IREDELL COUNTY HEALTH DEPARTMENT

STATESVILLE 704-878-5305 MOORESVILLE 704-664-5281

IMPROVEMENT PERMIT / CERTIFICATE OF COMPLETION / OPERATION PERMIT / EXISTING SYSTEM INSPECTION

PROPERTY DESCRIPTION NO. 15484 DATE 10-20-93 TAX MAP NO. 5K-7-A-245 Watershed: ☐ Yes ☑ No

OWNER OR CONTRACTOR T+T Co Inc. PHONE: Business 873-6660 Home PIN# 4763-71-2078 (#244)

ADDRESS Rt 15 Statesville

LOCATION US 70E TR Morehead Dr. TR Oldwell Dr TR Big Forest Dr. 1/4 mi on Rt.

SUBDIVISION Forest Acres BLOCK / SECTION V LOTS 244 245 246 LOT AREA 1 1/2 acres SITE CLASS. P5 DESIGN FLOW 360 L.T.A.R. .15

Septic Tank: 1000 Gallons; STB ____ Date ____

Pump Tank: 1000 Gallons; PT ____ Date ____

Pump Make: ____ Model ____ Serial No. ____

Nitrification Field: No Fields 1 Square Feet 2400 Linear Feet 480

No Lines 4 Trench Width 18" Max Trench Bottom Depth 18" Gravel Depth 12"

☑ New System ☐ Repair System Type: I, II, III, IV, V, VI

System Description: LPP

Repair System Description: LPP

Maintenance Agreement Required: ☑ Yes ☐ No

☐ House/Mod. Home No. Bedrooms 3

☐ Mobile Home No. Bathrooms 2

☐ Business No. Employees ____

☐ Other ____

☐ Slab ☑ Crawl Space ☐ Basement w/plumbing ☐ Basement wo/plumbing

Water Supply: ☐ Individual ☐ Community ☑ Public

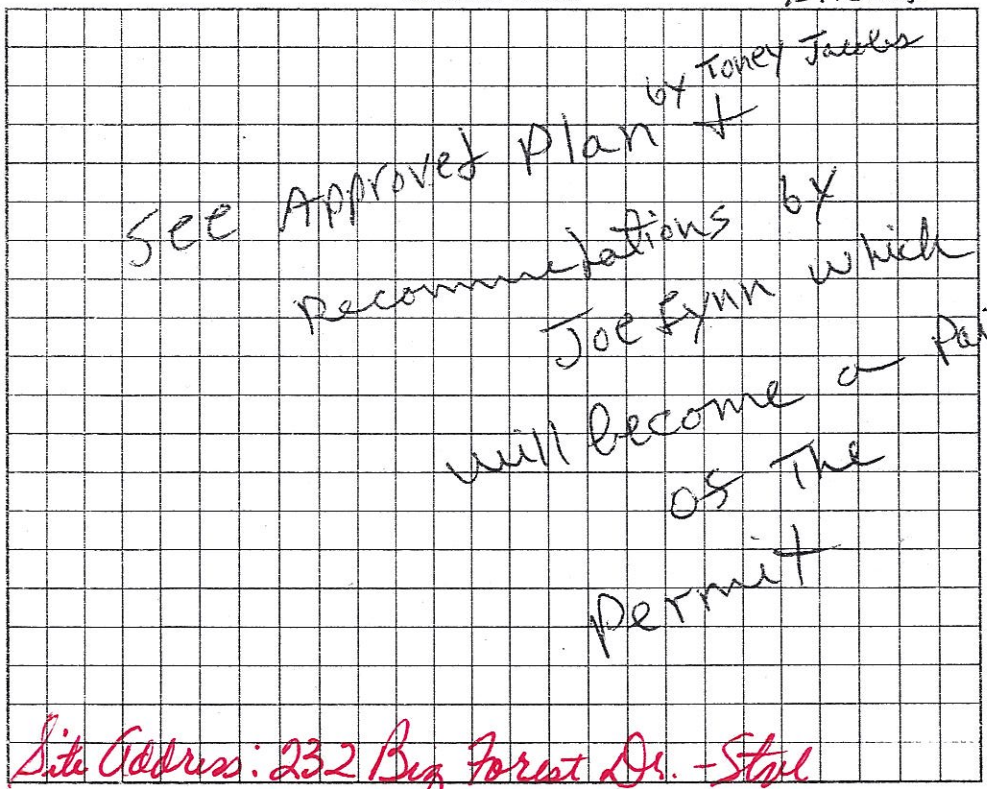
Comments:

A maintenance Agreement must be Provided To The Iredell Co. Health Dept before The System can be Finaled

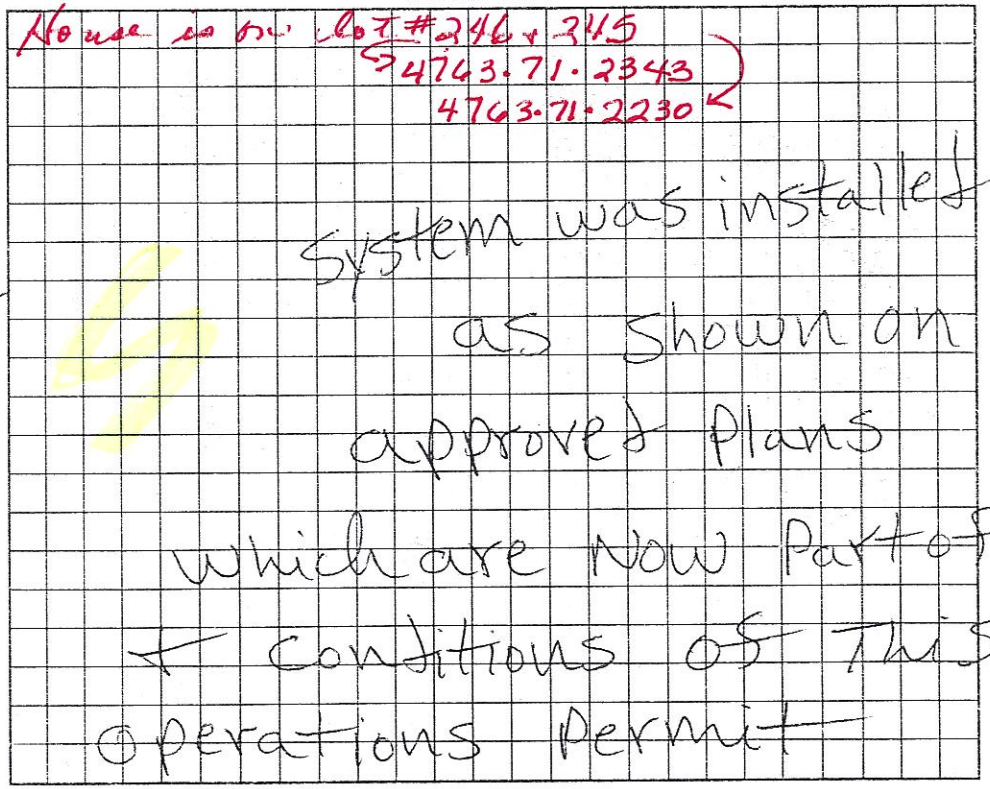
Comments:

David Yountz a certified subsurface system operator will be responsible for Inspection + maintenance

INITIAL SITE SKETCH



AS BUILT SKETCH



I understand that this permit can be suspended or revoked if any false information is supplied toward securing the permit/any unauthorized changes are made to the site/any unauthorized changes are made in the installation of the system. Improvement Permit is valid for 60 months from date of issuance.

