

ATTENTION OWNER: Confidentiality
 Privilege Notice on Reverse Side

STATE OF TEXAS
 WATER WELL REPORT

1) OWNER: TEKLEKHON ADDRESS: 5409 CR 50 CITY: MANVEL STATE: TX ZIP: 77578-5)
 2) ADDRESS OF WELL:
 County: BRAZORIA GNID N 65-30-7
 Street or RFD: 29.38.64 N 95.22.16 W
 City, State, Zip code: MANVEL TX 77578-

3) TYPE OF WORK: NEW WELL 4) PROPOSED USE: DOMESTIC
 If Public Supply well, were plans submitted to the TNRCC

6) WELL LOG: 02340	DIAMETER OF HOLE			7) DRILLING METHOD:	8) BOREHOLE COMPLETION:		
	DIAMETER	FROM	TO		TWO STRING/K-PACKER		
DATE DRILLING:	7.000	0	170'	MUD ROTARY	IF GRAVEL... FROM FT. TO FT.		
STARTED: 06/23/02	4.500	170'	186'		FROM	FT. TO	FT.
COMPLETED: 06/26/02							

CASING, BLANK PIPE, AND WELL SCREEN DATA:

DIA	NEW/USED	DESCRIPTION	FROM	TO	GAGE CASING SCREEN
4	N	P.V.C. SCH.40	0	170'	CASING
2.5	N	P.V.C. SCH.40	160'	171'	LINER
2.5	N	P.V.C. - SLOTTED	171'	186'	.006

GEOLOGICAL DESCRIPTION:

FROM	TO	DESCRIPTION
0	3	SOIL
3	8	CLAY-GRAY CLAY-TAN
8	40	SAND-TAN-.006-.008
40	95	CLAY-TAN
95	113	SAND-TAN-.006-.008
113	156	CLAY-RED
156	186	SAND-TAN-.006-.008 SAND-TAN-.010-.012

9) CEMENTING DATA:
 Cemented from 0 FT. TO 170 FT. NO. of Sacks Used 31
 FT. TO FT.
 Method used: PRESSURE-HALIBURTON
 Cemented by: AWWS
 Distance to septic field lines: 50+ FT.
 Method of verification of above distance:
 OWNER

10) SURFACE COMPLETION:
 SPECIFIED BLEEVE

11) WATER LEVEL:
 STATIC LEVEL : 31' FT. DATE: 06/26/02
 ARTESIAN FLOW: GPM DATE:

12) PACKERS:

TYPE	DEPTH
K-PACKER	170-
K-PACKER	171-

13) TYPE PUMP: SUMMERSIBLE DEPTH TO PUMP: 180'
 14) WELL TEST: JOINTED YIELD: 100 GPM WITH FT DRAWDOWN AFTER HRS

15) WATER QUALITY: TYPE OF WATER: NOT TESTED DEPTH OF STRATA: 186' NO CHEMICAL ANALYSIS MADE
 NO STRATA OF UNDESIRABLE WATER PENETRATED

COMPANY NAME: ALMEDA WATER WELL SERVICE WATER WELL DRILLER'S LICENSE NO.: 843,2843,2330 FOR TWC USE ONLY
 ADDRESS: P.O. BOX 166 CITY: MANVEL STATE: TX ZIP CODE: 77578 WELL NO. _____
 LOCATED ON MAP _____

I HEREBY CERTIFY THAT THIS WELL WAS DRILLED BY ME (OR UNDER MY SUPERVISION) AND THAT EACH AND ALL OF THE STATEMENTS HEREIN ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. I UNDERSTAND THAT FAILURE TO COMPLETE ITEMS 1 THRU 15 WILL RESULT IN THE LOG(S) BEING RETURNED FOR COMPLETION AND RESUBMITTAL.

