

Comal County Environmental Health

OSSF Inspection Sheet

Installer Name: _____

OSSF Installer #: _____

1st Inspection Date: _____

2nd Inspection Date: _____

3rd Inspection Date: _____

Inspector Name: _____

Inspector Name: _____

Inspector Name: _____

Permit#:

Address:

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

Inspector Notes:

**Comal County Environmental Health
OSSF Inspection Sheet**

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

**Comal County Environmental Health
OSSF Inspection Sheet**

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

**Comal County Environmental Health
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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: 116772
Issued This Date: 05/09/2024
This permit is hereby given to: Nicole Hamilton

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

2615 LIONS DEN
NEW BRAUNFELS, TX 78132

Subdivision: Havenwood at Hunters Crossing
Unit: 1
Lot: 94
Block: NA
Acreage: 1.0300

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.

RECEIVED

By Kathy Griffin at 3:12 pm, Oct 09, 2023



COMAL COUNTY
ENGINEER'S OFFICE

**OSSF DEVELOPMENT APPLICATION
CHECKLIST**

Staff will complete shaded items

Date Received	Initials

114133 116772
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.

N. Hamib
Signature of Applicant

11/9/22
Date

___ COMPLETE APPLICATION	
Check No. _____	Receipt No. _____

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

RECEIVED

By Brandon Olvera at 8:53 am, Apr 30, 2025

**COMAL COUNTY**
ENGINEER'S OFFICE**ON-SITE SEWAGE FACILITY APPLICATION**195 DAVID JONAS DR
NEW BRAUNFELS, TX 78132
(830) 608-2090
WWW.CCO.ORGDate March 7, 2025Permit Number 116712**1. APPLICANT / AGENT INFORMATION**Owner Name NICHOLAS MATTHEW HAMILTON &
NICOLE LEEANN HAMILTON
Mailing Address 2615 LIONS DEN
City, State, Zip NEW BRAUNFELS, TX 78132
Phone # 512-262-8688
Email nicolelm.hamilton@gmail.comAgent Name GREG W. JOHNSON, P.E.
Agent Address 170 HOLLOW OAK
City, State, Zip NEW BRAUNFELS, TX 78132
Phone # 830-905-2778
Email gregjohnsonpe@yahoo.com**2. LOCATION**Subdivision Name HAVENWOOD AT HUNTERS CROSSING Unit I Lot 94 Block
Survey Name / Abstract Number Acreage
Address 2615 LIONS DEN City NEW BRAUNFELS State TX Zip 78132**3. TYPE OF DEVELOPMENT**☒ Single Family ResidentialType of Construction (House, Mobile, RV, Etc.) EXISTING HOUSENumber of Bedrooms 4Indicate Sq Ft of Living Area 2980☐ Non-Single Family Residential

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

Type of Facility Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants Restaurants, Lounges, Theaters - Indicate Number of Seats Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds Travel Trailer/RV Parks - Indicate Number of Spaces Miscellaneous Estimated Cost of Construction: \$ EXISTING (Structure Only)

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

☐ Yes ☒ No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)Source of Water ☒ Public ☐ Private Well ☐ Public Well ☐ Rainwater Collection**4. SIGNATURE OF OWNER**

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

X [Signature]
Signature of OwnerX [Signature]March 7, 2025
Date

#116772

RECEIVED

By Brandon Olvera at 8:53 am, Apr 30, 2025

HAVENWOOD AT HUNTERS CROSSING, UNIT 1, LOT 94

COMAL COUNTY
ENGINEER'S OFFICE**ON-SITE SEWAGE FACILITY APPLICATION**195 DAVID JONAS DR
NEW BRAUNFELS, TX 78132
(830) 608-2090
WWW.CCEO.ORG

Planning Materials & Site Evaluation as Required Completed By _____

System Description PROPRIETARY; AEROBIC TREATMENT AND SURFACE IRRIGATION

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

Tank Size(s) (Gallons) PRO-FLO MODEL 5060, 600 GPD Absorption/Application Area (Sq Ft) 4859Gallons Per Day (As Per TCEQ Table 111) 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.)

Is there at least one acre per single family dwelling as per 285.40(c)(1)? ☒ Yes ☐ NoIf 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 ☒ NoIs there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No

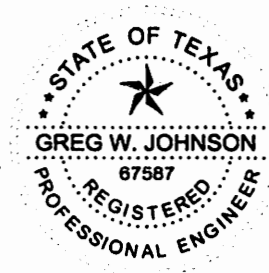
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)

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 UP has been approved by the appropriate reg

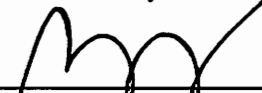
Is this property within an incorporated city? ☐ Yes ☒ No

If yes, indicate the city: _____

**FIRM #2585**

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.



 Signature of Designer

March 5, 2025

 Date

AFFIDAVIT



201706004780 02/03/2017 11 56 06 AM 1/2

THE COUNTY OF COMAL
STATE OF TEXAS

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

2/03

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

I

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

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (insert legal description):

I. UNIT/PHASE/SECTION _____ BLOCK 94 LOT HAVENWOOD AT HUNTERS CROSSING SUBDIVISION

IF NOT IN SUBDIVISION: _____ ACREAGE _____ SURVEY

The property is owned by (insert owner's full name): NICHOLAS MATTHEW HAMILTON & NICOLE LEEANN HAMILTON

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.

RECEIVED

FEB 03 2017

WITNESS BY HAND(S) ON THIS 1 DAY OF Feb, 20 17 COUNTY ENGINEER

Nicholas + Nicole Hamilton

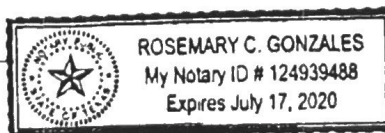
Owner(s) signature(s)

Nicholas + Nicole Hamilton

Owner (s) Printed name (s)

NICHOLAS + NICOLE HAMILTON SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 1 DAY OF FEBRUARY, 20 17

Rosemary C. Gonzales
Notary Public Signature





RECEIVED

FEB 03 2017

COUNTY ENGINEER

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

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

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
02/03/2017 11:56:06 AM
TERRI 2 Page(s)
201706004780



Bobbie Koepp

**ON-SITE SEWERAGE FACILITY
SOIL EVALUATION REPORT INFORMATION**

RECEIVED

By Brandon Olvera at 9:10 am, Apr 30, 2025

Date Soil Survey Performed: March 04, 2025

Site Location: HAVENWOOD at HUNTERS CROSSING, UNIT 1, LOT 94

Proposed Excavation Depth: N/A

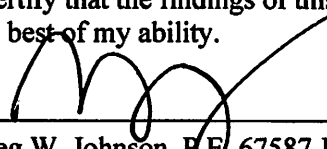
Requirements:

At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area.
Locations of soil boring or dug pits must be shown on the site drawing.
For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.
Describe each soil horizon and identify any restrictive features on the form. Indicate depths where features appear.

SOIL BORING NUMBER <u> </u> SURFACE EVALUATION <u> </u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 10"	BROWN
1						
2						
3						
4						
5						

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

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


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

03/04/25
Date

RECEIVED

Date: March 05, 2025

Applicant Information:

NICHOLAS MATTHEW & NICOLE LEEANN

Name: HAMILTON
Address: 2615 LIONS DEN
City: NEW BRAUNFELS State: TEXAS
Zip Code: 78132 Phone: (512) 262-8688

Site Evaluator Information:

Name: Greg W. Johnson, P.E., R.S., S.E. 11561
Address: 170 Hollow Oak
City: New Braunfels State: Texas
Zip Code: 78132 Phone & Fax (830)905-2778

Property Location:

Property Location: **HAVENWOOD at**
Lot 94 Unit 1 Blk Subd. HUNTERS CROSSING
Street Address: 2615 LIONS DEN
City: NEW BRAUNFELS Zip Code: 78132
Additional Info.:

Installer Information:

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

Topography: Slope within proposed disposal area: 3 %

Presence of 100 yr. Flood Zone:	YES	<u> </u>	NO	<u>X</u>
Existing or proposed water well in nearby area.	YES	<u> </u>	NO	<u>X</u>
Presence of adjacent ponds, streams, water impoundments	YES	<u> </u>	NO	<u>X</u>
Presence of upper water shed	YES	<u> </u>	NO	<u>X</u>
Organized sewage service available to lot	YES	<u> </u>	NO	<u>X</u>

Design Calculations for Aerobic Treatment with Spray Irrigation:

Commercial

0 = _____ GPD

Residential Water conserving fixtures to be utilized? Yes X No

Number of Bedrooms the septic system is sized for: 4 Total sq. ft. living area 2980

$$Q \text{ gal/day} = (\text{Bedrooms} + 1) * 75 \text{ GPD} - (20\% \text{ reduction for water conserving fixtures})$$
$$Q = (4 + 1) * 75 - (20\%) = 300$$

Trash Tank Size 397 Gal.

TCEQ Approved Aerobic Plant Size 600 G.P.D.

Req'd Application Area = $Q/R_i = \frac{300}{0.064} = 4688$ sq. ft.

Application Area Utilized = 4859 sq. ft.

Pump Requirement 12 Gpm @ 41 Psi (Redjacket 0.5 HP 18 G.P.M. series or equivalent)

Dosing Cycle: _____ ON DEMAND or X TIMED TO DOSE IN PREDAWN HOURS

Pump Tank Size = 768 Gal. 13.3 Gal/inch.

Reserve Requirement = 100 Gal. 1/3 day flow.

Alarms: Audible & Visual High Water Alarm & Visual Air Pump malfunction

With Chlorinator NSF/TCEQ APPROVED

SCH-40 or SDR-26 3" or 4" sewer line to tank

Two way cleanout

Pop-up rotary sprinkler heads w/ purple non-potable lids

1" Sch-40 PVC discharge manifold

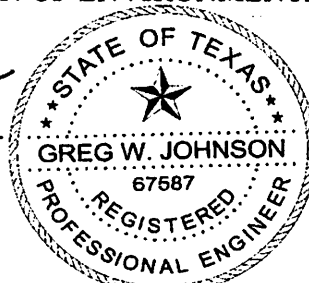
APPLICATION AREA SHOULD BE SEEDED AND MAINTAINED WITH VEGETATION.

EXPOSED ROCK WILL BE COVERED WITH SOIL .

I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL ENGINEER AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 29, 2016)

GREG W. JOHNSON, P.E. F#002585 - S.E. 11561

03/05/25
DATE

**FIRM #2585**

RECEIVED

By Brandon Olvera at 10:18 am, May 12, 2025

Greg W. Johnson, P.E.

170 Hollow Oak
New Braunfels, Texas 78132
830/905-2778

May 4, 2024

Comal County Office of Environmental Health
195 David Jonas Drive
New Braunfels, Texas 78132-3760

RE: Permit #116772
2615 LIONS DEN
HAVENWOOD AT HUNTERS CROSSING, UNIT 1, LOT 94
HAMILTON RESIDENCE

Brandon

Owners have installed a concrete wall around the pool equipment pad that is within 5' of one side of the aerobic tank. The tank and sewer line were installed before the decorative wall was constructed. Placement of the septic tank will not harm the wall because the tank was installed first and the decorative wall is not a foundation. Additionally, the placement of the wall will not negatively affect the integrity of the tank or sewer line. In my professional opinion the installation of the decorative concrete wall closer than the five foot setback requirement will not pose a threat to the public health or environment.

Owners have installed pool lines from the pool equipment pad less than ten feet from the aerobic tank. I proposed to excavate a thirteen foot long rock saw trench to solid rock, (~approximately 12" deep) centered between the tank and pool lines and fill with concrete to provide equivalent protection between tank and pool lines.

