

CHAPTER 30

FOOTHILL DEVELOPMENT STANDARDS

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11-30-101 Purpose.

(1) The City Council of Farmington, Utah, deems that in order to preserve the peace, health, safety and welfare, and promote the best interest of the inhabitants of the City of Farmington, that this Foothill Chapter be enacted to provide standards, guidelines, and criteria, for minimizing flooding, erosion, and other environmental hazards in designated foothill areas of the City. In addition, these standards are intended to protect the natural scenic character of the foothills, and those areas of the foothills which are not suitable for development, while insuring the efficient expenditure of public funds.

(2) The Standards, guidelines, and criteria established by this Chapter are further intended to:

- (a) Protect the public from natural hazards of storm water runoff and erosion.
- (b) Minimize the threat and consequential damage of fire in foothill areas.
- (c) Preserve natural features, wildlife habitat and open space.
- (d) Preserve public access to mountain areas and natural drainage channels.
- (e) Retain natural features such as drainage channels, streams, ridge lines, rock outcroppings, and vegetation.
- (f) Preserve and enhance visual and environmental quality.
- (g) Insure an adequate transportation system for the total foothill area in compliance with the approved street plans of the City. Street design should, insofar as possible, be compatible with existing topography by minimizing cuts, fills or other visible scars.
- (h) Encourage a variety of development, designs and concepts compatible with the natural terrain of the foothill areas which will preserve open space and the natural landscape.
- (i) Establish land use management criteria that will encourage protection of natural elements while allowing a harmonious and satisfying residential environment.

(3) To achieve the intent of this Chapter, it is recommended that professionals, qualified in each of the disciplines addressed herein, be utilized to stimulate creative and appropriate designs in the foothill area.

11-30-102 Definitions.

Terms used in this Chapter are defined as set forth below and are in addition to those defined in Chapter 2 of this Title. Unless a contrary intention clearly appears, words used in the present tense include the future, the singular includes the plural, the term "shall" is mandatory and the term "may" is permissive.

- (1) **All Weather Surface** means a concrete or asphalt surface.
- (2) **Average Slope** means and is determined by the use of the following formula:

$$S = \frac{.00229 (I) (L)}{A}$$

S = Average slope of the site before development or construction.

.00229 = The conversion factor of square feet to acres.

I = Contour interval in feet of the topographic mapping.

L = Summation of the length of all contour lines in feet.

A = Total number of acres in the Slope District.

- (a) The average slope may be calculated by other means which are acceptable to the City Engineer and Planning Commission.
- (b) In the determination of the average slope of a Slope District, the area (A) in the formula above need not include the area of lands having a greater slope than thirty percent (30%). If such areas are excluded, their acreage shall not be included as part of the total area of the development site for purposes of determining the number of dwelling sites allowed, but may be included with individual building lots.

(3) **Development Acres, Gross**, means the total area of the development to include all transportation land or other non-residential uses.

(4) **Development Acres, Net**, means the gross acreage less transportation land and open space.

(5) **Development Site** means the total perimeters of:

- (a) A subdivision, as defined in the Farmington City Subdivision Ordinance.
- (b) A planned unit development as defined in this Title.
- (c) A tract, lot or parcel of land intended to be used as a commercial, public, quasi-public, utility or other building site.

- (6) **Impervious Materials** means matter which is impenetrable by moisture.
- (7) **Institutional Buildings** means and shall include churches, schools, hospitals, public and quasi-public buildings.
- (8) **Off-Site** means any area or improvement within public rights-of-way or public utility easements, or outside the boundaries of the development.
- (9) **On-Site** means any area or improvement on private property.
- (10) **Open Space** means that space designated as undevelopable or as common open space areas used for visual relief or recreational purposes.
- (11) **Slope District** means an area of at least three (3) acres where the area that is the development site is ten (10) acres or more and a minimum of one (1) acre if the development site is less than ten (10) acres. The term "Slope District" describes areas within a development site, (or the entire development site if it qualifies under the definition) which are distinguishable as areas of consistent topography. Slope Districts are classified by the following breakdown:
- 0 - 12.0 percent
 12.1 - 20.0 percent
 20.1 - 30.0 percent
 over 30 percent
- (12) **Transportation Land** means land used for automobile, bicycle, or pedestrian circulation.
- (13) **Underlying Zone** means the zone in which the parcel lies on the Farmington City zoning map.
- (14) **Usable Land** means land included within a lot, no part of which has a slope exceeding thirty percent (30%).
- (15) **Vegetation** means orchards, trees, shrubs, lawn, grass and perennial growth, and those plants native to the site.

