



COMAL COUNTY

ENGINEER'S OFFICE

License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date: 06/11/2020 Permit Number: 110223

Location Description: 607 CIELO VISTA
CANYON LAKE, TX 78133

Subdivision: Ensenada Shores at Canyon Lake
Unit: 2
Lot: 260
Block:
Acreage:

Type of System: Aerobic
Surface Irrigation

Issued to: Lewis Holman Oliphant & Brenda Kay Oliphant

This license is authorization for the owner to operate and maintain a private facility at the location described in accordance to the rules and regulations for on-site sewerage facilities of Comal County, Texas, and the Texas Commission on Environmental Quality.

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

Alterations to this permit including, but not limited to:

- Increase in the square feet of living area
- Increase in the number of bedrooms
- A change of use (i.e. residential to commercial)
- Relocation of system components (including the relocation of spray heads)
- Installation of landscaping
- Adding new structures to the system

may require a new permit. **It is the responsibility of the owner to apply for a new permit, if applicable.**

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

This license to operate is valid for an indefinite period. The holder may transfer it to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

Licensing Authority
Comal County Environmental Health

Michael Tays OS8497
ENVIRONMENTAL HEALTH INSPECTOR

Sandra Ann Hernandez, Asst
ENVIRONMENTAL HEALTH COORDINATOR
OS 0025599

Comal County Environmental Health OSSF Inspection Sheet

Installer Name: Paul Swoyer

OSSF Installer #: OS0026238

1st Inspection Date: 06-02-2020

2nd Inspection Date: 6/5/20

3rd Inspection Date: 06-08-2020

Inspector Name: B. Olvera

Inspector Name: Mike T.

Inspector Name: B. Olvera

Permit#: 110223

Address: 607 Cielo Vista / Ensenada Shores @ Canyon Lake

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	06-02-20	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)	<u>6/5/20</u> <u>not covered.</u>	06-02-20	6/5/20	6/9/20 1 6/7/20
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards		285.91(10) 285.30(b)(4) 285.31(d)				
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)		285.32(a)(1)				
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot		285.32(a)(3)				
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)		285.32(a)(5)				
6	PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G)285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(B) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(A) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(ii)(I)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

06-02-2020 BMO

Tank Set Level No Leaks
Operational
Revision for cement sand
Sleeved under driveway

MT-6/5/20
Call Justin w/
swoyer. not
covered.

MT-6/9/20
still not covered.
called Roy/swoyer.

MT-6/11/20
covered
F. finally
Reinsp. Fee
Paid.

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If Single Tank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(E) 285.91(2) 285.32(b)(1)(F) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(I) 285.32(b)(1)(E)(i) 285.32(b)(1)(D) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(i) 285.32(b)(1)(B) 285.32(b)(1)(A) 285.32(b)(1)(E)(iv)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used	06-02-20	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)		06-02-20		
10	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
11	SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed			M-600			
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number			Maxx Air			
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
18	DISPOSAL SYSTEM Evapo-transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

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20	DISPOSAL SYSTEM Soil Substitution		285.33(d)(4)				
21	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(3) 285.33(a)(1) 285.33(a)(2)				
22	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(3) 285.33(a)(2) 285.33(a)(4) 285.33(a)(1)				
23	DISPOSAL SYSTEM Mound		285.33(a)(3) 285.33(a)(1) 285.33(a)(2) 285.33(a)(4)				
24	DISPOSAL SYSTEM Other (describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)				
25	DRAINFIELD Absorptive Drainline 3" PVC or 4" PVC						
26	DRAINFIELD Area Installed						
27	DRAINFIELD Level to within 1 inch per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)				
28	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media						
29	DRAINFIELD Pipe and Gravel - Geotextile Fabric in Place		285.33(b)(1)(E)				
30	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End Plates w/Splash Plate, Inspection Port & Closed End Plates in Place (per manufacturers spec.)		285.33(c)(2)				
31	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33(d)(1)(C)(i)				

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32	AEROBIC TREATMENT UNIT is Aerobic Unit Installed According to Approved Guidelines.	06-02-20	285.32(c)(1)		06-02-20		
33	<p>AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided</p> <p>AEROBIC TREATMENT UNIT Secondary restraint system provided</p> <p>AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank</p> <p>AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions</p>						
34	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.						
35	<p>PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction</p> <p>PUMP TANK Sampling Port Provided in the Treated Effluent Line</p> <p>PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required</p> <p>PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump</p>						
36	<p>PUMP TANK Inspection/Clean Out Port & Risers Provided</p> <p>PUMP TANK Secondary restraint system provided</p> <p>PUMP TANK Riser permanently fastened to lid or cast into tank</p> <p>PUMP TANK Riser cap protected against unauthorized intrusions</p>						
37	PUMP TANK Secondary restraint system provided						
38	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried						
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41	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G)(i) 285.33(d)(2)(A) 285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						

Comal County Environmental Health OSSF Inspection Sheet

Installer Name: Paul Swoyer

OSSF Installer #: OS0026238

1st Inspection Date: 06-02-2020

2nd Inspection Date: 6/5/20

3rd Inspection Date: 06-08-2020

Inspector Name: B. Olvera

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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)				
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06-02-2020 BMO

Tank Set Level No Leaks
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Revision for cement sand
Sleeved under driveway

MT-6/5/20
Call Justin w/
swoyer. Not
covered.

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still not covered.
Called Roy/Swoyer.

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28	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media						
29	DRAINFIELD Pipe and Gravel - Geotextile Fabric in Place		285.33(b)(1)(E)				
30	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End Plates w/Splash Plate, Inspection Port & Closed End Plates in Place (per manufacturers spec.)		285.33(c)(2)				
31	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33(d)(1)(C)(i)				

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
32	EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart		285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3)(B) 285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)				
33	AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines.	06-02-20	285.32(c)(1)		06-02-20		
34	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions						
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.						
36	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
37	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						
38	PUMP TANK Secondary restraint system provided						
39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried						

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
40	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?	06-02-20	285.33(d)(2)(G)(iii)(II)285.33(d)(2)(G)(iii)(II)285.33(d)(2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)		06-02-20		06-08-20
41	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G)(i) 285.33(d)(2)(A) 285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						

Comal County Environmental Health OSSF Inspection Sheet

Installer Name: Paul Swoyer OSSF Installer #: OS0026238

1st Inspection Date: 06-02-2020 2nd Inspection Date: _____ 3rd Inspection Date: _____

Inspector Name: B.Olvera Inspector Name: _____ Inspector Name: _____

Permit#: 110223 Address: 607 Cielo Vista / Ensenada Shores @ Canyon Lake

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	06-02-20	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)		06-02-20		
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards		285.91(10) 285.30(b)(4) 285.31(d)				
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)		285.32(a)(1)				
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot		285.32(a)(3)				
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)		285.32(a)(5)				
6	PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G)285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(B) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(A) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(ii)(I)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

06-02-2020 BMO

Tank Set Level No Leaks
Operational
Revision for cement sand
Sleeved under driveway

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If Single Tank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(E) 285.91(2) 285.32(b)(1)(F) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(ii)(I) 285.32(b)(1)(E)(i) 285.32(b)(1)(D) 285.32(b)(1)(C)(ii) 285.32(b)(1)(C)(i) 285.32(b)(1)(B) 285.32(b)(1)(A) 285.32(b)(1)(E)(iv)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used	06-02-20	285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)		06-02-20		
10	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
11	SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed			M-600			
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number			Maxx Air			
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
18	DISPOSAL SYSTEM Evapo-transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

**Comal County Environmental Health
OSSF Inspection Sheet**

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

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
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33	AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines.	06-02-20	285.32(c)(1)		06-02-20		
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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						
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**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
40	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?	06-02-20	285.33(d)(2)(G)(iii)(I)285.33(d)(2)(G)(iii)(II)285.33(d)(2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)		06-02-20		
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42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



COMAL COUNTY

ENGINEER'S OFFICE

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

Permit Number: 110223
Issued This Date: 01/13/2020
This permit is hereby given to: Lewis Holman Oliphant & Brenda Kay Oliphant

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

607 CIELO VISTA
CANYON LAKE, TX 78133

Subdivision: Ensenada Shores at Canyon Lake
Unit: 2
Lot: 260
Block:
Acreage:

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Surface Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

Call (830) 608-2090 to schedule inspections.



Holly Braun

Address Coordinator
Comal County Engineer's Office
195 David Jonas Drive
New Braunfels, TX 78132
O: 830-608-2090 | F: 830-643-3810
www.cceo.org

From: Braun,Holly

Sent: Thursday, February 13, 2020 10:19 AM

To: Angelo Bustamante - United States Postal Service (angelo.r.bustamante@usps.gov)
<angelo.r.bustamante@usps.gov>; AT&T (Sotxsubdivisions@att.com) <Sotxsubdivisions@att.com>; CLW New Service
<newservice@clwsc.com>; Cory Brandenburg, ENP <coryb@bexarmetro.org>; Dora Campos <campod@co.comal.tx.us>;
Elisabeth Humphrey <Elisabeth.A.Iverson@usps.gov>; GVTC 911 Support (911support@gvtc.net)
<911support@gvtc.net>; Mandy Martin <Mmartin@bexarmetro.org>; Peggy Harper <margaret.a.harper@usps.gov>;
Preusser, Robin L. (preusr@co.comal.tx.us) <preusr@co.comal.tx.us>; Spectrum / Charter Construction
<STX.NewDevelopment@charter.com>; Tiffany Murphy (Tiffany.Murphy@gvtc.net) <Tiffany.Murphy@gvtc.net>
Subject: Change of Address - 607 Cielo Vista

Good morning,

Please find the attached documentation in reference to the change of address for:

- ENSENADA SHORES AT CANYON LAKE 2, LOT 260

Should you have any questions or require additional information, please contact our office at any time.

Sincerely,



Holly Braun

Address Coordinator
Comal County Engineer's Office
195 David Jonas Drive
New Braunfels, TX 78132
O: 830-608-2090 | F: 830-643-3810
www.cceo.org



COMAL COUNTY

ENGINEER'S OFFICE

February 12, 2020

Lewis H. and Brenda K. Oliphant
16131 Castlegrove Ct
Tomball, TX 77377

Re: Physical Address Change Notice

To Whom It May Concern:

Please be advised the physical address for the following property has been established to replace the address previously assigned. The new physical address assigned to the property is as follows:

Property ID	Legal Description	Previous Address (INVALID)	New Assigned Address (VALID)
131595	ENSENADA SHORES AT CANYON LAKE 2, LOT 260	108 SAN FELIPE CANYON LAKE, TX 78133	607 CIELO VISTA CANYON LAKE, TX 78133

Please ensure any utility services established with the previous address are updated to reflect the current address. Please display this address where it is visible from the road with 6" or larger reflective numbers so emergency personnel can easily locate the property should there be an emergency. **Please check with your local post office to verify the correct city and zip code before using the assigned address for mailing purposes.** If you receive mail at a post office box, your mailing address will not change.

If you have questions or need further assistance, please let us know.

Sincerely,

Holly Braun
Address Coordinator

Cc:

- ❖ Comal Appraisal District
- ❖ Bexar Metro 9-1-1
- ❖ United States Postal Service
- ❖ PEC

ASSIGNED ADDRESS: 607 CIELO VISTA CANYON LAKE, TX 78133

ENSENADA SHORES AT CANYON LAKE 2, LOT 260




Legend

-  Address
-  Street Centerline
-  Parcel

NOTES:

PROPERTY ID:
131595

LEGAL DESCRIPTION:
ENSENADA SHORES
AT CANYON LAKE 2,
LOT 260

N
 SCALE: 1" = 75'

For information concerning the source of the data, please contact:
Comal County Engineer's Office
195 David Jonas Drive
New Braunfels, TX 78132
(830) 608 - 2090

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

OSSF DEVELOPMENT APPLICATION CHECKLIST

Staff will complete shaded

items Date Received	Initials

Permit Number

Instructions:

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

OSSF Permit

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

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

Signature of Applicant

12/20/19

Date

___ COMPLETE APPLICATION	
Check No. _____	Receipt No. _____

___ INCOMPLETE APPLICATION
(Missing Items Circled, Application Refused)

***** COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH
APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN
ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE**

Date _____ Permit # _____

Owner Name	<u>LEWIS HOLMAN OLIPHANT & BRENDA KAY OLIPHANT</u>	Agent Name	<u>DAVE MCGHEE</u>
Mailing Address	<u>c/o 23011 FM 306</u>	Agent Address	<u>5405 APACHE CREEK COVE</u>
City, State, Zip	<u>CANYON LAKE, TX 78133</u>	City, State, Zip	<u>AUSTIN, TX 78735</u>
Phone #	<u>830-935-4936</u>	Phone #	<u>210-347-1593</u>
Email	<u>katelyn@paulswoyerseptics.com</u>	Email	<u>plan-it@hotmail.com</u>

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

Subdivision Name ENSENADA SHORES AT CANYON LAKE Unit 2 Lot 260 Block _____

Acreage/Legal _____

Street Name/Address 1007 Cielo Vista City CANYON LAKE Zip 78133

Type of Development:

Single Family Residential

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

Number of Bedrooms 4

Indicate Sq Ft of Living Area 2345

Non-Single Family Residential

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

Type of Facility _____

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____

Restaurants, Lounges, Theaters - Indicate Number of Seats _____

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____

Travel Trailer/RV Parks - Indicate Number of Spaces _____

Miscellaneous _____

Estimated Cost of Construction: \$ 403,632 (Structure Only)

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

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

Source of Water Public Private Well

Are Water Saving Devices Being Utilized Within the Residence? Yes No

By signing this application, I certify that:

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


Signature of Owner

12/26/19
Date

*** COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH ***
APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN
ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

REVISED

4:01 pm, Jan 13, 2020

Planning Materials & Site Evaluation as Required Completed By D. McHale

System Description Aerobic Spray

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

Tank Size(s) (Gallons) 600 GPD ATU Absorption/Application Area (Sq Ft) 4823

Gallons Per Day (As Per TCEQ Table III) ~~180~~ 300 ^{PM}

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

RECEIVED

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.))

JAN 10 2020

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.)

COUNTY ENGINEER

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

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

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

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

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

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

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

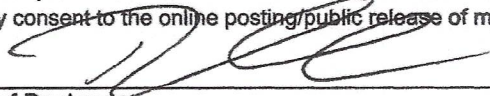
Is this property within an incorporated city? Yes No

If yes, indicate the city: _____

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

1-7-2020
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 (OSSFs), this document is filed in the Deed Records of Comal County, Texas.

I

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

II

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

2 UNIT/PHASE/SECTION _____ BLOCK 260 LOT _____ ENSENADA SHORES AT CANYON LAKE SUBDIVISION

IF NOT IN SUBDIVISION: _____ ACREAGE _____ SURVEY

The property is owned by (insert owner's full name): LEWIS HOLMAN OLIPHANT & BRENDA KAY OLIPHANT

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 26 DAY OF December, 2019

X [Signature] _____ LEWIS HOLMAN OLIPHANT

X [Signature] _____ BRENDA KAY OLIPHANT

Owner(s) signature(s) _____ Owner (s) Printed name (s)

Lewis Holman Oliphant
Brenda Kay Oliphant

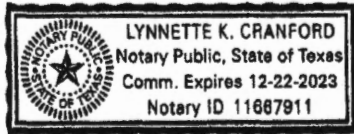
SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 26 DAY OF

December, 2019

THIS AREA FOR COMAL COUNTY CLERK RECORDING PURPOSES ONLY

Lynnette K Cranford
Notary Public Signature

Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
12/31/2019 02:07:47 PM
LAURA 1 Pages(s)
201906047307



Bobbie Koepf



PAUL SWOYER SEPTIC SUPPLY &
SERVICE
23011 FM 306
CANYON LAKE, TX 78133

MP#0001708
CHRISTOPHER RYAN SEIDENSTICKER

PROPERTY LEGAL DESCRIPTION:

ENSENADA SHORES AT CANYON LAKE, UNIT 2, LOT 260

Customer: LEWIS HOLMAN OLIPHANT & BRENDA KAY OLIPHANT

Site Address: 607 Cielo Vista

City/State: CANYON LAKE, TEXAS **Zip:** 78133

County: COMAL **Permit#:**

Phone Number: 713 725 2803

E-mail: sparkyoliphant@hotmail.com

I. General: This On-Site Sewage Facility Service Agreement (hereinafter referred to as "Agreement") is entered into by and between LEWIS HOLMAN OLIPHANT & BRENDA KAY OLIPHANT (hereinafter referred to as "Contractor"), (hereinafter referred to as "Client") and PS Supply & Service L.L.C. (hereinafter referred to as "Contractor"). By this agreement, Contractor agrees to render services, as described herein (the "Services"), and the client agrees to fulfill his/her/their responsibilities under this agreement herein.

II. Effective Dates: This agreement commences on the date of License to Operate is issued for Three (3) years.

Date of License to Operate: LTO Last Date of Service: 3 yrs from LTO

III. Services by Contractor: Contractor will provide the following Services:

1. Inspect and perform routine maintenance on the On-Site Sewage Facility ("OSSF") in compliance with the code, regulations, and/or rules of the Texas Commission on Environmental Quality ("TCEQ") and county in which the OSSF is located (the "County") and the manufacturer's requirements, at a frequency of approximately once every four (4) months.
2. Report to the appropriate regulatory authority and to Client, as required by the State of Texas' on-site rules and, if required, TCEQ or County rules. All findings must be reported to the appropriate regulatory authority within 14 days.
3. Notify Client and repair any components of the OSSF that are found to be in need of repair during the inspection. If warranty, you just do it. If not, Client will be responsible. Repairs will be made so brought up to compliance and bill forward.
4. Visit site in response to Client's request for unscheduled service within two business days from the date of Contractor's actual receipt of Client's request. Unscheduled service visits are not included in the fee agreement herein and will be billed to the client in addition to fees under this Agreement.
5. Provide notification of arrival to site to the Client or to site personnel. Additionally, Contractor will leave written notification of the visit at the site or with site personnel upon completion of inspection, and forward such notice to the appropriate regulatory authority within fourteen (14) days.

IV. Payment(s): Client shall pay to Contractor included w/ septic for the Services describe herein (the "Inspection and Routine Maintenance Fee"), excepting those described in Section III (4), or Section IX, herein. The Fee does not include equipment, parts or labor supplied for anything beyond routine inspection and routine maintenance. Payments for such additional services are due at the time services are provided or rendered. Payments not received within thirty (30) days from the due date will be subject the greater of a \$20.00 late penalty or 1.5% carrying charge on the original balance for each month or portion thereof a balance in past due. If for any reason such charges are found to be usurious by a court of competent jurisdiction, such charges shall be reduced to the maximum allowable by law. By signing this contract, Client authorizes Contractor to remove any parts installed, but not paid in full at the end of the thirty (30) days. Client agrees to pay for any labor cost associated with the installation and the reasonable cost of removal of said parts.

Client: [Signature]

Contractor: [Signature]

V. Client's Responsibilities: Client is responsible for each and all of the following:

1. To maintain chlorinator and provide proper chlorine supply, if OSSF is so equipped.
2. To provide all necessary yard or lawn maintenance and removal of obstacles as needed to allow the OSSF to function properly, and to allow Contractor ready access to all parts of the OSSF.
3. To maintain a current license to operate, and abide by the conditions and limitations of that license and all requirements for on-site sewage facilities from the State and local regulatory agency.
4. To maintain the OSSF in accordance with manufacturer's recommendations.
5. To immediately notify Contractor and Agency of any and all problems with, the OSSF, including failure thereof.
6. Upon receipt of any written notification of required services from Contractor, to contact Contractor and authorize the required service. If Client elects a different contractor to perform the required service, Client is responsible for ensuring the substitute contractor holds the proper license (Installer II) and is certified by the manufacturer. Additionally, Client shall be responsible for ensuring proper notification is given to the appropriate regulatory authority, as required by the State and/or local regulatory authority rules.
7. To provide Contractor with water usage records, upon request, for evaluation by Contractor of the OSSF performance.
8. To pay required sampling charges for samples collected for testing (e.g. Biological Oxygen Demand/Total Suspended Solids ("BOD/TSS")) that may be required on the OSSF.
9. To prevent backwash from water treatment or water conditioning equipment to enter the OSSF.
10. To provide, at Client's expense, for pumping of tanks as needed.
11. To maintain site drainage sufficient to prevent adverse effects on the OSSF.
12. To promptly and fully pay Contractor's bills, fees, or invoices as described herein.

