

Title 17A

***CONSTRUCTION AND INFRASTRUCTURE REGULATIONS - SITE
DEVELOPMENT AND STORMWATER DRAINAGE***

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Chapter 17A.10

GENERAL PROVISIONS

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17A.10.010 Authority.

This Title is established pursuant to the Clean Water Act, 33 U.S. Code 1251 et seq.; the State Water Pollution Control Act, Chapter 90.48 RCW; and the Puget Sound Water Quality Act, Chapter 90.70 RCW. (Ord. 99-24S § 2 (part), 1999)

17A.10.020 Title.

This Title shall be known as "Title 17A, Construction and Infrastructure Regulations - Site Development and Stormwater Management." (Ord. 99-24S § 2 (part), 1999)

17A.10.030 Purpose.

- A. These Regulations are based on the premise that development should not impact adjacent and/or downstream property owners in a detrimental manner compared to the pre-development condition. It is not the intent of these Regulations to make Pierce County a guarantor or protector of public or private property with respect to development.
- B. These Regulations are intended to assist, but not to substitute, competent work by professional engineers. It is expected that the professional engineers will bring to each project the best of their skills and abilities to see that the project is thoroughly analyzed and designed correctly, accurately, and in compliance with generally accepted engineering practices. These Regulations are not intended to address all situations or to unreasonably limit any innovative or creative effort in design and construction which could result in better quality, cost savings, or improved performance of a project's storm drainage system.

(Ord. 99-24S § 2 (part), 1999)

17A.10.040 Applicability.

- A. These Regulations establish criteria for review and analysis of all development including but not limited to grading, formal subdivision, short subdivision, large lot division, commercial building, binding site plans, planned unit developments, planned development districts, mobile home parks, single family home construction, duplex construction, or other projects when so required by the Pierce County Hearing Examiner or County Council.
- B. These Regulations include this Title plus the Pierce County Stormwater Management and Site Development Manual (referred to as the Manual) incorporated herein by reference. A copy of the Manual is available for inspection and/or purchase at the Pierce County Public Works and Utilities Department Reprographics Counter.
- C. All proposals for development or redevelopment, whether public or private, which are submitted to the County for review, unless otherwise specifically exempted, must conform to these Regulations which are to be used as the basis for review, design, and construction.
- D. The requirements of this Title apply to all unincorporated areas of Pierce County. All entities, public or governmental, such as utilities, port, irrigation, drainage and flood control districts, cities, town, counties, and other local, State, and Federal government entities, except for those entities whose development/redevelopment or stormwater activities are conducted in accordance with an approved stormwater management manual consistent with the Washington Department of Ecology's Stormwater Management Manual for the Puget Sound Basin, shall file drainage and erosion/ sedimentation control plans or an abbreviated plan according to requirements stated herein and in every way comply with these Regulations where there are cross-jurisdictional projects located totally or in part of the County except as specifically exempted in this Chapter.
- E. Where requirements in these Regulations are also covered in any other law, ordinance, resolution, rule, or regulation of any kind, the more restrictive shall govern.

(Ord. 99-24S § 2 (part), 1999)

17A.10.050 Exemptions.

- A. Full Exemption from Submittal Requirements. The following work is exempt from the requirements of these Regulations:
 - 1. Complete site development applications submitted prior to the effective date of Ordinance No. 96-46S2 (November 3, 1997) for County review and approval.
 - 2. Emergency projects which if not performed immediately would substantially endanger life or property.
 - 3. Public Works and private sector road and utility projects completely within the road right-of-way or within easements adjacent to the right-of-way which do not add impervious surface (not to include trenching activities) or impact the watershed or downstream resources.
 - 4. Grading of land for agricultural purposes, provided that environmentally sensitive and/or critical areas are not significantly affected.
 - 5. Maintenance of public roads or flood control projects when done by a public agency and the project has been reviewed and approved for compliance with applicable State, Federal, and County Regulations, and the work is in existing

public right-of-way or easement dedicated to or on property owned by the County or Inter-County River Improvement Division.

6. Public Works maintenance activities and utility activities which have submitted and had approved an annual scope of work (see Section 17A.40.120) for routine repetitive activities detailing erosion and sediment control measures that comply with the provisions of Chapter 8 of said Manual and which will be implemented during the specified activities.
 7. Routine agricultural practices such as discing, harrowing, plowing, etc., except in sensitive and/or critical areas.
 8. Emergency sandbagging, diking, ditching, filling, or similar work during or within seven days following extreme weather conditions when done to protect life or property.
 9. Washington State Department of Transportation (WSDOT) projects in which stormwater management standards, specifications, and practices are conducted in accordance with WSDOT's Highway Runoff Manual as approved by the Department of Ecology.
 10. All utility trenching and installation where said utility has filed a yearly scope of work plan (see Section 17A.40.120) that addresses sediment and erosion control work methods that comply with Chapter 8 of said Manual.
 11. Projects that are covered under the State of Washington Model Toxics Control Act (MTCA) or the Federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).
 12. The removal, deposit, or displacement of not more than a total of 50 cubic yards of material throughout the life of a development from its existing condition.
 13. The stockpiling or broadcasting of less than 50 cubic yards per year of topsoil, peat, sawdust, mulch, bark, chips, or solid nutrients on a lot, tract, or parcel of land.
- B. Partial Exemption From Submittal Requirements. The following actions require a site development permit, but applicants for such actions shall be responsible for submitting only an abbreviated plan as detailed in Section 4.9 of the Manual:
1. The removal, deposit, or displacement of greater than 50 cubic yards, but less than a total of 250 cubic yards of material throughout the life of a development from its existing condition, except the following which shall require a full submittal: activities within wetlands, sensitive, or critical areas and their associated buffers; excavation and/or fill placed within 25 feet of a drainage course, pothole, floodway, or floodplain; and road construction.
 2. The stockpiling or broadcasting of greater than 50 cubic yards, but less than 250 cubic yards per year of topsoil, peat, sawdust, mulch, bark, chips, or solid nutrients on a lot, tract, or parcel of land, except activities within the following areas which shall require a full submittal: wetland, floodway or floodplain, sensitive area, or critical area and their associated buffers.
 3. The installation of utilities in accordance with a valid Pierce County permit, except activities within the following areas which shall require full submittal: wetland, floodway or floodplain, sensitive area, or critical area and their associated buffers.

(Ord. 99-24S § 2 (part), 1999)

17A.10.060 Definitions.

The following definitions shall apply in the interpretation and enforcement of this Title:

- A. "Abbreviated plan" means a plan for small sites to implement temporary best management practices (BMP's) to control pollution generated during the construction phase only, primarily erosion and sediment.
- B. "Applicant" means the person, party, firm, corporation, or other legal entity that proposes to develop property in unincorporated Pierce County by submitting an application for any of the activities covered by these Regulations on a form furnished by the County and paying the required fees.
- C. "Area of shallow flooding" means a designated "AO" or "AH" zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. "AO" is characterized as sheet flow and "AH" indicates ponding.
- D. "Areas of special flood hazard" means land in a floodplain within Pierce County subject to a one percent or greater chance of flooding in any given year. Designations on maps will always include the letter "A." Areas of special flood hazard will also include "B" zones as defined below.
- E. "BMP" means best management practice.
- F. "B zone" means certain areas subject to the "base flood" with contributing drainage areas of more than 100 acres and less than one square mile and all pothole areas.
- G. "Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year, also referred to as the "100-year flood." Designation on maps will always include the letter "A" or "V".
- H. "Base flood elevation" means the water surface elevation in feet above mean sea level for the base flood and referenced to the National Geodetic Vertical Datum of 1929 (or Pierce County Datum or United States Coast and Geodetic Survey 1929 Datum which are the same).
- I. "Certification" means a written engineering opinion, stamped, signed, and dated by an engineer concerning the progress or completion of work.
- J. "Compensatory storage" means new excavated storage volume equivalent to the flood storage capacity eliminated by filling or grading within the flood fringe. Equivalent shall mean that the storage removed shall be replaced by equal volume between corresponding one foot contour intervals that are hydraulically connected to the floodway through their entire depth.
- K. "County" means the Pierce County Executive or designee; also Pierce County, its duly authorized representatives, and the jurisdictional boundaries of Pierce County.
- L. "Crawl space" means the shallow space beneath the bottom floor of a house with no basement; used for access and inspection of framing, electrical, plumbing, insulation, vapor barriers, or duct work.
- M. "Critical areas" means those areas defined as critical areas in Title 18E PCC.
- N. "Deep and/or fast-flowing water" means a combination of water depth and velocity as shown in the graph in Section 17A.50.110. For the purposes of this Title, Pierce County will also consider deep and/or fast-flowing water to be a floodway area.
- O. "Department" means the Pierce County Department of Public Works and Utilities or the Department of Planning and Land Services as necessary to ensure compliance with these Regulations, unless explicitly referenced otherwise.

- P. "Development" means any man-made change to improved or unimproved real property including but not limited to construction of buildings or other structures, placement of manufactured home/mobile home, mining, dredging, logging, clearing, filling, grading, paving, excavation, drilling operations, or the subdivision, short plat, and large lot division of property.
- Q. "Director" shall mean the Director of the Public Works and Utilities Department or the Director of the Planning and Land Services Department, or their designees, as necessary to ensure compliance with these Regulations, unless explicitly referenced otherwise.
- R. "Earth/earth material" means naturally occurring rock, soil, stone, dirt, or a combination thereof.
- S. "Earthwork" means any operation involving the excavation, grading, filling, or moving of earth materials.
- T. "Easement" means the legal right to use a described piece of land for a particular purpose. It does not include fee ownership, but may restrict the owner's use of the land. All easements granted pursuant to the Manual shall be legally recorded with the County Auditor.
- U. "Easement, private" means an interest in the land of someone else, usually for the benefit of one or more individuals, and constitutes an encumbrance on another's land.
- V. "Engineer" means a professional civil Engineer, currently licensed by the State of Washington, retained by and acting on behalf of the applicant. The term "Engineer" also means design Engineer or project Engineer.
- W. "Existing site conditions" means:
1. For previously developed sites with stormwater facilities that have been constructed to meet the standards in the Manual, this shall mean the current conditions on the site.
 2. For previously developed sites that do not have stormwater facilities that meet the standards in the Manual, existing site conditions shall mean the conditions that existed upon the date of adoption of this Manual. If in question, the existing site conditions shall be documented by aerial photograph records or other appropriate means.
 3. For undeveloped sites, this shall mean the condition of the site prior to artificial alteration or human activity such as logging, mining, clearing, and grading which changes the retentive capabilities of the site to absorb, detain, or transport (i.e., interflow vs. sheetflow) stormwater.
 4. For undeveloped sites which have been previously converted to other uses such as agricultural, livestock rearing, pasture, etc. for at least 10 years, the current conditions shall be viewed as the existing condition for design runoff calculations.
 5. If the site is located in a critical and/or sensitive area that affects drainage as defined by County ordinances or Code, the Director may require that a more restrictive definition of existing site conditions be utilized for the purpose of calculating runoff characteristics.
- X. "FEMA" means the Federal Emergency Management Agency.

