

THURSTON COUNTY

WASHINGTON

SINCE 1852

COUNTY COMMISSIONERS

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PUBLIC HEALTH AND SOCIAL SERVICES DEPARTMENT

MEMORANDUM

Sherri McDonald, RN, MPA,
Director
Diana T. Yu, MD, MSPH
Health Officer

Date: December 22, 2006

To: Industry Professionals.

From: Alan Schmidt, R.S., O.W.T.S.I.

Subject: Updates on County changes and requirements

This memorandum is written to inform and update industry professionals of changes and county requirements concerning five subjects I) Sewer/Water line crossings and reduced setbacks. II) Record Drawing requirements. III) Water line installations. IV) Fee Charges (Policy attached). V) Article IV update.

I) Sewer/Water line crossings or reduced setbacks.

WAC 246-272A and Article IV recognizes construction criteria considered equivalent to the required setbacks. Effective **January 1, 2007** Thurston County Environmental Health (TCEH) will no longer require a waiver to approve a crossing or reduced setback. The designer must submit technical justification for the setback reduction or crossing. The information shall be submitted in the following manner.

- A. On the design, show a cross section of the crossing and/or state the construction criteria for review.
- B. When a reduced setback or water/sewer line crossing occurs that is not a part of design approval, the record drawing must show the criteria as required on the design.

You may view this document and obtain copies of the criteria on the web at www.ecy.wa.gov/pubs/9837/c1.pdf. It is found in chapter C1-9 Special requirements.



II) Record Drawing Requirements

Enclosed you will find:

- A. The document "Record Drawing" Submittal Requirements.
- B. A Record Drawing guidance checklist.
- C. Installer construction completion form.

The "Record Drawing" Submittals document is provided to clarify responsibilities of the Department and industry professionals per Article IV. The guidance checklist is available to assist in identifying those requirements for the completion of the record drawing. Not all of the items in the guidance checklist may be required on the final drawing. The checklists intended use is to aide in drawing and reviewing the record. Effective **January 1, 2007** TCEH will require that as-builts be labeled "Record Drawing".

The installer completes the construction completion form after installation for the designer/engineer. A copy of this form can accompany the record drawing when submitted. The information becomes a part of the permanent record. If the form is not used as a part of the final record drawing, the information must be included in some manner. Beginning **January 1, 2007** please begin using this form for reporting installation information to the designer/engineer.

III) Water line installations

The designer/engineer record drawing certification is required to show the water line location as installed. When the water line is installed by the builder/homeowner and the location of the water line is evident, the location can be shown and certified with assurance by the designer/engineer.

When the water line was installed by the builder/homeowner and its location is not evident is it acceptable for the designer to take the word of the builder/homeowner for its location. Effective **January 1, 2007** the said location can be shown on the record drawing with a disclaimer. The language needs to include who installed the waterline and the approximate date when installed.

When it becomes known that neither a setback nor the construction criteria are met the designer informs the owner and the TCEH of the situation. Appropriate steps are taken to resolve the matter.

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IV) FEE CHARGES FOR REDESIGNS/REVISIONS

Effective **January 1, 2007** TCEH will begin charging the fees identified in the attached policy. These fees apply for sewage system designs requiring additional fees. Along with the policy is a guidance checklist for you to use. This checklist is also available for TCEH staff. The first revision for a sewage system design review is covered in the submittal fee. Additional revisions are subject to the appropriate fees in the policy.

Other county agencies utilize a copy of the OSS or similar site plan for review. There are occasions where those reviews require a revised a site plan. These reviews can occur after the initial review by TCEH is completed and a revision is necessary. It is strongly recommended that the design revision for TCEH be held until other agencies have completed their review. If a revision is submitted before other county requirements or changes are known, we may well need to charge the applicable fee. It is our desire to work with you on this issue. However, we may not be able to continually review changes required by other departments with no additional charges.

Initially to assist in maintaining consistency, a supervisor will review all fees assessed prior to charging them.

V) ARTICLE IV UPDATES

Article IV revision for the code change effective **July 1, 2007** is starting. You may access the information pertaining to the changes and provide comments via the website at:

<http://www.co.thurston.wa.us/health/ehadma/artIVrev/index.html>

There is also a public hearing scheduled for January 8, 2007 to hear testimony on the proposed Article IV changes regarding small lots. Information on the proposal can be found on our website:

<http://www.co.thurston.wa.us/health/ehadm/smlotord.html>

Attachments:

"RECORD DRAWING" SUBMITTAL REQUIREMENTS

RECORD DRAWING GUIDANCE CHECKLIST

INSTALLER CONSTRUCTION COMPLETION FORM

ARTICLE IV – REVISION/RE-INSPECTION FEE GUIDELINE CHECKLIST

THURSTON COUNTY PERMITTING SYSTEM POLICY ONST.06.POL.832

"RECORD DRAWING" SUBMITTAL REQUIREMENTS

This document identifies Thurston County requirements for Record Drawings (formally "As-Built") and cancels all other documents pertaining to this matter.

