) 285.33(a)(4) 285.33(a)(1)				
23	DISPOSAL SYSTEM Mound		285.33(a)(3) 285.33(a)(1) 285.33(a)(2) 285.33(a)(4)				
24	DISPOSAL SYSTEM Other (describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)				
25	DRAINFIELD Absorptive Drainline 3" PVC or 4" PVC						
26	DRAINFIELD Area Installed						
27	DRAINFIELD Level to within 1 inch per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)				
28	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media						
29	DRAINFIELD Pipe and Gravel - Geotextile Fabric in Place		285.33(b)(1)(E)				
30	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End Plates w/Splash Plate, Inspection Port & Closed End Plates in Place (per manufacturers spec.)		285.33(c)(2)				
31	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33(d)(1)(C)(i)				

**Comal County Environmental Health  
OSSF Inspection Sheet**

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: 113579  
Issued This Date: 12/06/2021  
This permit is hereby given to: TRP Properties LLC

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

1731 FULLER DR  
CANYON LAKE, TX 78133

Subdivision: Canyon Lake Estates  
Unit: a  
Lot: 35  
Block: A  
Acreage: 0.2600

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.

**RECEIVED**

By KG at 12:48 pm, Nov 22, 2021



**COMAL COUNTY**

ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION CHECKLIST**

*Staff will complete shaded items*

*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

Date

\_\_\_ COMPLETE APPLICATION

Check No. \_\_\_\_\_ Receipt No. \_\_\_\_\_

INCOMPLETE APPLICATION  
\_\_\_\_ (Missing Items Circled, Application Refused)





ON-SITE SEWAGE FACILITY APPLICATION

Date \_\_\_\_\_

Permit Number \_\_\_\_\_

1. APPLICANT / AGENT INFORMATION

Owner Name \_\_\_\_\_

Agent Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

Agent Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone # \_\_\_\_\_

Phone # \_\_\_\_\_

Email \_\_\_\_\_

Email \_\_\_\_\_

2. LOCATION

Subdivision Name \_\_\_\_\_ Unit \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_

Survey Name / Abstract Number \_\_\_\_\_ Acreage \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

3. TYPE OF DEVELOPMENT

Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) \_\_\_\_\_

Number of Bedrooms \_\_\_\_\_

Indicate Sq Ft of Living Area \_\_\_\_\_

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: \$ \_\_\_\_\_ (Structure Only)

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

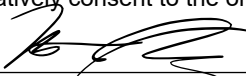
Yes  No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)

Source of Water  Public  Private Well

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

Planning Materials & Site Evaluation as Required Completed By Dave McGhee

**REVISED**  
4:22 pm, Dec 06, 2021

System Description Aerobic Drip

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

Tank Size(s) (Gallons) 600 GPD ATU Absorption/Application Area (Sq Ft) 2528

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.)

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 CZP has been approved by the appropriate regional office.)

Is this property within an incorporated city?  Yes  No

If yes, indicate the city: \_\_\_\_\_

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.

Dave McGhee  
Signature of Designer

9-6-2021  
Date

2/c



AFFIDAVIT TO THE PUBLIC

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.

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (commission) 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.

||

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.01(12) will be installed on the property described as (Insert legal description): \_\_\_\_\_

\_\_\_\_\_  
1731 Fuller Drive Canyon Lake, TX 78133  
\_\_\_\_\_  
Unit A, Lot 35 in Canyon Lake Estates  
\_\_\_\_\_

The property is owned by (insert owner's full name): TRP Properties, LLC

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.

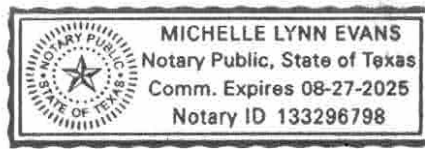
Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office.

WITNESS BY HAND(S) ON THIS 18<sup>th</sup> DAY OF November, 2021

[Signature]  
Owner(s) signature(s)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 18<sup>th</sup> DAY OF November, 2021

[Signature]  
Notary Public, State of Texas



Regulatory Authority Comal County

Permit / License Number None

## WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT

Block Creek Aerobic Services, LLC

Customer TRP Properties, LLC

444 A Old Hwy #9

Site Address 1731 Fuller Drive

Comfort, TX 78013

City Canyon Lake Zip 78133

Off. (830)995-3189

Mailing Address PO Box 8306, Round Rock ,TX 78681

Fax (830)995-4051

County Comal Map # \_\_\_\_\_

Phone # 512-730-9894

- I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between TRP Properties, LLC (hereinafter referred to as "Customer") and Block Creek Aerobic Service, LLC. By this agreement, Block Creek Aerobic Service, 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 Dates: This Agreement commences on 11/18/2021 and end on 11/18/2023 for a total of two (2) years (initial agreement) or one (1) year (there after). If this is an initial agreement (new installation), the Customer will 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 with thirty (30) days written notice for any reason, including for example, substantial failure to perform in accordance with its terms, without fault or liability of the terminating party. If this Agreement is so 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. 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:
- 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.
  - Provide a written record of visits to the site by means of an inspection tag attached to or contained in the control panel.
  - Repair or replace, if Contractor has necessary materials at site, any component of the OSSF to be failing or inoperative during the course of a routine monitoring visit. If such services are not covered by warranty, and services costs are \$100.00, or less. Customer hereby authorizes Contractor to perform the service and bill Customer for said service. When service costs are greater than \$100.00, or if contractor does not have necessary supplies at the site. Contractor will notify Customer of required service(s) and associated cost(s). Customer must notify Contractor of arrangements to affect repair of system with two (2) business days after said notification.
  - Provide sample collection and laboratory testing of TSS and BOD on a yearly basis (commercial systems only).
  - Forward copies of this Agreement and all reports to the regulatory agency and the Customer.
  - 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: Not required XX required. The responsibility to maintain the disinfection device(s) and provide any necessary chemicals is that of the Customer. \_\_\_\_\_ (Initial)
- VI. 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:
- If this is an initial Agreement (new installation):
    - Contractor's receipt of a fully executed original copy or facsimile of this agreement and all documentation requested by Contractor.
    - Contractor's receipt of payment of the wastewater-monitoring fee in accordance with the terms as described in Section XIV of this Agreement.
  - If this is not an initial Agreement (existing system):
    - Contractors receipt of a fully executed original copy or facsimile of this agreement and all documentation requested by Contractor.
    - Contractor's receipt of payment of the wastewater-monitoring fee in accordance with the terms as described in Section XIV of this Agreement.
  - 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:
- 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.
  - Protect equipment from physical damage including but not limited to that damage caused by insects.
  - Maintain a current license to operate, and abide by the conditions and limitation of that license, and all requirements for and OSSF from the State and/or local regulatory agency, whichever are more stringent, as well as proprietary system's manufacturer recommendations.
  - Notify Contractor immediately of any and all alarms, and/or any and all problems with, including failure of, the OSSF.
  - Provide, upon request by Contractor, water usage records for evaluation by Contractor as to 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 evaluation the OSSF's performance. If these samples are taken to a laboratory for testing, with the exception of the service provided under Section V. sub-section d. above. Customer agrees to pay contractor for 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. If not an initial agreement (new installation) and this access is not in place or provided for by the Customer, the cost for the labor of excavation, and possibly other labor and material costs will be required. These costs shall be billed to Customer as an additional service at a rate of \$35.00 per hour, plus material at list price. Excavated soil shall be replaced as best as Contractor can at the time such service is performed and under no circumstances is Contractor responsible for damages to sod, grass, roots, landscaping, or any unmarked underground items (telephone, television, or electrical cable, water, air, or gas lines, etc.), or for the uneven settling of the soil.
- 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. 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.
- XII. Fee for Services: The fee does not include any equipment, material, or labor necessary for non-warranty repairs or for unscheduled inspections. Customer requested visits to the site.
- XIII. Payment: Full amount due upon signature (Required of new Customer). Payment of invoice(s) for any other service or repair provided by contractor in due upon receipt of invoice. Invoices are mailed on the date of invoice. All payments not received within thirty (30) days form 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.
- XIV. Application or Transfer of payment: The fees paid for this agreement may transfer to the subsequent property owner(s); however this Agreements not transferable. Customer will advise 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.
- XV. Entire Agreement: This agreement contains the entire Agreement of the parties, and there are no other conditions in any other agreement, oral or written.

