

Comal County Environmental Health

OSSF Inspection Sheet

Installer Name: _____

OSSF Installer #: _____

1st Inspection Date: _____

2nd Inspection Date: _____

3rd Inspection Date: _____

Inspector Name: _____

Inspector Name: _____

Inspector Name: _____

Permit#:

Address:

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
1	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials		285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)				
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards		285.91(10) 285.30(b)(4) 285.31(d)				
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)		285.32(a)(1)				
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot		285.32(a)(3)				
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)		285.32(a)(5)				
6	PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(B) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(A) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(ii)(I)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

Inspector Notes:

**Comal County Environmental Health
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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If Single Tank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1) (E) 285.91(2) 285.32(b)(1) (F) 285.32(b)(1)(E) (iii) 285.32(b)(1)(E)(ii) (II) 285.32(b)(1)(E)(ii) (I) 285.32(b)(1)(E) (i) 285.32(b)(1) (D) 285.32(b)(1)(C) (ii) 285.32(b)(1)(C) (i) 285.32(b)(1) (B) 285.32(b)(1) (A) 285.32(b)(1)(E)(iv)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used		285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
10	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
11	SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed						
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number						
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
18	DISPOSAL SYSTEM Evapo-transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

**Comal County Environmental Health
OSSF Inspection Sheet**

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

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
32	EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart		285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B)285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)				
33	AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines.		285.32(c)(1)				
34	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions						
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.						
36	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
37	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						
38	PUMP TANK Secondary restraint system provided						
39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried						

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
40	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?		285.33(d)(2)(G)(iii)(II) 285.33(d)(2)(G)(iii)(III) 285.33(d)(2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)				
41	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G) (i)285.33(d)(2) (A)285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



COMAL COUNTY

ENGINEER'S OFFICE

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

Permit Number: 118675
Issued This Date: 06/11/2025
This permit is hereby given to: Mark & Maria Chase

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

9102 PORTOFINO PLACE
GARDEN RIDGE, TX 78266

Subdivision: The Enclave of Garden Ridge
Unit: 2
Lot: 37
Block: 1
Acreage: 0.7700

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 May 20, 2025 Permit # 118675

Owner Name Mark Chase & Marra E Chase Agent Name _____
Mailing Address 22016 Las Cimas Dr Agent Address _____
City, State, Zip Garden Bridge, TX 78266 City, State, Zip _____
Phone # (210) 748-0769 Phone # _____
Email marchase1981@yahoo.com Email _____

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

Subdivision Name The Enclave of Garden Bridge Unit 2 Lot 37 Block 1
Acreage/Legal 0.77
Street Name/Address 9102 Portofino Pl City Garden Bridge Zip 78266

Type of Development:

☒ Single Family Residential
Type of Construction (House, Mobile, RV, Etc.) House
Number of Bedrooms 4
Indicate Sq Ft of Living Area 2350 sq ft

☐ Non-Single Family Residential
(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)
Type of Facility _____
Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____
Restaurants, Lounges, Theaters - Indicate Number of Seats _____
Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____
Travel Trailer/RV Parks - Indicate Number of Spaces _____
Miscellaneous _____

Estimated Cost of Construction: \$ Existing structure (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. 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 Mark Chase Date 05/25/2025

* * * **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 Kaeleigh Crandall

System Description aerobic w/ surface spray

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

Tank Size(s) (Gallons) 500 existing ATU Absorption/Application Area (Sq Ft) 4825 sq ft

Gallons Per Day (As Per TCEQ Table III) 300 gpd

(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: City of Garden Ridge

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.

Kaeleigh Crandall
Signature of Designer

5/21/25
Date



200906021214 06/19/2009 11:29:24 AM 101 RECEIVED

JUL 9 2009

COUNTY ENGINEER

AFFIDAVIT TO THE PUBLIC

THE COUNTY OF COMAL
STATE OF TEXAS

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

According to Texas Commission on Environmental Quality Rules for On-Site Sewage Facilities (OSSF's), this document is filed in the Deed Records of Comal County, Texas.

I

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (commission) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the commission primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The commission, under the authority of the TWC and the Texas Health and Safety code, requires owner's to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the commission requires a recorded affidavit. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This recorded affidavit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any guarantee by the commission that the appropriate OSSF was installed.

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):

The Enclave of Garden Ridge
Unit 2 Lot 37 Blk 1
9102 Portofino place

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

White Stone Custom Homes, Ltd.

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 19 DAY OF June, 2009

Bill J. Rivas
Owner(s) signature(s)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 19 DAY OF
June, 2009

Laurie A. Rivas
Notary Public, State of Texas

Notary's Printed Name: Laurie A. Rivas
My Commission Expires: 5-11-2010



Filed and Recorded
Official Public Records
Joy Streater, County Clerk
Comal County, Texas
06/19/2009 11:29:24 AM
CASHONE
200906021214



Joy Streater



1328 W Borgfeld Dr
San Antonio, TX 78260
info@mjseptic.com

Invoice 28952131
Invoice Date 11/12/2024
Customer PO
Payment Term Due Upon Receipt

Michael J. Long
Michael J. Long
TCEQ Maintenance Provider #0001294
Expiration Aug 31 2025

Billing Address

Chase, Mark & Maria
9102 Portofino Place
Garden Ridge, TX 78266 USA

Job Address

Chase, Mark & Maria
9102 Portofino Place
Garden Ridge, TX 78266 USA

Description of work

11/12/2024 - 11/11/2025

Description

1 Year Renewal, Residential Agreement

The Texas Commission on Environmental Quality (TCEQ) requires all ATU's to be checked and maintained every four months for the life of the unit (some permitting authorities may stipulate this requirement, after the first two years after installation; call your county to inquire). Upon expiration of this agreement, MJ Septic will offer a continuation of your maintenance agreement to cover labor and routine maintenance/reports. Lab testing, if required, for coliform, TSS, BOD etc. are NOT included in this policy and applicable fees are the owner's responsibility. MJ Septic will inspect and service your ATU once every 4 months for the duration of your agreement. For new installations, the effective date of this maintenance agreement shall be the date the LTO (license to operate) is issued, required by state guidelines dated June 13, 2001.

MJ Septic will address all major concerns/complaints (excluding weekends & holidays) within 72 hours from the initial point of contact with the property owner(s). Office hours are Monday - Friday 8am to 5pm

Payment Terms: This agreement must be paid in full before any services are rendered. A credit card will be required at time of booking any service for parts, repairs, cleaning/pumping, service calls, red lights, etc. unless otherwise specifically noted. MJ will not perform any repairs or pumping unless we have a credit card on file. MJ Septic no longer accepts payment onsite, whether it be a check or credit card, and we do not offer billing/invoicing for future payments; this is a strict office policy, no exceptions.

- **Inspections:** An inspection every four months (three times annually) which includes inspecting/servicing the mechanical, electrical, and other applicable components to ensure proper function. The annual fee does not include any parts, cleaning/pumping, chlorine/bleach (tablets or liquid), additional service calls or additional testing that may be required by any regulating authority. If for any reason, we are unable to obtain access to your property or system to perform a service check, you may be charged a \$75 service call for re-scheduling. It is very important that we always have full access to your system, including all gate codes, combination locks etc. to inspect your system.
- **Service Calls:** If a service call is required by the property owner/renter between regular inspections, a service call fee of \$75 (not including parts and/or cleaning/pumping) will be assessed. We may waive this fee or credit it towards the cost of a repair approved onsite at our discretion. These calls include but are not limited to the following: red light alarms, high water alarms,

Quantity	Price	Total
1.00	\$285.00	\$285.00

chlorinator checks, disconnected airlines, timer adjustments, spray head adjustments and system power failure.

Property owner(s) are not required to be present at inspections. Please note, customers will receive a notice 1-15 business days prior to your scheduled inspection. An additional notice may be sent the day of scheduled inspection when the technician is headed to your property. MJ Septic will assess a \$75 re inspection/missed inspection fee if we are not granted access to complete your inspection on the date assigned, aggressive dogs, overgrown vegetation, system inaccessible, etc. It is your responsibility to contact the office to update any information during the duration of your agreement.

Acceptance of Maintenance Agreement: Agreement price, terms and conditions are satisfactory and are hereby accepted. MJ Septic is authorized to enter property to perform routine maintenance inspections as agreed. I have read and agreed to the maintenance agreement guidelines stated above. MJ Septic reserves the right to make amendments to this document at any time and the property owner will be responsible for signing an updated version for office and county records.

The full terms and conditions of this agreement are located in the maintenance agreement attachment.

Paid On	Type	Memo	Amount	
11/12/2024	Visa	11/12/2024 - 11/11/2025	\$285.00	
			Sub-Total	\$285.00
			Tax	\$0.00
			Total Due	\$285.00
			Payment	\$285.00
			Balance Due	\$0.00

Thank you, we appreciate your business and look forward to serving you again soon!

