

APPLICATION FOR AN ON-LOT SEWAGE DISPOSAL SYSTEM PERMIT

PART I - APPLICANT AND SITE INFORMATION

1. Applicant Name <u>David Patricia Shupe</u> Address <u>46 Parkdown Realty Agent for</u> <u>PO Box 62, Huntingdon PA 16652</u> Telephone No. Day () _____ Evenings () _____	2. Site Address _____ Street, RR, Box, No. Post Office <u>Jacks Mt.</u> State _____ Zip <u>34</u> Subdivision Name <u>CMS</u> Lot No. _____ Municipality <u>Hunt.</u> County _____
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Directions to the Site: Lot # 34 Jacks Mt Subdivision.

3. Lot Size <u>0.17 Acres</u> sq. ft./acres	4. TYPE OF FACILITY TO BE SERVED BY THIS SYSTEM
Type of System <input checked="" type="checkbox"/> New <input type="checkbox"/> Repair	Single Family Residential <input type="checkbox"/> Multifamily <input type="checkbox"/> No. of Bedrooms <u>3</u> Commercial <input type="checkbox"/> gal./day _____
5. Facility Water Supply: Public <input type="checkbox"/> Well <input checked="" type="checkbox"/> Spring <input type="checkbox"/> Cistern <input type="checkbox"/> Surface <input type="checkbox"/>	
6. Distance to the nearest existing or proposed Private Water Supply (on or off the property) <u>100</u> ft.	

PART II LOCAL AGENCY USE ONLY

SEWAGE PLANNING	SITE SUITABILITY ANALYSIS	APPLICATION STATUS
<input checked="" type="checkbox"/> Approved Planning Mod. DER Code No. _____ (date) _____ <input type="checkbox"/> Area Not Planned (not created before May 15, 1972) <input type="checkbox"/> Limitations in Effect	Soil Series <u>Berks</u> Slope <u>8</u> % Type of Limiting Zone <u>ECF</u> Depth of Limiting Zones <u>22</u> inches	Percolation Rate <u>95</u> min/in. Site is: <input type="checkbox"/> Suitable for in ground system. <input checked="" type="checkbox"/> Suitable for elevated system. <input type="checkbox"/> Unsuitable
FEES PAID Application \$ <u>250</u> Testing <u>125</u> Inspection(s) <u>25</u> Other _____ Total \$ <u>400</u>		ACTION DATE <input checked="" type="checkbox"/> Complete Application Received <u>7-17-96</u> <input checked="" type="checkbox"/> Permit Issued <u>7-20-96</u> <input type="checkbox"/> Permit Denied _____ <input type="checkbox"/> Interim Inspection _____ <input type="checkbox"/> Interim Inspection _____ <input checked="" type="checkbox"/> Final Inspection Approved <u>8-30-96</u> <input type="checkbox"/> Disapproved - SEO Initials _____ <input type="checkbox"/> Revoked Permit <u>11-30-96</u>

PART III PLOT PLAN AND SYSTEM DESIGN

1. TANKAGE Total Tank Capacity <u>1000</u> gal Number <u>1</u> <input checked="" type="checkbox"/> Septic Tank(s) <input type="checkbox"/> Aerobic Tank(s) <input type="checkbox"/> Chemical Toilet <input type="checkbox"/> Composting Toilet <input type="checkbox"/> Incinerating Toilet <input type="checkbox"/> Recycling Toilet <input type="checkbox"/> Holding Tank <input type="checkbox"/> Vault Privy	2. SOIL ABSORPTION SYSTEM Total Absorption Area <u>1218</u> Sq. Ft. <input type="checkbox"/> Standard Trench <input type="checkbox"/> Elev. Sand Trench <input type="checkbox"/> Seepage Bed <input checked="" type="checkbox"/> Elev. Sand Bed <input checked="" type="checkbox"/> Pressure Dose <input type="checkbox"/> Subsurf. Sand <input type="checkbox"/> Alternate _____ <input type="checkbox"/> Experimental _____	3. ATTACH THE FOLLOWING DOCUMENTATION a. A copy of the Form ER-BWQ-290 Appendix A (and B when required) (See Part II) b. A detailed plot plan and sewage system design (including plan reviews and cross sections). See the instructions on the reverse side for required details. Indicate the number of attached sheets <u>12</u> To the best of my knowledge the design of the system to be installed on this property complies with the Technical Standards at 25 Pa Code Chapter 73. Designer's Signature <u>See design by Judy Pasquero</u> Submission Date _____ P.E. Registration or S.E.O. Certification No. _____
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PART IV SIGNATURES

I am the owner of record (or the authorized agent of the owner) of the lot described in Part I of this application. I intend to install an on-lot sewage system on this property. The information provided as part of this application is true and correct to the best of my knowledge. I understand that providing false information in the application is subject to the penalties of 18 PA C.S.A. §4904, relating to unsworn falsification to authorities. Submission of this form grants authorized representatives from the local agency and/or Department of Environmental Resources access to the lot to inspect and conduct tests of 1) the site; 2) the system and structures under construction; 3) the completed sewage system; and, 4) the operational status of the system.