*Burt Seidensticker*

Burt Seidensticker MP# 0000002

*[Handwritten Signature]*

Customer Signature

11/18/2021

Date



This page has been added to comply with the statutory requirement that the clerk shall stamp the recording information at the bottom of the last page.

This page becomes part of the document identified by the file clerk number affixed on preceding pages.

Filed and Recorded  
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Bobbie Koepf, County Clerk  
Comal County, Texas  
11/19/2021 03:07:51 PM  
CHRISTY 2 Page(s)  
202106060041



*Bobbie Koepf*



## OSSF SOIL EVALUATION FORM

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Owner's Name:

Physical Address: 1731 Fuller Drive

Legal Description: Canyon Lake Estates, Section 1, Lot 35, Block A

Requirements:

- At least two soil evaluations must be performed on the site, at opposite ends of the proposed disposal area. Locations of soil evaluations must be shown on the application site drawing or designer's site drawing.
- For subsurface disposal, soil evaluations must be performed to a depth of at least 2-ft. below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.
- Please describe each soil horizon and identify any restrictive features in the space provided below. Draw lines at the appropriate depth.

Soil Boring Number: 1

Depth	Textural Class	Gravel Analysis	Drainage (Mottles, Water Table)	Restrictive Horizon	Observations
0					
1 2 3 4 5	IV	Less Than 30%	None	Rock @ 2"	Brown Clay

Soil Boring Number: 2

Depth	Textural Class	Gravel Analysis	Drainage (Mottles, Water Table)	Restrictive Horizon	Observations
0					
1 2 3 4 5	IV	Less Than 30%	None	Rock @ 2"	Brown Clay

### Features of Site Area

Presence of 100-year flood zone	No
Presence of adjacent ponds, streams, water impoundments	No
Existing or proposed water well in nearby area	No
Organized sewage available to lot or tract	No
Recharge feature within 150 feet	No



# **PLAN-IT**

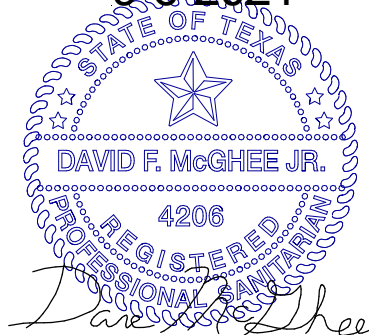
## **SEPTIC**

**AEROBIC DRIP SYSTEM**

**LOCATED AT**

**1731 FULLER DRIVE  
CANYON LAKE ESTATES  
SECTION 1, LOT 35, BLOCK A  
COMAL COUNTY, TX**

**9-6-2021**



**PLAN-IT CONTACT INFORMATION:**

**5405 APACHE CREEK COVE • AUSITN • TEXAS • 78735 • 210-347-1593  
DAVE@PLANITSEPTIC.COM**





## SYSTEM SUMMARY

This design was performed in conformance with Chapter 285 of Texas Commission on Environmental Quality.

This system is comprised of the following:

- System Designed For: 240 Gallons Per Day
- Tank: NuWater B550-PC-400PT(600 GPD)
- Control Panel: BIO/SPI 50B138-A-AV
- Distribution: 1570' of .61 GPH @ Netafim drip tubing (785 Drip Emitters)
- Total Flow: 14.4 GPM
- Filter: Arkal 1" Disc Filter with 100 Micron Filter
- Timer: Grasslin Digi 20
- Submersible Effluent Pump: Ashland CMP Series bottom suction pump 20+CMP5-115 Submersible pump @ 20 GPM

## SITE DESCRIPTION AND SITE EVALUATION

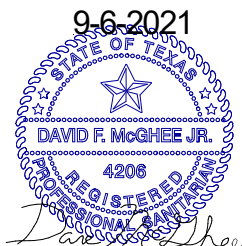
The existing vegetation consists of some native grasses along with Live Oak and Juniper trees. The site evaluation indicated that the site has suitable soil for an aerobic drip irrigation system. No evidence of shallow ground water was observed during the site evaluation. A slope of less than 30 percent was found within the proposed distribution area. The residence will utilize a public water supply as the source for potable water. All the systems components will be 100 ft. away from all wells. There are no recharge features within 150 feet of this proposed system. No portion of the OSSF is located within 10' of private water sources. No portion of this OSSF lies within the 100-year flood plain. Minimum separation distances as stated in § 285.30 TCEQ, On-Site Sewage Facilities must be maintained.

## WASTEWATER DESIGN FLOWS

The system was designed for a less than 2500 SF, 3-bedroom single family residence. The total projected daily wastewater flow is 240 gallons per day, as-per TCEQ, On-Site Sewage Facilities, effective December 29, 2016.

## PROPOSED OSSF

Aerobic Treatment with drip disposal. A commercial irrigation timer Digi 20 will be used to cycle power to the pump. Distribution is through an Arkal 1" 100-micron disc filter to a 1" Sch. 40 PVC supply manifold to 1264' of Netafim Bioline set 2 feet apart with 0.61 GPH emitters set every 2 feet, as per attached schematic. A 1" Sch. 40 return manifold will be installed to flush the system into the pump tank. This will continuously clean out the emitter lines, and help prevent emitter blockage, slim build up, and inorganic scale build up. Solids caught in the disc filter will be flushed each cycle. 1" PVC vacuum breakers (Agricultural Products, Inc. Model #VBK-1) will be installed at the highest point on each manifold (supply and return) see site plan. The vacuum breakers will prevent siphoning of effluent from higher to lower parts of the field. **Drip tubing will be installed on 10" of imported Class III soil parallel to contours and capped with 8" of Class III soil. The entire field will be seeded with a mix of Bermuda/Rye or native grass and covered with erosion blanket.** This system is considered a "package system" and will be installed according to manufacturer's instructions.





