	<b>GRAYS HARBOR COUNTY</b> <b>DEPARTMENT OF PUBLIC SERVICES</b> <b>ENVIRONMENTAL HEALTH DIVISION</b>	<b>100 W Broad Suite 31</b> <b>Montesano, WA 98563</b> <b>360-249-4222</b> <b>360-249-3203 fax</b>

2496  
8-5-14  
\$641.00

ON-SITE SEWAGE APPLICATION

☒ NEW SYSTEM ☐ REPAIRED SYSTEM ☐ EXPANDED SYSTEM ☐ EXISTING SYSTEM ☐ TANK PLACEMENT

\*REQUIRED FIELDS

\*Site Address 804 W. SATSOP RD

\*Applicant's Name DAVE SUMMERILL \*Signature [Signature]

\*Applicant's Mailing Address P.O. BOX 861 \*City Montesano

\*State WA \*Zip 98563 \*Phone (home) 360 N/A (mobile) 305-409-0214

\*Owner's Name & Address SAME 180710230020

Township 18N Range 07W Section 10 \*Parcel # ~~18070-91-40010~~

Subdivision Name \_\_\_\_\_ Div. \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_

\*Directions to Site GO TO BRADY + GO NORTH ON Middle Satsop Rd TO LEFT ON W. Satsop 1.8 mile to Address

\*Description of proposal INSTALL 2 BED ROOM single family septic system

\*Property Size 2.8 ACRES \*Total # of Bedrooms 3 per design \*Basement Plumbing: ☐ YES ☒ NO

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

\*Water Supply: ☒ Individual ☐ 2 Party ☐ Public Name of Water Supply \_\_\_\_\_

For Existing Systems: Number of Existing Bedrooms \_\_\_\_\_ Proposed Additional Bedrooms \_\_\_\_\_

**Call before you dig requirements: When digging greater than 12-inches call 8-1-1 to avoid running into underground utilities.**

\*\*\*\*\* CAUTION \*\*\*\*\*

FOR ENVIRONMENTAL HEALTH USE ONLY

**Do not install before water availability approval.**

Soil Type Silt Loam Application Rate 0.4 gpd/ft<sup>2</sup> Existing Permit # \_\_\_\_\_

Depth of Water Table or Indicators > 5 1/2 ft Date 8-18-14

Absorption Area	Sq.Ft.	Date	Record of Action	By
Drainfield Total Length	Feet	8-18-14	Site Evaluation	MB
Trench Depth	Inches	8-29-14	New plans submitted - 9-18-14 Changes made	MB
Trench Width	Inches	6-18-15	Final Inspection	MB
Septic Tank	Gallons			
Pump Required	No			

Comments: See designed plans by Greg Walterick. Maintain drainfield and reserve areas free of structures and vehicular traffic. Call for final inspection before backfilling.  
Owner responsible for inspection of system every 3 years - pump tank as needed.

System Designer Greg Walterick - Peninsula Septic Sewage Installer Dwyer

Approved & Issued 9-19-14 By Michael Berkhini Final Inspection 6-25-15 By Michael Berkhini

Hold \_\_\_\_\_ Reason \_\_\_\_\_ By \_\_\_\_\_

Disapproved \_\_\_\_\_ Reason \_\_\_\_\_ By \_\_\_\_\_

20140877 THIS PERMIT EXPIRES 8-5-16 Permit # 2014-0877

**Department of Public Services**

Phone: 360-249-4222

Fax: 360-249-3203



100 West Broadway; Suite 31  
Montesano, Washington 98563  
[www.co.grays-harbor.wa.us](http://www.co.grays-harbor.wa.us)

# **GRAYS HARBOR COUNTY**

## **STATE OF WASHINGTON**

September 19, 2014

Peninsula Septic Design  
W. 2380 Highland Rd  
Shelton, WA 98584

Re: Septic System Design Review for Parcel #180709140010  
Permit # 2014-0877

Dear Mr. Walterick:

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

- 1) A final inspection 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 by the Health Department.
- 3) Performance monitoring of the 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.