VI. Access by Contractor: Client agrees to allow Contractor, or personnel authorized by the Contractor, to enter the property at reasonable times without prior notice for the purpose of performing the Services described herein. Such entry shall include access to the OSSF electrical and physical components, including tanks, by means of manways or risers for the purpose of evaluations required by the manufacturer, and/or regulatory authority rules. If such manways or risers are not in place, Client shall allow and be responsible for payment of required excavation, including labor and materials, necessary to allow access to the OSSF or any required components. Such excavation shall be billed at the rate of \$75.00 per hour for labor, plus materials billed at list price. Contractor shall make only those efforts reasonable under the circumstances to replace excavated soil.

VII. Application or Transfer of Payment: The fees paid for this agreement may transfer to any subsequent owner(s) of the property on which the OSSF is located. The subsequent owner(s) must sign a similar agreement authorizing Contractor to perform the above-described Services, and accepting Client's responsibilities. The replacement Agreement must be signed and received within 30 days of transfer of ownership. Contractor will apply all funds received from Client first to any past due obligations arising from this Agreement including late charges, return check charges, and charges for repairs or services not paid within 30 days of invoicing. The consumption of the payment in this manner may lead to termination of the agreement by Contractor.

VIII. Termination of Agreement: This agreement may be terminated by either party with 30 days written notice. If this agreement is so terminated by Client, Contractor shall be paid at the rate of \$75.00 per hour for any worked performed or required, but not yet paid. If terminated by Contractor, all amounts outstanding shall be due within thirty days of termination. The party terminating will immediately notify the other party, the equipment manufacturer, and the regulatory agency of the termination.

IX. Limitation of Liability: In no event shall Contractor be liable for indirect, consequential, incidental or punitive damages, whether in contract, tort, or any other theory of liability. In no event shall the Contractor's liability for direct damages exceed payments by the Client under this Agreement.

X. Severability and Reformation: If any provision in this Agreement shall be held to be invalid or unenforceable for any reason, it shall be reformed to the minimum extent necessary to effect the intent of the Parties. If any provision is such that it cannot reasonably be reformed, it shall be struck from this Agreement and the remaining provisions shall continue to be valid and enforceable.

XI. Performance of Agreement: Commencement of performance by Contractor under this agreement is contingent on the following conditions: (1) Contractor receiving a fully executed original copy of this agreement (2) Contractor receiving payment in full of the fee(s) described herein. If the above conditions are not met, then Contractor is from any obligation to perform any portion of this agreement.

XII. Modification. This Agreement may not be changed or modified except by an instrument in writing, signed by both Contractor and Client.

XIII. Waiver. Except as otherwise noted in this Agreement, the waiver by other party of a breach of any provision of this Agreement shall not operate or be construed as a continuing waiver or as a consent to or waiver of any subsequent breach hereof.



Client: _____

Contractor: _____

XIV. Headings. The Article and Section headings in this Agreement are for the convenience of reference only and do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

XV. GOVERNING LAW AND CHOICE OF VENUE. EACH OF THE PARTIES HERETO HEREBY CONSENTS TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF TEXAS, COUNTY OF COMAL, AND TO THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS – SAN ANTONIO DIVISION, AS WELL AS TO THE JURISDICTION OF ALL COURTS TO WHICH AN APPEAL MAY BE TAKEN FROM SUCH COURTS, FOR THE PURPOSE OF ANY SUIT, ACTION, OR OTHER PROCEEDING ARISING OUT OF, OR IN CONNECTION WITH, THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, INCLUDING, WITHOUT LIMITATION, ANY PROCEEDING RELATING TO ANCILLARY MEASURES IN AID OF ARBITRATION, PROVISIONAL REMEDIES AND INTERIM RELIEF, OR ANY PROCEEDING TO ENFORCE ANY ARBITRAL DECISION OR AWARD. EACH PARTY HERETO EXPRESSLY WAIVES ANY AND ALL RIGHTS TO BRING ANY SUIT, ACTION, OR OTHER PROCEEDING IN OR BEFORE ANY COURT OR TRIBUNAL OTHER THAN COURTS OF THE STATE OF TEXAS, COUNTY OF COMAL, AND COVENANTS THAT IT SHALL NOT SEEK IN ANY MANNER TO PROSECUTE OR DEFEND ANY DISPUTE OTHER THAN AS SET FORTH IN THIS ARTICLE XVI OR TO CHALLENGE OR SET ASIDE ANY DECISION, AWARD, OR JUDGMENT OBTAINED IN ACCORDANCE WITH THE PROVISIONS HEREOF. EACH OF THE PARTIES HERETO HEREBY EXPRESSLY WAIVES ANY AND ALL OBJECTIONS IT MAY HAVE TO VENUE, INCLUDING, WITHOUT LIMITATION, THE INCONVENIENCE OF SUCH FORUM, IN ANY OF SUCH COURTS.

XVI. JURY TRIAL WAIVER. THE PARTIES HEREBY UNCONDITIONALLY WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY AND ALL CLAIMS OR CAUSES OF ACTION ARISING FROM OR RELATING TO THEIR RELATIONSHIP. THE PARTIES ACKNOWLEDGE THAT A RIGHT TO A JURY IS A CONSTITUTIONAL RIGHT, THAT THEY HAVE HAD AN OPPORTUNITY TO CONSULT WITH INDEPENDENT COUNSEL, AND THAT THIS JURY WAIVER HAS BEEN ENTERED INTO KNOWINGLY AND VOLUNTARILY BY ALL PARTIES TO THIS AGREEMENT. IN THE EVENT OF LITIGATION, THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

Approved by Contractor: 
Approved by Client: 

MP#0001708
CHRISTOPHER RYAN SEIDENSTICKER


XVII. Reservation of Rights. Contractor reserves all rights not specifically granted herein.

XVIII. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

XIX. Counsel. Contractor has previously recommended that Client engage counsel to assist him/her/it in reviewing this Agreement and all other matters relating to it. Contractor and Client shall each bear his/her/its own costs and expenses in connection with the negotiation and documentation of this Agreement.

XX. Entire Agreement: This agreement contains the entire agreement of the parties, and there are no promises or conditions in any other agreement, oral or written. The Parties expressly disclaim reliance on any prior statements, oral or written, by either party not expressly provided for herein.

Client: 

Contractor: 

REVISED

8:05 am, Feb 26, 2020

PAUL SWOYER SEPTICS

DESIGNING FOR A HEALTHIER PLANET

**607 CIELO VISTA
ENSANADA SHORES AT CANYON LAKE
UNIT 2, LOT 260**

COMAL COUNTY, TX

FOR

KURK HOMES

2-25-2020



AEROBIC SURFACE IRRIGATION

PLAN-IT CONTACT INFORMATION:

6208 TANGLEWOOD TRAIL • SPRING BRANCH • TEXAS • 78070 • 210-347-1593

PLAN-IT@HOTMAIL.COM



REVISED
8:05 am, Feb 26, 2020

**RE: OSSF Design
607 Cielo Vista
Comal COUNTY, TX**

To Whom It May Concern:

Please find enclosed the OSSF design of the less than 3500 square foot, 4-bedroom single family residence located at 607 Cielo Vista, Comal County, TX. The design was conducted exclusively for Kurk Homes on January 23, 2020.

If you have any questions, please call. I appreciate the opportunity to be of service to you.

Sincerely,

Dave F. McGhee, D.R., S.E., R.S.
Paul Swoyer Septics L.L.C.





REVISED

8:05 am, Feb 26, 2020

SYSTEM SUMMARY

Paul Swoyer Septics L.L.C. began an On-Site Sewage Facility design located at 607 Cielo Vista, Comal COUNTY, TX. This design was performed in conformance with Chapter 285 of Texas Commission on Environmental Quality and the more stringent rules set forth by Comal COUNTY.

This system is comprised of the following:

- System Designed For: 300 Gallons Per Day
- MaxxAir Aerobic System: Model M-600 (600GPD)
- NSF Approved Liquid Bleach Chlorinator EZ Tank
- Surface Irrigation Disposal: 4823 square feet of Application
- Timer: Grasslin Digi 20 capable of 1-minute switch times
- Utilizing 3 K-Rain Pro Plus Spray Heads with 180° Patterns Set at 32ft. Radii (#3 LA nozzle)
- Submersible Effluent Pump: Franklin C1 Series bottom suction pump 20XC1-05P4-2W115 Submersible pump @ 20 GPM

SITE DESCRIPTION AND SITE EVALUATION

The site evaluation indicated that the site has suitable soil for an aerobic surface irrigation system. No evidence of shallow ground water was observed during the site evaluation. Any exposed rock within the proposed surface distribution area will be removed or covered with a minimum of 4 inches of suitable soil and seeded prior to final inspection. (See landscaping for additional requirements). The single-family residence will utilize a public water supply as the source for potable water. All the systems components will be 100 ft. away from all wells. All portions of the spray radii will maintain at least a 10 feet separation from all property lines and flat work. No portion of this system lies within 10 feet of a waterline. There are no recharge features within 150 feet of this proposed system. No portion of this site lies within the 100-year flood plain. Minimum separation distances as stated in § 285.30 TCEQ, On-Site Sewage Facilities must be maintained.

WASTEWATER DESIGN FLOWS

The system was designed for a less than 3500 SF, 4-bedroom Single Family Residence, utilizing low-flow fixtures. The total projected daily wastewater flow is 300 gallons per day, as-per TCEQ, On-Site Sewage Facilities, effective December 27, 2012.

DESCRIPTION OF PROPOSED AEROBIC TREATMENT SYSTEM

The residence will utilize a MaxxAir aerobic wastewater treatment system Model M-600, a proprietary treatment plant, approved by the TCEQ for use in Texas. The Model M-600 is a three-compartment concrete tank. The aerobic system will consist of a 353-gallon pretreatment/trash tank compartment which will gravity flow into the 600 GPD aerobic treatment compartment. The effluent from the aeration tank will gravity flow into a 768-gallon pump tank compartment. An NSF approved LBC Manufacturing Model #EZ Tank Liquid chlorinator will be installed for disinfection. The pump tank compartment serves as a chlorine contact chamber as well as a storage tank. Distribution is through a 40 PSI pressure regulator then to purple 1" Sch. 40 PVC pipe, to 3 K-Rain Pro Plus Low Angle spray heads. The disposal area will consist of 3 – 32 ft. radii 180° patterns. The system is considered a “package system” and will be installed according to manufacturer’s instructions.





DESIGN SPECIFICATIONS

Average Expected Flow: 300
Application Rate: 0.064 gal / ft² / day
Minimum Application Area: $A = Q/Ri$ $A = 300 \text{ GPD} / 0.064 = 4688$ square feet
Actual Application Area: $A = 3.14 (32)^2 \times 1.5 = 4823$ square feet

SYSTEM COMPONENTS

Trash Tank: 353 gallon one-compartment
Aeration Tank: 600 GPD
Pump Tank: 768-gallon compartment 14.49 gal/inch of depth (53" usable)

PUMP FLOAT SETTINGS

Pump-off Position: 8 inches above tank bottom
Pump-on Position: 11 inches above tank bottom
Alarm-on Position: 32 inches above tank bottom

Daily Operating Capacity: 21" x 14.49 gal/in = 304.29 gallons
Reserve Capacity: 21" x 14.49 gal/in = 304.29 gallons

PUMP AND SPRINKLER HEADS

Pump: Franklin C1 Series bottom suction pump 20XC1-05P4-2W115 Submersible pump @ 20 GPM
Spray Heads: K-Rain Spray heads
Nozzle: 3.0 LA (Low angle trajectory, 13 degrees) operating at 40 PSI, 32ft radii and 3.1 GPM flow per spray head

Notes:
* A commercial irrigation timer will be used to cycle power to the pump in order to irrigate twice per night, once at 2:00 a.m. and again at 4:00 a.m.

FLOW, DOSING AND HEAD CALCULATIONS

Flow Rate: 3.1 GPM/head x 3 heads = 9.3 GPM
Dosing Rate: 2 doses @ 150 gal/dose / 9.3 GPM = 17 min/dose
Total Head:
 Elevation Head: 6ft
 Pressure Head: 40 PSI x 2.31 ft/PSI = 92.4
 Friction Head: 1" Sch. 40 PVC @ 5.0 GPM = 2.13ft per 100ft
 220ft (3.71/100) (1.2 SF) = 9.8
Total Dynamic Head: 6 + 92.4 + 9.8 = 108.2ft (within the pump curve) (40 PSI)

CONSTRUCTION/INSTALLATION NOTES & REQUIREMENTS

- Refer to site plan for component placement and follow manufacturer's instructions for installation of treatment plant and aerator.
- All materials and construction methods are required to conform to the standards for Private Sewage Facilities set forth by the Texas Administrative Code, §285 On-Site Sewage Facilities.
- The installer must have a current and valid Texas installer certificate and is required to have at the minimum and Installer II certification.
- The installer must notify designer and regulatory authority at least 48 hours in advance to schedule required inspections to ensure that the system is installed in accordance with approved plans and specifications.





- The installer may not alter these plans without the approval from the designer.
- If site conditions differ from that which is on the approved design, the installer must cease construction and contact the designer.
- Diversion berms will be placed when needed to protect irrigation and tank areas from excessive runoff.
- It is the responsibility of the installer to maintain the minimum setback requirements as stated in Chapter §285 On-Site Sewage Facilities.
- No part of the system shall be located within 10 feet of a potable water line. If this is unavoidable, use Title 30 T.A.C Chapter 290 for the water line and OSSF supply line crossing

ELECTRICAL COMPONENTS

All electrical wiring shall conform to the requirements of the National Electric Code (1999) or under any other standards approved by the executive director. Additionally, all external wiring shall be installed in approved, rigid, non-metallic gray code electrical conduit. The conduit shall be buried according to the requirements in the National Electric Code and terminated at a main circuit breaker panel or sub-panel. Connections shall be in approved junction boxes. All electrical components shall have an electrical disconnect within direct vision from the place where the electrical device is being serviced. Electrical disconnects must be weatherproof (approved for outdoor use) and have maintenance lockout provisions.

TANK NOTES

- The bottom of the excavation for the tanks shall be level and free of large rocks and debris.
- All tanks are to be set level on a minimum 4” to 6” inch layer of sand, sandy loam, clay loam, or pea gravel.
- Tanks will be backfilled with sand, sandy loam, clay loam, or pea gravel free of clay and/or large rocks.
- Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2012). This includes access limitation (<65lbs lid or hardware secured lid) and secondary plug, net, or mesh in riser. Septic tanks without risers shallower than 12” below grade may be exempt.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, and/or to prevent the infiltration of water.
- Tanks must be filled with water for at least 24 hours to test for leaks and structural integrity.
- The tanks must be set low enough to have fall of at least 1/8 inch per foot from house to tank.
- PVC pipe from house to tank must be at least Sch. 40 or SDR 26.

IRRIGATION AND LANDSCAPE NOTES

- Irrigation lines shall be 1 inch Sch. 40 PVC. All supply lines, sprinkler heads and valve cover boxes must be permanently colored purple. Sleeve any pipe that crosses any road, driveway, or other land improvement with larger diameter Sch. 40 PVC.
- Supply lines must be buried at least 6 inches below finished grade.
- If irrigation area does not have established vegetation, a mixture of winter rye and Bermuda grasses will be seeded to establish seasonal vegetation.
- The installer shall notify the property owner prior to removal of any trees/bushes that may obstruct the operation of the irrigation system.
- All exposed surface rock must be covered with at least 4 inches of suitable soil.
- Vegetation must be established before system is in use.





ADDITIONAL NOTES

- Install audio-visual alarm for aerator and pump on separate breakers.
- The high water and air compressor alarms shall be audio/visual and mounted in a place that can be easily seen and heard when alarms are activated.
- The chlorinator must be constructed to allow a chlorine residual of 0.1 mg/L in the pump tank for the period of time between scheduled inspections.
- The disinfected effluent must obey the standards as stated in Chapter §285 On-Site Sewage Facilities. Approved disinfection methods using chlorinated tablets must use calcium hypochlorite that is properly labeled for wastewater disinfection.

MAINTENANCE REQUIREMENTS

- The applicant must furnish to the regulatory authority a valid maintenance contract with a certified maintenance company before a permit will be issued.
- The maintenance company will verify that the system is operating properly and provide on-going maintenance of the installation.
- The initial contract will be a minimum of two years.
- A maintenance contract will authorize the maintenance company to maintain and repair the system as needed.
- The property owner must continuously maintain a signed written contract with a valid maintenance company and shall submit a copy of the contract to the permitting authority at least 30 days prior to the date service will cease.

AFFIDAVIT

- The applicant must file a certified copy of an affidavit at the County Clerk’s Office and file in reference to the real property deed on which the surface application system is to be installed.
- The affidavit will state that the property shall not be transferred to a new owner without:
 - (1) The new owner being advised that the property contains a surface application system for wastewater disposal.
 - (2) The permit issued to the previous owner of the property being transferred to the new owner in accordance with Chapter §285. 20(5) of the TCEQ OSSF Rules, i.e.; the permit will be issued in the name of the owner of the OSSF. Permits shall be transferred to the new owner automatically upon legal sale of the OSSF. The transfer of an OSSF permit under this section shall occur upon actual transfer of the property on which the OSSF is located unless the ownership of the OSSF had been severed from the property.
 - (3) The new owners submitting a valid maintenance contract to the permitting authority.

OPERATION AND MANAGEMENT NOTES

- The OSSF should not be treated as a normal city sewer.
- The excessive use of in-sink garbage grinders and grease discarding should be avoided. In-sink garbage grinders can cause a rapid buildup of sludge or scum resulting in a more frequent cleaning and possible system failure.
- Do not use the toilet to dispose of cleaning tissue, cigarette butts, or other trash. This disposal practice will waste water and also impose an undesirable solid load on the treatment system.
- Septic tanks shall be cleaned before sludge accumulates to a point where it approaches the bottom of the outlet device. If sludge or scum accumulates to this point, solids will leave the tank with the liquid and possibly cause the system to clog resulting in sewage surfacing or backing up into the house through plumbing fixtures.





- A regular schedule of cleaning the tank at two to three-year intervals should be established. Commercial cleaners are equipped to readily perform the cleaning operation. Owners of OSSF's shall engage only persons registered with the TCEQ to transport the septic system waste.
- Do not build driveways, storage buildings, or other structures over system components or the disposal field.
- Chemical additives or so-called enzymes are not necessary for the operation of a septic tank. Some of these additives may even be harmful to the systems operation.
- Soaps, detergents, bleaches, drain cleaners, and other household cleaning materials will very seldom affect the operation of the system. However, moderation should be exercised in the use of such materials.
- Chapter §285.39 states the owner shall not allow water softener or reverse osmosis back flush to enter into any portion of the OSSF.
- The liquid from the OSSF is still heavily laden with bacteria. The surfacing of this liquid constitutes a hazard to the health of those that might come into contact with it.

