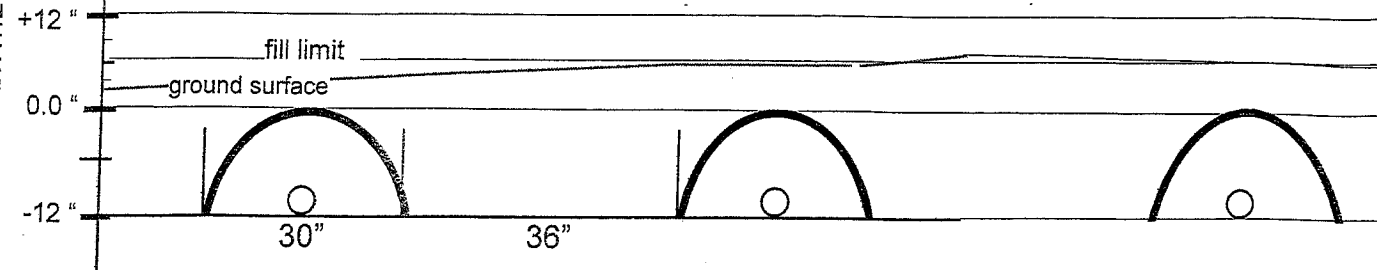


DISPOSAL FIELD PLAN
Scale: 1" = 10 ft

LOCAL CONTROL:
TOP of STEMWALL
EST. = + 24"

ELEV - INCHES BELOW CONTROL 0.0 ft



DISPOSAL FIELD SECTION
Infiltrator - Section

INVERT OF DISPOSAL
FIELD

-48" IMPERVIOUS LAYER

Elev. (local control)

EXISTING GROUND
SURFACE

FILL LIMIT

ORIFICE SPACING 18"-24"- TOTAL 112

Infiltrator Void

1.5" pvc DR 21 lateral

DISPOSAL SECTION
Scale: 1" = 5 ft horiz



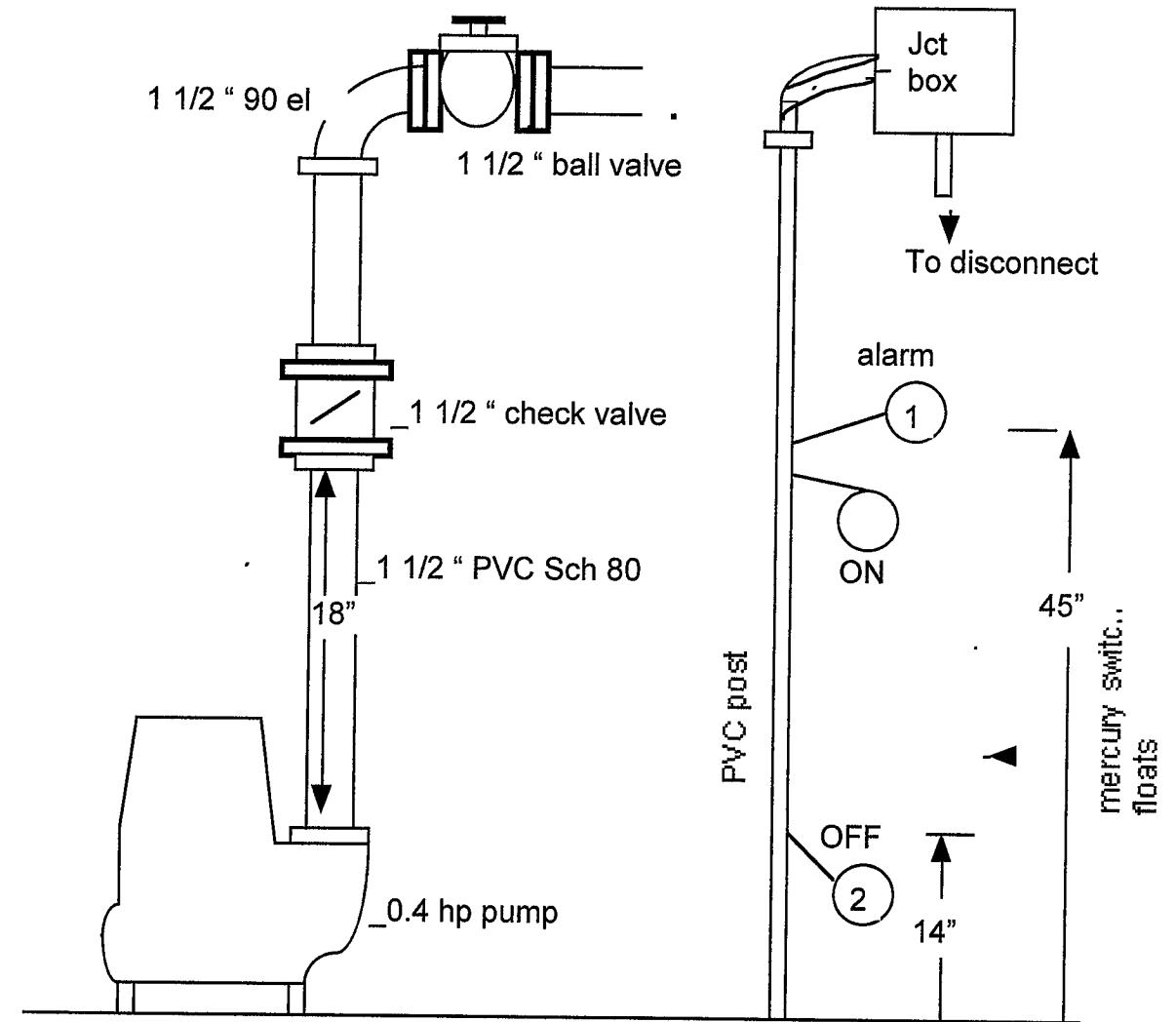
Project: #2006-2296
Location: 40 Bunker Rd., Copalis
Parcel No. 191115410020
Date: 8-15-08
JG Engineering
P.O. Box 97
Humptulips, WA
98552

