Comal County Environmental Health
OSSF Inspection Sheet

Installer Name: Aerobic Services **OSSF Installer #:** OS0024597

1st Inspection Date: 7/14/25 **2nd Inspection Date:** _____ **3rd Inspection Date:** _____

Inspector Name: Gallegos **Inspector Name:** _____ **Inspector Name:** _____

Permit#: 118489 **Address:** 339 Granite Rd

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	X	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)		X		
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards	X	285.91(10) 285.30(b)(4) 285.31(d)		X		
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)	X	285.32(a)(1)		X		
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot	X	285.32(a)(3)		X		
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)	X	285.32(a)(5)		X		
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: **7/14/25 EG: Tank good. Field to design. Cover all. Require an operational. Remove any loose rock from spray field. Will need revision for actual water line location.**

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 SingleTank, 2Compartments Provided withBaffle SEPTIC TANK Inlet Flowline Greater than3" and " T " Provided on Inlet and OutletSEPTIC TANK Septic Tank(s) MeetMinimum 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	X	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)		X		
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 providedSEPTIC 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	X			X		
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	X X		Existing	X X		
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)	x	285.33(d)(6) 285.33(c)(4)	Surface Application	x		
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.	X	285.32(c)(1)		X		
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	X X X			X X X		
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.	X			X		
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	X			X		

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?	X	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)		X		
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	X X X	285.33(d)(2)(G) (i)285.33(d)(2) (A)285.33(d)(2)(F)		X		
42	APPLICATION AREA Area Installed	X					
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:	118489
Issued This Date:	04/16/2025
This permit is hereby given to:	Edgar Onyeagu

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

339 GRANITE RD
SPRING BRANCH, TX 78070

Subdivision:	Cypress Cove Subdivision
Unit:	11
Lot:	3
Block:	1
Acreage:	0.2300

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 3:06 pm, Mar 21, 2025

COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

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

Date 03.11.2025 Permit Number 118489

1. APPLICANT / AGENT INFORMATION

Owner Name	Edgar Onyeagu	Agent Name	NA
Mailing Address	339 Granite Road	Agent Address	NA
City, State, Zip	Spring Branch, TX 78070	City, State, Zip	NA
Phone #	713.384.1817	Phone #	NA
Email	office@maverickturnkey.com	Email	NA

2. LOCATION

Subdivision Name Cypress Cove Subdivision Unit 11 Lot 3 Block 1

Survey Name / Abstract Number _____ Acreage .23

Address 339 Granite Road City Spring Branch State TX Zip 78070

3. TYPE OF DEVELOPMENT

☒ Single Family Residential

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

Number of Bedrooms 3

Indicate Sq Ft of Living Area 1310

☐ 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 House (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 ☐ Rainwater

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.

Edgar Onyeagu
Edgar Onyeagu (Mar 12, 2025 07:08 CDT)
Signature of Owner

03/12/2025
Date

Revised January 2021

COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

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

REVISED
8:46 am, Apr 16, 2025

Planning Materials & Site Evaluation as Required Completed By Jamieson Taylor

System Description Aerobic System

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

Tank Size(s) (Gallons) 760 Absorption/Application Area (Sq Ft) 3766 sf

Gallons Per Day (As Per TCEQ Table III) 240

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)

Is the property located over the Edwards Recharge Zone? ☐ Yes ☒ No

(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? ☐ Yes ☒ No

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

Is there at least one acre per single family dwelling as per 285.40(c)(1)? ☒ Yes ☐ No

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? ☒ Yes ☐ No

Is there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No

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

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? ☐ Yes ☒ No

(If yes, the 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: Spring Branch

I hereby certify that, per TCEQ Rules Chapter 213 - Subchapter B, this site is exempt from the Contributing Zone Plan requirement.

James Taylor

3/21/2024
Date

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.

James Taylor
Signature of Designer

3/12/2024
Date

Doc# 200306042787

AFFIDAVIT TO THE PUBLIC

REVISED

RECEIVED
NOV 18 2003
COUNTY ENGINEER

THE COUNTY OF COMAL
STATE OF TEXAS

2
C

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

According to Texas Commission for Environmental Quality Rules for On-Site Sewage Facilities, 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 for Environmental Quality (TCEQ) to regulate on-site sewage facilities (OSSF's). Additionally; the Texas Water Code (TWC), § 5.013, give the TCEQ 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 TCEQ, 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 OSSF's are located on specific pieces of property. To achieve this notice, the TCEQ requires a deed recording. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This deed certification is not a representation or warranty by the TCEQ of the suitability of this OSSF, nor does it constitute any guarantee by the TCEQ 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 (legal description as shown on recorded warranty deed):

James M. Duggan
owner of Lot 3 Block 1 Cypress Cove

The property is owned by (owner's full name as shown on recorded warranty deed):

James M Duggan

This OSSF must be covered by a continuous maintenance contract. All maintenance on this OSSF must be performed by an approved maintenance company, and a signed maintenance contract must be submitted to Comal County Engineer's Office within 30 days after the property has been transferred.

The owner will, upon sale or transfer of the above described property, request a transfer of the permit for the OSSF 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 7 DAY OF November, 2003

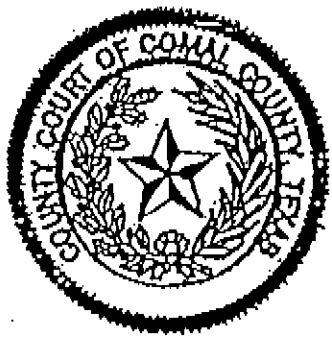
Owner(s) Signature (s)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 7 DAY OF November, 2003

Summer Townsley
Notary Public, State of Texas

SUMMER TOWNSLEY
Notary Public, State of Texas
My Commission Expires
February 02, 2005

Notary's Printed Name: _____
My Commission Expires: _____



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.

Doc# 200306042787
Pages 2
11/14/2003 03:59:07 PM
Filed & Recorded in
Official Records of
COMAL COUNTY
JOY STREATER
COUNTY CLERK
Fees $16.00

Doc# 200306042787

STATE OF TEXAS
COUNTY OF COMAL

This is to certify that this document was FILED and RECORDED in the Official Public Records of Comal County, Texas on the date and time stamped thereon.

COUNTY CLERK

Azure Engineering, LLC
Environmental Engineering & Consulting
TBPELS Firm No. F-26379

Brenda Ritzen
Environmental Health Coordinator
Comal County Department of Environmental Health
195 David Jonas Dr
New Braunfels, TX 78132
(830) 608-2090

3/6/2025

Re: OSSF Spray Setback Variance Request for 339 Granite Rd., Spring Branch, TX 78070

To whom it may concern,

I am requesting a variance for the placement of a spray disposal area to be 10 feet from the property line, rather than 20 feet from the property line per Comal County regulations. The variance is requested due to limited space on the property. This 10' setback complies with TCEQ CHAPTER 285 rules Table X requirements. Equivalent protection will be maintained by including a commercial irrigation timer with a battery backup to assure sprayers only spray between midnight and 5:00am. This variance will not pose a threat to the environment or public health if the system continues to be maintained and operating correctly.

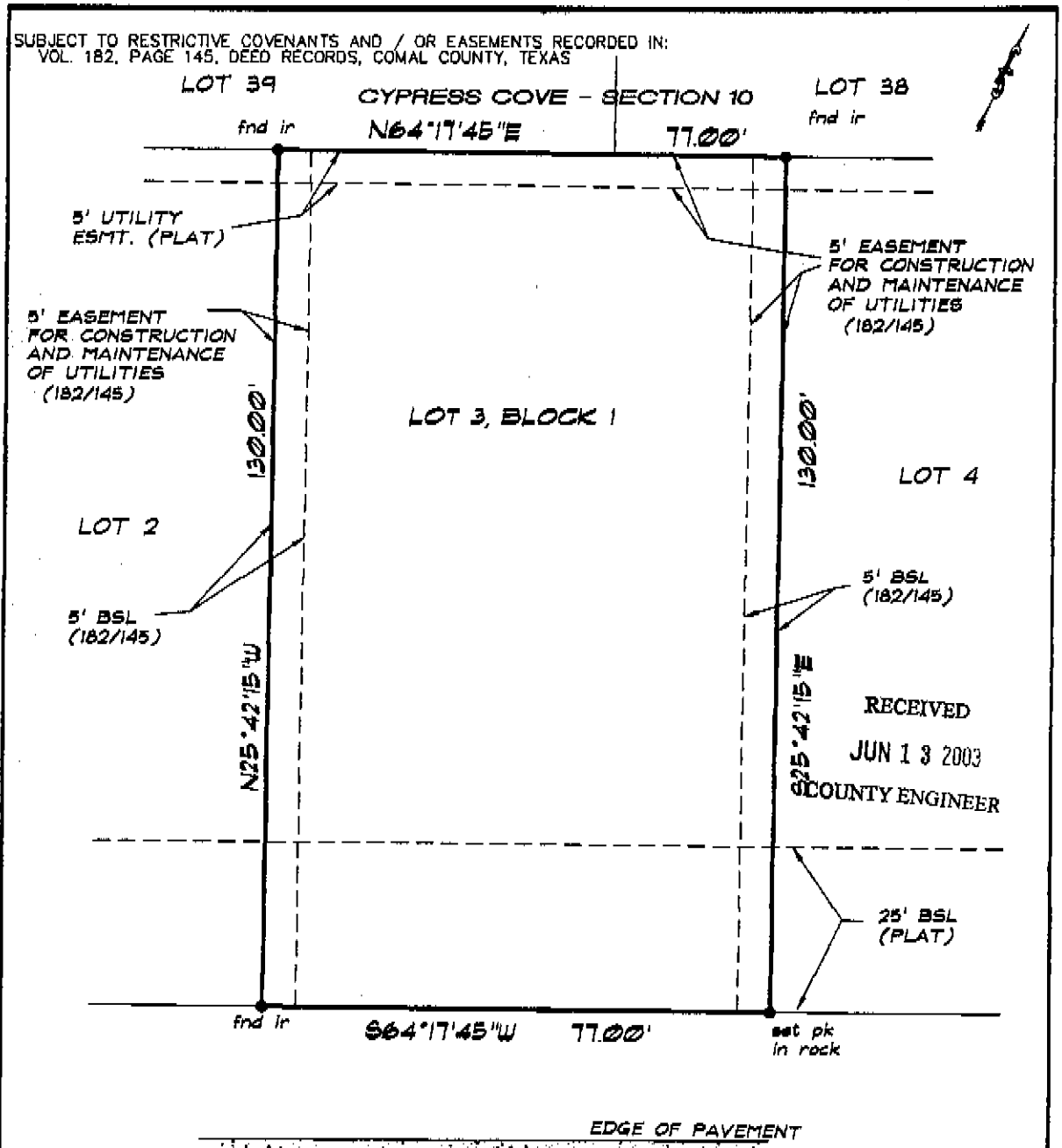
If there are any questions or concerns, please contact me at (830) 522-1588 or by email at jtaylor@azureeng.com.

Sincerely,

Jamie Taylor, PE

84406

SUBJECT TO RESTRICTIVE COVENANTS AND / OR EASEMENTS RECORDED IN:
VOL. 182, PAGE 145, DEED RECORDS, COMAL COUNTY, TEXAS



NOTE:
BEARINGS ARE BASED ON THE RECORDED PLAT. RECORDED DATA IS SHOWN UNLESS A SIGNIFICANT DIFFENCE EXISTS FROM FIELD MEASURE.

CLIENT: *UNITED CONSTRUCTION SERVICES*

SCALE: 1"=20' DATE OF SURVEY: 05/15/03 COMPUTED BY: CGB DRAWN BY: CGB CHECKED BY: ESB

I, Carson G. Balzrette, a Registered Professional Land Surveyor in the State of Texas, do hereby certify to UNITED CONSTRUCTION SERVICES and that the above map is true and correct according to an actual field survey, made by me or under my supervision, of the property shown hereon or described by field notes accompanying this drawing. I further certify that all easements and right-of-ways of which I have been advised are shown hereon and that, except as shown, there are no visible encroachments, no visible overlapping of improvements and no apparent discrepancies or conflicts in the boundary lines, and no visible physical evidence of easements or right-of-ways as of the date of the field survey. I further certify that this survey meets or exceeds the minimum standards established by the Texas Board of Professional Land Surveying (Section 663.18).