A "Record Drawing" shall be submitted to the health officer upon completion of new construction, alteration, or repair of an On-Site Sewage System (OSS). Either term "As-Built" or "Record Drawing" is acceptable at this time. **Effective January 1, 2007** the drawing must be labeled "Record Drawing" (WAC 246-272A-0625).

The main purpose of a Record Drawing is to provide accurate and detailed information to the homeowner who may have little or no knowledge of OSS components. The elements identified in this document are important and should assist the homeowner in locating the OSS components, as well as conducting ongoing operation and maintenance of the OSS.

The drawing is a stand-alone document submitted after the installation is completed. The drawing must contain sufficient information to adequately identify the site. A re-creation of the entire lot dimensions is not necessarily needed. What is needed is a representation, to scale of the items identified in this document.

A. Responsibilities (Section 15.4.2 of Article IV):

1. Installers:

- a. Install all portions of the OSS in accordance with the approved design or approved modification.
- b. Responsible for pressure testing after installation (Section 2.2 of the Recommended Standards and Guidance for Pressure Distribution).
- c. Inform the Licensed Designer or Professional Engineer of the results.
- d. Note the correction of deficiency items identified on a final inspection and inform the Licensed Designer or Professional Engineer when no re-inspection is required.
- e. The applicable information required shall be provided to the designer/engineer on the document supplied by Thurston County Environmental Health. (INSTALLER CONSTRUCTION COMPLETION FORM.)

2. Licensed Designer / Professional Engineer:

- a. "Certify to the health officer that the on-site sewage system (OSS) installation is per the approved design or approved modifications..."
- b. Submit 3 Record Drawings for new construction prior to final occupancy for building projects located in Thurston County.
- c. Submit 3 Record Drawings within 30 calendar days of final inspection notification for projects other than new construction. Examples: Sewage system repairs, voluntary upgrades and city building projects, etc.

3. Thurston County

- a. EH: will review, request changes, and accept drawings.

Final occupancy approval will be withheld for new construction until the drawing is submitted, reviewed and accepted by Environmental Health. The Permit Assistance Center does not

schedule final occupancy inspections for Thurston County building projects until the record drawing is accepted.

B. Requirements:

1. **Dimensions** (Section 15.4.3 of Article IV)
 - a. The maximum size is 11 x 17 inches.
 - b. The scale shall not be greater than one inch equals 30 feet unless otherwise authorized.

It may be beneficial to include a scale bar showing 1-inch equals 30 feet or authorized scale. Final records are imaged electronically. Imaged documents when printed out may not characterize the original scale. The addition of a scale bar showing the scale will address this issue on imaged printouts.

2. Be **drawn** and submitted after the installation is completed.
 - a. Drawing must be in ink
 - b. A "Red Lined" copy of the approved design will not be accepted
 - c. All information and language relating to design specifications shall be removed from the document, i.e., pre-construction notes, specific installation requirements, the use of terms "to be" or "must be", etc.
3. **Show** the following:
 - a. Licensed Designer/Licensed Professional Engineer stamp, signature and date
 - b. Installation firm name and installation date
 - c. Owner/applicant name
 - d. Property tax parcel number
 - e. Folder sequence number
 - f. Site address
 - g. North arrow
4. Three **copies** shall be submitted and distributed *by the county* to:
 - a. Thurston County Environmental Health Division
 - b. Property owner
 - c. Licensed Designer/ Licensed Professional Engineer by WSDOL.
 - ☐ When a Thurston County Certified Installer submits a "Record Drawing when a designer or engineer is not involved, the third copy shall be for the installer.
Example: For **tank placements only**, a design is not required, but a site plan from a Thurston County Certified installer is required.

C. Drawing Elements: The drawing must contain and label information to adequately identify the site and locate the system components.

1. **Structures** – show outline or footprint. (Building envelope is not acceptable.)
 - a. Residence and/or sewage generating structure.
 - b. Other structures in the vicinity of the sewage system and on the lot.

