Comal County Environmental Health OSSF Inspection Sheet

staller Name:	OSSF Installer #:	
1st Inspection Date:	2nd Inspection Date:	3rd Inspection Date:
Inspector Name:	Inspector Name:	Inspector Name:

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

Inspector Notes:

Comal County Environmental Health OSSF Inspection Sheet

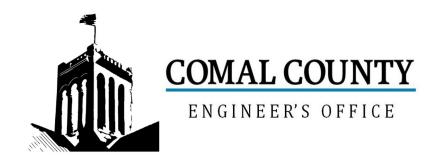
	B	A	C't at a		4	2-11	211.
No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If SingleTank, 2Compartments Provided withBaffle SEPTIC TANK Inlet Flowline Greater than3" and " T " Provided on Inlet and OutletSEPTIC TANK Septic Tank(s) MeetMinimum 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) (I)285.32(b)(1)(E) (i)285.32(b)(1)(E) (i)285.32(b)(1)(C) (i)285.32(b)(1)(C) (ii)285.32(b)(1)(C) (ii)285.32(b)(1) (B)285.32(b)(1) (A)285.32(b)(1)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used		285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
	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)				
	SEPTIC TANK Tank Volume Installed						
	PUMP TANK Volume Installed						
13	AEROBIC TREATMENT UNIT Size Installed						
14	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number						
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
	DISPOSAL SYSTEM Drip Irrigation		285.33(c)(3)(A)-(F)				
18							

Comal County Environmental Health OSSF Inspection Sheet

	OSSI IIISPECTION SHEET									
No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.			
	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)							
	AEROBIC TREATMENT UNIT IS Aerobic Unit Installed According to Approved Guidelines.		285.32(c)(1)							
34	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions									
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.									
36	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump									
	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									
	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried									

Comal County Environmental Health OSSF Inspection Sheet

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



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

Permit Number: 113741

Issued This Date: 12/09/2021

This permit is hereby given to: NORRIS J. DEVOLL

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

552 CLOUD TOP

CANYON LAKE, TX 78133

Subdivision: SCENIC HEIGHTS

Unit: 2

Lot: 531R

Block: 0

Acreage: 0.0000

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic

Drip 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 County requirements.

Call (830) 608-2090 to schedule inspections.

RECEIVEDBy KG at 9:59 am, Dec 08, 2021



OSSF DEVELOPMENT APPLICATION CHECKLIST

Staff will complete shaded items

113741

Date Received Initials Permit Number

Instructions:	
Place a check mark next to all items that apply. For items that do no Checklist <u>must</u> accompany the completed application.	t apply, place "N/A". This OSSF Development Application
OSSF Permit	
Completed Application for Permit for Authorization to Construc	t an On-Site Sewage Facility and License to Operate
Site/Soil Évaluation Completed by a Certified Site Evaluator or	a Professional Engineer
Planning Materials of the OSSF as Required by the TCEQ Rul of a scaled design and all system specifications.	es for OSSF Chapter 285. Planning Materials shall consist
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 Issu	uance of License to Operate
I affirm that I have provided all information required for my OS constitutes a completed OSSF Development Application.	SF Development Application and that this application
188	12/07/2021
Signature of Applicant	Date
COMPLETE APPLICATION Check No. Receipt No.	INCOMPLETE APPLICATION —— (Missing Items Circled, Application Refeused)
La company to the second secon	Revised: September 2019



June 18, 2021

site/soil evaluation and inspection of private sewage facilities...

by the Comal County Flood Damage Prevention Order.

Signature of Owner

Date

ON-SITE SEWAGE FACILITY APPLICATION



Permit Number

1. APPLICANT / AG	ENT INFORMATION			,			
Owner Name	NORRIS J. DEVOLL	Agent Name	_	GREG JOHNSON, P.E			
	1118 HIGH HILLS DRIVE		170 HOLLOW OAK				
	CANYON LAKE TEXAS 78133			BRAUNFELS TEXAS			
	210-710-0939 norris74@devoll.com	Email	g	regjohnsonpe@yahoo.co	om		
2. LOCATION							
Subdivision Name	SCENIC HEIGHTS	Un	it2	Lot 531R Blo	ock		
	tract Number						
	552 CLOUD TOP		LAKE	State TX Zip	78133		
3. TYPE OF DEVEL							
Single Family	Residential			0			
Type of Cons	Residential truction (House, Mobile, RV, Etc.)	HOUSE + 7	esonal	KV-intenite	nt use		
Number of Be	edrooms 4						
	t of Living Area 2546						
	amily Residential						
	rials must show adequate land area for doubling	the required land needs	ed for treati	ment units and disposal a	ırea)		
	ty						
	pries, Churches, Schools, Parks, Etc Indi		ants				
	Lounges, Theaters - Indicate Number of Se						
	Hospital, Nursing Home - Indicate Number						
	/RV Parks - Indicate Number of Spaces						
	s						
Estimated Cost of	f Construction: \$ 350,000	(Structure Only)					
	the proposed OSSF located in the United S		ngineers	(USACE) flowage ease	ement?		
	(If yes, owner must provide approval from USACE f						
		er Collection		•			
 SIGNATURE OF By signing this applica 							
 The completed applifacts. I certify that I property. 	cation and all additional information submitted of am the property owner or I possess the appropr	iate land rights necessar	y to make t	the permitted improvemen	nts on said		
- Authorization is here	by given to the permitting authority and designa	ated agents to enter upor	the above	described property for th	e purpose of		

- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required

- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

* * COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH * *

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

REVISED1:56 pm, Dec 15, 2023

Planning Materials & Sit	te Evaluation as Required Comple	eted By GREG	W. JOHNSON, P.E.	.
System Description	PROPRIETARY;	AEROBIC TR	EATMENT AND DRIP TUBI	NG
Size of Septic System R	equired Based on Planning Mater	ials & Soil Evalu	uation	
Tank Size(s) (Gallons)	CLEARSTREAM 600NU/ 540 GREYWATER/ 540 PUMP	_Absorption/Ap	pplication Area (Sq Ft)	2004
Gallons Per Day (As Per (Sites generating more than	r TCEQ Table III) 340 n 5000 gallons per day are required t	o obtain a permit	through TCEQ)	
	over the Edwards Recharge Zone? als must be completed by a Registere			E.))
-	Q approved WPAP for the propert		_	
(If yes, the R. S. or P. E. sh	all certify that the OSSF design comp	lies with all provis	ions of the existing WPAP.)	
(If yes, the R.S. or P. E. sh	PAP, does the proposed developr all certify that the OSSF design will co sed OSSF until the proposed WPAP	omply with all pro	visions of the proposed WPAP.	A Permit to Construct will
is the property located o	ver the Edwards Contributing Zon	ne? 🛛 Yes 🗌] No	
Is there an existing TCE	Q approval CZP for the property?	☐ Yes 🔀	No	
(if yes, the P.E. or R.S. sha	all certify that the OSSF design compli	ies with all provisi	ons of the existing CZP)	
(if yes, the P.E. or R.S. sha	CP, does the proposed developme all certify that the OSSF design will con cosed OSSF until the CZP has been	nply with all provis	sions of the proposed CZP. A Pe	
	n an incorporated city? 🔲 Ye	es 🛛 No	ATE OF TEX	ili.
If yes, indicate the ci	ity:	,	GREG W. JOHNSO	**: X & Y & Y & Y & Y & Y & Y & Y & Y & Y &
	certify that: above is true and correct to the best of ne online posting/public release of my e		ociated with this permit applicati	on, as applicable
(Y)	<u> </u>	_	December 7, 2021	
Signature of Designer	<i>I</i>	Date		Page 2 of 2

AFFIDAVIT

THE COUNTY OF COMAL STATE OF TEXAS

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

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

T

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

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (Insert legal description): **SCENIC HEIGHTS SUBDIVISION** UNIT/BHASE/SECTION BLOCK 531R LOT SURVEY IF NOT IN SUBDIVISION: _ ___ACREAGE _ **NORRIS J. DEVOLL** The property is owned by (insert owner's full name):_ This OSSF must be covered by a continuous maintenance contract for the first two years. After the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days or maintain the system personally. Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office. WITNESS BY HAND(S) ON THIS 29th DAY OF DA **NORRIS J. DEVOLL** wner(s) signature(s) Owner (s) Printed name (s) SWORN TO AND SUBSCRIBED BEFORE ME ON THIS & TDAY OF NORRIS'I, DEVOLL 20_21 Filed and Recorded Official Public Records Public Signature Bobbie Koepp, County Clerk Comal County, Texas Brandi L Lamance tary Public, State of Texas 11/02/2021 11:10:44 AM pires 06/17/2024 CHRISTY 1 Pages(s) D 12899917-3 202106057027

Bobbie Koepp

Countryside Construction, Inc.