Lot(s) 3 Block 1 NCB Survey No. Abstract No.
Survey or Subdivision CYPRESS COVE, SECTION ELEVEN
Volume 3, Page 49 of the MAP & PLAT records, COMAL County, Texas
Owner
Address GRANITE ROAD GF No. NO TC AVAILABLE

Terra-metrics
Surveying and mapping
P.O. Box 680471
San Antonio, Texas 78268-0471
Phone (210) 543-8408 - Fax (210) 647-7716

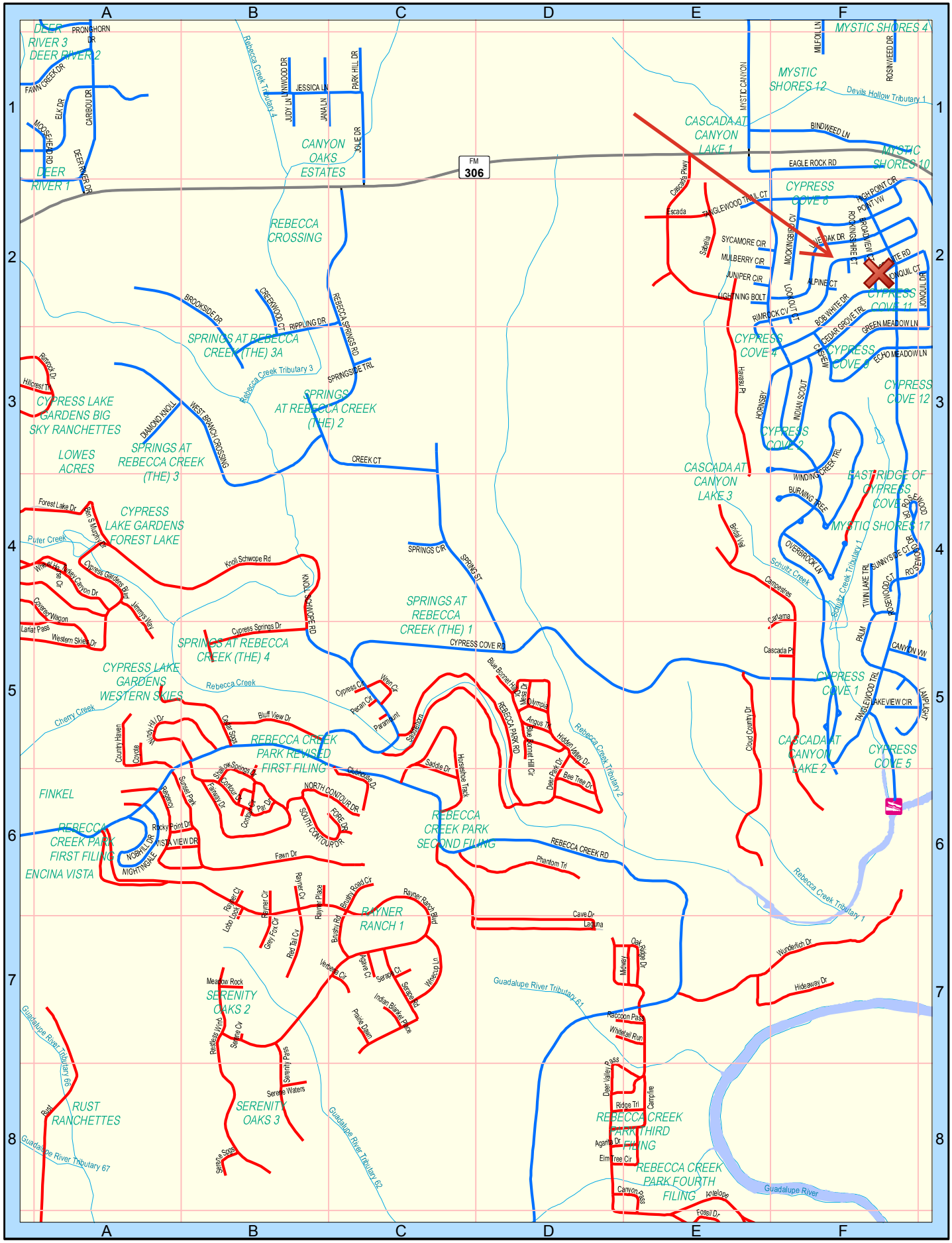
LOT STAKE SURVEY

STATE OF TEXAS REGISTERED CARSON G. BALZRETTE 4109 PROFESSIONAL LAND SURVEYOR

05/15/03

Carson G. Balzrette,
Registered Professional Land Surveyor
R.P.L.S. No. 4109

↑ SEE PAGE 9 ↑

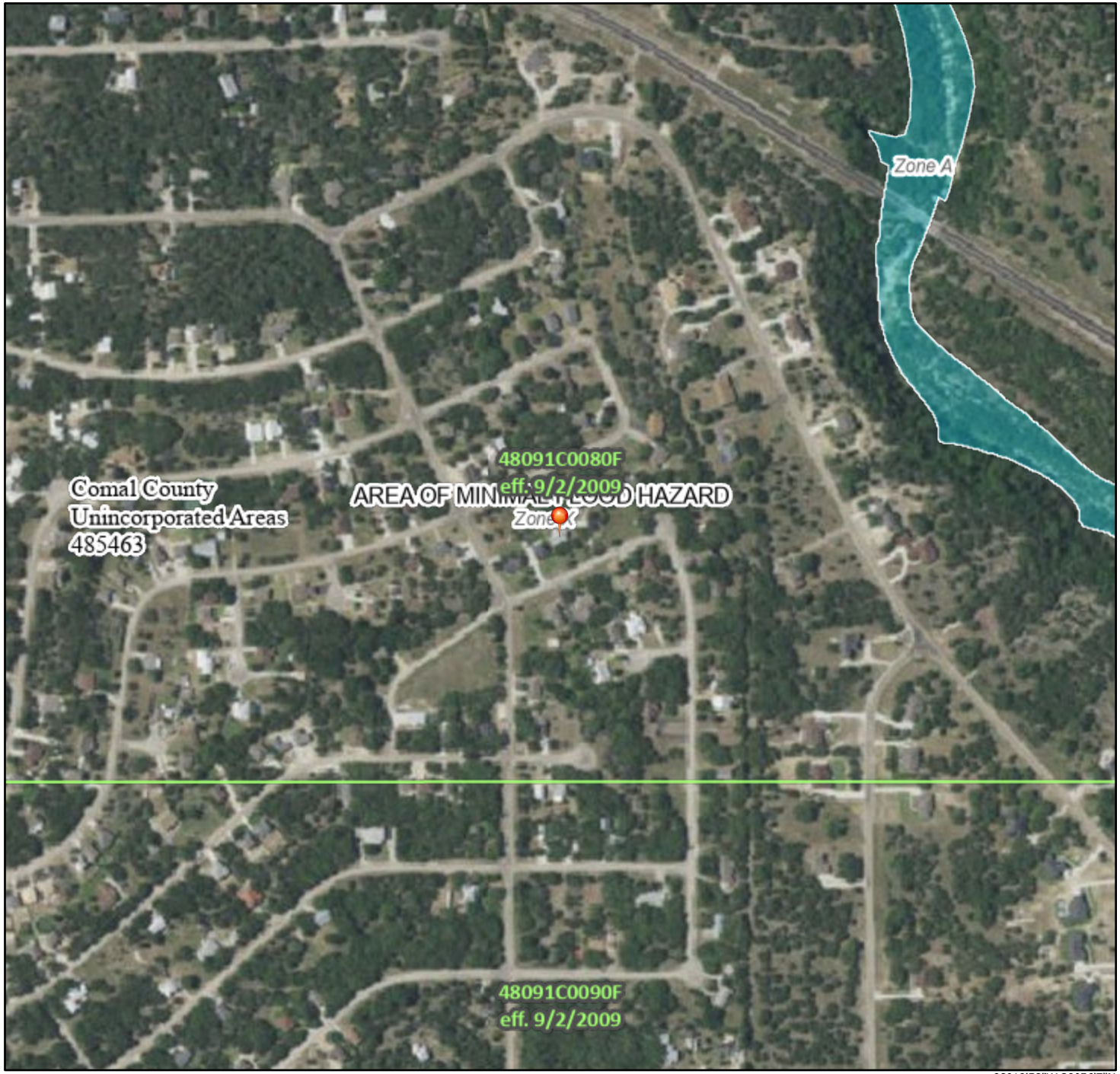


Produced by the Comal County Engineer's Office - 2/1/2021

National Flood Hazard Layer FIRMette

FEMA

98°20'35"W 29°56'38"N



98°19'58"W 29°56'7"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

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, Areas 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 D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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 2/6/2025 at 4:18 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.

#84406

RECEIVED

NOV 18 2003

COUNTY ENGINEER

ON-SITE SEWERAGE FACILITY
SOIL EVALUATION REPORT INFORMATION

REVISED

Date Soil Survey Performed: 6/13

Site Location: Lot 3 Block 1 Cypress Cove / Green Tee Road

County: COMAL **Proposed Excavation Depth:** ~~3½' soil substitution~~ 18 (Soil subst.)

Name of Site Evaluator: VIRGINIA CASTRO **Registration Number:** RS #3233

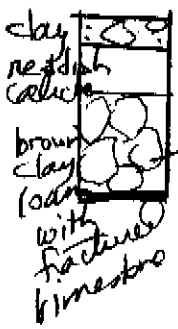
Site Evaluator: SE #4011

class IV soils on surface must be removed No class IV must be in excavation area

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. If gravel is over 30%, with a 2mm sieve, then 80% must be below 5mm.

SOIL BORING NUMBER 1

Depth (Feet)	Texture Class	Soil Texture	% Gravel	Drainage (Mottles/ Water Table)	Restrictive Horizons	Observations % Slope
0	IV	0-8" brown clay with surface rock boulders & gobbles	n/a	none	clay	2 to 3%
1	III	8"-18" reddish brown clay loam				
2	III	18"-48" fractured limestone				
3						
4						
5						



Changed to aerobic 10/30/03

SOIL BORING NUMBER 2 Same

Depth (Feet)	Texture Class	Soil Texture	% Gravel	Drainage (Mottles/ Water Table)	Restrictive Horizons	Observations % Slope
0						
1						
2						
3						
4						
5						

NOTE: If on first inspection class IV soil is found in the excavation then another design must be submitted

FEATURES OF SITE AREA

In Edwards Aquifer recharge zone?	Yes _ No X	Presence of recharge features	Yes _ No X
Presence of 100 year flood zone	Yes _ No X	Presence of adjacent ponds, streams, water impoundments	Yes _ No X
Existing or proposed water well in nearby area	Yes _ No X	Organized sewage service available to lot or tract	Yes _ No X

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

VIRGINIA CASTRO
Name

Signature

RS #3233 & SE #4011

1

Azure Engineering, LLC
Environmental Engineering & Consulting
TBPELS Firm No. F-26379

Brenda Ritzen
Environmental Health Coordinator
Comal County Department of Environmental Health
195 David Jonas Dr
New Braunfels, TX 78132
(830) 608-2090

4/16/2025

RECEIVED
By Brenda Ritzen at 2:00 pm, Apr 16, 2025

Re: OSSF Spray Setback Variance Request for 339 Granite Rd., Spring Branch, TX 78070

To whom it may concern,

We are requesting two variances from Comal County design criteria for this project. The first is for the placement of a spray disposal area to be 10 feet from the property line, rather than 20 feet from the property line per local regulations. The variance is requested due to limited space on the property. This 10' setback complies with TCEQ CHAPTER 285 rules Table X requirements. Equivalent protection will be maintained by including a commercial irrigation timer with a battery backup to assure sprayers only spray between midnight and 5:00am. This variance will not pose a threat to the environment or public health if the system continues to be maintained and operating correctly.

The second local variance request pertains to the potable water line located under the proposed spray field. TCEQ CHAPTER 285 Table X does not require a separation distance from a private water line from OSSF surface application. We are requesting a variance from local guidelines and propose to sleeve the water line under the spray area and 10' past the edge of spray area with 150 psi pressure pipe.

If there are any questions or concerns, please contact me at (830) 522-1588 or by email at jtaylor@azureeng.com.

Sincerely,

Jamie Taylor, PE

Azure Engineering, LLC

TPELS Firm Number 26379

Location: **339 Granite Rd, Spring Branch, TX**
County **Comal**
Subject: **Aerobic System Design Calculations**

Project Summary: This is for an additional bedroom for an existing home. The existing ATU will be protected in place. Additional spray heads and supply line will be required. Installer to re-utilize supply line where possible.

1. Wastewater Usage Rate

Proposed 3 bedroom 1,310 square foot home.
Flow (Q) = 240 gallons per day

STATE OF TEXAS
JAMIESON R. TAYLOR
127090
LICENSED
PROFESSIONAL ENGINEER
3/6/2025

3. OSSF Pretreatment Tank

Pretreatment tank is pre-sized a component of this ATU.

4. Minimum Aerobic System Treatment Capacity

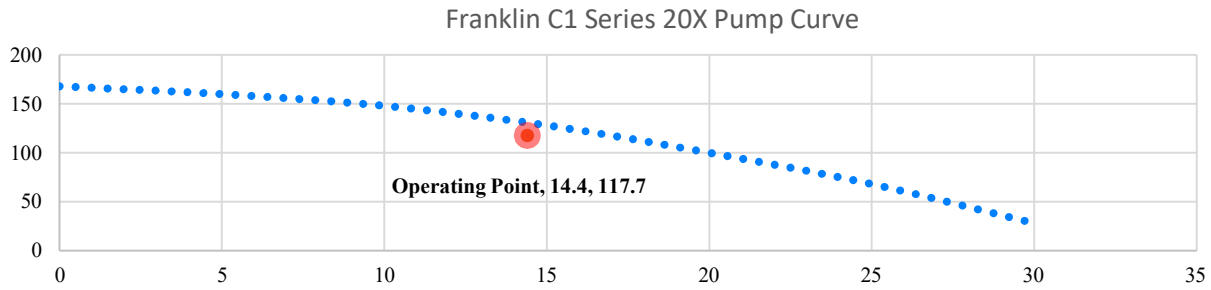
Required 360 gallons per day per TCEQ Chapter §285.91 Table II
Use existing Hoot H-500A-760 Aerobic Treatment Unit

5. OSSF Effluent Tank and Pump(s)

The pump tank is a built in component of the aerobic treatment unit. The tank floats shall be set at the levels below:

Switch	Capacity (Gal)	Level (Inch)	Note
Pump Off	220	15	
Pump On	460	32	1 ADF
Alarm On	540	37	1/3 ADF
Tank Full	760	52	

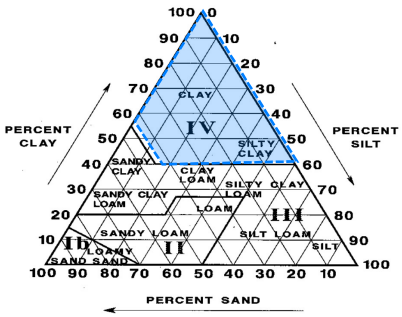
Use proposed **1/2 Horsepower 20gpm Franklin C1 20X Series Pump** , or approved equal, capable of pumping a maximum of **14.4** ft of head at **117.7** gallons per minute. The pump (s) will require a valve installed in the effluent pump tank for throttling to not exceed the TCEQ's 40 psi max. at the sprinkler head. A valve immediately before each spray head may be required for pressure and radius adjustment.

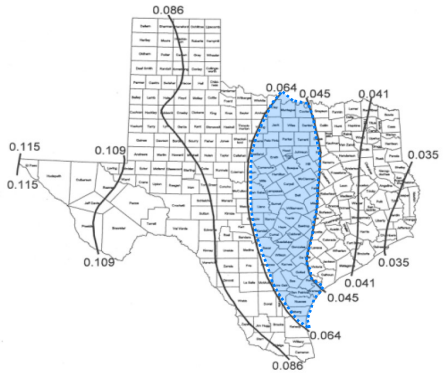


6. Effluent Soil Loading Requirements

Soil Class **IV**

Ri **0.064** gallons per day per square foot





7. Disposal Area Required (Surface Application Area)

Spray area (Design) = Q/ Ri = **240** gpd / **0.064** gpd/sf **3750 sf**

Use proposed disposal area of 3,766 square feet as shown in the design drawings.