Property Owner's Signature David Patricia Shupe Date 4/5/96
The information in this application is true and correct to the best of my knowledge.
Enforcement Officer Signature Bony Parks Date 7-20-96 Certification No. 2373

ON-LOT SEPTIC SYSTEM DESIGN
PRESSURE-DOSED SANDMOUND BED

SEO
717-426-3826

DATE: July 14, 1996

APPLICANT: Lara & Ronald Ramey 563 W. Market St

APPLICATION NUMBER: _____
Marietta, Pa

MUNICIPALITY: Casa 17547

COUNTY: Huntingdon

SUBDIVISION/LOCATION: Lot # 34 Jacke Mt Dr.

SITE EVALUATION DATA:

****NOTE:** This design was based on information pertaining to slope, elevation, soils, and percolation rate as shown on the site investigation report which is attached. The Designer takes no responsibility for the site evaluation.

DESIGN CRITERIA:

Slope: 8%
Percolation Rate: 95 Minutes per inch
No. of Bedrooms: 3 (400) gpd Flow
Limiting Zone Depth: 22 Inches

SYSTEM COMPONENTS/SPECIFICATIONS:

Septic Tank Capacity: 900 gallons

Absorption Area:
Area Required: 1162 sq. ft.
Area Provided: 1218 sq. ft. 21 x 58
Minimum Depth of Sand: _____ inches

Minimum Diameter of Manifold: 1 1/2 inches

Lateral Selection:
Length of Lateral: 27 ft.
Number of Holes per Lateral: 5 holes
Hole Diameter: 1/4 inches

****NOTE:** Lateral Cleanouts are required at the end of each Lateral

Prepared by: Judith L. Passmore

Judith L. Passmore

HC 01 Box 6E
Todd, Pa. 16685
SEO #02041

****HOMEOWNER & INSTALLER,** please read all attached information pertaining to installation and isolation distances.

SITE INVESTIGATION AND PERCOLATION TEST REPORT FOR ON-LOT DISPOSAL OF SEWAGE

Application No. _____ Municipality CASS County HUMB
 Site Location _____ Subdivision Name WACKS MD LOT 34
 PROBS SUITABLE Soil Type CALVIN Slope 8 % Depth to Limiting Zone 22 Ave. Perc. Rate 95
 UNSUITABLE Mottling Seeps or Pounded Water Bedrock Fractures Coarse Fragments Perc. Rate
 Slope Unstabilized Fill Floodplain Other _____

INSTRUCTIONS FOR COMPLETION OF THIS FORM ARE LOCATED ON THE REVERSE

SOILS DESCRIPTION:
 Soils Description Complete by: RVP Date: 5-18-96

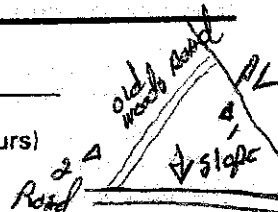
Inches	Description of Horizon	Depth to Limiting Zone
<u>8 1/2</u> TO <u>20</u>	<u>weak brown shaly clay loam 35% CF</u>	<u>22</u> inches
<u>20</u> TO <u>24</u>	<u>weak reddish brown shaly clay loam 35% CF ECP > 24"</u>	
TO _____	_____	
<u>0</u> TO <u>22</u>	<u>weak brown shaly clay loam 35% CF ECP > 22"</u>	
TO _____	<u>PROBS OK FOR ELEVATED SYSTEM IF PERK OK</u>	

PERCOLATION TEST:

Percolation Test Completed by: RVP Date 7-3-96

Weather Conditions: Below 40°F 40°F or above Dry Rain, Sleet, Snow (last 24 hours)

