

**AUTHORIZATION TO MODIFY
AN EXISTING
ON-SITE SEWAGE FACILITY**

Application Number RC18-006

Property Owner Linda Pedersen

Mailing Address 18046 Nelson Loop
Streetman, Texas 75859

Property Location Lot 3 Plettenberg Bay

(Same address)


Navarro County, Texas

This serves to notify all persons that an on-site sewerage facility application, related technical data, and the appropriate fee have been received by the Tarrant Regional Water District (District) from the property owner. The application has been reviewed for technical and administrative consideration against the standards set forth by the District. Approval is hereby granted for the construction as shown on the submitted plans.

Any modifications to submitted plans require approval by the Tarrant Regional Water District prior to installation.

You or your installer must contact the District office at 903-389-3928 between 9:00 A.M. to 1 P.M. to arrange for the required facility inspection. **The authorization to construct is valid for one year from the date of issue of an application.** If a final inspection has not been performed within one year of issue, a new application and fee will be required.

Comments: The following design is based upon the minimum standards set forth by the Texas Commission on Environmental Quality and is based on a maximum daily flow of 300 gallons, the use of water saving devices is required. Tanks are required to be pumped.



Authorized District Representative

OS-8058

02/13/18
Date



TARRANT REGIONAL WATER DISTRICT
APPLICATION FOR ON-SITE SEWAGE FACILITY

Richland Chambers
TRWD RESERVOIR
NAVARRO
COUNTY OF INSTALLATION

TRWD USE ONLY
APP. NO.: RC-18-006
RECEIPT NO. 20256
DATE: 2-5-18
AMOUNT: 300.00

Lake Bridgeport
1710 FM 1658
Bridgeport, TX 76426
940-683-2349
940-683-4016 (FAX)

Cedar Creek Lake
6613 Ashby Lane
Trinidad, TX 75163
903-432-2814
903-432-3355 (FAX)

Eagle Mountain Lake
10201 North Shore Drive
Fort Worth, TX 76135
817-237-8585
817-237-8563 (FAX)

Richland-Chambers Reservoir
140 FM 416
Streetman, TX 75859
903-389-3928
903-389-7587 (FAX)

PLEASE FILL IN ALL BLANKS. If the information requested in a space is not applicable, please mark it NA to indicate that you have not inadvertently skipped it.

1. PROPERTY OWNER'S NAME: Pederson Linda S.
(LAST) (FIRST) (MI)
2. PERMANENT MAILING ADDRESS: 18046 Nelson Loop Streetman TX 75859
(STREET TO BOX) (CITY/STATE) (ZIP)
3. DAYTIME TELEPHONE NUMBER: 972-679-9830
4. SITE ADDRESS: 18046 Nelson Loop Streetman, TX 75859
(STREET) (CITY/STATE) (ZIP)
5. LEGAL DESCRIPTION: SUBDIVISION: Plettenberg Bay LOT/TRACT 3 BLOCK/ABSTRACT 265
COUNTY Navarro DATE OF PLAT SURVEY: 4/20/98
IF OTHER THAN SUBDIVISION: ACREAGE — SURVEY J. Fontenay ABSTRACT A-265
6. SOURCE OF WATER: ☒ Private Well ☒ Public Water Supply (NAME) Southern Oaks
7. SINGLE FAMILY RESIDENCE: NUMBER OF BEDROOMS 3 LIVING AREA (sq ft) 3018
8. IF COMMERCIAL/INSTITUTIONAL (including multi-family residences) TYPE: NA
NO. OF EMPLOYEES/OCCUPANTS/UNITS: NA DAYS OCCUPIED PER WEEK: NA
9. ESTIMATED DAILY WATER CONSUMPTION (Gal/Day): 300 WATER SAVING DEVICES INSTALLED ☒
10. SYSTEM DESIGNER: Phillip Maglar LICENSE #: BS2604 TELEPHONE #: 214-507-9521
11. PROPOSED INSTALLER: Holland Pirkle LICENSE #: 062385 TELEPHONE #: 903-389-8189

I certify that the above statements are true and correct to the best of my knowledge. Authorization is hereby given to the Tarrant Regional Water District to enter upon the above-described property for the purpose of lot evaluation and inspection of on-site sewage facilities. I understand that the approval of this application constitutes authorization for construction of the on-site sewage facility, and that a permit to operate the facility will be granted following successful inspection of the installed system which verifies that the system was installed in compliance with the TCEQ's On-Site Sewage Facility Rule (OSSF) and the TRWD Waste Control Order.

DO NOT BEGIN CONSTRUCTION PRIOR TO APPLICATION APPROVAL. UNAUTHORIZED CONSTRUCTION CAN RESULT IN CIVIL AND/OR ADMINISTRATIVE PENALTIES.

