



Comal County

OFFICE OF COMAL COUNTY ENGINEER

License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date: 02/25/2019 Permit Number: 108081

Location Description: 2111 COMAL SPGS CANYON LAKE, TX 78133
Subdivision: Mountain Springs Ranch
Unit: 1
Lot: 14
Block:
Acreage:

Type of System: Aerobic Surface Irrigation

Issued to: Robert & Emily Choate

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

Michael Tays OS8497
ENVIRONMENTAL HEALTH INSPECTOR

Sandra Paul Hernandez, Asst.
ENVIRONMENTAL HEALTH COORDINATOR
OS 0025599

## Comal County Environmental Health OSSF Inspection Sheet

Installer Name: J.B. Septic / Jim Blake OSSF Installer #: \_\_\_\_\_

1st Inspection Date: 2/19/19 2nd Inspection Date: \_\_\_\_\_ 3rd Inspection Date: 2/25/19

Inspector Name: Mike T. Inspector Name: \_\_\_\_\_ Inspector Name: Mike T.

Permit#: 108081 Address: Mt. Springs Ranch / 2111 Comal Springs Dr.

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)		2/19/19		2/25/19
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards	✓	285.91(10) 285.30(b)(4) 285.91(d)				
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)	✓	285.32(a)(1)	Existing system moved spray heads.	2/19/19		
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)(B) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(ii)(i)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

MT-2/19/19  
Existing 600 ClearStream moved sprayheads. Operational ✓

MT-2/25/19  
Covered.

**Comal County Environmental Health  
OSSF Inspection Sheet**

Item	Description	Ameter	Citation	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	✓		Existing 600	2/19/19		2/25/19
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	✓		Clearstream			
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(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
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)				
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**

	Description	Inspector	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
	<p>EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling</p> <p>EFFLUENT DISPOSAL SYSTEM Topographic Slopes &lt; 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field ( 1000 Linear ft. for 2 bedrooms or Less &amp; an additional 400 ft. for each additional bedroom )</p> <p>EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. &amp; Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully</p> <p>EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) &amp; Pipe Holes ( 3/16 - 1/4" dia. Hole Size ) 5 ft. Apart</p>		<p>285.33(b)(3)(A)</p> <p>285.33(b)(3)(A)</p> <p>285.33(b)(3)(B)</p> <p>285.91(13)</p> <p>285.33(b)(3)(D)</p> <p>285.33(b)(3)(F)</p>				
32	AEROBIC TREATMENT UNIT is Aerobic Unit Installed According to Approved Guidelines.	✓	285.32(c)(1)		2/19/19		2/25/19
33	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided	✓					
34	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						
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Comal County Environmental Health  
OSSF Inspection Sheet

39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried	✓			2/17/19		2/25/19
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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)285.33(d)(2)(G)(IV)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)		2/17/19		2/25/19
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 Environmental Health OSSF Inspection Sheet

Installer Name: J.B. Septic / Jim Blake OSSF Installer #: \_\_\_\_\_

1st Inspection Date: 2/19/19 2nd Inspection Date: \_\_\_\_\_ 3rd Inspection Date: \_\_\_\_\_

Inspector Name: Mike T. Inspector Name: \_\_\_\_\_ Inspector Name: \_\_\_\_\_

Permit#: 108081 Address: Mt. Springs Ranch / 2111 Comal Springs Dr.

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MT- 2/19/19

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**Comal County Environmental Health  
OSSF Inspection Sheet**

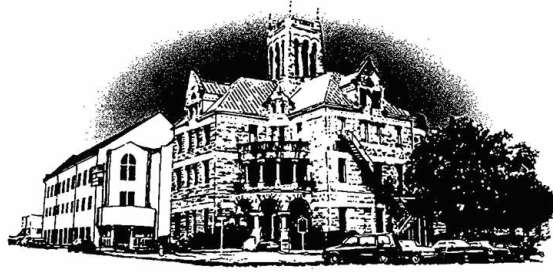
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36	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
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Comal County Environmental Health  
OSSF Inspection Sheet

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**Comal County Environmental Health  
OSSF Inspection Sheet**

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44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



# Comal County

OFFICE OF COMAL COUNTY ENGINEER

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

Permit Number: 108081  
Issued This Date: 09/11/2018  
This permit is hereby given to: Robert & Emily Choate

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

2111 COMAL SPGS  
CANYON LAKE, TX 78133

Subdivision: Mountain Springs Ranch  
Unit: 1  
Lot: 14  
Block:  
Acreage:

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic  
Surface Irrigation

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

Call (830) 608-2090 to schedule inspections.

\*\*\* COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH \*\*\*  
APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN  
ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

Date \_\_\_\_\_ Permit # 108081

Owner Name	<u>Robert E. Choate and Emily B. Choate</u>	Agent Name	<u>JB Septic Systems, Inc</u>
Mailing Address	<u>2111 Comal Springs</u>	Agent Address	<u>P.O. Box 1609</u>
City, State, Zip	<u>Canyon Lake, Texas 78133</u>	City, State, Zip	<u>Helotes, Texas 78023</u>
Phone #	<u>830-885-5519</u>	Phone #	<u>830-931-0292</u>
Email	<u>ebchoate@icloud.com</u>	Email	<u>info@jbsepticssystemsinccom</u>

All correspondence should be sent to:  Owner  Agent  Both Method:  Mail  Email

Subdivision Name Mountain Springs Ranch Unit One Lot 14 Block \_\_\_\_\_

Acreage/Legal \_\_\_\_\_

Street Name/Address 2111 Comal Springs City Canyon Lake Zip 78133

**Type of Development:**

Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) Existing House - Relocation of Sprinklers

Number of Bedrooms three

Indicate Sq Ft of Living Area 2,560

RECEIVED  
SEP 05 2018

Commercial or Institutional Facility

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

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

Are Water Saving Devices Being Utilized Within the Residence?  Yes  No

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.
- 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.

Robert E. Choate Emily B. Choate 8/18/2018  
Signature of Owner Date

**\*\*\* COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH \*\*\***  
**APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN**  
**ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE**

Planning Materials & Site Evaluation as Required Completed By Jim W. Blake, Sr. #2289

System Description Aerobic Treatment with Spray Irrigation

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

Tank Size(s) (Gallons) 400/600/700 Absorption/Application Area (Sq Ft) 4,762

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 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.

  
Signature of Designer

2-19-19  
Date



**J.B. Septic Systems, Inc.**

Jim Blake Sr.  
Registered Sanitarian  
P.O. Box 1609  
Helotes, Texas 78023

Telephone (830) 931-0292  
Fax (830) 931-0409

**ON-SITE SEWAGE FACILITY DESIGN**

FOR: Robert E. & Emily B. Choate  
2111 Comal Springs  
Canyon Lake, TX 78133

LOCATION: 2111 Comal Springs  
Lot 14, Unit One  
Mountain Springs Ranch  
Comal County

DEVELOPMENT: Existing three-bedroom residence with 2,560 sq. ft. living area.

ESTIMATE OF WATER CONSUMPTION: **300** gallons per day.

SEWAGE FACILITY DESCRIPTION: Clearstream Aerobic Treatment System with timer, chlorinator, sprinkler pump, and sprinkler heads covering a surface application area of 4,762 square feet. The timer is set for spray between midnight and 5:00 A.M.

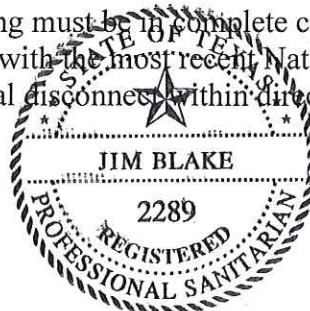
**CALCULATION:**

$$\begin{array}{l} \text{Application Area} \\ \text{Required} = \frac{\text{Flow}}{\text{Soil Appl. Rate}} = \frac{300 \text{ Gals./Day}}{.064 \text{ Gals./Sq.Ft./Day}} = 4,688 \text{ Sq. Ft.} \end{array}$$

**ACTUAL APPLICATION AREA TO BE COVERED:**

(Radius of Sprinkler Head) X (Radius of Sprinkler Head) X 3.14	=	Sq. Ft.
One full circle sprinkler head with a 30 foot radius	=	2,826 Sq. Ft.
One ½ circle sprinkler head with a 28 foot radius	=	1,230 Sq. Ft.
One ¼ circle sprinkler head with a 30 foot radius	=	706 Sq. Ft.
Total	=	4,762 Sq. Ft.

ELECTRICAL WIRING – All wiring must be in complete compliance with 30 Texas Administrative Code 285.34(c) and with the most recent National Electric Code. All electrical components should have an electrical disconnect within direct vision.



*Jim Blake*

AFFIDAVIT TO THE PUBLIC

The County of Comal §  
State of Texas §



201806035191 09/05/2018 12:49:18 PM 1/2

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 & 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.

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code § 285.91(12) will be installed on the property described as Lot 14, Mountain Springs Ranch Unit One, situated in Comal County, Texas, according to plat thereof recorded in Volume 14, page (s) 343-348, Map and Plat Records of Comal County, Texas.

The property is owned by Robert E. Choate and Emily B. Choate

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 Day of August, 2018.

Robert E. Choate  
Robert E. Choate

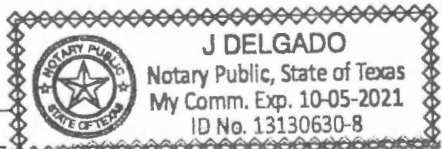
Emily B. Choate  
Emily B. Choate

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SEP 05 2018

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 18 DAY OF August COUNTY ENGINEER, 2018.