WATER CONSERVATION PRACTICES

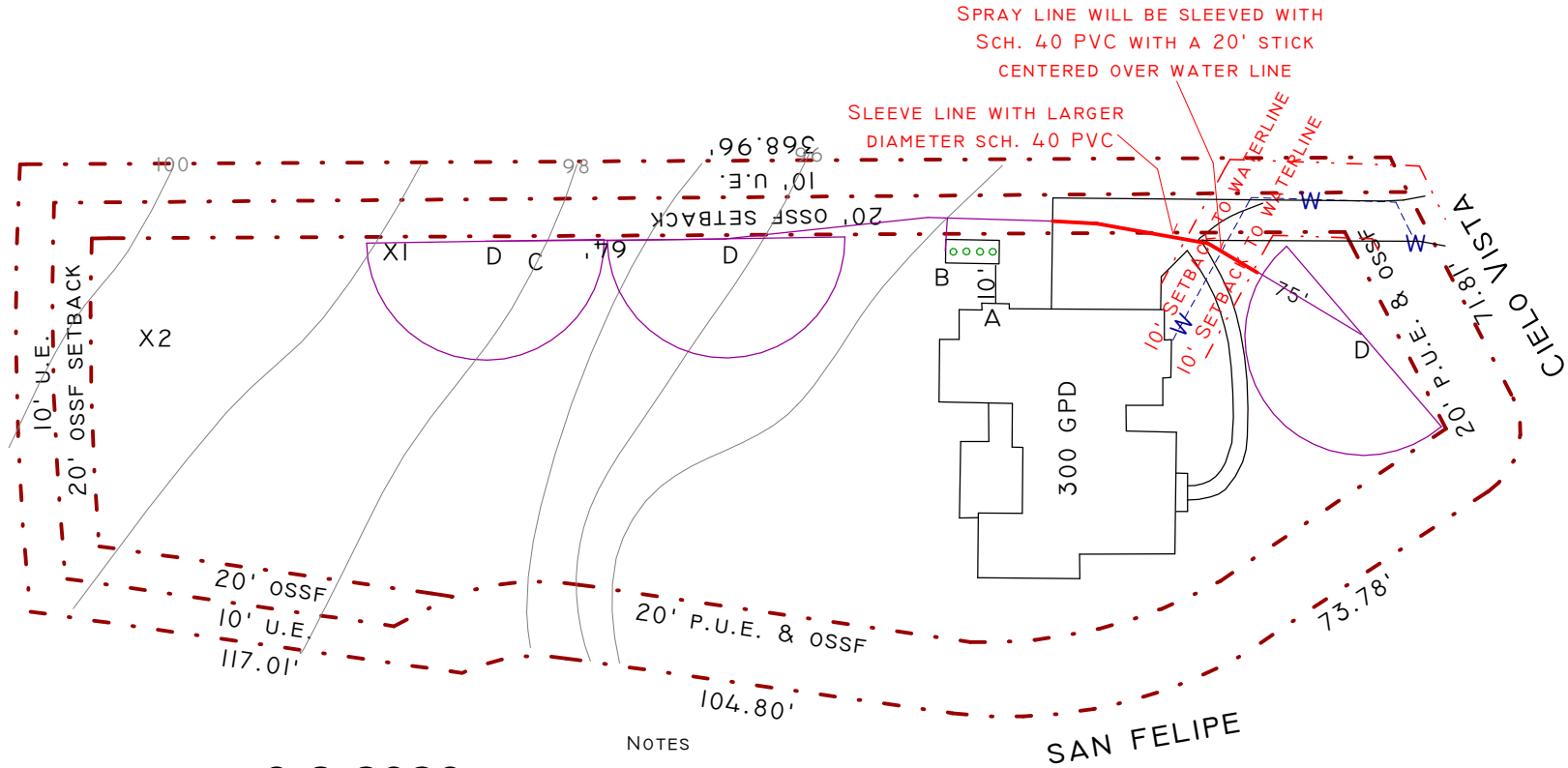
- Showers usually use less water than baths. Installing water saving shower heads that uses less than 2.5 gallons per minute saves both water and energy.
- If you take a tub bath, reduce the level of the water in the tub from the level to which you customarily fill it.
- Leaky faucets and faulty toilet fill-up mechanisms should be repaired as quickly as possible.
- Leaking toilets may not be evident. Add a few drops of food coloring into the tank. Do not flush. If the color appears in the bowl within a few minutes, adjustments and/or repairs to the toilet need to be made.
- Reduce the amount of water used by the toilet by installing one of the following: a new 1.6 gallon toilet, a toilet dam, or filling and capping a one quart plastic bottle with water and placing it into the tank. Do not use bricks as they may crumble and cause damage to the toilet.
- Install low-flow fixtures throughout the house and use faucet aerators that restrict water flow to help reduce consumption.
- Try to run dishwasher with a full load.
- Avoid running the water continuously for brushing teeth, washing hands or rinsing kitchen utensils.
- Water can be saved in the laundry room by adjusting water levels to match the size of the load. If the washing machine does not have a variable load control, water can be saved by running it only when the washer is full.
- Keep a container of drinking water in the refrigerator instead of running a faucet until it turns cool.
- Insulate hot water pipes to avoid long delays of wasted water while waiting for the water to heat.
- Ask your federal, state, county, city or other local government about their programs to conserve water and how they can help you save water.

This proposed system has been designed generally following the minimum requirements under TCEQ Chapter §285 On-Site Sewage Facilities. The site evaluation and subsequent design are based on technical information currently available. There was no indication of shallow groundwater or slopes where seeps could occur at the time of the site evaluation. The performance of the OSSF is not, and cannot be guaranteed even though all provisions of the Standards have been complied with. If failure should occur, additions to the OSSF may have to be made. By accepting this design, the homeowner/builder understands that the designer/site evaluator will not be liable for more than the agreed upon design fee.



KURK HOMES
 607 CIELO VISTA
 ENSANADA SHORES AT CANYON LAKE
 UNIT 2, LOT 260

REVISED
 4:04 pm, Jun 03, 2020



SYSTEM COMPONENTS

- A. 4" SCH. 40 PVC PIPE WITH 2-WAY CLEANOUT
- B. MAXXAIR M600 (600 GPD) WITH LIQUID CHLORINATOR
- C. 1" SCH. 40 PURPLE PVC DISTRIBUTION PIPE
- D. 3 - 180 DEGREE K-RAIN PRO PLUS LOW ANGLE SPRAY HEADS WITH 32' RADIUS #3 NOZZLE

6-2-2020

STATE OF TEXAS

DAVID F. MCGHEE JR.

4206

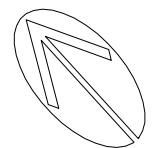
REGISTERED PROFESSIONAL SANITARIAN

David F. McGhee

X = PROFILE HOLES

NOTES

- REFER TO TANK DETAIL AND DESIGN NOTES FOR MORE INFORMATION
- SYSTEM MUST MAINTAIN A MINIMUM OSSF SETBACKS FROM ALL PROPERTY LINES
- SURFACE ROCK IN SPRAY AREA MUST BE EXCAVATED, OR COVERED WITH A MINIMUM OF 4" OF SUITABLE SOIL
- TRIM TREES IN APPLICATION AREA TO MAINTAIN AT LEAST 10' FROM SPRINKLER HEADS
- ALL SEPERATION AND SETBACK REQUIREMENTS AS STATED IN CHAPTER 285, TCEQ ON-SITE SEWAGE FACILITIES, MUST BE MAINTAINED

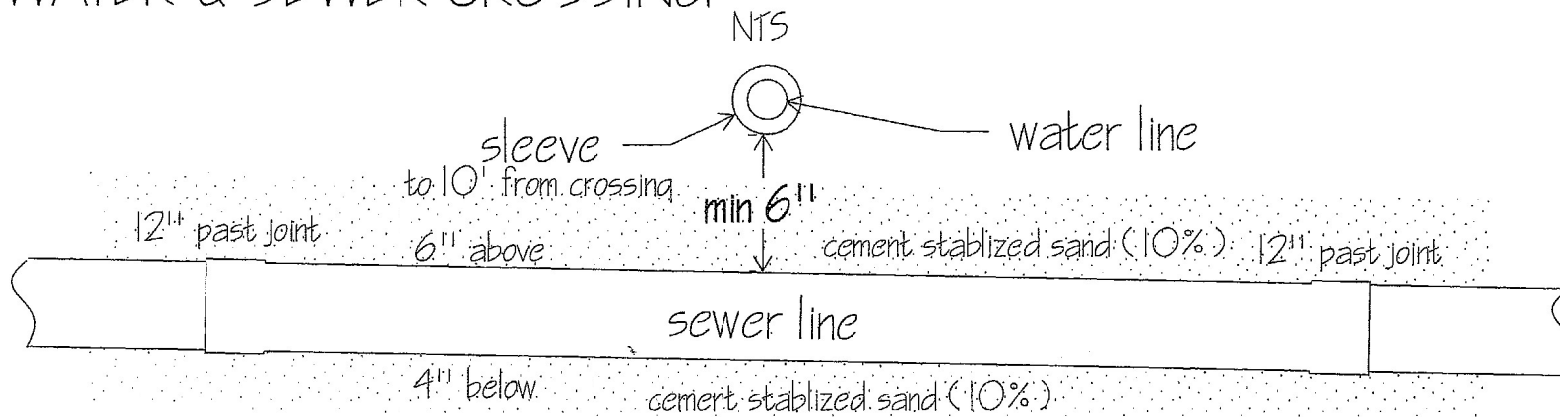


SCALE 1" = 50'

REVISED

4:03 pm, Jan 13, 2020

WATER & SEWER CROSSING



Cement Stabilized Sand to 9' either side plus 12" past joint (min 10')

Per 290.44 (e) (4) (B)

(v) Where a new potable waterline crosses a new, pressure rated wastewater main or lateral, one segment of the waterline pipe shall be centered over the wastewater line such that the joints of the waterline pipe are equidistant and at least nine feet horizontally from the center line of the wastewater main or lateral. The potable waterline shall be at least six inches above the wastewater main or lateral. Whenever possible, the crossing shall be centered between the joints of the wastewater main or lateral. The wastewater pipe shall have a minimum pressure rating of at least 150 psi. The wastewater main or lateral shall be embedded in cement stabilized sand (see clause (vi) of this subparagraph) for the total length of one pipe segment plus 12 inches beyond the joint on each end.

(vi) Where cement stabilized sand bedding is required, the cement stabilized sand shall have a minimum of 10% cement per cubic yard of cement stabilized sand mixture, based on loose dry weight volume (at least 2.5 bags of cement per cubic yard of mixture). The cement stabilized sand bedding shall be a minimum of six inches above and four inches below the wastewater main or lateral. The use of brown coloring in cement stabilized sand for wastewater main or lateral bedding is recommended for the identification of pressure rated wastewater mains during future construction

REVISED

8:07 am, Feb 26, 2020

- . The bottom of the excavation for the tanks shall be level and free of large rocks and debris.
- . All tanks are to be set level on a minimum 4 inch layer of sand, sandy loam, clay loam, or pea gravel.
- . Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2012). This includes access limitation (<65lbs lid or hardware secured lid) and secondary plug, net, or mesh in riser. Septic tanks without risers shallower than 12" below grade may be exempt.
- . Risers are required on all tank access ports to grade.
- . All openings in the tank must be properly sealed to prevent the escape of wastewater, and/or to prevent the infiltration of water.
- . Tanks must be filled with water for at least 24 hours to test for leaks and structural integrity.
- . The tanks must be set low enough to have fall of at least 1/8 inch per foot from house to tank.
- . PVC pipe from house to tank must be at least Sch. 40.

GENERAL NOTES:

1. Plant structure material to be precast concrete and steel.
2. Weight = 14,900 lbs.
3. Treatment capacity is 600 GPD. BOD Loading = 1.62 lbs. per day.
4. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
5. Control Center w/ Timer for night spray application.
7. 20" Ø access riser w/ lid (Typical 4). Optional extension risers available.
8. 20 GPM 1/2 HP, high head effluent pump.
9. Air Compressor w/ concrete housing.
10. 1/2" Sch. 40 PVC Air Line (Max. 50 Lft from Plant).
11. 1" Sch. 40 PVC pipe to distribution system provided by contractor.

PUMP FLOAT SETTINGS

Pump off Position: 8 inches above tank bottom
Pump on Position: 11 inches above tank bottom
Alarm on Position: 32 inches above tank bottom

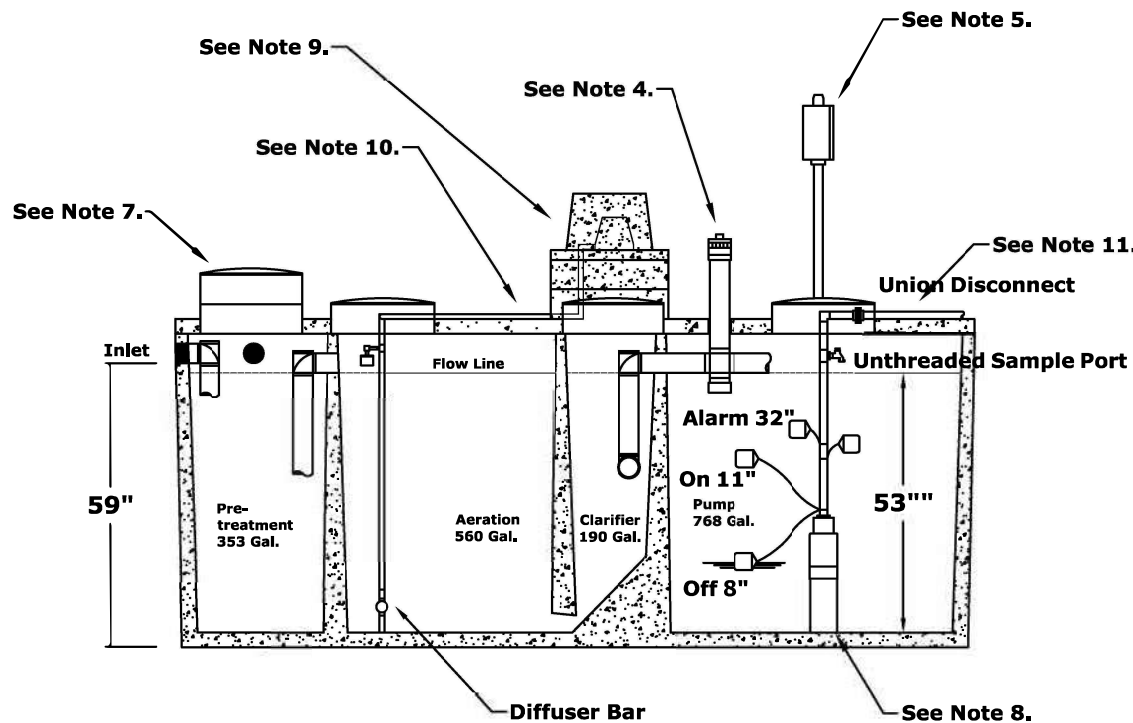
Daily Operating Capacity: 21" x 14.49 gal/in = 304.29 gallons
Reserve Capacity: 21" x 14.49 gal/in = 304.29 gallons

DIMENSIONS:

Outside Height: 67"
Outside Width: 63"
Outside Length: 164"

MINIMUM EXCAVATION DIMENSIONS:

Width: 76"
Length: 176"



**Maxx Air M-600 (600 GPD)
Aerobic Treatment Plant (Assembled)**

Jan, 2019
By: A.S.

Scale:
* All Dimensions subject to allowable specification tolerances.

Dwg. #: ADV-B550-3



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

REVISED

8:07 am, Feb 26, 2020

C1 SERIES

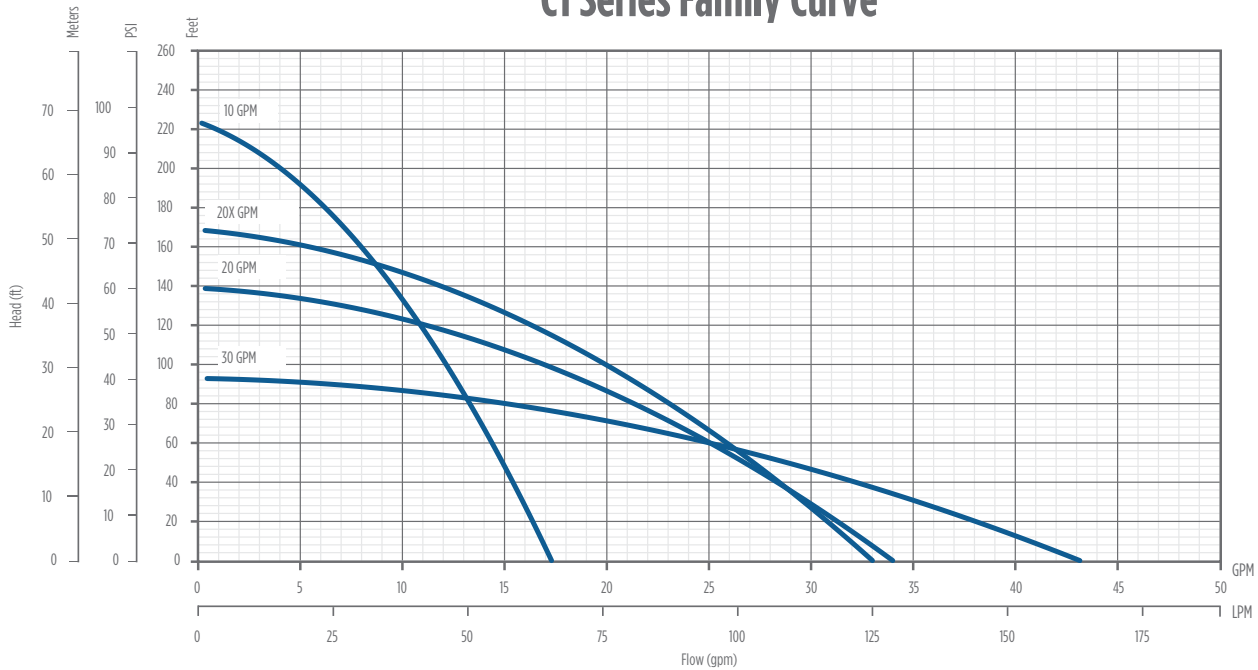
CISTERN PUMPS

Designed for use in gray water / filtered effluent service applications, the C1 Series cistern pump provides high performance and long life in less than ideal water conditions. The C1 Series pump is able to pass solids up to 1/8" without having a negative effect on the internal hydraulic components.

The pump's unique bottom suction design allows for maximum fluid drawdown without compromising durability or overall life, and it does not require the use of a flow induction sleeve. Intended specifically for use in a cistern or tank, C1 Series pumps are suitable for use in agricultural, residential, and commercial installations.



C1 Series Family Curve



FEATURES

- Supplied with a removable 5" base for secure and reliable mounting
- Bottom suction design
- Robust thermoplastic discharge head design resists breakage during installation and operation
- Single shell housing design provides a compact unit while ensuring cool and quiet operation
- Hydraulic components molded from high quality engineered thermoplastics
- Optimized hydraulic design allows for increased performance and decreased power usage
- All metal components are made of high grade stainless steel for corrosion resistance
- Available with a high quality 115 V or 230 V, ½ hp motor
- Fluid flows of 10, 20, and 30 gpm, with a max shut-off pressure of over 100 psi
- Heavy duty 600 V 10 foot SJ00W jacketed lead

APPLICATIONS

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

ORDERING INFORMATION

C1 Series Pumps							
GPM	HP	Volts	Stage	Model No.	Order No.	Length (in)	Weight (lbs)
10	1/2	115	7	10C1-05P4-2W115	90301005	26	17
		230	7	10C1-05P4-2W230	90301010	26	17
20		115	5	20C1-05P4-2W115	90302005	25	16
		230	5	20C1-05P4-2W230	90302010	25	16
20X		115	6	20XC1-05P4-2W115	90302015	26	17
		230	6	20XC1-05P4-2W230	90302020	26	17
30		115	4	30C1-05P4-2W115	90303005	25	16
		230	4	30C1-05P4-2W230	90303010	25	16

Note: All units have 10 foot long SJ00W leads.





