



Control Number: 44877



Item Number: 1

Addendum StartPage: 0



PURSUANT TO PUC SUBSTANTIVE RULE § 25.101

Application for an Amendment to Certificate of Convenience and Necessity for Service Area Boundary Changes

Docket Number: **44877**

7 copies of the application, including the original, along with one copy of the portable electronic storage medium (such as CD or DVD) containing the GIS data shall be filed with

Public Utility Commission of Texas
Attention: Filing Clerk
1701 N. Congress Avenue
P.O. Box 13326
Austin, Texas 78711-3326

No later than seven days after filing the application for the boundary change, provide a copy of each paper map and a portable electronic storage medium (such as CD or DVD) containing complete and identical data to the portable electronic storage medium submitted above to

Texas Natural Resources Information System
1700 N. Congress Ave, Room B40
Austin, Texas 78701

2015 JUN 24 PM 4:32
FILED

Part A – Applicant Information

1. Applicant

Utility name: Ranch Country of Texas Water Systems, Inc.

Certificate number: 12918

Street address: 1411 Hwy 90 West, Sealy, TX 77474

Mailing address: P.O. Box 790, Sealy, TX 77474

2. Contact information

Name: Stephen Cryan

Title: Vice President

Mailing address: P.O. Box 790, Sealy, TX 77474

Email: scryan@ranchcountry.com

Phone: (979) 885-6262

Alternate: David Cryan

Title: President

Mailing address: P.O. Box 790, Sealy, TX 77474

Email: dcryan@ranchcountry.com	Phone: (979) 885-6262
Legal counsel:	Bar number:
Mailing address:	
Email:	Phone:
3. Other affected utility (if more than one, submit information for 3 and 4 on separate sheet labeled "Attachment A3")	
Utility name: Settlers Crossing Water System (same owners and will inter-connect)	
Certificate number: 12918	
Street address: 5417 Colony Drive, Sealy, TX 77474	
Mailing address: P.O. Box 790, Sealy, TX 77474	
4. Other affected utility contact information	
Name: N/A	Title:
Mailing address:	
Email:	Phone:
Alternate:	
Title:	
Mailing address:	
Email:	Phone:
Legal counsel:	
Bar number:	
Mailing address:	
Email:	Phone:

Part B – Effects

1. Counties

List all counties involved in the proposed boundary change:

Austin County

2. Municipalities

List all municipalities involved in the proposed boundary change. Attach a copy of the franchise, permit, or other evidence (labeled "Attachment B2") of the city's consent held by the utility. If franchise, permit, or other evidence of the city's consent has been previously filed, provide only the docket number of the application in which the consent was filed: N/A. Outside city limits

3. Affected utilities

Identify any other utility providing electric service whose existing certificated service area boundary would be affected by the proposed change. State whether the applicant(s) has obtained the agreement of the other affected utilities. Attach a copy of any written agreements with the applicant(s) and other affected utilities (labeled "Attachment B3"):

Centerpoint Energy has existing service in the area. A copy of a letter from Centerpoint Energy is attached.

Identify any other utility serving the proximate area and the effect on that utility of granting the certificate to the recipient of the certificate:

There are no other utilities serving the proximate area.

4. §37.056 Criteria

Describe the effect of the proposed boundary change on the community values, recreational and park areas, historical and aesthetic values, and environmental integrity. Describe the effect of the proposed boundary change as it relates to the improvement of service or the lowering of cost to consumers in the affected area:

The current system (Settlers Crossing Water System) is nearing it's capacity. We are developing the adjacent property into approximately 45 more residential lots, so we need to add another water system to service them. The new facility will be connected to the existing water system with an inter-connect valve.

Part C – Need and Costs

1. Justifications

State the reasons why the proposed boundary change is being requested, including a description of new loads to be served and new facilities to be constructed if the application is granted:

The current system (Settlers Crossing Water System) is nearing it's capacity. We are developing the adjacent property into approximately 45 more residential lots, so we need to add another water system to service them. The new facility will be connected to the existing water system with an inter-connect valve.

2. Reasons

Describe the existing service in the area affected by the application and explain the need for additional service:

The current system (Settlers Crossing Water System) is nearing it's capacity. We are developing the adjacent property into approximately 45 more residential lots, so we need to add another water system to service them. The new facility will be connected to the existing water system with an inter-connect valve.

3. Estimated costs

State the amount of money expected to be expended on new facilities if the application is granted:

\$60,000

Part D – Maps

1. Paper maps

Base maps (labeled “Attachment D1”) shall be a full scale (one inch = one mile) highway map of the county or counties involved, a USGS 7-minute topographical map, subdivision plat map, or other map of comparable scale with sufficient cultural and natural features to permit location of the proposed service area amendment in the field. Show all existing boundaries and the proposed boundaries affected by this application. Show any existing or proposed distribution or transmission lines affected by this application.

2. GIS maps

Two portable electronic storage media (such as CDs or DVDs) containing complete and identical data shall be submitted with this application.

All shapefiles shall contain at least four files including, at a minimum:

- .shp – shape format; the feature geometry itself;
- .shx – shape index format; a positional index of the feature geometry to allow seeking forwards and backwards quickly;
- .dbf – attribute format; columnar attributes for each shape in dBase IV format; and
- .prj – projection format; the coordinate system and projection information as a plain text file describing the projection using well-known text format.

Service area boundaries shall be submitted as a **polygon**. Polygons shall be closed without breaks. Intersecting polygons shall be snapped at the intersection without gaps or overshoots. Polygons with common borders shall share a border line to avoid slivers and gaps between polygons.

All files shall have **projection information** embedded in the file. This information is stored in the .prj file. The projection file provides a mathematical process that transforms feature locations from the earth’s curved surface to a map’s flat surface. The projected coordinates system employs a projection to transform locations expressed as latitude and longitude values to X,Y coordinates. Without the projection information, the files may not overlay accurately.

All data shall be provided in a **scale** of 1:24,000 and shall conform to the accuracy standards described in USGS Fact Sheet FS-171-99 or successor Map Accuracy Standards.

Shapefiles shall contain the appropriate attribution to allow the layer to be symbolized according to what the layer is and what it represents. A service area boundary shapefile that is supposed to represent a utility’s service territory shall have the appropriate attributes in the file to see the utility’s name, for example. The other attributes shall also be included in the file. ***The following attributes for service territory boundaries are required and shall follow these naming conventions exactly, minus the information in the parentheses.***

- Utility name
- Type of utility (investor-owned utility/municipally-owned utility/electric cooperative [whichever term applies])
- RTO/ISO (whichever RTO or ISO applies)
- Customers (the total number of customers the utility serves)
- Counties (list all the counties the utility serves, wholly or in part)

Part E – Affidavit

Affidavit

Attach a sworn affidavit (labeled "Attachment E") from a qualified individual authorized by the applicant to verify and affirm that, to the best of his/her knowledge, all information provided, statements made, and matters set forth in this application and attachments are true and correct. The affidavit shall also confirm that the paper map and portable electronic storage medium containing the GIS data were sent to TNRIS.

ATTACHMENT B 3



Stephen Cryan
RCOT Construction
P. O. Box 790
Sealy, Tx 77474

Dear Mr. Cryan:

This letter is in reference to your inquiry regarding electrical service to Settler Crossing Subdivision scheduled to begin construction in the third quarter of 2008. **CenterPoint Energy currently has electrical facilities in the vicinity of these parcels.**

In 1999, the Legislature of Texas identified a public interest in restructuring the state's electric industry into a competitive electrical market and enacted amendments to the Utility Code to effectuate that change. As a result, beginning January 1, 2002, each electric utility company in Texas separated, or "unbundled," into at least three different affiliated companies. The companies include a regulated Transmission and Distribution Utility, unregulated Power Generation Company and an unregulated Retail Energy Provider (REP).

In the restructured electric industry, CenterPoint Energy Houston Electric, LLC, which is the affiliated Transmission Distribution Utility, is responsible for the safe and reliable delivery of electric power to Retail Customers in Sealy, Texas. The purchase of electrical power by a Retail Customer is through the Customer's designated REP.

Standard electric service is provided as outlined in CenterPoint Energy's Tariff for Electric Service, Chapter 6, 6.1.2 Discretionary Charges - Construction Charges, pages 4 and 9 of 22. A copy of CenterPoint Energy's Tariff for Electric Service may be viewed at CenterPoint Energy's Web Site, www.centerpointenergy.com. Listed in the lower right hand side of the screen is a link to the electric tariff page. To view the complete document click on Current Tariff for Retail Delivery Service.

If you have questions regarding these or any other related electrical facilities extension requirements, please feel free to call me at 281-391-5106 or by email at beverly.koym@centerpointenergy.com.

Sincerely,

Beverly Koym
P. O. Box 7
Katy Texas 77450
Sr. Service Consultant
281.391.5106

**ATTACHMENT E
AFFIDAVIT OF FACT**

June 18, 2015

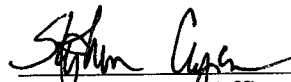
Affiant: Stephen Cryan

Affiant on oath swears that the following statements are true and are within the personal knowledge of Affiant:

I, Stephen Cryan, a qualified individual authorized by the applicant, verify and affirm that, to the best of my knowledge, all information provided, statements made, and matters set forth in this application and attachments are true and correct.

In addition, I, Stephen Cryan, confirm that the paper map and portable electronic storage medium containing the GIS data have been sent to TNRIS.

I so affirm and swear on oath that the statements herein are true and accurate as to time, date, parties, and intent.



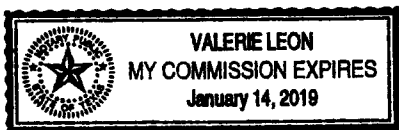
Stephen Cryan, Affiant

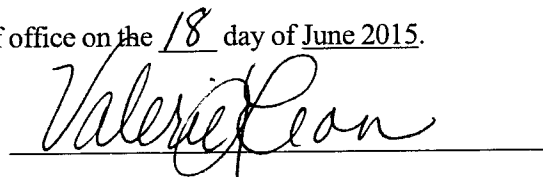
ACKNOWLEDGEMENT

**STATE OF TEXAS)(
COUNTY OF AUSTIN)(**

Before me, the undersigned authority, on this day personally appeared Stephen Cryan, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that she executed the same for the purposes and considerations therein expressed.

Given under my hand and seal of office on the 18 day of June 2015.