This Maintenance Agreement Enrollment/Renewal has been paid in full by Chase, Mark & Maria.
This Maintenance Agreement is acknowledged by Chase, Mark & Maria, MJ Central Texas Septic, LLC, and the respective Permitting Authority. No signature is required and all terms within are agreed to by all parties and are accepted as written.
Note, any invoices with a "Balance Due" reflected are not valid for renewal/enrollment.

OSSF SITE EVALUATION FORM

Applicant/Site Information		Site Evaluator Information	
Name	Mark & Mary Chase	Name	KAELEIGH R. CRANDALL
Address		Address	5596 COUNTY ROAD 5710
City, State, Zip		City, State, Zip	DEVINE, TX 78016
Site location	9102 Portofina Place	TCEQ or PE License No.	PE 134570

Soil Boring/Backhoe Pit Number <u>1</u> Surface Elevation: _____ Proposed Depth Elevation: _____				
Depth (Feet)	Soil Texture	Texture Class (Ia, Ib, II, III, IV)	% Gravel (Required when Texture Class is II or III)	Observation Notes (Restrictive Horizon, Size of Gravel, Groundwater, Mottling, Fractured Rock, Recent Weather, etc.)
0	{ clay	IV	<30%	none
1				
2				
3				
4				
5				
6				

Soil Boring/Backhoe Pit Number: <u>2</u> Surface Elevation: _____ Proposed Depth Elevation: _____				
Depth (Feet)	Soil Texture	Texture Class (Ia, Ib, II, III, IV)	% Gravel (Required when Texture Class is II or III)	Observation Notes (Restrictive Horizon, Size of Gravel, Groundwater, Mottling, Fractured Rock, Recent Weather, etc.)
0	{ clay	IV	<30%	No testholes completed Soil eval is from previous permit
1				
2				
3				
4				
5				
6				

By my signature, I hereby certify that the information provided in this report is based on my site observations and are accurate to the best of my ability. I understand that any misrepresentation of the information contained in this report may be grounds to revoke or suspend my license. The site evaluation determined the site is suitable for a nonhazardous disposal system with secondary treatment. According to Table XIII, the site is suitable/not suitable for this proposed system. A copy of Tables IX and XIII have been given to the property owner to inform them of other alternatives based upon the results of this site evaluation.

Signature: Kaeleigh Crandall TCEQ or PE license #: 134570 Date: 5/20/25

SITE EVALUATION AND CALCULATIONS

Site Evaluation:

Soil Texture: Clay
Soil Structure: Blocky
Soil Depth: 0" to 12"
Restrictive Horizon: Rock horizon from 0" to 12" below surface
Groundwater: None encountered
Topography: Less 2% slope at spray areas

Determination: Site was determined to have a Class IV soil with no groundwater encountered. Due to the clay over the drainfield area an aerobic treatment unit followed by spray irrigation will be installed. The spray area will be controlled by a commercial irrigation timer.

Calculations:

System is designed for a 3 bedroom residence with a living area of <3500 sq. ft. Water saving devices are used throughout.

Q = 300 gpd

An existing 500 gallon aerobic treatment system shall be used installed. It has built in pre-treatment, and pump tank. The aerobic unit shall be followed by a spray irrigation system. (Reference the System Layout) Chlorinator is required for water entering pump tank compartment. Liquid type chlorination shall be used.

Ri = 0.064 gal. / sq. ft. / day, (For location in Comal County)

Required Area:

A = Q / Ri, A = (300 gal. / day) / (0.064 gal. / sq. ft. / day) = 4688 sq. ft.

calculations continued on next page....

Owner Mark & Maria Chase

Drawn by: Kaeleigh R. Crandall

Location Comal County, Texas

Drawing No. 100-10133



MANGOLD Engineering Company

5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400

FIRM NO. 5549

Date: 5/21/25

Scale: None

Sheet 1 of 6



SITE EVALUATION AND CALCULATIONS

Calculations:

Install 2 sprinklers. The sprinklers are low angle type, with nozzle and spray radii as shown on the System Layout. See System Layout for spray pattern.

Proposed total area = **4825 sq. ft.**

Overlap and masked area: **0 sq. ft.**

Actual covered area = 4825 sq. ft. (Covered area is greater than required area)

A 1" ball valve will be installed just downstream of the pump either inside of or outside of the pump tank compartment. The ball valve shall be used to adjust the spray radius(radii) of the sprinkler(s) to the value(s) shown on the System Layout. (Reference the attached data for pump curves and nozzle data.)

NOTES FOR INSTALLER (if applicable):

Do not connect water softener back-wash to septic system.

The TCEQ allows washing machine water to be discharged without treatment into a separate gray water system, unless the water contains human waste. Running this water out separate from the septic system can prolong the life of the system.

Areas where tanks and drainfields / spray areas are located shall be built-up or drained so that no ponding of water occurs in these areas.

The design application rate is 0.062 gallons / sq. ft. / day

Dosing cycle quantity is 300 gallons, average. Use a commercial irrigation timer.

The number of dosing cycles per day is one (1).

Owner Mark & Maria Chase

Drawn by: Kaeleigh R. Crandall

Location See sheet #1

Drawing No. 100-10133



MANGOLD Engineering Company

5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400

FIRM NO. 5549

Date: 5/21/25

Scale: None

Sheet 2 of 6



SITE EVALUATION AND CALCULATIONS

The design pressure at each sprinkler head is 30 to 40 psig.

The total length of supply pipe is as shown on the System Layout

Means of preventing siphoning is an anti-siphon valve.

Diameter of supply line is as shown on the System Layout.

Flow control valve is required downstream of the pump.

NOTES TO OWNER OF SYSTEM:

MAINTENANCE AND MANAGEMENT PRACTICES (if applicable):

An OSSF should not be treated as if it were a normal city sewer system.

The excessive use of in-sink garbage grinders and grease discarding should be avoided.

Do not use the toilet to dispose of cleaning tissues, cigarette butts, or other trash.

Septic tanks shall be cleaned before sludge accumulates to a point where it approaches the bottom of the outlet device, to prevent solids from exiting the tank with the liquid.

Septic tanks should be cleaned every two-to-three years to prevent excessive sludge buildup.

Do not build driveways, storage buildings, or other structures over the treatment works or its disposal field.

Chemical additives or the so-called enzymes are not necessary for the operation of a septic tank. Some of these additives may be harmful to the tank's operation.

continued next page.....

Owner Mark & Maria Chase

Drawn by: Kaeleigh R. Crandall

Location See sheet #1

Drawing No. 100-10133



MANGOLD Engineering Company

5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400

FIRM NO. 5549

Date: 5/21/25

Scale: None

Sheet 3 of 6



SITE EVALUATION AND CALCULATIONS

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.

It is not advisable to allow water softener back flush to enter into any portion of the OSSF.

Except for Aerobic systems, the liquid from the OSSF is still heavily laden with bacteria. Contact with this liquid should be avoided, if it surfaces.

WATER CONSERVATION MEASURES (if applicable):

Showers usually use less water than baths. Install a water saving shower head that uses less than 2 1/2 gallons per minute and saves both water and energy.

If you take a tub bath, reduce the level of water in the tub from the level to which you customarily fill it.

Leaky faucets and faulty toilet fill-up mechanisms should be repaired as quickly as possible.

Check toilets for leaks that may not be apparent. Add a few drops of food coloring to the tank. Do not flush. If the color appears in the bowl within a few minutes, the toilet fill or ball-cock valve needs to be adjusted to prevent water from overflowing the stand pipe, or the flapper at the bottom of the toilet tank needs to be replaced.

Reduce the amount of water used for flushing the toilet by installing one of the following: a new toilet (1.6 gallon); a toilet tank dam; or filling and capping one-quart plastic bottles with water (usually one is all that will fit in smaller toilet tanks) and lowering them into the tank of the existing 3.5 gallon or larger toilet. Do not use bricks since they may crumble and cause damage to the fixture.

continued next page.....

Owner Mark & Maria Chase

Drawn by: Kaeleigh R. Crandall

Location See sheet #1

Drawing No. 100-10133



MANGOLD Engineering Company

5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400

FIRM NO. 5549

Date: 5/21/25

Scale: None

Sheet 4 of 6



SITE EVALUATION AND CALCULATIONS

Try to run the dishwasher with a full load, whenever possible.

Avoid running the water continuously for brushing teeth, washing hands, rinsing kitchen utensils, or for cleaning vegetables.

Use faucet aerators that restrict flow to no more than 2.2 gallons per minute to reduce water consumption.

Keep a container of drinking water in the refrigerator instead of running the faucet until the water turns cool.

