

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
ON-SITE WASTEWATER SYSTEMS CHECKLIST
FOR PROFESSIONALLY DESIGNED SYSTEMS**

APPLICATION NO. _____
WALLER COUNTY, TEXAS

The following information must be included with the design package for review by the Texas Natural Resource Conservation Commission. Failure to include or address all of the following items may result in approval delays.

- 1. Plans and reports must bear a signed and dated seal of the responsible registered engineer or sanitarian. The address and telephone number of this person must also be included in the submittal. (Two originals with seal / signature / date.)

- 2. A report must be included in the submittal containing the following information:
 - A. Basis of design;
 - B. Soil analysis and percolation test result;
 - C. System flow diagram and sizing calculation;
 - D. Material specification; and
 - E. Size and model number of approved aerobic system (if used.)

- 3. Construction drawings must include the following information:
 - A. A scaled, legible site plan with boundary description;
 - B. The location of all buildings (existing or proposed) on the site plan;
 - C. The location of the wastewater treatment units and disposal area;
 - D. Buffer zones and water wells must be identified and located on the site plan;
 - E. The site plan must also include topographical countours for slopes greater than 15 percent;
 - F. Easements and bodies of water (lakes, streams, ponds) must also be identified; and
 - G. Installation details such as septic tank configuration, layouts and cross-sections of drainfields and disposal beds, irrigation systems, pump station including piping and controls

Charles Gerland
Signature of Designer

11-6-2019
Date

**SITE EVALUATION FORM
WALLER COUNTY, TEXAS**

DATE: 11/6/2019
 CLIENT: WALTER J. DuBOIS ADDRESS 54165 HWY. 290
HEMPSTEAD, TX. 77445

LEGAL DESCRIPTION:
 SUBDIVISION: _____ SEC. _____ BL. _____ LOT _____

SURVEY DAVID MOUSER SUR. TR. 23 - 1 PROPERTY ID# 208368
 ABSTRACT: 47
 PROPERTY SIZE: 2.00 AC.
 EXISTING OR PROPOSED STRUCTURE TO BE SERVED: A PROPOSED OFFICE WAREHOUSE W/
 2 OFFICE EMPLOYEES X 4 G.P.D. + 8 FACTORY EMPLOYEES X 12 G.P.D. TOTAL FLOW - 104 GPD

TOPOGRAPHY

SLOPE: FLAT (UNDER 2%) _____ SLIGHT (UNDER 6%) _____ * SEVERE (OVER 30%) _____

VEGETATION:
 GRASS/BRUSH */ LIGHTLY WOODED _____ HEAVILY WOODED _____

SITE DRAINAGE: POOR () ADEQUATE (*) GOOD () OTHER ()

NOTE: IF SLOPE IS SEVERE A TOPO SURVEY WITH HALF FOOT CONTOURS MUST BE PROVIDED WITH THIS FORM ON THE DESIGN. IF SITE DRAINAGE IS POOR OR SLOPE IS FLAT THEN A DETAILED DRAINAGE PLAN MUST BE PROVIDED ON THE DESIGN IF A SUBSURFACE SYSTEM IS PROPOSED.

FLOOD HAZARD

PROPERTY IS LOCATED:
 IN 100 YEAR FLOOD PLAIN ()
 OUTSIDE 100 YEAR FLOOD PLAIN (*)
 PARTIALLY IN 100 YEAR FLOOD PLAIN ()
 IN 500 YEAR FLOOD PLAN AND FLOODWAY ()



WATER SUPPLY:
 PUBLIC () COMMUNITY () PRIVATE (*) WELL IS PROPOSED

NAME OF WATER SUPPLIER: _____

NOTE: IF WELL IS ON-SITE COMPLETE THE FOLLOWING.
 SIZE OF WELL N/A YEAR DRILLED N/A DRILLER N/A
 DEPTH OF WELL N/A FT.

SEALING BLOCK PRESENT	YES ()	NO ()
WELL HOUSE PROTECTING WELL	YES ()	NO ()
IS A WELL LOG AVAILABLE (ATTACHED IF AVAILABLE)	YES ()	NO ()
NEIGHBORING WELL WITHIN 100 FEET OF PROPERTY LINE.	YES (*)	NO ()
(IF NEIGHBORING WELL(S) EXIST, THEY MUST BE SHOWN ON THE DESIGN)	YES (*)	NO ()

SOIL EVALUATION

PROFILE DEPTH	TEXTURE (COLOR)	GRAVEL ANALYSIS (CLASS II & III)	RESTRICTIVE HORIZON	GROUND WATER	COMMENTS
0	Brown	Less than 5%	No	No	
	Sandy				
	Loam				
15"	Brown		Yes	Yes	
	Sandy				
	Clay Loam				
48"		▽			
60"					

PROFILE DEPTH	TEXTURE (COLOR)	GRAVEL ANALYSIS (CLASS II & III)	RESTRICTIVE HORIZON	GROUND WATER	COMMENTS
		Same as Above			
60"					

Charles Gehring

 11/6/2019

SOIL CLASSIFICATION:

- CLASS Ib: Sandy, Loamy Sand

- CLASS II: Sandy Loam, Loam

- CLASS III: Sandy Clay Loam, Sandy Clay, Clay Loam, Silty Clay Loam, Silt Loam, Silt