Use "K Rain" sprinkler heads, Pro Plus Series Model 11003-RCW or approved equal. See site plan for size and locations.

Sprinkler operation shall be controlled by commercial irrigation timers set to spray betweenmidnight and 5:00 a.m.

8. Maintenance Contract

For any OSSF with a pump, the installer shall provide the Designated Representative with proof of an executed two-year full-service maintenance contract as required by the TCEQ.

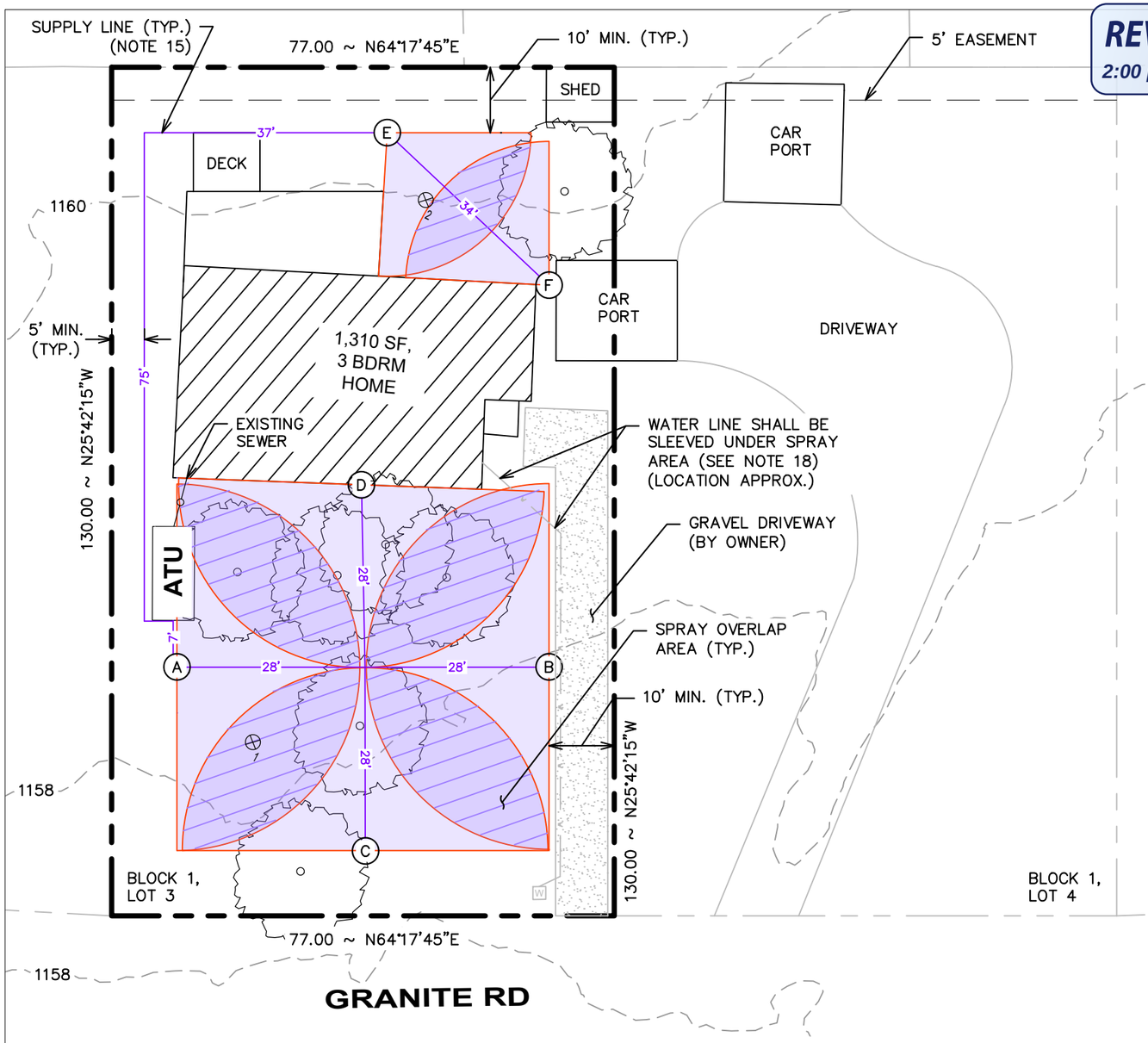
9. Notes for On-Site Sewage Facility (OSSF) Installer

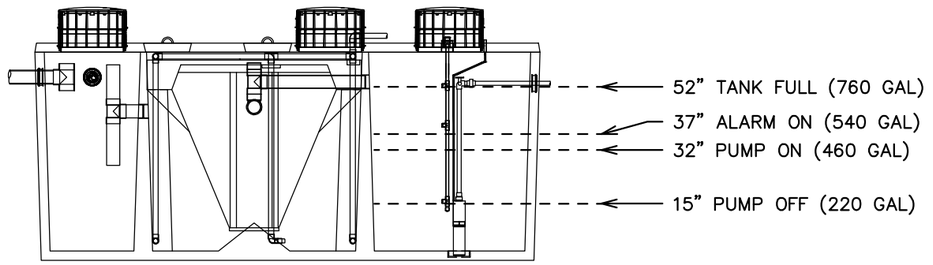
OSSF installer shall make installation adjustments, as deemed necessary, in order to compensate for field conditions that require the altering of the design as submitted herein. Such changes shall be coordinated with the undersigned engineer if any of the following, but not limited to, conditions are changed: materials and equipment used, hydraulics, and elevations. Also, the installation and any field changes shall not violate any TCEQ Rules and Regulations and any applicable county regulations, including, but not limited to, minimum setback distances and volumes per stage. All electrical work shall be installed in accordance with the current version of the National Electric Code.

10. Engineer's Design Provision

This OSSF system has been designed for parameters made known to him by either the proposed user of the system or system installer, as shown in the calculations and the enclosed manufacturer's product information. If this system is operated in any other way than the products have been designed or if the hydraulic quantities/qualities differ from those prescribed by either the TCEQ, applicable county, or manufacturer's products, the system may not function properly in either the treatment or disposal of sewage.

REVISED
2:00 pm, Apr 16, 2025





EXISTING ATU W/ BUILT IN PUMP TANK PROFILE (NTS)

NOTES

1. INSTALLER TO COORDINATE INSTALLATION TO MINIMIZE SOIL COMPACTION IN THE DISPOSAL FIELD AREA.
2. INSTALLER TO REMOVE ALL NECESSARY BRUSH AND TREES FOR PROPER INSTALLATION OF THE FACILITIES.
3. WATER LINES MUST BE AT LEAST 10' FROM THE TANKS AND PIPE, EXCEPT AT BUILDING CONNECTION, AND NOT UNDER THE SPRAY AREA. IF WATER LINES ARE WITHIN 10' OF TANKS AND PIPE, THEN AN APPROVED WATERTIGHT SLEEVE MUST BE INSTALLED AROUND THE WATER LINE TO 10' FROM TANKS AND PIPE. IF WATER LINES ARE UNDER SPRAY AREA, THEN AN APPROVED WATERTIGHT SLEEVE MUST BE INSTALLED AROUND THE WATER LINE.
4. SEE ATTACHED ATU, PUMP, AND SPRINKLER HEAD INFORMATION. EXISTING ATU SHALL BE PROTECTED IN PLACE AND RE-USED FOR THIS PROJECT.
5. INSTALL PVC GATE VALVE IN, OR JUST OUTSIDE OF, ATU PUMP TANK TO THROTTLE PRESSURE IF REQUIRED. SEE DESIGN CALCULATIONS SHEET.
6. IF NEEDED, GRADE TO ENSURE PROPER DRAINAGE. THE SPRAY DISPOSAL AREA SHALL BE GRADED TO 15% OR LESS IF EXISTING GRADES ARE FOUND TO EXCEED 15%.
7. THE PROPOSED LINES BETWEEN THE HOME AND THE PROPOSED ATU SHALL BE LAID AT A MINIMUM SLOPE OF 1/8" OF FAL LOF FALL PER HORIZONTAL FOOT.
8. SYSTEM SHALL INCLUDE BOTH AUDIBLE AND VISIBLE ALARM INDICATORS FOR THE ALARMS.
9. INSTALLER MAY FIELD ADJUST DISPOSAL FIELD AS NEEDED WHILE MAINTAINING ALL APPLICABLE TCEQ RULES AND COUNTY REGULATIONS.
10. ALL YARD PIPING IS 1" DIAMETER MINIMUM SOLID SCH 40 PVC UNLESS INDICATED OTHERWISE ON THE PLANS.
11. ALL YARD PIPING WITHIN 5' OF FOUNDATIONS, BUILDINGS, SURFACE IMPROVEMENTS, PROPERTY LINES, SWIMMING POOLS, AND OTHER STRUCTURES (EXCEPT BUILDING FOUNDATIONS) SHALL BE SCH 80 PVC PIPE OR SLEEVED IN SCH 40 PVC PIPE.
12. REGARDING LANDSCAPING, ANY BARE AREAS SHALL BE SEEDED OR SODDED BEFORE SYSTEM START-UP. THE VEGETATION SHALL BE ESTABLISHED OR CAPABLE OF GROWTH BEFORE SYSTEM START-UP.
13. INSTALLER TO LOCATE ALL UTILITIES BEFORE INSTALLATION. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND BASED ON FIELD OBSERVATIONS. OTHER UTILITIES MAY BE PRESENT THAT ARE NOT ILLUSTRATED.
14. PROPERTY LINES AND EASEMENTS ARE BASED ON EXISTING SURVEY. INSTALLER SHALL VERIFY PROPERTY LINES, EASEMENTS, AND SETBACKS PRIOR TO INSTALLATION.
15. INSTALLER SHALL RE-UTILIZE EXISTING SUPPLY LINE WHERE APPLICABLE. UN-USED SECTIONS SHALL BE CUT, CAPPED, AND ABANDONED.
16. FOR HORIZONTAL CROSSINGS OF WASTEWATER LINES AND POTABLE WATER LINES, WATER LINE SHALL BE LOCATED AT LEAST 6" ABOVE WASTEWATER LINE AND CENTERED OVER THE CROSSING WITH THE NEAREST JOINT 10' AWAY ON BOTH SIDES. WATER LINE SHALL BE RATED FOR 150 PSI MINIMUM AND BE EMBEDDED IN CEMENT STABILIZED SAND AT LEAST 12" BEYOND THE JOINT ON EACH END. CEMENT STABILIZED SAND SHALL BE SIX INCHES ABOVE AND FOUR INCHES BELOW THE WASTEWATER LINE. SEE TCEQ SECTION 290.44(E)(B)(IV).
17. WHERE 10' HORIZONTAL SEPARATION CANNOT BE MAINTAINED FROM THE WATER LINE AND WASTEWATER LINE, THE WASTEWATER LINE SHALL BE LOCATED AT LEAST 2' BELOW THE WATER LINE, MEASURED VERTICALLY, AND AT LEAST 4' AWAY FROM THE WATER LINE, MEASURED HORIZONTALLY. THE WASTEWATER LINE SHALL BE SLEEVED OR UTILIZE 150 PSI PIPE. SEE TCEQ SECTION 290.44(E)(4)(A).
18. FOR WATER LINE CROSSINGS UNDER DISPOSAL AREAS, WATER LINE SHALL BE SLEEVED WITH 150 PSI PIPE IN ACCORDANCE WITH TCEQ SECTION 290.44(E)(4)(A).

SPRAY HEAD	RAD. (FT)	ANGLE (DEG)	AREA (SF)
A	28	180	1,231
B	28	180	1,231
C	28	180	1,231
D	28	180	1,231
E	22	93	392
F	22	87	367
TOTAL			5,683

SPRAY AREA
EXISTING: 2,953 SF
REQUIRED: 3,750 SF

OVERLAP AREA: 1,917 SF
ACTUAL: 3,766 SF

0' 10' 20'

LEGEND

ATU	EXISTING 500 GPD AEROBIC TREATMENT UNIT TO REMAIN
●	PROPOSED SPRAY HEADS
⊗	SOIL TEST HOLE
○	EXISTING TWO-WAY CLEANOUT
W	WATER METER
– – – –	2' CONTOURS

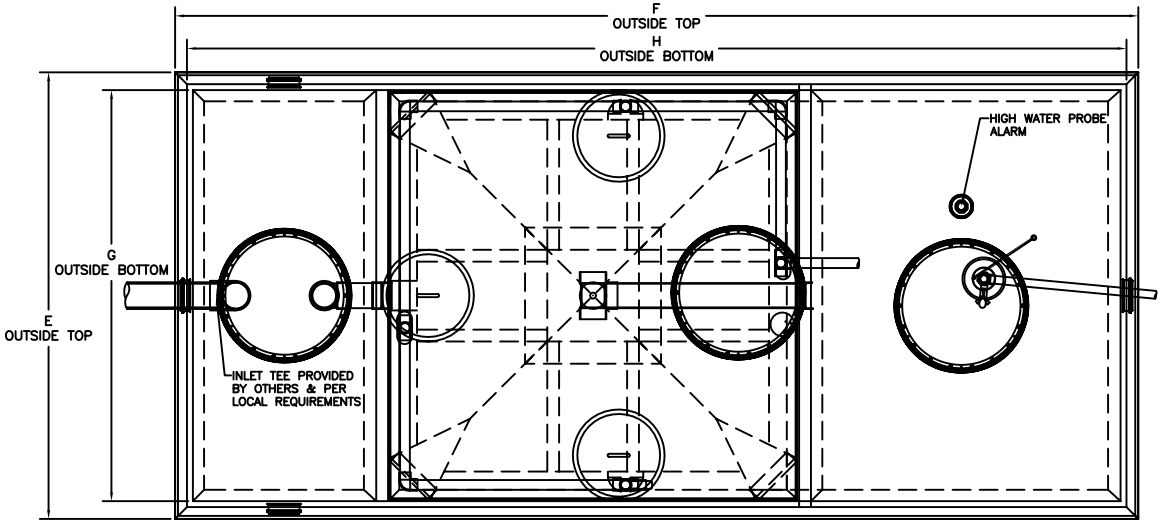
STATE OF TEXAS
JAMIESON R. TAYLOR
127090
LICENSED
PROFESSIONAL ENGINEER
4/16/2025