(Signed) _____ (Signed) _____
 (LICENSED WATER WELL DRILLER) (REGISTERED DRILLER TRAINEE)

Jackie Moore d.b.a. Damoor Investments LLC
 5409 Croix Road, C.R. 58
 Manvel, Texas 77578

Aerobic / Surface Spray Design

Note: Existing 5 B.R. house permitted in 1998, permit # 98 - 139 - 01171. This design is for a proposed converted garage and house addon ONLY.

Note "A" - Garage converted to have 3 B.R. with Water Saving Devices
 Note "B" - Proposed 4 B.R. 20' x 40' add-on with Water Saving Devices

Design flow, total 480 gal./day
 Irrigation Rate 0.041 gal./sq.ft./day
 Spray Area Required 11,707 sq. ft.

A = 500 gal. Pretreatment Tank
 B = 1,000 gallon per day Aerobic Treatment Unit
 Aqua-Klear Model AK-1000S
 C = 1,000 gallon pump tank
 Day / Demand Pumping Unit

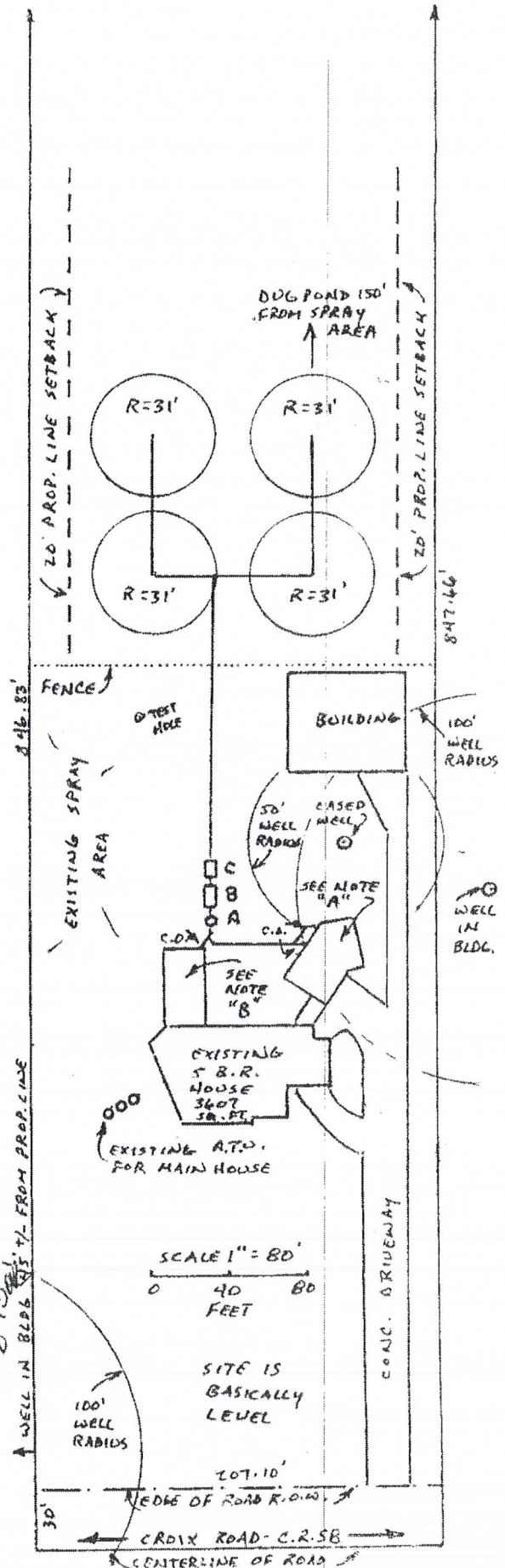
Spray Field Configuration:

Number of Sprinklers	4
Mfr. / Model	K-Rain ProPlus 11003 RCW
Nozzle	#4 Low Angle
Radius of Sprinklers	4 @ 31' full circle
Total area under spray	12076 sq. ft.
Maximum Daily Flow	495.1 gal./day
Total flow	13.4 gal./min.
Required Pressure	30 p.s.i.
=	69.3 feet
Pump Tank Head	5 feet
Friction Loss	26.35 feet
Total Head	100.6 feet
Pump Required	13.4 g.p.m. @ 100.6' head