- CLASS IV: Silty Clay, Clay

EFFLUENT LOADING DETERMINATION

SOIL TEXTURE	SOIL CLASS	LONG TERM LOADING RATE
COARSE SAND/GRAVEL	1a	> .50 (NOT SUITABLE FOR STANDARD SYSTEMS)
SAND/LOAMY SAND	1b	.38
SANDY LOAM/LOAM	II	.25
SANDY CLAY LOAM/ SANDY CLAY/CLAY LOAM/ SILTY CLAY LOAM/SILTY LOAM	III	.20
CLAY/SILTY CLAY	IV	0.1 (NOT SUITABLE FOR STANDARD SYSTEMS)

NOTE: SOIL MUST BE EVALUATED TO A MINIMUM OF TWO (2) FEET BELOW APPLICATION AREA INDICATION OF SEASONAL WATER TABLE: YES (*) NO () DEPTH 24 - 48"

NOTE: SUBSURFACE HORIZONS WITH COLORS OF RED, YELLOW AND BROWN GENERALLY INDICATE GOOD SOIL AERATION AND DRAINAGE THROUGHOUT THE YEAR. SUBSURFACE HORIZONS THAT ARE IN COLORS OF GRAY, OLIVE OR BLACKISH COLORS INDICATE POOR AERATION AND POOR SOIL DRAINAGE. ANY SOIL PROFILE THAT HAS THE GRAYISH COLORS INDICATIVE OF HIGHWATER TABLES OR SOIL MOTTLING WITHIN 36 INCHES OF THE SURFACE OR HAS GROUND WATER VISIBLE IN THE TEST BORE HOLE LESS THAN 48 INCHES BELOW THE GROUND SURFACE SHALL BE DEEMED UNSUITABLE FOR CONVENTIONAL SUBSURFACE DISPOSAL DUE TO INTERNAL DRAINAGE.

IS SOIL SUITABLE FOR A CONVENTIONAL SYSTEM? YES () NO (*) APPLICATION RATE .1

NOTE: IF SOIL HAS AN APPLICATION RATE OF OVER .38 GPDSF OR LESS THAN .1 GPDSF OR A HIGH SEASONAL WATER TABLE THAN STANDARD SYSTEMS ARE PROHIBITED BY STATE LAW. I CHARLES GERLAND, A REGISTERED SITE EVALUATOR DID PERSONALLY CONDUCT THIS SITE EVALUATION ON 54165 HWY. 290, HEMPSTEAD, TX. 77445. DAVID MOUSER SUR., A 47, 2.00 AC., WALLER COUNTY, TEXAS.

I CERTIFY THESE RESULTS ARE TRUE AND CORRECT FOR THE PROPERTY EVALUATED.

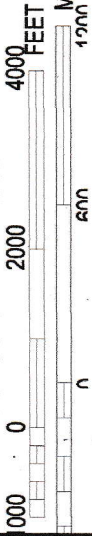
11/6/2019
DATE



Charles Gerland
SIGNATURE



MAP SCALE 1" = 2000'



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0025E

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

PANEL 25 OF 425
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY / NUMBER PANEL SUFFIX
WALLER COUNTY 482640 0025 E

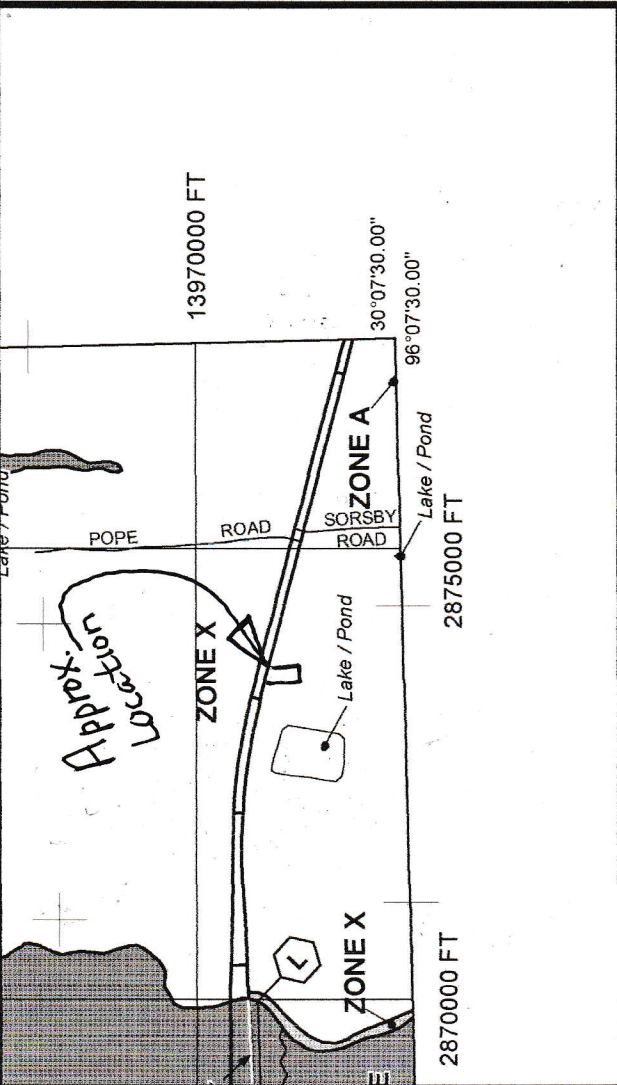
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