OSSF DESIGN FOR BLOCK 1, LOT 3

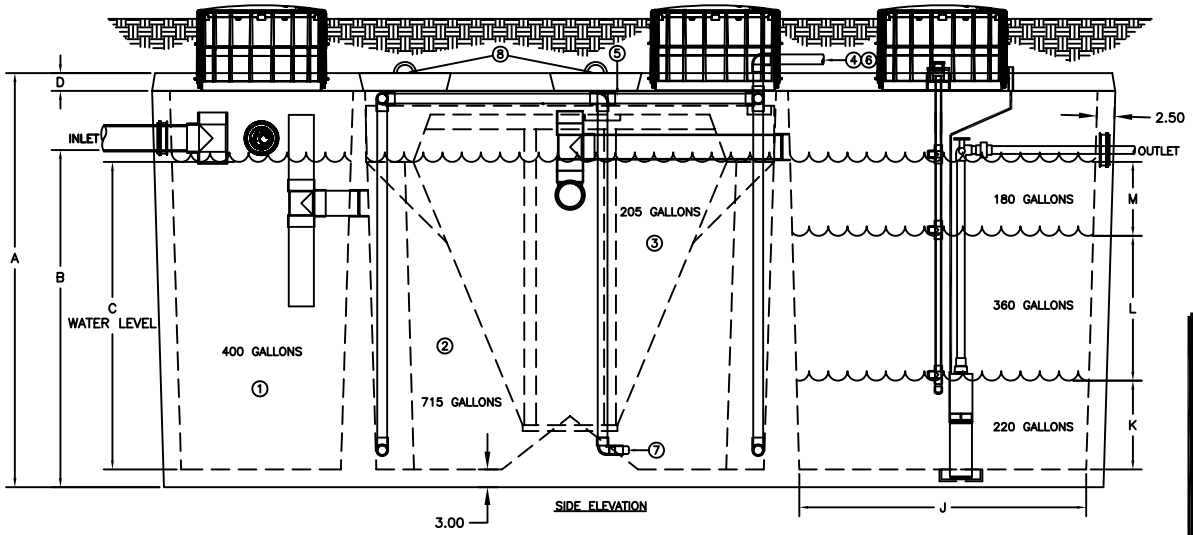
OWNER: EDGAR ONYEAGU	
ADDRESS: 339 GRANITE RD	
CITY: SPRING BRANCH	SHEET: 1 OF 1

Azure Engineering, LLC
ENVIRONMENTAL ENGINEERING & CONSULTING
TBPELS FIRM NO. 26379
PIPE CREEK, TEXAS
830.522.1588

CRITICAL DIMENSIONS	
A	69.00″
B	57.00″
C	52.00″
D	3″
E	74.50″
F	160.00″
G	65.50″
H	151.00″
J	48.50″
K	15.00″
L	24.50″
M	12.50″



PLAN VIEW



SIDE ELEVATION

THE H-SERIES HOOT AEROBIC TREATMENT SYSTEM

1) PRETREATMENT TANK- WHERE ANAEROBIC DIGESTION OCCURS AND STORAGE FOR NON-BIODEGRADEABLE MATERIALS.

2) AERATION CHAMBER- WHERE AIR IS INTRODUCED INTO SEWAGE FOR DIGESTION.

3) CLARIFIER- A STILL CHAMBER WHERE SOLIDS SETTLE OUT AND THE CLEAR EFFLUENT RISES.

4) TROY AIR LINEAR AIR BLOWER- LONG LIFE, EFFICIENT LINEAR BLOWER WHICH COMPRESSED ATMOSPHERIC AIR AND UNDER PRESSURE DELIVERS IT TO THE TANK. MAY BE REMOTELY MOUNTED UP TO 50' FROM SYSTEM. MUST MAINTAIN 1/8" SLOPE TOWARDS TANK FOR DRAINAGE.

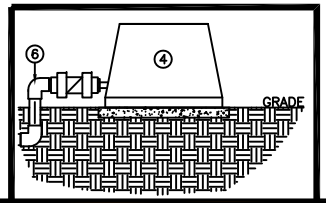
5) AIR MANIFOLD- DELIVERS THE AIR FROM THE LINE TO THE STONES FOR DIFFUSION INTO THE SEWAGE.

6) AERATION LINE- DELIVERS THE AIR FROM THE PUMP TO THE MANIFOLD. CHECK VALVE INCLUDED.

7) AERATION STONE- AIR IS FINELY DIFFUSED FROM THE STONE INTO THE AERATION CHAMBER.

8) 15" COVERS- PROVIDE ASSEMBLY PORT ACCESS INSIDE OF THE SYSTEM. (NOT REQUIRED FOR REGULAR SERVICE)

TROY AIR BLOWER



HOOT SYSTEMS, LLC
www.hootsystems.com
Install A Hoot Don't Pollute

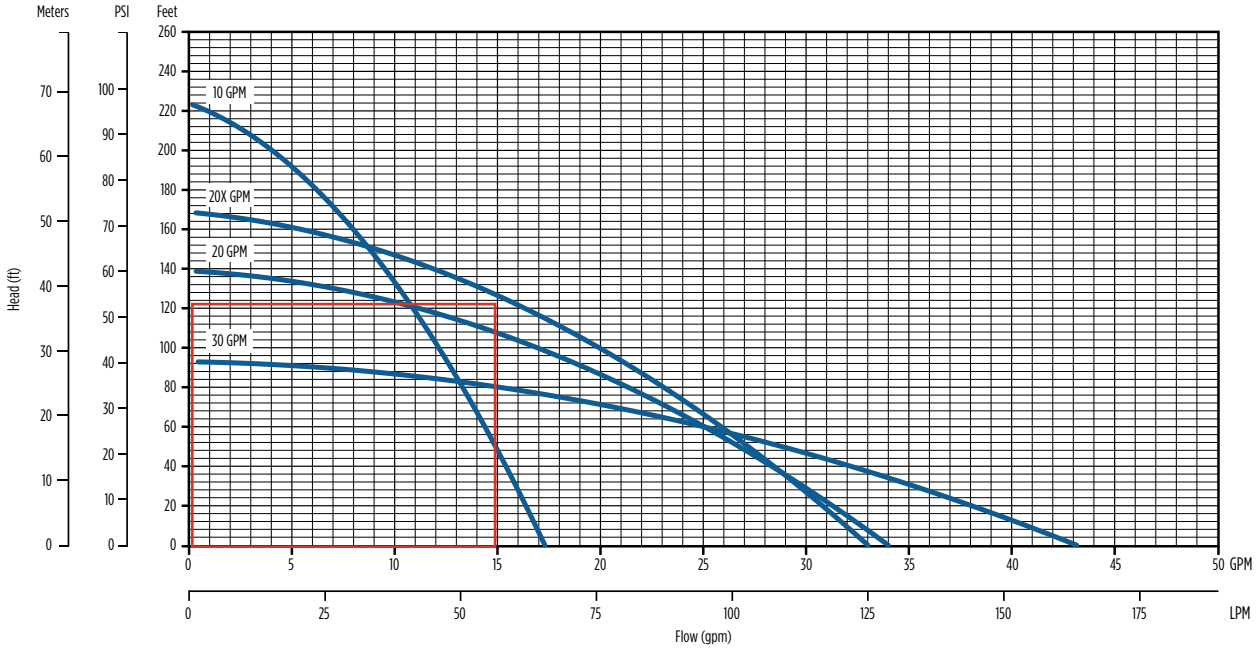
DESCRIPTION:				PART #
500 GPD PUMP DISCHARGE SYSTEM HOOT SYSTEMS H-500A w/ 760 GAL. P.T.				H-500A-760
DATE:	DRAWN BY:	CHECK BY:	SCALE:	
03-17-2014	AY	RS	N.T.S.	

C1 SERIES
CISTERN PUMPS

Designed for use in gray water and filtered effluent service applications, the C1 Series cistern pump provides high performance and long life in less than ideal water conditions. Able to pass solids up to 1/8" without having a negative effect on the internal hydraulic components, the pump features a unique bottom suction design allowing for maximum fluid drawdown without compromising durability or overall life, and it does not require the use of a flow induction sleeve. Intended specifically for use in a cistern or tank, C1 Series pumps are suitable for use in agricultural, residential, and commercial installations.

Franklin Electric

C1 SERIES FAMILY CURVE



FEATURES

- Supplied with a removable 5" base for secure and reliable mounting
- Bottom suction design
- Robust thermoplastic discharge head design resists breakage during installation and operation
- Standard backflow prevention through a built-in, but removable, check valve.
- Single shell housing design provides a compact unit while ensuring cool and quiet operation
- Hydraulic components molded from high quality engineered thermoplastics
- Optimized hydraulic design allows for increased performance and decreased power usage
- All metal components are made of high grade stainless steel for corrosion resistance
- Available with a high quality 115 V or 230 V, 1/2 hp motor
- Fluid flows of 10, 20, and 30 gpm, with a max shut-off pressure of over 100 psi
- Heavy-duty 300 V 10 foot SJOOW jacketed lead

APPLICATIONS

- Gray water pumping
- Filtered effluent service water pumping
- Water reclamation projects such as pumping from rain catchment basins
- Aeration and other foundation or pond applications
- Agriculture and livestock water pumping

ORDERING INFORMATION

GPM	HP	Volts	Stage	Model No.	Order No.	Length (in)	Weight (lbs)
10	1/2	115	6	10C1-05P4-2W115	90301005	26	17
		230	6	10C1-05P4-2W230	90301010	26	17
20		115	4	20C1-05P4-2W115	90302005	25	16
		230	4	20C1-05P4-2W230	90302010	25	16
20X		115	5	20XC1-05P4-2W115	90302015	26	17
		230	5	20XC1-05P4-2W230	90302020	26	17
30		115	3	30C1-05P4-2W115	90303005	25	16
		230	3	30C1-05P4-2W230	90303010	25	16

NOTE: All units have 10 foot long SJOOW leads

PVC Reclaimed Water Pipe

Submittal Data Sheet

Job or Customer: .....

Engineer: .....

Contractor: .....

Submitted by: ..... Date

Approved by: ..... Date

Order No: ..... Date

Specification: .....

< STANDARDS >

ASTM D1785
ASTM D1784
ASTM D2241
ASTM F477

PVC is the most frequently specified of all thermoplastic piping materials. It has been used successfully for over 60 years. PVC is characterized by distinctive physical properties, and is resistant to corrosion and chemical attack by acids, alkalis, salt solutions and many other chemicals.

PVC Reclaimed Water Pipe is pressure-rated pipe for use in non-potable irrigation and aerobic septic systems. All products are marked “Reclaimed Water - Do Not Drink” and are purple in color.

PVC Reclaimed Water pipe is manufactured from a PVC compound with a 12454 cell classification (Type 1, Grade 1). The maximum service temperature for PVC is 140°F (60°C), under pressure.

PVC Reclaimed Water Pipe is offered 1/2” through 4” in Schedule 40 Bell End, 1/2” SDR-13.5 Bell End, 3/4” through 6” in SDR-21 Bell End & 2” through 8” SDR-21 Gasket.

PVC Reclaimed Water Pipe

Submittal Data Sheet

Material Properties

Properties	PVC	Standards
Specific gravity	1.42	ASTM D792
Tensile strength, psi at 73°F	7,000	ASTM D638
Modulus of elasticity tensile, psi at 73°F	400,000	ASTM D638
Flexural strength, psi	14,500	ASTM D790
Izod impact, ft.lbs./in. at 73°F, notched	0.65	ASTM D256
Compressive strength, psi	9,000	ASTM D695
Poisson's ratio	0.38	
Working stress, psi at 73°F	2,000	
Coefficient of thermal expansion in./in./°F (x 10^{-5})	3	ASTM D696
Linear expansion, in./10°F per 100' of pipe	0.36	
Maximum operating temperature under pressure	140°F (60°C)	
Deflection temperature under load, °F at 66 psi	173	ASTM D648
Deflection temperature under load, °F at 264 psi	160	ASTM D648
Thermal conductivity, BTU.in./hr.ft².°F	1.2	ASTM C177
Burning rate	Self extinguish	ASTM D635
Burning class	V-0	UL-94
Flash ignition, °F	730	
Limited oxygen index (%)	43	ASTM D2863-70
Water absorption, %, (24 hrs. at 73°F)	0.05	ASTM D570

PVC Reclaimed Water Pipe

Submittal Data Sheet

Pipe Availability

SCH 40 Purple, Bell End 20′

Nominal Size	Outside Diameter	Min. Wall Thickness	Inside Diameter	Max Working Pressure at 73°F	Wt/100′
1/2″	0.840	0.109	0.613	600 PSI	16
3/4″	1.050	0.113	0.815	480 PSI	22
1″	1.315	0.133	1.038	450 PSI	32
1-1/4″	1.660	0.140	1.369	370 PSI	42
1-1/2″	1.900	0.145	1.598	330 PSI	51
2″	2.375	0.154	2.055	280 PSI	70
2-1/2″	2.875	0.203	2.453	300 PSI	111
3″	3.500	0.216	3.051	260 PSI	144
4″	4.500	0.237	4.007	220 PSI	205

SDR 13.5 Purple, Bell End 20′

Nominal Size	Outside Diameter	Min. Wall Thickness	Inside Diameter	Max Working Pressure at 73°F	Wt/100′
1/2″	0.840	0.062	0.711	315 PSI	10

SCH 40 Purple, Bell End 20′

Nominal Size	Outside Diameter	Min. Wall Thickness	Inside Diameter	Max Working Pressure at 73°F	Wt/100′
3/4″	1.050	0.060	0.925	200 PSI	12
1″	1.315	0.063	1.184	200 PSI	16
1-1/4″	1.660	0.079	1.496	200 PSI	25
1-1/2″	1.900	0.090	1.713	200 PSI	33
2″	2.375	0.113	2.140	200 PSI	53
2-1/2″	2.875	0.137	2.590	200 PSI	77
3″	3.500	0.167	3.153	200 PSI	114
4″	4.500	0.214	4.055	200 PSI	189
6″	6.625	0.316	5.968	200 PSI	412

SDR 21 Purple, Gasketed, 20′

Nominal Size	Outside Diameter	Min. Wall Thickness	Inside Diameter	Max Working Pressure at 73°F	Wt/100′
2″	2.375	0.113	2.140	200 PSI	53
2-1/2″	2.875	0.137	2.590	200 PSI	77
3″	3.500	0.167	3.153	200 PSI	114
4″	4.500	0.214	4.055	200 PSI	189
6″	6.625	0.316	5.968	200 PSI	412
8″	8.625	0.410	7.692	200 PSI	688

Note: Length of pipe: Solvent Weld 2″ through 6″ and Gasketed pipe is 20ft plus bell

PVC Reclaimed Water Pipe

Submittal Data Sheet

Safe Handling & Storage of Pipe

Care must be taken when handling PVC products to ensure that pipe is not damaged prior to installation. Take the following precautions to ensure PVC products remain in top condition prior to installation.