11-30-103 Scope and Application.

- (1) The provisions of this Chapter shall apply to all lands in the City of Farmington that lie within the area designated with zones having a suffix "F" on the Official Zoning Map of Farmington City.
- (2) This Chapter makes additional provisions to those set forth in the Subdivision Ordinance and other chapters of this Title. In the event of conflict, the more restrictive provisions shall apply.
- (3) Detailed reports and plans are required in the following Sections of this Chapter which must be approved by the City before any construction will be permitted in Foothill Zones.
- (4) Development of individual residential lots located in an approved subdivision shall comply with conditions, standards, and requirements established through the subdivision

approval process. Site specific plans, necessary to achieve the purpose of this Chapter, may also be required for residential lots which are not located in a recorded subdivision.

11-30-104 Density, Lot Size, Width and Characteristics.

(1) The Planning Commission and City Council shall approve the overall density of any development site based on the site plans as provided for in this Chapter.

(2) Residential Density - The maximum density for each gross development acre in residential subdivisions or Planned Unit Developments shall be determined by reference to the following table and the underlying zone:

Slope District Average Slope (%)	Maximum Density Dwelling Units/Gross Acre
0 - 12.0	4.0
12.1 - 20.0	2.8
20.1 - 30.0	1.6
More than 30.0	No development allowed

(3) Planned Unit Developments: The maximum density with respect to dwelling units per gross acre shall be the same in a PUD as in any other single-family subdivision. However, at the discretion of the City, density bonuses may still be approved as outlined in the PUD Chapter of this Title.

(4) Lot Size Conditions - When lot lines cross Slope District boundaries, the lot size will be determined by the average slope of the usable land within the building lot. The Planning Commission may require larger lots than the minimum depending upon the natural conditions (slope, vegetation, soils, etc.) of the site to assure each lot contains a suitable building site.

(5) Maximum Impervious Material Coverage - The maximum impervious material coverage that shall be allowable on residential lots shall be thirty-five percent (35%) of the total lot area or five thousand (5,000) square feet whichever is smaller including the main building, accessory buildings, patios, and driveways, but the maximum impervious material coverage may exceed thirty-five percent (35%) or five thousand (5,000) square feet if the City Council approves it after receiving the recommendation and approval of the Planning Commission.

(6) Usable Land:

(a) Single-family dwelling structures shall be located only upon areas constituting usable land, which area shall be fully contiguous and shall be at least five thousand (5,000) square feet in size. The Planning Commission may require usable areas larger than five thousand (5,000) square feet to insure that dwelling structures can be located acceptable distances from geological hazards.

(b) All accessory structures shall be located upon usable land.

(c) As defined above, the slope of usable land shall be thirty percent (30%) or less. Slope Districts of over thirty percent (30%) shall be:

(i) Placed in permanent open space, maintained by a responsible legal entity, such as a homeowner's association.

- (ii) Platted with adjacent approved building lots with an open space easement, or platted into building lots each of which contains adequate usable land.
- (iii) Subject to such other proposals that may be prepared by the developer and approved by the Planning Commission.

11-30-105 Development Standards.