Soil Conditions: Wet Dry Frozen



Hole No.	Yes	No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7: Inches of drop	Reading No. 8: Inches of drop
1			10/30	5/8	5/8	5/8	5/8				
2			10/30	1/4	1/4	1/4	1/4				
3			10/30	1/4	1/4	1/4	1/4				
4			10/30	2	2	2	2				
5			10/30	2	2	2	2				
6			10/30	2	2	2	2				

***Water remaining in the hole at the end of the final 30 minute presoak? Yes, use 30 minute interval; No, use 10 minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	5/8	240	17"
2	1/4	120	17"
3	1/4	120	17"
4	2	15	17"
5	2	60	17"
6	2	15	17"
TOTAL OF MIN / IN →		<u>570</u>	= <u>95</u> Min / Inch
TOTAL NO. OF HOLES →		6	

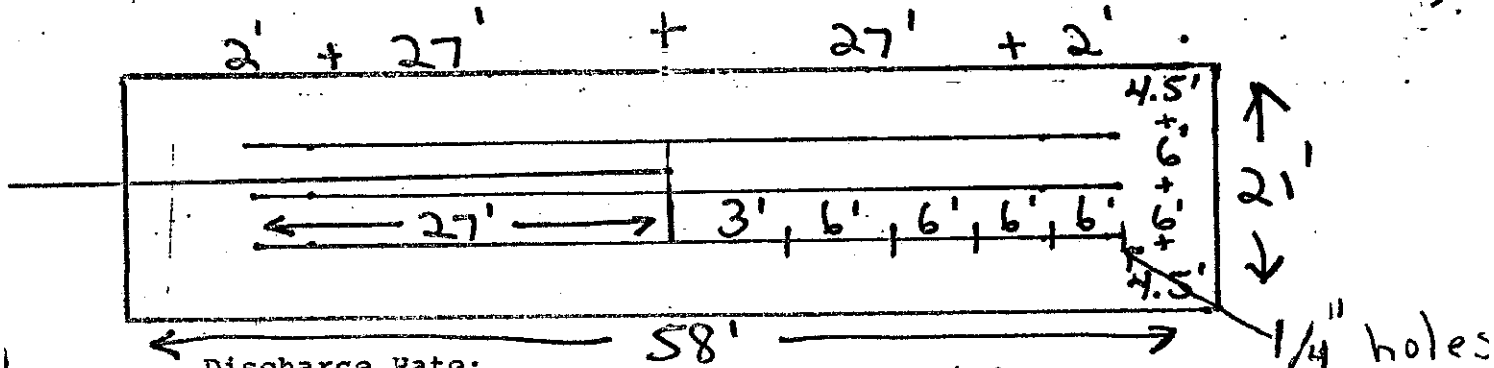
The information provided is the true and correct results of tests conducted by me, performed under my personal supervision, or confirmed in a manner approved by the Department.

(S) RVP
 Sewage Enforcement Officer

Min. 26" approved sand
with min. 10" clean 2B
over

delivery lateral
a manifold
1 1/2" PVC

Sketch of Manifold and Lateral Placement:



Discharge Rate:

Total Number of Holes: 6 Laterals x 5 Holes per Lateral = 30

Discharge rate per Hole: 1.3 gallons per minute

Minimum Discharge Rate for the system:

30 Holes x 1.3 gallons per minute per hole = 39 gpm. total of ele

1/4" holes drilled in bottom with last in swe of ele

Elevation Change:

Depth to bottom of Dosing Tank: 6.5 ft.

Natural Elevation Change-

Dosing Tank to Absorption Area: 6 ft.

Required Depth of Sand: 2.17 ft. (26) in.

Depth of Aggregate below Manifold: +0.5 ft.

Height of Pump In-Take above tank bottom: -0.5 ft.

TOTAL ELEVATION CHANGE: 14.67 ft.

Cross-section of Dosing system:

SEE Attached

**NOTE: Delivery line must surface beneath soil berm not through sand.

Friction Loss Calculations:

Delivery Line Diameter: 1 1/2 in.

	#FITTINGS	FRICITION LOSS	TOTAL LOSS
Delivery line-----	NA	<u>80</u>	<u>80</u>
90 degree bend-----	<u>2</u>	<u>4.73</u>	<u>9.46</u>
45 degree bend-----	<u>2</u>	<u>2.01</u>	<u>4.02</u>
Coupling-----	<u>8</u>	<u>1.05</u>	<u>8.40</u>
Quick disconnect---	<u>1</u>	<u>1.05</u>	<u>1.05</u>
Check valve(if used)-----			
Diversion tee-----	<u>1</u>	<u>8.63</u>	<u>8.63</u>
		TOTAL FRICITION LOSS-----	<u>111.56</u>

Using a flow of 39 gpm., creating a friction factor of 7.30 ft/100ft.