Insulate all hot water pipes to avoid long delays of wasted water while waiting for the heated water.

Ask your city, county, or local government about their programs to conserve water, and how they can help you save water.

Owner Mark & Maria Chase

Drawn by: Kaeleigh R. Crandall

Location See sheet #1

Drawing No. 100-10133



MANGOLD Engineering Company

5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400

FIRM NO. 5549

Date: 5/21/25

Scale: None

Sheet 5 of 6





MANGOLD Engineering Company

5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400
Firm No. F-5549

RECEIVED

By Brenda Ritzen at 2:59 pm, Jun 11, 2025

June 11, 2025

Comal county, TCEQ ID # 620049
195 David Jones Dr.
New Braunfels, Texas 78132

Subject: Septic system design for Mark & Maria Chase located 9102 Portofino Place
Comal Co, Texas. Reference Mangold Engineering Company Dwg. 100-10133.

Dear Sirs:

The subject septic drainfield is being modified due to improvements made. The setback requirement from a tight line to a sidewalk cannot be met. Secondly the setback requirement from the aerobic treatment unit to the tank of 5 feet cannot be met as shown on the system layout.

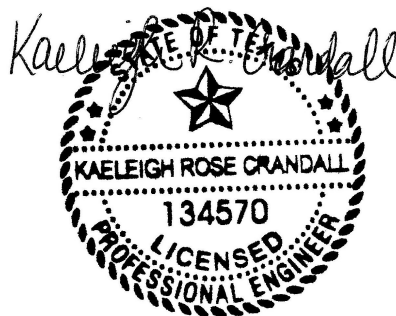
An aerobic system with secondary treatment is proposed as the system with a commercial irrigation timer. I believe that the septic system will operate adequately, and will not become a health hazard, or a public nuisance. I, therefore, respectfully request the following variance.

1. It is requested that a variance to be granted which would allow the 4" SCH40 from the house to the aerobic treatment unit remain the same under a sidewalk as shown on the subject engineering design.
 - There is adequate depth between the sewer line and the sidewalk to allow for minimal deflection for the SCH 40 PVC pipe. I believe, the pipe will operate adequately without damaging of the pipe.
2. It is requested that a variance to be granted which would allow the aerobic treatment unit from the side walk to remain the same with a separation distance of 2 & 3 feet as shown on the subject engineering design.
 - In my professional opinion there is adequate separation distance between the aerobic treatment unit and the sidewalk to not cause any damage to the aerobic treatment system.

Sincerely,

Kaeleigh R Crandall

Kaeleigh R. Crandall P.E.



MANGOLD ENGINEERING COMPANY WILL NOT BE RESPONSIBLE FOR THE CONSEQUENCES OF THE USE OF ANY PART OF THE ENGINEERING OF THIS SEPTIC SYSTEM BEFORE THE ENGINEERING HAS BEEN COMPLETELY AND FINALLY APPROVED BY THE APPROPRIATE COUNTY AUTHORITY IN THE COUNTY FOR WHICH IT IS INTENDED. IF TEST HOLES WERE NOT PRESENT DURING THE SITE-EVALUATION, THE OWNER/INSTALLER SHALL BE RESPONSIBLE FOR DIGGING TEST HOLES AND CONTACTING MANGOLD ENGINEERING COMPANY PRIOR TO ANY USE OF THIS ENGINEERING DESIGN.

ALL SPRINKLERS ARE K-RAIN
TYPE W/ LOW ANGLE NOZZLES

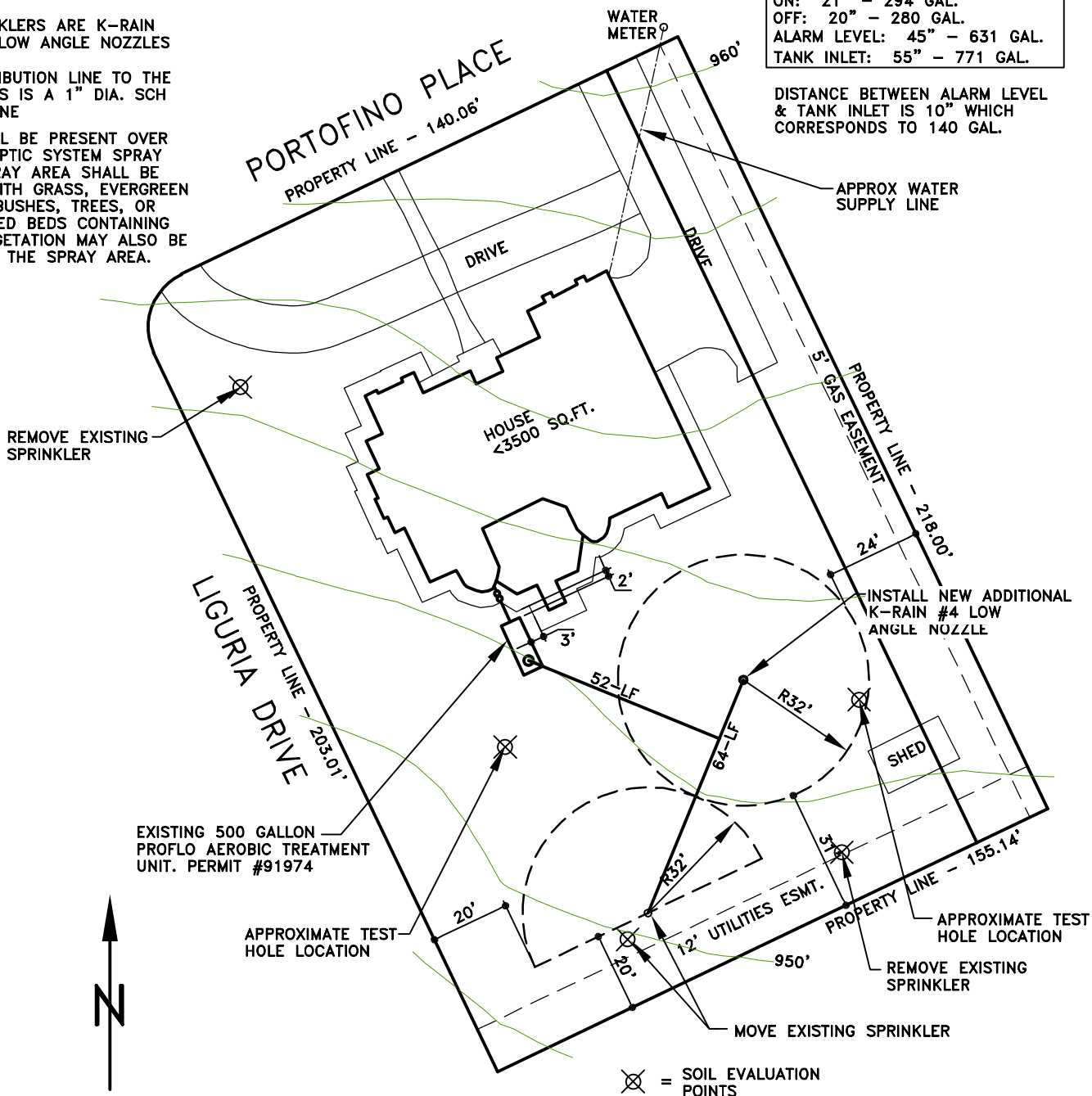
THE DISTRIBUTION LINE TO THE
SPRINKLERS IS A 1" DIA. SCH
40 PVC LINE

SOIL SHALL BE PRESENT OVER
ENTIRE SEPTIC SYSTEM SPRAY
AREA. SPRAY AREA SHALL BE
SEEDED WITH GRASS, EVERGREEN
SHRUBS, BUSHES, TREES, OR
LANDSCAPED BEDS CONTAINING
MIXED VEGETATION MAY ALSO BE
ADDED TO THE SPRAY AREA.

FLOAT SETTINGS & DISTANCES
ABOVE THE INSIDE BOTTOM OF
THE PUMP COMPT. ARE AS FOLLOWS:

ON: 21" - 294 GAL.
OFF: 20" - 280 GAL.
ALARM LEVEL: 45" - 631 GAL.
TANK INLET: 55" - 771 GAL.

DISTANCE BETWEEN ALARM LEVEL
& TANK INLET IS 10" WHICH
CORRESPONDS TO 140 GAL.



SYSTEM LAYOUT *

Scale: 1" = 40'

THE ENTIRE PROPERTY IS LOCATED
OUTSIDE OF THE FEMA DESIGNATED
100 YEAR FLOOD PLAIN

WHERE A WATER LINE IS CLOSER THAN 10' TO A
WASTEWATER MAIN, THE WATER LINE SHALL BE
CASED INSIDE OF A SCH 40 PVC PIPE SUCH
THAT THE ENDS OF THE CASING ARE AT LEAST
10' AWAY FROM THE WASTEWATER MAIN. IN
ADDITION, IF THE LINES CROSS, THE WATER
LINE SHALL BE AT LEAST 6" ABOVE THE
WASTEWATER MAIN.