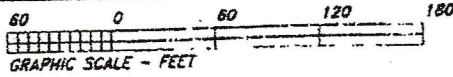
MAP NUMBER
48473C0025E

EFFECTIVE DATE
FEBRUARY 18, 2009

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



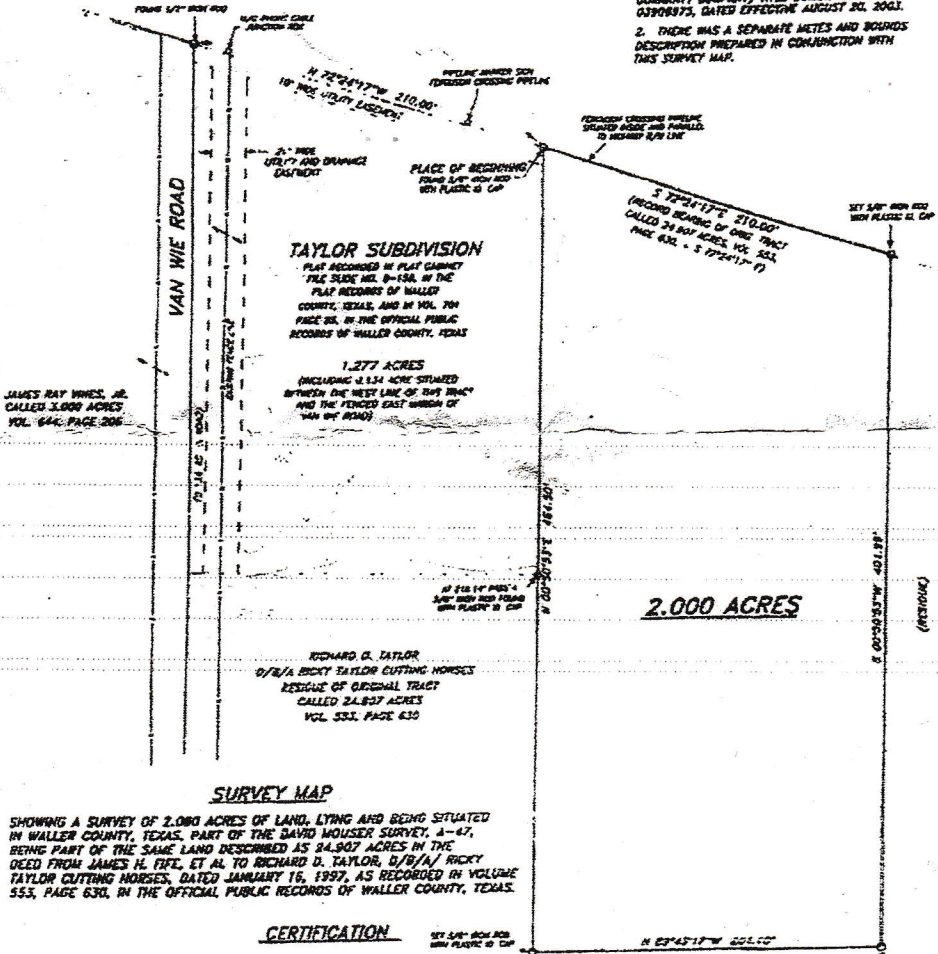
SCALE: 1" = 60'

DAVID MOUSER SURVEY, A-47
WALLER COUNTY, TEXAS

U. S. HIGHWAY NO. 290

NOTES:

1. THIS SURVEY WAS PERFORMED IN CONJUNCTION WITH STEWART TITLE-NEEDSFIELD (STEWART TITLE GUARANTY COMPANY'S) TITLE COMMITMENT FILE NO. 03208975, DATED EFFECTIVE AUGUST 20, 2001.
2. THERE WAS A SEPARATE METES AND BOUNDS DESCRIPTION PREPARED IN CONJUNCTION WITH THIS SURVEY MAP.



SURVEY MAP

SHOWING A SURVEY OF 2.000 ACRES OF LAND, LYING AND BEING SITUATED IN WALLER COUNTY, TEXAS, PART OF THE DAVID MOUSER SURVEY, A-47, BEING PART OF THE SAME LAND DESCRIBED AS 24.907 ACRES IN THE DEED FROM JAMES H. FITZ, ET AL. TO RICHARD D. TAYLOR, D/B/A/RICKY TAYLOR CUTTING HORSES, DATED JANUARY 16, 1997, AS RECORDED IN VOLUME 553, PAGE 630, IN THE OFFICIAL PUBLIC RECORDS OF WALLER COUNTY, TEXAS.

CERTIFICATION

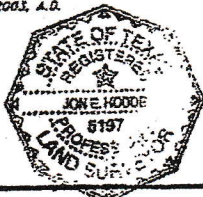
THE STATE OF TEXAS

COUNTY OF WALLER

I, JON E. HODDE, REGISTERED PROFESSIONAL LAND SURVEYOR, NO. 5197 OF THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS MAP SHOWING A SURVEY OF 2.000 ACRES OF LAND IS TRUE AND CORRECT IN ACCORDANCE WITH AN ACTUAL SURVEY MADE ON THE GROUND UNDER MY PERSONAL DIRECTION AND SUPERVISION.

DATED THIS THE 4TH DAY OF SEPTEMBER, 2003, A.D.