TOTAL FRICTION LOSS: 7.30 ft. x 11.56 ft./100ft. = 8.14 ft.

Total Head for Pump:

Elevation Change:-----14.67 ft.
Friction Loss:-----8.14 ft.
Design Head Maintained at Lateral End:--3 ft.
TOTAL HEAD REQUIRED-----25.81 ft.

Pump Size:

Capacity:-----30 gpm.
Total Head:-----26 ft.

Pump Selection:

Manufacturer: Goulds
Model Number: 3885-W#0511

**NOTE: A pump capable of equivalent performance may be substituted upon approval by the S.E.O. A pump curve must be presented to the S.E.O. at the Final Inspection.

Minimum Dose Volume:

	DIAMETER (in.)	GALLONS/ft.	LENGTH (ft.)	TOTAL (gal.)
Delivery line--	<u>1 1/2</u>	<u>.09</u>	<u>80</u>	<u>7.20</u>
Manifold-----	<u>1 1/2</u>	<u>.09</u>	<u>12</u>	<u>1.08</u>
Laterals ^{slain} _{out} -----	<u>1 1/2</u>	<u>.09</u>	<u>171</u>	<u>15.39</u>

Minimum Dose = 23.67 gallons total volume x 5 = 118 gallons

Dosing Tank Requirements:

Tank Size = Minimum dose x 2 + space for wiring = 300 gal.
Tank Selected: Keystone Tank Number 575

**NOTE: An Equivalent may be substituted with approval by the S.E.O. The S.E.O. will verify the dose volume at the Final Inspection.

Volume per inch of Depth = 11 gallons/inch
Depth of Dose = 11 gallon minimum dose / 118 gal./in. = 11 in.

Float Levels:

Pump off level = 16 inches from the tank bottom
Pump on level = depth of dose + depth below pump off level

Pump on level = 27 inches from the tank bottom
Alarm level = Pump on level + 25% of total depth
Alarm level = 30 inches from bottom