- Store pipe indoors if possible
- Pipe stored outside must be covered with a wellventilated white tarp
- Always keep pipe clean and covered in its original packaging
- Always store pipe on a flat surface and never store other products on top of pipe
- Do not drop or drag pipe
- Inspect all products for shipping damage prior to installation
- Never install products that are damaged

WARNING

DANGER: Highly flammable liquid and vapor may form explosive peroxide. Follow guidelines carefully.

WARNING

During the curing of the solvent welded joints, vapors may accumulate inside the piping system, especially should one end of the line be capped. Nearby sparks from welders or torches may inadvertently ignite these vapors and create a hazardous incident. Attention must be given to removing all vapors using air-blowers or water flushing prior to capping one end of an empty piping system.

Solvent Welding Installation

Introduction

Creating optimal solvent welded connections requires attention to detail, proper preparation of components and an understanding of all instructions provided in this manual.

Safe Handling & Storage of Primers & Solvent Cements

Primer and solvent cement are made from flammable liquids and must be kept away from all sources of ignition. Good ventilation must be maintained to reduce fire hazard and to minimize the breathing of solvent vapors. Refer to ASTM F402, Standard Practice for Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings. Always adhere to local jobsite and workplace safety regulations.

- Always provide proper ventilation when applying primers and cements
- Avoid skin or eye contact with primers and cements
- Wash immediately if contact occurs to avoid prolonged
- exposure
- Do not solvent weld joints near open flames or soldering torches
- Use Personal Protection Equipment (PPE) when handling primers and solvent cements
- Always store primer and cement indoors
- For cold weather installation, store primer and cement in a warm location above 40°F
- For hot weather installation, store primer and cement in a cool, shaded location
- Always check bottom of primer and cement cans for date of manufacture and expiry date
- Consult the primer and cement manufacturer directly if unsure that the primer and cement has expired
- Properly discard primer and cement that exceeds its recommended shelf life or expiry date
- Properly discard solvent cement that has hardened or jelled
- Tightly close partially used primer and cement containers
- Always thoroughly shake cement before use

Solvent Welding Basics

To make consistently tight joints, the following points should be followed:

- Dry fit all joints prior to solvent welding to confirm proper interference fit
- Do not solvent weld joints that are too loose or too tight
- Always use bevelling tools to prepare pipe ends before cementing
- Do not solvent weld joints without first bevelling pipe ends
- Follow all solvent welding instructions provided in this manual
- The joining surfaces must be softened and made semifluid with the use of a primer
- Sufficient cement must be applied to fill the gap between pipe and fittings
- Assembly of pipe must be made while the cement coatings on the surfaces are still wet and fluid
- Joint strength will develop as the cement cures. If the joint is made properly, the dissolved surfaces in the tight part of the joint will fuse together

NOTICE

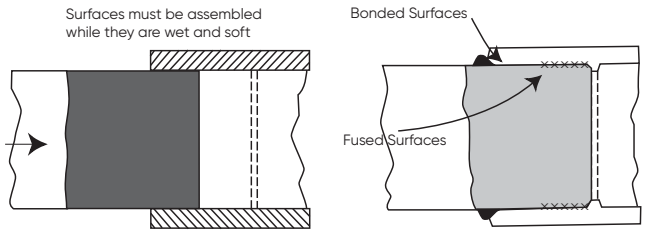
Do not use excessive amounts of primers or solvent cement as it can lead to puddling. Puddling of primer and cement in the pipe and fittings can result in product failures and property damage. Always follow the instructions provided with each can of CPVC primer and/or solvent cement.

Cement Types

Two-Step Method (Solvent Cement) for Joining PVC.

- Solvent Cement: meets ASTM D2564 are typically clear, blue, or gray
- Primer: meets ASTM F656 and plumbing codes require them to be purple

Sufficient cement must be applied to fill the gap in the loose part of the joint. Besides filling the gap, adequate solvent cement layers will penetrate the surfaces. If the solvent cement coatings on the pipe and fittings are wet and fluid when assembly takes place, they will tend to flow together and become one solvent cement layer. Also, if the solvent cement is wet, the surfaces beneath them will still be soft, and these dissolved surfaces in the tight part of the joint will fuse together.



As the solvent dissipates, the solvent cement layer and the dissolved surfaces will dry and harden with a corresponding increase in joint strength. Completed joints must not be disturbed until they have properly set. See the Joint Set Schedule table for details.

Joint strength continues to develop as the solvent cement dries. To determine when solvent cement joints can be pressure tested, see the Joint Cure Schedule table.

Handling & Installation Procedures

Solvent Welding Installation

Step 1 Preparation

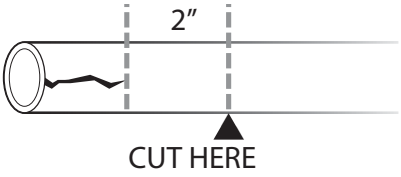
Assemble proper materials for the job. This includes the appropriate cement, primer and applicator for the size of piping system to be assembled, tape measure, contrasting color marker and beveling tool. See Tables for guidelines to estimate the amount of cement required.

⚠ **CAUTION:** Use proper Personal Protective Equipment (PPE) for the job: respirator, safety glasses, gloves and protective clothing.

Step 2 Cutting the Pipe

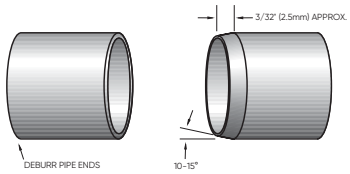
It is important to cut the pipe squarely. A square cut provides the surface of the pipe with the maximum bonding area. Pipe can be easily cut with a wheel-type plastic tubing cutter, chop saw or fine toothed saw. Do not use reciprocating saws.

Tools used to cut pipe must be designed for use with CPVC piping and must be in good condition in accordance with the tool manufacturer's recommendations. If there is any indication of pipe damage or evidence of pipe end cracking, cut off at least 2 inches beyond any visible crack. Use of ratchet cutters is not recommended as they may split the pipe if not properly used and maintained.



Step 3 Preparing Pipe Ends

After cutting, always remove all burrs and filings from both the inside and outside of the pipe and bevel the pipe end using a beveling tool. Remove burrs and filings from the inside of the pipe using a knife edge or file. Failure to remove burrs can scrape channels into pre-softened surfaces, create obstructions inside surface walls, or inadvertently plow cement out of the joint during assembly.



Step 4 Cleaning

Using a clean dry cloth, wipe any dirt and moisture from the fitting socket and the pipe end. Moisture will increase cure times and dirt and grease can prevent adhesion.

Handling & Installation Procedures

Step 5 Dry Fitting

Before applying primer or solvent cement, test all connections (pipe, fittings and accessories) to confirm a proper interference fit exists. Dry-fit contact between properly beveled pipe and fitting sockets is essential in making a good joint. The beveled pipe should easily enter the fitting socket and make contact with the inner fitting socket wall before bottoming out. A proper interference fit is present when the beveled pipe can only be inserted 1/3 to 2/3 of the way into the fitting socket.

CAUTION: We do not recommend the solvent welding of pipe, fittings or accessories that fit loosely together or where pipe bottoms out in a dry fit. Proper joint strength may not be developed. Please contact IPEX to discuss further.

Do not solvent weld pipe, fittings or accessories if a beveled pipe cannot easily be inserted at least 1/3 of the way into the fitting socket. This may cause excessive stresses during assembly leading to joint failure.

Step 6 Marking the Pipe

Measure the socket depth and mark the outside of the pipe with this dimension, followed by a second mark 1 inch further back. The first line will provide a guide for ensuring enough solvent cement is applied on the pipe. Maintaining a 1 inch distance to the second line once the pipe is inserted into the socket will indicate full and proper insertion of the pipe inside the socket.

Step 7 Select Applicator

Ensure that the right applicator is being used for the size of pipe being joined. The applicator size should be equal to half the pipe diameter. It is important that a proper size applicator be used to help ensure that sufficient layers of cement and primer are applied.

Step 8 Primer Application

Using the correct applicator, aggressively work the primer into the socket, keeping the surface and applicator wet until the surface has been softened. More applications may be needed for hard surfaces and cold weather conditions. Re-dip the applicator in primer as required. When the surface is primed, remove any puddles of primer from the socket.

Handling & Installation Procedures

Step 9 Primer Application

Aggressively work the primer on to the end of the pipe to a point 1/2" beyond the depth of the fitting socket.

Step 10 Primer Application

A second application of primer in the socket is required, keeping the surface and applicator wet until the surface has been softened. When the surface is primed, remove any puddles of primer from the socket.

Step 11 Cement Application

Throughly stir the cement or shake can before each use. Immediately and while the surfaces are still wet, using the correct size applicator, aggressively work a heavy, even layer of cement on to the pipe end equal to the depth of the fitting socket. Do not brush it out to a thin paint type layer, as this will dry too quickly.

Step 12 Cement Application

Aggressively work a medium layer of cement into the socket. Avoid puddling cement in the socket by holding the fitting on an angle. If primer has dried, repeat the two Primer Application steps above.

NOTICE: Avoid pulling the cement in the socket. Excessive cement may cause the fitting to weaken due to softening by the trapped solvents.

Step 13 Cement Application

Apply a second heavy, even layer of cement on the pipe. Apply enough solvent cement to completely fill all the gaps between the pipe and at socket entrance.

Handling & Installation Procedures

Step 14 Assembly

Without delay, while the cement is still wet, assemble the pipe. Use sufficient force to ensure that the pipe bottoms in the socket.

If cement has dried before assembly, discard.

Step 15 Assembly

Hold the pipe and socket together for approximately 30 seconds to avoid push out. If push out does occur, the joint will need to be replaced.

Step 16 Assembly

After assembly, a joint should have a ring or bead of cement completely around the juncture of the pipe and socket. If voids in this ring are present, sufficient cement was not applied and the joint may be defective.

Step 17 Removing Excess

With a clean, dry cloth, remove the excess solvent cement from the pipe and socket entrance. This will allow the solvent to evaporate from within the joint and prevent weakening of the pipe.

Step 18 Cement Application

Handle newly assembled joints carefully until initial set has taken place.
(Note: in humid weather, allow for at least 50% more curing time.)

PVC Reclaimed Water Pipe

Submittal Data Sheet

Handling & Installation Procedures

Guidelines for Solvent Cement Set & Cure Times

The information listed below is for reference purposes only. Be sure to follow the cement manufacturer's cure time schedule, as times can vary. Extreme heat, cold, and humidity will also have an effect.

- Set time – time required before the joint can be carefully handled
- Cure time – time required before the system can be hydrostatically pressure tested

Set Time Schedule

Pipe Size Range	Temperature Range (°F)		
	60 – 100°	40 – 60°	0 – 40°
1/2" to 1-1/4"	2 minutes	5 minutes	10 minutes
1-1/2" to 2"	5 minutes	10 minutes	2 hours
2-1/2" to 6"	30 minutes	2 hours	12 hours

Cure Time Schedule

For hydrostatic test pressure **below 180psi**:

Pipe Size Range	Temperature Range (°F)		
	60 – 100°	40 – 60°	0 – 40°
1/2" to 1-1/4"	15 minutes	20 minutes	30 minutes
1-1/2" to 2"	30 minutes	45 minutes	1 hour
2-1/2" to 6"	1.5 hours	4 hours	72 hours

For hydrostatic test pressure **above 180psi**:

Pipe Size Range	Temperature Range (°F)		
	60 – 100°	40 – 60°	0 – 40°
1/2" to 1-1/4"	6 hours	12 hours	48 hours
1-1/2" to 2"	12 hours	24 hours	96 hours
2-1/2" to 6"	24 hours	48 hours	8 days

** Due to the many variables in the field, these figures are to be used as a general guide only. Refer to primer and cement manufacturer for actual cure times.

Pressure Rating VS. Temperature

Temperature (°F)	Pressure De-Rating Factor
73	1.00
80	0.88
90	0.75
100	0.62
110	0.50
120	0.40
130	0.30
140	0.22

Handling & Installation Procedures

Cold Weather

Although normal installation temperatures are between 40°F (4°C) and 110°F (43°C), high strength joints have been made at temperatures as low as –15°F (–26°C).

In cold weather, solvents penetrate and soften the plastic pipe and fitting surfaces more slowly than in warm weather. In this situation, the plastic is more resistant to solvent attack and it becomes even more important to pre-soften surfaces with an aggressive primer. Be aware that because of slower evaporation, a longer cure time is necessary.

Tips for solvent cementing in cold weather

- Prefabricate as much of the system as is possible in a heated work area.
- Store cements and primers in a warmer area when not in use and make sure they remain fluid.
- Take special care to remove moisture including ice and snow from the surfaces to be joined.
- Ensure that the temperature of the materials to be joined (re: pipe and fittings) is similar.
- Use a primer to soften the joining surfaces before applying cement. More than one application may be necessary.
- Allow a longer cure period before the system is used.
- **Note:** A heat blanket may be used to speed up the set and cure times.

Hot Weather

There are many occasions when solvent cementing plastic pipe at 95°F (35°C) temperatures and above cannot be avoided. If special precautions are taken, problems can be avoided.

Solvent cements for plastic pipe contain highstrength solvents which evaporate faster at elevated temperatures. This is especially true when there is a hot wind blowing. If the pipe is stored in direct sunlight, the pipe surface temperatures may be 20°F to 30°F (10°C to 15°C) higher than the ambient temperature. In this situation, the plastic is less resistant to attack and the solvents will attack faster and deeper, especially inside a joint. It is therefore very important to avoid puddling the cement inside the fitting socket and to ensure that any excess cement outside the joint is wiped off.