Should you have any questions, please contact this office at (360) 249-4222.

Sincerely,

Michael A. Bernheine  
Environmental Health Specialist

Cc: Dave Summerill

RECORD DRAWING

☒ Drainfield & manifold orientation & layout

☒ Trench/bed dimensions and critical distances within layout

☒ ~~Septic pump tank~~ placement

☒ Location of buildings *proposed*

☒ ~~Observation ports &~~ clean-out locations

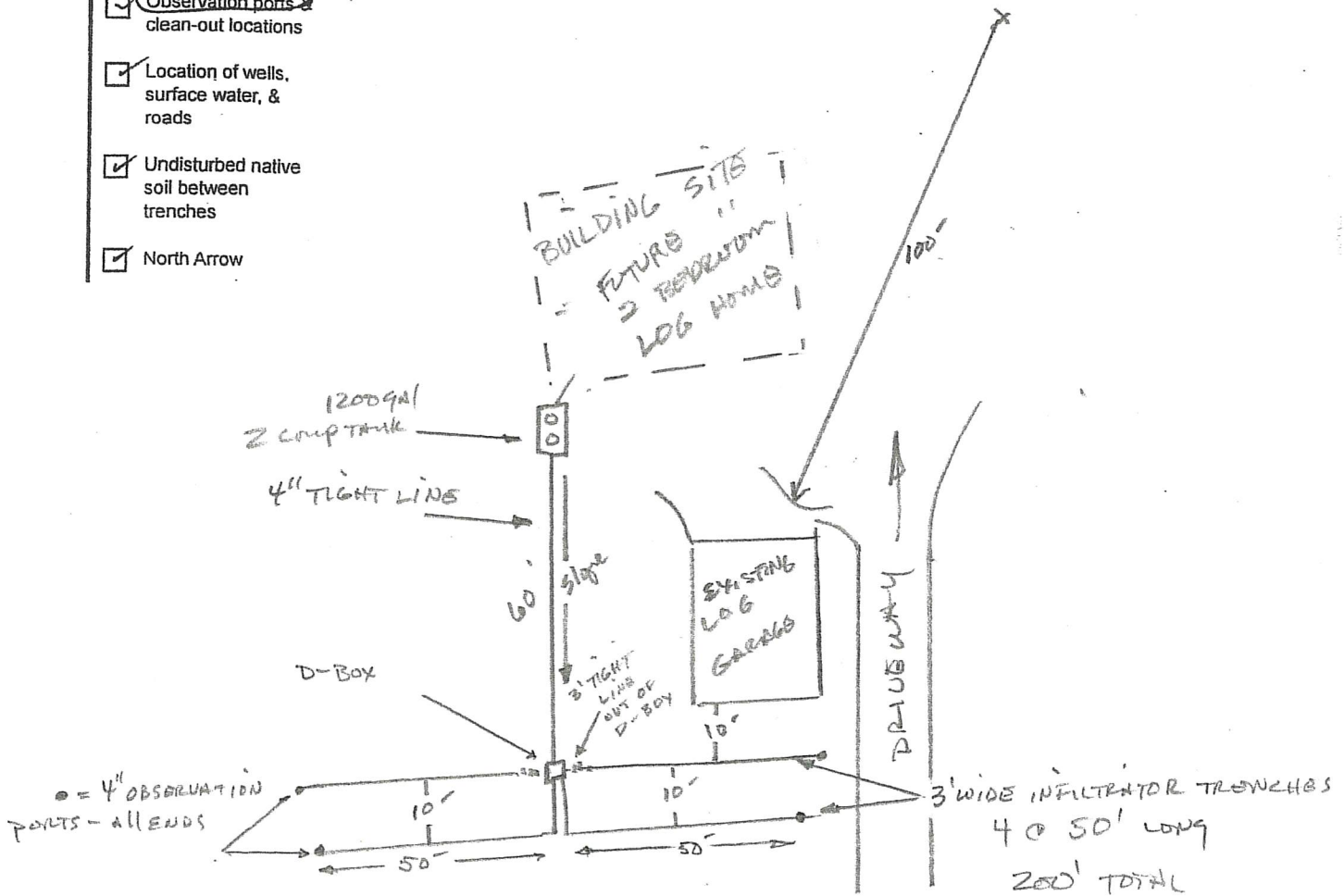
☒ Location of wells, surface water, & roads