Notary Public, In and For the State of Texas



212 E Hwy 90A
Richmond, Texas 77406
281-232-7075
jgince@gmail.com

TCEQ PLAN REVIEW LOG #
P-04302015-176

January 30, 2015

Utilities Technical Review Team
Water Supply Division MC-159
P.O. Box 13087
Austin, Texas 78711-3087

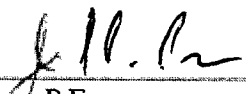
Re: Well Submittals

Sirs:

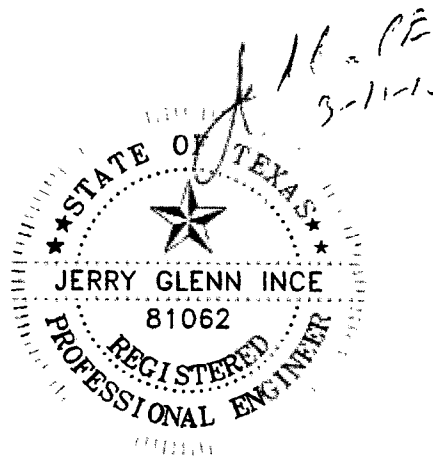
Enclosed please find the submittal items for "Settlers Crossing Section 2" located in Austin County, Texas. The property is located in FEMA Zone Shaded "X".

If you find anything deficient please contact me.

Sincerely,



Jerry G. Ince, P.E.
President/Engineer
Firm #6660



TCEQ Public Water System Plan Review Submittal Form
(Complete and Attach to Submittal Package)

Date 01/30/2015
TCEQ PWS Identification No.* _____ CCN No. or Application No.** _____
Water System Name Settler Crossing section 2
Water System Owner Ranch Country of Texas Water System, Inc Type of Entity Corporation
Address 17758 N Loop 336 E STE 14 Phone (AC) (936) 494-2600
Responsible Official Steve Cryan Title Vice President
***County (system location) Austin
Mechanism & Source of Financing Private
Subdivision Sec., Phase, Unit, etc. Section 3
Engineer Jerry G. Ince, PE Registration Number 81062 E-Mail jgince@gmail.com
Firm Name Ince Engineering, LLC Phone (AC) 281-232-7075 Fax: (AC) 281-232-7075
Firm Address 212 E Hwy 90-A, Richmond, TX 77406
Firm Registration Number 6660

* If no PWS Number exists, the owner must submit a business plan, if required, in accordance with §290.39(f) and (g).

** If a CCN is required and a CCN does not exist, an acceptable application to obtain a CCN number must be made before a project submittal can be technically reviewed. In addition, if a submittal is for a project located outside the CCN area, a CCN amendment application must be submitted before a project may be reviewed for construction approval. Please refer to 30 TAC Chapter 291 for additional information regarding CCNs.

If this is a new (proposed) system, you must attach the following with this submittal:

- ☒ Attach a list of all water utilities within ½ mile of the proposed service area boundaries
- ☒ Copies of formal applications for service from each of the following:
 - ☐ any municipality if the system is within its ETJ;
 - ☐ any district or other political subdivision whose corporate boundaries are within ½ mile of the proposed service area boundaries
 - ☐ any other water service provider whose certificated service area boundary is within ½ mile of the proposed service area boundaries
- ☒ Documentation that all application requirements including payment of fees were complied with.
- ☒ Copies of written responses from each of the entities listed above.
- ☒ Business plan. The business plan financial requirements for non-communit water systems must confirm capital availability to construct the system according to TCEQ requirements. This would consist of a balance sheet that shows liabilities as well as assets, not just a bank confirmation of a deposit account. Alternatively, if the project is being constructed with loan funds, then a loan commitment letter from the lender specific to that project will suffice.
- ☒ Justification for constructing a separate system (unless none of the entities listed above exist)
- ☒ TCEQ Core Data Form (No. 10400)

Type of Project (please check the appropriate boxes). Submit a sealed engineering report that includes the number of connections to be served.

- | | |
|--|--|
| <input type="checkbox"/> Distribution System Modifications | <input type="checkbox"/> Surface Water Treatment Plant, New |
| <input type="checkbox"/> Storage Capacity Modifications | <input type="checkbox"/> Modification of Surface Water Treatment Plant |
| <input type="checkbox"/> Pressure Maintenance Facilities Modifications | <input type="checkbox"/> Proposed Innovative Process Study |
| <input checked="" type="checkbox"/> ***Water Well Construction, Proposed | |
| <input type="checkbox"/> ***Well completion data for approved well | <input type="checkbox"/> Request for Rule Exception |
| <input type="checkbox"/> ***Ground Water Treatment Plant, New | <input type="checkbox"/> Preliminary Engineering Report w/o plans |
| <input type="checkbox"/> Disinfection Facilities or Other Modifications | <input type="checkbox"/> Tex. Water Dev. Board. Proj. No. _____ |
| | <input type="checkbox"/> Pilot Study for Innovative/Alternative System (Any treatment process not described in Ch290 or loading rates greater than allowable). |
| | <input type="checkbox"/> Other (Please describe) _____ |

***Please refer to http://www.tceq.state.tx.us/permitting/water_supply/pdw/chemicals/radionuclides/pdw_rad.html for a list of counties where there is an elevated risk of RADIONUCLIDES in the groundwater. The website also has helpful information regarding the radionuclide testing required in these counties.

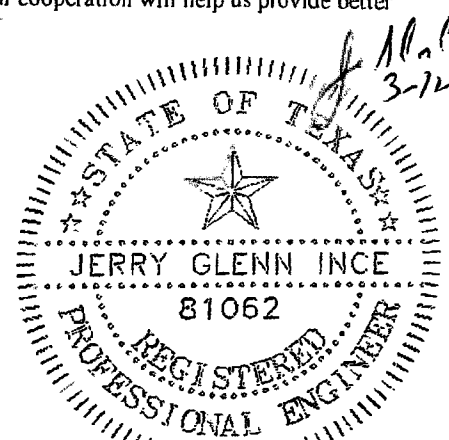
IF THIS SUBMITTAL IS A REVISION OF PREVIOUSLY SUBMITTED PLANS, PLEASE ENTER THE ASSIGNED TCEQ LOG NUMBER P-04302015-176. Please call (512) 239-4691 if you have questions regarding this form. Your cooperation will help us provide better service. Additional helpful information and rules are available at the Public Water System Plan Review

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

Signed P.E. Seal below

Jerry G. Ince, PE
Printed Engineer's Name

Date



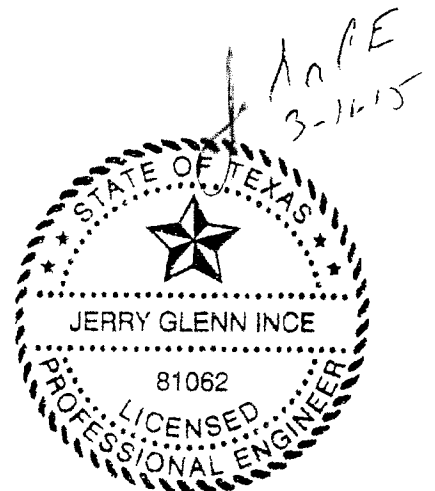
DESIGN REPORT
FOR
PROPOSED PUBLIC WATER SYSTEM
SETTLERS CROSSING SECTION 2

IN
Austin County, Texas

ON BEHALF OF
**Ranch Country of Texas Water System,
Inc**

BY
Ince Engineering, LLC

Firm # 6660
212 E. HWY 90A
Richmond, Texas 77406
281-232-7075





TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided)	
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application)	
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other
2. Attachments Describe Any Attachments: (ex Title V Application, Waste Transporter Application, etc.)	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No PWS Submittal	
3. Customer Reference Number (if issued)	4. Regulated Entity Reference Number (if issued)
CN 603988247	RN

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)		08/26/2014	
6. Customer Role (Proposed or Actual) - as it relates to the Regulated Entity listed on this form. Please check only one of the following.			
<input checked="" type="checkbox"/> Owner	<input checked="" type="checkbox"/> Operator	<input checked="" type="checkbox"/> Owner & Operator	
<input type="checkbox"/> Occupational Licensee	<input type="checkbox"/> Responsible Party	<input type="checkbox"/> Voluntary Cleanup Applicant	<input type="checkbox"/> Other:
7. General Customer Information			
<input checked="" type="checkbox"/> New Customer		<input type="checkbox"/> Update to Customer Information	
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State)		<input type="checkbox"/> Change in Regulated Entity Ownership	
		<input type="checkbox"/> No Change**	
**If "No Change" and Section I is complete, skip to Section III - Regulated Entity Information.			
8. Type of Customer:		<input checked="" type="checkbox"/> Corporation	
		<input type="checkbox"/> Individual	
		<input type="checkbox"/> Sole Proprietorship- D.B.A.	
<input type="checkbox"/> City Government		<input type="checkbox"/> County Government	
<input type="checkbox"/> Other Government		<input type="checkbox"/> Federal Government	
		<input type="checkbox"/> State Government	
		<input type="checkbox"/> General Partnership	
		<input type="checkbox"/> Limited Partnership	
		<input type="checkbox"/> Other:	
9. Customer Legal Name (If an individual, print last name first. ex: Doe, John)		If new Customer, enter previous Customer below	
Ranch Country of Texas Water Systems, Inc.		End Date:	
10. Mailing Address:		P.O. Box 790	
City		Sealy	
State		Texas	
ZIP		77474	
ZIP + 4			
11. Country Mailing Information (if outside USA)		12. E-Mail Address (if applicable)	
13. Telephone Number		14. Extension or Code	
(979) 494 - 885-6262			
15. Fax Number (if applicable)			
16. Federal Tax ID (9 digits)		17. TX State Franchise Tax ID (11 digits)	
26-3043439			
18. DUNS Number (if applicable)		19. TX SOS Filing Number (if applicable)	
20. Number of Employees		21. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

SECTION III: Regulated Entity Information

22. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information <input type="checkbox"/> No Change** (See below)	
**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.	
23. Regulated Entity Name (name of the site where the regulated action is taking place)	
Settlers Crossing Water System Section 2	

24. Street Address of the Regulated Entity: (No P.O. Boxes)	Colony Drive						
	City	Sealy	State	TX	ZIP	77474	ZIP + 4
25. Mailing Address:	P.O. Box 790						
	City	Sealy	State	Texas	ZIP	77474	ZIP + 4
26. E-Mail Address:	scryan@ranchcountry.com						
27. Telephone Number	28. Extension or Code		29. Fax Number (if applicable)				
(979) 885- 6262			() -				
30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)	32. Primary NAICS Code (5 or 6 digits)		33. Secondary NAICS Code (5 or 6 digits)			
34. What is the Primary Business of this entity? (Please do not repeat the SIC or NAICS description.)							
Public Water System							