Signed: T+T Co. by Harold J. Thaler

Improvement Permit by: P.C. Moore date 10-20-93

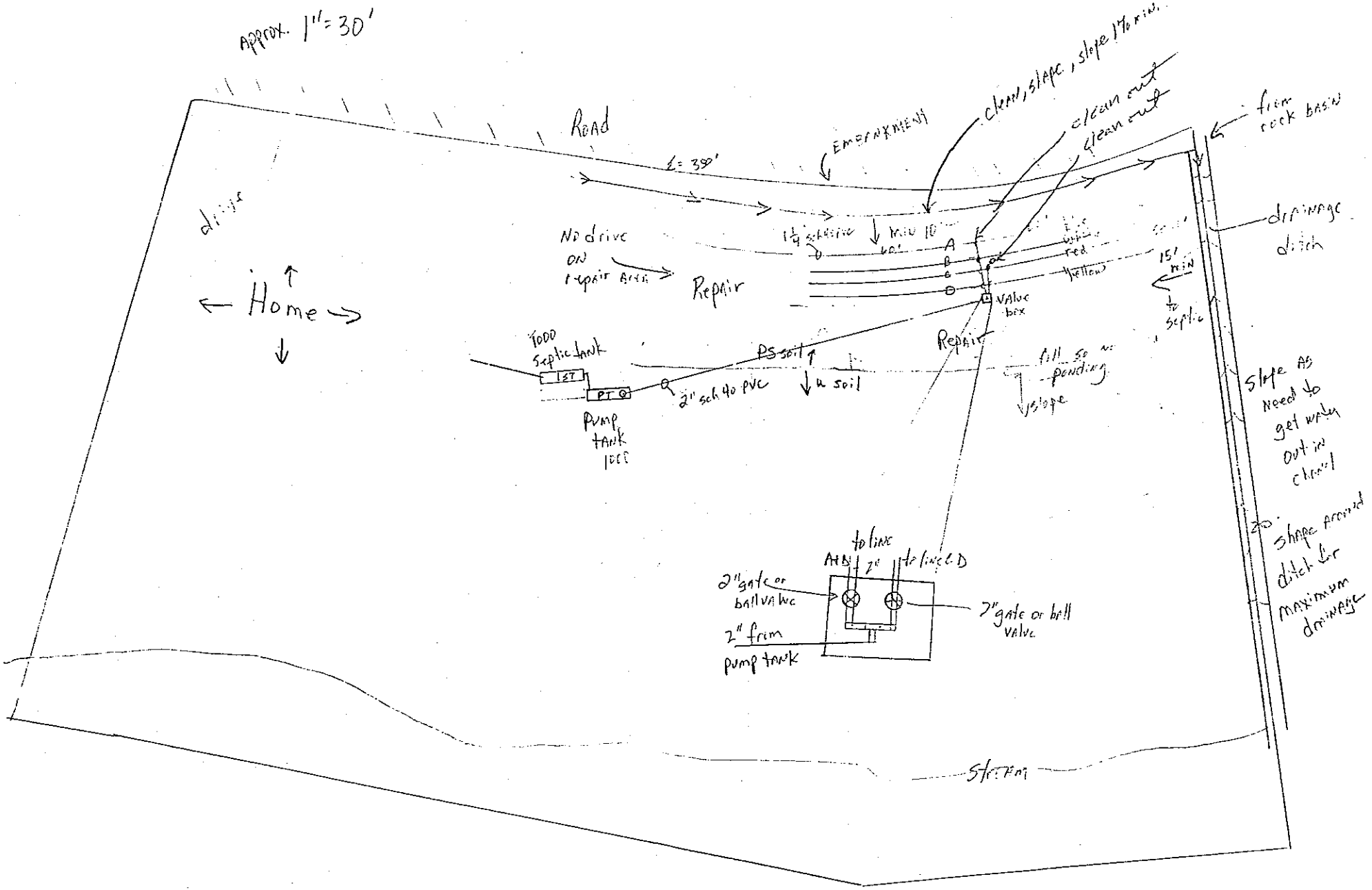
Existing System Inspection by: ____ date ____

Installed by: David Yountz

Certificate of Completion by: ____ date ____

Operation Permit by: P.C. Moore date 10-29-93

HEALTH DEPT. COPY: WHITE INSPECTION COPY (FINAL): GREEN OWNER COPY (FINAL): YELLOW INSPECTION COPY (INITIAL): PINK OWNER COPY (INITIAL): GOLD


Approx. 1"=30'
Road
drive
Home
No drive on repair area
Repair
Emergency
clean, shape, slope 1% min.
clean out
clean out
from rock basin
drainage ditch
15' min
to septic
valve box
1000 Septic tank
1ST
PT
pump tank 1000
2" sch 40 PVC
PS soil
A soil
Repair
fill so no ponding
slope
Slope as need to get water out in channel
shape around ditch for maximum drainage
to line A
to line B
2" gate or ball valve
2" from pump tank
2" gate or ball valve
Stream

T & T Company

~~H. J. (JIM) THABET~~

(SINGLE FAMILY-MANUFACTURED)

COMBINATION OF LOTS 244 245, AND 246

BIG FOREST DRIVE

IREDELL COUNTY, NORTH CAROLINA

by

Toney C. Jacobs
Consulting Soil Scientist
215 Broadbill Drive
Mooresville, N. C. 28115

October 3, 1993





To: Jim Thabet
Bethesda Road
P. O. Box 1835
Statesville, N. C. 28687

Copy
to: Mr. Julian Moore, R. S
Iredell County Health Dept.
Statesville, N. C. 28677

Toney C. Jacobs, CPSS

Thabet - 244, 245, 246 Big Forest Drive

LOW-PRESSURE PIPE SYSTEM (LPP)

Design Considerations

This system is proposed for a large (approximately 1.7 Ac.) single family residential tract in a residential development area. The system is designed for a 3 bedroom home. The proposed drainfield system does require a repair area which has been evaluated and designated. Iredell County Health Department (ICHD) has evaluated and verified all soils. The soil on most of the tract is of a poor quality (unsuitable) for ground absorption. One area with a deeper solum has been evaluated by auger holes and judged to be provisionally suitable. Because this soil is marginally PS, a conservative application rate of 0.15 gal ft^2 day^{-1} was used. The repair area, should it ever be utilized, will have to be installed as an LPP and at a rate of 0.10. Should drip irrigation become widely accepted, it would be the desired method of distribution with a free access sand filter pretreatment component. Overall, the soil has a heavy clay loam and clay subsurface texture in the area designated for disposal. There were no holes with areas of unsuitable 2:1 clay, but soils were both sticky and plastic. Most of the unsuitable character of the lot was because of footslope landscape position with little hydraulic gradient and poor internal drainage.