- Y. "Flood" means an overflow or inundation that comes from a river or any other source, including but not limited to streams, tides, wave action, storm drains, or excess rainfall.
- Z. "Flood frequency" means the frequency with which the flood of interest may be expected to occur at a site in any average interval of years. Frequency analysis defines the "n-year flood" as being the flood that will, over a long period of time, be equaled or exceeded on the average once every "n" years.
- AA. "Flood fringe" means the area subject to inundation by the base flood, but outside the limits of the floodway, and which may provide needed temporary storage capacity for flood waters.
- AB. "Flood hazard area" means the floodplain.
- AC. "Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the risk premium zones applicable to Pierce County.
- AD. "Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, a map of the 100-year floodplain and floodway boundaries, and the water surface elevation of the base flood.
- AE. "Floodplain" means the total area subject to inundation by the base flood including the flood fringe and floodway.
- AF. "Flood proof" means structural provisions or adjustments to nonresidential buildings for the purpose of eliminating flood damages to those structures including their utilities and contents.
- AG. "Flood routing" means an analytical technique used to compute the effects of system storage dynamics on the shape and movement of flow represented by a hydrograph.
- AH. "Floodway" means the channel of the river or other watercourse, the adjacent land areas that must be reserved in order to convey and discharge the base flood without cumulatively increasing the water surface elevation by more than one foot, and those areas designated as deep and/or fast-flowing water.
- AI. "Floodway Map" means the official map on which the Federal Insurance Administration has delineated a floodway.
- AJ. "Frequently flooded areas" means the 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program or as defined by the local government.
- AK. "Land disturbing activity" means any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include but are not limited to demolition, construction, clearing, grading, filling, and excavation.
- AL. "Large lot" means as defined by the Pierce County Subdivision Code, Title 16 Pierce County Code (PCC) or the most recent version thereof.
- AM. "Large lot divisions" means any number of divisions of land into lots, tracts, or parcels for any purpose, each of which the smallest lot size is five acres or larger or 1/128 of a section but smaller than 20 acres.
- AN. "Manual" means the Pierce County Stormwater Management and Site Development Manual including all amendments, corrections, and changes made through subsequent County ordinance.

- AO. "Manufactured home/mobile home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured home/mobile home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes, the term "manufactured home/mobile home" does not include park trailers, travel trailers, recreational vehicles, or other similar vehicles.
- AP. "Manufactured home/mobile home park or subdivisions" means a parcel or contiguous parcels of land divided into two or more manufactured home/mobile home lots for rent, lease, or sale.
- AQ. "New development" means the following activities: land disturbing activities; external structural development including construction, installation, or expansion of a building or other structure; creation of impervious surfaces; class IV-general forest practices that are conversions from timber land to other uses; and subdivision and short subdivision of land as defined in RCW 58.17.020. All other forest practices and commercial agriculture are not considered new development.
- AR. "Off-site" means any area lying upstream of the site that drains onto the site, and any area lying downstream of the site onto which the site drains.
- AS. "On-site" means the entire property including the proposed development.
- AT. "One-Lot Subdivision" means the creation of one additional lot through the platting process from an original tract so long as the private road or Shared Access Facility accessing it complies with PCC 17C.60.230.
- AU. "Original tract" means a unit of land which the applicant holds under single or unified ownership, or in which the applicant holds controlling ownership and the configuration of which may be determined by the fact that all land abutting said tract is separately owned by others, not including the applicant or applicants; provided that where a husband and wife own contiguous lots, both such lots shall constitute the original tract.
- AV. "Parcel" means any portion, piece, or division of land; fractional part or subdivision of block, according to plat or survey; portion of platted territory measured and set apart for individual and private use and occupancy.
- AW. "Plat" means a map or representation of a subdivision showing thereon the division of a tract or parcel of land into lots, blocks, streets and alleys, or other divisions and dedications.
- AX. "Post-development conditions" means the condition of site after the project has been constructed.
- AY. "Pre-development conditions" means the state of land before any development. Also see "Existing conditions".
- AZ. "Preliminary plat" means a neat and approximate drawing of a proposed subdivision showing the general layout of streets and alleys, lots, blocks, and restrictive covenants to be applicable to the subdivision which shall furnish a basis for the approval or disapproval of the general layout of a subdivision.
- BA. "Project" means the proposed action of a permit application or an approval which requires a drainage and erosion/sediment control plan or abbreviated plan.

- BB. "Proponent" means the person or legal entity who holds title to the property or has a sufficient interest in the property to propose the project. The proponent of the project. Also see "Applicant".
 - BC. "Redevelopment" means, on an existing developed site, the creation or addition of impervious surfaces, external structural development, including construction, installation, or expansion of a building or other structure, and/or replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities associated with structural or impervious redevelopment.
 - BD. "Regulations" means this Title plus requirements contained in the Pierce County Stormwater Management and Site Development Manual.
 - BE. "Short plat or short subdivision" means as defined in the Pierce County Subdivision Code, Title 16 PCC or most recent version thereof.
 - BF. "Single-family residential structure" means a structure used to house one or two families, including appurtenant structures such as a garage, storage shed, or other structure not used for living purposes, all for the private, non-commercial use of the property owner or renter.
 - BG. "Site" means any parcel or combination of contiguous parcels where grading, filling, clearing, or creation of an impervious surface is proposed, and which may be controlled by more than one property owner.
 - BH. "Site development plan" means inclusion of the following, as specifically required by the County in each instance: site plan, erosion and sedimentation control plan, grading plan, storm drainage plan, stormwater drainage control report, soils report, flood study, road construction plans, entering sight distance variances and verifications, and other documents required in the review of proposed development of the property.
 - BI. "Site development permit" means a permit issued by Pierce County authorizing the applicant to access the property; fill, grade, and create an impervious surface, or any combination thereof.
 - BJ. "Subdivision or final plat" means as defined in the Pierce County Subdivision Code, Title 16 PCC or the most recent version thereof.
 - BK. "Technical equivalency" or "technical deviation" means an alternative design option requested by an applicant or the applicant's Engineer which deviates from the stipulated technical design standards or criteria found in the Pierce County Stormwater Management and Site Development Manual.
 - BL. "Tract" means a legally created parcel of property designated for special nonresidential and noncommercial uses.
 - BM. "Uniform Building Code (UBC)" means the most recent version of the Uniform Building Code adopted by Pierce County.
- (Ord. 99-24S § 2 (part), 1999)

17A.10.070 Site Development Permits.

A. General.

1. Issuance of a site development permit by Pierce County does not in any way imply or signify that the proposal complies with the requirements of or is allowed by other County ordinances, Regulations, or requirements, or State or Federal laws.

2. The applicant is in no way relieved of responsibility and liability for compliance with all State, Federal, and local rules, requirements, laws, ordinances, and regulations. Design errors which are undetected by the County do not relieve the Engineer from ultimate responsibility. Where these errors are discovered, the plans are subject to revisions by the Engineer and review and approval by the County.
3. The permit issuance, payment of fees, and plan review must be completed prior to plat approval or issuance of building permits.
4. All site development plans submitted to the County for review and approval shall be prepared by an Engineer with the exception of abbreviated plans which may or may not be prepared by an Engineer as set forth in the Pierce County Stormwater Management and Site Development Manual. Should errors, omissions, or inaccurate data related to the submitted work come to the County's attention, the applicant or Engineer, as applicable, shall correct all deficiencies and be responsible for all damages resulting from the defective work.
5. An acceptance of a submittal by the County does not relieve the proponent or project Engineer from responsibility for ensuring that all facilities are completed in accordance with the calculations, plans, change orders, and specifications, and that all of the preceding and as-built (record) drawings comply with current Engineering standards, these Regulations, and applicable Federal, State, and local laws and codes.

B. Permit Required.

1. Unless fully exempt from these Regulations, no person, party, firm, corporation, or entity shall do any grading, filling, clearing, excavating, or ditching, or create an impervious surface, or any development or redevelopment activity unless the work is in accordance with a valid site development permit from the County issued pursuant to the provisions of these Regulations.
2. Each site must have a separate site development permit.