The Planning Commission shall require the following reports and plans to be provided by the applicant. All reports and plans submitted herein, shall be prepared by persons or firms licensed or certified to practice their specialty in the State of Utah, if the required expertise is in their field of practice:

(1) **Drainage and Erosion Control Plan:** A drainage and erosion control plan shall be prepared by a professional engineer licensed by the State of Utah. The plan shall be sufficient to determine the erosion control measures necessary to prevent soil loss during construction and after project completion. The plan shall include a storm water management, erosion control, and grading details describing the methods by which surface water, natural drainages, flooding, erosion and sedimentation loss will be controlled during and after construction. In addition, developments in which the total area is over one (1) acre shall submit a plan for erosion and sediment control which is consistent with current Federal NPDES regulations. In a phased development the area of all phases shall be used to compute the total area and the NPDES plan shall be prepared and submitted with the first phase of development. The plan shall include the following information:

- (a) The "rational method", or other storm water computation method as approved by the City Engineer, shall be used in computing runoff. The basic formula for the "rational method" is:

$$Q = CIA \text{ in which:}$$

Q = Runoff in cubic feet per second (c.f.s.)

C = Coefficient of runoff or the portion of storm water that runs off a given area. The following are typical examples of land use ranges for C value. The actual C value used shall be approved by the City Engineer:

Industrial and Commercial	.80 - .90
Residential	.30 - .40
Parks	.15 - .25
Agricultural	.10 - .20

I = Average rainfall intensity, based on Davis County data for the Farmington area, during time of concentration for ten (10) year return period in inches per hour. The time of concentration shall be defined as the time required for water to flow from the highest to the lowest points of the drainage basin under consideration.

A = Drainage area in acres.

- (b) Lots shall be arranged so as to insure adequate setbacks from drainage channels. The flow from a one hundred (100) year storm shall be the basis for calculating setbacks. No dwelling shall be allowed within the one hundred (100) year floodplain.
- (c) Erosion control measures on the development site shall be required to minimize the increased solids loading in runoff from such areas during and after construction. All erosion prevention devices, detention ponds and storm water facilities shall be constructed as part of the first facility improvements on the development site and according to the following standards:
 - (i) Such facilities shall be designed so as to detain safely and adequately the maximum expected storm water runoff for a ten (10) year storm for a sufficient length of time so as to prevent flooding and erosion during storm water runoff flow period.
 - (ii) Such facilities shall be so designed as to divert surface water away from cut faces or sloping surface of a fill.
 - (iii) The existing natural drainage system shall be utilized to the extent possible in its natural state.
 - (iv) Where drainage channels are required, wide shallow swales lined with appropriate vegetation shall be used instead of cutting narrow, deep drainage ditches.
 - (v) Flow retarding devices, such as detention ponds, shall be used where practical to minimize increases in runoff volume and peak flow rate due to development.
- (d) Water from natural drainage channels shall be allowed to continue through the development site.

(2) **Grading Plan:** A grading plan shall be prepared by qualified professionals licensed by the State of Utah and shall comply with the following standards:

- (a) The grading plan shall show present topography and proposed modifications to include elevations, lines and grades including the location and depth of all proposed cuts and fills of the finished earth surfaces. All cuts and fills shall be designed and constructed in such a way that they produce the minimum disturbance to the natural grade and character of the foothill area.
- (b) The plan shall show existing details and contours at two (2) foot contour intervals where terrain will not be modified and proposed details and contours at two (2) foot intervals where terrain modifications are proposed. The plan shall be drawn at a scale of one (1) inch equals twenty (20) feet (1" = 20').
- (c) The proposed area to be graded shall be clearly delineated on the plan and the area amount stated in square feet.