An LPP distribution system was considered permittable with above criteria. A caution to the installer includes no cutting or leveling, except as shown on the plan. The adjoining side ditch must be cleaned, shaped, and set to a uniform grade before the permit is finalized. Should required (6 month) monitoring indicate excessive water in lines, a 40" deep French drain and surface swail are suggested and may be required. Bottom grade of this drainage ditch must be checked by inspector. A side drainage ditch is also required and shown on the site plan.

Location

The approximately 1.7 Ac building tract is in Wayside Estates, south of the Furst McNess Plant

Reference Material

(1) *Design and Installation of Low Pressure Pipe Wastewater Treatment Systems,* by Craig Cogger, Bobby L. Carlisle, Dennis Osborne, and Ed Holland. UNC Sea Grant UNC-SC-82-03, May 1982.

(2)*Laws and Rules for Sewage Treatment and Disposal Systems T15A 18A .1900,* NCDEHNR-DEH.

Recommendation

Four hundred and eighty (480) lineal feet of LPP lines with 720 lineal feet of LPP repair.

Ownership Responsibility for a LPP System

Conservation measures should be undertaken in plumbing fixture specifications to minimize the volume of wastewater entering the disposal system, including, but not limited to the following precautions:

(a) Provide water conserving plumbing fixtures within the facility. Water closets must be 1.6 gal.flush. Shower heads should also have restrictions or be of low volume design.

(b) Develop conservative water use habits. If weekends are the time of more water use and weekdays are less, system should be reworked with timer rather than floats for flow equalization. This plan is designed on the premise that no garbage disposal will be used. The use of such would be detrimental to system longevity.

(c) Monitor and maintain the system as necessary for proper operation. ~~A Certificate of Completion~~ will require a maintenance contract to be filed with the Iredell County Health Department. It is recommended that the owner aggressively utilize this requirement because of its importance to system longevity. If possible, this management entity should be or at least be a part of the installation process.

System must be properly installed by a qualified and competent contractor following the requirements of the Iredell County Department of Environmental Health, DEH, the N. C. Building Code, Plumbing Code, and the Electrical Code. This plan, as any, is a guide to a minimum standard, but cannot take the place of experience and common sense.

Components of System

1. Two compartment septic tank-1000 gal.
2. Pumping tank - 1000 gal.
3. Submersible effluent pump and level controls-SSOMA certified
4. High water alarm signals which are UL approved
5. Supply pipe
6. Gate valves
7. Laterals with LPP trench in ground absorption trenches, 1.5 foot wide, with 1 foot

of stone level end to end, and placed to the exact level specifications in plan. This plan places trench bottoms approximately 1.6' below ground surface on the line.

Construction Sequence

1. Lines have been flagged as noted on drawing. Road drainage ditches should be installed 10' laterally as shown. Swail diversion (side)ditch should be incorporated upslope of surface interceptor drain. Sideline ditch installed 15' from septic lines as drawn.
2. Area should be cleared of all organic material with minimum soil disturbance and leveled as shown. Flags have been checked by the Health Department personnel as a precursor to the Improvements Permit.
3. Install trench per cited reference material and this plan. Top grade on pipes to be "level" from end to end, beginning at manifold, and checked by sanitarian. (Note: This is a two valve designed system rather than an 8 valve with one on each lateral segment.) The difference in elevation between lines is also critical to get correct distribution and this also must be checked.
4. All joints in lateral manifold piping shall be watertight connections to insure that the only source of the water seepage from the system is through the orifices as designed. Carefully install manifold and lateral network according to the attached designed layout. Protect valves with valve box. A larger diameter (at least six inch) protective sleeve with cap or approved box with lid shall be placed over the turned up lateral and positioned level with the ground surface (so as not to be damaged by mowing machine). Turn-up with two 45 degree ells, not one 90. Area around pipe should be stabilized with crushed stone, both inside and outside of riser. Stone allows for infiltration of waste and wash water when system is maintained.
5. Carefully backfill manifold trenches to grade with clean fill material and mound over trenches for settling.
6. The installation contractor shall stabilize the area of construction by planting with Kentucky 31 tall fescue and mulching. Area to be limed and fertilized with 250 lbs. of lime, and 3 bags of 10-10-10 fertilizer.
7. The septic tank shall consist of a 1000 gallon capacity reinforced, precast concrete tank with full baffle and shall have easy access to each chamber from ground level for inspection. The first chamber of the septic tank shall consist of 2/3 to 3/4 of the volume of the total tank and the baffle shall contain a horizontal opening across the tank at about midway its height. Locate the septic tank at such height as to provide approximately 8" of cover soil over top of the tank.
8. The dosing tank shall consist of a 1000 gallon capacity, reinforced, precast concrete tank

without baffle and shall have a concrete mounting pad (concrete blocks) for accommodating the pump. If a two piece tank is used, it must be water tested for 24 hours as specified in Rule 1954(b). Also, the tank must be plastered along the joint as specified in the same rule. Provide access for entry into the tank directly over the pump location, and extending 6" above final grade. Use a 24" or greater diameter concrete well casing and concrete well cap or other approved type cover. There must be a seal between well tile or access riser and top of tank.

9. All piping and fitting shall be SCH 40 PVC. Glue for all PVC pipe joints shall be as recommended by the pipe manufacturer. Note: On the distal end of each lateral turn-up should be 2 each 45 degree elbows, rather than one 90 to facilitate maintenance.

10. Pump: The submerged pump shall be Model ME 40 manufactured by Myers, or equal, 4/10hp 230v/1ph; capable of pumping 24 gallons per minute at a 14' head.

11. Pump controls and alarm to meet specifications of .1952, all being compatible.

12. A "Warning Sign" shall be located within the house to inform the occupants of action to take in case the "High Water Alarm" is activated. Because occupants of house are hearing impaired, the signaling should have a large light and be mounted where it will be noticed. This sign shall contain the name, address, telephone number, and emergency telephone number of the person to contact upon malfunction of the system.

13. Pump and Controls: Details of pump installation are shown in the plan. The pump must be placed on concrete blocks on the bottom of the tank. This prevents the pumping of any solid particles which can clog the pipe system. A piece of nylon and rope or other non-corrodible material should be attached to the pump; and to the outlet pipe for lifting the pump in and out of the chamber. Controls are fastened to the "tree" with clamps or brackets supplied by the manufacturer. The lower level control or "pump-off" must be positioned above the pump, so that the pump remains submerged at all times. The level control "pump-on" is positioned to pump a specified volume of effluent. The high water control float is then mounted about 3", but no more than 6" above the upper pump-on control. (Note: Care must be taken to insure that floats do not become fouled by other components in the tank, such as the electric power cord or the lifting rope. This installation will require that a telescoping "tree" be used for floats and adjustments.) The pump outlet pipe shall be connected to the supply manifold with a threaded PVC union (or dresser coupling) to allow quick removal.