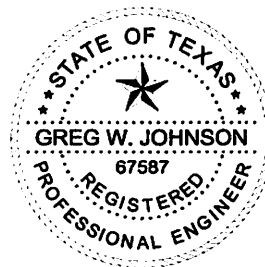
I hereby respectfully request a variance to ten foot setback between pool lines and aerobic tank and effluent line.

If I can be of further assistance please contact me.

Respectfully yours,



Greg W. Johnson, P.E.

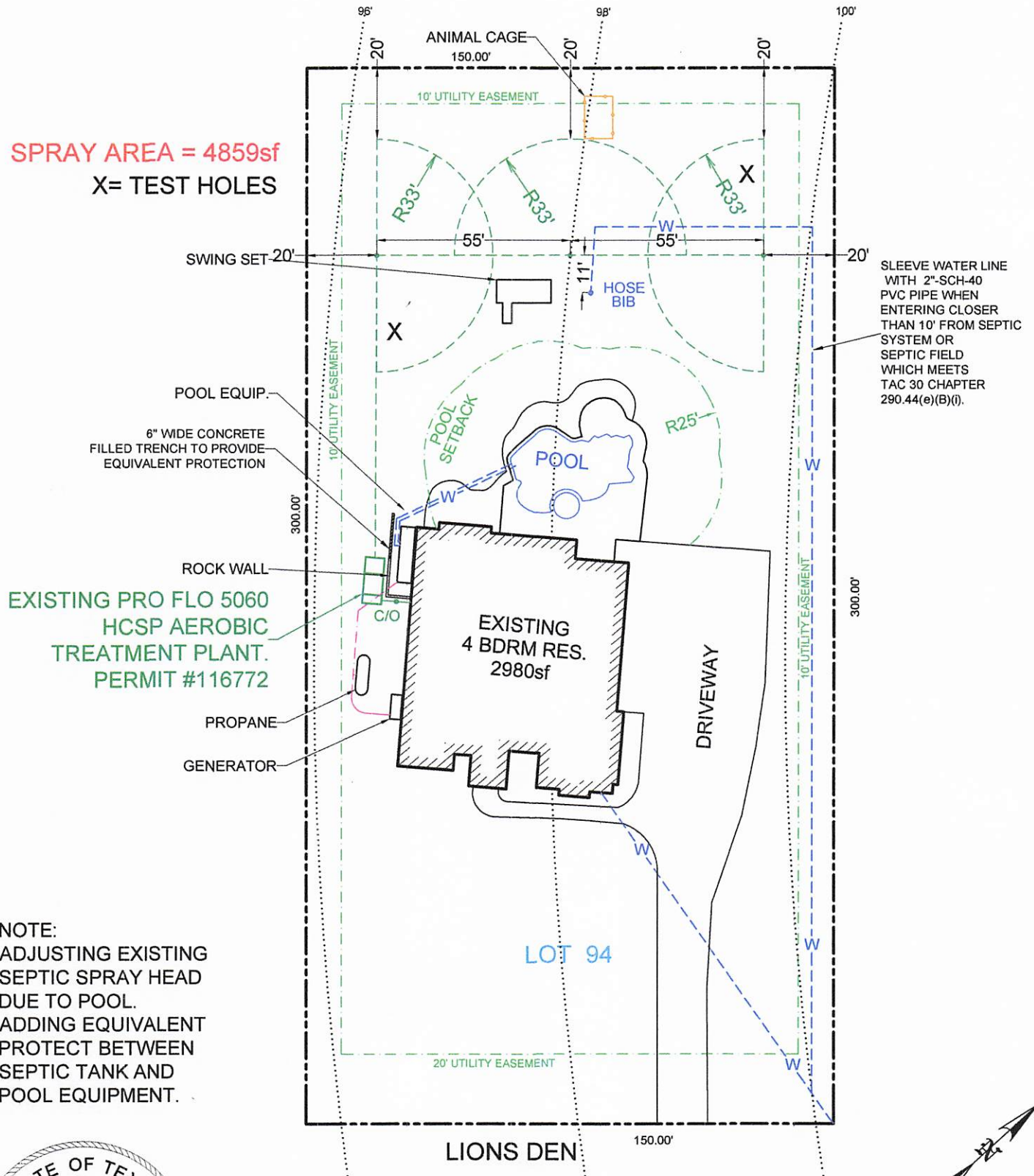


RECEIVED

By Brandon Olvera at 10:18 am, May 12, 2025

SPRAY AREA = 4859sf

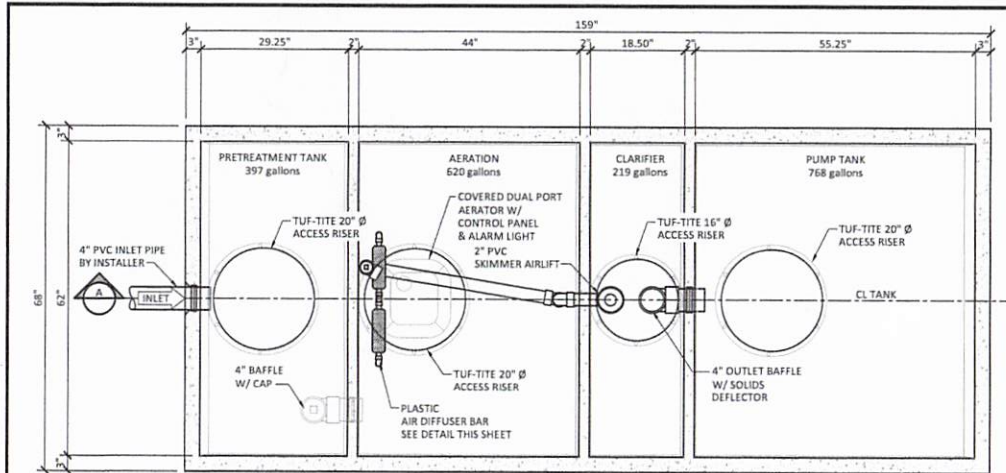
X= TEST HOLES



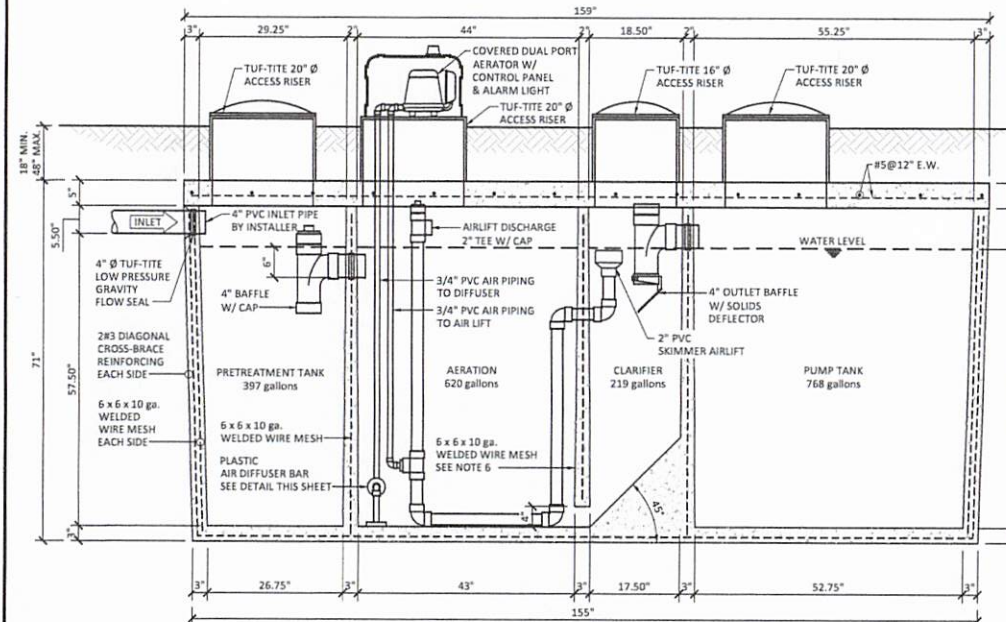
OWNER:	NICHOLAS MATTHEW & NICOLE LEEANN HAMILTON					DRAWN BY:	EJS III/GWJ
STREET ADDRESS:	2615 LIONS DEN						
LEGAL DESC:	HAVENWOOD at HUNTERS CROSSING			UNIT/SECTION/PHASE:	1	BLOCK:	LOT: 94
PREPARED BY:	GREG W. JOHNSON, P.E. F#002585		SCALE:	1"=40'	DATE:	3/5/2025	REVISED: 5/4/2025

RECEIVED

By Brandon Olvera at 9:10 am, Apr 30, 2025

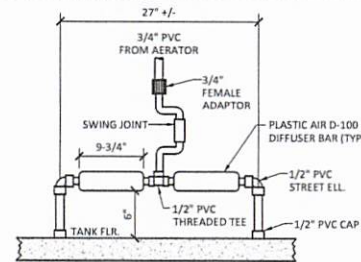


PLAN



SECTION A-A

*NOTE:
2" AIRLIFT RISER TO BE STRAPPED TO WALL. SECTION
DRAWING SHOWS IT IN FRONT OF DIFFUSER FOR CLARITY



AIR DIFFUSER DETAIL

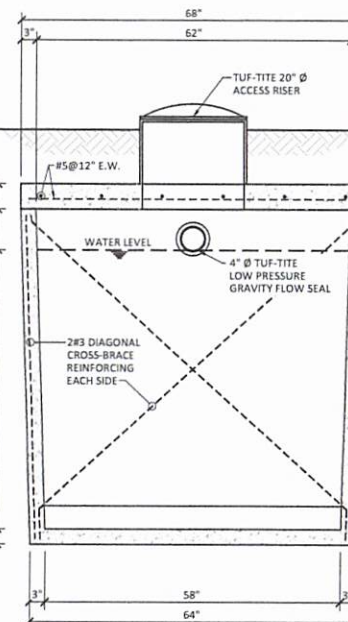
GENERAL NOTES:

1. ALL CONCRETE TO BE 4000 P.S.I. WITH A AGGREGATE SIZE OF 3/4".
2. ALL INSPECTION HOLES AND TOPS ARE TO BE SEALED WITH A NEOPRENE SEALER.
3. THE SUB GRADE IS TO BE WITHIN 1/2" AND FREE OF FOREIGN OBJECTS.
4. PRETREATMENT TANK & CLARIFIER RISERS MAY BE BELOW GRADE.
5. TANK LID TO BE SEALED WITH ASPHALTIC SEALANT.
6. A 2-1/2" THICK WALL MAY BE USED IN LIEU OF THE CAST IN PLACE INTERNAL WALL BETWEEN THE AERATION & CLARIFIER.
7. THE MANUFACTURER IS REQUIRED TO DEMONSTRATE THAT FAILURE WILL NOT OCCUR BY PHYSICALLY APPLYING LOADS TO THE TANK. THE LOAD APPLIED SHALL BE 1.5 TIMES THE DESIGN DEAD LOAD. SUCH TESTING SHALL BE WITNESSED & CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.

TANK DIMENSIONS			
TANK LENGTH (TOP)	159.00	in.	
TANK LENGTH (BOTTOM)	155.00	in.	
TANK WIDTH (TOP)	68.00	in.	
TANK WIDTH (BOTTOM)	64.00	in.	
TANK HEIGHT	71.00	in.	
WALL THICKNESS	3.00	in.	
FLOOR THICKNESS	3.00	in.	
LID THICKNESS	5.00	in.	
BOTTOM TO INLET	60.50	in.	

