

ARTICLE III. DESIGN PRINCIPLES AND STANDARDS

Sec. 31-30. General design principles and standards

The purpose of the general design principles and standards is to assure that development, other than agricultural activities for production, be accomplished so as to minimize adverse effects upon the existing terrain and to minimize the potential for erosion. Control measures are to apply to all aspects of the proposed grading and are intended to be operational during all stages of development. The following basic design principles and standards shall serve as minimum guidelines for grading plans and erosion, sediment and runoff control plans.

- (a) Stripping or burning of vegetation, tilling, grading, or other soil disturbance shall be done in a manner which will minimize soil erosion.
- (b) Existing natural vegetation shall be retained, protected and supplemented wherever feasible. Site development shall be accomplished so that existing trees are preserved whenever possible and practical.
- (c) Exposure of soil to erosion by removal of vegetation shall be limited to the smallest area practical and for the shortest time practical. Soil exposure shall not exceed an area in which development will be completed during a single construction season to insure that soils are stabilized and vegetation is established by the end of the construction season. Grading and drainage permits will be withheld during this time; however extensions to or restrictions of this time period may be established by the Director on a case-by-case basis.
- (d) Facilities shall be constructed to retain sediment produced on site.
- (e) Sediment basins, sediment traps, diversions or similar required measures shall be installed well in advance of any clearing or grading and maintained throughout any such operations until removal is authorized by the Director. The design of such structures should account for abating potential mosquito problems.
- (f) Temporary and final seeding, mulching, or other suitable stabilization measures shall be used to protect exposed erodible areas during development and by the end of the construction season (April 15 – October 15).
- (g) Permanent control structures and final vegetation should be installed as soon as practical in the development and a long-range maintenance plan developed and adhered to.
- (h) The plan shall identify mitigation measures that result in no net increase in peak runoff due to the development.

(i) Development that creates impervious surfaces in excess of 5000 square feet must insure that surface runoff rates exceeding predevelopment levels shall be retarded by appropriate structural and vegetative measures to be maintained on an annual basis.

(j) Runoff water from impervious surface areas resulting from grading activities shall be treated with biofiltration or another approved alternative before leaving the property or entering any waters of the State or Federal government.

(k) Slopes, both cut and fill, shall not be steeper than two horizontal to one vertical (2:1) unless a thorough geological and engineering analysis indicates that steeper slopes are safe and appropriate erosion control measures are specified.

(l) Cuts and fills shall not encroach upon natural watercourses, their floodplains, or constructed channels in a manner so as to adversely affect other properties.

(m) Disposal of cleared vegetation and excavated materials shall be done in a manner which reduces the risk of erosion and shall strictly conform to the provisions of the approved grading permit. Topsoil shall be conserved for reuse in revegetation of disturbed areas whenever possible.

(n) Proposed development and roadway alignments shall be done in accordance with the county Road Improvement Standards and fitted to the topography and soils to minimize erosion.

(o) Waterways shall be designed to avoid erosion as much as practical. Wide channels should be constructed with flat side slopes surfaces and the channel and slopes should be lined with grass or other appropriate vegetation. Every effort must be made to preserve natural channels and drainage ways.

(p) Except as limited by section 28-51 of this code, (Watershed and Conservation (W) District), filling, grading, excavating or obstructing the bed or banks of a watercourse and removal of the riparian vegetation shall be allowed only where no reasonable alternative is available and, where allowed, shall be limited to the minimum amount necessary. In the Suisun Marsh, stream modification should be permitted only if necessary to ensure the protection of life or existing structures from floods, and only the minimum amount of modification necessary shall be allowed in such cases.

(q) Cuts and fills are not allowed within five feet of property boundaries unless a retaining wall is placed. The height of the wall must not exceed its distance from the property line. Exemptions are allowed with the approval of adjoining land owner(s) and county staff.

(Ord. No. 1087, §1; Ord. No. 1121, §§2, 3; Ord. No. 1512, §§4, 5, 6, 7; Ord. No. 1687, §; Ord. No. 1733, § 3)

Sec. 31-31. National Pollution Discharge Elimination System (NPDES)

All grading plans and permits with land disturbance equal to or greater than 1 acre shall comply with the provisions of this section for NPDES compliance.

(a) No grading and drainage permit shall be issued unless the plans for such work include a Storm Water Pollution Prevention Plan with details of best management practices, including desilting basins or other temporary drainage or control measures, or both, as may be necessary to control construction-related pollutants which originate from the site as a result of construction related activities.

(b) All best management practices shall be installed before grading begins. As grading progresses, all best management practices shall be maintained in good working order to the satisfaction of the Director unless final grading approval has been granted by the Director and all permanent drainage and erosion control systems, if required, are in place.

(Ord. No. 1687, §1)