- * Septic tank must be a minimum of 50' from any water well. Closest distance from any part of spray area to water well must be 100' minimum, unless well is pressure cemented. Minimum setback of spray area from property lines is 10'. Minimum separation distance between septic tank or spray area and water supply lines is 10'. Setback of spray area from lakes, streams, ponds, and rivers is 50' minimum.

NOTES:

SLOPE OF INFLOW LINE TO TANK IS 1/8 INCH PER FOOT RUN. PIPE IS 4" DIA. SCH 40 PVC.

PRE-TREATMENT TANK IS BUILT ONTO THE
AEROBIC TREATMENT UNIT. NO ADDITIONAL
TRASH TANK IS REQUIRED IN THIS SYSTEM.

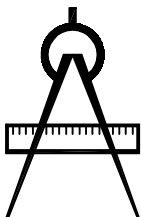
SYSTEM WILL BE INSPECTED BY COUNTY
INSPECTOR IN ACCORDANCE WITH CURRENT
COUNTY INSPECTION PROCEDURES.

Owner Mark & Maria Chase

Drawn by: Kaeleigh R. Crandall

Location 9102 Portofino Place

Drawing No. 100-10133A



MANGOLD Engineering Company

5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400

FIRM NO. 5549

Date: 6/11/25

Scale: Noted

Sheet 6 of 6



National Flood Hazard Layer FIRMMette



98°18'39"W 29°38'46"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		8 Coastal Transect
		513 Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

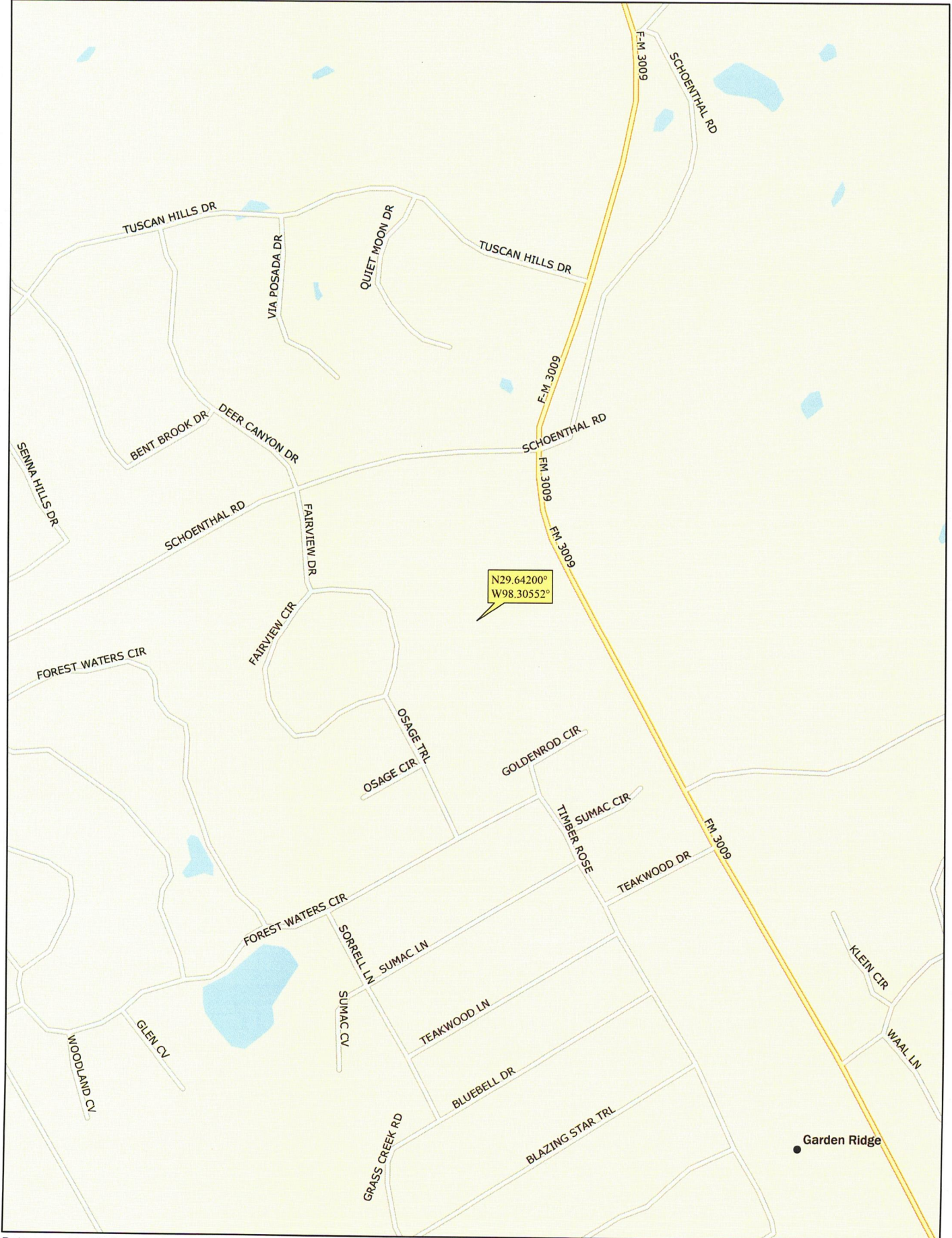


The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **5/21/2025 at 4:33 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

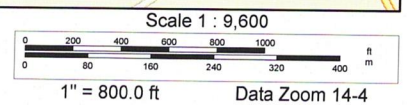
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Data use subject to license.

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www.delorme.com



ProPlus™ Gear Driven Sprinkler Setting Instructions

SPRINKLER INSTALLATION

1► INSTALL AND BURY

Do not use pipe dope. Thread the sprinkler on the pipe. Bury the sprinkler flush to grade. **NOTE:** Gear driven sprinklers and pop-up sprays should not be installed on the same watering zone.

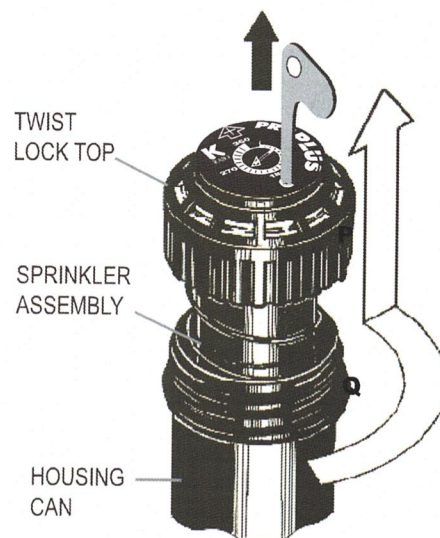
2► INSPECTING THE FILTER

Unscrew the top and lift the complete sprinkler assembly out of the housing can. The filter is located on the bottom of the sprinkler assembly and can be easily pulled out, cleaned and re-installed.

3► WINTERIZATION TIPS

When using an air compressor to remove water from the system please note the following:

- Do not exceed 30 PSI.
- Always introduce air into the system gradually to avoid air pressure surges. Sudden release of compressed air into the sprinkler can cause damage.
- Each zone should run no longer than 1 minute on air. Sprinklers turn 10 to 12 time faster on air than on water. Over spinning rotors on air can cause damage to the internal components.