14. Electrical Connections: The pump and high water alarm must be placed on separate electrical circuits. (If the pump circuit fails, the alarm must still be able to operate.) Follow the manufacturers recommendations for the proper fuses or circuit breakers. All electrical

connections must be made outside the pumping chamber. Power cords from the pumps and controls should be plugged into a NEMA 4X approved outdoor receptacle securely mounted outside of the pumping chamber, a minimum of 1 foot above finished grade. The receptacle must not be located inside the pumping chamber due to the corrosive and explosive gasses that may form from the sewage. Electrical connections may be made inside the pumping tank only if wired inside a sealed, watertight box. The best level control switches have a box built into the housing, but are more expensive than the plug-in devices. Wiring between the pumping chamber and the station should meet State and local code requirements. A lightning arrester is recommended to protect the pump and controls from electrical surges.

15. Proper Operation Check: After all components have been installed and connected, the system shall be checked for proper operation. With electrical power turned off, fill the pumping chamber with water from a garden hose until the liquid rises to the level of the high-water alarm float. Turn on the electrical power. The alarm light should go on in the house, and the pump should start operating. The alarm light should go off when the liquid reaches the lowest float control. Be sure the pump is still completely submerged.

16. Pressure Head Adjustment: The pressure head must be adjusted to match that specified in the design. The pressure head is measured as the height liquid will rise above the turn-up elbow when the pump is running. To adjust the head:

(a) Glue a 4' length of pipe (preferable clear) to a threaded adapter that will screw onto the turn-up adapters. (Call this the "test tube")

(b) Replace the turn-up cap with the "test tube". There must be one for each line with all lines adjusted at the same time.

(c) Adjust the gate valves until the effluent reaches the desired height in the "test tube". Remember to include the distance below the ground surface to the lateral line when measuring the height. The pressure head should be as specified for each line. This is the height above the lateral where the liquid should be in the temporary "test tube".

17. Final Landscaping: After the system is installed, the following should be checked to insure that the system will not be overloaded with excess rainwater and runoff:

(a) The distribution field is shaped to shed rainwater and is free of low areas.

(b) Surface swail must be stabilized.

18. The repair area has one low place. This should be filled (approximately 6") and shaped to allow for maximum drainage. Any ponding on this area will affect system operation. Both repair areas should be protected by owner in the event they are needed in the future.

19. The drainfield should be maintained as lawn and kept closely mowed for maximum runoff. Semi-annual inspection will call for corrective action if needed.

Concluding Note:

This plan was done to facilitate permitting by the Iredell County Health Department as a service to the county for the property owner. Any additions, or additional requirements, or deletions to enhance design or workability which will facilitate a permit are welcomed and may be made by note on this plan without returning entire design. The designer realizes a plan with as many details as this can be changed and/or improved upon. The installer must realize that this is an exact plan (elevation, hole size, spacing, etc.) and must be installed with exacting measurements as approved, unless specifically amended in writing by the Health Department. Final inspection will also require more time and detail than a conventional system. Should any part of this vary from the sewage regulations, they take precedence. All written specifications also supersede any portion of system laid out in the field should there be a discrepancy.

PROJECT : JIM THABET
COUNTY : IREDELL
REFERENCE NO. : 001
DATE : 10-13-1993

SUMMARY OF DESIGN

DESIGN FLOW	:	360	GPD
APPLICATION RATE	:	0.15	GPD/SQFT
TOTAL AREA REQUIRED	:	2400	SQFT
TOTAL LATERAL LENGTH REQUIRED	:	480	LFT
TOTAL LATERAL LENGTH SPECIFIED	:	480	LFT
NUMBER OF FIELDS	:	2	
LATERAL LENGTH	:	60	FT
NUMBER OF LATERALS	:	8	
NUMBER OF LATERALS PER FIELD	:	4	

FIELD NO. 1

LAT. NO.	LENGTH	ELEV-ATION	PRESS. HEAD	HOLE SIZE	HOLE SPAC.	NO.OF HOLES	FLOW PER HOLE	FLOW PER LATERAL
1	60	97.80	2.00	0.156	6.00	10	0.41	4.06
2	60	97.50	2.30	0.156	6.67	9	0.44	3.92
3	60	97.40	2.40	0.156	7.50	8	0.44	3.56
4	60	97.00	2.80	0.156	8.57	7	0.48	3.36

TOTAL 240 FEET FLOW TO FIELD 14.89 GPM

FIELD NO. 2

LAT. NO.	LENGTH	ELEV-ATION	PRESS. HEAD	HOLE SIZE	HOLE SPAC.	NO.OF HOLES	FLOW PER HOLE	FLOW PER LATERAL
1	60	97.80	2.00	0.156	6.00	10	0.41	4.06
2	60	97.50	2.30	0.156	6.67	9	0.44	3.92
3	60	97.40	2.40	0.156	7.50	8	0.44	3.56
4	60	97.00	2.80	0.156	8.57	7	0.48	3.36

TOTAL 240 FEET FLOW TO FIELD 14.89 GPM

LATERAL PIPE SIZE	:	1 1/4	INCHES (SCHEDULE 40)
MANIFOLD PIPE SIZE	:	3	INCHES (SCHEDULE 40)
SUPPLY LINE PIPE SIZE	:	2	INCHES (SCHEDULE 40)
SUPPLY LINE LENGTH	:	180	FEET
TOTAL DYNAMIC HEAD	:	7.73	FEET
DOSING VOLUME	:	182	GALLONS
PUMP TANK INSIDE LENGTH	:	6.00	FEET
PUMP TANK INSIDE WIDTH	:	4.00	FEET
PUMP TANK DRAWDOWN	:	0.76	FEET

FIELD NO. 1

LAT. NO.	LENGTH	ELEV-ATION	PRESS. HEAD	HOLE SIZE	HOLE SPAC.	NO.OF HOLES	FLOW PER HOLE	FLOW PER LATERAL
1	60	97.80	2.00	0.156	5.00	12	0.41	4.87
2	60	97.50	2.30	0.156	5.45	11	0.44	4.79
3	60	97.40	2.40	0.156	6.00	10	0.44	4.44
4	60	97.00	2.80	0.156	6.67	9	0.48	4.32

TOTAL 240 FEET FLOW TO FIELD 18.42 GPM

FIELD NO. 2

LAT. NO.	LENGTH	ELEV-ATION	PRESS HEAD	HOLE SIZE	HOLE SPAC.	NO.OF HOLES	FLOW PER HOLE	FLOW PER LATERAL
1	60	97.80	2.00	0.156	5.00	12	0.41	4.87
2	60	97.50	2.30	0.156	5.45	11	0.44	4.79
3	60	97.40	2.40	0.156	6.00	10	0.44	4.44
4	60	97.00	2.80	0.156	6.67	9	0.48	4.32

TOTAL 240 FEET FLOW TO FIELD 18.42 GPM

FIELD NO. 3

LAT. NO.	LENGTH	ELEV-ATION	PRESS. HEAD	HOLE SIZE	HOLE SPAC.	NO.OF HOLES	FLOW PER HOLE	FLOW PER LATERAL
1	60	97.80	2.00	0.156	6.00	10	0.41	4.06
2	60	97.50	2.30	0.156	6.67	9	0.44	3.92
3	60	97.40	2.40	0.156	7.50	8	0.44	3.56
4	60	97.00	2.80	0.156	8.57	7	0.48	3.36

