

# Comal County Environmental Health OSSF Inspection Sheet

Installer Name: \_\_\_\_\_

OSSF Installer #: \_\_\_\_\_

1st Inspection Date: \_\_\_\_\_

2nd Inspection Date: \_\_\_\_\_

3rd Inspection Date: \_\_\_\_\_

Inspector Name: \_\_\_\_\_

Inspector Name: \_\_\_\_\_

Inspector Name: \_\_\_\_\_

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

Inspector Notes:

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

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

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

**Comal County Environmental Health  
OSSF Inspection Sheet**

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



# COMAL COUNTY

ENGINEER'S OFFICE

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

Permit Number: 117305  
Issued This Date: 04/17/2024  
This permit is hereby given to: Ray & Connie Covey

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

155 RIVER STAR DR  
NEW BRAUNFELS, TX 78132

Subdivision: Texas Country Estates  
Unit: 2  
Lot: 14  
Block: 7  
Acreage: 1.0000

### 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.

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

**REVISED**

9:26 am, Apr 17, 2024

Date 4/12/2024

Permit # \_\_\_\_\_

Owner Name Ray & Connie Covey  
Mailing Address 155 River Star Dr  
City, State, Zip New Braunfels TX 78132  
Phone # 914-456-9699  
Email reed.hoysradt@gmail.com

Agent Name Stephen Jetton  
Agent Address 2573 Deer Stand Loop  
City, State, Zip San Marcos TX 78666  
Phone # 512-757-1259  
Email stephen.jetton@gmail.com

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

Subdivision Name Texas Country Estates Unit 2 Lot 14 Block 7  
Acreage/Legal \_\_\_\_\_  
Street Name/Address 155 River Star Dr City New Braunfels Zip 78132

**Type of Development:**

Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) Garage/Workshop - 732 sq. ft. House

Number of Bedrooms 4

Indicate Sq Ft of Living Area 2400

Commercial or Institutional Facility

(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: \$ 50,000.00 (Structure Only)

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

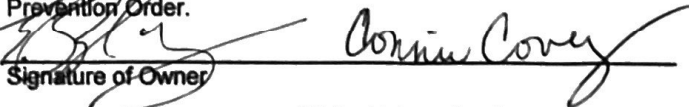
Yes  No

(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

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 also 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.

  
Signature of Owner

April 12, 2024  
Date

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

**REVISED**

11:36 am, Apr 16, 2024

Planning Materials & Site Evaluation as Required Completed By Stephen Jetton

System Description Adding Pump Basin AK-Industries Model AKP30260 to existing Norweco 960 - 500 / Moving Spray head

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

Tank Size(s) (Gallons) 71 gallon basin Absorption/Application Area (Sq Ft) ~~4700.00~~ 4995.00

Gallons Per Day (As Per TCEQ Table III) 300

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

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

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

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

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

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:

I certify that the information provided above is true and correct to the best of my knowledge.

Signature of Designer

4/16/2024

Date



**RECEIVED**

By Brenda Ritzen at 11:38 am, Apr 16, 2024

**AFFIDAVIT OF A SINGLE FAMILY RESIDENCE**

THE COUNTY OF Comal  
STATE OF TEXAS

Before me, the undersigned authority, on this day personally appeared Edwin R. Corey and  
Connie H. Corey, who after being duly sworn, upon  
oath states that he/ she is the owner of record of those certain tracts or parcels of land lying and being  
situated in Comal County, Texas, and being more particularly described as follows:

Texas Country Estates, Unit 2, Block 7, Lot 14

The undersigned further states the following described structures the 4 bedroom 2400 sq.ft.  
residence and garage workshop will be for the exclusive use  
of members of the same single family household.

on the said residential property are for one family and are routinely used only by members of the household  
of that one family.

WITNESS BY HAND(S) ON THE 12 DAY OF April, 2024

[Signature]  
Connie Corey  
Owner(s) signature(s)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS  
12 DAY OF April, 2024

[Signature]  
Notary Signature

Notary's Printed Name: Michael C. Decker

My Commission Expires: 12-31-2025





**REVISED**

11:38 am, Apr 16, 2024

# Southwest Septic Design


## On-Site Sewage Facility Application and Design

### *Prepared For:*

Ray Covey  
155 River Star Drive  
New Braunfels, Texas

Design 30025024

### *Prepared By:*

Stephen F. Jetton   
Registered Professional Sanitarian



Revision 4/16/2024

Stephen F. Jetton • Southwest Septic Design  
2573 Deer Stand Loop • San Marcos, Texas 78666 • Mobile (512) 757-1259  
E – Mail [stephen.jetton@gmail.com](mailto:stephen.jetton@gmail.com)

RE:

Covey Residence  
155 River Star Drive  
New Braunfels, Texas 78132

To Whom it may Concern,

The owners at the above referenced address will add a garage/workshop to the existing septic system. We do not have gravity flow to the existing septic tank. Effluent from the garage/workshop will be pumped from an AK-Industries, Model AKP30260 pump basin.

Pump Tank gallons per inch: 1.97

Operating Capacity:  $1.97 \times 11'' = 21.67$  *operating gallons.*

Reserve Capacity: 32'' usable depth ( $32 \times 1.97 = 63.04$ ) *21.67 gallons in basin.*

Pump off – 7'' above tank floor – 13.79 gallons

Pump on – 18'' above tank floor – 35.46 gallons

Alarm on – 21'' above tank floor – 41.37 gallons.

**Pump Selection:**

<b>Pipe Friction</b>	<b><i>129 ft/100 ft x 0.20 ft</i></b>	0.258 Ft
<b>Friction Head</b>	<b><i>1.2 x 0.258 ft</i></b>	0.31 Ft
<b>Total Head</b>	<b><i>4 (elevation change) + 0.31 + 5 (Misc. Fittings)</i></b>	9.31

Pump requirements = 10 gpm @ 9.31 T.D.H.

Please let me know if you require additional information.

Thanks,



Stephen Jetton



RE:

Covey Residence  
155 River Star Drive  
New Braunfels, Texas 78132

To Whom it may Concern,

The referenced property is located within the Edwards Aquifer Recharge Zone. This OSSF design will comply with the requirements in the WPAP.

Temporary erosion and sedimentation controls should be utilized as necessary prior to construction. If any sensitive features (caves, solution cavities, sink holes, etc.) is discovered during construction, activities must be suspended immediately and the applicant or agent must immediately notify the TCEQ Regional Office.

Please let me know if you require additional information.

Thanks,



3-20-2024

Stephen Jetton





**SPRAY APPLICATION CALCULATIONS**

Permit Number:   
 Property Owner: Covey Residence  
 Property Location: 155 River Star Lane

Flow (Q) (GPD): 300 Ri (Figure I, 285.90): 0.064

300 GPD / 0.064 Ri = 4,688 sq. ft. (Total Spray Application Area Required)

Number of Heads	Degree of Coverage Example(90)	Radius of Head (Ft.)	Square Footage Obtained		Overlap C-1	Overlap C-2	Overlap C-3	Overlap C-4
4	180	29	5,284	Radius Circle 1	29			
				Radius Circle 2	29			
				Between Centers	46			
				Overlap:	289			

289 Total Overlap

4,995 sq. ft. (Actual Spray Application Area to be Installed)

4,688 sq. ft. (Total Spray Application Area Required)



Revision 4/16/2024

**From:** [Ritzen, Brenda](#)  
**To:** "Stephen Jetton"  
**Cc:** [reed.hoysradt@gmail.com](mailto:reed.hoysradt@gmail.com)  
**Subject:** RE: Permit 117305  
**Date:** Tuesday, April 16, 2024 4:03:00 PM  
**Attachments:** [Page from 117305.pdf](#)  
[image001.png](#)

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Stephen,

The house must also be included on the type of construction (see highlighted) on the attached permit application. Be advised the pump tank/basin must also contain an audible and visible high water alarm, etc. as per 285.34.

Thank you,



**Brenda Ritzen**  
Environmental Health Coordinator  
195 David Jonas Dr.  
New Braunfels, TX 78132  
DR:OS00007722  
830-608-2090  
[www.cceo.org](http://www.cceo.org)

---

**From:** Stephen Jetton <[stephen.jetton@gmail.com](mailto:stephen.jetton@gmail.com)>  
**Sent:** Tuesday, April 16, 2024 11:26 AM  
**To:** Ritzen, Brenda <[rabbjr@co.comal.tx.us](mailto:rabbjr@co.comal.tx.us)>  
**Cc:** [reed.hoysradt@gmail.com](mailto:reed.hoysradt@gmail.com)  
**Subject:** Re: Permit 117305

**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

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Good morning Brenda,

Please see the attached revisions.

1. Revised application showing both owners and signatures.
2. Application updated.
3. Affidavit attached.
4. This basin meets all TCEQ requirements. I added a note in the cross section and added basin to the design note requirements.



# Southwest Septic Design

2573 Deer Stand Loop  
San Marcos, Texas 78666  
Hays County

Stephen.jetton@gmail.com  
Mobile (512) 757-1259

**REVISED**  
11:39 am, Apr 16, 2024

## Design Report On-Site Sewage facility Aerobic Wastewater Treatment System Utilizing Surface Spray Application

### ***OWNER/SITE LOCATION:***

Covey Residence  
155 River Star Drive  
Lot 14, Block 7, Texas Country Estates Unit 2 Subdivision  
New Braunfels, Texas 78132

### ***SITE DESCRIPTION & EVALUATION:***

A site evaluation indicated class IV soils (see attached soil evaluation report). No evidence of shallow groundwater was noted. This property is within the Edwards Aquifer Recharge Zone. However, no recharge features are located within 150 feet of the proposed system. ***All portions of this proposed OSSF will maintain at least a 10' separation from all water lines.*** According to the Federal Emergency Management Agency Flood Insurance Rate Map, this property is not within zone A, 100-year Floodplain. Minimum separation distances as stated in §285 TCEQ, On-Site Sewage Facilities, must be maintained.

### ***WASTEWATER DESIGN FLOW:***

This design is for an existing 4-bedroom, single-family residence utilizing low-flow fixtures. A proposed Garage/workshop (732 sq. ft.) with a restroom is also proposed for this property. This is a personal garage with only a restroom for convenience. Therefore, no additional flow will be required. The total projected daily waste flow for this design will remain at **300 gallons per day** per Texas Commission of Environmental Quality (TCEQ) On Site Sewage Facilities 12-29-2016. This property is serviced by a public water supply.

### ***AEROBIC TREATMENT SYSTEM DESCRIPTION:***

This proposed development will utilize a Norweco Aerobic Treatment Plant, Model 960-500 (approved for 500GPD). A 400-gallon pretreatment/trash tank will precede the 500-gallon per day aerobic treatment tank. Effluent from the aeration tank will flow through stack feed chlorinator to an 825-gallon pump tank. The pump tank serves as a chlorine contact chamber and a storage tank prior to the treated/chlorinated effluent being discharged to sprinkler heads. The disposal area will consist of **4 – 29 ft. 180°** radius patterns. The system is considered a “package system,” and will be installed according to manufacturer’s instructions.



4/16/2024



**Abandon Regulations:**

The installer will abandon the existing aerobic spray heads and supply line according to §285.36 Abandoned Tanks, Boreholes, Cesspools, and Seepage Pits.

- (a) An abandoned tank is a tank that is not to be used again for holding sewage.
- (b) To properly abandon, the owner shall conduct the following actions, in the order listed.
  - (1) All tanks, boreholes, cesspools, seepage pits, holding tanks, and pump tanks shall have the wastewater removed by a waste transporter, holding a current registration with the executive director.

All tanks, boreholes, cesspools, seepage pits, holding tanks, and pump tanks shall be filled to ground level with fill material (less than three inches in diameter) which is free of organic and construction debris.