☒ Undisturbed native soil between trenches

☒ North Arrow

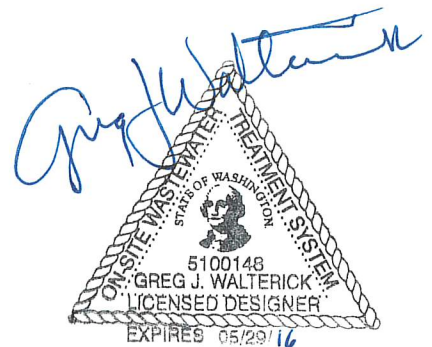


INSTALLED AS PER DESIGN



4-50' INFILTRATOR TRENCHES

GRAVITY FLOW - 10' ON CENTER





# RECORD DRAWING (ASBUILT) pg. 1

## PARCEL IDENTIFICATION

Permit Number 2014 - 0877 Assessor Parcel # 18070-02-30020  
 Applicant Name DAVE SUMMERILL Subdivision (Name/Div/Block/Lot) \_\_\_\_\_  
 Applicant Address PO BOX 861 \_\_\_\_\_  
 City, State, Zip MONTESSANO, WA. 98563 Installer Name SELF INSTALL  
 Site Address 804 W. SALSOP Rd Designer Name PENINSULA Septic Design/PTM

## INSTALLATION CHECKLIST

☒ Full System Installation ☐ Septic Tank Only ☐ Drainfield Only ☐ Repair  
 System Type \_\_\_\_\_ Pretreatment Type \_\_\_\_\_

### SEPTIC TANK

>5 ft. from foundation? ☐ N/A ☒ YES ☐ NO  
 >50 ft. from wells? ☐ ☒ ☐  
 >50 ft. from surface water? ☐ ☒ ☐  
 Cleanout between building and tank? ☐ ☒ ☐  
 Tank baffles present? ☐ ☒ ☐  
 24" access risers over each compartment? ☐ ☒ ☐  
 Effluent filter installed? ☐ ☒ ☐  
 Septic tank size 1200 gal Manufacturer miles procast

### D-BOX/ MANIFOLD

D-box water level and speed levelers used? ☐ N/A ☒ YES ☐ NO  
 Manifold/D-box accessible from surface? ☒ ☐ ☒  
 Check valves installed? ☒ ☐ ☐  
 Transport Line Size 4" Schedule/Class 30 34

### DRAINFIELD

Bedrooms installed (check one) ☒ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6  
 >10 ft. from foundation? ☐ N/A ☒ YES ☐ NO  
 >100 ft. from wells? ☐ ☒ ☐  
 >100 ft. from surface water? ☐ ☒ ☐  
 >10 ft. from potable water lines? ☐ ☒ ☐  
 > 5 ft. from property lines and easements? ☐ ☒ ☐  
 > 30 ft. from downgradient curtain/foundation drains? ☐ ☒ ☐  
 Drainfield level and observation ports present ☐ ☒ ☐  
☒ Graveless chambers or ☐ Clean gravel used? (check one)  
 Proper cover installed over drainfield? ☐ ☒ ☐