Questions 34 - 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	Near FM 2187 and Hillboldt Road						
36. Nearest City	Sealy	County	Austin	State	Texas	Nearest ZIP Code 77474	
37. Latitude (N) In Decimal:				38. Longitude (W) In Decimal:			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.							
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Industrial Hazardous Waste	<input type="checkbox"/> Municipal Solid Waste			
<input type="checkbox"/> New Source Review - Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input checked="" type="checkbox"/> PWS	<input type="checkbox"/> Sludge			
<input type="checkbox"/> Stormwater	<input type="checkbox"/> Title V - Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil	<input type="checkbox"/> Utilities			
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:			


SECTION IV: Preparer Information

40. Name:	Jerry G. Ince, PE	41. Title:	President
42. Telephone Number	43. Ext/Code	44. Fax Number	45. E-Mail Address
(281) 232 - 7075		() -	Jerry.Ince@Ince-Engineering.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	RANCH COUNTRY OF TEXAS	Job Title:	V.P.
Name (in Print):	STEPHEN CRYAN	Phone:	(979) 885- 6262
Signature:		Date:	12/3/14

CHECKLIST FOR PROPOSED* PUBLIC WATER SUPPLY WELL/SPRING

The following list is a synopsis of the "Rules for Public Water Systems", 30 TAC Chapter 290 regarding proposed well/spring development. Plans and specifications meeting, but not limited to, the minimum requirements cited here shall be prepared under the supervision of a registered professional engineer and submitted to TCEQ, Water Supply Division, Utility Creation & Plan Review Team for approval. This list is not a substitute for the rules. Failure to submit the following items may delay project approval. Copies of the rules may be obtained from Texas Register, P.O. Box 13824, Austin, TX, 78711-3824, Phone: 512/463-5561 or downloaded from our website at:

http://www.tceq.state.tx.us/permitting/water_supply/ud/planrev.html

Please be aware that we have added the requirement for analysis for radionuclides for high risk counties listed on the back. For elevated levels of any contaminants found in a test well, treatment or blending may be required. For more information about this testing go to:

http://www.tceq.state.tx.us/permitting/water_supply/pdw/chemicals/radionuclides/pdw_rad.html

1. ☒ A map showing the location of the well (Section 290.41(c)(3)(A) of the rules) or a scalable map with named roadways;
2. ☒ A sealed engineer's report that sizes the well/spring capacity based on connections or people to be served;
3. ☒ Identify individually all pollution hazards, present or potential. (Section 290.41(c)(1)(A)-(E) of the rules.)
 - ☒ (¼ mile): abandoned or inoperative wells and existing/potential pollution hazards (see guidance);
 - ☒ (500 ft): sewage treatment plants, lands on which sewage plant or septic tank sludge is applied, lands irrigated by sewage plant effluent; animal feed lots, livestock and animal pens/solid waste disposal sites;
 - ☒ (300 ft): sewage wet wells, sewage pump stations, ditches containing sewage treatment waste or industrial waste;
 - ☒ (150 ft): septic tank perforated drain fields, absorption beds, evapotranspiration beds, privies, underground fuel storage tanks; cemetery; areas irrigated by low dosage, low angle spray on-site sewage facilities; underground petrochemical storage tanks or pipelines; water wells that do not meet Public Drinking Water Standards;
 - ☒ (50 ft): tile or concrete sanitary sewers, septic tanks, livestock in pastures, or storm sewers;
4. ☐ NA A draft of sanitary control easements. (Section 290.47(c) Appendix C of the rules.) Easements needed for adjoining properties shall be accompanied by written commitment to execute from the property owner. (Section 290.41(c)(1)(F) of the rules.);
5. ☒ Minimize contamination of the underground water during drilling operation:
 - premises, materials, tools and drilling equipment (Section 290.41(c)(2) of the rules.)
 - water used for operations and fluids (Section 290.41(c)(2)(A) of the rules.)
 - slush pit (Section 290.41(c)(2)(B) of the rules.)
 - temporary toilet facilities (Section 290.41(c)(2)(C) of the rules.)
 - safeguards from trespassers (Section 290.41(c)(3)(E) of the rules.)
6. ☒ Well casing:
 - conforms to AWWA standards (Section 290.41(c)(3)(B) of the rules.)
 - extends 18 inches above floor (Section 290.41(c)(3)(B) of the rules.)
 - extends to developed formation (Section 290.41(c)(3)(B) of the rules.)
 - contains no more than 8% lead (Section 290.41(c)(3)(B) of the rules.)
 - pressure cemented per AWWA Appendix C (except C.1 & C.2) (Section 290.41(c)(3)(C) of the rules.)
7. ☐ NA Well gravel pack disinfected (Section 290.41(c)(3)(D) of the rules.).
8. ☒ Well disinfected per AWWA for six hours (Section 290.41(c)(3)(F) of the rules.).
9. ☒ Well head and sealing slab
 - well head two feet above 100-year flood elevation (Section 290.41(c)(3)(K) of the rules.)
 - slab edge three feet from the well casing in all directions with slope (Section 290.41(c)(3)(J) of the rules.)
 - well head sealed by a gasket or sealing compound (Section 290.41(c)(3)(K) of the rules.)
 - blow-off line (Section 290.41(c)(3)(L) of the rules.)
 - sampling cock (Section 290.41(c)(3)(M) of the rules.)
 - flow measuring devices (Section 290.41(c)(3)(N) of the rules.)
10. ☒ Intruder-resistant fences (Section 290.41(c)(3)(O) of the rules.).
11. ☒ All-weather access road (Section 290.41(c)(3)(P) of the rules.).

List of Counties where Radionuclide Testing is Required

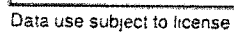
For more information go to: http://www.tceq.state.tx.us/permitting/water_supply/pdw/chemicals/radionuclides/pdw_rad.html

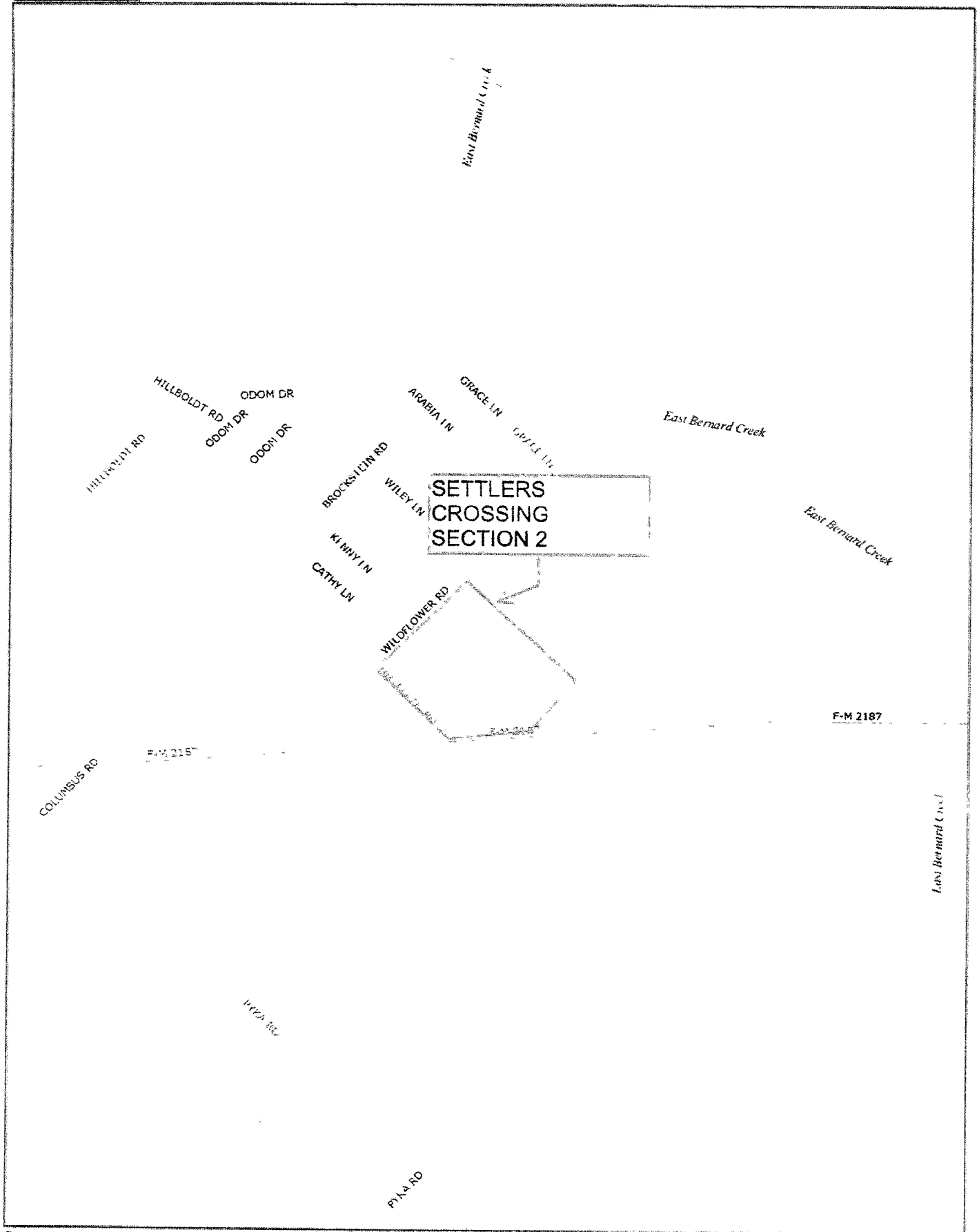
COUNTY	STATE CODE #
Atascosa	007
Bexar	015
Bosque	018
Brazoria	020
Brewster	022
Burnet	027
Concho	048
Culberson	055
Dallam	056
Erath	072
Fort Bend	079
Frio	082
Gillespie	086
Gray	090
Grayson	091
Harris	101
Hudspeth	115
Irion	118
Jeff Davis	122
Kendall	130
Kerr	133
Liberty	146
Llano	150
Lubbock	152

CONTINUED	
McCulloch	154
Mason	160
Matagorda	161
Medina	163
Montgomery	170
Moore	171
Parker	184
Pecos	186
Polk	187
Presidio	189
Refugio	196
San Jacinto	204
San Saba	206
Tarrant	220
Tyler	229
Upton	231
Val Verde	233
Victoria	235
Walker	236
Washington	239
Wichita	243
Zavala	254