300 Chapman Parkway, Canyon Lake, TX. 78133

Phone: 830-899-2615 or 1-888-379-3721 Fax: 830-899-6662

Septic System Service Agreement
In consideration of payment for this service contract, we will abide by and agree to its terms and conditions:

in consideration of payment for this service contract, we will able by and agree to its terms and conditions.
Name: NORRIS J. DEVOLL Address: 552 CLOUD TOP
Sub-Div./County: SCENIC HEIGHTS / COMAL City, State-Zip: CANYON LAKE TX 78133
Permit #: Model #: NORWECO 960 600 Serial #:
Phone #: 210-710-0939
(X) Initial Two Year Service Agreement () One Year Service Agreement
& Two Year Limited Warranty
The effective date of this initial maintenance contract shall be the date the License to Operate is issued.
Legal Description: SCENIC HEIGHTS UNIT 2 LOT 531R
Legal Description: OCENTO TIETOTTO ONTE 2 LOT 33 TK
This contract will be in effect FROM LTO TO and will provide the following:
A: An inspection/service call every (4) four months which will include: inspection, adjustments and servicing
of the mechanical & electrical components as necessary to insure proper function of the system. B: An effluent quality inspection consisting of a visual check for color, turbidity, scum, overflow and odor.
C: The property owner is responsible for "purchasing and keeping chlorine" in the chlorinator, (if applicable).
If the chlorine test reveals "No Chlorine" in the system, the property owner may incur an additional cost.
D: If any improper operation is observed (which cannot be corrected at that time) the property owner will be
notified immediately of the conditions and the estimated cost. E: The response time to a complaint by the property owner regarding operation of the system, shall be within "48"
hours," from the time of notification.
F: ANY PARTS, WARRANTY OR NON-WARRANTY, OR FREIGHT CHARGES, LABOR OR SERVICE CALLS
DUE NOT PAID FOR REMAIN THE PROPERTY OF COUNTRYSIDE CONSTRUCTION AND COULD RESULT
IN REPOSSION OF PARTS BY COUNTRYSIDE CONSTRUCTION. G: THE SIGNING OF THIS SERVICE AGREEMENT AUTHORIZESCOUNTRYSIDE CONSTRUCTION TO ENTER
THE PROPERTY TO EXECUTE ALL TERMS OF THIS CONTRACT.
Countryside Construction, Inc., will warranty installation of the septic system to be according to state and county
regulations and the designs approved by the county. HOMEOWNER WILL BE RESPONSIBLE FOR SERVICE CALLS, LABOR AND SHIPPING COSTS ON ANY "WARRANTED PARTS" EXCHANGED DURING WARRANTY. All other
components will be according to manufacture's warranties.
Important: As Countryside Construction, Inc. cannot control what or how much effluent goes into this septic system
we <u>cannot warranty</u> how the system will function. Refer to manufacturers or installer's instructions, for suggestions on
septic operation. This service agreement does not cover the cost of "Service Calls, Labor or Materials that are
required or parts out of warranty, the failure to maintain electrical power to the system, sprinklers that are broken,
leaking, stopped-up or otherwise mal-functioning; or sewage flows exceeding the hydraulic/organic design capabilities an
the input of non-biodegradable materials (solvents, grease, oil, paints, etc.), or any usage contrary to the requirements as
advised by authorized service representative. Laboratory test work is available at an additional cost. Chlorine, filters, or parts that are out of warranty are available at a reasonable cost.
This contract does not include the pumping of a tank or of any compartment of a tank, or settlement of soil on or
around any part of the system regardless of reason:
Violations of the warranty also include: Disconnecting the alarm, restricting ventilation to the aerator, over loading the
system above its rated capacity; or flooding by external means. Rodent, insect or Fire Ant damage or any other form of
unusual abuse is a violation.
A renewal service contract should be "Activated" (30) thirty days before expiration of existing contract. We will
contact property owner prior to expiration of existing contract.
Serviced by: Countryside Construction Inc.
Walker Chapman - Operator Licensee #2929
0/2/2021
(X) Print Name (X) NORRIS J DEVOLL Date: 12/7/2021
Property Owner Signature
(X) Wilhu Chapm Date: 12/2/2011 Authorized Service Representative (revised 10/9/09)
Date: 1 Authorized Service Representative (revised 10/9/09)

ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed: _	June 18, 2021	_	
Site Location:	<u> </u>	SCENIC HEIGHTS, UNIT 2, LOT 531R	_
Proposed Excavation Depth:	N/A		
	•	ormed 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.

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.

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
10"	Ш	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 10"	BROWN
2						
3						
·						
5						

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

I certify that the findings of this report are ba	sed on my field observations and are accurate to
the best of my ability.	- -
	06/18/2021
/	061101 60

Gree W Johnson P.F. 67587-F2585 S.F. 11561

Date

OSSF SOIL EVALUATION REPORT INFORMATION

Date:June 21, 2021		
Applicant Information:	Site Evaluator Infor	mation:
Name: NORRIS J. DEVOLL	Name: Greg W. John	son, P.E., R.S, S.E. 11561
Address: 1118 HIGH HILLS DRIVE	Address: 170 Hollov	v Oak
City: CANYON LAKE State: TEXAS	City: New Braunfel	s State: Texas
Zip Code: 78133 Phone: (210) 710-0939	Zip Code: <u>78132</u>	Phone & Fax (830)905-2778
Property Location:	Installer Inforn	nation:
Lot 531R Unit 2 Blk Subd. SCENIC HEIGHTS	Name:	
Street Address: 552 CLOUD TOP	Company:	
City: CANYON LAKE Zip Code: 78133	Address:	
Additional Info.:		State:
		Phone
Topography: Slope within proposed disposal area:	20 %	
Presence of 100 yr. Flood Zone:	YES NO X	
Existing or proposed water well in nearby area.	YES NO X	
Presence of adjacent ponds, streams, water impoundments	YES NOX	
Presence of upper water shed	YES NO X	
Organized sewage service available to lot	YES NO X	

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

GREG W. JOHNSON, P.E. 67587 - S.E. 11561

Ob) Nor)

GREG W. JOHNSON

OREG/STEREO

FIRM #2585

#113741

REVISED 2:24 pm, Mar 01, 2024

DRIP TUBING SYSTEM DESIGNED FOR: NORRIS J. DEVOLL 1118 HIGH HILLS DRIVE CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Scenic Heights, Unit 2, Lot 531R, at 552 Cloud Top, the proposed system will serve a four bedroom residence (2546 sf.) & personal RV (intermittent use) situated in an area with shallow Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 or 4-inch SCH-40 pipe discharges greywater from the residence to a Clearstrem 600NU. A 3 inch SCH-40 pipe discharges from the Personal RV to a Infiltrator IM540 fitted with a 0.5 hp Liberty LE50 pump. Flow is pumped to the ATU through a 2" SCH-40 PVC pipe A high level audible and visual alarm will activate should the pump fail. Graywater from the residence enters a Infiltrator IM540 gallon graywater tank. Unused graywater flows through two backflow valves prior to joining flow into the aerobic plant, into a Clearstream 600NU 600gpd aerobic plant containing a 400-gallon pretreatment tank, an aerobic treatment plant. and a 750-gallon pump chamber containing a submersible well pump. The well pump in the ATU is activated by a time controller allowing the distribution ten times per day with an 8 minute run time with float setting at 340 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron disc filter (Arkal) then through a 1" SCH-40 manifold to a 2004sf. drip tubing field, with Netifm drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator PMR-MF 30psi installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the disc filter are flushed each cycle back to the trash tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be scarified and built up with 4" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil (NOT SAND). The field area will be covered in curlex and heavily seeded or sodded with grass prior to system startup. Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2023). This includes access limitation (<65lbs lid or hardware secured lid), inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap to prevent tank entry if the cap is unknowingly damaged or removed.