TOTAL 240 FEET FLOW TO FIELD 14.89 GPM

FIELD NO. 3

LAT. NO.	LENGTH	ELEV-ATION	PRESS HEAD	HOLE SIZE	HOLE SPAC.	NO.OF HOLES	FLOW PER HOLE	FLOW PER LATERAL
1	60	97.80	2.00	0.156	6.00	10	0.41	4.06
2	60	97.50	2.30	0.156	6.67	9	0.44	3.92
3	60	97.40	2.40	0.156	7.50	8	0.44	3.56
4	60	97.00	2.80	0.156	8.57	7	0.48	3.36

TOTAL 240 FEET FLOW TO FIELD 14.89 GPM

Design Specifications

Thabet Property - Wayside Estates

Daily design flow:	360 gpd - 3 bedroom house
Septic tank size:	1000 gal (2 compartments)
Pumping tank size:	1000 gal watertight (see #8)
Effluent loading rate:	0.15g pd/sf LPP, repair 0.1
Total length and diameter of supply manifold:	app. 180 lf - 2" sch 40 PVC PVC
Number and length of laterals	System(4) 1-1/4"dia., 120'length center-fed LPP lines. Repair will be very similar design.
Hole size:	5/32"
Hole spacing:	vary (see calculations)
Total number of holes	52 - 68 from LPP program
Flow rate through the system:	23.5 gpm 29.78 gpm
Elevation head:	approx. 13.4' 61 ft # Mil computer program - figure pump 2' off bottom
Pressure head:	2.7' 2'
Friction head:	approximately 2.4'
20% over design:	2.2'
Total head:	13.4' ≈ 15 LPP program
Pump requirements:	24 gpm at 14' of head; use Myers ME40 / (4/10hp) pump or equivalent with compatible electrical
Dosing volume:	183 gal - 2 doses/day at design flow
Depth of water pumped per dose:	calculated to specific tank by measure or dealer engineering specifications
Pump run per dose:	approx. 7.8 min. at 23.5 gpm
Check valve:	No ≈ 30' pipe will drain back each dose if a
Syphon break hole:	No check valve is not included. I recommend one but it is not necessary by code.

Rod Reading at Flags (fill or deepened as needed)

MAN: hold

A	1.8 deepen	2.25	2.3	2.35 mean 2.2	1.9	1.8 deepen
B	2.3	2.75	2.6	2.6 mean 2.5	2.15	2.1 little deeper
C	2.5	fill 2.95	2.65	2.7 mean 2.6	2.35	2.6
D	2.95	3.25		3.05 mean 3.0	3.05	2.9

Thabet Combination 244-246 Calculation

Line	Color	Length	Elevation	Hole Size	Head	Flow/hole	Flow/Line	Hole spacing	# Holes/Lne
				inches	feet	g/min	gpm	feet	
A	Blue	60+60	97.8	5/32	2.3	.437	6.1	8.6	14
B	white	"	97.5	5/32	2.6	.464	6.0	9.2	13
C	red	"	97.4	5/32	2.3	.437	5.7	9.2	13
D	yellow	"	97.0	5/32	2.7	.473	5.7	10	12
		480					23.5		52

RP 95.3

2.4% gal drain back per loss of elevation 2" and higher

Ground Surface At tank 96.7'

Bottom of tank 91.7'

Elevation Head 97.8 − 91.7 = 6.1

Pressure " 2.7

Friction " 160' X 1.1 X 20% = 2.4

11.2 + 2.2 Contingency = 13.4'

Dosing volume

	range	gpm	PP per
	goal	Min	
	93.6	5.1	
	187.2	10.2	

Vdose = Vsupply + 5(Vlaterals)

(1.80 X 16.2) + 5(4.8 X 6.4) = 182.8 ✓

Check valve = Vstorage = Vsupply + V. laterals

= 59.9 gals

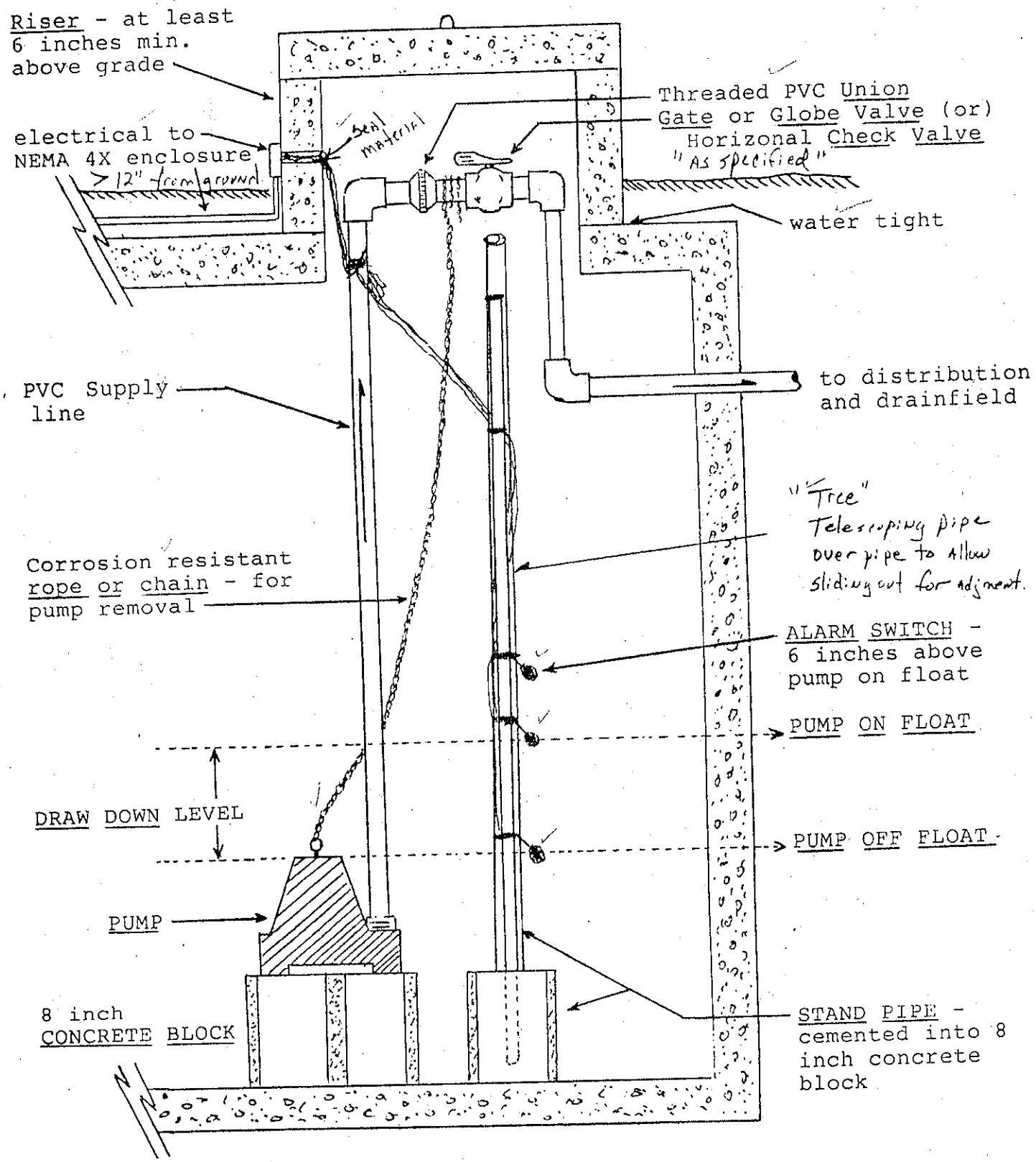
360 GPD X .25 = 90 59.9 < 90 ∴ No check need