LOCATION MAP







Data use subject to license

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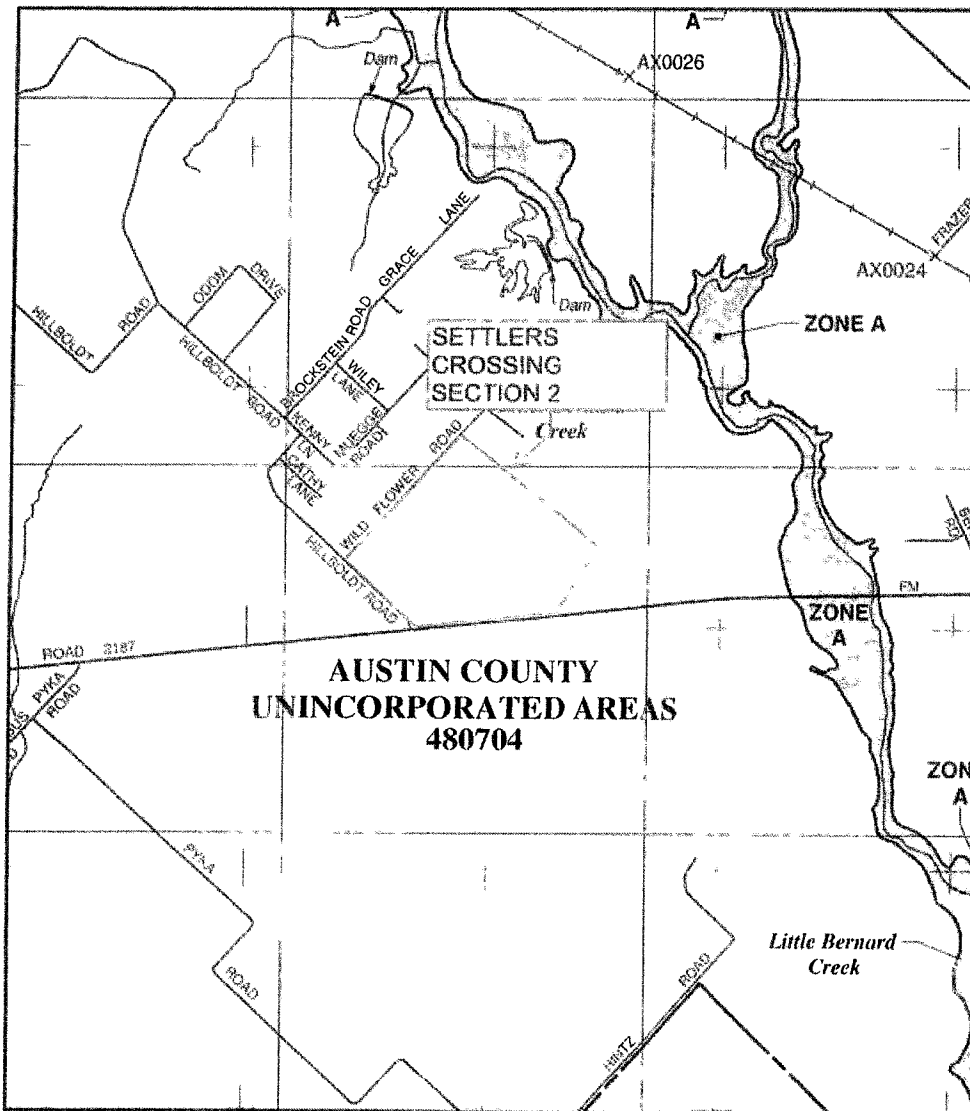


Scale 1 : 20,800




1" = 1,733.3 ft

Data Zoom 13-3



The Flood Insurance Study report for this jurisdiction. Information is available in this community, contact your insurance agent or the National Flood Insurance Program at 1-800-638-6620.



MAP SCALE 1" = 2000'

0 600 1200

PANEL 0325E


FIRM
FLOOD INSURANCE RATE MAP
AUSTIN COUNTY,
TEXAS
AND INCORPORATED AREAS

PANEL 325 OF 475
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
AUSTIN COUNTY	480704	0325	E
SAN FELIPE TOWN OF	480705	0325	E
SEALY CITY OF	480717	0325	E

Notes to User: The Map Number shown below should be used when placing map orders, the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
48015C0325E
MAP REVISED
SEPTEMBER 3, 2010

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

**ENGINEER'S REPORT
(SPECIFICATIONS, CALCULATIONS)**



WATER WELL AND PRESSURE TANK FOR SETTLERS CROSSING SECTION 2

HISTORY

Ranch Country of Texas Water System Inc. dba Settlers Crossing Section 2 is applying with the State of Texas for permission to install a new Public Water Supply for their proposed residential subdivision located in Austin County, Texas. The facility will be designed with a service capacity of 49 home connections.

WATER WELL CALCULATIONS

The well will have to meet full service capacity.

From TAC 290.45 (d) (1) Table A for well capacity

Required 1.5 gpm per connection = $49 \times 1.5 = 73.5$ gpm

The well is designed to generate 80 gpm. Which will meet TCEQ requirements.

PRESSURE TANK CAPACITY

From TAC 290.45 (b) (1) (A) (ii) for pressure tank capacity

Required 50 gallon per home connection = $50 \times 49 = 2,450$ gallons.

We will use one 3,000 gallon pressure tank and exceed TCEQ requirements.

CHLORINE TANK CAPACITY

From TAC 290.45 (b) (1) (C) (iv) for Chlorine Tank capacity:

$\{[(.0147\text{MG}) * (1\text{mg/L}) * (8.34 \text{ lbs/gal})] / [(15) * (1.206 * 8.34)]\} * 15 \text{ days} = 1.2 \text{ gals}$

We will use A 25-gal plastic tank with 0.53gpm/2gph peristaltic pulse pump.



**GENERAL SPECIFICATION
SECTION 0101
PUBLIC WATER SUPPLY WELLS**

GENERAL

The water well must be constructed in accordance with the Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D.

SANITATION

The premises, materials, tools, and drilling equipment shall be maintained so as to minimize contamination of the groundwater during drilling operation as described in TAC 290.41(c)(2).

1. Water used in any drilling operation shall be of safe sanitary quality. Water used in the mixing of drilling fluids or mud shall contain a chlorine residual of at least 0.5 milligrams per liter (mg/L).
2. The slush pit shall be constructed and maintained so as to minimize contamination of the drilling mud. The slush pits for drilling purposes shall be located so as not to interfere with the construction of tanks or buildings on the site of the work and the Contractor shall not dig any pits until the location has been approved by the Engineer.
3. No temporary toilet facilities shall be maintained within 150 feet of the well being constructed unless they are of a sealed, leakproof type.
4. Groundwater wells shall be located so that there will be no danger of pollution from flooding or from unsanitary surroundings as described in TAC 290.41(c)(1). No water well shall be located within:
 - 50 feet of a tile or concrete sanitary sewer, sewerage appurtenance, septic tank, storm sewer, livestock, or cemeteries.
 - 150 feet of a septic tank perforated drainfield, areas irrigated by low dosage, low angle spray on-site sewage facilities, absorption bed, evapotranspiration bed, improperly constructed water well, or underground petroleum and chemical storage tank or liquid transmission pipeline
 - 300 feet of a sewage wet well, sewage pumping station, or a drainage ditch which contains industrial waste discharges or the wastes from sewage treatment systems.
 - 500 feet of a sewage treatment plant, animal feed lots, solid waste disposal sites, lands on which sewage plant or septic tank sludge is applied, or lands irrigated by sewage plant effluent.

CONSTRUCTION

The construction of a well to be used as a public water supply source must meet the following conditions.

1. The casing material used in the construction of wells for public use shall be new carbon steel, high strength low alloy steel, stainless steel or plastic. The material shall conform to AWWA standards. The casing shall extend a minimum of 18 inches above the elevation of the finished floor of the pump room or natural ground surface and a minimum of one inch above the sealing block or pump motor foundation block when provided. The casing shall extend at least to the depth of the shallowest water formation to be developed and deeper, if necessary, in order to eliminate all undesirable water bearing strata. Well construction materials containing more than 0.25% lead are prohibited. TAC 290.41(c)(3)(B).
2. The space between the casing and drill hole shall be sealed by using enough cement under pressure to completely fill and seal the annular space between the casing and the drill hole. The well casing shall be cemented in this manner from the top of the shallowest formation to be developed to the earth's surface. The driller shall utilize a pressure cementation method in accordance with the AWWA Standard for Water Wells (A100-06), Appendix C: Section C.2 (Positive Displacement Exterior Method); Section C.3 (Interior Method Without Plug); Section C.4 (Positive Placement, Interior Method, Drillable Plug); and Section C.5 (Placement Through Float Shoe Attached to Bottom of Casing). TAC 290.41(c)(3)(C).



3. A concrete sealing block extending at least three feet from the well casing in all directions, with a minimum thickness of six inches and sloped to drain away at not less than 0.25 inches per foot shall be provided around the wellhead. TAC 290.41(c)(3)(J).
4. Wellheads and pump bases shall be sealed by a gasket or sealing compound and properly vented to prevent the possibility of contaminating the well water. A well casing vent shall be provided with an opening that is covered with 16 mesh or finer corrosion resistant screen, facing downward, elevated and located so as to minimize the drawing of contaminants into the well. Wellheads and well vents shall be at least two feet above the highest known watermark or 100 year flood elevation, if available or adequately protected from possible flood damage by levees. TAC 290.41(c)(3)(K).
5. The well site shall be fine graded so that the site is free from depressions, reverse grades, or areas too rough for proper ground maintenance so as to ensure that surface water will drain away from the well. In all cases, arrangements shall be made to convey well pump drainage, packing gland leakage, and floor drainage away from the wellhead. Suitable drain pipes located at the outer edge of the concrete floor shall be provided to collect this water and prevent its ponding or collecting around the wellhead. This wastewater shall be disposed of in a manner that will not cause any nuisance from mosquito breeding or stagnation. Drains shall not be directly connected to storm or sanitary sewers. TAC 290.41(c)(3)(I).
6. If a well blow off line is provided, its discharge shall terminate in a downward direction and at a point which will not be submerged by flood waters. TAC 290.41(c)(3)(L).
7. An air release device shall be installed in such a manner as to preclude the possibility of submergence or possible entrance of contaminants. In this respect, all openings to the atmosphere shall be covered with 16 mesh or finer, corrosion resistant screening material or an acceptable equivalent. TAC 290.41(c)(3)(Q).
8. An all weather access route shall be provided to each well site. TAC 290.41(c)(3)(P).