DESIGN SPECIFICATIONS:

Daily waste flow: 300 gpd + 40 gpd Personal RV Table III (Intermittent Use)

Pretreatment tank size: 400 Gal

Plant Size: Clearstream 600NU 600 gpd (TCEQ Approved)

Pump tank size: 750Gal

Reserve capacity after High Level: 120 Gal (>1/3 day Req'd)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 340 GPD/0.20 = 1700 sf. (Actual 2004 sf.)

Total linear feet drip tubing: 1002' *Netifim* drip tubing .61 GPH Pump requirement: 501 emitters @ .61 gph @ 30 psi = 5.0935 gpm

Pump Requirement (cont.): Dominator submersible well pump Dosing volume: 50-70 gal.

Pump Tank Calculations: 750 Gal (13.15 gal/in.)

Volume below working level = 12"= 158 gal

Working level = 340 gal = 26"

Reserve Requirement = >1/3 day = 120 gal. = 9.25"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

 $MSV = 2 FPS (\Pi d \uparrow 2)/4*7.48 gal/cf*60 sec/min$

MSV = 2(3.14159((.55/12)†2)/4)*7.48*60

MSV = 1.5 gpm MIN FLOW RATE x 3 = 4.5 gpm

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

 $MSV = 2(3.14159((1.049/12) \uparrow 2)/4)*7.48*60$

MSV = 5.4 GPM

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)

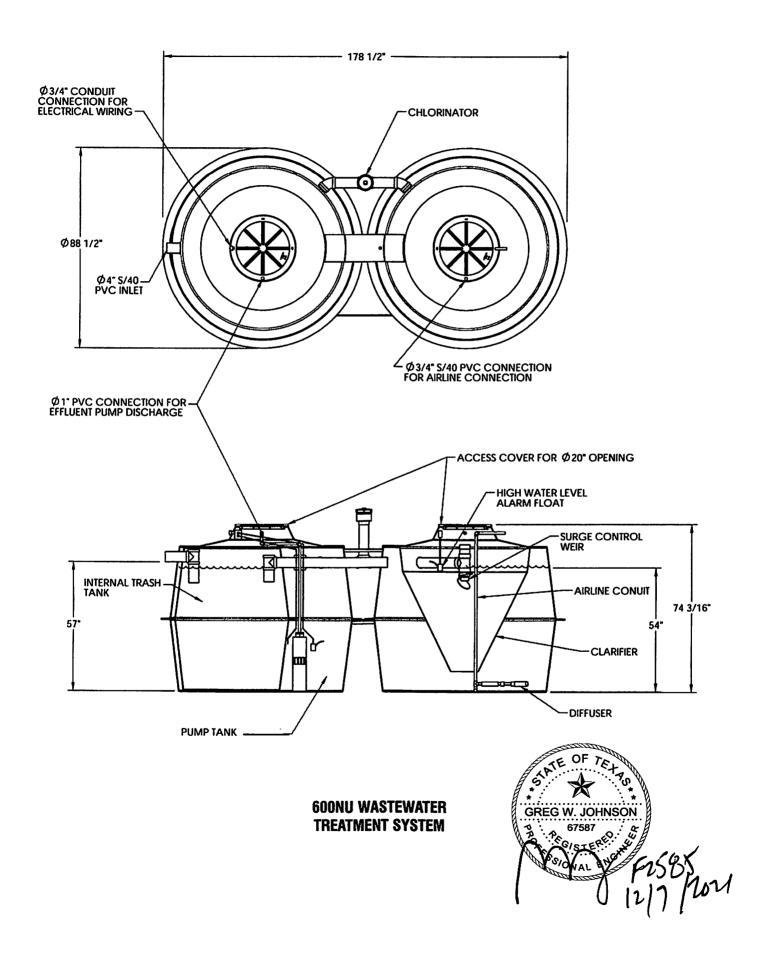
Greg W. Johnson, P.E.

No. 67587 - F-2585

170 Hollow Oak

New Braunfels, Texas 78132 830/905-2778

GREG W. JOHNSON



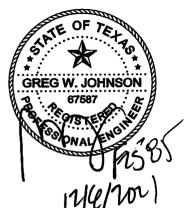
TANK NOTES:

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

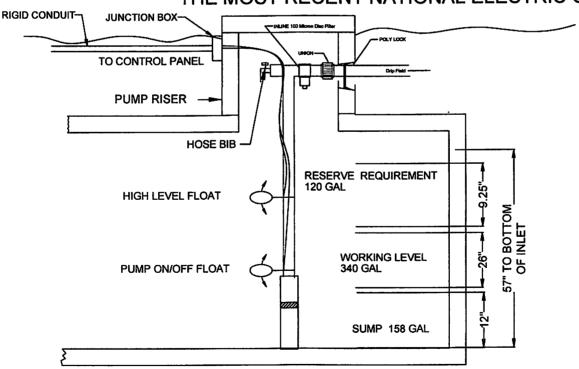
Tightlines to the tank shall be SCH-40 PVC.

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

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



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



TYPICAL PUMP TANK CONFIGURATION
CLEARSTREAM 600NU W/ 750 GAL PUMP TANK

Arkal 1" Super Filter

Catalog No. 1102 0___

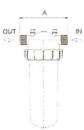
Features

- A "T" shaped filter with two 1" male threads.
- A "T" volume filter for in-line installation on 1" pipelines.
- The filter prevents clogging due to its enlarged filtering area that collects sediments and particles.
- · Manufactured entirely from fiber reinforced plastic.
- · A cylindrical column of grooved discs constitutes the filter element.
- Spring keeps the discs compressed.
- Screw-on filter cover.
- Filter discs are available in various filtration grades.



Technical Data

	1" BSPT (male)	1" NPT (male)
Inlet/outlet diameter	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m ³ /h (1.7 l/sec)	35 gpm
General filtration area	500 cm ²	77.5 in ²
Filtration volume	600 cm ³	37 in ³
Filter length L	340 mm	13 13/32"
Filter width W	130 mm	5 3/32"
Distance between end connections A	158 mm	6 7/32"
Weight	1.420 kg	3.13 lbs.
Maximum temperature	70° C	158 °F
рН	5-11	5-11





Filtration Grades

Blue (400 micron / 40 mesh)

Yellow (200 micron / 80 mesh)

-1 (100 -: -- / 100 -- -)

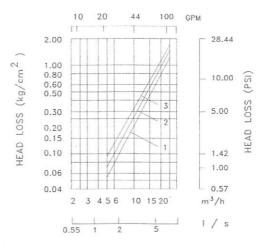
(100 micron /140 mesh)

Red (130 micron / 120 mesh)

Green (55 micron)