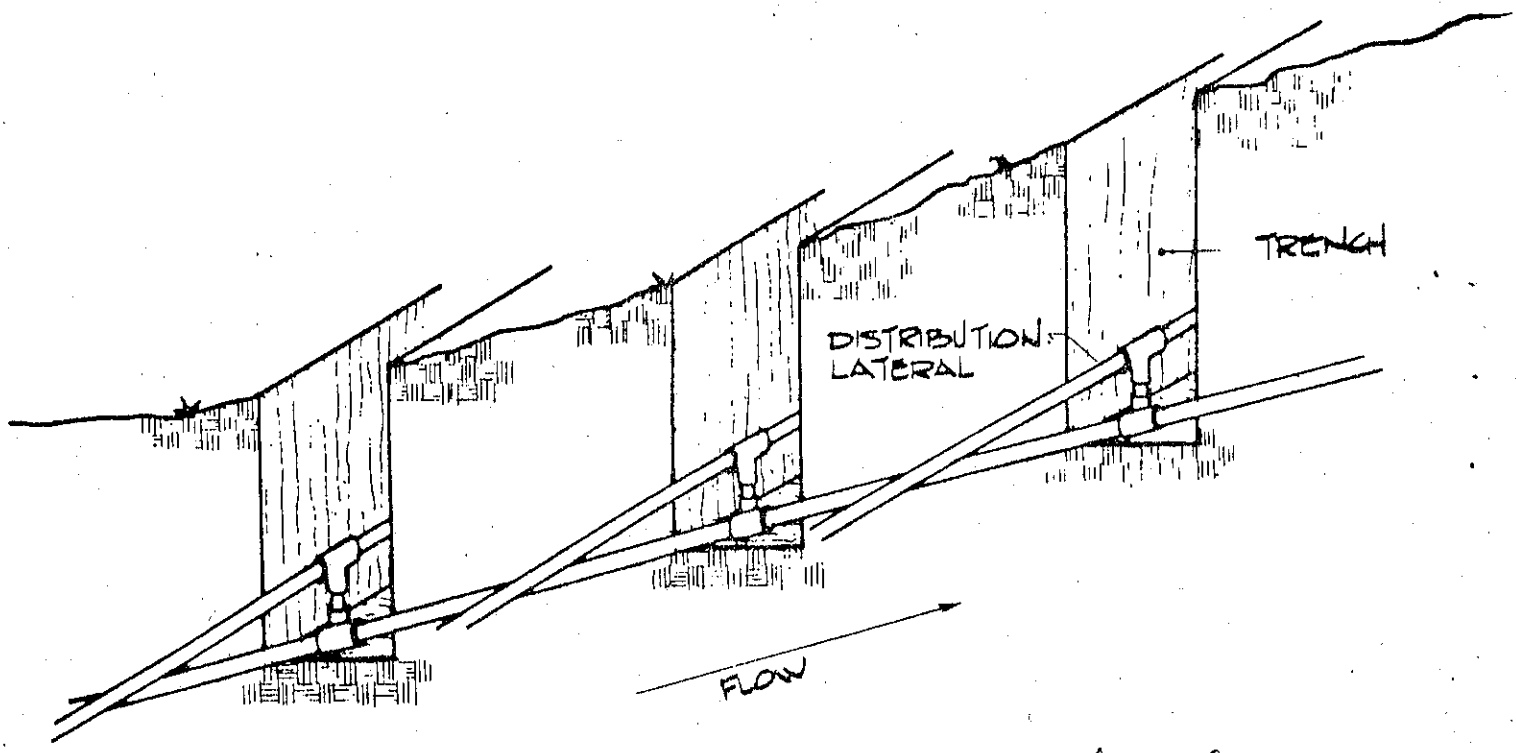
Run time 183 gal ÷ 23.5 = 7.8 min

X sectional Area check

2 X 1.22 = 2.44 X .7 = 1.7 < 3.14 OK

PUMP DIAGRAM



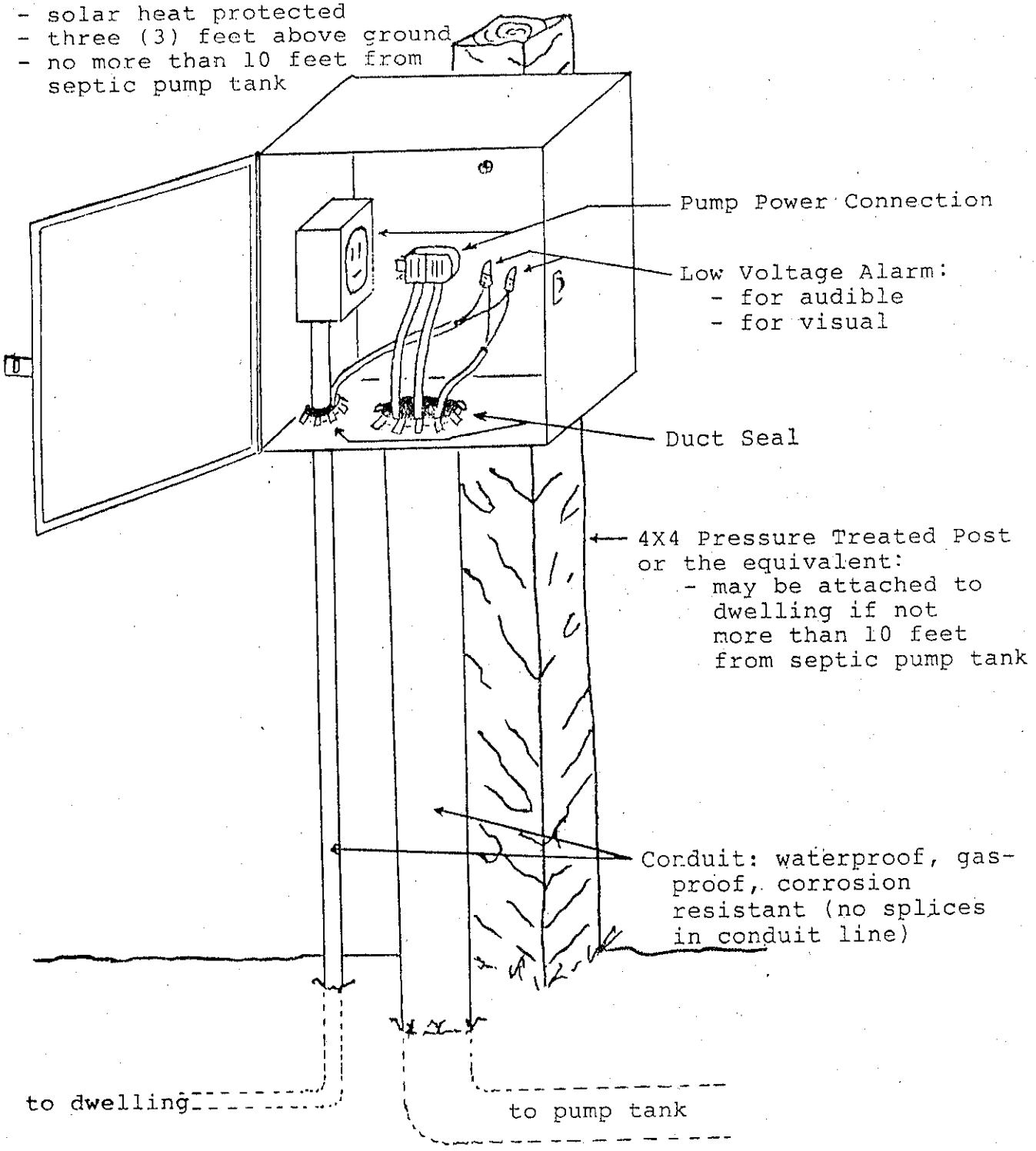


A. PUMPING UPHILL

from Cogger et al, 1982)

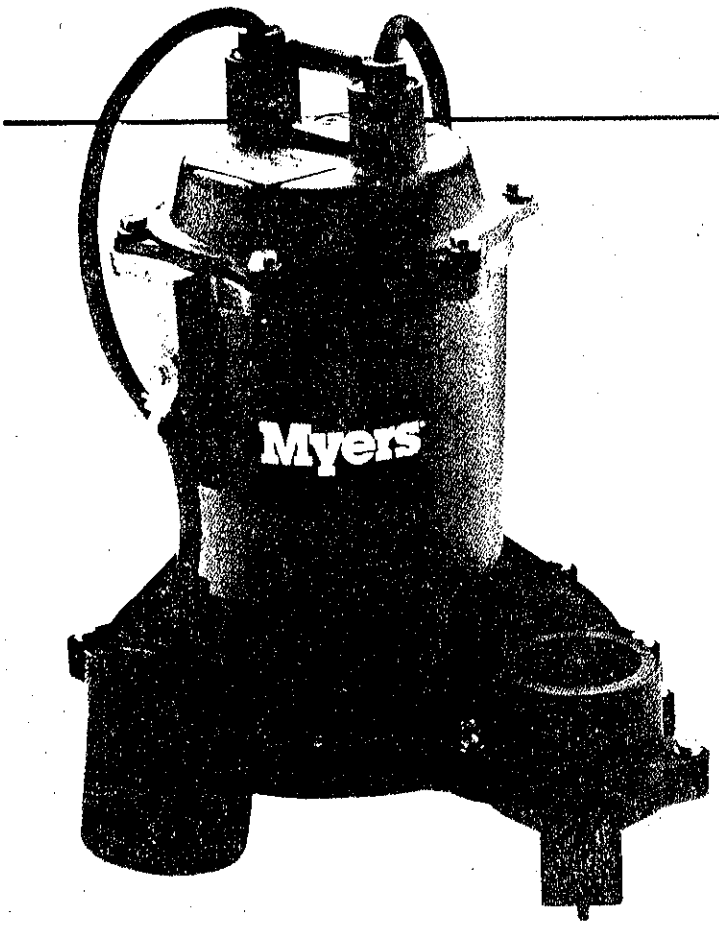
NEMA 4X ENCLOSURE must be:

- water tight
- corrosion resistant
- solar heat protected
- three (3) feet above ground
- no more than 10 feet from septic pump tank



ME40 SERIES

4/10 HP Effluent
and Drain Water Pumps



THE MYERS ME40 SERIES EFFLUENT PUMPS ARE ONE OF THE MOST EFFICIENT 4/10 HP EFFLUENT PUMPS ON THE MARKET TODAY. The enclosed two vane impeller provides the flow and head required for today's dosing systems and the many tough drainage applications. The ME40 is constructed of only the highest quality corrosion resistant materials — like cast iron, stainless steel and thermoplastics — for many years of service in the harsh effluent environment. The ME40 is available in automatic models with built-in mechanical float switch or manual models for use with external controls for precise dosing. For more information, call your Myers distributor today or the Myers Ashland, Ohio sales office at 419/289-1144.

ADVANTAGES BY DESIGN

TWO VANE IMPELLER DESIGN PROVIDES MAXIMUM DOSING EFFICIENCY

- Enclosed design for high efficiency pumping.
- Eliminates possibility of jamming between impeller and volute.
- Passes a full ¾ inch solid.
- Original performance can be restored if wear occurs by replacing volute seal ring.

DURABLE MOTOR WILL DELIVER MANY YEARS OF RELIABLE SERVICE

- Oil-filled motor for maximum heat dissipation and continuous bearing lubrication.