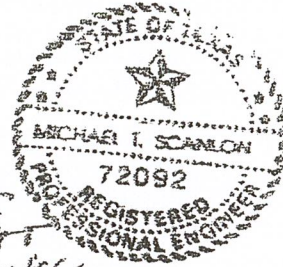
Additional Requirements:

1. Affidavit to the Public.
2. Initial 2 year Maintenance Agreement.
3. Continuous disinfection.
4. Brazoria County Permit.
5. 1" Sch. 40 pvc Supply Line.
6. 4" Sch. 40 pvc Gravity Line.
7. All required separation distances to be maintained.
8. No crops for human consumption are to be grown in the spray area.
9. Existing A.T.U. to continue serving existing house. Plumbing from existing garage to be diverted into the new A.T.U.
10. Plumbing from proposed 20' x 40' add-on to be routed into the new A.T.U.

*Wendell
 RS#2703
 11-09-2011*



Martha F. Tekletsion
 5407 County Road 58
 Manvel, Texas 77578



Michael T. Scanlon
 President, Manvel Exp
 5/15/95
 207.10

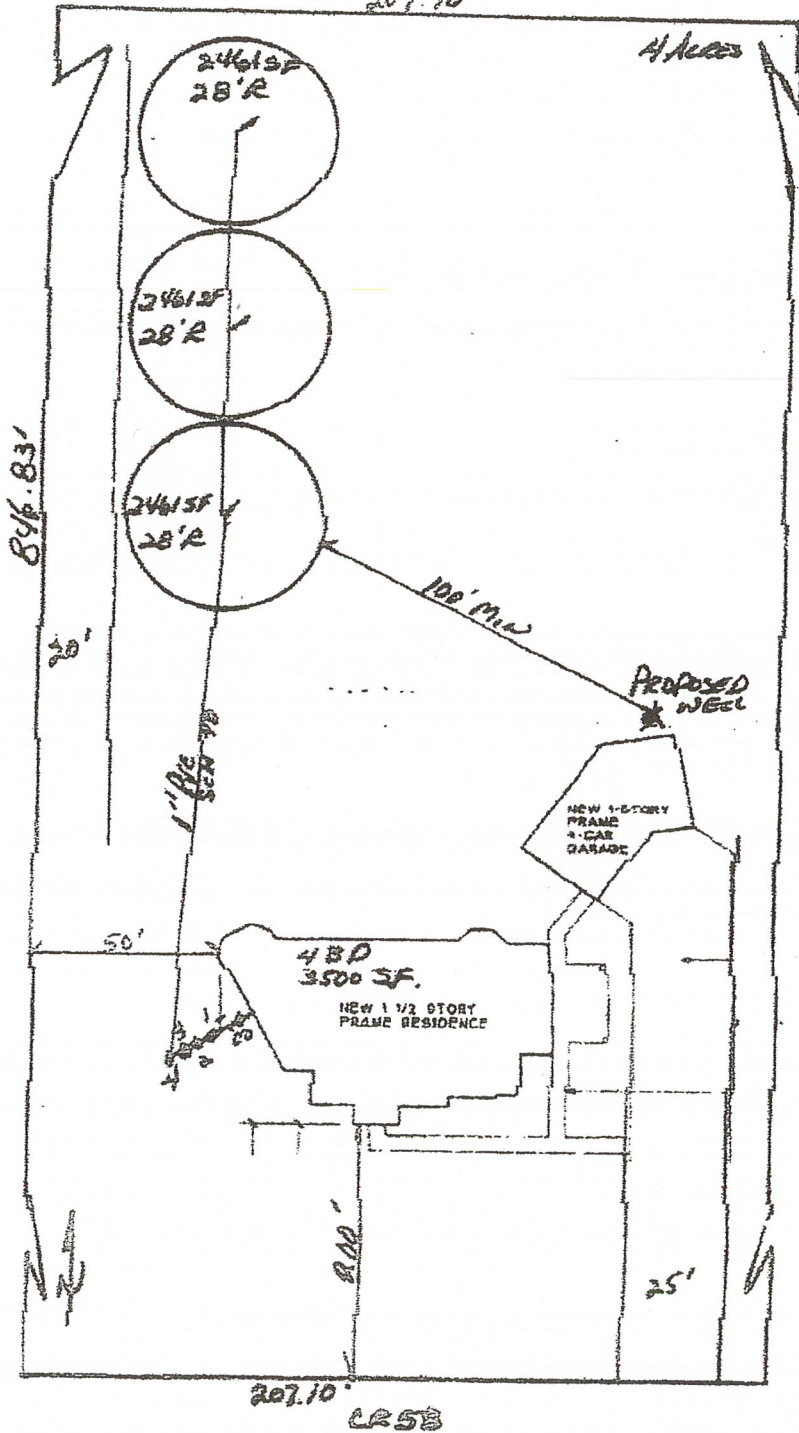
4 Bedroom House

Flow Rate: 300 G.P.D.

Spray Area:

Required - 7,317 sq. ft.
 Designed - 7,385 sq. ft.

1. 480 Gal. Septic Tank
2. 500 N Clearstream
3. Chlorinator
4. 500 Gal. Pump Tank



1"=50'

207.10' LR5B

Surface Spray Pump Demand and Friction Loss Calculation Page

Design Daily Flow (Q)	480	gallons
Evapotranspiration factor (Ri)	0.041	gallons per square foot per day
Minimum Spray Area Required (A)	11,707.3	square feet

Proposed Design:

Number of Sprinklers	4	Arc Covered:	360	degrees
