## **Comal County Environmental Health OSSF Inspection Sheet**

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

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)(G)(i) 285.32(b)(1)(C)(ii) 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

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) (i)285.32(b)(1)(E) (i)285.32(b)(1)(C) (ii)285.32(b)(1)(C) (ii)285.32(b)(1)(E)(iv)				
	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						
	AEROBIC TREATMENT UNIT Size Installed						
	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							

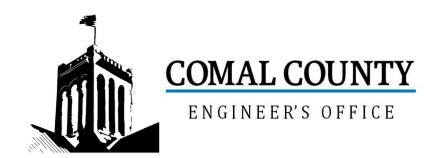
6/12/25 CA: Panel and compressor placed on system. Will need operational inspection since panel was replaced. Distribution lines uncovered. Will need re inspection fee

# Comal County Environmental Health OSSF Inspection Sheet

				- T		I	I
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)				
	AEROBIC TREATMENT UNIT IS Aerobic Unit Installed According to Approved Guidelines.		285.32(c)(1)				
	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						
	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.						
	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						
37	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: 117338

Issued This Date: 04/18/2024

This permit is hereby given to: AYALA QUALITY CONSTRUCTION

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

1239 HALLMARK

CANYON LAKE, TX 78133

Subdivision: HANCOCK OAK HILLS

Unit: 0

Lot: 47

Block: 5

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 Comal County requirements.

Call (830) 608-2090 to schedule inspections.





## **OSSF DEVELOPMENT APPLICATION CHECKLIST**

Staff will complete shaded items 117338 Permit Number Date Received Initials

Instructions: Place a check mark next to all items that apply. For items that do n Checklist <u>must</u> accompany the completed application.	ot apply, place "N/A". This OSSF Development Application
OSSF Permit	
Completed Application for Permit for Authorization to Construc	ct an On-Site Sewage Facility and License to Operate
Site/Soil Evaluation Completed by a Certified Site Evaluator o	or a Professional Engineer
Planning Materials of the OSSF as Required by the TCEQ Ru of a scaled design and all system specifications.	lles 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	e/Affidavit to the Public
Signed Maintenance Contract with Effective Date as Iss	suance of License to Operate
affirm that I have provided all information required for my OS constitutes a completed OSSF Development Application.	SSF Development Application and that this application
188	04/01/2024
Signature of Applicant	Date
COMPLETE APPLICATION  Check No Receipt No	INCOMPLETE APPLICATION —— (Missing Items Circled, Application Refeused)

Revised: September 2019



Signature of Owner

## **ON-SITE SEWAGE FACILITY APPLICATION**

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

WWW.CCEO.ORG

		the state of the s				
Date Jar	nuary 11, 2024		Permit Number	117	7338	
1. APPLICANT /	AGENT INFORMATION					
Owner Name	AYALA QUALITY CONSTRUCTION, LLC	Agent Name	GREG JC	HNSO	N, P.E.	
Mailing Address	1774 OLD MARION ROAD		170 HO	LLOW	OAK	
City, State, Zip	NEW BRAUNFELS TEXAS 78130	City, State, Zip	NEW BRAUNI	FELS T	EXAS 78	3132
Phone #	830-743-2622	Phone #	830-	905-27	78	
Email	sayala001@satx.rr.com	Email	gregjohnson	npe@ya	hoo.com	
2. LOCATION						
Subdivision Nam	ne HANCOCK OAK HILLS	U	nit Lot	47	Block	5
Survey Name / A	Abstract Number		Ac	reage		
Address	1239 HALLMARK			TX	Zip	78133
3. TYPE OF DEV			·			
Single Fam	nily Residential					
Type of Co	onstruction (House, Mobile, RV, Etc.)	HOUSE				
Number of	Bedrooms 3					
Indicate So	q Ft of Living Area 1925					
Non-Single	Family Residential					
(Planning m	aterials must show adequate land area for doubling	the required land need	ded for treatment units	and disp	osal area	1)
Type of Fa	acility			**************************************		
	actories, Churches, Schools, Parks, Etc Indica		upants			
Restaurant	ts, Lounges, Theaters - Indicate Number of Sea	nts	<del>.</del>		***	
Hotel, Mote	el, Hospital, Nursing Home - Indicate Number o					
	iler/RV Parks - Indicate Number of Spaces		, , , , , , , , , , , , , , , , , , ,			
Miscellane	ous					
1)						
Estimated Cos	t of Construction: \$ 400,000	(Structure Only)				
Is any portion	of the proposed OSSF located in the United Sta	ates Army Corps of	Engineers (USACE) 1	lowage	e easeme	ent?
	No (If yes, owner must provide approval from USACE for			1		
	er 🗙 Public 🦳 Private Well 🦳 Rainwater			. <del></del> .		1.63
4. SIGNATURE (	OF OWNER					
The completed ap	lication, I certify that: oplication and all additional information submitted do t I am the property owner or I possess the appropria	es not contain any fals te land rights necessa	se information and does try to make the permitte	not cor d impro	nceal any vements o	material on said
- Authorization is he site/soil evaluation - I understand that	ereby given to the permitting authority and designate n and inspection of private sewage facilities a permit of authorization to construct will not be issu unty Flood Damage Prevention Order.					
I affirmatively con	sent to the online posting/public release of my e-mai	address associated	with this permit applicati	ion, as a	applicable	