Location sketch: (not to scale) ***see attached

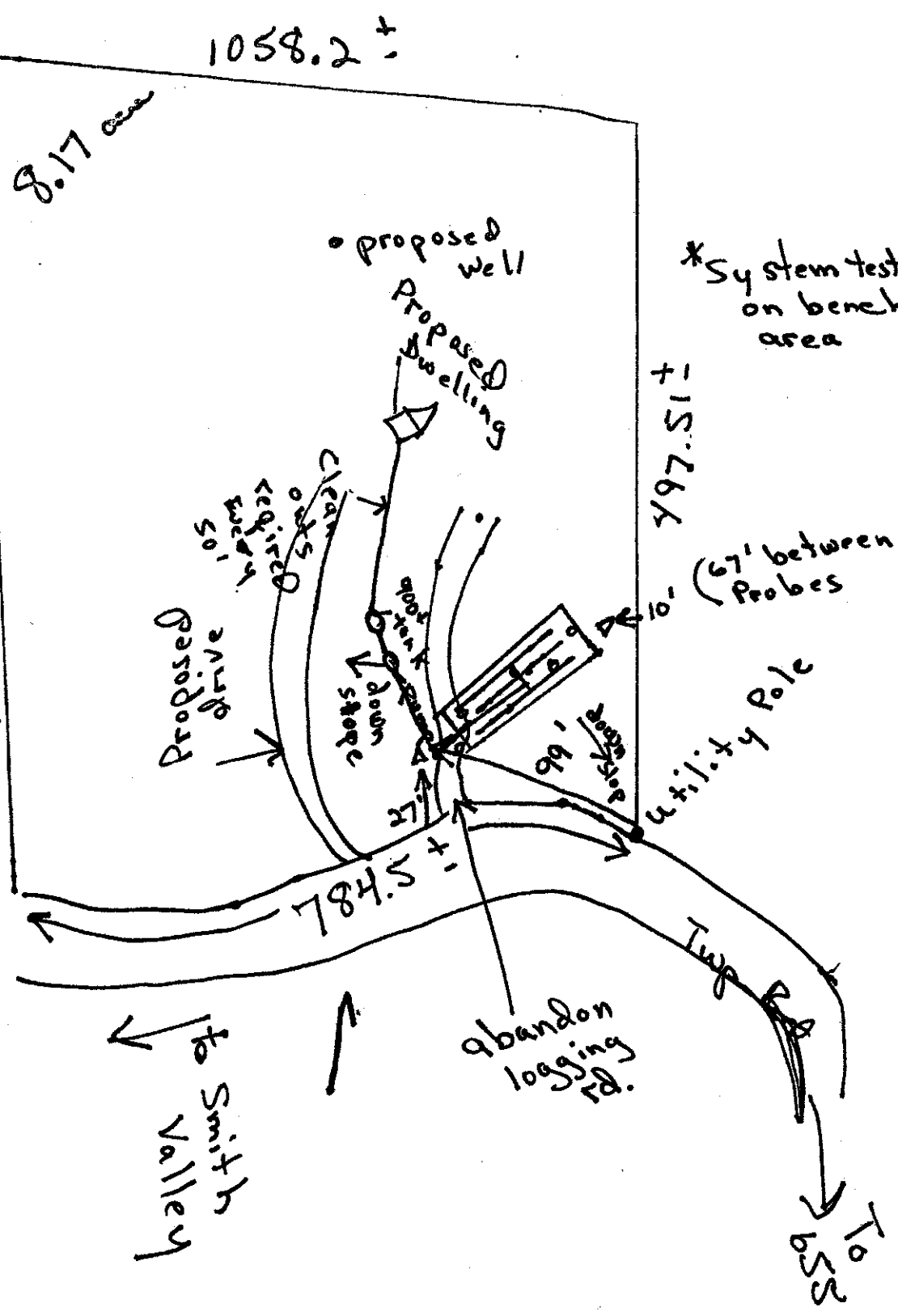
NOT
To Scale

Range
#34
Jacks Mt
Dev.

* System must be
installed over
SEO tested
area

* System tested
on bench
area

All wells must
be min 100' from
systems & 50'
from tanks.



Bulletin CL21A

July 8, 1983

GOULDS Model 3385

Superior Model 3370

Submersible Effluent Pumps

Pump Specifications

Solids Handling Capability to 2" NPT.
Discharge Size 2" NPT.
Semi-Open Impeller.
3 vane design, threaded on shaft. Three phase units use impeller (optional) to prevent accidental back-cut. Pump not sealed on outside of impeller for protection of mechanical seal.

Casing

Volume type for maximum efficiency.
Stainless Steel Fasteners
Series 300 stainless steel for corrosion resistance.

Mechanical Seal

Ceramic vs. Carbon sealing faces, stainless steel spring and Buna N elastomer.

Maximum Temperature

160° F.

Capability of Running Dry

without damage to components.

Motor Specifications

Motor Fully Submerged
in high grade turbine oil for permanent lubrication of bearings and mechanical seal and efficient heat dissipation. Motor sealed from environment by rugged cast iron enclosure.

Bearings

Heavy-duty all ball bearing construction.

Stainless Steel Shaft

Series 300 stainless steel for corrosion resistance. Threaded shaft.

Single Phase Units

All single phase units have built-in thermal overload protection with automatic reset.

Three Phase Units

Overload protection in motor unit. 208-230 or 480 volts. Threaded shaft for Hz operation.

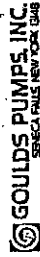
Power Cord

Water and oil resistant. Epoxy seal on motor end acts as a secondary moisture barrier in case of damage to outer jacketing. Corrosion resistant gland nut.

Single Phase Units

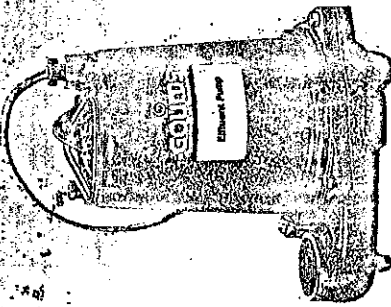
1/2, 3/4 H.P. models equipped with 15' of SUTCO with 5-prong grounding plug. 1, 1 1/4 H.P. models equipped with 15' of M3 STO power cord.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

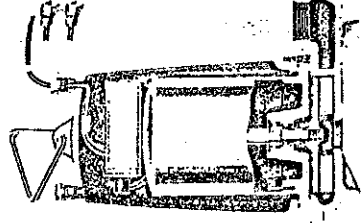


- For Homes
- Farms
- Trailer courts
- Motels
- Schools
- Hospitals
- Industry
- Effluent Systems

anywhere effluent or drainage must be disposed of quickly, quietly and efficiently.