C. Application Procedures.

1. Preliminary Review of Applications. The provisions for conducting a preliminary review of a site development application are set forth in Chapter 18.40, Development Regulations - General Provisions.
2. Application Filing.
 - a. Site development permit applications shall be reviewed for completeness in accordance with Department submittal standards checklists, submittal requirements identified in the Manual, and pursuant to Chapter 18.40, Development Regulations - General Provisions.
 - b. The information required to be shown on site development plans, grading plans, erosion and sedimentation control plans, and storm drainage plans is set forth in Chapter 4 of the Manual.
 - c. The applicant may provide additional information, as appropriate, to identify the scope of work.
3. Complete Applications.
 - a. For the purposes of this Chapter, a valid and fully complete development permit or approval application must include:
 - (1) An application form with all sections filled in;

- (2) Copies of all existing easements, deed restrictions, or other encumbrances restricting the use of the subject property;
 - (3) A completed environmental checklist if required;
 - (4) Record of payment for any application fees specified in Chapter 2.05 PCC, Planning and Land Services Fees;
 - (5) Documentation of compliance with the application requirements in the Stormwater Management and Site Development Manual;
 - (6) Completed applications for other required permits or approvals if they are to be processed with the development applications, or copies of issued permits or applications if they have been previously approved; and
 - (7) Any other documents or information required in the Pierce County Code or the Hearing Examiner's Conditions for the specific permit or approval which is the subject of the development application.
- b. Determination that an application is valid and fully complete will be made by the Planning and Land Services Director or designee.
 - c. For the purposes of this Chapter, the date that an application is valid and fully complete shall be determined according to the following specifications:
 - (1) If the application is determined by the Director to be valid and fully complete, the date that the application was submitted and date-stamped at the permit counter shall be the date the application is deemed valid and fully complete.
 - (2) If the application is determined to be invalid and/or incomplete by the Director, and the information requested by the Department to resolve the application's invalid or incomplete status is determined by the Department to be valid and fully complete, then the date the application is deemed valid and fully complete shall be the date the last piece of requested information is submitted and date-stamped at the permit counter.
 - (3) If the applicant does not submit responses to a request from the Department for additional information within 90 days, the application shall be deemed withdrawn by the applicant and no valid and fully complete application rights shall exist.
 - d. Although the Planning and Land Services Department shall determine the validity and completeness of an application for purposes of establishing a valid and fully complete application date, during the review of the completed application, the Department may require submittal of additional information.
4. Compliance with Environmental Regulations. Any application filed pursuant to this Title shall comply with the provisions set forth in Chapter 43.21C RCW, the State Environmental Policy Act, and Title 18D, Development Regulations - Environmental.
 5. Modifications to Applications. The County reserves the right to require a new permit when resubmitted plans are found to have significant design and/or conceptual changes or changes in field conditions from the original submittal.
- D. **Public Notice.** Public notice provisions for notice of application, threshold determination, if applicable, public hearing, and final decision on permit applications filed pursuant to this Title are outlined in Chapter 18.80, Development Regulations - General Provisions.

E. Review.

1. **Initial Review.** The Department shall conduct an initial review of the permit application in accordance with the provisions outlined in Chapter 18.60, Development Regulations - General Provisions.
2. **Review Criteria.** The County shall review the submitted information to determine if it complies with the provisions of these Regulations.
3. **Burden of Proof.** The Engineer shall show by calculations, plans, and Engineering data that the proposed project meets the requirements of these Regulations.
4. **Director's Authority.** The Director shall have the authority to increase requirements to protect the health, safety, and welfare of the public on the basis of information regarding threatened water quality, erosion problems, habitat destruction, historic flooding, protection of uninterruptable services, endangerment to property, or increases in requirements imposed by State or Federal agencies or other pertinent factors.
5. **Approval.**
 - a. If the proposed work, as identified by the application and plans, complies with the provisions herein, or as imposed by the County pursuant to these Regulations, or if it is corrected or amended to comply within the specified time limit and all applicable fees have been paid, the County shall issue a site development permit to the applicant.
 - b. Site development permits for clearing, site grading, road construction, creation of impervious surfaces, and installation of storm drainage facilities may not be issued until Hearing Examiner approval of a related preliminary plat, use permit, variance, or shoreline permit has been granted and the associated reconsideration or appeal period of such approval has expired.
 - c. Until the Director approves a site development permit and erosion control devices are in place per the approved plans, the County will not grant any commercial or single family building, or other related structure permit, or allow project clearing, earthwork, demolition, site work, logging activities, or any preconstruction activity or construction activity except as needed to install erosion and sediment control facilities to begin.
 - d. The County will not grant final approval for developments, issue certificates of occupancy, release financial guarantees related to drainage and erosion control, or accept final construction until all of the following have been completed:
 - (1) Construction inspection report(s) and as-built (record) drawings of related drainage and erosion control measures have been prepared by the project Engineer and been accepted by the County;
 - (2) Special requirements on the cover sheet of a plat and a general easement for protection and maintenance have been completed or executed;
 - (3) Filing with the Pierce County Auditor of covenants on lots, property owners' association articles, maintenance easements, agreements with adjacent property owners, and similar documents as required in the drainage and erosion/sedimentation control plan;
 - (4) Conditions of approval fulfilled;
 - (5) Site stabilized and restored, and temporary erosion control measures are removed as required by the County as set forth in Chapter 8 of the Manual;and

- (6) Completion of County inspections.
 - 6. Denial. The Director shall deny a site development permit if the proposal does not meet or cannot be modified to meet the requirements set forth in this Title.
 - F. **Time Period for Final Decision.** The provisions for issuing a notice of final decision on any application filed pursuant to this Title are set forth in Chapter 18.100, Development Regulations - General Provisions.
 - G. **Permit Posting.** The permit must be posted by the applicant at the driveway location for the duration of the construction activity. The applicant will be responsible for the weather proofing of the permit, posting apparatus, and maintenance of the permit.
 - H. **Time Limitations.**
 - 1. Expiration.
 - a. A site development permit shall be valid for three years from the date of approval or related final plat approval, if applicable, by the County, whichever comes last.
 - b. Unless governed by the provisions of RCW 58.17.140, a new application must be filed and a permit must be obtained for work not completed before the expiration of the previous site development permit within this time period.
 - 2. Extensions. The expiration time period specified pursuant to 17A.10.070 H.1. above may be granted a single one-year time period extension by the Director of Planning and Land Services, provided the Director has received the request in writing at least 30 days prior to the expiration date and deems that such request demonstrates good cause for delay.
 - I. **Revisions to Approved Plans.**
 - 1. General. The County may require that contractor- or applicant-initiated plan changes or field revisions to the approved construction plans be done using a change order form established in Appendix R of the Manual or an approved equal.
 - 2. Procedure. When the change order form is required, the revisions procedure as outlined on the form must be followed or final approval of the project may be withheld by the County.
 - 3. Approval. When the County has authorized revisions to the approved construction plans, the Engineer shall submit as-built (record) construction plans, stamped and signed, reflecting the approved revisions once the construction is completed.
- (Ord. 99-24S § 2 (part), 1999)

17A.10.080 Variances.

A variance may be requested to these Regulations pursuant to the procedures and criteria set forth in PCC 18A.75.040. (Ord. 99-24S § 2 (part), 1999)

17A.10.090 Technical Equivalency.

- A. The Director of Public Works and Utilities may grant technical deviations from the requirements contained in this Chapter provided that all of the following are met:
 - 1. The granting of technical equivalency will not otherwise result in non-compliance with minimum requirements set forth in the Pierce County Stormwater Management and Site Development Manual;
 - 2. The granting of technical equivalency will not violate the development conditions imposed upon the project;

3. The granting of technical equivalency will produce a compensating or comparable result which is in the public interest;
 4. The granting of technical equivalency will meet the objectives of safety, function, appearance, environmental protection, and maintainability based on sound Engineering judgement.
- B. The Director of Public Works and Utilities or designee shall make written findings supporting the determination of technical equivalency.
- C. At the request of either the Director's designee or the applicant, the County will convene an advisory board which will provide a recommendation to the Director. The board will be composed of a representative of the Storm Drainage and Surface Water Utility, a representative from Planning and Land Services, Development Engineering Section, and a representative recommended by the local Chapter of the American Society of Civil Engineers. The advisory board will be convened at the earliest possible date, at no time more than 30 days from date of request. The advisory board shall review proposals for technical equivalency and provide a recommendation and supporting findings for consideration by the Director within 30 days of convening. The board shall be convened only if the County and the applicant's Engineer cannot agree upon a determination of technical equivalency.
- (Ord. 99-24S § 2 (part), 1999)

17A.10.100 Hazards.

- A. Whenever the Director determines that any existing construction site, erosion/ sedimentation problem, and/or drainage facility poses a hazard to life and limb, endangers any property, and/or adversely affects the condition or capacity of other drainage facilities, the safety and operation of County right-of-way, utilities, and/or other property owned or maintained by the County, the applicant/person to whom a permit was issued, the owner of the property, the applicant/person responsible for maintenance, and/or other person or agent in control of said property, upon receipt of notice in writing from the Director shall within the period specified therein repair or otherwise address the cause of the hazardous situation in conformance with the requirements of this Chapter.
- B. Should the Director have reasonable cause to believe that the situation is so adverse as to preclude written notice, he/she may take the measures necessary to eliminate the hazardous situation, provided, that he/she shall first make a reasonable effort to locate the owner before acting. In such instances, the applicant, of whom a drainage plan was required pursuant to this Title, owner of the property, and/or person responsible for the maintenance of the facility shall be obligated for payment of all costs incurred. If costs are incurred and a financial guarantee pursuant to this Title or other County requirement has been posted, the Director shall have the authority to collect against the financial guarantee to cover costs incurred.
- (Ord. 99-24S § 2 (part), 1999)

17A.10.110 Reconsideration and Appeal Procedures.

Procedures for appeal of an administrative decision and procedures for reconsideration or appeal of a Hearing Examiner decision issued pursuant to this Title are set forth in Chapter 1.22 PCC. (Ord. 99-24S § 2 (part), 1999)

17A.10.120 Fees.

Fees for an application filed pursuant to this Title are set forth in Chapter 2.05 PCC. (Ord. 99-24S § 2 (part), 1999)

17A.10.130 Penalties and Enforcement.

A. General.

1. Failure to comply with this Title and the Manual will be cause for withholding or withdrawing approval of the overall project plans, revocation of the site development permit, suspension of building inspections, forfeiture of the financial guarantee submitted to the County, and/or non-acceptance of the work by the County.
2. The County may require the property owner to remove or replace illegal earthwork and/or restore and reclaim an illegally graded parcel. Earth material brought onto a parcel must be removed to a properly-permitted disposal site.
3. Nothing contained herein supplants or replaces any greater penalty or other remedy provided under State or Federal law.

