Hays County Development Services

P.O. Box 1006 / 2171 Yarrington Road
San Marcos, TX 78667
(512) 393-2150

Notice of Approval/Final Inspection
Permit #: 2016-31202

Location: 2622 STAGECOACH RANCH RD, DRIPPING SPRINGS, TX 78620

Section: Block: Lot:

Owner: DANIEL & LEE ANN GHILAIN

Mailing Address: 2622 STAGECOACH RANCH RD, DRIPPING SPRINGS, TX 78620

THIS IS TO CERTIFY that the above On-site Sewage Facility meets or exceeds the basic requirements established by the Texas Commission on Environmental Quality and Hays County. License to operate this facility is hereby granted to the owner. This license simply grants permission to operate this facility; it does not guarantee its successful operation. Routine maintenance and proper functioning are the sole responsibility of the owner.

KEEP THIS LICENSE with important papers. You may need it when selling your house or if a malfunction occurs. The above referenced On-site Sewage Facility has been inspected by Hays County for compliance with the rules and based on information provided in the application, has been found to comply with the requirements of those rules.

This certification does not extend to the materials, workmanship or fabrication of the On-site Sewage Facility so as to express or imply to the owner or installer of the facility any warranty by or rights against Hays County or any of its agencies, as to the quality or durability of the facility nor compliance with the owner's individual specifications and requirements, but soley relates to the facility meeting the requirements of Hays County in effect as of this date.

This approval simply grants permission to operate this facility; it does not guarantee its successful operation. Rountine maintenance and proper functioning are the sole responsibility of the owner.

This approval remains in effect until such time as there is evidence that this facility is not operating properly and may constitute a threat to the health of the people of this county. The specified backfill should not be altered or covered in any way except for sodded grass or grass seed cover to promote evaporation and transpiration. All plumbing in the house should be kept in good repair to minimize flooding of the drainfield.

April Rigby

Agency Official

8/21/2017

Date

Southwest Septic Design

On-Site Sewage Facility Application and Design

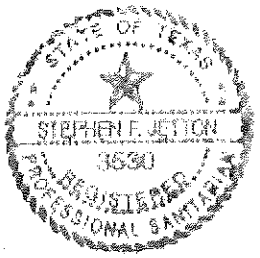
Prepared For:

Daniel B & Lee Ann Ghilain
2622 Stagecoach Ranch Road
Dripping Springs, Texas

Design 806416

Prepared By:

Stephen F. Jetton Revision 9/22/2016
Registered Professional Sanitarian



Stephen F. Jetton • Southwest Septic Design
2573 Deer Stand Loop • San Marcos, Texas 78666 • Fax (512) 392-5645 • Mobile (512) 757-1259
E – Mail stephen.jetton@gmail.com

Stephen F. Jetton Registered Sanitarian #3530

Southwest Septic Design

2573 Deer Stand Loop
San Marcos, Texas 78666
Hays County

Fax (512) 392-5645
Mobile (512) 757-1259

Design Report
On-Site Sewage facility
Standard Gravity Flow System

OWNER/SITE LOCATION:

Daniel B & Lee Ann ghilain
2622 Stagecoach Ranch Road
Tyler Rap RR Co. Survey No. 171, Abstract 587– 10.00-Acres
Dripping Springs, Texas

SITE DESCRIPTION & EVALUATION:

A site evaluation indicated class III soils (see attached soil evaluation report). No evidence of shallow groundwater was noted. This property is not within the Edwards Aquifer Recharge Zone, and 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, the area of proposed construction does not lay within zone A, 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 900 sq. ft., 2-bedroom home. A 2400 sq. ft., 1-bedroom addition will be added to this home. This home will be equipped with low-flow fixtures. A private water well services this property. The total projected daily waste flow is ***300 gallons per day*** per Texas Commission of Environmental Quality (TCEQ) On Site Sewage Facilities 12-27-2012.

SYSTEM DESCRIPTION:

This residence currently has a standard gravity flow system. The existing system consists of 180' of 3' wide trenches consisting of pipe and gravel. The existing 750-gallon two-compartment tank will be abandoned and replaced with a 1000-gallon, two-compartment septic tank. ***90 linear feet*** of trench will be added to the disposal area. This system has been designed, by request of the property owners, to the minimum standards effective to this date. Therefore, performance of the system is not, and cannot be guaranteed, even though all provisions of the rules and regulations have been complied with. If failure should occur, additions to the system may have to be made. In extreme cases, a substitute system may be required. By accepting this design, the aforementioned agrees and understands that the designer cannot, and will not be liable for any more than the agreed upon design fee.