Jon E. Hodde
JON E. HODDE
REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 5197
HODDE & HODDE LAND SURVEYING, INC.
613 EAST HIGHTON STREET
BRENNHAM, TEXAS 77833
(979)-834-5881



RICHARD D. TAYLOR
D/B/A RICKY TAYLOR CUTTING HORSES
RESIDE OF ORIGINAL TRACT
CALLED 24.907 ACRES
VOL. 553, PAGE 630

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HODDE & HODDE
LAND SURVEYING, INC. (5006PLAT-171)
ALL RIGHTS RESERVED W. O. NO. 4708

979 836 - 5681

T-54

JON E. HODDE

DESIGN SUMMARY:

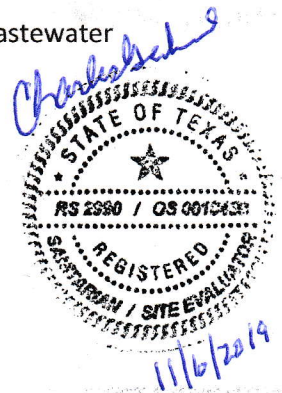
1. AEROBIC SEWAGE TREATMENT PLANT – PRO FLO 500 G.P.D. AEROBIC SEWAGE TREATMENT PLANT OR EQUAL.
2. PUMP – PRO FLO HE 8-51 ½ H.P. , PRO FLO HE 12-51 ½ H.P. OR PRO FLO HE 20-51 ½ H.P. OR EQUAL.
3. SPRINKLER HEADS – RAIN BIRD AND OR HUNTER POP-UP, LOW ANGLE, 40 PSI MAX OR EQUAL.
4. PUMP CONTROLS – B.I.O. INC. AEROBIC PUMP CONTROL MODEL #BIO500C HIGH WATER ALARM & IRRIGATION TIMER OR EQUAL.
5. IRRIGATION TIMER REQUIRED ON THIS SYSTEM. PUMPING HOURS 12:00 MIDNIGHT TO 5:00 AM.

6. **CALCULATIONS:**
 CALCULATIONS ARE FOR AN OFFICE/WAREHOUSE W/ 2 OFFICE EMPLOYEES X 4 G.P.D. AND 8 FACTORY EMPLOYEES X 12 G.P.D. PROPERTY LOCATION IS 54165 HWY. 290, HEMPSTEAD, TX. 77445.

- A. 104 G.P.D. / .045 = 2311.11 → 2312 SQ.FT. REQUIRED
- B. $A = \pi * 28^2 * 2 \text{ SPRAY AREAS} / 2$
- C. TOTAL AREA PROVIDED – 2463 SQ.FT.
7. HYDRAULIC LOAD CALCULATIONS:
 1 ATU – 500 G.P.D. / 24 HRS. PER DAY = 20.8 GAL./HR.
 FLOW RATE / HR. – 104 GAL./8 HRS. DAY BUSINESS OPEN = 13 GAL./HR.

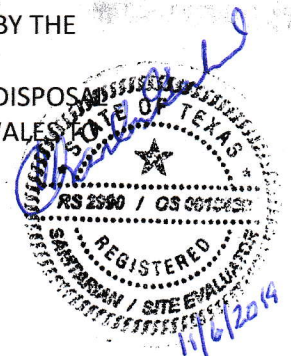
8. BOD LOADING RATE CALCULATIONS:
 INFLUENT BOD (based on a lineal reduction of residential flow) {using USEPA Onsite wastewater Treatment systems manual 2002 edition} IS AS FOLLOWS.

FIXTURES/USE	GALLONS/USE	%DAILY FLOW
TOILET	1.6	26.7%
FAUCETS	1.4	15.7%
LEAKS		13.7%
OTHER DOMESTIC	N/A	2.3%
TOTAL		58.4%



9. BOD MULTIPLIER: 100% / 58.4% = 1.72
10. PREDICTED INFLUENT BOD: AVERAGE RESIDENTIAL BOD X MULTIPLIER-
 240 MG/L X 1.72 = 412.8 MG/L
11. BOD IN POUNDS/DAY = 412.8 X 8.34 X 104 / 1,000,000 = .36 LBS/DAY
12. .36 LBS/DAY ÷ 8 HRS/DAY BUSINESS OPEN = .045 LBS./HR.
13. BOD IN POUNDS/DAY AVAILABLE TREATMENT – 1.25 LBS/DAY ÷ 24 HRS DAY = .0521 LBS/HR.
14. .045 LBS./HR ÷ .0521 LBS./HR = .863 SYSTEM WILL OPERATE AT ABOUT 86.3% OF CAP.
15. BASED ON THIS CALCULATION A PROPOSED 500 G.P.D. ATU WILL BE UTILIZED.
16. FURTHER BOD REDUCTION OF THE INFLUENT WASTEWATER MAY BE ACHIEVED IF THE PRE-TREATMENT TANK IS EQUIPPED WITH AN OUTLET FILTER (i.e. ZABEL A-1800). PRE-TREATMENT FILTERS ARE OPTIONAL ON THIS SYSTEM TO PREVENT LONG TERM SEDIMENTATION IN THE PRE-TREATMENT TANK/DOSING TANK.
17. THE INSTALLER/MAINTENANCE OPERATOR IS RESPONSIBLE FOR EXPLAINING THE PROPER MAINTENANCE OF THE FILTER TO THE OWNERS.
18. BALL VALVE TO SET FLOW RATE. (IF APPLICABLE)