ProPlus Performance Data

REVISED

8:07 am, Feb 26, 2020

Model Numbers: 11003, 11003-HP, 11003-SH, 11003-RCW • Arc Adjust: 40-360 • Drive Type: Gear • Warranty: 5 years

Standard Performance Data:

26 degree trajectory

Nozzle	Pressure (PSI)	Radius (ft)	Flow (GPM)	Precip (IN/HR) ■	Precip (IN/HR) ▲
0.5	30	28	0.5	0.06	0.07
	40	29	0.6	0.07	0.08
	50	29	0.7	0.08	0.09
	60	30	0.8	0.09	0.10
0.75	30	29	0.7	0.08	0.09
	40	30	0.8	0.09	0.10
	50	31	0.9	0.09	0.10
	60	32	1.0	0.09	0.11
1	30	32	1.3	0.12	0.14
	40	33	1.5	0.13	0.15
	50	34	1.6	0.13	0.15
	60	35	1.8	0.14	0.16
2	30	37	2.4	0.17	0.19
	40	40	2.5	0.15	0.17
	50	42	3.0	0.16	0.19
	60	43	3.3	0.17	0.20
2.5 Pre-Installed	30	38	2.5	0.17	0.19
	40	39	2.8	0.18	0.20
	50	40	3.2	0.19	0.22
	60	41	3.5	0.20	0.23
3	30	38	3.6	0.24	0.28
	40	39	4.2	0.27	0.31
	50	41	4.6	0.26	0.30
	60	42	5.0	0.27	0.32
4	30	43	4.4	0.23	0.26
	40	44	5.1	0.25	0.29
	50	46	5.6	0.25	0.29
	60	49	5.9	0.24	0.27
6	40	45	5.9	0.28	0.32
	50	46	6.0	0.27	0.32
	60	48	6.3	0.26	0.30
	70	49	6.7	0.27	0.31
8	40	42	8.0	0.44	0.50
	50	45	8.5	0.40	0.47
	60	49	9.5	0.38	0.44
	70	50	10.0	0.39	0.44

Metric Performance Data:

26 degree trajectory

Nozzle	Pressure (bar)	Radius (meter)	Flow (l/m)	Precip (mm/hr) ■	Precip (mm/hr) ▲
0.5	2.0	8.5	1.9	1.6	1.8
	3.0	8.8	2.3	1.7	2.0
	3.5	8.8	2.6	2.0	2.3
	4.0	9.1	3.0	2.2	2.5
0.75	2.0	8.8	2.6	2.0	2.3
	3.0	9.1	3.0	2.2	2.5
	3.5	9.4	3.4	2.3	2.6
	4.0	9.8	3.8	2.4	2.8
1	2.0	9.8	4.9	3.1	3.6
	3.0	10.1	5.7	3.4	3.9
	3.5	10.4	6.1	3.4	3.9
	4.0	10.7	6.8	3.6	4.1
2	2.0	11.3	9.1	4.3	4.9
	3.0	12.2	9.5	3.8	4.4
	3.5	12.8	11.4	4.2	4.8
	4.0	13.1	12.5	4.4	5.0
2.5 Pre-Installed	2.0	11.6	9.5	4.2	4.9
	3.0	11.9	10.6	4.5	5.2
	3.5	12.2	12.1	4.9	5.6
	4.0	12.5	13.2	5.1	5.9
3	2.0	11.6	13.6	6.1	7.0
	3.0	11.9	15.9	6.8	7.8
	3.5	12.5	17.4	6.7	7.7
	4.0	12.8	18.9	6.9	8.0
4	2.0	13.1	16.7	5.8	6.7
	3.0	13.4	19.3	6.4	7.4
	3.5	14.0	21.2	6.5	7.5
	4.0	14.9	22.3	6.0	6.9
6	3.0	13.7	22.3	7.1	8.2
	3.5	14.0	22.7	6.9	8.0
	4.0	14.6	23.8	6.7	7.7
	5.0	14.9	25.4	6.8	7.9
8	3.0	12.8	30.3	11.1	12.8
	3.5	13.7	32.2	10.3	11.8
	4.0	14.9	36.0	9.7	11.2
	5.0	15.2	37.9	9.8	11.3

Low Angle Standard Performance Data

12 degree trajectory

Nozzle	Pressure (PSI)	Radius (ft)	Flow (GPM)	Precip (IN/HR) ■	Precip (IN/HR) ▲
1	30	22	1.2	0.24	0.28
	40	24	1.7	0.28	0.33
	50	26	1.8	0.26	0.30
	60	28	2.0	0.25	0.28
3	30	29	3.0	0.34	0.40
	40	32	3.1	0.29	0.34
	50	35	3.5	0.28	0.32
	60	37	3.8	0.27	0.31
4	30	31	3.4	0.34	0.39
	40	34	3.9	0.32	0.37
	50	37	4.4	0.31	0.36
	60	38	4.7	0.31	0.36
6	40	38	6.5	0.43	0.50
	50	40	7.3	0.44	0.51
	60	42	8.0	0.44	0.50
	70	44	8.6	0.43	0.49

Low Angle Metric Performance Data

12 degree trajectory

Nozzle	Pressure (bar)	Radius (meter)	Flow (l/m)	Precip (mm/hr) ■	Precip (mm/hr) ▲
1	2.0	6.7	4.5	6.1	7.0
	3.0	7.3	6.4	7.2	8.3
	3.5	7.9	6.8	6.5	7.5
	4.0	8.5	7.6	6.2	7.2
3	2.0	8.8	11.4	8.7	10.1
	3.0	9.8	11.7	7.4	8.5
	3.5	10.7	13.2	7.0	8.1
	4.0	11.3	14.4	6.8	7.8
4	2.0	9.4	12.9	8.6	10.0
	3.0	10.4	14.8	8.2	9.5
	3.5	11.3	16.7	7.9	9.1
	4.0	11.6	17.8	8.0	9.2
6	3.0	11.6	24.6	11.0	12.7
	3.5	12.2	27.6	11.2	12.9
	4.0	12.8	30.3	11.1	12.8
	5.0	13.4	32.6	10.9	12.5

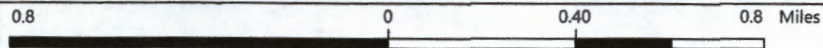
All precipitation rates are calculated at 360 degrees. For precipitation rates at 180 degrees, multiply by 2. Data represents test results in zero wind. Adjust for local conditions. Radius may be reduced with nozzle retention screw.



Legend

- Major Roads
 - Farm roads
 - Highways
- Streets
- Parcels
- Future Parcels
- Subdivision Label
- Texas County Boundary
- Vacate & Replat
- Amendment to Plat
- Amending Plat
- Vacating Plat
 - Red: Band_1
 - Green: Band_2
 - Blue: Band_3

Notes



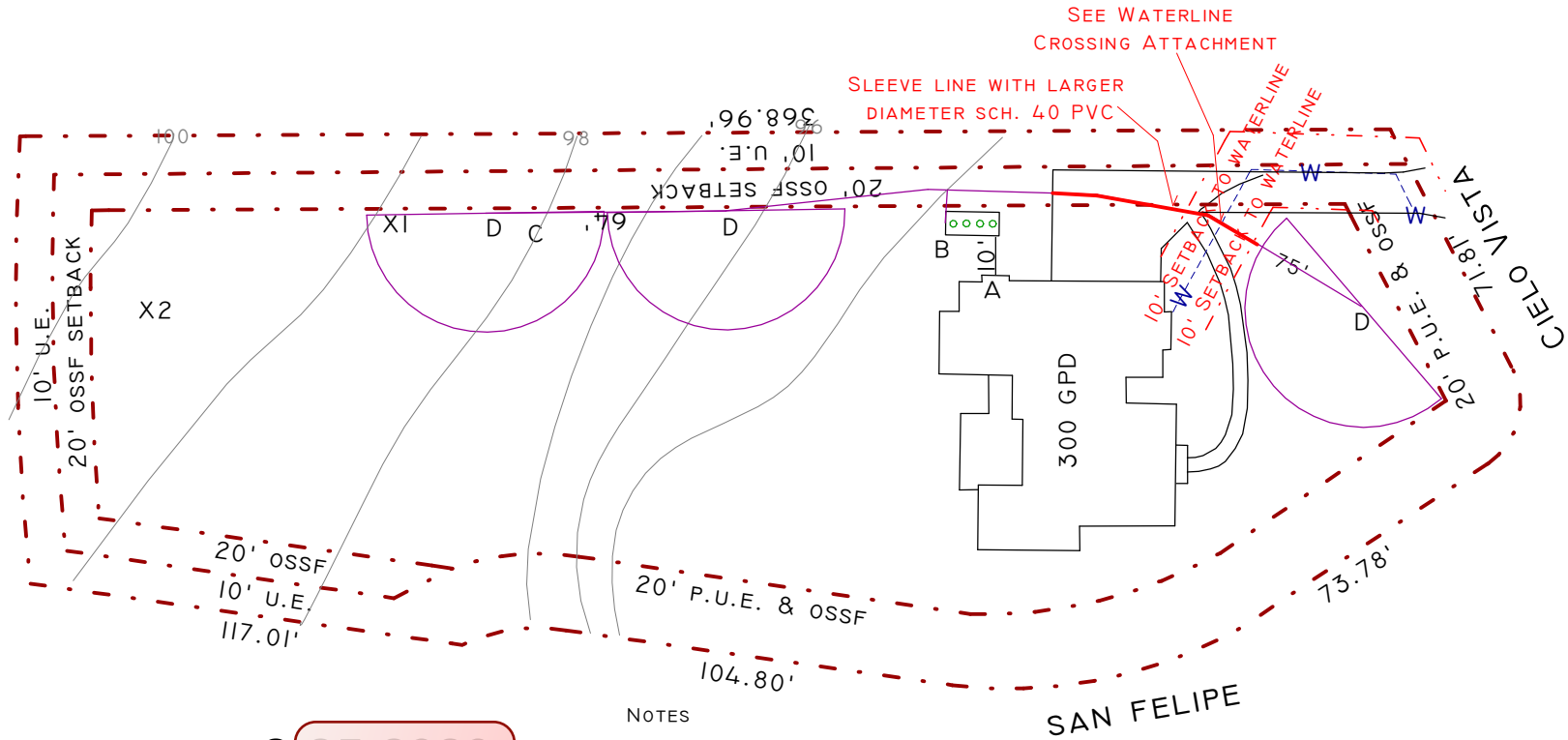
NAD_1983_StatePlane_Texas_South_Central_FIPS_4204_Feet
 Comal County GIS

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

REVISED
8:07 am, Feb 26, 2020

KIRK HOMES
VOID CIELO VISTA
 ENSANADA SHORES AT CANYON LAKE
 UNIT 2, LOT 260



SYSTEM COMPONENTS

- A. 4" SCH. 40 PVC PIPE WITH 2-WAY CLEANOUT
- B. MAXXAIR M600 (600 GPD) WITH LIQUID CHLORINATOR
- C. 1" SCH. 40 PURPLE PVC DISTRIBUTION PIPE
- D. 3 - 180 DEGREE K-RAIN PRO PLUS LOW ANGLE SPRAY HEADS WITH 32' RADIUS #3 NOZZLE

2 **VOID**

DAVID F. MCGHEE JR.
4206

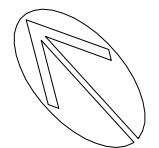
REGISTERED PROFESSIONAL SANITARIAN

David F. McGhee

X = PROFILE HOLES

NOTES

- REFER TO TANK DETAIL AND DESIGN NOTES FOR MORE INFORMATION
- SYSTEM MUST MAINTAIN A MINIMUM OSSF SETBACKS FROM ALL PROPERTY LINES
- SURFACE ROCK IN SPRAY AREA MUST BE EXCAVATED, OR COVERED WITH A MINIMUM OF 4" OF SUITABLE SOIL
- TRIM TREES IN APPLICATION AREA TO MAINTAIN AT LEAST 10' FROM SPRINKLER HEADS
- ALL SEPERATION AND SETBACK REQUIREMENTS AS STATED IN CHAPTER 285, TCEQ ON-SITE SEWAGE FACILITIES, MUST BE MAINTAINED



SCALE 1" = 50'

Ritzen, Brenda

From: Ritzen, Brenda
Sent: Wednesday, February 26, 2020 8:52 AM
To: 'Dave McGhee'; Katelyn Neumann
Subject: RE: 607 Cielo Vista Revised Design

Dave, Katelyn,

The owner  still must revise the permit application to the new address.

Thank you,

Brenda Ritzen, OS0007722
Environmental Health Coordinator
Comal County Engineers Office
195 David Jonas Drive
New Braunfels, Texas 78132
830-608-2090
www.cceo.org

From: Dave McGhee <Plan-It@hotmail.com>
Sent: Tuesday, February 25, 2020 6:10 PM
To: Ritzen, Brenda <rabbjr@co.comal.tx.us>; Katelyn Neumann <katelyn@paulswoyerseptics.com>
Subject: 607 Cielo Vista Revised Design

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

Here is the revised design with new address. Let me know if you have any questions. Thanks

Respectfully,

Dave McGhee, R.S., S.E.
Plan-It Septic, LLC
C - 210-347-1593



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

Permit Number: 110223
Issued This Date: 01/13/2020
This permit is hereby given to: Lewis Holman Oliphant & Brenda Kay Oliphant

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

108 SAN FELIPE
CANYON LAKE, TX 78133

Subdivision: Ensenada Shores at Canyon Lake
Unit: 2
Lot: 260
Block:
Acreage:

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Surface Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

Call (830) 608-2090 to schedule inspections.

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PAUL SWOYER SEPTIC SUPPLY & SERVICE
23011 FM 306
CANYON LAKE, TX 78133

MP#0001708
CHRISTOPHER RYAN SEIDENSTICKER

Customer: LEWIS HOLMAN OLIPHANT & BRENDA KAY OLIPHANT

PROPERTY LEGAL DESCRIPTION:

ENSENADA SHORES AT CANYON LAKE, UNIT 2, LOT 260

Site Address: SAN FELIPE

City/State: CANYON LAKE, TEXAS Zip: 78133

County: COMAL Permit#:

Phone Number: 713 725 2803

E-mail: sparkyoliphant@hotmail.com

I. General: This On-Site Sewage Facility Service Agreement (hereinafter referred to as "Agreement") is entered into by and between LEWIS HOLMAN OLIPHANT & BRENDA KAY OLIPHANT, (hereinafter referred to as "Client") and PS Supply & Service LLC. (hereinafter referred to as "Contractor"). By this agreement, Contractor agrees to render services, as described herein (the "Services"), and the client agrees to fulfill his/her/their responsibilities under this agreement herein.

II. Effective Dates: This agreement commences on the date of License to Operate is issued for Three (3) years.

Date of License to Operate: LTO _____ yrs from LTO

VOID

III. Services by Contractor: Contractor will provide the following Services:

1. Inspect and perform routine maintenance on the On-Site Sewage Facility ("OSSF") in compliance with the code, regulations, and/or rules of the Texas Commission on Environmental Quality ("TCEQ") and county in which the OSSF is located (the "County") and the manufacturer's requirements, at a frequency of approximately once every four (4) months.
2. Report to the appropriate regulatory authority and to Client, as required by the State of Texas' on-site rules and, if required, TCEQ or County rules. All findings must be reported to the appropriate regulatory authority within 14 days.
3. Notify Client and repair any components of the OSSF that are found to be in need of repair during the inspection. If warranty, you just do it. If not, Client will be responsible. Repairs will be made so brought up to compliance and bill forward.
4. Visit site in response to Client's request for unscheduled service within two business days from the date of Contractor's actual receipt of Client's request. Unscheduled service visits are not included in the fee agreement herein and will be billed to the client in addition to fees under this Agreement.
5. Provide notification of arrival to site to the Client or to site personnel. Additionally, Contractor will leave written notification of the visit at the site or with site personnel upon completion of inspection, and forward such notice to the appropriate regulatory authority within fourteen (14) days.

IV. Payment(s): Client shall pay to Contractor included w/ septic _____, for the Services describe herein (the "Inspection and Routine Maintenance Fee"), excepting those described in Section III (4), or Section IX, herein. The Fee does not include equipment, parts or labor supplied for anything beyond routine inspection and routine maintenance. Payments for such additional services are due at the time services are provided or rendered. Payments not received within thirty (30) days from the due date will be subject the greater of a \$20.00 late penalty or 1.5% carrying charge on the original balance for each month or portion thereof a balance in past due. If for any reason such charges are found to be usurious by a court of competent jurisdiction, such charges shall be reduced to the maximum allowable by law. By signing this contract, Client authorizes Contractor to remove any parts installed, but not paid in full at the end of the thirty (30) days. Client agrees to pay for any labor cost associated with the installation and the reasonable cost of removal of said parts.

Client:

Contractor:

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V. Client's Responsibilities: Client is responsible for each and all of the following:

1. To maintain chlorinator and provide proper chlorine supply, if OSSF is so equipped.
2. To provide all necessary yard or lawn maintenance and removal of obstacles as needed to allow the OSSF to function properly, and to allow Contractor ready access to all parts of the OSSF.
3. To maintain a current license to operate, and abide by the conditions and limitations of that license and all requirements for on-site sewage facilities from the State and local regulatory agency.
4. To maintain the OSSF in accordance with manufacturer's recommendations.
5. To immediately notify Contractor and Agency of any and all problems with, the OSSF, including failure thereof.
6. Upon receipt of any written notification of required services from Contractor, to contact Contractor and authorize the required service. If Client elects a different contractor to perform the required service, Client is responsible for ensuring the substitute contractor holds the proper license (Installer II) and is certified by the manufacturer. Additionally, Client shall be responsible for ensuring proper notification is given to the appropriate regulatory authority, as required by the State and/or local regulatory authority rules.
7. To provide Contractor with water usage records, upon request, for evaluation by Contractor of the OSSF performance.
8. To pay required sampling charges for samples collected for testing (e.g. Biological Oxygen Demand/Total Suspended Solids ("BOD/TSS")) that may be required on the OSSF.
9. To prevent backwash from water treatment or water conditioning equipment to enter the OSSF.
10. To provide, at Client's expense, for pumping of tanks as needed.
11. To maintain site drainage sufficient to prevent adverse effects on the OSSF.
12. To promptly and fully pay Contractor's bills, fees, or invoices as described herein.

VI. Access by Contractor: Client agrees to allow Contractor, or personnel authorized by the Contractor, to enter the property at reasonable times without prior notice for the purpose of performing the Services described herein. Such entry shall include access to the OSSF electrical and physical components, including tanks, by means of manways or risers for the purpose of evaluations required by the manufacturer, and/or regulatory authority rules. If such manways or risers are not in place, Client shall allow and be responsible for payment of required excavation, including labor and materials, necessary to allow access to the OSSF or any required components. Such excavation shall be billed at the rate of \$75.00 per hour for labor, plus materials billed at list price. Contractor shall make only those efforts reasonable under the circumstances to replace excavated soil.

VII. Application or Transfer of Payment: The Client may transfer to any subsequent owner(s) of the property on which the OSSF is located. The subsequent owner(s) shall execute a similar agreement authorizing Contractor to perform the above-described Services, and accepting Client's responsibilities. The replacement Agreement must be signed and received within 30 days of transfer of ownership. Contractor will apply all funds received from Client first to any past due obligations arising from this Agreement including late charges, return check charges, and charges for repairs or services not paid within 30 days of invoicing. The consumption of the payment in this manner may lead to termination of the agreement by Contractor

VIII. Termination of Agreement: This agreement may be terminated by either party with 30 days written notice. If this agreement is so terminated by Client, Contractor shall be paid at the rate of \$75.00 per hour for any worked performed or required, but not yet paid. If terminated by Contractor, all amounts outstanding shall be due within thirty days of termination. The party terminating will immediately notify the other party, the equipment manufacturer, and the regulatory agency of the termination.

IX. Limitation of Liability: In no event shall Contractor be liable for indirect, consequential, incidental or punitive damages, whether in contract, tort, or any other theory of liability. In no event shall the Contractor's liability for direct damages exceed payments by the Client under this Agreement.

X. Severability and Reformation: If any provision in this Agreement shall be held to be invalid or unenforceable for any reason, it shall be reformed to the minimum extent necessary to effect the intent of the Parties. If any provision is such that it cannot reasonably be reformed, it shall be struck from this Agreement and the remaining provisions shall continue to be valid and enforceable.

XI. Performance of Agreement: Commencement of performance by Contractor under this agreement is contingent on the following conditions: (1) Contractor receiving a fully executed original copy of this agreement. (2) Contractor receiving payment in full of the fee(s) described herein. If the above conditions are not met, then Contractor is from any obligation to perform any portion of this agreement.

XII. Modification. This Agreement may not be changed or modified except by an instrument in writing, signed by both Contractor and Client.

XIII. Waiver. Except as otherwise noted in this Agreement, the waiver by other party of a breach of any provision of this Agreement shall not operate or be construed as a continuing waiver or as a consent to or waiver of any subsequent breach hereof.

Client: _____

Contractor: _____

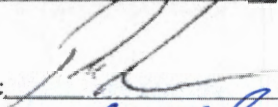
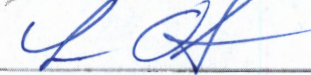
VOID

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JAN 10 2020
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XIV. **Headings.** The Article and Section headings in this Agreement are for the convenience of reference only and do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof.