## \* \* \* COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH \* \* \*

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

Planning Materials & Site Evaluation as Required Completed By <u>GREG W. JOHNSON, P.E.</u>
System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING
Size of Septic System Required Based on Planning Materials & Soil Evaluation
Tank Size(s) (Gallons) NUWATER B-550-PC Absorption/Application Area (Sq Ft)
Gallons Per Day (As Per TCEQ Table III)240
Is the property located over the Edwards Recharge Zone?  Yes No
(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))
Is there an existing TCEQ approved WPAP for the property? ☐ Yes       No
(if yes, the R. S. or P. E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)
If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP?   Yes  No
(If yes, the R.S. or P. E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)
Is the property located over the Edwards Contributing Zone? 🗵 Yes 🔲 No
Is there an existing TCEQ approval CZP for the property?   Yes  No
(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)
If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? Yes No (if yes, the P.E. or R.S. 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:  GREG W. JOHNSON
GOISTER #2585
By signing this application, I certify that:  - The information provided above is true and correct to the best of my knowledge.  - I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable
Signature of Designer Date Page 2 of 2
195 David Jonas Dr., New Braunfels, Texas 78132-3760 (830) 608-2090 Fax (830) 608-2078 Revised July 2018

#### **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.

1

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.

TT

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):

Unit/Phase/section	5	_ BLOCK _	47	_LOT_	HANCOCK OAK HILLS	subdivision
IF NOT IN SUBDIVISION: _		ACRBAG	B	<del></del>		SURVEY
The property is owned	l by (iı	nsert owner's	s full a	ame):	AYALA QUALITY CONSTRUCT	MON, LLC
the initial two-year se	rvice p	olicy, the ow	ner of	an a <del>c</del> robic	contract for the first two years. Aft treatment system for a single family n 30 days or maintain the system	er .
Upon sale or transfer transferred to the buy obtained from the Cor	er or n	ew owner. A	copy o	of the plan	permit for the OSSF shall be ning materials for the OSSF can be	
WITNESS BY HAND	(S) ON	this <u>28</u>	_DAY (	OF MA	<u>irch</u> ,20 24	
Owner(s) signature(s)	4	vl		Owner	tomodo Ayaz ous	<u>~</u>
Armando A	yal	9 ST	WORN '		UBSCRIBED BEFORE ME ON THE	SZB DAY OF
Bu Sar		,2024			Filed and Recorded Official Public Records	ı.
Notary Public S	igne	iture			Bobbie Koepp, County Comal County, Texas	
A Notary	Public, 8	OHNSON Plate of Texas			03/28/2024 01:08:01 Pl TERRI 1 Pages(s)	M
		05-17-2026 24218310			202406009281	
					Bobbie Koe	pp

Maintenance Service Provider 15188 FM 306 Canyon Lake, TX 78133 Office (830)964-2365



SERVICE ADDRESS

INSTALLER

TERM 2 Year

1239 Hallmark Canyon Lake, Tx 78133

## Routine Maintenance and Inspection Agreement

This Work for Hire Agreement (hereinafter referred to as this "Agreement") is entered into by and between Ayala Quality Construction LLC; (referred to as "Client") and Aerobic Services of South Texas (Thomas W. Hampton MP349) (hereinafter referred to as "Contractor") located at 15188 FM 306 Canyon Lake, Texas 78133 (830) 964-2365. By this Agreement the Contractor agrees to render professional service, as described herein, and the Client agrees to fulfill the terms of this Agreement as described herein.

This contract will provide for all required inspections, testing and service for your Aerobic Treatment System. The policy will include the following:

- 1. 3 inspections a year/services calls (at least one every 4 months), for a total of 6 over the two year period including inspection, adjustment and servicing of the mechanical, electrical and other applicable component parts to ensure proper function. This includes inspecting the control panel, air pumps, air filters, diffuser operation. Any alarm situation affecting the proper function of the Aerobic process will be addressed within a 48-hour time frame. Repair work on non-warranty parts will include price for parts & labor. The prices will be quoted before work is performed.
- 2. An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and examination for odors. A test for chlorine residual and pH will be taken and reported as necessary.
- 3. If any improper operation is observed, which cannot be corrected at the time of the service visit, you will be notified immediately in writing of the conditions and estimated date of correction.
- 4. The Property Owner is responsible for the chlorine; it must be filled before or during the service visit.
- 5. Any additional visits, inspections or sample collection required by specific Municipalities, Water/River Authorities, and County Agencies the TCEQ or any other authorized regulatory agency in your jurisdiction will be covered by this policy. BOD and TSS testing is covered by this contract.