### PUMP / PUMP TANK

Pump tank setbacks consistent with septic tank? ☐ N/A ☐ YES ☐ NO  
 Pump tank size \_\_\_\_\_ gal Manufacturer \_\_\_\_\_  
 24" access riser(s) and accessible from surface? ☐ ☒ ☐  
 Alarm or Control Panel Installed? ☐ ☒ ☐  
 Control Panel equipped with Timer / ETM / Counter ☐ ☒ ☐  
 Pump installed in ☐ Bucket or ☒ On Block or ☐ Other \_\_\_\_\_  
 Pump Make/Model \_\_\_\_\_ ☐ Floats or ☐ Transducer  
 Tank draw down \_\_\_\_\_ in/min Pump capacity \_\_\_\_\_ gpm Squirt Height \_\_\_\_\_ ft  
 Pump on time \_\_\_\_\_ Pump off time \_\_\_\_\_ Daily flow set at \_\_\_\_\_ gpm



check list

Assessor's Parcel Number: 18 70 - 91 - 40010

Permit Number: SWG \_\_\_\_\_

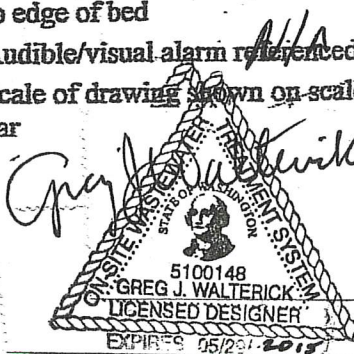
## DESIGN CHECKLISTS

## Scaled Plot Plan

- ☒ Test hole locations
- ☒ Soil logs
- ☒ Property lines
- ☒ Existing and proposed wells within 100 ft of property
- ☒ Measurements to cuts, banks, and surface water and critical areas
- ☒ Location and orientation of curtain drain and all absorption components
- ☒ Location and dimension of primary system and reserve area
- ☒ Buildings
- ☒ Direction of slope indicator
- ☒ Waterlines
- ☒ Roads, easements, driveways, parking
- ☒ North arrow and scale drawing shown on scale bar

## Scaled Layout Sketch

- ☒ Drainfield orientation and layout
- ☒ Trench/bed dimensions and critical distances within layout
- ☒ D-Box/Valve box locations
- ☒ Septic tank/pump chamber locations
- ☒ Observation port location
- ☐ Clean-out location
- ☐ Manifold placement D-BOX
- ☐ Orifice placement check
- ☒ Lateral placement with distance to edge of bed
- ☐ Audible/visual alarm referenced
- ☒ Scale of drawing shown on scale bar



## Cross-Section Sketch

Reference depth from original grade:

- ☒ Septic tank
- ☒ Drainfield cover

Reference depth from original grade and restrictive strata:

- ☒ Laterals, trench/bed, top and bottom
- ☐ Curtain drain collector
- ☐ Sand augmentation

Other cross-section detail:

- ☒ Observation ports/clean-outs

## Other Information

Yes No

- ☒ Design staked out
- ☐ Recorded Notices attached
- ☐ Waiver(s) attached
- ☐ Pump curve attached
- ☐ Evaluation of failure

## Non-residential justification

- ☐ Waste strength
- ☐ Flow

## DESIGN APPROVAL

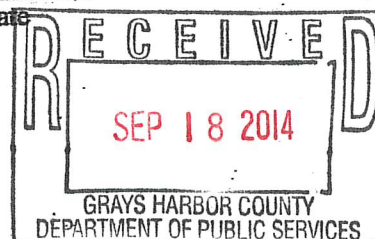
The undersigned designer must be notified by installer at time of installation ☒ Yes ☐ No

Greg J. Walterick  
Signature of Designer

Date

8-27-14

APPROVED	
<u>M. Barberie</u>	9-19-14
SANITARIAN	DATE



## CAUTION: DESIGN APPROVAL IS VALID ONLY UNDER THE FOLLOWING CONDITION:

- ✓ The Onsite Sewage Permit has not expired, the Permit Expiration Date is: \_\_\_\_\_
- ✓ Drainfield site conditions have not been altered to adversely affect conditions of design approval.