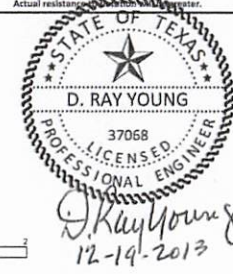
TANK VOLUMES			
PRETREATMENT CAPACITY	397	gal.	
AERATION CAPACITY	620	gal.	
CLARIFIER CAPACITY	219	gal.	
PUMP TANK CAPACITY	768	gal.	
WATER DEPTH	55	in.	
TANK CONCRETE VOLUME	86.11	YD ³	3.19
TANK LID CONCRETE VOLUME	27.97	YD ³	1.04
TANK WEIGHT (EMPTY)	12917	lbs.	
LID WEIGHT	4196	lbs.	
TOTAL TANK WEIGHT (EMPTY)	17112	lbs.	

TANK BUOYANCY CALCULATIONS				
TANK DIMENSIONS:				
Length =	159.0	Inches =	13.3	ft
Width =	68	Inches =	5.7	ft
Height =	71	Inches =	5.9	ft
Tank Displacement Volume =			444.2	Cu Ft
Uplift Force @ 62.4 lb/cu ft =			27720.8	Lbs
RESISTING FORCES				
Concrete Tank Deadweight (Empty) =			17112	Lbs
Weight of Inserted Equipment & Hatches =			150	Lbs
Total Tank Weight =			17262	Lbs
WEIGHT OF SOIL OVER TANK				
Length =			13.3	ft
Width =			5.7	ft
X-Section Area =			75.1	Sq Ft
LESS ACCESS HATCH AREAS				
1	36	Inches =	-1.05	Sq Ft
3	20	Inches =	-3.93	Sq Ft
Net Area for Soil Cover =			70.105	Sq Ft



OUTLET END ELEVATION

SCALE: 1" = 1'-0" (24' x 36")
2" = 1'-0" (36" x 48")



REVISIONS / ISSUANCE

REV	DATE	DESC.

WATER ENGINEERS, INC.
Water & Wastewater Treatment Consultants
TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM No. 2066
1720 HUNTER ROAD
CYPRESS, TEXAS 77429
TEL: 281-373-0500
FAX: 281-373-1113

PRO FLO AEROBIC SYSTEMS, LP
WASTEWATER TREATMENT SYSTEMS
20222 FM 362
WALLER, TEXAS 77484

AEROBIC WASTEWATER TREATMENT UNIT
FOR USE IN HARRIS COUNTY, TEXAS

MODEL No.

5060 HCSP

DRAWN BY: J.W.
DATE: 12/9/2013
JOB No.: 4604-12
SHEET No.

04 of 04

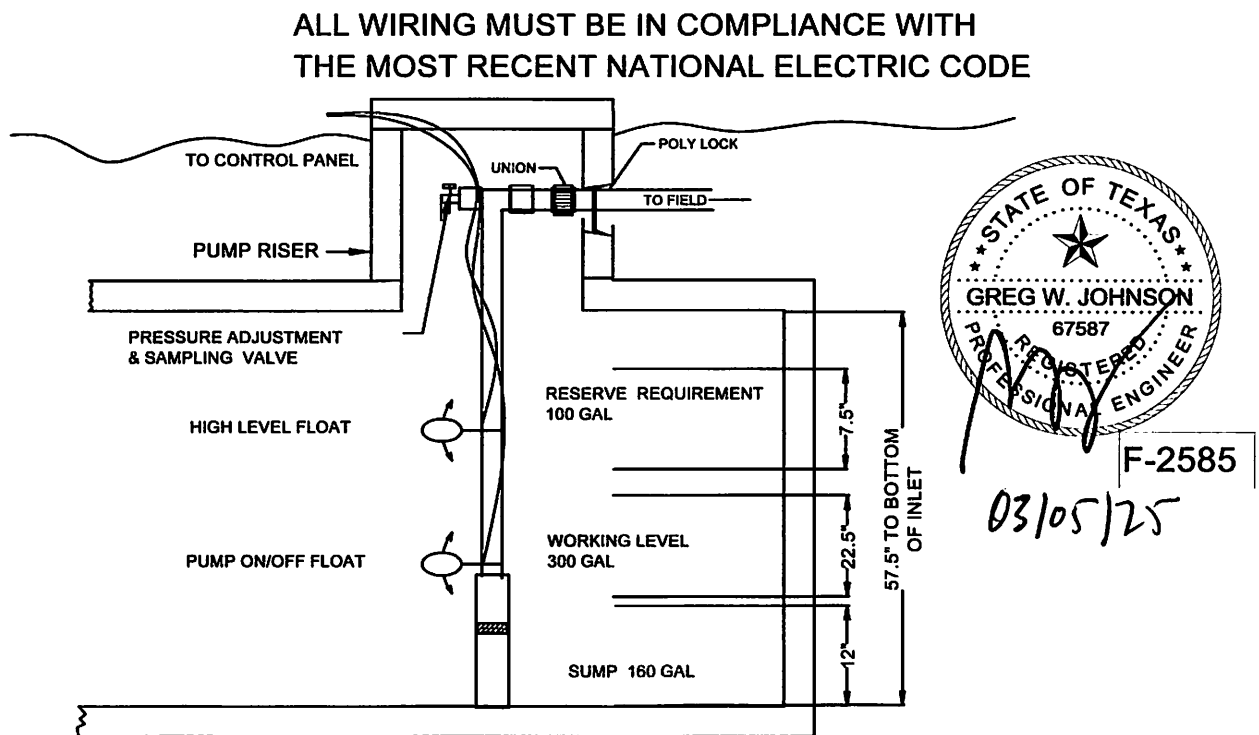
TANK NOTES:

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

Tightlines to the tank shall be SCH-40 PVC.

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

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



**TYPICAL PUMP TANK CONFIGURATION
PRO-FLO 768 GAL PUMP TANK**

E-Series

FPS

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By Brandon Olvera at 9:10 am, Apr 30, 2025

Environmental Series Pumps

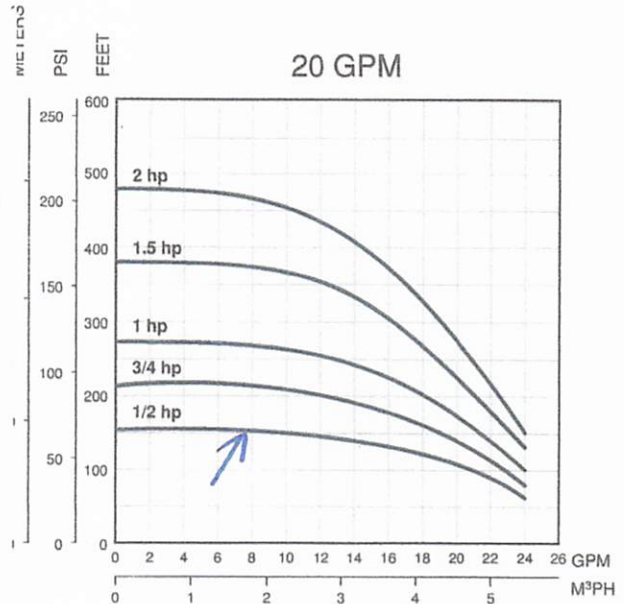
Thermoplastic Performance

LOW ANGLE NOZZLE PERFORMANCE CHART

Nozzle	PSI	Radius	GPM
#1	30	22'	1.5
	40	24'	1.7
	50	26'	1.8
	60	28'	2.0
#3	30	29'	3.0
	40	32'	3.1
	50	35'	3.5
	60	37'	3.8
#4	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
	60	38'	4.7
#6	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6

KRAIN
Pro-Plus

*



Thermoplastic Units Ordering Information

1/2 - 1.5 HP Single-Phase Units

Order No.	Model	GPM	HP	Volt	Wire	Wt.
94741005	10FE05P4-2W115	10	1/2	115	2	24
94741010	10FE05P4-2W230	10	1/2	230	2	24
94741015	10FE07P4-2W230	10	3/4	230	2	28
94741020	10FE1P4-2W230	10	1	230	2	31
94741025	10FE15P4-2W230	10	1.5	230	2	46
94742005	20FE05P4-2W115	20	1/2	115	2	25
94742010	20FE05P4-2W230	20	1/2	230	2	25
94742015	20FE07P4-2W230	20	3/4	230	2	28
94742020	20FE1P4-2W230	20	1	230	2	31
94742025	20FE15P4-2W230	20	1.5	230	2	40

Thermoplastic 1/2 - 2 HP Pump Ends

Order No.	Model	GPM	HP	Volt	Wire	Wt.
94751005	10FE05P4-PE	10	1/2	N/A	N/A	6
94751010	10FE07P4-PE	10	3/4	N/A	N/A	7
94751015	10FE1P4-PE	10	1	N/A	N/A	8
94751020	10FE15P4-PE	10	1.5	N/A	N/A	12
94752005	20FE05P4-PE	20	1/2	N/A	N/A	6
94752010	20FE07P4-PE	20	3/4	N/A	N/A	7
94752015	20FE1P4-PE	20	1	N/A	N/A	8
94752020	20FE15P4-PE	20	1.5	N/A	N/A	10
94752025	20FE2P4-PE	20	2	N/A	N/A	11