## DESIGN SPECIFICATIONS

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Average Expected Flow: 240 GPD

Ra: .1

Minimum Absorption Area:  $A = Q/Ra$

$A = 240 \text{ GPD} / 0.1 = 2400 \text{ square feet}$

Actual Absorption Area: 1264 Linear Feet

Drip Emitter Spacing: 2 Feet

## PUMP FLOAT SETTINGS

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Pump Tank: 768-gallon compartment = 14.49 gal/inch of depth (53" usable)

Pump-off Position: 11 inches above tank bottom

Pump-on Position: 14 inches above tank bottom

Alarm-on Position: 31 inches above tank bottom

Daily Operating Capacity: 17" x 14.49 gal/in = 246.33 gallons

Reserve Capacity: 22" x 14.49 gal/in = 318.78 gallons

## DRIP TUBING CALCULATIONS

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### Flow Calculations (See Attached Spread Sheet)

Drip Tubing: 1264' of Netafim 0.61 GPH @ 20 PSI (Longest Run 328')

**Set timer to dose every 6 hours for 10 minutes per dose**

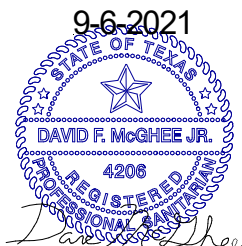
## CONSTRUCTION/INSTALLATION NOTES & REQUIREMENTS

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- Refer to site plan for component placement and follow manufacturer's instructions for installation of treatment plant and aerator.
- All materials and construction methods are required to conform to the standards for Private Sewage Facilities set forth by the Texas Administrative Code, §285 On-Site Sewage Facilities.
- The installer must have a current and valid Texas installer certificate and is required to have at the minimum and Installer II certification.
- The installer must notify designer and regulatory authority at least 48 hours in advance to schedule required inspections to ensure that the system is installed in accordance with approved plans and specifications.
- The installer may not alter these plans without the approval from the designer.
- If site conditions differ from that which is on the approved design, the installer must cease construction and contact the designer.
- Diversion berms will be placed when needed to protect irrigation and tank areas from excessive runoff.
- It is the responsibility of the installer to maintain the minimum setback requirements as stated in Chapter §285 On-Site Sewage Facilities.
- No part of the system shall be located within 10 feet of a potable water line. If this is unavoidable, the water line shall be sleeved with Sch. 40 pipe 10 feet in both directions and sealed with silicone to prevent contamination.

## ELECTRICAL COMPONENTS

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All electrical wiring shall conform to the requirements of the National Electric Code (1999) or under any other standards approved by the executive director. Additionally, all external wiring shall be installed in approved, rigid, non-metallic electrical conduit. The conduit shall be buried according to the requirements in the National Electric Code and terminated at a main circuit breaker panel or sub-panel. Connections shall be in approved junction boxes. All electrical components shall have an electrical disconnect within direct vision from the place where the electrical device is being serviced. Electrical disconnects must be weatherproof (approved for outdoor use) and have maintenance lockout provisions.

#### **TANK NOTES**

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- The bottom of the excavation for the tanks shall be level and free of large rocks and debris.
- All tanks are to be set level on a minimum 4-inch layer of sand, sandy loam, clay loam, or pea gravel.
- Risers are required on tank inspection ports as per 30 TAC 285.38 (12/1/2916). This includes access limitation (<65lbs lid or hardware secured lid) and secondary plug, net, or mesh in riser. Septic tanks without risers shallower than 12" below grade may be exempt.
- Risers are required on all tank access ports to grade.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, and/or to prevent the infiltration of water.
- Tanks must be filled with water for at least 24 hours to test for leaks and structural integrity.
- The tanks must be set low enough to have fall of at least 1/8 inch per foot from house to tank.
- PVC pipe from house to tank must be at least Sch. 40 or SDR 26.

#### **IRRIGATION AND LANDSCAPE NOTES**

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- Irrigation lines shall be 1-inch Sch. 40 PVC. All supply lines, drip tubing, and valve cover boxes must be permanently colored purple. Sleeve any pipe that crosses any road, driveway, or other land improvement with Sch. 40 PVC.
- Supply lines must be buried at least 6 inches below finished grade.
- Manifold trench should be kept shallow to prevent interconnection of the trenches.
- If distribution area does not have established vegetation, a mixture of winter rye and Bermuda grasses will be seeded to establish seasonal vegetation. Erosion blankets seeded with Bermuda and Rye grasses will also be accepted, and/or sod
- The installer shall notify the property owner prior to removal of any trees/bushes that may obstruct the operation of the irrigation system.
- The entire distribution field should be scarified before placing drip tubing.
- The distribution field must be covered with a minimum of 8 inches of suitable soil.
- Vegetation must be established before system is in use.

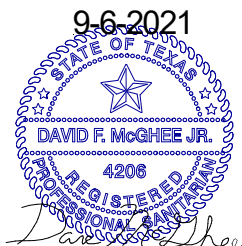
#### **ADDITIONAL NOTES**

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- Install audio-visual alarm for aerator and pump on separate breakers.
- The high water and air compressor alarms shall be audio/visual and mounted in a place that can be easily seen and heard when alarms are activated.
- All pipe fittings and 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.

#### **MAINTENANCE REQUIREMENTS**

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- The applicant must furnish to the regulatory authority a valid maintenance contract with a certified maintenance company before a permit will be issued.
- The maintenance company will verify that the system is operating properly and provide on-going maintenance of the installation.
- The initial contract will be a minimum of two years.
- A maintenance contract will authorize the maintenance company to maintain and repair the system as needed.
- The property owner must continuously maintain a signed written contract with a valid maintenance company and shall submit a copy of the contract to the permitting authority at least 30 days prior to the date service will cease.

#### **AFFIDAVIT**

- The applicant must file a certified copy of an affidavit at the County Clerk's Office and file in reference to the real property deed on which the drip system is to be installed.
- The affidavit will state that the property shall not be transferred to a new owner without:
  - (1) The new owner being advised that the property contains a drip system for wastewater disposal.
  - (2) The permit issued to the previous owner of the property being transferred to the new owner in accordance with Chapter §285. 20(5) of the TCEQ OSSF Rules, i.e., the permit will be issued in the name of the owner of the OSSF. Permits shall be transferred to the new owner automatically upon legal sale of the OSSF. The transfer of an OSSF permit under this section shall occur upon actual transfer of the property on which the OSSF is located unless the ownership of the OSSF had been severed from the property.
  - (3) The new owners submitting a valid maintenance contract to the permitting authority.

