


Preliminary Field Check For Drip Systems

Permit # 118835

From Gallegos,Efrain <gallee@co.comal.tx.us>

Date Thu 8/28/2025 9:52 AM

To Greg Johnson <gregjohnsonpe@yahoo.com>; Greg Johnson <gregjohnsonpe@yahoo.com>

 1 attachment (91 KB)

Nonstandard System Designs Clarification TOWA-TCEQ Letter (003).pdf;

RE: A.M. ESNAURIZAR SURVEY #1, A-1

509,513,&517 River City Dr.

Application for permit for Authorization to Construct an On-Site Sewage Facility (OSSF)

Applicant / Agent:

The following information is needed before I can continue processing the referenced permit submittal:

1. The Grantee on deed to match owner on all paperwork, 285.3.(3)(A)
2. A preliminary site inspection will be set up for 8/29/25, additional comments may follow.
3. Please see attached letter for nonstandard systems.
4. Revise as needed and resubmit.



Efrain Z Gallegos

Environmental Health Inspector

DR: OS0039964

O: 830-608-2090 Ext 3167

C: 830-708-4304

E: gallee@co.comal.tx.us

From: [Hernandez, Sandra](#)
To: chacity@septicetex.com
Cc: [Cleary, Julia](#); [Rugeley, Will](#); [Greg Johnson](#); [Vollbrecht, David](#); [Olvera, Brandon](#); [Ritzen, Brenda](#)
Subject: 509, 513 & 517 River City Dr. - Permit 118835
Date: Tuesday, August 12, 2025 8:49:00 AM
Attachments: [Pages from 118835.pdf](#)
[image001.png](#)

RE: 503, 513 & 517 River City Dr. – Permit 118835

Good morning Chasity,

We received a septic permit application in our office for the referenced property on July 11, 2025 (see attachment). This property shows to be in the jurisdiction of the City of San Marcos, so we are including the city in this email. Please be advised that you will need to contact Julia Cleary (512- 805-2658) or Will Rugeley (512-805-2613) with the City of San Marcos to verify this tract is compliant with their subdivision regulations and provide confirmation to our office that indicates this tract is compliant.

Thank you,



Sandra Ann Hernandez

Subdivision Coordinator

Comal County Engineer's Office

195 David Jonas Drive | 830-608-2090 | www.cceo.org



COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

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

Date June 12 2025

Permit Number 118835

1. APPLICANT / AGENT INFORMATION

Owner Name AP YORK CREEK INVESTMENTS, LLC
Mailing Address c/o 2918 DAUER RANCH RD
City, State, Zip NEW BRAUNFELS, TX 78130
Phone # 830-303-4065
Email chasity@septicetex.com

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

2. LOCATION

Subdivision Name _____ Unit _____ Lot _____ Block _____
Survey Name / Abstract Number A.M. ESNAURIZAR SURVEY #1, A-1 Acreage 25.289
Address 509, 513, & 517 RIVER CITY DR City NEW BRAUNFELS State TX Zip 78130

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 OFFICE / W ARE HOUSE

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants up to 44 PPL

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: \$ 1,000,000 (Structure Only)

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

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

Source of Water ☒ Public ☐ Private Well ☐ Public 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

7/7/25
Date

#118835

A.M. ESNAURIZAR SURVEY #1, A-1, BEING 25.289 AC



COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

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 NON STANDARD; AEROBIC TREATMENT AND DRIP TUBING

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

Tank Size(s) (Gallons) CLEARSTREAM 1500 NCD 1500 GPD Absorption/Application Area (Sq Ft) 7040

Gallons Per Day (As Per TCEQ Table III) 480

(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: _____



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

May 11, 2025
Date

AFFIDAVIT



202506021342 07/10/2025 02:32:32 PM 1/1

**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):

_____ UNIT/PHASE/SECTION _____ BLOCK _____ LOT _____ SUBDIVISION

IF NOT IN SUBDIVISION: 25.289 ACREAGE A.M. ESNAURIZAR SURVEY #1, A-1 SURVEY

The property is owned by (insert owner's full name):

AP YORK CREEK INVESTMENTS, 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 _____ DAY OF _____, 2025

Owner(s) signature(s)

Jesse Weber

Owner (s) Printed name (s)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 7th DAY OF

JULY, 2025

Notary Public Signature



(Notary Seal Here)

THIS AREA FOR COMAL COUNTY CLERK RECORDING PURPOSES ONLY

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
07/10/2025 02:32:32 PM
MARY 1 Page(s)
202506021342



Bobbie Koepp

CENTRAL TEXAS AEROBICS, INC.

2918 Dauer Ranch Rd. New Braunfels, Tx 78130

Phone (830)303-4065 Fax (830)837-5573

www.septictex.com Email: info@septictex.com

INITIAL State Maintenance and Inspection Agreement (COMMERCIAL)

General

(509/513/517 - SYS #1)

This contract (herein referred to as this "Agreement") is entered into by **D & R Rivercity RV Resort, Inc.** (hereinafter referred to as the "Customer") located at **513 River City Dr. New Braunfels, Tx 78130 COMAL** County and Central Texas Aerobics, Inc. By this agreement Central Texas Aerobics, Inc. agrees to render professional service, as described herein, and the Customer agrees to fulfill the terms of this Agreement as described herein.

This contract will provide for all required inspections, testing and service on your **Clearstream 1000NCD Aerobic Drip Treatment System**. The policy will include the following :

1. 3 inspections a year (at least one every 4 months), over the one-year period including inspection, adjustment, and servicing of the mechanical, electrical, and other applicable component parts to ensure proper function. This includes inspection of control panel, air pumps, air filter, diffuser operation and replacing or repairing any component not found to be operating correctly. Any alarm situation affecting the proper function of the Aerobic process will be addressed within 48 hours.

2. An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and examination for odors. A test for chlorine residual and pH will be taken and reported as necessary.

3. If any improper operation is observed which cannot be corrected at the time of the service visit, you will be notified immediately in writing of the conditions and estimated date and cost of correction.

4. Any additional visits, inspections, or sample collections required by specific Municipalities, Water/River Authorities, County Agencies, the TCEQ or any other authorized regulatory agency in your jurisdiction will be covered by this policy.

5. Pumping of sludge build-up is not covered by this contract and will result in additional charges. This contract will not cover replacing parts due to misuse/abuse. The Owner assumes full responsibility for the cost of parts and labor.

6. With STATE MAINTENANCE the customer is responsible for the chlorine tablets. They must be filled before the service visit. If not, the service representative will add them and you will be charged. The use of improper chlorine (such as swimming pool tablets) will VOID all warranties. The **Clearstream 1000** Owners Manual must be strictly followed or warranties are subject to invalidation.

Initials of Central Texas Aerobics, Inc. X WKS Initials of Owner X CC

7. If choosing the *EXPANDED CHLORINE PLACEMENT POLICY we will add necessary chlorine tablets and clean filters at each monthly service visit. Service calls and labor are included in this expanded contract (excluding misuse/abuse/over water usage.) If payments are not made on this policy, service will be suspended and Central Texas Aerobics, Inc. will immediately notify the appropriate health authority of this termination.

Initials of Central Texas Aerobics, Inc. X WKS Initials of Owner X NOT TAKEN

8. At the conclusion of the initial service policy, our Company will make a continuing service policy available for purchase on an annual basis to cover normal inspections, maintenance and repair or an Expanded Chlorine Placement Policy. According to state law, ALL OWNERS OF AEROBIC SEPTIC SYSTEMS MUST maintain a factory-authorized service provider for the lifetime of the system.

ACCESS BY CENTRAL TEXAS AEROBICS, Inc.

Central Texas Aerobics, Inc. or anyone authorized by them may enter the property at reasonable times without prior notice for the purpose of the above described Services. Central Texas Aerobics, Inc. may access the System components including the tanks by means of excavation for the purpose of evaluations if necessary. Soil is to be replaced with the excavated material as best as possible.

PAYMENT FOR SERVICES

STATE MAINTENANCE: The initial (first two years of STATE MAINTENANCE) is included in the price of the septic.

EXPANDED CHLORINE PLACEMENT POLICY: The Owner will pay Central Texas Aerobics, Inc. an additional fee if this additional coverage is selected.

With the *Expanded chlorine placement policy we will come out MONTHLY and chlorinate your aerobic system and clean filters at each service visit. Service calls and labor are included in this expanded contract (excluding misuse/abuse/over water usage.) Parts are offered to you at reduced rates. If payments are not made on this policy, service will be suspended and Central Texas Aerobics, Inc. will immediately notify the appropriate health authority of this termination

Please INITIAL here for this service ☒ **NOT TAKEN**

Payments not received within 30 days of the due date will be subject to a \$20.00 late penalty or 15% per month carrying charge, whichever is greater.

TERMINATION OF AGREEMENT:

This agreement may be terminated by either party with ten days written notice in the event of substantial failure to perform in accordance with its terms by the other party without fault of the terminating party. If this agreement is so terminated, Central Texas Aerobics, Inc. will immediately notify the appropriate health authority of the termination.

LIMIT OF LIABILITY:

In no event shall Central Texas Aerobics, Inc. be liable for indirect, consequential, incidental or punitive damages, whether in contract tort or any other theory. In no event shall Central Texas Aerobic Inc.'s liability for direct damages exceed the price for the services described in this Agreement.

DISPUTE RESOLUTION:

If a dispute between the Customer and Central Texas Aerobics, Inc. arises that cannot be settled in good faith negotiations, then the parties shall choose a mutually acceptable arbitrator and shall share the cost of the arbitration services equally.

ENTIRE AGREEMENT:

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

SEVERABILITY:

If any provision of this Agreement 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 this 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.

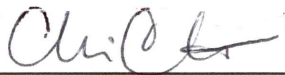
OWNER(S)

"513 Buildings SYS #1"

AP York Creek Investments, LLC

509, 513, 517 River City Dr.

New Braunfels, Tx 78130



Signature of Owner(s)

6/26/25

Date

SERVICE PROVIDER

Central Texas Aerobics, Inc.

2918 Dauer Ranch Rd.

New Braunfels, Tx 78130

Photo 

WM. KYLE JOHNSON #MP0001058

Date

Brand: **1000 Clearstream - DRIP** Model **#1000 NCD** SERIAL# _____

COUNTY: **Comal** PERMIT# _____ Date Installed: _____

Billing Address if different from above: _____

CERTIFIED & LICENSED MAINTENANCE PROVIDER: William Kyle Johnson #MP0001058

EFFECTIVE DATE: _____

EXPIRATION DATE: _____

The effective date of this initial maintenance contract shall be the date the License to Operate is issued.

ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed: May 01, 2025

Site Location: A.M. ESNAURIZAR SURVEY #1, A-1, BEING 25.289 AC

Proposed Excavation Depth: N/A

Requirements:

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

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

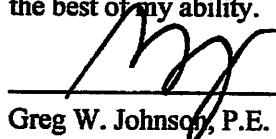
For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.

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

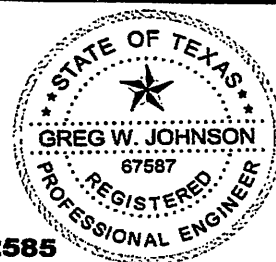
SOIL BORING NUMBER <u>1</u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	IV	CLAY	N/A	NONE OBSERVED	NONE OBSERVED	BROWN
1						
2						
3						
4						
5						
60"						

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

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


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

05/01/25
Date

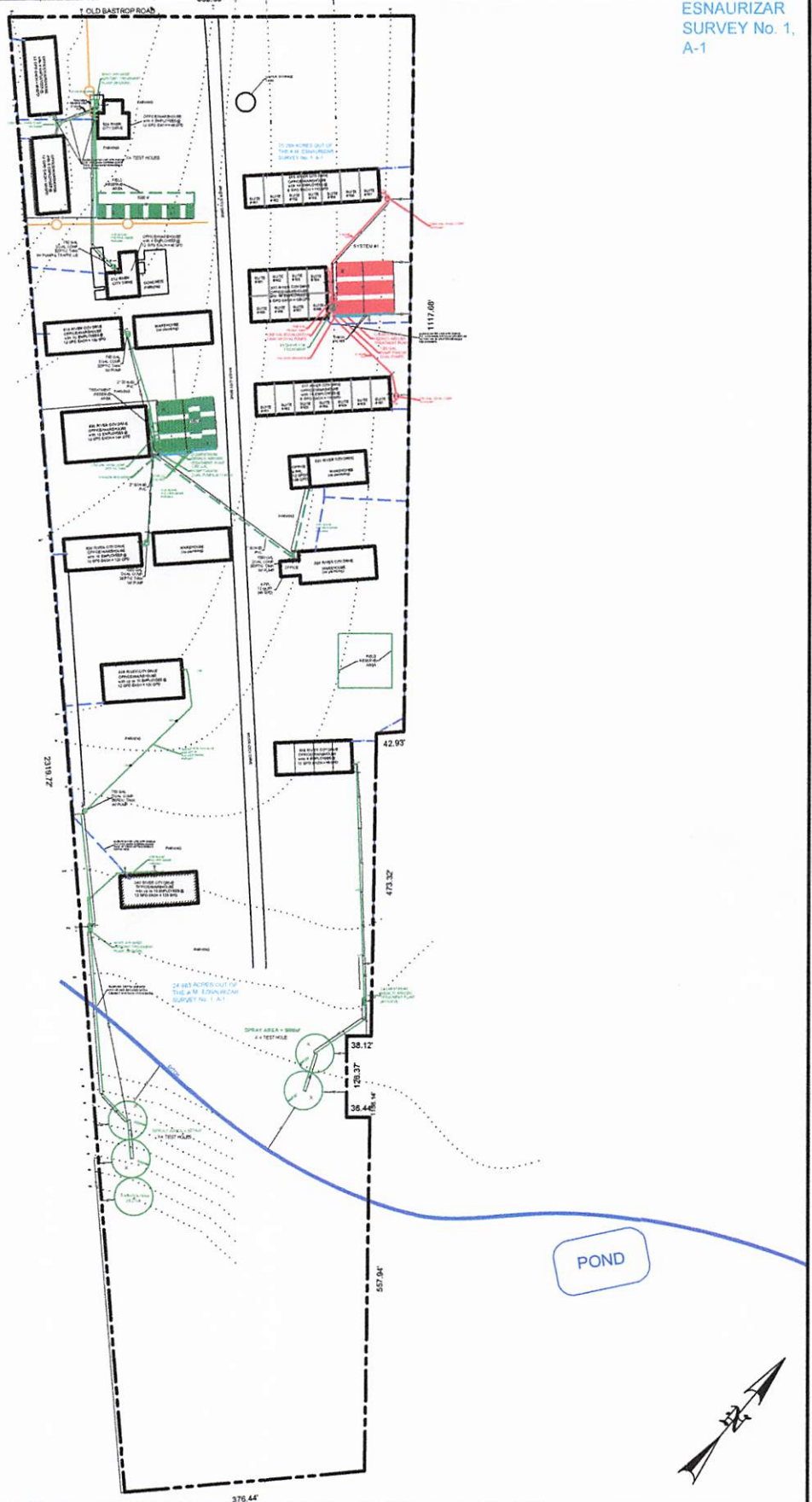


FIRM #2585

INSTALL 7040sf OF FIELD
USING 3520' OF DRIP
TUBING. THERE SHALL BE
NO PARKING, DRIVING OR
STORAGE ON THE SEPTIC
FIELD AT ANY TIME FOR
ANY REASON.

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

X= TEST HOLE



OWNER:		AP YORK CREEK WAREHOUSE OWNER, LLC		DRAWN BY:		GWJ / EJS II							
STREET ADDRESS:		509, 513 & 517 RIVER CITY DRIVE											
LEGAL DESC:		A.M. ESNAURIZAR SURVEY No. 1, A-1				ACREAGE:		25.289					
PREPARED BY:		GREG W. JOHNSON, P.E. F#002585		SCALE:		N.T.S.		DATE:		05/11/2025		REVISION:	

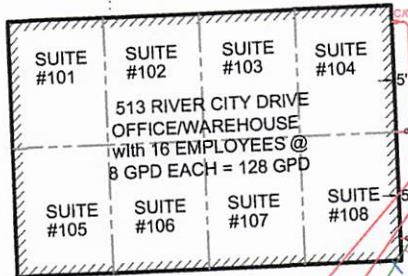
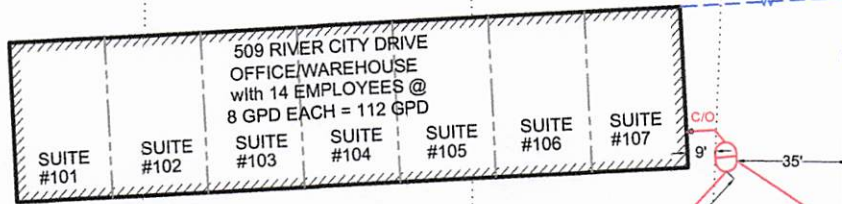


25.289 ACRES OUT OF
THE A.M. ESNAURIZAR
SURVEY No. 1, A-1

INSTALL 7040sf OF FIELD
USING 3520' OF DRIP
TUBING. THERE SHALL BE
NO PARKING, DRIVING OR
STORAGE ON THE SEPTIC
FIELD AT ANY TIME FOR
ANY REASON.

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

X= TEST HOLE



SYSTEM #1

1000 GAL. DUAL COMP.
W/ PUMP

500 GAL.
TRASH TANK
1200 GAL EQUALIZATION
TANK W/ DUAL PUMPS
RESERVE FOR
TREATMENT
VACUUM BREAKERS

CHECK
VALVES

CLEARSTREAM
1500NCD AEROBIC
TREATMENT PLANT
1200 GAL
PUMP TANK W/
DUAL PUMPS

SLEEVE WATER LINE WITH 2"-SCH-40
PVC PIPE WHEN CROSSING EFFLUENT LINE
AS PER TAC 30 CHAPTER 290.44(e)(8)(i)
REQUIREMENTS

1117.68'

750 GAL. DUAL COMP.
W/ PUMP



OWNER: AP YORK CREEK WAREHOUSE OWNER, LLC		DRAWN BY: GWJ / EJS III	
STREET ADDRESS: 509, 513 & 517 RIVER CITY DRIVE			
LEGAL DESC: A.M. ESNAURIZAR SURVEY No. 1, A-1			ACREAGE: 25.289
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=60'	DATE: 05/11/2025	REVISION:

**AEROBIC TREATMENT
DRIP TUBING SYSTEM
DESIGNED FOR:**

AP YORK CREEK INVESTMENTS, LLC

c/o 2915 DAUER RANCH RD
NEW BRAUNFELS, TX 78130

SITE DESCRIPTION:

Located in the A.M. Esnaurizar Survey No. 1, A-1, being 25.289, at 509, 513, & 517 River City Drive, the proposed system will serve twenty two office/warehouses situated in an area with moderate depth Type IV soils as described in the Soil Evaluation Report. Native grasses 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 or 4 inch SCH-40 pipe discharges from 509 River city Drive to a 1000 two compartment tank with the second chamber being a 500 gallon pump tank fitted with a Liberty LE40 0.4hp effluent pump or equivalent. . Additionally, a 3 or 4 inch SCH-40 pipe discharges from 517 River city Drive to a 750 two compartment tank with the second chamber being a 375 gallon pump tank fitted with a Liberty LE40 effluent pump or equivalent. Flow from the the two pump tanks discharges through a 2" SCH-80 PVC pipe to a 1200 gallon flow equalization tank fitted with dual Liberty LE-41 pumps. Additionally, 3 or 4 inch SCH-40 pipe discharges from 513 River city Drive to a 500 gallon trash tank then joins flow from other buildings in the equalization tank. Flow equalization tank is fitted with dual Liberty LE40 sewage pumps controlled by a dual alternating control panel (Model RJR Alt-DT-LA) with manual reset and Omron H3CR-F cycle timer. Equalization tank will accommodate varying flows throughout the day. A high level audible and visual alarm with manual reset will activate should the pump fail and initiate the resting pump. Effluent is pumped at rate of 2.5 gallon per minute every hour for 8 minutes to a Clearstream 1500 NCD, 1500 gpd TCEQ/NSF approved aerobic treatment plant. *Flow to be calibrated by adjusting ball valve and using a bucket to measure the proper dose.* After treatment flow from the ATU continues to a 1200 gallon pump tank. Each well pump is activated by an dual alternating controller (ALTD-#ATU-2A Duplex Aerobic Drip) distributing to dose each zone four times per day (every six hours) with an 7 minute run time. Dosing will be set to alternate pumps to dose a zone every two hours. Effluent is pumped through a 1.25" Sch-40 PVC from each pump. A 1.25" SCH-40 return line is installed to continuously flush the system by throttling a 1" ball valve to pump tank. Check valves installed on return lines are required to prevent back pressuring resting zone. A high level audible and visual alarm with manual reset will activate should the pump fail, and initiate the resting pump. Distribution from each pump is through an Arkal 1.5" self flushing 100 micron disk filter followed by a pressure regulator Model PR50HF. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. A Field area will be scarified and built up with 4" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil.