PERFORMANCE DATA

NOZZLE	PRESSURE			RADIUS		FLOW RATE			PRECIP in/hr / mm/hr			
	PSI	kPa	Bars	Ft.	M.	GPM	L/M	M ³ /H	■	▲	■	▲
#0.5	30	207	2.1	28	8.5	0.5	1.9	0.11	0.12	0.14	3	4
	40	276	2.8	29	8.8	0.6	2.3	0.14	0.14	0.16	3	4
	50	345	3.5	29	8.8	0.7	2.7	0.16	0.16	0.19	4	5
	60	414	4.1	30	9.1	0.8	3.0	0.18	0.17	0.20	4	5
#0.75	30	207	2.1	29	8.8	0.7	2.7	0.16	0.16	0.19	4	5
	40	275	2.8	30	9.1	0.8	3.0	0.18	0.17	0.20	4	5
	50	344	3.4	31	9.4	0.9	3.4	0.20	0.18	0.21	5	5
	60	413	4.1	32	9.8	1.0	3.8	0.23	0.19	0.22	5	6
#1.0	30	207	2.1	32	9.8	1.3	4.9	0.30	0.24	0.28	6	7
	40	275	2.8	33	10.1	1.5	5.7	0.34	0.27	0.31	7	8
	50	344	3.4	34	10.4	1.6	6.1	0.36	0.27	0.31	7	8
	60	413	4.1	35	10.7	1.8	6.8	0.41	0.28	0.33	7	8
#2.0	30	207	2.1	37	11.3	2.4	9.1	0.55	0.34	0.39	9	10
	40	275	2.8	40	12.2	2.5	9.5	0.57	0.30	0.35	8	9
	50	344	3.4	42	12.8	3.0	11.4	0.68	0.33	0.38	8	10
	60	413	4.1	43	13.1	3.3	11.4	0.68	0.34	0.36	8	9
2.5 Pre- installed	30	207	2.1	38	11.6	2.5	9.5	0.57	0.33	0.38	8	10
	40	275	2.8	39	11.9	2.8	10.6	0.64	0.35	0.41	9	10
	50	344	3.4	40	12.2	3.2	12.1	0.73	0.39	0.44	10	11
	60	413	4.1	41	12.5	3.5	13.3	0.80	0.40	0.46	10	12
#3.0	30	207	2.1	38	11.6	3.6	13.6	0.82	0.48	0.55	12	14
	40	275	2.8	39	11.9	4.2	15.9	0.96	0.53	0.61	14	16
	50	344	3.4	41	12.5	4.6	17.4	1.05	0.53	0.61	13	15
	60	413	4.1	42	12.8	5.0	19.0	1.14	0.55	0.63	14	16
#4.0	30	207	2.1	43	13.1	4.4	16.7	1.00	0.46	0.53	12	13
	40	275	2.8	44	13.4	5.1	19.3	1.16	0.51	0.59	13	15
	50	344	3.4	46	14.0	5.6	21.2	1.27	0.51	0.59	13	15
	60	413	4.1	49	14.9	5.9	22.4	1.34	0.47	0.55	12	14
#6.0	40	276	2.8	45	13.7	5.9	22.4	1.34	0.56	0.65	14	16
	50	344	3.4	46	14.0	6.0	22.7	1.36	0.55	0.63	14	16
	60	413	4.1	48	14.6	6.3	23.9	1.43	0.53	0.61	13	15
	70	482	4.8	49	14.9	6.7	25.4	1.52	0.54	0.62	14	16
#8.0	40	276	2.8	42	12.8	8.0	30.3	1.82	0.87	1.01	22	26
	50	344	3.4	45	13.7	8.5	32.2	1.93	0.81	0.93	21	24
	60	413	4.1	49	14.9	9.5	36.0	2.16	0.76	0.88	19	22
	70	482	4.8	50	15.2	10.0	37.9	2.27	0.77	0.89	20	23

LOW ANGLE PERFORMANCE DATA

NOZZLE	PRESSURE			RADIUS		FLOW RATE			PRECIP in/hr / mm/hr			
	PSI	kPa	Bars	Ft.	M.	GPM	L/M	M ³ /H	■	▲	■	▲
#1.0	30	207	2.1	22	6.7	1.2	4.5	.27	0.48	0.55	12	14
	40	276	2.8	24	7.3	1.7	6.4	.39	0.57	0.66	14	17
	50	345	3.4	26	7.9	1.8	6.8	.41	0.51	0.59	13	15
	60	414	4.1	28	8.5	2.0	7.6	.45	0.49	0.57	12	14
#3.0	30	207	2.1	29	8.8	3.0	11.4	.68	0.69	0.79	17	20
	40	276	2.8	32	9.8	3.1	11.7	.70	0.58	0.67	15	17
	50	345	3.4	35	10.7	3.5	13.2	.80	0.55	0.64	14	16
	60	414	4.1	37	11.3	3.8	14.4	.86	0.53	0.62	14	16
#4.0	30	207	2.1	31	9.4	3.4	12.9	.77	0.68	0.79	17	20
	40	276	2.8	34	10.4	3.9	14.8	.89	0.65	0.75	17	19
	50	345	3.4	37	11.3	4.4	16.7	1.00	0.62	0.71	16	18
	60	414	4.1	38	11.6	4.7	17.8	1.07	0.63	0.72	16	18
#6.0	40	275	2.8	38	11.6	6.5	24.6	1.48	0.87	1.00	22	25
	50	344	3.4	40	12.2	7.3	27.7	1.66	0.88	1.01	22	26
	60	413	4.1	42	12.8	8.0	30.3	1.82	0.87	1.01	22	26
	70	482	4.8	44	13.4	8.6	32.6	1.96	0.86	0.99	22	25

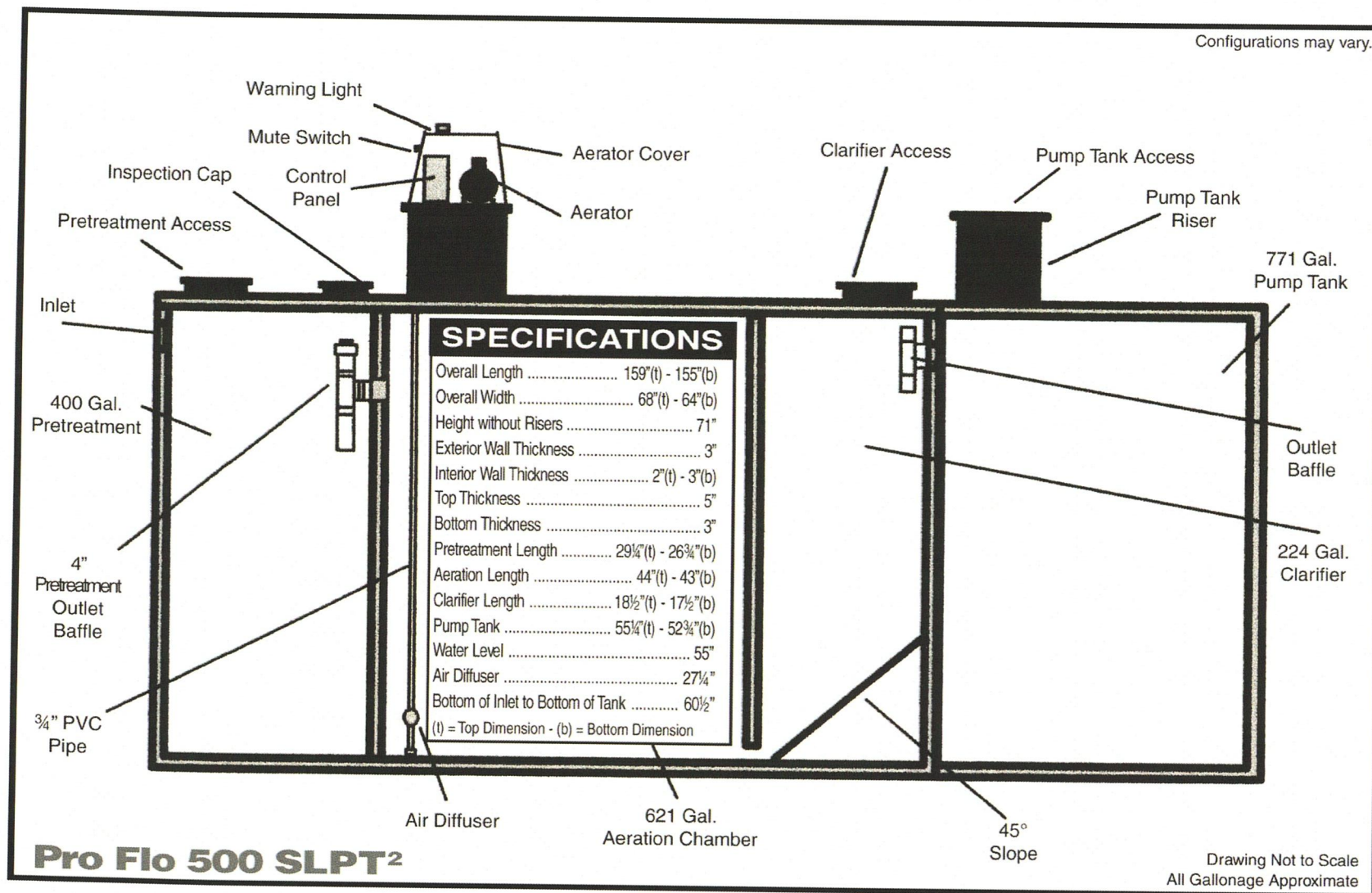
*All precipitation rates calculated for 180° operation.
For the precipitation rate for a 360° sprinkler, divide by 2.