Tips for solvent cementing in hot weather:

- Store solvent cements and primers in a cool or shaded area prior to use.
- If possible, store fittings and pipe or at least the ends to be solvent welded, in a shady area before cementing.
- Try to do the solvent cementing in cooler morning hours.
- Cool surfaces to be joined by wiping with a damp rag.
- Make sure that the surface is dry prior to applying solvent cement.
- Make sure that both surfaces to be joined are still wet with cement when putting them together. With large size pipe, more people on the crew may be necessary.
- Using a primer and a heavier, high-viscosity cement will provide a little more working time.

Note: During hot weather the expansion-contraction factor may increase. Refer to the expansion-contraction design criteria in this manual.

PVC Reclaimed Water Pipe

Submittal Data Sheet

Handling & Installation Procedures

Gasket Joint Installation

PVC Agriculture Irrigation pipe with gasket joint design meets ASTM D3139. The gasket for this joint is made of an elastomeric ring in compliance with ASTM F477.

Step 1 Preparation

Keep both the spigot and the bell clean. It is good practice to lay PVC pressure pipe with bells forward so that the assembly operation will consist of pushing the spigot into the bell. This will minimize the possibility of contaminating the surfaces with foreign material All assemblies should be concentric. Use only approved lubricant. The use of substitute lubricants may affect water quality or damage the gaskets.

Step 2 Cleaning

Gaskets are factory-installed.

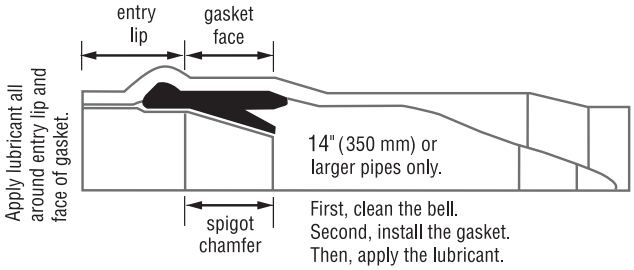
Clean the inside of the bell (including the face of the gasket), and the outside of the spigot with a rag, brush, or paper towel to remove any dirt or foreign material before assembling.

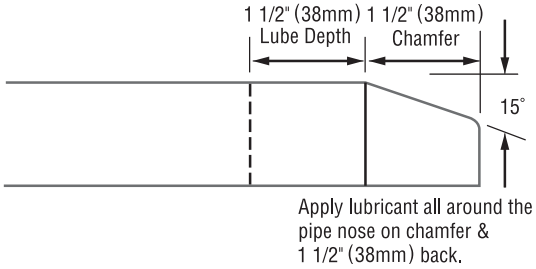
Step 3 Chamfering (if required)

The pipe is shipped with a chamfer on the end of the spigot. If there is no chamfer, follow the example of a factorymade spigot and machine a suitable chamfer.

Step 4 Lubrication

Apply a thin coating of lubricant (equivalent to a brushed coating) using a glove, a rag, or a paint brush The area to be covered is as follows:





NOTE: Gasket drawings are for information only. Actual gaskets may vary.

Handling & Installation Procedures

Gasket Joint Installation

Step 5 Assembly

Keeping the spigot out of the dirt, position it so that the chamfer is resting against the gasket in the bell. Push the spigot into the bell until the assembly line on the spigot is even with the edge of the bell. The assembly effort can be delivered by hand in small diameters with the aid of a twist as the spigot enters the bell, or by using a bar and block. Other assembly methods include lever pullers, hydraulic jacks, and for large diameter pipes the IPEX Pipe Puller.

Notes for Assembly:

Where mechanical means, such as a backhoe, are used, the assembly effort should not be applied directly to the edge of the pipe. A two by four or a plank should be placed between the backhoe bucket and the edge of the pipe. The use of a backhoe bucket has the disadvantage that the backhoe operator is unable to see clearly when the assembly is complete. Thus, a helper should be located near the joint to signal when the assembly is complete.

NOTE: Factory-made assembly lines on the pipe do not indicate correct assembly to fittings.

OVER-ASSEMBLY OF THE JOINT COULD DAMAGE THE BELL OF THIS OR ADJACENT PIPE LENGTHS. MAKE SURE THAT PREVIOUSLY ASSEMBLED JOINTS REMAIN UNDISTURBED.

If resistance is felt to the assembly, it may mean that the sealing gasket has somehow become dislodged. If so, the joint should be disassembled, cleaned, and reconstructed in accordance with the methods given above.

Pressure Pipe

Nominal Size	Insertion Depth (in.)
2″	3.5
2-1/2″	3.75
3″	4.25
4″	5
6″	5
8″	6.75

Handling & Installation Procedures

Additional Handling and Storage Considerations

PVC is a strong, lightweight material, about one fifth the weight of steel or cast iron. Piping made of this material is easily handled and, as a result, there is a tendency for them to be thrown about on the jobsite. Care should be taken in handling and storage to prevent damage to the pipe.

PVC pipe should be given adequate support at all times. It should not be stacked in large piles, especially in warm temperature conditions, as bottom pipe may become distorted and joining will become difficult.

For long-term storage, pipe racks should be used, providing continuous support along the length. If this is not possible, timber supports of at least 3" bearing width, at spacings not greater than 3' centers, should be placed beneath the piping. If the stacks are rectangular, twice the spacing at the sides is required. Pipe should not be stored more than seven layers high in racks. If different classes of pipe are kept in the same rack, pipe with the thickest walls should always be at the bottom. Sharp corners on metal racks should be avoided.

For temporary storage in the field when racks are not provided, care should be taken that the ground is level and free of sharp objects (i.e. loose stones, etc.). Pipe should be stacked to reduce movement, but should not exceed three to four layers high.

Most pipe is now supplied in crates. Care should be taken when unloading the crates; avoid using metal slings or wire ropes. Crates may be stacked four high in the field. The above recommendations are for a temperature of approximately 80°F (27°C). Stack heights should be reduced if higher temperatures are encountered, or if pipe is nested (i.e. pipe stored inside pipe of a larger diameter). Reduction in height should be proportional to the total weight of the nested pipe, compared with the weight of pipe normally contained in such racks.

Since the soundness of any joint depends on the condition of the pipe end, care should be taken in transit, handling and storage to avoid damage to these ends. The impact resistance and flexibility of PVC pipe is reduced by lower temperature conditions. The impact strength for both types of piping materials will decrease as temperatures approach 32°F (0°C) and below. Care should be taken when unloading and handling pipe in cold weather. Dropping pipe from a truck or forklift may cause damage. Methods and techniques normally used in warm weather may not be acceptable at the lower temperature range.

When loading pipe onto vehicles, care should be taken to avoid contact with any sharp corners (i.e. angle irons, nail heads, etc.), as the pipe may be damaged.

While in transit, pipe should be well secured and supported over the entire length and should never project unsecured from the back of a trailer.

Larger pipe may be off-loaded from vehicles by rolling them gently down timbers, ensuring that they do not fall onto one another or onto a hard, uneven surface.

Prolonged Outdoor Exposure

Prolonged exposure of PVC pipe to the direct rays of the sun will not damage the pipe. However, some mild discoloration may take place in the form of a milky film on the exposed surfaces. This change in color merely indicates that there has been a harmless chemical transformation at the surface of the pipe. A small reduction in impact strength could occur at the discolored surfaces but they are of a very small order and are not enough to cause problems in field installation.

Protection – Covering

Discoloration of the pipe can be avoided by shading it from the direct rays of the sun. This can be accomplished by covering the stockpile or the crated pipe with a light colored opaque material such as canvas. If the pipe is covered, always allow for the circulation of air through the pipe to avoid heat buildup in hot summer weather. Make sure that the pipe is not stored close to sources of heat such as boilers, steam lines, engine exhaust outlets, etc.

PVC Reclaimed Water Pipe

Submittal Data Sheet

Handling & Installation Procedures

System Acceptance (Hydrostatic Pressure) Test

After the system has been installed, it is important to test and inspect it for joint integrity. Leave all concealed pipe and fittings uncovered until the required test is completed and approved by the local Authority Having Jurisdiction.

Generally, a test pressure of 1.5 times the system working pressure for the pipe installed is adequate. It is recommended that hydrostatic testing be carried out before commissioning the line into usage. The following hydrostatic test procedure should be followed after all the solvent welded joints, in the section to be tested, have been allowed to cure fully (see tables in Average Joint and Cure Schedule).

Merely filling the pipeline with city pressure will impose some stresses on the pipe and its appurtenances. Here is a checklist to run through before filling the line.

1. Has enough backfill material been placed over the pipe to prevent its movement during test? A minimum of 1-1/2 pipe diameters is recommended.
2. Has provision been made to permit the escape of air from the upper reaches of the pipeline as it is being filled?
3. If the line is not completed, has an adequate means of blocking the test cap or plug been made?

Pressure testing with compressed air is strictly prohibited with PVC.

Prior to testing, precautions must be taken to protect personnel and property in case of test failure.

WARNING

- **NEVER** use compressed air or gas in PVC pipe.
- **NEVER** use or test PVC with compressed air or other gases. Do not use air-over-water boosters. **Use of compressed air or gas in PVC pipe can result in explosive failures and cause severe injury or death.**

Hydrostatic Test Procedure

1. Where possible, visually inspect the installed piping for evidence of physical damage or deficiencies.
2. Split the system into convenient test sections, not exceeding 1,000 feet.
3. Slowly fill the pipe section with water, preferably at a velocity of 1.0 ft/s or less. Any entrapped air must be evacuated by venting from the high points. Do not pressurize at this stage.
4. Leave the section for at least 1 hour to allow equilibrium temperature to be achieved.
5. Check the system for leaks. If clear, check for and remove any remaining air and increase pressure up to 50 psi (345 kPa). Do not pressurize further at this stage.
6. Leave the section pressurized for 10 minutes. If the pressure drops, inspect for leaks. If the pressure remains constant, slowly increase the hydrostatic pressure to 1.5 times the system working pressure but do not exceed the maximum working pressure of any system components.
7. Leave the section pressurized for a period not exceeding 1 hour. During this time, the pressure should not change if the test is successful. If there is a significant drop in static pressure or extended times are required to achieve pressure, either joint leakage has occurred or air remains in the line. Inspect for leakage and if none is apparent, reduce the pressure and check for trapped air. All air must be removed before further testing.
8. Any joint leaks should be repaired and allowed to cure fully before re-pressurizing and testing.

NOTICE

Do not exceed the maximum working pressure of any system components including pipe, fittings, valves, threaded adapters, unions, maintenance couplings or flanges.

- The pressure rating of all components must be reduced when operating temperatures exceed 73°F.
- Exceeding the maximum working temperature or pressure of the system may result in system failure and/or property damage.

PVC Reclaimed Water Pipe

Submittal Data Sheet

Specifications

PVC Reclaimed Water Pipe

Scope

This specification sheet covers the manufacturers' requirements for PVC Schedule 40, & SDR-21, Reclaimed Water pipe. The pipe meets or exceeds all applicable ASTM standards and is suitable for use in non-potable irrigation and aerobic septic systems.

Materials

Rigid PVC (polyvinyl chloride) used in the extrusion of Schedule 40, SDR-13.5, & SDR-21, Reclaimed Water pipe complies with the material requirements of ASTM D1784 (formerly Type 1, Grade 1) and has a cell classification of 12454. Raw material used in the extrusion shall contain the standard specified amounts of color pigment, stabilizers and other additives.

Elastomeric gaskets provided with PVC Reclaim pipe conforms to ASTM F477.

Dimensions

Physical dimensions and properties of Schedule 40 PVC Reclaimed Water pipe shall meet the requirements of ASTM D1785.

Physical dimensions and properties of SDR-13.5 & SDR-21 PVC Reclaimed Water pipe shall meet the requirements of ASTM D2241.

Marking

PVC Reclaimed Water pipe is purple in color and is marked in accordance to ASTM D2241 and/or ASTM D1785. The marking includes the following: Nominal size, Reclaim PVC-1120, Schedule or SDR size and pressure rating, ASTM standard,"CAUTION-RECLAIMED WATER-DO NOT DRINK**)

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- 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 and increases product durability.
- Wide Selection of Nozzles – Including standard and low angle, provides flexibility in system design.
- Optional Check Valve – Prevents low head drainage.

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Arc Selection 40° to Continuous 360°

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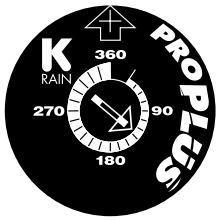


Specifications

- Inlet: (1,9 cm) 3/4" Threaded NPT
- Arc Adjustment Range: 40° to Continuous 360°
- Flow Range: .5 – 10.0 GPM (1,9 – 37,8 LPM)
- Pressure Rating: 30 – 70 PSI (2 – 4,8 bar)
- Precipitation Rate: .12 – 1.01 in/hr (3 – 26 mm/hr) (Depending on Spacing and Nozzle Used)
- Retracted Height: 7 1/2" (19 cm)
- Riser Height: 4 1/2" (11,4 cm)
- Recommended Spacing: 28' – 44' (8,5 – 13,2 m)
- Radius: 22' – 50' (6,7 – 15,3 m)
- Nozzle Trajectory: 26°
- Low Angle Nozzle Trajectory: 12°
- Standard and Low Angle Nozzles Included

Models

11003	ProPlus
11003-RCW	ProPlus for reclaimed water with low angle nozzle

Other Options: Add to Part Number:

-CV	Check Valve
-LA	Low Angle Nozzle
-NN	No Nozzle

How to Specify

Model Number	Description
11003	-RCW

Performance Data

NOZZLE	PRESSURE			RADIUS		FLOW RATE			PRECIPITATION			
	PSI	kPa	Bars	Ft.	M.	GPM	L/M	M³/H	■ in/hr ▲		■ mm/hr ▲	
#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	4	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	30	207	2,1	38	11,6	2.5	9,5	0,57	0.33	0.38	8	10
Pre-	40	275	2,8	39	11,9	2.8	10,6	0,64	0.35	0.41	9	10
installed	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	13	15
	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	17
	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.	37,9	2,27	0.77	0.89	20	23

Low Angle Performance Data

NOZZLE	PRESSURE			RADIUS		FLOW RATE			PRECIPITATION			
	PSI	kPa	Bars	Ft.	M.	GPM	L/M	M³/H	■ in/hr ▲		■ mm/hr ▲	
#1.0	30	207	2,1	22	6,7	1.2	4,5	0,27	0.48	0.55	12	14
	40	276	2,8	24	7,3	1.7	6,4	0,39	0.57	0.66	14	17
	50	345	3,4	26	7,9	1.8	6,8	0,41	0.51	0.59	13	15
	60	414	4,1	28	8,5	2.0	7,6	0,45	0.49	0.57	12	14
#3.0	30	207	2,1	29	8,8	3.0	11,4	0,68	0.69	0.79	18	20
	40	276	2,8	32	9,8	3.1	11,7	0,70	0.58	0.67	15	17
	50	345	3,4	35	10,7	3.5	13,2	0,80	0.55	0.64	14	16
	60	414	4,1	37	11,3	3.8	14,4	0,86	0.53	0.62	14	16
#4.0	30	207	2,1	31	9,4	3.4	12,9	0,77	0.68	0.79	17	20
	40	276	2,8	34	10,4	3.9	14,8	0,89	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 are calculated for 180° operation.
For the percipitation rate for a 360° sprinkler, divide by 2.