The Property Owner Manual must be strictly followed or warranties are subject to invalidation. Pumping of sludge build-up is not covered by this policy and will result in additional charges.

## ACCESS BY CONTRACTOR



The Contractor or anyone authorized by the Contractor may enter the property at reasonable times without prior notice for the purpose of the above described Services. The contractor may access the System components including the tanks by means of excavation for the purpose of evaluations if necessary. Soil Is to be replaced with the excavated material as best as possible.

## Termination of Agreement

Either party may terminate this agreement within ten days with a written notice in the event of substantial failure to perform in accordance with its terms by the other party without fault of the terminating party. If this Agreement is so terminated, the Contractor will immediately notify the appropriate health authority of the termination.

## Limit of Liability

In no event shall the Contractor be liable for indirect, consequential, incidental or punitive damages, whether in contract tort or any other theory. In no event shall the Contractor's liability for direct damages exceed the price for the services described in this Agreement.

## **Dispute Resolution**

If a dispute between the Client and the Contractor arises that cannot be settled in good faith negotiations then the parties shall choose a mutually acceptable arbitrator and shall share the cost of the arbitration services equally.

## Entire Agreement

This Agreement contains the entire agreement of the parties, and there are no other promises or conditions in any other agreement either oral or written.

## Severability

If any provision of this Agreement shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of this agreement is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

shall be deemed to be written, construed, and enforced as so lin	nited.
Property Owner Ayala Quality Construction	SERVICE PROVIDER
<u>Name</u>	Aerobic Services of South Texas LLC.
	15188 FM 306 Canyon Lake, TX 786133
Email sayala001@satx.rr.com	<u>(830) 964-2365</u>
Service Address 1239 Hallmark	Signature of Service Provider and License # [Thomas Hampton, OS0024597 / MP0000349]
<u>Phone</u> 830-743-2147	

EFFECTIVE DATE \_\_\_\_\_

The effective date of this initial maintenance contract shall be the date license to operate is issued.



# ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soi	ate Soil Survey Performed:		
Site Loc	ation:	HANCOCK OAK HILLS, BLOCK 5, LOT 47	
Propose	d Excavation Depth:	N/A	
Requirer	nents:		
		ions 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 dep	th. For surface disposal, the surface horizon must be evaluated.	
	Describe each soil horize	on 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
8"	m	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 8"	BROWN
2	_					
3						
1				į		
5						

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

the best of my ability.	eid observations and	are accurate to
	01/1	2/24
Greg W. Johnson, P.E. 67587-F2585, S.E. 11561	Date	

4/18/24, 8:12 AM Task Comments











## OSSF SOIL EVALUATION REPORT INFORMATION

Date: January 15, 2024 **Applicant Information:** Site Evaluator Information: Name: AYALA QUALITY CONSTRUCTION, LLC. Name: Greg W. Johnson, P.E., R.S, S.E. 11561 Address: 1774 OLD MARION ROAD Address: 170 Hollow Oak City: NEW BRAUNFELS State: City: New Braunfels State: Texas Zip Code: 78130 Phone: (830) 743-2622 Zip Code: 78132 Phone & Fax (830)905-2778 **Property Location: Installer Information:** Lot 47 Unit Blk 5 Subd. HANCOCK OAK HILLS Name: Street Address: 1239 HALLMARK Company: CANYON LAKE Zip Code:\_ 78133 City: Address: Additional Info.: State: \_\_\_\_ City:\_\_\_\_\_ Zip Code: Phone \_\_\_\_\_\_ **Topography:** Slope within proposed disposal area: Presence of 100 vr. Flood Zone: YES. NO X Existing or proposed water well in nearby area. YES NO X Presence of adjacent ponds, streams, water impoundments YES NO X 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