K-RAIN MANUFACTURING CORP.
1640 Australian Avenue
Riviera Beach, FL 33404 USA
PH: 561.844.1002 / 1.800.735.7246
FAX: 561.842.9493
www.krain.com

© K-RAIN Manufacturing Corp.
Part Number: 1100519 Rev. 01

Pro Flo 500 SLPT² System Diagram

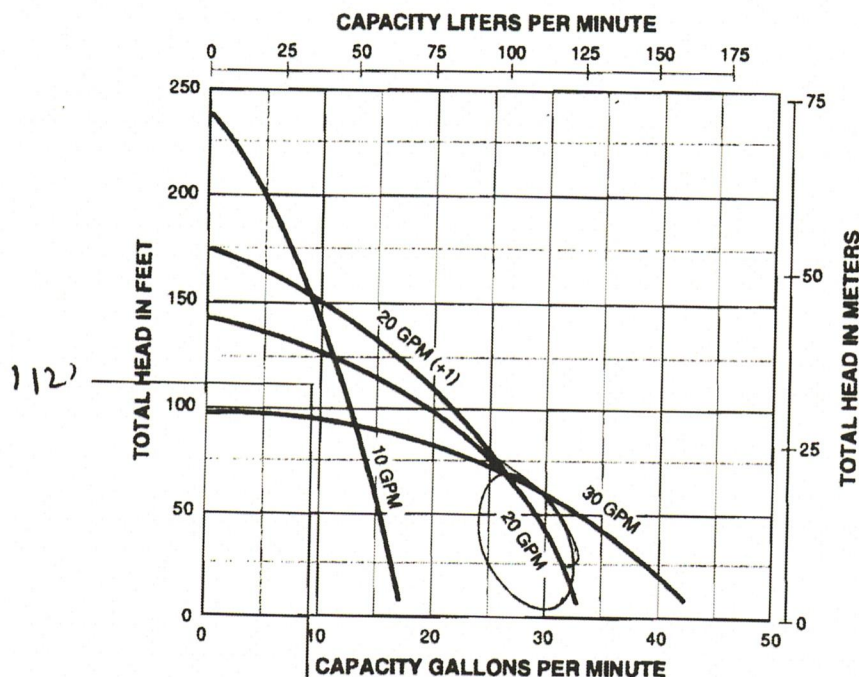




91974

4" multi-stage submersible pump

PUMP PERFORMANCE



RECEIVED

JUL 6 7 2009

COUNTY ENGINEER

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				

ProPlus™ Gear Driven Sprinkler Setting Instructions

NOTE: The *ProPlus* is factory preset with a 90° arc setting, and includes a pre-installed #2.5 nozzle.

CHANGING A NOZZLE

1► REMOVING THE NOZZLE RETENTION SCREW

Use your K-Key or a small flat blade screwdriver to remove the nozzle retention screw by turning counter-clockwise to remove and clockwise to re-install.

2► PULL UP THE RISER

Insert the k-Key in the keyhole on the top of the nozzle turret and turn the key 1/4 turn to insure that the key does not slip out of the keyhole when you pull it up. Firmly pull up the entire spring-loaded riser to access the nozzle socket. Hold the riser assembly with one hand.

3► REMOVING 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, turn the key 1/4 turn to “hook” the nozzle and pull the nozzle out.

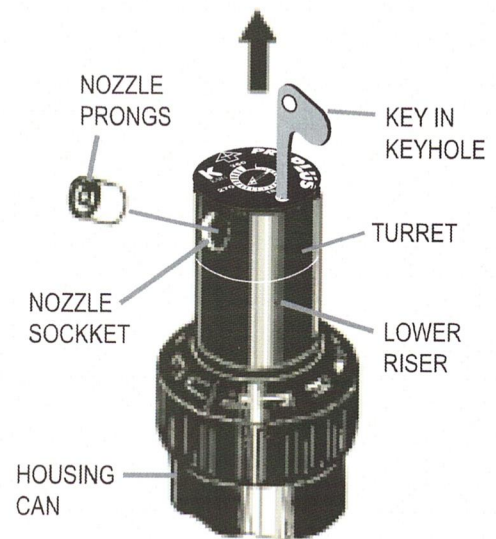
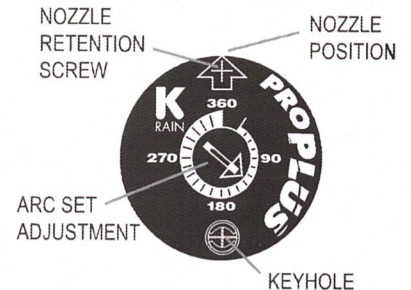
4► INSTALLING A NOZZLE

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 used to adjust the distance of the spray.

K-KEY



TURRET TOP



SETTING THE ARC ADJUSTMENT

1► FINDING THE LEFT START POSITION

Place your finger on the top center of the nozzle turret. Rotate the turret to the right until it stops and then back to the left until it stops. Notice the position of the nozzle arrow. This is the “Left Start” position. The sprinkler will begin spraying from this position and rotate clockwise until it reaches the right Adjustable Stop-Return Point.

2► ORIENTING THE LEFT START POSITION

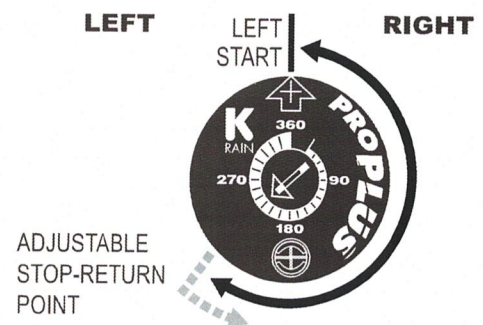
Insert the K-Key in the keyhole on the top of the nozzle turret and turn the key 1/4 turn to insure that the key does not slip out of the keyhole when you pull it up. Being careful not to allow the nozzle turret to turn, firmly pull up the entire spring-loaded riser. Hold the lower riser assembly up with one hand. Now turn only the lower riser clockwise or counter-clockwise until the nozzle arrow is pointing where you want the sprinkler to begin spraying.

3► CHANGING THE ARC

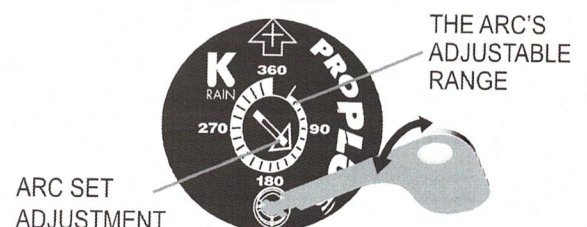
Insert the K-Key or a small flat blade screwdriver into the Arc Set Adjustment slot. Turn clockwise to increase the arc or counter-clockwise to decrease the arc.

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

LEFT



ARC SELECTION
40° – 360°



Comal AD Property Search

Property Details

Account		
Property ID:	146543	Geographic ID: 160280003700
Type:	R	Zoning: R
Property Use:		
Location		
Situs Address:	9102 PORTOFINO PLACE SAN ANTONIO, TX 78266	
Map ID:	7G	Mapsco:
Legal Description:	ENCLAVE OF GARDEN RIDGE (THE) 2, BLOCK 1, LOT 37	
Abstract/Subdivision:	160280-2	
Neighborhood:	(486E501) ENCLAVE OF GARDEN RIDGE	
Owner		
Owner ID:	903125	
Name:	CHASE MARK & MARIA	
Agent:		
Mailing Address:	22016 LAS CIMAS DRIVE GARDEN RIDGE, TX 78266-2007	
% Ownership:	100.0%	
Exemptions:	DV4 - For privacy reasons not all exemptions are shown online.	

Property Values

Improvement Homesite Value:	\$0 (+)
Improvement Non-Homesite Value:	\$469,570 (+)
Land Homesite Value:	\$0 (+)
Land Non-Homesite Value:	\$137,960 (+)
Agricultural Market Valuation:	\$0 (+)
Market Value:	\$607,530 (=)
Agricultural Value Loss:?	\$0 (-)

HS Cap Loss: ⓘ	\$0 (-)
Circuit Breaker: ⓘ	\$0 (-)
Appraised Value: ⓘ	\$607,530
Ag Use Value:	\$0
<p>Information provided for research purposes only. Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.</p>	

Property Taxing Jurisdiction

Owner: CHASE MARK & MARIA **%Ownership:** 100.0%

Entity	Description	Market Value	Taxable Value	Estimated Tax
046	COMAL COUNTY	\$607,530	\$595,530	\$1,350.16
046LR	COMAL COUNTY LATERAL ROAD	\$607,530	\$595,530	\$223.41
CGR	CITY OF GARDEN RIDGE	\$607,530	\$595,530	\$1,519.53
ES6	(ESD6) COMAL COUNTY EMERGENCY SERVICES DISTRICT NO. 6	\$607,530	\$595,530	\$513.04
SCIS	COMAL ISD	\$607,530	\$595,530	\$6,472.82

**CCEO
COPY**



Comal County

OFFICE OF COMAL COUNTY ENGINEER

License to Operate On-site Sewage Treatment and Disposal Facility

Date Issued: 3/18/2010

Permit Number: 91974

Location Description: 9102 Portofino Place, Garden Ridge, TX 78266
Lot 37, Block 1, The Enclave of Garden Ridge U2 Subdivision

Type of System: Aerobic Treatment with Surface Irrigation Discharge

License issued to: Whitestone Custom Homes, 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 Natural Resource Conservation Commission.