**Design Specification:**

<b>Size of Residence</b>	<i>Primary Living Area</i>	2400 sq. ft. Existing 732 sq. ft. Garage - Proposed
<b>Number of Bedrooms</b>		4
<b>Average Expected Flow</b>		300 GPD
<b>Application Rate</b>	<i>0.064 Gal./ft<sup>2</sup>/Day</i>	0.064
<b>Minimum Application Area</b>	<i>(GPD)/(0.064 Gal./ft<sup>2</sup>/Day)</i>	4687.50 ft <sup>2</sup>
<b>Actual Application Area</b>	<i>3.14(r<sup>2</sup>) x number of head</i>	4995.00 ft <sup>2</sup>

**System Components:**

<b>Trash Tank</b>	400 gallon one-compartment
<b>Aeration Tank</b>	500 gallon per day
<b>Pump Tank</b>	825 gallon

**Pump Tank:**

Pump Tank gallons per inch: 15.56"

Operating Capacity: 15.56" x 20" = **311.20 operating gallons**

Reserve Capacity: 53" usable depth (53 x 15.56 = 825.00) 825 – 451.24 = **373.60 reserve gallons.**

<i>Pump off</i>	8" Above tank floor	124.48 Gallons
<i>Pump on</i>	9" Above tank floor	140.04 Gallons
<i>Alarm on</i>	29" Above tank floor	451.24 Gallons

Combined capacity of pretreatment and aeration tank is 900-gallons. An 825-gallon, single-compartment pump tank allows for a one day's flow above the alarm-on level.

**Pump and Sprinkler Head Requirements:**

Pump: Existing Red Jacket Model 518 Utility Pump – ½ H.P., 115 volt, 5 stage 18 GPM submersible pump.



Sprinkler Head: K Rain Pro Plus with Purple Tops.

Nozzle #: **3 LA** (Low angle trajectory, 11 degrees), operating at 30 psi, 29 ft. radius and 3.0 GPM flow per sprinkler.

### Dosing:

Application Flow Rate 3.0 gpm/head x 4 heads = **12.0 gpm**

Application Time: 2 doses @ 150 gal/dose / 12.0 gpm = ~ **12.50 min/dose**

### Head Requirements:

Elevation head: 15 (*assumed elevation at top of pump 904 and highest spray head at 919*)

Pressure head: 30 psi x 2.31 ft/psi = 69.30 ft.

Friction head: 1" Sch. 40 PVC @ 12.0 gpm = 7.69 ft.  $(315 \times 7.69/100 \times 1.2) = 29.07$

TDH = 15 ft. + 69.30 ft. + 29.07 = 113.37 (within pump curve).

A commercial timer must be set to provide two doses a day, one at 1 a.m. and the other at 4 a.m. An unthreaded sampling valve must also be provided. Under the Texas Administrative Code, §285 On-Site Sewage Facilities, this system must be installed with a night timer, set to spray between the hours of 1 am and 5 am.

### Alarm System:

An audio/visual high-water alarm will be installed on this system. Norweco control panel with timed control 24-hour timer. The alarm/light will be installed in a high visible location close to the pump tank.

### Additional Components:

- Sampling valve and pressure gauge (inside tank) will be used to correctly set pressure for correct spray head radius. The installer will use the sampling valve and pressure gauge to set the required 30 PSI pressure to the sprinkler head.
- Pressure Gauge of not less than 45PSI will be installed to monitor the correct pressure to the drain field.

### Installation Notes:

- 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 Facility's set forth in 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 an Installer II certification.



A handwritten signature in black ink, appearing to be "S. Jetton".

4-16-2024

- 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 the approved plans and specifications.
- The installer may not alter these plans without the approval of the designer.
- All electrical installation must follow applicable electric codes.

**Tank and Pump Basin 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 layer, with a minimum thickness of 4 inches, of sand, sandy loam, clay loam, or pea gravel.
- Tank excavations must be backfilled with soil or pea gravel that is free of rock larger than ½ inch in diameter. Class IV soils and gravel larger than ½ inch in diameter are not acceptable for use as backfill material. If the top of a septic tank extends above the ground surface, soil may be mounded over the tank to maintain slope to the drain field.
- Risers are required over all tank openings and must extend to at least 2" above the ground surface.
- Risers shall be permanently fastened to the tank lid.
- The riser lid shall screw down and have a lock or weigh 65lbs.
- A secondary plug, cap, netting, etc. shall be provided below the riser lid.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, 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" per foot from house to tank.
- PVC pipe from house to tank must be at least Sch.40 or SDR 26.

**Irrigation & Landscaping Notes:**

- Irrigation lines shall be 1" Sch.40 PVC. Sleeve any pipe that crosses under any roads or driveways with Sch.40 PVC.
- Purple Pipe must be used for all irrigation lines.
- Supply lines must be buried at least 6" 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 property owner prior to removal of any trees that may obstruct the operation of the irrigation system.
- *All exposed surface rock must be covered with at least 4" 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 the alarms are activated.
- A hose bib must be installed in pump tank at tank inspection port.
- The chlorinator must be constructed to allow a chlorine residual of 1.0 mg/l in the pump tank for the period between scheduled inspections.



A handwritten signature in black ink, appearing to read "Stephen F. Jetton".

- The disinfected effluent must obey the standards as stated in §285, TCEQ, On-Site Sewage Facilities. Approved disinfections methods using chlorinated tablets, must use calcium hypochlorite that is properly labeled for wastewater disinfections.

**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 that they will provide on-going maintenance of the installation.
- The initial contract will be a minimum of 2 years.
- A maintenance contract will authorize the Maintenance Company to maintain and repair the system as needed.
- The 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 filed in reference to the real property deed on which the surface application system is the 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 §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.
- Water conservation practices should be always used. Consult your local authorities for more information.
- Run the dishwasher with a full load whenever possible
- Avoid running water continuously when brushing teeth, washing hands, or cleaning food and utensils.
- Repair any water leaks immediately, such as running toilets or leaky faucets.
- The owner is responsible for cleaning and pumping the septic tank, typically every 2 to 3 years depending on system usage.
- Do not use the toilet to dispose of tissue, feminine hygiene products, trash, cigarettes, etc.
- It is recommended that you do not use the garbage disposal and/ or garbage grinders in the facility serviced by this system.
- Household chemicals should be used in moderation.
- According to §285, no water softener will be allowed to enter the OSSF.



A handwritten signature in black ink, appearing to read "Stephen F. Jetton".

- Chemical additives or the so-called enzymes should not be used during the operation of this system. Some of these additives may even be harmful to the facilities operation.
- Do not build driveways, storage buildings, decks, or other structures over the tank or disposal area.
- The OSSF must be protected from meeting vehicular traffic.
- A strong vegetative cover is essential for the proper operation of this system. The property owner is solely responsible for maintaining this vegetation. The irrigation area should be groomed by mowing on a regular basis.
- If you notice a problem with the spray patterns, or any of the alarms are activated, contact your maintenance provider immediately.
- Never place a greater wastewater load on your system than that prescribed by the design of the system (**300 gallons per day**).

***\*The proposed system has been designed generally following the minimum requirements under TCEQ §285 On Site Sewage Facilities. The site evaluation and subsequent design are based on technical information currently available. 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. In extreme cases a substitute system may be required. By accepting this design, the homeowner/contractor understands the conditions, and agrees that the designer will not be liable for any more than the agreed upon design***

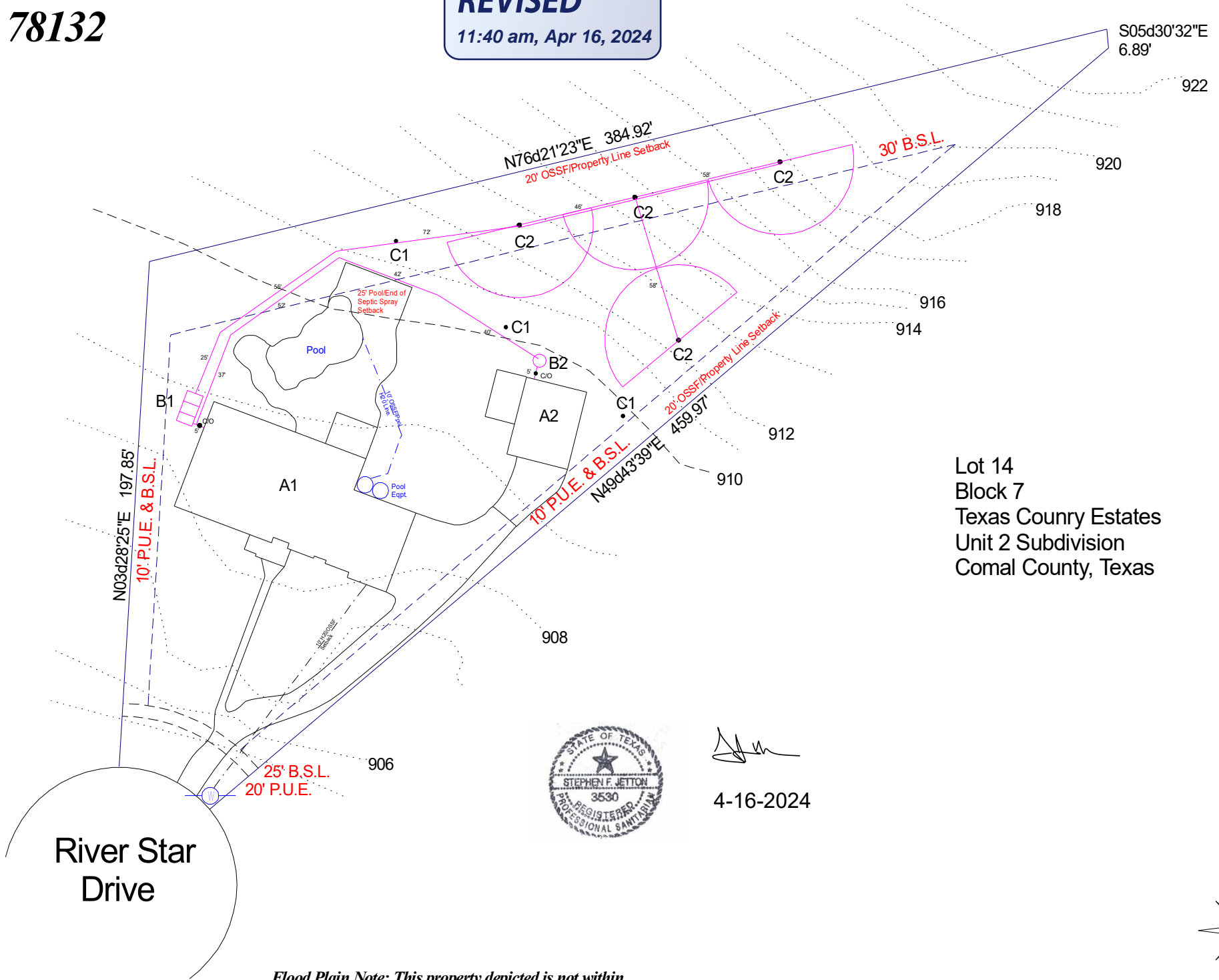


A handwritten signature in black ink, appearing to read "Stephen F. Jetton".

4-16-2024

# 155 River Star Drive New Braunfels, Texas 78132

**REVISED**  
11:40 am, Apr 16, 2024

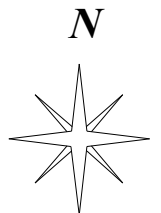


Lot 14  
Block 7  
Texas County Estates  
Unit 2 Subdivision  
Comal County, Texas



*[Signature]*

4-16-2024



Scale: 1" = 50'

A1 - Existing 4-Bedroom (2400 sq. ft.) Single-Family Residence.  
A2 - Proposed Garage/Workshop with Restroom (732 sq. ft.).

B1 - Existing Norweco Model 960 - 500GPD ATU.  
B2 - Proposed AK Industries Model AKP30260 Basin.

C1 - Existing Septic Spray Head - 100% Abandoned.  
C2 - Proposed KRain Pro Plus, 29' Radius Sprinkler Head.  
#3LA Nozzle - 30 PSI - 3.0 GPM Per Sprinkler.

X - Profile Hole  
C/O - Two-Way Cleanout

Provide Two-Way Cleanout from House/Garage to Tank.  
3" or 4" Sch. 40 between House/Garage and Tank. Must  
maintain a minimum of 1/8" per foot of fall between  
house and tank.

Supply Line: 2" Sch. 40 PVC.

Maintain 1' from all Utility Easements.  
Maintain 20' from all Property Lines.  
Maintain 10' from all Potable Water Lines.

\*Refer to Tank Detail and Design Notes for more  
Information.

\*Plans may vary Slightly based on Conditions  
Encountered in the Field.

\*All Separation and Setback Requirements as Stated in  
Chapter 285, TCEQ, On-Site Sewage Facilities, must  
be maintained.