B. Enforcement Actions.

1. The Director shall be responsible for enforcing this Title. The Director is authorized to issue violation notices, stop work orders, cease and desist orders, levy fines, recover costs, issue notices of civil infraction, and/or institute both civil and criminal actions in the court. The Director may refer cases to the Pierce County Prosecuting Attorney's Office for filing of criminal and civil cases. Recourse to any single remedy shall not preclude recourse to any other remedies available to the County.
2. Prior to acceptance or approval of the development, the County may remove, correct, or replace any improperly constructed facility, structure, or portion thereof which was allowed through an issued site development permit, and all expenses incurred by the County shall be paid by the property owner or applicant. If Pierce County is required to bring an action to recover such costs, the County will recover reasonable attorney's fees and interest at 12 percent per annum to run from the date the work was completed by the County. Applicants must agree to this provision as a condition of issuance of any permit authorized by these Regulations.

C. Stop Work Orders. Should the County become aware of conditions that invalidate the original design data used to obtain the permit or determine that the applicant is not complying with the conditions of the permit or approved plans, the County may revoke the original permit and/or order work stopped on the project. The County may require the applicant to resubmit information or plans for review and approval and apply for a new permit. The County may order all or part of the permitted work stopped for any period of time for any of the following reasons:

1. The applicant fails to comply with the conditions of the permit.
2. The permit was granted on the basis of erroneous or incomplete information submitted to the County by the applicant or the applicant's agent.
3. The weather or weather-created conditions cause off-site or downstream drainage or water quantity or quality problems.
4. The work has created a condition which is a hazard to life, endangers property, or adversely affects the use or stability of a public way or drainage course.

- D. **Cease and Desist Orders.** The County may serve a cease and desist order for violations of this Chapter. The order shall include the following:
1. **Description of Violation:** A description of the specific nature, extent, and time of violation. The order may include the damage or potential damage resulting from the violation. A notice that the violation or the potential violation cease and desist may, in appropriate cases, specify corrective action to be taken within a given time. A civil infraction citation may be issued with the order pursuant to the provisions of Chapter 1.16 PCC.
 2. **Effective date:** The cease and desist order issued under this Section shall become effective immediately upon receipt by the person to whom the order is directed.
 3. **Compliance:** Failure to comply with the terms of a cease and desist order can result in enforcement action including but not limited to the issuance of a civil infraction citation.
 4. **Corrective Measures:** The order may include specific corrective measures to be taken to mitigate environmental damage.
 5. **Request for Hearing:** The order shall state that a hearing may be requested by an affected party by sending a written request for a hearing to the Pierce County Hearing Examiner within 10 days of the receipt of said order.
- E. **Civil Infraction.** Any person who fails to comply with a written request of the Director or designee shall be liable to the County for a Class I civil infraction pursuant to Chapter 1.16 PCC, as well as all civil remedies available at law. Each violation and, in the case of a continuing violation, each day of continued violation shall be a separate and distinct violation. Civil penalties shall be assessed at a rate of \$250.00 per day per violation, and statutory assessments will be in addition to this amount pursuant to 1.16.120 PCC.
- F. **Civil Penalty.** The provisions of this section are in addition to and not in lieu of any other penalty, sanction or right of action provided by law. The purpose of this penalty is to encourage compliance with this Title and to obtain redress for ecological, recreational, and economic values lost or damaged due to the unlawful action. Any person who fails to obtain a necessary permit prior to conducting activities governed by the provisions of this Title shall be assessed a civil penalty as follows:
1. The Director may assess the violator a civil penalty not to exceed \$1,000.00 for each violation. Each violation or each day of continued unlawful activity shall constitute a separate violation.
 2. Any person who, through an act of commission or omission, aids in a violation shall be considered to have committed the violation for purposes of the civil penalty.
 3. The penalty provided for in this Section shall be imposed by the Director in writing, either by certified mail with return receipt requested or by personal service, to the person incurring the penalty, describing the violation with reasonable particularity and ordering appropriate corrective action to be taken within a specified time.
 4. Within 30 days after the notice of penalty is received, the person incurring the penalty may apply in writing to the Director for remission or mitigation of such penalty. Upon receipt of the application, the Director may remit or mitigate the penalty upon whatever terms are deemed proper to bring about compliance with this Title.

5. Any decision(s) regarding remission or mitigation of penalties imposed pursuant to this subsection may be appealed to the Pierce County Hearing Examiner under Chapter 1.22 PCC.
 6. If the penalty is not appealed, the violator will have up to 30 days after receipt of notice for payment of the penalty, unless a written request is made to the Director and granted for a longer payment period.
 7. All civil penalties recovered during the enforcement of this Section shall be deposited into a fund of the division taking the enforcement action.
- G. Recovery of Costs Incurred by the County.**
1. Any person violating any of the provisions of this Title, who discharges or causes a discharge which violates the County's NPDES permit and/or produces a deposit or obstruction or causes damage to or impairs the County's stormwater disposal system or causes damage to physical, chemical, or biological systems of waters of the State or waters of the United States shall be liable to the County for any expense, loss, or damage caused by such violation or discharge, including the costs for bringing the County back into compliance with its NPDES permit associated with the violation of these Regulations, and any fines levied for violations of the County's NPDES permit.
 2. A bill issued by the Director or designee for collection of costs incurred under subsection 17A.10.130 F. is appealable within 14 days from the date of the letter. Appeals may be filed by submitting a \$300.00 appeal fee along with a written statement identifying the basis for disputing County claim to the Department initiating the action.
- H. Violators Punishable by Fine and Imprisonment.**
1. Any person, who without authorization, discharges pollutants into a municipal drainage system, uses an unapproved connection to discharge into a municipal drainage system, submits false information in permitting and reporting requirements, violates the terms and conditions of a permit, violates a cease and desist order issued by the Director or designee, fails to pay a civil penalty or cost recovery assessment, or obstructs or damages a municipal drainage system shall be deemed guilty of a misdemeanor and shall be punished by fine not to exceed \$1,000.00, by imprisonment not to exceed 90 days, or by both such a fine and imprisonment.
 2. Each person found guilty of a violation shall be deemed guilty of a separate offense for every day during any portion of which the violation is committed, continued, or permitted by such person and shall be punishable as provided for in this Title. Any person who, through an act of commission or omission procures, aids, or abets in violation shall be considered to have committed a violation for the purpose of this Section.
- I. Injunction and Other Civil Remedies.** In addition to any other penalty or method of enforcement, the Prosecuting Attorney may bring civil actions and suits for damages, injunctive relief, and/or for other civil remedies as necessary. Any violation of this Title shall constitute a public nuisance and may be enjoined as provided by the Statutes of the State of Washington.

- J. **Public Nuisance.** Any work carried out contrary to the provisions herein shall constitute a public nuisance and may be enjoined as provided by the statutes of the State of Washington.

(Ord. 99-24S § 2 (part), 1999)

17A.10.140 Inspections, Right of Entry, Access.

- A. The Director is authorized to make such inspections and take such actions as may be required to enforce the provisions of this Title.
- B. Whenever necessary to make an inspection to enforce any of the provisions of this Title, or whenever the Director has reasonable cause to believe that violations of this Title are present or operating on a subject property or portion thereof, the Director may enter such premises at all reasonable times to inspect the same or perform any duty imposed upon the Director by this Title; provided that if such premises or portion thereof is occupied, the Director shall first make a reasonable effort to locate the owner or other person having charge or control of the premises or portion thereof and demand entry.
- C. Proper ingress and egress shall be provided to the Director to inspect or perform any duty imposed upon the Director by this Title. The Director shall notify the responsible party in writing of a failure to provide access. If the responsible party fails to respond within seven days from the receipt of notification, the Director may order the work required completed or otherwise address the cause of improper access. The obligation for the payment of all cost that may be incurred or expended by the County in causing such work to be done shall be imposed on the person holding title to the subject property.

(Ord. 99-24S § 2 (part), 1999)

17A.10.150 Archaeological Sites.

Development of archaeological sites shall be done in accordance with Chapter 14.04 PCC and Washington Administrative Code 25-48, as now adopted or as may be amended, or other applicable County, State, or Federal law. (Ord. 99-24S § 2 (part), 1999)

17A.10.160 Severability.

If any provision of this Title or its application to any person or circumstances is held invalid, the remainder of this Title or the application of the provision to other persons or circumstances shall not be affected. (Ord. 99-24S § 2 (part), 1999)

Chapter 17A.20

GUARANTEES, DEEDS, AND EASEMENTS

Sections:

- 17A.20.010 Financial Guarantees.**
- 17A.20.020 Reclamation Guarantees.**
- 17A.20.030 Construction Guarantees.**
- 17A.20.040 18-Month Guarantees.**
- 17A.20.050 Temporary Road Approach Guarantee.**
- 17A.20.060 Deeds and Easements.**

17A.20.010 Financial Guarantees.

- A. Financial guarantees shall be either by bond or assignment of funds (see Appendix P in the Manual).
- B. Financial guarantees shall be on an approved County form.
- C. Financial guarantees under \$5,000.00 must be by an assignment of funds. Financial guarantees greater than or equal to \$5,000.00 may be by assignment of funds or bonds.
- D. All financial guarantees shall run continuously until released by Pierce County and shall not be subject to expirations or cancellations.
- E. In the event that a property is sold, the proponent is responsible for transferring the financial guarantee liability by having the new owner(s) replace any existing financial guarantees that the County is holding.
- F. A completed right of entry form is required prior to acceptance of any financial guarantee covering improvements on private property. A right of entry form (see Appendix P in the Manual) shall be prepared by the property owner in the event that the County must access the property to complete the necessary improvements. The right of entry shall run with the land.

(Ord. 99-24S § 2 (part), 1999)

17A.20.020 Reclamation Guarantees.

- A. The purpose of this guarantee is to ensure that adequate erosion control measures are employed during the course of construction and that permanent stabilization is achieved at the conclusion of significant activity. The County may utilize the guarantee to reduce drainage impacts and permanently stabilize the site in the event that the County determines a site has been abandoned after construction begins. The County will consider a site to be abandoned based on a lack of response by the proponent to correct noted deficiencies or non-completion of improvements prior to permit expiration. Permanent stabilization includes reclamation of the site if a project is abandoned after construction begins.
- B. The guarantee shall be for \$1,500.00 per acre to be disturbed with a \$1,500.00 minimum.
- C. The reclamation guarantee must be accepted by Pierce County prior to approval of a site development permit and will be released after the conclusion of significant activity on the project site and upon the recommendation of the County inspector. The County

inspector will recommend release of the reclamation guarantee when he/she determines that little potential for erosion, sedimentation, or stormwater impacts remains.