- Overload protected, shaded pole motor eliminates starting switches and relays which are prone to fail.

THE ME40 IS DESIGNED FOR MANY YEARS OF MAINTENANCE FREE OPERATION

- Positive sealing, quick connect float and switch cords make replacement simple if service is ever necessary.
- Field tested, wide angle, mercury-free mechanical float switch provides maximum draw down. (Automatic models only.)

PRODUCT CAPABILITIES

Capacities To	60 GPM	227 LPM
Heads To	32 ft.	9.75 m
Max. Spherical Solids	¾ in.	19 mm
Liquids Handling	domestic effluent & drain water	
Intermittent Liquid Temp.	up to 140° F	up to 60° C
Motor Electrical Data	4/10 hp. 1600 rpm shaded pole, oil-filled 115 volts, 11.5 amps, 1 ph, 60 Hz 230 volts, 5.8 amps, 1 ph, 60 Hz	
Third Party Approvals	Pending	
Acceptable pH Range	6-9	
Specific Gravity	.9-1.1	
Viscosity	28-35 SSU	
Discharge, NPT	1½ in.	38.1 mm
Min. Sump Dia. Simplex Duplex	24 in. 36 in.	61 cm 91.4 cm

Construction Materials	
Motor Housing	cast iron, Class 30, ASTM A48-76
Impeller	enclosed, engineered thermoplastic
Impeller Wear Ring	304 SST
Volute	thermoplastic
Volute Sealing Ring	Buna-N
Power Cord	10 or 20 ft. 16/3 SJOW/SJOW-A
Mechanical Shaft Seals	carbon & ceramic
Fasteners	300 Series SST

WHERE INNOVATION MEETS TRADITION

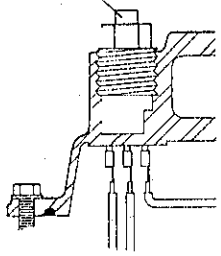
Myers®

ME40 SERIES

4/10 HP Effluent
and Drain Water Pumps

POWER & FLOAT CORDS
Quick-connect, watertight fittings are interchangeable, replaceable from pump exterior.

PLUG
Replaces switch assembly for manual operation.



MECHANICAL FLOAT SWITCH
Mercury-free, 90° angle operation.

MOTOR HOUSING
Cast iron for efficient heat transfer.