OFFICE COPY



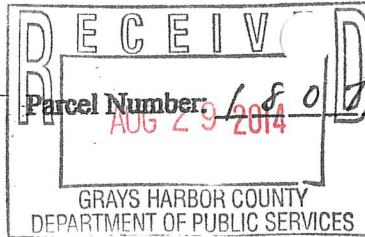
# Peninsula Septic Design 'O&M

W. 2380 Highland Rd.

Shelton, WA 98584

360-490-0614

State-certified Septic Designer / Operations & Maintenance Specialist



Permit Number: SWG  
Applicant's Name: DAVE SUMMERILL  
Mailing Address: P.O. Box 861  
MONTESANO, WA. 98563  
City State Zip

Designer's Name: PENINSULA Septic Design/O&M  
Designer's Phone Number: 360 490-0614  
Designer's Address: 2380 W. Highland Rd  
Shelton, WA. 98584  
City State Zip

## Treatment Device

☐ Glendon Bioslur ☐ Sand Filter ☐ Mound ☐ Sand Lined Drainfield ☐ Recirculating Filter, Type: \_\_\_\_\_  
☐ Aerobic Unit Make/Model \_\_\_\_\_ ☐ Disinfection Unit Make/Model \_\_\_\_\_ Other: \_\_\_\_\_

## Drainfield Type

☒ Gravity ☐ Pressure ☒ Trench ☐ Bed ☐ Sub Surface Drip

## Septic Tank/Drainfield Specifications

Number of Bedrooms 3  
Daily Flow: Operating Capacity 360 gpd  
Daily Flow: Design Flow 360 gpd  
Septic Tank Capacity 1200 gal  
Receiving Soil Type (1-5) 5  
Receiving Soil Appl. Rate .4 gpd/ft<sup>2</sup>  
Required Square Footage 900 ft<sup>2</sup>  
Designed Square Footage 540 ft<sup>2</sup>  
Percent Reduction Taken 40 %  
Trench/Bed Width 3 ft  
Trench/Bed Length 180 192' ft

## Elevation Measurements

Original Drainfield Area Slope 5 %  
New Slope, If Altered — %  
Depth of Excavation Up-slope 24 in  
from Original Grade Down-slope 22.2 in  
Designed Vertical Separation 36" + in  
Gravelless Chambers? ☒ Required ☐ Do Not Use ☐ Optional  
Pump Required? ☐ Yes ☒ No

## Pump/Siphon Specifications

Elevation Difference Between Pump Shutoff and Uppermost Orifice — ft  
Uppermost Orifice ☐ Higher ☐ Lower than Pump Shutoff  
Capacity @ Total Pressure Head N/A gpm  
Calculated Total Pressure Head — ft

## Laterals

Schedule/Class IN FILTRATOR CHAMBERS  
Length 45 - 48' ft  
Diameter 3' wide in  
Number 4  
Separation 9.00 ft

## Orifices

Total Number of Orifices N/A  
Diameter — in  
Spacing — in

## Manifold

Schedule/Class CONCRETE - D-BOX  
Length 9' FEEDER PIPES ft  
Diameter 4" in  
Preferred manifold configuration used? ☒ Yes ☐ No

## Transport Pipe

Schedule/Class 3034  
Length 50 + ft  
Diameter 4" in

## Dosing and Pump Chamber

Number of doses/day —  
Dose quantity N/A gal  
Chamber Capacity — gal  
Pump controls: Please check those required.  
☐ Timer ☒ Elapse Meter ☐ Event Counter  
If Timer: Pump on —, Pump off —

Comments

" 1 ACRE PORTION OF "  
28 ACRE PARCEL

WELL

100'