01/15/24

GREG W. JOHNSON

67587

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FIRM #2585

# AEROBIC TREATMENT DRIP TUBING SYSTEM

DESIGNED FOR:
AYALA QUALITY CONSTRUCTION, LLC
1774 OLD MARION ROAD
NEW BRAUNFELS, TX 78130

## **SITE DESCRIPTION:**

Located in Hancock Oak Hills, Block 5, Lot 47, at 1239 Hallmark, the proposed system will serve a three bedroom residence (1925sf.) situated in an area with shallow Type III soil as described in the Soil Evaluation Report. Native grasses and oak trees were found throughout this property. 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-inch SCH-40 pipe discharges from the residence into a NuWater B-550 600gpd aerobic plant containing a 353-gallon pretreatment tank, an aerobic treatment plant, and a 768gallon pump chamber containing a submersible (Franklin C1 20XC1-05P4-W115) well pump. The well pump is activated by a time controller allowing the distribution ten times per day with an 8 minute run time with float setting at 240 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 2000 sf. drip tubing field, with *Netifim Bioline* 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 continuously flush the system to the pump tank by throttling a 1" ball valve. Solids caught in the disc filter are continuously flushed each cycle back to the pump 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 surface rock removed and built up with 4" of Type II or Type III soil, (a minimum of 12" soil required between rock and drip tubing), then the drip tubing will be laid and capped with 6" of Type II or Type III soil (NOT SAND). A minimum of 12" soil is required between tank and drip tubing. The field area will be 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: 240 GPD Table III Pretreatment tank size: 353 Gal

Plant Size: NuWater B550 600gpd (TCEQ Approved)

Pump tank size: 768 Gal

Reserve capacity after High Level: 80 Gal (1/3 day Req'd)

Application Rate: Ra = 0.2 gal/sf

Total absorption area: Q/Ra = 240 GPD/0.20 = 1200 sf. (Actual 2000 sf.)
Total linear feet drip tubing: 1000' Netifim Bioline drip tubing .61 GPH

Pump requirement: 500 emitters @ .61 gph @ 30 psi = 5.083gpm

Pump Requirement (cont.): Franklin C1 20XC1-05P4-W115 submersible well pump

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

 $MSV = 2(3.14159((.55/12)^{\dagger}2)/4)*7.48*60$ 

MSV = 1.5 gpm PER LINE \* 3 LINES = 4.5 GPM MIN FLOW RATE

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

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.

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







July 31, 2024

Ayala Quality Construction Llc 1774 Old Marion Rd New Braunfels, TX 78130-1206

Dear Member:

In reviewing the Site Utility Plan for the location at 1239 Hallmark, Canyon Lake Texas 78133, on the southeast side of the property, we acknowledge that we don't have an objection with the installation of the aerobic treatment plant, our lines were relocated by installing pole tag 601610 on the property. As long as you are aware, the Cooperative's has the ability to maintain, patrol or construct any electric facilities. In addition, the Cooperative will assume no liability for any damages to the aerobic treatment plant system which may possibly occur during the course of our work.

If you have any questions, please visit us online or give us a call at 877-372-0391 option #5. We are available Monday through Friday from 8 a.m. to 5 p.m.