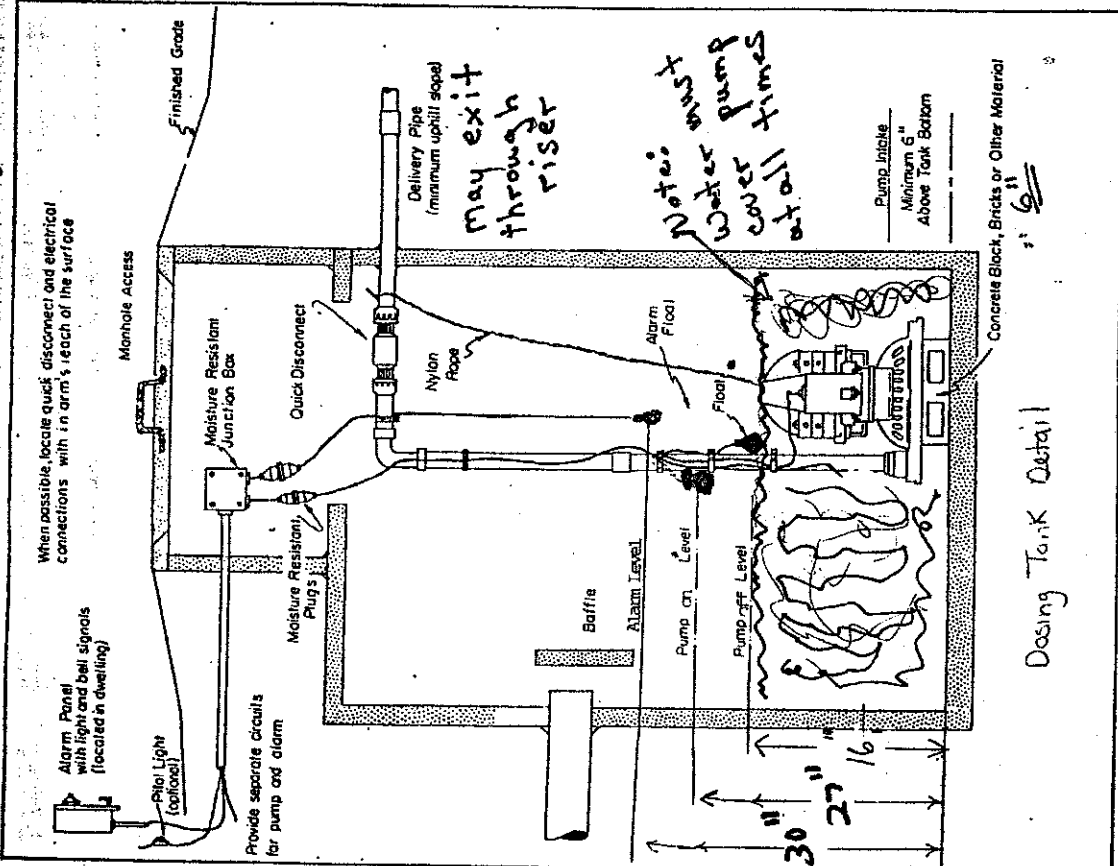
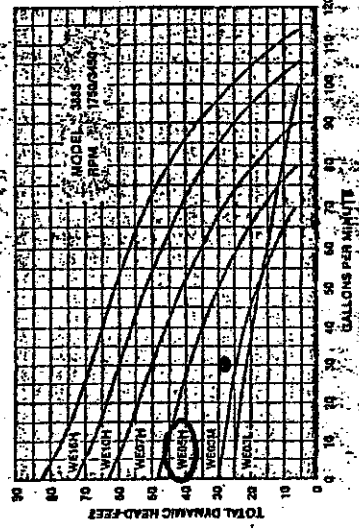


Heavy-Duty Solids Handling Dependable Capability to 2"



- 1/2, 3/4, 1, 1 1/4 H.P. 60 Hz Single Phase 230 Volt, Three Phase 208-230, 480 Volt.