J Delgado  
Notary Public, State of Texas

Notary/s Printed Name: J Delgado  
My Commission Expires: 10-05-2021





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.

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COUNTY ENGINEER

Filed and Recorded  
Official Public Records  
Bobbie Koepf, County Clerk  
Comal County, Texas  
09/05/2018 12:49:18 PM  
CHRISTY 2 Page(s)  
201806035191



*Bobbie Koepf*

**J.B. Septic Systems, Inc.  
Two-Year Initial Service Policy**

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SEP 05 2018

System Owner:  
Emily Choate

Brand Name: Clearstream Wastewater System

System Name: Primary

Serial Number: 20690-06-NC-3T

Model Number: 600 NC-3T

Permit Number: 105415

Effective: 5/04/18 thru 05/04/20

COUNTY ENGINEER

Site Legal Description:

2111 Comal Springs, Lot 14, Unit 1

Mountain Spring Ranch, Comal County

J. B. Septic Maintenance, Inc. will inspect and service your Clearstream Aerobic Treatment Plant once every four months for a period of two years. The service policy starts the date the "License To Operate" is issued by the permitting authority. This initial two year Service Policy will be at no additional charge to the property owner as required by State guidelines.

Before this initial two-year service policy expires, JB Septic Maintenance, Inc will notify you. Upon renewal of the contract, a copy of the new contract shall be submitted to the permitting authority. If the property owner or maintenance company desire to discontinue the maintenance contract, the maintenance company shall notify, in writing, the permitting authority at least 30 days prior to the date service will cease.

**Testing and Reporting**

J.B. Septic Maintenance, Inc. shall test and report on this system as required by rule on the following:

1. An Inspection/Service Call every 4 months, which includes inspections, adjustment, and servicing of the mechanical and electrical component parts as necessary to ensure proper function.
2. An effluent quality inspection every 4 months, consisting of a visual check for color, turbidity, scum overflow, and an examination for odors.
3. A sample shall be pulled from the aeration tank every 4 months to determine if there is an excess of solids in the treatment plant. If the test results determine a need for solids removal, the user will be notified and the system will be pumped upon owner authorization.
4. If any improper operation is observed which cannot be corrected at the time, the user shall be notified immediately in writing of the conditions and the estimated date of correction.
5. If required, a chlorine residual test will be taken at each visit. (BOD and TSS annually on commercial only.) If a grab test is required, the Owner will be responsible for the cost of the grab test.

The owner is responsible for keeping chlorine (Bleach) in the chlorinator as well as the cost of the chlorine.

J.B. Septic Maintenance, Inc. has been certified by the manufacturer of your system, and will be responsible for fulfilling the requirements of this Maintenance Contract, as well as responding to any alarms and/or addressing any concerns by the owner.

VIOLATIONS OF WARRANTY including shutting off the electric current to the system for more than 24 hours, disconnecting the alarm system, restricting ventilation to the aerator, overloading the system above its rated capacity, or introducing excessive amounts of harmful matter into the system, or any other form of unusual abuse.

**This Policy Does Not Include;**

1. Cost of Pumping Sludge From Unit If Necessary.
2. Cost of System Repair Due to Damage or Parts Failure Due to Neglect.
3. Cost of Replacement of "Normal Wear & Tear" Items During Routine Maintenance Visits.

The Maintenance Company and the Owner agree to abide by the service policy as stated above.

**MAINTENANCE COMPANY:**

J.B. Septic Maintenance, Inc.  
P.O. Box 1609  
Helotes, Texas 78023  
(830) 931-0292  
(210) 414-6289

**Installation Company:**

J.B. Septic Systems, Inc.  
P.O. Box 1609  
Helotes, Texas 78023

**MANUFACTURER:**

Clearstream Wastewater Systems, Inc.  
P.O. Box 7568  
Beaumont, Texas 77726-7568  
(409) 755-1500

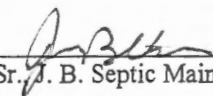
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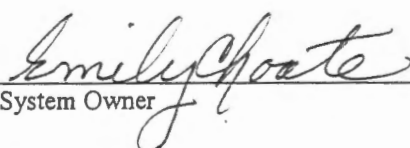
SEP 05 2018

COUNTY ENGINEER

**Permitting Authority:**

Comal County Office of Environmental Health  
195 David Jonas Drive  
New Braunfels, TX 78676  
(830) 608-2094

  
\_\_\_\_\_  
Jim Blake, Sr., J. B. Septic Maintenance, Inc.

  
\_\_\_\_\_  
Emily Choate  
System Owner

Service Company Operator License Number: MP0000892

**J. B. Septic Systems, Inc.**

Jim W. Blake, Sr., RS 2289  
P. O. Box 1609  
Helotes, TX 78023

---

Telephone (830) 931-0292  
Fax (830) 931-0409

December 7, 2016

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Comal County Environmental Office  
195 David Jonas Drive  
New Braunfels, TX 78132-3760

SEP 05 2018

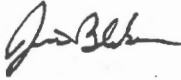
RE: Lot 14, Mountain Springs Ranch, Unit One COUNTY ENGINEER  
(2111 Comal Springs)

To Whom It May Concern:

I hereby certify that the On-Site Sewage Facility (OSSF) design for the above referenced property complies with all provisions of the proposed Contributing Zone Plan (CZP), as approved by the Texas Commission on Environmental Quality (TCEQ).

Please contact me at the number listed above if you should have any desire to discuss this matter.

Sincerely,



Jim W. Blake, Sr.  
JB Septic Systems, Inc.

# J. B. Septic Systems, Inc.

Jim Blake Sr.  
Registered Sanitarian  
P.O. Box 1609  
Helotes, Texas 78023

Telephone (830) 931-0292  
Fax (830) 931-0409

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## SITE EVALUATION

SEP 05 2018

LOCATION: Lot 14, Mountain Springs Ranch, Unit One COUNTY ENGINEER  
Comal County (2111 Comal Springs)

I. USDA County Soils Survey Classification: (BtD) Brackett - Outcrop Complex

II. Soil Analysis Sample: Two soil borings located in the proposed absorption area.  
(Method and Location)

III. Soil Profile: 0 - 10" clay loam soil underlain by limestone.  
(Describe sample)

IV. Soil Texture Classification:  
Soil Class Ia Soil Class Ib Soil Class II  Soil Class III Soil Class IV

V. Soil Structure: Blocky

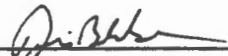
VI. Restrictive Horizons (Note any dense clay sub-soils, rock or fractured rock, depth of groundwater etc.): Rock

VII. Topography: 2-3% slope

VIII. Flood Hazard: No.

IX. Overall Site Suitability: The site is suitable for Aerobic Treatment with Spray Irrigation.

X. Recharge Zone: No.

  
Signature

December 7, 2016  
Date

OS0010832  
Registration #



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AEROBIC TREATMENT SYSTEM COMPONENTS AND REQUIREMENTS SEP 05 2018

COUNTY ENGINEER

1. Minimum 400 gallon Pre-Treatment Tank.
2. Aerobic Treatment Unit – 600 gallon TCEQ approved unit.
3. Liquid Chlorinator – Only E.P.A. approved chlorine (Bleach) for use with wastewater shall be used. It is the owner's responsibility to ensure that it is functioning properly and has chlorine IN IT AT ALL TIMES.
4. 700 gallon Pump Tank with a minimum ½ horsepower, 18 GPM well pump (Clearstream P-20 pump or approved equivalent.)
5. Sprinkler heads must be impact or gear driven rotary design with a maximum inlet pressure of 40 PSI. Only low angle (13 degree trajectory) nozzles shall be used. All sprinkler heads shall be self-draining type so as to prevent in-line freezing. The exact location of sprinkler heads shall be coordinated between the installer and the property owner so that spray patterns shall not be blocked by trees, etc; a minimum of 10 feet shall be required between any sprinkler head and the base of a tree.
6. SURFACE APPLICATION AREA -The area to be sprayed shall have enough topsoil in place to cover the force lines and to support the growth of vegetation. This vegetation shall consist of grasses, evergreen shrubs, bushes, trees or landscaped beds containing mixed flora. Sloped land is acceptable if properly landscaped and terraced to minimize run-off. Distribution pipes and sprinkler heads must provide uniform distribution of treated effluent. The application rate must be adjusted so as to not produce run-off.
7. AFFIDAVIT (signed and notarized) included with this design should be a permanent part of the real property deed. TCEQ requires that it give proper notification to future owners of the continuous maintenance and administrative requirements of this OSSF system.
8. MAINTENANCE CONTRACT:

At the time of system installation, the contractor will submit to the authorized agent, (County Inspector) a copy of the 2-Year Service Policy as required by the TCEQ. Maintenance Company will file a detailed report of the dates and findings of these inspections to the Authorized Agent. This will ensure periodic inspections (at least every 4 months) for system compliance with effluent standards. Correct testing/evaluation of the unit will include periodic measuring of residual chlorine levels and/or fecal coliform analysis, as required by TCEQ. Sludge accumulation will be monitored and the system owner will be notified when tanks require pumping.

**NOTE:** SEE ATTACHMENT for water treatment equipment and appliances installation requirements. The back flush or discharge from water treatment equipment may be discharged into an On-Site Sewage Facility as provided in this attachment. Effective April 28, 2004.