- c. For residential show total number of bedrooms using the OSS (primary residence plus other uses such as a Family Member Unit, Accessory Dwelling Unit, Guest House, etc).
2. **Components of wastewater system**
 - a. **Plumbing** - stub out, cleanouts.
 - b. **Tanks** - septic tank, pump/siphon chamber and their size(s)
 - c. **Pumps** make and model.
 - Document applicable pressure test results
 - ☐ Actual run time on and off settings. (Timers only)
 - ☐ Pump chamber draw down in inches per minute. (Timers only)
 - ☐ All squirt test results.
 - d. **Disposal Component**
 - ☐ Trench cross-section and construction details must be included if the installation varied from the original design approval.
 - e. **Treatment devices** such as a sand filter, aerobic treatment unit, or disinfection component.
 - f. **Ports** - inspection ports / monitoring ports (deep and shallow) / sampling ports
 - g. **Misc** - Anti-siphon devices, valves, valve boxes and other components such as spring check valves, dose counters, couplings, unions, etc.
 3. **Water Source**
 - a. Confirm the water source, i.e. single family well or connection to a public water supply
 - b. Show the well location on the lot. Single family well, or any well on the lot.
 - c. Show well locations 100 feet or less from the OSS.
 - d. Water lines as installed to residence and/or other structures on the property.
 Note: When the designer/engineer and installer are not directly involved with the installation/inspection of the water line, it is acceptable to place a disclaimer on the record drawing that the location is per "___". The statement shall include who installed the line, e.g. owner, builder, etc.
 4. **Reserve Area**
 - a. Location and dimension.
 - b. Show the make up area for systems installed with approved reductions.
 5. **Site Features**
 - a. Driveways or other existing roads.
 - b. Setbacks to surface water, drainage ditches, footing drains, property lines, etc.
 6. **Other**
 - a. Note the correction of deficiency items identified on a final inspection notice.
 - b. Information pertaining to any changes to the approved design. Any changes must be technically justified.
 - c. Note the completion of all construction details to satisfy the requirements of a waiver.
 - d. Septic tank or pump chamber evaluation/abandonment information.

- e. Note the completion of all construction details for water and sewer line crossings when not part of the approved design.
- f. Any information that the Licensed Designer/Professional Engineer deems pertinent to certification of the system and would help locate system components. All information must reflect what is installed.

If any of the above items are not present at the time of an initial drawing, a partial drawing can be submitted. The drawing will be placed with the records until the final and finished record drawing is submitted.

Record Drawing Guidance Checklist

Show and label drawing elements as applicable.

Responsibilities:

- ☐ Received installer construction completion information.
- ☐ Three copies certifying the installation is per the approved design or modifications

Requirements:

- ☐ Maximum size 11 inches by 17 inches
- ☐ Scale not greater than one inch equals 30 feet
- ☐ Drawing – *The original document cannot be submitted in pencil.*
- ☐ Pre-construction information removed.
- ☐ Licensed Designer/Professional Engineer stamp, date, signature
- ☐ Installation firm name and installation date
- ☐ Owner/applicant name
- ☐ Property Tax Parcel Number
- ☐ Folder Sequence Number
- ☐ Site Address
- ☐ North Arrow

Drawing Elements:

- ☐ Residence/sewage generating structure(s) outline or footprint
- ☐ Other structures in the vicinity of the sewage system on the lot
- ☐ Total number of bedrooms shown for residential uses
- ☐ Plumbing stubouts/cleanouts
- ☐ Septic tank, pump chamber/siphon chamber sizes
- ☐ Pump make and model
- ☐ Pressure test results – timer settings, draw down, squirt test
- ☐ Disposal component: Trench cross-section and construction details of disposal component if not as designed
- ☐ Treatment device – sand filter, ATU, disinfection unit
- ☐ Ports – inspection ports, sampling ports, deep/shallow monitor ports
- ☐ Anti-siphon devices, valves, dose counters, couplings, unions, etc
- ☐ Water source confirmed
- ☐ Well location
- ☐ Water lines to all structures served
- ☐ Reserve area location and dimensions
- ☐ Driveways and existing roads
- ☐ Setbacks – surface water, drainage ditches, footing drains, property lines, etc.
- ☐ Correction of deficiency items noted from final inspection noted
- ☐ Information documented if different from design
- ☐ Construction information and details for waiver approvals
- ☐ Septic tank, pump chamber evaluation or abandonment information
- ☐ Construction information and cross-section for water and sewer line crossings when not part of the approved design
- ☐ Components appropriately labeled as well as shown

INSTALLER CONSTRUCTION COMPLETION FORM

Folder Sequence # _____

Tax Parcel # _____
/

Date installed: _____

Installer Signature: _____

Tank Manufacturer: _____

Tank size: Septic Tank _____
 Pump Chamber _____

Effluent Filter: Manufacturer _____
 Model # _____

Effluent Pump: Manufacturer _____
 Model # _____

Control Panel/Alarm: Manufacturer _____
 Model # _____

Floats: Manufacturer _____
 Model # _____

Timer Settings: Actual run time on _____
 time off _____

Pump chamber draw down in inches per minute: _____

Squirt Test: Sand Filter _____
 Mound/trench/bed _____

Corrected deficiency items identified by TCEH during the final inspection.