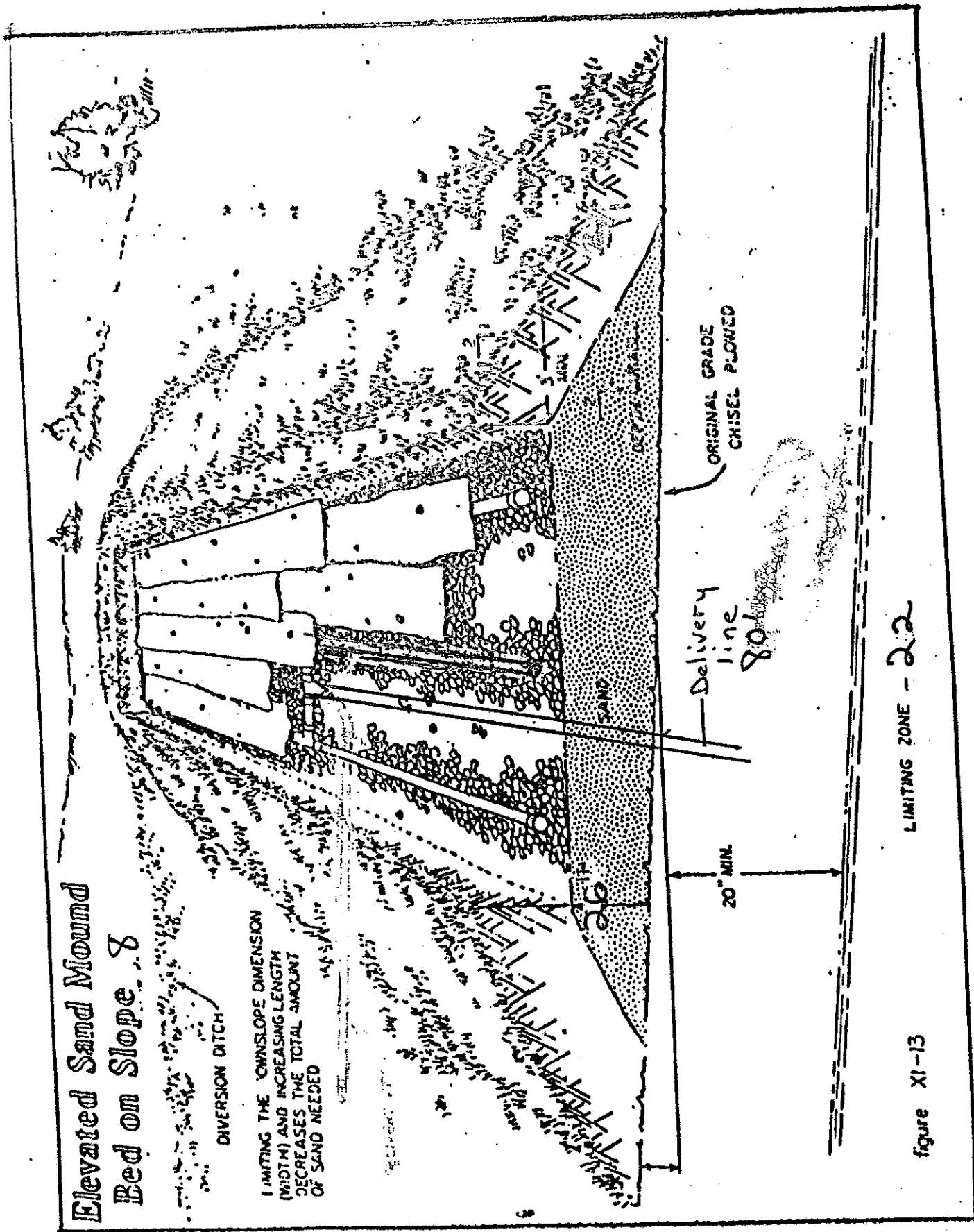
If pump other than Goulds is used... S.E.O. must exceed pump curve. Excess of 1 ft. of head.