- D. Upon identification by the County of deficiencies relating to erosion control, site stabilization, or project abandonment, the County will provide written notification to the proponent identifying the deficiencies. The proponent will have 10 calendar days to respond. The County will begin collection proceedings after the 10 calendar day period if the deficiencies are not satisfactorily addressed or satisfactory response detailing how the deficiencies will be addressed in a timely fashion has not been received.

(Ord. 99-24S § 2 (part), 1999)

17A.20.030 Construction Guarantees.

- A. The purpose of this guarantee is to ensure the completion of proposed improvements as required by this Manual, other ordinances, Hearing Examiner conditions, State Environmental Policy Act mitigation measures, etc. The guarantee is also to ensure completion of an improvement in County right-of-way or on County property in the event that a project is abandoned after construction has begun.
- B. The construction guarantee amount can be determined by submitting a scope of work to be accomplished and an Engineer's estimate for the cost thereof. The estimate shall be based on current construction cost data. The County will review the estimate and, if acceptable, establish the financial guarantee at 300 percent of the estimate for short plats and large lot divisions and 125 percent of the estimate for formal plats and commercial activities to allow for inflation and administrative expenses should the County have to complete the work. Alternatively, the amount can be determined by using the same percentage of an executed construction contract for all of the work to be guaranteed.
- C. When work is proposed in the County right-of-way, a construction guarantee must be accepted by Pierce County prior to approval of the site development and right-of-way permits for the project. The financial guarantee may be in lieu of construction of required improvements within public rights-of-way except in situations where the work involves a safety or public welfare issue.
- D. A construction guarantee for work on private property is required when the project proponent desires to obtain final approval of the development project (final plat, short plat, large lot division, etc.) prior to construction of some or all of the necessary improvements.
- E. All of the following conditions must be met prior to release of the construction guarantee:
 - 1. Completion of the necessary improvements;
 - 2. Submittal to and acceptance by the County of the project Engineer's inspection report form;
 - 3. Acceptance by the County of the completed construction; and
 - 4. Submittal to and acceptance by the County of the 18-month guarantee.
- F. All improvements financially guaranteed must be completed within three years from the date of issuance of the site development permit or right-of-way permits. The County will begin collection proceedings after the three-year time limit has expired.

The proponent will remain financially responsible for all costs exceeding the amount of the original guarantee.

(Ord. 99-24S § 2 (part), 1999)

17A.20.040 18-Month Guarantees.

- A. The purpose of this guarantee is to ensure that the proponent will correct any defect or subsequent problem and conduct any necessary maintenance on the required improvements noted during or at the end of the initial 18-month period. The intent is to protect the taxpayers and/or affected private property owners from the undue financial burden of having to correct problems caused by improper design, faulty construction, or other project-related reasons determined by the County and ensure the facility is fully functional when turned over to the homeowners association.
- B. The guarantee shall be for 4 percent of the construction guarantee amount for short plats and large lots and 10 percent of the construction guarantee amount for formal plats and commercial activities, but not less than \$5,000.00.
- C. The 18-month guarantee must be submitted to and accepted by the County prior to final project approval or prior to release of the construction guarantee when applicable.
- D. The 18-month guarantee will be held for a period of 18 months from County acceptance of public improvements for maintenance, or 18 months from County acceptance of the project Engineer's inspection report for private improvements. It shall be the proponent's responsibility to request inspection on completion of the 18-month period. Projects will be inspected on a first-come, first-serve basis. If no deficiencies are noted, the County inspector will recommend release of the financial guarantee. If deficiencies are noted, the proponent will be notified of the specific deficiencies to be corrected. The guarantee will not be released until the work is found to be acceptable.
- E. Upon identification by the County of deficiencies relating to the constructed improvements or after the elapse of the 18-month period, the County will inspect the project and identify in writing to the proponent any noted deficiencies. The proponent will have 30 days to respond. The County will begin collection proceedings after the 30-day period if the deficiencies are not satisfactorily addressed.

(Ord. 99-24S § 2 (part), 1999)

17A.20.050 Temporary Driveway Approach Guarantee.

- A. The purpose of this guarantee is to ensure the removal of the temporary driveway approach and restoration of the County right-of-way. Removal of the temporary driveway approach means to permanently close the approach by blocking, berming, fencing, or other method suitable to the County. Restoration of the County right-of-way means to restore the County road, shoulder, and storm drainage system to the condition they were in prior to construction of the temporary driveway approach.
- B. The amount shall be \$2,000.00 for each temporary driveway approach to a paved County road and \$1,500.00 for each temporary driveway approach to a gravel or primitive County road.
- C. The temporary driveway approach guarantee must be accepted by Pierce County prior to approval of the site development permit for the temporary driveway approach.

- D. Upon removal of the temporary driveway approach and restoration of the County right-of-way, the proponent will contact the County inspector and request inspection. The inspection will be completed on a first-come, first-serve basis. If the removal and restoration work is found to be acceptable, the financial guarantee will be released. If the work is not found to be acceptable, the proponent will be notified of the deficiencies to be corrected, and the guarantee will not be released until the work is found to be acceptable.
- E. The County will provide written notice to the proponent of deficiencies in the removed or constructed temporary driveway approach or the need to remove the temporary driveway approach. The proponent will have 30 days to respond. The County will begin collection proceedings after the 30-day period if the deficiencies are not satisfactorily addressed and/or the temporary driveway approach is not properly removed.

(Ord. 99-24S § 2 (part), 1999)

17A.20.060 Deeds and Easements.

The following deeds and easements should be used to convey property or rights to Pierce County:

- A. Statutory Warranty Deed (individual, partnership, or corporate). This document is used to convey real property to Pierce County.
- B. Storm Sewer Easement. This document conveys to Pierce County the right to have and maintain a storm sewer system across a specific parcel of property.
- C. Slope and Utility Easement. This document conveys the right to have fill material or a cut slope and utilities on private property.

(Ord. 99-24S § 2 (part), 1999)

Chapter 17A.30

EARTHWORK

Sections:

- 17A.30.010 Excavation Standards.**
- 17A.30.020 Fill Standards.**
- 17A.30.030 Soil Engineering - Geology Report.**

17A.30.010 Excavation Standards.

A. Cut Slopes.

1. Slopes shall be no steeper than is safe for the intended use and shall not be steeper than 2 horizontal to 1 vertical, or as recommended by a soils Engineer.
2. The catch point of the top of the slope shall be set back from the site boundary line in accordance with the following table, unless a retaining wall is designed by the Engineer and constructed for the project.

B. Setback from Property Lines.

<u>Cut Depth</u>	<u>Setback Distance</u>
Under 5 Feet	2 Feet
5 - 20 Feet	Height/2
Over 20 Feet	10 Feet

(Ord. 99-24S § 2 (part), 1999)

17A.30.020 Fill Standards.

- A. Fills which are intended for building sites shall be constructed in conformance with the requirements of the latest edition of the U.B.C., as adopted by Pierce County, and an assignment of allowable soil-bearing pressures will be under the jurisdiction of the Pierce County Building Official in accordance with the U.B.C.
- B. Slopes shall be no steeper than is safe for the intended use and shall not be steeper than one and one half horizontal to one vertical, or as recommended by a soils Engineer. Fill sites must be approved by the Engineer as suitable locations for the proposed fill.
- C. The ground surface for fills over five feet in height shall be prepared by removing vegetation, noncomplying fill, topsoil, and other unsuitable materials; scarifying to provide a bond with the new fill; and, where existing slopes are steeper than five horizontal to one vertical, by benching into competent material as determined by the Engineer. The bench under the toe of a fill on a slope steeper than 5 horizontal to 1 vertical shall be at least 10 feet wide or as recommended by a soils Engineer.
- D. Except as permitted by the County, no material other than earth material shall be buried or placed in fills. Placement of other than earth material is regulated by State statutes or Federal laws, and additional permits may be required.
- E. Fills shall be constructed using earth materials, compaction methods, and construction techniques so that stable fills are created.

- F. The toe or catch point of fill slopes shall be set back from the site boundary line in accordance with the following table unless a retaining wall is designed by the Engineer and constructed for the project:

<u>Fill Depth</u>	<u>Setback Distance</u>
Under 5 Feet	2 Feet
5 - 40 Feet	Height of Fill
Over 40 Feet	20 Feet

(Ord. 99-24S § 2 (part), 1999)

17A.30.030 Soil Engineering - Geology Report.

When on-site conditions or the proposed work involve slide-prone or unstable soils, the applicant shall be required to retain a soils Engineer to prepare a report that includes data regarding the nature, slide potential, soil bearing capacity, and slope stability of existing soils; conclusions and recommendations for grading procedures and design criteria for corrective measures when necessary; and opinions and recommendations covering adequacy of sites to be developed. The report shall be stamped and signed by the Engineer. Recommendations in the report shall be incorporated in the proposed plans or specifications. (Ord. 99-24S § 2 (part), 1999)

Chapter 17A.40

STORMWATER DRAINAGE

Sections:

- 17A.40.010 Off-Site Mitigation.**
- 17A.40.020 Pre-Existing Stormwater Facilities.**
- 17A.40.030 Acceptance of Pre-Existing Stormwater Facilities.**
- 17A.40.040 Acceptance of New Stormwater Facilities.**
- 17A.40.050 Maintenance of Private Drainage Facilities.**
- 17A.40.060 Public Drainage Facilities.**
- 17A.40.070 County Regional Drainage Facilities.**
- 17A.40.080 Discharge to Privately Owned Property.**
- 17A.40.090 Discharge to Publicly Owned Regional Retention and/or Detention Facilities.**
- 17A.40.100 Privately Constructed Regional Retention and/or Detention Facilities.**
- 17A.40.110 Construction Materials.**
- 17A.40.120 Annual Scope of Work.**

17A.40.010 Off-Site Mitigation.