306

Hoffmann Lane
ementary School

306

2615 Lions Den, New
Braunfels, TX 78132

Lazy J Cajun

VOID

Lennar at The Crossings

Gehan Homes at
Cloud Country

Texas

1102

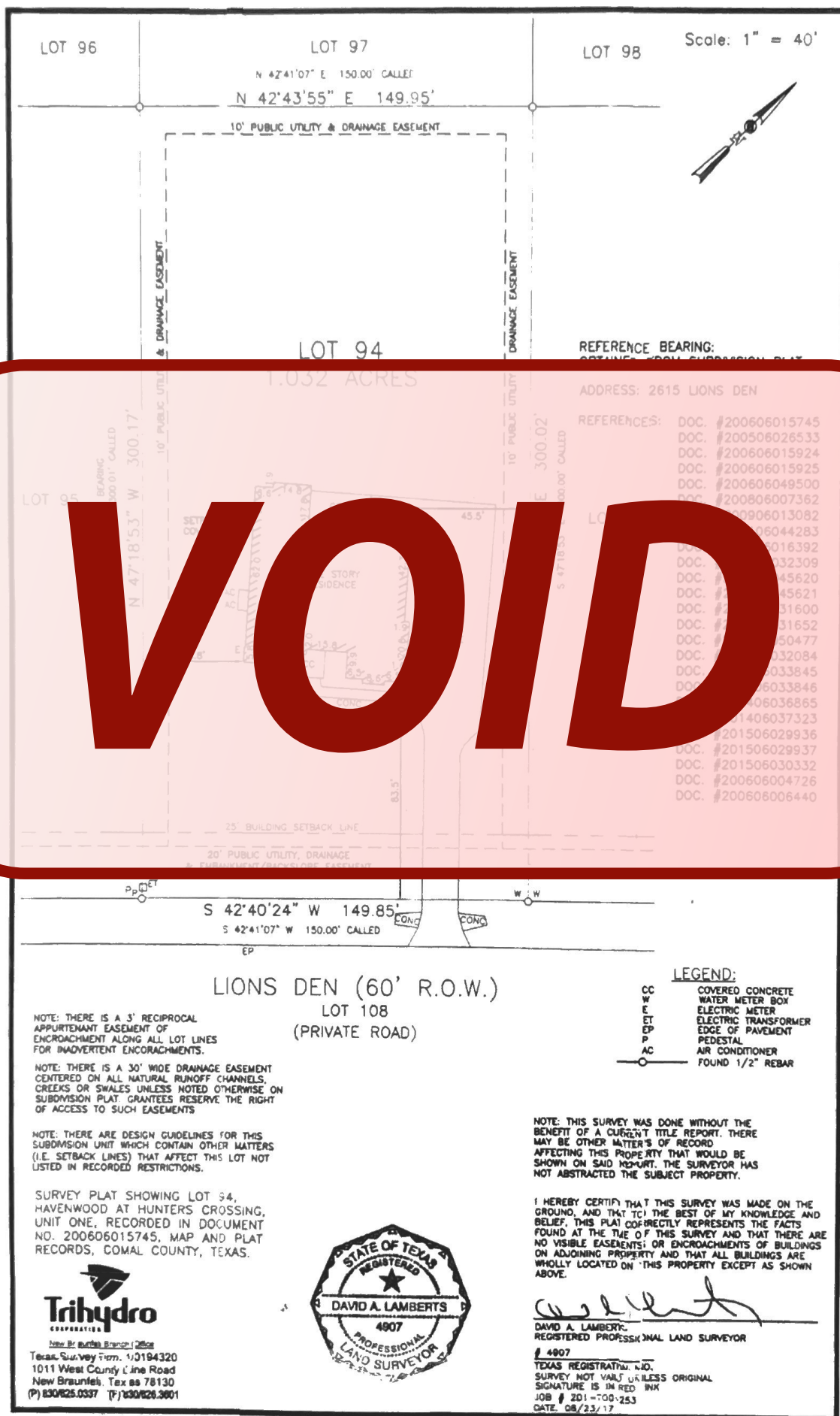
306

Gehan Homes
at Gruenefield

Google
Goodwin Ln

Goodwin Ln
Conrads Ln

TA Travel Center



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[Office of the Inspector General \(//www.oig.dhs.gov/\)](http://www.oig.dhs.gov/) [Strategic Plan \(//www.fema.gov/fema-strategic-plan\)](http://www.fema.gov/fema-strategic-plan)
[Whitehouse.gov \(//www.whitehouse.gov\)](http://www.whitehouse.gov/) [DHS.gov \(//www.dhs.gov\)](http://www.dhs.gov/) [Ready.gov \(//www.ready.gov\)](http://www.ready.gov/) [USA.gov \(//www.usa.gov\)](http://www.usa.gov/) [DisasterAssistance.gov \(//www.disasterassistance.gov/\)](http://www.disasterassistance.gov/)



 Official website of the Department of Homeland Security

VOID

VOID

E-SERIES

EFFLUENT DUMDC
EFFLUENT PUMPS

Ideal for filtered effluent service, aeration, and ornamental fountains and waterfalls, equipped with the power, performance, and reliability you expect from Franklin Electric.



franklinwater.com



Franklin Electric

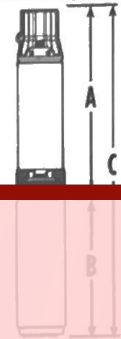
E-SERIES EFFLUENT PUMPS

THERMOPLASTIC DIMENSIONS

GPM	HP	Stages	Dimensions (in)			Wt. (lbs)	
			A	B	C	PE	PMA
20	1/2	2	12.97	9.51	22.48	7	25
	3/4	3	14.60	10.64	25.33	8	29
	1	4	17.44	11.73	28.07	9	32
	1 1/2	5	21.06	15.10	36.16	10	41
	2	6	22.97	9.51	22.48	7	25
	3/4	5	13.65	10.64	24.29	6	28
30	1	7	16.10	11.73	26.42	8	32
	1 1/2	10	19.77	15.10	34.87	8	39

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Maximum diameter with cable guard is 3.90"

Thermoplastic



STAINLESS DIMENSIONS

GPM	Stages	Dimensions (in)			Wt. (lbs)	
		A	B	C	PE	PMA
35	2	9.1	9.5	19.4	10	28
	3	10.3	10.7	21.7	11	32
	4	12.9	11.7	26.0	12	35
	5	15.4	15.1	31.6	13	44
45	2	9.9	9.5	19.4	10	28
	3	14.3	10.6	22.7	11	32
	4	16.5	11.7	26.0	12	35
	5	18.8	15.1	31.6	13	44
60	2	9.9	9.5	19.4	10	28
	3	12.1	10.6	22.7	11	32
	4	14.3	11.7	26.0	12	35
	5	16.5	15.1	31.6	13	44
75	15	17.3	15.1	32.4	14	43

NOTES: PE = Pump end only; PMA = Pump and motor assembly; Maximum diameter with cable guard is 3.90"



Franklin Electric

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By Brandon Olvera at 9:10 am, Apr 30, 2025

SPRAY AREA = 4859sf

X= TEST HOLES

SWING SET 20'

SLEEVE WATER LINE WITH 2"-SCH-40
PVC PIPE WHEN ENTERING CLOSER
THAN 10' FROM SEPTIC SYSTEM OR
SEPTIC FIELD WHICH EXCEEDS
TAC 30 CHAPTER 290.44(e)(B)(i).

POOL EQUIP.

ROCK WALL V

EXISTING PRO FLO

TREATMENT PL

PERMIT #11

PR

GENERATOR

NOTE:
ADJUSTING EXISTING
SEPTIC SPRAY HEAD
DUE TO POOL.
ADDING EQUIVALENT
PROTECT BETWEEN
SEPTIC TANK AND
POOL EQUIPMENT.

LOT 94

LIONS DEN

150.00'



OWNER: NICHOLAS MATTHEW & NICOLE LEEANN HAMILTON		DRAWN BY: EJS III	
STREET ADDRESS: 2615 LIONS DEN			
LEGAL DESC: HAVENWOOD at HUNTERS CROSSING	UNIT/SECTION/PHASE: 1	BLOCK:	LOT: 94
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=40'	DATE: 3/5/2025	REVISED:

PROPLUS™



**Packed with features that ensure reliability,
saving the installer time and money on every job.**

- **Revolutionary Patented Easy Arc Set** – Simplified arc set allows for wet or dry adjustment in seconds.
- **5" Riser** – Perfect for grasses with thick thatch.
- **3/4" Inlet** – Replaces all standard rotors.
- **2N1 Adjustable or Continuous Rotation** – Provides a full range adjustment from 40° to a continuous full circle.
- **Patented Arc Set Degree Markings** – Clearly indicates the current watering pattern and simplifies arc set adjustment.
- **Arc Memory Clutch** – Prevents internal gear damage and returns rotor to its prior setting automatically if nozzle turret is forced past its stop.
- **Time Proven Patented Reversing Mechanism** – Assures continuous reverse and return...over a 20 year history.
- **Ratcheting Riser** – Allows for easy adjustment of your left starting position with a simple turn of the riser.
- **Rubber Cover** – Seals out dirt, increases product durability.
- **Wide Selection of Nozzles** – Including standard and low angle, provides flexibility in system design.
- **Optional Check Valve** – Prevents low head drainage.



K-Rain Manufacturing Corp.
1640 Australian Avenue
Riviera Beach, FL 33404 USA
+1 561 844-1002
FAX: +1 561 842-9493

1.800.735.7246 | www.krain.com

Easy Arc Setting

Arc Selection 40°
to Continuous 360°
Adjust From Left Start



Models

11003 ProPlus
11003-HP ProPlus 12" High Pop
11003-SH ProPlus Shrub Head

OTHER OPTIONS: ADD TO PART NUMBER

-CV Check Valve
-LA Low Angle Nozzle
-NN No Nozzle
-RCW ProPlus for Reclaimed Water
w/Low Angle Nozzle

How to Specify

Model Number	Description
11003	-RCW

Specifications

- Inlet: 3/4" Threaded NPT
- Arc Adjustment Range: 40° to Continuous 360°
- Flow Range: .5 - 10.0 GPM
- Pressure Rating: 20 - 70 PSI
- Precipitation Rate: .06 to .50 Inches Per Hour
(Depending on Spacing and Nozzle Used)
- Overall Height (Popped Down): 7 1/2"
(17" for High Pop Model)
- Recommended Spacing: 28' to 44'
- Radius: 22' to 50'
- Nozzle Trajectory: 26°
- Low Angle Nozzle Trajectory: 12°
- Standard and Low Angle Nozzle: Included
- Riser Height: 5"

Performance Data

NOZZLE	PRESSURE			RADIUS		FLOW RATE			PRECIP in/hr		PRECIP 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	0.38	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	0.48	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		PRECIP 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	.88	0.69	0.79	17	20
	40	276	2.8	30	9.1	3.5	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	32	10.4	4.4	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	15	18
#6.0	40	276	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	26

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

K
RAIN

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COPY**



Comal County
OFFICE OF COMAL COUNTY ENGINEER

License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date: 07/07/2017 Permit Number: 105509

Location Description: 2615 LIONS DEN
NEW BRAUNFELS, TX 78132

Subdivision: Havenwood at Hunters Crossing
Unit: 1
Lot: 94
Block:
Acreage:

Type of System: Aerobic
Surface Irrigation

Issued to: Nicholas Matthew & Nicole Leeann Hamilton

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 Taylor
088497
ENVIRONMENTAL HEALTH INSPECTOR

Sandra Ann Hernandez
08 0025599
ENVIRONMENTAL HEALTH COORDINATOR

OWNER: NICHOLAS MATTHEW & NICOLE LEEANN HAMILTON		DRAWN BY:	
STREET ADDRESS: 2615 LIONS DEN			
LEGAL DESC: HAVENWOOD at HUNTERS CROSSING		UNIT/SECTION/PHASE: 1	BLOCK: LOT: 94
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=40'	DATE: 1/30/2017	REVISED: 6/30/2017

RECEIVED

By Kathy Griffin at 3:12 pm, Oct 09, 2023



COMAL COUNTY
ENGINEERS OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

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

Date January 6, 2022

Permit Number 11413
116772

1. APPLICANT / AGENT INFORMATION

Owner Name Nicholas Matthew & Nicole LeeAnn Hamilton
Mailing Address 2615 Lions Den
City, State, Zip New Braunfels, TX 78132
Phone # 512-262-8688
Email nicolelm.hamilton@gmail.com

Agent Name Thomas Unruh
Agent Address 27806 Cazador Trail
City, State, Zip San Antonio, TX 78260
Phone # 210-464-7831
Email U2eng@yahoo.com

2. LOCATION

Subdivision Name Havenwood At Hunters Crossing Unit 1 Lot 94 Block
Survey Name / Abstract Number Acreage 1.03 Acres
Address 2615 Lions Den City New Braunfels State TX Zip 78132

3. TYPE OF DEVELOPMENT

- ☒ Single Family Residential
Type of Construction (House, Mobile, Farm, etc.) House
Number of Bedrooms 5
Indicate Sq Ft of Living Area 2,980
☐ Non-Single Family Residential
(Planning material for adequate treatment for double septic requires needed treatment unit 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: \$ N/A (Structure Only)

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

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

Source of Water ☒ Public ☐ Private Well

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

Thomas Unruh
Signature of Owner

1/9/22
Date

Olvera,Brandon

From: Olvera,Brandon
Sent: Thursday, November 2, 2023 1:15 PM
To: U2 Engineering; nicolem.hamilton@gmail.com
Subject: 116772

Good Afternoon,



Before we can proceed with the permit to construct, submit the application with new signature and redated.

Thank You,

Note: Beginning January 1, 2024 our reinspection fees will be changing to \$150.00. Permit fee includes 3 inspections, \$150 each additional inspection

Brandon Olvera | Designated Representative **OS0034792** | Comal County | www.cceo.org

195 David Jonas Dr, New Braunfels, TX-78132 | **t:** 830-608-2090 | **f:** 830-608-2078 | **e:** olverb@co.comal.tx.us



COMAL COUNTY
ENGINEERS OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

195 DAVID JONAS DR
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Date January 6, 2022

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Phone # 210-464-7831
Email U2eng@yahoo.com

2. LOCATION

Subdivision Name Havenwood At Hunters Crossing Unit 1 Lot 94 Block
Survey Name / Abstract Number Acreage 1.03 Acres
Address 2615 Lions Den City New Braunfels State TX Zip 78132

3. TYPE OF DEVELOPMENT

- ☒ Single Family Residential
Type of Construction (House, Mobile Home, etc.) House
Number of Bedrooms 3
Indicate Size of Lot (Area) 2
☐ Non-Single Family Residential
(Planning map should show adequate area for development and need for treatment and disposal area)
Type of Facility
Offices, Factories, Churches, Schools, etc. - Indicate Number of
Restaurants, Lounges, Theaters - Indicate Number of Seats
Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds
Travel Trailer/RV Parks - Indicate Number of Spaces

Estimated Cost of Construction: \$ N/A (Structure Only)

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

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

Source of Water ☒ Public ☐ Private Well

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities.
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

N. Hamilton
Signature of Owner

2/7/24
Date



ON-SITE SEWAGE FACILITY APPLICATION

Planning Materials & Site Evaluation as Required Completed By Thomas L. Unruh, P.E.