XV. **GOVERNING LAW AND CHOICE OF VENUE.** EACH OF THE PARTIES HERETO HEREBY CONSENTS TO THE EXCLUSIVE JURISDICTION OF THE COURTS OF THE STATE OF TEXAS, COUNTY OF COMAL, AND TO THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS – SAN ANTONIO DIVISION, AS WELL AS TO THE JURISDICTION OF ALL COURTS TO WHICH AN APPEAL MAY BE TAKEN FROM SUCH COURTS, FOR THE PURPOSE OF ANY SUIT, ACTION, OR OTHER PROCEEDING ARISING OUT OF, OR IN CONNECTION WITH, THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY, INCLUDING, WITHOUT LIMITATION, ANY PROCEEDING RELATING TO ANCILLARY MEASURES IN AID OF ARBITRATION, PROVISIONAL REMEDIES AND INTERIM RELIEF, OR ANY PROCEEDING TO ENFORCE ANY ARBITRAL DECISION OR AWARD. EACH PARTY HERETO EXPRESSLY WAIVES ANY AND ALL RIGHTS TO BRING ANY SUIT, ACTION, OR OTHER PROCEEDING IN OR BEFORE ANY COURT OR TRIBUNAL OTHER THAN COURTS OF THE STATE OF TEXAS, COUNTY OF COMAL, AND COVENANTS THAT IT SHALL NOT SEEK IN ANY MANNER TO PROSECUTE OR DEFEND ANY DISPUTE OTHER THAN AS SET FORTH IN THIS ARTICLE XVI OR TO CHALLENGE OR SET ASIDE ANY DECISION, AWARD, OR JUDGMENT OBTAINED IN ACCORDANCE WITH THE PROVISIONS HEREOF. EACH OF THE PARTIES HERETO HEREBY EXPRESSLY WAIVES ANY AND ALL OBJECTIONS IT MAY HAVE TO VENUE, INCLUDING, WITHOUT LIMITATION, THE INCONVENIENCE OF SUCH FORUM, IN ANY OF SUCH COURTS.

XVI. **JURY TRIAL WAIVER. THE PARTIES HEREBY UNCONDITIONALLY WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY AND ALL CLAIMS OR CAUSES OF ACTION ARISING FROM OR RELATING TO THEIR RELATIONSHIP. THE PARTIES ACKNOWLEDGE THAT A RIGHT TO A JURY IS A CONSTITUTIONAL RIGHT, THAT THEY HAVE HAD AN OPPORTUNITY TO CONSULT WITH INDEPENDENT COUNSEL, AND THAT THIS JURY WAIVER HAS BEEN ENTERED INTO KNOWINGLY AND VOLUNTARILY BY ALL PARTIES TO THIS AGREEMENT. IN THE EVENT OF LITIGATION, THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.**

Approved by Contractor: 
Approved by Client: 

MP#0001708
CHRISTOPHER RYAN SEIDENSTICKER


XVII. **Reservation of Rights.** Contractor reserves all rights not expressly granted herein.

XVIII. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original but all of which together will constitute one and the same instrument.

XIX. **Counsel.** Contractor has previously recommended that Client engage counsel to assist him/her/it in reviewing this Agreement and all other matters relating to it. Contractor and Client shall each bear his/her/its own costs and expenses in connection with the negotiation and documentation of this Agreement.

XX. **Entire Agreement:** This agreement contains the entire agreement of the parties, and there are no promises or conditions in any other agreement, oral or written. The Parties expressly disclaim reliance on any prior statements, oral or written, by either party not expressly provided for herein.

Client: 

Contractor: 

VOID

*** COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH ***
APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN
ON-SITE SEWAGE TREATMENT SYSTEM LICENSE TO OPERATE

REVISED
4:01 pm, Jan 13, 2020

VOID

Date _____ Permit # 110223
Owner Name LEWIS HOLMAN OLIPHANT & BRENDA KAY OLIPHANT Agent Name DAVE MCGHEE
Mailing Address c/o 23011 FM 306 Agent Address 5405 APACHE CREEK COVE
City, State, Zip CANYON LAKE, TX 78133 City, State, Zip AUSTIN, TX 78735
Phone # 830-935-4936 Phone # 210-347-1593
Email katelyn@paulswoyerseptics.com Email plan-it@hotmail.com

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

Subdivision Name ENSENADA SHORES AT CANYON LAKE Unit 2 Lot 260 Block _____
Acreage/Legal _____
Street Name/Address 108 SAN FELIPE City CANYON LAKE Zip 78133

Type of Development:

Single Family Residential

JAN 10 2020

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

Number of Bedrooms 4 DM

Indicate Sq Ft of Living Area 2345

COUNTY ENGINEER

Non-Single Family Residential

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

Type of Facility _____

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number of Occupants _____

Restaurants, Lounges, Theaters - Indicate Number of Seats _____

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____

Travel Trailer/RV Parks - Indicate Number of Spaces _____

Miscellaneous _____

Estimated Cost of Construction: \$ 403,632 (Structure Only)

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

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

Source of Water Public Private Well

Are Water Saving Devices Being Utilized Within the Residence? Yes No

By signing this application, I certify that:

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

[Signature]
Signature of Owner

12/26/19
Date

Ritzen, Brenda

From: Ritzen, Brenda
Sent: Thursday, February 13, 2020 11:37 AM
To: Katelyn Neumann
Cc: plan-it@hotmail.com
Subject: FW: Change of Address - 607 Cielo Vista
Attachments: 607_Cielo_Vista_Letter.pdf; 607_Cielo_Vista_Map.pdf

Re: Lewis Holman & Brenda Kay Oliphant
Ensenada Shores at Canyon Lake Unit 2 Lot 260
Application for Permit for Authorization to Construct an On-Site Sewage Facility

Katelyn, Dave,

I received the attached change of address for the referenced permit submittal. Please revise the permit application and planning materials to reflect this change of address. Also, include the new driveway location on the design.

Thank you,

Brenda Ritzen, OS0007722
Environmental Health Coordinator
Comal County Engineers Office
195 David Jonas Drive
New Braunfels, Texas 78132
830-608-2090
www.cceo.org

From: Braun,Holly <braunh@co.comal.tx.us>
Sent: Thursday, February 13, 2020 10:22 AM
To: Ritzen, Brenda <rabbjr@co.comal.tx.us>
Subject: FW: Change of Address - 607 Cielo Vista

Brenda,

The email below an attachments are in reference to OSSF Permit# 110223; the HOA required the property owners move the location of house and driveway requiring a change of address.

Sincerely,

VOID **SOIL EVALUATION FORM**

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COUNTY ENGINEER

Owner's Name: Kurk Homes

Physical Address: 108 San Felipe

Legal Description: Ensenada Shores at Canyon Lake, Unit 2, Lot 260

Date Performed: 12-12-19

Proposed Excavation Depth: 0 - 6"

Requirements:

- At least two soil evaluations must be performed on the site, at opposite ends of the proposed disposal area. Locations of soil evaluations must be shown on the application site drawing or designer's site drawing.
- For subsurface disposal, soil evaluations must be performed to a depth of at least 2-ft. below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.
- Please describe each soil horizon and identify any restrictive features in the space provided below. Draw lines at the appropriate depth.

Soil Profile Number: 1

Depth	Textural Class	Gravel Analysis	Drainage (Mottles, Water Table)	Restrictive Horizon	Observations
0 0-7"	IV	< 30%	None	Rock @ 7"	Brown Clay
1					
2					Approved for aerobic spray distribution
3					
4					
5					

Soil Profile Number: 2

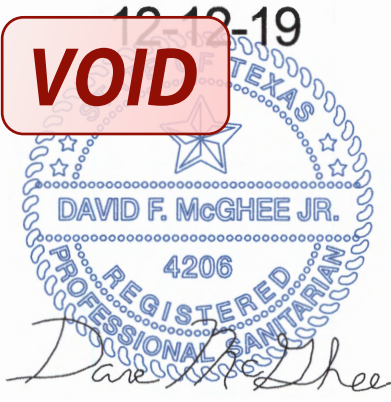
Depth	Textural Class	Gravel Analysis	Drainage (Mottles, Water Table)	Restrictive Horizon	Observations
0 0-10"	IV	< 30%	None	Rock @ 10"	Brown Clay
1					
2					Approved for aerobic spray distribution
3					
4					
5					

Features of Site Area

- | | |
|---|----|
| Presence of 100 year flood zone | No |
| Presence of adjacent ponds, streams, water impoundments | No |
| Existing or proposed water well in nearby area | No |
| Organized sewage available to lot or tract | No |
| Recharge feature within 150 feet | No |

I certify that the above statements are true and are based on my own field observations.

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Signature of Site Evaluator: _____

OS #

24422

Date 12-12-19

VOID



DESIGNING FOR A HEALTHIER PLANET

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JAN 10 2020
COUNTY ENGINEER

12-12-19

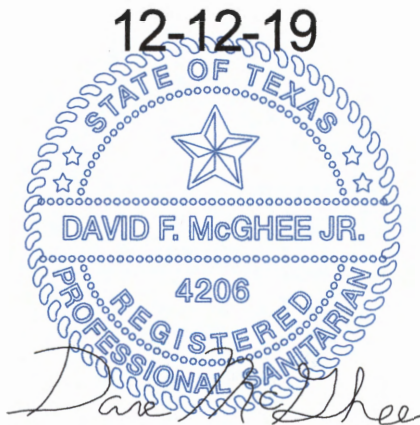
To Whom It May Concern:

The On Site Sewage Facility (OSSF) located at 108 San Felipe being Ensenada Shores at Canyon Lake, UNIT 2, LOT 260 has an existing TCEQ approved Water Pollution Abatement Plan (WPAP). As the OSSF designer I certify that the OSSF on this property complies with all provisions of the existing WPAP

Sincerely,



Dave McGhee, R.S. 4206
Plan-It Septic Design & Services, L.L.C.



REVISED

4:01 pm, Jan 13, 2020

VOID

PAUL SWOYER SEPTICS

DESIGNING FOR A HEALTHIER PLANET

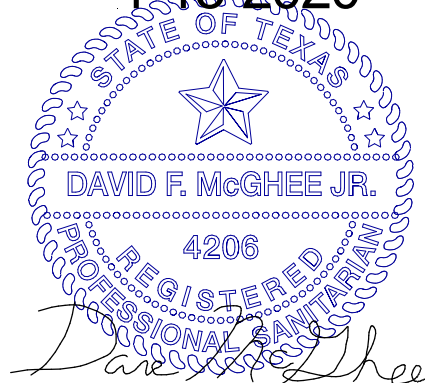
**108 SAN FELIPE
ENSENADA SHORES AT CANYON LAKE
UNIT 2, LOT 260**

COMAL COUNTY, TX

VOID

KURK HOMES

1-13-2020



AEROBIC SURFACE IRRIGATION

PLAN-IT CONTACT INFORMATION:

6208 TANGLEWOOD TRAIL • SPRING BRANCH • TEXAS • 78070 • 210-347-1593

PLAN-IT@HOTMAIL.COM

REVISED
4:01 pm, Jan 13, 2020



VOID

**RE: OSSF Design
108 San Felipe
Comal COUNTY, TX**

To Whom It May Concern:

Please find enclosed the OSSF design of the less than 3500 square foot, 4-bedroom single family residence located at 108 San Felipe, Comal COUNTY, TX. The design was conducted exclusively for Kurk Homes on December 12, 2019.

If you have any questions, please call. I appreciate the opportunity to be of service to you.

VOID

Sincerely,

Dave F. McGhee, D.R., S.E., R.S.
Paul Swoyer Septics L.L.C.



SYSTEM SUMMARY

Paul Swoyer Septics L.L.C. began an On-Site Sewage Facility design located at 108 San Felipe, Comal COUNTY, TX. This design was performed in conformance with Chapter 285 of Texas Commission on Environmental Quality and the more stringent rules set forth by Comal COUNTY.

This system is comprised of the following:

- System Designed For: 300 Gallons Per Day
- MaxxAir Aerobic System: Model M-600 (600GPD)
- NSF Approved Liquid Bleach Chlorinator EZ Tank
- Surface Irrigation Disposal: 4823 square feet of Application
- Timer: Grasslin Digi 20 capable of 1-minute switch times
- Utilizing 3 K-Rain Pro Plus Spray Heads with 180° Patterns Set at 32ft. Radii (#3 LA nozzle)
- Submersible Effluent Pump: Franklin C1 Series bottom suction pump 20XC1-05P4-2W115 Submersible pump @ 20 GPM

SITE DESCRIPTION AND SITE EVALUATION

The site evaluation indicated that the soil is suitable for an aerobic surface irrigation system. No evidence of shallow ground water was observed during the site evaluation. Any exposed rock within the proposed surface distribution area will be removed or covered with a minimum of 4 inches of suitable soil and seeded prior to final inspection. (See landscaping for additional requirements). The single-family residence will utilize a public water supply as the source for potable water. All the systems components will be 100 ft. away from all wells. All portions of the spray radii will maintain at least a 20 feet separation from all property lines and flat work. No portion of this system lies within 10 feet of a waterline. There are no recharge features within 150 feet of this proposed system. No portion of this site lies within the 100-year flood plain. Minimum separation distances as stated in § 285.30 TCEQ, On-Site Sewage Facilities must be maintained.

WASTEWATER DESIGN FLOWS

The system was designed for a less than 3500 SF, 4-bedroom Single Family Residence, utilizing low-flow fixtures. The total projected daily wastewater flow is 300 gallons per day, as-per TCEQ, On-Site Sewage Facilities, effective December 27, 2012.

DESCRIPTION OF PROPOSED AEROBIC TREATMENT SYSTEM

The residence will utilize a MaxxAir aerobic wastewater treatment system Model M-600, a proprietary treatment plant, approved by the TCEQ for use in Texas. The Model M-600 is a three-compartment concrete tank. The aerobic system will consist of a 353-gallon pretreatment/trash tank compartment which will gravity flow into the 600 GPD aerobic treatment compartment. The effluent from the aeration tank will gravity flow into a 768-gallon pump tank compartment. An NSF approved LBC Manufacturing Model #EZ Tank Liquid chlorinator will be installed for disinfection. The pump tank compartment serves as a chlorine contact chamber as well as a storage tank. Distribution is through a 40 PSI pressure regulator then to purple 1" Sch. 40 PVC pipe, to 3 K-Rain Pro Plus Low Angle spray heads. The disposal area will consist of 3 – 32 ft. radii 180° patterns. The system is considered a “package system” and will be installed according to manufacturer’s instructions.

DESIGN SPECIFICATIONS

Average Expected Flow: 300

Application Rate: 0.064 gal / ft² / day

Minimum Application Area: $A = Q/R_i$ $A = 300 \text{ GPD} / 0.064 = 4688 \text{ square feet}$

Actual Application Area: $A = 3.14 (32)^2 \times 1.5 = 4823 \text{ square feet}$



SYSTEM SUMMARY

Paul Swoyer Septics L.L.C. began an On-Site Sewage Facility design located at 108 San Felipe, Comal COUNTY, TX. This design was performed in conformance with Chapter 285 of Texas Commission on Environmental Quality and the more stringent rules set forth by Comal COUNTY.

This system is comprised of the following:

- System Designed For: 300 Gallons Per Day
- MaxxAir Aerobic System: Model M-600 (600GPD)
- NSF Approved Liquid Bleach Chlorinator EZ Tank
- Surface Irrigation Disposal: 4823 square feet of Application
- Timer: Grasslin Digi 20 capable of 1-minute switch times
- Utilizing 3 K-Rain Pro Plus Spray Heads with 180° Patterns Set at 32ft. Radii (#3 LA nozzle)
- Submersible Effluent Pump: Franklin C1 Series bottom suction pump 20XC1-05P4-2W115 Submersible pump @ 20 GPM

SITE DESCRIPTION AND SITE EVALUATION

The site evaluation indicated that the site has suitable soil for an aerobic surface irrigation system. No evidence of shallow ground water was observed during the site evaluation. Any exposed rock within the proposed surface distribution area will be removed or covered with a minimum of 4 inches of suitable soil and seeded prior to final inspection. (See landscaping for additional requirements). The single-family residence will utilize a public water supply as the source for potable water. All the systems components will be 100 ft. away from all wells. All borehole and spray radii will maintain at least a 20 feet separation from all property lines and flat work. No public water system lies within 10 feet of a waterline. There are no recharge features within 150 feet of this proposed system. No portion of this site lies within the 100-year flood plain. Minimum separation distances as stated in § 285.30 TCEQ, On-Site Sewage Facilities must be maintained.

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Average Expected Flow: 300
 Application Rate: 0.064 gal / ft² / day
 Minimum Application Area: A = Q/Ri A = 300 GPD / 0.064 = 4688 square feet
 Actual Application Area: A = 3.14 (32)² x 1.5 = 4823 square feet



SYSTEM COMPONENTS

Trash Tank: 353 gallon one-compartment

Aeration Tank: 600 GPD

Pump Tank: 768-gallon compartment 14.49 gal/inch of depth (53" usable)

PUMP FLOAT SETTINGS

Pump-off Position: 6 inches above tank bottom

Pump-on Position: 9 inches above tank bottom

Alarm-on Position: 30 inches above tank bottom

Daily Operating Capacity: 21" x 14.49 gal/in = 304.29 gallons

Reserve Capacity: 23" x 14.49 gal/in = 333.27 gallons

PUMP AND SPRINKLER HEADS

Pump: Franklin C1 Series bottom suction pump 20XC1-05P4-2W115 Submersible pump @ 20 GPM

Spray Heads: K-Rain Spray heads

Nozzle: 3.0 LA (Low angle trajectory, 13 degrees) operating at 40 PSI, 32ft radii and 3.1 GPM flow per spray head

Notes:

* A commercial irrigation timer will be used to cycle power to the pump in order to irrigate twice per night, once at 2:00 a.m. and again at 4:00 a.m.

FLOW, DOSING AND HEAD CALCULATIONS

Flow Rate: 3.1 GPM/head x 3 heads = 9.3 GPM

Dosing Rate: 2 doses @ 150 gal/dose / 9.3 GPM = 17 min/dose

Total Head:

Elevation Head: 6ft

Pressure Head: 40 PSI x 2.31 ft/PSI = 92.4

Friction Head: 1" Sch. 40 PVC @ 5.0 GPM = 2.13ft per 100ft
220ft (3.71/100) (1.2 SF) = 9.8

Total Dynamic Head: 6 + 92.4 + 9.8 = 108.2ft (within the pump curve) (40 PSI)

CONSTRUCTION/INSTALLATION NOTES & REQUIREMENTS

- Refer to site plan for component placement and follow manufacturer's instructions for installation of treatment plant and aerator.
- All materials and construction methods are required to conform to the standards for Private Sewage Facilities set forth by the Texas Administrative Code, §285 On-Site Sewage Facilities.
- The installer must have a current and valid Texas installer certificate and is required to have at the minimum and Installer II certification.
- The installer must notify designer and regulatory authority at least 48 hours in advance to schedule required inspections to ensure that the system is installed in accordance with approved plans and specifications.
- The installer may not alter these plans without the approval from the designer.
- If site conditions differ from that which is on the approved design, the installer must cease construction and contact the designer.
- Diversion berms will be placed when needed to protect irrigation and tank areas from excessive runoff.
- It is the responsibility of the installer to maintain the minimum setback requirements as stated in Chapter §285 On-Site Sewage Facilities.



REVISED
4:01 pm, Jan 13, 2020

- No part of the system shall be located within 10 feet of a potable water line. If this is unavoidable, use Title 30 T.A.C Chapter 290 for the water line and OSSF supply line crossing

ELECTRICAL COMPONENTS

All electrical wiring shall conform to the requirements of the National Electric Code (1999) or under any other standards approved by the executive director. Additionally, all external wiring shall be installed in approved, rigid, non-metallic gray code electrical conduit. The conduit shall be buried according to the requirements in the National Electric Code and terminated at a main circuit breaker panel or sub-panel. Connections shall be in approved junction boxes. All electrical components shall have an electrical disconnect within direct vision from the place where the electrical device is being serviced. Electrical disconnects must be weatherproof (approved for outdoor use) and have maintenance lockout provisions.