**REMARKS:** The contractor may make minor field adjustments to the system with approval of the county regulatory agency. The referenced site has been evaluated and the on-site sewerage facility has been designed generally following the requirements given by the Texas Commission on Environmental Quality and Comal County. The site evaluation and design are based upon technical information available today. The proper performance of any on-site sewerage facility cannot be guaranteed even though all provisions of the regulations have been met.

**CERTIFICATION:** I hereby certify that this sewage facility design submitted conforms to the Texas Commission on Environmental Quality and Comal County requirements, and with proper use, maintenance, and under normal climatic conditions can be expected to function without creating a nuisance.

**DATE:** December 7, 2016

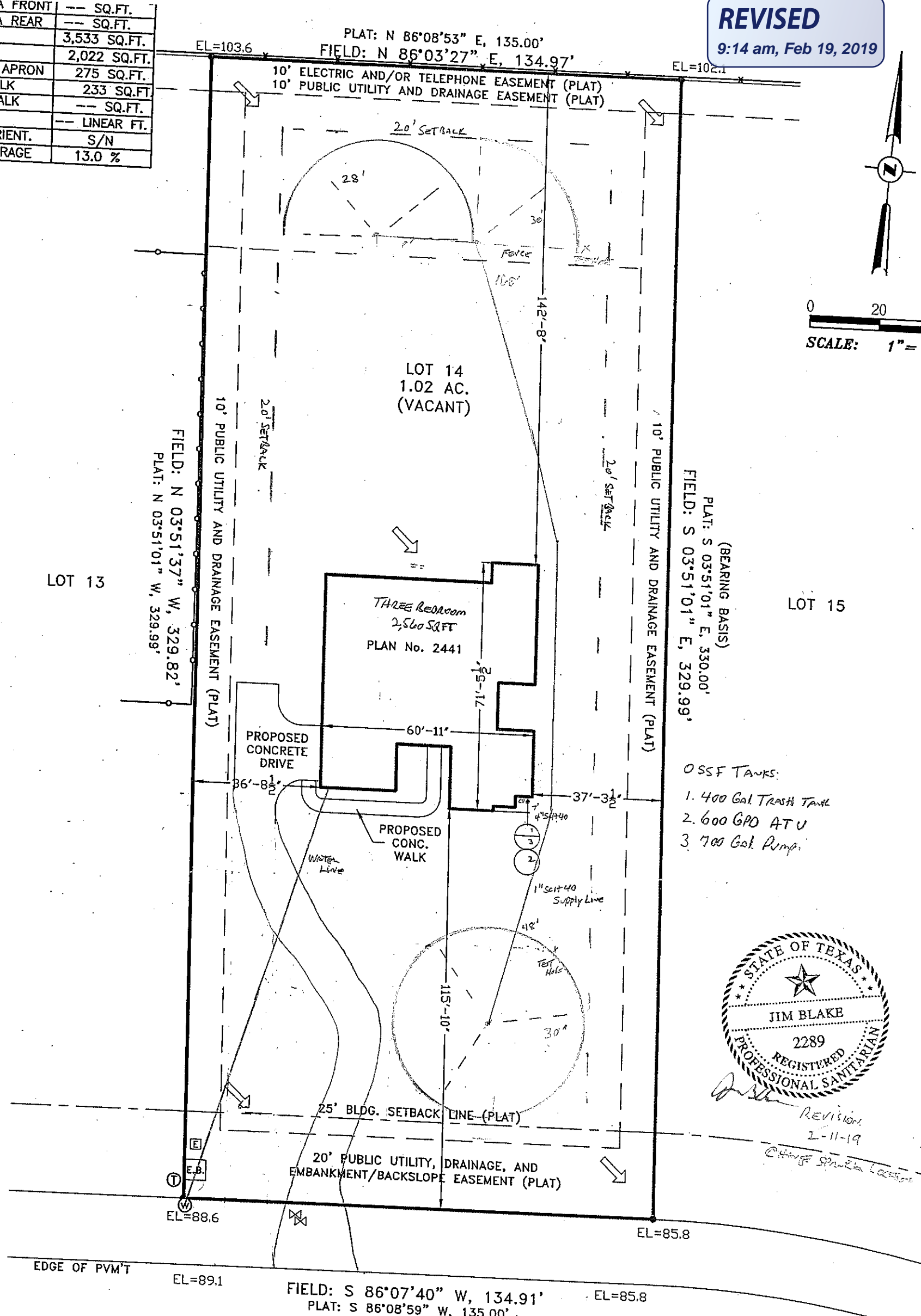
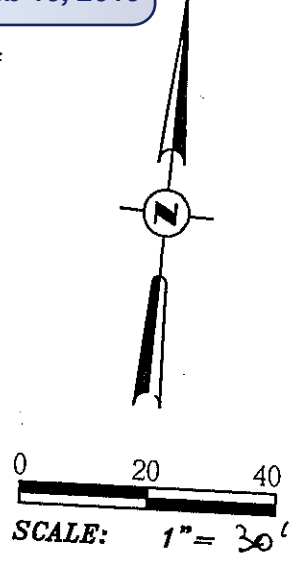
  
Jim Blake, Professional Sanitarian #2289





**REVISED**  
9:14 am, Feb 19, 2019

SOD AREA FRONT	-- SQ.FT.
SOD AREA REAR	-- SQ.FT.
SLAB	3,533 SQ.FT.
DRIVEWAY	2,022 SQ.FT.
DRIVEWAY APRON	275 SQ.FT.
ENTRY WALK	233 SQ.FT.
PUBLIC WALK	-- SQ.FT.
FENCE	-- LINEAR FT.
HOUSE ORIENT.	S/N
IMP. COVERAGE	13.0 %



(BEARING BASIS)  
PLAT: S 03°51'01" E, 330.00'  
FIELD: S 03°51'01" E, 329.99'

- OS&F TANKS:
1. 400 Gal TRASH TANK
  2. 600 GPD ATU
  3. 700 Gal Pump

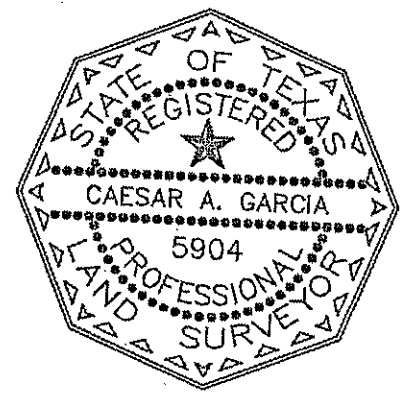


*Revision*  
2-11-19  
*Change Sprinkler Location*

ADDRESS: 2111  
**COMAL SPRINGS**  
(60' RIGHT-OF-WAY)

STATE OF TEXAS  
COUNTY OF COMAL  
I hereby certify that the above plat is a true and correct representation of the proposed development according to the recorded subdivision plat and information provided by the client.

- NOTES:
- 1.) PER THE RECORDED SUBDIVISION PLAT, THERE IS A 30 FOOT WIDE DRAINAGE EASEMENT ON ALL NATURAL RUNOFF CHANNELS, CREEKS, OR SWALES.
  - 2.) \*RESTRICTIONS SHOWN ARE PER BUILDER
  - 3.) ALL FLATWORK TO BE DETERMINED BY BUILDER
  - 4.) DRAINAGE FLOW SHOWN IS APPROXIMATE PER THE RECORDED SUBDIVISION PLAT.
  - 5.) THIS SURVEY WAS COMPLETED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND OTHER MATTERS OF RECORD WHICH MAY AFFECT THIS TRACT MAY NOT BE SHOWN HEREON.



This 12th day of OCTOBER, 2016 A.D.  
*[Signature]*  
CAESAR A. GARCIA  
REGISTERED PROFESSIONAL  
LAND SURVEYOR No. 5904

**PLAT LEGEND**

● 1/2" IRON ROD FOUND	○ IRON FENCE
⊙ WATER METER	✕ BARB WIRE FENCE LINE
⊠ ELEC. METER BOX	Ⓣ TELEPHONE RISER
⊞ ELEC. TRANSFORMER BOX	⊗ WATER VALVE

PREPARED FOR COVENTRY HOMES  
**CROSS BRANCH**  
**FINAL PLOT PLAN**  
W.O. No. 16  
JOB NO. 4

STATE MANDATED REGULATION CONCERNING AEROBIC SYSTEMS

NAME: MHI Partnership, LTD  
LOCATION: 2111 Comal Springs, Canyon Lake, TX 78133  
DATE: December 7, 2016