- (d) Grading plans shall include slope district maps for the development site. Two maps shall be prepared. The first shall represent the pre-development slope districts and the second shall represent post-development slope districts.
- (e) Topsoil stockpile areas shall be designated.
- (f) The developer is responsible for interim stabilization of all disturbed areas during the period of construction to prevent off-site erosion effects, and for final stabilization once construction is completed. Lot owners or homeowner's associations are responsible for stabilization of building sites and lots upon taking possession of such.
- (g) All permanent fills shall be constructed to prevent settlement, sliding, or erosion damage to streets, curbs, gutters, sidewalks, or buildings.
- (h) All cuts and fills shall comply with standards of the Uniform Building Code in effect (including appendix Chapter 70).
- (i) The top and bottom edges of slopes caused by an excavation or fill up to ten (10) vertical feet shall be at least five (5) horizontal feet from property lines or public right-of-way lines.
- (j) Grading of the lot or parcel which is related to creation of the primary building site or construction of the structure shall not extend more than thirty (30) feet, horizontally, in front, to the rear, or to the side of the proposed structure unless a greater distance is approved by the Planning Commission upon a showing by the developer that a greater distance will not be contrary to the purposes of this Chapter.
- (k) Excess cut material resulting from road construction or utility installation shall be removed from the site. Access or haul road location, treatment, and maintenance requirements shall be designated on the grading plan. Where permanent roads or roadbeds are to be used during construction and storm water inlets have already been installed, they shall be protected to prevent sediment from entering the storm water system. If temporary haul roads are proposed, the plan shall include a description of the method for controlling erosion and dust during the period of the roads's operation and restoration of the area once hauling is completed.
- (l) Analysis of the environmental effects of such operations including effects on slope stability, soil erosion, water quality, fish and wildlife, and fire hazard.
- (m) All repair measures for disturbed areas shall be made not later than thirty (30) days after the disturbance is made, except revegetation which shall take place at the earliest planting season thereafter.

(3) **Revegetation Plan:** The revegetation plan shall include a slope stabilization and revegetation report which shall include:

- (a) Location and identification of existing vegetation;

- (b) The vegetation to be removed and the method of disposal: All areas of the development site cleared of natural vegetation in the course of construction shall be replanted with vegetation possessing erosion control characteristics at least equal to the natural vegetation which was removed;
- (c) The vegetation to be planted: New plantings shall be protected with mulch material and fertilized in conjunction with a planting and watering schedule. Persons or firms having expertise in the practice of revegetation (i.e., licensed landscape architects or nurserymen) shall supervise the planning and installation of revegetation cover for the total development site; and
- (d) Slope stabilization measures to be installed while new vegetation is being established.
- (e) All revegetation of disturbed areas shall be made not later than thirty (30) days after the disturbance is made or at the earliest planting season thereafter.

(4) **Geology Report:** A Geology report shall be prepared by a geotechnical engineer licensed by the State of Utah. A geologic map shall accompany the report. Mapping shall reflect careful attention to the rock composition, structural elements, and surface and subsurface distribution of the earth materials exposed or inferred within both bedrock and surficial deposits. A clear distinction shall be made between observed and inferred features and/or relationships. The Geology Report shall include the following information:

- (a) Definition of any zones of deformation with respect to active faults and other mass movements of soil and rock. No structures or off-site improvements shall be built on any identified major or minor secondary faults.
- (b) Identification of anomalies of the terrain or characteristics of the geological materials which would have any potential impact upon the use of the site.
- (c) No structures or off-site improvements shall be allowed on any active landslide area.
- (d) Problems associated with development on or near perched ground water and shallow ground water must be mitigated.
- (e) No structures shall be allowed in any rockfall zone. Off-site improvements may be allowed through special approval by the Planning Commission, if the danger is mitigated.
- (f) Location of the depth to bedrock if bedrock is within ten (10) feet of the surface.
- (g) Written recommendations for construction of proposed structures or public improvements to minimize or avoid impacts of potential geologic hazards.
- (h) Flood erosion and/or deposition potential if flood ways exist on the property.

(5) **Soil Characteristics Report:** The soil report shall be prepared by a civil engineer specializing in soil mechanics and licensed by the State of Utah and shall be based upon adequate test borings and excavations. This report shall contain data regarding the nature, distribution, and strength of soils within the project area to a depth of ten (10) feet. The soil report shall include:

- (a) Unified classification of all soils encountered on the site with an estimate of their susceptibility to erosion, liquid limit, shrink-swell potential and general suitability for development.
- (b) A statement as to whether or not ground water was encountered in any of the test borings and at what elevation it was encountered and an estimate of the normal highest elevation of the season high ground water table.
- (c) Flood history and potential proximity to known flood plains and drainage channels.
- (d) The soil investigation shall recommend corrective actions intended to prevent damage to proposed structures and/or public improvements.