Revisions:
1.1-15-08
2. 8/15/08 *As Built*
3.

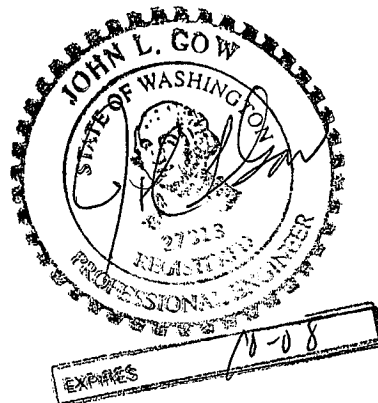
SPECIFICATIONS

All materials installed on this project must meet the qualifications listed by the Washington State Department of Health and Grays Harbor County Health Dept. Questions shall be addressed to the Designer.

1. Septic and pump tanks shall meet the standards set forth by the Grays Harbor County Environmental Health Dept. and be tested and listed.
2. Effluent screen in septic tank shall be Orenco , or approved equal meeting the standards in the WSDOH Guidelines For The Use Of Pressure Distribution Systems.
3. Pump tank shall have a 24-inch diameter riser extending to ground surface for O&M of pump and controls. Riser shall be sealed to prevent water from entering the tank.
4. Pump shall be a septic effluent unit capable of passing 1/2 inch solids. The 0.4 HP units shall develop at least 22 ft TDH while pumping 30 gpm. The unit shall have a lifting mechanism with positioner that shall remain corrosion resistant. Pump shall be approved by the designer prior to installation. The (0.3 - 1.0) horsepower pumps must operate at 115 volts; 2 hp pumps at 230 volts.
5. Pump control floats shall be mounted on a 3/4 inch hard-drawn copper tube or on a 1-1/2 inch PVC DR 21 pipe securely mounted to the tank or pump effluent screen. Floats shall be Mercury switch type, solid polyurethane, leakproof, shockproof and corrosion resistant in domestic sewage. Floats shall be rated for 16 AMPS at 120 volts. Pump operation shall be controlled with a SJE - RHOMBUS double float (P/N 1002038). Pump and in-tank control enclosures shall be NEMA 7, EXPLOSION PROOF, unless pump remains submerged during operation, then INTRINSICALLY SAFE electrical construction is required. A PUMP START event counter shall be installed in the electrical system.
6. Pump Alarm shall be mounted on a pressure treated 4 x 4 , unless approved otherwise, and be equipped with a " RED " alarm light visible for at least 100 feet and an audible horn, with manual silencer.
7. Pump check valve shall be internal flapper type, rated for domestic water use and 150 psi service. The check valve shall be installed 18 inches above the pump outlet in the vertical position.
8. Pump throttle valve shall be bronze gate valve, or PVC Ball valve, rated for domestic water service at 150 psi.
9. Lateral throttle valves shall be PVC ball valve rated for 150 psi service.
10. The pump tank screen, if used, shall be stainless steel or durable plastic, 1/8th inch mesh. The screen shall be secured to the 15 inch pipe with stainless steel clamps, corrosion resistant in domestic sewage. The pump influent screen is not necessary if the septic effluent is screened according to #2 above.
11. Pipe to 5'-0" outside the pump tank shall be PVC Sch 80, of the same size as the pump discharge or larger.
12. Pipe used to transport flow to the header, the header and the laterals shall be PVC , Sch 40 or SDR 21 .
13. Plastic valve box shall be durable polyurethane 15 inches deep with locking lid, Ametech or approved equal.
14. Gravel, if used as the percolation media, shall be 1/2" to 3/4 " washed gravel free of all fines and organic material, and compacted before installation of the lateral pipes. all drainrock shall have been approved for quality by the designer prior to installation.
15. Fill material used on top of the percolation gravel shall be silty loam capable of growing yard grasses. The area over the drainfield shall be seeded with a fast growing grass seed mix.
16. A geotextile used over the lateral trench or bed shall be as approved by the County Health Dept.
17. The percolation media, or gravelless chamber used in the trench or bed, shall be placed in a volume excavated from native soils the entire length of the lateral.
18. The entire operational system shall be tested according to the WAC 246-272 in the presence of the designer and a representative from the County Health Dept.