12. [Signature]
SIGNATURE OF OWNER OR OWNER'S AGENT

13. [Signature]
SIGNATURE OF AUTHORIZED TRWD REPRESENTATIVE

05-8058
LICENSE #

11/27/17
DATE

2/5/18
DATE

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10. SYSTEM DESIGNER: Phillip Maglar LICENSE #: RS2604 TELEPHONE #: 214-507-9521
11. PROPOSED INSTALLER: Holland P. K. K. LICENSE #: OS2385 TELEPHONE #: 903-389-8189

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SIGNATURE OF OWNER OR OWNER'S AGENT

11/27/17
DATE

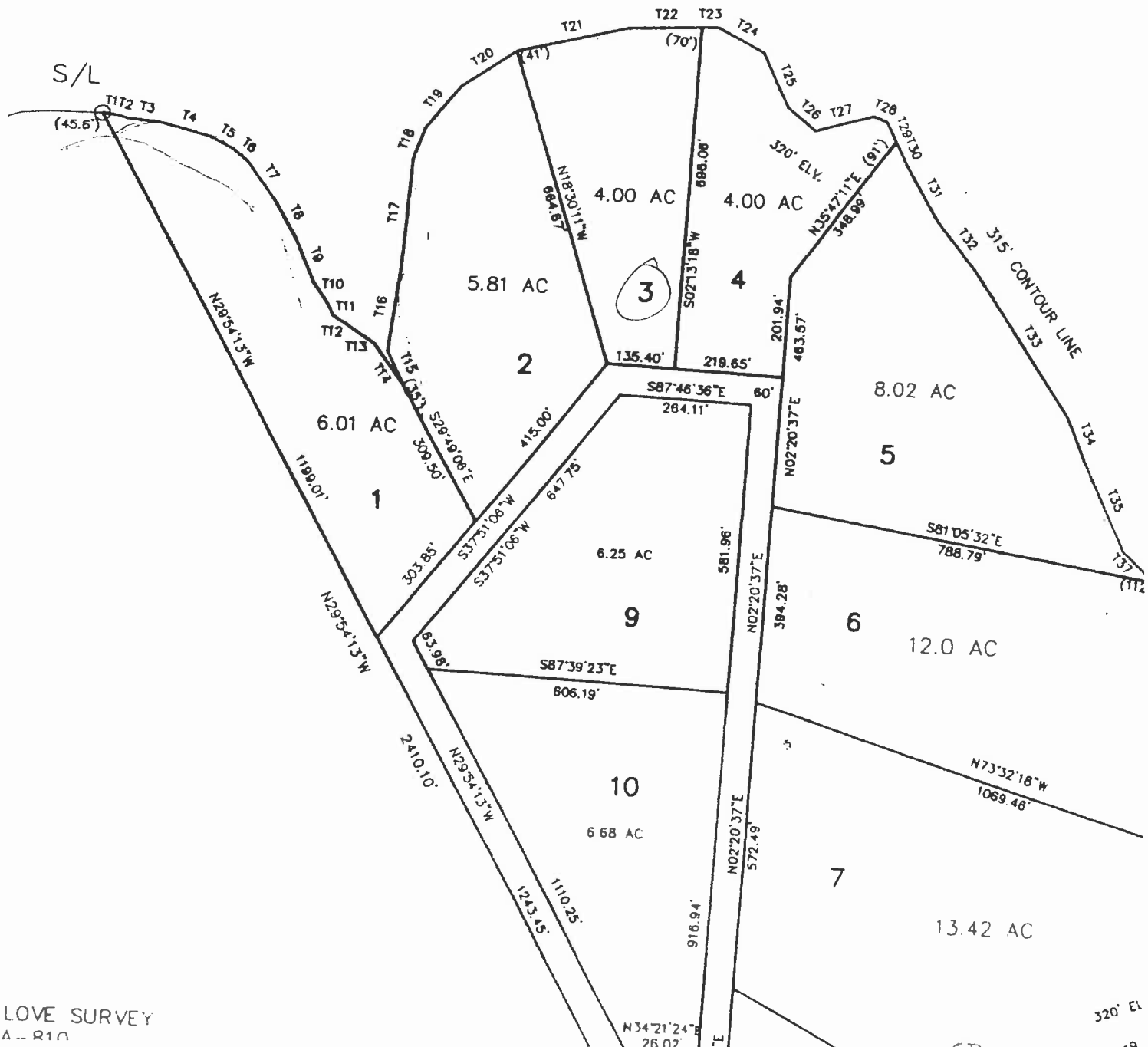
13. [Signature]
SIGNATURE OF AUTHORIZED TRWD REPRESENTATIVE

05-8058
LICENSE #

2/5/18
DATE

PLETTENBERG

FINAL PLAT



LOVE SURVEY
A - R10

OSSF SOIL & SITE EVALUATION

Page 1 (Soil & Site Evaluation)

Date Performed: 1 / 4 / 18

Property Owner: Linda Pederson

Site Location: 18046 Nelson Loop Streetman, Texas 75859 Proposed Excavation Depth: 24-31"

REQUIREMENTS:

At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area. Locations of soil borings or dug pits must be shown on the site drawing. For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed disposal field excavation depth. For surface disposal, the surface horizon must be evaluated. Describe each soil horizon and identify any restrictive features on this form. Indicate depths where features appear.