DISINFECTION

The disinfection of a well to be used as a public water supply source must meet the following conditions.

1. All gravel shall be of selected and graded quality and shall be thoroughly disinfected with a 50 mg/L chlorine solution as it is added to the well cavity. TAC 290.41(c)(3)(D).
2. Upon well completion, or after an existing well has been reworked, the well shall be disinfected in accordance with current AWWA Standard C654-03 for well disinfection except that the disinfectant shall remain in the well for at least six hours. TAC 290.41(c)(3)(F).

SECURITY

The protection of a well to be used as a public water supply source must meet the following conditions.

1. Safeguards shall be taken to prevent possible contamination of the water or damage by trespassers following the completion of the well and prior to installation of permanent pumping equipment. TAC 290.41(c)(3)(E).
2. All completed well units shall be protected by intruder resistant fences, the gates of which are provided with locks or shall be enclosed in locked, ventilated well houses to exclude possible contamination or damage to the facilities by trespassers. The gates or wellhouses shall be locked during periods of darkness and when the plant is unattended. TAC 290.41(c)(3)(O).

TESTING

The testing of a well to be used as a public water supply source must meet the following conditions.

1. A suitable sampling cock shall be provided on the discharge pipe of each well pump prior to any treatment. TAC 290.41(c)(3)(M).
2. Flow measuring devices shall be provided for each well to measure production yields and provide for the accumulation of water production data. These devices shall be located to facilitate daily reading. TAC 290.41(c)(3)(N).



PROJECT DATA

1. The following well construction materials are estimated:
 - a) Casing to be 180' of 5" Sch 40 PVC pipe. (F480)
 - b) Drop pipe to be 160' or as needed of 2" Sch 80 PVC. (ASTM D 1785)
 - c) Screen to be 20' of 2.5" Stainless Steel rod based Screen. (AISI 304)
 - d) Vent screen to be 16 mesh and corrosion resistant.
 - e) 4" Meyers Ranger – SS100-80 – 10.0-hp or equal submersible pump.
 - f) Estimated bore hole size is 8.5 inches.
 - g) Estimated pressure cement depth is 180 feet.
2. Driller must use Positive Displacement Method (Halliburton Method) for cementing.
3. No test hole is required for this installation.
4. This well is located in Austin County and does not fall under the requirement for radionuclide testing as shown on the TCEQ guidance sheet.



**GENERAL SPECIFICATION
SECTION 0102
HYDROPNEUMATIC PRESSURE TANKS
FOR PUBLIC WATER SYSTEMS**

GENERAL

These water well facilities must be constructed in accordance with the Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D.

1. No more than three pressure tanks shall be installed at any one site without the prior approval of the executive director. TAC 290.43(d)(9).

TANK CONSTRUCTION

The design and construction of hydropneumatic pressure tanks to be used in a public water system must meet the following conditions.

1. Hydro-pneumatic tanks must be located wholly above grade and must be of steel construction with welded seams. Seamless fiberglass tanks may be utilized as long as they do not exceed 300 gallons in capacity. TAC 290.43(d).
2. Metal thickness for pressure tanks shall be sufficient to withstand the highest expected working pressures with a four to one factor of safety. Tanks for 1000 gallon capacity or larger must meet the standards of the American Society of Mechanical Engineers (ASME) Section VIII, Division 1 Codes and Construction Regulations and must have an access port of periodic inspections. An ASME name plate must be permanently attached to those tanks. Tanks installed before July 1, 1988, are exempt from the ASME coding requirement, but all new installations must meet this regulation. Exempt tanks can be relocated within a system, but cannot be relocated to another system. TAC 290.43(d)(1).
3. Hydropneumatic pressure tanks shall be painted, disinfected and maintained in strict accordance with current AWWA standards. Protective paint or coating shall be applied to the inside portion of any pressure tank. However, no temporary coating, wax, grease coating or coating materials containing lead will be allowed. No other coating will be allowed which are not approved for use (as a contact surface with potable water by the United States environmental Protection Agency (EPA), National Sanitation Foundation (NSF), The United States Food and Drug Administration (FDA). All newly installed coatings must conform to ANSI/ NSF Standard 61-G and must be certified by an organization accredited by ANSI. TAC 290.43(d)(4).

APPURTENANCES

The appurtenances for hydropneumatic pressure tanks to be used in a public water system must meet the following conditions.

1. All pressure tanks shall be provided with a pressure release device and an easily readable pressure gauge. TAC 290.43(d)(2).
2. Facilities shall be provided for maintaining the air-water-volume at the design water level and working pressure. Air injection lines must be equipped with filters or other devices to prevent compressor lubricant and other contaminants from entering the pressure tank. A device to readily determine air-water-volume must be provided for all tanks greater than 1000 gallon capacity. Galvanized tanks which are not provided with the necessary fittings and were installed before July 1, 1988, shall be exempt from this requirement. TAC 290.43(d)(3).
3. Pressure tank installations should be equipped with slow closing valves and time delay pump controls to eliminate water hammer to reduce the chance of tank failure. TAC 290.43(d)(6).
4. Associated appurtenances including valves pipes and fittings connected to pressure tanks shall be thoroughly tight against leakage. TAC 290.43(d)(7).



SECURITY

Hydropneumatic pressure tanks to be used in a public water system must meet the following security conditions.

1. All potable water storage tanks and pressure maintenance facilities must be enclosed by an intruder resistant fence with lock-able gates. Pedestal type elevated storage tanks with lock-able doors and without external ladders are exempt from this requirement. The gates and doors must be kept locked whenever the facility is unattended. TAC 290.43(e).
2. No pressure tank that has been used to store any material other than potable water may be used in a public water system. A letter from the previous owner or owners must be provided. TAC 290.43(d)(5).

PROJECT DATA

1. One tank shall be used. A 3,000 gallon galvanized pressure tank as manufactured by Bulldog or equivalent.
2. Tanks shall be equipped with all nozzles as shown on drawings for drains, inlets, outlets, and valves.
3. Galvanize coatings shall meet all applicable AWWA standards.



**GENERAL SPECIFICATION
SECTION 0104
PUBLIC WATER SUPPLY DISTRIBUTION SYSTEM**

1. This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. Construction for public water systems must always, at a minimum, meet TCEQ's "Rules and Regulations for Public Water Systems.
2. An appointed engineer shall notify in writing the local TCEQ's Regional Office when construction will start. Please keep in mind that upon completion of the water works project, the engineer or owner shall notify the commission's Water Supply Division, in writing, as to its completion and attest to the fact that the work has been completed essentially according to the plans and change orders on file with the commission as required in 30 TAC §290.39(h)(3).
3. All newly installed pipes and related products must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61-G and must be certified by an organization accredited by ANSI, as required by 30 TAC §290.44(a)(1).
4. Plastic pipe for use in public water systems must bear the National Sanitation Foundation Seal of Approval (NSF pw-G) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less, as required by 30 TAC §290.44(a)(2).
5. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply, as required by 30 TAC §290.44(a)(3).
6. Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface, as required by 30 TAC §290.44(a)(4).
7. Pursuant to 30 TAC §290.44(a)(5), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by the most current AWWA formulas for PVC pipe, cast iron and ductile iron pipe. Include the formulas in the notes on the plans.
 - o The hydrostatic leakage rate for polyvinyl chloride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

$$Q = \frac{LD\sqrt{P}}{148,000}$$

Where:

- Q = the quantity of makeup water in gallons per hour,
 - L = the length of the pipe section being tested, in feet,
 - D = the nominal diameter of the pipe in inches, and
 - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
- o The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use

$$L = \frac{SD\sqrt{P}}{148,000}$$



Where:

- L = the quantity of makeup water in gallons per hour,
 - S = the length of the pipe section being tested, in feet,
 - D = the nominal diameter of the pipe in inches, and
 - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
8. Projects constructed on or after January 4, 2014 must comply with changes to the Safe Drinking Water Act that reduce the maximum allowable lead content of pipes, pipe fittings, plumbing fittings, and fixtures to 0.25 percent.
 9. The system must be designed to maintain a minimum pressure of 35 psi at all points within the distribution network at flow rates of at least 1.5 gallons per minute per connection. When the system is intended to provide firefighting capability, it must also be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions as required by 30 TAC §290.44(d).
 10. The contractor shall install appropriate air release devices in the distribution system at all points where topography or other factors may create air locks in the lines. All vent openings to the atmosphere shall be covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent as required by 30 TAC §290.44(d)(1).
 11. Pursuant to 30 TAC §290.44(d)(4), accurate water meters shall be provided. Service connections and meter locations should be shown on the plans.
 12. Pursuant to 30 TAC §290.44(d)(5), sufficient valves and blowoffs to make repairs. The engineering report shall establish criteria for this design.
 13. Pursuant to 30 TAC §290.44(d)(6), the system shall be designed to afford effective circulation of water with a minimum of dead ends. All dead-end mains shall be provided with acceptable flush valves and discharge piping. All dead-end lines less than two inches in diameter will not require flush valves if they end at a customer service. Where dead ends are necessary as a stage in the growth of the system, they shall be located and arranged to ultimately connect the ends to provide circulation.
 14. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes and septic tank drainfields. If this distance cannot be maintained, the contractor must immediately notify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet 30 TAC §290.44(e)(1-4) of the current rules.
 15. Pursuant to 30 TAC §290.44(e)(5), the separation distance from a potable waterline to a wastewater main or lateral manhole or cleanout shall be a minimum of nine feet. Where the nine-foot separation distance cannot be achieved, the potable waterline shall be encased in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at five-foot intervals with spacers or be filled to the springline with washed sand. The encasement pipe shall be centered on the crossing and both ends sealed with cement grout or manufactured sealant.
 16. Pursuant to 30 TAC §290.44(e)(6), fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line regardless of construction.



17. Pursuant to 30 TAC §290.44(e)(7), suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any tile or concrete wastewater main, wastewater lateral, or wastewater service line.
18. Pursuant to 30 TAC §290.44(e)(8), waterlines shall not be installed closer than ten feet to septic tank drainfields.
19. Pursuant to 30 TAC §290.44(f)(1), the contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation.
20. Pursuant to 30 TAC §290.44(f)(2), when waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the water main shall be installed in a separate watertight pipe encasement. Valves must be provided on each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested.
21. The contractor shall disinfect the new water mains in accordance with AWWA Standard C-651 and then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed water line will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer, in accordance with 30 TAC §290.44(f)(3).