*This proposed system has been designed following the minimum requirements under TCEQ Chapter §285 On-Site Sewage Facilities. The system has been designed based on information provided by the homeowner/builder. The designer is a septic designer and not a Surveyor. All property lines and property pins must be verified prior to septic installation. The site evaluation and subsequent design are based on technical information currently available. There was no indication of shallow groundwater or slopes where seeps could occur at the time of the site evaluation. The performance of the OSSF is not and cannot be guaranteed even though all provisions of the Standards have been complied with. If failure should occur, additions to the OSSF may have to be made. By accepting this design, the homeowner/builder understands that the designer/site evaluator will not be liable for more than the agreed upon design fee.*

9-6-2021  
  
*David F. McGhee Jr.*

Client:

Date: 9/6/2021

Location: 1731 Fuller Drive

Netafim Bioline: 17mm .6gph 24in spacing @ 2fps Flush

- 1. Maximum Recommended Bioline Lateral Length: **350**
- 2. Soil Texture or Perc Time: IV
- 3. Soil Structure Shape:
- 4. Soil Structure Grade:
- 5. Infiltration Loading Rate (ILR): **0.1** gal/day/ft<sup>2</sup>
- 6. Slope: %
- 7. Infiltration Depth: in.
- 8. Hydraulic Linear Loading Rate: **4** gal/day/ft
- 9. Maximum Contour Length (MCL): **150** ft

8. Daily Flow

No. of Bedrooms	X	Flow / Bedroom	=	240.00	GPD
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9. Dosing Area

Daily Flow	/	ILR	=	2400.00	sqft
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10. Dosing A. Length

Daily Flow	/	HLLR	=	60.00	ft
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11. Dosing A. Width

Dosing Area	/	Dosing A. Length	=	40.00	ft
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11a. Dosing Design Width & Length Adjustment

Design Width	40.00	ft	Adjusted Dosing Length	60.00	ft
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12. Required Dripper Line

Dosing Area	/	Drip line Spacing	=	1200.00	ft
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13. Required Zones

Dosing A. Length	/	MCL+	=	0.40	Theoretical	=	<b>1</b>	Design Zones
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14. Zone Breakout Table

Zone No.	Zone Dosing Area (sqft)	Linear Ft. of Tubing (ft)	Longest Lateral (ft)	Dosing Flow Rate (gpm)	Number of Distal Ends	Field Flush Rate (gpm)	Required Total Flow (RTF) (gpm)	Field Flushing Head (ft)	Force Main Supply Line			Return Flush Line			Static Lift (ft)	Total Field Head Loss (TFHL)
									Pipe Nom. Dia. (in)	Len. of Run (ft.)	Head Loss (ft)	Pipe Nom. Dia. (in)	Len. of Run (ft.)	Head Loss (ft)		
Zone 1	2528.0	1264.0	250.0	6.4	5.0	8.0	14.4	38.5	1	170	18.5	1	170	6.2	12	75.17
Zone 2				0.0	4.0	6.4	6.4	0.1	1		0.0	1		0.0		0.12
Zone 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			0.0			0.0		0.12
Zone 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			0.0			0.0		0.12
Zone 5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			0.0			0.0		0.12
Zone 6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1			0.0			0.0		0.12

Note: (14c) Longest lateral may be looped one or more times and is a function of: (7) contour length, Bioline lateral length, #of distal ends, #of zones and (10) dosing area length.

17. Headworks Head Loss: **10** ft

18. Miscellaneous Head Loss: **5** ft

19. Design Total Dynamic Head: **90.2** ft

20. Pump Data: MINIMUM Pump Specifications

Ashland CMP-115, 20 GPM, .5 HP Pump Model Selected  
 HP Phase Volts **14.4** GPM @ **90.2** FT.  
 Note: Selected pump must produce 115 ft @ 12gpm or 35 gpm for filter flush depending on filter model. (auto-flush units only)

21. Dosing Schedule

Peak	Peak Flow Adjustment		Average	
	Minutes	Minutes	Minutes	Minutes
Total Run Time:	<b>37.5</b>		<b>37.5</b>	
Total Rest Time:	<b>1402.5</b>		<b>1402.5</b>	

Zone	GPM	Min/Dose	Gal/Dose	Cycles/Day
Zone 1	6.4	<b>10.0</b>	64.0	4.0
Zone 2	0.0	0.0	0.0	0.0
Zone 3	0.0	0.0	0.0	0.0
Zone 4	0.0	0.0	0.0	0.0
Zone 5	0.0	0.0	0.0	0.0
Zone 6	0.0	0.0	0.0	0.0

Portion of Peak Daily Flow **100%**

15. Max Required Total Flow: **14.4**  
 (Largest RTF Based on 14g.)

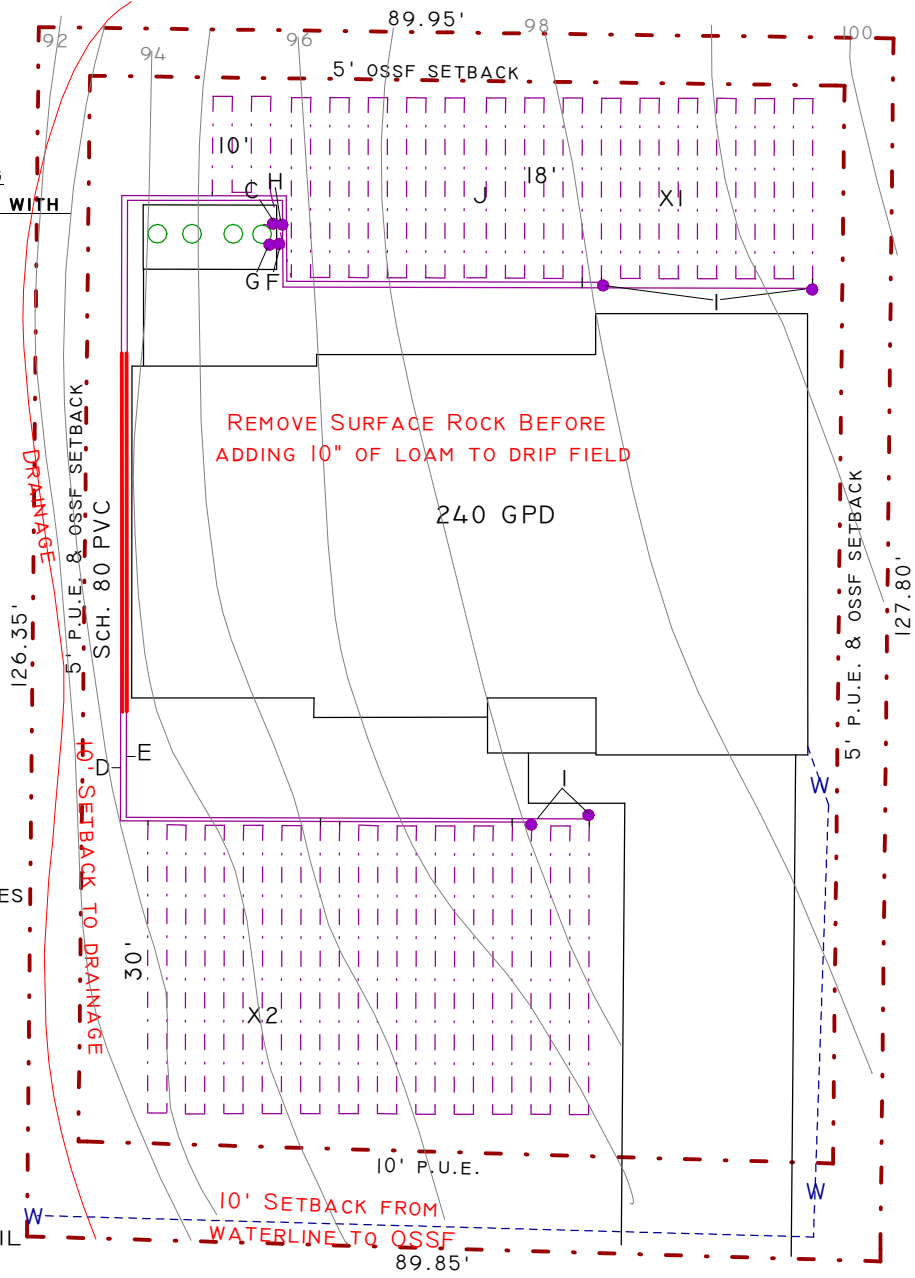
16. Max Total Field Head Loss: **75.2**  
 (Largest TFHL Based on 14p.)