CCEO
COPY

Comal County

OFFICE OF COMAL COUNTY ENGINEER

License to Operate
On-site Sewage Treatment and Disposal Facility

Date Issued: 12/24/2003 Permit Number: 84406

Location Description: Granite Road, Lot #3, Spring Branch, TX 78070
Lot 3, Block 1, Cypress Cove Subdivision

Type of System: Aerobic Treatment with Surface Irrigation Discharge

License issued to: James M. Duggan

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

OS8083
ENVIRONMENTAL HEALTH INSPECTOR

OS7722
ENVIRONMENTAL HEALTH COORDINATOR

This "License-Operate" report was printed on 12/31/2003 by: Comal County Environmental Health, , operator, using CASST Ver.2.1

195 David Jonas Drive • New Braunfels, Texas 78130 • (830) 608-2090 FAX (830) 608-2009

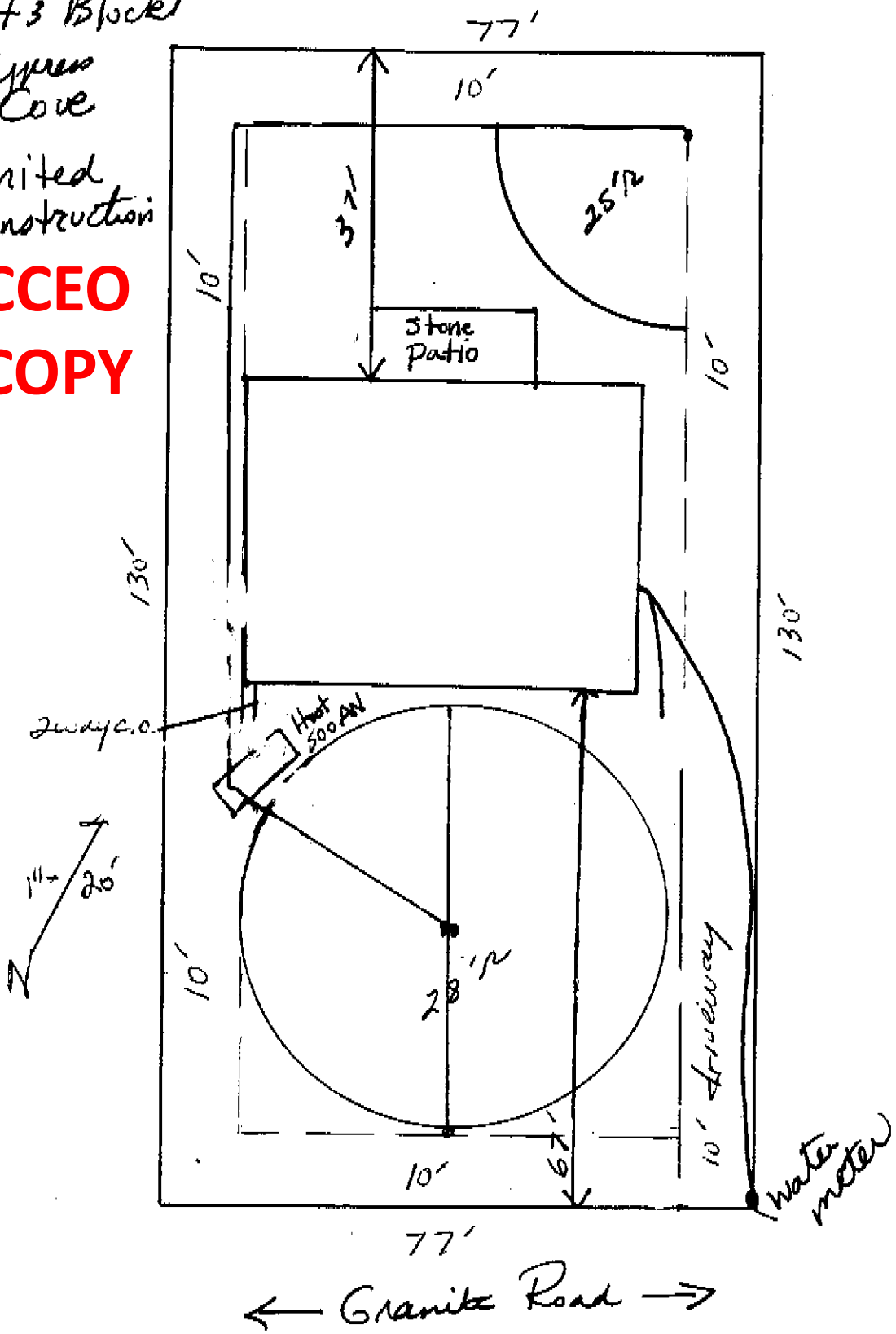
Lt 3 Block 1
Agave Cove
United Construction

CCEO COPY

Permit 84406

REVISED

RECEIVED
NOV 18 2003
COUNTY ENGINEER



STATE OF TEXAS
VIRGINIA CASTRO
3233
REGISTERED
PROFESSIONAL SANITARIAN

10/4/03
revised to

From: Ritzen,Brenda
To: Stephanie Crider
Cc: Jamie Taylor
Subject: RE: Permit 118489
Date: Wednesday, April 16, 2025 8:51:00 AM
Attachments: Page from 118489.pdf

Stephanie,

Items 1 & 5 are resolved. We will await items 2 thru 4 before further processing of the permit.

Thank you,
Brenda Ritzen
Environmental Health Coordinator
Comal County Engineers Office
195 David Jonas Dr.
New Braunfels, Texas 78132
830-608-2090
www.cceo.org

-----Original Message-----
From: Stephanie Crider <SCrider@azureeng.com>
Sent: Tuesday, April 15, 2025 4:52 PM
To: Ritzen,Brenda <rabbjr@co.comal.tx.us>
Cc: Jamie Taylor <JTaylor@azureeng.com>
Subject: RE: Permit 118489

This email originated from outside of the organization.
Do not click links or open attachments unless you recognize the sender and know the content is safe.
- Comal IT

Ms. Ritzen,

Please see attached corrected page 2.

Thank You,

Stephanie Crider
Principal Administrator
Azure Engineering, LLC
Direct: 210.844.0611

-----Original Message-----
From: Stephanie Crider
Sent: Monday, April 14, 2025 1:41 PM
To: Ritzen, Brenda <rabbjr@co.comal.tx.us>
Cc: Jamie Taylor <JTaylor@azureeng.com>
Subject: RE: Permit 118489
Importance: High

Ms. Ritzen,

#1. Mr. Onyeagu is listed as the buyer and Ms. Munson is the seller. Please advise. This is the most recent Deed

From: Ritzen,Brenda
To: "office@maverickturnkey.com"
Subject: Permit 118489
Date: Friday, April 11, 2025 3:35:00 PM
Attachments: image001.png

Re: Edgar Onyeagu
Cypress Cove Subdivision Section 1 Lot 3 Block 1
Application for Permit for Authorization to Construct an On-Site Sewage Facility (OSSF)

Owner / Agent :

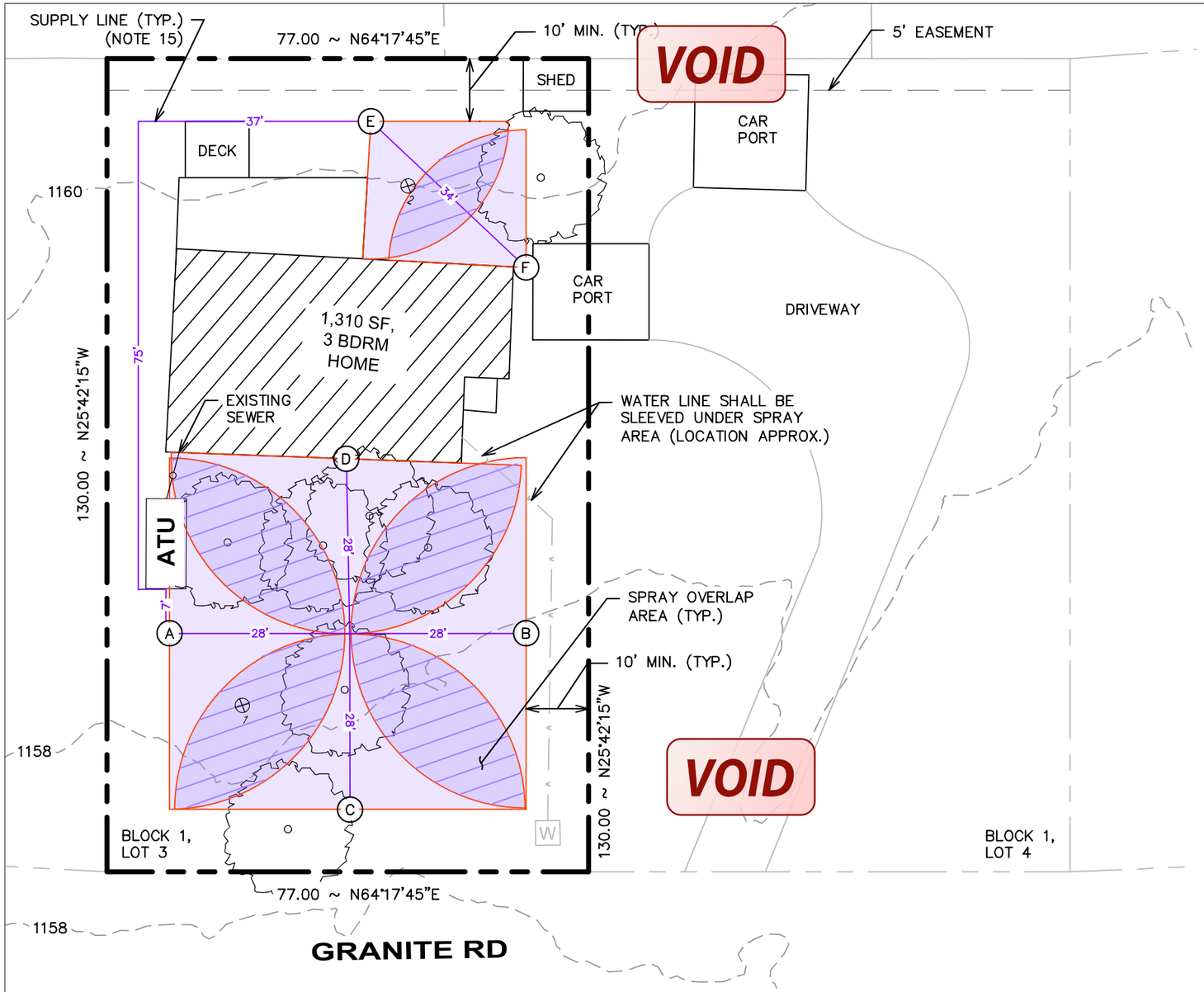
The following information is needed before I can continue processing the referenced permit submittal:

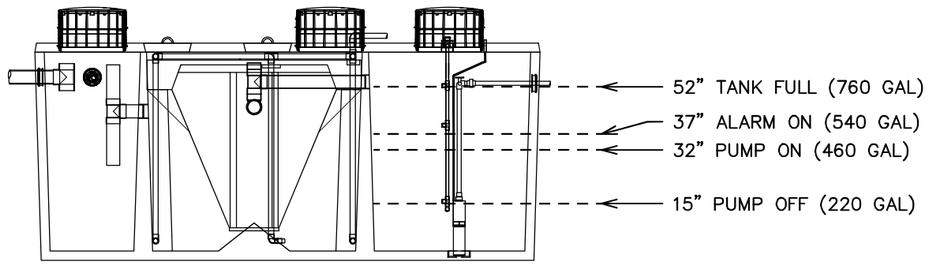
1. **The owner name on the permit application does not match the owner name described on the deed included with the permit submittal.**
2. **Submit a variance for the water line thru the spray area outlining the equivalent protection provided. Also, provide equivalent protection of the water line at crossing and within 10 ft. of sewer lines. Include certification that the equivalent protection is in compliance with TAC Chapter 290 Rules.**
3. **Show driveway location on the design.**
4. **Identify the separation distance from sewer lines to property lines.**
5. **The 360 gpd on the 2nd page of the permit application is not consistent with the 240 gpd design rate for the planning materials.**
6. **Revise as needed and resubmit.**

Thank you,

COMAL COUNTY
TEXAS

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





EXISTING ATU W/ BUILT IN PUMP TANK PROFILE (NTS)