River Star  
Drive

Flood Plain Note: This property depicted is not within  
the 100-Year Flood Plain according to Map Panel No.  
48091 C0 290F Dated 9/2/2009.

\*This is not intended to be used as an official  
survey. All structures and Contour locations  
are approximate.

PART/PRINT #:

PART DESCRIPTION:

SCALE:

REVISION:

DATE:

AKP30260

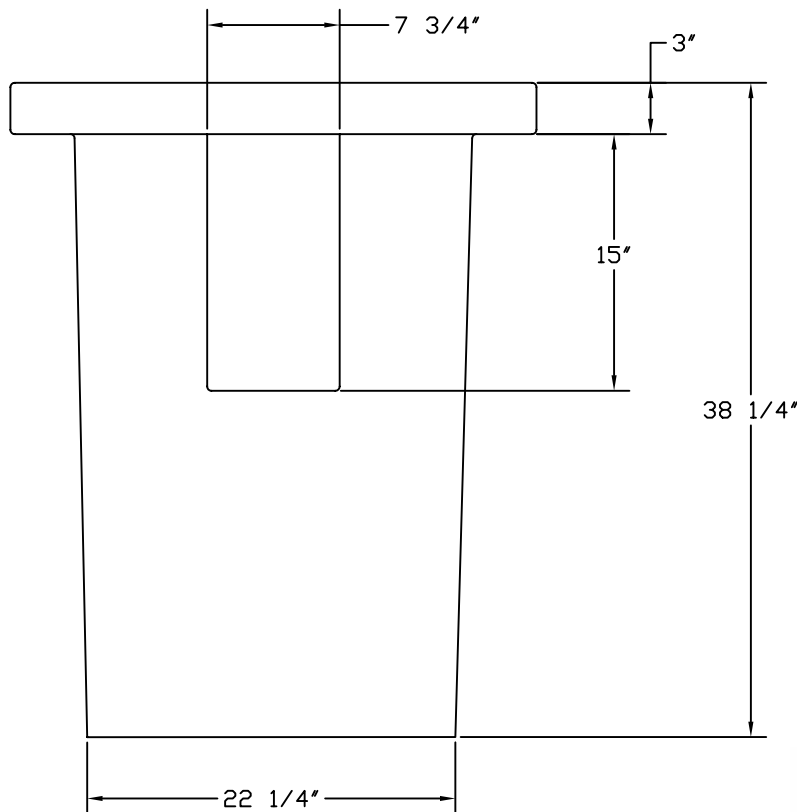
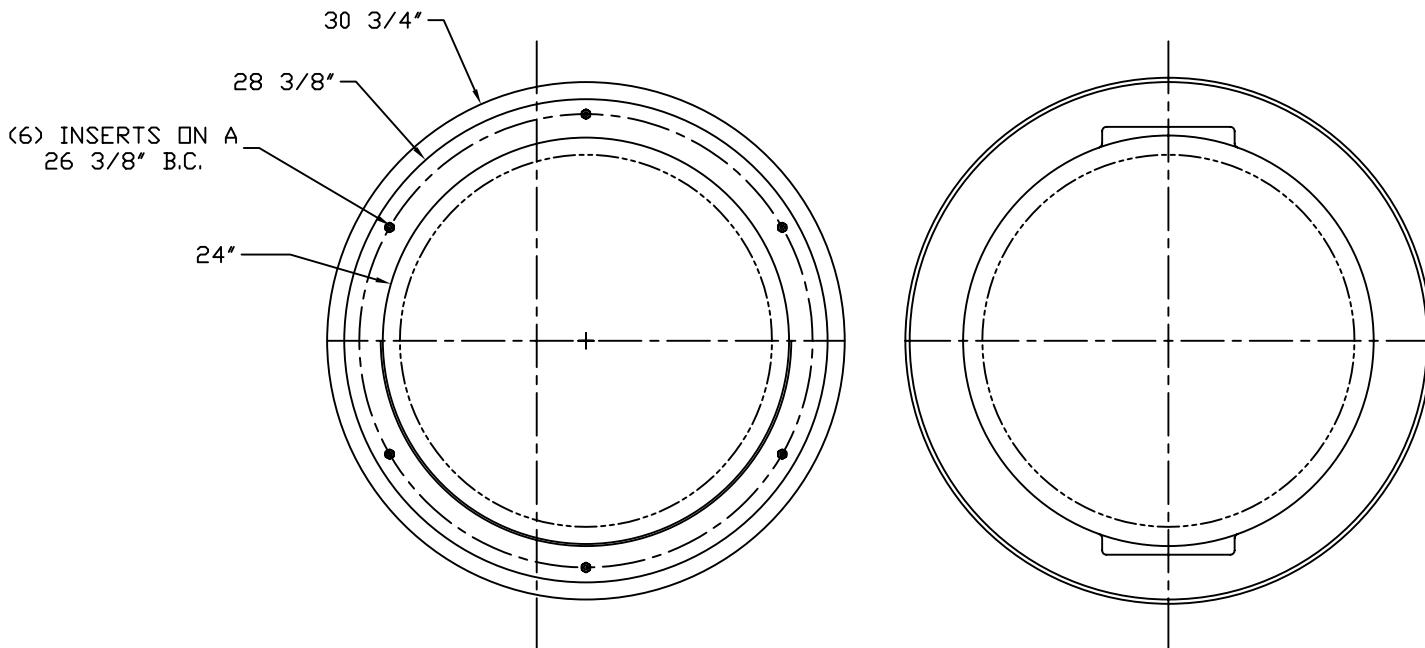
RTP 24 X 36

NOT TO SCALE

002

8/29/03

THIS DRAWING IS THE SOLE PROPERTY OF AK INDUSTRIES INC.



B.O.M  
AKR50070 (6)1/4"-20 ALUMINUM INSERTS



*[Handwritten Signature]*

3-20-2024



AK INDUSTRIES INC.  
 2055 PIDCO DR.  
 PLYMOUTH, IN. 46563  
 PHONE: (574) 936-6022

DRAWN BY:  
 M. OLIVAREZ

TOLERANCE:  
 ± 0.0250 UNLESS SPECIFIED OTHERWISE

SIGNATURE:



# AK Industries Model AKP30260

**REVISED**

11:39 am, Apr 16, 2024

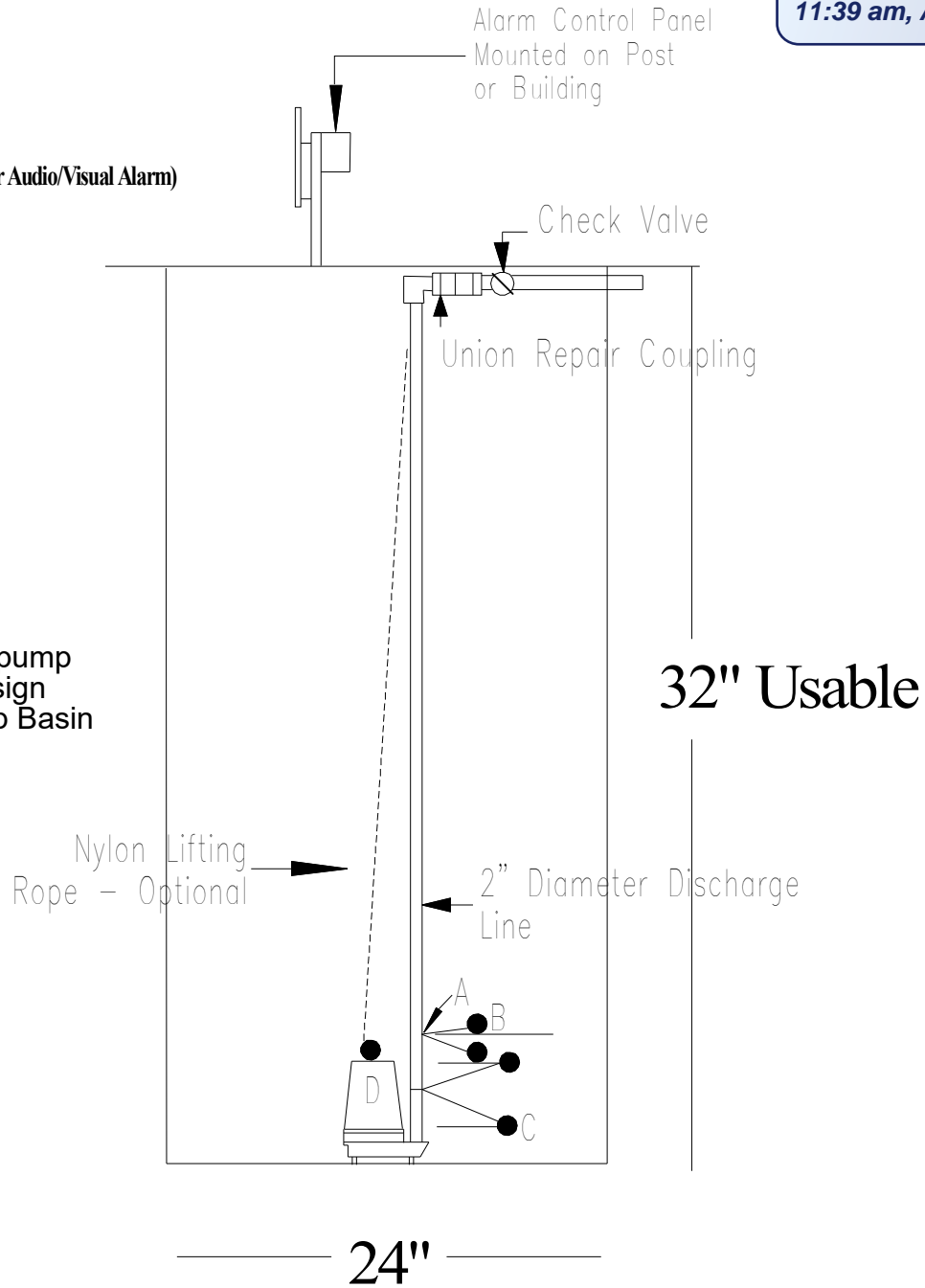
- A - Stainless or Plastic Clamp
- B - High level alarm Mercury Switch (for Audio/Visual Alarm)
- C - Wide Angle Mercury Float Switch
- D - Liberty LE51 2" Solids Pump.

Total Gallons - 63.04 Gallons  
Gallons Per Inch - 1.97

Pump off - 7" - 13.79 Gallons  
Pump on - 18" - 35.46 Gallons  
Alarm on - 21" - 41.37 Gallons

Reserve Gallons - 21.67 Gallons

Basin must meet TCEQ pump tank standards - See design notes for Tank and Pump Basin requirements.



~~3-20-2024~~

4/16/2024

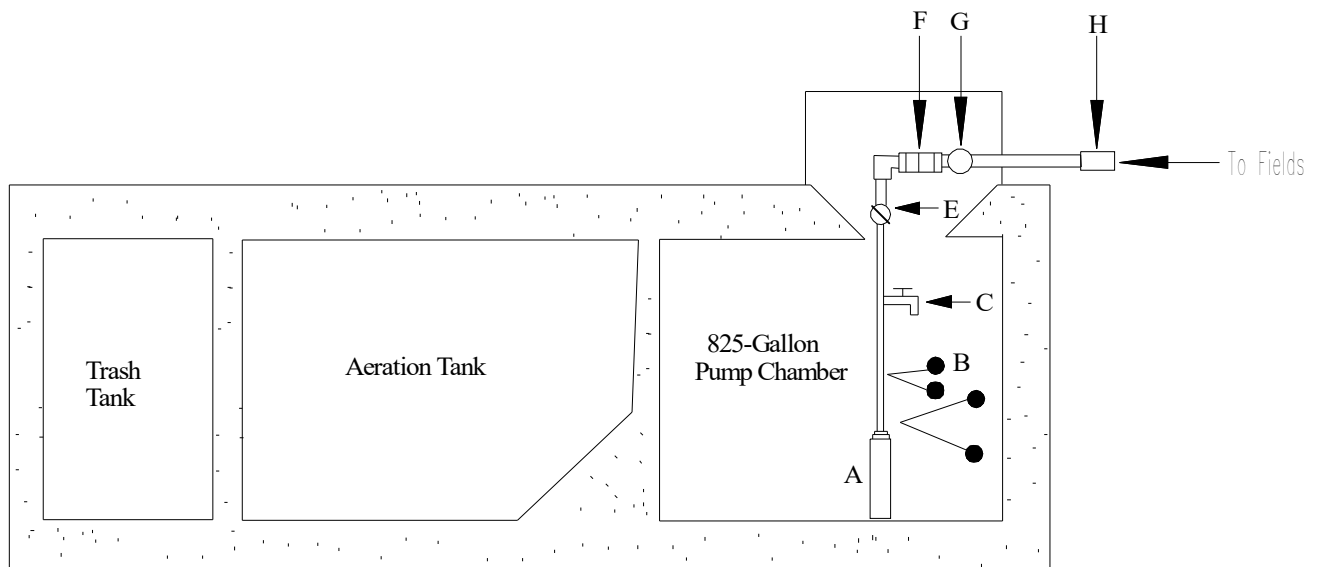
## Fiberglass Basin

Not to Scale



# Typical Pump Tank Cross Section

- A - Red Jacket Model 518 Utility Pump - ½ H.P., 115 volt, 5 stage 18 GPM
- B - Wide Angle Mercury Float Switch
- C - Sampling Port
- E - Pressure Regulator
- F - Quick Disconnect Union
- G - 40 PSI Pressure Gauge
- H - Check Valve



## Norweco 960-500 (500 GPD) Aerobic Treatment Plant



3-20-2024

Not to Scale

# PROPLUS™ GEAR DRIVEN SPRINKLER SETTING INSTRUCTIONS

**NOTE:** The ProPlus is factory preset with a 90° arc setting, and includes a pre-installed #2.5 nozzle.

## CHANGING A NOZZLE

### 1► REMOVING THE NOZZLE RETENTION SCREW

Use your K-Key or a small flat blade screwdriver to remove the nozzle retention screw by turning counter-clockwise to remove and clockwise to re-install.