Soil Boring #1:

Depth (feet)	Texture Class	Gravel Analysis (if Applicable)	Drainage (mottles / water table)	Restrictive Horizon	Observations
1 feet	IV	N/A- None Found	No	No	Clay
2 feet	IV	N/A- None Found	No	No	Clay
3 feet	IV	N/A- None Found	No	No	Clay
4 feet	IV	N/A- None Found	No	No	Clay
5 feet	IV	N/A- None Found	No	No	Clay

Soil Boring #2:

Depth (feet)	Texture Class	Gravel Analysis (if Applicable)	Drainage (mottles / water table)	Restrictive Horizon	Observations
1 feet	IV	N/A- None Found	No	No	Clay
2 feet	IV	N/A- None Found	No	No	Clay
3 feet	IV	N/A- None Found	No	No	Clay
4 feet	IV	N/A- None Found	No	No	Clay
5 feet	IV	N/A- None Found	No	No	Clay

FEATURES OF SITE AREA

Presence of 100 year flood zone on property X Yes No
 Any part of OSSF located in "FEMA" 100 year flood zone Yes X No
 Presence of upper water shed Yes X No
 Presence of adjacent ponds, steams, water impoundments X Yes No
 Existing or proposed water well in nearby area (within 150 feet) Yes X No
 Ground Slope 8 to 10 %

I certify that the findings of this report are based on my field observations and are accurate to the best of my ability.

Phil Marl #2604
(Signature of person performing evaluation)

1/4/18
Date



Site Location: 18046 Nelson loop Streetman, Texas 75859 ☒ Subsurface Disposal ☐ Surface Disposal

Schematic of Lot or Tract

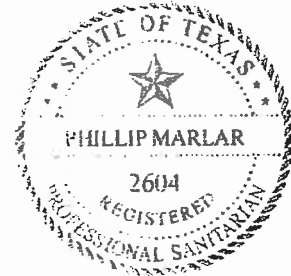
Show:

Compass North, adjacent streets, property lines, property dimensions, location of buildings, easements, swimming pools, water lines, and any other structures where known, all to scale.
Location of existing or proposed water wells within 150 feet of the property.
Indicate slope or provide contour lines from the structure to the farthest location of the proposed disposal field.
Location of soil boring or excavation pits (show location with respect to a known reference point)
Location of natural, constructed, or proposed drainage ways (ditches, streams, ponds, lakes, rivers, etc.), water impoundment areas, cut or fill bank, sharp slopes and breaks.