19. PUMP DISCHARGE LINE WILL BE PLACED INSIDE A PLUMBED 4 INCH PIPE TO ATU TO PROVIDE "PASSIVE FAILURE OVERRIDE". (IF APPLICABLE)
20. A RELIEF VALVE WILL BE INSTALLED ON THE PUMPS VERTICAL FLOW LINE COLUMN FOR SAMPLING, THE REDUCTION OF PUMP STRAIN, TO SET FIELD OPERATING PRESSURE, AND TO FRESHEN THE STATIC WATER VOLUME, PLACED OPPOSITE FROM THE ACTIVATION FLOATS. THIS SAMPLING VALVE WILL BE A ¾ IN. BALL VALVE. (1 ¼ IN. FOR THE TREATMENT PLANT DOSING TANK COLUMN) WITH A THREADED UNION AND EXTENSION ATTACHED, EXTENDING TO NO MORE THAN 14 IN. ABOVE THE TANK FLOOR WITH THE END CUT AT A 45 DEGREE ANGLE FACING THE PUMP. THE DOSING PUMP COLUMN WILL REDUCE TO A ONE IN. DIAMETER PIPE CONNECTED THRU A GATE VALVE THEN THROUGH A 4 INCH. REDUCER CONNECTION TO THE ATU. THE INSTALLER HAS THE OPTION OF USING OTHER PRECASTER'S TANKS MEETING THE SAME VOLUME. IF ANOTHER MANUFACTURER IS USED, IT IS THE INSTALLER RESPONSIBILITY TO OBTAIN SEALED BUOYANCY CALCULATIONS FOR THOSE TANKS. (IF APPLICABLE)
21. A COMBINATION AUDIO/VISUAL ALARM WILL BE UTILIZED. THE ALARM WILL BE PROVIDED WITH 115 VAC CIRCUITS SEPARATE FROM THAT USED BY THE PUMPS AND COMPRESSORS. PUMP SYSTEM WILL BE EQUIPPED WITH AN INDEPENDENT HIGH WATER ALARM. (IF APPLICABLE)
22. ACCEPTABLE SURFACE APPLICATION AREAS. LAND ACCEPTABLE FOR SURFACE APPLICATION SHALL HAVE FLAT TERRAIN (WITH LESS THAN OR EQUAL TO 15% SLOPE) AND SHALL BE COVERED WITH GRASSES, EVERGREEN SHRUBS, BUSHES, TREES OR LANDSCAPED BEDS CONTAINING MIXED VEGETATION. THERE SHALL BE NOTHING IN THE SURFACE APPLICATION AREA WITHIN TEN FEET OF THE SPRINKLER WHICH WOULD INTERFERE WITH THE UNIFORM APPLICATION OF THE EFFLUENT. SLOPED LAND (WITH GREATER THAN 15% SLOPE) MAY BE ACCEPTABLE IF IT IS PROPERLY LANDSCAPED AND TERRACED TO MINIMIZE RUNOFF.
23. UNACCEPTABLE SURFACE APPLICATION AREAS. LAND THAT IS USED FOR GROWING FOOD, GARDENS, ORCHARDS OR CROPS THAT MAY BE USED FOR HUMAN CONSUMPTION AS WELL AS UNSEEDED BARE GROUND, SHALL NOT BE USED FOR SURFACE APPLICATION.
24. LANDSCAPING PLAN – SPRAY IRRIGATION AREAS MUST BE PLANTED WITH GRASSES SUITABLE FOR THE WALLER COUNTY AREA. GRASSES THAT ARE THE BEST SUITED FOR THIS AREA ARE: ST. AUGUSTINE, CENTIPEDE, AND ZOYSIA. A QUICK GROWING TEMPORARY GRASS SUCH AS GULF COAST RYE MAY BE UTILIZED UNTIL ONE OF THE PERMANENT GRASSES LISTED ABOVE ARE PLANTED. ANY SPRAY AREAS THAT HAVE NATIVE GRASSES GROWING NATURALLY, DO NOT NEED TO BE MODIFIED, BUT ANY BARE AREAS MUST BE SEEDING OR SODDED WITH ONE OF THE ABOVE.
25. NO EXISTING OR PROPOSED ADDITIONAL TREES MAY BE WITHIN TEN FEET OF ANY SPRAY HEAD. LOCATION OF SPRAY HEADS MAY BE ADJUSTED TO ACCOMMODATE ANY EXISTING TREES.
26. ALL ELECTRICAL CONNECTIONS MUST BE TWO FEET MINIMUM ABOVE THE FLOOD PLAIN LEVEL. (IF APPLICABLE)
27. CONTAMINANTS SUCH AS HYDROCARBON WASTE, PESTICIDES, OR TRASH SUCH AS PAPER TOWELS, SANITARY NAPKINS, CONDOMS ETC SHOULD NOT BE ALLOWED TO ENTER THIS SYSTEM.
28. EXISTING SEPTIC TANKS MAY BE INCORPORATED INTO THIS SYSTEM. THEY MUST BE PUMPED AND CLEANED AND BROUGHT UP TO THE CONSTRUCTION STANDARDS AS ADOPTED BY THE TCEQ, JAN. 1997. IF NOT RE-USED THEY MUST BE ABANDONED. (IF APPLICABLE)
29. SITE DRAINAGE – INSTALLER OR PROPERTY OWNER SHALL ADD ADDITIONAL FILL ON DISPOSAL AREA TO PROVIDE POSITIVE STORM WATER RUNOFF AND CONSTRUCT DRAINAGE SWALES EXISTING ROADSIDE DRAINAGE AS NECESSARY.



30. WHEN A WATER SUPPLY LINE MUST BE CROSSED BY A SPRAY IRRIGATION LINE, OSSF INSTALLERS WILL LOCATE IRRIGATION LINE AT LEAST SIX INCHES BELOW THE WATER SUPPLY LINE, UTILIZE 150 PSI OR GREATER PRESSURE PIPE AND CENTER AT LEAST AN 18 FT. LONG PIPE ON THE WATER LINE THUS MAKING THE PIPE JOINTS AT LEAST NINE FEET FROM THE WATER LINE. IN INSTANCES WHEN THE IRRIGATION LINE CANNOT BE PLACED BELOW THE WATER LINE, THE IRRIGATION LINE MUST BE PLACED AT LEAST SIX INCHES ABOVE THE WATER LINE, USE 150 PSI PIPE, CENTER AN 18 FT. OR LONGER PIPE ON THE WATER LINE AND SLEEVE THE IRRIGATION LINE INSIDE ANOTHER PRESSURE RATED PIPE.