DESIGN SPECIFICATIONS:

Daily waste flow: twenty two offices/warehouses w/ 2 ppl @ 8 gpd = 352 gpd (design Rate 480 gpd)

Trash: 500/500/375 gallons with standard inlet and outlet tees

Lift tank: 375 gal/500 gal w/ Liberty LE40 0.54 hp pump

Equalization tank: 1200 gallons w/ Dual effluent pumps

Pump requirement: Dual Liberty Model LE40 0.4 hp sewage pumps

Cycle Timer: Omron H3CR-F cycle timer

Application Rate: $R_a = 0.1$ gal/sf

Total absorption area: $Q/R_a = 480\text{GPD}/0.1 = 4,800$ sf. (Actual 7040 sf.)

Plant Size: Clearstream 1500 NCD 1500gpd (TCEQ Approved)

Pump tank size: 1200 Gal

Reserve capacity after High Level: 250 gal. (>4hrs flow)

Application Rate: $R_a = 0.1$ gal/sf

Total absorption area: $Q/R_a = 480\text{GPD}/0.10 = 480\text{sf.}$ (Actual 7040 sf.)

Total linear feet drip tubing: 1920' & 1600' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 960 & 800 emitters per field @ 0.61 gph @ 50 psi = 9.76 & 8.13 gpm

Pump: Dual 0.5 hp Dominator P20 submersible pumps or equivalent.

Dosing volume: 50-90 gal.

Flow Meters : RG3 PPD-10 (Water meters on each pump to field.)

Pressure Regulator : Senninger Model PR50HF 50 psi

Automatic Filters : Arkal 1.5" Super Filter

Electronic Timer: Digi-20

Alarm: Audible & visual air pump malfunction alarm & alternating control panel & manual reset.

Pump Tank Calculations: 1200 Gal (19.63gal/in.)

Volume below working level = 11" = 216 gal

Working level = 696 gal = 35.5"

Reserve Requirement = > 4 hours = 250 gal. = 13"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

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

$MSV = 1.5 \text{ gpm} \times 5 = 7.5 \text{ gpm MIN FLOW RATE}$

IN RETURN MANIFOLD W/ NOM. DIA 1.25" ID

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

$MSV = 2(3.14159((1.25/12)^3/4) * 7.48 * 60$

$MSV = 7.6 \text{ GPM}$

WASTE FLOW CALCULATIONS:

BOD5 @ 480 gpd @ 600 mg/l x 8.34 #/gal / 1,000,000 = 2.4 lbs BOD5

1500 aerobic plant provides 3.75# BOD5 organic reduction.

ELECTRICAL COMPONENTS:

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:

- 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 (9/1/2023). This includes access limitation (<65lbs lid or hardware secured lid), inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap to prevent tank entry if the cap is unknowingly damaged or removed. Fencing recommended around treatment tanks to limit public access.
- 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 business to tank.

PIPE AND FITTINGS:

All pipes and fittings in this aerobic system shall be schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. The manifold shall be 1.25" in diameter and be colored purple.

ADDITIONAL NOTES:

- 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:

- The maintenance company will verify that the system is operating properly at least every three months and provide on-going maintenance of the installation with BOD5 performed 2 times at three months and nine month the first year.
- 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.

CONSTRUCTION/INSTALLATION NOTES & REQUIREMENTS:

- 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.
- 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, follow Chapter 290.44(e)(4)(B)(iv-v) Where a new potable waterline crosses a new, pressure rated wastewater main or lateral, one segment of the waterline pipe shall be centered over and shall be perpendicular to the wastewater line such that the joints of the waterline pipe are equidistant and at least nine feet horizontally from the center line of the wastewater main or lateral. The potable waterline shall be at least six inches above the wastewater main or lateral. Whenever possible, the crossing shall be centered between the joints of the wastewater main or lateral. The wastewater pipe shall have a minimum pressure rating of at least 150 psi. The wastewater main or lateral shall be embedded in cement stabilized sand (see clause (v) of this subparagraph) for the total length of one pipe segment plus 12 inches beyond the joint on each end. (v) Where cement stabilized sand bedding is required, the cement stabilized sand shall have a minimum of 10% cement per cubic yard of cement stabilized sand mixture, based on loose dry weight volume (at least 2.5 bags of cement

per cubic yard of mixture). The cement stabilized sand bedding shall be a minimum of six inches above and four inches below the wastewater main or lateral. The use of brown coloring in cement stabilized sand for wastewater main or lateral bedding is recommended for the identification of pressure rated wastewater mains during future construction.

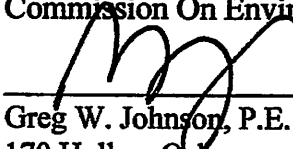
OPERATION AND MANAGEMENT NOTES:

- The OSSF should not be treated as a normal city sewer.
- Do not use the toilet to dispose of cleaning tissue, cigarette butts, or other trash. This disposal practice will waste water and also impose an undesirable solid load on the treatment system.
- Water Softeners should not be connected to this system.
- Septic tanks shall be cleaned before sludge accumulates to a point where it approaches the bottom of the outlet device. If sludge or scum accumulates to this point, solids will leave the tank with the liquid and possibly cause the system to clog resulting in sewage surfacing or backing up into the house through plumbing fixtures.
- A regular schedule of cleaning the tanks at least two to three year intervals should be established. Commercial cleaners are equipped to readily perform the cleaning operation. Owners of OSSF's shall engage only persons registered with the TCEQ to transport the septic system waste.
- Do not build driveways, storage buildings, or other structures over system components or the disposal field.
- Chemical additives or so-called enzymes are not necessary for the operation of a septic tank. Some of these additives may even be harmful to the systems operation.
- Soaps, detergents, bleaches, drain cleaners, and other household cleaning materials will very seldom affect the operation of the system. However, moderation should be exercised in the use of such materials.

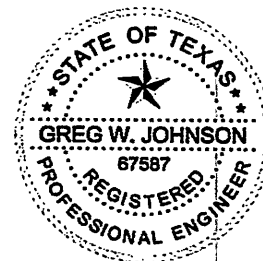
LANDSCAPING:

Drip field area will be covered with Curlex and heavily seeded, Hydro mulched, or just sodded with grass and drip fields will be maintained with vegetation. This will cover the requirement that if the slope exceeds ten percent slope, erosion control matting or eighty percent vegetative cover must be applied prior to final inspection.

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

 05/11/26

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



TANK NOTES:

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

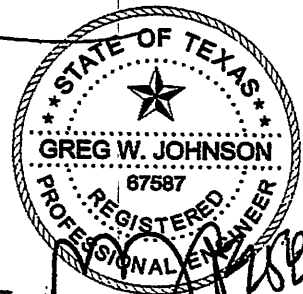
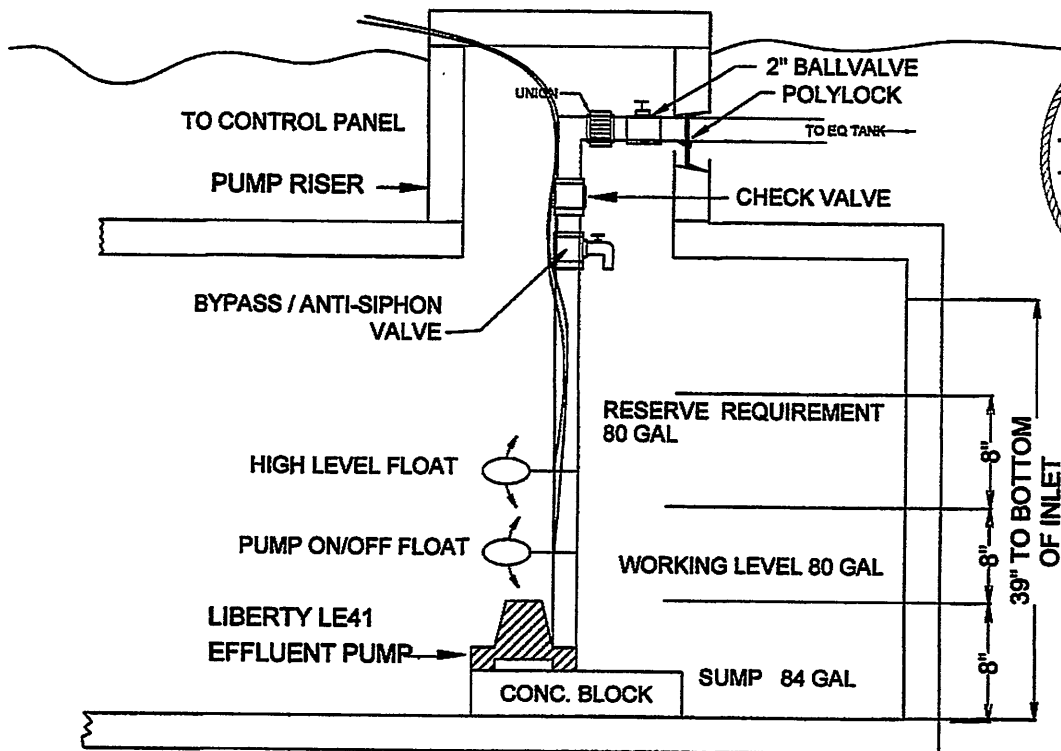
Tightlines to the tank shall be SCH-40 PVC.