Elevated Sand Mound Bed on Slope. 8

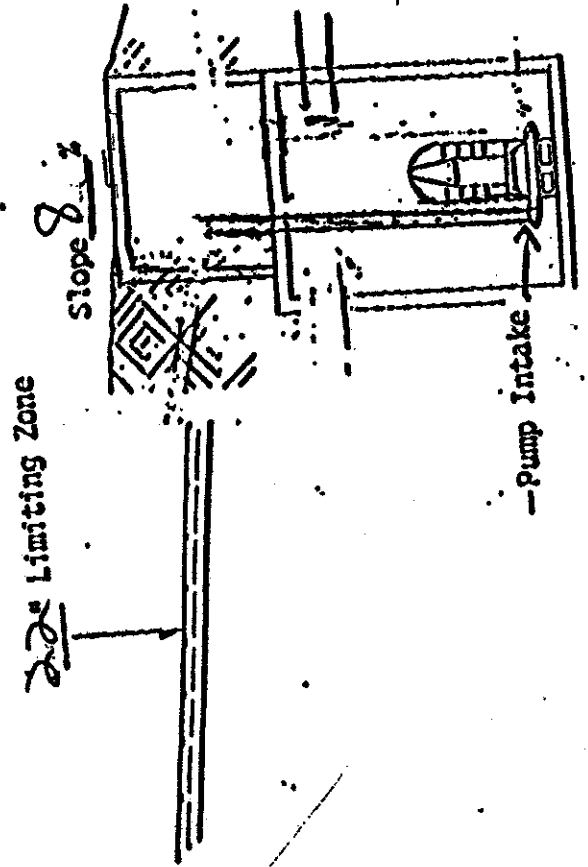
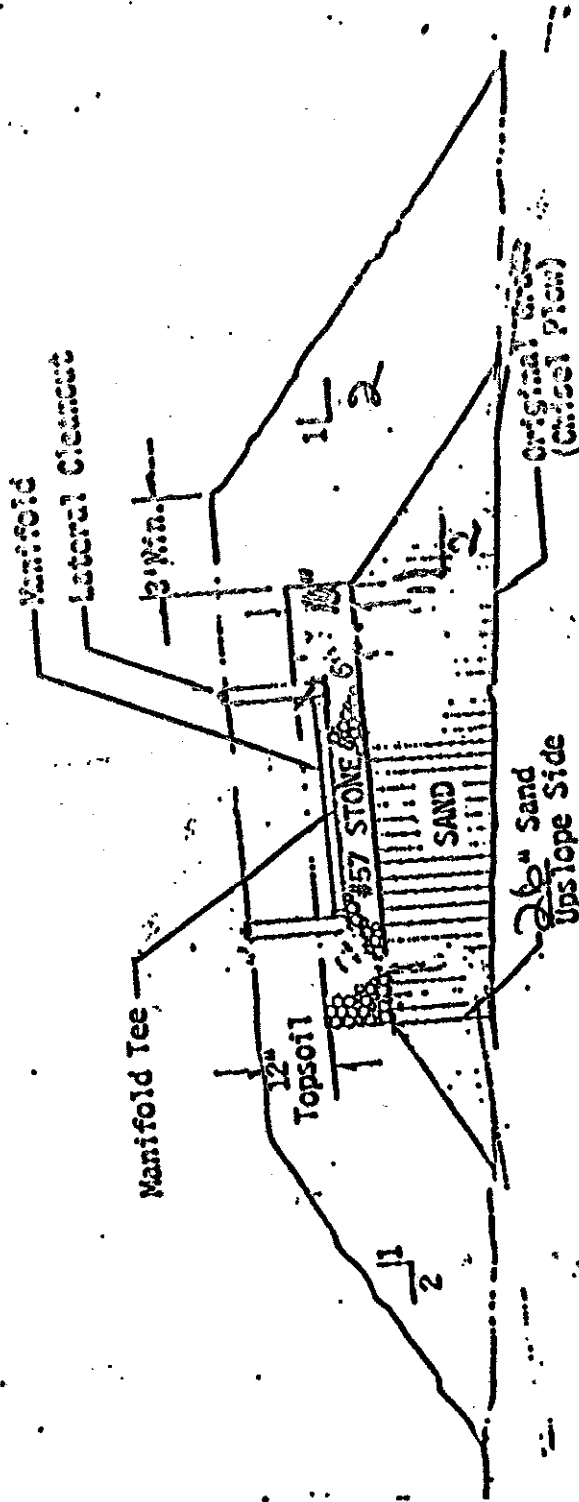
DIVERSION DITCH

LIMITING THE SLOPE DIMENSION
(WIDTH) AND INCREASING LENGTH
DECREASES THE TOTAL AMOUNT
OF SAND NEEDED



LIMITING ZONE - 22

figure XI-13



Tank will be down slope but will enter from end

NOTE: Design based on 80 feet of pipe from pump intake to manifold tee.

JUSTIFICATION FOR ALTERNATE ELEVATED SANDMOUND BED

The design attached proposes the use of an *alternate* elevated sandmound bed designed with 1/4 inch holes for the purpose of preventing the clogging, sometimes associated with 3/16 inch holes.

PREPARED BY: Judith L. Passmore-Certification #2041
HC 01 Box 6E
Todd, PA 16685
814-448-9237

******NOTE:**

Alternate sewage systems must meet specifications of section 73.72.

****SPECIAL NOTE:**

Each application for a alternate system shall be accompanied by a statement acknowledging the requirement that the Sewage Enforcement Officer be notified of an malfunction or modification of the original system design.