- Final cover of drainfield, seeded with perennial grass seed.

Installation Notes:

- Refer to site plan for component placement.
- 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's license; if the property owner will be installing the system, no license is required.
- 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.
- Diversion berms will be place when needed to protect disposal area from excessive runoff.
- It is the responsibility of the installer to maintain the minimum setback requirements as stated in §285.
- The contractor, as to the proper operation of the system, will inform the owner that the system must me operated correctly in order to function properly.
- The owner will be solely responsible for failure to operate the system properly or for any modifications to the system by the owner, which subsequently cause the system to malfunction.

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Distribution Field Notes:

- Each trench shall be level within 1" per 25 linear foot of trench or within 2" for all trench lengths over 75'.

- The depths of the drain field may vary slightly from the plan based on conditions encountered in the field.
- A minimum 12" of fall must be provided between the tank outlet and the bottom of the first trench.
- Imported fill material shall be sandy loam of good quality.
- Single drain lines shall not exceed 150 feet.
- The contractor will contact the designer and the regulating authority immediately should groundwater be encountered during excavation.
- The surface of the distribution field will be graded to drain.
- The field will be seeded or hydro mulched with a mixture of Bermuda and rye or other perennial grasses.
- ***Sodding of the distribution field with clay-backed sod will not be allowed.***
- ***Vegetation must be established before system is in use.***

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 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.

Operation and Management Notes:

- The OSSF should not be treated as a normal city sewer.
- Water conservation practices should be used at all times. 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.
- If possible, water softener should not be allowed to enter the OSSF.

Abandon Regulations:
The installer will abandon the existing system 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.

Absorption Area Calculations:

Total size of Workshop		3300 ft²
Total number of bedrooms		3
Average Expected Flow	***Usage water saving devices***	300
Loading Rate	***Class III Sandy Loam***	0.20
Application Area Required	***Area = flow/loading rate*** ***Area = 300/0.20***	1500 ft.²
Application Area Used	***A = A/ 5 * 0.75***	300 linear ft. of Trench minimum; 180 linear feet existing; 90 linear ft. added.

System Components:

1000-gallon, two-compartment septic tank.
2, existing 3' wide trenches each 90' long.
2 – 45', 3' wide Trench addition.
18 Total ARC 36 Panels
Zabel Filter must be placed in the outlet of the Trash Tank.
Trench Depth: 18" – 36"

****ARC 36 Panels will substitute the drain-lines. The installer will use a 25% reduction in drainfield sizing.***

Location of System:

All setback requirements from water wells, water lines, and property lines must be observed. The exact location of the tanks and field lines are noted in the enclosed plans.

Inspection Requirements:

Installer must notify designer upon completion of the following items of work in order that the designer may inspect the work as required for certification.

- Excavation of the drainfield.
- Installation of gravel and pipe.

OSSF SOIL EVALUATION FORM

Owner's Name: Daniel B. Ghilain

Physical Address: 2622 Stage Coach Ranch Loop

Legal Description: Tyler Rap RR Co. Survey No. 171, Abstract 587– 10.00-Acres

Date Performed: 7-29-16 **Proposed Excavation Depth:** 60"

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 depths.

Soil Boring Number: 1

Depth (ft.)	Textural Class	Structure (For class III – blocky, platy or massive)	Drainage (Mottles, Water Table)	Restrictive Horizon	Observations
0 0-24" 1 2 3 44-65" 4 5	III		None	None	Brown Loam Top Soil.
	III		< 30% Gravel	End of hole at 60"	Class III Sandy Loam soil; grood drainage, no mottles.

Soil Boring Number: 2

Depth (ft.)	Textural Class	Structure (For class III – blocky, platy or massive)	Drainage (Mottles, Water Table)	Restrictive Horizon	Observations
0 0-5" 1 2 3 6-65" 4 5	III		None	None	Brown Loam Top Soil.
	III		< 30% Gravel	End of hole at 60"	Class III Sandy Loam soil; grood drainage, no mottles.