Sincerely,

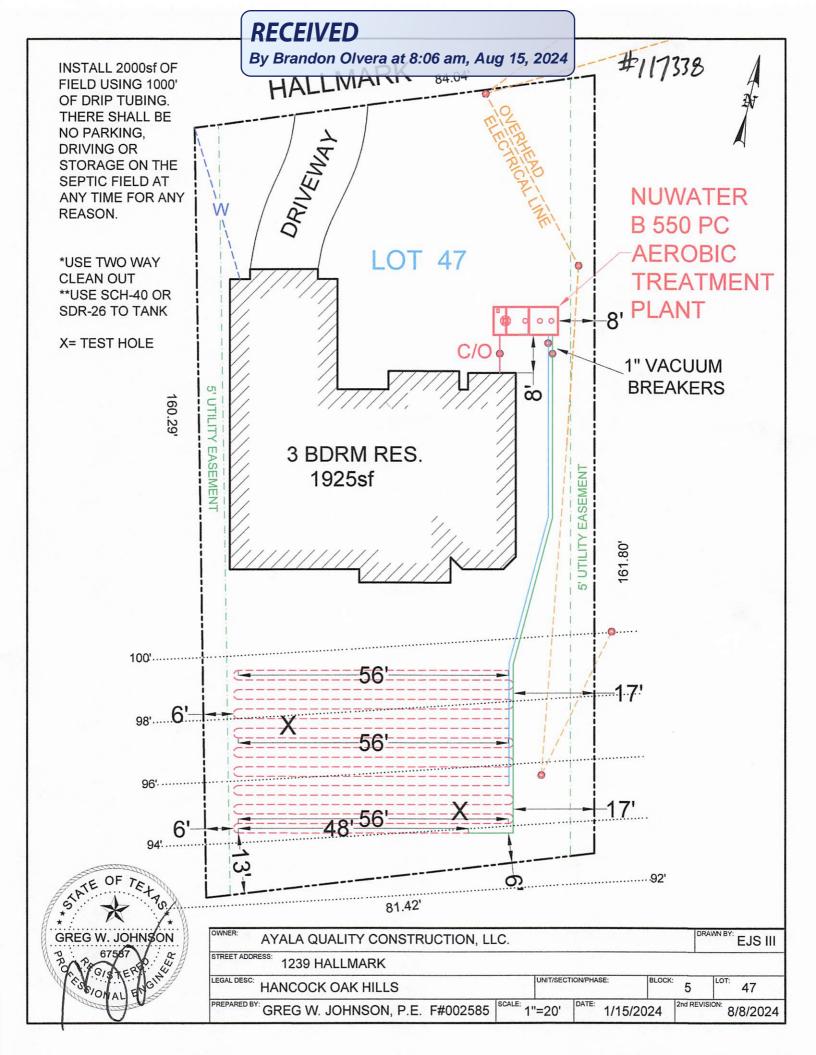
Eric Villanueva

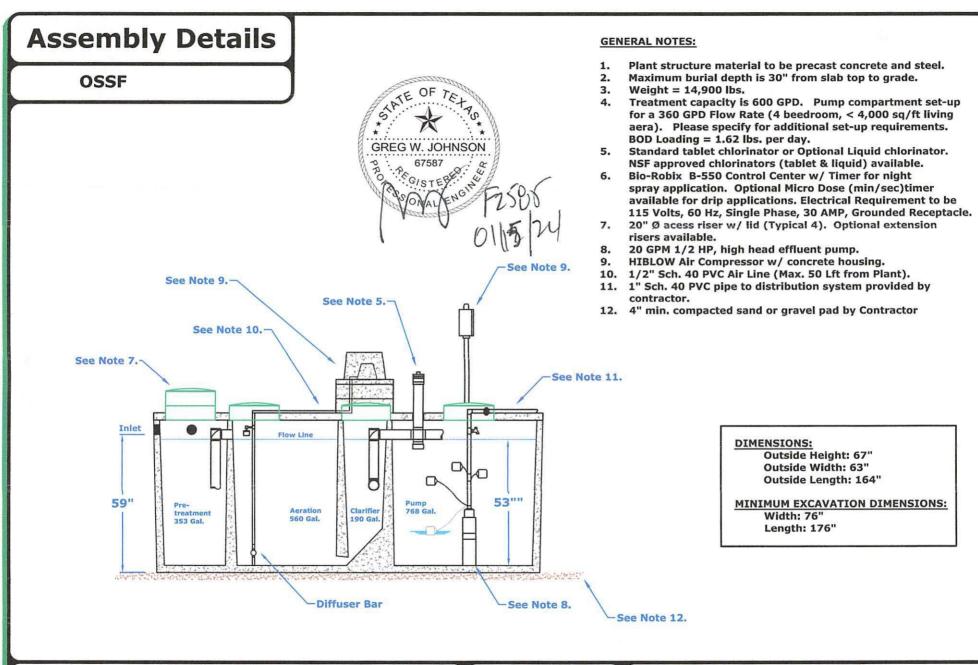
Electrical Distribution Design & Planning Manager

Canyon Lake District

«SIGNATURE\_INITIALS»:JG Q99/Account 3001621980

Power interruptions: 888-883-3379





NuWater B-550 (600 GPD)
Aerobic Treatment Plant (Assembled)

Model: B-550-PC-400PT

March, 2012 - Rev 1 By: A.S.

-----

 All Dimensions subject to allowable specification tolerances.

Dwg. #: ADV-B550-3



Advantage Wastewater Solutions IIc. 444 A Old Hwy No 9 Comfort, TX 78013 830-995-3189 fax 830-995-4051

## **TANK NOTES:**

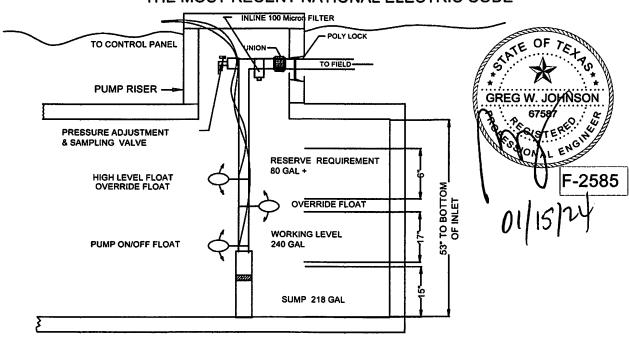
Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

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 NU-WATER 550PC -400PT 768 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 <sup>3</sup> /h (1.7 l/sec)	35 gpm
General filtration area	500 cm <sup>2</sup>	77.5 in <sup>2</sup>
Filtration volume	600 cm <sup>3</sup>	37 in <sup>3</sup>
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
pH	5-11	5-11