TANK NOTES

- The bottom of the excavation for the tanks shall be level and free of large rocks and debris.
- All tanks are to be set level on a minimum 4" to 6" inch layer of sand, sandy loam, clay loam, or pea gravel.
- Tanks will be backfilled with sand, sandy loam, clay loam, or pea gravel free of clay and/or large rocks.
- Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2012). This includes access limitation (<65lbs lid or hardware secured lid) and secondary plug, net, or mesh in riser. Septic tanks without risers shallower than 12" below grade may be exempt.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, and/or to prevent the infiltration of water.
- Tanks must be filled with water for 24 hours to test for leaks and structural integrity.
- The tanks must be set low enough to have fall of at least 1/8 inch per foot from house to tank.
- PVC pipe from house to tank must be at least Sch. 40 or SDR 26.

IRRIGATION AND LANDSCAPE NOTES

- Irrigation lines shall be 1 inch Sch. 40 PVC. All supply lines, sprinkler heads and valve cover boxes must be permanently colored purple. Sleeve any pipe that crosses any road, driveway, or other land improvement with larger diameter Sch. 40 PVC.
- Supply lines must be buried at least 6 inches below finished grade.
- If irrigation area does not have established vegetation, a mixture of winter rye and Bermuda grasses will be seeded to establish seasonal vegetation.
- The installer shall notify the property owner prior to removal of any trees/bushes that may obstruct the operation of the irrigation system.
- All exposed surface rock must be covered with at least 4 inches of suitable soil.
- Vegetation must be established before system is in use.

ADDITIONAL NOTES

- Install audio-visual alarm for aerator and pump on separate breakers.
- The high water and air compressor alarms shall be audio/visual and mounted in a place that can be easily seen and heard when alarms are activated.
- The chlorinator must be constructed to allow a chlorine residual of 0.1 mg/L in the pump tank for the period of time between scheduled inspections.
- The disinfected effluent must obey the standards as stated in Chapter §285 On-Site Sewage Facilities. Approved disinfection methods using chlorinated tablets must use calcium hypochlorite that is properly labeled for wastewater disinfection.



MAINTENANCE REQUIREMENTS

- The applicant must furnish to the regulatory authority a valid maintenance contract with a certified maintenance company before a permit will be issued.
- The maintenance company will verify that the system is operating properly and provide on-going maintenance of the installation.
- The initial contract will be a minimum of two years.
- A maintenance contract will authorize the maintenance company to maintain and repair the system as needed.
- The property owner must continuously maintain a signed written contract with a valid maintenance company and shall submit a copy of the contract to the permitting authority at least 30 days prior to the date service will cease.

AFFIDAVIT

- The applicant must file a certified copy of an affidavit at the County Clerk's Office and file in reference to the real property deed on which the surface application system is to be installed.
- The affidavit will state that the property shall not be transferred to a new owner without:
 - (1) The new owner being advised that the property contains a surface application system for wastewater disposal.
 - (2) The permit issued to the previous owner of the property being transferred to the new owner in accordance with Chapter §285. 20(5) of the TCEQ OSSF Rules, i.e.; the permit will be issued in the name of the owner of the OSSF. Permits shall be transferred to the new owner automatically upon legal sale of the OSSF. The transfer of an OSSF permit under this section shall occur upon actual transfer of the property on which the OSSF is located unless the ownership of the OSSF had previously been transferred to the new owner.
 - (3) The new owners submitting a valid maintenance contract to the permitting authority.

OPERATION AND MANAGEMENT NOTES

- The OSSF should not be treated as a normal city sewer.
- The excessive use of in-sink garbage grinders and grease discarding should be avoided. In-sink garbage grinders can cause a rapid buildup of sludge or scum resulting in a more frequent cleaning and possible system failure.
- Do not use the toilet to dispose of cleaning tissue, cigarette butts, or other trash. This disposal practice will waste water and also impose an undesirable solid load on the treatment system.
- Septic tanks shall be cleaned before sludge accumulates to a point where it approaches the bottom of the outlet device. If sludge or scum accumulates to this point, solids will leave the tank with the liquid and possibly cause the system to clog resulting in sewage surfacing or backing up into the house through plumbing fixtures.
- A regular schedule of cleaning the tank at two to three-year intervals should be established. Commercial cleaners are equipped to readily perform the cleaning operation. Owners of OSSF's shall engage only persons registered with the TCEQ to transport the septic system waste.
- Do not build driveways, storage buildings, or other structures over system components or the disposal field.
- Chemical additives or so-called enzymes are not necessary for the operation of a septic tank. Some of these additives may even be harmful to the systems operation.
- Soaps, detergents, bleaches, drain cleaners, and other household cleaning materials will very seldom affect the operation of the system. However, moderation should be exercised in the use of such materials.
- Chapter §285.39 states the owner shall not allow water softener or reverse osmosis back flush to enter into any portion of the OSSF.



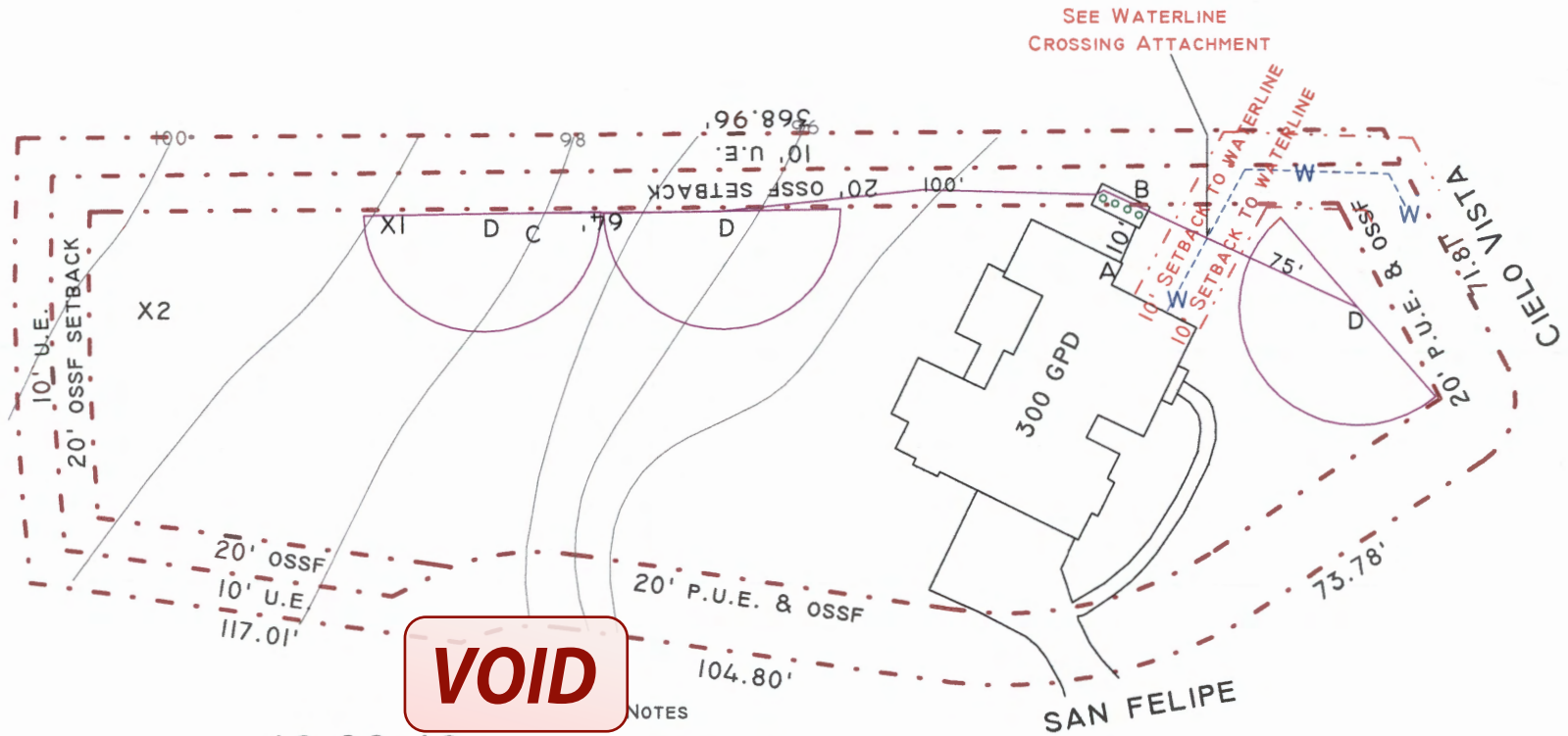
- The liquid from the OSSF is still heavily laden with bacteria. The surfacing of this liquid constitutes a hazard to the health of those that might come into contact with it.

WATER CONSERVATION PRACTICES

- Showers usually use less water than baths. Installing water saving shower heads that uses less than 2.5 gallons per minute saves both water and energy.
- If you take a tub bath, reduce the level of the water in the tub from the level to which you customarily fill it.
- Leaky faucets and faulty toilet fill-up mechanisms should be repaired as quickly as possible.
- Leaking toilets may not be evident. Add a few drops of food coloring into the tank. Do not flush. If the color appears in the bowl within a few minutes, adjustments and/or repairs to the toilet need to be made.
- Reduce the amount of water used by the toilet by installing one of the following: a new 1.6 gallon toilet, a toilet dam, or filling and capping a one quart plastic bottle with water and placing it into the tank. Do not use bricks as they may crumble and cause damage to the toilet.
- Install low-flow fixtures throughout the house and use faucet aerators that restrict water flow to help reduce consumption.
- Try to run dishwasher with a full load.
- Avoid running the water continuously while brushing teeth, washing hands or rinsing kitchen utensils.
- Water can be saved in the laundry room by adjusting water levels to match the size of the load. If the washing machine does not have a variable load control, water can be saved by running it only when the washer is full.
- Keep a container of drinking water in the refrigerator instead of running a faucet until it turns cool.
- Insulate hot water pipes to avoid long delays of wasted water while waiting for the water to heat.
- Ask your federal, state, county, city or other local government about their programs to conserve water and how they can help you save water.

This proposed system has been designed generally following the minimum requirements under TCEQ Chapter §285 On-Site Sewage Facilities. The site evaluation and subsequent design are based on technical information currently available. There was no indication of shallow groundwater or slopes where seeps could occur at the time of the site evaluation. The performance of the OSSF is not, and cannot be guaranteed even though all provisions of the Standards have been complied with. If failure should occur, additions to the OSSF may have to be made. By accepting this design, the homeowner/builder understands that the designer/site evaluator will not be liable for more than the agreed upon design fee.

KURK HOMES
VOID SAN FELIPE
 ENSANADA SHORES AT CANYON LAKE
 UNIT 2, LOT 260



SYSTEM COMPONENTS

- A. 4" Sch. 40 PVC PIPE WITH 2-WAY CLEANOUT
- B. MAXXAIR M600 (600 GPD) WITH LIQUID CHLORINATOR
- C. 1" Sch. 40 PURPLE PVC DISTRIBUTION PIPE
- D. 3 - 180 DEGREE K-RAIN PRO PLUS LOW ANGLE SPRAY HEADS WITH 32' RADIUS #3 NOZZLE

VOID

12-30-19



X = PROFILE HOLES

NOTES

- REFER TO TANK DETAIL AND DESIGN NOTES FOR MORE INFORMATION
- SYSTEM MUST MAINTAIN A MINIMUM OSSF SETBACKS FROM ALL PROPERTY LINES
- SURFACE ROCK IN SPRAY AREA MUST BE EXCAVATED, OR COVERED WITH A MINIMUM OF 4" OF SUITABLE SOIL
- TRIM TREES IN APPLICATION AREA TO MAINTAIN AT LEAST 10' FROM SPRINKLER HEADS
- ALL SEPERATION AND SETBACK REQUIREMENTS AS STATED IN CHAPTER 285, TCEQ ON-SITE SEWAGE FACILITIES, MUST BE MAINTAINED

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JAN 10 2020

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SCALE 1" = 50'

- The bottom of the excavation for the tanks shall be level and free of large rocks and debris.
- All tanks are to be set level on a minimum 4 inch layer of sand, sandy loam, clay loam, or pea gravel.
- Risers are required on tank inspection ports as per 30 TAC 285.33 (b) (2) (3). This includes access riser. Septic tanks without risers shallower than 12" below grade may be exempt.
- Risers are required on all tank access ports to grade.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, and/or to prevent the infiltration of water.
- Tanks must be filled with water for at least 24 hours to test for leaks and structural integrity.
- The tanks must be set low enough to have fall of at least 1/8 inch per foot from house to tank.
- PVC pipe from house to tank must be at least Sch. 40.

VOID

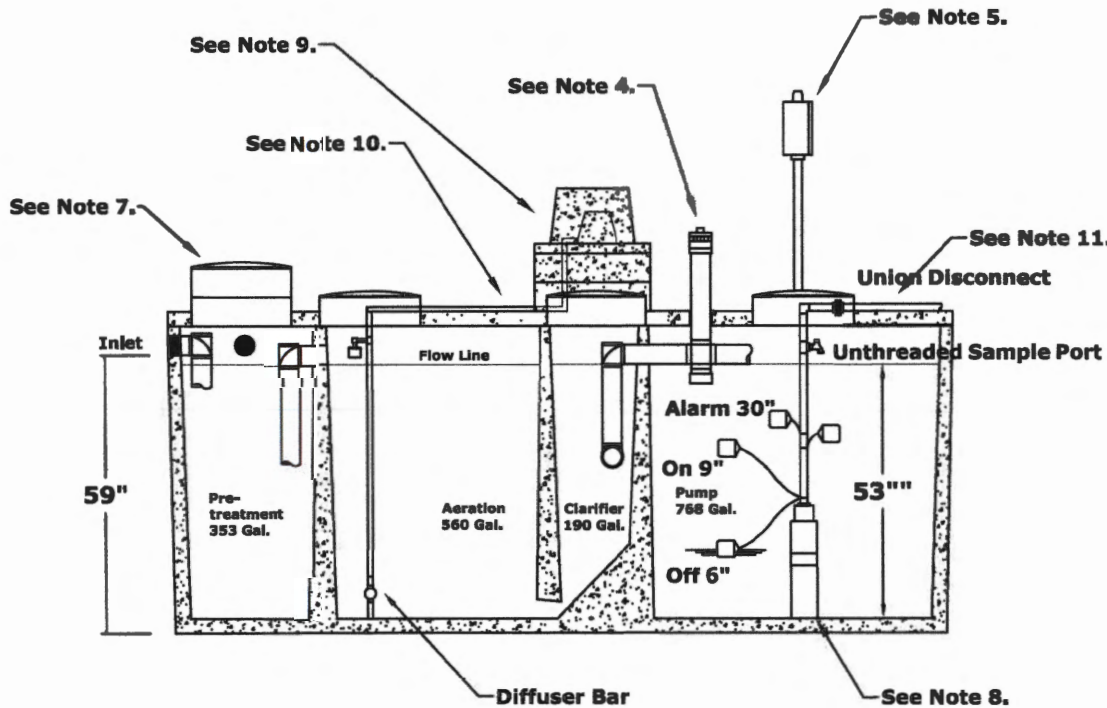
GENERAL NOTES:

1. Plant structure material to be precast concrete and steel.
2. Weight = 14,900 lbs.
3. Treatment capacity is 600 GPD. BOD Loading = 1.62 lbs. per day.
4. Standard tablet chlorinator or Optional Liquid chlorinator. NSF approved chlorinators (tablet & liquid) available.
5. Control Center w/ Timer for night spray application.
7. 20" Ø access riser w/ lid (Typical 4). Optional extension risers available.
8. 20 GPM 1/2 HP, high head effluent pump.
9. Air Compressor w/ concrete housing.
10. 1/2" Sch. 40 PVC Air Line (Max. 50 Lft from Plant).
11. 1" Sch. 40 PVC pipe to distribution system provided by contractor.

PUMP FLOAT SETTINGS

- Pump-off Position: 6 inches above tank bottom
- Pump-on Position: 9 inches above tank bottom
- Alarm on Position: 30 inches above tank bottom

Daily Operating Capacity: 21" x 14.49 gal/in = 304.29 gallons
 Reserve Capacity: 23" x 14.49 gal/in = 333.27 gallons



DIMENSIONS:
 Outside Height: 67"
 Outside Width: 63"
 Outside Length: 164"

MINIMUM EXCAVATION DIMENSIONS:
 Width: 76"
 Length: 176"

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 JAN 10 2021

**Maxx Air M-600 (600 GPD)
 Aerobic Treatment Plant (Assembled)**

Jan, 2019
 By: A.S.
 Scale:
 * All Dimensions subject to allowable specification tolerances.
 Dwg. #: ADV-B550-3



Advantage Wastewater Solutions LLC
 414 A Old Hwy No 9
 Comfort, TX 78013
 810-995-3189
 fax 830-995-4051

VOID

C1 SERIES

CISTERN PUMPS

Designed for use in gray water / filtered effluent service applications, the C1 Series cistern pump provides high performance and long life in less than ideal water conditions. The C1 Series pump is able to pass solids up to 1/8" without having a negative effect on the internal hydraulic components.

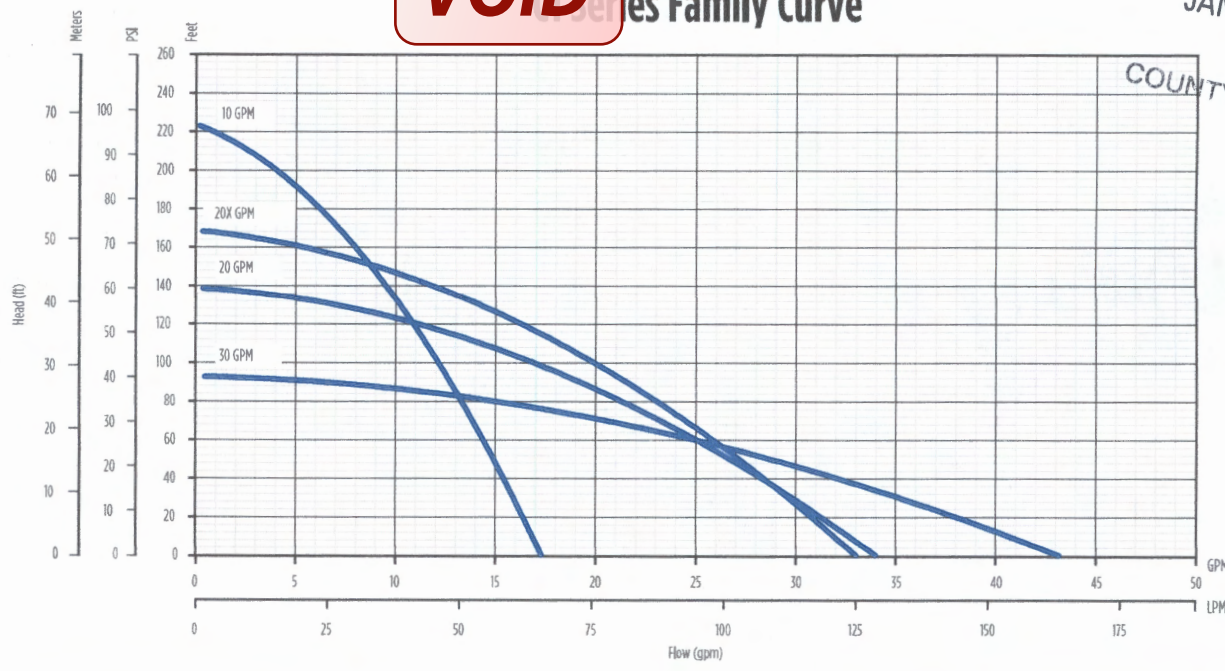
The pump's unique bottom suction design allows for maximum fluid drawdown without compromising durability or overall life, and it does not require the use of a flow induction sleeve. Intended specifically for use in a cistern or tank, C1 Series pumps are suitable for use in agricultural, residential, and commercial installations.



franklinwater.com

VOID Series Family Curve

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FEATURES

- Supplied with a removable 5" base for secure and reliable mounting
- Bottom suction design
- Robust thermoplastic discharge head design resists breakage during installation and operation
- Single shell housing design provides a compact unit while ensuring cool and quiet operation
- Hydraulic components molded from high quality engineered thermoplastics
- Optimized hydraulic design allows for increased performance and decreased power usage
- All metal components are made of high grade stainless steel for corrosion resistance
- Available with a high quality 115 V or 230 V, 1/2 hp motor
- Fluid flows of 10, 20, and 30 gpm, with a max shut-off pressure of over 100 psi
- Heavy duty 600 V 10 foot SJ00W jacketed lead

APPLICATIONS

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

ORDERING INFORMATION

CI Series Pumps							
GPM	HP	Volts	Stage	Model No.	Order No.	Length (in)	Weight (lbs)
10	1/2	115	7	10CI-05P4-2W115	90301005	26	17
		230	7	10CI-05P4-2W230	90301010	26	17
20		115	5	20CI-05P4-2W115	90302005	25	16
		230	5	20CI-05P4-2W230	90302010	25	16
20X		115	6	20XCI-05P4-2W115	90302015	26	17
		230	6	20XCI-05P4-2W230	90302020	26	17
30		115	4	30CI-05P4-2W115	90303005	25	16
		230	4	30CI-05P4-2W230	90303010	25	16

Note: All units have 10 foot long SJ00W leads.