Features of Site Area

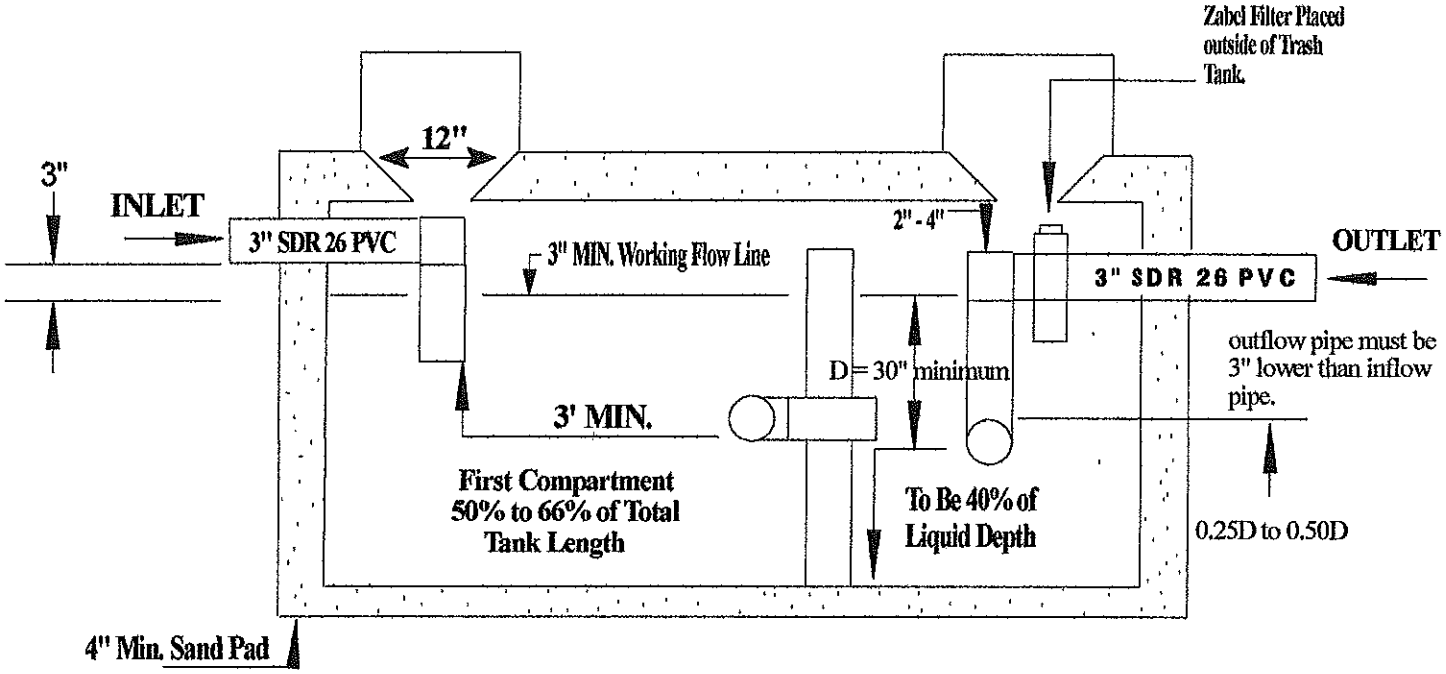
Presence of 100 year flood zone	**No**
Presence of adjacent ponds, streams, water impoundment's	**No**
Existing or proposed water well in nearby area	**Yes**
Organized sewage available to lot or tract	**No**
Recharge features within 150 feet	**No**