### **Filtration Grades**

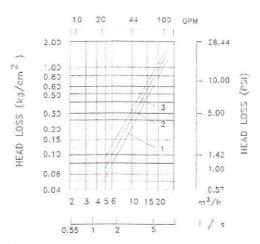
Blue (400 micron / 40 mesh)
Yellow (200 micron / 80 mesh)
Red (130 micron / 120 mesh)

(100 micron /140 mesh)

Green (55 micron)

Black

## **Head Loss Chart**





# PMR-MF

## PRESSURE-MASTER REGULATOR - MEDIUM FLOW

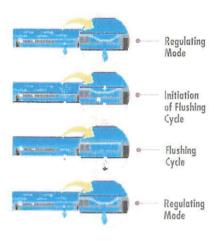
## **Model Numbers**

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)



# 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-cleaning 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

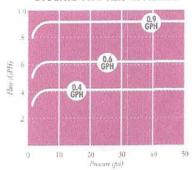
Inside diameter: .570\*

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

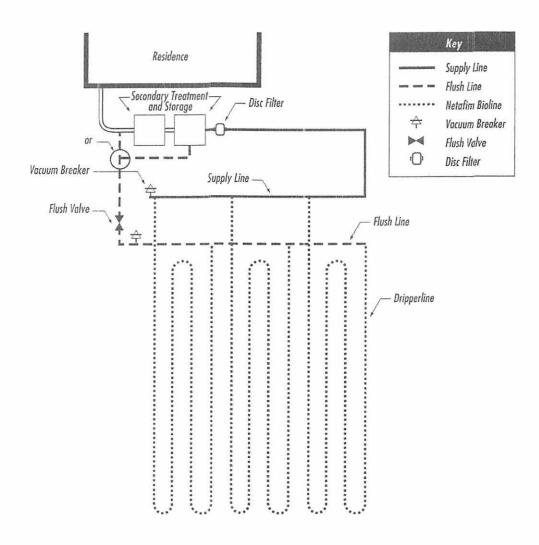
www.netafimusa.com

### 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



## Olvera, Brandon

From: Olvera, Brandon

**Sent:** Monday, April 15, 2024 2:43 PM **To:** Greg Johnson; sayala001@satx.rr.com

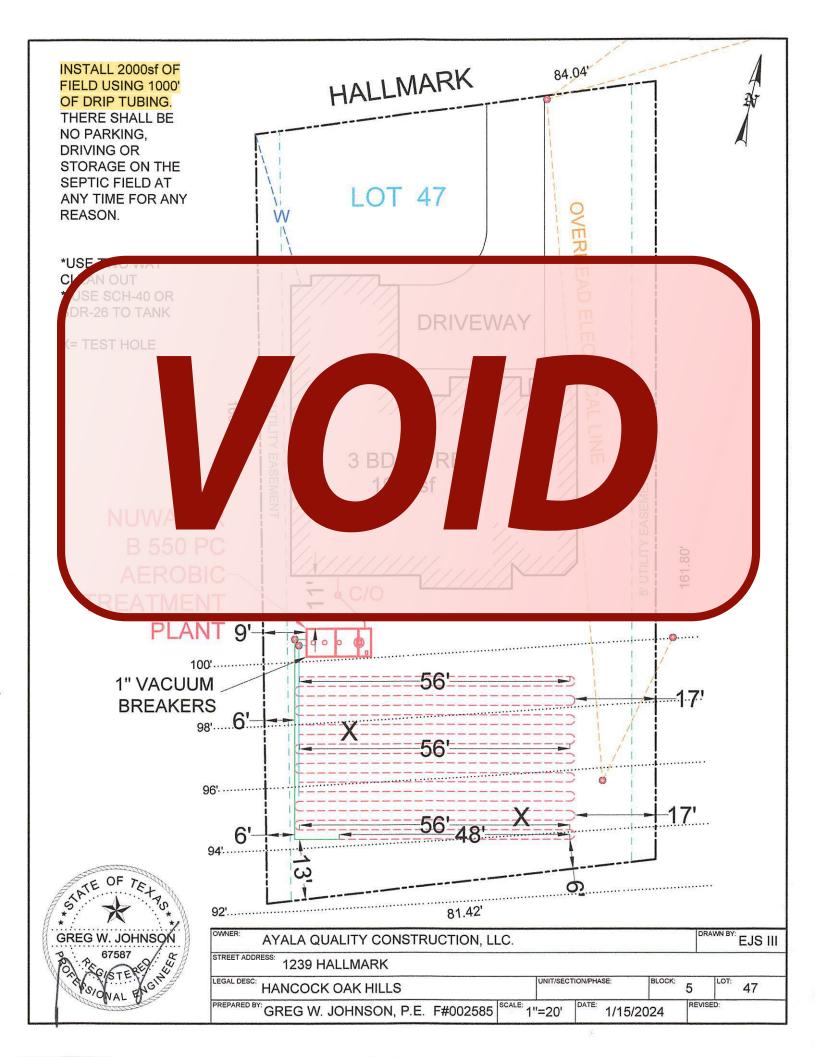
**Subject:** 117338

Good Afterno

On fice will be conducting a site visit on 04-16-2024.