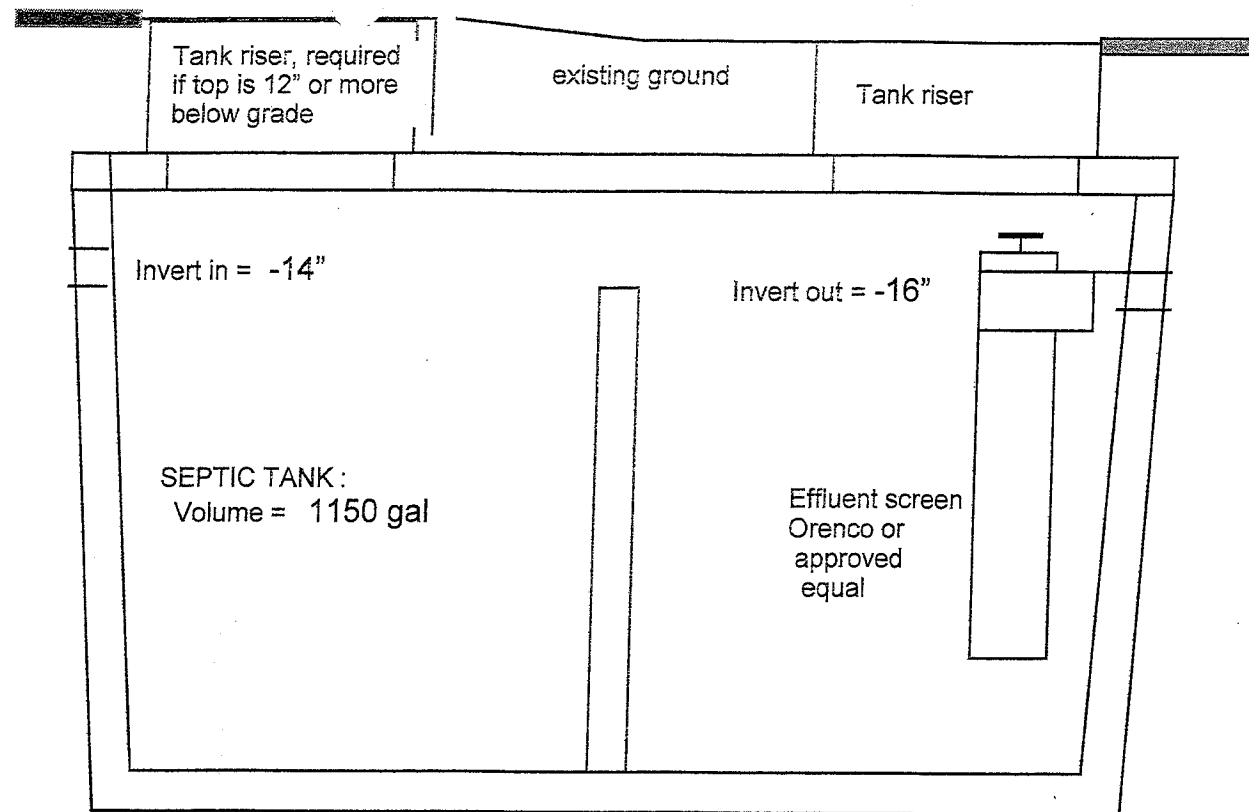
SEWAGE EFFLUENT PUMP



Project: #2006-2296
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Revisions:
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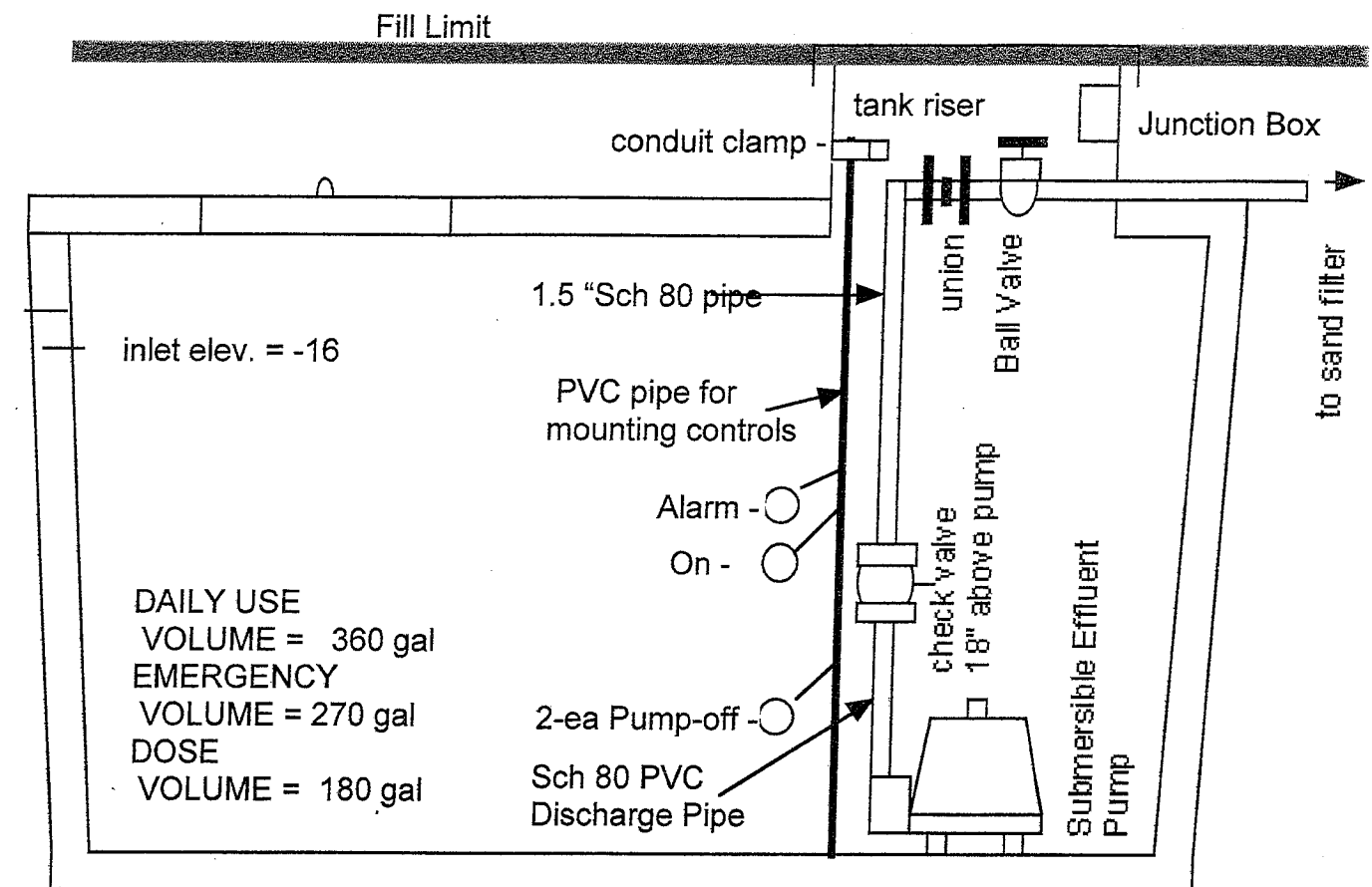
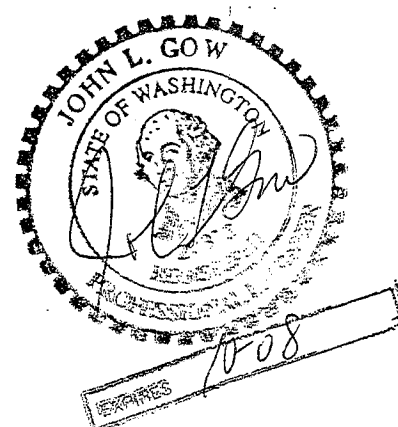
As Built