Radius of Sprinklers	31	Area Covered, each:	3,019.1	sq. ft.

Area Covered, total:	12,076	feet
The required pressure at the sprinkler is:	30	p.s.i.
The required p.s.i. times 2.31 equal the feed of head, and is:	69.3	feet

Proposed sprinkler: **K-Rain ProPlus Model 11003 RCW**

Proposed LOW ANGLE sprinkler nozzle:

The approximate flow per sprinkler at the given p.s.i. is:	#4	
The approximate total flow is:	3.4	g.p.m.
	13.6	g.p.m.

Supply Line:

Size:	1	inch
Distance from pump tank to tee:	150	feet
Flow:	13.6	g.p.m.
Loss per 100 ft. of pipe:	11.8	feet
Loss for this section:	17.70	feet
Distance from tee to 1st sprinkler (towards west):	30	feet
Flow:	6.8	g.p.m.
Loss per 100 ft. of pipe:	3.31	feet
Loss for this section:	0.99	feet
Distance from 1st sprinkler to 2nd sprinkler:	70	feet
Flow:	3.4	g.p.m.
Loss per 100 ft. of pipe:	1.15	feet
Loss for this section:	0.81	feet
Distance from tee to 3rd sprinkler (towards east):	50	feet
Flow:	6.8	g.p.m.
Loss per 100 ft. of pipe:	3.31	feet
Loss for this section:	1.66	feet
Distance from 3rd sprinkler to 4th sprinkler:	70	feet
Flow:	3.4	g.p.m.
Loss per 100 ft. of pipe:	1.15	feet
Loss for this section:	0.81	feet

Friction Loss, subtotal:	21.96	feet
Multiplier for Fittings:	1.2	
Total Supply Line Friction Loss:	26.35	feet