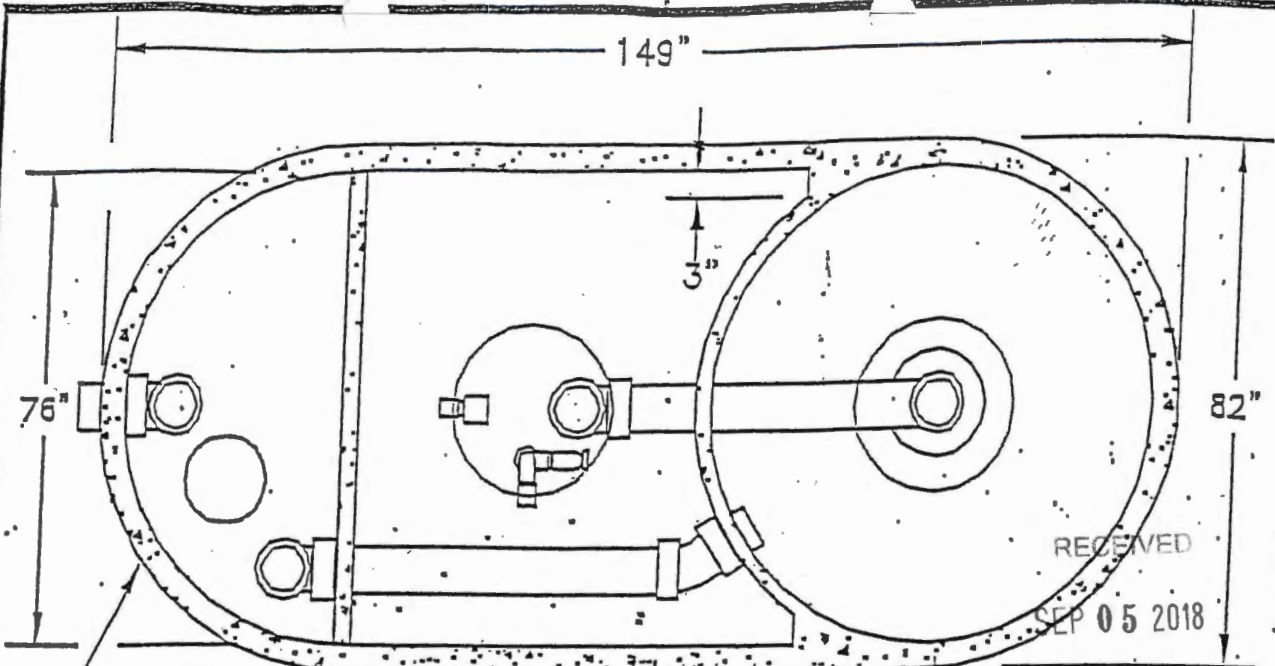
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COUNTY ENGINEER

As part of the installation of this system, the Texas Commission On Environmental Quality requires the following:

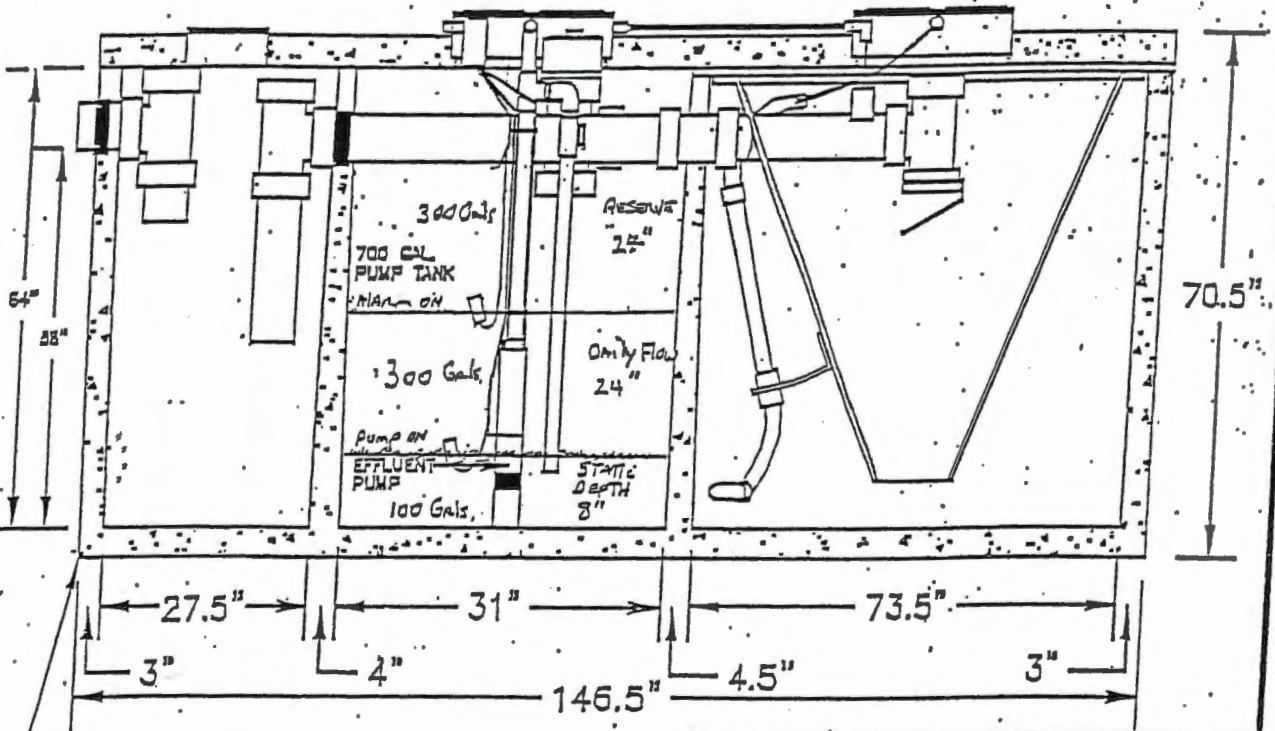
1. The property owner and the aerobic system maintenance contractor shall enter into a 2 year (minimum) full service maintenance contract in which the company will provide periodic inspections for system compliance with effluent standards. This contract will authorize the maintenance company to operate, maintain, and repair the system as needed. The costs of this service will be paid by the system's owner and may be included with the installation of the system. (See the attached Service Policy.)
2. The property owner shall submit an affidavit to the County Clerk's Office to be added to the Real Property Deed on which the surface application system is installed. (See the attached AFFIDAVIT TO THE PUBLIC.)
3. The maintenance company shall inspect this system as directed in the Service Policy and shall keep accurate records of their findings. These records shall be submitted to the County at the end of the first 2-year service life of the system.



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3" EXTERIOR  
WALL  
TYP.

COUNTY ENGINEER



1.25" TAPER  
ON ALL  
EXTERIOR  
& INTERIOR  
WALLS

55" 12.72 Gals./INCH



**CLEARSTREAM**  
WASTEWATER SYSTEMS, INC.  
P.O. Box 7588 Denton, Texas 77725-7588

MODEL 600NC3T  
600 G.P.D. TREATMENT SYSTEM

DRAWN: JIM BLAKE	CHKD: JIM	DATE: 07/04	REV: 0	REV. DATE:	NUMBER: 10000385
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SEP 05 2018

COUNTY ENGINEER

# OWNER'S MANUAL

## SERIES P20 4" SUBMERSIBLE PUMP

Two Wire, 1/2 HP, 115 Volt, 60 Hz

Installation • Operation

### LIMITED WARRANTY

Clearstream warrants to the original consumer of the products listed below, that they will be free from defects in material and workmanship for the Warranty Period from the date of installation as noted.

<u>Product</u>	<u>Warranty Period</u>
4" Submersible Pump	2 year

Our warranty will not apply to any product that has been subject to negligence, misapplication, improper installation or maintenance.

Buyer's only remedy and Clearstream's only duty is to repair or replace defective products (at Clearstream's choice). Buyer agrees to pay all labor and shipping charges associated with this warranty and to request warranty service through the installing dealer as soon as a problem is discovered. If warranty service is requested after the Warranty Period has ended, it will not be honored.

**CLEARSTREAM SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, OR CONTINGENT DAMAGES WHATSOEVER.**

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES, IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE WARRANTY PERIOD PROVIDED HEREIN.

Certain states do not permit the exclusion or limitation of incidental or consequential damages or the placing of limitations on the duration of an implied warranty, therefore, the limitations or exclusions herein may not apply. This warranty sets forth specific legal rights and obligations, however, additional rights may exist, which may vary from state to state.

Supersedes all previous publications.

Clearstream, P.O. Box 9337, Beaumont, TX 77709

**CLEARSTREAM**

P.O. Box 9337, Beaumont, TX 77709

open. Start pump. *Slowly* open valve until the desired flow rate is reached. Final setting *must* be within pump's recommended operating range.

2. Make sure that the float switches are set so that the pump stops before the pump runs dry or breaks suction. If necessary, adjust float switches to achieve this.
3. The motor bearings are lubricated internally. No maintenance is required or possible on the pump or the motor.

**OPERATION**

1. The pump must be submerged at all times during normal operation. Do not run pump dry.

**Table 1: Recommended Fusing Data**  
115 Volt/60 Hz/1 Phase 2-Wire Cable

HP	Voltz/Hz/ Phase	Motor Winding Resistance Ohms	Max Load Amps	Locked Rotor Amps	Fuse Size Standard/ Dual Element
1/2	115/60/1	1.0-1.3	12.0	64.8	30/15

**Table 2: Power Supply Wire (Cable) Length in Feet**  
1 Phase, 2 Wire Cable, 60 Hz (Copper Wire Size - Service to motor)

Volts	HP	14 AWG	12 AWG	10 AWG	8 AWG	6 AWG	4 AWG	3 AWG	2 AWG	1 AWG	0 AWG
115	1/2	100	160	250	390	620	960	1190	1460	1780	2160

1. Maximum wire lengths shown maintain motor voltage at 95% of service entrance voltage, running at maximum nameplate amperes. If service entrance voltage will be at least motor nameplate voltage under normal load conditions, 50% additional length

is permissible for all sizes.

2. Sizes given are for copper wire. For aluminum wire go two sizes larger (i.e., if table lists #12 copper wire, use #10 aluminum wire.)

**Motor Insulation Resistance Readings**

\*Normal Ohm/Megohm readings for all motors, between all leads and ground. Set ohmmeter to 100K scale.