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

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

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

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



**TYPICAL PUMP TANK CONFIGURATION
375 GAL PUMP TANK**

TANK NOTES:

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

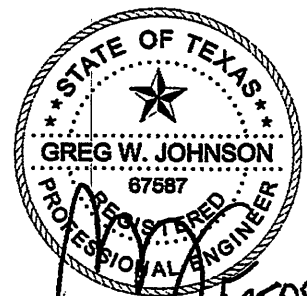
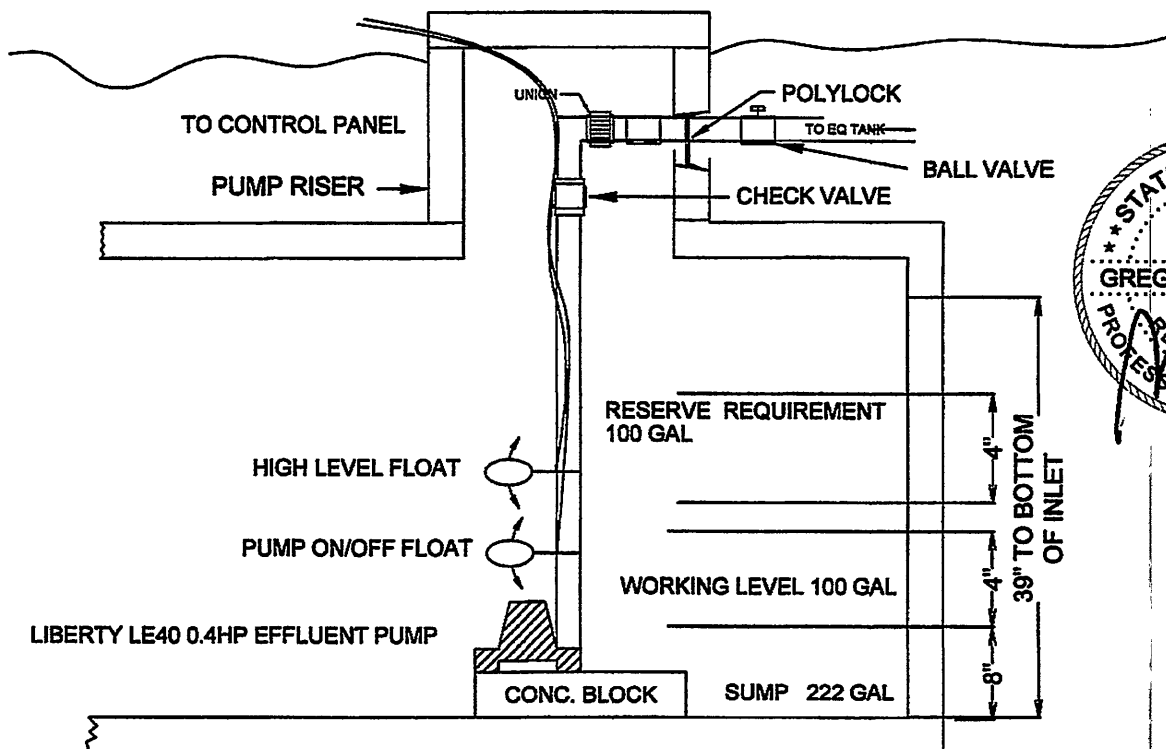
Tightlines to the tank shall be SCH-40 PVC.

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

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

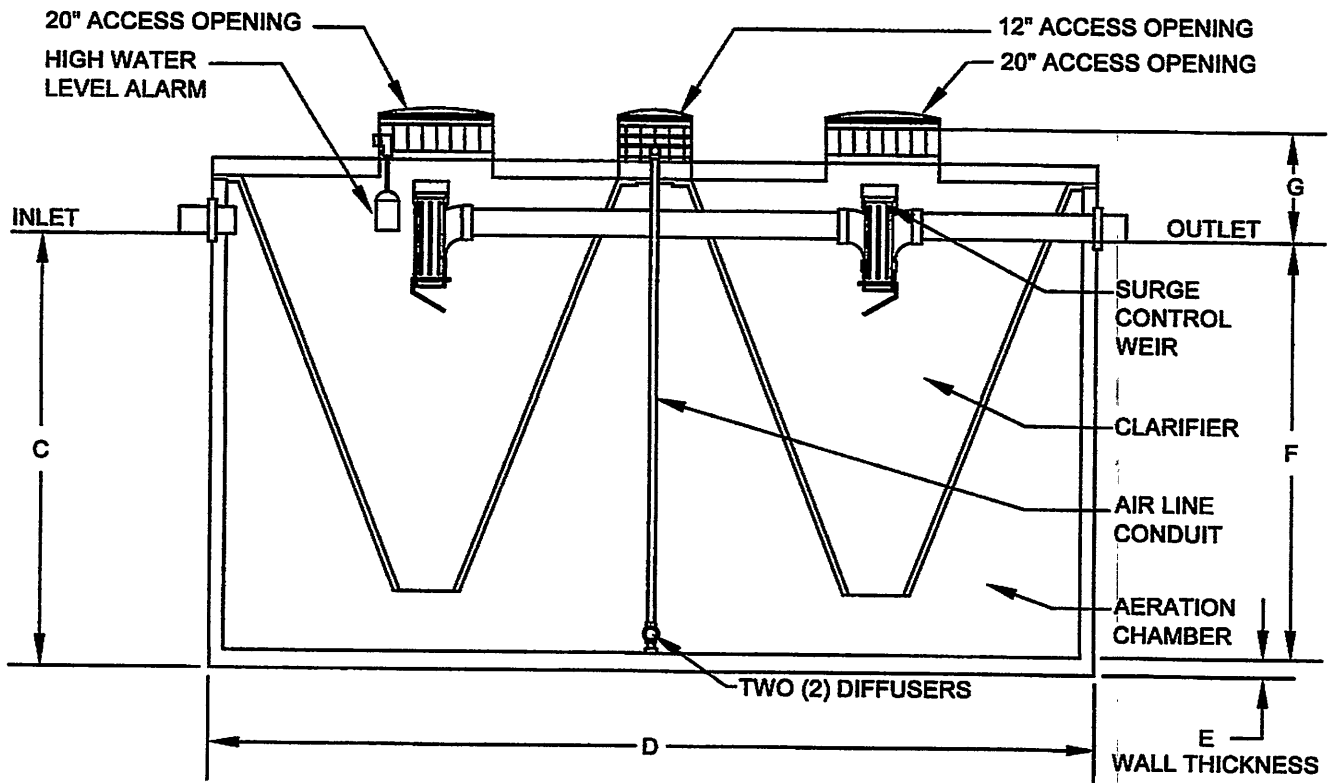
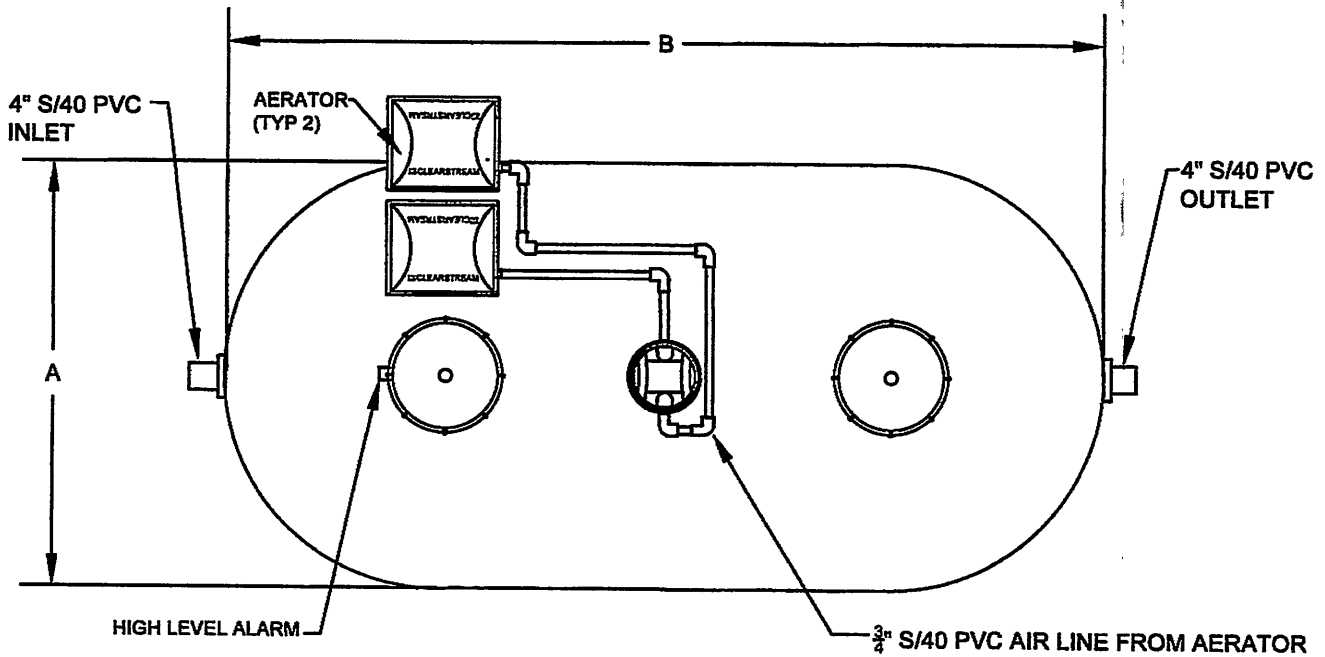
Tanks must be left uncovered and full of water for inspection by the permitting authority.

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



**TYPICAL PUMP TANK CONFIGURATION
500 GAL TYPICAL PUMP TANK**

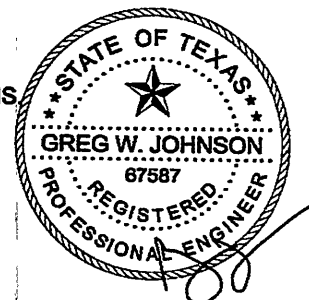
DESIGN DRAWINGS



DIMENSIONS:

MODELS	A	B	C	D	E	F	G
1000NCD	75"	146"	60"	143"	3"	58"	18"
1200NCD	82"	153"	60"	151"	3"	58"	18"
1500NCD	82"	155"	71"	153"	3"	68"	18"

NOTE:
SOME MODELS MAY NOT BE
AVAILABLE AT ALL LOCATIONS



TANK NOTES:

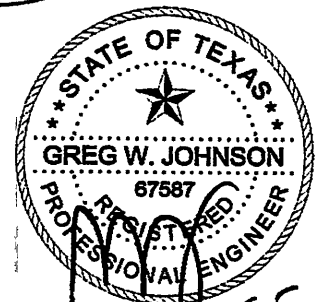
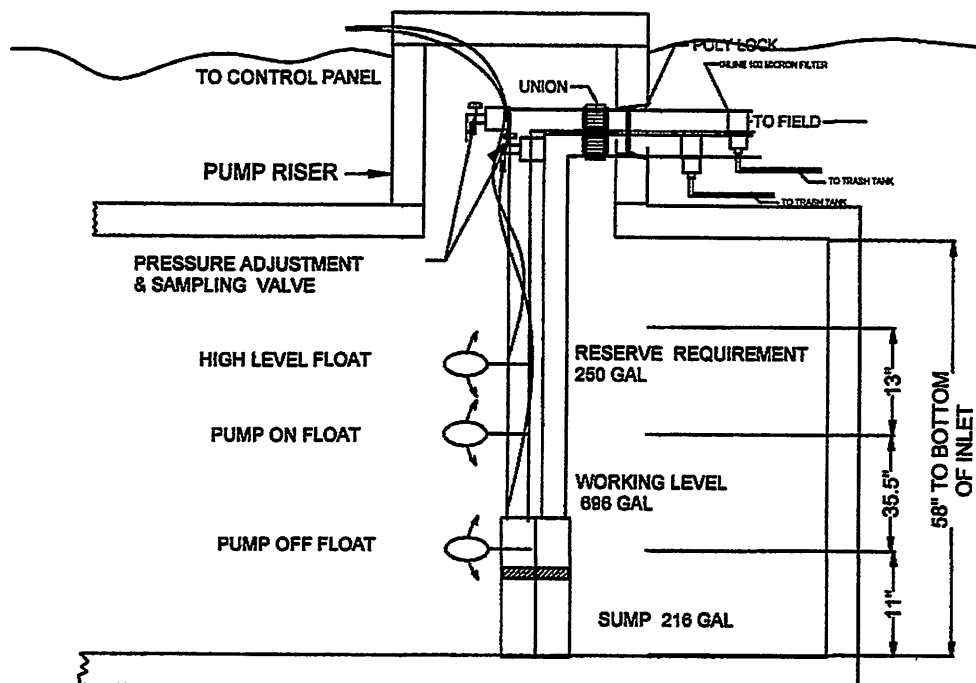
Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

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

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

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



Handwritten signature and date:
FZB5
05/11/25

**TYPICAL PUMP TANK CONFIGURATION
CLEARSTREAM 1200 GAL PUMP TANK**



4" multi-stage submersible pump



This product is Listed to UL Standards for Safety by Underwriters Laboratories Inc. (UL).



The STEP Plus™ D Series 4" submersible pump in 10, 20 and 30 GPM models dominate with superior "DRAW-DOWN" capability.

The STEP Plus™ D Series 4" submersible pump dominates with reduced AMP DRAW.

The STEP Plus™ D Series 4" submersible pump dominates with COOLER and QUIETER operation.

APPLICATIONS

- **Clean and Gray Water...** for residential, commercial, and agricultural use.

SPECIFICATIONS

Motor – Available in 115 or 230 volt versions. Dry-wound, double ball-bearing, double-seal and thermal overload protected, UL and CSA approved.

Shell – Stainless steel (300 grade)

Discharge – Fiberglass-reinforced thermoplastic

Discharge Bearing – Nylatron®

Impellers – Acetel

Diffusers – Polycarbonate

Suction Caps – Polycarbonate with stainless steel wear ring

Thrust Pads – Proprietary spec.

Shaft and Coupling – Stainless steel 300 grade

Intake – Fiberglass-reinforced thermoplastic

Intake Screen – Stainless steel

Jacketed Cord – 600 Volt "SJOW" jacketed 10' leads, 2-wire with ground

Agency Listing – UL and CSA

STEP Plus™ D SERIES

FEATURES

STEP Plus DOMINATES with a...

Patented Stage System – The proven SignaSeal™ staging system utilizes a patented ceramic wear surface. When incorporated with STA-RITE's "true" independent floating impellers, dominates with 1st-in-class performance, superior sand handling, and a thrust management staging system with industry exclusive "dry-run" capabilities.

Superior "draw-down" capability – The STEP Plus Dominates in this class with the lowest draw-down of 4-1/2" (a standard 4" NEMA submersible only draws-down to 13-1/2").

Reduced amp draw – The STEP Plus Dominates in this class with less energy consumption – over 25% less amp draw (9.5 amps vs. 12.7 amps, 115 volt) than a 4" NEMA submersible, reducing operating costs and extending the service life of float switch contacts.

Cooler and quieter operation – The STEP Plus Dominates by using the pumped liquid to cool the motor as it passes over the motor. The water passing over the motor dampens the motor noise, eliminating expensive "flow-inducer sleeves" required when using a standard 4" NEMA submersible.

Impellers – Precision molded for perfect balance... ultra smooth for the highest performance and efficiency. Allows for .080" solids.

Shaft – Positive drive, hexagonal 7/16" – 300-grade stainless steel shaft offers generous impeller drive surfaces.

Shaft bearing – Exclusive self-lubricating Nylatron® bearing resists wear surface from sand and abrasives.

Shell – Heavy-walled, corrosion resistant 300-grade stainless steel.

ORDERING INFORMATION

Catalog Number	HP	Max. Load Amps	Volts	Phase/Cycles	Cord Length	Pallet Quantity	Weight (Lbs.)
10DOM05221	1/2	5.5	230	1/60	10'	80	16
10DOM05121	1/2	11.0	115	1/60	10'	80	16
20DOM05221	1/2	4.6	230	1/60	10'	80	16
20DOM05121	1/2	9.5	115	1/60	10'	80	16
30DOM05221	1/2	4.6	230	1/60	10'	80	16
30DOM05121	1/2	9.5	115	1/60	10'	80	16
20DOM05221+1	1/2	5.3	230	1/60	10'	80	16
20DOM05121+1	1/2	10.6	115	1/60	10'	80	16

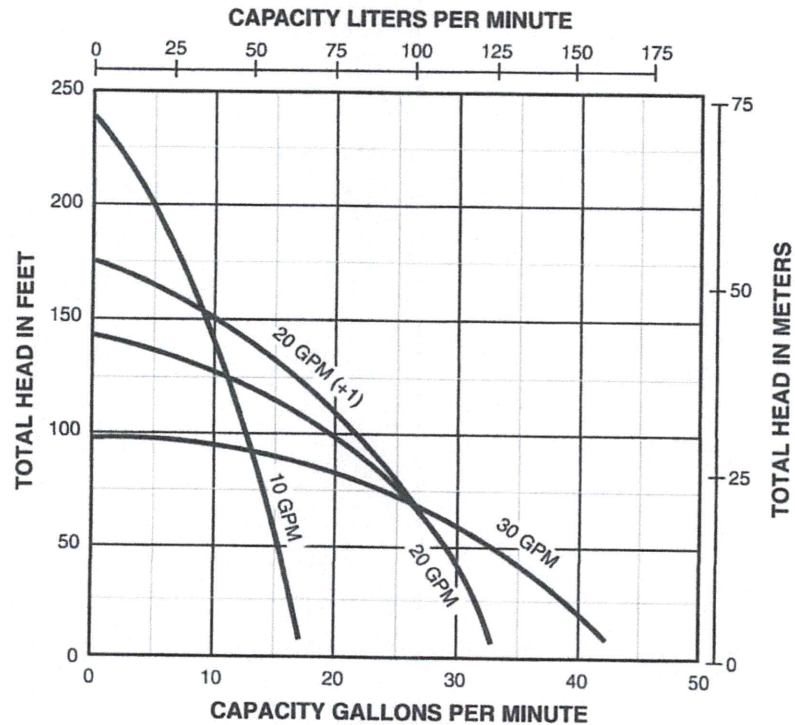
Nylatron® is a registered trademark of Polymer Corp. SignaSeal™ and STEP Plus™ are trademarks of WICOR Industries.

In order to provide the best products possible, specifications are subject to change.



4" multi-stage submersible pump

PUMP PERFORMANCE



PUMP PERFORMANCE (Capacity in Gallons per Minute)

Pump Model	Flow Rate (GPM)	PSI											
		0	10	20	30	40	50	60	70	80	90	100	110
10DOM05221	10			15.0	13.7	12.7	11.5	10.2	8.4	6.5	4.3	1.0	
10DOM05121	10			15.0	13.7	12.7	11.5	10.2	8.4	6.5	4.3	1.0	
20DOM05221	20			30.0	26.0	21.5	14.2	4.4					
20DOM05121	20			30.0	26.0	21.5	14.2	4.4					
30DOM05221	30		38.5	33.3	25.8	16							
30DOM05121	30		38.5	33.3	25.8	16							
20DOM05221+1	20 + 1			30	27.5	24	20	13.5	6				
20DOM05121+1	20 + 1			30	27.5	24	20	13.5	6				

PUMP PERFORMANCE (Capacity in Liters per Minute)