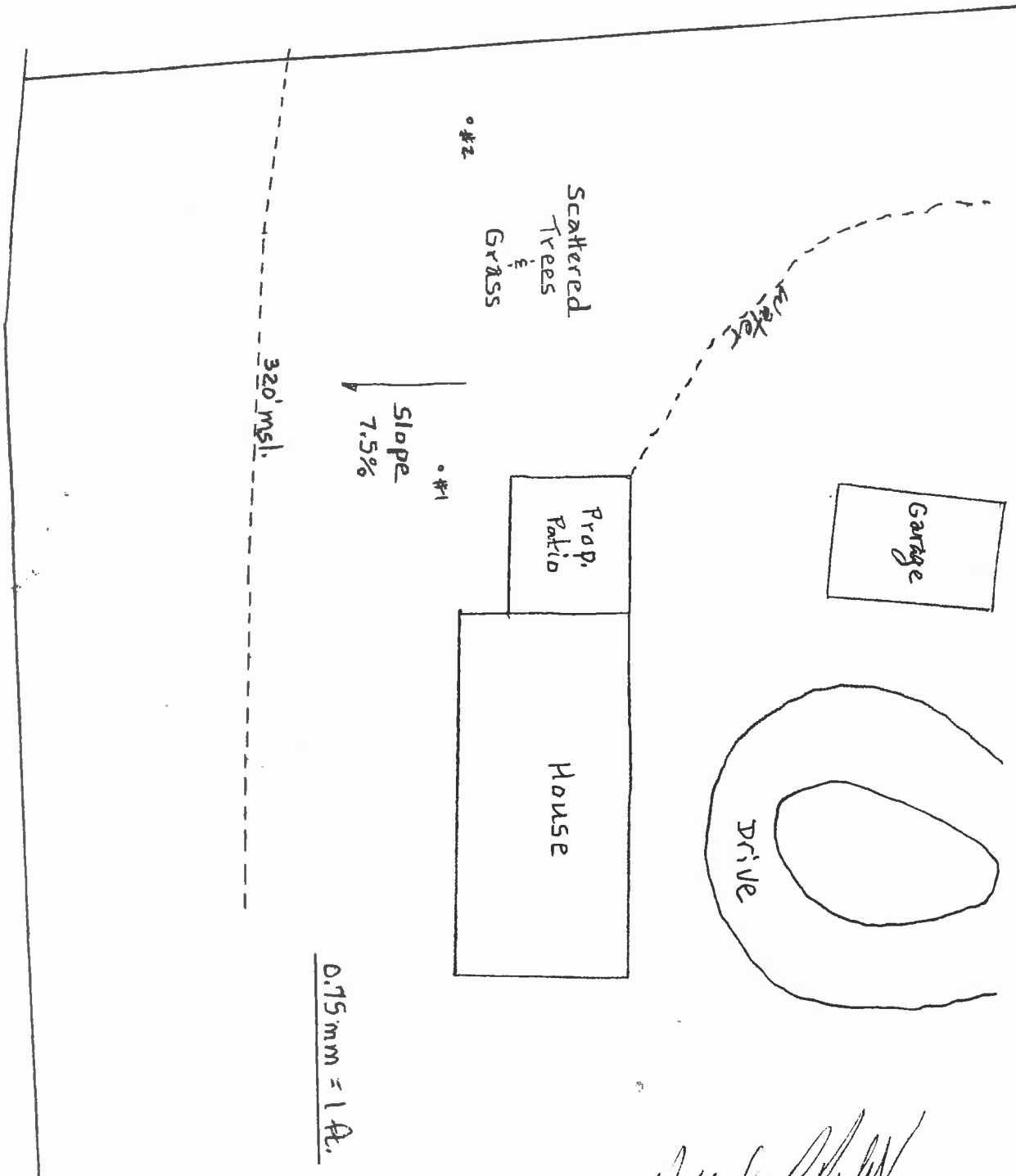
Lot Size: _____ or Acreage: 4 Acre

SITE DRAWING

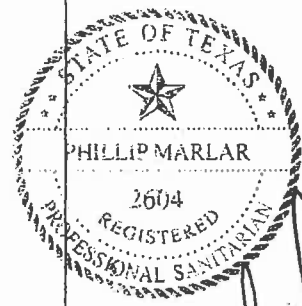
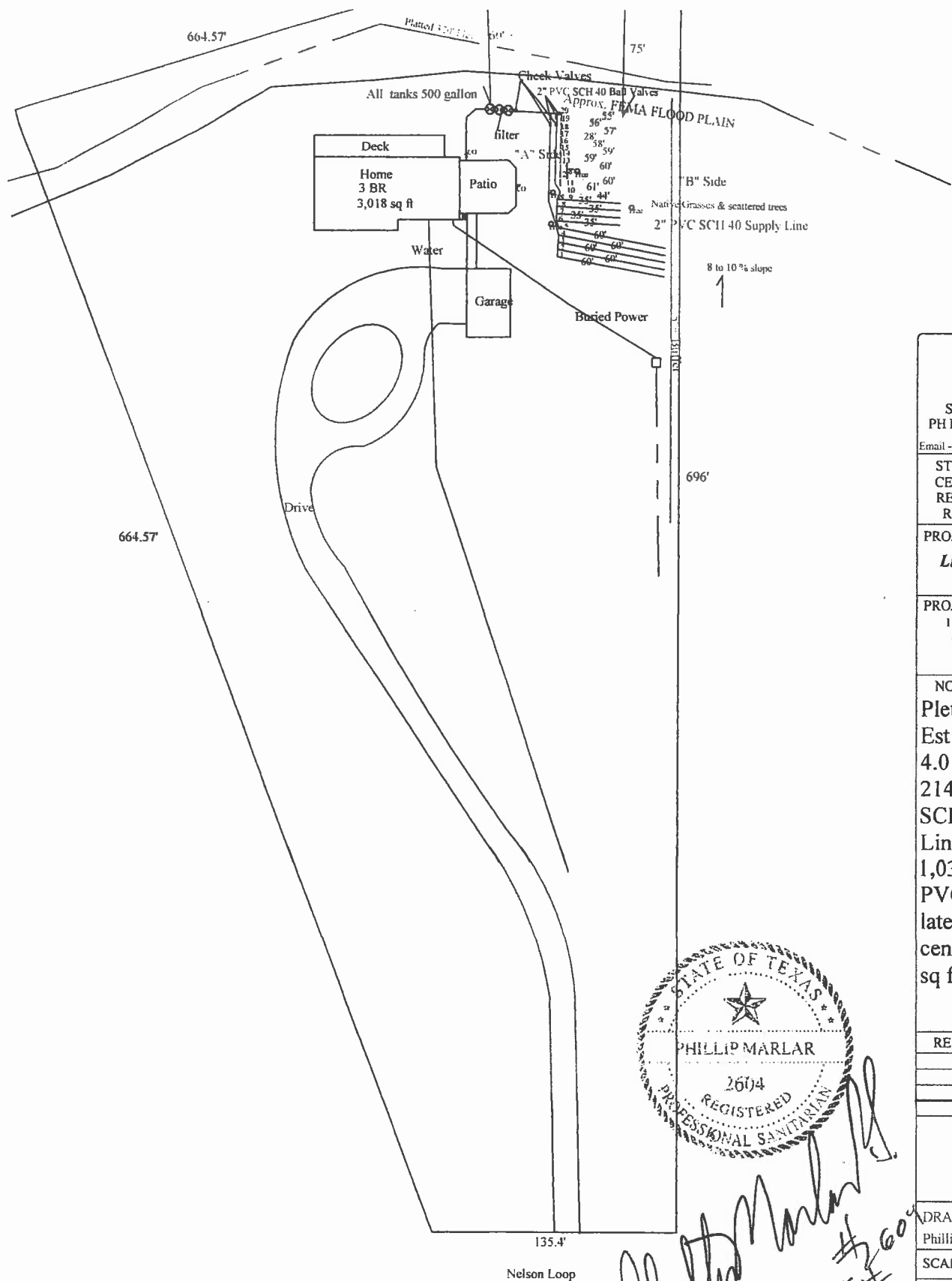
See site design for test hole locations