Black

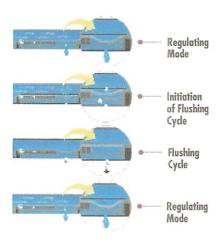
Head Loss Chart



NETAFIM

Bioline® Dripperline

Pressure Compensating Dripperline for Wastewater



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

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



Product Advantages

The Proven Performer

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

Quality Manufacturing with Specifications Designed to Meet Your Needs

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

Long-Term Reliability

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

Cross Section of Bioline Dripperline



Root Safe

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



Applications

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

Specifications

Wall thickness (mil): 45*

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

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

Recommended filtration: 120 mesh

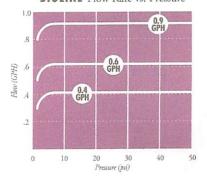
Inside diameter: .570*

Color: Purple tubing indicates non-potable

source

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

BIOLINE Flow Rate vs. Pressure





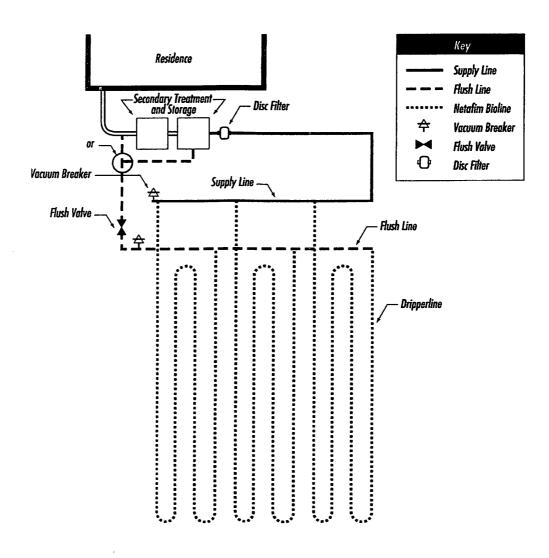
NETAFIM USA 5470 E. Home Ave. • Fresno, CA 93727 888.638.2346 • 559.453.6800 FAX 800.695.4753 www.netafimusa.com

SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

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

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



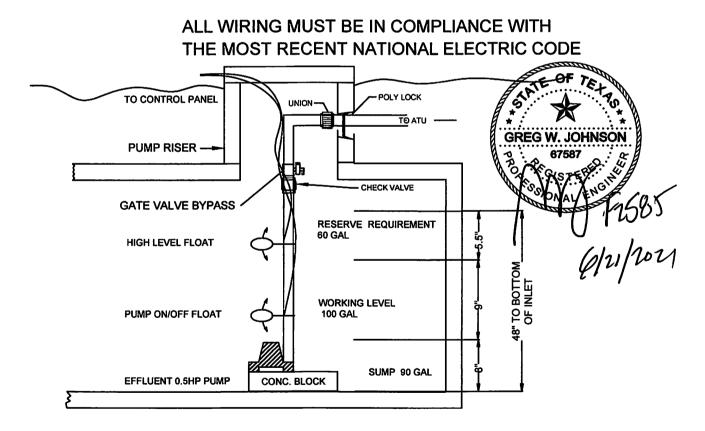
TANK NOTES:

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

Tightlines to the tank shall be SCH-40 PVC.

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

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



TYPICAL PUMP TANK CONFIGURATION IM-540 GAL PUMP TANK



PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

Specifications

The pressure regulator shall be capable of operating at a constant, factory preset, non-adjustable outlet pressure of 6, 10, 12, 15, 20, 25, 30, 35, 40, 50, or 60 PSI (0.41, 0.69, 0.83, 1.03, 1.38, 1.72, 2.07, 2.41, 2.76, 3.45, or 4.14 bar) with a flow range between:

- 4 16 GPM (909 3634 L/hr) for 6 10 PSI models or
- 2 20 GPM (454 4542 L/hr) for 12 60 PSI models.

The pressure regulator shall maintain the nominal pressure at a minimum of 5 PSI (0.34 bar) above model inlet pressure and a maximum of 80 PSI (5.52 bar) above nominal model pressure*. Refer to the PRU performance curve to establish specific outlet pressures based on relative inlet pressure and flow rate. Always install downstream from all shut off valves. Recommended for outdoor use only. Not NSF certified.

All pressure regulator models shall be equipped with one of these inlet-x-outlet configurations:

3/4-inch Female National Pipe Thread (FNPT)

1-inch Female National Pipe Thread (FNPT)

1-inch Female British Standard Pipe Thread (FBSPT) 1-inch Female British Standard Pipe Thread (FBSPT)

34-inch Female National Pipe Thread (FNPT)

1-inch Female National Pipe Thread (FNPT)

The upper housing, lower housing, and internal molded parts shall be of engineering-grade thermoplastics with internal elastomeric seals and a reinforced elastomeric diaphragm. Regulation shall be accomplished by a fixed stainless steel compression spring, which shall be enclosed in a chamber isolated from the normal water passage.

Outlet pressure and flow shall be clearly marked on each regulator.

The pressure regulator shall carry a two-year manufacturer's warranty on materials, workmanship, and performance. Each pressure regulator shall be water tested for accuracy before departing the manufacturing facility.

The pressure regulator shall be manufactured by Senninger Irrigation in Clermont, Florida. Senninger is a Hunter Industries Company.

Physical

3/4" FNPT x 3/4" FNPT model (shown on right)

Overall Length

5.2 inches (13.1 cm)

Overall Width

2.5 inches (6.4 cm)

1" FNPT x 1" FNPT model

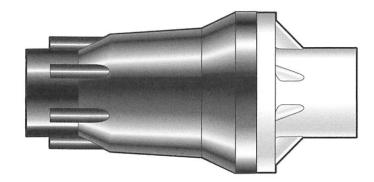
1" FBSPT x 1" FBSPT model

Overall Length

5.8 inches (14.6 cm)

Overall Width

2.5 inches (6.4 cm)



Please consult factory for applications outside of recommended guidelines.