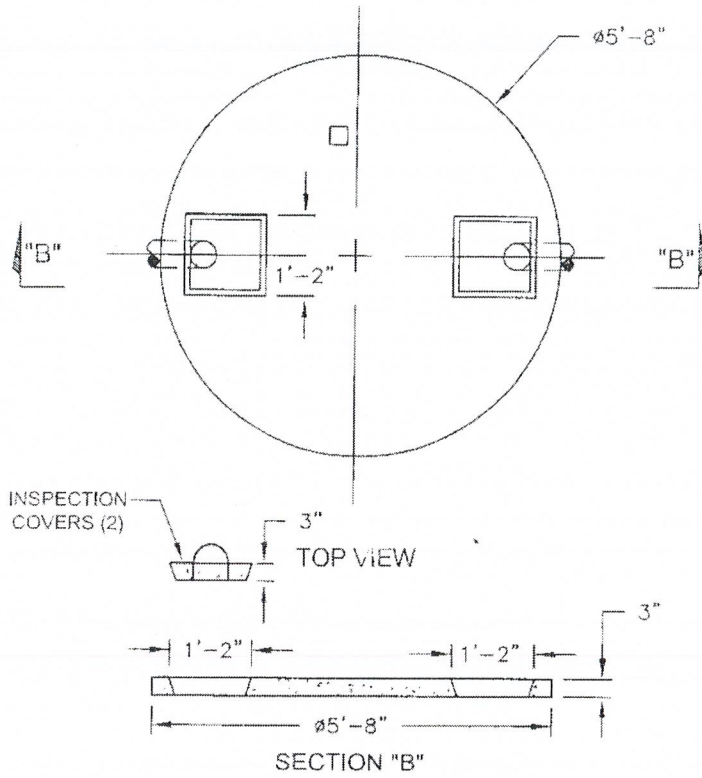
Total Pump Head Required = Elevation Head + Supply Line Friction Loss + Required p.s.i.

Elevation Head:	5	feet	Required Head (p.s.i.):	30	p.s.i.
Supply Line Loss:	26.35	feet	Required Head (feet):	69.3	feet

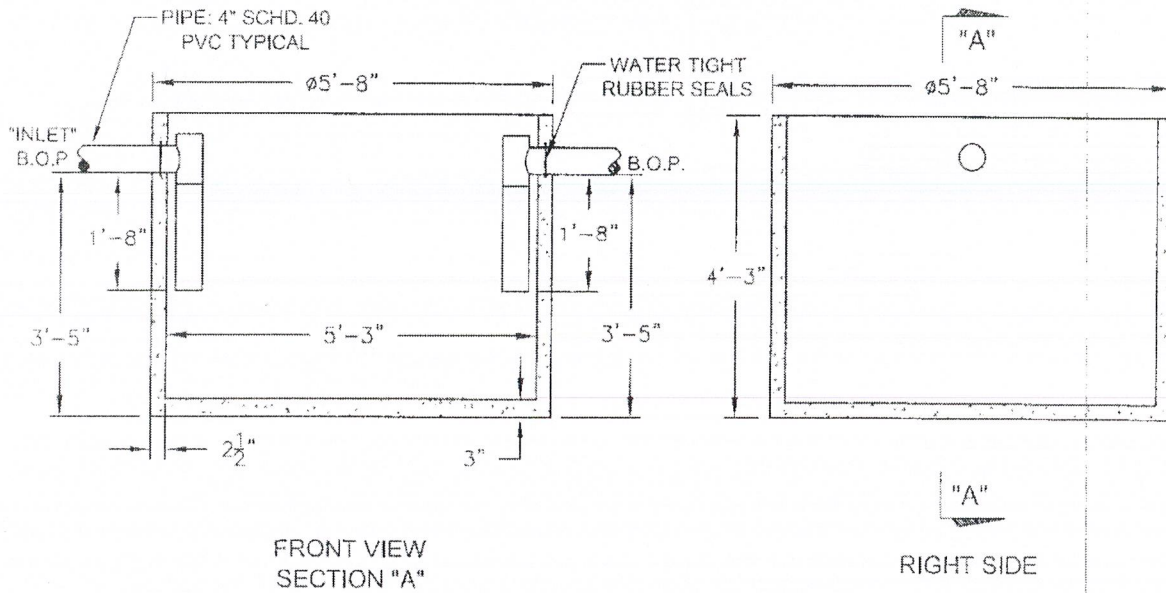
Total Head Required for Pump: 100.6 feet