Phillip Marlar
#2604
989
11/4/18

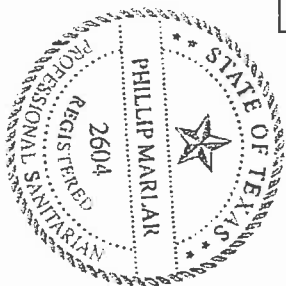
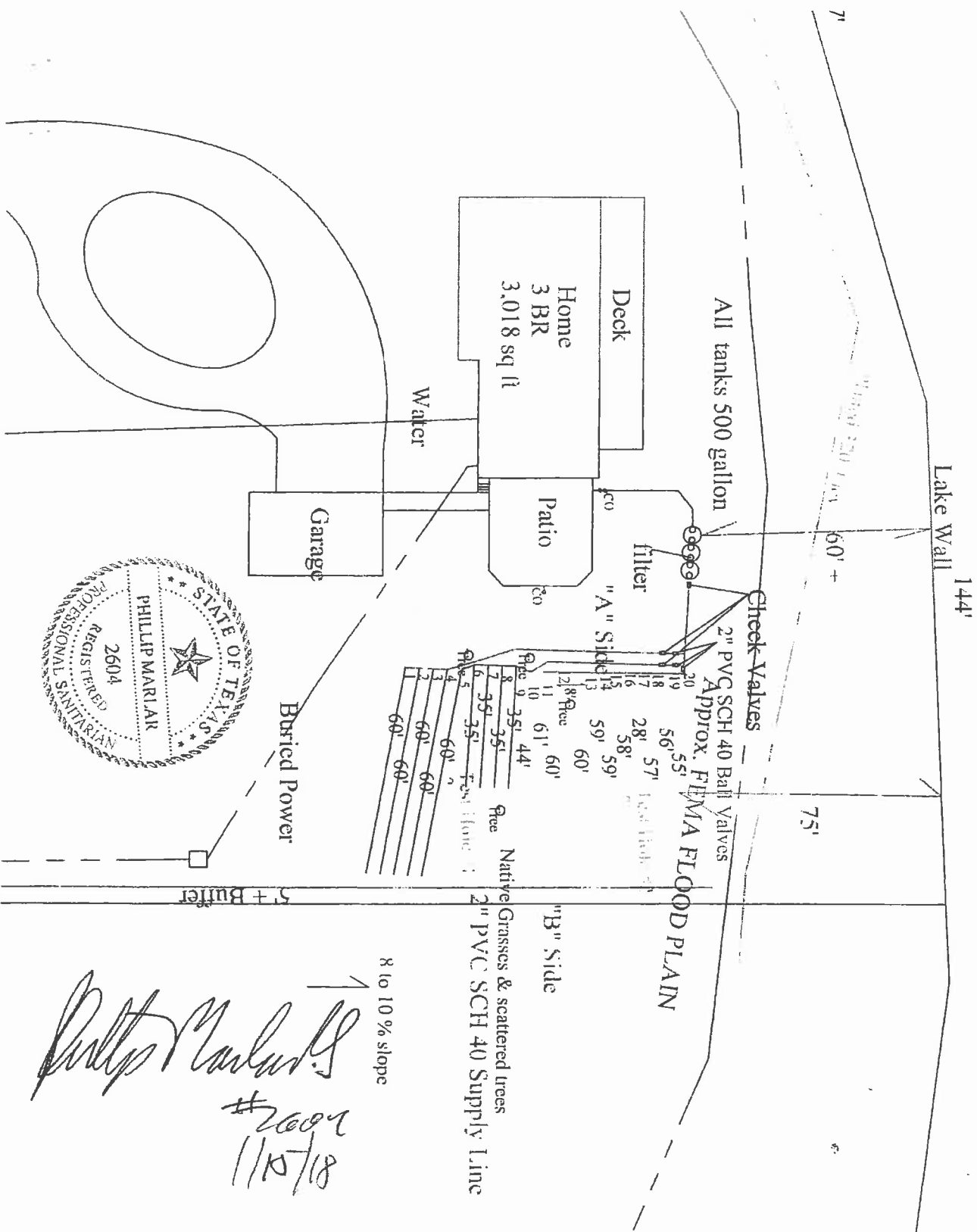


John R. Smith
050021580
02/09/05



Phillip Marlar
1/15/18
2604
9819

Phillip Marlar P.O. Box 274 Seury, TX 75158 PH NO. (214) 507-9521 Email - phillipmarlar@yahoo.co
STATE OF TEXAS CERTIFICATE OF REGISTRATION #: RS2604 - SE9819
PROJECT NAME: Linda Pederson
PROJECT ADDRESS: 18046 Nelson Loop Streetman, Texas 75859
NOTES: Plettenberg Bay Est. lot 3 4.0 Acre tract 214' of 2" PVC SCH 40 supply Line 1,037' of 1" PVC SCH 40 lateral line on 4 centers for 3,11 sq ft
REVISIONS DATE:
DRAWN BY: Phillip Marlar
SCALE: 1"=80'
DATE: 1/15/18
SHEET #: 1



Phillip Marlar
 #2604
 1/15/18

Phillip Marlar P.O. Box 274 Saury, TX 75158 P/E No. (214) 507-9521 Email: phillipmarlar@texasallpro.com	STATE OF TEXAS CERTIFICATE OF REGISTRATION # RS2601 - SEP819	PROJECT NAME: <i>Linda Pederson</i>	PROJECT ADDRESS 18046 Nelson Loop Sneedman, Texas 75859	NOTES: Plettenberg Bay Est. lot 3 4.0 Acre tract 214' of 2" PVC SCH 40 supply Line 1,037' of 1" PVC SCH 40 lateral line on 4' centers for 3,111 sq ft	REVISIONS DATE: DRAWN BY: Phillip Marlar SCALE: 1"=40' DATE: 1/15/18 SHEET # 1
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Phillip Marlar R.S.
Registered Professional Sanitarian
P.O. Box 274 Scurry, Texas 75158
Phone (214) 507-9521