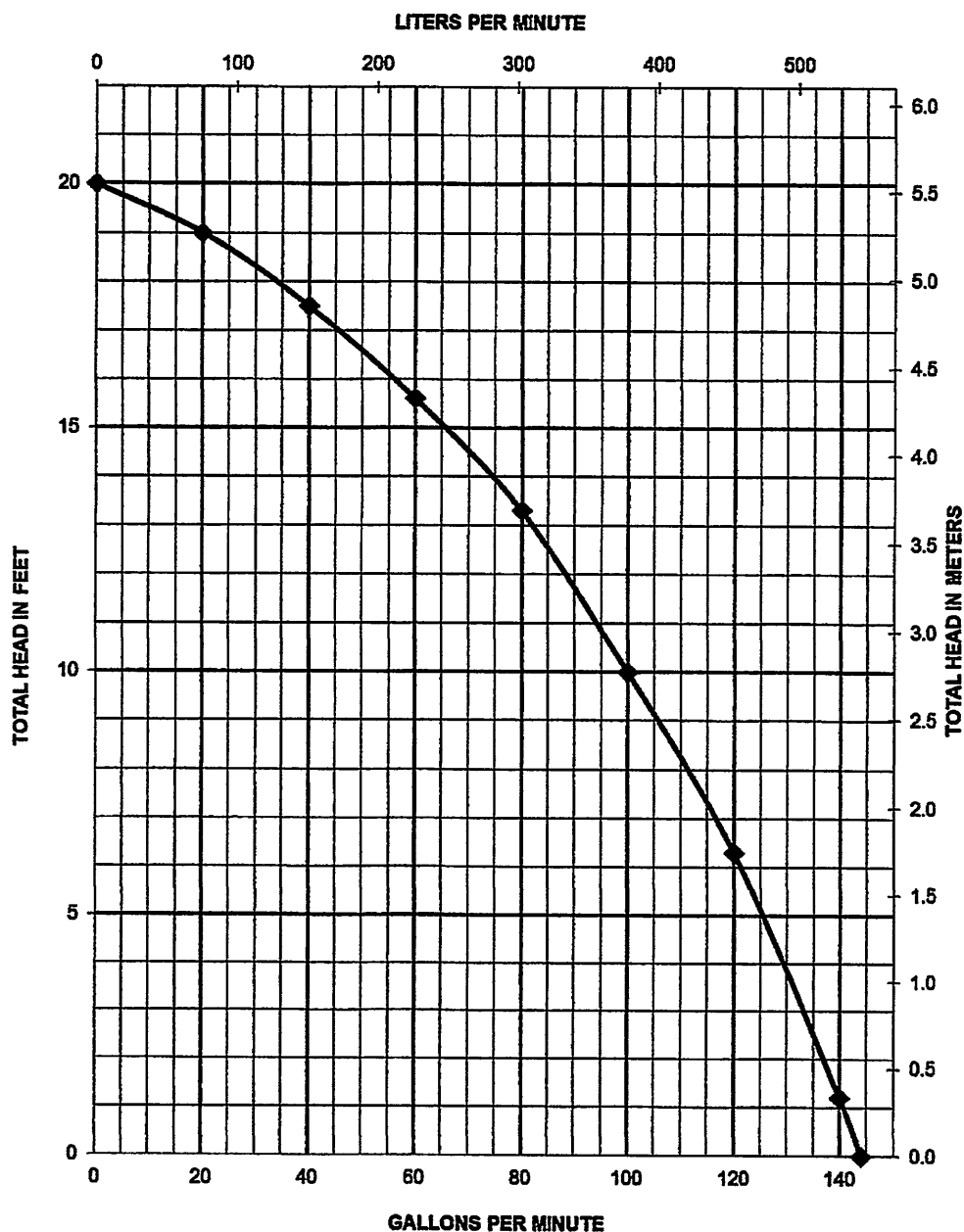
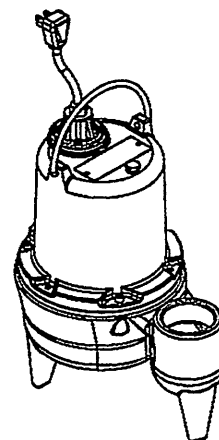
Pump Model	Flow Rate (LPM)	Bar											
		0	.69	1.38	2.07	2.76	3.45	4.13	4.82	5.51	6.20	6.89	7.58
10DOM05221	37.85		56.8	51.9	48.1	43.5	38.6	31.8	24.6	16.3	3.8		
10DOM05121	37.85		56.8	51.9	48.1	43.5	38.6	31.8	24.6	16.3	3.8		
20DOM05221	75.7		113.6	98.4	81.4	53.7	16.7						
20DOM05121	75.7		113.6	98.4	81.4	53.7	16.7						
30DOM05221	113.55	145.7	126.0	97.7	60.6								
30DOM05121	113.55	145.7	126.0	97.7	60.6								
20DOM05221+1	75.7 + 1			113.4	103.9	90.7	75.6	51.0	22.6				
20DOM05121+1	75.7 + 1			113.4	103.9	90.7	75.6	51.0	22.6				



Pump Specifications

LE40 Series

4/10 HP Submersible Sewage Pump



Arkal 1½" Super Filter

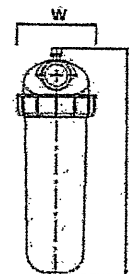
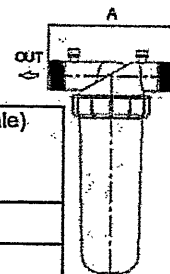
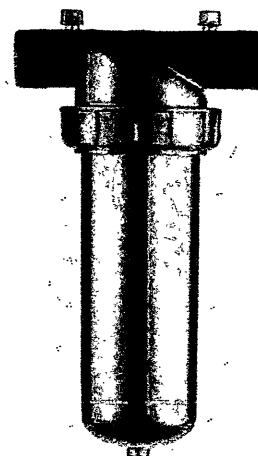
Catalog No. 1152 0 _ _ _

Features

- A "T" shaped filter with two 1½" male threads.
- A "T" volume filter for in-line installation on 1½" 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.
- A sealing spring keeps the discs compressed.
- Screw-on filter cover.
- Filter discs are available in various filtration grades.

Technical Data

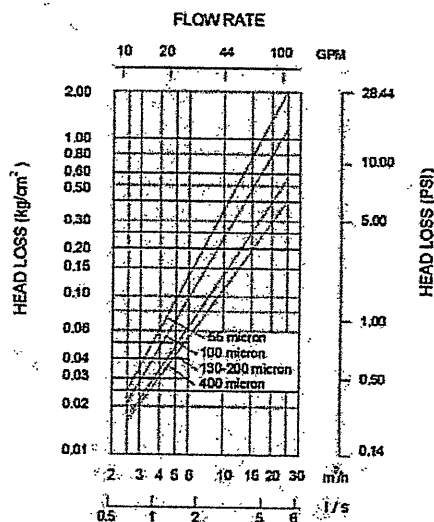
Inlet/outlet diameter	1½" BSPT (male)	1½" NPT (male)
	40 mm – nominal diameter	
	48.2 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	12 m³/h (2.22 l/sec)	52.8 gpm
General filtration area	500 cm²	77.5 in²
Filtration volume	600 cm³	37 in³
Filter length L	350 mm	13 25/32"
Filter width W	130 mm	5 3/32"
Distance between end connections A	200 mm	7 7/8"
Weight	1.51 kg	3.32 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





PR-HF

PRESSURE REGULATOR - HIGH FLOW

Specifications

The pressure regulator shall be capable of operating at a constant, factory preset, non-adjustable outlet pressure of 10, 15, 20, 25, 30, 40, or 50 PSI (0.69, 1.03, 1.38, 1.72, 2.07, 2.76, or 3.45 bar) with a flow range between 10 - 32 GPM (2271 - 7268 L/hr).

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

- 1-1/4-inch Female National Pipe Thread (FNPT)
- 1-1/4-inch Female British Standard Pipe Thread (FBSPT)

Outlet

- 1-inch Female National Pipe Thread (FNPT)
- 1-1/4-inch Female National Pipe Thread (FNPT)
- 1-inch Female British Standard Pipe Thread (FBSPT)
- 1-1/4-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 the outside of 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

1-1/4" FNPT x 1" FNPT model (shown on right)

1-1/4" FBSPT x 1" FBSPT model

Overall Length 5.6 inches (14.1 cm)

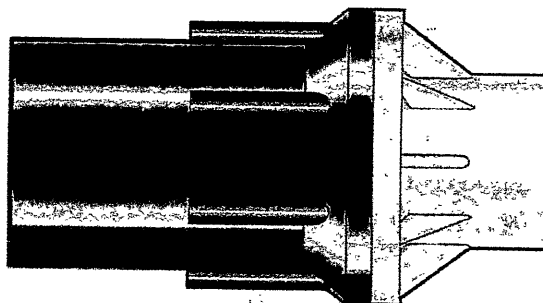
Overall Width 2.9 inches (7.4 cm)

1-1/4" FNPT x 1-1/4" FNPT model

1-1/4" FBSPT x 1-1/4" FBSPT model

Overall Length 5.8 inches (14.7 cm)

Overall Width 2.9 inches (7.4 cm)



* Please consult factory for applications outside of recommended guidelines.



PR-HF

PRESSURE REGULATOR - HIGH FLOW

Model Numbers

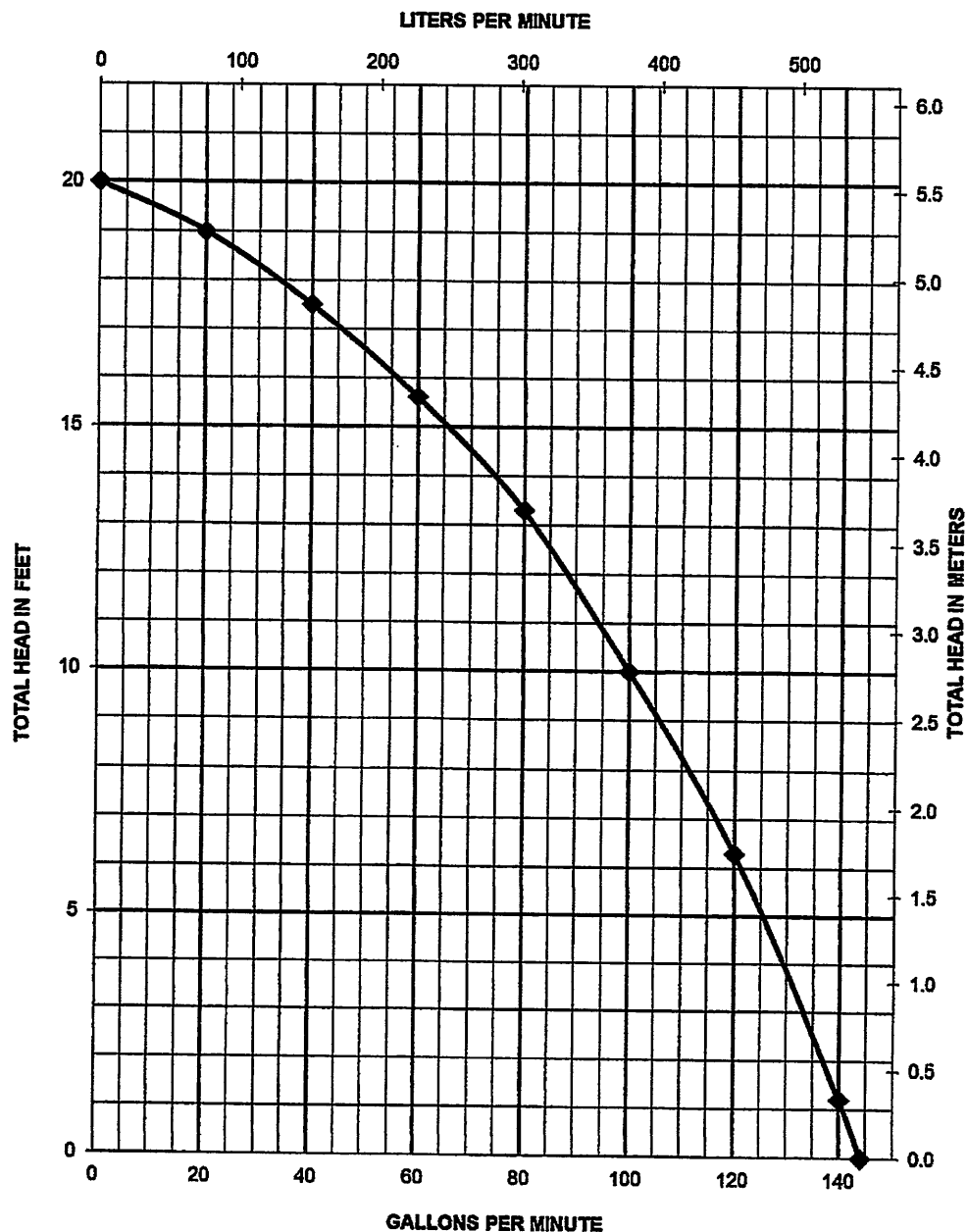
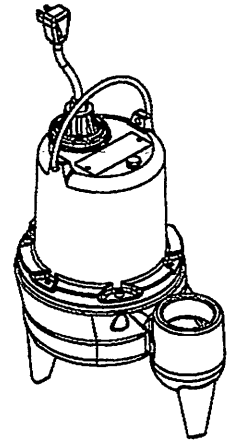
Model #	Flow Range	Preset Operating Pressure	Maximum Inlet Pressure
PR-10 HF	10 - 32 GPM (2271 - 7268 L/hr)	10 PSI (0.69 bar)	90 psi (6.20 bar)
PR-15 HF	10 - 32 GPM (2271 - 7268 L/hr)	15 PSI (1.03 bar)	95 psi (6.55 bar)
PR-20 HF	10 - 32 GPM (2271 - 7268 L/hr)	20 PSI (1.38 bar)	100 psi (6.89 bar)
PR-25 HF	10 - 32 GPM (2271 - 7268 L/hr)	25 PSI (1.72 bar)	105 psi (7.24 bar)
PR-30 HF	10 - 32 GPM (2271 - 7268 L/hr)	30 PSI (2.07 bar)	110 psi (7.58 bar)
PR-40 HF	10 - 32 GPM (2271 - 7268 L/hr)	40 PSI (2.76 bar)	120 psi (8.27 bar)
PR-50 HF	10 - 32 GPM (2271 - 7268 L/hr)	50 PSI (3.45 bar)	130 psi (8.96 bar)