DESIGN CONDITIONS

NOTES: Elevations referenced to LOCAL CONTROL

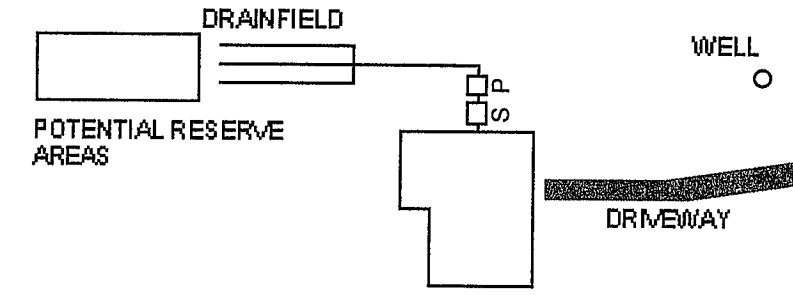
- | | | |
|---|--|---|
| <ol style="list-style-type: none"> 1. Flow (GPD) 3-BDRM, 360GPD 2. Septic tank (gal) 1150 3. Pump tank (gal) 1150 4. Transport pipe (inches) 2" 5. Manifold (inches) 2" 6. Disposal Area 360/0.4 (sqft) - 900 sqft 40% REDUCTION Area = 540 sqft Length = 216 ft 7. Laterals Number 3 Length (feet) 72 ' Size (inches) 1.5 " | <ol style="list-style-type: none"> 8. Soil Type Type 5 9. Loading rate - 0.4 (GPD per sq ft) 10 Dosing - a. 2 - times / day b. Design Flow - 180 gal / dose 11. Orifices- 112 a. Size 1/8 " b. Orientation UP c. Spacing 18"-24" 12. Valves a. 1 - 1 1/2" check b. 1 - 1 1/2" PVC ball c. 3 - 1" PVC check 3 - 1" PVC ball 13. Pump - septic a. Horsepower - 0.4 b. Flow (gpm) - 45.9 c. TDH (ft) - 20 | <ol style="list-style-type: none"> 14. Controls 110v, 3 float Orencia S1 Panel 15. Elevations a. Septic in : -14" b. Pump in : -16" c. Disposal invert : 12" d. Lateral invert : 18" e. Pump Off : -52" f. Pump on : -45 " g. Alarm : -43 " |
|---|--|---|