SPECIAL USE:

1. MAKE SURE YOUR MAINTENANCE OPERATOR IS CURRENTLY LICENSED AD CERTIFIED ON YOU SYSTEM.
2. MAKE SURE ALL OCCUPANTS OBSERVE PROPER WATER CONSERVATION HABITS AND AVOID ALLOWING UNNECESSARY WATER USE. FAILURE TO FOLLOW GOOD WATER CONSERVATION HABITS CAN AND WILL CAUSE SYSTEM FAILURE, NECESSITATING THE INSTALLATION OF MORE HOLDIND/DOSING TANK AND AEROBIC TANK CAPACITY, OWNERS EXPENSE.
3. USE ONLY PLAIN WHITE, UNDYED, UNSCENTED TOILET PAPER – SINGLE PLY.
4. DO NOT USE TOILET CHLORINE PUCKS, HANGING TOILET BOWL FRESHNERS, OR BLUE WATER DISINFECTANTS IN THE TOILET TANK. REGULAR TOILET CLEANING IS OKAY.
5. PROFESSIONAL FLOOR CLEANING COMPANIES MUST BE INFORMED THAT THEY MUST NOT DISPOSE OF FLOOR CLEANING PRODUCTS AND OR WASTE WATER INTO THIS SYSTEM.
6. MECHANICS MUST WIPE AS MUCH OIL AND GREASE OFF THEIR HANDS BEFORE WASHING IN LAVATORY. SHOP CLOTHS AND TOWELS MUST NOT BE DISPOSED OF IN THIS SYSTEM.
7. DO NOT USE DISINFECTANT HAND AND DISH WASHING SOAP.
8. DO NOT USE SEPTIC SYSTEM ADDITIVES.
9. AIR CONDITIONING CONDENSATION MUST NOT BE DIRECTED INTO THIS SYSTEM.
10. THIS SYSTEM MUST BE PUMPED EVERY 6 – 18 MONTHS OR AS NEEDED AS DETERMINED BY THE MAINTENANCE OPERATOR.
11. STUB OUTS MUST BE NO LOWER THAN 6 INCHES BELOW EXISTING GRADE. FAILURE TO DO SO MAY RESULT IN THE NECESSITY OF A LFT STATION.
12. IT IS THE OWNER RESPONSIBILITY TO KEEP DISPOSAL AREAS WELL MANICURED.
13. FLOOR DRAINS MUST NOT DISCHARGE INTO THIS SYSTEM.



DATE: 11/6/2019

SCALE: 1" = 50'

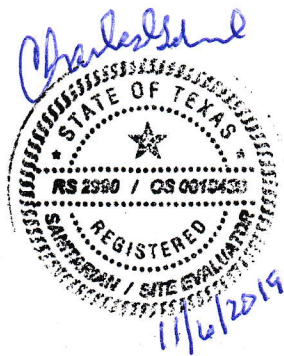
DAVID MOUSER SUR.
A 47, 2.00 AC.
WALLER CO. TX.