ProPlus Performance Data

Model Numbers: 11003, 11003-HP, 11003-SH, 11003-R



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Standard Performance Data:

26 degree trajectory

Nozzle	Pressure (PSI)	Radius (ft)	Flow (GPM)	Precip (IN/HR)	Precip (IN/HR)
				■	▲
0.5	30	28	0.5	0.06	0.07
	40	29	0.6	0.07	0.08
	50	29	0.7	0.08	0.09
	60	30	0.8	0.09	0.10
0.75	30	29	0.7	0.08	0.09
	40	30	0.8	0.09	0.10
	50	31	0.9	0.09	0.10
	60	32	1.0	0.09	0.11
1	30	32	1.3	0.12	0.14
	40	33	1.5	0.13	0.15
	50	34	1.6	0.13	0.15
	60	35	1.8	0.14	0.16
2	30	37	2.4	0.17	0.19
	40	40	2.5	0.15	0.17
	50	42	3.0	0.16	0.19
	60	43	3.3	0.17	0.20
2.5 Pre- Installed	30	38	2.5	0.17	0.19
	40	39	2.8	0.18	0.20
	50	40	3.2	0.19	0.22
	60	41	3.5	0.20	0.23
3	30	38	3.6	0.24	0.28
	40	39	4.2	0.27	0.31
	50	41	4.6	0.26	0.30
	60	42	5.0	0.27	0.32
4	30	43	4.4	0.23	0.26
	40	44	5.1	0.25	0.29
	50	46	5.6	0.25	0.29
	60	49	5.9	0.24	0.27
6	40	45	5.9	0.28	0.32
	50	46	6.0	0.27	0.32
	60	48	6.3	0.26	0.30
	70	49	6.7	0.27	0.31
8	40	42	8.0	0.44	0.50
	50	45	8.5	0.40	0.47
	60	49	9.5	0.38	0.44
	70	50	10.0	0.39	0.44

Metric Performance Data:

26 degree trajectory

Nozzle	Pressure (bar)	Radius (meter)	Flow (l/m)	Precip (mm/hr)	Precip (mm/hr)
				■	▲
0.5	2.0	8.5	1.9	1.6	1.8
	3.0	8.8	2.3	1.7	2.0
	3.5	8.8	2.6	2.0	2.3
	4.0	9.1	3.0	2.2	2.5
0.75	2.0	8.8	2.6	2.0	2.3
	3.0	9.1	3.0	2.2	2.5
	3.5	9.4	3.4	2.3	2.6
	4.0	9.8	3.8	2.4	2.8
1	2.0	9.8	4.9	3.1	3.6
	3.0	10.1	5.7	3.4	3.9
	3.5	10.4	6.1	3.4	3.9
	4.0	10.7	6.8	3.6	4.1
2	2.0	11.3	9.1	4.3	4.9
	3.0	12.2	9.5	3.8	4.4
	3.5	12.8	11.4	4.2	4.8
	4.0	13.1	12.5	4.4	5.0
2.5 Pre- Installed	2.0	11.6	9.5	4.2	4.9
	3.0	11.9	10.6	4.5	5.2
	3.5	12.2	12.1	4.9	5.6
	4.0	12.5	13.2	5.1	5.9
3	2.0	11.6	13.6	6.1	7.0
	3.0	11.9	15.9	6.8	7.8
	3.5	12.5	17.4	6.7	7.7
	4.0	12.8	18.9	6.9	8.0
4	2.0	13.1	16.7	5.8	6.7
	3.0	13.4	19.3	6.4	7.4
	3.5	14.0	21.2	6.5	7.5
	4.0	14.9	22.3	6.0	6.9
6	3.0	13.7	22.3	7.1	8.2
	3.5	14.0	22.7	6.9	8.0
	4.0	14.6	23.8	6.7	7.7
	5.0	14.9	25.4	6.8	7.9
8	3.0	12.8	30.3	11.1	12.8
	3.5	13.7	32.2	10.3	11.8
	4.0	14.9	36.0	9.7	11.2
	5.0	15.2	37.9	9.8	11.3

Low Angle Standard Performance Data

12 degree trajectory

Nozzle	Pressure (PSI)	Radius (ft)	Flow (GPM)	Precip (IN/HR)	Precip (IN/HR)
				■	▲
1	30	22	1.2	0.24	0.28
	40	24	1.7	0.28	0.33
	50	26	1.8	0.26	0.30
	60	28	2.0	0.25	0.28
3	30	29	3.0	0.34	0.40
	40	32	3.1	0.29	0.34
	50	35	3.5	0.28	0.32
	60	37	3.8	0.27	0.31
4	30	31	3.4	0.34	0.39
	40	34	3.9	0.32	0.37
	50	37	4.4	0.31	0.36
	60	38	4.7	0.31	0.36
6	40	38	6.5	0.43	0.50
	50	40	7.3	0.44	0.51
	60	42	8.0	0.44	0.50
	70	44	8.6	0.43	0.49

Low Angle Metric Performance Data

12 degree trajectory

Nozzle	Pressure (bar)	Radius (meter)	Flow (l/m)	Precip (mm/hr)	Precip (mm/hr)
				■	▲
1	2.0	6.7	4.5	6.1	7.0
	3.0	7.3	6.4	7.2	8.3
	3.5	7.9	6.8	6.5	7.5
	4.0	8.5	7.6	6.2	7.2
3	2.0	8.8	11.4	8.7	10.1
	3.0	9.8	11.7	7.4	8.5
	3.5	10.7	13.2	7.0	8.1
	4.0	11.3	14.4	6.8	7.8
4	2.0	9.4	12.9	8.6	10.0
	3.0	10.4	14.8	8.2	9.5
	3.5	11.3	16.7	7.9	9.1
	4.0	11.6	17.8	8.0	9.2
6	3.0	11.6	24.6	11.0	12.7
	3.5	12.2	27.6	11.2	12.9
	4.0	12.8	30.3	11.1	12.8
	5.0	13.4	32.6	10.9	12.5

All precipitation rates are calculated at 360 degrees. For precipitation rates at 180 degrees, multiply by 2. Data represents test results in zero wind. Adjust for local conditions. Radius may be reduced with nozzle retention screw.



Ritzen, Brenda

From: Ritzen, Brenda
Sent: Monday, January 13, 2020 11:37 AM
To: Katelyn Neumann
Cc: plan-it@hotmail.com
Subject: Permit 110223
Attachments: Pages from 110223.pdf

Re: Lewis Holman & Brenda Kay Oliphant
Ensenada Shores at Canyon Lake Unit 2 Lot 260
Application for Permit for Authorization to Construct an On-Site Sewage Facility

Katelyn, Dave,

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

1.  There are discrepancies on the 1st and 2nd pages of the permit application and within the planning materials, on the number of bedrooms and the gallons per day for the residence.
2.  Submit the water line crossing attachment referenced on the design.
3. Revise as needed and resubmit.

Thank you,

Brenda Ritzen, OS0007722
Environmental Health Coordinator
Comal County Engineers Office
195 David Jonas Drive
New Braunfels, Texas 78132
830-608-2090
www.cceo.org

*** COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH ***

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



Date _____

Permit # 110223

Owner Name LEWIS HOLMAN OLIPHANT & BRENDA KAY OLIPHANT

Agent Name DAVE MCGHEE

Mailing Address c/o 23011 FM 306

Agent Address 5405 APACHE CREEK COVE

City, State, Zip CANYON LAKE, TX 78133

City, State, Zip AUSTIN, TX 78735

Phone # 830-935-4936

Phone # 210-347-1593

Email katelyn@paulswoyerseptics.com

Email plan-it@hotmail.com

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

Subdivision Name ENSENADA SHORES AT CANYON LAKE Unit 2 Lot 260 Block _____

Acreage/Legal _____

Street Name/Address SAN FELIPE City CANYON LAKE Zip 78133

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Type of Development:

Single Family Residential

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

Number of Bedrooms 3

Indicate Sq Ft of Living Area 2345



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Non-Single Family Residential

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

Type of Facility _____

Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____

Restaurants, Lounges, Theaters - Indicate Number of Seats _____

Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____

Travel Trailer/RV Parks - Indicate Number of Spaces _____

Miscellaneous _____

Estimated Cost of Construction: \$ 403,632 (Structure Only)

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

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

Source of Water Public Private Well

Are Water Saving Devices Being Utilized Within the Residence? Yes No

By signing this application, I certify that:

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

Signature of Owner [Signature]

Date 12/26/19

*** COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH ***

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEPTIC SYSTEM AND LICENSE TO OPERATE

VOID

Planning Materials & Site Evaluation as Required Completed By D. McGehee

System Description Aerobic Spray

Size of Septic System Required Based on Planning Materials & Soil Evaluation
Tank Size(s) (Gallons) 600 GPD ATU Absorption/Application Area (Sq Ft) 4823

Gallons Per Day (As Per TCEQ Table III) 180
(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ.)

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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.))

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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.)

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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.)

VOID

Is the property located over the Edwards Contributing Zone? Yes No
Is there an existing TCEQ approval CZP for the property? Yes No
(If yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP.)

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? Yes No
(If yes, the R.S. or P.E. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to Construct will not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)

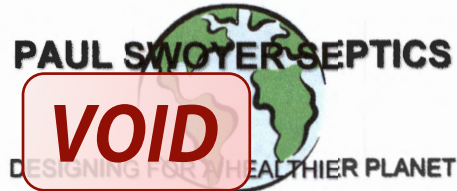
Is this property within an incorporated city? Yes No
If yes, indicate the city: _____

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] _____ Date 1-7-2020

Signature of Designer

Date

Page 2 of 2



**RE: OSSF Design
108 San Felipe
Comal COUNTY, TX**

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To Whom It May Concern

VOID

COUNTY ENGINEER

Please find enclosed the OSSF design of the less than 3500 square foot, 4-bedroom single family residence located at 108 San Felipe, Comal COUNTY, TX. The design was conducted exclusively for Kurk Homes on December 12, 2019.

If you have any questions, please call. I appreciate the opportunity to be of service to you.

Sincerely,

Dave F. McGhee, D.R., S.E., R.S.
Paul Swoyer Septics L.L.C.



SYSTEM SUMMARY

Paul Swoyer Septics L.L.C. began an On-Site Sewage Facility design located at 108 San Felipe, Comal COUNTY, TX. This design was performed in conformance with Chapter 285 of Texas Commission on Environmental Quality and the more stringent rules set forth by Comal COUNTY.

This system is comprised of the following:

- System Designed For: 300 Gallons Per Day
- MaxxAir Aerobic System: Model M-600 (600GPD)
- NSF Approved Liquid Bleach Chlorinator EZ Tank
- Surface Irrigation Disposal: 4823 square feet of Application
- Timer: Grasslin Digi 20 capable of 1-minute switch times
- Utilizing 3 K-Rain Pro Plus Spray Heads with 180° Patterns Set at 32ft. Radii (#3 LA nozzle)
- Submersible Effluent Pump: Franklin C1 Series bottom suction pump 20XC1-05P4-2W115 Submersible pump @ 20 GPM

SITE DESCRIPTION AND SITE EVALUATION

The site evaluation indicated that the site has suitable soil for an aerobic surface irrigation system. No evidence of shallow ground water was observed during the site evaluation. Any exposed rock within the proposed surface distribution area will be removed or covered with a minimum of 4 inches of suitable soil and seeded prior to final inspection. (See landscaping for additional requirements). The single-family residence will utilize a public water supply as the source for potable water. All the systems components will be 100 ft. away from all wells. All portions of the spray radii will maintain at least a 20 feet separation from all property lines and flat work. No portion of this system lies within 10 feet of a waterline. There are no recharge features within 150 feet of this proposed system. No portion of this site lies within the 100-year flood plain. Minimum separation distance as stated in § 285.10 TCEQ, On-Site Sewage Facilities must be maintained.



WASTEWATER DESIGN FLOWS

The system was designed for a less than 3500 SF, 4-bedroom Single Family Residence, utilizing low-flow fixtures. The total projected daily wastewater flow is 300 gallons per day, as-per TCEQ, On-Site Sewage Facilities, effective December 27, 2012.

DESCRIPTION OF PROPOSED AEROBIC TREATMENT SYSTEM

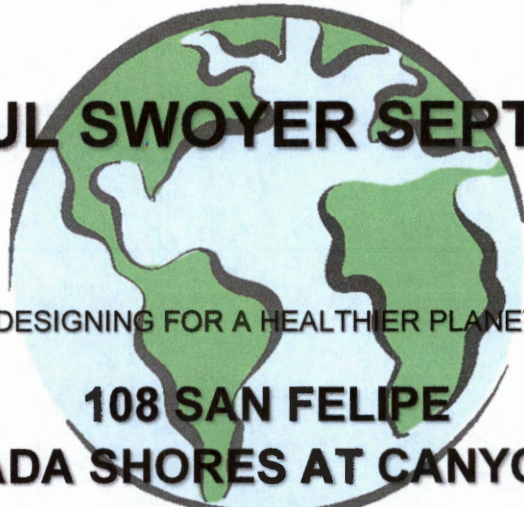
The residence will utilize a MaxxAir aerobic wastewater treatment system Model M-600, a proprietary treatment plant, approved by the TCEQ for use in Texas. The Model M-600 is a three-compartment concrete tank. The aerobic system will consist of a 353-gallon pretreatment/trash tank compartment which will gravity flow into the 600 GPD aerobic treatment compartment. The effluent from the aeration tank will gravity flow into a 768-gallon pump tank compartment. An NSF approved LBC Manufacturing Model #EZ Tank Liquid chlorinator will be installed for disinfection. The pump tank compartment serves as a chlorine contact chamber as well as a storage tank. Distribution is through a 40 PSI pressure regulator then to purple 1” Sch. 40 PVC pipe, to 3 K-Rain Pro Plus Low Angle spray heads. The disposal area will consist of 3 – 32 ft. radii 180° patterns. The system is considered a “package system” and will be installed according to manufacturer’s instructions.

DESIGN SPECIFICATIONS

Average Expected Flow: 240
Application Rate: 0.064 gal / ft² / day
Minimum Application Area: $A = Q/Ri$ $A = 240 \text{ GPD} / 0.064 = 3750 \text{ square feet}$
Actual Application Area: $A = 3.14 (32)^2 \times 1.5 = 4823 \text{ square feet}$

VOID

PAUL SWOYER SEPTICS



DESIGNING FOR A HEALTHIER PLANET

**108 SAN FELIPE
ENSENADA SHORES AT CANYON LAKE
UNIT 2, LOT 260**

COMAL COUNTY, TX
VOID

FOR

KURK HOMES

12-30-19



AEROBIC SURFACE IRRIGATION

PLAN-IT CONTACT INFORMATION:

**6208 TANGLEWOOD TRAIL • SPRING BRANCH • TEXAS • 78070 • 210-347-1593
PLAN-IT@HOTMAIL.COM**

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PAUL SIMPSON PER SEPTICS



DESIGNING FOR A HEALTHIER PLANET

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SYSTEM COMPONENTS

Trash Tank: 353 gallon one-compartment
Aeration Tank: 600 GPD
Pump Tank: 768-gallon compartment 14.49 gal/inch of depth (53" usable)

PUMP FLOAT SETTINGS

Pump-off Position: 6 inches above tank bottom
Pump-on Position: 9 inches above tank bottom
Alarm-on Position: 30 inches above tank bottom

Daily Operating Capacity: 21" x 14.49 gal/in = 304.29 gallons
Reserve Capacity: 23" x 14.49 gal/in = 333.27 gallons

PUMP AND SPRINKLER HEADS

Pump: Franklin C1 Series bottom suction pump 20XC1-05P4-2W115 Submersible pump @ 20 GPM
Spray Heads: K-Rain Spray heads
Nozzle: 3.0 LA (Low angle trajectory, 13 degrees) operating at 40 PSI, 32ft radii and 3.1 GPM flow per spray head

Notes:

* A commercial irrigation timer will be used to cycle power to the pump in order to irrigate twice per night, once at 2:00 a.m. and again at 4:00 a.m.

FLOW, DOSING AND HEAD CALCULATIONS

Flow Rate: 3.1 GPM/head x 3 heads = 9.3 GPM
Dosing Rate: 2 doses @ 150 gal/dose = 300 gal/dose
Total Head:

Elevation Head: 6ft
Pressure Head: 40 PSI x 2.31 ft/PSI = 92.4
Friction Head: 1" Sch. 40 PVC @ 5.0 GPM = 2.13ft per 100ft
220ft (3.71/100) (1.2 SF) = 9.8

Total Dynamic Head: 6 + 92.4 + 9.8 = 108.2ft (within the pump curve) (40 PSI)

CONSTRUCTION/INSTALLATION NOTES & REQUIREMENTS

- Refer to site plan for component placement and follow manufacturer's instructions for installation of treatment plant and aerator.
- All materials and construction methods are required to conform to the standards for Private Sewage Facilities set forth by the Texas Administrative Code, §285 On-Site Sewage Facilities.
- The installer must have a current and valid Texas installer certificate and is required to have at the minimum and Installer II certification.
- The installer must notify designer and regulatory authority at least 48 hours in advance to schedule required inspections to ensure that the system is installed in accordance with approved plans and specifications.
- The installer may not alter these plans without the approval from the designer.
- If site conditions differ from that which is on the approved design, the installer must cease construction and contact the designer.
- Diversion berms will be placed when needed to protect irrigation and tank areas from excessive runoff.
- It is the responsibility of the installer to maintain the minimum setback requirements as stated in Chapter §285 On-Site Sewage Facilities.



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- No part of the system shall be located within 10 feet of a potable water line. If this is unavoidable, use Title 30 T.A.C Chapter 290 for the water line and OSSF supply line crossing

ELECTRICAL COMPONENTS

All electrical wiring shall conform to the requirements of the National Electric Code (1999) or under any other standards approved by the executive director. Additionally, all external wiring shall be installed in approved, rigid, non-metallic gray code electrical conduit. The conduit shall be buried according to the requirements in the National Electric Code and terminated at a main circuit breaker panel or sub-panel. Connections shall be in approved junction boxes. All electrical components shall have an electrical disconnect within direct vision from the place where the electrical device is being serviced. Electrical disconnects must be weatherproof (approved for outdoor use) and have maintenance lockout provisions.

TANK NOTES

- The bottom of the excavation for the tanks shall be level and free of large rocks and debris.
- All tanks are to be set level on a minimum 4" to 6" inch layer of sand, sandy loam, clay loam, or pea gravel.
- Tanks will be backfilled with sand, sandy loam, clay loam, or pea gravel free of clay and/or large rocks.
- Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2012). This includes access limitation (<65lbs lid or hardware secured lid) and secondary plug, net, or mesh in riser. Septic tanks without risers shallower than 12" below grade may be exempt.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, and/or to prevent the infiltration of water.
- Tanks must be filled with water for at least 24 hours to test for leaks and structural integrity.
- The tanks must be set low enough to have fall of at least 1/8 inch per foot from house to tank.
- PVC pipe from house to tank must be at least Sch. 40 or SDR 26.