NOTES

1. INSTALLER TO COORDINATE INSTALLATION TO MINIMIZE SOIL COMPACTION IN THE DISPOSAL FIELD AREA.
2. INSTALLER TO REMOVE ALL NECESSARY BRUSH AND TREES FOR PROPER INSTALLATION OF THE FACILITIES.
3. WATER LINES MUST BE AT LEAST 10' FROM THE TANKS AND PIPE, EXCEPT AT BUILDING CONNECTION, AND NOT UNDER THE SPRAY AREA. IF WATER LINES ARE WITHIN 10' OF TANKS AND PIPE, THEN AN APPROVED WATERTIGHT SLEEVE MUST BE INSTALLED AROUND THE WATER LINE TO 10' FROM TANKS AND PIPE. IF WATER LINES ARE UNDER SPRAY AREA, THEN AN APPROVED WATERTIGHT SLEEVE MUST BE INSTALLED AROUND THE WATER LINE.
4. SEE ATTACHED ATU, PUMP, AND SPRINKLER HEAD INFORMATION. EXISTING ATU SHALL BE PROTECTED IN PLACE AND RE-USED FOR THIS PROJECT.
5. INSTALL PVC GATE VALVE IN, OR JUST OUTSIDE OF, ATU PUMP TANK TO THROTTLE PRESSURE IF REQUIRED. SEE DESIGN CALCULATIONS SHEET.
6. IF NEEDED, GRADE TO ENSURE PROPER DRAINAGE. THE SPRAY DISPOSAL AREA SHALL BE GRADED TO 15% OR LESS IF EXISTING GRADES ARE FOUND TO EXCEED 15%.
7. THE PROPOSED LINES BETWEEN THE HOME AND THE PROPOSED ATU SHALL BE LAID AT A MINIMUM SLOPE OF 1/8" OF FAL LOF FALL PER HORIZONTAL FOOT.
8. SYSTEM SHALL INCLUDE BOTH AUDIBLE AND VISIBLE ALARM INDICATORS FOR THE ALARMS.
9. INSTALLER MAY FIELD ADJUST DISPOSAL FIELD AS NEEDED WHILE MAINTAINING ALL APPLICABLE TCEQ RULES AND COUNTY REGULATIONS.
10. ALL YARD PIPING IS 1" DIAMETER MINIMUM SOLID SCH 40 PVC UNLESS INDICATED OTHERWISE ON THE PLANS.
11. ALL YARD PIPING WITHIN 5' OF FOUNDATIONS, BUILDINGS, SURFACE IMPROVEMENTS, PROPERTY LINES, SWIMMING POOLS, AND OTHER STRUCTURES (EXCEPT BUILDING FOUNDATIONS) SHALL BE SCH 80 PVC PIPE OR SLEEVED IN SCH 40 PVC PIPE.
12. REGARDING LANDSCAPING, ANY BARE AREAS SHALL BE SEEDED OR SODDED BEFORE SYSTEM START-UP. THE VEGETATION SHALL BE ESTABLISHED OR CAPABLE OF GROWTH BEFORE SYSTEM START-UP.
13. INSTALLER TO LOCATE ALL UTILITIES BEFORE INSTALLATION. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND BASED ON FIELD OBSERVATIONS. OTHER UTILITIES MAY BE PRESENT THAT ARE NOT ILLUSTRATED.
14. PROPERTY LINES AND EASEMENTS ARE BASED ON EXISTING SURVEY. INSTALLER SHALL VERIFY PROPERTY LINES, EASEMENTS, AND SETBACKS PRIOR TO INSTALLATION.
15. INSTALLER SHALL RE-UTILIZE EXISTING SUPPLY LINE WHERE APPLICABLE. UN-USED SECTIONS SHALL BE CUT, CAPPED, AND ABANDONED.

SPRAY HEAD	RAD. (FT)	ANGLE (DEG)	AREA (SF)
A	28	180	1,231
B	28	180	1,231
C	28	180	1,231
D	28	180	1,231
E	22	93	392
F	22	87	367
TOTAL			5,683

SPRAY AREA
EXISTING: 2,953 SF
REQUIRED: 3,750 SF

OVERLAP AREA: 1,917 SF
ACTUAL: 3,766 SF

LEGEND

ATU	EXISTING 500 GPD AEROBIC TREATMENT UNIT TO REMAIN
●	PROPOSED SPRAY HEADS
⊗	SOIL TEST HOLE
○	EXISTING TWO-WAY CLEANOUT
W	WATER METER
- - - -	2' CONTOURS

0' 10' 20'

STATE OF TEXAS
JAMIESON R. TAYLOR
127090
LICENSED
PROFESSIONAL ENGINEER

3/6/2025

OSSF DESIGN FOR BLOCK 1, LOT 3

OWNER: EDGAR ONYEAGU	
ADDRESS: 339 GRANITE RD	
CITY: SPRING BRANCH	SHEET: 1 OF 1

Azure Engineering, LLC
ENVIRONMENTAL ENGINEERING & CONSULTING
TBPELS FIRM NO. 26379
PIPE CREEK, TEXAS
830.522.1588

COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

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

VOID

REVISED
2:27 pm, Apr 14, 2025

Planning Materials & Site Evaluation as Required Com[illegible]n Taylor

System Description Aerobic System

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

Tank Size(s) (Gallons) 240

Absorption/Application Area (Sq Ft) 3766 sf

Gallons Per Day (As Per TCEQ Table III) _____

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)

Is the property located over the Edwards Recharge Zone? ☐ Yes ☒ No

(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? ☐ Yes ☒ No

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

Is there at least one acre per single family dwelling as per 285.40(c)(1)? ☒ Yes ☐ No

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? ☒ Yes ☐ No

Is there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No

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

VOID

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: Spring Branch

I hereby certify that, per TCEQ Rules Chapter 213 - Subchapter B, this site is exempt from the Contributing Zone Plan requirement.

James Taylor

3/21/2024
Date

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.

James Taylor
Signature of Designer

3/12/2024
Date

Revised March 2024

COMAL COUNTY
ENGINEER'S OFFICE

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

ON-SITE SEWAGE FACILITY APPLICATION

VOID

Planning Materials & Site Evaluation as Required Completed By Jamieson Taylor

System Description Aerobic System

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

Tank Size(s) (Gallons) 760 Absorption/Application Area (Sq Ft) 3766 sf

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 completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? ☐ Yes ☒ No

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

Is there at least one acre per single family dwelling as per 285.40(c)(1)? ☒ Yes ☐ No

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? ☐ Yes ☒ No

(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? ☒ Yes ☐ No

Is there an existing TCEQ approval CZP for the property? ☐ Yes ☒ No

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

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? ☐ Yes ☒ No

(If yes, the 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.)

VOID

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

If yes, indicate the city: Spring Branch

I hereby certify that, per TCEQ Rules Chapter 213 - Subchapter B, this site is exempt from the Contributing Zone Plan requirement.

James Taylor

3/21/2024
Date

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.

James Taylor
Signature of Designer

3/12/2024
Date

SUBSTITUTE TRUSTEE'S DEED
AND SUPPORTING AFFIDAVIT

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.

STATE OF TEXAS §
§
COUNTY OF COMAL §

Security Instrument: Deed of Trust dated October 1, 2014 and recorded on October 8, 2014 as Instrument Number 201406035617 in the real property records of COMAL County, Texas, which contains a power of sale.

Grantor(s): WANDA LUE MUNSON

Original Mortgagee: Mortgage Electronic Registration Systems, Inc., as beneficiary, as nominee for Synergy Home Loans LLC, its successors and assigns

Current Mortgagee: FREEDOM MORTGAGE CORPORATION

Mortgage Servicer: Freedom Mortgage Corporation

Property Description: ALL THAT CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING SITUATED IN COMAL COUNTY, TEXAS, BEING KNOWN AND DESIGNATED AS LOT 3 AND LOT 4, BLOCK 1, CYPRESS COVE, SECTION ELEVEN, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN VOLUME 3 PAGE 49, MAP AND PLAT RECORDS OF COMAL COUNTY, TEXAS.

Sale Date and Location: November 05, 2024 at the northeast porch of the historic Comal County Courthouse, 100 Main Plaza, New Braunfels, Texas 78130, or as designated by the County Commissioners Court.

Sale Time: 1:11 PM

Sale Amount: $155,000.00

Buyer/Grantee: Edgar Onyeagu
PO Box 680938
San Antonio, TX 78268

Know all men by these presents, that I, Amy Ortiz, Aarti Patel, Dylan Ruiz, Violet Nunez, Daniel McQuade, Marcela Cantu, Vanna Ho, Cary Corenblum, Joshua Sanders, Aleena Litton, Matthew Hansen, Thomas Gilbraith, C Jason Spence, Deborah Martin, Troy Martin, Alexis Martin, Cassie Martin, Terri Martin, Shelby Martin, Martha Rossington, Reyn Rossington, Jennyfer Sakiewicz, Deanna Ray, Jim Mills, Susan Mills, Jeff Benton, Andrew Mills-

Middlebrook, George Hawthorne, Ed Henderson, Kyle Walker, Dustin George ("Substitute Trustee"), having been appointed as a substitute trustee under the Security Instrument referenced above and having been instructed by the current mortgagee and mortgage servicer to enforce the Security Instrument containing a power of sale of the Property, did complete or verify completion of the statutory and contractual duties and conditions precedent to exercising the power of sale and did comply with Texas Property Code section 51.002 by mailing by certified mail to all debtors; filing with the COMAL County Clerk; and posting in the designated location Notice of Substitute Trustee Sale in accordance with Texas Property Code section 51.002 at least twenty-one (21) days prior to the sale. All other conditions precedent to the sale were satisfied.

In accordance with the Notice of Substitute Trustee Sale and the powers granted to me as substitute trustee of the Deed of Trust, I auctioned the Property to the highest bidder on the date and time and at the location referenced above.

In consideration of the bid and corresponding payment of the amount of $ 155,000.00 by Edgar Onyeagu ("Grantee"), I, as Substitute Trustee and in accordance with the authority conferred on me in the Security Instrument, granted, sold, and conveyed, and by these presents grants, sells, and conveys unto said Grantee, the Property, to have and to hold the above-described premises, together with all and singular, the rights and appurtenances thereunto in any wise belonging, unto said Grantee, Grantee's heirs/successors and assigns, forever. In accordance with Texas Property Code section 51.009, I, as Substitute Trustee, grant, sell and convey the Property as is, without any expressed or implied warranties, except as to warranties of title by Grantor, and grant, sell and convey the Property to Grantee at Grantee's own risk.

Executed on this the 7 day of November, 2024.

Marcela Cantu

~~Amy Ortiz, Aarti Patel, Dylan Ruiz, Violet Nunez, Daniel McQuade,~~ Marcela Cantu, ~~Vanna Ho, Cary Corenblum, Joshua Sanders, Aleena Litton, Matthew Hansen, Thomas Gilbraith, C Jason Spence, Deborah Martin, Troy Martin, Alexis Martin, Cassie Martin, Terri Martin, Shelby Martin, Martha Rossington, Reyn Rossington, Jennyfer Sakiewicz, Deanna Ray, Jim Mills, Susan Mills, Jeff Benton, Andrew Mills-Middlebrook, George Hawthorne, Ed Henderson, Kyle Walker, Dustin George,~~ Substitute Trustee

STATE OF TEXAS §
§
COUNTY OF Bexar §

This instrument was acknowledged before me on this 7 day of November, 2024 by ~~Amy Ortiz, Aarti Patel, Dylan Ruiz, Violet Nunez, Daniel McQuade,~~ Marcela Cantu, ~~Vanna Ho, Cary Corenblum, Joshua Sanders, Aleena Litton, Matthew Hansen, Thomas Gilbraith, C Jason Spence, Deborah Martin, Troy Martin, Alexis Martin, Cassie Martin, Terri Martin, Shelby Martin, Martha Rossington, Reyn Rossington, Jennyfer Sakiewicz, Deanna Ray, Jim Mills, Susan Mills, Jeff Benton, Andrew Mills-Middlebrook, George Hawthorne, Ed Henderson, Kyle Walker, Dustin George.~~

NOTARY PUBLIC, STATE OF TEXAS

After Recording, Return to:
Miller, George & Suggs, PLLC
6080 Tennyson Parkway, Suite 100
Plano, TX 75024
MGS No.: 24TX373-0147

SUPPORTING AFFIDAVIT

Before me, the undersigned on this day personally appeared Tracey Midkiff, and after being duly sworn, deposed and states under oath, as follows:

1. I am over the age of eighteen (18), have not been convicted of a crime of moral turpitude and have personal knowledge of the facts contained in this affidavit.

2. I am an attorney with Miller, George & Suggs, PLLC, the firm retained by the mortgage servicer and mortgagee to assist with the administration of the foreclosure of the Deed of Trust dated October 1, 2014 and recorded on October 8, 2014 as Instrument Number 201406035617 in the real property records of COMAL County, Texas, which contains a power of sale.

3. I am making this affidavit based upon the records maintained by Miller, George & Suggs, PLLC in the regular course of business, which are records including, but are not limited to, images of written correspondence, letters, notices, certified mailings, client loan files, title searches and other records maintained in the usual course of assisting with the administration of a foreclosure sale.

4. The notices required by the Security Instrument and Texas Property Code sections 51.002(b) and (d) were provided to the debtor(s).

5. In accordance with Texas Property Code section 51.002, the Notice of Foreclosure Sale was posted at least twenty-one (21) days prior to the date of sale at the proper location designated by the County Commissioner's Court and a copy of the Notice of Substitute Trustee Sale was filed at least twenty-one (21) days prior to the date of sale in the office of the County Clerk of the county in which the sale occurred.

6. At the time of the Foreclosure Sale and twelve months prior the sale, our records show the debtor(s) was/were not in the armed services of the United States of America according to reports obtained from the Department of Defense Manpower Data Center website.

7. At the time of the Foreclosure Sale, our records show Wanda Lue Munson passed away on or around May 19, 2022.

8. At the time of the Foreclosure Sale, our records show the debtor(s) was/were not protected by any stay under the United States Bankruptcy Code and was/were not involved in any other court proceedings where a receiver had been appointed.

Tracey Midkiff
MILLER, GEORGE & SUGGS, PLLC

STATE OF TEXAS §
§
COUNTY OF COLLIN §

This instrument was acknowledged before me on this 14th day of November, 2024 by Tracey Midkiff.

NOTARY PUBLIC, STATE OF TEXAS

ANGELA K WOOLSTON
Notary ID #12101138
My Commission Expires
December 10, 2025

MGS No.: 24TX373-0147
339 Granite Rd, Spring Branch, TX

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
11/19/2024 08:31:59 AM
TAMMY 3 Pages(s)
202406035246

Bobbie Koepp

RECEIVED
By Kathy Griffin at 3:06 pm, Mar 21, 2025

COMAL COUNTY
ENGINEER'S OFFICE

OSSF DEVELOPMENT APPLICATION CHECKLIST

Staff will complete shaded items

		118489
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.

Edgar Onyeagu
Edgar Onyeagu (Mar 12, 2025 07:08 CDT)
Signature of Applicant

03/12/2025
Date

___ COMPLETE APPLICATION

Check No. _____ Receipt No._____

___ INCOMPLETE APPLICATION
(Missing Items Circled, Application Refeused)

Revised: September 2019