Notes:  
 Bioline Must Be Selected at Top of Page. Required inputs go in **YELLOW** spaces and adjustments in **BLUE** spaces. Information for the record goes into **GREY** spaces. Incorporates New UniRam Type Emitter. Peak Flow Cycle Adjustment should be between 2 and 4 minutes. Higher values could result in damage to the drain field.

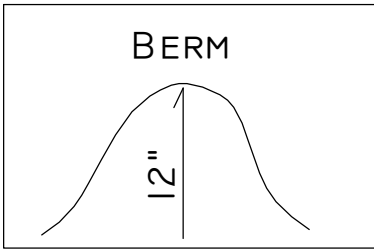
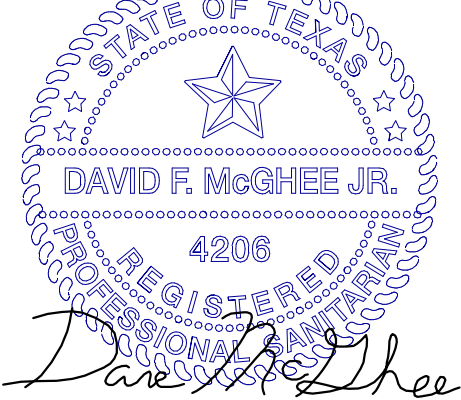
**SYSTEM COMPONENTS**

- A. 4" SCH. 40 PVC PIPE WITH 2-WAY CLEAN OUT
- B. NUWATER B550-PC-400PT AEROBIC UNIT (600GPD) NO CHLORINATOR
- C. 1" ARKAL 100-MICRON DISC FILTER ON SUPPLY LINE
- D. 1.0" SCH. 40 PVC PURPLE PIPE SUPPLY LINE**
- E. 1.0" SCH. 40 PVC PURPLE PIPE RETURN LINE**
- F. 1" BALL VALVE (UNDER VALVE BOX)
- G. PRESSURE GAUGE SET AT 10 PSI
- H. SENNINGER PRESSURE REGULATOR (MODEL PMR40MF)
- I. VACUUM BREAKERS, ONE ON THE SUPPLY AND RETURN LINE LOCATED AT THE HIGHEST POINT OF FIELD
- J. 1264' OF .6 GPH NETAFIM DRIP TUBING. DRIP TUBING WILL BE INSTALLED ON 10" OF IMPORTED CLASS III SOIL WITH DRIP TUBING PARALLEL TO CONTOURS. THE FIELD WILL BE COVERED WITH 8" OF CLASS III SOIL. THE FIELD WILL BE SEEDED AND COVERED WITH EROSION BLANKET**

**1731 FULLER DRIVE  
CANYON LAKE ESTATES SEC I  
LOT 35, BLOCK A**



**9-6-2021**



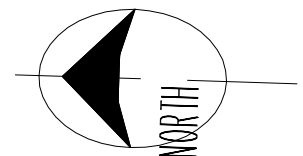
X = PROFILE HOLES

**NOTES:**

- \* ALL PIPING SHALL BE BEDDED WITH FOUR INCHES CLASS IB, CLASS II OR, CLASS III SOIL WITH LESS THAN 30% GRAVEL. THE BEDDING SOIL SHALL BE FREE OF ORGANIC MATERIAL AND ANY ROCKS OR GRAINS LARGER THAN HALF INCH
- \* DISTRIBUTION FIELD MUST HAVE ESTABLISHED VEGETATIVE COVER BEFORE SYSTEM IS OPERATED
- \* VACUUM BREAKERS (LOCATED AT THE HIGHEST POINT ON BOTH THE SUPPLY AND RETURN LINES)
- \* OSSF TO REMAIN A MINIMUM 10' AWAY FROM ALL POTABLE WATER SOURCES

J # 1	1 = 300'
	2 = 300'
	3 = 120'
	4 = 328'
	5 = 216'
<b>TOTAL LINEAR FEET = 1264'</b>	

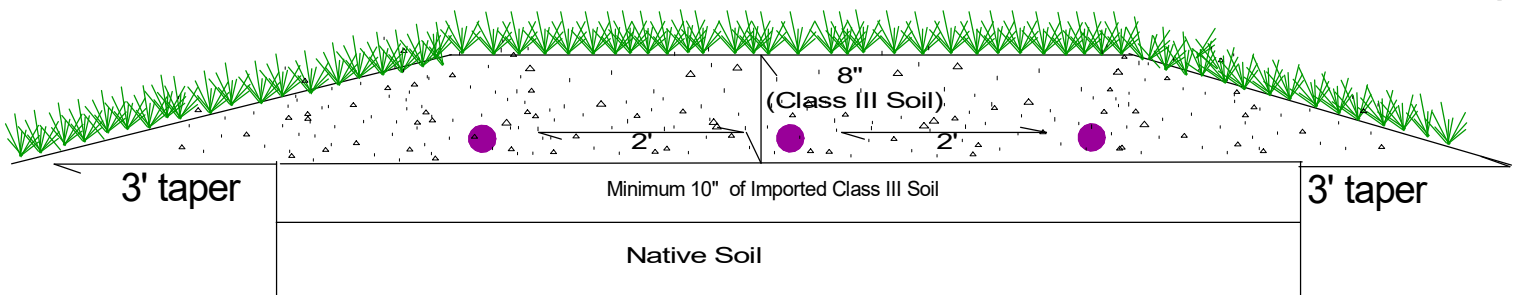
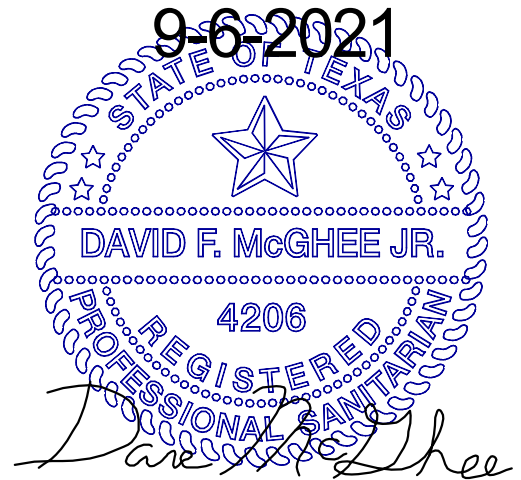
\*GUTTERS MUST BE DIRECTED AWAY FROM OSSF



SCALE: 1" = 20'