Pump Required: 13.6 gallons per minute at 100.6 feet head

FILE: F:\TEXAS PRECAST\UPDATED\SEPTIC TANKS\MODEL 500 #2R SHORT



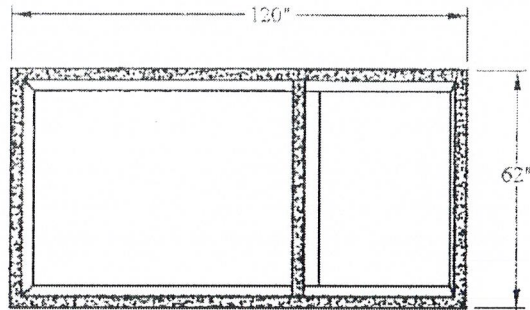
SEPTIC TANK LID



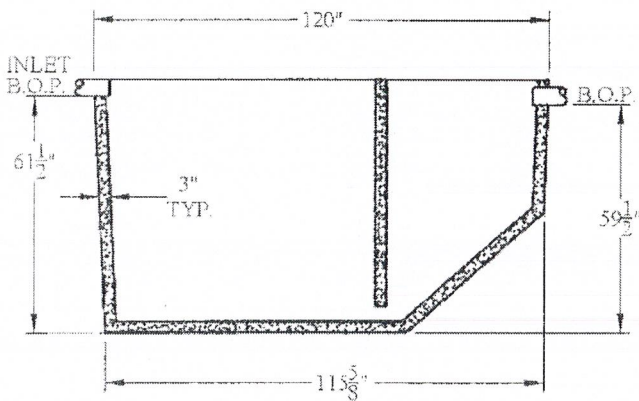
SEPTIC TANK BODY

- NOTES**
- CONCRETE: 6000 PSI MIN. COMPRESSION @ 28 DAYS.
 - REINFORCING: 6X6 10 GAUGE ASTM A185 65 KSI PLAIN FINISH CONT. AROUND PERIMETER OF TANK.
 - LID REINFORCING: #3 BARS ON 6" CENTER, BOTH WAYS.
 - TOTAL CAPACITY: 436 GALLONS AVERAGE

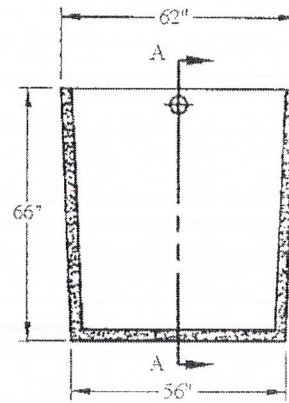
MODEL 500 #2R SHORT		
TEXAS PRECAST, L.L.C.		
PO BOX 1525 SANTA FE, TEXAS 77510		
SC: 1"=50"	DATE: 09/12/2009	DR. BY: MEGAN MAIER



TOP



FRONT SECTION A-A



RIGHT END

NOTES

CONCRETE: 5000 PSI MIN. COMPRESSION @ 28 DAYS.
 REINFORCING: 6X6 10 GAUGE ASTM A185 65 KSI PLAIN FINISH CONT.
 AROUND PERIMETER OF TANK.
 LID REINFORCING: #4 BARS ON 6' CENTERS, BOTH WAYS.
 TOTAL CAPACITY: 1287 GALS.
 AVGR 22.78 GAL/INCH.