### 2► PULL UP THE RISER

Insert the K-Key in the keyhole on the top of the nozzle turret and turn the key 1/4 turn to insure that the key does not slip out of the keyhole when you pull it up. Firmly pull up the entire spring-loaded riser to access the nozzle socket. Hold the riser assembly up with one hand.

### 3► REMOVING THE NOZZLE

With the nozzle retention screw removed, insert the K-Key into the slot directly under the nozzle "prongs" at the top of the nozzle. Now, turn the key 1/4 turn to "hook" the nozzle and pull the nozzle out.

### 4► INSTALLING A NOZZLE

Press the desired nozzle into the nozzle socket. Make sure the nozzle number is visible and the nozzle "prongs" are up. Then, re-install the nozzle retention screw. **NOTE:** The nozzle retention screw is also a break-up screw and used to adjust the distance of the spray.

## SETTING THE ARC ADJUSTMENT

### 1► FINDING THE LEFT START POSITION

Place your finger on the top center of the nozzle turret. Rotate the turret to the right until it stops and then back to the left until it stops. Notice the position of the nozzle arrow. This is the "Left Start" position. The sprinkler will begin spraying from this position and rotate clockwise until it reaches the right Adjustable Stop-Return Point.

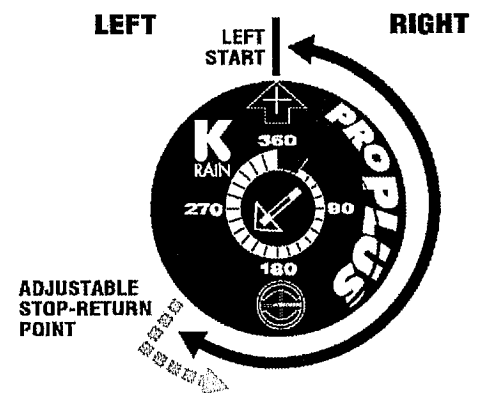
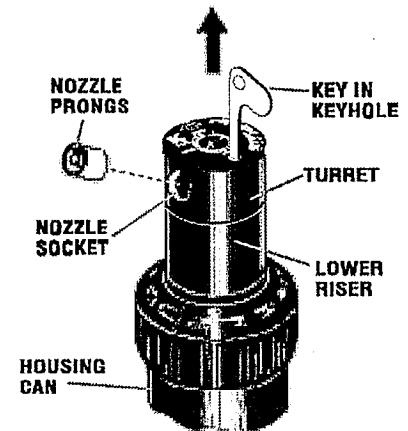
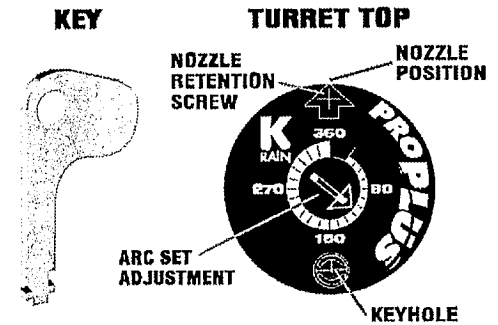
### 2► ORIENTING THE LEFT START POSITION

Insert the K-Key in the keyhole on the top of the nozzle turret and turn the key 1/4 turn to insure that the key does not slip out of the keyhole when you pull it up. Being careful not to allow the nozzle turret to turn, firmly pull up the entire spring-loaded riser. Hold the lower riser assembly up with one hand. Now turn only the lower riser clockwise or counter-clockwise until the nozzle arrow is pointing where you want the sprinkler to begin spraying.

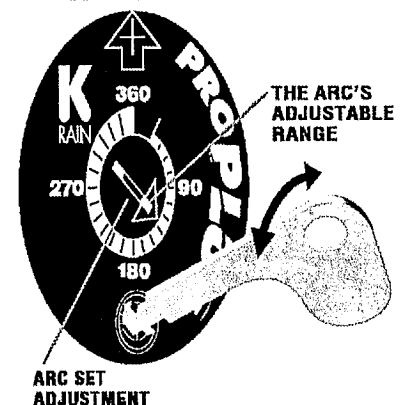
### 3► CHANGING THE ARC

Insert the K-Key or a small flat blade screwdriver into the Arc Set Adjustment slot. Turn clockwise to increase the arc or counter-clockwise to decrease the arc.

**WHEN SET AT 360°, THE PROPLUS WILL ROTATE CONTINUOUSLY IN A CLOCKWISE DIRECTION.**



**ARC SELECTION:  
40° TO 360°**



3-20-2024

# PROPLUS™ GEAR DRIVEN SPRINKLER SETTING INSTRUCTIONS

## SPRINKLER INSTALLATION

### 1► INSTALL AND BURY

Do not use pipe dope. Thread the sprinkler on the pipe. Bury the sprinkler flush to grade. **NOTE:** Gear driven sprinklers and pop-up sprays should not be installed on the same watering zone.

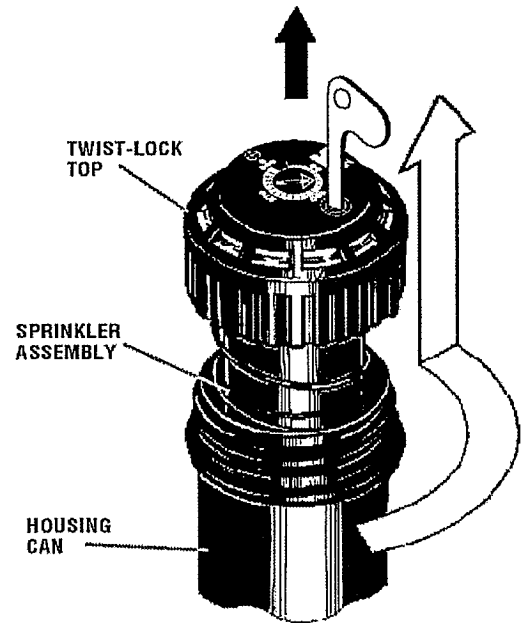
### 2► INSPECTING THE FILTER

Unscrew the top and lift the complete sprinkler assembly out of the housing can. The filter is located on the bottom of the sprinkler assembly and can easily be pulled out, cleaned and re-installed.

### 3► WINTERIZATION TIPS

When using an air compressor to remove water from the system please note the following:

- 1) Do not exceed 30 PSI.
- 2) Always introduce air into the system gradually to avoid air pressure surges. Sudden release of compressed air into the sprinkler can cause damage.
- 3) Each zone should run no longer than 1 minute on air. Sprinklers turn 10 to 12 times faster on air than on water. Over spinning rotors on air can cause damage to the internal components.



## STANDARD NOZZLE PERFORMANCE

Nozzle	U.S.			METRIC				
	Pressure PSI	Radius FL	Flow GPM	Pressure KPa	Pressure Bars	Radius Meters	Flow L/M	Flow MP/H
#2.5 Factory Installed Nozzle	30	38'	2.5	206	2.04	11.6	9.46	.57
	40	39'	2.8	275	2.72	11.9	10.60	.64
	50	40'	3.2	345	3.40	12.2	12.11	.73
	60	41'	3.6	413	4.08	12.5	13.25	.79
#0.5	30	28'	0.5	206	2.0	8.5	1.89	.11
	40	29'	0.6	275	3.0	8.8	2.27	.14
	50	29'	0.7	345	3.5	8.8	2.65	.16
	60	30'	0.8	413	4.0	9.1	3.03	.18
#0.75	30	29'	0.7	206	2.0	8.8	2.65	.16
	40	30'	0.8	275	3.0	9.1	3.03	.18
	50	31'	0.9	345	3.5	9.4	3.41	.20
	60	32'	1.0	413	4.0	9.8	3.79	.23
#1	30	32'	1.3	206	2.0	9.8	4.92	.14
	40	33'	1.5	275	3.0	10.1	5.68	.18
	50	34'	1.6	345	3.5	10.4	6.05	.20
	60	35'	1.8	413	4.0	10.7	6.81	.23
#2	30	37'	2.4	206	2.0	11.3	9.08	.54
	40	40'	2.5	275	3.0	12.2	9.46	.56
	50	42'	3.0	345	3.5	12.8	11.35	.68
	60	43'	3.3	413	4.0	13.1	12.49	.75
#3	30	38'	3.6	206	2.0	11.6	13.63	.75
	40	39'	4.2	275	3.0	11.9	15.89	.95
	50	41'	4.6	345	3.5	12.5	17.41	1.04
	60	42'	5.0	413	4.0	12.8	18.92	1.13
#4	30	43'	4.4	206	2.0	13.1	16.65	.99
	40	44'	5.1	275	3.0	13.4	19.30	1.15
	50	46'	5.6	345	3.5	14.0	21.19	1.27
	60	49'	5.9	413	4.0	14.9	22.33	1.33
#6	40	45'	5.9	206	3.0	13.7	22.33	1.33
	50	46'	6.0	275	3.5	14.0	22.71	1.36
	60	48'	6.3	345	4.0	14.6	23.85	1.43
	70	49'	6.7	413	5.0	14.9	25.35	1.52
#8	40	42'	8.0	206	3.0	12.8	30.28	1.81
	50	45'	8.5	275	3.5	13.7	32.12	1.92
	60	49'	9.5	345	4.0	14.8	35.95	2.17
	70	50'	10.0	413	5.0	15.3	37.85	2.30

## LOW ANGLE NOZZLE PERFORMANCE

Nozzle	U.S.			METRIC				
	Pressure PSI	Radius FL	Flow GPM	Pressure KPa	Pressure Bars	Radius Meters	Flow L/M	Flow MP/H
#1	30	22'	1.2	207	2.04	6.71	4.54	.34
	40	24'	1.7	275	2.72	7.32	5.43	.39
	50	26'	1.8	344	3.40	7.92	6.80	.41
	60	28'	2.0	413	4.08	8.53	7.56	.46
#3	30	29'	3.0	207	2.04	8.84	11.34	.68
	40	32'	3.1	275	2.72	9.75	11.72	.71
	50	35'	3.5	344	3.40	10.67	13.23	.80
	60	37'	3.8	413	4.08	11.58	14.36	.87
#4	30	31'	3.4	207	2.04	9.45	12.85	.78
	40	34'	3.9	275	2.72	10.36	14.74	.89
	50	37'	4.4	344	3.40	11.28	16.63	1.00
	60	38'	4.7	413	4.08	11.58	17.77	1.07
#6	40	38'	6.5	275	2.72	11.58	24.57	1.68
	50	40'	7.3	344	3.40	12.19	27.59	1.76
	60	42'	8.0	413	4.08	12.80	30.24	1.82
	70	44'	8.6	482	4.76	13.41	32.51	1.96

Data represents test results in zero wind for ProPlus. Adjust for local conditions. Radius may be reduced with nozzle retention screw.