January 15, 2018

Tarrant Regional Water District Designated Representative

Subject Property: Linda Pederson's property at 18046 Nelson loop Streetman, Texas 75859
Subject: Design: Low Pressure Dosing System (Plentenberg Bay Est. lot 3)

Abandoning all lateral lines on house side of supply line. Replacing existing lateral lines on opposite side of supply line by removing all piping and rock and installing new lines in the same area. Then adding new lines above replacement lines on opposite side of supply line than the

Design Parameters:

3 Bedroom home (3,018sq ft of living area) (4 Bedroom Equivalent)
4 Bedroom Home (Water Saving Fixtures) = 300 gpd
Soil Evaluation Class IV soil
Long Term Loading Rate .1 gal / sq ft / day
Required Absorption Area = 300 gpd / .1 gal / sq ft / day = 3,000 sq ft
Designed Absorption Area = 3,111 sq ft
Total Length of Laterals = 1,037'

System Parameters

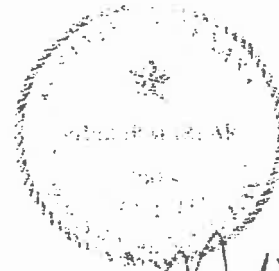
2 - 500 gallon tanks
An A-1800 Zabel Filter on outlet of the second 500 gallon tank
500 gallon pump tank with high water alarm
Supply Line - 2" diameter sch 40 piping
Lateral Lines - 1" diameter sch 40 piping
Supply Line Length - 214'
Lateral Line Length - 1,037' (In 3 zones controlled by 3 - 2" PVC SCH 40 ball valves)
Hole Size in Laterals - 1/8"
First & last hole in each line must be 2 to 3' from end & start of lines
Hole Spacing - 6 to 9' (See attached chart)
Holes - 144
Elevation Head - 13'
Friction Head - 9.14' (using 3.56 friction rate)
Pressure Head - 2' (Operating Head)
Total Head - 24.14 Ft
.5 HP Little Giant 14 EH pump with 24.14 Ft head will pump 50 + gpm
GPM at 2 ft Operating Head = 46.8 gpm
Type Pump - .5 HP Submersible Sewer Pump Little Giant 14 EH or equivalent
Pump at 46.8 will deliver 27 ft. head - Pump on - off controlled by float switch
Lateral Depth - 24 to 31" (Average Depth 27.5")



Phillip Marlar
Reviewed
2/7/18
#2604
SE#
9819

Phillip Marlar R.S.
Registered Professional Sanitarian
P.O. Box 274 Scurry, Texas 75158
Phone (214) 507-9521

Excavation width 6" to 1' wide
Rock - washed clean 3/8 to 1"
Rock Depth - at least 10" under the pipe (laterals) then another 2" for total of 12"
Earthen dams to be installed every 20' throughout lateral lines
Volume Supply Line - 34.67 gallons
Volume Laterals - 42.52 gallons
Volume Supply & Laterals - 77.19 gallons
Check Valve Required - YES
Minimum Dosing required - 247.27 gallons
Proposed minimum dosing - 248.07 gallons
(21.33" of effluent depth in pump tank to be pumped at a time)



Phillip Marlar
Revised
2/7/18
#2604
SE
889

LINE	SIDE "A"	SIDE "B"
Zone 1		
1	5'-7"	5'-9"
2	6-0	6-0
3	6-5	6-8
4	6-11	7-1
Zone 2		
5	7-5	7-6
6	7-11	8-0
7	8-2	8-5
8	8-4	8-7
9	9-3	9-5
10	9-8	9-5
Zone 3		
11	10-1	10-1
12	10-3	10-4
13	11-4	11-2
14	11-6	11-4
15	11-9	11-8
16	12-2	12-2
17	12-6	12-6
18	12-7	12-9
19	13-0	13-2
20	13-2	13-4

Tank -13'-9"



Phillip Marlar R.S.
#2604
5
9
1/15/18

Pederson – LPD – OSSF Specifications (Elev. / Pressure Chart)

LINE	Elev. Avg/Line	Difference in Elev.	Pressure Head
Zone 1			
1	5.5'	0	2'
2	6'	.5'	2.5'
3	6.5'	1'	3'
4	7'	1.5'	3.5'
Zone 2			
5	7.5'	0'	2'
6	8'	.5'	2.5'
7	8.5'	1'	3'
8	8.5'	1'	3'
9	9.5'	1.5'	3.5'
10	9.5'	1.5'	3.5'
Zone 3			
11	10'	0	2'
12	10.5'	.5'	2.5'
13	11.5'	1.5'	3.5'
14	11.5'	1.5'	3.5'
15	11.5'	1.5'	3.5'
16	12'	2'	4'
17	12.5'	2.5'	4.5'
18	12.5'	2.5'	4.5'
19	13'	3'	5'
20	13'	3'	5'

Lateral lines will vary from 24 to 31" in depth.

Average line depth will be 27.5" in depth.