# Drip Irrigation Field Cross-Section

9-6-2021

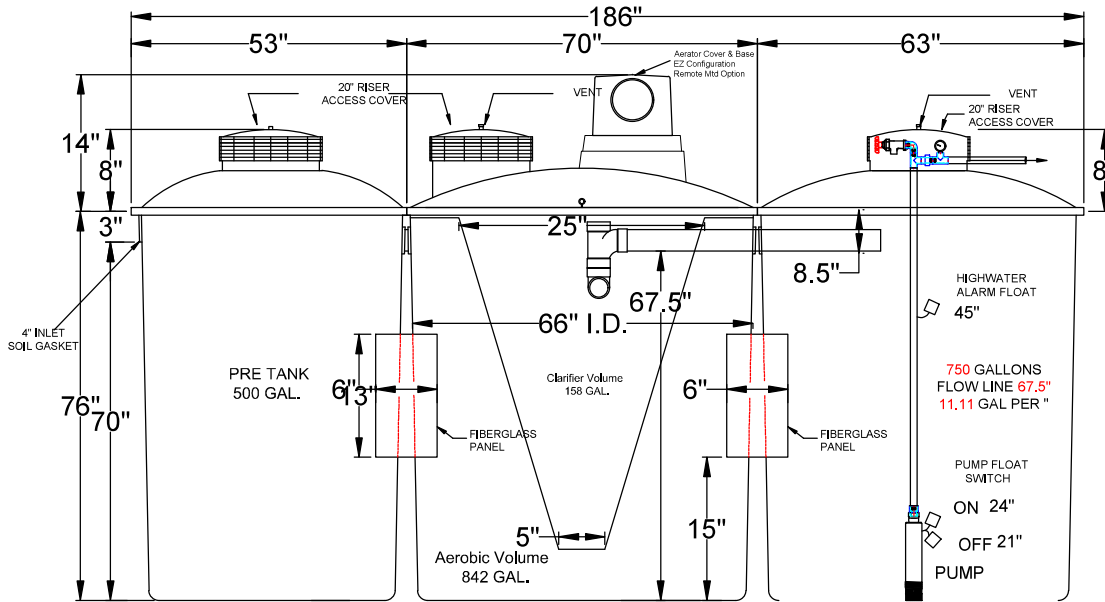


- \* All existing vegetation will be removed when the field is scarified
- \* Gutters should be installed on house to divert water from drip field
- \* Drip tubing will be laid parallel to contour on top of imported soil and capped with 8" of Class III loam.
- \* Drip tubing is to be NetaFim Bioline (.61 GPH) with emitters set every two feet
- \* Distribution field should be built up to shed water
- \* Distribution field will be sodded or seeded

\* This Drawing IS Not To Scale

**REVISED**

8:47 am, Aug 31, 2022



Pump-off Position: 21 inches above tank bottom  
Pump-on Position: 24 inches above tank bottom  
Alarm-on Position: 45 inches above tank bottom

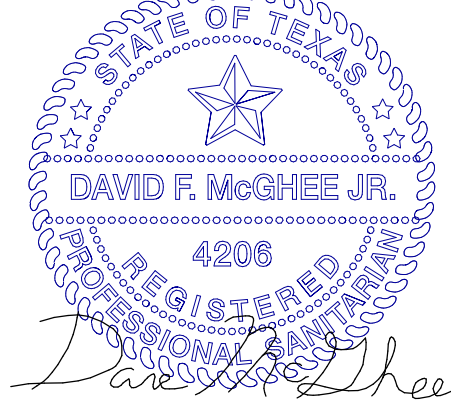
Daily Operating Capacity: 18" x 11.11 gal/in = 199.98 gallons  
Reserve Capacity: 22.5" x 11.11 gal/in = 250 gallons

**Aqua-Asafe AS600**



I certify that the above statements are true and are based on my own field observations.

9-6-2021



Signature of Site Evaluator \_\_\_\_\_

# CISTERN PUMPS

## CPM Series

### Ashland Pump – CPM Series

The Ashland Pump CPM Series is designed to operate in filtered effluent/gray water applications. The bottom suction design allows for maximum drawdown of fluid and the hydraulic stages are able to pass 1/8" solids without damage to the pump.

Installations in cistern tanks, rain basin catchments or anywhere drawdown levels need to be maximized are ideal applications for the Ashland Pump CPM Series.

### APPLICATIONS

- Filtered Effluent Water Pumping
- Gray Water Pumping
- Water Feature / Aeration Applications
- Rain Water Basin Applications

### FEATURES

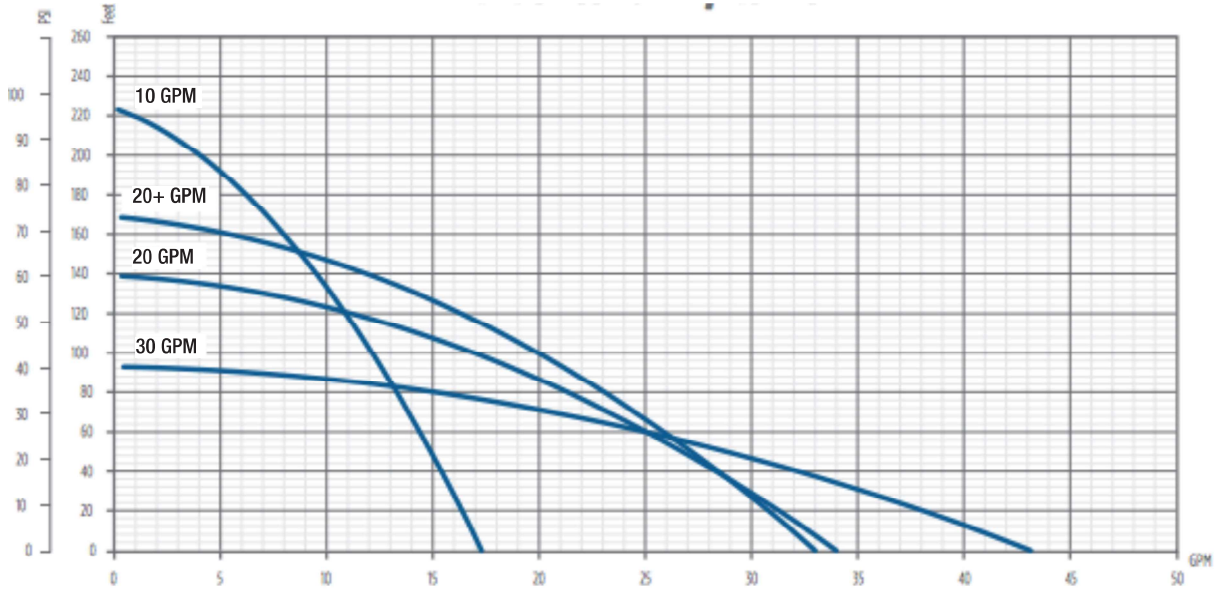
- Bottom suction design for maximum drawdown
- Able to pass 1/8" solids
- Available in 10, 20 and 30 GPM flow rates
- ½ HP, 115V and 230V single phase motors
- Heavy duty discharge with stainless steel internal threads
- 600 Volt, 10' SJ00W jacketed lead
- High shut-off pressure
- Quiet operation
- Standard removable base for stable mounting