System Description Proprietary Aerobic Treatment Unit with Surface Irrigation

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

Tank Size(s) (Gallons) Pro Flo 5060HCSP, 600 GPD Absorption/Application Area (Sq Ft) 5793

Gallons Per Day (As Per TCEQ Table III) 360

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 reviewed by a Regional Sanitary Engineer (R.S.) or Regional Professional Engineer (R.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: N/A

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.

Thomas L. Unruh
Signature of Designer

2/28/2022
Date



OSSF SITE EVALUATION REPORT

Owner: Nicholas & Nicole Hamilton

Date: December 11, 2021

Address: 2615 Lions Den, New Braunfels, TX 78132

Legal: Havenwood at Hunters Crossing 1, LOT 94

REQUIREMENTS:

- A minimum of two soil excavations must be performed at opposite ends of the proposed disposal area. Locations must be clearly identified on the site drawing per §285.5(a).
- For subsurface disposal, borings or backhoe pits shall either be excavated to a depth of two feet
- Describe each soil horizon and identify any restrictive features and depths located.

Soil Boring / Pit Number: #1 SURFACE EVALUATION						
Depth (Feet)	Texture Class	Gravel Analysis	Restrictive Horizon	Drainage (Mottles / Water Table)	Observations	
0	IV		LIMESTONE @ 7"	NONE OBSERVED	BROWN	
1						
2						
3						
4						
5						

VOID

Soil Boring / Pit Number: #2 SURFACE EVALUATION						
Depth (Feet)	Texture Class	Gravel Analysis	Restrictive Horizon	Drainage (Mottles / Water Table)	Observations	
0	IV	< 30%	LIMESTONE @ 7"	NONE OBSERVED	BROWN	
1						
2						
3						
4						
5						

FEATURES OF SITE:

Slope within proposed area:

1% (surface < 15%)

Presence of 100-year flood zone:

Yes ☐ No ☒

Presence of adjacent ponds, streams or water impounds:

Yes ☐ No ☒

Existing or proposed water well in nearby area:

Yes ☐ No ☒

Organized sewage available to lot or tract:

Yes ☐ No ☒

Recharge features within 150 feet:

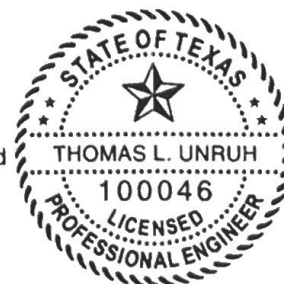
Yes ☐ No ☒

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

THOMAS L. UNRUH, P.E. 100046-F21891, S.E. 35485

2/28/2022

DATE



Firm #21891

**OSSF TECHNICAL DESIGN****OWNER**

Nicholas & Nicole Hamilton
2615 Lions Den
New Braunfels, TX 78132
512-262-8688
nicolelm.hamilton@gmail.com

PROPERTY

Havenwood at Hunters Crossing 1, LOT 94
2615 Lions Den
New Braunfels, TX 78132
Type = House 5 BDR / 2 Bath
Living Area = 2,980 Square Feet
Existing Permit #105509

ENGINEER

Thomas L. Unruh, P.E.
U2 Engineering, LLC
27806 Cazador Trail
San Antonio, TX 78260
210-464-7831
U2eng@yahoo.com

PROJECT OVERVIEW

The purpose of the project is to adjust the existing aerobic spray application area to accommodate a new pool.

DESIGN NARRATIVE

New schedule 40 PVC purple distribution piping shall connect to the existing 600 GDP aerobic treatment unit pump tank and extend as shown on the drawing for the spray application. A pump capable of 10.9 GPM at 118 ft of total head pressure shall be connected to a timer setup to administer spray application through 3 spray heads between midnight and 5:00am. The pump float switches shall be set to pump 360 gallons spray with an automatic stop. The pump shall be set to pump 20 gallons between the pump tank and the inlet to the pump tank. Apply the area of the existing maintained vegetation.

DESIGN CALCULATIONS

ATU: Existing 600 GDP Aerobic Treatment Unit (min. 360 GPD)
Pump: 10.9 GPM (min. 360 GPD)
Flow Rate: 10.9 GPM
Application Area: 5,793 Square Feet
Spray Heads: Three K-Rain ProPlus RCW w/Low Angle nozzles at 30 psi
Flow Rate: 10.9 GPM
Dosing: Commercial irrigation timer to discharge between midnight and 5:00am

DISTRIBUTION: Allowable Application Rate = 0.06 GPD / Square Foot
Required Application Area = Q / R GPD / Square Foot
Application Area Utilized (calculated by CAD) = 5,793 Square Feet
Spray Heads: Three K-Rain ProPlus RCW w/Low Angle nozzles at 30 psi
Flow Rate: 10.9 GPM
Dosing: Commercial irrigation timer to discharge between midnight and 5:00am

TOTAL HEAD: TDH = Elevation + Pressure + Friction = 118 ft
= 10 ft + (40 psi x 2.31 ft/psi) + 10 ft

PUMP SELECTION: **10.9 GPM @ 118 ft of head** (Franklin E-Series 20 GPM or equal)

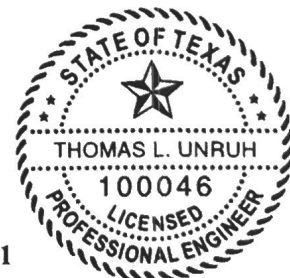
TANK: Alarms: Audible & Visual High-Water Alarm & Visual Air Pump malfunction
Chlorinator: Liquid

THE ABOVE DESIGN WAS BASED ON THE BEST AVAILABLE INFORMATION AND IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, 285.30 AND 285.40 (REGARDING RECHARGE FEATURES). THE SYSTEM SHOULD FUNCTION PROPERLY UNDER NORMAL OPERATIONS. OSSF DESIGN COMPLIES WITH EXISTING WPAP.

THOMAS L. UNRUH, P.E. 100046-F21891

2/28/2022

DATE



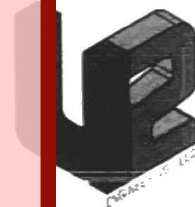
FIRM #21891



2-28-2022

F-21891

Engineering, LLC
1005 Cazador Trail
Arlington, TX 76010



NO.		REVISION.	DATE
		ORIGINAL	02/28/2022

PROJECT NAME AND ADDRESS
Nicholas & Nicole Hamilton
2615 Lions Den
New Braunfels, TX 78132

2112004	SHEET NUMBER
February 28, 2022	1 of 2
1" = 60'	

GENERAL NOTES:
1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE APPROPRIATE AUTHORITY HAVING JURISDICTION INCLUDING TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) AND ANY APPLICABLE AUTHORITY HAVING JURISDICTION (AFU) BUILDING, ENVIRONMENTAL, HEALTH, SAFETY, AND ELECTRICAL CODES.

2. CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITIES PRIOR TO CONSTRUCTION START. NOTE: WATER LINE AND WELL SETBACK REQUIREMENTS TO BE FOLLOWED PER TAC INCLUDING TAC 285 & 290. PRIVATE WATERLINE/WASTEWATER LINE CROSSINGS OR WASTEWATER LINES WITHIN FLOOD ZONE A, OR WITHIN FIFTY FEET OF A WELL, SHALL BE TREATED AS PUBLIC WATER LINE CROSSINGS. THIS INCLUDES PROVIDING ENCASEMENTS AND CEMENT STABILIZED SAND FOR THE NEW SEPTIC LINE FOLLOWING CHAPTER 201. ALL PRIVATE LINES IN SCH 40 PIPE ROUTED TO THE STREET SHALL BE PROTECTED BY SURFACE PROTECTION. MINIMUM OF 8 INCHES BELOW GRADE.

3. MINIMUM OF 2 INCHES OF SAND OR GRAVEL, FREE OF FIBER, SHALL BE PLACED UNDER ALL PIPES.

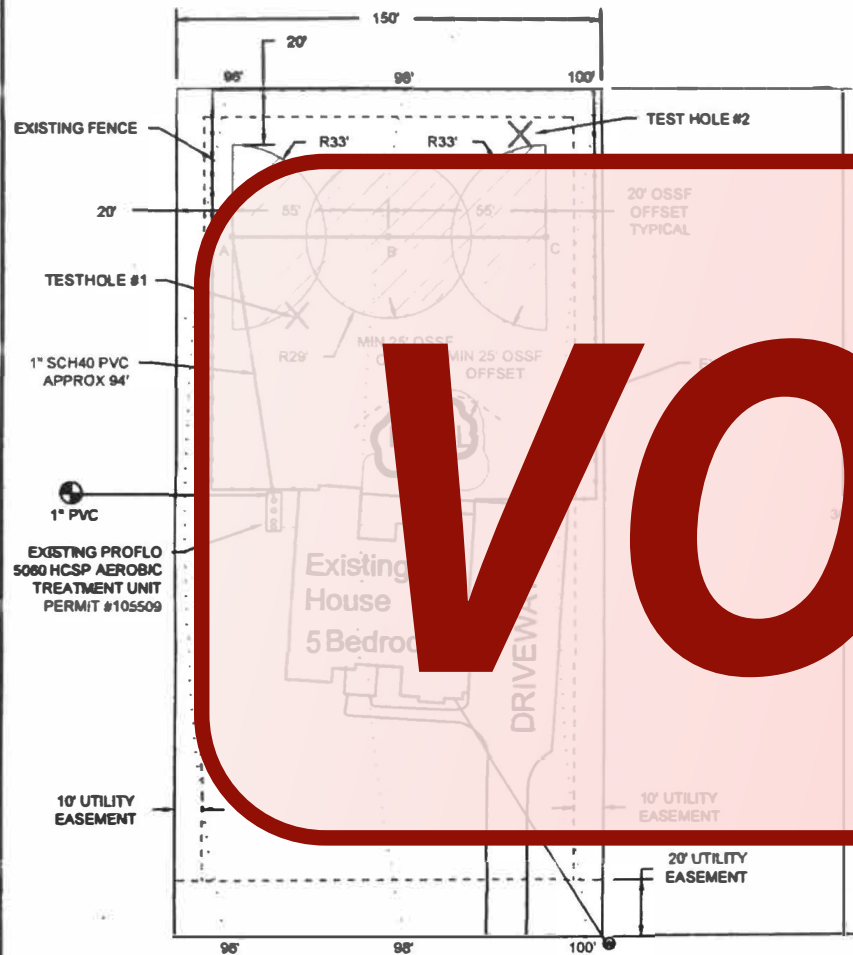
4. CONTRACTOR SHALL PROTECT EXISTING ROOTS AND TREES AS POSSIBLE AND SHALL MAINTAIN THE OVERALL LANDSCAPE.

5. NEW SEPTIC SYSTEM SHALL BE VALVE BOX ACCESSIBLE, AND CONTRACTOR SHALL IDENTIFY THE SYSTEM AS A SEPTIC SYSTEM ACCORDING TO CHAPTER 210.