Phillip Marlar
 11/15/18
 #2604
 SE
 98

Pederson LPD Chart Specifications

Line	Length	Pressure Head	Hole Spacing	# Holes	Hole Size	Flow gpm/hole	Rate gpm/line	Gpm / ft./ line
ZONE1								
1	60'	2'	6'	10	1/8"	.26	2.6	0.043
2	60'	2.5'	6.5'	9	1/8"	.29	2.61	0.044
3	60'	3'	7'	9	1/8"	.32	2.88	0.048
4	60'	3.5'	7.5'	8	1/8"	.345	2.76	0.046
ZONE2								
5	60'	2'	6'	10	1/8"	.26	2.6	0.043
6	35'	2.5'	6.5'	5	1/8"	.29	1.45	0.041
7	35'	3'	7'	5	1/8"	.32	1.6	0.046
8	35'	3'	7'	5	1/8"	.32	1.6	0.046
9	35'	3.5'	7.5'	5	1/8"	.345	1.73	0.049
10	44'	3.5'	7.5'	6	1/8"	.345	2.07	0.047
ZONE3								
11	61'	2'	6'	10	1/8"	.26	2.6	0.043
12	60'	2.5'	6.5'	9	1/8"	.29	2.61	0.044
13	60'	3.5'	7.5'	8	1/8"	.345	2.76	0.046
14	59'	3.5'	7.5'	8	1/8"	.345	2.76	0.047
15	59'	3.5'	7.5'	8	1/8"	.345	2.76	0.047
16	58'	4'	8'	7	1/8"	.37	2.59	0.045
17	28'	4.5'	8.5'	3	1/8"	.39	1.17	0.042
18	57'	4.5'	8.5'	7	1/8"	.39	2.73	0.048
19	56'	5'	9'	6	1/8"	.41	2.46	0.044
20	55'	5'	9'	6	1/8"	.41	2.46	0.045
Totals	1,037'			144			46.8	

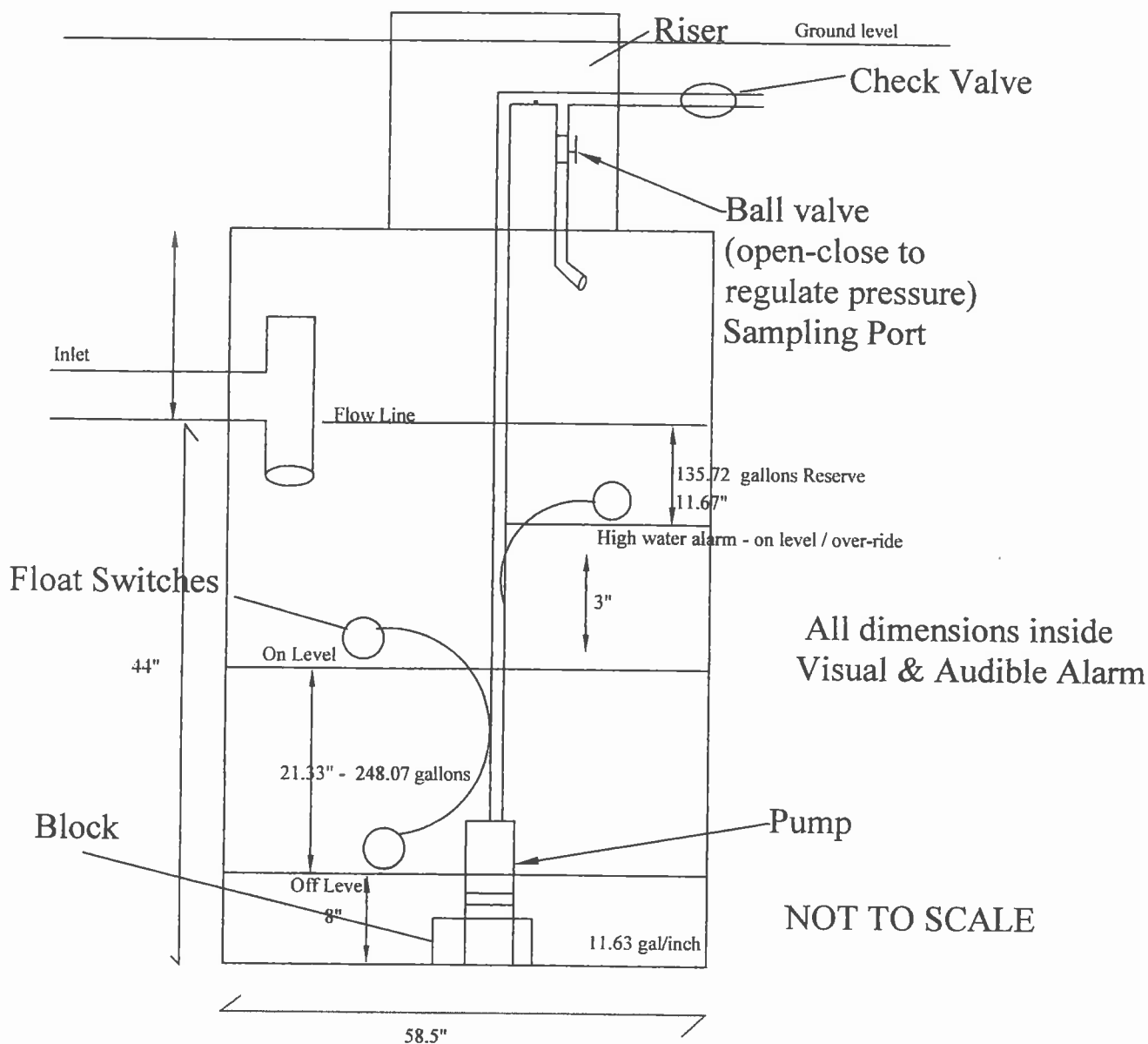
All lateral lines to be 24 to 31" in depth to bottom of trench.