*Signature*

3-20-2024



**K-RAIN MANUFACTURING CORP.**  
 1640 Australian Avenue  
 Riviera Beach, FL 33404 USA  
 PH: 1-561-844-1002 / 1-800-735-7246  
 FAX: 1-561-842-9493  
 WEB: <http://www.krain.com>

© K-RAIN Manufacturing Corp. L-58921

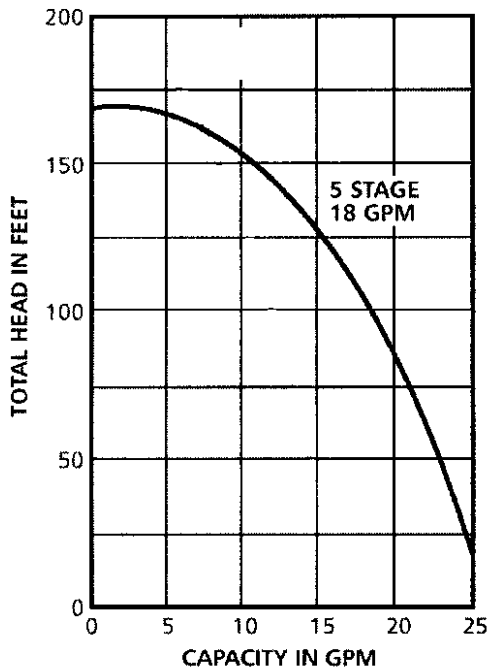
**RED JACKET MODEL 518 UTILITY PUMP  
1/2HP, 115 VOLT, 5 STAGE, 18 GPM SUBMERSIBLE**



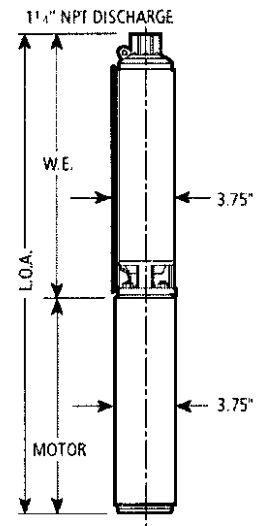
# E518

## Utility Pump

**Performance and Specifications**



Dimensions (in inches)	
Discharge	1 1/4" NPT
Pump O.D.	3.75"
W.E. Length	610 - 13.6"
Motor Length	9.53"
LOA	610 - 23.1"
	518 - 21"



*[Handwritten Signature]*

3-20-2024

*[Handwritten Signature]*

# LE50-SERIES

Sewage Pumps

# Liberty Pumps®

A Family and Employee Owned Company

**1/2 hp**

**2" Solids Handling**

**118 GPM at 10' TDH**

**25' Maximum Head**

## Features

- Heavy cast iron construction
- Oil-filled, thermally protected motor
- Permanently lubricated ball bearings
- 2 Vane corrosion resistant \*HYTREL® impeller
- All stainless-steel fasteners and rotor shaft
- Quick-connect 10' standard power cord allows replacement of cord in seconds without breaking seals to motor. (25' length optional. 35' and 50' bare lead cords available.)

\*HYTREL® is a registered trademark of DuPont Polymers



Vertical float  
switch models  
available in 115V



3-20-2024



innovate. evolve.

# LE50-Series

## Impeller

2 Vane semi-open capable of passing a 2" spherical solid

## Paint

Powder coat

## Max Fluid Temperature

104°F (40°C) Continuous duty  
140°F (60°C) Intermittent

## Motor

Submersible type, oil-filled, hermetically sealed, thermally protected

## Power Cord Type

SJTW, Quick-connect 10' standard length (25' cord option or 35' and 50' bare lead option)

## Motor Housing

Class 25 cast iron

## Volute

Class 25 cast iron

## Dimensional Data

**Weight:** LE51M: 42 lbs

**Height:** 14"

**Major Width:** 11.5" (manual models)

## Shaft

Stainless

## Hardware

Stainless

## Mechanical Shaft Seal

Unitized ceramic carbon

## Bearings

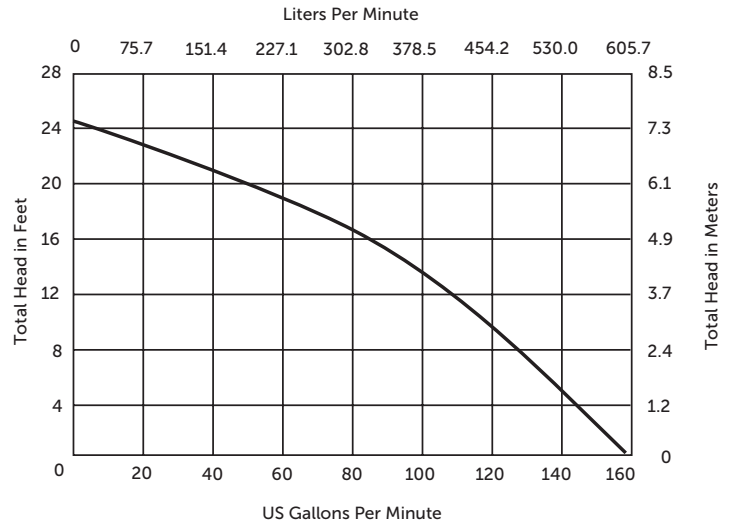
Upper and lower ball bearings

## Float Switch [automatic models]

Wide-angle and vertical float switch available

## Performance Curve

60 Hz, 1725 RPM



## All Models

MODELS	HP	VOLTS	PHASE	AMPS	DISCHARGE SIZE	AUTOMATIC	IMPELLER
LE51M	1/2	115	1	12	2" FNPT	No	2 Vane Semi-Open
LE51A	1/2	115	1	12	2" FNPT	Wide-Angle Float Switch	2 Vane Semi-Open
LE51AV	1/2	115	1	12	2" FNPT	Vertical Float Switch	2 Vane Semi-Open
LE52M	1/2	208-230	1	6.8	2" FNPT	No	2 Vane Semi-Open
LE52A	1/2	208-230	1	6.8	2" FNPT	Wide-Angle Float Switch	2 Vane Semi-Open

10' cord standard on above models.

For 25' cord options, add a "-2" suffix to model number. Example: LE51A-2

For 35' bare lead cords, add a "-3" suffix to model number. Example: LE51A-3

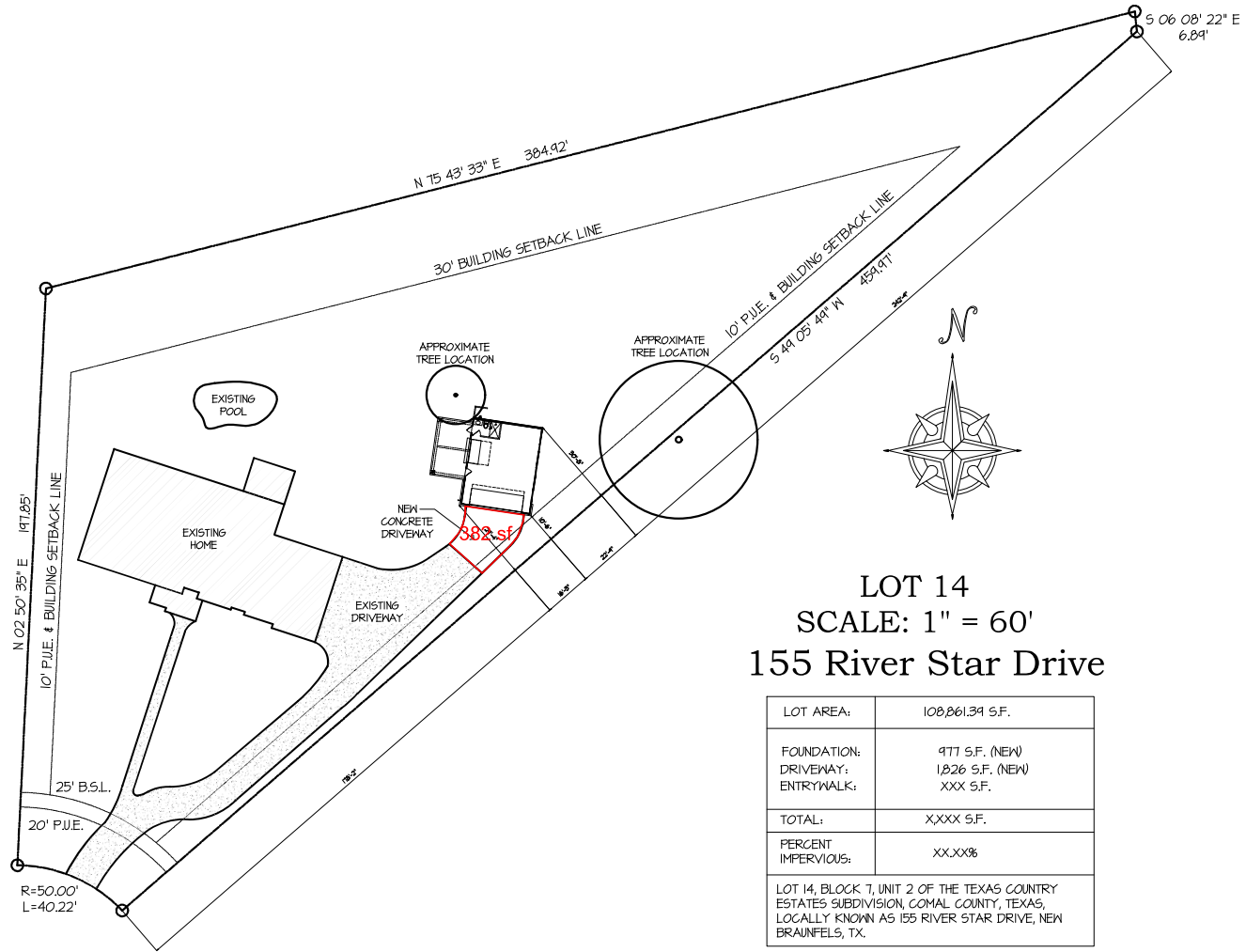
For 50' bare lead cords, add a "-5" suffix to model number. Example: LE51A-5



*[Signature]*

3-20-2024





**LOT 14**  
**SCALE: 1" = 60'**  
**155 River Star Drive**

LOT AREA:	100,861.39 S.F.
FOUNDATION:	977 S.F. (NEW)
DRIVEWAY:	1,826 S.F. (NEW)
ENTRY WALK:	XXX S.F.
TOTAL:	XXXX S.F.
PERCENT IMPERVIOUS:	XX.XX%

LOT 14, BLOCK 7, UNIT 2 OF THE TEXAS COUNTRY ESTATES SUBDIVISION, COMAL COUNTY, TEXAS, LOCALLY KNOWN AS 155 RIVER STAR DRIVE, NEW BRAUNFELS, TX.