WALTER J. DuBOIS
54165 HWY. 290
HEMPSTEAD, TX. 77445

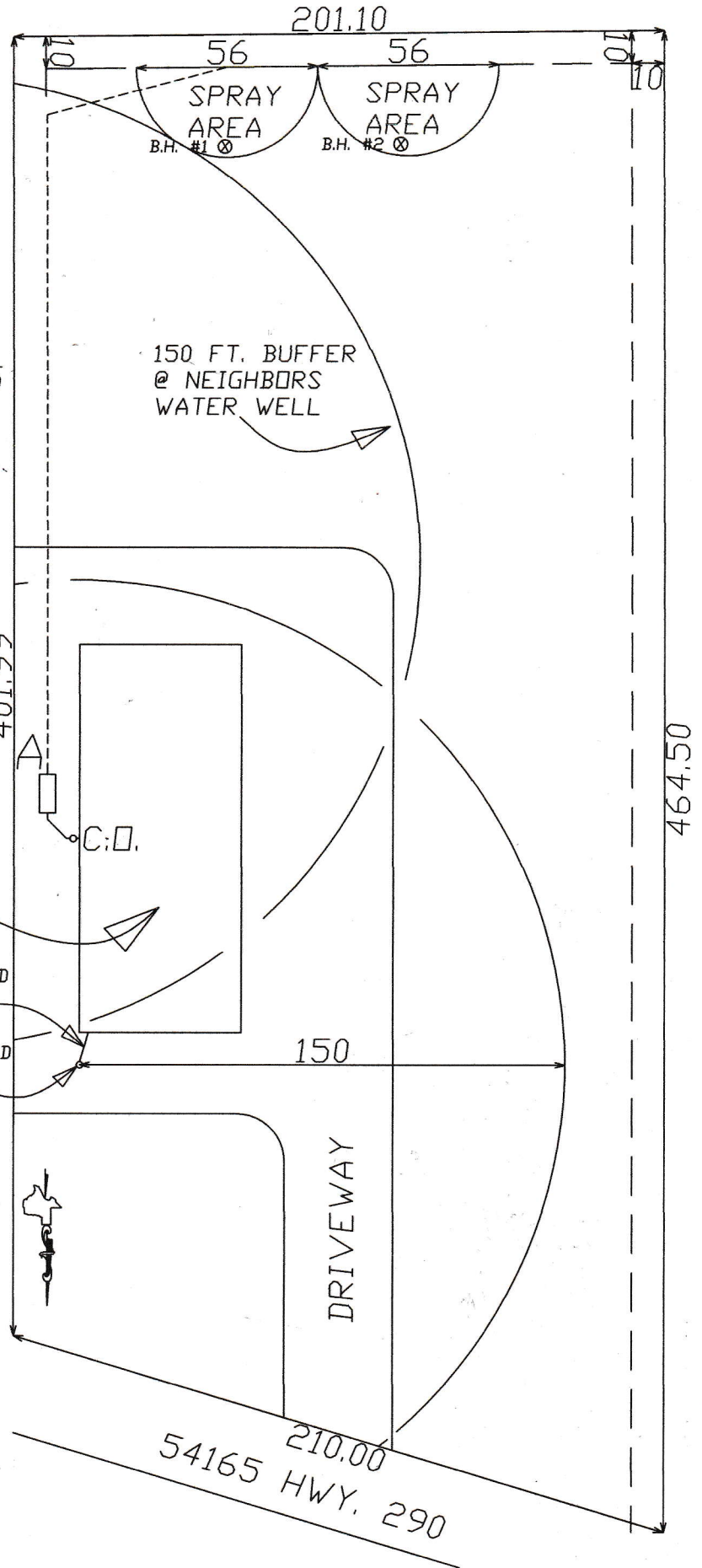
TANK A
PROFLOW 500 G.P.D.
AEROBIC SEWAGE
TREATMENT PLANT
OR EQUAL

SUPPLY LINE
1 IN. SCH. 40
PVC

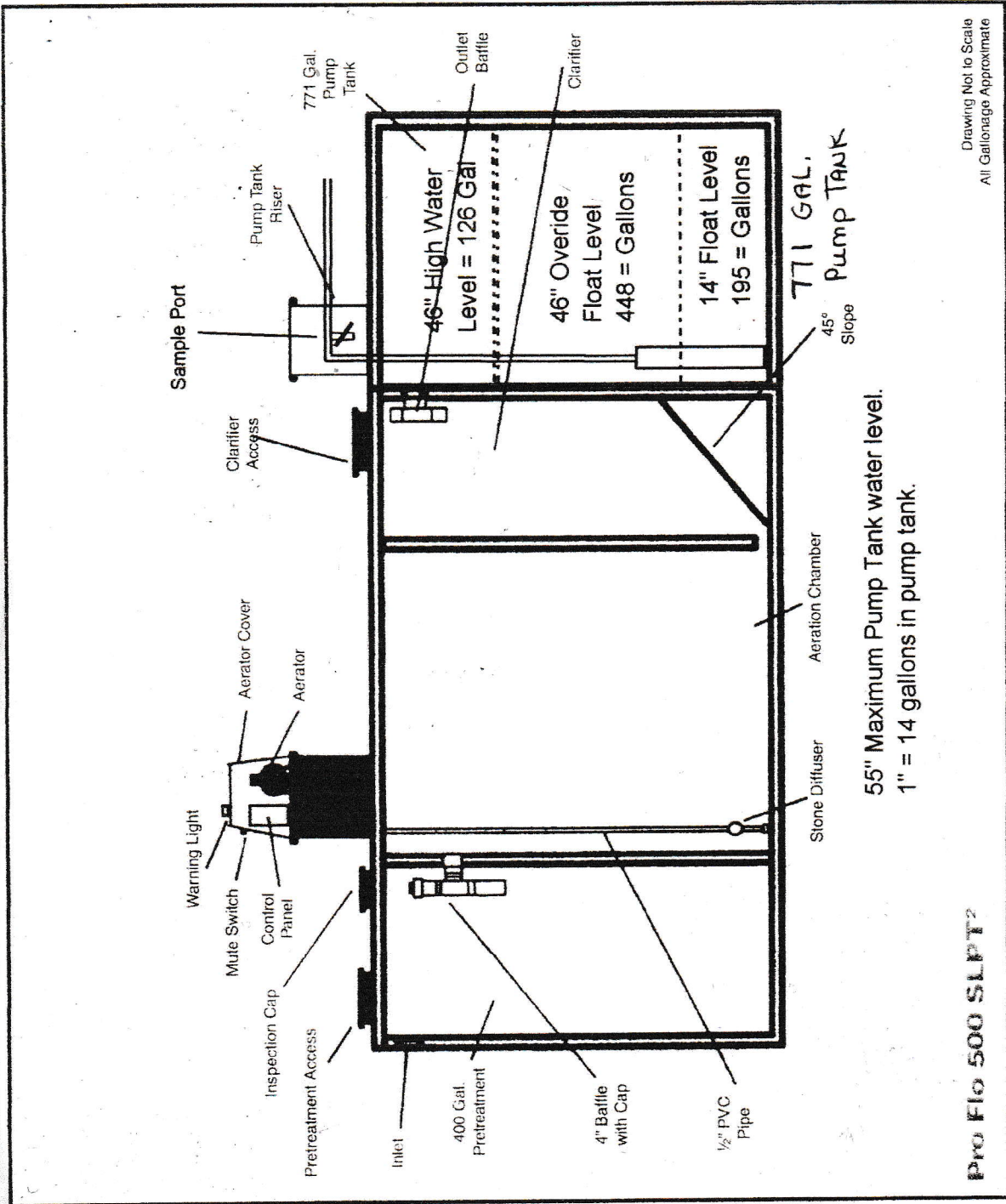
PROPOSED OFFICE
WAREHOUSE W/2
OFFICE AND 8
FACTORY EMPLOYEES
TOTAL FLOW 104 G.P.D.