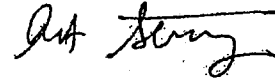
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Number: ONST.06.POL.832

Title: ADDITIONAL FEES REQUIRED FOR SEWAGE SYSTEM DESIGN REVIEWS

Related:

Approved:



Environmental Health Director

Date:

12/27/06

Cancels: New

RCW/Code: Article I, Appendix A – Fee
Schedule

This policy establishes when Environmental Health charges design revision, re-inspection or extra site visit fees. These fees can be charged for on-site sewage system applications and designs before the permit is issued. After permit issuance any changes will require fees appropriate for the submittals.

1. The initial design review fee covers the first site visit, first design review and the first design revision (office review only).
2. Additional fees will be charged for:
 - A. The second and any subsequent design revisions where the review can be completed in the office.
 - B. The second and any subsequent site visits. The site re-inspection fee covers the office review time needed to complete the review of design materials.
3. Only one of the fees will be charged at any given time.

Only the design revision review fee OR the re-inspection and/or extra site visit fee shall be charged for any one submission.
4. The fee shall be paid at the time of revision submittal.
5. Fees assessed shall be in accordance with Thurston County's Sanitary Code Article I, Appendix A. This policy applies to applications received after January 1, 2007.

ARTICLE IV – REVISION/RE-INSPECTION FEE GUIDLELINE CHECKLIST

X = Item delinquent

NA = Not Applicable

ITEM
DESIGN SUPPORT ELEMENTS
Tax/Parcel # / Name of Applicant / Site Address
Designer / Engineer stamp and signature
Hydraulic calculations and assumptions supporting the proposed design. Design flows, application rate, and friction loss and distribution network specifications, pump capacity, total head calculations.
Calculations: mounds / sandfilters
Type diameter class of pipe for tight lines, transmission lines, laterals.
Scale of 1 inch to 30 feet (or alternate scale by permission)
Restrictive lens identified
7 times rule addressed
Ant siphon issue addressed when applicable
If no wells within 100 feet of OSS components / property lines – so stated.
Three copies provided for all submittals (initial submittal, revisions / redesigns).
Required supporting information/justification provided on proposal – waivers / reduced setbacks, etc.
Soil log results
Pump specifications and curves
One orifice per every six square feet when treatment is of concern. (All sand based systems, areas of special concern.)
Density issues addressed
SITE PLAN – SHOW LOCATIONS AS APPLICABLE
North arrow
Location of property corners (total lot shown)
Filled graded area as shown
Interceptor drains shown
Footing drains/downspouts shown
Topography lines (2 feet up to 10% / 5 feet over 10%)
Locations: driveways, roads, parking areas,
Elevations: Reference benchmark, plumbing stub-out, sewage tanks, disposal component laterals.
Location of test pits (minimum 2 primary / 1 reserve)
Cross sections of all disposal components / treatment components. Cross section shows original and final grades.

	Location, footprint, shape of existing and proposed buildings
	Location and size of primary system
	Location and size of reserve area
	Location and size of all sewage tanks
	Water supply lines
	Surface water source supply line – suction line requires 100 feet (Summit Lake)
	Easements existing and proposed
	Ditches / banks / cuts with appropriate setbacks shown
	Surface water within 100 feet of the system disposal component / 50 feet for all other components. (Note when greater than the required minimum distance)
	Seasonal drainage setbacks shown within 30 feet. (Note when greater than the required minimum distance.)
	Drinking water source
	All wells within 100 feet of disposal component / 50 for all other components when SFW. (Note when greater than the required distance.)
	Note when no wells within 100 feet of property line.
	Other potential sources of contamination. (e.g. stormwater facilities, petroleum storage tanks, etc.) within 200 feet of proposed well location.
	QUALITY CONTROL ITEMS
	Illegible drawing
	Incorrect or missing scale
	Drafting errors
	Details conflict between support documentation and site plan components (e.g. orifice spacing in calculations vs. shown on site plan cross section.)
	Copies of copies of the original made, writing no longer clear and legible.
	SLOPPY/CONFUSING ILLUSTRATIONS:
	Site conditions not shown in correct relationship to each other
	North arrow incorrect
	Trench depth not consistent to soil log depth requirements
	Soil type and/or texture incorrect
	Revisions / redesigns that do not address all deficiency items identified.
	FEES REQUIRED WHEN:
	A review is completed and approved and a revision is received as a result of a change due to applicant request.
	Revisions that has required elements that are deleted from the first submittal.