Condition of Motor and Leads	Ohm Value	Megohm Value
New motor, without power cable	20,000,000 (or more)	20.0
Used motor, which can be reinstalled in tank	10,000,000 (or more)	10.0
<b>Motor in Tank - Readings are Power Cable plus Motor</b>		
New Motor	2,000,000 (or more)	2.0
Motor in reasonably good condition	500,000 to 2,000,000	0.5-2.0
Motor which may be damaged or have damaged power cable <i>Do not pull motor for these reasons</i>	20,000 to 500,000	0.02-0.5
Motor definitely damaged or with damaged power cable <i>Pull motor and repair</i>	10,000 to 20,000	0.01-0.02
Failed motor or power cable — <i>Pull motor and repair</i>	Less than 10,000	0-0.01

**Important Electrical Grounding Information**

**WARNING**

Hazardous voltage. Can shock, burn, or kill. To reduce the risk of electrical shock during pump operation, ground and bond the pump and motor as follows:

- A. To reduce risk of electrical shock from metal parts of the assembly other than the pump, bond together all metal parts accessible at the tank top (including metal discharge pipe, metal tank top, and the like). Use a metal bonding conductor at least as large as the power cable conductors running down the well to the pump's motor.
- B. Clamp or weld (or both if necessary) this bonding conductor to the grounding means provided with the pump, which will be the equip-

ment-grounding terminal, the grounding conductor on the pump housing, or an equipment-grounding lead. The equipment-grounding lead, when provided, will be the conductor having green insulation; it may also have one or more yellow stripes.

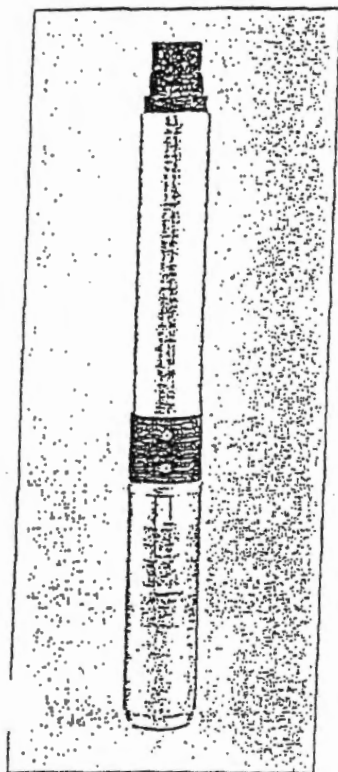
- C. Ground the pump, motor, and any metallic conduit that carries power cable conductors. Ground these back to the service by connecting a copper conductor from the pump, motor, and conduit to the grounding screw provided within the supply-connection box wiring compartment. This conductor must be at least as large as the circuit conductors supplying the pump.

**Save these instructions.**



**P20**

**Submersible Effluent Pump**



**GENERAL DESCRIPTION**

The P20 multistage submersible effluent pump constructed from precision-engineered, corrosion-resistant materials, is an industry leader in high pressure effluent removal. The floating stack design resists abrasion wear and reduces motor bearing thrust loading. These pumps feature the patented Signa-Seal™ design, which provides dry running capability in the event of a system failure. This patented Signa-Seal design has no industry equal.

**APPLICATIONS**

Designed for pumping filtered effluent.

**SPECIFICATIONS**

Shell: stainless steel

Discharge: fiberglass-reinforced thermoplastic

Discharge bearing: Nylatron®  
Intermediate bearing: (on larger units) polycarbonate, nitrile rubber, and stainless steel

Impellers: Delrin®  
Diffusers: Lexan®

Suction caps: Lexan® with stainless steel insert

Thrust pads: proprietary spec.  
Shaft and coupling: stainless steel

Intake: fiberglass-reinforced thermoplastic

Intake screen: polypropylene

Cable guard: stainless steel

Agency Listings: UL 778

**FEATURES**


- Patented Staging System – Our proven Signa-Seal™ staging system incorporates a harder-than-sand ceramic wear surface that when incorporated with our floating stack design, greatly reduces problems with abrasives, sand lock-up and running dry.
- Discharge – Fiberglass-reinforced thermoplastic material for durability in aggressive water. Octagon-shaped to fit pipe wrench.
- Discharge Bearing – Exclusive self-lubricating Nylatron® bearing resists wear from sand.
- Intake – Fiberglass-reinforced thermoplastic material for durability in aggressive water.
- Shaft – Positive drive from hexagonal heavy-duty 300 grade stainless steel.
- Coupling – Stainless steel press fit to pump shaft. Couples to all standard NEMA motors.
- Shell – Highest grade, heavy-walled corrosion-resistant stainless steel. Threaded for easy servicing.
- Hardware – All screws, washers and nuts are corrosion-resistant 300 grade stainless steel.
- Check Valve – Durable internal check valve.
- Cable Guard – Corrosion-resistant stainless steel guard protects motor leads. Tapered ends prevent pump from catching on wall.
- Corrosion-proof intake screen
- Franklin Electric Motor – 100% corrosion-resistant stainless steel construction. Constant lubrication through water-filled design. Hermetically-sealed stator assures moisture-free windings. Built-in surge arrester provided on 1/2 HP through 1-1/2 HP, single-phase pumps for added protection. All thrust absorbed by durable Kingsbury-type thrust bearing. Replaceable motor lead assembly. NEMA standard motors, 2- and 3-wire.

**ORDERING INFORMATION**

Model No.	HP	Max. Load Amps	Volts	Phase/Cycles	Cord Length
P20	1/2	12	115	1/60	100'

**PERFORMANCE**

Discharge Pressure PSI	57	52	44	33	19
Gallons Per Minute	10	15	20	25	30

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

© Nylatron is a registered trademark of Polymer Corp.

© Lexan is a registered trademark of General Electric Co.

© Delrin is a registered trademark of E.I. DuPont de Nemours and Co.

Specifications are subject to change without notice.



**— NOTE —**

We have a wide range of sump/sewage/effluent pumps to offer. If you need a catalog showing other available units, please contact your Clearstream representative.

# PROPLUS® GEAR DRIVEN SPRINKLER SETTING INSTRUCTIONS

**NOTE:** All of our sprinklers are preset for you with a 90° arc setting, and include a pre-installed #2.5 nozzle.

## CHANGING A NOZZLE

### 1 USE YOUR K-KEY

After you remove the nozzle retention screw with your K-Key, insert the K-Key into the keyhole on the top of the turret. Then, turn the K-Key 1/4 turn so it doesn't slip out of the hole when you pull it up.

### 2 PULL UP THE RISER

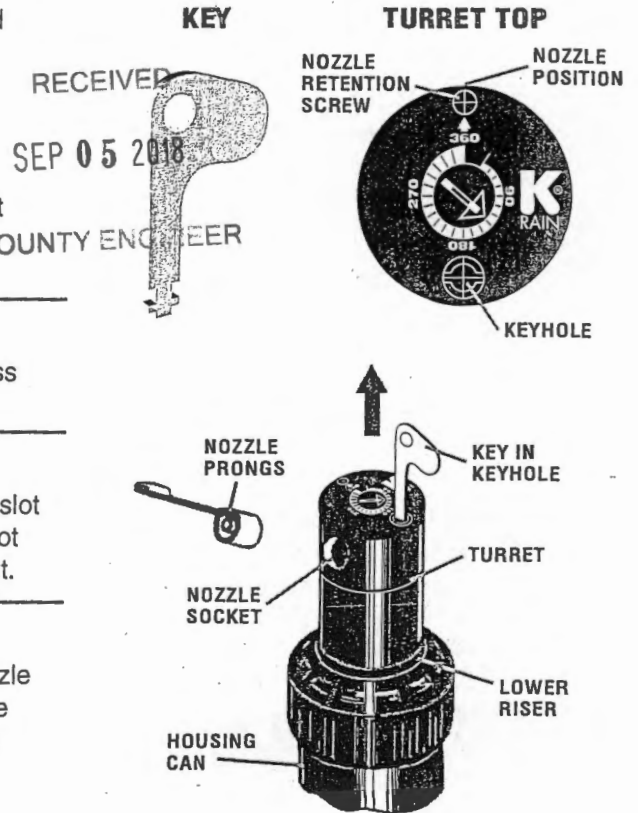
Firmly pull the entire spring loaded riser up with the K-Key to access the nozzle socket. Hold the riser up with one hand.

### 3 REMOVE THE NOZZLE

With the nozzle retention screw removed, insert the K-Key into the slot directly under the nozzle "prongs" at the top of the nozzle. Now, pivot your K-Key 1/4 of a turn to "hook" the nozzle and pull the nozzle out.

### 4 INSTALL A NOZZLE

Press the desired nozzle into the nozzle socket. Make sure the nozzle number is visible and the nozzle "prongs" are up. Then, re-install the nozzle retention screw. **NOTE:** The nozzle retention screw is also a break-up screw and adjusts the distance of the spray.

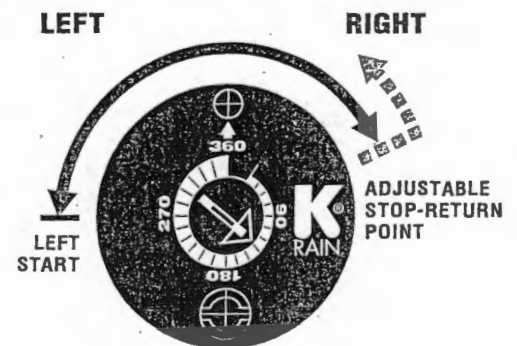


## PROPLUS IS ADJUSTABLE AND CONTINUOUS 360° ALL IN ONE MODEL

### SETTING THE ARC ADJUSTMENT (PRESET AT 90°)

### 5 FIND THE LEFT START POSITION

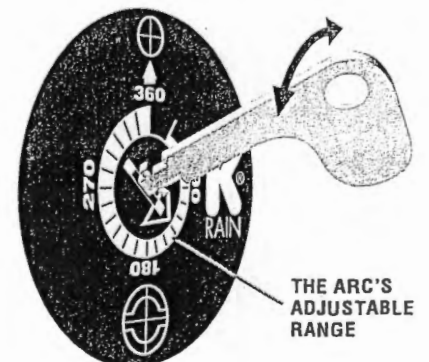
First, rotate the turret with your fingers around to the **RIGHT** (clockwise) until it stops. Then, rotate the turret around to the **LEFT** until it stops again. This is the **LEFT START** position. The sprinkler will begin spraying from this point and will rotate clockwise.