OVERLOAD SWITCH
Built-in to protect against overload conditions.

4/10 HP MOTOR
1600 rpm, 60 Hz, 115 or 230V, single phase. Oil-cooled and lubricated.

ROTARY SHAFT SEAL
Carbon, ceramic faces.

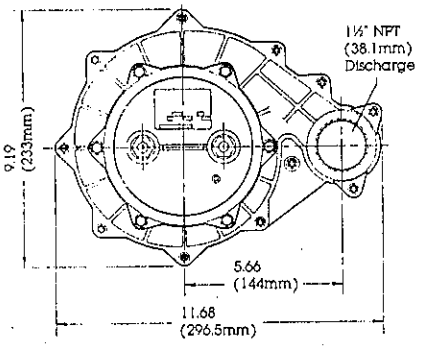
VOLUTE/IMPELLER SEAL RING
Maintains high efficiency and reduces recirculation, replaceable.

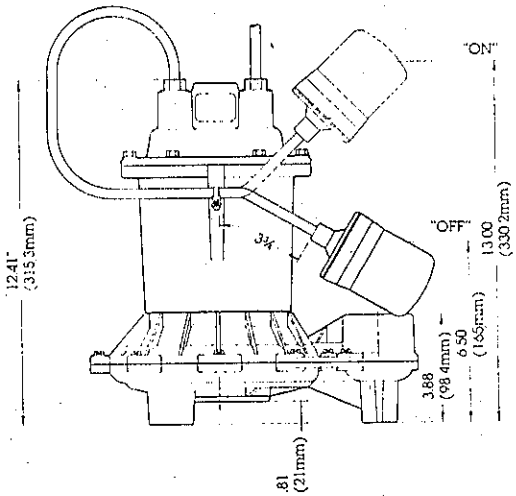
ENCLOSED TWO VANE IMPELLER
High efficiency, passes ¾" spherical solids, with stainless steel wear ring.

HIGH EFFICIENCY ABS VOLUTE
Corrosion resistant. Passes ¾" spherical solids. 1½" NPT discharge.

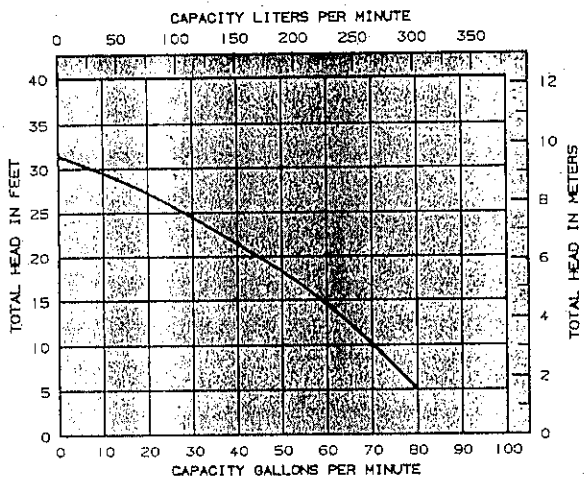
THRUST WASHER, SLEEVE BEARINGS
Enhance smooth operation and extend pump life.

DIMENSIONS





PERFORMANCE CURVE



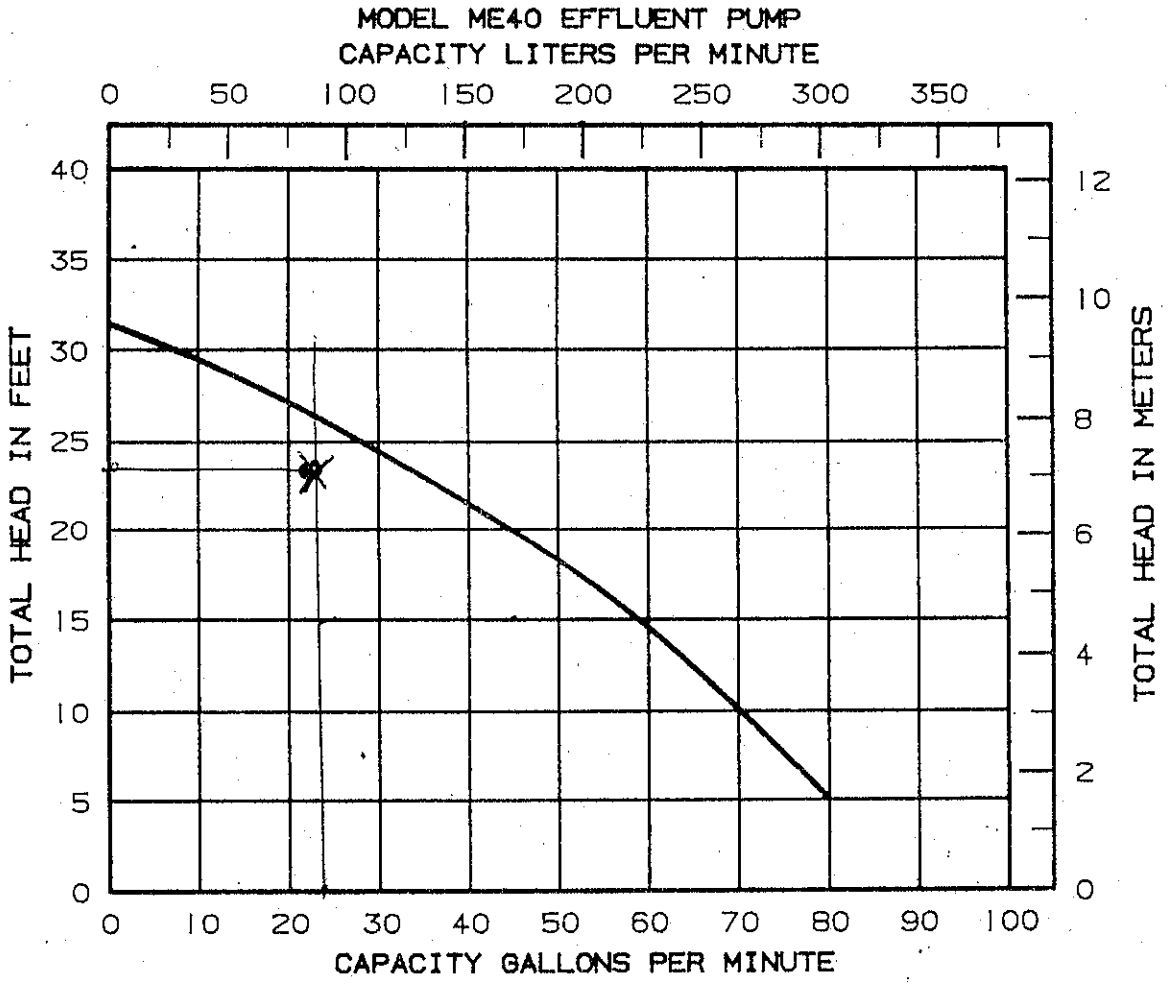
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Myers®

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Ashland, Ohio 44805-1923

419/289-1144
FAX: 419/289-6658, TLX: 98-7443

ME40 Series 4/10 HP Effluent and Drain Water Pumps Performance Curve



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