STATE OF TEXAS
STEPHEN F. JETTON
3530
REGISTERED
PROFESSIONAL SANITARIAN

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

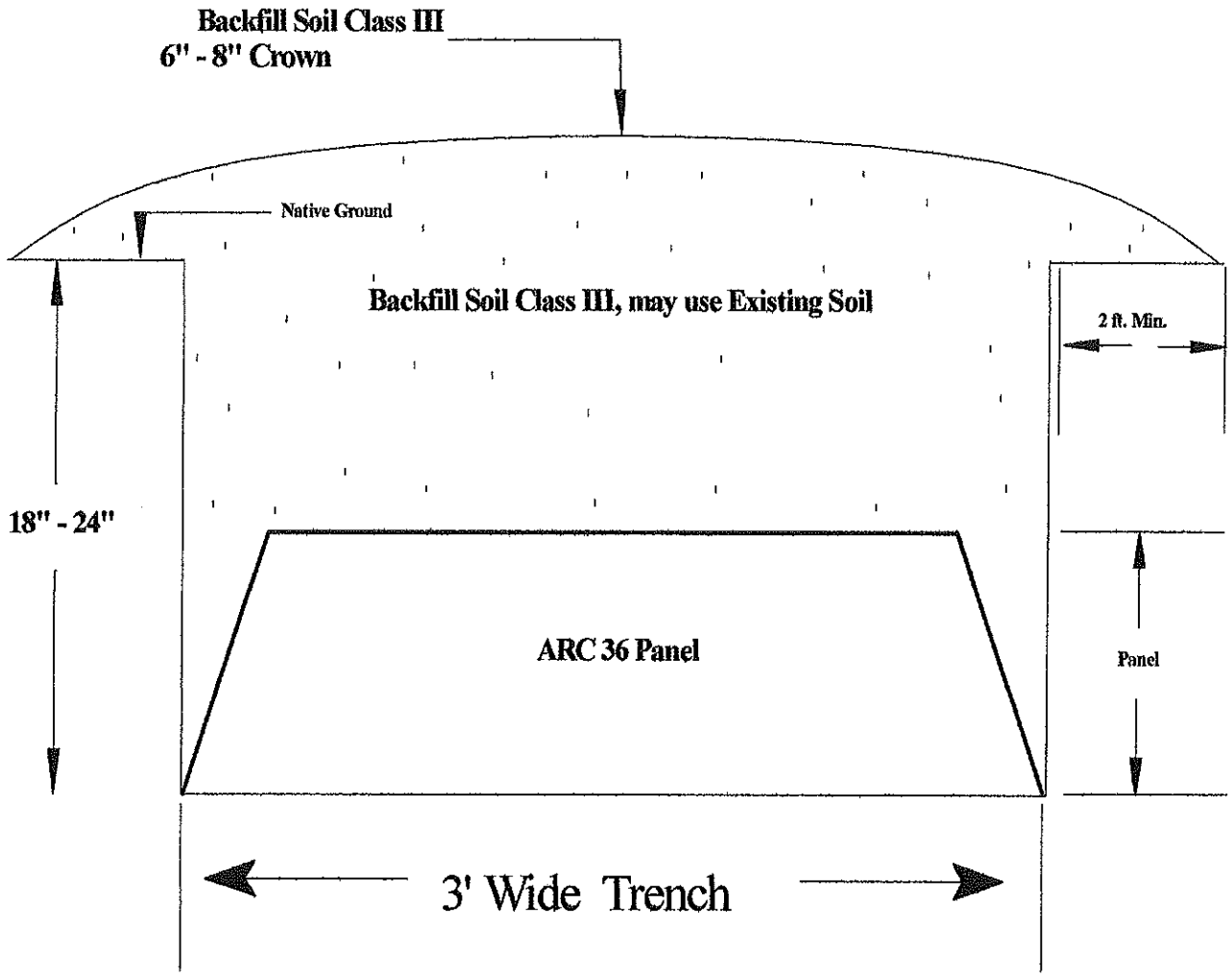
Signature of Site evaluator S. Jetton **Date 7-29-16**