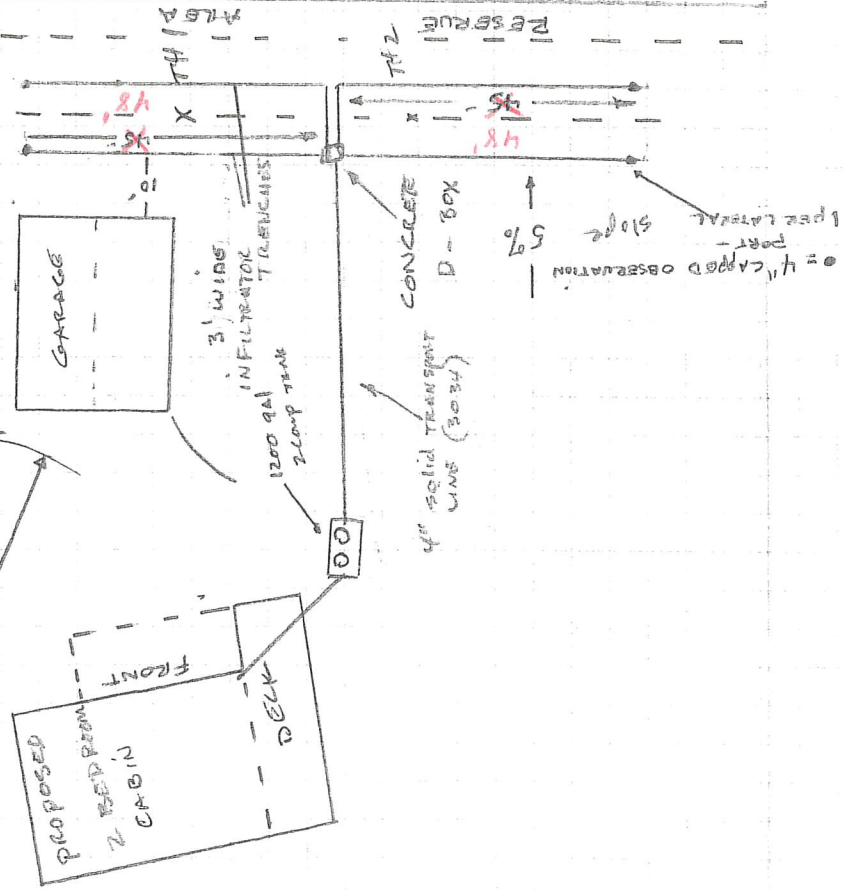
SEPTIC PLOT PLAN:

DAVE SUMMERHILL  
BUILDING SITE  
904 W. SATSOP RD.

PARCEL #  
18070-91-40010

0 15' 30'  
1" = 30'