6. ACCEPTABLE SURFACE APPLICATION AREAS SHALL HAVE A FLAT TERRAIN (WITH LESS THAN OR EQUAL TO 15% SLOPE) AND SHALL BE COVERED WITH GRASSES, EVERGREEN SHRUBS, BUSHES, TREES, OR LANDSCAPED BEDS CONTAINING MIXED VEGETATION. THERE SHALL BE NOTHING IN THE SURFACE APPLICATION AREA WITHIN TEN FEET OF THE SPRINKLER WHICH WOULD INTERFERE WITH THE UNIFORM APPLICATION OF THE EFFLUENT. LANDSCAPE IRRIGATION NOT ALLOWED.

7. UNACCEPTABLE SURFACE APPLICATION AREAS INCLUDES LAND THAT IS USED FOR STORMWATER (RAIN) RUNOFF, GROWING FOOD, GARDENS, ORCHARDS, OR CROPS THAT MAY BE USED FOR HUMAN CONSUMPTION, AS WELL AS UNSEEDS BARE GROUND. SHALL NOT BE USED FOR SURFACE APPLICATION. ANY DISTURBED OR EXPOSED ROCK AREAS TO BE COVERED WITH SUITABLE AMOUNT OF MATERIAL AND SEEDED WITH MIXTURE OF RYE & BURMUDA GRASSES OR EQUIVALENT PRIOR TO SYSTEM STARTUP.

8. OWNER IS RESPONSIBLE AND ACCOUNTABLE TO NOT EXCEED OPERATING LIMITS OF THE SYSTEM AS DESIGNED AND SHALL IMMEDIATELY RECTIFY ANY ISSUES. OWNER SHALL ENSURE SYSTEM IS ALWAYS UNDER A PAID MAINTENANCE CONTRACT AND TESTED PER TCEQ REQUIREMENTS.



OSSF SITE PLAN
1" = 60'-0"
NORTH

SPRAY AREA = 5,793 SF
CALCULATED BY CAD

SPRAY = 10.9 GPM TOTAL
A = 3.9 GPM / R33'
B = 3.1 GPM / R29'
C = 3.9 GPM / R33'

NOTE: 100-YEAR FLOOD PLAIN DOES NOT EXIST WITHIN THIS LOT / TRACT.

GENERAL NOTES.

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE APPROPRIATE AUTHORITY HAVING JURISDICTION INCLUDING TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) AND ANY APPLICABLE LOCAL BUILDING, ENVIRONMENTAL, HEALTH, SAFETY, AND ELECTRICAL CODES.

2. CONTRACTOR IS RESPONSIBLE FOR LOCATING, VERIFYING, AND PROTECTING ALL UNDERGROUND

WATER LINE SETBACK REQUIREMENTS TO BE FOLLOWED PER TAC 285 AND 290. IF WATER SERVICE LINE IS 10 FEET OR CLOSER TO OSSF DISPOSAL AREA LIMITS OR SYSTEM COMPONENTS, WATER LINE SHALL BE SLEEVED IN PVC A MINIMUM OF 10 FEET IN EACH DIRECTION OUTSIDE OF THE BOUNDARY AND EACH END OF THE CASING SHALL BE SEALED WITH WATERTIGHT NON-SHRINK CEMENT GROUT OR A MANUFACTURED WATERTIGHT SEAL. PRIVATE WATER LINE/WASTEWATER LINE CROSSINGS SHOULD BE TREATED AS PUBLIC WATER LINE CROSSINGS. PROVIDE CEMENT SLEEVES FOR ALL WATER SERVICE LINE CROSSINGS. CHAPTER 210. THE LINE SHALL BE IDENTIFIED AS A RECLAIMED WATER LINE ACCORDING TO CHPT 210.

3. EQUIPMENT, FITTINGS, AND PROFILES IS INTENDED TO BE IDENTIFIED AS A RECLAIMED WATER LINE ACCORDING TO CHPT 210.

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MINIMUM OF 10 FEET IN EACH DIRECTION OUTSIDE OF THE BOUNDARY AND EACH END OF THE CASING SHALL BE SEALED WITH WATERTIGHT NON-SHRINK CEMENT GROUT OR A MANUFACTURED WATERTIGHT SEAL.



2-28-2022

F-21891

U2 Engineering, LLC
27806 Cazador Trl
San Antonio, TX 78249

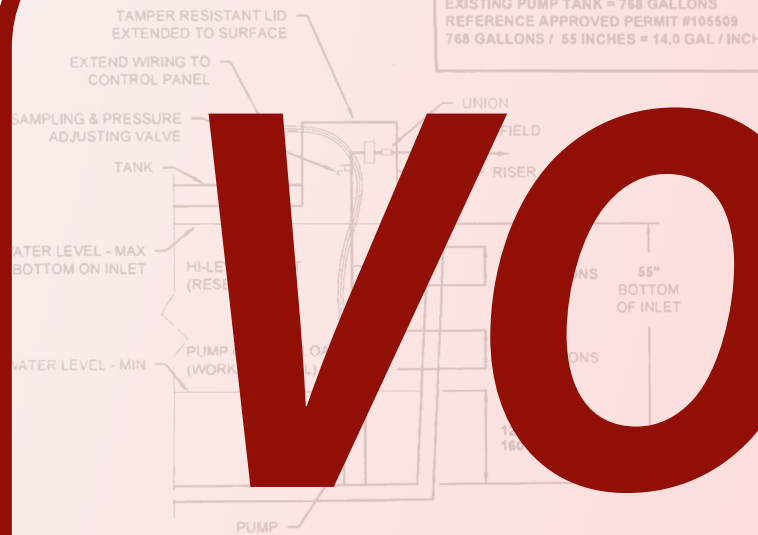


00	ORIGINAL	02/28/2022
NO.	REVISION	DATE

PROJECT NAME & ADDRESS

Nicholas & Nicole Hamilton
2615 Lions Den
New Braunfels, TX 78132

2112004	SHEET NUMBER
February 28, 2022	2 of 2
NTS	



TYPICAL PUMP TANK SCHEMATIC

NOT TO SCALE

Hunt

306

Hoffmann Lane
elementary School

2615 Lions Den, Braunfels, TX 78133

Lazy J Cajun

306

306

VOID

Hoffmann Ln
Hunter Rd

Texas

Gehan Homes at
Cloud Country

1102

306

Gehan Homes
at Gruenefield

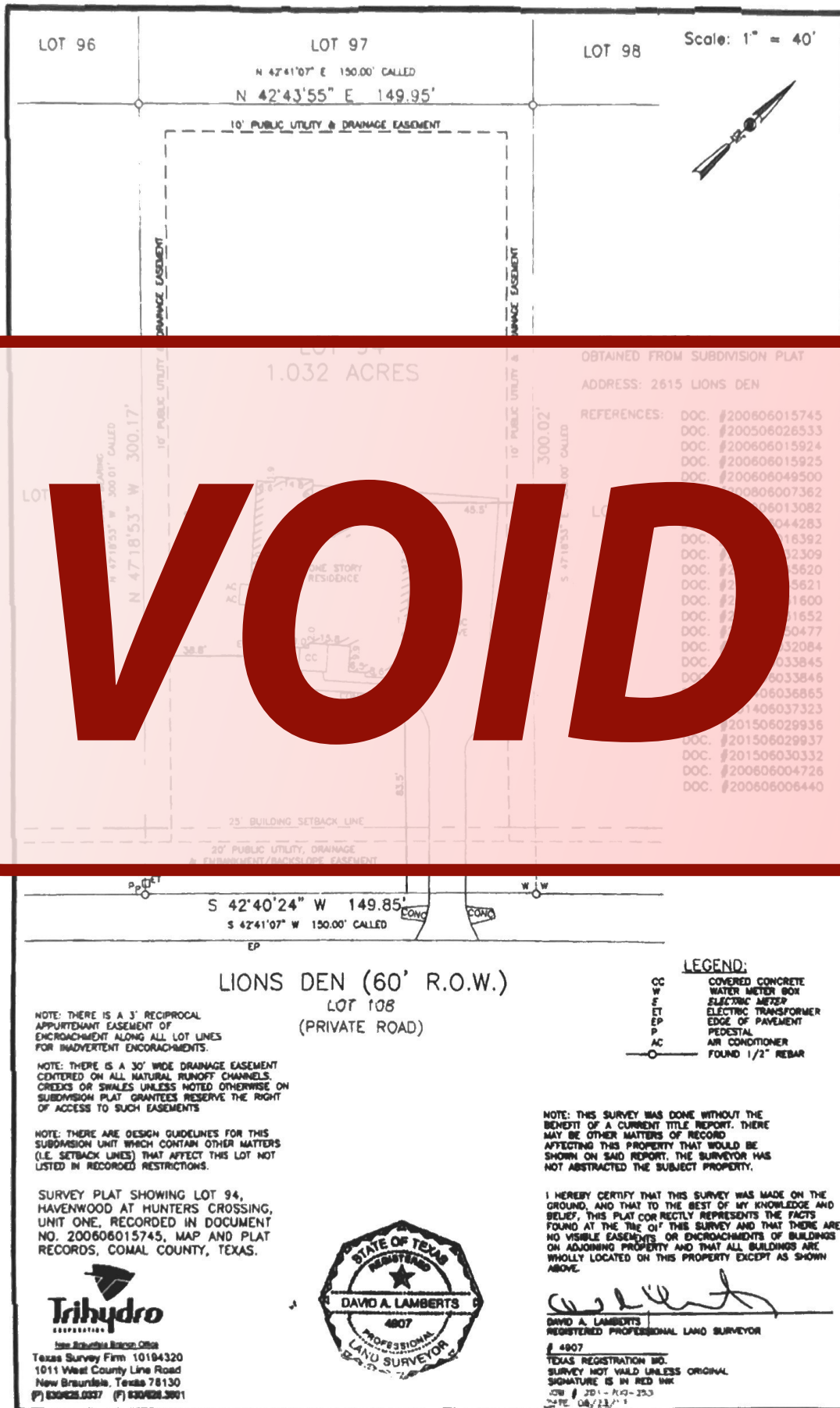
Google
Hoffmann Ln

Goodwin Ln

Conrads Ln

TA Travel Center

Map data ©2022 2000 ft





(/www.fema.gov/)

2615 Lions Den, New Braunfels, TX 78132

Search

Navigation

Search

Whether you are in a high risk zone or not, you may need [flood insurance \(https://www.fema.gov/national-flood-insurance-program\)](https://www.fema.gov/national-flood-insurance-program) because most homeowners insurance doesn't cover flood damage. If you live in an area with low or moderate flood risk you are 5 times more likely to experience flood than a fire in your home over the next 30 years. For many, a National Flood Insurance Program's flood insurance policy could cost less than \$400 per year. Call your insurance agent today and protect what you've built.

Learn more about steps you can take (<https://www.fema.gov/what-mitigation>) to reduce flood risk damage

Languages

MSC Home (/portal/)

MSC Search by Address (/port/search)

W. Search All Products
(Portal/advanceSearch)

MSC Products and Tools
(/portal/resources/productsandtools)

Hazus
(/portal/resources/hazus/)

Search Results—Products for COMAL COUNTY UNINCORPORATED AREAS

DYNAMIC MAP

MAP IMAGE

VOID

WOLF L. COMAL COUNTY
UNINCORPORATED AREAS
415463

CITY OF SAN FRANCISCO
EXTRAJURISDICTIONAL JURISDICTION
Form A 4-1973

**CITY OF NEW BRAUNFELS
EXTRATERRITORIAL JURISDICTION**

City of New Braunfels, Comal County, Esrl. HERE, Garmin, G...