**GENERAL SPECIFICATION
SECTION 0106
CHEMICAL STORAGE TANKS AND PERISTALTIC PULSE PUMPS
FOR PUBLIC WATER SYSTEMS**

GENERAL

Hypochlorination solution containers and pumps must be housed in a secure enclosure to protect them from adverse weather conditions and vandalism. The solution container top must be completely covered to prevent the entrance of dust, insects, and other contaminants. 30 TAC §290.42(e)(5)

1. Disinfection equipment shall be selected and installed so that continuous and effective disinfection can be secured under all conditions. 30 TAC §290.42(e)(3)
2. Disinfection equipment shall have a capacity at least 50% greater than the highest expected dosage to be applied at any time. It shall be capable of satisfactory operation under every prevailing hydraulic condition. 30 TAC §290.42(e)(3)(A)
3. Automatic proportioning of the disinfectant dosage to the flow rate of the water being treated shall be provided at plants where the treatment rate varies automatically and at all plants where the treatment rate varies more than 50% above or below the average flow. Manual control shall be permissible at surface water treatment plants or plants treating groundwater under the direct influence of surface water only if an operator is always on hand to make adjustments promptly. 30 TAC §290.42(e)(3)(B)
4. Facilities shall be provided for determining the amount of disinfectant used daily as well as the amount of disinfectant remaining for use. 30 TAC §290.42(e)(3)(D)
5. When used, solutions of calcium hypochlorite shall be prepared in a separate mixing tank and allowed to settle so that only a clear supernatant liquid is transferred to the hypochlorinator container. 30 TAC §290.42(e)(3)(E)
6. Provisions shall be made for both pretreatment disinfection and post-disinfection in all surface water treatment plants. Additional application points shall be installed if they are required to adequately control the quality of the treated water. 30 TAC §290.42(e)(3)(F)

SAFETY

Safety equipment for all chemicals used in water treatment shall meet applicable standards established by the OSHA or Texas Hazard Communication Act, Texas Health and Safety Code, Title 6, Chapter 502. Systems must comply with United States Environmental Protection Agency (EPA) requirements for Risk Management Plans.

SECURITY

Each water treatment plant and all appurtenances thereof shall be enclosed by an intruder-resistant fence. The gates shall be locked during periods of darkness and when the plant is unattended. A locked building in the fence line may satisfy this requirement or serve as a gate.

PROJECT DATA

1. Liquid Chlorination will be used for this system. The chlorine is stored in a 25 gallon plastic bulk storage tank. Spill containment is not required for storage tanks smaller than 35 gallons.
2. Disinfectant will be delivered by a peristaltic pulse pump capable of delivering 0.53/2gph gallons of disinfectant per day.



PUMP



Myers

THE RANGER™ 4" SUBMERSIBLE PUMPS

SUBMERSIBLE PUMPS

THE RANGER™

The Ranger™ Series 4" high-flow submersible pumps are perfect for applications requiring a large volume of water. Stainless steel components and high-density composite resin impellers provide exceptional resistance to corrosion in harsh water conditions. The high-torque motor and superior pump hydraulics are carefully matched to handle virtually any job.

APPLICATIONS

Water systems... irrigation, industrial, commercial, multiple housing and farm clean water use

SPECIFICATIONS

- Shell - 304 Stainless Steel
- Discharge - 304 Stainless Steel
- Discharge Bearing - Buna-N
- Impellers - Noryl®
- Diffusers - Noryl
- Suction Caps - Noryl
- Shaft and Coupling - 304 Stainless Steel
- Intake - 304 Stainless Steel
- Intake Screen - 304 Stainless Steel
- Cable Guard - 304 Stainless Steel
- Check Valve - Polyester Teflon®
- Fasteners - 304 Stainless Steel

FEATURES

Turn Up the Volume

High-flow capacities to 100 GPM make the Ranger 4" sub the easy choice for the really big jobs

More Stainless Steel

Shell, discharge and suction bowl, shaft and coupling, lead guard and suction screen - all lead-free

Staged for Toughness

Specially designed, high-density thermoplastic impellers resist the corrosive wear from harsh water conditions

High-powered Performance

Features a high-torque, heavy-duty motor for the most demanding applications



Noryl® is a registered trademark of the General Electric Company. Nylatron® is a registered trademark of The Polymer Corporation. Teflon® is a registered trademark of Dupont. Ranger™ is a trademark of Pentair Water.

ORDERING INFORMATION - PUMP

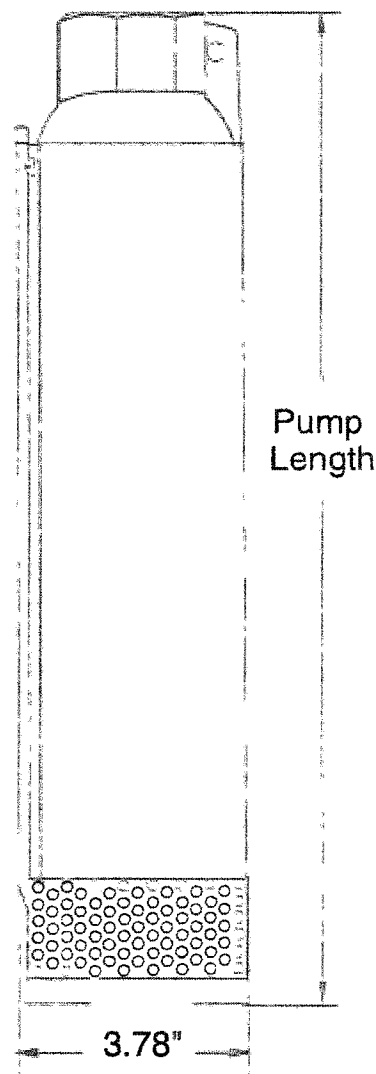
GPM	HP	Stages	Assembled Pump		
			Catalog Number	Length Inches*	Weight Pounds*
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	1-1/2	9	SS15-25	21	14
	2	11	SS20-25	24	15
	3	15	SS30-25	28	19
	5	25	SS50-25	48	27
	7-1/2	37	SS75-25	67	55
35	1	4	SS10-35	15	10
	1-1/2	6	SS15-35	18	12
	2	8	SS20-35	22	14
	3	11	SS30-35	28	17
	5	18	SS50-35	43	24
	7-1/2	28	SS75-35	62	52
50	1	4	SS10-50	15	10
	1-1/2	6	SS15-50	21	14
	2	7	SS20-50	23	15
	3	10	SS30-50	31	19
	5	18	SS50-50	48	27
	7-1/2	25	SS75-50	70	59
80	1	4	SS10-80	15	10
	1-1/2	6	SS15-80	21	14
	2	7	SS20-80	23	15
	3	9	SS30-80	29	20
	5	14	SS50-80	59	45
	7-1/2	22	SS75-80	66	59
	10	27	SS100-80	100	68

MOTOR / CONTROL BOX

HP	No. of Wires	Volts	PH	PENTEK® Motor			PENTEK Control Box Catalog Number
				Catalog Number	Length Inches*	Weight Pounds*	
1	2	230	1	P4230010A2	12	22	
	3	230	1	P4380010A2	12	22	SMC-CR102*
	5	230	1	P4230015A2	15	33	
1-1/2	2	230	1	P4380015A2	14	27	SMC-CR152
	3	230	3	P4380015A3	13	23	SMC-CR1521
	5	230	1	P4380020A2	15	25	SMC-CR202*
2	2	230	3	P4380020A3	14	27	SMC-CR2021
	3	230	1	P4380020A2	15	25	SMC-CR3021
	5	230	2	P4380030A3	21	40	SMC-CR302*
3	2	230	1	P4380050A2	30	66	SMC-CR502*
	3	230	3	P4380050A3	24	50	SMC-CR502*
	5	230	3	P4380075A3	33	66	SMC-CR752*

*Length and weight are approximate.