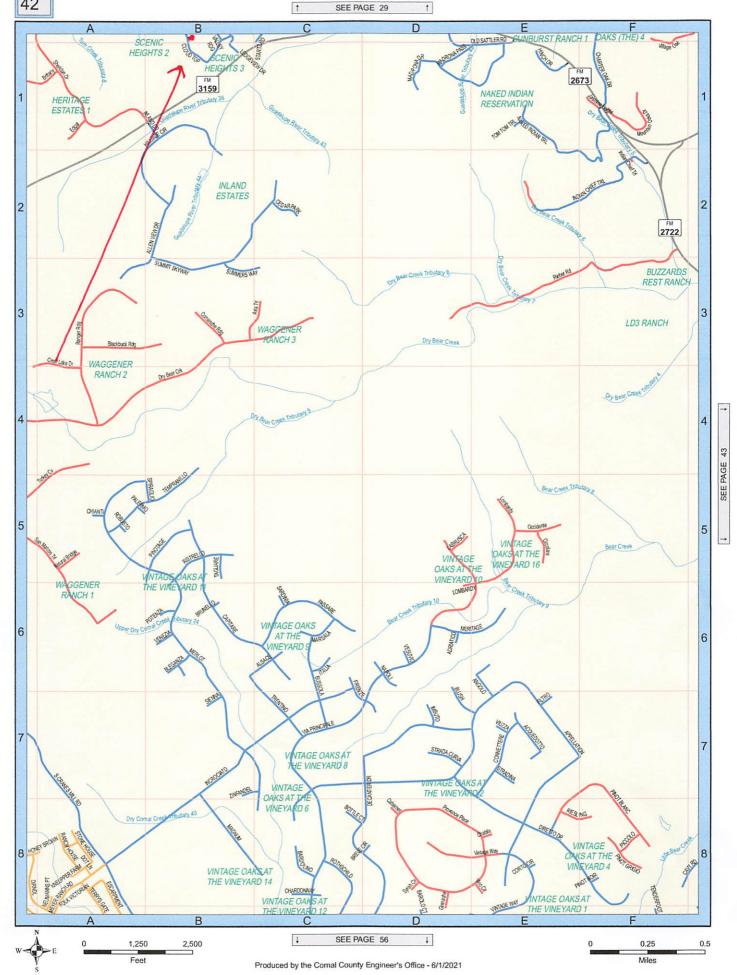
PMR-MF

PRESSURE-MASTER REGULATOR - MEDIUM FLOW

Model Numbers

Model #	Flow Range	Preset Operating Pressure	Maximum Inlet Pressure
PMR-6 MF	4 - 16 GPM	6 PSI	80 psi
	(909 - 3634 L/hr)	(0.41 bar)	(5.51 bar)
PMR-10 MF	4 - 16 GPM	10 PSI	90 psi
	(909 - 3634 L/hr)	(0.69 bar)	(6.20 bar)
PMR-12 MF	2 - 20 GPM	12 PSI	90 psi
	(454 - 4542 L/hr)	(0.83 bar)	(6.20 bar)
PMR-15 MF	2 - 20 GPM	15 PSI	95 psi
	(454 - 4542 L/hr)	(1.03 bar)	(6.55 bar)
PMR-20 MF	2 - 20 GPM	20 PSI	100 psi
	(454 - 4542 L/hr)	(1.38 bar)	(6.89 bar)
PMR-25 MF	2 - 20 GPM	25 PSI	105 psi
	(454 - 4542 L/ hr)	(1.72 bar)	(7.24 bar)
PMR-30 MF	2 - 20 GPM	30 PSI	110 psi
	(454 - 4542 L/hr)	(2.07 bar)	(7.58 bar)
PMR-35 MF	2 - 20 GPM	35 PSI	115 psi
	(454 - 4542 L/hr)	(2.41 bar)	(7.93 bar)
PMR-40 MF	2 - 20 GPM	40 PSI	120 psi
	(454 - 4542 L/hr)	(2.76 bar)	(8.27 bar)
PMR-50 MF	2 - 20 GPM	50 PSI	130 psi
	(454 - 4542 L/hr)	(3.45 bar)	(8.96 bar)
PMR-60 MF	2 - 20 GPM	60 PSI	140 psi
	(454 - 4542 L/hr)	(4.14 bar)	(9.65 bar)

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From: Ritzen, Brenda
To: Greg Johnson
Cc: Robert Keltner

 Subject:
 RE: 552 CLOUD TOP - DEVOLL #113741

 Date:
 Monday, March 4, 2024 8:31:00 AM

Attachments: <u>image001.png</u>

Steve,

The permit file has been updated.

Thank you,



Brenda Ritzen

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

From: Greg Johnson <gregjohnsonpe@yahoo.com>

Sent: Saturday, March 2, 2024 9:48 AMTo: Ritzen, Brenda <rabbjr@co.comal.tx.us>Cc: Robert Keltner <rwkeltner@hotmail.com>Subject: Re: 552 CLOUD TOP - DEVOLL #113741

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

See attached

Steve

Send for Greg W. Johnson, P.E., R.S.)

170 Hollow Oak

New Braunfels, TX 78132

From: Ritzen, Brenda
To: Greg Johnson
Cc: Robert Keltner

 Subject:
 RE: 552 CLOUD TOP - DEVOLL #113741

 Date:
 Friday, March 1, 2024 2:28:00 PM

Attachments: <u>image001.png</u>

Greg,

Include on the permit application that the RV is for intermittent use only.

Thank you,



Brenda Ritzen

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

From: Greg Johnson <gregjohnsonpe@yahoo.com>

Sent: Friday, March 1, 2024 10:50 AM

To: Ritzen, Brenda <rabbjr@co.comal.tx.us>
Cc: Robert Keltner <rwkeltner@hotmail.com>
Subject: Fw: 552 CLOUD TOP - DEVOLL #113741

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Attached is the revised to show Curlex and Intermittent use of RV.

Thanks, Greg

Send for Greg W. Johnson, P.E., R.S.)

170 Hollow Oak

New Braunfels, TX 78132

From: Ritzen, Brenda
To: Greg Johnson
Cc: Robert Keltner

 Subject:
 RE: 552 CLOUD TOP - DEVOLL #113741

 Date:
 Thursday, February 29, 2024 12:46:00 PM

Attachments: <u>image001.png</u>

Greg,

Will this RV be for intermittent use only? If so, add the intermittent use information to the permit application, design and planning materials.

Thank you,



Brenda Ritzen

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

From: Greg Johnson <gregjohnsonpe@yahoo.com>

Sent: Thursday, February 29, 2024 11:36 AM **To:** Ritzen, Brenda <rabbjr@co.comal.tx.us> **Cc:** Robert Keltner <rwkeltner@hotmail.com> **Subject:** 552 CLOUD TOP - DEVOLL #113741

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REVISED. THX, GREG

Send for Greg W. Johnson, P.E., R.S.)

170 Hollow Oak

New Braunfels, TX 78132

RECEIVED By KG at 9:59 am, Dec 08, 2021





APPLICATION

195 DAVID JONAS DR NEW BRAUNFELS, TX 78132 (830) 608-2090

WWW.CCEO.ORG

Date June	18, 2021		Permit Number1	13741		
	ENT INFORMATION					
Owner Name	NORRIS J. DEVOLL	Agent Name	GREG JOHN	NSON, P.E.		
Mailing Address 1118 HIGH HILLS DRIVE City, State, Zip CANYON LAKE TEXAS 78133		Agent Address	170 HOLL	OW OAK		
				NEW BRAUNFELS TEXAS 78132		
Phone #	210-710-0939	Phone #	830-905	830-905-2778		
Email	norris74@devoll.com	Email	gregjohnsonpe@yahoo.com			
2. LOCATION						
Subdivision Name	SCENIC HEIGHTS	Unit	t 2 Lot 53	1R Block		
Survey Name / Abs	tract Number		Acre			
	552 CLOUD TOP			X Zip 78133		
3. TYPE OF DEVEL						
Single Family	Residential		0			
Type of Cons	truction (House, Mobile, RV, Etc.)	HOUSE + Pe	ersonal KV			
Number of Be						
Indicate Sq F	t of Living Area 2546					
	amily Residential					
(Planning mate	rials must show adequate land area for doubling	the required land needed	d for treatment units and	d disposal area)		
Type of Facili	ty					
	ories, Churches, Schools, Parks, Etc make	ate Number Of Occupa	ants			
Restaurants,	Lounges, Theaters - Indicate Number of Se	ats				
Hotel, Motel,	Hospital, Nursing Home - Indicate Number	And the second s				
Travel Trailer	/RV Parks - Indicate Number of Spaces					
	s					
Estimated Cost of	f Construction: \$ 350,000	(Structure Only)				
Is any portion of	the proposed OSSF located in the United St	tates Army Corps of Er	ngineers (USACE) flor	wage easement?		
Yes No	(If yes, owner must provide approval from USACE for	or proposed OSSF improver	nents within the USACE fle	owage easement)		
Source of Water	Public Private Well Rainwater	Collection				
4. SIGNATURE OF	OWNER					
By signing this applica - The completed applifacts. I certify that I property.	ation, I certify that: cation and all additional information submitted do am the property owner or I possess the appropri	pes not contain any false ate land rights necessary	information and does no to make the permitted i	ot conceal any material mprovements on said		
 Authorization is here site/soil evaluation a 	by given to the permitting authority and designal nd inspection of private sewage facilities permit of authorization to construct will not be iss					

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.





DRIP TUBING SYSTEM
DESIGNED FOR:
NORRIS J. DEVOLL
1118 HIGH HILLS DRIVE
CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Scenic Heights, Unit 2, Lot 531R, at 552 Cloud Top, the proposed system will serve a four bedroom residence (2546 sf.) & personal RV situated in an area with shallow Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 or 4-inch SCH-40 pipe discharges greywater from the residence to a Clearstrem 600NU. A 3 inch SCH-40 pipe discharges from the Personal RV to a Infiltrator IM540 fitted with a 0.5 hp Liberty LE50 pump. Flow is pumped to the ATU through a 2" SCH-40 PVC pipe A high level audible and visual alarm will activate should the pump fail. Graywater from the residence enters a Infiltrator IM540 gallon graywater tank. Unused graywater flows through two backflow valves prior to joining flow into the aerobic plant, into a Clearstream 600NU 600gpd aerobic plant containing a 400-gallon pretreatment tank, an aerobic treatment plant, submersible well pump. The well pump in and a 750-gallon pump chamber containing a will activate should the pump fail. Distribution is through a self flushing 100 micron disc filter (Arkal) then through a 1" SCH-40 manifold to a 2004sf. drip tubing field, with Netifm drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator PMR-MF 30psi installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the disc filter are flushed each cycle back to the trash tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be scarified and built up with 4" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil (NOT SAND). The field area will be sodded with grass prior to system startup. Tank must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.