### ORDERING INFORMATION

CPM SERIES CISTERN PUMP						
Model/Order No.	GPM	HP	Voltage/Ph.	Stage Count	Length (in.)	Shipping Wt. (lbs.)
10CPM5-115	10	1/2	115/1	7	26	17
10CPM5-230	10		230/1	7	26	17
20CPM5-115	20		115/1	5	25	16
20CPM5-230	20		230/1	5	25	16
20+CPM5-115	20+		115/1	6	26	17
20+CPM5-230	20+		230/1	6	26	17
30CPM5-115	30		115/1	4	25	16
30CPM5-230	30		230/1	4	25	16



**ASHLAND PUMP CPM SERIES CISTERN PUMP PERFORMANCE**



**P U M P**

*Honest, Professional, Dependable*

1899 Cottage Street, Ashland, Ohio 44805

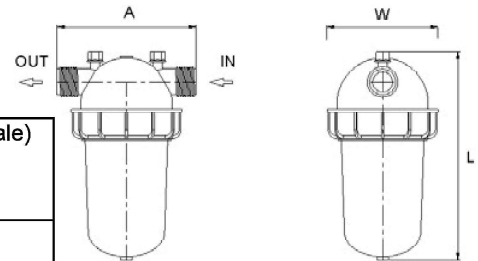
Telephone: 855 281-6830 • Fax: 877 326-1994 • [ashlandpump.com](http://ashlandpump.com)

# Arkal 1" Short Filter

Catalog No. 1100 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 available in various filtration grades.



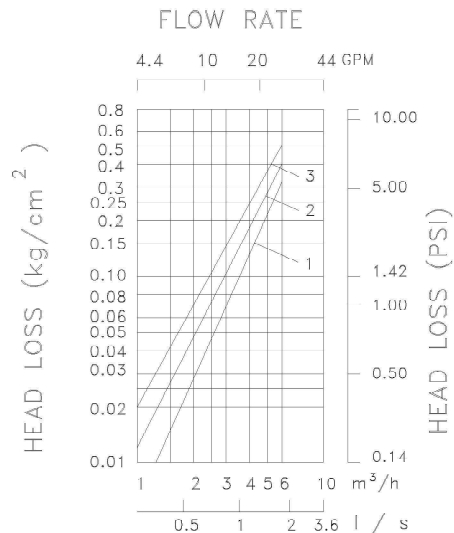
## Technical Data

Inlet/Outlet diameter	1" BSPT (male)	1" NPT (male)
	25 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 bar	145 psi
Maximum flow rate	6 m <sup>3</sup> /h (1.7 l/sec)	26 gpm
Total filtration area	316 cm <sup>2</sup>	49 in <sup>2</sup>
Total filtration volume	379 cm <sup>3</sup>	23 in <sup>3</sup>
Filter length L	233 mm	9 3/16"
Filter width H	130 mm	5 3/32"
Distance between connections W	158 mm	6 7/32"
Weight	1.1 Kg	2.4 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



# BIOLINE® DRIPLINE

THE WORLD'S MOST ADVANCED CONTINUOUS  
SELF-CLEANING, PRESSURE COMPENSATING DRIPLINE  
SPECIFICALLY DESIGNED FOR WASTEWATER

## CROSS SECTION OF BIOLINE DRIPLINE

Bioline dripper inlets are positioned in the center of flow where water is the cleanest



## PRODUCT ADVANTAGES

- Pressure compensation - all drippers deliver equal flow, even on sloped or rolling terrain.
- Unique flow path - Turbonet technology provides more control of water and a high resistance to clogging.
- Continuous self-flushing dripper design - flushes debris, as it is detected - throughout operation, not just at the beginning or end of a cycle. Ensures uninterrupted dripper operation.
- Single hole dripper outlet from tubing:
  - Better protection against root intrusion
  - Allows the dripline to be used in subsurface applications without need for chemical protection
- Drippers capture water flow from the center of the tubing - ensures that only the cleanest flow enters the dripper.
- Built-in physical root barrier - drippers are protected from root intrusion without the need for chemical protection. Water exits dripper in one location while exiting the tubing in another.
- Three dripper flow rates - provides the broadest range of flow rates available. Allows the designer to match the dripline to any soil or slope condition.
- Bioline tubing is completely wrapped in purple - easily identifying it for non-potable use, regardless of how the tubing is installed.
- Anti-bacterial-impregnated drippers - prevents buildup of microbial slime.
- Can be used subsurface - Bioline can be installed on-surface, under cover or subsurface.
- No special storage requirements - does not degrade if stored outdoors.

## APPLICATIONS

- Typically installed following a treatment process
- Can be used with domestic septic tank effluent with proper design, filtration and operation
- Reuse applications including municipally treated effluent designated for irrigation and other disinfected and non-disinfected water sources.

## SPECIFICATIONS

- Dripper flow rates: 0.4, 0.6 or 0.9 GPH
- Dripper spacings: 12", 18" or 24" dripper spacings and blank tubing
- Pressure compensation range: 7 to 58 psi
- Maximum recommended system pressure: 58 psi
- Tubing diameter: 0.66" OD, 0.56" ID
- Tubing color: Purple color indicates non-potable
- Coil lengths: 500' or 1,000' (Blank tubing in 250')
- Recommended filtration: 120 mesh
- Bending radius: 7"
- UV resistant
- Tubing material: Linear low-density polyethylene

Additional spacing and pipe sizes available by special order. Please contact Netafim USA Customer Service for details.

## Olvera, Brandon

---

**To:** fcstx@icloud.com  
**Subject:** 113579

RE: 1731 Fuller Drive Canyon Lake Estates Unit 1 Lot 35 Block A

Property Owner & Agent,

We received planning materials for the referenced permit application on 11-22-2021 and found those planning materials to be deficient. In order to continue processing this permit, we need the following:

1. ✓ Page 2 of application show 300 GDP, the rest of the planing materials state 240
2. Revise accordingly and resubmit.

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

Thank you,



**Brandon Olvera**

Environmental Health Inspector  
195 David Jonas Dr.  
New Braunfels, TX 78132  
DR:OS0034792

O: 830-608-2090 | C: 830-832-9442  
[olverb@co.comal.tx.us](mailto:olverb@co.comal.tx.us)



Planning Materials & Site Evaluation as Required Completed By Dave McGhee

System Description Aerobic Drip

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

Tank Size(s) (Gallons) 600 GPD ATU Absorption/Application Area (Sq Ft) 3140

Gallons Per Day (As Per TCEQ Table III) 300

(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.)

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 complies 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 CZP has been approved by the appropriate regional office.)

Is this property within an incorporated city?  Yes  No

If yes, indicate the city: \_\_\_\_\_

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.