OUTLINE DIMENSIONS

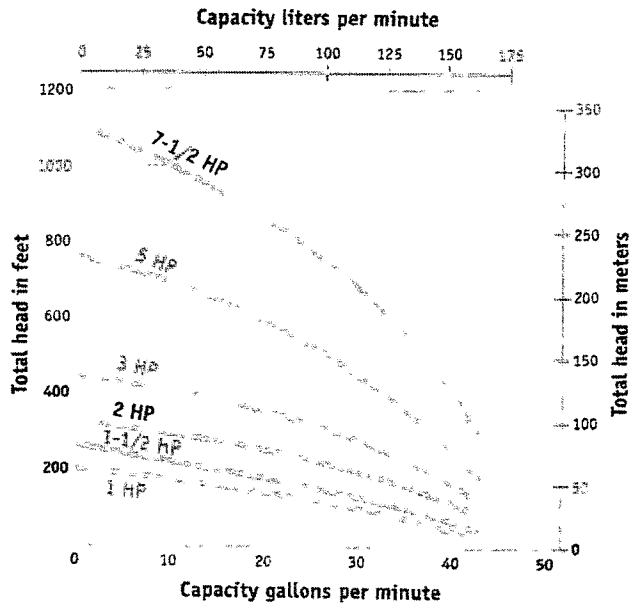


Myers

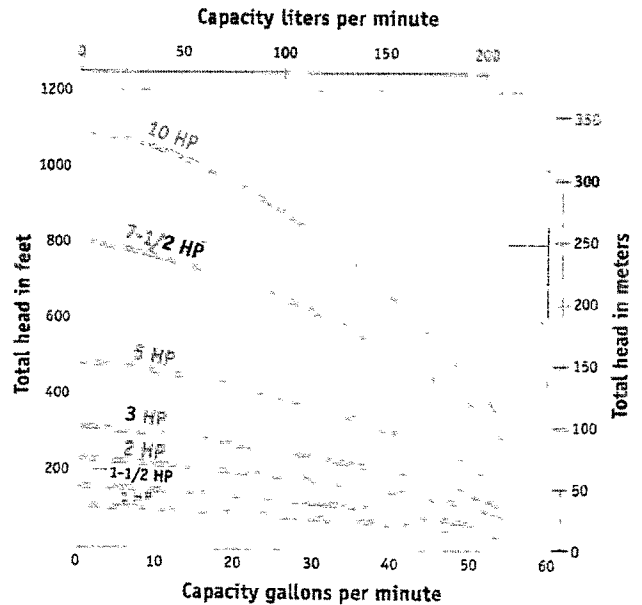
THE RANGER™ 4" SUBMERSIBLE PUMPS

SUBMERSIBLE PUMPS

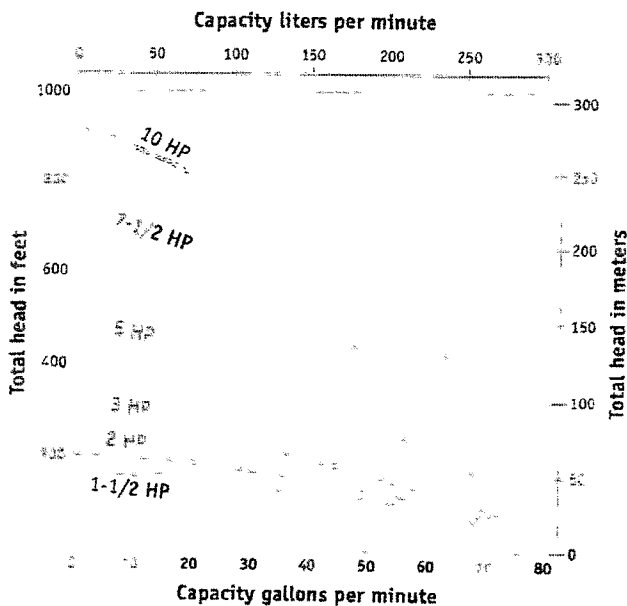
PUMP PERFORMANCE - 25 GPM



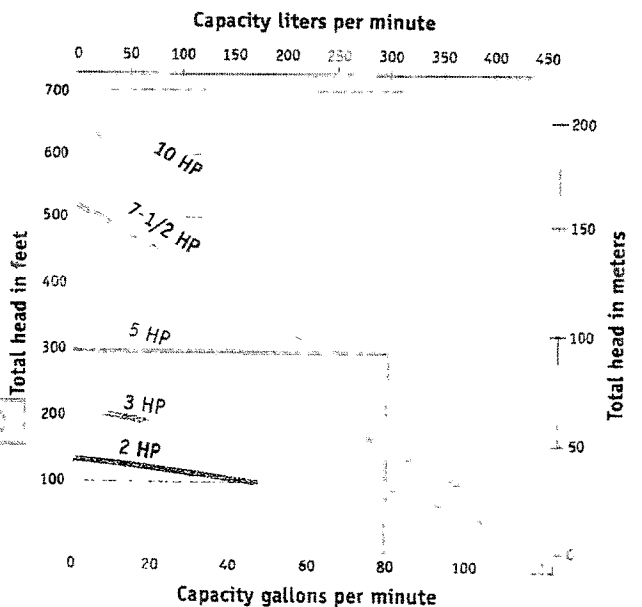
PUMP PERFORMANCE - 35 GPM



PUMP PERFORMANCE - 50 GPM



PUMP PERFORMANCE - 80 GPM



CONVERTIBLE PUMPS

Myers | Customer Service: 419.289.6898 | Fax Orders: 888.840.7867 | www.myerspump.com | Form No. M9111WS

WARRANTY DEED



BAC-S
27(5)

075543

27-
36926

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 with Vendor's Lien

Date: September 21, 2007

Grantor: ROMEO ISELT

Grantor's Mailing Address:
ROMEO ISELT
422 N. Meinecke
Bellville, Texas 77418
AUSTIN County

Grantee: SETTLERS' CROSSING, INC

Grantee's Mailing Address:
SETTLERS' CROSSING, INC
P.O. BOX 790
SEALY, TEXAS 77474
AUSTIN County

Consideration:

Cash and a note of even date executed by Grantee and payable to the order of ENTERPRISE BANK, A TEXAS BANKING CORPORATION in the principal amount of NINE HUNDRED FIFTY THOUSAND AND NO/100 DOLLARS (\$950,000.00). The note is secured by a first and superior vendor's lien and superior title retained in this deed in favor of ENTERPRISE BANK, A TEXAS BANKING CORPORATION and by a first-lien deed of trust of even date from Grantee to ALBERT M. DASHIELL, JR., trustee.

Property (including any improvements):

136.997 ACRE TRACT OF LAND OUT OF AN ORIGINAL 160 ACRE TRACT RECORDED IN VOLUME 276, PAGE 144, DEED RECORDS OF AUSTIN COUNTY, TEXAS, AND BEING SITUATED IN THE H. & T. C. R. R. COMPANY SURVEY, SECTION 164, AND BEING PART OF THE M. M. KENNEDY SURVEY, ABSTRACT 370, AUSTIN COUNTY, TEXAS.

Reservations from Conveyance:

None

1

Exceptions to Conveyance and Warranty:

1. Royalty Deed filed February 6, 1947, from Ida and Fritz Bielefeld to B. F. Turner, $\frac{1}{4}$ interest in and to all of the oil and gas royalty recorded in Volume 162, Page 132, Official Records of Austin County, Texas.
2. ~~Royalty Deed from B. F. Turner to Elizabeth W. Clark undivided $\frac{1}{32}$ interest in and to all of the oil royalty recorded in Volume 87, Page 619, Official Records of Austin County, Texas.~~ R. I.
3. ~~Royalty Deed from Morris Womack to Robert B. Holland dated December 2, 1947, filed January 2, 1948, recorded in Volume 103, Page 700, Official Record of Austin County, Texas.~~ R. I.
4. ~~Royalty Deed from Morris K. Womack to George W. Suners, dated December 2, 1947, filed January 2, 1948, recorded in Volume 163, Page 709, Official Records of Austin County, Texas.~~ R. I.
5. ~~Royalty Deed from B. F. Turner to Morris K. Womack dated December 2, 1947, filed December 16, 1947, recorded in Volume 165, Page 228, Official Records of Austin County, Texas.~~ R. I.
6. ~~Royalty Deed from Morris K. Womack to Alex L. Hillman dated December 2, 1947, filed January 2, 1948, recorded in Volume 165, Page 252, Official Records of Austin County, Texas.~~ R. I.
7. ~~Oil, gas and mineral lease from Ida Bielefeld to A. A. Marik dated April 24, 1953, filed June 9, 1953, recorded in Volume 206, Page 215, Official Records of Austin County, Texas, with Assignment from A. A. Marik to Tide Water and Associates Oil Company, dated May 4, 1953, filed June 9, 1953, recorded in Volume 206, Page 217, Official Records of Austin County, Texas.~~ R. I.
8. ~~Oil, gas and mineral lease from Ida Bielefeld to W. L. K. Trotter, dated May 12, 1958, filed May 15, 1958, recorded in Volume 237, Page 637, Official Records of Austin County, Texas, with Assignment from W. L. K. Trotter to the British-American Oil Producing Company dated May 12, 1958, filed May 15, 1958, recorded in Volume 238, Page 1, Official Records of Austin County, Texas.~~ R. I.
9. ~~Transfer and Assignment from W. L. K. Trotter to Gulf Oil Corporation, dated December 12, 1972, filed March 5, 1973, recorded in Volume 353, Page 327, Official Records of Austin County, Texas.~~ R. I.
10. ~~Lease from Romeo and Bernice Islet to Gulf Oil Corporation, dated November 10, 1977, filed September 12, 1978, recorded in Volume 405, Page 16, Official Records of Austin County, Texas.~~ R. I.
11. ~~Oil, gas and mineral lease from Romeo L. Iselt, et ux Selma Iselt, dated July 10, 1997, filed September 12, 1997, recorded in File No. 974558, Official Records of Austin County, Texas. Amendment to oil, gas and mineral lease, dated November 23, 1998, filed December 31, 1998, recorded in File No. 988223, Official Records of Austin County, Texas.~~ R. I.
12. Easement and Right of Way Grant from Romeo Iselt to All American Pipeline Company, dated April 20, 1988, filed May 2, 1988, recorded in Volume 582, Page 575, Official Records of Austin County, Texas.

13. Easement from Romeo Iselt to Southwestern Bell Telephone Company, dated February 13, 1996, filed February 13, 1996, recorded in Volume 746, Page 557, Official Records of Austin County, Texas.
14. Rights of the public, the State of Texas, and its political subdivisions, in and to that part of the land, if any, taken or used for road purposes.
15. Powerlines and CL Ditch as shown on survey dated August 14, 2007, by David Leyendecker, RPLS No. 2085.
16. Visible and apparent easements on or across property herein described.

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

The vendor's lien against and superior title to the Property are retained until each note described is fully paid according to its terms, at which time this deed will become absolute.

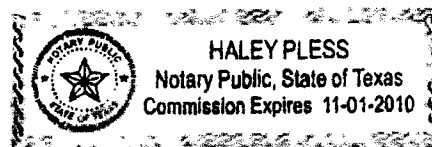
ENTERPRISE BANK, A TEXAS BANKING CORPORATION, at Grantee's request, has paid in cash to Grantor that portion of the purchase price of the Property that is evidenced by the note. The first and superior vendor's lien against and superior title to the Property are retained for the benefit of ENTERPRISE BANK, A TEXAS BANKING CORPORATION and are transferred to ENTERPRISE BANK, A TEXAS BANKING CORPORATION without recourse against Grantor.

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

Romeo Iselt
ROMEO ISELT

STATE OF TEXAS)

COUNTY OF AUSTIN)



This instrument was acknowledged before me on September 21, 2007, by ROMEO ISELT.

Haley Pless
Notary Public, State of Texas
My commission expires: 11-01-2010

PREPARED IN THE OFFICE OF: _____

Van Williamson - Attorney & Counselor at Law
P.O. Box 539
Bellville, Texas 77418
Tel: (979) 865-1194
Fax: (979) 865-1197

AFTER RECORDING RETURN TO:

EXHIBIT A

FIELD NOTES FOR A 136.997 ACRE TRACT OF LAND OUT OF AN ORIGINAL 160 ACRE TRACT (VOLUME 276, PAGE 144 DEED RECORDS) AND BEING SITUATED IN THE H. & T.C.R.R. COMPANY SURVEY, SECTION 164, AND BEING PART OF THE M. M. KENNEY SURVEY, ABSTRACT 370, AUSTIN COUNTY, TEXAS.