Pump Specifications

LE40 Series

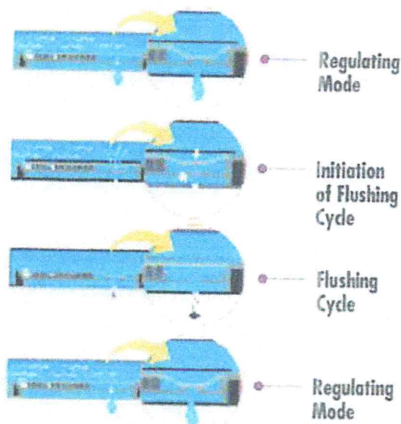
4/10 HP Submersible Sewage Pump



NETAFIM™

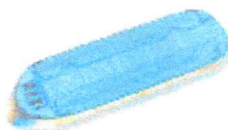
Bioline® Dripperline

Pressure Compensating Dripperline for Wastewater



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

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



Product Advantages

The Proven Performer

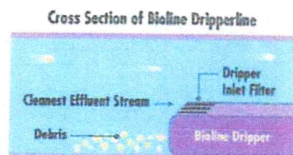
- Tens of millions of feet used in wastewater today.
- Bioline is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for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

Quality Manufacturing with Specifications Designed to Meet Your Needs

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

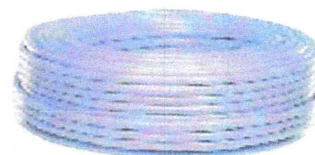
Long-Term Reliability

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



Root Safe

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



Applications

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

Specifications

Wall thickness (mil): 45*

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

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

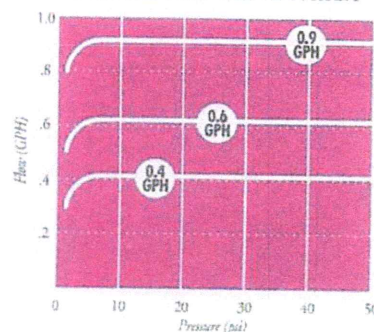
Recommended filtration: 120 mesh

Inside diameter: .570*

Color: Purple tubing indicates non-potable source

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

BIOLINE Flow Rate vs. Pressure



NETAFIM USA

5470 E. Home Ave. • Fresno, CA 93727

888.638.2346 • 559.453.6800

FAX 800.695.4753

www.netafimusa.com

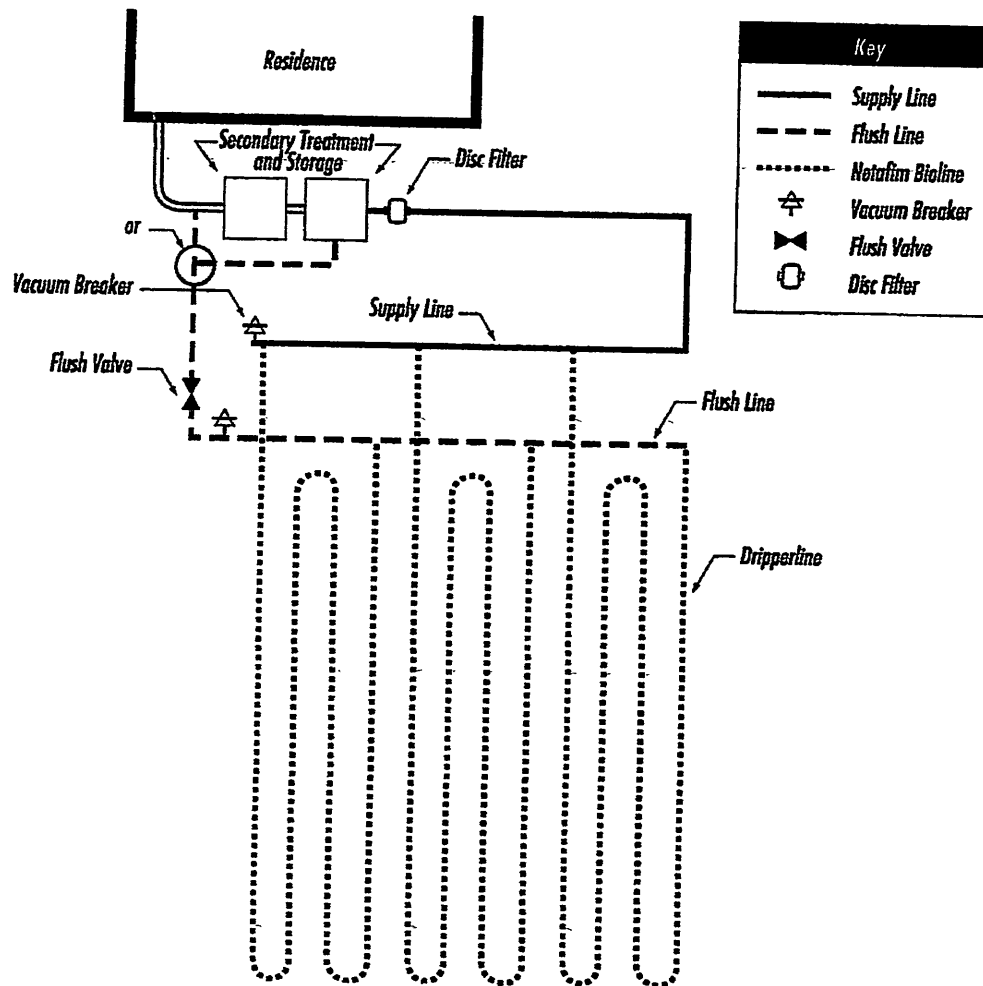
NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

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

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



Non-Material Correction Affidavit Under Sec. 5.028, Texas Property Code

Date: March 18, 2025

Description of Original Instrument ("Original Instrument"):

Special Warranty Deed dated September 16, 2024 and recorded under Document No. 202406028245 of the Official Public Records of Comal County, Texas.

Legal Description:

Being all of that certain tract or parcel of land containing 25.289 acres, more or less, situated in the Subdivision No. 120 and No. 121 of the A.M. Esnaurizar Eleven League Grant, Survey 1, Abstract No. 1, Comal County, Texas, said tract being more particularly described by metes and bounds shown on Exhibit "A" attached hereto and made a part hereof.

Affiant: Emily Mansfield

Affiant on oath swears that the following statements are true and correct and are within the personal knowledge of Affiant:

1. My full legal name is Emily Mansfield, and I am over the age of eighteen (18) years and qualified to make this Affidavit.
2. I am employed as an Escrow Officer of Heritage Title Company. I closed the transaction relating to the Original Instrument and have personal knowledge of the facts relevant to the correction of the Original Instrument, having reviewed all documents.
3. I am making this Affidavit as a correction instrument pursuant to Section 5.028 of the Texas Property Code, with regard to the following non-material error in the Original Instrument:

The metes and bounds description for the subject property contained an incorrect call.

4. The Original Instrument should correctly read as follows with respect to the non-material error described above, this being a non-material change to the Original Instrument:

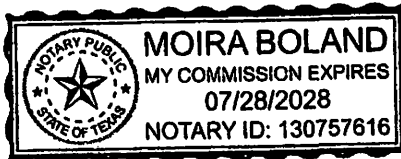
The corrected metes and bounds description is attached hereto and made a part hereof.

5. I have given notice of this correction of the Original Instrument by sending a copy of this Correction Affidavit by first class mail to each party to the Original Instrument in accordance with Section 5.028 (d)(2), Texas Property Code. A copy of the notice is attached.

Emily Mansfield
Emily Mansfield

SUBSCRIBED AND SWORN TO before me on March 18, 2025 by Emily Mansfield.