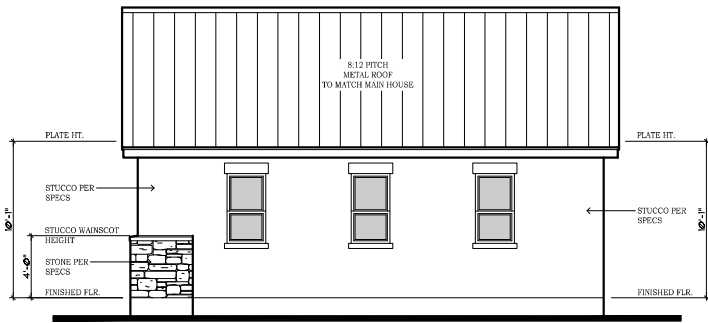
RIVER STAR DRIVE

**SITE PLAN**  
 SCALE: 1" = 60'-0"

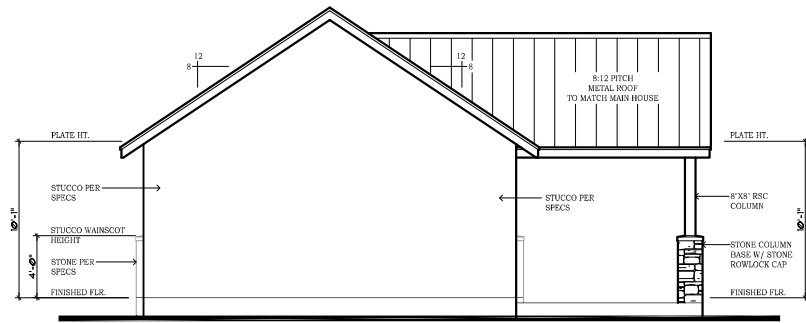


<b>DETAILS:</b>
COVEY RESIDENCE 155 RIVER STAR LOT 14, TEXAS COUNTRY UNIT 2 COMAL COUNTY, TEXAS
<b>ISSUE DATE:</b>
CONSTRUCTION DOCUMENTS: REVIEW SET: 28 MARCH 2023
CONSTRUCTION DOCUMENTS: REVISED SET: 18 APRIL 2023
<b>CONTENTS:</b>
<b>SITE PLAN</b>
<b>FILE INFO:</b>
RAY_COVEY FILE: COVEY_RESIDENCE DATE: 04-18-2023
<b>SHEET:</b>
<b>A1.1</b>

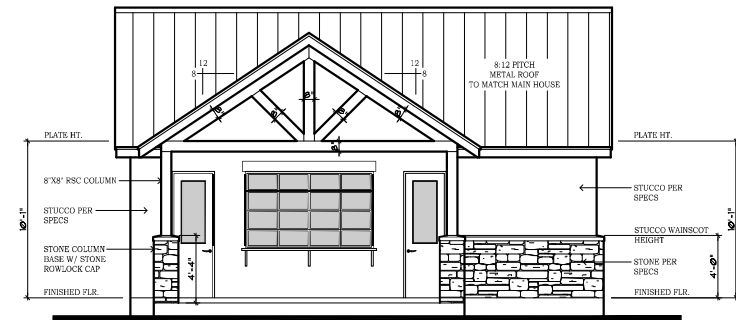




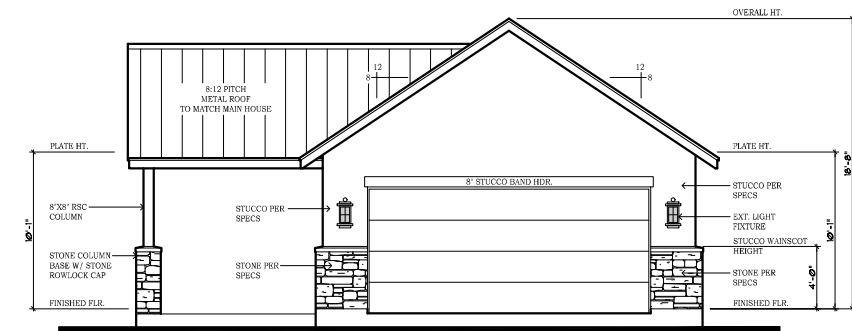
**4** RIGHT ELEVATION  
SCALE: 1/8" = 1'-0"



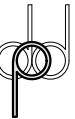
**3** REAR ELEVATION  
SCALE: 1/8" = 1'-0"



**2** LEFT ELEVATION  
SCALE: 1/8" = 1'-0"



**1** FRONT ELEVATION  
SCALE: 1/8" = 1'-0"



<b>DETAILS:</b>	
COVEY RESIDENCE	
198_RIVERSTAR	
LOT_14_Texas_COUNTRY_LIN1_2	
COMAL COUNTY, TEXAS	
<b>ISSUE DATE:</b>	
CONSTRUCTION DOCUMENTS:	REVIEW SET: 28 MARCH 2023
CONSTRUCTION DOCUMENTS:	REVISION SET: 18 APRIL 2023
<b>CONTENTS:</b>	
ELEVATIONS	
<b>FILE INFO:</b>	
RAY_DOWNEY	
FILED: COVEY_RESIDENCE	
DATE: 04-18-2023	
<b>SHEET:</b>	
A3.1	

**CCEO  
COPY**



## Comal County

OFFICE OF COMAL COUNTY ENGINEER

### License to Operate

### On-site Sewage Treatment and Disposal Facility

Date Issued: 8/9/2010

Permit Number: 92752

Location Description: 155 River Star, New Braunfels, TX 78132  
Lot 14, Block 7, Texas Country Estates Unit 2 Subdivision

Type of System: Aerobic Treatment with Surface Irrigation Discharge

License issued to: Weekley Homes, LP

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

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

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

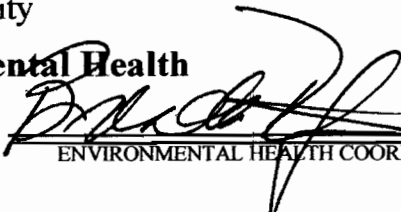
This license to operate is valid for an indefinite period. The holder may transfer it to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

Licensing Authority

**Comal County Environmental Health**

OS8497

  
ENVIRONMENTAL HEALTH INSPECTOR

  
ENVIRONMENTAL HEALTH COORDINATOR

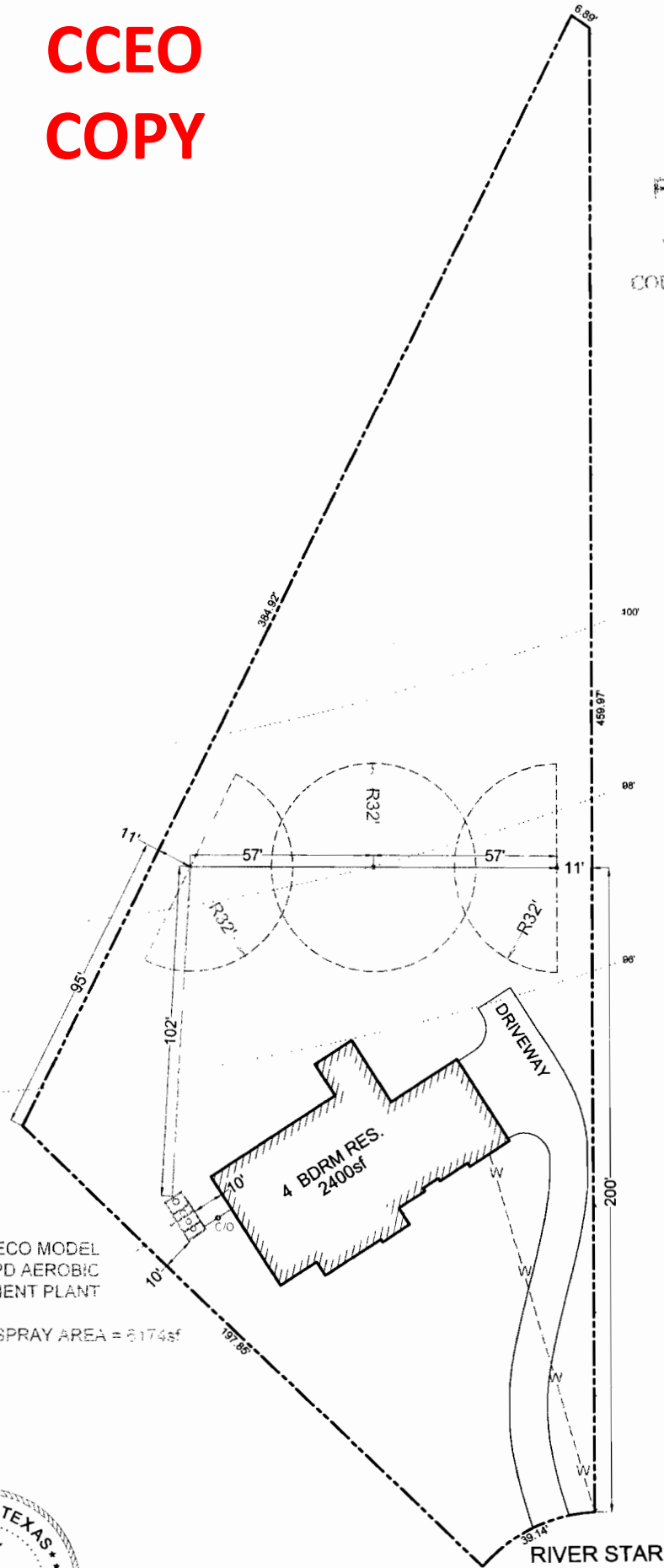
**CCEO  
COPY**

92752

RECEIVED

JUL 27 2010

COUNTY ENGINEER



NORWECO MODEL  
96C - 500GPD AEROBIC  
TREATMENT PLANT

SPRAY AREA = 6174sf



OWNER	WEEKLEY HOMES, LP. c/o DAVID WEEKLEY			DRAWN BY			
STREET ADDRESS	155 RIVER STAR						
LEGAL DESC	TEXAS COUNTRY ESTATES	UNIT/SECTION	2	BLOCK	7	LOT	14
PREPARED BY	GREG W. JOHNSON, P.E. F#002585	SCALE	1"=40'	DATE	6/18/2010	REVISED	





**From:** [Ritzen, Brenda](#)  
**To:** ["reed.hoysradt@gmail.com"](mailto:reed.hoysradt@gmail.com); [Stephen Jetton](#)  
**Subject:** Permit 117305  
**Date:** Wednesday, April 3, 2024 4:14:00 PM  
**Attachments:** [image001.png](#)

---

**Re: Ray Covey**  
**Texas Country Estates Unit 2 Lot 14 Block 7**  
**Application for Permit for Authorization to Construct an On-Site Sewage Facility (OSSF)**

**Owner / Agent :**

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

1.  The owner name on the permit application must include all property owners shown on the recorded deed. Please add Connie Covey to the permit application. Her signature is also needed on the permit application.
2. Include the single family residence information on the permit application.
3.  Submit a notarized Affidavit verifying that both the 4 bedroom 2400 sq. ft. residence and the garage workshop will be for the exclusive use of members of the same single family household.
4.  Verify if the fiberglass basin selected meets TCEQ pump tank standards (water tight, etc.).
5.  Maintain the required 20 ft. setback from the edge of the spray areas to the property lines.
6. Revise as needed and resubmit.

Thank you,



---

**Brenda Ritzen**

Environmental Health Coordinator

195 David Jonas Dr.

New Braunfels, TX 78132

DR:OS00007722

830-608-2090

[www.cceo.org](http://www.cceo.org)

---

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

VOID

REVISED 11:36 am, Apr 16, 2024

Date 4/12/2024

Permit #

Owner Name Ray & Connie Covey
Mailing Address 155 River Star Dr
City, State, Zip New Braunfels TX 78132
Phone # 914-456-9699
Email reed.hoysradt@gmail.com

Agent Name Stephen Jetton
Agent Address 2573 Deer Stand Loop
City, State, Zip San Marcos TX 78666
Phone # 512-757-1259
Email stephen.jetton@gmail.com

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

Subdivision Name Texas Country Estates Unit 2 Lot 14 Block 7
Acreage/Legal
Street Name/Address 155 River Star Dr City New Braunfels Zip 78132

Type of Development:

[X] Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) Garage/Workshop - 732 sq. ft.

Number of Bedrooms 4

Indicate Sq Ft of Living Area 2400

VOID

[ ] Commercial or Institutional Facility

(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: \$ 50,000.00 (Structure Only)

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

[ ] Yes [X] No

(If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)

Source of Water [X] Public [ ] Private Well

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

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 also 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.

Signature of Owner Connie Covey

Date April 12, 2024



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

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



Date 3-20-2024

Permit # 117305

Owner Name Ray Covey

Agent Name Stephen Jetton

Mailing Address 155 River Star Drive

Agent Address 2573 Deer Stand Loop

City, State, Zip New Braunfels

City, State, Zip San Marcos Texas 78666

Phone # 914-456-9699

Phone # 512-757-1259

Email reed.hoysradt@gmail.com

Email stephen.jetton@gmail.com

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

Subdivision Name Texas Country Estates Unit 2 Lot 14 Block 7

Acreage/Legal \_\_\_\_\_

Street Name/Address 155 River Star Drive City New Braunfels Zip 78132

**Type of Development:**

Single Family Residential

Type of Construction (House, Mobile, RV, Etc.) Garage / Workshop

Number of Bedrooms 0

Indicate Sq Ft of Living Area 732

Commercial or Institutional Facility

(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: \$50,000 (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

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 also 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.

Signature of Owner [Signature]

Date 3-20-2024

**VOID**

Planning Materials & Site Evaluation as Required Completed By Stephen Jetton

System Description Adding Pump Basin AK-Industries Model AKP30260 to existing Norweco 960 - 500 / Moving Spray head

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

Tank Size(s) (Gallons) 71 gallon basin Absorption/Application Area (Sq Ft) 4706.00

Gallons Per Day (As Per TCEQ Table III) 300

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

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

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

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

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

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:

**VOID**

I certify that the information provided above is true and correct to the best of my knowledge.