### 6 TO CHANGE THE ARC SETTING BEFORE INSTALLATION

Follow step 5 above to find the **LEFT START** as a reference point. To **INCREASE THE ARC**, insert the K-Key into the arc indication **ARROW SLOT** at the center of the turret. While holding the turret with your fingers, turn the K-Key **CLOCKWISE** until the arc **INDICATION ARROW** points to the **RIGHT STOPPING POINT**.

### ARC SELECTION: 35° TO 360°



## WHEN SET AT 360°, PROPLUS WILL ROTATE CONTINUOUSLY IN A CLOCKWISE DIRECTION.

To **DECREASE THE ARC**, hold the turret steady and turn the K-Key **COUNTERCLOCKWISE** to the desired setting.

### WITH THE SPRINKLER RUNNING

Follow step 2, hand-spinning the turret gently in the direction it is spraying. Once you have found the **LEFT START** as a reference point, following the directions to **INCREASE THE ARC** or **DECREASE THE ARC** as shown above.

## §285.37. On-Site Sewage Facilities and Water Treatment Equipment and Appliances

(a) Water treatment equipment is defined as an appliance, which includes water softeners and reverse osmosis systems, used to:

- (1) alter the mineral content of water;
- (2) alter the microbiological content of water;
- (3) alter other substances found in water; or
- (4) purify water.

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COUNTY ENGINEER

(b) Back flush or discharge from water treatment equipment installed on or after September 1, 2003, may be discharged into an on-site sewage facility (OSSF) as provided in this subsection.

## (1) Water softener.

(A) The water softener must regenerate using a demand-initiated regeneration (DIR) control device. The water softener must be clearly labeled as being equipped with a DIR control device as follows:

- (i) the label shall be affixed to the outside of the water softener so the label can be easily inspected and read; and
- (ii) the label shall provide the name of the company that installed the water softener.

(B) A water softener may be connected to an OSSF with a non-standard or proprietary treatment system only as described in §285.32(c) and (d) of this title (relating to Criteria for Sewage Treatment Systems) if the water softener drain line:

- (i) bypasses the treatment system; and
- (ii) connects directly to a pump tank if the OSSF has a pump tank or directly to the pipe between the treatment system and the disposal system if no pump tank exists.

(C) An owner may continue to use a water softener that discharges to an OSSF and does not meet the requirements of subparagraph (A) of this paragraph if the water softener was installed before September 1, 2003. An owner must replace any water softener installed before September 1, 2003, with a water softener that meets the requirements of subparagraphs (A) and (B) of this paragraph at such time as:

- (i) an owner replaces the existing water softener; or
- (ii) an owner or installer installs, alters, constructs, or repairs an OSSF for the structure or property served by the existing water softener.

## (2) Reverse osmosis system.

(A) Point-of-use (under sink unit) reverse osmosis systems. The back flush from a point-of-use reverse osmosis system may be discharged into an OSSF without including calculations of the back flush water volume in the OSSF planning materials.

(B) Point-of-entry (whole house unit) reverse osmosis systems. The back flush from a point-of-entry reverse osmosis system may be discharged into an OSSF if:

- (i) the owner can demonstrate that the point-of-entry reverse osmosis system does not cause hydraulic overloading of the OSSF; or
- (ii) the water volume from the point-of-entry reverse osmosis system is accounted for (added to the usage rate in §285.91(3) of this title (relating to Tables)) by providing calculations of the increase in wastewater volume with the OSSF planning materials.

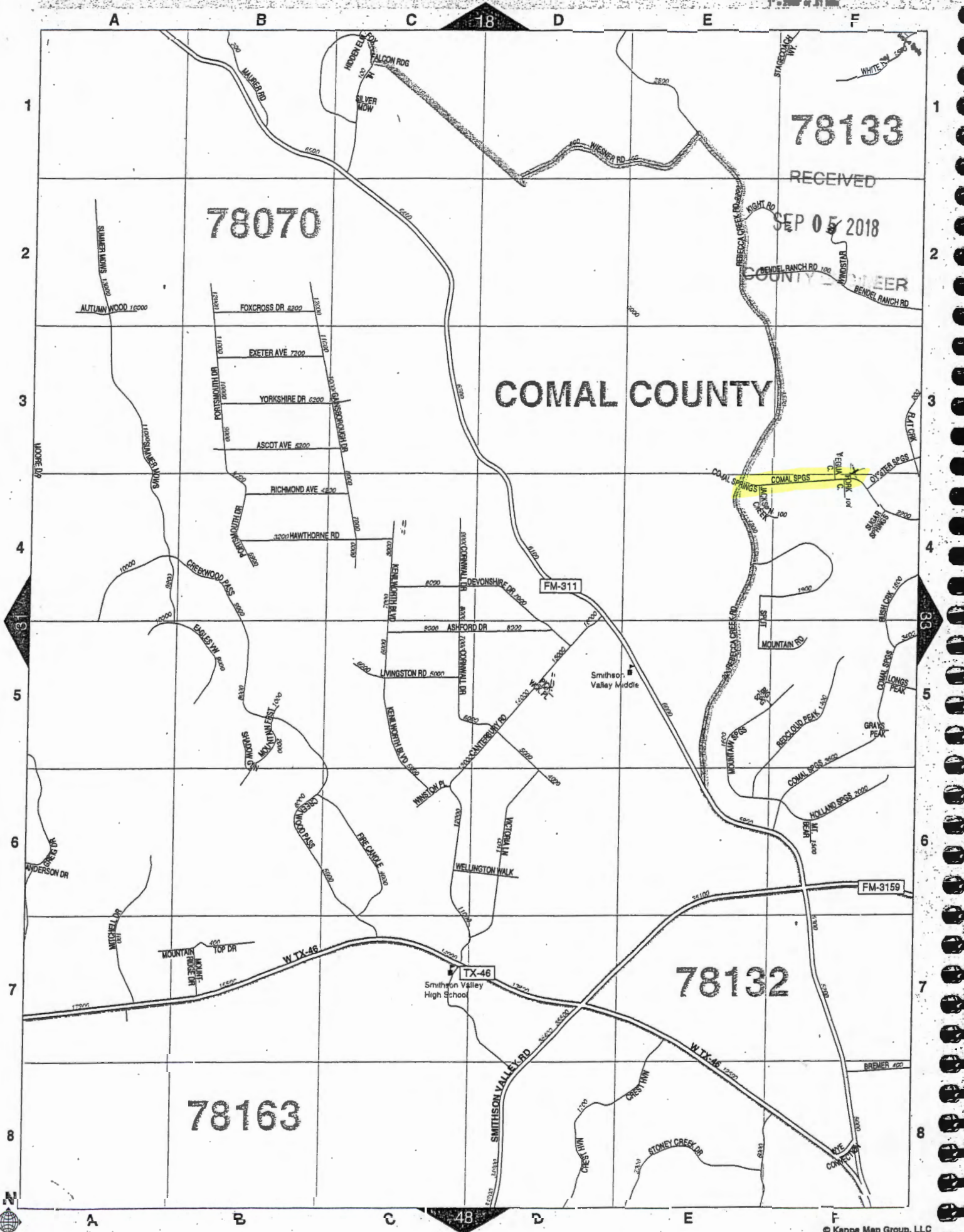
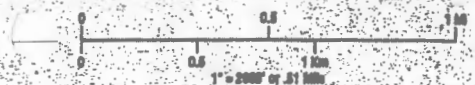
(3) Water treatment equipment other than water softeners and reverse osmosis systems. If an owner uses water treatment equipment other than water softeners or reverse osmosis systems, the back flush from the water treatment equipment may be discharged into an OSSF if the water volume is added to the OSSF usage rate in §285.91(3) of this title. This water volume calculation must be provided with the OSSF planning materials.

(c) Discharges from all water treatment equipment shall enter the OSSF system through an airgap or an airgap device as required in the Uniform Plumbing Code (2000).

Adopted April 7, 2004

Effective April 28, 2004





78070

78133

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COMAL COUNTY

78132

78163

**CCEO  
COPY**



Comal County  
OFFICE OF COMAL COUNTY ENGINEER

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

Issued This Date: **06/30/2017** Permit Number: **105415**

Location Description: 2111 COMAL SPGS  
CANYON LAKE, TX 78133

Subdivision: Mountain Springs Ranch  
Unit: 1  
Lot: 14  
Block:  
Acreage:

Type of System: Aerobic  
Surface Irrigation

Issued to: MHI Partnership, Ltd.