## Thank You,

| Brandon Olvera | Designated Representative OS0034792 | Comal County | www.cceo.org | 195 David Jonas Dr, New Braunfels, TX-78132 | t: 830-608-2090 | f: 830-608-2078 | e: olverb@co.comal.tx.us



## Olvera, Brandon

From: Olvera, Brandon

**Sent:** Tuesday, July 16, 2024 1:18 PM

**To:** Greg Johnson **Cc:** Dakota Burnes

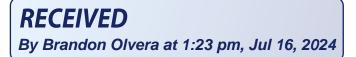
**Subject:** RE: 1239 hallmark permit 117338

Good Afterna,

letter does not appear to grant permission from the easement holder or provide guidance on what "materially interfere with the cooperative's ability to maintain patrol or construct any electric facilities" entails.

## Thank You,

| Brandon Olvera | Designated Representative OS0034792 | Comal County | www.cceo.org | 195 David Jonas Dr, New Braunfels, TX-78132 | t: 830-608-2090 | f: 830-608-2078 | e: olverb@co.comal.tx.us |





July 08, 2024

Ayala Quality Construction Llc 1774 Old Marion Rd New Braunfels, TX 78130-1206

Dear Mem

In reviewing Site V Plan ellocation at Hall Cany ke Texas 7 on the southeast s of the erty, ion on the active to plan is encroach bur electric easement file elle glutilities ming from plant 264 to policy 264603. The allation must not mind the Coope will assign liabily any ges to the coope plant system may possibly a source of world.

If you have any questions, please visit us online or give us a call at 877-372-0391 option #5. We are available Monday through Friday from 8 a.m. to 5 p.m.

Sincerely

Eric Villanueva

Electrical Distribution Design & Planning Manager

Canyon Lake District

«SIGNATURE\_INITIALS»:JG Q99/Account 3001621980

Toll-free: 888-554-4732

## Olvera, Brandon

From: Olvera, Brandon

**Sent:** Monday, June 24, 2024 2:53 PM

To: Greg Johnson
Cc: Dakota Burnes

Subject: RE: 1239 HALLMARK - AYALA QUALITY CONSTRUCTION #117338

Good After on,

The is a 1 ft separation distance from overhead easements and tanks.

Thank You,

| Brandon Olvera | Designated Representative OS0034792 | Comal County | www.cceo.org | 195 David Jonas Dr, New Braunfels, TX-78132 | t: 830-608-2090 | f: 830-608-2078 | e: olverb@co.comal.tx.us |

From: Greg Johnson <gregjohnsonpe@yahoo.com>

**Sent:** Wednesday, June 19, 2024 8:16 AM **To:** Olvera, Brandon < Olverb@co.comal.tx.us> **Cc:** Dakota Burnes < dakota@aerobicservices.com>