CHARLES GERLAND R.S.
P.O. BOX 541
WELLBORN, TX. 77881
979/218/2042
RS 2990 OS0010438
JOB NO. 20991119



Pro Flo 500 SLPT² System Diagram



55" Maximum Pump Tank water level.
1" = 14 gallons in pump tank.

Pro Flo 500 SLPT²

Drawing Not to Scale
All Gallonage Approximate

Performance Data

Hunter Professional Series

STANDARD NOZZLES - RED

Nozzle	PSI	Radius ft.	GPM
1	30	28'	.5
	40	29'	.6
	50	29'	.7
	60	30'	.8
2	30	29'	.7
	40	30'	.8
	50	30'	.9
	60	31'	1.0
3	30	30'	.9
	40	31'	1.0
	50	31'	1.2
	60	32'	1.3
4	30	32'	1.2
	40	33'	1.4
	50	34'	1.6
	60	34'	1.8
5	30	34'	1.6
	40	36'	1.8
	50	38'	2.0
	60	38'	2.2
6	30	36'	2.0
	40	38'	2.4
	50	40'	2.7
	60	40'	2.9
7	30	36'	2.6
	40	40'	3.0
	50	42'	3.4
	60	42'	3.7
8	30	37'	3.2
	40	40'	3.7
	50	43'	4.2
	60	44'	4.6
9	30	38'	4.2
	40	43'	4.9
	50	46'	5.5
	60	47'	6.0
10	40	45'	6.0
	50	48'	6.8
	60	49'	7.6
	70	51'	8.2
11	40	46'	8.0
	50	48'	8.9
	60	50'	9.8
	70	51'	10.5
12	40	46'	11.4
	50	48'	12.2
	60	50'	13.2
	70	52'	14.4

Data represent test results in zero wind. Adjust for local conditions. Radius can be reduced by up to 30% with nozzle retaining screw. (This may alter the uniformity of the spray pattern.)

LOW ANGLE NOZZLES - GRAY

Nozzle	PSI	Radius ft.	GPM
4	30	22'	1.4
	40	24'	1.7
	50	26'	1.8
	60	28'	2.0
5	30	25'	1.6
	40	27'	1.9
	50	28'	2.1
	60	30'	2.3
6	30	27'	2.1
	40	30'	2.5
	50	33'	2.8
	60	35'	3.0
7	30	29'	2.8
	40	32'	3.1
	50	35'	3.5
	60	37'	3.8
8	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
	60	38'	4.7
9	30	33'	4.3
	40	37'	5.0
	50	40'	5.6
	60	42'	6.1
10	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6

X 2 heads = 5.0 gpm

P

Blank nozzle plug for turning off selected sprinklers during repairs, maintenance, etc.

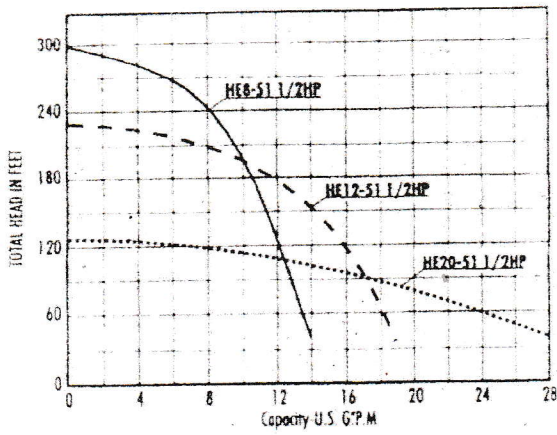
Data represent test results in zero wind. Adjust for local conditions. Radius can be reduced by up to 30% with nozzle retaining screw. (This may alter the uniformity of the spray pattern.)

Matched Precipitation

Matched Precipitation - GPM at 50 PSI

Square Spacing	90° Nozzle No.	90° GPM	180° Nozzle No.	180° GPM	360° Nozzle No.	360° GPM
25'	1	.7	3	1.2	6	2.7
30'	2	.9	5	2.0	8	4.2
35'	3	1.2	6	2.7	9	5.5
40'	4	1.6	7	3.4	10	6.8
45'	5	2.0	8	4.2	11	8.9

When the arc/nozzle combinations are spaced as indicated, the precipitation rate will be approximately .4"/hr. at 50 PSI.



HE 20-51 1/2 HP TYPICAL

HE8-51, HE12-51 & HE20-51

Typical Application*	High Head Filtered Effluent
Capacities	to 20 GPM (1.26 l/s)
Heads	to 300 ft (146.3m)
Electrical	115V, 1 ϕ , 14.5FLA, 60Hz, 3450 RPM 230V, 1 ϕ , 3.1FLA, 60Hz, 3450 RPM
Motor	(single phase) - 1/2HP 115 volts, single phase (single phase) - 1-1/2HP 230 volts 60 Hz, 3450 RPM
Diameter	Simplex = 4" (101.6mm)
Automatic Operation	Pressure Switch
Materials of Construction	300 SST
Impeller	Thermoplastic
Discharge Size	1-1/2" (38.1mm)
Power Cord	1 ϕ - 20' , SJTW, STW-A (30' optional)
Superior Features	<ul style="list-style-type: none"> • High pressure capacity. • Corrosion resistant design for long life • (Listings pending on 25 and 35 GPM units) • Dependable field proven motor. • Stainless-steel construction • Built-in overload and electric surge protection • Hermetically sealed windings • Continuous duty rating • Frequent cycling capabilities • Powerful, yet lightweight • Easy handling and installation