Legend




- Agreements location based on user input and does not represent an authoritative property location
- Internal Planning Inventory
- Elected city Authority
- No elected city Authority
- Unmapped
- Area of Internal Flood Hazard zone 1
- Effective Limits
- Area of Unincorporated Flood Hazard zone 1
- Unincorporated zone
- National Oceanic and Atmospheric Administration


Warrant Case Panel Decision (Nov. 1987)
With 60% majority
 Regulatory Penalties: \$200 to \$5,000, \$5,000 to \$10,000, \$10,000 to \$25,000, \$25,000 to \$50,000, \$50,000 to \$100,000, \$100,000 to \$250,000, \$250,000 to \$500,000, \$500,000 to \$1,000,000, \$1,000,000 to \$2,500,000, \$2,500,000 to \$5,000,000, \$5,000,000 to \$10,000,000, \$10,000,000 to \$25,000,000, \$25,000,000 to \$50,000,000, \$50,000,000 to \$100,000,000, \$100,000,000 to \$250,000,000, \$250,000,000 to \$500,000,000, \$500,000,000 to \$1,000,000,000, \$1,000,000,000 to \$2,500,000,000, \$2,500,000,000 to \$5,000,000,000, \$5,000,000,000 to \$10,000,000,000, \$10,000,000,000 to \$25,000,000,000, \$25,000,000,000 to \$50,000,000,000, \$50,000,000,000 to \$100,000,000,000, \$100,000,000,000 to \$250,000,000,000, \$250,000,000,000 to \$500,000,000,000, \$500,000,000,000 to \$1,000,000,000,000, \$1,000,000,000,000 to \$2,500,000,000,000, \$2,500,000,000,000 to \$5,000,000,000,000, \$5,000,000,000,000 to \$10,000,000,000,000, \$10,000,000,000,000 to \$25,000,000,000,000, \$25,000,000,000,000 to \$50,000,000,000,000, \$50,000,000,000,000 to \$100,000,000,000,000, \$100,000,000,000,000 to \$250,000,000,000,000, \$250,000,000,000,000 to \$500,000,000,000,000, \$500,000,000,000,000 to \$1,000,000,000,000,000, \$1,000,000,000,000,000 to \$2,500,000,000,000,000, \$2,500,000,000,000,000 to \$5,000,000,000,000,000, \$5,000,000,000,000,000 to \$10,000,000,000,000,000, \$10,000,000,000,000,000 to \$25,000,000,000,000,000, \$25,000,000,000,000,000 to \$50,000,000,000,000,000, \$50,000,000,000,000,000 to \$100,000,000,000,000,000, \$100,000,000,000,000,000 to \$250,000,000,000,000,000, \$250,000,000,000,000,000 to \$500,000,000,000,000,000, \$500,000,000,000,000,000 to \$1,000,000,000,000,000,000, \$1,000,000,000,000,000,000 to \$2,500,000,000,000,000,000, \$2,500,000,000,000,000,000 to \$5,000,000,000,000,000,000, \$5,000,000,000,000,000,000 to \$10,000,000,000,000,000,000, \$10,000,000,000,000,000,000 to \$25,000,000,000,000,000,000, \$25,000,000,000,000,000,000 to \$50,000,000,000,000,000,000, \$50,000,000,000,000,000,000 to \$100,000,000,000,000,000,000, \$100,000,000,000,000,000,000 to \$250,000,000,000,000,000,000, \$250,000,000,000,000,000,000 to \$500,000,000,000,000,000,000, \$500,000,000,000,000,000,000 to \$1,000,000,000,000,000,000,000, \$1,000,000,000,000,000,000,000 to \$2,500,000,000,000,000,000,000, \$2,500,000,000,000,000,000,000 to \$5,000,000,000,000,000,000,000, \$5,000,000,000,000,000,000,000 to \$10,000,000,000,000,000,000,000, \$10,000,000,000,000,000,000,000 to \$25,000,000,000,000,000,000,000, \$25,000,000,000,000,000,000,000 to \$50,000,000,000,000,000,000,000, \$50,000,000,000,000,000,000,000 to \$100,000,000,000,000,000,000,000, \$100,000,000,000,000,000,000,000 to \$250,000,000,000,000,000,000,000, \$250,000,000,000,000,000,000,000 to \$500,000,000,000,000,000,000,000, \$500,000,000,000,000,000,000,000 to \$1,000,000,000,000,000,000,000,000, \$1,000,000,000,000,000,000,000,000 to \$2,500,000,000,000,000,000,000,000, \$2,500,000,000,000,000,000,000,000 to \$5,000,000,000,000,000,000,000,000, \$5,000,000,000,000,000,000,000,000 to \$10,000,000,000,000,000,000,000,000, \$10,000,000,000,000,000,000,000,000 to \$25,000,000,000,000,000,000,000,000, \$25,000,000,000,000,000,000,000,000 to \$50,000,000,000,000,000,000,000,000, \$50,000,000,000,000,000,000,000,000 to \$100,000,000,000,000,000,000,000,000, \$100,000,000,000,000,000,000,000,000 to \$250,000,000,000,000,000,000,000,000, \$250,000,000,000,000,000,000,000,000 to \$500,000,000,000,000,000,000,000,000, \$500,000,000,000,000,000,000,000,000 to \$1,000,000,000,000,000,000,000,000,000, \$1,000,000,000,000,000,000,000,000,000 to \$2,500,000,000,000,000,000,000,000,000, \$2,500,000,000,000,000,000,000,000,000 to \$5,000,000,000,000,000,000,000,000,000, \$5,000,000,000,000,000,000,000,000,000 to \$10,000,000,000,000,000,000,000,000,000, \$10,000,000,000,000,000,000,000,000,000 to \$25,000,000,000,000,000,000,000,000,000, \$25,000,000,000,000,000,000,000,000,000 to \$50,000,000,000,000,000,000,000,000,000, \$50,000,000,000,000,000,000,000,000,000 to \$100,000,000,000,000,000,000,000,000,000, \$100,000,000,000,000,000,000,000,000,000 to \$250,000,000,000,000,000,000,000,000,000, \$250,000,000,000,000,000,000,000,000,000 to \$500,000,000,000,000,000,000,000,000,000, \$500,000,000,000,000,000,000,000,000,000 to \$1,000,000,000,000,000,000,000,000,000,000, \$1,000,000,000,000,000,000,000,000,000,000 to \$2,500,000,000,000,000,000,000,000,000,000, \$2,500,000,000,000,000,000,000,000,000,000 to \$5,000,000,000,00

○	Red	Green Sandstone with 1% Annual Chlorophyll
○	Red	Water Turbidity Intensity
○	Green	Coastal Turbidity
○	Green	Green Plant Production Index (GPI)
○	Green	Level of Study
○	Green	Intertidal Boundary
○	Green	Coastal Turbidity Intensity
○	Green	Profilic Sandstone
○	Green	Hydrographic Position
○	Green	Channel, Subchannel, or Station Survey
○	Green	Water, River, or Reservoir

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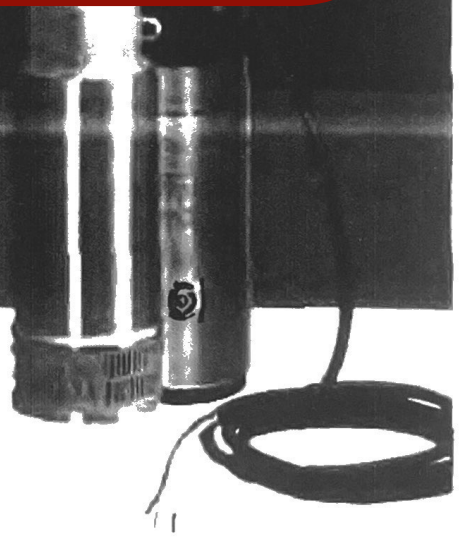
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EFFLUENT PUMPS

Ideal for filtered effluent service, aeration, and ornamental fountains and waterfalls, equipped with the power, performance, and reliability you expect from Franklin Electric.



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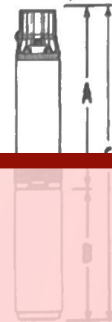
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THERMOPLASTIC DIMENSIONS

GPM	HP	Stages	Dimensions (in)			WT. (lbs)	
			A	B	C	PE	PMA
10	1/4	8	14.69	10.64	23.33	8	29
	1/2	10	15.00	10.64	23.33	8	30
	1.5	15	21.06	15.30	36.16	10	41
20	1/4	5	13.65	10.64	24.29	6	28
	1/2	7	16.25	10.64	26.42	8	32
	1.5	10	19.77	15.30	34.87	8	39

NOTES: PE = Pump end only; PMA = Pump and motor assembly. Maximum diameter with cable guard is 1.90"

Thermoplastic



STAINLESS STEEL DIMENSIONS

GPM	HP	Stages	Dimensions (in)			WT. (lbs)	
			A	B	C	PE	PMA
10	1/4	8	14.69	10.64	23.33	8	29
	1/2	10	15.00	10.64	23.33	8	30
	1.5	15	21.06	15.30	36.16	10	41
20	1/4	5	13.65	10.64	24.29	6	28
	1/2	7	16.25	10.64	26.42	8	32
	1.5	10	19.77	15.30	34.87	8	39

NOTES: PE = Pump end only; PMA = Pump and motor assembly. Maximum diameter with cable guard is 1.90"

Steel



Franklin Electric

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- **Arc Memory Clutch** – Prevents internal gear damage and returns rotor to its prior setting automatically if nozzle turret is forced past its stop.
- **Time Proven Patented Reversing Mechanism** – Assures continuous reverse and return...over a 20 year history.
- **Ratcheting Riser** – Allows for easy adjustment of your left starting position with a simple turn of the riser.
- **Rubber Cover** – Seals out dirt, increases product durability.
- **Wide Selection of Nozzles** – Including standard and low angle, provides flexibility in system design.
- **Optional Check Valve** – Prevents low head drainage.

K
RAIN.

K-Rain Manufacturing Corp.
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FAX: +1 561 842-9493
1.800.735.7246 | www.krain.com



Easy Arc Setting

Arc Selection 40°
to Continuous 360°
Adjust From Left Start



Models

11003 ProPlus
11003-HP ProPlus 12" High Pop
11003-SH ProPlus Shrub Head

OTHER OPTIONS: ADD TO PART NUMBER

-CV Check Valve
-LA Low Angle Nozzle
-NN No Nozzle
-RCW ProPlus for Reclaimed Water

Specifications

- Inlet: 3/4" Threaded NPT
- Arc Adjustment Range: 40° to Continuous 360°
- Flow Range: .5 - 10.0 GPM
- Pressure Rating: 20 - 70 PSI
- Precipitation Rate: .06 to .50 Inches Per Hour
(Depending on Spacing and Nozzle Used)
- Overall Height (Popped Down): 7 1/2"
(17" for High Pop Model)
- Recommended Spacing: 28' to 44'
- Radius: 22' to 50'