Subject: 1239 HALLMARK - AYALA QUALITY CONSTRUCTION #117338

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 II

REVISED. THX, GREG

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

170 Hollow Oak

New Braunfels, TX 78132

Office/Fax (830) 905-2778

Email: gregjohnsonpe@yahoo.com





July 16, 2024

## Ayala Quality Construction Llc 1774 Old Marion Rd

New Braunfels, TX 78130-1206

Dear Member

If you have any control of the second of the

Sincerely

Eric Villanueva

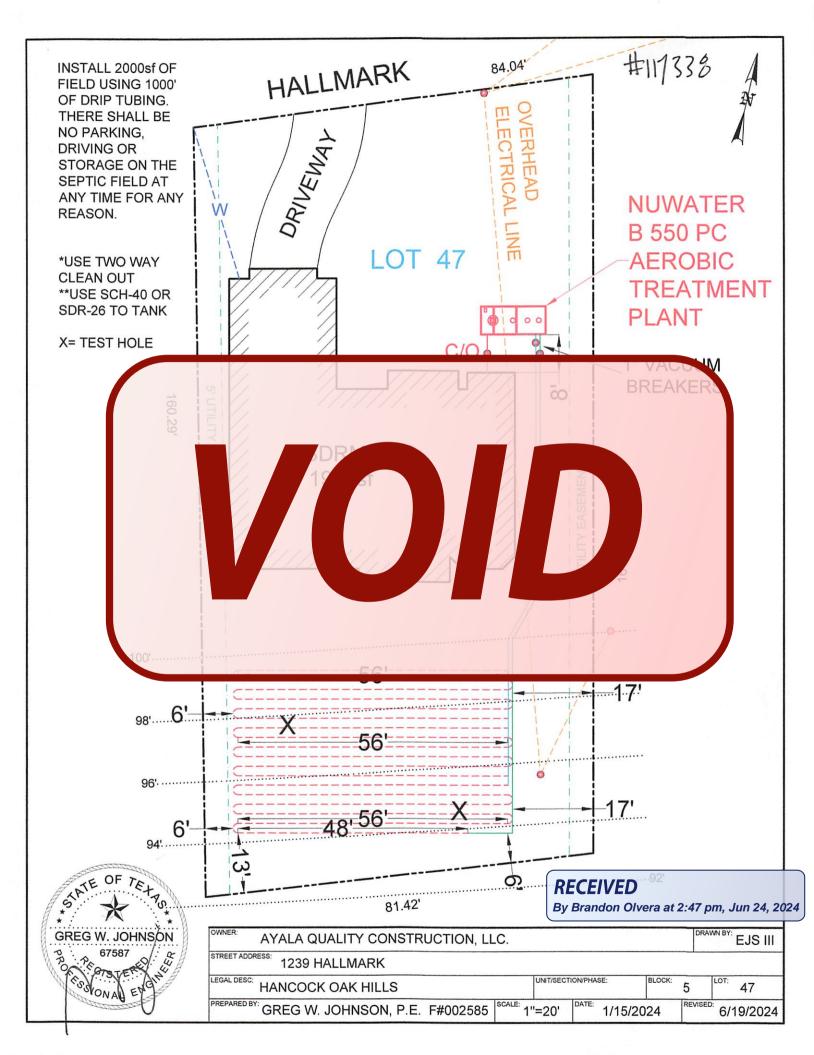
Electrical Distribution Design & Planning Manager

Canyon Lake District

«SIGNATURE\_INITIALS»:JG Q99/Account 3001621980

pec.coop

Power interruptions: 888-883-3379



## Olvera, Brandon

From: Olvera, Brandon

Sent: Wednesday, August 7, 2024 10:57 AM

To: Greg Johnson
Cc: Dakota Burnes

**Subject:** RE: 1239 hallmark 117338



File has been updated. Show the relocated electric line on the site plan.

## Thank You,

| Brandon Olvera | Designated Representative OS0034792 | Comal County | www.cceo.org | 195 David Jonas Dr, New Braunfels, TX-78132 | t: 830-608-2090 | f: 830-608-2078 | e: olverb@co.comal.tx.us

OKT/OF BOZT/Esse Atht 5

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.

## **GENERAL WARRANTY DEED**

THE STATE OF TEXAS

S KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF COMAL

§

THAT DONNIE KOERNER and ELISE KOERNER, a married couple, hereinafter called Grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10,00) cash and other good and valuable consideration in hand paid by AYALA QUALITY CONSTRUCTION, LLC, hereinafter called Grantee, the receipt and sufficiency of which is hereby acknowledged;

HAS GRANTED, SOLD and CONVEYED, and by these presents does GRANT, SELL and CONVEY unto the said Grantee the following described property situated in Comal County, Texas, to-wit:

Lot 47, Block 5, HANCOCK OAK HILLS SUBDIVISION, a subdivision in Comal County, Texas, according to the map or plat thereof, recorded in Volume 3, page 52-53, Map or Plat Records, Comal County, Texas.

This conveyance is made subject to, all and singular, the restrictions, conditions, easements and covenants, if any, applicable to and enforceable against the above described property as reflected by the records of the County Clerk of Comal County, Texas.

Taxes for the current year have been prorated and are thereafter assumed by Grantee.

TO HAVE AND TO HOLD the above described premises, together with, all and singular, the rights and appurtenances thereto in anywise belonging unto the said. Grantee, Grantee's heirs, executors, administrators, successors, or assigns forever.

Grantor does hereby bind Grantor, Grantor's heirs, executors, administrators, and successors to warrant and forever defend, all and singular, the said premises unto the said Grantee, Grantee's heirs, executors, administrators, successors, and assigns against any person whomsoever claiming or to claim the same or any part thereof.

DATED this the State day of December, 2022.

DONNIE KOERNER

ENSE KOERNER

STATE OF TEXAS §
COUNTY OF \_\_\_\_\_\_\_ §

This instrument was acknowledged before me on this the 5 day of December, 2022, by DONNIE KOERNER and ELISE KOERNER.

ANGIE HICKS
Notary ID #124642994
My Commission Expires
October 17, 2025

Notary Public, State of Texas

Grantee's Mailing Address:

1-14 Old Warrow Rd. New Braunfels, TX

14130

2632.deeds Old Republic Title (AH) #15027NB

> Filed and Recorded Official Public Records Bobbie Koepp, County Clerk Comal County, Texas 12/06/2022 03:20:51 PM CASHONE 2 Pages(s) 202206050830