The County recognizes that application of the design standards set forth in the Manual does not always fully prevent any impacts downstream and in these extreme cases, the proponent of the project may be required to provide off-site mitigation as determined by the County. (Ord. 99-24S § 2 (part), 1999)

17A.40.020 Pre-Existing Stormwater Facilities.

The applicant/person required to construct a stormwater facility pursuant to older or replaced site development or stormwater drainage Regulations, which is covered by a maintenance or defect financial guarantee or which has been released from all required financial guarantees prior to the effective date of this Title, and all persons holding title to the property for which a facility was required shall be responsible for the continual operation and maintenance of the facility in accordance with standards and requirements that were the basis of approval of the site development permit and for any liability as a result of breach of these duties. (Ord. 99-24S § 2 (part), 1999)

17A.40.030 Acceptance of Pre-Existing Stormwater Facilities.

- A. The County may assume maintenance of pre-existing facilities only after the following conditions have been met:
 - 1. All necessary easements or dedications entitling the County to properly maintain the stormwater facility have been conveyed to the County;
 - 2. The Director of Public Works and Utilities has determined maintenance of the facility will contribute to protecting or improving the health, safety, and welfare of the community based upon review of the following factors:
 - a. Existence of or potential for flooding,
 - b. Existence of or potential for downstream erosion,
 - c. Existence of or potential for property damage due to improper function of the facility,

- d. Existence of or potential for safety hazard associated with the facility,
 - e. Existence of or potential for degradation of surface or groundwater quality or in-stream resources,
 - f. Existence of or potential for degradation to the general welfare of the community,
 - g. Improvements in residential plats/PDDs have been completed on at least 80 percent of the lots,
 - h. An inspection by the Director has determined that the stormwater facilities are functioning as designed,
 - i. The stormwater facilities have had at least two years of satisfactory operation and maintenance, unless otherwise waived by the Director,
 - j. The person or persons holding title to the properties served by the stormwater facilities submit a petition containing the signatures of the title holders of more than 50 percent of the lots served by the stormwater facilities requesting that the County maintain the stormwater facilities,
 - k. All easements and/or dedicated tracts required under this Chapter, entitling the County to properly operate and maintain the subject stormwater facilities, have been conveyed to Pierce County and have been recorded with the Pierce County Auditor,
 - l. The person or persons holding title to the properties served by the stormwater facilities show proof of the correction of any defects in the drainage facilities, as required by the Director;
3. The Director of Public Works and Utilities has declared in writing acceptance of maintenance responsibility by the County. Copies of this document will be kept on file in the Pierce County Public Works and Utilities record center and the Public Works Road Maintenance main office.
- B. A stormwater facility which does not meet the criteria of this Section shall remain the responsibility of the applicant/person required to construct the facility and persons holding title to the property for which the facility was required. The decision of the Director is final and is not appealable.
- (Ord. 99-24S § 2 (part), 1999)

17A.40.040 Acceptance of New Stormwater Facilities.

The County may accept for maintenance those new residential stormwater facilities constructed under an approved site development permit that meet all of the following conditions:

- A. Improvements in residential plats/PDDs have been completed on at least 80 percent of the lots, unless waived by the County;
- B. All drainage facilities have been inspected and accepted by the County and said drainage facilities have been in satisfactory operation for at least two years;
- C. All drainage facilities reconstructed during the maintenance period have been accepted by the County;
- D. The stormwater facility, as designed and constructed, conforms to the provisions of the Manual;
- E. All easements and tracts required under the Manual, entitling the County to properly operate and maintain the subject drainage facility, have been conveyed to Pierce County and have been recorded with the Pierce County Auditor;

- F. An operation and maintenance manual, including a maintenance schedule, has been submitted to and accepted by Pierce County; and
- G. A complete and accurate set of reproducible mylar as-built (record) drawings have been provided to Pierce County.

(Ord. 99-24S § 2 (part), 1999)

17A.40.050 Maintenance of Private Drainage Facilities.

- A. If a project's drainage facilities are not dedicated to and accepted by the County, and if the project is a subdivision, short subdivision, or large lot division established pursuant to Title 16, the proponent shall form a Property Owners' Association. The document creating the Property Owners' Association shall at a minimum make provision for all of the following:
 - 1. Members of the Property Owners' Association shall be responsible for maintenance of storm drainage facilities;
 - 2. Inclusion by reference of the operation and maintenance manual prepared by the project Engineer in accordance with the Manual;
 - 3. Power to assess fees to maintain storm drainage facilities; and
 - 4. Responsibility for payment of financial sanctions/repayments should the County have to conduct repairs/activities due to hazardous conditions.
- B. A maintenance covenant will be recorded with the Pierce County Auditor for the plat and recorded against each lot within the subdivision, short subdivision, or large lot division (refer to Appendices J and P in the Manual).
- C. If the project is other than a subdivision, short subdivision, or large lot division the proponent will describe the organization or persons that will own and maintain the facility and show how maintenance activities will be financed (refer to Appendices J and P in the Manual).

(Ord. 99-24S § 2 (part), 1999)

17A.40.060 Public Drainage Facilities.

- A. Drainage facilities conceived, designed, or constructed by or through an agent of the County shall be exempted from the submittal and permitting requirements of this Title. This exclusion from the submittal and permitting requirements applies only to this Title and does not relax any requirements of other applicable ordinances, regulations, or legislation except those superseded by this Title.
- B. The County shall meet the intent and specific requirements of the Manual on all projects relative to drainage or incorporating drainage components and shall maintain records adequate to reflect such compliance. These records shall be available upon request pursuant to the State Public Disclosure of Information Act, Chapter 42.17 RCW.
- C. The County shall incorporate the provisions of the Manual into the design calculations, drawings, and specifications of all projects released for public bid. These provisions shall also apply to projects constructed by County personnel.

(Ord. 99-24S § 2 (part), 1999)

17A.40.070 County Regional Drainage Facilities.

- A. Due to the nature of County regional drainage facilities to control surface water runoff from large tracts of land, it is recognized that it may not be feasible, both fiscally and physically, to control runoff as stipulated in the Manual for new or retrofit facilities. The County shall make every effort reasonable to control runoff to the discharge, storage, and quality criteria established in the Manual. Where determined impractical by the Director of Public Works and Utilities, the County will be allowed to modify the criteria for regional facilities and design for maximization of the available land space for control of stormwater. In this case, the County shall design the facility for the primary function of stormwater control and any other multi-use functions shall be considered only after maximizing the stormwater aspects of the facility.
- B. Drainage facilities constructed by private development to mitigate for the impacts of new development or re-development will not be viewed as regional drainage facilities and shall meet all provisions of this Title.

(Ord. 99-24S § 2 (part), 1999)

17A.40.080 Discharge to Privately Owned Property.

If the project site discharges to a privately owned closed depression, the proponent must obtain written permission/easements from the owner(s) of record for both the closed depression and potential overflow routes receiving the runoff. The proponent shall record the information with the Pierce County Auditor. This information shall be recorded with all affected property titles including those for the depression, overflow route, and the proponent's property. If easements cannot be obtained, discharge to the pothole may be allowed on a case by case basis to match the predeveloped rates and volumes for storm events ranging from 2-year to 100-year, 24-hour and 7-day frequencies. The excess volumes must be retained fully on-site. (Ord. 99-24S § 2 (part), 1999)

17A.40.090 Discharge to Publicly Owned Regional Retention and/or Detention (R/D) Facilities.

As determined by the County on a site-by-site basis, the developer shall have the option of paying to the County the anticipated costs for designing and constructing an on-site stormwater retention/detention facility including land costs as required above in-lieu-of constructing such a facility. The cost estimate shall be prepared by the project Engineer and submitted for County approval. For developers choosing this option, all costs, responsibilities, and mitigation requirements related to the use of the regional stormwater facilities shall be documented in a voluntary agreement between the developer and the County, and recorded in the Pierce County Auditor's Office. With this option, an on-site facility will not be required with the exception of water quality controls if not provided in the regional facility. The following standards shall apply:

- A. The project site must be located within the existing natural drainage basin tributary to the publicly owned regional R/D System.
- B. The conveyance system between the proposed project and the publicly owned regional R/D facility must be adequate for the proposed project's design peak runoff with no significant adverse impacts.

- C. The publicly owned regional R/D facility must be available by the time of the construction of the new development or redevelopment with adequate capacity as determined by the County, or the development may use a temporary on-site facility in the interim.
- D. The developer may be required to pay a user fee, as determined by the County, for the use or expansion of the associated publicly-owned regional R/D facility.
- E. The project Engineer shall verify to the County's satisfaction that the facility is adequately sized to control the proposed project's increased peak rate of runoff. This information may be available from the County or an adopted basin plan, or a detailed drainage analysis shall be provided by the project Engineer and approved of by the County.

(Ord. 99-24S § 2 (part), 1999)

17A.40.100 Privately Constructed Regional Retention and/or Detention (R/D) Facilities.

In lieu of individual systems, applicants may design and build regional facilities in accordance with the design requirements of Category A or B set forth in Section 6.6 of the Manual, as applicable and with excess capacity which, when completed, may be dedicated to the County.

Such a facility may be on-site or off-site. Upon County approval of the facility, the County may:

- A. Accept the dedicated facility; and
- B. If funds are available as determined by the Director of Pierce County Public Works and Utilities and the facility is constructed in a location within a basin studied by Pierce County Water Programs and is currently budgeted for in the approved six-year capital facilities plan, reimburse the developer for the excess capacity provided by the facility at a rate mutually agreed upon; or
- C. Enter into a latecomers agreement with the developer for reimbursement as other properties are developed which opt to discharge to the regional facility.

(Ord. 99-24S § 2 (part), 1999)

17A.40.110 Construction Materials.

All materials used in construction of private and County drainage facilities shall meet the current WSDOT standard specifications, AASHTO, and ASTM standards as amended or supplemented by the State or County. The proponent is responsible for contacting the County to obtain any modifications or supplements. (Ord. 99-24S § 2 (part), 1999)

17A.40.120 Annual Scope of Work.