N



TH#1 - 0-24" LOT  
24-60% SLOPE

TH#2 - SAME

4-48' GRAVITY  
FLOW LATERALS  
(INFILTRATOR  
TRENCHES)  
" 3 BED ROOM "  
EQUIVALENT

0 = 4" CAPED OBSERVATION  
PORT -  
5% SLOPE

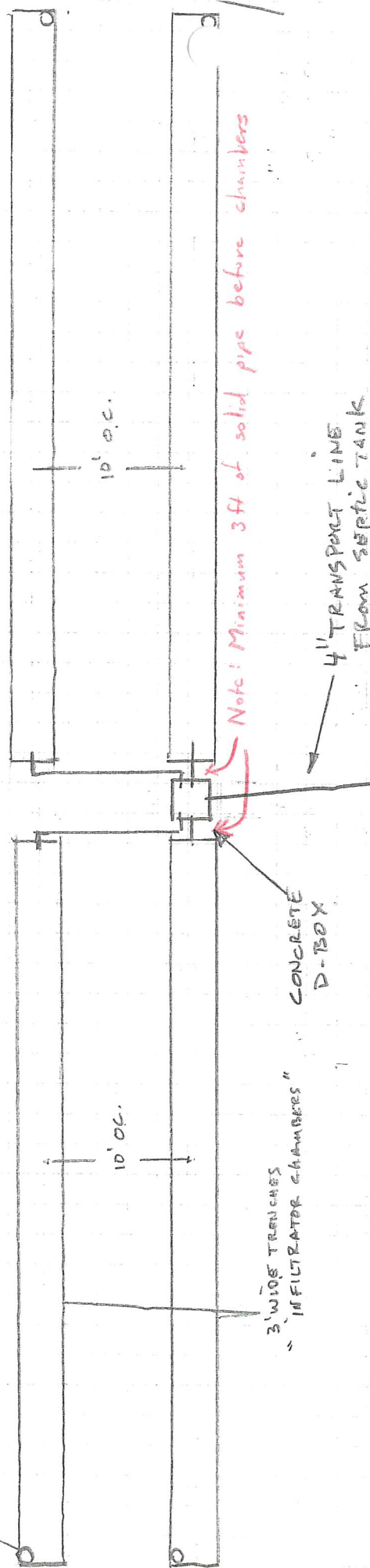
# DETAILED DRAINFIELD LAYOUT

180' TOTAL - GRAVITY FLOW INFILTRATOR TRENCHES

0 = 4" CAPPED OBSERVATION POINTS

4 - TOTAL

48' ~~45'~~



Note: Minimum 3ft of solid pipe before chambers

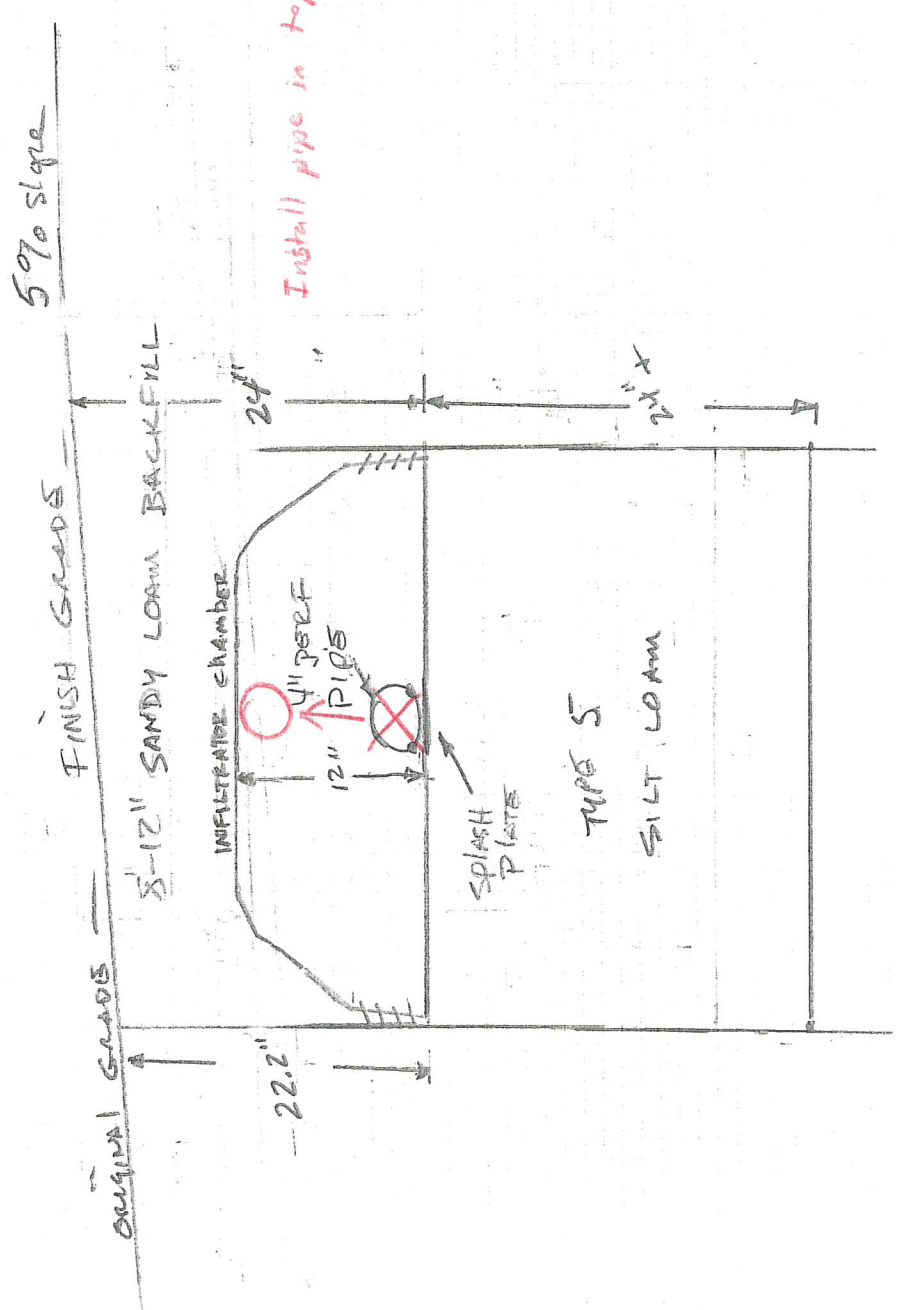
4" TRANSPORT LINE  
FROM SEPTIC TANK  
"3034 solid"