PUMP TANK 1150 gal (min)

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PROPOSED HOUSE
LOCATION

DRIVEWAY

WELL
○

POTENTIAL RESERVE
AREAS

DRAINFIELD

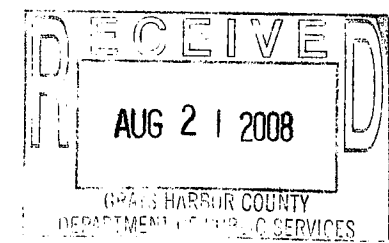
ADDRESS: 40 BUNKER ROAD

280. ft

BUNKER ROAD

7-23-08 Pressure Test 6' squirt height
MB

Scale : 1" = 50 ft



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Revisions:
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GRAYS HARBOR COUNTY
DEPARTMENT OF PUBLIC SERVICES
ENVIRONMENTAL HEALTH DIVISION

100 W Broadv Suite 31
Montesano, WA 98563
360-249-4413
360-249-3203 fax

For Office Use Only
Date Received

Fee
Receipt #

PAID!
11-03-2006/11:25 AM
USER:BA Total:\$450.00
001-00053825

ON-SITE SEWAGE APPLICATION

Legal Description lot 4 LSW 33065 REJ lot 5 and 12 LSW PTN N of Riv; lot 6 LSW 33065 REJ

☒ NEW SYSTEM ☐ REPAIRED SYSTEM ☐ EXPANDED SYSTEM ☐ EXISTING SYSTEM

Site Address 40 Bunker Road Copalis Crossing Wa. 98536

Name Clayton Wenger Signature [Signature]

Mailing Address PO Box 682 City Copalis Crossing

State Wa Zip 98536 Phone (360) 589-2117

Section 15 Township 19 Range 11 Parcel # 191115410020

Subdivision Name Div. Lot Block

Directions to Site go north on 101 to Bridgeview RD approx 8 mile to Bunker road

Property Size approx 21.5 acres. # of Bedrooms 3 Basement Plumbing: ☐ YES ☒ NO

Type of Building: ☒ Single Family ☐ Multi-Family ☐ Food Establishment ☐ Commercial

Water Supply: ☒ Individual ☐ Public ☐ 2 Party Name of Water Supply Well

Proposed Remodel: # of Bedrooms Existing Proposed Total

Other Additions: ☐ Recreation Room ☐ Garage ☐ Carport ☐ Shed ☐ Patio ☐ Mobile

Year sewage permit was issued Original Owner or Builder Name

Sewage Installer land owner Clayton Wenger System Designer NA

FOR ENVIRONMENTAL HEALTH USE ONLY

Soil Type Silt Loam Application Rate 0.4 gpd/ft² Existing Permit # N/A

Depth of Water Table or Indicators 36 inches (hardpan) Date 11-20-06

Absorption Area Square Feet

Drainfield Total Length per Feet

Trench Depth As per John Design Inches

Trench Width John Design Inches

Septic Tank Gallons

Pump Required Yes

| Date | Record of Action | By |
|----------|--------------------|----|
| 11/20/06 | Site Evaluation | MB |
| 1-29-08 | Plan Review | MB |
| 7-23-08 | Pressure Test - OK | MB |

Comments: See engineered plans by John Gow. Maintain 100 ft setback from well. Maintain drainfield and reserve areas free of structures and vehicular traffic. Call for final inspection and pressure test before backfilling.