- A. Routine repetitive public or private maintenance activities or utility work done by public or private utility companies along with mitigating erosion and sediment control measures may be detailed in an annual scope of work document to be submitted to the County. Submittal must be no later than the last working day of November and shall be for the following year.
- B. Approval of the annual scope of work document releases the public or private utility or maintenance organization from further submittals under this Title's submittal and permitting requirements for those detailed activities for one year. New activities of a routine nature may be added at the County's discretion. Not all activities or methods

may be approved; some may be judged to need individual permits or submittals on a case by case determination.

- C. The following information shall be provided in the annual scope of work document:
1. Proponent's name, address, contact, and telephone number;
 2. Year applying for approval;
 3. Type of work principally responsible for, (e.g., road maintenance, ditch maintenance, utility construction, etc.);
 4. Narrative sheets, 8½" x 11", describing each routine, repetitive activity and the corresponding erosion and sediment control mitigating measures which will be used and the types of equipment which are involved or, whether it is principally a manual labor activity;
 5. Detail drawings of each activity with the corresponding erosion and sediment control measures. This does not have to be an Engineered drawing but it must be sufficiently clear to be readily understandable. Schematics are acceptable for simple activities; and
 6. Dimensions and materials must be shown where feasible.

(Ord. 99-24S § 2 (part), 1999)

Chapter 17A.50

FLOODPLAIN MANAGEMENT

Sections:

- 17A.50.010 Purpose.**
- 17A.50.020 Applicability.**
- 17A.50.030 Basis for Establishing the Areas of Special Flood Hazard.**
- 17A.50.040 Compliance.**
- 17A.50.050 Warning and Disclaimer of Liability.**
- 17A.50.060 Reference Documents.**
- 17A.50.070 Use of Other Base Flood Data.**
- 17A.50.080 Alteration of Watercourses.**
- 17A.50.090 Interpretation of FIRM and Floodway Boundaries.**
- 17A.50.100 Map Corrections.**
- 17A.50.110 Deep and/or Fast Flowing Water.**
- 17A.50.120 Construction Materials and Methods.**
- 17A.50.130 Utilities.**
- 17A.50.140 Developments.**
- 17A.50.150 No Established Base Flood Elevation.**
- 17A.50.160 Specific Standards.**
- 17A.50.170 Floodways.**
- 17A.50.180 Major Watercourses.**

17A.50.010 Purpose.

- A. The purpose of this Chapter is to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas:
 - 1. Protect human life and health;
 - 2. Minimize expenditure of public money and costly flood control projects;
 - 3. Minimize the need for rescue and relief efforts associated with flooding;
 - 4. Minimize prolonged business interruptions;
 - 5. Minimize damage to public facilities and utilities;
 - 6. Maintain a stable tax base by providing for the sound use and development of areas of special flood hazard and minimize flood blight areas;
 - 7. Ensure that potential buyers are notified that property is in an area of special flood hazard;
 - 8. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions; and
 - 9. Qualify Pierce County for participation in the National Flood Insurance Program, thereby giving the citizens of Pierce County the opportunity to purchase flood insurance with particular emphasis to those in flood hazard areas.
- B. In order to accomplish its purposes, this Chapter includes methods and provisions for:
 - 1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards or which result in increases in erosion, flood heights, or velocities;

2. Requiring that developments vulnerable to floods, including facilities which serve such developments, be protected against flood damage at the time of initial construction;
3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers which help accommodate or channel floodwaters;
4. Controlling filling, grading, dredging, and other development which may increase flood damage; and
5. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards in other areas.

(Ord. 99-24S § 2 (part), 1999)

17A.50.020 Applicability.

- A. This Chapter applies to all areas of special flood hazard in unincorporated Pierce County except for maintenance and/or construction of flood control improvements or channel capacity projects to protect existing development, when administered by Pierce County River Improvement, Inter-County River Improvement or the State of Washington. Pierce County may add or delete land from areas of special flood hazard or revise base flood elevations in accordance with Federal Regulations.
- B. This Chapter is specific to floodplains and floodways and establishes acceptable activities and special criteria necessary for development therein within unincorporated Pierce County.

(Ord. 99-24S § 2 (part), 1999)

17A.50.030 Basis for Establishing the Areas of Special Flood Hazard.

- A. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and Engineering report entitled "The Flood Insurance Study for Pierce County" dated August 19, 1987, with accompanying Flood Insurance Rate Maps (FIRM) and floodway maps and any map amendments or corrections are hereby adopted by reference and declared to be a part of this Chapter.
- B. The Flood Insurance Study and Maps provide the base information used in the administration of this Chapter. Where the Flood Insurance Study, FIRM, and floodway maps do not provide adequate, best, or most recent information, Pierce County may consider and interpret information from the Army Corps of Engineers, Federal Emergency Management Agency, or other qualified person(s) or agencies to determine the locations of flood hazard areas.
- C. The Flood Insurance Study is on file at the Pierce County Public Works and Utilities Department, 2401 South 35th Street, Tacoma, Washington.

(Ord. 99-24S § 2 (part), 1999)

17A.50.040 Compliance.

No structure shall hereafter be constructed, located, extended, converted, altered, or developed, or land subdivided without full compliance with the terms of this Chapter, Title 86 RCW, Federal Emergency Management Agency's National Flood Insurance Program (Regulations for Floodplain management and Flood Hazard Identification) revised October 1, 1990 or latest revision, and other applicable Regulations. (Ord. 99-24S § 2 (part), 1999)

17A.50.050 Warning and Disclaimer of Liability.

- A. The degree of flood protection required is deemed to be reasonable for regulatory purposes and is based on scientific and Engineering considerations. Larger floods can and will occur.
- B. Flood heights may be increased by man-made or natural causes. This Chapter does not mean to imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This Chapter shall not create liability on the part of Pierce County, any officer or employee thereof, or the Federal Insurance Administration for any flood damages that may result from the administration of this Chapter or any administrative decision lawfully made hereunder.

(Ord. 99-24S § 2 (part), 1999)

17A.50.060 Reference Documents.

Except where this Chapter provides otherwise, the most current edition of the following publications shall be used as reference documents:

- A. "Guideline and Specification for Contractors," Federal Emergency Management Agency, Federal Insurance Administration.
- B. "Floodplain Management Conferences," Federal Emergency Management Agency, Federal Insurance Administration.
- C. "Guide for Ordinance Development," Federal Emergency Management Agency, Federal Insurance Administration.
- D. "Coordination During Flood Insurance Studies," Federal Emergency Management Agency, Federal Insurance Administration.
- E. "The Floodway: A Guide for Community Permit Officials," Federal Emergency Management Agency, Federal Insurance Administration.
- F. "Floodplain Management Handbook for Local Administrators," Washington State Department of Ecology.
- G. "Program for Map Changes by Letter," Federal Emergency Management Agency, Federal Insurance Administration.
- H. "Appeals, Revisions, and Amendments to Flood Insurance Maps," Federal Emergency Management Agency, Federal Insurance Administration.
- I. "Base Flood Elevation Determination," Federal Emergency Management Agency, Federal Insurance Administration.

(Ord. 99-24S § 2 (part), 1999)

17A.50.070 Use of Other Base Flood Data.

When base flood elevation data has not been provided in accordance with Section 17A.50.030 "Basis for Establishing the Areas of Special Flood Hazard", Pierce County may obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source in order to administer this Chapter. (Ord. 99-24S § 2 (part), 1999)

17A.50.080 Alteration of Watercourses.

- A. Pierce County will notify adjacent communities and the Washington State Department of Ecology prior to any alteration or relocation of a watercourse proposed by the applicant and submit evidence of such notification to the Federal Insurance Administration.

- B. Pierce County shall require that maintenance is provided within the altered or relocated portion of said watercourse, so that the flood-carrying capacity is not diminished.
- C. The project Engineer shall certify that the development will not result in any watercourse alteration which diminishes the capacity of the watercourse, raises the base flood elevation, or causes an adverse effect on adjacent, cross-channel, upstream, or downstream property owners.

(Ord. 99-24S § 2 (part), 1999)

17A.50.090 Interpretation of FIRM and Floodway Boundaries.

- A. Pierce County may make interpretations, where needed, as to the exact locations of the boundaries of the areas of special flood hazard. When there is a conflict between the elevations and the mapped floodplain boundaries, the elevations shall govern.
- B. The floodway boundaries are the mapped boundaries which are mathematically generated from flood model studies. FIRM maps were prepared to facilitate floodplain management for flood insurance purposes and may not show all detailed features in the floodplain which may be necessary for a specific site analysis.
- C. Where there is insufficient information shown on the FIRM or flood hazard maps, Pierce County may require the applicant to verify that the site is out of the floodplain or floodway.

(Ord. 99-24S § 2 (part), 1999)

17A.50.100 Map Corrections.