DESIGN SPECIFICATIONS:

Daily waste flow: 300 gpd + 40 gpd Personal RV Table III

Pretreatment tank size: 400 Gal

Plant Size: Clearstrem 600NU 600 gpd (TCEQ Approved)

Pump tank size: 750Gal

Reserve capacity after High Level: 120 Gal (>1/3 day Req'd)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 340 GPD/0.20 = 1700 sf. (Actual 2004 sf.)

Total linear feet drip tubing: 1002' *Netifim* drip tubing .61 GPH Pump requirement: 501 emitters @ .61 gph @ 30 psi = 5.0935 gpm

Pump Requirement (cont.): Dominator submersible well pump Dosing volume: 50-70 gal.

Pump Tank Calculations: 750 Gal (13.15 gal/in.)
Volume below working level = 12"= 158 gal

Working level = 340 gal = 26"

Reserve Requirement = >1/3 day = 120 gal. = 9.25"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

 $MSV = 2(3.14159((.55/12) \uparrow 2)/4)*7.48*60$

MSV = 1.5 gpm MIN FLOW RATE x 3 = 4.5 gpm

IN RETURN MANIFOLD W/ NOM. D

 $MSV = 2 \text{ FPS } (\Pi d \uparrow 2)/4*7.48 \text{ ga}$

MSV = 2(3.14159((1.049/12)†2)

MSV = 5.4 GPM

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)

Greg W. Johnson, P.E.

No. 67587 - F-2585

170 Hollow Oak

New Braunfels, Texas 78132 830/905-2778

GREG W. JOHNSON

INSTALL 2004sf OF FIELD USING 1002' OF DRIP TUBING. THERE SHALL BE NO PARKING, DRIVING OR STORAGE ON THE SEPTIC FIELD AT ANY TIME FOR ANY REASON.

REVISED

1:56 pm, Dec 15, 2023

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

X= TEST HOLE CLEARSTREAM 600NU AEROBIC TREATMENT PLANT 9. GARAGE/ PERSONAL SHOP 24 (No Plumbing) 1" VACUUM BREAKERS LOT 531R SLEEVE SEPTIC LINE WITH SCH-40 WITHIN DECK 5' AND UNDER DRIVEWAY AND SIDEWALK. DRIVEWAY 2 - CHEC VALVES C/O 49 SLEEVE SEPTIC GARAGE LINE WITH -SCH-40 WITHIN 5' AND UNDER DRIVEWAY. 49.99 PERSONAL RV SITE (40 GPD) 6 **IM 540 - GREY** WATER TANK IM 540 SLEEVE WATER LINE WITH 2"-SCH-40 **PUMP TANK** PVC PIPE WHEN ENTERING CLOSER THAN 10' FROM SEPTIC SYSTEM OR SEPTIC FIELD. GREG W. JOHNSON EJS III NORRIS J. DEVOLL STREET ADDRESS: 552 CLOUD TOP COS/ONAL EN UNIT/SECTION/PHASE: BLOCK: 531R 2 SCENIC HEIGHTS SCALE: 1"=40' PREPARED BY: GREG W. JOHNSON, P.E. F#002585 6/21/2021 12/13/2023
 From:
 Ritzen, Brenda

 To:
 "Greg Johnson"

 Cc:
 Robert Keltner

Subject: RE: 552 CLOUD TOP - DEVOLL #113741

Date: Friday, December 15, 2023 2:00:00 PM

Attachments: <u>image001.png</u>

Greg,

The permit file has been updated.

Thank you,



Brenda Ritzen

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

From: Greg Johnson <gregjohnsonpe@yahoo.com>

Sent: Friday, December 15, 2023 12:23 PMTo: Ritzen, Brenda <rabbjr@co.comal.tx.us>Cc: Robert Keltner <rwkeltner@hotmail.com>Subject: 552 CLOUD TOP - DEVOLL #113741

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- Comal IT

REVISED. THX, GREG

Send for Greg W. Johnson, P.E., R.S.)

170 Hollow Oak

New Braunfels, TX 78132

* * * COMAL COUNTY OFFICE OF

TAL HEALTH * * * ONSTRUCT AN ONE PRO A TE

APPLICATION FOR PERMIT FOR AU ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

Planning Materials & Site Evaluation as Required Completed By <u>GREG W. JOHNSON, P.E.</u>				
System Description	PROPRIETARY;	AEROBIC TE	REATMENT AND DRIP TUBING	G
Size of Septic System Re	quired Based on Planning Materia	als & Soil Eval	uation	
Tank Size(s) (Gallons)	CLEARSTREAM 600NU/ 540 GREYWATER/ 540 PUMP	Absorption/A	pplication Area (Sq Ft)	2000
Gallons Per Day (As Per (Sites generating more than	TCEQ Table III) 340 5000 gallons per day are required to	o obtain a permi	t through TCEQ)	
	ver the Edwards Recharge Zone? Is must be completed by a Registered			•
_	approved WPAP for the property		⊠ No	
(if yes, the R. S. or P. E. sha	all certify that the OSSF design compli	es with all provi	sions of the existing WPAP.)	
	AP, does the proposed developm	_		_
(If yes, the R.S. or P. E. sha not be issued for the propos	Il certify that the OSSF design will co ed OSSF until the proposed WPAP h	mply with all pro as been approv	ovisions of the proposed WPAP. A led by the appropriate regional offic	Permit to Construct will ee.)
is the property located ov	ver the Edwards Contributing Zono	e? 🛛 Yes [□No	
_	approval CZP for the property? I certify that the OSSF design complic	VOI	the existing CZP)	
(if yes, the P.E. or R.S. shall	P, does the proposed development certify that the OSSF design will composed OSSF until the CZP has been a	ply with all prov	isions of the proposed CZP. A Perm	
Is this property within	an incorporated city? 🗌 Ye	s 🛛 No	TE OF TEL	
If yes, indicate the cit	y:		GREG W. JOHNSON 67587 67587 67587 67587 67587 67587 67587 67587 67587 67587 67587 67587 67587 67587 67587	
			FIRE	VI #2585
	certify that: bove is true and correct to the best of e online posting/public release of my e			, as applicable
Signature of Designer		Date	December 7, 2021	Page 2 of 2



DRIP TUBING SYSTEM

DESIGNED FOR: NORRIS J. DEVOLL 1118 HIGH HILLS DRIVE CANYON LAKE, TX 78133

SITE DESCRIPTION:

Located in Scenic Heights, Unit 2, Lot 531R, at 552 Cloud Top, the proposed system will serve a four bedroom residence (2546 sf.) & personal RV situated in an area with shallow Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 or 4-inch SCH-40 pipe discharges greywater from the residence to a Clearstrem 600NU. A 3 inch SCH-40 pipe discharges from the Personal RV to a Infiltrator IM540 fitted with a 0.5 hp Liberty LE50 pump. Flow is pumped to the ATU through a 2" SCH-40 PVC pipe A high level audible and visual alarm will activate should the pump fail. Graywater from the residence enters a Infiltrator IM540 gallon graywater tank. Unused graywater flows through two backflow valves prior to joining flow into the aerobic plant into a Clearstream 600NU 600gpd aerobic plant containing a 400-gallon pr an aerobic treatment plant, pump. The well pump in and a 750-gallon pump chamber containing a sul the ATU is activated by a time controller allowing the distribution ten times per day with an 8 minute run time with float setting at 340 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron disc filter (Arkal) then through a 1" SCH-40 manifold to a 2000sf. drip tubing field, with Netifm drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator PMR-MF 30psi installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the disc filter are flushed each cycle back to the trash tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be scarified and built up with 4" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil (NOT SAND). The field area will be sodded with grass prior to system startup. Tank must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.