IRRIGATION AND LANDSCAPE NOTES

- Irrigation lines shall be 1 inch Schedule 40 supply lines, sprinkler heads and valve cover boxes must be permanently colored purple. Any pipe that crosses any road, driveway, or other land improvement with larger diameter shall be Schedule 40 PVC.
- Supply lines must be buried at least 6 inches below finished grade.
- If irrigation area does not have established vegetation, a mixture of winter rye and Bermuda grasses will be seeded to establish seasonal vegetation.
- The installer shall notify the property owner prior to removal of any trees/bushes that may obstruct the operation of the irrigation system.
- All exposed surface rock must be covered with at least 4 inches of suitable soil.
- Vegetation must be established before system is in use.

ADDITIONAL NOTES

- Install audio-visual alarm for aerator and pump on separate breakers.
- The high water and air compressor alarms shall be audio/visual and mounted in a place that can be easily seen and heard when alarms are activated.
- The chlorinator must be constructed to allow a chlorine residual of 0.1 mg/L in the pump tank for the period of time between scheduled inspections.
- The disinfected effluent must obey the standards as stated in Chapter §285 On-Site Sewage Facilities. Approved disinfection methods using chlorinated tablets must use calcium hypochlorite that is properly labeled for wastewater disinfection.



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MAINTENANCE REQUIREMENTS

- The applicant must furnish to the regulatory authority a valid maintenance contract with a certified maintenance company before a permit will be issued.
- The maintenance company will verify that the system is operating properly and provide on-going maintenance of the installation.
- The initial contract will be a minimum of two years.
- A maintenance contract will authorize the maintenance company to maintain and repair the system as needed.
- The property owner must continuously maintain a signed written contract with a valid maintenance company and shall submit a copy of the contract to the permitting authority at least 30 days prior to the date service will cease.

AFFIDAVIT

- The applicant must file a certified copy of an affidavit at the County Clerk's Office and file in reference to the real property deed on which the surface application system is to be installed.
- The affidavit will state that the property shall not be transferred to a new owner without:
 - (1) The new owner being advised that the property contains a surface application system for wastewater disposal.
 - (2) The permit issued to the previous owner of the property being transferred to the new owner in accordance with Chapter §285.26(3) of the TCEQ OSSF Rules, i.e.; the permit will be issued in the name of the owner of the OSSF. Permits shall be transferred to the new owner automatically upon legal sale of the OSSF. The transfer of an OSSF permit under this section shall occur upon actual transfer of the property on which the OSSF is located unless the ownership of the OSSF had been severed from the property.
 - (3) The new owners submitting a valid maintenance contract to the permitting authority.

OPERATION AND MANAGEMENT NOTES

- The OSSF should not be treated as a normal city sewer.
- The excessive use of in-sink garbage grinders and grease discarding should be avoided. In-sink garbage grinders can cause a rapid buildup of sludge or scum resulting in a more frequent cleaning and possible system failure.
- Do not use the toilet to dispose of cleaning tissue, cigarette butts, or other trash. This disposal practice will waste water and also impose an undesirable solid load on the treatment system.
- Septic tanks shall be cleaned before sludge accumulates to a point where it approaches the bottom of the outlet device. If sludge or scum accumulates to this point, solids will leave the tank with the liquid and possibly cause the system to clog resulting in sewage surfacing or backing up into the house through plumbing fixtures.
- A regular schedule of cleaning the tank at two to three-year intervals should be established. Commercial cleaners are equipped to readily perform the cleaning operation. Owners of OSSF's shall engage only persons registered with the TCEQ to transport the septic system waste.
- Do not build driveways, storage buildings, or other structures over system components or the disposal field.
- Chemical additives or so-called enzymes are not necessary for the operation of a septic tank. Some of these additives may even be harmful to the systems operation.
- Soaps, detergents, bleaches, drain cleaners, and other household cleaning materials will very seldom affect the operation of the system. However, moderation should be exercised in the use of such materials.
- Chapter §285.39 states the owner shall not allow water softener or reverse osmosis back flush to enter into any portion of the OSSF.



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- The liquid from the OSSF is still heavily laden with bacteria. The surfacing of this liquid constitutes a hazard to the health of those that might come into contact with it.

WATER CONSERVATION PRACTICES

- Showers usually use less water than baths. Installing water saving shower heads that uses less than 2.5 gallons per minute saves both water and energy.
- If you take a tub bath, reduce the level of the water in the tub from the level to which you customarily fill it.
- Leaky faucets and faulty toilet fill-up mechanisms should be repaired as quickly as possible.
- Leaking toilets may not be evident. Add a few drops of food coloring into the tank. Do not flush. If the color appears in the bowl within a few minutes, adjustments and/or repairs to the toilet need to be made.
- Reduce the amount of water used by the toilet by installing one of the following: a new 1.6 gallon toilet, a toilet dam, or filling and capping a one quart plastic bottle with water and placing it into the tank. Do not use bricks as they may crumble and cause damage to the toilet.
- Install low-flow fixtures throughout the house and use faucet aerators that restrict water flow to help reduce consumption.
- Try to run dishwasher with a full load.
- Avoid running the water continuously when brushing teeth, washing hands or rinsing kitchen utensils.
- Water can be saved in the laundry room by adjusting water levels to match the size of the load. If the washing machine does not have a variable load control, water can be saved by running it only when the washer is full.
- Keep a container of drinking water in the refrigerator instead of running a faucet until it turns cool.
- Insulate hot water pipes to avoid long delays of wasted water while waiting for the water to heat.
- Ask your federal, state, county, city or other local government about their programs to conserve water and how they can help you save water.

This proposed system has been designed generally following the minimum requirements under TCEQ Chapter §285 On-Site Sewage Facilities. The site evaluation and subsequent design are based on technical information currently available. There was no indication of shallow groundwater or slopes where seeps could occur at the time of the site evaluation. The performance of the OSSF is not, and cannot be guaranteed even though all provisions of the Standards have been complied with. If failure should occur, additions to the OSSF may have to be made. By accepting this design, the homeowner/builder understands that the designer/site evaluator will not be liable for more than the agreed upon design fee.

1755
CW/DWB JCS



201806038954 10/04/2018 11:25:49 AM 1/2

General Warranty Deed

Date: Oct 1, 2018

Grantor: Varinda Robinson

Grantor's Mailing Address:

262 Jonathan's Way Suffolk, VA 23434

Grantee: Lewis Holman Oliphant and Brenda Kay Oliphant

Grantee's Mailing Address:

16131 CASTLEGROVE CT TOM BALL TX 77377

Consideration:

Cash and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged.

Property (Including any improvements):

Lot 260, Ensenada Shores at Canyon Lake, Unit Two, Comal County, Texas, according to map or plat recorded in Volume 15, Pages 280-286, of the Map and Plat Records of Comal County, Texas.

Reservations from Conveyance: None

Exceptions to Conveyance and Warranty:

Validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing instruments, other than conveyances of the surface fee estate, that affect the Property; and taxes for 2018, which Grantee assumes and agrees to pay, but not subsequent assessments for that and prior years due to change in land usage, ownership, or both, the payment of which Grantor assumes.

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

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COMAL COUNTY

the same or any part thereof, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

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

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COUNTY ENGINEER

Varinda Robinson
Varinda Robinson

STATE OF Virginia)
COUNTY OF Hart)

This instrument was acknowledged before me on October 1st 2018, by Varinda Robinson.

[Signature]
Notary Public, State of Virginia

PREPARED IN THE OFFICE OF:

DWAIN W BLASCHKE
P.O. Box 1744
Canyon Lake, TX 78133
Tel: (830) 964-4442
Fax: (830) 964-4426

UNOFFICIAL

Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
10/04/2018 11:25:49 AM
TERRI 2 Page(s)
201806038954



Bobbie Koepf

PS Septic Supply & Service
23011 FM 306
Canyon Lake, TX 78133

Phone: (830) 850-0080
Fax: (830) 935-4932

To: Sparky Oliphant
607 Cielo Vista
Canyon Lake, TX 78133

Printed: 3/4/2021
Site: 607 Cielo Vista
Canyon Lake, TX 78133
(713) 725-2803

Permit #: **110223**

Customer ID: 2086

Agency: Comal County

Contract Dates: 6/11/2020 - 6/11/2023

County: Comal County

Sub: Ensenada Shores at Canyon Lake

Scheduled Date 2/11/2021

Inspection 1 of 9

Mfg / Brand: - MAXX AIR

Treatment Type: Aerobic

Disposal: Surface Application

GPS Coordinates - Latitude: 29.8643 Longitude: -98.2860

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"

Visit Date: 3/2/2021

Entered By: _

Method: Grab

Technician: Chris Zigalo

Maint. Provider: Ryan Seidensticker

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Chlorine Supply: Operational

Chlorine Residual: 0.13

Tank Lid / Riser: Secured

Sprinkler Drip Backwash: Good

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

Comments

Service Completed

Scum on pretreatment:1" - Technician Secured the Tank Lid and/or Riser prior to leaving location.

Owner signature: _____

Insp ID #: 8238

Provider: Christopher Ryan Seidensticker
PS Septic Supply & Service

License Info: MP0001708 Expires:

License Info: MT001878 Expires: 7/31/2023

PS Septic Supply & Service
23011 FM 306
Canyon Lake, TX 78133

Phone: (830) 850-0080
Fax: (830) 935-4932

To: Sparky Oliphant
607 Cielo Vista
Canyon Lake, TX 78133

Printed: 7/6/2021
Site: 607 Cielo Vista
Canyon Lake, TX 78133
(713) 725-2803

Permit #: **110223**

Agency: Comal County

County: Comal County

Mfg / Brand: - MAXX AIR

Treatment Type: Aerobic

Disposal: Surface Application

Customer ID: 2086

Contract Dates: 6/11/2020 - 6/11/2023

Scheduled Date 7/11/2021

Inspection 2 of 9

Sub: Ensenada Shores at Canyon Lake

GPS Coordinates - Latitude: 29.8643 Longitude: -98.2860

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"

Visit Date: 7/2/2021

Entered By: _

Method: Grab

Technician: Ryan Seidensticker

Maint. Provider: Ryan Seidensticker

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Chlorine Supply: Operational

Chlorine Residual: 2.20

Sludge Levels

For Tank 1: 10

For Tank 3: 4

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

Comments

- Scum=4 Technician Secured the Tank Lid and/or Riser prior to leaving location.

Service Completed

Owner signature: _____

Insp ID #: 10663

Provider: Christopher Ryan Seidensticker
PS Septic Supply & Service

Technician: Christopher Ryan Seidensticker
PS Septic Supply & Service

License Info: MP0001708 Expires:

License Info: MP0001708 Expires: 9/1/2023

PS Septic Supply & Service
23011 FM 306
Canyon Lake, TX 78133

Phone: (830) 850-0080
Fax: (830) 935-4932

To: Sparky Oliphant
607 Cielo Vista
Canyon Lake, TX 78133

Printed:11/5/2021
Site: 607 Cielo Vista
Canyon Lake, TX 78133
(713) 725-2803

Permit #: **110223** Customer ID: 2086
Agency: Comal County Contract Dates: 6/11/2020 - 6/11/2023
County: Comal County Sub: Ensenada Shores at Canyon Lake Scheduled Date: 11/11/2021 Inspection 3 of 9
Mfg / Brand: - MAXX AIR
Treatment Type: Aerobic
Disposal: Surface Application GPS Coordinates - Latitude: 29.8643 Longitude: -98.2860

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"

Visit Date: 11/4/2021

Entered By: Danielle Jordan

Method: Grab

Technician: Michale Albers

Maint. Provider: Ryan Seidensticker

Aerators: Operational

Sludge Levels

Filters: Operational

For Tank 1: 2

Irrigation Pumps: Operational

Disinfection Device: Operational

Chlorine Supply: Operational

Chlorine Residual: .1

Tank Lid / Riser: Secured

Sprinkler Drip Backwash: Good

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

Comments

Service Completed

Scum - 4" - Technician Secured the Tank Lid and/or Riser prior to leaving location.

Insp ID #:12801

Provider: *Christopher Ryan Seidensticker*
PS Septic Supply & Service

License Info: MP0001708 Expires:

PS Septic Supply & Service
23011 FM 306
Canyon Lake, TX 78133

Phone: (830) 850-0080
Fax: (830) 935-4932

To: Sparky Oliphant
607 Cielo Vista
Canyon Lake, TX 78133

Printed:2/25/2022
Site: 607 Cielo Vista
Canyon Lake, TX 78133
(713) 725-2803

Permit #: **110223** Customer ID: 2086
Agency: Comal County Contract Dates: 6/11/2020 - 6/11/2023
County: Comal County Sub: Ensenada Shores at Canyon Lake Scheduled Date: 3/11/2022 Inspection 4 of 9
Mfg / Brand: - MAXX AIR
Treatment Type: Aerobic
Disposal: Surface Application GPS Coordinates - Latitude: 29.8643 Longitude: -98.2860

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"

Visit Date: 2/25/2022

Entered By: _

Method: Grab

Technician: Not Assigned

Maint. Provider: Ryan Seidensticker

Aerators: Operational

Sludge Levels

Filters: Operational

For Tank 1: 24

Irrigation Pumps: Operational

For Tank 2: 1

Disinfection Device: Operational

For Tank 3: 1

Chlorine Supply: Operational

Chlorine Residual: .26

Tank Lid / Riser: Secured

Insp. Port / Plug: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Alarm: Operational

Comments

Service Completed

Scum on pretreatment 12" - Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving.

Insp ID #:15737

Provider: *Christopher Ryan Seidensticker*
PS Septic Supply & Service

License Info: MP0001708 Expires:

PS Septic Supply & Service
23011 FM 306
Canyon Lake, TX 78133

Phone: (830) 850-0080
Fax: (830) 935-4932

To: Sparky Oliphant
607 Cielo Vista
Canyon Lake, TX 78133

Printed:7/11/2022
Site: 607 Cielo Vista
Canyon Lake, TX 78133
(713) 725-2803

Permit #: **110223** Customer ID: 2086
Agency: Comal County Contract Dates: 6/11/2020 - 6/11/2023
County: Comal County Sub: Ensenada Shores at Canyon Lake Scheduled Date: 7/11/2022 Inspection 5 of 9
Mfg / Brand: - MAXX AIR
Treatment Type: Aerobic
Disposal: Surface Application GPS Coordinates - Latitude: 29.8643 Longitude: -98.2860

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"

Visit Date: 7/8/2022

Entered By: Michelle Irvin

Method: Grab

Technician: Not Assigned

Maint. Provider: Ryan Seidensticker

Aerators: Operational

Sludge Levels

Filters: Operational

For Tank 1: 6

Irrigation Pumps: Operational

For Tank 3: 4

Disinfection Device: Operational

Chlorine Supply: Operational

Chlorine Residual: .19

Tank Lid / Riser: Secured

Sprinkler Drip Backwash: Good

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

Comments

Service Completed

Scum = 2" - Technician Secured the Tank Lid and/or Riser prior to leaving location.

Insp ID #:19376

Provider: *Christopher Ryan Seidensticker*
PS Septic Supply & Service

License Info: MP0001708 Expires:

PS Septic Supply & Service
23011 FM 306
Canyon Lake, TX 78133

Phone: (830) 850-0080
Fax: (830) 935-4932

Printed: 11/4/2022 Insp ID #: 22486

Permit #: **110223**

To: Sparky Oliphant
607 Cielo Vista
Canyon Lake, TX 78133

Main Phone: (713) 725-2803
Work:
Cell Phone:
Alt Cell:

Customer ID: 2086

Contract Dates: 6/11/2020 - 6/11/2023

Scheduled Date: 11/11/2022

Inspection 6 of 9

Agency: Comal County

County: Comal County

Mfg / Brand: - MAXX AIR

Sub: Ensenada Shores at Canyon Lake

Treatment Type: Aerobic

Disposal: Surface Application

GPS Coordinates: Latitude: 29.8643 Longitude: -98.2860

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"
Entered By: Nick Zigalo

Visit Date: 11/3/2022

Method: Grab

Technician: Nick Zigalo

Maint. Provider: Ryan Seidensticker

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Chlorine Supply: Operational

Chlorine Residual: 0.04

Sludge Levels

For Tank 1: 12

For Tank 3: 20

For Tank 4: 2

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Tank Lid / Riser: Secured

Insp. Port / Plug: Secured

Alarm: Operational

Comments

Service Completed

scum in trash tank 3" - Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving.

Site: 607 Cielo Vista, Canyon Lake, TX 78133

Provider: *Christopher Ryan Seidensticker*
PS Septic Supply & Service

License Info: MP0001708 Expires:

License Info: MT0002016 Expires: 12/31/2023

PS Septic Supply & Service
23011 FM 306
Canyon Lake, TX 78133

Phone: (830) 850-0080
Fax: (830) 935-4932

Printed: 4/10/2023 Insp ID #: 27359

Permit #: **110223**

To: Sparky Oliphant
607 Cielo Vista
Canyon Lake, TX 78133

Main Phone: (713) 725-2803
Work:
Cell Phone:
Alt Cell:

Agency: Comal County
County: Comal County
Mfg / Brand: - MAXX AIR
Treatment Type: Aerobic
Disposal: Surface Application

Sub: Ensenada Shores at Canyon Lake

Customer ID: 2086
Contract Dates: 6/11/2020 - 6/11/2023

Scheduled Date: 3/11/2023 Inspection 7 of 9
Installed: 6/11/2020
Warranty End: 6/11/2023
GPS Coordinates: Latitude: 29.8643 Longitude: -98.2860

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"
Entered By: Julie Feibelman

Visit Date: 4/5/2023

Method: Grab

Technician: David Anastasi

Maint. Provider: Ryan Seidensticker

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Chlorine Supply: Operational

Chlorine Residual: 1.27

Sludge Levels

For Tank 1: 12

For Tank 2: NA

For Tank 3: 34

For Tank 4: 1

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Tank Lid / Riser: Secured

Insp. Port / Plug: Secured

Alarm: Operational

Comments

Service Completed

- Scum on pretreatment-22 - Checked floats, sprayers, chlorine & timer. Cleaned filter - unclogged tee - - Installed bolt on switch -
Recommend Pumping soon-Jesse Ferguson-830-431-6104 - Technician Secured the Tank Lid and/or Riser prior to leaving location. -
Inspection Port Plug was noted as Secured prior to leaving.

Site: 607 Cielo Vista, Canyon Lake, TX 78133

Provider: *Christopher Ryan Seidensticker*
PS Septic Supply & Service

License Info: MP0001708 Expires:

Luna Environmental

4222 FM 482

New Braunfels, TX 78132

(830) 312-8776

sherrie@lunaenvironmental.com

Printed:10/30/2023

Permit: 110223

Site: 607 Cielo Vista, Canyon Lake, TX 78133

Main Phone: 7137252803

Cell Phone: 7137251914

Sparky & Brenda Oliphant

607 Cielo Vista

Canyon Lake, TX 78133

Agency: Comal County

County: Comal County

Subdivision: Ensenada Shores at Canyon Lake

System Info: MFG: Brand: MAXX AIR Customer ID: 3485
Treatment Type: Aerobic Disposal Type: Surface Application Insp ID: 34406
Installed: 6/11/2020 Warranty Expiration: 6/11/2023
Visit Details <----->
Visit Date: 10/13/2023 Entered By: Ryan Seidensticker GPS Lat: 29.8643 GPS Long: -98.2860
Scheduled Date: 10/15/2023 Contract Starts: 10/9/2023 Customer Emailed: 10/30/2023
Entered On: 10/13/2023 Contract Ends: 10/9/2024

Visit Results

Service Type: Scheduled Inspection
Count: Inspection 1 of 3

Method: <u>Grab</u>	License #	Expires	
Technician: <u>Ronnie Ransom</u>	<u>0002564</u>	<u>8/31/2026</u>	
Provider: <u>Luna Environmental, LLC</u>			<input checked="" type="checkbox"/> Service Completed

Aerators: Operational
Filters: Operational
Irrigation Pumps: Operational
Disinfection Device: Operational
Chlorine Supply: Operational
Chlorine Residual: .1

Tank Lid / Riser: Secured
Insp. Port / Plug: Secured

Electric Circuits: Operational
Distribution System: Operational
Drip/Sprayfield Veg: Operational

Alarm: Operational

PSI Pressure: 2.3

Comments

Scum on pretreatment 0" replaced 2 damaged sprinklers - Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving. - Copy emailed to the customer on 10/30/2023.