

WAC 246-272B-04400 Plans and specifications. (1) Construction plans and specifications must be clear and detailed documents and in an electronic format acceptable to the department.

(2) Plans must include the following:

(a) Design flow, treatment level, drainfield and tank sizing, and hydraulic loading rate;

(b) LOSS schematic or flow diagram;

(c) Hydraulic profile of the LOSS; and

(d) Plan and profile views as applicable of all LOSS components.

(3) Plan sets must be scaled to clearly show all necessary information and include the following:

(a) A title sheet, plan and profile sheets, and other information that outlines and details the LOSS facilities design:

(i) Title block indicating the project title, owner's name, date, seal and signature of the design engineer;

(ii) Index to individual sheets;

(iii) Vicinity map with project site location;

(iv) Master site plan showing facilities served and general system layout; and

(v) List of abbreviations, definitions, and symbols used within the plans.

(b) A general statement that all work must be in conformance with the requirements of this chapter and other design and technical standards specified by the design engineer.

(4) Plan sheets must be consecutively numbered and include, as appropriate:

(a) A north arrow;

(b) Description of scale in text and with a graphical bar;

(c) A descriptive title and date;

(d) Plan views;

(e) Section views;

(f) Profile views;

(g) Elevations;

(h) Easement and franchise locations and boundaries;

(i) Component details;

(j) General layout; and

(k) Supplemental views.

(5) Sewage tanks and other treatment component plans and specifications must:

(a) Show location, dimensions, and elevations of all treatment and pumping units;

(b) Include detailed plan and cross-section views with dimensions;

(c) Include installation details including placement depth and bedding materials, and connections to the tank to minimize settling impacts;

(d) Include a detailed standard plan, including any related electrical components, and installation requirements for tanks designed for individual lots;

(e) Specify tank capacity, baffling, filters, risers and other appurtenances, liquid volume, emergency, scum and sludge volumes, float switch or other control component settings;

(f) Identify manufacturer and model for prefabricated tanks; and

(g) Include a statement that:

(i) Any substitutions must be approved by the design engineer;

and

(ii) All prefabricated tanks must meet the requirements of chapter 246-272C WAC.

(6) Plans and specifications must include design and structural calculations and all necessary construction information for tanks constructed on-site.

(7) Plans and specifications for collection and transmission piping must specify:

(a) Pipe type, material and size;

(b) Pipe elevations;

(c) Depth from grade and slope if applicable;

(d) Installation details including placement depth and bedding materials;

(e) Location and detail for all cleanouts and other appurtenances;

(f) Horizontal setbacks from all other utility piping; and

(g) All water-sewer crossing detail and instructions.

(8) Plans for the drainfield component must:

(a) Use an appropriate scale of 1:50 or less;

(b) Show plan view of trenches or beds in relation to site topography, showing contours on maximum two-foot intervals;

(c) Show trench or bed:

(i) Length;

(ii) Separations;

(iii) Pipe size, materials, and configuration; and

(iv) Detail of orifice size, spacing and orientation.

(d) Show locations of numbered test pits and test wells, if any, in relation to primary and reserve drainfields; and

(e) Show trench or bed profile with width, depth, piping, cover and any features such as sand, gravel, geotextile, chambers.

(9) Plans for alarm systems must:

(a) Show location of panels and alarms; and

(b) Identify manufacturer and model number of panel.

(10) Plans for flow metering must show:

(a) Valve locations;

(b) Access boxes to grade; and

(c) Any special installation instructions.

(11) Plans must show all electrical components and include a statement that all components meet applicable state or federal codes.

(12) Plan notes must include quality assurance, inspection, and testing:

(a) Where appropriate, the installer shall provide documentation to the design engineer that sand or other media meets specifications;

(b) The design engineer or authorized representative shall inspect the work during construction;

(c) The design engineer shall schedule a final inspection and drainfield pressure test witnessed by the department prior to cover; and

(d) The installer shall call for a special inspection for the following type of work:

(i) Poured-in-place septic tanks and pump chambers and other special containment vessels;

(ii) Proprietary treatment or distribution components;

(iii) Any special excavation requirements;

(iv) Placement of select fill material or final elevation of fill;

(v) Testing of the pressure distribution network prior to final inspection;

- (vi) Pressure testing of all piping; and
- (vii) Water tightness testing of all tanks.

(13) All LOSS construction specifications must be in conformance with state or nationally recognized standards. Examples include, American Public Works Association standards, Ten States Standards, Department of Ecology's Criteria for Sewage Works Design, Department of Transportation's Standard Specifications for Road, Bridge, and Municipal Construction, and the department's recommended standards and guidance.

(14) Specifications must include all construction information not shown on the plans and necessary to inform the installer of the design requirements including, but not limited to:

- (a) The quality of materials;
- (b) Workmanship and fabrication of the project;
- (c) Type, size, strength, operating characteristics, and rating of equipment;
- (d) Allowable leakage for testing gravity sewer pipe;
- (e) Electrical apparatus and wiring components;
- (f) Meters;
- (g) Operating tools;
- (h) Construction materials;
- (i) Special filter or drainfield media other than native soil;
- (j) Other appurtenances;
- (k) Instructions for testing materials and equipment as needed to meet design standards; and
- (l) LOSS component and process testing to confirm functionality prior to department final inspection.

[Statutory Authority: RCW 70.118B.020 and 70.118B.040. WSR 19-10-014, § 246-272B-04400, filed 4/22/19, effective 5/23/19. Statutory Authority: RCW 70.118B.020. WSR 11-12-035, § 246-272B-04400, filed 5/25/11, effective 7/1/11.]