Signature of Designer

Date

3-20-2024

**VOID**

# Southwest Septic Design

## On-Site Sewage Facility Application and Design

### *Prepared For:*

Ray Covey  
155 River Star Drive  
New Braunfels, Texas

Design 30025024

### *Prepared By:*

Stephen F. Jetton   
Registered Professional Sanitarian



3-20-2024

Stephen F. Jetton • Southwest Septic Design  
2573 Deer Stand Loop • San Marcos, Texas 78666 • Mobile (512) 757-1259  
E – Mail [stephen.jetton@gmail.com](mailto:stephen.jetton@gmail.com)



# Southwest Septic Design

2573 Deer Stand Loop  
San Marcos, Texas 78666  
Hays County

Stephen.jetton@gmail.com  
Mobile (512) 757-1259

## Design Report On-Site Sewage facility Aerobic Wastewater Treatment System Utilizing Surface Spray Application

### **OWNER/SITE LOCATION:**

Covey Residence  
155 River Star Drive  
Lot 14, Block 7, Texas Country Estates Unit 2 Subdivision  
New Braunfels, Texas 78132

### **SITE DESCRIPTION & EVALUATION:**

A site evaluation indicated class IV soils (see attached soil evaluation report). No evidence of shallow groundwater was noted. This property is within the Edwards Aquifer Recharge Zone. However, no recharge features are located within 150 feet of the proposed system. **All portions of this proposed OSSF will maintain at least a 10' separation from all water lines.** According to the Federal Emergency Management Agency Flood Insurance Rate Map, this property is not within zone A, 100-year Floodplain. Minimum separation distances as stated in §285 TCEQ, On-Site Sewage Facilities, must be maintained.



### **WASTEWATER DESIGN FLOW:**

This design is for an existing 4-bedroom, single-family residence utilizing low-flow fixtures. A proposed Garage/workshop (732 sq. ft.) with a restroom is also proposed for this property. This is a personal garage with only a restroom for convenience. Therefore, no additional flow will be required. The total projected daily waste flow for this design will remain at **300 gallons per day** per Texas Commission of Environmental Quality (TCEQ) On Site Sewage Facilities 12-29-2016. This property is serviced by a public water supply.

### **AEROBIC TREATMENT SYSTEM DESCRIPTION:**

This proposed development will utilize a Norweco Aerobic Treatment Plant, Model 960-500 (approved for 500GPD). A 400-gallon pretreatment/trash tank will precede the 500-gallon per day aerobic treatment tank. Effluent from the aeration tank will flow through stack feed chlorinator to an 825-gallon pump tank. The pump tank serves as a chlorine contact chamber and a storage tank prior to the treated/chlorinated effluent being discharged to sprinkler heads. The disposal area will consist of **4 – 29 ft. 180°** radius patterns. The system is considered a “package system,” and will be installed according to manufacturer’s instructions.



3-20-2024



**Abandon Regulations:**

The installer will abandon the existing aerobic spray heads and supply line according to §285.36 Abandoned Tanks, Boreholes, Cesspools, and Seepage Pits.

- (a) An abandoned tank is a tank that is not to be used again for holding sewage.
- (b) To properly abandon, the owner shall conduct the following actions, in the order listed.
  - (1) All tanks, boreholes, cesspools, seepage pits, holding tanks, and pump tanks shall have the wastewater removed by a waste transporter, holding a current registration with the executive director.

All tanks, boreholes, cesspools, seepage pits, holding tanks, and pump tanks shall be filled to ground level with fill material (less than three inches in diameter) which is free of organic and construction debris.

**Design Specification:**

<b>Size of Residence</b>	<i>Primary Living Area</i>	2400 sq. ft. Existing 732 sq. ft. Garage - Proposed
<b>Number of Bedrooms</b>		4
<b>Average Expected Flow</b>		300 GPD
<b>Application Rate</b>	<i>0.064 Gal./ft<sup>2</sup>/Day</i>	0.064
<b>Minimum Application Area</b>	<i>(GPD)/(0.064 Gal./ft<sup>2</sup>/Day)</i>	4687.50 ft <sup>2</sup>
<b>Actual Application Area</b>	<i>3.14(r<sup>2</sup>) x number of head</i>	4706.00 ft <sup>2</sup>

**System Components:**

<b>Trash Tank</b>	400 gallon one-compartment
<b>Aeration Tank</b>	500 gallon per day
<b>Pump Tank</b>	825 gallon



**Pump Tank:**

Pump Tank gallons per inch: 15.56"

Operating Capacity: 15.56" x 20" = **311.20 operating gallons**

Reserve Capacity: 53" usable depth (53 x 15.56 = 825.00) 825 – 451.24 = **373.60 reserve gallons.**

<b>Pump off</b>	8" Above tank floor	124.48 Gallons
<b>Pump on</b>	9" Above tank floor	140.04 Gallons
<b>Alarm on</b>	29" Above tank floor	451.24 Gallons

Combined capacity of pretreatment and aeration tank is 900-gallons. An 825-gallon, single-compartment pump tank allows for a one day's flow above the alarm-on level.

**Pump and Sprinkler Head Requirements:**

Pump: Existing Red Jacket Model 518 Utility Pump – ½ H.P., 115 volt, 5 stage 18 GPM submersible pump.



3-20-2024

# SPRAY APPLICATION CALCULATIONS

VOID

Permit Number:

Property Owner: Covey Residence

Property Location: 155 River Star Lane

Flow (Q) (GPD): 300 Ri (Figure I, 285.90): 0.064

300 GPD / 0.064 Ri = 4,688 sq. ft. (Total Spray Application Area Required)

Number of Heads	Degree of Coverage Example(90)	Radius of Head (Ft.)	Square Footage Obtained		Overlap C-1	Overlap C-2	Overlap C-3	Overlap C-4
4	180	29	5,284	Radius Circle 1	29	29		
				Radius Circle 2	29	29		
				Between Centers	46	46		
				Overlap:	289	289		

VOID

578 Total Overlap

4,706 sq. ft. (Actual Spray Application Area to be Installed)

4,688 sq. ft. (Total Spray Application Area Required)

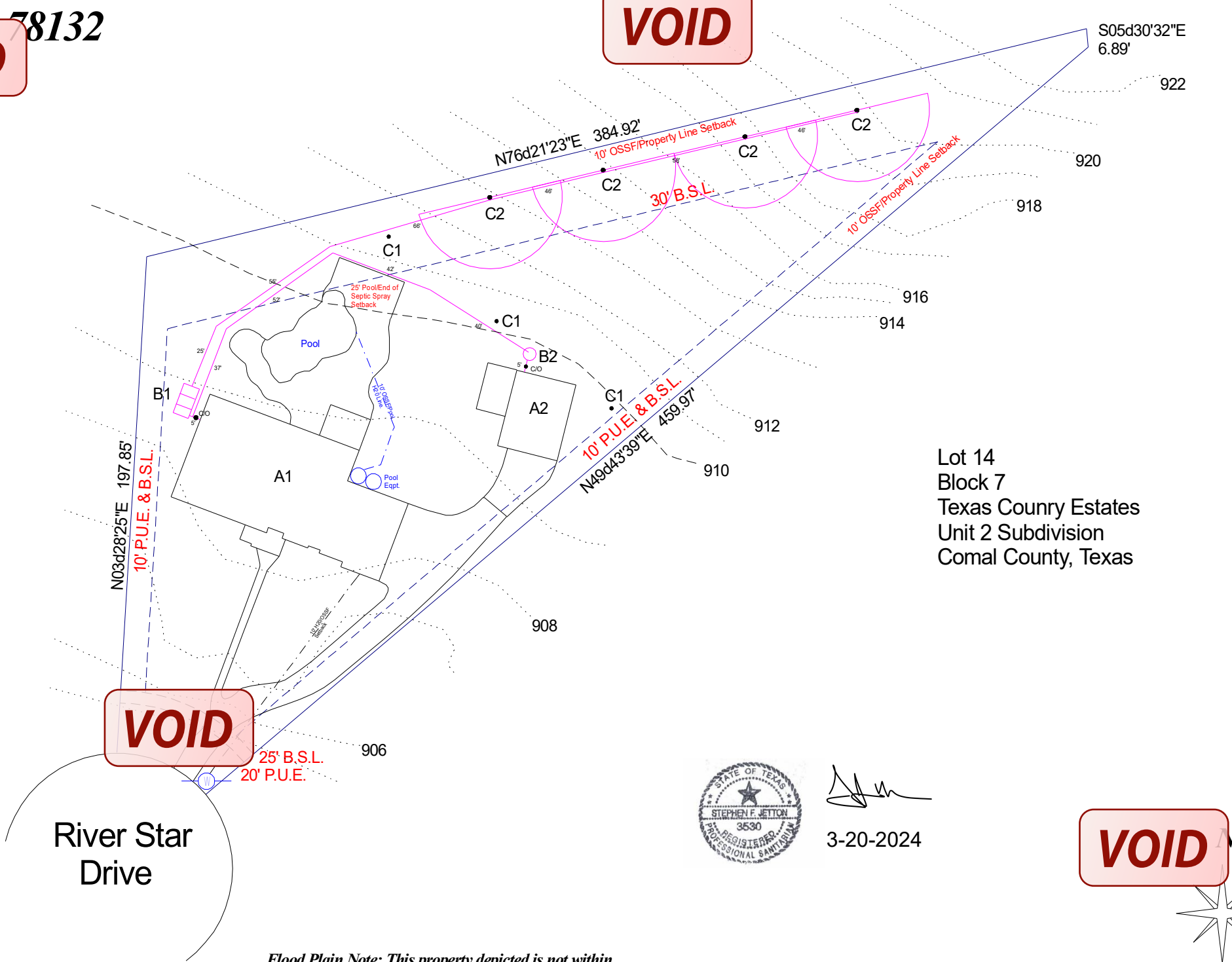


3-20-2024

# 155 River Star Drive New Braunfels, Texas 78132

**VOID**

**VOID**



Lot 14  
Block 7  
Texas County Estates  
Unit 2 Subdivision  
Comal County, Texas

**A1 - Existing 4-Bedroom (2400 sq. ft.) Single-Family Residence.**  
**A2 - Proposed Garage/Workshop with Restroom (732 sq. ft.).**

**B1 - Existing Norweco Model 960 - 500GPD ATU.**  
**B2 - Proposed AK Industries Model AKP30260 Basin.**

**C1 - Existing Septic Spray Head - 100% Abandoned.**  
**C2 - Proposed KRain Pro Plus, 29' Radius Sprinkler Head.**  
#3LA Nozzle - 30 PSI - 3.0 GPM Per Sprinkler.

**X - Profile Hole**  
**C/O - Two-Way Cleanout**

Provide Two-Way Cleanout from House/Garage to Tank.  
3" or 4" Sch. 40 between House/Garage and Tank. Must maintain a minimum of 1/8" per foot of fall between house and tank.

Supply Line: 2" Sch. 40 PVC.  
Maintain 1' from all Utility Easements.  
Maintain 10' from all Property Lines.  
Maintain 10' from all Potable Water Lines.

\*Refer to Tank Detail and Design Notes for more Information.  
\*Plans may vary Slightly based on Conditions Encountered in the Field.

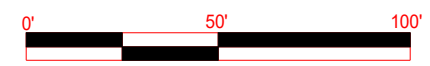
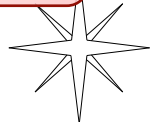
\*All Separation and Setback Requirements as Stated in Chapter 285, TCEQ, On-Site Sewage Facilities, must be maintained.

River Star Drive



*[Signature]*  
3-20-2024

**VOID**



Scale: 1" = 50'

\*This is not intended to be used as an official survey. All structures and Contour locations are approximate.

Flood Plain Note: This property depicted is not within the 100-Year Flood Plain according to Map Panel No. 48091 C0 290F Dated 9/2/2009.



Nozzle #: **3 LA** (Low angle trajectory, 11 degrees), operating at 30 psi, 29 ft. radius and 3.0 GPM flow per sprinkler.