How to Specify

Model Number Description
11003 -RCW

VOID

	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590	600	610	620	630	640	650	660	670	680	690	700	710	720	730	740	750	760	770	780	790	800	810	820	830	840	850	860	870	880	890	900	910	920	930	940	950	960	970	980	990	1000	1010	1020	1030	1040	1050	1060	1070	1080	1090	1100	1110	1120	1130	1140	1150	1160	1170	1180	1190	1200	1210	1220	1230	1240	1250	1260	1270	1280	1290	1300	1310	1320	1330	1340	1350	1360	1370	1380	1390	1400	1410	1420	1430	1440	1450	1460	1470	1480	1490	1500	1510	1520	1530	1540	1550	1560	1570	1580	1590	1600	1610	1620	1630	1640	1650	1660	1670	1680	1690	1700	1710	1720	1730	1740	1750	1760	1770	1780	1790	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080	2090	2100	2110	2120	2130	2140	2150	2160	2170	2180	2190	2200	2210	2220	2230	2240	2250	2260	2270	2280	2290	2300	2310	2320	2330	2340	2350	2360	2370	2380	2390	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500	2510	2520	2530	2540	2550	2560	2570	2580	2590	2600	2610	2620	2630	2640	2650	2660	2670	2680	2690	2700	2710	2720	2730	2740	2750	2760	2770	2780	2790	2800	2810	2820	2830	2840	2850	2860	2870	2880	2890	2900	2910	2920	2930	2940	2950	2960	2970	2980	2990	3000	3010	3020	3030	3040	3050	3060	3070	3080	3090	3100	3110	3120	3130	3140	3150	3160	3170	3180	3190	3200	3210	3220	3230	3240	3250	3260	3270	3280	3290	3300	3310	3320	3330	3340	3350	3360	3370	3380	3390	3400	3410	3420	3430	3440	3450	3460	3470	3480	3490	3500	3510	3520	3530	3540	3550	3560	3570	3580	3590	3600	3610	3620	3630	3640	3650	3660	3670	3680	3690	3700	3710	3720	3730	3740	3750	3760	3770	3780	3790	3800	3810	3820	3830	3840	3850	3860	3870	3880	3890	3900	3910	3920	3930	3940	3950	3960	3970	3980	3990	4000	4010	4020	4030	4040	4050	4060	4070	4080	4090	4100	4110	4120	4130	4140	4150	4160	4170	4180	4190	4200	4210	4220	4230	4240	4250	4260	4270	4280	4290	4300	4310	4320	4330	4340	4350	4360	4370	4380	4390	4400	4410	4420	4430	4440	4450	4460	4470	4480	4490	4500	4510	4520	4530	4540	4550	4560	4570	4580	4590	4600	4610	4620	4630	4640	4650	4660	4670	4680	4690	4700	4710	4720	4730	4740	4750	4760	4770	4780	4790	4800	4810	4820	4830	4840	4850	4860	4870	4880	4890	4900	4910	4920	4930	4940	4950	4960	4970	4980	4990	5000	5010	5020	5030	5040	5050	5060	5070	5080	5090	5100	5110	5120	5130	5140	5150	5160	5170	5180	5190	5200	5210	5220	5230	5240	5250	5260	5270	5280	5290	5300	5310	5320	5330	5340	5350	5360	5370	5380	5390	5400	5410	5420	5430	5440	5450	5460	5470	5480	5490	5500	5510	5520	5530	5540	5550	5560	5570	5580	5590	5600	5610	5620	5630	5640	5650	5660	5670	5680	5690	5700	5710	5720	5730	5740	5750	5760	5770	5780	5790	5800	5810	5820	5830	5840	5850	5860	5870	5880	5890	5900	5910	5920	5930	5940	5950	5960	5970	5980	5990	6000	6010	6020	6030	6040	6050	6060	6070	6080	6090	6100	6110	6120	6130	6140	6150	6160	6170	6180	6190	6200	6210	6220	6230	6240	6250	6260	6270	6280	6290	6300	6310	6320	6330	6340	6350	6360	6370	6380	6390	6400	6410	6420	6430	6440	6450	6460	6470	6480	6490	6500	6510	6520	6530	6540	6550	6560	6570	6580	6590	6600	6610	6620	6630	6640	6650	6660	6670	6680	6690	6700	6710	6720	6730	6740	6750	6760	6770	6780	6790	6800	6810	6820	6830	6840	6850	6860	6870	6880	6890	6900	6910	6920	6930	6940	6950	6960	6970	6980	6990	7000	7010	7020	7030	7040	7050	7060	7070	7080	7090	7100	7110	7120	7130	7140	7150	7160	7170	7180	7190	7200	7210	7220	7230	7240	7250	7260	7270	7280	7290	7300	7310	7320	7330	7340	7350	7360	7370	7380	7390	7400	7410	7420	7430	7440	7450	7460	7470	7480	7490	7500	7510	7520	7530	7540	7550	7560	7570	7580	7590	7600	7610	7620	7630	7640	7650	7660	7670	7680	7690	7700	7710	7720	7730	7740	7750	7760	7770	7780	7790	7800	7810	7820	7830	7840	7850	7860	7870	7880	7890	7900	7910	7920	7930	7940	7950	7960	7970	7980	7990	8000	8010	8020	8030	8040	8050	8060	8070	8080	8090	8100	8110	8120	8130	8140	8150	8160	8170	8180	8190	8200	8210	8220	8230	8240	8250	8260	8270	8280	8290	8300	8310	8320	8330	8340	8350	8360	8370	8380	8390	8400	8410	8420	8430	8440	8450	8460	8470	8480	8490	8500	8510	8520	8530	8540	8550	8560	8570	8580	8590	8600	8610	8620	8630	8640	8650	8660	8670	8680	8690	8700	8710	8720	8730	8740	8750	8760	8770	8780	8790	8800	8810	8820	8830	8840	8850	8860	8870	8880	8890	8900	8910	8920	8930	8940	8950	8960	8970	8980	8990	9000	9010	9020	9030	9040	9050	9060	9070	9080	9090	9100	9110	9120	9130	9140	9150	9160	9170	9180	9190	9200	9210	9220	9230	9240	9250	9260	9270	9280	9290	9300	9310	9320	9330	9340	9350	9360	9370	9380	9390	9400	9410	9420	9430	9440	9450	9460	9470	9480	9490	9500	9510	9520	9530	9540	9550	9560	9570	9580	9590	9600	9610	9620	9630	9640	9650	9660	9670	9680	9690	9700	9710	9720	9730	9740	9750	9760	9770	9780	9790	9800	9810	9820	9830	9840	9850	9860	9870	9880	9890	9900	9910	9920	9930	9940	9950	9960	9970	9980	9990	10000	10010	10020	10030	10040	10050	10060	10070	10080	10090	10100	10110	10120	10130	10140	10150	10160	10170	10180	10190	1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COMAL COUNTY

ENGINEER'S OFFICE

RE: ***2615 Lions Den***
Havenwood at Hunters Crossing 1
Lot 94

Dear Property Owner & Agent,

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

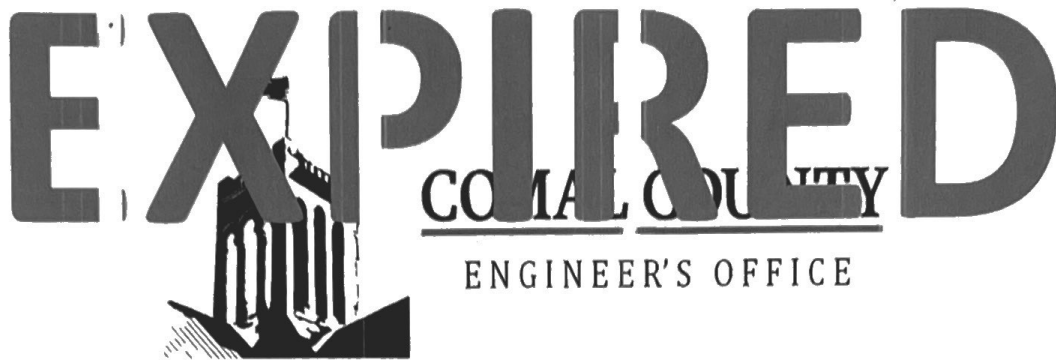
- ✓ 285.91(10) There is a 5 ft separation distance from tank to surface improvements.
- ✓ 285.91(10) There is a 5 ft separation distance from sewer pipe with watertight joints and building foundations.
- ✓ 285.9(10) There is a 10 ft separation distance from waterlines (pool lines) and OSSF components.
 - a. Does the concrete trench comply with Chapter 290? If not,
 - b. You may consider requesting a variance to Chapter 285.
 - i. Our office will discuss the variance if you choose to request one.
- ✓ Our office has a concern with the hose bib in the application area.
 - a. What equivalent protection are you purposing for the hose bib?
- 5. Revise accordingly and resubmit.

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

Thank You,

| **Brandon Olvera** | **Designated Representative OS0034792** |

| Comal County | www.cceo.org | f: 830-608-2078 | e: olverb@co.comal.tx.us |



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

Permit Number: 114133
Issued This Date: 03/04/2022
This permit is hereby given to: Nicholas Matthew & Nicole LeeAnn Hamilton

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

2615 LIONS DEN
NEW BRAUNFELS, TX 78132

Subdivision: Havenwood at Hunters Crossing
Unit: 1
Lot: 94
Block: N/A
Acreage: 1.0300

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.

SP-140913340/VA



201406030109 10/29/2014 08 14 47 AM 1/2

2
TC

Warranty Deed with Vendor's Lien

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: October 27, 2014

Grantor: ROBERT SHAWN DOYLE and CATHERINE CONKLIN DOYLE

Grantee: NICHOLAS MATTHEW HAMILTON and NICOLE LEEANN HAMILTON, husband and wife

Grantee's Mailing Address: 214 Grove Place, Cibolo, TX 78108

Consideration: Cash and a note of even date executed by Grantee and payable to the order of SOUTHTRUST BANK, N.A., in the principal amount of FORTY-TWO THOUSAND FIVE HUNDRED AND NO/100 DOLLARS (\$42,500.00). The note is secured by a first and superior vendor's lien and superior title retained in this deed and by a first lien deed of trust of even date from Grantee to DWAYNE McWILLIAMS, Trustee.

Property (including any improvements):

Lot 94, HAVENWOOD AT HUNTERS CROSSING, UNIT ONE, Comal County, Texas, according to Map or Plat thereof recorded in Document No. 200606015745, Map and Plat Records of Comal County, Texas;

RECEIVED

FEB 03 2017

Reservations from Conveyance: NONE

COUNTY ENGINEER

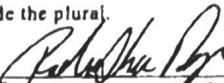

Exceptions to Conveyance and Warranty: Any and all restrictions, covenants, conditions, reservations, leases, interests, agreements and easements, shown of record in the hereinabove mentioned County and State and to all zoning laws, regulations and ordinances of municipal and/or governmental authorities,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

Grantor, for the Consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever. Grantor binds Grantor and Grantor's heirs and successors to warrant and forever defend all and singular the Property to Grantee and Grantee's heirs, successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

The vendor's lien against and superior title to the Property are retained until each note described is fully paid according to its terms, at which time this deed will become absolute.

SOUTHTRUST BANK, N.A., at Grantee's request, has paid in cash to Grantor that portion of the purchase price of the Property that is evidenced by the note. The first and superior vendor's lien against and superior title to the Property are retained for the benefit of SOUTHTRUST BANK, N.A., and are transferred to SOUTHTRUST BANK, N.A., without recourse against Grantor.

When the context requires, singular nouns and pronouns include the plural.


ROBERT SHAWN DOYLE

CATHERINE CONKLIN DOYLE

ACKNOWLEDGMENT

STATE OF TEXAS

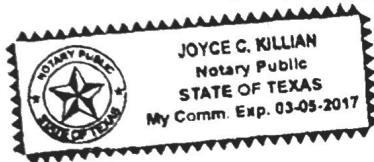
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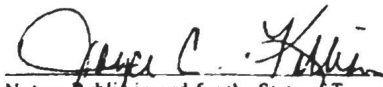
COUNTY OF COMAL

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This instrument was acknowledged before me on the 28th day of October, 2014, by ROBERT SHAWN DOYLE and CATHERINE CONKLIN DOYLE.




Notary Public in and for the State of Texas

AFTER RECORDING RETURN TO:

NICOLE LEEANN HAMILTON
NICHOLAS MATTHEW HAMILTON
214 Grove Place
Cibola, TX 78108

PREPARED IN THE LAW OFFICES OF:

THE HOUGHAM LAW FIRM
3700 Fredericksburg Road, Suite 237
San Antonio, Texas 78201
Telephone No. (210) 375-7570

RECEIVED

FEB 03 2017

COUNTY ENGINEER

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Joy Streater, County Clerk
Comal County, Texas
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