Average line depth to be 27.5".



Phillip Marlar
1/15/18

Model 500 gallon Tyler Products Pump Tank



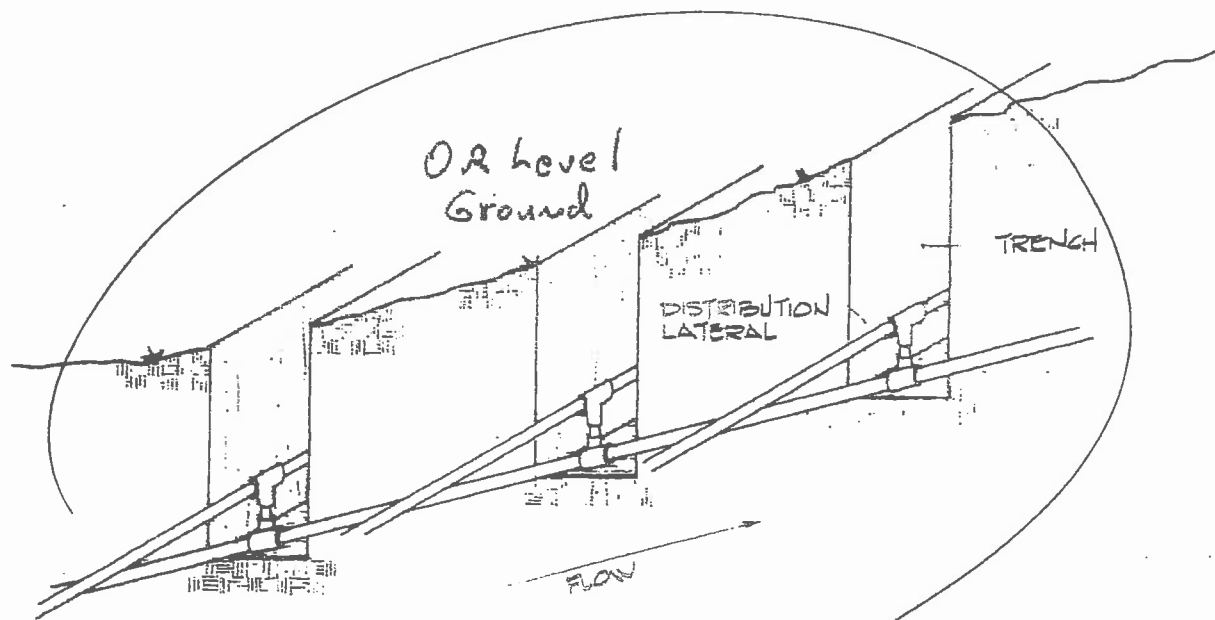
Pump time 5.3 minutes for
248.07 gallons at 46.8 gpm at
2 Ft head

.5 HP Little Giant 14EH
pump @ 46.8 gpm will deliver
27 Ft total head.

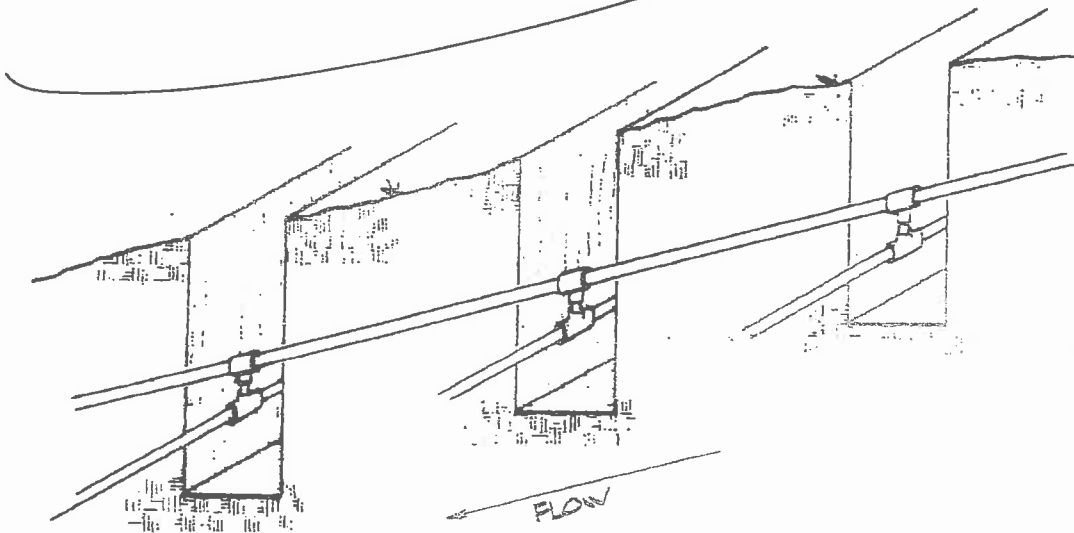
Total Head 24.14 ft at 46.8
gpm for 2" SCH 40 PVC
Piping.



Phillip Marlar
11/10/18 SE# 9869



A. PUMPING UPHILL



B. PUMPING DOWNHILL

Figure 10. Manifold placement on slopes