DESIGN SPECIFICATIONS:

Daily waste flow: 300 gpd + 40 gpd Personal RV Table III

Pretreatment tank size: 400 Gal

Plant Size: Clearstrem 600NU 600 gpd (TCEQ Approved)

Pump tank size: 750Gal

Reserve capacity after High Level: 120 Gal (>1/3 day Req'd)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 340 GPD/0.20 = 1700 sf. (Actual 2000 sf.)

Total linear feet drip tubing: 1000' *Netifim* drip tubing .61 GPH Pump requirement: 500 emitters @ .61 gph @ 30 psi = 5.0833 gpm

Pump Requirement (cont.): Dominator submersible well pump Dosing volume: 50-70 gal.

Pump Tank Calculations: 750 Gal (13.15 gal/in.)

Volume below working level = 12"= 158 gal

Working level = 340 gal = 26"

Reserve Requirement = >1/3 day = 120 gal. = 9.25"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

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

MSV = 1.5 gpm MIN FLOW RATE x 3 =

VOID

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

 $MSV = 2(3.14159((1.049/12)^{2})/4)*7.48*60$

MSV = 5.4 GPM

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)

Greg W. Johnson, P.E. No. 67587

170 Hollow Oak

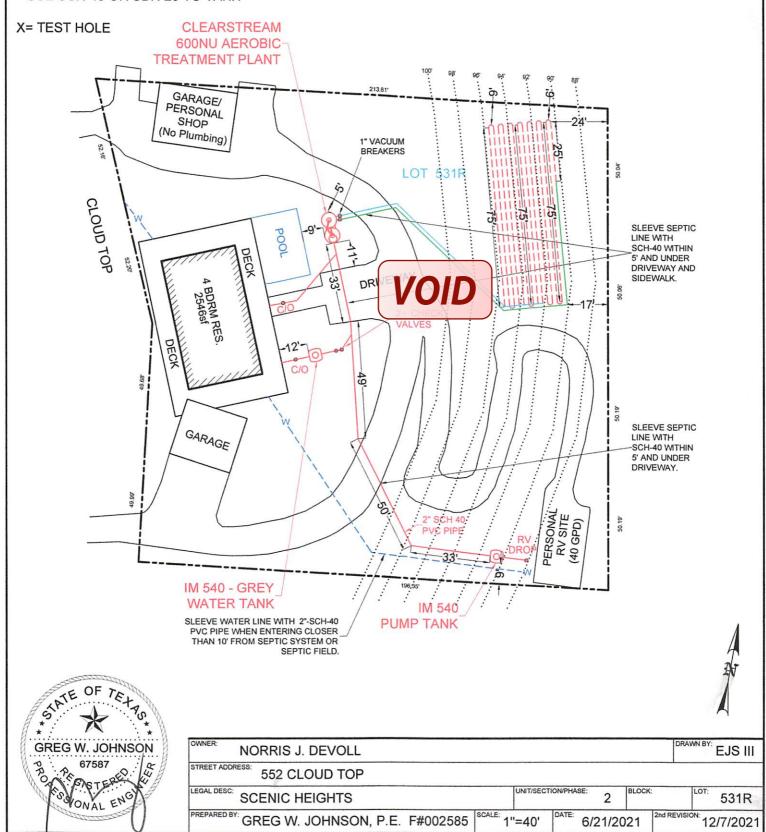
New Braunfels, Texas 78132 830/905-2778



INSTALL 2000sf OF FIELD USING 1000' OF DRIP TUBING. THERE SHALL BE NO PARKING, DRIVING OR STORAGE ON THE SEPTIC FIELD AT ANY TIME FOR ANY REASON.



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



1"=40"

6/21/2021



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AMENDMENT TO PLAT
OWNER(S) (as shown on deed(s)): MAILING ADDRESS: Say Antonio, Texas 78217
LEGAL DESCRIPTION OF PROPERTY: NAME OF RECORDED SUBDIVISION PLAT (& UNIT NUMBER, if any): SCENIC Heights Subdivision Lots 531,532,533,534 UNIT P Comal County COMAL COUNTY MAP & PLAT RECORDS VOLUME 2 PAGE 36 (or) DOC#
LOTS OR TRACTS TO BE COMBINED: 531, 532, 533, 534 RESULTING LOT # 531 R
The signatures affixed below will certify that the owner of the described property hereby amends the plat of the property so as to combine the referenced lots or tracts into a single lot or tract. The property owner acknowledges that this Amendment to Plat may not dissolve or alter any existing easements or other property interests that may exist within the boundaries of this property, and that obtaining release or permission from any owner or beneficiary of easement(s) or other property interest(s) affected by this process shall be the responsibility of the property owner. The owner also certifies that any and all lienholders have acknowledged this Amendment to Plat as per the attached Lienholder Acknowledgment(s), if applicable.
WINER SIGNATURE OWNER SIGNATURE
NAME PRINTED (& title, if applicable) STATE OF
SWORN TO AND SUBSCRIBED before me by Star to La Star Norris J. De Voll on the 6th day of April 2021.
* Stephano Hull- NOTARY PUBLIC
Filed and Recorded Official Public Records Bobbie Koepp, County Clerk Comal County, Texas 04/30/2021 08:32:25 AM JESSICA 5 Page(s) 202106023170 COUNTY CLERK
COUNTY CLERK STATE BOBBLE KOLPP Rev. Aug. 2015

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SPECIAL WARRANTY DEED

STATE OF TEXAS

§ KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF COMAL

§

THAT THOMAS J SANDRIDGE, JR TR, hereinafter referred to as 'Grantor', by and through its successor in interest and Successor Trustee, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00), in cash paid, and other good and valuable consideration paid by the Grantee named below, the receipt in hand and legal sufficiency of which is hereby accepted and acknowledged, has GRANTED, SOLD, and CONVEYED, and by these presents does GRANT, SELL, and CONVEY unto NORRIS J. DEVOLL, hereinafter referred to as Grantee the following described real property, to-wit:

Lot(s) Five Hundred Thirty-one (531) and Five Hundred Thirty-two (532), SCENIC HEIGHTS SUBDIVISION, UNIT # 2, Comal County, Texas, according to plat thereof recorded in Volume 2, Page 36, Map and Plat Records of Comal County, Texas:

being that same parcel and title thereto conveyed to Grantor herein in a certain deed and attached Rider, made a part thereof, as recorded March 13, 1989 in instrument 340816, Volume 0669 page 112, Office of the County Clerk of Comal County, Texas.

This conveyance is made and accepted subject to all those accrued and unpaid taxes against the Property for the current and prior years, resulting court costs that have accrued in a tax suit in one certain cause numbered T-8730A, 22nd District Court, Comal County, Texas, all accrued and unpaid mandatory association dues and transfer fees, which sums shall be assumed and paid by Grantee, and all and singular, those reservations, restrictions, conditions, exceptions, easements, and covenants, applicable to and enforceable against the above described Property as reflected by the records of the County Clerk of Comal County, Texas.

TO HAVE AND TO HOLD the above described Property, together with all and singular the rights and appurtenances thereto in anywise belonging to the Property, subject to the exceptions to conveyance stated above, unto the said Grantee, Grantee's heirs, personal representatives,

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RECORDER'S MEMORANDUM
THIS DOCUMENT WAS OF POOR
QUALITY AT THE TIME OF RECORDING
AND MAY NOT REPRODUCE

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executors, administrators, successors, or assigns; and Grantor hereby binds Grantor's heirs, personal representatives, executors, administrators, successors and assigns to WARRANT AND FOREVER DEFEND all and singular the Property unto the Grantee, Grantee's heirs, personal representatives, executors, administrators, successors, and assigns, against every person whomsoever comes lawfully claiming or to claim all or any part of the Property, by or through Grantor herein, but no other, except as to the reservations from and exceptions to conveyance and warranty herein specified.