Map corrections for the National Flood Insurance Program shall be in accordance with the most recent edition of Federal Regulation, Section 70 CFR. (Ord. 99-24S § 2 (part), 1999)

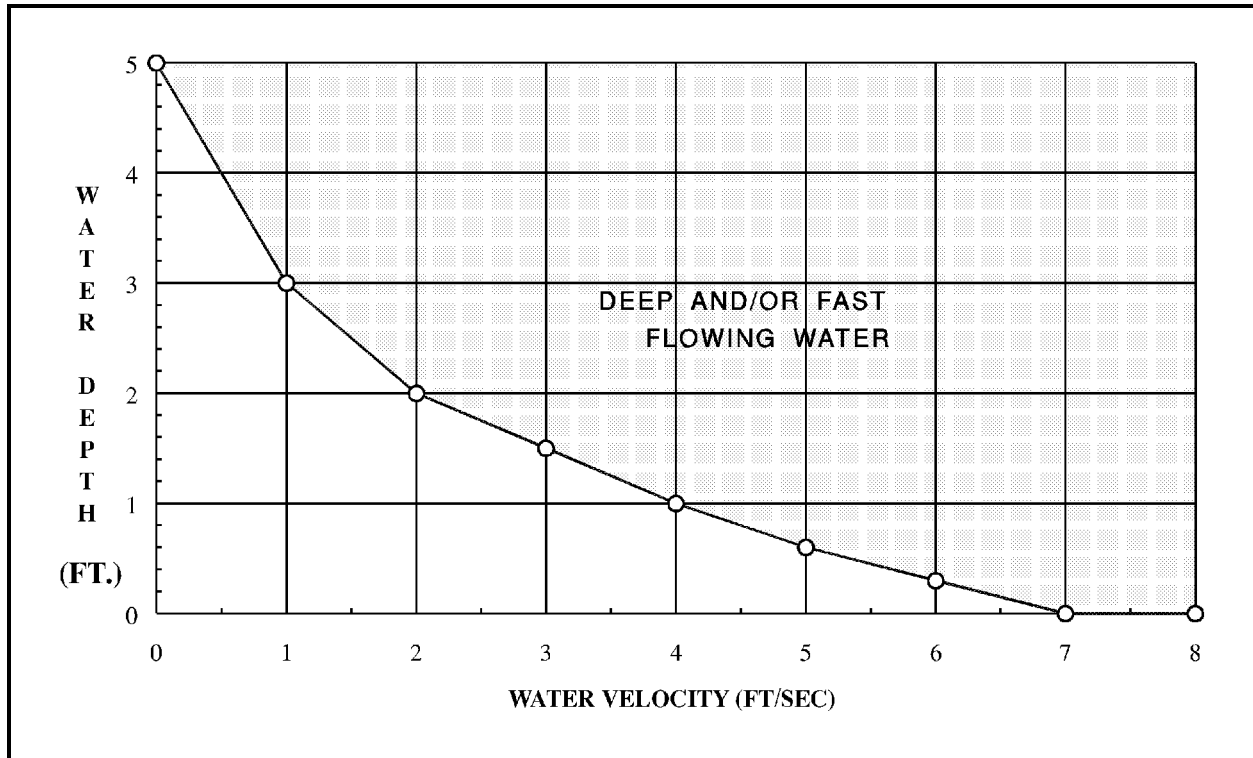
17A.50.110 Deep and/or Fast Flowing Water.

- A. In addition to the regulatory floodway designated by FEMA, Pierce County regulates areas of deep and/or fast flowing water as floodway.
- B. Based on Figure 1, the proponent shall make the determination of whether the project site falls within the floodway area based on deep and/or fast flowing waters.

(Ord. 99-24S § 2 (part), 1999)

FIGURE 17A.50-1

Deep and/or Fast Flowing Water



(Ord. 99-24S § 2 (part), 1999)

17A.50.120 Construction Materials and Methods.

- A. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- B. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- C. Electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities shall be designed and/or elevated or located to prevent water from entering or accumulating within the components during conditions of flooding.

(Ord. 99-24S § 2 (part), 1999)

17A.50.130 Utilities.

- A. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems.
- B. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.

- C. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding. They shall not be located in pothole or no-outlet floodplains.

(Ord. 99-24S § 2 (part), 1999)

17A.50.140 Developments.

- A. All subdivisions shall be consistent with the need to minimize flood damage.
- B. All subdivisions shall have their access road(s) and public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- C. All subdivisions shall have adequate drainage provided to reduce exposure to flood damage.
- D. New developments in "A" zones shall field survey the base flood elevation and show the limits on the plat map.
- E. Where base flood elevation data is not available, it shall be generated by the project Engineer for subdivisions and other proposed developments when required by Pierce County. Base flood elevations shall be determined using the detailed Methods section of FEMA Publication 26S, "Managing Floodplain Development in Approximate Zone A Areas," or as otherwise approved by the County.
- F. Base flood data and flood hazard notes shall be shown on the plat or development document including but not limited to the elevation of the existing ground, flood water depth, lowest permissible floor elevations, and the boundary of the base flood and floodway through the subdivision.

(Ord. 99-24S § 2 (part), 1999)

17A.50.150 No Established Base Flood Elevation.

Where elevation data is not available through the Flood Insurance Study or other authoritative sources, applications for building permits or development shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgement and includes use of historical data, high water marks, photographs of past flooding, etc., where available. New residential construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated two feet above the highest abutting pre-developed foundation grade or one foot above a base flood elevation. A base flood elevation shall be determined per the methodology outlined in Section 17A.50.140 E. A full Engineering analysis to determine the base flood elevation may be required. (Ord. 99-24S § 2 (part), 1999)

17A.50.160 Specific Standards.

In areas of special flood hazard the following provisions are required:

A. Residential Construction.

- 1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot above base flood elevation on minor watercourses and two feet above base flood elevation for structures located within the floodplain of major watercourses or within the area adjacent to the floodplain, but still below the minimum two foot separation with the base flood elevation.

2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a professional Engineer in the State of Washington or must meet or exceed the following minimum criteria:
 - a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
 - b. The bottom of all openings shall be no higher than one foot above grade; and
 - c. Openings may be equipped with screens, louvers, or other covering or devices provided that they permit the automatic entry and exit of floodwaters.
 3. Floodproofing of residential structures is prohibited.
- B. Manufactured Homes/Mobile Homes.** All manufactured homes/mobile homes to be placed or substantially improved shall be elevated in accordance with the provisions of subsection 17A.50.160 A. All foundations and anchoring shall meet the minimum requirements of the Federal Emergency Management Agency 44.C.F.R. and be in accordance with the provisions of subsection 17A.50.160 G.
- C. Elevating By Fill, Pilings, and Diking.**
1. No filling or grading shall be permitted which increases flood hazards, water velocities, or flood elevations. Compensatory storage volumes will be required.
 2. Armoring protection such as rock riprap or bulkheads shall be constructed to protect filled areas when water velocities exceed two feet per second. All armoring protection shall extend at least three feet above the base flood elevation. Bio-Engineered protection shall be used whenever applicable.
 3. All construction elevated by piling must be designed by a professional structural Engineer and approved by Pierce County prior to construction.
- D. Nonresidential Construction.** New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor, including basement, elevated at least one foot above the base flood elevation and two feet above the base flood elevation for structures within and/or adjacent to major watercourses; or, together with attendant utility and sanitary facilities, shall:
1. Be floodproofed to the elevations noted above so that below those elevations, the structure is watertight with walls substantially impermeable to the passage of water. The applicant shall submit a FEMA Floodproof certificate prior to final inspection of any floodproofed structure.
 2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
 3. Be stated by a professional Engineer in the State of Washington that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this Section based on the development and/or review of the structural design, specifications, and plans. See Appendix A for a sample format.
 4. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in subsection 17A.50.160 A.

5. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).
- E. Critical Facilities.**
1. Critical facilities shall be to the extent possible located outside the limits of the 100-year floodplain as identified on the FIRM. Construction of new critical facilities shall be permissible within the 100-year frequency floodplain if no feasible alternative site is available. Critical facilities constructed within the 100-year frequency floodplain shall have the lowest floor elevated to three or more feet above the level of the 100-year frequency flood. Flood proofing and sealing measures must be taken to insure that toxic substances will not be displaced by or released into floodwaters.
 2. Access routes elevated to or above the level of the 100-year frequency flood shall be provided to all critical facilities.
- F. Access Requirements.** Private roads and access easements, where allowed, to all new construction or development shall be elevated to within one-half foot of the base flood elevation when water velocities are two feet per second or less. All other private roads and all public or future public roads must be armored and elevated one foot above the base flood elevation. Parking lots are not considered as private roads or access easements, however, the primary access to a commercial structure shall be within one-half foot of the base flood elevation.
- G. Anchoring.**
1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
 2. All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include but are not limited to use of over-the-top or frame ties to ground anchors (reference Federal Emergency Management Agency "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).
- H. Maintenance.**
1. Pierce County may require that flood control work done in an area of special flood hazard be accompanied by a perpetual maintenance agreement or that the improvements be dedicated to a public agency whether or not other public dedications are involved with the development. All documents shall be recorded with the Pierce County Auditor's Office, and the applicant shall provide title insurance when required by Pierce County.
 2. All facilities dedicated to Pierce County shall be constructed to current County construction standards.
- I. Elevation Certification.** A Federal Emergency Management Agency (FEMA) elevation certificate shall be required for all proposed developments and substantial improvements in order to record the required minimum lowest finished floor (including basement). The elevation certificate must be completed and certified by an Engineer or professional land surveyor currently licensed in the State of Washington.

J. Crawl spaces shall be backfilled with clean earth material to an elevation which matches the highest adjacent predeveloped grade adjacent to the foundation's exterior.
(Ord. 99-24S § 2 (part), 1999)

17A.50.170 Floodways.

A floodway is an extremely hazardous area due to the height and/or velocity of flood waters which carry debris, potential projectiles, and have erosion potential. Encroachments, filling, new construction, and substantial improvements shall be prohibited except as allowed under State RCW 86.16.041 and as follows:

A. Work done by or for a public agency or utility, such as bridges, flood control works, revetments, retaining walls, drainage structures, or other structures necessary to promote the public's health, safety, and welfare when the improvements do not obstruct the floodway, increase the water surface elevation more than one foot, or cause an adverse impact to adjacent, cross-channel, or downstream properties, and the improvements utilize appropriate flood hazard protection standards.

A statement of opinion by a registered professional Engineer in the State of Washington is required to verify that the proposed work shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. Agricultural uses or recreational facilities that do not require the installation of utilities or structures.

C. Repairs and/or interior remodels (which are not substantial improvements) to a structure that do not increase the ground floor area or overall square footage of the structure.

(Ord. 2000-9 § 1, 2000; Ord. 99-24S § 2 (part), 1999)

17A.50.180 Major Watercourses.

Development within an area of special flood hazard for a major watercourse is not permitted unless flood control improvements are constructed to standards established by Pierce County River Improvement or Inter-County River Improvement and accepted by them for maintenance. Construction of additional improvements, such as access roads, may also be required. Pierce County may require the applicant to supply title insurance for all dedications made to Pierce County. (Ord. 99-24S § 2 (part), 1999)