(6) **Fire Protection:**

- (a) All developed areas shall have an approved water supply which meets minimum fire fighting requirements.
- (b) Each development site proposal and building permit for private lots, flag lots, and where the front setback is greater than fifty (50) feet, shall be reviewed by the Farmington City Fire Department to determine whether it complies with the Uniform Fire Code, Article 13.208.- Required Vertical Driveway Clearance. Developments which do not, will be disapproved.

(7) **Streets and Ways:**

- (a) The street standards and specifications of Farmington City shall apply to all developments, except where conditions related to proper development of foothill areas necessitate altering these standards as described below and elsewhere in this Chapter.
- (b) Streets, roadways and private access ways shall follow as nearly as possible the natural terrain. Roads and other vehicular routes shall not cross property having a slope greater than thirty percent (30%) unless, after review by the Planning Commission, it is determined that:
 - (i) Appropriate engineering measures, consistent with the purpose of this Chapter, can be taken to minimize the impact of cuts and fills; and
 - (ii) The environment and aesthetics of the area will not be significantly affected.
- (c) Street Standards: The following table lists standard improvements with established standards. The exceptions listed may be specifically approved

by the City Council only after careful review of each individual application and after receiving a recommendation from the Planning Commission:

Improvement	Established Standard	Maximum Exception
Minor road width	50 foot right-of-way	42 foot right-of-way
Collector road width	60 foot right-of-way	50 foot right-of-way
Cul-de-sac R.O.W.	50 foot radius	46 foot radius
Horizontal curve	250 foot minimum radius for 30 mph design speed	125 foot minimum radius for 25 mph design speed
Road grade	10% on collector streets 12% on local streets	12% on collector streets 14% on local streets (maximum length of street segments at increased grades shall be specifically approved by the City Council)

- (d) The developer shall dedicate to the City a slope easement for any cut or fill slope created by construction of a street in the foothill overlay zone which is not contained within the public right-of-way.
- (e) Points of access shall be provided to all developed and non-developed areas for emergency fire fighting equipment. Driveways shall not exceed a slope of fourteen percent (14%) and shall have direct access to a public street.
- (f) Development sites which are located near canyon trails will provide reasonable access to those trails. Parking areas may be required by the Planning Commission at trail heads.
- (g) The impervious surface for streets and ways within the gross development site shall not exceed twenty percent (20%).
- (h) Variations of the street design standards developed to solve special foothill visual and functional problems may be presented to the Planning Commission for consideration. Examples of such variations may be the use of split roadways or one-way streets for short sections in steeply sloped areas without intersections to avoid deep cuts, also, modifications of surface drainage for curb, gutter and sidewalk design and other innovative designs may be considered in foothill developments.

(8) **On-Site Development:** The developer, or in the case of single family and two-family dwellings, the owner, shall be fully responsible for making all improvements in accordance with the approved plans. The property owner shall be responsible for maintaining all improvements made in accordance with the site development approval.

11-30-106 Bonding Requirements.

The developer or lot owner may be required to guarantee the completion of revegetation projects, the stabilization of grading sites, construction of storm water runoff facilities, and other requirements of this section by submitting to the City a bond in a form acceptable to the City Attorney. If such bond is required, it shall be calculated and administered as set forth in Section 6-6-117 of the Subdivision Ordinance.

11-30-107 Review and Approval Procedure.

(1) **Subdivision Applications:** Subdivision applications in designated foothill areas shall be reviewed according to procedures established in the Farmington City Subdivision Ordinance.

(2) **Planned Unit Developments:** Planned Unit Development (PUD) applications in designated foothill areas shall be reviewed according to procedures established in the Farmington City Subdivision Ordinance and shall also comply with additional standards contained in the PUD Chapter of this Title.

(3) **Conditional Use Applications:** Conditional use applications in designated foothill areas shall be reviewed according to procedures and standards established in the Conditional Use and/or Site Development Chapters of this Title.

(3) **Permitted Uses:** Permitted uses in designated foothill areas shall be reviewed according to procedures and standards established in the Site Development Chapter of this Title.

11-30-508, 11-30-509, 11-30-601, 11-30-607 Amended, 10/18/89, Ord. 89-44
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11-30-105(1), Amended 4/6/05, Ord. 2005-11