BEGINNING: At a ½ inch iron pipe found for the Northwest corner of this 136.997 acre tract located at the intersection of the Northeast ROW line of Hillboldt Road (60' ROW) and on the South ROW line of Wild Flower Road (30 foot lane); said corner bears North 45° 12' 29" East a distance of 50.17 feet from a P.K. Nail set at the Northwest corner of the M.M. Kennedy Survey, Abstract 370 as located in the Right-of-Way of Hillboldt Road;

THENCE: North 45° 12' 29" East a distance of 2611.73 feet along the Northwest line of this tract and the South line of Wild Flower Road to a ½ inch iron rod set for the North corner of this tract and the West corner of a 160 acre tract (Austin County Clerk's File No. 025225) and being on the common line of the M.M. Kenney Survey and the F. Bielfeld Survey, Abstract 340, said point also being the North corner of the before mentioned 160 acre tract;

THENCE: South 44° 50' 38" East a distance of 2650.13 along the common line of said surveys to a ½ inch iron rod set for the East corner of this tract and the before mentioned 160 acre tract, also being the South corner of the adjoining 160 acre tract;


THENCE: South 45° 12' 37" West a distance of 1147.96 along the common line of this tract and a 64.472 acre tract (Volume 687, Page 383 Deed Records) to a ½ inch iron rod set in the Northwestern ROW line of F.M. 2187 (100' ROW) for the Southeast corner of this tract, and being the Southwest corner of said 64.472 acre tract;

THENCE: South 87° 04' 14" West a distance of 1980.88 along the Northern ROW line of F.M. 2187 and along the North line of a called 2.833 acre tract conveyed to the State of Texas (Volume 275, Page 625 Austin County Deed Records) to a concrete monument found for the Southwest corner of this tract at its intersection with the Northeast line of Hillboldt Road;

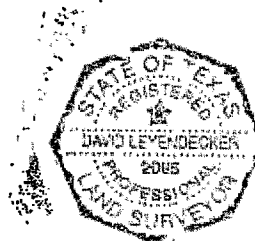
THENCE: North 44° 24' 00" West along the Northeast line of Hillboldt Road passing a concrete monument at a distance of 162.51 and continuing on for a total distance of 1328.18 feet to the place of beginning and containing 136.997 acres of land.

All bearings recited herein are based on the Northeast right-of-way line of Hillboldt Road running North 44° 24' 00" West.

This survey consists of a separate plat and a legal description.


For Clay & Leyendecker, Inc.
David Leyendecker, R.P.L.S.
Texas Registration No. 2085
September 05, 2007

BR
M.M.KENNEY-141.050-07-143



FILED

07 OCT -1 PM 1:11

Carrie M. ...

COUNTY CLERK
AUSTIN COUNTY, TEXAS

075542

COUNTY CLERK

COUNTY CLERK

COUNTY CLERK

5

SANITARY SURVEY

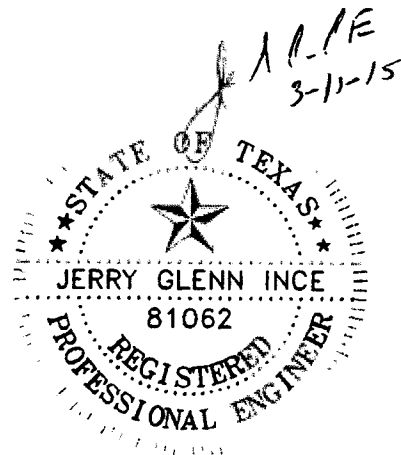


**SANITARY SURVEY
FOR
STRAIGHT WALL WATER WELL
SETTLER'S CROSSING # 2 AUSTIN COUNTY, TEXAS**

The following is based on the engineer's personal observation of the site and is true to the extent of his knowledge gained by a visual inspection of the site.

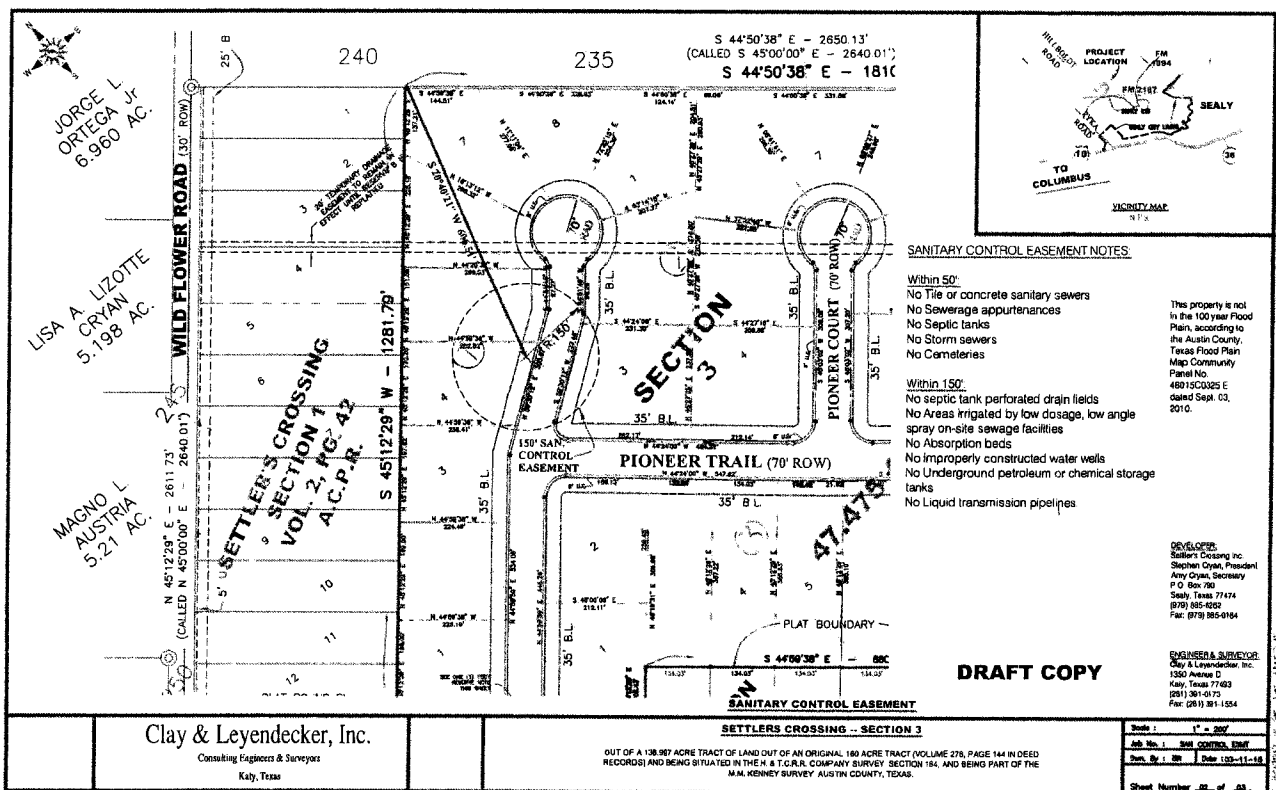
- Within 50'** No Tile or concrete sanitary sewers
 No Sewerage appurtenances
 No Septic tanks
 No Storm sewers
 No Cemeteries.
- Within 150'** No septic tank perforated drain fields
 No Areas irrigated by low dosage, low angle spray on-site sewage facilities
 No Absorption beds
 No Evapotranspiration beds
 No Improperly constructed water wells
 No Underground petroleum or chemical storage tanks
 No Liquid transmission pipelines.
- Within 300'** No sewage-wet wells
 No Sewage pumping stations
 No Ditches containing industrial waste discharges or the waste from sewage treatment systems.
- Within 500'** No sewage treatment plants
 No Animal feed lots
 No Lands on which sewage plant or septic tank sludge is applied
 No Lands irrigated by sewage plant effluent, nor solid waste disposal sites.
- Within ¼ mile** The following abandoned or inoperable wells and potential pollutant hazards have been identified.

1. None Exist



SANITARY CONTROL EASEMENT (DRAFT)





Clay & Leyendecker, Inc.
Consulting Engineers & Surveyors
Katy, Texas

FINANCIALS



**Ranch Country of Texas, Inc.
Settler's Crossing Water System
Pro Forma**

2014	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTAL
Income													
Base Rate	\$ 850	\$ 880	\$ 912	\$ 990	\$ 1,033	\$ 1,055	\$ 1,110	\$ 1,163	\$ 1,160	\$ 1,182	\$ 1,185	\$ 1,210	\$ 12,730
Expensees	\$ 250	\$ 300	\$ 300	\$ 300	\$ 300	\$ 313	\$ 320	\$ 330	\$ 330	\$ 330	\$ 330	\$ 330	\$ 3,733
Results through February 2015 are actual.										Net Cash Flow:		\$ 8,997 00	

2015	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTAL
Income													
Base Rate	\$ 1,365	\$ 1,297	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,200	\$ 1,300	\$ 1,330	\$ 1,360	\$ 1,390	\$ 15,242
Expensees	\$ 330	\$ 330	\$ 330	\$ 330	\$ 330	\$ 330	\$ 330	\$ 330	\$ 360	\$ 360	\$ 360	\$ 360	\$ 4,080
										Net Cash Flow		\$ 11,162.00	

2016	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTAL
Income													
Base Rate	\$ 1,390	\$ 1,390	\$ 1,390	\$ 1,390	\$ 1,390	\$ 1,420	\$ 1,420	\$ 1,420	\$ 1,480	\$ 1,480	\$ 1,480	\$ 1,480	\$ 17,130
Expensees	\$ 360	\$ 360	\$ 360	\$ 360	\$ 360	\$ 360	\$ 360	\$ 385	\$ 385	\$ 385	\$ 385	\$ 385	\$ 4,445
										Net Cash Flow:		\$ 12,685 00	

[illegible]

Net Cash Flow: \$ 14,055.00

[illegible]

Net Cash Flow: \$ 15,465.00

[illegible]

Net Cash Flow	\$ 16,905.00
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Actual Balance Sheet
Jan. 1/Dec 31, 2014 Settler's Crossing Water System

Assets:	
Cash:	\$ 1,360.00
Water Well:	\$ 25,000.00
Distribution System:	<u>\$ 5,000.00</u>
Total Assets:	\$ 31,360.00

Liabilities & Equity:	
Shareholder Note:	\$ 25,000.00
Paid in Equity:	\$ 5,000.00
Equipment Reserve:	<u>\$ 1,360.00</u>
Total Liabilities:	\$ 31,360.00

ProForma - Balance Sheet
Jan. 1/Dec 31, 2015

Assets:	
Cash:	\$ 3,400.00
Water Well:	\$ 50,000.00
Distribution System:	<u>\$ 7,800.00</u>
Total Assets:	\$ 61,200.00

Liabilities & Equity:	
Shareholder Note:	\$ 50,000.00
Paid in Equity:	\$ 7,800.00
Equipment Reserve:	<u>\$ 3,400.00</u>
Total Liabilities:	\$ 61,200.00

ProForma - Balance Sheet
Jan. 1/Dec 31, 2016

Assets:	
Cash:	\$ 7,400.00
Water Well:	\$ 50,000.00
Distribution System:	<u>\$ 7,800.00</u>
Total Assets:	\$ 65,200.00