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

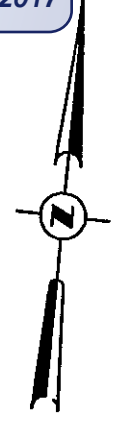
  
ENVIRONMENTAL HEALTH COORDINATOR

OS0025599

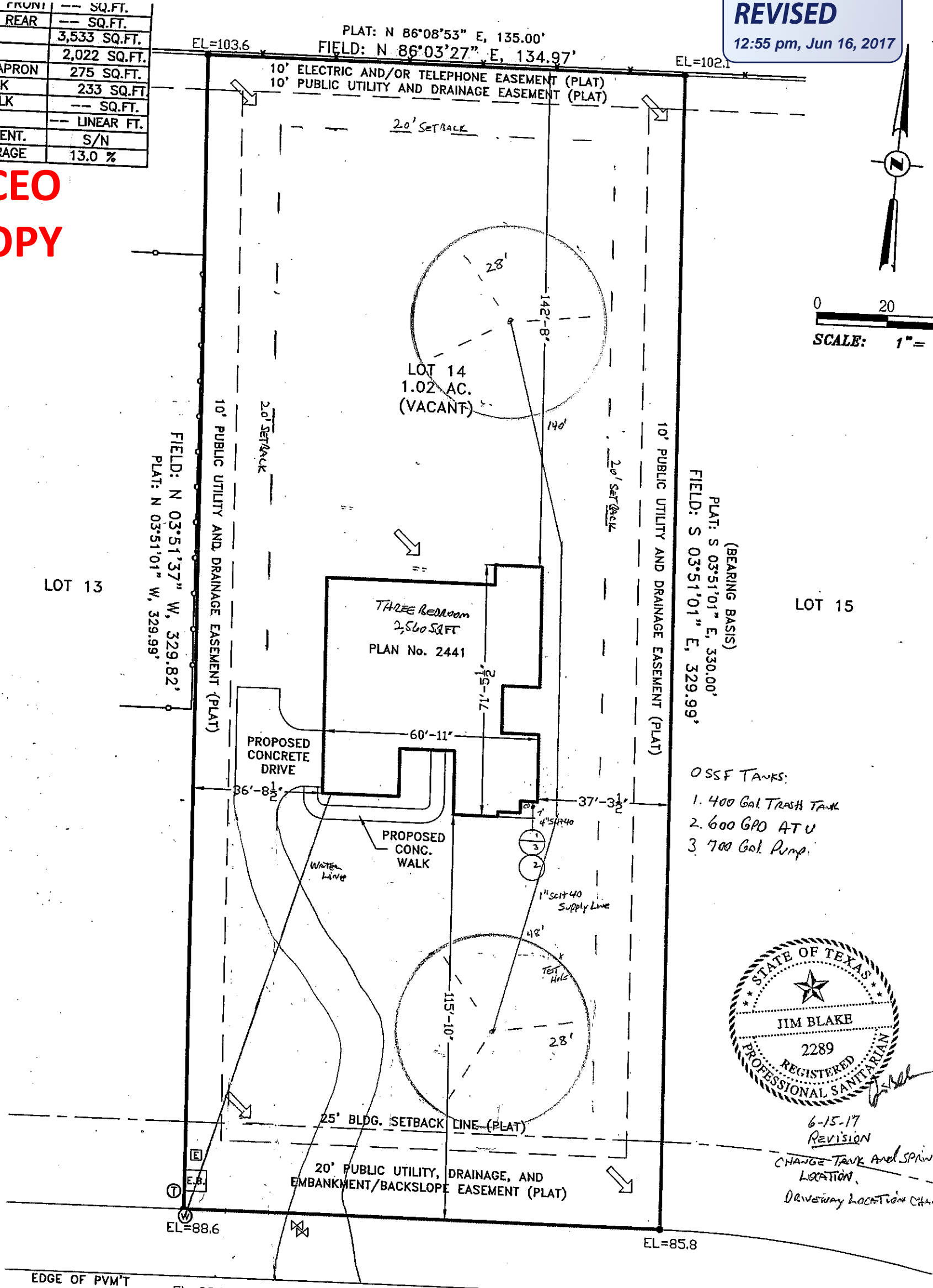
**REVISED**  
12:55 pm, Jun 16, 2017

SOD AREA FRONT	-- SQ.FT.
SOD AREA REAR	-- SQ.FT.
SLAB	3,533 SQ.FT.
DRIVEWAY	2,022 SQ.FT.
DRIVEWAY APRON	275 SQ.FT.
ENTRY WALK	233 SQ.FT.
PUBLIC WALK	-- SQ.FT.
FENCE	-- LINEAR FT.
HOUSE ORIENT.	S/N
IMP. COVERAGE	13.0 %

**CCEO  
COPY**



0 20 40  
SCALE: 1" = 30'



- OSSF TANKS:
1. 400 Gal. TRASH TANK
  2. 600 GPD ATU
  3. 700 Gal. Pump



6-15-17  
REVISION  
CHANGE TANK AND SPARKIER LOCATION  
DRIVEWAY LOCATION CHANGE

2111 COMAL SPRINGS  
(60' RIGHT-OF-WAY)

- NOTES:
- 1.) PER THE RECORDED SUBDIVISION PLAT, THERE IS A 30 FOOT WIDE DRAINAGE EASEMENT ON ALL NATURAL RUNOFF CHANNELS, CREEKS, OR SWALES.
  - 2.) \*RESTRICTIONS SHOWN ARE PER BUILDER
  - 3.) ALL FLATWORK TO BE DETERMINED BY BUILDER
  - 4.) DRAINAGE FLOW SHOWN IS APPROXIMATE PER THE RECORDED SUBDIVISION PLAT.
  - 5.) THIS SURVEY WAS COMPLETED WITHOUT THE BENEFIT OF A TITLE COMMITMENT AND OTHER MATTERS OF RECORD WHICH MAY AFFECT THIS TRACT MAY NOT BE SHOWN HEREON.



STATE OF TEXAS  
COUNTY OF COMAL  
I hereby certify that the above plat is a true and correct representation of the proposed development according to the recorded subdivision plat and information provided by the client.

This 12th day of OCTOBER, 2016 A.D.

*[Signature]*

CAESAR A. GARCIA  
REGISTERED PROFESSIONAL  
LAND SURVEYOR No. 5904

**PLAT LEGEND**

● 1/2" IRON ROD FOUND	○ IRON FENCE
⊙ WATER METER	✕ BARB WIRE FENCE LINE
⊞ ELEC. METER BOX	Ⓣ TELEPHONE RISER
⊞ ELEC. TRANSFORMER BOX	⊗ WATER VALVE

PREPARED FOR COVENTRY HOMES

CROSS BRANCH

FINAL PLOT PLAN

W.O. No. 16  
JOB NO. 4B

## Ritzen, Brenda

---

**From:** Ritzen, Brenda  
**Sent:** Tuesday, February 19, 2019 9:19 AM  
**To:** 'JB Septic'  
**Subject:** RE: 2111 comal Springs  
**Attachments:** Pages from 108081.pdf

Pat,

The spray area has changed therefore the spray area calculation sheet and 2<sup>nd</sup> page of the permit application must be updated accordingly.

Thank you,

Brenda Ritzen, OS0007722  
Environmental Health Coordinator  
Comal County Engineers Office  
195 David Jonas Drive  
New Braunfels, Texas 78132  
830-608-2090  
[www.cceo.org](http://www.cceo.org)

---

**From:** JB Septic <[robin@jbsepticssystemsincc.com](mailto:robin@jbsepticssystemsincc.com)>  
**Sent:** Tuesday, February 19, 2019 9:05 AM  
**To:** Ritzen, Brenda <[rabbjr@co.comal.tx.us](mailto:rabbjr@co.comal.tx.us)>  
**Subject:** 2111 comal Springs

Good Morning Brenda,

Please find attached Revision for 2111 Comal springs, permit number 108081.  
Thank you.

---

*Pat P.*

**JB Septic Maintenance, Inc.**

Email: [robin@jbsepticssystemsincc.com](mailto:robin@jbsepticssystemsincc.com)

Office: 830-931-0292

Fax: 830-931-0409

\*\*\* COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH \*\*\*  
APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN  
ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

**VOID**

Planning Materials & Site Evaluation as Required Completed By Jim W. Blake, Sr. #2289

System Description Aerobic Treatment with Spray Irrigation

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

Tank Size(s) (Gallons) 400/600/700 Absorption/Application Area (Sq Ft) 4,922

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 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: \_\_\_\_\_

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**VOID**

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

*Jim W. Blake*

Date

8-30-18

Page 2 of 2

**VOID**

**J.B. Septic Systems, Inc.**

Jim Blake Sr.  
Registered Sanitarian  
P.O. Box 1609  
Helotes, Texas 78023

Telephone (830) 931-0292  
Fax (830) 931-0409

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**ON-SITE SEWAGE FACILITY DESIGN**

COUNTY ENGINEER

FOR: Robert E. & Emily B. Choate  
2111 Comal Springs  
Canyon Lake, TX 78133

LOCATION: 2111 Comal Springs  
Lot 14, Unit One  
Mountain Springs Ranch  
Comal County

DEVELOPMENT: Existing three-bedroom residence with 2,560 sq. ft. living area.

**VOID**

ESTIMATE OF WATER CONSUMPTION: 300 gallons per day.

SEWAGE FACILITY DESCRIPTION: Clearstream Aerobic Treatment System with timer, chlorinator, sprinkler pump, and sprinkler heads covering a surface application area of 4,922 square feet. The timer is set for spray between midnight and 5:00 A.M.