Figure 2 - Typical 1000 gal. 2 compartment tank

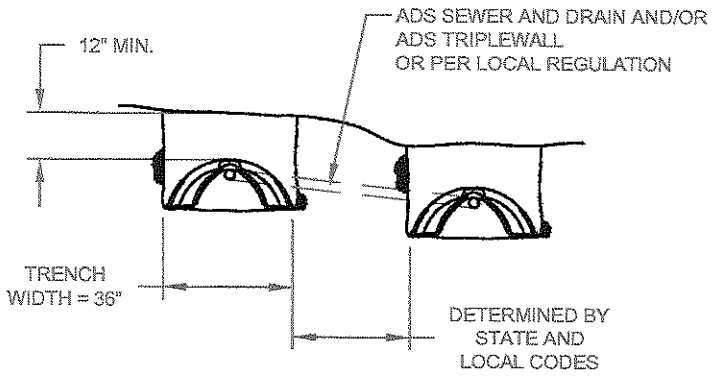


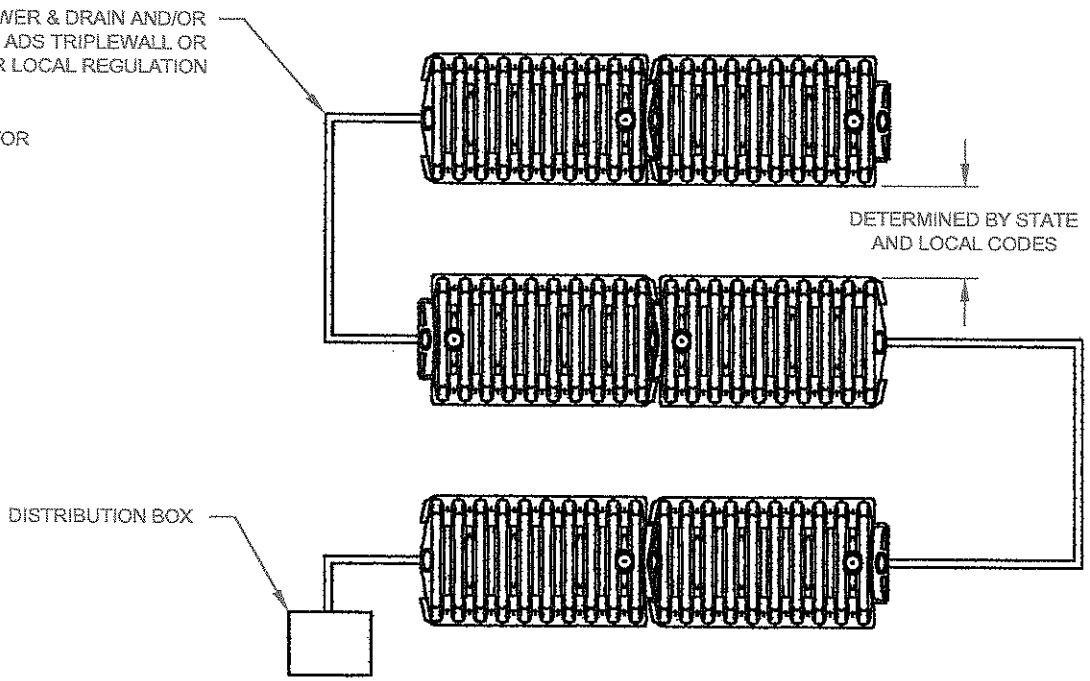
Not to Scale

Figure 1 - Typical Absorptive Drainfield - Sectional View



NOT TO SCALE





NOTES:

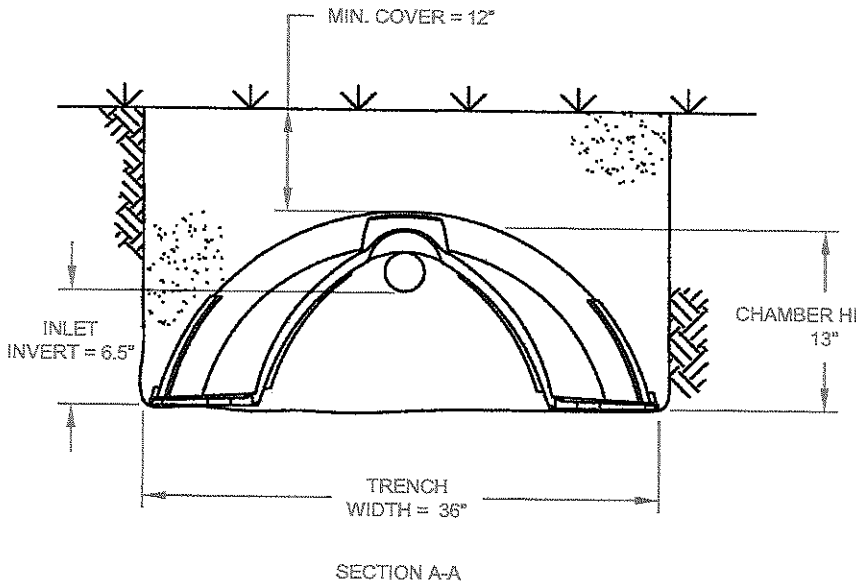
1. EXCAVATE TRENCHES TO PROPER WIDTH, AND PROPER DEPTH AS REQUIRED BY STATE AND LOCAL CODES.
2. SMOOTH IRREGULARITIES IN THE EXCAVATION. A LEVEL, FLAT SURFACE IS REQUIRED.
3. ASSEMBLE ARC LEACHING CHAMBERS AND UNIVERAL ENDPLATES TOGETHER IN TRENCH(ES).
4. INSTALL UNIVERSAL END CAPS AND SECURE IN PLACE WITH BACKFILL.
5. PUNCH OUT PIPE HOLE OPENINGS IN THE END PLATES AS NEEDED AND CONNECT INLET PIPES.
6. FILL SIDEWALL AREA TO TOP CHAMBERS WITH NATIVE SOIL (COARSE SAND OR FINE GRAVEL MAY ALSO BE USED: NO HEAVY CLAY, SILT OR DEBRIS SHALL BE INCLUDED).
7. "WALK IN" FILL TO COMPACT SOIL ALONG SIDES OF ARC CHAMBER. THIS IS VERY IMPORTANT TO ACHIEVE LOAD RATING.
8. COVER ARC LEACHING CHAMBERS TO A MINIMUM OF 12" OF GRANULAR COVER AFTER CONSOLIDATION FOR H-10 APPLICATIONS. AVOID LARGE ROCKS OR DEBRIS IN COVER MATERIAL. COVER HEIGHTS AND LIVE LOADING LIMITS ARE IMPACTED BY BOTH SOIL TYPE AND COMPACTION REQUIREMENTS. CONTACT ADS WHEN POOR SOILS ARE ENCOUNTERED AND FOR MAXIMUM FILL HEIGHTS.

REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

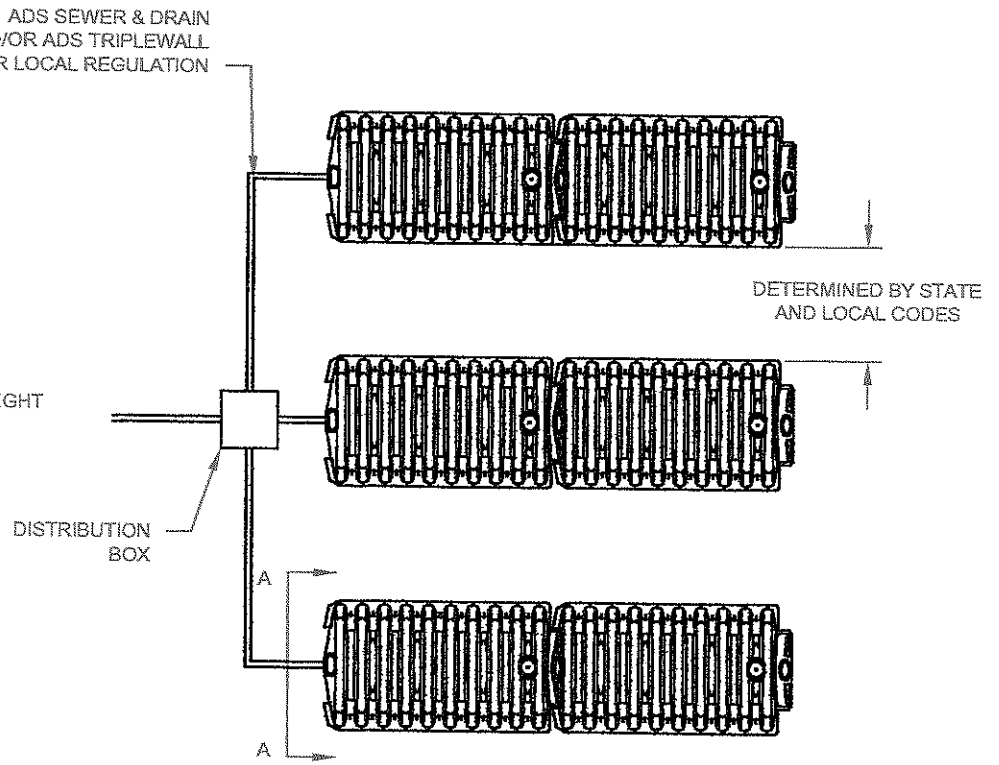
ARC 36 CHAMBER STANDARD SERIAL MODE INSTALLATION

DRAWING NUMBER: STD-906C

	TJR
	09/05/07
	CKS
	NTS
	OF



SECTION A-A



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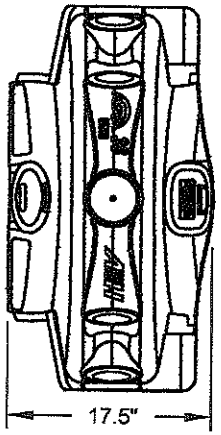
8. COVER ARC LEACHING CHAMBERS TO A MINIMUM OF 12" OF GRANULAR COVER AFTER CONSOLIDATION FOR H-10 APPLICATIONS. AVOID LARGE ROCKS OR DEBRIS IN COVER MATERIAL. COVER HEIGHTS AND LIVE LOADING LIMITS ARE IMPACTED BY BOTH SOIL TYPE AND COMPACTION REQUIREMENTS. CONTACT ADS WHEN POOR SOILS ARE ENCOUNTERED AND FOR MAXIMUM FILL HEIGHTS.

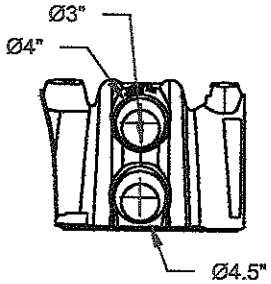
REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

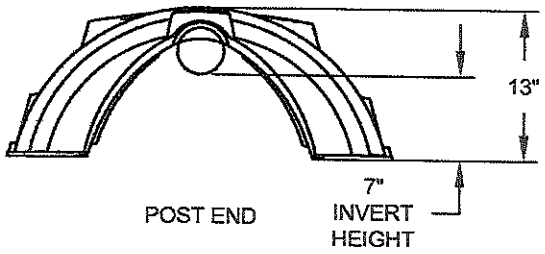
ARC 36 CHAMBER STANDARD TRENCH INSTALLATION

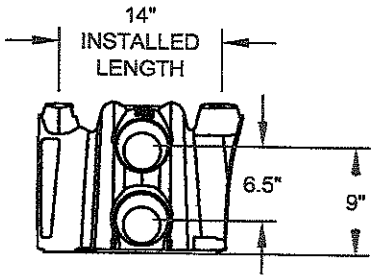
DRAWING NUMBER: STD–905C

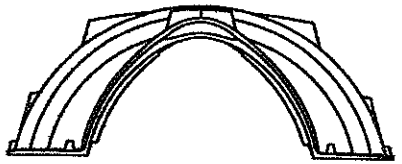
	TJR
	09/05/07
	CKS
	NTS
	OF

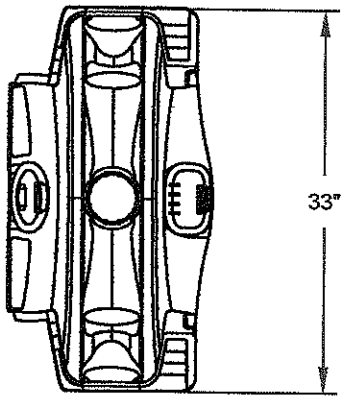












REV.	DESCRIPTION	BY	MM/DD/YY	CHK'D

ARC 36 SIDE PORT COUPLER

DRAWING NUMBER: STD-903A

8/28/08

NTS

OF

2622 Stage Coach Ranch Loop
Dripping Springs, Texas

Tyler Rap RR Co.
Survey No. 171
Abstract 587
10.0-Acres
Hays County, Texas

A - 2400 sq. ft., 1-bedroom addition.
B - 1000-Gallon, Two-Compartment Tank.
C - 3' Wide Conventional Trench
2, 45' Long Conventional Trench.
18 Total ARC 36 Panels.
Minimum/Maximu Trench Depth 18" - 36"

3" or 4" Sch: 40 PVC between Workshop and Tank.
Must have a Minimum of 1/8" per foot of fall between House and tank.
Provide Two-Way Cleanout from House to Tank.

Supply Line: 3" or 4" Sch. 40 PVC

Maintain 15' from all Property Lines.
Maintain 5' from PUE
Maintain 10' from all Potable Water Lines.