FILE MODEL AK1000S96TX

MODEL AK1000S

(REV 05/31/05)

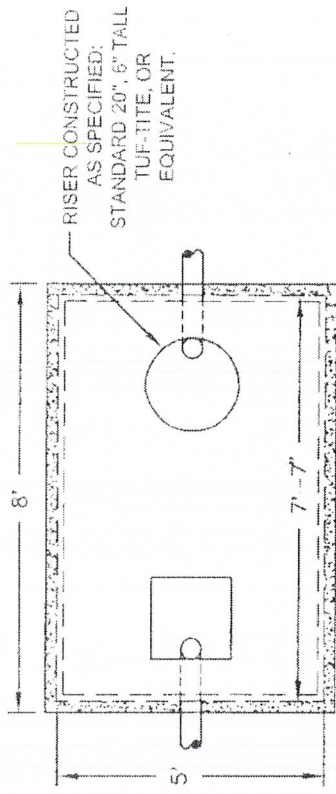
TEXAS PRECAST, L.L.C.

PO BOX 1525
 SANTA FE TEXAS 77510

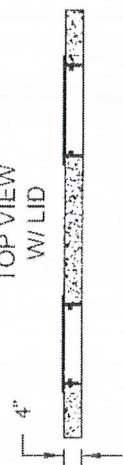
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DATE: 06/06/04

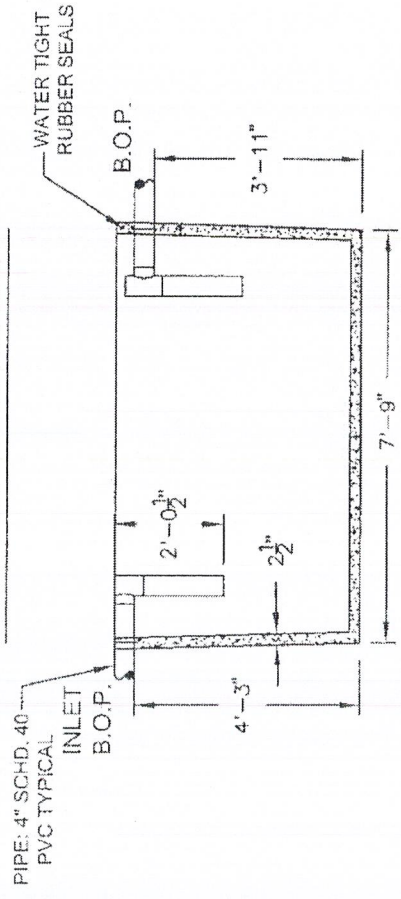
DR. BY: S. LA SALLE



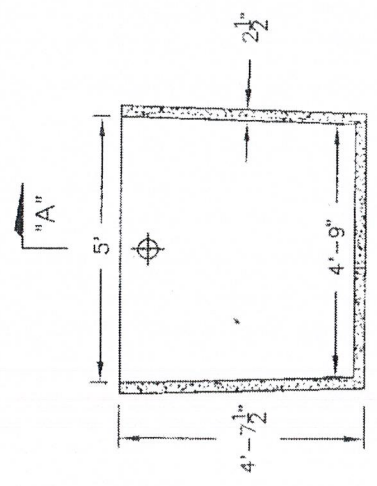
TOP VIEW
W/ LID



SEPTIC TANK LID



FRONT VIEW
SECTION "A"



RIGHT SIDE VIEW

SEPTIC TANK BODY

- NOTES
- MEETS ATSM C-1227-93A.
 - CONCRETE: 6000 PSTMIN.
 - COMPRESSION @ 28 DAYS.
 - REINFORCING: 6X6 10 GAUGE ASTM A185 65 KSI PLAIN FINISH CONT. AROUND PERIMETER OF TANK.
 - LID REINFORCING: #3 BARS ON 6" CENTER, BOTH WAYS.
 - TOTAL CAPACITY: 1143 GALLONS AVERAGE

MODEL 1000 PUMP TANK	
TEXAS PRECAST, L.L.C.	
PO BOX 1525 SANTA FE, TEXAS 77510	DR. BY: MEGAN MAIER
SC: 1"-40"	DATE: 04/26/2010