Approved & Issued 1-29-08 By Michael Berkhimer Final Inspection 8-21-08 By Michael Berkhimer

Hold 11/22/06 Reason Design Required By Michael Berkhimer

Disapproved Reason By

20062296 THIS PERMIT EXPIRES 11-22-08 Permit # 2006 2296

DEPARTMENT OF PUBLIC SERVICES

100 W. BROADWAY, SUITE 31
MONTESANO, WASHINGTON 98563-3614
PHONE (360) 249-4222
FAX (360) 249-3203



F. PAUL EASTER
DIRECTOR

GRAYS HARBOR COUNTY

STATE OF WASHINGTON

November 22, 2006

Public Services

Kevin Varness, Asst. Director
Phone: 360-249-4222
Fax: 360-249-3203

Clayton Wenger
P O Box 682
Copalis Crossing, WA 98536

Public Works

Russ Esses, Co. Engineer
Phone: 360-249-4222
Fax: 360-249-2153

Re: On-site sewage application; Parcel #191115410020
Permit #2006-2296

Dear Mr. Wenger:

Planning & Building

Brian Shea, Director
Phone: 360-249-5579
Fax: 360-249-3203

We are in receipt of your application for an on-site sewage disposal permit for the above referenced property and conducted an on-site inspection on November 20, 2006. Two test holes were inspected and it has been determined that the site is not approvable for the installation of a conventional gravity system. The reason for this decision is due to a restrictive hardpan layer 36 to 38 inches below the grade of the test holes. Current regulations require a minimum of 36 inches of separation between the bottom of a conventional drainfield and a water table/restrictive layer. This requirement cannot be met.

Environmental Health

Douglas George, Director
Phone: 360-249-4413
Fax: 360-249-3203

In order to proceed with your proposal, you must contact a licensed designer or professional engineer to further evaluate the property and design a system, which will meet current state and county regulations. Your application will be placed on hold until an approvable plan is submitted for review and approval and any further proposals will be considered for two years at which time this application will expire.

Utilities & Development

Kevin Varness, Director
Phone: 360-249-4222
Fax: 360-249-3203

If you have any questions, please contact this office at (360) 249-4413.

Facility Services

Dennis Selberg, Director
Phone: 360-249-4222
Fax: 360-249-2753

Sincerely,

Michael A. Bernheine
Environmental Health Specialist

Emergency & Risk

Management
Anne Sullivan, Manager
Phone: 360-249-3911
Fax: 360-249-3805

MAB/tab

DEPARTMENT OF PUBLIC SERVICES

100 W. BROADWAY, SUITE 31
MONTESANO, WASHINGTON 98563-3614
PHONE (360) 249-4222
FAX (360) 249-3203



F. PAUL EASTER
DIRECTOR

GRAYS HARBOR COUNTY
STATE OF WASHINGTON

January 29, 2008

Public Services

Kevin Varness, Asst. Director
Phone: 360-249-4222
Fax: 360-249-3203

JG Engineering
P.O. Box 97
Humptulips, WA 98552

Public Works

Russ Esses, Co. Engineer
Phone: 360-249-4222
Fax: 360-249-2153

Re: Septic System Design Review for Parcel #191115410020
Permit # 2006-2296

Dear Mr. Gow:

Planning & Building

Brian Shea, Director
Phone: 360-249-5579
Fax: 360-249-3203

A review of the above referenced design plan has been performed and approved, provided the following conditions are met:

Environmental Health

Jeff Nelson, Director
Phone: 360-249-4413
Fax: 360-249-3203

- 1) A final inspection (i.e. pressure testing system, etc.) and certified detailed "as-built" drawing of the systems installation are required. Provide "as-built" within thirty (30) days after installation.
- 2) A final inspection and pressure testing by the Health Department. All controls must be connected and functioning at the time of the final.
- 3) Performance monitoring of the pressure distribution system is required in accordance with current state and county regulations. The health officer and/or his authorized representative, after proper identification, shall be permitted the right of entry and/or the right to inspect.

Utilities & Development

Kevin Varness, Director
Phone: 360-249-4222
Fax: 360-249-3203

Should you have any questions, please contact this office at (360) 249-4413.

Facility Services

Dennis Selberg, Director
Phone: 360-249-4222
Fax: 360-249-2753

Sincerely,

Michael A. Bernheine
Environmental Health Specialist

MAB/tab

Cc: Clayton Wenger

Emergency & Risk

Management
Anne Sullivan, Manager
Phone: 360-249-3911
Fax: 360-249-3805