Dave McGhee  
Signature of Designer

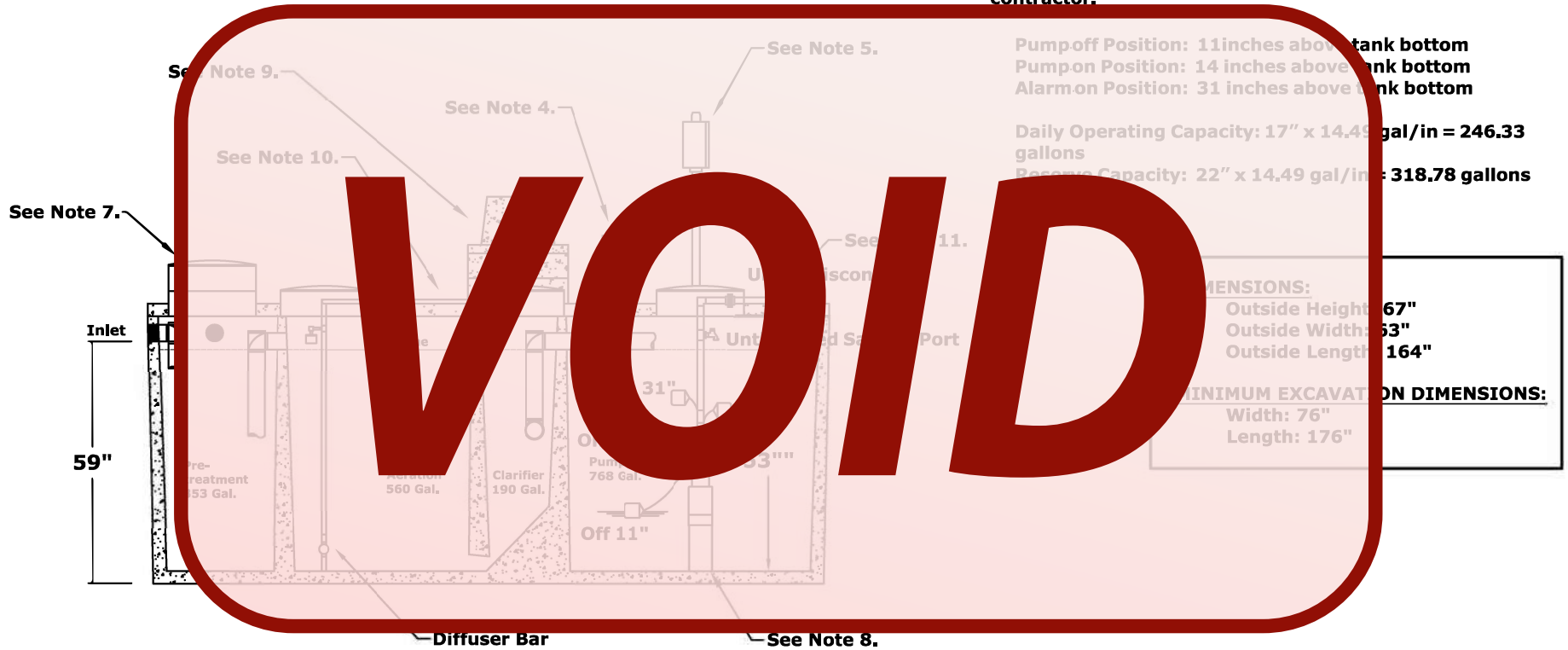
9-6-2021  
Date

**Tank Notes**

- The bottom of the excavation for the tanks shall be level and free of large rocks and debris.
- All tanks are to be set level on a minimum 4 inch layer of sand, sandy loam, clay loam, or pea gravel.
- Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2012). This includes access limitation (<65lbs lid or hardware secured lid) and secondary plug, net, or mesh in riser. Septic tanks without risers shallower than 12" below grade may be exempt.
- Risers are required on all tank access ports to grade.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, and/or to prevent the infiltration of water.
- Tanks must be filled with water for at least 24 hours to test for leaks and structural integrity.
- The tanks must be set low enough to have fall of at least 1/8 inch per foot from house to tank.
- PVC pipe from house to tank must be at least Sch. 40.
- Tank will be backfilled with sand, sandy loam, clay loam, or pea gravel, free of rock larger than 1/2 inch in diameter

**GENERAL NOTES:**

1. Plant structure material to be precast concrete and steel.
2. Weight = 14,900 lbs.
3. Treatment capacity is 600 GPD. BOD Loading = 1.62 lbs. per day.
4. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
5. Control Center w/ Timer for night spray application.
6. 20" Ø access riser w/ lid (Typical 4). Optional extension risers available.
7. 20 GPM 1/2 HP, high head effluent pump.
8. Air Compressor w/ concrete housing.
9. 1/2" Sch. 40 PVC Air Line (Max. 50 Lft from Plant).
10. 1" Sch. 40 PVC pipe to distribution system provided by contractor.



**Maxx Air M-600 (600 GPD)  
 Aerobic Treatment Plant (Assembled)**

Jan, 2019  
 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



STC 1197745 MW

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: June 25, 2021

Grantor: ROSEMARY PAULA CAUSEY

Grantee: TRP PROPERTIES, LLC, a Texas limited liability company

Grantee's Mailing Address: P. O. Box 8306, Round Rock, TX 78683

Consideration: Cash and other valuable consideration.

Property (including any improvements):

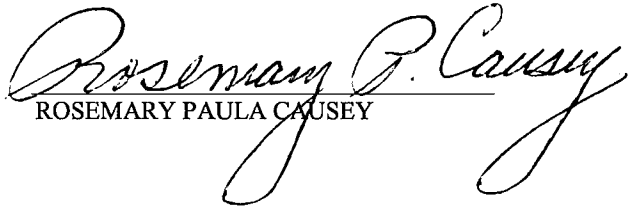
**Lot 35, in Block A, of CANYON LAKE ESTATES SECTION 1, an addition in Comal County, Texas, according to the map or plat thereof recorded in/under Volume 1, Page(s) 17, of the Map and Plat Records of Comal County, Texas;**

Reservations from Conveyance: NONE.

Exceptions to Conveyance and Warranty: Any and all restrictions, covenants, conditions, reservations, leases, interests, agreements and easements, shown of record in the hereinabove mentioned County and State and to all zoning laws, regulations and ordinances of municipal and/or governmental authorities, if any, but only to the extent that they are still in effect relating to the hereinabove described property, and further subject to all stand by fees, taxes and assessments by any taxing authority for the current and subsequent years, and subsequent taxes and assessments for prior years due to changes in land usage or ownership and all matters reflected on the hereinabove mentioned plat.

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.

  
ROSEMARY PAULA CAUSEY

**ACKNOWLEDGMENT**

**STATE OF TEXAS**

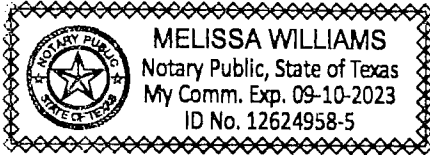
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**COUNTY OF COMAL**

This instrument was acknowledged before me on the 25 day of June, 2021, by ROSEMARY PAULA CAUSEY.

*Mellem*

Notary Public in and for the State of Texas



**AFTER RECORDING RETURN TO:**

TRP PROPERTIES, LLC  
P. O. Box 8306  
Round Rock, TX 78683

**PREPARED IN THE LAW OFFICES OF:**

THE HOUGHAM LAW FIRM  
5152 Fredericksburg Road, Ste. 280A  
San Antonio, Texas 78229  
Telephone No. (210) 375-7570

**Filed and Recorded  
Official Public Records  
Bobbie Koepf, County Clerk  
Comal County, Texas  
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*Bobbie Koepf*