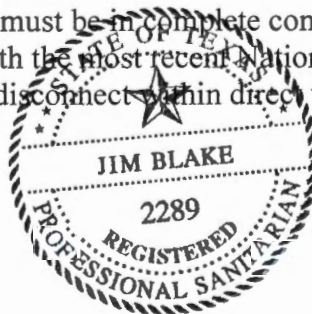
**CALCULATION:**

$$\text{Application Area Required} = \frac{\text{Flow}}{\text{Soil Appl. Rate}} = \frac{300 \text{ Gals./Day}}{.064 \text{ Gals./Sq.Ft./Day}} = 4,688 \text{ Sq. Ft.}$$

**ACTUAL APPLICATION AREA TO BE COVERED:**

(Radius of Sprinkler Head) X (Radius of Sprinkler Head) X 3.14	=	Sq. Ft.
One full circle sprinkler head with a 28 foot radius	=	2,462 Sq. Ft.
Two ½ circle sprinkler head with a 28 foot radius	=	2,460 Sq. Ft.
<b>Total</b>	<b>=</b>	<b>4,922 Sq. Ft.</b>

ELECTRICAL WIRING – All wiring must be in complete compliance with 30 Texas Administrative Code 285.34(c) and with the most recent National Electric Code. All electrical components should have an electrical disconnect within direct vision.



*Jim Blake*

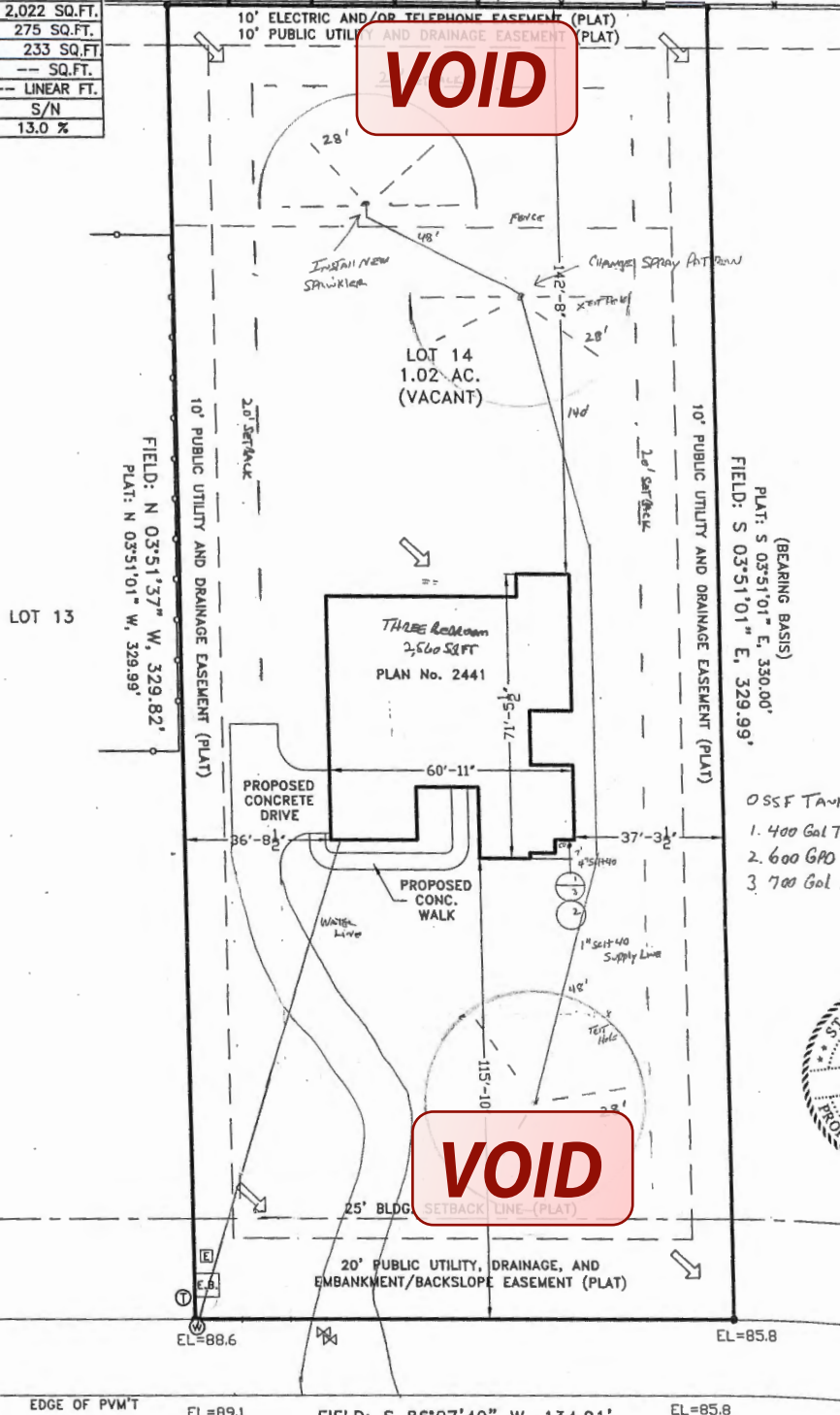
SOD AREA FRONT	-- SQ.FT.
SOD AREA REAR	-- SQ.FT.
SLAB	3,533 SQ.FT.
DRIVEWAY	2,022 SQ.FT.
DRIVEWAY APRON	275 SQ.FT.
ENTRY WALK	233 SQ.FT.
PUBLIC WALK	-- SQ.FT.
FENCE	-- LINEAR FT.
HOUSE ORIENT.	S/N
IMP. COVERAGE	13.0 %

EL=103.6 PLAT: N 86°08'53" E, 135.00' FIELD: N 86°03'27" E, 134.97' EL=102.1

**VOID**



0 20 40  
SCALE: 1" = 30'



**VOID**

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- OSSF TANKS:
1. 400 Gal Trash Tank
  2. 600 GPD ATU
  3. 700 Gal Pump.



6-15-17  
REVISION  
CHANGE TANK AND SPARKLER  
LOCATION.  
DETERMINING LOCATIONS CHANGE

EDGE OF PVM'T EL=89.1 FIELD: S 86°07'40" W, 134.91' EL=85.8  
PLAT: S 86°08'59" W, 135.00'

ADDRESS: 2111  
**COMAL SPRINGS**  
(60' RIGHT-OF-WAY)

STATE OF TEXAS  
COUNTY OF COMAL  
I hereby certify that the above plat is a true and correct representation of the proposed development according to the recorded subdivision plat and information provided by the client.

- NOTES:
- 1.) PER THE RECORDED SUBDIVISION PLAT, THERE IS A 30 FOOT WIDE DRAINAGE EASEMENT ON ALL NATURAL RUNOFF CHANNELS, CREEKS, OR SWALES.
  - 2.) \*RESTRICTIONS SHOWN ARE PER BUILDER
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This 12th day of OCTOBER, 2016 A.D.

*CA*

CAESAR A. GARCIA  
REGISTERED PROFESSIONAL  
LAND SURVEYOR No. 5904

**PLAT LEGEND**

● 1/2" IRON ROD FOUND	—○— IRON FENCE
⊙ WATER METER	—X— BARB WIRE FENCE LINE
⊠ ELEC. METER BOX	⊕ TELEPHONE RISER
⊠ ELEC. TRANSFORMER BOX	⊗ WATER VALVE

PREPARED FOR COVENTRY HOMES

CROSS BRANCH

FINAL PLOT PLAN

W.O. No. 1  
JOB NO. 4

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COUNTY ENGINEER

JTC-PTC-01346-12624AC

Special 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: May 4, 2018

Grantor: MHI PARTNERSHIP LTD, a Texas limited partnership

Grantee: **ROBERT E. CHOATE** and **EMILY B. CHOATE**

Grantee's Mailing Address: 2111 Comal Springs, Canyon Lake, TX 78133

Consideration: Cash and other valuable consideration

Property (including any improvements):

**Lot 14, MOUNTAIN SPRINGS RANCH UNIT ONE, situated in Comal County, Texas, according to plat thereof recorded in Volume 14, Page(s) 343-348, Map and Plat Records of Comal County, Texas;**

Reservations from Conveyance: NONE.

Exceptions to Conveyance and Warranty: Any and all restrictions, covenants, conditions, reservations, mineral 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 when the claim is by, through or under Grantor but not otherwise, 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.



MHI PARTNERSHIP, LTD.  
(a Texas limited partnership)

RECEIVED

SEP 05 2018

By: MCGUYER HOMEBUILDERS, INC.  
(a Texas corporation)  
Its general partner

COUNTY ENGINEER

By: *[Signature]*  
MIKE T. MEYER  
TITLE: Agent and Attorney in Fact

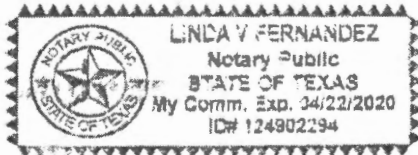
ACKNOWLEDGMENT

STATE OF TEXAS

§  
§  
§

COUNTY OF BEXAR

This instrument was acknowledged before me on the 4<sup>th</sup> day of May, 2018, by MIKE T. MEYER, Agent and Attorney in Fact, of MCGUYER HOMEBUILDERS, INC., a Texas corporation, general partner, on behalf of MHI, PARTNERSHIP LTD., a Texas limited partnership.



*[Signature]*  
Notary Public in and for the State of Texas

AFTER RECORDING RETURN TO:

EMILY B. CHOATE  
ROBERT E. CHOATE  
2111 Comal Springs  
Canyon Lake, TX 78133

PREPARED IN THE LAW OFFICES OF:

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