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

Executed this 25th day of 10th, 2018 A.D.

THOMAS J SANDRIDGE, JR TR

Thomas J. Sandridge III, Successor Trustee

By authority and pursuant to terms of the Uniform Declaration of Trust for the Thomas J Sandridge Jr. Trust, dated November 1st, 1988, with full power and authority set forth in that one certain Rider referenced above and attached hereto as Exhibit "A".

THE STATE OF FLORIDA)

COUNTY OF Hillswood,)

ACKNOWLEDGMENT

Before me, the undersigned authority, on this day personally appeared Thomas J. Sandridge III, known to me to be the person whose name is subscribed to the foregoing instrument, on the basis of <u>hors lives</u> for true identification, and acknowledged to me that he executed the same in the capacity stated, for the purposes and consideration therein expressed.

Given under my hand and seal of office this 23rd day of 1/214, 2018, AD.

SEAL

ELLERBE HERNANDEZ
Notary Public – State of Florida
Commission # GG 140901
My Comm. Expires Sep 4, 2021

Notary Public, State of Florida

After recording, return to:

Norris J. DeVoll 13823 Landmark Hill San Antonio, TX 78217-1310 0869 0[14

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RIDER

- (1) The INUSTES shall have the power and authority to proteot, conserve, sail, lease, encumber or otherwise manage and/or dispose of the real extete, including the authority to accept mortgages on the cale and disposition of the property.
- (2) THOMAS J. SAMDRIDGE, JR., is the INITIAL TRUSTEE.
- (3) THOMAS J. SANDRIDGE, III, is the FIRST SUCCESSOR TRUSTER.
- (4) If THOMAS J. BANDRIDGE, III, be unable so to serve, or to continue to serve, then MERDY M. ALLERS shall serve as EECOED EUCCESSON EXCUSEE.
- (5) Upon the death or adjudication of incompetency of the INITIAL TRUSTER, and the recordation of a death certificate or adjudication of incompetency in the Public Emocrás of Comel County, Texas, the authority of such person to act as TRUSTER, and his title to the Trust assets, shall terminate. Title to ALL Trust assets shall estomatically and immediately west in the FIRST SUCCESSOR TRUSTER, who shall thereafter exercise all of the powers of the TRUSTER.
- (6) The Resignation of the INITIAL TRUSTES, executed with the formalities of a deed, and recorded in the Public Records of Comal County, Texas, shall terminate his title to ALL Trust essets, and also his authority to act as TRUSTES. Title to ALL Trust essets shall sutcentically and immediately yest in the FIRST SUCCESSOR TRUSTES, who shall thereafter exercise all of the powers of the TRUSTES.
- [7] The same procedure and result shall be followed and apply as to the death, incompetency or resignation of the FIRST SUCCESSOR TRUSTEE, once he has so served or is eligible so to serve as TRUSTEE.
- (8) No party dealing with the TRUSTES in relation to the frust assets in any manner whatsoever, shall be:
 - (A) obliged to see that the terms of this Declaration of Trust have been complied with;
 - (8) obliged to inquire into the authority, necessity or expediency of any act of the TRUPPER:
 - (C) privileged to inquire into any of the terms of this Declaration of Trust:
 - (0) privileged to inquire into the authority, necessity or jurisdiction of any Court adjudicating the person serving as TRUSTEE to be incompetent; OR.
 - (E) privileged to inquire into the sufficiency of any written, recorded resignation or statement of any person serving as TRUSTEE.
- (9) Every instrument-executed or accepted by the IRUSTES, in relation to Erretproperty, shall be conclusive evidence in favor of every person claiming any right, title or interest under the Erust, that:
 - (A) at the time of its delivery, the Trust created under this Declaration of Trust was in full force and effect;
 - (B) such instrument was executed or accepted in accordance with the terms and conditions of this Declaration of trust and its emendments, if any, and is binding upon all beneficiaries under it:
 - (C) the TRUSTES was duty authorized and empowered to execute, deliver or eccept every such instrument; and
 - (D) if a transfer has been made to a successor in trust, such successor has been appointed properly and is vested fully with all the title, setate, powers, duties and obligations of the predecessor in trust.

Thomas J. Sindridge

THIS INSTRUMENT PREPARED BY WILLIAM H. GRACELY, LAWYER POST OFFICE BOX 1794, NAPLES, FLORIDA 33939

RECORDER'S MEMORANDUM
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AND MAY NOT REPRODUCE

Filed and Recorded Official Public Records Bobbie Koepp, County Clerk Comal County Texas 05/31/2018 11:00:23 AM JESSICA 3 Page(s) 201806021092

Bobbie Koepp

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CASH WARRANTY DEED

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

THAT, DONNYE M. BARNETT REVOCABLE TRUST, by and through its Trustee DONNYE M BARNETT TR, hereinafter referred to as 'Grantor', for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00), in cash paid, and other and further good and valuable consideration given by the Grantee named below, the receipt in hand and sufficiency of which is hereby acknowledged, has GRANTED, SOLD, and CONVEYED, and by these presents does GRANT, SELL, and CONVEY all its right title and interest unto NORRIS J. DEVOLL, hereinafter referred to as Grantee, the following described real property, to-wit:

Lot(s) Five Hundred Thirty-three (533) and Five Hundred Thirty-four (534), SCENIC HEIGHTS, UNIT # 2, Comal County, Texas, according to plat thereof recorded in Volume 2, Page 36, Map and Plat Records of Comal County, Texas, being that same parcel of land conveyed by deed dated the 26th day of July, 1984 recorded in Volume 402, Page 294 in the Official Public Record, Comal County, Texas.

RESERVATIONS AND EXCEPTIONS TO CONVEYANCE. This conveyance is made and accepted subject to those accrued and unpaid taxes against the Property for the current year, any prior year and all accrued and unpaid mandatory association dues and transfer fees, which sum(s) shall be assumed and paid by Grantee, and all and singular, those reservations, restrictions, conditions, exceptions, easements, and covenants running with the land that are applicable to and enforceable against the above described Property as reflected by the records of the County Clerk of Comal County, Texas.

TO HAVE AND TO HOLD the above described Property, together with all and singular the rights and appurtenances thereto in anywise belonging to the Property, subject to the exceptions to conveyance stated above, unto the said Grantee, Grantee's heirs, personal representatives, executors, administrators, successors, or assigns; and Grantor hereby binds Grantor's heirs, personal

representatives, executors, administrators, successors and assigns to WARRANT AND FOREVER DEFEND all and singular the Property unto the Grantee, Grantee's heirs, personal representatives, executors, administrators, successors, and assigns, against every person whomsoever comes lawfully claiming or to claim all or any part of the Property except as to the reservations from and exceptions to conveyance and warranty herein specified.

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

Executed this 3 day of 1000., 2013 A.D.

DONNYE M BARNETT REVOCABLE TRUST

By authority and pursuant to terms of contract and declaration of trust for the Donnye M Barnett trust, dated March 3, 2008, and amendments thereto.

By:

Donnye M. Barnett, Trustee

county of GLAN }

ACKNOWLEDGMENT

Before me, the undersigned authority, on this day personally appeared Donnye M. Barnett, known to me to be the person whose name is subscribed to the foregoing instrument, on the basis of A DIVUS VICES for true identification, and acknowledged to me that she executed the this instrument in the true capacity stated and for the purposes and consideration therein expressed.

Given under my hand and seal of office this _____ day of _____ day of ______ AD.

SEAL

File Bobb

otary Public, State of Geo

iled and Recorded

Official Public Records Bobbie Koepp, County Clerk

omal County Texas

1/14/2018 12:08:17 P

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obbie Koepp

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Norris J. DeVoll 13823 Landmark Hill San Antonio, TX 78217-1310