CONCRETE  
D-BOX

3' WIDE TRENCHES  
"INFILTRATOR CHAMBERS"



# GRAVITY FLOW INFILTRATOR DRAINFIELD CROSS-SECTION



Install pipe in top of panels

1" = 1'

## Construction Notes

1. If the site is too wet to prepare, do not proceed until it is properly dry. The soil MUST be properly dry before installation can proceed. Do not install the drain field while the soils are wet.
2. Use EXTREME care in site preparation. Remove "NO" top soils. Use care in tree and stump removal.
3. Trench bottoms must be level. Follow contours of the slopes.
4. If a "D" box is used, speed levelers are required.
5. Brush piles and debris are not to be burned on top of the proposed drain field sites.
6. Do not use the drain field areas for storage of excavated dirt, parking areas, lumber packages, or anything that will disturb or destroy the areas.
7. Do not deviate from this design without permission from the designer.
8. Drain field sites are to be roped off, for the protection of the sites, prior to and during the construction of the home. No traffic of any type is allowed on top of the drain field sites. Soils can be damaged easily and the infiltration rate can be lost, making the proposed sites unusable for a drain field.
9. Once the trenches are excavated, the sidewalls and bottoms are to be raked to open the infiltration surfaces.
10. Cleanable effluent screens are to be used.
11. Construction and materials for this system shall conform to the latest regulations and requirements of the County Health Department.
12. Topography, benchmark, stub-out and invert elevations are based on assumed data.
13. Ascertain location of underground utilities before digging.
14. Edge of drain field trenches to be a minimum of 5 feet from any property and/or easement.
15. Encroachment of house and/or driveway into drain field or reserve area may render the site unusable, requiring a redesign at additional costs, or even totally unusable.
16. All roof drains and surface water run off shall be directed away from the drain field.
17. Sewer lines under roadways shall be encased in pipe rated at 1000 lb. crush strength.
18. This system is not designed for use of a garbage disposal. Use of such may cause system failure.
19. Where sewer and water lines cross, water lines must be a minimum of 18 inches above sewer lines and encased in another pipe for a minimum of 20 feet. Crossing must be at center of encasement pipe.
20. Where a good off site sandy cover is placed over an installed drain field, the sandy soil shall extend ten feet beyond drain field and be feathered to match existing terrain.
21. Installation and use of this septic system without a tee filter located in the outlet side of the septic tank may cancel any warranty, expressed or implied.
22. This system requires a proper degree of maintenance. Certification of the design and installation does not insure trouble free service.
23. Keep septic components a minimum of 10 feet from any water line under pressure, unless sleeving of water line is provided, per codes.
24. A curtain drain (if required by designer or health department) is to be installed a minimum of 8 inches into compaction and tight lined to daylight, meeting all county codes. Down slope side is to be lined with black plastic.