**Dosing:**

Application Flow Rate 3.0 gpm/head x 4 heads = **12.0 gpm**

Application Time: 2 doses @ 150 gal/dose / 12.0 gpm = ~ **12.50 min/dose**

**Head Requirements:**

Elevation head: 15 (*assumed elevation at top of pump 904 and highest spray head at 919*)

Pressure head: 30 psi x 2.31 ft/psi = 69.30 ft.

Friction head: 1” Sch. 40 PVC @ 12.0 gpm = 7.69 ft. (306 x 7.69/100 x 1.2) = 28.23

TDH = 15 ft. + 69.30 ft. + 28.23 = 112.53 (within pump curve).

A commercial timer must be set to provide two doses a day, one at 1 a.m. and the other at 4 a.m. An unthreaded sampling valve must also be provided. Under the Texas Administrative Code, §285 On-Site Sewage Facilities, this system must be installed with a night timer, set to spray between the hours of 1 am and 5 am.

**Alarm System:**

An audio/visual high-water alarm will be installed on this system. Norweco control panel with timed control 24-hour timer. The alarm/light will be installed in a high visible location close to the pump tank.



**Additional Components:**

- Sampling valve and pressure gauge (inside tank) will be used to correctly set pressure for correct spray head radius. The installer will use the sampling valve and pressure gauge to set the required 30 PSI pressure to the sprinkler head.
- Pressure Gauge of not less than 45PSI will be installed to monitor the correct pressure to the drain field.

**Installation Notes:**

- 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 Facility’s set forth in 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 an 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 the approved plans and specifications.



3-20-2024





- The installer may not alter these plans without the approval of the designer.
- All electrical installation must follow applicable electric codes.
- 

**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 layer, with a minimum thickness of 4 inches, of sand, sandy loam, clay loam, or pea gravel.
- Tank excavations must be backfilled with soil or pea gravel that is free of rock larger than ½ inch in diameter. Class IV soils and gravel larger than ½ inch in diameter are not acceptable for use as backfill material. If the top of a septic tank extends above the ground surface, soil may be mounded over the tank to maintain slope to the drain field.
- Risers are required over all tank openings and must extend to at least 2” above the ground surface.
- Risers shall be permanently fastened to the tank lid.
- The riser lid shall screw down and have a lock or weigh 65lbs.
- A secondary plug, cap, netting, etc. shall be provided below the riser lid.
- All openings in the tank must be properly sealed to prevent the escape of wastewater, 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” per foot from house to tank.
- PVC pipe from house to tank must be at least Sch.40 or SDR 26.


**Irrigation & Landscaping Notes:**

- Irrigation lines shall be 1” Sch.40 PVC. Sleeve any pipe that crosses under any roads or driveways with Sch.40 PVC.
- Purple Pipe must be used for all irrigation lines.
- Supply lines must be buried at least 6” 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 property owner prior to removal of any trees that may obstruct the operation of the irrigation system.
- *All exposed surface rock must be covered with at least 4” 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 the alarms are activated.
- A hose bib must be installed in pump tank at tank inspection port.
- The chlorinator must be constructed to allow a chlorine residual of 1.0 mg/1 in the pump tank for the period between scheduled inspections.
- The disinfected effluent must obey the standards as stated in §285, TCEQ, On-Site Sewage Facilities. Approved disinfections methods using chlorinated tablets, must use calcium hypochlorite that is properly labeled for wastewater disinfections.



  
3-20-2024



**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 that they will provide on-going maintenance of the installation.
- The initial contract will be a minimum of 2 years.
- A maintenance contract will authorize the Maintenance Company to maintain and repair the system as needed.
- The 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 filed 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 §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.
- Water conservation practices should be always used. Consult your local authorities for more information.
- Run the dishwasher with a full load whenever possible
- Avoid running water continuously when brushing teeth, washing hands, or cleaning food and utensils.
- Repair any water leaks immediately, such as running toilets or leaky faucets.
- The owner is responsible for cleaning and pumping the septic tank, typically every 2 to 3 years depending on system usage.
- Do not use the toilet to dispose of tissue, feminine hygiene products, trash, cigarettes, etc.
- It is recommended that you do not use the garbage disposal and/ or garbage grinders in the facility serviced by this system.
- Household chemicals should be used in moderation.
- According to §285, no water softener will be allowed on the OSSF.
- Chemical additives or the so-called enzymes should not be used during the operation of this system. Some of these additives may even be harmful to the facilities operation.
- Do not build driveways, storage buildings, decks, or other structures over the tank or disposal area.



3-20-2024

**VOID**

- The OSSF must be protected from meeting vehicular traffic.
- A strong vegetative cover is essential for the proper operation of this system. The property owner is solely responsible for maintaining this vegetation. The irrigation area should be groomed by mowing on a regular basis.
- If you notice a problem with the spray patterns, or any of the alarms are activated, contact your maintenance provider immediately.
- Never place a greater wastewater load on your system than that prescribed by the design of the system (*300 gallons per day*).

***\*The proposed system has been designed generally following the minimum requirements under TCEQ §285 On Site Sewage Facilities. The site evaluation and subsequent design are based on technical information currently available. 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. In extreme cases a substitute system may be required. By accepting this design, the homeowner/contractor understands the conditions, and agrees that the designer will not be liable for any more than the agreed upon design***

**VOID**



3-20-2024

# AK Industries Model AKP30260

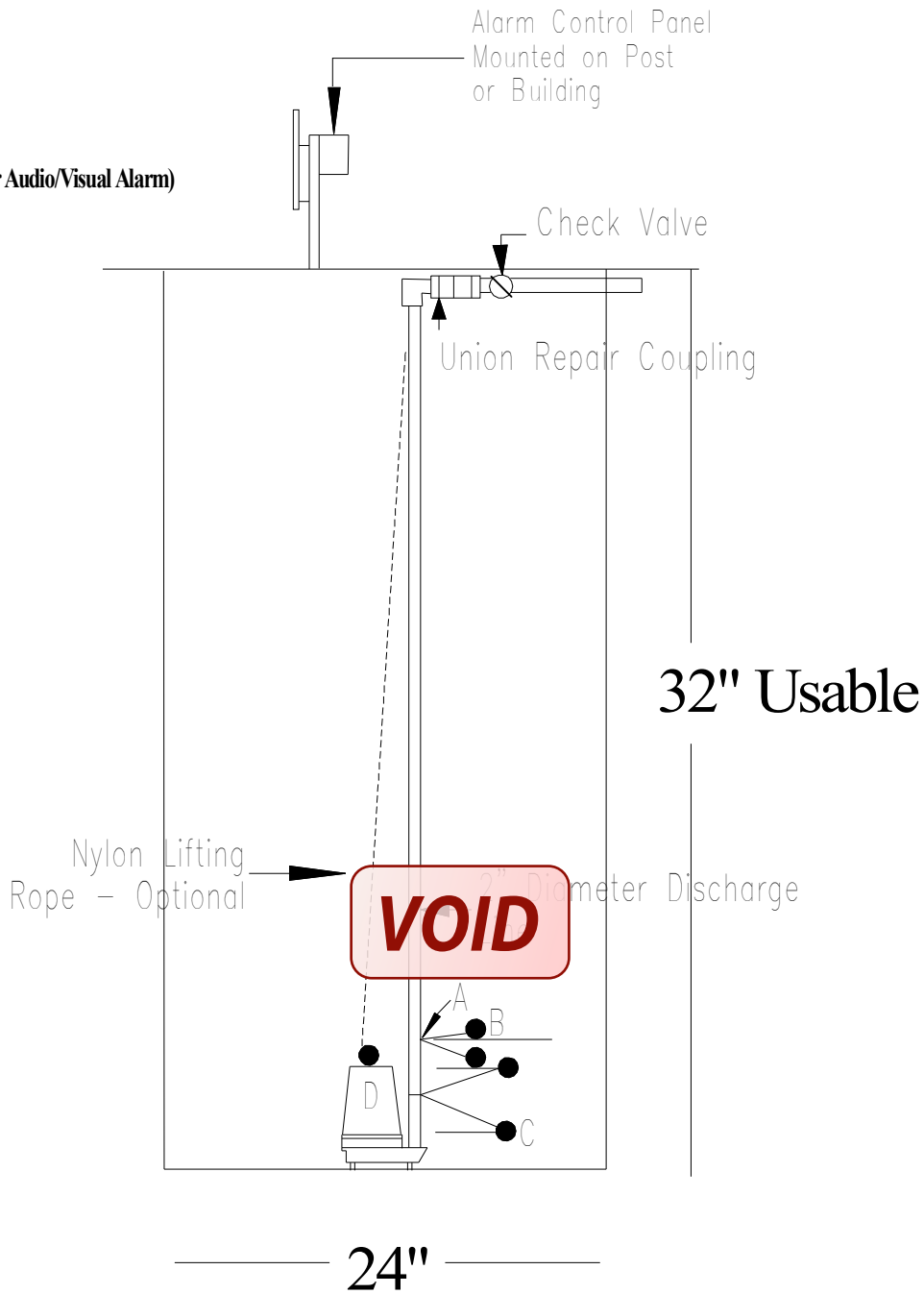
**VOID**

- A - Stainless or Plastic Clamp
- B - High level alarm Mercury Switch (for Audio/Visual Alarm)
- C - Wide Angle Mercury Float Switch
- D - Liberty LE51 2" Solids Pump

Total Gallons - 63.04 Gallons  
Gallons Per Inch - 1.97

Pump off - 7" - 13.79 Gallons  
Pump on - 18" - 35.46 Gallons  
Alarm on - 21" - 41.37 Gallons

Reserve Gallons - 21.67 Gallons



3-20-2024

## Fiberglass Basin

Not to Scale

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

## WARRANTY DEED

**Date:** 1479120.02844  
September 16, 2020

**Grantor:** MATTHEW A. HELFORD, a single man

**Grantor's Mailing Address (including county):** 155 River Star Dr., New Braunfels,  
Comal County, Texas 78132

**Grantee:** EDWIN RAY COVEY and CONNIE COVEY

**Grantee's Mailing Address (including county):** 3305 Barker Hollow Pass, Austin,  
Travis County, Texas 78739

**Consideration:** TEN AND NO/100 DOLLARS (\$10.00) AND OTHER GOOD AND VALUABLE CONSIDERATION

**Property (including any improvements):**  
**Lots 13 and 14, Block 7, Texas Country Estates Unit 2, an addition in Comal County, Texas, according to the map or plat thereof recorded in Document No. 200806015205, Map and Plat Records of Comal County, Texas.**

**Reservations from and Exceptions to Conveyance and Warranty:**

This conveyance is made and accepted subject to any and all conditions, restrictions, and easements, if any, relating to the hereinabove-described property, to the extent, and only to the extent, that the same may still be in force and effect, shown of record in the office of the County Clerk of Comal County, Texas.

Grantor, for the consideration and subject to the reservations from and 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 wise belonging, to have and hold it to Grantee, Grantee's heirs, executors, administrators, successors, or assigns forever. Grantor binds Grantor and Grantor's heirs, executors, administrators, and successors to warrant and forever defend all singular the property to Grantee and Grantee's heirs, executors, administrators, successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the reservations from and exceptions to conveyance and warranty.

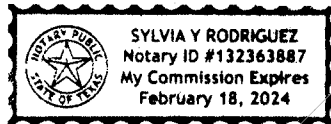
When the context requires, singular nouns and pronouns include the plural.

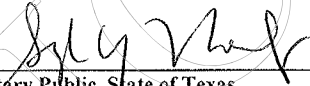
  
MATTHEW A. HELFORD

(Acknowledgment)

STATE OF TEXAS  
COUNTY OF ~~BEXAR~~ <sup>Comal</sup>  
*for Guadalupe*

This instrument was acknowledged before me on the 18 day of September, 2020,  
by MATTHEW A. HELFORD.



  
Notary Public, State of Texas  
Notary's name (printed): *Sylvia Y Rodriguez*  
Notary's commission expires: *02/18/2024*

AFTER RECORDING RETURN TO:

*3305 Barker Hollow Pass  
Austin TX 78739*

PREPARED IN THE LAW OFFICE OF:

Beck & Beck  
4940 Broadway, Suite 315  
San Antonio, Texas 78209

Filed and Recorded  
Official Public Records  
Bobbie Koepf, County Clerk  
Comal County, Texas  
09/28/2020 10:52:50 AM  
LAURA 2 Pages(s)  
202006041716



*Bobbie Koepf*