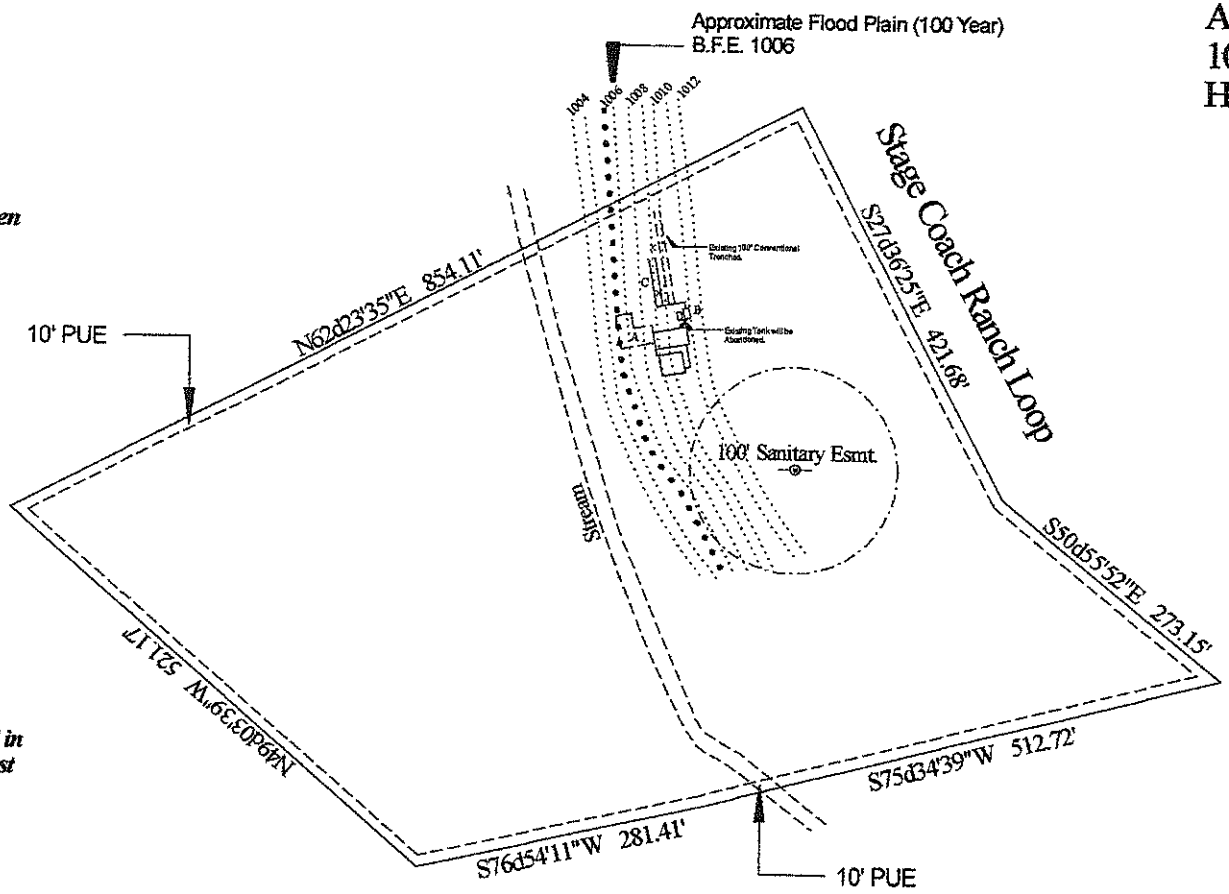
**Refer to Tank Detail and Design Notes for more Information.*

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

**Trim Trees as Neccessary in Application Area. Trees must maintain at least 10' from Sprinkler Head.*

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

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



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Scale: 1" = 140'

- 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 coming in contact with 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 disposal area should be groomed by mowing on a regular basis.
- The owner shall become familiar with the operation of the system and be solely responsible for the operation and maintenance of the system, once the system is placed into operation.
- Never place a greater wastewater load on your system than that prescribed by the design of the system (***100 gallons per day***).

By request of the homeowner, this 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. By accepting this design, the homeowner/builder, understands that the designer cannot be liable for more than the agreed upon design fee.