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

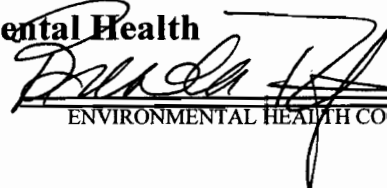
Inspection and licensing of a facility indicates only that the facility meets certain minimum requirements. It does not impede any governmental entity in taking the proper steps to prevent or control pollution, to abate nuisance, or to protect the public health.

This license to operate is valid for an indefinite period. 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


OS0023773
ENVIRONMENTAL HEALTH INSPECTOR


ENVIRONMENTAL HEALTH COORDINATOR

**CCEO
COPY**

REVISED

91974

9102 PORTOFINO PLACE

-PROPOSED WATER
LINE LOCATION.

TO: SANDRA H.
FROM: JESSE G.

PAGE DESIGN REVISION

2-WAY
RECEIVED

MAR 11 2010

COUNTY ENGINEER

4/30/09

⊗ Denotes soil sample locations.

Scale: 1" = 30' feet.

P.E. FIRM # F1715

From: [Ritzen,Brenda](#)
To: ["marchase1981@yahoo.com"](mailto:marchase1981@yahoo.com)
Subject: Permit 118675
Date: Thursday, June 5, 2025 2:22:00 PM
Attachments: [image001.png](#)

Re: Mark Chase & Maria E. Chase
The Enclave of Garden Ridge Unit 2 Lot 37 Block 1
Application for Permit for Authorization to Construct an On-Site
Sewage Facility (OSSF)

Owner / Agent :

The following information is needed before final installation inspection:

- ✗ Request for variance to the 20 ft. setback from the property lines to the spray areas does not provide necessary equivalent protection. Similar variances have been approved with the addition of a battery back up to the timer to ensure the system will only spray between the hours of midnight to 5 a.m.**
- ✓ Show the location of the existing supply line with clean out and identify the separation distances from the house to the ATU and between system components.**
- ✓ Show test hole locations on the design.**
- 4. Revise as needed and resubmit.**

Thank you,



Brenda Ritzen
Environmental Health Coordinator
195 David Jonas Dr.
New Braunfels, TX 78132
DR:OS00007722
830-608-2090
www.cceo.org



MANGOLD Engineering Company

5596 CR 5710

Devine, TX 78016

Phone: (830) 931-0400

Firm Fax: (830) 931-0401

VOID

May 22, 2024

Comal county, TCEQ ID # 620049
195 David Jones Dr.
New Braunfels, Texas 78132

Subject: Septic system design for Mark & Maria Chase located 9102 Portofino Place
Comal Co, Texas. Reference Mangold Engineering Company Dwg. 100-10133.

Dear Sirs:

The subject septic drainfield is being modified due to improvements made. The Comal County requirement of a 20' setback from a property line to an aerobic system spray field cannot be met to the existing edge of sprary. The TCEQ requirement of 10' setback from a property line to an aerobic system spray field can be met as shown on the System Layout.

An aerobic system with secondary treatment is proposed as the system with a commercial irrigation timer. I believe that the septic system will operate adequately, and will not become a health hazard, or a public nuisance. I, therefore, respectfully request the following variance.

1. It is requested that a variance to be gould allow the septic system spray field to be located 12' & 16' from the p shown on the subject engineering design.

VOID

Sincerely,

Kaeleigh R. Crandall

Kaeleigh R. Crandall P.E.



MANGOLD ENGINEERING COMPANY WILL NOT BE RESPONSIBLE FOR THE CONSEQUENCES OF THE USE OF ANY PART OF THE ENGINEERING OF THIS SEPTIC SYSTEM BEFORE THE ENGINEERING HAS BEEN COMPLETELY AND FINALLY APPROVED BY THE APPROPRIATE COUNTY AUTHORITY IN THE COUNTY FOR WHICH IT IS INTENDED. IF TEST HOLES WERE NOT PRESENT DURING THE SITE-EVALUATION, THE OWNER/INSTALLER SHALL BE RESPONSIBLE FOR THE USE OF THE ENGINEERING DESIGN. CONTACTING MANGOLD ENGINEERING COMPANY PRIOR TO ANY

VOID

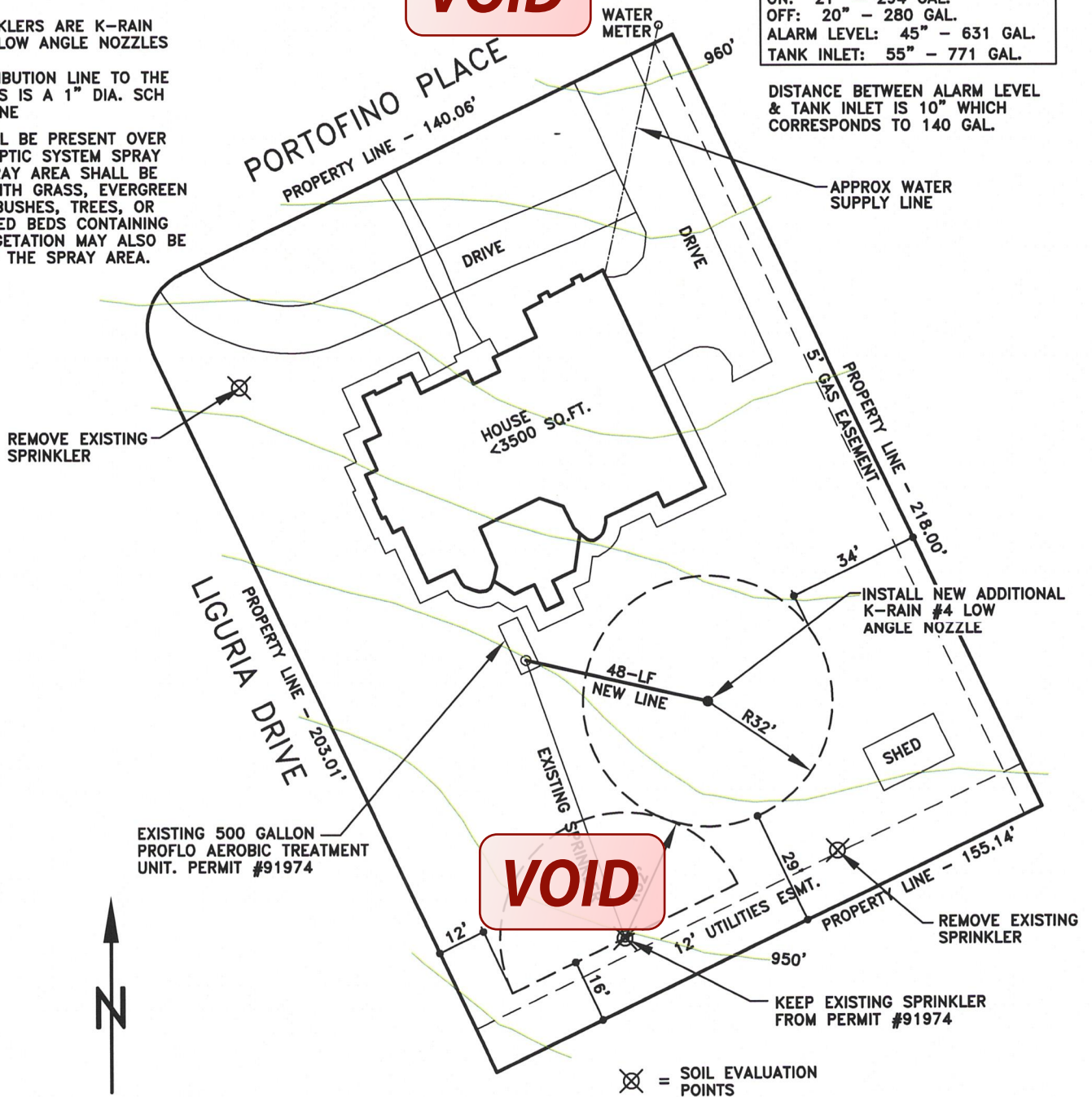
ALL SPRINKLERS ARE K-RAIN
TYPE W/ LOW ANGLE NOZZLES

THE DISTRIBUTION LINE TO THE
SPRINKLERS IS A 1" DIA. SCH
40 PVC LINE

SOIL SHALL BE PRESENT OVER
ENTIRE SEPTIC SYSTEM SPRAY
AREA. SPRAY AREA SHALL BE
SEEDED WITH GRASS, EVERGREEN
SHRUBS, BUSHES, TREES, OR
LANDSCAPED BEDS CONTAINING
MIXED VEGETATION MAY ALSO BE
ADDED TO THE SPRAY AREA.