Moira Boland
Notary Public, State of Texas



26.427 ACRES

CITY OF NEW BRAUNFELS, TX

FILE NAME: 342-856 TRACT 4 FN
PROJECT NO.: 342-856
FEBRUARY 20, 2025

LEGAL DESCRIPTION

BEING A 26.427 ACRE TRACT OF LAND SITUATED IN AND BEING A PART OF SUBDIVISIONS NO. 120 AND NO. 121 OF THE ANTONIO MARIA ENSAURIZAR ELEVEN LEAGUE GRANT, SURVEY 1, ABSTRACT NO. 1, IN THE CITY OF NEW BRAUNFELS, COMAL COUNTY, TEXAS, AND BEING A PORTION OF A CALLED 128.526 ACRE TRACT OF LAND CONVEYED TO **D&R RIVERCITY R.V. RESORT, INC.** PER DEED RECORDED AS DOCUMENT NO. 202006037644, OF THE OFFICIAL PUBLIC RECORDS OF COMAL COUNTY, TEXAS (O.P.R.C.C.T.); SAID 26.427 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 3/8-inch iron rod found on the easterly right-of-way line of Old Bastrop Road (right-of-way width varies) at the northwesterly common corner of said 128.526 acre tract and of the called 63.149 acre tract conveyed to Donald Buttrum and wife, Roberta Buttrum and Bruce Buttrum per deed recorded as Document No. 202306025608, O.P.R.C.C.T, for the **POINT OF BEGINNING** and most westerly corner hereof;

THENCE, along the common line of the easterly right-of-way line of Old Bastrop Road and of the westerly line of said 128.526 acre tract, N50°43'34"E, a distance of 632.39 feet to a set ½-inch iron rod with "CEC, INC BOUNDARY" cap, from which a ½-inch iron rod with "URBAN CIVIL" cap found at an angle point in the easterly right-of-way line of Old Bastrop Road bears N50°43'34"E, a distance of 390.46 feet;

THENCE, over and across said 128.526 acre tract, the following seven (7) courses and distances:

1. S38°30'32"E, a distance of 1,117.68 feet to a set ½-inch iron rod with "CEC INC BOUNDARY" cap;
2. S46°49'45"W, a distance of 42.93 feet to a calculated point;
3. S38°30'32"E, a distance of 473.32 feet to a set ½-inch iron rod with "CEC INC BOUNDARY" cap;
4. S50°43'40"W, a distance of 38.12 feet to a set ½-inch iron rod with "CEC INC BOUNDARY" cap;
5. S39°16'20"E, a distance of 126.37 feet to a set ½-inch iron rod with "CEC INC BOUNDARY" cap;
6. N50°43'40"E, a distance of 36.44 feet to a set ½-inch iron rod with "CEC INC BOUNDARY" cap;

26.427 ACRES

CITY OF NEW BRAUNFELS, TX

FILE NAME: 342-856 TRACT 4 FN

PROJECT NO.: 342-856

FEBRUARY 20, 2025

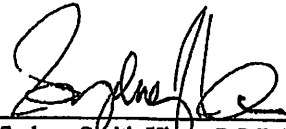
7. S38°31'46"E, a distance of 557.94 feet to a ½-inch iron rod with "URBAN CIVIL" cap found on the common line of said 128.526 acre tract and of a called 67.9 acre tract conveyed to John S. Davidson per deed recorded as Document No. 201806016852, O.P.R.C.C.T.;

THENCE, along the common line of said 67.9 acre tract and of said 128.526 acre tract, S45°29'37"W, a distance of 376.44 feet to a 6 inch wood fence post found at the easterly common corner of said 128.526 acre tract and of said 63.149 acre tract, for the southeasterly corner hereof;

THENCE, along the common line of said 128.526 acre tract and of said 63.149 acre tract, N43°50'09"W, a distance of 2,319.72 feet to the **POINT OF BEGINNING** and containing, 26.427 acres (1,151,159 square feet) of land, more or less.

BEARING BASIS: COORDINATES AND DISTANCES SHOWN HEREON ARE IN GRID.
NO SCALE FACTOR HAS BEEN USED. DIRECTIONAL CONTROL IS BASED ON THE
TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE, (4203),
NAD83 (2001). U.S.

Witness my hand and seal this 20th day of February, 2025.



Sydney Smith Xinos, R.P.L.S. 5361
Civil & Environmental Consultants, Inc.
1221 S. MoPac Expressway, Suite 350
Austin, TX 78746
Texas Registered Surveying Firm No. 10194419





NORTH
SCALE IN FEET

0 300' 600'

OLD BASTROP ROAD
(RIGHT-OF-WAY WIDTH VARIES)

D & R SELF STORAGE INC
DOC. NO. 202206000918
O.P.R.C.C.T.

NUBY INVESTMENTS LLC
DOC. NO. 201506011843
O.P.R.C.C.T.

N50°43'34"E 632.39'

P.O.B.
NO CAP

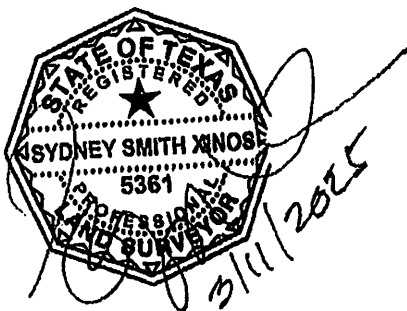
L1

TRACT 4
26.427 ACRES
(1,151,159
SQUARE FEET)
D&R RIVERCITY R.V.
RESORT, INC.,
A PORTION OF A
CALLED 128.526
ACRES
DOC. NO.
202006037644
O.P.R.C.C.T.
CONVEYED TO AP
YORK CREEK
WAREHOUSE OWNER
LLC DOC. NO.
202406028245
O.P.R.C.C.T.

ANTONIO MARIA ESNAURIZAR
ELEVEN LEAGUE GRANT,
SURVEY 1, ABSTRACT NO. 1

DONALD BUTTRUM
AND WIFE,
ROBERTA BUTTRUM
AND BRUCE
BUTTRUM
CALLED 63.149
ACRES
DOC. NO.
202306025608
O.P.R.C.C.T.

D&R RIVERCITY R.V.
RESORT, INC.,
REMAINDER OF A CALLED
128.526 ACRES
DOC. NO. 202006037644
O.P.R.C.C.T.



COORDINATES AND DISTANCES
SHOWN HEREON ARE IN GRID,
NO SCALE FACTOR HAS BEEN
USED. DIRECTIONAL CONTROL IS
BASED ON TEXAS STATE PLANE
COORDINATE SYSTEM, SOUTH
CENTRAL ZONE (4203), NAD83
(2001). U.S. SURVEY FEET.

N43°50'09"W 2319.72'

S38°30'32"E 1117.68'

L4

L5

L6

L7

6 INCH WOOD
FENCE POST

NO CAP

N45°30'17"E 856.41'

L8

JOHN S. DAVIDSON, CALLED 67.9 ACRES
DOC. NO. 201806016852, O.P.R.C.C.T.



Civil & Environmental
Consultants, Inc.

1221 S. MoPac Expressway
Suite 350
Austin, TX 78746
Ph: 512.439.0400
www.cecinc.com

Texas Registered
Engineering Firm F-38
Surveying Firm 10194419

D&R RIVERCITY R.V. RESORT, INC.,
7965 OLD BASTROP ROAD (PARENT TRACT)
CITY OF NEW BRAUNFELS, TEXAS
COMAL COUNTY, TEXAS

TRACT 4 EXHIBIT

DRAWN BY:

DK

CHECKED BY:

JJC

APPROVED BY:

SSX

SHEET NO.:

DATE:

MARCH 11, 2025

DWG SCALE:

1"=300'

PROJECT NO:

342-856








1 OF 2

P:\340-000\342-856\Survey\Draw\342-856-TRACT 4 EXHIBIT.dwg\TRACT 4 SHEET 1} LS(2/20/2025 -- dhr00) - LP: 3/11/2025 2:01 PM

P:\340-000\342-856-Survey\Drawg\342-856-TRACT 4 EXHIBIT.dwg\TRACT 4 SHEET 2\LS(2/20/2025 - dtdtj) - LP: 3/11/2025 2:01 PM

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N50°43'34"E	390.46'
L2	S46°49'45"W	42.93'
L3	S38°30'32"E	473.32'
L4	S50°43'40"W	38.12'
L5	S39°16'20"E	126.37'
L6	N50°43'40"E	36.44'
L7	S38°31'46"E	557.94'
L8	S45°29'37"W	376.44'

LEGEND:

-  SUBJECT BOUNDARY LINE
-  ADJACENT PROPERTY LINE
-  RIGHT-OF-WAY LINE
-  1/2-INCH IRON ROD FOUND WITH "URBAN CIVIL" CAP UNLESS OTHERWISE NOTED
-  1/2-INCH IRON ROD SET WITH "CEC, INC BOUNDARY" CAP
-  6 INCH WOOD FENCE POST
-  CALCULATED POINT
- O.P.R.C.C.T. OFFICIAL PUBLIC RECORDS, COMAL COUNTY, TEXAS
- R.P.R.C.C.T. REAL PROPERTY RECORDS, COMAL COUNTY, TEXAS
- D.R.C.C.T. DEED RECORDS, COMAL COUNTY, TEXAS
- DOC. NO. DOCUMENT NUMBER
- VOL., PG. VOLUME, PAGE
- P.O.B. POINT OF BEGINNING
- P.O.C. POINT OF COMMENCEMENT



Civil & Environmental
Consultants, Inc.

1221 S. MoPac Expressway
Suite 350
Austin, TX 78746
Ph: 512.439.0400
www.ceclnc.com

Texas Registered
Engineering Firm F-38
Surveying Firm 10194119

D&R RIVERCITY R.V. RESORT, INC.,
7965 OLD BASTROP ROAD
CITY OF NEW BRAUNFELS, TEXAS
COMAL COUNTY, TEXAS

TRACT 4 EXHIBIT

DRAWN BY: DK CHECKED BY: JJC APPROVED BY: SSX SHEET NO.:
DATE: MARCH 11, 2025 DWG SCALE: 1"=300' PROJECT NO: 342-856

2 OF 2



Via First Class Mail

March 18, 2025

AP York Creek Investments, LLC
5404 Wisconsin Avenue, Suite 1000
Chevy Chase, MD 20815

AP York Creek Warehouse Owner, LLC
901 South Mopac, Building 1, Suite 300
Austin, TX 78746

Re: GF#202401216A EM; 7404 Buttrum Way, New Braunfels, TX 78130

Dear Sir or Madam:

In connection with the above referenced transaction, please find enclosed a copy of a Non-Material Correction Affidavit along with a copy of the Special Warranty Deed being amended. The enclosed is being recorded in the Official Public Records of Comal County, Texas for the reasons stated on said Affidavit.

Should you have any questions or need more information, please feel free to contact our office.

Sincerely,

HERITAGE TITLE COMPANY OF AUSTIN, INC.

Emily Mansfield
Senior Vice President

/em
Enclosures

11-GF# 202401216A - em
Return to: Heritage Title
200 W 6th Street, Suite 1600
Austin, TX 78701

Heritage Title Company of Austin, Inc.
200 W 6th Street, Suite 1600 • Austin, TX 78701 • 512-505-5000 • 512-505-5025 • fax
www.heritagetitleofaustin.com

**Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
03/18/2025 10:28:14 AM
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202506007658**





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