FLOAT SETTINGS & DISTANCES
ABOVE THE INSIDE BOTTOM OF
THE PUMP COMPT. ARE AS FOLLOWS:
ON: 21" - 294 GAL.
OFF: 20" - 280 GAL.
ALARM LEVEL: 45" - 631 GAL.
TANK INLET: 55" - 771 GAL.

DISTANCE BETWEEN ALARM LEVEL
& TANK INLET IS 10" WHICH
CORRESPONDS TO 140 GAL.



SYSTEM LAYOUT *
Scale: 1" = 40'

THE ENTIRE PROPERTY IS LOCATED
OUTSIDE OF THE FEMA DESIGNATED
100 YEAR FLOOD PLAIN

- * Septic tank must be a minimum of 50' from any water well. Closest distance from any part of spray area to water well must be 100' minimum, unless well is pressure cemented. Minimum setback of spray area from property lines is 10'. Minimum separation distance between septic tank or spray area and water supply lines is 10'. Setback of spray area from lakes, streams, ponds, and rivers is 50' minimum.

NOTES:

- SLOPE OF INFLOW LINE TO TANK IS 1/8 INCH PER FOOT RUN. PIPE IS 4" DIA. SCH 40 PVC.
- PRE-TREATMENT TANK IS BUILT ONTO THE AEROBIC TREATMENT UNIT. NO ADDITIONAL TRASH TANK IS REQUIRED IN THIS SYSTEM.
- SYSTEM WILL BE INSPECTED BY COUNTY INSPECTOR IN ACCORDANCE WITH CURRENT COUNTY INSPECTION PROCEDURES.

Owner Mark & Maria Chase

Drawn by: Kaeleigh R. Crandall

Location 9102 Portofino Place

Drawing No. 100-10133



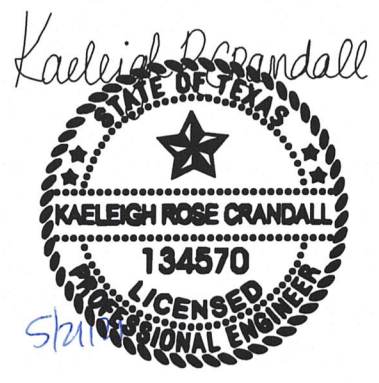
MANGOLD Engineering Company
5596 CR 5710
Devine, TX 78016
Phone: (830) 931-0400

FIRM NO. 5549

Date: 5/21/25

Scale: Noted

Sheet 6 of 6



SG-57856-MTM



201006009437 03/26/2010 09:44:44 AM 1/2

GENERAL WARRANTY DEED WITH VENDOR'S LIEN IN FAVOR OF THIRD PARTY

NOTICE OF CONFIDENTIALITY: 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.

THE STATE OF TEXAS §
COUNTY OF COMAL § KNOW ALL MEN BY THESE PRESENTS:
§

2/4 THAT WHITESTONE CUSTOM HOMES, LTD.

(hereinafter called "GRANTORS" whether one or more), for and in consideration of the sum of TEN DOLLARS (\$10.00) and other good and valuable considerations cash in hand paid by MARK CHASE and MARIA CHASE, HUSBAND AND WIFE

whose address is 94-020 HOKUPALEMO PL., MILILANI, HI 96789

(hereinafter called "GRANTEES" whether one or more), the receipt and sufficiency of which are hereby acknowledged and confessed, and the further consideration of the advancement and payment in cash of all or part of the purchase price hereof by Beneficiary at the special instance and request of Grantee under that certain note in the principal sum of Three Hundred Thirty Two Thousand Fifty And No/100ths (\$ 332,050.00) payable to the order of SWBC MORTGAGE CORPORATION (hereinafter referred to as "BENEFICIARY") of even date herewith, said note bearing interest at the rate therein provided, principal and interest being due and payable in monthly installments as therein set out, and providing for attorney's fees and acceleration of maturity at the rate and in the events therein set forth, which note is secured by the Vendor's Lien herein reserved and is additionally secured by a Deed of Trust of even date herewith, executed by the Grantees herein to EDWARD KERSHNER,

Trustee, reference to which is here made for all purposes; and in consideration of the payment of the sum above mentioned by the Beneficiary above mentioned, Grantors hereby transfer, set over, assign and convey unto said Beneficiary and assigns, the Vendor's Lien and Superior Title herein retained and reserved against the property and premises herein conveyed, in the same manner and to the same extent as if said note had been executed in Grantors' favor and by said Grantors assigned to the Beneficiary without recourse; have GRANTED, SOLD and CONVEYED, and by these presents do GRANT, SELL and CONVEY unto the said Grantees herein, the following described property, together with all improvements thereon, to-wit:

LOT 37, BLOCK 1, THE ENCLAVE OF GARDEN RIDGE, UNIT-2, SITUATED IN THE CITY OF GARDEN RIDGE, COMAL COUNTY, TEXAS, ACCORDING TO PLAT THEREOF RECORDED UNDER DOCUMENT NO. 200706002877 AND AMENDED UNDER DOCUMENT NO. 200706017754. PLAT RECORDS OF COMAL COUNTY, TEXAS.

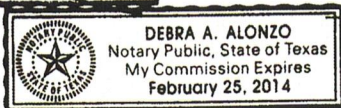
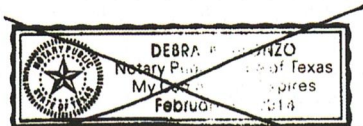
TO HAVE AND TO HOLD the above described premises, together with, all and singular, the rights and appurtenances thereto in any wise belonging, unto the said Grantees, their heirs and assigns forever. And Grantors do hereby bind themselves, their heirs, executors and administrators, to warrant and forever defend all and singular, the said premises unto the said Grantees, their heirs and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof. Taxes for the

current year have been prorated and are assumed by Grantee. This conveyance is made and accepted subject to any and all validly existing restrictions, mineral reservations and interests, conditions, covenants, easements, and rights of way, if any, applicable to and enforceable against the above described property as now reflected by the records of the County Clerk in said County and State and to any applicable zoning laws or ordinances.

But it is expressly agreed and stipulated that the Vendor's Lien and the Superior Title are retained and reserved in favor of the payee in said note against the above described property, premises and improvements, until said note, and all interest thereon is fully paid according to the face and tenor, effect and reading thereof, when this deed shall become absolute.

When this deed is executed by one person, or when the Grantee is one person, the instrument shall read as though pertinent verbs and pronouns were changed to correspond, and when executed by or to a corporation the words "heirs, executors and administrators" or "heirs and assigns" shall be construed to mean "Successors and assigns".

Dated this the 12th day of March, 2010



WHITESTONE CUSTOM HOMES, LTD.

By:

Tim Rice
Manager

THE STATE OF TEXAS
COUNTY OF Bexar

This instrument was acknowledged before me on March 12th, 2010, by Tim Rice, Manager,
Whitestone Custom Homes, Ltd.

Notary Public, State of Texas

THE STATE OF

COUNTY OF

Filed and Recorded
Official Public Records
Joy Streater, County Clerk
Comal County, Texas
03/26/2010 09:44:44 AM
KATHY
201006009437

This instrument was acknowledged to

on behalf of said corporation.



Joy Streater

RETURN TO:
MARK CHASE
94-020 HOKUPALEMO PL.
MILILANI, HI 96789

Notary Public, State of



COMAL COUNTY

ENGINEER'S OFFICE

OSSF DEVELOPMENT APPLICATION CHECKLIST

Staff will complete shaded items

		11867
Date Received	Initials	Permit Number

Instructions:

Place a check mark next to all items that apply. For items that do not apply, place "N/A". This OSSF Development Application Checklist **must** accompany the completed application.

OSSF Permit

- ☒ Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate
- ☒ Site/Soil Evaluation Completed by a Certified Site Evaluator or a Professional Engineer
- ☒ Planning Materials of the OSSF as Required by the TCEQ Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications.
- ☒ Required Permit Fee - See Attached Fee Schedule
- ☒ Copy of Recorded Deed
- ☒ Surface Application/Aerobic Treatment System
 - ☒ Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public
 - ☒ Signed Maintenance Contract with Effective Date as Issuance of License to Operate

I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application.

W. Griffin / Maria Elena Chae
Signature of Applicant

05/25/2025
Date

___ COMPLETE APPLICATION	
Check No. _____	Receipt No. _____

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